





GROUNDWATER MONITORING REPORT NOVEMBER 2009 FORMER GOODYEAR LEASE FACILITY 601 GEORGE WASHINGTON WAY RICHLAND, WASHINGTON

Prepared for

INLAND COMMERCIAL PROPERTIES URS PROJECT NO. 36310005

URS

920 North Argonne Road, Suite 300 Spokane, Washington 99212 509.928.4413

December 14, 2009

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## INTRODUCTION

This report summarizes the results of the November 2009 groundwater sampling event at the Former Goodyear Lease Property (site) located at 601 George Washington Way, Richland, Washington. The site is located at the northwest corner of George Washington Way and Jadwin Avenue in an area of mixed-use development near downtown Richland, Washington as shown on the Site Location Map, Figure 1. The site occupies approximately <sup>3</sup>/<sub>4</sub> acre and is generally level. Groundwater monitoring is being conducted as an independent action under the Washington Department of Ecology (Ecology) Model Toxics Control Act (MTCA). The site was entered into the Voluntary Cleanup Program (VCP) in July 2008 and has a site identification number of CE0292.

## SITE BACKGROUND

The site has a history of commercial automotive repair since the 1960s. In 2005, soil samples collected during an investigation of a drywell located near the northern portion of the property contained concentrations of petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyl (PCBs) at concentrations exceeding Washington State Department of Ecology (Ecology) Model Toxic Control Act (MTCA) Method A soil cleanup values for unrestricted land use. Removal of the drywell and contaminated soil was conducted in 2005. The remedial excavation was halted at a depth of about 26 feet below site grade because of safety concerns. Concentrations of petroleum hydrocarbons, PAHs, and PCBs exceeded MTCA Method A cleanup values in a limited number of confirmatory soil samples collected from the limits of the excavation. Further assessment was conducted in 2008 that included the drilling of five soil borings in approximately the same area as the remedial excavation boundary and collection of soil samples for laboratory analysis. Three of these borings (MW-1, MW-2, and MW-3) were completed as groundwater monitoring wells to assess groundwater conditions.

Groundwater sampling was conducted in September 2008. Results of sampling identified diesel- and heavy oil-range petroleum hydrocarbons (DRO and HRO, respectively) in groundwater at concentrations exceeding MTCA Method A cleanup levels in the sample collected from monitoring well MW-3. DRO and HRO were not detected in the samples collected from monitoring wells MW-1 and MW-2. PAHs were either not detected or were detected at concentrations below respective MTCA Method A or Method B cleanup levels in all three samples. PCBs were not detected in groundwater samples during this sampling event.

A groundwater sampling event limited to monitoring well MW-3 was conducted in October 2008. Analytical results indicated that DRO was detected at a concentration below the MTCA Method A cleanup level. HRO was not detected in the sample. PAHs and PCBs were not analyzed during this monitoring event.

URS conducted groundwater monitoring events in March, April and July 2009. During the March 2009 event, PCBs, PAHs and DRO were not detected in groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3. HRO was not detected in groundwater samples collected from MW-1 or MW-

2. HRO was detected at a concentration exceeding the MTCA Method A cleanup level in the groundwater sample collected from MW-3. During the April 2009 event, PCBs and PAHs were not detected in groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3. DRO and HRO were not detected in groundwater samples collected from monitoring wells MW-2 and MW-3. DRO and HRO were detected at concentrations less than MTCA Method A cleanup values in groundwater sample collected from MW-1. In July 2009, PCBs, PAHs and HRO were not detected in groundwater samples collected from Site monitoring wells. DRO was detected at concentrations below the MTCA Method A cleanup level in all three groundwater samples.

## **GROUNDWATER SAMPLING PROCEDURES**

URS collected groundwater samples from site groundwater monitoring wells (MW-1, MW-2 and MW-3) on November 5, 2009. Groundwater monitoring wells are generally purged and sampled in accordance with U.S. Environmental Protection Agency (EPA) guidance for low-flow sampling. However, equipment issues during the November 2009 event resulted in our purging three well volumes prior to collecting groundwater samples. Monitoring well MW-3 was purged dry; therefore, the well was sampled once groundwater recharged. Flow rates during purging and sampling were on the order of 0.5 liters per minute for each of the wells sampled. Groundwater quality field parameters are summarized in Table 1.

Groundwater samples were placed in appropriately preserved sample containers and submitted to TestAmerica Laboratories of Spokane, Washington for laboratory analysis of diesel- and oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx, PCBs by EPA Method 608/8082, and PAHs by EPA Method 8270 SIM. Samples were submitted under chain-of-custody.

## **GROUNDWATER GRADIENT**

The depth to groundwater was measured in each monitoring well before it was sampled. Groundwater levels were measured from the monitoring well top of casing (TOC) using an electronic water level meter. The depth to groundwater ranged from 31.05 feet below TOC at MW-1 to 31.94 below feet below TOC at MW-3. Groundwater elevations did not vary much across the site; elevations ranged from 340.87 feet above mean sea level (amsl) in MW-3 to 340.91 feet amsl in MW-1. Groundwater flow across the site is generally to the east at an approximate gradient of 0.0007 feet/foot. Note that this gradient is relatively flat for groundwater. Groundwater elevations are illustrated on Groundwater Potentiometric Surface, Figure 2. The depth to groundwater and groundwater elevations are summarized in Groundwater Parameters, Table 1.

## **GROUNDWATER SAMPLING RESULTS**

PCBs, PAHs, DRO and HRO were not detected at concentrations exceeding the Method Reporting Limit (MRL) in groundwater samples collected from monitoring wells MW-1, MW-2, and MW-3. Analytical results are illustrated on Groundwater Analytical Results, Figure 2. Groundwater sampling results are presented in Groundwater Analytical Results, Table 2. Laboratory analytical reports are included in Appendix A.

## SUMMARY

Groundwater elevations in all three monitoring wells were observed to vary only 0.02 feet between wells, indicating a relatively flat groundwater gradient across the site. This is consistent with previous measurements and observations.

PCBs and PAHs were not detected in groundwater samples collected from site monitoring wells MW-1, MW-2, or MW-3 during the November 2009 sampling events. This is the fifth monitoring event where these contaminants of concern have not been detected in groundwater samples. Because these contaminates have never been detected in groundwater samples, it is our opinion that PCBs and PAHs are not present in groundwater and continued analysis for these substances is not warranted.

DRO and HRO were not detected in groundwater samples collected from site monitoring wells during the November 2009 monitoring event.

November 2009 is the third consecutive quarter where contaminants of concern were either not detected, or were not detected at concentrations exceeding MTCA Method A cleanup criteria.

The next groundwater monitoring and sampling event is scheduled for February 2010.

# FIGURES







Scale in Miles

Figure 1 Site Location Map

Job No. 36310005

Former Goodyear Tire Lease Property 601 George Washington Way Richland, Washington





Source: LFR 2008 Job No. 36310005

## Figure 2 Groundwater Potentiometric Surface November 5, 2009

Former Goodyear Tire Lease Property 601 George Washington Way Richland, Washington





# TABLES

Groundwater Parameters Former Goodyear Lease Property Richland, Washington Table 1

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Temperature (°C)	17.9	18.7	11.8	13.3	17.9	17.6	12.5	14.8	8.7	17.6	14.0	15.1
Dissolved Oxygen (mg/l)	4.1	9.5	2.7	2.5	5.5	6.6	4.5	4.4	11.4	<u>9.8</u>	3.6	3.1
Turbidity (ntu)	23	52	n	12	2	36	12	21	\$	83 83	104	49
Conductivity (m/ohms)	0.786	0.670	0.843	0.704	0.854	0.691	0.875	0.788	0.626	0.564	0.303	0.498
Hd	7.93	6.41	7.03	7.21	7.70	6.40	7.05	7.15	8.25	6.58	7.21	7.11
Change in Elevation (feet)	E	0.02	0.99	-0.66		0.03	0.98	-0.69	,	0.04	0.97	-0.68
Groundwater Elevation (feet)	340.56	340.58	341.57	340.91	340.55	340.58	341.56	340.87	340.54	340.58	341.55	340.87
Depth to Water <sup>2</sup> (feet)	31.40	31.38	30.39	31.05	32.17	32.14	31.16	31.85	32.27	32.23	31.26	31.94
Date Sampled	03/05/09	04/17/09	07/29/09	11/05/09	03/05/09	04/17/09	07/29/09	11/05/09	03/05/09	04/17/09	07/29/09	11/05/09
l Monitoring Well and Casing Elevation <sup>1</sup>		MW-1		371.96		MW-2		372.72		MW-3		372.81

Notes: 1. Elevation is Above Mean Sea Level (amsl). 2. Measured from top of casing.

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# Groundwater Analytical Results Former Goodyear Lease Property Richland, Washington Table 2

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	Date	NWTPH-Dx	-DX	EPA 608/8082	EPA 8270
Sample ID	Sampled	Diesel-Range (ug/l)	Oil-Range (ug/l)	PCBs (ug/l)	(I/6n) SHYA
	03/05/09	<235	<469	pu	рш
	04/17/09	316	253	pu	ри
	60/62/20	180	<93.5	рц	pu
MW-1	11/05/09	<235	<469	nd	pu
	03/05/09	<231	<463	pu	pu
	04/17/09	<234	<467	pu	pu
	60/62/20	91.1	<b>-</b> 23.5	pu	pu
MW-2	11/05/09	<235	<469	pu	pu
	60/90/20	<231	2,030	pu	pu
	04/17/09	<236	<472	pu	pu
	60/62/20	245	<93.5	pu	ри
MW-3	11/05/09	<236	<472	pu	pu
MTCA Cleanup Level <sup>1</sup>		500	500	0.1	0,1

Notes:

MTCA= Washington State Department of Ecology, Model Toxics Control Act Method A Cleanup Level. The MTCA Method A cleanup level for PAHs is based on benzo(a) pyrene (BAP). nd - Not detected at a concentration exceeding the Method Reporting Limit. See analytical data for specific details.
BOLD = Exceedance of Cleanup Level.
Not Applicable

Samples Analyzed by TestAmerica, Inc. Spokane, Washington

# APPENDIX A

# LABORATORY REPORTS



November 18, 2009

Gary Panther URS Corp. 920 N. Argonne Road Suite 300 Spokane, WA 99212

**RE:** Former Goodyear Facility

Enclosed are the results of analyses for samples received by the laboratory on 11/05/09 16:20. The following list is a summary of the Work Orders contained in this report, generated on 11/18/09 16:38.

If you have any questions concerning this report, please feel free to contact me.

Work OrderProjectProjectNumberSSK0037Former Goodyear Facility36310005

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Kanden Hocker, Project Manager

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.

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URS Corp.	Project Name:	Former Goodycar Facility	
920 N. Argonne Road Suite 300	Project Number:	36310005	Report Created:
Spokane, WA 99212	Project Manager:	Gary Panther	11/18/09 16:38

# ANALYTICAL REPORTFOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	SSK0037-01	Water	11/05/09 12:00	11/05/09 16:20
MW-2	SSK0037-02	Water	11/05/09 13:00	11/05/09 16:20
MW-3	SSK0037-03	Water	11/05/09 14:00	11/05/09 16:20
Dup	SSK0037-04	Water	11/05/09 00:00	11/05/09 16:20

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Randee Decker, Project Manager

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URS Corp. 920 N. Argonne Road Suite 300 Spokane, WA 99212			Project Na Project Nu Project Ma	mber:	Former 3631000 Gary Par	5	ear Facility	,	•	Created: 19 16:38
	Semivolatile Po	etroleum P	roducts   TestAme			x w/Si	lica Gel C	Cleanup	· · · · · · · · · · · · · · · · · · ·	
Analyte	Method	Result	MDL*	MRL	Units	Díl	Batch	Prepared	Analyzed	Notes
SSK0037-01 (MW-1)		Wa	ler		Sam	pled: 11/	05/09 12:00			
Diesel Range Hydrocarbons Heavy Oil Range Hydrocarbons	NWTPH-Dx	ND ND	0.188 0.282	0.235 0.469	mg/l *	lx ×	9110048	11/09/09 08;05 u	11/10/09 10:42 "	
Surrogate(s): 2-FBP p-Terphenyl-d14			89.0% 86.2%			- 150 % - 150 %	n r	<del>:</del>	π	
SSK0037-02 (MW-2)		Wa	iter		Sam	pled: 11/	05/09 13:00			
Diesel Range Hydrocarbons	NWTPH-Dx	ND	0.188	0.235	mg/l	١x	9110048	11/09/09 08:05	[1/10/09 11:27	
Heavy Oil Range Hydrocarbons	ه	ND	0.282	0.469		•	a	٩	•	
Surrogate(s): 2-FBP p-Terphenyl-d14			90.6% 93,9%			- 150 % - 150 %	n n		т	
SSK0037-03 (MW-3)		Wa	iter		Samj	pled: 11/0	05/09 14:00			
Diesel Range Hydrocarbons	NWTPH-Dx	ND	0.189	0.236	mg/l	١x	9110048	11/09/09 08:05	11/10/09 11:50	
Heavy Oil Range Hydrocarbons	•	ND	0.283	0,472		м	۳	•	•	
Surrogaie(s): 2-FBP p-Terphenyl-d1-f			95.2% 95.6%			- 150 % - 150 %	17 17		n T	
SSK0037-04 (Dup)		Wa	ler		Sam	pled: 11/0	05/09 00:00			
Diesel Range Hydrocarbons	NWTPH-Dx	ND	0.185	0.231	mg/l	lx	9110048	11/09/09 08:05	11/11/09 19:30	
Heavy Oil Range Hydrocarbons		ND	0.278	0,463	•	۳		•	•	
Surrogate(s): 2-FBP			88.8%		50	- 150 %				
p-Terphenyl-d14			63.0%		50	- 150 %	a		~	

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(ardinda) Lo Randee Decker, Project Manager





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URS Corp.	- Project Name:	Former Goodyear Facility	
920 N. Argonne Road Suite 300	Project Number:	36310005	Report Created:
Spokane, WA 99212	Project Manager:	Gary Panther	11/18/09 16:38

		Pol	ychlorinate	d Biphe TestAme			rethod	8V82			
Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Note
SSK0037-01	(MW-1)	·	Wa	ater		Sam	pled: 11/0	5/09 12:00			
PCB-1016		EPA 8082	ND		0.0932	ug/l	١×	9110088	11/16/09 09:48	11/16/09 19:14	
PCB-1221		×	ND		0.0932	•	n	•	•	•	
PCB-1232		•	ND		0.0932	0	п	•		•	
PCB-1242		•	ND		0.0932	-	11	P	•	•	
PCB-1248		•	ND		0.0932	н	n	-	-	•	
PCB-1254		r	ND		0.0932	•	"	-		•	
PCB-1260		<b>,</b>	ND		0,0932	4	n	-	•	•	
Surrogale(s):	TCX			65.6%			- 137 %	л		h	
Sarroganelay.	Decachlorobiphenyl			76.0%			- 124 %	п		"	
SSK0037-02	(MW-2)		W۶	nter		Sam	pled: 11/(	5/09 13:00			
PCB-1016		EPA 8082	ND	·	0.0928	ug/l	1x	9110088	11/16/09 09:48	11/16/09 19:37	
PCB-1221			ND		0.0928	π	· •	•	•	•	
PCB-1232		•	ND		0.0928	n	•	• .		ь	
PCB-1242		•	ND	+	0.0928	٣	. *	•	•	H	
PCB-1248		٦	ND		0.0928	P	•	•	•		
PCB-1254		•	ND		0.0928	٠	•	•	•	-	
PCB-1260			ND		0.0928		•	•	•	•	
Surrogate(s).	TCX	-		65.5%		-10	- 137 %	л л		ħ	
	Decachlorobiphenyl			79.7%		-10	- 124 %			9	
SSK0037-03	(MW-3)		Wa	ater		Sanı	pled: 11/0	5/09 14:00			
PCB-1016		EPA 8082	ND	*****	0.0946	ug/l	İx	9110088	11/16/09 09:48	11/16/09 20:00	
PCB-1221		•	ND		0.0946	•	•	•	•	•	
PCB-1232		•	ND		0.0946	•	•	•	•		
PCB-1242		•	ND		0.0946	•	-	•	٠	n	
PCB-1248		•	ND		0,0946	•	•	•	•	•	
PCB-1254		-	ND		0.0946	۳		•	•	•	
PCB-1260			ND		0.0946	п	n	•	•		
Surrogate(s):	- TCX			84.2%		40	- 137 %	n			
	Decachlorobiphenyl			90.9%			- 124 %	π'		n	

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920 N. Argonne Road Suite 300	Project Number;	36310005	Report Created:
Spokane, WA 99212	Project Manager:	Gary Panther	11/18/09 16:38

Polychlorinated Biphenyls by EPA Method 8082 TestAmerica Spokane											
Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
SSK0037-04 (	 (Dup)		Wi	ater		Samj	pled: 11/0	05/09 00:00			
PCB-1016		EPA 8082	ND	P	0.0926	ug/l	١x	9110088	11/16/09 09:48	11/16/09 20:22	
PCB-122J		•	ND		0.0926	n	в'	н	'n	υ	
PCB-1232		•	ND		0.0926	л		•	-	n	
PCB-1242		*	ND		0.0926	•		•	π		
PCB-1248		•	ND		0.0926		a a	u -		ĸ	
PCB-1254		-	ND		0.0926		н	•		n	
PCB-1260		×	ND		0.0926			"	•	•	
Surrogate(s):	TCX			66.0%		-10	- 137 %	17		þ	
	Decachlorobiphenyl			73.4%		· -10	- 124 %	77		. 7	

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## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
SSK0037-01 (MW-1)		Wa	ter		Sam	pled: 11/0	5/09 12:00			
1-Methylnapthalene	EPA 8270 mod.	ND		0,0935	ug/l	lx	9110056	11/10/09 11:51	11/10/09 15:50	
2-Methylnaphthalene	R	ND		0.0935	٠	-			ri	
Acenaphthene	•	ND		0.0935	•		a	*	۳	
Acenaphthylene	•	ND		0.0935	•	-	•	•	^	
Anthracene		ND	*****	0.0935	۳	ч			N	
Benzo (a) authracene		ND		0.0935		٠	•			
Зелго (а) ругене		ND		0.0935		•	٠	•	•	
Benzo (b) fluoranthene		ND		0.0935	м		•	•	•	
Benzo (ghi) perylene	•	ND		0.0935	*	•	•	n	й	
Benzo (k) fluoranthene	•	ND		0.0935			-	•	Π	
Chrysene	•	ND		0.0935	-	•	-	н	•	
Dibenzo (a,b) anthracene		ND		0.0935		•	-	'n	•	
luoranthene	۳.	ND	*****	0.0935		ч		π	a	
fluorene	•	ND	•	0.0935			•	-	ri T	
ndeno (1,2,3-cd) pyrene	•	ND		0.0935			•	•	π	
Vaphthalene	•	ND		0.0935		*			m	
henanihrene		ND		0.0935	•	z		•		
yrene		ND		0.0935	R					
Surrogate(s): Nitrobenzene-d5			86.6%		30	- 150 %			ħ	
2-FBP			84.8%			- 122 %	в		u.	
p-Terphenyl-d14			140%		35	- 150 %	*		h	

SSK0037-02 (MW-2)		Wat	er		Samp	led: 11/0	5/09 13:00		
1-Methylnapthalene	EPA 8270 niod	ND	_	0.0928	ug/l	łx	9110036	11/10/09 11:51	11/10/09 16:15
2-MethyInaphthalene	Ð	ND		0.0928	•	•	-	•	•
Acenaphthene		ND	<del>_</del>	0.0928	•	•	•	٠	•
Acenaphthylene	•	ND	<b></b>	0,0928	ħ	-	•	•	•
Anthracene	*	ND		0.0928	•	-	•	-	•
Benzo (a) anthracene	*	ND	•••••	0.0928	•	47	•		•
Benzo (a) pyrene	•	ND		0.0928		•	•	7	n
Benzo (b) fluoranthene	•	ND		0.0928	-	•		•	Π
Benzo (ghi) perylene	•	ND	*****	0.0928	*	н		•	•
Benzo (k) fluoranthene	•	ND		0.0928			-	•	u
Chrysene		ND		0.0928	. "		•	٠	۹
Dibenzo (a,h) anthracene	•	ND	*****	0.0928		н	•	•	•
Fluoranthene		ND		0,0928	• •		•	-	•
Fluorene	•	ND	·	0.0928	ь	•		-	
Indeno (1,2,3-cd) pyrene		ND	·	0.0928	•	ĸ	•	•	k

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Randee Decker, Project Manager





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	Polynuclear Aron	natic Comj	pounds b TestAme	-		1 Select	ted Ion N	Ionitoring		
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
SSK0037-02 (MW-2)		W	ater		Sam	pled: 11/(	5/09 13:00			
Naphthalene	EPA 8270 mod	ND		0.0928	ug/l	łĸ	9110056	11/10/09 11:51	11/10/09 16:	15
Phenanthrene	•	ND		0.0928	n	n	•	•	n	
Ругепе	•	ND		0.0928	U	n	•	ų	"	

Surrogate(s):	Nitrobenzene-d5	75.6%	30 - 150 % "	R
	2-FBP	<i>70. 4%</i>	21 - 122 % "	n
	p-Terphenyl-d14	169%	35 - 150 % "	" Z2

SSK0037-03 (MW-3)		Water			Sampl	ed: 11/0			
I-Methylnapthalene	EPA 8270 mod.	ND		0.0964	ug/l	1 <b>x</b>	9110056	11/10/09 11:51	11/10/09 16:40
2-Methylnaphthalene	•	ND		0.0964	n		•	P	n
Acenaphthene	•	ND		0.0964	n		•	tr.	
Acenaphthylene		ND		0.0964	•	•			
Anthracene	•	ND		0.0964	п		•	-	n
Benzo (a) anthracene	•	ND		0,0964		н	•	•	•
Benzo (a) pyrene		ND		0.0964				•	
Benzo (b) Auoranthene	,	ND		0.0964		•	•	a	ű
Benzo (ghi) perylene		ND		0.0964		•	•	•	ű
Benzo (k) fluoranthene	•	ND		0.0964	•	4	•	-	ĸ
Chrysene	•	ND		0.0964	•		•	•	
Dibenzo (a,h) anthracene		ND	<b></b>	0.0964	•	۲	•	•	۳
Fluoranthene	•	ND		0.0964	-	*	٠		
Fluorene	•	ND	h+4	0.0964	-	•	•	•	•
Indeno (1,2,3-cd) pyrene	•	ND	<b>,</b>	0.0964	•	٠	•	•	•
Naphthalene	•	ND	·	0.0964	-	•	•	n	•
Phenanthrene	•	ND		0.0964	•	•	8	-	•
Pyrene	•	ND		0.0964	•	•	•		•
Surrogate(s): Nitrobenzene-d:	5		67.8%		30 -	_ ]50 %	μ		"
2-FBP		1	61.0%		21 -	122 %	π		π
p-Terphenyl-dl-	1		117%		35 -	150 %	~		*

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**TestAmerica** 

SPOKANE, WA 11922 E. 1ST AVENUE SPOKANE VALLEY, WA 99206-5302 ph: (509) 924.9200 fax: (509) 924.9290

## THE LEADER IN ENVIRONMENTAL TESTING

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URS Corp.	Project Name:	Former Goodycar Facility	
920 N. Argonne Road Suite 300	Project Number:	36310005	Report Created:
Spokane, WA 99212	Project Manager:	Gary Panther	11/18/09 16:38

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring TestAmerica Spokane													
Analyte	Method	Result	MDL	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes			
SSK0037-04 (Dup)		W	iter		Sam	pled: 11/0	5/09 00:00						
1-Methylnapthalene	EPA 8270 mod.	ND	H1	0.0928	ug/l	lx	9110056	L1/10/09 L1:51	11/10/09 17:06	-			
2-Methylnaphthalene	P	ND		0.0928	٠	•	•		•				
Acenaphthene	n	ND		0.0928	h		•		n				
Acenaphthylene	ч	ND		0.0928		в	•	n	n				
Anthracene	v	ND		0.0928	n		•	n	n				
Benzo (a) anthracene	υ	ND		0.0928	'n		•	•	-				
Benzo (a) pyrene	n	ND		0.0928	•	-	•		H				
Benzo (b) fluoranihene	н	ND		0,0928	п	-	•	•	U				
Benzo (ghi) perylene	υ	ND		0.0928	•		,	•	n				
Benzo (k) fluoranthene		ND		0.0928		-	•	•	ų				
Chrysene	π	ND		0.0928	P	•	•	*	n				
Dibenzo (a,h) anthracene	•	ND		0.0928	•	۳	•	tr	•				
Fluoranthene		ND	•	0.0928	•	•	•	•	P				
Fluorene	•	ND		0.0928	•		•		n				
ndeno (1,2,3-cd) pyrene	•	ND		0.0928	н		•	в	•				
Naphthalene	•	ND		0.0928	-	*	•	-	•				

0.0928

Pyrene	•	Þ	ND	0.0928	71	R	•	n
Surrogate(s):	Nitrobenzene-d5		66.	0%	30 - 1	50 %	Π	"
:	2-FBP		68.	2%	21 - 1	22 %	7	n
	p-Terphenyl-dl-l		13	9%	35 - 1	50 %	n	n

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Phenanthrene

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URS Corp. 920 N. Argon Spokane, WA	ne Road Suite 300 99212				Project Na Project Nu Project Ma	umber: 3	forme 631000 fary Pa		ear Fac	ility				Report Create 11/18/09 16	
	Semivolatil	e Pctrolcum	Products	by NWTP		Silica Gel C ica Spökane	leanu	p - Lab	oratory	y Qua	lity Con	trol Re	esults	· · · · · · · · · · · · · · · · · · ·	
QC Batch:	9110048	Water F	reparation	Method:	EPA 3510	/600 Series									
Analyte		Method	Result	MDL	* MRL	Units	Dil	Source Result	Spike Amt	∾ <u>,</u> REC	(Limits)	% RPD (	(Limits	) Analyzed	Notes
Blank (9110048	-BLK1)								Extr	acted:	11/09/09 08	:05			
Diesel Range Hydroca	tbons	NWTPH-Dx	ND	0.200	0.250	mg/l	lx							11/10/09 11:05	
Heavy Oil Range Hyd	ocarbons		ND	0.300	0.500		•							•	
5	2-FBP p-Terphenyl-d1-t		Recovery:	93.6% 89.2%	L	imits: 30-150% 50-1509								11 10 09 11:05 "	
LCS (9110048-)	BS1)								Extr	acied:	11/09/09 08	:05			
Diesel Range Hydroca		NWTPH-Dx	2.35	0,200	0.250	mg/t	Ix		2.50	93.8%	(54,5-136)			11/10/09 09:57	
0 17	2-FBP o-Terphenyl-d14		Recovery:	103% 87.7%	L	imits: 50-150% 50-150%								11:10:09:09:37 "	
LCS Dup (9110	048-BSD1)								Extr	acted:	11/09/09 08	:05			
Diesel Range Hydroca		NWTPH-Dx	2.24	0.200	0,250	mg/l	İx		2.50	89.7%	(54.5-136)	4.47%	(32.5)	11/10/09 10:20	
<b>0</b> ,.	2-FBP p-Terphenyl-dl-l	·	Recovery:	83.8% 68.7%	I	imits: 50-150% 50-1509								11-10 <i>°</i> 09 10:20 "	

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URS Corp.	Project Name:	Former Goodyear Facility	
920 N. Argonne Road Suite 300	Project Number:	36310005	Report Created:
Spokane, WA 99212	Project Manager:	Gary Panther	11/18/09 16:38

QC Batch:	9110088	Water	Preparation	Method:	EPA 3510/	600 Series									
Analyte		Method	Result	MD	L* MRL	Units	Dil	Source Result	Spike Amt	e % REC	(Limits)	% RPD	(Limits)	) Analyzed	Notes
Blank (9110088	-BLK1)								Ext	racted:	11/16/09 09	:48			
PCB-1016		EPA 8082	ND		0.100	ugЛ	l x							11/16/09 18:29	
PCB-1221		-	ND		0,100		•		••	-					
CB-1232		•	ND		0.100	-	•						••		
PCB-1242			ND		0,100		n			4				п.	
°CB-1248			. ND		0,100	π	Р		••					. •	
PCB-1254			ND		0.100	"	•			-•					
PCB-1260			ND		0.100	•	•			• ••				•	
÷	TCX Decachlorobiphenyl		Recovery:	71.1% 84.5%	Li	mits: 40-137% 40-124%	0 17							11:16 09 18:29 "	
LCS (9110088-)	BSI)								Ext	racted:	11/16/09 09	- 48			
PCB-1016		EPA 8082	2,04		0,100	ug/l	1x		2.50	81.5%	(42.6-134)		••	11/16/09 18:52	
PCB-1260		-	2.06		0.100	•	π		•	82.5%	(43.1-130)		•-	•	
0 17	TCX Decachlorobiphenyl		Recovery:	92.6% 90.5%	Ц	mits: 40-137% 40-124%	л 11							11/16:09 18:52 "	<u>-</u>
Matrix Spike (9	110088-MS1)				QC Source	: SSK0047-04			Ext	racted:	11/16/09 09	2:48			
PCB-1016		EPA 8082	I.64		0,0957	ug/l	ĺx	ND	2.39	68.4%		-		11/16/09 23:01	
PCB-1260		•	1.76		0,0957	•	ĸ	ND	,	73.4%	•			•	
	TCX Decachlorobiphenyl		Recovery:	68.8% 80.8%	Li	mils: 40-137% 40-124%	<i>п</i>				<u>.</u>			11/16:09 23:01	
Matrix Spike Dr	p (9110088-MSI	<b>D1</b> )			QC Source	: S\$K0047-04			Ext	racted:	1/16/09 09	:48			
PCB-1016	<b></b>	EPA 8082	1.66		0.0948	ug/l	lx	ND	2.37	70,1%	(50-150)	1.42%	6 (35)	11/16/09 23:23	
PCB-1260		•	1.82		0.0948	-	•	ND	π	76.7%	•	3,46%	. •	h	
Surrogate(s):	TCX		Recovery:	64.6%	<i>Li</i>	mits: 40-137%	"							11/16/09 23:23	
<b>e</b> 17	Decachlorobiphenyl			87.3%		40-124%									

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URS Corp.	Project Name:	Former Goodyear Facility	
920 N. Argonne Road Suite 300	Project Number:	36310005	Report Created:
Spokane, WA 99212	Project Manager:	Gary Panther	11/18/09 16:38

QC Batch: 9110056	Water	Preparatio	n Method:	EPA 3510/6	00 Series									
Analyte	Method	Result	MDL	* MRL	Units	Dil	Source Result	Spike Amt	REC	(Lîmits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110056-BLK1)								Ext	racted:	11/10/09 11	1:51			
1-Methylnapthalene	EPA 8270 mod.	ND		0.100	ug/l	İx							11/10/09 14:34	
2-Methylnaphthalene	n cat	NÐ		0,100		н							ж	
Acenaphthene	•	ND		0.100	٦	в							и	
Acenaphthylene	•	ND		0.100	w	b						•-	4	
Anthracene		ND		0.100									-	
Benzo (a) anthracene		ND		0.100	-	а							•	
Benzo (a) pyrene	•	ND		0.100		4							п	
Benzo (b) Ruoranthene	н	ND	•	0.100		u							•	
Benzo (ghi) perylene		ND	•	0.100	-					•-				
Benzo (k) fluoranthene		ND		0.100	-								м	
Chrysene		ND		0.100									n	
Dibenzo (a,h) anthracene	P	ND		0.100		v								
Fluoranthene		ND		0,100	11	Ŧ				-			•	
Fluorene	-	ND		0.100	•								n <sup>-</sup> ,	
Indeno (1,2,3-cd) pyrene	-	ND		0.100	•							-	n	
Naphihalene	•	ND		0.100	•								•	
Phenanibrene	•	ND		0,100							-		•	
Pyrene	•	ND		0.100								••		
Surrogate(s): Nitrobenzene-d5		Recovery:	102%	Lin	 iiis: 30-150%	P						-	11/10/09 14:34	
2-FBP			99.4%		21-122%	· #							л ·	
p-Terphenyl-d14			136%		35-150%	"					•		"	
LCS (9110056-BS1)								Ext	racted:	11/10/09 11	:51			
Chrysene	EPA 8270 mod.	4.37		0.100	ug/l	1x		5.00	87.4%	(40-120)		••	11/10/09 14:59	
Fluorene	-	3.76		0,100	-	π		•	75.1%	•			*	
Indeno (1,2,3-cd) pyrene	R	3.54		0,100	-	•		•	70.9%	•			-	
Naphthalene	•	2.86		0.100	•	в	-	н	57.3%	(40-130)			-	

35-150% "

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p-Terphenyl-d14

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URS Corp.	Project Name:	Former Goodyear Facility	
920 N. Argonne Road Suite 300	Project Number;	36310005	Report Created:
Spokane, WA 99212	Project Manager:	Gary Panther	11/18/09 16:38

QC Batch: 9110056	Water	Preparation	n Method:	EPA 3510/6	00 Series									
Analyte	Method	Result	MDL	* MRL	Units	Dil	Source Result	Spike Amt	™ REC	(Limits)	% RPD	(Limits)	) Analyzed	Notes
LCS Dup (9110056-BSD1)								Extr	acted:	11/10/09 11	1:51			
Chrysene	EPA 8270 mod.	4.18	•	0.100	ug/t	Ix		5.00	83.7%	(40-120)	4.32%	(30)	11/10/09 15:24	
Fluorene	•	4.46		0.100	-	•			89.2%	•	17.2%		-	
Indeno (1,2,3-cd) pyrene		2.54		0.100	•	•		•	50.9%	•	32.8%	. •	n.	F
Naphthalene	и	3.57		0.100	•	×		Pr	71.4%	(40-130)	21.9%	. •	μ	
Surrogate(s): Nitrobensene-d5		Recovery:	87.7%	Lin	nils: 30-150%	"							11-10 09 15:24	
2- <i>FBP</i>			106%		21-122%								"	
p-Terphenyl-d14			<b>99.3%</b>		35-150%								"	

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URS Corp.	Project Name:	Former Goodyear Facility	
920 N. Argonne Road Suite 300	Project Number:	36310005	Report Created:
Spokane, WA 99212	Project Manager:	Gary Panther	11/18/09 16:38

## Notes and Definitions

Report Specific Notes:

- R The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
- Z2 Surrogate recovery was above the acceptance limits. Data not impacted.

#### Laboratory Reporting Conventions:

- DET Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA \_ Not Reported / Not Available
- dry Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Spokane

Card Randee Decker, Project Manager

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ell, WA 98011-8244 425-420-9200 FAX 420-9210 [	509-924-9200 503-906-9200 907-563-9200	Work Order #: 570037	TURNAROUND REQUEST In Bustness Days *	Organic & Inorganic Analyses	Petroleum Hydirocarbon Analyses		* Turnarunad Requests less than standard may incur Rush Charves.	MATRIX # OF LOCATION TA (W, S, O) CONT. COMMENTS WO ID	Ý	-		V V				FROMP & AMAGNICA TIME 11 -		TEMP:	COC PAGE OF	
1.1720 North Creek Pkwy N Suite 400, Bothell, WA, 98011-8244	11922 E. First Ave, Spokame, WA 99206-5302 9405 SW Nimbus Ave, Beaverton, OR 97008-7145 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119	CHAIN OF CUSTODY REPORT	INVOICE TO: LORY	to insigned. P: He uns comp. com	P.O. NUMBER:	REQUESTED ANALYSES										DATE 1[- 7.0] RECEIVED EX 16-7.0 TAME 1[6-7.0] PRUNT WARE 7	DATE: RECEIVED 81: C			
TestAmerica	THE LEADER IN ENVIRONMENTAL TESTING		REPORT TO: LARY PANTHEN		PROJECT NAME: C. M. M. M. M. M. M. M. M. M. M. M. M. M.			CLERYT SAMPLE SAMPLING DENTIFICATION DATE/TIME	1 1 ' 00-21 60-51 1-1-1-MM	2 WW-7-1- 1:00	3 MW 3	I I I I Anc.		8		RELATIONS CAR D. PANDA MAN MAN. U.S.		ADDITIONLI REMARKS		

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<u>Test America Coo</u>	ler Receip	ot Form			•
WORK ORDER # $SK037$ client:	UPS	PROJEC	Fermer Gro	dyear	 
Date /Time Cooler Arrived 4 15 109 16 20	) Cooler signed		unser		
Preliminary Examination Phase:		(Print name)	l · · .		•
Date cooler opened: same as date received or	/ <u> </u>			•	
Cooler opened by (print) Ctores	(sign)	- CH-	- :*		
1. Delivered by <u>ALASKA AIRLINES</u> <u>Fed-Ex</u> <u>UPS</u> Shipment Tracking # if applicable		NDEN <u>LETIEN</u> of shipping papers in fi	-		-
2. Number of Custody Seals Signed by		Date//_	<b></b>		
Were custody seals unbroken and intact on arrival?	Yes	No			•
3. Were custody papers sealed in a plastic bag?	Yes	No			
4. Were custody papers filled out properly (ink, signed, etc.)?	Yes	No		- . ·	
5. Did you sign the custody papers in the appropriate place?	Yes	No	$\cap$		
6. Was ice used? ☐ Yes ☐ No Type of ice: ☐ <u>blue ice</u> ☐ <u>s</u> Temperature by IR Gun <u>5.8</u> °C Thermome Acceptance Criteria: 0 - 6°C	<u>gel ice direal ice</u> ter Serial # 81500	<u>dry ice</u> Conditi	on of Ice <u>frozen</u>	<u>.</u>	
7. Packing in Cooler: Dubble wrap Styrofoam Cardboard	I Other:		·	<u>.</u>	
8. Did samples arrive in plastic bags?	Yes	No			
9. Did all bottles arrive unbroken, and with labels in good condit	ion? Yes	🗌 No			
10. Are all bottle labels complete (ID, date, time, etc.)	Pes	🗌 No	-	<b>.</b> .	
11. Do bottle labels and Chain of Custody agree?	-TYes	<b>□</b> No			•
12. Are the containers and preservatives correct for the tests indi	cated? Ves	🗌 No			
13. Is there adequate volume for the tests requested?	Yes	No		. <b>.</b>	
14. Were VOA vials free of bubbles? N/A If "No" which containers contained "head space" or bul	Dibles?	∏ No	······································		
Log-in Phase: Date of sample log-in <u>11 / 5 / 09</u> Samples logged in by (print) <u>Columpon</u>	(sign)	2H	<u>}</u>		
1. Was project identifiable from custody papers?	Yes	No	<b>/</b>		
2. Do Turn Around Times and Due Dates agree?	Yes	No	. •		Ì
3. Was the Project Manager notified of status?	Tes	No	· .	. • •	
4. Was the Lab notified of status?	√ ☐ <sup>3</sup> Yes	No			
5. Was the COC scanned and copied?	<b>U</b> Yes	N₀		-	

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