former USPS General Mail Facility — SIT 3.6.7

URS

March 24, 2003

Mr. David Wick
Seattle School District
2445 Third Avenue South
Seattle, Washington 98124

Letter Report
2003 Annual Groundwater Monitoring
Seattle School Support Center
2445 Third Avenue South
Seattle, Washington
URS Job No. 33749037.01000

Dear Mr. Wick:

INTRODUCTION AND BACKGROUND

This letter report presents the results of the annual groundwater monitoring conducted at the Seattle Schools Support Center located in Seattle, Washington (Figure 1). The work was performed in accordance with URS Corporation (URS) proposal dated August 3, 2000 and the Seattle Public Schools Services Contract executed February 5, 2001.

The purpose of this groundwater monitoring is to comply with the requirements outlined in the Washington State Department of Ecology (Ecology) No Further Action letter dated April 5, 1999 (Appendix A). The letter specifies that the groundwater in the former hydraulic lift area (Figure 1) be sampled and analyzed for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) annually for a minimum of four consecutive sampling events until the selected wells fall below the Model Toxics Control Act (MTCA) Method B cleanup levels.

To meet the above stated objective, URS collected groundwater samples from the existing monitoring wells on February 17, 2003. Wells MW-3 and MW-7 were sampled at this time. The protective monument for one well (MW-3) was damaged during construction activities and will need to be replaced. As a result of this damage, water level measurements may not be directly comparable with previous readings. The groundwater samples were collected in accordance with Ecology and U.S. EPA protocols and analyzed by an Ecology-accredited laboratory for cPAHs by EPA Method 8270.

SAMPLING METHODS AND PROCEDURES

URS performed the groundwater sampling on February 17, 2003, using the low-flow purging and sampling procedure. Dedicated polyethylene tubing and a peristaltic pump were used to collect the

URS Corporation
Century Square
1501 4th Avenue, Suite 1400
Seattle, WA 98101-1616
Tel: 206.438.2700
Fax: 206.438.2699

groundwater samples. During the sampling, the following information was recorded on sampling logs: depth to water, sampling depth, water temperature, dissolved oxygen (DO), conductivity, and pH (Appendix B). After the parameters had stabilized, a water sample was collected into laboratory provided glassware. Samples were stored in a cooler with ice and delivered under strict chain of custody protocol to North Creek Analytical (NCA), an Ecology-accredited laboratory located in Bothell, Washington.

FINDINGS AND CONCLUSIONS

The groundwater elevation measurements and analytical results are summarized on Tables 1 and 2, respectively. The laboratory analytical report is provided in Appendix C. The cPAHs benzo(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and indeno(1,2,3-cd)pyrene were detected in MW-3. The concentrations of the cPAHs in this well are slightly above the MTCA Method B cleanup level for cPAHs of 0.012 ug/L. Non-carcinogenic PAHs acenaphthene and pyrene were also detected in well MW-3; however at concentrations well below the MTCA Method B cleanup levels. cPAHs were not detected in the groundwater at well MW-7.

The cPAHs detected in the groundwater at MW-3 were above the applicable cleanup level. The levels of cPAHs have increased in well MW-3 when compared to the 2002 sampling event. As stated in prior reports, MW-3 is located in close proximity to the building and the detection of cPAHs are likely associated with the treated pile foundation that supports the building. Additionally, the construction activities at the site may have mobilized cPAHs by disturbances of soils in the area. The extent of cPAHs in the groundwater appears to be limited.

♦ ♦ ♦

We trust this report meets your requirements. Do not hesitate to contact us if you have any questions or require any additional information.

Very truly yours,

URS CORPORATION

David Raubvogel
Senior Geologist

FOR
Andrew L. Zabel
Staff Geologist

Attachments:
Table 1
Table 2
Figure 1

Appendix A
Appendix B
Appendix C

Table 1
Groundwater Elevations
Seattle School District Support Center
Seattle, Washington

			2/21-22/01		2/27/2002		2/17/2003	
Sample ID	Screened Interval (feet bgs)	TOC Elevlation (feet amsl)	Depth to Water (feet)	Groundwater Elevation (feet amsl)	Depth to Water (feet)	Groundwater Elevation (feet amsl)	Depth to Water (feet)	Groundwater Elevation (feet amsl)
MW-3*	3.0 - 14.0	14.73	4.69	10.04	5.62	9.11	7.23	7.50
MW-6A	3.5 - 13.5	16.48	6.45	10.03	7.24	9.24	NA	NA
MW-7	3.0 - 13.0	16.22	6.77	9.45	7.1	9.12	8.56	7.66
MW-8	3.5 - 13.5	16.66	6.9	9.76	NA	NA	NA	NA
MW-9	3.5 - 13.0	16.25	6.65	9.6	NA	NA	NA	NA

amsl - Above Mean Sea Level
bgs - Below Ground Surface
TOC - Top of Casing
NA- Not avaliable - wells apparently destroyed during construction activities
* Well MW-3 appears suffered damage to the casing therefor the elevation data are no longer considered reliable

Table 2
Groundwater Analytical Data
Seattle School District Support Center
Seattle, Washington

Sample ID	Date	Non Carcenogenic PAHs		Carcinogenic PAHs [1]						
		Acenaphtene	Pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene
MW-3	2/22/2001	0.1U	0.1U	**0.246**	0.1U	0.1U	0.1U	**0.227**	0.1U	0.1U
	2/27/2002	0.1U	0.1U	**0.0664**	**0.0146**	0.1U	**0.0133**	**0.0693**	0.01U	0.01U
	2/17/2003	5.67	3.50	**0.223**	**0.0146**	.01U	**0.0605**	**0.511**	**0.0923**	**0.0882**
MW-7	2/21/2001	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
	2/27/2002	0.1U	0.1U	0.01U	0.01U	0.01U	0.01U	0.0106	0.01U	0.01U
	2/17/2003	0.1U	0.1U	0.01U	0.01U	0.01U	0.01U	0.01U	0.01U	0.01U
MTCA Method B Cleanup Level		480	960	0.012	0.012	0.012	0.012	0.012	0.012	0.012

All concentrations are reported as ug/L
MTCA - Model Toxics Control Act
PAH - Polycyclic Aromatic Hydrocarbon
[1] PAH substances identified as A (known human) or B (probable human) carcinogens by the United States Environmental Protection Agency
Numbers in bold exceed MTCA cleanup level.
U - Not detected at reported limits
NA- Not avaliable - wells apparently destroyed during construction activities

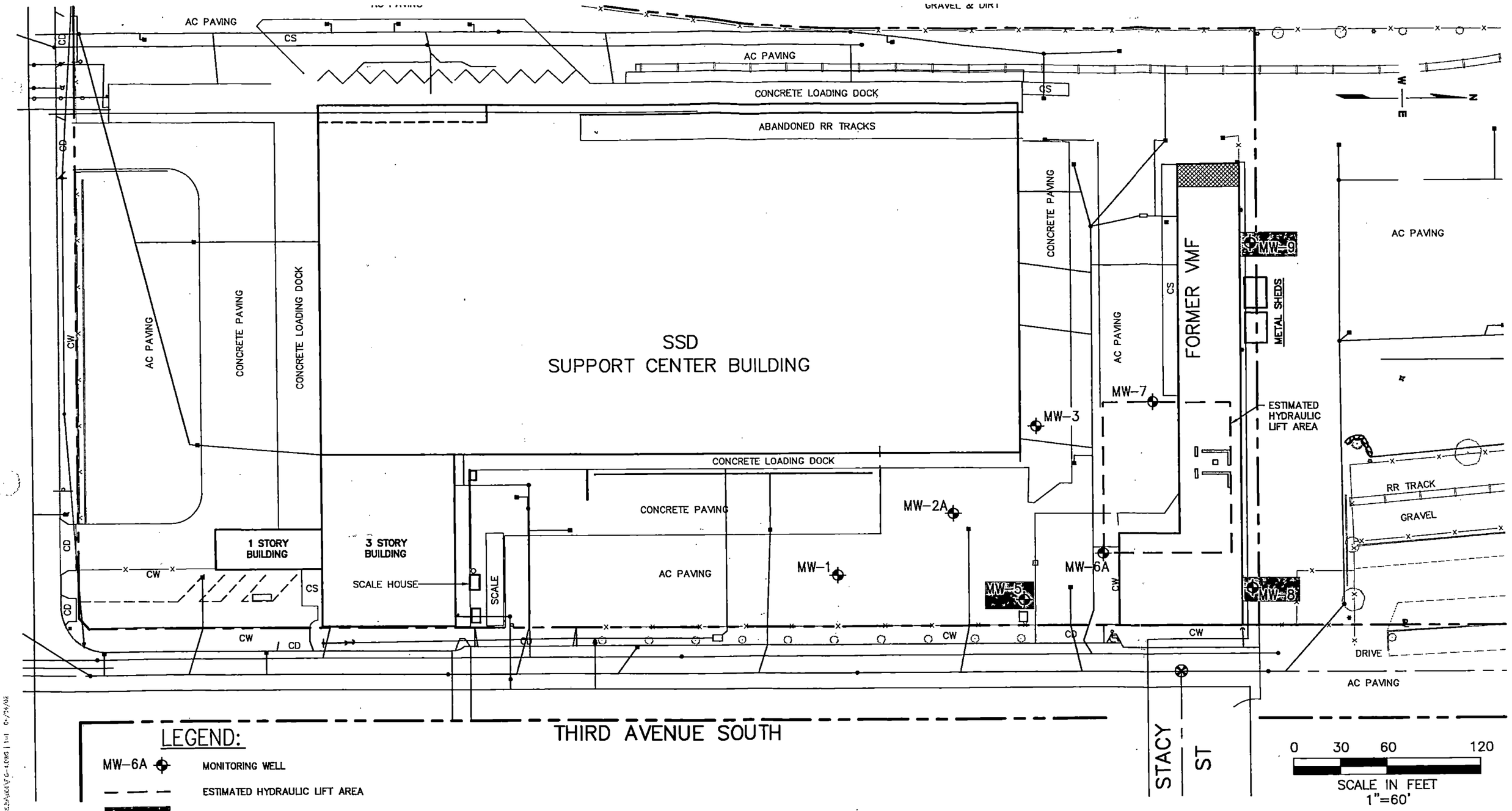

Figure 1
GROUNDWATER MONITERING WELLS
Seattle School District Support Center - Seattle, Washington

URS

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (425) 649-7000

April 5, 1999

Mr. Randall Alder, Environmental Specialist
United States Postal Service
Denver Facilities Service Office
8055 Tufts Avenue, Suite 400
Denver, Colorado 80237-2881

Subject: No Further Action and Restrictive Covenant for Independent Remedial Action at US Postal Service General Mail Facility, 2445 Third Avenue South, Seattle, Washington

Dear Mr. Alder:

Thank you for submitting the results of your independent remedial action(s) to the Voluntary Cleanup Program for review by the State of Washington Department of Ecology (Ecology). Ecology appreciates your initiative in pursuing this administrative option under the Model Toxics Control Act (MTCA).

This letter addresses the independent remedial actions at the US Postal Service General Mail Facility (the Site) located at 2445 Third Avenue South, also listed as 230 South Lander Street, Seattle, Washington, parcel # 766620-5235, and tax E#0696876 dated November 18, 1982.

Ecology's Toxics Cleanup Program has reviewed the following information regarding the Site:

1. ICF Kaiser, 1999, Washington State Model Toxics Control Act, Method C Calculations for the General Mail Facility, Seattle, Washington, 6 pp., letter report dated January 21, 1999.
2. ICF Kaiser, 1998, Supplemental Soil and Groundwater Sampling at General Mail Facility, Seattle, Washington, 10 pp., October 5, 1998.
3. Dames & Moore, 1998, Report – Soil and Groundwater Investigation at USPS General Mail Facility, Seattle, Washington, 16 pp., July 27, 1998.
4. ICF Kaiser, 1997, Phase 1 Environmental Site Assessment at General Mail Facility, Seattle, Washington, 47 pp., October 15, 1997.

cc: DLR

The reports listed above will be kept in the Central Files of the Northwest Regional Office (NWRO) of Ecology for review by appointment. Appointments can be made by calling Ms. Sally Perkins at the NWRO at 425-649-7190.

Based upon the above information Ecology has determined that, at this time, releases of petroleum hydrocarbons and carcinogenic polynuclear aromatic hydrocarbons (cPAHs) into the soil and groundwater no longer pose a threat to human health or the environment

Therefore, Ecology is issuing this determination that no further remedial action is necessary at this Site under MTCA, chapter 70.105D RCW. Please note that because your actions were not conducted under a consent decree with Ecology, this letter is written pursuant to RCW 70.105D.030(1)(i) and does not constitute a settlement by the state under RCW 70.105D.040(4) and is not binding on Ecology. Furthermore, you must conduct the necessary monitoring and maintenance to assure that this Site does not pose a threat to human health or the environment. Groundwater at the hydraulic lift area of the Site must be sampled and analyzed for cPAHs annually using Method 8270 until cPAH concentrations in selected monitoring wells fall below the MTCA method B cleanup levels for four consecutive sampling events. Proposed monitoring is at MW-7, -8, -9, -3, and -6A for two sampling events during the wet season and then to re-evaluate. Failure to conduct this necessary monitoring and maintenance will result in the automatic withdrawal of Ecology's no further action determination. The monitoring and maintenance described in this paragraph are noted in Section 4 of the Restrictive Covenant.

Ecology's no further action determination is contingent upon filing the Restrictive Covenant appended hereto as Appendix A, with King County Department of Records and Elections. The Restrictive Covenant must be filed within thirty (30) days of the date of this letter. Within sixty (60) days of recording the Restrictive Covenant, must send a notarized copy of the recorded Restrictive Covenant to Ecology. Ecology's no further action determination automatically terminates and will have no force and effect if you fail to record this restrictive covenant or violate any portions of the restrictive covenant. WAC 173-340-440(6) requires you to notify and seek comment from the City of Seattle Department of Construction and Land Use with land use planning authority for real property subject to the restrictive covenant.

The restrictive covenant is specifically for soils at and around the hydraulic lift area and ground water underlying the site. The hydraulic lift area (Restricted Area) is located in the NE area of the Vehicle Maintenance Building and is shown in Figure 5, included as Attachment B, from the 1998 Dames & Moore report. The restrictive covenant also restricts any future use or extraction of ground water at the site.

Ecology's no further action determination is made only with respect to the releases identified in the independent remedial action reports listed above. This no further action determination applies only to the area of the property affected by the releases identified in the reports for the USPS General Mail Facility, at 2445 Third Avenue South, in Seattle, Washington. It does not apply to any other release or potential release at the property, any other areas on the property nor any other properties owned or operated by the US Postal Service.

Ecology will update its Leaking Underground Storage Tank database to reflect this "No Further Action" determination after we have received a copy of the recorded restrictive covenant. Your site will not appear in future publications of the LUST database.

The state, Ecology, and its officers and employees are immune from all liability and no cause of action of any nature may arise from any act or omission in providing this determination.

Thank you for the opportunity to work with you on the independent cleanup of this Site. If you have any questions, please contact me at the Northwest Regional Office at 425-649-7249 or by email at <mobr461@ecy.wa.gov>.

Sincerely,

Maura S. O'Brien,
Toxics Cleanup Program

Attachments

Cc Brian Knox, Attorney, Preston, Gates & Ellis
Ric Anderson, Lowe Enterprises
Craig Wrench, Lowe Enterprises

RESTRICTIVE COVENANT

US Postal Service General Mail Facility
2445 Third Avenue South, Seattle, Washington

This declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030 (1)(f) and WAC 173-340-440 by Mr. David Eales, Manager, Asset Management and senior officer with signature authority, United States Postal Service – Facilities, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

An independent remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the following documents:

1. ICF Kaiser, 1999, Washington State Model Toxics Control Act, Method C Calculations for the General Mail Facility, Seattle, Washington, 6 pp., letter report dated January 21, 1999.
2. ICF Kaiser, 1998, Supplemental Soil and Groundwater Sampling at General Mail Facility, Seattle, Washington, 10 pp., October 5, 1998.
3. Dames & Moore, 1998, Report – Soil and Groundwater Investigation at USPS General Mail Facility, Seattle, Washington, 16 pp., July 27, 1998.
4. ICF Kaiser, 1997, Phase 1 Environmental Site Assessment at General Mail Facility, Seattle, Washington, 47 pp., October 15, 1997.

These documents and Ecology's No Further Action Letter are on file at Ecology's Northwest Regional Office in Bellevue, Washington.

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of carcinogenic polynuclear aromatic hydrocarbons (cPAHs) in and around the soils of the hydraulic lift area (Restricted Area) and throughout the groundwater, exceeding the Model Toxics Control Act Method C cleanup levels for soil and ground water established under WAC 173-340-720 and WAC 173-340-745. A map depicting the Restricted Area is attached hereto as Attachment B.

The undersigned, Mr. David Eales, is a senior officer with the US Postal Service with signature authority for the real property (hereafter "Property") at 2445 Third Avenue South, also listed as 230 South Lander Street, Seattle, King County, State of Washington, parcel #766620-5235 and tax E# 0696876 dated November 18, 1982, that is subject to this Restrictive Covenant. The Property is legally described in Attachment A of this Restrictive Covenant and made a part hereof by reference.

Mr. David Eales, senior officer with signature authority for the real property, makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all

current and future owners of any portion of or interest in the Property (hereafter "Owner").
Section 1. The Property shall be used for commercial purposes including office and administrative uses, or industrial purposes only. It shall not be used for residential uses as defined in Seattle Municipal Code section 23.84.032 as of the date of this Restrictive Covenant. No ground water may be taken for any use from the Property.

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substances that remain in the Restricted Area or groundwater of the Property as part of the Remedial Action, or that may create a new exposure pathway for such hazardous substances, is prohibited without prior written approval from Ecology.

Section 4. The Owner of the Property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action as set forth in the No Further Action Letter.

Section 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action, to take samples, to inspect remedial actions conducted at the Property, and to inspect records that are related to the Remedial Action.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

_____
David Eales, Manager, Asset Management and Senior Officer
US Postal Service – Facilities

_____
Print Name

_____
Date Signed

Subscribed and sworn to before me this ____ day of _____ 1999.

_____
Signature

_____
Name Printed or Stamped
Notary Public in and for the State of Washington
Residing at _____
My appointment expires_____

[NOTE: The Property Owner must have this Restrictive Covenant notarized.]

Attachment A

LEGAL DESCRIPTION

United States Postal Service, Former General Mail Facility,
2445 Third Avenue South Seattle, King County, Washington
also listed as 230 South Lander Street, Seattle, King County, Washington
Parcel # 766620-5235
Tax E# 0696876

(please attach)

Attachment B

SITE MAP

United States Postal Service, Former General Mail Facility,
2445 Third Avenue South Seattle, King County, Washington
also listed as 230 South Lander Street, Seattle, King County, Washington
from Dames & Moore 1998 figure 5..

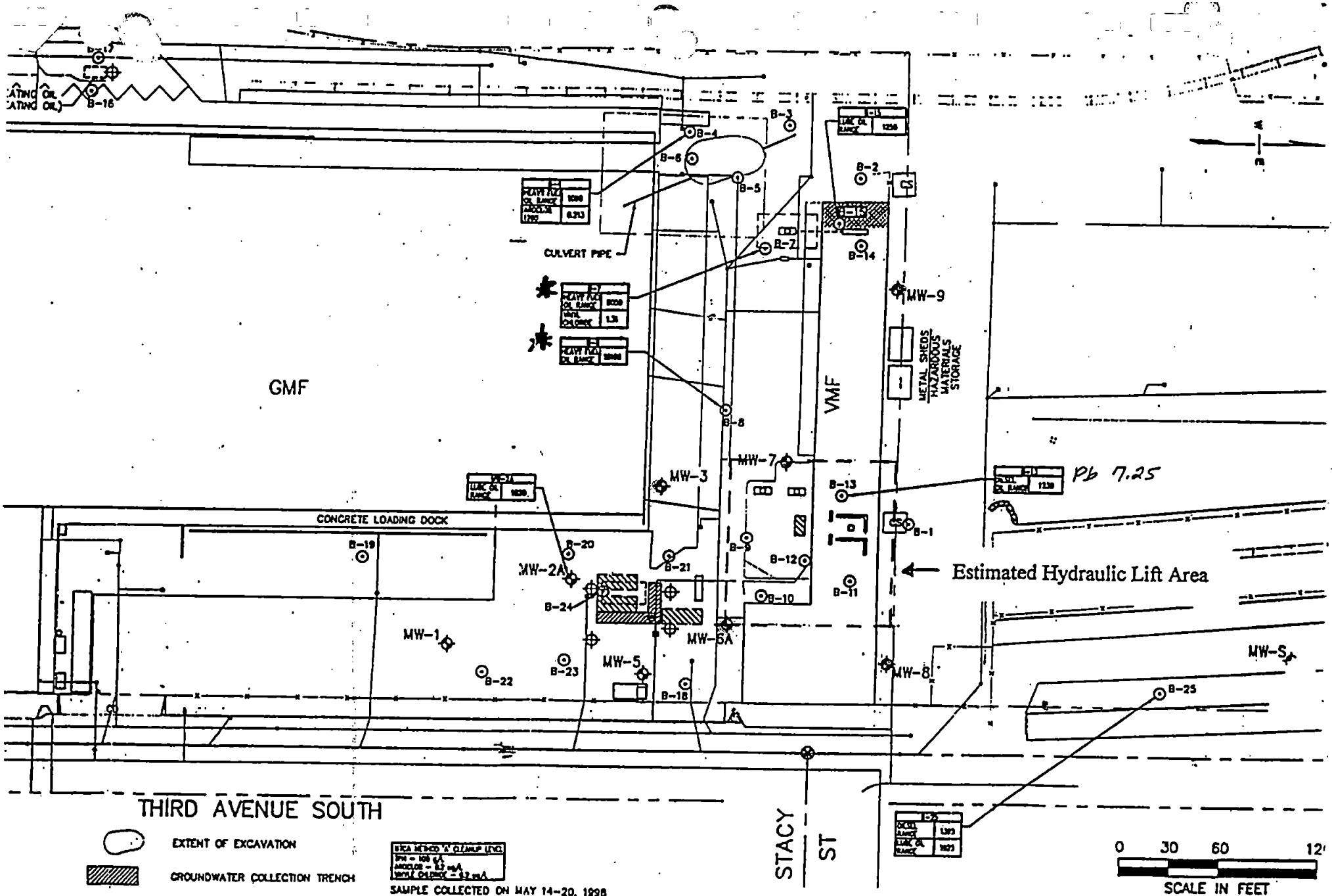

FIGURE
GROUNDWATER CONTAMINANTS EXCEEDIN
MTCA CLEANUP LEVEL
USPS GMF/VMF Property - Seattle, Washingtc

Ground Water Sampling Log

Project Seattle Schools Site S. Seattle Well # MW-7 Date 2/17/03

Well Depth _____ Screen Length _____ Well Dia. 2" Casing Type PVC

Sampling Device Peri pump Tubing Type HDPE Water Level 8.56' btoc

Measuring Point ~10' Other Information _____

Sampling Personnel Andrew Zabel

Time	pH	Temp °C	Cond. us/cm	Dis.O_2 mg/L	DTW (ft)	Gallons Purged (Cumulative)	Notes
1530	6.45	13.5	1.77	7.81	8.58	.1	
1535	6.61	13.5	1.77	5.62	8.60	.3	
1540	6.77	13.5	1.76	3.08	8.60	.5	
1545	6.83	13.5	1.75	2.98	↓	.7	
1550	6.85	13.5	1.74	2.71		.9	
1555	6.86	13.5	1.74	2.58	↓	1.1	sampled - clear - no sheen/odor copt.

Ground Water Sampling Log

Project: Seattle School | Site: S. Seattle | Well #: MW-3 | Date: 2/17/03

Well Depth: 11'? Soft | Screen Length: | Well Dia.: 2" | Casing Type: PVC

Sampling Device: Peri pump | Tubing Type: HDPE | Water Level: 7.23

Measuring Point: 9.5' | Other Information:

Sampling Personnel: Andrew Zabel

Time	pH	Temp °C	Cond. us/cm	Dis.O_2 mg/L	DTW (ft)	Gallons Purged (Cumulative)	Notes
1605	7.22	12.7	2.71	4.24	7.25	.1	
1610	7.23	12.7	2.56	3.21	7.26	.3	
1615	7.22	12.6	2.43	3.08	7.28	.5	
1620	7.22	12.6	2.40	2.99	7.28	.7	
1625	7.22	12.6	2.39	2.96	7.29	1.0	Sampled - clear, no appt. sheen/odor

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
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 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 3209 Denali Street, Anchorage, AK 99503
907.334.9200 fax 907.334.9210

URS Corporation	Project: Seattle Schools Support Center	
1501 4th Ave, Suite 1400	Project Number: MSSEA00012	**Reported:**
Seattle WA/USA, 98101-1616	Project Manager: Kevin Lundmark	03/04/03 11:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-3	B3B0336-01	Water	02/17/03 16:00	02/18/03 16:30
MW-7	B3B0336-02	Water	02/17/03 15:30	02/18/03 16:30

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.

Emanuel Hignutt, PM

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1501 4th Ave, Suite 1400	Project Number: MSSEA00012	**Reported:**
Seattle WA/USA, 98101-1616	Project Manager: Kevin Lundmark	03/04/03 11:27

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (B3B0336-01) Water Sampled: 02/17/03 16:00 Received: 02/18/03 16:30									
Acenaphthene	**5.67**	1.00	ug/l	10	3B20002	02/20/03	02/28/03	8270-SIM	
Acenaphthylene	ND	0.100	"	1	"	"	02/28/03	"	
Anthracene	ND	0.100	"	"	"	"	"	"	
Benzo (a) anthracene	**0.223**	0.0100	"	"	"	"	"	"	
Benzo (a) pyrene	**0.0605**	0.0100	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0100	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.100	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0100	"	"	"	"	"	"	
Chrysene	**0.511**	0.0100	"	"	"	"	"	"	
Dibenz (a,h) anthracene	**0.0923**	0.0100	"	"	"	"	"	"	
Fluoranthene	**3.29**	0.100	"	"	"	"	"	"	
Fluorene	ND	0.100	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**0.0882**	0.0100	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.100	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.100	"	"	"	"	"	"	
Naphthalene	ND	0.100	"	"	"	"	"	"	
Phenanthrene	ND	0.100	"	"	"	"	"	"	
Pyrene	**3.50**	1.00	"	10	"	"	02/28/03	"	
Surrogate: p-Terphenyl-d14	*72.7 %*	*30-150*			"	"	*02/28/03*	"	
Surrogate: 1-Methylnaphthalene-d10	*86.2 %*	*30-150*			"	"	"	"	
Surrogate: Benzo (a) pyrene-d12	*54.7 %*	*30-150*			"	"	"	"	
MW-7 (B3B0336-02) Water Sampled: 02/17/03 15:30 Received: 02/18/03 16:30									
Acenaphthene	ND	0.100	ug/l	1	3B20002	02/20/03	02/28/03	8270-SIM	
Acenaphthylene	ND	0.100	"	"	"	"	"	"	
Anthracene	ND	0.100	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0100	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0100	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0100	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.100	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0100	"	"	"	"	"	"	
Chrysene	ND	0.0100	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0100	"	"	"	"	"	"	
Fluoranthene	ND	0.100	"	"	"	"	"	"	
Fluorene	ND	0.100	"	"	"	"	"	"	

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.

Emanuel Hignutt, PM

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URS Corporation	Project: Seattle Schools Support Center	
1501 4th Ave, Suite 1400	Project Number: MSSEA00012	**Reported:**
Seattle WA/USA, 98101-1616	Project Manager: Kevin Lundmark	03/04/03 11:27

Polynuclear Aromatic Hydrocarbons by GC/MS-SIM

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (B3B0336-02) Water Sampled: 02/17/03 15:30 Received: 02/18/03 16:30									
Indeno (1,2,3-cd) pyrene	ND	0.0100	ug/l	1	3B20002	02/20/03	02/28/03	"	
1-Methylnaphthalene	ND	0.100	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.100	"	"	"	"	"	"	
Naphthalene	ND	0.100	"	"	"	"	"	"	
Phenanthrene	ND	0.100	"	"	"	"	"	"	
Pyrene	ND	0.100	"	"	"	"	"	"	
Surrogate: p-Terphenyl-d14	*82.2 %*	*30-150*			"	"	"	"	
Surrogate: 1-Methylnaphthalene-d10	*87.5 %*	*30-150*			"	"	"	"	
Surrogate: Benzo (a) pyrene-d12	*51.6 %*	*30-150*			"	"	"	"	

Emanuel Hignutt, PM

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Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
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 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 3209 Denali Street, Anchorage, AK 99503
907.334.9200 fax 907.334.9210

URS Corporation	Project: Seattle Schools Support	
1501 4th Ave, Suite 1400	Project Number: MSSEA00012	**Reported:**
Seattle WA/USA, 98101-1616	Project Manager: Kevin Lundmark	03/04/03 11:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3B20002: Prepared 02/20/03 Using EPA 3520C										
Blank (3B20002-BLK1)										
Acenaphthene	ND	0.100	ug/l							
Acenaphthylene	ND	0.100	"							
Anthracene	ND	0.100	"							
Benzo (a) anthracene	ND	0.0100	"							
Benzo (a) pyrene	ND	0.0100	"							
Benzo (b) fluoranthene	ND	0.0100	"							
Benzo (ghi) perylene	ND	0.100	"							
Benzo (k) fluoranthene	ND	0.0100	"							
Chrysene	ND	0.0100	"							
Dibenz (a,h) anthracene	ND	0.0100	"							
Fluoranthene	ND	0.100	"							
Fluorene	ND	0.100	"							
Indeno (1,2,3-cd) pyrene	ND	0.0100	"							
1-Methylnaphthalene	ND	0.100	"							
2-Methylnaphthalene	ND	0.100	"							
Naphthalene	ND	0.100	"							
Phenanthrene	ND	0.100	"							
Pyrene	ND	0.100	"							
Surrogate: p-Terphenyl-d14	*52.9*		"	*50.0*		*106*	*30-150*			
Surrogate: 1-Methylnaphthalene-d10	*0.800*		"	*1.00*		*80.0*	*30-150*			
Surrogate: Benzo (a) pyrene-d12	*0.685*		"	*1.00*		*68.5*	*30-150*			
LCS (3B20002-BS1)										
Acenaphthene	67.0	10.0	ug/l	100		67.0	40-150			
Acenaphthylene	74.2	10.0	"	100		74.2	40-150			
Anthracene	80.0	10.0	"	100		80.0	40-150			
Benzo (a) anthracene	75.8	1.00	"	100		75.8	40-150			
Benzo (a) pyrene	79.5	1.00	"	100		79.5	40-150			
Benzo (b) fluoranthene	80.1	1.00	"	100		80.1	40-150			
Benzo (ghi) perylene	74.2	10.0	"	100		74.2	40-150			
Benzo (k) fluoranthene	85.7	1.00	"	100		85.7	40-150			
Chrysene	82.7	1.00	"	100		82.7	40-150			
Dibenz (a,h) anthracene	52.3	1.00	"	100		52.3	40-150			
Fluoranthene	79.9	10.0	"	100		79.9	40-150			

North Creek Analytical - Bothell

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509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 3209 Denali Street, Anchorage, AK 99503
907.334.9200 fax 907.334.9210

URS Corporation	Project: Seattle Schools Support Center	
1501 4th Ave, Suite 1400	Project Number: MSSEA00012	**Reported:**
Seattle WA/USA, 98101-1616	Project Manager: Kevin Lundmark	03/04/03 11:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3B20002: Prepared 02/20/03 Using EPA 3520C										
LCS (3B20002-BS1)										
Fluorene	79.6	10.0	ug/l	100		79.6	40-150			
Indeno (1,2,3-cd) pyrene	63.6	1.00	"	100		63.6	40-150			
2-Methylnaphthalene	85.2	10.0	"	100		85.2	40-150			
Naphthalene	76.4	10.0	"	100		76.4	40-150			
Phenanthrene	83.7	10.0	"	100		83.7	40-150			
Pyrene	81.8	10.0	"	100		81.8	40-150			
Surrogate: p-Terphenyl-d14	*45.9*		"	*50.0*		*91.8*	*30-150*			
LCS (3B20002-BS2)										
Acenaphthene	7.77	1.00	ug/l	10.0		77.7	40-150			
Acenaphthylene	8.27	1.00	"	10.0		82.7	40-150			
Anthracene	8.85	1.00	"	10.0		88.5	40-150			
Benzo (a) anthracene	8.35	0.100	"	10.0		83.5	40-150			
Benzo (a) pyrene	8.44	0.100	"	10.0		84.4	40-150			
Benzo (b) fluoranthene	8.79	0.100	"	10.0		87.9	40-150			
Benzo (ghi) perylene	8.24	1.00	"	10.0		82.4	40-150			
Benzo (k) fluoranthene	9.23	0.100	"	10.0		92.3	40-150			
Chrysene	8.63	0.100	"	10.0		86.3	40-150			
Dibenz (a,h) anthracene	6.71	0.100	"	10.0		67.1	40-150			
Fluoranthene	8.76	1.00	"	10.0		87.6	40-150			
Fluorene	8.57	1.00	"	10.0		85.7	40-150			
Indeno (1,2,3-cd) pyrene	7.49	0.100	"	10.0		74.9	40-150			
1-Methylnaphthalene	8.85	1.00	"	10.0		88.5	40-150			
2-Methylnaphthalene	8.81	1.00	"	10.0		88.1	40-150			
Naphthalene	8.69	1.00	"	10.0		86.9	40-150			
Phenanthrene	9.11	1.00	"	10.0		91.1	40-150			
Pyrene	8.70	1.00	"	10.0		87.0	40-150			
Surrogate: p-Terphenyl-d14	*40.9*		"	*50.0*		*81.8*	*30-150*			
Surrogate: 1-Methylnaphthalene-d10	*0.995*		"	*1.00*		*99.5*	*30-150*			
Surrogate: Benzo (a) pyrene-d12	*0.860*		"	*1.00*		*86.0*	*30-150*			

Emanuel Hignutt, PM

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509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
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Anchorage 3209 Denali Street, Anchorage, AK 99503
907.334.9200 fax 907.334.9210

URS Corporation	Project: Seattle Schools Support Center	
1501 4th Ave, Suite 1400	Project Number: MSSEA00012	**Reported:**
Seattle WA/USA, 98101-1616	Project Manager: Kevin Lundmark	03/04/03 11:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3B20002: Prepared 02/20/03 Using EPA 3520C										
LCS Dup (3B20002-BSD1)										
Acenaphthene	83.8	10.0	ug/l	100		83.8	40-150	22.3	40	
Acenaphthylene	92.0	10.0	"	100		92.0	40-150	21.4	40	
Anthracene	88.2	10.0	"	100		88.2	40-150	9.75	40	
Benzo (a) anthracene	80.6	1.00	"	100		80.6	40-150	6.14	40	
Benzo (a) pyrene	89.7	1.00	"	100		89.7	40-150	12.1	40	
Benzo (b) fluoranthene	97.4	1.00	"	100		97.4	40-150	19.5	40	
Benzo (ghi) perylene	86.9	10.0	"	100		86.9	40-150	15.8	40	
Benzo (k) fluoranthene	84.0	1.00	"	100		84.0	40-150	2.00	40	
Chrysene	84.1	1.00	"	100		84.1	40-150	1.68	40	
Dibenz (a,h) anthracene	62.1	1.00	"	100		62.1	40-150	17.1	40	
Fluoranthene	86.2	10.0	"	100		86.2	40-150	7.59	40	
Fluorene	90.0	10.0	"	100		90.0	40-150	12.3	40	
Indeno (1,2,3-cd) pyrene	74.8	1.00	"	100		74.8	40-150	16.2	40	
2-Methylnaphthalene	93.8	10.0	"	100		93.8	40-150	9.61	40	
Naphthalene	89.6	10.0	"	100		89.6	40-150	15.9	40	
Phenanthrene	76.3	10.0	"	100		76.3	40-150	9.25	40	
Pyrene	94.2	10.0	"	100		94.2	40-150	14.1	40	
Surrogate: p-Terphenyl-d14	*44.5*		"	*50.0*		*89.0*	*30-150*			
LCS Dup (3B20002-BSD2)										
Acenaphthene	7.67	1.00	ug/l	10.0		76.7	40-150	1.30	40	
Acenaphthylene	7.91	1.00	"	10.0		79.1	40-150	4.45	40	
Anthracene	8.74	1.00	"	10.0		87.4	40-150	1.25	40	
Benzo (a) anthracene	8.60	0.100	"	10.0		86.0	40-150	2.95	40	
Benzo (a) pyrene	8.14	0.100	"	10.0		81.4	40-150	3.62	40	
Benzo (b) fluoranthene	8.65	0.100	"	10.0		86.5	40-150	1.61	40	
Benzo (ghi) perylene	8.04	1.00	"	10.0		80.4	40-150	2.46	40	
Benzo (k) fluoranthene	9.20	0.100	"	10.0		92.0	40-150	0.326	40	
Chrysene	9.10	0.100	"	10.0		91.0	40-150	5.30	40	
Dibenz (a,h) anthracene	6.35	0.100	"	10.0		63.5	40-150	5.51	40	
Fluoranthene	8.86	1.00	"	10.0		88.6	40-150	1.14	40	
Fluorene	8.43	1.00	"	10.0		84.3	40-150	1.65	40	
Indeno (1,2,3-cd) pyrene	7.14	0.100	"	10.0		71.4	40-150	4.78	40	
1-Methylnaphthalene	8.22	1.00	"	10.0		82.2	40-150	7.38	40	

North Creek Analytical - Bothell

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Emanuel Hignutt, PM

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URS Corporation	Project: Seattle Schools Support Center	
1501 4th Ave, Suite 1400	Project Number: MSSEA00012	**Reported:**
Seattle WA/USA, 98101-1616	Project Manager: Kevin Lundmark	03/04/03 11:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3B20002: Prepared 02/20/03 Using EPA 3520C										
LCS Dup (3B20002-BSD2)										
2-Methylnaphthalene	8.03	1.00	ug/l	10.0		80.3	40-150	9.26	40	
Naphthalene	7.92	1.00	"	10.0		79.2	40-150	9.27	40	
Phenanthrene	9.17	1.00	"	10.0		91.7	40-150	0.656	40	
Pyrene	8.90	1.00	"	10.0		89.0	40-150	2.27	40	
Surrogate: p-Terphenyl-d14	*44.0*		"	*50.0*		*88.0*	*30-150*			
Surrogate: 1-Methylnaphthalene-d10	*0.914*		"	*1.00*		*91.4*	*30-150*			
Surrogate: Benzo (a) pyrene-d12	*0.809*		"	*1.00*		*80.9*	*30-150*			

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URS Corporation	Project: Seattle Schools Support Center	
1501 4th Ave, Suite 1400	Project Number: MSSEA00012	**Reported:**
Seattle WA/USA, 98101-1616	Project Manager: Kevin Lundmark	03/04/03 11:27

Notes and Definitions

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
RPD	Relative Percent Difference

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 (509) 924-9200 FAX 924-9290
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 906-9200 FAX 906-9210
20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 (541) 383-9310 FAX 382-7588

CHAIN OF CUSTODY REPORT

Work Order #: B3B0336

CLIENT: URS
REPORT TO: David Rambrogel
ADDRESS: 1501 4th Ave Ste 1400
Seattle WA 98101
PHONE: 206 438-2709 FAX: 18664955288

INVOICE TO: SAME
P.O. NUMBER:

PROJECT NAME: Seattle School District
PROJECT NUMBER: 33744037
SAMPLED BY: Andrew Zabel

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: [X] STD. [7] [5] [4] [3] [2] [1] [<1]
Petroleum Hydrocarbon Analyses: [5] [4] [3] [2] [1] [<1] STD.
[OTHER] Please Specify
*Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	REQUESTED ANALYSES: cPAH's *	MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1.	MW-3	2/17/03 1600	X	W	2	Low level analyses	-01
2.	MW-7	2/17/03 1530	X	W	2	↓	-02
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							

RELINQUISHED BY: Andrew Zabel
PRINT NAME: Andrew Zabel FIRM: URS DATE: 2/18/03 TIME: 1330

RECEIVED BY:
PRINT NAME: PRANY TONTY FIRM: NCA DATE: 2/19/03 TIME: 1630

RELINQUISHED BY:
PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY:
PRINT NAME: FIRM: DATE: TIME:

Samples were not @2-6C Upon Receipt

ADDITIONAL REMARKS:

TEMP: 8.7

COC REV 3/99 PAGE OF