DEQ RESIDENTIAL WELL SAMPLING DATA

(Please see attached CD)

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
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Report Prepared for:

Moriah Bucy
Montana Dept. Of Env. Quality
1100 North Last Chance Gulch
PO Box 200901
Helena MT 59620

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 1074124
Sample Receipt Date: 05/29/2008
Client Project #: KRY Site
Client Sub PO #: N/A
State Cert #: N/A

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Scott Unze, your Pace Project Manager.

This report has been reviewed and prepared by:

Scott Unze, Project Manager
(612) 607-6383
(612) 607-6444 (fax)
scott.unze@pacelabs.com

ACCREDITED IN ACCORDANCE WITH nelac

Report Prepared Date:

June 19, 2008

Report of Laboratory Analysis

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The results relate only to the samples included in this report.

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DISCUSSION

This report presents the results from the analyses performed on four samples submitted by a representative of the Montana DEQ. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. Reporting limits were based on signal-to-noise measurements.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 64-115%. All of the labeled standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

In some cases, interfering substances impacted the determinations of PCDD or PCDF congeners. The affected values were flagged "I" where incorrect isotope ratios were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to contain trace levels of selected congeners. These were below the calibration range of the method. Sample levels similar to the corresponding blank levels were flagged "B" on the results tables and may be, at least partially, attributed to the background. It should be noted that levels less than ten times the background are not generally considered to be statistically different from the background.

A laboratory spike sample was also prepared with the sample batch using clean water that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 95-113%, indicating a high degree of accuracy for these determinations. Matrix spikes were prepared with the sample batch using sample material from a separate project; results from these analyses will be provided upon request.

The responses obtained for four labeled compounds in calibration standard analysis P80611B_18 were outside the target range. As specified in the method, the averages of the daily response factors for these compounds were used in the calculations for the samples from this runshift. The affected values were flagged "Y" on the results tables. It should be noted that the accuracy of the native congener determinations was not impacted by these deviations.

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Appendix A

Sample Management

1074124 1134

FROM: MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY CECRA PROGRAM ~~2209 PHOENIX AVENUE~~ 1100 N. Last Chance Gulch HELENA, MT 59620 841-5000 P.O. Box 200901 TELEPHONE: (406) ~~444-1420~~	CONTRACT #:	TO: Pace Analytical (877)-722-3832 1700 Elm St., Suite Minneapolis, MN 55414

SEND BILL, COOLER, CHAIN OF CUSTODY FORM AND RESULTS TO: Moriah Bucy (mbucy@mt.gov) (406-841-5064) AT THE ABOVE ADDRESS

PROJECT NAME AND SITE LOCATION: KRY Site Residential Sampling SAMPLER (SIGNATURE): Moriah Bucy

	DATE	TIME	SAMPLE NUMBER AND ID	FILT Y/N	PRES.	# OF CONTAINERS	MATRIX	ANALYSES REQUESTED (SPECIFY METHOD #)	
1	5/27/08	1445	RW-1-0508	N	N/A	2	GW	EPA Method 8290 (Dioxin/Furans)	001
~~2~~	~~5/27/08~~		~~RW-7-0508~~	~~N~~	~~N/A~~	~~2~~	~~GW~~		
3	5/27/08	1330	RW-10-0508	N	N/A	2	GW		002
4	5/27/08	1405	RW-12-0508	N	N/A	2	GW		003
5	5/27/08	1510	RW-13-0508	N	N/A	2	GW		004

COMMENTS:

Relinquished by (signature) Moriah Bucy	5/28/08 Date/ 9:30 Time	Received by (signature)	Name of Receiving Laboratory Pace	5/28/08	9:28 am
Relinquished by (signature)	Date/ Time	Received by (signature)	Received for Lab. by (signature)		Temp = 3.9°C
			Seal Number		

Laboratory Copy = White
Sampler Copy = Yellow
CECRA File Copy = Pink

Sample Condition Upon Receipt

Pace Analytical

Client Name: Montana Department of Environmental Quality

Project # 1074124

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 791907567018

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 230194010, 72310129 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.9°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5 29 08

Comments:

Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☒Yes	☒No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☐Yes	☒No	☐N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing preservation have been checked.	☐Yes	☐No	☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☒No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	15.
Trip Blank Present:	☐Yes	☐No	☒N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: 05/29/08

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-1-0508		
Lab Sample ID	1074124001		
Filename	P80611A_10		
Injected By	AE		
Total Amount Extracted	958 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	05/27/2008
ICAL ID	P80601	Received	05/29/2008
CCal Filename(s)	P80611A_02 & P80611A_16	Extracted	06/10/2008
Method Blank ID	BLANK-16594	Analyzed	06/11/2008 18:27

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.57	—	0.53	J	2,3,7,8-TCDF-13C	2.00	72
Total TCDF	1.30	—	0.53	J	2,3,7,8-TCDD-13C	2.00	81
					1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	—	0.52		2,3,4,7,8-PeCDF-13C	2.00	90
Total TCDD	ND	—	0.52		1,2,3,7,8-PeCDD-13C	2.00	103
					1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	—	0.61		1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	—	0.47		2,3,4,6,7,8-HxCDF-13C	2.00	84
Total PeCDF	ND	—	0.54		1,2,3,7,8,9-HxCDF-13C	2.00	85
					1,2,3,4,7,8-HxCDD-13C	2.00	85
1,2,3,7,8-PeCDD	ND	—	0.40		1,2,3,6,7,8-HxCDD-13C	2.00	89
Total PeCDD	ND	—	0.40		1,2,3,4,6,7,8-HpCDF-13C	2.00	90
					1,2,3,4,7,8,9-HpCDF-13C	2.00	82
1,2,3,4,7,8-HxCDF	—	0.58	0.34	I	1,2,3,4,6,7,8-HpCDD-13C	2.00	103
1,2,3,6,7,8-HxCDF	ND	—	0.34		OCDD-13C	4.00	87
2,3,4,6,7,8-HxCDF	—	0.34	0.31	I			
1,2,3,7,8,9-HxCDF	—	0.35	0.30	I	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.39	—	0.33	BJ	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	0.43		2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	0.55	—	0.27	BJ			
1,2,3,7,8,9-HxCDD	—	0.46	0.42	I			
Total HxCDD	0.55	—	0.37	BJ			
1,2,3,4,6,7,8-HpCDF	ND	—	0.40		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	0.65		Equivalence: 0.13 pg/L		
Total HpCDF	ND	—	0.53		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1.30	—	0.35	BJ			
Total HpCDD	1.30	—	0.35	BJ			
OCDF	—	1.00	0.46	I			
OCDD	5.40	—	0.77	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
I = Interference present

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-10-0508		
Lab Sample ID	1074124002		
Filename	P80611A_11		
Injected By	AE		
Total Amount Extracted	964 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	05/27/2008
ICAL ID	P80601	Received	05/29/2008
CCal Filename(s)	P80611A_02 & P80611A_16	Extracted	06/10/2008
Method Blank ID	BLANK-16594	Analyzed	06/11/2008 19:15

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	0.86		2,3,7,8-TCDF-13C	2.00	64
Total TCDF	2.10	—	0.86	J	2,3,7,8-TCDD-13C	2.00	73
					1,2,3,7,8-PeCDF-13C	2.00	81
2,3,7,8-TCDD	ND	—	0.89		2,3,4,7,8-PeCDF-13C	2.00	88
Total TCDD	ND	—	0.89		1,2,3,7,8-PeCDD-13C	2.00	101
					1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	—	0.67		1,2,3,6,7,8-HxCDF-13C	2.00	78
2,3,4,7,8-PeCDF	ND	—	0.49		2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF	ND	—	0.58		1,2,3,7,8,9-HxCDF-13C	2.00	79
					1,2,3,4,7,8-HxCDD-13C	2.00	78
1,2,3,7,8-PeCDD	ND	—	0.56		1,2,3,6,7,8-HxCDD-13C	2.00	86
Total PeCDD	ND	—	0.56		1,2,3,4,6,7,8-HpCDF-13C	2.00	83
					1,2,3,4,7,8,9-HpCDF-13C	2.00	78
1,2,3,4,7,8-HxCDF	ND	—	0.43		1,2,3,4,6,7,8-HpCDD-13C	2.00	100
1,2,3,6,7,8-HxCDF	ND	—	0.46		OCDD-13C	4.00	80
2,3,4,6,7,8-HxCDF	—	0.44	0.36	I			
1,2,3,7,8,9-HxCDF	ND	—	0.52		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	0.44		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.59	—	0.47	BJ	2,3,7,8-TCDD-37Cl4	0.20	81
1,2,3,6,7,8-HxCDD	0.72	—	0.46	BJ			
1,2,3,7,8,9-HxCDD	—	0.53	0.48	I			
Total HxCDD	2.90	—	0.47	BJ			
1,2,3,4,6,7,8-HpCDF	—	0.89	0.53	I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	0.52		Equivalence: 0.20 pg/L		
Total HpCDF	1.40	—	0.53	J	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	3.90	—	0.39	BJ			
Total HpCDD	7.40	—	0.39	BJ			
OCDF	2.10	—	0.94	BJ			
OCDD	27.00	—	1.10	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
I = Interference present

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-12-0508			
Lab Sample ID	1074124003			
Filename	P80611A_12			
Injected By	AE			
Total Amount Extracted	966 mL	Matrix	Water	
% Moisture	NA	Dilution	NA	
Dry Weight Extracted	NA	Collected	05/27/2008	
ICAL ID	P80601	Received	05/29/2008	
CCal Filename(s)	P80611A_02 & P80611A_16	Extracted	06/10/2008	
Method Blank ID	BLANK-16594	Analyzed	06/11/2008	20:02

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	0.62		2,3,7,8-TCDF-13C	2.00	91
Total TCDF	ND	—	0.62		2,3,7,8-TCDD-13C	2.00	99
					1,2,3,7,8-PeCDF-13C	2.00	95
2,3,7,8-TCDD	ND	—	0.53		2,3,4,7,8-PeCDF-13C	2.00	101
Total TCDD	ND	—	0.53		1,2,3,7,8-PeCDD-13C	2.00	113
					1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	ND	—	0.50		1,2,3,6,7,8-HxCDF-13C	2.00	91
2,3,4,7,8-PeCDF	ND	—	0.46		2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	—	0.48		1,2,3,7,8,9-HxCDF-13C	2.00	92
					1,2,3,4,7,8-HxCDD-13C	2.00	91
1,2,3,7,8-PeCDD	ND	—	0.43		1,2,3,6,7,8-HxCDD-13C	2.00	96
Total PeCDD	ND	—	0.43		1,2,3,4,6,7,8-HpCDF-13C	2.00	96
					1,2,3,4,7,8,9-HpCDF-13C	2.00	91
1,2,3,4,7,8-HxCDF	0.63	—	0.35	BJ	1,2,3,4,6,7,8-HpCDD-13C	2.00	115
1,2,3,6,7,8-HxCDF	ND	—	0.34		OCDD-13C	4.00	95
2,3,4,6,7,8-HxCDF	ND	—	0.37				
1,2,3,7,8,9-HxCDF	ND	—	0.46		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.63	—	0.38	BJ	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	0.34		2,3,7,8-TCDD-37Cl4	0.20	95
1,2,3,6,7,8-HxCDD	0.45	—	0.32	BJ			
1,2,3,7,8,9-HxCDD	0.37	—	0.31	J			
Total HxCDD	2.40	—	0.32	BJ			
1,2,3,4,6,7,8-HpCDF	ND	—	0.41		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	0.60		Equivalence: 0.15 pg/L		
Total HpCDF	ND	—	0.51		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	—	1.2	0.20	I			
Total HpCDD	ND	—	0.20				
OCDF	—	1.2	0.55	I			
OCDD	5.70	—	0.81	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
I = Interference present

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-13-0508		
Lab Sample ID	1074124004		
Filename	P80611A_13		
Injected By	AE		
Total Amount Extracted	945 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	05/27/2008
ICAL ID	P80601	Received	05/29/2008
CCal Filename(s)	P80611A_02 & P80611A_16	Extracted	06/10/2008
Method Blank ID	BLANK-16594	Analyzed	06/11/2008 20:50

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	0.63		2,3,7,8-TCDF-13C	2.00	67
Total TCDF	ND	—	0.63		2,3,7,8-TCDD-13C	2.00	76
					1,2,3,7,8-PeCDF-13C	2.00	84
2,3,7,8-TCDD	ND	—	0.39		2,3,4,7,8-PeCDF-13C	2.00	91
Total TCDD	ND	—	0.39		1,2,3,7,8-PeCDD-13C	2.00	104
					1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	—	0.46		1,2,3,6,7,8-HxCDF-13C	2.00	84
2,3,4,7,8-PeCDF	—	0.51	0.27	I	2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	—	0.36		1,2,3,7,8,9-HxCDF-13C	2.00	88
					1,2,3,4,7,8-HxCDD-13C	2.00	87
1,2,3,7,8-PeCDD	—	0.39	0.34	I	1,2,3,6,7,8-HxCDD-13C	2.00	90
Total PeCDD	ND	—	0.34		1,2,3,4,6,7,8-HpCDF-13C	2.00	91
					1,2,3,4,7,8,9-HpCDF-13C	2.00	86
1,2,3,4,7,8-HxCDF	—	0.57	0.37	I	1,2,3,4,6,7,8-HpCDD-13C	2.00	108
1,2,3,6,7,8-HxCDF	0.61	—	0.36	BJ	OCDD-13C	4.00	92
2,3,4,6,7,8-HxCDF	0.53	—	0.37	J			
1,2,3,7,8,9-HxCDF	ND	—	0.34		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	1.10	—	0.36	BJ	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	—	0.41	0.26	I	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	—	0.62	0.29	I			
1,2,3,7,8,9-HxCDD	—	0.40	0.37	I			
Total HxCDD	0.70	—	0.31	BJ			
1,2,3,4,6,7,8-HpCDF	0.98	—	0.38	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	0.46		Equivalence: 0.15 pg/L		
Total HpCDF	0.98	—	0.42	J	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	—	2.70	0.31	I			
Total HpCDD	2.80	—	0.31	BJ			
OCDF	2.50	—	0.59	BJ			
OCDD	20.00	—	0.52	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
I = Interference present

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Blank Analysis Results

Lab Sample ID	BLANK-16594	Matrix	Water
Filename	P80611A_06	Dilution	NA
Total Amount Extracted	993 mL	Extracted	06/10/2008
ICAL ID	P80601	Analyzed	06/11/2008 15:15
CCal Filename(s)	P80611A_02 & P80611A_16	Injected By	AE

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	0.56		2,3,7,8-TCDF-13C	2.00	89
Total TCDF	ND	—	0.56		2,3,7,8-TCDD-13C	2.00	96
					1,2,3,7,8-PeCDF-13C	2.00	98
2,3,7,8-TCDD	ND	—	0.39		2,3,4,7,8-PeCDF-13C	2.00	106
Total TCDD	ND	—	0.39		1,2,3,7,8-PeCDD-13C	2.00	116
					1,2,3,4,7,8-HxCDF-13C	2.00	91
1,2,3,7,8-PeCDF	0.62	—	0.58	J	1,2,3,6,7,8-HxCDF-13C	2.00	93
2,3,4,7,8-PeCDF	—	0.64	0.37	I	2,3,4,6,7,8-HxCDF-13C	2.00	93
Total PeCDF	0.62	—	0.47	J	1,2,3,7,8,9-HxCDF-13C	2.00	96
					1,2,3,4,7,8-HxCDD-13C	2.00	96
1,2,3,7,8-PeCDD	0.59	—	0.35	J	1,2,3,6,7,8-HxCDD-13C	2.00	98
Total PeCDD	0.59	—	0.35	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	100
					1,2,3,4,7,8,9-HpCDF-13C	2.00	93
1,2,3,4,7,8-HxCDF	0.83	—	0.25	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	118
1,2,3,6,7,8-HxCDF	0.65	—	0.26	J	OCDD-13C	4.00	100
2,3,4,6,7,8-HxCDF	—	0.48	0.28	I			
1,2,3,7,8,9-HxCDF	0.52	—	0.36	J	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	2.30	—	0.29	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.70	—	0.31	J	2,3,7,8-TCDD-37Cl4	0.20	102
1,2,3,6,7,8-HxCDD	0.46	—	0.36	J			
1,2,3,7,8,9-HxCDD	—	0.61	0.28	I			
Total HxCDD	2.20	—	0.32	J			
1,2,3,4,6,7,8-HpCDF	ND	—	0.61		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	0.83		Equivalence: 0.67 pg/L		
Total HpCDF	ND	—	0.72		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1.60	—	0.25	J			
Total HpCDD	1.60	—	0.25	J			
OCDF	1.50	—	0.59	J			
OCDD	6.80	—	0.75	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

J = Value below calibration range
I = Interference present

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-16595		
Filename	P80611B_01	Matrix	Water
Total Amount Extracted	974 mL	Dilution	NA
ICAL ID	P80601	Extracted	06/10/2008
CCal Filename(s)	P80611A_16 & P80611B_18	Analyzed	06/12/2008 00:00
Method Blank ID	BLANK-16594	Injected By	AE

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	0.20	0.20	100	2,3,7,8-TCDF-13C	2.00	78	
Total TCDF				2,3,7,8-TCDD-13C	2.00	85	
				1,2,3,7,8-PeCDF-13C	2.00	89	
2,3,7,8-TCDD	0.20	0.20	98	2,3,4,7,8-PeCDF-13C	2.00	95	
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	106	
				1,2,3,4,7,8-HxCDF-13C	2.00	88	
1,2,3,7,8-PeCDF	1.00	1.09	109	1,2,3,6,7,8-HxCDF-13C	2.00	72	Y
2,3,4,7,8-PeCDF	1.00	1.05	105	2,3,4,6,7,8-HxCDF-13C	2.00	88	
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	86	
				1,2,3,4,7,8-HxCDD-13C	2.00	88	
1,2,3,7,8-PeCDD	1.00	0.97	97	1,2,3,6,7,8-HxCDD-13C	2.00	78	Y
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	86	
				1,2,3,4,7,8,9-HpCDF-13C	2.00	109	Y
1,2,3,4,7,8-HxCDF	1.00	1.07	107	1,2,3,4,6,7,8-HpCDD-13C	2.00	96	
1,2,3,6,7,8-HxCDF	1.00	1.11	111	OCDD-13C	4.00	104	Y
2,3,4,6,7,8-HxCDF	1.00	1.11	111				
1,2,3,7,8,9-HxCDF	1.00	1.07	107	1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	1.00	1.08	108	2,3,7,8-TCDD-37Cl4	0.20	85	
1,2,3,6,7,8-HxCDD	1.00	1.04	104				
1,2,3,7,8,9-HxCDD	1.00	1.06	106				
Total HxCDD							
1,2,3,4,6,7,8-HpCDF	1.00	1.04	104				
1,2,3,4,7,8,9-HpCDF	1.00	1.13	113				
Total HpCDF							
1,2,3,4,6,7,8-HpCDD	1.00	0.95	95				
Total HpCDD							
OCDF	2.00	2.22	111				
OCDD	2.00	2.17	108				

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL SUMMARY REPORT

June 14, 2008

MT DEQ
PO Box 200901
Helena, MT 59620

Workorder No.: H08050447

Project Name: KRY Site Residential Wells

Energy Laboratories Inc received the following 4 samples from MT DEQ on 5/28/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H08050447-001	RW-1-0508	05/27/08 14:45	05/28/08	Aqueous	EPH-Sep Funnel Extraction Hydrocarbons, Extractable Petroleum Screen 8151-Herbicides, Chlorinated Seperatory Funnel Liquid Liquid Ext.
H08050447-002	RW-10-0508	05/27/08 13:30	05/28/08	Aqueous	Same As Above
H08050447-003	RW-12-0508	05/27/08 14:05	05/28/08	Aqueous	Same As Above
H08050447-004	RW-13-0508	05/27/08 15:10	05/28/08	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: Janette Hayes

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CASE NARRATIVE

NONE

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Site Residential Wells
Lab ID: H08050447-001
Client Sample ID: RW-1-0508

Report Date: 06/14/08
Collection Date: 05/27/08 14:45
DateReceived: 05/28/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	ug/L		315	500	SW8015M	05/30/08 22:19 / kjw
Surr: o-Terphenyl	93.0	%REC		40-140		SW8015M	05/30/08 22:19 / kjw
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, CHLORINATED							
Pentachlorophenol	ND	ug/L		0.10		SW8151A	06/06/08 22:10 / eli-b
Surr: DCAA	73.0	%REC		57-125		SW8151A	06/06/08 22:10 / eli-b

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Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Site Residential Wells
Lab ID: H08050447-002
Client Sample ID: RW-10-0508

Report Date: 06/14/08
Collection Date: 05/27/08 13:30
DateReceived: 05/28/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	ug/L		342	500	SW8015M	05/30/08 23:10 / kjw
Surr: o-Terphenyl	87.0	%REC		40-140		SW8015M	05/30/08 23:10 / kjw
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, CHLORINATED							
Pentachlorophenol	ND	ug/L		0.10		SW8151A	06/06/08 22:42 / eli-b
Surr: DCAA	78.0	%REC		57-125		SW8151A	06/06/08 22:42 / eli-b

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Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Site Residential Wells
Lab ID: H08050447-003
Client Sample ID: RW-12-0508

Report Date: 06/14/08
Collection Date: 05/27/08 14:05
DateReceived: 05/28/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	ug/L		307	500	SW8015M	05/31/08 00:02 / kjw
Surr: o-Terphenyl	94.0	%REC		40-140		SW8015M	05/31/08 00:02 / kjw
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, CHLORINATED							
Pentachlorophenol	ND	ug/L		0.10		SW8151A	06/06/08 23:14 / eli-b
Surr: DCAA	76.0	%REC		57-125		SW8151A	06/06/08 23:14 / eli-b

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Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Site Residential Wells
Lab ID: H08050447-004
Client Sample ID: RW-13-0508

Report Date: 06/14/08
Collection Date: 05/27/08 15:10
DateReceived: 05/28/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	ug/L		305	500	SW8015M	05/31/08 00:53 / kjw
Surr: o-Terphenyl	88.0	%REC		40-140		SW8015M	05/31/08 00:53 / kjw
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, CHLORINATED							
Pentachlorophenol	ND	ug/L		0.10		SW8151A	06/06/08 23:47 / eli-b
Surr: DCAA	69.0	%REC		57-125		SW8151A	06/06/08 23:47 / eli-b

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Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Site Residential Wells

Report Date: 06/14/08
Work Order: H08050447

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M									Batch: 4671
Sample ID: MB-4671	Method Blank				Run: HHP_080527A				05/27/08 15:33
Total Extractable Hydrocarbons	ND	ug/L	300						
Surr: o-Terphenyl			10	84	40	140			
Sample ID: LCS-4671	Laboratory Control Sample				Run: HHP_080527A				05/27/08 16:25
Total Extractable Hydrocarbons	6260	ug/L	300	101	60	140			
Surr: o-Terphenyl			10	87	40	140			
Sample ID: H08050420-002AMS	Sample Matrix Spike				Run: HHP_080530A				05/30/08 17:57
Total Extractable Hydrocarbons	16300	ug/L	760	104	60	140			
Surr: o-Terphenyl			25	87	40	140			
Sample ID: H08050420-002AMSD	Sample Matrix Spike Duplicate				Run: HHP_080530A				05/30/08 18:49
Total Extractable Hydrocarbons	16200	ug/L	760	104	60	140	0.8	20	
Surr: o-Terphenyl			25	88	40	140			
Method: SW8015M									Analytical Run: HHP_080530A
Sample ID: CCV_0530GC101r-W	Continuing Calibration Verification Standard								05/30/08 17:05
n-Nonane	0.209	ug/L	0.0050	105	75	125			
n-Decane	0.214	ug/L	0.0050	107	75	125			
n-Dodecane	0.201	ug/L	0.0050	101	75	125			
n-Tetradecane	0.196	ug/L	0.0050	98	75	125			
n-Hexadecane	0.205	ug/L	0.0050	103	75	125			
n-Octadecane	0.204	ug/L	0.0050	102	75	125			
n-Nonadecane	0.205	ug/L	0.0050	103	75	125			
n-Eicosane	0.206	ug/L	0.0050	103	75	125			
n-Docosane	0.204	ug/L	0.0050	102	75	125			
n-Tetracosane	0.206	ug/L	0.0050	103	75	125			
n-Hexacosane	0.207	ug/L	0.0050	103	75	125			
n-Octacosane	0.206	ug/L	0.0050	103	75	125			
n-Triacontane	0.196	ug/L	0.0050	98	75	125			
n-Hexatriacontane	0.198	ug/L	0.0050	99	75	125			
Surr: o-Terphenyl			0.0050	115	75	125			

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Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Site Residential Wells

Report Date: 06/14/08
Work Order: H08050447

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8151A									Batch: B_32758P
Sample ID: MB-32758	Method Blank				Run: SUB-B112045				06/06/08 15:36
Pentachlorophenol	ND	ug/L	0.10						
Surr: DCAA			0.10	71	57	125			
Sample ID: LCS-32758	Laboratory Control Sample				Run: SUB-B112045				06/06/08 16:09
Pentachlorophenol	3.29	ug/L	0.10	66	61	122			
Surr: DCAA			0.10	25	57	125			S
Surrogate is outside quality control limits due to a possible syringe error.									
Sample ID: B08052615-007CMS	Sample Matrix Spike				Run: SUB-B112045				06/06/08 19:27
Pentachlorophenol	1.09	ug/L	0.10	22	55	130			S
Surr: DCAA			0.10	89	57	125			
Sample ID: B08052615-007CMSD	Sample Matrix Spike Duplicate				Run: SUB-B112045				06/06/08 19:59
Pentachlorophenol	1.37	ug/L	0.10	27	55	130	23	40	S
Surr: DCAA			0.10	57	57	125			

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Qualifiers:

RL - Analyte reporting limit.
S - Spike recovery outside of advisory limits.
ND - Not detected at the reporting limit.

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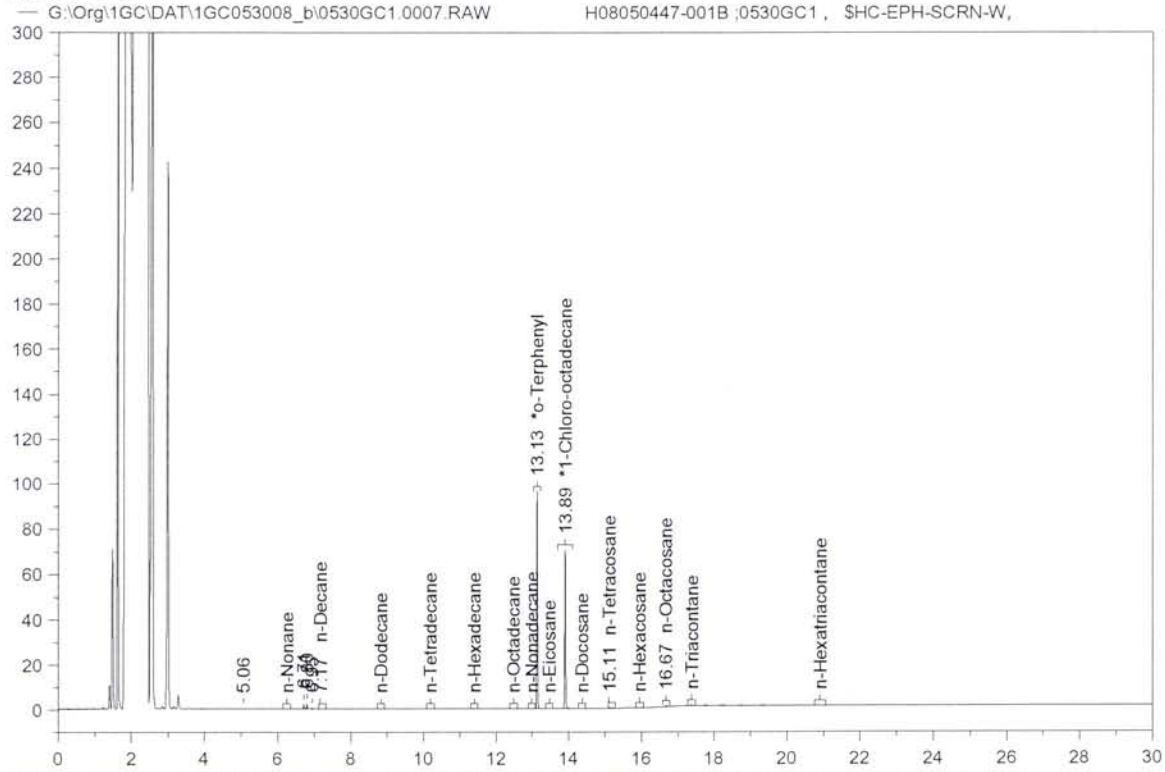
RW-1-0508



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H08050447-001B ;0530GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC053008_b\0530GC1.0007.RAW
Date & Time Acquired: 5/30/2008 10:19:01 PM
Method File: G:\Org\1GC\Methods\2008Methods\SR052208.met
Calibration File: G:\Org\1GC\Cals\2008CALS\SC052208.CAL
Sample Weight: 0.951 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1257.99
Mean RF for C19 to C36 Hydrocarbons: 1193.671
Mean RF for Total Extractable Hydrocarbons: 1225.831
Rt range for Diesel Range Organics: 7.13 to 17.48
Rt range for C9 to C18 Hydrocarbons: 6.15 to 12.88
Rt range for C19 to C36 Hydrocarbons: 13.08 to 21.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.126	210.305	195.632	93.02	-
*1-Chloro-octadecane	13.894	210.305	213.96	101.74	-

DRO Area:8730.133 DRO Amount: 14.97752
TEH Area:22793.2 TEH Amount: 39.10427
C9-C18 Area:12843.18 C9-C18 Amount: 21.47063
C19-C36 Area:6397.789 C19-C36 Amount: 11.27184

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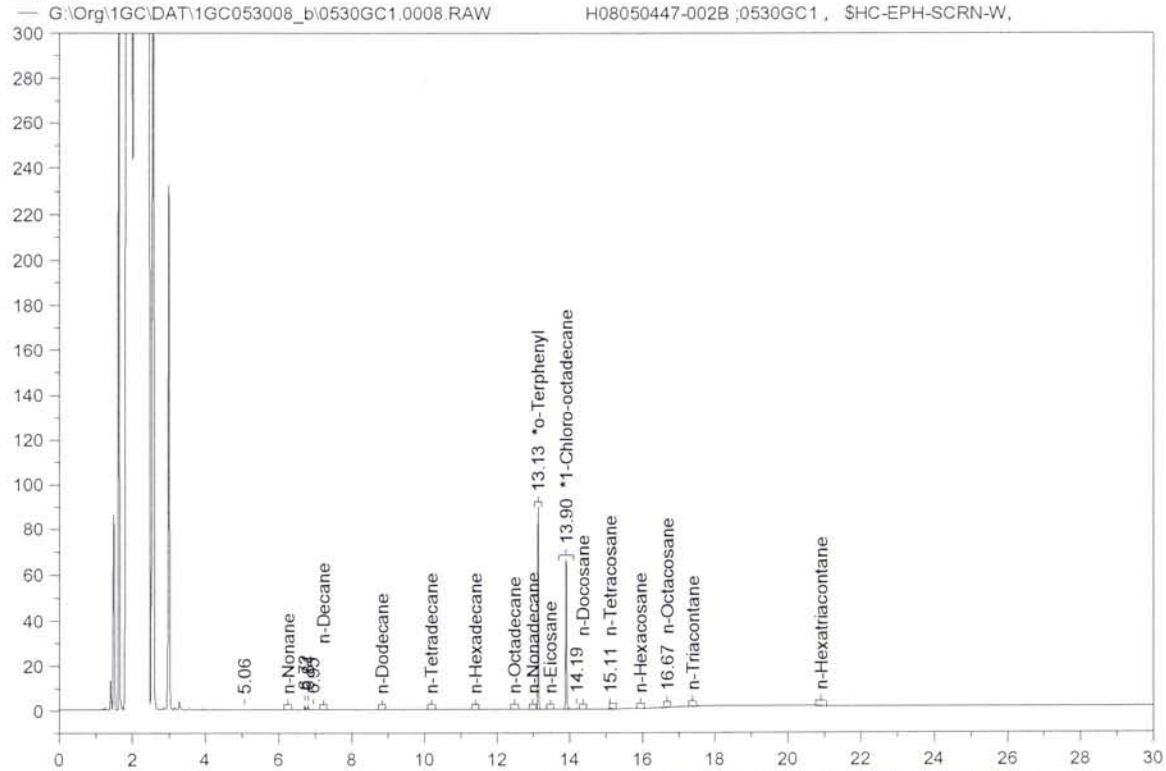
RW-10-0508



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H08050447-002B ;0530GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC053008_b\0530GC1.0008.RAW
Date & Time Acquired: 5/30/2008 11:10:40 PM
Method File: G:\Org\1GC\Methods\2008Methods\SR052208.met
Calibration File: G:\Org\1GC\Cals\2008CALS\SC052208.CAL
Sample Weight: 0.877 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1257.99
Mean RF for C19 to C36 Hydrocarbons: 1193.671
Mean RF for Total Extractable Hydrocarbons: 1225.831
Rt range for Diesel Range Organics: 7.13 to 17.48
Rt range for C9 to C18 Hydrocarbons: 6.15 to 12.88
Rt range for C19 to C36 Hydrocarbons: 13.08 to 21.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.128	228.05	198.728	87.14	-
*1-Chloro-octadecane	13.896	228.05	217.594	95.42	-

DRO Area:7709.742 DRO Amount: 14.34299
TEH Area:18637.37 TEH Amount: 34.67245
C9-C18 Area:9630.066 C9-C18 Amount: 17.45752
C19-C36 Area:6626.242 C19-C36 Amount: 12.6594

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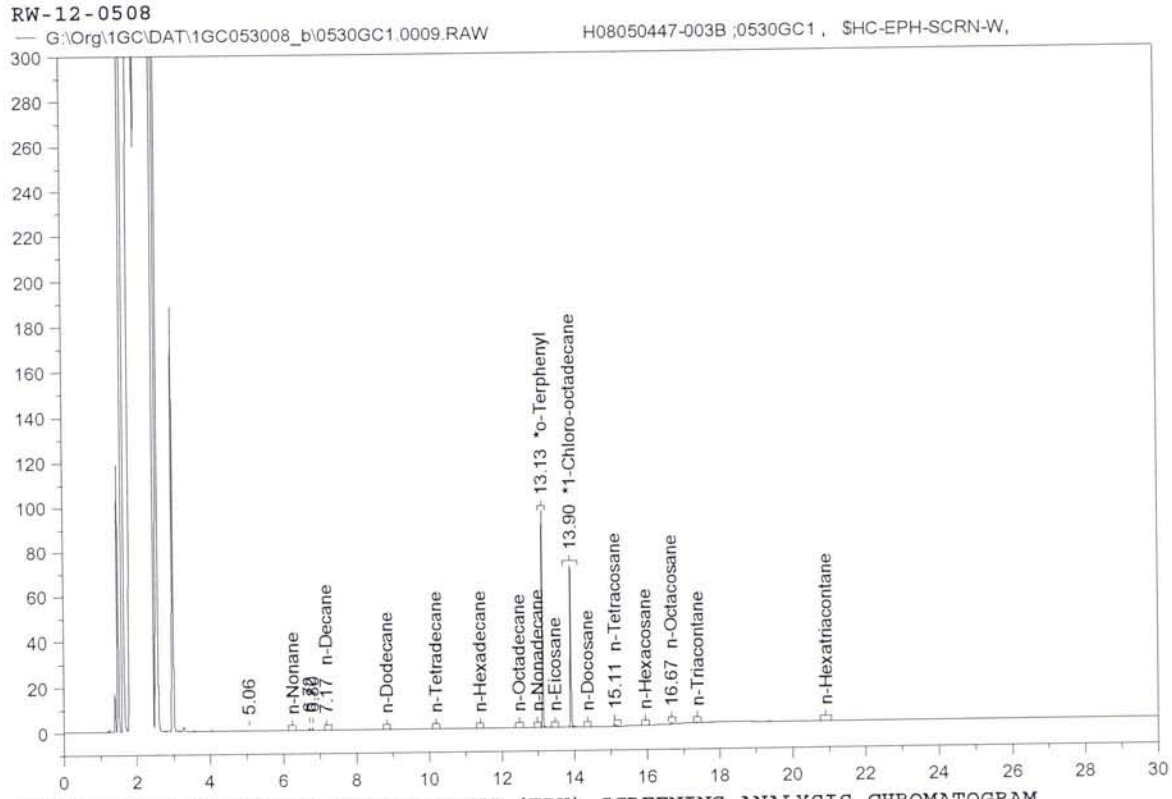
RW-12-0508



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H08050447-003B ;0530GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC053008_b\0530GC1.0009.RAW
Date & Time Acquired: 5/31/2008 12:02:04 AM
Method File: G:\Org\1GC\Methods\2008Methods\SR052208.met
Calibration File: G:\Org\1GC\Cals\2008CALS\SC052208.CAL
Sample Weight: 0.977 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1257.99
Mean RF for C19 to C36 Hydrocarbons: 1193.671
Mean RF for Total Extractable Hydrocarbons: 1225.831
Rt range for Diesel Range Organics: 7.13 to 17.48
Rt range for C9 to C18 Hydrocarbons: 6.15 to 12.88
Rt range for C19 to C36 Hydrocarbons: 13.08 to 21.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.127	204.708	191.808	93.7	-
*1-Chloro-octadecane	13.895	204.708	211.263	103.2	-

DRO Area:9853.57 DRO Amount: 16.45503
TEH Area:19054.41 TEH Amount: 31.82003
C9-C18 Area:8194.003 C9-C18 Amount: 13.33381
C19-C36 Area:7875.258 C19-C36 Amount: 13.50565

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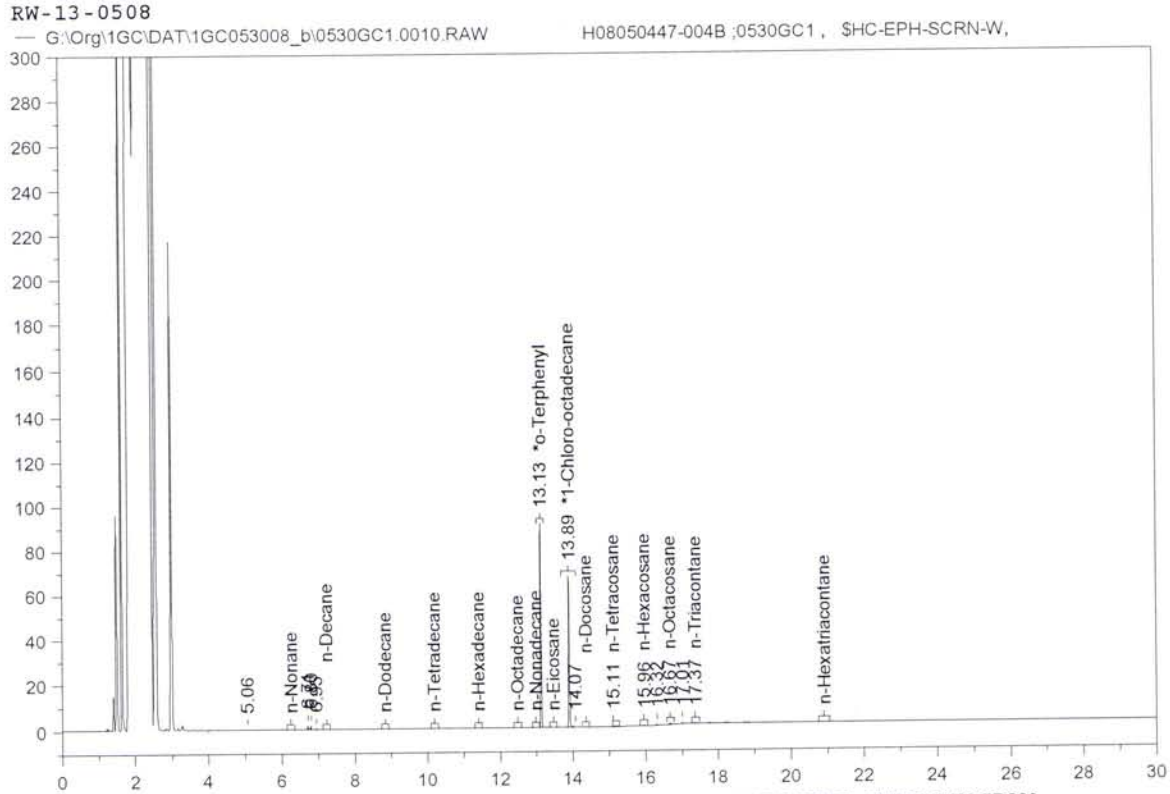
RW-13-0508



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H08050447-004B ;0530GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC053008_b\0530GC1.0010.RAW
Date & Time Acquired: 5/31/2008 12:53:18 AM
Method File: G:\Org\1GC\Methods\2008Methods\SR052208.met
Calibration File: G:\Org\1GC\Cals\2008CALS\SC052208.CAL
Sample Weight: 0.982 Dilution: 2 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1257.99
Mean RF for C19 to C36 Hydrocarbons: 1193.671
Mean RF for Total Extractable Hydrocarbons: 1225.831
Rt range for Diesel Range Organics: 7.13 to 17.48
Rt range for C9 to C18 Hydrocarbons: 6.15 to 12.88
Rt range for C19 to C36 Hydrocarbons: 13.08 to 21.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.126	203.666	180.158	88.46	-
*1-Chloro-octadecane	13.894	203.666	196.936	96.7	-

DRO Area:12939.55 DRO Amount: 21.49845
TEH Area:24837.52 TEH Amount: 41.26637
C9-C18 Area:10764.85 C9-C18 Amount: 17.42808
C19-C36 Area:11194.27 C19-C36 Amount: 19.09983

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Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
MT DEQ	KRY Site Residential Wells	State: MT	Yes ☐ No ☐
Report Mail Address:	**Contact Name:**	**Phone/Fax:**	**Email:**	**Sampler: (Please Print)**
P.O. Box 200901 Helena, MT 59620	Moriah Bucy	841-5064	mbucy@mt.gov	Moriah Bucy
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
same as above	Moriah Bucy 841-5064		

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	Method 8151 (PCP)	*MT Modified Meth. (EPA)							SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1 RW-1-0508	5/27/08	~~1330~~ 1445	3W	X	X								X		*if above 300ppb please fractionate w/ PAHs.
2 RW-10-0508	5/27/08	1330	3W	X	X								X		
3 RW-12-0508	5/27/08	1405	3W	X	X								X		
4 RW-13-0508	5/27/08	1510	3W	X	X								X		
5															
6															
7															
8															
9															
10															

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Shipped by: hand

Cooler ID(s):

Receipt Temp: 5.0 °C

On Ice: Yes No

Custody Seal Y N

Intact Y N

Signature Match Y N

LABORATORY USE ONLY: H0805044 -001, -002, -003, -004

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Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Moriah Bucy	5/28/08 10:46	Moriah Bucy			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory: Roxanne Davis	5.28.08 10:46	

Sample Disposal: Return to Client: _____ Lab Disposal: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

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Energy Laboratories Inc
Workorder Receipt Checklist

H08050447

MT DEQ

Login completed by: Wanda Johnson

Reviewed by: [illegible]

Reviewed Date: 6/2/08

Date and Time Received: 5/28/2008 10:46 AM

Received by: rlt

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	5.0°C On Ice
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

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DETERMINATION OF PCDD/PCDF LEVELS

Prepared for:
Montana DEQ
Attn: Moriah Bucy
PO Box 200901
Helena, MT 59620

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This report contains 15 pages.

The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Project: KRY Residential

Purchase Order Number: NA

REPORT OF LABORATORY ANALYSIS

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REPORT OF: CHEMICAL ANALYSES

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

PROJECT: PCDD/PCDF ANALYSES

DATE: August 13, 2007

ISSUED TO: Montana DEQ
Attn: Moriah Bucy
PO Box 200901
Helena, MT 59620

REPORT NO: 07-1055772

INTRODUCTION

This report presents the results from the analyses performed on four samples submitted by a representative of Montana DEQ. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290.

SAMPLE IDENTIFICATION

Client ID	Sample Type	Date Received	PACE ID
RW-1-0707	Water	07/24/07	1055772001
RW-7-0707	Water	07/24/07	1055772002
RW-12-0707	Water	07/24/07	1055772003
RW-13-0707	Water	07/24/07	1055772004

RESULTS

The results are included in the following:

Appendix A – Chain of Custody Documentation
Appendix B – PCDD/PCDF Analysis Results

REPORT OF LABORATORY ANALYSIS

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REPORT OF: CHEMICAL ANALYSES

PROJECT: PCDD/PCDF ANALYSES

DATE: August 13, 2007

REPORT NO: 07-1055772

DISCUSSION

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 43-99%. All of the labeled standard recoveries obtained for this project were within the 40-135% Method 8290 target range. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results, found at the beginning of Appendix B, show the blank to be free of PCDDs and PCDFs at the reporting limits, with the exception of a trace level of OCDD. This was below the calibration range of the method. Sample levels similar to the corresponding blank level were flagged "B" on the results tables and may be, at least partially, attributed to the background. It should be noted that levels less than ten times the background are not generally considered to be statistically different from the background.

Laboratory spike samples were also prepared with the sample batch using clean water that had been fortified with native standard materials. Recoveries of the spiked native compounds ranged from 100-126%, with relative percent differences of 0.0-5.5%. These results indicate high degrees of accuracy and precision for these determinations.

REMARKS

The sample extracts will be retained for a period of 15 days from the date of this report and then discarded unless other arrangements are made. The raw mass spectral data will be archived for a period of not less than one year. Questions regarding the data contained in this report may be directed to the author at the number provided below.

Pace Analytical Services, Inc.

Scott C. Unze
Project Manager, HRMS
(612) 607-6383

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TABLE 1. 2,3,7,8-TCDD Equivalency Factors (TEFs) for the Polychlorinated Dibenzo-p-dioxins and Dibenzofurans

Number	Compound(s)	TEF
1	2,3,7,8-TCDD	1.00
2	1,2,3,7,8-PeCDD	0.50
3	1,2,3,6,7,8-HxCDD	0.1
4	1,2,3,7,8,9-HxCDD	0.1
5	1,2,3,4,7,8-HxCDD	0.1
6	1,2,3,4,6,7,8-HpCDD	0.01
7	OCDD	0.001
8	* Total - TCDD	0.0
9	* Total - PeCDD	0.0
10	* Total - HxCDD	0.0
11	* Total - HpCDD	0.0
12	2,3,7,8-TCDF	0.10
13	1,2,3,7,8-PeCDF	0.05
14	2,3,4,7,8-PeCDF	0.5
15	1,2,3,6,7,8-HxCDF	0.1
16	1,2,3,7,8,9-HxCDF	0.1
17	1,2,3,4,7,8-HxCDF	0.1
18	2,3,4,6,7,8-HxCDF	0.1
19	1,2,3,4,6,7,8-HpCDF	0.01
20	1,2,3,4,7,8,9-HpCDF	0.01
21	OCDF	0.001
22	* Total - TCDF	0.0
23	* Total - PeCDF	0.0
24	* Total - HxCDF	0.0
25	* Total - HpCDF	0.0

*Excluding the 2,3,7,8-substituted congeners.

Reference: 1989 ITEFs

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APPENDIX A

REPORT OF LABORATORY ANALYSIS
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1055772

Page: of

1120983

Section A Required Client Information:

Company: MT DEQ
Address: POB 200901 Helena, MT 59620
Email To: mbucy@mt.gov
Phone: 406-841-5064 Fax: 406-841-5050
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Moriah Bucy
Copy To:
Purchase Order No.:
Project Name: KRY Residential
Project Number:

Section C Invoice Information:

Attention: Moriah Bucy
Company Name: DEQ
Address: same as before
Pace Quote Reference:
Pace Project Manager: Scott Unze
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☒ GROUND WATER ☒ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MT

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START GRAB DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N) EPA 8290 (DIOXIN)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	RW-1-0707	DW	G	7/20/07	1105				2	X								X	N	1055772001
2	RW-7-0707	DW	G	7/20/07	10:35				2	X								X	N	002
3	~~RW-10-0707~~	~~DW~~	~~G~~	~~7/20/07~~					~~2~~	~~X~~								~~X~~	~~N~~	~~003~~
4	RW-12-0707	DW	G	7/20/07	9:45				2	X								X	N	004
5	RW-13-0707	DW	G	7/20/07	11:30				2	X								X	N	005
6																				
7																				
8																				
9																				
10																				
11																				
12																				

(1) (2) 07/24/07

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
				[illegible]	07/24/07	0900	3.8	Y	Y	Y
							3.0	Y	Y	Y

(1) Sample "RW-10-0707" not collected.
ORIGINAL
(2) 07/24/07

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: LAWRENCE HANSON
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 7/20/07

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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APPENDIX B

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Blank Analysis Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	BLANK-13819	Matrix	Water
Filename	P70808A_09	Dilution	NA
Total Amount Extracted	1000 mL	Extracted	08/06/2007
ICAL Date	07/13/2007	Analyzed	08/08/2007 22:03
CCal Filename(s)	P70808A_02 & P70808A_18	Injected By	SMT

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200		2,3,7,8-TCDF-13C	2.00	73
Total TCDF	ND	-----	0.00200		2,3,7,8-TCDD-13C	2.00	73
					1,2,3,7,8-PeCDF-13C	2.00	58
2,3,7,8-TCDD	ND	-----	0.00200		2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	ND	-----	0.00200		1,2,3,7,8-PeCDD-13C	2.00	61
					1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	-----	0.01000		1,2,3,6,7,8-HxCDF-13C	2.00	78
2,3,4,7,8-PeCDF	ND	-----	0.01000		2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDF-13C	2.00	79
					1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	-----	0.01000		1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDF-13C	2.00	69
					1,2,3,4,7,8,9-HpCDF-13C	2.00	60
1,2,3,4,7,8-HxCDF	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDD-13C	2.00	67
1,2,3,6,7,8-HxCDF	ND	-----	0.01000		OCDD-13C	4.00	61
2,3,4,6,7,8-HxCDF	ND	-----	0.01000				
1,2,3,7,8,9-HxCDF	ND	-----	0.01000		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000		2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	ND	-----	0.01000				
1,2,3,7,8,9-HxCDD	ND	-----	0.01000				
Total HxCDD	ND	-----	0.01000				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000		Equivalence: 0.000073 ng/L		
Total HpCDF	ND	-----	0.01000		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000				
Total HpCDD	ND	-----	0.01000				
OCDF	ND	-----	0.02000				
OCDD	0.073	-----	0.02000	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
LRL = Lower Reporting Limit
J = Concentration detected is below the calibration range
P = Recovery outside of target range
A = Detection Limit based on signal-to-noise measurement

I = Interference
E = PCDE Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1055772

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-1-0707		
Lab Sample ID	1055772001		
Filename	U70808B_07		
Injected By	SMT		
Total Amount Extracted	910 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/20/2007
ICAL Date	06/29/2007	Received	07/24/2007
CCal Filename(s)	U70808A_16 & U70808B_16	Extracted	08/06/2007
Method Blank ID	BLANK-13819	Analyzed	08/09/2007 04:56

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00220		2,3,7,8-TCDF-13C	2.00	91
Total TCDF	ND	-----	0.00220		2,3,7,8-TCDD-13C	2.00	84
					1,2,3,7,8-PeCDF-13C	2.00	74
2,3,7,8-TCDD	ND	-----	0.00220		2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	-----	0.00220		1,2,3,7,8-PeCDD-13C	2.00	78
					1,2,3,4,7,8-HxCDF-13C	2.00	86
1,2,3,7,8-PeCDF	ND	-----	0.01100		1,2,3,6,7,8-HxCDF-13C	2.00	94
2,3,4,7,8-PeCDF	ND	-----	0.01100		2,3,4,6,7,8-HxCDF-13C	2.00	89
Total PeCDF	ND	-----	0.01100		1,2,3,7,8,9-HxCDF-13C	2.00	83
					1,2,3,4,7,8-HxCDD-13C	2.00	86
1,2,3,7,8-PeCDD	ND	-----	0.01100		1,2,3,6,7,8-HxCDD-13C	2.00	99
Total PeCDD	ND	-----	0.01100		1,2,3,4,6,7,8-HpCDF-13C	2.00	67
					1,2,3,4,7,8,9-HpCDF-13C	2.00	51
1,2,3,4,7,8-HxCDF	ND	-----	0.01100		1,2,3,4,6,7,8-HpCDD-13C	2.00	63
1,2,3,6,7,8-HxCDF	ND	-----	0.01100		OCDD-13C	4.00	53
2,3,4,6,7,8-HxCDF	ND	-----	0.01100				
1,2,3,7,8,9-HxCDF	ND	-----	0.01100		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01100		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01100		2,3,7,8-TCDD-37Cl4	0.20	89
1,2,3,6,7,8-HxCDD	ND	-----	0.01100				
1,2,3,7,8,9-HxCDD	ND	-----	0.01100				
Total HxCDD	ND	-----	0.01100				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01100		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01100		Equivalence: 0.00032 ng/L		
Total HpCDF	0.014	-----	0.01100	J	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	0.017	-----	0.01100	J			
Total HpCDD	0.017	-----	0.01100	J			
OCDF	0.022	-----	0.02200	J			
OCDD	0.130	-----	0.02200	B			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
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Report No.....1055772

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
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Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-7-0707		
Lab Sample ID	1055772002		
Filename	U70808B_08		
Injected By	SMT		
Total Amount Extracted	989 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/20/2007
ICAL Date	06/29/2007	Received	07/24/2007
CCal Filename(s)	U70808A_16 & U70808B_16	Extracted	08/06/2007
Method Blank ID	BLANK-13819	Analyzed	08/09/2007 05:45

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200		2,3,7,8-TCDF-13C	2.00	90
Total TCDF	ND	-----	0.00200		2,3,7,8-TCDD-13C	2.00	83
					1,2,3,7,8-PeCDF-13C	2.00	78
2,3,7,8-TCDD	ND	-----	0.00200		2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	-----	0.00200		1,2,3,7,8-PeCDD-13C	2.00	76
					1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	-----	0.01000		1,2,3,6,7,8-HxCDF-13C	2.00	90
2,3,4,7,8-PeCDF	ND	-----	0.01000		2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDF-13C	2.00	82
					1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	-----	0.01000		1,2,3,6,7,8-HxCDD-13C	2.00	99
Total PeCDD	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDF-13C	2.00	68
					1,2,3,4,7,8,9-HpCDF-13C	2.00	50
1,2,3,4,7,8-HxCDF	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDD-13C	2.00	63
1,2,3,6,7,8-HxCDF	ND	-----	0.01000		OCDD-13C	4.00	51
2,3,4,6,7,8-HxCDF	ND	-----	0.01000				
1,2,3,7,8,9-HxCDF	ND	-----	0.01000		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000		2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	ND	-----	0.01000				
1,2,3,7,8,9-HxCDD	ND	-----	0.01000				
Total HxCDD	ND	-----	0.01000				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000		Equivalence: 0.000093 ng/L		
Total HpCDF	ND	-----	0.01000		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000				
Total HpCDD	ND	-----	0.01000				
OCDF	ND	-----	0.02000				
OCDD	0.093	-----	0.02000	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

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Minneapolis, MN 55414

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Fax: 612- 607-6444

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Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-12-0707		
Lab Sample ID	1055772004		
Filename	U70808B_09		
Injected By	SMT		
Total Amount Extracted	931 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/20/2007
ICAL Date	06/29/2007	Received	07/24/2007
CCal Filename(s)	U70808A_16 & U70808B_16	Extracted	08/06/2007
Method Blank ID	BLANK-13819	Analyzed	08/09/2007 06:35

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.0021		2,3,7,8-TCDF-13C	2.00	82
Total TCDF	ND	-----	0.0021		2,3,7,8-TCDD-13C	2.00	77
					1,2,3,7,8-PeCDF-13C	2.00	70
2,3,7,8-TCDD	ND	-----	0.0021		2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	ND	-----	0.0021		1,2,3,7,8-PeCDD-13C	2.00	70
					1,2,3,4,7,8-HxCDF-13C	2.00	76
1,2,3,7,8-PeCDF	ND	-----	0.0110		1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	ND	-----	0.0110		2,3,4,6,7,8-HxCDF-13C	2.00	78
Total PeCDF	ND	-----	0.0110		1,2,3,7,8,9-HxCDF-13C	2.00	74
					1,2,3,4,7,8-HxCDD-13C	2.00	77
1,2,3,7,8-PeCDD	ND	-----	0.0110		1,2,3,6,7,8-HxCDD-13C	2.00	90
Total PeCDD	ND	-----	0.0110		1,2,3,4,6,7,8-HpCDF-13C	2.00	60
					1,2,3,4,7,8,9-HpCDF-13C	2.00	43
1,2,3,4,7,8-HxCDF	ND	-----	0.0110		1,2,3,4,6,7,8-HpCDD-13C	2.00	57
1,2,3,6,7,8-HxCDF	ND	-----	0.0110		OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	ND	-----	0.0110				
1,2,3,7,8,9-HxCDF	ND	-----	0.0110		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.0110		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.0110		2,3,7,8-TCDD-37Cl4	0.20	90
1,2,3,6,7,8-HxCDD	ND	-----	0.0110				
1,2,3,7,8,9-HxCDD	ND	-----	0.0110				
Total HxCDD	ND	-----	0.0110				
1,2,3,4,6,7,8-HpCDF	0.015	-----	0.0110	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.0110		Equivalence: 0.00089 ng/L		
Total HpCDF	0.054	-----	0.0110		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	0.039	-----	0.0110	J			
Total HpCDD	0.055	-----	0.0110				
OCDF	0.052	-----	0.0210	J			
OCDD	0.300	-----	0.0210	B			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
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E = PCDE Interference
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Minneapolis, MN 55414

Tel: 612-607-1700
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Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-13-0707		
Lab Sample ID	1055772005		
Filename	U70808B_10		
Injected By	SMT		
Total Amount Extracted	921 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/20/2007
ICAL Date	06/29/2007	Received	07/24/2007
CCal Filename(s)	U70808A_16 & U70808B_16	Extracted	08/06/2007
Method Blank ID	BLANK-13819	Analyzed	08/09/2007 07:25

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.0022	2,3,7,8-TCDF-13C	2.00	83
Total TCDF	ND	-----	0.0022	2,3,7,8-TCDD-13C	2.00	75
				1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	-----	0.0022	2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	ND	-----	0.0022	1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	79
1,2,3,7,8-PeCDF	ND	-----	0.0110	1,2,3,6,7,8-HxCDF-13C	2.00	86
2,3,4,7,8-PeCDF	ND	-----	0.0110	2,3,4,6,7,8-HxCDF-13C	2.00	80
Total PeCDF	ND	-----	0.0110	1,2,3,7,8,9-HxCDF-13C	2.00	76
				1,2,3,4,7,8-HxCDD-13C	2.00	76
1,2,3,7,8-PeCDD	ND	-----	0.0110	1,2,3,6,7,8-HxCDD-13C	2.00	88
Total PeCDD	ND	-----	0.0110	1,2,3,4,6,7,8-HpCDF-13C	2.00	63
				1,2,3,4,7,8,9-HpCDF-13C	2.00	48
1,2,3,4,7,8-HxCDF	ND	-----	0.0110	1,2,3,4,6,7,8-HpCDD-13C	2.00	61
1,2,3,6,7,8-HxCDF	ND	-----	0.0110	OCDD-13C	4.00	51
2,3,4,6,7,8-HxCDF	ND	-----	0.0110			
1,2,3,7,8,9-HxCDF	ND	-----	0.0110	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.0110	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.0110	2,3,7,8-TCDD-37Cl4	0.20	87
1,2,3,6,7,8-HxCDD	ND	-----	0.0110			
1,2,3,7,8,9-HxCDD	ND	-----	0.0110			
Total HxCDD	ND	-----	0.0110			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.0110	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.0110	Equivalence: 0.00032 ng/L		
Total HpCDF	ND	-----	0.0110	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	0.016	-----	0.0110 J			
Total HpCDD	0.029	-----	0.0110 J			
OCDF	ND	-----	0.0220			
OCDD	0.160	-----	0.0220 B			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
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Minneapolis, MN 55414

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Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCS-13820		
Filename	P70808A_05	Matrix	Water
Total Amount Extracted	1000 mL	Dilution	NA
ICAL Date	07/13/2007	Extracted	08/06/2007
CCal Filename(s)	P70808A_02 & P70808A_18	Analyzed	08/08/2007 18:50
Method Blank ID	BLANK-13819	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.21	106	2,3,7,8-TCDF-13C	2.00	84
				2,3,7,8-TCDD-13C	2.00	78
				1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	0.20	0.21	105	2,3,4,7,8-PeCDF-13C	2.00	69
				1,2,3,7,8-PeCDD-13C	2.00	71
				1,2,3,4,7,8-HxCDF-13C	2.00	94
1,2,3,7,8-PeCDF	1.00	1.18	118	1,2,3,6,7,8-HxCDF-13C	2.00	81
2,3,4,7,8-PeCDF	1.00	1.15	115	2,3,4,6,7,8-HxCDF-13C	2.00	85
				1,2,3,7,8,9-HxCDF-13C	2.00	88
				1,2,3,4,7,8-HxCDD-13C	2.00	92
1,2,3,7,8-PeCDD	1.00	1.00	100	1,2,3,6,7,8-HxCDD-13C	2.00	81
				1,2,3,4,6,7,8-HpCDF-13C	2.00	71
				1,2,3,4,7,8,9-HpCDF-13C	2.00	62
1,2,3,4,7,8-HxCDF	1.00	1.12	112	1,2,3,4,6,7,8-HpCDD-13C	2.00	66
1,2,3,6,7,8-HxCDF	1.00	1.16	116	OCDD-13C	4.00	65
2,3,4,6,7,8-HxCDF	1.00	1.19	119			
1,2,3,7,8,9-HxCDF	1.00	1.14	114	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.07	107	2,3,7,8-TCDD-37Cl4	0.20	91
1,2,3,6,7,8-HxCDD	1.00	1.07	107			
1,2,3,7,8,9-HxCDD	1.00	1.00	100			
1,2,3,4,6,7,8-HpCDF	1.00	1.09	109			
1,2,3,4,7,8,9-HpCDF	1.00	1.22	122			
1,2,3,4,6,7,8-HpCDD	1.00	1.03	103			
OCDF	2.00	2.47	124			
OCDD	2.00	2.37	119			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCSD-13821		
Filename	P70808A_06	Matrix	Water
Total Amount Extracted	1020 mL	Dilution	NA
ICAL Date	07/13/2007	Extracted	08/06/2007
CCal Filename(s)	P70808A_02 & P70808A_18	Analyzed	08/08/2007 19:38
Method Blank ID	BLANK-13819	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.
2,3,7,8-TCDF	0.20	0.22	108
2,3,7,8-TCDD	0.20	0.21	105
1,2,3,7,8-PeCDF	1.00	1.20	120
2,3,4,7,8-PeCDF	1.00	1.16	116
1,2,3,7,8-PeCDD	1.00	1.01	101
1,2,3,4,7,8-HxCDF	1.00	1.11	111
1,2,3,6,7,8-HxCDF	1.00	1.17	117
2,3,4,6,7,8-HxCDF	1.00	1.18	118
1,2,3,7,8,9-HxCDF	1.00	1.14	114
1,2,3,4,7,8-HxCDD	1.00	1.11	111
1,2,3,6,7,8-HxCDD	1.00	1.13	113
1,2,3,7,8,9-HxCDD	1.00	1.04	104
1,2,3,4,6,7,8-HpCDF	1.00	1.10	110
1,2,3,4,7,8,9-HpCDF	1.00	1.23	123
1,2,3,4,6,7,8-HpCDD	1.00	1.01	101
OCDF	2.00	2.52	126
OCDD	2.00	2.34	117

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	78
2,3,7,8-TCDD-13C	2.00	74
1,2,3,7,8-PeCDF-13C	2.00	65
2,3,4,7,8-PeCDF-13C	2.00	64
1,2,3,7,8-PeCDD-13C	2.00	66
1,2,3,4,7,8-HxCDF-13C	2.00	89
1,2,3,6,7,8-HxCDF-13C	2.00	76
2,3,4,6,7,8-HxCDF-13C	2.00	82
1,2,3,7,8,9-HxCDF-13C	2.00	81
1,2,3,4,7,8-HxCDD-13C	2.00	88
1,2,3,6,7,8-HxCDD-13C	2.00	74
1,2,3,4,6,7,8-HpCDF-13C	2.00	69
1,2,3,4,7,8,9-HpCDF-13C	2.00	60
1,2,3,4,6,7,8-HpCDD-13C	2.00	65
OCDD-13C	4.00	64
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	87

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

Report No.....1055772

REPORT OF LABORATORY ANALYSIS

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www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

SPIKE RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

Client..... Montana DEQ

SPIKE 1 ID..... LCS-13820
SPIKE 1 Filename..... P70808A_05
SPIKE 2 ID..... LCSD-13821
SPIKE 2 Filename..... P70808A_06

COMPOUND	SPIKE 1 REC,%	SPIKE 2 REC,%	RPD,%
2378-TCDF	106	108	1.9
2378-TCDD	105	105	0.0
12378-PeCDF	118	120	1.7
23478-PeCDF	115	116	0.9
12378-PeCDD	100	101	1.0
123478-HxCDF	112	111	0.9
123678-HxCDF	116	117	0.9
234678-HxCDF	119	118	0.8
123789-HxCDF	114	114	0.0
123478-HxCDD	107	111	3.7
123678-HxCDD	107	113	5.5
123789-HxCDD	100	104	3.9
1234678-HpCDF	109	110	0.9
1234789-HpCDF	122	123	0.8
1234678-HpCDD	103	101	2.0
OCDF	124	126	1.6
OCDD	119	117	1.7

REC = Percent Recovered
RPD = The difference between the two values divided by the average.
NA = Not Applicable
NC = Not Calculated

Report No..... 1055772

REPORT OF LABORATORY ANALYSIS

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877-472-0711 • 406-442-0711 • 406-442-0712 fax • helena@energylab.com

ANALYTICAL SUMMARY REPORT

August 05, 2007

MT DEQ
PO Box 200901
Helena, MT 59620

Workorder No.: H07070207

Project Name: KRY Residential

Energy Laboratories Inc received the following 4 samples from MT DEQ on 7/20/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H07070207-001	RW-1-0707	07/20/07 11:05	07/20/07	Aqueous	EPH-Sep Funnel Extraction Hydrocarbons, Extractable Petroleum Screen 515-Herbicides, Chlorinated SDWA Seperatory Funnel Liquid Liquid Ext.
H07070207-002	RW-7-0707	07/20/07 10:35	07/20/07	Aqueous	Same As Above
H07070207-003	RW-12-0707	07/20/07 9:45	07/20/07	Aqueous	Same As Above
H07070207-004	RW-13-0707	07/20/07 11:30	07/20/07	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID, EPA # ID00942
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: Jonathan Hager

Jonathan Hager
Assistant Lab Manager

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CASE NARRATIVE

NONE

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential
Lab ID: H07070207-001
Client Sample ID: RW-1-0707

Report Date: 08/05/07
Collection Date: 07/20/07 11:05
DateReceived: 07/20/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.31	0.3	SW8015M	07/28/07 10:45 / kjw
Surr: o-Terphenyl	112	%REC			40-140	SW8015M	07/28/07 10:45 / kjw
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	08/01/07 13:38 / eli-b
Surr: DCAA	77.0	%REC			70-130	E515.1	08/01/07 13:38 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential
Lab ID: H07070207-002
Client Sample ID: RW-7-0707

Report Date: 08/05/07
Collection Date: 07/20/07 10:35
DateReceived: 07/20/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.32	0.3	SW8015M	07/28/07 11:27 / kjw
Surr: o-Terphenyl	124	%REC			40-140	SW8015M	07/28/07 11:27 / kjw
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	08/01/07 14:12 / eli-b
Surr: DCAA	78.0	%REC			70-130	E515.1	08/01/07 14:12 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential
Lab ID: H07070207-003
Client Sample ID: RW-12-0707

Report Date: 08/05/07
Collection Date: 07/20/07 09:45
DateReceived: 07/20/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.32	0.3	SW8015M	07/28/07 12:09 / kjw
Surr: o-Terphenyl	112	%REC			40-140	SW8015M	07/28/07 12:09 / kjw
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	08/02/07 17:26 / eli-b
Surr: DCAA	87.0	%REC			70-130	E515.1	08/02/07 17:26 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential
Lab ID: H07070207-004
Client Sample ID: RW-13-0707

Report Date: 08/05/07
Collection Date: 07/20/07 11:30
DateReceived: 07/20/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.31	0.3	SW8015M	07/28/07 12:51 / kjw
Surr: o-Terphenyl	116	%REC			40-140	SW8015M	07/28/07 12:51 / kjw
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	08/01/07 15:18 / eli-b
Surr: DCAA	91.0	%REC			70-130	E515.1	08/01/07 15:18 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Residential

Report Date: 08/05/07
Work Order: H07070207

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E515.1									Batch: B_27999
Sample ID: MB-27999	Method Blank				Run: SUB-B97253				08/01/07 11:59
Pentachlorophenol	ND	ug/L	0.040						
Surr: DCAA			0.10	81	70	130			
Sample ID: LCS-27999	Laboratory Control Sample				Run: SUB-B97253				08/01/07 12:32
Pentachlorophenol	4.08	ug/L	0.040	82	70	130			
Surr: DCAA			0.10	81	70	130			
Sample ID: B07071942-001AMS	Sample Matrix Spike				Run: SUB-B97253				08/01/07 18:12
Pentachlorophenol	4.36	ug/L	0.040	87	65	135			
Surr: DCAA			0.10	85	70	130			
Sample ID: B07071942-001AMSD	Sample Matrix Spike Duplicate				Run: SUB-B97253				08/01/07 18:46
Pentachlorophenol	4.10	ug/L	0.040	82	65	135	6.1	40	
Surr: DCAA			0.10	79	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Residential

Report Date: 07/31/07
Work Order: H07070207

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M									Batch: 3607
Sample ID: MB-3607	Method Blank				Run: HHP_070730A				07/27/07 22:12
Total Extractable Hydrocarbons	ND	mg/L	0.30						
Surr: o-Terphenyl			0.0050	109	40	140			
Sample ID: LCS-3607	Laboratory Control Sample				Run: HHP_070730A				07/27/07 22:53
Total Extractable Hydrocarbons	5.29	mg/L	0.30	102	60	140			
Surr: o-Terphenyl			0.0050	100	40	140			
Sample ID: H07070207-004BMS	Sample Matrix Spike				Run: HHP_070730B				07/30/07 16:50
Total Extractable Hydrocarbons	11.3	mg/L	0.64	102	60	140			
Surr: o-Terphenyl			0.011	102	40	140			
Sample ID: H07070207-004BMSD	Sample Matrix Spike Duplicate				Run: HHP_070730B				07/30/07 17:32
Total Extractable Hydrocarbons	11.4	mg/L	0.64	104	60	140	1.2	20	
Surr: o-Terphenyl			0.011	101	40	140			
Method: SW8015M									Analytical Run: HHP_070730A
Sample ID: CCV_0727GC118r-W	Continuing Calibration Verification Standard								07/28/07 10:03
n-Nonane	0.224	mg/L	0.0050	112	75	125			
n-Decane	0.226	mg/L	0.0050	113	75	125			
n-Dodecane	0.230	mg/L	0.0050	115	75	125			
n-Tetradecane	0.227	mg/L	0.0050	113	75	125			
n-Hexadecane	0.227	mg/L	0.0050	114	75	125			
n-Octadecane	0.228	mg/L	0.0050	114	75	125			
n-Nonadecane	0.229	mg/L	0.0050	114	75	125			
n-Eicosane	0.228	mg/L	0.0050	114	75	125			
n-Docosane	0.229	mg/L	0.0050	114	75	125			
n-Tetracosane	0.230	mg/L	0.0050	115	75	125			
n-Hexacosane	0.230	mg/L	0.0050	115	75	125			
n-Octacosane	0.231	mg/L	0.0050	116	75	125			
n-Triacontane	0.231	mg/L	0.0050	115	75	125			
n-Hexatriacontane	0.236	mg/L	0.0050	118	75	125			
Surr: o-Terphenyl			0.0050	123	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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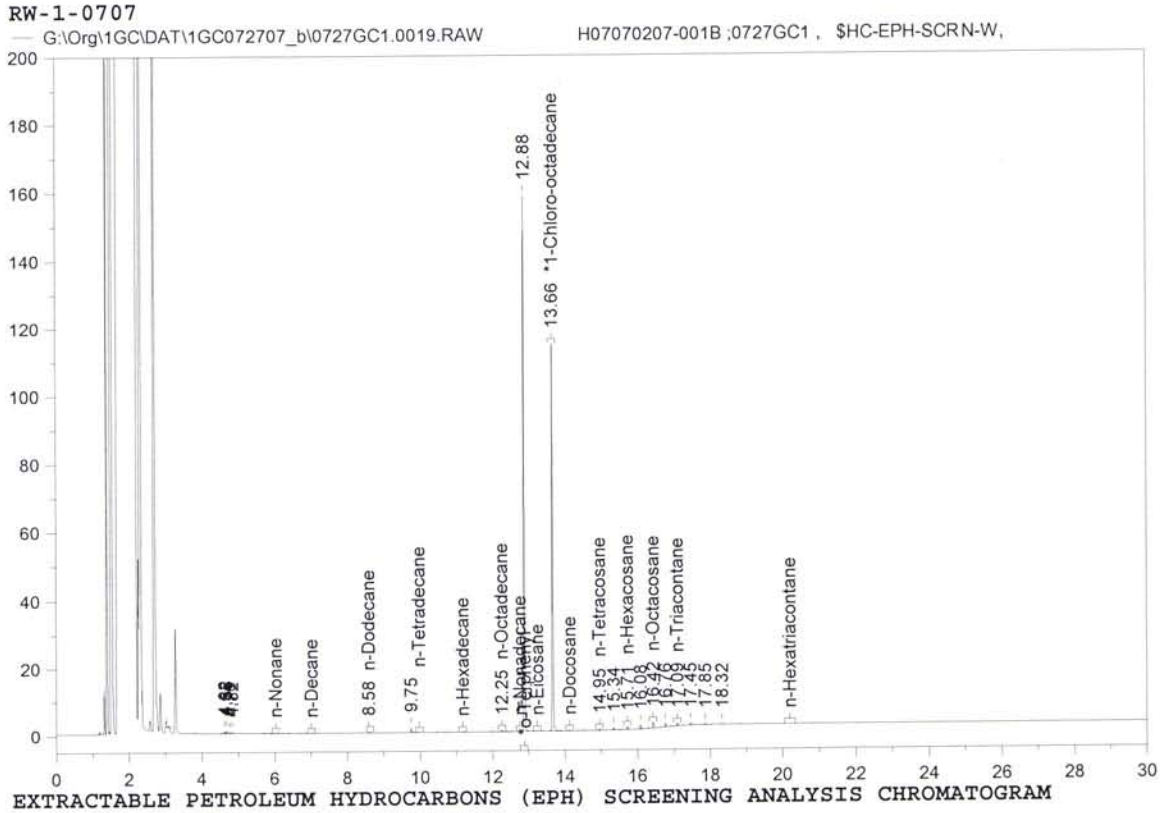
RW-1-0707



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07070207-001B ;0727GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC072707_b\0727GC1.0019.RAW
Date & Time Acquired: 7/28/2007 10:45:33 AM
Method File: G:\Org\1GC\Methods\2007METHODS\S2000BP.met
Calibration File: G:\Org\1GC\Cals\2007CALS\AL022607BP.CAL
Sample Weight: 953 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 939.1489
Mean RF for C19 to C36 Hydrocarbons: 930.722
Mean RF for Total Extractable Hydrocarbons: 934.9355
Rt range for Diesel Range Organics: 6.91 to 17.19
Rt range for C9 to C18 Hydrocarbons: 5.92 to 12.65
Rt range for C19 to C36 Hydrocarbons: 12.82 to 20.34

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.88	.21	.235	112.13	-
*1-Chloro-octadecane	13.66	.21	.239	114.07	-

DRO Area:28434.94 DRO Amount: 3.191374E-02
TEH Area:40490.94 TEH Amount: 0.0454447
C9-C18 Area:10657.84 C9-C18 Amount: 1.190809E-02
C19-C36 Area:23072.72 C19-C36 Amount: 2.601273E-02

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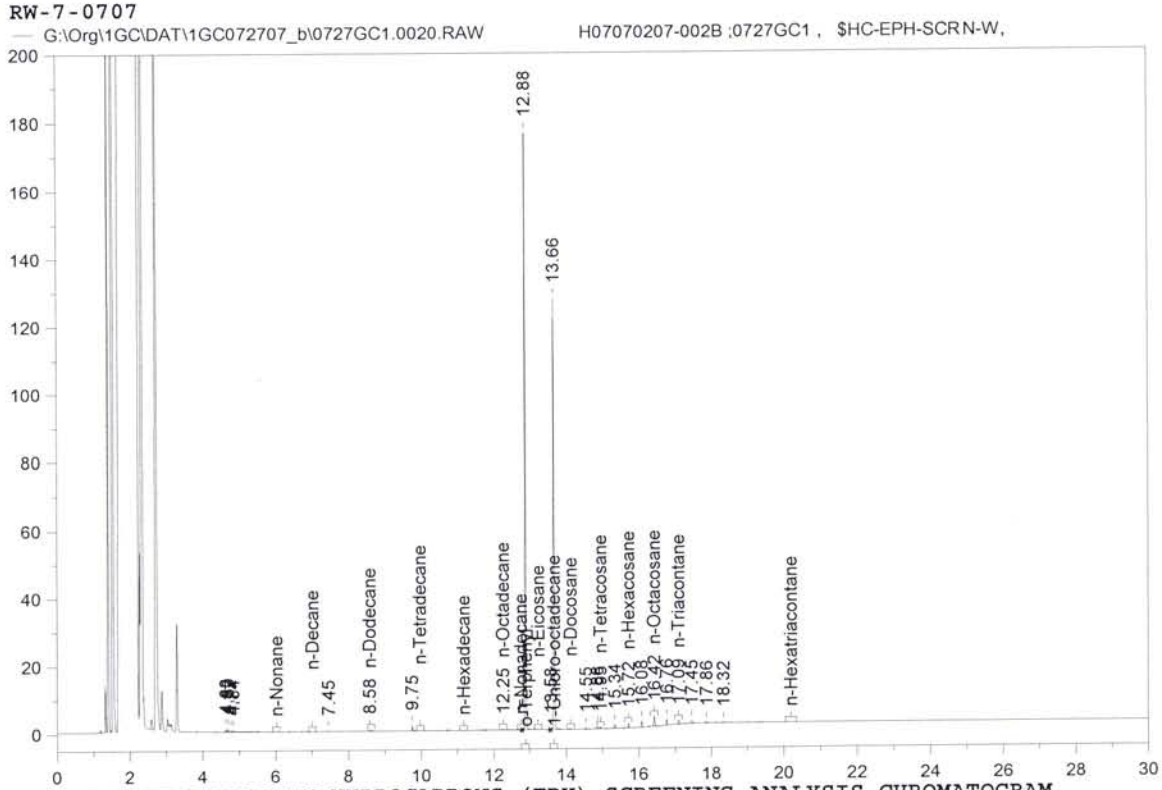
RW-7-0707



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07070207-002B ;0727GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC072707_b\0727GC1.0020.RAW
Date & Time Acquired: 7/28/2007 11:27:30 AM
Method File: G:\Org\1GC\Methods\2007METHODS\S2000BP.met
Calibration File: G:\Org\1GC\Cals\2007CALS\AL022607BP.CAL
Sample Weight: 938 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 939.1489
Mean RF for C19 to C36 Hydrocarbons: 930.722
Mean RF for Total Extractable Hydrocarbons: 934.9355
Rt range for Diesel Range Organics: 6.91 to 17.19
Rt range for C9 to C18 Hydrocarbons: 5.92 to 12.65
Rt range for C19 to C36 Hydrocarbons: 12.82 to 20.34

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.884	.213	.265	124.18	-
*1-Chloro-octadecane	13.663	.213	.27	126.69	-

DRO Area:42442.95 DRO Amount: 0.0483973
TEH Area:58111.89 TEH Amount: 6.626444E-02
C9-C18 Area:14782.17 C9-C18 Amount: 1.678034E-02
C19-C36 Area:34585.02 C19-C36 Amount: 0.0396155

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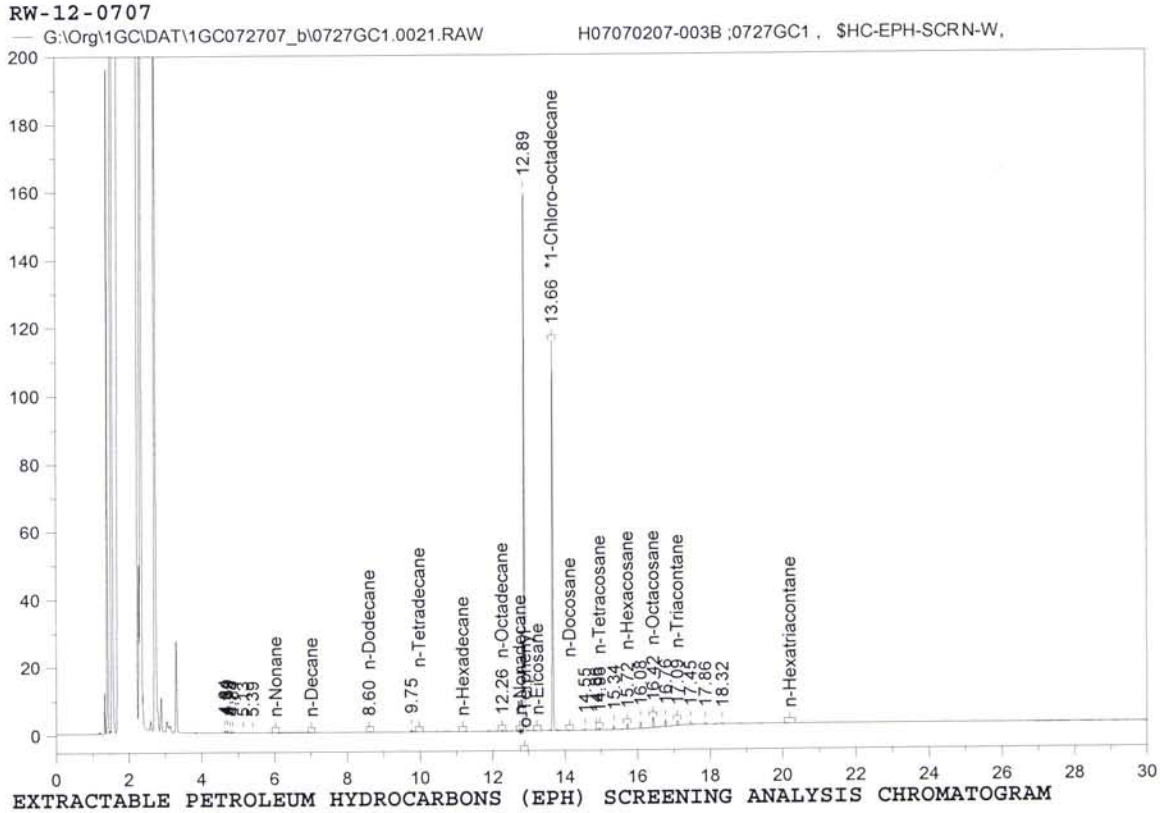
RW-12-0707



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07070207-003B ;0727GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC072707_b\0727GC1.0021.RAW
Date & Time Acquired: 7/28/2007 12:09:27 PM
Method File: G:\Org\1GC\Methods\2007METHODS\S2000BP.met
Calibration File: G:\Org\1GC\Cals\2007CALS\AL022607BP.CAL
Sample Weight: 931 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 939.1489
Mean RF for C19 to C36 Hydrocarbons: 930.722
Mean RF for Total Extractable Hydrocarbons: 934.9355
Rt range for Diesel Range Organics: 6.91 to 17.19
Rt range for C9 to C18 Hydrocarbons: 5.92 to 12.65
Rt range for C19 to C36 Hydrocarbons: 12.82 to 20.34

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.885	.215	.24	111.79	-
*1-Chloro-octadecane	13.664	.215	.245	114.26	-

DRO Area:37427.73 DRO Amount: 4.299938E-02
TEH Area:54242.17 TEH Amount: 6.231689E-02
C9-C18 Area:8458.662 C9-C18 Amount: 9.674256E-03
C19-C36 Area:36584.98 C19-C36 Amount: 4.222145E-02

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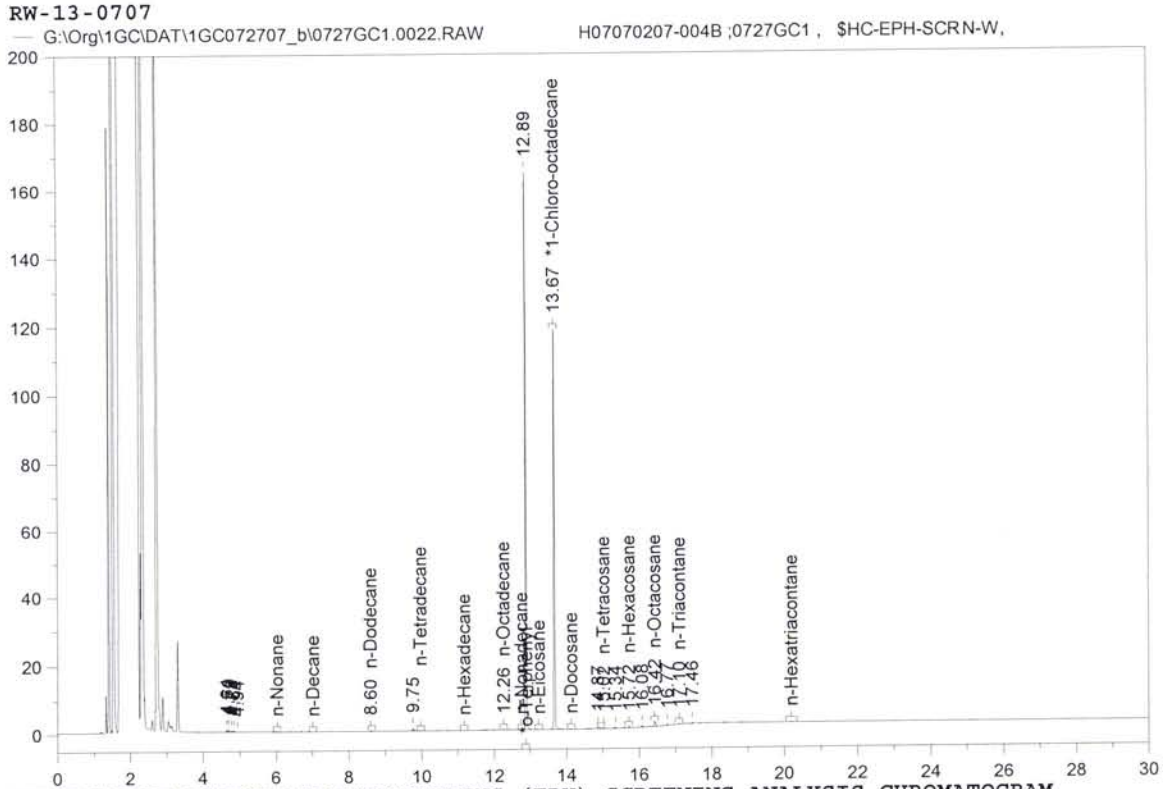
RW-13-0707



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07070207-004B ;0727GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC072707_b\0727GC1.0022.RAW
Date & Time Acquired: 7/28/2007 12:51:20 PM
Method File: G:\Org\1GC\Methods\2007METHODS\S2000BP.met
Calibration File: G:\Org\1GC\Cals\2007CALS\AL022607BP.CAL
Sample Weight: 976 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 939.1489
Mean RF for C19 to C36 Hydrocarbons: 930.722
Mean RF for Total Extractable Hydrocarbons: 934.9355
Rt range for Diesel Range Organics: 6.91 to 17.19
Rt range for C9 to C18 Hydrocarbons: 5.92 to 12.65
Rt range for C19 to C36 Hydrocarbons: 12.82 to 20.34

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.886	.205	.237	115.9	-
*1-Chloro-octadecane	13.665	.205	.243	118.51	-

DRO Area:21840.77 DRO Amount: 2.393516E-02
TEH Area:32139.67 TEH Amount: 3.522167E-02
C9-C18 Area:8602.89 C9-C18 Amount: 9.385558E-03
C19-C36 Area:16590.17 C19-C36 Amount: 1.826338E-02

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Energy Laboratories Inc
Workorder Receipt Checklist

H07070207

MT DEQ

Login completed by: Wanda Johnson

Reviewed by: LBB JMT

Reviewed Date: 7/24/07

Date and Time Received: 7/20/2007 5:21 PM

Received by: rlt

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	4°C On Ice
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: MT DEQ	Project Name, PWS #, Permit #, Etc.: KRY Residential
Report Mail Address: POB 200901 Helena, MT 59620	Contact Name, Phone, Fax, E-mail: Moriah Bucy 841-5064 (P) 841-5050 (F) mbucy@mt.gov
Invoice Address: Same	Invoice Contact & Phone #: same as above
Purchase Order #:	ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:
NELAC ☐ A2LA ☐ Level IV ☐
Other _____
EDD/EDT ☐ Format _____

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Shipped by: hand del
Cooler ID(s) _____
Receipt Temp 40 °C on ice
Custody Seal Y N
Intact Y N
Signature Match Y N

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers / Sample Type: A W S V B O / Air Water Soils/Solids Vegetation Bioassay Other / MATRIX	PCP (515.1)	EPH Screen* (MT/MASS Method)	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments:	Lab ID
1	RW-1-0707	7/20	11:05	4 W	X	X		X		*If above 300 ppb	H07070207-001
2	RW-7-0707	7/20	10:35	4 W	X	X		X		please fractionate	-002
3	~~RW-10-0707~~	~~7/20~~		~~4 W~~	~~X~~	~~X~~		~~X~~		~~with PAHs~~	
4	RW-12-0707	7/20	9:45	4 W	X	X		X			-003
5	RW-13-0707	7/20	11:30	4 W	X	X		X			-004
6											
7											
8											
9											
10											

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
LAWRENCE HANSON	7/20/07 17:22	[signature]	ROKANNE JULIAN	7.20.07 17:21	[signature]

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY
Sample Type: _____ # of fractions _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

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Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DETERMINATION OF PCDD/PCDF LEVELS

Prepared for:
Montana DEQ
Attn: Moriah Bucy
1100 North Last Chance Gulch
Helena, MT 59601

This report contains 15 pages.

The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Project: KRY Residential

Purchase Order Number: NA

REPORT OF LABORATORY ANALYSIS

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REPORT OF: CHEMICAL ANALYSES

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

PROJECT: **PCDD/PCDF ANALYSES**

DATE: April 24, 2007

ISSUED TO: Montana DEQ
Attn: Moriah Bucy
1100 North Last Chance Gulch
Helena, MT 59601

REPORT NO: 07-1049459

INTRODUCTION

This report presents the results from the analyses performed on four samples submitted by a representative of Montana DEQ. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290.

SAMPLE IDENTIFICATION

Client ID	Sample Type	Date Received	PACE ID
RW-1-0407	Water	04/10/07	1049459001
RW-10-0407	Water	04/10/07	1049459002
RW-12-0407	Water	04/10/07	1049459003
RW-13-0407	Water	04/10/07	1049459004

RESULTS

The results are included in the following:

Appendix A – Chain of Custody Documentation
Appendix B – PCDD/PCDF Analysis Results

REPORT OF LABORATORY ANALYSIS

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REPORT OF: CHEMICAL ANALYSES

PROJECT: **PCDD/PCDF ANALYSES** **DATE:** April 24, 2007

 REPORT NO: 07-1049459

DISCUSSION

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 65-111%. All of the labeled standard recoveries obtained for the samples were within the 40-135% Method 8290 target range. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results, found at the beginning of Appendix B, show the blank to be free of PCDDs and PCDFs at the reporting limits. This indicates that the sample processing steps did not significantly impact the field sample determinations.

Laboratory spike samples were also prepared with the sample batch using clean water that had been fortified with native standard materials. Recoveries of the spiked native compounds ranged from 101-123%, with relative percent differences of 0.0-8.9%. These results indicate high degrees of accuracy and precision for these determinations. All of the labeled internal standards in the laboratory spike samples were recovered below the 40-135% target range and were flagged " P" on the results tables.

REMARKS

The sample extracts will be retained for a period of 15 days from the date of this report and then discarded unless other arrangements are made. The raw mass spectral data will be archived for a period of not less than one year. Questions regarding the data contained in this report may be directed to the author at the number provided below.

Pace Analytical Services, Inc.

Scott C. Unze
Project Manager, HRMS
(612) 607-6383

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TABLE 1. 2,3,7,8-TCDD Equivalency Factors (TEFs) for the Polychlorinated Dibenzo-p-dioxins and Dibenzofurans

Number	Compound(s)	TEF
1	2,3,7,8-TCDD	1.00
2	1,2,3,7,8-PeCDD	0.50
3	1,2,3,6,7,8-HxCDD	0.1
4	1,2,3,7,8,9-HxCDD	0.1
5	1,2,3,4,7,8-HxCDD	0.1
6	1,2,3,4,6,7,8-HpCDD	0.01
7	OCDD	0.001
8	* Total - TCDD	0.0
9	* Total - PeCDD	0.0
10	* Total - HxCDD	0.0
11	* Total - HpCDD	0.0
12	2,3,7,8-TCDF	0.10
13	1,2,3,7,8-PeCDF	0.05
14	2,3,4,7,8-PeCDF	0.5
15	1,2,3,6,7,8-HxCDF	0.1
16	1,2,3,7,8,9-HxCDF	0.1
17	1,2,3,4,7,8-HxCDF	0.1
18	2,3,4,6,7,8-HxCDF	0.1
19	1,2,3,4,6,7,8-HpCDF	0.01
20	1,2,3,4,7,8,9-HpCDF	0.01
21	OCDF	0.001
22	* Total - TCDF	0.0
23	* Total - PeCDF	0.0
24	* Total - HxCDF	0.0
25	* Total - HpCDF	0.0

*Excluding the 2,3,7,8-substituted congeners.

Reference: 1989 ITEFs

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APPENDIX A

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CHAIN-OF-CUSTODY / Analytical Request Document

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The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1049459

Page: of 1009451

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Montana DEQ	Report To: Moriah Bucy	Attention: Moriah Bucy
Address: P.O. Box 200901	Copy To:	Company Name: DEQ
Helena, MT 59620		Address: same as before
Email To: mbucy@mt.gov	Purchase Order No.:	Pace Quote Reference:
Phone (406) 841-5064 Fax (406) 841-5050	Project Name: KRY Residential	Pace Project Manager: Scott Unze
Requested Due Date/TAT:	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ Other_____

SITE LOCATION ☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☐SC ☐WI ☒OTHER MT

Section D Required Client Information

SAMPLE ID

One Character per box. (A-Z, 0-9 / .-) Samples IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	EPA 8290 (DIOXIN)	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	RW-1-0407	DW	G			4/4/07	15:15	N/A	2	X								X	N	1049459-001
2	RW-7-0407	DW	G						2	X								X	N	
3	RW-10-0407	DW	G			4/4/07	13:24	9.4	2	X								X	N	002
4	RW-12-0407	DW	G			4/4/07	13:54	9.4	2	X								X	N	003
5	RW-13-0407	DW	G			4/4/07	14:42	8.0	2	X								X	N	004
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Filtered (Y/N)

Requested Analysis: EPA 8290 (DIOXIN) N

4/6/07

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION			
Jason Seyler	4/9/07		[signature]	4/10/07	9:00	7.5, 25	0	0	0
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jason Seyler

SIGNATURE of SAMPLER: Jason Seyler

DATE Signed (MM / DD / YY): 4/6/07

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3,31Mar05

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APPENDIX B

REPORT OF LABORATORY ANALYSIS
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Fax: 612- 607-6444

Method 8290 Blank Analysis Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	BLANK-12803	Matrix	Water
Filename	U70419A_04	Dilution	NA
Total Amount Extracted	882 mL	Extracted	04/16/2007
ICAL Date	01/27/2007	Analyzed	04/19/2007 04:51
CCal Filename(s)	U70418A_15 & U70419A_15	Injected By	BAL

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.0023		2,3,7,8-TCDF-13C	2.00	79
Total TCDF	ND	-----	0.0023		2,3,7,8-TCDD-13C	2.00	65
					1,2,3,7,8-PeCDF-13C	2.00	74
2,3,7,8-TCDD	ND	-----	0.0030	A	2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	ND	-----	0.0023		1,2,3,7,8-PeCDD-13C	2.00	77
					1,2,3,4,7,8-HxCDF-13C	2.00	94
1,2,3,7,8-PeCDF	ND	-----	0.0110		1,2,3,6,7,8-HxCDF-13C	2.00	92
2,3,4,7,8-PeCDF	ND	-----	0.0110		2,3,4,6,7,8-HxCDF-13C	2.00	89
Total PeCDF	ND	-----	0.0110		1,2,3,7,8,9-HxCDF-13C	2.00	81
					1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	-----	0.0110		1,2,3,6,7,8-HxCDD-13C	2.00	85
Total PeCDD	ND	-----	0.0110		1,2,3,4,6,7,8-HpCDF-13C	2.00	73
					1,2,3,4,7,8,9-HpCDF-13C	2.00	58
1,2,3,4,7,8-HxCDF	ND	-----	0.0110		1,2,3,4,6,7,8-HpCDD-13C	2.00	73
1,2,3,6,7,8-HxCDF	ND	-----	0.0110		OCDD-13C	4.00	61
2,3,4,6,7,8-HxCDF	ND	-----	0.0110				
1,2,3,7,8,9-HxCDF	ND	-----	0.0110		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.0110		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.0110		2,3,7,8-TCDD-37Cl4	0.20	66
1,2,3,6,7,8-HxCDD	ND	-----	0.0110				
1,2,3,7,8,9-HxCDD	ND	-----	0.0110				
Total HxCDD	ND	-----	0.0110				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.0110		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.0110		Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.0110		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.0110				
Total HpCDD	ND	-----	0.0110				
OCDF	ND	-----	0.0230				
OCDD	ND	-----	0.0230				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
LRL = Lower Reporting Limit
J = Concentration detected is below the calibration range
P = Recovery outside of target range
A = Detection Limit based on signal-to-noise measurement

I = Interference
E = PCDE Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1049459

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-1-0407		
Lab Sample ID	1049459001		
Filename	U70421A_10		
Injected By	BAL		
Total Amount Extracted	987 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/04/2007
ICAL Date	01/27/2007	Received	04/10/2007
CCal Filename(s)	U70420B_22 & U70421A_16	Extracted	04/16/2007
Method Blank ID	BLANK-12803	Analyzed	04/21/2007 12:14

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200	2,3,7,8-TCDF-13C	2.00	87
Total TCDF	ND	-----	0.00200	2,3,7,8-TCDD-13C	2.00	74
				1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	-----	0.00200	2,3,4,7,8-PeCDF-13C	2.00	87
Total TCDD	ND	-----	0.00200	1,2,3,7,8-PeCDD-13C	2.00	93
				1,2,3,4,7,8-HxCDF-13C	2.00	98
1,2,3,7,8-PeCDF	ND	-----	0.01000	1,2,3,6,7,8-HxCDF-13C	2.00	91
2,3,4,7,8-PeCDF	ND	-----	0.01000	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDF-13C	2.00	89
				1,2,3,4,7,8-HxCDD-13C	2.00	97
1,2,3,7,8-PeCDD	ND	-----	0.01000	1,2,3,6,7,8-HxCDD-13C	2.00	88
Total PeCDD	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDF-13C	2.00	85
				1,2,3,4,7,8,9-HpCDF-13C	2.00	71
1,2,3,4,7,8-HxCDF	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDD-13C	2.00	89
1,2,3,6,7,8-HxCDF	ND	-----	0.01000	OCDD-13C	4.00	84
2,3,4,6,7,8-HxCDF	ND	-----	0.01000			
1,2,3,7,8,9-HxCDF	ND	-----	0.01000	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000	2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	ND	-----	0.01000			
1,2,3,7,8,9-HxCDD	ND	-----	0.01000			
Total HxCDD	ND	-----	0.01000			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01000	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000			
Total HpCDD	ND	-----	0.01000			
OCDF	ND	-----	0.02000			
OCDD	ND	-----	0.02000			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1049459

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Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-10-0407		
Lab Sample ID	1049459002		
Filename	U70421A_11		
Injected By	BAL		
Total Amount Extracted	992 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/04/2007
ICAL Date	01/27/2007	Received	04/10/2007
CCal Filename(s)	U70420B_22 & U70421A_16	Extracted	04/16/2007
Method Blank ID	BLANK-12803	Analyzed	04/21/2007 13:04

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200	2,3,7,8-TCDF-13C	2.00	85
Total TCDF	ND	-----	0.00200	2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	86
2,3,7,8-TCDD	ND	-----	0.00200	2,3,4,7,8-PeCDF-13C	2.00	88
Total TCDD	ND	-----	0.00200	1,2,3,7,8-PeCDD-13C	2.00	94
				1,2,3,4,7,8-HxCDF-13C	2.00	92
1,2,3,7,8-PeCDF	ND	-----	0.01000	1,2,3,6,7,8-HxCDF-13C	2.00	89
2,3,4,7,8-PeCDF	ND	-----	0.01000	2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDF-13C	2.00	84
				1,2,3,4,7,8-HxCDD-13C	2.00	92
1,2,3,7,8-PeCDD	ND	-----	0.01000	1,2,3,6,7,8-HxCDD-13C	2.00	85
Total PeCDD	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDF-13C	2.00	81
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDD-13C	2.00	85
1,2,3,6,7,8-HxCDF	ND	-----	0.01000	OCDD-13C	4.00	81
2,3,4,6,7,8-HxCDF	ND	-----	0.01000			
1,2,3,7,8,9-HxCDF	ND	-----	0.01000	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	ND	-----	0.01000			
1,2,3,7,8,9-HxCDD	ND	-----	0.01000			
Total HxCDD	ND	-----	0.01000			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01000	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000			
Total HpCDD	ND	-----	0.01000			
OCDF	ND	-----	0.02000			
OCDD	ND	-----	0.02000			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
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J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
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LRL = Lower Reporting Limit
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E = PCDE Interference
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Fax: 612- 607-6444

Pace Analytical™

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-12-0407		
Lab Sample ID	1049459003		
Filename	U70421A_12		
Injected By	BAL		
Total Amount Extracted	998 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/04/2007
ICAL Date	01/27/2007	Received	04/10/2007
CCal Filename(s)	U70420B_22 & U70421A_16	Extracted	04/16/2007
Method Blank ID	BLANK-12803	Analyzed	04/21/2007 13:53

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200	2,3,7,8-TCDF-13C	2.00	105
Total TCDF	ND	-----	0.00200	2,3,7,8-TCDD-13C	2.00	88
				1,2,3,7,8-PeCDF-13C	2.00	100
2,3,7,8-TCDD	ND	-----	0.00200	2,3,4,7,8-PeCDF-13C	2.00	99
Total TCDD	ND	-----	0.00200	1,2,3,7,8-PeCDD-13C	2.00	102
				1,2,3,4,7,8-HxCDF-13C	2.00	111
1,2,3,7,8-PeCDF	ND	-----	0.01000	1,2,3,6,7,8-HxCDF-13C	2.00	105
2,3,4,7,8-PeCDF	ND	-----	0.01000	2,3,4,6,7,8-HxCDF-13C	2.00	102
Total PeCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDF-13C	2.00	100
				1,2,3,4,7,8-HxCDD-13C	2.00	108
1,2,3,7,8-PeCDD	ND	-----	0.01000	1,2,3,6,7,8-HxCDD-13C	2.00	98
Total PeCDD	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDF-13C	2.00	91
				1,2,3,4,7,8,9-HpCDF-13C	2.00	73
1,2,3,4,7,8-HxCDF	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDD-13C	2.00	94
1,2,3,6,7,8-HxCDF	ND	-----	0.01000	OCDD-13C	4.00	79
2,3,4,6,7,8-HxCDF	ND	-----	0.01000			
1,2,3,7,8,9-HxCDF	ND	-----	0.01000	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	-----	0.01000			
1,2,3,7,8,9-HxCDD	ND	-----	0.01000			
Total HxCDD	ND	-----	0.01000			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01000	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000			
Total HpCDD	ND	-----	0.01000			
OCDF	ND	-----	0.02000			
OCDD	ND	-----	0.02000			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1049459

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-13-0407		
Lab Sample ID	1049459004		
Filename	U70421A_13		
Injected By	BAL		
Total Amount Extracted	995 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/04/2007
ICAL Date	01/27/2007	Received	04/10/2007
CCal Filename(s)	U70420B_22 & U70421A_16	Extracted	04/16/2007
Method Blank ID	BLANK-12803	Analyzed	04/21/2007 14:42

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200		2,3,7,8-TCDF-13C	2.00	88
Total TCDF	ND	-----	0.00200		2,3,7,8-TCDD-13C	2.00	75
					1,2,3,7,8-PeCDF-13C	2.00	84
2,3,7,8-TCDD	ND	-----	0.00240	A	2,3,4,7,8-PeCDF-13C	2.00	84
Total TCDD	ND	-----	0.00200		1,2,3,7,8-PeCDD-13C	2.00	86
					1,2,3,4,7,8-HxCDF-13C	2.00	92
1,2,3,7,8-PeCDF	ND	-----	0.01000		1,2,3,6,7,8-HxCDF-13C	2.00	89
2,3,4,7,8-PeCDF	ND	-----	0.01000		2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDF-13C	2.00	85
					1,2,3,4,7,8-HxCDD-13C	2.00	86
1,2,3,7,8-PeCDD	ND	-----	0.01000		1,2,3,6,7,8-HxCDD-13C	2.00	94
Total PeCDD	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDF-13C	2.00	81
					1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDD-13C	2.00	82
1,2,3,6,7,8-HxCDF	ND	-----	0.01000		OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	ND	-----	0.01000				
1,2,3,7,8,9-HxCDF	ND	-----	0.01000		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000		2,3,7,8-TCDD-37Cl4	0.20	74
1,2,3,6,7,8-HxCDD	ND	-----	0.01000				
1,2,3,7,8,9-HxCDD	ND	-----	0.01000				
Total HxCDD	ND	-----	0.01000				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000		Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01000		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000				
Total HpCDD	ND	-----	0.01000				
OCDF	ND	-----	0.02000				
OCDD	ND	-----	0.02000				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1049459

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414

Tel: 612-607-1700
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Pace Analytical™

Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCS-12804		
Filename	U70419A_01	Matrix	Water
Total Amount Extracted	897 mL	Dilution	NA
ICAL Date	01/27/2007	Extracted	04/16/2007
CCal Filename(s)	U70418A_15 & U70419A_15	Analyzed	04/19/2007 02:24
Method Blank ID	BLANK-12803	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.22	109	2,3,7,8-TCDF-13C	2.00	28 P
				2,3,7,8-TCDD-13C	2.00	23 P
				1,2,3,7,8-PeCDF-13C	2.00	27 P
2,3,7,8-TCDD	0.20	0.22	111	2,3,4,7,8-PeCDF-13C	2.00	27 P
				1,2,3,7,8-PeCDD-13C	2.00	28 P
				1,2,3,4,7,8-HxCDF-13C	2.00	35 P
1,2,3,7,8-PeCDF	1.00	1.16	116	1,2,3,6,7,8-HxCDF-13C	2.00	34 P
2,3,4,7,8-PeCDF	1.00	1.16	116	2,3,4,6,7,8-HxCDF-13C	2.00	35 P
				1,2,3,7,8,9-HxCDF-13C	2.00	30 P
				1,2,3,4,7,8-HxCDD-13C	2.00	29 P
1,2,3,7,8-PeCDD	1.00	1.03	103	1,2,3,6,7,8-HxCDD-13C	2.00	30 P
				1,2,3,4,6,7,8-HpCDF-13C	2.00	27 P
				1,2,3,4,7,8,9-HpCDF-13C	2.00	21 P
1,2,3,4,7,8-HxCDF	1.00	1.05	105	1,2,3,4,6,7,8-HpCDD-13C	2.00	27 P
1,2,3,6,7,8-HxCDF	1.00	1.14	114	OCDD-13C	4.00	23 P
2,3,4,6,7,8-HxCDF	1.00	1.07	107			
1,2,3,7,8,9-HxCDF	1.00	1.16	116	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.13	113	2,3,7,8-TCDD-37Cl4	0.20	68
1,2,3,6,7,8-HxCDD	1.00	1.15	115			
1,2,3,7,8,9-HxCDD	1.00	1.09	109			
1,2,3,4,6,7,8-HpCDF	1.00	1.13	113			
1,2,3,4,7,8,9-HpCDF	1.00	1.23	123			
1,2,3,4,6,7,8-HpCDD	1.00	1.01	101			
OCDF	2.00	2.05	103			
OCDD	2.00	2.22	111			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

Report No.....1049459

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Minneapolis, MN 55414

Tel: 612-607-1700
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Pace Analytical™

Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCSD-12805		
Filename	U70419A_02	Matrix	Water
Total Amount Extracted	969 mL	Dilution	NA
ICAL Date	01/27/2007	Extracted	04/16/2007
CCal Filename(s)	U70418A_15 & U70419A_15	Analyzed	04/19/2007 03:13
Method Blank ID	BLANK-12803	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.23	114	2,3,7,8-TCDF-13C	2.00	31 P
				2,3,7,8-TCDD-13C	2.00	26 P
				1,2,3,7,8-PeCDF-13C	2.00	31 P
2,3,7,8-TCDD	0.20	0.22	109	2,3,4,7,8-PeCDF-13C	2.00	31 P
				1,2,3,7,8-PeCDD-13C	2.00	30 P
				1,2,3,4,7,8-HxCDF-13C	2.00	38 P
1,2,3,7,8-PeCDF	1.00	1.21	121	1,2,3,6,7,8-HxCDF-13C	2.00	37 P
2,3,4,7,8-PeCDF	1.00	1.17	117	2,3,4,6,7,8-HxCDF-13C	2.00	37 P
				1,2,3,7,8,9-HxCDF-13C	2.00	33 P
				1,2,3,4,7,8-HxCDD-13C	2.00	33 P
1,2,3,7,8-PeCDD	1.00	1.08	108	1,2,3,6,7,8-HxCDD-13C	2.00	33 P
				1,2,3,4,6,7,8-HpCDF-13C	2.00	29 P
				1,2,3,4,7,8,9-HpCDF-13C	2.00	23 P
1,2,3,4,7,8-HxCDF	1.00	1.08	108	1,2,3,4,6,7,8-HpCDD-13C	2.00	30 P
1,2,3,6,7,8-HxCDF	1.00	1.19	119	OCDD-13C	4.00	24 P
2,3,4,6,7,8-HxCDF	1.00	1.17	117			
1,2,3,7,8,9-HxCDF	1.00	1.16	116	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.16	116	2,3,7,8-TCDD-37Cl4	0.20	68
1,2,3,6,7,8-HxCDD	1.00	1.23	123			
1,2,3,7,8,9-HxCDD	1.00	1.13	113			
1,2,3,4,6,7,8-HpCDF	1.00	1.14	114			
1,2,3,4,7,8,9-HpCDF	1.00	1.22	122			
1,2,3,4,6,7,8-HpCDD	1.00	1.02	102			
OCDF	2.00	2.23	112			
OCDD	2.00	2.31	116			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

Report No.....1049459

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SPIKE RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

Client..... Montana DEQ

SPIKE 1 ID..... LCS-12804
SPIKE 1 Filename..... U70419A_01
SPIKE 2 ID..... LCSD-12805
SPIKE 2 Filename..... U70419A_02

COMPOUND	SPIKE 1 REC,%	SPIKE 2 REC,%	RPD,%
2378-TCDF	109	114	4.5
2378-TCDD	111	109	1.8
12378-PeCDF	116	121	4.2
23478-PeCDF	116	117	0.9
12378-PeCDD	103	108	4.7
123478-HxCDF	105	108	2.8
123678-HxCDF	114	119	4.3
234678-HxCDF	107	117	8.9
123789-HxCDF	116	116	0.0
123478-HxCDD	113	116	2.6
123678-HxCDD	115	123	6.7
123789-HxCDD	109	113	3.6
1234678-HpCDF	113	114	0.9
1234789-HpCDF	123	122	0.8
1234678-HpCDD	101	102	1.0
OCDF	103	112	8.4
OCDD	111	116	4.4

REC = Percent Recovered
RPD = The difference between the two values divided by the average.
NA = Not Applicable
NC = Not Calculated

Report No..... 1049459

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ANALYTICAL SUMMARY REPORT

April 25, 2007

MT DEQ
PO Box 200901
Helena, MT 59620

Workorder No.: H07040062

Project Name: KRY Residential

Energy Laboratories Inc received the following 4 samples from MT DEQ on 4/5/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H07040062-001	RW-1-0407	04/04/07 15:15	04/05/07	Aqueous	EPH-Sep Funnel Extraction Hydrocarbons, Extractable Petroleum Screen 515-Herbicides, Chlorinated SDWA Seperatory Funnel Liquid Liquid Ext.
H07040062-002	RW-10-0407	04/04/07 13:24	04/05/07	Aqueous	Same As Above
H07040062-003	RW-12-0407	04/04/07 13:54	04/05/07	Aqueous	Same As Above
H07040062-004	RW-13-0407	04/04/07 14:42	04/05/07	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID, EPA # ID00942
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

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APR 30 2007
Dept. of Environmental Quality
Remediation Division

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: Jonathan Hager
Assistant Lab Manager

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CASE NARRATIVE

NONE

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential
Lab ID: H07040062-001
Client Sample ID: RW-1-0407

Report Date: 04/25/07
Collection Date: 04/04/07 15:15
DateReceived: 04/05/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
2,4-D	ND	ug/L		1.0	70	E515.1	04/19/07 17:37 / eli-b
2,4-DB	ND	ug/L		2.5		E515.1	04/19/07 17:37 / eli-b
Dalapon	ND	ug/L		2.5	200	E515.1	04/19/07 17:37 / eli-b
Dicamba	ND	ug/L		0.25		E515.1	04/19/07 17:37 / eli-b
Dichlorprop	ND	ug/L		1.0		E515.1	04/19/07 17:37 / eli-b
Dinoseb	ND	ug/L		1.0	7	E515.1	04/19/07 17:37 / eli-b
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	04/19/07 17:37 / eli-b
Picloram	ND	ug/L		0.50	500	E515.1	04/19/07 17:37 / eli-b
2,4,5-TP (Silvex)	ND	ug/L		0.20	50	E515.1	04/19/07 17:37 / eli-b
Surr: DCAA	81.0	%REC			70-130	E515.1	04/19/07 17:37 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential
Lab ID: H07040062-002
Client Sample ID: RW-10-0407

Report Date: 04/25/07
Collection Date: 04/04/07 13:24
DateReceived: 04/05/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
2,4-D	ND	ug/L		1.0	70	E515.1	04/19/07 18:11 / eli-b
2,4-DB	ND	ug/L		2.5		E515.1	04/19/07 18:11 / eli-b
Dalapon	ND	ug/L		2.5	200	E515.1	04/19/07 18:11 / eli-b
Dicamba	ND	ug/L		0.25		E515.1	04/19/07 18:11 / eli-b
Dichlorprop	ND	ug/L		1.0		E515.1	04/19/07 18:11 / eli-b
Dinoseb	ND	ug/L		1.0	7	E515.1	04/19/07 18:11 / eli-b
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	04/19/07 18:11 / eli-b
Picloram	ND	ug/L		0.50	500	E515.1	04/19/07 18:11 / eli-b
2,4,5-TP (Silvex)	ND	ug/L		0.20	50	E515.1	04/19/07 18:11 / eli-b
Surr: DCAA	84.0	%REC			70-130	E515.1	04/19/07 18:11 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential
Lab ID: H07040062-003
Client Sample ID: RW-12-0407

Report Date: 04/25/07
Collection Date: 04/04/07 13:54
DateReceived: 04/05/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
2,4-D	ND	ug/L		1.0	70	E515.1	04/19/07 18:44 / eli-b
2,4-DB	ND	ug/L		2.5		E515.1	04/19/07 18:44 / eli-b
Dalapon	ND	ug/L		2.5	200	E515.1	04/19/07 18:44 / eli-b
Dicamba	ND	ug/L		0.25		E515.1	04/19/07 18:44 / eli-b
Dichlorprop	ND	ug/L		1.0		E515.1	04/19/07 18:44 / eli-b
Dinoseb	ND	ug/L		1.0	7	E515.1	04/19/07 18:44 / eli-b
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	04/19/07 18:44 / eli-b
Picloram	ND	ug/L		0.50	500	E515.1	04/19/07 18:44 / eli-b
2,4,5-TP (Silvex)	ND	ug/L		0.20	50	E515.1	04/19/07 18:44 / eli-b
Surr: DCAA	71.0	%REC			70-130	E515.1	04/19/07 18:44 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential
Lab ID: H07040062-004
Client Sample ID: RW-13-0407

Report Date: 04/25/07
Collection Date: 04/04/07 14:42
DateReceived: 04/05/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
2,4-D	ND	ug/L		1.0	70	E515.1	04/23/07 17:09 / eli-b
2,4-DB	ND	ug/L		2.5		E515.1	04/23/07 17:09 / eli-b
Dalapon	ND	ug/L		2.5	200	E515.1	04/23/07 17:09 / eli-b
Dicamba	ND	ug/L		0.25		E515.1	04/23/07 17:09 / eli-b
Dichlorprop	ND	ug/L		1.0		E515.1	04/23/07 17:09 / eli-b
Dinoseb	ND	ug/L		1.0	7	E515.1	04/23/07 17:09 / eli-b
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	04/23/07 17:09 / eli-b
Picloram	ND	ug/L		0.50	500	E515.1	04/23/07 17:09 / eli-b
2,4,5-TP (Silvex)	ND	ug/L		0.20	50	E515.1	04/23/07 17:09 / eli-b
Surr: DCAA	70.0	%REC			70-130	E515.1	04/23/07 17:09 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Residential

Report Date: 04/25/07
Work Order: H07040062

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E515.1									Batch: B_26481
Sample ID: MB-26481	Method Blank				Run: SUB-B92481				04/23/07 16:03
2,4-D	ND	ug/L	1.0						
2,4-DB	ND	ug/L	2.5						
Dalapon	ND	ug/L	2.5						
Dicamba	ND	ug/L	0.25						
Dichlorprop	ND	ug/L	1.0						
Dinoseb	ND	ug/L	1.0						
Pentachlorophenol	ND	ug/L	0.040						
Picloram	ND	ug/L	0.50						
2,4,5-TP (Silvex)	ND	ug/L	0.20						
Surr: DCAA			0.10	50	70	130			S
Sample ID: LCS-26481	Laboratory Control Sample				Run: SUB-B92481				04/23/07 16:36
2,4-D	5.43	ug/L	1.0	109	70	130			
2,4-DB	3.98	ug/L	2.5	80	70	130			
Dalapon	4.78	ug/L	2.5	96	70	130			
Dicamba	5.65	ug/L	0.25	113	70	130			
Dichlorprop	5.54	ug/L	1.0	111	70	130			
Dinoseb	4.89	ug/L	1.0	98	70	130			
Pentachlorophenol	5.31	ug/L	0.040	106	70	130			
Picloram	5.34	ug/L	0.50	107	70	130			
2,4,5-TP (Silvex)	5.87	ug/L	0.20	117	70	130			
Surr: DCAA			0.10	72	70	130			
Sample ID: B07040596-001AMS	Sample Matrix Spike				Run: SUB-B92482				04/19/07 20:24
2,4-D	4.62	ug/L	1.0	92	65	135			
2,4-DB	4.38	ug/L	2.5	88	65	135			
Dalapon	3.30	ug/L	2.5	66	65	135			
Dicamba	4.87	ug/L	0.25	97	65	135			
Dichlorprop	5.01	ug/L	1.0	100	65	135			
Dinoseb	4.07	ug/L	1.0	81	65	135			
Pentachlorophenol	4.40	ug/L	0.040	88	65	135			
Picloram	5.28	ug/L	0.50	106	65	135			
2,4,5-TP (Silvex)	5.10	ug/L	0.20	102	65	135			
Surr: DCAA			0.10	74	70	130			
Sample ID: B07040596-001AMSD	Sample Matrix Spike Duplicate				Run: SUB-B92482				04/19/07 20:57
2,4-D	4.88	ug/L	1.0	98	65	135	5.5	40	
2,4-DB	4.41	ug/L	2.5	88	65	135	0.7	40	
Dalapon	3.42	ug/L	2.5	68	65	135	3.6	40	
Dicamba	4.89	ug/L	0.25	98	65	135	0.4	40	
Dichlorprop	5.03	ug/L	1.0	101	65	135	0.4	40	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Residential

Report Date: 04/25/07
Work Order: H07040062

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E515.1									Batch: B_26481
Sample ID: B07040596-001AMSD	Sample Matrix Spike Duplicate				Run: SUB-B92482				04/19/07 20:57
Dinoseb	4.15	ug/L	1.0	83	65	135	1.9	40	
Pentachlorophenol	4.52	ug/L	0.040	90	65	135	2.7	40	
Picloram	5.30	ug/L	0.50	106	65	135	0.4	40	
2,4,5-TP (Silvex)	5.14	ug/L	0.20	103	65	135	0.8	40	
Surr: DCAA			0.10	76	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Site Name: KRY Residential
Report Date: 04/10/07

Lab ID: H07040062-001
Client Sample ID: RW-1-0407
Matrix: Aqueous
Collection Date: 04/04/07 15:15
DateReceived: 04/05/07

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.34	0.3	SW8015M	04/10/07 00:17 / raf
Surr: o-Terphenyl	81.0	%REC			40-140	SW8015M	04/10/07 00:17 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Lab ID: H07040062-002
Client Sample ID: RW-10-0407
Matrix: Aqueous
Collection Date: 04/04/07 13:24
DateReceived: 04/05/07

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.31	0.3	SW8015M	04/10/07 02:23 / raf
Surr: o-Terphenyl	65.0	%REC			40-140	SW8015M	04/10/07 02:23 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Lab ID: H07040062-003
Client Sample ID: RW-12-0407
Matrix: Aqueous
Collection Date: 04/04/07 13:54
DateReceived: 04/05/07

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.30	0.3	SW8015M	04/10/07 03:46 / raf
Surr: o-Terphenyl	82.0	%REC			40-140	SW8015M	04/10/07 03:46 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Lab ID: H07040062-004
Client Sample ID: RW-13-0407
Matrix: Aqueous
Collection Date: 04/04/07 14:42
DateReceived: 04/05/07

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.30	0.3	SW8015M	04/10/07 04:28 / raf
Surr: o-Terphenyl	85.0	%REC			40-140	SW8015M	04/10/07 04:28 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Residential

Report Date: 04/10/07
Work Order: H07040062

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M									Batch: 3217
Sample ID: MB-3217	Method Blank				Run: HHP_070409A				04/09/07 22:54
Total Extractable Hydrocarbons	ND	mg/L	0.30						
Surr: o-Terphenyl			0.0050	87	40	140			
Sample ID: LCS-3217	Laboratory Control Sample				Run: HHP_070409A				04/09/07 23:36
Total Extractable Hydrocarbons	5.08	mg/L	0.30	98	60	140			
Surr: o-Terphenyl			0.0050	98	40	140			
Sample ID: H07040062-001BMS	Sample Matrix Spike				Run: HHP_070409A				04/10/07 00:59
Total Extractable Hydrocarbons	11.1	mg/L	0.72	89	60	140			
Surr: o-Terphenyl			0.012	87	40	140			
Sample ID: H07040062-001BMSD	Sample Matrix Spike Duplicate				Run: HHP_070409A				04/10/07 01:41
Total Extractable Hydrocarbons	12.1	mg/L	0.72	97	60	140	8.5	20	
Surr: o-Terphenyl			0.012	93	40	140			
Method: SW8015M									Analytical Run: HHP_070409A
Sample ID: CCV_0409GC101r-W	Continuing Calibration Verification Standard								04/09/07 22:13
n-Nonane	0.194	mg/L	0.0050	97	75	125			
n-Decane	0.194	mg/L	0.0050	97	75	125			
n-Dodecane	0.195	mg/L	0.0050	98	75	125			
n-Tetradecane	0.192	mg/L	0.0050	96	75	125			
n-Hexadecane	0.194	mg/L	0.0050	97	75	125			
n-Octadecane	0.195	mg/L	0.0050	97	75	125			
n-Nonadecane	0.195	mg/L	0.0050	98	75	125			
n-Eicosane	0.196	mg/L	0.0050	98	75	125			
n-Docosane	0.196	mg/L	0.0050	98	75	125			
n-Tetracosane	0.197	mg/L	0.0050	98	75	125			
n-Hexacosane	0.198	mg/L	0.0050	99	75	125			
n-Octacosane	0.199	mg/L	0.0050	99	75	125			
n-Triacontane	0.198	mg/L	0.0050	99	75	125			
n-Hexatriacontane	0.202	mg/L	0.0050	101	75	125			
Surr: o-Terphenyl			0.0050	103	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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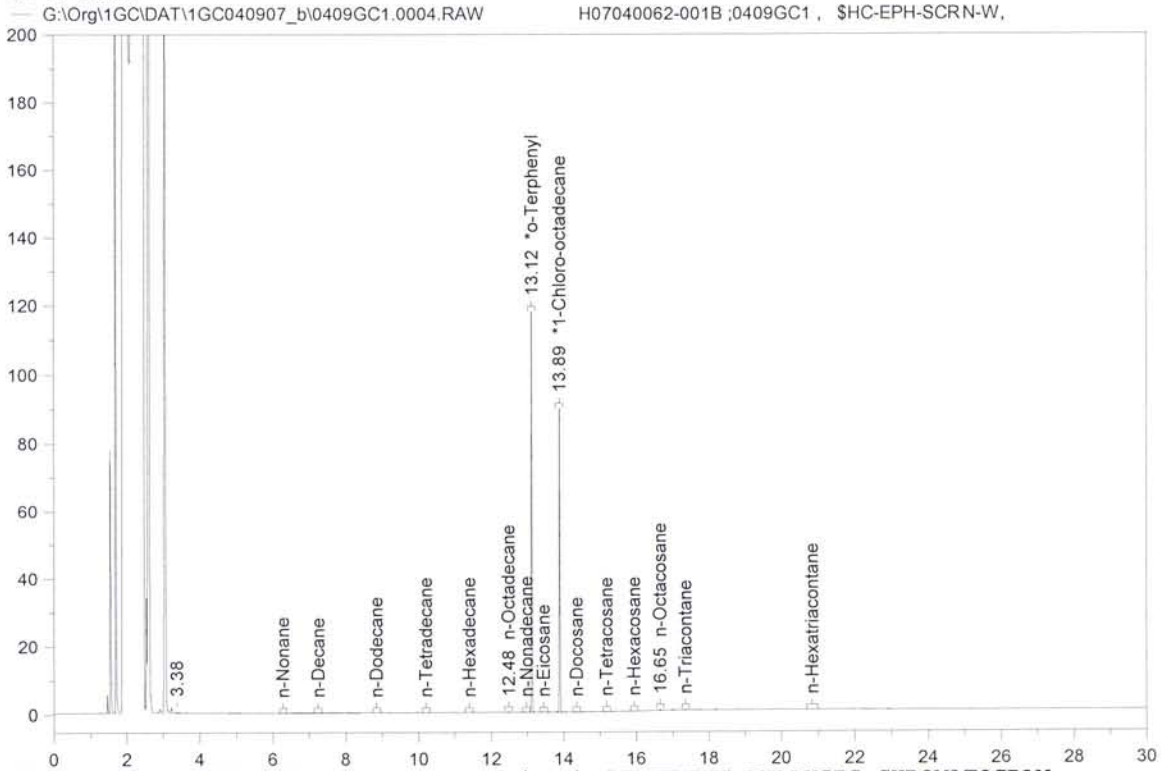
RW-1-0407



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07040062-001B ;0409GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC040907_b\0409GC1.0004.RAW
Date & Time Acquired: 4/10/2007 12:17:55 AM
Method File: G:\Org\1GC\Methods\2007METHODS\S2000BK%.met
Calibration File: G:\Org\1GC\Cals\2007CALS\AL022607BK.CAL
Sample Weight: 876.92 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 939.1489
Mean RF for C19 to C36 Hydrocarbons: 930.722
Mean RF for Total Extractable Hydrocarbons: 934.9355
Rt range for Diesel Range Organics: 7.14 to 17.45
Rt range for C9 to C18 Hydrocarbons: 6.17 to 12.87
Rt range for C19 to C36 Hydrocarbons: 13.07 to 20.98

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.122	.228	.184	80.5	-
*1-Chloro-octadecane	13.888	.228	.194	85.15	-

DRO Area:10424.3 DRO Amount: 1.271467E-02
TEH Area:16148.67 TEH Amount: 1.969678E-02
C9-C18 Area:6259.39 C9-C18 Amount: 7.600421E-03
C19-C36 Area:6493.016 C19-C36 Amount: 7.955481E-03

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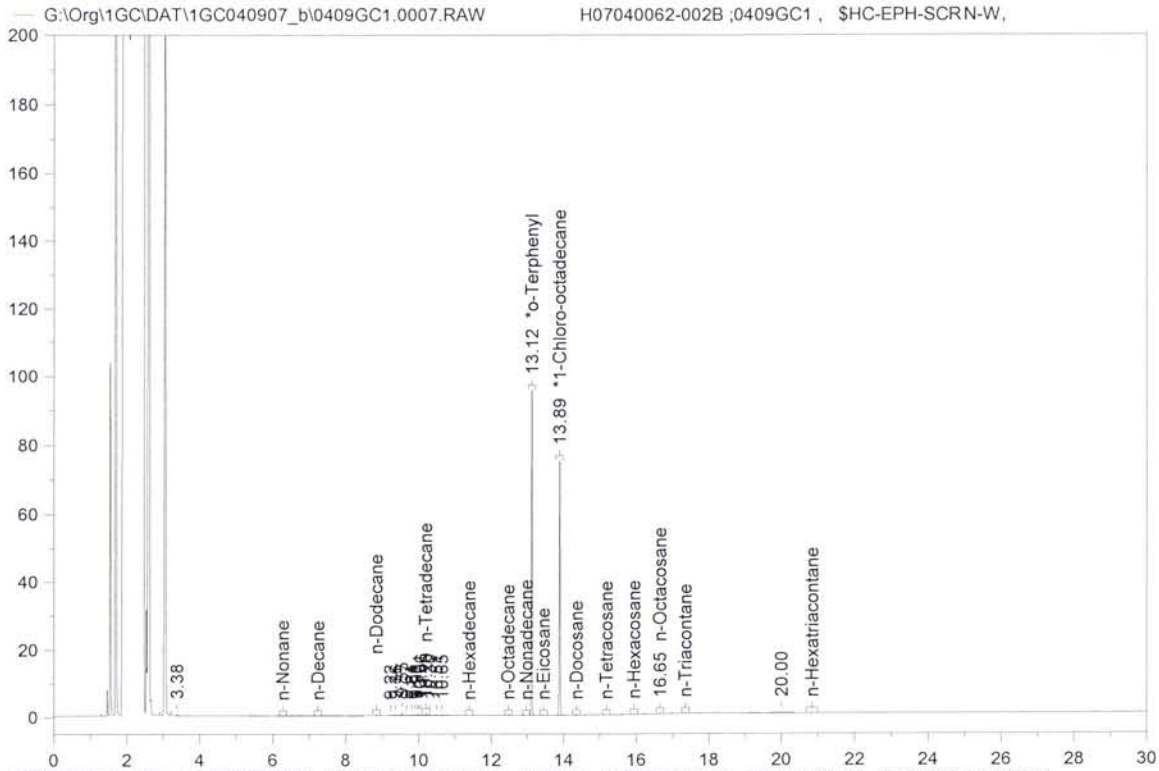
RW-10-0407



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07040062-002B ;0409GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC040907_b\0409GC1.0007.RAW
Date & Time Acquired: 4/10/2007 2:23:03 AM
Method File: G:\Org\1GC\Methods\2007METHODS\S2000BK%.met
Calibration File: G:\Org\1GC\Cals\2007CALS\AL022607BK.CAL
Sample Weight: 971.77 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 939.1489
Mean RF for C19 to C36 Hydrocarbons: 930.722
Mean RF for Total Extractable Hydrocarbons: 934.9355
Rt range for Diesel Range Organics: 7.14 to 17.45
Rt range for C9 to C18 Hydrocarbons: 6.17 to 12.87
Rt range for C19 to C36 Hydrocarbons: 13.07 to 20.98

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.121	.206	.134	65.16	-
*1-Chloro-octadecane	13.887	.206	.147	71.4	-

DRO Area:25054.59 DRO Amount: 0.0275767
TEH Area:33145.69 TEH Amount: 3.648227E-02
C9-C18 Area:21274.42 C9-C18 Amount: 2.331094E-02
C19-C36 Area:9167.938 C19-C36 Amount: 0.0101365

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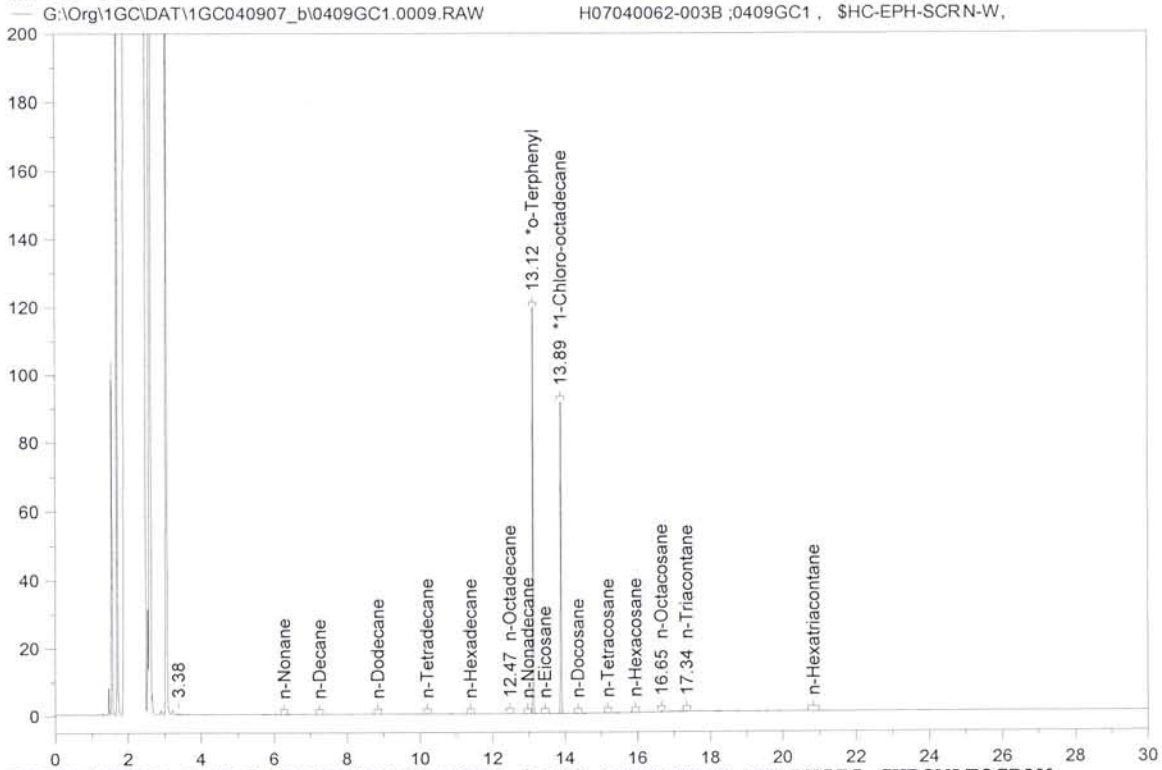
RW-12-0407



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07040062-003B ;0409GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC040907_b\0409GC1.0009.RAW
Date & Time Acquired: 4/10/2007 3:46:35 AM
Method File: G:\Org\1GC\Methods\2007METHODS\S2000BK%.met
Calibration File: G:\Org\1GC\Cals\2007CALS\AL022607BK.CAL
Sample Weight: 984.5 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 939.1489
Mean RF for C19 to C36 Hydrocarbons: 930.722
Mean RF for Total Extractable Hydrocarbons: 934.9355
Rt range for Diesel Range Organics: 7.14 to 17.45
Rt range for C9 to C18 Hydrocarbons: 6.17 to 12.87
Rt range for C19 to C36 Hydrocarbons: 13.07 to 20.98

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.122	.203	.167	82.2	-
*1-Chloro-octadecane	13.888	.203	.177	87.15	-

DRO Area:10505.27 DRO Amount: 1.141326E-02
TEH Area:17136.92 TEH Amount: 0.0186181
C9-C18 Area:5965.691 C9-C18 Amount: 6.452241E-03
C19-C36 Area:7673.078 C19-C36 Amount: 8.374019E-03

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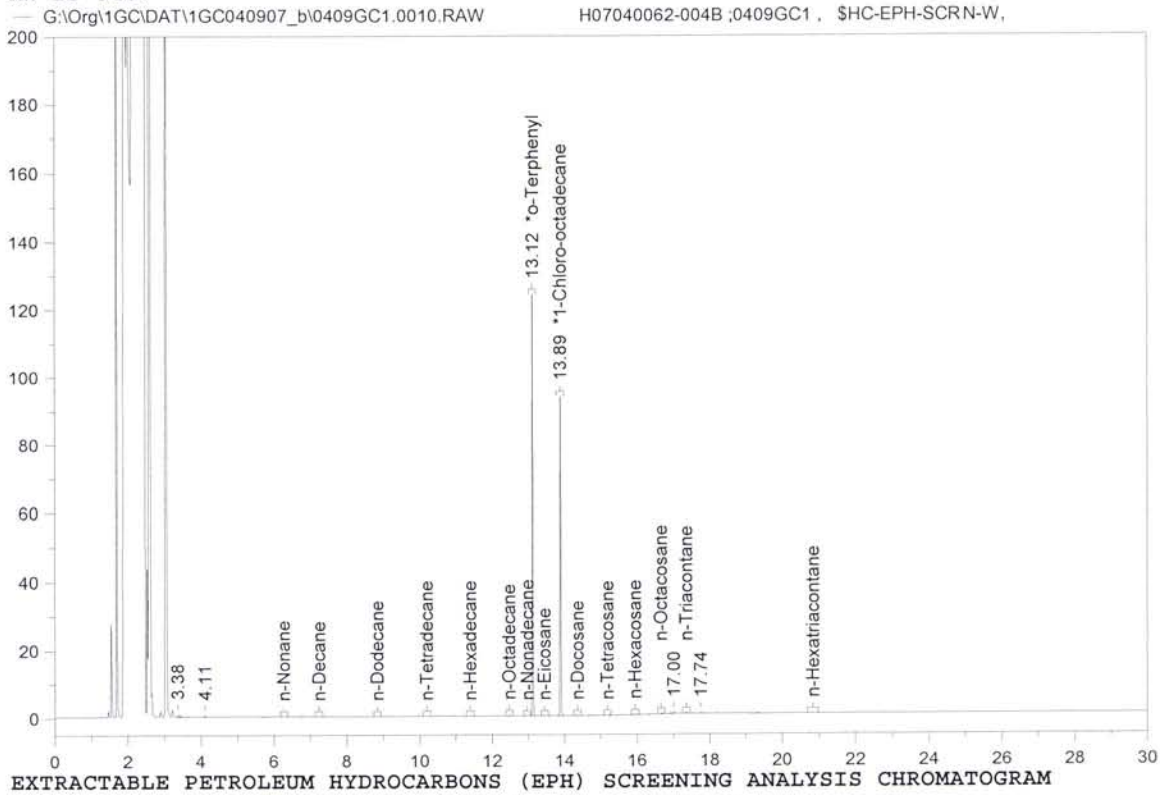
RW-13-0407



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07040062-004B ;0409GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC040907_b\0409GC1.0010.RAW
Date & Time Acquired: 4/10/2007 4:28:16 AM
Method File: G:\Org\1GC\Methods\2007METHODS\S2000BK%.met
Calibration File: G:\Org\1GC\Cals\2007CALS\AL022607BK.CAL
Sample Weight: 985.17 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 939.1489
Mean RF for C19 to C36 Hydrocarbons: 930.722
Mean RF for Total Extractable Hydrocarbons: 934.9355
Rt range for Diesel Range Organics: 7.14 to 17.45
Rt range for C9 to C18 Hydrocarbons: 6.17 to 12.87
Rt range for C19 to C36 Hydrocarbons: 13.07 to 20.98

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.121	.203	.172	84.76	-
*1-Chloro-octadecane	13.887	.203	.181	89.12	-

DRO Area:9721.609 DRO Amount: 1.055469E-02
TEH Area:17681.86 TEH Amount: 1.919708E-02
C9-C18 Area:5493.755 C9-C18 Amount: 5.937774E-03
C19-C36 Area:7414.891 C19-C36 Amount: 8.086742E-03

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: MT DEQ

Project Name, PWS #, Permit #, Etc.: KRY Residential

Sampler Name if other than Contact: Jason Seyler / Jason Seyler

Report Mail Address: P.O. Box 200901, Helena, MT 59620

Contact Name, Phone, Fax, E-mail: Moriah Bucy, 841-5064, 841-5050, mbucy@mt.gov

Invoice Address: same as above

Invoice Contact & Phone #: same as above

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:

NELAC ☐ A2LA ☐ Level IV ☐

Other _____

EDD/EDT ☐ Format _____

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Comments: *If above 300 ppb please fractionate with PAHs.

Shipped by: hand del

Cooler ID(s)

Receipt Temp 3.0 °C

Custody Seal Y N

Intact Y N

Signature Match Y N

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	PCP (515.1)	*EPH Screen (MT Mod.)	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Lab ID
1	RW-1-0407	4/4/07	15:15	3 W	X	X		X		707040062001
2	~~RW-7-0407~~	4/4/07		3 W	X	X		X		
3	RW-10-0407	4/4/07	13:24	3 W	X	X		X		-002
4	RW-12-0407	4/4/07	13:54	3 W	X	X		X		-003
5	RW-13-0407	4/4/07	14:42	3 W	X	X		X		-004
6										
7										
8										
9										
10										

LABORATORY USE ONLY

4/5/07

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Jason Seyler	4/5/07 16:48	Jason Seyler	Roxanne Tubbs	4.5.07 16:48	

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY

Sample Type: _____ # of fractions _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

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877-472-0711 • 406-442-0711 • 406-442-0712 fax • helena@energylab.com

Energy Laboratories Inc

Sample Receipt Checklist

Client Name MT DEQ

Work Order Number H07040062

Date and Time Received: 4/5/2007 4:48:00 PM

Received by rlt

Login completed by: Wanda Johnson (Signature) 4/5/2007 4:48:00 P (Date)

Reviewed by JWH / JBB (Initials) 4/9/07 / 4/9/07 (Date)

Carrier name Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	3 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Adjusted? _____ Checked by _____

Contact and Corrective Action Comments:

Bottles state preserved with HCL, contacted Moriah Bucy-she stated they were preserved with H2SO4. Wj

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1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DETERMINATION OF PCDD/PCDF LEVELS

Prepared for:
Montana DEQ
Attn: Moriah Bucy
1100 North Last Chance Gulch
Helena, MT 59601

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This report contains 16 pages.

The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Project: K/R/Y Residential Well Sampling

Purchase Order Number: NA

RECEIVED
JAN 24 2007
Dept. of Environmental Quality
Remediation Division

REPORT OF LABORATORY ANALYSIS

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REPORT OF: CHEMICAL ANALYSES

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

PROJECT: **PCDD/PCDF ANALYSES**

DATE: January 22, 2007

ISSUED TO: Montana DEQ
Attn: Moriah Bucy
1100 North Last Chance Gulch
Helena, MT 59601

REPORT NO: 07-1044788

INTRODUCTION

This report presents the results from the analyses performed on five samples submitted by a representative of Montana DEQ. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290.

SAMPLE IDENTIFICATION

Client ID	Sample Type	Date Received	PACE ID
RW-1-0107	Water	01/12/07	1044788001
RW-7-0107	Water	01/12/07	1044788002
RW-10-0107	Water	01/12/07	1044788003
RW-12-0107	Water	01/12/07	1044788004
RW-13-0107	Water	01/12/07	1044788005

RESULTS

The results are included in the following:

Appendix A – Chain of Custody Documentation
Appendix B – PCDD/PCDF Analysis Results

REPORT OF LABORATORY ANALYSIS

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REPORT OF: CHEMICAL ANALYSES

PROJECT: **PCDD/PCDF ANALYSES** **DATE:** January 22, 2007

 REPORT NO: 07-1044788

DISCUSSION

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 70-123%. All of the labeled standard recoveries obtained for this project were within the 40-135% Method 8290 target range. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

In one case, an incorrect isotope ratio was obtained for a PCDD congener. The affected value was flagged " I" on the results table.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results, found at the beginning of Appendix B, show the blank to be free of PCDDs and PCDFs at the reporting limits. This indicates that the sample processing steps did not contribute significantly to the levels reported for the field samples.

Laboratory spike samples were also prepared with the sample batch using clean water that had been fortified with native standard materials. Recoveries of the spiked native compounds ranged from 82-111%, with relative percent differences of 0.0-6.7%. These results indicate high degrees of accuracy and precision for these determinations.

REMARKS

The sample extracts will be retained for a period of 15 days from the date of this report and then discarded unless other arrangements are made. The raw mass spectral data will be archived on magnetic tape for a period of not less than one year. Questions regarding the data contained in this report may be directed to the author at the number provided below.

Pace Analytical Services, Inc.

Scott C. Unze
Project Manager, HRMS
(612) 607-6383

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TABLE 1. 2,3,7,8-TCDD Equivalency Factors (TEFs) for the Polychlorinated Dibenzo-p-dioxins and Dibenzofurans

Number	Compound(s)	TEF
1	2,3,7,8-TCDD	1.00
2	1,2,3,7,8-PeCDD	0.50
3	1,2,3,6,7,8-HxCDD	0.1
4	1,2,3,7,8,9-HxCDD	0.1
5	1,2,3,4,7,8-HxCDD	0.1
6	1,2,3,4,6,7,8-HpCDD	0.01
7	OCDD	0.001
8	* Total - TCDD	0.0
9	* Total - PeCDD	0.0
10	* Total - HxCDD	0.0
11	* Total - HpCDD	0.0
12	2,3,7,8-TCDF	0.10
13	1,2,3,7,8-PeCDF	0.05
14	2,3,4,7,8-PeCDF	0.5
15	1,2,3,6,7,8-HxCDF	0.1
16	1,2,3,7,8,9-HxCDF	0.1
17	1,2,3,4,7,8-HxCDF	0.1
18	2,3,4,6,7,8-HxCDF	0.1
19	1,2,3,4,6,7,8-HpCDF	0.01
20	1,2,3,4,7,8,9-HpCDF	0.01
21	OCDF	0.001
22	* Total - TCDF	0.0
23	* Total - PeCDF	0.0
24	* Total - HxCDF	0.0
25	* Total - HpCDF	0.0

*Excluding the 2,3,7,8-substituted congeners.

Reference: 1989 ITEFs

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APPENDIX A

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1044788

FROM: MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY CECRA PROGRAM ~~2209 PHOENIX AVENUE~~ 1100 N. Last Chance Gulch HELENA, MT 59620~~0~~01 TELEPHONE: (406)~~444-1420~~ 841-5004	CONTRACT #:	TO: Pace Analytical Services, Inc. 1700 Elm St. Minneapolis, MN 55414

SEND BILL, COOLER, CHAIN OF CUSTODY FORM AND RESULTS TO: Moriah Bucy AT THE ABOVE ADDRESS

PROJECT NAME AND SITE LOCATION: KBII Residential Well Sampling SAMPLER (SIGNATURE):

DATE	TIME	SAMPLE NUMBER AND ID	FILT Y/N	PRES.	# OF CONTAINERS	MATRIX	ANALYSES REQUESTED (SPECIFY METHOD #)
1/9/07	13:45	RW-1-0107	N	N	2	W	Method 8290 (Dioxin/furan)
1/9/07	12:30	RW-7-0107	N	N	2	W	002
1/9/07	12:49	RW-10-0107	N	N	2	W	003
1/9/07	13:20	RW-12-0107	N	N	2	W	004
1/9/07	14:05	RW-13-0107	N	N	2	W	005

COMMENTS:

MAH 1/12/07

Relinquished by (signature)		1/11/07 Date	10:23 Time	Received by (signature)	Name of Receiving Laboratory	Julie Thiesschafer
Relinquished by (signature)		Date	Time	Received by (signature)	Received for Lab. by (signature)	1/12/07 9:00 T=3.2°C
					Seal Number	

Laboratory Copy = White
Sampler Copy = Yellow
CECRA File Copy = Pink

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APPENDIX B

REPORT OF LABORATORY ANALYSIS
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Fax: 612- 607-6444

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Method 8290 Blank Analysis Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	BLANK-11985	Matrix	Water
Filename	F70120A_06	Dilution	NA
Total Amount Extracted	1050 mL	Extracted	01/15/2007
ICAL Date	01/04/2007	Analyzed	01/20/2007 15:53
CCal Filename(s)	F70120A_03 & F70120A_18	Injected By	BAL

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L
2,3,7,8-TCDF	ND	-----	0.00190
Total TCDF	ND	-----	0.00190
2,3,7,8-TCDD	ND	-----	0.00190
Total TCDD	ND	-----	0.00190
1,2,3,7,8-PeCDF	ND	-----	0.00960
2,3,4,7,8-PeCDF	ND	-----	0.00960
Total PeCDF	ND	-----	0.00960
1,2,3,7,8-PeCDD	ND	-----	0.00960
Total PeCDD	ND	-----	0.00960
1,2,3,4,7,8-HxCDF	ND	-----	0.00960
1,2,3,6,7,8-HxCDF	ND	-----	0.00960
2,3,4,6,7,8-HxCDF	ND	-----	0.00960
1,2,3,7,8,9-HxCDF	ND	-----	0.00960
Total HxCDF	ND	-----	0.00960
1,2,3,4,7,8-HxCDD	ND	-----	0.00960
1,2,3,6,7,8-HxCDD	ND	-----	0.00960
1,2,3,7,8,9-HxCDD	ND	-----	0.00960
Total HxCDD	ND	-----	0.00960
1,2,3,4,6,7,8-HpCDF	ND	-----	0.00960
1,2,3,4,7,8,9-HpCDF	ND	-----	0.00960
Total HpCDF	ND	-----	0.00960
1,2,3,4,6,7,8-HpCDD	ND	-----	0.00960
Total HpCDD	ND	-----	0.00960
OCDF	ND	-----	0.01900
OCDD	ND	-----	0.01900

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	98
2,3,7,8-TCDD-13C	2.00	92
1,2,3,7,8-PeCDF-13C	2.00	80
2,3,4,7,8-PeCDF-13C	2.00	83
1,2,3,7,8-PeCDD-13C	2.00	95
1,2,3,4,7,8-HxCDF-13C	2.00	97
1,2,3,6,7,8-HxCDF-13C	2.00	98
2,3,4,6,7,8-HxCDF-13C	2.00	94
1,2,3,7,8,9-HxCDF-13C	2.00	92
1,2,3,4,7,8-HxCDD-13C	2.00	90
1,2,3,6,7,8-HxCDD-13C	2.00	92
1,2,3,4,6,7,8-HpCDF-13C	2.00	85
1,2,3,4,7,8,9-HpCDF-13C	2.00	79
1,2,3,4,6,7,8-HpCDD-13C	2.00	98
OCDD-13C	4.00	101
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	83

Total 2,3,7,8-TCDD
Equivalence: 0.00 ng/L
(Using ITE Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
LRL = Lower Reporting Limit
J = Concentration detected is below the calibration range
P = Recovery outside of target range
A = Detection Limit based on signal-to-noise measurement

I = Interference
E = PCDE Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1044788

REPORT OF LABORATORY ANALYSIS

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Tel: 612-607-1700
Fax: 612- 607-6444

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Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-1-0107		
Lab Sample ID	1044788001		
Filename	U70117A_10		
Injected By	SMT		
Total Amount Extracted	967 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	01/09/2007
ICAL Date	12/12/2006	Received	01/12/2007
CCal Filename(s)	U70117A_01 & U70117A_17	Extracted	01/15/2007
Method Blank ID	BLANK-11985	Analyzed	01/17/2007 14:18

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00210		2,3,7,8-TCDF-13C	2.00	95
Total TCDF	ND	-----	0.00210		2,3,7,8-TCDD-13C	2.00	87
					1,2,3,7,8-PeCDF-13C	2.00	87
2,3,7,8-TCDD	ND	-----	0.00210		2,3,4,7,8-PeCDF-13C	2.00	96
Total TCDD	ND	-----	0.00210		1,2,3,7,8-PeCDD-13C	2.00	107
					1,2,3,4,7,8-HxCDF-13C	2.00	101
1,2,3,7,8-PeCDF	ND	-----	0.01000		1,2,3,6,7,8-HxCDF-13C	2.00	95
2,3,4,7,8-PeCDF	ND	-----	0.01000		2,3,4,6,7,8-HxCDF-13C	2.00	95
Total PeCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDF-13C	2.00	92
					1,2,3,4,7,8-HxCDD-13C	2.00	88
1,2,3,7,8-PeCDD	ND	-----	0.01000		1,2,3,6,7,8-HxCDD-13C	2.00	86
Total PeCDD	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDF-13C	2.00	81
					1,2,3,4,7,8,9-HpCDF-13C	2.00	74
1,2,3,4,7,8-HxCDF	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDD-13C	2.00	96
1,2,3,6,7,8-HxCDF	ND	-----	0.01000		OCDD-13C	4.00	80
2,3,4,6,7,8-HxCDF	ND	-----	0.01000				
1,2,3,7,8,9-HxCDF	ND	-----	0.01000		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000		2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	ND	-----	0.01000				
1,2,3,7,8,9-HxCDD	ND	-----	0.01000				
Total HxCDD	ND	-----	0.01000				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000		Equivalence: 0.000023 ng/L		
Total HpCDF	ND	-----	0.01000		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000				
Total HpCDD	ND	-----	0.01000				
OCDF	ND	-----	0.02100				
OCDD	0.023	-----	0.02100	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1044788

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Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-7-0107		
Lab Sample ID	1044788002		
Filename	U70117A_11		
Injected By	SMT		
Total Amount Extracted	988 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	01/09/2007
ICAL Date	12/12/2006	Received	01/12/2007
CCal Filename(s)	U70117A_01 & U70117A_17	Extracted	01/15/2007
Method Blank ID	BLANK-11985	Analyzed	01/17/2007 15:06

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200	2,3,7,8-TCDF-13C	2.00	92
Total TCDF	ND	-----	0.00200	2,3,7,8-TCDD-13C	2.00	85
				1,2,3,7,8-PeCDF-13C	2.00	88
2,3,7,8-TCDD	ND	-----	0.00200	2,3,4,7,8-PeCDF-13C	2.00	95
Total TCDD	ND	-----	0.00200	1,2,3,7,8-PeCDD-13C	2.00	106
				1,2,3,4,7,8-HxCDF-13C	2.00	97
1,2,3,7,8-PeCDF	ND	-----	0.01000	1,2,3,6,7,8-HxCDF-13C	2.00	91
2,3,4,7,8-PeCDF	ND	-----	0.01000	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDF-13C	2.00	92
				1,2,3,4,7,8-HxCDD-13C	2.00	82
1,2,3,7,8-PeCDD	ND	-----	0.01000	1,2,3,6,7,8-HxCDD-13C	2.00	83
Total PeCDD	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDF-13C	2.00	75
				1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	ND	-----	0.01000	OCDD-13C	4.00	73
2,3,4,6,7,8-HxCDF	ND	-----	0.01000			
1,2,3,7,8,9-HxCDF	ND	-----	0.01000	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	ND	-----	0.01000			
1,2,3,7,8,9-HxCDD	ND	-----	0.01000			
Total HxCDD	ND	-----	0.01000			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01000	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000			
Total HpCDD	ND	-----	0.01000			
OCDF	ND	-----	0.02000			
OCDD	ND	-----	0.02000			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

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NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1044788

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

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Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-10-0107		
Lab Sample ID	1044788003		
Filename	U70117A_12		
Injected By	SMT		
Total Amount Extracted	929 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	01/09/2007
ICAL Date	12/12/2006	Received	01/12/2007
CCal Filename(s)	U70117A_01 & U70117A_17	Extracted	01/15/2007
Method Blank ID	BLANK-11985	Analyzed	01/17/2007 15:54

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00220		2,3,7,8-TCDF-13C	2.00	98
Total TCDF	ND	-----	0.00220		2,3,7,8-TCDD-13C	2.00	88
					1,2,3,7,8-PeCDF-13C	2.00	88
2,3,7,8-TCDD	ND	-----	0.00220		2,3,4,7,8-PeCDF-13C	2.00	97
Total TCDD	ND	-----	0.00220		1,2,3,7,8-PeCDD-13C	2.00	107
					1,2,3,4,7,8-HxCDF-13C	2.00	95
1,2,3,7,8-PeCDF	ND	-----	0.01100		1,2,3,6,7,8-HxCDF-13C	2.00	90
2,3,4,7,8-PeCDF	ND	-----	0.01100		2,3,4,6,7,8-HxCDF-13C	2.00	92
Total PeCDF	ND	-----	0.01100		1,2,3,7,8,9-HxCDF-13C	2.00	94
					1,2,3,4,7,8-HxCDD-13C	2.00	84
1,2,3,7,8-PeCDD	ND	-----	0.01100		1,2,3,6,7,8-HxCDD-13C	2.00	80
Total PeCDD	ND	-----	0.01100		1,2,3,4,6,7,8-HpCDF-13C	2.00	79
					1,2,3,4,7,8,9-HpCDF-13C	2.00	75
1,2,3,4,7,8-HxCDF	ND	-----	0.01100		1,2,3,4,6,7,8-HpCDD-13C	2.00	97
1,2,3,6,7,8-HxCDF	ND	-----	0.01100		OCDD-13C	4.00	82
2,3,4,6,7,8-HxCDF	ND	-----	0.01100				
1,2,3,7,8,9-HxCDF	ND	-----	0.01100		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01100		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01100		2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	ND	-----	0.01100				
1,2,3,7,8,9-HxCDD	ND	-----	0.01100				
Total HxCDD	ND	-----	0.01100				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01100		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01100		Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01100		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01100				
Total HpCDD	ND	-----	0.01100				
OCDF	ND	-----	0.02200				
OCDD	-----	0.041	0.02200	I			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1044788

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-12-0107		
Lab Sample ID	1044788004		
Filename	U70117A_13		
Injected By	SMT		
Total Amount Extracted	993 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	01/09/2007
ICAL Date	12/12/2006	Received	01/12/2007
CCal Filename(s)	U70117A_01 & U70117A_17	Extracted	01/15/2007
Method Blank ID	BLANK-11985	Analyzed	01/17/2007 16:43

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200		2,3,7,8-TCDF-13C	2.00	115
Total TCDF	ND	-----	0.00200		2,3,7,8-TCDD-13C	2.00	107
					1,2,3,7,8-PeCDF-13C	2.00	99
2,3,7,8-TCDD	ND	-----	0.00200		2,3,4,7,8-PeCDF-13C	2.00	110
Total TCDD	ND	-----	0.00200		1,2,3,7,8-PeCDD-13C	2.00	123
					1,2,3,4,7,8-HxCDF-13C	2.00	110
1,2,3,7,8-PeCDF	ND	-----	0.01000		1,2,3,6,7,8-HxCDF-13C	2.00	101
2,3,4,7,8-PeCDF	ND	-----	0.01000		2,3,4,6,7,8-HxCDF-13C	2.00	105
Total PeCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDF-13C	2.00	108
					1,2,3,4,7,8-HxCDD-13C	2.00	96
1,2,3,7,8-PeCDD	ND	-----	0.01000		1,2,3,6,7,8-HxCDD-13C	2.00	95
Total PeCDD	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDF-13C	2.00	89
					1,2,3,4,7,8,9-HpCDF-13C	2.00	83
1,2,3,4,7,8-HxCDF	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDD-13C	2.00	107
1,2,3,6,7,8-HxCDF	ND	-----	0.01000		OCDD-13C	4.00	88
2,3,4,6,7,8-HxCDF	ND	-----	0.01000				
1,2,3,7,8,9-HxCDF	ND	-----	0.01000		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000		2,3,7,8-TCDD-37Cl4	0.20	91
1,2,3,6,7,8-HxCDD	ND	-----	0.01000				
1,2,3,7,8,9-HxCDD	ND	-----	0.01000				
Total HxCDD	ND	-----	0.01000				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000		Equivalence: 0.000024 ng/L		
Total HpCDF	ND	-----	0.01000		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000				
Total HpCDD	ND	-----	0.01000				
OCDF	ND	-----	0.02000				
OCDD	0.024	-----	0.02000	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1044788

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-13-0107		
Lab Sample ID	1044788005		
Filename	U70117A_14		
Injected By	SMT		
Total Amount Extracted	994 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	01/09/2007
ICAL Date	12/12/2006	Received	01/12/2007
CCal Filename(s)	U70117A_01 & U70117A_17	Extracted	01/15/2007
Method Blank ID	BLANK-11985	Analyzed	01/17/2007 17:31

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200	2,3,7,8-TCDF-13C	2.00	96
Total TCDF	ND	-----	0.00200	2,3,7,8-TCDD-13C	2.00	90
				1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	-----	0.00200	2,3,4,7,8-PeCDF-13C	2.00	91
Total TCDD	ND	-----	0.00200	1,2,3,7,8-PeCDD-13C	2.00	100
				1,2,3,4,7,8-HxCDF-13C	2.00	97
1,2,3,7,8-PeCDF	ND	-----	0.01000	1,2,3,6,7,8-HxCDF-13C	2.00	91
2,3,4,7,8-PeCDF	ND	-----	0.01000	2,3,4,6,7,8-HxCDF-13C	2.00	92
Total PeCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDF-13C	2.00	92
				1,2,3,4,7,8-HxCDD-13C	2.00	81
1,2,3,7,8-PeCDD	ND	-----	0.01000	1,2,3,6,7,8-HxCDD-13C	2.00	82
Total PeCDD	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDF-13C	2.00	75
				1,2,3,4,7,8,9-HpCDF-13C	2.00	70
1,2,3,4,7,8-HxCDF	ND	-----	0.01000	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	ND	-----	0.01000	OCDD-13C	4.00	70
2,3,4,6,7,8-HxCDF	ND	-----	0.01000			
1,2,3,7,8,9-HxCDF	ND	-----	0.01000	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.01000	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.01000	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	ND	-----	0.01000			
1,2,3,7,8,9-HxCDD	ND	-----	0.01000			
Total HxCDD	ND	-----	0.01000			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000	Equivalence: 0.00 ng/L		
Total HpCDF	ND	-----	0.01000	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000			
Total HpCDD	ND	-----	0.01000			
OCDF	ND	-----	0.02000			
OCDD	ND	-----	0.02000			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1044788

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCS-11986		
Filename	U70116B_04	Matrix	Water
Total Amount Extracted	1020 mL	Dilution	NA
ICAL Date	12/12/2006	Extracted	01/15/2007
CCal Filename(s)	U70116B_01 & U70116B_08	Analyzed	01/17/2007 02:19
Method Blank ID	BLANK-11985	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.18	88	2,3,7,8-TCDF-13C	2.00	89
				2,3,7,8-TCDD-13C	2.00	81
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	0.20	0.19	96	2,3,4,7,8-PeCDF-13C	2.00	83
				1,2,3,7,8-PeCDD-13C	2.00	93
				1,2,3,4,7,8-HxCDF-13C	2.00	96
1,2,3,7,8-PeCDF	1.00	1.04	104	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	1.00	0.97	97	2,3,4,6,7,8-HxCDF-13C	2.00	87
				1,2,3,7,8,9-HxCDF-13C	2.00	90
				1,2,3,4,7,8-HxCDD-13C	2.00	81
1,2,3,7,8-PeCDD	1.00	0.92	92	1,2,3,6,7,8-HxCDD-13C	2.00	77
				1,2,3,4,6,7,8-HpCDF-13C	2.00	74
				1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	1.00	0.91	91	1,2,3,4,6,7,8-HpCDD-13C	2.00	82
1,2,3,6,7,8-HxCDF	1.00	0.97	97	OCDD-13C	4.00	66
2,3,4,6,7,8-HxCDF	1.00	0.96	96			
1,2,3,7,8,9-HxCDF	1.00	0.96	96	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.04	104	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	1.00	1.04	104			
1,2,3,7,8,9-HxCDD	1.00	1.11	111			
1,2,3,4,6,7,8-HpCDF	1.00	0.99	99			
1,2,3,4,7,8,9-HpCDF	1.00	1.06	106			
1,2,3,4,6,7,8-HpCDD	1.00	0.82	82			
OCDF	2.00	1.87	93			
OCDD	2.00	1.85	92			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

Report No.....1044788

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Fax: 612- 607-6444

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Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCSD-11987		
Filename	U70116B_05	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL Date	12/12/2006	Extracted	01/15/2007
CCal Filename(s)	U70116B_01 & U70116B_08	Analyzed	01/17/2007 03:08
Method Blank ID	BLANK-11985	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.17	85	2,3,7,8-TCDF-13C	2.00	91
				2,3,7,8-TCDD-13C	2.00	82
				1,2,3,7,8-PeCDF-13C	2.00	80
2,3,7,8-TCDD	0.20	0.19	93	2,3,4,7,8-PeCDF-13C	2.00	87
				1,2,3,7,8-PeCDD-13C	2.00	97
				1,2,3,4,7,8-HxCDF-13C	2.00	95
1,2,3,7,8-PeCDF	1.00	1.01	101	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	1.00	0.97	97	2,3,4,6,7,8-HxCDF-13C	2.00	88
				1,2,3,7,8,9-HxCDF-13C	2.00	89
				1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	1.00	0.90	90	1,2,3,6,7,8-HxCDD-13C	2.00	77
				1,2,3,4,6,7,8-HpCDF-13C	2.00	71
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	1.00	0.89	89	1,2,3,4,6,7,8-HpCDD-13C	2.00	81
1,2,3,6,7,8-HxCDF	1.00	0.97	97	OCDD-13C	4.00	71
2,3,4,6,7,8-HxCDF	1.00	0.95	95			
1,2,3,7,8,9-HxCDF	1.00	0.96	96	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	0.99	99	2,3,7,8-TCDD-37Cl4	0.20	81
1,2,3,6,7,8-HxCDD	1.00	1.04	104			
1,2,3,7,8,9-HxCDD	1.00	1.07	107			
1,2,3,4,6,7,8-HpCDF	1.00	1.00	100			
1,2,3,4,7,8,9-HpCDF	1.00	1.02	102			
1,2,3,4,6,7,8-HpCDD	1.00	0.83	83			
OCDF	2.00	1.81	91			
OCDD	2.00	1.73	86			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Minneapolis, MN 55414
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SPIKE RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

Client..... Montana Dept. Of Env. Quality

SPIKE 1 ID..... LCS-11986
SPIKE 1 Filename..... U70116B_04
SPIKE 2 ID..... LCSD-11987
SPIKE 2 Filename..... U70116B_05

COMPOUND	SPIKE 1 REC,%	SPIKE 2 REC,%	RPD,%
2378-TCDF	88	85	3.5
2378-TCDD	96	93	3.2
12378-PeCDF	104	101	2.9
23478-PeCDF	97	97	0.0
12378-PeCDD	92	90	2.2
123478-HxCDF	91	89	2.2
123678-HxCDF	97	97	0.0
234678-HxCDF	96	95	1.0
123789-HxCDF	96	96	0.0
123478-HxCDD	104	99	4.9
123678-HxCDD	104	104	0.0
123789-HxCDD	111	107	3.7
1234678-HpCDF	99	100	1.0
1234789-HpCDF	106	102	3.8
1234678-HpCDD	82	83	1.2
OCDF	93	91	2.2
OCDD	92	86	6.7

REC = Percent Recovered
RPD = The difference between the two values divided by the average.
NA = Not Applicable
NC = Not Calculated

Report No..... 1044788

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877-472-0711 • 406-442-0711 • 406-442-0712 fax • helena@energylab.com

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Remediation Division

ANALYTICAL SUMMARY REPORT

February 01, 2007

MT DEQ
PO Box 200901
Helena, MT 59620

Workorder No.: H07010102

Project Name: K/R/Y Residential Well Sampling

Energy Laboratories Inc received the following 5 samples from MT DEQ on 1/11/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H07010102-001	RW-1-0107	01/09/07 13:45	01/11/07	Aqueous	EPH-Sep Funnel Extraction Hydrocarbons, Extractable Petroleum Screen 515-Herbicides, Chlorinated SDWA Seperatory Funnel Liquid Liquid Ext.
H07010102-002	RW-7-0107	01/09/07 12:30	01/11/07	Aqueous	Same As Above
H07010102-003	RW-10-0107	01/09/07 12:55	01/11/07	Aqueous	Same As Above
H07010102-004	RW-12-0107	01/09/07 13:20	01/11/07	Aqueous	Same As Above
H07010102-005	RW-13-0107	01/09/07 14:05	01/11/07	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID, EPA # ID00942
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____
Jonathan Hager
Assistant Lab Manager

ENERGY LABORATORIES, INC. • P.O. Box 5688 • 3161 East Lyndale Ave. • Helena, MT 59604
877-472-0711 • 406-442-0711 • 406-442-0712 fax • helena@energylab.com

CASE NARRATIVE

NONE

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: K/R/Y Residential Well Sampling
Lab ID: H07010102-001
Client Sample ID: RW-1-0107

Report Date: 02/01/07
Collection Date: 01/09/07 13:45
Date Received: 01/11/07
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By / Extrac
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.31	0.3	SW8015M	01/13/07 00:41 / raf / 01/12/07
Surr: o-Terphenyl	82.0	%REC			40-140	SW8015M	01/13/07 00:41 / raf / 01/12/07
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	01/20/07 09:30 / eli-b / 01/15/07
Surr: DCAA	74.0	%REC			70-130	E515.1	01/20/07 09:30 / eli-b / 01/15/07

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: K/R/Y Residential Well Sampling
Lab ID: H07010102-002
Client Sample ID: RW-7-0107

Report Date: 02/01/07
Collection Date: 01/09/07 12:30
Date Received: 01/11/07
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By / Extrac
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.30	0.3	SW8015M	01/13/07 01:22 / raf / 01/12/07
Surr: o-Terphenyl	70.0	%REC			40-140	SW8015M	01/13/07 01:22 / raf / 01/12/07
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	01/30/07 11:12 / eli-b / 01/23/07
Surr: DCAA	72.0	%REC			70-130	E515.1	01/30/07 11:12 / eli-b / 01/23/07

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: K/R/Y Residential Well Sampling
Lab ID: H07010102-003
Client Sample ID: RW-10-0107

Report Date: 02/01/07
Collection Date: 01/09/07 12:55
Date Received: 01/11/07
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By / Extrac
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.33	0.3	SW8015M	01/13/07 02:03 / raf / 01/12/07
Surr: o-Terphenyl	68.0	%REC			40-140	SW8015M	01/13/07 02:03 / raf / 01/12/07
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	01/20/07 10:29 / eli-b / 01/15/07
Surr: DCAA	80.0	%REC			70-130	E515.1	01/20/07 10:29 / eli-b / 01/15/07

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: K/R/Y Residential Well Sampling
Lab ID: H07010102-004
Client Sample ID: RW-12-0107

Report Date: 02/01/07
Collection Date: 01/09/07 13:20
Date Received: 01/11/07
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By / Extrac
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.31	0.3	SW8015M	01/19/07 20:38 / raf / 01/12/07
Surr: o-Terphenyl	64.0	%REC			40-140	SW8015M	01/19/07 20:38 / raf / 01/12/07
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	01/20/07 10:59 / eli-b / 01/15/07
Surr: DCAA	76.0	%REC			70-130	E515.1	01/20/07 10:59 / eli-b / 01/15/07

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: K/R/Y Residential Well Sampling
Lab ID: H07010102-005
Client Sample ID: RW-13-0107

Report Date: 02/01/07
Collection Date: 01/09/07 14:05
Date Received: 01/11/07
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By / Extrac
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.31	0.3	SW8015M	01/19/07 21:19 / raf / 01/12/07
Surr: o-Terphenyl	67.0	%REC			40-140	SW8015M	01/19/07 21:19 / raf / 01/12/07
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.							
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	01/20/07 11:28 / eli-b / 01/15/07
Surr: DCAA	76.0	%REC			70-130	E515.1	01/20/07 11:28 / eli-b / 01/15/07

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: K/R/Y Residential Well Sampling

Report Date: 01/29/07
Work Order: H07010102

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M									Batch: 2983
Sample ID: MB-2983	Method Blank				Run: HHP_070110A				01/12/07 23:19
Total Extractable Hydrocarbons	ND	mg/L	0.30						
Surr: o-Terphenyl			0.0050	81	40	140			
Sample ID: LCS-2983	Laboratory Control Sample				Run: HHP_070110A				01/13/07 00:00
Total Extractable Hydrocarbons	3.98	mg/L	0.30	77	60	140			
Surr: o-Terphenyl			0.0050	77	40	140			
Sample ID: H07010102-002AMS	Sample Matrix Spike				Run: HHP_070126A				01/26/07 22:31
Total Extractable Hydrocarbons	6.98	mg/L	0.64	63	60	140			
Surr: o-Terphenyl			0.011	64	40	140			
Sample ID: H07010102-002AMSD	Sample Matrix Spike Duplicate				Run: HHP_070126A				01/26/07 23:12
Total Extractable Hydrocarbons	7.61	mg/L	0.64	69	60	140	8.8	20	
Surr: o-Terphenyl			0.011	70	40	140			
Method: SW8015M									Analytical Run: HHP_070110A
Sample ID: CCV_0110GC153r-W	Continuing Calibration Verification Standard								01/12/07 20:35
n-Nonane	0.185	mg/L	0.0050	93	75	125			
n-Decane	0.186	mg/L	0.0050	93	75	125			
n-Dodecane	0.182	mg/L	0.0050	91	75	125			
n-Tetradecane	0.188	mg/L	0.0050	94	75	125			
n-Hexadecane	0.184	mg/L	0.0050	92	75	125			
n-Octadecane	0.182	mg/L	0.0050	91	75	125			
n-Nonadecane	0.183	mg/L	0.0050	91	75	125			
n-Eicosane	0.183	mg/L	0.0050	92	75	125			
n-Docosane	0.182	mg/L	0.0050	91	75	125			
n-Tetracosane	0.183	mg/L	0.0050	91	75	125			
n-Hexacosane	0.184	mg/L	0.0050	92	75	125			
n-Octacosane	0.183	mg/L	0.0050	92	75	125			
n-Triacontane	0.183	mg/L	0.0050	91	75	125			
n-Hexatriacontane	0.182	mg/L	0.0050	91	75	125			
Surr: o-Terphenyl			0.0050	89	75	125			

Qualifiers:

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QA/QC Summary Report

Client: MT DEQ
Project: K/R/Y Residential Well Sampling

Report Date: 01/29/07
Work Order: H07010102

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M								Analytical Run: HHP_070119B	
Sample ID: CCV_0119GC101r-W	Continuing Calibration Verification Standard							01/19/07 18:35	
n-Nonane	0.173	mg/L	0.0050	86	75	125			
n-Decane	0.173	mg/L	0.0050	86	75	125			
n-Dodecane	0.170	mg/L	0.0050	85	75	125			
n-Tetradecane	0.176	mg/L	0.0050	88	75	125			
n-Hexadecane	0.173	mg/L	0.0050	86	75	125			
n-Octadecane	0.173	mg/L	0.0050	86	75	125			
n-Nonadecane	0.173	mg/L	0.0050	86	75	125			
n-Eicosane	0.174	mg/L	0.0050	87	75	125			
n-Docosane	0.174	mg/L	0.0050	87	75	125			
n-Tetracosane	0.174	mg/L	0.0050	87	75	125			
n-Hexacosane	0.175	mg/L	0.0050	88	75	125			
n-Octacosane	0.175	mg/L	0.0050	87	75	125			
n-Triacontane	0.176	mg/L	0.0050	88	75	125			
n-Hexatriacontane	0.176	mg/L	0.0050	88	75	125			
Surr: o-Terphenyl			0.0050	85	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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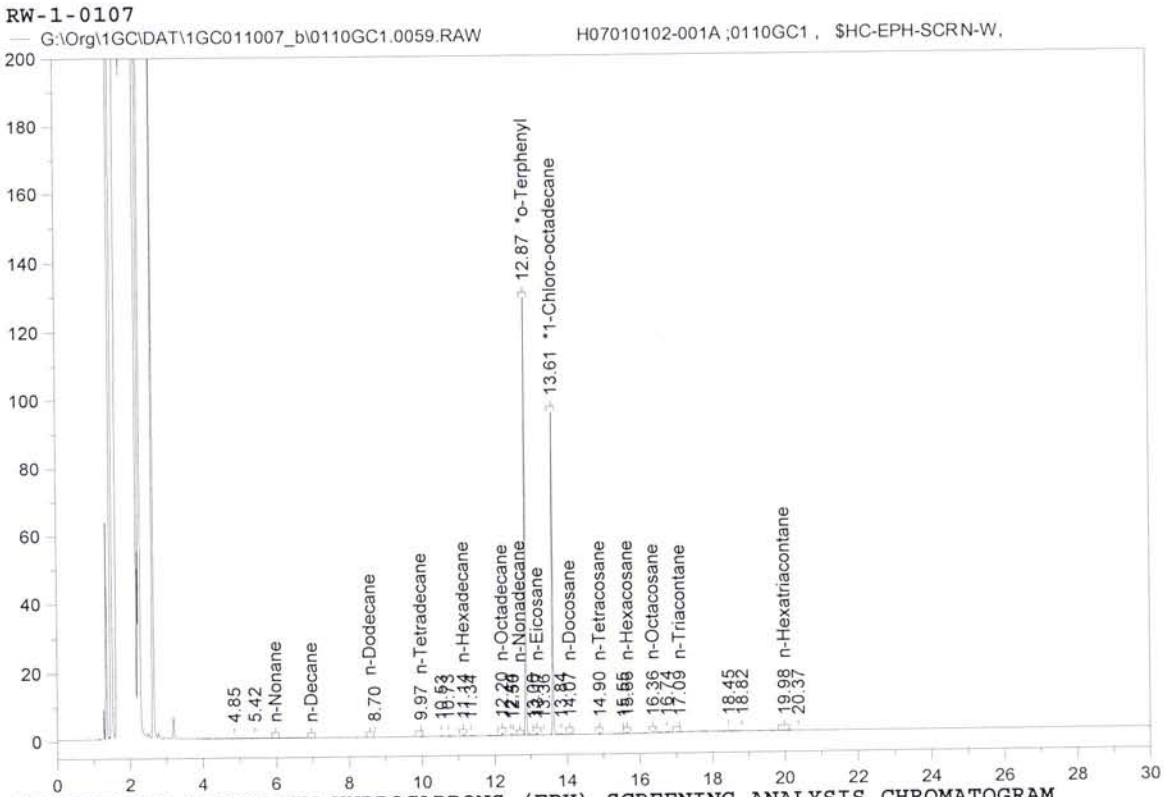
RW-1-0107



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07010102-001A ;0110GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC011007_b\0110GC1.0059.RAW
Date & Time Acquired: 1/13/2007 12:41:14 AM
Method File: G:\Org\1GC\Methods\s2000dO%.met
Calibration File: G:\Org\1GC\Cals\A1083006DO.CAL
Sample Weight: 953.71 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 6.86 to 17.11
Rt range for C9 to C18 Hydrocarbons: 5.87 to 12.59
Rt range for C19 to C36 Hydrocarbons: 12.81 to 20.11

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.867	.21	.173	82.5	-
*1-Chloro-octadecane	13.612	.21	.182	86.62	-

DRO Area:25759.41 DRO Amount: 2.582972E-02
TEH Area:41001.31 TEH Amount: 4.111323E-02
C9-C18 Area:13460.93 C9-C18 Amount: 1.350678E-02
C19-C36 Area:18663.47 C19-C36 Amount: 0.0187018

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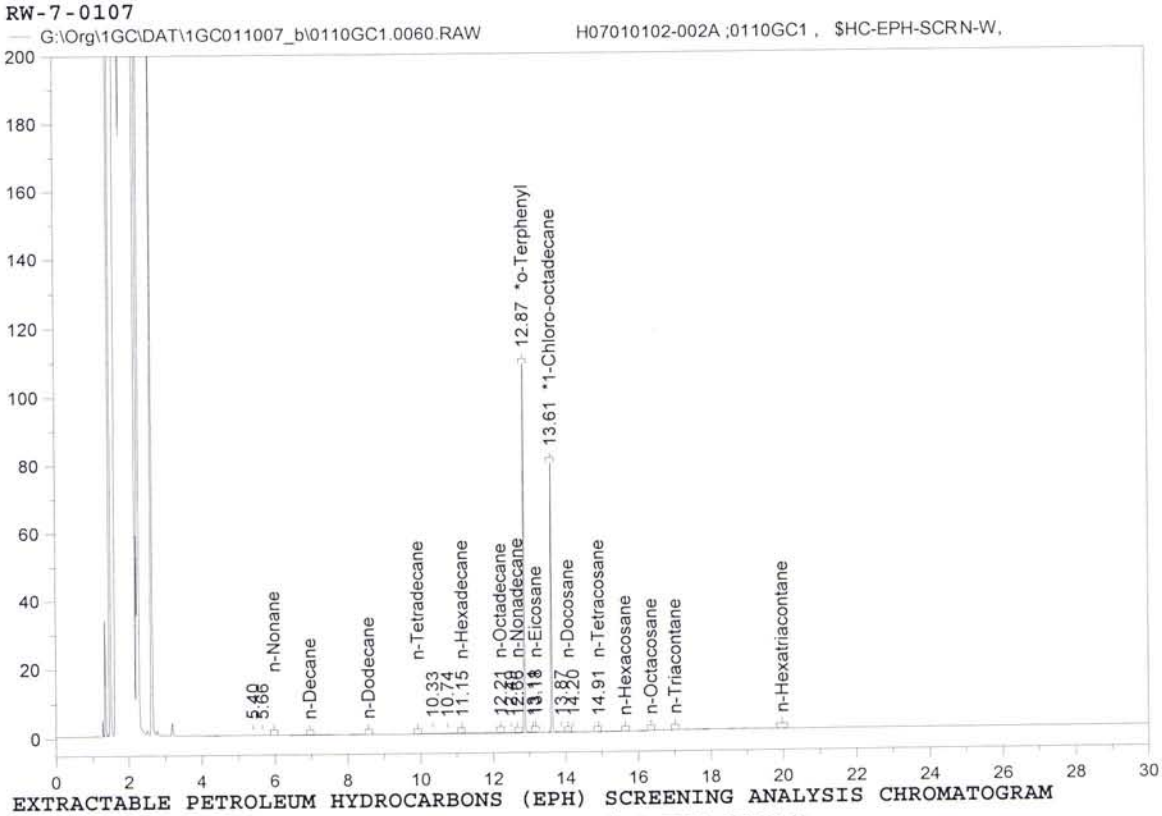
RW-7-0107



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07010102-002A ;0110GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC011007_b\0110GC1.0060.RAW
Date & Time Acquired: 1/13/2007 1:22:13 AM
Method File: G:\Org\1GC\Methods\s2000dO%.met
Calibration File: G:\Org\1GC\Cals\A1083006DO.CAL
Sample Weight: 985.66 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 6.86 to 17.11
Rt range for C9 to C18 Hydrocarbons: 5.87 to 12.59
Rt range for C19 to C36 Hydrocarbons: 12.81 to 20.11

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.867	.203	.142	69.78	-
*1-Chloro-octadecane	13.613	.203	.148	72.85	-

DRO Area:18676.2 DRO Amount: 1.812014E-02
TEH Area:26983.23 TEH Amount: 2.617984E-02
C9-C18 Area:11035.49 C9-C18 Amount: 1.071415E-02
C19-C36 Area:11418.55 C19-C36 Amount: 1.107111E-02

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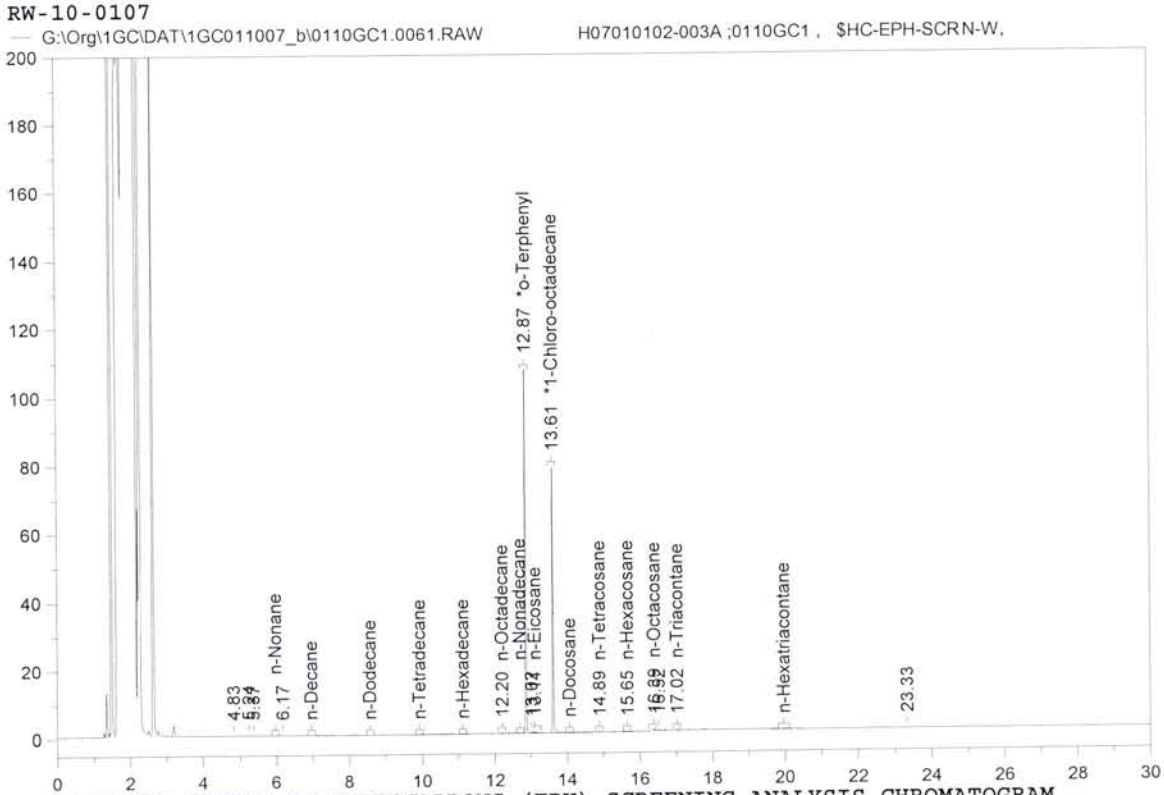
RW-10-0107



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07010102-003A ;0110GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC011007_b\0110GC1.0061.RAW
Date & Time Acquired: 1/13/2007 2:03:21 AM
Method File: G:\Org\1GC\Methods\s2000dO%.met
Calibration File: G:\Org\1GC\Cals\A1083006DO.CAL
Sample Weight: 896.84 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 6.86 to 17.11
Rt range for C9 to C18 Hydrocarbons: 5.87 to 12.59
Rt range for C19 to C36 Hydrocarbons: 12.81 to 20.11

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.867	.223	.154	69.05	-
*1-Chloro-octadecane	13.612	.223	.158	71.07	-

DRO Area:19804.52 DRO Amount: 2.111783E-02
TEH Area:32159.92 TEH Amount: 3.429258E-02
C9-C18 Area:10144.11 C9-C18 Amount: 0.0108241
C19-C36 Area:14874.98 C19-C36 Amount: 1.585072E-02

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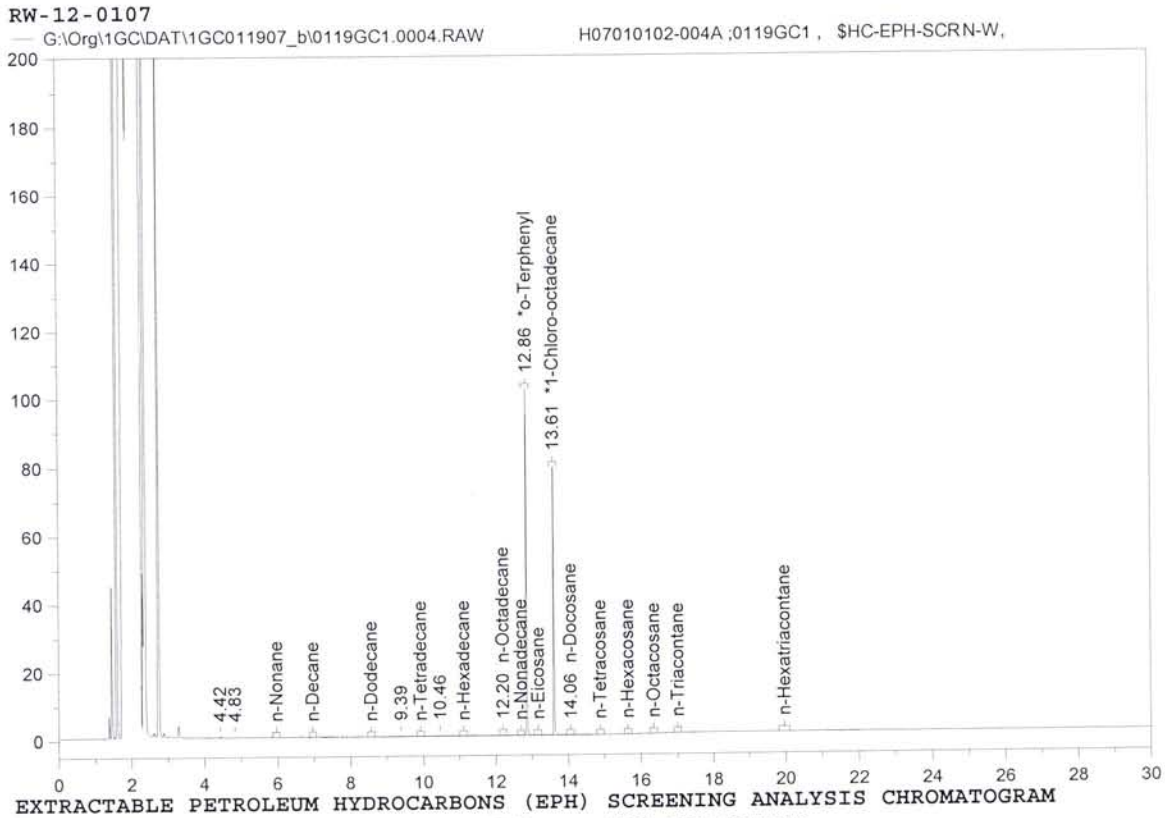
RW-12-0107



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07010102-004A ;0119GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC011907_b\0119GC1.0004.RAW
Date & Time Acquired: 1/19/2007 8:38:22 PM
Method File: G:\Org\1GC\Methods\s2000dO%.met
Calibration File: G:\Org\1GC\Cals\A1083006DO.CAL
Sample Weight: 974.84 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 6.86 to 17.11
Rt range for C9 to C18 Hydrocarbons: 5.86 to 12.59
Rt range for C19 to C36 Hydrocarbons: 12.8 to 20.1

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.863	.205	.132	64.13	-
*1-Chloro-octadecane	13.607	.205	.138	67.18	-

DRO Area:11214.01 DRO Amount: 1.100089E-02
TEH Area:17089.73 TEH Amount: 1.676494E-02
C9-C18 Area:6993.57 C9-C18 Amount: 6.865286E-03
C19-C36 Area:6169.445 C19-C36 Amount: 6.048116E-03

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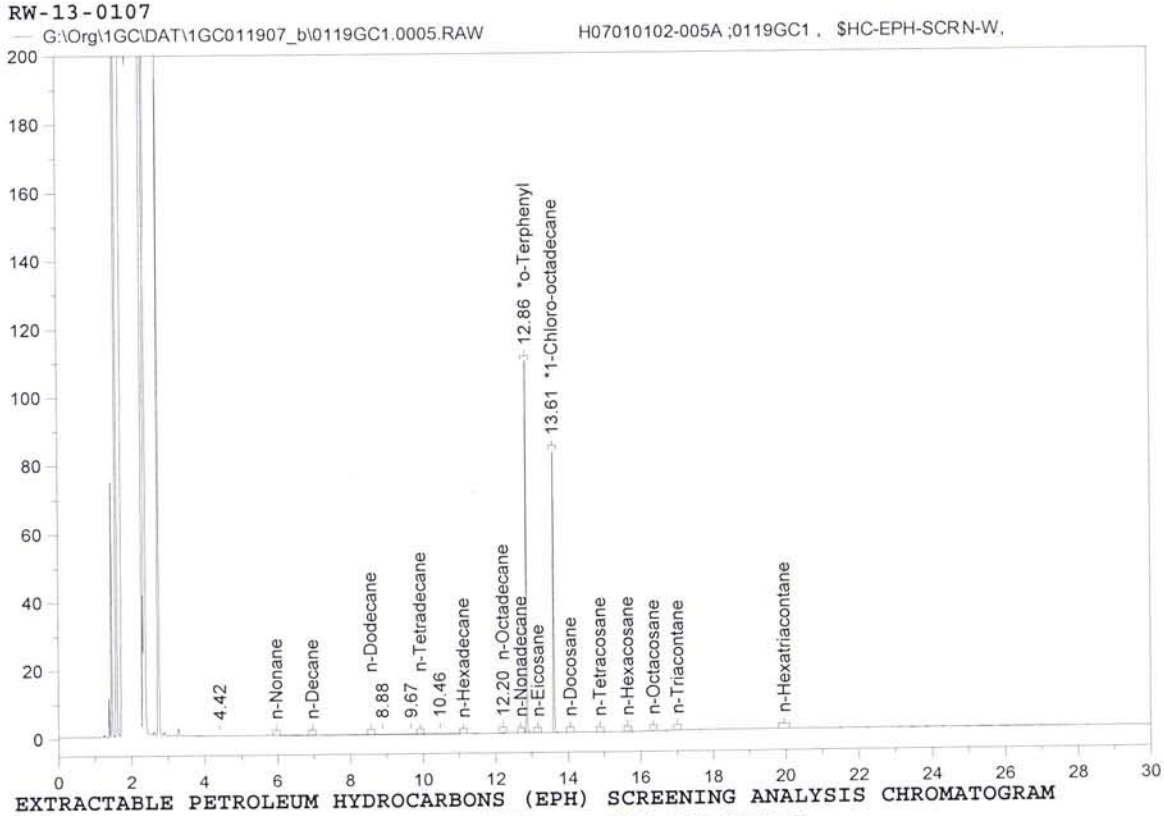
RW-13-0107



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H07010102-005A ;0119GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC011907_b\0119GC1.0005.RAW
Date & Time Acquired: 1/19/2007 9:19:19 PM
Method File: G:\Org\1GC\Methods\s2000dO%.met
Calibration File: G:\Org\1GC\Cals\A1083006DO.CAL
Sample Weight: 956.44 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 6.86 to 17.11
Rt range for C9 to C18 Hydrocarbons: 5.86 to 12.59
Rt range for C19 to C36 Hydrocarbons: 12.8 to 20.1

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.864	.209	.141	67.32	-
*1-Chloro-octadecane	13.608	.209	.149	71.39	-

DRO Area:10992.45 DRO Amount: 0.010991
TEH Area:18807.23 TEH Amount: 1.880474E-02
C9-C18 Area:8088.383 C9-C18 Amount: 8.092768E-03
C19-C36 Area:5279.578 C19-C36 Amount: 5.275321E-03

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QA/QC Summary Report

Client: MT DEQ
Project: K/R/Y Residential Well Sampling

Report Date: 02/01/07
Work Order: H07010102

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E515.1									Batch: B_25197
Sample ID: MB-25197	Method Blank				Run: SUB-B88393				01/20/07 02:07
2,4-D	ND	ug/L	1.0						
2,4-DB	ND	ug/L	2.5						
Dalapon	ND	ug/L	2.5						
Dicamba	ND	ug/L	0.25						
Dichlorprop	ND	ug/L	1.0						
Dinoseb	ND	ug/L	1.0						
Pentachlorophenol	ND	ug/L	0.040						
Picloram	ND	ug/L	0.50						
2,4,5-TP (Silvex)	ND	ug/L	0.20						
Surr: DCAA			0.10	74	70	130			
Sample ID: LCS-25197	Laboratory Control Sample				Run: SUB-B88393				01/20/07 02:36
2,4-D	5.24	ug/L	1.0	105	70	130			
2,4-DB	5.70	ug/L	2.5	114	70	130			
Dalapon	5.03	ug/L	2.5	101	70	130			
Dicamba	5.36	ug/L	0.25	107	70	130			
Dichlorprop	5.80	ug/L	1.0	116	70	130			
Dinoseb	3.83	ug/L	1.0	77	70	130			
Pentachlorophenol	4.75	ug/L	0.040	95	70	130			
Picloram	4.80	ug/L	0.50	96	70	130			
2,4,5-TP (Silvex)	5.20	ug/L	0.20	104	70	130			
Surr: DCAA			0.10	80	70	130			
Sample ID: B07010885-001HMS	Sample Matrix Spike				Run: SUB-B88393				01/20/07 12:27
2,4-D	4.92	ug/L	1.0	98	65	135			
2,4-DB	5.68	ug/L	2.5	114	65	135			
Dalapon	4.91	ug/L	2.5	98	65	135			
Dicamba	5.19	ug/L	0.25	104	65	135			
Dichlorprop	5.70	ug/L	1.0	114	65	135			
Dinoseb	4.14	ug/L	1.0	83	65	135			
Pentachlorophenol	4.60	ug/L	0.040	92	65	135			
Picloram	4.58	ug/L	0.50	92	65	135			
2,4,5-TP (Silvex)	5.32	ug/L	0.20	106	65	135			
Surr: DCAA			0.10	84	70	130			
Sample ID: B07010885-001HMSD	Sample Matrix Spike Duplicate				Run: SUB-B88393				01/20/07 12:57
2,4-D	6.22	ug/L	1.0	124	65	135	23	40	
2,4-DB	5.13	ug/L	2.5	103	65	135	10	40	
Dalapon	5.47	ug/L	2.5	109	65	135	11	40	
Dicamba	5.41	ug/L	0.25	108	65	135	4.2	40	
Dichlorprop	5.90	ug/L	1.0	118	65	135	3.4	40	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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877-472-0711 • 406-442-0711 • 406-442-0712 fax • helena@energylab.com

QA/QC Summary Report

Client: MT DEQ
Project: K/R/Y Residential Well Sampling

Report Date: 02/01/07
Work Order: H07010102

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E515.1									Batch: B_25197
Sample ID: B07010885-001HMSD	Sample Matrix Spike Duplicate				Run: SUB-B88393				01/20/07 12:57
Dinoseb	5.24	ug/L	1.0	105	65	135	23	40	
Pentachlorophenol	4.86	ug/L	0.040	97	65	135	5.5	40	
Picloram	4.86	ug/L	0.50	97	65	135	5.9	40	
2,4,5-TP (Silvex)	5.54	ug/L	0.20	111	65	135	4.1	40	
Surr: DCAA			0.10	76	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: K/R/Y Residential Well Sampling

Report Date: 02/01/07
Work Order: H07010102

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E515.1									Batch: B_25311
Sample ID: MB-25311	Method Blank				Run: SUB-B88778				01/30/07 10:13
2,4-D	ND	ug/L	1.0						
2,4-DB	ND	ug/L	2.5						
Dalapon	ND	ug/L	2.5						
Dicamba	ND	ug/L	0.25						
Dichlorprop	ND	ug/L	1.0						
Dinoseb	ND	ug/L	1.0						
Pentachlorophenol	ND	ug/L	0.040						
Picloram	ND	ug/L	0.50						
2,4,5-TP (Silvex)	ND	ug/L	0.20						
Surr: DCAA			0.10	70	70	130			
Sample ID: LCS-25311	Laboratory Control Sample				Run: SUB-B88778				01/30/07 10:42
2,4-D	4.45	ug/L	1.0	89	70	130			
2,4-DB	4.21	ug/L	2.5	84	70	130			
Dalapon	6.00	ug/L	2.5	120	70	130			
Dicamba	4.28	ug/L	0.25	86	70	130			
Dichlorprop	4.52	ug/L	1.0	90	70	130			
Dinoseb	3.60	ug/L	1.0	72	70	130			
Pentachlorophenol	4.15	ug/L	0.040	83	70	130			
Picloram	5.01	ug/L	0.50	100	70	130			
2,4,5-TP (Silvex)	4.62	ug/L	0.20	92	70	130			
Surr: DCAA			0.10	77	70	130			
Sample ID: B07011239-001AMS	Sample Matrix Spike				Run: SUB-B88778				01/30/07 23:04
2,4-D	4.11	ug/L	1.0	82	65	135			
2,4-DB	5.38	ug/L	2.5	108	65	135			
Dalapon	5.73	ug/L	2.5	115	65	135			
Dicamba	4.08	ug/L	0.25	82	65	135			
Dichlorprop	4.41	ug/L	1.0	88	65	135			
Dinoseb	3.43	ug/L	1.0	69	65	135			
Pentachlorophenol	4.03	ug/L	0.040	81	65	135			
Picloram	4.82	ug/L	0.50	96	65	135			
2,4,5-TP (Silvex)	4.66	ug/L	0.20	93	65	135			
Surr: DCAA			0.10	83	70	130			
Sample ID: B07011239-001AMSD	Sample Matrix Spike Duplicate				Run: SUB-B88778				01/30/07 23:33
2,4-D	4.25	ug/L	1.0	85	65	135	3.3	40	
2,4-DB	5.34	ug/L	2.5	107	65	135	0.7	40	
Dalapon	4.88	ug/L	2.5	98	65	135	16	40	
Dicamba	4.21	ug/L	0.25	84	65	135	3.1	40	
Dichlorprop	4.55	ug/L	1.0	91	65	135	3.1	40	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: K/R/Y Residential Well Sampling

Report Date: 02/01/07
Work Order: H07010102

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E515.1								Batch: B_25311	
Sample ID: B07011239-001AMSD	Sample Matrix Spike Duplicate				Run: SUB-B88778			01/30/07 23:33	
Dinoseb	2.37	ug/L	1.0	47	65	135	37	40	S
Pentachlorophenol	4.13	ug/L	0.040	83	65	135	2.5	40	
Picloram	5.18	ug/L	0.50	104	65	135	7.2	40	
2,4,5-TP (Silvex)	4.69	ug/L	0.20	94	65	135	0.6	40	
Surr: DCAA			0.10	85	70	130			

Qualifiers:

RL - Analyte reporting limit.

S - Spike recovery outside of advisory limits.

ND - Not detected at the reporting limit.

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Energy Laboratories Inc

Sample Receipt Checklist

Client Name MT DEQ

Date and Time Received: 1/11/2007 9:27:00 AM

Work Order Number H07010102

Received by rlt

Login completed by: Roxanne L. Tubbs (Signature) 1/11/2007 9:27:00 (Date)

Reviewed by RT (Initials) 1/12/07 (Date)

Carrier name Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	3.0 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Adjusted? _____ Checked by _____

Contact and Corrective Action Comments:

Sample RW-10-0107 (003) collection time on chain of custody differs from bottles, used time on bottles per M. Bucy. EPH samples preserved with sulfuric acid per M. Bucy 1/11/07 rt

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: MT DEQ

Project Name, PWS #, Permit #, Etc.: KBLY Residential Well Sampling

Report Mail Address: P.O. Box 200901 Helena, MT 59620

Contact Name, Phone, Fax, E-mail: Moriah Bucy mbucy@mt.gov 841-5044 (ph) 841-5050 (f)

Sampler Name if other than Contact: LAWRENCE HANSON

Invoice Address: same as above

Invoice Contact & Phone #: same as above

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:

NELAC ☐ A2LA ☐ Level IV ☐

Other _____

EDD/EDT ☐ Format _____

ANALYSIS REQUESTED

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Comments: **If above 300 ppb, please fractionate with PAHs.

Shipped by: hand del

Cooler ID(s)

Receipt Temp 3.0 °C

Custody Seal Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	*EPH Screen-MT/Mass Method	Method 515.1 (PCP)							SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Lab ID (LABORATORY USE ONLY)
1	RW-1-0107	1/9/07	13:45	3W	X	X								X		07010107-001
2	RW-7-0107	1/9/07	12:30	3W	X	X								X		002
3	RW-10-0107	1/9/07	12:49	3W	X	X								X		003
4	RW-12-0107	1/9/07	13:20	3W	X	X								X		004
5	RW-13-0107	1/9/07	14:05	3W	X	X								X		005
6																
7																
8																
9																
10																

Custody Record MUST be Signed

Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
[illegible]	1/11/07 9:27	[illegible]	Roxanne Tubbs	1.11.07 9:27	R. Tubbs

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY

Sample Type: _____ # of fractions _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

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Phone: 612.607.1700
Fax: 612.607.6444

DETERMINATION OF PCDD/PCDF LEVELS

Prepared for:
Montana DEQ
Attn: Moriah Bucy
PO Box 200901
Helena, MT 59620

ACCREDITED IN ACCORDANCE WITH nelac

This report contains 20 pages.

The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Project: K/R/Y Residential Sampling

Client Purchase Order Number: NA

REPORT OF LABORATORY ANALYSIS

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REPORT OF: CHEMICAL ANALYSES

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

PROJECT: **PCDD/PCDF ANALYSES**

DATE: October 25, 2006

ISSUED TO: Montana DEQ
Attn: Moriah Bucy
PO Box 200901
Helena, MT 59620

REPORT NO: 06-1039901

INTRODUCTION

This report presents the results from the analyses performed on five samples submitted by a representative of Montana DEQ. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290.

SAMPLE IDENTIFICATION

Client ID	Sample Type	Date Received	PACE ID
RW-1-1006	Water	10/11/06	1039901001
RW-7-1006	Water	10/11/06	1039901002
RW-10-1006	Water	10/11/06	1039901003
RW-12-1006	Water	10/11/06	1039901004
RW-13-1006	Water	10/11/06	1039901005

RESULTS

The results are included in the following:

Appendix A – Chain of Custody Documentation
Appendix B – PCDD/PCDF Analysis Results

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REPORT OF: CHEMICAL ANALYSES

PROJECT: **PCDD/PCDF ANALYSES**

DATE: October 25, 2006

REPORT NO: 06-1039901

DISCUSSION

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 59-130%. All of the labeled standard recoveries obtained for this project were within the 40-135% Method 8290 target range. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with each sample batch as part of our routine quality control procedures. The results, found at the beginning of Appendix B, show the blanks to be free of PCDDs and PCDFs at the reporting limits, with the exceptions of trace levels of OCDD. These were below the calibration range of the method. Sample levels similar to the corresponding blank levels were flagged "B" on the results tables and may be, at least partially, attributed to the background. It should be noted that levels less than ten times the background are not generally considered to be statistically different from the background.

Laboratory spike samples were also prepared with the sample batches using clean water that had been fortified with native standard materials. Recoveries of the spiked native compounds ranged from 86-126%, with relative percent differences of 0.9-11.1%. These results indicate high degrees of accuracy and precision for these determinations.

REMARKS

The sample extracts will be retained for a period of 15 days from the date of this report and then discarded unless other arrangements are made. The raw mass spectral data will be archived on magnetic tape for a period of not less than one year. Questions regarding the data contained in this report may be directed to the author at the number provided below.

Pace Analytical Services, Inc.

Scott C. Unze
Project Manager, HRMS
(612) 607-6383

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TABLE 1. 2,3,7,8-TCDD Equivalency Factors (TEFs) for the Polychlorinated Dibenzo-p-dioxins and Dibenzofurans

Number	Compound(s)	TEF
1	2,3,7,8-TCDD	1.00
2	1,2,3,7,8-PeCDD	0.50
3	1,2,3,6,7,8-HxCDD	0.1
4	1,2,3,7,8,9-HxCDD	0.1
5	1,2,3,4,7,8-HxCDD	0.1
6	1,2,3,4,6,7,8-HpCDD	0.01
7	OCDD	0.001
8	* Total - TCDD	0.0
9	* Total - PeCDD	0.0
10	* Total - HxCDD	0.0
11	* Total - HpCDD	0.0
12	2,3,7,8-TCDF	0.10
13	1,2,3,7,8-PeCDF	0.05
14	2,3,4,7,8-PeCDF	0.5
15	1,2,3,6,7,8-HxCDF	0.1
16	1,2,3,7,8,9-HxCDF	0.1
17	1,2,3,4,7,8-HxCDF	0.1
18	2,3,4,6,7,8-HxCDF	0.1
19	1,2,3,4,6,7,8-HpCDF	0.01
20	1,2,3,4,7,8,9-HpCDF	0.01
21	OCDF	0.001
22	* Total - TCDF	0.0
23	* Total - PeCDF	0.0
24	* Total - HxCDF	0.0
25	* Total - HpCDF	0.0

*Excluding the 2,3,7,8-substituted congeners.

Reference: 1989 ITEFs

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APPENDIX A

REPORT OF LABORATORY ANALYSIS
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1039901

FROM: MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY CECRA PROGRAM ~~2209 PHOENIX AVENUE~~ P.O. Box 200901 HELENA, MT 59620 TELEPHONE: ~~(406)444-1420~~ 406-841-5064	CONTRACT #: invoice	TO: Pace Analytical Services, Inc. 1700 Elm St., Suite 100 Minneapolis, MN 55414

SEND BILL, COOLER, CHAIN OF CUSTODY FORM AND RESULTS TO: Moriah Bucy AT THE ABOVE ADDRESS

PROJECT NAME AND SITE LOCATION: KIBN Residential Sampling

SAMPLER (SIGNATURE): Moriah Bucy

DATE	TIME	SAMPLE NUMBER AND ID	FILT Y/N	PRES.	# OF CONTAINERS	MATRIX	ANALYSES REQUESTED (SPECIFY METHOD #)	
10/4/06	1442	RW-1-1006	N	N	2	W	EPA 8290	001
10/4/06	1523	RW-7-1006	N	N	2	W	EPA 8290	002
10/4/06	1205	RW-10-1006	N	N	2	W	EPA 8290	Dioxin/Furan
10/4/06	1345	RW-12-1006	N	N	2	W	EPA 8290	004
10/4/06	1405	RW-13-1006	N	N	2	W	EPA 8290	005

COMMENTS:

Relinquished by (signature)	Date	Time	Received by (signature)	Name of Receiving Laboratory
Moriah Bucy	10/10/06 (MB)	1230		Pace Analytical Services
Relinquished by (signature)	Date	Time	Received by (signature)	Received for Lab. by (signature) 10/11/06 9:30
				Seal Number

Laboratory Copy = White
Sampler Copy = Yellow
CECRA File Copy = Pink

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APPENDIX B

REPORT OF LABORATORY ANALYSIS
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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Blank Analysis Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	BLANK-11219	Matrix	Water
Filename	U61018A_07	Dilution	NA
Total Amount Extracted	980 mL	Extracted	10/17/2006
ICAL Date	09/19/2006	Analyzed	10/18/2006 22:01
CCal Filename(s)	U61018A_03 & U61018A_19	Injected By	BAL

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.0020	2,3,7,8-TCDF-13C	2.00	109
Total TCDF	ND	-----	0.0020	2,3,7,8-TCDD-13C	2.00	87
				1,2,3,7,8-PeCDF-13C	2.00	94
2,3,7,8-TCDD	ND	-----	0.0020	2,3,4,7,8-PeCDF-13C	2.00	97
Total TCDD	ND	-----	0.0020	1,2,3,7,8-PeCDD-13C	2.00	102
				1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	ND	-----	0.0100	1,2,3,6,7,8-HxCDF-13C	2.00	94
2,3,4,7,8-PeCDF	ND	-----	0.0100	2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF	ND	-----	0.0100	1,2,3,7,8,9-HxCDF-13C	2.00	85
				1,2,3,4,7,8-HxCDD-13C	2.00	77
1,2,3,7,8-PeCDD	ND	-----	0.0100	1,2,3,6,7,8-HxCDD-13C	2.00	89
Total PeCDD	ND	-----	0.0100	1,2,3,4,6,7,8-HpCDF-13C	2.00	74
				1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	-----	0.0100	1,2,3,4,6,7,8-HpCDD-13C	2.00	102
1,2,3,6,7,8-HxCDF	ND	-----	0.0100	OCDD-13C	4.00	100
2,3,4,6,7,8-HxCDF	ND	-----	0.0100			
1,2,3,7,8,9-HxCDF	ND	-----	0.0100	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.0100	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.0100	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	ND	-----	0.0100			
1,2,3,7,8,9-HxCDD	ND	-----	0.0100			
Total HxCDD	ND	-----	0.0100			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.0100	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.0100	Equivalence: 0.000037 ng/L		
Total HpCDF	ND	-----	0.0100	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.0100			
Total HpCDD	ND	-----	0.0100			
OCDF	ND	-----	0.0200			
OCDD	0.037	-----	0.0200 J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
LRL = Lower Reporting Limit
J = Concentration detected is below the calibration range
P = Recovery outside of target range
A = Detection Limit based on signal-to-noise measurement

I = Interference
E = PCDE Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1039901

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Blank Analysis Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	BLANK-11237	Matrix	Water
Filename	P61023A_09	Dilution	NA
Total Amount Extracted	986 mL	Extracted	10/20/2006
ICAL Date	08/16/2006	Analyzed	10/23/2006 13:51
CCal Filename(s)	P61023A_05 & P61023A_21	Injected By	SMT

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	
2,3,7,8-TCDF	ND	-----	0.00200	
Total TCDF	ND	-----	0.00200	
2,3,7,8-TCDD	ND	-----	0.00200	
Total TCDD	ND	-----	0.00200	
1,2,3,7,8-PeCDF	ND	-----	0.01000	
2,3,4,7,8-PeCDF	ND	-----	0.01000	
Total PeCDF	ND	-----	0.01000	
1,2,3,7,8-PeCDD	ND	-----	0.01000	
Total PeCDD	ND	-----	0.01000	
1,2,3,4,7,8-HxCDF	ND	-----	0.01000	
1,2,3,6,7,8-HxCDF	ND	-----	0.01000	
2,3,4,6,7,8-HxCDF	ND	-----	0.01000	
1,2,3,7,8,9-HxCDF	ND	-----	0.01000	
Total HxCDF	ND	-----	0.01000	
1,2,3,4,7,8-HxCDD	ND	-----	0.01000	
1,2,3,6,7,8-HxCDD	ND	-----	0.01000	
1,2,3,7,8,9-HxCDD	ND	-----	0.01000	
Total HxCDD	ND	-----	0.01000	
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000	
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000	
Total HpCDF	ND	-----	0.01000	
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000	
Total HpCDD	ND	-----	0.01000	
OCDF	ND	-----	0.02000	
OCDD	0.025	-----	0.02000	J

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	82
2,3,7,8-TCDD-13C	2.00	61
1,2,3,7,8-PeCDF-13C	2.00	75
2,3,4,7,8-PeCDF-13C	2.00	83
1,2,3,7,8-PeCDD-13C	2.00	95
1,2,3,4,7,8-HxCDF-13C	2.00	78
1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,6,7,8-HxCDF-13C	2.00	78
1,2,3,7,8,9-HxCDF-13C	2.00	73
1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,6,7,8-HxCDD-13C	2.00	76
1,2,3,4,6,7,8-HpCDF-13C	2.00	77
1,2,3,4,7,8,9-HpCDF-13C	2.00	68
1,2,3,4,6,7,8-HpCDD-13C	2.00	80
OCDD-13C	4.00	72
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	52

Total 2,3,7,8-TCDD
Equivalence: 0.000025 ng/L
(Using ITE Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
LRL = Lower Reporting Limit
J = Concentration detected is below the calibration range
P = Recovery outside of target range
A = Detection Limit based on signal-to-noise measurement

I = Interference
E = PCDE Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1039901

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-1-1006		
Lab Sample ID	1039901001		
Filename	F61019A_09		
Injected By	BAL		
Total Amount Extracted	978 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/04/2006
ICAL Date	09/10/2006	Received	10/11/2006
CCal Filename(s)	F61018B_18 & F61019A_18	Extracted	10/17/2006
Method Blank ID	BLANK-11219	Analyzed	10/19/2006 22:01

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.00200		2,3,7,8-TCDF-13C	2.00	112
Total TCDF	ND	-----	0.00200		2,3,7,8-TCDD-13C	2.00	98
2,3,7,8-TCDD	ND	-----	0.00230	A	1,2,3,7,8-PeCDF-13C	2.00	117
Total TCDD	ND	-----	0.00200		2,3,4,7,8-PeCDF-13C	2.00	117
1,2,3,7,8-PeCDF	ND	-----	0.01000		1,2,3,7,8-PeCDD-13C	2.00	130
2,3,4,7,8-PeCDF	ND	-----	0.01000		1,2,3,4,7,8-HxCDF-13C	2.00	90
Total PeCDF	ND	-----	0.01000		1,2,3,6,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDD	ND	-----	0.01000		2,3,4,6,7,8-HxCDF-13C	2.00	101
Total PeCDD	ND	-----	0.01000		1,2,3,7,8,9-HxCDF-13C	2.00	95
1,2,3,4,7,8-HxCDF	ND	-----	0.01000		1,2,3,4,7,8-HxCDD-13C	2.00	92
1,2,3,6,7,8-HxCDF	ND	-----	0.01000		1,2,3,6,7,8-HxCDD-13C	2.00	81
2,3,4,6,7,8-HxCDF	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDF-13C	2.00	76
1,2,3,7,8,9-HxCDF	ND	-----	0.01000		1,2,3,4,7,8,9-HpCDF-13C	2.00	71
Total HxCDF	ND	-----	0.01000		1,2,3,4,6,7,8-HpCDD-13C	2.00	82
1,2,3,4,7,8-HxCDD	ND	-----	0.01000		OCDD-13C	4.00	82
1,2,3,6,7,8-HxCDD	ND	-----	0.01000		1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD	ND	-----	0.01000		1,2,3,7,8,9-HxCDD-13C	2.00	NA
Total HxCDD	ND	-----	0.01000				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000		2,3,7,8-TCDD-37Cl4	0.20	95
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000				
Total HpCDF	ND	-----	0.01000				
1,2,3,4,6,7,8-HpCDD	0.010	-----	0.01000	J	Total 2,3,7,8-TCDD		
Total HpCDD	0.010	-----	0.01000	J	Equivalence: 0.00018 ng/L		
					(Using ITE Factors)		
OCDF	ND	-----	0.02000				
OCDD	0.072	-----	0.02000	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1039901

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-7-1006		
Lab Sample ID	1039901002		
Filename	F61019A_10		
Injected By	BAL		
Total Amount Extracted	986 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/04/2006
ICAL Date	09/10/2006	Received	10/11/2006
CCal Filename(s)	F61018B_18 & F61019A_18	Extracted	10/17/2006
Method Blank ID	BLANK-11219	Analyzed	10/19/2006 22:50

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L
2,3,7,8-TCDF	ND	-----	0.00200
Total TCDF	ND	-----	0.00200
2,3,7,8-TCDD	ND	-----	0.00200
Total TCDD	ND	-----	0.00200
1,2,3,7,8-PeCDF	ND	-----	0.01000
2,3,4,7,8-PeCDF	ND	-----	0.01000
Total PeCDF	ND	-----	0.01000
1,2,3,7,8-PeCDD	ND	-----	0.01000
Total PeCDD	ND	-----	0.01000
1,2,3,4,7,8-HxCDF	ND	-----	0.01000
1,2,3,6,7,8-HxCDF	ND	-----	0.01000
2,3,4,6,7,8-HxCDF	ND	-----	0.01000
1,2,3,7,8,9-HxCDF	ND	-----	0.01000
Total HxCDF	ND	-----	0.01000
1,2,3,4,7,8-HxCDD	ND	-----	0.01000
1,2,3,6,7,8-HxCDD	ND	-----	0.01000
1,2,3,7,8,9-HxCDD	ND	-----	0.01000
Total HxCDD	ND	-----	0.01000
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000
Total HpCDF	ND	-----	0.01000
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000
Total HpCDD	ND	-----	0.01000
OCDF	ND	-----	0.02000
OCDD	ND	-----	0.02000

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	105
2,3,7,8-TCDD-13C	2.00	92
1,2,3,7,8-PeCDF-13C	2.00	101
2,3,4,7,8-PeCDF-13C	2.00	105
1,2,3,7,8-PeCDD-13C	2.00	112
1,2,3,4,7,8-HxCDF-13C	2.00	102
1,2,3,6,7,8-HxCDF-13C	2.00	92
2,3,4,6,7,8-HxCDF-13C	2.00	101
1,2,3,7,8,9-HxCDF-13C	2.00	95
1,2,3,4,7,8-HxCDD-13C	2.00	99
1,2,3,6,7,8-HxCDD-13C	2.00	85
1,2,3,4,6,7,8-HpCDF-13C	2.00	81
1,2,3,4,7,8,9-HpCDF-13C	2.00	75
1,2,3,4,6,7,8-HpCDD-13C	2.00	90
OCDD-13C	4.00	92
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	91

Total 2,3,7,8-TCDD
Equivalence: 0.00 ng/L
(Using ITE Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1039901

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-10-1006		
Lab Sample ID	1039901003		
Filename	F61019A_11		
Injected By	BAL		
Total Amount Extracted	1010 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/04/2006
ICAL Date	09/10/2006	Received	10/11/2006
CCal Filename(s)	F61018B_18 & F61019A_18	Extracted	10/17/2006
Method Blank ID	BLANK-11219	Analyzed	10/19/2006 23:40

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L	
2,3,7,8-TCDF	ND	-----	0.0020	
Total TCDF	ND	-----	0.0020	
2,3,7,8-TCDD	ND	-----	0.0027	A
Total TCDD	ND	-----	0.0020	
1,2,3,7,8-PeCDF	ND	-----	0.0099	
2,3,4,7,8-PeCDF	ND	-----	0.0099	
Total PeCDF	ND	-----	0.0099	
1,2,3,7,8-PeCDD	ND	-----	0.0099	
Total PeCDD	ND	-----	0.0099	
1,2,3,4,7,8-HxCDF	ND	-----	0.0099	
1,2,3,6,7,8-HxCDF	ND	-----	0.0099	
2,3,4,6,7,8-HxCDF	ND	-----	0.0099	
1,2,3,7,8,9-HxCDF	ND	-----	0.0099	
Total HxCDF	ND	-----	0.0099	
1,2,3,4,7,8-HxCDD	ND	-----	0.0099	
1,2,3,6,7,8-HxCDD	ND	-----	0.0099	
1,2,3,7,8,9-HxCDD	ND	-----	0.0099	
Total HxCDD	ND	-----	0.0099	
1,2,3,4,6,7,8-HpCDF	ND	-----	0.0099	
1,2,3,4,7,8,9-HpCDF	ND	-----	0.0099	
Total HpCDF	ND	-----	0.0099	
1,2,3,4,6,7,8-HpCDD	ND	-----	0.0099	
Total HpCDD	ND	-----	0.0099	
OCDF	ND	-----	0.0200	
OCDD	ND	-----	0.0200	

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	108
2,3,7,8-TCDD-13C	2.00	94
1,2,3,7,8-PeCDF-13C	2.00	103
2,3,4,7,8-PeCDF-13C	2.00	107
1,2,3,7,8-PeCDD-13C	2.00	116
1,2,3,4,7,8-HxCDF-13C	2.00	96
1,2,3,6,7,8-HxCDF-13C	2.00	96
2,3,4,6,7,8-HxCDF-13C	2.00	104
1,2,3,7,8,9-HxCDF-13C	2.00	100
1,2,3,4,7,8-HxCDD-13C	2.00	102
1,2,3,6,7,8-HxCDD-13C	2.00	86
1,2,3,4,6,7,8-HpCDF-13C	2.00	79
1,2,3,4,7,8,9-HpCDF-13C	2.00	74
1,2,3,4,6,7,8-HpCDD-13C	2.00	88
OCDD-13C	4.00	87
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	95

Total 2,3,7,8-TCDD
Equivalence: 0.00 ng/L
(Using ITE Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1039901

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1700 Elm Street - Suite 200
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Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-12-1006		
Lab Sample ID	1039901004-R		
Filename	P61023A_12		
Injected By	SMT		
Total Amount Extracted	978 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/04/2006
ICAL Date	08/16/2006	Received	10/11/2006
CCal Filename(s)	P61023A_05 & P61023A_21	Extracted	10/20/2006
Method Blank ID	BLANK-11237	Analyzed	10/23/2006 16:08

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L
2,3,7,8-TCDF	ND	-----	0.00200
Total TCDF	ND	-----	0.00200
2,3,7,8-TCDD	ND	-----	0.00200
Total TCDD	ND	-----	0.00200
1,2,3,7,8-PeCDF	ND	-----	0.01000
2,3,4,7,8-PeCDF	ND	-----	0.01000
Total PeCDF	ND	-----	0.01000
1,2,3,7,8-PeCDD	ND	-----	0.01000
Total PeCDD	ND	-----	0.01000
1,2,3,4,7,8-HxCDF	ND	-----	0.01000
1,2,3,6,7,8-HxCDF	ND	-----	0.01000
2,3,4,6,7,8-HxCDF	ND	-----	0.01000
1,2,3,7,8,9-HxCDF	ND	-----	0.01000
Total HxCDF	ND	-----	0.01000
1,2,3,4,7,8-HxCDD	ND	-----	0.01000
1,2,3,6,7,8-HxCDD	ND	-----	0.01000
1,2,3,7,8,9-HxCDD	ND	-----	0.01000
Total HxCDD	ND	-----	0.01000
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000
Total HpCDF	ND	-----	0.01000
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000
Total HpCDD	ND	-----	0.01000
OCDF	ND	-----	0.02000
OCDD	ND	-----	0.02000

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	72
2,3,7,8-TCDD-13C	2.00	64
1,2,3,7,8-PeCDF-13C	2.00	72
2,3,4,7,8-PeCDF-13C	2.00	77
1,2,3,7,8-PeCDD-13C	2.00	87
1,2,3,4,7,8-HxCDF-13C	2.00	71
1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,6,7,8-HxCDF-13C	2.00	72
1,2,3,7,8,9-HxCDF-13C	2.00	67
1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,6,7,8-HxCDD-13C	2.00	70
1,2,3,4,6,7,8-HpCDF-13C	2.00	69
1,2,3,4,7,8,9-HpCDF-13C	2.00	59
1,2,3,4,6,7,8-HpCDD-13C	2.00	71
OCDD-13C	4.00	68
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	62

Total 2,3,7,8-TCDD
Equivalence: 0.00 ng/L
(Using ITE Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1039901

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	RW-13-1006		
Lab Sample ID	1039901005-R		
Filename	P61023A_13		
Injected By	SMT		
Total Amount Extracted	982 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/04/2006
ICAL Date	08/16/2006	Received	10/11/2006
CCal Filename(s)	P61023A_05 & P61023A_21	Extracted	10/20/2006
Method Blank ID	BLANK-11237	Analyzed	10/23/2006 16:54

Native Isomers	Conc ng/L	EMPC ng/L	LRL ng/L
2,3,7,8-TCDF	ND	-----	0.00200
Total TCDF	ND	-----	0.00200
2,3,7,8-TCDD	ND	-----	0.00200
Total TCDD	ND	-----	0.00200
1,2,3,7,8-PeCDF	ND	-----	0.01000
2,3,4,7,8-PeCDF	ND	-----	0.01000
Total PeCDF	ND	-----	0.01000
1,2,3,7,8-PeCDD	ND	-----	0.01000
Total PeCDD	ND	-----	0.01000
1,2,3,4,7,8-HxCDF	ND	-----	0.01000
1,2,3,6,7,8-HxCDF	ND	-----	0.01000
2,3,4,6,7,8-HxCDF	ND	-----	0.01000
1,2,3,7,8,9-HxCDF	ND	-----	0.01000
Total HxCDF	ND	-----	0.01000
1,2,3,4,7,8-HxCDD	ND	-----	0.01000
1,2,3,6,7,8-HxCDD	ND	-----	0.01000
1,2,3,7,8,9-HxCDD	ND	-----	0.01000
Total HxCDD	ND	-----	0.01000
1,2,3,4,6,7,8-HpCDF	ND	-----	0.01000
1,2,3,4,7,8,9-HpCDF	ND	-----	0.01000
Total HpCDF	ND	-----	0.01000
1,2,3,4,6,7,8-HpCDD	ND	-----	0.01000
Total HpCDD	ND	-----	0.01000
OCDF	ND	-----	0.02000
OCDD	ND	-----	0.02000

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	83
2,3,7,8-TCDD-13C	2.00	72
1,2,3,7,8-PeCDF-13C	2.00	84
2,3,4,7,8-PeCDF-13C	2.00	94
1,2,3,7,8-PeCDD-13C	2.00	107
1,2,3,4,7,8-HxCDF-13C	2.00	81
1,2,3,6,7,8-HxCDF-13C	2.00	86
2,3,4,6,7,8-HxCDF-13C	2.00	81
1,2,3,7,8,9-HxCDF-13C	2.00	80
1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,6,7,8-HxCDD-13C	2.00	77
1,2,3,4,6,7,8-HpCDF-13C	2.00	83
1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,6,7,8-HpCDD-13C	2.00	84
OCDD-13C	4.00	76
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	66

Total 2,3,7,8-TCDD
Equivalence: 0.00 ng/L
(Using ITE Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis
EMPC values were excluded from the TEQ calculations.

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....1039901

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCS-11220		
Filename	U61018A_04	Matrix	Water
Total Amount Extracted	972 mL	Dilution	NA
ICAL Date	09/19/2006	Extracted	10/17/2006
CCal Filename(s)	U61018A_03 & U61018A_19	Analyzed	10/18/2006 19:39
Method Blank ID	BLANK-11219	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.
2,3,7,8-TCDF	0.20	0.20	100
2,3,7,8-TCDD	0.20	0.20	100
1,2,3,7,8-PeCDF	1.00	1.21	121
2,3,4,7,8-PeCDF	1.00	1.09	109
1,2,3,7,8-PeCDD	1.00	1.06	106
1,2,3,4,7,8-HxCDF	1.00	1.06	106
1,2,3,6,7,8-HxCDF	1.00	1.11	111
2,3,4,6,7,8-HxCDF	1.00	1.13	113
1,2,3,7,8,9-HxCDF	1.00	1.10	110
1,2,3,4,7,8-HxCDD	1.00	1.10	110
1,2,3,6,7,8-HxCDD	1.00	1.19	119
1,2,3,7,8,9-HxCDD	1.00	1.20	120
1,2,3,4,6,7,8-HpCDF	1.00	1.24	124
1,2,3,4,7,8,9-HpCDF	1.00	1.26	126
1,2,3,4,6,7,8-HpCDD	1.00	1.07	107
OCDF	2.00	2.24	112
OCDD	2.00	2.22	111

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	114
2,3,7,8-TCDD-13C	2.00	91
1,2,3,7,8-PeCDF-13C	2.00	98
2,3,4,7,8-PeCDF-13C	2.00	101
1,2,3,7,8-PeCDD-13C	2.00	107
1,2,3,4,7,8-HxCDF-13C	2.00	90
1,2,3,6,7,8-HxCDF-13C	2.00	98
2,3,4,6,7,8-HxCDF-13C	2.00	92
1,2,3,7,8,9-HxCDF-13C	2.00	89
1,2,3,4,7,8-HxCDD-13C	2.00	79
1,2,3,6,7,8-HxCDD-13C	2.00	93
1,2,3,4,6,7,8-HpCDF-13C	2.00	78
1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,6,7,8-HpCDD-13C	2.00	105
OCDD-13C	4.00	104
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	94

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

Report No.....1039901

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Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCSD-11221		
Filename	U61018A_05	Matrix	Water
Total Amount Extracted	969 mL	Dilution	NA
ICAL Date	09/19/2006	Extracted	10/17/2006
CCal Filename(s)	U61018A_03 & U61018A_19	Analyzed	10/18/2006 20:24
Method Blank ID	BLANK-11219	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.
2,3,7,8-TCDF	0.20	0.19	97
2,3,7,8-TCDD	0.20	0.19	93
1,2,3,7,8-PeCDF	1.00	1.12	112
2,3,4,7,8-PeCDF	1.00	1.01	101
1,2,3,7,8-PeCDD	1.00	0.98	98
1,2,3,4,7,8-HxCDF	1.00	0.99	99
1,2,3,6,7,8-HxCDF	1.00	1.05	105
2,3,4,6,7,8-HxCDF	1.00	1.03	103
1,2,3,7,8,9-HxCDF	1.00	1.05	105
1,2,3,4,7,8-HxCDD	1.00	1.05	105
1,2,3,6,7,8-HxCDD	1.00	1.09	109
1,2,3,7,8,9-HxCDD	1.00	1.15	115
1,2,3,4,6,7,8-HpCDF	1.00	1.11	111
1,2,3,4,7,8,9-HpCDF	1.00	1.21	121
1,2,3,4,6,7,8-HpCDD	1.00	0.98	98
OCDF	2.00	2.08	104
OCDD	2.00	2.01	101

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	120
2,3,7,8-TCDD-13C	2.00	96
1,2,3,7,8-PeCDF-13C	2.00	101
2,3,4,7,8-PeCDF-13C	2.00	106
1,2,3,7,8-PeCDD-13C	2.00	112
1,2,3,4,7,8-HxCDF-13C	2.00	93
1,2,3,6,7,8-HxCDF-13C	2.00	98
2,3,4,6,7,8-HxCDF-13C	2.00	94
1,2,3,7,8,9-HxCDF-13C	2.00	91
1,2,3,4,7,8-HxCDD-13C	2.00	81
1,2,3,6,7,8-HxCDD-13C	2.00	96
1,2,3,4,6,7,8-HpCDF-13C	2.00	79
1,2,3,4,7,8,9-HpCDF-13C	2.00	70
1,2,3,4,6,7,8-HpCDD-13C	2.00	109
OCDD-13C	4.00	103
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	105

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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SPIKE RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

Client..... Montana DEQ

SPIKE 1 ID..... LCS-11220
SPIKE 1 Filename..... U61018A_04
SPIKE 2 ID..... LCSD-11221
SPIKE 2 Filename..... U61018A_05

COMPOUND	SPIKE 1 REC,%	SPIKE 2 REC,%	RPD,%
2378-TCDF	100	97	3.0
2378-TCDD	100	93	7.3
12378-PeCDF	121	112	7.7
23478-PeCDF	109	101	7.6
12378-PeCDD	106	98	7.8
123478-HxCDF	106	99	6.8
123678-HxCDF	111	105	5.6
234678-HxCDF	113	103	9.3
123789-HxCDF	110	105	4.7
123478-HxCDD	110	105	4.7
123678-HxCDD	119	109	8.8
123789-HxCDD	120	115	4.3
1234678-HpCDF	124	111	11.1
1234789-HpCDF	126	121	4.0
1234678-HpCDD	107	98	8.8
OCDF	112	104	7.4
OCDD	111	101	9.4

REC = Percent Recovered
RPD = The difference between the two values divided by the average.
NA = Not Applicable
NC = Not Calculated

Report No..... 1039901

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Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCS-11238		
Filename	P61023A_06	Matrix	Water
Total Amount Extracted	951 mL	Dilution	NA
ICAL Date	08/16/2006	Extracted	10/20/2006
CCal Filename(s)	P61023A_05 & P61023A_21	Analyzed	10/23/2006 11:36
Method Blank ID	BLANK-11237	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.
2,3,7,8-TCDF	0.20	0.17	86
2,3,7,8-TCDD	0.20	0.18	92
1,2,3,7,8-PeCDF	1.00	1.02	102
2,3,4,7,8-PeCDF	1.00	0.95	95
1,2,3,7,8-PeCDD	1.00	0.87	87
1,2,3,4,7,8-HxCDF	1.00	0.92	92
1,2,3,6,7,8-HxCDF	1.00	0.99	99
2,3,4,6,7,8-HxCDF	1.00	0.98	98
1,2,3,7,8,9-HxCDF	1.00	0.96	96
1,2,3,4,7,8-HxCDD	1.00	1.09	109
1,2,3,6,7,8-HxCDD	1.00	1.04	104
1,2,3,7,8,9-HxCDD	1.00	1.11	111
1,2,3,4,6,7,8-HpCDF	1.00	1.03	103
1,2,3,4,7,8,9-HpCDF	1.00	1.06	106
1,2,3,4,6,7,8-HpCDD	1.00	0.92	92
OCDF	2.00	2.00	100
OCDD	2.00	1.90	95

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	85
2,3,7,8-TCDD-13C	2.00	71
1,2,3,7,8-PeCDF-13C	2.00	84
2,3,4,7,8-PeCDF-13C	2.00	91
1,2,3,7,8-PeCDD-13C	2.00	106
1,2,3,4,7,8-HxCDF-13C	2.00	80
1,2,3,6,7,8-HxCDF-13C	2.00	80
2,3,4,6,7,8-HxCDF-13C	2.00	81
1,2,3,7,8,9-HxCDF-13C	2.00	79
1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,6,7,8-HxCDD-13C	2.00	80
1,2,3,4,6,7,8-HpCDF-13C	2.00	78
1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,6,7,8-HpCDD-13C	2.00	77
OCDD-13C	4.00	77
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	66

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

Report No.....1039901

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Method 8290 Laboratory Control Spike Results

Client - Montana Dept. Of Env. Quality

Lab Sample ID	LCSD-11239		
Filename	P61023A_07	Matrix	Water
Total Amount Extracted	974 mL	Dilution	NA
ICAL Date	08/16/2006	Extracted	10/20/2006
CCal Filename(s)	P61023A_05 & P61023A_21	Analyzed	10/23/2006 12:19
Method Blank ID	BLANK-11237	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.
2,3,7,8-TCDF	0.20	0.18	91
2,3,7,8-TCDD	0.20	0.20	98
1,2,3,7,8-PeCDF	1.00	1.07	107
2,3,4,7,8-PeCDF	1.00	1.01	101
1,2,3,7,8-PeCDD	1.00	0.91	91
1,2,3,4,7,8-HxCDF	1.00	0.96	96
1,2,3,6,7,8-HxCDF	1.00	1.05	105
2,3,4,6,7,8-HxCDF	1.00	1.02	102
1,2,3,7,8,9-HxCDF	1.00	1.01	101
1,2,3,4,7,8-HxCDD	1.00	1.07	107
1,2,3,6,7,8-HxCDD	1.00	1.14	114
1,2,3,7,8,9-HxCDD	1.00	1.12	112
1,2,3,4,6,7,8-HpCDF	1.00	1.08	108
1,2,3,4,7,8,9-HpCDF	1.00	1.08	108
1,2,3,4,6,7,8-HpCDD	1.00	0.95	95
OCDF	2.00	2.03	102
OCDD	2.00	1.97	98

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	79
2,3,7,8-TCDD-13C	2.00	58
1,2,3,7,8-PeCDF-13C	2.00	82
2,3,4,7,8-PeCDF-13C	2.00	85
1,2,3,7,8-PeCDD-13C	2.00	98
1,2,3,4,7,8-HxCDF-13C	2.00	85
1,2,3,6,7,8-HxCDF-13C	2.00	84
2,3,4,6,7,8-HxCDF-13C	2.00	79
1,2,3,7,8,9-HxCDF-13C	2.00	72
1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,6,7,8-HxCDD-13C	2.00	75
1,2,3,4,6,7,8-HpCDF-13C	2.00	76
1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,6,7,8-HpCDD-13C	2.00	78
OCDD-13C	4.00	75
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	55

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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SPIKE RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

Client..... Montana DEQ

SPIKE 1 ID..... LCS-11238
SPIKE 1 Filename..... P61023A_06
SPIKE 2 ID..... LCSD-11139
SPIKE 2 Filename..... P61023A_07

COMPOUND	SPIKE 1 REC,%	SPIKE 2 REC,%	RPD,%
2378-TCDF	86	91	5.6
2378-TCDD	92	98	6.3
12378-PeCDF	102	107	4.8
23478-PeCDF	95	101	6.1
12378-PeCDD	87	91	4.5
123478-HxCDF	92	96	4.3
123678-HxCDF	99	105	5.9
234678-HxCDF	98	102	4.0
123789-HxCDF	96	101	5.1
123478-HxCDD	109	107	1.9
123678-HxCDD	104	114	9.2
123789-HxCDD	111	112	0.9
1234678-HpCDF	103	108	4.7
1234789-HpCDF	106	108	1.9
1234678-HpCDD	92	95	3.2
OCDF	100	102	2.0
OCDD	95	98	3.1

REC = Percent Recovered
RPD = The difference between the two values divided by the average.
NA = Not Applicable
NC = Not Calculated

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** REPORT **

MT DEQ
Moriah Bucy
PO Box 200901
Helena MT 59620

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Dept. of Environmental Quality
Remediation Division

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ANALYTICAL SUMMARY REPORT

October 18, 2006

Moriah Bucy
MT DEQ
PO Box 200901
Helena, MT 59620

Workorder No.: H06100059

Project Name: KRY Residential Well Sampling

Energy Laboratories Inc received the following 5 samples from MT DEQ on 10/5/2006 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H06100059-001	RW-1-1006	10/04/06 14:42	10/05/06	Drinking Water	EPH-Sep Funnel Extraction Hydrocarbons, Extractable Petroleum Screen 515-Herbicides, Chlorinated SDWA Seperatory Funnel Liquid Liquid Ext.
H06100059-002	RW-7-1006	10/04/06 15:23	10/05/06	Drinking Water	Same As Above
H06100059-003	RW-10-1006	10/04/06 12:05	10/05/06	Drinking Water	Same As Above
H06100059-004	RW-12-1006	10/04/06 13:45	10/05/06	Drinking Water	Same As Above
H06100059-005	RW-13-1006	10/04/06 14:05	10/05/06	Drinking Water	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative or Report.

If you have any questions regarding these tests results, please call.

Report Approved By: Jonathan Hager
Assistant Lab Manager

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential Well Sampling
Lab ID: H06100059-001
Client Sample ID: RW-1-1006

Report Date: 10/18/06
Collection Date: 10/04/06 14:42
DateReceived: 10/05/06
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	10/17/06 01:36 / eli-b
Surr: DCAA	78.0	%REC			70-130	E515.1	10/17/06 01:36 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential Well Sampling
Lab ID: H06100059-002
Client Sample ID: RW-7-1006

Report Date: 10/18/06
Collection Date: 10/04/06 15:23
DateReceived: 10/05/06
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	10/17/06 02:06 / eli-b
Surr: DCAA	84.0	%REC			70-130	E515.1	10/17/06 02:06 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential Well Sampling
Lab ID: H06100059-003
Client Sample ID: RW-10-1006

Report Date: 10/18/06
Collection Date: 10/04/06 12:05
DateReceived: 10/05/06
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	10/17/06 04:04 / eli-b
Surr: DCAA	84.0	%REC			70-130	E515.1	10/17/06 04:04 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential Well Sampling
Lab ID: H06100059-004
Client Sample ID: RW-12-1006

Report Date: 10/18/06
Collection Date: 10/04/06 13:45
DateReceived: 10/05/06
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	10/17/06 04:33 / eli-b
Surr: DCAA	84.0	%REC			70-130	E515.1	10/17/06 04:33 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: KRY Residential Well Sampling
Lab ID: H06100059-005
Client Sample ID: RW-13-1006

Report Date: 10/18/06
Collection Date: 10/04/06 14:05
DateReceived: 10/05/06
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
HERBICIDES, BY HPLC (CONTRACT LAB MT00005)							
Pentachlorophenol	ND	ug/L		0.040	1	E515.1	10/17/06 05:03 / eli-b
Surr: DCAA	84.0	%REC			70-130	E515.1	10/17/06 05:03 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Residential Well Sampling

Report Date: 10/18/06
Work Order: H06100059

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E515.1									
								Batch: B_23580P	
Sample ID: MB-23580	Method Blank				Run: SUB-B83676			10/16/06 18:14	
Pentachlorophenol	ND	ug/L	0.040						
Surr: DCAA			0.10	82	70	130			
Sample ID: LCS-23580	Laboratory Control Sample				Run: SUB-B83676			10/17/06 10:51	
Pentachlorophenol	3.70	ug/L	0.040	74	70	130			
Surr: DCAA			0.10	70	70	130			
Sample ID: B06100403-001AMS	Sample Matrix Spike				Run: SUB-B83676			10/16/06 21:40	
Pentachlorophenol	4.36	ug/L	0.040	87	65	135			
Surr: DCAA			0.10	81	70	130			
Sample ID: B06100403-001AMSD	Sample Matrix Spike Duplicate				Run: SUB-B83676			10/16/06 22:10	
Pentachlorophenol	4.35	ug/L	0.040	87	65	135	0.0	40	
Surr: DCAA			0.10	81	70	130			
Method: E515.1									
								Analytical Run: SUB-B83670	
Sample ID: 8151CK8	Continuing Calibration Verification Standard							10/16/06 17:44	
Pentachlorophenol	0.508	ug/L	0.040	102	80	120			
Surr: DCAA			0.10	102	80	120			
Sample ID: 8151CK8	Continuing Calibration Verification Standard							10/16/06 23:09	
Pentachlorophenol	0.517	ug/L	0.040	103	80	120			
Surr: DCAA			0.10	102	80	120			
Sample ID: 8151CK8	Continuing Calibration Verification Standard							10/17/06 03:34	
Pentachlorophenol	0.532	ug/L	0.040	106	80	120			
Surr: DCAA			0.10	107	80	120			
Sample ID: 8151CK8	Continuing Calibration Verification Standard							10/17/06 08:00	
Pentachlorophenol	0.533	ug/L	0.040	107	80	120			
Surr: DCAA			0.10	107	80	120			
Sample ID: 8151CK8	Continuing Calibration Verification Standard							10/17/06 10:22	
Pentachlorophenol	0.519	ug/L	0.040	104	80	120			
Surr: DCAA			0.10	104	80	120			
Sample ID: 8151CK8	Continuing Calibration Verification Standard							10/17/06 14:18	
Pentachlorophenol	0.529	ug/L	0.040	106	80	120			
Surr: DCAA			0.10	105	80	120			

Qualifiers:

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ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Site Name: KRY Residential Well Sampling
Report Date: 10/10/06

Lab ID: H06100059-001
Client Sample ID: RW-1-1006
Matrix: Drinking Water
Collection Date: 10/04/06 14:42
DateReceived: 10/05/06

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.30	0.3	SW8015M	10/09/06 21:54 / raf
Surr: o-Terphenyl	67.0	%REC			40-140	SW8015M	10/09/06 21:54 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Lab ID: H06100059-002
Client Sample ID: RW-7-1006
Matrix: Drinking Water
Collection Date: 10/04/06 15:23
DateReceived: 10/05/06

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.31	0.3	SW8015M	10/09/06 22:35 / raf
Surr: o-Terphenyl	73.0	%REC			40-140	SW8015M	10/09/06 22:35 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Lab ID: H06100059-003
Client Sample ID: RW-10-1006
Matrix: Drinking Water
Collection Date: 10/04/06 12:05
DateReceived: 10/05/06

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.31	0.3	SW8015M	10/09/06 23:16 / raf
Surr: o-Terphenyl	71.0	%REC			40-140	SW8015M	10/09/06 23:16 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Lab ID: H06100059-004
Client Sample ID: RW-12-1006
Matrix: Drinking Water
Collection Date: 10/04/06 13:45
DateReceived: 10/05/06

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.30	0.3	SW8015M	10/10/06 00:39 / raf
Surr: o-Terphenyl	71.0	%REC			40-140	SW8015M	10/10/06 00:39 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Site Name: KRY Residential Well Sampling
Report Date: 10/10/06

Lab ID: H06100059-005
Client Sample ID: RW-13-1006
Matrix: Drinking Water
Collection Date: 10/04/06 14:05
DateReceived: 10/05/06

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
EXTRACTABLE PETROLEUM HYDROCARBONS-SCREEN ANALYSIS							
Total Extractable Hydrocarbons	ND	mg/L		0.30	0.3	SW8015M	10/10/06 01:20 / raf
Surr: o-Terphenyl	74.0	%REC			40-140	SW8015M	10/10/06 01:20 / raf

- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: KRY Residential Well Sampling

Report Date: 10/10/06
Work Order: H06100059

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M									
Sample ID: MB-2675	Method Blank				Run: HHP_061002B				Batch: 2675
Total Extractable Hydrocarbons	ND	mg/L	0.30						10/03/06 04:09
Surr: o-Terphenyl			0.0050	79	40	140			
Sample ID: LCS-2675	Laboratory Control Sample				Run: HHP_061002B				
Total Extractable Hydrocarbons	5.06	mg/L	0.30	97	60	140			10/03/06 04:50
Surr: o-Terphenyl			0.0050	94	40	140			
Sample ID: H06090278-001BMS	Sample Matrix Spike				Run: HHP_061002B				
Total Extractable Hydrocarbons	10.4	mg/L	0.60	100	60	140			10/03/06 06:13
Surr: o-Terphenyl			0.010	93	40	140			
Sample ID: H06090278-001BMSD	Sample Matrix Spike Duplicate				Run: HHP_061002B				
Total Extractable Hydrocarbons	11.3	mg/L	0.60	108	60	140	7.9	20	10/03/06 06:54
Surr: o-Terphenyl			0.010	108	40	140			
Method: SW8015M									
Sample ID: CCV_1009GC101r-W	Continuing Calibration Verification Standard								Analytical Run: HHP_061009A
n-Nonane	0.186	mg/L	0.0050	93	75	125			10/09/06 17:06
n-Decane	0.185	mg/L	0.0050	93	75	125			
n-Dodecane	0.185	mg/L	0.0050	92	75	125			
n-Tetradecane	0.187	mg/L	0.0050	94	75	125			
n-Hexadecane	0.186	mg/L	0.0050	93	75	125			
n-Octadecane	0.186	mg/L	0.0050	93	75	125			
n-Nonadecane	0.187	mg/L	0.0050	93	75	125			
n-Eicosane	0.188	mg/L	0.0050	94	75	125			
n-Docosane	0.188	mg/L	0.0050	94	75	125			
n-Tetracosane	0.189	mg/L	0.0050	94	75	125			
n-Hexacosane	0.190	mg/L	0.0050	95	75	125			
n-Octacosane	0.190	mg/L	0.0050	95	75	125			
n-Triacontane	0.191	mg/L	0.0050	96	75	125			
n-Hexatriacontane	0.194	mg/L	0.0050	97	75	125			
Surr: o-Terphenyl			0.0050	95	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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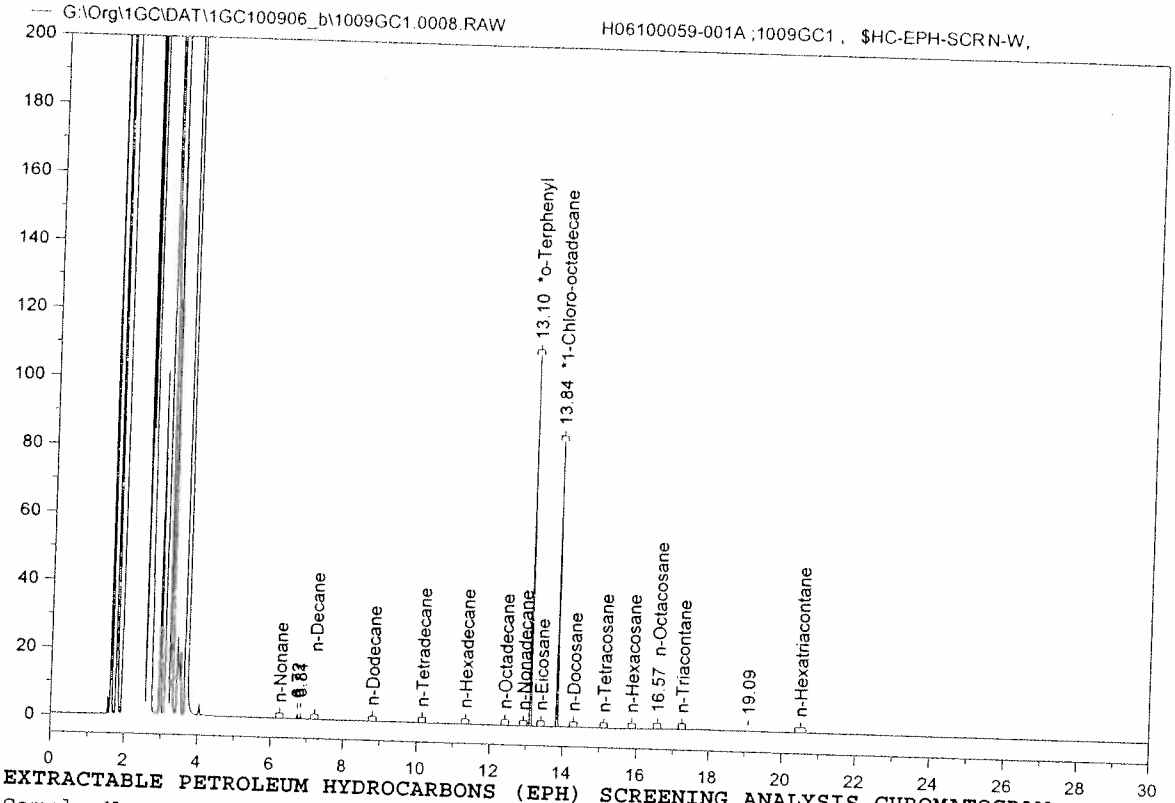
RW-1-1006



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H06100059-001A ;1009GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC100906_b\1009GC1.0008.RAW
Date & Time Acquired: 10/9/2006 9:54:24 PM
Method File: G:\Org\1GC\Methods\S2000DE%.MET
Calibration File: G:\Org\1GC\Cals\A1083006DE.CAL
Sample Weight: 995.53 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 7.11 to 17.35
Rt range for C9 to C18 Hydrocarbons: 6.14 to 12.82
Rt range for C19 to C36 Hydrocarbons: 13.05 to 20.66

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.103	.201	.134	66.82	-
*1-Chloro-octadecane	13.835	.201	.144	71.54	-

DRO Area:5323.813
TEH Area:15998.53
C9-C18 Area:8237.321
C19-C36 Area:5956.281

DRO Amount: 5.114092E-03
TEH Amount: 0.0153683
C9-C18 Amount: 7.918169E-03
C19-C36 Amount: 5.71779E-03

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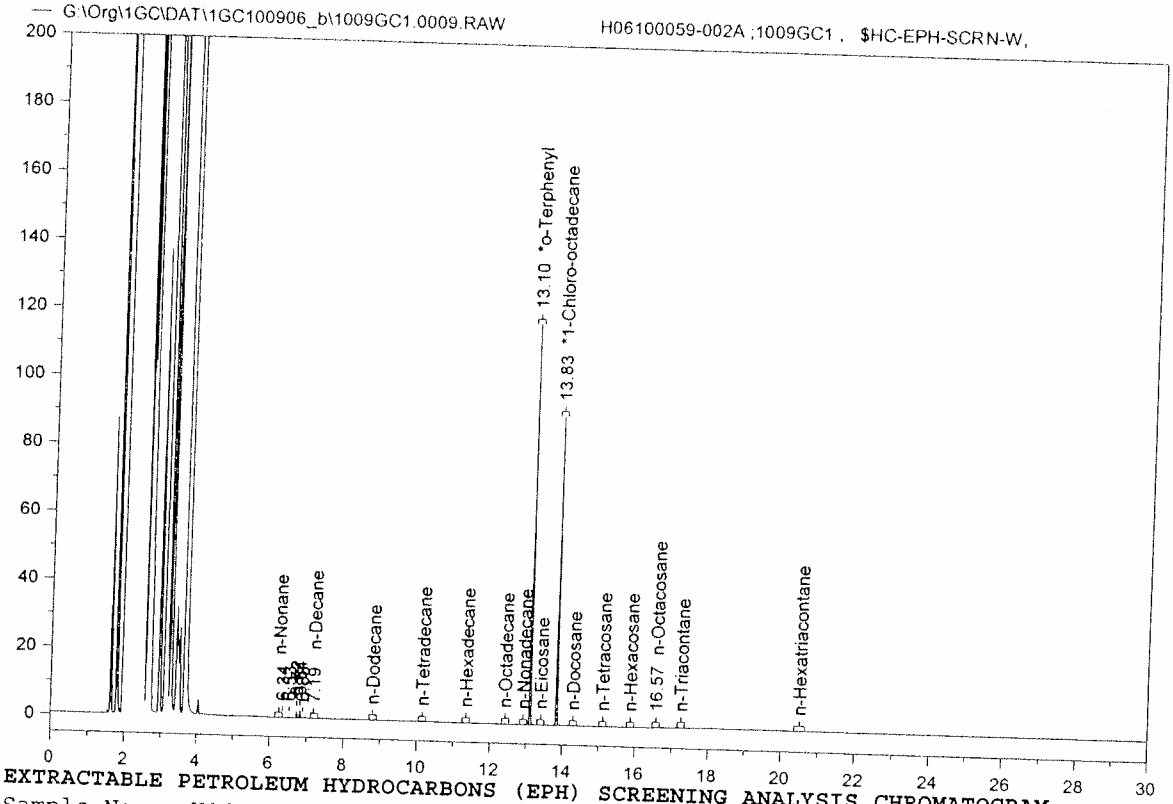
RW-7-1006



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H06100059-002A ;1009GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC100906_b\1009GC1.0009.RAW
Date & Time Acquired: 10/9/2006 10:35:33 PM
Method File: G:\Org\1GC\Methods\S2000DE%.MET
Calibration File: G:\Org\1GC\Cals\A1083006DE.CAL
Sample Weight: 963.35 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 7.11 to 17.35
Rt range for C9 to C18 Hydrocarbons: 6.14 to 12.82
Rt range for C19 to C36 Hydrocarbons: 13.05 to 20.66

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.102	.208	.151	72.54	-
*1-Chloro-octadecane	13.834	.208	.16	76.98	-

DRO Area:4934.375
TEH Area:17619.41
C9-C18 Area:10589.9
C19-C36 Area:4612.813

DRO Amount: 4.898332E-03
TEH Amount: 1.749071E-02
C9-C18 Amount: 1.051964E-02
C19-C36 Amount: 4.576033E-03

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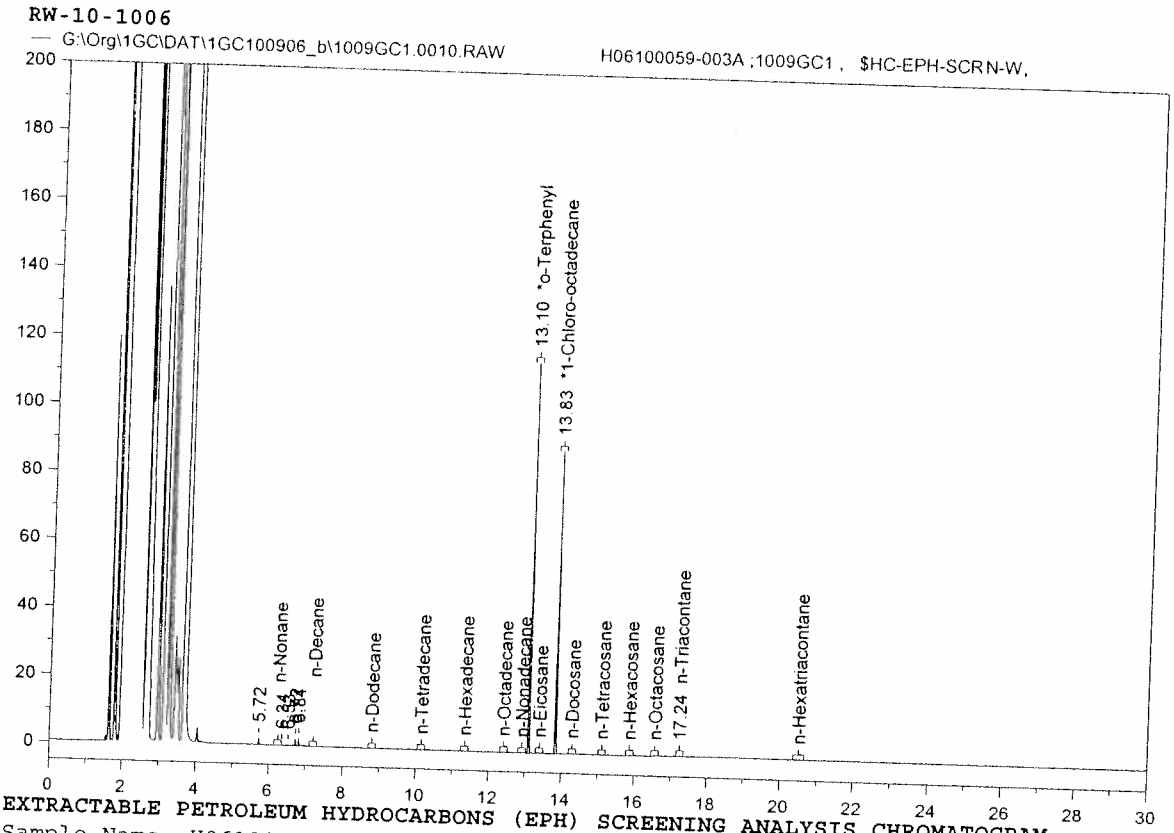

EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H06100059-003A ;1009GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC100906_b\1009GC1.0010.RAW
Date & Time Acquired: 10/9/2006 11:16:44 PM
Method File: G:\Org\1GC\Methods\S2000DE%.MET
Calibration File: G:\Org\1GC\Cals\A1083006DE.CAL
Sample Weight: 981.48 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 7.11 to 17.35
Rt range for C9 to C18 Hydrocarbons: 6.14 to 12.82
Rt range for C19 to C36 Hydrocarbons: 13.05 to 20.66

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.102	.204	.144	70.61	-
*1-Chloro-octadecane	13.835	.204	.152	74.7	-

DRO Area:5271.719 DRO Amount: 5.136543E-03
TEH Area:21520.94 TEH Amount: 2.096911E-02
C9-C18 Area:10443.53 C9-C18 Amount: 0.0101826
C19-C36 Area:5278.75 C19-C36 Amount: 5.139928E-03

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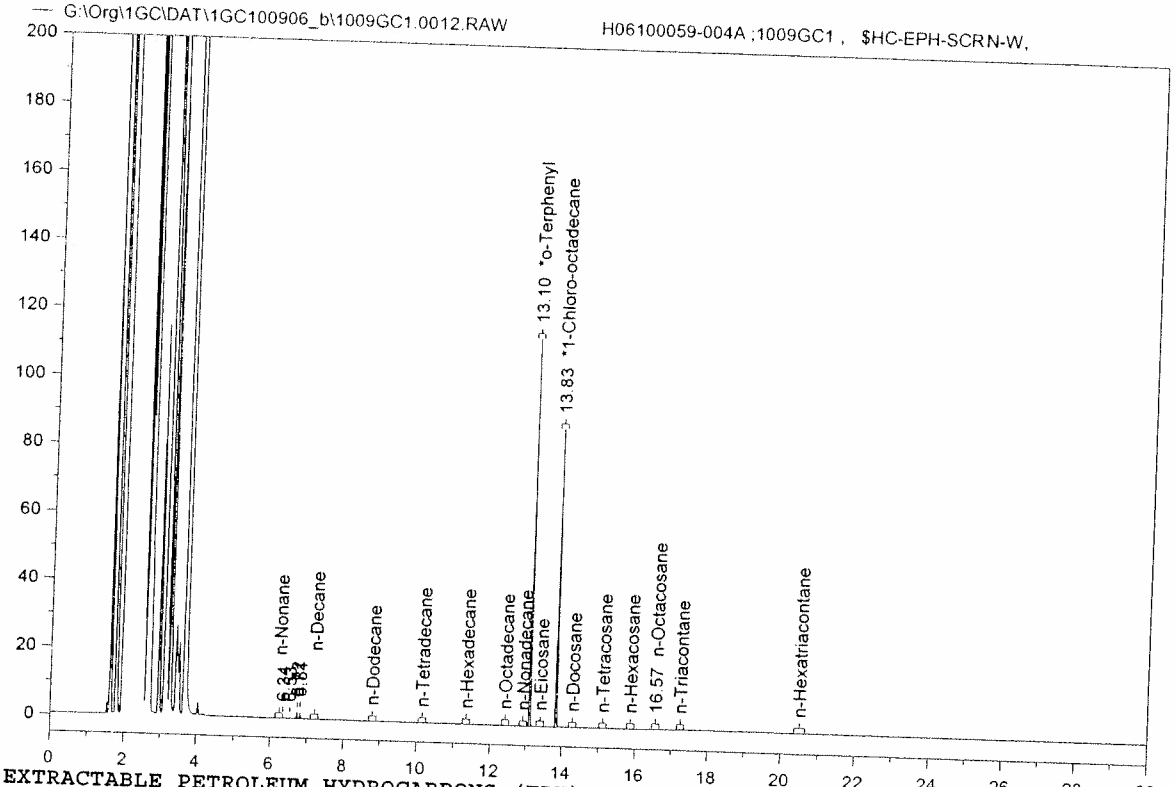
RW-12-1006



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H06100059-004A ;1009GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC100906_b\1009GC1.0012.RAW
Date & Time Acquired: 10/10/2006 12:39:01 AM
Method File: G:\Org\1GC\Methods\S2000DE%.MET
Calibration File: G:\Org\1GC\Cals\A1083006DE.CAL
Sample Weight: 987.33 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 7.11 to 17.35
Rt range for C9 to C18 Hydrocarbons: 6.14 to 12.82
Rt range for C19 to C36 Hydrocarbons: 13.05 to 20.66

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.103	.203	.143	70.68	-
*1-Chloro-octadecane	13.835	.203	.152	74.91	-

DRO Area:4472.141 DRO Amount: 4.331649E-03
TEH Area:16355.95 TEH Amount: 1.584213E-02
C9-C18 Area:8938.425 C9-C18 Amount: 8.663467E-03
C19-C36 Area:5291.328 C19-C36 Amount: 5.121648E-03

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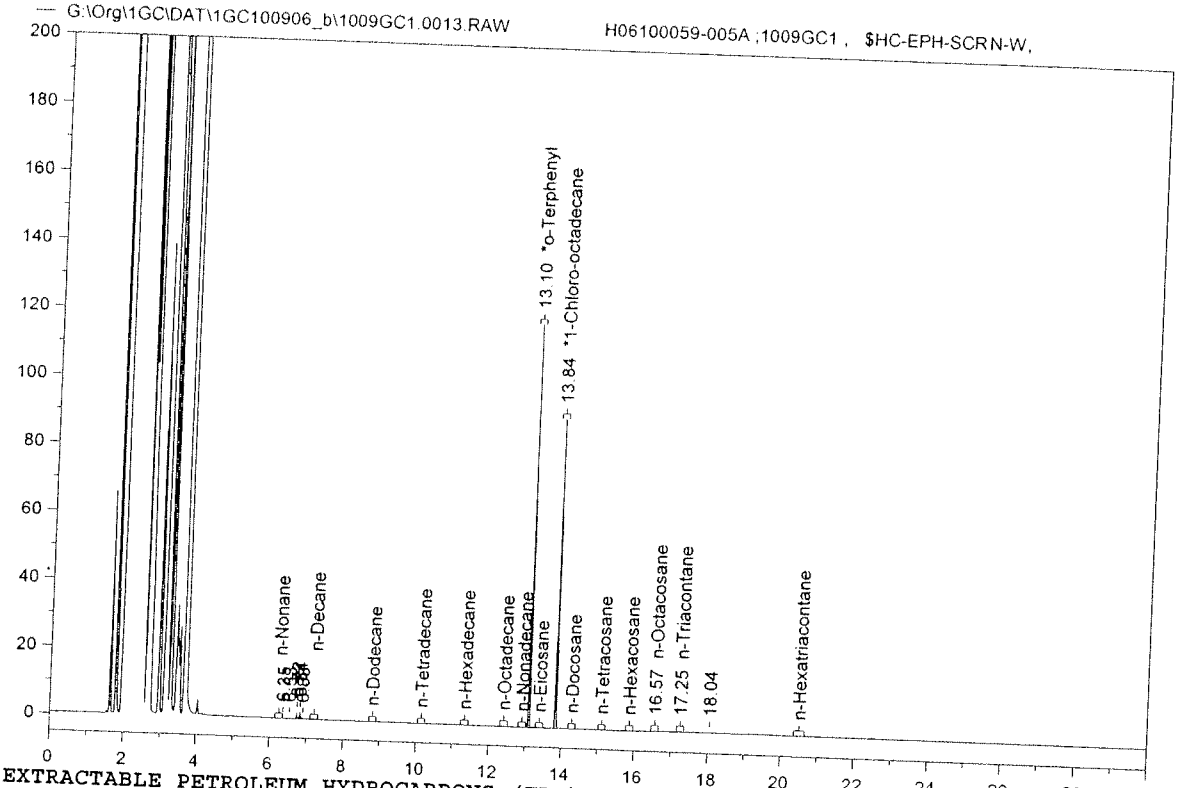
RW-13-1006



EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) SCREENING ANALYSIS CHROMATOGRAM

Sample Name: H06100059-005A ;1009GC1 , $HC-EPH-SCRN-W,
Raw File: G:\Org\1GC\DAT\1GC100906_b\1009GC1.0013.RAW
Date & Time Acquired: 10/10/2006 1:20:16 AM
Method File: G:\Org\1GC\Methods\S2000DE%.MET
Calibration File: G:\Org\1GC\Cals\A1083006DE.CAL
Sample Weight: 989.7 Dilution: 1 S.A.: 1

Mean RF for C9 to C18 Hydrocarbons: 1044.977
Mean RF for C19 to C36 Hydrocarbons: 1046.388
Mean RF for Total Extractable Hydrocarbons: 1045.682
Rt range for Diesel Range Organics: 7.11 to 17.35
Rt range for C9 to C18 Hydrocarbons: 6.14 to 12.82
Rt range for C19 to C36 Hydrocarbons: 13.05 to 20.66

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.103	.202	.149	73.56	-
*1-Chloro-octadecane	13.836	.202	.158	78.08	-

DRO Area:5802.703
TEH Area:19360.89
C9-C18 Area:9801.753
C19-C36 Area:6940.422

DRO Amount: 5.606954E-03
TEH Amount: 1.870777E-02
C9-C18 Amount: 9.477489E-03
C19-C36 Amount: 6.701772E-03

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Page 1 of 1

Company Name: MT DEQ

Project Name, PWS #, Permit #, Etc.: K/R/Y Residential Well Sampling

Report Mail Address: P.O. Box 200901 Helena, MT 59620

Contact Name, Phone, Fax, E-mail: Moriah Bucy 841-5050 (f) -841-5064 (p) mbucy@mt.gov

Sampler Name if other than Contact: same

Invoice Address: same as above

Invoice Contact & Phone #: same as above

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:

NELAC ☐ A2LA ☐ Level IV ☐

Other _____

EDD/EDT ☐ Format _____

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Shipped by: hand del

Cooler ID(s)

Receipt Temp 4.0 °C on ice

Custody Seal Y N

Intact Y N

Signature Y N

Match

Comments:

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	*EPH Screen - MT/Mass Method	Method 515.1 (PCP)	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments	Lab ID
1	RW-1-1006	10/4/06	1442	3 W	X	X		X		*If above 300 ppb please fractionate w/ PAHs.	0610059-001
2	RW-7-1006	10/4/06	1523	3 W	X	X		X			002
3	RW-10-1006	10/4/06	1205	3 W	X	X		X			003
4	RW-12-1006	10/4/06	1345	3 W	X	X		X			004
5	RW-13-1006	10/4/06	1405	3 W	X	X		X			005
6											
7											
8											
9											
10											

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Moriah Bucy	10/5/06 10:41	Moriah Bucy	Roxanne Wahs	10.5.06 10:41	[signature]

Sample Disposal: Return to client: _____ Lab Disposal: _____

Sample Type: _____ LABORATORY USE ONLY # of fractions _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at *www.energylab.com* for additional information, downloadable fee schedule, forms, & links

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Energy Laboratories Inc

Sample Receipt Checklist

Client Name MT DEQ

Work Order Number H06100059

Date and Time Received: 10/5/2006 10:41:00 AM

Received by rlt

Login completed by: Roxanne L. Tubbs (Signature) 10/5/2006 10:41:00 (Date)

Reviewed by HBB (Initials) 10/9/06 (Date)

Carrier name Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	4 °C On Ice
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Adjusted? _____ Checked by _____

Contact and Corrective Action Comments: 10/10/06 M. Bucy verified PCP analysis only. RT

None

HISTORICAL DATA

(Please see attached CD)

Appendix G - KRY Historical Data
AES Soil SVOC Data, 1985-1986

Sample Station	**GWY-15**	**GWY-15**	**GWY-16**	**GWY-16**	**GWY-17**	**GWY-17**	**GWY-10**	**GWY-11**	**GWY-12**	**GWY-12**	**GWY-13**	**GWY-13**	**GWY-14**	**GWY-7**	**GWY-8**	**GWY-9**
Sample Identification	**1070**	**1071**	**1072**	**1073**	**1074**	**1075**	**MW-10**	**MW-11**	**MW-12**	**MW-12**	**MW-13**	**MW-13**	**MW-14**	**MW-7**	**MW-8**	**MW-9**
Sample Collection Date	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**5**	**15**	**5**	**18**	**5**	**12**	**23**	**20**	**16**	**20**	**16**	**20**	**21**	**20**	**23**	**20**
Lower Depth (ft)	**5**	**15**	**5**	**18**	**5**	**12**	**23**	**20**	**16**	**20**	**16**	**20**	**21**	**20**	**23**	**20**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
1,2,4-Trichlorobenzene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Diphenylhydrazine	---	---	---	---	---	---	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,4,5-Trichlorophenol	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	---	---	---	---	---	---	---	---	---	---
2,4-Dichlorophenol	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	---	---	---	---	---	---	---	---	---	---
2,4-Dimethylphenol	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	---	---	---	---	---	---	---	---	---	---
2,4-Dinitrophenol	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	---	---	---	---	---	---	---	---	---	---
2,4-Dinitrotoluene	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
2,6-Dinitrotoluene	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
2-Chloronaphthalene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorophenol	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	---	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	---	---	---	---	---	---	---	---	---	---
2-Methylphenol	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	---	---	---	---	---	---	---	---	---	---
2-Nitroaniline	2 U	2 U	2 U	2 U	2 U	2 U	---	---	---	---	---	---	---	---	---	---
2-Nitrophenol	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	---	---	---	---	---	---	---	---	---	---
3,3'-Dichlorobenzidine	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
3-Nitroaniline	2 U	2 U	2 U	2 U	2 U	2 U	---	---	---	---	---	---	---	---	---	---
4,6-Dinitro-2-Methylphenol	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	---	---	---	---	---	---	---	---	---	---
4-Bromophenylphenylether	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	2 U	2 U	3 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloro-3-Methylphenol	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	---	---	---	---	---	---	---	---	---	---
4-Chloroaniline	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	---	---	---	---	---	---	---	---	---	---
4-Chlorophenylphenylether	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methylphenol	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	---	---	---	---	---	---	---	---	---	---
4-Nitroaniline	2 U	2 U	2 U	2 U	2 U	2 U	---	---	---	---	---	---	---	---	---	---
4-Nitrophenol	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	---	---	---	---	---	---	---	---	---	---
Acenaphthene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acenaphthylene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Anthracene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzidine	---	---	---	---	---	---	30 U	30 U	50 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Benzo(a)Anthracene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(a)Pyrene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(b)Fluoranthene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	---	---	---	---	---	---	---	---	---	---
Benzo(b,k)Fluoranthene	---	---	---	---	---	---	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)Perylene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	2 U	2 U	3 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(k)Fluoranthene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	---	---	---	---	---	---	---	---	---	---
Benzoic Acid	2 U	2 U	2 U	2 U	2 U	2 U	---	---	---	---	---	---	---	---	---	---
Benzyl Alcohol	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	---	---	---	---	---	---	---	---	---	---
bis(2-Chloroethoxy)Methane	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bis(2-Chloroethyl)Ether	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bis(2-Chloroisopropyl)Ether	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bis(2-Ethylhexyl)Phthalate	0.9 U	1 U	1 U	0.9 U	1 U	1 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.95 J**
Butyl Benzyl Phthalate	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chrysene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibenzo(a,h)Anthracene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	2 U	2 U	3 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibenzofuran	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	---	---	---	---	---	---	---	---	---	---
Diethyl Phthalate	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dimethyl Phthalate	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Di-n-Butylphthalate	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	**0.13**	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Di-n-Octylphthalate	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Fluoranthene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - KRY Historical Data
AES Soil SVOC Data, 1985-1986

Sample Station	GWY-15	GWY-15	GWY-16	GWY-16	GWY-17	GWY-17	GWY-10	GWY-11	GWY-12	GWY-12	GWY-13	GWY-13	GWY-14	GWY-7	GWY-8	GWY-9
Sample Identification	**1070**	**1071**	**1072**	**1073**	**1074**	**1075**	**MW-10**	**MW-11**	**MW-12**	**MW-12**	**MW-13**	**MW-13**	**MW-14**	**MW-7**	**MW-8**	**MW-9**
Sample Collection Date	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**	**9/25/1985**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**5**	**15**	**5**	**18**	**5**	**12**	**23**	**20**	**16**	**20**	**16**	**20**	**21**	**20**	**23**	**20**
Lower Depth (ft)	**5**	**15**	**5**	**18**	**5**	**12**	**23**	**20**	**16**	**20**	**16**	**20**	**21**	**20**	**23**	**20**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Fluorene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorobutadiene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorocyclopentadiene	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Hexachloroethane	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Indeno(1,2,3-cd)Pyrene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	2 U	2 U	3 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Nitrobenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
N-Nitroso-Di-Methylamine	---	---	---	---	---	---	2 U	2 U	3 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodi-N-Propylamine	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
N-Nitrosodiphenylamine	0.9 U	1 U	1 U	0.9 U	1 U	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Pentachlorophenol	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	---	---	---	---	---	---	---	---	---	---
Phenanthrene	0.09 U	0.1 U	**0.23**	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Phenol	0.09 U	0.1 U	0.1 U	0.09 U	0.1 U	0.1 U	---	---	---	---	---	---	---	---	---	---
Pyrene	0.09 U	0.1 U	**0.16**	0.09 U	0.1 U	0.1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:
Detected values are shown in bold.
AES = Applied Environmental Services
ft = feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = milligrams per kilogram
SB = Subsurface soil sample
SVOC = Semi-volatile organic compound
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
AES Soil EP Toxicity Data, 1986

Sample Station	**GWY-15**	**GWY-15**	**GWY-16**	**GWY-16**	**GWY-17**	**GWY-17**
Sample Identification	**MW-15**	**MW-15**	**MW-16**	**MW-16**	**MW-17**	**MW-17**
Sample Collection Date	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**	**2/7/1986**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**15**	**5**	**18**	**5**	**12**	**5**
Lower Depth (ft)	**15**	**5**	**18**	**5**	**12**	**5**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
2,4,5-TP (SILVEX)	1 U	1 U	1 U	1 U	1 U	1 U
2,4-D	4 U	4 U	4 U	4 U	4 U	4 U
Arsenic	5 U	5 U	5 U	5 U	5 U	5 U
Barium	**2700**	**1010**	**1100**	**100**	**1900**	**1300**
Cadmium	**3**	**1**	**2**	**0.5**	**4**	**2**
Chromium	**5**	**4**	**4**	**5**	**5**	**7**
Endrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Lead	**14**	**9**	**8**	**8**	**5**	**12**
Mercury	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methoxychlor	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Selenium	**21**	**13**	5 U	**10**	**22**	**18**
Silver	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	4 U	4 U	4 U	4 U	4 U	4 U

Notes:
Detected values are shown in bold.
AES = Applied Environmental Services
ft = feet
ug/L = micrograms per liter
SB = Subsurface soil sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
AES Soil PCB & Pesticides, 1986

Sample Station	GWY-15	GWY-15	GWY-16	GWY-16	GWY-17	GWY-17
Sample Identification	1070	1071	1072	1073	1074	1075
Sample Collection Date	2/7/1986	2/7/1986	2/7/1986	2/7/1986	2/7/1986	2/7/1986
Sample Type	SB	SB	SB	SB	SB	SB
Upper Depth (ft)	5	15	5	18	5	12
Lower Depth (ft)	5	15	5	18	5	12
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor-1016	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Aroclor-1221	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Aroclor-1232	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
Aroclor-1242	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Aroclor-1248	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Aroclor-1254	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
Aroclor-1260	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U
4,4'-Ddd	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
4,4'-Dde	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
4,4'-Ddt	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Aldrin	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Alpha-Bhc	0.00015 U	0.00015 U	0.00015 U	0.00015 U	0.00015 U	0.00015 U
Beta-Bhc	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.00004 U
Chlordane	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U
Delta-Bhc	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Dieldrin	0.0008 U	0.0008 U	0.0008 U	0.0008 U	0.0008 U	0.0008 U
Endosulfan I	0.0008 U	0.0008 U	0.0008 U	0.0008 U	0.0008 U	0.0008 U
Endosulfan Ii	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Endosulfan Sulfate	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Endrin	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Endrin Aldehyde	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Gamma-Bhc	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Heptachlor	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U
Heptachlor Epoxide	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Methoxychlor	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Toxaphene	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U

Notes:
Detected values are shown in bold.
AES = Applied Environmental Services
ft = feet
mg/kg = milligrams per kilogram
PCB = Polychlorinated biphenyl
SB = Subsurface soil sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
AES Soil Metals, 1986

Sample Station	GWY-15	GWY-15	GWY-16	GWY-16	GWY-17	GWY-17
Sample Identification	1070	1071	1072	1073	1074	1075
Sample Collection Date	2/7/1986	2/7/1986	2/7/1986	2/7/1986	2/7/1986	2/7/1986
Sample Type	SB	SB	SB	SB	SB	SB
Upper Depth (ft)	5	15	5	18	5	12
Lower Depth (ft)	5	15	5	18	5	12
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	**4300**	**14000**	**8000**	**6400**	**8000**	**6900**
Antimony	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Arsenic	**6**	**8.4**	**3.6**	0.13 U	**3.3**	**5.2**
Barium	**34**	**220**	**87**	**29**	**157**	**67**
Beryllium	**0.3**	**0.8**	**0.2**	**0.2**	**0.3**	**0.3**
Cadmium	**2**	**3**	1 U	1 U	1 U	1 U
Calcium	**12000**	**36000**	**42000**	**24000**	**36000**	**19000**
Chromium	**5**	**7**	**6**	**11**	**4**	**8**
Cobalt	**4**	**7**	**3**	**3**	**4**	**4**
Copper	**7**	**18**	**7**	**9**	**7**	**8**
Cyanide (Total)	0.2 U	0.1 U	0.2 U	0.2 U	0.2 U	0.1 U
Iron	**10900**	**15000**	**7000**	**6000**	**7000**	**5000**
Lead	**23**	**22**	**19**	**14**	**13**	**8**
Magnesium	**8200**	**12500**	**13100**	**7600**	**13500**	**6100**
Manganese	**154**	**500**	**230**	**360**	**196**	**230**
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	**8**	**11**	**5**	**10**	**7**	**7**
Potassium	**480**	**1520**	**580**	**284**	**506**	**792**
Selenium	**1**	**1.6**	**1.6**	**0.8**	**1.4**	**0.7**
Silver	**0.04**	**0.07**	**0.03**	**0.01**	**0.02**	**0.03**
Sodium	**70**	**119**	**71**	**54**	**58**	**50**
Thallium	**0.1**	**0.07**	**0.05**	**0.05**	**0.08**	**0.05**
Tin	**0.9**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
Vanadium	**6**	**9**	**4**	**4**	**5**	**5**
Zinc	**41**	**51**	**29**	**27**	**31**	**22**

Notes:
Detected values are shown in bold.
AES = Applied Environmental Services
ft = feet
mg/kg = milligrams per kilogram
SB = Subsurface soil sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
AES Soil VOC, 1986

Sample Station	GWY-15	GWY-15	GWY-16	GWY-16	GWY-17	GWY-17
Sample Identification	1070	1071	1072	1073	1074	1075
Sample Collection Date	2/7/1986	2/7/1986	2/7/1986	2/7/1986	2/7/1986	2/7/1986
Sample Type	SB	SB	SB	SB	SB	SB
Upper Depth (ft)	5	15	5	18	5	12
Lower Depth (ft)	5	15	5	18	5	12
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	0.01 U	0.02 U	0.02 U	**0.047**	0.01 U	0.01 U
1,1,2,2-Tetrachloroethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
1,1,2-Trichloroethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
1,1-Dichloroethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
1,1-Dichloroethene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
1,2-Dichloroethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
1,2-Dichloropropane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
2-Butanone	0.1 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U
2-Chloroethyl Vinyl Ether	0.05 U	0.09 U	0.09 U	0.08 U	0.05 U	0.05 U
2-Hexanone	0.05 U	0.09 U	0.09 U	0.08 U	0.05 U	0.05 U
4-Methyl-2-Pentanone	0.05 U	0.09 U	0.09 U	0.08 U	0.05 U	0.05 U
Acetone	0.2 U	0.4 U	0.4 U	0.3 U	0.2 U	0.2 U
Benzene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Bromoform	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Bromomethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Carbon Disulfide	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Carbon Tetrachloride	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Chlorobenzene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Chloroethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Chloroform	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Chloromethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Cis-1,3-Dichloropropene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Dibromochloromethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Dichlorobromomethane	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Methylene Chloride	0.05 U	0.09 U	**0.18**	0.08 U	0.05 U	**0.23**
M-Xylene	0.01 U	**0.09**	0.02 U	0.02 U	0.01 U	0.01 U
O,P-Xylenes	0.01 U	**0.042**	0.02 U	0.02 U	0.01 U	0.01 U
Phenol	2 U	2 U	2 U	2 U	2 U	2 U
Styrene	0.03 U	0.05 U	0.05 U	0.04 U	0.03 U	0.03 U
Tetrachloroethene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Toluene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Trans-1,2-Dichloroethene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Trans-1,3-Dichloropropene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Trichloroethene	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U
Vinyl Acetate	0.05 U	0.09 U	0.09 U	0.08 U	0.05 U	0.05 U
Vinyl Chloride	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U

Notes:
Detected values are shown in bold.
AES = Applied Environmental Services
ft = feet
mg/kg = milligrams per kilogram
SB = Subsurface soil sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
VOC = Volatile organic compounds

Appendix G - KRY Historical Data
AES Soil Petroleum Hydrocarbons, 1992-1994

Sample Station	**B-1**	**B-1**	**B-1**	**B-1**	**B-1**	**B-2**	**B-2**	**B-2**	**B-2**	**B-2**	**B-3**	**B-3**
Sample Identification	**B-1(14-16')**	**B-1(4-6')**	**B-1(9-11')**	**B-1(19-21')**	**B-1(23-24')**	**B-2(14-16')**	**B-2(19-21')**	**B-2(24-26')**	**B-2(9-11')**	**B-2(4-6')**	**B-3(14-16')**	**B-3(19-21')**
Sample Collection Date	**1/26/1993**	**1/26/1993**	**1/26/1993**	**1/27/1993**	**1/27/1994**	**1/27/1993**	**1/27/1993**	**1/27/1993**	**1/27/1993**	**1/27/1994**	**1/28/1993**	**1/28/1993**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**14**	**4**	**9**	**19**	**23**	**14**	**19**	**24**	**9**	**4**	**14**	**19**
Lower Depth (ft)	**16**	**6**	**11**	**21**	**24**	**16**	**21**	**26**	**11**	**6**	**16**	**21**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH												
Acenaphthene	---	---	---	1.21 U	1.21 U	---	1.21 U	1.21 U	---	---	1.21 U	1.21 U
Acenaphthylene	---	---	---	1.54 U	1.54 U	---	1.54 U	1.54 U	---	---	1.54 U	1.54 U
Anthracene	---	---	---	0.442 U	0.442 U	---	0.442 U	0.442 U	---	---	0.442 U	0.442 U
Benzo(a)Anthracene	---	---	---	**0.0574**	**0.0441**	---	0.00871 U	0.00871 U	---	---	0.00871 U	0.00871 U
Benzo(a)Pyrene	---	---	---	**0.0168**	0.0154 U	---	0.0154 U	0.0154 U	---	---	0.0154 U	0.0154 U
Benzo(b)Fluoranthene	---	---	---	**0.032**	0.0121 U	---	0.0121 U	0.0121 U	---	---	0.0121 U	0.0121 U
Benzo(g,h,i)Perylene	---	---	---	0.0509 U	0.0509 U	---	0.0509 U	0.0509 U	---	---	0.0509 U	0.0509 U
Benzo(k)Fluoranthene	---	---	---	**0.0205**	0.0114 U	---	0.0114 U	0.0114 U	---	---	0.0114 U	0.0114 U
Chrysene	---	---	---	0.101 U	0.101 U	---	0.101 U	0.101 U	---	---	0.101 U	0.101 U
Dibenzo(a,h)Anthracene	---	---	---	0.0201 U	0.0201 U	---	0.0201 U	0.0201 U	---	---	0.0201 U	0.0201 U
Fluoranthene	---	---	---	0.141 U	0.141 U	---	0.141 U	0.141 U	---	---	0.141 U	0.141 U
Fluorene	---	---	---	0.141 U	0.141 U	---	0.141 U	0.141 U	---	---	0.141 U	0.141 U
Indeno(1,2,3-cd)Pyrene	---	---	---	0.0288 U	0.0288 U	---	0.0288 U	0.0288 U	---	---	0.0288 U	0.0288 U
Naphthalene	---	---	---	---	1.21 U	---	---	---	---	---	---	---
Phenanthrene	---	---	---	0.429 U	0.429 U	---	0.429 U	0.429 U	---	---	0.429 U	0.429 U
Pyrene	---	---	---	0.181 U	0.181 U	---	0.181 U	0.181 U	---	---	0.181 U	0.181 U
VPH												
Benzene	---	---	---	0.002 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U	0.002 U	0.002 U
Ethylbenzene	---	---	---	0.002 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U	0.002 U	0.002 U
Naphthalene	---	---	---	1.21 U	---	---	1.21 U	1.21 U	---	---	1.21 U	1.21 U
Toluene	---	---	---	0.002 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U	0.002 U	**0.0021**
Xylenes (Total)	---	---	---	**0.004**	**0.019**	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U	0.002 U	**0.0038**
Petroleum Hydrocarbons												
Total Petroleum Hydrocarbons	**75**	**33**	**81**	**300**	**130**	**31**	**41**	**24**	**22**	**18**	**25**	**27**

Appendix G - KRY Historical Data
AES Soil Petroleum Hydrocarbons, 1992-1994

Sample Station	**B-3**	**B-3**	**B-3**	**B-4**	**B-4**	**BC-1**	**BC-1A**	**BC-2**	**BC-2A**	**BSEB1.1**	**BSEB1.2**	**BSEW1.0**
Sample Identification	**B-3(21-23')**	**B-3(4-6')**	**B-3 (9-11')**	**B-4(18-20')**	**B-4(20-22')**	**BC-1**	**BC-1A**	**BC-2**	**BC-2A**	**BSEB1.1**	**BSEB1.2**	**BSEW1.0**
Sample Collection Date	**1/28/1993**	**1/28/1993**	**1/28/1994**	**1/28/1993**	**1/28/1993**	**2/1/1993**	**5/28/1993**	**2/1/1993**	**5/28/1993**	**6/7/1993**	**6/7/1993**	**6/5/1993**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SS**	**SS**	**SS**	**SS**	**SB**	**SB**	**SB**
Upper Depth (ft)	**21**	**4**	**9**	**18**	**20**					**7**	**20**	**4**
Lower Depth (ft)	**23**	**6**	**11**	**20**	**22**					**7**	**20**	**4**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH												
Acenaphthene	1.21 U	---	---	1.21 U	1.21 U	3.62 U	---	2.41 U	---	---	---	---
Acenaphthylene	1.54 U	---	---	1.54 U	1.54 U	4.62 U	---	3.08 U	---	---	---	---
Anthracene	0.442 U	---	---	0.442 U	0.442 U	1.33 U	---	0.884 U	---	---	---	---
Benzo(a)Anthracene	0.00871 U	---	---	**0.0486**	0.00871 U	**0.116**	---	0.0174 U	---	---	---	---
Benzo(a)Pyrene	0.0154 U	---	---	0.0154 U	0.0154 U	**0.122**	---	**0.0566**	---	---	---	---
Benzo(b)Fluoranthene	0.0121 U	---	---	**0.0225**	0.0121 U	**0.108**	---	0.0241 U	---	---	---	---
Benzo(g,h,i)Perylene	0.0509 U	---	---	0.0509 U	0.0509 U	**0.374**	---	0.102 U	---	---	---	---
Benzo(k)Fluoranthene	0.0114 U	---	---	0.0114 U	0.0114 U	**0.228**	---	0.0228 U	---	---	---	---
Chrysene	0.101 U	---	---	0.101 U	0.101 U	0.302 U	---	0.201 U	---	---	---	---
Dibenzo(a,h)Anthracene	0.0201 U	---	---	0.0201 U	0.0201 U	0.0603 U	---	0.0402 U	---	---	---	---
Fluoranthene	0.141 U	---	---	0.141 U	0.141 U	0.422 U	---	0.281 U	---	---	---	---
Fluorene	0.141 U	---	---	0.141 U	0.141 U	0.422 U	---	0.281 U	---	---	---	---
Indeno(1,2,3-cd)Pyrene	0.0288 U	---	---	0.0288 U	0.0288 U	**0.124**	---	0.0576 U	---	---	---	---
Naphthalene	---	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	0.429 U	---	---	0.429 U	0.429 U	1.29 U	---	0.858 U	---	---	---	---
Pyrene	0.181 U	---	---	0.181 U	0.181 U	0.543 U	---	0.362 U	---	---	---	---
VPH												
Benzene	0.002 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.002 U	**0.0024**	0.002 U	0.2 U	**0.0088**	0.002 U
Ethylbenzene	0.002 U	0.002 U	0.002 U	**0.017**	0.01 U	0.01 U	0.002 U	0.002 U	0.002 U	**0.67**	**0.0372**	0.002 U
Naphthalene	1.21 U	---	---	1.21 U	1.21 U	3.62 U	---	2.41 U	---	---	---	---
Toluene	0.002 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.002 U	**0.0035**	0.002 U	**0.58**	**0.0668**	0.002 U
Xylenes (Total)	0.002 U	0.002 U	0.002 U	**0.017**	**0.013**	0.01 U	0.006 U	0.002 U	0.006 U	**8.38**	**0.256**	0.006 U
Petroleum Hydrocarbons												
Total Petroleum Hydrocarbons	**22**	**56**	**49**	**320**	**28**	**15000**	**51**	**900**	**2151**	**13700**	**1460**	**127**

Appendix G - KRY Historical Data
AES Soil Petroleum Hydrocarbons, 1992-1994

Sample Station	**BSEW1.1**	**CSB**	**CSS**	**PT1**	**PT16**	**PT2**	**PT3**	**PTB1**	**PTB2**	**S-1**	**S-10**	**S-10**
Sample Identification	**BSEW1.1**	**CSB-1**	**CSS-1**	**PT1**	**PT-16**	**PT-2**	**PT-3**	**PTB1**	**PTB2**	**S-1**	**S-10**	**S-10A**
Sample Collection Date	**6/5/1993**	**2/15/1994**	**2/15/1994**	**1/30/1993**	**2/1/1993**	**1/30/1993**	**1/30/1993**	**2/2/1993**	**2/2/1993**	**11/16/1992**	**12/15/1992**	**12/23/1992**
Sample Type	**SB**	**SS**	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SS**	**SS**	**SS**
Upper Depth (ft)	**4**			**3**	**16**	**3**	**3**	**3**	**3**	**2**	**1**	**2**
Lower Depth (ft)	**4**			**3**	**16**	**3**	**3**	**3**	**3**	**2**	**1.5**	**2**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH												
Acenaphthene	---	---	---	---	---	---	---	---	---	1.21 U	1.21 U	1.21 U
Acenaphthylene	---	---	---	---	---	---	---	---	---	1.54 U	1.54 U	1.54 U
Anthracene	---	---	---	---	---	---	---	---	---	0.442 U	0.442 U	0.442 U
Benzo(a)Anthracene	---	---	---	---	---	---	---	---	---	**0.0158**	**0.0572**	**0.0101**
Benzo(a)Pyrene	---	---	---	---	---	---	---	---	---	0.0154 U	0.0154 U	0.0154 U
Benzo(b)Fluoranthene	---	---	---	---	---	---	---	---	---	0.0121 U	0.0121 U	0.0121 U
Benzo(g,h,i)Perylene	---	---	---	---	---	---	---	---	---	0.0509 U	0.0509 U	0.0509 U
Benzo(k)Fluoranthene	---	---	---	---	---	---	---	---	---	0.0114 U	0.0114 U	0.0114 U
Chrysene	---	---	---	---	---	---	---	---	---	0.101 U	0.101 U	0.101 U
Dibenzo(a,h)Anthracene	---	---	---	---	---	---	---	---	---	0.0201 U	0.0201 U	**0.0234**
Fluoranthene	---	---	---	---	---	---	---	---	---	0.141 U	0.141 U	0.141 U
Fluorene	---	---	---	---	---	---	---	---	---	0.141 U	0.141 U	0.141 U
Indeno(1,2,3-cd)Pyrene	---	---	---	---	---	---	---	---	---	0.0288 U	0.0288 U	0.0288 U
Naphthalene	---	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	---	---	---	---	---	---	---	---	---	0.429 U	0.429 U	0.429 U
Pyrene	---	---	---	---	---	---	---	---	---	0.181 U	**0.231**	0.181 U
VPH												
Benzene	**0.049**	---	---	**12**	2 U	**3.8**	0.01 U	0.002 U	0.2 U	0.002 U	0.002 U	0.002 U
Ethylbenzene	**0.482**	---	---	**83**	**6.5**	**14**	0.01 U	**0.0036**	**1.4**	0.002 U	0.002 U	0.002 U
Naphthalene	---	---	---	---	---	---	---	---	---	1.21 U	1.21 U	1.21 U
Toluene	**0.097**	---	---	**270**	**5.6**	**42**	0.01 U	0.002 U	**3**	0.002 U	0.002 U	0.002 U
Xylenes (Total)	**0.987**	---	---	**600**	**41**	**85**	0.01 U	**0.015**	**11**	0.002 U	**0.0091**	0.002 U
Petroleum Hydrocarbons												
Total Petroleum Hydrocarbons	**12800**	**2880**	**539**	**4300**	**7500**	**4400**	**340**	**190**	**250**	---	---	---

Appendix G - KRY Historical Data
AES Soil Petroleum Hydrocarbons, 1992-1994

Sample Station	**S-11**	**S-12**	**S-13**	**S-13**	**S-14**	**S-15**	**S-17**	**S-18**	**S-19**	**S-2**	**S-20**	**S-22**
Sample Identification	**S-11**	**S-12**	**S-13**	**S-13A**	**S-14**	**S-15**	**S-17**	**S-18**	**S-19**	**S-2**	**S-20**	**S-22**
Sample Collection Date	**12/15/1992**	**12/15/1992**	**12/15/1992**	**12/23/1992**	**12/17/1992**	**12/17/1992**	**1/26/1993**	**1/26/1993**	**1/26/1993**	**11/16/1992**	**2/2/1993**	**2/8/1993**
Sample Type	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SS**	**SS**	**SB**
Upper Depth (ft)	**1**	**8**	**8**	**9**	**6.5**	**3.5**	**8**	**8**	**20**	**1**	**2**	**8**
Lower Depth (ft)	**1.5**	**8**	**8**	**9**	**6.5**	**7**	**8**	**8**	**22**	**1**	**2**	**8**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH												
Acenaphthene	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	6.03 U	1.21 U	**103**	1.21 U
Acenaphthylene	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	7.71 U	1.54 U	**19.3**	1.54 U
Anthracene	0.442 U	0.442 U	0.442 U	0.442 U	0.442 U	0.442 U	0.442 U	0.442 U	2.21 U	0.442 U	3.3 U	0.442 U
Benzo(a)Anthracene	0.00871 U	**0.0922**	0.00871 U	0.00871 U	0.00871 U	0.00871 U	0.00871 U	0.00871 U	**0.242**	**0.0108**	0.065 U	0.00871 U
Benzo(a)Pyrene	0.0154 U	**0.136**	0.0154 U	0.0154 U	0.0154 U	0.0154 U	0.0154 U	0.0154 U	0.0771 U	0.0154 U	0.115 U	0.0154 U
Benzo(b)Fluoranthene	0.0121 U	**0.0827**	0.0121 U	0.0121 U	0.0121 U	0.0121 U	0.0121 U	0.0121 U	0.0603 U	0.0121 U	0.09 U	0.0121 U
Benzo(g,h,i)Perylene	0.0509 U	**0.0886**	**0.0778**	0.0509 U	0.0509 U	0.0509 U	0.0509 U	0.0509 U	0.255 U	0.0509 U	0.38 U	0.0509 U
Benzo(k)Fluoranthene	0.0114 U	**0.0414**	0.0114 U	0.0114 U	0.0114 U	0.0114 U	0.0114 U	0.0114 U	0.057 U	0.0114 U	**0.45**	0.0114 U
Chrysene	0.101 U	**0.148**	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.503 U	0.101 U	0.75 U	0.101 U
Dibenzo(a,h)Anthracene	0.0201 U	**0.0903**	**0.111**	0.0201 U	0.0201 U	0.0201 U	0.0201 U	0.0201 U	0.101 U	0.0201 U	0.15 U	0.0201 U
Fluoranthene	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	**1.48**	0.141 U	1.05 U	0.141 U
Fluorene	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	0.704 U	0.141 U	1.05 U	0.141 U
Indeno(1,2,3-cd)Pyrene	0.0288 U	**0.0732**	**0.0382**	0.0288 U	0.0288 U	0.0288 U	0.0288 U	0.0288 U	0.144 U	0.0288 U	0.215 U	0.0288 U
Naphthalene	---	---	---	---	---	---	---	---	---	---	9 U	---
Phenanthrene	0.429 U	0.429 U	0.429 U	0.429 U	0.429 U	0.429 U	0.429 U	0.429 U	2.14 U	0.429 U	3.2 U	0.429 U
Pyrene	0.181 U	0.181 U	0.181 U	0.181 U	0.181 U	0.181 U	0.181 U	0.181 U	**2.17**	0.181 U	1.35 U	0.181 U
VPH												
Benzene	0.002 U	0.002 U	0.002 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U	1 U	0.002 U	---	0.002 U
Ethylbenzene	0.002 U	0.002 U	0.002 U	0.01 U	0.002 U	**0.0075**	0.002 U	0.002 U	**1.6**	0.002 U	---	0.002 U
Naphthalene	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	6.03 U	1.21 U	---	1.21 U
Toluene	0.002 U	0.002 U	0.002 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U	1 U	0.002 U	---	0.002 U
Xylenes (Total)	0.002 U	0.002 U	**0.0031**	0.01 U	**0.0031**	**0.019**	0.002 U	0.002 U	**18**	0.002 U	---	0.002 U
Petroleum Hydrocarbons												
Total Petroleum Hydrocarbons	---	---	---	---	---	---	**100**	**120**	**2200**	---	**10100**	**120**

Appendix G - KRY Historical Data
AES Soil Petroleum Hydrocarbons, 1992-1994

Sample Station	**S-23**	**S-24**	**S-25**	**S-3**	**S-4**	**S-5**	**S-6**
Sample Identification	**S-23**	**S-24**	**S-25**	**S-3**	**S-4**	**S-5**	**S-6**
Sample Collection Date	**2/8/1993**	**2/10/1993**	**2/10/1993**	**11/16/1992**	**12/3/1992**	**12/4/1992**	**12/4/1992**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**20**	**3**	**3**	**7**	**7**	**13**	**5**
Lower Depth (ft)	**20**	**3**	**3**	**7**	**7**	**13**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH							
Acenaphthene	1.21 U	1.21 U	12.1 U	30.1 U	60.3 U	1.21 U	1.21 U
Acenaphthylene	1.54 U	1.54 U	15.4 U	38.5 U	77.1 U	1.54 U	1.54 U
Anthracene	0.442 U	0.442 U	4.42 U	11.1 U	22.1 U	0.442 U	0.442 U
Benzo(a)Anthracene	**0.0958**	0.0087 U	0.0871 U	**2.01**	**5.98**	0.00871 U	0.00871 U
Benzo(a)Pyrene	0.0154 U	0.0154 U	0.154 U	**1.17**	**3.5**	0.0154 U	0.0154 U
Benzo(b)Fluoranthene	0.0121 U	0.0121 U	0.121 U	**0.505**	**1.19**	0.0121 U	0.0121 U
Benzo(g,h,i)Perylene	0.0509 U	0.0509 U	0.509 U	1.27 U	2.55 U	0.0509 U	0.0509 U
Benzo(k)Fluoranthene	0.0114 U	0.0114 U	0.114 U	**0.38**	**0.961**	0.0114 U	0.0114 U
Chrysene	0.101 U	0.0101 U	1.01 U	2.51 U	5.03 U	0.101 U	0.101 U
Dibenzo(a,h)Anthracene	0.0201 U	0.0201 U	0.201 U	**0.908**	**1.4**	**0.0628**	0.0201 U
Fluoranthene	0.141 U	0.141 U	1.41 U	**8.32**	**24.3**	0.141 U	0.141 U
Fluorene	0.141 U	0.141 U	1.41 U	3.52 U	7.04 U	0.141 U	0.141 U
Indeno(1,2,3-cd)Pyrene	0.0288 U	0.0288 U	0.288 U	0.72 U	**1.45**	**0.177**	0.0288 U
Naphthalene	---	---	---	---	---	---	---
Phenanthrene	0.429 U	0.429 U	4.29 U	10.7 U	21.4 U	0.429 U	0.429 U
Pyrene	**0.355**	0.181 U	1.81 U	**9.41**	**24.8**	0.181 U	0.181 U
VPH							
Benzene	0.01 U	0.01 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U
Ethylbenzene	**0.035**	0.01 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U
Naphthalene	1.21 U	1.21 U	12.1 U	30.1 U	60.3 U	1.21 U	1.21 U
Toluene	0.01 U	0.01 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U
Xylenes (Total)	**0.27**	0.01 U	0.01 U	0.002 U	0.002 U	0.002 U	0.002 U
Petroleum Hydrocarbons							
Total Petroleum Hydrocarbons	**630**	**120**	**300**	---	---	---	---

Appendix G - KRY Historical Data
AES Soil Petroleum Hydrocarbons, 1992-1994

Sample Station	**S-7**	**S-7**	**S-8**	**S-8**	**S-9**	**WPC**
Sample Identification	**S-7**	**S-7A**	**S-8**	**S-8A**	**S-9**	**WPC**
Sample Collection Date	**12/8/1992**	**12/23/1992**	**12/9/1992**	**12/23/1992**	**12/9/1992**	**10/30/1993**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SB**	**SS**
Upper Depth (ft)	**1**	**2**	**2**	**2**	**2.5**	
Lower Depth (ft)	**1**	**2**	**2**	**2**	**2.5**	
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH						
Acenaphthene	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U
Acenaphthylene	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U
Anthracene	0.442 U	0.422 U	0.442 U	0.422 U	0.442 U	0.442 U
Benzo(a)Anthracene	0.00871 U	0.00871 U	0.00871 U	**0.0107**	0.00871 U	**0.0581**
Benzo(a)Pyrene	0.0154 U	0.0154 U	0.0154 U	0.0154 U	0.0154 U	**0.0848**
Benzo(b)Fluoranthene	0.0121 U	0.0121 U	0.0121 U	0.0121 U	0.0121 U	**0.0564**
Benzo(g,h,i)Perylene	0.0509 U	0.0509 U	0.0509 U	0.0509 U	0.0509 U	**0.0938**
Benzo(k)Fluoranthene	0.0114 U	0.0114 U	0.0114 U	0.0114 U	0.0114 U	**0.0325**
Chrysene	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U
Dibenzo(a,h)Anthracene	0.0201 U	0.0201 U	0.0201 U	**0.0234**	0.0201 U	**0.076**
Fluoranthene	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	**0.152**
Fluorene	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U
Indeno(1,2,3-cd)Pyrene	0.0288 U	0.0288 U	0.0288 U	0.0288 U	0.0288 U	**0.0998**
Naphthalene	---	---	---	---	---	---
Phenanthrene	0.429 U	0.429 U	0.429 U	0.429 U	0.429 U	0.429 U
Pyrene	0.181 U	0.181 U	0.181 U	0.181 U	0.181 U	0.181 U
VPH						
Benzene	0.002 U	0.01 U	0.002 U	0.01 U	0.002 U	0.01 U
Ethylbenzene	0.002 U	0.01 U	0.002 U	0.01 U	0.002 U	0.01 U
Naphthalene	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U
Toluene	0.002 U	0.01 U	0.002 U	0.01 U	0.002 U	0.01 U
Xylenes (Total)	0.002 U	0.01 U	0.002 U	0.01 U	0.002 U	0.01 U
Petroleum Hydrocarbons						
Total Petroleum Hydrocarbons	---	---	---	---	---	---

Notes:
Detected values are shown in bold.
AES = Applied Environmental Services
EPH = Extractable petroleum hydrocarbons
ft = feet
mg/kg = milligrams per kilogram
SB = Subsurface soil sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
VPH = Volatile petroleum hydrocarbons

Appendix G - KRY Historical Data
AES Groundwater SVOC Data, 1985

Sample Station	GWY-1	GWY-12	GWY-13	GWY-14	GWY-4
Sample Identification	MW-1	MW-12	MW-13	MW-14	MW-4
Sample Collection Date	9/25/1985	9/25/1985	9/25/1985	9/25/1985	9/25/1985
Sample Type	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U
1,2-Diphenylhydrazine	2 U	2 U	2 U	2 U	2 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U
2,4-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	1 U	1 U	1 U	1 U	1 U
3,3'-Dichlorobenzidine	5 U	5 U	5 U	5 U	5 U
4-Bromophenylphenylether	3 U	3 U	3 U	3 U	3 U
4-Chlorophenylphenylether	2 U	2 U	2 U	2 U	2 U
Acenaphthene	1 U	1 U	1 U	1 U	1 U
Acenaphthylene	1 U	1 U	1 U	1 U	1 U
Anthracene	1 U	1 U	1 U	1 U	1 U
Benzidine	50 U	50 U	50 U	50 U	50 U
Benzo(a)Anthracene	1 U	1 U	1 U	1 U	1 U
Benzo(a)Pyrene	2 U	2 U	2 U	2 U	2 U
Benzo(b,k)Fluoranthene	2 U	2 U	2 U	2 U	2 U
Benzo(g,h,i)Perylene	3 U	3 U	3 U	3 U	3 U
bis(2-Chloroethoxy)Methane	1 U	1 U	1 U	1 U	1 U
bis(2-Chloroethyl)Ether	1 U	1 U	1 U	1 U	1 U
bis(2-Chloroisopropyl)Ether	1 U	1 U	1 U	1 U	1 U
bis(2-Ethylhexyl)Phthalate	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate	1 U	1 U	1 U	1 U	1 U
Chrysene	1 U	1 U	1 U	1 U	1 U
Dibenzo(a,h)Anthracene	3 U	3 U	3 U	3 U	3 U
Diethyl Phthalate	1 U	1 U	1 U	1 U	1 U
Dimethyl Phthalate	1 U	1 U	1 U	1 U	1 U
Di-N-Butylphthalate	1 U	1 U	1 U	1 U	1 U
Di-N-Octylphthalate	1 U	1 U	1 U	1 U	1 U
Fluoranthene	1 U	1 U	1 U	1 U	1 U
Fluorene	1 U	1 U	1 U	1 U	**2**
Hexachlorobenzene	2 U	2 U	2 U	2 U	2 U
Hexachlorobutadiene	2 U	2 U	2 U	2 U	2 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	1 U	1 U	1 U	1 U	1 U
Indeno(1,2,3-cd)Pyrene	3 U	3 U	3 U	3 U	3 U
Isophorone	1 U	1 U	1 U	1 U	1 U
Naphthalene	1 U	1 U	**4**	1 U	**5**
Nitrobenzene	2 U	2 U	2 U	2 U	2 U
N-Nitroso-Di-Methylamine	3 U	3 U	3 U	3 U	3 U
N-Nitrosodi-N-Propylamine	2 U	2 U	2 U	2 U	2 U
N-Nitrosodiphenylamine	1 U	1 U	1 U	1 U	1 U
Phenanthrene	1 U	1 U	1 U	1 U	1 U
Pyrene	1 U	1 U	1 U	1 U	1 U

Notes:
Detected values are shown in bold.
AES = Applied Environmental Services
GW = Groundwater sample
SVOC = Semi-volatile organic compound
ug/L = micrograms per liter
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
Corwin Soil Petroleum Hydrocarbons, 2005

Sample Station	GWRM-1	GWRM-1	GWRM-2	GWRM-2	SBRM-1	SBRM-1	SBRM-2	SBRM-2
Sample Identification	**MW-01A**	**MW-01B**	**MW-02A**	**MW-02B**	**SB-01A**	**SB-01B**	**SB-02A**	**SB-02B**
Sample Collection Date	**4/14/2005**	**4/14/2005**	**4/14/2005**	**4/14/2005**	**4/14/2005**	**4/4/2005**	**4/14/2005**	**4/14/2005**
Sample Type	**SS**	**SB**	**SS**	**SB**	**SS**	**SB**	**SS**	**SB**
Upper Depth (ft)	**1**	**6**	**0**	**6**	**1**	**6**	**0**	**5**
Lower Depth (ft)	**5**	**10**	**5**	**9**	**5**	**10**	**5**	**7.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH Screen	**14**	11 U	**230**	**39**	12 U	**12**	**17**	**11**

Notes:

Detected values are shown in bold
EPH = Extractable Petroleum Hydrocarbons
ft = feet
mg/kg = milligrams per kilogram
SB = Subsurface soil sample
SS = Surface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
Corwin Groundwater Petroleum Hydrocarbons, 2005

Sample Station	GWRM-1	GWRM-2
Sample Identification	MW1-01	MW2-01
Sample Collection Date	4/14/2005	4/14/2005
Sample Type	GW	GW
Units	ug/L	ug/L
EPH Screen	**2100**	**4100**

Notes:

Detected values are shown in bold
EPH = Extractable Petroleum Hydrocarbons
GW = Groundwater sample
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
EPA, FIT Soil SVOC, 1986

Sample Station	YR-SO-1	YR-SO-2	YR-SO-4	RR-SO-1	RR-SO-2	RR-SO-4
Sample Identification	**HB052**	**HB053**	**HB077**	**HC-304**	**HC-306**	**HC-307**
Sample Collection Date	**3/11/1986**	**4/2/1986**	**3/6/1986**	**2/25/1986**	**2/25/1986**	**2/26/1986**
Sample Type	**BD**	**SS**	**SB**	**SB**	**SB**	**SS**
Upper Depth (ft)	**0**	**0**	**2.2**	**12.5**	**8.5**	**0.8**
Lower Depth (ft)	**1.3**	**0.75**	**3.3**	**15.5**	**10**	**1.6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
1,2,4-Trichlorobenzene	0.6 U	0.33 UJ	0.6 U	---	---	---
1,2-Dichlorobenzene	0.6 U	0.33 UJ	0.6 U	---	---	---
1,3-Dichlorobenzene	0.6 U	0.33 UJ	0.6 U	---	---	---
1,4-Dichlorobenzene	0.6 U	0.33 UJ	0.6 U	---	---	---
2,4,5-Trichlorophenol	4 U	1.6 UJ	4 U	---	---	---
2,4,6-Trichlorophenol	0.6 U	0.33 UJ	0.6 U	---	---	---
2,4-Dichlorophenol	0.6 U	0.33 UJ	0.6 U	---	---	---
2,4-Dimethylphenol	0.6 U	0.33 UJ	0.6 U	---	---	---
2,4-Dinitrophenol	4 U	1.6 UJ	4 U	---	---	---
2,4-Dinitrotoluene	0.6 U	0.33 UJ	0.6 U	---	---	---
2,6-Dinitrotoluene	0.6 U	0.33 UJ	0.6 U	---	---	---
2-Chloronaphthalene	0.6 U	0.33 UJ	0.6 U	---	---	---
2-Chlorophenol	0.6 U	0.33 UJ	0.6 U	---	---	---
2-Methylnaphthalene	0.6 U	**38 J**	**0.11 J**	**1.6 J**	**0.68 J**	0.66 U
2-Methylphenol	0.6 U	0.33 UJ	0.6 U	---	---	---
2-Nitroaniline	4 U	1.6 UJ	4 U	---	---	---
2-Nitrophenol	0.6 U	0.33 UJ	0.6 U	---	---	---
3,3'-Dichlorobenzidine	1 UJ	0.33 UJ	1 UJ	---	---	---
3-Nitroaniline	**4 R**	1.6 UJ	**4 R**	---	---	---
4,6-Dinitro-2-Methylphenol	4 U	0.33 UJ	4 U	---	---	---
4-Bromophenylphenylether	0.6 U	0.33 UJ	0.6 U	---	---	---
4-Chloro-3-Methylphenol	0.6 U	0.33 UJ	0.6 U	---	---	---
4-Chloroaniline	0.6 UJ	0.33 UJ	0.6 UJ	---	---	---
4-Chlorophenylphenylether	0.6 U	0.33 UJ	0.6 U	---	---	---
4-Methylphenol	0.6 U	0.33 UJ	0.6 U	---	---	---
4-Nitroaniline	4 UJ	1.6 UJ	4 UJ	---	---	---
4-Nitrophenol	4 U	1.6 UJ	4 U	---	---	---
Acenaphthene	0.6 U	0.33 UJ	**0.78**	---	---	---
Acenaphthylene	0.6 U	0.33 UJ	0.6 U	---	---	---
Anthracene	0.6 U	0.33 UJ	**2**	19.8 U	19.8 U	0.66 U
Benzo(A)Anthracene	0.6 U	0.33 UJ	**2.1**	---	---	---
Benzo(A)Pyrene	0.6 U	0.33 UJ	**1.2**	---	---	---
Benzo(B)Fluoranthene	0.6 U	0.33 UJ	**2.1**	---	---	---
Benzo(G,H,I)Perylene	0.6 U	0.33 UJ	**0.63**	---	---	---
Benzo(K)Fluoranthene	0.6 U	0.33 UJ	0.6 U	---	---	---
Benzoic Acid	4 U	1.6 UJ	4 U	---	---	---
Benzyl Alcohol	0.6 U	0.33 UJ	0.6 U	---	---	---
Bis(2-Chloroethoxy)Methane	0.6 U	0.33 UJ	0.6 U	---	---	---
Bis(2-Chloroethyl)Ether	0.6 U	0.33 UJ	0.6 U	---	---	---
Bis(2-Chloroisopropyl)Ether	0.6 U	0.33 UJ	0.6 U	---	---	---
Bis(2-Ethylhexyl)Phthalate	0.6 U	0.33 UJ	0.6 U	---	---	---
Butyl Benzyl Phthalate	0.6 U	0.33 UJ	0.6 U	---	---	---
Chrysene	0.6 U	0.33 UJ	**1.5**	---	---	---
Dibenzo(A,H)Anthracene	0.6 U	0.33 UJ	**0.32 J**	---	---	---
Dibenzofuran	0.6 U	0.33 UJ	**0.62**	---	---	---
Diethyl Phthalate	0.6 U	0.33 UJ	0.6 U	**1.2 J**	19.8 UJ	**0.21 JB**
Dimethyl Phthalate	0.6 U	0.33 UJ	0.6 U	---	---	---
Di-N-Butylphthalate	**0.1 JB**	0.33 UJ	0.6 U	---	---	---
Di-N-Octylphthalate	0.6 U	0.33 UJ	0.6 U	**0.24 J**	19.8 U	0.66 U
Fluoranthene	0.6 U	0.33 UJ	**5.1**	---	---	---
Fluorene	0.6 U	0.33 UJ	**1**	**0.86 J**	19.8 U	0.66 U
Hexachlorobenzene	0.6 U	0.33 UJ	0.6 U	---	---	---
Hexachlorobutadiene	0.6 U	0.33 UJ	0.6 U	---	---	---
Hexachlorocyclopentadiene	0.6 U	0.33 UJ	0.6 U	---	---	---
Hexachloroethane	0.6 U	0.33 UJ	0.6 U	---	---	---
Indeno(1,2,3-cd)Pyrene	0.6 U	0.33 UJ	**0.64**	---	---	---
Isophorone	0.6 U	0.33 UJ	0.6 U	---	---	---
Naphthalene	0.6 U	**16 J**	**0.49 J**	---	---	---
Nitrobenzene	0.6 U	0.33 UJ	0.6 U	---	---	---
N-Nitrosodi-N-Propylamine	0.6 U	0.33 UJ	0.6 U	---	---	---
N-Nitrosodiphenylamine	0.6 U	0.33 UJ	0.6 U	19.8 U	19.8 U	0.66 U
Pentachlorophenol	4 U	1.6 UJ	4 U	99 U	99 U	3.3 U
Phenanthrene	0.6 U	0.33 UJ	**6.6**	**1.8 J**	19.8 U	0.66 U
Phenol	0.6 U	0.33 UJ	0.6 U	---	---	---
Pyrene	0.6 U	**2.4 J**	**3.7**	---	---	---

Appendix G - KRY Historical Data
EPA, FIT Soil SVOC Notes

Notes:

Detected values are shown in bold
B = Compound detected in method blank
BD = Background soil sample
ft = feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = milligrams per kilogram
R = Quality control indicates data is not useable
SB = Subsurface soil sample
SS = Surface soil sample
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
EPA, FIT Groundwater SVOC, 1986

Sample Station	GWRR-1	GWRR-1	GWRR-2	GWRR-2	GWRR-2	GWRR-2	GWRR-3	GWRR-3	GWY-1
Sample Identification	GWRR-1	RR-MW-1	GWRR-2	GWRR-2	RR-MW-2	RR-MW-4	GWRR-3	RR-MW-3	HB095
Sample Collection Date	2/25/1986	3/5/1986	2/25/1986	2/25/1986	3/5/1986	3/5/1986	2/25/1986	3/5/1986	3/5/1986
Sample Type	GW	GW	GW	DU	GW	DU	GW	GW	GW
Duplicate of				GWRR-2		GWRR-2			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	---	---	---	---	---	---	---	---	100 U
1,2-Dichlorobenzene	---	---	---	---	---	---	---	---	100 U
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	100 U
1,4-Dichlorobenzene	---	---	---	---	---	---	---	---	100 U
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	500 U
2,4,6-Trichlorophenol	---	---	---	**3 J**	---	**3 J**	---	---	100 U
2,4-Dichlorophenol	---	---	---	---	---	---	---	---	100 U
2,4-Dimethylphenol	---	---	---	---	---	---	---	---	100 U
2,4-Dinitrophenol	---	---	---	---	---	---	---	---	500 U
2,4-Dinitrotoluene	---	---	---	---	---	---	---	---	100 U
2,6-Dinitrotoluene	---	---	---	---	---	---	---	---	100 U
2-Chloronaphthalene	---	---	---	---	---	---	---	---	100 U
2-Chlorophenol	---	---	---	---	---	---	---	---	100 U
2-Methylnaphthalene	---	**105**	**42**	**36**	**42**	**36**	**5200 R**	**5.2 R**	100 U
2-Methylphenol	---	---	---	---	---	---	---	---	100 U
2-Nitroaniline	---	---	---	---	---	---	---	---	500 U
2-Nitrophenol	---	---	---	---	---	---	---	---	100 U
3,3'-Dichlorobenzidine	---	---	---	---	---	---	---	---	200 U
3-Nitroaniline	---	---	---	---	---	---	---	---	**500 R**
4,6-Dinitro-2-Methylphenol	---	---	---	---	---	---	---	---	500 U
4-Bromophenylphenylether	---	---	---	---	---	---	---	---	100 U
4-Chloro-3-Methylphenol	---	---	---	---	---	---	---	---	100 U
4-Chloroaniline	---	---	---	---	---	---	---	---	100 UJ
4-Chlorophenylphenylether	---	---	---	---	---	---	---	---	100 U
4-Methylphenol	---	---	---	---	---	---	---	---	100 U
4-Nitroaniline	---	---	---	---	---	---	---	---	500 U
4-Nitrophenol	---	---	---	---	---	---	---	---	500 U
Acenaphthene	---	---	---	---	---	---	---	---	100 U
Acenaphthylene	---	---	---	---	---	---	---	---	100 U
Anthracene	---	---	---	---	---	---	---	---	100 U
Benzo(A)Anthracene	---	---	---	---	---	---	---	---	100 U
Benzo(A)Pyrene	---	---	---	---	---	---	---	---	100 U
Benzo(B)Fluoranthene	---	---	---	---	---	---	---	---	100 U
Benzo(G,H,I)Perylene	---	---	---	---	---	---	---	---	100 U
Benzo(K)Fluoranthene	---	---	---	---	---	---	---	---	100 U
Benzoic Acid	---	---	---	---	---	---	---	---	500 U
Benzyl Alcohol	---	---	---	---	---	---	---	---	100 U
Bis(2-Chloroethoxy)Methane	---	---	---	---	---	---	---	---	100 U
Bis(2-Chloroethyl)Ether	---	---	---	---	---	---	---	---	100 U
Bis(2-Chloroisopropyl)Ether	---	---	---	---	---	---	---	---	100 U
Bis(2-Ethylhexyl)Phthalate	---	---	---	---	---	---	**4300 R**	**4.3 R**	100 U
Butyl Benzyl Phthalate	---	---	**1 J**	**0.4 J**	**1 J**	**0.4 J**	---	---	100 U
Chrysene	**20 J**	**20 J**	---	---	---	---	---	---	100 U
Dibenzo(A,H)Anthracene	---	---	---	---	---	---	---	---	100 U
Dibenzofuran	**12 J**	**12 J**	**3.2 J**	**2.5 J**	**3.2 J**	**2.5 J**	---	---	100 U
Diethyl Phthalate	**21 J,B**	**21 JB**	**1.8 J,B**	---	**1.8 JB**	---	**300 R**	**0.3 R**	100 U
Dimethyl Phthalate	---	---	---	---	---	---	---	---	100 U
Di-N-Butylphthalate	**6 J,B**	**6 JB**	**5.1 J,B**	**0.1 J,B**	**5.1 JB**	**0.1 JB**	**1900 B**	**1.9 B**	100 U
Di-N-Octylphthalate	**6.1 J,B**	**6.1 JB**	**0.8 J,B**	**1.4 J,B**	**0.8 JB**	**1.4 JB**	**4800 R**	**4.8 R**	100 U
Fluoranthene	---	---	---	---	---	---	---	---	100 U
Fluorene	**44 J**	**44 J**	**6.5 J**	**5.5 J**	**6.5 J**	**5.5 J**	---	---	100 U
Hexachlorobenzene	---	---	---	---	---	---	---	---	100 U
Hexachlorobutadiene	---	---	---	---	---	---	---	---	100 U
Hexachlorocyclopentadiene	---	---	---	---	---	---	---	---	100 U
Hexachloroethane	---	---	---	---	---	---	---	---	100 U
Indeno(1,2,3-Cd)Pyrene	---	---	---	---	---	---	---	---	100 U
Isophorone	---	---	---	---	---	---	---	---	100 U
Naphthalene	**34 J**	**34 J**	**20**	**19**	**20**	**19**	---	---	100 U
Nitrobenzene	**14 J**	**14 J**	**6.7 J**	---	**6.7 J**	---	---	---	100 U
N-Nitrosodi-N-Propylamine	---	---	---	---	---	---	---	---	100 U
N-Nitrosodiphenylamine	---	---	---	---	---	---	---	---	100 U
Pentachlorophenol	---	---	**1400**	**1100**	**1400**	**1100**	---	---	500 U
Phenanthrene	**49 J**	**49 J**	**5.6 J**	**4.8 J**	**5.6 J**	**4.8 J**	**2700 R**	**2.7 R**	100 U
Phenol	---	---	---	---	---	---	---	---	100 U
Pyrene	**6.2 J**	**6.2 J**	---	---	---	---	---	---	100 U

Appendix G - KRY Historical Data
EPA, FIT Groundwater SVOC, 1986

Sample Station	GWY-12	GWY-3	GWY-4	GWY-4	GWY-9	PWS-1	RW-1
Sample Identification	HB078	HB094	HC267	HC268	HB093	RR-GW-2	RR-GW-1
Sample Collection Date	3/5/1986	3/5/1986	3/7/1986	3/7/1986	3/5/1986	3/1/1986	3/1/1986
Sample Type	GW	GW	GW	DU	GW	GW	GW
Duplicate of				GWY-4			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	40 U	10 U	100 U	100 U	20 U	---	---
1,2-Dichlorobenzene	40 U	10 U	100 U	100 U	20 U	---	---
1,3-Dichlorobenzene	40 U	10 U	100 U	100 U	20 U	---	---
1,4-Dichlorobenzene	40 U	10 U	100 U	100 U	20 U	---	---
2,4,5-Trichlorophenol	200 U	50 U	500 U	500 U	100 U	---	---
2,4,6-Trichlorophenol	40 U	10 U	100 U	100 U	20 U	---	---
2,4-Dichlorophenol	40 U	10 U	100 U	100 U	20 U	---	---
2,4-Dimethylphenol	40 U	10 U	100 U	100 U	20 U	---	---
2,4-Dinitrophenol	40 U	50 U	500 U	500 U	100 U	---	---
2,4-Dinitrotoluene	200 U	10 U	100 U	100 U	20 U	---	---
2,6-Dinitrotoluene	40 U	10 U	100 U	100 U	20 U	---	---
2-Chloronaphthalene	40 U	10 U	100 U	100 U	20 U	---	---
2-Chlorophenol	40 U	10 U	100 U	100 U	20 U	---	---
2-Methylnaphthalene	40 U	10 U	**110**	**110**	20 U	---	---
2-Methylphenol	40 U	10 U	100 U	100 U	**200**	---	---
2-Nitroaniline	200 U	50 U	500 U	500 U	100 U	---	---
2-Nitrophenol	40 U	10 U	100 U	100 U	20 U	---	---
3,3'-Dichlorobenzidine	40 U	20 U	200 UJ	200 UJ	40 UJ	---	---
3-Nitroaniline	200 UJ	50 UJ	**500 R**	**500 R**	**100 R**	---	---
4,6-Dinitro-2-Methylphenol	200 U	50 U	100 U	500 U	100 U	---	---
4-Bromophenylphenylether	40 U	10 U	100 U	100 U	20 U	---	---
4-Chloro-3-Methylphenol	40 U	10 U	100 U	100 U	20 U	---	---
4-Chloroaniline	40 UJ	10 UJ	100 UJ	100 UJ	20 UJ	---	---
4-Chlorophenylphenylether	40 U	10 U	100 U	100 U	20 U	---	---
4-Methylphenol	40 U	10 U	100 U	100 U	**42**	---	---
4-Nitroaniline	200 UJ	50 U	500 UJ	500 U	100 U	---	---
4-Nitrophenol	200 U	50 U	500 U	500 U	100 U	---	---
Acenaphthene	40 U	10 U	100 U	100 U	20 U	---	---
Acenaphthylene	40 U	10 U	100 U	100 U	20 U	---	---
Anthracene	40 U	10 U	100 U	100 U	20 U	---	---
Benzo(A)Anthracene	40 U	10 U	100 U	100 U	20 U	---	---
Benzo(A)Pyrene	40 U	10 U	100 U	100 U	20 U	---	---
Benzo(B)Fluoranthene	40 U	10 U	100 U	100 U	20 U	---	---
Benzo(G,H,I)Perylene	40 U	10 U	100 U	100 U	20 U	---	---
Benzo(K)Fluoranthene	40 U	10 U	100 U	100 U	20 U	---	---
Benzoic Acid	200 U	50 U	500 U	500 U	100 U	---	---
Benzyl Alcohol	40 U	10 U	100 U	100 U	20 U	---	---
Bis(2-Chloroethoxy)Methane	40 U	10 U	100 U	100 U	20 U	---	---
Bis(2-Chloroethyl)Ether	40 U	10 U	100 U	100 U	20 U	---	---
Bis(2-Chloroisopropyl)Ether	40 U	10 U	100 U	100 U	20 U	---	---
Bis(2-Ethylhexyl)Phthalate	40 U	**2 J**	100 U	100 U	20 U	**78 B**	**560 B**
Butyl Benzyl Phthalate	40 U	10 U	100 U	100 U	20 U	---	---
Chrysene	40 U	10 U	100 U	100 U	20 U	---	---
Dibenzo(A,H)Anthracene	40 U	10 U	100 U	100 U	20 U	---	---
Dibenzofuran	40 U	10 U	100 U	100 U	20 U	---	---
Diethyl Phthalate	40 U	10 U	100 U	100 U	20 U	---	---
Dimethyl Phthalate	40 U	10 U	100 U	100 U	20 U	---	---
Di-N-Butylphthalate	40 U	10 U	100 U	100 U	20 U	---	---
Di-N-Octylphthalate	40 U	10 U	100 U	100 U	20 U	**6.9 JB**	**180 B**
Fluoranthene	40 U	10 U	100 U	100 U	20 U	---	---
Fluorene	40 U	10 U	100 U	100 U	20 U	---	---
Hexachlorobenzene	40 U	10 U	100 U	100 U	20 U	---	---
Hexachlorobutadiene	40 U	10 U	100 U	100 U	20 U	---	---
Hexachlorocyclopentadiene	40 U	10 U	100 U	100 U	20 U	---	---
Hexachloroethane	40 U	10 U	100 U	100 U	20 U	---	---
Indeno(1,2,3-Cd)Pyrene	40 U	10 U	100 U	100 U	20 U	---	---
Isophorone	40 U	10 U	100 U	100 U	20 U	---	---
Naphthalene	40 U	10 U	100 U	100 U	20 U	---	---
Nitrobenzene	40 U	10 U	100 U	100 U	20 U	---	---
N-Nitrosodi-N-Propylamine	40 U	10 U	100 U	100 U	20 U	---	---
N-Nitrosodiphenylamine	40 U	10 U	100 U	100 U	20 U	---	---
Pentachlorophenol	**480**	50 U	500 U	500 U	100 U	---	---
Phenanthrene	40 U	10 U	100 U	**15 J**	20 U	---	---
Phenol	40 U	**1 J**	100 U	100 U	**81**	---	---
Pyrene	40 U	10 U	100 U	100 U	20 U	---	---

Appendix G - KRY Historical Data
EPA, FIT Groundwater SVOC Notes

Notes:

Detected values are shown in bold
B = Compound detected in method blank
DU = Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
R = Quality control indicates data is not useable
SVOC = Semi-volatile organic compound
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - KRY Historical Data
LWC Soil EPH & VPH, 2002

Sample Station	**A1-1**	**A1-1**	**A1-1**	**A1-2**	**A1-2**	**A1-2**	**A1-3**	**A1-3**	**A1-3**	**A2-1**	**A2-1**	**A2-1**	**A3-1**	**A3-1**
Sample Identification	**A1-1**	**A1-1**	**A1-1**	**A1-2**	**A1-2**	**A1-2**	**A1-3**	**A1-3**	**A1-3**	**A2-1**	**A2-1**	**A2-1**	**A3-1**	**A3-1**
Sample Collection Date	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**
Sample Type	**SS**	**SB**	**SB**	**SS**	**SB**	**SB**	**SS**	**SB**	**SB**	**SS**	**SB**	**SB**	**SS**	**SB**
Duplicate of														
Upper Depth (ft)	**0**	**4**	**7.7**	**0**	**4**	**7**	**0**	**4**	**7**	**0**	**4**	**8**	**0**	**4**
Lower Depth (ft)	**2**	**6**	**9.5**	**2**	**6**	**9**	**2**	**6**	**9**	**2**	**6**	**10**	**2**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH														
C11-C22 Aromatics	---	---	---	20 U	---	---	---	---	---	---	---	**55**	---	---
C19-C36 Aliphatics	---	---	---	20 U	---	---	---	---	---	---	---	**62**	---	---
C9-C18 Aliphatics	---	---	---	20 U	---	---	---	---	---	---	---	**25**	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Acenaphthene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Acenaphthylene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Anthracene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Benzo(a)Anthracene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Benzo(a)Pyrene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Benzo(b,k)Fluoranthene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Benzo(g,h,i)Perylene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Chrysene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Dibenzo(a,h)Anthracene	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Fluorene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Indeno(1,2,3-cd)Pyrene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Naphthalene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Phenanthrene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
Pyrene	---	---	---	0.33 U	---	---	---	---	---	---	---	0.33 U	---	---
VPH														
C5-C8 Aliphatics	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
C9-C10 Aromatics	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	**2.8**	2 U	2 U
C9-C12 Aliphatics	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	**2.3**	2 U	2 U
Total Purgeable Hydrocarbons	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	---	6 U	**7.1**	---	6 U
Total EPH	**22**	---	---	**21**	---	---	**21**	---	---	**22**	---	**165**	**16**	**7**
Total Extractable Hydrocarbons	**23**	U	U	**22**	U	U	**22**	U	U	**23**	U	**175**	**17**	**7.5**
Total Extractable Hydrocarbons - Screen	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzene	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Ethylbenzene	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.033 J**	0.05 U	0.05 U
M+P-Xylenes	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.54**	0.05 U	0.05 U
Methyl Tert-Butyl Ether	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.25 D**	0.1 U	0.1 U
O-Xylene	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toluene	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (Total)	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.054**	0.05 U	0.05 U

Appendix G - KRY Historical Data
LWC Soil EPH & VPH, 2002

Sample Station	**A3-1**	**A3-1**	**A3-2**	**A3-2**	**A3-2**	**A3-3**	**A3-3**	**A3-3**	**B1-1**	**B1-1**	**B1-1**	**B3-1**	**B3-1**	**B3-1**
Sample Identification	**A3-1**	**A3-1**	**A3-2**	**A3-2**	**A3-2**	**A3-3**	**A3-3**	**A3-3**	**B1-1**	**B1-1**	**B1-1**	**B3-1**	**B3-1**	**B3-1**
Sample Collection Date	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**
Sample Type	**DU**	**SB**	**SS**	**SB**	**SB**	**SS**	**SB**	**SB**	**SS**	**SB**	**SB**	**SS**	**SB**	**SB**
Duplicate of	**A3-1**													
Upper Depth (ft)	**8**	**8**	**0**	**4**	**8**	**0**	**4**	**8**	**0**	**4**	**8**	**0**	**4**	**8**
Lower Depth (ft)	**10**	**10**	**2**	**6**	**10**	**2**	**6**	**9.5**	**2**	**6**	**10**	**2**	**6**	**10**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH														
C11-C22 Aromatics	**539**	**606 ***	20 U	---	---	---	---	**1720**	---	---	---	---	---	**1920 ***
C19-C36 Aliphatics	**822**	**727**	**29**	---	---	---	---	**1200**	---	---	---	---	---	**1270**
C9-C18 Aliphatics	**1060**	**938**	20 U	---	---	---	---	**403**	---	---	---	---	---	**629**
Total Extractable Hydrocarbons	**2421**	---	---	---	---	---	---	**3323**	---	---	---	---	---	**3819**
2-Methylnaphthalene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Acenaphthene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Acenaphthylene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Anthracene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Benzo(a)Anthracene	0.67 U	---	---	---	---	---	---	---	---	---	---	---	---	2 U
Benzo(a)Pyrene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Benzo(b,k)Fluoranthene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Benzo(g,h,i)Perylene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Chrysene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Dibenzo(a,h)Anthracene	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	**0.99**	**0.99**	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Fluorene	**0.62 J**	**0.62 J**	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Indeno(1,2,3-cd)Pyrene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Naphthalene	**0.61 J**	**0.84**	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Phenanthrene	0.67 U	0.67 U	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
Pyrene	**1.3**	**1.3**	0.33 U	---	---	---	---	1.3 U	---	---	---	---	---	2 U
VPH														
C5-C8 Aliphatics	**690 D**	**712 D**	2 U	2 U	2 U	2 U	2 U	**2**	2 U	2 U	2 U	2 U	2 U	**1.6 J**
C9-C10 Aromatics	**557 ***	**500 ***	2 U	2 U	2 U	2 U	2 U	**3.6**	2 U	2 U	2 U	2 U	2 U	**13**
C9-C12 Aliphatics	**1030 ***	**892 ***	2 U	2 U	2 U	2 U	2 U	**8.4**	2 U	2 U	2 U	2 U	2 U	**27**
Total Purgeable Hydrocarbons	**2277**	**2104**	---	6 U	6 U	---	6 U	**14**	---	**6**	6 U	---	6 U	---
Total EPH	**2531**	**2333**	**41**	---	---	**9**	---	**3695**	**23**	---	---	U	---	**4452**
Total Extractable Hydrocarbons	---	**2420**	**44**	U	U	**9.5**	U	---	**24**	U	U	U	U	**4520**
Total Extractable Hydrocarbons - Screen	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzene	**0.25 D**	**0.25 D**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U
Ethylbenzene	**5.2**	**5.6**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U
M+P-Xylenes	**20 D**	---	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.16**
Methyl Tert-Butyl Ether	**0.5 D**	**0.5 D**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U
Naphthalene	**10 D**	**2 D**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**1.5**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**1.1**
O-Xylene	**6.1**	---	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U
Toluene	**0.25 D**	**0.25 D**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U
Xylenes (Total)	**20 D**	---	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.16**

Appendix G - KRY Historical Data
LWC Soil EPH & VPH, 2002

Sample Station	B3-2	B3-2	B3-2	B3-3	B3-3	B3-3	B3-3	C1-1	C1-1	C1-1	C2-1	C2-1	C2-1	C2-2
Sample Identification	B3-2	B3-2	B3-2	B3-3	B3-3	B3-3	B3-3	C1-1	C1-1	C1-1	C2-1	C2-1	C2-1	C2-2
Sample Collection Date	6/1/2002	6/1/2002	6/1/2002	6/1/2002	6/1/2002	6/1/2002	6/2/2002	6/1/2002	6/1/2002	6/1/2002	6/1/2002	6/1/2002	6/1/2002	6/1/2002
Sample Type	SS	SB	SB	SS	SB	SB	DU	SS	SB	SB	SB	SB	SB	SS
Duplicate of							B3-3							
Upper Depth (ft)	0	4	8	0	4	8	8	0	4	9	2.5	4	8	0
Lower Depth (ft)	2	6	10	2	6	10	10	2	6	11	4	6	10	2
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPH														
C11-C22 Aromatics	---	---	**1510 ***	---	---	**436 ***	**570 ***	---	---	20 U	**1780 ***	**498 ***	**38**	**92**
C19-C36 Aliphatics	---	---	**1270**	---	---	**272**	**381**	---	---	20 U	**894**	**269**	**22**	**154**
C9-C18 Aliphatics	---	---	**1130 ***	---	---	**236**	**311**	---	---	20 U	**3030 ***	**1080 ***	**70**	40 U
Total Extractable Hydrocarbons	---	---	**3910**	---	---	**944**	---	---	---	---	**5704**	**1847**	**130**	---
2-Methylnaphthalene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	**21**	**9.5**	**0.72**	0.67 U
Acenaphthene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	**1.9 J**	0.67 U	0.33 U	0.67 U
Acenaphthylene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Anthracene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Benzo(a)Anthracene	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)Pyrene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Benzo(b,k)Fluoranthene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Benzo(g,h,i)Perylene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Chrysene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Dibenzo(a,h)Anthracene	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	---	---	**2.7**	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Fluorene	---	---	**2.5**	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Indeno(1,2,3-cd)Pyrene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Naphthalene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	**4.8 ***	**2.5**	0.33 U	0.67 U
Phenanthrene	---	---	1.3 U	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
Pyrene	---	---	**2.7**	---	---	0.33 U	0.67 U	---	---	0.33 U	2 U	0.67 U	0.33 U	0.67 U
VPH														
C5-C8 Aliphatics	2 U	2 U	**13 ***	2 U	2 U	2 U	2 U	2 U	2 U	2 U	**37 ***	**21 ***	**5.1**	2 U
C9-C10 Aromatics	2 U	2 U	**126 ***	2 U	2 U	**2.6**	**2.5**	2 U	2 U	2 U	**400 ***	**222 ***	**22 ***	2 U
C9-C12 Aliphatics	2 U	2 U	**249 ***	2 U	2 U	**4.6**	**4.4**	2 U	2 U	2 U	**843 ***	**403 ***	**22**	2 U
Total Purgeable Hydrocarbons	---	6 U	---	---	6 U	---	---	---	6 U	6 U	---	---	---	---
Total EPH	U	---	**4349**	**7**	---	**1027**	---	**43**	---	**35**	**6126**	**1910**	**134**	**371**
Total Extractable Hydrocarbons	U	U	**4420**	**7.8**	U	**1080**	**1500**	**46**	U	**37**	**6120**	**1990**	**142**	**393**
Total Extractable Hydrocarbons - Screen	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzene	0.05 U	0.05 U	0.25 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U	0.05 U	0.05 U
Ethylbenzene	0.05 U	0.05 U	**0.48**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.73**	**0.42 J**	**0.16**	0.05 U
M+P-Xylenes	0.05 U	0.05 U	**1.2**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**2.6**	**1.6**	**0.74**	0.05 U
Methyl Tert-Butyl Ether	0.1 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	1 U	0.1 U	0.1 U
Naphthalene	0.1 U	0.1 U	**4.4 ***	0.1 U	0.1 U	**0.61**	**0.59**	0.1 U	0.1 U	0.1 U	**37 ***	**14 ***	**0.81**	0.1 U
O-Xylene	0.05 U	0.05 U	**0.38**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**1.3**	**0.82**	**0.07**	0.05 U
Toluene	0.05 U	0.05 U	0.25 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U	0.05 U	0.05 U
Xylenes (Total)	0.05 U	0.05 U	**1.6**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**3.9**	**2.4**	**0.81**	0.05 U

Appendix G - KRY Historical Data
LWC Soil EPH & VPH, 2002

Sample Station	C2-2	C2-2	C3-1	C3-1	C3-1	C3-1	C3-2	C3-2	C3-2	C3-2	C3-2	TP1-02	TP1-02
Sample Identification	**C2-2**	**C2-2**	**C3-1**	**C3-1**	**C3-1**	**C3-1**	**C3-2**	**C3-2**	**C3-2**	**C3-2**	**C3-2**	**MCW-SS-1-1**	**MCW-SS-1-2**
Sample Collection Date	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**6/1/2002**	**4/23/2002**	**4/23/2002**
Sample Type	**SB**	**SB**	**SS**	**SB**	**DU**	**SB**	**SS**	**DU**	**SB**	**DU**	**SB**	**SS**	**SB**
Duplicate of					**C3-1**			**C3-2**		**C3-2**			
Upper Depth (ft)	**4**	**8**	**0**	**4**	**8**	**8**	**0**	**4**	**4**	**8**	**8**	**0**	**4**
Lower Depth (ft)	**6**	**10**	**2**	**6**	**9.5**	**9.5**	**2**	**6**	**6**	**10**	**10**	**0.5**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH													
C11-C22 Aromatics	---	**177 ***	**829 ***	**624 ***	**364**	**378 ***	**734 ***	**235 ***	**181 ***	**247 ***	**228 ***	---	**45**
C19-C36 Aliphatics	---	**154**	**497**	**387**	**192**	**256**	**796**	**273**	**198**	**192**	**201**	---	**64**
C9-C18 Aliphatics	---	**301**	**124**	**56**	**545**	**576**	**166**	**65**	**50**	**185**	**173**	---	20 U
Total Extractable Hydrocarbons	---	**632**	---	**1067**	**1101**	**1210**	---	**573**	**429**	**624**	**602**	---	**141**
2-Methylnaphthalene	---	**1.7**	0.67 U	0.67 U	**0.89**	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Acenaphthene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Acenaphthylene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Anthracene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Benzo(a)Anthracene	---	---	0.67 U	---	---	---	0.67 U	---	---	---	---	---	0.33 U
Benzo(a)Pyrene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Benzo(b,k)Fluoranthene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Benzo(g,h,i)Perylene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Chrysene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Dibenzo(a,h)Anthracene	---	---	---	---	---	---	---	---	---	---	---	---	0.33 U
Fluoranthene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	**0.36**	**0.44**	---	0.33 U
Fluorene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Indeno(1,2,3-cd)Pyrene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	---
Naphthalene	---	**0.47**	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Phenanthrene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	0.33 U	---	0.33 U
Pyrene	---	0.33 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	0.33 U	**0.41**	---	0.33 U
VPH													
C5-C8 Aliphatics	2 U	**26 ***	2 U	2 U	**5 ***	**4.8**	2 U	2 U	2 U	**4**	**4.2**	2 U	2 U
C9-C10 Aromatics	2 U	**92 ***	2 U	2 U	**86 ***	**81 ***	2 U	2 U	2 U	**19 ***	**20 ***	2 U	2 U
C9-C12 Aliphatics	2 U	**96**	2 U	2 U	**207 ***	**189 ***	2 U	2 U	2 U	**54**	**54**	2 U	2 U
Total Purgeable Hydrocarbons	6 U	---	---	---	**298**	---	---	---	---	---	---	2 U	2 U
Total EPH	---	**635**	**2441**	**1549**	**1104**	**1229**	**2155**	**715**	**520**	**619**	**628**	---	---
Total Extractable Hydrocarbons	U	**671**	**2530**	**1620**	---	**1290**	**2240**	**755**	**550**	**654**	**664**	---	---
Total Extractable Hydrocarbons - Screen	---	---	---	---	---	---	---	---	---	---	---	10 U	**313**
Benzene	0.05 U	0.1 U	0.05 U	0.05 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Ethylbenzene	0.05 U	**0.31**	0.05 U	0.05 U	**0.12**	**0.12**	0.05 U	0.05 U	0.05 U	**0.057**	**0.063**	0.05 U	0.05 U
M+P-Xylenes	0.05 U	**1.7**	**0.098**	0.05 U	**0.36**	**0.36**	0.05 U	0.05 U	0.05 U	**0.22**	**0.24**	0.05 U	0.05 U
Methyl Tert-Butyl Ether	0.1 U	0.2 U	0.1 U	0.1 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	0.1 U	**2.3 ***	0.1 U	0.1 U	**4.4 ***	**4 ***	0.1 U	0.1 U	0.1 U	**0.84**	**0.8**	0.1 U	0.1 U
O-Xylene	0.05 U	**0.42**	0.05 U	0.05 U	**0.17**	**0.16**	0.05 U	0.05 U	0.05 U	**0.099**	**0.11**	0.05 U	0.05 U
Toluene	0.05 U	**0.18**	0.12 U	0.05 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (Total)	0.05 U	**2.1**	**0.098**	0.05 U	**0.54**	**0.52**	0.05 U	0.05 U	0.05 U	**0.32**	**0.35**	0.05 U	0.05 U

Appendix G - KRY Historical Data
LWC Soil EPH & VPH, 2002

Sample Station	TP1-02	TP1-02	TP2-02	TP2-02	TP2-02	TP2-02	TP3-02	TP3-02	TP3-02	TP3-02	TP3-02
Sample Identification	**MCW-SS-1-3**	**MCW-SS-1-4**	**MCW-SS-2-1**	**MCW-SS-2-2**	**MCW-SS-2-3**	**MCW-SS-2-4**	**MCW-SS-3-1**	**MCW-SS-3-2**	**MCW-SS-3-3**	**MCW-SS-3-4**	**MCW-SS-3-5**
Sample Collection Date	**4/23/2002**	**4/23/2002**	**4/23/2002**	**4/23/2002**	**4/23/2002**	**4/23/2002**	**4/23/2002**	**4/23/2002**	**4/23/2002**	**4/23/2002**	**4/23/2002**
Sample Type	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**DU**
Duplicate of											**TP3-02**
Upper Depth (ft)	**8**	**17**	**0**	**4**	**8**	**18**	**0**	**4**	**8**	**18**	**4**
Lower Depth (ft)	**10**	**19**	**0.5**	**6**	**10**	**19**	**0.5**	**6**	**10**	**19**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH											
C11-C22 Aromatics	---	**1370**	---	---	---	**1160**	20 U	---	---	**2150**	---
C19-C36 Aliphatics	---	**1120**	---	---	---	**999**	**26**	---	---	**1840**	---
C9-C18 Aliphatics	---	**1580**	---	---	---	**1680**	20 U	---	---	**2250**	---
Total Extractable Hydrocarbons	---	**4220**	---	---	---	**4040**	**65**	---	---	**6570**	---
2-Methylnaphthalene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Acenaphthene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Acenaphthylene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Anthracene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Benzo(a)Anthracene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Benzo(a)Pyrene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Benzo(b,k)Fluoranthene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Benzo(g,h,i)Perylene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Chrysene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Dibenzo(a,h)Anthracene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Fluoranthene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Fluorene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Indeno(1,2,3-cd)Pyrene	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	---	**1.8**	---	---	---	1 U	0.1 U	---	---	10 U	---
Phenanthrene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	1.7 U	---
Pyrene	---	1.3 U	---	---	---	1 U	0.33 U	---	---	**4.6**	---
VPH											
C5-C8 Aliphatics	2 U	**50**	2 U	2 U	2 U	**53**	2 U	2 U	2 U	**124**	2 U
C9-C10 Aromatics	2 U	**395**	2 U	2 U	2 U	**559**	2 U	2 U	2 U	**950**	2 U
C9-C12 Aliphatics	2 U	**549**	2 U	2 U	2 U	**838**	2 U	2 U	2 U	**1300**	2 U
Total Purgeable Hydrocarbons	2 U	**1920**	2 U	2 U	2 U	**2560**	2 U	2 U	2 U	**4610**	2 U
Total EPH	---	---	---	---	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Total Extractable Hydrocarbons - Screen	10 U	**6140**	10 U	10 U	10 U	**5070**	**96**	10 U	10 U	**8110**	10 U
Benzene	0.05 U	0.25 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	2 U	0.05 U
Ethylbenzene	0.05 U	1 U	0.05 U	0.05 U	0.05 U	1 U	0.05 U	0.05 U	0.05 U	2.5 U	0.05 U
M+P-Xylenes	0.05 U	5 U	0.05 U	0.05 U	0.05 U	---	0.05 U	0.05 U	0.05 U	10 U	0.05 U
Methyl Tert-Butyl Ether	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	4 U	0.1 U
Naphthalene	0.1 U	5 U	0.1 U	0.1 U	0.1 U	10 U	0.33 U	0.1 U	0.1 U	1.7 U	0.1 U
O-Xylene	0.05 U	**1.1**	0.05 U	0.05 U	0.05 U	**1.4**	0.05 U	0.05 U	0.05 U	5 U	0.05 U
Toluene	0.05 U	0.25 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	2 U	0.05 U
Xylenes (Total)	0.05 U	**1.1**	0.05 U	0.05 U	0.05 U	1 U	0.05 U	0.05 U	0.05 U	10 U	0.05 U

Appendix G - KRY Historical Data
LWC Soil Dioxins & Furans, 2002

Sample Station	RRS-1	RRS-2	RRS-3	SS4-02	SS5-02	TP1-02	TP2-02	TP3-02
Sample Identification	RRS-1002-1	RRS-1002-2	RRS-1002-3	MCW-SS-4-1	MCW-SS-5-1	MCW-SS-1-1	MCW-SS-2-1	MCW-SS-3-1
Sample Collection Date	10/15/2002	10/15/2002	10/15/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002
Sample Type	SS	SS	SS	BD	BD	SS	SS	SS
Upper Depth (ft)	0	0	0	0	0	0	0	0
Lower Depth (ft)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**180000 N2**	**23000**	**4500 A**	**30**	**250**	**78**	**14**	**260**
1,2,3,4,6,7,8,9-OCDF	**2600 N2**	**700**	**140 A**	2 U	**12**	**5.1 J**	**310**	**16**
1,2,3,4,6,7,8-HPCDD	**24000 N2**	**2600**	**560 A**	**3.8 J**	**44**	**10**	**42**	**42**
1,2,3,4,6,7,8-HPCDF	**2600 E**	**320**	**86 A**	0.98 U	**5.8**	**2.4 J**	**8.3**	**7.8**
1,2,3,4,7,8,9-HPCDF	**120**	**17**	**5.6 A**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
1,2,3,4,7,8-HXCDD	**130**	**39**	**8**	0.98 U	0.98 U	0.98 U	**1.1 J**	**0.99 J**
1,2,3,4,7,8-HXCDF	**210**	**15**	**5**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
1,2,3,6,7,8-HXCDD	**1600**	**140**	**32**	0.98 U	**2 J**	0.98 U	**1.9 J**	**1.8 J**
1,2,3,6,7,8-HXCDF	**170 E**	**15**	**3.7 JA**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
1,2,3,7,8,9-HXCDD	**400**	**59**	**14**	0.98 U	**2.5 J**	0.98 U	**1 J**	**1.5 J**
1,2,3,7,8,9-HXCDF	**120**	**10**	**1.9 JA**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
1,2,3,7,8-PECDD	**66**	**18**	**5.2**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
1,2,3,7,8-PECDF	**65**	**6.8**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
2,3,4,6,7,8-HXCDF	**200**	**24**	**4.2 JA**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
2,3,4,7,8-PECDF	**140**	**14**	**2.3 J**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
2,3,7,8-TCDD	**3.1**	**1.3**	1 U	**0.2 A**	**0.2 A**	0.2 U	0.2 U	**0.2 A**
2,3,7,8-TCDF	**16**	**1.8**	**0.8 JA**	**0.2 A**	**0.2 A**	0.2 U	**0.2 A**	0.2 U
HPCDD (TOTAL)	**40000 N2**	**5000**	**1100**	**8 J**	**84**	**20**	**84**	**81**
HPCDF (TOTAL)	**5000**	**1000**	**240**	**1.1 J**	**14**	**5.1 J**	**17**	**18**
HXCDD (TOTAL)	**5200**	**840**	**220**	**1.2 J**	**23**	**3.6 J**	**18**	**18**
HXCDF (TOTAL)	**6200**	**710**	**170**	0.98 U	**7.2**	**1.4 J**	**8.4**	**9.5**
PECDD (TOTAL)	**260**	**110**	**27**	0.98 U	**1.5 J**	0.98 U	**1.1 J**	**0.94 J**
PECDF (TOTAL)	**1200**	**180**	**72**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
TCDD (TOTAL)	**20**	**13**	**2.5**	0.2 U	**0.61 BJ**	0.2 U	0.2 U	0.2 U
TCDF (TOTAL)	**88**	**34**	**8.2**	0.2 U	**1.4**	0.2 U	**0.44 J**	**1.1**
2,3,7,8-TCDD (TEQ) (WHO2005)	**664.85**	**83.454**	**19.8807**	**1.2625**	**2.0696**	**1.2336**	**1.8756**	**1.9896**

Notes:

Detected values are shown in bold.
A = Detection limit based on signal-to-noise measurement
B = less than 10 times higher than method blank level
BD = Background soil sample
DU = Duplicate sample
E = Polychlorinated diphenyl ethers (PCDE) interference
ft = Feet
J = Concentration detected is below the calibration range
LWC = Land and Water consulting
N2 = Value obtained from a secondary analysis
pg/L = Picograms per liter
SS = Surface soil sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
LWC Soil PCP, 2002

Sample Station	SS4-02	SS5-02	TP1-02	TP1-02	TP1-02	TP1-02	TP2-02	TP2-02	TP2-02	TP2-02	TP3-02	TP3-02
Sample Identification	MCW-SS-4-1	MCW-SS-5-1	MCW-SS-1-1	MCW-SS-1-2	MCW-SS-1-3	MCW-SS-1-4	MCW-SS-2-1	MCW-SS-2-2	MCW-SS-2-3	MCW-SS-2-4	MCW-SS-3-1	MCW-SS-3-2
Sample Collection Date	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002
Sample Type	BD	BD	SS	SB	SB	SB	SS	SB	SB	SB	SS	SB
Duplicate of												
Upper Depth (ft)	0	0	0	4	8	17	0	4	8	18	0	4
Lower Depth (ft)	0.5	0.5	0.5	6	10	19	0.5	6	10	19	0.5	6
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.016**	0.002 U	0.002 U	0.002 U	**0.027**	**0.0028**	0.002 U

Appendix G - KRY Historical Data
LWC Soil PCP, 2002

Sample Station	TP3-02	TP3-02	TP3-02
Sample Identification	**MCW-SS-3-3**	**MCW-SS-3-4**	**MCW-SS-3-5**
Sample Collection Date	**4/23/2002**	**4/23/2002**	**4/23/2002**
Sample Type	**SB**	**SB**	**DU**
Duplicate of			**TP3-02**
Upper Depth (ft)	**8**	**18**	**4**
Lower Depth (ft)	**10**	**19**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	0.002 U	**0.0046**	0.002 U

Notes:

Detected values are shown in bold.
BD = Background soil sample
DU = Duplicate sample
ft = Feet
LWC = Land and Water consulting
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample
SS = Surface soil sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
LWC Soil Metals, 2002

Sample Station	SS4-02	SS5-02	TP1-02	TP1-02	TP1-02	TP1-02	TP2-02	TP2-02	TP2-02
Sample Identification	MCW-SS-4-1	MCW-SS-5-1	MCW-SS-1-1	MCW-SS-1-2	MCW-SS-1-3	MCW-SS-1-4	MCW-SS-2-1	MCW-SS-2-2	MCW-SS-2-3
Sample Collection Date	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002
Sample Type	BD	BD	SS	SB	SB	SB	SS	SB	SB
Duplicate of									
Upper Depth (ft)	0	0	0	4	8	17	0	4	8
Lower Depth (ft)	0.5	0.5	0.5	6	10	19	0.5	6	10
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	8	11	7	150	8	7	8	8	7

Appendix G - KRY Historical Data
LWC Soil Metals, 2002

Sample Station	TP2-02	TP3-02	TP3-02	TP3-02	TP3-02	TP3-02
Sample Identification	MCW-SS-2-4	MCW-SS-3-1	MCW-SS-3-2	MCW-SS-3-3	MCW-SS-3-4	MCW-SS-3-5
Sample Collection Date	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002	4/23/2002
Sample Type	SB	SS	SB	SB	SB	DU
Duplicate of						TP3-02
Upper Depth (ft)	18	0	4	8	18	4
Lower Depth (ft)	19	0.5	6	10	19	6
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	**5**	**29**	**8**	**7**	**5**	**7**

Notes:

Detected values are shown in bold.
BD = Background soil sample
DU = Duplicate sample
ft = Feet
LWC = Land and Water consulting
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample

Appendix G - KRY Historical Data
LWC Groundwater EPH & VPH, 2002

Sample Station	GWRR-1	GWRR-6	GWRR-9	GWRR-8	GWRR-8	GWRR-1	GWRR-6	GWRR-3	GWRR-3	GWRR-1	GWRR-1
Sample Identification	**GWRR-1**	**GWRR-6**	**MCW-0402-1**	**MCW-0402-2**	**MCW-0402-3**	**RRW-0702-1**	**RRW-0702-2**	**RRW-0702-3**	**RRW-0702-4**	**RRW-1002-201**	**RRW-1002-202**
Sample Collection Date	**10/1/2002**	**10/1/2002**	**4/24/2002**	**4/24/2002**	**4/24/2002**	**7/10/2002**	**7/10/2002**	**7/10/2002**	**7/10/2002**	**10/1/2002**	**10/1/2002**
Sample Type	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**	**DU**	**GW**	**DU**
Duplicate of					**GWRR-8**				**GWRR-3**		**GWRR-1**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH											
C11-C22 Aromatics	U	U	**2.6**	---	---	U	U	U	U	**6.8**	**7**
C19-C36 Aliphatics	U	U	**2.1**	---	---	U	U	U	U	**6.4**	**6.8**
C9-C18 Aliphatics	U	U	**3.5**	---	---	U	U	U	U	**3.7**	**3.8**
Acenaphthene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Acenaphthylene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Anthracene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Benzo(A)Anthracene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Benzo(A)Pyrene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Benzo(B)Fluoranthene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Benzo(G,H,I)Perylene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Benzo(K)Fluoranthene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Chrysene	U	U	**1.2**	10 U	10 U	U	U	U	U	U	U
Dibenzo(A,H)Anthracene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Fluoranthene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Fluorene	U	U	**7**	10 U	10 U	U	U	U	U	**3**	**2.1**
Indeno(1,2,3-Cd)Pyrene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
Naphthalene	U	U	**7.6**	1 U	10 U	U	U	U	U	**4.4**	**3.9**
Phenanthrene	U	U	**8.6**	10 U	10 U	U	U	U	U	**5.7**	**4.1**
Pyrene	U	U	10 U	10 U	10 U	U	U	U	U	U	U
VPH											
C5-C8 Aliphatics	**100**	U	**198**	20 U	20 U	**100**	U	**28**	**25**	**350**	**301**
C9-C10 Aromatics	**73**	U	**1100**	20 U	20 U	**73**	U	**100**	**103**	**245**	**223**
C9-C12 Aliphatics	**92**	21 U	**1080**	20 U	20 U	**92**	U	**161**	**93**	**421**	**376**
Total Extractable Hydrocarbons	U	U	**9.2**	**320**	**320**	U	U	U	U	**18**	**19**
Total Purgeable Hydrocarbons	**219**	**39**	**1860**	20 U	20 U	**219**	U	**216**	**170**	**1390**	**1230**
Benzene	**0.32**	U	1 U	0.5 U	0.5 U	**0.32**	U	U	U	U	U
Ethylbenzene	U	U	**14**	0.5 U	0.5 U	U	U	U	U	**1.2**	**1**
M+P-Xylenes	**5.6**	U	**68**	0.5 U	0.5 U	**5.6**	U	U	U	**13**	**12**
Methyl Tert-Butyl Ether	U	U	2 U	1 U	1 U	U	U	U	U	U	U
Naphthalene	---	---	**4.5**	10 U	1 U	---	---	---	---	---	---
O-Xylene	U	U	**2.6**	0.5 U	0.5 U	U	U	**1.1**	**1.2**	**1.7**	**1.5**
Toluene	**0.84**	U	**1.4**	0.5 U	0.5 U	**0.84**	U	U	U	U	U
Xylenes (Total)	**5.6**	U	**71**	0.5 U	0.5 U	**5.6**	U	**1.1**	**1.2**	**15**	**13**

Appendix G - KRY Historical Data
LWC Groundwater EPH & VPH, 2002

Sample Station	GWRR-6	GWRR-3
Sample Identification	RRW-1002-203	RRW-1002-204
Sample Collection Date	10/1/2002	10/1/2002
Sample Type	GW	GW
Duplicate of		
Units	ug/L	ug/L
EPH		
C11-C22 Aromatics	U	**0.83**
C19-C36 Aliphatics	U	U
C9-C18 Aliphatics	U	U
Acenaphthene	U	U
Acenaphthylene	U	U
Anthracene	U	U
Benzo(A)Anthracene	U	U
Benzo(A)Pyrene	U	U
Benzo(B)Fluoranthene	U	U
Benzo(G,H,I)Perylene	U	U
Benzo(K)Fluoranthene	U	U
Chrysene	U	U
Dibenzo(A,H)Anthracene	U	U
Fluoranthene	U	U
Fluorene	U	U
Indeno(1,2,3-Cd)Pyrene	U	U
Naphthalene	U	U
Phenanthrene	U	U
Pyrene	U	U
VPH		
C5-C8 Aliphatics	U	**23**
C9-C10 Aromatics	U	**81**
C9-C12 Aliphatics	**21**	**81**
Total Extractable Hydrocarbons	U	**1.5**
Total Purgeable Hydrocarbons	**39**	**247**
Benzene	U	U
Ethylbenzene	U	U
M+P-Xylenes	U	U
Methyl Tert-Butyl Ether	U	U
Naphthalene	---	---
O-Xylene	U	**0.62**
Toluene	U	U
Xylenes (Total)	U	**1.2**

Notes:

Detected values are shown in bold.
DU = Duplicate sample
EPH = Extractable petroleum hydrocarbons
GW = Groundwater sample
LWC = Land and Water consulting
ND = Analyte not detected; reporting limit information unavailable
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter
VPH = Volatile petroleum hydrocarbons

Appendix G - KRY Historical Data
LWC Groundwater Dioxins & Furans, 2002

Sample Station	GWRR-1	GWRR-1	GWRR-1	GWRR-3	GWRR-3	GWRR-3	GWRR-6	GWRR-6
Sample Identification	GWRR-1	GWRR-1	GWRR-1	GWRR-3	GWRR-3	GWRR-3	GWRR-6	GWRR-6
Sample Collection Date	7/2/2002	10/1/2002	10/1/2002	7/2/2002	7/2/2002	10/1/2002	7/2/2002	10/1/2002
Sample Type	GW	DU	GW	DU	GW	GW	GW	GW
Duplicate of		GWRR-1		GWRR-3				
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	**1100**	**4800 A**	**6400 A**	**1100**	**1900**	**3700**	**440 J**	**170**
1,2,3,4,6,7,8,9-OCDF	20 U A	**180 AJ**	U A	**70 J**	**93 J**	**140 I**	20 U	20 U
1,2,3,4,6,7,8-HPCDD	**160 AJ**	**790 A**	**1400 A**	**150**	**260**	**440**	10 U	**25 J**
1,2,3,4,6,7,8-HPCDF	10 U	**85 J**	U	**37 J**	**29 J**	**48 J**	10 U	10 U
1,2,3,4,7,8,9-HPCDF	10 U	26 U A	U	10 U	10 U	10 U	10 U	10 U
1,2,3,4,7,8-HXCDD	10 U	21 U A	U	10 U	10 U	10 U	10 U	10 U
1,2,3,4,7,8-HXCDF	10 U	20 U	U	10 U	10 U	**12 J**	10 U	10 U
1,2,3,6,7,8-HXCDD	10 U	**67 J**	U	10 U	**17 J**	**28 J**	10 U	10 U
1,2,3,6,7,8-HXCDF	10 U	20 U	U	10 U	10 U	10 U	10 U	10 U
1,2,3,7,8,9-HXCDD	10 U	**28 J**	U	10 U	10 U	10 U	10 U	10 U
1,2,3,7,8,9-HXCDF	10 U	20 U	U	10 U	10 U	10 U	10 U	10 U
1,2,3,7,8-PECDD	10 U A	28 U A	U A	10 U	10 U	10 U	10 U	10 U
1,2,3,7,8-PECDF	10 U	20 U	U	10 U	10 U	10 U	10 U	10 U
2,3,4,6,7,8-HXCDF	10 U	20 U	U	10 U	10 U	10 U	10 U	10 U
2,3,4,7,8-PECDF	10 U	20 U	U	10 U	10 U	10 U	10 U	10 U
2,3,7,8-TCDD	2 U A	13 U A	U A	2 U	2 U	2 U A	2 U	2 U A
2,3,7,8-TCDF	2 U A	8.7 U A	U A	2 U	2 U	2 U A	2 U	2 U
HPCDD (TOTAL)	**310**	**1300**	**310**	**240**	**430**	**690**	10 U	**42 J**
HPCDF (TOTAL)	10 U	**85 J**	U	**91**	**110**	**190**	10 U	**12 J**
HXCDD (TOTAL)	10 U	**230**	U	**13 J**	**42 J**	**54 J**	10 U	10 U
HXCDF (TOTAL)	10 U	**550**	U	**46 J**	**71**	**110**	10 U	10 U
PECDD (TOTAL)	10 U	20 U	U	10 U	10 U	10 U	10 U	10 U
PECDF (TOTAL)	10 U	**35 J**	U	10 U	10 U	**14 J**	10 U	10 U
TCDD (TOTAL)	2 U	4 U	U	2 U	2 U	2 U	2 U	2 U
TCDF (TOTAL)	2 U	4 U	U	**8.4 J**	2 U	2 U	2 U	2 U
2,3,7,8-TCDD (TEQ) (WHO1998)	**14.05**	**49.865**	**103.05**	**14.27**	**16.49**	**20.28**	**12.5**	**12.7**

Appendix G - KRY Historical Data
LWC Groundwater Dioxins & Furans, 2002

Sample Station	GWRR-8	GWRR-8	GWRR-9
Sample Identification	MCW-0402-3	MCW-0402-2	MCW-0402-1
Sample Collection Date	4/24/2002	4/24/2002	4/24/2002
Sample Type	DU	GW	GW
Duplicate of	GWRR-8		
Units	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	**59 BJ**	**95 BJ**	100 U
1,2,3,4,6,7,8,9-OCDF	20 U	20 U	100 U
1,2,3,4,6,7,8-HPCDD	10 U	10 U	50 U
1,2,3,4,6,7,8-HPCDF	10 U	10 U	50 U
1,2,3,4,7,8,9-HPCDF	10 U	10 U	50 U
1,2,3,4,7,8-HXCDD	10 U	10 U	50 U
1,2,3,4,7,8-HXCDF	10 U	10 U	50 U
1,2,3,6,7,8-HXCDD	10 U	10 U	50 U
1,2,3,6,7,8-HXCDF	10 U	10 U	50 U
1,2,3,7,8,9-HXCDD	10 U	10 U	50 U
1,2,3,7,8,9-HXCDF	10 U	10 U	50 U
1,2,3,7,8-PECDD	10 U	10 U	50 U
1,2,3,7,8-PECDF	10 U	10 U	50 U
2,3,4,6,7,8-HXCDF	10 U	10 U	50 U
2,3,4,7,8-PECDF	10 U	10 U	50 U
2,3,7,8-TCDD	**2.5 A**	**3.1 A**	**25 A**
2,3,7,8-TCDF	2 U	**2.2 A**	**21 A**
HPCDD (TOTAL)	10 U	10 U	0.05 U
HPCDF (TOTAL)	10 U	10 U	0.05 U
HXCDD (TOTAL)	10 U	10 U	0.05 U
HXCDF (TOTAL)	10 U	10 U	0.05 U
PECDD (TOTAL)	10 U	10 U	0.05 U
PECDF (TOTAL)	10 U	10 U	0.05 U
TCDD (TOTAL)	2 U	2 U	0.01 U
TCDF (TOTAL)	2 U	2 U	0.01 U
2,3,7,8-TCDD (TEQ) (WHO1998)	**14**	**14.72**	**84.1**

Notes:

Detected values are shown in bold.
A = Detection limit based on signal-to-noise measurement
B = less than 10 times higher than method blank level
DU = Duplicate sample
GW = Groundwater sample
J = Concentration detected is below the calibration range
LWC = Land and Water consulting
pg/L = Picograms per liter
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
LWC Groundwater PCP, 2002

Sample Station	GWRR-1	GWRR-1	GWRR-1	GWRR-1	GWRR-3	GWRR-3	GWRR-3	GWRR-6	GWRR-6
Sample Identification	**RRW-0702-1**	**RRW-1002-202**	**GWRR-1**	**RRW-1002-201**	**RRW-0702-4**	**RRW-0702-3**	**RRW-1002-204**	**RRW-0702-2**	**GWRR-6**
Sample Collection Date	**7/10/2002**	**10/1/2002**	**10/1/2002**	**10/1/2002**	**7/10/2002**	**7/10/2002**	**10/1/2002**	**7/10/2002**	**10/1/2002**
Sample Type	**GW**	**DU**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**	**GW**
Duplicate of		**GWRR-1**			**GWRR-3**				
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND

Appendix G - KRY Historical Data
LWC Groundwater PCP, 2002

Sample Station	GWRR-6	GWRR-8	GWRR-8	GWRR-9
Sample Identification	RRW-1002-203	MCW-0402-3	MCW-0402-2	MCW-0402-1
Sample Collection Date	10/1/2002	4/24/2002	4/24/2002	4/24/2002
Sample Type	GW	DU	GW	GW
Duplicate of		GWRR-8		
Units	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	ND	**0.57**	**0.35**	**4.7**

Notes:

Detected values are shown in bold.
DU = Duplicate sample
GW = Groundwater sample
LWC = Land and Water consulting
ND = Analyte not detected; reporting limit information unavailable

Appendix G - KRY Historical Data
Maxim Groundwater VPH, 2000

Sample Station	GWY-10	GWY-12	GWY-13	GWY-14	GWY-3	GWY-4
Sample Identification	**MW-10**	**MW-12**	**MW-13**	**MW-14**	**MW-3**	**MW-4**
Sample Collection Date	**11/29/2000**	**11/29/2000**	**11/29/2000**	**11/29/2000**	**11/29/2000**	**11/29/2000**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
C5-C8 Aliphatics	ND	ND	46 U	ND	ND	78 U
C9-C10 Aromatics	ND	27 U	179 U	ND	ND	201 U
C9-C12 Aliphatics	ND	93 U	965 U	ND	ND	1010 U
Total Petroleum Hydrocarbons	ND	72 U	464 U	ND	ND	509 U
Benzene	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	0.2 U	ND	ND	1.5 U
Methyl Tert-Butyl Ether	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	4.1 U	ND	ND	5.5 U
Toluene	ND	ND	ND	ND	ND	ND
Xylenes (Total)	---	ND	3.3 U	ND	ND	5.2 U

Notes:

GW = Groundwater sample
ND = Analyte not detected; reporting limit information unavailable
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter
VPH = Volatile petroleum hydrocarbons

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater Pesticides, 1993

Sample Station	RW-1	RW-7	RW-7	RW-10	RW-11
Sample Identification	SW5052	SW5050	SW5050	SW5051	SW5053
Sample Collection Date	2/9/1993	2/8/1993	2/8/1993	2/8/1993	2/9/1993
Sample Type	GW	GW	DU	GW	GW
Duplicate of			SW5050		
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Alachlor	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Atrazine	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Endrin	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Gamma-Bhc	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Heptachlor	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Heptachlor Epoxide	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Simazine	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
DU = Duplicate sample
GW = Groundwater sample
MDHES = Montana Department of Health and Environmental Sciences

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater PCP, 1992 & 1996

Sample Station	**RW-1**	**RW-2**	**RW-4**	**RW-5**	**RW-7**	**GW-5**
Sample Identification	**SW4852**	**SW4856**	**SW4854**	**SW4853**	**SW4855**	**GW-5**
Sample Collection Date	**1/28/1992**	**1/28/1992**	**1/28/1992**	**1/28/1992**	**1/28/1992**	**4/11/1996**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**220**

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
GW = Groundwater sample
MDHES = Montana Department of Health and Environmental Sciences
PCP = Pentachlorophenol
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater Petroleum Hydrocarbons, 1992-1998

Sample Station	CLCW-1	GW-5	GW-5	GW-5	GWY-12	KPT-5	PWS-2	RW-1
Sample Identification	CLCW-1	GW-5	96-55697	97-50866	97-50865	96-55966	SW4987	RW-1
Sample Collection Date	8/7/1995	4/11/1996	9/13/1996	8/21/1997	8/21/1997	9/13/1996	8/26/1992	8/26/1992
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Diesel Range Organics	**60000**	**0.29**	**540**	**600**	**500 J**	500 U	---	---
Diesel Range Organics As Diesel	**56000**	---	500 U	**600**	**500 J**	500 U	---	---
Gasoline Range Organics	**1000**	---	---	---	---	---	---	---
Gasoline Range Organics As Gasoline	**1000**	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	**67000**	---	720 U	**630**	**500 J**	500 U	---	---
Total Petroleum Hydrocarbons	**3700**	---	---	---	---	---	100 U	100 U

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater Petroleum Hydrocarbons, 1992-1998

Sample Station	**RW-1**	**RW-1**	**RW-1**	**RW-1**	**RW-1**	**RW-10**	**RW-11**	**RW-2**
Sample Identification	**SW4988**	**96-36705**	**97-14861**	**97-50863**	**98-26860**	**SW4989**	**SW4985**	**96-31882**
Sample Collection Date	**8/26/1992**	**6/4/1996**	**1/29/1997**	**8/20/1997**	**4/8/1998**	**8/26/1992**	**8/26/1992**	**5/10/1996**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Diesel Range Organics	---	500 U	500 U	500 U	500 U	---	---	**930**
Diesel Range Organics As Diesel	---	500 U	500 U	500 U	500 U	---	---	**930**
Gasoline Range Organics	---	---	---	---	---	---	---	---
Gasoline Range Organics As Gasoline	---	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	500 U	500 U	500 U	500 U	---	---	**1100**
Total Petroleum Hydrocarbons	100 U	---	---	---	---	100 U	100 U	---

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater Petroleum Hydrocarbons, 1992-1998

Sample Station	**RW-2**	**RW-2**	**RW-2**	**RW-4**	**RW-4**	**RW-5**	**RW-7**	**RW-7**
Sample Identification	**96-55968**	**97-14862**	**97-22973**	**SW4986**	**98-18360**	**SW4853**	**SW4990**	**96-36704**
Sample Collection Date	**9/13/1996**	**1/29/1997**	**3/18/1997**	**8/26/1992**	**2/19/1998**	**1/28/1992**	**8/26/1992**	**6/4/1996**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Diesel Range Organics	500 U	500 U	450 U	---	500 U	---	---	500 U
Diesel Range Organics As Diesel	500 U	500 U	450 U	---	500 U	---	---	500 U
Gasoline Range Organics	---	---	---	---	---	---	---	---
Gasoline Range Organics As Gasoline	---	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	500 U	500 U	450 U	---	500 U	---	---	500 U
Total Petroleum Hydrocarbons	---	---	---	100 U	---	100 U	100 U	---

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater Petroleum Hydrocarbons, 1992-1998

Sample Station	**RW-7**	**RW-7**	**RW-7**	**UNKNOWN**
Sample Identification	**97-14863**	**97-50864**	**98-18358**	**98-18359**
Sample Collection Date	**1/29/1997**	**8/20/1997**	**2/19/1998**	**2/19/1998**
Sample Type	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Diesel Range Organics	500 U	500 U	500 U	500 U
Diesel Range Organics As Diesel	500 U	500 U	500 U	500 U
Gasoline Range Organics	---	---	---	---
Gasoline Range Organics As Gasoline	---	---	---	---
Total Extractable Hydrocarbons	500 U	500 U	500 U	500 U
Total Petroleum Hydrocarbons	---	---	---	---

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
MDHES = Montana Department of Health and Environmental Sciences
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater SVOC, 1992-1996

Sample Station	**GW-5**	**PWS-2**	**RW-1**	**RW-1**	**RW-1**	**RW-1**	**RW-1**	**RW-10**	**RW-10**
Sample Identification	**GW-5**	**SW4987**	**SW4852**	**SW4988**	**93W 106882**	**93W 106882**	**BENSON-BNA**	**SW4989**	**93W 106884**
Sample Collection Date	**4/11/1996**	**8/26/1992**	**1/31/1992**	**8/26/1992**	**12/16/1993**	**12/16/1993**	**1/26/1995**	**8/26/1992**	**12/16/1993**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**
Duplicate of						**93W 106882**			
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,2,4-Trichlorobenzene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	1 U	20 U	**20**	20 U	20 U	20 U	10 U	20 U	20 U
1,2-Diphenylhydrazine	---	---	---	---	---	---	---	---	---
1,3-Dichlorobenzene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	1 U	10 U	**40**	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	5 U	10 U	**50**	10 U	10 U	10 U	---	10 U	10 U
2,4,6-Trichlorophenol	5 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	3 U	10 U	**10**	10 U	10 U	10 U	50 U	10 U	10 U
2,4-Dimethylphenol	3 U	50 U	**50**	50 U	50 U	50 U	10 U	50 U	50 U
2,4-Dinitrophenol	10 U	50 U	**10**	50 U	50 U	50 U	10 U	50 U	50 U
2,4-Dinitrotoluene	5 U	10 U	**50**	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	1 U	10 U	**10**	10 U	10 U	10 U	---	10 U	10 U
2-Methylphenol	2 U	10 U	**10**	10 U	10 U	10 U	---	10 U	10 U
2-Nitroaniline	5 U	50 U	**50**	50 U	50 U	50 U	---	50 U	50 U
2-Nitrophenol	5 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5 U	20 U	**20**	20 U	20 U	20 U	20 U	20 U	20 U
3-Nitroaniline	6 U	50 U	**50**	50 U	50 U	50 U	---	50 U	50 U
4,6-Dinitro-2-Methylphenol	10 U	50 U	**50**	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	2 U	20 U	**20**	20 U	20 U	20 U	20 U	20 U	20 U
4-Chloroaniline	3 U	20 U	**20**	20 U	20 U	20 U	---	20 U	20 U
4-Chlorophenol	---	---	---	---	---	---	---	---	---
4-Chlorophenylphenylether	---	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 U	10 U	**10**	10 U	10 U	10 U	---	10 U	10 U
4-Methylphenol/3-Methylphenol	---	---	---	---	---	---	---	---	---
4-Nitroaniline	5 U	50 U	**50**	50 U	50 U	50 U	---	50 U	50 U
4-Nitrophenol	5 U	50 U	**50**	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	1 U	10 U	**40**	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Aniline	---	10 U	---	10 U	10 U	10 U	---	10 U	10 U
Anthracene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Azobenzene	---	10 U	---	10 U	10 U	10 U	---	10 U	10 U
Benzidine	---	---	---	---	---	---	---	---	---
Benzo(A)Anthracene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(A)Pyrene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(B)Fluoranthene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(G,H,I)Perylene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(K)Fluoranthene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid	10 U	50 U	**50**	50 U	50 U	50 U	---	50 U	50 U
Benzyl Alcohol	5 U	10 U	**10**	10 U	10 U	10 U	---	10 U	10 U
Bis(2-Chloroethoxy)Methane	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-Chloroethyl)Ether	2 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-Chloroisopropyl)Ether	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-Ethylhexyl)Adipate	---	---	---	---	---	---	---	---	---
Bis(2-Ethylhexyl)Phthalate	1 U	**10 B**	**10**	**10.9 B**	**3.24 J,B**	**6.35 J,B**	10 U	**28.6 B**	**2.92 J,B**
Butyl Benzyl Phthalate	1 U	10 U	**10**	10 U	10 U	10 U	**11**	10 U	10 U
Carbazole	1 U	---	---	---	---	---	---	---	---
Chrysene	1 U	10 U	**40**	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(A,H)Anthracene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	1 U	10 U	**10**	10 U	10 U	10 U	---	10 U	10 U
Diethyl Phthalate	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Di-N-Butylphthalate	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Di-N-Octylphthalate	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	2 U	10 U	**10**	10 U	10 U	10 U	---	10 U	10 U
Hexachlorocyclopentadiene	5 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	2 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-Cd)Pyrene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	1 U	10 U	**40**	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-Di-Methylamine	---	---	---	---	---	---	20 U	---	---
N-Nitrosodi-N-Propylamine	2 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	**280**	50 U	**50**	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene	1 U	10 U	**40**	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	2 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	1 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U
Pyridine	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater SVOC, 1992-1996

Sample Station	RW-10	RW-11	RW-11	RW-2	RW-4	RW-4	RW-4	RW-5	RW-7
Sample Identification	94-58392	SW4985	SW4985	SW4856	SW4854	SW4986	93W 106883	SW4853	SW4855
Sample Collection Date	11/22/1994	8/26/1992	8/26/1992	1/31/1992	1/31/1992	8/26/1992	12/16/1993	1/31/1992	1/31/1992
Sample Type	GW	GW	DU	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
1,2-Dichlorobenzene	10 U	20 U	20 U	**20**	**20**	20 U	20 U	**20**	**20**
1,2-Diphenylhydrazine	10 U	---	---	---	---	---	---	---	---
1,3-Dichlorobenzene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
1,4-Dichlorobenzene	10 U	10 U	10 U	**40**	**40**	10 U	10 U	**40**	**40**
1-Methylnaphthalene	10 U	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	10 U	10 U	10 U	**50**	**50**	10 U	10 U	**50**	**50**
2,4,6-Trichlorophenol	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
2,4-Dichlorophenol	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
2,4-Dimethylphenol	10 U	50 U	50 U	**50**	**50**	50 U	50 U	**50**	**50**
2,4-Dinitrophenol	50 U	50 U	50 U	**10**	**10**	50 U	50 U	**10**	**10**
2,4-Dinitrotoluene	10 U	10 U	10 U	**50**	**50**	10 U	10 U	**50**	**50**
2,6-Dinitrotoluene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
2-Chloronaphthalene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
2-Chlorophenol	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
2-Methylnaphthalene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
2-Methylphenol	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
2-Nitroaniline	---	50 U	50 U	**50**	**50**	50 U	50 U	**50**	**50**
2-Nitrophenol	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
3,3'-Dichlorobenzidine	20 U	20 U	20 U	**20**	**20**	20 U	20 U	**20**	**20**
3-Nitroaniline	---	50 U	50 U	**50**	**50**	50 U	50 U	**50**	**50**
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	**50**	**50**	50 U	50 U	**50**	**50**
4-Bromophenylphenylether	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
4-Chloro-3-Methylphenol	10 U	20 U	20 U	**20**	**20**	20 U	20 U	**20**	**20**
4-Chloroaniline	---	10 U	20 U	**20**	**20**	20 U	20 U	**20**	**20**
4-Chlorophenol	10 U	---	---	---	---	---	---	---	---
4-Chlorophenylphenylether	10 U	20 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
4-Methylphenol	---	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
4-Methylphenol/3-Methylphenol	10 U	---	---	---	---	---	---	---	---
4-Nitroaniline	---	50 U	50 U	**50**	**50**	50 U	50 U	**50**	**50**
4-Nitrophenol	50 U	50 U	50 U	**50**	**50**	50 U	50 U	**50**	**50**
Acenaphthene	10 U	10 U	10 U	**40**	**40**	10 U	10 U	**40**	**40**
Acenaphthylene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Aniline	---	10 U	10 U	---	---	10 U	10 U	---	---
Anthracene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Azobenzene	---	10 U	10 U	---	---	10 U	10 U	---	---
Benzidine	20 U	---	---	---	---	---	---	---	---
Benzo(A)Anthracene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Benzo(A)Pyrene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Benzo(B)Fluoranthene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Benzo(G,H,I)Perylene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Benzo(K)Fluoranthene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Benzoic Acid	---	50 U	50 U	**50**	**50**	50 U	50 U	**50**	**50**
Benzyl Alcohol	---	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Bis(2-Chloroethyl)Ether	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Bis(2-Ethylhexyl)Adipate	---	---	---	---	---	---	---	---	---
Bis(2-Ethylhexyl)Phthalate	10 U	**13.2 B**	**52.4 B**	**10**	**10**	**5.42 B**	**2.52 J,B**	**10**	**10**
Butyl Benzyl Phthalate	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Carbazole	---	---	---	---	---	---	---	---	---
Chrysene	10 U	10 U	10 U	**40**	**40**	10 U	10 U	**40**	**40**
Dibenzo(A,H)Anthracene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Dibenzofuran	---	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Diethyl Phthalate	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Dimethyl Phthalate	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Di-N-Butylphthalate	**0.56 JB**	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Di-N-Octylphthalate	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Fluoranthene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Fluorene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Hexachlorobenzene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Hexachlorobutadiene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Hexachlorocyclopentadiene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Hexachloroethane	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Indeno(1,2,3-Cd)Pyrene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Isophorone	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Naphthalene	10 U	10 U	10 U	**40**	**40**	10 U	10 U	**40**	**40**
Nitrobenzene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
N-Nitroso-Di-Methylamine	10 U	---	---	---	---	---	---	---	---
N-Nitrosodi-N-Propylamine	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
N-Nitrosodiphenylamine	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Pentachlorophenol	50 U	50 U	50 U	**50**	**50**	50 U	50 U	**50**	**50**
Phenanthrene	10 U	10 U	10 U	**40**	**40**	10 U	10 U	**40**	**40**
Phenol	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Pyrene	10 U	10 U	10 U	**10**	**10**	10 U	10 U	**10**	**10**
Pyridine	20 U	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater SVOC, 1992-1996

Sample Station	RW-7	RW-7	RW-7	UNKNOWN	UNKNOWN
Sample Identification	SW4990	93W 106885	94-58395	CAMERON	STRUNK
Sample Collection Date	8/26/1992	12/16/1993	11/23/1994	1/27/1995	1/27/1995
Sample Type	GW	GW	GW	GW	GW
Duplicate of					
Units	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	20 U	20 U	10 U	10 U	10 U
1,2-Diphenylhydrazine	---	---	10 U	---	---
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	---	---	10 U	---	---
2,4,5-Trichlorophenol	10 U	10 U	10 U	---	---
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	50 U	50 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	---	---
2-Methylphenol	10 U	10 U	10 U	---	---
2-Nitroaniline	50 U	50 U	---	---	---
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U
3-Nitroaniline	50 U	50 U	---	---	---
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	20 U	20 U	10 U	20 U	20 U
4-Chloroaniline	20 U	20 U	---	---	---
4-Chlorophenol	---	---	10 U	---	---
4-Chlorophenylphenylether	10 U	10 U	10 U	---	---
4-Methylphenol	10 U	10 U	---	---	---
4-Methylphenol/3-Methylphenol	---	---	10 U	---	---
4-Nitroaniline	50 U	50 U	---	---	---
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U
Acenaphthene	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	---	---
Aniline	10 U	10 U	---	---	---
Anthracene	10 U	10 U	10 U	10 U	10 U
Azobenzene	10 U	10 U	---	---	---
Benzidine	---	---	20 U	---	---
Benzo(A)Anthracene	10 U	10 U	10 U	10 U	10 U
Benzo(A)Pyrene	10 U	10 U	10 U	10 U	10 U
Benzo(B)Fluoranthene	10 U	10 U	10 U	10 U	10 U
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U
Benzo(K)Fluoranthene	10 U	10 U	10 U	10 U	10 U
Benzoic Acid	50 U	50 U	---	---	---
Benzyl Alcohol	10 U	10 U	---	---	---
Bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U
Bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U
Bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U
Bis(2-Ethylhexyl)Adipate	---	---	---	---	---
Bis(2-Ethylhexyl)Phthalate	**26.8 B**	**3.93 J,B**	10 U	10 U	10 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U
Carbazole	---	---	---	---	---
Chrysene	10 U	10 U	10 U	10 U	10 U
Dibenzo(A,H)Anthracene	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	---	---	---
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U
Di-N-Butylphthalate	10 U	10 U	10 U	10 U	10 U
Di-N-Octylphthalate	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	---	---
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-Cd)Pyrene	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U
N-Nitroso-Di-Methylamine	---	---	10 U	20 U	20 U
N-Nitrosodi-N-Propylamine	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	50 U	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U
Pyridine	---	---	20 U	---	---

Notes:

Detected values are shown in bold
B = Compound detected in method blank
DEQ = Dept. of Environmental Quality
DU - Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
MDHES = Montana Department of Health and Environmental Sciences
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater VOC, 1992-1996

Sample Station	PWS-2	RW-1	RW-1	RW-1	RW-1	RW-1	RW-10
Sample Identification	SW4987	SW4988	SW4988	BENSON-VOC	95-45765	96-36705	94-58392
Sample Collection Date	8/26/1992	8/26/1992	8/26/1992	1/26/1995	7/26/1995	6/4/1996	11/22/1994
Sample Type	GW	GW	DU	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,2-Bromomethane	---	---	---	---	---	---	---
1,2-Dibromo-3-Chloropropane	1 U	1 U	1 U	---	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	---	---	---	---	0.5 U	0.5 U	0.5 U
1,2-Dibromomethane	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
2-Chloroethyl Vinyl Ether	---	---	---	10 U	---	---	---
2-Chlorotoluene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
4-Chlorotoluene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
4-Isopropyltoluene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Benzene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromobenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Bromochloromethane	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Bromoform	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromomethane	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Chloroethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Chloroform	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Chloromethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Cis-1,2-Dichloroethene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Cis-1,2-Dichloropropene	0.5 U	0.5 U	0.5 U	---	---	---	---
Cis-1,3-Dichloropropene	---	---	---	1 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Dichlorobromomethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Fluorobenzene	---	---	---	---	---	---	---
Freon 12	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Isopropylbenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
M+P-Xylenes	---	---	---	---	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Naphthalene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
N-Butylbenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
N-Propylbenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
O-Xylene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Styrene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Tert-Butylbenzene	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U
Tetrachloroethene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloropropene	---	---	---	---	---	---	---
Trans-1,3-Dichloropropene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichloroethene	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater VOC, 1992-1996

Sample Station	RW-10	RW-11	RW-2	RW-4	RW-5	RW-7	RW-7
Sample Identification	95-45764	SW4985	96-31882	SW4986	SW4853	SW4990	94-58395
Sample Collection Date	7/26/1995	8/26/1992	5/10/1996	8/26/1992	1/28/1992	8/26/1992	11/23/1994
Sample Type	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	0.5 U	0.5 U	**2.5**	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Bromomethane	---	---	---	---	0.5 U	---	---
1,2-Dibromo-3-Chloropropane	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	0.5 U
1,2-Dibromoethane	0.5 U	---	0.5 U	---	---	---	0.5 U
1,2-Dibromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	0.5 U	0.5 U	**0.54**	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethyl Vinyl Ether	---	---	---	---	---	---	---
2-Chlorotoluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Isopropyltoluene	0.5 U	0.5 U	**0.14 J**	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	**1.8**	0.5 U	0.5 U
Bromobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cis-1,2-Dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cis-1,2-Dichloropropene	---	0.5 U	---	0.5 U	---	0.5 U	---
Cis-1,3-Dichloropropene	0.5 U	---	0.5 U	---	0.5 U	---	0.5 U
Dibromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorobromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Fluorobenzene	---	---	---	---	**5**	---	---
Freon 12	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	0.5 U	0.5 U	**1.7**	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	---	0.5 U	---	---	---	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U
N-Butylbenzene	0.5 U	0.5 U	**0.54**	0.5 U	0.5 U	0.5 U	0.5 U
N-Propylbenzene	0.5 U	0.5 U	**0.62**	0.5 U	0.5 U	0.5 U	0.5 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	**0.89**	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloropropene	---	---	---	---	0.5 U	---	---
Trans-1,3-Dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	---	0.5 U	0.5 U
Trichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	**0.8**	0.5 U	0.5 U

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater VOC, 1992-1996

Sample Station	RW-7	RW-7
Sample Identification	**95-45763**	**96-36704**
Sample Collection Date	**7/26/1995**	**6/4/1996**
Sample Type	**GW**	**GW**
Units	**ug/L**	**ug/L**
1,1,1,2-Tetrachloroethane	0.5 U	0.5 U
1,1,1-Trichloroethane	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U
1,1,2-Trichloroethane	0.5 U	0.5 U
1,1-Dichloroethane	0.5 U	0.5 U
1,1-Dichloroethene	0.5 U	0.5 U
1,1-Dichloropropene	0.5 U	0.5 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U
1,2,3-Trichloropropane	0.5 U	0.5 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U
1,2,4-Trimethylbenzene	0.5 U	0.5 U
1,2-Bromomethane	---	---
1,2-Dibromo-3-Chloropropane	0.5 U	0.5 U
1,2-Dibromoethane	0.5 U	0.5 U
1,2-Dibromomethane	0.5 U	0.5 U
1,2-Dichlorobenzene	0.5 U	0.5 U
1,2-Dichloroethane	0.5 U	0.5 U
1,2-Dichloropropane	0.5 U	0.5 U
1,3,5-Trimethylbenzene	0.5 U	0.5 U
1,3-Dichlorobenzene	0.5 U	0.5 U
1,3-Dichloropropane	0.5 U	0.5 U
1,4-Dichlorobenzene	0.5 U	0.5 U
2,2-Dichloropropane	0.5 U	0.5 U
2-Chloroethyl Vinyl Ether	---	---
2-Chlorotoluene	0.5 U	0.5 U
4-Chlorotoluene	0.5 U	0.5 U
4-Isopropyltoluene	0.5 U	0.5 U
Benzene	0.5 U	0.5 U
Bromobenzene	0.5 U	0.5 U
Bromochloromethane	0.5 U	0.5 U
Bromoform	0.5 U	0.5 U
Bromomethane	0.5 U	0.5 U
Carbon Tetrachloride	0.5 U	0.5 U
Chlorobenzene	0.5 U	0.5 U
Chloroethane	0.5 U	0.5 U
Chloroform	0.5 U	0.5 U
Chloromethane	0.5 U	0.5 U
Cis-1,2-Dichloroethene	0.5 U	0.5 U
Cis-1,2-Dichloropropene	---	---
Cis-1,3-Dichloropropene	0.5 U	0.5 U
Dibromochloromethane	0.5 U	0.5 U
Dichlorobromomethane	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U
Fluorobenzene	---	---
Freon 12	0.5 U	0.5 U
Hexachlorobutadiene	0.5 U	0.5 U
Isopropylbenzene	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U
Naphthalene	0.5 U	0.5 U
N-Butylbenzene	0.5 U	0.5 U
N-Propylbenzene	0.5 U	0.5 U
O-Xylene	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U
Styrene	0.5 U	0.5 U
Tert-Butylbenzene	0.5 U	0.5 U
Tetrachloroethene	0.5 U	0.5 U
Toluene	0.5 U	0.5 U
Trans-1,2-Dichloroethene	0.5 U	0.5 U
Trans-1,2-Dichloropropene	---	---
Trans-1,3-Dichloropropene	0.5 U	0.5 U
Trichloroethene	0.5 U	0.5 U
Trichlorofluoromethane	0.5 U	0.5 U
Vinyl Chloride	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
MDHES = Montana Department of Health and Environmental Sciences
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter
VOC = Volatile organic compound

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater Herbicides, 1993-1998

Sample Station	**GW-5**	**GWY-12**	**GWY-12**	**KPT-5**	**RW-1**	**RW-1**	**RW-1**	**RW-1**	**RW-1**	**RW-1**
Sample Identification	**96-55967**	**GWY-12**	**97-50865**	**96-55966**	**SW5052**	**95-45765**	**96-36705**	**97-14861**	**97-50863**	**98-26860**
Sample Collection Date	**9/13/1996**	**12/19/1996**	**8/21/1997**	**9/13/1996**	**2/9/1993**	**7/26/1995**	**6/4/1996**	**1/29/1997**	**8/20/1997**	**4/8/1998**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
2,4,5-T	---	---	---	---	0.1 U	---	---	---	---	---
2,4,5-TP (SILVEX)	10 U	0.2 U	0.2 U	2 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2,4-D	50 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U
2,4-DB	---	---	---	---	1 U	2.5 U	---	---	---	2.5 U
Dalapon	500 U	10 U	10 U	100 U	2 U	10 U	10 U	10 U	10 U	10 U
Dicamba	12 U	0.25 U	0.25 U	2.5 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Dichloroprop	---	---	---	---	1 U	1 U	---	---	---	1 U
Dinoseb	50 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U
MCPA	---	---	---	---	110 U	---	---	---	---	---
MCPP	---	---	---	---	110 U	---	---	---	---	---
Pentachlorophenol	**514 D**	**47 D**	**1.3**	**64 D**	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Picloram	25 U	1 U	0.5 U	5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater Herbicides, 1993-1998

Sample Station	**RW-10**	**RW-10**	**RW-11**	**RW-2**	**RW-2**	**RW-2**	**RW-2**	**RW-2**	**RW-4**	**RW-7**
Sample Identification	**SW5051**	**95-45764**	**SW5053**	**96-31882**	**96-36706**	**96-55968**	**97-14862**	**97-22973**	**98-18360**	**SW5050**
Sample Collection Date	**2/8/1993**	**7/26/1995**	**2/9/1993**	**5/10/1996**	**6/4/1996**	**9/13/1996**	**1/29/1997**	**3/18/1997**	**2/19/1998**	**2/8/1993**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
2,4,5-T	0.1 U	---	0.1 U	---	---	---	---	---	---	0.1 U
2,4,5-TP (SILVEX)	1 U	0.2 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U
2,4-D	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,4-DB	1 U	2.5 U	1 U	---	---	---	---	---	2.5 U	1 U
Dalapon	2 U	10 U	2 U	10 U	10 U	10 U	10 U	10 U	10 U	2 U
Dicamba	0.5 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U
Dichloroprop	1 U	1 U	1 U	---	---	---	---	---	1 U	1 U
Dinoseb	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MCPA	110 U	---	110 U	---	---	---	---	---	---	110 U
MCPP	110 U	---	110 U	---	---	---	---	---	---	110 U
Pentachlorophenol	0.05 U	0.1 U	0.05 U	**0.068 J**	**0.17**	**0.26**	0.1 U	**1 J**	0.1 U	0.05 U
Picloram	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

Appendix G - KRY Historical Data
MDHES (DEQ) Groundwater Herbicides, 1993-1998

Sample Station	RW-7	RW-7	RW-7	RW-7	RW-7	UNKNOWN
Sample Identification	95-45763	96-36704	97-14863	97-50864	98-18358	98-18359
Sample Collection Date	7/26/1995	6/4/1996	1/29/1997	8/20/1997	2/19/1998	2/19/1998
Sample Type	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2,4,5-T	---	---	---	---	---	---
2,4,5-TP (SILVEX)	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2,4-D	1 U	1 U	1 U	1 U	1 U	1 U
2,4-DB	2.5 U	---	---	---	2.5 U	2.5 U
Dalapon	10 U	10 U	10 U	10 U	10 U	10 U
Dicamba	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Dichloroprop	1 U	---	---	---	1 U	1 U
Dinoseb	1 U	1 U	1 U	1 U	1 U	1 U
MCPA	---	---	---	---	---	---
MCPP	---	---	---	---	---	---
Pentachlorophenol	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Picloram	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:

Detected values are shown in bold
D = Sample dilution
DEQ = Dept. of Environmental Quality
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons
MDHES = Montana Department of Health and Environmental Sciences
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter
VOC = Volatile organic compound

Appendix G - KRY Historical Data
MDHES (DEQ) Soil Phenols, 1996

Sample Station	**TP-109**
Sample Identification	**96-52982**
Sample Collection Date	**9/4/1996**
Sample Type	**SS**
Upper Depth (ft)	**0.25**
Lower Depth (ft)	**0.25**
Units	**mg/kg**
2,4,5-Trichlorophenol	0.33 U
2,4,6-Trichlorophenol	0.33 U
2,4-Dichlorophenol	0.33 U
2,4-Dimethylphenol	0.33 U
2,4-Dinitrophenol	1.7 U
2-Chlorophenol	0.33 U
2-Methylphenol	0.33 U
2-Nitrophenol	0.33 U
4,6-Dinitro-2-Methylphenol	1.7 U
4-Chloro-3-Methylphenol	0.33 U
4-Chlorophenol	0.33 U
4-Methylphenol/3-Methylphenol	0.33 U
4-Nitrophenol	1.7 U
Pentachlorophenol	1.7 U
Phenol	0.33 U

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
ft = Feet
MDHES = Montana Department of Health and Environmental Sciences
mg/kg = Milligrams per kilogram
SS = Surface soil sample

Appendix G - KRY Historical Data
MDHES (DEQ) Soil Metals, 1998

Sample Station	M3-DEQ	M5-DEQ	M7-DEQ	M10	NM3	NM4	NM6	NO7	N8/9
Sample Identification	1994557	1994558	1994559	1994560	1994561	1994562	1994564	1994565	1994566
Sample Collection Date	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS
Upper Depth (ft)	0.5		0.5	0.5	0.8		1	0.5	0.7
Lower Depth (ft)	0.5		0.5	0.5	0.8		1	0.5	0.7
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	230	397	589	653	459	530	53	438	196

Appendix G - KRY Historical Data
MDHES (DEQ) Soil Metals, 1998

Sample Station	NO9	NO10	O3-DEQ	O4a	O4b	P4/5	P7a	P7b	P9
Sample Identification	1994567	1994568	1994569	1994570	1994571	1994572	1994573	1994574	1994575
Sample Collection Date	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS
Upper Depth (ft)	0.8	0.5	0.8	0.8	0.7	0.8	1	0.8	1
Lower Depth (ft)	0.8	0.5	0.8	0.8	0.7	0.8	1	0.8	1
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	37	243	542	15	30	44300	5780	2910	140

Appendix G - KRY Historical Data
MDHES (DEQ) Soil Metals, 1998

Sample Station	P10a	P10b	P10/11	P11	Q6	Q7-DEQ	Q8	QP8	Q9/10
Sample Identification	1994576	1994577	1994578	1994579	1994580	1994581	1994582	1994583	1994584
Sample Collection Date	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998	4/27/1998
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS
Upper Depth (ft)	0.5	1			0.5	1	0.8	1	0.9
Lower Depth (ft)	0.5	1			0.5	1	0.8	1	0.9
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	120	1510	408	329	1260	1470	1300	679	958

Appendix G - KRY Historical Data
MDHES (DEQ) Soil Metals, 1998

Sample Station	**Q11-DEQ**
Sample Identification	**1994585**
Sample Collection Date	**4/27/1998**
Sample Type	**SS**
Upper Depth (ft)	**1**
Lower Depth (ft)	**1**
Units	**mg/kg**
Lead	**1110**

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
ft = Feet
MDHES = Montana Department of Health and Environmental Sciences
mg/kg = Milligrams per kilogram
SS = Surface soil sample

Appendix G - KRY Historical Data
MDHES (DEQ) Soil EPH & DRO, 1996 & 1998

Sample Station	**TP-109**	**O7**	**Q1**	**N1a/N1b**	**N1a/N1b**	**N2-DEQ**	**N3**	**S2**
Sample Identification	**96-52982**	**96-52984**	**96-52985**	**98-26861**	**98-26862**	**98-26863**	**98-26864**	**98-26869**
Sample Collection Date	**9/4/1996**	**9/12/1996**	**9/12/1996**	**4/1/1998**	**4/5/1998**	**4/5/1998**	**4/1/1998**	**4/5/1998**
Sample Type	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**0.25**	**17**	**16**	**7.5**	**17**	**11.5**	**10**	**17**
Lower Depth (ft)	**0.25**	**18**	**17**	**7.5**	**17**	**11.5**	**10**	**17**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Diesel Range Organics	**15400**	**6360**	**6210**	**12600**	**1220**	**7800**	**23100**	**954**
Diesel Range Organics As Diesel	400 U	300 U	400 U	**12600**	**1200**	**7800**	**23100**	**954**
Total EPH	---	---	---	---	---	---	**34602**	---
Total Extractable Hydrocarbons	**35200**	**7780**	**7840**	**14300**	**1300**	**9150**	**28300**	**1100**

Appendix G - KRY Historical Data
MDHES (DEQ) Soil EPH & DRO, 1996 & 1998

Sample Station	S3	G16a/G16b	G16a/G16b	H4	H6-DEQ	I16	W18	Y15/16
Sample Identification	98-26870	98-26871	98-26872	98-26873	98-26874	98-26875	98-26877	98-26878
Sample Collection Date	4/5/1998	4/5/1998	4/1/1998	4/5/1998	4/1/1998	4/1/1998	4/5/1998	4/5/1998
Sample Type	SB	SB	SB	SB	SB	SB	SB	SB
Upper Depth (ft)	19	8	14	8	11.5	11	16	15
Lower Depth (ft)	19	8	14	8	11.5	11	16	15
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Diesel Range Organics	5590	904	29700	7100	16500	26300	10 U	10 U
Diesel Range Organics As Diesel	5590	300 U	29700	7100	16500	26300	10 U	10 U
Total EPH	6659	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	6620	1590	36600	7740	18000	32600	10 U	10 U

Appendix G - KRY Historical Data
MDHES (DEQ) Soil EPH & DRO, 1996 & 1998

Sample Station	Z14	Z17	N11-15	N16	N17-21
Sample Identification	**98-26879**	**98-26880**	**98-35634**	**98-35635**	**98-35636**
Sample Collection Date	**4/5/1998**	**4/5/1998**	**5/20/1998**	**5/20/1998**	**5/20/1998**
Sample Type	**SB**	**SB**	**SS**	**SS**	**SS**
Upper Depth (ft)	**11.5**	**12**			
Lower Depth (ft)	**11.5**	**12**			
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Diesel Range Organics	**2440**	**2230**	**417**	**28873**	**2395**
Diesel Range Organics As Diesel	**2440**	**2230**	100 U	**28873**	100 U
Total EPH	---	---	---	---	---
Total Extractable Hydrocarbons	**3370**	**3430**	**940**	**29072**	**4288**

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
DRO = Diesel Range Organics
EPH = Extractable Petroleum Hydrocarbons
ft = Feet
MDHES = Montana Department of Health and Environmental Sciences
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample
SS = Surface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
MDHES (DEQ) Soil VOC, 1998

Sample Station	**O4a**
Sample Identification	**98-30079**
Sample Collection Date	**4/5/1998**
Sample Type	**SS**
Upper Depth (ft)	**0.8**
Lower Depth (ft)	**0.8**
Units	**mg/kg**
Benzene	1 U
Ethylbenzene	1 U
Methyl Tert-Butyl Ether	4 U
O-Xylene	0.5 U
Toluene	1 U
Xylenes (Total)	0.5 U

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
ft = Feet
MDHES = Montana Department of Health and Environmental Sciences
mg/kg = Milligrams per kilogram
SS = Surface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value
VOC = Volatile organic compounds

Appendix G - KRY Historical Data
MDHES (DEQ) Waste TPH, 1998

Sample Station	GWRR-5	GWRR-7
Sample Identification	98-24690	98-24689
Sample Collection Date	3/31/1998	3/31/1998
Sample Type	WS	WS
Units	mg/kg	mg/kg
Diesel Range Organics	**535000**	**614000**
Diesel Range Organics As Diesel	30000 U	30000 U
Total Extractable Hydrocarbons	**703000**	**773000**

Notes:

Detected values are shown in bold
DEQ = Dept. of Environmental Quality
MDHES = Montana Department of Health and Environmental Sciences
mg/kg = Milligrams per kilogram
U = Analyte analyzed for but not detected; reported with detection limit value
WS = Waste sample

Appendix G - KRY Historical Data
MSE Soil VOC, 1988

Sample Station	SS-1-89	SS-2-89	SS-3-89	SS-4-89	SS-5-89	SS-6-89
Sample Identification	KPP-SS-1	KPP-SS-2	KPP-SS-3	KPP-SS-4	KPP-SS-5	KPP-SS-6
Sample Collection Date	11/15/1988	11/15/1988	11/15/1988	11/15/1988	11/15/1988	11/15/1988
Sample Type	BD	SS	SS	SS	SS	SS
Upper Depth (ft)	0	0	0	0	0	0
Lower Depth (ft)	0.25	1	0.25	0.25	0	0.25
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
1,1,2,2-Tetrachloroethane	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
1,1,2-Trichloroethane	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
1,1-Dichloroethane	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
1,1-Dichloroethene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
1,2-Dichloroethane	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
1,2-Dichloroethene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
1,2-Dichloropropane	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
2-Butanone	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
2-Hexanone	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
4-Methyl-2-Pentanone	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
Acetone	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
Benzene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Bromoform	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Bromomethane	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
Carbon Disulfide	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Carbon Tetrachloride	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Chlorobenzene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Chloroethane	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
Chloroform	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Chloromethane	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
Cis-1,3-Dichloropropene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Dibromochloromethane	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Dichlorobromomethane	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Ethylbenzene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Methylene Chloride	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.14 J**
Styrene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Tetrachloroethene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Toluene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Trans-1,3-Dichloropropene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Trichloroethene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**
Vinyl Acetate	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
Vinyl Chloride	**0.063 J**	**0.066 J**	0.067 U	0.064 U	**0.064 J**	**0.081 J**
Xylene	**0.031 J**	**0.033 J**	0.034 U	0.032 U	**0.032 J**	**0.041 J**

Notes:

Detected values are shown in bold
BD = Background soil sample
ft = Feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = Milligrams per kilogram
SS = Surface soil sample
U = Analyte analyzed for but not detected; reported ı SS = Surface soil sample
VOC = Volatile organic compounds

Appendix G - KRY Historical Data
MSE Soil SVOC, 1988

Sample Station	SS-1-89	SS-2-89	SS-3-89	SS-4-89	SS-5-89	SS-6-89
Sample Identification	KPP-SS-1	KPP-SS-2	KPP-SS-3	KPP-SS-4	KPP-SS-5	KPP-SS-6
Sample Collection Date	11/15/1988	11/15/1988	11/15/1988	11/15/1988	11/15/1988	11/15/1988
Sample Type	BD	SS	SS	SS	SS	SS
Upper Depth (ft)	0	0	0	0	0	0
Lower Depth (ft)	0.25	1	0.25	0.25	0	0.25
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
1,2-Dichlorobenzene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
1,3-Dichlorobenzene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
1,4-Dichlorobenzene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2,4,5-Trichlorophenol	2 U	5400 U	22 U	2.1 U	21 U	6.6 U
2,4,6-Trichlorophenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2,4-Dichlorophenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2,4-Dimethylphenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2,4-Dinitrophenol	2 U	5400 U	22 U	2.1 U	21 U	6.6 U
2,4-Dinitrotoluene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2,6-Dinitrotoluene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2-Chloronaphthalene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2-Chlorophenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2-Methylnaphthalene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2-Methylphenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
2-Nitroaniline	2 U	5400 U	22 U	2.1 U	21 U	6.6 U
2-Nitrophenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
3,3'-Dichlorobenzidine	0.82 U	2200 U	8.7 U	0.83 U	8.3 U	2.6 U
3-Nitroaniline	2 U	5400 U	22 U	2.1 U	21 U	6.6 U
4,6-Dinitro-2-Methylphenol	2 U	5400 U	22 U	2.1 U	21 U	6.6 U
4-Bromophenylphenylether	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
4-Chloro-3-Methylphenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
4-Chloroaniline	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
4-Chlorophenylphenylether	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
4-Methylphenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
4-Nitroaniline	2 U	5400 U	22 U	2.1 U	21 U	6.6 U
4-Nitrophenol	2 U	5400 U	22 U	2.1 U	21 U	6.6 U
Acenaphthene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Acenaphthylene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Anthracene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Benzo(A)Anthracene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Benzo(A)Pyrene	0.41 U	1100 U	4.4 U	0.42 U	**0.72 J**	1.3 U
Benzo(B)Fluoranthene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Benzo(G,H,I)Perylene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Benzo(K)Fluoranthene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Benzoic Acid	2 U	5400 U	22 U	2.1 U	21 U	6.6 U
Benzyl Alcohol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Bis(2-Chloroethoxy)Methane	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Bis(2-Chloroethyl)Ether	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Bis(2-Chloroisopropyl)Ether	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Bis(2-Ethylhexyl)Phthalate	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Butyl Benzyl Phthalate	0.41 U	1100 U	4.4 U	**2.2**	4.1 U	1.3 U
Chrysene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Dibenzo(A,H)Anthracene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Dibenzofuran	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Diethyl Phthalate	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Dimethyl Phthalate	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Di-N-Butylphthalate	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Di-N-Octylphthalate	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Fluoranthene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Fluorene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Hexachlorobenzene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Hexachlorobutadiene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Hexachlorocyclopentadiene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Hexachloroethane	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Indeno(1,2,3-Cd)Pyrene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Isophorone	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Naphthalene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Nitrobenzene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
N-Nitrosodi-N-Propylamine	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
N-Nitrosodiphenylamine	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Pentachlorophenol	2 U	**6900**	**97 B**	**1.6 JB**	21 U	6.6 U
Phenanthrene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Phenol	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U
Pyrene	0.41 U	1100 U	4.4 U	0.42 U	4.1 U	1.3 U

Notes:

Detected values are shown in bold
B = Compound detected in method blank
BD = Background soil sample
ft = Feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = Milligrams per kilogram
SS = Surface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value
SVOC = Semi-volatile organic compounds

Appendix G - KRY Historical Data
MSE Soil Metals, 1988

Sample Station	SS-1-89	SS-2-89	SS-3-89	SS-4-89	SS-5-89	SS-6-89
Sample Identification	KPP-SS-1	KPP-SS-2	KPP-SS-3	KPP-SS-4	KPP-SS-5	KPP-SS-6
Sample Collection Date	11/15/1988	11/15/1988	11/15/1988	11/15/1988	11/15/1988	11/15/1988
Sample Type	BD	SS	SS	SS	SS	SS
Upper Depth (ft)	0	0	0	0	0	0
Lower Depth (ft)	0.25	1	0.25	0.25	0	0.25
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	**11200**	**7340**	**9510**	**7650**	**11900**	**13100**
Antimony	0.6 U	**0.7 B**	0.6 U	0.6 U	0.6 U	0.6 U
Arsenic	**4.1**	**240.7**	**5.9**	**9.6**	**2.1**	**3.8**
Barium	**142**	**152**	**94**	**79**	**154**	**244**
Beryllium	**0.2 B**	**0.2 B**	**0.5 B**	**0.2 B**	**0.4 B**	**0.7 B**
Cadmium	**2.4**	**3.4**	**3.4**	**2.2**	**3**	**2.7**
Calcium	**17800**	**10100**	**12700**	**9650**	**2920**	**4490**
Chromium	**10**	**8.6**	**11**	**11**	**11**	**14**
Cobalt	**8 B**	**3 B**	**3 B**	4 U	3 U	**4 B**
Copper	**12**	**98**	**11**	**7**	**10**	**58**
Iron	**13300**	**10500**	**12100**	**11300**	**15400**	**16000**
Lead	**21.9**	**102.1**	**36.9**	**111**	**37.8**	**29788**
Magnesium	**9530**	**5790**	**7880**	**7030**	**7820**	**7350**
Manganese	**346**	**363**	**313**	**344**	**136**	**187**
Mercury	**0.2**	**0.38**	**0.11**	**0.12**	0.05 U	**0.12**
Nickel	**10**	**14**	**11**	8 U	**15**	**17**
Potassium	**1430**	**429 B**	**654 B**	**443 B**	**1970**	**2530**
Selenium	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Silver	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.2 B**
Sodium	40 U	30 U	30 U	40 U	30 U	40 U
Thallium	**0.6 B**	**0.5 B**	**0.5 B**	**0.4 B**	**0.6 B**	**1.3 B**
Tin	20 U	10 U	20 U	20 U	20 U	20 U
Vanadium	4 U	**3 B**	**4 B**	4 U	17 U	**7 B**
Zinc	**54**	**239**	**66**	**51**	**65**	**91**

Notes:

Detected values are shown in bold
B = Compound detected in method blank
BD = Background soil sample
ft = Feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = Milligrams per kilogram
SS = Surface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
MSE Soil Dioxins, 1988

Sample Station	**SS-1-89**	**SS-2-89**	**SS-3-89**	**SS-4-89**	**SS-5-89**	**SS-6-89**
Sample Identification	**KPP-SS-1**	**KPP-SS-2**	**KPP-SS-3**	**KPP-SS-4**	**KPP-SS-5**	**KPP-SS-6**
Sample Collection Date	**11/15/1988**	**11/15/1988**	**11/15/1988**	**11/15/1988**	**11/15/1988**	**11/15/1988**
Sample Type	**BD**	**SS**	**SS**	**SS**	**SS**	**SS**
Upper Depth (ft)	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth (ft)	**0.25**	**1**	**0.25**	**0.25**	**0**	**0.25**
Units	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**
1,2,3,4,6,7,8,9-OCDD	**4000**	**11000000**	**560000**	**40000**	**72000**	**4900**
1,2,3,4,6,7,8,9-OCDF	350 U	**2100000**	**64000**	**2700**	**11000**	1000 U
HPCDD (TOTAL)	**1300**	**2000000**	**120000**	**8500**	**13000**	790 U
HPCDF (TOTAL)	**310**	**1000000**	**36000**	**2600**	**5600**	330 U
HXCDD (TOTAL)	48 U	**110000**	**10000**	**510**	**960**	1100 U
HXCDF (TOTAL)	**100**	**200000**	**14000**	**1000**	**830**	480 U
PECDD (TOTAL)	61 U	770 U	**450**	79 U	380 U	---
PECDF (TOTAL)	100 U	**22000**	**2500**	**100**	450 U	---
TCDD (TOTAL)	21 U	330 U	22 U	38 U	390 U	---
TCDF (TOTAL)	10 U	1100 U	54 U	27 U	700 U	---

Notes:

Detected values are shown in bold
BD = Background soil sample
ft = Feet
ng/kg = Nanograms per kilogram
SS = Surface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
MSE Groundwater Phenol, 1991

Sample Station	PWS-1	GW-3	GW-4	GW-4	GW-5	RW-1	RW-2	RW-3
Sample Identification	**KPT-EW-1**	**KPT-GW-3**	**KPT-GW-4**	**KPT-GW-4A**	**KPT-GW-5**	**KPT-RW-1**	**KPT-RW-2**	**KPT-RW-3**
Sample Collection Date	**6/20/1991**	**6/19/1991**	**6/19/1991**	**6/19/1991**	**6/19/1991**	**6/20/1991**	**6/20/1991**	**6/20/1991**
Sample Type	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**	**GW**
Duplicate of				**GW-4**				
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
2,4,5-Trichlorophenol	0.5 U	0.5 U	0.5 U	0.53 U	0.5 U	0.5 U	0.5 U	0.5 U
2,4,6-Trichlorophenol	0.5 U	**0.65 J**	0.5 U	0.53 U	0.5 U	0.5 U	0.5 U	0.5 U
2,4-Dichlorophenol	0.5 U	0.5 U	0.5 U	0.53 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorophenol	0.5 U	0.5 U	0.5 U	0.53 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chloro-3-Methylphenol	1.5 U	1.5 U	1.5 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U
Pentachlorophenol	0.5 U	**2033 J**	**26.6 J**	**42.5 J**	**936 J**	0.5 U	0.5 U	0.5 U
Phenol	1.5 U	1.5 U	1.5 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U

Appendix G - KRY Historical Data
MSE Groundwater Phenol, 1991

Sample Station	RW-4	RW-5	RW-6	RW-7	RW-8	RW-9
Sample Identification	KPT-RW-4	KPT-RW-5	KPT-RW-6	KPT-RW-7	KPT-RW-8	KPT-RW-9
Sample Collection Date	6/20/1991	6/20/1991	6/20/1991	6/20/1991	6/20/1991	6/20/1991
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2,4,5-Trichlorophenol	0.5 U	**0.94**	0.5 U	0.5 U	0.5 U	0.5 U
2,4,6-Trichlorophenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,4-Dichlorophenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorophenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chloro-3-Methylphenol	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Pentachlorophenol	**0.7**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Phenol	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U

Notes:

Detected values are shown in bold
DU = Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
MSE Groundwater Dioxins, 1991

Sample Station	GW-1	GW-2	GW-2	GW-3	GWRR-2	GWRR-1	GWY-12
Sample Identification	KPP-GW-1	KPP-GW-2	KPP-GW-4	KPP-GW-3	KPP-GW-6	KPP-GW-7	KPP-GW-8
Sample Collection Date	11/15/1988	11/15/1988	11/17/1988	11/15/1988	11/15/1988	11/15/1988	11/15/1988
Sample Type	GW	GW	DU	GW	GW	GW	GW
Duplicate of			GW-2				
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	**670**	**310**	**300**	**1300000000**	**1500**	820 U	1200 U
1,2,3,4,6,7,8,9-OCDF	36 U	30 U	18 U	**110000000**	180 U	170 U	48 U
HPCDD (TOTAL)	**160**	**85**	**60**	**260000000**	**2900**	130 U	**2200**
HPCDF (TOTAL)	**28**	16 U	13 U	**66000000**	130 U	93 U	130 U
HXCDD (TOTAL)	16 U	14 U	7.1 U	**17000000**	200 U	160 U	660 U
HXCDF (TOTAL)	9 U	6.5 U	12 U	**21000000**	89 U	55 U	600 U
PECDD (TOTAL)	37 U	44 U	22 U	88000 U	190 U	120 U	22 U
PECDF (TOTAL)	24 U	36 U	12 U	**5200000**	100 U	110 U	61 U
TCDD (TOTAL)	28 U	29 U	**20**	76000 U	120 U	78 U	41 U
TCDF (TOTAL)	11 U	11 U	6.5 U	200000 U	56 U	130 U	23 U

Notes:

Detected values are shown in bold
DU = Duplicate sample
GW = Groundwater sample
pg/L = Picograms per liter
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
MSE Groundwater SVOC, 1988-1991

Sample Station	GW-1	GW-5	GW-4	GWY-12	GWY-13	GWY-14	GWY-4
Sample Identification	KPP-GW-1	KPP-GW-10	KPP-GW-11	KPP-GW-12	KPP-GW-13	KPP-GW-14	KPP-GW-15
Sample Collection Date	11/15/1988	12/18/1989	12/18/1989	12/16/1989	12/16/1989	12/16/1989	12/16/1989
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U	1000 U	50 U	50 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	1000 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2-Methylnaphthalene	10 U	**6 J**	10 U	10 U	**18 J**	10 U	**34**
2-Methylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
2-Nitroaniline	50 U	50 U	50 U	50 U	1000 U	50 U	50 U
2-Nitrophenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	400 U	20 U	20 U
3-Nitroaniline	50 U	50 U	50 U	50 U	1000 U	50 U	50 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	1000 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	200 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	200 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	200 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
4-Nitroaniline	50 U	50 U	50 U	50 U	1000 U	50 U	50 U
4-Nitrophenol	50 U	50 U	50 U	50 U	1000 U	50 U	50 U
Acenaphthene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Benzo(A)Anthracene	10 U	10 U	10 U	10 U	200 U	10 U	**1 J**
Benzo(A)Pyrene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Benzo(B)Fluoranthene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Benzo(K)Fluoranthene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Benzoic Acid	50 U	50 U	50 U	50 U	1000 U	50 U	50 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Bis(2-Ethylhexyl)Phthalate	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Dibenzo(A,H)Anthracene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Di-N-Butylphthalate	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Di-N-Octylphthalate	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Fluorene	10 U	**2 J**	10 U	10 U	200 U	10 U	**15**
Hexachlorobenzene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Indeno(1,2,3-Cd)Pyrene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Naphthalene	10 U	**7 J**	10 U	10 U	200 U	10 U	**8 J**
Nitrobenzene	10 U	10 U	10 U	10 U	200 U	10 U	10 U
N-Nitrosodi-N-Propylamine	10 U	10 U	10 U	10 U	200 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Pentachlorophenol	50 U	**630**	**31 J**	**510**	1000 U	**200 J**	50 U
Phenanthrene	10 U	**2 J**	10 U	10 U	200 U	10 U	**20**
Phenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	200 U	10 U	10 U

Appendix G - KRY Historical Data
MSE Groundwater SVOC, 1988-1991

Sample Station	GW-2	GW-2	GW-3	GWRR-2	GWRR-1	GWY-12	PWS-1
Sample Identification	KPP-GW-2	KPP-GW-4	KPP-GW-3	KPP-GW-6	KPP-GW-7	KPP-GW-8	KPT-EW-1
Sample Collection Date	11/15/1988	11/17/1988	11/15/1988	11/15/1988	11/15/1988	11/15/1988	6/20/1991
Sample Type	GW	DU	GW	GW	GW	GW	GW
Duplicate of		GW-2					
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
1,2-Dichlorobenzene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
1,3-Dichlorobenzene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
1,4-Dichlorobenzene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2,4,5-Trichlorophenol	**50 J**	**50 J**	2500 U	1300 U	**50 J**	250 U	---
2,4,6-Trichlorophenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2,4-Dichlorophenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2,4-Dimethylphenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2,4-Dinitrophenol	**50 J**	**50 J**	2500 U	1300 U	**50 J**	250 U	---
2,4-Dinitrotoluene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2,6-Dinitrotoluene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2-Chloronaphthalene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2-Chlorophenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2-Methylnaphthalene	**10 J**	**10 J**	**6400**	**52 J**	**6 J**	50 U	---
2-Methylphenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
2-Nitroaniline	**50 J**	**50 J**	2500 U	1300 U	**50 J**	250 U	---
2-Nitrophenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
3,3'-Dichlorobenzidine	**20 J**	**20 J**	1000 U	500 U	**20 J**	100 U	---
3-Nitroaniline	**50 J**	**50 J**	2500 U	1300 U	**50 J**	250 U	---
4,6-Dinitro-2-Methylphenol	**50 J**	**50 J**	2500 U	1300 U	**50 J**	250 U	---
4-Bromophenylphenylether	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
4-Chloro-3-Methylphenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
4-Chloroaniline	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
4-Chlorophenylphenylether	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
4-Methylphenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
4-Nitroaniline	**50 J**	**50 J**	2500 U	1300 U	**50 J**	250 U	---
4-Nitrophenol	**50 J**	**50 J**	2500 U	1300 U	**6 J**	250 U	---
Acenaphthene	**10 J**	**10 J**	690 U	250 U	**10 J**	50 U	1.26 U
Acenaphthylene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.1 U
Anthracene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.01 U
Benzo(A)Anthracene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.02 U
Benzo(A)Pyrene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.02 U
Benzo(B)Fluoranthene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.06 U
Benzo(G,H,I)Perylene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.07 U
Benzo(K)Fluoranthene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.02 U
Benzoic Acid	**50 J**	**50 J**	2500 U	1300 U	**50 J**	250 U	---
Benzyl Alcohol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Bis(2-Chloroethoxy)Methane	**10 J**	**10 J**	500 U	250 U	**10 J**	---	---
Bis(2-Chloroethyl)Ether	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Bis(2-Chloroisopropyl)Ether	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Bis(2-Ethylhexyl)Phthalate	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Butyl Benzyl Phthalate	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Chrysene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.03 U
Dibenzo(A,H)Anthracene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.07 U
Dibenzofuran	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Diethyl Phthalate	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Dimethyl Phthalate	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Di-N-Butylphthalate	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Di-N-Octylphthalate	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Fluoranthene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.05 U
Fluorene	**10 J**	**10 J**	1000 U	250 U	**10 J**	50 U	0.22 U
Hexachlorobenzene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Hexachlorobutadiene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Hexachlorocyclopentadiene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Hexachloroethane	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Indeno(1,2,3-Cd)Pyrene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.07 U
Isophorone	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Naphthalene	**10 J**	**10 J**	**430 J**	250 U	**10 J**	50 U	0.1 U
Nitrobenzene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
N-Nitrosodi-N-Propylamine	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
N-Nitrosodiphenylamine	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Pentachlorophenol	**50 J**	**50 J**	**2400 J**	**1800**	**21 J**	**910**	---
Phenanthrene	**10 J**	**10 J**	**2400**	250 U	**10 J**	50 U	0.01 U
Phenol	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	---
Pyrene	**10 J**	**10 J**	500 U	250 U	**10 J**	50 U	0.02 U

Appendix G - KRY Historical Data
MSE Groundwater SVOC, 1988-1991

Sample Station	GW-3	GW-4	GW-4	GW-5	RW-1	RW-2	RW-3
Sample Identification	KPT-GW-3	KPT-GW-4	KPT-GW-4A	KPT-GW-5	KPT-RW-1	KPT-RW-2	KPT-RW-3
Sample Collection Date	6/19/1991	6/19/1991	6/19/1991	6/19/1991	6/20/1991	6/20/1991	6/20/1991
Sample Type	GW	GW	DU	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	---	---	---	---	---	---	---
1,2-Dichlorobenzene	---	---	---	---	---	---	---
1,3-Dichlorobenzene	---	---	---	---	---	---	---
1,4-Dichlorobenzene	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---
2,4-Dichlorophenol	---	---	---	---	---	---	---
2,4-Dimethylphenol	---	---	---	---	---	---	---
2,4-Dinitrophenol	---	---	---	---	---	---	---
2,4-Dinitrotoluene	---	---	---	---	---	---	---
2,6-Dinitrotoluene	---	---	---	---	---	---	---
2-Chloronaphthalene	---	---	---	---	---	---	---
2-Chlorophenol	---	---	---	---	---	---	---
2-Methylnaphthalene	---	---	---	---	---	---	---
2-Methylphenol	---	---	---	---	---	---	---
2-Nitroaniline	---	---	---	---	---	---	---
2-Nitrophenol	---	---	---	---	---	---	---
3,3'-Dichlorobenzidine	---	---	---	---	---	---	---
3-Nitroaniline	---	---	---	---	---	---	---
4,6-Dinitro-2-Methylphenol	---	---	---	---	---	---	---
4-Bromophenylphenylether	---	---	---	---	---	---	---
4-Chloro-3-Methylphenol	---	---	---	---	---	---	---
4-Chloroaniline	---	---	---	---	---	---	---
4-Chlorophenylphenylether	---	---	---	---	---	---	---
4-Methylphenol	---	---	---	---	---	---	---
4-Nitroaniline	---	---	---	---	---	---	---
4-Nitrophenol	---	---	---	---	---	---	---
Acenaphthene	**24640**	1.26 U	2.52 U	12.6 U	1.26 U	1.26 U	1.26 U
Acenaphthylene	200 U	0.1 U	0.2 U	1 U	0.1 U	0.1 U	0.1 U
Anthracene	20 U	0.01 U	0.02 U	0.1 U	0.01 U	0.01 U	0.01 U
Benzo(A)Anthracene	**557**	0.02 U	0.04 U	0.2 U	0.02 U	0.02 U	0.02 U
Benzo(A)Pyrene	**711**	0.02 U	0.04 U	0.2 U	0.02 U	0.02 U	0.02 U
Benzo(B)Fluoranthene	**2257**	0.06 U	0.12 U	0.6 U	0.06 U	0.06 U	0.06 U
Benzo(G,H,I)Perylene	140 U	0.07 U	0.14 U	0.7 U	0.07 U	0.07 U	0.07 U
Benzo(K)Fluoranthene	40 U	0.02 U	0.04 U	0.2 U	0.02 U	0.02 U	0.02 U
Benzoic Acid	---	---	---	---	---	---	---
Benzyl Alcohol	---	---	---	---	---	---	---
Bis(2-Chloroethoxy)Methane	---	---	---	---	---	---	---
Bis(2-Chloroethyl)Ether	---	---	---	---	---	---	---
Bis(2-Chloroisopropyl)Ether	---	---	---	---	---	---	---
Bis(2-Ethylhexyl)Phthalate	---	---	---	---	---	---	---
Butyl Benzyl Phthalate	---	---	---	---	---	---	---
Chrysene	**3709**	0.03 U	0.06 U	0.3 U	0.03 U	0.03 U	0.03 U
Dibenzo(A,H)Anthracene	140 U	0.07 U	0.14 U	0.7 U	0.07 U	0.07 U	0.07 U
Dibenzofuran	---	---	---	---	---	---	---
Diethyl Phthalate	---	---	---	---	---	---	---
Dimethyl Phthalate	---	---	---	---	---	---	---
Di-N-Butylphthalate	---	---	---	---	---	---	---
Di-N-Octylphthalate	---	---	---	---	---	---	---
Fluoranthene	**29260**	0.05 U	0.1 U	0.5 U	0.05 U	0.05 U	0.05 U
Fluorene	**6200**	0.22 U	0.44 U	2.2 U	0.22 U	0.22 U	0.22 U
Hexachlorobenzene	---	---	---	---	---	---	---
Hexachlorobutadiene	---	---	---	---	---	---	---
Hexachlorocyclopentadiene	---	---	---	---	---	---	---
Hexachloroethane	---	---	---	---	---	---	---
Indeno(1,2,3-Cd)Pyrene	140 U	0.07 U	0.14 U	0.7 U	0.07 U	0.07 U	0.07 U
Isophorone	---	---	---	---	---	---	---
Naphthalene	200 U	0.1 U	0.2 U	1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	---	---	---	---	---	---	---
N-Nitrosodi-N-Propylamine	---	---	---	---	---	---	---
N-Nitrosodiphenylamine	---	---	---	---	---	---	---
Pentachlorophenol	---	---	---	---	---	---	---
Phenanthrene	20 U	0.01 U	0.02 U	0.1 U	0.01 U	0.01 U	0.01 U
Phenol	---	---	---	---	---	---	---
Pyrene	**5347**	0.02 U	0.04 U	0.2 U	0.02 U	0.02 U	0.02 U

Appendix G - KRY Historical Data
MSE Groundwater SVOC, 1988-1991

Sample Station	RW-4	RW-5	RW-6	RW-7	RW-8	RW-9
Sample Identification	KPT-RW-4	KPT-RW-5	KPT-RW-6	KPT-RW-7	KPT-RW-8	KPT-RW-9
Sample Collection Date	6/20/1991	6/20/1991	6/20/1991	6/20/1991	6/20/1991	6/20/1991
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	---	---	---	---	---	---
1,2-Dichlorobenzene	---	---	---	---	---	---
1,3-Dichlorobenzene	---	---	---	---	---	---
1,4-Dichlorobenzene	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---
2,4-Dichlorophenol	---	---	---	---	---	---
2,4-Dimethylphenol	---	---	---	---	---	---
2,4-Dinitrophenol	---	---	---	---	---	---
2,4-Dinitrotoluene	---	---	---	---	---	---
2,6-Dinitrotoluene	---	---	---	---	---	---
2-Chloronaphthalene	---	---	---	---	---	---
2-Chlorophenol	---	---	---	---	---	---
2-Methylnaphthalene	---	---	---	---	---	---
2-Methylphenol	---	---	---	---	---	---
2-Nitroaniline	---	---	---	---	---	---
2-Nitrophenol	---	---	---	---	---	---
3,3'-Dichlorobenzidine	---	---	---	---	---	---
3-Nitroaniline	---	---	---	---	---	---
4,6-Dinitro-2-Methylphenol	---	---	---	---	---	---
4-Bromophenylphenylether	---	---	---	---	---	---
4-Chloro-3-Methylphenol	---	---	---	---	---	---
4-Chloroaniline	---	---	---	---	---	---
4-Chlorophenylphenylether	---	---	---	---	---	---
4-Methylphenol	---	---	---	---	---	---
4-Nitroaniline	---	---	---	---	---	---
4-Nitrophenol	---	---	---	---	---	---
Acenaphthene	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U
Acenaphthylene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(A)Anthracene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Benzo(A)Pyrene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Benzo(B)Fluoranthene	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Benzo(G,H,I)Perylene	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
Benzo(K)Fluoranthene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Benzoic Acid	---	---	---	---	---	---
Benzyl Alcohol	---	---	---	---	---	---
Bis(2-Chloroethoxy)Methane	---	---	---	---	---	---
Bis(2-Chloroethyl)Ether	---	---	---	---	---	---
Bis(2-Chloroisopropyl)Ether	---	---	---	---	---	---
Bis(2-Ethylhexyl)Phthalate	---	---	---	---	---	---
Butyl Benzyl Phthalate	---	---	---	---	---	---
Chrysene	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Dibenzo(A,H)Anthracene	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
Dibenzofuran	---	---	---	---	---	---
Diethyl Phthalate	---	---	---	---	---	---
Dimethyl Phthalate	---	---	---	---	---	---
Di-N-Butylphthalate	---	---	---	---	---	---
Di-N-Octylphthalate	---	---	---	---	---	---
Fluoranthene	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Fluorene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Hexachlorobenzene	---	---	---	---	---	---
Hexachlorobutadiene	---	---	---	---	---	---
Hexachlorocyclopentadiene	---	---	---	---	---	---
Hexachloroethane	---	---	---	---	---	---
Indeno(1,2,3-Cd)Pyrene	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
Isophorone	---	---	---	---	---	---
Naphthalene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	---	---	---	---	---	---
N-Nitrosodi-N-Propylamine	---	---	---	---	---	---
N-Nitrosodiphenylamine	---	---	---	---	---	---
Pentachlorophenol	---	---	---	---	---	---
Phenanthrene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenol	---	---	---	---	---	---
Pyrene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

Appendix G - KRY Historical Data
MSE Groundwater SVOC Notes

Notes:

Detected values are shown in bold
DU = Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
SVOC = Semi-volatile organic compounds
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
MSE Groundwater VOC, 1988-1989

Sample Station	**GWY-12**	**GW-1**	**GW-5**	**GW-4**	**GWY-12**	**GWY-13**	**GWY-14**	**GWY-4**	**GW-2**	**GW-2**	**GW-3**	**GWRR-2**
Sample Identification	**GW-8**	**KPP-GW-1**	**KPP-GW-10**	**KPP-GW-11**	**KPP-GW-12**	**KPP-GW-13**	**KPP-GW-14**	**KPP-GW-15**	**KPP-GW-2**	**KPP-GW-4**	**KPP-GW-3**	**KPP-GW-6**
Sample Collection Date	**11/19/1988**	**11/15/1988**	**12/18/1989**	**12/18/1989**	**12/16/1989**	**12/16/1989**	**12/16/1989**	**12/16/1989**	**11/15/1988**	**11/17/1988**	**11/15/1988**	**11/15/1988**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**
Duplicate of										**GW-2**		
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
2-Butanone	25 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
2-Chloroethyl Vinyl Ether	10 U	---	---	---	---	---	---	---	---	---	---	---
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Acetone	25 U	10 U	10 U	10 U	10 U	**19**	10 U	10 U	10 U	10 U	50 U	10 U
Benzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Bis(2-Chloroethoxy)Methane	50 U	---	---	---	---	---	---	---	---	---	---	---
Bromoform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Chloroform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Dichlorobromomethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**39**	**11**
Methylene Chloride	25 U	5 U	**3 J**	5 U	5 U	**7**	**26**	5 U	5 U	5 U	25 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Toluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**12 J**	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Xylene	5 U	5 U	**7**	5 U	5 U	**14**	5 U	5 U	5 U	5 U	**250**	**47**

Appendix G - KRY Historical Data
MSE Groundwater VOC, 1988-1989

Sample Station	GWRR-1	GWY-12
Sample Identification	KPP-GW-7	KPP-GW-8
Sample Collection Date	11/15/1988	11/15/1988
Sample Type	GW	GW
Duplicate of		
Units	ug/L	ug/L
1,1,1-Trichloroethane	5 U	5 U
1,1,2,2-Tetrachloroethane	**4 J**	5 U
1,1,2-Trichloroethane	5 U	5 U
1,1-Dichloroethane	5 U	5 U
1,1-Dichloroethene	5 U	5 U
1,2-Dichloroethane	5 U	5 U
1,2-Dichloroethene	5 U	5 U
1,2-Dichloropropane	5 U	5 U
2-Butanone	10 U	10 U
2-Chloroethyl Vinyl Ether	---	---
2-Hexanone	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U
Acetone	10 U	10 U
Benzene	5 U	5 U
Bis(2-Chloroethoxy)Methane	---	---
Bromoform	5 U	5 U
Bromomethane	10 U	10 U
Carbon Disulfide	5 U	5 U
Carbon Tetrachloride	5 U	5 U
Chlorobenzene	5 U	5 U
Chloroethane	10 U	10 U
Chloroform	5 U	5 U
Chloromethane	10 U	10 U
Cis-1,3-Dichloropropene	5 U	5 U
Dibromochloromethane	5 U	5 U
Dichlorobromomethane	5 U	5 U
Ethylbenzene	5 U	5 U
Methylene Chloride	5 U	5 U
Styrene	5 U	5 U
Tetrachloroethene	5 U	5 U
Toluene	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U
Trichloroethene	5 U	5 U
Vinyl Acetate	10 U	10 U
Vinyl Chloride	10 U	10 U
Xylene	**54**	5 U

Notes:

Detected values are shown in bold
DU = Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter
VOC = Volatile organic compounds

Appendix G - KRY Historical Data
MSE Groundwater Metals, 1988

Sample Station	**GW-1**	**GW-2**	**GW-2**	**GW-3**	**GWRR-2**	**GWRR-1**	**GWY-12**
Sample Identification	**KPP-GW-1**	**KPP-GW-2**	**KPP-GW-4**	**KPP-GW-3**	**KPP-GW-6**	**KPP-GW-7**	**KPP-GW-8**
Sample Collection Date	**11/15/1988**	**11/15/1988**	**11/17/1988**	**11/15/1988**	**11/15/1988**	**11/15/1988**	**11/15/1988**
Sample Type	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**	**GW**
Duplicate of			**GW-2**				
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Aluminum	106 U	106 U	106 U	106 U	106 U	106 U	106 U
Antimony	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Arsenic	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	40.6 U	**2.8 B**
Barium	**97 B**	**141 B**	**133 B**	**116 B**	**195 B**	**556 B**	**201**
Beryllium	**2 B**	**2 B**	**2 B**	**2 B**	**2 B**	**2 B**	**3 B**
Cadmium	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.2 B**
Calcium	**59060**	**67150**	**63550**	55420 U	**65610**	**76660**	**57990**
Chromium	**1.5 B**	**1.5 B**	**1.2 B**	1 U	1 U	1 U	1 U
Cobalt	**16 B**	15 U	**16 B**	**15 B**	**21 B**	**15 B**	**23 B**
Copper	22 U	22 U	**26**	**24 B**	22 U	22 U	22 U
Iron	**81 B**	**77 B**	**66 B**	**102**	**786**	**4991**	**218**
Lead	**0.7 B**	**0.7 B**	**0.9 B**	**0.7 B**	**0.5 B**	**0.6 B**	**1.1 B**
Magnesium	**11160**	**12370**	**12340**	**11160**	**12730**	**12610**	**11730**
Manganese	4 U	**10 B**	**7 B**	**1318**	**521**	**3169**	**639**
Mercury	**0.2**	**0.5**	0.2 U	0.2 U	0.2 U	0.3 U	0.2 U
Nickel	31 U	31 U	31 U	31 U	31 U	31 U	31 U
Potassium	914 U	914 U	**1090 B**	**990 B**	**960 B**	**914 B**	914 U
Selenium	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
Silver	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Sodium	**2610 B**	**4570 B**	**4250 B**	**2690 B**	**2830 B**	**3400 B**	**2750 B**
Thallium	**0.5 B**	**0.5 B**	**0.8 B**	**0.5 B**	0.5 U	0.5 U	0.5 U
Tin	81 U	81 U	81 U	81 U	81 U	81 U	81 U
Vanadium	16 U	**40 B**	**23 B**	**25 B**	**37 B**	37 U	**23 B**
Zinc	**13 B**	**11 B**	8 U	**9 B**	8 U	8 U	8 U

Notes:

Detected values are shown in bold
B = Compound detected in method blank
DU = Duplicate sample
GW = Groundwater sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
MSE Groundwater TPH, 1991

Sample Station	**RW-5**
Sample Identification	**KPT-RW-5**
Sample Collection Date	**6/20/1991**
Sample Type	**GW**
Units	**ug/L**
Total Petroleum Hydrocarbons	741 U

Notes:

Detected values are shown in bold
GW = Groundwater sample
TPH = Total petroleum hydrocarbons
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
NTL Soil SVOC, 1992 and 2005

Sample Station	**EH-1**	**EH-4**	**EH-3**	**NTL-MW-4**
Sample Identification	**92-4155**	**92-4156**	**92-4157**	**MW-4**
Sample Collection Date	**1/20/1992**	**1/20/1992**	**1/20/1992**	**12/20/2005**
Sample Type	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**2.5**	**17.5**	**12.5**	**9**
Lower Depth (ft)	**4.5**	**19.5**	**14.5**	**13**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
1,2,4-Trichlorobenzene	0.33 U	0.33 U	0.33 U	---
1,2-Dichlorobenzene	0.33 U	0.33 U	0.33 U	---
1,3-Dichlorobenzene	0.33 U	0.33 U	0.33 U	---
1,4-Dichlorobenzene	0.33 U	0.33 U	0.33 U	---
1-Methylnaphthalene	0.72 U	0.33 U	0.33 U	---
2,4,5-Trichlorophenol	0.33 U	0.33 U	0.33 U	---
2,4,6-Trichlorophenol	0.33 U	0.33 U	0.33 U	---
2,4-Dichlorophenol	0.33 U	0.33 U	0.33 U	---
2,4-Dimethylphenol	0.33 U	0.33 U	0.33 U	---
2,4-Dinitrophenol	1.6 U	1.6 U	1.6 U	---
2,4-Dinitrotoluene	0.33 U	0.33 U	0.33 U	---
2,6-Dinitrotoluene	0.33 U	0.33 U	0.33 U	---
2-Chloronaphthalene	0.33 U	0.33 U	0.33 U	---
2-Chlorophenol	0.33 U	0.33 U	0.33 U	---
2-Methylnaphthalene	1.2 U	0.33 U	0.33 U	---
2-Methylphenol	0.33 U	0.33 U	0.33 U	---
2-Nitrophenol	0.33 U	0.33 U	0.33 U	---
3,3'-Dichlorobenzidine	0.66 U	0.66 U	0.66 U	---
4,6-Dinitro-2-Methylphenol	1.6 U	1.6 U	1.6 U	---
4-Bromophenylphenylether	0.33 U	0.33 U	0.33 U	---
4-Chloro-3-Methylphenol	0.33 U	0.33 U	0.33 U	---
4-Chlorophenylphenylether	0.33 U	0.33 U	0.33 U	---
4-Methylphenol/3-Methylphenol	0.33 U	0.33 U	0.33 U	---
4-Nitrophenol	1.6 U	1.6 U	1.6 U	---
Acenaphthene	0.33 U	0.33 U	0.33 U	---
Acenaphthylene	0.33 U	0.33 U	0.33 U	---
Anthracene	0.33 U	0.33 U	0.33 U	---
Azobenzene	0.33 U	0.33 U	0.33 U	---
Benzidine	0.66 U	0.66 U	0.66 U	---
Benzo(A)Anthracene	0.33 U	0.33 U	0.33 U	---
Benzo(A)Pyrene	0.33 U	0.33 U	0.33 U	---
Benzo(B)Fluoranthene	0.33 U	0.33 U	0.33 U	---
Benzo(G,H,I)Perylene	0.33 U	0.33 U	0.33 U	---
Benzo(K)Fluoranthene	0.33 U	0.33 U	0.33 U	---
Bis(2-Chloroethoxy)Methane	0.33 U	0.33 U	0.33 U	---
Bis(2-Chloroethyl)Ether	0.33 U	0.33 U	0.33 U	---
Bis(2-Chloroisopropyl)Ether	0.33 U	0.33 U	0.33 U	---
Bis(2-Ethylhexyl)Phthalate	0.33 U	**0.06 JB**	0.33 U	**17**
Butyl Benzyl Phthalate	0.33 U	0.33 U	0.33 U	---
Chrysene	0.33 U	0.33 U	0.33 U	---
Dibenzo(A,H)Anthracene	0.33 U	0.33 U	0.33 U	---
Diethyl Phthalate	0.33 U	0.33 U	0.33 U	---
Dimethyl Phthalate	0.33 U	0.33 U	0.33 U	---
Di-N-Butylphthalate	**0.1 J**	**0.06 J**	**0.05 J**	---
Di-N-Octylphthalate	0.33 U	0.33 U	0.33 U	---
Fluoranthene	0.33 U	0.33 U	0.33 U	---
Fluorene	**0.06 J**	0.33 U	0.33 U	---
Hexachlorobenzene	0.33 U	0.33 U	0.33 U	---
Hexachlorobutadiene	0.33 U	0.33 U	0.33 U	---
Hexachlorocyclopentadiene	0.33 U	0.33 U	0.33 U	---
Hexachloroethane	0.33 U	0.33 U	0.33 U	---
Indeno(1,2,3-Cd)Pyrene	0.33 U	0.33 U	0.33 U	---
Isophorone	0.33 U	0.33 U	0.33 U	---
Naphthalene	0.67 U	0.33 U	0.33 U	---
Nitrobenzene	0.33 U	0.33 U	0.33 U	---
N-Nitroso-Di-Methylamine	0.33 U	0.33 U	0.33 U	---
N-Nitrosodi-N-Propylamine	0.33 U	0.33 U	0.33 U	---
N-Nitrosodiphenylamine	0.33 U	0.33 U	0.33 U	---
Pentachlorophenol	1.6 U	1.6 U	1.6 U	---
Phenanthrene	**0.08 J**	0.33 U	0.33 U	---
Phenol	0.33 U	0.33 U	0.33 U	---
Pyrene	0.33 U	0.33 U	0.33 U	---
Pyridine	0.66 U	0.66 U	0.66 U	---

Notes:
Detected values are shown in bold.
B = Compound detected in method blank
ft = feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = milligrams per kilogram
SB = Subsurface soil sample
SVOC = Semi-volatile organic compound
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
NTL Soil Petroleum Hydrocarbons 1992 and 2005

Sample Station	**EH-1**	**EH-4**	**EH-3**	**NTL-MW-1**	**NTL-MW-2**	**NTL-MW-3**	**NTL-MW-4**
Sample Identification	**92-4155**	**92-4156**	**92-4157**	**MW-1**	**MW-2**	**MW-3**	**MW-4**
Sample Collection Date	**1/20/1992**	**1/20/1992**	**1/20/1992**	**12/20/2005**	**12/20/2005**	**12/20/2005**	**12/20/2005**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**2.5**	**17.5**	**12.5**	**12**	**11.5**	**8**	**9**
Lower Depth (ft)	**4.5**	**19.5**	**14.5**	**15**	**15.4**	**10**	**13**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
C5-C8 Aromatics	---	---	---	ND	ND	ND	ND
C9-C10 Aromatics	---	---	---	ND	ND	ND	ND
C9-C12 Aliphatics	---	---	---	ND	ND	ND	ND
EPH Screen	---	---	---	**25**	**9.5**	**9**	ND
Benzene	---	---	---	ND	ND	ND	ND
Ethylbenzene	---	---	---	ND	ND	ND	ND
Methyl-T-Butyl Benzene	---	---	---	ND	ND	ND	ND
Naphthalene	---	---	---	ND	ND	ND	ND
Toluene	---	---	---	ND	ND	ND	ND
Xylenes (Total)	---	---	---	ND	ND	ND	ND
Total Petroleum Hydrocarbons	**925**	10 U	**1575**	ND	ND	ND	ND

Notes:

Detected values are shown in bold
ft = Feet
mg/kg = Milligrams per kilogram
ND = Value not detected, but reprting limit information is unavailable
SB = Subsurface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
NTL Groundwater Petroleum Hydrocarbons, 1992 and 2005

Sample Station	EH-1	EH-2	EH-3	RW-5	NTL-MW-1	NTL-MW-2	NTL-MW-3	NTL-MW-4
Sample Identification	**92-4151**	**92-4152**	**92-4153**	**92-4154**	**MW-1**	**MW-2**	**MW-3**	**MW-4**
Sample Collection Date	**1/20/1992**	**1/20/1992**	**1/20/1992**	**1/20/1992**	**12/20/2005**	**12/20/2005**	**12/20/2005**	**12/20/2005**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
C5-C8 Aromatics	---	---	---	---	ND	ND	**307**	**928**
C9-C10 Aromatics	---	---	---	---	ND	ND	ND	ND
C9-C12 Aliphatics	---	---	---	---	ND	ND	ND	**22**
EPH Screen	---	---	---	---	ND	ND	ND	ND
Benzene	---	---	---	---	ND	ND	**267**	**602**
Ethylbenzene	---	---	---	---	ND	ND	**5.6**	**17**
Methyl-T-Butyl Benzene	---	---	---	---	ND	ND	ND	ND
Naphthalene	---	---	---	---	ND	ND	**20**	ND
Toluene	---	---	---	---	ND	ND	**7**	**22**
Xylenes (Total)	---	---	---	---	ND	ND	**24**	**13**
Total Petroleum Hydrocarbons	**17700**	100 U	100 U	100 U	ND	ND	**611**	**1560**

Notes:

Detected values are shown in bold
GW = Groundwater sample
ND = Value not detected, but reprting limit information is unavailable
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
NTL Groundwater SVOC, 1992

Sample Station	**EH-1**	**EH-2**	**EH-3**	**RW-5**
Sample Identification	**92-4151**	**92-4152**	**92-4153**	**92-4154**
Sample Collection Date	**1/20/1992**	**1/20/1992**	**1/20/1992**	**1/20/1992**
Sample Type	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U
1-Methylnaphthalene	**21**	10 U	10 U	10 U
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U
2-Methylnaphthalene	**35**	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U
4-Methylphenol/3-Methylphenol	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U
Acenaphthene	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U
Azobenzene	10 U	10 U	10 U	10 U
Benzidine	20 U	20 U	20 U	20 U
Benzo(A)Anthracene	10 U	10 U	10 U	10 U
Benzo(A)Pyrene	10 U	10 U	10 U	10 U
Benzo(B)Fluoranthene	10 U	10 U	10 U	10 U
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U
Benzo(K)Fluoranthene	10 U	10 U	10 U	10 U
Bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U
Bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U
Bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U
Bis(2-Ethylhexyl)Phthalate	10 U	**22**	**22**	**2 JB**
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U
Dibenzo(A,H)Anthracene	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U
Di-N-Butylphthalate	10 U	10 U	10 U	10 U
Di-N-Octylphthalate	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U
Indeno(1,2,3-Cd)Pyrene	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U
Naphthalene	**62**	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U
N-Nitroso-Di-Methylamine	10 U	10 U	10 U	10 U
N-Nitrosodi-N-Propylamine	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U
Pentachlorophenol	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U
Pyridine	20 U	20 U	20 U	20 U

Notes:

Detected values are shown in bold
B = Compound detected in method blank
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
Pioneer Groundwater Petroleum Hydrocarbons, 1996

Sample Station	**GWRR-1**	**GWRR-2**	**GWRR-3**	**GWRR-4**	**GWRR-5**	**GWRR-6**	**GWRR-7**	**GWRR-7**	**GWY-12**
Sample Identification	**GWRR-1**	**GWRR-2**	**GWRR-3**	**GWRR-4**	**GWRR-5**	**GWRR-6**	**GWRR-7**	**GWRR-7**	**GWY-12**
Sample Collection Date	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**
Duplicate of							**GWRR-7**		
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Diesel	5000 U	**24000**	2600 U	500 U	**14000**	5000 U	5000 U	5000 U	500 U
Diesel Range Organics	**42000**	**24000**	**42000**	500 U	**14000**	**5600**	**50000**	**39000**	**640**
Total Extractable Hydrocarbons	**62000**	**28000**	**44000**	500 U	**17000**	**8300**	**54000**	**42000**	**710**

Appendix G - KRY Historical Data
Pioneer Groundwater Petroleum Hydrocarbons, 1996

Sample Station	**GW-5**
Sample Identification	**KPT-GW-5**
Sample Collection Date	**4/10/1996**
Sample Type	**GW**
Duplicate of	
Units	**ug/L**
Diesel	500 U
Diesel Range Organics	500 U
Total Extractable Hydrocarbons	500 U

Notes:

Detected values are shown in bold
DU - Duplicate sample
GW = Groundwater sample
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
Pioneer Groundwater VOC, 1996

Sample Station	**GWRR-1**	**GWRR-2**	**GWRR-3**	**GWRR-4**	**GWRR-5**	**GWRR-6**	**GWRR-7**	**GWRR-7**	**GWRR-9**	**GWY-12**	**GW-5**
Sample Identification	**GWRR-1**	**GWRR-2**	**GWRR-3**	**GWRR-4**	**GWRR-5**	**GWRR-6**	**GWRR-7**	**GWRR-7**	**GWRR-9**	**GWY-12**	**KPT-GW-5**
Sample Collection Date	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**
Duplicate of								**GWRR-7**			
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,1-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,2,3-Trichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,2-Dibromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
1,2-Dichloropropane	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	---	1 UJ	1 UJ	1 UJ
1,3-Dichloropropane	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	---	1 UJ	1 UJ	1 UJ
2,2-Dichloropropane	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	---	1 UJ	1 UJ	1 UJ
2-Butanone	20 UJ	20 UJ	**4.4 J**	20 UJ	20 UJ	20 UJ	**9.6 J**	**9.3 J**	**9.3 J**	20 UJ	20 UJ
2-Chloroethyl Vinyl Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
2-Chlorotoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
4-Chlorotoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Benzene	**2**	1 U	**0.64 J**	1 U	**0.68 J**	1 U	**0.58 J**	**0.58 J**	**0.58 J**	1 U	1 U
Bromobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Bromomethane	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	---	1 UJ	1 UJ	1 UJ
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Ethylbenzene	**0.54 J**	**1.1**	1 U	1 U	**2.1**	1 U	**16**	**16**	**16**	1 U	1 U
Freon 12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Methylene Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	**4.7 J**	10 U	10 U	10 U	**12**	20 U	10 U	10 U	10 U	10 U	10 U
O-Xylene	1 U	**0.42 J**	**0.25 J**	1 U	**0.29 J**	1 U	**2.1**	**2.1**	**2.1**	1 U	**0.27 J**
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Tetrachloroethene	1 U	**0.13 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1 U	1 U	**0.14 J**	1 U	1 U	1 U	**0.58 J**	**0.6 J**	**0.6 J**	1 U	1 U
Trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U
Xylenes (Total)	**79 D**	**11**	**0.19 J**	1 U	**62 D**	1 U	**10**	**11**	**11**	1 U	**0.18 J**

Notes:

Detected values are shown in bold
D = Sample dilution
DU - Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
U = Analyte analyzed for but not detected; reported with detection limit value.
ug/L = Micrograms per liter
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.
VOC = Volatile organic compound

Appendix G - KRY Historical Data
Pioneer Groundwater Herbicides, 1996

Sample Station	GWRR-1	GWRR-2	GWRR-3	GWRR-4	GWRR-5	GWRR-6	GWRR-7	GWRR-7	GWY-12	GW-5
Sample Identification	**GWRR-1**	**GWRR-2**	**GWRR-3**	**GWRR-4**	**GWRR-5**	**GWRR-6**	**GWRR-7**	**GWRR-7**	**GWY-12**	**KPT-GW-5**
Sample Collection Date	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**
Duplicate of							**GWRR-7**			
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	0.1 U	**26 D**	1 U	0.1 U	**37 D**	0.1 U	1 U	1 U	**14**	**92 D**
Picloram	0.5 U	0.5 U	5 U	0.5 U	0.5 U	**8.2**	5 U	5 U	0.5 U	0.5 U

Notes:

Detected values are shown in bold
D = Sample dilution
DU - Duplicate sample
GW = Groundwater sample
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
Pioneer Groundwater SVOC, 1996

Sample Station	GWRR-1	GWRR-2	GWRR-3	GWRR-4	GWRR-5	GWRR-6	GWRR-7	GWRR-7	GWRR-9	GWY-12	GW-5
Sample Identification	**GWRR-1**	**GWRR-2**	**GWRR-3**	**GWRR-4**	**GWRR-5**	**GWRR-6**	**GWRR-7**	**GWRR-7**	**GWRR-9**	**GWY-12**	**KPT-GW-5**
Sample Collection Date	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**	**4/10/1996**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**	**GW**
Duplicate of							**GWRR-7**				
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	5 U	1 U	1 U	1 U	---	1 U	1 U	5 U	1 U
1,4-Dichlorobenzene	1 U	1 U	5 U	1 U	1 U	1 U	---	1 U	1 U	5 U	1 U
1-Methylnaphthalene	**12**	10 U	10 U	10 U	**30**	20 U	**11**	**21**	**11**	10 U	10 U
2-Methylnaphthalene	**12**	10 U	10 U	10 U	**28**	20 U	10 U	10 U	10 U	10 U	10 U
Bis(2-Ethylhexyl)Phthalate	10 UJ	**1.5 J**	10 U	10 U	**4.5 J**	**9.6 J**	10 U	10 U	10 U	10 U	10 U
Di-N-Butylphthalate	10 U	10 U	10 U	**1.3 J**	10 U	20 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	**5.8 J**	10 U	10 U	10 U	**8.8 J**	20 U	10 U	10 U	10 U	10 U	10 U

Notes:

Detected values are shown in bold
DU - Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value.
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
Pioneer Soil Petroleum Hydrocarbons, 1996

Sample Station	**A1**	**A3**	**A5**	**B3**	**B3**	**E13**	**F12**	**G11**	**G13**	**G9**	**H10**
Sample Identification	**A1C**	**A3C**	**A5C**	**B3B**	**B3C**	**E13C**	**F12B**	**G11C**	**G13C**	**G9B**	**H10C**
Sample Collection Date	**3/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**
Sample Type	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**7.5**	**7.5**	**9**	**1**	**8**	**9**	**2**	**7.5**	**8**	**8.5**	**7**
Lower Depth (ft)	**10**	**10**	**10**	**3**	**9**	**9.4**	**3**	**8**	**8.5**	**9**	**10**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH											
C10-C22 Aliphatics	**2808**	**205**	**3**	**17**	**4520**	**64**	**265**	**23386**	**11052**	**365**	**424**
C19-C36 Aliphatics	**3640**	**266**	**4**	**22**	**5859**	**29**	**344**	**30316**	**14326**	**473**	**440**
C9-C18 Aliphatics	**3182**	**233**	**3**	**19**	**5121**	**11**	**301**	**26498**	**12522**	**413**	**806**
Total EPH	**9630**	---	---	**54**	**16968**	---	---	---	**49979**	**1190**	---
2-Methylnaphthalene	---	---	---	---	---	0.17 U	---	---	---	---	**0.56**
Acenaphthene	---	---	---	---	---	0.17 U	---	---	---	---	**1.4**
Acenaphthylene	---	---	---	---	---	0.17 U	---	---	---	---	**1.1**
Anthracene	---	---	---	---	---	0.17 U	---	---	---	---	0.33 U
Benzo(a)Anthracene	---	---	---	---	---	0.17 U	---	---	---	---	0.33 U
Benzo(a)Pyrene	---	---	---	---	---	0.17 U	---	---	---	---	0.33 U
Benzo(b,k)Fluoranthene	---	---	---	---	---	0.34 U	---	---	---	---	0.66 U
Benzo(g,h,i)Perylene	---	---	---	---	---	0.17 U	---	---	---	---	0.33 U
Chrysene	---	---	---	---	---	0.17 U	---	---	---	---	**0.37**
Fluoranthene	---	---	---	---	---	0.17 U	---	---	---	---	**1**
Fluorene	---	---	---	---	---	0.17 U	---	---	---	---	**0.73**
Indeno(1,2,3-cd)Pyrene	---	---	---	---	---	0.34 U	---	---	---	---	0.66 U
Naphthalene	---	---	---	---	---	0.17 U	---	---	---	---	**0.77**
Phenanthrene	---	---	---	---	---	0.17 U	---	---	---	---	**0.43**
Pyrene	---	---	---	---	---	0.17 U	---	---	---	---	**0.95**
VPH											
C5-C8 Aliphatics	---	**19**	---	---	---	---	---	---	---	---	---
C9-C10 Aromatics	---	**40**	---	---	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	**152**	---	---	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Total Purgeable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Benzene	---	0.1 U	---	---	---	---	---	---	---	---	---
Ethylbenzene	---	0.1 U	---	---	---	---	---	---	---	---	---
M+P-Xylenes	---	0.5 U	---	---	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	0.2 U	---	---	---	---	---	---	---	---	---
Naphthalene	---	5 U	---	---	---	---	---	---	---	---	---
O-Xylene	---	0.1 U	---	---	---	---	---	---	---	---	---
Toluene	---	0.1 U	---	---	---	---	---	---	---	---	---
Xylenes (Total)	---	0.6 U	---	---	---	---	---	---	---	---	---
Petroleum Hydrocarbons											
Diesel Range Organics As Diesel	150 U	10 U	10 U	10 U	150 U	---	40 U	3000 U	3000 U	100 U	---
Diesel Range Organics	**7620**	**546**	10 U	**30**	**13100**	---	**531**	**58600**	**28400**	**839**	---
Total Extractable Hydrocarbons	**9977**	**704**	10 U	**57**	**15500**	---	**910**	**80200**	**37900**	**1250**	---

Appendix G - KRY Historical Data
Pioneer Soil Petroleum Hydrocarbons, 1996

Sample Station	**H12**	**H6**	**H8**	**I11**	**I1**	**I5**	**I7**	**I9**	**J12**	**J15**	**J6**
Sample Identification	**H12C**	**H6C**	**H8C**	**I11B**	**I1B**	**I5B**	**I7B**	**I9B**	**J12C**	**J15C**	**J6C**
Sample Collection Date	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/1/1996**	**4/5/1996**	**4/3/1996**	**4/1/1996**
Sample Type	**SB**	**SB**	**SB**	**SS**	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**8.5**	**5.5**	**2**	**1**	**1**	**2**	**4**	**9.5**	**8.5**	**7**	**6.5**
Lower Depth (ft)	**9**	**6**	**5.6**	**2.5**	**2**	**3.5**	**5**	**10**	**9**	**8**	**7**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH											
C10-C22 Aliphatics	**3120**	10 U	**495**	**31600**	**18**	**155**	**210**	**1059**	**3295**	**449**	**16**
C19-C36 Aliphatics	**4045**	10 U	**786**	**18500**	**24**	**223**	**273**	**1372**	**4271**	**215**	**307**
C9-C18 Aliphatics	**3535**	10 U	**380**	**2030**	**21**	**169**	**238**	**1199**	**3734**	**109**	**363**
Total EPH	**11200**	---	---	---	**59**	---	**683**	**3543**	**11896**	---	---
2-Methylnaphthalene	---	0.17 U	0.33 U	10 U	---	0.17 U	---	---	---	0.5 U	0.17 U
Acenaphthene	---	0.17 U	0.33 U	10 U	---	**0.3**	---	---	---	0.5 U	0.17 U
Acenaphthylene	---	0.17 U	0.33 U	**13**	---	**0.25**	---	---	---	0.5 U	0.17 U
Anthracene	---	0.17 U	0.33 U	**88**	---	0.17 U	---	---	---	0.5 U	0.17 U
Benzo(a)Anthracene	---	0.17 U	0.33 U	**14**	---	0.17 U	---	---	---	0.5 U	0.17 U
Benzo(a)Pyrene	---	0.17 U	**0.77**	10 U	---	0.17 U	---	---	---	0.5 U	0.17 U
Benzo(b,k)Fluoranthene	---	0.34 U	0.66 U	**22**	---	0.34 U	---	---	---	1 U	0.34 U
Benzo(g,h,i)Perylene	---	0.17 U	0.33 U	10 U	---	0.17 U	---	---	---	0.5 U	0.17 U
Chrysene	---	0.17 U	0.33 U	**11**	---	0.17 U	---	---	---	0.5 U	0.17 U
Fluoranthene	---	0.17 U	**0.52**	**73**	---	**0.49**	---	---	---	0.5 U	0.17 U
Fluorene	---	0.17 U	0.33 U	**57**	---	0.17 U	---	---	---	0.5 U	0.17 U
Indeno(1,2,3-cd)Pyrene	---	0.34 U	0.66 U	20 U	---	0.34 U	---	---	---	1 U	0.34 U
Naphthalene	---	0.17 U	0.33 U	10 U	---	0.17 U	---	---	---	0.5 U	0.17 U
Phenanthrene	---	0.17 U	0.33 U	**151**	---	0.17 U	---	---	---	0.5 U	0.17 U
Pyrene	---	0.17 U	0.33 U	**24**	---	**0.5**	---	---	---	0.5 U	0.17 U
VPH											
C5-C8 Aliphatics	---	---	---	---	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Total Purgeable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---	---	---	---	---
M+P-Xylenes	---	---	---	---	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---	---	---	---	---
O-Xylene	---	---	---	---	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---	---	---	---	---
Petroleum Hydrocarbons											
Diesel Range Organics As Diesel	750 U	---	---	---	10 U	---	150 U	200 U	750 U	---	100 U
Diesel Range Organics	**7620**	---	---	---	**25**	---	**296**	**2450**	**8520**	---	**647**
Total Extractable Hydrocarbons	**10700**	---	---	---	**63**	---	**721**	**3630**	**11300**	---	**838**

Appendix G - KRY Historical Data
Pioneer Soil Petroleum Hydrocarbons, 1996

Sample Station	K11	K3	K5	K7	K9	L10	L12	L14	L14	L2	L4
Sample Identification	K11C	K3B	K5BC	K7B	K9C	L10B	L12C	L14B	L14C	L2C	L4B
Sample Collection Date	4/5/1996	4/4/1996	4/12/1996	4/1/1996	4/5/1996	4/5/1996	4/1/1996	4/4/1996	3/4/1996	4/3/1996	4/2/1996
Sample Type	SB	SS	SB	SB	SB	SS	SB	SB	SB	SB	SB
Upper Depth (ft)	10	1	0.9	8.5	11.5	1	8.5	2	8	10.5	1.5
Lower Depth (ft)	11	2	7.9	9	12.5	2	9	6	9	11	3.2
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPH											
C10-C22 Aliphatics	**1615**	**677**	**658**	**1460**	**742**	**6830**	**4082**	**2059**	**577**	**1860**	**191**
C19-C36 Aliphatics	**2094**	**88**	**867**	**1208**	**1650**	**5690**	**5292**	**2669**	**748**	**3280**	**198**
C9-C18 Aliphatics	**1830**	**767**	**936**	**3370**	**1400**	**12200**	**4626**	**2333**	**654**	**914**	**1230**
Total EPH	**5513**	---	---	**6038**	**3792**	---	**15116**	**7133**	**1900**	---	**2234**
2-Methylnaphthalene	---	---	**2**	**2.8**	0.83 U	2.5 U	---	---	---	2.5 U	**2.9**
Acenaphthene	---	---	**0.56**	**2.2**	0.83 U	**7.1**	---	---	---	2.5 U	**1.5**
Acenaphthylene	---	---	**0.77**	**4.7**	0.83 U	**9.7**	---	---	---	2.5 U	**0.97**
Anthracene	---	---	0.17 U	1.7 U	0.83 U	**3.4**	---	---	---	2.5 U	0.67 U
Benzo(a)Anthracene	---	---	**0.35**	1.7 U	**1.3**	**3**	---	---	---	2.5 U	0.67 U
Benzo(a)Pyrene	---	---	0.17 U	1.7 U	0.83 U	2.5 U	---	---	---	2.5 U	0.67 U
Benzo(b,k)Fluoranthene	---	---	0.34 U	3.3 U	1.7 U	5 U	---	---	---	5 U	1.3 U
Benzo(g,h,i)Perylene	---	---	0.17 U	1.7 U	0.83 U	2.5 U	---	---	---	2.5 U	0.67 U
Chrysene	---	---	0.17 U	1.7 U	0.83 U	2.5 U	---	---	---	2.5 U	0.67 U
Fluoranthene	---	---	**1.3**	**3.1**	**1**	**8.9**	---	---	---	**3.3**	0.67 U
Fluorene	---	---	**1.9**	**5.3**	0.83 U	**17**	---	---	---	2.5 U	0.67 U
Indeno(1,2,3-cd)Pyrene	---	---	0.34 U	3.3 U	1.7 U	5 U	---	---	---	5 U	1.3 U
Naphthalene	---	---	**1**	50 U	0.83 U	**4.3**	---	---	---	2.5 U	**1.5**
Phenanthrene	---	---	**0.47**	**1.7**	0.83 U	**6.6**	---	---	---	2.5 U	0.67 U
Pyrene	---	---	**0.96**	**2.7**	**1.1**	**7.7**	---	---	---	**3.6**	0.67 U
VPH											
C5-C8 Aliphatics	---	---	---	229 U	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	**543**	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	**2000**	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Total Purgeable Hydrocarbons	---	---	---	**2772**	---	---	---	---	---	---	---
Benzene	---	---	---	0.5 U	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	1 U	---	---	---	---	---	---	---
M+P-Xylenes	---	---	---	**8.6**	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	1 U	---	---	---	---	---	---	---
Naphthalene	---	---	---	**3.5**	---	---	---	---	---	---	---
O-Xylene	---	---	---	2 U	---	---	---	---	---	---	---
Toluene	---	---	---	0.5 U	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	**10.6**	---	---	---	---	---	---	---
Petroleum Hydrocarbons											
Diesel Range Organics As Diesel	150 U	150 U	---	---	---	---	750 U	10 U	150 U	---	**2180**
Diesel Range Organics	**4170**	**1520**	---	---	---	---	**10300**	**3880**	**1480**	---	**2180**
Total Extractable Hydrocarbons	**5540**	**2320**	---	---	---	---	**14000**	**7060**	**1980**	---	**2320**

Appendix G - KRY Historical Data
Pioneer Soil Petroleum Hydrocarbons, 1996

Sample Station	L4	L6	L6	L8	M11	M3	M3	M5	M5	M7	M7
Sample Identification	L4C	L6B	L6C	L8B	M11C	M3A	M3B	M5B	M5C	M7B	M7C
Sample Collection Date	4/2/1996	4/2/1996	4/2/1996	4/3/1996	4/5/1996	4/1/1996	4/1/1996	4/1/1996	4/1/1996	4/3/1996	4/3/1996
Sample Type	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Upper Depth (ft)	9	7.5	9	14.5	16.5	5	11	3	9	4	16
Lower Depth (ft)	9	8	9	15	17	8	11.5	4	9	5	16
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPH											
C10-C22 Aliphatics	**1540**	**881**	**26**	**5600**	**5978**	**1530**	**362**	---	---	**20000**	**1974**
C19-C36 Aliphatics	**1996**	**257**	**34**	**3660**	**7749**	**1380**	**469**	---	---	**10300**	**2559**
C9-C18 Aliphatics	**1745**	**1150**	**30**	**4120**	**6773**	**1020**	**410**	---	---	**40300**	**2237**
Total EPH	**5240**	**3351**	**85**	**13428**	**23466**	---	**1181**	---	---	---	**6820**
2-Methylnaphthalene	---	**1.7**	---	**5.8**	---	**0.72**	---	---	---	**216**	---
Acenaphthene	---	**4.1**	---	**5.4**	---	**2.4**	---	---	---	**40**	---
Acenaphthylene	---	**1.9**	---	**8.2**	---	**1.4**	---	---	---	**70**	---
Anthracene	---	**0.42**	---	2.5 U	---	0.33 U	---	---	---	**6.2**	---
Benzo(a)Anthracene	---	**0.37**	---	2.5 U	---	**0.34**	---	---	---	**12**	---
Benzo(a)Pyrene	---	0.33 U	---	**4.5**	---	**0.44**	---	---	---	**8**	---
Benzo(b,k)Fluoranthene	---	0.66 U	---	5 U	---	0.64 U	---	---	---	10 U	---
Benzo(g,h,i)Perylene	---	0.33 U	---	2.5 U	---	0.33 U	---	---	---	5 U	---
Chrysene	---	0.33 U	---	**3.6**	---	**1.1**	---	---	---	5 U	---
Fluoranthene	---	**1.3**	---	**10**	---	**3.6**	---	---	---	**40**	---
Fluorene	---	**1.3**	---	**11**	---	**2.5**	---	---	---	**35**	---
Indeno(1,2,3-cd)Pyrene	---	0.66 U	---	5 U	---	0.64 U	---	---	---	10 U	---
Naphthalene	---	50 U	---	20 U	---	**1.4**	---	---	---	**134**	---
Phenanthrene	---	**0.68**	---	**4.5**	---	**0.63**	---	---	---	**17**	---
Pyrene	---	**1.2**	---	**10**	---	**3.5**	---	---	---	**35**	---
VPH											
C5-C8 Aliphatics	---	**93**	---	**297**	---	---	---	104 U	**160**	---	---
C9-C10 Aromatics	---	**540**	---	**311**	---	---	---	**83**	**274**	---	---
C9-C12 Aliphatics	---	**2290**	---	**1160**	---	---	---	**362**	**1010**	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Total Purgeable Hydrocarbons	---	---	---	---	---	---	---	**549**	---	---	---
Benzene	---	0.5 U	---	0.5 U	---	---	---	0.1 U	0.2 U	---	---
Ethylbenzene	---	1 U	---	2 U	---	---	---	0.5 U	1 U	---	---
M+P-Xylenes	---	---	---	---	---	---	---	2 U	---	---	---
Methyl Tert-Butyl Ether	---	1 U	---	1 U	---	---	---	0.2 U	0.4 U	---	---
Naphthalene	---	**3.5**	---	**4.1**	---	---	---	---	15 U	---	---
O-Xylene	---	2 U	---	1 U	---	---	---	1 U	2 U	---	---
Toluene	---	0.5 U	---	0.5 U	---	---	---	0.2 U	0.2 U	---	---
Xylenes (Total)	---	5 U	---	5 U	---	---	---	3 U	4 U	---	---
Petroleum Hydrocarbons											
Diesel Range Organics As Diesel	**4860**	**3210**	**85**	300 U	750 U	100 U	100 U	---	---	**40900**	**5930**
Diesel Range Organics	**4860**	**3210**	**85**	**9900**	**15300**	**1640**	**967**	---	---	**40900**	**5930**
Total Extractable Hydrocarbons	**5280**	**3440**	**90**	**12600**	**20500**	**1910**	**1240**	---	---	**49300**	**6770**

Appendix G - KRY Historical Data
Pioneer Soil Petroleum Hydrocarbons, 1996

Sample Station	**M9**	**M9**	**N10**	**N12**	**N2**	**N4**	**N6**	**N6**	**N8**	**N8**	**O11**
Sample Identification	**M9BC**	**M9C**	**N10C**	**N12C**	**N2C**	**N4C**	**N6B**	**N6C**	**N8B**	**N8C**	**O11B**
Sample Collection Date	**4/1/1996**	**4/4/1996**	**4/1/1996**	**4/5/1996**	**4/3/1996**	**4/1/1996**	**4/2/1996**	**4/3/1996**	**4/5/1996**	**4/4/1996**	**4/4/1996**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**10**	**17**	**13.5**	**15.5**	**11.5**	**12**	**1.5**	**17**	**3**	**17**	**4**
Lower Depth (ft)	**12**	**17.5**	**14**	**16**	**12.2**	**13**	**3.5**	**17**	**5**	**17**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH											
C10-C22 Aliphatics	---	**3499**	**2855**	**9273**	**10300**	**163**	**551**	**6357**	---	**3091**	10 U
C19-C36 Aliphatics	---	**4536**	**3701**	**12020**	**25300**	**212**	**1140**	**8240**	---	**4007**	10 U
C9-C18 Aliphatics	---	**3965**	**3235**	**10507**	**4380**	**185**	**911**	**7203**	---	**3502**	10 U
Total EPH	---	**12716**	**10158**	**39995**	---	**529**	**6627**	**25238**	---	**11084**	---
2-Methylnaphthalene	---	---	---	---	5 U	---	0.33 U	---	---	---	0.17 U
Acenaphthene	---	---	---	---	5 U	---	0.33 U	---	---	---	0.17 U
Acenaphthylene	---	---	---	---	5 U	---	**0.36**	---	---	---	---
Anthracene	---	---	---	---	5 U	---	**0.34**	---	---	---	0.17 U
Benzo(a)Anthracene	---	---	---	---	5 U	---	0.33 U	---	---	---	0.17 U
Benzo(a)Pyrene	---	---	---	---	5 U	---	0.33 U	---	---	---	0.17 U
Benzo(b,k)Fluoranthene	---	---	---	---	10 U	---	0.66 U	---	---	---	0.34 U
Benzo(g,h,i)Perylene	---	---	---	---	5 U	---	0.33 U	---	---	---	0.17 U
Chrysene	---	---	---	---	**13**	---	**1.2**	---	---	---	0.17 U
Fluoranthene	---	---	---	---	**35**	---	**1.8**	---	---	---	0.17 U
Fluorene	---	---	---	---	5 U	---	0.33 U	---	---	---	0.17 U
Indeno(1,2,3-cd)Pyrene	---	---	---	---	10 U	---	0.66 U	---	---	---	0.34 U
Naphthalene	---	---	---	---	5 U	---	0.33 U	---	---	---	2.5 U
Phenanthrene	---	---	---	---	5 U	---	0.33 U	---	---	---	0.17 U
Pyrene	---	---	---	---	**33**	---	**2.2**	---	---	---	0.17 U
VPH											
C5-C8 Aliphatics	**1140**	---	348 U	---	---	---	---	---	**34**	---	---
C9-C10 Aromatics	**673**	---	**349**	---	---	---	---	---	**62**	---	---
C9-C12 Aliphatics	**2340**	---	**1140**	---	---	---	---	---	**223**	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Total Purgeable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Benzene	0.5 U	---	0.5 U	---	---	---	---	---	0.1 U	---	---
Ethylbenzene	**14**	---	2 U	---	---	---	---	---	0.2 U	---	---
M+P-Xylenes	**53**	---	**13**	---	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	1 U	---	1 U	---	---	---	---	---	0.2 U	---	---
Naphthalene	30 U	---	15 U	---	---	---	---	---	3 U	---	---
O-Xylene	3 U	---	2 U	---	---	---	---	---	0.2 U	---	---
Toluene	2 U	---	1 U	---	---	---	---	---	0.1 U	---	---
Xylenes (Total)	**56**	---	**15**	---	---	---	---	---	0.5 U	---	---
Petroleum Hydrocarbons											
Diesel Range Organics As Diesel	---	750 U	150 U	1500 U	---	10 U	100 U	1500 U	---	150 U	300 U
Diesel Range Organics	---	**10000**	**8460**	**24000**	---	**383**	**5690**	**21100**	---	**9220**	300 U
Total Extractable Hydrocarbons	---	**12000**	**9790**	**31800**	---	**560**	**6590**	**21800**	---	**10600**	300 U

Appendix G - KRY Historical Data
Pioneer Soil Petroleum Hydrocarbons, 1996

Sample Station	O11	O1	O3	O5	O5	O7	O7	O9	P10	P12	P12
Sample Identification	O11C	O1C	O3C	O5A	O5B	O7B	O7C	O9B	P10C	P12B	P12C
Sample Collection Date	4/4/1996	4/3/1996	4/3/1996	4/1/1996	4/1/1996	4/5/1996	4/4/1996	4/4/1996	4/5/1996	4/4/1996	4/4/1996
Sample Type	SB	SB	SB	SS	SB	SB	SB	SB	SB	SS	SB
Upper Depth (ft)	14	14	14	0	8	2	15.5	2	9	1	8
Lower Depth (ft)	15	16	16	1	8.5	3	16	3	9.5	3	10
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPH											
C10-C22 Aliphatics	**12422**	**1688**	**1088**	**5336**	**584**	**827**	**3**	**49**	**112**	**282**	**62**
C19-C36 Aliphatics	**16103**	**2189**	**1410**	**6917**	**650**	**10200**	**4**	**78**	**145**	**366**	**81**
C9-C18 Aliphatics	**14075**	**1913**	**1232**	**6046**	**3660**	**3000**	**3**	**78**	**127**	**320**	**70**
Total EPH	**58179**	**5776**	**3644**	---	**1910**	**16968**	**9**	---	---	**919**	**201**
2-Methylnaphthalene	---	---	---	---	**8.1**	**0.59**	---	0.17 U	---	---	---
Acenaphthene	---	---	---	---	**3.1**	0.5 U	---	0.17 U	---	---	---
Acenaphthylene	---	---	---	---	**1.2**	0.5 U	---	0.17 U	---	---	---
Anthracene	---	---	---	---	**0.23**	0.5 U	---	0.17 U	---	---	---
Benzo(a)Anthracene	---	---	---	---	0.17 U	0.5 U	---	0.17 U	---	---	---
Benzo(a)Pyrene	---	---	---	---	0.17 U	0.5 U	---	0.17 U	---	---	---
Benzo(b,k)Fluoranthene	---	---	---	---	0.34 U	1 U	---	0.34 U	---	---	---
Benzo(g,h,i)Perylene	---	---	---	---	0.17 U	0.5 U	---	0.17 U	---	---	---
Chrysene	---	---	---	---	0.17 U	**1**	---	0.17 U	---	---	---
Fluoranthene	---	---	---	---	**0.95**	**1.8**	---	0.17 U	---	---	---
Fluorene	---	---	---	---	**1.1**	**0.95**	---	0.17 U	---	---	---
Indeno(1,2,3-cd)Pyrene	---	---	---	---	0.34 U	1 U	---	0.34 U	---	---	---
Naphthalene	---	---	---	---	50 U	0.5 U	---	0.17 U	---	---	---
Phenanthrene	---	---	---	---	**0.64**	0.5 U	---	0.17 U	---	---	---
Pyrene	---	---	---	---	**0.74**	**1.9**	---	0.17 U	---	---	---
VPH											
C5-C8 Aliphatics	---	---	---	---	**1110**	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	**1040**	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	**3960**	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	**1990**	---	---	---	---	---	---
Total Purgeable Hydrocarbons	---	---	---	---	**6110**	---	---	---	---	---	---
Benzene	---	---	---	---	1 U	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	10 U	---	---	---	---	---	---
M+P-Xylenes	---	---	---	---	**35**	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	2 U	---	---	---	---	---	---
Naphthalene	---	---	---	---	**6.2**	---	---	---	---	---	---
O-Xylene	---	---	---	---	10 U	---	---	---	---	---	---
Toluene	---	---	---	---	1 U	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	**45**	---	---	---	---	---	---
Petroleum Hydrocarbons											
Diesel Range Organics As Diesel	150 U	100 U	100 U	200 U	**1930**	400 U	10 U	---	**369**	**965**	10 U
Diesel Range Organics	**38300**	**5180**	**3140**	**16500**	**1930**	**9090**	10 U	---	**369**	**965**	**100**
Total Extractable Hydrocarbons	**42600**	**5790**	**3730**	**18300**	**4894**	**15500**	10 U	---	**383**	**968**	**213**

Appendix G - KRY Historical Data
Pioneer Soil Petroleum Hydrocarbons, 1996

Sample Station	P12	P4	P4	P8	Q11	Q1	Q1	Q3	Q5	Q5	Q7
Sample Identification	**P12D**	**P4B**	**P4C**	**P8C**	**Q11C**	**Q1A**	**Q1C**	**Q3A**	**Q5B**	**Q5C**	**Q7C**
Sample Collection Date	**4/4/1996**	**4/1/1996**	**4/1/1996**	**4/4/1996**	**4/4/1996**	**4/1/1996**	**4/3/1996**	**4/2/1996**	**4/2/1996**	**4/2/1996**	**4/4/1996**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SB**	**SB**
Upper Depth (ft)	**16**	**2**	**12**	**10**	**16.5**	**1**	**18**	**1**	**2**	**14**	**17**
Lower Depth (ft)	**17**	**4.5**	**12.5**	**11**	**17**	**2**	**18**	**2**	**7**	**14.5**	**17.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH											
C10-C22 Aliphatics	**5949**	**3062**	**2030**	**8.22**	**1047**	**388**	**5336**	**26.8**	**4760**	**1659**	**921**
C19-C36 Aliphatics	**7711**	**3969**	**2631**	**38**	**1357**	**503**	**6917**	**179**	**5860**	**2151**	**1194**
C9-C18 Aliphatics	**6740**	**3469**	**2300**	**16.5**	**1186**	**439**	**6046**	**26.7**	**4720**	**1880**	**1044**
Total EPH	**23331**	**10969**	**7025**	---	**3502**	---	**20545**	---	---	**5671**	**3069**
2-Methylnaphthalene	---	---	---	0.17 U	---	---	---	0.33 U	**0.76**	---	---
Acenaphthene	---	---	---	0.17 U	---	---	---	0.33 U	**6.3**	---	---
Acenaphthylene	---	---	---	0.17 U	---	---	---	0.33 U	**8.5**	---	---
Anthracene	---	---	---	0.17 U	---	---	---	0.33 U	0.66 U	---	---
Benzo(a)Anthracene	---	---	---	0.17 U	---	---	---	0.33 U	**2.6**	---	---
Benzo(a)Pyrene	---	---	---	0.17 U	---	---	---	0.33 U	**4.6**	---	---
Benzo(b,k)Fluoranthene	---	---	---	0.34 U	---	---	---	0.66 U	**5.4**	---	---
Benzo(g,h,i)Perylene	---	---	---	0.17 U	---	---	---	0.33 U	**0.9**	---	---
Chrysene	---	---	---	0.17 U	---	---	---	0.33 U	0.66 U	---	---
Fluoranthene	---	---	---	0.17 U	---	---	---	0.33 U	**19**	---	---
Fluorene	---	---	---	0.17 U	---	---	---	0.33 U	**4.5**	---	---
Indeno(1,2,3-cd)Pyrene	---	---	---	0.34 U	---	---	---	0.66 U	1.32 U	---	---
Naphthalene	---	---	---	0.17 U	---	---	---	0.33 U	**4.3**	---	---
Phenanthrene	---	---	---	0.17 U	---	---	---	0.33 U	0.66 U	---	---
Pyrene	---	---	---	0.17 U	---	---	---	0.33 U	**2**	---	---
VPH											
C5-C8 Aliphatics	---	---	---	---	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Total Purgeable Hydrocarbons	---	---	---	---	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---	---	---	---	---
M+P-Xylenes	---	---	---	---	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---	---	---	---	---
O-Xylene	---	---	---	---	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---	---	---	---	---
Petroleum Hydrocarbons											
Diesel Range Organics As Diesel	300 U	**9330**	**6010**	---	**2970**	200 U	1500 U	---	80 U	**4840**	**2890**
Diesel Range Organics	**13800**	**9330**	**6010**	---	**2970**	**458**	**12000**	---	**4860**	**4840**	**2890**
Total Extractable Hydrocarbons	**20400**	**10500**	**6960**	---	**3590**	**1330**	**18300**	---	**7180**	**5690**	**3160**

Appendix G - KRY Historical Data
Pioneer Soil SVOC, 1996

Sample Station	D15	J8	M5
Sample Identification	D15C	J8B	M5B
Sample Collection Date	4/1/1996	4/3/1996	4/1/1996
Sample Type	SB	SB	SB
Upper Depth (ft)	2.5	8.5	3
Lower Depth (ft)	7	9	4
Units	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	0.33 U	3.3 U	0.67 U
1,2-Dichlorobenzene	0.33 U	3.3 U	0.67 U
1,3-Dichlorobenzene	0.33 U	3.3 U	0.67 U
1,4-Dichlorobenzene	0.33 U	3.3 U	0.67 U
1-Methylnaphthalene	0.33 U	**2 J**	**0.65 J**
2,4-Dinitrotoluene	0.33 U	3.3 U	0.67 U
2,6-Dinitrotoluene	0.33 U	3.3 U	0.67 U
2-Chloronaphthalene	0.33 U	3.3 U	0.67 U
2-Methylnaphthalene	0.33 U	3.3 U	**0.74**
3,3'-Dichlorobenzidine	0.67 U	6.7 UJ	1.3 U
4-Bromophenylphenylether	0.33 U	3.3 U	0.67 U
4-Chlorophenylphenylether	0.33 U	3.3 U	0.67 U
Acenaphthene	0.33 U	3.3 U	0.67 U
Acenaphthylene	0.33 U	3.3 U	0.67 U
Anthracene	0.33 U	3.3 U	0.67 U
Azobenzene	0.33 U	3.3 U	0.67 U
Benzidine	0.67 U	6.7 UJ	1.3 UJ
Benzo(A)Anthracene	0.33 U	3.3 UJ	0.67 U
Benzo(A)Pyrene	0.33 U	3.3 UJ	0.67 UJ
Benzo(B)Fluoranthene	0.33 U	3.3 UJ	0.67 UJ
Benzo(G,H,I)Perylene	0.33 UJ	3.3 UJ	0.67 UJ
Benzo(K)Fluoranthene	0.33 U	3.3 UJ	0.67 UJ
Bis(2-Chloroethoxy)Methane	0.33 U	3.3 U	0.67 U
Bis(2-Chloroethyl)Ether	0.33 U	3.3 U	0.67 U
Bis(2-Chloroisopropyl)Ether	0.33 U	3.3 U	0.67 U
Bis(2-Ethylhexyl)Phthalate	**0.27 J**	3.3 UJ	**0.27 J**
Butyl Benzyl Phthalate	0.33 U	3.3 UJ	0.67 U
Chrysene	0.33 U	3.3 UJ	0.67 U
Dibenzo(A,H)Anthracene	0.33 UJ	3.3 UJ	0.67 UJ
Diethyl Phthalate	0.33 U	3.3 U	0.67 U
Dimethyl Phthalate	**0.6**	3.3 U	0.67 U
Di-N-Butylphthalate	0.33 U	3.3 U	0.67 U
Di-N-Octylphthalate	0.33 U	3.3 UJ	0.67 UJ
Fluoranthene	0.33 U	3.3 U	0.67 U
Fluorene	0.33 U	3.3 U	**0.13 J**
Hexachlorobenzene	0.33 U	3.3 U	0.67 U
Hexachlorobutadiene	0.33 U	3.3 U	0.67 U
Hexachlorocyclopentadiene	0.33 U	3.3 U	0.67 U
Hexachloroethane	0.33 U	3.3 U	0.67 U
Indeno(1,2,3-Cd)Pyrene	0.33 UJ	3.3 UJ	0.67 UJ
Isophorone	0.33 U	3.3 U	0.67 U
Naphthalene	0.33 U	3.3 U	**0.41 J**
Nitrobenzene	0.33 U	3.3 U	0.67 U
N-Nitroso-Di-Methylamine	0.33 U	3.3 U	0.67 U
N-Nitrosodi-N-Propylamine	0.33 U	3.3 U	0.67 U
N-Nitrosodiphenylamine	0.33 U	3.3 U	0.67 U
Phenanthrene	0.33 U	**0.81 J**	**0.26 J**
Pyrene	0.33 U	3.3 UJ	0.67 U
Pyridine	0.67 U	6.7 U	1.3 U

Notes:

Detected values are shown in bold.
ft = feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample
SVOC = Semi-volatile organic compound
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - KRY Historical Data
Pioneer Soil Metals, 1996

Sample Station	A1	A3	A5	B3	D15	F12	G13	G9	H6
Sample Identification	A1A	A3A	A5A	B3A	D15A	F12B	G13C	G9B	H6A
Sample Collection Date	4/1/1996	4/1/1996	4/1/1996	4/1/1996	4/1/1996	4/1/1996	4/1/1996	4/1/1996	4/1/1996
Sample Type	SS	SS	SS	SS	SS	SB	SB	SB	SS
Upper Depth (ft)	0	0	0	0	0	2	10	8.5	0
Lower Depth (ft)	1	1	1	1	1	3	10.5	9	1
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	5 UJ	**15 J**	5 UJ	5 UJ	**78 J**	5 UJ	**110 J**	**16 J**	**25 J**

Appendix G - KRY Historical Data
Pioneer Soil Metals, 1996

Sample Station	I1	I5	J15	J6	J8	K11	K5	K7	K9
Sample Identification	I1B	I5B	J15A	J6C	J8A	K11A	K5B	K7A	K9A
Sample Collection Date	4/1/1996	4/1/1996	4/3/1996	4/1/1996	4/1/1996	4/5/1996	4/2/1996	4/3/1996	4/5/1996
Sample Type	SS	SB	SS	SB	SS	SS	SS	SS	SS
Upper Depth (ft)	1	2	0	6.5	0	0	1	0	0
Lower Depth (ft)	2	3.5	1	7	1	1	2	1	1
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	11 J	10 J	10 J	5 UJ	51 J	490 J	380 J	140 J	680 J

Appendix G - KRY Historical Data
Pioneer Soil Metals, 1996

Sample Station	L14	L6	M3	M3	M9	N4	N4	N4	N6
Sample Identification	L14A	L6B	M3A	M3B	M9B	N4A	N4B	N4C	N6B
Sample Collection Date	4/4/1996	4/2/1996	4/1/1996	4/1/1996	4/5/1996	4/1/1996	4/1/1996	4/1/1996	4/2/1996
Sample Type	SS	SB	SB	SB	SB	SS	SB	SB	SB
Upper Depth (ft)	0	7.5	5	11	3	0	2	12	1.5
Lower Depth (ft)	1	8	8	11.5	6	1	3	13	3.5
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	85 J	140 J	5 UJ	5 UJ	18 J	50 J	170 J	5 UJ	220 J

Appendix G - KRY Historical Data
Pioneer Soil Metals, 1996

Sample Station	N8	O5	O7	P12	P4	P4	Q11	Q1	Q3
Sample Identification	N8B	O5A	O7B	P12A	P4A	P4B	Q11B	Q1A	Q3A
Sample Collection Date	4/5/1996	4/1/1996	4/5/1996	4/4/1996	4/1/1996	4/1/1996	4/5/1996	4/1/1996	4/2/1996
Sample Type	SB	SS	SS	SS	SS	SB	SB	SS	SS
Upper Depth (ft)	3	0	0	0	0	2	2	1	1
Lower Depth (ft)	5	1	3	1	1	4.5	3	2	2
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	5 UJ	6990 J	350 J	380 J	11 J	4190 J	370 J	100 J	260 J

Appendix G - KRY Historical Data
Pioneer Soil Metals, 1996

Sample Station	Q5	Q7	X18
Sample Identification	Q5A	Q7B	X18A
Sample Collection Date	4/2/1996	4/5/1996	4/3/1996
Sample Type	SS	SB	SS
Upper Depth (ft)	0	5	0
Lower Depth (ft)	1	6	1
Units	mg/kg	mg/kg	mg/kg
Lead	**1580 J**	**94 J**	**14 J**

Notes:

Detected values are shown in bold.
ft = feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample
SS = Surface soil sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - KRY Historical Data
AES Product SVOC, 1985

Sample Station	GWY-4
Sample Identification	MW-4
Sample Collection Date	9/25/1985
Sample Type	PR
Units	mg/kg
1,2,4-Trichlorobenzene	20 U
1,2-Dichlorobenzene	20 U
1,2-Diphenylhydrazine	40 U
1,3-Dichlorobenzene	20 U
1,4-Dichlorobenzene	20 U
2,4-Dinitrotoluene	100 U
2,6-Dinitrotoluene	100 U
2-Chloronaphthalene	20 U
3,3'-Dichlorobenzidine	100 U
4-Bromophenylphenylether	60 U
4-Chlorophenylphenylether	40 U
Acenaphthene	20 U
Acenaphthylene	**74**
Anthracene	20 U
Benzidine	1000 U
Benzo(A)Anthracene	**36**
Benzo(A)Pyrene	40 U
Benzo(B,K)Fluoranthene	40 U
Benzo(G,H,I)Perylene	60 U
Bis(2-Chloroethoxy)Methane	20 U
Bis(2-Chloroethyl)Ether	20 U
Bis(2-Chloroisopropyl)Ether	20 U
Bis(2-Ethylhexyl)Phthalate	200 U
Butyl Benzyl Phthalate	20 U
Chrysene	**34**
Dibenzo(A,H)Anthracene	60 U
Diethyl Phthalate	20 U
Dimethyl Phthalate	20 U
Di-N-Butylphthalate	20 U
Di-N-Octylphthalate	20 U
Fluoranthene	20 U
Fluorene	**220**
Hexachlorobenzene	40 U
Hexachlorobutadiene	40 U
Hexachlorocyclopentadiene	100 U
Hexachloroethane	20 U
Indeno(1,2,3-Cd)Pyrene	60 U
Isophorone	20 U
Naphthalene	**660**
Nitrobenzene	40 U
N-Nitroso-Di-Methylamine	60 U
N-Nitrosodi-N-Propylamine	40 U
N-Nitrosodiphenylamine	**1100**
Phenanthrene	**220**
Pyrene	20 U

Notes:

Detected values are shown in bold
AES = Applied Earth Sciences, Inc.
PR = Product sample
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value
mg/kg = Milligrams per kilogram

Appendix G - KRY Historical Data
Retec Product Dioxins & Furans, 2005

Sample Station	OSW-1
Sample Identification	OSW-1
Sample Collection Date	11/3/2005
Sample Type	PR
Units	ng/kg
1,2,3,4,6,7,8,9-OCDD	**6340000 J**
1,2,3,4,6,7,8,9-OCDF	**1380000**
1,2,3,4,6,7,8-HPCDD	**3250000 J**
1,2,3,4,6,7,8-HPCDF	**1050000**
1,2,3,4,7,8,9-HPCDF	**51700**
1,2,3,4,7,8-HXCDD	47.2 U
1,2,3,4,7,8-HXCDF	**98900**
1,2,3,6,7,8-HXCDD	**832000**
1,2,3,6,7,8-HXCDF	**34700**
1,2,3,7,8,9-HXCDD	**56300**
1,2,3,7,8,9-HXCDF	**70900**
1,2,3,7,8-PECDD	**1790**
1,2,3,7,8-PECDF	47.2 U
2,3,4,6,7,8-HXCDF	47.2 U
2,3,4,7,8-PECDF	**53300**
2,3,7,8-TCDD	9.43 U
2,3,7,8-TCDF	**9230**
2,3,7,8-TCDD (TEQ) (WHO2005)	**171510.143**

Notes:

Detected values are shown in bold.
PR = Product sample
J = Concentration detected is below the calibration range
ng/kg = Nanograms per kilogram
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
Weston Product SVOC, 1991

Sample Station	**GW-3**
Sample Identification	**GW-3**
Sample Collection Date	**8/20/1991**
Sample Type	**PR**
Units	**ug/L**
2,3,4,6-Tetrachlorophenol	100000 U
2,4,6-Trichlorophenol	100000 U
2,4-Dimethylphenol	100000 U
2,4-Dinitrophenol	100000 U
2-Chlorophenol	100000 U
4-Chloro-3-Methylphenol	100000 U
Acenaphthylene	100000 U
Benzo(A)Anthracene	100000 U
Benzo(A)Pyrene	100000 U
Benzo(B)Fluoranthene	100000 U
Carbazole	100000 U
Dibenzo(A,H)Anthracene	100000 U
Fluoranthene	100000 U
Indeno(1,2,3-Cd)Pyrene	100000 U
Naphthalene	100000 U
Pentachlorophenol	**1300000**
Phenanthrene	**3300000**
Phenol	100000 U

Notes:

Detected values are shown in bold
PR = Product sample
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
AES Sludge Results, 1986

Sample Station	SM-C
Sample Identification	Source Material C
Sample Collection Date	2/27/1986
Sample Type	SL
Units	mg/kg
Metals, Total	
Aluminum	**14**
Antimony	0.05 U
Arsenic	0.05 U
Barium	**0.5**
Beryllium	0.05 U
Cadmium	0.5 U
Calcium	**40**
Chromium	0.5 U
Cobalt	1 U
Copper	1 U
Cyanide (Total)	0.1 U
Iron	**16**
Lead	**9**
Magnesium	**12**
Manganese	**1.1**
Mercury	0.1 U
Nickel	**1.6**
Potassium	**4**
Selenium	0.05 U
Silver	0.005 U
Sodium	**9.4**
Thallium	0.02 U
Tin	0.2 U
Vanadium	**3.1**
Zinc	**2.2**
PCB	
Aroclor-1016	0.3 U
Aroclor-1221	1.2 U
Aroclor-1232	0.36 U
Aroclor-1242	0.3 U
Aroclor-1248	0.3 U
Aroclor-1254	**3.522**
Aroclor-1260	0.45 U
Pesticides	
4,4'-Ddd	0.042 U
4,4'-Dde	0.018 U
4,4'-Ddt	0.06 U
Aldrin	0.009 U
Alpha-Bhc	0.004 U
Beta-Bhc	0.012 U
Chlordane	0.24 U
Delta-Bhc	0.009 U
Dieldrin	0.024 U
Endosulfan I	0.024 U
Endosulfan Ii	0.036 U
Endosulfan Sulfate	0.06 U
Endrin	0.06 U
Endrin Aldehyde	0.075 U
Gamma-Bhc	0.006 U
Heptachlor	0.012 U
Heptachlor Epoxide	0.015 U
Methoxychlor	0.15 U
Toxaphene	2.7 U
SVOC	
1,2,4-Trichlorobenzene	90 U
1,2-Dichlorobenzene	90 U
1,3-Dichlorobenzene	90 U
1,4-Dichlorobenzene	90 U

Appendix G - KRY Historical Data
AES Sludge Results, 1986

Sample Station	SM-C
Sample Identification	Source Material C
Sample Collection Date	2/27/1986
Sample Type	SL
Units	mg/kg
2,4,5-Trichlorophenol	500 U
2,4,6-Trichlorophenol	300 U
2,4-Dichlorophenol	200 U
2,4-Dimethylphenol	90 U
2,4-Dinitrophenol	500 U
2,4-Dinitrotoluene	500 U
2,6-Dinitrotoluene	500 U
2-Chloronaphthalene	90 U
2-Chlorophenol	90 U
2-Methylnaphthalene	**120**
2-Methylphenol	300 U
2-Nitroaniline	2000 U
2-Nitrophenol	200 U
3,3'-Dichlorobenzidine	500 U
3-Nitroaniline	2000 U
4,6-Dinitro-2-Methylphenol	500 U
4-Bromophenylphenylether	300 U
4-Chloro-3-Methylphenol	200 U
4-Chloroaniline	500 U
4-Chlorophenylphenylether	200 U
4-Methylphenol	300 U
4-Nitroaniline	2000 U
4-Nitrophenol	500 U
Acenaphthene	90 U
Acenaphthylene	90 U
Anthracene	90 U
Benzo(A)Anthracene	90 U
Benzo(A)Pyrene	200 U
Benzo(B)Fluoranthene	200 U
Benzo(G,H,I)Perylene	300 U
Benzo(K)Fluoranthene	200 U
Benzoic Acid	2000 U
Benzyl Alcohol	500 U
Bis(2-Chloroethoxy)Methane	90 U
Bis(2-Chloroethyl)Ether	90 U
Bis(2-Chloroisopropyl)Ether	90 U
Bis(2-Ethylhexyl)Phthalate	900 U
Butyl Benzyl Phthalate	90 U
Chrysene	**160**
Dibenzo(A,H)Anthracene	300 U
Dibenzofuran	200 U
Diethyl Phthalate	90 U
Dimethyl Phthalate	90 U
Di-N-Butylphthalate	90 U
Di-N-Octylphthalate	90 U
Fluoranthene	90 U
Fluorene	90 U
Hexachlorobenzene	200 U
Hexachlorobutadiene	200 U
Hexachlorocyclopentadiene	500 U
Hexachloroethane	90 U
Indeno(1,2,3-Cd)Pyrene	300 U
Isophorone	90 U
Naphthalene	90 U
Nitrobenzene	200 U
N-Nitrosodi-N-Propylamine	200 U
N-Nitrosodiphenylamine	900 U
Pentachlorophenol	500 U
Phenanthrene	**490**

Appendix G - KRY Historical Data
AES Sludge Results, 1986

Sample Station	SM-C
Sample Identification	Source Material C
Sample Collection Date	2/27/1986
Sample Type	SL
Units	mg/kg
Pyrene	**330**
VOC	
1,1,1-Trichloroethane	0.5 U
1,1,2,2-Tetrachloroethane	0.5 U
1,1,2-Trichloroethane	0.5 U
1,1-Dichloroethane	0.5 U
1,1-Dichloroethene	0.5 U
1,2-Dichloroethane	0.5 U
1,2-Dichloropropane	0.5 U
2-Butanone	5 U
2-Chloroethyl Vinyl Ether	3 U
2-Hexanone	3 U
4-Methyl-2-Pentanone	3 U
Acetone	10 U
Benzene	0.5 U
Bromoform	0.5 U
Bromomethane	0.5 U
Carbon Disulfide	0.5 U
Carbon Tetrachloride	0.5 U
Chlorobenzene	0.5 U
Chloroethane	0.5 U
Chloroform	0.5 U
Chloromethane	0.5 U
Cis-1,3-Dichloropropene	0.5 U
Dibromochloromethane	0.5 U
Dichlorobromomethane	0.5 U
Ethylbenzene	0.5 U
Methylene Chloride	3 U
M-Xylene	0.5 U
O,P-Xylenes	0.5 U
Phenol	2 U
Styrene	1 U
Tetrachloroethene	0.5 U
Toluene	0.5 U
Trans-1,2-Dichloroethene	0.5 U
Trans-1,3-Dichloropropene	0.5 U
Trichloroethene	0.5 U
Vinyl Acetate	3 U
Vinyl Chloride	0.5 U

Notes:
Detected values are shown in bold
mg/kg = Milligrams per kilogram
PCB = Polychlorinated biphenyl
SL = Sludge sample
SVOC = Semi-volatile organic compounds
U = Analyte analyzed for but not detected; reported with detection limit value
VOC = Volatile organic compounds

Appendix G - KRY Historical Data
EPAFIT & MSE Sludge Results, 1986 1989

Sample Station	SL-1-89	RR-SL-1	RR-SL-2
Sample Identification	KPP-SL-1	MHC-551/HC-395	MHC-552/HC-396
Sample Collection Date	11/15/1988	3/2/1986	3/2/1986
Sample Type	SL	SL	SL
Sampler	MSE	EPAFIT	EPAFIT
Upper Depth (ft)	0		
Lower Depth (ft)	0.25		
Units	mg/kg	mg/kg	mg/kg
Metals, Total			
ALUMINUM	20 U	**1890**	**1360**
ANTIMONY	0.6 U	3.3 U	3.1 U
ARSENIC	0.6 U	0.55 UR	**25 R**
BARIUM	1 U	---	---
BERYLLIUM	0.2 U	**0.94**	**0.36**
CADMIUM	0.8 U	0.22 U	0.21 U
CALCIUM	30 U	**3100**	**5740**
CHROMIUM	1.5 U	**33**	**14**
COBALT	2 U	**2.8**	**2.6**
COPPER	4 U	**9.4**	**65**
IRON	**36**	**2890 J**	**13200 J**
LEAD	**10.5**	**33 J**	**151 RJ**
MAGNESIUM	20 U	**1040**	**779**
MANGANESE	**2 B**	**82**	**155**
MERCURY	0.05 U	---	---
NICKEL	5 U	**51 R**	**25 R**
POTASSIUM	**261 B**	**1040**	**992**
SELENIUM	0.7 U	---	---
SILVER	**0.2 B**	0.52 U	0.57 U
SODIUM	**30 B**	275 U	**416**
THALLIUM	0.1 U	0.55 U	0.52 U
TIN	10 U	---	---
VANADIUM	3 U	**123 R**	**49 R**
ZINC	1 U	**9.9**	**39**
SVOC			
1,2,4-TRICHLOROBENZENE	410 U	---	---
1,2-DICHLOROBENZENE	410 U	---	---
1,3-DICHLOROBENZENE	410 U	---	---
1,4-DICHLOROBENZENE	410 U	---	---
2,4,5-TRICHLOROPHENOL	2100 U	---	---
2,4,6-TRICHLOROPHENOL	410 U	---	---
2,4-DICHLOROPHENOL	410 U	---	---
2,4-DIMETHYLPHENOL	410 U	---	---
2,4-DINITROPHENOL	2100 U	---	---
2,4-DINITROTOLUENE	410 U	---	---
2,6-DINITROTOLUENE	410 U	---	---
2-CHLORONAPHTHALENE	410 U	---	---
2-CHLOROPHENOL	410 U	---	---
2-METHYLNAPHTHALENE	**130 J**	0.33 U	0.33 U
2-METHYLPHENOL	410 U	---	---
2-NITROANILINE	2100 U	---	---
2-NITROPHENOL	410 U	---	---
3,3'-DICHLOROBENZIDINE	830 U	---	---
3-NITROANILINE	2100 U	---	---
4,6-DINITRO-2-METHYLPHENOL	2100 U	---	---
4-BROMOPHENYLPHENYLETHER	410 U	---	---
4-CHLORO-3-METHYLPHENOL	410 U	---	---
4-CHLOROANILINE	410 U	---	---
4-CHLOROPHENYLPHENYLETHER	410 U	---	---
4-METHYLPHENOL	410 U	---	---
4-NITROANILINE	2100 U	---	---
4-NITROPHENOL	2100 U	---	---
ACENAPHTHENE	410 U	---	---
ACENAPHTHYLENE	410 U	---	---
ANTHRACENE	410 U	**43 J**	**47 J**
BENZO(A)ANTHRACENE	**1400 J**	---	---

Appendix G - KRY Historical Data
EPAFIT & MSE Sludge Results, 1986 1989

Sample Station	SL-1-89	RR-SL-1	RR-SL-2
Sample Identification	KPP-SL-1	MHC-551/HC-395	MHC-552/HC-396
Sample Collection Date	11/15/1988	3/2/1986	3/2/1986
Sample Type	SL	SL	SL
Sampler	MSE	EPAFIT	EPAFIT
Upper Depth (ft)	0		
Lower Depth (ft)	0.25		
Units	mg/kg	mg/kg	mg/kg
BENZO(A)PYRENE	**2900 J**	---	---
BENZO(B)FLUORANTHENE	410 U	---	---
BENZO(G,H,I)PERYLENE	**1100 J**	---	---
BENZO(K)FLUORANTHENE	410 U	---	---
BENZOIC ACID	2100 U	---	---
BENZYL ALCOHOL	410 U	---	---
BIS(2-CHLOROETHOXY)METHANE	410 U	---	---
BIS(2-CHLOROETHYL)ETHER	410 U	---	---
BIS(2-CHLOROISOPROPYL)ETHER	410 U	---	---
BIS(2-ETHYLHEXYL)PHTHALATE	410 U	---	---
BUTYL BENZYL PHTHALATE	410 U	---	---
CHRYSENE	**3400 J**	---	---
DIBENZO(A,H)ANTHRACENE	410 U	---	---
DIBENZOFURAN	410 U	---	---
DIETHYL PHTHALATE	410 U	0.33 U	0.33 U
DIMETHYL PHTHALATE	410 U	---	---
DI-N-BUTYLPHTHALATE	410 U	---	---
DI-N-OCTYLPHTHALATE	410 U	0.33 U	0.33 U
FLUORANTHENE	410 U	---	---
FLUORENE	410 U	0.33 U	**42 J**
HEXACHLOROBENZENE	410 U	---	---
HEXACHLOROBUTADIENE	410 U	---	---
HEXACHLOROCYCLOPENTADIENE	410 U	---	---
HEXACHLOROETHANE	410 U	---	---
INDENO(1,2,3-CD)PYRENE	410 U	---	---
ISOPHORONE	410 U	---	---
NAPHTHALENE	410 U	---	---
NITROBENZENE	410 U	---	---
N-NITROSODI-N-PROPYLAMINE	410 U	---	---
N-NITROSODIPHENYLAMINE	410 U	0.33 U	**890**
PENTACHLOROPHENOL	2100 U	**0.038 J**	**1.2 J**
PHENANTHRENE	**1200**	**40 J**	**350**
PHENOL	410 U	---	---
PYRENE	**6000**	---	---
VOC			
1,1,1-TRICHLOROETHANE	0.8 U	---	---
1,1,2,2-TETRACHLOROETHANE	0.8 U	---	---
1,1,2-TRICHLOROETHANE	0.8 U	---	---
1,1-DICHLOROETHANE	0.8 U	---	---
1,1-DICHLOROETHENE	0.8 U	---	---
1,2-DICHLOROETHANE	0.8 U	---	---
1,2-DICHLOROETHENE	0.8 U	---	---
1,2-DICHLOROPROPANE	0.8 U	---	---
2-BUTANONE	1.6 U	1 UJ	13 UB
2-HEXANONE	1.6 U	1 UJ	1 U
4-METHYL-2-PENTANONE	1.6 U	---	---
ACETONE	1.6 U	4.1 UB	8.2 UB
BENZENE	0.8 U	0.5 U	0.5 U
BROMOFORM	0.8 U	---	---
BROMOMETHANE	1.6 U	---	---
CARBON DISULFIDE	0.8 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.8 U	---	---
CHLOROBENZENE	0.8 U	---	---
CHLOROETHANE	1.6 U	---	---
CHLOROFORM	0.8 U	---	---
CHLOROMETHANE	1.6 U	---	---
CIS-1,3-DICHLOROPROPENE	0.8 U	---	---

Appendix G - KRY Historical Data
EPAFIT & MSE Sludge Results, 1986 1989

Sample Station	SL-1-89	RR-SL-1	RR-SL-2
Sample Identification	KPP-SL-1	MHC-551/HC-395	MHC-552/HC-396
Sample Collection Date	11/15/1988	3/2/1986	3/2/1986
Sample Type	SL	SL	SL
Sampler	MSE	EPAFIT	EPAFIT
Upper Depth (ft)	0		
Lower Depth (ft)	0.25		
Units	mg/kg	mg/kg	mg/kg
DIBROMOCHLOROMETHANE	0.8 U	---	---
DICHLOROBROMOMETHANE	0.8 U	---	---
ETHYLBENZENE	0.8 U	---	---
METHYLENE CHLORIDE	0.8 U	4.7 UB	7.4 UB
STYRENE	0.8 U	---	---
TETRACHLOROETHENE	0.8 U	---	---
TOLUENE	0.8 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.8 U	---	---
TRICHLOROETHENE	0.8 U	---	---
VINYL ACETATE	1.6 U	---	---
VINYL CHLORIDE	1.6 U	---	---
XYLENE	0.8 U	---	---
XYLENES (TOTAL)	---	0.5 U	0.5 U

Sample Station	SL-1-89
Sample Identification	KPP-SL-1
Sample Collection Date	11/15/1988
Sample Type	SL
Sampler	MSE
Upper Depth (ft)	0
Lower Depth (ft)	0.25
Units	ng/kg
Dioxins & Furans	
1,2,3,4,6,7,8,9-OCDD	**11000**
1,2,3,4,6,7,8,9-OCDF	6900 U
HPCDD (TOTAL)	1900 U
HPCDF (TOTAL)	1400 U
HXCDD (TOTAL)	2500 U
HXCDF (TOTAL)	5000 U

Notes:
Detected values are shown in bold
ft = Feet
mg/kg = Milligrams per kilogram
ng/kg = Nanograms per kilogram
PCB = Polychlorinated biphenyl
SL = Sludge sample
SVOC = Semi-volatile organic compounds
U = Analyte analyzed for but not detected; reported with detection limit value
VOC = Volatile organic compounds

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**GW-5**	**GW-5**	**GWRR-1**	**GWRR-2**	**GWRR-2**	**GWRR-2**	**GWRR-2**
Sample Identification	**GW-5**	**GW-5**	**GWRR-1**	**GWRR-2**	**GWRR-2**	**GWRR-2**	**GWRR-2**
Sample Collection Date	**8/21/1997**	**10/1/2003**	**8/21/1997**	**7/10/2001**	**4/2/2003**	**10/1/2003**	**4/7/2004**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of							
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	---	**490**	---	**11000**	**5200**	**2000**	**350**
C19-C36 Aliphatics	---	**330**	---	**8800**	**3300**	**1800**	**530**
C9-C18 Aliphatics	---	**430**	---	**19000**	**19000**	**3900**	**760**
EPH Screen	---	---	---	**43000**	---	---	---
Total Extractable Hydrocarbons	---	---	---	**40000**	---	---	**2600**
Total Petroleum Hydrocarbons	---	**3100**	---	---	---	**11000**	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	---	---	1 U	---	---	---
Ethylbenzene	---	---	---	**7.6**	---	---	---
Methyl Tert-Butyl Ether	---	---	---	1.5 U	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	---	**3**	---	---	---
Toluene	---	---	---	1 U	---	---	---
Xylenes (Total)	---	---	---	**9.5**	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	**560**	---	**16000**	---	---	---	---
Diesel Range Organics As Diesel	**560**	---	500 U	---	---	---	---
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	**560**	---	**21000**	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**GWRR-3**	**GWRR-7**	**GWY-14**	**GWY-4**	**GWY-4**	**GWY-4**	**GWY-4**
Sample Identification	**GWRR-3**	**GWRR-7**	**GWY-14**	**GWY-4**	**GWY-4**	**GWY-4**	**GWY-4**
Sample Collection Date	**8/21/1997**	**8/21/1997**	**7/10/2001**	**7/10/2001**	**8/6/2002**	**4/3/2003**	**10/1/2003**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of							
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	---	---	---	**2600**	**530**	**1700**	**2000**
C19-C36 Aliphatics	---	---	---	**2100**	100 U	**520**	**970**
C9-C18 Aliphatics	---	---	---	**7100**	**210**	**4500**	**3000**
EPH Screen	---	---	---	**20000**	---	---	---
Total Extractable Hydrocarbons	---	---	---	**12000**	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	**3100**	---	**12000**
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	300 U	---	---	---	---
Total Extractable Hydrocarbons	---	---	300 U	---	---	---	---
Benzene	---	---	1 U	1 U	---	---	---
Ethylbenzene	---	---	1 U	1 U	---	---	---
Methyl Tert-Butyl Ether	---	---	1.5 U	1.5 U	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	1 U	1 U	---	---	---
Toluene	---	---	1 U	1 U	---	---	---
Xylenes (Total)	---	---	1 U	**8.8**	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	**46000**	**156000**	---	---	---	---	---
Diesel Range Organics As Diesel	500 U	500 U	---	---	---	---	---
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	**47000**	**200000**	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**GWY-4**	**GWY-4**	**KPT-1**	**KPT-10**	**KPT-12**	**KPT-14**	**KPT-16**
Sample Identification	**GWY-4**	**GWY-4**	**KPT-1**	**KPT-10**	**KPT-12**	**KPT-14**	**KPT-16**
Sample Collection Date	**4/7/2004**	**10/20/2004**	**10/1/2003**	**8/20/1997**	**7/9/2001**	**8/21/1997**	**7/9/2001**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of							
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	**2800**	**1300 J**	100 U	---	---	---	---
C19-C36 Aliphatics	**460**	**490 J**	100 U	---	---	---	---
C9-C18 Aliphatics	**4100**	**1100 J**	100 U	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	**9800**	**2800 J**	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	100 U	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	**710**	---	300 U
Total Extractable Hydrocarbons	---	---	---	---	**710**	---	---
Benzene	---	---	---	---	1 U	---	1 U
Ethylbenzene	---	---	---	---	1 U	---	1 U
Methyl Tert-Butyl Ether	---	---	---	---	1.5 U	---	1.5 U
Naphthalene	---	---	---	---	1 U	---	1 U
O-Xylene	---	---	---	---	1 U	---	1 U
Toluene	---	---	---	---	1 U	---	1 U
Xylenes (Total)	---	---	---	---	1 U	---	1 U
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	500 U	---	500 U	---
Diesel Range Organics As Diesel	---	---	---	500 U	---	500 U	---
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	500 U	---	500 U	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**KPT-16**	**KPT-16**	**KPT-17**	**KPT-18**	**KPT-19**	**KPT-2**	**KPT-29**
Sample Identification	**KPT-16**	**KPT-22**	**KPT-17**	**KPT-18**	**KPT-19**	**KPT-20**	**KPT-29**
Sample Collection Date	**7/9/2001**	**11/6/2005**	**11/8/2005**	**11/8/2005**	**11/6/2005**	**11/6/1996**	**11/6/2005**
Sample Type	**DU**	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**
Duplicate of	**KPT-16**					**KPT-2**	
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	---	236 U	**35600**	**380**	**578**	---	**487**
C19-C36 Aliphatics	---	236 U	**36900**	**259**	238 U	---	243 U
C9-C18 Aliphatics	---	236 U	**40900**	255 U	238 U	---	**349**
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	708 U	**113000**	765 U	714 U	---	**851**
Total Petroleum Hydrocarbons	---	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	20 U	**52.2**	**20.7**	20 U	---	20 U
C5-C8 Aliphatics Adjusted	---	20 U	**44**	20 U	20 U	---	20 U
C9-C10 Aromatics	---	20 U	**250**	**22**	**40.8**	---	**38.4**
C9-C12 Aliphatics	---	20 U	**523**	**43.7**	**68.3**	---	**63.3**
C9-C12 Aliphatics Adjusted	---	20 U	**272**	**21.7**	**27.5**	---	**25**
TVPH	---	40 U	**575**	**64.3**	**68.3**	---	**63.3**
EPH Screen	300 U	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	1 U	0.5 U	0.5 U	**1.27**	0.5 U	---	0.5 U
Ethylbenzene	1 U	0.5 U	**1.8**	0.5 U	0.5 U	---	0.5 U
Methyl Tert-Butyl Ether	1.5 U	1 U	1 U	1 U	1 U	---	1 U
Naphthalene	---	1 U	1 U	1 U	**1.54**	---	**1.5**
O-Xylene	1 U	---	---	---	---	---	---
Toluene	1 U	0.5 U	**0.652**	0.5 U	0.5 U	---	0.5 U
Xylenes (Total)	1 U	1 U	**5.28**	1 U	1 U	---	1 U
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	---	---	---	---
Diesel Range Organics As Diesel	---	---	---	---	---	**41000**	---
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**KPT-4**	**KPT-5**	**KPT-5**	**KPT-5**	**KPT-6**	**KPT-6**	**KPT-6**
Sample Identification	**KPT-4**	**KPT-5**	**KPT-5**	**KPT-20**	**KPT-6**	**KPT-6**	**KPT-6**
Sample Collection Date	**4/7/2004**	**9/13/1996**	**7/9/2001**	**7/9/2001**	**8/6/2002**	**4/2/2003**	**10/1/2003**
Sample Type	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**
Duplicate of				**KPT-5**			
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	**58000**	---	---	---	**46000**	**20000**	**2300**
C19-C36 Aliphatics	**3400**	---	---	---	**10000**	**880**	**480**
C9-C18 Aliphatics	**25000**	---	---	---	**25000**	**14000**	**670**
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	**110000**	---	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	**23000**	---	**5800**
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	300 U	300 U	---	---	---
Benzene	---	---	1 U	1 U	---	---	---
Ethylbenzene	---	---	1 U	1 U	---	---	---
Methyl Tert-Butyl Ether	---	---	1.5 U	1.5 U	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	1 U	1 U	---	---	---
Toluene	---	---	1 U	1 U	---	---	---
Xylenes (Total)	---	---	1 U	1 U	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	---	500 U	---	---	---	---	---
Diesel Range Organics As Diesel	---	500 U	---	---	---	---	---
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	500 U	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	KPT-6	KPT-6	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7
Sample Identification	KPT-6	KPT-6	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7
Sample Collection Date	4/7/2004	10/19/2004	9/12/1996	11/6/1996	12/18/1996	1/17/1997	2/20/1997
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EPH							
C11-C22 Aromatics	**34000**	**39000 J**	---	---	---	---	---
C19-C36 Aliphatics	**18000**	**6900 J**	---	---	---	---	---
C9-C18 Aliphatics	**35000**	**9500 J**	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	**76000**	**55000 J**	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	---	---	---	---
Diesel Range Organics As Diesel	---	---	**6300**	**53000**	**11000**	**4100**	**4100**
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7
Sample Identification	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-70	KPT-7-898
Sample Collection Date	3/18/1997	4/18/1997	6/16/1997	8/20/1997	8/20/1997	8/20/1997	8/27/1998
Sample Type	GW	GW	GW	GW	DU	DU	GW
Duplicate of					KPT-7	KPT-7	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EPH							
C11-C22 Aromatics	---	---	---	---	---	---	---
C19-C36 Aliphatics	---	---	---	---	---	---	---
C9-C18 Aliphatics	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	**9700**	**18**	**18000**	**45000**
Diesel Range Organics As Diesel	**4100**	**29000**	**3300**	**9700**	**18**	**18000**	**45000**
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	**9900**	**18**	**18000**	**46000**

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**KPT-7**	**KPT-7**	**KPT-7**	**KPT-7**	**KPT-7**	**KPT-7**	**KPT-7**
Sample Identification	**KPT-7-299**	**KPT-7**	**KPT-7 NP**	**KPT-7**	**KPT-20**	**KPT-7**	**KPT-20**
Sample Collection Date	**2/22/1999**	**7/9/2001**	**7/9/2001**	**8/6/2002**	**8/6/2002**	**4/2/2003**	**4/2/2003**
Sample Type	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**DU**
Duplicate of					**KPT-7**		**KPT-7**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	---	610 U	600 U	**710**	**1000**	**1100**	**1800**
C19-C36 Aliphatics	---	610 U	600 U	**360**	**380**	**100**	**180**
C9-C18 Aliphatics	---	610 U	600 U	**380**	**410**	**730**	**800**
EPH Screen	---	---	**1700**	---	---	---	---
Total Extractable Hydrocarbons	---	---	600 U	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	**1100**	**3200**	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	**3200**	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	1 U	---	---	---	---	---
Ethylbenzene	---	1 U	---	---	---	---	---
Methyl Tert-Butyl Ether	---	1.5 U	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	1 U	---	---	---	---	---
Toluene	---	1 U	---	---	---	---	---
Xylenes (Total)	---	1 U	---	---	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	**10000**	**3800 D**	**2200 D**	---	---	---	---
Diesel Range Organics As Diesel	**10000**	---	---	---	---	---	---
Diesel Range Organics As Motor Oil	---	500 U	500 U	---	---	---	---
Total Extractable Hydrocarbons	**11000**	**1100**	600 U	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**KPT-7**	**KPT-7**	**KPT-7**	**KPT-7**	**KPT-7**	**KPT-9**	**KPT-9**
Sample Identification	**KPT-7**	**KPT-7**	**KPT-7**	**KPT-20**	**KPT-20**	**KPT-9**	**KPT-9**
Sample Collection Date	**10/1/2003**	**4/7/2004**	**10/19/2004**	**10/19/2004**	**11/6/2005**	**11/6/1996**	**1/14/1997**
Sample Type	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**
Duplicate of					**KPT-7**		
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	100 U	**2000**	**610**	**670 J**	**926**	---	---
C19-C36 Aliphatics	100 U	**250**	100 U	**100 J**	238 U	---	---
C9-C18 Aliphatics	100 U	**720**	**100 J**	**180 J**	**291**	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	**3300**	**750**	**950 J**	**1300**	---	---
Total Petroleum Hydrocarbons	**340**	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	20 U	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	20 U	---	---
C9-C10 Aromatics	---	---	---	---	**34.8**	---	---
C9-C12 Aliphatics	---	---	---	---	**53.1**	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	20 U	---	---
TVPH	---	---	---	---	**54.9**	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	---	---	---	0.5 U	---	---
Ethylbenzene	---	---	---	---	0.5 U	---	---
Methyl Tert-Butyl Ether	---	---	---	---	1 U	---	---
Naphthalene	---	---	---	---	**1.86**	---	---
O-Xylene	---	---	---	---	---	---	---
Toluene	---	---	---	---	0.5 U	---	---
Xylenes (Total)	---	---	---	---	1 U	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	---	---	---	---
Diesel Range Organics As Diesel	---	---	---	---	---	500 U	500 U
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9
Sample Identification	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9-898	KPT-9-299
Sample Collection Date	2/20/1997	3/18/1997	4/18/1997	6/16/1997	8/21/1997	8/27/1998	2/22/1999
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EPH							
C11-C22 Aromatics	---	---	---	---	---	---	---
C19-C36 Aliphatics	---	---	---	---	---	---	---
C9-C18 Aliphatics	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	---	500 U	500 U	540 U
Diesel Range Organics As Diesel	500 U	520 U	500 U	500 U	500 U	500 U	540 U
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	500 U	500 U	540 U

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**KPT-9**	**OMW-2**	**OSW-1**	**OSW-1**	**OSW-1**	**OSW-1**	**OSW-1**
Sample Identification	**KPT-9**	**OMW-2**	**OSW-1**	**OSW-1**	**OSW-1**	**OSW-1**	**OSW-1**
Sample Collection Date	**7/9/2001**	**7/9/2001**	**9/12/1996**	**11/6/1996**	**12/18/1996**	**1/17/1997**	**2/20/1997**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of							
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	---	**1200**	---	---	---	---	---
C19-C36 Aliphatics	---	610 U	---	---	---	---	---
C9-C18 Aliphatics	---	610 U	---	---	---	---	---
EPH Screen	---	**6400**	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	310 U	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	1 U	1 U	---	---	---	---	---
Ethylbenzene	1 U	1 U	---	---	---	---	---
Methyl Tert-Butyl Ether	1.5 U	1.5 U	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	1 U	1 U	---	---	---	---	---
Toluene	1 U	1 U	---	---	---	---	---
Xylenes (Total)	1 U	1 U	---	---	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	250 U	**1800 D**	---	---	---	---	---
Diesel Range Organics As Diesel	---	---	**12000**	**13000**	**2100000**	**708000**	**537000**
Diesel Range Organics As Motor Oil	500 U	500 U	---	---	---	---	---
Total Extractable Hydrocarbons	---	**1800**	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1
Sample Identification	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1-898	OSW-101-898	OSW-1-299
Sample Collection Date	3/18/1997	4/18/1997	6/16/1997	8/20/1997	8/27/1998	8/27/1998	2/22/1999
Sample Type	GW	GW	GW	GW	GW	DU	GW
Duplicate of						OSW-1	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EPH							
C11-C22 Aromatics	---	---	---	---	---	---	---
C19-C36 Aliphatics	---	---	---	---	---	---	---
C9-C18 Aliphatics	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	**38000**	**125000**	**62000**	**940000**
Diesel Range Organics As Diesel	**184000**	**127000**	**4100**	**38000**	**125000**	**62000**	**940000**
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	**39000**	**128000**	**65000**	**959000**

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**
Sample Identification	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**	**KPT-20**	**OSW-2**	**KPT-20**
Sample Collection Date	**9/12/1996**	**11/6/1996**	**12/18/1996**	**1/17/1997**	**1/17/1997**	**2/20/1997**	**2/20/1997**
Sample Type	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**DU**
Duplicate of					**OSW-2**		**OSW-2**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	---	---	---	---	---	---	---
C19-C36 Aliphatics	---	---	---	---	---	---	---
C9-C18 Aliphatics	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	---	---	---	---
Diesel Range Organics As Diesel	**9100**	**5200**	**3800**	**2300**	**1600**	**1800**	**1200**
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**	**OSW-2**
Sample Identification	**OSW-2**	**KPT-20**	**OSW-2**	**KPT-20**	**OSW-2**	**KPT-20**	**OSW-2**
Sample Collection Date	**3/18/1997**	**3/18/1997**	**4/18/1997**	**4/18/1997**	**6/16/1997**	**6/16/1997**	**8/20/1997**
Sample Type	**GW**	**DU**	**GW**	**DU**	**GW**	**DU**	**GW**
Duplicate of		**OSW-2**		**OSW-2**		**OSW-2**	
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
EPH							
C11-C22 Aromatics	---	---	---	---	---	---	---
C19-C36 Aliphatics	---	---	---	---	---	---	---
C9-C18 Aliphatics	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons	---	---	---	---	---	---	---
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
EPH Screen	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
O-Xylene	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---
Petroleum Hydrocarbons							
Diesel Range Organics	---	---	---	---	---	---	**8500**
Diesel Range Organics As Diesel	500 U	500 U	**2100**	**2100**	**43000**	**4100**	**8500**
Diesel Range Organics As Motor Oil	---	---	---	---	---	---	---
Total Extractable Hydrocarbons	---	---	---	---	---	---	**9200**

Appendix G - KRY Historical Data
Retec Groundwater Petroleum Hydrocarbons, EPH, & VPH, 1996-2005

Sample Station	**OSW-2**	**OSW-2**	**OSW-2**
Sample Identification	**OSW-2-898**	**OSW-2-299**	**OSW-2**
Sample Collection Date	**8/27/1998**	**2/22/1999**	**7/9/2001**
Sample Type	**GW**	**GW**	**GW**
Duplicate of			
Units	**ug/L**	**ug/L**	**ug/L**
EPH			
C11-C22 Aromatics	---	---	**1100**
C19-C36 Aliphatics	---	---	**630**
C9-C18 Aliphatics	---	---	**1100**
EPH Screen	---	---	**4100**
Total Extractable Hydrocarbons	---	---	---
Total Petroleum Hydrocarbons	---	---	---
VPH			
C5-C8 Aliphatics	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---
C9-C10 Aromatics	---	---	---
C9-C12 Aliphatics	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---
TVPH	---	---	---
EPH Screen	---	---	---
Total Extractable Hydrocarbons	---	---	---
Benzene	---	---	1 U
Ethylbenzene	---	---	1 U
Methyl Tert-Butyl Ether	---	---	1.5 U
Naphthalene	---	---	---
O-Xylene	---	---	1 U
Toluene	---	---	1 U
Xylenes (Total)	---	---	1 U
Petroleum Hydrocarbons			
Diesel Range Organics	**4600**	**1700**	**11000 D**
Diesel Range Organics As Diesel	**4600**	590 U	---
Diesel Range Organics As Motor Oil	---	---	**760**
Total Extractable Hydrocarbons	**5100**	**2100**	**2900**

Notes:

Detected values are shown in bold
D = Sample dilution
DU = Duplicate sample
EPH = Extractable petroleum hydrocarbons
GW = Groundwater sample
TVPH = Total volatile petroleum hydrocarbons
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value
VPH = Volatile petroleum hydrocarbons

Appendix G - KRY Historical Data
Retec Groundwater Dioxins & Furans, 1996-2005

Sample Station	GW-1	GW-1	GW-5	GW-5	GW-5	GW-5	GW-5	GWRR-2	GWRR-4
Sample Identification	GW-1	GW-1	GW-5	GW-5	GW-5	GW-5	GW-5	GWRR-2	GWRR-4
Sample Collection Date	7/9/2001	8/6/2002	7/9/2001	8/6/2002	10/1/2003	4/7/2004	10/19/2004	7/10/2001	7/10/2001
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	**2270**	**11000**	**4370**	**3800**	**38000**	**13000 A**	**57000**	**5500**	**1330**
1,2,3,4,6,7,8,9-OCDF	**99**	**410**	**259**	**170**	**1500**	**600 A**	**2000**	**259**	**42.2 J**
1,2,3,4,6,7,8-HPCDD	**415**	**1500**	**758**	**440**	**4500**	**1400 A**	**8200 A**	**824**	**174**
1,2,3,4,6,7,8-HPCDF	**34.2**	**120**	**74.1**	**53**	**510**	**160 A**	**820**	**91.9**	**13 J**
1,2,3,4,7,8,9-HPCDF	**6.1**	10 U	11.7 U	10 U	100 U	38 UA	**48 J**	36.4 U	6.7 U
1,2,3,4,7,8-HXCDD	2.9 U	10 U	10.7 U	10 U	100 U	16 UA	**79**	36.1 U	4.3 U
1,2,3,4,7,8-HXCDF	**5.4 J**	**15 J**	6.6 U	10 U	100 U	**20 JA**	**140 E**	23.9 U	2.8 U
1,2,3,6,7,8-HXCDD	**17.2 J**	**99**	**40.6 J**	**29 J**	**240 J**	**77 A**	**510**	35.7 U	4.5 U
1,2,3,6,7,8-HXCDF	**2.7**	10 U	7.1 U	10 U	**16 E**	17 UA	**24 J**	23.4 U	3 U
1,2,3,7,8,9-HXCDD	2.8 U	10 U	10.4 U	10 U	100 U	16 UA	**36 J**	34.5 U	4.2 U
1,2,3,7,8,9-HXCDF	2.3 U	**14 J**	6.5 U	10 U	100 U	18 UA	**47 J**	28.6 U	3.7 U
1,2,3,7,8-PECDD	3.6 U	10 U	12.6 U	10 U	100 U	23 UA	10 U	**62.6**	3.8 U
1,2,3,7,8-PECDF	3.1 U	**84 EJ**	10.9 U	**30 EJ**	100 U	**64 EA**	**34 J**	23 U	3.7 U
2,3,4,6,7,8-HXCDF	1.9 U	**13 J**	6.9 U	10 U	100 U	17 UA	**62**	24 U	2.9 U
2,3,4,7,8-PECDF	3 U	10 U	10.5 U	10 U	100 U	22 UA	**57**	**499**	3.6 U
2,3,7,8-TCDD	3.5 U	2.1 U	8.1 U	2.1 U	33 UA	10 UA	8.2 U,A	25.2 U	4.5 U
2,3,7,8-TCDF	2.1 U	2.1 U	6.3 U	2.8 UA	45 UA	13 UA	**14 A**	19.4 U	3.2 U
GROUP 1 PECDF	---	---	---	---	---	---	**260**	---	---
HPCDD (TOTAL)	**39.7**	**2400**	**82.9**	**720**	**7300**	**2500**	**13000**	35.5 U	4.3 U
HPCDF (TOTAL)	**144**	**500**	**224**	**240**	**2100**	**710**	**3500**	**351**	**45**
HXCDD (TOTAL)	---	**250**	---	**57 J**	**620**	**190**	**1400**	---	---
HXCDF (TOTAL)	**73**	**370**	**111**	**110**	**830**	**310**	**2100**	**102**	**19.9**
PCDD (TOTAL)	**14**	---	**32.5**	---	---	---	---	**80.9**	**10.6**
PCDF (TOTAL)	**3.6**	---	**10.33**	---	---	---	---	**265**	**3.8**
PECDD (TOTAL)	3.6 U	10 U	12.6 U	10 U	100 U	11 U	10 U	**824**	3.8 U
PECDF (TOTAL)	**6.4**	**48 J**	10.7 U	**15 J**	**120 J**	11 U	**410**	**741**	3.7 U
TCDD (TOTAL)	**3.6 Q**	2.1 U	8.1 U	2.1 U	21 U	2.1 U	2 U	25.2 U	4.5 U
TCDF (TOTAL)	**6.6**	2.1 U	6.3 U	2.1 U	21 U	2.1 U	**53**	19.4 U	3.2 U
2,3,7,8-TCDD (TEQ) (WHO1998)	**12.0605**	**44.705**	**28.412**	**21.07**	**197.45**	**55.54**	**221.18**	**345.896**	**8.476**

Appendix G - KRY Historical Data
Retec Groundwater Dioxins & Furans, 1996-2005

Sample Station	GWRR-4	GWY-10	GWY-10	GWY-12	GWY-14	GWY-14	GWY-4	KPT-1	KPT-1
Sample Identification	GWRR-4	GWY-10	GWY-10	GWY-12	GWY-14	GWY-14	GWY-4	KPT-1	KPT-1
Sample Collection Date	8/6/2002	7/10/2001	8/6/2002	7/10/2001	7/10/2001	8/6/2002	4/7/2004	8/6/2002	10/1/2003
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	**8800**	**417 B**	**190**	**11.2 JB**	**214 B**	**430**	**660**	**7500**	**3100**
1,2,3,4,6,7,8,9-OCDF	**350**	13.9 U	21 U	3 U	18.8 U	20 U	**25 J**	**290**	**140**
1,2,3,4,6,7,8-HPCDD	**860**	**78.4**	**26 J**	3.1 U	**34.2 J**	**56**	**95**	**950**	**370**
1,2,3,4,6,7,8-HPCDF	**94**	**4.8 J**	10 U	1.4 U	3.8 U	10 U	**10 J**	**94**	**67**
1,2,3,4,7,8,9-HPCDF	**10 J**	4.7 U	10 U	1.8 U	5.2 U	10 U	10 U	10 U	10 U
1,2,3,4,7,8-HXCDD	10 U	3.6 U	10 U	1.6 U	3.5 U	10 U	10 U	10 U	10 U
1,2,3,4,7,8-HXCDF	**11 J**	1.9 U	10 U	1.1 U	2.2 U	10 U	10 U	10 U	10 U
1,2,3,6,7,8-HXCDD	**48 J**	3.6 U	10 U	1.6 U	3.4 U	10 U	10 U	**55**	**15 J**
1,2,3,6,7,8-HXCDF	10 U	1.9 U	10 U	1.2 U	2.2 U	10 U	10 U	10 U	10 U
1,2,3,7,8,9-HXCDD	10 U	3.4 U	10 U	1.5 U	3.3 U	10 U	10 U	10 U	10 U
1,2,3,7,8,9-HXCDF	**13 J**	2.5 U	10 U	1.4 U	2.9 U	10 U	10 U	10 U	10 U
1,2,3,7,8-PECDD	10 U	2.7 U	10 U	1.4 U	2.5 U	10 U	10 U	10 U	10 U
1,2,3,7,8-PECDF	**53 EJ**	**22 J**	10 U	1.3 U	**7.6 J**	**210 EJ**	10 U	**31 EJ**	10 U
2,3,4,6,7,8-HXCDF	10 U	2.1 U	10 U	1.1 U	2.5 U	10 U	10 U	10 U	10 U
2,3,4,7,8-PECDF	10 U	1.8 U	10 U	1.2 U	1.4 U	10 U	10 U	10 U	10 U
2,3,7,8-TCDD	2 U	2.2 U	2.1 U	1.6 U	1.8 U	2 U	2 U	2 U	2.1 UA
2,3,7,8-TCDF	2 U	1.3 U	2.1 U	1 U	1.3 U	2 U	2 U	2.2 UA	2 U
GROUP 1 PECDF	---	---	---	---	---	---	---	---	---
HPCDD (TOTAL)	**1400**	3.5 U	**43 J**	1.6 U	3.4 U	**95**	**160**	**1600**	**690**
HPCDF (TOTAL)	**390**	**16.6**	10 U	1.6 U	4.4 U	**20 J**	**10 J**	**350**	**170**
HXCDD (TOTAL)	**120**	---	10 U	---	---	10 U	10 U	**140**	**48 J**
HXCDF (TOTAL)	**200**	**11.5**	10 U	1.2 U	**24.6**	10 U	10 U	**180**	**60**
PCDD (TOTAL)	---	**5.9**	---	**2.8**	**4.7**	---	---	---	---
PCDF (TOTAL)	---	**1.99**	---	**1.28**	**2.3**	---	---	---	---
PECDD (TOTAL)	10 U	2.7 U	10 U	1.4 U	2.5 U	10 U	10 U	10 U	10 U
PECDF (TOTAL)	**27 J**	**2.2**	10 U	1.3 U	**7.6 X**	10 U	10 U	**19 J**	10 U
TCDD (TOTAL)	2 U	2.2 U	2.1 U	1.6 U	**3.2**	2 U	2 U	2 U	2 U
TCDF (TOTAL)	2 U	**2.7**	2.1 U	1 U	**29.9 X**	2 U	2 U	2 U	**6.8 J**
2,3,7,8-TCDD (TEQ) (WHO1998)	**30.09**	**5.8705**	**12.765**	**2.389**	**4.332**	**23.26**	**13.45**	**29.15**	**17.82**

Appendix G - KRY Historical Data
Retec Groundwater Dioxins & Furans, 1996-2005

Sample Station	KPT-1	KPT-12	KPT-12	KPT-16	KPT-16	KPT-17	KPT-18	KPT-19	KPT-29
Sample Identification	KPT-1	KPT-12	KPT-12	KPT-16	KPT-22	KPT-17	KPT-18	KPT-19	KPT-29
Sample Collection Date	10/20/2004	7/9/2001	8/6/2002	8/6/2002	11/6/2005	11/8/2005	11/8/2005	11/6/2005	11/6/2005
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	**4200**	**261640**	**380000 N2**	**9100**	49.2 UJ	24.1 U	**151**	**1030**	**3390**
1,2,3,4,6,7,8,9-OCDF	**150**	**33400**	**26000**	**470**	20.7 U	24.1 U	28.6 U	**49.4**	**146**
1,2,3,4,6,7,8-HPCDD	**560**	**121670**	**40000**	**1000**	**10.7 J**	12.1 U	**25.2**	**163**	**482**
1,2,3,4,6,7,8-HPCDF	**55**	**14070**	**5700**	**130**	10.3 U	12.1 U	14.3 U	10.3 U	**93.8**
1,2,3,4,7,8,9-HPCDF	10 U	**2030**	**380**	10 U	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
1,2,3,4,7,8-HXCDD	10 U	5 U	**320**	10 U	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
1,2,3,4,7,8-HXCDF	10 U	**1420**	**630**	**16 J**	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
1,2,3,6,7,8-HXCDD	**35 J**	**4350**	**2000**	**46 J**	10.3 U	12.1 U	14.3 U	**11.1**	**25.1 J**
1,2,3,6,7,8-HXCDF	10 U	**365**	**84**	10 U	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
1,2,3,7,8,9-HXCDD	10 U	**239**	**150**	10 U	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
1,2,3,7,8,9-HXCDF	10 U	**91.6**	**270 EJ**	10 U	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
1,2,3,7,8-PECDD	10 U	6.1 U	**12 J**	10 U	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
1,2,3,7,8-PECDF	10 U	**332**	**1900 EJ**	**37 EJ**	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
2,3,4,6,7,8-HXCDF	10 U	**636**	**150**	10 U	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
2,3,4,7,8-PECDF	10 U	**382**	**150**	10 U	10.3 U	12.1 U	14.3 U	10.3 U	10.5 U
2,3,7,8-TCDD	3.1 U	6.5 U	2.1 U	2.1 U	2.07 U	2.41 U	2.86 U	2.06 U	2.11 U
2,3,7,8-TCDF	2.1 U	**66.1**	**27**	2.8 UA	2.07 U	2.41 U	2.86 U	2.06 U	2.11 U
GROUP 1 PECDF	0 U	---	---	---	---	---	---	---	---
HPCDD (TOTAL)	**930**	**195200**	**66000**	**1600**	---	---	---	---	---
HPCDF (TOTAL)	**190**	**71920**	**28000**	**580**	---	---	---	---	---
HXCDD (TOTAL)	**66**	---	**5500**	**120**	---	---	---	---	---
HXCDF (TOTAL)	**98**	**24540**	**10000**	**230**	---	---	---	---	---
PCDD (TOTAL)	---	**1947**	---	---	---	---	---	---	---
PCDF (TOTAL)	---	**652**	---	---	---	---	---	---	---
PECDD (TOTAL)	10 U	6.1 U	**12 J**	10 U	---	---	---	---	---
PECDF (TOTAL)	10 U	**3050**	**1400**	**21 J**	---	---	---	---	---
TCDD (TOTAL)	2.1 U	**7.4**	**3.2 J**	2.1 U	---	---	---	---	---
TCDF (TOTAL)	2.1 U	**132**	**66**	2.1 U	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO1998)	**22.105**	**2308.62**	**1006.95**	**30.59**	**12.936**	**15.1195**	**18.0555**	**15.0485**	**20.7685**

Appendix G - KRY Historical Data
Retec Groundwater Dioxins & Furans, 1996-2005

Sample Station	KPT-6	KPT-7	KPT-7	KPT-7	KPT-9	KPT-9	OMW-1	OSW-2
Sample Identification	KPT-6	KPT-7	KPT-7	KPT-20	KPT-9	KPT-9	OMW-1	OSW-2
Sample Collection Date	8/6/2002	7/9/2001	8/6/2002	11/6/2005	7/9/2001	8/6/2002	10/19/2004	7/9/2001
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	16000000 N2J	257530	400000 N2	61100	851	19000	16000000 N2	136180
1,2,3,4,6,7,8,9-OCDF	890000 N2	18950	16000	2840	24.3 U	980	600000	7320
1,2,3,4,6,7,8-HPCDD	4600000 N2	118090	53000	8110	131	2400	2200000 N2	57080
1,2,3,4,6,7,8-HPCDF	620000 N2	8720	5100	10.4 U	14.8 J	290	220000	4090
1,2,3,4,7,8,9-HPCDF	34000 N2	494	240	64.1	8.2 U	15 J	12000	197
1,2,3,4,7,8-HXCDD	3400	46.7 J	430	10.4 U	5 U	18 J	1200	12.5 J
1,2,3,4,7,8-HXCDF	62000	860	490	133	3.1 U	21 J	16000	489
1,2,3,6,7,8-HXCDD	360000	5370	3500	463	4.9 U	140	140000	2810
1,2,3,6,7,8-HXCDF	19000	344	130	10.4 U	3 U	10 U	5600	134
1,2,3,7,8,9-HXCDD	25000	381	250	34.9	4.7 U	14 J	8500	162
1,2,3,7,8,9-HXCDF	40000	93	310 EJ	10.4 U	4 U	19 J	1700	41.8 J
1,2,3,7,8-PECDD	1900	26.1 J	13 J	10.4 U	2.9 U	10 U	360 J	5.4 J
1,2,3,7,8-PECDF	240000 EJ	354	1800 EJ	32.7	2.2 U	130 EJ	6700	146
2,3,4,6,7,8-HXCDF	34000	549	230	64.5	3.4 U	19 J	14000	346
2,3,4,7,8-PECDF	79000 EJ	290	170	76.3	2 U	10 U	5100	146
2,3,7,8-TCDD	51 UA	9.7 J	2.1 U	2.08 U	2.9 U	2.1 U	22 U	1.8 U
2,3,7,8-TCDF	70000 EAJ	72.6	44	11.7	1.9 U	3.5 JA	2200	32.8
GROUP 1 PECDF	---	---	---	---	---	---	66000	---
HPCDD (TOTAL)	7400000 N2	13480	86000	---	4.9 U	3900	3600000 N2	6210
HPCDF (TOTAL)	2900000 N2	196300	22000	---	43.7	1200	920000	17040
HXCDD (TOTAL)	910000	---	9000	---	---	380	310000	---
HXCDF (TOTAL)	720000	20470	12000	---	12.2	610	520000	11590
PCDD (TOTAL)	---	2041	---	---	8	---	---	1010
PCDF (TOTAL)	---	466	---	---	2.9	---	---	234.8
PECDD (TOTAL)	15000	31.8	13 J	---	2.9 U	10 U	4500	18.5
PECDF (TOTAL)	200000	4310	1900	---	2.1 U	78	110000	1590
TCDD (TOTAL)	5500	9.7	4.1 J	---	2.9 U	2.1 U	1700	1.8 U
TCDF (TOTAL)	10000	336	190	---	1.9 U	20	13000	131
2,3,7,8-TCDD (TEQ) (WHO1998)	167305.5	2243.17	1310.85	200.088	6.454	66.05	46496	1103.08

Sample Station	GW-1	GW-5	GW-5	GW-5	GW-5	GW-5	GW-5	GWRR-2	GWRR-2	GWRR-2	GWRR-2
Sample Identification	GW-1	GW-5	GW-5	GW-5	GW-5	GW-5	GW-5	GWRR-2	GWRR-2	GWRR-2	GWRR-2
Sample Collection Date	11/16/1994	7/9/2001	8/6/2002	4/2/2003	10/1/2003	4/7/2004	10/19/2004	7/10/2001	4/2/2003	10/1/2003	4/7/2004
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of											
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SVOCs											
1,2,4-Trichlorobenzene	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
1,2-Dichlorobenzene	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
1,3-Dichlorobenzene	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
1,4-Dichlorobenzene	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
2,4,5-Trichlorophenol	5 U	5 U	51 U	---	52 U	51 U	51 U	5 U	---	51 U	51 U
2,4,6-Trichlorophenol	5 U	5 U	10 U	---	10 U	10 U	10.2 U	5 U	---	10 U	10 U
2,4-Dichlorophenol	3 U	3 U	10 U	---	10 U	10 U	10.2 U	3 U	---	10 U	10 U
2,4-Dimethylphenol	3 U	3 U	10 U	---	10 U	10 U	10.2 UJ	3 U	---	10 U	10 U
2,4-Dinitrophenol	10 U	10 U	51 U	---	52 U	51 U	51 U	10 U	---	51 U	51 U
2,4-Dinitrotoluene	5 U	5 U	10 U	---	10 U	10 U	10.2 U	5 U	---	10 U	10 U
2,6-Dinitrotoluene	5 U	5 U	10 U	---	10 U	10 U	10.2 U	5 U	---	10 U	10 U
2-Chloronaphthalene	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
2-Chlorophenol	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
2-Methylnaphthalene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
2-Methylphenol	2 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
2-Nitroaniline	5 U	5 U	51 U	---	52 U	51 U	51 U	5 U	---	51 U	51 U
2-Nitrophenol	5 U	5 U	10 U	---	10 U	10 U	10.2 U	5 U	---	10 U	10 U
3,3'-Dichlorobenzidine	5 U	5 U	20 U	---	21 U	20 U	20.4 UR	5 U	---	20 U	20 U
3-Nitroaniline	6 U	6 U	51 U	---	52 U	51 U	51 U	6 U	---	51 U	51 U
4,6-Dinitro-2-Methylphenol	10 U	10 U	51 U	---	52 U	51 U	51 U	10 U	---	51 U	51 U
4-Bromophenylphenylether	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
4-Chloro-3-Methylphenol	2 U	2 U	10 U	---	10 U	10 U	10.2 U	2 U	---	10 U	10 U
4-Chloroaniline	3 U	3 U	51 U	---	52 U	51 U	51 U	3 U	---	51 U	51 U
4-Chlorophenylphenylether	---	---	10 U	---	---	---	---	1 U	---	---	---
4-Methylphenol	1 U	1 U	10 U	---	10 U	10 U	---	1 U	---	10 U	10 U
4-Methylphenol/3-Methylphenol	---	---	---	---	---	---	20.4 U	---	---	---	---
4-Nitroaniline	5 U	5 U	51 U	---	52 U	51 U	51 U	5 U	---	51 U	51 U
4-Nitrophenol	5 U	5 U	51 U	---	52 U	51 U	51 U	5 U	---	51 U	51 U
Acenaphthene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Acenaphthylene	---	---	---	---	---	10 U	10.2 U	1 U	---	---	10 U
Anthracene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Benzo(a)Anthracene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Benzo(a)Pyrene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Benzo(B)Fluoranthene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Benzo(g,h,i)Perylene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Benzo(k)Fluoranthene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Benzoic Acid	10 U	10 U	51 U	---	52 U	51 U	51 U	10 U	---	51 U	51 U
Benzyl Alcohol	5 U	5 U	10 U	---	10 U	10 U	10.2 U	5 U	---	10 U	10 U
Bis(2-Chloroethoxy)Methane	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Bis(2-Chloroethyl)Ether	2 U	2 U	10 U	---	10 U	10 U	10.2 U	2 U	---	10 U	10 U
Bis(2-Chloroisopropyl)Ether	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Bis(2-Ethylhexyl)Phthalate	1 U	1 U	10 U	---	10 U	10 U	10.2 U	**11**	---	10 U	10 U
Butyl Benzyl Phthalate	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Carbazole	1 U	1 U	---	---	---	---	---	1 U	---	---	---
Chrysene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Dibenzo(a,h)Anthracene	1 U	---	---	---	10 U	10 U	10.2 U	---	---	10 U	10 U
Dibenzofuran	1 U	1 U	10 U	---	10 U	10 U	10.2 U	**1**	---	10 U	10 U
Diethyl Phthalate	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Dimethyl Phthalate	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Di-N-Butylphthalate	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Di-N-Octylphthalate	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Fluoranthene	1 U	1 U	---	---	10 U	10 U	10.2 U	**2.7**	---	10 U	10 U
Fluorene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Hexachlorobenzene	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Hexachlorobutadiene	2 U	2 U	10 U	---	10 U	10 U	10.2 U	2 U	---	10 U	10 U
Hexachlorocyclopentadiene	5 U	5 U	51 U	---	52 U	51 U	51 UR	5 U	---	51 U	51 U
Hexachloroethane	2 U	2 U	10 U	---	10 U	10 U	10.2 U	2 U	---	10 U	10 U
Indeno(1,2,3-cd)Pyrene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Isophorone	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Naphthalene	1 U	1 U	---	---	10 U	10 U	10.2 U	**1.3**	---	10 U	10 U
Nitrobenzene	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
N-Nitrosodi-N-Propylamine	2 U	2 U	10 U	---	10 U	10 U	10.2 U	2 U	---	10 U	10 U
N-Nitrosodiphenylamine	1 U	1 U	10 U	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
Pentachlorophenol	5 U	**100 D**	---	---	**71**	**42**	**38.8**	**10**	---	23 U	23 U
Phenanthrene	1 U	1 U	---	---	10 U	10 U	10.2 U	**2.7**	---	10 U	10 U
Phenol	2 U	2 U	10 U	---	10 U	10 U	10.2 U	2 U	---	10 U	10 U
Pyrene	1 U	1 U	---	---	10 U	10 U	10.2 U	1 U	---	10 U	10 U
SVOC (SIM-Analysis)											
1-Methylnaphthalene	---	---	**0.082**	**0.2**	**0.061**	**0.58 B**	**0.063**	---	**7**	**4.4**	**11**
2-Chloronaphthalene	---	---	0.04 U	0.041 U	**0.17**	0.042 U	0.041 U	---	**1.1**	0.042 U	0.21 U
2-Methylnaphthalene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	**0.5**	**0.42**	**2.5**
Acenaphthene	---	---	**0.083**	**0.084**	0.041 U	**0.065**	0.041 U	---	**4.2**	**0.28**	0.21 U
Acenaphthylene	---	---	0.04 U	0.041 U	---	0.042 U	0.041 U	---	**0.61**	0.042 U	0.21 U
Anthracene	---	---	0.04 U	0.041 U	0.041 U	**0.045**	0.041 U	---	0.042 U	**0.14**	0.21 U
Benzo(a)Anthracene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	0.042 U	**0.26**	**0.61**
Benzo(a)Pyrene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	0.042 U	0.042 U	0.21 U
Benzo(B)Fluoranthene	---	---	0.04 U	**0.1**	0.041 U	0.042 U	0.041 U	---	**0.2**	**0.23**	0.21 U
Benzo(e)Pyrene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	**0.14**	**0.08**	0.21 U
Benzo(g,h,i)Perylene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	0.042 U	**0.062**	0.21 U
Benzo(k)Fluoranthene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	0.042 U	0.042 U	0.21 U
Carbazole	---	---	0.04 U	0.041 U	**0.3**	0.042 U	---	---	0.042 U	**0.31**	0.21 U
Chrysene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	0.042 U	**0.12**	**0.28**
Dibenzo(a,h)Anthracene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	0.042 U	0.042 U	0.21 U
Dibenzofuran	---	---	**0.15**	0.041 U	**0.068**	**0.14 B**	0.041 U	---	0.042 U	**0.66**	**1.8**
Fluoranthene	---	---	0.04 U	0.041 U	**0.048**	0.042 U	0.041 U	---	0.042 U	**0.14**	0.21 U
Fluorene	---	---	**0.11**	**0.2**	**0.14**	**0.23 B**	**0.068**	---	**4**	**1.5**	**3.7**
Indeno(1,2,3-cd)Pyrene	---	---	0.04 U	0.041 U	0.041 U	0.042 U	0.041 U	---	0.042 U	0.042 U	0.21 U
Naphthalene	---	---	**0.24**	0.041 U	0.041 U	**0.12**	0.041 U	---	0.042 U	**0.92**	**2.5**
Pentachlorophenol	---	---	**120**	---	---	---	---	---	---	---	---
Phenanthrene	---	---	0.04 U	0.041 U	0.041 U	**0.11 B**	0.041 U	---	**3.2 B**	**1.6**	**3.9**
Pyrene	---	---	**0.084**	**0.054**	**0.11**	**0.064**	**0.043**	---	**0.42**	**0.29**	**0.53**

Sample Station	GWRR-4	GWY-10	GWY-12	GWY-14	GWY-4	KPT-1	KPT-10	KPT-12	KPT-16	KPT-16	KPT-16	KPT-17
Sample Identification	GWRR-4	GWY-10	GWY-12	GWY-14	GWY-4	KPT-1	KPT-10	KPT-12	KPT-16	KPT-16	KPT-22	KPT-17
Sample Collection Date	7/10/2001	7/10/2001	7/10/2001	7/10/2001	7/10/2001	11/15/1994	7/8/2001	7/9/2001	7/9/2001	7/9/2001	11/6/2005	11/8/2005
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	DU	GW	GW	GW
Duplicate of									KPT-16			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SVOCs												
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
2,4,5-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U
2,4,6-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	10 U
2,4-Dichlorophenol	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	10 U	10 U
2,4-Dimethylphenol	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	10 U	10 U
2,4-Dinitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U
2,4-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	10 U
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	10 U
2-Chloronaphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
2-Chlorophenol	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
2-Methylnaphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
2-Methylphenol	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	10 U	10 U
2-Nitroaniline	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	10 U
3,3'-Dichlorobenzidine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	20 U	20 U
3-Nitroaniline	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	50 U	50 U
4,6-Dinitro-2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U
4-Bromophenylphenylether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
4-Chloro-3-Methylphenol	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	20 U	20 U
4-Chloroaniline	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	20 U	20 U
4-Chlorophenylphenylether	1 U	1 U	1 U	1 U	1 U	---	1 U	1 U	1 U	1 U	10 U	10 U
4-Methylphenol	1 U	1 U	1 U	1 U	**3.1**	1 U	1 U	1 U	1 U	1 U	---	---
4-Methylphenol/3-Methylphenol	---	---	---	---	---	---	---	---	---	---	10 U	10 U
4-Nitroaniline	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U
4-Nitrophenol	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U
Acenaphthene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Acenaphthylene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Anthracene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Benzo(a)Anthracene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Benzo(a)Pyrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Benzo(B)Fluoranthene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Benzo(g,h,i)Perylene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Benzo(k)Fluoranthene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Benzoic Acid	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U
Benzyl Alcohol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	20 U	20 U
Bis(2-Chloroethoxy)Methane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Bis(2-Chloroethyl)Ether	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U
Bis(2-Chloroisopropyl)Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Bis(2-Ethylhexyl)Phthalate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Butyl Benzyl Phthalate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Carbazole	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Chrysene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Dibenzo(a,h)Anthracene	---	---	---	---	---	1 U	1 U	---	---	---	---	---
Dibenzofuran	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Diethyl Phthalate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Dimethyl Phthalate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Di-N-Butylphthalate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**21.6**	10 U
Di-N-Octylphthalate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Fluoranthene	1 U	1 U	1 U	1 U	**2.1**	1 U	1 U	1 U	1 U	1 U	---	---
Fluorene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Hexachlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Hexachlorobutadiene	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	10 U
Hexachloroethane	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
Isophorone	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Naphthalene	1 U	1 U	1 U	1 U	**1.6**	1 U	1 U	---	1 U	---	---	---
Nitrobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
N-Nitrosodi-N-Propylamine	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U
N-Nitrosodiphenylamine	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U
Pentachlorophenol	5 U	**6.1**	5 U	**74**	5 U	5 U	5 U	5 U	5 U	5 U	50 U	50 U
Phenanthrene	1 U	1 U	1 U	1 U	**2.9**	1 U	1 U	1 U	1 U	1 U	---	---
Phenol	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	10 U
Pyrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---
SVOC (SIM-Analysis)												
1-Methylnaphthalene	---	---	---	---	---	---	---	---	---	---	---	---
2-Chloronaphthalene	---	---	---	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	---	---	---	---	---	---	---	---	---	---	0.1 U	0.1 U
Acenaphthene	---	---	---	---	---	---	---	---	---	---	0.1 U	**0.6**
Acenaphthylene	---	---	---	---	---	---	---	---	---	---	0.1 U	**0.7**
Anthracene	---	---	---	---	---	---	---	---	---	---	0.1 U	**1.1**
Benzo(a)Anthracene	---	---	---	---	---	---	---	---	---	---	0.1 U	**1.2**
Benzo(a)Pyrene	---	---	---	---	---	---	---	---	---	---	0.1 U	**0.24**
Benzo(B)Fluoranthene	---	---	---	---	---	---	---	---	---	---	0.1 U	**0.34 J**
Benzo(e)Pyrene	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(g,h,i)Perylene	---	---	---	---	---	---	---	---	---	---	0.1 U	0.1 U
Benzo(k)Fluoranthene	---	---	---	---	---	---	---	---	---	---	0.1 U	0.1 U
Carbazole	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	---	---	---	---	---	---	---	---	---	---	0.1 U	**1.1**
Dibenzo(a,h)Anthracene	---	---	---	---	---	---	---	---	---	---	0.1 U	0.1 U
Dibenzofuran	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	---	---	---	---	---	---	---	---	---	---	0.1 U	**0.26**
Fluorene	---	---	---	---	---	---	---	---	---	---	0.1 U	**2.1**
Indeno(1,2,3-cd)Pyrene	---	---	---	---	---	---	---	---	---	---	0.1 U	0.1 U
Naphthalene	---	---	---	---	---	---	---	---	---	---	0.1 U	**0.81**
Pentachlorophenol	---	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	---	---	---	---	---	---	---	---	---	---	0.1 U	**2.1**
Pyrene	---	---	---	---	---	---	---	---	---	---	0.1U	**1.3**

Sample Station	KPT-18	KPT-19	KPT-2	KPT-29	KPT-3	KPT-3	KPT-4	KPT-5	KPT-5	KPT-5	KPT-6	KPT-6
Sample Identification	KPT-18	KPT-19	KPT-2	KPT-29	KPT-3	3 REEXTRAC	KPT-4	KPT-5	KPT-20	KPT-5	KPT-10	KPT-6
Sample Collection Date	11/8/2005	11/6/2005	11/16/1994	11/6/2005	11/16/1994	11/16/1994	11/16/1994	11/16/1994	7/9/2001	7/9/2001	11/16/1994	11/16/1994
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	DU	GW	DU	GW
Duplicate of									KPT-5		KPT-6	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SVOCs												
1,2,4-Trichlorobenzene	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
1,2-Dichlorobenzene	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
1,3-Dichlorobenzene	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
1,4-Dichlorobenzene	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
2,4,5-Trichlorophenol	50 U	50 U	1000 U	52.1 U	100 U	200 U	20000 U	5 U	5 U	5 U	1000 U	500 U
2,4,6-Trichlorophenol	10 U	10 U	1000 U	10.4 U	100 U	200 U	20000 U	5 U	5 U	5 U	1000 U	500 U
2,4-Dichlorophenol	10 U	10 U	600 U	10.4 U	60 U	120 U	12000 U	3 U	3 U	3 U	600 U	300 U
2,4-Dimethylphenol	10 U	10 U	600 U	10.4 U	60 U	120 U	12000 U	3 U	3 U	3 U	600 U	300 U
2,4-Dinitrophenol	50 U	50 U	2000 U	52.1 U	200 U	400 U	40000 U	10 U	10 U	10 U	2000 U	1000 U
2,4-Dinitrotoluene	10 U	10 U	**4000 Y**	10.4 U	100 U	200 U	20000 U	5 U	5 U	5 U	**3000 Y**	500 U
2,6-Dinitrotoluene	10 U	10 U	1000 U	10.4 U	100 U	200 U	20000 U	5 U	5 U	5 U	1000 U	500 U
2-Chloronaphthalene	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
2-Chlorophenol	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
2-Methylnaphthalene	---	---	**86000**	---	**2600**	**7700**	**120000**	1 U	1 U	1 U	**60000**	**28000**
2-Methylphenol	10 U	10 U	400 U	10.4 U	40 U	80 U	8000 U	2 U	1 U	1 U	400 U	200 U
2-Nitroaniline	50 U	50 U	1000 U	52.1 U	100 U	200 U	20000 U	5 U	5 U	5 U	1000 U	500 U
2-Nitrophenol	10 U	10 U	1000 U	10.4 U	100 U	200 U	20000 U	5 U	5 U	5 U	1000 U	500 U
3,3'-Dichlorobenzidine	20 U	20 U	1000 U	20.8 U	100 U	200 U	20000 U	5 U	5 U	5 U	1000 U	500 U
3-Nitroaniline	50 U	50 U	1200 U	52.1 U	120 U	240 U	24000 U	6 U	6 U	6 U	1200 U	600 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	2000 U	52.1 U	200 U	400 U	40000 U	10 U	10 U	10 U	2000 U	1000 U
4-Bromophenylphenylethe	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
4-Chloro-3-Methylphenol	20 U	20 U	400 U	20.8 U	40 U	80 U	8000 U	2 U	2 U	2 U	400 U	200 U
4-Chloroaniline	20 U	20 U	600 U	20.8 U	60 U	120 U	12000 U	3 U	3 U	3 U	600 U	300 U
4-Chlorophenylphenylethe	10 U	10 U	---	10.4 U	---	---	---	---	---	1 U	---	---
4-Methylphenol	---	---	200 U	---	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
4-Methylphenol/3-Methylpheno	10 U	10 U	---	10.4 U	---	---	---	---	---	---	---	---
4-Nitroaniline	50 U	50 U	1000 U	52.1 U	100 U	200 U	20000 U	5 U	5 U	5 U	**4400 Y**	500 U
4-Nitrophenol	50 U	50 U	1000 U	52.1 U	**250 Y**	**500 Y**	20000 U	5 U	5 U	5 U	1000 U	500 U
Acenaphthene	---	---	**14000 M**	---	**320 M**	**1000 M**	4000 U	1 U	1 U	1 U	**9800**	**4200**
Acenaphthylene	---	---	**960 Y**	---	**10 Y**	**320 Y**	**14000**	1 U	---	1 U	**790 Y**	**1400 Y**
Anthracene	---	---	**3700**	---	**120**	**340**	**4500**	1 U	1 U	1 U	**3200**	**1400**
Benzo(a)Anthracene	---	---	**370**	---	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Benzo(a)Pyrene	---	---	200 U	---	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Benzo(B)Fluoranthene	---	---	200 U	---	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Benzo(g,h,i)Perylene	---	---	200 U	---	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Benzo(k)Fluoranthene	---	---	200 U	---	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Benzoic Acid	50 U	50 U	2000 U	52.1 U	200 U	400 U	40000 U	10 U	10 U	10 U	2000 U	1000 U
Benzyl Alcohol	20 U	20 U	1000 U	20.8 U	100 U	200 U	20000 U	5 U	5 U	5 U	1000 U	500 U
Bis(2-Chloroethoxy)Methane	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Bis(2-Chloroethyl)Ether	10 U	10 U	400 U	10.4 U	40 U	80 U	8000 U	2 U	2 U	2 U	400 U	200 U
Bis(2-Chloroisopropyl)Ether	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Bis(2-Ethylhexyl)Phthalate	10 U	10 U	**680**	10.4 U	**170**	**310**	4000 U	1 U	1 U	1 U	**300**	**140**
Butyl Benzyl Phthalate	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Carbazole	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Chrysene	---	---	**710**	---	**20**	**67**	4000 U	1 U	1 U	1 U	**360**	**160**
Dibenzo(a,h)Anthracene	---	---	200 U	---	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Dibenzofuran	10 U	10 U	**9100 M**	10.4 U	**130 M**	**400 M**	**10000**	1 U	1 U	1 U	**9800**	**2900 M**
Diethyl Phthalate	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Dimethyl Phthalate	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Di-N-Butylphthalate	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Di-N-Octylphthalate	10 U	10 U	200 U	10.4 U	**22**	**68**	4000 U	1 U	1 U	1 U	200 U	**130**
Fluoranthene	---	---	**890 M**	---	**37**	**97**	4000 U	1 U	1 U	1 U	**690 M**	**310**
Fluorene	---	---	**28000**	---	**480**	**1700**	**32000**	1 U	1 U	1 U	**19000**	**8000**
Hexachlorobenzene	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Hexachlorobutadiene	10 U	10 U	400 U	10.4 U	40 U	80 U	8000 U	2 U	2 U	2 U	400 U	200 U
Hexachlorocyclopentadiene	10 U	10 U	1000 U	10.4 U	100 U	200 U	20000 U	5 U	5 U	5 U	1000 U	500 U
Hexachloroethane	10 U	10 U	400 U	10.4 U	40 U	80 U	8000 U	2 U	2 U	2 U	400 U	200 U
Indeno(1,2,3-cd)Pyrene	---	---	200 U	---	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Isophorone	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
Naphthalene	---	---	**4600**	---	**170 M**	**420 M**	**7000**	1 U	1 U	1 U	**2800**	**1200**
Nitrobenzene	10 U	10 U	200 U	10.4 U	20 U	40 U	4000 U	1 U	1 U	1 U	200 U	100 U
N-Nitrosodi-N-Propylamine	10 U	10 U	400 U	10.4 U	40 U	80 U	8000 U	2 U	2 U	2 U	400 U	200 U
N-Nitrosodiphenylamine	10 U	10 U	**7800 M**	10.4 U	**20 M**	**1100 M**	4000 U	1 U	1 U	1 U	200 U	**3900 M**
Pentachlorophenol	50 U	50 U	**220000**	52.1 U	**3700**	**3300**	20000 U	---	**43**	**54**	**8400**	**5300**
Phenanthrene	---	---	**53000**	---	**1200**	**2500**	**48000**	1 U	1 U	1 U	**39000**	**17000**
Phenol	10 U	10 U	400 U	10.4 U	40 U	80 U	8000 U	2 U	2 U	2 U	400 U	200 U
Pyrene	---	---	**3300**	---	**170**	**350**	**4900**	1 U	1 U	1 U	**2100**	**1000**
SVOC (SIM-Analysis)												
1-Methylnaphthalene	---	---	---	---	---	---	---	---	---	---	---	---
2-Chloronaphthalene	---	---	---	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	0.1 U	**11.1**	---	**10.8**	---	---	---	---	---	---	---	---
Acenaphthene	0.1 U	**3.7**	---	**3.7**	---	---	---	---	---	---	---	---
Acenaphthylene	**0.17**	**0.55**	---	**0.54**	---	---	---	---	---	---	---	---
Anthracene	0.1 U	**0.59**	---	**0.53**	---	---	---	---	---	---	---	---
Benzo(a)Anthracene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Benzo(a)Pyrene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Benzo(B)Fluoranthene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Benzo(e)Pyrene	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(g,h,i)Perylene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Benzo(k)Fluoranthene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Carbazole	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Dibenzo(a,h)Anthracene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Dibenzofuran	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Fluorene	**0.19**	**3.3**	---	**3.4**	---	---	---	---	---	---	---	---
Indeno(1,2,3-cd)Pyrene	0.1 U	0.11 U	---	0.1 U	---	---	---	---	---	---	---	---
Naphthalene	0.1 U	**1.2**	---	**1.2**	---	---	---	---	---	---	---	---
Pentachlorophenol	---	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	0.1 U	**3.3**	---	**3.3**	---	---	---	---	---	---	---	---
Pyrene	0.1 U	**0.3**	---	**0.3**	---	---	---	---	---	---	---	---

Sample Station	KPT-6	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7
Sample Identification	KPT-6	KPT-7	KPT-7	KPT-20	KPT-7	KPT-20	KPT-7	KPT-20	KPT-7	KPT-20	KPT-7	KPT-20
Sample Collection Date	4/2/2003	11/16/1994	7/9/2001	8/6/2002	8/6/2002	4/2/2003	4/2/2003	10/1/2003	10/1/2003	4/7/2004	4/7/2004	10/19/2004
Sample Type	GW	GW	GW	DU	GW	DU	GW	DU	GW	DU	GW	DU
Duplicate of				KPT-7		KPT-7		KPT-7		KPT-7		KPT-7
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SVOCs												
1,2,4-Trichlorobenzene	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
1,2-Dichlorobenzene	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
1,3-Dichlorobenzene	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
1,4-Dichlorobenzene	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
2,4,5-Trichlorophenol	---	5 U	5 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
2,4,6-Trichlorophenol	---	5 U	5 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
2,4-Dichlorophenol	---	3 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
2,4-Dimethylphenol	---	3 U	3 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 UJ
2,4-Dinitrophenol	---	10 U	10 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
2,4-Dinitrotoluene	---	5 U	5 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
2,6-Dinitrotoluene	---	5 U	5 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
2-Chloronaphthalene	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
2-Chlorophenol	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
2-Methylnaphthalene	---	**2.3**	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
2-Methylphenol	---	2 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
2-Nitroaniline	---	5 U	5 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
2-Nitrophenol	---	5 U	5 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
3,3'-Dichlorobenzidine	---	5 U	5 U	20 U	21 U	---	---	20 U	20 U	21 U	21 U	**20.4 R**
3-Nitroaniline	---	6 U	6 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
4,6-Dinitro-2-Methylphenol	---	10 U	10 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
4-Bromophenylphenylether	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
4-Chloro-3-Methylphenol	---	2 U	2 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
4-Chloroaniline	---	3 U	3 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
4-Chlorophenylphenylether	---	---	1 U	---	10 U	---	---	---	---	---	---	---
4-Methylphenol	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	---
4-Methylphenol/3-Methylphenol	---	---	---	---	---	---	---	---	---	---	---	20.4 U
4-Nitroaniline	---	5 U	5 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
4-Nitrophenol	---	5 U	5 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
Acenaphthene	---	1 U	**2.1**	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Acenaphthylene	---	**7.5**	1 U	---	---	---	---	---	---	---	---	10.2 U
Anthracene	---	**1.2**	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Benzo(a)Anthracene	---	1 U	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Benzo(a)Pyrene	---	1 U	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Benzo(B)Fluoranthene	---	1 U	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Benzo(g,h,i)Perylene	---	1 U	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Benzo(k)Fluoranthene	---	1 U	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Benzoic Acid	---	10 U	10 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	51 U
Benzyl Alcohol	---	5 U	5 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Bis(2-Chloroethoxy)Methane	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Bis(2-Chloroethyl)Ether	---	2 U	2 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Bis(2-Chloroisopropyl)Ether	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Bis(2-Ethylhexyl)Phthalate	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Butyl Benzyl Phthalate	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Carbazole	---	1 U	1 U	---	---	---	---	---	---	---	---	---
Chrysene	---	1 U	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Dibenzo(a,h)Anthracene	---	1 U	---	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Dibenzofuran	---	**6.3**	**2.4**	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Diethyl Phthalate	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Dimethyl Phthalate	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Di-N-Butylphthalate	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Di-N-Octylphthalate	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Fluoranthene	---	1 U	**3.6**	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Fluorene	---	**13**	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Hexachlorobenzene	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Hexachlorobutadiene	---	2 U	2 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Hexachlorocyclopentadiene	---	5 U	5 U	51 U	52 U	---	---	51 U	51 U	52 U	52 U	**51 R**
Hexachloroethane	---	2 U	2 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Indeno(1,2,3-cd)Pyrene	---	1 U	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Isophorone	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Naphthalene	---	**4.9**	**1.5**	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Nitrobenzene	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
N-Nitrosodi-N-Propylamine	---	2 U	2 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
N-Nitrosodiphenylamine	---	1 U	1 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Pentachlorophenol	---	**1700**	**480 D**	---	---	---	---	**130**	**25**	**24**	24 U	**253**
Phenanthrene	---	**10**	**2**	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
Phenol	---	2 U	2 U	10 U	10 U	---	---	10 U	10 U	10 U	10 U	10.2 U
Pyrene	---	1 U	1 U	---	---	---	---	10 U	10 U	10 U	10 U	10.2 U
SVOC (SIM-Analysis)												
1-Methylnaphthalene	**12**	---	---	**2.5**	**2.5**	**0.36**	**0.38**	0.042 U	0.04 U	**0.51 B**	**0.37 B**	**4.3**
2-Chloronaphthalene	**1.5**	---	---	0.041 U	0.041 U	**0.29**	**0.34**	**0.12**	**0.13**	**0.27**	**0.23**	0.041 U
2-Methylnaphthalene	**4.6**	---	---	**0.11**	**0.14**	**0.18**	**0.14**	0.042 U	0.04 U	**0.058 B**	**0.056 B**	0.041 U
Acenaphthene	**1.3**	---	---	**0.15**	**0.17**	**0.11**	**1.4**	0.042 U	0.04 U	**0.56**	**0.47**	**1.6**
Acenaphthylene	**5**	---	---	**1.1**	**1.4**	**0.35**	**0.17**	---	---	**0.15 B**	**0.11 B**	0.041 U
Anthracene	**1.3**	---	---	0.041 U	0.041 U	**0.57**	0.041 U	0.042 U	0.04 U	0.041 U	0.04 U	0.041 U
Benzo(a)Anthracene	**0.25**	---	---	**0.058**	**0.076**	**0.24**	**0.25**	0.042 U	0.04 U	**0.2**	**0.13**	0.041 U
Benzo(a)Pyrene	0.041 U	---	---	0.041 U	0.041 U	0.043 U	0.041 U	0.042 U	0.04 U	0.041 U	0.04 U	0.041 U
Benzo(B)Fluoranthene	**0.19**	---	---	0.041 U	0.041 U	**0.19**	**0.18**	0.042 U	0.04 U	**0.052**	**0.042**	0.041 U
Benzo(e)Pyrene	**0.085**	---	---	0.041 U	0.041 U	**0.11**	**0.097**	0.042 U	0.04 U	**0.08**	**0.066**	0.041 U
Benzo(g,h,i)Perylene	0.041 U	---	---	0.041 U	0.041 U	0.043 U	0.041 U	0.042 U	0.04 U	0.041 U	0.04 U	0.041 U
Benzo(k)Fluoranthene	**0.043**	---	---	0.041 U	0.041 U	0.043 U	0.041 U	0.042 U	0.04 U	0.041 U	0.04 U	0.041 U
Carbazole	**0.87**	---	---	0.041 U	0.041 U	**0.24**	**0.15**	0.042 U	0.04 U	0.041 U	0.04 U	---
Chrysene	**0.27**	---	---	**0.17**	**0.22**	**0.25**	**0.27**	0.042 U	**0.044**	**0.47**	**0.4**	0.041 U
Dibenzo(a,h)Anthracene	0.041 U	---	---	0.041 U	0.041 U	0.043 U	0.041 U	0.042 U	0.04 U	0.041 U	0.04 U	0.041 U
Dibenzofuran	**4.1**	---	---	**1.6**	**1.7**	**0.34**	**0.4**	0.042 U	0.04 U	**0.27 B**	**0.21 B**	**1.7**
Fluoranthene	**0.81**	---	---	**0.39**	**0.55**	**1.2**	**0.65**	**0.043**	**0.074**	**0.8**	**0.67**	**0.11**
Fluorene	**6.4**	---	---	**1.4**	**1.5**	**0.74**	**0.83**	0.042 U	**0.042**	**0.77 B**	**0.62 B**	**3.8**
Indeno(1,2,3-cd)Pyrene	0.041 U	---	---	0.041 U	0.041 U	0.043 U	0.041 U	0.042 U	0.04 U	0.041 U	0.04 U	0.041 U
Naphthalene	**0.34**	---	---	**0.82**	**0.84**	**0.19**	**0.17**	0.042 U	0.04 U	**0.077**	**0.077**	**1.1**
Pentachlorophenol	---	---	---	**190**	**220**	---	---	---	---	---	---	---
Phenanthrene	**15**	---	---	0.041 U	0.041 U	**0.78**	**1**	0.042 U	0.04 U	0.041 U	0.04 U	**1.5**
Pyrene	**2.4**	---	---	**1.6**	**2.1**	**2.3**	**2.8**	**0.23**	**0.37**	**2.9**	**2.6**	**0.43 J**

Sample Station	**KPT-7**	**KPT-7**	**KPT-8**	**KPT-9**	**KPT-9**
Sample Identification	**KPT-7**	**KPT-20**	**KPT-8**	**KPT-9**	**KPT-9**
Sample Collection Date	**10/19/2004**	**11/6/2005**	**11/16/1994**	**7/9/2001**	**4/2/2003**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of					
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
SVOCs					
1,2,4-Trichlorobenzene	10.3 U	10 U	1 U	1000 U	---
1,2-Dichlorobenzene	10.3 U	10 U	1 U	1000 U	---
1,3-Dichlorobenzene	10.3 U	10 U	1 U	1 U	---
1,4-Dichlorobenzene	10.3 U	10 U	1 U	1000 U	---
2,4,5-Trichlorophenol	51.5 UJ	50 U	5 U	5000 U	---
2,4,6-Trichlorophenol	10.3 UJ	10 U	5 U	5000 U	---
2,4-Dichlorophenol	10.3 UJ	10 U	3 U	3000 U	---
2,4-Dimethylphenol	10.3 UJ	10 U	3 U	3000 U	---
2,4-Dinitrophenol	51.5 UJ	50 U	10 U	10000 U	---
2,4-Dinitrotoluene	10.3 U	10 U	5 U	5000 U	---
2,6-Dinitrotoluene	10.3 U	10 U	5 U	5000 U	---
2-Chloronaphthalene	10.3 U	10 U	1 U	1000 U	---
2-Chlorophenol	10.3 UJ	10 U	1 U	1000 U	---
2-Methylnaphthalene	10.3 U	---	1 U	1000 U	---
2-Methylphenol	10.3 UJ	10 U	2 U	1000 U	---
2-Nitroaniline	51.5 U	50 U	5 U	5000 U	---
2-Nitrophenol	10.3 UJ	10 U	5 U	5000 U	---
3,3'-Dichlorobenzidine	**20.6 R**	20 U	5 U	5000 U	---
3-Nitroaniline	51.5 U	50 U	6 U	6000 U	---
4,6-Dinitro-2-Methylphenol	51.5 UJ	50 U	10 U	10000 U	---
4-Bromophenylphenylether	10.3 U	10 U	1 U	1000 U	---
4-Chloro-3-Methylphenol	10.3 UJ	20 U	2 U	2000 U	---
4-Chloroaniline	51.5 U	20 U	3 U	3000 U	---
4-Chlorophenylphenylether	---	10 U	---	1000 U	---
4-Methylphenol	---	---	1 U	1000 U	---
4-Methylphenol/3-Methylphenol	20.6 UJ	10 U	---	---	---
4-Nitroaniline	51.5 U	50 U	5 U	5000 U	---
4-Nitrophenol	51.5 UJ	50 U	5 U	5000 U	---
Acenaphthene	10.3 U	---	1 U	1000 U	---
Acenaphthylene	10.3 U	---	1 U	1000 U	---
Anthracene	10.3 U	---	1 U	1000 U	---
Benzo(a)Anthracene	10.3 U	---	1 U	1000 U	---
Benzo(a)Pyrene	10.3 U	---	1 U	1000 U	---
Benzo(B)Fluoranthene	10.3 U	---	1 U	1000 U	---
Benzo(g,h,i)Perylene	10.3 U	---	1 U	1000 U	---
Benzo(k)Fluoranthene	10.3 U	---	1 U	1000 U	---
Benzoic Acid	51.5 UJ	50 U	10 U	10000 U	---
Benzyl Alcohol	10.3 UJ	20 U	5 U	5000 U	---
Bis(2-Chloroethoxy)Methane	10.3 U	10 U	1 U	1000 U	---
Bis(2-Chloroethyl)Ether	10.3 U	10 U	2 U	2000 U	---
Bis(2-Chloroisopropyl)Ether	10.3 U	10 U	1 U	1000 U	---
Bis(2-Ethylhexyl)Phthalate	10.3 U	10 U	1 U	1000 U	---
Butyl Benzyl Phthalate	10.3 U	10 U	1 U	1000 U	---
Carbazole	---	10 U	1 U	1000 U	---
Chrysene	10.3 U	---	1 U	1000 U	---
Dibenzo(a,h)Anthracene	10.3 U	---	1 U	---	---
Dibenzofuran	10.3 U	10 U	1 U	1000 U	---
Diethyl Phthalate	10.3 U	10 U	1 U	1000 U	---
Dimethyl Phthalate	10.3 U	10 U	1 U	1000 U	---
Di-N-Butylphthalate	10.3 U	10 U	1 U	1000 U	---
Di-N-Octylphthalate	10.3 U	10 U	1 U	1000 U	---
Fluoranthene	10.3 U	---	1 U	1000 U	---
Fluorene	10.3 U	---	1 U	1000 U	---
Hexachlorobenzene	10.3 U	10 U	1 U	1000 U	---
Hexachlorobutadiene	10.3 U	10 U	2 U	2000 U	---
Hexachlorocyclopentadiene	**51.5 R**	10 U	5 U	5000 U	---
Hexachloroethane	10.3 U	10 U	2 U	2000 U	---
Indeno(1,2,3-cd)Pyrene	10.3 U	---	1 U	1000 U	---
Isophorone	10.3 U	10 U	1 U	1000 U	---
Naphthalene	10.3 U	---	1 U	1000 U	---
Nitrobenzene	10.3 U	10 U	1 U	1000 U	---
N-Nitrosodi-N-Propylamine	10.3 U	10 U	2 U	2000 U	---
N-Nitrosodiphenylamine	10.3 U	10 U	1 U	1000 U	---
Pentachlorophenol	**267 J**	**212**	**37**	**10000**	---
Phenanthrene	10.3 U	---	1 U	1000 U	---
Phenol	10.3 UJ	10 U	2 U	2000 U	---
Pyrene	10.3 U	---	1 U	1000 U	---
SVOC (SIM-Analysis)					
1-Methylnaphthalene	**4.1**	---	---	---	0.042 U
2-Chloronaphthalene	0.041 U	---	---	---	**0.055**
2-Methylnaphthalene	0.041 U	**2**	---	---	**0.045**
Acenaphthene	**1.5**	**4**	---	---	0.042 U
Acenaphthylene	0.041 U	**0.55**	---	---	---
Anthracene	0.041 U	**0.48**	---	---	0.042 U
Benzo(a)Anthracene	0.041 U	0.11 U	---	---	0.042 U
Benzo(a)Pyrene	0.041 U	0.11 U	---	---	0.042 U
Benzo(B)Fluoranthene	0.041 U	0.11 U	---	---	0.042 U
Benzo(e)Pyrene	0.041 U	---	---	---	0.042 U
Benzo(g,h,i)Perylene	0.041 U	0.11 U	---	---	0.042 U
Benzo(k)Fluoranthene	0.041 U	0.11 U	---	---	0.042 U
Carbazole	---	---	---	---	0.042 U
Chrysene	0.041 U	0.11 U	---	---	0.042 U
Dibenzo(a,h)Anthracene	0.041 U	0.11 U	---	---	0.042 U
Dibenzofuran	**1.6**	---	---	---	0.042 U
Fluoranthene	**0.08**	0.11 U	---	---	0.042 U
Fluorene	**3.4**	**3.2**	---	---	0.042 U
Indeno(1,2,3-cd)Pyrene	0.041 U	0.11 U	---	---	0.042 U
Naphthalene	**1.1**	**0.88**	---	---	**0.1**
Pentachlorophenol	---	---	---	---	---
Phenanthrene	**1.7**	**1.8**	---	---	**0.16 B**
Pyrene	**0.31 J**	**0.52**	---	---	0.042 U

Notes:

Detected values are shown in bold
B = Compound detected in method blank
D = Sample dilution
DU = Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
M = Low or poor spectral match; value should be considered estimated
R = Quality control indicates data is not useable
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter
Y = Indicates a raised detection limit due to matrix interference

Appendix G - KRY Historical Data
Retec Groundwater VOC, 1996-2005

Sample Station	**GW-1**	**GW-2**	**GW-4**	**GW-5**	**GWRR-1**
Sample Identification	**GW-1**	**GW-2**	**GW-4**	**GW-5**	**GWRR-1**
Sample Collection Date	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of					
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	**58**	10 U
Acrolein	---	---	---	---	---
Acrylonitrile	---	---	---	---	---
Benzene	5 U	5 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 U
Bromomethane	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U
Chloroethane	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	10 U
Cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U
Dichlorobromomethane	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5 U	5 U	5 U	**3 J**	**3 J**
Naphthalene	---	---	---	---	---
Styrene	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U
Xylene	5 U	5 U	5 U	5 U	5 U

Appendix G - KRY Historical Data
Retec Groundwater VOC, 1996-2005

Sample Station	GWRR-2	GWRR-3	GWY-10	GWY-12	GWY-14
Sample Identification	GWRR-2	GWRR-3	GWY-10	GWY-12	GWY-14
Sample Collection Date	8/20/1991	8/20/1991	8/20/1991	8/20/1991	8/20/1991
Sample Type	GW	GW	GW	GW	GW
Duplicate of					
Units	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	25 U	25 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	25 U	25 U	5 U	5 U	5 U
1,1,2-Trichloroethane	25 U	25 U	5 U	5 U	5 U
1,1-Dichloroethane	25 U	25 U	5 U	5 U	5 U
1,1-Dichloroethene	25 U	25 U	5 U	5 U	5 U
1,2-Dichloroethane	25 U	25 U	5 U	5 U	5 U
1,2-Dichloroethene	25 U	25 U	5 U	5 U	5 U
1,2-Dichloropropane	25 U	25 U	5 U	5 U	5 U
2-Butanone	50 U	50 U	10 U	10 U	10 U
2-Hexanone	50 U	50 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	50 U	50 U	10 U	10 U	10 U
Acetone	50 U	50 U	10 U	10 U	10 U
Acrolein	---	---	---	---	---
Acrylonitrile	---	---	---	---	---
Benzene	25 U	25 U	5 U	5 U	5 U
Bromoform	25 U	25 U	5 U	5 U	5 U
Bromomethane	50 U	50 U	10 U	10 U	10 U
Carbon Disulfide	50 U	50 U	10 U	10 U	10 U
Carbon Tetrachloride	25 U	25 U	5 U	5 U	5 U
Chlorobenzene	25 U	25 U	5 U	5 U	5 U
Chloroethane	50 U	50 U	10 U	10 U	10 U
Chloroform	50 U	50 U	10 U	10 U	10 U
Chloromethane	50 U	50 U	10 U	10 U	10 U
Cis-1,3-Dichloropropene	25 U	25 U	5 U	5 U	5 U
Dibromochloromethane	25 U	25 U	5 U	5 U	5 U
Dichlorobromomethane	25 U	25 U	5 U	5 U	5 U
Ethylbenzene	25 U	25 U	5 U	5 U	5 U
Methylene Chloride	25 U	25 U	5 U	5 U	5 U
Naphthalene	---	---	---	---	---
Styrene	25 U	25 U	5 U	5 U	5 U
Tetrachloroethene	25 U	25 U	5 U	5 U	5 U
Toluene	25 U	25 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	25 U	25 U	5 U	5 U	5 U
Trichloroethene	25 U	25 U	5 U	5 U	5 U
Vinyl Acetate	50 U	50 U	10 U	10 U	10 U
Vinyl Chloride	50 U	50 U	10 U	10 U	10 U
Xylene	25 U	25 U	5 U	5 U	5 U

Appendix G - KRY Historical Data
Retec Groundwater VOC, 1996-2005

Sample Station	GWY-8	KPT-7	KPT-7	KPT-8
Sample Identification	GWY-8	KPT-7	KPT-20	KPT-8
Sample Collection Date	8/20/1991	11/16/1994	11/6/2005	11/16/1994
Sample Type	GW	GW	DU	GW
Duplicate of			KPT-7	
Units	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5 U	1 U	1 U	I U
1,1,2,2-Tetrachloroethane	5 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5 U	1 U	1 U	1 U
1,1-Dichloroethane	5 U	1 U	1 U	1 U
1,1-Dichloroethene	5 U	1 U	1 U	1 U
1,2-Dichloroethane	5 U	2 U	---	2 U
1,2-Dichloroethene	5 U	1 U	1 U	1 U
1,2-Dichloropropane	5 U	1 U	1 U	1 U
2-Butanone	10 U	1 U	1 U	1 U
2-Hexanone	10 U	5 U	1 U	5 U
4-Methyl-2-Pentanone	10 U	1 U	2.5 U	1 U
Acetone	10 U	5 U	1 U	5 U
Acrolein	---	**7.1**	1 U	1 U
Acrylonitrile	---	5 U	2.5 U	5 U
Benzene	5 U	1 U	1 U	1 U
Bromoform	5 U	1 U	1 U	1 U
Bromomethane	10 U	1 U	1 U	1 U
Carbon Disulfide	10 U	1 U	1 U	1 U
Carbon Tetrachloride	5 U	---	1 U	---
Chlorobenzene	5 U	1 U	1 U	1 U
Chloroethane	10 U	**3.6**	1 U	1 U
Chloroform	10 U	1 U	1 U	1 U
Chloromethane	10 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	5 U	1 U	1 U	1 U
Dibromochloromethane	5 U	1 U	1 U	1 U
Dichlorobromomethane	5 U	5 U	10 U	5 U
Ethylbenzene	5 U	5 U	---	5 U
Methylene Chloride	5 U	1 U	1 U	1 U
Naphthalene	---	5 U	10 U	5 U
Styrene	5 U	1 U	1 U	1 U
Tetrachloroethene	5 U	1 U	1 U	1 U
Toluene	5 U	5 U	10 U	5 U
Trans-1,3-Dichloropropene	5 U	**9.5 B**	**10 R**	**8.7 B**
Trichloroethene	5 U	5 U	---	5 U
Vinyl Acetate	10 U	5 U	---	5 U
Vinyl Chloride	10 U	1 U	1 U	1 U
Xylene	5 U	1 U	1 U	1 U

Notes:

Detected values are shown in bold
B = Compound detected in method blank
DU = Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
R = Quality control indicates data is not useable
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter
VOC = Volatile organic compound

Sample Station	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-5**
Sample Identification	**GW-1**	**GW-1**	**GW-1-898**	**GW-25-299**	**GW-1-299**	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-1**	**GW-5-898**
Sample Collection Date	**11/16/1994**	**3/22/1995**	**8/28/1998**	**2/23/1999**	**2/23/1999**	**8/6/2002**	**4/2/2003**	**10/1/2003**	**4/7/2004**	**10/19/2004**	**8/26/1998**
Sample Type	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of				**GW-1**							
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	**0.52 J**	**0.35 Y**	0.25 U	0.25 U	0.25 U	1 U	**1.3**	0.5 U	0.51 U	0.52 U	**430**

Sample Station	**GW-5**	**GW-5**	**GW-5**	**GW-5**	**GW-5**	**GW-5**	**GW-5**	**GW-5**	**GW-5**	**GWRR-1**	**GWRR-1**
Sample Identification	**GW-5**	**GW-5-299**	**GW-5**	**GW-5**	**GW-5**	**GW-5 NP**	**GW-5**	**GW-5 RE**	**GW-5**	**GWRR-1-898**	**GWRR-1-299**
Sample Collection Date	**10/5/1998**	**2/22/1999**	**7/9/2001**	**4/2/2003**	**10/1/2003**	**10/1/2003**	**4/7/2004**	**4/7/2004**	**10/19/2004**	**8/29/1998**	**2/23/1999**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of											
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	**380**	**270**	**60**	**83**	**17**	**13**	**14**	**3.8**	**28.1 J**	0.25 U	0.25 U

Sample Station	**GWRR-2**	**GWRR-2**	**GWRR-2**	**GWRR-2**	**GWRR-2**	**GWRR-3**	**GWRR-4**	**GWRR-4**	**GWRR-4**	**GWRR-4**	**GWRR-4**
Sample Identification	**GWRR-2-898**	**GWRR-2-299**	**GWRR-2**	**GWRR-2**	**GWRR-2**	**GWRR-3-299**	**GWRR-4-898**	**GWRR-4-299**	**GWRR-4**	**GWRR-4**	**GWRR-4**
Sample Collection Date	**8/29/1998**	**2/23/1999**	**7/10/2001**	**10/1/2003**	**4/7/2004**	**2/23/1999**	**8/28/1998**	**2/23/1999**	**7/10/2001**	**8/6/2002**	**4/2/2003**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of											
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	**38**	**52**	**3.2**	0.51 U	**0.69**	0.25 U	**0.14 J**	0.25 U	0.25 U	1 U	1 U

Sample Station	**GWRR-4**	**GWRR-4**	**GWRR-4**	**GWRR-6**	**GWRR-6**	**GWRR-6**	**GWY-10**	**GWY-10**	**GWY-10**	**GWY-10**	**GWY-10**
Sample Identification	**GWRR-4**	**GWRR-4**	**GWRR-4**	**GWRR-106-898**	**GWRR-6-898**	**GWRR-6-299**	**GWY-10-898**	**GWY-10-299**	**GWY-10**	**GWY-10 NP**	**GWY-10**
Sample Collection Date	**10/1/2003**	**4/7/2004**	**10/20/2004**	**8/29/1998**	**8/29/1998**	**2/23/1999**	**8/28/1998**	**2/23/1999**	**7/10/2001**	**7/10/2001**	**8/6/2002**
Sample Type	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of				**GWRR-6-898**							
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	0.52 U	**0.52**	0.5 U	0.25 U	0.25 U	0.25 U	**79**	**9.9**	**2.4**	**0.46**	1 U

Sample Station	GWY-10	GWY-10	GWY-10	GWY-10	GWY-10	GWY-10	GWY-10	GWY-10	GWY-12	GWY-12	GWY-12
Sample Identification	GWY-10	GWY-10 NP	GWY-10	GWY-10 NP	GWY-10	GWY-10 NP	GWY-10	GWY-10 NP	GWY-12-898	GWY-12-299	GWY-12
Sample Collection Date	4/2/2003	4/2/2003	10/1/2003	10/1/2003	4/7/2004	4/7/2004	10/19/2004	10/19/2004	8/28/1998	2/23/1999	7/10/2001
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of											
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	**9**	1 U	0.51 U	0.51 U	**3.2**	0.53 U	**8.3 J**	**7.3 J**	**55**	**9.7**	**3**

Sample Station	**GWY-12**	**GWY-12**	**GWY-12**	**GWY-12**	**GWY-12**	**GWY-13**	**GWY-13**	**GWY-14**	**GWY-14**	**GWY-14**	**GWY-14**
Sample Identification	**GWY-12**	**GWY-12**	**GWY-12**	**GWY-12**	**GWY-12**	**GWY-13-898**	**GWY-13-299**	**GWY-14-898**	**GWY-14-299**	**GWY-14**	**GWY-14**
Sample Collection Date	**8/6/2002**	**4/2/2003**	**10/1/2003**	**4/7/2004**	**10/20/2004**	**8/28/1998**	**2/23/1999**	**8/28/1998**	**2/23/1999**	**7/10/2001**	**8/6/2002**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of											
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	1 U	1 U	0.5 U	0.53 U	0.51 U	0.25 U	0.25 U	**150**	**86**	**46**	**51**

Sample Station	**GWY-14**	**GWY-14**	**GWY-14**	**GWY-14**	**GWY-3**	**GWY-3**	**GWY-4**	**GWY-4**	**GWY-4**	**GWY-4**	**GWY-4**
Sample Identification	**GWY-14**	**GWY-14**	**GWY-14**	**GWY-14**	**GWY-3-898**	**GWY-3-299**	**GWY-4-898**	**GWY-4-299**	**GWY-4**	**GWY-4**	**GWY-4**
Sample Collection Date	**4/2/2003**	**10/1/2003**	**4/7/2004**	**10/20/2004**	**8/28/1998**	**2/23/1999**	**8/28/1998**	**2/23/1999**	**7/10/2001**	**8/6/2002**	**4/2/2003**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of											
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	**11**	**7.7**	**3.1**	**3 J**	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1 U	**50**

Sample Station	**GWY-4**	**GWY-4**	**GWY-4**	**KPT-1**	**KPT-1**	**KPT-1**	**KPT-10**	**KPT-10**	**KPT-10**	**KPT-10**	**KPT-10**
Sample Identification	**GWY-4**	**GWY-4**	**GWY-4**	**KPT-1**	**KPT-1**	**KPT-1**	**KPT-10-898**	**KPT-10-299**	**KPT-10**	**KPT-10**	**KPT-10**
Sample Collection Date	**10/1/2003**	**4/7/2004**	**10/20/2004**	**11/15/1994**	**3/22/1995**	**8/6/2002**	**8/26/1998**	**2/22/1999**	**7/8/2001**	**8/6/2002**	**4/2/2003**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of											
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	0.53 U	**0.78**	0.52 U	**0.36**	**2**	1 U	0.25 U	0.25 U	0.25 U	1 U	1.1 U

Sample Station	**KPT-10**	**KPT-10**	**KPT-10**	**KPT-12**	**KPT-12**	**KPT-12**	**KPT-12**	**KPT-12**	**KPT-12**	**KPT-12**	**KPT-12**
Sample Identification	**KPT-10**	**KPT-10**	**KPT-10**	**KPT-12-898**	**KPT-12-299**	**KPT-12**	**KPT-12**	**KPT-12**	**KPT-12**	**KPT-12**	**KPT-12**
Sample Collection Date	**10/1/2003**	**4/7/2004**	**10/20/2004**	**8/26/1998**	**2/23/1999**	**7/9/2001**	**8/6/2002**	**4/2/2003**	**10/1/2003**	**4/7/2004**	**10/19/2004**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of											
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Pentachlorophenol	0.51 U	0.5 U	0.52 U	**0.62**	**1.4**	**0.83**	1 U	**3**	0.51 U	**3.3**	**9 J**

Sample Station	KPT-13	KPT-14	KPT-15	KPT-15	KPT-15	KPT-16	KPT-16	KPT-16	KPT-16	KPT-16	KPT-16
Sample Identification	KPT-13-898	KPT-14-898	KPT-15-898	KPT-15	KPT-15-299	KPT-16	KPT-16	KPT-22	KPT-16	KPT-16	KPT-22
Sample Collection Date	8/27/1998	8/28/1998	8/27/1998	10/5/1998	2/22/1999	7/9/2001	7/9/2001	8/6/2002	8/6/2002	4/2/2003	10/1/2003
Sample Type	GW	GW	GW	GW	GW	DU	GW	DU	GW	GW	DU
Duplicate of						KPT-16		KPT-16			KPT-16
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.25 U	**16**	**340**	**6.2**	**0.39**	**2.8**	**3.8**	1 U	1 U	**62**	0.52 U

Sample Station	KPT-16	KPT-16	KPT-16	KPT-16	KPT-16	KPT-16	KPT-17	KPT-18	KPT-19	KPT-29	KPT-4
Sample Identification	KPT-16	KPT-22	KPT-16	KPT-22	KPT-16	KPT-22	KPT-17	KPT-18	KPT-19	KPT-29	KPT-4-898
Sample Collection Date	10/1/2003	4/7/2004	4/7/2004	10/19/2004	10/19/2004	11/6/2005	11/8/2005	11/8/2005	11/6/2005	11/6/2005	8/26/1998
Sample Type	GW	DU	GW	DU	GW	GW	GW	GW	GW	GW	GW
Duplicate of		KPT-16		KPT-16							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.53 U	**4.9**	**5.7**	**0.58 J**	0.51 U	**0.0857**	**0.208**	0.51 U	**11.8**	**12.9**	**510**

Sample Station	KPT-4	KPT-4	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5
Sample Identification	KPT-4-299	KPT-4	KPT-5	KPT-5	KPT-5-898	KPT-5-299	KPT-20	KPT-5	KPT-5 NP	KPT-5	KPT-5 NP
Sample Collection Date	2/23/1999	4/7/2004	11/16/1994	3/22/1995	8/26/1998	2/22/1999	7/9/2001	7/9/2001	7/9/2001	8/6/2002	8/6/2002
Sample Type	GW	GW	GW	GW	GW	GW	DU	GW	GW	GW	GW
Duplicate of							KPT-5				
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	150	110	220	140	50	220	63 D	63 D	58	70	56

Sample Station	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5	KPT-5	KPT-6	KPT-6	KPT-6
Sample Identification	KPT-5	KPT-5 NP	KPT-5	KPT-5 NP	KPT-5	KPT-5 NP	KPT-5	KPT-5 NP	KPT-6	KPT-6	KPT-6
Sample Collection Date	4/2/2003	4/2/2003	10/1/2003	10/1/2003	4/7/2004	4/7/2004	10/19/2004	10/19/2004	8/6/2002	10/1/2003	4/7/2004
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of											
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	170	200	19	24	24	28	27.8 J	63.1 J	110	14	120

Sample Station	KPT-6	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7
Sample Identification	KPT-6	KPT-7	KPT-7-898	KPT-7-299	KPT-7	KPT-7 NP	KPT-20	KPT-7	KPT-7 NP	KPT-20	KPT-7
Sample Collection Date	10/19/2004	3/22/1995	8/27/1998	2/22/1999	7/9/2001	7/9/2001	4/2/2003	4/2/2003	4/2/2003	10/1/2003	10/1/2003
Sample Type	GW	GW	GW	GW	GW	GW	DU	GW	GW	DU	GW
Duplicate of							KPT-7			KPT-7	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	191	350	370	120	340	370	42	28	3.4	24	25

Sample Station	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-8	KPT-8	KPT-8
Sample Identification	KPT-7 NP	KPT-20	KPT-7	KPT-7 NP	KPT-20	KPT-7	KPT-7 NP	KPT-20	KPT-88	KPT-8	KPT-8-898
Sample Collection Date	10/1/2003	4/7/2004	4/7/2004	4/7/2004	10/19/2004	10/19/2004	10/19/2004	11/6/2005	3/22/1995	3/22/1995	8/27/1998
Sample Type	GW	DU	GW	GW	DU	GW	GW	GW	DU	GW	GW
Duplicate of		KPT-7			KPT-7				KPT-8		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	130	10	0.53	8.1	206	181	145	92.3	16	16	8.8

Appendix G - KRY Historical Data
Retec Groundwater PCP, 1996-2005

Sample Station	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	OMW-1	OMW-1	OMW-1	OMW-2
Sample Identification	KPT-9-898	KPT-9-299	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	OMW-1	OMW-1	OMW-1	OMW-2
Sample Collection Date	8/27/1998	2/22/1999	7/9/2001	8/6/2002	10/1/2003	4/7/2004	10/19/2004	4/2/2003	4/7/2004	10/19/2004	7/9/2001
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of											
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	51	35	1000	4	1.1	0.94	1	260	1100	180	350

Appendix G - KRY Historical Data
Retec Groundwater TCLP, 1996-2005

Sample Station	KPT-16	KPT-17	KPT-18	KPT-19	KPT-29	KPT-7
Sample Identification	**KPT-22**	**KPT-17**	**KPT-18**	**KPT-19**	**KPT-29**	**KPT-20**
Sample Collection Date	**11/6/2005**	**11/8/2005**	**11/8/2005**	**11/6/2005**	**11/6/2005**	**11/6/2005**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Lead	5 U	**204**	5 U	5 U	5 U	5 U

Notes:

Detected values are shown in bold
GW = Groundwater sample
TCLP = Toxicity Characteristic Leaching Procedure
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	GW-1	GW-5	GW-5	GWRR-1	GWRR-2	GWRR-3	GWRR-4	GWRR-5
Sample Identification	GW-1	GW-5	GW-50	GWRR-1	GWRR-2	GWRR-3	GWRR-4	GWRR-5
Sample Collection Date	8/22/1997	8/20/1997	8/20/1997	8/21/1997	8/22/1997	8/21/1997	8/22/1997	8/22/1997
Sample Type	GW	GW	DU	GW	GW	GW	GW	GW
Duplicate of			GW-5					
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	2700	3100	2800	2300	2200	5800	27000	1500

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	GWRR-6	GWRR-7	GWY-10	GWY-12	GWY-13	GWY-14	GWY-3	GWY-4
Sample Identification	GWRR-6	GWRR-7	GWY-10	GWY-12	GWY-13	GWY-14	GWY-3	GWY-4
Sample Collection Date	8/22/1997	8/21/1997	8/21/1997	8/21/1997	8/20/1997	8/20/1997	8/20/1997	8/21/1997
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	7600	3700	4800	1800	3900	5500	8100	5100

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	KPT-1	KPT-10	KPT-11	KPT-12	KPT-13	KPT-14	KPT-15	KPT-15
Sample Identification	KPT-1	KPT-10	KPT-11	KPT-12	KPT-13	KPT-14	KPT-15	KPT-150
Sample Collection Date	8/22/1997	8/20/1997	8/22/1997	8/22/1997	8/23/1997	8/21/1997	8/20/1997	8/20/1997
Sample Type	GW	GW	GW	GW	GW	GW	GW	DU
Duplicate of								KPT-15
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	4300	2000	1000 U	4700	1000 U	1200	2300	2500

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	KPT-2	KPT-4	KPT-5	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7
Sample Identification	KPT-20	KPT-4	KPT-5	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7
Sample Collection Date	11/6/1996	8/23/1997	8/22/1997	9/12/1996	11/6/1996	12/18/1996	1/17/1997	2/20/1997
Sample Type	DU	GW	GW	GW	GW	GW	GW	GW
Duplicate of	KPT-2							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	2500	1200	3200	1800	2600	2500	2600	1900

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7	KPT-8	KPT-9
Sample Identification	KPT-7	KPT-7	KPT-7	KPT-7	KPT-7-898	KPT-7-299	KPT-8	KPT-9
Sample Collection Date	3/18/1997	4/18/1997	6/16/1997	8/20/1997	8/27/1998	2/22/1999	8/23/1997	11/6/1996
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	1600	2000	3100	3400	1300	2200	1000 U	2600

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9
Sample Identification	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9	KPT-9-898	KPT-9-299
Sample Collection Date	1/17/1997	2/20/1997	3/18/1997	4/18/1997	6/16/1997	8/21/1997	8/27/1998	2/22/1999
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	3000	2100	1700	2400	2200	1700	2400	2200

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1
Sample Identification	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1	OSW-1
Sample Collection Date	9/12/1996	11/6/1996	12/18/1996	1/17/1997	2/20/1997	3/18/1997	4/18/1997	6/16/1997
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	2900	1900	2200	2400	2100	2400	3200	4300

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	OSW-1	OSW-1	OSW-1	OSW-1	OSW-2	OSW-2	OSW-2	OSW-2
Sample Identification	OSW-1	OSW-1-898	OSW-101-898	OSW-1-299	OSW-2	OSW-2	OSW-2	OSW-2
Sample Collection Date	8/20/1997	8/27/1998	8/27/1998	2/22/1999	9/12/1996	11/6/1996	12/18/1996	1/17/1997
Sample Type	GW	GW	DU	GW	GW	GW	GW	GW
Duplicate of			OSW-1					
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	5900	2800	3700	3000	2500	2600	3800	3200

Appendix G - KRY Historical Data
Retec Groundwater Chloride, 1996-2005

Sample Station	OSW-2	OSW-2	OSW-2	OSW-2	OSW-2	OSW-2	OSW-2	OSW-2
Sample Identification	KPT-20	OSW-2	KPT-20	OSW-2	KPT-20	OSW-2	KPT-20	OSW-2
Sample Collection Date	1/17/1997	2/20/1997	2/20/1997	3/18/1997	3/18/1997	4/18/1997	4/18/1997	6/16/1997
Sample Type	DU	GW	DU	GW	DU	GW	DU	GW
Duplicate of	OSW-2		OSW-2		OSW-2		OSW-2	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloride	3200	4500	4500	3300	3500	4700	4700	4300

Appendix G - KRY Historical Data
Retec Soil EPH & VPH, 2005

Sample Station	Pipe Gallery	SB05-1	SB05-1	SB05-10	SB05-10	SB05-10	SB05-10
Sample Identification	**PIPE GALLERY**	**SB05-1-0001**	**SB05-1-1011**	**SB05-10-0001**	**SB05-10-0406**	**SB05-10-0608**	**SB05-10-0911**
Sample Collection Date	**11/4/2005**	**11/1/2005**	**11/1/2005**	**11/6/2005**	**11/6/2005**	**11/6/2005**	**11/6/2005**
Sample Type	**SS**	**SS**	**SB**	**SS**	**SB**	**SB**	**SB**
Duplicate of							
Upper Depth (ft)	**0**	**0**	**10**	**0**	**4**	**6**	**9**
Lower Depth (ft)	**2**	**1**	**11**	**1**	**6**	**8**	**11**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH							
C11-C22 Aromatics	**5350**	24.8 U	24.9 U	23.9 U	21.4 U	20.9 U	22.1 U
C19-C36 Aliphatics	**4550 J**	24.8 U	24.9 U	23.9 U	21.4 U	20.9 U	22.1 U
C9-C18 Aliphatics	**11600 J**	24.8 U	24.9 U	23.9 U	21.4 U	20.9 U	22.1 U
Total Extractable Hydrocarbons	**21500 J**	74.4 U	74.7 U	71.7 U	64.3 U	62.6 U	66.2 U
VPH							
C5-C8 Aliphatics	22.9 U	2.45 U	2.48 U	---	---	---	---
C5-C8 Aliphatics Adjusted	22.9 U	2.45 U	2.48 U	---	---	---	---
C9-C10 Aromatics	**235**	2.45 U	**3.61**	---	---	---	---
C9-C12 Aliphatics	**573**	2.45 U	**11.7**	---	---	---	---
C9-C12 Aliphatics Adjusted	**338**	2.45 U	**8.05**	---	---	---	---
TVPH	**579**	4.91 U	**12.4**	---	---	---	---
Benzene	0.572 U	0.0613 U	0.062 U	---	---	---	---
Ethylbenzene	0.572 U	0.0613 U	0.062 U	---	---	---	---
Methyl Tert-Butyl Ether	0.572 U	0.0613 U	0.062 U	---	---	---	---
Naphthalene	2.29 U	0.245 U	0.248 U	---	---	---	---
Toluene	0.572 U	0.0613 U	0.062 U	---	---	---	---
Xylenes (Total)	1.14 U	0.123 U	0.124 U	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil EPH & VPH, 2005

Sample Station	**SB05-11**	**SB05-11**	**SB05-11**	**SB05-11**	**SB05-11**	**SB05-12**	**SB05-12**
Sample Identification	**SB05-11-0001**	**SB05-11-0406**	**SB05-11-0406 RE**	**SB05-11-0911**	**SB05-11-1416**	**SB05-12-0001**	**SB05-12-0406**
Sample Collection Date	**11/6/2005**	**11/6/2005**	**11/6/2005**	**11/6/2005**	**11/6/2005**	**11/6/2005**	**11/6/2005**
Sample Type	**SS**	**SB**	**SB**	**SB**	**SB**	**SS**	**SB**
Duplicate of							
Upper Depth (ft)	**0**	**4**	**4**	**9**	**14**	**0**	**4**
Lower Depth (ft)	**1**	**6**	**6**	**11**	**16**	**1**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH							
C11-C22 Aromatics	**25**	21.1 U	21.8 U	21 U	**2060 J**	22.1 U	20.4 U
C19-C36 Aliphatics	**73.1**	21.1 U	21.8 U	21 U	**660**	22.1 U	20.4 U
C9-C18 Aliphatics	23.1 U	21.1 U	21.8 U	21 U	**2050**	22.1 U	20.4 U
Total Extractable Hydrocarbons	**102**	63.2 U	65.4 U	63 U	**4770 J**	66.2 U	61.3 U
VPH							
C5-C8 Aliphatics	---	---	---	---	---	---	---
C5-C8 Aliphatics Adjusted	---	---	---	---	---	---	---
C9-C10 Aromatics	---	---	---	---	---	---	---
C9-C12 Aliphatics	---	---	---	---	---	---	---
C9-C12 Aliphatics Adjusted	---	---	---	---	---	---	---
TVPH	---	---	---	---	---	---	---
Benzene	---	---	---	---	---	---	---
Ethylbenzene	---	---	---	---	---	---	---
Methyl Tert-Butyl Ether	---	---	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	---
Toluene	---	---	---	---	---	---	---
Xylenes (Total)	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil EPH & VPH, 2005

Sample Station	SB05-12	SB05-13	SB05-13	SB05-13	SB05-14	SB05-14	SB05-14
Sample Identification	**SB05-12-0810**	**SB05-13-0001**	**SB05-13-0406**	**SB05-1300-0406**	**SB05-14-0001**	**SB05-14-0406**	**SB05-14-1113**
Sample Collection Date	**11/6/2005**	**11/7/2005**	**11/7/2005**	**11/7/2005**	**11/7/2005**	**11/7/2005**	**11/7/2005**
Sample Type	**SB**	**SS**	**SB**	**DU**	**SS**	**SB**	**SB**
Duplicate of				**SB05-13-0406**			
Upper Depth (ft)	**8**	**0**	**4**	**4**	**0**	**4**	**11**
Lower Depth (ft)	**10**	**1**	**6**	**6**	**1**	**6**	**13**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH							
C11-C22 Aromatics	23.5 U	24.1 U	22.8 U	22.8 U	21.7 U	20.5 U	21.2 U
C19-C36 Aliphatics	23.5 U	24.1 U	22.8 U	22.8 U	21.7 U	20.5 U	21.2 U
C9-C18 Aliphatics	23.5 U	24.1 U	22.8 U	22.8 U	21.7 U	20.5 U	21.2 U
Total Extractable Hydrocarbons	70.6 U	72.4 U	68.5 U	68.3 U	65.2 U	61.4 U	63.6 U
VPH							
C5-C8 Aliphatics	---	2.43 U	2.25 U	2.28 U	2.16 U	2.07 U	2.13 U
C5-C8 Aliphatics Adjusted	---	2.43 U	2.25 U	2.28 U	2.16 U	2.07 U	2.13 U
C9-C10 Aromatics	---	2.43 U	2.25 U	2.28 U	2.16 U	2.07 U	2.13 U
C9-C12 Aliphatics	---	2.43 U	2.25 U	2.28 U	2.16 U	2.07 U	2.13 U
C9-C12 Aliphatics Adjusted	---	2.43 U	2.25 U	2.28 U	2.16 U	2.07 U	2.13 U
TVPH	---	4.86 U	4.5 U	4.56 U	4.32 U	4.14 U	4.27 U
Benzene	---	0.0608 U	0.0563 U	0.0569 U	0.054 U	0.0517 U	0.0534 U
Ethylbenzene	---	0.0608 U	0.0563 U	0.0569 U	0.054 U	0.0517 U	0.0534 U
Methyl Tert-Butyl Ether	---	0.0608 U	0.0563 U	0.0569 U	0.054 U	0.0517 U	0.0534 U
Naphthalene	---	0.243 U	0.225 U	0.228 U	0.216 U	0.207 U	0.213 U
Toluene	---	0.0608 U	0.0563 U	0.0569 U	0.054 U	0.0517 U	0.0534 U
Xylenes (Total)	---	0.122 U	0.113 U	0.114 U	0.108 U	0.103 U	0.107 U

Appendix G - KRY Historical Data
Retec Soil EPH & VPH, 2005

Sample Station	SB05-15	SB05-15	SB05-15	SB05-16	SB05-16	SB05-16	SB05-2
Sample Identification	**SB05-15-0001**	**SB05-15-0406**	**SB05-15-0608**	**SB05-16-0001**	**SB05-16-0406**	**SB05-16-0911**	**SB05-2-0001**
Sample Collection Date	**11/7/2005**	**11/7/2005**	**11/7/2005**	**11/7/2005**	**11/7/2005**	**11/7/2005**	**11/1/2005**
Sample Type	**SS**	**SB**	**SB**	**SS**	**SB**	**SB**	**SS**
Duplicate of							
Upper Depth (ft)	**0**	**4**	**6**	**0**	**4**	**9**	**0**
Lower Depth (ft)	**1**	**6**	**8**	**1**	**6**	**11**	**1**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH							
C11-C22 Aromatics	22.2 U	20.4 U	26.6 U	**2440**	**1330**	**122**	28.3 U
C19-C36 Aliphatics	22.2 U	20.4 U	26.6 U	**2920**	**1590**	96.1 U	28.3 U
C9-C18 Aliphatics	22.2 U	20.4 U	26.6 U	637 U	224 U	**212**	28.3 U
Total Extractable Hydrocarbons	66.7 U	61.3 U	79.9 U	**5990**	**3150**	**400**	85 U
VPH							
C5-C8 Aliphatics	2.22 U	2.06 U	2.65 U	---	---	---	2.79 U
C5-C8 Aliphatics Adjusted	2.22 U	2.06 U	2.65 U	---	---	---	2.79 U
C9-C10 Aromatics	2.22 U	2.06 U	2.65 U	---	---	---	2.79 U
C9-C12 Aliphatics	2.22 U	2.06 U	2.65 U	---	---	---	2.79 U
C9-C12 Aliphatics Adjusted	2.22 U	2.06 U	2.65 U	---	---	---	2.79 U
TVPH	4.43 U	4.11 U	5.29 U	---	---	---	5.57 U
Benzene	0.0554 U	0.0514 U	0.0661 U	---	---	---	0.0696 U
Ethylbenzene	0.0554 U	0.0514 U	0.0661 U	---	---	---	0.0696 U
Methyl Tert-Butyl Ether	0.0554 U	0.0514 U	0.0661 U	---	---	---	0.0696 U
Naphthalene	0.222 U	0.206 U	0.265 U	---	---	---	0.279 U
Toluene	0.0554 U	0.0514 U	0.0661 U	---	---	---	0.0696 U
Xylenes (Total)	0.111 U	0.103 U	0.132 U	---	---	---	0.139 U

Appendix G - KRY Historical Data
Retec Soil EPH & VPH, 2005

Sample Station	SB05-2	SB05-3	SB05-3	SB05-3	SB05-3	SB05-4	SB05-4
Sample Identification	SB05-2-0911	SB05-3-0001	SB05-3-0406	SB05-3-0911	SB05-3-1315	SB05-4-0001	SB05-4-0406
Sample Collection Date	11/1/2005	11/2/2005	11/2/2005	11/2/2005	11/2/2005	11/2/2005	11/2/2005
Sample Type	SB	SS	SB	SB	SB	SS	SB
Duplicate of							
Upper Depth (ft)	9	0	4	9	13	0	4
Lower Depth (ft)	11	1	6	11	15	1	6
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPH							
C11-C22 Aromatics	**675**	24.9 U	**1500**	**35.7**	**172**	23.6 U	25.5 U
C19-C36 Aliphatics	**402000**	24.9 U	**1890**	**26.8**	**173**	23.6 U	25.5 U
C9-C18 Aliphatics	**163000**	24.9 U	245 U	25.8 U	**197**	23.6 U	25.5 U
Total Extractable Hydrocarbons	**566000**	74.7 U	**3530**	**85.2**	**542**	70.8 U	76.5 U
VPH							
C5-C8 Aliphatics	**61.7 J**	2.47 U	2.46 U	5.13 U	**33.2 J**	2.35 U	2.52 U
C5-C8 Aliphatics Adjusted	**60.3 J**	2.47 U	2.46 U	5.13 U	**32.2 J**	2.35 U	2.52 U
C9-C10 Aromatics	**175 J**	2.47 U	2.46 U	**29.1**	**30.6**	2.35 U	2.52 U
C9-C12 Aliphatics	**544 J**	2.47 U	2.46 U	**73.1**	**111 J**	2.35 U	2.52 U
C9-C12 Aliphatics Adjusted	**370 J**	2.47 U	2.46 U	**44**	**80.8 J**	2.35 U	2.52 U
TVPH	**606 J**	4.94 U	4.92 U	**76.3**	**145 J**	4.71 U	5.03 U
Benzene	0.565 UJ	0.0618 U	0.0615 U	0.128 U	0.0555 U	0.0588 U	0.0629 U
Ethylbenzene	**0.586 J**	0.0618 U	0.0615 U	0.128 U	**0.396**	0.0588 U	0.0629 U
Methyl Tert-Butyl Ether	0.565 UJ	0.0618 U	0.0615 U	0.128 U	0.0555 U	0.0588 U	0.0629 U
Naphthalene	2.26 UJ	0.247 U	0.246 U	0.513 U	0.222 U	0.235 U	0.252 U
Toluene	0.565 UJ	0.0618 U	0.0615 U	0.128 U	0.0555 U	0.0588 U	0.0629 U
Xylenes (Total)	1.13 UJ	0.124 U	0.123 U	0.256 U	**0.577**	0.118 U	0.126 U

Appendix G - KRY Historical Data
Retec Soil EPH & VPH, 2005

Sample Station	SB05-4	SB05-5	SB05-6	SB05-6	SB05-6	SB05-7	SB05-7
Sample Identification	**SB05-4-0911**	**SB05-5-0001**	**SB05-6-0406**	**SB05-6-0001**	**SB05-6-0608**	**SB05-7-0001**	**SB05-7-0406**
Sample Collection Date	**11/2/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**
Sample Type	**SB**	**SS**	**SB**	**SS**	**SB**	**SS**	**SB**
Duplicate of							
Upper Depth (ft)	**9**	**0**	**4**	**0**	**6**	**0**	**4**
Lower Depth (ft)	**11**	**1**	**6**	**1**	**8**	**1**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH							
C11-C22 Aromatics	28.8 U	26.3 U	23.4 U	23.7 U	21.6 U	42.6 U	24.5 U
C19-C36 Aliphatics	28.8 U	26.3 U	23.4 U	23.7 U	21.6 U	42.6 U	24.5 U
C9-C18 Aliphatics	28.8 U	26.3 U	23.4 U	23.7 U	21.6 U	42.6 U	24.5 U
Total Extractable Hydrocarbons	86.4 U	78.8 U	70.3 U	71.2 U	64.9 U	128 U	73.6 U
VPH							
C5-C8 Aliphatics	2.86 U	2.63 U	2.34 U	2.36 UJ	2.18 U	4.29 UJ	2.46 U
C5-C8 Aliphatics Adjusted	2.86 U	2.63 U	2.34 U	2.36 UJ	2.18 U	4.29 UJ	2.46 U
C9-C10 Aromatics	2.86 U	2.63 U	2.34 U	2.36 UJ	2.18 U	4.29 UJ	2.46 U
C9-C12 Aliphatics	2.86 U	2.63 U	2.34 U	2.36 UJ	2.18 U	4.29 UJ	2.46 U
C9-C12 Aliphatics Adjusted	2.86 U	2.63 U	2.34 U	2.36 UJ	2.18 U	4.29 UJ	2.46 U
TVPH	5.72 U	5.26 U	4.68 U	4.73 UJ	4.36 U	8.58 UJ	4.93 U
Benzene	0.0715 U	0.0657 U	0.0585 U	0.0591 UJ	0.0545 U	0.107 UJ	0.0616 U
Ethylbenzene	0.0715 U	0.0657 U	0.0585 U	0.0591 UJ	0.0545 U	0.107 UJ	0.0616 U
Methyl Tert-Butyl Ether	0.0715 U	0.0657 U	0.0585 U	0.0591 UJ	0.0545 U	0.107 UJ	0.0616 U
Naphthalene	0.286 U	0.263 U	0.234 U	0.236 UJ	0.218 U	0.429 UJ	0.246 U
Toluene	0.0715 U	0.0657 U	0.0585 U	0.0591 UJ	0.0545 U	0.107 UJ	0.0616 U
Xylenes (Total)	0.143 U	0.131 U	0.117 U	0.118 UJ	0.109 U	0.215 UJ	0.123 U

Appendix G - KRY Historical Data
Retec Soil EPH & VPH, 2005

Sample Station	SB05-8	SB05-8	SB05-8	SB05-9	SB05-9	TP05-10	TP05-12
Sample Identification	**SB05-8-0001**	**SB05-8-0406**	**SB05-8-0708**	**SB05-9-1416**	**SB05-9-0001**	**TP05-10-011**	**TP05-12-0009**
Sample Collection Date	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/2/2005**	**11/4/2005**
Sample Type	**SS**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**
Duplicate of							
Upper Depth (ft)	**0**	**4**	**7**	**14**	**0**	**11**	**9**
Lower Depth (ft)	**1**	**6**	**8**	**16**	**1**	**11**	**9**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH							
C11-C22 Aromatics	25.4 U	**29.9**	**201**	21 U	26.8 U	4530 U	50.6 U
C19-C36 Aliphatics	25.4 U	**41.3**	**34.2**	21 U	**41.1**	**5930 J**	50.6 U
C9-C18 Aliphatics	25.4 U	23.9 U	**83.8**	21 U	26.8 U	**6390 J**	50.6 U
Total Extractable Hydrocarbons	76.2 U	**80.9**	**319**	63.1 U	80.5 U	13600 U	152 U
VPH							
C5-C8 Aliphatics	2.56 U	2.42 U	2.53 U	2.11 U	2.7 U	**336 J**	**11.7 J**
C5-C8 Aliphatics Adjusted	2.56 U	2.42 U	2.53 U	2.11 U	2.7 U	**307 J**	**11.3 J**
C9-C10 Aromatics	2.56 U	2.42 U	2.53 U	2.11 U	2.7 U	**549 J**	**106 J**
C9-C12 Aliphatics	2.56 U	2.42 U	2.53 U	2.11 U	2.7 U	**1460 J**	**223 J**
C9-C12 Aliphatics Adjusted	2.56 U	2.42 U	2.53 U	2.11 U	2.7 U	**906 J**	**117 J**
TVPH	5.12 U	4.85 U	5.07 U	4.22 U	5.41 U	**1790 J**	**225 J**
Benzene	0.0639 U	0.0606 U	0.0634 U	0.0527 U	0.0676 U	1.17 UJ	0.0635 U
Ethylbenzene	0.0639 U	0.0606 U	0.0634 U	0.0527 U	0.0676 U	**6.99 J**	0.127 UJ
Methyl Tert-Butyl Ether	0.0639 U	0.0606 U	0.0634 U	0.0527 U	0.0676 U	1.17 UJ	0.0635 U
Naphthalene	0.256 U	0.242 U	0.253 U	0.211 U	0.27 U	4.68 UJ	0.254 U
Toluene	0.0639 U	0.0606 U	0.0634 U	0.0527 U	0.0676 U	1.17 UJ	0.0635 U
Xylenes (Total)	0.128 U	0.121 U	0.127 U	0.105 U	0.135 U	**21.8 J**	**0.248**

Appendix G - KRY Historical Data
Retec Soil EPH & VPH, 2005

Sample Station	TP05-12	TP05-12	TP05-14	TP05-14	TP05-25	TP05-27	TP05-27
Sample Identification	**TP05-12-0009 RE**	**TP05-1200-0009**	**TP05-14-0010**	**TP05-14-0010 RE**	**TP05-25-0007**	**TP05-27-0001**	**TP05-27-0009**
Sample Collection Date	**11/4/2005**	**11/4/2005**	**11/3/2005**	**11/3/2005**	**11/4/2005**	**11/3/2005**	**11/3/2005**
Sample Type	**SB**	**DU**	**SB**	**SB**	**SB**	**SS**	**SB**
Duplicate of		**TP05-12-0009**					
Upper Depth (ft)	**9**		**10**	**10**	**7**	**1**	**9**
Lower Depth (ft)	**9**	**9**	**10**	**10**	**7**	**1**	**9**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH							
C11-C22 Aromatics	---	25.5 U	**5080**	---	**281**	---	**613**
C19-C36 Aliphatics	---	25.5 U	**5450**	---	**192**	---	**501**
C9-C18 Aliphatics	---	25.5 U	**4840**	---	**671**	---	**933**
Total Extractable Hydrocarbons	---	76.5 U	**15400**	---	**1140**	---	**2050**
VPH							
C5-C8 Aliphatics	5.08 UJ	**22.9 J**	**23.6 J**	**25.1 J**	9.9 U	4.7 UJ	4.44 U
C5-C8 Aliphatics Adjusted	5.08 UJ	**22.2 J**	**23.4 J**	23.6 UJ	9.9 U	4.7 UJ	4.44 U
C9-C10 Aromatics	**14.9**	**28.8**	**237 J**	**256 J**	**87.1**	**97.3 J**	**74.2**
C9-C12 Aliphatics	**39.8 J**	**81.4 J**	**532 J**	**539 J**	**173**	**187 J**	**130**
C9-C12 Aliphatics Adjusted	**24.9 J**	**52.6 J**	**276 J**	**302 J**	**86.3**	**89.4 J**	**55.8**
TVPH	**51.6 J**	**104 J**	**556 J**	**564 J**	**176**	**187 J**	**130**
Benzene	0.127 UJ	0.129 U	0.238 UJ	0.591 UJ	0.248 U	0.118 UJ	0.111 U
Ethylbenzene	**0.156**	**0.272**	0.238 UJ	0.591 UJ	0.248 U	0.118 UJ	0.111 U
Methyl Tert-Butyl Ether	0.127 UJ	0.129 U	0.238 UJ	0.591 UJ	0.248 U	0.118 UJ	0.111 U
Naphthalene	**0.558 J**	0.515 U	0.95 UJ	2.36 UJ	**1.39**	**0.547 J**	**0.453**
Toluene	0.127 UJ	0.129 U	0.238 UJ	0.591 UJ	0.248 U	0.118 UJ	0.111 U
Xylenes (Total)	0.254 UJ	**0.344 J**	**1.5 J**	**1.57 J**	0.495 U	0.235 UJ	0.222 U

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	RS-1A	TP-7-94	SS-1A-99	SS-1C-99	KPT-19	Pipe Gallery	SB05-1
Sample Identification	RS-1A-SUR	BNTP-7-20'	99-5036-AE44A	99-5038-AE44C	KPT-19-1617	PIPE GALLERY	SB05-1-0001
Sample Collection Date	10/25/1994	10/25/1994	4/17/1999	4/17/1999	11/3/2005	11/4/2005	11/1/2005
Sample Type	SS	SB	SB	SB	SB	SS	SS
Duplicate of							
Upper Depth (ft)	0	20	6	6	16	0	0
Lower Depth (ft)	0.5	20	6	6	17	2	1
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	290000 J	200000 J	770000 D,E,J	990000 D,E,J	413000	5960	183
1,2,3,4,6,7,8,9-OCDF	29000	24000	280000 D,E,J	460000 D,E,J	20800	685	6.89 J
1,2,3,4,6,7,8-HPCDD	55000	48000	160000 D,E,J	330000 D,E,J	55100	627	25.2
1,2,3,4,6,7,8-HPCDF	9600	4800	44000 D	84000 D	6480	298	4.04 J
1,2,3,4,7,8,9-HPCDF	520	450	3300 E,J	6400	347	21.2	0.974 U
1,2,3,4,7,8-HXCDD	520	37	130	1300 D	28.6	5.63	0.974 U
1,2,3,4,7,8-HXCDF	3800 U	3000 U	2300 E,J	7200 E,J	582	28.3	0.974 U
1,2,3,6,7,8-HXCDD	2900	2700	6800 E,J	24000 D	3250	30.6	1.17 J
1,2,3,6,7,8-HXCDF	450	150	310	1100	157	17.3	0.974 U
1,2,3,7,8,9-HXCDD	1400	180	590	3800 D	187	7.14	0.974 U
1,2,3,7,8,9-HXCDF	200	240	72	240	292	15.4	0.974 U
1,2,3,7,8-PECDD	310	19	38	340	9.06 J	4.95 U	0.974 U
1,2,3,7,8-PECDF	180 U	55	260	---	159	4.95 U	0.974 U
2,3,4,6,7,8-HXCDF	670	270	260	1000	219	4.95 U	0.974 U
2,3,4,7,8-PECDF	280	250	400	1800	162	4.95 U	0.974 U
2,3,7,8-TCDD	11	1.3 U	3	19	0.2 U	0.989 U	0.195 U
2,3,7,8-TCDF	28 J	41 J	74 CON	330 CON	62.5	0.989 U	0.195 U
HPCDD (TOTAL)	98000	79000	270000 D	620000 D	---	---	---
HPCDF (TOTAL)	28000	25000	240000 D	310000 D	---	---	---
HXCDD (TOTAL)	14000	7100	18000	66000 D	---	---	---
HXCDF (TOTAL)	11000	8100	42000 D	120000 D	---	---	---
PECDD (TOTAL)	1100	54	170	1200	---	---	---
PECDF (TOTAL)	4300	1600	4900	18000	---	---	---
TCDD (TOTAL)	77	0	55	200	---	---	---
TCDF (TOTAL)	470	180	300	770	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	1865.7	1140.6	3295.4	9000	1159.61	23.9822	1.46143

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SB05-1	SB05-10	SB05-10	SB05-10	SB05-10	SB05-11	SB05-11
Sample Identification	SB05-1-1011	SB05-10-0001	SB05-10-0406	SB05-10-0608	SB05-10-0911	SB05-11-0406	SB05-11-0406 RE
Sample Collection Date	11/1/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005
Sample Type	SB	SS	SB	SB	SB	SB	SB
Duplicate of							
Upper Depth (ft)	10	0	4	6	9	4	4
Lower Depth (ft)	11	1	6	8	11	6	6
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	3.94 UJ	**1800**	**128**	**629**	**52.1**	**28700**	**4060**
1,2,3,4,6,7,8,9-OCDF	1.98 U	**216**	**9.48**	**60.9**	**4.4 J**	**886**	**163**
1,2,3,4,6,7,8-HPCDD	0.99 U	**180**	**14.3**	**62.1**	**5.38**	**2930**	**423**
1,2,3,4,6,7,8-HPCDF	0.99 U	**61.3**	**2.35 J**	**14.7**	**1.02 J**	**436**	**65.6**
1,2,3,4,7,8,9-HPCDF	0.99 U	**4.32 J**	0.894 U	**1 J**	0.887 U	**29.6**	**4.28**
1,2,3,4,7,8-HXCDD	0.99 U	**1.34 J**	0.894 U	0.851 U	0.887 U	**31.2**	**3.33 J**
1,2,3,4,7,8-HXCDF	0.99 U	**2.88 J**	0.894 U	**0.905 J**	0.887 U	**32.4**	**4.92**
1,2,3,6,7,8-HXCDD	0.99 U	**6.95**	0.894 U	**2.55 J**	0.887 U	**137**	**20.6**
1,2,3,6,7,8-HXCDF	0.99 U	**1.03 J**	0.894 U	0.851 U	0.887 U	**16.1**	0.854 U
1,2,3,7,8,9-HXCDD	0.99 U	**2.92 J**	0.894 U	0.851 U	0.887 U	**50.9**	**7.54**
1,2,3,7,8,9-HXCDF	0.99 U	0.944 U	0.894 U	0.851 U	0.887 U	**12.9**	**1.98 J**
1,2,3,7,8-PECDD	0.99 U	0.944 U	0.894 U	0.851 U	0.887 U	**12.2**	**2.04 J**
1,2,3,7,8-PECDF	0.99 U	0.944 U	0.894 U	0.851 U	0.887 U	**6.9**	**1.73 J**
2,3,4,6,7,8-HXCDF	0.99 U	0.944 U	0.894 U	0.851 U	0.887 U	**9.41**	**2.29 J**
2,3,4,7,8-PECDF	0.99 U	0.944 U	0.894 U	0.851 U	0.887 U	**20.3**	**2.79 J**
2,3,7,8-TCDD	0.198 U	0.189 U	0.179 U	0.17 U	0.177 U	**0.722 J**	0.171 U
2,3,7,8-TCDF	0.198 U	0.189 U	0.179 U	0.17 U	0.177 U	**2.1**	**0.431 J**
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	**1.1286**	**4.79431**	**1.17683**	**1.995665**	**1.06609**	**82.376**	**12.095**

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SB05-11	SB05-11	SB05-12	SB05-12	SB05-12	SB05-13	SB05-13
Sample Identification	SB05-11-0911	SB05-11-1416	SB05-12-0001	SB05-12-0406	SB05-12-0810	SB05-13-0001	SB05-1300-0406
Sample Collection Date	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/7/2005	11/7/2005
Sample Type	SB	SB	SS	SB	SB	SS	DU
Duplicate of							SB05-13-0406
Upper Depth (ft)	9	14	0	4	8	0	4
Lower Depth (ft)	11	16	1	6	10	1	6
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**5180**	**386000**	**33200**	**975**	**482**	**198000**	**952**
1,2,3,4,6,7,8,9-OCDF	**252**	**13700**	**1690**	**54.4**	**21.6**	**10000**	**43.7**
1,2,3,4,6,7,8-HPCDD	**664**	**78200**	**4420**	**120**	**60.2**	**24600**	**109**
1,2,3,4,6,7,8-HPCDF	**87.5**	**9500**	**654**	**19.4**	**7.53**	**4050**	**15.3**
1,2,3,4,7,8,9-HPCDF	**5.47**	**508**	**43.1**	**1.39 J**	0.963 U	**278**	**1.21 J**
1,2,3,4,7,8-HXCDD	**5.98 J**	9.78 U	**50.6**	**1.26 J**	0.963 U	**289**	**1.06 J**
1,2,3,4,7,8-HXCDF	**7.21**	**740**	**48.2**	**1.4 J**	0.963 U	**201**	0.976 U
1,2,3,6,7,8-HXCDD	**38.1**	**6870**	**205**	**5.96**	**3.21 J**	**1550**	**6.07**
1,2,3,6,7,8-HXCDF	**1.78 J**	**257**	9.97 U	0.994 U	0.963 U	**176**	0.976 U
1,2,3,7,8,9-HXCDD	**3.4 J**	**394**	**106**	**2.69 J**	0.963 U	**610**	**1.83 J**
1,2,3,7,8,9-HXCDF	**3.1 J**	**489**	9.97 U	0.994 U	0.963 U	**78.9**	0.976 U
1,2,3,7,8-PECDD	**1 J**	**24.7**	**17.6**	0.994 U	0.963 U	**143**	0.976 U
1,2,3,7,8-PECDF	**1.53 J**	**240**	9.97 U	0.994 U	0.963 U	**45.8**	0.976 U
2,3,4,6,7,8-HXCDF	**2.04 J**	**326**	**38.3**	**1.09 J**	0.963 U	**144**	0.976 U
2,3,4,7,8-PECDF	**4.15 J**	**212**	9.97 U	0.994 U	0.963 U	**126**	0.976 U
2,3,7,8-TCDD	0.195 U	1.96 U	1.99 U	0.199 U	0.193 U	**8.97**	0.195 U
2,3,7,8-TCDF	**0.66 J**	**87.7**	1.99 U	0.199 U	0.193 U	**14.8**	0.195 U
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	**16.1851**	**1895.419**	**117.31755**	**3.51776**	**2.03856**	**786.794**	**3.10259**

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SB05-13	SB05-14	SB05-14	SB05-14	SB05-15	SB05-15	SB05-15
Sample Identification	SB05-13-0406	SB05-14-0001	SB05-14-0406	SB05-14-1113	SB05-15-0001	SB05-15-0406	SB05-15-0608
Sample Collection Date	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005
Sample Type	SB	SS	SB	SB	SS	SB	SB
Duplicate of							
Upper Depth (ft)	4	0	4	11	0	4	6
Lower Depth (ft)	6	1	6	13	1	6	8
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**645**	**68500**	**17800**	**521**	**701**	**171**	**37.1**
1,2,3,4,6,7,8,9-OCDF	**29.8**	**1340**	**350**	**12.6**	**25.4**	**5.07 J**	2.17 U
1,2,3,4,6,7,8-HPCDD	**74**	**6840**	**2080**	**69.9**	**101**	**20**	**3.92 J**
1,2,3,4,6,7,8-HPCDF	**9.93**	**750**	**224**	**6.54**	**10.9**	**2.2 J**	1.09 U
1,2,3,4,7,8,9-HPCDF	0.995 U	**47.1**	**13.4**	0.85 U	0.806 U	0.929 U	1.09 U
1,2,3,4,7,8-HXCDD	0.995 U	**84**	**18.2**	0.85 U	0.806 U	0.929 U	1.09 U
1,2,3,4,7,8-HXCDF	0.995 U	**64.5**	**16.9**	0.85 U	**1 J**	0.929 U	1.09 U
1,2,3,6,7,8-HXCDD	**3.76 J**	**394**	**125**	**4.73**	**6.05**	**1.13 J**	1.09 U
1,2,3,6,7,8-HXCDF	0.995 U	**35.3**	**10.7**	0.85 U	0.806 U	0.929 U	1.09 U
1,2,3,7,8,9-HXCDD	**1.25 J**	**130**	**36.2**	0.85 U	0.806 U	0.929 U	1.09 U
1,2,3,7,8,9-HXCDF	0.995 U	**33.4**	**9.24**	0.85 U	0.806 U	0.929 U	1.09 U
1,2,3,7,8-PECDD	0.995 U	**24.9**	**7.77**	0.85 U	0.806 U	0.929 U	1.09 U
1,2,3,7,8-PECDF	0.995 U	**22.4**	**4.6**	0.85 U	0.806 U	0.929 U	1.09 U
2,3,4,6,7,8-HXCDF	0.995 U	**19.6**	**6.82**	0.85 U	0.806 U	0.929 U	1.09 U
2,3,4,7,8-PECDF	0.995 U	**43.3**	**11.4**	0.85 U	0.806 U	0.929 U	1.09 U
2,3,7,8-TCDD	0.199 U	**1.49**	**0.481 J**	0.17 U	0.161 U	0.186 U	0.217 U
2,3,7,8-TCDF	0.199 U	**4.2**	**1.33**	0.17 U	0.161 U	0.186 U	0.217 U
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	**2.36515**	**192.923**	**57.422**	**2.1554**	**2.65407**	**1.33843**	**1.2758**

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SB05-16	SB05-16	SB05-16	SB05-2	SB05-2	SB05-3	SB05-3
Sample Identification	SB05-16-0001	SB05-16-0406	SB05-16-0911	SB05-2-0001	SB05-2-0911	SB05-3-0001	SB05-3-0406
Sample Collection Date	11/7/2005	11/7/2005	11/7/2005	11/1/2005	11/1/2005	11/2/2005	11/2/2005
Sample Type	SS	SB	SB	SS	SB	SS	SB
Duplicate of							
Upper Depth (ft)	0	4	9	0	9	0	4
Lower Depth (ft)	1	6	11	1	11	1	6
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**2320**	**963**	**3370**	**1260**	**6.87 J**	**4300**	**1340**
1,2,3,4,6,7,8,9-OCDF	**113**	**54.6**	**117**	**68.3**	3.79 U	**111**	**142**
1,2,3,4,6,7,8-HPCDD	**275**	**120**	**474**	**166**	1.89 U	**607**	**164**
1,2,3,4,6,7,8-HPCDF	**48.6**	**17.1**	**53.9**	**34**	1.89 U	**67.2**	**47.5**
1,2,3,4,7,8,9-HPCDF	10.1 U	**1.47 J**	**3 J**	**2.54 J**	1.89 U	**2.59 J**	4.87 U
1,2,3,4,7,8-HXCDD	10.1 U	**1.16 J**	**3.46 J**	**3.83 J**	1.89 U	**5.08**	4.87 U
1,2,3,4,7,8-HXCDF	10.1 U	**1.31 J**	**4 J**	**1.65 J**	1.89 U	**5.67**	4.87 U
1,2,3,6,7,8-HXCDD	**13.6**	**5.84**	**25.9**	**8.85**	1.89 U	**34.9**	**8.22**
1,2,3,6,7,8-HXCDF	10.1 U	0.924 U	**2.36 J**	**1.08 J**	1.89 U	**2.84 J**	4.87 U
1,2,3,7,8,9-HXCDD	10.1 U	**2.52 J**	**7.06**	**6.09**	1.89 U	**13**	**8.16**
1,2,3,7,8,9-HXCDF	10.1 U	0.924 U	**1.87 J**	0.98 U	1.89 U	**2.19 J**	4.87 U
1,2,3,7,8-PECDD	10.1 U	0.924 U	**1.81 J**	**1.75 J**	1.89 U	**2.38 J**	4.87 U
1,2,3,7,8-PECDF	10.1 U	0.924 U	**1.17 J**	0.98 U	1.89 U	0.968 UJ	4.87 U
2,3,4,6,7,8-HXCDF	10.1 U	0.924 U	**1.05 J**	0.98 U	1.89 U	**3.19 J**	4.87 U
2,3,4,7,8-PECDF	10.1 U	0.924 U	**2.75 J**	0.98 U	1.89 U	**3.33 J**	4.87 U
2,3,7,8-TCDD	2.02 U	0.185 U	**0.191 J**	**0.332 J**	0.379 U	0.194 U	0.974 U
2,3,7,8-TCDF	2.02 U	0.185 U	**0.469 J**	0.196 U	0.379 U	**0.643 J**	0.974 U
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	**15.504**	**3.32351**	**12.787**	**6.5269**	**2.15515**	**17.00972**	**8.7691**

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	**SB05-3**	**SB05-3**	**SB05-4**	**SB05-4**	**SB05-4**	**SB05-5**	**SB05-5**
Sample Identification	**SB05-3-0911**	**SB05-3-1315**	**SB05-4-0001**	**SB05-4-0406**	**SB05-4-0911**	**SB05-5-0406**	**SB05-5-0001**
Sample Collection Date	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/5/2005**	**11/5/2005**
Sample Type	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SS**
Duplicate of							
Upper Depth (ft)	**9**	**13**	**0**	**4**	**9**	**4**	**0**
Lower Depth (ft)	**11**	**15**	**1**	**6**	**11**	**6**	**1**
Units	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**
1,2,3,4,6,7,8,9-OCDD	**33.4**	1.97 UJ	**30200**	**224**	6.89 UJ	**4200**	**130000**
1,2,3,4,6,7,8,9-OCDF	1.95 U	1.97 U	**878**	**4.47 J**	1.9 U	**196**	**6110**
1,2,3,4,6,7,8-HPCDD	**2.71 J**	0.984 U	**3090**	**24.6**	0.95 U	**501**	**15300**
1,2,3,4,6,7,8-HPCDF	0.973 U	0.984 U	**410**	**2.58 J**	0.95 U	**83.4**	**2220**
1,2,3,4,7,8,9-HPCDF	0.973 U	0.984 U	**25.1**	0.993 U	0.95 U	**6.06**	**165**
1,2,3,4,7,8-HXCDD	0.973 U	0.984 U	**28.9**	0.993 U	0.95 U	**4.98**	**158**
1,2,3,4,7,8-HXCDF	0.973 U	0.984 U	**35.8**	0.993 U	0.95 U	**4.86 J**	**154**
1,2,3,6,7,8-HXCDD	0.973 U	0.984 U	**143**	**1.77 J**	0.95 U	**25.9**	**788**
1,2,3,6,7,8-HXCDF	0.973 U	0.984 U	**19.9**	0.993 U	0.95 U	**3.05 J**	**82.3**
1,2,3,7,8,9-HXCDD	0.973 U	0.984 U	**59.2**	0.993 U	0.95 U	**9.96**	**323**
1,2,3,7,8,9-HXCDF	0.973 U	0.984 U	**15.6**	0.993 U	0.95 U	**1.53 J**	**54.9**
1,2,3,7,8-PECDD	0.973 U	0.984 U	**10.1**	0.993 U	0.95 U	**2.45 J**	**62.1**
1,2,3,7,8-PECDF	0.973 U	0.984 U	**7.46**	0.993 U	0.95 U	0.995 U	19.5 U
2,3,4,6,7,8-HXCDF	0.973 U	0.984 U	**14.5**	0.993 U	0.95 U	**2.44 J**	**57.2**
2,3,4,7,8-PECDF	0.973 U	0.984 U	**20.2**	0.993 U	0.95 U	**2.45 J**	**82.7**
2,3,7,8-TCDD	0.195 U	0.197 U	0.194 U	0.199 U	0.19 U	0.199 U	3.91 U
2,3,7,8-TCDF	0.195 U	0.197 U	**2.02**	0.199 U	0.19 U	**0.285 J**	**8.33**
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	**1.131675**	**1.12187**	**83.6238**	**1.52146**	**1.083**	**14.504525**	**428.5805**

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SB05-6	SB05-6	SB05-7	SB05-7	SB05-8	SB05-8	SB05-8
Sample Identification	SB05-6-0001	SB05-6-0608	SB05-7-0001	SB05-7-0406	SB05-8-0001	SB05-8-0406	SB05-8-0708
Sample Collection Date	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005
Sample Type	SS	SB	SS	SB	SS	SB	SB
Duplicate of							
Upper Depth (ft)	0	6	0	4	0	4	7
Lower Depth (ft)	1	8	1	6	1	6	8
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**15400**	**18100**	**66400**	**76.5**	**455000**	**458000 J**	**163000**
1,2,3,4,6,7,8,9-OCDF	**565**	**883**	**3620**	**2.7 J**	**20200**	**47800**	**13000**
1,2,3,4,6,7,8-HPCDD	**2690**	**2150**	**7050**	**6.63**	**38400**	**55500**	**19700**
1,2,3,4,6,7,8-HPCDF	**303**	**287**	**1250**	0.975 U	**5920**	**14100**	**3020**
1,2,3,4,7,8,9-HPCDF	**28.2**	**20.4**	**81.5**	0.975 U	**421**	**967**	**210**
1,2,3,4,7,8-HXCDD	**67.1**	9.68 U	**123**	0.975 U	**351**	**141**	0.982 U
1,2,3,4,7,8-HXCDF	**22.3**	**27**	**33.1**	0.975 U	**446**	**896**	**258**
1,2,3,6,7,8-HXCDD	**166**	**111**	**330**	0.975 U	**1630**	**1880**	**846**
1,2,3,6,7,8-HXCDF	**15.9**	9.68 U	**46.5**	0.975 U	**127**	**257**	**67.1**
1,2,3,7,8,9-HXCDD	**143**	9.68 U	**139**	0.975 U	**268**	**307**	**44.9**
1,2,3,7,8,9-HXCDF	9.86 U	**12.5**	**24.4**	0.975 U	**178**	**331**	**97.9**
1,2,3,7,8-PECDD	**69.1**	9.68 U	**36.4**	0.975 U	**41.5**	**69.8**	0.982 U
1,2,3,7,8-PECDF	9.86 U	9.68 U	0.984 U	0.975 U	**89.9**	**104**	0.982 U
2,3,4,6,7,8-HXCDF	**10.2**	9.68 U	0.984 U	0.975 U	0.971 U	**159**	**50.5**
2,3,4,7,8-PECDF	**10.4**	**17.7**	**35.5**	0.975 U	**243**	**417**	**54.2**
2,3,7,8-TCDD	**13**	1.94 U	**3.23**	0.195 U	**1.91**	**4.21**	0.196 U
2,3,7,8-TCDF	1.97 U	**2.18**	**3.71**	0.195 U	**22.6**	**26.9**	**11.2**
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	**158.6214**	**53.0432**	**204.12996**	**1.172925**	**868.72555**	**1307.69**	**383.77283**

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SB05-9	SB05-9	SS05-01	SS05-02	SS05-03	SS05-04	SS05-05
Sample Identification	SB05-9-1416	SB05-9-0001	SS05-01	SS05-02	SS05-03	SS05-04	SS05-05
Sample Collection Date	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005
Sample Type	SB	SS	SS	SS	SS	SS	SS
Duplicate of							
Upper Depth (ft)	14	0	0	0	0	0	0
Lower Depth (ft)	16	1	0.5	0.5	0.5	0.5	0.5
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	68.1	68200	182	389000	418000	170000	291000 J
1,2,3,4,6,7,8,9-OCDF	5.58 J	4950	12.4	19800	21000	7200	9840
1,2,3,4,6,7,8-HPCDD	8.97	6900	19	28700	42800	18600	35000
1,2,3,4,6,7,8-HPCDF	0.967 U	1540	4.01 J	5770	5640	3060	6640
1,2,3,4,7,8,9-HPCDF	0.967 U	112	0.89 U	490	371	217	306
1,2,3,4,7,8-HXCDD	0.967 U	82	0.89 U	374	212	341	469
1,2,3,4,7,8-HXCDF	0.967 U	83.8	0.89 U	379	380	179	275
1,2,3,6,7,8-HXCDD	0.967 U	274	0.89 U	1270	2130	1090	1700
1,2,3,6,7,8-HXCDF	0.967 U	42.3	0.89 U	179	170	124	268
1,2,3,7,8,9-HXCDD	0.967 U	135	0.89 U	568	651	470	1120
1,2,3,7,8,9-HXCDF	0.967 U	18.4	0.89 U	82.5	138	59.8	82.1
1,2,3,7,8-PECDD	0.967 U	25.5 U	0.89 U	111	109	110	184
1,2,3,7,8-PECDF	0.967 U	14.5	0.89 U	39.8	72.7	17	61.9
2,3,4,6,7,8-HXCDF	0.967 U	35.1	0.89 U	161	0.894 U	116	214
2,3,4,7,8-PECDF	0.967 U	17	0.89 U	60.8	228	22.6	83.3
2,3,7,8-TCDD	0.193 U	1.61	0.178 U	5.27	3.59	5.67	6.58
2,3,7,8-TCDF	0.193 U	2.83	0.178 U	9.33	25.1	11.3	19.4
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	1.187025	172.758	1.2358	787.587	1041.9357	580.84	1051.637

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SS05-06	SS05-07	SS05-08	SS05-09	SS05-10	SS05-11	SS05-12
Sample Identification	SS05-06	SS05-07	SS05-08	SS05-09	SS05-10	SS05-11	SS05-12
Sample Collection Date	11/5/2005	11/5/2005	11/7/2005	11/7/2005	11/5/2005	11/5/2005	11/7/2005
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Upper Depth (ft)	0	0	0	0	0	0	0
Lower Depth (ft)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	431000	234000	40900	70900	518000	198000	522000
1,2,3,4,6,7,8,9-OCDF	20700	12600	2940	2290	16900	8160	17200
1,2,3,4,6,7,8-HPCDD	57900	32300	3830	8840	74300	17800	44400
1,2,3,4,6,7,8-HPCDF	7430	4920	903	1210	9890	2730	6300
1,2,3,4,7,8,9-HPCDF	427	316	63.4	71.2	573	189	465
1,2,3,4,7,8-HXCDD	507	291	28.2	83	954	102	334
1,2,3,4,7,8-HXCDF	602	277	51.4	78.9	619	159	450
1,2,3,6,7,8-HXCDD	2500	1500	138	474	4200	720	1830
1,2,3,6,7,8-HXCDF	277	190	18.9	59.5	429	71.8	182
1,2,3,7,8,9-HXCDD	1270	717	57.7	237	1180	272	615
1,2,3,7,8,9-HXCDF	177	88	14.3	31.1	307	42.8	149
1,2,3,7,8-PECDD	192	131	11.6	42.5	231	44.4	95.1
1,2,3,7,8-PECDF	77.8	51.8	10.7	13.2	208	22.1	95
2,3,4,6,7,8-HXCDF	0.946 U	0.816 U	14.3	46.8	0.924 U	72.3	193
2,3,4,7,8-PECDF	106	65.1	8.81 U	23.3	212	67.5	139
2,3,7,8-TCDD	8.2	4.63	1.76 U	1.82 U	6.2	1.75 U	8.84 U
2,3,7,8-TCDF	28.6	17	1.76 U	5.62	42.2	6.68	25.4
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	1428.1113	840.1148	94.4545	253.6	1927.8362	418.036	1033.56

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SS05-13	SS05-14	SS05-15	SS05-16	SS05-17	SS05-18	SS05-19
Sample Identification	SS05-13	SS05-14	SS05-15	SS05-16	SS05-17	SS05-18	SS05-19
Sample Collection Date	11/7/2005	11/7/2005	11/5/2005	11/5/2005	11/7/2005	11/7/2005	11/5/2005
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Upper Depth (ft)	0	0	0	0	0	0	0
Lower Depth (ft)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	180000 J	9200	208000 J	76000	276000	275000 J	137000
1,2,3,4,6,7,8,9-OCDF	17000	294	2880	1920	12100	7560	5720
1,2,3,4,6,7,8-HPCDD	20400	1130	32900	9290	30900	38500	16700
1,2,3,4,6,7,8-HPCDF	5960	152	3110	1010	3760	4410	2440
1,2,3,4,7,8,9-HPCDF	458	8.18 U	141	52	298	293	143
1,2,3,4,7,8-HXCDD	102	8.18 U	238	75.2	199	245	162
1,2,3,4,7,8-HXCDF	285	12.6	221	70.5	206	245	150
1,2,3,6,7,8-HXCDD	673	63.1	2480	511	1420	2010	852
1,2,3,6,7,8-HXCDF	101	8.78	160	47.2	156	165	95
1,2,3,7,8,9-HXCDD	246	8.18 U	523	194	533	661	323
1,2,3,7,8,9-HXCDF	44.7	8.18 U	161	40.5	94.3	123	67.6
1,2,3,7,8-PECDD	40.9	8.18 U	86.6	9.04 U	93.5	114	62.9
1,2,3,7,8-PECDF	8.85 U	8.18 U	87.9	16	59.4	48.9	31.1
2,3,4,6,7,8-HXCDF	105	8.18 U	174	40.3	162	186	93.5
2,3,4,7,8-PECDF	23.5	13.2	186	38.9	69.7	182	71.8
2,3,7,8-TCDD	1.77 U	1.64 U	1.79 U	1.81 U	5.04	7.26	2.35 U
2,3,7,8-TCDF	7.72	1.64 U	21	6.95	1.84 U	23.4	8.85
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	473.58975	32.0196	905.242	219.66	747.934	975.197	454.573

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	SS05-20	SS05-21	SS05-22	SS05-B1	SS05-B2	SS05-B3	TP05-10
Sample Identification	SS05-20	SS05-21	SS05-22	SS05-B1	SS05-B2	SS05-B3	TP05-10-0001
Sample Collection Date	11/7/2005	11/7/2005	11/7/2005	11/5/2005	11/5/2005	11/5/2005	11/2/2005
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Upper Depth (ft)	0	0	0	0	0	0	1
Lower Depth (ft)	0.5	0.5	0.5	0.5	0.5	0.5	1
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	78900	147000 J	92700	20300	5150	3220	1850
1,2,3,4,6,7,8,9-OCDF	2500	8580	3650	1080	258	127	54.3
1,2,3,4,6,7,8-HPCDD	10000	16400	12300	2590	537	513	258
1,2,3,4,6,7,8-HPCDF	1150	2750	1440	649	110	86.2	0.997 U
1,2,3,4,7,8,9-HPCDF	77.1	230	95.2	37.2	7.87	4.32 J	3.29 J
1,2,3,4,7,8-HXCDD	129	100	88.3	55.2	7.08	10.7	5.18
1,2,3,4,7,8-HXCDF	67.7	219	77.6	62.5	5.36	3.81 J	1.61 J
1,2,3,6,7,8-HXCDD	549	702	550	147	24.6	30.6	15.9
1,2,3,6,7,8-HXCDF	41.7	82.7	51.7	31.5	3.59 J	4.85	1.33 J
1,2,3,7,8,9-HXCDD	174	257	194	63.3	14.7	22.5	6.16
1,2,3,7,8,9-HXCDF	38.8	62.6	33.8	35.4	1.71 J	1.17 J	1.92 J
1,2,3,7,8-PECDD	39.8	47	39.6	12.2	2.91 J	6.77	1.48 J
1,2,3,7,8-PECDF	9.03 U	23.7	9.51 U	26.2	0.922 U	1.16 J	1.16 J
2,3,4,6,7,8-HXCDF	40.3	99.4	56.7	23.1	3.55 J	5.36	1.51 J
2,3,4,7,8-PECDF	56.9	34.3	53.3	57.4	2.17 J	2.79 J	1.52 J
2,3,7,8-TCDD	1.81 U	1.89 U	1.9 U	0.558 J	0.184 U	0.186 U	0.199 U
2,3,7,8-TCDF	1.81 U	7.46	8.47	7.27	0.184 U	0.564 J	0.42 J
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	274.32195	405.762	301.09165	106.053	16.28373	21.7254	8.091185

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	**TP05-10**	**TP05-10**	**TP05-22**	**TP05-25**	**TP05-25**	**TP05-28**	**TP05-28**
Sample Identification	**TP05-10-0004**	**TP05-10-011**	**TP05-22-0003**	**TP05-25-0001**	**TP05-25-0007**	**TP05-2800-0009**	**TP05-28-0009**
Sample Collection Date	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/4/2005**	**11/4/2005**	**11/3/2005**	**11/3/2005**
Sample Type	**SB**	**SB**	**SB**	**SS**	**SB**	**DU**	**SB**
Duplicate of						**TP05-28-0009**	
Upper Depth (ft)	**4**	**11**	**3**	**0**	**7**	**9**	**9**
Lower Depth (ft)	**4**	**11**	**3**	**1**	**7**	**9**	**9**
Units	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**
1,2,3,4,6,7,8,9-OCDD	**243**	**55.1**	1.91 U	**3720**	**15.5**	**32.5**	**67.7**
1,2,3,4,6,7,8,9-OCDF	**13.8**	3.95 U	1.91 U	**120**	2.14 U	3.98 U	3.89 U
1,2,3,4,6,7,8-HPCDD	**24.2**	**7.46**	0.955 U	**535**	**1.95**	**4.35 J**	**6.85**
1,2,3,4,6,7,8-HPCDF	**6.54**	1.97 U	0.955 U	**71.4**	1.07 U	1.99 U	1.95 U
1,2,3,4,7,8,9-HPCDF	0.968 U	1.97 U	0.955 U	**4.56**	1.07 U	1.99 U	1.95 U
1,2,3,4,7,8-HXCDD	0.968 U	1.97 U	0.955 U	**9.42**	1.07 U	1.99 U	1.95 U
1,2,3,4,7,8-HXCDF	0.968 U	1.97 U	0.955 U	**4.9**	1.07 U	1.99 U	1.95 U
1,2,3,6,7,8-HXCDD	0.968 U	1.97 U	0.955 U	**33.9**	1.07 U	1.99 U	1.95 U
1,2,3,6,7,8-HXCDF	0.968 U	1.97 U	0.955 U	0.942 U	1.07 U	1.99 U	1.95 U
1,2,3,7,8,9-HXCDD	0.968 U	1.97 U	0.955 U	**12.7**	1.07 U	1.99 U	1.95 U
1,2,3,7,8,9-HXCDF	0.968 U	1.97 U	0.955 U	**2.59**	1.07 U	1.99 U	1.95 U
1,2,3,7,8-PECDD	0.968 U	1.97 U	0.955 U	0.942 U	1.07 U	1.99 U	1.95 U
1,2,3,7,8-PECDF	0.968 U	1.97 U	0.955 U	0.942 U	1.07 U	1.99 U	1.95 U
2,3,4,6,7,8-HXCDF	0.968 U	1.97 U	0.955 U	**2.29**	1.07 U	1.99 U	1.95 U
2,3,4,7,8-PECDF	0.968 U	1.97 U	0.955 U	0.942 U	1.07 U	1.99 U	1.95 U
2,3,7,8-TCDD	0.194 U	0.395 U	0.191 U	0.188 U	0.214 U	0.398 U	0.389 U
2,3,7,8-TCDF	0.194 U	0.395 U	0.191 U	0.188 U	0.214 U	0.398 U	0.389 U
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	**1.40146**	**2.3111**	**1.0887**	**13.46653**	**1.23395**	**2.30215**	**2.2812**

Appendix G - KRY Historical Data
Retec Soil Dioxins & Furans, 1994, 1999, 2005

Sample Station	TP05-30	TP05-5	TP05-5	TP05-6	TP05-6	TP05-6	TP05-9
Sample Identification	TP05-30-0001	TP05-5-0001	TP05-5-0010	TP05-600-0009	TP05-6-0009	TP05-6-0001	TP05-9-0001
Sample Collection Date	11/4/2005	11/3/2005	11/3/2005	11/3/2005	11/3/2005	11/3/2005	11/2/2005
Sample Type	SS	SS	SB	DU	SB	SS	SS
Duplicate of				TP05-6-0009			
Upper Depth (ft)	1	0	10	0	0	1	
Lower Depth (ft)	1	1	10	9	9	1	1
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**58000**	**199**	**24.9**	6.22 UJ	6.54 UJ	**208**	**116000**
1,2,3,4,6,7,8,9-OCDF	**2000**	**7.41**	17.4 U	1.93 U	1.92 U	**7.13 J**	**4320**
1,2,3,4,6,7,8-HPCDD	**3480**	**28.3**	8.69 U	0.967 U	0.96 U	**28.7**	**11300**
1,2,3,4,6,7,8-HPCDF	**980**	**3.59**	8.69 U	0.967 U	0.96 U	**3.34 J**	**1640**
1,2,3,4,7,8,9-HPCDF	**112**	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**112**
1,2,3,4,7,8-HXCDD	43.9 U	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**139**
1,2,3,4,7,8-HXCDF	**73.4**	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**118**
1,2,3,6,7,8-HXCDD	**94.7**	**1.68**	8.69 U	0.967 U	0.96 U	**1.51 J**	**537**
1,2,3,6,7,8-HXCDF	43.9 U	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**45.4**
1,2,3,7,8,9-HXCDD	43.9 U	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**152**
1,2,3,7,8,9-HXCDF	**58.8**	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**43.5**
1,2,3,7,8-PECDD	43.9 U	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**22.1**
1,2,3,7,8-PECDF	43.9 U	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	1.96 U
2,3,4,6,7,8-HXCDF	43.9 U	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**38.3**
2,3,4,7,8-PECDF	43.9 U	0.968 U	8.69 U	0.967 U	0.96 U	0.97 U	**35.5**
2,3,7,8-TCDD	8.79 U	0.194 U	1.74 U	0.193 U	0.192 U	0.194 U	**1.28**
2,3,7,8-TCDF	8.79 U	0.194 U	1.74 U	0.193 U	0.192 U	0.194 U	**6.88**
HPCDD (TOTAL)	---	---	---	---	---	---	---
HPCDF (TOTAL)	---	---	---	---	---	---	---
HXCDD (TOTAL)	---	---	---	---	---	---	---
HXCDF (TOTAL)	---	---	---	---	---	---	---
PECDD (TOTAL)	---	---	---	---	---	---	---
PECDF (TOTAL)	---	---	---	---	---	---	---
TCDD (TOTAL)	---	---	---	---	---	---	---
TCDF (TOTAL)	---	---	---	---	---	---	---
2,3,7,8-TCDD (TEQ) (WHO2005)	**111.218**	**1.53256**	**9.9077**	**1.10216**	**1.0944**	**1.519**	**272.5874**

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	**KPT-10**	**KPT-10**	**KPT-11**	**KPT-11**	**KPT-12**	**KPT-15**	**KPT-9**	**KPT-9**	**Pipe Gallery**
Sample Identification	**KPT-10 (10-12)**	**KPT-10 (25-27)**	**KPT-11 (12-14)**	**KPT-11 (72-74)**	**KPT-12**	**KPT-15 (22-24)**	**KPT-9A**	**KPT-9B**	**PIPE GALLERY**
Sample Collection Date	**11/18/1996**	**11/18/1996**	**11/15/1996**	**11/15/1996**	**9/6/1996**	**11/18/1996**	**9/6/1996**	**9/6/1996**	**11/4/2005**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SS**
Duplicate of									
Upper Depth (ft)	**10**	**25**	**12**	**72**	**17**	**22**	**6**	**20**	**0**
Lower Depth (ft)	**12**	**27**	**14**	**74**	**18**	**24**	**8**	**22**	**2**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	0.0064 U	0.0069 U	**0.005 J**	**0.0055 J**	**0.013**	**0.036**	**0.026**	**0.0052 J**	0.0566 U
2,3,4,5-Tetrachlorophenol	0.0064 U	0.0069 U	---	---	0.0077 U	0.0065 U	0.0066 U	0.0069 U	---
2,3,4-Trichlorophenol	0.0064 U	0.0069 U	---	---	0.0077 U	0.0065 U	0.0066 U	0.0069 U	---
2,3,6-Trichlorophenol	0.0064 U	0.0069 U	---	---	0.0077 U	0.0065 U	0.0066 U	0.0069 U	---
2,4,5-Trichlorophenol	0.0064 U	0.0069 U	---	---	0.0077 U	0.0065 U	0.0066 U	0.0069 U	---
2,4,6-Trichlorophenol	0.0064 U	0.0069 U	---	---	**0.0096 Y**	0.0065 U	0.0066 U	0.0069 U	---
Tetrachlorophenol	0.0064 U	0.0069 U	---	---	0.0077 U	0.0065 U	0.0066 U	0.0069 U	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SB05-1	SB05-1	SB05-10	SB05-10	SB05-10	SB05-10	SB05-11	SB05-11
Sample Identification	SB05-1-0001	SB05-1-1011	SB05-10-0001	SB05-10-0406	SB05-10-0608	SB05-10-0911	SB05-11-0406	SB05-11-1416
Sample Collection Date	11/1/2005	11/1/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005
Sample Type	SS	SB	SS	SB	SB	SB	SB	SB
Duplicate of								
Upper Depth (ft)	0	10	0	4	6	9	4	14
Lower Depth (ft)	1	11	1	6	8	11	6	16
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	0.0607 U	0.0614 U	**0.0172**	0.054 U	**0.00224**	0.0544 U	**0.0493**	**99.3**
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SB05-12	SB05-12	SB05-12	SB05-13	SB05-13	SB05-13	SB05-14	SB05-14
Sample Identification	SB05-12-0001	SB05-12-0406	SB05-12-0810	SB05-13-0001	SB05-1300-0406	SB05-13-0406	SB05-14-0001	SB05-14-0406
Sample Collection Date	11/6/2005	11/6/2005	11/6/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005
Sample Type	SS	SB	SB	SS	DU	SB	SS	SB
Duplicate of					SB05-13-0406			
Upper Depth (ft)	0	4	8	0	4	4	0	4
Lower Depth (ft)	1	6	10	1	6	6	1	6
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	0.0598	0.0129	0.0335	0.509	0.00437	0.00338	0.0525	0.0484
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SB05-14	SB05-15	SB05-15	SB05-15	SB05-16	SB05-16	SB05-16	SB05-2
Sample Identification	SB05-14-1113	SB05-15-0001	SB05-15-0406	SB05-15-0608	SB05-16-0001	SB05-16-0406	SB05-16-0911	SB05-2-0001
Sample Collection Date	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/1/2005
Sample Type	SB	SS	SB	SB	SS	SB	SB	SS
Duplicate of								
Upper Depth (ft)	11	0	4	6	0	4	9	0
Lower Depth (ft)	13	1	6	8	1	6	11	1
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	**0.00265**	**0.00765**	**0.00359**	0.0661 U	**0.00799 J**	**0.0039 J**	0.0621 U	0.0692 U
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SB05-2	SB05-3	SB05-3	SB05-3	SB05-3	SB05-4	SB05-4	SB05-4
Sample Identification	**SB05-2-0911**	**SB05-3-0001**	**SB05-3-0406**	**SB05-3-0911**	**SB05-3-1315**	**SB05-4-0001**	**SB05-4-0406**	**SB05-4-0911**
Sample Collection Date	**11/1/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**
Sample Type	**SB**	**SS**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**
Duplicate of								
Upper Depth (ft)	**9**	**0**	**4**	**9**	**13**	**0**	**4**	**9**
Lower Depth (ft)	**11**	**1**	**6**	**11**	**15**	**1**	**6**	**11**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	0.0558 U	**0.00762**	**0.0574**	0.0652 U	0.0548 U	**0.0382**	0.0621 U	0.0713 U
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SB05-5	SB05-6	SB05-6	SB05-6	SB05-7	SB05-7	SB05-8	SB05-8
Sample Identification	SB05-5-0001	SB05-6-0406	SB05-6-0001	SB05-6-0608	SB05-7-0001	SB05-7-0406	SB05-8-0001	SB05-8-0406
Sample Collection Date	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005
Sample Type	SS	SB	SS	SB	SS	SB	SS	SB
Duplicate of								
Upper Depth (ft)	0	4	0	6	0	4	0	4
Lower Depth (ft)	1	6	1	8	1	6	1	6
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	**0.129**	**0.00989**	0.0589 U	**0.0104**	**0.0687**	0.0608 U	**1.94**	**3.11**
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	**SB05-8**	**SB05-9**	**SB05-9**	**SS05-01**	**SS05-02**	**SS05-03**	**SS05-04**	**SS05-05**	**SS05-06**
Sample Identification	**SB05-8-0708**	**SB05-9-1416**	**SB05-9-0001**	**SS05-01**	**SS05-02**	**SS05-03**	**SS05-04**	**SS05-05**	**SS05-06**
Sample Collection Date	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**	**11/5/2005**
Sample Type	**SB**	**SB**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of									
Upper Depth (ft)	**7**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth (ft)	**8**	**16**	**1**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	**0.984**	0.0527 U	**0.141**	0.0533 U	**0.37**	**0.885**	**0.0796**	**0.121**	**0.375**
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SS05-07	SS05-08	SS05-09	SS05-10	SS05-11	SS05-12	SS05-13	SS05-14	SS05-15	SS05-16
Sample Identification	**SS05-07**	**SS05-08**	**SS05-09**	**SS05-10**	**SS05-11**	**SS05-12**	**SS05-13**	**SS05-14**	**SS05-15**	**SS05-16**
Sample Collection Date	**11/5/2005**	**11/7/2005**	**11/7/2005**	**11/5/2005**	**11/5/2005**	**11/7/2005**	**11/7/2005**	**11/7/2005**	**11/5/2005**	**11/5/2005**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of										
Upper Depth (ft)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth (ft)	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	**1.71**	**0.0469**	**0.0591**	**0.942**	**0.105**	**0.175**	**0.138**	**0.0291**	**0.785**	**0.0673**
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SS05-17	SS05-18	SS05-19	SS05-20	SS05-21	SS05-22	SS05-B1	SS05-B2	SS05-B3	SS-10-A-98
Sample Identification	SS05-17	SS05-18	SS05-19	SS05-20	SS05-21	SS05-22	SS05-B1	SS05-B2	SS05-B3	SS-10-A-2
Sample Collection Date	11/7/2005	11/7/2005	11/5/2005	11/7/2005	11/7/2005	11/7/2005	11/5/2005	11/5/2005	11/5/2005	7/28/1998
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of										
Upper Depth (ft)	0	0	0	0	0	0	0	0	0	0
Lower Depth (ft)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	0.153	0.668	0.106	0.0838	0.114	0.0886	0.00826	0.00348	0.00637	2
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SS-10-B-98	SS-10-CA-98	SS-10-CA-98	SS-10-CB-98	SS-10-CB-98	SS-11-98	SS-11-98	SS-12-98	SS-12-98	SS-13-98
Sample Identification	SS-10-B-2	SS-10-CA-.5	SS-10-CA-2	SS-10-CB-.5	SS-10-CB-2	SS-11-.5	SS-11-2	SS-12-.5	SS-12-2	SS-13-.5
Sample Collection Date	7/28/1998	8/17/1998	8/17/1998	8/17/1998	8/17/1998	6/29/1998	6/29/1998	6/29/1998	6/29/1998	6/29/1998
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of										
Upper Depth (ft)	0	0	0	0	0	0	0	0	0	0
Lower Depth (ft)	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	51	7.7	11	4.2	0.094	9.1	19	0.85	0.12	3.1
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SS-13-98	SS-14-98	SS-14-98	SS-15-98	SS-15-98	SS-16-98	SS-16-98	SS-17-98	SS-17-98	SS-18-98
Sample Identification	**SS-13-2**	**SS-14-.5**	**SS-14-2**	**SS-15-.5**	**SS-15-2**	**SS-16-.5**	**SS-16-2**	**SS-17-.5**	**SS-17-2**	**SS-18-.5**
Sample Collection Date	**6/29/1998**	**6/29/1998**	**6/29/1998**	**6/29/1998**	**6/29/1998**	**6/30/1998**	**6/30/1998**	**6/30/1998**	**6/30/1998**	**6/30/1998**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of										
Upper Depth (ft)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth (ft)	**2**	**0.5**	**2**	**0.5**	**2**	**0.5**	**2**	**0.5**	**2**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	**0.0073**	**2**	**0.42**	**0.39**	**0.067**	**0.49**	**0.068**	**0.15**	**0.032**	**1**
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SS-18-98	SS-19-98	SS-19-98	SS-1-A-98	SS-1A-99	SS-1-B-98	SS-1B-99	SS-1C-99	SS-1-E-98	SS-1-FA-98
Sample Identification	SS-18-2	SS-19-.5	SS-19-2	SS-1-A-2	AE44A-DL	SS-1-B-2	AE44B-DL	AE44C-DL	SS-1-E-2	SS-1-FA-2
Sample Collection Date	6/30/1998	6/30/1998	6/30/1998	7/28/1998	4/17/1999	7/28/1998	4/17/1999	4/17/1999	7/28/1998	8/17/1998
Sample Type	SS	SS	SS	SS	SB	SS	SB	SB	SS	SS
Duplicate of										
Upper Depth (ft)	0	0	0	0	6	0	6	6	0	0
Lower Depth (ft)	2	0.5	2	2	6	2	6	6	2	2
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	**0.056**	**0.71**	0.0074 U	**0.38**	**140**	**7.6**	**400**	**690**	**16**	**13**
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SS-20-98	SS-20-98	SS-20-98	SS-20-98	SS-2-98	SS-2-98	SS-3-98	SS-3-98	SS-4-98	SS-4-98
Sample Identification	SS-22-.5	SS-22-2	SS-20-.5	SS-20-2	SS-2-.5	SS-2-2	SS-3-.5	SS-3-2	SS-4-.5	SS-4-2
Sample Collection Date	6/30/1998	6/30/1998	6/30/1998	6/30/1998	6/29/1998	6/29/1998	6/30/1998	6/30/1998	6/30/1998	6/30/1998
Sample Type	DU	DU	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of	SS-20-.5	SS-20-2								
Upper Depth (ft)	0	0	0	0	0	0	0	0	0	0
Lower Depth (ft)	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	0.71	0.029	0.5	0.041	0.4	0.61	3.4	0.012	1.7	0.2
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SS-5-98	SS-5-98	SS-6-98	SS-6-98	SS-7-98	SS-7-98	SS-8-98	SS-8-98	SS-9-A-98	SS-9-A-98
Sample Identification	**SS-5-.5**	**SS-5-2**	**SS-6-.5**	**SS-6-2**	**SS-7-.5**	**SS-7-2**	**SS-8-.5**	**SS-8-2**	**SS-9-A-.5**	**SS-9-A-2**
Sample Collection Date	**6/30/1998**	**6/30/1998**	**6/29/1998**	**6/29/1998**	**6/29/1998**	**6/29/1998**	**6/29/1998**	**6/29/1998**	**7/28/1998**	**7/28/1998**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of										
Upper Depth (ft)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth (ft)	**0.5**	**2**	**0.5**	**2**	**0.5**	**2**	**0.5**	**2**	**0.5**	**2**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	**1**	**0.048**	**2**	**0.0076**	**0.26**	**0.031**	**1.5**	**3.1**	**190**	**7.4**
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	SS-9-D-98	SS-9-D-98	SS-9-E-98	SS-9-E-98	TP05-10	TP05-10	TP05-10	TP05-11	TP05-12
Sample Identification	SS-9-D-.5	SS-9-D-2	SS-9-E-.5	SS-9-E-2	TP05-10-0001	TP05-10-0004	TP05-10-011	TP05-11-0001	TP05-12-0000
Sample Collection Date	7/28/1998	7/28/1998	7/28/1998	7/28/1998	11/2/2005	11/2/2005	11/2/2005	11/2/2005	11/2/2005
Sample Type	SS	SS	SS	SS	SS	SB	SB	SS	SS
Duplicate of									
Upper Depth (ft)	0	0	0	0	1	4	11	1	
Lower Depth (ft)	0.5	2	0.5	2	1	4	11	1	0
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	**0.84**	**210**	**3.2**	**62**	**0.0027**	0.0542 U	0.0582 U	0.0594 U	0.0535 U
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	**TP05-12**	**TP05-17**	**TP05-21**	**TP05-21**	**TP05-22**	**TP05-24**	**TP05-24**	**TP05-25**
Sample Identification	**TP05-12-0009**	**TP05-17-0000**	**TP05-21-0001**	**TP05-21-0003**	**TP05-22-0003**	**TP05-2400-0001**	**TP05-24-0001**	**TP05-25-0001**
Sample Collection Date	**11/4/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/2/2005**	**11/4/2005**	**11/4/2005**	**11/4/2005**
Sample Type	**SB**	**SS**	**SS**	**SB**	**SB**	**DU**	**SS**	**SS**
Duplicate of						**TP05-24-0001**		
Upper Depth (ft)	**9**		**1**	**3**	**3**	**0**	**0**	**0**
Lower Depth (ft)	**9**	**0**	**1**	**3**	**3**	**1**	**1**	**1**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	0.0629 U	**0.00377**	0.0601 U	0.0536 U	0.0504 U	0.0573 U	0.058 U	**0.0101**
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil Phenols, 1996-2005

Sample Station	**TP05-28**	**TP05-28**	**TP05-3**	**TP05-30**	**TP05-4**	**TP05-4**	**TP05-5**	**TP05-6**
Sample Identification	**TP05-2800-0009**	**TP05-28-0009**	**TP05-3-3.8**	**TP05-30-0001**	**TP05-4-0008**	**TP05-4-0001**	**TP05-5-0010**	**TP05-6-0001**
Sample Collection Date	**11/3/2005**	**11/3/2005**	**11/2/2005**	**11/4/2005**	**11/2/2005**	**11/2/2005**	**11/3/2005**	**11/3/2005**
Sample Type	**DU**	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SS**
Duplicate of	**TP05-28-0009**							
Upper Depth (ft)	**9**	**9**	**3**	**1**	**8**	**1**	**10**	**1**
Lower Depth (ft)	**9**	**9**	**3.8**	**1**	**8**	**1**	**10**	**1**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Pentachlorophenol	0.0706 U	0.0678 U	**0.00231**	**0.603**	0.0619 U	**0.0124**	0.0549 U	0.0592 U
2,3,4,5-Tetrachlorophenol	---	---	---	---	---	---	---	---
2,3,4-Trichlorophenol	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---
Tetrachlorophenol	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Retec Soil SVOC, 1994 & 1999

Sample Station	**SS-1A-99**	**SS-1B-99**	**SS-1C-99**	**TP-1-94**	**TP-2-94**	**TP-3-94**	**TP-3-94**	**TP-4-94**	**TP-4-94**	**TP-5-94**
Sample Identification	**AE44A**	**AE44B**	**AE44C**	**BNTP-1-20'**	**BNTP-2-10'**	**BNTP-3-20'**	**BNTP-3-6'**	**BNTP-4-10'**	**BNTP-4-20'**	**BNTP-5-20'**
Sample Collection Date	**4/17/1999**	**4/17/1999**	**4/17/1999**	**10/26/1994**	**10/25/1994**	**10/25/1994**	**10/25/1994**	**10/26/1994**	**10/26/1994**	**10/26/1994**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of										
Upper Depth (ft)	**6**	**6**	**6**	**20**	**10**	**20**	**6**	**10**	**20**	**20**
Lower Depth (ft)	**6**	**6**	**6**	**20**	**10**	**20**	**6**	**10**	**20**	**20**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
1,2,4-Trichlorobenzene	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
1,2-Dichlorobenzene	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
1,3-Dichlorobenzene	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
1,4-Dichlorobenzene	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
2,4,5-Trichlorophenol	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
2,4,6-Trichlorophenol	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
2,4-Dichlorophenol	---	---	---	36 U	3.4 U	6.7 U	0.23 U	0.21 U	0.64 U	1.3 U
2,4-Dimethylphenol	---	---	---	36 U	3.4 U	6.7 U	0.23 U	0.21 U	0.64 U	1.3 U
2,4-Dinitrophenol	---	---	---	120 U	11 U	22 U	0.77 U	0.7 U	2.1 U	4.4 U
2,4-Dinitrotoluene	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
2,6-Dinitrotoluene	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
2-Chloronaphthalene	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
2-Chlorophenol	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
2-Methylnaphthalene	**0.24**	**0.28**	**0.52**	**1000**	1.1 U	**390**	0.077 U	0.07 U	**6**	**71**
2-Methylphenol	---	---	---	24 U	2.2 U	4.5 U	0.15 U	0.14 U	0.42 U	0.87 U
2-Nitroaniline	---	---	---	60 U	5.6 U	**35 Y**	0.38 U	0.35 U	1.1 U	**5.4 Y**
2-Nitrophenol	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
3,3'-Dichlorobenzidine	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
3-Nitroaniline	---	---	---	72 U	6.7 U	13 U	0.46 U	0.42 U	1.3 U	2.6 U
4,6-Dinitro-2-Methylphenol	---	---	---	120 U	11 U	22 U	0.77 U	0.7 U	2.1 U	4.4 U
4-Bromophenylphenylether	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
4-Chloro-3-Methylphenol	---	---	---	24 U	2.2 U	4.5 U	0.15 U	0.14 U	0.42 U	0.87 U
4-Chloroaniline	---	---	---	36 U	3.4 U	6.7 U	0.23 U	0.21 U	0.64 U	1.3 U
4-Methylphenol	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
4-Nitroaniline	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
4-Nitrophenol	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
Acenaphthene	**0.59**	**5.7**	**3.9**	**150**	**2.6**	**35**	0.077 U	0.07 U	**1.6**	**10**
Acenaphthylene	0.071 U	0.18 U	0.19 U	**30 Y**	1.1 U	**14 Y**	0.077 U	0.07 U	0.21 U	**4.2 Y**
Anthracene	**0.2**	**0.67**	**1.3**	**92**	1.1 U	**14**	0.077 U	0.07 U	**0.71**	**4.2**
Benzo(a)Anthracene	**0.44**	**1.7**	**0.82**	**20**	**1.2**	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Benzo(a)Pyrene	**0.3**	**0.98**	**0.7**	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Benzo(b)Fluoranthene	**0.4**	**1.2**	**0.99**	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Benzo(g,h,i)Perylene	**0.24**	**0.44**	**0.46**	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Benzo(k)Fluoranthene	**0.27**	**0.86**	**0.62**	12 U	**1.3**	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Benzoic Acid	---	---	---	120 U	11 U	22 U	0.77 U	0.7 U	2.1 U	4.4 U
Benzyl Alcohol	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
bis(2-Chloroethoxy)Methane	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
bis(2-Chloroethyl)Ether	---	---	---	24 U	2.2 U	4.5 U	0.15 U	0.14 U	0.42 U	0.87 U
bis(2-Chloroisopropyl)Ether	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
bis(2-Ethylhexyl)Phthalate	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Butyl Benzyl Phthalate	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Carbazole	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Chrysene	**0.97**	**2.7**	**1.5**	**31**	**1.8**	**2.5**	0.077 U	0.07 U	0.21 U	**0.64**
Dibenzo(a,h)Anthracene	**0.074**	0.18 U	0.19 U	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Dibenzofuran	0.071 U	0.18 U	0.19 U	**39 J**	1.1 U	**22**	0.077 U	0.07 U	**0.53**	**6.4**
Diethyl Phthalate	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Dimethyl Phthalate	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Di-n-Butylphthalate	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Di-n-Octylphthalate	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Fluoranthene	**1.1**	**4.2**	**2.9**	**84**	**4**	**4.5**	0.077 U	0.07 U	**0.38**	**1.4**
Fluorene	**0.59**	**1.9**	**3.6**	**240**	**3.1**	**68**	0.077 U	0.07 U	**2.6**	**21**
Hexachlorobenzene	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Hexachlorobutadiene	---	---	---	24 U	2.2 U	4.5 U	0.15 U	0.14 U	0.42 U	0.87 U
Hexachlorocyclopentadiene	---	---	---	60 U	5.6 U	11 U	0.38 U	0.35 U	1.1 U	2.2 U
Hexachloroethane	---	---	---	24 U	2.2 U	4.5 U	0.15 U	0.14 U	0.42 U	0.87 U
Indeno(1,2,3-cd)Pyrene	**0.17**	**0.44**	**0.43**	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Isophorone	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
Naphthalene	0.071 U	0.18 U	0.19 U	**60 J**	1.1 U	**34**	0.077 U	0.07 U	**0.33**	**4.2**
Nitrobenzene	---	---	---	12 U	1.1 U	2.2 U	0.077 U	0.07 U	0.21 U	0.44 U
N-Nitrosodi-n-Propylamine	---	---	---	24 U	2.2 U	4.5 U	0.15 U	0.14 U	0.42 U	0.87 U
N-Nitrosodiphenylamine	---	---	---	**1400 Y**	1.1 U	**260 Y**	0.077 U	0.07 U	0.21 U	**71 Y**
Pentachlorophenol	---	---	---	**220 J**	**240**	**880**	**17**	0.35 U	**2.4**	**30**
Phenanthrene	**0.96**	**1.6**	**4.3**	**510**	**6.2**	**170**	**0.091**	0.07 U	**4.3**	**50**
Phenol	---	---	---	24 U	2.2 U	4.5 U	0.15 U	0.14 U	0.42 U	0.87 U
Pyrene	**4.7**	**13**	**8.5**	**150**	**7.4**	**18**	**0.2**	0.07 U	**1.2**	**5.2**

Sample Station	**TP-6-94**	**TP-7-94**	**TP-7-94**	**TP-8-94**
Sample Identification	**BNTP-6-20'**	**BNTP-7-10'**	**BNTP-7-20'**	**BNTP-8-20'**
Sample Collection Date	**10/26/1994**	**10/25/1994**	**10/25/1994**	**10/26/1994**
Sample Type	**SB**	**SB**	**SB**	**DU**
Duplicate of				**KPT-8**
Upper Depth (ft)	**20**	**10**	**20**	**20**
Lower Depth (ft)	**20**	**10**	**20**	**20**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
1,2,4-Trichlorobenzene	2.2 U	0.072 U	0.6 U	2.1 U
1,2-Dichlorobenzene	2.2 U	0.072 U	0.6 U	2.1 U
1,3-Dichlorobenzene	2.2 U	0.072 U	0.6 U	2.1 U
1,4-Dichlorobenzene	2.2 U	0.072 U	0.6 U	2.1 U
2,4,5-Trichlorophenol	11 U	0.36 U	3 U	11 U
2,4,6-Trichlorophenol	11 U	0.36 U	3 U	11 U
2,4-Dichlorophenol	6.7 U	0.22 U	1.8 U	6.4 U
2,4-Dimethylphenol	6.7 U	0.22 U	1.8 U	6.4 U
2,4-Dinitrophenol	22 U	0.72 U	6 U	21 U
2,4-Dinitrotoluene	11 U	0.36 U	3 U	11 U
2,6-Dinitrotoluene	11 U	0.36 U	3 U	11 U
2-Chloronaphthalene	2.2 U	0.072 U	0.6 U	2.1 U
2-Chlorophenol	2.2 U	0.072 U	0.6 U	2.1 U
2-Methylnaphthalene	**75**	0.072 U	**14**	**200**
2-Methylphenol	4.5 U	0.14 U	1.2 U	4.3 U
2-Nitroaniline	11 U	0.36 U	3 U	11 U
2-Nitrophenol	11 U	0.36 U	3 U	11 U
3,3'-Dichlorobenzidine	11 U	0.36 U	3 U	11 U
3-Nitroaniline	13 U	0.43 U	3.6 U	13 U
4,6-Dinitro-2-Methylphenol	22 U	0.72 U	6 U	21 U
4-Bromophenylphenylether	2.2 U	0.072 U	0.6 U	2.1 U
4-Chloro-3-Methylphenol	4.5 U	0.14 U	1.2 U	4.3 U
4-Chloroaniline	6.7 U	0.22 U	1.8 U	6.4 U
4-Methylphenol	2.2 U	0.072 U	0.6 U	2.1 U
4-Nitroaniline	11 U	0.36 U	3 U	11 U
4-Nitrophenol	11 U	0.36 U	3 U	11 U
Acenaphthene	**5.8 Y**	0.072 U	**1.1**	**28**
Acenaphthylene	**18**	0.072 U	0.6 U	**12 Y**
Anthracene	**8.9**	0.072 U	0.6 U	**10**
Benzo(a)Anthracene	2.2 U	0.072 U	0.6 U	2.1 U
Benzo(a)Pyrene	2.2 U	0.072 U	0.6 U	2.1 U
Benzo(b)Fluoranthene	2.2 U	0.072 U	0.6 U	2.1 U
Benzo(g,h,i)Perylene	2.2 U	0.072 U	0.6 U	2.1 U
Benzo(k)Fluoranthene	2.2 U	0.072 U	0.6 U	2.1 U
Benzoic Acid	22 U	0.72 U	6 U	21 U
Benzyl Alcohol	11 U	0.36 U	3 U	11 U
bis(2-Chloroethoxy)Methane	2.2 U	0.072 U	0.6 U	2.1 U
bis(2-Chloroethyl)Ether	4.5 U	0.14 U	1.2 U	4.3 U
bis(2-Chloroisopropyl)Ether	2.2 U	0.072 U	0.6 U	2.1 U
bis(2-Ethylhexyl)Phthalate	2.2 U	0.072 U	0.6 U	2.1 U
Butyl Benzyl Phthalate	2.2 U	0.072 U	0.6 U	2.1 U
Carbazole	2.2 U	0.072 U	0.6 U	2.1 U
Chrysene	2.2 U	0.072 U	0.6 U	2.1 U
Dibenzo(a,h)Anthracene	2.2 U	0.072 U	0.6 U	2.1 U
Dibenzofuran	**7.3 J**	0.072 U	0.6 U	**18 J**
Diethyl Phthalate	2.2 U	0.072 U	0.6 U	2.1 U
Dimethyl Phthalate	2.2 U	0.072 U	0.6 U	2.1 U
Di-n-Butylphthalate	2.2 U	0.072 U	0.6 U	2.1 U
Di-n-Octylphthalate	2.2 U	0.072 U	0.6 U	2.1 U
Fluoranthene	**3.5**	0.072 U	0.6 U	**3.7**
Fluorene	**33**	0.072 U	**1.9**	**58**
Hexachlorobenzene	2.2 U	0.072 U	0.6 U	2.1 U
Hexachlorobutadiene	4.5 U	0.14 U	1.2 U	4.3 U
Hexachlorocyclopentadiene	11 U	0.36 U	3 U	11 U
Hexachloroethane	4.5 U	0.14 U	1.2 U	4.3 U
Indeno(1,2,3-cd)Pyrene	2.2 U	0.072 U	0.6 U	2.1 U
Isophorone	2.2 U	0.072 U	0.6 U	2.1 U
Naphthalene	2.2 U	0.072 U	**1.1**	**11**
Nitrobenzene	2.2 U	0.072 U	0.6 U	2.1 U
N-Nitrosodi-n-Propylamine	4.5 U	0.14 U	1.2 U	4.3 U
N-Nitrosodiphenylamine	**78 Y**	0.072 U	0.6 U	**210 Y**
Pentachlorophenol	**16**	0.36 U	**1.8 J**	**93**
Phenanthrene	**89**	0.072 U	**4.5**	**140**
Phenol	4.5 U	0.14 U	1.2 U	4.3 U
Pyrene	**14**	0.072 U	0.6 U	**13**

Notes:

Detected values are shown in bold
DU = Duplicate sample
ft = Feet
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample
SS = Surface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value
SVOC = Semi-volatile organic compound
Y = Indicates a raised detection limit due to matrix interference

Appendix G - KRY Historical Data
Retec Soil Metals, 2005

Sample Station	Pipe Gallery	SB05-1	SB05-1	SB05-10	SB05-10	SB05-10	SB05-10	SB05-11
Sample Identification	PIPE GALLERY	SB05-1-0001	SB05-1-1011	SB05-10-0001	SB05-10-0406	SB05-10-0608	SB05-10-0911	SB05-11-0001
Sample Collection Date	11/4/2005	11/1/2005	11/1/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005
Sample Type	SS	SS	SB	SS	SB	SB	SB	SS
Duplicate of								
Upper Depth (ft)	0	0	10	0	4	6	9	0
Lower Depth (ft)	2	1	11	1	6	8	11	1
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	95.8	8.8	5.7	11.1	9.1	5.4	8.4	12.9

Appendix G - KRY Historical Data
Retec Soil Metals, 2005

Sample Station	SB05-11	SB05-11	SB05-11	SB05-11	SB05-12	SB05-12	SB05-12	SB05-13
Sample Identification	SB05-11-0406	SB05-11-0406 RE	SB05-11-0911	SB05-11-1416	SB05-12-0001	SB05-12-0406	SB05-12-0810	SB05-13-0001
Sample Collection Date	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/6/2005	11/7/2005
Sample Type	SB	SB	SB	SB	SS	SB	SB	SS
Duplicate of								
Upper Depth (ft)	4	4	9	14	0	4	8	0
Lower Depth (ft)	6	6	11	16	1	6	10	1
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	11.6	6.5	7.9	6.7	15.9	6.4	11.4	27.5

Appendix G - KRY Historical Data
Retec Soil Metals, 2005

Sample Station	SB05-13	SB05-13	SB05-14	SB05-14	SB05-14	SB05-15	SB05-15	SB05-15
Sample Identification	SB05-1300-0406	SB05-13-0406	SB05-14-0001	SB05-14-0406	SB05-14-1113	SB05-15-0001	SB05-15-0406	SB05-15-0608
Sample Collection Date	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005	11/7/2005
Sample Type	DU	SB	SS	SB	SB	SS	SB	SB
Duplicate of	SB05-13-0406							
Upper Depth (ft)	4	4	0	4	11	0	4	6
Lower Depth (ft)	6	6	1	6	13	1	6	8
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	11.5	10.4	7.8	9.9	6.6	14	8.8	19.1

Appendix G - KRY Historical Data
Retec Soil Metals, 2005

Sample Station	SB05-16	SB05-16	SB05-16	SB05-2	SB05-3	SB05-3	SB05-3	SB05-3
Sample Identification	SB05-16-0001	SB05-16-0406	SB05-16-0911	SB05-2-0001	SB05-3-0001	SB05-3-0406	SB05-3-0911	SB05-3-1315
Sample Collection Date	11/7/2005	11/7/2005	11/7/2005	11/1/2005	11/2/2005	11/2/2005	11/2/2005	11/2/2005
Sample Type	SS	SB	SB	SS	SS	SB	SB	SB
Duplicate of								
Upper Depth (ft)	0	4	9	0	0	4	9	13
Lower Depth (ft)	1	6	11	1	1	6	11	15
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	28.1	15	5.8	414	30.5	65.7	11.2	9.3

Appendix G - KRY Historical Data
Retec Soil Metals, 2005

Sample Station	SB05-4	SB05-4	SB05-5	SB05-5	SB05-6	SB05-6	SB05-7	SB05-7
Sample Identification	SB05-4-0406	SB05-4-0911	SB05-5-0406	SB05-5-0001	SB05-6-0001	SB05-6-0608	SB05-7-0001	SB05-7-0406
Sample Collection Date	11/2/2005	11/2/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005
Sample Type	SB	SB	SB	SS	SS	SB	SS	SB
Duplicate of								
Upper Depth (ft)	4	9	4	0	0	6	0	4
Lower Depth (ft)	6	11	6	1	1	8	1	6
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	11.5	14.9	18.2	26.9	14.5	7.9	26.6	9.2

Appendix G - KRY Historical Data
Retec Soil Metals, 2005

Sample Station	SB05-8	SB05-8	SB05-8	SB05-9	SB05-9	TP05-10	TP05-10	TP05-10
Sample Identification	SB05-8-0001	SB05-8-0406	SB05-8-0708	SB05-9-1416	SB05-9-0001	TP05-10-0001	TP05-10-0004	TP05-10-011
Sample Collection Date	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/5/2005	11/2/2005	11/2/2005	11/2/2005
Sample Type	SS	SB	SB	SB	SS	SS	SB	SB
Duplicate of								
Upper Depth (ft)	0	4	7	14	0	1	4	11
Lower Depth (ft)	1	6	8	16	1	1	4	11
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	40.4	24.1	12.6	6.7	25.3	21.3	27	7.8

Appendix G - KRY Historical Data
Retec Soil Metals, 2005

Sample Station	TP05-22	TP05-24	TP05-24	TP05-25	TP05-28	TP05-28	TP05-5	TP05-5
Sample Identification	TP05-22-0003	TP05-2400-0001	TP05-24-0001	TP05-25-0001	TP05-2800-0009	TP05-28-0009	TP05-5-0001	TP05-5-0010
Sample Collection Date	11/2/2005	11/4/2005	11/4/2005	11/4/2005	11/3/2005	11/3/2005	11/3/2005	11/3/2005
Sample Type	SB	DU	SS	SS	DU	SB	SS	SB
Duplicate of		TP05-24-0001			TP05-28-0009			
Upper Depth (ft)	3	0	0	0	9	9	0	10
Lower Depth (ft)	3	1	1	1	9	9	1	10
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	9.3	22	10.5	21.2	7.5	7.9	9.1	6.8

Appendix G - KRY Historical Data
Retec Soil Metals, 2005

Sample Station	TP05-6	TP05-6	TP05-6	TP05-9	TP05-9	TP05-9
Sample Identification	TP05-600-0009	TP05-6-0009	TP05-6-0001	TP05-9-0001	TP05-9-4.5	TP05-9-010
Sample Collection Date	11/3/2005	11/3/2005	11/3/2005	11/2/2005	11/2/2005	11/2/2005
Sample Type	DU	SB	SS	SS	SB	SB
Duplicate of	TP05-6-0009					
Upper Depth (ft)	0	0	1		4.5	10
Lower Depth (ft)	9	9	1	1	4.5	10
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	**11.6**	**11**	**10**	**52.7**	**61.9**	**8.4**

Notes:

Detected values are shown in bold
DU = Duplicate sample
ft = Feet
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample
SS = Surface soil sample

Appendix G - KRY Historical Data
Retec Sediment Dioxins & Furans, 2005

Sample Station	SED05-1	SED05-2
Sample Identification	SED05-1	SED05-2
Sample Collection Date	11/6/2005	11/6/2005
Sample Type	SD	SD
Units	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**12.6**	**207**
1,2,3,4,6,7,8,9-OCDF	2.55 U	**11.4**
1,2,3,4,6,7,8-HPCDD	**1.52**	**25.7**
1,2,3,4,6,7,8-HPCDF	1.27 U	**5.49**
1,2,3,4,7,8,9-HPCDF	1.27 U	1.71 U
1,2,3,4,7,8-HXCDD	1.27 U	1.71 U
1,2,3,4,7,8-HXCDF	1.27 U	1.71 U
1,2,3,6,7,8-HXCDD	1.27 U	1.71 U
1,2,3,6,7,8-HXCDF	1.27 U	1.71 U
1,2,3,7,8,9-HXCDD	1.27 U	1.71 U
1,2,3,7,8,9-HXCDF	1.27 U	1.71 U
1,2,3,7,8-PECDD	1.27 U	1.71 U
1,2,3,7,8-PECDF	1.27 U	1.71 U
2,3,4,6,7,8-HXCDF	1.27 U	1.71 U
2,3,4,7,8-PECDF	1.27 U	1.71 U
2,3,7,8-TCDD	0.255 U	0.341 U
2,3,7,8-TCDF	0.255 U	0.341 U

Notes:

Detected values are shown in bold.
SD = Sediment sample
ng/kg = Nanogram per kilogram
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
Retec Sediment Lead & PCP, 2005

Sample Station	SED05-1	SED05-2
Sample Identification	SED05-1	SED05-2
Sample Collection Date	11/6/2005	11/6/2005
Sample Type	SD	SD
Units	mg/kg	mg/kg
Lead	**9.1**	**12.7**

Sample Station	SED05-1	SED05-2
Sample Identification	SED05-1	SED05-2
Sample Collection Date	11/6/2005	11/6/2005
Sample Type	SD	SD
Units	mg/kg	mg/kg
Pentachlorophenol	0.0978 U	0.12 U

Notes:

Detected values are shown in bold
mg/kg = Milligrams per kilogram
PCP = Pentachlorophenol
SD = Sediment sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
Retec Sediment EPH, VPH & PAH, 2005

Sample Station	SED05-1	SED05-2
Sample Identification	SED05-1	SED05-2
Sample Collection Date	11/6/2005	11/6/2005
Sample Type	SD	SD
Units	mg/kg	mg/kg
EPH		
C11-C22 Aromatics	39.4 U	48.1 U
C19-C36 Aliphatics	39.4 U	48.1 U
C9-C18 Aliphatics	39.4 U	48.1 U
Total Extractable Hydrocarbons	118 U	144 U
VPH		
C5-C8 Aliphatics	3.91 U	4.81 U
C5-C8 Aliphatics Adjusted	3.91 U	4.81 U
C9-C10 Aromatics	3.91 U	4.81 UJ
C9-C12 Aliphatics	3.91 U	4.81 U
C9-C12 Aliphatics Adjusted	3.91 U	4.81 U
TVPH	7.83 U	9.62 UJ
Benzene	0.0978 U	0.12 UJ
Ethylbenzene	0.0978 U	0.12 UJ
Methyl T-Butyl Ether	0.0978 U	0.12 UJ
Naphthalene	0.391 U	0.481 UJ
Toluene	0.0978 U	0.12 UJ
Xylenes (Total)	0.196 U	0.24 UJ
PAH		
2-Methylnaphthalene	0.0058 U	0.0076 U
Acenaphthene	0.0058 U	**0.0122**
Acenaphthylene	0.0058 U	**0.0099**
Anthracene	**0.0092**	**0.0514 J**
Benzo(A)Anthracene	**0.0182**	**0.114 J**
Benzo(A)Pyrene	**0.0167**	**0.0735 J**
Benzo(B)Fluoranthene	**0.0342**	**0.157 J**
Benzo(G,H,I)Perylene	**0.0067**	**0.0226 J**
Benzo(K)Fluoranthene	0.0058 U	0.0076 U
Chrysene	**0.0216**	**0.0949 J**
Dibenzo(A,H)Anthracene	0.0058 U	**0.0094**
Fluoranthene	**0.0439**	**0.26 J**
Fluorene	0.0058 U	**0.0156**
Indeno(1,2,3-Cd)Pyrene	0.0058 U	**0.0208 J**
Naphthalene	0.0058 U	0.0076 U
Phenanthrene	**0.0388**	**0.227 J**
Pyrene	**0.0426**	**0.247 J**

Notes:

Detected values are shown in bold
EPH = Extractable petroleum hydrocarbons
J = The analyte was detected, but the concentration is considered estimated
mg/kg = Milligrams per kilogram
PAH = Polycyclic Aromatic Hydrocarbons
PCP = Pentachlorophenol
SD = Sediment sample
TVPH = Total volatile petroleum hydrocarbons
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
VPH = Volatile petroleum hydrocarbons

Appendix G - KRY Historical Data
Retec Sediment SVOC, 2005

Sample Station	SED05-1	SED05-2
Sample Identification	SED05-1	SED05-2
Sample Collection Date	11/6/2005	11/6/2005
Sample Type	SD	SD
Units	mg/kg	mg/kg
1,2,4-Trichlorobenzene	0.581 U	0.763 U
1,2-Dichlorobenzene	0.581 U	0.763 U
1,3-Dichlorobenzene	0.581 U	0.763 U
1,4-Dichlorobenzene	0.581 U	0.763 U
2,4,5-Trichlorophenol	0.581 U	0.763 U
2,4,6-Trichlorophenol	0.581 U	0.763 U
2,4-Dichlorophenol	0.581 U	0.763 U
2,4-Dimethylphenol	0.581 U	0.763 U
2,4-Dinitrophenol	2.82 U	3.7 U
2,4-Dinitrotoluene	0.581 U	0.763 U
2,6-Dinitrotoluene	0.581 U	0.763 U
2-Chloronaphthalene	0.581 U	0.763 U
2-Chlorophenol	0.581 U	0.763 U
2-Methylphenol	0.581 U	0.763 U
2-Nitroaniline	1.16 U	1.53 U
2-Nitrophenol	0.581 U	0.763 U
3,3'-Dichlorobenzidine	1.16 U	1.53 UJ
3-Nitroaniline	1.16 U	1.53 U
4,6-Dinitro-2-Methylphenol	2.32 U	3.05 U
4-Bromophenylphenylether	0.581 U	0.763 U
4-Chloro-3-Methylphenol	1.16 U	1.53 U
4-Chloroaniline	1.16 U	1.53 U
4-Chlorophenylphenylether	0.581 U	0.763 U
4-Methylphenol/3-Methylphenol	0.581 U	0.763 U
4-Nitroaniline	1.16 U	1.53 U
4-Nitrophenol	2.82 U	3.7 U
Acenaphthene	0.581 U	0.763 U
Acenaphthylene	0.581 U	0.763 U
Benzoic Acid	2.32 U	3.05 U
Benzyl Alcohol	1.16 U	1.53 U
Bis(2-Chloroethoxy)Methane	0.581 U	0.763 U
Bis(2-Chloroethyl)Ether	0.581 U	0.763 U
Bis(2-Chloroisopropyl)Ether	0.581 U	0.763 U
Bis(2-Ethylhexyl)Phthalate	0.581 U	0.763 U
Butyl Benzyl Phthalate	0.581 U	0.763 U
Dibenzofuran	0.581 U	0.763 U
Diethyl Phthalate	0.581 U	0.763 U
Dimethyl Phthalate	0.581 U	0.763 U
Di-N-Butylphthalate	0.581 U	0.763 U
Di-N-Octylphthalate	0.581 U	0.763 U
Hexachlorobenzene	0.581 U	0.763 U
Hexachlorobutadiene	0.581 U	0.763 U
Hexachlorocyclopentadiene	0.581 U	0.763 U
Hexachloroethane	0.581 U	0.763 U
Isophorone	0.581 U	0.763 U
Nitrobenzene	0.581 U	0.763 U
N-Nitrosodi-N-Propylamine	0.581 U	0.763 U
N-Nitrosodiphenylamine	0.581 U	0.763 U
Pentachlorophenol	1.16 U	1.53 U
Phenol	0.581 U	0.763 U
Pyrene	0.581 U	0.763 U
Quinoline	0.581 U	0.763 U

Notes:

Detected values are shown in bold
mg/kg = Milligrams per kilogram
SD = Sediment sample
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

Appendix G - KRY Historical Data
Secor Groundwater Petroleum Hydrocarbons, 1995

Sample Station	CLCW-1	CLCW-1	GWY-10	GWY-10	GWY-11	GWY-11	GWY-12	GWY-12	GWY-13
Sample Identification	CLCW-1	CLCW-1	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13
Sample Collection Date	8/7/1995	10/23/1995	8/7/1995	10/23/1995	8/7/1995	10/23/1995	8/7/1995	10/23/1995	8/7/1995
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Total Petroleum Hydrocarbons As Diesel By Gc-Fid	**30000**	**15**	**1400**	**670**	**1000**	---	**1100**	---	**7400**
Total Petroleum Hydrocarbons As Gasoline By Gc	**450**	2 U	50 U	50 U	50 U	50 U	50 U	50 U	**150**

Appendix G - KRY Historical Data
Secor Groundwater Petroleum Hydrocarbons, 1995

Sample Station	**GWY-13**	**GWY-14**	**GWY-14**	**GWY-3**	**GWY-3**	**GWY-4**	**GWY-4**	**GWY-7**	**GWY-7**
Sample Identification	**MW-13**	**MW-14**	**MW-14**	**MW-3**	**MW-3**	**MW-4**	**MW-4**	**MW-7**	**MW-7**
Sample Collection Date	**10/23/1995**	**8/7/1995**	**10/23/1995**	**8/7/1995**	**10/23/1995**	**8/7/1995**	**10/23/1995**	**8/7/1995**	**10/23/1995**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Total Petroleum Hydrocarbons As Diesel By Gc-Fid	**3200**	**1600**	**8400**	**640**	**840**	**9300**	**7200**	**34000**	**13000**
Total Petroleum Hydrocarbons As Gasoline By Gc	50 U	50 U	50 U	50 U	50 U	**580**	50 U	50 U	50 U

Appendix G - KRY Historical Data
Secor Groundwater Petroleum Hydrocarbons, 1995

Sample Station	**GWY-8**	**GWY-8**	**GWY-9**	**GWY-9**
Sample Identification	**MW-8**	**MW-8**	**MW-9**	**MW-9**
Sample Collection Date	**8/7/1995**	**10/23/1995**	**8/7/1995**	**10/23/1995**
Sample Type	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Total Petroleum Hydrocarbons As Diesel By Gc-Fid	**330**	---	**5800**	**1.9**
Total Petroleum Hydrocarbons As Gasoline By Gc	50 U	50 U	**84**	50 U

Notes:

Detected values are shown in bold
GW = Groundwater sample
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
Secor Groundwater SVOC, 1995

Sample Station	CLCW-1	GWY-10	GWY-10	GWY-11	GWY-11	GWY-12	GWY-12	GWY-13	GWY-13
Sample Identification	CLCW-1	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13
Sample Collection Date	8/7/1995	4/24/1995	8/7/1995	4/24/1995	8/7/1995	4/24/1995	8/7/1995	4/24/1995	8/7/1995
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	10 U
1,2-Dichlorobenzene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
1,3-Dichlorobenzene	10 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U	10 U
1,4-Dichlorobenzene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
2,4,5-Trichlorophenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2,4,6-Trichlorophenol	20 U	**26**	10 U	**32**	10 U	**23**	10 U	**40**	**35**
2,4-Dichlorophenol	20 U	10 U	10 U	10 U	10 U	---	10 U	10 U	20 U
2,4-Dimethylphenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2,4-Dinitrophenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2,4-Dinitrotoluene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2,6-Dinitrotoluene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2-Chloronaphthalene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2-Chlorophenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2-Methylnaphthalene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2-Methylphenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
2-Nitroaniline	40 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	40 U
2-Nitrophenol	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
3,3'-Dichlorobenzidine	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
3-Nitroaniline	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
4,6-Dinitro-2-Methylphenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
4-Bromophenylphenylether	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
4-Chloro-3-Methylphenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
4-Chloroaniline	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
4-Chlorophenylphenylether	20 U	---	10 U	---	10 U	---	10 U	---	20 U
4-Isopropyltoluene	---	---	---	---	---	1 U	---	---	---
4-Methylphenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
4-Nitroaniline	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
4-Nitrophenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Acenaphthene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Acenaphthylene	20 U	---	10 U	---	10 U	---	10 U	---	20 U
Aniline	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Anthracene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Benzidine	100 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	100 U
Benzo(a)Anthracene	10 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	10 U
Benzo(a)Pyrene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzo(b)Fluoranthene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzo(b)Perylene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzo(k)Fluoranthene	10 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzoic Acid	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Benzyl Alcohol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
bis(2-Chloroethoxy)Methane	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
bis(2-Chloroethyl)Ether	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
bis(2-Chloroisopropyl)Ether	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
bis(2-Ethylhexyl)Phthalate	40 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	40 U
Butyl Benzyl Phthalate	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Carbazole	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Chrysene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Dibenzo(a,h)Anthracene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	20 U
Dibenzofuran	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Diethyl Phthalate	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Dimethyl Phthalate	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Di-N-Butylphthalate	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Di-N-Octylphthalate	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Fluoranthene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Fluorene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Hexachlorobenzene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Hexachlorobutadiene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Hexachlorocyclopentadiene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Hexachloroethane	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Indeno(1,2,3-cd)Pyrene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Isophorone	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Naphthalene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Nitrobenzene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
N-Nitrosodi-N-Propylamine	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
N-Nitrosodiphenylamine	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
N-Propylbenzene	---	---	---	---	---	1 U	---	---	---
Pentachlorophenol	20 U	10 U	10 U	10 U	10 U	**140**	10 U	**110**	**47**
Phenanthrene	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Phenol	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Pyrene	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U

Appendix G - KRY Historical Data
Secor Groundwater SVOC, 1995

Sample Station	GWY-14	GWY-14	GWY-3	GWY-3	GWY-4	GWY-4	GWY-7	GWY-7	GWY-8
Sample Identification	MW-14	MW-14	MW-3	MW-3	MW-4	MW-4	MW-7	MW-7	MW-8
Sample Collection Date	4/24/1995	8/7/1995	4/24/1995	8/7/1995	4/24/1995	8/7/1995	4/24/1995	8/7/1995	4/24/1995
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
1,2-Dichlorobenzene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
1,3-Dichlorobenzene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
1,4-Dichlorobenzene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	200 U	10 U	**13**	20 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	200 U	10 U	**130**	**110**	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2,4-Dinitrophenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
2-Nitroaniline	20 U	20 U	20 U	20 U	400 U	20 U	20 U	40 U	20 U
2-Nitrophenol	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
3,3'-Dichlorobenzidine	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
3-Nitroaniline	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
4,6-Dinitro-2-Methylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
4-Chloroaniline	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
4-Chlorophenylphenylether	---	10 U	10 U	10 U	---	10 U	---	20 U	---
4-Isopropyltoluene	---	---	---	---	---	---	---	---	---
4-Methylphenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
4-Nitrophenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Acenaphthene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Acenaphthylene	---	10 U	10 U	10 U	200 U	10 U	---	20 U	---
Aniline	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Anthracene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Benzidine	50 U	50 U	50 U	50 U	1000 U	50 U	50 U	100 U	50 U
Benzo(a)Anthracene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Benzo(a)Pyrene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Benzo(b)Fluoranthene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Benzo(b)Perylene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Benzo(k)Fluoranthene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Benzoic Acid	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
bis(2-Ethylhexyl)Phthalate	20 U	20 U	20 U	20 U	400 U	20 U	20 U	40 U	20 U
Butyl Benzyl Phthalate	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Carbazole	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Chrysene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Dibenzo(a,h)Anthracene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Dibenzofuran	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Di-N-Butylphthalate	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Di-N-Octylphthalate	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Fluorene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Hexachlorobutadiene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Hexachloroethane	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Indeno(1,2,3-cd)Pyrene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U
Isophorone	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
N-Nitrosodi-N-Propylamine	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
N-Propylbenzene	---	---	---	---	---	---	---	---	---
Pentachlorophenol	**110**	**240**	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Phenanthrene	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Phenol	10 U	10 U	10 U	10 U	200 U	10 U	10 U	20 U	10 U
Pyrene	5 U	5 U	5 U	5 U	100 U	5 U	5 U	10 U	5 U

Appendix G - KRY Historical Data
Secor Groundwater SVOC, 1995

Sample Station	GWY-8	GWY-9	GWY-9
Sample Identification	MW-8	MW-9	MW-9
Sample Collection Date	8/7/1995	4/24/1995	8/7/1995
Sample Type	GW	GW	GW
Units	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	5 U	5 U	5 U
1,2-Dichlorobenzene	5 U	5 U	5 U
1,3-Dichlorobenzene	5 U	5 U	5 U
1,4-Dichlorobenzene	5 U	5 U	5 U
2,4,5-Trichlorophenol	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	**32**	**68**
2,4-Dichlorophenol	10 U	**16**	10 U
2,4-Dimethylphenol	10 U	10 U	10 U
2,4-Dinitrophenol	10 U	10 U	10 U
2,4-Dinitrotoluene	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U
2-Nitroaniline	20 U	20 U	20 U
2-Nitrophenol	5 U	5 U	5 U
3,3'-Dichlorobenzidine	10 U	10 U	10 U
3-Nitroaniline	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	10 U	10 U	10 U
4-Bromophenylphenylether	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U
4-Chloroaniline	5 U	5 U	5 U
4-Chlorophenylphenylether	10 U	---	10 U
4-Isopropyltoluene	---	---	---
4-Methylphenol	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U
4-Nitrophenol	10 U	10 U	10 U
Acenaphthene	10 U	10 U	10 U
Acenaphthylene	10 U	---	10 U
Aniline	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U
Benzidine	50 U	50 U	50 U
Benzo(a)Anthracene	5 U	5 U	5 U
Benzo(a)Pyrene	5 U	5 U	5 U
Benzo(b)Fluoranthene	5 U	5 U	5 U
Benzo(b)Perylene	5 U	5 U	5 U
Benzo(k)Fluoranthene	5 U	5 U	5 U
Benzoic Acid	10 U	10 U	10 U
Benzyl Alcohol	10 U	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate	20 U	20 U	20 U
Butyl Benzyl Phthalate	5 U	5 U	5 U
Carbazole	10 U	10 U	10 U
Chrysene	5 U	5 U	5 U
Dibenzo(a,h)Anthracene	5 U	5 U	5 U
Dibenzofuran	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U
Di-N-Butylphthalate	5 U	5 U	5 U
Di-N-Octylphthalate	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U
Fluorene	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U
Hexachlorobutadiene	5 U	5 U	5 U
Hexachlorocyclopentadiene	5 U	5 U	5 U
Hexachloroethane	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	5 U	5 U	5 U
Isophorone	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U
N-Nitrosodi-N-Propylamine	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U
N-Propylbenzene	---	---	---
Pentachlorophenol	10 U	10 U	10 U
Phenanthrene	10 U	10 U	10 U
Phenol	10 U	10 U	10 U
Pyrene	5 U	5 U	5 U

Notes:

Detected values are shown in bold
GW = Groundwater sample
SVOC = Semi-volatile organic compound
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
Secor Groundwater VOC, 1995

Sample Station	CLCW-1	CLCW-1	GWY-10	GWY-10	GWY-10	GWY-11	GWY-11
Sample Identification	CLCW-1	CLCW-1	MW-10	MW-10	MW-10	MW-11	MW-11
Sample Collection Date	8/7/1995	10/23/1995	4/24/1995	8/7/1995	10/23/1995	4/24/1995	8/7/1995
Sample Type	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	---	---	1 U	---	---	1 U	---
1,1,1-Trichloroethane	---	---	1 U	---	---	1 U	---
1,1,2,2-Tetrachloroethane	---	---	1 U	---	---	1 U	---
1,1,2-Trichloroethane	---	---	1 U	---	---	1 U	---
1,1-Dichloroethane	---	---	1 U	---	---	1 U	---
1,1-Dichloroethene	---	---	1 U	---	---	1 U	---
1,1-Dichloropropene	---	---	1 U	---	---	1 U	---
1,2,3-Trichlorobenzene	---	---	1 U	---	---	1 U	---
1,2,3-Trichloropropane	---	---	1 U	---	---	1 U	---
1,2,4-Trichlorobenzene	---	---	1 U	---	---	1 U	---
1,2,4-Trimethylbenzene	---	---	1 U	---	---	1 U	---
1,2-Dibromo-3-Chloropropane	---	---	1 U	---	---	1 U	---
1,2-Dibromoethane	---	---	1 U	---	---	1 U	---
1,2-Dibromomethane	---	---	1 U	---	---	1 U	---
1,2-Dichlorobenzene	---	---	1 U	---	---	1 U	---
1,2-Dichloroethane	---	---	1 U	---	---	1 U	---
1,2-Dichloropropane	---	---	1 U	---	---	1 U	---
1,3,5-Trimethylbenzene	---	---	1 U	---	---	1 U	---
1,3-Dichlorobenzene	---	---	1 U	---	---	1 U	---
1,3-Dichloropropane	---	---	1 U	---	---	1 U	---
1,4-Dichlorobenzene	---	---	1 U	---	---	1 U	---
2,2-Dichloropropane	---	---	1 U	---	---	1 U	---
2-Chlorotoluene	---	---	1 U	---	---	1 U	---
4-Chlorotoluene	---	---	1 U	---	---	1 U	---
4-Isopropyltoluene	---	---	1 U	---	---	1 U	---
Benzene	0.5 U	40 U	1 U	0.5 U	0.5 U	1 U	**0.84**
Bromobenzene	---	---	1 U	---	---	1 U	---
Bromochloromethane	---	---	1 U	---	---	1 U	---
Bromoform	---	---	1 U	---	---	1 U	---
Bromomethane	---	---	1 U	---	---	1 U	---
Carbon Tetrachloride	---	---	1 U	---	---	1 U	---
Chlorobenzene	---	---	1 U	---	---	1 U	---
Chloroethane	---	---	1 U	---	---	1 U	---
Chloroform	---	---	1 U	---	---	1 U	---
Chloromethane	---	---	1 U	---	---	1 U	---
Cis-1,2-Dichloroethene	---	---	1 U	---	---	1 U	---
Dibromochloromethane	---	---	1 U	---	---	1 U	---
Dichlorobromomethane	---	---	1 U	---	---	1 U	---
Ethylbenzene	**2.5**	40 U	1 U	0.5 U	0.5 U	1 U	0.5 U
Freon 12	---	---	1 U	---	---	1 U	---
Hexachlorobutadiene	---	---	1 U	---	---	1 U	---
Isopropylbenzene	---	---	1 U	---	---	1 U	---
Methylene Chloride	---	---	5 U	---	---	5 U	---
Naphthalene	---	---	1 U	---	---	1 U	---
Naphthalene	---	---	---	---	---	---	---
N-Butylbenzene	---	---	1 U	---	---	1 U	---
N-Propylbenzene	---	---	1 U	---	---	1 U	---
O-Xylene	---	---	1 U	---	---	1 U	---
Sec-Butylbenzene	---	---	1 U	---	---	1 U	---
Styrene	---	---	1 U	---	---	1 U	---
Tert-Butylbenzene	---	---	1 U	---	---	1 U	---
Tetrachloroethene	---	---	1 U	---	---	1 U	---
Toluene	**0.97**	40 U	1 U	0.5 U	0.5 U	1 U	**2.2**
Trans-1,2-Dichloroethene	---	---	1 U	---	---	1 U	---
Trichloroethene	---	---	1 U	---	---	1 U	---
Trichlorofluoromethane	---	---	1 U	---	---	1 U	---
Vinyl Chloride	---	---	1 U	---	---	1 U	---
Xylenes (Total)	**6.2**	40 U	1 U	1 U	1 U	1 U	**1.5**

Appendix G - KRY Historical Data
Secor Groundwater VOC, 1995

Sample Station	GWY-11	GWY-12	GWY-12	GWY-12	GWY-13	GWY-13	GWY-13
Sample Identification	MW-11	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13
Sample Collection Date	10/23/1995	4/24/1995	8/7/1995	10/23/1995	4/24/1995	8/7/1995	10/23/1995
Sample Type	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	---	1 U	---	---	1 U	---	---
1,1,1-Trichloroethane	---	---	---	---	1 U	---	---
1,1,2,2-Tetrachloroethane	---	1 U	---	---	1 U	---	---
1,1,2-Trichloroethane	---	---	---	---	1 U	---	---
1,1-Dichloroethane	---	1 U	---	---	1 U	---	---
1,1-Dichloroethene	---	1 U	---	---	1 U	---	---
1,1-Dichloropropene	---	1 U	---	---	1 U	---	---
1,2,3-Trichlorobenzene	---	1 U	---	---	1 U	---	---
1,2,3-Trichloropropane	---	---	---	---	1 U	---	---
1,2,4-Trichlorobenzene	---	---	---	---	---	---	---
1,2,4-Trimethylbenzene	---	1 U	---	---	5 U	---	---
1,2-Dibromo-3-Chloropropane	---	1 U	---	---	1 U	---	---
1,2-Dibromoethane	---	1 U	---	---	1 U	---	---
1,2-Dibromomethane	---	1 U	---	---	1 U	---	---
1,2-Dichlorobenzene	---	1 U	---	---	1 U	---	---
1,2-Dichloroethane	---	1 U	---	---	1 U	---	---
1,2-Dichloropropane	---	1 U	---	---	1 U	---	---
1,3,5-Trimethylbenzene	---	1 U	---	---	1 U	---	---
1,3-Dichlorobenzene	---	5 U	---	---	1 U	---	---
1,3-Dichloropropane	---	1 U	---	---	1 U	---	---
1,4-Dichlorobenzene	---	1 U	---	---	1 U	---	---
2,2-Dichloropropane	---	1 U	---	---	1 U	---	---
2-Chlorotoluene	---	1 U	---	---	1 U	---	---
4-Chlorotoluene	---	1 U	---	---	1 U	---	---
4-Isopropyltoluene	---	---	---	---	1 U	---	---
Benzene	0.5 U	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
Bromobenzene	---	1 U	---	---	1 U	---	---
Bromochloromethane	---	1 U	---	---	1 U	---	---
Bromoform	---	1 U	---	---	1 U	---	---
Bromomethane	---	1 U	---	---	1 U	---	---
Carbon Tetrachloride	---	1 U	---	---	1 U	---	---
Chlorobenzene	---	1 U	---	---	1 U	---	---
Chloroethane	---	1 U	---	---	1 U	---	---
Chloroform	---	---	---	---	1 U	---	---
Chloromethane	---	---	---	---	1 U	---	---
Cis-1,2-Dichloroethene	---	1 U	---	---	1 U	---	---
Dibromochloromethane	---	1 U	---	---	1 U	---	---
Dichlorobromomethane	---	1 U	---	---	1 U	---	---
Ethylbenzene	0.5 U	1 U	0.5 U	0.5 U	1 U	**0.6**	0.5 U
Freon 12	---	1 U	---	---	1 U	---	---
Hexachlorobutadiene	---	1 U	---	---	1 U	---	---
Isopropylbenzene	---	1 U	---	---	1 U	---	---
Methylene Chloride	---	5 U	---	---	5 U	---	---
Naphthalene	---	1 U	---	---	1 U	---	---
Naphthalene	---	---	---	---	---	---	---
N-Butylbenzene	---	1 U	---	---	1 U	---	---
N-Propylbenzene	---	---	---	---	1 U	---	---
O-Xylene	---	1 U	---	---	1 U	---	---
Sec-Butylbenzene	---	1 U	---	---	1 U	---	---
Styrene	---	1 U	---	---	1 U	---	---
Tert-Butylbenzene	---	1 U	---	---	1 U	---	---
Tetrachloroethene	---	1 U	---	---	1 U	---	---
Toluene	0.5 U	1 U	0.5 U	0.5 U	1 U	**0.66**	0.5 U
Trans-1,2-Dichloroethene	---	1 U	---	---	1 U	---	---
Trichloroethene	---	---	---	---	1 U	---	---
Trichlorofluoromethane	---	---	---	---	1 U	---	---
Vinyl Chloride	---	1 U	---	---	1 U	---	---
Xylenes (Total)	1 U	1 U	1 U	1 U	1 U	**2.4**	1 U

Appendix G - KRY Historical Data
Secor Groundwater VOC, 1995

Sample Station	GWY-14	GWY-14	GWY-14	GWY-3	GWY-3	GWY-3	GWY-4
Sample Identification	MW-14	MW-14	MW-14	MW-3	MW-3	MW-3	MW-4
Sample Collection Date	4/24/1995	8/7/1995	10/23/1995	4/24/1995	8/7/1995	10/23/1995	4/24/1995
Sample Type	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	1 U	---	---	1 U	---	---	1 U
1,1,1-Trichloroethane	1 U	---	---	1 U	---	---	1 U
1,1,2,2-Tetrachloroethane	1 U	---	---	1 U	---	---	1 U
1,1,2-Trichloroethane	1 U	---	---	1 U	---	---	1 U
1,1-Dichloroethane	1 U	---	---	1 U	---	---	1 U
1,1-Dichloroethene	1 U	---	---	1 U	---	---	1 U
1,1-Dichloropropene	1 U	---	---	1 U	---	---	1 U
1,2,3-Trichlorobenzene	1 U	---	---	1 U	---	---	1 U
1,2,3-Trichloropropane	1 U	---	---	1 U	---	---	1 U
1,2,4-Trichlorobenzene	1 U	---	---	---	---	---	1 U
1,2,4-Trimethylbenzene	1 U	---	---	1 U	---	---	**6.9**
1,2-Dibromo-3-Chloropropane	1 U	---	---	1 U	---	---	1 U
1,2-Dibromoethane	1 U	---	---	1 U	---	---	1 U
1,2-Dibromomethane	1 U	---	---	1 U	---	---	1 U
1,2-Dichlorobenzene	1 U	---	---	---	---	---	1 U
1,2-Dichloroethane	1 U	---	---	1 U	---	---	1 U
1,2-Dichloropropane	1 U	---	---	1 U	---	---	1 U
1,3,5-Trimethylbenzene	1 U	---	---	1 U	---	---	**7.6**
1,3-Dichlorobenzene	1 U	---	---	---	---	---	1 U
1,3-Dichloropropane	1 U	---	---	1 U	---	---	1 U
1,4-Dichlorobenzene	1 U	---	---	---	---	---	1 U
2,2-Dichloropropane	1 U	---	---	1 U	---	---	1 U
2-Chlorotoluene	1 U	---	---	1 U	---	---	1 U
4-Chlorotoluene	1 U	---	---	1 U	---	---	1 U
4-Isopropyltoluene	1 U	---	---	1 U	---	---	**3.4**
Benzene	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1 U
Bromobenzene	1 U	---	---	1 U	---	---	1 U
Bromochloromethane	1 U	---	---	1 U	---	---	1 U
Bromoform	1 U	---	---	1 U	---	---	1 U
Bromomethane	1 U	---	---	1 U	---	---	1 U
Carbon Tetrachloride	1 U	---	---	1 U	---	---	1 U
Chlorobenzene	1 U	---	---	1 U	---	---	1 U
Chloroethane	1 U	---	---	1 U	---	---	1 U
Chloroform	1 U	---	---	1 U	---	---	1 U
Chloromethane	1 U	---	---	1 U	---	---	1 U
Cis-1,2-Dichloroethene	1 U	---	---	1 U	---	---	1 U
Dibromochloromethane	1 U	---	---	1 U	---	---	1 U
Dichlorobromomethane	1 U	---	---	1 U	---	---	1 U
Ethylbenzene	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1 U
Freon 12	1 U	---	---	1 U	---	---	1 U
Hexachlorobutadiene	1 U	---	---	---	---	---	1 U
Isopropylbenzene	1 U	---	---	1 U	---	---	**1.7**
Methylene Chloride	5 U	---	---	5 U	---	---	5 U
Naphthalene	1 U	---	---	---	---	---	**1.3**
Naphthalene	---	---	---	---	---	---	---
N-Butylbenzene	1 U	---	---	1 U	---	---	1 U
N-Propylbenzene	1 U	---	---	1 U	---	---	**2.2**
O-Xylene	1 U	---	---	1 U	---	---	1 U
Sec-Butylbenzene	1 U	---	---	1 U	---	---	**2.3**
Styrene	1 U	---	---	1 U	---	---	1 U
Tert-Butylbenzene	1 U	---	---	1 U	---	---	1 U
Tetrachloroethene	1 U	---	---	1 U	---	---	1 U
Toluene	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1 U
Trans-1,2-Dichloroethene	1 U	---	---	1 U	---	---	1 U
Trichloroethene	1 U	---	---	1 U	---	---	1 U
Trichlorofluoromethane	1 U	---	---	1 U	---	---	1 U
Vinyl Chloride	1 U	---	---	1 U	---	---	1 U
Xylenes (Total)	1 U	1 U	1 U	1 U	1 U	1 U	**3.3**

Appendix G - KRY Historical Data
Secor Groundwater VOC, 1995

Sample Station	GWY-4	GWY-4	GWY-7	GWY-7	GWY-7	GWY-8	GWY-8
Sample Identification	MW-4	MW-4	MW-7	MW-7	MW-7	MW-8	MW-8
Sample Collection Date	8/7/1995	10/23/1995	4/24/1995	8/7/1995	10/23/1995	4/24/1995	8/7/1995
Sample Type	GW	GW	GW	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	---	---	1 U	---	---	1 U	---
1,1,1-Trichloroethane	---	---	1 U	---	---	1 U	---
1,1,2,2-Tetrachloroethane	---	---	1 U	---	---	1 U	---
1,1,2-Trichloroethane	---	---	1 U	---	---	1 U	---
1,1-Dichloroethane	---	---	1 U	---	---	1 U	---
1,1-Dichloroethene	---	---	1 U	---	---	1 U	---
1,1-Dichloropropene	---	---	1 U	---	---	1 U	---
1,2,3-Trichlorobenzene	---	---	1 U	---	---	1 U	---
1,2,3-Trichloropropane	---	---	1 U	---	---	1 U	---
1,2,4-Trichlorobenzene	---	---	1 U	---	---	1 U	---
1,2,4-Trimethylbenzene	---	---	**1.7**	---	---	1 U	---
1,2-Dibromo-3-Chloropropane	---	---	1 U	---	---	1 U	---
1,2-Dibromoethane	---	---	1 U	---	---	1 U	---
1,2-Dibromomethane	---	---	1 U	---	---	1 U	---
1,2-Dichlorobenzene	---	---	1 U	---	---	1 U	---
1,2-Dichloroethane	---	---	1 U	---	---	1 U	---
1,2-Dichloropropane	---	---	1 U	---	---	1 U	---
1,3,5-Trimethylbenzene	---	---	1 U	---	---	1 U	---
1,3-Dichlorobenzene	---	---	1 U	---	---	1 U	---
1,3-Dichloropropane	---	---	1 U	---	---	1 U	---
1,4-Dichlorobenzene	---	---	1 U	---	---	1 U	---
2,2-Dichloropropane	---	---	1 U	---	---	1 U	---
2-Chlorotoluene	---	---	1 U	---	---	1 U	---
4-Chlorotoluene	---	---	1 U	---	---	1 U	---
4-Isopropyltoluene	---	---	1 U	---	---	1 U	---
Benzene	2 U	0.5 U	1 U	0.5 U	0.5 U	1 U	0.5 U
Bromobenzene	---	---	1 U	---	---	1 U	---
Bromochloromethane	---	---	1 U	---	---	1 U	---
Bromoform	---	---	1 U	---	---	1 U	---
Bromomethane	---	---	1 U	---	---	1 U	---
Carbon Tetrachloride	---	---	1 U	---	---	1 U	---
Chlorobenzene	---	---	1 U	---	---	1 U	---
Chloroethane	---	---	1 U	---	---	1 U	---
Chloroform	---	---	1 U	---	---	1 U	---
Chloromethane	---	---	1 U	---	---	1 U	---
Cis-1,2-Dichloroethene	---	---	1 U	---	---	1 U	---
Dibromochloromethane	---	---	1 U	---	---	1 U	---
Dichlorobromomethane	---	---	1 U	---	---	1 U	---
Ethylbenzene	2 U	0.5 U	1 U	0.5 U	0.5 U	1 U	0.5 U
Freon 12	---	---	1 U	---	---	1 U	---
Hexachlorobutadiene	---	---	1 U	---	---	1 U	---
Isopropylbenzene	---	---	1 U	---	---	1 U	---
Methylene Chloride	---	---	5 U	---	---	5 U	---
Naphthalene	---	---	1 U	---	---	1 U	---
Naphthalene	---	---	---	---	---	---	---
N-Butylbenzene	---	---	1 U	---	---	1 U	---
N-Propylbenzene	---	---	1 U	---	---	1 U	---
O-Xylene	---	---	1 U	---	---	1 U	---
Sec-Butylbenzene	---	---	1 U	---	---	1 U	---
Styrene	---	---	1 U	---	---	1 U	---
Tert-Butylbenzene	---	---	1 U	---	---	1 U	---
Tetrachloroethene	---	---	1 U	---	---	1 U	---
Toluene	2 U	**0.54**	1 U	0.5 U	0.5 U	1 U	0.5 U
Trans-1,2-Dichloroethene	---	---	1 U	---	---	1 U	---
Trichloroethene	---	---	1 U	---	---	1 U	---
Trichlorofluoromethane	---	---	1 U	---	---	1 U	---
Vinyl Chloride	---	---	1 U	---	---	1 U	---
Xylenes (Total)	**9.1**	**1**	1 U	1 U	1 U	1 U	1 U

Appendix G - KRY Historical Data
Secor Groundwater VOC, 1995

Sample Station	GWY-8	GWY-9	GWY-9	GWY-9
Sample Identification	MW-8	MW-9	MW-9	MW-9
Sample Collection Date	10/23/1995	4/24/1995	8/7/1995	10/23/1995
Sample Type	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	---	1 U	---	---
1,1,1-Trichloroethane	---	1 U	---	---
1,1,2,2-Tetrachloroethane	---	1 U	---	---
1,1,2-Trichloroethane	---	1 U	---	---
1,1-Dichloroethane	---	1 U	---	---
1,1-Dichloroethene	---	1 U	---	---
1,1-Dichloropropene	---	1 U	---	---
1,2,3-Trichlorobenzene	---	1 U	---	---
1,2,3-Trichloropropane	---	1 U	---	---
1,2,4-Trichlorobenzene	---	1 U	---	---
1,2,4-Trimethylbenzene	---	1 U	---	---
1,2-Dibromo-3-Chloropropane	---	1 U	---	---
1,2-Dibromoethane	---	1 U	---	---
1,2-Dibromomethane	---	1 U	---	---
1,2-Dichlorobenzene	---	1 U	---	---
1,2-Dichloroethane	---	1 U	---	---
1,2-Dichloropropane	---	1 U	---	---
1,3,5-Trimethylbenzene	---	1 U	---	---
1,3-Dichlorobenzene	---	1 U	---	---
1,3-Dichloropropane	---	1 U	---	---
1,4-Dichlorobenzene	---	1 U	---	---
2,2-Dichloropropane	---	1 U	---	---
2-Chlorotoluene	---	1 U	---	---
4-Chlorotoluene	---	1 U	---	---
4-Isopropyltoluene	---	1 U	---	---
Benzene	0.5 U	1 U	0.5 U	0.5 U
Bromobenzene	---	1 U	---	---
Bromochloromethane	---	1 U	---	---
Bromoform	---	1 U	---	---
Bromomethane	---	1 U	---	---
Carbon Tetrachloride	---	1 U	---	---
Chlorobenzene	---	1 U	---	---
Chloroethane	---	1 U	---	---
Chloroform	---	1 U	---	---
Chloromethane	---	1 U	---	---
Cis-1,2-Dichloroethene	---	1 U	---	---
Dibromochloromethane	---	1 U	---	---
Dichlorobromomethane	---	1 U	---	---
Ethylbenzene	0.5 U	1 U	0.5 U	0.5 U
Freon 12	---	1 U	---	---
Hexachlorobutadiene	---	1 U	---	---
Isopropylbenzene	---	1 U	---	---
Methylene Chloride	---	5 U	---	---
Naphthalene	---	1 U	---	---
Naphthalene	---	---	---	---
N-Butylbenzene	---	1 U	---	---
N-Propylbenzene	---	1 U	---	---
O-Xylene	---	1 U	---	---
Sec-Butylbenzene	---	1 U	---	---
Styrene	---	1 U	---	---
Tert-Butylbenzene	---	1 U	---	---
Tetrachloroethene	---	1 U	---	---
Toluene	0.5 U	1 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	---	1 U	---	---
Trichloroethene	---	1 U	---	---
Trichlorofluoromethane	---	1 U	---	---
Vinyl Chloride	---	1 U	---	---
Xylenes (Total)	1 U	1 U	1 U	1 U

Notes:

Detected values are shown in bold
GW = Groundwater sample
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value
VOC = Volatile organic compound

Appendix G - KRY Historical Data
Secor Groundwater TCLP Metals, 1995

Sample Station	**GWY-10**	**GWY-11**	**GWY-12**	**GWY-13**	**GWY-14**	**GWY-3**	**GWY-4**	**GWY-7**	**GWY-8**	**GWY-9**
Sample Identification	**MW-10**	**MW-11**	**MW-12**	**MW-13**	**MW-14**	**MW-3**	**MW-4**	**MW-7**	**MW-8**	**MW-9**
Sample Collection Date	**4/24/1995**	**4/24/1995**	**4/24/1995**	**4/24/1995**	**4/24/1995**	**4/24/1995**	**4/24/1995**	**4/24/1995**	**4/24/1995**	**4/24/1995**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Arsenic	200 U	200 U	200 U	200 U	200 U	0.2 U	200 U	200 U	200 U	200 U
Barium	**180**	**190**	**220**	**400**	**140**	**0.16**	**300**	**280**	**280**	**480**
Cadmium	5 U	5 U	5 U	5 U	5 U	0.005 U	5 U	5 U	5 U	5 U
Chromium	10 U	10 U	10 U	10 U	10 U	0.01 U	10 U	10 U	10 U	10 U
Lead	200 U	200 U	200 U	200 U	200 U	0.2 U	200 U	200 U	200 U	200 U
Mercury	1 U	1 U	1 U	1 U	1 U	0.001 U	1 U	1 U	1 U	1 U
Selenium	150 U	150 U	150 U	150 U	150 U	0.15 U	150 U	150 U	150 U	150 U
Silver	20 U	20 U	20 U	20 U	20 U	0.02 U	20 U	20 U	20 U	20 U

Notes:

Detected values are shown in bold
GW = Groundwater sample
TCLP = Toxicity Characteristic Leaching Procedure
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
Secor Groundwater Herbicides, 1995

Sample Station	CLCW-1	GWY-10	GWY-11	GWY-12	GWY-13	GWY-14	GWY-3	GWY-4	GWY-7	GWY-8	GWY-9
Sample Identification	**CLCW-1**	**GWY-10**	**GWY-11**	**GWY-12**	**GWY-13**	**GWY-14**	**MW-3**	**GWY-4**	**GWY-7**	**GWY-8**	**GWY-9**
Sample Collection Date	**10/23/1995**	**10/23/1995**	**10/23/1995**	**10/26/1995**	**10/23/1995**	**10/23/1995**	**10/23/1995**	**10/23/1995**	**10/25/1995**	**10/23/1995**	**10/24/1995**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
2,4,5-TP (SILVEX)	1 U	1 U	1 U	**2.1**	**1.9**	1 U	1 U	1 U	1 U	1 U	1 U
2,4-D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,4-DB	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bentazon	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dalapon	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
DCPA	0.5 U	0.5 U	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dinoseb	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol	**4.8**	1 U	1 U	**12**	**12**	**16**	1 U	1 U	1 U	1 U	1 U
Picloram	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Notes:

Detected values are shown in bold
GW = Groundwater sample
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
Spratt Soil Petroleum Hydrocarbons, 1992

Sample Station	**EH-1-H120**	**EH-1-H240**	**EH-1-H320**	**EH-1-H425**	**EH-2-H110**	**PW-1**	**PW-2C**	**PW-2D**	**PW-3**	**SW-11**	**SW-12**	**SW-5**	**SW-9**
Sample Identification	**TB1H120**	**TB1H240**	**TB1H320**	**TB1H425**	**TB2H110B**	**PW-1-20**	**PW2-C21**	**PW2-D22**	**PW3-15**	**SW11-20**	**SW12-20**	**SW-5-25**	**TB1H495B**
Sample Collection Date	**6/30/1992**	**6/30/1992**	**6/30/1992**	**6/30/1992**	**6/29/1992**	**3/22/1993**	**3/23/1993**	**3/23/1993**	**3/23/1993**	**7/2/1992**	**7/2/1992**	**6/18/1992**	**7/1/1992**
Sample Type	**SS**	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SS**	**SB**
Upper Depth (ft)	**2**	**2**	**4.5**	**3**	**11.5**	**5**	**5**	**5**	**5**	**20**	**20**		**20**
Lower Depth (ft)	**2**	**2**	**4.5**	**3**	**11.5**	**5**	**5**	**5**	**5**	**20**	**20**		**20**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Benzene	**0.0025**	**0.00076**	**0.00012**	**0.00021**	---	0.0012 U	0.001 U	0.01 U	0.013 U	0.0001 U	0.0001 U	---	0.0001 U
Ethylbenzene	**0.005**	**0.0038**	**0.00036**	**0.0015**	---	**0.0035 D**	0.001 U	**0.03 D**	**0.052 D**	0.0001 U	0.0001 U	---	0.0001 U
Toluene	**0.0082**	**0.0062**	**0.00054**	**0.0017**	---	**0.0031 D**	0.001 U	**0.03 D**	**0.055 D**	0.0001 U	0.0001 U	---	0.0001 U
Xylenes (Total)	**0.035**	**0.012**	**0.00074**	**0.01**	---	**0.017 D**	0.0016 U	**0.13 D**	**0.25 D**	0.00015 U	0.00015 U	---	0.00015 U
Diesel Range Organics	---	---	---	---	57 U	---	---	---	---	---	---	60 U	---
Gasoline Range Organics	**1200 D**	**1100 D**	**78**	**650 D**	23 U	**380 D**	**180 D**	**3600 D**	**4900 D**	**16**	5 U	24 U	**29**
Lube Oil And Related Products	---	---	---	---	**200**	---	---	---	---	---	---	120 U	---

Notes:

Detected values are shown in bold
D = Sample dilution
ft = Feet
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
Spratt Soil VOC, 1992

Sample Station	**EH-2-H110**
Sample Identification	**TB2H110B**
Sample Collection Date	**6/29/1992**
Sample Type	**SB**
Upper Depth (ft)	**11.5**
Lower Depth (ft)	**11.5**
Units	**mg/kg**
1,1,1-Trichloroethane	0.002 U
1,1,2,2-Tetrachloroethane	0.005 U
1,1,2-Trichloroethane	0.002 U
1,1-Dichloroethane	0.002 U
1,1-Dichloroethene	0.002 U
1,2-Dichloroethane	0.002 U
1,2-Dichloroethene (Total)	0.002 U
1,2-Dichloropropane	0.002 U
2-Butanone	0.005 U
2-Hexanone	0.005 U
4-Methyl-2-Pentanone	0.005 U
Acetone	0.005 U
Benzene	0.002 U
Bromoform	0.002 U
Bromomethane	0.002 U
Carbon Disulfide	0.002 U
Carbon Tetrachloride	0.002 U
Chlorobenzene	0.005 U
Chloroethane	0.005 U
Chloroform	0.002 U
Chloromethane	0.002 U
Cis-1,2-Dichloroethene	0.002 U
Cis-1,3-Dichloropropene	0.005 U
Dibromochloromethane	0.005 U
Dichlorobromomethane	0.002 U
Ethylbenzene	0.002 U
Methylene Chloride	**0.007**
Styrene	0.002 U
Tetrachloroethene	0.002 U
Toluene	0.002 U
Trans-1,2-Dichloroethene	0.002 U
Trans-1,3-Dichloropropene	0.005 U
Trichloroethene	0.002 U
Vinyl Acetate	0.002 U
Vinyl Chloride	0.002 U
Xylenes (Total)	0.002 U

Notes:

Detected values are shown in bold
ft = Feet
mg/kg = Milligrams per kilogram
SB = Subsurface soil sample
U = Analyte analyzed for but not detected; reported with detection limit value
VOC = Volatile organic compounds

Appendix G - KRY Historical Data
Spratt Groundwater SVOC, 1992

Sample Station	**EH-1**	**GWY-14**	**SW-5**
Sample Identification	**EH-1-A**	**MW-14-A**	**SW-5-A**
Sample Collection Date	**6/24/1992**	**6/24/1992**	**6/24/1992**
Sample Type	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**
1,2,4-Trichlorobenzene	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U
1,2-Diphenylhydrazine	2 U	2 U	3 U
1,3-Dichlorobenzene	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U
2,4,5-Trichlorophenol	2 U	**1 J**	3 U
2,4,6-Trichlorophenol	2 U	2 U	3 U
2,4-Dichlorophenol	2 U	**1 J**	3 U
2,4-Dimethylphenol	1 U	1 U	**2**
2,4-Dinitrophenol	10 U	10 U	13 U
2,4-Dinitrotoluene	2 U	2 U	3 U
2,6-Dinitrotoluene	2 U	2 U	3 U
2-Chloronaphthalene	1 U	1 U	1 U
2-Chlorophenol	1 U	1 U	1 U
2-Methylnaphthalene	**13**	1 U	1 U
2-Methylphenol	1 U	1 U	**1**
2-Nitroaniline	2 U	2 U	3 U
2-Nitrophenol	2 U	2 U	3 U
3,3'-Dichlorobenzidine	10 U	10 U	13 U
3-Nitroaniline	5 U	5 U	7 U
4,6-Dinitro-2-Methylphenol	10 U	10 U	13 U
4-Bromophenylphenylether	2 U	2 U	3 U
4-Chloro-3-Methylphenol	2 U	2 U	3 U
4-Chloroaniline	1 U	1 U	1 U
4-Chlorophenylphenylether	1 U	1 U	1 U
4-Methylphenol	**8**	1 U	**1**
4-Nitroaniline	2 U	2 U	3 U
4-Nitrophenol	10 U	10 U	13 U
Acenaphthene	1 U	1 U	1 U
Acenaphthylene	1 U	1 U	1 U
Aniline	5 U	5 U	7 U
Anthracene	1 U	1 U	1 U
Benzidine	25 U	25 U	33 U
Benzo(A)Anthracene	1 U	1 U	1 U
Benzo(A)Pyrene	1 U	1 U	1 U
Benzo(B)Fluoranthene	1 U	1 U	1 U
Benzo(G,H,I)Perylene	1 U	1 U	1 U
Benzo(K)Fluoranthene	1 U	1 U	1 U
Benzoic Acid	25 U	25 U	**430 D**
Benzyl Alcohol	1 U	1 U	**2**
Bis(2-Chloroethoxy)Methane	1 U	1 U	1 U
Bis(2-Chloroethyl)Ether	1 U	1 U	1 U
Bis(2-Chloroisopropyl)Ether	1 U	1 U	1 U
Bis(2-Ethylhexyl)Phthalate	**1 B**	**1 B**	**1 B**
Butyl Benzyl Phthalate	1 U	1 U	1 U
Carbazole	1 U	1 U	1 U
Chrysene	1 U	1 U	1 U
Dibenzo(A,H)Anthracene	1 U	1 U	1 U
Dibenzofuran	1 U	1 U	1 U
Diethyl Phthalate	1 U	1 U	1 U
Dimethyl Phthalate	1 U	1 U	1 U
Di-N-Butylphthalate	**1 B**	**2 B**	**1 B**
Di-N-Octylphthalate	1 U	1 U	1 U
Fluoranthene	1 U	1 U	1 U
Fluorene	**1**	1 U	1 U
Hexachlorobenzene	2 U	2 U	3 U
Hexachlorobutadiene	1 U	1 U	1 U
Hexachlorocyclopentadiene	2 U	2 U	3 U
Hexachloroethane	2 U	2 U	3 U
Indeno(1,2,3-Cd)Pyrene	1 U	1 U	1 U
Isophorone	1 U	1 U	1 U
Naphthalene	**32**	1 U	**1**
Nitrobenzene	1 U	1 U	1 U
N-Nitrosodi-N-Propylamine	1 U	1 U	1 U
N-Nitrosodiphenylamine	1 U	1 U	1 U
Pentachlorophenol	10 U	**670 D**	13 U
Phenanthrene	**1**	**1**	1 U
Phenol	1 U	1 U	**29**
Pyrene	1 U	1 U	1 U

Notes:

Detected values are shown in bold
B = Compound detected in method blank
D = Sample dilution
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
SVOC = Semi-volatile organic compound
ug/L = Micrograms per liter
U = Analyte analyzed for but not detected; reported with detection limit value

Appendix G - KRY Historical Data
Spratt Groundwater Petroleum Hydrocarbons, 1993

Sample Station	PW-1	PW-2C	PW-2D	PW-3
Sample Identification	PW1-TPH	PW2C-TPH	PW2D-TPH	PW3-TPH
Sample Collection Date	3/23/1993	3/23/1993	3/23/1993	3/23/1993
Sample Type	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L
Benzene	**140 D**	**17**	**200 D**	**66 D**
Ethylbenzene	**210 D**	**14**	**150 D**	**150 D**
Toluene	**830 D**	**40**	**640 D**	**330 D**
Xylenes (Total)	**1000 D**	**53**	**670 D**	**750 D**
Gasoline Range Organics	**6600 D**	**320**	**5000 D**	**4500 D**

Notes:

Detected values are shown in bold
D = Sample dilution
GW = Groundwater sample
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
Weston Groundwater SVOC, 1991

Sample Station	**GW-1**	**GW-2**	**GW-3**	**GW-4**	**GW-5**	**GW-5**	**GWRR-1**	**GWRR-2**	**GWRR-2**	**GWRR-3**
Sample Identification	**GW-1**	**GW-2**	**GW-3**	**GW-4**	**GW-5**	**GW-5**	**GWRR-1**	**GWRR-2**	**GWRR-2**	**GWRR-3**
Sample Collection Date	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**DU**	**GW**
Duplicate of									**GWRR-2**	
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,2,4-Trichlorobenzene	---	---	---	---	---	---	---	---	---	---
1,2-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---
1,2-Diphenylhydrazine	---	---	---	---	---	---	---	---	---	---
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---
1,4-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---
2,3,4,6-Tetrachlorophenol	10 U	10 U	**150**	11 U	**82**	**81**	10 U	**66**	---	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	11 U	10 U	10 U	---	10 U	---	10 U
2,4-Dichlorophenol	---	---	---	---	---	---	---	---	---	---
2,4-Dimethylphenol	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
2,4-Dinitrophenol	53 U	52 U	51 U	53 U	51 U	51 U	50 U	50 U	---	50 U
2,4-Dinitrotoluene	---	---	---	---	---	---	---	---	---	---
2,6-Dinitrotoluene	---	---	---	---	---	---	---	---	---	---
2-Chloronaphthalene	---	---	---	---	---	---	---	---	---	---
2-Chlorophenol	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
2-Nitrophenol	---	---	---	---	---	---	---	---	---	---
3,3'-Dichlorobenzidine	---	---	---	---	---	---	---	---	---	---
4,6-Dinitro-2-Methylphenol	---	---	---	---	---	---	---	---	---	---
4-Bromophenylphenylether	---	---	---	---	---	---	---	---	---	---
4-Chloro-3-Methylphenol	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
4-Chlorophenylphenylether	---	---	---	---	---	---	---	---	---	---
4-Nitrophenol	---	---	---	---	---	---	---	---	---	---
Acenaphthene	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Anthracene	---	---	---	---	---	---	---	---	---	---
Benzidine	---	---	---	---	---	---	---	---	---	---
Benzo(a)Anthracene	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Benzo(b)Fluoranthene	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Benzo(g,h,i)Perylene	---	---	---	---	---	---	---	---	---	---
Benzo(k)Fluoranthene	---	---	---	---	---	---	---	---	---	---
bis(2-Chloroethoxy)Methane	---	---	---	---	---	---	---	---	---	---
bis(2-Chloroethyl)Ether	---	---	---	---	---	---	---	---	---	---
bis(2-Chloroisopropyl)Ether	---	---	---	---	---	---	---	---	---	---
bis(2-Ethylhexyl)Phthalate	---	---	---	---	---	---	---	---	---	---
Butyl Benzyl Phthalate	---	---	---	---	---	---	---	---	---	---
Carbazole	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Chrysene	---	---	---	---	---	---	---	---	---	---
Dibenzo(a,h)Anthracene	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Diethyl Phthalate	---	---	---	---	---	---	---	---	---	---
Dimethyl Phthalate	---	---	---	---	---	---	---	---	---	---
Di-n-Butylphthalate	---	---	---	---	---	---	---	---	---	---
Di-n-Octylphthalate	---	---	---	---	---	---	---	---	---	---
Fluoranthene	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Fluorene	---	---	---	---	---	---	---	---	---	---
Hexachlorobenzene	---	---	---	---	---	---	---	---	---	---
Hexachlorobutadiene	---	---	---	---	---	---	---	---	---	---
Hexachlorocyclopentadiene	---	---	---	---	---	---	---	---	---	---
Hexachloroethane	---	---	---	---	---	---	---	---	---	---
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Isophorone	---	---	---	---	---	---	---	---	---	---
Naphthalene	10 U	10 U	**87**	11 U	10 U	10 U	10 U	10 U	---	10 U
Nitrobenzene	---	---	---	---	---	---	---	---	---	---
N-Nitroso-di-Methylamine	---	---	---	---	---	---	---	---	---	---
N-Nitrosodi-n-Propylamine	---	---	---	---	---	---	---	---	---	---
N-Nitrosodiphenylamine	---	---	---	---	---	---	---	---	---	---
Pentachlorophenol	21 U	21 U	**5400**	**17 J**	**1400**	**1300**	20 U	**950**	---	20 U
Phenanthrene	10 U	10 U	**420**	11 U	10 U	10 U	10 U	10 U	---	10 U
Phenol	10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	---	10 U
Pyrene	---	---	---	---	---	---	---	---	---	---

Appendix G - KRY Historical Data
Weston Groundwater SVOC, 1991

Sample Station	GWY-10	GWY-12	GWY-14	GWY-8
Sample Identification	GWY-10	GWY-12	GWY-14	GWY-8
Sample Collection Date	8/20/1991	8/20/1991	8/20/1991	8/20/1991
Sample Type	GW	GW	GW	GW
Duplicate of				
Units	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	---	---	---	---
1,2-Dichlorobenzene	---	---	---	---
1,2-Diphenylhydrazine	---	---	---	---
1,3-Dichlorobenzene	---	---	---	---
1,4-Dichlorobenzene	---	---	---	---
2,3,4,6-Tetrachlorophenol	10 U	**39**	**11**	10 U
2,4,6-Trichlorophenol	10 U	11 U	11 U	10 U
2,4-Dichlorophenol	---	---	---	---
2,4-Dimethylphenol	10 U	11 U	11 U	10 U
2,4-Dinitrophenol	50 U	53 U	53 U	50 U
2,4-Dinitrotoluene	---	---	---	---
2,6-Dinitrotoluene	---	---	---	---
2-Chloronaphthalene	---	---	---	---
2-Chlorophenol	10 U	11 U	11 U	10 U
2-Nitrophenol	---	---	---	---
3,3'-Dichlorobenzidine	---	---	---	---
4,6-Dinitro-2-Methylphenol	---	---	---	---
4-Bromophenylphenylether	---	---	---	---
4-Chloro-3-Methylphenol	10 U	11 U	11 U	10 U
4-Chlorophenylphenylether	---	---	---	---
4-Nitrophenol	---	---	---	---
Acenaphthene	---	---	---	---
Acenaphthylene	10 U	11 U	11 U	10 U
Anthracene	---	---	---	---
Benzidine	---	---	---	---
Benzo(a)Anthracene	10 U	11 U	11 U	10 U
Benzo(a)Pyrene	10 U	11 U	11 U	10 U
Benzo(b)Fluoranthene	10 U	11 U	11 U	10 U
Benzo(g,h,i)Perylene	---	---	---	---
Benzo(k)Fluoranthene	---	---	---	---
bis(2-Chloroethoxy)Methane	---	---	---	---
bis(2-Chloroethyl)Ether	---	---	---	---
bis(2-Chloroisopropyl)Ether	---	---	---	---
bis(2-Ethylhexyl)Phthalate	---	---	---	---
Butyl Benzyl Phthalate	---	---	---	---
Carbazole	10 U	10 U	11 U	10 U
Chrysene	---	---	---	---
Dibenzo(a,h)Anthracene	10 U	11 U	11 U	10 U
Diethyl Phthalate	---	---	---	---
Dimethyl Phthalate	---	---	---	---
Di-n-Butylphthalate	---	---	---	---
Di-n-Octylphthalate	---	---	---	---
Fluoranthene	10 U	11 U	11 U	10 U
Fluorene	---	---	---	---
Hexachlorobenzene	---	---	---	---
Hexachlorobutadiene	---	---	---	---
Hexachlorocyclopentadiene	---	---	---	---
Hexachloroethane	---	---	---	---
Indeno(1,2,3-cd)Pyrene	10 U	11 U	11 U	10 U
Isophorone	---	---	---	---
Naphthalene	10 U	11 U	11 U	10 U
Nitrobenzene	---	---	---	---
N-Nitroso-di-Methylamine	---	---	---	---
N-Nitrosodi-n-Propylamine	---	---	---	---
N-Nitrosodiphenylamine	---	---	---	---
Pentachlorophenol	20 U	**360**	**470**	20 U
Phenanthrene	10 U	11 U	11 U	10 U
Phenol	10 U	11 U	11 U	10 U
Pyrene	---	---	---	---

Notes:

Detected values are shown in bold
DU = Duplicate sample
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
Weston Groundwater VOC, 1991

Sample Station	**GW-1**	**GW-2**	**GW-4**	**GW-5**	**GWRR-1**	**GWRR-2**	**GWRR-3**	**GWY-10**	**GWY-12**	**GWY-14**
Sample Identification	**GW-1**	**GW-2**	**GW-4**	**GW-5**	**GWRR-1**	**GWRR-2**	**GWRR-3**	**GWY-10**	**GWY-12**	**GWY-14**
Sample Collection Date	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**	**8/20/1991**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	**58**	10 U	50 U	50 U	10 U	10 U	10 U
Acrolein	---	---	---	---	---	---	---	---	---	---
Acrylonitrile	---	---	---	---	---	---	---	---	---	---
Benzene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
Cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Dichlorobromomethane	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Methylene Chloride	5 U	5 U	5 U	**3 J**	**3 J**	25 U	25 U	5 U	5 U	5 U
Naphthalene	---	---	---	---	---	---	---	---	---	---
Styrene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U
Xylene	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	5 U	5 U

Appendix G - KRY Historical Data
Weston Groundwater VOC, 1991

Sample Station	GWY-8	KPT-7	KPT-7	KPT-8
Sample Identification	GWY-8	KPT-7	KPT-20	KPT-8
Sample Collection Date	8/20/1991	11/16/1994	11/6/2005	11/16/1994
Sample Type	GW	GW	GW	GW
Units	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5 U	ug/L	ug/L	ug/L
1,1,2,2-Tetrachloroethane	5 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5 U	1 U	1 U	1 U
1,1-Dichloroethane	5 U	1 U	1 U	1 U
1,1-Dichloroethene	5 U	1 U	1 U	1 U
1,2-Dichloroethane	5 U	2 U	---	2 U
1,2-Dichloroethene	5 U	1 U	1 U	1 U
1,2-Dichloropropane	5 U	1 U	1 U	1 U
2-Butanone	10 U	1 U	1 U	1 U
2-Hexanone	10 U	5 U	1 U	5 U
4-Methyl-2-Pentanone	10 U	1 U	2.5 U	1 U
Acetone	10 U	5 U	1 U	5 U
Acrolein	---	**7.1**	1 U	1 U
Acrylonitrile	---	5 U	2.5 U	5 U
Benzene	5 U	1 U	1 U	1 U
Bromoform	5 U	1 U	1 U	1 U
Bromomethane	10 U	1 U	1 U	1 U
Carbon Disulfide	10 U	1 U	1 U	1 U
Carbon Tetrachloride	5 U	---	1 U	---
Chlorobenzene	5 U	1 U	1 U	1 U
Chloroethane	10 U	**3.6**	1 U	1 U
Chloroform	10 U	1 U	1 U	1 U
Chloromethane	10 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	5 U	1 U	1 U	1 U
Dibromochloromethane	5 U	1 U	1 U	1 U
Dichlorobromomethane	5 U	5 U	10 U	5 U
Ethylbenzene	5 U	5 U	---	5 U
Methylene Chloride	5 U	1 U	1 U	1 U
Naphthalene	---	5 U	10 U	5 U
Styrene	5 U	1 U	1 U	1 U
Tetrachloroethene	5 U	1 U	1 U	1 U
Toluene	5 U	5 U	10 U	5 U
Trans-1,3-Dichloropropene	5 U	**9.5 B**	**10 R**	**8.7 B**
Trichloroethene	5 U	5 U	---	5 U
Vinyl Acetate	10 U	5 U	---	5 U
Vinyl Chloride	10 U	1 U	1 U	1 U
Xylene	5 U	1 U	1 U	1 U

Notes:

Detected values are shown in bold
B = Compound detected in method blank
GW = Groundwater sample
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
R = Quality control indicates data is not useable
SVOC = Semi-volatile organic compound
U = Analyte analyzed for but not detected; reported with detection limit value
ug/L = Micrograms per liter

Appendix G - KRY Historical Data
Weston Soil Petroleum Hydrocarbons, 1991

Sample Station	S25	SS-8-91	SS-10-91	E20	SS-4-91	SS-6-91	SS-10-91	Q25	I(-20)
Sample Identification	A11712	A8358	A8359	B11647	B8354	B8356	B8359	C11710	C12353
Sample Collection Date	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	7/31/1991	7/31/1991
Sample Type	SS	SS	SS	SB	SS	SS	SS	SB	SB
Upper Depth (ft)	0	0	0	10	0	0	0	20	20
Lower Depth (ft)	2	0.5	0.5	10	0.5	0.5	0.5	20	20
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	**2900**	**41901**	**33000**	**2200**	**33000**	**17000**	**33000**	**43000**	**4500**

Notes:

Detected values are shown in bold
ft = feet
mg/kg = milligrams per kilogram
SB = Subsurface soil sample

Appendix G - KRY Historical Data
Weston Soil Dioxins & Furans, 1991

Sample Station	K20	RS-1	E20	Q25	I(-20)	W165
Sample Identification	B11639	B11644	B11649	B11710	B12353	W165-S (A11689)
Sample Collection Date	9/28/1991	9/28/1991	9/28/1991	9/28/1991	9/28/1991	9/28/1991
Sample Type	SB	SS	SS	SB	SB	SS
Upper Depth (ft)	15	0	2	20	20	0
Lower Depth (ft)	15	0.5	2	20	20	0.5
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**503050 B,S**	**3241730 B,S**	**464000 B**	**3840000 S,B**	**359000 S,B**	**510740 B**
1,2,3,4,6,7,8,9-OCDF	**24760 B**	**1469340 B**	**62200**	**40300**	**44400 Q**	**21550 B**
1,2,3,4,6,7,8-HPCDD	**193140 B,S**	**799690 B,S**	**46200**	**1110000**	**122000 S**	**60970 B**
1,2,3,4,6,7,8-HPCDF	**17100**	**209150**	**11100**	**83800 R**	**13300**	**5170**
1,2,3,4,7,8,9-HPCDF	**891**	**21130**	**990**	**122000 R**	**920**	**450**
1,2,3,4,7,8-HXCDD	**152**	**1940**	100 U	300 U	**110**	**420**
1,2,3,4,7,8-HXCDF	**2750**	**39800**	**1500**	**12000 R**	**1600**	**510**
1,2,3,6,7,8-HXCDD	**15730**	**34820**	**1800**	**45300**	**7400**	**2700**
1,2,3,6,7,8-HXCDF	**881**	**5720**	**220**	1900 UR	**420**	**219**
1,2,3,7,8,9-HXCDD	**1130**	**4920**	**140**	**33100**	**720 PR**	**944**
1,2,3,7,8,9-HXCDF	**191**	**644**	80 U	**67000 R**	**60**	19.9 U
1,2,3,7,8-PECDD	**38.5**	**380**	80 U	**110**	**30**	**139**
1,2,3,7,8-PECDF	**1000**	**4960**	**120 J**	**3400**	**440**	**151**
2,3,4,6,7,8-HXCDF	**2200 B,PR**	**8760 B,PR**	**380**	**512000 R**	**910 PR**	**303 B**
2,3,4,7,8-PECDF	**873**	**7440**	**190**	**4500**	**420**	**111**
2,3,7,8-TCDD	6.5 U	24.7 U	20 U	40 U	8 U	7.7 U
2,3,7,8-TCDF	**368**	**1350**	**30**	**1500**	**170**	**44.4**
HPCDD (TOTAL)	**339170 S**	**1382180 S**	**78400**	**1600000**	**211000 S**	**102900**
HPCDF (TOTAL)	**73890**	**934910 S**	**62700**	**953000 R**	**69700**	**23660**
HXCDD (TOTAL)	**46350**	**118970**	**5900**	**381000**	**24200**	**10760**
HXCDF (TOTAL)	**68140**	**157310 S**	**17300 E**	**826000 R**	**30500**	**11620**
PECDD (TOTAL)	**18.2**	**1240**	80 U	**150**	**30**	**373**
PECDF (TOTAL)	**11790**	**61890**	**2400 E**	**18400**	**4200**	**1660**
TCDD (TOTAL)	**31**	**87.3**	20 U	40 U	8 U	**18.7**
TCDF (TOTAL)	**1590 E**	**4390 E**	**580 E**	**2100 Q**	**530 E**	**257 E**
2,3,7,8-TCDD (TEQ) (WHO2005)	**4565.16**	**21979.9**	**1050.5**	**20652**	**2507.4**	**1361.615**

Notes:

Detected values are shown in bold.
ng/kg = Nanograms per kilogram
B = Compound detected in method blank
E = Estimated amount
ft = feet
Q = Denotes a quantitative interference and the concentration reported may be questionable
R = Quality control indicates data is not useable
S = Denotes detector (MS) system was saturated and the concentration is a minimum estimate
SB = Subsurface soil sample
SS = Surface soil sample

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	I20	I20	I20	I20	I20	K20	K20	K20	I20	E20	E20	E20	A50	A50
Sample Identification	11634	11635	11636	11637	11638	11640	11641	11642	11643	11646	11647	11649	11651	11652
Sample Collection Date	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991	9/27/1991
Sample Type	SB	SS	SB	SB	SB	SB	SB	SB	SB	SB	SB	SS	SS	SB
Upper Depth (ft)	15	2	7	10	20	15	10	6	25	6	10	2	2	6
Lower Depth (ft)	15	2	7	10	20	15	10	6	25	6	10	2	2	6
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	130	5.2 U	5.3 U	67	280	320	260	5.6 U	500 E	42	32	11	5.6 U	5.6 U
Acenaphthylene	56	5.2 U	5.3 U	22 J	140	180	52	5.6 U	320	36	23	2.7 J	5.6 U	5.6 U
Anthracene	23 J	5.2 U	3.7 J	50	130	52	48	2.2 J	290	21 J	40	12	5.6 U	5.6 U
Benzo(a)Anthracene	9.6 J	5.2 U	2.2 J	6 J	40	7.4 J	8.3 J	80	86	14 J	8.3 J	2.1 J	5.6 U	5.6 U
Benzo(a)Pyrene	27 U	5.2 U	5.3 U	28 U	27 U	28 U	27 U	5.6 U	27 U	27 U	27 U	5.3 U	5.6 U	5.6 U
Benzo(B)Fluoranthene	27 U	5.2 U	5.3 U	28 U	27 U	28 U	27 U	5.6 U	27 U	27 U	27 U	5.3 U	5.6 U	5.6 U
Benzo(g,h,i)Perylene	27 U	5.2 U	5.3 U	28 U	27 U	28 U	27 U	5.6 U	27 U	27 U	27 U	5.3 U	5.6 U	5.6 U
Benzo(k)Fluoranthene	27 U	5.2 U	10530 U	28 U	27 U	28 U	27 U	10	27 U	27 U	27 U	5.3 U	5.6 U	5.6 U
Carbazole	43	5.2 U	1.7 J	29	87	79	64	8.7	180	12 J	42	5.3 U	5.6 U	5.6 U
Chrysene	27 U	5.2 U	5.3 U	28 U	27 U	28 U	27 U	5.6 U	27 U	27 U	27 U	5.3 U	5.6 U	5.6 U
Dibenzo(a,h)Anthracene	27 U	5.2 U	5.3 U	28 U	27 U	28 U	27 U	5.6 U	27 U	27 U	27 U	5.3 U	5.6 U	5.6 U
Fluoranthene	17 J	5.2 U	13	25 J	82	26 J	28	6.2	170	30	14 J	11	5.6 U	5.6 U
Fluorene	130	5.2 U	5.3 U	92	51	280	230	5.6 U	550 E	36	41	14	5.6 U	5.6 U
Indeno(1,2,3-cd)Pyrene	27 U	5.2 U	5.3 U	28 U	27 U	28 U	27 U	5.6 U	27 U	27 U	27 U	5.3 U	5.6 U	5.6 U
Naphthalene	27 U	5.2 U	5.3 U	28 U	37	23 J	19 J	5.6 U	42	27 U	27 U	5.3 U	5.6 U	5.6 U
Pentachlorophenol	860 E	5.2 U	20	870 E	1300 E	1700 E	1600 E	44	2200 E	740 E	550 E	190 E	5.6 U	5.6 U
Phenanthrene	110	5.2 U	5.2 J	120	300	220	170	2.1 J	660 E	27	51	18	5.6 U	5.6 U
Pyrene	29	5.2 U	6.6	45	160	28 J	29	5.6 U	330	26 J	63	19	5.6 U	5.6 U

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	**A50**	**A50**	**C100**	**C100**	**C100**	**C100**	**S95**	**AA95**	**I(-20)**	**G(-20)**	**Q25**	**I(-20)**	**CC25**	**K130**
Sample Identification	**11653**	**11654**	**11661**	**11662**	**11663**	**11664**	**11721**	**11731**	**12148**	**12240**	**12268**	**12271**	**12278**	**12359**
Sample Collection Date	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SS**	**SB**	**SS**	**SS**	**SS**	**SS**	**SS**	**SB**	**SB**	**SS**
Upper Depth (ft)	**15**	**10**	**6**	**10**	**2**	**15**	**1**	**0**	**0**	**0**	**0**	**10**	**25**	**0**
Lower Depth (ft)	**15**	**10**	**6**	**10**	**2**	**15**	**1**	**2**	**2**	**2**	**2**	**10**	**25**	**2**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Acenaphthene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	**5.7 J**	5 U
Acenaphthylene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	**3.6 J**	5 U
Anthracene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	**6.6**	5 U
Benzo(a)Anthracene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	**2.9 J**	5.4 U	5.9 U	5 U
Benzo(a)Pyrene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	**1.5 J**	5.4 U	5.4 U	5.9 U	5 U
Benzo(B)Fluoranthene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	5.9 U	5 U
Benzo(g,h,i)Perylene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	5.9 U	5 U
Benzo(k)Fluoranthene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	5.9 U	5 U
Carbazole	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	**3.3 J**	5 U
Chrysene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	**1.8 J**	**1 J**	5.4 U	5.4 U	**1.4 J**	5 U
Dibenzo(a,h)Anthracene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	5.9 U	5 U
Fluoranthene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	**4.7 J**	5 U
Fluorene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	**19**	5 U
Indeno(1,2,3-cd)Pyrene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	5.9 U	5 U
Naphthalene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	**1.9 J**	5 U
Pentachlorophenol	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	**5.2**	**3 J**	5.4 U	**5.7**	5.4 U	**49**	5 U
Phenanthrene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	5.1 U	5.8 U	5.4 U	5.4 U	5.4 U	**13**	5 U
Pyrene	5.5 U	5.5 U	5.3 U	5.3 U	5.9 U	6.2 U	5.7 U	**1.5 J**	5.8 U	5.4 U	5.4 U	5.4 U	**6**	5 U

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	**D50**	**K90**	**I130**	**RS-1**	**C40**	**C40**	**C40**	**C40**	**J75**	**J75**	**J75**	**J75**	**M20**	**L50**
Sample Identification	**12360**	**12361**	**12362**	**A11644**	**A11666**	**A11667**	**A11668**	**A11669**	**A11670**	**A11671**	**A11672**	**A11673**	**A11675**	**A11678**
Sample Collection Date	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SB**	**SB**	**SB**	**SS**	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**
Upper Depth (ft)	**0**	**0**	**0**	**0**	**15**	**10**	**6**	**2**	**2**	**6**	**10**	**15**	**6**	**6**
Lower Depth (ft)	**2**	**2**	**2**	**0.5**	**15**	**10**	**6**	**2**	**2**	**6**	**10**	**15**	**6**	**6**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Acenaphthene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Acenaphthylene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Anthracene	5.1 U	**7**	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Benzo(a)Anthracene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Benzo(a)Pyrene	**4.2 J**	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Benzo(B)Fluoranthene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Benzo(g,h,i)Perylene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Benzo(k)Fluoranthene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Carbazole	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Chrysene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Dibenzo(a,h)Anthracene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Fluoranthene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Fluorene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Indeno(1,2,3-cd)Pyrene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Naphthalene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Pentachlorophenol	**3.5 J**	**84**	**23 J**	**520**	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Phenanthrene	5.1 U	5.2 U	52 U	27 U	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U
Pyrene	5.1 U	5.2 U	52 U	**46**	5.4 U	5.3 U	5.2 U	5.6 U	6 U	5.3 U	5.5 U	5.3 U	5.3 U	5.3 U

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	**L50**	**L50**	**Q25**	**Q25**	**Q25**	**S165**	**Q25**	**Q25**	**S25**	**AA25**	**L(-20)**	**L(-20)**	**SL-1**	**SS-1-91**
Sample Identification	**A11679**	**A11681**	**A11683**	**A11684**	**A11686**	**A11708**	**A11710**	**A11711**	**A11723**	**A11730**	**A11732**	**A11735**	**A12113**	**A12114**
Sample Collection Date	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**7/31/1991**	**7/31/1991**
Sample Type	**SS**	**SB**	**SS**	**SS**	**SB**	**SS**	**SB**	**SB**	**SS**	**SS**	**SB**	**SS**	**SS**	**SS**
Upper Depth (ft)	**2**	**15**	**2**	**0**	**9**	**0**	**20**	**15**	**1**	**0**	**6**	**0**	**0**	**0**
Lower Depth (ft)	**2**	**15**	**2**	**2**	**9**	**2**	**20**	**15**	**1**	**2**	**6**	**2**	**0.5**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Acenaphthene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	**1400 E**	**7.2**	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Acenaphthylene	5.4 U	---	5.2 U	5.2 U	5.3 U	5.2 U	**390 E**	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Anthracene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	**480 E**	**2.2 J**	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Benzo(a)Anthracene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	**33**	**140 E**	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Benzo(a)Pyrene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	5.4 U	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Benzo(B)Fluoranthene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	5.4 U	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Benzo(g,h,i)Perylene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	5.4 U	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Benzo(k)Fluoranthene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	5.4 U	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Carbazole	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	**550 E**	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Chrysene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	5.4 U	5.4 U	5.1 U	**3.3 J**	5.5 U	5.7 U	57 U	51 U
Dibenzo(a,h)Anthracene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	5.4 U	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Fluoranthene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	**19**	**200 E**	**4.3 J**	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Fluorene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	**1900 E**	**7.9**	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Indeno(1,2,3-cd)Pyrene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	5.4 U	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Naphthalene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	**260 E**	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U
Pentachlorophenol	5.4 U	5.3 U	5.2 U	**9.7**	5.3 U	**2.5 J**	**230 E**	**30**	5.1 U	**3.7 J**	5.5 U	5.7 U	**330**	**1800 E**
Phenanthrene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	5.2 U	**1200 E**	**7.4**	5.1 U	**1.3 J**	5.5 U	5.7 U	57 U	51 U
Pyrene	5.4 U	5.3 U	5.2 U	5.2 U	5.3 U	**2.9 J**	**660 E**	5.4 U	5.1 U	5.1 U	5.5 U	5.7 U	57 U	51 U

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	**CP-1**	**SS-2-91**	**LT-1**	**LT-2**	**LT-3**	**UT-1**	**UT-2**	**UT-3**	**UT-4**	**MG-1**	**TA-1**	**TA-1**	**SS-3-91**	**TA-4**
Sample Identification	**A12115**	**A12116**	**A12117**	**A12118**	**A12119**	**A12120**	**A12121**	**A12122**	**A12123**	**A12124**	**A12125 - TA-**	**A12126 - TA-**	**A12128**	**A12129**
Sample Collection Date	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**	**7/31/1991**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Upper Depth (ft)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth (ft)	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Acenaphthene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Acenaphthylene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Anthracene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Benzo(a)Anthracene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Benzo(a)Pyrene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Benzo(B)Fluoranthene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Benzo(g,h,i)Perylene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Benzo(k)Fluoranthene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Carbazole	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Chrysene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Dibenzo(a,h)Anthracene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Fluoranthene	**1.6 J**	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Fluorene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Indeno(1,2,3-cd)Pyrene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Naphthalene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Pentachlorophenol	5.3 U	5.1 U	**10.4**	5 U	5 U	**1700 E**	**18**	**4.3 J**	**4.6 J**	**580 E**	**64**	**72**	5.3 U	5.3 U
Phenanthrene	5.3 U	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U
Pyrene	**2.4 J**	5.1 U	5.1 U	5 U	5 U	51 U	5 U	5.1 U	5 U	5.6 U	5.1 U	5.1 U	5.3 U	5.3 U

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	L(-20)	G(-20)	G(-20)	G(-20)	G(-20)	Q165	A30	G75	AA160	I(-20)	B130	SS-4-91	SS-5-91	SS-6-91
Sample Identification	**A12237**	**A12238**	**A12241**	**A12242**	**A12243**	**A12267**	**A12269**	**A12270**	**A12275**	**A12353**	**A12356**	**A8354**	**A8355**	**A8356**
Sample Collection Date	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**
Sample Type	**SB**	**SB**	**SS**	**SB**	**SB**	**SS**	**SS**	**SS**	**SS**	**SB**	**SS**	**SS**	**SS**	**SS**
Upper Depth (ft)	**15**	**6**	**2**	**20**	**15**	**0**	**0**	**0**	**1**	**20**	**0**	**0**	**0**	**0**
Lower Depth (ft)	**15**	**6**	**2**	**20**	**15**	**2**	**2**	**2**	**1**	**20**	**2**	**0.5**	**0.5**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Acenaphthene	**45**	5.2 U	5.7 U	**220 E**	**37**	5.2 U	5.2 U	5.1 U	6 U	**190 E**	5.1 U	52 U	5.1 U	5.6 U
Acenaphthylene	**8.9**	5.2 U	5.7 U	**93**	**8.7**	5.2 U	5.2 U	5.1 U	6 U	**34**	5.1 U	**270**	5.1 U	**360 E**
Anthracene	**8.7**	5.2 U	5.7 U	**90**	**27**	5.2 U	**2.7 J**	5.1 U	6 U	**86**	5.1 U	**560**	5.1 U	**620 E**
Benzo(a)Anthracene	**1.6 J**	5.2 U	5.7 U	5.3 U	**8.5**	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Benzo(a)Pyrene	5.2 U	5.2 U	5.7 U	5.3 U	5.3 U	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Benzo(B)Fluoranthene	5.2 U	5.2 U	5.7 U	5.3 U	5.3 U	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Benzo(g,h,i)Perylene	5.2 U	5.2 U	5.7 U	5.3 U	5.3 U	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Benzo(k)Fluoranthene	5.2 U	5.2 U	5.7 U	5.3 U	5.3 U	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Carbazole	**16**	5.2 U	5.7 U	**170 E**	**48**	5.2 U	5.2 U	5.1 U	6 U	**40**	5.1 U	52 U	5.1 U	5.6 U
Chrysene	5.2 U	5.2 U	5.7 U	5.3 U	5.3 U	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Dibenzo(a,h)Anthracene	5.2 U	5.2 U	5.7 U	5.3 U	5.3 U	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Fluoranthene	**16**	5.2 U	5.7 U	**130 E**	**35**	5.2 U	**4.7 J**	5.1 U	6 U	**120**	5.1 U	52 U	5.1 U	5.6 U
Fluorene	**42**	5.2 U	5.7 U	**200 E**	**25**	5.2 U	5.2 U	5.1 U	6 U	**190 E**	5.1 U	52 U	5.1 U	5.6 U
Indeno(1,2,3-cd)Pyrene	5.2 U	5.2 U	5.7 U	5.3 U	5.3 U	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Naphthalene	**4.4 J**	5.2 U	5.7 U	**29**	5.3 U	5.2 U	5.2 U	5.1 U	6 U	5.3 U	5.1 U	52 U	5.1 U	5.6 U
Pentachlorophenol	**61**	5.2 U	5.7 U	**650 E**	**150 E**	**24**	**41**	5.1 U	6 U	**840 E**	5.1 U	52 U	5.1 U	**840 E**
Phenanthrene	**34**	5.2 U	5.7 U	**170 E**	**41**	**2.1 J**	**2.2 J**	5.1 U	6 U	**180 E**	5.1 U	52 U	5.1 U	5.6 U
Pyrene	**7**	5.2 U	5.7 U	**100 E**	**28**	5.2 U	**4.5 J**	5.1 U	6 U	**83**	5.1 U	52 U	5.1 U	5.6 U

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	SS-7-91	SS-8-91	SS-10-91	SS-9-91	K20	S25	AA160	Q95	U165	U25	U95	U165
Sample Identification	**A8357**	**A8358**	**A8359**	**A8360**	**B11547**	**B11712**	**B12236**	**B12244**	**U' 165-SC (A11702)**	**U' 25-SC (A11705)**	**U' 95-SC (A11701)**	**U165-S (A11690)**
Sample Collection Date	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Upper Depth (ft)	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth (ft)	**0.5**	**0.5**	**0.5**	**0.5**	**2**	**2**	**2**	**2**	**0.5**	**0.5**	**0.5**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Acenaphthene	5.1 U	5.1 U	**12 J**	52 U	5.2 U	5.2 U	**2.8 J**	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Acenaphthylene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	**1.6 J**	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Anthracene	5.1 U	5.1 U	**13 J**	52 U	5.2 U	**24**	**36**	5.1 U	5.2 U	5.2 U	5.1 U	**1.3 J**
Benzo(a)Anthracene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	5.1 U	5.1 U	5.2 U	5.2 U	**50**	5.4 U
Benzo(a)Pyrene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	5.1 U	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Benzo(B)Fluoranthene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	5.1 U	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Benzo(g,h,i)Perylene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	5.1 U	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Benzo(k)Fluoranthene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	5.1 U	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Carbazole	5.1 U	5.1 U	51 U	52 U	5.2 U	**29**	**41**	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Chrysene	5.1 U	5.1 U	51 U	**98**	5.2 U	5.2 U	5.1 U	5.1 U	**4.2 J**	5.2 U	5.1 U	**60**
Dibenzo(a,h)Anthracene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	5.1 U	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Fluoranthene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	**63**	5.1 U	5.2 U	5.2 U	**5.3**	**1.1 J**
Fluorene	5.1 U	5.1 U	51 U	52 U	5.2 U	**1.5 J**	5.1 U	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Indeno(1,2,3-cd)Pyrene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	5.1 U	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Naphthalene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	5.1 U	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Pentachlorophenol	5.1 U	5.1 U	51 U	52 U	**3.7 J**	**80**	**250 E**	**32**	**26**	**2.3 J**	**2.4 J**	**30**
Phenanthrene	5.1 U	5.1 U	51 U	52 U	5.2 U	5.2 U	**24**	5.1 U	5.2 U	5.2 U	5.1 U	5.4 U
Pyrene	5.1 U	5.1 U	51 U	**14**	5.2 U	**39**	**47**	5.1 U	5.2 U	5.2 U	**2.1 J**	**1.6 J**

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	**U25**	**U25**	**U95**	**W165**	**W25**	**W95**	**W165**	**W165**	**W165**
Sample Identification	**U25-1 (A11717)**	**U25-S (A11691)**	**U95-S (A11695)**	**W' 165-SC (A11703)**	**W' 25-SC (A11713)**	**W' 95-SC (A11700)**	**W165-1 (A11728)**	**W165-3 (11727)**	**W165-S (A11689)**
Sample Collection Date	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SB**	**SS**
Upper Depth (ft)	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**
Lower Depth (ft)	**1**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**1**	**3**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Acenaphthene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Acenaphthylene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	---
Anthracene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Benzo(a)Anthracene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Benzo(a)Pyrene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Benzo(B)Fluoranthene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Benzo(g,h,i)Perylene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Benzo(k)Fluoranthene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Carbazole	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Chrysene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Dibenzo(a,h)Anthracene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Fluoranthene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Fluorene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	**1.1 J**
Indeno(1,2,3-cd)Pyrene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Naphthalene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U
Pentachlorophenol	5.2 U	**2.8 J**	5.2 U	**12**	**6.8**	**12**	5.7 U	6 U	**17**
Phenanthrene	5.2 U	5.1 U	5.2 U	5.5 U	**1.8 J**	5.1 U	5.7 U	6 U	**1.3 J**
Pyrene	5.2 U	5.1 U	5.2 U	5.5 U	5.1 U	5.1 U	5.7 U	6 U	5.5 U

Appendix G - KRY Historical Data
Weston Soil SVOC, 1991

Sample Station	**W25**	**W25**	**W95**	**Y165**	**Y25**	**Y95**	**Y165**	**Y25**	**Y25**	**Y95**
Sample Identification	**W25-1 (11715)**	**W25-S (A11688)**	**W95-S (A11687)**	**Y' 165-SC (11706)**	**Y' 25-SC (A11709)**	**Y' 95-SC (A11704)**	**Y165-S (A11697)**	**Y25-1 (A11722)**	**Y25-S (A11698)**	**Y95-3 (A11729)**
Sample Collection Date	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**	**9/27/1991**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SB**
Upper Depth (ft)	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**
Lower Depth (ft)	**1**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**1**	**0.5**	**3**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Acenaphthene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Acenaphthylene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	---	5.3 U	5.2 U
Anthracene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Benzo(a)Anthracene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	**1.8 J**	5.2 U
Benzo(a)Pyrene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Benzo(B)Fluoranthene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Benzo(g,h,i)Perylene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Benzo(k)Fluoranthene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Carbazole	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Chrysene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	**1.3 J**	5.2 U
Dibenzo(a,h)Anthracene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Fluoranthene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	**4.8**	5.3 U	5.8 U	5.3 U	5.2 U
Fluorene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	**1.1 J**	5.2 U
Indeno(1,2,3-cd)Pyrene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Naphthalene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	5.3 U	5.2 U
Pentachlorophenol	6 U	**4.2 J**	**8.7**	**4.2 J**	**4.5 J**	**11**	**13**	**2.7 J**	**12**	5.2 U
Phenanthrene	6 U	**1.5 J**	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	**1.5 J**	5.2 U
Pyrene	6 U	5.1 U	5.1 U	5.2 U	5.1 U	5.1 U	5.3 U	5.8 U	**1.3 J**	5.2 U

Appendix G - KRY Historical Data
Weston Soil Metals, 1991

Sample Station	**SS-4-91**	**SS-6-91**	**SS-10-91**
Sample Identification	**B8354**	**B8356**	**B8359**
Sample Collection Date	**9/27/1991**	**9/27/1991**	**9/27/1991**
Sample Type	**SS**	**SS**	**SS**
Upper Depth (ft)	**0**	**0**	**0**
Lower Depth (ft)	**0.5**	**0.5**	**0.5**
Units	**mg/kg**	**mg/kg**	**mg/kg**
Antimony	6 U	6 U	6 U
Arsenic	**7.7**	**4.1**	**3.7**
Beryllium	**0.36**	**0.5**	**0.41**
Cadmium	0.5 U	0.5 U	0.5 U
Chromium	**7.4**	**8.8**	**8.3**
Copper	**20.7**	**22.8**	**42.9**
Lead	**471**	**117**	**262**
Mercury	0.2 U	0.2 U	0.2 U
Nickel	**9.5**	**8.8**	**12**
Selenium	1 U	0.5 U	1 U
Silver	1 U	1 U	1 U
Thallium	0.5 U	0.5 U	1 U
Zinc	**117**	**44**	**185**

Notes:

Detected values are shown in bold.
ft = feet
mg/kg = milligrams per kilogram
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.

REMEDIAL INVESTIGATION

DATA SUMMARY TABLES

Appendix G - 2006 Field Quality Control Samples
Field Duplicate Samples
VOCs

STATION	KPT-16	KPT-20	KRY102A	KRY121A	RW-11	SW-9
SAMPLE	KRYKPT16GW701	KRYKPT20GW701	KRY102AGW701	KRY121AGW701	KRYRW11GW701	KRYSW9GW701
COLLECTIONDATE	6/23/2006	6/28/2006	6/13/2006	6/20/2006	6/28/2006	6/29/2006
SAMPLETYPE	DU	DU	DU	DU	DU	DU
LABUNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1	1	1	1	1	1
2,2-TETRACHLOROETHANE	1	1	1	1	1	1
1,1,2-Trichloroethane	1	1	1	1	1	1
1,1-DICHLOROETHANE	1	1	1	1	1	1
1,1-DICHLOROETHENE	1	1	1	1	1	1
1,2,4-TRIMETHYLBENZENE	1	1	1	0.44	1	39
1,2-DICHLOROETHANE	1	1	1	1	1	1
1,2-DICHLOROPROPANE	1	1	1	1	1	1
1,3,5-Trimethylbenzene	1	1	1	0.39	1	4.3
2-BUTANONE	10	11	10	10	10	18
2-HEXANONE	20	20	20	20	20	20
4-METHYL-2-PENTANONE	20	20	20	20	20	20
ACETONE	20	20	20	20	20	20
ACROLEIN	20	20	20	20	20	20
BENZENE	0.5	0.5	0.5	0.5	0.5	10
BROMOFORM	1	1	1	1	1	1
Bromomethane	1	1	1	1	1	1
CARBON DISULFIDE	1	1	1	1	1	1
CARBON TETRACHLORIDE	1	1	1	1	1	1
CHLOROBENZENE	1	1	1	1	1	1
CHLOROETHANE	1	1	1	1	1	1
CHLOROFORM	1	1	1	1	1	1
CHLOROMETHANE	1	1	1	1	1	1
CIS-1,2-DICHLOROETHENE	1	1	1	1	1	1
CIS-1,3-DICHLOROPROPENE	1	1	1	1	1	1
DIBROMOCHLOROMETHANE	1	1	1	1	1	1
Ethylbenzene	0.5	0.5	0.5	0.5	0.5	16
ISOPROPYLBENZENE	1	1	1	0.59	1	3.5
Methylene chloride	0.5	0.5	0.5	0.5	0.5	0.5
N-BUTYLBENZENE	0.5	1	0.5	3.1	0.5	3
N-PROPYLBENZENE	1	1	1	0.37	1	6.6
O-XYLENE	0.5	0.5	0.5	0.5	0.5	2.5
sec-Butylbenzene	0.5	0.5	0.5	0.71	0.5	0.63
STYRENE	1	1	1	1	1	1
TETRACHLOROETHENE	1	1	1	1	1	1
TOLUENE	0.5	0.5	0.5	0.5	0.5	1.8
TRANS-1,2-DICHLOROETHENE	1	1	1	1	1	1
TRANS-1,3-DICHLOROPROPENE	1	1	1	1	1	1
TRICHLOROETHENE	1	1	1	1	1	1
VINYL ACETATE	1	1	1	1	1	1
Vinyl chloride	1	1	1	1	1	1

Appendix G - 2006 Field Quality Control Samples
Field Duplicates
SVOCs

STATION	KPT-16	KPT-20	KRY102A	KRY121A	RW-11	SW-9
SAMPLE	KRYKPT16GW701	KRYKPT20GW701	KRY102AGW701	KRY121AGW701	KRYRW11GW701	KRYSW9GW701
COLLECTIONDATE	6/23/2006	6/28/2006	6/13/2006	6/20/2006	6/28/2006	6/29/2006
SAMPLETYPE	DU	DU	DU	DU	DU	DU
LABUNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1-Methylnaphthalene	10	8.9	10	10	10	10
2,4,5-TRICHLOROPHENOL	10	4.4	10	10	10	10
2,4,6-Trichlorophenol	10	3.7	10	10	10	10
2,4-DICHLOROPHENOL	10	10	10	10	10	10
2,4-DIMETHYLPHENOL	10	10	10	10	10	10
2,4-DINITROPHENOL	50	50	50	50	50	50
2,4-Dinitrotoluene	10	10	10	10	10	10
2,6-Dinitrotoluene	10	10	10	10	10	10
2-CHLORONAPHTHALENE	10	10	10	10	10	10
2-Chlorophenol	10	10	10	10	10	10
2-METHYLNAPHTHALENE	10	10	10	10	10	10
2-METHYLPHENOL	10	10	10	10	10	10
2-Nitroaniline	10	10	10	10	10	10
2-Nitrophenol	5	5	5	5	5	5
3-NITROANILINE	10	10	10	10	10	10
-DINITRO-2-METHYLPHENOL	50	50	50	50	50	50
CHLORO-3-METHYLPHENOL	10	10	10	10	10	10
4-CHLOROANILINE	10	10	10	10	10	10
4-NITROANILINE	10	10	10	10	10	10
4-NITROPHENOL	50	50	50	50	50	50
ACENAPHTHENE	0.1	1.2	0.1	0.1	0.1	0.1
ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(A)ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(A)PYRENE	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(B)FLUORANTHENE	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(G,H,I)PERYLENE	10	10	10	10	10	10
BENZO(K)FLUORANTHENE	0.1	0.1	0.1	0.1	0.1	0.1
BENZOIC ACID	10	10	10	10	10	10
Benzyl alcohol	10	10	10	10	10	10
CHLOROETHOXY)METHANE	10	10	10	10	10	10
BIS(2-CHLOROETHYL)ETHER	10	10	10	10	10	10
CHLOROISOPROPYL)ETHER	10	10	10	10	10	10
(2-ETHYLHEXYL)PHTHALATE	6	6	6	6	6	6
CHRYSENE	0.1	0.1	0.1	0.1	0.1	0.1
DIBENZO(A,H)ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1
DIBENZOFURAN	10	10	10	10	10	10
DI-N-BUTYLPHTHALATE	10	10	10	10	10	10
DI-N-OCTYLPHTHALATE	10	10	10	10	10	10
FLUORANTHENE	10	10	10	10	10	10
FLUORENE	0.1	0.73	0.1	0.1	0.1	0.1
HEXACHLOROBENZENE	10	10	10	10	10	10
Hexachlorocyclopentadiene	10	10	10	10	10	10
HEXACHLOROETHANE	10	10	10	10	10	10
INDENO(1,2,3-CD)PYRENE	10	10	10	10	10	10
ISOPHORONE	10	10	10	10	10	10
n-Nitrosodi-n-propylamine	10	10	10	10	10	10
N-NITROSODIPHENYLAMINE	10	10	10	10	10	10
Pentachlorophenol	0.15	80	0.1	0.18	0.1	0.1
PHENANTHRENE	0.1	0.84	0.1	0.1	0.1	0.1
PHENOL	10	10	10	10	10	10
Pyrene	0.1	0.1	0.1	0.1	0.1	0.1

Appendix G - 2006 Field Quality Control Samples
Field Duplicate Samples
Other

STATION	KPT-15	KPT-16	KPT-20	KPT-20	KRY102A	KRY121A	KRY121A	KRY203	RW-11	SW-9
SAMPLE	KRYKPT15GW701	KRYKPT16GW701	KRYKPT20GW701	KRYKPT20GW701	KRY102AGW701	KRY121AGW701	KRY121AGW701	KRY203SW701	KRYRW11GW701	KRYSW9GW701
COLLECTIONDATE	6/28/2006	6/23/2006	6/28/2006	6/28/2006	6/13/2006	6/20/2006	6/20/2006	7/13/2006	6/28/2006	6/29/2006
SAMPLETYPE	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU
LABUNITS	pg/L	ug/L	mg/L	ug/L	ug/L	mg/L	ug/L	pg/L	ug/L	ug/L
1,2,3,4,6,7,8-HpCDD	85							20		
1,2,3,4,6,7,8-HpCDF	12							3.3		
1,2,3,4,7,8,9-HpCDF	1.6							3.1		
1,2,3,4,7,8-HxCDD	2							11		
1,2,3,4,7,8-HxCDF	1.9							1.7		
1,2,3,6,7,8-HXCDD	5.1							8.8		
1,2,3,6,7,8-HxCDF	2							2		
1,2,3,7,8,9-HxCDD	1.9							6.8		
1,2,3,7,8,9-HxCDF	2.3							2.1		
1,2,3,7,8-PeCDD	2							5.9		
1,2,3,7,8-PECDF	3.9							5.4		
1,2,4-TRICHLOROBENZENE		10		10	10		10		10	10
1,4-DICHLOROBENZENE		10		10	10		10		10	10
2,3,4,6,7,8-HxCDF	2.1							1.9		
2,3,4,7,8-PECDF	2.5							3.1		
2,3,7,8-TCDD	1.8							4.5		
2,3,7,8-TCDF	0.91							2.5		
Biphenyl		10		10	10		10		10	10
CARBAZOLE		10		10	10		10		10	10
HEXACHLOROBUTADIENE		10		10	10		10		10	10
NAPHTHALENE		1		1.4	1		1.9		1	2.6
NITROBENZENE		10		10	10		10		10	10
EXTRACTABLE HYDROCARBONS			0.28			0.31				

Appendix G - 2006 Field Quality Control Samples
Source Water Samples
VOCs

STATION	KRY900	KRY901	KRY902
SAMPLE	KRY900QS001	KRY901QS001	KRY902QS001
COLLECTIONDATE	4/19/2006	4/24/2006	5/9/2006
SAMPLETYPE	QC	QC	QC
LABUNITS	ug/L	ug/L	ug/L
1,1,1-TRICHLOROETHANE	1	1	1
,1,2,2-TETRACHLOROETHANE	1	1	1
1,1,2-TRICHLOROETHANE	1	1	1
1,1-DICHLOROETHANE	1	1	1
1,1-DICHLOROETHENE	1	1	1
1,2,4-TRIMETHYLBENZENE	1	1	1
1,2-DICHLOROETHANE	1	1	1
1,2-DICHLOROPROPANE	1	1	1
1,3,5-TRIMETHYLBENZENE	1	1	1
2-BUTANONE	10	10	10
2-HEXANONE	20	20	20
4-METHYL-2-PENTANONE	20	20	20
ACETONE	20	11	20
ACROLEIN	20	20	20
BENZENE	0.5	0.5	0.5
BROMOFORM	1	1	1
Bromomethane	1	1	1
CARBON DISULFIDE	1	1	1
CARBON TETRACHLORIDE	1	1	1
CHLOROBENZENE	1	1	1
CHLOROETHANE	1	1	1
CHLOROFORM	1	0.86	1.4
CHLOROMETHANE	1	1	1
CIS-1,2-DICHLOROETHENE	1	1	1
CIS-1,3-DICHLOROPROPENE	1	1	1
DIBROMOCHLOROMETHANE	1	1	1
ETHYLBENZENE	0.5	0.5	0.5
ISOPROPYLBENZENE	1	1	1
METHYLENE CHLORIDE	0.5	0.5	0.2
N-BUTYLBENZENE	0.5	0.5	0.5
N-PROPYLBENZENE	1	1	1
O-XYLENE	0.5	0.5	0.5
SEC-BUTYLBENZENE	0.5	0.5	0.5
STYRENE	1	1	1
TETRACHLOROETHENE	1	1	1
TOLUENE	0.5	0.5	0.5
TRANS-1,2-DICHLOROETHENE	1	1	1
RANS-1,3-DICHLOROPROPENE	1	1	1
TRICHLOROETHENE	1	1	1
VINYL ACETATE	1	1	1
VINYL CHLORIDE	1	1	1

Appendix G - 2006 Field Quality Control Samples
Source Water Samples
SVOCs

STATION	KRY900	KRY901	KRY902
SAMPLE	KRY900QS001	KRY901QS001	KRY902QS001
COLLECTIONDATE	4/19/2006	4/24/2006	5/9/2006
SAMPLETYPE	QC	QC	QC
LABUNITS	ug/L	ug/L	ug/L
1-METHYLNAPHTHALENE	10	10	10
2,4,5-TRICHLOROPHENOL	10	10	10
2,4,6-TRICHLOROPHENOL	10	10	10
2,4-DICHLOROPHENOL	10	10	10
2,4-DIMETHYLPHENOL	10	10	10
2,4-DINITROPHENOL	50	50	50
2,4-DINITROTOLUENE	10	10	10
2,6-DINITROTOLUENE	10	10	10
2-CHLORONAPHTHALENE	10	10	10
2-CHLOROPHENOL	10	10	10
2-METHYLNAPHTHALENE	10	10	10
2-METHYLPHENOL	10	10	10
2-NITROANILINE	10	10	10
2-NITROPHENOL	5	5	5
3-NITROANILINE	10	10	10
4,6-DINITRO-2-METHYLPHENOL	50	50	50
4-CHLORO-3-METHYLPHENOL	10	10	10
4-CHLOROANILINE	10	10	10
4-NITROANILINE	10	10	10
4-NITROPHENOL	50	50	50
ACENAPHTHENE	0.1	0.1	0.1
ANTHRACENE	0.1	0.1	0.1
BENZO(A)ANTHRACENE	0.1	0.1	0.1
BENZO(A)PYRENE	0.1	0.1	0.1
BENZO(B)FLUORANTHENE	0.1	0.1	0.1
BENZO(G,H,I)PERYLENE	10	10	10
BENZO(K)FLUORANTHENE	0.1	0.1	0.1
BENZOIC ACID	10	10	10
BENZYL ALCOHOL	10	10	10
IS(2-CHLOROETHOXY)METHANE	10	10	10
BIS(2-CHLOROETHYL)ETHER	10	10	10
S(2-CHLOROISOPROPYL)ETHER	10	10	10
BIS(2-ETHYLHEXYL)PHTHALATE	6	6	6
CHRYSENE	0.1	0.1	0.1
DIBENZO(A,H)ANTHRACENE	0.1	0.1	0.1
DIBENZOFURAN	10	10	10
DI-N-BUTYLPHTHALATE	10	10	10
DI-N-OCTYLPHTHALATE	10	10	10
FLUORANTHENE	10	10	10
FLUORENE	0.1	0.1	0.1
HEXACHLOROBENZENE	10	10	10
EXACHLOROCYCLOPENTADIENE	10	10	10
HEXACHLOROETHANE	10	10	10
INDENO(1,2,3-CD)PYRENE	10	10	10
ISOPHORONE	10	10	10
N-NITROSODI-N-PROPYLAMINE	10	10	10
N-NITROSODIPHENYLAMINE	10	10	10
PENTACHLOROPHENOL	0.1	0.1	0.1
PHENANTHRENE	0.1	0.1	0.1
PHENOL	10	10	10
PYRENE	0.1	0.1	0.1

Appendix G - 2006 Field Quality Control Samples
Source Water Samples
Other

STATION	KRY900	KRY900	KRY900	KRY901	KRY901	KRY901	KRY902	KRY902	KRY902
SAMPLE	KRY900QS001	KRY900QS001	KRY900QS001	KRY901QS001	KRY901QS001	KRY901QS001	KRY902QS001	KRY902QS001	KRY902QS001
COLLECTIONDATE	4/19/2006	4/19/2006	4/19/2006	4/24/2006	4/24/2006	4/24/2006	5/9/2006	5/9/2006	5/9/2006
SAMPLETYPE	QC	QC	QC	QC	QC	QC	QC	QC	QC
LABUNITS	mg/L	pg/L	ug/L	mg/L	pg/L	ug/L	mg/L	pg/L	ug/L
1,2,3,4,6,7,8-HPCDD		14			18			3.9	
1,2,3,4,6,7,8-HPCDF		12			2.9			2.5	
1,2,3,4,7,8,9-HPCDF		0.7			1.9			2.8	
1,2,3,4,7,8-HXCDD		0.56			1.9			2.6	
1,2,3,4,7,8-HXCDF		0.41			2.3			2.9	
1,2,3,6,7,8-HXCDD		1.2			1.8			2.5	
1,2,3,6,7,8-HXCDF		0.43			1.9			2.4	
1,2,3,7,8,9-HXCDD		0.74			2.5			2.9	
1,2,3,7,8,9-HXCDF		0.7			2.2			3.2	
1,2,3,7,8-PECDD		0.79			1.8			3.2	
1,2,3,7,8-PECDF		0.68			1.4			4.2	
1,2,4-TRICHLOROBENZENE			10			10			10
1,4-DICHLOROBENZENE			10			10			10
2,3,4,6,7,8-HXCDF		0.36			1.9			2.2	
2,3,4,7,8-PECDF		0.73			1.3			2.8	
2,3,7,8-TCDD		0.88			1.9			3.9	
2,3,7,8-TCDF		0.77			1.1			2.7	
BIPHENYL			10			10			10
CARBAZOLE			10			10			10
CHLORIDE	1			1					
FORMALDEHYDE	1			1					
HEXACHLOROBUTADIENE			10			10			10
NAPHTHALENE			1			1			1
NITROBENZENE			10			10			10
L EXTRACTABLE HYDROCARBONS							0.3		

Appendix G - 2006 Field Quality Control Samples
Equipment Rinsate Blank Samples
VOCs

STATION	GWRR-4	KRY111A	KRY121B	KRY122A	KRY125A	KRY130B	KRY200	KRY403	KRY410	KRY430
SAMPLE	KRYGWRR4QE001	KRY111AQE001	KRY121BQE001	KRY122AQE001	KRY125AQE001	KRY130QE001	KRY200QE001	KRY403QE001	KRY410QE001	KRY430QE001
COLLECTIONDATE	6/29/2006	6/16/2006	6/28/2006	6/26/2006	6/26/2006	4/27/2006	7/14/2006	4/26/2006	4/24/2006	5/11/2006
SAMPLETYPE	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC
LABUNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-TRICHLOROETHANE	1	1	1	1	1	1	1	1	1	1
,2-TETRACHLOROETHANE	1	1	1	1	1	1	1	1	1	1
1,1,2-TRICHLOROETHANE	1	1	1	1	1	1	1	1	1	1
1,1-DICHLOROETHANE	1	1	1	1	1	1	1	1	1	1
1,1-DICHLOROETHENE	1	1	1	1	1	1	1	1	1	1
1,2,4-TRIMETHYLBENZENE	1	1	1	1	1	1	1	1	1	1
1,2-DICHLOROETHANE	1	1	1	1	1	1	1	1	1	1
1,2-DICHLOROPROPANE	1	1	1	1	1	1	1	1	1	1
1,3,5-TRIMETHYLBENZENE	1	1	1	1	1	1	1	1	1	1
2-BUTANONE	10	10	10	10	10	10	11	10	10	10
2-HEXANONE	20	20	20	20	20	20	20	20	20	20
4-METHYL-2-PENTANONE	20	20	20	20	20	20	20	20	20	20
ACETONE	20	20	20	20	20	20	39	20	20	20
ACROLEIN	20	20	20	20	20	20	20	20	20	20
BENZENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
BROMOFORM	1	1	1	1	1	1	1	1	1	1
Bromomethane	1	1	1	1	1	1	1	1	1	1
CARBON DISULFIDE	1	1	1	1	1	1	1	1	1	1
CARBON TETRACHLORIDE	1	1	1	1	1	1	1	1	1	1
CHLOROBENZENE	1	1	1	1	1	1	1	1	1	1
CHLOROETHANE	1	1	1	1	1	1	1	1	1	1
CHLOROFORM	1	1	1	1	1	1	0.31	0.66	0.86	1
CHLOROMETHANE	1	1	1	1	1	1	1	1	1	1
CIS-1,2-DICHLOROETHENE	1	1	1	1	1	1	1	1	1	1
S-1,3-DICHLOROPROPENE	1	1	1	1	1	1	1	1	1	1
BROMOCHLOROMETHANE	1	1	1	1	1	1	1	1	1	1
ETHYLBENZENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
ISOPROPYLBENZENE	1	1	1	1	1	1	1	1	1	1
METHYLENE CHLORIDE	0.5	0.35	0.5	0.5	0.22	0.5	0.5	0.5	0.5	0.5
N-BUTYLBENZENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
N-PROPYLBENZENE	1	1	1	1	1	1	1	1	1	1
O-XYLENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SEC-BUTYLBENZENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
STYRENE	1	1	1	1	1	1	1	1	1	1
TETRACHLOROETHENE	1	1	1	1	1	1	1	1	1	1
TOLUENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NS-1,2-DICHLOROETHENE	1	1	1	1	1	1	1	1	1	1
S-1,3-DICHLOROPROPENE	1	1	1	1	1	1	1	1	1	1
TRICHLOROETHENE	1	1	1	1	1	1	1	1	1	1
VINYL ACETATE	1	1	1	1	1	1	1	1	1	1
VINYL CHLORIDE	1	1	1	1	1	1	1	1	1	1

Appendix G - 2006 Field Quality Control Samples
Equipment Rinsate Blank Samples
VOCs

STATION	KRY440	KRY475	KRY507	KRY558	KRY608	KRY612	KRY636	KRY660	KRY662	NTL-MW-4
SAMPLE	KRY440QE001	KRY475QE001	KRY507QE001	KRY558QE001	KRY608QE001	KRY612QE001	KRY636QE001	KRY660QE001	KRY662QE001	KRYNTLMW4QE001
COLLECTIONDATE	5/3/2006	5/17/2006	5/15/2006	5/31/2006	5/25/2006	4/21/2006	5/9/2006	5/23/2006	5/16/2006	6/29/2006
SAMPLETYPE	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC
LABUNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-TRICHLOROETHANE	1	1	1	1	1	1	1	1	1	1
,2-TETRACHLOROETHANE	1	1	1	1	1	1	1	1	1	1
1,1,2-TRICHLOROETHANE	1	1	1	1	1	1	1	1	1	1
1,1-DICHLOROETHANE	1	1	1	1	1	1	1	1	1	1
1,1-DICHLOROETHENE	1	1	1	1	1	1	1	1	1	1
1,2,4-TRIMETHYLBENZENE	1	1	1	1	1	1	1	1	1	1
1,2-DICHLOROETHANE	1	1	1	1	1	1	0.58	1	1	1
1,2-DICHLOROPROPANE	1	1	1	1	1	1	1	1	1	1
1,3,5-TRIMETHYLBENZENE	1	1	1	1	1	1	1	1	1	1
2-BUTANONE	10	10	10	10	10	10	10	10	10	10
2-HEXANONE	20	20	20	20	20	20	20	20	20	20
4-METHYL-2-PENTANONE	20	20	20	20	20	20	20	20	20	20
ACETONE	20	20	20	20	20	20	1.2	20	20	20
ACROLEIN	20	20	20	20	20	20	0.9	20	20	20
BENZENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
BROMOFORM	1	1	1	1	1	1	1	1	1	1
Bromomethane	1	1	1	1	1	1	1	1	1	1
CARBON DISULFIDE	1	1	1	1	1	1	1	1	1	1
CARBON TETRACHLORIDE	1	1	1	1	1	1	1	1	1	1
CHLOROBENZENE	1	1	1	1	1	1	1	1	1	1
CHLOROETHANE	1	1	1	1	1	1	1	1	1	1
CHLOROFORM	0.9	0.41	0.5	1	1	0.82	1.1	0.4	0.49	1
CHLOROMETHANE	1	1	1	1	1	1	1	1	1	1
CIS-1,2-DICHLOROETHENE	1	1	1	1	1	1	1	1	1	1
S-1,3-DICHLOROPROPENE	1	1	1	1	1	1	1	1	1	1
BROMOCHLOROMETHANE	1	1	1	1	1	1	1	1	1	1
ETHYLBENZENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
ISOPROPYLBENZENE	1	1	1	1	1	1	1	1	1	1
METHYLENE CHLORIDE	0.5	0.5	0.5	0.5	0.5	0.5	0.21	0.5	0.5	0.5
N-BUTYLBENZENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
N-PROPYLBENZENE	1	1	1	1	1	1	1	1	1	1
O-XYLENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SEC-BUTYLBENZENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
STYRENE	1	1	1	1	1	1	1	1	1	1
TETRACHLOROETHENE	1	1	1	1	1	1	1	1	1	1
TOLUENE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NS-1,2-DICHLOROETHENE	1	1	1	1	1	1	1	1	1	1
S-1,3-DICHLOROPROPENE	1	1	1	1	1	1	1	1	1	1
TRICHLOROETHENE	1	1	1	1	1	1	1	1	1	1
VINYL ACETATE	1	1	1	1	1	1	1	1	1	1
VINYL CHLORIDE	1	1	1	1	1	1	1	1	1	1

Appendix G - 2006 Field Quality Control Samples
Equipment Rinsate Blank Samples
SVOCs

STATION	GWRR-4	KRY111A	KRY121B	KRY122A	KRY125A	KRY130B	KRY200	KRY403	KRY410	KRY430	KRY440	KRY475	KRY507
SAMPLE	KRYGWRR4QE001	KRY111AQE001	KRY121BQE001	KRY122AQE001	KRY125AQE001	KRY130QE001	KRY200QE001	KRY403QE001	KRY410QE001	KRY430QE001	KRY440QE001	KRY475QE001	KRY507QE001
COLLECTIONDATE	6/29/2006	6/16/2006	6/28/2006	6/26/2006	6/26/2006	4/27/2006	7/14/2006	4/26/2006	4/24/2006	5/11/2006	5/3/2006	5/17/2006	5/15/2006
SAMPLETYPE	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC
LABUNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1-METHYLNAPHTHALENE	10	10	10	10	10	10	10	10	10	10	10	10	10
2,4,5-TRICHLOROPHENOL	10	10	10	10	10	10	10	10	10	10	10	10	10
2,4,6-TRICHLOROPHENOL	10	10	10	10	10	10	10	10	10	10	10	10	10
2,4-DICHLOROPHENOL	10	10	10	10	10	10	10	10	10	10	10	10	10
2,4-DIMETHYLPHENOL	10	10	10	10	10	10	10	10	10	10	10	10	10
2,4-DINITROPHENOL	50	50	50	50	50	50	50	50	50	50	50	50	50
2,4-DINITROTOLUENE	10	10	10	10	10	10	10	10	10	10	10	10	10
2,6-DINITROTOLUENE	10	10	10	10	10	10	10	10	10	10	10	10	10
2-CHLORONAPHTHALENE	10	10	10	10	10	10	10	10	10	10	10	10	10
2-CHLOROPHENOL	10	10	10	10	10	10	10	10	10	10	10	10	10
2-METHYLNAPHTHALENE	10	10	10	10	10	10	10	10	10	10	10	10	10
2-METHYLPHENOL	10	10	10	10	10	10	10	10	10	10	10	10	10
2-NITROANILINE	10	10	10	10	10	10	10	10	10	10	10	10	10
2-NITROPHENOL	5	5	5	5	5	5	5	5	5	5	5	5	5
3-NITROANILINE	10	10	10	10	10	10	10	10	10	10	10	10	10
6-DINITRO-2-METHYLPHENOL	50	50	50	50	50	50	50	50	50	50	50	50	50
4-CHLORO-3-METHYLPHENOL	10	10	10	10	10	10	10	10	10	10	10	10	10
4-CHLOROANILINE	10	10	10	10	10	10	10	10	10	10	10	10	10
4-NITROANILINE	10	10	10	10	10	10	10	10	10	10	10	10	10
4-NITROPHENOL	50	50	50	50	50	50	50	50	50	50	50	50	50
ACENAPHTHENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(A)ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(A)PYRENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(B)FLUORANTHENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(G,H,I)PERYLENE	10	10	10	10	10	10	10	10	10	10	10	10	10
BENZO(K)FLUORANTHENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZOIC ACID	10	10	10	10	10	10	10	10	10	10	10	10	10
BENZYL ALCOHOL	10	10	10	10	10	10	10	10	10	10	10	10	10
2-CHLOROETHOXY)METHANE	10	10	10	10	10	10	10	10	10	10	10	10	10
BIS(2-CHLOROETHYL)ETHER	10	10	10	10	10	10	10	10	10	10	10	10	10
-CHLOROISOPROPYL)ETHER	10	10	10	10	10	10	10	10	10	10	10	10	10
S(2-ETHYLHEXYL)PHTHALATE	6	6	6	6	6	6	6	6	6	9.6	6	6	6
CHRYSENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DIBENZO(A,H)ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DIBENZOFURAN	10	10	10	10	10	10	10	10	10	10	10	10	10
DI-N-BUTYLPHTHALATE	10	10	10	10	10	10	10	10	10	10	10	10	10
DI-N-OCTYLPHTHALATE	10	10	10	10	10	10	10	10	10	10	10	10	10
FLUORANTHENE	10	10	10	10	10	10	10	10	10	10	10	10	10
FLUORENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
HEXACHLOROBENZENE	10	10	10	10	10	10	10	10	10	10	10	10	10
CHLOROCYCLOPENTADIENE	10	10	10	10	10	10	10	10	10	10	10	10	10
HEXACHLOROETHANE	10	10	10	10	10	10	10	10	10	10	10	10	10
INDENO(1,2,3-CD)PYRENE	10	10	10	10	10	10	10	10	10	10	10	10	10
ISOPHORONE	10	10	10	10	10	10	10	10	10	10	10	10	10
NITROSODI-N-PROPYLAMINE	10	10	10	10	10	10	10	10	10	10	10	10	10
N-NITROSODIPHENYLAMINE	10	10	10	10	10	10	10	10	10	10	10	10	10
PENTACHLOROPHENOL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PHENANTHRENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PHENOL	10	10	10	10	10	10	10	10	10	10	10	10	10
PYRENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Appendix G - 2006 Field Quality Control Samples
Equipment Rinsate Blank Samples
SVOCs

STATION	KRY558	KRY608	KRY612	KRY636	KRY660	KRY662	NTL-MW-4
SAMPLE	KRY558QE001	KRY608QE001	KRY612QE001	KRY636QE001	KRY660QE001	KRY662QE001	KRYNTLMW4QE001
COLLECTIONDATE	5/31/2006	5/25/2006	4/21/2006	5/9/2006	5/23/2006	5/16/2006	6/29/2006
SAMPLETYPE	QC	QC	QC	QC	QC	QC	QC
LABUNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1-METHYLNAPHTHALENE	10	10	10	10	10	10	10
2,4,5-TRICHLOROPHENOL	10	10	10	10	10	10	10
2,4,6-TRICHLOROPHENOL	10	10	10	10	10	10	10
2,4-DICHLOROPHENOL	10	10	10	10	10	10	10
2,4-DIMETHYLPHENOL	10	10	10	10	10	10	10
2,4-DINITROPHENOL	50	50	50	50	50	50	50
2,4-DINITROTOLUENE	10	10	10	10	10	10	10
2,6-DINITROTOLUENE	10	10	10	10	10	10	10
2-CHLORONAPHTHALENE	10	10	10	10	10	10	10
2-CHLOROPHENOL	10	10	10	10	10	10	10
2-METHYLNAPHTHALENE	10	10	10	10	10	10	10
2-METHYLPHENOL	10	10	10	10	10	10	10
2-NITROANILINE	10	10	10	10	10	10	10
2-NITROPHENOL	5	5	5	5	5	5	5
3-NITROANILINE	10	10	10	10	10	10	10
6-DINITRO-2-METHYLPHENOL	50	50	50	50	50	50	50
4-CHLORO-3-METHYLPHENOL	10	10	10	10	10	10	10
4-CHLOROANILINE	10	10	10	10	10	10	10
4-NITROANILINE	10	10	10	10	10	10	10
4-NITROPHENOL	50	50	50	50	50	50	50
ACENAPHTHENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(A)ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(A)PYRENE	0.16	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(B)FLUORANTHENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZO(G,H,I)PERYLENE	10	10	10	10	10	10	10
BENZO(K)FLUORANTHENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BENZOIC ACID	10	10	10	10	10	10	10
BENZYL ALCOHOL	10	10	10	10	10	10	10
2-CHLOROETHOXY)METHANE	10	10	10	10	10	10	10
BIS(2-CHLOROETHYL)ETHER	10	10	10	10	10	10	10
-CHLOROISOPROPYL)ETHER	10	10	10	10	10	10	10
S(2-ETHYLHEXYL)PHTHALATE	6	6	6	6	6	6	6
CHRYSENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DIBENZO(A,H)ANTHRACENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DIBENZOFURAN	10	10	10	10	10	10	10
DI-N-BUTYLPHTHALATE	10	10	10	10	10	10	10
DI-N-OCTYLPHTHALATE	10	10	10	10	10	10	10
FLUORANTHENE	10	10	10	10	10	10	10
FLUORENE	0.1	0.1	0.1	0.1	1	0.1	0.1
HEXACHLOROBENZENE	10	10	10	10	10	10	10
CHLOROCYCLOPENTADIENE	10	10	10	10	10	10	10
HEXACHLOROETHANE	10	10	10	10	10	10	10
INDENO(1,2,3-CD)PYRENE	10	10	10	10	10	10	10
ISOPHORONE	10	10	10	10	10	10	10
NITROSODI-N-PROPYLAMINE	10	10	10	10	10	10	10
N-NITROSODIPHENYLAMINE	10	10	10	10	10	10	10
PENTACHLOROPHENOL	0.1	0.1	0.1	0.83	0.78	4.7	0.1
PHENANTHRENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PHENOL	10	10	10	10	10	10	10
PYRENE	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Appendix G - 2006 Field Quality Control Samples
Equipment Rinsate Blank Samples
Other

STATION	GWRR-4	GWY-10	KRY111A	KRY111A	KRY121B	KRY122A	KRY125A	KRY130B	KRY130B	KRY200	KRY403	KRY410	KRY430
SAMPLE	KRYGWRR4QE001	KRYGWY10QE001	KRY111AQE001	KRY111AQE001	KRY121BQE001	KRY122AQE001	KRY125AQE001	KRY130QE001	KRY130QE001	KRY200QE001	KRY403QE001	KRY410QE001	KRY430QE001
COLLECTIONDATE	6/29/2006	7/7/2006	6/16/2006	6/16/2006	6/28/2006	6/26/2006	6/26/2006	4/27/2006	4/27/2006	7/14/2006	4/26/2006	4/24/2006	5/11/2006
SAMPLETYPE	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC
LABUNITS	ug/L	pg/L	pg/L	ug/L	ug/L	ug/L	ug/L	pg/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,3,4,6,7,8-HPCDD		19	8.8					1.5					
1,2,3,4,6,7,8-HPCDF		3	2.1					1.2					
1,2,3,4,7,8,9-HPCDF		6	3.3					1.4					
1,2,3,4,7,8-HXCDD		15	3.1					1.6					
1,2,3,4,7,8-HXCDF		3.9	1.4					0.87					
1,2,3,6,7,8-HXCDD		12	3.6					1.7					
1,2,3,6,7,8-HXCDF		3.5	1.2					1					
1,2,3,7,8,9-HXCDD		14	3.4					1.8					
1,2,3,7,8,9-HXCDF		2.7	2.1					1.5					
1,2,3,7,8-PECDD		9.3	3.7					1.3					
1,2,3,7,8-PECDF		13	5.7					1.5					
1,2,4-TRICHLOROBENZENE	10			10	10	10	10		10	10	10	10	10
1,4-DICHLOROBENZENE	10			10	10	10	10		10	10	10	10	10
2,3,4,6,7,8-HXCDF		2.4	1.2					1.8					
2,3,4,7,8-PECDF		7.2	3.7					0.91					
2,3,7,8-TCDD		4.7	3.2					1.5					
2,3,7,8-TCDF		4.4	2.3					0.76					
BIPHENYL	10			10	10	10	10		10	10	10	10	10
CARBAZOLE	10			10	10	10	10		10	10	10	10	10
HEXACHLOROBUTADIENE	10			10	10	10	10		10	10	10	10	10
NAPHTHALENE	1			1	1	1	1		1	1	1	1	1
NITROBENZENE	10			10	10	10	10		10	10	10	10	10
L EXTRACTABLE HYDROCARBONS													

Appendix G - 2006 Field Quality Control Samples
Equipment Rinsate Blank Samples
Other

STATION	KRY440	KRY440	KRY475	KRY507	KRY558	KRY558	KRY608	KRY612	KRY612	KRY636	KRY636	KRY636	KRY660	KRY662
SAMPLE	KRY440QE001	KRY440QE001	KRY475QE001	KRY507QE001	KRY558QE001	KRY558QE001	KRY608QE001	KRY612QE001	KRY612QE001	KRY636QE001	KRY636QE001	KRY636QE001	KRY660QE001	KRY662QE001
COLLECTIONDATE	5/3/2006	5/3/2006	5/17/2006	5/15/2006	5/31/2006	5/31/2006	5/25/2006	4/21/2006	4/21/2006	5/9/2006	5/9/2006	5/9/2006	5/23/2006	5/16/2006
SAMPLETYPE	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC
LABUNITS	pg/L	ug/L	ug/L	ug/L	pg/L	ug/L	ug/L	pg/L	ug/L	mg/L	pg/L	ug/L	ug/L	ug/L
1,2,3,4,6,7,8-HPCDD	8.4				3.3			4.9			120			
1,2,3,4,6,7,8-HPCDF	6.7				0.76			1.2			15			
1,2,3,4,7,8,9-HPCDF	9.5				0.74			1.1			10			
1,2,3,4,7,8-HXCDD	8.3				0.74			0.71			4			
1,2,3,4,7,8-HXCDF	3.8				1			1.3			2.4			
1,2,3,6,7,8-HXCDD	6.8				0.37			0.91			2.5			
1,2,3,6,7,8-HXCDF	3.8				0.27			0.35			2.5			
1,2,3,7,8,9-HXCDD	4.8				0.28			0.83			4.5			
1,2,3,7,8,9-HXCDF	4.5				0.43			0.52			3			
1,2,3,7,8-PECDD	8.9				0.43			2.4			3.2			
1,2,3,7,8-PECDF	9.3				0.39			0.86			4.8			
1,2,4-TRICHLOROBENZENE		10	10	10		10	10		10			10	10	10
1,4-DICHLOROBENZENE		10	10	10		10	10		10			10	10	10
2,3,4,6,7,8-HXCDF	2.7				0.29			0.4			1.8			
2,3,4,7,8-PECDF	5.3				0.35			0.83			2.7			
2,3,7,8-TCDD	11				0.63			1.2			3.4			
2,3,7,8-TCDF	5.1				0.43			0.99			2.7			
BIPHENYL		10	10	10		10	10		10			10	10	10
CARBAZOLE		10	10	10		10	10		10			10	10	10
HEXACHLOROBUTADIENE		10	10	10		10	10		10			10	10	10
NAPHTHALENE		1	1	1		1	1		1			1	1	1
NITROBENZENE		10	10	10		10	10		10			10	10	10
L EXTRACTABLE HYDROCARBONS										0.32				

Appendix G - 2006 Field Quality Control Samples
Equipment Rinsate Blank Samples
Other

STATION	NTL-MW-4
SAMPLE	KRYNTLMW4QE001
COLLECTIONDATE	6/29/2006
SAMPLETYPE	QC
LABUNITS	ug/L
1,2,3,4,6,7,8-HPCDD	
1,2,3,4,6,7,8-HPCDF	
1,2,3,4,7,8,9-HPCDF	
1,2,3,4,7,8-HXCDD	
1,2,3,4,7,8-HXCDF	
1,2,3,6,7,8-HXCDD	
1,2,3,6,7,8-HXCDF	
1,2,3,7,8,9-HXCDD	
1,2,3,7,8,9-HXCDF	
1,2,3,7,8-PECDD	
1,2,3,7,8-PECDF	
1,2,4-TRICHLOROBENZENE	10
1,4-DICHLOROBENZENE	10
2,3,4,6,7,8-HXCDF	
2,3,4,7,8-PECDF	
2,3,7,8-TCDD	
2,3,7,8-TCDF	
BIPHENYL	10
CARBAZOLE	10
HEXACHLOROBUTADIENE	10
NAPHTHALENE	1
NITROBENZENE	10
L EXTRACTABLE HYDROCARBONS	

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	KRY100A	KRY101A	KRY101B	KRY102A	KRY102A	KRY102B	KRY103A	KRY103B
Sample Identification	**KRY100AGW001**	**KRY101AGW001**	**KRY101BGW001**	**KRY102AGW001**	**KRY102AGW701**	**KRY102BGW001**	**KRY103AGW001**	**KRY103BGW001**
Sample Collection Date	**6/15/2006**	**6/14/2006**	**6/15/2006**	**6/13/2006**	**6/13/2006**	**6/13/2006**	**6/15/2006**	**6/15/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**
Duplicate of					**KRY102AGW001**			
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA	NA	NA
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	320 U	310 U	300 U	320 U	300 U	300 U	300 U	300 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	KRY104A	KRY105A	KRY106A	KRY106B	KRY107A	KRY107B	KRY108A	KRY109A
Sample Identification	**KRY104AGW001**	**KRY105AGW001**	**KRY106AGW001**	**KRY106BGW001**	**KRY107AGW001**	**KRY107BGW001**	**KRY108AGW001**	**KRY109AGW001**
Sample Collection Date	**6/14/2006**	**6/15/2006**	**6/15/2006**	**6/15/2006**	**6/16/2006**	**6/16/2006**	**6/22/2006**	**6/16/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA	NA	NA
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.76	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	300 U	300 U	310 U	300 U	300 U	300 U	320 U	310 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	KRY110A	KRY110B	KRY111A	KRY111B	KRY112A	KRY112B	KRY113A	KRY113B
Sample Identification	**KRY110AGW001**	**KRY110BGW001**	**KRY111AGW001**	**KRY111BGW001**	**KRY112AGW001**	**KRY112BGW001**	**KRY113AGW001**	**KRY113BGW001**
Sample Collection Date	**6/15/2006**	**6/16/2006**	**6/16/2006**	**6/16/2006**	**6/14/2006**	**6/14/2006**	**6/22/2006**	**6/22/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	NA	1800	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	NA	300 U	NA	NA	NA	NA	NA
C9-C18 Aliphatics	NA	NA	350	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	NA	NA	2300	NA	NA	NA	NA	NA
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	25	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	20 U	20 U	143	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	20 U	20 U	79	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	20 U	20 U	599	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1	1 U	1 U	1 U	1 U	1 U
Naphthalene	1 U	1 U	16	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	2.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.86	0.5 U	0.5 U	0.5 U	0.5 U	0.68
Xylenes (Total)	0.5 U	0.5 U	3.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	300 U	300 U	8500	310 U	300 U	300 U	300 U	300 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	KRY114A	KRY114B	KRY115A	KRY115B	KRY116A	KRY116B	KRY118A	KRY118B
Sample Identification	**KRY114AGW001**	**KRY114BGW001**	**KRY115AGW001**	**KRY115BGW001**	**KRY116AGW001**	**KRY116BGW001**	**KRY118AGW001**	**KRY118BGW001**
Sample Collection Date	**6/29/2006**	**7/5/2006**	**6/13/2006**	**6/13/2006**	**6/14/2006**	**6/14/2006**	**7/5/2006**	**7/5/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	1300	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	310 U	NA	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	380	NA	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	1900	NA	NA	NA	NA	NA	NA	NA
MADEP VPH								
C5-C8 Aliphatics	26	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	136	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	74	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	459	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	5.9	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-Xylene	1.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	1.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	6600	310 U	320 U	310 U	300 U	300 U	320 U	300 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	KRY121A	KRY121A	KRY121B	KRY122A	KRY122B	KRY123A	KRY125A	KRY125B
Sample Identification	**KRY121AGW001**	**KRY121AGW701**	**KRY121BGW001**	**KRY122AGW001**	**KRY122BGW001**	**KRY123AGW001**	**KRY125AGW001**	**KRY125BGW001**
Sample Collection Date	**6/20/2006**	**6/20/2006**	**6/28/2006**	**6/26/2006**	**6/28/2006**	**6/21/2006**	**6/26/2006**	**6/26/2006**
Sample Type	**GW**	**DU**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of		**KRY121AGW001**						
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	310 U	310 U	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	310 U	310 U	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	310 U	310 U	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	310 U	310 U	NA	NA	NA	NA	NA	NA
MADEP VPH								
C5-C8 Aliphatics	32	28	20 U	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	68	61	20 U	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	43	35	20 U	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	139	117	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	1.2	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 UJ
Naphthalene	2.2	1.9	1 U	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	1.2	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	1200	1100	310 U	300 U	310 U	310 U	320 U	300 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	KRY126A	KRY127A	KRY128A	KRY128B	KRY129A	KRY129B	KRY130A	KRY130B
Sample Identification	**KRY126AGW001**	**KRY127AGW001**	**KRY128AGW001**	**KRY128BGW001**	**KRY129AGW001**	**KRY129BGW001**	**KRY130AGW001**	**KRY130BGW001**
Sample Collection Date	**6/21/2006**	**6/21/2006**	**6/27/2006**	**6/28/2006**	**6/27/2006**	**6/21/2006**	**6/20/2006**	**6/22/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA	NA	NA
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.72	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	310 U	320 U	300 U	330 U	310 U	310 U	320 U	300 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	**KRY139A**	**KRY139B**	**CLCW-1**	**GW-1**	**GW-5**	**GWRM-1**	**GWRM-2**	**GWRR-1**
Sample Identification	**KRY139AGW001**	**KRY139BGW001**	**KRYCLCW1GW00**	**KRYGW1GW001**	**KRYGW5GW001**	**KRYGWRM1GW00**	**KRYGWRM2GW00**	**KRYGWRR1GW00**
Sample Collection Date	**6/27/2006**	**6/27/2006**	**7/6/2006**	**6/22/2006**	**6/27/2006**	**7/6/2006**	**7/6/2006**	**6/29/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	310 U	NA	310 U	NA	NA	320 U	310 U	310 U
C19-C36 Aliphatics	310 U	NA	310 U	NA	NA	320 U	310 U	310 U
C9-C18 Aliphatics	310 U	NA	310 U	NA	NA	320 U	310 U	310 U
Total Extractable Hydrocarbons	310 U	NA	310 U	NA	NA	620	**220 J**	310 U
MADEP VPH								
C5-C8 Aliphatics	23	20 U	20 U	20 U	20 U	436	20 U	65
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U	547	38	63
C9-C12 Aliphatics	**19 J**	20 U	20 U	20 U	20 U	474	33	40
Total Purgeable Hydrocarbons	41	20 U	20 U	20 U	20 U	1150	91	153
Benzene	**0.43 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	15	0.55	3.9
Methyl Tert-Butyl Ether	1 UJ	1 UJ	1 U	1 U	1 UJ	**0.75 J**	1 U	1 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	3.3	1 U	1.7
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.82	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	15	0.55	3.9
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	940	320 U	340	300 U	300 U	710	1900	3200

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	GWRR-2	GWRR-3	GWRR-4	GWRR-5	GWRR-6	GWRR-7	GWRR-8	GWRR-9
Sample Identification	**KRYGWRR2GW00**	**KRYGWRR3GW00**	**KRYGWRR4GW00**	**KRYGWRR5GW00**	**KRYGWRR6GW00**	**KRYGWRR7GW00**	**KRYGWRR8GW00**	**KRYGWRR9GW00**
Sample Collection Date	**7/5/2006**	**7/6/2006**	**6/29/2006**	**7/5/2006**	**7/6/2006**	**7/6/2006**	**6/29/2006**	**7/6/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	300 U	300 U	NA	NA	310 U	300 U	NA	300 U
C19-C36 Aliphatics	300 U	300 U	NA	NA	310 U	300 U	NA	300 U
C9-C18 Aliphatics	300 U	300 U	NA	NA	310 U	300 U	NA	300 U
Total Extractable Hydrocarbons	250 J	300 U	NA	NA	310 U	300 U	NA	550
MADEP VPH								
C5-C8 Aliphatics	57	24	20 U	20 U	20 U	**43 J**	20 U	151
C9-C10 Aromatics	235	100	20 U	20 U	20 U	**336 J**	20 U	776
C9-C12 Aliphatics	154	53	20 U	20	20 U	**256 J**	20 U	937
Total Purgeable Hydrocarbons	383	162	20 U	34	20 U	**562 J**	20 U	1460
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
Ethylbenzene	1.3	0.5 U	0.5 U	0.5 U	0.5 U	**7.1 J**	0.5 U	9.8
M+P-Xylenes	8	0.92	0.5 U	0.61	0.5 U	**4.2 J**	0.5 U	38
Methyl Tert-Butyl Ether	1	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
Naphthalene	2.8	1 U	1 U	1 U	1 U	**2.5 J**	1 U	3.4
O-Xylene	0.85	0.74	0.5 U	0.5 U	0.5 U	**2.3 J**	0.5 U	3
Toluene	0.5	0.5 U	0.5 U	0.5 U	0.5 U	**0.6 J**	0.5 U	3.9
Xylenes (Total)	8.8	1.7	0.5 U	0.61	0.5 U	**6.4 J**	0.5 U	41
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	1000	12000	310 U	310 U	2800	24000	300 U	3600

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	GWY-10	GWY-12	GWY-13	GWY-14	GWY-3	GWY-4	IW1	IW2
Sample Identification	**KRYGWY10GW00**	**KRYGWY12GW00**	**KRYGWY13GW00**	**KRYGWY14GW00**	**KRYGWY3GW001**	**KRYGWY4GW001**	**KRYIW1GW001**	**KRYIW2GW001**
Sample Collection Date	**7/6/2006**	**7/7/2006**	**7/6/2006**	**7/6/2006**	**7/6/2006**	**7/6/2006**	**6/21/2006**	**6/21/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	330 U	310 U	NA	NA	300 U	300 U	NA
C19-C36 Aliphatics	NA	330 U	150 U	NA	NA	300 U	550	NA
C9-C18 Aliphatics	NA	330 U	150 U	NA	NA	300 U	300 U	NA
Total Extractable Hydrocarbons	NA	330 U	310 U	NA	NA	300 U	570	NA
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	20 U	24	23	20 U	20 U	35	20 U	20 U
C9-C12 Aliphatics	20 U	12	**13 J**	20 U	20 U	21	20 U	20 U
Total Purgeable Hydrocarbons	20 U	48	52	20 U	20 U	78	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	310 U	870	1100	300 U	300 U	2900	730	300 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	IW4	IW5	IW6	IW7	IW8	KPT-10	KPT-11	KPT-12
Sample Identification	**KRYIW4GW001**	**KRYIW5GW001**	**KRYIW6GW001**	**KRYIW7GW001**	**KRYIW8GW001**	**KRYKPT10GW001**	**KRYKPT11GW001**	**KRYKPT12GW001**
Sample Collection Date	**6/22/2006**	**6/21/2006**	**6/21/2006**	**6/22/2006**	**6/22/2006**	**6/27/2006**	**6/28/2006**	**6/23/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA	NA	NA
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	KPT-13	KPT-14	KPT-15	KPT-16	KPT-16	KPT-17	KPT-18	KPT-19
Sample Identification	**KRYKPT13GW001**	**KRYKPT14GW001**	**KRYKPT15GW001**	**KRYKPT16GW001**	**KRYKPT16GW701**	**KRYKPT17GW001**	**KRYKPT18GW001**	**KRYKPT19GW001**
Sample Collection Date	**6/28/2006**	**6/27/2006**	**6/28/2006**	**6/23/2006**	**6/23/2006**	**6/29/2006**	**6/28/2006**	**6/27/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**
Duplicate of					**KRYKPT16GW001**			
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	NA	NA	NA	NA	300 U	310 U	670
C19-C36 Aliphatics	NA	NA	NA	NA	NA	300 U	310 U	310 U
C9-C18 Aliphatics	NA	NA	NA	NA	NA	300 U	310 U	310 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	**280 J**	490	690
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	**46 J**	21	20 U
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U	**219 J**	74	68
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	20 U	**175 J**	48	35
Total Purgeable Hydrocarbons	20 U	20 U	20 U	20 U	20 U	**412 J**	124	253
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	1.5	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.96 J**	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.4 J**	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 UJ	1 UJ	1 U	1 U	**1 UJ**	1 U	1 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	**2.2 J**	**0.9 J**	3.4
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.94 J**	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**3.4 J**	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	300 U	300 U	300 U	310 U	320 U	23000	10000	1900

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	KPT-1	KPT-20	KPT-20	KPT-21	KPT-22	KPT-2	KPT-3	KPT-4
Sample Identification	**KRYKPT1GW001**	**KRYKPT20GW001**	**KRYKPT20GW701**	**KRYKPT21GW001**	**KRYKPT22GW001**	**KRYKPT2GW001**	**KRYKPT3GW001**	**KRYKPT4GW001**
Sample Collection Date	**6/22/2006**	**6/28/2006**	**6/28/2006**	**6/28/2006**	**6/28/2006**	**6/28/2006**	**6/28/2006**	**6/28/2006**
Sample Type	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of			**KRYKPT20GW001**					
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	350	**270 J**	710	NA	2200	300 U	300 U
C19-C36 Aliphatics	NA	310 U	310 U	300 U	NA	300 U	300 U	300 U
C9-C18 Aliphatics	NA	310 U	310 U	300 U	NA	300 U	300 U	300 U
Total Extractable Hydrocarbons	NA	360	**280 J**	760	NA	3000	300 U	300 U
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	31	20 U	20 U
C9-C10 Aromatics	20 U	33	25	138	20 U	278	37	23
C9-C12 Aliphatics	20 U	11	**12 J**	76	20 U	260	**16 J**	**11 J**
Total Purgeable Hydrocarbons	20 U	189	125	510	20 U	836	110	76
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.3	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1	1 U	1	1	1 U
Naphthalene	1 U	1.7	1.4	18	1 U	35	3.1	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	1.5	0.5 U	9.6	0.65	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.4	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	1.5	0.5 U	18	0.65	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	310 U	3400	2800	2700	300 U	4400	770	2000

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	**KPT-5**	**KPT-6**	**KPT-7**	**KPT-8**	**KPT-9**	**NTL-MW-4**	**PW-1**	**PW-3**
Sample Identification	**KRYKPT5GW001**	**KRYKPT6GW001**	**KRYKPT7GW001**	**KRYKPT8GW001**	**KRYKPT9GW001**	**RYNTLMW4GW0**	**KRYPW1GW001**	**KRYPW3GW001**
Sample Collection Date	**6/23/2006**	**6/23/2006**	**6/23/2006**	**6/23/2006**	**6/28/2006**	**6/29/2006**	**7/7/2006**	**6/29/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	NA	NA	NA	NA	NA	400	NA
C19-C36 Aliphatics	NA	NA	NA	NA	NA	NA	310 U	NA
C9-C18 Aliphatics	NA	NA	NA	NA	NA	NA	310 U	NA
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA	3500	NA
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	1580	**8550 J**	49
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U	66	**5360 J**	62
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	20 U	46	**4420 J**	31
Total Purgeable Hydrocarbons	20 U	20 U	26	20 U	20 U	1950	**20000 J**	134
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	646	**43 J**	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	29	**1010 J**	5.5
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	39	**3530 J**	21
Methyl Tert-Butyl Ether	1 U	1 UJ	1 U	1 U	1 UJ	1 U	20 UJ	1
Naphthalene	1 U	1 U	1 U	1 U	1 U	4.7	**178 J**	1.5
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4	**945 J**	4
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	63	**1070 J**	1.2
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	41	**4480 J**	25
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	320 U	300 U	300 U	300 U	300 U	310 U	11000	300 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	PWS-1	PWS-2	RW-10	RW-11	RW-11	RW-12	RW-13	RW-1
Sample Identification	**KRYPWS1GW001**	**KRYPWS2GW001**	**KRYRW10GW001**	**KRYRW11GW001**	**KRYRW11GW701**	**KRYRW12GW001**	**KRYRW13GW001**	**KRYRW1GW001**
Sample Collection Date	**6/27/2006**	**6/27/2006**	**7/6/2006**	**6/28/2006**	**6/28/2006**	**6/28/2006**	**7/7/2006**	**6/28/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**DU**	**GW**	**GW**	**GW**
Duplicate of					**KRYRW11GW001**			
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH								
C11-C22 Aromatics	NA	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	NA	NA	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA	NA	NA
MADEP VPH								
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbon Screen								
Total Extractable Hydrocarbons - Screen	310 U	310 U	310 U	310 U	320 U	310 U	310 U	310 U

Appendix G - 2006 Groundwater Data
EPH and VPH

Sample Station	RW-6	RW-8	RW-9A	RW-9	SW-9	SW-9
Sample Identification	**KRYRW6GW 001**	**KRYRW8GW001**	**KRYRW9AGW001**	**KRYRW9GW001**	**KRYSW9GW001**	**KRYSW9GW701**
Sample Collection Date	**6/29/2006**	**6/28/2006**	**6/27/2006**	**6/23/2006**	**6/29/2006**	**6/29/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**DU**
Duplicate of						**KRYSW9 GW001**
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MADEP EPH						
C11-C22 Aromatics	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
MADEP VPH						
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	220	222
C9-C10 Aromatics	20 U	20 U	20 U	20 U	236	245
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	137	127
Total Purgeable Hydrocarbons	20 U	20 U	20 U	20 U	488	490
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	10	10
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	15	16
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	6.5	6.8
Methyl Tert-Butyl Ether	1 U	1 U	1 UJ	1 UJ	1	1
Naphthalene	1 U	1 U	1 U	1 U	2.2	2.6
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	2.3	2.5
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	1.7	1.8
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	8.9	9.3
Petroleum Hydrocarbon Screen						
Total Extractable Hydrocarbons - Screen	300 U	320 U	300 U	300 U	310 U	310 U

Appendix G - 2006 Groundwater Data
EPH and VPH Notes

Notes:

EPH = Extractable petroleum hydrocarbons
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
MDEP = Massachusetts Department of Environmental Protection
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.
VPH = Volatile petroleum hydrocarbons

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KRY100A	KRY101A	KRY101B	KRY102A	KRY102A	KRY102B	KRY103A	KRY103B	KRY104A
Sample Identification	KRY100AGW001	KRY101AGW001	KRY101BGW001	KRY102AGW001	KRY102AGW701	KRY102BGW001	KRY103AGW001	KRY103BGW001	KRY104AGW001
Sample Collection Date	6/15/2006	6/14/2006	6/15/2006	6/13/2006	6/13/2006	6/13/2006	6/15/2006	6/15/2006	6/14/2006
Sample Type	GW	GW	GW	GW	DU	GW	GW	GW	GW
Duplicate of					KRY102AGW001				
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 U	20 UJ	20 UJ	20 UJ	20 U	20 U	20 UJ
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	**1 J**	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.56
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KRY105A	KRY106A	KRY106B	KRY107A	KRY107B	KRY108A	KRY109A	KRY110A	KRY110B
Sample Identification	KRY105AGW001	KRY106AGW001	KRY106BGW001	KRY107AGW001	KRY107BGW001	KRY108AGW001	KRY109AGW001	KRY110AGW001	KRY110BGW001
Sample Collection Date	6/15/2006	6/15/2006	6/15/2006	6/16/2006	6/16/2006	6/22/2006	6/16/2006	6/15/2006	6/16/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KRY111A	KRY111B	KRY112A	KRY112B	KRY113A	KRY113B	KRY114A	KRY114B	KRY115A
Sample Identification	KRY111AGW001	KRY111BGW001	KRY112AGW001	KRY112BGW001	KRY113AGW001	KRY113BGW001	KRY114AGW001	KRY114BGW001	KRY115AGW001
Sample Collection Date	6/16/2006	6/16/2006	6/14/2006	6/14/2006	6/22/2006	6/22/2006	6/29/2006	7/5/2006	6/13/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	2.9	1 U	1 UJ	1 UJ	1 U	1 U	**0.88 J**	1 U	1 UJ
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1.3	1 U	1 UJ	1 UJ	1 U	1 U	**0.58 J**	1 U	1 UJ
2-Butanone	**9.2 J**	10 U	10 U	10 U	10 U	10 U	13	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	**0.58 J**	1 U	1 U	1 U	1 U	1 U	**0.52 J**	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	38	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 UJ	20 UJ	20 UJ	20 UJ	20 U	20 U	20 UJ
Benzene	**0.37 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylenes	0.76	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.21 J**	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	17	1 U	1 U	1 U	1 U	1 U	5.2	1 U	1 U
n-Butylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.5	0.5 U	0.5 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	1.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 UJ
Tetrachloroethene	1 U	**0.19 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.66	0.5 U	0.5 U	0.5 U	0.5 U	0.65	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	2.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.3	0.5 U	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KRY115B	KRY116A	KRY116B	KRY118A	KRY118B	KRY121A	KRY121A	KRY121B	KRY122A
Sample Identification	KRY115BGW001	KRY116AGW001	KRY116BGW001	KRY118AGW001	KRY118BGW001	KRY121AGW001	KRY121AGW701	KRY121BGW001	KRY122AGW001
Sample Collection Date	6/13/2006	6/14/2006	6/14/2006	7/5/2006	7/5/2006	6/20/2006	6/20/2006	6/28/2006	6/26/2006
Sample Type	GW	GW	GW	GW	GW	GW	DU	GW	GW
Duplicate of							KRY121AGW001		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 UJ	1 UJ	1 U	1 U	1 U	**0.48 J**	**0.44 J**	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 UJ	1 UJ	1 U	1 U	1 U	1 U	**0.39 J**	1 U	1 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	**0.23 J**	**0.51 J**	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 UJ	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.11 J**	0.5 U	0.5 U	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	**0.6 J**	**0.59 J**	1 U	1 U
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.4	3.1	0.5 U	0.5 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	**0.39 J**	**0.37 J**	1 U	1 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.72	0.71	0.5 U	0.5 U
Styrene	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.4 J**
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KRY122B	KRY123A	KRY125A	KRY125B	KRY126A	KRY127A	KRY128A	KRY128B	KRY129A
Sample Identification	KRY122BGW001	KRY123AGW001	KRY125AGW001	KRY125BGW001	KRY126AGW001	KRY127AGW001	KRY128AGW001	KRY128BGW001	KRY129AGW001
Sample Collection Date	6/28/2006	6/21/2006	6/26/2006	6/26/2006	6/21/2006	6/21/2006	6/27/2006	6/28/2006	6/27/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	**0.24 J**	**0.28 J**	0.5 U	0.5 U	0.5 U	**0.38 J**	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KRY129B	KRY130A	KRY130B	KRY139A	KRY139B	CLCW-1	GW-1	GW-5	GWRM-1
Sample Identification	KRY129BGW001	KRY130AGW001	KRY130BGW001	KRY139AGW001	KRY139BGW001	KRYCLCW1GW001	KRYGW1GW001	KRYGW5GW001	KRYGWRM1GW001
Sample Collection Date	6/21/2006	6/20/2006	6/22/2006	6/27/2006	6/27/2006	7/6/2006	6/22/2006	6/27/2006	7/6/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	88
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	32
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	6.7
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	**0.44 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.93
Isopropylbenzene	1 U	1 U	1 U	**0.26 J**	1 U	1 U	1 U	1 U	13
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.1
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	31
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	23
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.76	0.5 U	**0.21 J**	0.5 U	**0.4 J**	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.1

Appendix G - 2006 Groundwater Data
VOC

Sample Station	GWRM-2	GWRR-1	GWRR-2	GWRR-3	GWRR-4	GWRR-5	GWRR-6	GWRR-7
Sample Identification	**KRYGWRM2GW002**	**KRYGWRR1GW001**	**KRYGWRR2GW001**	**KRYGWRR3GW001**	**KRYGWRR4GW001**	**KRYGWRR5GW001**	**KRYGWRR6GW001**	**KRYGWRR7GW001**
Sample Collection Date	**7/6/2006**	**6/29/2006**	**7/5/2006**	**7/6/2006**	**6/29/2006**	**7/5/2006**	**7/6/2006**	**7/6/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	7.7	13	1 U	1 U	**0.85 J**	1 U	32
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1.8	9.4	1 U	1 U	1 U	1 U	1.6
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	**0.33 J**	1.8	**0.33 J**	1 U	1 U	1 U	1.4
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	**13 J**	20 U	20 U	20 U	**15 J**
Acrolein	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.42 J**
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.66	0.5 U	0.5 U	0.5 U	0.5 U	6
Isopropylbenzene	1 U	2.1	1.7	1.8	1 U	**0.28 J**	1 U	4.5
m+p-Xylenes	0.5 U	1.9	4.6	0.5 U	0.5 U	**0.48 J**	0.5 U	0.97
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1.1	1 U	1 U	1 U	1 U	1 U	1.1
n-Butylbenzene	0.5 U	0.97	13	1.6	0.5 U	**0.37 J**	0.5 U	7.7
n-Propylbenzene	1 U	1.5	2.5	**0.37 J**	1 U	**0.17 J**	1 U	6.6
o-Xylene	0.5 U	0.5 U	**0.3 J**	**0.38 J**	0.5 U	0.5 U	0.5 U	1
Sec-Butylbenzene	0.5 U	0.75	1.7	0.6	0.5 U	0.5 U	0.5 U	1.8
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	**0.41 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.22 J**
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	1.9	4.9	**0.38 J**	0.5 U	**0.48 J**	0.5 U	2

Appendix G - 2006 Groundwater Data
VOC

Sample Station	GWRR-8	GWRR-9	GWY-10	GWY-12	GWY-13	GWY-14	GWY-3	GWY-4
Sample Identification	KRYGWRR8GW001	KRYGWRR9GW001	KRYGWY10GW001	KRYGWY12GW001	KRYGWY13GW001	KRYGWY14GW001	KRYGWY3GW001	KRYGWY4GW001
Sample Collection Date	6/29/2006	7/6/2006	7/6/2006	7/7/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	128	1 U	1 U	1 U	1 U	1 U	**0.23 J**
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	45	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	7.4	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	7.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	1 U	17	1 U	**0.98 J**	**0.39 J**	1 U	1 U	**0.24 J**
m+p-Xylenes	0.5 U	26	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	**0.45 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	2.8	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	0.5 U	42	0.5 U	0.5 U	**0.24 J**	0.5 U	0.5 U	0.5 U
n-Propylbenzene	1 U	30	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	0.5 U	1.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	5.8	0.5 U	0.66	**0.48 J**	0.5 U	0.5 U	0.66 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	2.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	IW1	IW2	IW4	IW5	IW6	IW7	IW8	KPT-10	KPT-11
Sample Identification	KRYIW1GW001	KRYIW2GW001	KRYIW4GW001	KRYIW5GW001	KRYIW6GW001	KRYIW7GW001	KRYIW8GW001	KRYKPT10GW001	KRYKPT11GW001
Sample Collection Date	6/21/2006	6/21/2006	6/22/2006	6/21/2006	6/21/2006	6/22/2006	6/22/2006	6/27/2006	6/28/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of									
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KPT-12	KPT-13	KPT-14	KPT-15	KPT-16	KPT-16	KPT-17	KPT-18
Sample Identification	KRYKPT12GW001	KRYKPT13GW001	KRYKPT14GW001	KRYKPT15GW001	KRYKPT16GW001	KRYKPT16GW701	KRYKPT17GW001	KRYKPT18GW001
Sample Collection Date	6/23/2006	6/28/2006	6/27/2006	6/28/2006	6/23/2006	6/23/2006	6/29/2006	6/28/2006
Sample Type	GW	GW	GW	GW	GW	DU	GW	GW
Duplicate of						KRYKPT16GW001		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	4.6	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.92 J**
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	11	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	**0.45 J**	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	**19 J**	**8.6 J**
Acrolein	20 UJ	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	1.6
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.55	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	0.87	**0.43 J**
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.38 J**	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.1	0.5 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1.5	1 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.33 J**	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.87	**0.31 J**
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	0.5 U	**0.27 J**	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.71	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KPT-19	KPT-1	KPT-20	KPT-20	KPT-21	KPT-22	KPT-2	KPT-3
Sample Identification	KRYKPT19GW001	KRYKPT1GW001	KRYKPT20GW001	KRYKPT20GW701	KRYKPT21GW001	KRYKPT22GW001	KRYKPT2GW001	KRYKPT3GW001
Sample Collection Date	6/27/2006	6/22/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type	GW	GW	GW	DU	GW	GW	GW	GW
Duplicate of				KRYKPT20GW001				
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	**0.39 J**	1 U	1 U	1 U	1.8	1 U	17	**0.71 J**
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	**0.33 J**	1 U	**0.19 J**	1 U	1.8	1 U	4.5	1 U
2-Butanone	10 U	10 U	11	11	10 U	10 U	8.3	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	**0.37 J**	1 U	**0.11 J**	1 U	1 U	1 U	2.5	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	**13 J**	20 U
Acrolein	20 U	20 U	20 U	20 UJ	20 UJ	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	**1 J**	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.9	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1.6	1 U
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	**0.33 J**	0.5 U	6.8	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	2.2	1 U	**0.66 J**	**0.67 J**	18	1 U	48	2.9
n-Butylbenzene	2.6	0.5 U	1.3	1	4.6	0.5 U	13	0.58
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	2.2	1 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	1.1	0.5 U	8	0.56
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	0.5 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	1.5	0.5 U	15	0.56

Appendix G - 2006 Groundwater Data
VOC

Sample Station	KPT-4	KPT-5	KPT-6	KPT-7	KPT-8	KPT-9	NTL-MW-4	PW-1
Sample Identification	**KRYKPT4GW001**	**KRYKPT5GW001**	**KRYKPT6GW001**	**KRYKPT7GW001**	**KRYKPT8GW001**	**KRYKPT9GW001**	**RYNTLMW4GW0**	**KRYPW1GW001**
Sample Collection Date	**6/28/2006**	**6/23/2006**	**6/23/2006**	**6/23/2006**	**6/23/2006**	**6/28/2006**	**6/29/2006**	**7/7/2006**
Sample Type	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Duplicate of								
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	16	1090
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	2.8	370
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	200 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	200 U
Acetone	**11 J**	20 U	20 U	20 U	20 U	20 U	20 U	200 U
Acrolein	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U	200 UJ
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	600	28
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Bromomethane	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	10 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	28	820
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1.6	42
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	32	3240
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U	1 U	4.6	185
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	249
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1.4	93
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8	852
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	6.6
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	59	200
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	34	4090

Appendix G - 2006 Groundwater Data
VOC

Sample Station	PW-3	PWS-1	PWS-2	RW-10	RW-11	RW-11	RW-12	RW-13	RW-1
Sample Identification	KRYPW3GW001	KRYPWS1GW001	KRYPWS2GW001	KRYRW10GW001	KRYRW11GW001	KRYRW11GW701	KRYRW12GW001	KRYRW13GW001	KRYRW1GW001
Sample Collection Date	6/29/2006	6/27/2006	6/27/2006	7/6/2006	6/28/2006	6/28/2006	6/28/2006	7/7/2006	6/28/2006
Sample Type	GW	GW	GW	GW	GW	DU	GW	GW	GW
Duplicate of						KRYRW11GW001			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	3.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	**0.8 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylenes	14	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	1.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.84	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	**0.5 J**	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	17	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - 2006 Groundwater Data
VOC

Sample Station	RW-6	RW-8	RW-9A	RW-9	SW-9	SW-9
Sample Identification	KRYRW6GW 001	KRYRW8GW001	KRYRW9AGW001	KRYRW9GW001	KRYSW9GW001	KRYSW9GW701
Sample Collection Date	6/29/2006	6/28/2006	6/27/2006	6/23/2006	6/29/2006	6/29/2006
Sample Type	GW	GW	GW	GW	GW	DU
Duplicate of						KRYSW9 GW001
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	39	39
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	3.9	4.3
2-Butanone	10 U	10 U	10 U	10 U	10 U	18
2-Hexanone	20 U	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	**0.72 J**	**0.66 J**
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 UJ	20 UJ	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	8.8	8.7
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	12	13
Isopropylbenzene	1 U	1 U	1 U	1 U	3.3	3.5
m+p-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	4.8	5.4
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1.8	1.7
n-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	4.8	3
n-Propylbenzene	1 U	1 U	1 U	1 U	6	6.6
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	1.5	1.7
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.61	0.63
Styrene	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	1.1	1.1
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Groundwater Data
VOC

Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	6.4	7.1

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KRY100A	KRY101A	KRY101B	KRY102A	KRY102A	KRY102B	KRY103A
Sample Identification	KRY100AGW001	KRY101AGW001	KRY101BGW001	KRY102AGW001	KRY102AGW701	KRY102BGW001	KRY103AGW001
Sample Collection Date	6/15/2006	6/14/2006	6/15/2006	6/13/2006	6/13/2006	6/13/2006	6/15/2006
Sample Type	GW	GW	GW	GW	DU	GW	GW
Duplicate of					KRY102AGW001		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	NA	NA	NA	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KRY103B	KRY104A	KRY105A	KRY106A	KRY106B	KRY107A	KRY107B
Sample Identification	KRY103BGW001	KRY104AGW001	KRY105AGW001	KRY106AGW001	KRY106BGW001	KRY107AGW001	KRY107BGW001
Sample Collection Date	6/15/2006	6/14/2006	6/15/2006	6/15/2006	6/15/2006	6/16/2006	6/16/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	NA	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KRY108A	KRY109A	KRY110A	KRY110B	KRY111A	KRY111B	KRY112A
Sample Identification	KRY108AGW001	KRY109AGW001	KRY110AGW001	KRY110BGW001	KRY111AGW001	KRY111BGW001	KRY112AGW001
Sample Collection Date	6/22/2006	6/16/2006	6/15/2006	6/16/2006	6/16/2006	6/16/2006	6/14/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 U	10 UJ	10 UJ	10 UJ	**63 J**	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 U	10 UJ	10 UJ	10 UJ	**58 J**	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
2,3,5,6-Tetrachlorophenol	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	NA
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 U	10 UJ	10 UJ	10 UJ	**51 J**	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	**6.7 J**	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 U	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Benzo(e)Pyrene	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 U	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 UJ	10 U	10 U	10 UJ	10 UJ	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	34	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	**8.2 J**	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	4.1	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	21	10 U	10 U
Pyrene	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	**0.7 J**	0.1 UJ	0.1 U
Tetrachlorophenol	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KRY112B	KRY113A	KRY113B	KRY114A	KRY114B	KRY115A	KRY115B
Sample Identification	KRY112BGW001	KRY113AGW001	KRY113BGW001	KRY114AGW001	KRY114BGW001	KRY115AGW001	KRY115BGW001
Sample Collection Date	6/14/2006	6/22/2006	6/22/2006	6/29/2006	7/5/2006	6/13/2006	6/13/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	115 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	**60 J**	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 U	10 UJ	10 UJ	**9.7 J**	10 U	10 U	10 U
2,3,5,6-Tetrachlorophenol	NA	10 UJ	10 UJ	**8.5 J**	10 UJ	NA	NA
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	**133 J**	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 UJ	10 U	10 U	10 U	10 U	10 UJ	10 UJ
2-Chloronaphthalene	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	**40 J**	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 UJ	20 UJ	20 U	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	**7.8 J**	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	**3.1 J**	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	19	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	26	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	3.3	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	**8.5 J**	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KRY116A	KRY116B	KRY118A	KRY118B	KRY121A	KRY121A	KRY121B
Sample Identification	KRY116AGW001	KRY116BGW001	KRY118AGW001	KRY118BGW001	KRY121AGW001	KRY121AGW701	KRY121BGW001
Sample Collection Date	6/14/2006	6/14/2006	7/5/2006	7/5/2006	6/20/2006	6/20/2006	6/28/2006
Sample Type	GW	GW	GW	GW	GW	DU	GW
Duplicate of						KRY121AGW001	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 U	10 UJ	10 U	10 U	10 UJ	10 UJ	10 UJ
2,3,5,6-Tetrachlorophenol	NA	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 UJ	10 U	10 U	10 U	10 U	10 U	10 UJ
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 U	20 U	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 U	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KRY122A	KRY122B	KRY123A	KRY125A	KRY125B	KRY126A	KRY127A
Sample Identification	KRY122AGW001	KRY122BGW001	KRY123AGW001	KRY125AGW001	KRY125BGW001	KRY126AGW001	KRY127AGW001
Sample Collection Date	6/26/2006	6/28/2006	6/21/2006	6/26/2006	6/26/2006	6/21/2006	6/21/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 UJ	10 U	10 U	10 UJ	10 UJ
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 U	10 UJ	10 UJ	10 U	10 U	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 U	10 UJ	10 UJ	10 U	10 U	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 UJ	10 U	10 U	10 UJ	10 UJ
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KRY128A	KRY128B	KRY129A	KRY129B	KRY130A	KRY130B	KRY139A
Sample Identification	KRY128AGW001	KRY128BGW001	KRY129AGW001	KRY129BGW001	KRY130AGW001	KRY130BGW001	KRY139AGW001
Sample Collection Date	6/27/2006	6/28/2006	6/27/2006	6/21/2006	6/20/2006	6/22/2006	6/27/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ
2,3,4,5-Tetrachlorophenol	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ
2,6-Dinitrotoluene	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 U	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 U	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	**3 J**	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KRY139B	CLCW-1	GW-1	GW-5	GWRM-1	GWRM-2
Sample Identification	KRY139BGW001	KRYCLCW1GW001	KRYGW1GW001	KRYGW5GW001	KRYGWRM1GW001	KRYGWRM2GW002
Sample Collection Date	6/27/2006	7/6/2006	6/22/2006	6/27/2006	7/6/2006	7/6/2006
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 U	10 UJ	**2.4 J**	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	**3.9 J**	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 U	10 U	10 UJ	10 U	10 U
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 U	10 UJ	**1.3 J**	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 U	20 U	20 UJ	20 U	20 U
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 U	10 UJ	10 U	10 U	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 U	10 UJ	10 U	10 U	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 U	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	27
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	13
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ
Tetrachlorophenol	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	GWRR-1	GWRR-2	GWRR-3	GWRR-4	GWRR-5	GWRR-6
Sample Identification	KRYGWRR1GW001	KRYGWRR2GW001	KRYGWRR3GW001	KRYGWRR4GW001	KRYGWRR5GW001	KRYGWRR6GW001
Sample Collection Date	6/29/2006	7/5/2006	7/6/2006	6/29/2006	7/5/2006	7/6/2006
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 U	10 U	10 UJ	10 U	10 U
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	**2.1 J**	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 U	20 U	20 UJ	20 U	20 U
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	**5.8 J**	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	GWRR-7	GWRR-8	GWRR-9	GWY-10	GWY-12	GWY-13
Sample Identification	KRYGWRR7GW001	KRYGWRR8GW001	KRYGWRR9GW001	KRYGWY10GW001	KRYGWY12GW001	KRYGWY13GW001
Sample Collection Date	7/6/2006	6/29/2006	7/6/2006	7/6/2006	7/7/2006	7/6/2006
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	**10 J**	10 UJ	**13 J**	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 U	10 UJ	10 U	10 U	10 U	10 U
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	**4.5 J**	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 U	20 UJ	20 U	20 U	20 U	20 U
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.61 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	GWY-14	GWY-3	GWY-4	IW1	IW2	IW4
Sample Identification	KRYGWY14GW001	KRYGWY3GW001	KRYGWY4GW001	KRYIW1GW001	KRYIW2GW001	KRYIW4GW001
Sample Collection Date	7/6/2006	7/6/2006	7/6/2006	6/21/2006	6/21/2006	6/22/2006
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 U	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	IW5	IW6	IW7	IW8	KPT-10	KPT-11	KPT-12
Sample Identification	KRYIW5GW001	KRYIW6GW001	KRYIW7GW001	KRYIW8GW001	KRYKPT10GW001	KRYKPT11GW001	KRYKPT12GW001
Sample Collection Date	6/21/2006	6/21/2006	6/22/2006	6/22/2006	6/27/2006	6/28/2006	6/23/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 U	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	**2.5 J**	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KPT-13	KPT-14	KPT-15	KPT-16	KPT-16	KPT-17
Sample Identification	KRYKPT13GW001	KRYKPT14GW001	KRYKPT15GW001	KRYKPT16GW001	KRYKPT16GW701	KRYKPT17GW001
Sample Collection Date	6/28/2006	6/27/2006	6/28/2006	6/23/2006	6/23/2006	6/29/2006
Sample Type	GW	GW	GW	GW	DU	GW
Duplicate of					KRYKPT16GW001	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 U	10 UJ	**3.7 J**
2,3,4,5-Tetrachlorophenol	10 U	10 UJ	10 UJ	10 U	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 UJ	10 U
2,3,4-Trichlorophenol	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 UJ
2,6-Dinitrotoluene	10 UJ	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 UJ	20 U	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 U	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 UJ	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KPT-18	KPT-19	KPT-1	KPT-20	KPT-20	KPT-21
Sample Identification	KRYKPT18GW001	KRYKPT19GW001	KRYKPT1GW001	KRYKPT20GW001	KRYKPT20GW701	KRYKPT21GW001
Sample Collection Date	6/28/2006	6/27/2006	6/22/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type	GW	GW	GW	GW	DU	GW
Duplicate of					KRYKPT20GW001	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	**4.5 J**	10 U	**11 J**	**8.9 J**	**98 J**
2,3,4,5-Tetrachlorophenol	10 UJ	10 U	10 U	18 U	20 U	**3.8 J**
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	13 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	**4.2 J**	**4.4 J**	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	**2.6 J**	**3.7 J**	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	**4.2 J**	10 U	**7.5 J**	**8.4 J**	**41 J**
2,6-Dinitrotoluene	10 U	10 UJ	10 U	10 UJ	10 UJ	10 UJ
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	24
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 U	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	2.5	0.1 U	1.2	1.2	5.7
Anthracene	0.1 U	0.1 U	0.1 U	0.57	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 U	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.72	0.73	4.4
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	11
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	1.1	0.84	2.9
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.28	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KPT-22	KPT-2	KPT-3	KPT-4	KPT-5	KPT-6
Sample Identification	KRYKPT22GW001	KRYKPT2GW001	KRYKPT3GW001	KRYKPT4GW001	KRYKPT5GW001	KRYKPT6GW001
Sample Collection Date	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/23/2006	6/23/2006
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	**146 J**	18 UJ	10 UJ	10 U	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	**778 J**	11 UJ	**2 J**	10 U	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	**5.3 J**	10 UJ	10 U	10 UJ
2,4,5-Trichlorophenol	10 U	**3.2 J**	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	16	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	**55 J**	**7.2 J**	10 UJ	10 U	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	36	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 UJ	20 UJ	20 U	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	6.4	0.94	1.7	0.1 U	0.1 U
Anthracene	0.1 U	1.8	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	**4.6 J**	10 UJ	10 UJ	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 U	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	9.3	1.6	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	27	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	7.3	1.7	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	**5.3 J**	10 UJ	10 U	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	KPT-7	KPT-8	KPT-9	NTL-MW-4	PW-1	PW-3
Sample Identification	KRYKPT7GW001	KRYKPT8GW001	KRYKPT9GW001	RYNTLMW4GW0	KRYPW1GW001	KRYPW3GW001
Sample Collection Date	6/23/2006	6/23/2006	6/28/2006	6/29/2006	7/7/2006	6/29/2006
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 U	10 U	10 UJ	10 UJ	**17 J**	10 UJ
2,3,4,5-Tetrachlorophenol	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	**7.9 J**	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 U	10 U	10 UJ	10 UJ	10 U	10 UJ
2,3,5,6-Tetrachlorophenol	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 UJ	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	**4.3 J**	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 U	10 U	10 UJ	10 UJ	**2.4 J**	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 UJ	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	25	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 U	20 U	20 UJ	20 UJ	20 U	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 U	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	**2.5 J**	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	**1.8 J**	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	13	10 U
Naphthalene	10 U	10 U	10 U	**2.8 J**	89	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Tetrachlorophenol	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	PWS-1	PWS-2	RW-10	RW-11	RW-11	RW-12
Sample Identification	KRYPWS1GW001	KRYPWS2GW001	KRYRW10GW001	KRYRW11GW001	KRYRW11GW701	KRYRW12GW001
Sample Collection Date	6/27/2006	6/27/2006	7/6/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type	GW	GW	GW	GW	DU	GW
Duplicate of					KRYRW11GW001	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 U	10 U	10 UJ	10 U	10 U	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 UJ	20 UJ	20 U	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	RW-13	RW-1	RW-6	RW-8	RW-9A	RW-9	SW-9
Sample Identification	KRYRW13GW001	KRYRW1GW001	KRYRW6GW 001	KRYRW8GW001	KRYRW9AGW001	KRYRW9GW001	KRYSW9GW001
Sample Collection Date	7/7/2006	6/28/2006	6/29/2006	6/28/2006	6/27/2006	6/23/2006	6/29/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW
Duplicate of							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,6-Dinitrotoluene	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 U	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ
Benzo(G,H,I)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 R	10 R	10 R	10 R	10 R	10 R	10 R
Benzyl Alcohol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
bis(2-Ethylhexyl)Phthalate	**5.9 J**	6 U	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
m+p-Cresols	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodi-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachlorophenol	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetraethyllead	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Appendix G - 2006 Groundwater Data
SVOC

Sample Station	SW-9
Sample Identification	KRYSW9GW701
Sample Collection Date	6/29/2006
Sample Type	DU
Duplicate of	KRYSW9 GW001
Units	ug/L
1,2,4-Trichlorobenzene	10 U
1,4-Dichlorobenzene	10 U
1-Methylnaphthalene	10 UJ
2,3,4,5-Tetrachlorophenol	10 UJ
2,3,4,6-Tetrachlorophenol	10 U
2,3,4-Trichlorophenol	10 UJ
2,3,5,6-Tetrachlorophenol	10 UJ
2,4,5-Trichlorophenol	10 U
2,4,6-Trichlorophenol	10 U
2,4-Dichlorophenol	10 U
2,4-Dimethylphenol	10 U
2,4-Dinitrophenol	50 U
2,4-Dinitrotoluene	10 U
2,6-Dimethylnaphthalene	10 UJ
2,6-Dinitrotoluene	10 U
2-Chloronaphthalene	10 U
2-Chlorophenol	10 U
2-Methylnaphthalene	10 U
2-Methylphenol	10 U
2-Nitroaniline	10 U
2-Nitrophenol	5 U
3,3'-Dichlorobenzidine	20 UJ
3-Nitroaniline	10 U
4,6-Dinitro-2-Methylphenol	50 U
4-Bromophenylphenylether	10 U
4-Chloro-3-Methylphenol	10 U
4-Chloroaniline	10 U
4-Chlorophenylphenylether	10 U
4-Nitroaniline	10 U
4-Nitrophenol	50 U
Acenaphthene	0.1 U
Anthracene	0.1 U
Benzo(a)Anthracene	0.1 U
Benzo(a)Pyrene	0.1 U
Benzo(b)Fluoranthene	0.1 U
Benzo(e)Pyrene	10 UJ
Benzo(G,H,I)Perylene	10 U
Benzo(k)Fluoranthene	0.1 U
Benzoic Acid	10 R
Benzyl Alcohol	10 UJ
Biphenyl	10 UJ
bis(2-Chloroethoxy)Methane	10 U
bis(2-Chloroethyl)Ether	10 U
bis(2-Chloroisopropyl)Ether	10 U
bis(2-Ethylhexyl)Adipate	6 UJ
bis(2-Ethylhexyl)Phthalate	6 U
Butyl Benzyl Phthalate	10 U
Carbazole	10 U
Chrysene	0.1 U
Dibenzo(a,h)Anthracene	0.1 U
Dibenzofuran	10 U
Diethyl Phthalate	10 U
Dimethyl Phthalate	10 U
di-n-Butylphthalate	10 U
di-n-Octylphthalate	10 U
Fluoranthene	10 U
Fluorene	0.1 U
Hexachlorobenzene	10 U
Hexachlorobutadiene	10 U
Hexachlorocyclopentadiene	10 U
Hexachloroethane	10 U
Indeno(1,2,3-cd)Pyrene	10 U
Isophorone	10 U
m+p-Cresols	10 U
Naphthalene	10 U
Nitrobenzene	10 U
n-Nitrosodi-n-Propylamine	10 U
n-Nitrosodiphenylamine	10 U
Phenanthrene	0.1 U
Phenol	10 U
Pyrene	0.1 U
Tetrachlorophenol	10 UJ
Tetraethyllead	10 UJ

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KRY100A	KRY101A	KRY101B	KRY102A	KRY102A	KRY102B	KRY103A	KRY103B
Sample Identification	KRY100AGW001	KRY101AGW001	KRY101BGW001	KRY102AGW001	KRY102AGW701	KRY102BGW001	KRY103AGW001	KRY103BGW001
Sample Collection Date	6/15/2006	6/14/2006	6/15/2006	6/13/2006	6/13/2006	6/13/2006	6/15/2006	6/15/2006
Sample Type	GW	GW	GW	GW	DU	GW	GW	GW
Duplicate of					KRY102AGW001			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KRY104A	KRY105A	KRY106A	KRY106B	KRY107A	KRY107B	KRY108A	KRY109A
Sample Identification	KRY104AGW001	KRY105AGW001	KRY106AGW001	KRY106BGW001	KRY107AGW001	KRY107BGW001	KRY108AGW001	KRY109AGW001
Sample Collection Date	6/14/2006	6/15/2006	6/15/2006	6/15/2006	6/16/2006	6/16/2006	6/22/2006	6/16/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 U	0.1 U	0.1 U	0.076 J	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KRY110A	KRY110B	KRY111A	KRY111B	KRY112A	KRY112B	KRY113A	KRY113B
Sample Identification	KRY110AGW001	KRY110BGW001	KRY111AGW001	KRY111BGW001	KRY112AGW001	KRY112BGW001	KRY113AGW001	KRY113BGW001
Sample Collection Date	6/15/2006	6/16/2006	6/16/2006	6/16/2006	6/14/2006	6/14/2006	6/22/2006	6/22/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 U	2390	0.1 U	0.1 U	0.1 U	0.33	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KRY114A	KRY114B	KRY115A	KRY115B	KRY116A	KRY116B	KRY118A	KRY118B
Sample Identification	KRY114AGW001	KRY114BGW001	KRY115AGW001	KRY115BGW001	KRY116AGW001	KRY116BGW001	KRY118AGW001	KRY118BGW001
Sample Collection Date	6/29/2006	7/5/2006	6/13/2006	6/13/2006	6/14/2006	6/14/2006	7/5/2006	7/5/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	427	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KRY121A	KRY121A	KRY121B	KRY122A	KRY122B	KRY123A	KRY125A	KRY125B
Sample Identification	KRY121AGW001	KRY121AGW701	KRY121BGW001	KRY122AGW001	KRY122BGW001	KRY123AGW001	KRY125AGW001	KRY125BGW001
Sample Collection Date	6/20/2006	6/20/2006	6/28/2006	6/26/2006	6/28/2006	6/21/2006	6/26/2006	6/26/2006
Sample Type	GW	DU	GW	GW	GW	GW	GW	GW
Duplicate of		KRY121AGW001						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.25	0.18	0.13	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KRY126A	KRY127A	KRY128A	KRY128B	KRY129A	KRY129B	KRY130A	KRY130B
Sample Identification	KRY126AGW001	KRY127AGW001	KRY128AGW001	KRY128BGW001	KRY129AGW001	KRY129BGW001	KRY130AGW001	KRY130BGW001
Sample Collection Date	6/21/2006	6/21/2006	6/27/2006	6/28/2006	6/27/2006	6/21/2006	6/20/2006	6/22/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	40	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KRY139A	KRY139B	CLCW-1	GW-1	GW-5	GWRM-1	GWRM-2	GWRR-1
Sample Identification	KRY139AGW001	KRY139BGW001	KRYCLCW1GW001	KRYGW1GW001	KRYGW5GW001	KRYGWRM1GW001	KRYGWRM2GW002	KRYGWRR1GW001
Sample Collection Date	6/27/2006	6/27/2006	7/6/2006	6/22/2006	6/27/2006	7/6/2006	7/6/2006	6/29/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 U	0.098 J	0.1 U	10	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	GWRR-2	GWRR-3	GWRR-4	GWRR-5	GWRR-6	GWRR-7	GWRR-8	GWRR-9
Sample Identification	KRYGWRR2GW001	KRYGWRR3GW001	KRYGWRR4GW001	KRYGWRR5GW001	KRYGWRR6GW001	KRYGWRR7GW001	KRYGWRR8GW001	KRYGWRR9GW001
Sample Collection Date	7/5/2006	7/6/2006	6/29/2006	7/5/2006	7/6/2006	7/6/2006	6/29/2006	7/6/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.17

Appendix G - 2006 Groundwater Data
PCP

Sample Station	GWY-10	GWY-12	GWY-13	GWY-14	GWY-3	GWY-4	IW1	IW2
Sample Identification	KRYGWY10GW001	KRYGWY12GW001	KRYGWY13GW001	KRYGWY14GW001	KRYGWY3GW001	KRYGWY4GW001	KRYIW1GW001	KRYIW2GW001
Sample Collection Date	7/6/2006	7/7/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	6/21/2006	6/21/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	1	0.1 U	0.1 U	0.75	0.1 U	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	IW4	IW5	IW6	IW7	IW8	KPT-10	KPT-11	KPT-12
Sample Identification	KRYIW4GW001	KRYIW5GW001	KRYIW6GW001	KRYIW7GW001	KRYIW8GW001	KRYKPT10GW001	KRYKPT11GW001	KRYKPT12GW001
Sample Collection Date	6/22/2006	6/21/2006	6/21/2006	6/22/2006	6/22/2006	6/27/2006	6/28/2006	6/23/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.12

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KPT-13	KPT-14	KPT-15	KPT-16	KPT-16	KPT-17	KPT-18	KPT-19
Sample Identification	KRYKPT13GW001	KRYKPT14GW001	KRYKPT15GW001	KRYKPT16GW001	KRYKPT16GW701	KRYKPT17GW001	KRYKPT18GW001	KRYKPT19GW001
Sample Collection Date	6/28/2006	6/27/2006	6/28/2006	6/23/2006	6/23/2006	6/29/2006	6/28/2006	6/27/2006
Sample Type	GW	GW	GW	GW	DU	GW	GW	GW
Duplicate of					KRYKPT16GW001			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.036 J	0.2	0.1 U	0.15	0.15	0.1 U	0.35	18

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KPT-1	KPT-20	KPT-20	KPT-21	KPT-22	KPT-2	KPT-3	KPT-4
Sample Identification	KRYKPT1GW001	KRYKPT20GW001	KRYKPT20GW701	KRYKPT21GW001	KRYKPT22GW001	KRYKPT2GW001	KRYKPT3GW001	KRYKPT4GW001
Sample Collection Date	6/22/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type	GW	GW	DU	GW	GW	GW	GW	GW
Duplicate of			KRYKPT20GW001					
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	110	80	62	0.1 U	16300	344	34

Appendix G - 2006 Groundwater Data
PCP

Sample Station	KPT-5	KPT-6	KPT-7	KPT-8	KPT-9	NTL-MW-4	PW-1	PW-3
Sample Identification	KRYKPT5GW001	KRYKPT6GW001	KRYKPT7GW001	KRYKPT8GW001	KRYKPT9GW001	KRYNTLMW4GW00	KRYPW1GW001	KRYPW3GW001
Sample Collection Date	6/23/2006	6/23/2006	6/23/2006	6/23/2006	6/28/2006	6/29/2006	7/7/2006	6/29/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	7.4	3.9	3.8	0.054	0.084 J	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
PCP

Sample Station	PWS-1	PWS-2	RW-10	RW-11	RW-11	RW-12	RW-13	RW-1
Sample Identification	KRYPWS1GW001	KRYPWS2GW001	KRYRW10GW001	KRYRW11GW001	KRYRW11GW701	KRYRW12GW001	KRYRW13GW001	KRYRW1GW001
Sample Collection Date	6/27/2006	6/27/2006	7/6/2006	6/28/2006	6/28/2006	6/28/2006	7/7/2006	6/28/2006
Sample Type	GW	GW	GW	GW	DU	GW	GW	GW
Duplicate of					KRYRW11GW001			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.56	0.1 U	0.11

Appendix G - 2006 Groundwater Data
PCP

Sample Station	RW-6	RW-8	RW-9A	RW-9	SW-9	SW-9
Sample Identification	KRYRW6GW 001	KRYRW8GW001	KRYRW9AGW001	KRYRW9GW001	KRYSW9GW001	KRYSW9GW701
Sample Collection Date	6/29/2006	6/28/2006	6/27/2006	6/23/2006	6/29/2006	6/29/2006
Sample Type	GW	GW	GW	GW	GW	DU
Duplicate of						KRYSW9 GW001
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Groundwater Data
Dioxins and Furans

Sample Station	KRY100A	KRY101A	KRY103A	KRY103B	KRY107A	KRY107B	KRY111A	KRY111B
Sample Identification	KRY100AGW001	KRY101AGW001	KRY103AGW001	KRY103BGW001	KRY107AGW001	KRY107BGW001	KRY111AGW001	KRY111BGW001
Sample Collection Date	6/15/2006	6/14/2006	6/15/2006	6/15/2006	6/16/2006	6/16/2006	6/16/2006	6/16/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	330 B	370	110 U	60 U	890	93 UJ	400000 N2	180 B
1,2,3,4,6,7,8,9-OCDF	2.5 U (23)	27 U	8.7 U	7.9 U	**58 J**	4.4 UJ (9)	19000	22 U
1,2,3,4,6,7,8-HPCDD	**49 J**	**41 J**	**17 J**	11 U	89	13 U	38000	30 U
1,2,3,4,6,7,8-HPCDF	**6 J**	**7.7 J**	3.5 U	2.2 J	**14 J**	**5.2 J**	6500	2.1 U (5)
1,2,3,4,7,8,9-HPCDF	3.2 U	3.6 U	2.9 U	1.8 U	3 U	5.4 UJ	450	2.2 U
1,2,3,4,7,8-HXCDD	2.3 U	2.2 U	2.8 U	1.9 U	3.1 U	2.8 U	**12 J**	1.9 U
1,2,3,4,7,8-HXCDF	1.7 U	3.5 U	2 U	0.81 U	3.2 U	1.9 U	700	1.6 U (1)
1,2,3,6,7,8-HXCDD	**3.3 J**	**2.7 J**	2.5 U	2 U	**5.3 J**	3 U	1800	1.5 U
1,2,3,6,7,8-HXCDF	1.6 U	3.3 U	1.5 U	0.71 U	2.5 U	1.8 U	160	1.3 U
1,2,3,7,8,9-HXCDD	2.2 U	2.1 U	2.5 U	2.1 U	3.3 U	4.3 U	86	1.9 U
1,2,3,7,8,9-HXCDF	1.7 U	3.4 U	1.7 U	1.1 U	3.9 U	4 U	260	1.6 U
1,2,3,7,8-PECDD	2.2 U	2.1 U	4 U	2.1 U	3 U	4.6 U	**3.5 J**	1.9 U
1,2,3,7,8-PECDF	4 U	5 U (15)	3.9 U	3.2 U	7.3 U	8.4 U	12 U (350)	3.1 U
2,3,4,6,7,8-HXCDF	1.4 U	1.2 U	1.9 U	0.62 U	2.2 U	2.4 U	6.7 U (160)	1.1 U
2,3,4,7,8-PECDF	2.2 U	4.2 U	2.8 U	2.5 U	5.1 U	4.9 U	300	2.7 U
2,3,7,8-TCDD	2.1 U	2.8 U	2.8 U	1.9 U	3.2 U	2.4 U	1.8	2.1 U
2,3,7,8-TCDF	2.6 U	2.9 U	2.1 U	2.4 U	3.1 U	3.1 U	**39 J**	2.3 U
HPCDD (TOTAL)	81 B	73 B	**25 J**	20 U	150	22 U	62000	51 U
HPCDF (TOTAL)	51	**36 J**	3.5 U	**2.2 J**	**41 J**	**13 J**	7000	**24 J**
HXCDD (TOTAL)	**8.2 J**	**2.7 J**	2.6 U	2 U	**12 J**	3.4 U	4500	1.8 U
HXCDF (TOTAL)	1.6 U	3.3 U	**3.3 J**	0.81 U	3 U	2.5 U	4800	1.4 U
PECDD (TOTAL)	2.2 U	2.1 U	4 U	2.1 U	3 U	4.6 U	**3.5 J**	1.9 U
PECDF (TOTAL)	3.1 U	**12 J**	3.3 U	2.9 U	6.2 U	6.7 U	2300	2.9 U
TCDD (TOTAL)	2.1 U	2.8 U	2.8 U	1.9 U	3.2 U	2.4 U	1.8 U	2.1 U
TCDF (TOTAL)	2.6 U	2.9 U	2.1 U	2.4 U	**3.7 J**	3.1 U	380	2.3 U
2,3,7,8-TCDD (TEQ) (WHO 1998)	4.40515	5.61835	5.255435	3.376395	7.2923	6.2491	969.15	3.5876

Appendix G - 2006 Groundwater Data
Dioxins and Furans

Sample Station	KRY114A	KRY114B	KRY118A	KRY118B	KRY121A	KRY121B	KRY123A	KRY126A
Sample Identification	KRY114AGW001	KRY114BGW001	KRY118AGW001	KRY118BGW001	KRY121AGW001	KRY121BGW001	KRY123AGW001	KRY126AGW001
Sample Collection Date	6/29/2006	7/5/2006	7/5/2006	7/5/2006	6/20/2006	6/28/2006	6/21/2006	6/21/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	190000	190 U	190 U	400 U	140 U	62 U	39 U	59 U
1,2,3,4,6,7,8,9-OCDF	9700	15 U	2.1 U (17)	36 U	12 U	7.6 U	2.7 U (7.4)	7.6 U
1,2,3,4,6,7,8-HPCDD	28000	29 U	33 U	50 U	19 U	2.1 U (7.6)	3.3 U (7)	9.3 U
1,2,3,4,6,7,8-HPCDF	3700	4.9 U	1.4 U (5.1)	6.4 U	**3.4 J**	1.4 U (2)	1.8 U	**2.4 J**
1,2,3,4,7,8,9-HPCDF	250	2.9 U	2.3 U	2.5 U	1.7 U	1.9 U	2.4 U	2.2 U
1,2,3,4,7,8-HXCDD	17 U	5.8 U	4.7 U	4.7 U	1.4 U	1.3 U	3.7 U	2.4 U
1,2,3,4,7,8-HXCDF	380	1.9 U	1.3 U	1.3 U	0.86 U	1 U	2.1 U	1.3 J
1,2,3,6,7,8-HXCDD	1700	6.4 U	4.4 U	5.5 U	**1.6 J**	1.8 U	2.3 U	1.5 U
1,2,3,6,7,8-HXCDF	98	1.1 U	0.91 U	1.5 U	0.82 U	1.2 U	2 U	**0.65 J**
1,2,3,7,8,9-HXCDD	130	7.7 U	4.7 U	4.6 U	1.5 U	2.2 U	**8.5 J**	1.7 U
1,2,3,7,8,9-HXCDF	200	0.88 U	1.2 U	1.3 U	1 U	1.1 U	2.5 U	1.1 U
1,2,3,7,8-PECDD	4.4 U (12)	4 U	2.9 U	3.3 U	1.9 U	2 U	10 J	1.5 U
1,2,3,7,8-PECDF	14 U (140)	**3.2 J**	1.5 U (5.2)	1.5 U (5.3)	2.3 U	3.7 U	6.9 U	3.5 U
2,3,4,6,7,8-HXCDF	190	1 U (1.3)	0.82 U	1 U	0.8 U	0.89 U	2 U	0.74 U
2,3,4,7,8-PECDF	260	**1.5 J**	1.3 U	**1 J**	2.3 U	2.3 U	3.8 U	2.5 U
2,3,7,8-TCDD	**2 J**	2.3 U	2 U	1.9 U	1.9 U	1.9 U	3.7 U	1.6 U
2,3,7,8-TCDF	**37 J**	1.1 U	1.2 U	1.1 U	1.5 U	1.6 U	**5.7 J**	1.5 U
HPCDD (TOTAL)	45000	49 U	52 U	90 U	34 U	6.8 U	3.3 U	9.3 U
HPCDF (TOTAL)	17000	8.9 U	4.2 U	26 U	**12 J**	4.9 U	2.1 U	**2.4 J**
HXCDD (TOTAL)	4000	6.6 U	4.6 U	4.9 U	**1.6 J**	1.7 U	8.5 J	1.9 U
HXCDF (TOTAL)	7500	**3.1 J**	5 U	5 U	0.88 U	1.1 U	2.1 U	**2 J**
PECDD (TOTAL)	4.4 U	4 U	2.9 U	3.3 U	1.9 U	2 U	**10 J**	1.5 U
PECDF (TOTAL)	1700	4.6 U	1.7 U	**2.9 J**	2.3 U	3 U	5.3 U	3 U
TCDD (TOTAL)	**2 J**	2.3 U	2 U	1.9 U	1.9 U	1.9 U	3.7 U	1.6 U
TCDF (TOTAL)	280	1.1 U	1.5 U	1.1 U	1.5 U	1.6 U	**5.7 J**	1.5 U
2,3,7,8-TCDD (TEQ) (WHO 1998)	755.32	5.56325	4.07885	4.5988	3.2316	3.23298	15.18082	2.98933

Appendix G - 2006 Groundwater Data
Dioxins and Furans

Sample Station	KRY127A	KRY129A	KRY129B	GWRR-2	GWRR-5	GWY-10	GWY-14	KPT-15
Sample Identification	KRY127AGW001	KRY129AGW001	KRY129BGW001	KRYGWRR2GW00	KRYGWRR5GW00	KRYGWY10GW00	KRYGWY14GW00	KRYKPT15GW001
Sample Collection Date	6/21/2006	6/27/2006	6/21/2006	7/5/2006	7/5/2006	7/6/2006	7/6/2006	6/28/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	38 U	280 B	120 U	150 U	980 U	120 U	2000 U	1100
1,2,3,4,6,7,8,9-OCDF	6.6 U	18 U	13 UJ	3 U (14)	63 U	7.7 U	250 U	**61 J**
1,2,3,4,6,7,8-HPCDD	2.4 U (5.1)	39 U	14 U	27 U	90 U	18 U	390 U	120 U
1,2,3,4,6,7,8-HPCDF	1.6 U	2 U (5)	6.5 U	1.9 U (2.3)	9.9 U	**2 J**	43 U	**17 J**
1,2,3,4,7,8,9-HPCDF	2.6 U	1.9 U	6.4 U	3.1 U	2.5 U	1.6 U	5.2 U	2.3 U
1,2,3,4,7,8-HXCDD	2.1 U	1.5 U	4 U	7.2 U	4.9 U	8.7 U	18 U	2.5 U
1,2,3,4,7,8-HXCDF	1 U	**1.6 J**	2.3 U	1.2 U	1.7 U	1.2 U	3.9 U	**2.8 J**
1,2,3,6,7,8-HXCDD	1.9 U	1.8 U (2)	4 U	6.9 U	5.5 U	8 U	20 U	9.5 U
1,2,3,6,7,8-HXCDF	0.79 U	1.2 U	2.2 U	1.3 U	1.5 U	1.1 U	1.8 U	**1.6 J**
1,2,3,7,8,9-HXCDD	2 U	2.2 U	3.6 U	6.9 U	4.8 U	6.4 U	17 U	2.4 U
1,2,3,7,8,9-HXCDF	1.5 U	1.4 U	2.7 U	1.6 U	1.7 U	1.3 U	2.7 U	1.6 U
1,2,3,7,8-PECDD	2.9 U	2.4 U	4.8 U	4.1 U	2.6 U	5.2 U	4.2 U (6.1)	2 U
1,2,3,7,8-PECDF	4.5 U	5.2 U	6.8 UJ	2.9 U (3.8)	2.1 U (4.8)	3.3 U (4.1)	4.3 U (11)	3.5 U
2,3,4,6,7,8-HXCDF	0.85 U	1.2 U	2.4 U	1.3 U	1.5 U	0.88 U	2.1 U	1.2 U
2,3,4,7,8-PECDF	3.7 U	3.6 U	5.3 U	2.3 U	1.6 U	1.7 U	2.3 U	3 U
2,3,7,8-TCDD	3.8 U	2 U	3.4 U	2.1 U	1.8 U	2.7 U	3 UJ	2.1 U
2,3,7,8-TCDF	2.4 U	1.8 U	2.3 U	1.6 U	1.6 U	1.4 U	2.8 UJ	1.5 U
HPCDD (TOTAL)	2.4 U	63 U	14 U	45 U	170 U	30 U	640 U	210 B
HPCDF (TOTAL)	2.1 U	1.9 U	8.3 U	8.3 U	34 U	**7 J**	170 U	59
HXCDD (TOTAL)	2 U	1.8 U	3.9 U	7 U	5.1 U	7.7 U	180 U	16 U
HXCDF (TOTAL)	1 U	4.6 J	4.5 U	1.3 U	3.7 U	1.1 U	30 U	**10 J**
PECDD (TOTAL)	2.9 U	2.4 U	4.8 U	4.1 U	2.6 U	5.2 U	23 U	2 U
PECDF (TOTAL)	4.1 U	4.4 U	6 U	2.6 U	1.9 U	2.5 U	1.2 U	3.3 U
TCDD (TOTAL)	3.8 U	2 U	3.4 U	2.1 U	1.8 U	2.7 U	1.9 UJ	2.1 U
TCDF (TOTAL)	**3.1 J**	1.8 U	12	1.6 U	1.6 U	1.4 U	1.1 UJ	1.5 U
2,3,7,8-TCDD (TEQ) (WHO 1998)	5.06323	4.2134	6.91115	5.3402	4.44415	6.050885	11.1185	5.1601

Appendix G - 2006 Groundwater Data
Dioxins and Furans

Sample Station	KPT-15	KPT-1	KPT-2	KPT-3	PW-1
Sample Identification	KRYKPT15GW701	KRYKPT1GW001	KRYKPT2GW001	KRYKPT3GW002	KRYPW1GW001
Sample Collection Date	6/28/2006	6/22/2006	6/28/2006	8/3/2006	7/7/2006
Sample Type	DU	GW	GW	GW	GW
Duplicate of	KRYKPT15GW001				
Units	pg/L	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	720	400 U	69000	500000 N2	130 U
1,2,3,4,6,7,8,9-OCDF	38 U	27 U	2300	17000	5 U (9.1)
1,2,3,4,6,7,8-HPCDD	85 U	56 U	6900	60000	23 U
1,2,3,4,6,7,8-HPCDF	12 U	9 U	560	6800	6.1 U
1,2,3,4,7,8,9-HPCDF	1.6 U	2.7 U	37 U	380	5.9 U
1,2,3,4,7,8-HXCDD	2 U	1.1 U	95 B	**31 J**	12 U
1,2,3,4,7,8-HXCDF	1.9 U	**1.7 J**	42 U	510	5.7 U
1,2,3,6,7,8-HXCDD	5.1 U	**3.4 J**	310	3400	13 U
1,2,3,6,7,8-HXCDF	2 U	1.1 U	16 U	230	**6.6 J**
1,2,3,7,8,9-HXCDD	1.9 U	1.6 U	37 U	220	16 U
1,2,3,7,8,9-HXCDF	2.3 U	1.1 U	**28 J**	250	8.2 U
1,2,3,7,8-PECDD	2 U	1.9 U	6.4 U	**7.8 J**	10 U
1,2,3,7,8-PECDF	3.9 U	3 U	4.4 U (420)	150	11 U
2,3,4,6,7,8-HXCDF	2.1 U	1.4 U	**33 J**	220	6 U
2,3,4,7,8-PECDF	2.5 U	2 U	32 U (68)	340	10 U
2,3,7,8-TCDD	1.8 U	0.94 U	2.2 U	1.1 U	3.2 U
2,3,7,8-TCDF	0.91 U	0.94 U	2.2 U (12)	1.4 U (46)	4.6 U
HPCDD (TOTAL)	140 B	94 U	11000	94000	23 U
HPCDF (TOTAL)	**41 J**	35 U	2000	33000	6 U
HXCDD (TOTAL)	5.1 U	**9.6 J**	980	8500	14 U
HXCDF (TOTAL)	**10 J**	**1.7 J**	1000	13000	**6.6 J**
PECDD (TOTAL)	2 U	1.9 U	20 U	**22 J**	10 U
PECDF (TOTAL)	3.2 U	**2.7 J**	220 B	2600	**14 J**
TCDD (TOTAL)	1.8 U	0.94 U	2.2 U	**2.1 J**	3.2 U
TCDF (TOTAL)	0.91 U	0.94 U	32 B	390	4.6 U
2,3,7,8-TCDD (TEQ) (WHO 1998)	4.0999	3.22685	165.665	1397.75	13.491955

Appendix G - 2006 Groundwater Data
Dioxin and Furan Notes

Notes:

J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
N = Indicates presumptive evidence of the compound.
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
pg/L = Picograms per liter
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - 2006 Groundwater Data
Metals

Sample Station	KRY100A	KRY101A	KRY103A	KRY103B	KRY107A	KRY107B	KRY111A	KRY111B
Sample Identification	KRY100AGW001	KRY101AGW001	KRY103AGW001	KRY103BGW001	KRY107AGW001	KRY107BGW001	KRY111AGW001	KRY111BGW001
Sample Collection Date	6/15/2006	6/14/2006	6/15/2006	6/15/2006	6/16/2006	6/16/2006	6/16/2006	6/16/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Antimony	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	11	7 U	17	3 U	3 U	3 U	9 U	3 U
Barium	293	260	590	107	143	120	512	122
Beryllium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cobalt	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	1 U	1 U	1 U	1 U	1 U	1 U	2	1 U
Iron	170	230	8240	30 U	30 U	30 U	450	30 U
Lead	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Manganese	2930	778	2930	69	5 U	47	5320	5 U
Mercury	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Thallium	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tin	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Vanadium	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Zinc	10 U	10 U	10	10 U	10 U	10	10 U	10 U

Appendix G - 2006 Groundwater Data
Metals

Sample Station	KRY114A	KRY114B	KRY118A	KRY118B	KRY121A	KRY121A	KRY121B	KRY123A
Sample Identification	KRY114AGW001	KRY114BGW001	KRY118AGW001	KRY118BGW001	KRY121AGW001	KRY121AGW701	KRY121BGW001	KRY123AGW001
Sample Collection Date	6/29/2006	7/5/2006	7/5/2006	7/5/2006	6/20/2006	6/20/2006	6/28/2006	6/21/2006
Sample Type	GW	GW	GW	GW	GW	DU	GW	GW
Duplicate of						KRY121AGW001		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Antimony	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	6	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Barium	329	108	104	101	225	220	1	130
Beryllium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cobalt	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Iron	300 U	30 U	30 U	30 U	950	940	30 U	30 U
Lead	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Manganese	5290	5 U	5 U	24	698	690	177	5 U
Mercury	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tin	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Vanadium	10 U	10 U	10 U	10 U	100 U	100 U	10 U	100 U
Zinc	10 U	10 U	10 U	10 U	10 U	10	90	10 U

Appendix G - 2006 Groundwater Data
Metals

Sample Station	KRY126A	KRY127A	KRY129A	KRY129B	GWRR-2	GWRR-5	GWRR-7	GWRR-9
Sample Identification	KRY126AGW001	KRY127AGW001	KRY129AGW001	KRY129BGW001	KRYGWRR2GW00	KRYGWRR5GW00	KRYGWRR7GW00	KRYGWRR9GW00
Sample Collection Date	6/21/2006	6/21/2006	6/27/2006	6/21/2006	7/5/2006	7/5/2006	7/6/2006	7/6/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Antimony	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	3 U	3 U	3 U	3 U	3 U	3 U	9	3 U
Barium	397	**96 J**	178	207	247	144	184	282
Beryllium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	1 U	1 U	3	10 U	1 U	1 U	2 U	1 U
Cobalt	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	1 U	1 U	3	1 U	1 U	1 U	1 U	1 U
Iron	30 U	30 U	30 U	30 U	1610	300	18990	3360
Lead	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U
Manganese	13 U	20 U	628	195	478	774	12570	1679
Mercury	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	10 U	10 U	20	10 U	10 U	10 U	10 U	10 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Thallium	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tin	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Vanadium	100 U	100 U	10 U	1 U	10 U	10 U	10 U	10 U
Zinc	10 U	10 U	10 U	10 U	10 U	10	10 U	10 U

Appendix G - 2006 Groundwater Data
Metals

Sample Station	GWY-10	GWY-14	GWY-4	KPT-15	KPT-1	KPT-2	KPT-3	PW-1
Sample Identification	KRYGWY10GW00	KRYGWY14GW00	KRYGWY4GW001	KRYKPT15GW001	KRYKPT1GW001	KRYKPT2GW001	KRYKPT3GW001	KRYPW1GW001
Sample Collection Date	7/6/2006	7/6/2006	7/6/2006	6/28/2006	6/22/2006	6/28/2006	6/28/2006	7/7/2006
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Duplicate of								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Antimony	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	3 U	3 U	3 U	3 U	3 U	70	3 U	55
Barium	233	167	307	108	132	388	250	1022
Beryllium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	1 U	1 U	1 U	10 U	10 U	10 U	10 U	2 U
Cobalt	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	3 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U
Iron	120	30 U	230	430	30 U	1930	50 U	18020
Lead	0.5 U	0.5 U	0.7	10 U	10 U	10 U	10 U	7.3
Manganese	460	391	539	19	5 U	6420	1234	2936
Mercury	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Thallium	0.2 U	0.2 U	0.2 U	0.2 U	10 U	0.2 U	0.2 U	0.2 U
Tin	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Vanadium	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Zinc	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Appendix G - 2006 Groundwater Data
Other Parameters

Sample Station	KRY101A	KRY101B	KRY114A	KRY114B	KPT-7	KPT-8
Sample Identification	KRY101AGW001	KRY101BGW001	KRY114AGW001	KRY114BGW001	KRYKPT7GW001	KRYKPT8GW001
Sample Collection Date	6/14/2006	6/15/2006	6/29/2006	7/5/2006	6/23/2006	6/23/2006
Sample Type	GW	GW	GW	GW	GW	GW
Duplicate of						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Bromate	5 UJ	5 U	5 UJ	5 UJ	5 U	5 U
Chloride	2000	1000 U	2000	3000	5000	5000
Formaldehyde	1000 U	1000 U	1000 U	1000 U	250 U	250 U

Appendix G - 2006 Groundwater Data
Notes

Notes:

J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
N = Indicates presumptive evidence of the compound.
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
ug/L = Micrograms per liter
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - 2006 Sediment Data
EPH and VPH

Sample Station	**KRY200**	**KRY201**	**KRY202**	**KRY203**	**KRY204**
Sample Identification	**KRY200SE001**	**KRY201SE001**	**KRY202SE001**	**KRY203SE001**	**KRY204SE001**
Sample Collection Date	**7/13/2006**	**7/13/2006**	**7/13/2006**	**7/13/2006**	**7/13/2006**
Sample Type	**SD**	**SD**	**SD**	**SD**	**SD**
Duplicate of					
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
EPH					
C11-C22 Aromatics	15	NA	15 U	NA	NA
C19-C36 Aliphatics	14	NA	**10 J**	NA	NA
C9-C18 Aliphatics	15 U	NA	15 U	NA	NA
Total Extractable Hydrocarbons	71	NA	44	NA	NA
VPH					
C5-C8 Aliphatics	3.1 UJ	3 UJ	3.1 UJ	3 U	3.9 UJ
C9-C10 Aromatics	3.1 U	3 UJ	3.1 U	3 U	3.9 U
C9-C12 Aliphatics	3.1 UJ	3 UJ	3.1 UJ	3 U	3.9 UJ
Total Purgeable Hydrocarbons	3.1 U	3 UJ	3.1 U	3 U	3.9 U
Benzene	0.076 U	0.075 UJ	0.077 U	0.074 U	0.098 U
Ethylbenzene	0.076 U	0.075 UJ	0.077 U	0.074 U	0.098 U
M+P-Xylenes	0.076 U	0.075 UJ	0.077 U	0.074 U	0.098 U
Methyl Tert-Butyl Ether	0.15 UJ	0.15 UJ	0.15 UJ	0.15 U	0.2 UJ
Naphthalene	0.15 U	0.15 UJ	0.15 U	0.15 U	0.2 U
O-Xylene	0.076 U	0.075 UJ	0.077 U	0.074 U	0.098 U
Toluene	0.098	0.075 UJ	0.24	0.074 U	0.098 U
Xylenes (Total)	0.076 U	0.075 UJ	0.077 U	0.074 U	0.098 U
Petroleum Hydrocarbons					
Total Extractable Hydrocarbons - Screen	107	20	76	24	35

Appendix G - 2006 Sediment Data
Metals

Sample Station	**KRY200**	**KRY201**	**KRY202**	**KRY203**	**KRY204**
Sample Identification	**KRY200SE001**	**KRY201SE001**	**KRY202SE001**	**KRY203SE001**	**KRY204SE001**
Sample Collection Date	**7/13/2006**	**7/13/2006**	**7/13/2006**	**7/13/2006**	**7/13/2006**
Sample Type	**SD**	**SD**	**SD**	**SD**	**SD**
Duplicate of					
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Aluminum	9960	10300	9180	9940	11300
Antimony	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	1.95	1.84	2.66	1.67	2.47
Barium	101	97.1	99.8	93	123
Beryllium	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U
Chromium	8.2	8.5	7.8	7.9	9.3
Cobalt	5 U	5.1	5 U	5 U	5.5
Copper	11.6	11.5	10.7	10.2	13.6
Iron	13200	13300	14200	12700	14700
Lead	9.4	9.4	8.5	8.7	10.6
Manganese	**264 J**	**213 J**	**232 J**	**320 J**	**253 J**
Nickel	8.8	9	8.2	8.4	10
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Thallium	5 U	5 U	5 U	5 U	5 U
Tin	5 U	5 U	5 U	5 U	5 U
Vanadium	8.3	9	8.5	8.1	10
Zinc	38.7	40.5	39.3	37.6	49.9
Mercury	1 U	1 U	1 U	1 U	1 U

Appendix G - 2006 Sediment Data
PCP

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	KRY200SE001	KRY201SE001	KRY202SE001	KRY203SE001	KRY204SE001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SD	SD	SD	SD	SD
Duplicate of					
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pentachlorophenol	0.0031 U	0.003 U	0.0031 U	0.003 U	0.0039 U

Appendix G - 2006 Sediment Data
SVOC

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	KRY200SE001	KRY201SE001	KRY202SE001	KRY203SE001	KRY204SE001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SD	SD	SD	SD	SD
Duplicate of					
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
1,4-Dichlorobenzene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
1-Methylnaphthalene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,3,4,5-Tetrachlorophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,3,4,6-Tetrachlorophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,3,4-Trichlorophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,3,5,6-Tetrachlorophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,4,5-Trichlorophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,4,6-Trichlorophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,4-Dichlorophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,4-Dimethylphenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,4-Dinitrophenol	2.6 U	2.5 U	2.6 U	2.5 U	3.3 U
2,4-Dinitrotoluene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,6-Dimethylnaphthalene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2,6-Dinitrotoluene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2-Chloronaphthalene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2-Chlorophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2-Methylnaphthalene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2-Methylphenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2-Nitroaniline	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
2-Nitrophenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
3,3'-Dichlorobenzidine	1 U	1 U	1 U	0.99 U	1.3 U
3-Nitroaniline	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
4,6-Dinitro-2-Methylphenol	2.6 U	2.5 U	2.6 U	2.5 U	3.3 U
4-Bromophenylphenylether	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
4-Chloro-3-Methylphenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
4-Chloroaniline	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
4-Chlorophenylphenylether	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
4-Nitroaniline	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
4-Nitrophenol	2.6 U	2.5 U	2.6 U	2.5 U	3.3 U
Acenaphthene	0.00306 U	0.003 U	0.00309 U	0.00298 U	0.00391 U
Anthracene	0.00306 U	0.003 U	0.00309 U	0.00298 U	0.00391 U
Benzo(a)Anthracene	0.00306 U	0.003 U	0.00309 U	0.00298 U	0.00391 U
Benzo(a)Pyrene	0.00306 U	0.003 U	0.00309 U	0.00298 U	0.00391 U
Benzo(b)Fluoranthene	0.00306 U	0.003 U	0.0388	0.00298 U	0.15
Benzo(e)Pyrene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Benzo(g,h,i)Perylene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Benzo(k)Fluoranthene	0.00306 U	0.003 U	0.0334	0.00298 U	0.00391 U
Benzoic Acid	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Benzyl Alcohol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Biphenyl	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
bis(2-Chloroethoxy)Methane	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
bis(2-Chloroethyl)Ether	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
bis(2-Chloroisopropyl)Ether	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
bis(2-Ethylhexyl)Adipate	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
bis(2-Ethylhexyl)Phthalate	**0.063 J**	0.49 U	0.51 U	0.49 U	**0.1 J**
Butyl Benzyl Phthalate	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Carbazole	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Chrysene	0.00306 U	0.003 U	0.00309 U	0.00298 U	0.00391 U
Dibenzo(a,h)Anthracene	0.00306 U	0.003 U	0.00309 U	0.00298 U	0.00391 U
Dibenzofuran	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Diethyl Phthalate	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Dimethyl Phthalate	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Di-n-Butylphthalate	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Di-n-Octylphthalate	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Fluoranthene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Fluorene	0.00306 U	0.003 U	0.00309 U	0.00298 U	0.00391 U
Hexachlorobenzene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Hexachlorobutadiene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Hexachlorocyclopentadiene	1 U	1 U	1 U	1 U	1.3 U

Appendix G - 2006 Sediment Data
SVOC

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	KRY200SE001	KRY201SE001	KRY202SE001	KRY203SE001	KRY204SE001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SD	SD	SD	SD	SD
Duplicate of					
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Hexachloroethane	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Indeno(1,2,3-Cd)Pyrene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Isophorone	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
M+P-Cresols	**0.052 J**	0.49 U	0.51 U	0.49 U	**0.25 J**
Naphthalene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Nitrobenzene	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
N-Nitrosodi-N-Propylamine	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
N-Nitrosodiphenylamine	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Phenanthrene	0.00306 U	0.003 U	0.00309 U	0.00298 U	0.00391 U
Phenol	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U
Pyrene	0.00306 U	0.003 U	0.0265	0.00298 U	0.00391 U
Tetraethyllead	0.5 U	0.49 U	0.51 U	0.49 U	0.65 U

Appendix G - 2006 Sediment Data
VOC

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	KRY200SE001	KRY201SE001	KRY202SE001	KRY203SE001	KRY204SE001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SD	SD	SD	SD	SD
Duplicate of					
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1-Trichloroethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
1,1,2,2-Tetrachloroethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
1,1,2-Trichloroethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
1,1-Dichloroethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
1,1-Dichloroethene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
1,2,4-Trimethylbenzene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
1,2-Dichloroethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
1,2-Dichloropropane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
1,3,5-Trimethylbenzene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
2-Butanone	6.12 U	6 U	6.17 U	5.96 U	15.7 U
2-Hexanone	6.12 U	6 U	6.17 U	5.96 U	15.7 U
4-Isopropyltoluene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
4-Methyl-2-Pentanone	6.12 U	6 U	6.17 U	5.96 U	15.7 U
Acetone	6.12 U	6 U	6.17 U	5.96 U	15.7 U
Acrolein	6.12 U	6 U	6.17 U	5.96 U	15.7 U
Benzene	0.0765 U	0.075 U	0.0772 U	0.0745 U	0.196 U
Bromoform	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Bromomethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Carbon Disulfide	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Carbon Tetrachloride	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Chlorobenzene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Chloroethane	0.306 UJ	0.3 UJ	0.309 UJ	0.298 UJ	0.783 UJ
Chloroform	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Chloromethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Cis-1,2-Dichloroethene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Cis-1,3-Dichloropropene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Dibromochloromethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Dichlorobromomethane	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Ethylbenzene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Isopropylbenzene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
M+P-Xylenes	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Methyl Isopropyl Ether	6.12 U	6 U	6.17 U	5.96 U	15.7 U
Methylene Chloride	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Naphthalene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
N-Butylbenzene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
N-Propylbenzene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
O-Xylene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Sec-Butylbenzene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Styrene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Tetrachloroethene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Toluene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Trans-1,2-Dichloroethene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Trans-1,3-Dichloropropene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Trichloroethene	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Vinyl Acetate	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Vinyl Chloride	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U
Xylenes (Total)	0.306 U	0.3 U	0.309 U	0.298 U	0.783 U

Appendix G - 2006 Sediment Data
Dioxin

Sample Station	KRY200	KRY202	KRY203
Sample Identification	KRY200SE001	KRY202SE001	KRY203SE001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006
Sample Type	SD	SD	SD
Duplicate of			
Units	ng/kg	ng/kg	ng/kg
1,2,3,4,6,7,8,9-OCDD	**490 J**	140 UJ	47 UJ
1,2,3,4,6,7,8,9-OCDF	**30 J**	12 UJ	6 UJ
1,2,3,4,6,7,8-HPCDD	**37 J**	14 UJ	7.6 UJ
1,2,3,4,6,7,8-HPCDF	**3.8 J**	**2.3 J**	0.98 UJ
1,2,3,4,7,8,9-HPCDF	**0.27 J**	0.076 UJ (0.21)	0.13 UJ
1,2,3,4,7,8-HXCDD	0.16 U (0.4)	0.12 U (0.2)	0.21 U
1,2,3,4,7,8-HXCDF	0.11 U	0.19 U	0.061 U
1,2,3,6,7,8-HXCDD	0.51 U	0.49 U	0.33 U
1,2,3,6,7,8-HXCDF	**0.064 J**	0.1 U	0.064 U
1,2,3,7,8,9-HXCDD	0.57 U	0.3 U	0.078 U (0.22)
1,2,3,7,8,9-HXCDF	0.093 U	0.075 U	0.11 U
1,2,3,7,8-PECDD	0.081 U	0.1 U	0.09 U
1,2,3,7,8-PECDF	0.085 U	0.12 U	0.086 U
2,3,4,6,7,8-HXCDF	0.091 U	0.11 U	0.089 U
2,3,4,7,8-PECDF	0.056 U	0.078 U	0.048 U
2,3,7,8-TCDD	0.13 U	0.15 U	0.14 U
2,3,7,8-TCDF	0.23 U	0.15 U	0.17 U
HPCDD (TOTAL)	**83 J**	25 UJ	13 UJ
HPCDF (TOTAL)	**13 J**	**9.3 J**	4.2 UJ
HXCDD (TOTAL)	5.5	2.5 U	1.8 U
HXCDF (TOTAL)	**1.5 J**	**2.2 J**	0.64 U
PECDD (TOTAL)	**0.14 J**	0.1 U	0.09 U
PECDF (TOTAL)	**0.18 J**	**0.34 J**	**0.11 J**
TCDD (TOTAL)	0.13 U	0.15 U	0.14 U
TCDF (TOTAL)	0.23 U	0.26 U	0.31 U
2,3,7,8-TCDD (TEQ) (WHO 2005)	0.788475	0.3361	0.23769

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY100A**	**KRY103A**	**KRY103A**	**KRY103A**	**KRY105A**	**KRY105A**
Sample Identification	**KRY100ASB001**	**KRY103ASB001**	**KRY103ASB002**	**KRY103ASB003**	**KRY105ASB001**	**KRY105ASB002**
Sample Collection Date	**5/19/2006**	**5/22/2006**	**5/22/2006**	**5/22/2006**	**5/22/2006**	**5/22/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**8**	**5.5**	**9**	**9.5**	**4**	**8**
Lower Depth	**9.5**	**6.5**	**9.5**	**10.5**	**6**	**9.5**
EPH						
C11-C22 Aromatics	11	89	96	126	NA	21 J
C19-C36 Aliphatics	9.5 J	67	17 U	43	NA	12
C9-C18 Aliphatics	9.1 J	19 U	131	13 U	NA	14 U
Total Extractable Hydrocarbons	34	172	372	181	NA	44 J
VPH						
C5-C8 Aliphatics	2.2 U	3.9 UJ	3.5 UJ	2.6 UJ	2.8 UJ	2.8 UJ
C9-C10 Aromatics	2.2 U	3.9 U	3.5 UJ	2.6 U	2.8 U	6.6
C9-C12 Aliphatics	2.2 U	4.7 J	3.5 UJ	2.6 UJ	2.8 UJ	1.9 J
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.2 U	5.1 J	3.5 UJ	2.6 UJ	2.8 UJ	6.4 J
Benzene	0.055 U	0.097 U	0.087 UJ	0.064 U	0.071 U	0.07 U
Ethylbenzene	0.055 U	0.097 U	0.087 UJ	0.064 U	0.071 U	0.07 U
M+P-Xylenes	0.055 U	0.097 U	0.087 UJ	0.064 U	0.071 U	0.07 U
Methyl Tert-Butyl Ether	0.11 U	0.19 UJ	0.17 UJ	0.13 UJ	0.14 UJ	0.14 UJ
Naphthalene	0.11 U	0.19 U	0.17 UJ	0.13 U	0.14 U	0.14 U
O-Xylene	0.055 U	0.097 U	0.087 UJ	0.064 U	0.071 U	0.07 U
Toluene	0.055 U	0.34	0.087 UJ	0.064 U	0.071 U	0.07 U
Xylenes (Total)	0.055 U	0.097 U	0.087 UJ	0.064 U	0.071 U	0.07 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	53	560	448	475	14 U	68

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	KRY111A	KRY113A	KRY114B	KRY116A	KRY121B	KRY123A
Sample Identification	**KRY111ASB001**	**KRY113ASB002**	**KRY114BSB001**	**KRY116ASB001**	**KRY121BSB002**	**KRY123ASB001**
Sample Collection Date	**5/2/2006**	**5/23/2006**	**4/18/2006**	**5/5/2006**	**4/20/2006**	**4/21/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**12**	**18**	**22**	**13**	**25**	**4**
Lower Depth	**14**	**18.5**	**23**	**14.5**	**27**	**6**
EPH						
C11-C22 Aromatics	NA	NA	2660	NA	127	NA
C19-C36 Aliphatics	NA	NA	471	NA	98	NA
C9-C18 Aliphatics	NA	NA	1400	NA	169	NA
Total Extractable Hydrocarbons	NA	NA	4560	NA	432	NA
VPH						
C5-C8 Aliphatics	2.3 U	2.4 U	2.4 U	2.4 U	7.6	2.2 U
C9-C10 Aromatics	2.3 U	2.4 U	67	2.4 U	52	2.2 U
C9-C12 Aliphatics	2.3 U	2.4 U	57	2.4 U	90	2.2 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.3 U	2.4 U	360	2.4 U	182	2.2 U
Benzene	0.057 U	0.061 U	0.059 U	0.061 U	0.058 U	0.054 U
Ethylbenzene	0.057 U	0.061 U	0.059 U	0.061 U	0.095	0.054 U
M+P-Xylenes	0.057 U	0.061 U	0.067	0.061 U	0.058 U	0.054 U
Methyl Tert-Butyl Ether	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Naphthalene	0.11 U	0.12 U	3.6	0.12 U	1.4	0.11 U
O-Xylene	0.057 U	0.061 U	0.089	0.061 U	0.32	0.054 U
Toluene	0.057 U	0.061 U	0.059 U	0.061 U	0.058 U	0.054 U
Xylenes (Total)	0.057 U	0.061 U	0.067	0.061 U	0.32	0.054 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	9.2	9.4	5580	10 U	560	36

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY123A**	**KRY126A**	**KRY126A**	**KRY127A**	**KRY127A**	**KRY129A**
Sample Identification	**KRY123ASB002**	**KRY126ASB001**	**KRY126ASB002**	**KRY127ASB001**	**KRY127ASB002**	**KRY129ASB001**
Sample Collection Date	**4/21/2006**	**5/25/2006**	**5/25/2006**	**5/31/2006**	**5/31/2006**	**5/24/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**20**	**3.5**	**9**	**3.5**	**8**	**15.5**
Lower Depth	**25**	**5**	**10**	**5**	**9.5**	**17.5**
EPH						
C11-C22 Aromatics	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	NA	NA	NA	NA	NA
C9-C18 Aliphatics	NA	NA	NA	NA	NA	NA
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
VPH						
C5-C8 Aliphatics	2.5 U	2.1 U	2.2 U	2.2 U	2.3 U	2.5 U
C9-C10 Aromatics	2.5 U	2.1 U	2.2 U	2.2 U	2.3 U	2.5 U
C9-C12 Aliphatics	2.5 U	2.1 U	2.2 U	2.2 U	2.3 U	2.5 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.5 U	2.1 U	2.2 U	2.2 U	2.3 U	2.5 U
Benzene	0.062 U	0.053 U	0.056 U	0.054 U	0.058 U	0.064 U
Ethylbenzene	0.062 U	0.053 U	0.056 U	0.054 U	0.058 U	0.064 U
M+P-Xylenes	0.062 U	0.053 U	0.056 U	0.054 U	0.058 U	0.064 U
Methyl Tert-Butyl Ether	0.12 U	0.11 U	0.11 U	0.11 U	0.12 U	0.13 U
Naphthalene	0.12 U	0.11 U	0.11 U	0.11 U	0.12 U	0.13 U
O-Xylene	0.062 U	0.053 U	0.056 U	0.054 U	0.058 U	0.064 U
Toluene	0.062 U	0.053 U	0.056 U	0.054 U	0.058 U	0.064 U
Xylenes (Total)	0.062 U	0.053 U	0.056 U	0.054 U	0.058 U	0.064 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	5.4	11 U	11 U	34	12 U	13 U

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY136A**	**KRY136A**	**KRY136A**	**KRY139A**	**KRY601**	**KRY601**
Sample Identification	**KRY136SB001**	**KRY136SB002**	**KRY136SB003**	**KRY139ASB001**	**KRY601SB001**	**KRY601SB002**
Sample Collection Date	**4/24/2006**	**4/24/2006**	**4/24/2006**	**5/24/2006**	**4/27/2006**	**4/27/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**4**	**11**	**23**	**13.5**	**4**	**8**
Lower Depth	**6**	**13**	**25**	**15**	**6**	**10**
EPH						
C11-C22 Aromatics	NA	321	1200	NA	NA	NA
C19-C36 Aliphatics	NA	406	1710	NA	NA	NA
C9-C18 Aliphatics	NA	113	364	NA	NA	NA
Total Extractable Hydrocarbons	NA	971	3840	NA	NA	NA
VPH						
C5-C8 Aliphatics	2.2 U	2.2 J	76	2.5 U	2.5 U	2.1 U
C9-C10 Aromatics	2.2 U	7.7	41	2.5 U	2.5 U	2.1 U
C9-C12 Aliphatics	2.2 U	12	60	2.5 U	2.5 U	2.1 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.2 U	24	153	2.5 U	2.5 U	2.1 U
Benzene	0.055 U	0.069 U	0.056 U	0.062 U	0.064 U	0.054 U
Ethylbenzene	0.055 U	0.069 U	0.26	0.062 U	0.064 U	0.054 U
M+P-Xylenes	0.055 U	0.11	2.1	0.062 U	0.064 U	0.054 U
Methyl Tert-Butyl Ether	0.11 U	0.14 U	0.11 U	0.12 U	0.13 U	0.11 U
Naphthalene	0.11 U	0.18	0.55	0.12 U	0.13 U	0.11 U
O-Xylene	0.055 U	0.069 U	0.51	0.062 U	0.064 U	0.054 U
Toluene	0.055 U	0.069 U	0.056 U	0.062 U	0.064 U	0.054 U
Xylenes (Total)	0.055 U	0.11	2.6	0.062 U	0.064 U	0.054 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	21	1170	4360	13	13 U	11 U

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY601**	**KRY603**	**KRY603**	**KRY603**	**KRY604**	**KRY605**
Sample Identification	**KRY601SB003**	**KRY603SB001**	**KRY603SB002**	**KRY603SB003**	**KRY604SB001**	**KRY605SB001**
Sample Collection Date	**4/27/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**	**6/2/2006**	**4/26/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**19**	**4**	**8**	**19**	**22**	**4**
Lower Depth	**20**	**6**	**10**	**20**	**23**	**6**
EPH						
C11-C22 Aromatics	NA	NA	NA	26	NA	30
C19-C36 Aliphatics	NA	NA	NA	23	NA	60
C9-C18 Aliphatics	NA	NA	NA	75	NA	37
Total Extractable Hydrocarbons	NA	NA	NA	163	NA	181
VPH						
C5-C8 Aliphatics	2.2 U	2.2 U	2.1 U	33	40	2.2 U
C9-C10 Aromatics	2.2 U	2.2 U	2.1 U	55	33	2.2 U
C9-C12 Aliphatics	2.2 U	2.2 U	2.1 U	72	49	3.2
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.2 U	2.2 U	2.1 U	145	106	3.9
Benzene	0.056 U	0.055 U	0.054 U	0.056 U	0.056 U	0.054 U
Ethylbenzene	0.056 U	0.055 U	0.054 U	0.46	0.25	0.054 U
M+P-Xylenes	0.056 U	0.055 U	0.054 U	2.5	0.3	0.054 U
Methyl Tert-Butyl Ether	0.11 U	0.11 U	0.11 U	0.11 U	0.11	0.11 U
Naphthalene	0.11 U	0.11 U	0.11 U	0.81	0.45	0.11 U
O-Xylene	0.056 U	0.055 U	0.054 U	0.58	0.58	0.054 U
Toluene	0.056 U	0.055 U	0.054 U	0.15	0.12	0.054 U
Xylenes (Total)	0.056 U	0.055 U	0.054 U	3	0.88	0.054 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	11 U	24	11 U	127	43	148

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY606**	**KRY606**	**KRY607**	**KRY607**	**KRY608**	**KRY608**
Sample Identification	**KRY606SB001**	**KRY606SB003**	**KRY607SB001**	**KRY607SB002**	**KRY608SB001**	**KRY608SB002**
Sample Collection Date	**4/26/2006**	**4/26/2006**	**4/21/2006**	**4/21/2006**	**5/25/2006**	**5/25/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**4**	**13**	**4**	**15**	**3.5**	**8.5**
Lower Depth	**6**	**15**	**6**	**18**	**5**	**10**
EPH						
C11-C22 Aromatics	57	NA	NA	208	NA	NA
C19-C36 Aliphatics	79	NA	NA	160	NA	NA
C9-C18 Aliphatics	57	NA	NA	150	NA	NA
Total Extractable Hydrocarbons	298	NA	NA	612	NA	NA
VPH						
C5-C8 Aliphatics	2.3 U	2.5 U	2.1 U	2.4 U	2.5 U	2.1 U
C9-C10 Aromatics	4	5.3	2.1 U	2.4 U	2.5 U	2.1 U
C9-C12 Aliphatics	7.9	4.7	2.1 U	2.4 U	2.5 U	2.1 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	15	11	2.1 U	3.6	2.5 U	2.1 U
Benzene	0.057 U	0.063 U	0.053 U	0.061 U	0.062 U	0.053 U
Ethylbenzene	0.057 U	0.15	0.053 U	0.061 U	0.062 U	0.053 U
M+P-Xylenes	0.061	0.27	0.053 U	0.061 U	0.062 U	0.053 U
Methyl Tert-Butyl Ether	0.11 U	0.13 U	0.11 U	0.12 U	0.12 U	0.11 U
Naphthalene	0.2	0.19	0.11 U	0.12 U	0.12 U	0.11 U
O-Xylene	0.057 U	0.063 U	0.053 U	0.061 U	0.062 U	0.053 U
Toluene	0.057 U	0.063 U	0.053 U	0.061 U	0.062 U	0.053 U
Xylenes (Total)	0.061	0.27	0.053 U	0.061 U	0.062 U	0.053 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	248	21	29	712	12 U	11 U

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY608**	**KRY609**	**KRY609**	**KRY609**	**KRY610**	**KRY610**
Sample Identification	**KRY608SB003**	**KRY609SB001**	**KRY609SB002**	**KRY609SB003**	**KRY610SB001**	**KRY610SB002**
Sample Collection Date	**5/25/2006**	**5/24/2006**	**5/24/2006**	**5/24/2006**	**4/24/2006**	**4/24/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**14**	**3.5**	**8.5**	**16**	**4**	**8**
Lower Depth	**15.5**	**4.5**	**10**	**17.5**	**6**	**10**
EPH						
C11-C22 Aromatics	503	NA	NA	56	733	342
C19-C36 Aliphatics	431	NA	NA	26	646	360
C9-C18 Aliphatics	178	NA	NA	32	965	869
Total Extractable Hydrocarbons	1340	NA	NA	132	2540	1620
VPH						
C5-C8 Aliphatics	2.3 U	2.5 U	2.1 U	2.3 U	64	16
C9-C10 Aromatics	2.3 U	2.5 U	2.1 U	2.3 U	113	71
C9-C12 Aliphatics	2.3 U	2.5 U	2.1 U	2.3 U	162	106
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	3.5	2.5 U	2.1 U	2.3 U	341	296
Benzene	0.057 U	0.062 U	0.052 U	0.057 U	0.053 U	0.054 U
Ethylbenzene	0.057 U	0.062 U	0.052 U	0.057 U	1	0.2
M+P-Xylenes	0.057 U	0.062 U	0.052 U	0.057 U	5.2	0.78
Methyl Tert-Butyl Ether	0.11 U	0.12 U	0.1 U	0.11 U	0.11 U	0.11 U
Naphthalene	0.11 U	0.12 U	0.1 U	0.11 U	2.8	2.3
O-Xylene	0.057 U	0.062 U	0.052 U	0.057 U	1.1	0.5
Toluene	0.057 U	0.062 U	0.052 U	0.057 U	0.053 U	0.054 U
Xylenes (Total)	0.057 U	0.062 U	0.052 U	0.057 U	6.3	1.3
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	2030 U	31 U	12	393	3170	2090

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY612**	**KRY612**	**KRY616**	**KRY616**	**KRY617**	**KRY618**
Sample Identification	**KRY612SB001**	**KRY612SB002**	**KRY616SB001**	**KRY616SB002**	**KRY617SB001**	**KRY618SB001**
Sample Collection Date	**4/21/2006**	**4/21/2006**	**4/19/2006**	**4/19/2006**	**4/19/2006**	**4/25/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**4**	**8**	**4**	**8**	**8**	**4**
Lower Depth	**6**	**10**	**6**	**10**	**13**	**6**
EPH						
C11-C22 Aromatics	98	77	NA	NA	NA	NA
C19-C36 Aliphatics	147	62	NA	NA	NA	NA
C9-C18 Aliphatics	30 U	33	NA	NA	NA	NA
Total Extractable Hydrocarbons	418	239	NA	NA	NA	NA
VPH						
C5-C8 Aliphatics	2.6 U	2.4 U	2.2 U	2.2 U	2.7 U	2.1 U
C9-C10 Aromatics	2.6 U	3.5	2.2 U	2.2 U	2.7 U	2.1 U
C9-C12 Aliphatics	2.6 U	3.5	2.2 U	2.2 U	2.7 U	2.1 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.6 U	9.8	2.2 U	2.2 U	2.7 U	2.1 U
Benzene	0.064 U	0.061 U	0.054 U	0.056 U	0.067 U	0.053 U
Ethylbenzene	0.064 U	0.061 U	0.054 U	0.056 U	0.067 U	0.053 U
M+P-Xylenes	0.064 U	0.061 U	0.054 U	0.056 U	0.067 U	0.053 U
Methyl Tert-Butyl Ether	0.13 U	0.12 U	0.11 U	0.11 U	0.13 U	0.11 U
Naphthalene	0.13 U	0.12 U	0.11 U	0.11 U	0.13 U	0.11 U
O-Xylene	0.064 U	0.061 U	0.054 U	0.056 U	0.067 U	0.053 U
Toluene	0.064 U	0.061 U	0.054 U	0.056 U	0.067 U	0.053 U
Xylenes (Total)	0.064 U	0.061 U	0.054 U	0.056 U	0.067 U	0.053 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	674	248	9.3 J	7.2 J	13 J	14

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY618**	**KRY623**	**KRY623**	**KRY625**	**KRY629**	**KRY631**
Sample Identification	**KRY618SB002**	**KRY623SB001**	**KRY623SB002**	**KRY625SB001**	**KRY629SB001**	**KRY631SB001**
Sample Collection Date	**4/25/2006**	**5/11/2006**	**5/11/2006**	**5/11/2006**	**5/10/2006**	**5/10/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**8**	**4**	**8.5**	**13.5**	**14.5**	**19**
Lower Depth	**10**	**5**	**9.5**	**14.5**	**15.5**	**20.5**
EPH						
C11-C22 Aromatics	NA	NA	NA	50	NA	299
C19-C36 Aliphatics	NA	NA	NA	15	NA	89
C9-C18 Aliphatics	NA	NA	NA	24	NA	188
Total Extractable Hydrocarbons	NA	NA	NA	100	NA	588
VPH						
C5-C8 Aliphatics	2.2 U	2.1 U	2.4 U	2.5 U	2.2 U	2.3 U
C9-C10 Aromatics	2.2 U	2.1 U	2.4 U	2.5 U	2.2 U	10
C9-C12 Aliphatics	2.2 U	2.1 U	2.4 U	2.5 U	2.2 U	9.1
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.2 U	2.1 U	2.4 U	9.5	2.2 U	112
Benzene	0.054 U	0.054 U	0.059 U	0.063 U	0.054 U	0.057 U
Ethylbenzene	0.054 U	0.054 U	0.059 U	0.063 U	0.054 U	0.057 U
M+P-Xylenes	0.054 U	0.054 U	0.059 U	0.063 U	0.054 U	0.057 U
Methyl Tert-Butyl Ether	0.11 U	0.11 U	0.12 U	0.13 U	0.11 U	0.11 U
Naphthalene	0.11 U	0.11 U	0.12 U	0.12 J	0.11 U	0.7
O-Xylene	0.054 U	0.054 U	0.059 U	0.063 U	0.054 U	0.057 U
Toluene	0.054 U	0.054 U	0.059 U	0.063 U	0.054 U	0.057 U
Xylenes (Total)	0.054 U	0.054 U	0.059 U	0.063 U	0.054 U	0.057 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	11 U	41	12 U	109	11 U	859

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY632**	**KRY633**	**KRY633**	**KRY633**	**KRY634**	**KRY634**
Sample Identification	**KRY632SB001**	**KRY633SB001**	**KRY633SB002**	**KRY633SB003**	**KRY634SB001**	**KRY634SB002**
Sample Collection Date	**5/17/2006**	**5/17/2006**	**5/17/2006**	**5/17/2006**	**5/18/2006**	**5/18/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**19**	**4**	**8**	**15**	**4**	**8**
Lower Depth	**20.5**	**5.5**	**9.5**	**16.5**	**5.5**	**9.5**
EPH						
C11-C22 Aromatics	2110 J	185	130	317	12 U	33
C19-C36 Aliphatics	412 J	31	38	102	23	37
C9-C18 Aliphatics	1080 J	72	59	244	12 U	19
Total Extractable Hydrocarbons	3610 J	292	229	665	38	94
VPH						
C5-C8 Aliphatics	2.3 U	2.1 U	2.1 U	2.5 J	3	2.1 U
C9-C10 Aromatics	45	4.1	3.6 J	12 J	2.3 U	2.1 U
C9-C12 Aliphatics	27	0.74 J	1.3 J	16 J	2.3 U	2.1 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	214	32	33 J	117 J	3.2	2.1 U
Benzene	0.057 U	0.053 U	0.053 UJ	0.062 UJ	0.059 U	0.054 U
Ethylbenzene	0.057 U	0.053 U	0.053 UJ	0.062 UJ	0.059 U	0.054 U
M+P-Xylenes	0.057 U	0.053 U	0.053 UJ	0.062 UJ	0.059 U	0.054 U
Methyl Tert-Butyl Ether	0.11 U	0.11 U	0.11 U	0.12 UJ	0.12 U	0.11 U
Naphthalene	3.9	0.25	0.44 J	1.2 J	0.12 U	0.11 U
O-Xylene	0.057 U	0.053 U	0.053 UJ	0.062 UJ	0.059 U	0.054 U
Toluene	0.057 U	0.053 U	0.053 UJ	0.062 UJ	0.059 U	0.054 U
Xylenes (Total)	0.057 U	0.053 U	0.053 UJ	0.062 J	0.059 U	0.054 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	4760 J	405	370	790	59	156

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY634**	**KRY635**	**KRY635**	**KRY636**	**KRY637**	**KRY638**
Sample Identification	**KRY634SB003**	**KRY635SB001**	**KRY635SB002**	**KRY636SB001**	**KRY637SB001**	**KRY638SB001**
Sample Collection Date	**5/18/2006**	**5/8/2006**	**5/8/2006**	**5/9/2006**	**5/9/2006**	**5/8/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**15.5**	**4**	**8**	**13.5**	**13.5**	**3.5**
Lower Depth	**18.5**	**4.5**	**9.5**	**15**	**14.5**	**5**
EPH						
C11-C22 Aromatics	5450 J	10 U	NA	2750 J	4030 J	10 U
C19-C36 Aliphatics	1970 J	10 U	NA	551 J	745 J	10 U
C9-C18 Aliphatics	5210 J	10 U	NA	1590 J	1810 J	10 U
Total Extractable Hydrocarbons	12700 J	17	NA	4920 J	6680 J	12
VPH						
C5-C8 Aliphatics	3.2 U	2.3 U	2.1 U	2.4 U	2.4 U	2.2 U
C9-C10 Aromatics	95 J	2.3 U	2.1 U	66	105	2.2 U
C9-C12 Aliphatics	113	2.3 U	2.1 U	56	149	2.2 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	410 J	2.3 U	2.1 U	294	580	2.2 U
Benzene	0.08 UJ	0.058 U	0.052 U	0.06 U	0.06 U	0.054 U
Ethylbenzene	0.08 UJ	0.058 U	0.052 U	0.06 U	0.06 U	0.054 U
M+P-Xylenes	0.08 UJ	0.058 U	0.052 U	0.089	0.12	0.054 U
Methyl Tert-Butyl Ether	0.16 U	0.12 U	0.1 U	0.12	0.12	0.11 U
Naphthalene	3.7 J	0.12 U	0.1 U	3.8	7	0.11 U
O-Xylene	0.08 UJ	0.058 U	0.052 U	0.15	0.17	0.054 U
Toluene	0.08 UJ	0.058 U	0.052 U	0.06 U	0.06 U	0.054 U
Xylenes (Total)	0.08 UJ	0.058 U	0.052 U	0.24	0.29	0.054 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	14800 J	59	8.2	5890 J	8310 J	162

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY638**	**KRY638**	**KRY639**	**KRY640**	**KRY651**	**KRY657**
Sample Identification	**KRY638SB002**	**KRY638SB003**	**KRY639SB001**	**KRY640SB001**	**KRY651SB001**	**KRY657SB001**
Sample Collection Date	**5/8/2006**	**5/8/2006**	**5/8/2006**	**5/8/2006**	**5/18/2006**	**5/15/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**8.5**	**13.5**	**13.5**	**11**	**17**	**4.5**
Lower Depth	**10**	**15**	**15**	**13**	**20**	**5**
EPH						
C11-C22 Aromatics	NA	1110	NA	NA	29	29
C19-C36 Aliphatics	NA	506 J	NA	NA	18	19
C9-C18 Aliphatics	NA	883 J	NA	NA	20	27
Total Extractable Hydrocarbons	NA	2510 J	NA	NA	72	72
VPH						
C5-C8 Aliphatics	2.1 U	2 U	2 U	2.2 U	3.2	2.1 U
C9-C10 Aromatics	2.1 U	22	2 U	2.2 U	2 U	2.1 U
C9-C12 Aliphatics	2.1 U	9.9	2 U	2.2 U	2 U	2.1 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.1 U	196	2 U	2.2 U	4.7	4.3
Benzene	0.053 U	0.05 U	0.05 U	0.055 U	0.05 U	0.052 U
Ethylbenzene	0.053 U	0.05 U	0.05 U	0.055 U	0.05 U	0.052 U
M+P-Xylenes	0.053 U	0.05 U	0.05 U	0.055 U	0.05 U	0.052 U
Methyl Tert-Butyl Ether	0.11 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U
Naphthalene	0.11 U	1.9	0.1 U	0.11 U	0.1 U	0.1 U
O-Xylene	0.053 U	0.05 U	0.05 U	0.055 U	0.05 U	0.052 U
Toluene	0.053 U	0.05 U	0.05 U	0.055 U	0.05 U	0.052 U
Xylenes (Total)	0.053 U	0.05 U	0.05 U	0.055 U	0.05 U	0.052 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	10 U	3420	10 U	10 U	95	139

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY657**	**KRY657**	**KRY658**	**KRY658**	**KRY658**	**KRY659**
Sample Identification	**KRY657SB002**	**KRY657SB003**	**KRY658SB001**	**KRY658SB002**	**KRY658SB003**	**KRY659SB001**
Sample Collection Date	**5/15/2006**	**5/15/2006**	**5/16/2006**	**5/16/2006**	**5/16/2006**	**5/16/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**9**	**15.5**	**4.5**	**8**	**14**	**4**
Lower Depth	**10.5**	**18.5**	**5**	**9.5**	**15.5**	**5.5**
EPH						
C11-C22 Aromatics	84	3800 J	NA	280	5090 J	11
C19-C36 Aliphatics	29	836 J	NA	294	1550 J	16
C9-C18 Aliphatics	51	2150 J	NA	316	2790 J	8.2 J
Total Extractable Hydrocarbons	160	6830 J	NA	881	9530 J	35
VPH						
C5-C8 Aliphatics	2.2 U	2.2 UJ	2.1 U	2.2 U	1.5	2.1 U
C9-C10 Aromatics	2.2 U	105 J	2.1 U	2.2 UJ	96	2.1 U
C9-C12 Aliphatics	2.2 U	99 J	2.1 U	2.2 U	79	2.1 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	9.7	387 J	2.1 U	28 J	311	2.1 U
Benzene	0.054 U	0.056 UJ	0.052 U	0.054 UJ	0.056 U	0.052 U
Ethylbenzene	0.054 U	0.056 UJ	0.052 U	0.054 UJ	0.056 U	0.052 U
M+P-Xylenes	0.054 U	0.13 J	0.052 U	0.054 UJ	0.4	0.052 U
Methyl Tert-Butyl Ether	0.11 U	0.11 UJ	0.1 U	0.11 U	0.11 U	0.1 U
Naphthalene	0.095 J	5.6 J	0.1 U	0.23 J	10	0.1 U
O-Xylene	0.054 U	0.27 J	0.052 U	0.054 UJ	0.41	0.052 U
Toluene	0.054 U	0.056 UJ	0.052 U	0.054 UJ	0.056 U	0.052 U
Xylenes (Total)	0.054 U	0.4 J	0.052 U	0.054 UJ	0.81	0.052 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	261	7130 J	27	1150	10600 J	79

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY659**	**KRY659**	**KRY660**	**KRY660**	**KRY660**	**KRY662**
Sample Identification	**KRY659SB002**	**KRY659SB003**	**KRY660SB001**	**KRY660SB002**	**KRY660SB003**	**KRY662SB001**
Sample Collection Date	**5/16/2006**	**5/16/2006**	**5/22/2006**	**5/22/2006**	**5/22/2006**	**5/16/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**8**	**15.5**	**1.5**	**8**	**16**	**5.5**
Lower Depth	**9.5**	**17**	**5**	**8.5**	**17**	**7**
EPH						
C11-C22 Aromatics	24	3230 J	NA	NA	2470 J	74
C19-C36 Aliphatics	55	836 J	NA	NA	473 J	289
C9-C18 Aliphatics	35	1750 J	NA	NA	1010 J	92
Total Extractable Hydrocarbons	107	5760 J	NA	NA	3980 J	466
VPH						
C5-C8 Aliphatics	2.1 U	1.9	2.1 U	2.1 U	2.3 U	2.1 U
C9-C10 Aromatics	2.1 U	97 J	2.1 U	2.1 U	85 J	2.1 U
C9-C12 Aliphatics	2.1 U	164	2.1 U	2.1 U	88	2.1 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.1 U	445 J	2.1 U	2.1 U	350 J	2 J
Benzene	0.053 U	0.063 UJ	0.053 U	0.054 U	0.057 UJ	0.054 U
Ethylbenzene	0.053 U	0.063 UJ	0.053 U	0.054 U	0.057 UJ	0.054 U
M+P-Xylenes	0.053 U	0.23 J	0.053 U	0.054 U	0.1 J	0.054 U
Methyl Tert-Butyl Ether	0.11 U	0.13 U	0.11 U	0.11 U	0.11 U	0.11 U
Naphthalene	0.11 U	7.1 J	0.11 U	0.11 U	6 J	0.11 U
O-Xylene	0.053 U	0.47 J	0.053 U	0.054 U	0.18 J	0.054 U
Toluene	0.053 U	0.063 UJ	0.053 U	0.054 U	0.057 UJ	0.054 U
Xylenes (Total)	0.053 U	0.69 J	0.053 U	0.054 U	0.28 J	0.054 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	242	11200 J	11 U	15	3510 J	667

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY662**	**KRY662**	**KRY663**	**KRY663**	**KRY663**	**KRY664**
Sample Identification	**KRY662SB002**	**KRY662SB003**	**KRY663SB001**	**KRY663SB002**	**KRY663SB003**	**KRY664SB001**
Sample Collection Date	**5/16/2006**	**5/16/2006**	**5/17/2006**	**5/17/2006**	**5/17/2006**	**5/16/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**8**	**15.5**	**5.5**	**8**	**15.5**	**4**
Lower Depth	**9.5**	**17**	**7**	**9.5**	**17**	**5.5**
EPH						
C11-C22 Aromatics	75	2950 J	NA	NA	1220	NA
C19-C36 Aliphatics	71	741 J	NA	NA	312 J	NA
C9-C18 Aliphatics	85	1610 J	NA	NA	764 J	NA
Total Extractable Hydrocarbons	224	5230 J	NA	NA	2300 J	NA
VPH						
C5-C8 Aliphatics	2.1 U	2.6 UJ	2.1 U	2.2 U	8.7 U	2.5 U
C9-C10 Aromatics	2.1 U	56 J	2.1 U	2.2 U	13	2.5 U
C9-C12 Aliphatics	2.1 U	43 J	2.1 U	2.2 U	13	2.5 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	2890	NA
Total Purgeable Hydrocarbons	2.2	232 J	2.1 U	2.2 U	240	2.5 U
Benzene	0.053 U	0.066 UJ	0.053 U	0.055 U	0.22 U	0.063 U
Ethylbenzene	0.053 U	0.066 UJ	0.053 U	0.055 U	0.22 U	0.063 U
M+P-Xylenes	0.053 U	0.066 UJ	0.053 U	0.055 U	0.22 U	0.063 U
Methyl Tert-Butyl Ether	0.11 U	0.13 UJ	0.11 U	0.11 U	0.44 U	0.13 U
Naphthalene	0.11 U	4.9 J	0.11 U	0.11 U	2 U	0.13 U
O-Xylene	0.053 U	0.06 J	0.053 U	0.055 U	0.22 U	0.063 U
Toluene	0.053 U	0.066 UJ	0.053 U	0.055 U	0.22 U	0.063 U
Xylenes (Total)	0.053 U	0.06 J	0.053 U	0.055 U	0.22 U	0.063 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	380	7240 J	33	27	NA	22

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY664**	**KRY664**	**KRY665**	**KRY665**	**KRY665**	**KRY666**
Sample Identification	**KRY664SB002**	**KRY664SB003**	**KRY665SB001**	**KRY665SB002**	**KRY665SB003**	**KRY666SB001**
Sample Collection Date	**5/16/2006**	**5/16/2006**	**5/16/2006**	**5/16/2006**	**5/16/2006**	**4/27/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**8**	**17**	**4**	**8**	**19**	**4**
Lower Depth	**9.5**	**18.5**	**5.5**	**9.5**	**20.5**	**5**
EPH						
C11-C22 Aromatics	NA	900 J	NA	NA	484	NA
C19-C36 Aliphatics	NA	260 J	NA	NA	87	NA
C9-C18 Aliphatics	NA	525 J	NA	NA	187	NA
Total Extractable Hydrocarbons	NA	1680 J	NA	NA	752	NA
VPH						
C5-C8 Aliphatics	2.1 U	2.2 U	2.4 U	2.1 U	2.2 U	2.3 U
C9-C10 Aromatics	2.1 U	24	2.4 U	2.1 U	11	2.3 U
C9-C12 Aliphatics	2.1 U	22	2.4 U	2.1 U	6.1	2.3 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.1 U	127	2.4 U	2.1 U	59	2.3 U
Benzene	0.052 U	0.054 U	0.06 U	0.052 U	0.055 U	0.058 U
Ethylbenzene	0.052 U	0.054 U	0.06 U	0.052 U	0.055 U	0.058 U
M+P-Xylenes	0.052 U	0.054 U	0.06 U	0.052 U	0.055 U	0.058 U
Methyl Tert-Butyl Ether	0.1 U	0.11	0.12 U	0.1 U	0.11 U	0.12 U
Naphthalene	0.1 U	1.4	0.12 U	0.1 U	1	0.12 U
O-Xylene	0.052 U	0.054 U	0.06 U	0.052 U	0.055 U	0.058 U
Toluene	0.052 U	0.054 U	0.06 U	0.052 U	0.055 U	0.058 U
Xylenes (Total)	0.052 U	0.054 U	0.06 U	0.052 U	0.055 U	0.058 U
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	49	2420	46	30	912	12 U

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY666**	**KRY666**	**KRY667**	**KRY667**	**KRY670**	**KRY670**
Sample Identification	**KRY666SB002**	**KRY666SB003**	**KRY667SB001**	**KRY667SB002**	**KRY670SB001**	**KRY670SB002**
Sample Collection Date	**4/27/2006**	**4/27/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**
Sample Type	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**9**	**20**	**9**	**16**	**3.5**	**8**
Lower Depth	**10**	**21**	**14**	**19**	**5**	**9.5**
EPH						
C11-C22 Aromatics	NA	NA	NA	18	NA	NA
C19-C36 Aliphatics	NA	NA	NA	22	NA	NA
C9-C18 Aliphatics	NA	NA	NA	21	NA	NA
Total Extractable Hydrocarbons	NA	NA	NA	60	NA	NA
VPH						
C5-C8 Aliphatics	2.2 U	4.6	2.1 U	2.3 U	2.1 U	6.7
C9-C10 Aromatics	2.2 U	13	2.1 U	2.3 U	2.1 U	12
C9-C12 Aliphatics	2.2 U	27	2.1 U	2.3 U	2.1 U	18
Total Extractable Hydrocarbons	NA	NA	NA	NA	NA	NA
Total Purgeable Hydrocarbons	2.2 U	48	2.1 U	1.9 J	2.1 U	30
Benzene	0.054 U	0.059 U	0.051 U	0.057 U	0.053 U	0.063 U
Ethylbenzene	0.054 U	0.053 J	0.051 U	0.057 U	0.053 U	0.076
M+P-Xylenes	0.054 U	0.073	0.051 U	0.057 U	0.053 U	0.31
Methyl Tert-Butyl Ether	0.11 U	0.12 U	0.1 U	0.11 U	0.11 U	0.13 U
Naphthalene	0.11 U	0.46	0.1 U	0.11 U	0.11 U	0.12 J
O-Xylene	0.054 U	0.14	0.051 U	0.057 U	0.053 U	0.19
Toluene	0.054 U	0.059 U	0.051 U	0.057 U	0.053 U	0.063 U
Xylenes (Total)	0.054 U	0.22	0.051 U	0.057 U	0.053 U	0.51
Petroleum Hydrocarbons Screen						
Total Extractable Hydrocarbons - Screen	11 U	46	10 U	110	11 U	13 U

Appendix G - 2006 Subsurface Soil Data
EPH and VPH

Sample Station	**KRY672**	**KRY672**	**KRY672**
Sample Identification	**KRY672SB001**	**KRY672SB002**	**KRY672SB003**
Sample Collection Date	**6/2/2006**	**6/2/2006**	**6/2/2006**
Sample Type	**SB**	**SB**	**SB**
Duplicate of			
Units	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**4.5**	**9**	**12**
Lower Depth	**6**	**10.5**	**13.5**
EPH			
C11-C22 Aromatics	NA	NA	17 J
C19-C36 Aliphatics	NA	NA	26
C9-C18 Aliphatics	NA	NA	22 U
Total Extractable Hydrocarbons	NA	NA	82
VPH			
C5-C8 Aliphatics	2.1 U	2.1 U	2.2 U
C9-C10 Aromatics	2.1 U	2.1 U	2.2 U
C9-C12 Aliphatics	2.1 U	2.1 U	2.2 U
Total Extractable Hydrocarbons	NA	NA	NA
Total Purgeable Hydrocarbons	2.1 U	2.1 U	2.2 U
Benzene	0.054 U	0.053 U	0.056 U
Ethylbenzene	0.054 U	0.053 U	0.056 U
M+P-Xylenes	0.054 U	0.053 U	0.056 U
Methyl Tert-Butyl Ether	0.11 U	0.11 U	0.11 U
Naphthalene	0.11 U	0.11 U	0.11 U
O-Xylene	0.054 U	0.053 U	0.056 U
Toluene	0.054 U	0.053 U	0.056 U
Xylenes (Total)	0.054 U	0.053 U	0.056 U
Petroleum Hydrocarbons Screen			
Total Extractable Hydrocarbons - Screen	23	28	134

Appendix G - 2006 Subsurface Soil Data
EPH and VPH Notes

Notes:

EPH = Extractable petroleum hydrocarbons
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
MDEP = Massachusetts Department of Environmental Protection
mg/kg = Milligrams per kilogram
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.
VPH = Volatile petroleum hydrocarbons

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY100A	KRY103A	KRY103A	KRY103A
Sample Identification	KRY100ASB001	KRY103ASB001	KRY103ASB002	KRY103ASB003
Sample Collection Date	5/19/2006	5/22/2006	5/22/2006	5/22/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	5.5	9	9.5
Lower Depth	9.5	6.5	9.5	10.5
1,1,1-Trichloroethane	0.221 U	0.389 U	0.347 U	0.255 U
1,1,2,2-Tetrachloroethane	0.221 U	0.389 U	0.347 U	0.255 U
1,1,2-Trichloroethane	0.221 U	0.389 U	0.347 U	0.255 U
1,1-Dichloroethane	0.221 U	0.389 U	0.347 U	0.255 U
1,1-Dichloroethene	0.221 U	0.389 U	0.347 U	0.255 U
1,2,4-Trimethylbenzene	0.221 U	0.389 U	0.347 U	0.255 U
1,2-Dichloroethane	0.221 U	0.389 U	0.347 U	0.255 U
1,2-Dichloropropane	0.221 U	0.389 U	0.347 U	0.255 U
1,3,5-Trimethylbenzene	0.221 U	0.389 U	0.347 U	0.255 U
2-Butanone	4.43 U	7.78 U	6.94 U	5.1 U
2-Hexanone	4.43 U	7.78 U	6.94 U	5.1 U
4-Isopropyltoluene	0.221 U	1.36	0.091 J	0.255 U
4-Methyl-2-Pentanone	4.43 U	7.78 U	6.94 U	5.1 U
Acetone	4.43 U	7.78 U	6.94 U	5.1 U
Acrolein	4.43 U	7.78 U	6.94 U	5.1 U
Benzene	0.0554 U	0.0973 U	0.0868 U	0.0638 U
Bromoform	0.221 U	0.389 U	0.347 U	0.255 U
Bromomethane	0.221 U	0.389 U	0.347 U	0.255 U
Carbon Disulfide	0.221 U	0.389 U	0.347 U	0.255 U
Carbon Tetrachloride	0.221 U	0.389 U	0.347 U	0.255 U
Chlorobenzene	0.221 U	0.389 U	0.347 U	0.255 U
Chloroethane	0.221 U	0.389 U	0.347 U	0.255 U
Chloroform	0.221 U	0.389 U	0.347 U	0.255 U
Chloromethane	0.221 U	0.389 U	0.347 U	0.255 U
Cis-1,2-Dichloroethene	0.221 U	0.389 U	0.347 U	0.255 U
Cis-1,3-Dichloropropene	0.221 U	0.389 U	0.347 U	0.255 U
Dibromochloromethane	0.221 U	0.389 U	0.347 U	0.255 U
Dichlorobromomethane	0.221 U	0.389 U	0.347 U	0.255 U
Ethylbenzene	0.221 U	0.389 U	0.347 U	0.255 U
Isopropylbenzene	0.221 U	0.389 U	0.347 U	0.255 U
M+P-Xylenes	0.221 U	0.389 U	0.347 U	0.255 U
Methylene Chloride	0.1 J	0.389 U	0.347 U	0.255 U
Naphthalene	0.221 U	0.389 U	0.347 U	0.255 U
N-Butylbenzene	0.221 U	0.389 U	0.347 U	0.255 U
N-Propylbenzene	0.221 U	0.389 U	0.347 U	0.255 U
O-Xylene	0.221 U	0.389 U	0.347 U	0.255 U
Sec-Butylbenzene	0.221 U	0.389 U	0.347 U	0.255 U
Styrene	0.221 U	0.389 U	0.347 U	0.255 U
Tetrachloroethene	0.221 U	0.389 U	0.347 U	0.255 U
Toluene	0.221 U	0.389 U	0.347 U	0.255 U
Trans-1,2-Dichloroethene	0.221 U	0.389 U	0.347 U	0.255 U
Trans-1,3-Dichloropropene	0.221 U	0.389 U	0.347 U	0.255 U
Trichloroethene	0.221 U	0.389 U	0.347 U	0.255 U
Vinyl Acetate	0.221 U	0.389 U	0.347 U	0.255 U
Vinyl Chloride	0.221 U	0.389 U	0.347 U	0.255 U
Xylenes (Total)	0.221 U	0.389 U	0.347 U	0.255 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY105A	KRY105A	KRY111A	KRY113A
Sample Identification	KRY105ASB001	KRY105ASB002	KRY111ASB001	KRY113ASB002
Sample Collection Date	5/22/2006	5/22/2006	5/2/2006	5/23/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	8	12	18
Lower Depth	6	9.5	14	18.5
1,1,1-Trichloroethane	0.284 U	0.278 U	0.228 U	0.243 U
1,1,2,2-Tetrachloroethane	0.284 U	0.278 U	0.228 U	0.243 U
1,1,2-Trichloroethane	0.284 U	0.278 U	0.228 U	0.243 U
1,1-Dichloroethane	0.284 U	0.278 U	0.228 U	0.243 U
1,1-Dichloroethene	0.284 U	0.278 U	0.228 U	0.243 U
1,2,4-Trimethylbenzene	0.284 U	0.278 U	0.228 U	0.243 U
1,2-Dichloroethane	0.284 U	0.278 U	0.228 U	0.243 U
1,2-Dichloropropane	0.284 U	0.278 U	0.228 U	0.243 U
1,3,5-Trimethylbenzene	0.284 U	0.278 U	0.228 U	0.243 U
2-Butanone	5.68 U	5.56 U	4.56 U	4.87 U
2-Hexanone	5.68 U	5.56 U	4.56 U	4.87 U
4-Isopropyltoluene	0.284 U	0.539	0.228 U	0.243 U
4-Methyl-2-Pentanone	5.68 U	5.56 U	4.56 U	4.87 U
Acetone	5.68 U	5.56 U	4.56 U	4.87 U
Acrolein	5.68 U	5.56 U	4.56 U	4.87 U
Benzene	0.071 U	0.0695 U	0.0569 U	0.0608 U
Bromoform	0.284 U	0.278 U	0.228 U	0.243 U
Bromomethane	0.284 U	0.278 U	0.228 U	0.243 U
Carbon Disulfide	0.284 U	0.278 U	0.228 U	0.243 U
Carbon Tetrachloride	0.284 U	0.278 U	0.228 U	0.243 U
Chlorobenzene	0.284 U	0.278 U	0.228 U	0.243 U
Chloroethane	0.284 U	0.278 U	0.228 U	0.243 U
Chloroform	0.284 U	0.278 U	0.228 U	0.243 U
Chloromethane	0.284 U	0.278 U	0.228 U	0.243 U
Cis-1,2-Dichloroethene	0.284 U	0.278 U	0.228 U	0.243 U
Cis-1,3-Dichloropropene	0.284 U	0.278 U	0.228 U	0.243 U
Dibromochloromethane	0.284 U	0.278 U	0.228 U	0.243 U
Dichlorobromomethane	0.284 U	0.278 U	0.228 U	0.243 U
Ethylbenzene	0.284 U	0.278 U	0.228 U	0.243 U
Isopropylbenzene	0.284 U	0.278 U	0.228 U	0.243 U
M+P-Xylenes	0.284 U	0.278 U	0.228 U	0.243 U
Methylene Chloride	0.284 U	0.278 U	0.228 U	0.243 U
Naphthalene	0.284 U	0.278 U	0.228 U	0.243 U
N-Butylbenzene	0.284 U	0.278 U	0.228 U	0.243 U
N-Propylbenzene	0.284 U	0.278 U	0.228 U	0.243 U
O-Xylene	0.284 U	0.278 U	0.228 U	0.243 U
Sec-Butylbenzene	0.284 U	0.278 U	0.228 U	0.243 U
Styrene	0.284 U	0.278 U	0.228 U	0.243 U
Tetrachloroethene	0.284 U	0.278 U	0.228 U	0.243 U
Toluene	0.284 U	0.278 U	0.228 U	0.243 U
Trans-1,2-Dichloroethene	0.284 U	0.278 U	0.228 U	0.243 U
Trans-1,3-Dichloropropene	0.284 U	0.278 U	0.228 U	0.243 U
Trichloroethene	0.284 U	0.278 U	0.228 U	0.243 U
Vinyl Acetate	0.284 U	0.278 U	0.228 U	0.243 U
Vinyl Chloride	0.284 U	0.278 U	0.228 U	0.243 U
Xylenes (Total)	0.284 U	0.278 U	0.228 U	0.243 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY114B	KRY116A	KRY121B	KRY123A
Sample Identification	KRY114BSB001	KRY116ASB001	KRY121BSB002	KRY123ASB001
Sample Collection Date	4/18/2006	5/5/2006	4/20/2006	4/21/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	22	13	25	4
Lower Depth	23	14.5	27	6
1,1,1-Trichloroethane	0.236 U	0.244 U	0.233 U	0.215 U
1,1,2,2-Tetrachloroethane	0.236 U	0.244 U	0.233 U	0.215 U
1,1,2-Trichloroethane	0.236 U	0.244 U	0.233 U	0.215 U
1,1-Dichloroethane	0.236 U	0.244 U	0.233 U	0.215 U
1,1-Dichloroethene	0.236 U	0.244 U	0.233 U	0.215 U
1,2,4-Trimethylbenzene	1.01	0.244 U	0.233 U	0.215 U
1,2-Dichloroethane	0.236 U	0.244 U	0.233 U	0.215 U
1,2-Dichloropropane	0.236 U	0.244 U	0.233 U	0.215 U
1,3,5-Trimethylbenzene	0.982	0.244 U	0.233 U	0.215 U
2-Butanone	4.72 U	4.88 U	4.66 U	4.31 U
2-Hexanone	4.72 U	4.88 U	4.66 U	4.31 U
4-Isopropyltoluene	0.806	0.244 U	0.233 U	0.215 U
4-Methyl-2-Pentanone	4.72 U	4.88 U	4.66 U	4.31 U
Acetone	4.72 U	4.88 U	4.66 U	4.31 U
Acrolein	4.72 U	4.88 U	4.66 U	4.31 U
Benzene	0.059 U	0.061 U	0.0583 U	0.0538 U
Bromoform	0.236 U	0.244 U	0.233 U	0.215 U
Bromomethane	0.236 U	0.244 U	0.233 U	0.215 U
Carbon Disulfide	0.236 U	0.244 U	0.233 U	0.215 U
Carbon Tetrachloride	0.236 U	0.244 U	0.233 U	0.215 U
Chlorobenzene	0.236 U	0.244 U	0.233 U	0.215 U
Chloroethane	0.236 U	0.244 U	0.233 U	0.215 U
Chloroform	0.236 U	0.244 U	0.233 U	0.215 U
Chloromethane	0.236 U	0.244 U	0.233 U	0.215 U
Cis-1,2-Dichloroethene	0.236 U	0.244 U	0.233 U	0.215 U
Cis-1,3-Dichloropropene	0.236 U	0.244 U	0.233 U	0.215 U
Dibromochloromethane	0.236 U	0.244 U	0.233 U	0.215 U
Dichlorobromomethane	0.236 U	0.244 U	0.233 U	0.215 U
Ethylbenzene	0.236 U	0.244 U	0.233 U	0.215 U
Isopropylbenzene	0.236 U	0.244 U	0.233 U	0.215 U
M+P-Xylenes	0.1 J	0.244 U	0.233 U	0.215 U
Methylene Chloride	0.236 U	0.244 U	0.233 U	0.215 U
Naphthalene	3.23	0.244 U	0.233 U	0.215 U
N-Butylbenzene	7.78	0.244 U	0.233 U	0.215 U
N-Propylbenzene	0.236 U	0.244 U	0.233 U	0.215 U
O-Xylene	0.244	0.244 U	0.233 U	0.215 U
Sec-Butylbenzene	0.236 U	0.244 U	0.233 U	0.215 U
Styrene	0.236 U	0.244 U	0.233 U	0.215 U
Tetrachloroethene	0.236 U	0.244 U	0.233 U	0.215 U
Toluene	0.236 U	0.244 U	0.233 U	0.215 U
Trans-1,2-Dichloroethene	0.236 U	0.244 U	0.233 U	0.215 U
Trans-1,3-Dichloropropene	0.236 U	0.244 U	0.233 U	0.215 U
Trichloroethene	0.236 U	0.244 U	0.233 U	0.215 U
Vinyl Acetate	0.236 U	0.244 U	0.233 U	0.215 U
Vinyl Chloride	0.236 U	0.244 U	0.233 U	0.215 U
Xylenes (Total)	0.244 J	0.244 U	0.233 U	0.215 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY123A	KRY126A	KRY126A	KRY127A
Sample Identification	KRY123ASB002	KRY126ASB001	KRY126ASB002	KRY127ASB001
Sample Collection Date	4/21/2006	5/25/2006	5/25/2006	5/31/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	20	3.5	9	3.5
Lower Depth	25	5	10	5
1,1,1-Trichloroethane	0.248 U	0.211 U	0.224 U	0.215 U
1,1,2,2-Tetrachloroethane	0.248 U	0.211 U	0.224 U	0.215 U
1,1,2-Trichloroethane	0.248 U	0.211 U	0.224 U	0.215 U
1,1-Dichloroethane	0.248 U	0.211 U	0.224 U	0.215 U
1,1-Dichloroethene	0.248 U	0.211 U	0.224 U	0.215 U
1,2,4-Trimethylbenzene	0.248 U	0.211 U	0.224 U	0.215 U
1,2-Dichloroethane	0.248 U	0.211 U	0.224 U	0.215 U
1,2-Dichloropropane	0.248 U	0.211 U	0.224 U	0.215 U
1,3,5-Trimethylbenzene	0.248 U	0.211 U	0.224 U	0.215 U
2-Butanone	4.96 U	4.21 U	4.49 U	4.31 U
2-Hexanone	4.96 U	4.21 U	4.49 U	4.31 U
4-Isopropyltoluene	0.248 U	0.211 U	0.224 U	0.215 U
4-Methyl-2-Pentanone	4.96 U	4.21 U	4.49 U	4.31 U
Acetone	4.96 U	4.21 U	4.49 U	4.31 U
Acrolein	4.96 U	4.21 U	4.49 U	4.31 U
Benzene	0.0621 U	0.0527 U	0.0561 U	0.0538 U
Bromoform	0.248 U	0.211 U	0.224 U	0.215 U
Bromomethane	0.248 U	0.211 U	0.224 U	0.215 U
Carbon Disulfide	0.248 U	0.211 U	0.224 U	0.215 U
Carbon Tetrachloride	0.248 U	0.211 U	0.224 U	0.215 U
Chlorobenzene	0.248 U	0.211 U	0.224 U	0.215 U
Chloroethane	0.248 U	0.211 U	0.224 U	0.215 U
Chloroform	0.248 U	0.211 U	0.224 U	0.215 U
Chloromethane	0.248 U	0.211 U	0.224 U	0.215 U
Cis-1,2-Dichloroethene	0.248 U	0.211 U	0.224 U	0.215 U
Cis-1,3-Dichloropropene	0.248 U	0.211 U	0.224 U	0.215 U
Dibromochloromethane	0.248 U	0.211 U	0.224 U	0.215 U
Dichlorobromomethane	0.248 U	0.211 U	0.224 U	0.215 U
Ethylbenzene	0.248 U	0.211 U	0.224 U	0.215 U
Isopropylbenzene	0.248 U	0.211 U	0.224 U	0.215 U
M+P-Xylenes	0.248 U	0.211 U	0.224 U	0.215 U
Methylene Chloride	0.248 U	0.211 U	0.224 U	0.215 U
Naphthalene	0.248 U	0.211 U	0.224 U	0.215 U
N-Butylbenzene	0.248 U	0.211 U	0.224 U	0.215 U
N-Propylbenzene	0.248 U	0.211 U	0.224 U	0.215 U
O-Xylene	0.248 U	0.211 U	0.224 U	0.215 U
Sec-Butylbenzene	0.248 U	0.211 U	0.224 U	0.215 U
Styrene	0.248 U	0.211 U	0.224 U	0.215 U
Tetrachloroethene	0.248 U	0.211 U	0.224 U	0.215 U
Toluene	0.248 U	0.211 U	0.224 U	0.215 U
Trans-1,2-Dichloroethene	0.248 U	0.211 U	0.224 U	0.215 U
Trans-1,3-Dichloropropene	0.248 U	0.211 U	0.224 U	0.215 U
Trichloroethene	0.248 U	0.211 U	0.224 U	0.215 U
Vinyl Acetate	0.248 U	0.211 U	0.224 U	0.215 U
Vinyl Chloride	0.248 U	0.211 U	0.224 U	0.215 U
Xylenes (Total)	0.248 U	0.211 U	0.224 U	0.215 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY127A	KRY129A	KRY136A	KRY136A
Sample Identification	KRY127ASB002	KRY129ASB001	KRY136SB001	KRY136SB002
Sample Collection Date	5/31/2006	5/24/2006	4/24/2006	4/24/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	15.5	4	11
Lower Depth	9.5	17.5	6	13
1,1,1-Trichloroethane	0.232 U	0.255 U	96	0.275 U
1,1,2,2-Tetrachloroethane	0.232 U	0.255 U	0.219 U	0.275 U
1,1,2-Trichloroethane	0.232 U	0.255 U	0.219 U	0.275 U
1,1-Dichloroethane	0.232 U	0.255 U	0.219 U	0.275 U
1,1-Dichloroethene	0.232 U	0.255 U	0.219 U	0.275 U
1,2,4-Trimethylbenzene	0.232 U	0.255 U	0.219 U	0.275 U
1,2-Dichloroethane	0.232 U	0.255 U	0.219 U	0.275 U
1,2-Dichloropropane	0.232 U	0.255 U	0.219 U	0.275 U
1,3,5-Trimethylbenzene	0.232 U	0.255 U	0.219 U	0.275 U
2-Butanone	4.65 U	5.1 U	0.219 U	5.5 U
2-Hexanone	4.65 U	5.1 U	0.219 U	5.5 U
4-Isopropyltoluene	0.232 U	0.255 U	0.219 U	0.275 U
4-Methyl-2-Pentanone	4.65 U	5.1 U	4.37 U	5.5 U
Acetone	4.65 U	5.1 U	4.37 U	5.5 U
Acrolein	4.65 U	5.1 U	4.37 U	5.5 U
Benzene	0.0581 U	0.0637 U	4.37 U	0.0687 U
Bromoform	0.232 U	0.255 U	0.219 U	0.275 U
Bromomethane	0.232 U	0.255 U	0.219 U	0.275 U
Carbon Disulfide	0.232 U	0.255 U	0.219 U	0.275 U
Carbon Tetrachloride	0.232 U	0.255 U	0.219 U	0.275 U
Chlorobenzene	0.232 U	0.255 U	0.219 U	0.275 U
Chloroethane	0.232 U	0.255 U	0.219 U	0.275 U
Chloroform	0.232 U	0.255 U	0.219 U	0.275 U
Chloromethane	0.232 U	0.255 U	0.219 U	0.275 U
Cis-1,2-Dichloroethene	0.232 U	0.255 U	0.219 U	0.275 U
Cis-1,3-Dichloropropene	0.232 U	0.255 U	0.219 U	0.275 U
Dibromochloromethane	0.232 U	0.255 U	0.219 U	0.275 U
Dichlorobromomethane	0.232 U	0.255 U	0.0547 U	0.275 U
Ethylbenzene	0.232 U	0.255 U	0.219 U	0.275 U
Isopropylbenzene	0.232 U	0.255 U	0.219 U	0.275 U
M+P-Xylenes	0.232 U	0.255 U	0.219 U	0.275 U
Methylene Chloride	0.232 U	0.255 U	4.37 U	0.275 U
Naphthalene	0.232 U	0.255 U	0.219 U	0.275 U
N-Butylbenzene	0.232 U	0.255 U	0.219 U	0.275 U
N-Propylbenzene	0.232 U	0.255 U	0.219 U	0.275 U
O-Xylene	0.232 U	0.255 U	0.219 U	0.275 U
Sec-Butylbenzene	0.232 U	0.255 U	0.219 U	0.275 U
Styrene	0.232 U	0.255 U	0.219 U	0.275 U
Tetrachloroethene	0.232 U	0.255 U	0.219 U	0.275 U
Toluene	0.232 U	0.255 U	0.219 U	0.275 U
Trans-1,2-Dichloroethene	0.232 U	0.255 U	0.219 U	0.275 U
Trans-1,3-Dichloropropene	0.232 U	0.255 U	0.219 U	0.275 U
Trichloroethene	0.232 U	0.255 U	0.219 U	0.275 U
Vinyl Acetate	0.232 U	0.255 U	0.219 U	0.275 U
Vinyl Chloride	0.232 U	0.255 U	0.219 U	0.275 U
Xylenes (Total)	0.232 U	0.255 U	0.219 U	0.275 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY136A	KRY139A	KRY601	KRY601
Sample Identification	KRY136SB003	KRY139ASB001	KRY601SB001	KRY601SB002
Sample Collection Date	4/24/2006	5/24/2006	4/27/2006	4/27/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	23	13.5	4	8
Lower Depth	25	15	6	10
1,1,1-Trichloroethane	0.223 U	0.249 U	0.255 U	0.215 U
1,1,2,2-Tetrachloroethane	0.223 U	0.249 U	0.255 U	0.215 U
1,1,2-Trichloroethane	0.223 U	0.249 U	0.255 U	0.215 U
1,1-Dichloroethane	0.223 U	0.249 U	0.255 U	0.215 U
1,1-Dichloroethene	0.223 U	0.249 U	0.255 U	0.215 U
1,2,4-Trimethylbenzene	3.55	0.249 U	0.255 U	0.215 U
1,2-Dichloroethane	0.223 U	0.249 U	0.255 U	0.215 U
1,2-Dichloropropane	0.223 U	0.249 U	0.255 U	0.215 U
1,3,5-Trimethylbenzene	1.41	0.249 U	0.255 U	0.215 U
2-Butanone	4.47 U	4.98 U	5.1 U	4.3 U
2-Hexanone	4.47 U	4.98 U	5.1 U	4.3 U
4-Isopropyltoluene	0.442	0.249 U	0.255 U	0.215 U
4-Methyl-2-Pentanone	4.47 U	4.98 U	5.1 U	4.3 U
Acetone	4.47 U	4.98 U	5.1 U	4.3 U
Acrolein	4.47 U	4.98 U	5.1 U	4.3 U
Benzene	0.0558 U	0.0622 U	0.0637 U	0.0537 U
Bromoform	0.223 U	0.249 U	0.255 U	0.215 U
Bromomethane	0.223 U	0.249 U	0.255 U	0.215 U
Carbon Disulfide	0.223 U	0.249 U	0.255 U	0.215 U
Carbon Tetrachloride	0.223 U	0.249 U	0.255 U	0.215 U
Chlorobenzene	0.223 U	0.249 U	0.255 U	0.215 U
Chloroethane	0.223 U	0.249 U	0.255 U	0.215 U
Chloroform	0.223 U	0.249 U	0.255 U	0.215 U
Chloromethane	0.223 U	0.249 U	0.255 U	0.215 U
Cis-1,2-Dichloroethene	0.223 U	0.249 U	0.255 U	0.215 U
Cis-1,3-Dichloropropene	0.223 U	0.249 U	0.255 U	0.215 U
Dibromochloromethane	0.223 U	0.249 U	0.255 U	0.215 U
Dichlorobromomethane	0.223 U	0.249 U	0.255 U	0.215 U
Ethylbenzene	0.223 U	0.249 U	0.255 U	0.215 U
Isopropylbenzene	0.412	0.249 U	0.255 U	0.215 U
M+P-Xylenes	1.04	0.249 U	0.255 U	0.215 U
Methylene Chloride	0.223 U	0.249 U	0.255 U	0.215 U
Naphthalene	0.265	0.249 U	0.255 U	0.215 U
N-Butylbenzene	3.36	0.249 U	0.255 U	0.215 U
N-Propylbenzene	0.629	0.249 U	0.255 U	0.215 U
O-Xylene	0.223 U	0.249 U	0.255 U	0.215 U
Sec-Butylbenzene	0.358	0.249 U	0.255 U	0.215 U
Styrene	0.223 U	0.249 U	0.255 U	0.215 U
Tetrachloroethene	0.223 U	0.249 U	0.255 U	0.215 U
Toluene	0.223 U	0.249 U	0.255 U	0.215 U
Trans-1,2-Dichloroethene	0.223 U	0.249 U	0.255 U	0.215 U
Trans-1,3-Dichloropropene	0.223 U	0.249 U	0.255 U	0.215 U
Trichloroethene	0.223 U	0.249 U	0.255 U	0.215 U
Vinyl Acetate	0.223 U	0.249 U	0.255 U	0.215 U
Vinyl Chloride	0.223 U	0.249 U	0.255 U	0.215 U
Xylenes (Total)	1.04	0.249 U	0.255 U	0.215 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY601	KRY603	KRY603	KRY603
Sample Identification	KRY601SB003	KRY603SB001	KRY603SB002	KRY603SB003
Sample Collection Date	4/27/2006	4/26/2006	4/26/2006	4/26/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	19	4	8	19
Lower Depth	20	6	10	20
1,1,1-Trichloroethane	0.224 U	0.221 U	0.214 U	0.225 U
1,1,2,2-Tetrachloroethane	0.224 U	0.221 U	0.214 U	0.225 U
1,1,2-Trichloroethane	0.224 U	0.221 U	0.214 U	0.225 U
1,1-Dichloroethane	0.224 U	0.221 U	0.214 U	0.225 U
1,1-Dichloroethene	0.224 U	0.221 U	0.214 U	0.225 U
1,2,4-Trimethylbenzene	0.224 U	0.221 U	0.214 U	9.98
1,2-Dichloroethane	0.224 U	0.221 U	0.214 U	0.225 U
1,2-Dichloropropane	0.224 U	0.221 U	0.214 U	0.225 U
1,3,5-Trimethylbenzene	0.224 U	0.221 U	0.214 U	3.15
2-Butanone	4.47 U	4.42 U	4.28 U	4.49 U
2-Hexanone	4.47 U	4.42 U	4.28 U	4.49 U
4-Isopropyltoluene	0.224 U	0.221 U	0.214 U	0.76
4-Methyl-2-Pentanone	4.47 U	4.42 U	4.28 U	4.49 U
Acetone	4.47 U	4.42 U	4.28 U	4.49 U
Acrolein	4.47 U	4.42 U	4.28 U	4.49 U
Benzene	0.0559 U	0.0553 U	0.0535 U	0.0562 U
Bromoform	0.224 U	0.221 U	0.214 U	0.225 U
Bromomethane	0.224 U	0.221 U	0.214 U	0.225 U
Carbon Disulfide	0.224 U	0.221 U	0.214 U	0.225 U
Carbon Tetrachloride	0.224 U	0.221 U	0.214 U	0.225 U
Chlorobenzene	0.224 U	0.221 U	0.214 U	0.225 U
Chloroethane	0.224 U	0.221 U	0.214 U	0.225 U
Chloroform	0.224 U	0.221 U	0.214 U	0.225 U
Chloromethane	0.224 U	0.221 U	0.214 U	0.225 U
Cis-1,2-Dichloroethene	0.224 U	0.221 U	0.214 U	0.225 U
Cis-1,3-Dichloropropene	0.224 U	0.221 U	0.214 U	0.225 U
Dibromochloromethane	0.224 U	0.221 U	0.214 U	0.225 U
Dichlorobromomethane	0.224 U	0.221 U	0.214 U	0.225 U
Ethylbenzene	0.224 U	0.221 U	0.214 U	0.2 J
Isopropylbenzene	0.224 U	0.221 U	0.214 U	0.568
M+P-Xylenes	0.224 U	0.221 U	0.214 U	1.1
Methylene Chloride	0.224 U	0.221 U	0.214 U	0.225 U
Naphthalene	0.224 U	0.221 U	0.214 U	0.225 U
N-Butylbenzene	0.224 U	0.221 U	0.214 U	3.53
N-Propylbenzene	0.224 U	0.221 U	0.214 U	1.08
O-Xylene	0.224 U	0.221 U	0.214 U	0.225 U
Sec-Butylbenzene	0.224 U	0.221 U	0.214 U	0.485
Styrene	0.224 U	0.221 U	0.214 U	0.225 U
Tetrachloroethene	0.224 U	0.221 U	0.214 U	0.225 U
Toluene	0.224 U	0.221 U	0.214 U	0.225 U
Trans-1,2-Dichloroethene	0.224 U	0.221 U	0.214 U	0.225 U
Trans-1,3-Dichloropropene	0.224 U	0.221 U	0.214 U	0.225 U
Trichloroethene	0.224 U	0.221 U	0.214 U	0.225 U
Vinyl Acetate	0.224 U	0.221 U	0.214 U	0.225 U
Vinyl Chloride	0.224 U	0.221 U	0.214 U	0.225 U
Xylenes (Total)	0.224 U	0.221 U	0.214 U	1.1

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY604	KRY605	KRY606	KRY606
Sample Identification	KRY604SB001	KRY605SB001	KRY606SB001	KRY606SB003
Sample Collection Date	6/2/2006	4/26/2006	4/26/2006	4/26/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	22	4	4	13
Lower Depth	23	6	6	15
1,1,1-Trichloroethane	0.225 U	0.217 U	0.211 U	0.252 U
1,1,2,2-Tetrachloroethane	0.225 U	0.217 U	0.211 U	0.252 U
1,1,2-Trichloroethane	0.225 U	0.217 U	0.211 U	0.252 U
1,1-Dichloroethane	0.225 U	0.217 U	0.211 U	0.252 U
1,1-Dichloroethene	0.225 U	0.217 U	0.211 U	0.252 U
1,2,4-Trimethylbenzene	0.355	0.217 U	0.211 U	0.393
1,2-Dichloroethane	0.225 U	0.217 U	0.211 U	0.252 U
1,2-Dichloropropane	0.225 U	0.217 U	0.211 U	0.252 U
1,3,5-Trimethylbenzene	0.15 J	0.217 U	0.211 U	0.14 J
2-Butanone	4.51 U	4.34 U	4.22 U	5.04 U
2-Hexanone	4.51 U	4.34 U	4.22 U	5.04 U
4-Isopropyltoluene	0.225 U	0.217 U	0.211 U	0.252 U
4-Methyl-2-Pentanone	4.51 U	4.34 U	4.22 U	5.04 U
Acetone	4.51 U	4.34 U	4.22 U	5.04 U
Acrolein	4.51 U	4.34 U	4.22 U	5.04 U
Benzene	0.0564 U	0.0542 U	0.0527 U	0.063 U
Bromoform	0.225 U	0.217 U	0.211 U	0.252 U
Bromomethane	0.225 U	0.217 U	0.211 U	0.252 U
Carbon Disulfide	0.225 U	0.217 U	0.211 U	0.252 U
Carbon Tetrachloride	0.225 U	0.217 U	0.211 U	0.252 U
Chlorobenzene	0.225 U	0.217 U	0.211 U	0.252 U
Chloroethane	0.225 U	0.217 U	0.211 U	0.252 U
Chloroform	0.225 U	0.217 U	0.211 U	0.252 U
Chloromethane	0.225 U	0.217 U	0.211 U	0.252 U
Cis-1,2-Dichloroethene	0.225 U	0.217 U	0.211 U	0.252 U
Cis-1,3-Dichloropropene	0.225 U	0.217 U	0.211 U	0.252 U
Dibromochloromethane	0.225 U	0.217 U	0.211 U	0.252 U
Dichlorobromomethane	0.225 U	0.217 U	0.211 U	0.252 U
Ethylbenzene	0.225 U	0.217 U	0.211 U	0.11 J
Isopropylbenzene	0.225 U	0.217 U	0.211 U	0.252 U
M+P-Xylenes	0.225 U	0.217 U	0.211 U	0.21 J
Methylene Chloride	0.225 U	0.217 U	0.211 U	0.252 U
Naphthalene	0.225 U	0.217 U	0.211 U	0.1 J
N-Butylbenzene	1.12	0.217 U	0.211 U	0.262
N-Propylbenzene	0.225 U	0.217 U	0.211 U	0.252 U
O-Xylene	0.225 U	0.217 U	0.211 U	0.252 U
Sec-Butylbenzene	0.225 U	0.217 U	0.211 U	0.252 U
Styrene	0.225 U	0.217 U	0.211 U	0.252 U
Tetrachloroethene	0.225 U	0.217 U	0.211 U	0.252 U
Toluene	0.225 U	0.217 U	0.211 U	0.252 U
Trans-1,2-Dichloroethene	0.225 U	0.217 U	0.211 U	0.252 U
Trans-1,3-Dichloropropene	0.225 U	0.217 U	0.211 U	0.252 U
Trichloroethene	0.225 U	0.217 U	0.211 U	0.252 U
Vinyl Acetate	0.225 U	0.217 U	0.211 U	0.252 U
Vinyl Chloride	0.225 U	0.217 U	0.211 U	0.252 U
Xylenes (Total)	0.225 U	0.217 U	0.211 U	0.21 J

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY607	KRY607	KRY608	KRY608
Sample Identification	KRY607SB001	KRY607SB002	KRY608SB001	KRY608SB002
Sample Collection Date	4/21/2006	4/21/2006	5/25/2006	5/25/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	15	3.5	8.5
Lower Depth	6	18	5	10
1,1,1-Trichloroethane	0.21 U	0.245 U	0.246 U	0.212 U
1,1,2,2-Tetrachloroethane	0.21 U	0.245 U	0.246 U	0.212 U
1,1,2-Trichloroethane	0.21 U	0.245 U	0.246 U	0.212 U
1,1-Dichloroethane	0.21 U	0.245 U	0.246 U	0.212 U
1,1-Dichloroethene	0.21 U	0.245 U	0.246 U	0.212 U
1,2,4-Trimethylbenzene	0.21 U	0.245 U	0.246 U	0.212 U
1,2-Dichloroethane	0.21 U	0.245 U	0.246 U	0.212 U
1,2-Dichloropropane	0.21 U	0.245 U	0.246 U	0.212 U
1,3,5-Trimethylbenzene	0.21 U	0.245 U	0.246 U	0.212 U
2-Butanone	4.21 U	4.9 U	4.92 U	4.24 U
2-Hexanone	4.21 U	4.9 U	4.92 U	4.24 U
4-Isopropyltoluene	0.21 U	0.245 U	0.246 U	0.212 U
4-Methyl-2-Pentanone	4.21 U	4.9 U	4.92 U	4.24 U
Acetone	4.21 U	4.9 U	4.92 U	4.24 U
Acrolein	4.21 U	4.9 U	4.92 U	4.24 U
Benzene	0.0526 U	0.0613 U	0.0615 U	0.053 U
Bromoform	0.21 U	0.245 U	0.246 U	0.212 U
Bromomethane	0.21 U	0.245 U	0.246 U	0.212 U
Carbon Disulfide	0.21 U	0.245 U	0.246 U	0.212 U
Carbon Tetrachloride	0.21 U	0.245 U	0.246 U	0.212 U
Chlorobenzene	0.21 U	0.245 U	0.246 U	0.212 U
Chloroethane	0.21 U	0.245 U	0.246 U	0.212 U
Chloroform	0.21 U	0.245 U	0.246 U	0.212 U
Chloromethane	0.21 U	0.245 U	0.246 U	0.212 U
Cis-1,2-Dichloroethene	0.21 U	0.245 U	0.246 U	0.212 U
Cis-1,3-Dichloropropene	0.21 U	0.245 U	0.246 U	0.212 U
Dibromochloromethane	0.21 U	0.245 U	0.246 U	0.212 U
Dichlorobromomethane	0.21 U	0.245 U	0.246 U	0.212 U
Ethylbenzene	0.21 U	0.245 U	0.246 U	0.212 U
Isopropylbenzene	0.21 U	0.245 U	0.246 U	0.212 U
M+P-Xylenes	0.21 U	0.245 U	0.246 U	0.212 U
Methylene Chloride	0.21 U	0.245 U	0.246 U	0.212 U
Naphthalene	0.21 U	0.245 U	0.246 U	0.212 U
N-Butylbenzene	0.21 U	0.245 U	0.246 U	0.212 U
N-Propylbenzene	0.21 U	0.245 U	0.246 U	0.212 U
O-Xylene	0.21 U	0.245 U	0.246 U	0.212 U
Sec-Butylbenzene	0.21 U	0.245 U	0.246 U	0.212 U
Styrene	0.21 U	0.245 U	0.246 U	0.212 U
Tetrachloroethene	0.21 U	0.245 U	0.246 U	0.212 U
Toluene	0.21 U	0.245 U	0.246 U	0.212 U
Trans-1,2-Dichloroethene	0.21 U	0.245 U	0.246 U	0.212 U
Trans-1,3-Dichloropropene	0.21 U	0.245 U	0.246 U	0.212 U
Trichloroethene	0.21 U	0.245 U	0.246 U	0.212 U
Vinyl Acetate	0.21 U	0.245 U	0.246 U	0.212 U
Vinyl Chloride	0.21 U	0.245 U	0.246 U	0.212 U
Xylenes (Total)	0.21 U	0.245 U	0.246 U	0.212 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY608	KRY609	KRY609	KRY609
Sample Identification	KRY608SB003	KRY609SB001	KRY609SB002	KRY609SB003
Sample Collection Date	5/25/2006	5/24/2006	5/24/2006	5/24/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	14	3.5	8.5	16
Lower Depth	15.5	4.5	10	17.5
1,1,1-Trichloroethane	0.227 U	0.249 U	0.208 U	0.228 U
1,1,2,2-Tetrachloroethane	0.227 U	0.249 U	0.208 U	0.228 U
1,1,2-Trichloroethane	0.227 U	0.249 U	0.208 U	0.228 U
1,1-Dichloroethane	0.227 U	0.249 U	0.208 U	0.228 U
1,1-Dichloroethene	0.227 U	0.249 U	0.208 U	0.228 U
1,2,4-Trimethylbenzene	0.227 U	0.249 U	0.208 U	0.228 U
1,2-Dichloroethane	0.227 U	0.249 U	0.208 U	0.228 U
1,2-Dichloropropane	0.227 U	0.249 U	0.208 U	0.228 U
1,3,5-Trimethylbenzene	0.227 U	0.249 U	0.208 U	0.228 U
2-Butanone	4.53 U	4.98 U	4.15 U	4.56 U
2-Hexanone	4.53 U	4.98 U	4.15 U	4.56 U
4-Isopropyltoluene	0.227 U	0.249 U	0.208 U	0.228 U
4-Methyl-2-Pentanone	4.53 U	4.98 U	4.15 U	4.56 U
Acetone	4.53 U	4.98 U	4.15 U	4.56 U
Acrolein	4.53 U	4.98 U	4.15 U	4.56 U
Benzene	0.0566 U	0.0622 U	0.0519 U	0.057 U
Bromoform	0.227 U	0.249 U	0.208 U	0.228 U
Bromomethane	0.227 U	0.249 U	0.208 U	0.228 U
Carbon Disulfide	0.227 U	0.249 U	0.208 U	0.228 U
Carbon Tetrachloride	0.227 U	0.249 U	0.208 U	0.228 U
Chlorobenzene	0.227 U	0.249 U	0.208 U	0.228 U
Chloroethane	0.227 U	0.249 U	0.208 U	0.228 U
Chloroform	0.227 U	0.249 U	0.208 U	0.228 U
Chloromethane	0.227 U	0.249 U	0.208 U	0.228 U
Cis-1,2-Dichloroethene	0.227 U	0.249 U	0.208 U	0.228 U
Cis-1,3-Dichloropropene	0.227 U	0.249 U	0.208 U	0.228 U
Dibromochloromethane	0.227 U	0.249 U	0.208 U	0.228 U
Dichlorobromomethane	0.227 U	0.249 U	0.208 U	0.228 U
Ethylbenzene	0.227 U	0.249 U	0.208 U	0.228 U
Isopropylbenzene	0.227 U	0.249 U	0.208 U	0.228 U
M+P-Xylenes	0.227 U	0.249 U	0.208 U	0.228 U
Methylene Chloride	0.227 U	0.249 U	0.208 U	0.228 U
Naphthalene	0.227 U	0.249 U	0.208 U	0.228 U
N-Butylbenzene	0.227 U	0.249 U	0.208 U	0.228 U
N-Propylbenzene	0.227 U	0.249 U	0.208 U	0.228 U
O-Xylene	0.227 U	0.249 U	0.208 U	0.228 U
Sec-Butylbenzene	0.227 U	0.249 U	0.208 U	0.228 U
Styrene	0.227 U	0.249 U	0.208 U	0.228 U
Tetrachloroethene	0.227 U	0.249 U	0.208 U	0.228 U
Toluene	0.227 U	0.249 U	0.208 U	0.228 U
Trans-1,2-Dichloroethene	0.227 U	0.249 U	0.208 U	0.228 U
Trans-1,3-Dichloropropene	0.227 U	0.249 U	0.208 U	0.228 U
Trichloroethene	0.227 U	0.249 U	0.208 U	0.228 U
Vinyl Acetate	0.227 U	0.249 U	0.208 U	0.228 U
Vinyl Chloride	0.227 U	0.249 U	0.208 U	0.228 U
Xylenes (Total)	0.227 U	0.249 U	0.208 U	0.228 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY610	KRY610	KRY612	KRY612
Sample Identification	KRY610SB001	KRY610SB002	KRY612SB001	KRY612SB002
Sample Collection Date	4/24/2006	4/24/2006	4/21/2006	4/21/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	8	4	8
Lower Depth	6	10	6	10
1,1,1-Trichloroethane	0.212 U	0.215 U	0.256 U	0.245 U
1,1,2,2-Tetrachloroethane	0.212 U	0.215 U	0.256 U	0.245 U
1,1,2-Trichloroethane	0.212 U	0.215 U	0.256 U	0.245 U
1,1-Dichloroethane	0.212 U	0.215 U	0.256 U	0.245 U
1,1-Dichloroethene	0.212 U	0.215 U	0.256 U	0.245 U
1,2,4-Trimethylbenzene	6.15	0.858	0.256 U	0.245 U
1,2-Dichloroethane	0.212 U	0.215 U	0.256 U	0.245 U
1,2-Dichloropropane	0.212 U	0.215 U	0.256 U	0.245 U
1,3,5-Trimethylbenzene	2.2	0.215 U	0.256 U	0.245 U
2-Butanone	4.25 U	4.3 U	5.12 U	4.89 U
2-Hexanone	4.25 U	4.3 U	5.12 U	4.89 U
4-Isopropyltoluene	0.678	0.13 J	0.256 U	0.245 U
4-Methyl-2-Pentanone	4.25 U	4.3 U	5.12 U	4.89 U
Acetone	4.25 U	4.3 U	5.12 U	4.89 U
Acrolein	4.25 U	4.3 U	5.12 U	4.89 U
Benzene	0.0531 U	0.0538 U	0.064 U	0.0612 U
Bromoform	0.212 U	0.215 U	0.256 U	0.245 U
Bromomethane	0.212 U	0.215 U	0.256 U	0.245 U
Carbon Disulfide	0.212 U	0.215 U	0.256 U	0.245 U
Carbon Tetrachloride	0.212 U	0.215 U	0.256 U	0.245 U
Chlorobenzene	0.212 U	0.215 U	0.256 U	0.245 U
Chloroethane	0.212 U	0.215 U	0.256 U	0.245 U
Chloroform	0.212 U	0.215 U	0.256 U	0.245 U
Chloromethane	0.212 U	0.215 U	0.256 U	0.245 U
Cis-1,2-Dichloroethene	0.212 U	0.215 U	0.256 U	0.245 U
Cis-1,3-Dichloropropene	0.212 U	0.215 U	0.256 U	0.245 U
Dibromochloromethane	0.212 U	0.215 U	0.256 U	0.245 U
Dichlorobromomethane	0.212 U	0.215 U	0.256 U	0.245 U
Ethylbenzene	0.674	0.215 U	0.256 U	0.245 U
Isopropylbenzene	0.431	0.089 J	0.256 U	0.245 U
M+P-Xylenes	2.55	0.076 J	0.256 U	0.245 U
Methylene Chloride	0.212 U	0.215 U	0.256 U	0.245 U
Naphthalene	0.668	0.215 U	0.256 U	0.245 U
N-Butylbenzene	7.07	0.215 U	0.256 U	0.245 U
N-Propylbenzene	0.717	0.16 J	0.256 U	0.245 U
O-Xylene	0.074	0.215 U	0.256 U	0.245 U
Sec-Butylbenzene	0.466	0.11 J	0.256 U	0.245 U
Styrene	0.212 U	0.215 U	0.256 U	0.245 U
Tetrachloroethene	0.212 U	0.215 U	0.256 U	0.245 U
Toluene	0.212 U	0.215 U	0.256 U	0.245 U
Trans-1,2-Dichloroethene	0.212 U	0.215 U	0.256 U	0.245 U
Trans-1,3-Dichloropropene	0.212 U	0.215 U	0.256 U	0.245 U
Trichloroethene	0.212 U	0.215 U	0.256 U	0.245 U
Vinyl Acetate	0.212 U	0.215 U	0.256 U	0.245 U
Vinyl Chloride	0.212 U	0.215 U	0.256 U	0.245 U
Xylenes (Total)	2.55	0.076 J	0.256 U	0.245 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY616	KRY616	KRY617	KRY618
Sample Identification	KRY616SB001	KRY616SB002	KRY617SB001	KRY618SB001
Sample Collection Date	4/19/2006	4/19/2006	4/19/2006	4/25/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	8	8	4
Lower Depth	6	10	13	6
1,1,1-Trichloroethane	0.217 U	0.222 U	0.267 U	0.213 U
1,1,2,2-Tetrachloroethane	0.217 U	0.222 U	0.267 U	0.213 U
1,1,2-Trichloroethane	0.217 U	0.222 U	0.267 U	0.213 U
1,1-Dichloroethane	0.217 U	0.222 U	0.267 U	0.213 U
1,1-Dichloroethene	0.217 U	0.222 U	0.267 U	0.213 U
1,2,4-Trimethylbenzene	0.217 U	0.222 U	0.267 U	0.213 U
1,2-Dichloroethane	0.217 U	0.222 U	0.267 U	0.213 U
1,2-Dichloropropane	0.217 U	0.222 U	0.267 U	0.213 U
1,3,5-Trimethylbenzene	0.217 U	0.222 U	0.267 U	0.213 U
2-Butanone	4.33 U	4.45 U	5.34 U	4.26 U
2-Hexanone	4.33 U	4.45 U	5.34 U	4.26 U
4-Isopropyltoluene	0.217 U	0.222 U	0.267 U	0.213 U
4-Methyl-2-Pentanone	4.33 U	4.45 U	5.34 U	4.26 U
Acetone	4.33 U	4.45 U	5.34 U	4.26 U
Acrolein	4.33 U	4.45 U	5.34 U	4.26 U
Benzene	0.0541 U	0.0556 U	0.0667 U	0.0533 U
Bromoform	0.217 U	0.222 U	0.267 U	0.213 U
Bromomethane	0.217 U	0.222 U	0.267 U	0.213 U
Carbon Disulfide	0.217 U	0.222 U	0.267 U	0.213 U
Carbon Tetrachloride	0.217 U	0.222 U	0.267 U	0.213 U
Chlorobenzene	0.217 U	0.222 U	0.267 U	0.213 U
Chloroethane	0.217 U	0.222 U	0.267 U	0.213 U
Chloroform	0.217 U	0.222 U	0.267 U	0.213 U
Chloromethane	0.217 U	0.222 U	0.267 U	0.213 U
Cis-1,2-Dichloroethene	0.217 U	0.222 U	0.267 U	0.213 U
Cis-1,3-Dichloropropene	0.217 U	0.222 U	0.267 U	0.213 U
Dibromochloromethane	0.217 U	0.222 U	0.267 U	0.213 U
Dichlorobromomethane	0.217 U	0.222 U	0.267 U	0.213 U
Ethylbenzene	0.217 U	0.222 U	0.267 U	0.213 U
Isopropylbenzene	0.217 U	0.222 U	0.267 U	0.213 U
M+P-Xylenes	0.217 U	0.222 U	0.267 U	0.213 U
Methylene Chloride	0.217 U	0.222 U	0.267 U	0.213 U
Naphthalene	0.217 U	0.222 U	0.267 U	0.213 U
N-Butylbenzene	0.217 U	0.222 U	0.267 U	0.213 U
N-Propylbenzene	0.217 U	0.222 U	0.267 U	0.213 U
O-Xylene	0.217 U	0.222 U	0.267 U	0.213 U
Sec-Butylbenzene	0.217 U	0.222 U	0.267 U	0.213 U
Styrene	0.217 U	0.222 U	0.267 U	0.213 U
Tetrachloroethene	0.217 U	0.222 U	0.267 U	0.213 U
Toluene	0.217 U	0.222 U	0.267 U	0.213 U
Trans-1,2-Dichloroethene	0.217 U	0.222 U	0.267 U	0.213 U
Trans-1,3-Dichloropropene	0.217 U	0.222 U	0.267 U	0.213 U
Trichloroethene	0.217 U	0.222 U	0.267 U	0.213 U
Vinyl Acetate	0.217 U	0.222 U	0.267 U	0.213 U
Vinyl Chloride	0.217 U	0.222 U	0.267 U	0.213 U
Xylenes (Total)	0.217 U	0.222 U	0.267 U	0.213 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY618	KRY623	KRY623	KRY625
Sample Identification	KRY618SB002	KRY623SB001	KRY623SB002	KRY625SB001
Sample Collection Date	4/25/2006	5/11/2006	5/11/2006	5/11/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	4	8.5	13.5
Lower Depth	10	5	9.5	14.5
1,1,1-Trichloroethane	0.217 U	0.214 U	0.237 U	0.251 U
1,1,2,2-Tetrachloroethane	0.217 U	0.214 U	0.237 U	0.251 U
1,1,2-Trichloroethane	0.217 U	0.214 U	0.237 U	0.251 U
1,1-Dichloroethane	0.217 U	0.214 U	0.237 U	0.251 U
1,1-Dichloroethene	0.217 U	0.214 U	0.237 U	0.251 U
1,2,4-Trimethylbenzene	0.217 U	0.214 U	0.237 U	0.251 U
1,2-Dichloroethane	0.217 U	0.214 U	0.237 U	0.251 U
1,2-Dichloropropane	0.217 U	0.214 U	0.237 U	0.251 U
1,3,5-Trimethylbenzene	0.217 U	0.214 U	0.237 U	0.251 U
2-Butanone	4.33 U	4.29 U	4.73 U	5.03 U
2-Hexanone	4.33 U	4.29 U	4.73 U	5.03 U
4-Isopropyltoluene	0.217 U	0.214 U	0.237 U	0.251 U
4-Methyl-2-Pentanone	4.33 U	4.29 U	4.73 U	5.03 U
Acetone	4.33 U	4.29 U	4.73 U	5.03 U
Acrolein	4.33 U	4.29 U	4.73 U	5.03 U
Benzene	0.0542 U	0.0536 U	0.0592 U	0.0628 U
Bromoform	0.217 U	0.214 U	0.237 U	0.251 U
Bromomethane	0.217 U	0.214 U	0.237 U	0.251 U
Carbon Disulfide	0.217 U	0.214 U	0.237 U	0.251 U
Carbon Tetrachloride	0.217 U	0.214 U	0.237 U	0.251 U
Chlorobenzene	0.217 U	0.214 U	0.237 U	0.251 U
Chloroethane	0.217 U	0.214 U	0.237 U	0.251 U
Chloroform	0.217 U	0.214 U	0.237 U	0.251 U
Chloromethane	0.217 U	0.214 U	0.237 U	0.251 U
Cis-1,2-Dichloroethene	0.217 U	0.214 U	0.237 U	0.251 U
Cis-1,3-Dichloropropene	0.217 U	0.214 U	0.237 U	0.251 U
Dibromochloromethane	0.217 U	0.214 U	0.237 U	0.251 U
Dichlorobromomethane	0.217 U	0.214 U	0.237 U	0.251 U
Ethylbenzene	0.217 U	0.214 U	0.237 U	0.251 U
Isopropylbenzene	0.217 U	0.214 U	0.237 U	0.251 U
M+P-Xylenes	0.217 U	0.214 U	0.237 U	0.251 U
Methylene Chloride	0.217 U	0.214 U	0.237 U	0.251 U
Naphthalene	0.217 U	0.214 U	0.237 U	0.251 U
N-Butylbenzene	0.217 U	0.214 U	0.237 U	0.251 U
N-Propylbenzene	0.217 U	0.214 U	0.237 U	0.251 U
O-Xylene	0.217 U	0.214 U	0.237 U	0.251 U
Sec-Butylbenzene	0.217 U	0.214 U	0.237 U	0.251 U
Styrene	0.217 U	0.214 U	0.237 U	0.251 U
Tetrachloroethene	0.217 U	0.214 U	0.237 U	0.251 U
Toluene	0.217 U	0.214 U	0.237 U	0.251 U
Trans-1,2-Dichloroethene	0.217 U	0.214 U	0.237 U	0.251 U
Trans-1,3-Dichloropropene	0.217 U	0.214 U	0.237 U	0.251 U
Trichloroethene	0.217 U	0.214 U	0.237 U	0.251 U
Vinyl Acetate	0.217 U	0.214 U	0.237 U	0.251 U
Vinyl Chloride	0.217 U	0.214 U	0.237 U	0.251 U
Xylenes (Total)	0.217 U	0.214 U	0.237 U	0.251 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY629	KRY631	KRY632	KRY633
Sample Identification	KRY629SB001	KRY631SB001	KRY632SB001	KRY633SB001
Sample Collection Date	5/10/2006	5/10/2006	5/17/2006	5/17/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	14.5	19	19	4
Lower Depth	15.5	20.5	20.5	5.5
1,1,1-Trichloroethane	0.216 U	0.228 U	0.228 U	0.212 U
1,1,2,2-Tetrachloroethane	0.216 U	0.228 U	0.228 U	0.212 U
1,1,2-Trichloroethane	0.216 U	0.228 U	0.228 U	0.212 U
1,1-Dichloroethane	0.216 U	0.228 U	0.228 U	0.212 U
1,1-Dichloroethene	0.216 U	0.228 U	0.228 U	0.212 U
1,2,4-Trimethylbenzene	0.216 U	0.228 U	0.2 J	0.212 U
1,2-Dichloroethane	0.216 U	0.228 U	0.228 U	0.212 U
1,2-Dichloropropane	0.216 U	0.228 U	0.228 U	0.212 U
1,3,5-Trimethylbenzene	0.216 U	0.228 U	0.16 J	0.212 U
2-Butanone	4.33 U	4.57 U	4.57 U	4.23 U
2-Hexanone	4.33 U	4.57 U	4.57 U	4.23 U
4-Isopropyltoluene	0.216 U	0.228 U	0.228 U	0.212 U
4-Methyl-2-Pentanone	4.33 U	4.57 U	4.57 U	4.23 U
Acetone	4.33 U	4.57 U	4.57 U	4.23 U
Acrolein	4.33 U	4.57 U	4.57 U	4.23 U
Benzene	0.0541 U	0.0571 U	0.0571 U	0.0529 U
Bromoform	0.216 U	0.228 U	0.228 U	0.212 U
Bromomethane	0.216 U	0.228 U	0.228 U	0.212 U
Carbon Disulfide	0.216 U	0.228 U	0.228 U	0.212 U
Carbon Tetrachloride	0.216 U	0.228 U	0.228 U	0.212 U
Chlorobenzene	0.216 U	0.228 U	0.228 U	0.212 U
Chloroethane	0.216 U	0.228 U	0.228 U	0.212 U
Chloroform	0.216 U	0.228 U	0.228 U	0.212 U
Chloromethane	0.216 U	0.228 U	0.228 U	0.212 U
Cis-1,2-Dichloroethene	0.216 U	0.228 U	0.228 U	0.212 U
Cis-1,3-Dichloropropene	0.216 U	0.228 U	0.228 U	0.212 U
Dibromochloromethane	0.216 U	0.228 U	0.228 U	0.212 U
Dichlorobromomethane	0.216 U	0.228 U	0.228 U	0.212 U
Ethylbenzene	0.216 U	0.228 U	0.228 U	0.212 U
Isopropylbenzene	0.216 U	0.228 U	0.228 U	0.212 U
M+P-Xylenes	0.216 U	0.228 U	0.228 U	0.212 U
Methylene Chloride	0.216 U	0.228 U	0.228 U	0.212 U
Naphthalene	0.216 U	0.228 U	0.932	0.212 U
N-Butylbenzene	0.216 U	0.228 U	1.21	0.212 U
N-Propylbenzene	0.216 U	0.228 U	0.228 U	0.212 U
O-Xylene	0.216 U	0.228 U	0.228 U	0.212 U
Sec-Butylbenzene	0.216 U	0.228 U	0.228 U	0.212 U
Styrene	0.216 U	0.228 U	0.228 U	0.212 U
Tetrachloroethene	0.216 U	0.228 U	0.228 U	0.212 U
Toluene	0.216 U	0.228 U	0.228 U	0.212 U
Trans-1,2-Dichloroethene	0.216 U	0.228 U	0.228 U	0.212 U
Trans-1,3-Dichloropropene	0.216 U	0.228 U	0.228 U	0.212 U
Trichloroethene	0.216 U	0.228 U	0.228 U	0.212 U
Vinyl Acetate	0.216 U	0.228 U	0.228 U	0.212 U
Vinyl Chloride	0.216 U	0.228 U	0.228 U	0.212 U
Xylenes (Total)	0.216 U	0.228 U	0.228 U	0.212 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY633	KRY633	KRY634	KRY634
Sample Identification	KRY633SB002	KRY633SB003	KRY634SB001	KRY634SB002
Sample Collection Date	5/17/2006	5/17/2006	5/18/2006	5/18/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	15	4	8
Lower Depth	9.5	16.5	5.5	9.5
1,1,1-Trichloroethane	0.211 U	0.249 U	0.235 U	0.214 U
1,1,2,2-Tetrachloroethane	0.211 U	0.249 U	0.235 U	0.214 U
1,1,2-Trichloroethane	0.211 U	0.249 U	0.235 U	0.214 U
1,1-Dichloroethane	0.211 U	0.249 U	0.235 U	0.214 U
1,1-Dichloroethene	0.211 U	0.249 U	0.235 U	0.214 U
1,2,4-Trimethylbenzene	0.211 U	0.249 U	0.235 U	0.214 U
1,2-Dichloroethane	0.211 U	0.249 U	0.235 U	0.214 U
1,2-Dichloropropane	0.211 U	0.249 U	0.235 U	0.214 U
1,3,5-Trimethylbenzene	0.211 U	0.249 U	0.235 U	0.214 U
2-Butanone	4.21 U	4.98 U	4.69 U	4.29 U
2-Hexanone	4.21 U	4.98 U	4.69 U	4.29 U
4-Isopropyltoluene	0.211 U	0.249 U	0.235 U	0.214 U
4-Methyl-2-Pentanone	4.21 U	4.98 U	4.69 U	4.29 U
Acetone	4.21 U	4.98 U	4.69 U	4.29 U
Acrolein	4.21 U	4.98 U	4.69 U	4.29 U
Benzene	0.0527 U	0.0622 U	0.0587 U	0.0536 U
Bromoform	0.211 U	0.249 U	0.235 U	0.214 U
Bromomethane	0.211 U	0.249 U	0.235 U	0.214 U
Carbon Disulfide	0.211 U	0.249 U	0.235 U	0.214 U
Carbon Tetrachloride	0.211 U	0.249 U	0.235 U	0.214 U
Chlorobenzene	0.211 U	0.249 U	0.235 U	0.214 U
Chloroethane	0.211 U	0.249 U	0.235 U	0.214 U
Chloroform	0.211 U	0.249 U	0.235 U	0.214 U
Chloromethane	0.211 U	0.249 U	0.235 U	0.214 U
Cis-1,2-Dichloroethene	0.211 U	0.249 U	0.235 U	0.214 U
Cis-1,3-Dichloropropene	0.211 U	0.249 U	0.235 U	0.214 U
Dibromochloromethane	0.211 U	0.249 U	0.235 U	0.214 U
Dichlorobromomethane	0.211 U	0.249 U	0.235 U	0.214 U
Ethylbenzene	0.211 U	0.249 U	0.235 U	0.214 U
Isopropylbenzene	0.211 U	0.249 U	0.235 U	0.214 U
M+P-Xylenes	0.211 U	0.249 U	0.235 U	0.214 U
Methylene Chloride	0.211 U	0.249 U	0.235 U	0.214 U
Naphthalene	0.211 U	0.249 U	0.235 U	0.214 U
N-Butylbenzene	0.211 U	0.249 U	0.235 U	0.214 U
N-Propylbenzene	0.211 U	0.249 U	0.235 U	0.214 U
O-Xylene	0.211 U	0.249 U	0.235 U	0.214 U
Sec-Butylbenzene	0.211 U	0.249 U	0.235 U	0.214 U
Styrene	0.211 U	0.249 U	0.235 U	0.214 U
Tetrachloroethene	0.211 U	0.249 U	0.235 U	0.214 U
Toluene	0.211 U	0.249 U	0.235 U	0.214 U
Trans-1,2-Dichloroethene	0.211 U	0.249 U	0.235 U	0.214 U
Trans-1,3-Dichloropropene	0.211 U	0.249 U	0.235 U	0.214 U
Trichloroethene	0.211 U	0.249 U	0.235 U	0.214 U
Vinyl Acetate	0.211 U	0.249 U	0.235 U	0.214 U
Vinyl Chloride	0.211 U	0.249 U	0.235 U	0.214 U
Xylenes (Total)	0.211 U	0.249 U	0.235 U	0.214 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY634	KRY635	KRY635	KRY636
Sample Identification	KRY634SB003	KRY635SB001	KRY635SB002	KRY636SB001
Sample Collection Date	5/18/2006	5/8/2006	5/8/2006	5/9/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	15.5	4	8	13.5
Lower Depth	18.5	4.5	9.5	15
1,1,1-Trichloroethane	0.321 U	0.232 U	0.207 U	0.23 U
1,1,2,2-Tetrachloroethane	0.321 U	0.232 U	0.207 U	0.23 U
1,1,2-Trichloroethane	0.321 U	0.232 U	0.207 U	0.23 U
1,1-Dichloroethane	0.321 U	0.232 U	0.207 U	0.23 U
1,1-Dichloroethene	0.321 U	0.232 U	0.207 U	0.23 U
1,2,4-Trimethylbenzene	0.321 U	0.232 U	0.207 U	0.349
1,2-Dichloroethane	0.321 U	0.232 U	0.207 U	0.23 U
1,2-Dichloropropane	0.321 U	0.232 U	0.207 U	0.23 U
1,3,5-Trimethylbenzene	0.321 U	0.232 U	0.207 U	0.364
2-Butanone	6.41 U	4.65 U	4.13 U	4.6 U
2-Hexanone	6.41 U	4.65 U	4.13 U	4.6 U
4-Isopropyltoluene	0.321 U	0.232 U	0.207 U	0.465
4-Methyl-2-Pentanone	6.41 U	4.65 U	4.13 U	4.6 U
Acetone	6.41 U	4.65 U	4.13 U	4.6 U
Acrolein	6.41 U	4.65 U	4.13 U	4.6 U
Benzene	0.0801 U	0.0581 U	0.0517 U	0.0575 U
Bromoform	0.321 U	0.232 U	0.207 U	0.23 U
Bromomethane	0.321 U	0.232 U	0.207 U	0.23 U
Carbon Disulfide	0.321 U	0.232 U	0.207 U	0.23 U
Carbon Tetrachloride	0.321 U	0.232 U	0.207 U	0.23 U
Chlorobenzene	0.321 U	0.232 U	0.207 U	0.23 U
Chloroethane	0.321 U	0.232 U	0.207 U	0.23 U
Chloroform	0.321 U	0.232 U	0.207 U	0.23 U
Chloromethane	0.321 U	0.232 U	0.207 U	0.23 U
Cis-1,2-Dichloroethene	0.321 U	0.232 U	0.207 U	0.23 U
Cis-1,3-Dichloropropene	0.321 U	0.232 U	0.207 U	0.23 U
Dibromochloromethane	0.321 U	0.232 U	0.207 U	0.23 U
Dichlorobromomethane	0.321 U	0.232 U	0.207 U	0.23 U
Ethylbenzene	0.321 U	0.232 U	0.207 U	0.23 U
Isopropylbenzene	0.321 U	0.232 U	0.207 U	0.23 U
M+P-Xylenes	0.321 U	0.232 U	0.207 U	0.23 U
Methylene Chloride	0.321 U	0.232 U	0.207 U	0.23 U
Naphthalene	0.321 U	0.232 U	0.207 U	1.43
N-Butylbenzene	0.321 U	0.232 U	0.207 U	2.67
N-Propylbenzene	0.321 U	0.232 U	0.207 U	0.23 U
O-Xylene	0.321 U	0.232 U	0.207 U	0.093 J
Sec-Butylbenzene	0.321 U	0.232 U	0.207 U	0.23 U
Styrene	0.321 U	0.232 U	0.207 U	0.23 U
Tetrachloroethene	0.321 U	0.232 U	0.207 U	0.23 U
Toluene	0.321 U	0.232 U	0.207 U	0.23 U
Trans-1,2-Dichloroethene	0.321 U	0.232 U	0.207 U	0.23 U
Trans-1,3-Dichloropropene	0.321 U	0.232 U	0.207 U	0.23 U
Trichloroethene	0.321 U	0.232 U	0.207 U	0.23 U
Vinyl Acetate	0.321 U	0.232 U	0.207 U	0.23 U
Vinyl Chloride	0.321 U	0.232 U	0.207 U	0.23 U
Xylenes (Total)	0.321 U	0.232 U	0.207 U	0.093 J

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY637	KRY638	KRY638	KRY638
Sample Identification	KRY637SB001	KRY638SB001	KRY638SB002	KRY638SB003
Sample Collection Date	5/9/2006	5/8/2006	5/8/2006	5/8/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	13.5	3.5	8.5	13.5
Lower Depth	14.5	5	10	15
1,1,1-Trichloroethane	0.238 U	0.216 U	0.213 U	0.223 U
1,1,2,2-Tetrachloroethane	0.238 U	0.216 U	0.213 U	0.223 U
1,1,2-Trichloroethane	0.238 U	0.216 U	0.213 U	0.223 U
1,1-Dichloroethane	0.238 U	0.216 U	0.213 U	0.223 U
1,1-Dichloroethene	0.238 U	0.216 U	0.213 U	0.223 U
1,2,4-Trimethylbenzene	0.446	0.216 U	0.213 U	0.223 U
1,2-Dichloroethane	0.238 U	0.216 U	0.213 U	0.223 U
1,2-Dichloropropane	0.238 U	0.216 U	0.213 U	0.223 U
1,3,5-Trimethylbenzene	0.413	0.216 U	0.213 U	0.223 U
2-Butanone	4.77 U	4.32 U	4.26 U	4.45 U
2-Hexanone	4.77 U	4.32 U	4.26 U	4.45 U
4-Isopropyltoluene	0.316	0.216 U	0.213 U	0.223 U
4-Methyl-2-Pentanone	4.77 U	4.32 U	4.26 U	4.45 U
Acetone	4.77 U	4.32 U	4.26 U	4.45 U
Acrolein	4.77 U	4.32 U	4.26 U	4.45 U
Benzene	0.0596 U	0.0541 U	0.0533 U	0.0557 U
Bromoform	0.238 U	0.216 U	0.213 U	0.223 U
Bromomethane	0.238 U	0.216 U	0.213 U	0.223 U
Carbon Disulfide	0.238 U	0.216 U	0.213 U	0.223 U
Carbon Tetrachloride	0.238 U	0.216 U	0.213 U	0.223 U
Chlorobenzene	0.238 U	0.216 U	0.213 U	0.223 U
Chloroethane	0.238 U	0.216 U	0.213 U	0.223 U
Chloroform	0.238 U	0.216 U	0.213 U	0.223 U
Chloromethane	0.238 U	0.216 U	0.213 U	0.223 U
Cis-1,2-Dichloroethene	0.238 U	0.216 U	0.213 U	0.223 U
Cis-1,3-Dichloropropene	0.238 U	0.216 U	0.213 U	0.223 U
Dibromochloromethane	0.238 U	0.216 U	0.213 U	0.223 U
Dichlorobromomethane	0.238 U	0.216 U	0.213 U	0.223 U
Ethylbenzene	0.238 U	0.216 U	0.213 U	0.223 U
Isopropylbenzene	0.238 U	0.216 U	0.213 U	0.223 U
M+P-Xylenes	0.238 U	0.216 U	0.213 U	0.223 U
Methylene Chloride	0.238 U	0.216 U	0.213 U	0.223 U
Naphthalene	1.32	0.216 U	0.213 U	0.223 U
N-Butylbenzene	2.75	0.216 U	0.213 U	0.223 U
N-Propylbenzene	0.238 U	0.216 U	0.213 U	0.223 U
O-Xylene	0.1 J	0.216 U	0.213 U	0.223 U
Sec-Butylbenzene	0.238 U	0.216 U	0.213 U	0.223 U
Styrene	0.238 U	0.216 U	0.213 U	0.223 U
Tetrachloroethene	0.238 U	0.216 U	0.213 U	0.223 U
Toluene	0.238 U	0.216 U	0.213 U	0.223 U
Trans-1,2-Dichloroethene	0.238 U	0.216 U	0.213 U	0.223 U
Trans-1,3-Dichloropropene	0.238 U	0.216 U	0.213 U	0.223 U
Trichloroethene	0.238 U	0.216 U	0.213 U	0.223 U
Vinyl Acetate	0.238 U	0.216 U	0.213 U	0.223 U
Vinyl Chloride	0.238 U	0.216 U	0.213 U	0.223 U
Xylenes (Total)	0.1 J	0.216 U	0.213 U	0.223 U

Appendix G - 2006 Subsurface Soil Data
VOC

Sample Station	KRY639	KRY640	KRY651	KRY657
Sample Identification	KRY639SB001	KRY640SB001	KRY651SB001	KRY657SB001
Sample Collection Date	5/8/2006	5/8/2006	5/18/2006	5/15/2006
Sample Type	SB	SB	SB	SB
Duplicate of				
Units	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	13.5	11	17	4.5
Lower Depth	15	13	20	5
1,1,1-Trichloroethane	0.224 U	0.219 U	0.238 U	0.209 U
1,1,2,2-Tetrachloroethane	0.224 U	0.219 U	0.238 U	0.209 U
1,1,2-Trichloroethane	0.224 U	0.219 U	0.238 U	0.209 U
1,1-Dichloroethane	0.224 U	0.219 U	0.238 U	0.209 U
1,1-Dichloroethene	0.224 U	0.219 U	0.238 U	0.209 U
1,2,4-Trimethylbenzene	0.224 U	0.219 U	0.238 U	0.209 U
1,2-Dichloroethane	0.224 U	0.219 U	0.238 U	0.209 U
1,2-Dichloropropane	0.224 U	0.219 U	0.238 U	0.209 U
1,3,5-Trimethylbenzene	0.224 U	0.219 U	0.238 U	0.209 U
2-Butanone	4.48 U	4.38 U	4.76 U	4.18 U
2-Hexanone	4.48 U	4.38 U	4.76 U	4.18 U
4-Isopropyltoluene	0.224 U	0.219 U	0.238 U	0.209 U
4-Methyl-2-Pentanone	4.48 U	4.38 U	4.76 U	4.18 U
Acetone	4.48 U	4.38 U	4.76 U	4.18 U
Acrolein	4.48 U	4.38 U	4.76 U	4.18 U
Benzene	0.056 U	0.0547 U	0.0595 U	0.0522 U
Bromoform	0.224 U	0.219 U	0.238 U	0.209 U
Bromomethane	0.224 U	0.219 U	0.238 U	0.209 U
Carbon Disulfide	0.224 U	0.219 U	0.238 U	0.209 U
Carbon Tetrachloride	0.224 U	0.219 U	0.238 U	0.209 U
Chlorobenzene	0.224 U	0.219 U	0.238 U	0.209 U
Chloroethane	0.224 U	0.219 U	0.238 U	0.209 U
Chloroform	0.224 U	0.219 U	0.238 U	0.209 U
Chloromethane	0.224 U	0.219 U	0.238 U	0.209 U
Cis-1,2-Dichloroethene	0.224 U	0.219 U	0.238 U	0.209 U
Cis-1,3-Dichloropropene	0.224 U	0.219 U	0.238 U	0.209 U
Dibromochloromethane	0.224 U	0.219 U	0.238 U	0.209 U
Dichlorobromomethane	0.224 U	0.219 U	0.238 U	0.209 U
Ethylbenzene	0.224 U	0.219 U	0.238 U	0.209 U
Isopropylbenzene	0.224 U	0.219 U	0.238 U	0.209 U
M+P-Xylenes	0.224 U	0.219 U	0.238 U	0.209 U
Methylene Chloride	0.224 U	0.219 U	0.238 U	0.209 U
Naphthalene	0.224 U	0.219 U	0.238 U	0.209 U
N-Butylbenzene	0.224 U	0.219 U	0.238 U	0.209 U
N-Propylbenzene	0.224 U	0.219 U	0.238 U	0.209 U
O-Xylene	0.224 U	0.219 U	0.238 U	0.209 U
Sec-Butylbenzene	0.224 U	0.219 U	0.238 U	0.209 U
Styrene	0.224 U	0.219 U	0.238 U	0.209 U
Tetrachloroethene	0.224 U	0.219 U	0.238 U	0.209 U
Toluene	0.224 U	0.219 U	0.238 U	0.209 U
Trans-1,2-Dichloroethene	0.224 U	0.219 U	0.238 U	0.209 U
Trans-1,3-Dichloropropene	0.224 U	0.219 U	0.238 U	0.209 U
Trichloroethene	0.224 U	0.219 U	0.238 U	0.209 U
Vinyl Acetate	0.224 U	0.219 U	0.238 U	0.209 U
Vinyl Chloride	0.224 U	0.219 U	0.238 U	0.209 U
Xylenes (Total)	0.224 U	0.219 U	0.238 U	0.209 U

Sample Station	KRY100A	KRY103A	KRY103A	KRY103A	KRY105A	KRY105A	KRY111A
Sample Identification	KRY100ASB001	KRY103ASB001	KRY103ASB002	KRY103ASB003	KRY105ASB001	KRY105ASB002	KRY111ASB001
Sample Collection Date	5/19/2006	5/22/2006	5/22/2006	5/22/2006	5/22/2006	5/22/2006	5/2/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	5.5	9	9.5	4	8	12
Lower Depth	9.5	6.5	9.5	10.5	6	9.5	14
1,2,4-Trichlorobenzene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
1,4-Dichlorobenzene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
1-Methylnaphthalene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,3,4,5-Tetrachlorophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,3,4,6-Tetrachlorophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,3,4-Trichlorophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,3,5,6-Tetrachlorophenol	NA	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,4,5-Trichlorophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,4,6-Trichlorophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,4-Dichlorophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,4-Dimethylphenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,4-Dinitrophenol	1.8 U	16 U	2.9 U	2.1 U	2.4 U	2.3 U	9.5 U
2,4-Dinitrotoluene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,6-Dimethylnaphthalene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2,6-Dinitrotoluene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2-Chloronaphthalene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2-Chlorophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2-Methylnaphthalene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2-Methylphenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2-Nitroaniline	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
2-Nitrophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
3,3'-Dichlorobenzidine	0.74 U	6.5 U	1.2 U	0.85 U	0.95 U	0.93 U	3.8 U
3-Nitroaniline	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
4,6-Dinitro-2-Methylphenol	1.8 U	16 U	2.9 U	2.1 U	2.4 U	2.3 U	9.5 U
4-Bromophenylphenylether	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
4-Chloro-3-Methylphenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
4-Chloroaniline	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
4-Chlorophenylphenylether	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
4-Nitroaniline	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
4-Nitrophenol	1.8 U	16 U	2.9 U	2.1 U	2.4 U	2.3 U	9.5 U
Acenaphthene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Anthracene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Benzo(a)Anthracene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Benzo(a)Pyrene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Benzo(b)Fluoranthene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.194	0.00278 U	0.101
Benzo(E)Pyrene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	0.039 J
Benzo(g,h,i)Perylene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Benzo(k)Fluoranthene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Benzoic Acid	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Benzyl Alcohol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Biphenyl	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
bis(2-Chloroethoxy)Methane	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
bis(2-Chloroethyl)Ether	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
bis(2-Chloroisopropyl)Ether	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
bis(2-Ethylhexyl)Adipate	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
bis(2-Ethylhexyl)Phthalate	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Butyl Benzyl Phthalate	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Carbazole	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Chrysene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Dibenzo(a,h)Anthracene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Dibenzofuran	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Diethyl Phthalate	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Dimethyl Phthalate	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Di-n-Butylphthalate	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Di-n-Octylphthalate	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Fluoranthene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Fluorene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Hexachlorobenzene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Hexachlorobutadiene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Hexachlorocyclopentadiene	0.74 U	6.5 U	1.2 U	0.85 U	0.95 U	0.93 U	3.8 U
Hexachloroethane	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Indeno(1,2,3-cd)Pyrene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Isophorone	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
M+P-Cresols	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Naphthalene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Nitrobenzene	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
N-Nitroso-di-n-Propylamine	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
N-Nitrosodiphenylamine	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Phenanthrene	0.0797	0.0195 U	0.0369	0.00255 U	0.00284 U	0.057	0.0114 U
Phenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Pyrene	0.00221 U	0.0195 U	0.00347 U	0.00255 U	0.00284 U	0.00278 U	0.0114 U
Tetrachlorophenol	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U
Tetraethyllead	0.37 U	3.2 U	0.57 U	0.42 U	0.47 U	0.46 U	1.9 U

Sample Station	KRY113A	KRY114B	KRY116A	KRY121B	KRY123A	KRY123A	KRY126A
Sample Identification	KRY113ASB002	KRY114BSB001	KRY116ASB001	KRY121BSB002	KRY123ASB001	KRY123ASB002	KRY126ASB001
Sample Collection Date	5/23/2006	4/18/2006	5/5/2006	4/20/2006	4/21/2006	4/21/2006	5/25/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	18	22	13	25	4	20	3.5
Lower Depth	18.5	23	14.5	27	6	25	5
1,2,4-Trichlorobenzene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
1,4-Dichlorobenzene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
1-Methylnaphthalene	0.4 U	110	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,3,4,5-Tetrachlorophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,3,4,6-Tetrachlorophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,3,4-Trichlorophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,3,5,6-Tetrachlorophenol	0.4 U	16 U	NA	0.38 U	0.36 U	0.41 U	0.35 U
2,4,5-Trichlorophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,4,6-Trichlorophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,4-Dichlorophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,4-Dimethylphenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,4-Dinitrophenol	2 U	79 U	2 U	1.9 U	1.8 U	2.1 U	1.8 U
2,4-Dinitrotoluene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2,6-Dimethylnaphthalene	0.4 U	206	0.4 U	0.12 J	0.36 U	0.41 U	0.35 U
2,6-Dinitrotoluene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2-Chloronaphthalene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2-Chlorophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2-Methylnaphthalene	0.4 U	51	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2-Methylphenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2-Nitroaniline	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
2-Nitrophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
3,3'-Dichlorobenzidine	0.81 U	31 U	0.81 U	0.78 U	0.72 U	0.83 U	0.7 U
3-Nitroaniline	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
4,6-Dinitro-2-Methylphenol	2 U	79 U	2 U	1.9 U	1.8 U	2.1 U	1.8 U
4-Bromophenylphenylether	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
4-Chloro-3-Methylphenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
4-Chloroaniline	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
4-Chlorophenylphenylether	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
4-Nitroaniline	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
4-Nitrophenol	2 U	79 U	2 U	1.9 U	1.8 U	2.1 U	1.8 U
Acenaphthene	0.00243 U	20	0.00244 U	0.00233 U	0.00215 U	0.0463	0.00211 U
Anthracene	0.00243 U	18	0.00244 U	0.00233 U	0.00215 U	0.0654	0.00211 U
Benzo(a)Anthracene	0.00243 U	0.904	0.00244 U	0.00233 U	0.00215 U	0.041	0.00211 U
Benzo(a)Pyrene	0.00243 U	0.0945 U	0.00244 U	0.00233 U	0.00215 U	0.0728	0.00211 U
Benzo(b)Fluoranthene	0.00243 U	0.0945 U	0.00244 U	0.00233 U	0.00215 U	0.0649	0.00211 U
Benzo(E)Pyrene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Benzo(g,h,i)Perylene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.055 J	0.35 U
Benzo(k)Fluoranthene	0.00243 U	0.0945 U	0.00244 U	0.00233 U	0.00215 U	0.0831	0.00211 U
Benzoic Acid	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Benzyl Alcohol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Biphenyl	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
bis(2-Chloroethoxy)Methane	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
bis(2-Chloroethyl)Ether	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
bis(2-Chloroisopropyl)Ether	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
bis(2-Ethylhexyl)Adipate	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
bis(2-Ethylhexyl)Phthalate	0.4 U	16 U	0.4 U	0.38 U	0.87	0.058 J	0.12 J
Butyl Benzyl Phthalate	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Carbazole	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Chrysene	0.00243 U	0.0945 U	0.00244 U	0.00233 U	0.00215 U	0.0654	0.00211 U
Dibenzo(a,h)Anthracene	0.00243 U	0.0945 U	0.00244 U	0.00233 U	0.00215 U	0.115	0.00211 U
Dibenzofuran	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Diethyl Phthalate	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Dimethyl Phthalate	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Di-n-Butylphthalate	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Di-n-Octylphthalate	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41	0.35 U
Fluoranthene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.061	0.35 U
Fluorene	0.00243 U	24	0.00244 U	0.0505	0.00215 U	0.0401	0.00211 U
Hexachlorobenzene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Hexachlorobutadiene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Hexachlorocyclopentadiene	0.82 U	32 U	0.82 U	0.78 U	0.72 U	0.83 U	0.71 U
Hexachloroethane	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Indeno(1,2,3-cd)Pyrene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.13 J	0.35 U
Isophorone	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
M+P-Cresols	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Naphthalene	0.4 U	3.2 J	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Nitrobenzene	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
N-Nitroso-di-n-Propylamine	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
N-Nitrosodiphenylamine	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Phenanthrene	0.0697	52	0.00244 U	0.00233 U	0.00215 U	0.039	0.00211 U
Phenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Pyrene	0.00243 U	10	0.00244 U	0.00233 U	0.00215 U	0.0571	0.00211 U
Tetrachlorophenol	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 U
Tetraethyllead	0.4 U	16 U	0.4 U	0.38 U	0.36 U	0.41 U	0.35 R

Sample Station	KRY126A	KRY127A	KRY127A	KRY129A	KRY136A	KRY136A	KRY136A
Sample Identification	KRY126ASB002	KRY127ASB001	KRY127ASB002	KRY129ASB001	KRY136SB001	KRY136SB002	KRY136SB003
Sample Collection Date	5/25/2006	5/31/2006	5/31/2006	5/24/2006	4/24/2006	4/24/2006	4/24/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	9	3.5	8	15.5	4	11	23
Lower Depth	10	5	9.5	17.5	6	13	25
1,2,4-Trichlorobenzene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
1,4-Dichlorobenzene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
1-Methylnaphthalene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,3,4,5-Tetrachlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,3,4,6-Tetrachlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,3,4-Trichlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,3,5,6-Tetrachlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,4,5-Trichlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,4,6-Trichlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,4-Dichlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,4-Dimethylphenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,4-Dinitrophenol	1.9 U	1.8 U	1.9 U	2.1 U	1.8 U	2.3 U	93 U
2,4-Dinitrotoluene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2,6-Dimethylnaphthalene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.19 U	18 U
2,6-Dinitrotoluene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2-Chloronaphthalene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2-Chlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2-Methylnaphthalene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2-Methylphenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2-Nitroaniline	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
2-Nitrophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
3,3'-Dichlorobenzidine	0.75 U	0.72 U	0.77 U	0.85 U	0.73 U	0.92 U	37 U
3-Nitroaniline	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
4,6-Dinitro-2-Methylphenol	1.9 U	1.8 U	1.9 U	2.1 U	1.8 U	2.3 U	93 U
4-Bromophenylphenylether	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
4-Chloro-3-Methylphenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
4-Chloroaniline	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
4-Chlorophenylphenylether	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
4-Nitroaniline	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
4-Nitrophenol	1.9 U	1.8 U	1.9 U	2.1 U	1.8 U	2.3 U	93 U
Acenaphthene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.00275 U	0.112 U
Anthracene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.00275 U	0.112 U
Benzo(a)Anthracene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.00275 U	0.112 U
Benzo(a)Pyrene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.00275 U	0.112 U
Benzo(b)Fluoranthene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.00275 U	0.112 U
Benzo(E)Pyrene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Benzo(g,h,i)Perylene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Benzo(k)Fluoranthene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.00275 U	0.112 U
Benzoic Acid	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Benzyl Alcohol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Biphenyl	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
bis(2-Chloroethoxy)Methane	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
bis(2-Chloroethyl)Ether	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
bis(2-Chloroisopropyl)Ether	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
bis(2-Ethylhexyl)Adipate	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
bis(2-Ethylhexyl)Phthalate	0.4	0.059 J	0.38 U	0.42 U	0.075 J	0.45 U	18 U
Butyl Benzyl Phthalate	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Carbazole	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Chrysene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.0499 U	0.112 U
Dibenzo(a,h)Anthracene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.00275 U	0.112 U
Dibenzofuran	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Diethyl Phthalate	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Dimethyl Phthalate	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Di-n-Butylphthalate	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Di-n-Octylphthalate	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Fluoranthene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Fluorene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.054	0.00275 U	0.112 U
Hexachlorobenzene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Hexachlorobutadiene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Hexachlorocyclopentadiene	0.75 U	0.72 U	0.78 U	0.85 U	0.73 U	0.92 U	37 U
Hexachloroethane	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Indeno(1,2,3-cd)Pyrene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Isophorone	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
M+P-Cresols	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Naphthalene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Nitrobenzene	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
N-Nitroso-di-n-Propylamine	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
N-Nitrosodiphenylamine	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Phenanthrene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.111	0.112 U
Phenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Pyrene	0.00224 U	0.0018 U	0.00194 U	0.00255 U	0.00219 U	0.0266	0.112 U
Tetrachlorophenol	0.37 U	0.36 U	0.38 U	0.42 U	0.36 U	0.45 U	18 U
Tetraethyllead	0.37 R	0.36 UJ	0.38 UJ	0.42 R	0.36 U	0.45 U	18 U

Sample Station	KRY139A	KRY601	KRY601	KRY601	KRY603	KRY603	KRY603
Sample Identification	KRY139ASB001	KRY601SB001	KRY601SB002	KRY601SB003	KRY603SB001	KRY603SB002	KRY603SB003
Sample Collection Date	5/24/2006	4/27/2006	4/27/2006	4/27/2006	4/26/2006	4/26/2006	4/26/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	13.5	4	8	19	4	8	19
Lower Depth	15	6	10	20	6	10	20
1,2,4-Trichlorobenzene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
1,4-Dichlorobenzene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
1-Methylnaphthalene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.082 J
2,3,4,5-Tetrachlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,3,4,6-Tetrachlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,3,4-Trichlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,3,5,6-Tetrachlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,4,5-Trichlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,4,6-Trichlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,4-Dichlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,4-Dimethylphenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,4-Dinitrophenol	2.1 U	2.1 U	1.8 U	1.9 U	1.8 U	1.8 U	1.9 U
2,4-Dinitrotoluene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2,6-Dimethylnaphthalene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.26 J
2,6-Dinitrotoluene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2-Chloronaphthalene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2-Chlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2-Methylnaphthalene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.051 J
2-Methylphenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2-Nitroaniline	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
2-Nitrophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
3,3'-Dichlorobenzidine	0.83 U	0.85 U	0.72 U	0.75 U	0.74 U	0.71 U	0.75 U
3-Nitroaniline	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
4,6-Dinitro-2-Methylphenol	2.1 U	2.1 U	1.8 U	1.9 U	1.8 U	1.8 U	1.9 U
4-Bromophenylphenylether	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
4-Chloro-3-Methylphenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
4-Chloroaniline	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
4-Chlorophenylphenylether	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
4-Nitroaniline	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
4-Nitrophenol	2.1 U	2.1 U	1.8 U	1.9 U	1.8 U	1.8 U	1.9 U
Acenaphthene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Anthracene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Benzo(a)Anthracene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Benzo(a)Pyrene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Benzo(b)Fluoranthene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.0185	0.00214 U	0.00225 U
Benzo(E)Pyrene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Benzo(g,h,i)Perylene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Benzo(k)Fluoranthene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Benzoic Acid	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Benzyl Alcohol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Biphenyl	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
bis(2-Chloroethoxy)Methane	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
bis(2-Chloroethyl)Ether	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
bis(2-Chloroisopropyl)Ether	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
bis(2-Ethylhexyl)Adipate	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
bis(2-Ethylhexyl)Phthalate	0.13 J	0.42 U	0.058 J	0.15 J	0.37 U	0.35 U	0.37 U
Butyl Benzyl Phthalate	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Carbazole	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Chrysene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Dibenzo(a,h)Anthracene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Dibenzofuran	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Diethyl Phthalate	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Dimethyl Phthalate	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Di-n-Butylphthalate	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Di-n-Octylphthalate	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Fluoranthene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Fluorene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Hexachlorobenzene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Hexachlorobutadiene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Hexachlorocyclopentadiene	0.83 U	0.85 U	0.72 U	0.75 U	0.74 U	0.72 U	0.75 U
Hexachloroethane	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Indeno(1,2,3-cd)Pyrene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Isophorone	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
M+P-Cresols	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Naphthalene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Nitrobenzene	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
N-Nitroso-di-n-Propylamine	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
N-Nitrosodiphenylamine	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Phenanthrene	0.0419	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.0194
Phenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Pyrene	0.00249 U	0.00255 U	0.00215 U	0.00224 U	0.00221 U	0.00214 U	0.00225 U
Tetrachlorophenol	0.41 U	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U
Tetraethyllead	0.41 R	0.42 U	0.35 U	0.37 U	0.37 U	0.35 U	0.37 U

Sample Station	KRY604	KRY605	KRY606	KRY606	KRY607	KRY607	KRY608
Sample Identification	KRY604SB001	KRY605SB001	KRY606SB001	KRY606SB003	KRY607SB001	KRY607SB002	KRY608SB001
Sample Collection Date	6/2/2006	4/26/2006	4/26/2006	4/26/2006	4/21/2006	4/21/2006	5/25/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	22	4	4	13	4	15	3.5
Lower Depth	23	6	6	15	6	18	5
1,2,4-Trichlorobenzene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
1,4-Dichlorobenzene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
1-Methylnaphthalene	0.37 U	1.8 U	3.5 U	0.096 J	0.35 U	4 U	0.41 U
2,3,4,5-Tetrachlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,3,4,6-Tetrachlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,3,4-Trichlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,3,5,6-Tetrachlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,4,5-Trichlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,4,6-Trichlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,4-Dichlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,4-Dimethylphenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,4-Dinitrophenol	1.9 U	9.1 U	18 U	2.1 U	1.8 U	20 U	2.1 U
2,4-Dinitrotoluene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2,6-Dimethylnaphthalene	0.096	1.8 U	3.5 U	0.11 J	0.35 U	4 U	0.41 U
2,6-Dinitrotoluene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2-Chloronaphthalene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2-Chlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2-Methylnaphthalene	0.05 j	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2-Methylphenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2-Nitroaniline	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
2-Nitrophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
3,3'-Dichlorobenzidine	0.75 U	3.6 U	7 U	0.84 U	0.7 U	8.2 U	0.82 U
3-Nitroaniline	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
4,6-Dinitro-2-Methylphenol	1.9 U	9.1 U	18 U	2.1 U	1.8 U	20 U	2.1 U
4-Bromophenylphenylether	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
4-Chloro-3-Methylphenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
4-Chloroaniline	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
4-Chlorophenylphenylether	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
4-Nitroaniline	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
4-Nitrophenol	1.9 U	9.1 U	18 U	2.1 U	1.8 U	20 U	2.1 U
Acenaphthene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0021 U	0.0245 U	0.00246 U
Anthracene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0021 U	0.0245 U	0.00246 U
Benzo(a)Anthracene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0021 U	0.0245 U	0.00246 U
Benzo(a)Pyrene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0442	0.0245 U	0.00246 U
Benzo(b)Fluoranthene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0431 J	0.0245 U	0.00246 U
Benzo(E)Pyrene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Benzo(g,h,i)Perylene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Benzo(k)Fluoranthene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0021 U	0.0245 U	0.00246 U
Benzoic Acid	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Benzyl Alcohol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Biphenyl	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
bis(2-Chloroethoxy)Methane	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
bis(2-Chloroethyl)Ether	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
bis(2-Chloroisopropyl)Ether	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
bis(2-Ethylhexyl)Adipate	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
bis(2-Ethylhexyl)Phthalate	0.37 U	0.26 J	3.5 U	0.42 U	0.15 J	4 U	0.41 U
Butyl Benzyl Phthalate	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Carbazole	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Chrysene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0021 U	0.0245 U	0.00246 U
Dibenzo(a,h)Anthracene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0021 U	0.0245 U	0.00246 U
Dibenzofuran	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Diethyl Phthalate	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Dimethyl Phthalate	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Di-n-Butylphthalate	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Di-n-Octylphthalate	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Fluoranthene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Fluorene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0607	0.0245 U	0.00246 U
Hexachlorobenzene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Hexachlorobutadiene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Hexachlorocyclopentadiene	0.76 U	3.6 U	7.1 U	0.84 U	0.7 U	8.2 U	0.82 U
Hexachloroethane	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Indeno(1,2,3-cd)Pyrene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Isophorone	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
M+P-Cresols	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Naphthalene	0.37 U	1.8 U	3.5 U	0.056 J	0.35 U	4 U	0.41 U
Nitrobenzene	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
N-Nitroso-di-n-Propylamine	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
N-Nitrosodiphenylamine	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Phenanthrene	0.00188 U	0.0108 U	0.0211 U	0.0222	0.0021 U	0.0245 U	0.00246 U
Phenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Pyrene	0.00188 U	0.0108 U	0.0211 U	0.00252 U	0.0021 U	0.0245 U	0.00246 U
Tetrachlorophenol	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 U
Tetraethyllead	0.37 U	1.8 U	3.5 U	0.42 U	0.35 U	4 U	0.41 R

Sample Station	KRY608	KRY608	KRY609	KRY609	KRY609	KRY610	KRY610
Sample Identification	KRY608SB002	KRY608SB003	KRY609SB001	KRY609SB002	KRY609SB003	KRY610SB001	KRY610SB002
Sample Collection Date	5/25/2006	5/25/2006	5/24/2006	5/24/2006	5/24/2006	4/24/2006	4/24/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8.5	14	3.5	8.5	16	4	8
Lower Depth	10	15.5	4.5	10	17.5	6	10
1,2,4-Trichlorobenzene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
1,4-Dichlorobenzene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
1-Methylnaphthalene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	3.3	0.36 U
2,3,4,5-Tetrachlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,3,4,6-Tetrachlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,3,4-Trichlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,3,5,6-Tetrachlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,4,5-Trichlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,4,6-Trichlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,4-Dichlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,4-Dimethylphenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,4-Dinitrophenol	1.8 U	19 U	2.1 U	1.7 U	9.5 U	8.9 U	1.8 U
2,4-Dinitrotoluene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2,6-Dimethylnaphthalene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	7.8	0.5
2,6-Dinitrotoluene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2-Chloronaphthalene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2-Chlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2-Methylnaphthalene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	4.6	0.36 U
2-Methylphenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2-Nitroaniline	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
2-Nitrophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
3,3'-Dichlorobenzidine	0.71 U	7.6 U	0.83 U	0.69 U	3.8 U	3.5 U	0.72 U
3-Nitroaniline	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
4,6-Dinitro-2-Methylphenol	1.8 U	19 U	2.1 U	1.7 U	9.5 U	8.9 U	1.8 U
4-Bromophenylphenylether	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
4-Chloro-3-Methylphenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
4-Chloroaniline	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
4-Chlorophenylphenylether	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
4-Nitroaniline	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
4-Nitrophenol	1.8 U	19 U	2.1 U	1.7 U	9.5 U	8.9 U	1.8 U
Acenaphthene	0.00212 U	0.0227 U	0.00249 U	0.00208 U	0.0114 U	0.0106 U	0.00215 U
Anthracene	0.00212 U	0.0227 U	0.00249 U	0.00208 U	0.0114 U	0.214	0.0219
Benzo(a)Anthracene	0.00212 U	0.0227 U	0.017	0.00208 U	0.0114 U	0.0106 U	0.00215 U
Benzo(a)Pyrene	0.00212 U	0.0227 U	0.0123	0.00208 U	0.0114 U	0.0106 U	0.00215 U
Benzo(b)Fluoranthene	0.00212 U	0.0227 U	0.0518	0.00208 U	0.0114 U	0.0106 U	0.00215 U
Benzo(E)Pyrene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Benzo(g,h,i)Perylene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Benzo(k)Fluoranthene	0.00212 U	0.0227 U	0.0183	0.00208 U	0.0114 U	0.0106 U	0.00215 U
Benzoic Acid	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Benzyl Alcohol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Biphenyl	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
bis(2-Chloroethoxy)Methane	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
bis(2-Chloroethyl)Ether	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
bis(2-Chloroisopropyl)Ether	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
bis(2-Ethylhexyl)Adipate	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
bis(2-Ethylhexyl)Phthalate	0.35 U	3.7 U	0.06 J	0.058 J	1.9 U	1.8 U	0.36 U
Butyl Benzyl Phthalate	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Carbazole	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Chrysene	0.00212 U	0.0227 U	0.0223	0.00208 U	0.0114 U	0.157	0.00215 U
Dibenzo(a,h)Anthracene	0.00212 U	0.0227 U	0.00249 U	0.00208 U	0.0114 U	0.0106 U	0.00215 U
Dibenzofuran	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Diethyl Phthalate	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Dimethyl Phthalate	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Di-n-Butylphthalate	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Di-n-Octylphthalate	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Fluoranthene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Fluorene	0.00212 U	0.0227 U	0.00249 U	0.00208 U	0.0114 U	0.0106 U	0.00215 U
Hexachlorobenzene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Hexachlorobutadiene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Hexachlorocyclopentadiene	0.71 U	7.6 U	0.83 U	0.7 U	3.8 U	3.6 U	0.72 U
Hexachloroethane	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Indeno(1,2,3-cd)Pyrene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Isophorone	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
M+P-Cresols	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Naphthalene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Nitrobenzene	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
N-Nitroso-di-n-Propylamine	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
N-Nitrosodiphenylamine	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Phenanthrene	0.00212 U	0.0227 U	0.00249 U	0.063	0.0114 U	1.05	0.0926
Phenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Pyrene	0.00212 U	0.0227 U	0.0286	0.032	0.0114 U	0.115	0.0321
Tetrachlorophenol	0.35 U	3.7 U	0.41 U	0.34 U	1.9 U	1.8 U	0.36 U
Tetraethyllead	0.35 R	3.7 R	0.41 R	0.34 R	1.9 R	1.8 U	0.36 U

Sample Station	KRY612	KRY612	KRY616	KRY616	KRY617	KRY618	KRY618
Sample Identification	KRY612SB001	KRY612SB002	KRY616SB001	KRY616SB002	KRY617SB001	KRY618SB001	KRY618SB002
Sample Collection Date	4/21/2006	4/21/2006	4/19/2006	4/19/2006	4/19/2006	4/25/2006	4/25/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	8	4	8	8	4	8
Lower Depth	6	10	6	10	13	6	10
1,2,4-Trichlorobenzene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
1,4-Dichlorobenzene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
1-Methylnaphthalene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,3,4,5-Tetrachlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,3,4,6-Tetrachlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,3,4-Trichlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,3,5,6-Tetrachlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,4,5-Trichlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,4,6-Trichlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,4-Dichlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,4-Dimethylphenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,4-Dinitrophenol	43 U	20 U	1.8 U	1.9 U	2.2 U	1.8 U	1.8 U
2,4-Dinitrotoluene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,6-Dimethylnaphthalene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2,6-Dinitrotoluene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2-Chloronaphthalene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2-Chlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2-Methylnaphthalene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2-Methylphenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2-Nitroaniline	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
2-Nitrophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
3,3'-Dichlorobenzidine	17 U	8.2 U	0.72 U	0.74 U	0.89 U	0.71 U	0.72 U
3-Nitroaniline	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
4,6-Dinitro-2-Methylphenol	43 U	20 U	1.8 U	1.9 U	2.2 U	1.8 U	1.8 U
4-Bromophenylphenylether	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
4-Chloro-3-Methylphenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
4-Chloroaniline	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
4-Chlorophenylphenylether	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
4-Nitroaniline	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
4-Nitrophenol	43 U	20 U	1.8 U	1.9 U	2.2 U	1.8 U	1.8 U
Acenaphthene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Anthracene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Benzo(a)Anthracene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Benzo(a)Pyrene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Benzo(b)Fluoranthene	0.0512 U	0.0245 U	0.00217 U	0.0241 J	0.00267 U	0.00213 U	0.00217 U
Benzo(E)Pyrene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Benzo(g,h,i)Perylene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Benzo(k)Fluoranthene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Benzoic Acid	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Benzyl Alcohol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Biphenyl	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
bis(2-Chloroethoxy)Methane	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
bis(2-Chloroethyl)Ether	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
bis(2-Chloroisopropyl)Ether	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
bis(2-Ethylhexyl)Adipate	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
bis(2-Ethylhexyl)Phthalate	8.4 U	4 U	0.58	0.57	0.21 J	0.23 J	0.14 J
Butyl Benzyl Phthalate	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Carbazole	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Chrysene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Dibenzo(a,h)Anthracene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Dibenzofuran	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Diethyl Phthalate	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Dimethyl Phthalate	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Di-n-Butylphthalate	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Di-n-Octylphthalate	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Fluoranthene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Fluorene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.0625	0.0614
Hexachlorobenzene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Hexachlorobutadiene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Hexachlorocyclopentadiene	17 U	8.2 U	0.73 U	0.75 U	0.89 U	0.71 U	0.73 U
Hexachloroethane	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Indeno(1,2,3-cd)Pyrene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Isophorone	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
M+P-Cresols	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Naphthalene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Nitrobenzene	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
N-Nitroso-di-n-Propylamine	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
N-Nitrosodiphenylamine	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Phenanthrene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Phenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Pyrene	0.0512 U	0.0245 U	0.00217 U	0.00222 U	0.00267 U	0.00213 U	0.00217 U
Tetrachlorophenol	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U
Tetraethyllead	8.4 U	4 U	0.36 U	0.37 U	0.44 U	0.35 U	0.36 U

Sample Station	KRY623	KRY623	KRY625	KRY629	KRY631	KRY632	KRY633
Sample Identification	KRY623SB001	KRY623SB002	KRY625SB001	KRY629SB001	KRY631SB001	KRY632SB001	KRY633SB001
Sample Collection Date	5/11/2006	5/11/2006	5/11/2006	5/10/2006	5/10/2006	5/17/2006	5/17/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	8.5	13.5	14.5	19	19	4
Lower Depth	5	9.5	14.5	15.5	20.5	20.5	5.5
1,2,4-Trichlorobenzene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
1,4-Dichlorobenzene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
1-Methylnaphthalene	0.35 U	0.39 U	0.83	0.36 U	0.64 J	35	0.68
2,3,4,5-Tetrachlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2,3,4,6-Tetrachlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	1.3
2,3,4-Trichlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2,3,5,6-Tetrachlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2,4,5-Trichlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2,4,6-Trichlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2,4-Dichlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2,4-Dimethylphenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2,4-Dinitrophenol	1.8 U	2 U	2.1 U	1.8 U	9.5 U	3.8 U	1.8 U
2,4-Dinitrotoluene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2,6-Dimethylnaphthalene	0.35 U	0.39 U	2.8	0.36 U	4.9	64	1.6
2,6-Dinitrotoluene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2-Chloronaphthalene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2-Chlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2-Methylnaphthalene	0.35 U	0.39 U	0.15 J	0.36 U	0.2 J	15	0.17 J
2-Methylphenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2-Nitroaniline	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
2-Nitrophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
3,3'-Dichlorobenzidine	0.71 U	0.79 U	0.84 U	0.72 U	3.8 U	1.5 U	0.71 U
3-Nitroaniline	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
4,6-Dinitro-2-Methylphenol	1.8 U	2 U	2.1 U	1.8 U	9.5 U	3.8 U	1.8 U
4-Bromophenylphenylether	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
4-Chloro-3-Methylphenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
4-Chloroaniline	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
4-Chlorophenylphenylether	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
4-Nitroaniline	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
4-Nitrophenol	1.8 U	2 U	2.1 U	1.8 U	9.5 U	3.8 U	1.8 U
Acenaphthene	0.00214 U	0.00237 U	0.00251 U	0.00216 U	0.0114 U	4.9	0.00212 U
Anthracene	0.00214 U	0.00237 U	0.108	0.00216 U	0.369	1.7	0.0635
Benzo(a)Anthracene	0.00214 U	0.00237 U	0.00251 U	0.00216 U	0.157	0.248	0.00212 U
Benzo(a)Pyrene	0.00214 U	0.00237 U	0.00251 U	0.00216 U	0.0997	0.117	0.00212 U
Benzo(b)Fluoranthene	0.00214 U	0.00237 U	0.00251 U	0.00216 U	0.141	0.103	0.00212 U
Benzo(E)Pyrene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.098 J	0.35 U
Benzo(g,h,i)Perylene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Benzo(k)Fluoranthene	0.00214 U	0.00237 U	0.00251 U	0.00216 U	0.0114 U	0.0807	0.00212 U
Benzoic Acid	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Benzyl Alcohol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Biphenyl	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
bis(2-Chloroethoxy)Methane	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
bis(2-Chloroethyl)Ether	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
bis(2-Chloroisopropyl)Ether	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
bis(2-Ethylhexyl)Adipate	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
bis(2-Ethylhexyl)Phthalate	0.25 J	0.14 J	0.11 J	0.084 J	0.29 J	0.75 U	0.044 J
Butyl Benzyl Phthalate	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Carbazole	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Chrysene	0.00214 U	0.00237 U	0.00251 U	0.00216 U	0.196	0.347	0.00212 U
Dibenzo(a,h)Anthracene	0.00214 U	0.00237 U	0.00251 U	0.00216 U	0.0114 U	0.0452	0.00212 U
Dibenzofuran	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Diethyl Phthalate	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Dimethyl Phthalate	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Di-n-Butylphthalate	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Di-n-Octylphthalate	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Fluoranthene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Fluorene	0.00214 U	0.00237 U	0.00251 U	0.00216 U	0.0114 U	6	0.00212 U
Hexachlorobenzene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Hexachlorobutadiene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Hexachlorocyclopentadiene	0.72 U	0.79 U	0.84 U	0.73 U	3.8 U	1.5 U	0.71 U
Hexachloroethane	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Indeno(1,2,3-cd)Pyrene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Isophorone	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
M+P-Cresols	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Naphthalene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.94	0.35 U
Nitrobenzene	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
N-Nitroso-di-n-Propylamine	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
N-Nitrosodiphenylamine	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Phenanthrene	0.0324	0.00237 U	0.412	0.00216 U	0.715	10	0.277
Phenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Pyrene	0.00214 U	0.00237 U	0.141	0.00216 U	1.13	2.7	0.0765
Tetrachlorophenol	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U
Tetraethyllead	0.35 U	0.39 U	0.41 U	0.36 U	1.9 U	0.75 U	0.35 U

Sample Station	KRY633	KRY633	KRY634	KRY634	KRY634	KRY635	KRY635
Sample Identification	KRY633SB002	KRY633SB003	KRY634SB001	KRY634SB002	KRY634SB003	KRY635SB001	KRY635SB002
Sample Collection Date	5/17/2006	5/17/2006	5/18/2006	5/18/2006	5/18/2006	5/8/2006	5/8/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	15	4	8	15.5	4	8
Lower Depth	9.5	16.5	5.5	9.5	18.5	4.5	9.5
1,2,4-Trichlorobenzene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
1,4-Dichlorobenzene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
1-Methylnaphthalene	0.35 U	2.1 U	0.39 U	0.35 U	6.9	0.38 U	0.34 U
2,3,4,5-Tetrachlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,3,4,6-Tetrachlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,3,4-Trichlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,3,5,6-Tetrachlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,4,5-Trichlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,4,6-Trichlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,4-Dichlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,4-Dimethylphenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,4-Dinitrophenol	1.8 U	10 U	2 U	1.8 U	13 U	1.9 U	1.7 U
2,4-Dinitrotoluene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2,6-Dimethylnaphthalene	0.062 J	0.65 J	0.39 U	0.35 U	27	0.38 U	0.34 U
2,6-Dinitrotoluene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2-Chloronaphthalene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2-Chlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2-Methylnaphthalene	0.35 U	2.1 U	0.39 U	0.35 U	2.5 J	0.38 U	0.34 U
2-Methylphenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2-Nitroaniline	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
2-Nitrophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
3,3'-Dichlorobenzidine	0.7 U	4.1 U	0.78 U	0.71 U	5.3 U	0.77 U	0.69 U
3-Nitroaniline	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
4,6-Dinitro-2-Methylphenol	1.8 U	10 U	2 U	1.8 U	13 U	1.9 U	1.7 U
4-Bromophenylphenylether	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
4-Chloro-3-Methylphenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
4-Chloroaniline	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
4-Chlorophenylphenylether	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
4-Nitroaniline	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
4-Nitrophenol	1.8 U	10 U	2 U	1.8 U	13 U	1.9 U	1.7 U
Acenaphthene	0.00211 U	0.0124 U	0.00235 U	0.00214 U	2.8	0.00232 U	0.00207 U
Anthracene	0.00211 U	0.0124 U	0.00235 U	0.00214 U	1.43	0.00232 U	0.00207 U
Benzo(a)Anthracene	0.00211 U	0.0124 U	0.00235 U	0.00214 U	0.395	0.00232 U	0.00207 U
Benzo(a)Pyrene	0.00211 U	0.0124 U	0.00235 U	0.00214 U	0.111	0.00232 U	0.00207 U
Benzo(b)Fluoranthene	0.00211 U	0.0825	0.00235 U	0.00214 U	0.016 U	0.00232 U	0.00207 U
Benzo(E)Pyrene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Benzo(g,h,i)Perylene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Benzo(k)Fluoranthene	0.00211 U	0.0124 U	0.00235 U	0.00214 U	0.016 U	0.00232 U	0.00207 U
Benzoic Acid	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Benzyl Alcohol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Biphenyl	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
bis(2-Chloroethoxy)Methane	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
bis(2-Chloroethyl)Ether	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
bis(2-Chloroisopropyl)Ether	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
bis(2-Ethylhexyl)Adipate	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
bis(2-Ethylhexyl)Phthalate	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.16 J	0.077 J
Butyl Benzyl Phthalate	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Carbazole	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Chrysene	0.00211 U	0.0124 U	0.00235 U	0.00214 U	0.454	0.00232 U	0.00207 U
Dibenzo(a,h)Anthracene	0.00211 U	0.0124 U	0.00235 U	0.00214 U	0.016 U	0.00232 U	0.00207 U
Dibenzofuran	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Diethyl Phthalate	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Dimethyl Phthalate	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Di-n-Butylphthalate	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Di-n-Octylphthalate	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Fluoranthene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Fluorene	0.00211 U	0.373	0.00235 U	0.00214 U	0.016 U	0.00232 U	0.00207 U
Hexachlorobenzene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Hexachlorobutadiene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Hexachlorocyclopentadiene	0.71 U	4.2 U	0.79 U	0.72 U	5.4 U	0.78 U	0.69 U
Hexachloroethane	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Indeno(1,2,3-cd)Pyrene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Isophorone	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
M+P-Cresols	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Naphthalene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Nitrobenzene	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
N-Nitroso-di-n-Propylamine	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
N-Nitrosodiphenylamine	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Phenanthrene	0.0566	0.301	0.00235 U	0.111	7.8	0.00232 U	0.00207 U
Phenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Pyrene	0.00211 U	0.211	0.00235 U	0.0536	5.7	0.00232 U	0.00207 U
Tetrachlorophenol	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U
Tetraethyllead	0.35 U	2.1 U	0.39 U	0.35 U	2.6 U	0.38 U	0.34 U

Sample Station	KRY636	KRY637	KRY638	KRY638	KRY638	KRY639	KRY640
Sample Identification	KRY636SB001	KRY637SB001	KRY638SB001	KRY638SB002	KRY638SB003	KRY639SB001	KRY640SB001
Sample Collection Date	5/9/2006	5/9/2006	5/8/2006	5/8/2006	5/8/2006	5/8/2006	5/8/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	13.5	13.5	3.5	8.5	13.5	13.5	11
Lower Depth	15	14.5	5	10	15	15	13
1,2,4-Trichlorobenzene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
1,4-Dichlorobenzene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
1-Methylnaphthalene	40	59	0.36 U	0.35 U	1.5 J	0.37 U	0.36 U
2,3,4,5-Tetrachlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,3,4,6-Tetrachlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,3,4-Trichlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,3,5,6-Tetrachlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,4,5-Trichlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,4,6-Trichlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,4-Dichlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,4-Dimethylphenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,4-Dinitrophenol	9.6 U	10 U	1.8 U	1.8 U	19 U	1.9 U	1.8 U
2,4-Dinitrotoluene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2,6-Dimethylnaphthalene	84	111	0.36 U	0.35 U	3.3 J	0.37 U	0.36 U
2,6-Dinitrotoluene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2-Chloronaphthalene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2-Chlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2-Methylnaphthalene	25	33	0.36 U	0.35 U	0.8 J	0.37 U	0.36 U
2-Methylphenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2-Nitroaniline	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
2-Nitrophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
3,3'-Dichlorobenzidine	3.8 U	4 U	0.72 U	0.71 U	7.4 U	0.75 U	0.73 U
3-Nitroaniline	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
4,6-Dinitro-2-Methylphenol	9.6 U	10 U	1.8 U	1.8 U	19 U	1.9 U	1.8 U
4-Bromophenylphenylether	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
4-Chloro-3-Methylphenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
4-Chloroaniline	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
4-Chlorophenylphenylether	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
4-Nitroaniline	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
4-Nitrophenol	9.6 U	10 U	1.8 U	1.8 U	19 U	1.9 U	1.8 U
Acenaphthene	4	8.6	0.00216 U	0.00213 U	0.0223 U	0.00224 U	0.00219 U
Anthracene	5.7	8.5	0.00216 U	0.00213 U	0.0223 U	0.00224 U	0.00219 U
Benzo(a)Anthracene	0.172	0.238	0.00216 U	0.00213 U	0.177	0.00224 U	0.00219 U
Benzo(a)Pyrene	0.0276	0.0568	0.00216 U	0.00213 U	0.0223 U	0.00224 U	0.00219 U
Benzo(b)Fluoranthene	0.0439	0.061	0.00216 U	0.00213 U	0.0223 U	0.00224 U	0.00219 U
Benzo(E)Pyrene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Benzo(g,h,i)Perylene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Benzo(k)Fluoranthene	0.0291	0.0695	0.00216 U	0.00213 U	0.0223 U	0.00224 U	0.00219 U
Benzoic Acid	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Benzyl Alcohol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Biphenyl	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
bis(2-Chloroethoxy)Methane	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
bis(2-Chloroethyl)Ether	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
bis(2-Chloroisopropyl)Ether	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
bis(2-Ethylhexyl)Adipate	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
bis(2-Ethylhexyl)Phthalate	1.9 U	2 U	0.25 J	0.13 J	3.7 U	0.092 J	0.36 U
Butyl Benzyl Phthalate	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Carbazole	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Chrysene	0.324	0.652	0.00216 U	0.00213 U	0.32	0.00224 U	0.00219 U
Dibenzo(a,h)Anthracene	0.0115 U	0.0119 U	0.00216 U	0.00213 U	0.0223 U	0.00224 U	0.00219 U
Dibenzofuran	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Diethyl Phthalate	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Dimethyl Phthalate	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Di-n-Butylphthalate	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Di-n-Octylphthalate	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Fluoranthene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Fluorene	9.6	12	0.00216 U	0.00213 U	0.0223 U	0.00224 U	0.00219 U
Hexachlorobenzene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Hexachlorobutadiene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Hexachlorocyclopentadiene	3.9 U	4 U	0.72 U	0.71 U	7.5 U	0.75 U	0.73 U
Hexachloroethane	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Indeno(1,2,3-cd)Pyrene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Isophorone	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
M+P-Cresols	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Naphthalene	1.7 J	1.9 J	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Nitrobenzene	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
N-Nitroso-di-n-Propylamine	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
N-Nitrosodiphenylamine	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Phenanthrene	20	21	0.00216 U	0.00213 U	0.999	0.00224 U	0.00219 U
Phenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Pyrene	3	4.9	0.00216 U	0.00213 U	2.19	0.00224 U	0.00219 U
Tetrachlorophenol	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U
Tetraethyllead	1.9 U	2 U	0.36 U	0.35 U	3.7 U	0.37 U	0.36 U

Sample Station	KRY651	KRY657	KRY657	KRY657	KRY658	KRY658	KRY658
Sample Identification	KRY651SB001	KRY657SB001	KRY657SB002	KRY657SB003	KRY658SB001	KRY658SB002	KRY658SB003
Sample Collection Date	5/18/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/16/2006	5/16/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	17	4.5	9	15.5	4.5	8	14
Lower Depth	20	5	10.5	18.5	5	9.5	15.5
1,2,4-Trichlorobenzene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
1,4-Dichlorobenzene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
1-Methylnaphthalene	0.39 U	0.34 U	0.56	24	0.34 U	3.6 U	76
2,3,4,5-Tetrachlorophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2,3,4,6-Tetrachlorophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.068 J	1.1 J	7.4 U
2,3,4-Trichlorophenol	0.39 U	0.34 UJ	0.36 UJ	1.8 UJ	0.34 U	3.6 U	7.4 U
2,3,5,6-Tetrachlorophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2,4,5-Trichlorophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2,4,6-Trichlorophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2,4-Dichlorophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2,4-Dimethylphenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2,4-Dinitrophenol	2 U	1.7 U	1.8 U	9.3 U	1.7 U	18 U	37 U
2,4-Dinitrotoluene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2,6-Dimethylnaphthalene	0.2 J	0.34 UJ	2.8 J	29 J	0.34 U	3.6 U	174
2,6-Dinitrotoluene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2-Chloronaphthalene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2-Chlorophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2-Methylnaphthalene	0.39 U	0.34 U	0.43 U	13 U	0.34 U	3.6 U	75
2-Methylphenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2-Nitroaniline	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
2-Nitrophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
3,3'-Dichlorobenzidine	0.79 U	0.7 UJ	0.72 UJ	3.7 UJ	0.69 U	7.2 U	15 U
3-Nitroaniline	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
4,6-Dinitro-2-Methylphenol	2 U	1.7 U	1.8 U	9.3 U	1.7 U	18 U	37 U
4-Bromophenylphenylether	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
4-Chloro-3-Methylphenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
4-Chloroaniline	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
4-Chlorophenylphenylether	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
4-Nitroaniline	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
4-Nitrophenol	2 U	1.7 U	1.8 U	9.3 U	1.7 U	18 U	37 U
Acenaphthene	0.00238 U	0.00209 U	0.00216 U	0.0111 U	0.00207 U	0.0216 U	13.4
Anthracene	0.00238 U	0.00209 U	0.0866 U	2.2	0.00207 U	0.0216 U	8.3
Benzo(a)Anthracene	0.00238 U	0.00209 U	0.00216 U	0.263	0.00207 U	0.0216 U	7.12
Benzo(a)Pyrene	0.00238 U	0.00209 U	0.00216 U	0.0111 U	0.00207 U	0.0216 U	4.1
Benzo(b)Fluoranthene	0.00238 U	0.00209 U	0.00216 U	0.0111 U	0.00207 U	0.0216 U	5.47
Benzo(E)Pyrene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	2.5 J
Benzo(g,h,i)Perylene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	1.7 J
Benzo(k)Fluoranthene	0.00238 U	0.00209 U	0.00216 U	0.0111 U	0.00207 U	0.0216 U	2.59
Benzoic Acid	0.39 U	0.34 UJ	0.36 UJ	1.8 UJ	0.34 U	3.6 U	7.4 U
Benzyl Alcohol	0.39 U	0.34 UJ	0.36 UJ	1.8 UJ	0.34 U	3.6 U	7.4 U
Biphenyl	0.39 U	0.34 UJ	0.36 UJ	1.8 UJ	0.34 U	3.6 U	3.4 J
bis(2-Chloroethoxy)Methane	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
bis(2-Chloroethyl)Ether	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
bis(2-Chloroisopropyl)Ether	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
bis(2-Ethylhexyl)Adipate	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
bis(2-Ethylhexyl)Phthalate	0.067 J	0.34 U	0.082 J	1.8 U	0.073 J	3.6 U	7.4 U
Butyl Benzyl Phthalate	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Carbazole	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Chrysene	0.00238 U	0.00209 U	0.00216 U	0.286	0.00207 U	0.0216 U	7.32
Dibenzo(a,h)Anthracene	0.00238 U	0.00209 U	0.00216 U	0.0111 U	0.00207 U	0.0216 U	0.0448 U
Dibenzofuran	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Diethyl Phthalate	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Dimethyl Phthalate	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Di-n-Butylphthalate	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Di-n-Octylphthalate	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Fluoranthene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	27
Fluorene	0.00238 U	0.00209 U	0.00216 U	0.0111 U	0.00207 U	0.0216 U	10.4
Hexachlorobenzene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Hexachlorobutadiene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Hexachlorocyclopentadiene	0.8 U	0.7 U	0.72 U	3.7 U	0.69 U	7.2 U	15 U
Hexachloroethane	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Indeno(1,2,3-cd)Pyrene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	0.6 J	2.8 J
Isophorone	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
M+P-Cresols	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Naphthalene	0.39 U	0.34 U	0.36 U	0.61 J	0.34 U	3.6 U	11
Nitrobenzene	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
N-Nitroso-di-n-Propylamine	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
N-Nitrosodiphenylamine	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Phenanthrene	0.176	0.00209 U	0.535	19	0.0289	0.0216 U	23.8
Phenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Pyrene	0.0642	0.00209 U	0.0747	2.7	0.00207 U	0.0216 U	39.5
Tetrachlorophenol	0.39 U	0.34 U	0.36 U	1.8 U	0.34 U	3.6 U	7.4 U
Tetraethyllead	0.39 U	0.34 UJ	0.36 UJ	1.8 UJ	0.34 U	3.6 U	7.4 U

Sample Station	KRY659	KRY659	KRY659	KRY660	KRY660	KRY660	KRY662
Sample Identification	KRY659SB001	KRY659SB002	KRY659SB003	KRY660SB001	KRY660SB002	KRY660SB003	KRY662SB001
Sample Collection Date	5/16/2006	5/16/2006	5/16/2006	5/22/2006	5/22/2006	5/22/2006	5/16/2006
Sample Type	SB	SB	SB	SB	SB	SB	SB
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	8	15.5	1.5	8	16	5.5
Lower Depth	5.5	9.5	17	5	8.5	17	7
1,2,4-Trichlorobenzene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
1,4-Dichlorobenzene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
1-Methylnaphthalene	1.7 U	1.8 U	21	0.35 U	0.35 U	36	0.71 U
2,3,4,5-Tetrachlorophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2,3,4,6-Tetrachlorophenol	1.7 U	0.61 K	7.5	0.35 U	0.35 U	1.9 U	0.38 J
2,3,4-Trichlorophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2,3,5,6-Tetrachlorophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2,4,5-Trichlorophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2,4,6-Trichlorophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2,4-Dichlorophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2,4-Dimethylphenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2,4-Dinitrophenol	8.7 U	8.9 U	10 U	1.8 U	1.8 U	9.4 U	3.6 U
2,4-Dinitrotoluene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2,6-Dimethylnaphthalene	1.7 U	1.8 U	39	0.35 U	0.35 U	67	0.71 U
2,6-Dinitrotoluene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2-Chloronaphthalene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2-Chlorophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2-Methylnaphthalene	1.7 U	1.8 U	18	0.35 U	0.35 U	26	0.71 U
2-Methylphenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2-Nitroaniline	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
2-Nitrophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
3,3'-Dichlorobenzidine	3.5 U	3.5 U	4.2 U	0.71 U	0.72 U	3.8 U	1.4 U
3-Nitroaniline	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
4,6-Dinitro-2-Methylphenol	8.7 U	8.9 U	10 U	1.8 U	1.8 U	9.4 U	3.6 U
4-Bromophenylphenylether	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
4-Chloro-3-Methylphenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
4-Chloroaniline	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
4-Chlorophenylphenylether	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
4-Nitroaniline	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
4-Nitrophenol	8.7 U	8.9 U	10 U	1.8 U	1.8 U	9.4 U	3.6 U
Acenaphthene	0.0104 U	0.0106 U	3.14	0.00213 U	0.00215 U	5.7	0.00429 U
Anthracene	0.0104 U	0.0106 U	3.14	0.00213 U	0.00215 U	3.1	0.0412
Benzo(a)Anthracene	0.0104 U	0.0106 U	0.253	0.00213 U	0.00215 U	0.549	0.0535
Benzo(a)Pyrene	0.0104 U	0.0106 U	0.0125 U	0.00213 U	0.00215 U	0.144	0.0715
Benzo(b)Fluoranthene	0.0104 U	0.0106 U	0.0125 U	0.00213 U	0.00215 U	0.283	0.0829
Benzo(E)Pyrene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Benzo(g,h,i)Perylene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Benzo(k)Fluoranthene	0.0104 U	0.0106 U	0.0125 U	0.00213 U	0.00215 U	0.104	0.0772
Benzoic Acid	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Benzyl Alcohol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Biphenyl	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
bis(2-Chloroethoxy)Methane	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
bis(2-Chloroethyl)Ether	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
bis(2-Chloroisopropyl)Ether	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
bis(2-Ethylhexyl)Adipate	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
bis(2-Ethylhexyl)Phthalate	1.7 U	1.8 U	2.1 U	2	0.11 J	1.9 U	0.71 U
Butyl Benzyl Phthalate	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Carbazole	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Chrysene	0.0104 U	0.0106 U	0.594	0.00213 U	0.00215 U	0.524	0.0965
Dibenzo(a,h)Anthracene	0.0104 U	0.0106 U	0.0125 U	0.00213 U	0.00215 U	0.0113 U	0.00429 U
Dibenzofuran	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Diethyl Phthalate	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Dimethyl Phthalate	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Di-n-Butylphthalate	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Di-n-Octylphthalate	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Fluoranthene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.11 J
Fluorene	0.0104 U	0.0106 U	2.09	0.00213 U	0.00215 U	8	0.00429 U
Hexachlorobenzene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Hexachlorobutadiene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Hexachlorocyclopentadiene	3.5 U	3.6 U	4.2 U	0.71 U	0.72 U	3.8 U	1.4 U
Hexachloroethane	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Indeno(1,2,3-cd)Pyrene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Isophorone	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
M+P-Cresols	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Naphthalene	1.7 U	1.8 U	1.7 J	0.35 U	0.35 U	3.5	0.71 U
Nitrobenzene	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
N-Nitroso-di-n-Propylamine	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
N-Nitrosodiphenylamine	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Phenanthrene	0.0104 U	0.0106 U	9.66	0.00213 U	0.00215 U	15	0.0562
Phenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Pyrene	0.0104 U	0.0106 U	4.12	0.00213 U	0.00215 U	4.6	0.123
Tetrachlorophenol	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U
Tetraethyllead	1.7 U	1.8 U	2.1 U	0.35 U	0.35 U	1.9 U	0.71 U

Appendix G - 2006 Subsurface Soil Data
PCP

Sample Station	KRY100A	KRY103A	KRY103A	KRY103A	KRY105A	KRY105A
Sample Identification	KRY100ASB001	KRY103ASB001	KRY103ASB002	KRY103ASB003	KRY105ASB001	KRY105ASB002
Sample Collection Date	5/19/2006	5/22/2006	5/22/2006	5/22/2006	5/22/2006	5/22/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	5.5	9	9.5	4	8
Lower Depth	9.5	6.5	9.5	10.5	6	9.5
Pentachlorophenol	0.042	0.04	0.035	0.0052	0.0074	0.1

Appendix G - 2006 Subsurface Soil Data
PCP

KRY111A	KRY113A	KRY114B	KRY116A	KRY121B	KRY123A	KRY123A	KRY126A
KRY111ASB001	KRY113ASB002	KRY114BSB001	KRY116ASB001	KRY121BSB002	KRY123ASB001	KRY123ASB002	KRY126ASB001
5/2/2006	5/23/2006	4/18/2006	5/5/2006	4/20/2006	4/21/2006	4/21/2006	5/25/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
12	18	22	13	25	4	20	3.5
14	18.5	23	14.5	27	6	25	5
0.0027	0.03	26	0.0024 U	0.0032	0.0022 U	0.0025 U	0.013

Appendix G - 2006 Subsurface Soil Data
PCP

KRY126A	KRY127A	KRY127A	KRY129A	KRY136A	KRY136A	KRY136A	KRY139A
KRY126ASB002	KRY127ASB001	KRY127ASB002	KRY129ASB001	KRY136SB001	KRY136SB002	KRY136SB003	KRY139ASB001
5/25/2006	5/31/2006	5/31/2006	5/24/2006	4/24/2006	4/24/2006	4/24/2006	5/24/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
9	3.5	8	15.5	4	11	23	13.5
10	5	9.5	17.5	6	13	25	15
0.0095	0.0049	0.011	0.0023 J	78	0.0027 U	0.0071	0.042 U

Appendix G - 2006 Subsurface Soil Data
PCP

KRY601	KRY601	KRY601	KRY603	KRY603	KRY603	KRY604	KRY605
KRY601SB001	KRY601SB002	KRY601SB003	KRY603SB001	KRY603SB002	KRY603SB003	KRY604SB001	KRY605SB001
4/27/2006	4/27/2006	4/27/2006	4/26/2006	4/26/2006	4/26/2006	6/2/2006	4/26/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
4	8	19	4	8	19	22	4
6	10	20	6	10	20	23	6
0.0025 U	0.0021 U	0.0022 U	0.0022 U	0.0021 U	0.002 J	0.0025	0.0022 U

Appendix G - 2006 Subsurface Soil Data
PCP

KRY606	KRY606	KRY607	KRY607	KRY608	KRY608	KRY608	KRY609
KRY606SB001	KRY606SB003	KRY607SB001	KRY607SB002	KRY608SB001	KRY608SB002	KRY608SB003	KRY609SB001
4/26/2006	4/26/2006	4/21/2006	4/21/2006	5/25/2006	5/25/2006	5/25/2006	5/24/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
4	13	4	15	3.5	8.5	14	3.5
6	15	6	18	5	10	15.5	4.5
0.0021 U	0.0025 U	0.0021 U	0.013	0.0024 J	0.0064	0.007 U	0.0097 U

Appendix G - 2006 Subsurface Soil Data
PCP

KRY609	KRY609	KRY610	KRY610	KRY612	KRY612	KRY616	KRY616
KRY609SB002	KRY609SB003	KRY610SB001	KRY610SB002	KRY612SB001	KRY612SB002	KRY616SB001	KRY616SB002
5/24/2006	5/24/2006	4/24/2006	4/24/2006	4/21/2006	4/21/2006	4/19/2006	4/19/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
8.5	16	4	8	4	8	4	8
10	17.5	6	10	6	10	6	10
0.022	0.017 U	0.015	0.0014 J	0.0058	0.0024 U	0.0022 U	0.0022 U

Appendix G - 2006 Subsurface Soil Data
PCP

KRY617	KRY618	KRY618	KRY623	KRY623	KRY625	KRY629	KRY631
KRY617SB001	KRY618SB001	KRY618SB002	KRY623SB001	KRY623SB002	KRY625SB001	KRY629SB001	KRY631SB001
4/19/2006	4/25/2006	4/25/2006	5/11/2006	5/11/2006	5/11/2006	5/10/2006	5/10/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
8	4	8	4	8.5	13.5	14.5	19
13	6	10	5	9.5	14.5	15.5	20.5
0.0027 U	0.0021 U	0.0022 U	0.072	0.0024 U	0.67	0.002 J	0.58

Appendix G - 2006 Subsurface Soil Data
PCP

KRY632	KRY633	KRY633	KRY633	KRY634	KRY634	KRY634	KRY635
KRY632SB001	KRY633SB001	KRY633SB002	KRY633SB003	KRY634SB001	KRY634SB002	KRY634SB003	KRY635SB001
5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/18/2006	5/18/2006	5/18/2006	5/8/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
19	4	8	15	4	8	15.5	4
20.5	5.5	9.5	16.5	5.5	9.5	18.5	4.5
18	8.5	0.07	5.3 J	0.037	0.074	12	0.07

Appendix G - 2006 Subsurface Soil Data
PCP

KRY635	KRY636	KRY637	KRY638	KRY638	KRY638	KRY639	KRY640
KRY635SB002	KRY636SB001	KRY637SB001	KRY638SB001	KRY638SB002	KRY638SB003	KRY639SB001	KRY640SB001
5/8/2006	5/9/2006	5/9/2006	5/8/2006	5/8/2006	5/8/2006	5/8/2006	5/8/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
8	13.5	13.5	3.5	8.5	13.5	13.5	11
9.5	15	14.5	5	10	15	15	13
0.0023	51	74	0.024	0.0021 U	7	0.0053	0.0022 U

Appendix G - 2006 Subsurface Soil Data
PCP

KRY651	KRY657	KRY657	KRY657	KRY658	KRY658	KRY658	KRY659
KRY651SB001	KRY657SB001	KRY657SB002	KRY657SB003	KRY658SB001	KRY658SB002	KRY658SB003	KRY659SB001
5/18/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
17	4.5	9	15.5	4.5	8	14	4
20	5	10.5	18.5	5	9.5	15.5	5.5
0.039	0.42	7.5	130 J	2.5	9.8	318	5.1

Appendix G - 2006 Subsurface Soil Data
PCP

KRY659	KRY659	KRY660	KRY660	KRY660	KRY662	KRY662	KRY662
KRY659SB002	KRY659SB003	KRY660SB001	KRY660SB002	KRY660SB003	KRY662SB001	KRY662SB002	KRY662SB003
5/16/2006	5/16/2006	5/22/2006	5/22/2006	5/22/2006	5/16/2006	5/16/2006	5/16/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
8	15.5	1.5	8	16	5.5	8	15.5
9.5	17	5	8.5	17	7	9.5	17
7.8	206	0.21	0.031	56	5.7	7.2	112

Appendix G - 2006 Subsurface Soil Data
PCP

KRY663	KRY663	KRY663	KRY664	KRY664	KRY664	KRY665	KRY665
KRY663SB001	KRY663SB002	KRY663SB003	KRY664SB001	KRY664SB002	KRY664SB003	KRY665SB001	KRY665SB002
5/17/2006	5/17/2006	5/17/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
5.5	8	15.5	4	8	17	4	8
7	9.5	17	5.5	9.5	18.5	5.5	9.5
0.33	0.031	1.4	0.17	0.41 U	141	0.12	0.32

Appendix G - 2006 Subsurface Soil Data
PCP

KRY665	KRY666	KRY666	KRY666	KRY667	KRY667	KRY670	KRY670
KRY665SB003	KRY666SB001	KRY666SB002	KRY666SB003	KRY667SB001	KRY667SB002	KRY670SB001	KRY670SB002
5/16/2006	4/27/2006	4/27/2006	4/27/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006
SB	SB	SB	SB	SB	SB	SB	SB
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
19	4	9	20	9	16	3.5	8
20.5	5	10	21	14	19	5	9.5
4.2	0.0023 U	0.0022 U	0.0023 U	0.0022 U	0.005	0.0024	0.013

Appendix G - 2006 Subsurface Soil Data
PCP

KRY672	**KRY672**	**KRY672**
KRY672SB001	**KRY672SB002**	**KRY672SB003**
6/2/2006	**6/2/2006**	**6/2/2006**
SB	**SB**	**SB**
mg/kg	**mg/kg**	**mg/kg**
4.5	**9**	**12**
6	**10.5**	**13.5**
0.0073	0.012	0.0022 U

Appendix G - 2006 Subsurface Soil Data
Dioxins and Furans

Sample Station	KRY127A	KRY127A	KRY603	KRY603	KRY603	KRY610
Sample Identification	KRY127ASB001	KRY127ASB002	KRY603SB001	KRY603SB002	KRY603SB003	KRY610SB001
Sample Collection Date	5/31/2006	5/31/2006	4/26/2006	4/26/2006	4/26/2006	4/24/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	3.5	8	4	8	19	4
Lower Depth	5	9.5	6	10	20	6
1,2,3,4,6,7,8,9-OCDD	200	630	49	1.6 U	3.7 J	2900 J
1,2,3,4,6,7,8,9-OCDF	8.2 J	25	2.2 J	0.11 U (0.24)	0.12 U (0.3)	50 J
1,2,3,4,6,7,8-HPCDD	28	94	9.5	0.32 J	0.17 U (0.84)	380
1,2,3,4,6,7,8-HPCDF	3.5 J	9.9	2.2 J	0.1 U	0.16 U	0.18 U (42)
1,2,3,4,7,8,9-HPCDF	0.28 J	0.63 J	0.3 J	0.11 U	0.094 J	1.8 J
1,2,3,4,7,8-HXCDD	0.1 U	0.36 J	0.21 U (0.42)	0.14 U	0.17 U	2.1 J
1,2,3,4,7,8-HXCDF	0.37 J	1 J	0.09 U (0.39)	0.073 U	0.3 J	3 J
1,2,3,6,7,8-HXCDD	1.5 J	4.9	1.2 J	0.17 U	0.17 U	23
1,2,3,6,7,8-HXCDF	0.055 U (0.26)	0.089 U (0.46)	0.11 U (0.34)	0.076 U	0.089 U	1.6 J
1,2,3,7,8,9-HXCDD	0.39 J	1.2 J	1.1 J	0.16 U	0.13 U	5 J
1,2,3,7,8,9-HXCDF	0.15 J	0.48 J	0.11 U	0.085 U	0.081 U	1.8 J
1,2,3,7,8-PECDD	0.15 J	0.41 J	0.49 J	0.13 U	0.1 U	1.3 J
1,2,3,7,8-PECDF	0.13 J	0.31 J	0.19 U (0.56)	0.26 U	0.098 U	0.32 U (0.85)
2,3,4,6,7,8-HXCDF	0.22 J	0.6 J	0.65 J	0.061 U	0.077 J	1.8 J
2,3,4,7,8-PECDF	0.23 J	0.7 J	1.1 J	0.13 U	0.12 J	0.2 U (1.4)
2,3,7,8-TCDD	0.064 J	0.062 U (0.15)	0.23 U	0.29 U	0.16 U	0.21 U
2,3,7,8-TCDF	0.04 U (0.094)	0.16 J	1.3 J	0.2 U	0.12 U	0.62 J
HPCDD (TOTAL)	47	160	19	0.32 J	0.96 J	680
HPCDF (TOTAL)	13	41	4.5 J	0.11 U	0.42 U	92
HXCDD (TOTAL)	5.6	18	12	0.15 U	1.4 J	87
HXCDF (TOTAL)	6.6	21	5.7	0.074 U	0.52 J	71
PECDD (TOTAL)	0.84 J	2.5 J	1.2 J	0.13 U	0.22 J	4.4 J
PECDF (TOTAL)	1.7 J	5.5	12	0.19 U	0.12 J	22
TCDD (TOTAL)	0.36 J	2.3	0.36 J	0.29 U	0.16 U	0.21 U
TCDF (TOTAL)	0.48 J	0.31 J	12	0.2 U	0.14 J	1.3
2,3,7,8-TCDD (TEQ) (WHO 2005)	0.95286	2.8391	1.56676	0.286176	0.250265	10.43275

Appendix G - 2006 Subsurface Soil Data
Dioxins and Furans

Sample Station	KRY610	KRY612	KRY612	KRY628	KRY628	KRY628
Sample Identification	KRY610SB002	KRY612SB001	KRY612SB002	KRY628SB001	KRY628SB003	KRY628SB004
Sample Collection Date	4/24/2006	4/21/2006	4/21/2006	5/12/2006	5/12/2006	5/12/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	8	4	8	6	14	9.5
Lower Depth	10	6	10	7.5	15.5	14
1,2,3,4,6,7,8,9-OCDD	410 J	1900	240 J	150	1200000 J	310000 N2
1,2,3,4,6,7,8,9-OCDF	8 J	76	13 J	4.4 J	54000 N3	12000 N2
1,2,3,4,6,7,8-HPCDD	62	250	34	19	200000 N3	41000 N2
1,2,3,4,6,7,8-HPCDF	7.4	35	6.3	0.2 U (1.6)	27000	4900
1,2,3,4,7,8,9-HPCDF	0.41 J	2.7 J	0.52 U	0.36 U	1700	300
1,2,3,4,7,8-HXCDD	1 J	3.8 J	0.69 J	0.41 U	97	23
1,2,3,4,7,8-HXCDF	0.57 J	1.6 J	0.42 J	0.31 U (0.41)	2500	490
1,2,3,6,7,8-HXCDD	4.1 J	11	1.8 J	1.2 J	13000	2400
1,2,3,6,7,8-HXCDF	0.13 U (0.4)	1.8 J	0.3 J	0.28 U	660	140
1,2,3,7,8,9-HXCDD	1.5 J	6.8	1.1 J	0.34 U	830	150
1,2,3,7,8,9-HXCDF	0.29 J	1.6 J	0.17 U (0.26)	0.42 U	1200	210
1,2,3,7,8-PECDD	0.15 U (0.46)	1.7 J	0.37 U	0.56 U	23	5.9
1,2,3,7,8-PECDF	0.38 J	0.73 J	0.19 U	0.44 U	670	71
2,3,4,6,7,8-HXCDF	0.16 U (0.31)	2.5 J	0.46 J	0.36 U	0.84 U (850)	0.27 U (190)
2,3,4,7,8-PECDF	0.54 J	1.8 J	0.46 J	0.44 U	1.4 U (970)	240
2,3,7,8-TCDD	0.15 U	0.15 U (0.29)	0.25 U	0.53 U	0.83 U	0.37 J
2,3,7,8-TCDF	0.14 J	0.34 J	0.24 U	0.34 U	180 J	25 J
HPCDD (TOTAL)	110	460	68	32	320000 N3	65000 N2
HPCDF (TOTAL)	21	120	17	5.8	29000	5200
HXCDD (TOTAL)	18	89	18	2 J	31000	5800
HXCDF (TOTAL)	15	46	13	3.3 J	54000	9900
PECDD (TOTAL)	0.68 J	16	2.2 J	0.56 U	75	36
PECDF (TOTAL)	5.5	20	4.8	1.2 J	12000	1800
TCDD (TOTAL)	0.15 U	6.1	0.25 U	0.53 U	5.2	4.4
TCDF (TOTAL)	1.1	6.9	1.5	0.34 U	540	84
2,3,7,8-TCDD (TEQ) (WHO 2005)	2.0974	8.8207	1.43435	1.11172	4741.415	992.3

Appendix G - 2006 Subsurface Soil Data
Dioxins and Furans

Sample Station	KRY656	KRY656	KRY656	KRY666	KRY666
Sample Identification	KRY656SB001	KRY656SB002	KRY656SB003	KRY666SB001	KRY666SB002
Sample Collection Date	5/15/2006	5/15/2006	5/15/2006	4/27/2006	4/27/2006
Sample Type	SB	SB	SB	SB	SB
Duplicate of					
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	4.5	8	15.5	4	9
Lower Depth	5	9.5	17	5	10
1,2,3,4,6,7,8,9-OCDD	1400	3700	110000 N2	8 J	4.4 J
1,2,3,4,6,7,8,9-OCDF	78	190	3000 N2	0.5 J	0.32 J
1,2,3,4,6,7,8-HPCDD	180	490	17000 N2	1.5 J	0.64 J
1,2,3,4,6,7,8-HPCDF	26	72	1700	0.11 U (0.24)	0.23 U
1,2,3,4,7,8,9-HPCDF	0.53 U (1.4)	4.4	94	0.11 U	0.12 U
1,2,3,4,7,8-HXCDD	0.62 U	1.2 J	9.4	0.15 U	0.13 U
1,2,3,4,7,8-HXCDF	2.3 J	0.54 U (7.1)	170	0.08 U (0.14)	0.099 U
1,2,3,6,7,8-HXCDD	9.9	26	1300	0.18 U	0.14 U
1,2,3,6,7,8-HXCDF	0.51 U (0.55)	1.8 J	66	0.12 U	0.059 U (0.079)
1,2,3,7,8,9-HXCDD	0.44 U	2.9 J	82	0.14 U	0.086 U
1,2,3,7,8,9-HXCDF	0.43 U (1)	2.8 J	110	0.14 U	0.12 U
1,2,3,7,8-PECDD	0.31 U	0.4 J	2.6 J	0.12 U	0.18 U
1,2,3,7,8-PECDF	0.39 U (0.5)	0.43 U (1.5)	59	0.13 U	0.12 U
2,3,4,6,7,8-HXCDF	0.43 U (1.1)	3.1 J	99	0.15 J	0.092 J
2,3,4,7,8-PECDF	1.3 J	3.6 J	140	0.29 J	0.18 J
2,3,7,8-TCDD	0.34 U	0.28 U	0.16 U (0.16)	0.18 U	0.28 U
2,3,7,8-TCDF	0.19 U	0.76 J	17 J	0.14 U	0.16 U
HPCDD (TOTAL)	300	800	26000 N2	3 J	1.3 J
HPCDF (TOTAL)	82	270	1800	0.11 U	0.42 U
HXCDD (TOTAL)	25	71	3000	0.35 J	0.17 J
HXCDF (TOTAL)	43	100	2100	1.5 J	0.33 J
PECDD (TOTAL)	0.31 U	0.94 J	7.2	0.12 U	0.18 U
PECDF (TOTAL)	11	31	980	2 J	1.1 J
TCDD (TOTAL)	0.34 U	0.4 J	0.98	0.18 U	0.28 U
TCDF (TOTAL)	0.19 U	2.3	56	0.61 J	0.2 J
2,3,7,8-TCDD (TEQ) (WHO 2005)	4.6479	12.6845	453.63	0.32375	0.345266

Appendix G - 2006 Subsurface Soil Data
Dioxin and Furan Notes

Notes:

J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
ng/kg = Nanograms per kilogram
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY100A	KRY103A	KRY103A	KRY105A	KRY105A	KRY123A
Sample Identification	KRY100ASB001	KRY103ASB001	KRY103ASB003	KRY105ASB001	KRY105ASB002	KRY123ASB001
Sample Collection Date	5/19/2006	5/22/2006	5/22/2006	5/22/2006	5/22/2006	4/21/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	5.5	9.5	4	8	4
Lower Depth	9.5	6.5	10.5	6	9.5	6
Aluminum	7420	5010	8640	9480	9100	7290
Antimony	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 R
Arsenic	3.09 J	2.68 J	2.05 J	1.68 J	1.78 J	10.4
Barium	55.4 J	112	75.8	109	57.6	61.5 J
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 UJ
Chromium	8.9	6.9	7.7	7.9	10.9	16.1
Cobalt	5 U	5 U	5 U	5 U	6.2	5 U
Copper	9	9.7 J	11.6 J	12.6 J	11.6 J	11.3
Iron	10600	8450	12400	12300	12600	14500
Lead	7.7	11.6 J	7.1 J	10 J	7.3 J	5
Manganese	208	389	264	145	82.9	245
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	7.7	6.1	8.6	8.6	11	8.5
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 U	7.4	5 U	5 U	5 U	5 U
Vanadium	5.6	5	8.3	7.6	8.7	5.8
Zinc	32.9	45.1	33.8	38	38.8	27.9

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY123A	KRY126A	KRY126A	KRY127A	KRY127A	KRY136A
Sample Identification	KRY123ASB002	KRY126ASB001	KRY126ASB002	KRY127ASB001	KRY127ASB002	KRY136SB001
Sample Collection Date	4/21/2006	5/25/2006	5/25/2006	5/31/2006	5/31/2006	4/24/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	20	3.5	9	3.5	8	4
Lower Depth	25	5	10	5	9.5	6
Aluminum	7100	8950	13500	8820	5840	8350
Antimony	5 R	5 R	5 R	5 UJ	5 UJ	5 R
Arsenic	7.41	4.85	7	7.61	4.62	5.5
Barium	66.2	56.2	202	110 J	68.8 J	81.3
Beryllium	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Cadmium	1 U	1 UJ	1 UJ	1 U	1 U	1 U
Chromium	8.6	8.2	11.8	11.3	10	8.6
Cobalt	5 U	5 U	6.3	5 U	5 U	5.3
Copper	11.7	9	18.6	9.2	7.7	11.3
Iron	11300	12400	15700	14600	10000	13400
Lead	7.6	10.7	8.3	8 J	5 U	8
Manganese	340 J	239 J	344 J	504	427	246 J
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	8.8	8.5 J	12.1 J	8.5	8.1	10.3
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Tin	5 UJ	5 UJ	5 UJ	5 U	5 U	5 UJ
Vanadium	5.2	6.6	13.7	7.4	4.9	7
Zinc	36.4	36	47.8	32.5	24.7	41.7

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY136A	KRY136A	KRY603	KRY603	KRY603	KRY605
Sample Identification	KRY136SB002	KRY136SB003	KRY603SB001	KRY603SB002	KRY603SB003	KRY605SB001
Sample Collection Date	4/24/2006	4/24/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	11	23	4	8	19	4
Lower Depth	13	25	6	10	20	6
Aluminum	17500	6470	8350	4930	6820	8010
Antimony	5 R	5 R	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	14.5	4.55	3.79	4.38	4.73	4.46
Barium	183	64	122	40.3	55.8	88.1
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	14.6	7.5	7.4	5 U	6.5	8
Cobalt	8	5 U	5 U	5 U	5 U	5 U
Copper	24.3	7.9	8.6	6.2	10.2	12.1
Iron	21500	9680	10100	8620	10400	11900
Lead	12.9	5.1	15.7 J	5 UJ	7.2 J	34.4 J
Manganese	352 J	219 J	414 J	190	290	337 J
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	15.7	8.8	7.7	6.4	7.4	8.9
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 UJ	5 UJ	5 U	5 U	5 U	5 U
Vanadium	15.8	5.1	7.8	3.9	5.5	6.9
Zinc	59.9	26.9	32.2	22.4	30.9	47.4

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY606	KRY606	KRY607	KRY607	KRY608	KRY608
Sample Identification	KRY606SB001	KRY606SB003	KRY607SB001	KRY607SB002	KRY608SB001	KRY608SB002
Sample Collection Date	4/26/2006	4/26/2006	4/21/2006	4/21/2006	5/25/2006	5/25/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	13	4	15	3.5	8.5
Lower Depth	6	15	6	18	5	10
Aluminum	7030	8530	6230	7190	14000	8730
Antimony	5 UJ	5 UJ	5 R	5 R	5 R	5 R
Arsenic	3.72	2.9	5.05	3.27	2.78	6.69
Barium	80.9	167	51.2 J	42.9 J	180	57
Beryllium	5 U	5 U	5 U	5 U	5 UJ	5 UJ
Cadmium	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ
Chromium	8.7	8.5	5.8	15.2	12	8.1
Cobalt	5 U	5 U	5 U	5 U	5.6	5 U
Copper	8.9	17.9	7.5	8.6	20.8	14.2
Iron	9690	12100	10200	10700	15000	12100
Lead	15.6 J	5.9 J	28.2	5.4	8.5	6.2
Manganese	257 J	341 J	202	287	131 J	117 J
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	7.6	9	7.2	7.7	11.2 J	8.2 J
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 UJ	5 UJ
Tin	5 U	5 U	5 U	5 U	5 UJ	5 UJ
Vanadium	6.4	9.1	4.6	4.5	12.7	5.8
Zinc	35.6	31.1	28	28.7	41.9	35.3

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY608	KRY609	KRY609	KRY609	KRY610	KRY610
Sample Identification	KRY608SB003	KRY609SB001	KRY609SB002	KRY609SB003	KRY610SB001	KRY610SB002
Sample Collection Date	5/25/2006	5/24/2006	5/24/2006	5/24/2006	4/24/2006	4/24/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	14	3.5	8.5	16	4	8
Lower Depth	15.5	4.5	10	17.5	6	10
Aluminum	7700	11900	7730	7290	7620	6740
Antimony	5 R	5 R	5 R	5 R	5 R	5 R
Arsenic	4.45	5.38	5.69	6.6	4.33	4.84
Barium	64.9	135	79	34.1	78.8	55.4
Beryllium	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U
Cadmium	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U
Chromium	7.5	10.8	8.9	9.1	8.1	8.8
Cobalt	5 U	5.1	5 U	5 U	5	5 U
Copper	10.9	16	12.5	7.3	9.4	11.1
Iron	11000	14300	12600	11800	12000	11200
Lead	8.1	17	6	5 U	55.8	75.8
Manganese	262 J	356 J	437 J	223 J	347 J	222 J
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	8.9 J	9.4 J	9.2 J	8.8 J	8.8	8.5
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U
Tin	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Vanadium	6.3	9.9	6.3	5	6	5.2
Zinc	30.7	47.7	39.4	30.1	35.9	41.5

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY612	KRY612	KRY616	KRY616	KRY617	KRY618
Sample Identification	KRY612SB001	KRY612SB002	KRY616SB001	KRY616SB002	KRY617SB001	KRY618SB001
Sample Collection Date	4/21/2006	4/21/2006	4/19/2006	4/19/2006	4/19/2006	4/25/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	8	4	8	8	4
Lower Depth	6	10	6	10	13	6
Aluminum	8680	10900	17900	17600	12800	7570
Antimony	5 R	5 R	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	3.11	4.66	10.6	8.29	18.7	6.56
Barium	93.3 J	121 J	151	151	314	73.3
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 UJ	1 UJ	1 U	1 U	1 U	1 U
Chromium	7	9.3	22.4	20.3	13.9	8.4
Cobalt	5 U	5 U	9.3	9	7	5 U
Copper	12.8	14.6	19.6	19.1	17.9	11.4
Iron	10700	12900	26600	23100	21700	12400
Lead	16.4	8.8	13.7	12.7	7.8	8.9 J
Manganese	247	352	504	425	453	280 J
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	8.1	8.9	17.7	17.6	14.9	9.3
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	7.2	7.8	13.9	13.6	17.7	5.5
Zinc	49.8	37.9	67.2	71.6	53.9	33.3

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY618	KRY623	KRY623	KRY633	KRY633	KRY633
Sample Identification	KRY618SB002	KRY623SB001	KRY623SB002	KRY633SB001	KRY633SB002	KRY633SB003
Sample Collection Date	4/25/2006	5/11/2006	5/11/2006	5/17/2006	5/17/2006	5/17/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	4	8.5	4	8	15
Lower Depth	10	5	9.5	5.5	9.5	16.5
Aluminum	7980	9240	8210	7450	9020	7090
Antimony	5 UJ	5 R	5 R	5 UJ	5 UJ	5 UJ
Arsenic	5.26	6.54	6.98	3.69 J	11.8 J	3.79 J
Barium	69.1	77.2 J	101 J	60.1 J	53.6 J	45.1 J
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	9.1	10.5	8.5	7.2	8.2	29.2
Cobalt	5 U	5.5	5 U	5 U	5.2	5 U
Copper	10.9	11.1	15.1	8.8	10.3	18.9
Iron	11100	14400	12100	10700	14200	14700
Lead	5.9 J	9	5.6	5.7	7.1	5 U
Manganese	262 J	448	563	210	241	170
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	9.1	11.5	10.5	7.2	10.7	26.4
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Tin	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Vanadium	5.1	7.4	6.1	5.4	6.3	5
Zinc	33.8	48	39.7	31.8	37.9	32.5

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY634	KRY634	KRY634	KRY635	KRY635	KRY638
Sample Identification	KRY634SB001	KRY634SB002	KRY634SB003	KRY635SB001	KRY635SB002	KRY638SB001
Sample Collection Date	5/18/2006	5/18/2006	5/18/2006	5/8/2006	5/8/2006	5/8/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	4	8	15.5	4	8	3.5
Lower Depth	5.5	9.5	18.5	4.5	9.5	5
Aluminum	10900	8330	12500	8800	8450	9980
Antimony	5 UJ	5 UJ	5 UJ	6.2 J	5 UJ	5 UJ
Arsenic	2.44 J	6.04 J	4.96 J	5.47	4.15	4.6
Barium	98.3 J	64 J	63.3 J	72 J	59.9 J	94.1 J
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	8.5	9.2	12	8.9	11.1	17.3
Cobalt	5 U	5 U	7.7	5 U	5 U	5 U
Copper	13.1	10.8	11.5	14.6	12.9	14.4
Iron	13200	13000	16400	12000	12000	13300
Lead	7.4	7.4	7.2	11.6	9.5	10.3
Manganese	203	246	258	339 J	162 J	388 J
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	9	9.6	14.6	9.1	10.8	10.3
Selenium	5 UJ	5 UJ	5 UJ	5 U	5 U	5.1
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 U	5 U	5 U	5 R	5 R	5 R
Vanadium	7.6	7.3	7.7	7.4	6.4	8.1
Zinc	37.7	37.9	47.2	47.5	40.6	45

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY638	KRY638	KRY657	KRY657	KRY657	KRY658
Sample Identification	KRY638SB002	KRY638SB003	KRY657SB001	KRY657SB002	KRY657SB003	KRY658SB001
Sample Collection Date	5/8/2006	5/8/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8.5	13.5	4.5	9	15.5	4.5
Lower Depth	10	15	5	10.5	18.5	5
Aluminum	7120	7620	8460	8090	7340	6060
Antimony	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	6.49	5.4	7.12	21.9	3.55	4.3
Barium	59.9 J	65.7 J	70	66.6	61.7	58.1
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	6.8	8.3	10.5	13.7	11.6	17.3
Cobalt	5 U	5 U	5 U	5 U	5 U	5 U
Copper	10.6	11.7	8.1	10.9	24.1	8.9
Iron	9970	10900	12000	11700	11200	9420
Lead	6.9	7.3	5.7	7.2	5 U	5.4
Manganese	263 J	208 J	197	215	491	247
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	7.8	9.2	8.8	9.2	7.4	7.2
Selenium	5 U	5.5	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 R	5 R	5 U	5 U	5 U	5 U
Vanadium	4.8	5.2	6.2	6.2	4.7	4.3
Zinc	32.5	33.1	36.1	33.2	29.7	26.4

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY658	KRY658	KRY659	KRY659	KRY659	KRY660
Sample Identification	KRY658SB002	KRY658SB003	KRY659SB001	KRY659SB002	KRY659SB003	KRY660SB001
Sample Collection Date	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/22/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	14	4	8	15.5	1.5
Lower Depth	9.5	15.5	5.5	9.5	17	5
Aluminum	9830	6870	8620	8720	7460	7210
Antimony	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	6.01	10.7	58.4	15.2	5.83	3.03 J
Barium	66.3	93.4	74.6	58	57	52
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	8.6	6.5	8.1	8.3	7.4	7.3
Cobalt	5 U	5 U	5 U	7.4	5 U	5 U
Copper	11.9	12.7	9.1	13.4	9.4	11.6 J
Iron	13500	10200	12900	13900	11000	10600
Lead	5.6	5 U	5.8	7.5	5.3	14.7 J
Manganese	202	311	306	206	304	241
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	10.3	8.3	9.5	11	7.6	8.2
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	7.2	5.3	6.9	7.1	5.1	5.5
Zinc	41.6	29.4	35.8	43	31.3	32.2

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY660	KRY660	KRY662	KRY662	KRY662	KRY663
Sample Identification	KRY660SB002	KRY660SB003	KRY662SB001	KRY662SB002	KRY662SB003	KRY663SB001
Sample Collection Date	5/22/2006	5/22/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	16	5.5	8	15.5	5.5
Lower Depth	8.5	17	7	9.5	17	7
Aluminum	9890	8010	8290	7950	8410	7520
Antimony	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	3.19 J	5.06 J	4.17	4.89	2.81	4.23
Barium	127	74.6	78.7	69.7	62.8	83.2
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	9.6	9.8	10.1	6.4	8.4	13
Cobalt	5.4	5 U	5 U	5.7	5 U	5 U
Copper	12.8 J	14.3 J	12.5	7.7	11.8	9.4
Iron	15700	12000	12000	12800	12800	11900
Lead	5.3 J	6.7 J	8.5	5.1	6.5	5.6
Manganese	267	247	226	245	235	248
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	9	8.3	8.9	8.3	9.7	8.2
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	11.6	6.2	5.7	8.4	5.4	7.1
Zinc	29.9	31.1	35.6	32.3	35.8	30.1

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY663	KRY663	KRY664	KRY664	KRY664	KRY665
Sample Identification	KRY663SB002	KRY663SB003	KRY664SB001	KRY664SB002	KRY664SB003	KRY665SB001
Sample Collection Date	5/17/2006	5/17/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	15.5	4	8	17	4
Lower Depth	9.5	17	5.5	9.5	18.5	5.5
Aluminum	8780	5570	8930	4370	8790	8980
Antimony	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	5.69	4.42	2.06	3.48	4.96	3.56
Barium	90.3	47	118	29.4	85.8	118
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	12.3	5.7	6.7	5 U	10.2	8.8
Cobalt	5 U	5 U	5 U	5 U	5 U	5.1
Copper	11.8	9.1	12	5 U	11.4	11.9
Iron	12400	8660	9670	5970	11400	11300
Lead	7.7	5 U	6.6	5 U	5.2	7.8
Manganese	322	157	178	86	195	238
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	8.7	6.3	7.6	5 U	9.3	8.3
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	6.1	3.5	7.2	3.7	6	8.1
Zinc	30.6	23.4	29.8	14.6	35	38.2

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY665	KRY665	KRY666	KRY666	KRY666	KRY670
Sample Identification	KRY665SB002	KRY665SB003	KRY666SB001	KRY666SB002	KRY666SB003	KRY670SB001
Sample Collection Date	5/16/2006	5/16/2006	4/27/2006	4/27/2006	4/27/2006	6/1/2006
Sample Type	SB	SB	SB	SB	SB	SB
Duplicate of						
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	8	19	4	9	20	3.5
Lower Depth	9.5	20.5	5	10	21	5
Aluminum	8860	7380	7640 U	8640	7390	7870
Antimony	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	3.95	6.64	2.49	6.37	3.14	7.22 J
Barium	58.2	48.6	109	80.1	36.2	87
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	12.4	7.7	6.3	7.9	8.3	11.7
Cobalt	5 U	5 U	5 U	5.3	5 U	6.8
Copper	7.6	10.9	8.2	9.6	12.8	9.8
Iron	12600	10800	9370	14100	10200	53200
Lead	5.7	5.8	5.8 J	7.8 J	5.3 J	10.5 J
Manganese	228	196	200 J	359 J	213 J	576
Mercury	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	9.5	7.9	7.1	11.9	7.9	11.7
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	5.3	5.1	10.2	9.1	7.8	9.1
Zinc	36.6	30.6	25	38.4	5 U	37.7

Appendix G - 2006 Subsurface Soil Data
Metals

Sample Station	KRY670
Sample Identification	KRY670SB002
Sample Collection Date	6/1/2006
Sample Type	SB
Duplicate of	
Units	mg/kg
Upper Depth	8
Lower Depth	9.5
Aluminum	5840
Antimony	5 UJ
Arsenic	1.06
Barium	43.6 J
Beryllium	5 U
Cadmium	1 U
Chromium	7.4
Cobalt	5 U
Copper	9.3
Iron	7990
Lead	5 U
Manganese	137
Mercury	1 U
Nickel	7.8
Selenium	5 UJ
Silver	5 U
Thallium	5 U
Tin	5 U
Vanadium	7.7
Zinc	23.6

Table 4-14
Summary of Subsurface Soil Metals Concentrations and other Parameters

Sample Station	**KRY121B**	**KRY121B**
Sample Identification	**KRY121BSB001**	**KRY121BSB002**
Sample Collection Date	**4/20/2006**	**4/20/2006**
Sample Type	**SB**	**SB**
Duplicate of		
Units	**%**	**%**
Upper Depth	**12.5**	**25**
Lower Depth	**15**	**27**
Total Organic Carbon	2.24	1.77

Appendix G - 2006 Subsurface Soil Data
Notes

Notes:

J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = Milligrams per kilogram
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Sample Station	KRY137A	KRY658	KRY669
Sample Identification	KRY137ASB001	KRY658SB004	KRY669SB001
Sample Collection Date	4/25/2006	5/16/2006	6/1/2006
Sample Type	SB	SB	SB
Duplicate of			
Units	ug/L	ug/L	ug/L
Upper Depth	10	15.5	14
Lower Depth	15	17	19
Arsenic	500 U	500 U	500 U
Barium	10000 U	10000 U	10000 U
Cadmium	100 U	100 U	100 U
Chromium	500 U	500 U	500 U
Lead	500 U	500 U	500 U
Selenium	100 U	100 U	100 U
Silver	500 U	500 U	500 U
Mercury	20 U	20 U	20 U
Selenium	NA	NA	100 U
1,1-Dichloroethene	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U
2-Butanone	20 U	20 U	20 U
Benzene	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U
Chloroform	1.3	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U
2,4,5-Trichlorophenol	50 U	50 U	50 U
2,4,6-Trichlorophenol	50 U	50 U	50 U
2,4-Dinitrotoluene	50 U	50 U	50 U
2-Methylphenol	50 U	50 U	50 U
Cresols, Total	50 U	50 U	50 U
Hexachlorobenzene	50 U	50 U	50 U
Hexachlorobutadiene	50 U	50 U	50 U
Hexachloroethane	50 U	50 U	50 U
M+P-Cresols	50 U	50 U	50 U
Nitrobenzene	50 U	50 U	50 U
Pentachlorophenol	250 U	3300	250 U
Pyridine	100 U	100 U	100 U
pH	NA	10 J	10 J

Appendix G - 2006 Subsurface Soil Data
SPLP Notes

Notes:

J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/L = Milligrams per liter
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
SPLP = Synthetic Precipitation Leaching Procedure
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	**KRY100A**	**KRY103A**	**KRY105A**	**KRY108A**	**KRY111A**	**KRY112A**
Sample Identification	**KRY100ASS001**	**KRY103ASS001**	**KRY105ASS001**	**KRY108ASS001**	**KRY111ASS001**	**KRY112ASS001**
Sample Collection Date	**5/19/2006**	**5/22/2006**	**5/22/2006**	**5/19/2006**	**5/2/2006**	**5/3/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.167**	**0.167**	**0.167**
EPH						
C11-C22 Aromatics	78	31	51	146	40	47
C19-C36 Aliphatics	443	183	131	1620	21	101
C9-C18 Aliphatics	25	26 U	16 U	60 U	10 U	10 U
Total Extractable Hydrocarbons	608	237	197	2360	126	284
VPH						
C5-C8 Aliphatics	3.8	2.6 U	3.3 UJ	6.8	2.2 U	2.1 U
C9-C10 Aromatics	2.2 U	2.6 U	3.3 U	2.2 U	2.2 U	2.1 U
C9-C12 Aliphatics	2.2 U	2.6 U	3.3 UJ	2.2 U	2.2 U	2.1 U
Total Purgeable Hydrocarbons	4.8	2.6 U	3.3 UJ	6.7	2.2 U	2.1 U
Benzene	0.056 U	0.065 U	0.082 U	0.054 U	0.054 U	0.054 U
Ethylbenzene	0.056 U	0.065 U	0.082 U	0.054 U	0.054 U	0.054 U
M+P-Xylenes	0.056 U	0.065 U	0.082 U	0.054 U	0.054 U	0.054 U
Methyl Tert-Butyl Ether	0.11 U	0.13 U	0.16 UJ	0.11 U	0.11 U	0.11 U
Naphthalene	0.11 U	0.13 U	0.16 U	0.11 U	0.11 U	0.11 U
O-Xylene	0.056 U	0.065 U	0.082 U	0.054 U	0.054 U	0.054 U
Toluene	0.056 U	0.065 U	0.1	0.054 U	0.054 U	0.054 U
Xylenes (Total)	0.056 U	0.065 U	0.082 U	0.054 U	0.054 U	0.054 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	565	312	451 J	2770	187	305

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY113A	KRY114B	KRY115B	KRY116A	KRY118A	KRY121B
Sample Identification	**KRY113ASS001**	**KRY114BSS001**	**KRY115BSS001**	**KRY116ASS001**	**KRY118ASS001**	**KRY121BSS001**
Sample Collection Date	**5/23/2006**	**4/18/2006**	**4/26/2006**	**5/5/2006**	**6/1/2006**	**4/20/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.25**	**0.167**	**0.167**	**0.167**
EPH						
C11-C22 Aromatics	14	NA	11 U	NA	NA	NA
C19-C36 Aliphatics	398	NA	36	NA	NA	NA
C9-C18 Aliphatics	11 U	NA	11 U	NA	NA	NA
Total Extractable Hydrocarbons	465	NA	48	NA	NA	NA
VPH						
C5-C8 Aliphatics	2.3 U	2.4 U	2.3 U	2.1 U	2.4 U	2.3 U
C9-C10 Aromatics	2.3 U	2.4 U	2.3 U	2.1 U	2.4 U	2.3 U
C9-C12 Aliphatics	2.3 U	2.4 U	2.3 U	2.1 U	2.4 U	2.3 U
Total Purgeable Hydrocarbons	2.3 U	2.4 U	2.3 U	2.1 U	2.4 U	2.3 U
Benzene	0.057 U	0.059 U	0.057 U	0.053 U	0.061 U	0.059 U
Ethylbenzene	0.057 U	0.059 U	0.057 U	0.053 U	0.061 U	0.059 U
M+P-Xylenes	0.057 U	0.059 U	0.057 U	0.053 U	0.061 U	0.059 U
Methyl Tert-Butyl Ether	0.11 U	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U
Naphthalene	0.11 U	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U
O-Xylene	0.057 U	0.059 U	0.057 U	0.053 U	0.061 U	0.059 U
Toluene	0.057 U	0.059 U	0.057 U	0.053 U	0.061 U	0.059 U
Xylenes (Total)	0.057 U	0.059 U	0.057 U	0.053 U	0.061 U	0.059 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	496	8.6 J	120	10 U	21	33

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY123A	KRY126A	KRY127A	KRY134A	KRY402	KRY403
Sample Identification	**KRY123ASS001**	**KRY126ASS001**	**KRY127ASS001**	**KRY134ASS001**	**KRY402SS001**	**KRY403SS001**
Sample Collection Date	**4/21/2006**	**5/25/2006**	**5/31/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	26	9.4 J	25 U	29	NA	NA
C19-C36 Aliphatics	30	14	21	100	NA	NA
C9-C18 Aliphatics	10 U	10 U	25 U	11 U	NA	NA
Total Extractable Hydrocarbons	123	28	22	163	NA	NA
VPH						
C5-C8 Aliphatics	2.2 U	2.1 U	2.5 U	2.2 U	2.5 U	2.3 U
C9-C10 Aromatics	2.2 U	2.1 U	2.5 U	2.2 U	2.5 U	2.3 U
C9-C12 Aliphatics	2.2 U	2.1 U	2.5 U	2.2 U	2.5 U	2.3 U
Total Purgeable Hydrocarbons	2.2 U	2.1	2.5 U	2.2 U	2.5 U	2.3 U
Benzene	0.055 U	0.052 U	0.063 U	0.054 U	0.061 U	0.057 U
Ethylbenzene	0.055 U	0.052 U	0.063 U	0.054 U	0.061 U	0.057 U
M+P-Xylenes	0.055 U	0.052 U	0.1	0.054 U	0.061 U	0.057 U
Methyl Tert-Butyl Ether	0.11 U	0.1 U	0.13 U	0.11 U	0.12 U	0.11 U
Naphthalene	0.11 U	0.1 U	0.13 U	0.11 U	0.12 U	0.11 U
O-Xylene	0.055 U	0.052 U	0.063 U	0.054 U	0.061 U	0.057 U
Toluene	0.055 U	0.052 U	0.063 U	0.054 U	0.061 U	0.057 U
Xylenes (Total)	0.055 U	0.052 U	0.1	0.054 U	0.061 U	0.057 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	118	54	224	320	12 U	33

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY409	KRY410	KRY411	KRY412	KRY414	KRY415
Sample Identification	**KRY409SS001**	**KRY410SS001**	**KRY411SS001**	**KRY412SS001**	**KRY414SS001**	**KRY415SS001**
Sample Collection Date	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	78 J	14	31	38	8020	8540
C19-C36 Aliphatics	87 J	24	130	69	8910	7990 J
C9-C18 Aliphatics	22 UJ	10 U	30	11 U	1410	2380 J
Total Extractable Hydrocarbons	392 J	52	264	172	23100	23100 J
VPH						
C5-C8 Aliphatics	2.2 U	2.1 U	1.1 J	2.1 U	2.3 U	6.8
C9-C10 Aromatics	2.2 U	2.1 U	2.2 U	2.1 U	2.3 U	23
C9-C12 Aliphatics	2.2 U	2.1 U	2.9	2.1 U	1.9 J	15
Total Purgeable Hydrocarbons	2.2 U	2.1 U	5.5	2.1 U	3.6	59
Benzene	0.054 U	0.052 U	0.056 U	0.053 U	0.057 U	0.061 U
Ethylbenzene	0.054 U	0.052 U	0.09	0.053 U	0.057 U	0.28
M+P-Xylenes	0.056	0.052 U	0.46	0.053 U	0.057 U	0.64
Methyl Tert-Butyl Ether	0.11 U	0.1 U	0.11 U	0.11 U	0.11 U	0.12 U
Naphthalene	0.11 U	0.12	0.24	0.11 U	0.15	2.4
O-Xylene	0.054 U	0.052 U	0.16	0.053 U	0.057 U	0.4
Toluene	0.054 U	0.052 U	0.26	0.053 U	0.057 U	0.5
Xylenes (Total)	0.056	0.052 U	0.62	0.053 U	0.057 U	1
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	715	69	424	246	32400	28000

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY420	KRY422	KRY423	KRY424	KRY425	KRY426
Sample Identification	**KRY420SS001**	**KRY422SS001**	**KRY423SS001**	**KRY424SS001**	**KRY425SS001**	**KRY426SS001**
Sample Collection Date	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	14100	463	62	NA	NA	NA
C19-C36 Aliphatics	19300	289	71	NA	NA	NA
C9-C18 Aliphatics	3110	64 U	23 U	NA	NA	NA
Total Extractable Hydrocarbons	44000	1610	283	NA	NA	NA
VPH						
C5-C8 Aliphatics	2.1 U	2.4 U	2.3 U	2.9 U	2.8 U	2.2 U
C9-C10 Aromatics	2.1 U	2.4 U	2.3 U	2.9 U	2.8 U	2.2 U
C9-C12 Aliphatics	2.1 U	2.4 U	2.3 U	2.9 U	2.8 U	2.2 U
Total Purgeable Hydrocarbons	2.1 U	2.4 U	2.3 U	2.9 U	2.8 U	2.2 U
Benzene	0.053 U	0.061 U	0.056 U	0.072 U	0.069 U	0.055 U
Ethylbenzene	0.053 U	0.061 U	0.056 U	0.072 U	0.069 U	0.055 U
M+P-Xylenes	0.053 U	0.08	0.056 U	0.067 J	0.069 U	0.055 U
Methyl Tert-Butyl Ether	0.11 U	0.12 U	0.11 U	0.14 U	0.14 U	0.11 U
Naphthalene	0.11 U	0.12 U	0.11 U	0.14 U	0.14 U	0.11 U
O-Xylene	0.053 U	0.061 U	0.056 U	0.072 U	0.069 U	0.055 U
Toluene	0.053 U	0.061 U	0.056 U	0.072 U	0.069 U	0.055 U
Xylenes (Total)	0.053 U	0.08	0.056 U	0.067 J	0.069 U	0.055 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	59200	1790	304	43	43	47

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY427	KRY428	KRY429	KRY430	KRY432	KRY433
Sample Identification	**KRY427SS001**	**KRY428SS001**	**KRY429SS001**	**KRY430SS001**	**KRY432SS001**	**KRY433SS001**
Sample Collection Date	**4/24/2006**	**4/24/2006**	**5/11/2006**	**5/11/2006**	**5/1/2006**	**5/1/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.167**	**0.167**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	NA	NA	NA	NA	41	57
C19-C36 Aliphatics	NA	NA	NA	NA	215	452
C9-C18 Aliphatics	NA	NA	NA	NA	10 U	10 U
Total Extractable Hydrocarbons	NA	NA	NA	NA	356	653
VPH						
C5-C8 Aliphatics	2.2 U	2.4 U	2.2 U	2.3 U	4.6 U	5.2 UJ
C9-C10 Aromatics	2.2 U	2.4 U	2.2 U	2.3 U	4.6 U	5.2 U
C9-C12 Aliphatics	2.2 U	2.4 U	2.2 U	2.3 U	4.6 U	5.2 UJ
Total Purgeable Hydrocarbons	2.2 U	2.4 U	2.2 U	2.3 U	4.6 U	5.2 UJ
Benzene	0.056 U	0.06 U	0.055 U	0.057 U	0.11 U	0.13 U
Ethylbenzene	0.056 U	0.06 U	0.055 U	0.057 U	0.11 U	0.13 U
M+P-Xylenes	0.056 U	0.06 U	0.055 U	0.057 U	0.11 U	0.13 U
Methyl Tert-Butyl Ether	0.11 U	0.12 U	0.11 U	0.11 U	0.23 U	0.26 UJ
Naphthalene	0.11 U	0.12 U	0.11 U	0.11 U	0.23 U	0.26 U
O-Xylene	0.056 U	0.06 U	0.055 U	0.057 U	0.11 U	0.13 U
Toluene	0.056 U	0.06 U	0.055 U	0.057 U	0.11 U	0.13 U
Xylenes (Total)	0.056 U	0.06 U	0.055 U	0.057 U	0.11 U	0.13 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	30	28	4.6	40	594	1100

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY436	KRY437	KRY438	KRY439	KRY440	KRY442
Sample Identification	**KRY436SS001**	**KRY437SS001**	**KRY438SS001**	**KRY439SS001**	**KRY440SS001**	**KRY442SS001**
Sample Collection Date	**5/1/2006**	**5/1/2006**	**5/1/2006**	**5/1/2006**	**5/3/2006**	**5/1/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	33	98	35	33	123	637
C19-C36 Aliphatics	226	503	259	348	518	911
C9-C18 Aliphatics	10 U	10 U	10 U	10 U	25	10 U
Total Extractable Hydrocarbons	354	737	381	449	797	3010
VPH						
C5-C8 Aliphatics	2.8 U	5 U	2.9 U	2.3 U	2.8 U	14 U
C9-C10 Aromatics	2.8 U	5 U	2.9 U	17	2.8 U	14 U
C9-C12 Aliphatics	2.8 U	5 U	2.9 U	4.9	2.8 U	14 U
Total Purgeable Hydrocarbons	2.8 U	5 U	2.9 U	15	2.8 U	14 U
Benzene	0.069 U	0.12 U	0.073 U	0.057 U	0.07 U	0.36 U
Ethylbenzene	0.069 U	0.12 U	0.073 U	0.057 U	0.07 U	0.36 U
M+P-Xylenes	0.069 U	0.12 U	0.073 U	0.057 U	0.07 U	0.36 U
Methyl Tert-Butyl Ether	0.14 U	0.25 U	0.15 U	0.11 U	0.14 U	0.72 U
Naphthalene	0.14 U	0.25 U	0.15 U	0.11 U	0.14 U	0.72 U
O-Xylene	0.069 U	0.12 U	0.073 U	0.057 U	0.07 U	0.36 U
Toluene	0.069 U	0.12 U	0.073 U	0.057 U	0.07 U	0.36 U
Xylenes (Total)	0.069 U	0.12 U	0.073 U	0.057 U	0.07 U	0.36 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	461	1390	462	768	947	3630

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY443	KRY444	KRY445	KRY447	KRY451	KRY452
Sample Identification	**KRY443SS001**	**KRY444SS001**	**KRY445SS001**	**KRY447SS001**	**KRY451SS001**	**KRY452SS001**
Sample Collection Date	**5/1/2006**	**5/1/2006**	**5/1/2006**	**5/8/2006**	**4/26/2006**	**5/18/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	NA	39	NA	11	18	NA
C19-C36 Aliphatics	NA	328	NA	27	61	NA
C9-C18 Aliphatics	NA	10 U	NA	10 U	11 U	NA
Total Extractable Hydrocarbons	NA	466	NA	56	115	NA
VPH						
C5-C8 Aliphatics	2.6 UJ	3.2 U	2.3 U	2 U	2.1 U	2.1 U
C9-C10 Aromatics	2.6 U	6.2	2.3 U	2 U	2.1 U	2.1 U
C9-C12 Aliphatics	2.6 UJ	3.2	2.3 U	2 U	2.1 U	2.1 U
Total Purgeable Hydrocarbons	2.6 UJ	7.6	2.3 U	2 U	2.1 U	2.9
Benzene	0.064 U	0.079 U	0.058 U	0.051 U	0.053 U	0.053 U
Ethylbenzene	0.064 U	0.079 U	0.058 U	0.051 U	0.053 U	0.053 U
M+P-Xylenes	0.064 U	0.079 U	0.058 U	0.051 U	0.053 U	0.053 U
Methyl Tert-Butyl Ether	0.13 UJ	0.16 U	0.12 U	0.1 U	0.11 U	0.11 U
Naphthalene	0.13 U	0.16 U	0.12 U	0.1 U	0.11 U	0.11 U
O-Xylene	0.064 U	0.079 U	0.058 U	0.051 U	0.053 U	0.053 U
Toluene	0.064 U	0.079 U	0.058 U	0.051 U	0.053 U	0.053 U
Xylenes (Total)	0.064 U	0.079 U	0.058 U	0.051 U	0.053 U	0.053 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	39	683	10	80	238	31

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY453	KRY454	KRY455	KRY456	KRY457	KRY459
Sample Identification	**KRY453SS001**	**KRY454SS001**	**KRY455SS001**	**KRY456SS001**	**KRY457SS001**	**KRY459SS001**
Sample Collection Date	**5/18/2006**	**5/18/2006**	**5/18/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	11 U	101	10 U	20	20	10 J
C19-C36 Aliphatics	7.7 J	157	26	49	53	59
C9-C18 Aliphatics	11 U	66 U	10 U	11 U	10 U	11 U
Total Extractable Hydrocarbons	24	339	38	110	117	91
VPH						
C5-C8 Aliphatics	8.7	6.1	2 U	2.1 U	2.1 U	2.1 U
C9-C10 Aromatics	2.1 U	2.2 U	2 U	2.1 U	2.1 U	2.1 U
C9-C12 Aliphatics	3.2	2.1 J	2 U	2.1 U	2.1 U	2.1 U
Total Purgeable Hydrocarbons	13	9	2 U	2.1 U	2.1 U	2.1 U
Benzene	0.056	0.055 U	0.051 U	0.053 U	0.052 U	0.053 U
Ethylbenzene	0.053	0.055 U	0.051 U	0.053 U	0.052 U	0.053 U
M+P-Xylenes	0.57	0.24	0.051 U	0.053 U	0.052 U	0.053 U
Methyl Tert-Butyl Ether	0.11 U	0.11 U	0.1 U	0.11 U	0.1 U	0.11 U
Naphthalene	0.36	0.59	0.1 U	0.11 U	0.1 U	0.11 U
O-Xylene	0.26	0.11	0.051 U	0.053 U	0.052 U	0.053 U
Toluene	0.44	0.1	0.051 U	0.053 U	0.052 U	0.053 U
Xylenes (Total)	0.84	0.35	0.051 U	0.053 U	0.052 U	0.053 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	65	613	56	143	177	153

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY460	KRY462	KRY463	KRY464	KRY465	KRY466
Sample Identification	**KRY460SS001**	**KRY462SS001**	**KRY463SS001**	**KRY464SS001**	**KRY465SS001**	**KRY466SS001**
Sample Collection Date	**4/26/2006**	**4/26/2006**	**4/26/2006**	**5/17/2006**	**5/9/2006**	**5/9/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	11	NA	25	67 J	10 U	13
C19-C36 Aliphatics	36	NA	70	638	73	74
C9-C18 Aliphatics	11 U	NA	13 U	69 U	10 U	10 U
Total Extractable Hydrocarbons	72	NA	140	811	98	112
VPH						
C5-C8 Aliphatics	2.2 U	2.4 U	2.5 U	2.3 U	2.3 U	2.5 U
C9-C10 Aromatics	2.2 U	2.4 U	2.5 U	2.3 U	2.3 U	2.5 U
C9-C12 Aliphatics	2.2 U	2.4 U	2.5 U	2.3 U	2.3 U	2.5 U
Total Purgeable Hydrocarbons	2.1 J	2.4 U	4.2	2.6	2.3 U	2.5 U
Benzene	0.056 U	0.059 U	0.064 U	0.058 U	0.056 U	0.062 U
Ethylbenzene	0.056 U	0.059 U	0.064 U	0.058 U	0.056 U	0.062 U
M+P-Xylenes	0.056 U	0.059 U	0.064 U	0.058 U	0.056 U	0.062 U
Methyl Tert-Butyl Ether	0.11 U	0.12 U	0.13 U	0.12 U	0.11 U	0.12 U
Naphthalene	0.11 U	0.12 U	0.13 U	0.12 U	0.11 U	0.12 U
O-Xylene	0.056 U	0.059 U	0.064 U	0.058 U	0.056 U	0.062 U
Toluene	0.056 U	0.059 U	0.064 U	0.058 U	0.056 U	0.062 U
Xylenes (Total)	0.056 U	0.059 U	0.064 U	0.058 U	0.056 U	0.062 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	158	39	490	1220	187	193

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY467	KRY471	KRY475	KRY477	KRY478	KRY479
Sample Identification	**KRY467SS001**	**KRY471SS001**	**KRY475SS001**	**KRY477SS001**	**KRY478SS001**	**KRY479SS001**
Sample Collection Date	**5/10/2006**	**5/8/2006**	**5/17/2006**	**5/17/2006**	**5/10/2006**	**5/10/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	178	305	7.8	8.8 J	57	NA
C19-C36 Aliphatics	1030	396	42	84	297	NA
C9-C18 Aliphatics	27	10 U	10 U	10 U	17 U	NA
Total Extractable Hydrocarbons	1420	781	59	103	442	NA
VPH						
C5-C8 Aliphatics	2.5 U	2.1 U	2 U	2 U	3.4 U	2.1 U
C9-C10 Aromatics	2.5 U	2.1 U	2 U	2 U	3.4 U	2.1 U
C9-C12 Aliphatics	2.5 U	2.1 U	2 U	2 U	3.4 U	2.1 U
Total Purgeable Hydrocarbons	2.5 U	2.1 U	2 U	2 U	3.4 U	2.1 U
Benzene	0.063 U	0.051 U	0.051 U	0.051 U	0.086 U	0.052 U
Ethylbenzene	0.063 U	0.051 U	0.051 U	0.051 U	0.086 U	0.052 U
M+P-Xylenes	0.063 U	0.051 U	0.051 U	0.051 U	0.086 U	0.052 U
Methyl Tert-Butyl Ether	0.13 U	0.1 U	0.1 U	0.1 U	0.17 U	0.1 U
Naphthalene	0.13 U	0.1 U	0.1 U	0.1 U	0.17 U	0.1 U
O-Xylene	0.063 U	0.051 U	0.051 U	0.051 U	0.086 U	0.052 U
Toluene	0.063 U	0.051 U	0.051 U	0.051 U	0.086 U	0.052 U
Xylenes (Total)	0.063 U	0.051 U	0.051 U	0.051 U	0.086 U	0.052 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	1790	1270	105	166	693	46

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY480	KRY481	KRY482	KRY483	KRY484	KRY486
Sample Identification	**KRY480SS001**	**KRY481SS001**	**KRY482SS001**	**KRY483SS001**	**KRY484SS001**	**KRY486SS001**
Sample Collection Date	**5/10/2006**	**5/10/2006**	**5/10/2006**	**5/31/2006**	**5/9/2006**	**5/9/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.167**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	42	58	NA	NA	78	13
C19-C36 Aliphatics	180	108	NA	NA	375	41
C9-C18 Aliphatics	25 U	23 U	NA	NA	10 U	10 U
Total Extractable Hydrocarbons	261	203	NA	NA	518	68
VPH						
C5-C8 Aliphatics	2.5 U	2.3 U	2.1 U	2.3 U	2.4 U	2.4 U
C9-C10 Aromatics	2.5 U	2.3 U	2.1 U	2.3 U	2.4 U	2.4 U
C9-C12 Aliphatics	2.6	2.3 U	2.1 U	2.3 U	2.4 U	2.4 U
Total Purgeable Hydrocarbons	2.9	2.3 U	2.1 U	2.3 U	2.4 U	2.4 U
Benzene	0.063 U	0.058 U	0.053 U	0.057 U	0.059 U	0.06 U
Ethylbenzene	0.063 U	0.058 U	0.053 U	0.057 U	0.059 U	0.06 U
M+P-Xylenes	0.063 U	0.058 U	0.053 U	0.057 U	0.059 U	0.06 U
Methyl Tert-Butyl Ether	0.13 U	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U
Naphthalene	0.13 U	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U
O-Xylene	0.063 U	0.058 U	0.053 U	0.057 U	0.059 U	0.06 U
Toluene	0.063 U	0.058 U	0.053 U	0.057 U	0.059 U	0.06 U
Xylenes (Total)	0.063 U	0.058 U	0.053 U	0.057 U	0.059 U	0.06 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	576	445	16	21	735	194

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY493	KRY494	KRY496	KRY499	KRY501	KRY502
Sample Identification	**KRY493SS001**	**KRY494SS001**	**KRY496SS001**	**KRY499SS001**	**KRY501SS001**	**KRY502SS001**
Sample Collection Date	**5/17/2006**	**5/10/2006**	**5/10/2006**	**5/22/2006**	**5/22/2006**	**5/16/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	10 U	146	9.1 J	12 U	30	93
C19-C36 Aliphatics	19	177	31	62	120	224
C9-C18 Aliphatics	10 U	31 U	11 U	12 U	22 U	56
Total Extractable Hydrocarbons	35	438	54	79	171	380
VPH						
C5-C8 Aliphatics	2.1 U	2.1 U	2.1 U	2.4 U	2.2 U	2.1 U
C9-C10 Aromatics	2.1 U	2.1 U	2.1 U	2.4 U	2.2 U	2.1 U
C9-C12 Aliphatics	2.1 U	2.1 U	2.1 U	2.4 U	2.2 U	2.1 U
Total Purgeable Hydrocarbons	1.8 J	2.1 U	1.8 J	2.4 U	2.2 U	2.1 U
Benzene	0.052 U	0.052 U	0.053 U	0.061 U	0.054 U	0.051 U
Ethylbenzene	0.052 U	0.052 U	0.053 U	0.061 U	0.054 U	0.051 U
M+P-Xylenes	0.052 U	0.052 U	0.053 U	0.061 U	0.054 U	0.051 U
Methyl Tert-Butyl Ether	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U	0.1 U
Naphthalene	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U	0.1 U
O-Xylene	0.052 U	0.052 U	0.053 U	0.061 U	0.054 U	0.051 U
Toluene	0.052 U	0.052 U	0.053 U	0.061 U	0.054 U	0.051 U
Xylenes (Total)	0.052 U	0.052 U	0.053 U	0.061 U	0.054 U	0.051 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	70	817	113	221	333 J	682

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY504	KRY505	KRY514	KRY515	KRY560	KRY561
Sample Identification	**KRY504SS001**	**KRY505SS001**	**KRY514SS001**	**KRY515SS001**	**KRY560BKDSS001**	**KRY561BKDSS001**
Sample Collection Date	**5/16/2006**	**5/16/2006**	**4/26/2006**	**5/31/2006**	**7/14/2006**	**7/14/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.167**	**0.167**	**0.167**
EPH						
C11-C22 Aromatics	48	31	19	NA	NA	NA
C19-C36 Aliphatics	49	96	64	NA	NA	NA
C9-C18 Aliphatics	8.3	12	11 U	NA	NA	NA
Total Extractable Hydrocarbons	106	146	140	NA	NA	NA
VPH						
C5-C8 Aliphatics	2.2 U	2 U	2.1 U	2.6 U	2.2 U	2.1 U
C9-C10 Aromatics	2.2 U	2 U	2.1 U	2.6 U	2.2 U	2.1 U
C9-C12 Aliphatics	2.2 U	2 U	2.1 U	2.6 U	2.2 U	2.1 U
Total Purgeable Hydrocarbons	2.2 U	2 U	2.1 U	2.6 U	2.2 U	2.1 U
Benzene	0.054 U	0.051 U	0.053 U	0.064 U	0.054 U	0.053 U
Ethylbenzene	0.054 U	0.051 U	0.053 U	0.064 U	0.054 U	0.053 U
M+P-Xylenes	0.054 U	0.051 U	0.053 U	0.064 U	0.054 U	0.053 U
Methyl Tert-Butyl Ether	0.11 U	0.1 U	0.11 U	0.13 U	0.11 U	0.11 U
Naphthalene	0.11 U	0.1 U	0.11 U	0.13 U	0.11 U	0.11 U
O-Xylene	0.054 U	0.051 U	0.053 U	0.064 U	0.054 U	0.053 U
Toluene	0.054 U	0.051 U	0.053 U	0.064 U	0.054 U	0.053 U
Xylenes (Total)	0.054 U	0.051 U	0.053 U	0.064 U	0.054 U	0.053 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	188	265	178	13 U	19	25

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY562	KRY601	KRY603	KRY605	KRY606	KRY607
Sample Identification	**KRY562BKDSS001**	**KRY601SS001**	**KRY603SS001**	**KRY605SS001**	**KRY606SS001**	**KRY607SS001**
Sample Collection Date	**7/14/2006**	**4/27/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**	**4/21/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.167**	**2**	**0.167**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	11	NA	19	27 J	NA	59
C19-C36 Aliphatics	11 U	NA	39	42	NA	34
C9-C18 Aliphatics	11 U	NA	11 U	24	NA	20 U
Total Extractable Hydrocarbons	22	NA	94	125	NA	164
VPH						
C5-C8 Aliphatics	2.2 U	2.1 U	2.1 U	2.2 U	2.2 U	2.1 U
C9-C10 Aromatics	2.2 U	2.1 U	2.1 U	2.2 U	2.2 U	2.1 U
C9-C12 Aliphatics	2.2 U	2.1 U	2.1 U	2.2 U	2.2 U	2.1 U
Total Purgeable Hydrocarbons	2.2 U	2.1 U	2.1 U	2.6	2.2 U	2.1 U
Benzene	0.055 U	0.052 U	0.053 U	0.056 U	0.054 U	0.053 U
Ethylbenzene	0.055 U	0.052 U	0.053 U	0.056 U	0.054 U	0.053 U
M+P-Xylenes	0.055 U	0.052 U	0.053 U	0.056 U	0.054 U	0.053 U
Methyl Tert-Butyl Ether	0.11 U	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U
Naphthalene	0.11 U	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U
O-Xylene	0.055 U	0.052 U	0.053 U	0.056 U	0.054 U	0.053 U
Toluene	0.055 U	0.052 U	0.053 U	0.056 U	0.054 U	0.053 U
Xylenes (Total)	0.055 U	0.052 U	0.053 U	0.056 U	0.054 U	0.053 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	136	43	129	165	43	250

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY608	KRY609	KRY616	KRY617	KRY618	KRY631
Sample Identification	**KRY608SS001**	**KRY609SS001**	**KRY616SS001**	**KRY617SS001**	**KRY618SS001**	**KRY631SS001**
Sample Collection Date	**5/25/2006**	**5/24/2006**	**4/24/2006**	**4/24/2006**	**4/25/2006**	**5/10/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.167**	**0.167**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	NA	154	NA	NA	20	64
C19-C36 Aliphatics	NA	254	NA	NA	15	282
C9-C18 Aliphatics	NA	15	NA	NA	12 U	11 U
Total Extractable Hydrocarbons	NA	518	NA	NA	60	456
VPH						
C5-C8 Aliphatics	2.4 U	1.9	2.4 U	2.5 U	2.5 U	2.1 U
C9-C10 Aromatics	2.4 U	4.7	2.4 U	2.5 U	2.5 U	2.1 U
C9-C12 Aliphatics	2.4 U	3	2.4 U	2.5 U	2.5 U	2.1 U
Total Purgeable Hydrocarbons	2.4 U	9.5	2.4 U	2.2 J	2.5 U	2.1 U
Benzene	0.06 U	0.044 J	0.06 U	0.062 U	0.062 U	0.054 U
Ethylbenzene	0.06 U	0.061	0.06 U	0.062 U	0.062 U	0.054 U
M+P-Xylenes	0.06 U	0.35	0.06 U	0.062 U	0.062 U	0.054 U
Methyl Tert-Butyl Ether	0.12 U	0.11	0.12 U	0.12 U	0.12 U	0.11 U
Naphthalene	0.12 U	0.56	0.12 U	0.12 U	0.12 U	0.11 U
O-Xylene	0.06 U	0.15	0.06 U	0.062 U	0.062 U	0.054 U
Toluene	0.06 U	0.32	0.06 U	0.062 U	0.062 U	0.054 U
Xylenes (Total)	0.06 U	0.5	0.06 U	0.062 U	0.062 U	0.054 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	11	792	26	24	135	637

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY632	KRY633	KRY634	KRY635	KRY636	KRY637
Sample Identification	**KRY632SS001**	**KRY633SS001**	**KRY634SS001**	**KRY635SS001**	**KRY636SS001**	**KRY637SS001**
Sample Collection Date	**5/17/2006**	**5/17/2006**	**5/18/2006**	**4/26/2006**	**5/9/2006**	**5/9/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	17	115	94	32	31	14
C19-C36 Aliphatics	69	756	742	59	185	92
C9-C18 Aliphatics	10 U	16	8.7	11 U	40 U	10 U
Total Extractable Hydrocarbons	93	1000	987	132	266	130
VPH						
C5-C8 Aliphatics	2.1 U	1.8 J	1.8 J	2.2 U	2.1 U	2.1 U
C9-C10 Aromatics	2.1 U	2 U	2.1 U	2.2 U	2.1 U	2.1 U
C9-C12 Aliphatics	2.1 U	2 U	2.1 U	2.2 U	2.1 U	2.1 U
Total Purgeable Hydrocarbons	2.1	3	2.4	2.9	2.1 U	2.1 U
Benzene	0.052 U	0.051 U	0.053 U	0.056 U	0.052 U	0.053 U
Ethylbenzene	0.052 U	0.051 U	0.053 U	0.056 U	0.052 U	0.053 U
M+P-Xylenes	0.052 U	0.051 U	0.053 U	0.056 U	0.052 U	0.053 U
Methyl Tert-Butyl Ether	0.1 U	0.1 U	0.11 U	0.11 U	0.1 U	0.11 U
Naphthalene	0.1 U	0.1 U	0.11 U	0.11 U	0.1 U	0.11 U
O-Xylene	0.052 U	0.051 U	0.053 U	0.056 U	0.052 U	0.053 U
Toluene	0.052 U	0.051 U	0.053 U	0.056 U	0.052 U	0.053 U
Xylenes (Total)	0.052 U	0.051 U	0.053 U	0.056 U	0.052 U	0.053 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	240	1260	1330	346	370	211

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY638	KRY639	KRY640	KRY653	KRY657	KRY658
Sample Identification	**KRY638SS001**	**KRY639SS001**	**KRY640SS001**	**KRY653SS001**	**KRY657SS001**	**KRY658SS001**
Sample Collection Date	**5/8/2006**	**5/8/2006**	**4/26/2006**	**5/9/2006**	**5/15/2006**	**5/16/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	17	7.9	20	11	18	11 U
C19-C36 Aliphatics	30	35	63	97	86	28
C9-C18 Aliphatics	10 U	10 U	11 U	10 U	10 U	11 U
Total Extractable Hydrocarbons	65	50	110	128	124	38
VPH						
C5-C8 Aliphatics	2.1 U	2.1 U	2.1 U	2.1 U	2 U	2.2 U
C9-C10 Aromatics	2.1 U	2.1 U	2.1 U	2.1 U	2 U	2.2 U
C9-C12 Aliphatics	2.1 U	2.1 U	2.1 U	2.1 U	2 U	2.2 U
Total Purgeable Hydrocarbons	2.1 U	2.1 U	2.1 U	2.1 U	2 U	1.9 J
Benzene	0.052 U	0.051 U	0.053 U	0.051 U	0.05 U	0.054 U
Ethylbenzene	0.052 U	0.051 U	0.053 U	0.051 U	0.05 U	0.054 U
M+P-Xylenes	0.052 U	0.051 U	0.053 U	0.051 U	0.05 U	0.054 U
Methyl Tert-Butyl Ether	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
Naphthalene	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
O-Xylene	0.052 U	0.051 U	0.053 U	0.051 U	0.05 U	0.054 U
Toluene	0.052 U	0.051 U	0.053 U	0.051 U	0.05 U	0.054 U
Xylenes (Total)	0.052 U	0.051 U	0.053 U	0.051 U	0.05 U	0.054 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	122	99	182	186	205	61

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	KRY659	KRY660	KRY662	KRY663	KRY664	KRY665
Sample Identification	**KRY659SS001**	**KRY660SS001**	**KRY662SS001**	**KRY663SS001**	**KRY664SS001**	**KRY665SS001**
Sample Collection Date	**5/16/2006**	**5/22/2006**	**5/16/2006**	**5/17/2006**	**5/16/2006**	**5/16/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
EPH						
C11-C22 Aromatics	23	35	58	11	10	35
C19-C36 Aliphatics	78	237	866	229	42	251
C9-C18 Aliphatics	14	12 U	21 J	11 U	10 U	20 U
Total Extractable Hydrocarbons	123	317	1060	245	57	328
VPH						
C5-C8 Aliphatics	2.1 U	2.4 U	2.4 U	2.1 U	2 U	2 U
C9-C10 Aromatics	2.1 U	2.4 U	2.4 U	2.1 U	2 U	2 U
C9-C12 Aliphatics	2.1 U	2.4 U	2.4 U	2.1 U	2 U	2 U
Total Purgeable Hydrocarbons	2.1 U	2.4 U	2.4 U	2.1 U	2 U	2
Benzene	0.052 U	0.06 U	0.06 U	0.053 U	0.051 U	0.051 U
Ethylbenzene	0.052 U	0.06 U	0.06 U	0.053 U	0.051 U	0.051 U
M+P-Xylenes	0.052 U	0.06 U	0.06 U	0.053 U	0.051 U	0.051 U
Methyl Tert-Butyl Ether	0.1 U	0.12 U	0.12 U	0.11 U	0.1 U	0.1 U
Naphthalene	0.1 U	0.12 U	0.12 U	0.11 U	0.1 U	0.1 U
O-Xylene	0.052 U	0.06 U	0.06 U	0.053 U	0.051 U	0.051 U
Toluene	0.052 U	0.06 U	0.06 U	0.053 U	0.051 U	0.051 U
Xylenes (Total)	0.052 U	0.06 U	0.06 U	0.053 U	0.051 U	0.051 U
Petroleum Hydrocarbons						
Total Extractable Hydrocarbons - Screen	331	420	1250	343	116	510

Appendix G - 2006 Surface Soil Data
EPH and VPH

Sample Station	**KRY666**
Sample Identification	**KRY666SS001**
Sample Collection Date	**4/27/2006**
Sample Type	**SS**
Duplicate of	
Units	**mg/kg**
Upper Depth	**0**
Lower Depth	**0.167**
EPH	
C11-C22 Aromatics	347
C19-C36 Aliphatics	160
C9-C18 Aliphatics	13
Total Extractable Hydrocarbons	628
VPH	
C5-C8 Aliphatics	2.1 U
C9-C10 Aromatics	2.1 U
C9-C12 Aliphatics	2.1 U
Total Purgeable Hydrocarbons	2.1 U
Benzene	0.052 U
Ethylbenzene	0.052 U
M+P-Xylenes	0.052 U
Methyl Tert-Butyl Ether	0.1 U
Naphthalene	0.1 U
O-Xylene	0.052 U
Toluene	0.052 U
Xylenes (Total)	0.052 U
Petroleum Hydrocarbons	
Total Extractable Hydrocarbons - Screen	755

Appendix G - 2006 Surface Soil Data
EPH and VPH Notes

Notes:

EPH = Extractable petroleum hydrocarbons
J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
MDEP = Massachusetts Department of Environmental Protection
mg/kg = Milligrams per kilogram
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.
VPH = Volatile petroleum hydrocarbons

Sample Station	**KRY100A**	**KRY103A**	**KRY105A**	**KRY108A**	**KRY111A**	**KRY112A**	**KRY113A**	**KRY114B**	**KRY115B**
Sample Identification	**KRY100ASS001**	**KRY103ASS001**	**KRY105ASS001**	**KRY108ASS001**	**KRY111ASS001**	**KRY112ASS001**	**KRY113ASS001**	**KRY114BSS001**	**KRY115BSS001**
Sample Collection Date	**5/19/2006**	**5/22/2006**	**5/22/2006**	**5/19/2006**	**5/2/2006**	**5/3/2006**	**5/23/2006**	**4/18/2006**	**4/26/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of									
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.167**	**0.167**	**0.167**	**0.5**	**0.5**	**0.25**
1,1,1-Trichloroethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
1,1,2,2-Tetrachloroethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
1,1,2-Trichloroethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
1,1-Dichloroethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
1,1-Dichloroethene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
1,2,4-Trimethylbenzene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
1,2-Dichloroethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
1,2-Dichloropropane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
1,3,5-Trimethylbenzene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
2-Butanone	4.45 U	5.2 U	6.56 U	4.3 U	4.36 U	4.28 U	4.52 U	4.7 U	4.57 U
2-Hexanone	4.45 U	5.2 U	6.56 U	4.3 U	4.36 U	4.28 U	4.52 U	4.7 U	4.57 U
4-Isopropyltoluene	0.223 U	0.26 U	**0.27 J**	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
4-Methyl-2-Pentanone	4.45 U	5.2 U	6.56 U	4.3 U	4.36 U	4.28 U	4.52 U	4.7 U	4.57 U
Acetone	4.45 U	5.2 U	6.56 U	4.3 U	4.36 U	4.28 U	4.52 U	4.7 U	4.57 U
Acrolein	4.45 U	5.2 U	6.56 U	4.3 U	4.36 U	4.28 U	4.52 U	4.7 U	4.57 U
Benzene	0.0557 U	0.065 U	0.082 U	0.0538 U	0.0545 U	0.0535 U	0.0565 U	0.0588 U	0.0571 U
Bromoform	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Bromomethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Carbon Disulfide	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Carbon Tetrachloride	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Chlorobenzene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Chloroethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Chloroform	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Chloromethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Cis-1,2-Dichloroethene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Cis-1,3-Dichloropropene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Dibromochloromethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Dichlorobromomethane	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Ethylbenzene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Isopropylbenzene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
M+P-Xylenes	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Methylene Chloride	1.08	0.26 U	0.328 U	7.14	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Naphthalene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
N-Butylbenzene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
N-Propylbenzene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
O-Xylene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Sec-Butylbenzene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Styrene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Tetrachloroethene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Toluene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Trans-1,2-Dichloroethene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Trans-1,3-Dichloropropene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Trichloroethene	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Vinyl Acetate	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Vinyl Chloride	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U
Xylenes (Total)	0.223 U	0.26 U	0.328 U	0.215 U	0.218 U	0.214 U	0.226 U	0.235 U	0.229 U

Sample Station	KRY116A	KRY118A	KRY121B	KRY123A	KRY126A	KRY127A	KRY134A	KRY402	KRY403
Sample Identification	KRY116ASS001	KRY118ASS001	KRY121BSS001	KRY123ASS001	KRY126ASS001	KRY127ASS001	KRY134ASS001	KRY402SS001	KRY403SS001
Sample Collection Date	5/5/2006	6/1/2006	4/20/2006	4/21/2006	5/25/2006	5/31/2006	4/26/2006	4/26/2006	4/26/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of									
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0	0
Lower Depth	0.167	0.167	0.167	0.5	0.5	0.5	0.5	0.5	0.5
1,1,1-Trichloroethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
1,1,2,2-Tetrachloroethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
1,1,2-Trichloroethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
1,1-Dichloroethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
1,1-Dichloroethene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
1,2,4-Trimethylbenzene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
1,2-Dichloroethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
1,2-Dichloropropane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
1,3,5-Trimethylbenzene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
2-Butanone	4.24 U	4.88 U	4.69 U	4.43 U	4.2 U	5.01 U	4.35 U	4.91 U	4.58 U
2-Hexanone	4.24 U	4.88 U	4.69 U	4.43 U	4.2 U	5.01 U	4.35 U	4.91 U	4.58 U
4-Isopropyltoluene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
4-Methyl-2-Pentanone	4.24 U	4.88 U	4.69 U	4.43 U	4.2 U	5.01 U	4.35 U	4.91 U	4.58 U
Acetone	4.24 U	4.88 U	4.69 U	4.43 U	4.2 U	5.01 U	4.35 U	4.91 U	4.58 U
Acrolein	4.24 U	4.88 U	4.69 U	4.43 U	4.2 U	5.01 U	4.35 U	4.91 U	4.58 U
Benzene	0.053 U	0.0611 U	0.0587 U	0.0554 U	0.0525 U	0.0627 U	0.0543 U	0.0613 U	0.0572 U
Bromoform	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Bromomethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Carbon Disulfide	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Carbon Tetrachloride	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Chlorobenzene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Chloroethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Chloroform	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Chloromethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Cis-1,2-Dichloroethene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Cis-1,3-Dichloropropene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Dibromochloromethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Dichlorobromomethane	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Ethylbenzene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Isopropylbenzene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
M+P-Xylenes	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Methylene Chloride	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Naphthalene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
N-Butylbenzene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
N-Propylbenzene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
O-Xylene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Sec-Butylbenzene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Styrene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Tetrachloroethene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Toluene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Trans-1,2-Dichloroethene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Trans-1,3-Dichloropropene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Trichloroethene	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Vinyl Acetate	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Vinyl Chloride	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U
Xylenes (Total)	0.212 U	0.244 U	0.235 U	0.221 U	0.21 U	0.251 U	0.217 U	0.245 U	0.229 U

Sample Station	**KRY409**	**KRY410**	**KRY411**	**KRY412**	**KRY414**	**KRY415**	**KRY420**	**KRY422**	**KRY423**
Sample Identification	**KRY409SS001**	**KRY410SS001**	**KRY411SS001**	**KRY412SS001**	**KRY414SS001**	**KRY415SS001**	**KRY420SS001**	**KRY422SS001**	**KRY423SS001**
Sample Collection Date	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of									
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
1,1,1-Trichloroethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
1,1,2,2-Tetrachloroethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
1,1,2-Trichloroethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
1,1-Dichloroethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
1,1-Dichloroethene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
1,2,4-Trimethylbenzene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.384	0.21 U	0.244 U	0.226 U
1,2-Dichloroethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
1,2-Dichloropropane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
1,3,5-Trimethylbenzene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.1 J**	0.21 U	0.244 U	0.226 U
2-Butanone	4.31 U	4.16 U	4.49 U	4.26 U	4.59 U	4.89 U	4.21 U	4.87 U	4.51 U
2-Hexanone	4.31 U	4.16 U	4.49 U	4.26 U	4.59 U	4.89 U	4.21 U	4.87 U	4.51 U
4-Isopropyltoluene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.12 J**	0.21 U	0.244 U	0.226 U
4-Methyl-2-Pentanone	4.31 U	4.16 U	4.49 U	4.26 U	4.59 U	4.89 U	4.21 U	4.87 U	4.51 U
Acetone	4.31 U	4.16 U	4.49 U	4.26 U	4.59 U	4.89 U	4.21 U	4.87 U	4.51 U
Acrolein	4.31 U	4.16 U	4.49 U	4.26 U	4.59 U	4.89 U	4.21 U	4.87 U	4.51 U
Benzene	0.0538 U	0.052 U	0.0561 U	0.0533 U	0.0573 U	0.0611 U	0.0526 U	0.0609 U	0.0564 U
Bromoform	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Bromomethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Carbon Disulfide	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Carbon Tetrachloride	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Chlorobenzene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Chloroethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Chloroform	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Chloromethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Cis-1,2-Dichloroethene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Cis-1,3-Dichloropropene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Dibromochloromethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Dichlorobromomethane	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Ethylbenzene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.11 J**	0.21 U	0.244 U	0.226 U
Isopropylbenzene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
M+P-Xylenes	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.19 J**	0.21 U	0.244 U	0.226 U
Methylene Chloride	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Naphthalene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.988	0.21 U	0.244 U	0.226 U
N-Butylbenzene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.483	0.21 U	0.244 U	0.226 U
N-Propylbenzene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.11 J**	0.21 U	0.244 U	0.226 U
O-Xylene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.16 J**	0.21 U	0.244 U	0.226 U
Sec-Butylbenzene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.068 J**	0.21 U	0.244 U	0.226 U
Styrene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Tetrachloroethene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Toluene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.2 J**	0.21 U	0.244 U	0.226 U
Trans-1,2-Dichloroethene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Trans-1,3-Dichloropropene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Trichloroethene	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Vinyl Acetate	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Vinyl Chloride	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	0.244 U	0.21 U	0.244 U	0.226 U
Xylenes (Total)	0.215 U	0.208 U	0.225 U	0.213 U	0.229 U	**0.19 J**	0.21 U	0.244 U	0.226 U

Sample Station	KRY424	KRY425	KRY426	KRY427	KRY428	KRY429	KRY430	KRY432	KRY433
Sample Identification	KRY424SS001	KRY425SS001	KRY426SS001	KRY427SS001	KRY428SS001	KRY429SS001	KRY430SS001	KRY432SS001	KRY433SS001
Sample Collection Date	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	5/11/2006	5/11/2006	5/1/2006	5/1/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of									
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.167	0.167	0.5	0.5
1,1,1-Trichloroethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
1,1,2,2-Tetrachloroethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
1,1,2-Trichloroethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
1,1-Dichloroethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
1,1-Dichloroethene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
1,2,4-Trimethylbenzene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
1,2-Dichloroethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
1,2-Dichloropropane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
1,3,5-Trimethylbenzene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
2-Butanone	5.78 U	5.5 U	4.39 U	4.46 U	4.81 U	4.39 U	4.6 U	18.3 U	10.4 U
2-Hexanone	5.78 U	5.5 U	4.39 U	4.46 U	4.81 U	4.39 U	4.6 U	18.3 U	10.4 U
4-Isopropyltoluene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
4-Methyl-2-Pentanone	5.78 U	5.5 U	4.39 U	4.46 U	4.81 U	4.39 U	4.6 U	18.3 U	10.4 U
Acetone	5.78 U	5.5 U	4.39 U	4.46 U	4.81 U	4.39 U	4.6 U	18.3 U	10.4 U
Acrolein	5.78 U	5.5 U	4.39 U	4.46 U	4.81 U	4.39 U	4.6 U	18.3 U	10.4 U
Benzene	0.0723 U	0.0688 U	0.0548 U	0.0557 U	0.0601 U	0.0548 U	0.0575 U	0.229 U	0.131 U
Bromoform	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Bromomethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Carbon Disulfide	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Carbon Tetrachloride	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Chlorobenzene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Chloroethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Chloroform	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Chloromethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Cis-1,2-Dichloroethene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Cis-1,3-Dichloropropene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Dibromochloromethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Dichlorobromomethane	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Ethylbenzene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Isopropylbenzene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
M+P-Xylenes	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Methylene Chloride	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Naphthalene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
N-Butylbenzene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
N-Propylbenzene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
O-Xylene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Sec-Butylbenzene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Styrene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Tetrachloroethene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Toluene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Trans-1,2-Dichloroethene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Trans-1,3-Dichloropropene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Trichloroethene	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Vinyl Acetate	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Vinyl Chloride	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U
Xylenes (Total)	0.289 U	0.275 U	0.219 U	0.223 U	0.24 U	0.219 U	0.23 U	0.917 U	0.522 U

Sample Station	**KRY436**	**KRY437**	**KRY438**	**KRY439**	**KRY440**	**KRY442**	**KRY443**	**KRY444**	**KRY445**
Sample Identification	**KRY436SS001**	**KRY437SS001**	**KRY438SS001**	**KRY439SS001**	**KRY440SS001**	**KRY442SS001**	**KRY443SS001**	**KRY444SS001**	**KRY445SS001**
Sample Collection Date	**5/1/2006**	**5/1/2006**	**5/1/2006**	**5/1/2006**	**5/3/2006**	**5/1/2006**	**5/1/2006**	**5/1/2006**	**5/1/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of									
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
1,1,1-Trichloroethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
1,1,2,2-Tetrachloroethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
1,1,2-Trichloroethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
1,1-Dichloroethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
1,1-Dichloroethene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
1,2,4-Trimethylbenzene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
1,2-Dichloroethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
1,2-Dichloropropane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
1,3,5-Trimethylbenzene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
2-Butanone	5.51 U	20 U	5.81 U	4.55 U	5.62 U	14.3 U	5.12 U	6.32 U	4.63 U
2-Hexanone	5.51 U	20 U	5.81 U	4.55 U	5.62 U	14.3 U	5.12 U	6.32 U	4.63 U
4-Isopropyltoluene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	**0.24 J**	0.256 U	0.316 U	0.232 U
4-Methyl-2-Pentanone	5.51 U	20 U	5.81 U	4.55 U	5.62 U	14.3 U	5.12 U	6.32 U	4.63 U
Acetone	5.51 U	20 U	5.81 U	4.55 U	5.62 U	14.3 U	5.12 U	6.32 U	4.63 U
Acrolein	5.51 U	20 U	5.81 U	4.55 U	5.62 U	14.3 U	5.12 U	6.32 U	4.63 U
Benzene	0.0689 U	0.25 U	0.0726 U	0.0569 U	0.0702 U	0.179 U	0.064 U	0.079 U	0.0579 U
Bromoform	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Bromomethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Carbon Disulfide	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Carbon Tetrachloride	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Chlorobenzene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Chloroethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Chloroform	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Chloromethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Cis-1,2-Dichloroethene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Cis-1,3-Dichloropropene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Dibromochloromethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Dichlorobromomethane	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Ethylbenzene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Isopropylbenzene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
M+P-Xylenes	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Methylene Chloride	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Naphthalene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
N-Butylbenzene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
N-Propylbenzene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
O-Xylene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Sec-Butylbenzene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Styrene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Tetrachloroethene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Toluene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Trans-1,2-Dichloroethene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Trans-1,3-Dichloropropene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Trichloroethene	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Vinyl Acetate	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Vinyl Chloride	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U
Xylenes (Total)	0.275 U	1 U	0.29 U	0.228 U	0.281 U	0.716 U	0.256 U	0.316 U	0.232 U

Sample Station	**KRY447**	**KRY451**	**KRY452**	**KRY453**	**KRY454**	**KRY455**	**KRY456**	**KRY457**	**KRY459**
Sample Identification	**KRY447SS001**	**KRY451SS001**	**KRY452SS001**	**KRY453SS001**	**KRY454SS001**	**KRY455SS001**	**KRY456SS001**	**KRY457SS001**	**KRY459SS001**
Sample Collection Date	**5/8/2006**	**4/26/2006**	**5/18/2006**	**5/18/2006**	**5/18/2006**	**5/18/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of									
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
1,1,1-Trichloroethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
1,1,2,2-Tetrachloroethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
1,1,2-Trichloroethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
1,1-Dichloroethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
1,1-Dichloroethene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
1,2,4-Trimethylbenzene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
1,2-Dichloroethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
1,2-Dichloropropane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
1,3,5-Trimethylbenzene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
2-Butanone	4.09 U	4.21 U	4.22 U	4.26 U	4.42 U	4.07 U	4.23 U	4.17 U	4.27 U
2-Hexanone	4.09 U	4.21 U	4.22 U	4.26 U	4.42 U	4.07 U	4.23 U	4.17 U	4.27 U
4-Isopropyltoluene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
4-Methyl-2-Pentanone	4.09 U	4.21 U	4.22 U	4.26 U	4.42 U	4.07 U	4.23 U	4.17 U	4.27 U
Acetone	4.09 U	4.21 U	4.22 U	4.26 U	4.42 U	4.07 U	4.23 U	4.17 U	4.27 U
Acrolein	4.09 U	4.21 U	4.22 U	4.26 U	4.42 U	4.07 U	4.23 U	4.17 U	4.27 U
Benzene	0.0511 U	0.0527 U	0.0528 U	0.0533 U	0.0553 U	0.0508 U	0.0529 U	0.0521 U	0.0534 U
Bromoform	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Bromomethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Carbon Disulfide	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Carbon Tetrachloride	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Chlorobenzene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Chloroethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Chloroform	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Chloromethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Cis-1,2-Dichloroethene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Cis-1,3-Dichloropropene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Dibromochloromethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Dichlorobromomethane	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Ethylbenzene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Isopropylbenzene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
M+P-Xylenes	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Methylene Chloride	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Naphthalene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
N-Butylbenzene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
N-Propylbenzene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
O-Xylene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Sec-Butylbenzene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Styrene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Tetrachloroethene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Toluene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Trans-1,2-Dichloroethene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Trans-1,3-Dichloropropene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Trichloroethene	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Vinyl Acetate	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Vinyl Chloride	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U
Xylenes (Total)	0.204 U	0.211 U	0.211 U	0.213 U	0.221 U	0.203 U	0.211 U	0.208 U	0.214 U

Sample Station	KRY460	KRY462	KRY463	KRY464	KRY465	KRY466	KRY467	KRY471	KRY475
Sample Identification	KRY460SS001	KRY462SS001	KRY463SS001	KRY464SS001	KRY465SS001	KRY466SS001	KRY467SS001	KRY471SS001	KRY475SS001
Sample Collection Date	4/26/2006	4/26/2006	4/26/2006	5/17/2006	5/9/2006	5/9/2006	5/10/2006	5/8/2006	5/17/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of									
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,1,1-Trichloroethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
1,1,2,2-Tetrachloroethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
1,1,2-Trichloroethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
1,1-Dichloroethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
1,1-Dichloroethene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
1,2,4-Trimethylbenzene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
1,2-Dichloroethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
1,2-Dichloropropane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
1,3,5-Trimethylbenzene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
2-Butanone	4.5 U	4.74 U	5.09 U	4.61 U	4.51 U	4.92 U	5.08 U	4.11 U	4.05 U
2-Hexanone	4.5 U	4.74 U	5.09 U	4.61 U	4.51 U	4.92 U	5.08 U	4.11 U	4.05 U
4-Isopropyltoluene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
4-Methyl-2-Pentanone	4.5 U	4.74 U	5.09 U	4.61 U	4.51 U	4.92 U	5.08 U	4.11 U	4.05 U
Acetone	4.5 U	4.74 U	5.09 U	4.61 U	4.51 U	4.92 U	5.08 U	4.11 U	4.05 U
Acrolein	4.5 U	4.74 U	5.09 U	4.61 U	4.51 U	4.92 U	5.08 U	4.11 U	4.05 U
Benzene	0.0562 U	0.0593 U	0.0636 U	0.0576 U	0.0564 U	0.0615 U	0.0635 U	0.0514 U	0.0507 U
Bromoform	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Bromomethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Carbon Disulfide	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Carbon Tetrachloride	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Chlorobenzene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Chloroethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Chloroform	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Chloromethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Cis-1,2-Dichloroethene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Cis-1,3-Dichloropropene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Dibromochloromethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Dichlorobromomethane	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Ethylbenzene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Isopropylbenzene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
M+P-Xylenes	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Methylene Chloride	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Naphthalene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
N-Butylbenzene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
N-Propylbenzene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
O-Xylene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Sec-Butylbenzene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Styrene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Tetrachloroethene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Toluene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Trans-1,2-Dichloroethene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Trans-1,3-Dichloropropene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Trichloroethene	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Vinyl Acetate	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Vinyl Chloride	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U
Xylenes (Total)	0.225 U	0.237 U	0.254 U	0.23 U	0.226 U	0.246 U	0.254 U	0.206 U	0.203 U

Sample Station	KRY477	KRY478	KRY479	KRY480	KRY481	KRY482	KRY483	KRY484	KRY486
Sample Identification	KRY477SS001	KRY478SS001	KRY479SS001	KRY480SS001	KRY481SS001	KRY482SS001	KRY483SS001	KRY484SS001	KRY486SS001
Sample Collection Date	5/17/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/31/2006	5/9/2006	5/9/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of									
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.167	0.5	0.5
1,1,1-Trichloroethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
1,1,2,2-Tetrachloroethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
1,1,2-Trichloroethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
1,1-Dichloroethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
1,1-Dichloroethene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
1,2,4-Trimethylbenzene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
1,2-Dichloroethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
1,2-Dichloropropane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
1,3,5-Trimethylbenzene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
2-Butanone	4.04 U	6.85 U	4.16 U	5.02 U	4.66 U	4.24 U	4.58 U	4.76 U	4.8 U
2-Hexanone	4.04 U	6.85 U	4.16 U	5.02 U	4.66 U	4.24 U	4.58 U	4.76 U	4.8 U
4-Isopropyltoluene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
4-Methyl-2-Pentanone	4.04 U	6.85 U	4.16 U	5.02 U	4.66 U	4.24 U	4.58 U	4.76 U	4.8 U
Acetone	4.04 U	6.85 U	4.16 U	5.02 U	4.66 U	4.24 U	4.58 U	4.76 U	4.8 U
Acrolein	4.04 U	6.85 U	4.16 U	5.02 U	4.66 U	4.24 U	4.58 U	4.76 U	4.8 U
Benzene	0.0506 U	0.0856 U	0.052 U	0.0627 U	0.0582 U	0.053 U	0.0573 U	0.0595 U	0.06 U
Bromoform	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Bromomethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Carbon Disulfide	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Carbon Tetrachloride	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Chlorobenzene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Chloroethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Chloroform	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Chloromethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Cis-1,2-Dichloroethene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Cis-1,3-Dichloropropene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Dibromochloromethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Dichlorobromomethane	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Ethylbenzene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Isopropylbenzene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
M+P-Xylenes	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Methylene Chloride	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Naphthalene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
N-Butylbenzene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
N-Propylbenzene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
O-Xylene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Sec-Butylbenzene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Styrene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Tetrachloroethene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Toluene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Trans-1,2-Dichloroethene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Trans-1,3-Dichloropropene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Trichloroethene	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Vinyl Acetate	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Vinyl Chloride	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U
Xylenes (Total)	0.202 U	0.342 U	0.208 U	0.251 U	0.233 U	0.212 U	0.229 U	0.238 U	0.24 U

Sample Station	**KRY493**	**KRY494**	**KRY496**	**KRY499**	**KRY501**	**KRY502**	**KRY504**	**KRY505**	**KRY514**
Sample Identification	**KRY493SS001**	**KRY494SS001**	**KRY496SS001**	**KRY499SS001**	**KRY501SS001**	**KRY502SS001**	**KRY504SS001**	**KRY505SS001**	**KRY514SS001**
Sample Collection Date	**5/17/2006**	**5/10/2006**	**5/10/2006**	**5/22/2006**	**5/22/2006**	**5/16/2006**	**5/16/2006**	**5/16/2006**	**4/26/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of									
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
1,1,1-Trichloroethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
1,1,2,2-Tetrachloroethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
1,1,2-Trichloroethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
1,1-Dichloroethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
1,1-Dichloroethene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
1,2,4-Trimethylbenzene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
1,2-Dichloroethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
1,2-Dichloropropane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
1,3,5-Trimethylbenzene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
2-Butanone	4.15 U	4.19 U	4.26 U	4.86 U	4.31 U	4.11 U	4.35 U	4.09 U	4.21 U
2-Hexanone	4.15 U	4.19 U	4.26 U	4.86 U	4.31 U	4.11 U	4.35 U	4.09 U	4.21 U
4-Isopropyltoluene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
4-Methyl-2-Pentanone	4.15 U	4.19 U	4.26 U	4.86 U	4.31 U	4.11 U	4.35 U	4.09 U	4.21 U
Acetone	4.15 U	4.19 U	4.26 U	4.86 U	4.31 U	4.11 U	4.35 U	4.09 U	4.21 U
Acrolein	4.15 U	4.19 U	4.26 U	4.86 U	4.31 U	4.11 U	4.35 U	4.09 U	4.21 U
Benzene	0.0518 U	0.0524 U	0.0533 U	0.0608 U	0.0539 U	0.0513 U	0.0544 U	0.0511 U	0.0526 U
Bromoform	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Bromomethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Carbon Disulfide	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Carbon Tetrachloride	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Chlorobenzene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Chloroethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Chloroform	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Chloromethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Cis-1,2-Dichloroethene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Cis-1,3-Dichloropropene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Dibromochloromethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Dichlorobromomethane	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Ethylbenzene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Isopropylbenzene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
M+P-Xylenes	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Methylene Chloride	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Naphthalene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
N-Butylbenzene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
N-Propylbenzene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
O-Xylene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Sec-Butylbenzene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Styrene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Tetrachloroethene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Toluene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Trans-1,2-Dichloroethene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Trans-1,3-Dichloropropene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Trichloroethene	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Vinyl Acetate	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Vinyl Chloride	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U
Xylenes (Total)	0.207 U	0.21 U	0.213 U	0.243 U	0.216 U	0.205 U	0.218 U	0.204 U	0.211 U

Sample Station	KRY515	KRY560	KRY561	KRY562	KRY601	KRY603	KRY605	KRY606	KRY607
Sample Identification	KRY515SS001	KRY560BKDSS001	KRY561BKDSS001	KRY562BKDSS001	KRY601SS001	KRY603SS001	KRY605SS001	KRY606SS001	KRY607SS001
Sample Collection Date	5/31/2006	7/14/2006	7/14/2006	7/14/2006	4/27/2006	4/26/2006	4/26/2006	4/26/2006	4/21/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of									
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0	0
Lower Depth	0.167	0.167	0.167	0.167	2	0.167	0.5	0.5	0.5
1,1,1-Trichloroethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
1,1,2,2-Tetrachloroethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
1,1,2-Trichloroethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
1,1-Dichloroethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
1,1-Dichloroethene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
1,2,4-Trimethylbenzene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
1,2-Dichloroethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
1,2-Dichloropropane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
1,3,5-Trimethylbenzene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
2-Butanone	5.1 U	4.35 U	4.26 U	4.39 U	4.13 U	4.26 U	4.44 U	4.34 U	4.25 U
2-Hexanone	5.1 U	4.35 U	4.26 U	4.39 U	4.13 U	4.26 U	4.44 U	4.34 U	4.25 U
4-Isopropyltoluene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
4-Methyl-2-Pentanone	5.1 U	4.35 U	4.26 U	4.39 U	4.13 U	4.26 U	4.44 U	4.34 U	4.25 U
Acetone	5.1 U	4.35 U	4.26 U	4.39 U	4.13 U	4.26 U	4.44 U	4.34 U	4.25 U
Acrolein	5.1 U	4.35 U	4.26 U	4.39 U	4.13 U	4.26 U	4.44 U	4.34 U	4.25 U
Benzene	0.0638 U	0.0543 U	0.0532 U	0.0548 U	0.0516 U	0.0533 U	0.0555 U	0.0543 U	0.0531 U
Bromoform	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Bromomethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Carbon Disulfide	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Carbon Tetrachloride	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Chlorobenzene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Chloroethane	0.255 U	0.217 UJ	0.213 UJ	0.219 UJ	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Chloroform	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Chloromethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Cis-1,2-Dichloroethene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Cis-1,3-Dichloropropene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Dibromochloromethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Dichlorobromomethane	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Ethylbenzene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Isopropylbenzene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
M+P-Xylenes	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Methylene Chloride	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Naphthalene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
N-Butylbenzene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
N-Propylbenzene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
O-Xylene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Sec-Butylbenzene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Styrene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Tetrachloroethene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Toluene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Trans-1,2-Dichloroethene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Trans-1,3-Dichloropropene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Trichloroethene	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Vinyl Acetate	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Vinyl Chloride	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U
Xylenes (Total)	0.255 U	0.217 U	0.213 U	0.219 U	0.206 U	0.213 U	0.222 U	0.217 U	0.213 U

Sample Station	**KRY608**	**KRY609**	**KRY616**	**KRY617**	**KRY618**	**KRY631**	**KRY632**	**KRY633**	**KRY634**
Sample Identification	**KRY608SS001**	**KRY609SS001**	**KRY616SS001**	**KRY617SS001**	**KRY618SS001**	**KRY631SS001**	**KRY632SS001**	**KRY633SS001**	**KRY634SS001**
Sample Collection Date	**5/25/2006**	**5/24/2006**	**4/24/2006**	**4/24/2006**	**4/25/2006**	**5/10/2006**	**5/17/2006**	**5/17/2006**	**5/18/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of									
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.167**	**0.167**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
1,1,1-Trichloroethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
1,1,2,2-Tetrachloroethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
1,1,2-Trichloroethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
1,1-Dichloroethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
1,1-Dichloroethene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
1,2,4-Trimethylbenzene	0.238 U	**0.08 J**	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
1,2-Dichloroethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
1,2-Dichloropropane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
1,3,5-Trimethylbenzene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
2-Butanone	4.76 U	4.33 U	4.82 U	4.98 U	4.94 U	4.29 U	4.15 U	4.07 U	4.23 U
2-Hexanone	4.76 U	4.33 U	4.82 U	4.98 U	4.94 U	4.29 U	4.15 U	4.07 U	4.23 U
4-Isopropyltoluene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
4-Methyl-2-Pentanone	4.76 U	4.33 U	4.82 U	4.98 U	4.94 U	4.29 U	4.15 U	4.07 U	4.23 U
Acetone	4.76 U	4.33 U	4.82 U	4.98 U	4.94 U	4.29 U	4.15 U	4.07 U	4.23 U
Acrolein	4.76 U	4.33 U	4.82 U	4.98 U	4.94 U	4.29 U	4.15 U	4.07 U	4.23 U
Benzene	0.0595 U	0.0542 U	0.0602 U	0.0622 U	0.0618 U	0.0536 U	0.0518 U	0.0509 U	0.0529 U
Bromoform	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Bromomethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Carbon Disulfide	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Carbon Tetrachloride	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Chlorobenzene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Chloroethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Chloroform	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Chloromethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Cis-1,2-Dichloroethene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Cis-1,3-Dichloropropene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Dibromochloromethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Dichlorobromomethane	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Ethylbenzene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Isopropylbenzene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	**0.081 J**	0.203 U	0.212 U
M+P-Xylenes	0.238 U	**0.097 J**	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Methylene Chloride	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Naphthalene	0.238 U	**0.11 J**	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
N-Butylbenzene	0.238 U	**0.095 J**	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
N-Propylbenzene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
O-Xylene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Sec-Butylbenzene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Styrene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Tetrachloroethene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Toluene	0.238 U	**0.092 J**	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Trans-1,2-Dichloroethene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Trans-1,3-Dichloropropene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Trichloroethene	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Vinyl Acetate	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Vinyl Chloride	0.238 U	0.217 U	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U
Xylenes (Total)	0.238 U	**0.097 J**	0.241 U	0.249 U	0.247 U	0.215 U	0.207 U	0.203 U	0.212 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY100A	KRY103A	KRY105A	KRY108A	KRY111A	KRY112A	KRY113A
Sample Identification	KRY100ASS001	KRY103ASS001	KRY105ASS001	KRY108ASS001	KRY111ASS001	KRY112ASS001	KRY113ASS001
Sample Collection Date	5/19/2006	5/22/2006	5/22/2006	5/19/2006	5/2/2006	5/3/2006	5/23/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.167	0.167	0.167	0.5
1,2,4-Trichlorobenzene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
1,4-Dichlorobenzene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
1-Methylnaphthalene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,3,4,5-Tetrachlorophenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,3,4,6-Tetrachlorophenol	18 U	0.86 U	0.54 UJ	5.3 U	1.8 U	14 U	0.37 U
2,3,4-Trichlorophenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,3,5,6-Tetrachlorophenol	NA	0.86 U	0.54 U	NA	1.8 U	14 U	0.37 U
2,4,5-Trichlorophenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,4,6-Trichlorophenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,4-Dichlorophenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,4-Dimethylphenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,4-Dinitrophenol	93 U	4.3 U	2.7 U	27 U	9.1 U	72 U	1.9 U
2,4-Dinitrotoluene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,6-Dimethylnaphthalene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2,6-Dinitrotoluene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2-Chloronaphthalene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2-Chlorophenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2-Methylnaphthalene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2-Methylphenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2-Nitroaniline	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
2-Nitrophenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
3,3'-Dichlorobenzidine	37 U	1.7 U	1.1 UJ	11 U	3.6 U	29 U	0.75 U
3-Nitroaniline	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
4,6-Dinitro-2-Methylphenol	93 U	4.3 U	2.7 U	27 U	9.1 U	72 U	1.9 U
4-Bromophenylphenylether	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
4-Chloro-3-Methylphenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
4-Chloroaniline	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
4-Chlorophenylphenylether	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
4-Nitroaniline	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
4-Nitrophenol	93 U	4.3 U	2.7 U	27 U	9.1 U	72 U	1.9 U
Acenaphthene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.00226 U
Anthracene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.00226 U
Benzo(a)Anthracene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.0188
Benzo(a)Pyrene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.0159
Benzo(a)Fluoranthene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.0554
Benzo(e)Pyrene	18 U	0.86 U	0.54 U	5.3 U	**0.083 J**	14 U	0.37 U
Benzo(g,h,i)Perylene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Benzo(k)Fluoranthene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.0162
Benzoic Acid	18 U	0.86 U	0.54 UJ	5.3 U	1.8 U	14 U	0.37 U
Benzyl Alcohol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Biphenyl	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
bis(2-Chloroethoxy)Methane	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
bis(2-Chloroethyl)Ether	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
bis(2-Chloroisopropyl)Ether	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
bis(2-Ethylhexyl)Adipate	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
bis(2-Ethylhexyl)Phthalate	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Butyl Benzyl Phthalate	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Carbazole	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Chrysene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.0319
Dibenzo(a,h)Anthracene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.00226 U
Dibenzofuran	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Diethyl Phthalate	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Dimethyl Phthalate	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Di-n-Butylphthalate	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Di-n-Octylphthalate	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Fluoranthene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Fluorene	0.111 U	0.0052 U	0.00328 U	0.0323 U	0.0109 U	0.0857 U	0.00226 U
Hexachlorobenzene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Hexachlorobutadiene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Hexachlorocyclopentadiene	37 U	1.7 U	1.1 U	11 U	3.6 U	29 U	0.76 U
Hexachloroethane	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Indeno(1,2,3-cd)Pyrene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Isophorone	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
M+P-Cresols	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Naphthalene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Nitrobenzene	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
N-Nitrosodi-N-Propylamine	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
N-Nitrosodiphenylamine	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Phenanthrene	0.111 U	0.0052 U	0.029	0.0323 U	0.0109 U	0.0857 U	0.0221
Phenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Pyrene	0.111 U	0.0052 U	0.0367	0.0323 U	0.0109 U	0.0857 U	0.0244
Tetrachlorophenol	18 U	0.86 U	0.54 U	5.3 U	1.8 U	14 U	0.37 U
Tetraethyllead	18 U	0.86 U	0.54 R	5.3 U	1.8 U	14 U	0.37 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	**KRY114B**	**KRY115B**	**KRY116A**	**KRY118A**	**KRY121B**	**KRY123A**	**KRY126A**
Sample Identification	**KRY114BSS001**	**KRY115BSS001**	**KRY116ASS001**	**KRY118ASS001**	**KRY121BSS001**	**KRY123ASS001**	**KRY126ASS001**
Sample Collection Date	**4/18/2006**	**4/26/2006**	**5/5/2006**	**6/1/2006**	**4/20/2006**	**4/21/2006**	**5/25/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.25**	**0.167**	**0.167**	**0.167**	**0.5**	**0.5**
1,2,4-Trichlorobenzene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
1,4-Dichlorobenzene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
1-Methylnaphthalene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	**0.039 J**
2,3,4,5-Tetrachlorophenol	0.39 U	1.9 UJ	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,3,4,6-Tetrachlorophenol	0.39 U	1.9 UJ	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,3,4-Trichlorophenol	0.39 U	1.9 UJ	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,3,5,6-Tetrachlorophenol	0.39 U	1.9 U	NA	0.4 U	0.39 U	0.37 U	0.35 U
2,4,5-Trichlorophenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,4,6-Trichlorophenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,4-Dichlorophenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,4-Dimethylphenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,4-Dinitrophenol	2 U	9.5 U	1.8 U	2 U	2 U	1.8 U	1.8 U
2,4-Dinitrotoluene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,6-Dimethylnaphthalene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2,6-Dinitrotoluene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2-Chloronaphthalene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2-Chlorophenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2-Methylnaphthalene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	**0.052 J**
2-Methylphenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2-Nitroaniline	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
2-Nitrophenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
3,3'-Dichlorobenzidine	0.78 U	3.8 UJ	0.71 U	0.81 U	0.78 U	0.74 U	0.7 U
3-Nitroaniline	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
4,6-Dinitro-2-Methylphenol	2 U	9.5 U	1.8 U	2 U	2 U	1.8 U	1.8 U
4-Bromophenylphenylether	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
4-Chloro-3-Methylphenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
4-Chloroaniline	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
4-Chlorophenylphenylether	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
4-Nitroaniline	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
4-Nitrophenol	2 U	9.5 U	1.8 U	2 U	2 U	1.8 U	1.8 U
Acenaphthene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0021 U
Anthracene	0.00235 U	0.0114 U	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0021 U
Benzo(a)Anthracene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0219
Benzo(a)Pyrene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0266
Benzo(a)Fluoranthene	**0.0216 J**	0.0114 U	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0839
Benzo(e)Pyrene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	**0.043 J**
Benzo(g,h,i)Perylene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	**0.036 J**
Benzo(k)Fluoranthene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0304
Benzoic Acid	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Benzyl Alcohol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Biphenyl	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
bis(2-Chloroethoxy)Methane	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
bis(2-Chloroethyl)Ether	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
bis(2-Chloroisopropyl)Ether	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
bis(2-Ethylhexyl)Adipate	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
bis(2-Ethylhexyl)Phthalate	0.39 U	1.9 U	**0.061 J**	0.4 U	0.39 U	0.37 U	0.35 U
Butyl Benzyl Phthalate	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Carbazole	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Chrysene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0535
Dibenzo(a,h)Anthracene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0021 U
Dibenzofuran	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Diethyl Phthalate	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Dimethyl Phthalate	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Di-n-Butylphthalate	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Di-n-Octylphthalate	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Fluoranthene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Fluorene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0021 U
Hexachlorobenzene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Hexachlorobutadiene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Hexachlorocyclopentadiene	0.79 U	3.8 U	0.71 U	0.82 U	0.79 U	0.74 U	0.7 U
Hexachloroethane	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Indeno(1,2,3-cd)Pyrene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Isophorone	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
M+P-Cresols	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Naphthalene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Nitrobenzene	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
N-Nitrosodi-N-Propylamine	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
N-Nitrosodiphenylamine	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Phenanthrene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0577
Phenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Pyrene	0.00235 U	0.0114 UJ	0.00212 U	0.00204 U	0.00235 U	0.00221 U	0.0455
Tetrachlorophenol	0.39 U	1.9 U	0.35 U	0.4 U	0.39 U	0.37 U	0.35 U
Tetraethyllead	0.39 U	1.9 U	0.35 U	0.4 UJ	0.39 U	0.37 U	0.35 R

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY127A	KRY134A	KRY402	KRY403	KRY409	KRY410	KRY411
Sample Identification	KRY127ASS001	KRY134ASS001	KRY402SS001	KRY403SS001	KRY409SS001	KRY410SS001	KRY411SS001
Sample Collection Date	5/31/2006	4/26/2006	4/26/2006	4/26/2006	4/24/2006	4/24/2006	4/24/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,2,4-Trichlorobenzene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
1,4-Dichlorobenzene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
1-Methylnaphthalene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,3,4,5-Tetrachlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,3,4,6-Tetrachlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,3,4-Trichlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,3,5,6-Tetrachlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,4,5-Trichlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,4,6-Trichlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,4-Dichlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,4-Dimethylphenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,4-Dinitrophenol	10 U	1.8 U	2 U	1.9 U	36 U	1.7 U	19 U
2,4-Dinitrotoluene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,6-Dimethylnaphthalene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2,6-Dinitrotoluene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2-Chloronaphthalene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2-Chlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2-Methylnaphthalene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2-Methylphenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2-Nitroaniline	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
2-Nitrophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
3,3'-Dichlorobenzidine	4.2 U	0.72 U	0.82 U	0.76 U	14 U	0.69 U	7.5 U
3-Nitroaniline	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
4,6-Dinitro-2-Methylphenol	10 U	1.8 U	2 U	1.9 U	36 U	1.7 U	19 U
4-Bromophenylphenylether	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
4-Chloro-3-Methylphenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
4-Chloroaniline	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
4-Chlorophenylphenylether	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
4-Nitroaniline	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
4-Nitrophenol	10 U	1.8 U	2 U	1.9 U	36 U	1.7 U	19 U
Acenaphthene	0.0105 U	0.00217 U	0.00245 U	0.00229 U	0.0431 U	0.00208 U	0.0225 U
Anthracene	0.0105 U	0.00217 U	0.00245 U	0.00229 U	0.0431 U	0.175	0.0225 U
Benzo(a)Anthracene	0.0105 U	0.00217 U	0.00245 U	0.0442	0.0431 U	0.153	0.0225 U
Benzo(a)Pyrene	0.0105 U	0.00217 U	0.00245 U	0.0713	0.0431 U	0.15	0.0225 U
Benzo(a)Fluoranthene	0.0105 U	0.00217 U	0.00245 U	0.0645	0.0431 U	0.34 U	0.475
Benzo(e)Pyrene	2.1 U	**0.076 J**	0.4 U	0.063	7.1 U	**0.31 J**	3.7 U
Benzo(g,h,i)Perylene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	**0.27 J**	**0.4 J**
Benzo(k)Fluoranthene	0.0105 U	0.00217 U	0.00245 U	0.0346	0.0431 U	0.199	0.346
Benzoic Acid	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Benzyl Alcohol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Biphenyl	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
bis(2-Chloroethoxy)Methane	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
bis(2-Chloroethyl)Ether	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
bis(2-Chloroisopropyl)Ether	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
bis(2-Ethylhexyl)Adipate	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
bis(2-Ethylhexyl)Phthalate	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Butyl Benzyl Phthalate	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Carbazole	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	**0.15 J**	3.7 U
Chrysene	0.0105 U	0.00217 U	0.00245 U	0.0274	0.0431 U	0.297	0.198
Dibenzo(a,h)Anthracene	0.0105 U	0.00217 U	0.00245 U	0.00229 U	0.0431 U	0.0665	0.326
Dibenzofuran	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Diethyl Phthalate	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Dimethyl Phthalate	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Di-n-Butylphthalate	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Di-n-Octylphthalate	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Fluoranthene	2.1 U	0.36 U	0.4 U	**0.055 J**	7.1 U	0.35	3.7 U
Fluorene	0.0105 U	0.00217 U	0.173	0.143	0.0431 U	0.0219	0.0225 U
Hexachlorobenzene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Hexachlorobutadiene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Hexachlorocyclopentadiene	4.2 U	0.73 U	0.82 U	0.77 U	14 U	0.7 U	7.5 U
Hexachloroethane	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Indeno(1,2,3-cd)Pyrene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	**0.27 J**	3.7 U
Isophorone	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
M+P-Cresols	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Naphthalene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Nitrobenzene	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
N-Nitrosodi-N-Propylamine	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
N-Nitrosodiphenylamine	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Phenanthrene	0.133	0.0583	0.00245 U	0.0423	0.0431 U	0.108	0.0225 U
Phenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Pyrene	0.0105 U	0.0616	0.00245 U	0.0511	0.0431 U	0.246	0.192
Tetrachlorophenol	2.1 U	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U
Tetraethyllead	2.1 UJ	0.36 U	0.4 U	0.38 U	7.1 U	0.34 U	3.7 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY412	KRY414	KRY415	KRY420	KRY422	KRY423	KRY424
Sample Identification	KRY412SS001	KRY414SS001	KRY415SS001	KRY420SS001	KRY422SS001	KRY423SS001	KRY424SS001
Sample Collection Date	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,2,4-Trichlorobenzene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
1,4-Dichlorobenzene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
1-Methylnaphthalene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,3,4,5-Tetrachlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,3,4,6-Tetrachlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,3,4-Trichlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,3,5,6-Tetrachlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,4,5-Trichlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,4,6-Trichlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,4-Dichlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,4-Dimethylphenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,4-Dinitrophenol	18 U	5740 U	408 U	1340 U	102 U	19 U	2.4 U
2,4-Dinitrotoluene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,6-Dimethylnaphthalene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2,6-Dinitrotoluene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2-Chloronaphthalene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2-Chlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2-Methylnaphthalene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2-Methylphenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2-Nitroaniline	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
2-Nitrophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
3,3'-Dichlorobenzidine	7.1 U	2290 U	163 U	534 U	41 U	7.5 U	0.96 U
3-Nitroaniline	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
4,6-Dinitro-2-Methylphenol	18 U	5740 U	408 U	1340 U	102 U	19 U	2.4 U
4-Bromophenylphenylether	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
4-Chloro-3-Methylphenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
4-Chloroaniline	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
4-Chlorophenylphenylether	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
4-Nitroaniline	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
4-Nitrophenol	18 U	5740 U	408 U	1340 U	102 U	19 U	2.4 U
Acenaphthene	0.0213 U	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.0317
Anthracene	0.408	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.0732
Benzo(a)Anthracene	0.182	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.0809
Benzo(a)Pyrene	0.668	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.178
Benzo(a)Fluoranthene	0.795	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.155
Benzo(e)Pyrene	**0.45 J**	1130 U	81 U	264 U	20 U	3.7 U	**0.1 J**
Benzo(g,h,i)Perylene	**0.75 J**	1130 U	81 U	264 U	20 U	3.7 U	**0.12 J**
Benzo(k)Fluoranthene	1.11	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.172
Benzoic Acid	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Benzyl Alcohol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Biphenyl	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
bis(2-Chloroethoxy)Methane	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
bis(2-Chloroethyl)Ether	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
bis(2-Chloroisopropyl)Ether	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
bis(2-Ethylhexyl)Adipate	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
bis(2-Ethylhexyl)Phthalate	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Butyl Benzyl Phthalate	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Carbazole	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Chrysene	0.342	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.198
Dibenzo(a,h)Anthracene	0.408	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.159
Dibenzofuran	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Diethyl Phthalate	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Dimethyl Phthalate	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Di-n-Butylphthalate	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Di-n-Octylphthalate	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Fluoranthene	**0.5 J**	1130 U	81 U	264 U	20 U	3.7 U	**0.11 J**
Fluorene	0.0213 U	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.0307
Hexachlorobenzene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Hexachlorobutadiene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Hexachlorocyclopentadiene	7.1 U	2300 U	164 U	537 U	41 U	7.6 U	0.97 U
Hexachloroethane	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Indeno(1,2,3-cd)Pyrene	**1.4 J**	1130 U	81 U	264 U	20 U	3.7 U	**0.17 J**
Isophorone	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
M+P-Cresols	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Naphthalene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	**0.078 J**
Nitrobenzene	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
N-Nitrosodi-N-Propylamine	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
N-Nitrosodiphenylamine	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Phenanthrene	0.0213 U	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.189
Phenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Pyrene	0.423	6.88 U	0.489 U	1.6 U	0.122 U	0.0226 U	0.111
Tetrachlorophenol	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U
Tetraethyllead	3.5 U	1130 U	81 U	264 U	20 U	3.7 U	0.48 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY425	KRY426	KRY427	KRY428	KRY429	KRY430	KRY432
Sample Identification	KRY425SS001	KRY426SS001	KRY427SS001	KRY428SS001	KRY429SS001	KRY430SS001	KRY432SS001
Sample Collection Date	4/24/2006	4/24/2006	4/24/2006	4/24/2006	5/11/2006	5/11/2006	5/1/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.167	0.167	0.5
1,2,4-Trichlorobenzene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
1,4-Dichlorobenzene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
1-Methylnaphthalene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,3,4,5-Tetrachlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,3,4,6-Tetrachlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,3,4-Trichlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,3,5,6-Tetrachlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,4,5-Trichlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,4,6-Trichlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,4-Dichlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,4-Dimethylphenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,4-Dinitrophenol	11 U	9.2 U	1.9 U	2 U	1.8 U	1.9 U	19 U
2,4-Dinitrotoluene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,6-Dimethylnaphthalene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2,6-Dinitrotoluene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2-Chloronaphthalene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2-Chlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2-Methylnaphthalene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2-Methylphenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2-Nitroaniline	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
2-Nitrophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
3,3'-Dichlorobenzidine	4.6 U	3.7 U	0.74 U	0.8 U	0.73 U	0.77 U	7.6 U
3-Nitroaniline	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
4,6-Dinitro-2-Methylphenol	11 U	9.2 U	1.9 U	2 U	1.8 U	1.9 U	19 U
4-Bromophenylphenylether	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
4-Chloro-3-Methylphenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
4-Chloroaniline	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
4-Chlorophenylphenylether	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
4-Nitroaniline	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
4-Nitrophenol	11 U	9.2 U	1.9 U	2 U	1.8 U	1.9 U	19 U
Acenaphthene	0.0138 U	0.011 U	0.00223 U	0.0024 U	0.00219 U	0.0023 U	0.0229 U
Anthracene	0.0138 U	0.011 U	0.00223 U	0.0373	0.00219 U	0.0023 U	0.0229 U
Benzo(a)Anthracene	0.0138 U	0.011 U	0.00223 U	0.0364	0.00219 U	0.0023 U	0.0229 U
Benzo(a)Pyrene	0.0138 U	0.011 U	0.00223 U	0.0733	0.00219 U	0.0023 U	0.0229 U
Benzo(a)Fluoranthene	0.0138 U	0.011 U	0.0343	0.0629	0.00219 U	0.0262	0.0229 U
Benzo(e)Pyrene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Benzo(g,h,i)Perylene	2.3 U	1.8 U	0.37 U	**0.05 J**	0.36 U	0.38 U	3.8 U
Benzo(k)Fluoranthene	0.0138 U	0.011 U	0.0327	0.0693	0.00219 U	0.0023 U	0.0229 U
Benzoic Acid	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	**0.91 J**
Benzyl Alcohol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Biphenyl	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
bis(2-Chloroethoxy)Methane	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
bis(2-Chloroethyl)Ether	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
bis(2-Chloroisopropyl)Ether	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
bis(2-Ethylhexyl)Adipate	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
bis(2-Ethylhexyl)Phthalate	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	**0.12 J**	3.8 U
Butyl Benzyl Phthalate	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Carbazole	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Chrysene	0.0138 U	0.011 U	0.0212	0.0585	0.00219 U	0.0023 U	0.0229 U
Dibenzo(a,h)Anthracene	0.0138 U	0.011 U	0.0375	0.0773	0.00219 U	0.0023 U	0.0229 U
Dibenzofuran	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Diethyl Phthalate	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Dimethyl Phthalate	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Di-n-Butylphthalate	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Di-n-Octylphthalate	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Fluoranthene	2.3 U	1.8 U	0.37 U	**0.057 J**	0.36 U	0.38 U	3.8 U
Fluorene	0.0138 U	0.011 U	0.00223 U	0.0024 U	0.00219 U	0.0023 U	0.0229 U
Hexachlorobenzene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Hexachlorobutadiene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Hexachlorocyclopentadiene	4.6 U	3.7 U	0.75 U	0.81 U	0.73 U	0.77 U	7.7 U
Hexachloroethane	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Indeno(1,2,3-cd)Pyrene	2.3 U	1.8 U	0.37 U	**0.14 J**	0.36 U	0.38 U	3.8 U
Isophorone	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
M+P-Cresols	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Naphthalene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Nitrobenzene	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
N-Nitrosodi-N-Propylamine	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
N-Nitrosodiphenylamine	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Phenanthrene	0.0138 U	0.011 U	0.00223 U	0.0358	0.00219 U	0.0023 U	0.29
Phenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Pyrene	0.0138 U	0.011 U	0.02	0.0497	0.00219 U	0.0194	0.0229 U
Tetrachlorophenol	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U
Tetraethyllead	2.3 U	1.8 U	0.37 U	0.4 U	0.36 U	0.38 U	3.8 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY433	KRY436	KRY437	KRY438	KRY439	KRY440	KRY442
Sample Identification	KRY433SS001	KRY436SS001	KRY437SS001	KRY438SS001	KRY439SS001	KRY440SS001	KRY442SS001
Sample Collection Date	5/1/2006	5/1/2006	5/1/2006	5/1/2006	5/1/2006	5/3/2006	5/1/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,2,4-Trichlorobenzene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
1,4-Dichlorobenzene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
1-Methylnaphthalene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,3,4,5-Tetrachlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,3,4,6-Tetrachlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,3,4-Trichlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,3,5,6-Tetrachlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,4,5-Trichlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,4,6-Trichlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,4-Dichlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,4-Dimethylphenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,4-Dinitrophenol	22 U	12 U	21 U	12 U	9.5 U	12 U	15 U
2,4-Dinitrotoluene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,6-Dimethylnaphthalene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2,6-Dinitrotoluene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2-Chloronaphthalene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2-Chlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2-Methylnaphthalene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2-Methylphenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2-Nitroaniline	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
2-Nitrophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
3,3'-Dichlorobenzidine	8.7 U	4.6 U	8.3 U	4.8 U	3.8 U	4.7 U	6 U
3-Nitroaniline	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
4,6-Dinitro-2-Methylphenol	22 U	12 U	21 U	12 U	9.5 U	12 U	15 U
4-Bromophenylphenylether	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
4-Chloro-3-Methylphenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
4-Chloroaniline	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
4-Chlorophenylphenylether	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
4-Nitroaniline	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
4-Nitrophenol	22 U	12 U	21 U	12 U	9.5 U	12 U	15 U
Acenaphthene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Anthracene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Benzo(a)Anthracene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Benzo(a)Pyrene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Benzo(a)Fluoranthene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Benzo(e)Pyrene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Benzo(g,h,i)Perylene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Benzo(k)Fluoranthene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Benzoic Acid	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Benzyl Alcohol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Biphenyl	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
bis(2-Chloroethoxy)Methane	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
bis(2-Chloroethyl)Ether	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
bis(2-Chloroisopropyl)Ether	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
bis(2-Ethylhexyl)Adipate	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
bis(2-Ethylhexyl)Phthalate	4.3 U	2.3 U	**2 J**	9.1	1.9 U	2.3 U	3 U
Butyl Benzyl Phthalate	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Carbazole	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Chrysene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Dibenzo(a,h)Anthracene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Dibenzofuran	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Diethyl Phthalate	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Dimethyl Phthalate	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Di-n-Butylphthalate	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Di-n-Octylphthalate	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Fluoranthene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Fluorene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Hexachlorobenzene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Hexachlorobutadiene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Hexachlorocyclopentadiene	8.7 U	4.6 U	8.4 U	4.9 U	3.8 U	4.7 U	6 U
Hexachloroethane	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Indeno(1,2,3-cd)Pyrene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Isophorone	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
M+P-Cresols	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Naphthalene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Nitrobenzene	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
N-Nitrosodi-N-Propylamine	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
N-Nitrosodiphenylamine	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Phenanthrene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Phenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Pyrene	0.0261 U	0.0138 U	0.025 U	0.0145 U	0.0114 U	0.014 U	0.0179 U
Tetrachlorophenol	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U
Tetraethyllead	4.3 U	2.3 U	4.1 U	2.4 U	1.9 U	2.3 U	3 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY443	KRY444	KRY445	KRY447	KRY451	KRY452	KRY453
Sample Identification	KRY443SS001	KRY444SS001	KRY445SS001	KRY447SS001	KRY451SS001	KRY452SS001	KRY453SS001
Sample Collection Date	5/1/2006	5/1/2006	5/1/2006	5/8/2006	4/26/2006	5/18/2006	5/18/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,2,4-Trichlorobenzene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
1,4-Dichlorobenzene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
1-Methylnaphthalene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	**0.085 J**
2,3,4,5-Tetrachlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,3,4,6-Tetrachlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,3,4-Trichlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,3,5,6-Tetrachlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,4,5-Trichlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,4,6-Trichlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,4-Dichlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,4-Dimethylphenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,4-Dinitrophenol	11 U	13 U	9.7 U	1.7 U	18 U	1.8 U	1.8 U
2,4-Dinitrotoluene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2,6-Dimethylnaphthalene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	**0.068 J**
2,6-Dinitrotoluene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2-Chloronaphthalene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2-Chlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2-Methylnaphthalene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	**0.1 J**
2-Methylphenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2-Nitroaniline	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
2-Nitrophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
3,3'-Dichlorobenzidine	4.3 U	5.3 U	3.9 U	0.68 U	7 U	0.7 U	0.71 U
3-Nitroaniline	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
4,6-Dinitro-2-Methylphenol	11 U	13 U	9.7 U	1.7 U	18 U	1.8 U	1.8 U
4-Bromophenylphenylether	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
4-Chloro-3-Methylphenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
4-Chloroaniline	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
4-Chlorophenylphenylether	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
4-Nitroaniline	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
4-Nitrophenol	11 U	13 U	9.7 U	1.7 U	18 U	1.8 U	1.8 U
Acenaphthene	0.0128 U	0.0158 U	0.0116 U	0.00204 U	0.0211 U	0.00211 U	0.00213 U
Anthracene	0.0128 U	0.0158 U	0.0116 U	0.00204 U	0.0211 U	0.00211 U	0.00213 U
Benzo(a)Anthracene	0.864	0.0158 U	0.0116 U	0.0154	0.0211 U	0.0176	0.048
Benzo(a)Pyrene	0.937	0.0158 U	0.0116 U	0.0123	0.0211 U	0.0161	0.0394
Benzo(a)Fluoranthene	0.427	0.0158 U	0.0116 U	0.0239	0.0211 U	0.0295	0.0814
Benzo(e)Pyrene	1	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Benzo(g,h,i)Perylene	0.94	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	**0.038 J**
Benzo(k)Fluoranthene	0.208	0.0158 U	0.0116 U	0.0113	0.0211 U	0.00845	0.0235
Benzoic Acid	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Benzyl Alcohol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Biphenyl	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	**0.036 J**
bis(2-Chloroethoxy)Methane	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
bis(2-Chloroethyl)Ether	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
bis(2-Chloroisopropyl)Ether	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
bis(2-Ethylhexyl)Adipate	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
bis(2-Ethylhexyl)Phthalate	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	**0.049 J**	0.35 U
Butyl Benzyl Phthalate	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Carbazole	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Chrysene	0.905	0.0158 U	0.0116 U	0.0223	0.0211 U	0.00211 U	0.0345
Dibenzo(a,h)Anthracene	0.403	0.0158 U	0.0116 U	0.00204 U	0.0211 U	0.00211 U	0.0208
Dibenzofuran	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Diethyl Phthalate	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Dimethyl Phthalate	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Di-n-Butylphthalate	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	**0.13 J**	0.35 U
Di-n-Octylphthalate	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Fluoranthene	**0.67 J**	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	**0.048 J**
Fluorene	0.0128 U	0.0158 U	0.0116 U	0.00204 U	0.0211 U	0.00211 U	0.00213 U
Hexachlorobenzene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Hexachlorobutadiene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Hexachlorocyclopentadiene	4.3 U	5.3 U	3.9 U	0.69 U	7.1 U	0.71 U	0.71 U
Hexachloroethane	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Indeno(1,2,3-cd)Pyrene	**1.1 J**	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	**0.072 J**
Isophorone	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
M+P-Cresols	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Naphthalene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	**0.055 J**
Nitrobenzene	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
N-Nitrosodi-N-Propylamine	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
N-Nitrosodiphenylamine	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Phenanthrene	0.0128 U	0.0158 U	0.0116 U	0.00204 U	0.0211 U	0.00211 U	0.103
Phenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Pyrene	0.642	0.0158 U	0.0116 U	0.0257	0.0211 U	0.00211 U	0.0569
Tetrachlorophenol	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U
Tetraethyllead	2.1 U	2.6 U	1.9 U	0.34 U	3.5 U	0.35 U	0.35 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY454	KRY455	KRY456	KRY457	KRY459	KRY460	KRY462
Sample Identification	KRY454SS001	KRY455SS001	KRY456SS001	KRY457SS001	KRY459SS001	KRY460SS001	KRY462SS001
Sample Collection Date	5/18/2006	5/18/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,2,4-Trichlorobenzene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
1,4-Dichlorobenzene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
1-Methylnaphthalene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,3,4,5-Tetrachlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,3,4,6-Tetrachlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,3,4-Trichlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,3,5,6-Tetrachlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,4,5-Trichlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,4,6-Trichlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,4-Dichlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,4-Dimethylphenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,4-Dinitrophenol	92 U	1.7 U	1.8 U	1.7 U	18 U	1.9 U	2 U
2,4-Dinitrotoluene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,6-Dimethylnaphthalene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2,6-Dinitrotoluene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2-Chloronaphthalene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2-Chlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2-Methylnaphthalene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2-Methylphenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2-Nitroaniline	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
2-Nitrophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
3,3'-Dichlorobenzidine	37 U	0.68 U	0.71 U	0.69 U	7.1 U	0.75 U	0.79 U
3-Nitroaniline	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
4,6-Dinitro-2-Methylphenol	92 U	1.7 U	1.8 U	1.7 U	18 U	1.9 U	2 U
4-Bromophenylphenylether	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
4-Chloro-3-Methylphenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
4-Chloroaniline	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
4-Chlorophenylphenylether	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
4-Nitroaniline	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
4-Nitrophenol	92 U	1.7 U	1.8 U	1.7 U	18 U	1.9 U	2 U
Acenaphthene	0.111 U	0.00203 U	0.00211 U	0.00208 U	0.0214 U	0.00225 U	0.00237 U
Anthracene	1.3	0.00203 U	0.0359	0.059	0.0214 U	0.00225 U	0.00237 U
Benzo(a)Anthracene	1.66	0.00203 U	0.177	0.0882	0.0214 U	0.00225 U	0.0274
Benzo(a)Pyrene	1.6	0.00203 U	0.285	0.0941	0.0214 U	0.00225 U	0.00237 U
Benzo(a)Fluoranthene	4.2	0.00203 U	0.291	0.251	0.0214 U	0.00225 U	0.00237 U
Benzo(e)Pyrene	**2.2 J**	0.34 U	0.39	**0.14 J**	3.5 U	0.37 U	**0.049 J**
Benzo(g,h,i)Perylene	**3.9 J**	0.34 U	**0.2 J**	**0.16 J**	3.5 U	0.37 U	0.39 U
Benzo(k)Fluoranthene	1.28	0.00203 U	0.154	0.108	0.0214 U	0.00225 U	0.00237 U
Benzoic Acid	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Benzyl Alcohol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Biphenyl	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
bis(2-Chloroethoxy)Methane	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
bis(2-Chloroethyl)Ether	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
bis(2-Chloroisopropyl)Ether	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
bis(2-Ethylhexyl)Adipate	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
bis(2-Ethylhexyl)Phthalate	18 U	**0.13 J**	0.35 U	**0.16 J**	3.5 U	0.37 U	0.39 U
Butyl Benzyl Phthalate	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Carbazole	18 U	0.34 U	0.35 U	**0.048 J**	3.5 U	0.37 U	0.39 U
Chrysene	1.7	0.00203 U	0.145	0.106	0.0214 U	0.00225 U	0.00237 U
Dibenzo(a,h)Anthracene	1.02	0.00203 U	0.179	0.0176	0.0214 U	0.00225 U	0.00237 U
Dibenzofuran	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Diethyl Phthalate	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Dimethyl Phthalate	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Di-n-Butylphthalate	18 U	0.62	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Di-n-Octylphthalate	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Fluoranthene	**7.3 J**	0.34 U	**0.19 J**	**0.16 J**	3.5 U	0.37 U	0.39 U
Fluorene	0.227	0.00203 U	0.145	0.0601	0.0214 U	0.00225 U	0.138
Hexachlorobenzene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Hexachlorobutadiene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Hexachlorocyclopentadiene	37 U	0.68 U	0.71 U	0.7 U	7.2 U	0.75 U	0.79 U
Hexachloroethane	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Indeno(1,2,3-cd)Pyrene	**5 J**	0.34 U	**0.29 J**	**0.15 J**	3.5 U	0.37 U	0.39 U
Isophorone	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
M+P-Cresols	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Naphthalene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Nitrobenzene	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
N-Nitrosodi-N-Propylamine	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
N-Nitrosodiphenylamine	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Phenanthrene	1.23	0.00203 U	0.122	0.0649	0.0214 U	0.00225 U	0.00237 U
Phenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Pyrene	6.47	0.00203 U	0.167	0.135	0.0214 U	0.00225 U	0.0227
Tetrachlorophenol	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U
Tetraethyllead	18 U	0.34 U	0.35 U	0.34 U	3.5 U	0.37 U	0.39 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY463	KRY464	KRY465	KRY466	KRY467	KRY471	KRY475
Sample Identification	**KRY463SS001**	**KRY464SS001**	**KRY465SS001**	**KRY466SS001**	**KRY467SS001**	**KRY471SS001**	**KRY475SS001**
Sample Collection Date	**4/26/2006**	**5/17/2006**	**5/9/2006**	**5/9/2006**	**5/10/2006**	**5/8/2006**	**5/17/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
1,2,4-Trichlorobenzene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
1,4-Dichlorobenzene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
1-Methylnaphthalene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,3,4,5-Tetrachlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,3,4,6-Tetrachlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,3,4-Trichlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,3,5,6-Tetrachlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 UJ
2,4,5-Trichlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,4,6-Trichlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,4-Dichlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,4-Dimethylphenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,4-Dinitrophenol	11 U	96 U	1.9 U	2.1 U	2.1 U	8.6 U	1.7 U
2,4-Dinitrotoluene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,6-Dimethylnaphthalene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2,6-Dinitrotoluene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2-Chloronaphthalene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2-Chlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2-Methylnaphthalene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2-Methylphenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2-Nitroaniline	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
2-Nitrophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
3,3'-Dichlorobenzidine	4.2 U	38 U	0.75 U	0.82 U	0.85 U	3.4 U	0.68 U
3-Nitroaniline	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
4,6-Dinitro-2-Methylphenol	11 U	96 U	1.9 U	2.1 U	2.1 U	8.6 U	1.7 U
4-Bromophenylphenylether	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
4-Chloro-3-Methylphenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
4-Chloroaniline	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
4-Chlorophenylphenylether	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
4-Nitroaniline	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
4-Nitrophenol	11 U	96 U	1.9 U	2.1 U	2.1 U	8.6 U	1.7 U
Acenaphthene	0.0127 U	0.115 U	0.00226 U	0.00246 U	0.00254 U	0.0103 U	0.00203 U
Anthracene	0.0127 U	0.115 U	0.00226 U	0.00246 U	0.00254 U	0.0103 U	0.00203 U
Benzo(a)Anthracene	0.0127 U	0.115 U	0.00226 U	0.0116	0.00254 U	0.0103 U	0.00203 U
Benzo(a)Pyrene	0.0127 U	0.115 U	0.0126	0.0146	0.00254 U	0.0103 U	0.00203 U
Benzo(a)Fluoranthene	0.0127 U	0.115 U	0.019	0.0332	0.00254 U	0.0103 U	0.00203 U
Benzo(e)Pyrene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Benzo(g,h,i)Perylene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	**0.4 J**	0.33 U
Benzo(k)Fluoranthene	0.0127 U	0.115 U	0.0117	0.0229	0.00254 U	0.0103 U	0.00203 U
Benzoic Acid	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 R
Benzyl Alcohol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Biphenyl	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
bis(2-Chloroethoxy)Methane	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
bis(2-Chloroethyl)Ether	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
bis(2-Chloroisopropyl)Ether	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
bis(2-Ethylhexyl)Adipate	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
bis(2-Ethylhexyl)Phthalate	2.1 U	19 U	0.37 U	0.57	0.42 U	**0.51 J**	0.33 U
Butyl Benzyl Phthalate	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Carbazole	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Chrysene	0.0127 U	0.115 U	0.03	0.0517	0.00254 U	0.0103 U	0.00203 U
Dibenzo(a,h)Anthracene	0.0127 U	0.115 U	0.00226 U	0.00246 U	0.00254 U	0.0103 U	0.00203 U
Dibenzofuran	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Diethyl Phthalate	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Dimethyl Phthalate	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Di-n-Butylphthalate	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Di-n-Octylphthalate	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Fluoranthene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Fluorene	0.0127 U	0.115 U	0.00226 U	0.00246 U	0.00254 U	0.0103 U	0.00203 U
Hexachlorobenzene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Hexachlorobutadiene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Hexachlorocyclopentadiene	4.3 U	39 U	0.76 U	0.82 U	0.85 U	3.4 U	0.68 U
Hexachloroethane	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Indeno(1,2,3-cd)Pyrene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Isophorone	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
M+P-Cresols	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Naphthalene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Nitrobenzene	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
N-Nitrosodi-N-Propylamine	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
N-Nitrosodiphenylamine	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Phenanthrene	0.0127 U	0.115 U	0.00226 U	0.00246 U	0.00254 U	0.0103 U	0.00203 U
Phenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U
Pyrene	0.0127 U	0.115 U	0.00226 U	0.0207	0.00254 U	0.0103 U	0.00203 U
Tetrachlorophenol	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 UJ
Tetraethyllead	2.1 U	19 U	0.37 U	0.41 U	0.42 U	1.7 U	0.33 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY477	KRY478	KRY479	KRY480	KRY481	KRY482	KRY483
Sample Identification	**KRY477SS001**	**KRY478SS001**	**KRY479SS001**	**KRY480SS001**	**KRY481SS001**	**KRY482SS001**	**KRY483SS001**
Sample Collection Date	**5/17/2006**	**5/10/2006**	**5/10/2006**	**5/10/2006**	**5/10/2006**	**5/10/2006**	**5/31/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.167**
1,2,4-Trichlorobenzene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
1,4-Dichlorobenzene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
1-Methylnaphthalene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,3,4,5-Tetrachlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,3,4,6-Tetrachlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,3,4-Trichlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,3,5,6-Tetrachlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,4,5-Trichlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,4,6-Trichlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,4-Dichlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,4-Dimethylphenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,4-Dinitrophenol	3.4 U	2.9 U	1.7 U	21 U	19 U	1.8 U	1.9 U
2,4-Dinitrotoluene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,6-Dimethylnaphthalene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2,6-Dinitrotoluene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2-Chloronaphthalene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2-Chlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2-Methylnaphthalene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2-Methylphenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2-Nitroaniline	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
2-Nitrophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
3,3'-Dichlorobenzidine	1.3 U	1.1 U	0.69 U	8.4 U	7.8 U	0.71 U	0.76 U
3-Nitroaniline	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
4,6-Dinitro-2-Methylphenol	3.4 U	2.9 U	1.7 U	21 U	19 U	1.8 U	1.9 U
4-Bromophenylphenylether	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
4-Chloro-3-Methylphenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
4-Chloroaniline	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
4-Chlorophenylphenylether	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
4-Nitroaniline	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
4-Nitrophenol	3.4 U	2.9 U	1.7 U	21 U	19 U	1.8 U	1.9 U
Acenaphthene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Anthracene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Benzo(a)Anthracene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Benzo(a)Pyrene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Benzo(a)Fluoranthene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Benzo(e)Pyrene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Benzo(g,h,i)Perylene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Benzo(k)Fluoranthene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Benzoic Acid	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 UJ
Benzyl Alcohol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Biphenyl	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
bis(2-Chloroethoxy)Methane	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
bis(2-Chloroethyl)Ether	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
bis(2-Chloroisopropyl)Ether	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
bis(2-Ethylhexyl)Adipate	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
bis(2-Ethylhexyl)Phthalate	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.44	0.38 U
Butyl Benzyl Phthalate	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	**0.059 J**	0.38 U
Carbazole	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Chrysene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Dibenzo(a,h)Anthracene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Dibenzofuran	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Diethyl Phthalate	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Dimethyl Phthalate	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Di-n-Butylphthalate	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Di-n-Octylphthalate	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Fluoranthene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Fluorene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Hexachlorobenzene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Hexachlorobutadiene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Hexachlorocyclopentadiene	1.4 U	1.1 U	0.7 U	8.4 U	7.8 U	0.71 U	0.77 U
Hexachloroethane	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Indeno(1,2,3-cd)Pyrene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Isophorone	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
M+P-Cresols	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Naphthalene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Nitrobenzene	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
N-Nitrosodi-N-Propylamine	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
N-Nitrosodiphenylamine	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Phenanthrene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Phenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Pyrene	0.00404 U	0.00342 U	0.00208 U	0.0251 U	0.0233 U	0.00212 U	0.00191 U
Tetrachlorophenol	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 U
Tetraethyllead	0.67 U	0.57 U	0.34 U	4.1 U	3.8 U	0.35 U	0.38 UJ

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY484	KRY486	KRY493	KRY494	KRY496	KRY499	KRY501
Sample Identification	KRY484SS001	KRY486SS001	KRY493SS001	KRY494SS001	KRY496SS001	KRY499SS001	KRY501SS001
Sample Collection Date	5/9/2006	5/9/2006	5/17/2006	5/10/2006	5/10/2006	5/22/2006	5/22/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,2,4-Trichlorobenzene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
1,4-Dichlorobenzene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
1-Methylnaphthalene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,3,4,5-Tetrachlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,3,4,6-Tetrachlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	**0.8 J**
2,3,4-Trichlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,3,5,6-Tetrachlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,4,5-Trichlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,4,6-Trichlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,4-Dichlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,4-Dimethylphenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,4-Dinitrophenol	2 U	2 U	1.7 U	18 U	1.8 U	10 U	9 U
2,4-Dinitrotoluene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,6-Dimethylnaphthalene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2,6-Dinitrotoluene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2-Chloronaphthalene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2-Chlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2-Methylnaphthalene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2-Methylphenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2-Nitroaniline	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
2-Nitrophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
3,3'-Dichlorobenzidine	0.79 U	0.8 U	0.69 U	7 U	0.71 U	4.1 U	3.6 UJ
3-Nitroaniline	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
4,6-Dinitro-2-Methylphenol	2 U	2 U	1.7 U	18 U	1.8 U	10 U	9 U
4-Bromophenylphenylether	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
4-Chloro-3-Methylphenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
4-Chloroaniline	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
4-Chlorophenylphenylether	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
4-Nitroaniline	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
4-Nitrophenol	2 U	2 U	1.7 U	18 U	1.8 U	10 U	9 U
Acenaphthene	0.00238 U	0.0024 U	0.00207 U	0.021 U	0.00213 U	0.0122 U	0.0108 U
Anthracene	0.00238 U	0.0024 U	0.00207 U	0.021 U	0.00213 U	0.0122 U	0.0108 U
Benzo(a)Anthracene	0.00238 U	0.0024 U	0.00207 U	0.021 U	0.00213 U	0.0454	0.0414
Benzo(a)Pyrene	0.00238 U	0.00904	0.00207 U	0.021 U	0.00213 U	0.0433	0.0547
Benzo(a)Fluoranthene	0.00238 U	0.0134	0.00207 U	0.021 U	0.00213 U	0.163	0.218
Benzo(e)Pyrene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Benzo(g,h,i)Perylene	0.39 U	0.4 U	0.34 U	**0.37 J**	0.35 U	2 U	1.8 U
Benzo(k)Fluoranthene	0.00238 U	0.0105	0.00207 U	0.021 U	0.00213 U	0.078	0.0482
Benzoic Acid	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 UJ
Benzyl Alcohol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Biphenyl	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
bis(2-Chloroethoxy)Methane	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
bis(2-Chloroethyl)Ether	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
bis(2-Chloroisopropyl)Ether	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
bis(2-Ethylhexyl)Adipate	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
bis(2-Ethylhexyl)Phthalate	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	**1.1 J**
Butyl Benzyl Phthalate	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Carbazole	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Chrysene	0.00238 U	0.016	0.00207 U	0.021 U	0.00213 U	0.0761	0.0915
Dibenzo(a,h)Anthracene	0.00238 U	0.0024 U	0.00207 U	0.021 U	0.00213 U	0.0122 U	0.0108 U
Dibenzofuran	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Diethyl Phthalate	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Dimethyl Phthalate	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Di-n-Butylphthalate	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Di-n-Octylphthalate	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Fluoranthene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Fluorene	0.00238 U	0.0024 U	0.00207 U	0.021 U	0.00213 U	0.0122 U	0.0108 U
Hexachlorobenzene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Hexachlorobutadiene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Hexachlorocyclopentadiene	0.8 U	0.8 U	0.69 U	7 U	0.71 U	4.1 U	3.6 U
Hexachloroethane	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Indeno(1,2,3-cd)Pyrene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Isophorone	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
M+P-Cresols	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Naphthalene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Nitrobenzene	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
N-Nitrosodi-N-Propylamine	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
N-Nitrosodiphenylamine	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Phenanthrene	0.00238 U	0.0024 U	0.00207 U	0.021 U	0.00213 U	0.0122 U	0.0108 U
Phenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Pyrene	0.00238 U	0.0127	0.00207 U	0.021 U	0.00213 U	0.0122 U	0.132
Tetrachlorophenol	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 U
Tetraethyllead	0.39 U	0.4 U	0.34 U	3.5 U	0.35 U	2 U	1.8 R

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY502	KRY504	KRY505	KRY514	KRY515	KRY560	KRY561
Sample Identification	KRY502SS001	KRY504SS001	KRY505SS001	KRY514SS001	KRY515SS001	KRY560BKDSS001	KRY561BKDSS001
Sample Collection Date	5/16/2006	5/16/2006	5/16/2006	4/26/2006	5/31/2006	7/14/2006	7/14/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.167	0.167	0.167
1,2,4-Trichlorobenzene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
1,4-Dichlorobenzene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
1-Methylnaphthalene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,3,4,5-Tetrachlorophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,3,4,6-Tetrachlorophenol	**1.4 J**	**0.79 J**	**0.42 J**	0.35 U	0.42 U	0.36 U	0.35 U
2,3,4-Trichlorophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,3,5,6-Tetrachlorophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,4,5-Trichlorophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,4,6-Trichlorophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,4-Dichlorophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,4-Dimethylphenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,4-Dinitrophenol	34 U	9.1 U	8.5 U	1.8 U	2.1 U	1.8 U	1.8 U
2,4-Dinitrotoluene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,6-Dimethylnaphthalene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2,6-Dinitrotoluene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2-Chloronaphthalene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2-Chlorophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2-Methylnaphthalene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2-Methylphenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2-Nitroaniline	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
2-Nitrophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
3,3'-Dichlorobenzidine	14 U	3.6 U	3.4 UJ	0.7 U	0.85 U	0.72 U	0.71 U
3-Nitroaniline	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
4,6-Dinitro-2-Methylphenol	34 U	9.1 U	8.5 U	1.8 U	2.1 U	1.8 U	1.8 U
4-Bromophenylphenylether	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
4-Chloro-3-Methylphenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
4-Chloroaniline	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
4-Chlorophenylphenylether	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
4-Nitroaniline	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
4-Nitrophenol	34 U	9.1 U	8.5 U	1.8 U	2.1 U	1.8 U	1.8 U
Acenaphthene	0.0411 U	0.0109 U	0.0102 U	0.00211 U	0.00213 U	0.00217 U	0.00213 U
Anthracene	0.0411 U	0.101	0.0102 U	0.00211 U	0.00213 U	0.00217 U	0.00213 U
Benzo(a)Anthracene	0.0411 U	0.0109 U	0.0102 U	0.00211 U	0.00213 U	0.0323	0.00213 U
Benzo(a)Pyrene	0.0411 U	0.0109 U	0.0102 U	0.00211 U	0.00213 U	0.0424	0.00213 U
Benzo(a)Fluoranthene	0.0411 U	0.104	0.0102 U	0.00211 U	0.00213 U	0.0507	0.00213 U
Benzo(e)Pyrene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Benzo(g,h,i)Perylene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Benzo(k)Fluoranthene	0.0411 U	0.0109 U	0.0102 U	0.00211 U	0.00213 U	0.0281	0.00213 U
Benzoic Acid	6.8 U	1.8 U	1.7 UJ	0.35 U	0.42 U	0.36 U	0.35 U
Benzyl Alcohol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Biphenyl	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
bis(2-Chloroethoxy)Methane	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
bis(2-Chloroethyl)Ether	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
bis(2-Chloroisopropyl)Ether	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
bis(2-Ethylhexyl)Adipate	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
bis(2-Ethylhexyl)Phthalate	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	**0.075 J**	0.35 U
Butyl Benzyl Phthalate	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Carbazole	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Chrysene	0.0411 U	0.0109 U	0.0102 U	0.00211 U	0.00213 U	0.0268	0.00213 U
Dibenzo(a,h)Anthracene	0.0411 U	0.0109 U	0.0102 U	0.00211 U	0.00213 U	0.00217 U	0.00213 U
Dibenzofuran	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Diethyl Phthalate	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Dimethyl Phthalate	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Di-n-Butylphthalate	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Di-n-Octylphthalate	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Fluoranthene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Fluorene	0.0411 U	0.0109 U	0.0102 U	0.132	0.00213 U	0.00217 U	0.00213 U
Hexachlorobenzene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Hexachlorobutadiene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Hexachlorocyclopentadiene	14 U	3.6 U	3.4 U	0.71 U	0.85 U	0.73 U	0.71 U
Hexachloroethane	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Indeno(1,2,3-cd)Pyrene	6.8 U	0.36	1.7 U	0.35 U	0.42 U	**0.11 J**	0.35 U
Isophorone	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
M+P-Cresols	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Naphthalene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Nitrobenzene	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
N-Nitrosodi-N-Propylamine	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
N-Nitrosodiphenylamine	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Phenanthrene	0.0411 U	0.141	0.0102 U	0.00211 U	0.00213 U	0.038	0.00213 U
Phenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Pyrene	0.0411 U	0.174	0.0102 U	0.0299	0.00213 U	0.0551	0.00213 U
Tetrachlorophenol	6.8 U	1.8 U	1.7 U	0.35 U	0.42 U	0.36 U	0.35 U
Tetraethyllead	6.8 U	1.8 U	1.7 UJ	0.35 U	0.42 UJ	0.36 U	0.35 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY562	KRY601	KRY603	KRY605	KRY606	KRY607	KRY608
Sample Identification	KRY562BKDSS001	KRY601SS001	KRY603SS001	KRY605SS001	KRY606SS001	KRY607SS001	KRY608SS001
Sample Collection Date	7/14/2006	4/27/2006	4/26/2006	4/26/2006	4/26/2006	4/21/2006	5/25/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.167	2	0.167	0.5	0.5	0.5	0.167
1,2,4-Trichlorobenzene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
1,4-Dichlorobenzene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
1-Methylnaphthalene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,3,4,5-Tetrachlorophenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,3,4,6-Tetrachlorophenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,3,4-Trichlorophenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,3,5,6-Tetrachlorophenol	0.36 U	0.34 U	0.35 U	1.8 UJ	3.6 U	3.5 U	0.39 U
2,4,5-Trichlorophenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,4,6-Trichlorophenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,4-Dichlorophenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,4-Dimethylphenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,4-Dinitrophenol	1.8 U	1.7 U	1.8 U	9.3 U	18 U	18 U	2 U
2,4-Dinitrotoluene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,6-Dimethylnaphthalene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2,6-Dinitrotoluene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2-Chloronaphthalene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2-Chlorophenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2-Methylnaphthalene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2-Methylphenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2-Nitroaniline	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
2-Nitrophenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
3,3'-Dichlorobenzidine	0.73 U	0.69 U	0.71 U	3.7 UJ	7.2 U	7.1 U	0.79 U
3-Nitroaniline	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
4,6-Dinitro-2-Methylphenol	1.8 U	1.7 U	1.8 U	9.3 U	18 U	18 U	2 U
4-Bromophenylphenylether	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
4-Chloro-3-Methylphenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
4-Chloroaniline	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
4-Chlorophenylphenylether	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
4-Nitroaniline	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
4-Nitrophenol	1.8 U	1.7 U	1.8 U	9.3 U	18 U	18 U	2 U
Acenaphthene	0.00219 U	0.00206 U	0.00213 U	0.0111 U	0.0217 U	0.0213 U	0.00238 U
Anthracene	0.00219 U	0.00206 U	0.00213 U	0.0111 U	0.0217 U	0.0213 U	0.00238 U
Benzo(a)Anthracene	0.0335	0.00206 U	0.00213 U	0.0111 U	0.0217 U	0.0213 U	0.00238 U
Benzo(a)Pyrene	0.0482	0.0458	0.00213 U	0.0111 U	0.0217 U	0.418	0.00238 U
Benzo(a)Fluoranthene	0.0954	0.0343	0.00213 U	0.0111 U	0.0217 U	**0.468 J**	0.0292
Benzo(e)Pyrene	**0.048 J**	0.064	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Benzo(g,h,i)Perylene	0.36 U	0.056	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Benzo(k)Fluoranthene	0.0512	0.0262	0.00213 U	0.0111 U	0.0217 U	0.0213 U	0.0077
Benzoic Acid	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Benzyl Alcohol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Biphenyl	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
bis(2-Chloroethoxy)Methane	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
bis(2-Chloroethyl)Ether	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
bis(2-Chloroisopropyl)Ether	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
bis(2-Ethylhexyl)Adipate	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
bis(2-Ethylhexyl)Phthalate	0.36 U	**0.044 J**	0.35 U	1.8 U	3.6 U	**0.44 J**	0.39 U
Butyl Benzyl Phthalate	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Carbazole	**0.057 J**	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Chrysene	0.0479	0.109	0.00213 U	0.0111 U	0.0217 U	0.0213 U	0.00238 U
Dibenzo(a,h)Anthracene	0.00219 U	0.0327	0.00213 U	0.0111 U	0.0217 U	0.0213 U	0.00238 U
Dibenzofuran	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Diethyl Phthalate	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Dimethyl Phthalate	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Di-n-Butylphthalate	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	**0.048 J**
Di-n-Octylphthalate	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Fluoranthene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Fluorene	0.00219 U	0.126	0.00213 U	0.0111 U	0.0217 U	0.0213 U	0.00238 U
Hexachlorobenzene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Hexachlorobutadiene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Hexachlorocyclopentadiene	0.73 U	0.69 U	0.71 U	3.7 U	7.3 U	7.1 U	0.8 U
Hexachloroethane	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Indeno(1,2,3-cd)Pyrene	**0.14 J**	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Isophorone	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
M+P-Cresols	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Naphthalene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Nitrobenzene	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
N-Nitrosodi-N-Propylamine	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
N-Nitrosodiphenylamine	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Phenanthrene	0.0301	0.066	0.00213 U	0.0111 U	0.0217 U	0.0213 U	0.0232
Phenol	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 U
Pyrene	0.0647	0.112	0.00213 U	0.0111 U	0.0217 U	0.242 U	0.028
Tetrachlorophenol	0.36 U	0.34 U	0.35 U	1.8 UJ	3.6 U	3.5 U	0.39 U
Tetraethyllead	0.36 U	0.34 U	0.35 U	1.8 U	3.6 U	3.5 U	0.39 R

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY609	KRY616	KRY617	KRY618	KRY631	KRY632	KRY633
Sample Identification	KRY609SS001	KRY616SS001	KRY617SS001	KRY618SS001	KRY631SS001	KRY632SS001	KRY633SS001
Sample Collection Date	5/24/2006	4/24/2006	4/24/2006	4/25/2006	5/10/2006	5/17/2006	5/17/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.167	0.5	0.5	0.5	0.5	0.5	0.5
1,2,4-Trichlorobenzene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
1,4-Dichlorobenzene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
1-Methylnaphthalene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,3,4,5-Tetrachlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,3,4,6-Tetrachlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.7	0.34 U
2,3,4-Trichlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,3,5,6-Tetrachlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,4,5-Trichlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,4,6-Trichlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,4-Dichlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,4-Dimethylphenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,4-Dinitrophenol	36 U	2 U	2.1 U	21 U	1.8 U	3.5 U	1.7 U
2,4-Dinitrotoluene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,6-Dimethylnaphthalene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2,6-Dinitrotoluene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2-Chloronaphthalene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2-Chlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2-Methylnaphthalene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2-Methylphenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2-Nitroaniline	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
2-Nitrophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
3,3'-Dichlorobenzidine	14 U	0.8 U	0.83 U	8.2 U	0.72 U	1.4 U	0.68 U
3-Nitroaniline	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
4,6-Dinitro-2-Methylphenol	36 U	2 U	2.1 U	21 U	1.8 U	3.5 U	1.7 U
4-Bromophenylphenylether	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
4-Chloro-3-Methylphenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
4-Chloroaniline	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
4-Chlorophenylphenylether	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
4-Nitroaniline	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
4-Nitrophenol	36 U	2 U	2.1 U	21 U	1.8 U	3.5 U	1.7 U
Acenaphthene	0.0433 U	0.00241 U	0.00249 U	0.0247 U	0.00215 U	0.00415 U	0.00203 U
Anthracene	0.147	0.00241 U	0.00249 U	0.0247 U	0.00215 U	0.00415 U	0.00203 U
Benzo(a)Anthracene	0.43	0.00241 U	0.00249 U	0.0247 U	0.00215 U	0.00415 U	0.00203 U
Benzo(a)Pyrene	0.4	0.00241 U	0.00249 U	0.0247 U	0.00215 U	0.00415 U	0.00203 U
Benzo(a)Fluoranthene	1	0.00241 U	0.00249 U	0.0247 U	0.0321 U	0.0386	0.00203 U
Benzo(e)Pyrene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Benzo(g,h,i)Perylene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Benzo(k)Fluoranthene	0.407	0.00241 U	0.00249 U	0.0247 U	0.00887 U	0.00415 U	0.00203 U
Benzoic Acid	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Benzyl Alcohol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Biphenyl	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
bis(2-Chloroethoxy)Methane	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
bis(2-Chloroethyl)Ether	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
bis(2-Chloroisopropyl)Ether	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
bis(2-Ethylhexyl)Adipate	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
bis(2-Ethylhexyl)Phthalate	7.2 U	0.4 U	0.41 U	4.1 U	0.44 U	0.1	**0.12 J**
Butyl Benzyl Phthalate	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Carbazole	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Chrysene	0.592	0.00241 U	0.00249 U	0.0247 U	0.00215 U	0.0479	0.0276
Dibenzo(a,h)Anthracene	0.0433 U	0.0254	0.0389	0.0247 U	0.00215 U	0.00415 U	0.00203 U
Dibenzofuran	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Diethyl Phthalate	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Dimethyl Phthalate	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Di-n-Butylphthalate	7.2 U	0.4 U	0.057	4.1 U	0.35 U	0.68 U	0.34 U
Di-n-Octylphthalate	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Fluoranthene	**1.1 J**	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Fluorene	0.0433 U	0.0391	0.0522	0.0247 U	0.00215 U	0.00415 U	0.00203 U
Hexachlorobenzene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	**0.12 J**	0.34 U
Hexachlorobutadiene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Hexachlorocyclopentadiene	15 U	0.81 U	0.83 U	8.3 U	0.72 U	1.4 U	0.68 U
Hexachloroethane	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Indeno(1,2,3-cd)Pyrene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Isophorone	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
M+P-Cresols	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Naphthalene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Nitrobenzene	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
N-Nitrosodi-N-Propylamine	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
N-Nitrosodiphenylamine	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Phenanthrene	0.455	0.00241 U	0.00249 U	0.0247 U	0.00215 U	0.0439	0.00203 U
Phenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Pyrene	0.888	0.00241 U	0.00249 U	0.0247 U	0.0257	0.05	0.0177
Tetrachlorophenol	7.2 U	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U
Tetraethyllead	7.2 R	0.4 U	0.41 U	4.1 U	0.35 U	0.68 U	0.34 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	**KRY634**	**KRY635**	**KRY636**	**KRY637**	**KRY638**	**KRY639**	**KRY640**
Sample Identification	**KRY634SS001**	**KRY635SS001**	**KRY636SS001**	**KRY637SS001**	**KRY638SS001**	**KRY639SS001**	**KRY640SS001**
Sample Collection Date	**5/18/2006**	**4/26/2006**	**5/9/2006**	**5/9/2006**	**5/8/2006**	**5/8/2006**	**4/26/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
1,2,4-Trichlorobenzene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
1,4-Dichlorobenzene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
1-Methylnaphthalene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,3,4,5-Tetrachlorophenol	0.7 U	3.7 U	**0.054 J**	0.35 U	0.34 U	0.34 U	0.35 U
2,3,4,6-Tetrachlorophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,3,4-Trichlorophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,3,5,6-Tetrachlorophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,4,5-Trichlorophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,4,6-Trichlorophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,4-Dichlorophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,4-Dimethylphenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,4-Dinitrophenol	3.5 U	19 U	1.7 U	1.8 U	1.7 U	1.7 U	1.8 U
2,4-Dinitrotoluene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,6-Dimethylnaphthalene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2,6-Dinitrotoluene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2-Chloronaphthalene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2-Chlorophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2-Methylnaphthalene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2-Methylphenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2-Nitroaniline	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
2-Nitrophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
3,3'-Dichlorobenzidine	1.4 U	7.5 U	0.7 U	0.71 U	0.69 U	0.68 U	0.71 U
3-Nitroaniline	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
4,6-Dinitro-2-Methylphenol	3.5 U	19 U	1.7 U	1.8 U	1.7 U	1.7 U	1.8 U
4-Bromophenylphenylether	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
4-Chloro-3-Methylphenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
4-Chloroaniline	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
4-Chlorophenylphenylether	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
4-Nitroaniline	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
4-Nitrophenol	3.5 U	19 U	1.7 U	1.8 U	1.7 U	1.7 U	1.8 U
Acenaphthene	0.00423 U	0.0224 U	0.00209 U	0.00213 U	0.00207 U	0.00205 U	0.00212 U
Anthracene	0.00423 U	0.0224 U	0.00209 U	0.00213 U	0.00207 U	0.00328	0.00212 U
Benzo(a)Anthracene	0.0257	0.0224 U	0.0109	0.011	0.027	0.0297	0.0621
Benzo(a)Pyrene	0.00423 U	0.0224 U	0.00941	0.00213 U	0.0198	0.0342	0.112
Benzo(a)Fluoranthene	0.00423 U	0.0224 U	0.0253	0.0194	0.0329	0.0551	0.0758
Benzo(e)Pyrene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	**0.039 J**	0.35 U
Benzo(g,h,i)Perylene	0.7 U	3.7 U	**0.036 J**	0.35 U	0.34 U	0.34 U	0.35 U
Benzo(k)Fluoranthene	0.00423 U	0.0224 U	0.00572	0.00213 U	0.0254	0.0225	0.049
Benzoic Acid	0.7 U	3.7 U	0.35 U	0.35 U	0.34 UJ	0.34 U	0.35 U
Benzyl Alcohol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Biphenyl	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
bis(2-Chloroethoxy)Methane	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
bis(2-Chloroethyl)Ether	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
bis(2-Chloroisopropyl)Ether	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
bis(2-Ethylhexyl)Adipate	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
bis(2-Ethylhexyl)Phthalate	0.7 U	3.7 U	0.35 U	0.35 U	**0.17 J**	**0.061 J**	0.35 U
Butyl Benzyl Phthalate	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Carbazole	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Chrysene	0.0246	0.0224 U	0.00209 U	0.00213 U	0.026	0.0479	0.0243
Dibenzo(a,h)Anthracene	0.00423 U	0.0224 U	0.00209 U	0.00213 U	0.00207 U	0.00205 U	0.0628
Dibenzofuran	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Diethyl Phthalate	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Dimethyl Phthalate	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Di-n-Butylphthalate	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Di-n-Octylphthalate	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Fluoranthene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	**0.054 J**	0.35 U
Fluorene	0.00423 U	0.0224 U	0.00209 U	0.00213 U	0.00207 U	0.00205 U	0.149
Hexachlorobenzene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Hexachlorobutadiene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Hexachlorocyclopentadiene	1.4 U	7.5 U	0.7 U	0.71 U	0.69 U	0.69 U	0.71 U
Hexachloroethane	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Indeno(1,2,3-cd)Pyrene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Isophorone	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
M+P-Cresols	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Naphthalene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Nitrobenzene	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
N-Nitrosodi-N-Propylamine	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
N-Nitrosodiphenylamine	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Phenanthrene	0.00423 U	0.0224 U	0.00209 U	0.00213 U	0.00207 U	0.0167	0.025
Phenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Pyrene	0.0442	0.0224 U	0.0192	0.00213 U	0.0221	0.0606	0.0459
Tetrachlorophenol	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U
Tetraethyllead	0.7 U	3.7 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY653	KRY657	KRY658	KRY659	KRY660	KRY662	KRY663
Sample Identification	KRY653SS001	KRY657SS001	KRY658SS001	KRY659SS001	KRY660SS001	KRY662SS001	KRY663SS001
Sample Collection Date	5/9/2006	5/15/2006	5/16/2006	5/16/2006	5/22/2006	5/16/2006	5/17/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS
Duplicate of							
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,2,4-Trichlorobenzene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
1,4-Dichlorobenzene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
1-Methylnaphthalene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2,3,4,5-Tetrachlorophenol	0.34 U	1.7 U	1.8 U	**1.2 J**	2 U	2 U	0.35 U
2,3,4,6-Tetrachlorophenol	0.34 U	1.7 U	1.8 U	1.7 U	**1.2 J**	2 U	0.35 U
2,3,4-Trichlorophenol	0.34 U	1.7 UJ	1.8 U	1.7 UJ	2 U	2 U	0.35 U
2,3,5,6-Tetrachlorophenol	0.34 U	1.7 U	1.8 U	**0.53 J**	2 U	2 U	0.35 U
2,4,5-Trichlorophenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2,4,6-Trichlorophenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2,4-Dichlorophenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2,4-Dimethylphenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2,4-Dinitrophenol	1.7 U	8.4 U	9 U	8.6 U	10 U	10 U	1.8 U
2,4-Dinitrotoluene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2,6-Dimethylnaphthalene	0.34 U	1.7 UJ	1.8 U	1.7 UJ	2 U	2 U	**0.24 J**
2,6-Dinitrotoluene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2-Chloronaphthalene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2-Chlorophenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2-Methylnaphthalene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2-Methylphenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2-Nitroaniline	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
2-Nitrophenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
3,3'-Dichlorobenzidine	0.68 U	3.3 UJ	3.6 U	3.4 UJ	4 U	4 U	0.71 U
3-Nitroaniline	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
4,6-Dinitro-2-Methylphenol	1.7 U	8.4 U	9 U	8.6 U	10 U	10 U	1.8 U
4-Bromophenylphenylether	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
4-Chloro-3-Methylphenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
4-Chloroaniline	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
4-Chlorophenylphenylether	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
4-Nitroaniline	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
4-Nitrophenol	1.7 U	8.4 U	9 U	8.6 U	10 U	10 U	1.8 U
Acenaphthene	0.00205 U	0.01 U	0.0108 U	0.0103 U	0.0121 U	0.012 U	0.00212 U
Anthracene	0.00205 U	0.01 U	0.0108 U	0.118	0.137	0.012 U	0.0586
Benzo(a)Anthracene	0.0105	0.01 U	0.0108 U	0.0103 U	0.184	0.012 U	0.096
Benzo(a)Pyrene	0.0136	0.01 U	0.0108 U	0.0103 U	0.196	0.0879	0.071
Benzo(a)Fluoranthene	0.0209	0.01 U	0.0108 U	0.0103 U	0.515	0.144	0.174
Benzo(e)Pyrene	0.34 U	1.7 U	1.8 U	1.7 U	0.31	**0.24 J**	**0.12 J**
Benzo(g,h,i)Perylene	**0.035 J**	1.7 U	1.8 U	1.7 U	0.27	2 U	**0.078 J**
Benzo(k)Fluoranthene	0.0122	0.01 U	0.0108 U	0.0103 U	0.18	0.0297	0.145
Benzoic Acid	0.34 U	1.7 UJ	1.8 U	1.7 UJ	2 U	2 U	0.35 U
Benzyl Alcohol	0.34 U	1.7 UJ	1.8 U	1.7 UJ	2 U	2 U	0.35 U
Biphenyl	0.34 U	1.7 UJ	1.8 U	1.7 UJ	2 U	2 U	0.35 U
bis(2-Chloroethoxy)Methane	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
bis(2-Chloroethyl)Ether	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
bis(2-Chloroisopropyl)Ether	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
bis(2-Ethylhexyl)Adipate	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
bis(2-Ethylhexyl)Phthalate	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	**0.052 J**
Butyl Benzyl Phthalate	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Carbazole	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.041
Chrysene	0.0295	0.01 U	0.0108 U	0.0103 U	0.233	0.012 U	0.212
Dibenzo(a,h)Anthracene	0.00205 U	0.01 U	0.0108 U	0.0103 U	0.0121 U	0.012 U	0.00212 U
Dibenzofuran	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Diethyl Phthalate	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Dimethyl Phthalate	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Di-n-Butylphthalate	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Di-n-Octylphthalate	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Fluoranthene	0.34 U	1.7 U	1.8 U	1.7 U	**0.39 J**	2 U	0.51
Fluorene	0.00205 U	0.01 U	0.0108 U	0.0103 U	0.0121 U	0.012 U	0.00212 U
Hexachlorobenzene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Hexachlorobutadiene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Hexachlorocyclopentadiene	0.69 U	3.4 U	3.6 U	3.5 U	4 U	4 U	0.71 U
Hexachloroethane	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Indeno(1,2,3-cd)Pyrene	0.34 U	1.7 U	1.8 U	1.7 U	**0.47 J**	2 U	**0.12 J**
Isophorone	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
M+P-Cresols	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Naphthalene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Nitrobenzene	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
N-Nitrosodi-N-Propylamine	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
N-Nitrosodiphenylamine	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Phenanthrene	0.00205 U	0.01 U	0.0108 U	0.0103 U	0.112	0.012 U	0.192
Phenol	0.34 U	1.7 U	1.8 U	1.7 U	2 U	2 U	0.35 U
Pyrene	0.00205 U	0.0552	0.0108 U	0.117	0.366	0.012 U	0.68
Tetrachlorophenol	0.34 U	1.7 U	1.8 U	**0.53 J**	2 U	2 U	0.35 U
Tetraethyllead	0.34 U	1.7 UJ	1.8 U	1.7 UJ	2 U	2 U	0.35 U

Appendix G - 2006 Surface Soil Data
SVOC

Sample Station	KRY664	KRY665	KRY666
Sample Identification	KRY664SS001	KRY665SS001	KRY666SS001
Sample Collection Date	5/16/2006	5/16/2006	4/27/2006
Sample Type	SS	SS	SS
Duplicate of			
Units	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0
Lower Depth	0.5	0.5	0.167
1,2,4-Trichlorobenzene	0.34 U	1.7 U	1.7 U
1,4-Dichlorobenzene	0.34 U	1.7 U	1.7 U
1-Methylnaphthalene	0.34 U	1.7 U	1.7 U
2,3,4,5-Tetrachlorophenol	0.34 U	1.7 U	1.7 U
2,3,4,6-Tetrachlorophenol	**0.039 J**	1.7 U	1.7 U
2,3,4-Trichlorophenol	0.34 U	1.7 U	1.7 U
2,3,5,6-Tetrachlorophenol	0.34 U	1.7 U	1.7 U
2,4,5-Trichlorophenol	0.34 U	1.7 U	1.7 U
2,4,6-Trichlorophenol	0.34 U	1.7 U	1.7 U
2,4-Dichlorophenol	0.34 U	1.7 U	1.7 U
2,4-Dimethylphenol	0.34 U	1.7 U	1.7 U
2,4-Dinitrophenol	1.7 U	8.5 U	8.6 U
2,4-Dinitrotoluene	0.34 U	1.7 U	1.7 U
2,6-Dimethylnaphthalene	0.34 U	1.7 U	1.7 U
2,6-Dinitrotoluene	0.34 U	1.7 U	1.7 U
2-Chloronaphthalene	0.34 U	1.7 U	1.7 U
2-Chlorophenol	0.34 U	1.7 U	1.7 U
2-Methylnaphthalene	0.34 U	1.7 U	1.7 U
2-Methylphenol	0.34 U	1.7 U	1.7 U
2-Nitroaniline	0.34 U	1.7 U	1.7 U
2-Nitrophenol	0.34 U	1.7 U	1.7 U
3,3'-Dichlorobenzidine	0.68 U	3.4 U	3.4 U
3-Nitroaniline	0.34 U	1.7 U	1.7 U
4,6-Dinitro-2-Methylphenol	1.7 U	8.5 U	8.6 U
4-Bromophenylphenylether	0.34 U	1.7 U	1.7 U
4-Chloro-3-Methylphenol	0.34 U	1.7 U	1.7 U
4-Chloroaniline	0.34 U	1.7 U	1.7 U
4-Chlorophenylphenylether	0.34 U	1.7 U	1.7 U
4-Nitroaniline	0.34 U	1.7 U	1.7 U
4-Nitrophenol	1.7 U	8.5 U	8.6 U
Acenaphthene	0.00203 U	0.0101 U	0.0103 U
Anthracene	0.00203 U	0.0101 U	0.0103 U
Benzo(a)Anthracene	0.00203 U	0.0101 U	0.0103 U
Benzo(a)Pyrene	0.00203 U	0.071	0.113
Benzo(a)Fluoranthene	0.00203 U	0.0962	0.103
Benzo(e)Pyrene	0.34 U	**0.2 J**	0.12
Benzo(g,h,i)Perylene	0.34 U	1.7 U	1.7 U
Benzo(k)Fluoranthene	0.00203 U	0.0264	0.0103 U
Benzoic Acid	0.34 U	1.7 U	1.7 U
Benzyl Alcohol	0.34 U	1.7 U	1.7 U
Biphenyl	0.34 U	1.7 U	1.7 U
bis(2-Chloroethoxy)Methane	0.34 U	1.7 U	1.7 U
bis(2-Chloroethyl)Ether	0.34 U	1.7 U	1.7 U
bis(2-Chloroisopropyl)Ether	0.34 U	1.7 U	1.7 U
bis(2-Ethylhexyl)Adipate	0.34 U	1.7 U	1.7 U
bis(2-Ethylhexyl)Phthalate	**0.061 J**	1.7 U	1.7 U
Butyl Benzyl Phthalate	0.34 U	1.7 U	1.7 U
Carbazole	0.34 U	1.7 U	1.7 U
Chrysene	0.00203 U	0.0101 U	0.0103 U
Dibenzo(a,h)Anthracene	0.00203 U	0.0101 U	0.0103 U
Dibenzofuran	0.34 U	1.7 U	1.7 U
Diethyl Phthalate	0.34 U	1.7 U	1.7 U
Dimethyl Phthalate	0.34 U	1.7 U	1.7 U
Di-n-Butylphthalate	0.34 U	1.7 U	1.7 U
Di-n-Octylphthalate	0.34 U	1.7 U	1.7 U
Fluoranthene	0.34 U	1.7 U	1.7 U
Fluorene	0.00203 U	0.0101 U	0.0103 U
Hexachlorobenzene	0.34 U	1.7 U	1.7 U
Hexachlorobutadiene	0.34 U	1.7 U	1.7 U
Hexachlorocyclopentadiene	0.68 U	3.4 U	3.5 U
Hexachloroethane	0.34 U	1.7 U	1.7 U
Indeno(1,2,3-cd)Pyrene	0.34 U	1.7 U	1.7 U
Isophorone	0.34 U	1.7 U	1.7 U
M+P-Cresols	0.34 U	1.7 U	1.7 U
Naphthalene	0.34 U	1.7 U	1.7 U
Nitrobenzene	0.34 U	1.7 U	1.7 U
N-Nitrosodi-N-Propylamine	0.34 U	1.7 U	1.7 U
N-Nitrosodiphenylamine	0.34 U	1.7 U	1.7 U
Phenanthrene	0.00203 U	0.0101 U	0.0103 U
Phenol	0.34 U	1.7 U	1.7 U
Pyrene	0.00203 U	0.0101 U	0.0103 U
Tetrachlorophenol	0.34 U	1.7 U	1.7 U
Tetraethyllead	0.34 U	1.7 U	1.7 U

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY100A	KRY103A	KRY103A	KRY103A	KRY105A	KRY108A	KRY111A	KRY111A
Sample Identification	KRY100ASS001	KRY103ASS001	KRY103ASS002	KRY103ASS003	KRY105ASS001	KRY108ASS001	KRY111ASS001	KRY111ASS002
Sample Collection Date	5/19/2006	5/22/2006	5/22/2006	5/22/2006	5/22/2006	5/19/2006	5/2/2006	5/2/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.167	0.167	0.5
Pentachlorophenol	0.012	0.037	0.039	0.072	0.058	0.031	0.0022 U	0.0022 U

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY111A	KRY112A	KRY113A	KRY114B	KRY115B	KRY116A	KRY118A	KRY121B
Sample Identification	KRY111ASS003	KRY112ASS001	KRY113ASS001	KRY114BSS001	KRY115BSS001	KRY116ASS001	KRY118ASS001	KRY121BSS001
Sample Collection Date	5/2/2006	5/3/2006	5/23/2006	4/18/2006	4/26/2006	5/5/2006	6/1/2006	4/20/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.167	0.5	0.5	0.25	0.167	0.167	0.167
Pentachlorophenol	0.0047	0.0058	0.042	0.0085	0.0027 U	0.0021 U	0.0055	0.033

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY123A	KRY126A	KRY127A	KRY134A	KRY402	KRY403	KRY409	KRY409
Sample Identification	KRY123ASS001	KRY126ASS001	KRY127ASS001	KRY134ASS001	KRY402SS001	KRY403SS001	KRY409SS001	KRY409SS002
Sample Collection Date	4/21/2006	5/25/2006	5/31/2006	4/26/2006	4/26/2006	4/26/2006	4/24/2006	4/24/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Pentachlorophenol	0.0022 U	0.01	0.012	1	0.0025 U	**0.0017 J**	0.0026	0.0023 U

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY409	KRY410	KRY411	KRY412	KRY414	KRY415	KRY415	KRY415
Sample Identification	KRY409SS003	KRY410SS001	KRY411SS001	KRY412SS001	KRY414SS001	KRY415SS001	KRY415SS002	KRY415SS003
Sample Collection Date	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Pentachlorophenol	0.0022 U	0.011	0.024	0.028	0.29	0.027	0.0064	0.29

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY420	KRY422	KRY423	KRY424	KRY425	KRY426	KRY427	KRY428
Sample Identification	KRY420SS001	KRY422SS001	KRY423SS001	KRY424SS001	KRY425SS001	KRY426SS001	KRY427SS001	KRY428SS001
Sample Collection Date	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Pentachlorophenol	**0.035 J**	0.0056	0.0054	0.009	0.0028 U	**0.0018 J**	0.0032	0.0024 U

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY429	KRY429	KRY429	KRY430	KRY430	KRY430	KRY432	KRY433
Sample Identification	KRY429SS001	KRY429SS002	KRY429SS003	KRY430SS001	KRY430SS002	KRY430SS003	KRY432SS001	KRY433SS001
Sample Collection Date	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/1/2006	5/1/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0
Lower Depth	0.167	0.5	0.5	0.167	0.5	0.5	0.5	0.5
Pentachlorophenol	0.0022 U	0.0022 U	0.0051	0.0027	0.0023 U	0.0022 U	0.027	0.082

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY436	KRY437	KRY438	KRY439	KRY440	KRY440	KRY442	KRY443
Sample Identification	**KRY436SS001**	**KRY437SS001**	**KRY438SS001**	**KRY439SS001**	**KRY440SS001**	**KRY440SS002**	**KRY442SS001**	**KRY443SS001**
Sample Collection Date	**5/1/2006**	**5/1/2006**	**5/1/2006**	**5/1/2006**	**5/3/2006**	**5/3/2006**	**5/1/2006**	**5/1/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Pentachlorophenol	0.025	0.12	0.046	0.007	0.012	0.0071	0.0093	0.065

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY444	KRY445	KRY447	KRY451	KRY452	KRY453	KRY454	KRY455
Sample Identification	**KRY444SS001**	**KRY445SS001**	**KRY447SS001**	**KRY451SS001**	**KRY452SS001**	**KRY453SS001**	**KRY454SS001**	**KRY455SS001**
Sample Collection Date	**5/1/2006**	**5/1/2006**	**5/8/2006**	**4/26/2006**	**5/18/2006**	**5/18/2006**	**5/18/2006**	**5/18/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Pentachlorophenol	0.14	**0.15 J**	0.021	0.21	0.015	0.029	0.16	0.015

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY456	KRY457	KRY459	KRY460	KRY462	KRY463	KRY464	KRY465
Sample Identification	**KRY456SS001**	**KRY457SS001**	**KRY459SS001**	**KRY460SS001**	**KRY462SS001**	**KRY463SS001**	**KRY464SS001**	**KRY465SS001**
Sample Collection Date	**4/26/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**	**5/17/2006**	**5/9/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Pentachlorophenol	0.093	0.29	0.07	0.23	0.037	0.29	0.0095	0.011

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY466	KRY467	KRY471	KRY475	KRY477	KRY478	KRY479	KRY480
Sample Identification	**KRY466SS001**	**KRY467SS001**	**KRY471SS001**	**KRY475SS001**	**KRY477SS001**	**KRY478SS001**	**KRY479SS001**	**KRY480SS001**
Sample Collection Date	**5/9/2006**	**5/10/2006**	**5/8/2006**	**5/17/2006**	**5/17/2006**	**5/10/2006**	**5/10/2006**	**5/10/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Pentachlorophenol	0.012	0.048	0.081	0.26	0.014	0.22	0.014	0.69

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY481	KRY482	KRY482	KRY482	KRY483	KRY483	KRY483	KRY484
Sample Identification	KRY481SS001	KRY482SS001	KRY482SS002	KRY482SS003	KRY483SS001	KRY483SS002	KRY483SS003	KRY484SS001
Sample Collection Date	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/31/2006	5/31/2006	5/31/2006	5/9/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.167	0.5	0.5	0.5
Pentachlorophenol	0.3 U	0.011	0.009	0.0037	0.0052	0.0023	0.0022 U	0.037

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY486	KRY493	KRY494	KRY496	KRY499	KRY501	KRY502	KRY504
Sample Identification	KRY486SS001	KRY493SS001	KRY494SS001	KRY496SS001	KRY499SS001	KRY501SS001	KRY502SS001	KRY504SS001
Sample Collection Date	5/9/2006	5/17/2006	5/10/2006	5/10/2006	5/22/2006	5/22/2006	5/16/2006	5/16/2006
Sample Type	SS	SS	SS	SS	SS	SS	SS	SS
Duplicate of								
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Pentachlorophenol	0.11	0.059	0.44	0.0099	0.34	5	19	6.8

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY505	KRY514	KRY515	KRY560	KRY561	KRY562	KRY601	KRY603
Sample Identification	**KRY505SS001**	**KRY514SS001**	**KRY515SS001**	**KRY560BKDSS001**	**KRY561BKDSS001**	**KRY562BKDSS001**	**KRY601SS001**	**KRY603SS001**
Sample Collection Date	**5/16/2006**	**4/26/2006**	**5/31/2006**	**7/14/2006**	**7/14/2006**	**7/14/2006**	**4/27/2006**	**4/26/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.167**	**0.167**	**0.167**	**0.167**	**2**	**0.167**
Pentachlorophenol	8.3	0.11	0.0039	0.0022 U	0.0021 U	0.0022 U	0.0021 U	**0.0016 J**

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY605	KRY605	KRY605	KRY606	KRY607	KRY607	KRY607	KRY608
Sample Identification	**KRY605SS001**	**KRY605SS002**	**KRY605SS003**	**KRY606SS001**	**KRY607SS001**	**KRY607SS002**	**KRY607SS003**	**KRY608SS001**
Sample Collection Date	**4/26/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**	**4/21/2006**	**4/21/2006**	**4/21/2006**	**5/25/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.167**
Pentachlorophenol	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.0021 U	0.002 U	0.002	**0.0024 J**

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY609	KRY616	KRY617	KRY618	KRY631	KRY632	KRY633	KRY634
Sample Identification	**KRY609SS001**	**KRY616SS001**	**KRY617SS001**	**KRY618SS001**	**KRY631SS001**	**KRY632SS001**	**KRY633SS001**	**KRY634SS001**
Sample Collection Date	**5/24/2006**	**4/24/2006**	**4/24/2006**	**4/25/2006**	**5/10/2006**	**5/17/2006**	**5/17/2006**	**5/18/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.167**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Pentachlorophenol	0.032	0.0024 U	0.0025 U	**0.0018 J**	0.099	**6.1 J**	0.076	0.96

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY635	KRY636	KRY637	KRY638	KRY639	KRY640	KRY653	KRY657
Sample Identification	**KRY635SS001**	**KRY636SS001**	**KRY637SS001**	**KRY638SS001**	**KRY639SS001**	**KRY640SS001**	**KRY653SS001**	**KRY657SS001**
Sample Collection Date	**4/26/2006**	**5/9/2006**	**5/9/2006**	**5/8/2006**	**5/8/2006**	**4/26/2006**	**5/9/2006**	**5/15/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Pentachlorophenol	1	0.56	0.19	0.096	0.053	0.15	0.044	3.9

Appendix G - 2006 Surface Soil Data
PCP

Sample Station	KRY658	KRY659	KRY660	KRY662	KRY663	KRY664	KRY665	KRY666
Sample Identification	**KRY658SS001**	**KRY659SS001**	**KRY660SS001**	**KRY662SS001**	**KRY663SS001**	**KRY664SS001**	**KRY665SS001**	**KRY666SS001**
Sample Collection Date	**5/16/2006**	**5/16/2006**	**5/22/2006**	**5/16/2006**	**5/17/2006**	**5/16/2006**	**5/16/2006**	**4/27/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of								
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.167**
Pentachlorophenol	0.38	15	4.4	5	0.23	0.59	0.5	0.0021 U

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	**KRY103A**	**KRY103A**	**KRY103A**	**KRY105A**	**KRY111A**	**KRY111A**
Sample Identification	**KRY103ASS001**	**KRY103ASS002**	**KRY103ASS003**	**KRY105ASS002**	**KRY111ASS001**	**KRY111ASS002**
Sample Collection Date	**5/22/2006**	**5/22/2006**	**5/22/2006**	**5/22/2006**	**5/2/2006**	**5/2/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0.5**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.167**	**1**
1,2,3,4,6,7,8,9-OCDD	8700	7600	14000	7700	**230 J**	**380 J**
1,2,3,4,6,7,8,9-OCDF	320	300	540	490	**11 J**	**17 J**
1,2,3,4,6,7,8-HPCDD	1100	970	2000	980	23	46
1,2,3,4,6,7,8-HPCDF	160	140	210	180	1.6 U (3.6)	7.7
1,2,3,4,7,8,9-HPCDF	12	8	16	14	1.7 U	0.4 U (0.48)
1,2,3,4,7,8-HXCDD	18	14	58	7.7	1.3 U	0.46 U (1)
1,2,3,4,7,8-HXCDF	8.4	9.2	12	13	0.81 U	0.25 U (0.58)
1,2,3,6,7,8-HXCDD	63	51	150	54	1 U	**2.9 J**
1,2,3,6,7,8-HXCDF	6.6	5.8	9.3	6.4	0.59 U	0.31 U (0.39)
1,2,3,7,8,9-HXCDD	42	32	120	17	1.2 U	**1.5 J**
1,2,3,7,8,9-HXCDF	**3.9 J**	0.24 U (2.8)	**5.5 J**	**4.2 J**	0.86 U	0.37 U
1,2,3,7,8-PECDD	14	9	45	**3 J**	1 U	0.37 U (0.44)
1,2,3,7,8-PECDF	**2.5 J**	**2.3 J**	**4.1 J**	**3 J**	1.4 U	0.49 U
2,3,4,6,7,8-HXCDF	6.2	**5.1 J**	**6.4 J**	**3.8 J**	0.92 U	0.23 U (0.64)
2,3,4,7,8-PECDF	6.1	**5.2 J**	11	6.1	1.3 U	**0.49 J**
2,3,7,8-TCDD	1.7	1.3	9.5	0.37	0.86 U	0.2 U
2,3,7,8-TCDF	**0.88 J**	0.19 U (0.68)	**1.2 J**	**0.68 J**	0.68 U	0.28 U
HPCDD (TOTAL)	2200	1800	4800	1800	43	86
HPCDF (TOTAL)	450	400	700	630	6.7	21
HXCDD (TOTAL)	450	360	1800	210	7.5	13
HXCDF (TOTAL)	200	160	160	200	5.4	11
PECDD (TOTAL)	96	81	640	9	1 U	**0.41 J**
PECDF (TOTAL)	99	85	160	83	1.4 U	**4.6 J**
TCDD (TOTAL)	35	33	340	0.37	0.86 U	0.2 U
TCDF (TOTAL)	19	14 B	48	8.4 B	0.68 U	0.28 U
2,3,7,8-TCDD (TEQ) (WHO 2005)	47.929	37.363	120.785	30.165	1.8428	1.73585

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	KRY111A	KRY409	KRY409	KRY409	KRY415	KRY415
Sample Identification	KRY111ASS003	KRY409SS001	KRY409SS002	KRY409SS003	KRY415SS001	KRY415SS002
Sample Collection Date	5/2/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006
Sample Type	SS	SS	SS	SS	SS	SS
Duplicate of						
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	1	0	0.5	1	0	0.5
Lower Depth	2	0.5	1	2	0.5	1
1,2,3,4,6,7,8,9-OCDD	**10000 J**	**1100 J**	**62 J**	6.6 J	**340 J**	**1100 J**
1,2,3,4,6,7,8,9-OCDF	330	**35 J**	**2.4 J**	0.59 UJ	**23 J**	**98 J**
1,2,3,4,6,7,8-HPCDD	620	140	6.7	0.95 J	53	170
1,2,3,4,6,7,8-HPCDF	82	20	**1.2 J**	0.24 J	2.1 U (9.5)	**30 J**
1,2,3,4,7,8,9-HPCDF	6.6	**1.5 J**	0.091 U	0.099 U	4.4 U	16 U
1,2,3,4,7,8-HXCDD	8.7	**2.6 J**	0.12 U	0.08 U	1.9 U	5.9 U
1,2,3,4,7,8-HXCDF	10	**1.1 J**	0.15 U	0.075 U (0.076)	1.7 U	5.8 U
1,2,3,6,7,8-HXCDD	25	6.8	0.1 U (0.35)	0.14 J	**3.9 J**	**12 J**
1,2,3,6,7,8-HXCDF	**4.3 J**	**1.8 J**	0.092 U (0.14)	0.084 U	1.8 U	7.7 U
1,2,3,7,8,9-HXCDD	**2.4 J**	**4.7 J**	**0.29 J**	0.081 U (0.087)	**2.5 J**	8.6 U
1,2,3,7,8,9-HXCDF	**3.7 J**	**0.7 J**	0.14 U	0.079 U	2.3 U	5.2 U
1,2,3,7,8-PECDD	**0.47 J**	**1.4 J**	0.11 U	0.067 U	3.3 U	7.7 U
1,2,3,7,8-PECDF	**2.1 J**	**0.93 J**	0.12 U	0.066 U	4.1 U	8.6 U
2,3,4,6,7,8-HXCDF	4.9	**2.6 J**	**0.21 J**	0.072 U	2.5 U	5.9 U
2,3,4,7,8-PECDF	5.2	**2.4 J**	0.09 U (0.18)	0.051 J	2.7 U	7.2 U
2,3,7,8-TCDD	0.18 U	**0.29 J**	0.079 U	0.078 U	3.6 U	10 U
2,3,7,8-TCDF	0.23 U (0.69)	**0.94 J**	**0.16 J**	0.085 U	2.1 U	8.8 U
HPCDD (TOTAL)	1000	330	15	2.1 J	110	320 U
HPCDF (TOTAL)	470	51	**2.9 J**	0.24 U	19	100
HXCDD (TOTAL)	87	57	**2.7 J**	1 J	21	110
HXCDF (TOTAL)	200	38	**2 J**	0.31 U	**15 J**	**38 J**
PECDD (TOTAL)	**0.47 J**	7.6	0.32 U	0.07 U	3.3	7.7
PECDF (TOTAL)	23	35	**0.94 J**	0.39 J	3.4	7.9
TCDD (TOTAL)	0.18	2.5	1.3	0.078 U	3.6	10
TCDF (TOTAL)	**0.34 J**	19	1.7	0.085 U	2.1	8.8
2,3,7,8-TCDD (TEQ) (WHO 2005)	18.3025	6.5174	0.333075	0.1454035	5.8799	16.0934

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	KRY415	KRY422	KRY429	KRY429	KRY429	KRY430
Sample Identification	KRY415SS003	KRY422SS001	KRY429SS001	KRY429SS002	KRY429SS003	KRY430SS001
Sample Collection Date	4/24/2006	4/24/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
Sample Type	SS	SS	SS	SS	SS	SS
Duplicate of						
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	1	0	0	0	0	0
Lower Depth	2	0.5	0.167	0.5	0.5	0.167
1,2,3,4,6,7,8,9-OCDD	**520 J**	**940 J**	87	220	1400	1200
1,2,3,4,6,7,8,9-OCDF	**38 J**	**31 J**	**6 J**	10	61	54
1,2,3,4,6,7,8-HPCDD	86	130	10	31	180	170
1,2,3,4,6,7,8-HPCDF	**18 J**	17	**2.5 J**	**3.9 J**	22	27
1,2,3,4,7,8,9-HPCDF	10 U	**1.1 J**	**0.33 J**	**0.26 J**	**1.3 J**	**1.3 J**
1,2,3,4,7,8-HXCDD	4.7 U	**2.7 J**	**0.21 J**	**0.49 J**	**1.9 J**	**1.8 J**
1,2,3,4,7,8-HXCDF	5.1 U	0.13 U (1.7)	**0.32 J**	**0.28 J**	**1.8 J**	**1.5 J**
1,2,3,6,7,8-HXCDD	6.4 U	6.6	**0.44 J**	**1.5 J**	7.2	7.3
1,2,3,6,7,8-HXCDF	5 U	**0.95 J**	0.037 U (0.34)	0.044 U (0.45)	0.077 U (3.2)	0.035 U (2)
1,2,3,7,8,9-HXCDD	6.1 U	**4.9 J**	**0.35 J**	**1.1 J**	**4.9 J**	**4.2 J**
1,2,3,7,8,9-HXCDF	6.7 U	**0.48 J**	**0.08 J**	**0.1 J**	**0.5 J**	**0.41 J**
1,2,3,7,8-PECDD	5 U	**1 J**	**0.1 J**	0.043 U (0.27)	**0.86 J**	**0.83 J**
1,2,3,7,8-PECDF	5.7 U	**0.45 J**	**0.083 J**	0.097 U	**0.39 J**	**0.33 J**
2,3,4,6,7,8-HXCDF	5.7 U	**1.3 J**	**0.22 J**	**0.26 J**	**1.5 J**	**1.4 J**
2,3,4,7,8-PECDF	4.9 U	**0.93 J**	**0.1 J**	0.051 U (0.13)	**0.85 J**	**0.81 J**
2,3,7,8-TCDD	3.1 U	0.12 U (0.17)	0.065 U	0.08 U	0.057 U (0.15)	0.078 U (0.094)
2,3,7,8-TCDF	3.5 U	**0.24 J**	**0.081 J**	**0.078 J**	**0.34 J**	**0.27 J**
HPCDD (TOTAL)	170	260	18	55	320	300
HPCDF (TOTAL)	56	41	7	12	75	80
HXCDD (TOTAL)	43	57	**3.6 J**	11	54	53
HXCDF (TOTAL)	**10 J**	25	**3.4 J**	5.7	33	35
PECDD (TOTAL)	5 U	8.1	**0.41 J**	**1.3 J**	8.7	6.7
PECDF (TOTAL)	5.3 U	11	**1.5 J**	**1.9 J**	12	12
TCDD (TOTAL)	3.1 U	3.2	**0.18 J**	**0.36 J**	2	**0.95 J**
TCDF (TOTAL)	3.5 U	3.7	**0.84 J**	1.4	5.7	5
2,3,7,8-TCDD (TEQ) (WHO 2005)	8.2879	4.9518	0.50829	1.019855	5.647	5.2771

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	KRY430	KRY430	KRY440	KRY440	KRY482	KRY482
Sample Identification	KRY430SS002	KRY430SS003	KRY440SS001	KRY440SS002	KRY482SS001	KRY482SS002
Sample Collection Date	5/11/2006	5/11/2006	5/3/2006	5/3/2006	5/10/2006	5/10/2006
Sample Type	SS	SS	SS	SS	SS	SS
Duplicate of						
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	0	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.5	0.5
1,2,3,4,6,7,8,9-OCDD	67	7.9 U	**4100 J**	**720 J**	8500	2100
1,2,3,4,6,7,8,9-OCDF	**3.5 J**	0.67 U	**220 J**	**43 J**	510	120
1,2,3,4,6,7,8-HPCDD	9.3	1.1 U	460	92	910	220
1,2,3,4,6,7,8-HPCDF	**1.9 J**	0.075 U (0.22)	81	14	150	36
1,2,3,4,7,8,9-HPCDF	0.095 U (0.14)	0.088 U	1.2 U (4.5)	0.34 U (0.87)	11	**2.5 J**
1,2,3,4,7,8-HXCDD	0.081 U (0.12)	0.071 U	1.1 U (3.5)	**0.94 J**	6.9	**1.7 J**
1,2,3,4,7,8-HXCDF	**0.18 J**	0.04 U (0.06)	5.1	**1.1 J**	9.8	**2.6 J**
1,2,3,6,7,8-HXCDD	**0.4 J**	0.053 U	1.3 U (22)	0.13 U (4.4)	36	8.6
1,2,3,6,7,8-HXCDF	0.041 U (0.18)	**0.041 J**	**2 J**	0.29 U (1.2)	0.032 U (5.9)	0.068 U (2.1)
1,2,3,7,8,9-HXCDD	**0.27 J**	0.064 U	8.8	**1.9 J**	16	**4 J**
1,2,3,7,8,9-HXCDF	0.046 U	0.06 U	1.1 U (2.1)	**0.48 J**	**2.7 J**	**0.79 J**
1,2,3,7,8-PECDD	**0.059 J**	0.043 U	**2.1 J**	**0.55 J**	**2.2 J**	**0.62 J**
1,2,3,7,8-PECDF	0.088 U	0.043 U	1.2 U	0.55 U	**1.5 J**	**0.44 J**
2,3,4,6,7,8-HXCDF	0.044 U (0.072)	0.039 U	6.3	0.28 U (1)	6.6	**1.6 J**
2,3,4,7,8-PECDF	**0.11 J**	0.038 U	**3.4 J**	**0.73 J**	**3.8 J**	**1 J**
2,3,7,8-TCDD	0.071 U	0.073 U	0.64 U	0.21 U	**0.22 J**	0.071 U (0.074)
2,3,7,8-TCDF	0.051 U (0.063)	**0.058 J**	0.49 U (0.6)	**0.31 J**	**0.45 J**	0.046 U (0.15)
HPCDD (TOTAL)	16	1.1 U	860	160	1700	410
HPCDF (TOTAL)	**1.9 J**	0.081 U	220	50	580	140
HXCDD (TOTAL)	**3 J**	0.063 U	90	18	190	44
HXCDF (TOTAL)	**2.2 J**	**0.36 J**	96	19	220	54
PECDD (TOTAL)	**0.39 J**	0.073 U	**2.1 J**	**0.55 J**	11	**3.1 J**
PECDF (TOTAL)	**1.1 J**	**0.089 J**	38	5.6	48	12
TCDD (TOTAL)	**0.098 J**	0.073 U	2	0.21	2.1	**0.56 J**
TCDF (TOTAL)	**0.4 J**	**0.12 J**	5	**0.72 J**	5.9	1.5
2,3,7,8-TCDD (TEQ) (WHO 2005)	0.37172	0.0999205	13.8165	2.9785	25.158	6.2627

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	**KRY482**	**KRY483**	**KRY483**	**KRY483**	**KRY499**	**KRY505**
Sample Identification	**KRY482SS003**	**KRY483SS001**	**KRY483SS002**	**KRY483SS003**	**KRY499SS001**	**KRY505SS001**
Sample Collection Date	**5/10/2006**	**5/31/2006**	**5/31/2006**	**5/31/2006**	**5/22/2006**	**5/16/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.167**	**0.5**	**0.5**	**0.5**	**0.5**
1,2,3,4,6,7,8,9-OCDD	580	2100	240	39	48000 N2	620000 N2
1,2,3,4,6,7,8,9-OCDF	31	120	14	**2.4 J**	2100	36000 N2
1,2,3,4,6,7,8-HPCDD	62	310	36	6.1	7400	79000 N2
1,2,3,4,6,7,8-HPCDF	9.9	56	6.8	1 J	1300	12000 N2
1,2,3,4,7,8,9-HPCDF	**0.82 J**	**2.6 J**	**0.23 J**	0.079	75	950 N2
1,2,3,4,7,8-HXCDD	0.058 U (0.46)	**3.7 J**	**0.61 J**	**0.13 J**	100	420
1,2,3,4,7,8-HXCDF	**0.8 J**	**2.9 J**	0.1 U (0.38)	**0.11 J**	55	930
1,2,3,6,7,8-HXCDD	**2.5 J**	12	**1.6 J**	0.053 U (0.25)	500	4700
1,2,3,6,7,8-HXCDF	0.088 U (0.94)	0.16 U (4.4)	0.087 U (0.3)	**0.068 J**	0.75 U (57)	0.54 U (370)
1,2,3,7,8,9-HXCDD	**1.1 J**	9	**1.2 J**	**0.2 J**	290	1100
1,2,3,7,8,9-HXCDF	**0.25 J**	**0.72 J**	0.12	0.053	28	390
1,2,3,7,8-PECDD	0.07 U (0.23)	**1.5 J**	**0.3 J**	0.047 U (0.07)	63	120
1,2,3,7,8-PECDF	**0.15 J**	**0.48 J**	0.086	0.046	19	230
2,3,4,6,7,8-HXCDF	**0.55 J**	**2.6 J**	0.091 U (0.34)	**0.071 J**	51	420
2,3,4,7,8-PECDF	**0.37 J**	**1.1 J**	**0.19 J**	0.032 U (0.044)	44	560
2,3,7,8-TCDD	0.063	**0.21 J**	0.12	0.053	4	4.5
2,3,7,8-TCDF	**0.13 J**	**0.24 J**	**0.086 J**	0.035 U (0.053)	**4.4 J**	**55 J**
HPCDD (TOTAL)	110	580	67	12	13000	130000 N2
HPCDF (TOTAL)	37	160	19	**2.9 J**	4100	47000 N2
HXCDD (TOTAL)	12	120	14	**2.4 J**	2500	14000
HXCDF (TOTAL)	14	67	7.8	**1.6 J**	1600	9200
PECDD (TOTAL)	**0.93 J**	15	**1.4 J**	**0.39 J**	220	310
PECDF (TOTAL)	**3.8 J**	20	**3.3 J**	**0.47 J**	860	3800
TCDD (TOTAL)	**0.13 J**	3.4	**0.16 J**	**0.09 J**	25	24
TCDF (TOTAL)	**0.64 J**	5.3	**0.66 J**	**0.18 J**	150	190
2,3,7,8-TCDD (TEQ) (WHO 2005)	1.807	9.7424	1.39868	0.25854	289.24	2235.7

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	KRY549	KRY550	KRY551	KRY552	KRY553	KRY554
Sample Identification	KRY549SS001	KRY550SS001	KRY551SS001	KRY552SS001	KRY553SS001	KRY554SS001
Sample Collection Date	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/18/2006
Sample Type	SS	SS	SS	SS	SS	SS
Duplicate of						
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	0	0	0	0	0	0
Lower Depth	0.167	0.167	0.167	0.167	0.167	0.167
1,2,3,4,6,7,8,9-OCDD	90	510	1300	190	580	570
1,2,3,4,6,7,8,9-OCDF	**5 J**	27	160	**7.1 J**	49	34
1,2,3,4,6,7,8-HPCDD	13	79	170	29	75	62
1,2,3,4,6,7,8-HPCDF	**2.1 J**	9.8	59	**3.8 J**	16	13
1,2,3,4,7,8,9-HPCDF	0.15 U (0.18)	**0.58 J**	**2.3 J**	**0.29 J**	**1.1 J**	**3.6 J**
1,2,3,4,7,8-HXCDD	**0.33 J**	**1.4 J**	**1.6 J**	**0.63 J**	**0.96 J**	**0.77 J**
1,2,3,4,7,8-HXCDF	**0.18 J**	**0.68 J**	**1.6 J**	**0.42 J**	**0.98 J**	0.62 U (1.4)
1,2,3,6,7,8-HXCDD	**0.6 J**	**3.7 J**	6	**1.6 J**	**2.7 J**	0.59 U (2.5)
1,2,3,6,7,8-HXCDF	0.054 U (0.27)	0.036 U (1.4)	0.11 U (2.9)	0.054 U (1.4)	0.046 U (2.3)	0.71 U
1,2,3,7,8,9-HXCDD	**0.58 J**	**3.4 J**	**4 J**	**1.2 J**	**2.2 J**	0.6 U (1.5)
1,2,3,7,8,9-HXCDF	0.079 U	**0.21 J**	**0.41 J**	**0.18 J**	**0.2 J**	0.73 U
1,2,3,7,8-PECDD	**0.16 J**	**0.82 J**	**0.85 J**	**0.4 J**	**0.43 J**	0.74 U
1,2,3,7,8-PECDF	0.056 U	**0.27 J**	**0.34 J**	**0.21 J**	**0.16 J**	0.78 U
2,3,4,6,7,8-HXCDF	**0.18 J**	**1.2 J**	**2.2 J**	**0.75 J**	**1.1 J**	0.48 U
2,3,4,7,8-PECDF	**0.13 J**	**1.6 J**	**1.5 J**	**1.1 J**	**0.71 J**	0.55 U
2,3,7,8-TCDD	0.068 U	4.6	**0.34 J**	0.12 U	0.041 U (0.06)	0.75 U
2,3,7,8-TCDF	**0.14 J**	**0.48 J**	**0.29 J**	**0.26 J**	**0.19 J**	0.39 U
HPCDD (TOTAL)	25	150	310	61	140	110
HPCDF (TOTAL)	5.7	32	190	10	49	53
HXCDD (TOTAL)	6.5	33	54	19	26	12
HXCDF (TOTAL)	**3.3 J**	22	54	12	20	6.1
PECDD (TOTAL)	**1 J**	6.1	8.7	**4.4 J**	**3.8 J**	0.74 U
PECDF (TOTAL)	**1.8 J**	24	26	15	12	0.66 U
TCDD (TOTAL)	**0.51 J**	7.3	2.9	2.8	**0.96 J**	0.75 U
TCDF (TOTAL)	1.7	16	11	9.7	5.3	0.39 U
2,3,7,8-TCDD (TEQ) (WHO 2005)	0.63269	8.14	6.1562	1.76033	2.7355	2.2689

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	KRY555	KRY556	KRY557	KRY558	KRY559	KRY560
Sample Identification	KRY555SS001	KRY556SS001	KRY557SS001	KRY558SS001	KRY559SS001	KRY560BKDSS001
Sample Collection Date	5/16/2006	5/11/2006	5/11/2006	5/31/2006	6/2/2006	7/14/2006
Sample Type	SS	SS	SS	SS	SS	SS
Duplicate of						
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	0	0	0	0	0	0
Lower Depth	0.167	0.167	0.167	0.167	0.167	0.167
1,2,3,4,6,7,8,9-OCDD	160	1000	**71 J**	1700	520	250 UJ
1,2,3,4,6,7,8,9-OCDF	**8.2 J**	28	**3.5 J**	44	14	13 UJ
1,2,3,4,6,7,8-HPCDD	23	130	9.5	260	87	**32 J**
1,2,3,4,6,7,8-HPCDF	**3.4 J**	15	**1.5 J**	29	11	**4.8 J**
1,2,3,4,7,8,9-HPCDF	0.36 U (0.46)	**0.9 J**	**0.096 J**	**1.5 J**	**0.62 J**	0.18 UJ (0.36)
1,2,3,4,7,8-HXCDD	**0.68 J**	**1.7 J**	**0.18 J**	**3.4 J**	**1.5 J**	0.64 U
1,2,3,4,7,8-HXCDF	0.46 U	**1.4 J**	0.07 U (0.13)	**2.1 J**	0.23 U (0.73)	**0.36 J**
1,2,3,6,7,8-HXCDD	**1.3 J**	5.4	0.051 U (0.39)	12	**4.4 J**	**1.4 J**
1,2,3,6,7,8-HXCDF	**0.41 J**	0.082 U (2)	0.1 U (0.18)	0.19 U (2.2)	0.1 U (0.94)	**0.24 J**
1,2,3,7,8,9-HXCDD	0.24 U (0.84)	**4.1 J**	0.074 U (0.31)	7.8	**3.3 J**	**1.2 J**
1,2,3,7,8,9-HXCDF	**0.4 J**	**0.55 J**	0.074 U	**0.83 J**	**0.36 J**	0.088 U
1,2,3,7,8-PECDD	**0.39 J**	**0.76 J**	**0.14 J**	**1.8 J**	**0.85 J**	0.13 U (0.4)
1,2,3,7,8-PECDF	**0.25 J**	**0.4 J**	0.026 U (0.037)	**0.69 J**	**0.24 J**	0.12 U
2,3,4,6,7,8-HXCDF	**0.54 J**	**1.1 J**	**0.13 J**	**2.7 J**	**0.93 J**	**0.41 J**
2,3,4,7,8-PECDF	**0.38 J**	**0.83 J**	0.021 U (0.073)	**2 J**	**0.83 J**	**0.27 J**
2,3,7,8-TCDD	0.22 U	**0.16 J**	0.045 U	0.14 U (0.29)	**0.17 J**	0.16 U
2,3,7,8-TCDF	**0.22 J**	**0.23 J**	**0.056 J**	**0.49 J**	**0.23 J**	0.26 U
HPCDD (TOTAL)	41	250	18	510	160	**63 J**
HPCDF (TOTAL)	13	45	**4 J**	75	29	**13 J**
HXCDD (TOTAL)	8.1	43	**3.3 J**	110	36	15
HXCDF (TOTAL)	**3.9 J**	26	**1.7 J**	49	20	6.9
PECDD (TOTAL)	**2 J**	6.1	**0.94 J**	18	**4.2 J**	**2.6 J**
PECDF (TOTAL)	**1.8 J**	8.8	**0.67 J**	31	13	4 J
TCDD (TOTAL)	0.22	1.6	**0.048 J**	6.2	1.8	**0.63 J**
TCDF (TOTAL)	**0.64 J**	3.7	**0.54 J**	14	4	1.6 U
2,3,7,8-TCDD (TEQ) (WHO 2005)	1.35826	4.4964	0.398115	9.0359	3.5781	1.18245

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	KRY561	KRY562	KRY605	KRY605	KRY605	KRY607
Sample Identification	KRY561BKDSS001	KRY562BKDSS001	KRY605SS001	KRY605SS002	KRY605SS003	KRY607SS001
Sample Collection Date	7/14/2006	7/14/2006	4/26/2006	4/26/2006	4/26/2006	4/21/2006
Sample Type	SS	SS	SS	SS	SS	SS
Duplicate of						
Units	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg	ng/kg
Upper Depth	0	0	0	0.5	1	0
Lower Depth	0.167	0.167	0.5	1	2	0.5
1,2,3,4,6,7,8,9-OCDD	**330 J**	**650 J**	**480 J**	290	140	**700 J**
1,2,3,4,6,7,8,9-OCDF	**17 J**	**22 J**	**30 J**	24	12	**52 J**
1,2,3,4,6,7,8-HPCDD	**36 J**	**110 J**	110	56	29	170
1,2,3,4,6,7,8-HPCDF	**5.4 J**	**15 J**	69	27	14	99
1,2,3,4,7,8,9-HPCDF	0.22 UJ (0.35)	0.23 UJ (0.69)	6.7	**2.6 J**	**1.3 J**	20
1,2,3,4,7,8-HXCDD	0.58 U	**2.3 J**	5.3	**2.4 J**	**1 J**	8
1,2,3,4,7,8-HXCDF	0.27 U	**0.65 J**	12	**3.7 J**	**2.1 J**	46
1,2,3,6,7,8-HXCDD	**1.4 J**	5.4	21	7.7	**4.2 J**	22
1,2,3,6,7,8-HXCDF	**0.22 J**	**0.98 J**	22	7.7	**4.3 J**	60
1,2,3,7,8,9-HXCDD	**1.3 J**	**4.2 J**	13	5.7	**2.9 J**	17
1,2,3,7,8,9-HXCDF	0.1 U	**0.3 J**	6.8	**2 J**	**1.1 J**	16
1,2,3,7,8-PECDD	**0.35 J**	**1.3 J**	8.3	**2.8 J**	**1.4 J**	10
1,2,3,7,8-PECDF	0.14 U	**0.43 J**	**2 J**	**2.5 J**	**0.68 J**	6.4
2,3,4,6,7,8-HXCDF	**0.38 J**	**0.85 J**	46	11	6.4	62
2,3,4,7,8-PECDF	**0.19 J**	**1 J**	86	28	15	240
2,3,7,8-TCDD	0.13 U	**0.2 J**	1.4	**0.51 J**	0.3 U	3
2,3,7,8-TCDF	0.21 U	0.4 U	**4 J**	**2.5 J**	**0.76 J**	28
HPCDD (TOTAL)	**77 J**	**240 J**	230	110	56	340
HPCDF (TOTAL)	**15 J**	**33 J**	180	72	39	270
HXCDD (TOTAL)	14	68	200	66	34	250
HXCDF (TOTAL)	6.7	24	990	190	150	1900
PECDD (TOTAL)	**2.5 J**	11	47	14	6.6	77
PECDF (TOTAL)	**3.2 J**	17	1000	360	190	2400
TCDD (TOTAL)	**0.72 J**	5.2	7.4	2.1	**0.41 J**	31
TCDF (TOTAL)	1.6 U	9	210	86	41	750
2,3,7,8-TCDD (TEQ) (WHO 2005)	1.38195	4.75595	50.58	17.0052	8.835	114.2076

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	**KRY607**	**KRY607**	**KRY628**	**KRY628**	**KRY628**	**KRY658**
Sample Identification	**KRY607SS002**	**KRY607SS003**	**KRY628SS001**	**KRY628SS002**	**KRY628SS003**	**KRY658SS001**
Sample Collection Date	**4/21/2006**	**4/21/2006**	**5/12/2006**	**5/12/2006**	**5/12/2006**	**5/16/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of						
Units	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**
Upper Depth	**0.5**	**1**	**0**	**0**	**0**	**0**
Lower Depth	**1**	**2**	**0.5**	**0.5**	**0.5**	**0.5**
1,2,3,4,6,7,8,9-OCDD	**390 J**	**140 J**	600	19	95	50000 N2
1,2,3,4,6,7,8,9-OCDF	**25 J**	**7.6 J**	27	0.78 U	**4.3 J**	2800 N2
1,2,3,4,6,7,8-HPCDD	76	27	72	**3.7 J**	12	**5100 J**
1,2,3,4,6,7,8-HPCDF	48	13	12	**0.36 J**	**1.6 J**	1000
1,2,3,4,7,8,9-HPCDF	13	**3.1 J**	**0.93 J**	0.15 U	0.32 U	77
1,2,3,4,7,8-HXCDD	**3.1 J**	**0.99 J**	**0.94 J**	0.15 U	0.15 U (0.23)	29
1,2,3,4,7,8-HXCDF	30	6.7	0.15 U (1.2)	0.17 U	0.22 U (0.41)	1.3 U (130)
1,2,3,6,7,8-HXCDD	9.4	**3.1 J**	**3.6 J**	0.21 U	**0.62 J**	260
1,2,3,6,7,8-HXCDF	32	8.2	**0.57 J**	0.15 U	0.11 U	30
1,2,3,7,8,9-HXCDD	8.3	**2.4 J**	**2.4 J**	0.3 U	0.19 U (0.41)	83
1,2,3,7,8,9-HXCDF	8.8	**2.5 J**	0.24 U	0.18 U	0.25 U	22
1,2,3,7,8-PECDD	**3.8 J**	**1.4 J**	**0.67 J**	0.19 U	0.3 U	**15 J**
1,2,3,7,8-PECDF	5.6	**1.4 J**	0.24 U	0.2 U	0.3 U	14
2,3,4,6,7,8-HXCDF	32	17	0.14 U (0.62)	0.17 U	0.14 U	43
2,3,4,7,8-PECDF	110	28	**0.49 J**	0.17 U	0.2 U	35
2,3,7,8-TCDD	2.6	**0.58 J**	0.22 U	0.28 U	0.22 U	**0.75 J**
2,3,7,8-TCDF	**22 J**	**5.7 J**	**0.24 J**	0.18 U	0.16 U	**3.5 J**
HPCDD (TOTAL)	140	52	130	5.7	21	8500
HPCDF (TOTAL)	120	16	34	**0.36 J**	5.5	3900
HXCDD (TOTAL)	100	31	23	**0.62 J**	**1.5 J**	900
HXCDF (TOTAL)	490	150	14	**0.23 J**	**1.2 J**	670
PECDD (TOTAL)	37	11	**2.1 J**	0.19 U	0.3 U	31
PECDF (TOTAL)	1300	330	6.3	0.19 U	**0.96 J**	550
TCDD (TOTAL)	21	2.5	0.22 U	0.28 U	0.22 U	3.2
TCDF (TOTAL)	480	110	3.1	0.18 U	0.16 U	20
2,3,7,8-TCDD (TEQ) (WHO 2005)	55.6225	15.55628	2.846	0.386167	0.60939	157.83

Appendix G - 2006 Surface Soil Data
Dioxins and Furans

Sample Station	**KRY662**
Sample Identification	**KRY662SS001**
Sample Collection Date	**5/16/2006**
Sample Type	**SS**
Duplicate of	
Units	**ng/kg**
Upper Depth	**0**
Lower Depth	**0.5**
1,2,3,4,6,7,8,9-OCDD	370000 N2
1,2,3,4,6,7,8,9-OCDF	65000 N2
1,2,3,4,6,7,8-HPCDD	85000 N2
1,2,3,4,6,7,8-HPCDF	12000 N2
1,2,3,4,7,8,9-HPCDF	920 N2
1,2,3,4,7,8-HXCDD	780
1,2,3,4,7,8-HXCDF	1500
1,2,3,6,7,8-HXCDD	5600
1,2,3,6,7,8-HXCDF	460
1,2,3,7,8,9-HXCDD	980
1,2,3,7,8,9-HXCDF	610
1,2,3,7,8-PECDD	86
1,2,3,7,8-PECDF	270
2,3,4,6,7,8-HXCDF	230
2,3,4,7,8-PECDF	900
2,3,7,8-TCDD	4.1
2,3,7,8-TCDF	70 J
HPCDD (TOTAL)	140000 N2
HPCDF (TOTAL)	46000 N2
HXCDD (TOTAL)	17000
HXCDF (TOTAL)	29000
PECDD (TOTAL)	310
PECDF (TOTAL)	5700
TCDD (TOTAL)	24
TCDF (TOTAL)	230
2,3,7,8-TCDD (TEQ) (WHO 2005)	2500.9

Appendix G - 2006 Surface Soil Data
Dioxin and Furan Notes

Notes:

J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
ng/kg = Nanograms per kilogram
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - 2006 Surface Soil Data
Metals

Sample Station	**KRY100A**	**KRY103A**	**KRY118A**	**KRY126A**	**KRY127A**	**KRY410**	**KRY411**
Sample Identification	**KRY100ASS001**	**KRY103ASS001**	**KRY118ASS001**	**KRY126ASS001**	**KRY127ASS001**	**KRY410SS001**	**KRY411SS001**
Sample Collection Date	**5/19/2006**	**5/22/2006**	**6/1/2006**	**5/25/2006**	**5/31/2006**	**4/24/2006**	**4/24/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.167**	**0.5**	**0.5**	**0.5**	**0.5**
Aluminum	5670	7520	11300	8840	8540	6490	5450
Antimony	5 UJ	5 UJ	5 UJ	5 R	5 UJ	5 R	5 R
Arsenic	**1.85 J**	**2.99 J**	5.11	4.17	4.02	8.08	5.72
Barium	**81.3 J**	113	**146 J**	110	**113 J**	74.1	108
Beryllium	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Chromium	7.2	8.1	8.3	7.7	8.5	7.9	7
Cobalt	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	11.7	**20 J**	17.2	19	18.9	22.1	22.1
Iron	8720	11800	12700	12500	11000	10700	13700
Lead	7.2	**18.6 J**	**14.8 J**	18.3	**58.6 J**	22.8	62.6
Manganese	330	392	258	**271 J**	207	**228 J**	**360 J**
Mercury	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	7.1	10.1	8.5	**8.7 J**	8	7.8	8.3
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Tin	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 UJ
Vanadium	5.7	6.7	8.1	8.4	8.8	6.7	8.4
Zinc	38.7	90.4	51.2	63.7	69.1	59.1	91.3

Appendix G - 2006 Surface Soil Data
Metals

Sample Station	**KRY412**	**KRY414**	**KRY420**	**KRY422**	**KRY439**	**KRY445**	**KRY454**
Sample Identification	**KRY412SS001**	**KRY414SS001**	**KRY420SS001**	**KRY422SS001**	**KRY439SS001**	**KRY445SS001**	**KRY454SS001**
Sample Collection Date	**4/24/2006**	**4/24/2006**	**4/24/2006**	**4/24/2006**	**5/1/2006**	**5/1/2006**	**5/18/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Aluminum	5500	3180	4020	7250	6700	7830	7140
Antimony	5 R	5 R	5 R	5 R	5 UJ	5 UJ	5 UJ
Arsenic	3.93	1.48	3.47	4.67	4.63	5.19	**4.6 J**
Barium	259	33.3	214	108	**72.6 J**	**101 J**	**145 J**
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U
Chromium	9.8	5 U	7.7	6.2	8.3	7.6	9.5
Cobalt	5.4	5 U	5 U	5 U	5 U	5 U	5 U
Copper	32.3	7.3	5.1	21.3	10.7	13.7	41.8
Iron	13400	4930	5460	19800	10300	12000	14400
Lead	36.3	28.8	27	53.1	**7.9 J**	**19.6 J**	58.5
Manganese	**276 J**	**89.2 J**	**184 J**	**200 J**	**292 J**	**258 J**	292
Mercury	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	10.8	18.7	17.5	8.1	8	8.3	9.8
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U
Vanadium	9.5	35.5	20.7	6.8	5.9	6.4	10
Zinc	50.5	19.1	28.9	70.1	**44.5 J**	**62.5 J**	135

Appendix G - 2006 Surface Soil Data
Metals

Sample Station	**KRY463**	**KRY464**	**KRY501**	**KRY560**	**KRY561**	**KRY562**	**KRY603**
Sample Identification	**KRY463SS001**	**KRY464SS001**	**KRY501SS001**	**KRY560BKDSS001**	**KRY561BKDSS001**	**KRY562BKDSS001**	**KRY603SS001**
Sample Collection Date	**4/26/2006**	**5/17/2006**	**5/22/2006**	**7/14/2006**	**7/14/2006**	**7/14/2006**	**4/26/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.5**	**0.5**	**0.167**	**0.167**	**0.167**	**0.167**
Aluminum	8580	5770	8080	11800	9360	11900	7850
Antimony	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ
Arsenic	5.32	**2.17 J**	**39.5 J**	3.94	3.9	2.67	4.31
Barium	153	**116 J**	186	122	86.8	154	109
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chromium	7.7	14.6	8.7	7.9	7.9	8.2	8.5
Cobalt	5 U	5 U	5 U	5 U	5.1	5 U	5 U
Copper	16.6	19.5	**42.5 J**	15	12	13.8	12
Iron	12100	10400	14200	12300	13000	12300	11100
Lead	**20.5 J**	12.3	**68.5 J**	15.3	10	10.1	**14.8 J**
Manganese	**506 J**	226	286	342	288	337	**274 J**
Mercury	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	8.2	9.5	8.6	8.5	8.9	8.6	8.4
Selenium	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tin	5 U	5 U	20.2	5 U	5 U	5 U	5 U
Vanadium	6.8	7.3	7.6	9.3	9.1	10.9	8.9
Zinc	89.1	153	382	47.7	44.6	43.8	40.5

Appendix G - 2006 Surface Soil Data
Metals

Sample Station	**KRY606**	**KRY608**	**KRY609**	**KRY616**	**KRY631**	**KRY632**	**KRY634**
Sample Identification	**KRY606SS001**	**KRY608SS001**	**KRY609SS001**	**KRY616SS001**	**KRY631SS001**	**KRY632SS001**	**KRY634SS001**
Sample Collection Date	**4/26/2006**	**5/25/2006**	**5/24/2006**	**4/24/2006**	**5/10/2006**	**5/17/2006**	**5/18/2006**
Sample Type	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**	**SS**
Duplicate of							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Upper Depth	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Lower Depth	**0.5**	**0.167**	**0.167**	**0.5**	**0.5**	**0.5**	**0.5**
Aluminum	8440	12000	2950	9200	6090	10100	7350
Antimony	5 UJ	5 R	5 R	5 R	5 R	5 UJ	5 UJ
Arsenic	3.74	5.56	10	3.1	4.43	**19.6 J**	**11.1 J**
Barium	93.7	178	58.1	115	**58.7 J**	**91.5 J**	**66.8 J**
Beryllium	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U
Cadmium	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U
Chromium	8	10.5	27.8	7.3	8.8	11.2	6.7
Cobalt	5 U	5.8	5 U	5.1	5 U	5 U	5 U
Copper	8.2	17.6	45.8	12.1	17.8	14.9	12.3
Iron	10400	14400	25500	12700	9660	13500	10600
Lead	**16.7 J**	11.7	215	9.5	24.1	18.8	19.2
Manganese	**300 J**	**380 J**	**177 J**	**289 J**	250	307	224
Mercury	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Nickel	7.9	**10.9 J**	**11.1 J**	8.8	12.5	9.9	7.8
Selenium	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 UJ	5 UJ	5 U	5 UJ	5 U	5 U
Tin	5 U	5 UJ	**6.3 J**	5 UJ	5 UJ	5 U	5 U
Vanadium	7.4	12.3	9.2	7	6.3	7.7	6.1
Zinc	33.6	55.2	121	40.5	62.1	60.6	50.5

Appendix G - 2006 Surface Soil Data
Metals

Sample Station	KRY635	KRY638	KRY663	KRY664	KRY666
Sample Identification	KRY635SS001	KRY638SS001	KRY663SS001	KRY664SS001	KRY666SS001
Sample Collection Date	4/26/2006	5/8/2006	5/17/2006	5/16/2006	4/27/2006
Sample Type	SS	SS	SS	SS	SS
Duplicate of					
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Upper Depth	0	0	0	0	0
Lower Depth	0.5	0.5	0.5	0.5	0.167
Aluminum	10100	8790	6990	8400	6190
Antimony	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Arsenic	5.2	4.11	5.41	15.4	5.56
Barium	111	**76.7 J**	90.3	87.1	56.5
Beryllium	5 U	5 U	5 U	5 U	5 U
Cadmium	1 U	1 U	1 U	1 U	1 U
Chromium	9	9.3	9.2	11.3	6.1
Cobalt	5 U	5 U	5 U	5 U	5 U
Copper	20	13.5	14.6	28.9	10.8
Iron	13200	10800	9950	11700	10100
Lead	**24.6 J**	14.6	10.1	52.7	**15.2 J**
Manganese	**303 J**	**313 J**	260	257	**302 J**
Mercury	1 U	1 U	1 U	1 U	1 U
Nickel	10.2	9.7	7.6	8.6	7.2
Selenium	5 UJ	5 U	5 UJ	5 UJ	5 UJ
Silver	5 U	5 U	5 U	5 U	5 U
Thallium	5 U	5 U	5 U	5 U	5 U
Tin	5 U	**6.1 J**	5 U	5 U	5 U
Vanadium	8.3	6.6	5.6	7.1	5.3
Zinc	78.8	45.9	41.3	71.4	29.3

Appendix G - 2006 Surface Soil Data
PCB

Sample Station	KRY415	KRY422
Sample Identification	KRY415SS001	KRY422SS001
Sample Collection Date	4/24/2006	4/24/2006
Sample Type	SS	SS
Duplicate of		
Units	mg/kg	mg/kg
Upper Depth	0	0
Lower Depth	0.5	0.5
Aroclor-1254	0.021 U	0.021 U

Appendix G - 2006 Surface Soil Data
Notes

Notes:

J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/kg = Milligrams per kilogram
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - 2006 Surface Soil Data
SPLP

Sample Station	**KRY657**
Sample Identification	**KRY657SS002**
Sample Collection Date	**5/15/2006**
Sample Type	**SS**
Duplicate of	
Units	**ug/L**
Upper Depth	**0**
Lower Depth	**0.5**
Arsenic	500 U
Barium	10000 U
Cadmium	100 U
Chromium	500 U
Lead	500 U
Selenium	100 U
Silver	500 U
Mercury	20 U
1,1-Dichloroethene	1 U
1,2-Dichloroethane	1 U
1,4-Dichlorobenzene	1 U
2-Butanone	20 U
Benzene	1 U
Carbon Tetrachloride	1 U
Chlorobenzene	1 U
Chloroform	1 U
Tetrachloroethene	1 U
Trichloroethene	1 U
Vinyl Chloride	1 U
2,4,5-Trichlorophenol	50 U
2,4,6-Trichlorophenol	50 U
2,4-Dinitrotoluene	50 U
2-Methylphenol	50 U
Cresols, Total	50 U
Hexachlorobenzene	50 U
Hexachlorobutadiene	50 U
Hexachloroethane	50 U
M+P-Cresols	50 U
Nitrobenzene	50 U
Pentachlorophenol	250 U
Pyridine	100 U
pH	**9.8 J**

Appendix G - 2006 Surface Soil Data
TCLP

Sample Station	KRY415	KRY422
Sample Identification	KRY415SS003	KRY422SS001
Sample Collection Date	4/24/2006	4/24/2006
Sample Type	SS	SS
Duplicate of		
Units	ug/L	ug/L
Upper Depth	0	0
Lower Depth	0.5	0.5
Arsenic	500 U	500 U
Barium	10000 U	10000 U
Cadmium	100 U	100 U
Chromium	500 U	500 U
Lead	500 U	500 U
Selenium	100 U	100 U
Silver	500 U	500 U
Mercury	20 U	20 U
1,1-Dichloroethene	10 U	10 U
1,2-Dichloroethane	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U
2-Butanone	200 U	200 U
Benzene	10 U	10 U
Carbon Tetrachloride	10 U	10 U
Chlorobenzene	10 U	10 U
Chloroform	10 U	10 U
Tetrachloroethene	10 U	10 U
Trichloroethene	10 U	10 U
Vinyl Chloride	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U
2,4,6-Trichlorophenol	50 U	50 U
2,4-Dinitrotoluene	50 U	50 U
2-Methylphenol	50 U	50 U
Cresols, Total	50 U	50 U
Hexachlorobenzene	50 U	50 U
Hexachlorobutadiene	50 U	50 U
Hexachloroethane	50 U	50 U
M+P-Cresols	50 U	50 U
Nitrobenzene	50 U	50 U
Pentachlorophenol	250 U	250 U
Pyridine	100 U	100 U

Appendix G - 2006 Surface Soil Data
TCLP and SPLP Notes

Notes:

J = The analyte was detected, but the concentration is considered estimated for quality control reasons.
mg/L = Milligrams per liter
N = Indicates presumptive evidence of the compound.
NA = Analysis not applicable to sample
No qualifier = Indicates the data are acceptable both qualitatively and quantitatively.
R = The data are unusable; the analyte may or may not be present. Resampling and reanalysis are necessary for verification.
SPLP = Synthetic Precipitation Leaching Procedure
TCLP = Toxic Characteristic Leaching Procedure
U = The analyte was analyzed for but was not detected above the listed sample quantitation limit.
UJ = The analyte was not detected, and the sample quantitation limit is considered estimated for quality control reasons.

Appendix G - 2006 Surface Water Data
VPH

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	**KRY200SW001**	**KRY201SW001**	**KRY202SW001**	**KRY203SW001**	**KRY204SW001**
Sample Collection Date	**7/13/2006**	**7/13/2006**	**7/13/2006**	**7/13/2006**	**7/13/2006**
Sample Type	**SW**	**SW**	**SW**	**SW**	**SW**
Duplicate of					
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
VPH					
C5-C8 Aliphatics	20 U	20 U	20 U	20 U	20 U
C9-C10 Aromatics	20 U	20 U	20 U	20 U	20 U
C9-C12 Aliphatics	20 U	20 U	20 U	20 U	20 U
Total Purgeable Hydrocarbons	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert-Butyl Ether	1 U	1 U	1 U	1 U	1 U
Naphthalene	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Petroleum Hydrocarbons					
Total Extractable Hydrocarbons - Screen	300 U	300 U	300 U	300 U	300 U

Appendix G - 2006 Surface Water Data
Dioxin Furan

Sample Station	KRY200	KRY202	KRY203	KRY203
Sample Identification	KRY200SW001	KRY202SW001	KRY203SW001	KRY203SW701
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SW	SW	SW	DU
Duplicate of				KRY203SW001
Units	pg/L	pg/L	pg/L	pg/L
1,2,3,4,6,7,8,9-OCDD	100 U	29 U	380 U	110 U
1,2,3,4,6,7,8,9-OCDF	**29 J**	1.5 U (9.1)	**100 J**	17 U
1,2,3,4,6,7,8-HPCDD	**29 J**	**7.4 J**	140	20 U
1,2,3,4,6,7,8-HPCDF	5.5 U	1.7 U	18 U	3.3 U
1,2,3,4,7,8,9-HPCDF	1.7 U	1.8 U	4.5 U	3.1 U
1,2,3,4,7,8-HXCDD	3.3 U	2.8 U	3.5 U (3.8)	11 U
1,2,3,4,7,8-HXCDF	2.9 U	2.3 U	3.6 U	1.7 U
1,2,3,6,7,8-HXCDD	3.2 U	2.7 U	3.5 U (6.1)	8.8 U
1,2,3,6,7,8-HXCDF	2.1 U	2.9 U	3.7 U	2 U
1,2,3,7,8,9-HXCDD	3.4 U	2.4 U	3.4 U (5.3)	6.8 U
1,2,3,7,8,9-HXCDF	2.5 U	1.7 U	2.9 U	2.1 U
1,2,3,7,8-PECDD	3.9 U	4.2 U	6 U	5.9 U
1,2,3,7,8-PECDF	4.8 UJ	7.1 UJ	9.8 U	5.4 U
2,3,4,6,7,8-HXCDF	1.9 U	1.8 U	2.9 U	1.9 U
2,3,4,7,8-PECDF	2.3 UJ	2.7 UJ	4.6 U	3.1 U
2,3,7,8-TCDD	3.6 UJ	5.2 UJ	7.5 UJ	4.5 U
2,3,7,8-TCDF	1.7 U	3.5 UJ	7 UJ	2.5 U
HPCDD (TOTAL)	46 U	**7.4 J**	220	36 U
HPCDF (TOTAL)	5.5 U	**1.7 J**	60	10 U
HXCDD (TOTAL)	3.3 U	**2.7 J**	**3.5 J**	9 U
HXCDF (TOTAL)	2.3 U	**2.2 J**	**3.3 J**	1.9 U
PECDD (TOTAL)	3.9 U	**4.2 J**	**6 J**	5.9 U
PECDF (TOTAL)	3.5 UJ	4.9 UJ	7.2 J	4.2 U
TCDD (TOTAL)	3.6 UJ	5.2 UJ	7.5 UJ	4.5 U
TCDF (TOTAL)	1.7 U	3.5 UJ	7 UJ	2.5 U
2,3,7,8-TCDD (TEQ) (WHO 1998)	5.8289	6.650905	11.4515	8.08835

Appendix G - 2006 Surface Water Data
Metals

Sample Station	**KRY200**	**KRY201**	**KRY202**	**KRY203**	**KRY204**
Sample Identification	**KRY200SW001**	**KRY201SW001**	**KRY202SW001**	**KRY203SW001**	**KRY204SW001**
Sample Collection Date	**7/13/2006**	**7/13/2006**	**7/13/2006**	**7/13/2006**	**7/13/2006**
Sample Type	**SW**	**SW**	**SW**	**SW**	**SW**
Duplicate of					
Units	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Aluminum	250	190	**210 J**	**190 J**	**180 J**
Antimony	5 U	5 U	5 U	5 U	5 U
Arsenic	3 U	3 U	3 U	3 U	3 U
Barium	84	83	85	80	80
Beryllium	1 U	1 U	1 U	1 U	1 U
Cadmium	1 U	1 U	1 U	1 U	1 U
Chromium	1 U	1 U	1 U	1 U	1 U
Cobalt	10 U	10 U	10 U	10 U	10 U
Copper	1 U	1 U	1 U	1 U	1 U
Iron	270	230	270	220	210
Lead	0.5 U	0.5 U	10 U	0.5 U	10 U
Manganese	30	28	32	27	24
Mercury	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	10 U	10 U	10 U	10 U	10 U
Selenium	5 U	5 U	5 U	5 U	5 U
Silver	5 U	5 U	5 U	5 U	5 U
Thallium	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tin	100 U	100 U	100 U	100 U	100 U
Vanadium	10 U	10 U	10 U	10 U	10 U
Zinc	10 R	10 R	10 U	10 R	10 R

Appendix G - 2006 Surface Water Data
VOC

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	KRY200SW001	KRY201SW001	KRY202SW001	KRY203SW001	KRY204SW001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SW	SW	SW	SW	SW
Duplicate of					
Units	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U
2-Butanone	10 U	10 U	10 U	10 U	10 U
2-Hexanone	20 U	20 U	20 U	20 U	20 U
4-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	20 U	20 U	20 U	20 U	20 U
Acetone	20 U	20 U	20 U	20 U	20 U
Acrolein	20 U	20 U	20 U	20 U	20 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U
M+P-Xylenes	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Isopropyl Ether	20 U	20 U	20 U	20 U	20 U
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	1 U	1 U	1 U	1 U	1 U
N-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
N-Propylbenzene	1 U	1 U	1 U	1 U	1 U
O-Xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sec-Butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Appendix G - 2006 Surface Water Data
PCP

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	KRY200SW001	KRY201SW001	KRY202SW001	KRY203SW001	KRY204SW001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SW	SW	SW	SW	SW
Duplicate of					
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Pentachlorophenol	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Appendix G - 2006 Surface Water Data
SVOC

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	KRY200SW001	KRY201SW001	KRY202SW001	KRY203SW001	KRY204SW001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SW	SW	SW	SW	SW
Duplicate of					
Units	ug/L	ug/L	ug/L	ug/L	ug/L
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U
1-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U
2,3,4,5-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U
2,3,4-Trichlorophenol	10 U	10 U	10 U	10 U	10 U
2,3,5,6-Tetrachlorophenol	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U
2,6-Dimethylnaphthalene	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U
4-Bromophenylphenylether	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U
4-Chlorophenylphenylether	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U
Acenaphthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(e)Pyrene	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzoic Acid	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U
Biphenyl	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Adipate	6 U	6 U	6 U	6 U	6 U
bis(2-Ethylhexyl)Phthalate	6 U	6 U	6 U	6 U	6 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U
Chrysene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)Anthracene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U
Di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U

Appendix G - 2006 Surface Water Data
SVOC

Sample Station	KRY200	KRY201	KRY202	KRY203	KRY204
Sample Identification	KRY200SW001	KRY201SW001	KRY202SW001	KRY203SW001	KRY204SW001
Sample Collection Date	7/13/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006
Sample Type	SW	SW	SW	SW	SW
Duplicate of					
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Di-n-Octylphthalate	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U
Fluorene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U
M+P-Cresols	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-N-Propylamine	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U
Phenanthrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	10 U	10 U	10 U	10 U	10 U
Pyrene	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetraethyllead	10 U	10 U	10 U	10 U	10 U

APPENDIX B
MODELING TO EVALUATE REMEDIAL ALTERNATIVES FOR GROUNDWATER AT THE KRY SITE

CONTENTS

1.0 INTRODUCTION B-1

2.0 OBJECTIVES OF MODELING B-1

3.0 DESCRIPTION OF MODEL B-2

4.0 MODEL SETUP AND ASSUMPTIONS B-3

5.0 MODELING RESULTS B-6

5.1 PENTACHLOROPHENOL PLUME ATTENUATION B-6

5.2 PENTACHLOROPHENOL NAPL SOURCE ATTENUATION B-6

5.3 DIOXINS AND FURANS PLUME ATTENUATION B-8

6.0 VS2DT MODELLING OF PCP SOURCES B-9

7.0 SENSITIVITY ANALYSIS B-11

8.0 CONCLUSIONS B-12

REFERENCES B-13

ATTACHMENTS

B1 NAS Model Input/Output

B2 ATRANS Model Input/Output for PCP Transient Profiles

B3 VS2DT Model Input/Output for PCP Leaching Simulations

FIGURES

B-1 Site Location Map

B-2 Centerline of the Simulated Plume of Pentachlorophenol in Groundwater

B-3 Centerline of the Simulated Plume of Dioxin and Furans in Groundwater

B-4 Flowchart showing NAS Application to Time of Remediation Problems

B-5 Distribution of Pentachlorophenol Concentrations Along the Plume Centerline and Redox Zonation

B-6 NAS Predicted PCP Plume Profile 28 Years After Source Remediation

B-7 Transient PCP Plume Profiles : ATRANS Model Results

B-8 Distribution of Dioxin and Furans Concentrations Along the Plume Centerline and Redox Zonation

B-9 Predicted Dioxin and Furans Plume Profile 3800 Years After Source Remediation

B-10 PCP Plume Evolution for PCP Source Scenario 1

B-11 PCP Plume Evolution for PCP Source Scenario 2

B-12 PCP Plume Evolution for PCP Source Scenario 3

TABLES

B-1 Model Setup Data

B-2 Predicted Times of Plume and Source Attenuation

B-3 VS2DT PCP Source Model Parameters

1.0 INTRODUCTION

The Kalispell Pole and Timber (KPT) Facility, Reliance Refinery Company (Reliance) Facility, the Yale Oil Corporation (Yale Oil) Facility, collectively referred to as the KRY Site, occupies an area of approximately 55 acres located on the northeastern edge of the City of Kalispell, Montana. The three facilities are in relatively close proximity to each other and are located adjacent to the Stillwater River and nearby residential areas (Figure B-1).

In the remedial investigation (RI) conducted for the Department of Environmental Quality (DEQ) (Tetra Tech 2007), groundwater contamination from each of these facilities was found to be commingled in the underlying aquifer. Contaminants in soil and groundwater include semi-volatile organic compounds (SVOCs) including pentachlorophenol (PCP), polycyclic aromatic hydrocarbons (PAHs), dioxins and furans, volatile organic compounds (VOCs), petroleum hydrocarbons, and metals, most notably lead.

The ongoing feasibility study (FS) requires an evaluation of remedial alternatives for groundwater at the KRY Site. The groundwater modeling presented in this appendix evaluates monitored natural attenuation (MNA) and source area reduction for two chemicals identified in the RI: (1) PCP; and (2) dioxins and furans (2,3,7,8-TCDD toxicity equivalency quotient [TEQ]; Figures B-2 and B-3). As presented in the RI report (Tetra Tech 2007), the sources for PCP likely exist in soils as non-aqueous phase liquids (NAPL). Based on observed 2,3,7,8-TCDD TEQ (further referred to as TCDD) values in groundwater, it appears unlikely that sources of TCDD occur as NAPL.

Of all the contaminants detected in groundwater at the KRY Site, the selected chemicals were detected at highest concentrations exceeding screening criteria. It is expected that conclusions derived from modeling for plumes of the selected chemicals will be generally applicable to other chemicals detected in groundwater at the site.

2.0 OBJECTIVES OF MODELING

The objective of groundwater modeling was to estimate the time required for compliance with DEQ water quality standards at the KRY Site. This analysis was performed using computer software designed to generate screening-level predictions of chemical attenuation and compliance time frames for (1) source areas containing NAPLs, and (2) dissolved plumes extending downgradient of the source areas. In the first case, the modeling considered two PCP NAPL source management scenarios, consisting of natural attenuation, and 90 percent NAPL source reduction by in-situ technologies. The time required for ground water quality standards to be achieved in the NAPL source area was calculated. In the second case, the amount of time for the dissolved PCP and TCDD plumes to achieve compliance with water quality standards was modeled. Model results describe the amount of time required for the entire dissolved chemical plumes to achieve compliance with the water quality standards after source water quality is lowered to the water quality standards.

The modeling was conducted using Natural Attenuation Software (NAS) (Chapelle and others 2003). NAS is a screening tool to estimate remediation time frames for MNA to lower groundwater contaminant concentrations to cleanup levels, and to assist in decision-making on the level of source zone treatment required in conjunction with MNA (Widdowson and others 2005). NAS is in public domain and may be downloaded from the website at http://www.nas.cee.vt.edu/index.php. The ATRANS computer program was used in conjunction with NAS to predict dissolved plume attenuation time frames. The ATRANS software generates analytical solutions for three-dimensional solute transport (Neville, 2005). ATRANS is maintained by S.S. Papadopulos & Associates, Inc., with the program and documentation available for download at http://www.sspa.com/Software/atrans.shtml.

Companion simulations were executed using the VS2DT computer program (Healy 1990) to evaluate the importance of chemical leaching from the vadose zone to the predicted remediation time frames. This was performed because the NAS and ATRANS programs do not incorporate leaching of chemicals from the vadose zone to groundwater in model predictions. The relative contributions of PCP migration from contaminated soils present in the vadose zone and the saturated zone to the dissolved PCP groundwater plume were evaluated.

3.0 DESCRIPTION OF MODEL

NAS is designed for application to groundwater systems consisting of porous, relatively homogeneous, saturated media such as sands and gravels. Environmental processes simulated by this software include the dissolution of non-aqueous phase liquids (NAPLs), chemical advection, dispersion, sorption, and biodegradation. The program does not simulate the movement of NAPLs, chemical volatilization, or leaching of chemicals from the vadose zone to groundwater. Measured electron acceptor and contaminant concentrations are used to define biodegradation zones in which the utilization of a terminal electron acceptor is prevalent, and estimate chemical biodegradation rates in groundwater.

NAS divides the overall time of remediation problem into separate predictions concerning source area compliance, and dissolved plume compliance. Source area compliance is modeled as the amount of time required for NAPL to dissolve, disperse, and biodegrade to below regulatory cleanup levels in contaminant source areas. NAS employs a numerical transport model to simulate NAPL dissolution rates and chemical concentrations in groundwater at the source. These calculations do not simulate the behavior of the dissolved plume downgradient of the source.

Dissolved plume behavior is simulated by NAS using an analytical model for chemical transport. Site information describing hydrogeology, redox conditions, and contaminant concentrations are entered into the software. After data entry, NAS estimates a range (maximum, minimum, and average estimates) of site-specific groundwater flow rates, biodegradation rates, and sorption properties. NAS predicts the changes in the dissolved plume concentrations following a reduction in the dissolved source concentration. Transient plume concentrations may be compared to the applicable DEQ water quality standard to determine the time when concentrations across the plume come into compliance. A flowchart (Chapelle and others 2003)

describing how the NAS can be used to address time of remediation problems is shown in Figure B-4.

NAS was originally designed for petroleum hydrocarbons and chlorinated ethenes. The latest version 2 (Widdowson and others 2005) was expanded to allow analysis of any contaminants that may be subject to biodegradation. The NAS uses SEAM3D (Waddill and Widdowson 2000), a reactive transport model, for simulation of biodegradation problems that involve multiple substrates and electron acceptors. SEAM3D is based on the MT3DMS code (Zheng and Wang 1999) and includes biodegradation and NAPL dissolution modules.

NAS has been applied at various sites and results indicated a general agreement of estimated decreases in contaminant concentrations with observed decreases during monitoring. The comparisons showed, however, that patterns observed in changes of contaminant concentrations are much more complex than are indicated by NAS. This, in turn, illustrates the general principle that hydrologic complexities of groundwater systems are not fully accommodated in simulation tools such as NAS. The time of remediation estimated with these tools should not be regarded as precise predictions of future contaminant behavior. Rather, it is more appropriate to use NAS for evaluating different remediation strategies for specific sites by considering the effects of NAPL removal and different hydrologic factors. The time of remediation estimates should always be verified with site monitoring (Chapelle and others 2003).

4.0 MODEL SETUP AND ASSUMPTIONS

The models considered a single unconfined aquifer per geologic and hydrogeologic characteristics detailed in Sections 3.4 and 3.6 of the RI report (Tetra Tech 2007). Site-specific hydrogeologic parameters selected for modeling were based on the field data and are listed in Table B-1. The low, average, and high values for hydraulic conductivity modeled were 17, 50, and 326 feet per day, and the hydraulic gradient was 0.0057 ft/ft. The contaminant biodegradation rate constants and chemical dispersion coefficients are estimated by the NAS software based on user-specified site characteristics and the measured contaminant concentrations.

Chemical partitioning behavior is modeled as a function of the organic carbon content of the porous media (foc) and the chemical-specific organic carbon-water partitioning coefficient (K_{oc}).

$$K_d = foc * K_{oc} \qquad (1)$$

where:

K_d = soil-water partitioning coefficient [L/kg]
foc = soil fraction of organic carbon [kg/kg]
K_{oc} = organic carbon-water partitioning coefficient [L/kg]

Fraction of organic carbon measured in samples collected during the RI ranged from 0.018 to 0.024 Kg/Kg (Table B-1). The partitioning behavior of PCP is affected by subsurface pH (USEPA, 1996). Soil pH in three samples collected during the RI ranged from 7.48 to 8.1, with an average pH of 7.85 (Tetra Tech, 2007). The PCP K_{oc} of 416 L/Kg was calculated as a

function of pH using the following equations [USEPA, 1996]:

$$K_{oc} = K_{oc,n}\Phi_n + K_{oc,i}(1-\Phi_n) \quad (2)$$

$$\Phi_n = \left(1+10^{pH-pKa}\right)^{-1} \quad (3)$$

where:

K_{oc}	=	soil organic carbon/water partition coefficient [L/kg]
$K_{oc,n}$	=	partitioning coefficient for the neutral species [L/kg]
Φ_n	=	fraction of neutral species present, unitless
$K_{oc,i}$	=	partitioning coefficient for the ionized species [L/kg]
pKa	=	acid dissociation constant [4.80 for PCP].

The partitioning behavior of PCP at pH 7.85 is similar to that reported for m-xylenes (calculated K_{oc} value of 407; USEPA 1996). The partitioning coefficient reported for TCDD, on the order of 1.5 x 10^6 L/Kg, indicates an extremely high degree of sorption to organic carbon and extremely low chemical mobility in porous media containing organic carbon.

Concentrations of PCP and TCDD in groundwater at the KRY Site are shown on Figures B-2 and B-3. NAS and ATRANS are designed to simulate a plume that originates from a single source and exhibits relatively simple geometry. The heterogeneity in the hydraulic conductivity of the aquifer cannot be explicitly represented in these screening-level models. Therefore, a complex configuration of observed plumes was generalized and for modeling purposes the plumes were conservatively defined as follows:

- The highest measured concentrations within the observed plume were selected to define the plume center line concentrations along the prevailing groundwater flow direction;
- The plume center line was drawn from the suspected source area represented by a well with the maximum measured concentration to the downgradient edge of the plume approximately defined by wells where a chemical was not detected; and
- The data from wells with the highest concentrations were projected onto the plume central line including wells up to a distance of 400 lateral feet from the centerline.

Each of the simulated plumes is discussed in Sections 5.1 and 5.2. The following simplifying assumptions are inherently incorporated in the modeling, or were needed to describe chemical conditions for the site:

<u>Assumptions Incorporated in the NAS Model</u>

- The aquifer is assumed to be homogeneous and isotropic.
- Groundwater flow is assumed to be horizontal, unidirectional, and at steady state.

- Vadose zone processes, such as chemical leaching from contaminated soils to the underlying aquifer, are not simulated.

Chemical-Specific Assumptions

- Water quality data that characterize the upper and lower portion of the unconfined aquifer were used. This approach was conservative because it integrated the maximum chemical concentrations measured in the upper and lower portions of the aquifer.
- The presence of NAPL mass in the source areas was modeled only for PCP. The concentrations of dioxins and furans detected in groundwater at KRY Site do not suggest the presence of NAPL sources, because the measured concentrations are much less than 1 percent of aqueous solubility for TCDD.
- Boring logs and the general absence of PCP detections in deep wells near the suspected source area suggest that NAPL containing PCP is more likely to be present in the upper portion of the aquifer (approximately 30 ft bgs). The estimated mass of PCP NAPL near the top of the saturated zone was calculated using the soil concentrations reported in the RI. Soil PCP concentrations were compiled from a rectangular area defined by testholes KRY-665, KRY-638, Q-25, and KRY-632 (see RI Figure 4-11B). The median PCP concentration from samples collected between 15 and 25 feet below ground surface (bgs) in this area was 43 mg/kg. The extent of soils containing PCP NAPLs was estimated as 200 foot in length and width, and 10 feet in thickness. Based on a soil bulk density of 2.2 Kg/L (Tetra Tech 2007), the estimated mass of PCP NAPL was 1070 Kg.
- The geochemical conditions within the simulated plumes appear to vary across the site. The data on redox parameters are limited, so the best estimates of redox-dependent biodegradation rates were obtained by specifying the most likely succession of redox zones and their extent along the centerline of each simulated plume.

The cleanup level that is protective of human health and the environment was selected for each chemical simulated as follows:

- 1 µg/L for PCP (DEQ's human health standard); and
- 5.58 picograms per liter (pg/L) for TCDD (site-specific background)

Based on groundwater results for the selected chemicals (Tetra Tech 2007), the following worst-case scenario plumes were identified for modeling:

- PCP plume, approximately 2150 ft long, the upgradient and downgradient edges of which are defined by wells KPT-2 and KRY129B, respectively (Figure B-2);
- TCDD plume, approximately 1950 ft long, the upgradient and downgradient edges of which are defined by wells KPT-3 and KRY129B, respectively (Figure B-3)

Based on an anticipated efficiency of the state-of-the-art remedial technologies being considered in this FS, the target NAPL mass reduction was assumed to be 90 percent.

5.0 MODELING RESULTS

Section 5.1 presents the model predictions for plume compliance times following a reduction in dissolved source concentrations for PCP and TCDD. Section 5.2 describes the amount of time for a PCP source area containing NAPLs to achieve compliance for (1) a natural attenuation scenario, and (2) a 90% source removal scenario. NAS predictions are summarized in Table B-2. The model input and output files are presented in Attachment B1.

5.1 PENTACHLOROPHENOL PLUME ATTENUATION

The plume of PCP shown on Figure B-2 appears to originate from the source area near well KPT-2, in which PCP was detected at maximum concentration of 16,300 µg/L. Monitoring well KPT-2 is located upgradient of the KPT facility ozonation system that has been in full-scale operation since 2004. Definition of the PCP plume does not explicitly account for potential effects of ozonation system, but emphasizes the concentrations that remain to be treated.

The redox conditions along the centerline of the plume appear to range from aerobic to anaerobic (Tetra Tech 2007). Based on available data the redox conditions were classified as suboxic and sulfate reducing. Conditions near deep well KRY129B appear to be aerobic and were classified as suboxic. Figure B-5 presents the distribution of concentrations of PCP and redox zonation along the centerline of the plume. The PCP concentration in well KRY129B is higher than concentrations in monitoring wells located closer to the source. Although this well is a deep well, it was included in the analysis to generate a conservative depiction of the dissolved PCP plume profile.

The computed retardation factor for PCP was 65.82, indicating a significant level of retardation in the movement of PCP relative to the movement of groundwater at the KRY Site. The groundwater seepage velocity corresponding to the average hydraulic conductivity (50 feet/day) is 416 feet/year. Based on the chemical retardation factor, the predicted average rate of movement of PCP in the aquifer is 6.3 feet/year. Using the high estimate of hydraulic conductivity (326 feet/day), the corresponding rate of movement PCP in the aquifer is approximately 41 feet/year. The KRY Site history (Tetra Tech 2007) indicates the maximum age of the PCP plume appears to be on the order of 60 years. The detection of PCP in KRY129B, approximately 1900 feet from the apparent source area, may reflect the presence of aquifer sediments in the range the high estimate of aquifer hydraulic conductivity (326 feet/day). Neglecting biodegradation, dissolved PCP traveling at a rate of 6.3 feet/year (average estimate) is expected to migrate approximately 382 feet in 60 years. Using the high estimate of hydraulic conductivity, dissolved PCP moving at a rate of 41 feet/year is expected to migrate approximately 2470 feet in 60 years.

The regression line fit by NAS to the measured aqueous PCP concentrations indicated a plume length of 1,763 feet. The PCP plume attenuation time was determined by reducing the source

concentration from 16,300 µL to 1.0 µL, and determining the time at which all predicted plume concentrations fell below 1.0 µg/L. Based on the analysis of the movement of PCP described above, the high value of hydraulic conductivity (326 feet/day) was modeled. The NAS modeling indicated that approximately 5 years were required for the entire plume to fall below 1.0 µL (Figure B-6) following the source reduction. However, the length of the existing plume, and the retardation factor for PCP appears to dictate a plume attenuation time greater than 5 years. This condition was communicated to the developers of NAS, and a potential error in the equations predicting transient plume behavior was identified (Mendez, 2007). Plume attenuation time estimates were generated using ATRANS (Neville, 2005) and checked using the numerical model VS2DT (Healy, 1990). ATRANS generates analytical solutions for three-dimensional solute transport, simulating the same fate and transport processes as NAS. VS2DT simulates solute transport in variably-saturated media using the numerical method of finite differences. A comparison of PCP plume attenuation predictions generated by ATRANS and VS2DT indicated that the results were nearly identical.

ATRANS model predictions indicate a plume attenuation time of approximately 40 years following the source concentration reduction (Figure B-7). These results indicate a significant time frame between source remediation and plume compliance for PCP. This result reflects a high degree of PCP partitioning to the soil matrix, which is a function of the soil organic carbon content and the PCP organic carbon-water partitioning coefficient. Assuming that chemical partitioning to soils is reversible, the PCP sorbed to aquifer sediments throughout the plume footprint is available to desorb and impact water quality when source area concentrations are reduced.

The RI results indicate that a limited number of samples were analyzed for organic carbon content. As chemical partitioning to organic carbon appears to be a significant factor in determining chemical retardation and plume attenuation times, additional data characterizing the organic carbon content of the aquifer is desirable.

5.2 PENTACHLOROPHENOL NAPL SOURCE ATTENUATION

The time of NAPL dissolution is treated by NAS as the time required to lower the dissolved phase contaminants to below the cleanup level at the downgradient edge of the NAPL source. The NAPL source zone was modeled as 200 feet in length and width, and 10 feet in thickness. The mass of PCP in the source was estimated as 1070 Kg. Source dimensions and the source mass were estimated using PCP soil concentrations from reported from the Kalispell Pole and Timber facility (Tetra Tech 2007).

Two NAPL source management plans were simulated, consisting of 0 and 90 percent engineered mass removal. NAS model predictions were generated for low, average, and high groundwater velocities. The predicted time of remediation for the NAPL source area was 91 years for the average groundwater velocity, and approximately 14 years for the high groundwater velocity case. More than 100 years were required for source zone attenuation for the low groundwater velocity case (see Table B-2).

Model results indicated similar remediation time frames when 90 percent of the PCP was assumed to be removed by engineered remediation. In this case, 107 Kg were modeled over the same source dimensions as the natural attenuation scenario (200 x 200 x 10 feet). Overall, the modeling results indicate the presence of two primary issues affecting facility-wide compliance with PCP water quality standards. The NAS plume attenuation modeling indicates extended plume compliance times following source remediation. The partitioning behavior of PCP and the modeling results indicate that PCP sorbed to aquifer sediments may continue to impact the groundwater when the source areas are remediated. The NAPL source attenuation modeling results indicate that incomplete NAPL source removal does not provide significant improvement in source well concentrations for the conditions simulated. It should be noted that these results reflect a screening-level analysis, and a more rigorous modeling approach may be appropriate to model mass transfer from NAPL sources. The uncertainty inherent to the plume attenuation model predictions may be reduced through the additional characterization of aquifer organic carbon, and additional groundwater monitoring to determine if the PCP plume appears to have achieved a steady state condition.

5.3 DIOXINS AND FURANS

Dioxins and furans as TCDD were detected in all groundwater samples at maximum concentrations that exceeded the screening criteria. Dioxins and furans were detected in samples from 18 monitoring wells located in the upper portion of the unconfined aquifer and eight monitoring wells located in the lower portion of the unconfined aquifer.

Calculated TCDD values range from 2.7 pg/L to 1,346 pg/L. All TCDD results were above DEQ-7 screening criteria of 2.0 pg/L. Background concentrations of TCDD were measured in upgradient monitoring well KRY101A which had a detection of 5.58 pg/L. TCDD results in the upper and lower portions of the unconfined aquifer are shown in Figure B-3. The highest concentrations of TCDD within the upper portion of the unconfined aquifer are located within and immediately downgradient of the KPT treatment area, indicating that the KPT facility is the primary source area for dioxins and furans in groundwater. The approximate extent of groundwater with elevated concentrations of dioxins and furans above background concentrations is identified on Figure B-3.

The TCDD plume identified for modeling (see Figure B-3) originates near well KPT-3 which exhibiting the highest TCDD value (1,346 pg/L), and extends to well KRY129B in the southeast direction. The magnitude and distribution of concentrations of dioxins and furans in groundwater do not suggest a source of NAPL, therefore a mass of NAPL was not specified for this plume in the model.

The TCDD plume is approximately 1,950 feet long, 500 feet wide, and 10 feet thick. Based on available data, the redox conditions along the centerline of the plume are best described as suboxic near the apparent source area and as sulfate reducing throughout the remaining portion of the plume (Figure B-8). The regression line fit by NAS to the measured data indicated a plume length of 1980 feet. The regression line shown on Figure B-8 conservatively describes the declining concentrations in the zone of sulfate reduction. This combination was found to best

fit the TCDD concentrations along the centerline of the plume and provides conservatively low estimates of the biodegradation rates.

Because of a very strong sorption to organic carbon in aquifer materials, dissolved TCDD is not mobile in groundwater. The retardation factor computed by NAS was 233,373. Using the high hydraulic conductivity estimate, the predicted rate of movement of TCDD in the aquifer is less than one inch per year. This result indicates that dissolved dioxins are effectively immobile in the aquifer. However, the field data indicate the presence of a TCDD plume. This condition may be attributable to facilitated transport of TCDD by colloidal particles or NAPLs, or may reflect a reduction in TCDD partitioning to aquifer organic carbon due to the presence of NAPLs. The predicted average time of plume compliance following source remediation is well over 100 years (Figure B-9). It should be emphasized that the results characterize the behavior of a dissolved TCDD plume, and facilitated TCDD transport is not simulated.

6.0 VS2DT MODELING OF PCP SOURCES

VS2DT modeling was performed to evaluate the effect of PCP leaching from vadose zone soils on plume attenuation time frames. A total of three scenarios were modeled, which differed in the initial distribution of the PCP. The base case defined a PCP source area in both the vadose zone and the upper saturated zone. Source concentrations were defined using the soil concentrations reported in the RI, and extended from 2 to 30 feet bgs. In the second case, the effect of PCP leaching from the vadose zone was evaluated by removing the contaminated aquifer source from the model. In this case, contaminated soils were modeled from 2 to 21 feet bgs. In the third case, the vadose zone contamination was removed, and the plume resulting from PCP contamination in the aquifer from 21 to 30 feet bgs was simulated. A comparison of model predictions allows the timing and magnitude of the PCP plumes in the aquifer to be related to the individual vadose and saturated zone source areas.

6.1 MODEL PARAMETERS AND SETUP

The model domain was a vertical a cross-section with dimensions 2,000 feet horizontal by 100 feet vertical. The vadose zone was represented in the upper 21 feet of the model, and the remaining 79 feet of the model domain represented the aquifer. The hydraulic conductivity, hydraulic gradient, and porosity were set to achieve the average seepage velocity of 1.14 feet/day. The soil partitioning parameters were set to reproduce the retardation factor of 65.82 used in the NAS/ATRANS modeling. VS2DT model parameters are summarized in Table B-3.

Three subsurface soil concentration intervals were represented based on PCP soil data from the RI. Soils between 2 and 10 feet bgs were modeled with a concentration of 5 mg/kg PCP; soils from 10 to 20 feet bgs contained 24 mg/kg PCP, and soils from 20 to 30 feet bgs contained 220 mg/kg PCP. These concentrations were converted to aqueous concentrations in model units of g/ft^3 for the initial condition applied to the VS2DT models. The length of the zone of soils impacted with PCP was 400 feet, extending from 200 to 600 feet in the model domain. A constant flux boundary of 3.5 inches per year was applied to the top of the model domain to represent infiltration. Constant head boundaries were assigned to the lower portion of the sides

of the domain to represent saturated flow in the aquifer. Model simulations were run for a period of 200 years. Predicted concentrations throughout the model domain were compared to the PCP water quality standard at elapsed times of 10, 50, 100, 150, and 200 years.

6.2 MODEL RESULTS

The base case simulation (Figure B-10) simulates the PCP source in both the vadose zone and saturated zone. Model results indicate that groundwater concentrations across the plume fall below 1 μ/L between the 150 and 200 year output times. This result may be compared to the NAPL dissolution timeframe of 91 years predicted by NAS. The VS2DT simulation results differ from the NAS NAPL dissolution modeling in that the contaminated PCP source area is larger, and represents all soils impacted above soil screening levels. In addition, the simulated processes in the models differ; the VS2DT modeling did not simulate NAPL dissolution. Figure B-10 illustrates the evolution of PCP concentrations along the top of the modeled aquifer. Source concentrations were modeled using the RI data, so model results provide a depiction of the natural attenuation of PCP present in the vadose zone and saturated zone in the absence of engineered remediation.

The second scenario modeled investigates the magnitude and timing of PCP contamination of the aquifer resulting only from vadose zone leaching. As indicated in Figure B-11, lower concentrations are predicted in comparison to the base case, which includes the PCP source in the aquifer. However, the predicted PCP concentrations along the top of the aquifer remain above 1 μ/L for a period of time exceeding 100 years. The third scenario (Figure B-12) simulates the case in which the PCP source is limited to the aquifer. A comparison of Figures B-10 and B-12 reveals similar magnitude and timing of the predicted PCP plumes along the top of the aquifer. These results indicate that the PCP contamination present in the aquifer provides the major source of groundwater contamination. These results indicate that modeling programs such as NAS and ATRANS, which do not simulate vadose zone leaching, may provide useful predictions regarding site management alternatives. However, it should be emphasized that the VS2DT results indicate chemical leaching from the vadose zone will impact groundwater above the DEQ water quality target based on the current PCP concentrations.

7.0 SENSITIVITY ANALYSIS

[TO BE PROVIDED AT A LATER DATE]

8.0 CONCLUSIONS

Results of groundwater modeling at the KRY Site are summarized below.

PCP plume attenuation modeling results indicated that approximately 40 years is required for the plume to attenuate when the source concentrations are treated to water quality standards by in-situ technologies. This estimate is based on the high estimate of aquifer hydraulic conductivity of 326 feet/year at the KRY Site. The detection of PCP in well KRY-129B, combined with the partitioning behavior of PCP, indicate that the presence of these high conductivity sediments may be significant in affecting the movement of chemicals at the KRY Site. The modeling indicates that sorbed PCP may act as a source of groundwater contamination when the primary sources of PCP is remediated. Given these results, it may be appropriate to consider the PCP sorbed to the aquifer within the plume footprint as a source of PCP contamination, and factor this condition into the evaluation and design of the remediation technologies.

TCDD partitioning properties indicate this chemical is highly sorbed to aquifer organic carbon. Plume attenuation modeling results indicated that a time frame on the order of centuries is required for the plume to attenuate when the source concentrations are treated to water quality standards by in-situ technologies. These results indicate that a proposed remediation method may have to consider the entire plume of TCDD as the source area.

The predicted time for the PCP NAPL to dissolve ranged from 14 to over 100 years, depending on the modeled hydraulic conductivity of the aquifer. NAS modeling results indicated partial NAPL removal did not result in significant reductions in source compliance times. It may be appropriate to evaluate this result using additional analytical methods, given the complexity inherent to mass transfer from NAPLs to groundwater.

Numerical modeling of fate and transport PCP indicated that the PCP contamination present in the aquifer provides the primary source of the dissolved PCP plume. However, model results indicated that PCP present in the vadose zone also will impact groundwater quality over an extended time frame if vadose zone PCP concentrations are not reduced.

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TABLE B-1: MODEL SETUP DATA

Draft, Appendix B, FS, KRY Site, Kalispell, Montana

Parameter	Value[a]		
	Min	Average	Max
PCP NAPL thickness in source zone (feet)		10	
Hydraulic conductivity (feet/day)	17	50	326
Hydraulic gradient (feet/feet)	--	0.0057	--
Effective aquifer porosity (unitless)	--	0.25	--
Groundwater seepage velocity (feet/day)	0.4	1.1	7.4
Fraction organic carbon (unitless)	0.024	0.021	0.018

Note:

[a] Source: Tetra Tech 2007. Draft Final Remedial Investigation Report: Kalispell Pole and Timber, Reliance Refinery, and Yale Oil Facilities. January.

TABLE B-3: VS2DT PCP SOURCE MODEL PARAMETERS

Draft, Appendix B, FS, KRY Site, Kalispell, Montana

General Model Parameters	
Model Units	foot day gram
Domain width [ft]	2000
Domain thickness [ft]	100
Vadose zone thickness [ft]	21
Saturated zone thickness [ft]	79
Number of model cells - horizontal	167
Number of model cells - vertical	57
Grid spacing - horizontal [ft]	10 - 20
Grid spacing - vertical [ft]	0.1 - 5.0
Hydraulic Characteristic Function	Van Genuchten
Adsorption	Linear isotherm
Closure criteria for head [ft]	1.00E-07
Closure criteria for concentration [g/ft^3]	1.00E-07
Porous Media Parameters	
Hydraulic Conductivity Anisotropy [Kh/Kz]	1.0
Specific Storage [1/ft]	1.00E-10
Porosity [ft^3/ft^3]	0.25
VG alpha parameter [1/ft]	1.31
VG beta parameter [unitless]	3.1
Soil density [g/ft^3]	62288
Hydraulic conductivity [ft/d]	1000
Groundwater gradient [ft/ft]	2.85E-04
Groundwater velocity [ft/d]	1.14
Vadose Zone Longitudinal Dispersivity [ft]	1.0
Vadose Zone Transverse Dispersivity [ft]	0.1
Aquifer Longitudinal Dispersivity [ft]	15
Aquifer Transverse Dispersivity [ft]	0.15
Hydrologic Parameters	
Number of recharge periods	1
Time step multiplier	1.1
Maximum Time step [d]	30
Minimum Time step [d]	1.00E-09
Maximum height of ponding [ft]	0
Specified total head boundary-upgradient [ft]	-20.43
Specified total head boundary-downgradient [ft]	-21
Specified flux - infiltration boundary [ft/d]	8.08E-04
PCP Chemical Parameters	
Partitioning Coefficient Kd [ft^3/g]	2.60E-04
Coeficient of molecular diffusion [ft^2/d]	5.67E-04
Decay constant [1/d]	1.40E-04

TABLE B-2: PREDICTED TIMES OF PLUME AND SOURCE ATTENTUATION

Draft, Appendix B, FS, KRY Site, Kalispell, Montana

Groundwater Plume	Max Concentration in the Plume[a]	Plume Length[b] Measured/Model Estimated (feet)	Plume Width (feet)	NAPL-Contaminated Aquifer Thickness (feet)	Cleanup Level (μg/L)	Average Time of Plume Compliance if Source Concentrations Reduced[c] (years)	Time of Source Remediation by Natural Attenuation Only[d] (years)	Time of Remediation by Natural Attenuation If 90% Source Mass Removed[d] (years)
						Plume length = 1763 feet	Mass = 1070 kg	Mass = 107 kg
PCP	16,300 μg/L	2,150 (1,763)	600	10	1	40	11.8 – 91 – >100	11.7 – 90.5 – >100
						Plume length = 1980 feet	Mass = 0 kg	Mass = 0 kg
TCDD	1,346 pg/L	1,950 (1,980)	500	N/A	5.58	> 100	N/A	N/A

Notes:

[a] The concentration shown is before source removal and is the highest measured.

[b] Plume length and width are defined by the applicable criterion or ND contour in the plan view. The model predicts the plume length (shown in parentheses) based on estimated time of its stabilization.

[c] Times of plume stabilization are provided for a POC that is downgradient from the source area at a distance of approximately one third of the simulated plume length.

[d] Times of remediation are provided for maximum, average, and minimum groundwater velocities, respectively.

kg Kilogram
μg/L Micrograms per liter
PCP Pentachlorophenol
pg/L Picograms per liter
TCDD 2,3,7,8-Tetrachlordibenzo-p-dioxin

ATTACHMENT B1
NAS MODEL INPUT/OUTPUT

This attachment contains model output files in the following order:

Groundwater Plume	Number of Pages
PCP	2
TCDD	2

Notes:

PCP	Pentachlorophenol
TCDD	2,3,7,8-Tetrachlordibenzo-p-dioxin

ATTACHMENT B2
ATRANS MODEL INPUT/OUTPUT FOR PCP TRANSIENT PROFILES

ATTACHMENT B3
VS2DT MODEL INPUT/OUTPUT FOR PCP LEACHING SIMULATIONS

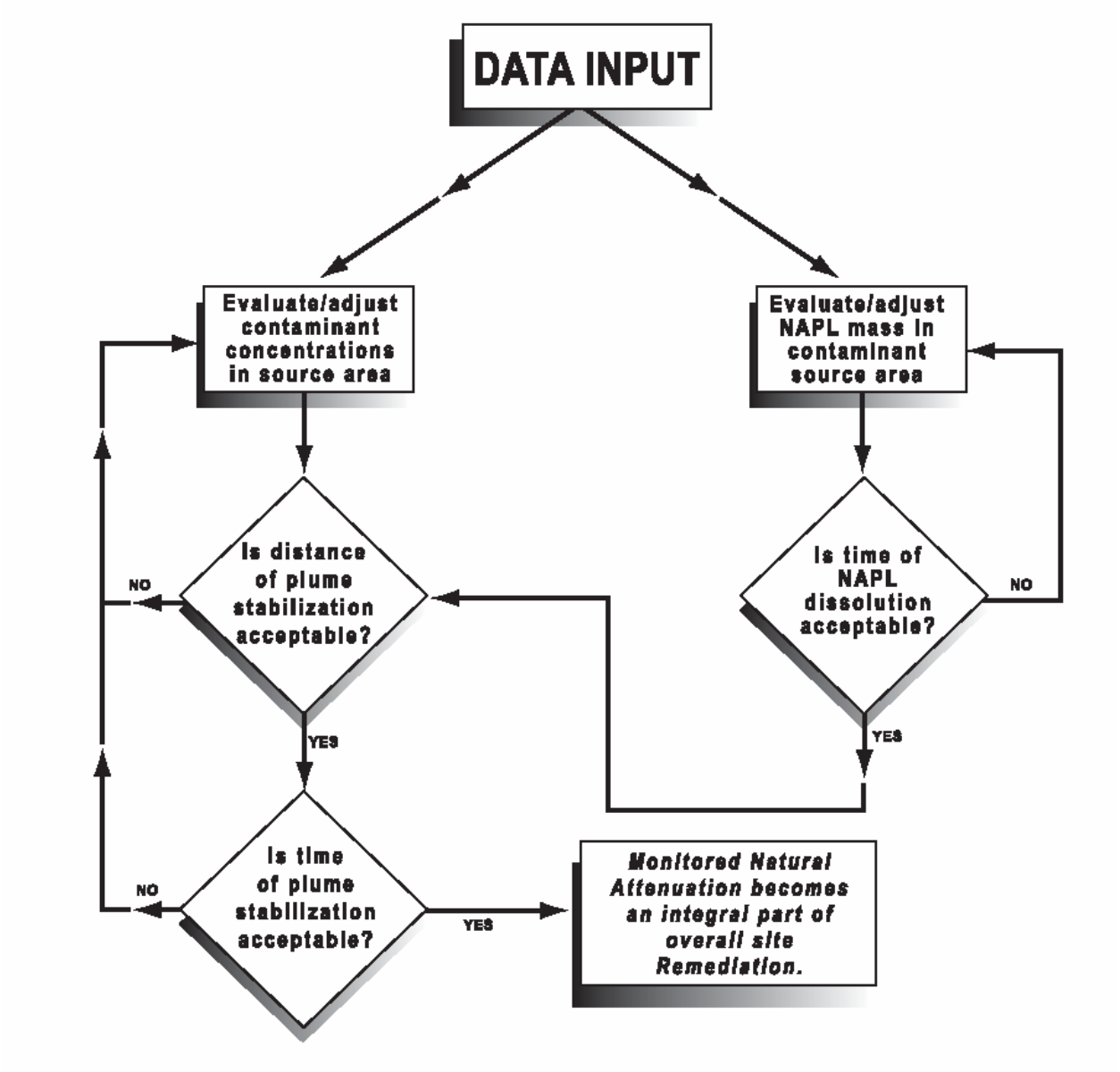

Figure B-4. Flowchart Showing NAS Application to Time of Remediation Problems

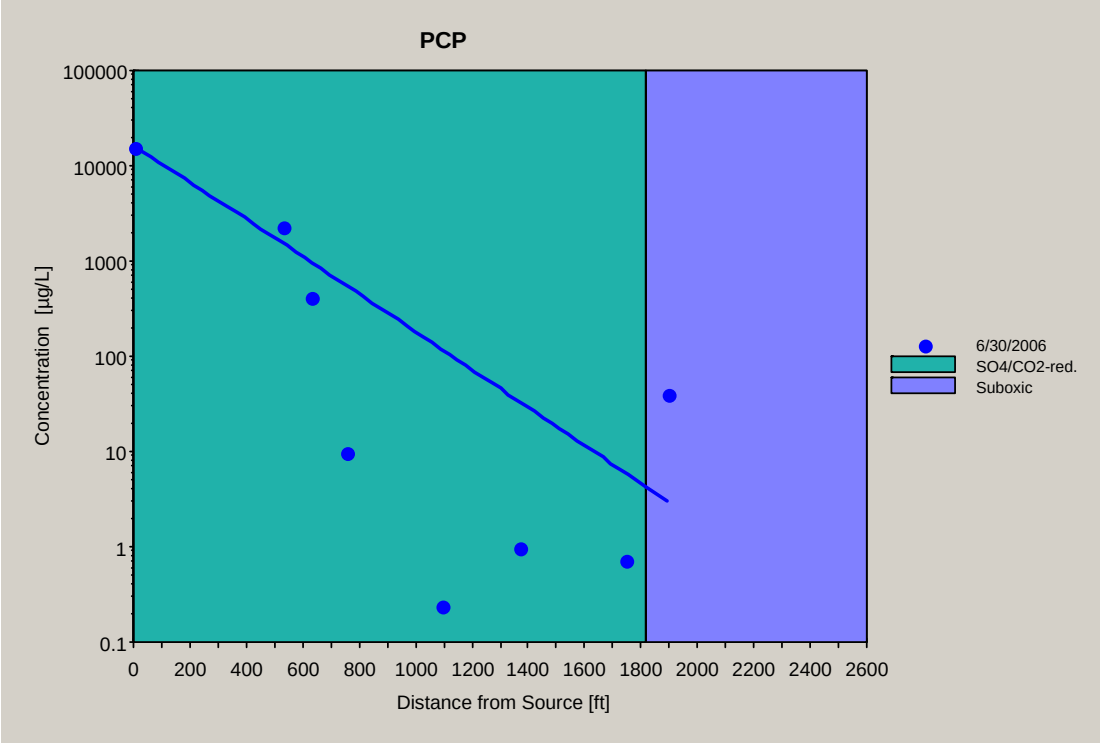

Figure B-5. Distribution of Pentachlorophenol Concentrations Along the Plume Centerline and Redox Zonation

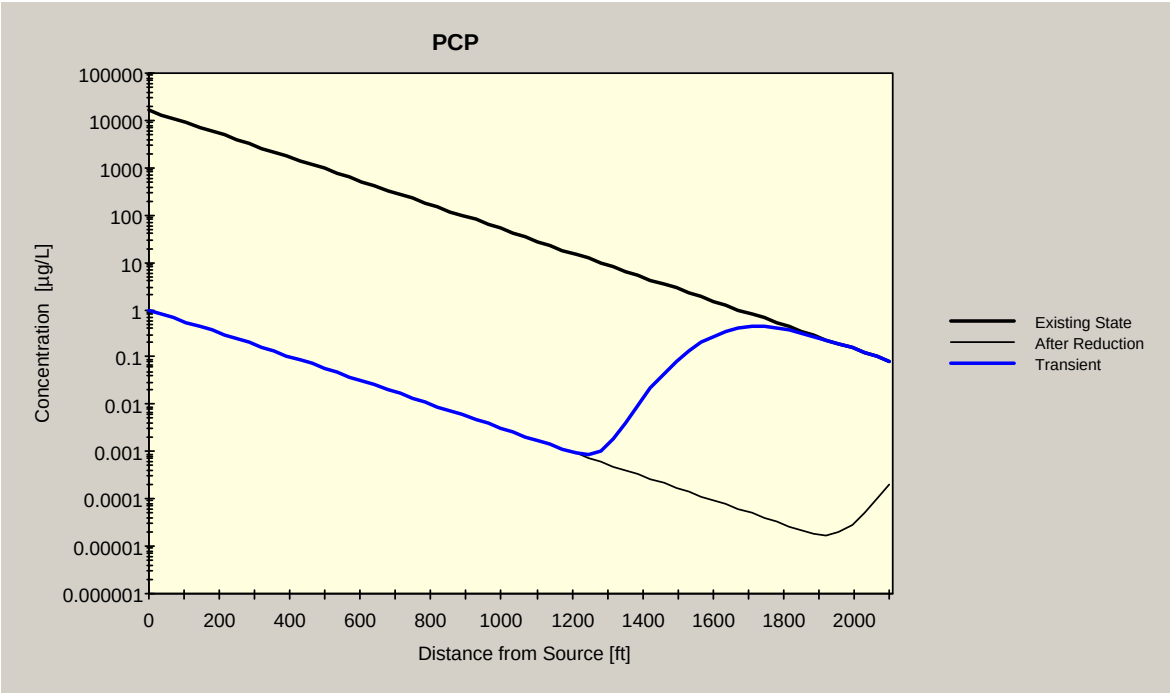

Figure B-6. NAS Predicted Pentachlorophenol Plume Profile 5 Years after Source Remediation

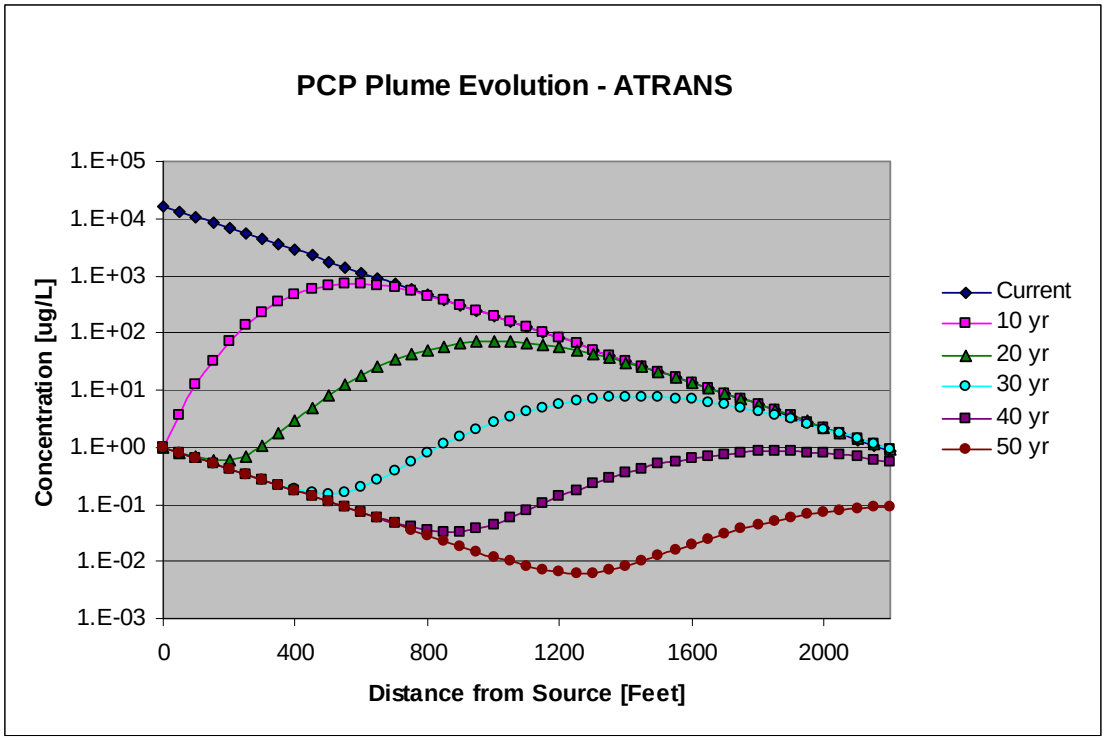

Figure B-7. Transient PCP Plume Profiles from ATRANS

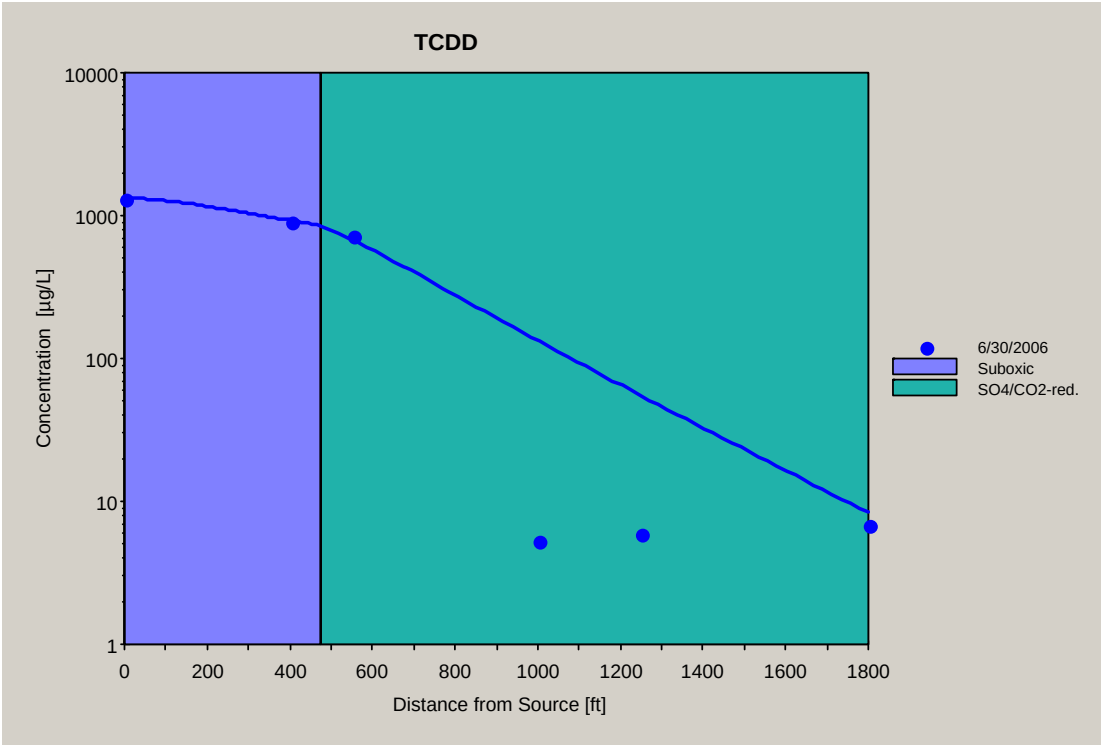

Figure B-8. Distribution of Dioxin and Furans Concentrations Along the Plume Centerline and Redox Zonation

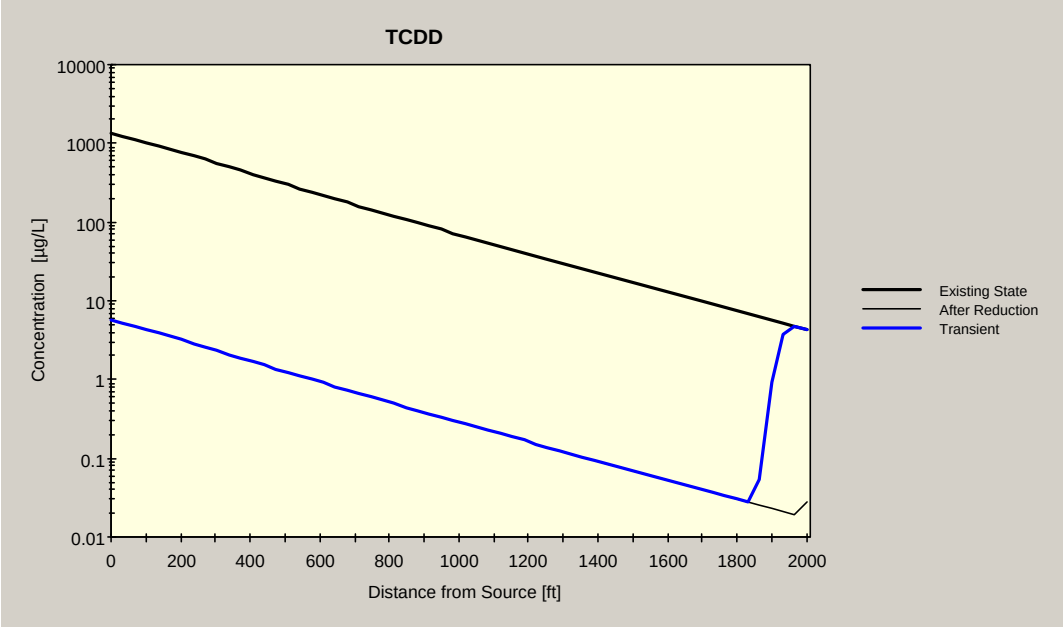

Figure B-9. NAS Predicted Dioxin and Furans Plume Profile 3800 Years after Source Remediation

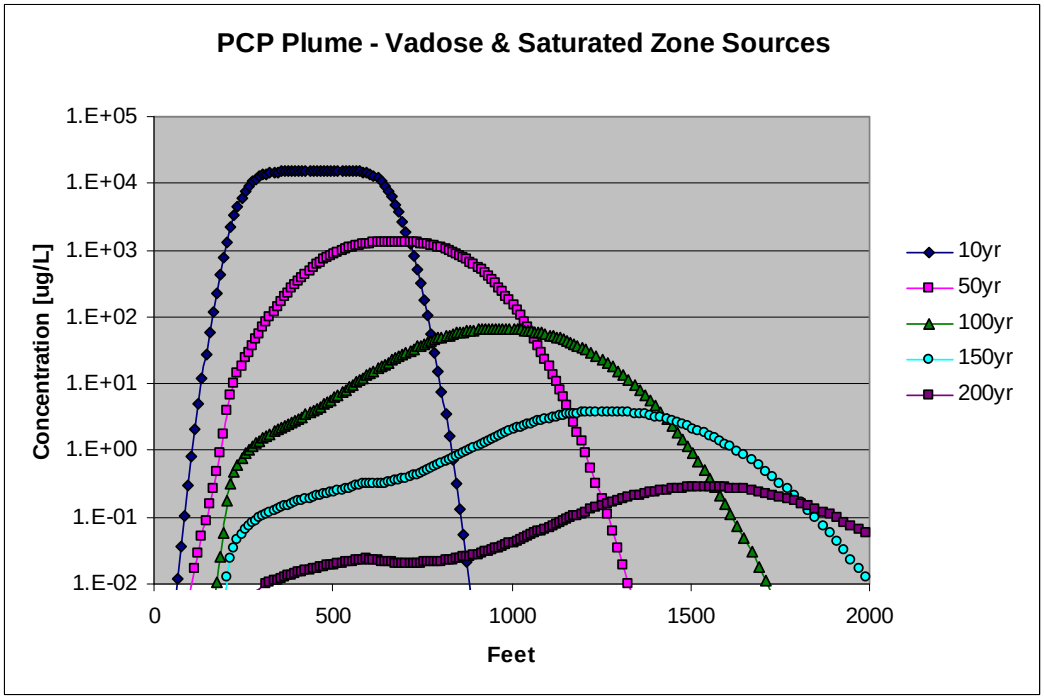

Figure B-10. PCP Concentrations at the Top of the Aquifer for Scenario 1

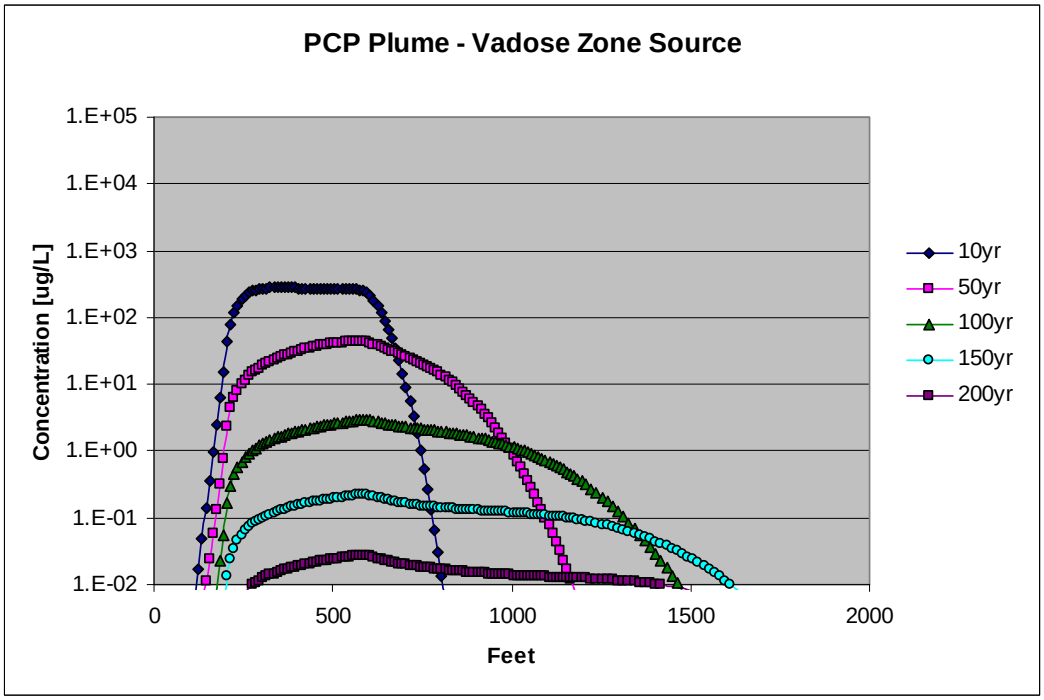

Figure B-11. PCP Concentrations at the Top of the Aquifer for Scenario 2

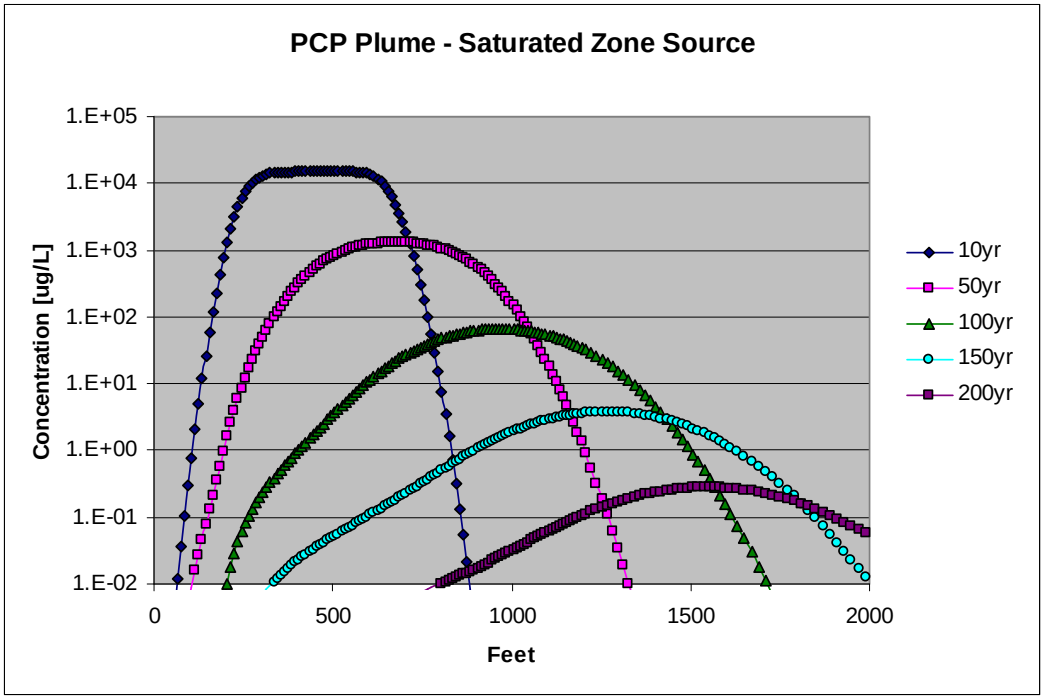

Figure B-12. PCP Concentrations at the Top of the Aquifer for Scenario 3

APPENDIX C

Risk Analysis

Date: April 1, 2008

To: Kalispell Pole & Timber, Reliance Refinery and Yale Oil Corporation Facility Files

From: Moriah Bucy, Project Officer

Subject: Risk Analysis Memo

The purpose of this memo is to provide documentation of DEQ's assessment of risks to human health and the environment at the above-referenced facilities (collectively referred to as the "KRY Site"). A traditional risk assessment is not planned for these facilities. Instead, DEQ has developed risk-based cleanup levels generally using the approach employed for the Missoula White Pine & Sash (MWPS) Facility in Missoula, Montana, including a qualitative evaluation of ecological risks. A site-specific fate and transport evaluation has also been conducted using data gathered during the Remedial Investigation.

CURRENT LAND USE:

Kalispell Pole & Timber Facility: The facility is currently zoned by Flathead County for heavy industrial uses. However, this zoning also allows some residential use. Two industrial businesses currently operate within the facility boundaries: Klingler Lumber, a small pole/sawmill operation, and Glacier Stone, a rock cutting operation. A large portion of the facility is vacant and the former treatment area is fenced on three sides to limit access. BNSF Railway Company has an ozonation system injecting ozone into the subsurface in one vacant area of the facility, which limits the usability of that portion of the property.

Reliance Refinery Facility: The facility is currently zoned by Flathead County for heavy industrial uses, which also allows some residential use. The facility is vacant and a large portion of the land surface has been fenced to control access.

Yale Oil Corporation Facility: The facility is currently zoned by Flathead County for commercial business uses, which also allows some residential use. Cleanup was undertaken in the early 1990s to address contaminated soils on the facility so that the property could be put back into use. A large retail store, Office Max, with associated parking lot and landscaped areas currently occupies the facility.

FUTURE LAND USE:

In the future, land use at the KRY Site is likely to remain unchanged. There are other heavy industrial operations in the vicinity and while there is some residential use of the property, the

availability of other residential building sites in the Evergreen area makes additional residential-use at the KRY Site unlikely. DEQ must look at the factors specified in § 75-10-701(18), Montana Code Annotated (MCA) to evaluate future use. Therefore, DEQ considered local land and resource use regulations, ordinances, restrictions, or covenants; historical and anticipated uses of the Site, patterns of development in the immediate area; and relevant indications of anticipated land use from the property owners and local planning officials. Based upon this evaluation, DEQ has determined that, while the residential property at the Site will continue to be used for residential purposes, commercial/industrial uses are the reasonably anticipated future uses for the remainder of the KRY Site. DEQ will require that institutional controls prohibiting other uses be placed on these properties. DEQ will only calculate residential cleanup levels for contamination of properties currently in residential use.

SIMILARITIES AND DIFFERENCES BETWEEN THE KRY SITE AND THE MISSOULA WHITE PINE SASH FACILITY:

As stated above, DEQ has developed risk-based cleanup levels for the KRY Site using the general approach employed at the MWPS Facility. DEQ chose this approach because of the similarities between the KRY Site and the MWPS Facility.

Contamination: Both the KRY Site and MWPS have pentachlorophenol, 2,3,7,8-tetrachlorodibenzo(p)dioxin (2,3,7,8-TCDD) (toxicity equivalence quotient - TEQ) (referred to as dioxins/furans throughout the rest of this memo), and petroleum contamination in soils and groundwater. However, the KRY Site has additional contaminants that required modification of the general approach used at MWPS.

Geology and Hydrogeology: Both the KRY Site and MWPS have very transmissive aquifers and perched groundwater layers.

Demographics: Both facilities are bordered by a mix of industrial and residential properties. There are no schools or daycare centers located within close proximity to the KRY Site. Therefore, for the most part, the potential receptors and exposure pathways are the same for the KRY Site and MWPS. However, while current residential property is likely to remain residential, there is no anticipated additional future residential use or, with the potential exception of the Stillwater River, future recreational use of the KRY Site.

Climate: The facilities have very similar climates with nearly identical average and extreme temperatures. Precipitation patterns are also very similar with the wettest months being May and June.

Ecology: Both facilities are located in an urban industrial/residential area and are unlikely to support or significantly impact any ecological resources either currently or in the future. There is nothing about the KRY Site which would cause wildlife to visit the area preferentially and the level of human activity on or near the KRY Site is likely to discourage significant usage by wildlife, although an occasional deer or other large mammal may cross the site.

SITE CONCEPTUAL EXPOSURE MODEL:

The complete Site Conceptual Exposure Model is attached (Figure 1) and a list of the populations that could theoretically be exposed to contaminants from the KRY Site is provided below. Please see the MWPS Facility Final Baseline Risk Assessment (DEQ, 2001) for a more detailed analysis of these receptors and exposure pathways.

- Future residents
- Current residents
- Current and future commercial/industrial workers
- Current and future trespassers
- Future construction workers
- Current and future Stillwater River recreators
- Current and future ecological receptors.

Potential exposure pathways for these populations include:

- Incidental ingestion of surface soil
- Dermal contact with surface soil
- Incidental ingestion of subsurface soil
- Dermal contact with subsurface soil
- Inhalation of dust
- Ingestion of produce grown in contaminated soil
- Ingestion of groundwater
- Dermal contact with groundwater
- Inhalation of volatiles during use of groundwater
- Inhalation of volatiles released from subsurface soil and groundwater into indoor air
- Ingestion of breast milk
- Incidental ingestion of surface water in the Stillwater River
- Dermal contact with surface water in the Stillwater River.

DETERMINATION OF CONTAMINANTS OF CONCERN:

DEQ determined which contaminants of concern (COCs) should be retained from the list of contaminants of potential concern (COPCs) presented in the Final Draft Remedial Investigation Report (Tetra Tech, 2007). As stated above, the primary COCs for the KRY Site are pentachlorophenol, dioxins/furans, and petroleum. The following sections provide the other COCs for the Site. Tables 1-3 provide the rationale for retaining or eliminating all the COPCs presented in the RI.

DEQ employs a hierarchy of conservative, generic screening levels in determining COCs for both soil and groundwater. For soils, DEQ starts with the revised risk-based screening levels (RBSLs) that will be in the Montana Tier 1 Risk-Based Corrective Action Guidance for Petroleum Releases (RBCA) (DEQ, 2007a) because the RBSLs have been developed considering leaching to groundwater, direct contact, and other factors. DEQ will update RBCA in the near

future because some of the toxicity information for the compounds reflected in RBCA has changed. DEQ has also noted that other changes to RBCA are also appropriate. DEQ has chosen to utilize this newer information for screening of the COPC list to ensure that there is no need to revise the list once RBCA is changed. Additionally, for soils, DEQ has chosen to use the direct contact and leaching RBSLs from the Master Table of All Potential Tier 1 RBSLs for Soil in the RBCA guidance. This table shows the various RBSLs calculated for different purposes, unlike Tables 1 and 2 from within the RBCA Guidance, which only show the most conservative RBSLs. All of the tables showing the revised RBSLs are included as Appendix A. Based upon the Site hydrogeology, DEQ compared KRY Site concentrations to the RBSLs for soils where groundwater is 10 to 20 feet below ground surface. DEQ did not utilize the RBSLs calculated for beneficial use, as they are a reflection of aesthetic properties of soils (e.g., appearance and odor) and at this point, DEQ's focus is on risk.

For compounds without soil RBSLs, DEQ compares concentrations to the EPA Region 9 Preliminary Remediation Goals (PRGs) (EPA9, 2004). For carcinogens, this comparison is made directly with the PRG since the PRGs are based upon a 1×10^{-6} risk level, thus ensuring that the total cumulative risk for a facility will not exceed 1×10^{-5}. For noncarcinogens, DEQ compares soil concentrations to the PRG adjusted by dividing by 10. This ensures that the total hazard quotient for a facility will not exceed 1. For metals and dioxins/furans, DEQ may also consider background concentrations. For arsenic, DEQ has prepared a guidance document entitled "Action Level for Arsenic in Surface Soil" (DEQ, 2005) which provides a screening level of 40 milligrams per kilogram (mg/kg) for arsenic surface soil with unrestricted use. In addition, for compounds without RBSLs, DEQ compares concentrations to the EPA soil screening levels (SSLs) for leaching to groundwater with a dilution attenuation factor of 10. These SSLs are also included in the Region 9 PRG table.

For groundwater screening purposes, DEQ begins with a comparison of site-specific concentrations to Montana numeric water quality (DEQ-7) standards (DEQ, 2006). If no standards exist for a compound, DEQ compares the concentration to the Region 9 tap water PRG (EPA9, 2004). The petroleum fractions have RBSLs that are included in RBCA and these are used for screening groundwater concentrations. Finally, volatile contaminant concentrations are compared to the screening levels in the 1×10^{-6} table of the EPA November 2002 Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance) (EPA, 2002a) to determine COCs for this pathway.

DEQ-7 human health surface water and aquatic life standards are used for screening surface water concentrations and background concentrations are also taken into account.

For sediment screening, DEQ uses Washington State Department of Ecology Freshwater Sediment Quality Values (WA, 1997) or background concentrations.

***Commercial/Industrial Surface Soil*:**

The following are the COCs for commercial/industrial surface soils for direct contact and leaching to groundwater. The COCs for direct contact are divided into carcinogens and noncarcinogens based upon their toxicity.

Direct Contact - Carcinogens

- Dioxins/furans
- Pentachlorophenol
- Arsenic
- Benz(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene

Direct Contact - Noncarcinogens

- Aluminum
- C11-C22 Aromatics
- C9-C18 Aliphatics
- Iron
- Lead

Leaching to Groundwater

- Benz(a)anthracene
- Benzo(a)pyrene
- C11-C22 Aromatics
- Chromium
- Methylene chloride
- Pentachlorophenol

***Residential Surface Soil*:**

The only COCs detected in residential soil were dioxins/furans in surface soil. DEQ has developed a cleanup level for residential direct contact with dioxins/furans in surface soil. DEQ does not consider the dioxins/furans in surface or subsurface soil at the KRY Site to currently be leaching to groundwater in the absence of carrier compounds. Therefore, DEQ did not develop a cleanup level for dioxins/furans leaching to groundwater from surface soil.

Subsurface Soil:

The following are the COCs for subsurface soil for direct contact and leaching to groundwater. The COCs for direct contact are divided into carcinogens and noncarcinogens based upon their toxicity.

Direct Contact - Carcinogens

- Dioxins/furans
- Pentachlorophenol
- Carbazole
- Arsenic
- Benz(a)anthracene
- Benzo(a)pyrene

Direct Contact - Noncarcinogens

- 2-Methylnaphthalene
- Aluminum
- C11-C22 Aromatics
- C19-C36 Aliphatics
- C5-C8 Aliphatics
- C9-C12 Aliphatics
- C9-C18 Aliphatics
- Iron
- Lead
- Naphthalene
- Xylenes

Leaching to Groundwater

- Acenaphthene
- Benz(a)anthracene
- Carbazole
- C11-C22 Aromatics
- C5-C8 Aliphatics
- C9-C10 Aromatics
- C9-C18 Aliphatics
- Chromium
- Ethylbenzene
- Fluorene
- Naphthalene
- Pentachlorophenol
- Selenium
- Toluene

Groundwater:

The following are the COCs for groundwater. The COCs are divided into COCs with DEQ-7 human health standards that will be the cleanup levels, COCs without DEQ-7 human health standards for which RBSLs or unadjusted tap water PRGs will be the cleanup levels, and COCs

that will be evaluated for volatilization to indoor air. The DEQ-7 standards are equal to or are more protective than the EPA Safe Drinking Water Standards.

COCs With DEQ-7 Human Health Standards

- Dioxins/furans
- Pentachlorophenol
- Arsenic
- Benzene
- Ethylbenzene
- Iron
- Manganese
- Naphthalene
- Toluene

COCs Without DEQ-7 Human Health Standards

- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethlybenzene
- C11-C22 Aromatics
- C5-C8 Aliphatics
- C9-C10 Aromatics
- C9-C12 Aliphatics
- n-Butylbenzene

Vapor Intrusion to Indoor Air

- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethlybenzene
- Naphthalene

Surface Water and Sediments:

Only dioxins/furans (TEQ – WHO 1998) were detected in surface water at levels exceeding screening levels and background concentrations throughout the reach of the river adjacent to the KRY Site. DEQ-7 standards require that levels of this compound not exceed 0.05 pg/L (ppq). However, a background sample was collected and the concentration was 5.83 pg/L. In co-located sediment samples, the background sample had the highest concentrations of all detected compounds. Dioxins/furans generally adhere strongly to soils and would be expected to be found in sediments at similar concentrations to those detected in surface water, but were not. Therefore, for this reason, and because there were a limited number of surface water/sediment samples analyzed for dioxins/furans, DEQ intends to conduct additional sampling before determining if the Stillwater River surface water and/or sediments will require cleanup due to dioxin/furan contamination. Should they be needed, cleanup levels for dioxins/furans in surface water would be the DEQ-7 standards for surface water or background concentrations. Cleanup

levels for dioxins/furans in sediments could be the Washington State Department of Ecology Freshwater Sediment Quality Values (WA, 1997) that DEQ typically uses, site-specific risk-based cleanup levels, or background concentrations.

EVALUATION OF RECEPTORS AND PATHWAYS:

The following section provides DEQ's rationale for evaluating each receptor and pathway either qualitatively or quantitatively.

- Future residents: As stated previously, DEQ has conducted an evaluation of reasonably anticipated future usage of the KRY Site and determined that to be commercial/industrial use, with the exception of properties currently in residential use. DEQ will require institutional controls to prohibit other uses and therefore, will not develop soil cleanup levels for future residents. Since DEQ-7 water quality standards apply and since groundwater in the area is used as a drinking water source, groundwater cleanup levels will primarily be based upon DEQ-7 standards and will assume unrestricted groundwater usage. For COCs for which no DEQ-7 standards exist, the screening levels provided above will be used as the cleanup levels.

- Current residents: Based upon the nature and extent of contamination at the KRY Site, these receptors could potentially be exposed to contaminants via incidental ingestion of surface soil; dermal contact with surface soil; inhalation of dust; ingestion of produce grown in contaminated soil; ingestion of groundwater; dermal contact with groundwater; ingestion of breast milk; incidental ingestion of surface water in the Stillwater River; and dermal contact with surface water in the Stillwater River.

  As stated previously, dioxins/furans are the only COCs from the KRY Site for residential soil and they were found in surface soil. DEQ calculated a cleanup level for dioxins/furans based on residential exposure via incidental ingestion of surface soil; dermal contact with surface soil; and inhalation of dust.

  Ingestion of produce grown in contaminated soil and ingestion of breast milk were thoroughly evaluated in the MWPS Facility Baseline Risk Assessment (DEQ, 2001) and the results of the evaluation can be extrapolated to the KRY Site.

  Dioxin/furan concentrations in yard/garden soil at MWPS ranged from non-detect at some locations to 330 ng/kg in yard soil and 164 ng/kg in garden soil at one location. Pentachlorophenol concentrations in yard/garden soil ranged from non-detect at some locations to 111 micrograms per kilograms (ug/kg) in garden soil at one location (the same location as the maximum dioxin concentration). The MWPS Facility Baseline Risk Assessment (DEQ, 2001) calculated risks for each of the residences sampled, taking into account exposure to soil and dust, homegrown produce and breast milk. The cumulative carcinogenic risk for all pathways and for both dioxins/furans and pentachlorophenol for the address with maximum detections was 2×10^{-5}, which is slightly greater than DEQ's acceptable cumulative risk level of 1×10^{-5}. However, the highest dioxin/furan concentration detected in residential soil at the KRY Site is 9.74 ng/kg, substantially less than detections in

the yard discussed above and pentachlorophenol was not detected above generic screening levels in residential soils.

Therefore, DEQ will not be calculating risk levels associated with these exposure pathways, as an extrapolation of the MWPS Facility risk-based numbers shows that it is not warranted. DEQ has calculated a cleanup number for dioxins/furans in residential surface soils, as discussed above.

Since DEQ-7 water quality standards apply and since groundwater in the area is used as a drinking water source, groundwater cleanup levels will primarily be based upon DEQ-7 standards and will assume unrestricted groundwater usage. For COCs for which no DEQ-7 standards exist, the screening levels provided above will be used as the cleanup levels. Volatile contaminants associated with the KRY Site have not been detected in groundwater beneath residential property; therefore, DEQ did not develop cleanup levels based upon residential exposure to contamination via the vapor intrusion pathway.

As stated previously, dioxins/furans generally adhere strongly to soils and would be expected to be found in sediments if detected in surface water. Therefore, for this reason, and because there were a limited number of surface water/sediment samples analyzed for dioxins/furans, DEQ intends to conduct additional sampling before determining if the Stillwater River surface water and/or sediments will require cleanup due to dioxin/furan contamination. Should they be needed, cleanup levels for dioxins/furans in surface water would be the DEQ-7 standards for surface water or background concentrations. Cleanup levels for dioxins/furans in sediments could be the Washington State Department of Ecology Sediment Quality Values (WA, 1997) that DEQ typically uses, site-specific risk-based cleanup levels, or background concentrations.

- Current and future commercial/industrial workers: Based upon the nature and extent of contamination at the KRY Site, these receptors could potentially be exposed to contaminants via incidental ingestion of surface soil; dermal contact with surface soil; inhalation of dust; ingestion of groundwater; dermal contact with groundwater; inhalation of volatiles during use of groundwater; and inhalation of volatiles released from subsurface soil and groundwater into indoor air. DEQ calculated cleanup levels for surface soils based on commercial/ industrial exposure via incidental ingestion of surface soil; dermal contact with surface soil; and inhalation of dust.

  Since DEQ-7 water quality standards apply and since groundwater in the area is used as a drinking water source, groundwater cleanup levels will primarily be based upon DEQ-7 standards and will assume unrestricted groundwater usage. For COCs for which no DEQ-7 standards exist, the screening levels provided above will be used as the cleanup levels. Volatile contaminants associated with the KRY Site have been detected in groundwater beneath the KRY Site. Therefore, DEQ evaluated exposure to commercial/ industrial workers from inhalation of volatiles from groundwater into indoor air. Inhalation of volatiles during use of groundwater in this commercial/industrial scenario is not expected to result in significant exposure; therefore, the standards and screening levels are assumed to be protective of this pathway and DEQ did not evaluate it specifically. Further supporting this

position, the evaluation of volatilization from groundwater to indoor air, which is discussed in subsequent sections of this memo, is expected to result in greater exposure at the KRY Site. Currently, accurate methods for direct evaluation of volatiles released from subsurface soil to indoor air do not exist. For facilities where volatile compounds are the primary risk driver, DEQ typically requires soil gas sampling. However, because of the mobility of these compounds, levels of volatiles that are protective of the leaching to groundwater pathway are likely also protective of this pathway at the KRY Site.

- Current and future trespassers: The MWPS Baseline Risk Assessment (DEQ, 2001) included evaluation of current and future trespasser exposure. The assumptions that these trespassers would be adolescents from 6 to 18 years of age and would visit the facility about 39 days per year are reasonable assumptions for this type of receptor at the KRY Site. The reasonable maximum risk level calculated for trespassers on the most contaminated portion of the MWPS Facility was 2×10^{-5} and the risk level for commercial/industrial workers in the same area was 1×10^{-4}. Thus, commercial/industrial workers have greater exposure and cleanup levels protective of commercial /industrial workers are protective for the types of trespassers that would be present at the KRY Site. Therefore, DEQ did not develop cleanup levels specifically for these receptors.

- Future construction workers: Based upon the nature and extent of contamination at the KRY Site, these receptors could potentially be exposed to contaminants via incidental ingestion of surface and subsurface soil; dermal contact with surface and subsurface soil; and inhalation of dust. DEQ calculated cleanup levels for subsurface soils based on commercial/ industrial exposure via incidental ingestion of soil; dermal contact with soil; and inhalation of dust. In order to protect construction workers exposed to surface soils, for compounds with subsurface soil cleanup levels that are lower than surface soil cleanup levels, the subsurface soil cleanup levels will apply to both types of soils.

- Current and future Stillwater River recreators: As stated previously, dioxins/furans are the only COCs for surface water, and there are no COCs for sediment in the Stillwater River. If subsequent investigation indicates cleanup is needed for the surface water and/or sediments of the river, cleanup levels for dioxins/furans in surface water would be the DEQ-7 standards for surface water or background concentrations. Cleanup levels for dioxins/furans in sediments could be the Washington State Department of Ecology Freshwater Sediment Quality Values (WA, 1997) that DEQ typically uses, site-specific risk-based cleanup levels, or background concentrations.

- Current and future ecological receptors: The KRY Site is located in an urban industrial/ residential area and is unlikely to significantly impact any ecological resources currently or in the future. The main areas of contamination are partially or wholly fenced or covered with weeds. Small rodents and birds may live at the KRY Site. These organisms may visit the contaminated areas and inhale dust or ingest contaminated soil periodically. However, there is nothing particularly attractive about the contaminated areas of the Site over the surrounding area that would cause birds or rodents to visit the contaminated areas preferentially. The level of human activity near and throughout the property is likely to discourage significant usage by wildlife, although an occasional deer or other large mammal

may cross the Site. In addition, no designated wetlands exist on or within a mile of the property. No populations of designated federal or Montana species of concern exist on the property or surrounding the area and no threatened or endangered species exist primarily within four miles of the property.

Only dioxins/furans (TEQ – WHO 1998) were detected in surface water at levels exceeding screening levels and background throughout the reach of the river adjacent to the KRY Site. DEQ-7 standards require that levels of this compound not exceed 0.05 pg/L (ppq). However, a background sample was collected and the concentration was 5.83 pg/L. In co-located sediment samples, the background sample had the highest concentrations of all detected compounds. Dioxins/furans generally adhere strongly to soils and would be expected to be found in sediments at similar concentrations to those detected in surface water, but were not. Therefore, for this reason, and because there were a limited number of surface water/sediment samples collected for dioxins/furans, DEQ intends to conduct additional sampling before determining if the Stillwater River surface water and/or sediments will require cleanup due to dioxin/furan contamination. Should they be needed, cleanup levels for dioxins/furans in surface water would be the DEQ-7 standards for surface water or background concentrations. Cleanup levels for dioxins/furans in sediments could be the Washington State Department of Ecology Freshwater Sediment Quality Values (WA, 1997) that DEQ typically uses, site-specific risk-based cleanup levels, or background concentrations.

CALCULATION OF CLEANUP LEVELS:

Soils:

Direct contact cleanup levels were calculated for soils using equations developed by the EPA (EPA9, 2004). The spreadsheets, including all assumptions, used to calculate the cleanup levels are attached as Appendix B. Compounds were separated based on their effect (i.e., non-carcinogenic or carcinogenic). Cleanup levels for non-carcinogenic compounds in each media (surface and subsurface soil) were calculated to ensure that the total hazard index for compounds with the same target organs or critical effects do not exceed 1 for any organ or effect. For compounds with multiple target organs or critical effects, the most conservative effect based upon the other non-carcinogenic compounds present is used. Cleanup levels for carcinogenic compounds in each media (surface and subsurface soil) were calculated to ensure that the total cancer risk does not exceed $1x10^{-5}$. The most recent toxicity information was used to calculate cleanup levels, including updates that will soon be incorporated into RBCA.

Surface Soil:

Two different exposure scenarios were used for calculating cleanup levels in surface soil: a residential scenario and a commercial scenario. Leaching to groundwater will also be taken into consideration and will be discussed later in this memo.

Residential Exposure Scenario:

- Carcinogenic effects: Dioxins/furans (TEQ – WHO 2005) were the only compounds retained as a COPC for residential surface soil in the Remedial Investigation (RI) and therefore are

the only compounds retained as a COC for risk analysis purposes. For this exposure scenario, DEQ has utilized a cancer risk of $1x10^{-5}$ because there is only one compound to consider. Based on the KRY Site's similarities to the MWPS Facility, DEQ has chosen an exposure frequency of 270 days per year. The other exposure assumptions are taken from EPA guidance. The resulting cleanup level is 54 nanograms per kilogram (ng/kg) or parts per quadrillion (ppq).

DEQ will apply the World Health Organization 2005 TEFs relative to 2,3,7,8-TCDD (WHO, 2005) to concentrations of dioxins and furans for comparison to the cleanup level to determine where and how much soil cleanup is necessary. The following are the TEFs for the dioxin and furan congeners.

- 2,3,7,8-TCDD 1.0
- 1,2,3,7,8-PeCDD 1.0
- 1,2,3,4,7,8-HxCDD 0.1
- 1,2,3,6,7,8-HxCDD 0.1
- 1,2,3,7,8,9-HxCDD 0.1
- 1,2,3,4,6,7,8-HpCDD 0.01
- OCDD 0.0003
- 2,3,7,8-TCDF 0.1
- 1,2,3,7,8-PeCDF 0.03
- 2,3,4,7,8-PeCDF 0.3
- 1,2,3,4,7,8-HxCDF 0.1
- 1,2,3,6,7,8-HxCDF 0.1
- 1,2,3,7,8,9-HxCDF 0.1
- 2,3,4,6,7,8-HxCDF 0.1
- 1,2,3,4,6,7,8-HpCDF 0.01
- 1,2,3,6,7,8,9-HpCDF 0.01
- OCDF 0.0003

<u>Commercial/Industrial Exposure Scenario</u>:

- Non-carcinogenic effects: Aluminum, C11-C22 aromatics, C9-C18 aliphatics, iron, and lead were evaluated based on non-carcinogenic effects. Because the area of lead contamination at the Site is relatively small, DEQ will use the EPA Region 9 PRG of 800 mg/kg as the cleanup level. The health effects of lead are typically considered independently from other noncarcinogens. For this exposure scenario, DEQ has considered effects on target organs or critical effects in determining the hazard quotients for each compound, thereby ensuring that the total hazard index does not exceed 1 for any organ or effect. The target organ or effect and hazard quotient are reported for each compound below.

  - Aluminum: nervous system; 0.5
  - C11-C22 Aromatics: kidney; 1
  - C9-C18 Aliphatics: liver/nervous system; 0.5
  - Iron: liver; 0.5

Based upon the assumptions made in the MWPS Baseline Risk Asessment, which are appropriately extrapolated to the KRY Site, DEQ has chosen an exposure frequency of 187 days per year. The other exposure parameters are taken from EPA or Massachusetts Department of Environmental Protection (MADEP) guidance. The cleanup levels developed for this scenario are provided below.

- Aluminum: 624,219 mg/kg
- C11-C22 Aromatics: 96,162 mg/kg
- C9-C18 Aliphatics: 4,782 mg/kg
- Iron: 202,894 mg/kg

Carcinogenic effects: Arsenic, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, pentachlorophenol, and dioxins/furans (TEQ – WHO 2005) were evaluated based on carcinogenic effects. DEQ will use its calculated Action Level for Arsenic in Surface Soil (DEQ 2005) of 40 mg/kg as the cleanup level for arsenic at the KRY Site. Arsenic is considered separately from the other carcinogenic compounds because of its presence in native soils. DEQ also calculated a cleanup level representing a total carcinogenic polycyclic aromatic hydrocarbon (cPAH) concentration using the approach outlined in EPA Guidance (EPA 1993). This concentration is based on the toxicity of benzo(a)pyrene. The relative toxicity of each cPAH compound relative to benzo(a)pyrene is used to adjust its concentration. Following this adjustment, the resulting concentrations are summed. The summed concentration must not exceed the total cPAH cleanup level. The spreadsheet showing how the TEFs were applied is provided in Appendix C. Cleanup levels for PAHs that are non-carcinogenic are included with the other noncarcinogenic compounds. The following are the TEFs for the cPAHs.

- Benz(a)anthracene: 0.1
- Benzo(a)pyrene: 1.0
- Benzo(b)fluoranthene: 0.1
- Benzo(k)fluoranthene: 0.01
- Chrysene: 0.001
- Dibenzo(a,h)anthracene: 1.0
- Indeno(1,2,3-cd)pyrene: 0.1

DEQ will apply the World Health Organization 2005 TEFs relative to 2,3,7,8-TCDD (WHO, 2005) identified previously to concentrations of dioxins and furans for comparison to the cleanup level to determine where and how much soil cleanup is necessary.

For this exposure scenario, DEQ has utilized a cancer risk of 3.33×10^{-6} because there are three carcinogenic compounds to consider. This is in contrast to residential exposure, which only includes exposure tone COC, dioxins/furans. Based upon the assumptions made in the MWPS Baseline Risk Assessment, which are appropriately extrapolated to the KRY Site, DEQ has chosen an exposure frequency of 187 days per year. The other exposure parameters are taken from EPA or MADEP guidance. The cleanup levels developed for this scenario are provided below.

- cPAHs: 1.7 mg/kg

- Pentachlorophenol: 98 mg/kg
- Dioxins/furans: 89 ng/kg

*Please note that to ensure protection of human health and the environment, the most conservative of the leaching to groundwater cleanup levels or the direct contact cleanup levels will be used for compounds that have both.

Subsurface Soil:
An excavation exposure scenario was used for calculating cleanup levels for subsurface soil. Leaching to groundwater will also be taken into consideration and will be discussed later in this memo.

Excavation Exposure Scenario:

- Non-carcinogenic effects: 2-methylnaphthalene, aluminum, C11-C22 aromatics, C19-C36 aliphatics, C5-C8 aliphatics, C9-C12 aliphatics, C9-C18 aliphatics, iron, lead, naphthalene, and xylenes (total) were evaluated based on non-carcinogenic effects. Because the area of lead contamination at the Site is relatively small, DEQ will use the EPA Region 9 PRG (EPA9, 2004) of 800 mg/kg as the cleanup level. The health effects of lead are typically considered independently from other noncarcinogens. For this exposure scenario, DEQ has considered effects on target organs or critical effects in determining the hazard quotients for each compound, thereby ensuring that the total hazard index does not exceed 1 for any organ or effect. The target organ or effect and hazard quotient are reported for each compound below.

  - 2-Methylnaphthalene: lungs; 1
  - Aluminum: nervous system; 0.2
  - C11-C22 Aromatics: kidney; 1
  - C19-C36 Aliphatics: liver; 0.25
  - C5-C8 Aliphatics: nervous system; 0.2
  - C9-C12 Aliphatics: liver and nervous system; 0.2
  - C9-C18 Aliphatics: liver and nervous system; 0.2
  - Iron: liver; 0.25
  - Naphthalene: body weight and nasal; 0.5
  - Xylenes (total): body weight and nervous system; 0.2

  Based upon the assumptions made in the MWPS Baseline Risk Assessment, which are appropriately extrapolated to the KRY Site, DEQ has chosen an exposure frequency of 124 days per year and an exposure duration of 1 year. The other exposure parameters are taken from EPA or MADEP guidance. The cleanup levels developed for this scenario are provided below.

  - 2-Methlynaphthalene: 1,982 mg/kg
  - Aluminum: 120,209 mg/kg
  - C11-C22 Aromatics: 33,445 mg/kg
  - C19-C36 Aliphatics: 260,154 mg/kg

- C5-C8 Aliphatics: 584 mg/kg
- C9-C12 Aliphatics: 1,240 mg/kg
- C9-C18 Aliphatics: 2,107 mg/kg
- Iron: 46,686 mg/kg
- Naphthalene: 309 mg/kg
- Xylenes (total): 389 mg/kg

- Carcinogenic effects: Arsenic, benz(a)anthracene, benzo(a)pyrene, carbazole, pentachlorophenol, and dioxins/furans (TEQ – WHO 2005) were evaluated based on carcinogenic effects. As mentioned previously, DEQ will use its calculated Action Level for Arsenic in Surface Soil (DEQ 2005) of 40 mg/kg as both the screening and the cleanup level for arsenic at the KRY Site. Arsenic is considered separately from the other carcinogenic compounds because of its presence in native soils. DEQ has also calculated one cleanup level for the cPAHs. DEQ will apply the TEFs relative to benzo(a)pyrene (EPA 1993) provided previously to concentrations of cPAHs for comparison to the cleanup level to determine where and how much soil cleanup is necessary.

  DEQ will apply the World Health Organization 2005 TEFs relative to 2,3,7,8-TCDD (WHO, 2005) identified previously to concentrations of dioxins and furans for comparison to the cleanup level to determine where and how much soil cleanup is necessary.

  For this exposure scenario, DEQ has utilized a cancer risk of 2.5×10^{-6} because there are four carcinogenic compounds to consider. Based upon the assumptions made in the MWPS Baseline Risk Assessment, which are appropriately extrapolated to the KRY Site, DEQ has chosen an exposure frequency of 124 days per year and an exposure duration of 1 year. The other exposure parameters are taken from EPA or MADEP guidance. The cleanup levels developed for this scenario are provided below.
  - cPAHs: 13 mg/kg
  - Carbazole 4,878 mg/kg
  - Pentachlorophenol: 650 mg/kg
  - Dioxins/furans: 736 ng/kg

*Please note that to ensure protection of human health and the environment, the most conservative of the leaching to groundwater cleanup levels or the direct contact cleanup levels will be used for compounds that have both.

<u>Groundwater</u>:
For compounds with DEQ-7 standards, these standards are the applicable cleanup levels. For dioxins/furans (TEQ – WHO 1998) and metals, DEQ will take into account background concentrations from newly installed monitoring well KRY-101A and that background concentration, rather than the DEQ-7 standard, will be used as the cleanup level. These particular compounds are found naturally-occurring in the environment and DEQ intends to account for that using the background concentrations. For the metals at the Site, only one (manganese) has a background concentration that exceeds the DEQ-7 standard. Therefore, with the exception of manganese, the DEQ-7 standard will be the cleanup level.

Because the regulations associated with DEQ-7 require it, DEQ will apply the World Health Organization 1998 TEFs relative to 2,3,7,8-TCDD (WHO, 1998) to concentrations of dioxins and furans for comparison to the cleanup level to determine where and how much groundwater (or surface water) cleanup is necessary. The following are the TEFs for the dioxin and furan congeners.

- 2,3,7,8-TCDD 1.0
- 1,2,3,7,8-PeCDD 1.0
- 1,2,3,4,7,8-HxCDD 0.1
- 1,2,3,6,7,8-HxCDD 0.1
- 1,2,3,7,8,9-HxCDD 0.1
- 1,2,3,4,6,7,8-HpCDD 0.01
- OCDD 0.0001
- 2,3,7,8-TCDF 0.1
- 1,2,3,7,8-PeCDF 0.05
- 2,3,4,7,8-PeCDF 0.5
- 1,2,3,4,7,8-HxCDF 0.1
- 1,2,3,6,7,8-HxCDF 0.1
- 1,2,3,7,8,9-HxCDF 0.1
- 2,3,4,6,7,8-HxCDF 0.1
- 1,2,3,4,6,7,8-HpCDF 0.01
- 1,2,3,6,7,8,9-HpCDF 0.01
- OCDF 0.0001

DEQ will also be applying RBCA RBSLs for petroleum compounds (revised – see previous discussion) and EPA tap water PRGs for compounds that do not have DEQ-7 standards or RBSLs.

As mentioned previously, DEQ also evaluated 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene as COCs for vapor intrusion to indoor air. DEQ utilized the EPA 2004 vapor intrusion model with some site-specific modifications (soil classification, distance to groundwater, exposure assumptions, etc.) to calculate risk-based groundwater concentrations for the three compounds based on a basement scenario, which was the most conservative. The model spreadsheets are attached as Appendix D. Given that the compounds are non-carcinogenic, DEQ utilized a hazard quotient of 0.33 for each to ensure that the hazard index did not exceed 1. The risk-based groundwater concentration for 1,2,4-trimethylbenzene was 46.1 ug/L, for 1,3,5-trimrthylbenzene was 48.4 ug/L, and for naphthalene was 314 ug/L. These concentrations exceed the EPA tap water PRGs for the first two compounds and the DEQ-7 human health standard for naphthalene. Therefore, the EPA tap water PRGs and the DEQ-7 standard will be used as the cleanup levels for these compounds and will also be protective of the volatilization to indoor air pathway.

The following cleanup levels apply to groundwater and are also provided on Table 4:

Montana Water Quality (DEQ-7) Standard as the Cleanup Level:

- Pentachlorophenol: 1 ug/L
- Arsenic: 10 ug/L
- Benzene: 5 ug/L
- Ethylbenzene: 700 ug/L
- Iron: 300 ug/L
- Naphthalene: 100 ug/L
- Toluene: 1,000 ug/L

Screening Level as the Cleanup Level:

- 1,2,4-Trimethylbenzene: 12 ug/L (PRG)
- 1,3,5-Trimethylbenzene: 12 ug/L (PRG)
- C11-C22 Aromatics: 1,000 ug/L (RBSL)
- C5-C8 Aliphatics: 800 ug/L (RBSL)
- C9-C10 Aromatics: 1,000 ug/L (RBSL)
- C9-C12 Aliphatics: 500 ug/L (RBSL)
- n-Butylbenzene: 240 ug/L (PRG)

Background Concentration as the Cleanup Level:

- Dioxins/furans: 5.58 picograms per liter (pg/L)
- Manganese: 778 ug/L

Surface Water:
Only dioxins/furans (TEQ - WHO 1998) were detected in surface water at levels exceeding screening levels and background throughout the reach of the river adjacent to the KRY Site. DEQ-7 standards require that levels of this compound not exceed 0.05 pg/L (ppq). However, a background sample was collected and the concentration was 5.83 pg/L. In co-located sediment samples, the background sample had the highest concentrations of all detected compounds. Dioxins/furans generally adhere strongly to soils and would be expected to be found in sediments at similar concentrations to those detected in surface water, but were not. Therefore, for this reason, and because there were a limited number of surface water/sediment samples analyzed for dioxins/furans, DEQ intends to conduct additional sampling before determining if the Stillwater River surface water and/or sediments will require cleanup due to dioxin/furan contamination. Should they be needed, cleanup levels for dioxins/furans in surface water would be the DEq-7 standards for surface water or background concentrations. Cleanup levels for dioxins/furans in sediments could be the Washington State Department of Ecology Freshwater Sediment Quality Values (WA, 1997) that DEQ typically uses, site-specific risk-based cleanup levels, or background concentrations.

Soils Leaching to Groundwater:
DEQ has developed site-specific cleanup levels for the soil leaching to groundwater pathway at the KRY Site. These site-specific cleanup levels are concentrations of COCs in soils that are protective of groundwater (DEQ-7 standards). DEQ recognized that there are portions of the

Site where there is no subsurface soil contamination. Separate evaluations were completed to develop leaching to groundwater cleanup levels for the surface soil and subsurface soil at the KRY Site. Chemical fate and transport modeling was performed to predict COC concentrations at the source. Some compounds were found to be essentially immobile during this modeling, as noted below. A more thorough discussion of the methods used to calculate these site-specific cleanup levels can be found in the Technical Memorandum for Chemical Fate and Transport Analysis of Soil Contaminants Leaching to Groundwater (DEQ, 2007b), provided in Appendix E.

Surface Soil: The site-specific cleanup levels for surface soil leaching to groundwater are provided below:

- Benz(a)anthracene: Considered Immobile
- Benzo(a)pyrene: Considered Immobile
- C11-C22 Aromatics: Considered Immobile
- Chromium: 150 mg/kg
- Methylene Chloride: 0.82 mg/kg
- Pentachlorophenol: 12 mg/kg

*Please note that to ensure protection of human health and the environment, the most conservative of the leaching to groundwater cleanup levels or the direct contact cleanup levels will be used for compounds that have both. Additionally, for compounds with a leaching number for both surface soil and subsurface soil, the cleanup level for surface soil will be used where there is only surface soil contamination. If subsurface soil contamination exists, the subsurface soil leaching cleanup level will be used. Lastly, for compounds where the leaching to groundwater cleanup level is not the most conservative and where the excavation cleanup level is lower than the commercial cleanup levels, surface soil will be cleaned up to excavation cleanup levels. A list of the applicable cleanup levels can be found on Table 5.

Subsurface Soil: The site-specific cleanup levels for subsurface soil leaching to groundwater are provided below:

- Acenaphthene: 27,000 mg/kg
- Benz(a)anthracene: Considered Immobile
- Carbazole 99 mg/kg
- C11-C22 Aromatics: 42,000 mg/kg
- C5-C8 Aliphatics: 56,000 mg/kg
- C9-C10 Aromatics: 4,800 mg/kg
- C9-C18 Aliphatics: Considered Immobile
- Chromium: 20 mg/kg
- Ethylbenzene: 320 mg/kg
- Fluorene: 130,000 mg/kg
- Naphthalene: 220 mg/kg
- Pentachlorophenol: 0.43 mg/kg

- Selenium: 1.7 mg/kg
- Toluene: 260 mg/kg

* Please note that to ensure protection of human health and the environment, the most conservative of the leaching to groundwater cleanup levels or the direct contact cleanup levels will be used for compounds that have both. Additionally, for compounds with a leaching number for both surface soil and subsurface soil, the cleanup level for surface soil will be used where there is only surface soil contamination. If subsurface soil contamination exists, the subsurface soil leaching cleanup level will be used. Lastly, for compounds where the leaching to groundwater cleanup level is not the most conservative and where the excavation cleanup level is lower than the commercial cleanup levels, surface soil will be cleaned up to excavation cleanup levels. A list of the applicable cleanup levels can be found on Table 6.

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July 2007

TABLE 1
KRY GROUNDWATER COPC SCREENING

Compound	COC	Rationale	Vapor
1,2,4-Trimethylbenzene	Yes	Exceeds tap water PRG and vapor intrusion screening	Yes
1,3,5-Trimethylbenzene	Yes	Exceeds tap water PRG and vapor intrusion screening	Yes
1-Methylnaphthalene	No	No toxicity criteria	No
2,3,4,5-Tetrachlorophenol	No	No toxicity criteria; degradation product only	No
2,3,4,6-Tetrachlorophenol	No	Does not exceed tap water PRG; degradation product only	No
2,3,4-Trichlorophonol	No	No toxicity criteria; degradation product only	No
2,3,5,6-Tetrachlorophenol	No	No toxicity criteria; degradation product only	No
2,3,7,8-TCDD (TEQ) (WHO2005)	Yes	Exceeds DEQ-7 human health standard	No
2,4,5-Trichlorophenol	No	Maximum detection below DEQ-7 human health standard; degradation product only	No
2,4,6-Trichlorophenol	No	Maximum detection below DEQ-7 human health standard; degradation product only	No
2,4-Dichlorophenol	No	Not detected; degradation product only	No
2,6-Dimethylnaphthalene	No	No toxicity criteria	No
2-Methylnaphthalene	No	No standards or PRGs exist	No
2-Chlorophenol	No	Not detected; degradation product only	No
4-Isopropyltoluene	No	No toxicity criteria	No
Arsenic	Yes	Exceeds DEQ-7 human health standard	No
Benzene	Yes	Exceeds DEQ-7 human health standard but not vapor intrusion at the KRY Site	No
C11-C22 Aromatics	Yes	Exceeds RBSL	No
C5-C8 Aliphatics	Yes	Exceeds RBSL	No
C9-C10 Aromatics	Yes	Exceeds RBSL	No
C9-C12 Aliphatics	Yes	Exceeds RBSL	No
Ethylbenzene	Yes	Exceeds DEQ-7 human health standard but not vapor intrusion at the KRY Site	No
Iron	Yes	Exceeds DEQ-7 water quality standard	No
Manganese	Yes	Exceeds DEQ-7 water quality standard	No
Naphthalene	Yes	Exceeds DEQ-7 human health standard and vapor intrusion screening	Yes
n-Butylbenzene	Yes	Exceeds tap water PRG	No
Pentachlorophenol	Yes	Exceeds DEQ-7 human health standard	No
Phenanthrene	No	No toxicity criteria	No
Tetrachlorophenol	No	No toxicity criteria; degradation product only	No
Toluene	Yes	Exceeds DEQ-7 human health standard	No
Total Extractable Hydrocarbons	No	Not a current RBCA range	No
Total Purgeable Hydrocarbons	No	Not a current RBCA range	No

Groundwater COCs		
Compound	**COC**	**Rationale**
1,2,4-Trimethylbenzene	Yes	Exceeds tap water PRG and vapor intrusion screening
1,3,5-Trimethylbenzene	Yes	Exceeds tap water PRG and vapor intrusion screening
2,3,7,8-TCDD (TEQ) (WHO2005)	Yes	Exceeds DEQ-7 human health standard
Arsenic	Yes	Exceeds DEQ-7 human health standard
Benzene	Yes	Exceeds DEQ-7 human health standard but not vapor intrusion at the KRY Site
C11-C22 Aromatics	Yes	Exceeds RBSL
C5-C8 Aliphatics	Yes	Exceeds RBSL
C9-C10 Aromatics	Yes	Exceeds RBSL
C9-C12 Aliphatics	Yes	Exceeds RBSL
Ethylbenzene	Yes	Exceeds DEQ-7 human health standard but not vapor intrusion at the KRY Site
Iron	Yes	Exceeds DEQ-7 water quality standard
Manganese	Yes	Exceeds DEQ-7 water quality standard
Naphthalene	Yes	Exceeds DEQ-7 human health standard and vapor intrusion screening
n-Butylbenzene	Yes	Exceeds tap water PRG
Pentachlorophenol	Yes	Exceeds DEQ-7 human health standard
Toluene	Yes	Exceeds DEQ-7 human health standard

Vapor Intrusion		
Compound	**COC**	**Rationale**
1,2,4-Trimethylbenzene	Yes	Exceeds tap water PRG and vapor intrusion screening
1,3,5-Trimethylbenzene	Yes	Exceeds tap water PRG and vapor intrusion screening
Naphthalene	Yes	Exceeds DEQ-7 human health standard and vapor intrusion screening

TABLE 4
GROUNDWATER COC CLEANUP LEVELS
KRY SITE

CHEMICAL	UNITS	Cleanup Level
1,2,4-TRIMETHYLBENZENE	UG/L	12
1,3,5-TRIMETHYLBENZENE	UG/L	12
2,3,7,8-TCDD (TEQ) (WHO1998)	PG/L	5.58
ARSENIC	UG/L	10
BENZENE	UG/L	5
C11-C22 AROMATICS	UG/L	1000
C5-C8 ALIPHATICS	UG/L	800
C9-C10 AROMATICS	UG/L	1000
C9-C12 ALIPHATICS	UG/L	500
ETHYLBENZENE	UG/L	700
IRON	UG/L	300
MANGANESE	UG/L	776
NAPHTHALENE	UG/L	100
N-BUTYLBENZENE	UG/L	240
PENTACHLOROPHENOL	UG/L	1
TOLUENE	UG/L	1000

Table 5
Surface Soil COC Cleanup Levels
KRY SITE

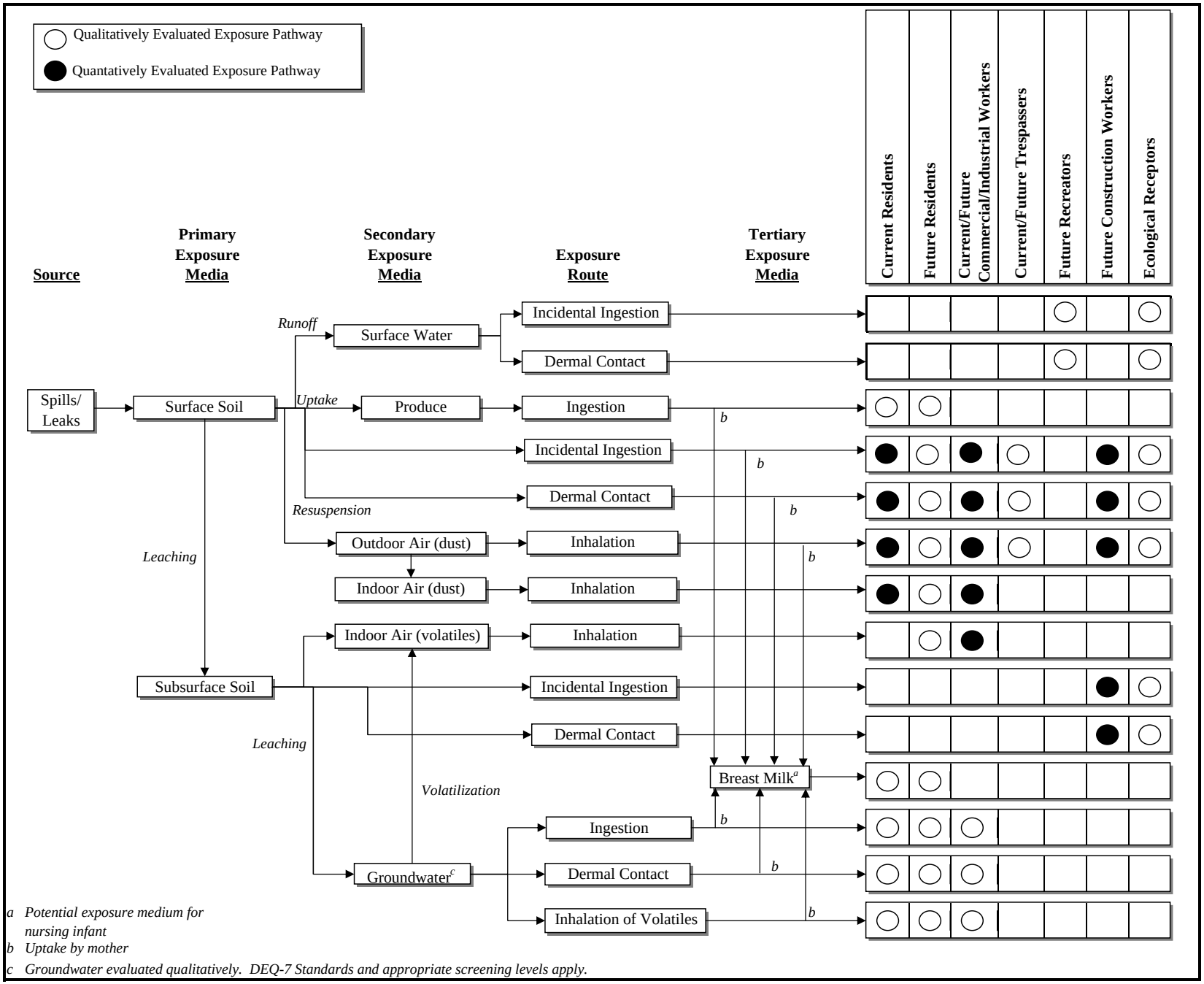
ANALYTE	UNITS	Cleanup Level
2,3,7,8-TCDD (TEQ) (WHO2005)	NG/KG	89
ALUMINUM	MG/KG	120,209
ARSENIC	MG/KG	40
C11-C22 AROMATICS	MG/KG	33,445
C9-C18 ALIPHATICS	MG/KG	2,107
CARCINOGENIC PAHs (TEQ) (EPA 1993)	MG/KG	2
CHROMIUM	MG/KG	150
IRON	MG/KG	46,686
LEAD	MG/KG	800
METHYLENE CHLORIDE	MG/KG	0.82
PENTACHLOROPHENOL	MG/KG	12 a

Notes:

a - Unless subsurface contamination is present, then number would be 0.43 mg/kg.

Table 6
Subsurface Soil COC Cleanup Levels
KRY SITE

ANALYTE	UNITS	Cleanup Level
2,3,7,8-TCDD (TEQ) (WHO2005)	NG/KG	736
2-METHYLNAPHTHALENE	MG/KG	1982
ACENAPHTHENE	MG/KG	27,000
ALUMINUM	MG/KG	120,209
ARSENIC	MG/KG	40
C11-C22 AROMATICS	MG/KG	33,445
C19-C36 ALIPHATICS	MG/KG	260,154
C5-C8 ALIPHATICS	MG/KG	584
C9-C10 AROMATICS	MG/KG	4800
C9-C12 ALIPHATICS	MG/KG	1,240
C9-C18 ALIPHATICS	MG/KG	2,107
CARBAZOLE	MG/KG	
CARCINOGENIC PAHs (TEQ) (EPA 1993)	MG/KG	13
CHROMIUM	MG/KG	20
ETHYLBENZENE	MG/KG	320
FLUORENE	MG/KG	130,000
IRON	MG/KG	46,686
LEAD	MG/KG	800
NAPHTHALENE	MG/KG	220
PENTACHLOROPHENOL	MG/KG	0.43
SELENIUM	MG/KG	1.7
TOLUENE	MG/KG	260
XYLENES (TOTAL)	MG/KG	389



a Potential exposure medium for nursing infant
b Uptake by mother
c Groundwater evaluated qualitatively. DEQ-7 Standards and appropriate screening levels apply.

Site Conceptual Exposure Model

MASTER TABLE
ALL POTENTIAL TIER 1 RBSLs FOR SOIL (mg/kg)
Distance to water is from the sample depth to the water table.

Chemical	Leaching 0-10 feet	Leaching 10-20 feet	Leaching >20 feet	Direct Contact Residential	Direct Contact Commercial	Direct Contact Excavation	Residential Beneficial Uses	Commercial Beneficial Uses	Excavation Beneficial Uses	Soil Saturation
For Gasoline and Light Hydrocarbons measured using the Massachusetts Method for Volatile Petroleum Hydrocarbons (VPH)										
C5-C8 Aliphatics	255	865	1340	41	256	365	100	500	500	280
C9-C12 Aliphatics	5,770	19,500	30,100	92	457	775	100	500	500	64
C9-C10 Aromatics	136	459	710	122	2,881	1,171	100	500	500	550
MTBE	0.0784	0.164	0.252	257	2,301	2,055	--	--	--	6,050
Benzene	0.0379	0.101	0.156	2.67	7.2	278	--	--	--	820
Toluene	13.9	40.7	62.8	475	3,584	3,866	--	--	--	499
Ethylbenzene	13.3	40.1	62	237	1,172	1,925	--	--	--	227
Xylenes	217	679	1,050	30	122	243	--	--	--	276
Naphthalene	9.32	30.6	47.4	10	40	77	--	--	--	223
Lead Scavengers										
1,2-Dibromoethane (EDB)				0.05	0.1	5	--	--	--	
1,2-Dichloroethane (DCA)				1.21	3.2	130	--	--	--	
For Diesel and Heavy Hydrocarbons measured using the Massachusetts Method for Extractable Petroleum Hydrocarbons (EPH)										
C9-C18 Aliphatics	25,900	87,200	135,000	153	894	1,317	1,000	2,500	5,000	41
C19-C36 Aliphatics	Considered Immobile			15,276	239,654	130,077	2,500	5,000	5,000	0.46
C11-C22 Aromatics	380	1,280	1,980	458	8,991	4,181	1,000	2,500	5,000	170
Acenaphthene	249	840	1300	376	4,440	3,220	--	--	--	125
Anthracene	3,740	12,600	19,500	2,073	30,607	17,868	--	--	--	6.12
Benz(a)anthracene	13.6	45.7	70.6	0.67	3.9	51	--	--	--	20.2
Benzo(a)pyrene	3.67	12.4	19.1	0.067	0.39	5	--	--	--	9.42
Benzo(b)fluoranthene	46.6	157	243	0.67	3.9	51	--	--	--	11.1
Benzo(k)fluoranthene	466	1,570	2,430	6.7	39	509	--	--	--	5.9
Chrysene	1,510	5,080	7,850	67	387	5,091	--	--	--	3.82
Dibenzo(a,h)anthracene	6.78	22.8	35.3	0.067	0.39	5	--	--	--	26.7
Fluoranthene	484	1,630	2,520	287	4,706	2,478	--	--	--	60.7
Fluorene	643	2,170	3,350	269	3,721	2,317	--	--	--	91.7
Indeno(1,2,3-cd)pyrene	132	443	685	0.67	3.9	51	--	--	--	0.458
Naphthalene	9.32	30.6	47.4	10	40	77	--	--	--	223
Pyrene	4,280	14,400	22,300	215	3,529	1,858	--	--	--	55.1

Residential Carcinogenic Exposure - Surface Soil

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*AT)/(EF*((SFo*CF*IFSadj)+(SFo*IFAadj*1/PEF)+(SFo*CF*RAFd*DFadj)))]

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.0000541
TR (Target cancer risk)	1.E-05
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	270
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.50E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IFSadj (Age-adjusted soil ingestion rate - mg-yr/kg-day; EPAIX, October 2004)	114
IFAadj (Age-adjusted inhalation rate - m^3-yr/kg-day; EPAIX, October 2004)	8
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.03
DFadj (Age-adjusted dermal factor - mg-yr/kg-day; EPAIX, October 2004)	361

TABLE 1
TIER 1 SURFACE SOIL (0-2 ft) RBSLs (mg/kg)
(includes default RBSLs)

This table applies to contaminated surface soil from 0-2 feet below ground surface. Distance to water is from the sample depth to the water table. **For VPH compounds at UST sites, default RBSLs (bold) are used to determine if a release has occurred at a site. Default RBSLs apply to the entire soil column and always apply in the absence of adequate information. For EPH compounds the 200 ppm screening level is used to determine whether a release has occurred at UST sites.**

Distance to groundwater		**< 10 feet to groundwater**				**10-20 feet to groundwater**				**> 20 feet to groundwater**			
Chemical	**E**	**Residential**	**B**	**Commercial**	**B**	**Residential**	**B**	**Commercial**	**B**	**Residential**	**B**	**Commercial**	**B**
For Gasoline and Light Hydrocarbons measured using the Massachusetts Method for Volatile Petroleum Hydrocarbons (VPH)													
C5-C8 Aliphatics	n	**40**	dc	300	l	40	dc	300	dc	40	dc	300	dc
C9-C12 Aliphatics	n	**90**	dc	500	dc	90	dc	500	dc	90	dc	500	dc
C9-C10 Aromatics	n	**100**	dc	100	l	100	dc	500	l	100	dc	700	l
MTBE	n	**0.08**	l	0.08	l	0.2	l	0.2	l	0.3	l	0.3	l
Benzene	c	**0.04**	l	0.04	l	0.1	l	0.1	l	0.2	l	0.2	l
Toluene	n	**10**	l	10	l	40	l	40	l	60	l	60	l
Ethylbenzene	n	**10**	l	10	l	40	l	40	l	60	l	60	l
Xylenes	n	**30**	dc	100	dc	30	dc	100	dc	30	dc	100	dc
Naphthalene	n	**9**	l	9	l	10	dc	30	l	10	dc	40	dc
Lead Scavengers													
1,2-Dibromoethane (EDB)	c												
1,2-Dichloroethane (DCA)	c												
For Diesel and Heavy Hydrocarbons measured using the Massachusetts Method for Extractable Petroleum Hydrocarbons (EPH)													
C9-C18 Aliphatics	n	200	dc	900	dc	200	dc	900	dc	200	dc	900	dc
C19-C36 Aliphatics	n	2,500	bu	5,000	bu	2,500	bu	5,000	bu	2,500	bu	5,000	bu
C11-C22 Aromatics	n	400	1	400	l	500	dc	1,000	l	500	dc	2,000	l
Acenaphthene	n	200	l	200	l	400	dc	800	l	400	dc	1,000	l
Anthracene	n	2,000	dc	4,000	l	2,000	dc	10,000	l	2,000	dc	20,000	dc
Benz(a)anthracene	c	0.7	dc	4	dc	0.7	dc	4	dc	0.7	dc	4	dc
Benzo(a)pyrene	c	0.07*	dc	0.4	dc	0.07*	dc	0.4	dc	0.07*	dc	0.4	dc
Benzo(b)fluoranthene	c	0.7	dc	4	dc	0.7	dc	4	dc	0.7	dc	4	dc
Benzo(k)fluoranthene	c	7	dc	40	dc	7	dc	40	dc	7	dc	40	dc
Chrysene	c	70	dc	400	dc	70	dc	400	dc	70	dc	400	dc
Dibenzo(a,h)anthracene	c	0.07*	dc	0.4	dc	0.07*	dc	0.4	dc	0.07*	dc	0.4	dc
Fluoranthene	n	300	dc	500	l	300	dc	2,000	l	300	dc	2,000	dc
Fluorene	n	300	dc	600	l	300	dc	2,000	l	300	dc	2,000	dc
Indeno(1,2,3-cd)pyrene	c	0.7	dc	4	dc	0.7	dc	4	dc	0.7	dc	4	dc
Naphthalene	n	9	l	9	l	10	dc	30	l	10	dc	40	dc
Pyrene	n	200	dc	2,000	dc	200	dc	2,000	dc	200	dc	2,000	dc

Notes:

E = Effect is either:
n = non-carcinogenic and direct contact RBSLs are based on a hazard quotient of 0.125 for a total hazard index which does not exceed 1, or
c = carcinogenic and direct contact RBSLs are based on a cancer risk of $1X10^{6}$ for a total cancer risk which does not exceed $1X10^{-5}$.

B = Basis is the most conservative of:
l = leaching from soil to groundwater;
dc = residential direct contact including ingestion, inhalation, and dermal; or
bu = adversely affects beneficial uses (foul odor or taste).

If the leaching pathway is not the most conservative basis, residential or commercial RBSLs apply to surface soil.

* = The best achievable practical quantitation limit (0.33) is greater than the RBSL; therefore, if the compound is detected, additional evaluation may be necessary.

DEQ's RBCA policy includes a ceiling concentration of 100 mg/kg for the total of the gasoline range fractions and 2,500 mg/kg for the total of the diesel range fractions in residential soil.

DEQ's RBCA policy includes a ceiling concentration of 500 mg/kg for the total of the gasoline range fractions and 5,000 mg/kg for the total of the diesel range fractions in commercial soil.

TABLE 2
TIER 1 SUBSURFACE SOIL (>2 ft) RBSLs (mg/kg)

This table applies to contaminated subsurface soil (>2 feet below the ground surface). Distance to water is from the sample depth to the water table. **For VPH compounds at UST sites, default RBSLs, provided in bold on Table 1, are used to determine if a release has occurred at a site. Default RBSLs apply to the entire soil column and always apply in the absence of adequate information. For EPH compounds the 200 ppm screening level is used to determine if additional analysis (fractionation) of the soil sample is needed.**

Distance to groundwater		**< 10 feet to ground water**		**10-20 feet to ground water**		**> 20 feet to ground water**	
Chemical	**E**	**>2 ft Excavation**	**B**	**>2 ft Excavation**	**B**	**>2 ft Excavation**	**B**
For Gasoline and Light Hydrocarbons measured using the Massachusetts Method for Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatics	n	300	l	400	dc	400	dc
C9-C12 Aliphatics	n	500	bu	500	bu	500	bu
C9-C10 Aromatics	n	100	l	500	l	500	bu
MTBE	n	0.08	l	0.2	l	0.3	l
Benzene	c	0.04	l	0.1	l	0.2	l
Toluene	n	10	l	40	l	60	l
Ethylbenzene	n	10	l	40	l	60	l
Xylenes	n	200	l	200	dc	200	dc
Naphthalene	n	9	l	30	l	50	l
Lead Scavengers							
1,2-Dibromoethane (EDB)	c						
1,2-Dichloroethane (DCA)	c						
For Diesel and Heavy Hydrocarbons measured using the Massachusetts Method for Extractable Petroleum Hydrocarbons (EPH)							
C9-C18 Aliphatics	n	1,000	dc	1,000	dc	1,000	dc
C19-C36 Aliphatics	n	5,000	bu	5,000	bu	5,000	bu
C11-C22 Aromatics	n	400	l	1,000	l	2,000	l
Acenaphthene	n	200	l	800	l	1,000	l
Anthracene	n	4,000	l	10,000	l	20,000	dc
Benz(a)anthracene	c	10	l	50	l	50	dc
Benzo(a)pyrene	c	4	l	5	dc	5	dc
Benzo(b)fluoranthene	c	50	l	50	dc	50	dc
Benzo(k)fluoranthene	c	500	l	500	dc	500	dc
Chrysene	c	2,000	l	5,000	l	5,000	dc
Dibenzo(a,h)anthracene	c	5	dc	5	dc	5	dc
Fluoranthene	n	500	l	2,000	dc	2,000	dc
Fluorene	n	600	l	2,000	l	2,000	dc
Indeno(1,2,3-cd)pyrene	c	50	dc	50	dc	50	dc
Naphthalene	n	9	l	30	l	50	l
Pyrene	n	2,000	dc	2,000	dc	2,000	dc

Notes:

E = Effect is either:

n = non-carcinogenic and direct contact RBSLs are based on a hazard quotient of 0.125 for a total hazard index which does not exceed 1, or

c = carcinogenic and direct contact RBSLs are based on a cancer risk of $1X10^{-6}$ for a total cancer risk which does not exceed $1X10^{-5}$.

B = Basis is the most conservative of:

l = leaching from soil to groundwater;
dc = residential direct contact including ingestion, inhalation, and dermal; or
bu = adversely affects beneficial uses (foul odor or taste).

If the leaching pathway is not the most conservative basis, excavation RBSLs apply to subsurface soil.

DEQ's RBCA policy includes a ceiling concentration of 500 mg/kg for total of the gasoline range fractions.

DEQ's RBCA policy includes a ceiling concentration of 5,000 mg/kg for the total of the diesel range fractions.

TABLE 3
TIER 1 GROUNDWATER RBSLs AND STANDARDS

This table applies to groundwater and consists of DEQ-7 Human Health Standards (HHSs), where available. For compounds without DEQ-7 HHSs, DEQ has developed RBSLs and included them in the table. Surface water impacts require a minimum of a Tier 2 evaluation.

Chemical	Effect	Basis	Groundwater Standard or RBSL (µg/l)
For Gasoline and Light Hydrocarbons measured using the Massachusetts Method for Volatile Petroleum Hydrocarbons (VPH)			
C5-C8 Aliphatics	n	rb	800
C9-C12 Aliphatics	n	rb	500
C9-C10 Aromatics	n	rb	1,000
MTBE	n	hhs	30
Benzene	c	hhs	5
Toluene	n	hhs	1,000
Ethylbenzene	n	hhs	700
Xylenes	n	hhs	10,000
Naphthalene	n	hhs	100
Lead Scavengers			
Ethylene dibromide (EDB)	c	hhs	0.004
1,2, Dichloroethane (DCA)	c	hhs	4
For Diesel and Heavy Hydrocarbons measured using the Massachusetts Method for Extractable Petroleum Hydrocarbons (EPH)			
C9-C18 Aliphatics	n	rb	500
C19-C36 Aliphatics	n	bu	1,000
C11-C22 Aromatics	n	rb	1,000
Acenaphthene	n	hhs	670
Anthracene	n	hhs	2,100
Benz(a)anthracene	c	hhs	0.5
Benzo(a)pyrene	c	hhs	0.05*
Benzo(b)fluoranthene	c	hhs	0.5
Benzo(k)fluoranthene	c	hhs	5
Chrysene	c	hhs	50
Dibenzo(a,h)anthracene	c	hhs	0.05*
Fluoranthene	n	hhs	130
Fluorene	n	hhs	1,100
Indeno(1,2,3-cd)pyrene	c	hhs	0.5
Naphthalene	n	hhs	100
Pyrene	n	hhs	830

Notes:

Effect is either: n = non-carcinogenic and direct contact RBSLs are based on a hazard quotient of 1, or
c = carcinogenic and direct contact RBSLs are based on a cancer risk $1X10^{-5}$.

Basis is: rb = risk-based screening level;
hhs = DEQ-7 Human Health Standard; or
bu = adversely affects beneficial uses (foul taste or odor).
* = The best achievable practical quantitation limit (0.1 µg/L) may be greater than the human health standard; therefore, if the compound is detected, additional evaluation may be necessary.

DEQ's RBCA policy includes a ceiling concentration of 1,000 µg/l total purgeable hydrocarbons (TPH) for the Gasoline and Light Hydrocarbons and 1,000 µg/l total extractable petroleum hydrocarbons (TEH) for Diesel and Heavy Hydrocarbons .

Commercial - Carcinogenic Scenerio -- Surface Soil

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*BWa*AT)/(EF*ED*((SFo*CF*IRSa)+(SFo*IRAa*1/PEF)+(SFo*CF*RAFd*DFa)))]

BENZ(A)ANTHRACENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	7.4
TR (Target cancer risk)	1.43E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	7.30E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

BENZO(A)PYRENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.74
TR (Target cancer risk)	1.43E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; IRIS, January 2007)	7.30E+00
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

BENZO(B)FLUORANTHENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	7.4
TR (Target cancer risk)	1.43E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	7.30E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

DIBENZO(A,H)ANTHRACENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.74
TR (Target cancer risk)	1.43E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	7.30E+00
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

PENTACHLOROPHENOL	
Parameters	Values
Cs (Soil concentration - mg/kg)	42
TR (Target cancer risk)	1.43E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.20E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.25
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

INDENO(1,2,3-CD)PYRENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	7.4
TR (Target cancer risk)	1.43E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	7.30E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.000038

TR (Target cancer risk)	1.43E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.50E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.03
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

Commercial - Carcinogenic Scenerio -- Surface Soil

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*BWa*AT)/(EF*ED*((SFo*CF*IRSa)+(SFo*IRAa*1/PEF)+(SFo*CF*RAFd*DFa)))]

CARCINOGENIC PAH B(A)P EQUIVALENT	
Parameters	Values
Cs (Soil concentration - mg/kg)	1.7
TR (Target cancer risk)	3.33E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	7.30E+00
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

PENTACHLOROPHENOL	
Parameters	Values
Cs (Soil concentration - mg/kg)	98
TR (Target cancer risk)	3.33E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.20E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.25
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.000089
TR (Target cancer risk)	3.33E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.50E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.03
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

Commercial - Non-Carcinogen Scenerio - Surface Soil

Non-cancer Risk Formula (with volatilization factor):

Cs = [(THQ*BWa*AT)/(ED*EF*((1/RfDo*CF*RAFo*IRSa)+(1/RfDi*IRAa*(1/PEF+1/VF))+(1/RfDo*CF*RAFd*DFa))

C9-C18 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	4,782
THQ (Target hazard quotient)	0.5
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	9125
ED (Exposure duration - yr; EPA, December 1991)	25
EF (Exposure frequency - day/yr; EPA, December 1991)	187
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	1.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
RfDi (Chemical specific inhalation reference dose - mg/kg-day; MADEP, November 2003)	5.70E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	17605
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.5
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

Non-cancer Risk Formula (without volatilization factor):

Cs = [(THQ*BWa*AT)/(ED*EF*((1/RfDo*CF*IRSa)+(1/RfDo*IRAa*1/PEF)+(1/RfDo*CF*RAFd*DFa)))]

C11-C22 AROMATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	96,162
THQ (Target hazard quotient)	1
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	9125
ED (Exposure duration - yr; EPA, December 1991)	25
EF (Exposure frequency - day/yr; EPA, December 1991)	187
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	3.00E-02
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
RAFo (Chemical specific oral relative absorption factor - unitless, MADEP, October 2002)	3.6E-01
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
RfDi (Chemical specific inhalation reference dose - mg/kg-day; MADEP, November 2003)	1.40E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.1
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

IRON	
Parameters	Values
Cs (Soil concentration - mg/kg)	202,894
THQ (Target hazard quotient)	0.5
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	9125
ED (Exposure duration - yr; EPA, December 1991)	25
EF (Exposure frequency - day/yr; EPA, December 1991)	187
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	3.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09

ALUMINUM	
Parameters	Values
Cs (Soil concentration - mg/kg)	624,219
THQ (Target hazard quotient)	0.5
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	9125
ED (Exposure duration - yr; EPA, December 1991)	25
EF (Exposure frequency - day/yr; EPA, December 1991)	187
RfDo (Chemical specific oral reference dose - mg/kg-day; IRIS January 2007)	1.00E+00
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
RfDi (Chemical specific inhalation reference dose - mg/kg-day; IRIS January 2007)	1.4E-03
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*BWa*AT)/(EF*ED*((SFo*CF*IRSa)+(SFi*IRAa*1/PEF)+(SFo*CF*RAFd*DFa)))]

BENZ(A)ANTHRACENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	102
TR (Target cancer risk)	2.0E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	7.30E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

BENZO(A)PYRENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	10
TR (Target cancer risk)	2.0E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; IRIS, January 2007)	7.30E+00
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

PENTACHLOROPHENOL	
Parameters	Values
Cs (Soil concentration - mg/kg)	520
TR (Target cancer risk)	2.0E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.20E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.25
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.000589
TR (Target cancer risk)	2.0E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.50E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.03
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

CARBAZOLE	
Parameters	Values
Cs (Soil concentration - mg/kg)	3,902
TR (Target cancer risk)	2.00E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, July 1997)	2.00E-02
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.1
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*BWa*AT)/(EF*ED*((SFo*CF*IRSa)+(SFi*IRAa*1/PEF)+(SFo*CF*RAFd*DFa)))]

CARCINOGENIC PAH B(A)P EQUIVALENT	
Parameters	Values
Cs (Soil concentration - mg/kg)	13
TR (Target cancer risk)	2.50E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	124
ED (Exposure duration - yr; EPA, December 1991)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	7.30E+00
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

PENTACHLOROPHENOL	
Parameters	Values
Cs (Soil concentration - mg/kg)	650
TR (Target cancer risk)	2.50E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; IRIS January 2007)	1.20E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.25
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.000736
TR (Target cancer risk)	2.50E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.50E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.03
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

CARBAZOLE	
Parameters	Values
Cs (Soil concentration - mg/kg)	4,878
TR (Target cancer risk)	2.50E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, July 1997)	2.00E-02
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.1
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

Non-cancer Risk Formula (with volatilization factor):

Cs = [(THQ*BWa*AT)/(ED*EF*((1/RfDo*CF*RAFo*IRSa)+(1/RfDi*IRAa*(1/PEF+1/VF))+(1/RfDo*CF*RAFd*D

C5-C8 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	584
THQ (Target hazard quotient)	0.2
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	4.00E-02
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; IRIS January 2007 - n-hexane)	2.00E-01
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	1419
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	1
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

C9-C12 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	1,240
THQ (Target hazard quotient)	0.2
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	1.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; MADEP, November 2003)	5.70E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	8563
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.5
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

C9-C18 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	2,107
THQ (Target hazard quotient)	0.2
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	1.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; MADEP, November 2003)	5.70E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	17605
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.5
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

NAPHTHALENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	309
THQ (Target hazard quotient)	0.5
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; IRIS, January 2007)	2.00E-02
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; IRIS, January 2007)	8.60E-04
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	48405
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPAIII, Dec. 1995)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

XYLENES	
Parameters	Values
Cs (Soil concentration - mg/kg)	389
THQ (Target hazard quotient)	0.2
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; IRIS, January 2007)	2.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; IRIS, January 2007)	2.90E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	4302
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPAIII, Dec. 1995)	0.03
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

Non-cancer Risk Formula (without volatilization factor):

Cs = [(THQ*BWa*AT)/(ED*EF*((1/RfDo*CF*IRSa)+(1/RfDo*IRAa*1/PEF)+(1/RfDo*CF*RAFd*DFa)))]

C11-C22 AROMATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	33,445
THQ (Target hazard quotient)	1
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	3.00E-02
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
RAFo (Chemical specific oral relative absorption factor - unitless; MADEP, October 2002)	3.6E-01
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; MADEP, November 2003)	1.40E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.1
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

C19-C36 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	260,154
THQ (Target hazard quotient)	0.25
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	2.00E+00
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.1
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

2-METHYLNAPHTHALENE	
Parameters	Values
Cs (Soil concentration - mg/kg)	1,982
THQ (Target hazard quotient)	1
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; IRIS, January 2007)	4.00E-03
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.13
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

IRON	
Parameters	Values
Cs (Soil concentration - mg/kg)	46,686
THQ (Target hazard quotient)	0.25
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; IRIS, January 2007)	3.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09

ALUMINUM	
Parameters	Values
Cs (Soil concentration - mg/kg)	120,209
THQ (Target hazard quotient)	0.2
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; IRIS, January 2007)	1.00E+00
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
RfDi (Chemical specific inhalation reference dose - mg/kg-day; IRIS, January 2007)	1.0E-03
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09

Residential Carcinogenic Exposure - Surface Soil

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*AT)/(EF*((SFo*CF*IFSadj)+(SFo*IFAadj*1/PEF)+(SFo*CF*RAFd*DFadj)))]

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.0000541
TR (Target cancer risk)	1.E-05
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	270
SFo (Chemical specific oral cancer slope factor - kg-day/mg; EPA, March 1993)	1.50E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IFSadj (Age-adjusted soil ingestion rate - mg-yr/kg-day; EPAIX, October 2004)	114
IFAadj (Age-adjusted inhalation rate - m^3-yr/kg-day; EPAIX, October 2004)	8
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.03
DFadj (Age-adjusted dermal factor - mg-yr/kg-day; EPAIX, October 2004)	361

Toxicity Equivalents - Carcinogenic PAHs B(a)P TEQ

Sample and Date:

Compound	DL	Qual.	Conc. or 1/2 DL (pp_)	TEFs	TEF Conc.
Benzo(a) pyrene			0	1	0
Benzo(a)anthracene			0	0.1	0
Benzo(b)fluoranthene			0	0.1	0
Benzo(k)fluoranthene			0	0.01	0
Chrysene			0	0.001	0
Dibenzo(a,h)anthracene			0	1	0
Indeno(1,2,3-cd)pyrene			0	0.1	0
Total TEQ					**0.0**

Toxicity Equivalents

Sample and Date: 2090-SO-024 WPSB-9 7/6/95 (soil)

Compound	DL	Qual.	Conc. or 1/2 DL (ppt)	WHO TEFs	TEF Conc.
2,3,7,8-TCDD	3.7	ND	1.85	1	1.85
1,2,3,7,8-PeCDD	7.6	ND	3.8	1	3.8
1,2,3,4,7,8-HxCDD	5		7.2	0.1	0.72
1,2,3,6,7,8-HxCDD	5		1140	0.1	114
1,2,3,7,8,9-HxCDD	5	PR	59.1	0.1	5.91
1,2,3,4,6,7,8-HpCDD	7		26660	0.01	266.6
1,2,3,4,6,7,8,9-OCDD	8		191230	0.0001	19.123
2,3,7,8-TCDF	8	EMPC	7.2	0.1	0.72
1,2,3,7,8-PeCDF	7.6		29.6	0.05	1.48
2,3,4,7,8-PeCDF	7.6		30.2	0.5	15.1
1,2,3,4,7,8-HxCDF	5		276	0.1	27.6
1,2,3,6,7,8-HxCDF	5		83.5	0.1	8.35
2,3,4,6,7,8-HxCDF	5	PR	96	0.1	9.6
1,2,3,7,8,9-HxCDF	5	PR	90.9	0.1	9.09
1,2,3,4,6,7,8-HpCDF	7		9110	0.01	91.1
1,2,3,4,7,8,9-HpCDF	7		249	0.01	2.49
1,2,3,4,6,7,8,9-OCDF	8		66600	0.0001	6.66
Total TEQ/WHO					**584.2**

Add the units for soil (ppt) or water (ppq) to D4, then place all detection limits in column B, add all qualifiers to column C, replace 1/2 the detection limits with the concentrations of all detected congeners in column D, the spreadsheet calculates the toxicity equivalence by multiplying column D by column E and summing the results in F22.

DATA ENTRY SHEET

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [X]

KRY Site - Basement with groundwater

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [ ]

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	
91203		Naphthalene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER SCS soil type directly above water table	ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
200	609.6	S	10	5

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		ENTER User-defined vandose zone soil vapor permeability, k_v (cm^2)	ENTER Vadose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
	OR					

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [X]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [ ]

KRY Site - Basement with groundwater

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
95636		1,2,4-Trimethylbenzene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER SCS soil type directly above water table	ENTER Average soil/ groundwater temperature, T_S (^oC)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
200	609.6	S	10	5

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		ENTER User-defined vandose zone soil vapor permeability, k_v (cm^2)	ENTER Vadose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
S	OR		S	1.66	0.375	0.054

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)	ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
1.0E-06	0.333	70	25	25	250

Used to calculate risk-based

groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
6.06E-02	7.92E-06	6.14E-03	25	9,369	442.30	649.17	1.35E+03	5.70E+01	0.0E+00	6.0E-03

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
409.6	0.321	0.003	9.92E-08	0.998	9.91E-08	17.05	0.375	0.122	0.253	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
2.54E+04	1.80E+06	2.22E-04	200	11,692	2.16E-03	9.30E-02	1.75E-04	9.80E-03	3.94E-04	4.92E-03

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
409.6	200	9.30E+01	0.10	8.33E+01	9.80E-03	4.00E+02	2.27E+92	6.75E-04	6.28E-02	NA	6.0E-03

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (µg/L)	Indoor exposure groundwater conc., noncarcinogen (µg/L)	Risk-based indoor exposure groundwater conc., (µg/L)	Pure component water solubility, S (µg/L)	Final indoor exposure groundwater conc., (µg/L)
NA	4.61E+01	4.61E+01	5.70E+04	4.61E+01

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	NA

MESSAGE SUMMARY BELOW:
MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

END

]

VLOOKUP TABLES

Soil Properties Lookup Table

CS Soil Typ	K_s (cm/h)	α_1 (1/cm)	N (unitless)	M (unitless)	n (cm^3/cm^3)	θ_r (cm^3/cm^3)	Grain Diameter	Bulk Density (g/cm^3)	θ_w (cm^3/cm^3)	SCS Soil Name
C	0.61	0.01496	1.253	0.2019	0.459	0.098	0.0092	1.43	0.215	Clay
CL	0.34	0.01581	1.416	0.2938	0.442	0.079	0.016	1.48	0.168	Clay Loam
L	0.50	0.01112	1.472	0.3207	0.399	0.061	0.020	1.59	0.148	Loam
LS	4.38	0.03475	1.746	0.4273	0.390	0.049	0.040	1.62	0.076	Loamy Sand
S	26.78	0.03524	3.177	0.6852	0.375	0.053	0.044	1.66	0.054	Sand
SC	0.47	0.03342	1.208	0.1722	0.385	0.117	0.025	1.63	0.197	Sandy Clay
SCL	0.55	0.02109	1.330	0.2481	0.384	0.063	0.029	1.63	0.146	Sandy Clay Loam
SI	1.82	0.00658	1.679	0.4044	0.489	0.050	0.0046	1.35	0.167	Silt
SIC	0.40	0.01622	1.321	0.2430	0.481	0.111	0.0039	1.38	0.216	Silty Clay
SICL	0.46	0.00839	1.521	0.3425	0.482	0.090	0.0056	1.37	0.198	Silty Clay Loam
SIL	0.76	0.00506	1.663	0.3987	0.439	0.065	0.011	1.49	0.180	Silt Loam
SL	1.60	0.02667	1.449	0.3099	0.387	0.039	0.030	1.62	0.103	Sandy Loam

Chemical Properties Lookup Table

CAS No.	Chemical	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Pure component water solubility, S (mg/L)	Henry's law constant H' (unitless)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	URF extrapolated (X)
56235	Carbon tetrachloride	1.74E+02	7.80E-02	8.80E-06	7.93E+02	1.24E+00	3.03E-02	25	349.90	556.60	7,127	1.5E-05	0.0E+00	
57749	Chlordane	1.20E+05	1.18E-02	4.37E-06	5.60E-02	1.99E-03	4.85E-05	25	624.24	885.73	14,000	1.0E-04	7.0E-04	
58899	gamma-HCH (Lindane)	1.07E+03	1.42E-02	7.34E-06	7.30E+00	5.73E-04	1.40E-05	25	596.55	839.36	15,000	3.7E-04	1.1E-03	X
60297	Ethyl ether	5.73E+00	7.82E-02	8.61E-06	5.68E+04	1.35E+00	3.29E-02	25	307.50	466.74	6,338	0.0E+00	7.0E-01	
60571	Dieldrin	2.14E+04	1.25E-02	4.74E-06	1.95E-01	6.18E-04	1.51E-05	25	613.32	842.25	17,000	4.6E-03	1.8E-04	
67641	Acetone	5.75E-01	1.24E-01	1.14E-05	1.00E+06	1.59E-03	3.87E-05	25	329.20	508.10	6,955	0.0E+00	3.5E-01	
67663	Chloroform	3.98E+01	1.04E-01	1.00E-05	7.92E+03	1.50E-01	3.66E-03	25	334.32	536.40	6,988	2.3E-05	0.0E+00	
67721	Hexachloroethane	1.78E+03	2.50E-03	6.80E-06	5.00E+01	1.59E-01	3.88E-03	25	458.00	695.00	9,510	4.0E-06	3.5E-03	
71432	Benzene	5.89E+01	8.80E-02	9.80E-06	1.79E+03	2.27E-01	5.54E-03	25	353.24	562.16	7,342	7.8E-06	3.0E-02	
71556	1,1,1-Trichloroethane	1.10E+02	7.80E-02	8.80E-06	1.33E+03	7.03E-01	1.72E-02	25	347.24	545.00	7,136	0.0E+00	2.2E+00	
72435	Methoxychlor	9.77E+04	1.56E-02	4.46E-06	1.00E-01	6.46E-04	1.58E-05	25	651.02	848.49	16,000	0.0E+00	1.8E-02	
72559	DDE	4.47E+06	1.44E-02	5.87E-06	1.20E-01	8.59E-04	2.09E-05	25	636.44	860.38	15,000	9.7E-05	0.0E+00	X
74839	Methyl bromide	1.05E+01	7.28E-02	1.21E-05	1.52E+04	2.55E-01	6.22E-03	25	276.71	467.00	5,714	0.0E+00	5.0E-03	
74873	Methyl chloride (chloromethane)	2.12E+00	1.26E-01	6.50E-06	5.33E+03	3.61E-01	8.80E-03	25	249.00	416.25	5,115	1.0E-06	9.0E-02	
74908	Hydrogen cyanide	3.80E+00	1.93E-01	2.10E-05	1.00E+06	5.44E-03	1.33E-04	25	299.00	456.70	6,676	0.0E+00	3.0E-03	
74953	Methylene bromide	1.26E+01	4.30E-02	8.44E-06	1.19E+04	3.52E-02	8.59E-04	25	370.00	583.00	7,868	0.0E+00	3.5E-02	
75003	Chloroethane (ethyl chloride)	4.40E+00	2.71E-01	1.15E-05	5.68E+03	3.61E-01	8.80E-03	25	285.30	460.40	5,879	8.3E-07	1.0E+01	X
75014	Vinyl chloride (chloroethene)	1.86E+01	1.06E-01	1.23E-05	8.80E+03	1.10E+00	2.69E-02	25	259.25	432.00	5,250	8.8E-06	1.0E-01	
75058	Acetonitrile	4.20E+00	1.28E-01	1.66E-05	1.00E+06	1.42E-03	3.45E-05	25	354.60	545.50	7,110	0.0E+00	6.0E-02	
75070	Acetaldehyde	1.06E+00	1.24E-01	1.41E-05	1.00E+06	3.23E-03	7.87E-05	25	293.10	466.00	6,157	2.2E-06	9.0E-03	
75092	Methylene chloride	1.17E+01	1.01E-01	1.17E-05	1.30E+04	8.96E-02	2.18E-03	25	313.00	510.00	6,706	4.7E-07	3.0E+00	
75150	Carbon disulfide	4.57E+01	1.04E-01	1.00E-05	1.19E+03	1.24E+00	3.02E-02	25	319.00	552.00	6,391	0.0E+00	7.0E-01	
75218	Ethylene oxide	1.33E+00	1.04E-01	1.45E-05	3.04E+05	2.27E-02	5.54E-04	25	283.60	469.00	6,104	1.0E-04	0.0E+00	
75252	Bromoform	8.71E+01	1.49E-02	1.03E-05	3.10E+03	2.41E-02	5.88E-04	25	422.35	696.00	9,479	1.1E-06	7.0E-02	
75274	Bromodichloromethane	5.50E+01	2.98E-02	1.06E-05	6.74E+03	6.54E-02	1.60E-03	25	363.15	585.85	7,800	1.8E-05	7.0E-02	X
75296	2-Chloropropane	9.14E+00	8.88E-02	1.01E-05	3.73E+03	5.93E-01	1.45E-02	25	308.70	485.00	6,286	0.0E+00	1.0E-01	
75343	1,1-Dichloroethane	3.16E+01	7.42E-02	1.05E-05	5.06E+03	2.30E-01	5.61E-03	25	330.55	523.00	6,895	0.0E+00	5.0E-01	
75354	1,1-Dichloroethylene	5.89E+01	9.00E-02	1.04E-05	2.25E+03	1.07E+00	2.60E-02	25	304.75	576.05	6,247	0.0E+00	2.0E-01	
75456	Chlorodifluoromethane	4.79E+01	1.01E-01	1.28E-05	2.00E+00	1.10E+00	2.70E-02	25	232.40	369.30	4,836	0.0E+00	5.0E+01	
75694	Trichlorofluoromethane	4.97E+02	8.70E-02	9.70E-06	1.10E+03	3.97E+00	9.68E-02	25	296.70	471.00	5,999	0.0E+00	7.0E-01	
75718	Dichlorodifluoromethane	4.57E+02	6.65E-02	9.92E-06	2.80E+02	1.40E+01	3.42E-01	25	243.20	384.95	9,421	0.0E+00	2.0E-01	
76131	1,1,2-Trichloro-1,2,2-trifluoroethar	1.11E+04	7.80E-02	8.20E-06	1.70E+02	1.97E+01	4.80E-01	25	320.70	487.30	6,463	0.0E+00	3.0E+01	
76448	Heptachlor	1.41E+06	1.12E-02	5.69E-06	1.80E-01	6.05E+01	1.48E+00	25	603.69	846.31	13,000	1.3E-03	1.8E-03	
77474	Hexachlorocyclopentadiene	2.00E+05	1.61E-02	7.21E-06	1.80E+00	1.10E+00	2.69E-02	25	512.15	746.00	10,931	0.0E+00	2.0E-04	
78831	Isobutanol	2.59E+00	8.60E-02	9.30E-06	8.50E+04	4.83E-04	1.18E-05	25	381.04	547.78	10,936	0.0E+00	1.1E+00	
78875	1,2-Dichloropropane	4.37E+01	7.82E-02	8.73E-06	2.80E+03	1.15E-01	2.79E-03	25	369.52	572.00	7,590	1.9E-05	4.0E-03	X

78933	Methylethylketone (2-butanone)	2.30E+00	8.08E-02	9.80E-06	2.23E+05	2.29E-03	5.58E-05	25	352.50	536.78	7,481	0.0E+00	5.0E+00	
79005	1,1,2-Trichloroethane	5.01E+01	7.80E-02	8.80E-06	4.42E+03	3.73E-02	9.11E-04	25	386.15	602.00	8,322	1.6E-05	1.4E-02	
79016	Trichloroethylene	1.66E+02	7.90E-02	9.10E-06	1.47E+03	4.21E-01	1.03E-02	25	360.36	544.20	7,505	1.1E-04	4.0E-02	X
79209	Methyl acetate	3.26E+00	1.04E-01	1.00E-05	2.00E+03	4.84E-03	1.18E-04	25	329.80	506.70	7,260	0.0E+00	3.5E+00	
79345	1,1,2,2-Tetrachloroethane	9.33E+01	7.10E-02	7.90E-06	2.96E+03	1.41E-02	3.44E-04	25	419.60	661.15	8,996	5.8E-05	2.1E-01	
79469	2-Nitropropane	1.17E+01	9.23E-02	1.01E-05	1.70E+04	5.03E-03	1.23E-04	25	393.20	594.00	8,383	2.7E-03	2.0E-02	
80626	Methylmethacrylate	6.98E+00	7.70E-02	8.60E-06	1.50E+04	1.38E-02	3.36E-04	25	373.50	567.00	8,975	0.0E+00	7.0E-01	
83329	Acenaphthene	7.08E+03	4.21E-02	7.69E-06	3.57E+00	6.34E-03	1.55E-04	25	550.54	803.15	12,155	0.0E+00	2.1E-01	
86737	Fluorene	1.38E+04	3.63E-02	7.88E-06	1.98E+00	2.60E-03	6.34E-05	25	570.44	870.00	12,666	0.0E+00	1.4E-01	
87683	Hexachloro-1,3-butadiene	5.37E+04	5.61E-02	6.16E-06	3.20E+00	3.33E-01	8.13E-03	25	486.15	738.00	10,206	2.2E-05	7.0E-04	
88722	o-Nitrotoluene	3.24E+02	5.87E-02	8.67E-06	6.50E+02	5.11E-04	1.25E-05	25	495.00	720.00	12,239	0.0E+00	3.5E-02	
91203	Naphthalene	2.00E+03	5.90E-02	7.50E-06	3.10E+01	1.98E-02	4.82E-04	25	491.14	748.40	10,373	0.0E+00	3.0E-03	
91576	2-Methylnaphthalene	2.81E+03	5.22E-02	7.75E-06	2.46E+01	2.12E-02	5.17E-04	25	514.26	761.00	12,600	0.0E+00	7.0E-02	
92524	Biphenyl	4.38E+03	4.04E-02	8.15E-06	7.45E+00	1.23E-02	2.99E-04	25	529.10	789.00	10,890	0.0E+00	1.8E-01	
95476	o-Xylene	3.63E+02	8.70E-02	1.00E-05	1.78E+02	2.12E-01	5.18E-03	25	417.60	630.30	8,661	0.0E+00	1.0E-01	
95501	1,2-Dichlorobenzene	6.17E+02	6.90E-02	7.90E-06	1.56E+02	7.77E-02	1.90E-03	25	453.57	705.00	9,700	0.0E+00	2.0E-01	
95578	2-Chlorophenol	3.88E+02	5.01E-02	9.46E-06	2.20E+04	1.60E-02	3.90E-04	25	447.53	675.00	9,572	0.0E+00	1.8E-02	
95636	1,2,4-Trimethylbenzene	1.35E+03	6.06E-02	7.92E-06	5.70E+01	2.52E-01	6.14E-03	25	442.30	649.17	9,369	0.0E+00	6.0E-03	
96184	1,2,3-Trichloropropane	2.20E+01	7.10E-02	7.90E-06	1.75E+03	1.67E-02	4.08E-04	25	430.00	652.00	9,171	5.7E-04	4.9E-03	X
96333	Methyl acrylate	4.53E+00	9.76E-02	1.02E-05	6.00E+04	7.68E-03	1.87E-04	25	353.70	536.00	7,749	0.0E+00	1.1E-01	
97632	Ethylmethacrylate	2.95E+01	6.53E-02	8.37E-06	3.67E+03	3.44E-02	8.40E-04	25	390.00	571.00	10,957	0.0E+00	3.2E-01	
98066	tert-Butylbenzene	7.71E+02	5.65E-02	8.02E-06	2.95E+01	4.87E-01	1.19E-02	25	442.10	1220.00	8,980	0.0E+00	1.4E-01	
98828	Cumene	4.89E+02	6.50E-02	7.10E-06	6.13E+01	4.74E+01	1.46E-02	25	425.56	631.10	10,335	0.0E+00	4.0E-01	
98862	Acetophenone	5.77E+01	6.00E-02	8.73E-06	6.13E+03	4.38E-04	1.07E-05	25	475.00	709.50	11,732	0.0E+00	3.5E-01	
98953	Nitrobenzene	6.46E+01	7.60E-02	8.60E-06	2.09E+03	9.82E-04	2.39E-05	25	483.95	719.00	10,566	0.0E+00	2.0E-03	
100414	Ethylbenzene	3.63E+02	7.50E-02	7.80E-06	1.69E+02	3.22E-01	7.86E-03	25	409.34	617.20	8,501	0.0E+00	1.0E+00	
100425	Styrene	7.76E+02	7.10E-02	8.00E-06	3.10E+02	1.12E-01	2.74E-03	25	418.31	636.00	8,737	0.0E+00	1.0E+00	
100447	Benzylchloride	6.14E+01	7.50E-02	7.80E-06	5.25E+02	1.70E-02	4.14E-04	25	452.00	685.00	8,773	4.9E-05	0.0E+00	X
100527	Benzaldehyde	4.59E+01	7.21E-02	9.07E-06	3.30E+03	9.73E-04	2.37E-05	25	452.00	695.00	11,658	0.0E+00	3.5E-01	
103651	n-Propylbenzene	5.62E+02	6.01E-02	7.83E-06	6.00E+01	4.37E-01	1.07E-02	25	432.20	630.00	9,123	0.0E+00	1.4E-01	
104518	n-Butylbenzene	1.11E+03	5.70E-02	8.12E-06	2.00E+00	5.38E-01	1.31E-02	25	456.46	660.50	9,290	0.0E+00	1.4E-01	
106423	p-Xylene	3.89E+02	7.69E-02	8.44E-06	1.85E+02	3.13E-01	7.64E-03	25	411.52	616.20	8,525	0.0E+00	1.0E-01	
106467	1,4-Dichlorobenzene	6.17E+02	6.90E-02	7.90E-06	7.90E+01	9.82E-02	2.39E-03	25	447.21	684.75	9,271	0.0E+00	8.0E-01	
106934	1,2-Dibromoethane (ethylene dibr	2.50E+01	2.17E-02	1.19E-05	4.18E+03	3.04E-02	7.41E-04	25	404.60	583.00	8,310	2.2E-04	2.0E-04	
106990	1,3-Butadiene	1.91E+01	2.49E-01	1.08E-05	7.35E+02	3.01E+00	7.34E-02	25	268.60	425.00	5,370	3.0E-02	2.0E-03	
107028	Acrolein	2.76E+00	1.05E-01	1.22E-05	2.13E+05	4.99E-03	1.22E-04	25	325.60	506.00	6,731	0.0E+00	2.0E-05	
107062	1,2-Dichloroethane	1.74E+01	1.04E-01	9.90E-06	8.52E+03	4.00E-02	9.77E-04	25	356.65	561.00	7,643	2.6E-05	0.0E+00	
107131	Acrylonitrile	5.90E+00	1.22E-01	1.34E-05	7.40E+04	4.21E-03	1.03E-04	25	350.30	519.00	7,786	6.8E-05	2.0E-03	
108054	Vinyl acetate	5.25E+00	8.50E-02	9.20E-06	2.00E+04	2.09E-02	5.10E-04	25	345.65	519.13	7,800	0.0E+00	2.0E-01	
108101	Methylisobutylketone (4-methyl-2-	9.06E+00	7.50E-02	7.80E-06	1.90E+04	5.64E-03	1.38E-04	25	389.50	571.00	8,243	0.0E+00	3.0E+00	
108383	m-Xylene	4.07E+02	7.00E-02	7.80E-06	1.61E+02	3.00E-01	7.32E-03	25	412.27	617.05	8,523	0.0E+00	1.0E-01	
108678	1,3,5-Trimethylbenzene	1.35E+03	6.02E-02	8.67E-06	2.00E+00	2.41E-01	5.87E-03	25	437.89	637.25	9,321	0.0E+00	6.0E-03	
108872	Methylcyclohexane	7.85E+01	7.35E-02	8.52E-06	1.40E+01	4.22E+00	1.03E-01	25	373.90	572.20	7,474	0.0E+00	3.0E+00	
108883	Toluene	1.82E+02	8.70E-02	8.60E-06	5.26E+02	2.72E-01	6.62E-03	25	383.78	591.79	7,930	0.0E+00	4.0E-01	
108907	Chlorobenzene	2.19E+02	7.30E-02	8.70E-06	4.72E+02	1.51E-01	3.69E-03	25	404.87	632.40	8,410	0.0E+00	6.0E-02	
109693	1-Chlorobutane	1.72E+01	8.26E-02	1.00E-05	1.10E+03	6.93E-01	1.69E-02	25	351.60	542.00	7,263	0.0E+00	1.4E+00	
110009	Furan	1.86E+01	1.04E-01	1.22E-05	1.00E+04	2.21E-01	5.39E-03	25	304.60	490.20	6,477	0.0E+00	3.5E-03	
110543	Hexane	4.34E+01	2.00E-01	7.77E-06	1.24E+01	6.82E+01	1.66E+00	25	341.70	508.00	6,895	0.0E+00	7.0E-01	
111444	Bis(2-chloroethyl)ether	1.55E+01	6.92E-02	7.53E-06	1.72E+04	7.36E-04	1.80E-05	25	451.15	659.79	10,803	3.3E-04	0.0E+00	
115297	Endosulfan	2.14E+03	1.15E-02	4.55E-06	5.10E-01	4.58E-04	1.12E-05	25	674.43	942.94	14,000	0.0E+00	2.1E-02	
118741	Hexachlorobenzene	5.50E+04	5.42E-02	5.91E-06	5.00E-03	5.40E-02	1.32E-03	25	582.55	825.00	14,447	4.6E-04	2.8E-03	
120821	1,2,4-Trichlorobenzene	1.78E+03	3.00E-02	8.23E-06	4.88E+01	5.81E-02	1.42E-03	25	486.15	725.00	10,471	0.0E+00	4.0E-03	
123739	Crotonaldehyde (2-butenal)	4.82E+00	9.56E-02	1.07E-05	3.69E+04	7.99E-04	1.95E-05	25	375.20	568.00	9	5.4E-04	0.0E+00	X
124481	Chlorodibromomethane	6.31E+01	1.96E-02	1.05E-05	2.60E+03	3.20E-02	7.81E-04	25	416.14	678.20	5,900	2.4E-05	7.0E-02	X
126987	Methacrylonitrile	3.58E+01	1.12E-01	1.32E-05	2.54E+04	1.01E-02	2.46E-04	25	363.30	554.00	7,600	0.0E+00	7.0E-04	
126998	2-Chloro-1,3-butadiene (chloropre	6.73E+01	8.58E-02	1.03E-05	2.12E+03	4.91E-01	1.20E-02	25	332.40	525.00	8,075	0.0E+00	7.0E-03	
127184	Tetrachloroethylene	1.55E+02	7.20E-02	8.20E-06	2.00E+02	7.53E-01	1.84E-02	25	394.40	620.20	8,288	5.9E-06	6.0E-01	
129000	Pyrene	1.05E+05	2.72E-02	7.24E-06	1.35E+00	4.50E-04	1.10E-05	25	667.95	936	14370	0.0E+00	1.1E-01	
132649	Dibenzofuran	5.15E+03	2.38E-02	6.00E-06	3.10E+00	5.15E-04	1.26E-05	25	560	824	66400	0.0E+00	1.4E-02	
135988	sec-Butylbenzene	9.66E+02	5.70E-02	8.12E-06	3.94E+00	5.68E-01	1.39E-02	25	446.5	679	88730	0.0E+00	1.4E-01	
141786	Ethylacetate	6.44E+00	7.32E-02	9.70E-06	8.03E+04	5.64E-03	1.38E-04	25	350.26	523.3	7633.66	0.0E+00	3.2E+00	

156592	cis-1,2-Dichloroethylene	3.55E+01	7.36E-02	1.13E-05	3.50E+03	1.67E-01	4.07E-03	25	333.65	544	7192	0.0E+00	3.5E-02	
156605	trans-1,2-Dichloroethylene	5.25E+01	7.07E-02	1.19E-05	6.30E+03	3.84E-01	9.36E-03	25	320.85	516.5	6717	0.0E+00	7.0E-02	
205992	Benzo(b)fluoranthene	1.23E+06	2.26E-02	5.56E-06	1.50E-03	4.54E-03	1.11E-04	25	715.9	969.27	17000	2.1E-04	0.0E+00	X
218019	Chrysene	3.98E+05	2.48E-02	6.21E-06	6.30E-03	3.87E-03	9.44E-05	25	714.15	979	16455	2.1E-06	0.0E+00	X
309002	Aldrin	2.45E+06	1.32E-02	4.86E-06	1.70E-02	6.95E-03	1.70E-04	25	603.01	839.37	15000	4.9E-03	1.1E-04	
319846	alpha-HCH (alpha-BHC)	1.23E+03	1.42E-02	7.34E-06	2.00E+00	4.34E-04	1.06E-05	25	596.55	839.36	15000	1.8E-03	0.0E+00	
541731	1,3-Dichlorobenzene	1.98E+03	6.92E-02	7.86E-06	1.34E+02	1.27E-01	3.09E-03	25	446	684	9230.18	0.0E+00	1.1E-01	
542756	1,3-Dichloropropene	4.57E+01	6.26E-02	1.00E-05	2.80E+03	7.24E-01	1.77E-02	25	381.15	587.38	7900	4.0E-06	2.0E-02	
630206	1,1,1,2-Tetrachloroethane	1.16E+02	7.10E-02	7.90E-06	1.10E+03	9.90E-02	2.41E-03	25	403.5	624	9768.282525	7.4E-06	1.1E-01	
1634044	MTBE	7.26E+00	1.02E-01	1.05E-05	5.10E+04	2.56E-02	6.23E-04	25	328.3	497.1	6677.66	0.0E+00	3.0E+00	
7439976	Mercury (elemental)	5.20E+01	3.07E-02	6.30E-06	2.00E+01	4.40E-01	1.07E-02	25	629.88	1750	14127	0.0E+00	3.0E-04	
1	C5-C8 Aliphatics	2.27E+03	8.00E-02	1.00E-05	1.10E+01	5.40E+01	1.32E+00	25	341.89	508	7541	0.0E+00	7.0E-01	L
2	C9-C12 Aliphatics	1.50E+05	7.00E-02	1.00E-05	7.00E-02	6.50E+01	1.59E+00	25	423.96	595	11100	0.0E+00	2.0E-01	L
3	C9-C10 Aromatics	1.78E+03	7.00E-02	1.00E-05	5.10E+01	3.30E-01	8.07E-03	25	667.95	936	14370	0.0E+00	5.0E-02	L

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TECHNICAL MEMORANDUM
CHEMICAL FATE AND TRANSPORT ANALYSIS
SOIL CONTAMINANTS LEACHING TO GROUNDWATER
KALISPELL POLE AND TIMBER, RELIANCE, AND YALE OIL FACILITIES

July 2007

Table of Contents

1.0 Model Overview 1
2.0 Environmental Processes 2
2.1 Chemical Dilution 2
2.2 Chemical Dispersion 3
2.3 Chemical Partitioning 3
2.3.1 Fraction of Organic Carbon Values 5
2.3.2 K_{oc} Values for Non-ionizing Organic Compounds 5
2.3.3 PCP and Metals Partitioning 5
2.4 Chemical Biodegradation 6
2.4.1 Rate Estimation Approach 6
2.4.2 Laboratory to Field Biodegradation Rate Scaling 7
2.4.3 Pentachlorophenol 7
2.4.4 Carbazole 8
2.4.5 Gasoline Range Hydrocarbons 8
2.4.6 Diesel Range Hydrocarbons 9
2.4.7 Methylene Chloride 9
3.0 Modeling Methods 10
3.1 HELP Modeling 10
3.2 VS2DT Model Setup 11
3.3 VS2DT Model Execution 12
3.4 Post-processing of VS2DT Results 12
4.0 SSCL Calculation 13
4.1 SSCL Confirmation 14
5.0 Summary and Discussion 15
6.0 References 16

TABLES

Table 1 Surface and Subsurface Soil Leaching to Groundwater SSCLs
Table 2 VS2DT Parameter Matrix
Table 3 Chemical Specific Parameters
Table 4 Laboratory and VS2DT Biodegradation Rates
Table 5 HELP Modeling Parameters and Results
Table 6 VS2DT Model Parameters
Table 7 VS2DT COC Source Lengths
Table 8 VS2DT POR Concentrations Surface Soils
Table 9 VS2DT POR Concentrations Subsurface Soils
Table 10 SSCL Confirmation Run Results

FIGURES

Figure 1 VS2DT Domain Layout for PCP in Subsurface Soil
Figure 2 VS2DT Domain Layout for PCP in Surface Soil
Figure 3 PCP Breakthrough Curves
Figure 4 Box and Whisker Plots – Confirmation Runs

This Technical Memorandum describes the methods the Montana Department of Environmental Quality (DEQ) used to develop site-specific cleanup levels (SSCLs) for the soil leaching to groundwater pathway at the Kalispell Pole & Timber, Reliance Refinery, and Yale Oil Corporation Facilities (collectively referred to as the "KRY Site"). These SSCLs are concentrations of chemicals of concern (COCs) in surface (less than or equal to 2 feet below ground surface) and subsurface (greater than 2 feet below ground surface) soils protective of DEQ DEQ-7 groundwater quality standards and risk-based screening levels (RBSLs). Chemical fate and transport modeling was performed to predict COC concentrations at a point of reference (POR) in groundwater directly beneath the contaminated soil source area. A total of sixteen COCs were identified for evaluation of chemical leaching to groundwater. The COCs included volatile and semi-volatile petroleum compounds, aromatic and aliphatic petroleum fractions, pentachlorophenol, carbazole, chromium, selenium, and methylene chloride. The COCs and corresponding SSCLs computed for the soil leaching to groundwater pathway are summarized in Table 1.

1.0 Model Overview

The soil leaching to groundwater modeling simulates the fate and transport of COCs in a two-dimensional vertical cross-section. The cross-section includes the entire thickness of the vadose zone (modeled as 7 meters thick) and the upper 13 m of the underlying aquifer. Remedial Investigation (RI) results [Tetra Tech, 2007] were used to represent the approximate COC source dimensions in the vadose zone. In all cases, model domain dimensions were 210 m horizontal and 20 m vertical. Figures 1 and 2 depict the general model layout, illustrating model features for pentachlorophenol (PCP) leaching from surface and subsurface soils to groundwater.

Environmental processes represented in the models include the movement of soil moisture and groundwater, and transport and reaction of the COCs. The chemical reactions consisted of chemical partitioning between soil and water, and chemical biodegradation. The computer programs used to represent these processes were current versions of the programs previously used in the DEQ Risk-based Corrective Action (RBCA) Tier 1 soil leaching to groundwater modeling [DEQ, 2003]. The rate of water percolation through the vadose zone was estimated using the Hydrologic Evaluation of Landfill Performance (HELP) program version 3.07 [Shroeder et al., 1994]. The Solute Transport in Variably Saturated Porous Media (VS2DT) program version 3.2 [Healy, 1990] was used to simulate the movement of COCs from vadose zone soils to groundwater. A three phase chemical partitioning equation [USEPA, 1996] was used to relate total COC concentrations detected in soil samples to COC concentrations in soil moisture.

Model parameters were selected to represent conditions at the KRY Site and the chemical behavior of the COCs. Given the large size of the site, and the heterogeneity in soil properties indicated by the RI [Tetra Tech, 2007], the modeling incorporated low and high values for five of the VS2DT model parameters to represent a range of plausible conditions. Multiple model executions were performed for each COC to generate model

predictions reflecting the possible parameter combinations. The maximum predicted POR concentrations were recorded for each model run, and a 95 percent upper confidence limit (UCL) for these concentrations was calculated for each COC. SSCLs were back-calculated using the DEQ groundwater quality standards and the modeled chemical partitioning and dilution/attenuation results. Confirmation runs were performed using the SSCLs as initial concentrations in the model to verify that the UCLs of the predicted groundwater concentrations did not exceed the DEQ water quality standards.

Table 2 presents the matrix of VS2DT model parameters which were represented using low and high cases. The parameters listed in Table 2 affect the degree of chemical dilution (parameters 1 through 3), the rate of chemical movement (parameter 4), and the rate of chemical biodegradation (parameter 5). These five parameters were selected based on uncertainty in representative parameter values, and high sensitivity of model predictions to these input parameters.

2.0 Environmental Processes

Primary COC-specific properties which affect predicted groundwater concentrations at the POR include the partitioning behavior of each COC between water and soils, and the rate of chemical biodegradation. Predicted POR concentrations are also affected by the mixing of soil moisture and groundwater, which dilutes the chemical concentrations present in soil moisture. These three processes (partitioning, biodegradation, and dilution) are simulated in the VS2DT models. The following sections describe these processes, and the selection of parameter values used in the modeling.

2.1 Chemical Dilution

Chemical dilution and attenuation is commonly expressed as a dilution attenuation factor (DAF), defined as the ratio between the aqueous COC concentration in soil moisture in contaminated soils and the groundwater POR concentration. Site-specific parameters which affect the DAF are identified in the following equation [USEPA, 1996]:

$$\mathrm{DAF} = 1 + \mathrm{Kid} / \mathrm{IL} \qquad (1)$$

where:

DAF	=	dilution attenuation factor [unitless]
K	=	aquifer hydraulic conductivity [m/d]
i	=	hydraulic gradient [m/m]
d	=	mixing zone thickness [m]
I	=	infiltration rate [m/d]
L	=	length of source parallel to flow [m]

Equation (1) indicates that an increase in aquifer hydraulic conductivity and mixing zone thickness increase the DAF, while an increase in the infiltration rate or the source length reduces the DAF. Two cases were evaluated for the hydraulic conductivity, mixing zone thickness, and infiltration rate in the KRY modeling (see Table 2). Hydraulic conductivities reflected the range of results (20 to 300 feet/day) summarized in the RI

[Tetra Tech, 2007]. The two mixing zone cases were modeled by modifying the aquifer transverse (vertical) chemical dispersivity parameter using values taken from the Newell et al., [1996]. This parameter affects the vertical extent of the modeled groundwater plume. Infiltration of precipitation through two different soil types was modeled using HELP, generating two vertical water percolation rates (2.2 and 4.9 inches/year). The hydraulic gradient in all model simulations was set to 0.0057 m/m, reflecting the RI results. The length of the source parallel to groundwater flow was set for each COC based on the distribution of soil concentrations reported in the RI [Tetra Tech, 2007].

2.2 Chemical Dispersion

Dispersion refers to the process whereby a solute plume will spread out in a longitudinal direction (along the direction of groundwater flow) and transversely (perpendicular to groundwater flow) due to mechanical mixing in the aquifer and chemical diffusion [Newell et al., 1996]. Dispersion in VS2DT is simulated as a function of user-specified dispersivity coefficients. Longitudinal dispersivity coefficients for chemical transport in the modeled aquifer were estimated using the following relation [Xu and Eckstein, 1995; Newell et al., 1996]:

$$\sigma_L = 0.83\left[\log 10(L_p)\right]^{2.414} \tag{2}$$

where:
σ_L = longitudinal dispersivity [m]
L_p = length scale [m]

The length scale in Equation (2) was computed using the horizontal distance between the center of the soil source area and the POR. Aquifer transverse (vertical) dispersivities were estimates as 2.5 and 10 percent of the longitudinal dispersivity value [Newell et al., 1996]. Longitudinal and transverse dispersivities for the vertical movement of chemical through the vadose zone were calculated using the following relations [Newell et al., 1996]:

$$\sigma_L = 0.1\left[L_p\right] \tag{3}$$

$$\sigma_T = 0.1\left[\sigma_L\right] \tag{4}$$

where:
σ_L = longitudinal dispersivity [m]
σ_T = transverse dispersivity [m]
L_p = length scale [m]

The length scale applied to solute migration in the vadose zone was calculated using the vertical distance between the center of the soil source area and the top of the water table.

2.3 Chemical Partitioning

Each COC has a chemical-specific affinity for aquifer solids, affecting COC mobility in the subsurface. Organic compound affinity for soils reflects the fraction of organic

carbon (foc) present in the porous media [Means et al., 1980; Chiou et al., 1983; Scharzenbach et al., 1993]. COC affinity for soil organic carbon is quantified by the K_{oc} parameter. The partitioning behavior for each COC in a specific matrix is quantified by the K_d coefficient. This coefficient was estimated as the product of the K_{oc} value and the soil organic carbon fraction (foc) for the organic compounds [USEPA, 1996]:

$$K_d = foc * K_{oc} \tag{5}$$

where:
K_d = soil-water partitioning coefficient [L/kg]
foc = soil fraction of organic carbon [kg/kg]
K_{oc} = organic carbon-water partitioning coefficient [L/kg]

A partitioning relationship was required to relate the total COC concentrations detected in soil samples to COC concentrations present in soil moisture. The following three-phase partitioning equation was used to describe the equilibrium distribution of the COCs between soil vapor, soil moisture, and sorbed to solids [USEPA, 1996]:

$$C_t = C_w \left(K_d + \frac{\theta_w + \theta_a H'}{\rho_b} \right) \tag{6}$$

where:
C_t = total COC concentration in soil [mg/kg]
C_w = COC concentration in soil moisture [mg/L]
K_d = COC partitioning coefficient [L/kg]
θ_w = water-filled soil porosity [L_{water}/L_{soil}]
θ_a = air-filled soil porosity [L_{air}/L_{soil}]
ρ_b = dry soil bulk density [kg/L]
H' = dimensionless Henry's Law constant

Equation (6) was used to relate initial total soil COC concentrations to initial soil moisture concentrations in the VS2DT models.

2.3.1 Fraction of Organic Carbon Values

Two samples of the soil foc were collected during the RI. Sample KRY121BSB001, collected from a clay lithology, contained 2.24 percent organic carbon. Sample KRY121BSB002, collected from a gravel lithology, contained 1.77 percent organic carbon [Tetra Tech, 2007]. Given the large size and the heterogeneity of the KRY Site, two soil organic carbon cases were modeled. The high case used the foc measured in the gravel lithology (1.77 percent). A second (low) case used 0.2 percent organic carbon, reported by Wiedemeier et al. [1999] for a similar sedimentary lithology to the KRY Site (glacial silt with sand, gravel, and clay). This foc value (0.2 percent) corresponds to the default fraction of organic carbon used by the USEPA in the development of soil screening levels [USEPA, 1996]. The low foc case was included in the modeling to represent areas with lower organic carbon than indicated by the two samples collected at the site, and account for reductions in chemical retardation reported at elevated COC concentrations [Davis et al., 1994].

2.3.2 K_{oc} Values for Non-ionizing Organic Compounds

The K_{oc} values for the non-ionizing organic compounds (all organic compounds modeled except PCP) were taken from USEPA [1996]. The K_{oc} values for petroleum fractions were taken from the Massachusetts Department of Environmental Protection [2002]. These K_{oc} values were identical to those used in the DEQ Risk-based Corrective Action (RBCA) Tier 1 soil leaching to groundwater modeling [DEQ, 2003]. The chemical-specific parameters incorporated in the models are summarized in Table 3.

2.3.3 PCP and Metals Partitioning

The partitioning behavior of chromium, selenium and PCP are affected by subsurface pH [USEPA, 1996]. Three samples of the sandy gravel aquifer matrix at the KRY Site were analyzed for pH (samples KRY113ASB001, KRY115ASB002, and KRY121ASB002). Soil pH in these three samples ranged from 7.48 to 8.1, with an average pH of 7.85 [Tetra Tech, 2007]. The pH-dependent chromium and selenium partitioning coefficient (K_d) was estimated by interpolation of the tabulated data for pH 6.8 and 8.0 [USEPA, 1996], resulting in estimated K_d values of 14.55 and 2.45 L/Kg, respectively.

PCP is an ionizing organic compound, resulting in the presence of a neutral species and a negatively charged ionic species in groundwater. The neutral and charged species differ in chemical properties, including aqueous solubility and partitioning behavior [Lee et al., 1990; Arcand et al., 1994; USEPA, 1996; Huang et al., 2000; DiVincenzo and Sparks, 2001]. The PCP K_{oc} used in the model (416 L/Kg = 4.16 x 10^{-4} m^3/g) was calculated as a function of pH using the following equations [USEPA, 1996]:

$$K_{oc} = K_{oc,n}\Phi_n + K_{oc,i}\left(1-\Phi_n\right) \quad (7)$$

$$\Phi_n = \left(1+10^{pH-pKa}\right)^{-1} \quad (8)$$

where:

K_{oc} = soil organic carbon/water partition coefficient [L/kg]

$K_{oc,n}$ = partitioning coefficient for the neutral species [L/kg]

Φ_n = fraction of neutral species present, unitless
$K_{oc,i}$ = partitioning coefficient for the ionized species [L/kg]
pKa = acid dissociation constant [4.80 for PCP].

2.4 Chemical Biodegradation

Laboratory and field investigations have indicated that many organic compounds are subject to biodegradation reactions in porous media [Kearney et al., 1972; Coover and Sims, 1987; Wiedemeier et al., 1999a]. However, microbial populations and biodegradation rates are affected by numerous factors, including the availability of water, carbon, terminal electron acceptors, nutrients, and system pH and temperature [Hack and Bekins, 2000; Holden and Fierer, 2005]. The variation in reported chemical biodegradation rates reflects differences in system attributes, experimental conditions, and physical scales. Anaerobic conditions in groundwater at the KRY Site were documented during the RI [Tetra Tech, 2007]. Oxygen concentrations in the vadose zone soils were not measured, but given the large dimensions of contaminated soil zones, it appears reasonable to anticipate that oxygen-limited (anaerobic) conditions may prevail in COC source areas.

2.4.1 Rate Estimation Approach

The general approach used in this investigation was to identify a range of intrinsic biodegradation rates (e.g., natural attenuation rates) applicable to each class of compounds. A literature search was performed to identify investigations which quantified biodegradation rates for the 16 modeled COCs. Investigation results were identified for all of the COCs except chromium and selenium. Both metals were assumed to be unaffected by biodegradation reactions in the modeling.

In reviewing the investigation results, emphasis was placed on experiments performed in a soil matrix under anaerobic conditions, or at temperatures comparable to the KRY subsurface (approximately 5 – 10 C). Many of the biodegradation investigations used methods which limit their applicability to the estimation of intrinsic biodegradation rates. These methods included enhanced nutrient loading, isolation and application of specialized strains of microorganisms, and investigating biodegradation rates in continuously mixed liquids. The majority of the biodegradation research identified was performed in laboratory-scale (cm^3 – m^3) experimental environments. The scientific literature was searched for investigations comparing laboratory scale and corresponding field scale biodegradation rates.

The biodegradation rates calculated for each COC incorporated two calculations. In the first step, an average laboratory (small scale) chemical biodegradation rate was derived from applicable research results. In the second step, the laboratory rate was reduced by a field scaling factor (see Table 2), to represent reaction-limiting conditions which may be present at the KRY Site. These conditions may include heterogeneity in several field conditions, including substrate and electron acceptor availability, and microbial growth and activity [Davis et al., 2003].

2.4.2 Laboratory to Field Biodegradation Rate Scaling

Two studies of the dependence of the measured biodegradation rates on experimental scale were identified and reviewed. Sturman et al. [1995] summarized the differences between laboratory and field- measured biodegradation rates for gasoline-range hydrocarbons at six sites. A comparison of the results indicated that field degradation rates were a factor of 4 – 10 times slower than the rates indicated by laboratory data. Davis et al. [2003] investigated the influence of heterogeneity and experimental scale on measured diesel biodegradation rates. They reported a 4-fold reduction in the rate diesel biodegradation in 120-cm soil column compared to a 10-cm soil column, and a 9-fold reduction in biodegradation rates measured in a 2.4 m x 1.2 m tank compared to those measured in the 120 cm column.

The factors of 4 and 10 [Sturman et al., 1995] were used to reduce the laboratory biodegradation rates. This range in scaling factors (4-10) was selected because it reflects the direct comparison of field and laboratory rates, and incorporated the results of multiple investigations. The high and low biodegradation cases in the VS2DT models were defined by dividing the laboratory rate by either a factor of 10 (low biodegradation case) or by a factor of 4 (high biodegradation case). Table 4 summarizes laboratory COC half-lives, degradation rates, and the upper and lower case biodegradation rates used in the VS2DT models.

2.4.3 Pentachlorophenol

Investigations of PCP biodegradation include nutrient-enhanced bioremediation of soil [Miller et al., 2004a, Miller et al., 2004b; Walter et al., 2005], bioremediation of leachate and groundwater [Mollah et al., 1999; Schmidt et al., 1999], interpretation of site assessment data [Davis et al., 1994], and the description of PCP biodegradation mechanisms [McAllister et al., 1996]. Hurst et al. [1997] investigated dependence of PCP biodegradation on soil oxygen concentrations in soil samples collected from the Champion International Superfund (Champion) site in Libby, Montana. Mohammed et al. [1998] investigated aerobic and anaerobic PCP and phenanthrene biodegradation rates in a soil/groundwater slurry collected from the Champion site.

The representative laboratory PCP biodegradation rate was estimated based on the investigations of PCP biodegradation at the Champion site in Libby, Montana under various oxygen concentrations. Hurst et al. [1997] investigated PCP biodegradation in soils at 0, 2, 5, 10, and 21 percent oxygen concentrations over a 70 day period. Investigation results indicated comparable biodegradation rates in the 2, 5, 10, and 21 percent oxygen cases, with the maximum biodegradation rate measured in the experiment with 2 percent oxygen. The minimum biodegradation rate was reported for the experiment performed under anaerobic conditions. First-order biodegradation rates for the 0 and 2 percent oxygen experiments were calculated using the following equation [Suarez and Rifai, 1999]:

$$\lambda = \frac{1}{t}\ln\left(\frac{S}{S_0}\right) \tag{9}$$

where:
λ = first order biodegradation rate [day^{-1}]
t = elapsed time [days]
S = final chemical concentration [mg/kg]
S_0 = initial chemical concentration [mg/kg]

Biodegradation rate half lives provide an intuitive descriptor of first-order biodegradation rates. Biodegradation rate half lives and corresponding first-order biodegradation rates (input into the VS2DT models) are related by the following equation [Newell et al., 1996]:

$$t_{1/2} = \frac{\ln(2)}{\lambda} \tag{10}$$

where:
$t_{1/2}$ = biodegradation half life [days]
λ = first order biodegradation rate [day^{-1}]

The calculated biodegradation rates were 7.2 x 10^{-5}/day and 1.4 x 10^{-2}/day, for PCP biodegradation under anaerobic and aerobic conditions, respectively. The biodegradation rates differ by two orders of magnitude, and indicate recalcitrance to biodegradation under anaerobic conditions. The geometric mean of the two rates was computed (1.0 x 10^{-3}/day; half life of approximately 683 days), and used as the representative laboratory value for PCP biodegradation (see Table 4).

2.4.4 Carbazole

One investigation of dioxin biodegradation in soils was identified and reviewed. Grossner et al. [1991] investigated the mineralization of carbazole, pyrene, and benzo[a]pyrene in soils obtained from three abandoned coal gasification plants. Quaduplicate experiments were conducted on a total of six samples collected from the three sites, spiked with radiolabeled carbizole. The experiments were performed for a period of 198 days, with the soils wetted to 80 percent of their water holding capacity. A mass balance analysis was performed to identify the amount of carbazole mineralized to carbon dioxide. Investigation results indicated a median carbazole biodegradation rate of 1.2 x 10^{-3}/day, with a corresponding half life of 600 days.

2.4.5 Gasoline Range Hydrocarbons

A summary of the results of several hundred investigations of benzene, toluene, ethylbenzene, and xylenes (BTEX) biodegradation was compiled by Suarez and Rifai [1999]. The median biodegradation rates for BTEX was 0.004/day, corresponding to a half life of 173 days [Suarez and Rifai, Table 4; 1999]. Marchal et al. [2003] investigated the biodegradation of petroleum fractions in gasoline and diesel under nutrient enhanced conditions. Investigation results indicated that aliphatic hydrocarbons, including normal-, methyl-, dimethyl-, and cyclo-alkanes possessed comparable intrinsic biodegradability to

the aromatic compounds present in gasoline. Based on these results, the laboratory degradation rate for the C5-C8 and C9-C12 aliphatic fractions were set equal to the rate derived for BTEX described above.

2.4.6 Diesel Range Hydrocarbons

Investigations of diesel range hydrocarbon biodegradation have evaluated the influence of temperature and oxygen availability on biodegradation rates. Coover and Sims [1987] investigated the effect of temperature on the rates of PAH biodegradation in agricultural soils under aerobic conditions. Boopathy [2004] investigated anaerobic biodegradation of diesel fuel. Nieman at al. [2001] investigated pyrene biodegradation under aerobic and anaerobic conditions. Park et al. [1990] investigated aerobic PAH biodegradation rates in two soil types.

Coover and Sims [1987] investigated the aerobic biodegradation of PAHs at 10 ºC, 20 ºC, and 30 ºC. Investigation results indicated a decrease in median PAH biodegradation rates of a factor of approximately 3 in the low temperature (10 ºC) experiments compared to the high temperature (30 ºC) experiments. The median PAH biodegradation half life for the 10 ºC experiment was 625 days, equal to a biodegradation rate of 1.1×10^{-3}/day. Boopathy [2004] measured weathered diesel biodegradation rates in soils under anaerobic conditions. Investigation results indicated 13 percent of the diesel range organics degraded over a 310 day period. The half-life and first order biodegradation rate calculated from the Boopathy experiment were 1543 days and 4.5×10^{-4}/day, respectively.

Olson et al. [1999] investigated the biodegradation of diesel range aliphatic and aromatic fractions in continuously mixed liquid cultures. Investigation results indicated that the aliphatic fraction biodegraded more rapidly than the aromatic fraction in the presence a suite of diesel-range hydrocarbons.

Biodegradation rates reported by the Coover and Sims [1987] and Boopathy [2004] investigations were averaged, and used to define the laboratory biodegradation rate of 7.8×10^{-4}/day (half life of 890 days; see Table 4) for diesel range petroleum hydrocarbons. This rate was applied to the PAHs, the C9-C12 aliphatic fraction, and the C9-C10 and C11-C22 aromatic fraction. The C9-C10 fraction includes naphthalene and the isomers of trimethylbenzene. The trimethylbenzene isomers have been reported to be recalcitrant to biodegradation under some anaerobic conditions (Wiedemeier at al., 1999b). Accordingly, the intrinsic biodegradation rate for the C9-C10 aromatic fraction was estimated using the experimental results compiled for diesel range hydrocarbons instead of gasoline range hydrocarbons.

2.4.7 Methylene Chloride

Freedman et al. [1997] investigated methylene chloride biodegradation by a microorganism isolated from activated sludge, and reported biodegradation half-lives on the order of one week. While these results indicate that methylene chloride is susceptible to biodegradation, the reported biodegradation rate was based on microorganism culture isolation and enrichment. The detection of methylene chloride in soil samples collected

during the RI appears to preclude methylene chloride biodegradation at this rate (one week half-life). Instead, the biodegradation rate was assumed to be equal to the BTEX rate compiled from Suarez and Rifai [1999].

3.0 Modeling Methods

The soil leaching to groundwater SSCLs were calculated using an EPA soil-water partitioning equation (Equation 6), and the HELP and VS2DT computer programs. The EPA partitioning equation was used to relate COC concentrations in soil moisture to the total concentrations detected in soil samples, assuming linear partitioning and equilibrium conditions [USEPA, 1996]. The HELP program was used to estimate soil moisture percolation rates through the contaminated source area. VS2DT was used to calculate the DAF for each COC, representing the ratio between COC concentrations in soil moisture in the source area to the COC concentration at the POR.

Initial model runs for each COC were executed using the median soil concentrations calculated from the RI results. The modeling results were used to back-calculate target soil moisture concentrations and total soil concentrations (SSCLs for the leaching to groundwater pathway). The SSCLs represent soil concentrations protective of DEQ-7 water quality standards and RBSLs. A second round of simulations was performed using the SSCLs as the initial condition in the models to confirm the modeled attenuation between soil source concentrations and chemical concentrations at the POR.

3.1 HELP Modeling

HELP modeling [Shroeder et al., 1994a; Shroeder et al., 1994b] was performed to estimate the fraction of the annual precipitation which percolates vertically through the vadose zone and infiltrates the aquifer. RI testhole logs were reviewed to identify soil types near the ground surface at the KRY Site. Predominant soil types included silts and gravels, gravelly silts, and gravelly sands [Tetra Tech, 2007]. The range in hydraulic conductivity of these sediments was estimated at 5 ft/day (case 1) to 50 ft/day (case 2) based on the hydraulic conductivity data summarized by Halford and Kuniansky [2002]. Bare ground conditions, a surface slope of 1 percent, and a surface area of 3.7 acres were used to represent conditions at the KRY Site. The 3.7 acre area corresponds to a square with sides approximately 400 feet in length. This length corresponds to source length of subsurface PCP and petroleum contamination interpreted from the RI [Tetra Tech, 2007]. A total of 100 years were simulated, using precipitation rates generated from monthly precipitation data from Kalispell monitoring station 244563 [Western Research Climate Center, 2006]. The HELP program generates daily synthetic precipitation data using the cumulative precipitation amounts entered for each individual month. Table 5 summarizes HELP model parameters and results.

HELP results indicated that the majority of the annual precipitation was returned to the atmosphere via evapotranspiration (72 and 54 percent) for the two cases. Approximately 15 percent of the precipitation was lost to runoff (both cases), and 14 percent (case 1) and 31 percent (case 2) of annual precipitation percolated through the HELP model. The two percolation rates were approximately 2 and 5 inches of water per year, respectively.

These two rates were converted to the units used in the VS2ST model (meters per day) and were used for low and high infiltration cases (see Table 2).

3.2 VS2DT Model Setup

VS2DT simulates the movement of water and a dissolved species in variably-saturated porous media assuming uniform fluid temperature and density. The program uses the finite difference method to solve the governing equations conserving fluid and chemical mass [Lappalla et al., 1987; Healy, 1990]. The program simulates advective chemical transport, chemical partitioning, dispersion, diffusion, and biodegradation. VS2DT does not simulate chemical volatilization, chemical migration in soil vapor, or the presence and movement of non-aqueous phase liquids (NAPLs) [Healy, 1990].

The VS2DT model domain for all simulations was subdivided into a total of 3360 active finite difference cells. All cells were 3 m in the horizontal direction, and cell thickness varied from 1 m at the bottom of the domain to 20 cm in the vicinity of the water table. A single hydrological stress period was simulated. Fluid flow at the model boundaries occurred across the entire top of the model domain, and through the lower portions of the sides of the domain. The top boundary was a specified flux boundary, with the flux rates taken from the HELP modeling results. Constant head boundaries were assigned to the sides of the lower portion of the domain, with the left boundary assigned a hydraulic head value 1.2 m greater than the right boundary. This head difference generated a hydraulic gradient of 0.0057 m/m across the saturated portion of the model domain. The initial distribution of water in the model domain was set to reproduce steady-state conditions. Porous media properties were modeled as isotropic and homogeneous. Table 6 summarizes model parameters which remained fixed in all of the simulations. Chemical-specific parameters in the models include partitioning and aqueous diffusion coefficients, and biodegradation rate constants (see Tables 3 and 4).

The POR was conceptualized as a monitoring well located at the downgradient edge of the COC source area, and screened across the top 10 feet of the saturated zone. A total of 8 model cells (VS2DT observation points) were used to represent the POR monitoring well. Total simulation times ranged from 60,000 days to 600,000 days, and were set to allow the entire chemical breakthrough pattern to be recorded at the POR.

Representative source lengths were defined based on the RI results. The source lengths parallel to the direction of groundwater flow ranged from 500 feet horizontal for PCP contamination of surficial soils (see RI Figure 4-6D) to 100 feet for the ethylbenzene, toluene, chromium, and selenium source areas. The 100 ft source length was estimated for COCs not detected in adjacent testhole sampling locations. Source zone lengths are summarized in Table 7. Based on the RI results, the vertical extent of subsurface soil contamination for all of the COCs in the VS2DT simulations extended down to the vicinity of the water table. The simulations of surface soil leaching to groundwater assumed that contamination was present from approximately 0 to 2 feet below ground surface (see Figures 1 and 2).

3.3 VS2DT Model Execution

Preliminary VS2DT simulations were run to evaluate model grid spacing, mass balance errors, parameter sensitivity, and identify an initial condition for the distribution of fluids consistent with steady-state conditions. The preliminary models were created using the graphical user interface (GUI) VS2DTI (Hsieh et al., 2000).

All combinations of the five parameters (32 runs total) were modeled, using a factorial design ($2^5 = 32$) following the approach of Weaver and Tillman [2005]. Manual manipulation of model input and output files was minimized to avoid text editing errors. The set of 32 VS2DT model input files for each COC was generated using a text substitution script file. A MS-DOS batch file was used to run each set of simulations, and compile selected model output, including POR concentrations and mass balance output. Chromium and selenium were the exceptions to this pattern, due to the absence of modeled biodegradation. Eight cases for each metal were modeled, representing low and high cases for hydraulic conductivity, the infiltration rate, and the vertical dispersivity.

VS2DT mass balance results quantify the rates and total amounts of water and chemical inflow and outflow, and chemical sorption and biodegradation. These results were reviewed to verify the correct assignment of model boundary and initial conditions and model parameters. The reported water and chemical mass balance errors were used to evaluate the accuracy of the iterative solution methods used to solve the fluid and chemical mass balance equations. VS2DT convergence criteria were set to keep mass balance errors below 0.1 percent. Percent mass balance errors for water were calculated as the ratio between the fluid volume balance error and the total volume of fluid flow through the domain. The percent mass balance error for the chemicals was calculated as the ratio between the reported solute mass balance and the initial chemical mass in the model domain.

3.4 Post-processing of VS2DT Results

Post-processing of VS2DT results was performed to calculate the POR concentrations for each model time step and retain the maximum concentration. These functions were performed using a FORTRAN program. At the conclusion of each VS2DT simulation, chemical concentrations recorded in the eight observation points were averaged to define the POR concentration for each model time step:

$$C_{POR,t} = \sum_{obs=1}^{obs=8} \frac{V_{obs}}{V_{tot}} C_{obs} \tag{11}$$

where:

$C_{POR,t}$ = average concentration at POR at time t [g/m^3]
C_{obs} = chemical concentration in VS2DT observation cell [g/m^3]
V_{obs} = VS2DT observation cell volume [m^3]
V_{tot} = Total volume of all eight POR cells [m^3]

The POR concentration for each model time step was computed using Equation (11), generating a chemical breakthrough curve at the POR. The maximum POR concentration for each simulation was recorded:

$$C_{POR,Max} = Max(C_{POR,t}), i = 1, NT \tag{12}$$

where:

$C_{POR,Max}$ = maximum POR concentration for entire simulation [g/m^3]
$C_{POR,t}$ = POR concentration at time t [g/m^3]
NT = number of VS2DT model time steps, unitless

The POR concentration calculated using Equation (12) was compiled for all of the simulations for each COC, and used in the computation of the SSCLs (see Section 4.0). Figure 3 illustrates PCP breakthrough concentrations measured in the eight POR cells, and the resulting averaged POR concentration calculated using Equation (11). In this case, subsurface PCP soil contamination was modeled, using an initial total PCP concentration in soil of 430 μg/kg (equal to the SSCL). The figure illustrates the breakthrough patterns, and depicts the range of concentrations measured in the model cells comprising the POR well.

4.0 SSCL Calculation

The soil leaching to groundwater SSCL computed for each COC is the product of the DEQ-7 water quality standard or RBSL, the EPA chemical partitioning equation, and the DAF [see USEPA, 1996]:

$$SSTL = C_w\left(K_d + \frac{\theta_w + \theta_a H'}{\rho_b}\right) * DAF \tag{13}$$

where:

SSCL = Site-specific soil leaching to groundwater target [mg/kg]
C_w = DEQ-7 water quality standard or RBSL[mg/L]
K_d = partitioning coefficient [L/kg]
θ_w = water-filled soil porosity [L_{water}/L_{soil}]
θ_a = air-filled soil porosity [L_{air}/L_{soil}]
ρ_b = dry soil bulk density [kg/L]
H' = dimensionless Henry's law constant, unitless
DAF = dilution attenuation factor, unitless

For each COC, the 95 percent UCL on the group of POR concentrations (from Equation 12) was calculated using the ProUCL version 3.0 software [Singh et al., 2004]. The DAF in Equation (13) was calculated using the ProUCL results and the initial soil moisture COC concentration in the VS2DT simulations:

$$DAF = \frac{C_{source}}{C_{POR-UCL}} \tag{14}$$

where:

C_{source} = VS2DT source area soil moisture concentration [g/m^3]

$C_{POR-UCL}$ = UCL of average COC concentration in groundwater [g/m^3]

The SSCLs for surface and subsurface soils (see Table 1) were rounded to two significant digits. Computed SSCLs greater than unity (1 x 10^6 mg/kg) were recorded for five petroleum compounds or petroleum fractions with low mobility (COCs with high K_{oc} values). These COCs are reflected in Table 1, with an entry of 'none' for the SSCL. This result reflects a high degree of chemical partitioning to the soil matrix, resulting in a low rate of chemical movement. In this case, biodegradation reactions reduce chemical concentrations to very low levels before the chemical arrives at the POR.

4.1 SSCL Confirmation

The computation of the SSCLs described in Section 4.0 represents a backward calculation based on a specified groundwater quality target, and modeled chemical partitioning and dilution/attenuation behavior. Forward calculations were executed to check these results, and verify that the UCLs of the COC concentrations at the POR did not exceed their respective DEQ water quality targets. For this effort, the SSCL was used as the initial total soil concentration, and the initial VS2DT soil moisture concentrations were calculated using Equation (6). The 95 percent UCL on the POR concentration was computed for each COC. Confirmation runs were executed for each COC which had a numeric SSCL for surface and subsurface soils (15 listed in Table 1).

The POR concentrations generated during the confirmation runs for COCs in surface soils and subsurface soils are presented in Tables 8 and 9. These POR concentrations reveal the range in model predictions arising from the combinations of the parameter values. The predicted POR concentrations in Tables 8 and 9 were input into the ProUCL software for each COC. UCLs were computed for each set of POR concentrations, and these UCLs are summarized in Table 10. For each COC, Table 10 presents the initial soil moisture and total soil concentration, the computed UCL of POR concentrations, and the corresponding DEQ water quality standard. The forward modeling results indicate that the UCLs are equal to the DEQ water quality standards.

The relationship between the POR concentrations and the UCLs for subsurface PCP, C9–C10 aromatics, naphthalene, C5-C8 aliphatics, and acenaphthene are illustrated in Figure 4. The box and whisker diagrams depict the 0.0 (minimum), 0.25, 0.5 (median), 0.75, and 1.0 (maximum) quartiles of the POR concentrations. The corresponding UCLs (which are equal to the DEQ water quality standards) are also plotted on the figure. The UCLs are greater than 75 percent of the modeled POR concentrations, but less than the maximum modeled POR concentrations.

5.0 Summary and Discussion

A primary objective for this modeling effort was to incorporate the range of conditions present at the KRY Site into the calculation of soil leaching to ground water cleanup levels. The heterogeneity in selected site features was represented using a range defined by anticipated minimum and maximum values. For each COC, the results of multiple model simulations were converted into a single result using an upper confidence limit applied to the set of model predictions. A second objective for the modeling was the representation of the major processes affecting the fate of the COCs at the facility. The literature review identified research results applicable to the estimation of biodegradation rates for the COCs. The scientific literature indicates that the estimation of field biodegradation rates is complicated by numerous factors. Given that biodegradation rates were estimated using research results not specific to the KRY Site, the current modeling incorporate a degree of conservatism in the representation of biodegradation. Field scaling factors were applied to the reported biodegradation rates, and a low soil organic carbon case (resulting in high COC mobility) was included in the modeling. This approach was judged to be preferable in the calculation of SSCLs at the KRY Site compared to an alternate option which would assume that no biodegradation occurred.

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TABLES

TABLE 1

SURFACE AND SUBSURFACE SOIL LEACHING TO GROUNDWATER SSCLs [MG/KG]

Chemical	Surface Soil	Subsurface Soil
Acenaphthene	NA	27,000
Benzo(a)Anthracene	None	None
Benzo(a)Pyrene	None	NA
C11-C22 Aromatics	None	42,000
C5-C8 Aliphatics	NA	56,000
C9-C10 Aromatics	NA	4,800
C9-C18 Aliphatics	NA	None
Carbazole	NA	99
Chromium	150	20
Ethylbenzene	NA	320
Fluorene	NA	130,000
Methylene Chloride	0.82	NA
Naphthalene	NA	220
Pentachlorophenol	12	0.43
Selenium	NA	1.7
Toluene	NA	260

Notes:
(1) NA = Not applicable. These compounds did not exceed generic screening levels for leaching from soil to groundwater and therefore were not evaluated.
(2) None = Computed SSCLs were greater than 1.0×10^6 mg/kg, and therefore compounds are considered immobile. No numeric SSCL for leaching to groundwater pathway.

TABLE 2

VS2DT PARAMETER MATRIX

Parameter	Units	Case 1	Case2
Infiltration/Percolation	Inches/year	2.16	4.92
Hydraulic Conductivity	Feet/day	20	300
Vertical/Horizonal Dispersivity	--	0.025	0.100
Fraction of Organic Carbon	--	0.0020	0.0177
Biodegradation Scaling Factor	--	10	4

TABLE 3

CHEMICAL SPECIFIC PARAMETERS

Chemical	Koc [Kg/L]	Henry Law [-]	Aq. Diffusion [m^2/d]
Acenaphthene	4.90E+03	6.36E-03	6.64E-05
Benzo(a)Anthracene	3.58E+05	1.37E-04	7.78E-05
Benzo(a)Pyrene	9.69E+05	4.63E-05	7.78E-05
C11-C22 Aromatics	5.00E+03	3.00E-02	8.64E-05
C5-C8 Aliphatics	2.27E+03	5.40E+01	8.64E-05
C9-C10 Aromatics	1.78E+03	3.30E-01	8.64E-05
C9-C18 Aliphatics	6.80E+05	6.90E+01	4.32E-05
Carbazole	3.39E+03	6.26E-07	6.07E-05
Chromium	NA	0.00E+00	3.97E-04
Ethylbenzene	2.04E+02	3.23E-01	6.74E-05
Fluorene	7.71E+03	2.61E-03	6.81E-05
Methylene Chloride	1.17E+01	8.98E-02	1.01E-04
Naphthalene	1.19E+03	1.98E-02	6.48E-05
Pentachlorophenol	4.16E+02	1.00E-06	5.27E-05
Selenium	NA	4.00E-01	8.64E-05
Toluene	1.40E+02	2.72E-01	7.43E-05

Notes:
(1) NA = Not applicable. Chromium and Selenium partitioning was modeled using a pH-dependent Kd coefficient.
(2) Henry's Law coefficients used in USEPA 3-phase partitioning equation

TABLE 4

LABORATORY AND VS2DT BIODEGRADATION RATES

Chemical	Laboratory Half-life [days]	Laboratory Biodegradation Rate [$days^{-1}$]	VS2DT Case 1	VS2DT Case 2
Acenaphthene	890	7.79E-04	7.79E-05	1.95E-04
Benzo(a)Anthracene	890	7.79E-04	7.79E-05	1.95E-04
Benzo(a)Pyrene	890	7.79E-04	7.79E-05	1.95E-04
C11-C22 Aromatics	890	7.79E-04	7.79E-05	1.95E-04
C5-C8 Aliphatics	173	4.00E-03	4.00E-04	1.00E-03
C9-C10 Aromatics	890	7.79E-04	7.79E-05	1.95E-04
C9-C18 Aliphatics	890	7.79E-04	7.79E-05	1.95E-04
Carbazole	600	1.16E-03	1.16E-04	2.89E-04
Chromium	NA	0.00E+00	0.00E+00	0.00E+00
Ethylbenzene	173	4.00E-03	4.00E-04	1.00E-03
Fluorene	890	7.79E-04	7.79E-05	1.95E-04
Methylene Chloride	173	4.00E-03	4.00E-04	1.00E-03
Naphthalene	890	7.79E-04	7.79E-05	1.95E-04
Pentachlorophenol	680	1.02E-03	1.02E-04	2.54E-04
Selenium	NA	0.00E+00	0.00E+00	0.00E+00
Toluene	173	4.00E-03	4.00E-04	1.00E-03

Notes:
(1) NA = Not applicable. Chromium and Selenium assumed to be non-biodegradable in all model simulations.

TABLE 5

HELP MODELING PARAMETERS AND RESULTS

Parameters	**Units**	**Case 1**	**Case 2**
HELP soil texture #	None	4	1
Hydraulic conductivity	Feet/day	4.8	51
Model thickness	Inches	60	60
Model area	Acres	3.7	3.7
Soil porosity	Vol/Vol	0.437	0.185
Field capacity	Vol/Vol	0.105	0.045
Wilting point	Vol/Vol	0.047	0.018
SCS runoff curve number	None	80.4	71.9
Fraction of area allowing runoff	Percent	100	100
Evaporative zone depth	Inches	14	14
Years simulated	Years	100	100
Results			
Precipitation	Inches/yr	15.71	15.71
Runoff	Inches/yr	2.24	2.29
Evapotranspiration	Inches/yr	11.31	8.51
Percolation	Inches/yr	2.16	4.92
Change In Water Storage	Inches/yr	0.00	0.00

TABLE 6

VS2DT MODEL PARAMETERS
ALL SIMULATIONS

General Parameters	
Model units	meter day gram
Domain width [m]	210
Domain thickness [m]	20
Vadose zone thickness [m]	7.0
Saturated zone thickness [m]	13.0
Number of model cells - horizontal	70
Number of model cells - vertical	48
Grid spacing - horizontal [m]	3.0
Grid spacing - vertical [m]	0.2 - 1.0
Intercell relative hydraulic conductivity	Arithmetic mean
Hydraulic characteristic function	Van Genuchten
Spatial differencing scheme for transport equation	Upstream
Temporal differencing scheme for transport equation	Centered
Adsorption	Linear isotherm
Newton update relaxation parameter	0.7
Minimum iterations per time step	2
Maximum iterations per time step	80
Closure criteria for head [m]	1.00E-05
Porous Media Parameters	
Hydraulic conductivity anisotropy [Kh/Kz]	1.0
Specific storage [1/m]	0
Porosity [m^3/m^3]	0.185
Residual moisture content [m^3/m^3]	0.02
VG alpha parameter [1/m]	4.31
VG beta parameter [unitless]	3.1
Soil density [g/m^3]	2.20E+06
Hydrologic Parameters	
Number of recharge periods	1
Initial hydraulic condition	Steady state moisture
Initial time step [d]	0.001
Time step multiplier	1.1
Maximum time step [d]	30
Minimum time step [d]	0.001
Time step reduction factor	0.5
Maximum head change [m]	1
Steady-state head criterion [m]	0.00010
Maximum height of ponding [m]	0
Specified total head boundary-upgradient [m]	-6.4
Specified total head boundary-downgradient [m]	-7.6
Groundwater gradient [m/m]	0.0057

TABLE 7

VS2DT COC SOURCE LENGTHS

Chemical	Location	Source Length [ft]	Source Length [m]
Benzo(a)Anthracene	Surface	300	91
Benzo(a)Pyrene	Surface	300	91
Chromium	Surface	100	30
C11-C22 Aromatics	Surface	300	91
Methylene Chloride	Surface	200	61
Pentachlorophenol	Surface	500	152
Acenaphthene	Subsurface	400	122
C11-C22 Aromatics	Subsurface	400	122
C5-C8 Aliphatics	Subsurface	400	122
C9-C10 Aromatics	Subsurface	400	122
C9-C18 Aliphatics	Subsurface	400	122
Carbazole	Subsurface	300	91
Chromium	Subsurface	100	30
Ethylbenzene	Subsurface	100	30
Fluorene	Subsurface	400	122
Naphthalene	Subsurface	400	122
Pentachlorophenol	Subsurface	400	122
Selenium	Subsurface	100	30
Toluene	Subsurface	100	30

TABLE 8

VS2DT POR CONCENTRATIONS [MG/L]
SSCL CONFIRMATION RUNS - SURFACE SOILS

Run	Chromium	Methylene Chloride	PCP
1	4.51E-02	6.09E-03	3.12E-04
2	9.85E-02	1.98E-02	4.10E-03
3	4.18E-02	2.28E-04	6.35E-11
4	9.10E-02	3.37E-03	1.31E-07
5	3.13E-03	1.79E-03	3.88E-06
6	7.05E-03	9.87E-03	2.42E-04
7	2.92E-03	3.57E-06	1.70E-16
8	6.56E-03	2.47E-04	1.14E-11
9		5.15E-03	2.03E-04
10		1.68E-02	2.72E-03
11		1.97E-04	4.90E-11
12		2.91E-03	1.03E-07
13		1.54E-03	2.64E-06
14		8.51E-03	1.68E-04
15		3.21E-06	1.53E-16
16		2.22E-04	1.03E-11
17		5.36E-04	4.23E-05
18		1.79E-03	5.75E-04
19		2.29E-05	1.15E-10
20		3.30E-04	1.40E-07
21		1.94E-04	1.11E-06
22		1.06E-03	6.35E-05
23		5.33E-07	2.26E-15
24		3.41E-05	5.07E-11
25		4.46E-04	2.55E-05
26		1.49E-03	3.50E-04
27		1.91E-05	6.97E-11
28		2.75E-04	8.57E-08
29		1.62E-04	6.66E-07
30		8.84E-04	3.87E-05
31		4.44E-07	1.39E-15
32		2.85E-05	3.17E-11

TABLE 9
VS2DT POR CONCENTRATIONS [MG/L]
SSCL CONFIRMATION RUNS - SUBSURFACE SOILS

Run	Acenaphthene	C5-C8 Aliphatics	C9-C10 Aromatics	C11-C22 Aromatics	Carbazole	Chomium	Ethylbenzene	Fluorene	Naphthalene	PCP	Selenium	Toluene
1	6.13E-01	3.43E-01	1.50E+00	9.14E-01	3.01E-03	4.85E-02	1.12E+00	7.18E-01	1.67E-01	1.91E-03	2.38E-02	1.60E+00
2	2.03E+00	1.43E+00	4.05E+00	3.01E+00	1.01E-02	1.00E-01	2.72E+00	2.69E+00	4.31E-01	4.59E-03	5.02E-02	3.76E+00
3	1.16E-03	1.32E-04	1.81E-02	1.68E-03	5.08E-06	4.55E-02	4.29E-02	5.75E-04	3.66E-03	1.16E-04	2.23E-02	1.20E-01
4	7.87E-03	1.12E-03	8.42E-02	1.13E-02	3.52E-05	9.28E-02	1.64E-01	4.51E-03	1.51E-02	3.84E-04	4.66E-02	4.05E-01
5	7.35E-02	1.98E-02	3.50E-01	1.08E-01	3.49E-04	4.09E-03	4.14E-01	5.96E-02	4.74E-02	7.52E-04	1.97E-03	7.18E-01
6	3.18E-01	1.12E-01	1.12E+00	4.66E-01	1.52E-03	8.00E-03	1.13E+00	3.02E-01	1.40E-01	1.97E-03	3.96E-03	1.84E+00
7	2.50E-05	1.77E-06	8.18E-04	3.61E-05	1.08E-07	3.79E-03	2.51E-03	9.59E-06	2.31E-04	1.41E-05	1.83E-03	9.94E-03
8	2.22E-04	1.76E-05	5.27E-03	3.15E-04	9.66E-07	7.46E-03	1.33E-02	9.32E-05	1.32E-03	6.12E-05	3.70E-03	4.53E-02
9	5.54E-01	3.54E-01	1.17E+00	8.28E-01	2.84E-03		1.12E+00	6.95E-01	1.24E-01	1.33E-03		1.57E+00
10	1.82E+00	1.47E+00	3.14E+00	2.71E+00	9.40E-03		2.70E+00	2.58E+00	3.18E-01	3.18E-03		3.68E+00
11	1.42E-03	1.74E-04	1.95E-02	2.07E-03	6.34E-06		5.05E-02	7.33E-04	3.72E-03	1.04E-04		1.36E-01
12	9.51E-03	1.46E-03	9.01E-02	1.37E-02	4.33E-05		1.90E-01	5.66E-03	1.53E-02	3.44E-04		4.53E-01
13	7.64E-02	2.32E-02	3.13E-01	1.13E-01	3.76E-04		4.39E-01	6.61E-02	3.99E-02	5.71E-04		7.44E-01
14	3.28E-01	1.29E-01	9.91E-01	4.83E-01	1.63E-03		1.18E+00	3.32E-01	1.17E-01	1.48E-03		1.88E+00
15	3.31E-05	2.51E-06	9.92E-04	4.79E-05	1.44E-07		3.17E-03	1.32E-05	2.68E-04	1.46E-05		1.23E-02
16	2.88E-04	2.44E-05	6.31E-03	4.11E-04	1.27E-06		1.65E-02	1.26E-04	1.51E-03	6.30E-05		5.49E-02
17	5.29E-01	8.46E-01	5.30E-01	8.00E-01	2.64E-03		2.29E-01	9.99E-01	4.39E-02	3.16E-04		3.57E-01
18	1.56E+00	2.64E+00	1.38E+00	2.35E+00	7.68E-03		4.22E-01	3.12E+00	1.11E-01	7.53E-04		5.11E-01
19	1.95E-02	1.02E-02	6.13E-02	2.90E-02	9.74E-05		6.97E-02	2.09E-02	7.40E-03	9.91E-05		1.08E-01
20	7.24E-02	3.81E-02	2.06E-01	1.07E-01	3.61E-04		1.77E-01	8.01E-02	2.40E-02	2.93E-04		2.61E-01
21	1.85E-01	2.13E-01	2.84E-01	2.79E-01	9.66E-04		2.11E-01	2.81E-01	2.67E-02	2.35E-04		3.39E-01
22	6.02E-01	6.68E-01	8.12E-01	8.99E-01	3.10E-03		3.50E-01	9.56E-01	7.33E-02	5.91E-04		4.50E-01
23	2.05E-03	6.09E-04	1.19E-02	3.01E-03	1.01E-05		2.79E-02	1.58E-03	1.77E-03	3.54E-05		5.25E-02
24	7.99E-03	2.27E-03	4.27E-02	1.16E-02	3.91E-05		7.19E-02	6.38E-03	6.22E-03	1.15E-04		1.29E-01
25	3.64E-01	6.16E-01	3.52E-01	5.51E-01	1.90E-03		2.17E-01	7.05E-01	2.89E-02	2.06E-04		3.47E-01
26	1.06E+00	1.90E+00	9.11E-01	1.60E+00	5.48E-03		3.94E-01	2.18E+00	7.25E-02	4.88E-04		4.77E-01
27	1.63E-02	9.60E-03	4.57E-02	2.42E-02	8.47E-05		6.60E-02	1.85E-02	5.34E-03	6.81E-05		1.01E-01
28	6.04E-02	3.60E-02	1.52E-01	8.91E-02	3.14E-04		1.69E-01	7.11E-02	1.72E-02	1.99E-04		2.48E-01
29	1.35E-01	1.70E-01	1.95E-01	2.04E-01	7.34E-04		2.03E-01	2.14E-01	1.80E-02	1.56E-04		3.31E-01
30	4.36E-01	5.30E-01	5.51E-01	6.52E-01	2.34E-03		3.29E-01	7.23E-01	4.90E-02	3.88E-04		4.21E-01
31	1.94E-03	6.64E-04	9.82E-03	2.86E-03	9.99E-06		2.75E-02	1.61E-03	1.39E-03	2.58E-05		5.07E-02
32	7.61E-03	2.48E-03	3.52E-02	1.11E-02	3.88E-05		7.16E-02	6.52E-03	4.87E-03	8.28E-05		1.25E-01

TABLE 10

SSCL CONFIRMATION RUN RESULTS

		Initial VS2DT	Initial Soil	UCL	DEQ
		Concentration	Concentration	Concentration	Standard
Chemical	**Location**	**[mg/L]**	**[mg/Kg]**	**[mg/L]**	**[mg/L]**
Chromium	Surface	10.34	150	0.100	0.100
Methylene Chloride	Surface	3.697	0.82	0.0050	0.0050
PCP	Surface	1.614	12	0.0010	0.0010
Acenaphthene	Subsurface	314.7	27297	0.67	0.67
C11-C22 Aromatics	Subsurface	479.0	42393	1.00	1.00
C5-C8 Aliphatics	Subsurface	1271	56310	0.80	0.80
C9-C10 Aromatics	Subsurface	150.8	4751	1.00	1.00
Carbazole	Subsurface	1.6	99	0.0034	0.0034
Chromium	Subsurface	1.4	19.7	0.100	0.100
Ethylbenzene	Subsurface	89.05	324	0.70	0.70
Fluorene	Subsurface	950.9	129766	1.10	1.10
Naphthalene	Subsurface	10.44	220	0.10	0.10
PCP	Subsurface	0.05840	0.43	0.0010	0.0010
Selenium	Subsurface	0.6836	1.68	0.050	0.050
Toluene	Subsurface	101.9	255	1.00	1.00

FIGURES

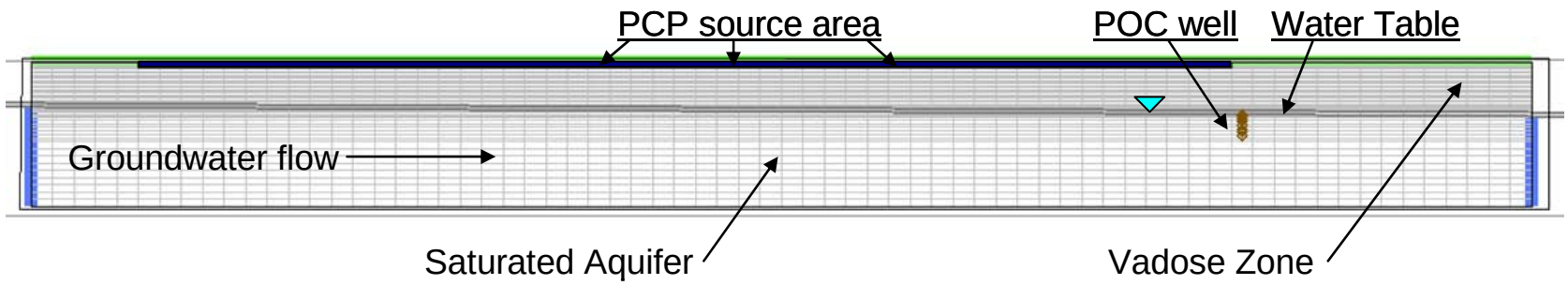

Figure 1
VS2DT domain layout for PCP surface soil leaching to groundwater modeling. The PCP source area is indicated by the black rectangular area at the top of the domain. Model dimensions are 210 m horizontal by 20 m vertical.

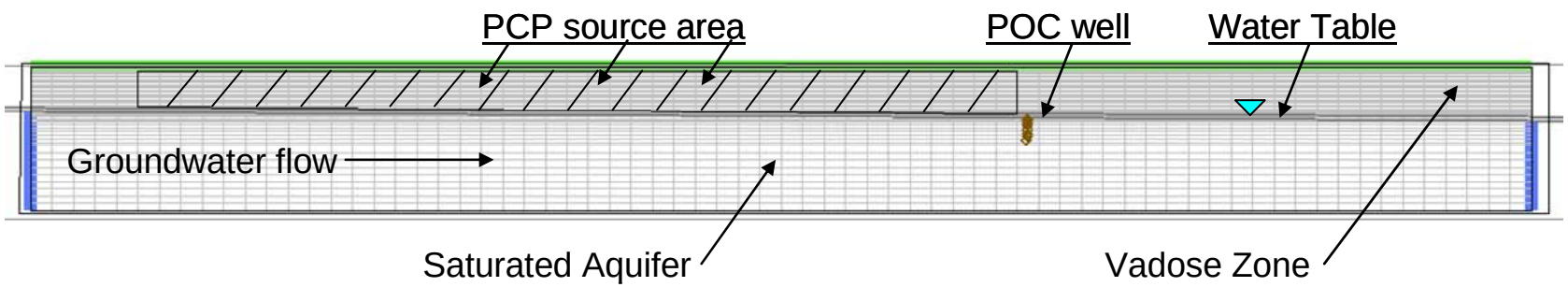

Figure 2
VS2DT domain layout for PCP in subsurface soil leaching to groundwater modeling. Model dimensions are 210 m horizontal by 20 m vertical. The PCP source area is indicated by the crosshatched area. A specified flux boundary extends across the top of the model domain. The aquifer is bound to the left and right by specified head boundaries.

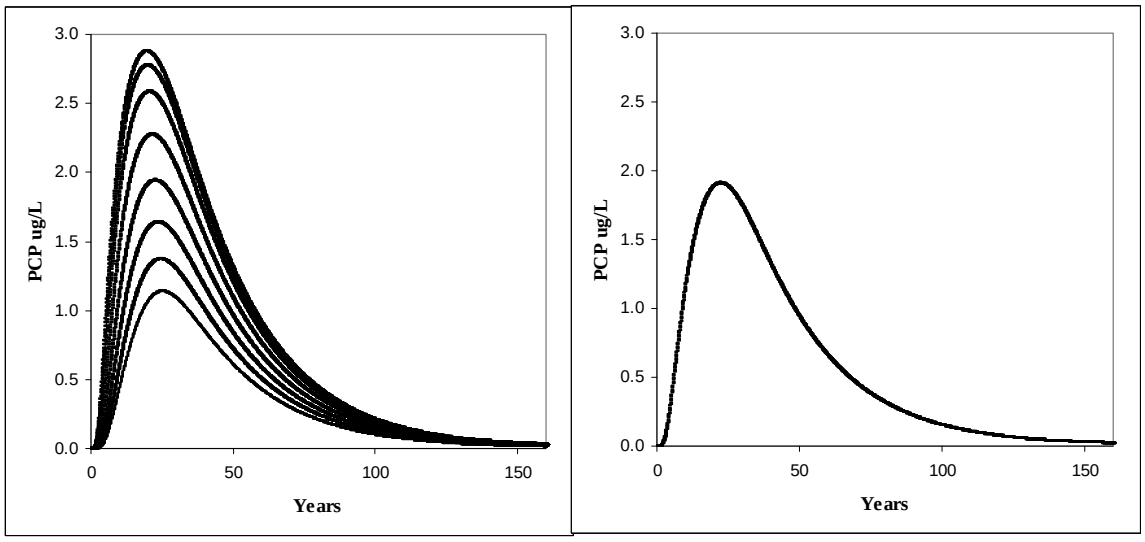

Figure 3

VS2DT PCP breakthrough curves illustrating predicted PCP concentrations at all eight VS2DT observation points (left) and the weighted average POR concentration (right). Model parameters include the following:

Hydraulic conductivity	=	6.1 m/d
Vertical dispersivity	=	0.084 m
Biodegradation rate	=	1.02×10^{-4} /day
K_d	=	8.31×10^{-7} m^3/g
Infiltration	=	1.51×10^{-4} m/d

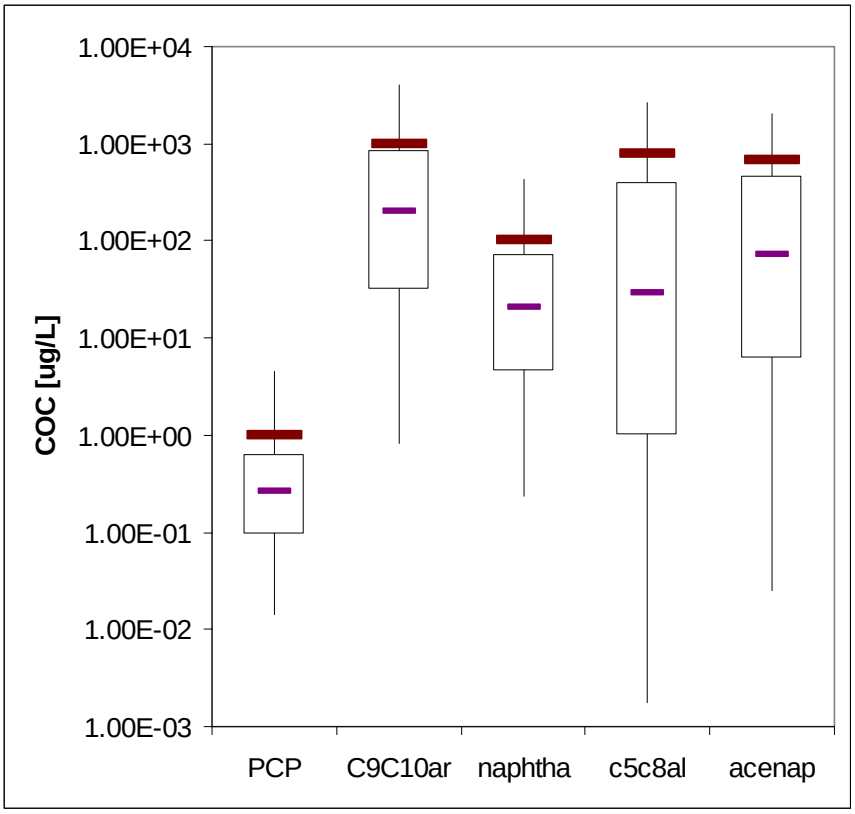

Figure 4
Box and whisker plots illustrating the range of maximum predicted PCP, C9-C10 aromatics, naphthalene, C5-C8 aliphatics, and acenaphthene concentrations at the POR. Whisker extremities depict minimum and maximum predicted POR concentrations. The box defines the 25 and 75 percent quartiles of predicted POR concentrations, and the median predicted POR concentration is indicated by the line within the box. The corresponding UCL is represented by the line above the box. The UCLs are 1, 1000, 100, 800, AND 6700 µg/L, respectively, corresponding to the DEQ water quality standards.

VLOOKUP TABLES

X
X

X

X

X

Technical Memorandum

To: File

From: Moriah Bucy

Date: June 30, 2008

Subject: Addendum to the Risk Analysis Technical Memorandum: New Regional Screening Level Evaluation

EPA released Regional Screening Levels in May 2008 (EPA 2008) that replaced, among other things, the Region 9 Preliminary Remediation Goals document (EPA 2004a) that DEQ had previously used for screening purposes. The release of the Regional Screening Levels prompted DEQ to compare the list of COPCs to these new screening levels, using the same approach and assumptions outlined in DEQ's Risk Analysis Technical Memorandum (including the fate and transport modeling; see Appendix C of the FS), to ensure that revised screening levels did not change the list of COCs at the KRY Site. The re-screening effort is documented below.

- Screening for COPCs:
  - Compared the Region 9 preliminary remediation goals (PRGs) listed on the Surface Soil Analyte Statistics Table (Table 4-2 from the Final RI) and the Subsurface Soil Analyte Statistics Table (Table 4-3 from the Final RI) to the Regional Screening Levels Summary Table to determine if the screening levels for direct contact (residential and industrial) were different. The revised screening levels were noted for all compounds that had them and the maximum detected concentration was compared to the new Regional Screening Level.
  - Soil Screening Levels (SSLs) were eliminated from the Regional Screening Levels tables for metals. DEQ will continue to use the EPA 2002 SSLs as screening levels. Therefore, nothing changed with regard to metals retained for leaching.
  - For compounds that have an MCL-based SSL for protection of groundwater, the MCL was compared to the DEQ-7 standard. If they were the same, then the MCL-based SSL was used to determine if leaching from soil to groundwater was a concern. If the DEQ-7 standard was not the same as the MCL, then a DEQ-7-based SSL was calculated using the risk-based SSL (see next bullet). The maximum detected concentration was compared to this screening level.
  - For compounds that had a risk-based SSL, a DEQ-7-based SSL was calculated based on a simple ratio related to the risk-based SSL provided in the table. The risk-based SSLs are based on tap water screening levels. The DEQ-7-based SSLs

are necessary because using the screening levels based on tap water screening levels would not result in protection of groundwater at the DEQ-7 standard. The ratio used is DEQ-7 SSL = DEQ-7 standard/tapwater screening level x risk-based SSL. The maximum detected concentration was compared to this screening level.

- Determined that the direct contact numbers (residential/industrial) for some compounds had been revised and that there were SSLs for a number of compounds that had not previously had them. Changes regarding the addition of COPCs, elimination of COPCs, and retention for additional exposures (residential, industrial, leaching) are discussed below.
  - <u>Surface Soil</u>
    - Dioxins/furans (also known as 2,3,7,8-TCDD (TEQ)(WHO2005)) are now retained for leaching, as the maximum detected concentration exceeds the DEQ-7-based SSL.
    - Aluminum is now retained for only residential direct contact, rather than residential and industrial.
    - Iron is retained for residential direct contact only, as the maximum detected concentration does not exceed the new adjusted (using same procedures documented in the Risk Analysis Technical Memorandum) industrial screening level.
    - Naphthalene is now retained for leaching as its maximum detected concentration exceeds the DEQ-7-based SSL.
    - Nickel is eliminated as its maximum detected concentration is less than the adjusted direct contact screening levels.
    - Vanadium is eliminated because it does not exceed the new adjusted direct contact screening levels.
  - <u>Subsurface soil</u>
    - 1,2,4-trimethylbenzene is retained for leaching as its maximum detected concentration exceeds the risk-based SSL. This compound is not listed in DEQ-7, so there is no way to calculate a DEQ-7-based SSL.
    - 1,3,5-trimethylbenzene is retained for further consideration as a COPC even though it has been removed from the Regional Screening Levels table.
    - Dioxins/furans are now retained for leaching, as the maximum detected concentration exceeds the DEQ-7-based SSL.
    - Aluminum is now retained for only residential direct contact, rather than residential and industrial.
    - Barium is eliminated as its maximum detected concentration does not exceed the new adjusted direct contact screening levels.
    - Benzo(k)fluoranthene is retained for leaching as its maximum detected concentration exceeds the DEQ-7-based SSL.
    - Chrysene is retained for residential direct contact as its maximum detected concentration exceeds the new residential screening level.
    - Dibenzofuran is retained for further consideration as a COPC even though it has been removed from the Regional Screening Levels table.

        - Fluoranthene is retained for leaching as its maximum detected concentration exceeds the DEQ-7-based SSL.
        - Nickel is eliminated as its maximum detected concentration is less than the adjusted direct contact screening levels.
        - Vanadium is eliminated because it does not exceed the new adjusted direct contact screening levels.
- Screening for COCs
    - Compounds retained based on exceedances of the DEQ-7-based soil screening levels were also compared to the risk-based screening levels (RBSLs) for leaching in the RBCA Master Table (based on 10-20 feet to groundwater), if one exists.
        - <u>Surface Soil</u>
            - Naphthalene exceeds the DEQ-7-based SSL, but does not exceed the leaching RBSL, so it is not retained as a leaching COC. It will be retained for residential direct contact.
        - <u>Subsurface Soil</u>
            - The maximum detection of benzo(k)fluoranthene did not exceed the RBSL for leaching, so it is not retained as a COC.
            - The maximum detection of fluoranthene in subsurface soil did not exceed the RBSL for leaching, so it is eliminated as a COPC.
            - The maximum detection of xylenes did not exceed the leaching RBSL, so it is not retained as a leaching COC. It will be retained for direct contact.
    - Dioxins/furans were the only compound retained as a COC for the current residential area because they were the only compound detected that met the COC criteria in the current residential area. However, other compounds detected elsewhere at the KRY Site were retained as COCs because they exceeded residential screening levels. These compounds, which were retained only for residential direct contact, are eliminated because future land-use is determined to be commercial/industrial and they were only detected in areas of the KRY Site that are not currently in use as residential.
        - <u>Surface Soil</u>
            - Aluminum, iron, and naphthalene are eliminated from further consideration as COCs, since they only exceed residential direct contact screening levels.
        - <u>Subsurface Soil</u>
            - Aluminum and chrysene are eliminated from further consideration as COCs, since they only exceed residential direct contact screening levels.
    - Compounds retained because they have no screening levels are eliminated if they also have no toxicity information, because it is not possible to calculate a cleanup level without toxicity information.
        - <u>Subsurface Soil</u>
            - 1,3,5-trimethylbenzene and dibenzofuran are eliminated due to lack of toxicity information, as a cleanup level cannot be calculated for these compounds.
- Screening Results:
    - <u>Surface Soil</u>

        - Direct Contact: Elimination of aluminum and iron from COC list.
    - Subsurface Soil
        - Direct Contact: Elimination of aluminum from COC list.
        - Leaching: Addition of 1,2,4-trimethylbenzene to the COC list.
- Calculation of Cleanup Levels:
    - As was done previously, direct contact cleanup levels were calculated using equations developed by the EPA. The spreadsheets, including assumptions, used to calculate the cleanup levels are attached to this memorandum. Compounds were separated based on their effect (i.e., non-carcinogenic or carcinogenic). Cleanup levels for non-carcinogenic compounds in each media (surface and subsurface soil) were calculated to ensure that the total hazard index for compounds with the same target organs or critical effects do not exceed 1 for any organ or effect. For compounds with multiple target organs or critical effects, the most conservative effect based upon the other non-carcinogenic compounds present is used. Cleanup levels for carcinogenic compounds in each media (surface and subsurface soil) were calculated to ensure that the total cancer risk does not exceed $1x10^{-5}$. The most recent toxicity information provided in the Regional Screening Levels table was used to calculate cleanup levels. The revised cleanup levels are provided below.
    - Surface Soil:
        - Residential: Dioxins/furans slope factor was changed, which increased the cleanup level.
            - Dioxins/furans: 62.5 ng/kg
        - Commercial:
            - Non-carcinogenic Compounds: Removed aluminum and iron. Elimination of these compounds resulted in a change in the target hazard quotient for C9-C18 aliphatics from 0.5 to 1 since the eliminated compounds shared the same target organ/critical effect as C9-C18 aliphatics. This change increased the cleanup level for C9-C18 aliphatics and did not change the cleanup level for C11-C22 aromatics, which are the only two non-carcinogenic compounds considered as COCs for surface soil.
                - C9-C18 aliphatics: 9,565 mg/kg
            - Carcinogenic Compounds: Dioxins/furans slope factor was changed, which increased the cleanup level.
                - Dioxins/furans: 103 ng/kg
        - Subsurface Soil/Excavation:
            - Non-carcinogenic Compounds: Removed aluminum. Elimination of this compound resulted in a change to the target hazard quotient for C5-C8 aliphatics, C9-C12 aliphatics, C9-C18 aliphatics, and xylenes from 0.2 to 0.25. This change was necessary because the eliminated compound shared the same target organ/critical effect as the compounds listed in the previous sentence. This change increased the cleanup levels for C5-C8 aliphatics, C9-C12 aliphatics, C9-C18 aliphatics, and xylenes, but did not change the cleanup levels for the other non-carcinogenic COCs. The revised cleanup levels are provided below.

    - C5-C8 aliphatics: 730 mg/kg
    - C9-C12 aliphatics: 1,550 mg/kg
    - C9-C18 aliphatics: 2,634 mg/kg
    - Xylenes: 486 mg/kg
- Carcinogenic Compounds: Dioxins/furans slope factor was changed, which increased the cleanup level.
    - Dioxins/furans: 850 ng/kg
- Leaching: Chemical fate and transport modeling was performed, using the same assumptions and procedures as that documented in the fate and transport technical memo, to calculate the cleanup level (SSCL) for 1,2,4-trimethylbenzene leaching to groundwater.
    - Model parameters used simulate 1,2,4-trimethylbenzene were source dimensions, organic carbon-water partitioning coefficient (K_{oc}), the aqueous diffusivity coefficient (D_a), and biodegradation rate constants.
    - Henry's Law constant is also required to relate the concentration of 1,2,4-trimethylbenzene dissolved in soil moisture to the total concentration detected in a soil sample.
    - The length of the 1,2,4-trimethylbenzene source area parallel to the direction of groundwater flow was estimated as 30 meters, and the source interval in the model extended from 0.6 m below ground surface (bgs) to the vicinity of the water table.
    - The primary database utilized by the DEQ to estimate chemical-specific fate and transport parameters [USEPA, 1996] did not include properties for 1,2,4-TMB. Accordingly, the K_{oc} and Henry's Law Constant values were estimated using the PysProp database from the Estimation Programs Interface [USEPA, 2008]. This database reports chemical partitioning behavior using an octanol-water (K_{ow}) partitioning coefficient. The K_{oc} coefficient was calculated using the following relationship [USEPA, 1996]:
        - $\log K_{oc} = 0.0784 + (0.7919 \times \log K_{ow})$
    - The aqueous diffusivity coefficient (D_a) was taken from the USEPA vapor intrusion model database [Environmental Quality Management, 2004]. The range in 1,2,4-trimethylbenzene biodegradation rates was set equal to the values previously by the DEQ to model the C9-C10 aromatics petroleum fraction.
    - The chemical-specific parameters used to model 1,2,4-trimethylbenzene are listed below:
        - Source length: 30 meters
        - K_{ow} coefficient: 4.27×10^3 (unitless)
        - K_{oc} coefficient: 8.97×10^2 kg/L
        - Henry's Law Coefficient: 2.53×10^{-1} (unitless)
        - Aqueous diffusivity coefficient: 6.84×10^{-5} m^2/d
        - Biodegradation rate case 1: 7.79×10^{-5} 1/d
        - Biodegradation rate case 2: 1.95×10^{-4} 1/d

- The cleanup levels for leaching to groundwater computed for 1,2,4-trimethylbenzene is 25 mg/kg.

The Final Feasibility Study and the Record of Decision summarize this evaluation and provide the basis for using the new cleanup levels calculated. The selected remedy did not need to be revised to meet the revised cleanup levels.

References

Environmental Quality Management, 2004. User's guide for evaluating subsurface vapor intrusion into buildings, U.S. Environmental Protection Agency Office of Emergency and Remedial Response, Washington, D.C.

United States Environmental Protection Agency, 1996. Soil Screening Guidance: Technical Background Document, EPA 540/R95/128.

United States Environmental Protection Agency, 2007. Estimation Programs Interface Suite™ for Microsoft® Windows, v3.20.

United States Environmental Protection Agency, 2008. Regional Screening Levels for Chemical Contaminants at Superfund Sites. May 20. Available online at http://www.epa.gov/region09/waste/sfund/prg/index.html.

Commercial - Carcinogenic Scenerio -- Surface Soil

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*BWa*AT)/(EF*ED*((SFo*CF*IRSa)+(SFo*IRAa*1/PEF)+(SFo*CF*RAFd*DFa)))]

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.000103
TR (Target cancer risk)	3.33E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	187
ED (Exposure duration - yr; EPA, December 1991)	25
SFo (Chemical specific oral cancer slope factor - kg-day/mg; CDHS, 1986)	1.30E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA July 2004)	0.03
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

Commercial - Non-Carcinogen Scenerio - Surface Soil

Non-cancer Risk Formula (with volatilization factor):

Cs = [(THQ*BWa*AT)/(ED*EF*((1/RfDo*CF*RAFo*IRSa)+(1/RfDi*IRAa*(1/PEF+1/VF))+(1/RfDo*CF*RAFd*D

C9-C18 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	9,565
THQ (Target hazard quotient)	1
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	9125
ED (Exposure duration - yr; EPA, December 1991)	25
EF (Exposure frequency - day/yr; EPA, December 1991)	187
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	1.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	100
RfDi (Chemical specific inhalation reference dose - mg/kg-day; MADEP, November 2003)	5.70E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	17605
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.5
DFa (Adult dermal factor - mg/day; EPA, July 2004)	66

EXCAVATION SCENARIO
CARCINOGENS

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*BWa*AT)/(EF*ED*((SFo*CF*IRSa)+(SFi*IRAa*1/PEF)+(SFo*CF*RAFd*DFa)))]

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.000850
TR (Target cancer risk)	2.50E-06
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; DEQ)	124
ED (Exposure duration - yr; DEQ)	1
SFo (Chemical specific oral cancer slope factor - kg-day/mg; CDHS, 1986)	1.30E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
IRAa (Adult inhalation rate - m^3/day; August 1997))	13
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.03
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

Non-cancer Risk Formula (with volatilization factor):

Cs = [(THQ*BWa*AT)/(ED*EF*((1/RfDo*CF*RAFo*IRSa)+(1/RfDi*IRAa*(1/PEF+1/VF))+(1/RfDo*CF*RAFc

C5-C8 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	730
THQ (Target hazard quotient)	0.25
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	4.00E-02
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; IRIS January 2007 - n-hexane)	2.00E-01
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	1419
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	1
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

C9-C12 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	1,550
THQ (Target hazard quotient)	0.25
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	1.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; MADEP, November 2003)	5.70E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	8563
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.5
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

C9-C18 ALIPHATICS	
Parameters	Values
Cs (Soil concentration - mg/kg)	2,634
THQ (Target hazard quotient)	0.25
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; MADEP, November 2003)	1.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; MADEP, November 2003)	5.70E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	17605
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; MADEP, October 2002)	0.5
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

XYLENES	
Parameters	Values
Cs (Soil concentration - mg/kg)	486
THQ (Target hazard quotient)	0.25
BWa (Adult body weight - kg; EPA, August 1997)	70
AT (Averaging time - day; EPA, December 1991)	365
ED (Exposure duration - yr; DEQ)	1
EF (Exposure frequency - day/yr; DEQ)	124
RfDo (Chemical specific oral reference dose - mg/kg-day; IRIS, January 2007)	2.00E-01
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IRSa (Adult soil ingestion rate - mg soil/day; EPA, December 2002)	330
RfDi (Chemical specific inhalation reference dose - mg/kg-day; IRIS, January 2007)	2.90E-02
IRAa (Adult inhalation rate - m^3/day; EPA, August 1997)	13
VF (Volatilization factor - m^3/kg; EPA, May 1996)	4302
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPAIII, Dec. 1995)	0.03
DFa (Adult dermal factor - mg/day; EPA, July 2004)	660

Residential Carcinogenic Exposure - Surface Soil

Cancer Risk Formula (without volatilization factor):

Cs = [(TR*AT)/(EF*((SFo*CF*IFSadj)+(SFo*IFAadj*1/PEF)+(SFo*CF*RAFd*DFadj)))]

DIOXIN	
Parameters	Values
Cs (Soil concentration - mg/kg)	0.0000625
TR (Target cancer risk)	1.E-05
AT (Averaging time - day; EPA, August 1997)	27375
EF (Exposure frequency - day/yr; EPA, December 1991)	270
SFo (Chemical specific oral cancer slope factor - kg-day/mg; CHDS, 1986)	1.30E+05
CF (Conversion factor - kg/mg; EPA, December 1991)	1.E-06
IFSadj (Age-adjusted soil ingestion rate - mg-yr/kg-day; EPAIX, October 2004)	114
IFAadj (Age-adjusted inhalation rate - m^3-yr/kg-day; EPAIX, October 2004)	8
PEF (Particulate emission factor - m^3/kg; EPA, May 1996)	1.10E+09
RAFd (Chemical specific dermal relative absorption factor - unitless; EPA, July 2004)	0.03
DFadj (Age-adjusted dermal factor - mg-yr/kg-day; EPAIX, October 2004)	361

APPENDIX D

Preliminary Identification and Description of Environmental Requirements, Criteria and Limitations for Feasibility Analysis of Alternatives

PRELIMINARY ENVIRONMENTAL REQUIREMENTS, CRITERIA, OR LIMITATIONS
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL
KALISPELL FACILITIES (AKA KRY SITE)
February 9, 2007

INTRODUCTION

Remedial actions undertaken pursuant to the Comprehensive Environmental Cleanup and Responsibility Act (CECRA), §§ 75-10-701, et seq., MCA, must "attain a degree of cleanup of the hazardous or deleterious substance and control of a threatened release or further release of that substance that assures protection of public health, safety, and welfare and of the environment." Section 75-10-721(1), MCA. Additionally, the Montana Department of Environmental Quality (DEQ) "shall require cleanup consistent with applicable state or federal environmental requirements, criteria, or limitations" and "may consider substantive state or federal environmental requirements, criteria or limitations that are relevant to the site conditions." Section 75-10-721(2)(a) and (b), MCA.

A distinction exists between "applicable" requirements and those that are "relevant." "Applicable" requirements are those requirements that would legally apply at the facility regardless of the CECRA action. "Relevant" requirements are those requirements that are not applicable, but address situations or problems sufficiently similar to those at the facility and, therefore, are relevant for use at the facility. Attainment of "applicable" requirements is mandatory under CECRA. DEQ will consider "relevant" requirements in approving any remedial actions.

Environmental requirements, criteria, and limitations (ERCLs) are grouped into three categories: contaminant-specific, location-specific, and action-specific. Contaminant-specific requirements are those that establish an allowable level or concentration of a hazardous or deleterious substance in the environment or which describe a level or method of treatment for a hazardous or deleterious substance. Location-specific requirements are those that serve as restrictions on the concentration of a hazardous or deleterious substance or the conduct of activities solely because they are in specific locations. Action-specific requirements are those that are relevant or applicable to implementation of a particular remedy. Action-specific requirements do not in themselves determine the remedy but rather indicate the manner in which the remedy must be implemented.

CECRA defines cleanup requirements as only state and federal ERCLs. Remedial designs, implementation, operation, and maintenance must, nevertheless, comply with all other applicable laws, including local, state, and federal. Many such laws, while not strictly environmental, have environmental impacts. It remains the responsibility of the persons implementing the remedy to identify and comply with all other laws.

Many requirements listed here are promulgated as identical or nearly identical requirements in both federal and state law, usually pursuant to delegated environmental programs administered by the Environmental Protection Agency and the states, such as the requirements of the federal Clean Water Act and the Montana Water Quality Act. ERCLs and other laws that are unique to state law are also identified.

Within this document, DEQ has preliminarily identified applicable or relevant state and federal environmental requirements for the remedial actions at the KRY Site. These ERCLs may change as DEQ develops the final remedy. The description of applicable and relevant federal and state requirements that follows includes summaries of the legal requirements which attempt to set out the requirement in a reasonably concise fashion that is useful in evaluating compliance with the requirement. These descriptions are provided to allow the user a basic indication of the requirement without having to refer constantly back to the statute or regulation itself. However, in the event of any inconsistency between the law itself and the summaries provided in this document, the actual requirement is ultimately the requirement as set out in the law, rather than any paraphrase of the law provided here.

CONTAMINANT SPECIFIC REQUIREMENTS

GROUNDWATER

Safe Drinking Water Act (Applicable) – 42 USC §§ 300f et seq. and the National Primary Drinking Water Regulations (40 CFR Part 141) (Applicable) establish maximum contaminant levels (MCLs) for contaminants in drinking water distributed in public water systems. These requirements were evaluated during this ERCLs analysis in conjunction with the groundwater classification standards promulgated by the State of Montana.[1] Because the aquifer affected by the facility is currently and has been used as a drinking water source, the Secondary Maximum Contaminant Levels (SMCLS) specified in 40 CFR Part 143.3 are relevant requirements which are ultimately to be attained by the remedy for the facility. 40 CFR 143.3 contains standards for color, odor (3 threshold odor number) and corrosivity that are relevant to the remedial action.

The Montana Water Quality Act, § 75-5-605, MCA (Applicable) provides that it is unlawful to cause pollution of any state waters and § 75-6-112, MCA (Applicable) provides that it is unlawful to discharge drainage or other waste that will cause pollution of state waters used as a source for a public water supply or for domestic use as well as prohibits other unlawful actions.

Section 75-5-605, MCA (Applicable) also states that it is unlawful to place or cause to be placed any wastes where they will cause pollution of any state waters.

Section 75-5-303, MCA (Applicable) states that existing uses of state waters and the level of water quality necessary to protect the uses must be maintained and protected.

ARM 17.30.1006 (Applicable) classifies groundwater into Classes I through IV based upon its specific conductance and establishes the groundwater quality standards applicable with respect to each groundwater classification. Class I is the highest quality class; class IV the lowest. Based on its specific conductance, groundwater at the KRY Site has been classified as Class I groundwater.

If determined to be Class I, Class II, or Class III groundwater based on its specific conductance,

1 MCLs are promulgated pursuant to both federal and state law. Under the Safe Drinking Water Act, EPA has granted the State of Montana primacy in implementation and enforcement of the Safe Drinking Water Act.

the groundwater at the facility must meet the beneficial uses and standards for that class. Concentrations of substances in groundwater within these classes may not exceed the human health standards for groundwater listed in DEQ-7. In addition, no increase of a parameter may cause a violation of § 75-5-303, MCA (Applicable). For concentrations of parameters for which human health standards are not listed in DEQ-7, ARM 17.30.1006 allows no increase of a parameter to a level that renders the waters harmful, detrimental or injurious to the beneficial uses listed for that class of water.

Human health standards for the primary contaminants of concern (COCs) are listed below and are based on the standards outlined in Circular DEQ-7, Montana Numeric Water Quality Standards, February 2006 (Applicable). (For a complete list of COCs, see Table 4-1 in the Remedial Investigation.) However, compliance with all DEQ-7 standards is required and remedial actions must meet the DEQ-7 standards for all contaminants at the facility, including any breakdown products generated during remedial activities.

Contaminant	DEQ-7 Standard
Dioxin/furans	.000002 μg/l
Pentachlorophenol	1 μg/l

ARM 17.30.1011 (Applicable) provides that any groundwater whose existing quality is higher than the standard for its classification must be maintained at that high quality in accordance with § 75-5-303, MCA, and ARM Title 17, chapter 30, subchapter 7.

An additional concern with respect to ERCLs for groundwater is the impact of groundwater upon surface water. If significant loadings of contaminants from groundwater sources to any surface water body contribute to the inability of the surface water to meet its applicable class standards, (i.e., the DEQ-7 levels described in the Surface Water section below), then alternatives to alleviate such groundwater loading must be evaluated and, if appropriate, implemented. Although the state surface water standards do not apply to groundwater, groundwater in certain areas may have to be remediated to levels more stringent than the applicable groundwater standards in order to achieve the standards for affected surface water. See Compliance with Federal Water Quality Criteria, OSWER Publication 9234.2-09/FS (June 1990) ("Where the groundwater flows naturally into the surface water, the groundwater remediation should be designed so that the receiving surface water body will be able to meet any ambient water quality standards … that may be ARARs for the surface water.").

SURFACE WATER

The KRY Site is located in proximity to and south and west of the Stillwater River. Surface water and groundwater in the unconfined aquifer are generally interconnected with the Stillwater River and the river likely discharges to the upper aquifer in the vicinity of the KRY Site.

The federal Clean Water Act, 33 U.S.C. § 1251, et seq., provides the authority for each state to adopt water quality standards (40 CFR Part 131) designed to protect beneficial uses of each water body and requires each state to designate uses for each water body. Under the state Water Quality Act, § 75-5-101, et seq., MCA, and implementing regulations, ARM 17.30.601 et seq.,

(Applicable), Montana has promulgated regulations to protect, maintain, and improve the quality of surface waters in the state. The State has the authority to adopt water quality standards designed to protect beneficial uses of each water body and to designate uses for each water body. Montana's regulations classify State waters according to quality, place restrictions on the discharge of pollutants to State waters, and prohibit degradation of State waters.

Pursuant to this authority and the criteria established by Montana surface water quality regulations, ARM 17.30.601, et seq., Montana has established the Water-Use Classification system. ARM 17.30.608 (Applicable) provides that the Stillwater River mainstem from Logan Creek to the Flathead River is classified as B-2. The Whitefish River from the outlet of Whitefish Lake to the Stillwater River is also classified as B-2, and the Flathead River above Flathead Lake is classified as B-1.

ARM 17.30.623 (Applicable) provides the classification standards and beneficial uses for the B-1 classification and provides that concentrations of carcinogenic, bioconcentrating, toxic, or harmful parameters that would remain in the water after conventional water treatment may not exceed DEQ-7 standards. The section also provides the specific water quality standards for water classified as B-1 that must be met.

In addition, the following criteria apply:

1. Dissolved oxygen concentration must not be reduced below the levels given in DEQ-7;
2. Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 8.5 must be maintained at less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0;
3. The maximum allowable increase above naturally occurring turbidity is five nephelometric turbidity units, except as permitted by § 75-5-318, MCA;
4. Temperature increases must be kept within prescribed limits;
5. No increase is allowed above naturally occurring concentrations of sediment, settleable solids, oils, or floating solids which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish or other wildlife;
6. True color must be kept within specified limits; and
7. E-coli must be kept below specified limits.

ARM 17.30.624 (Applicable) provides the classification standards and beneficial uses for the B-2 classification and provides that concentrations of carcinogenic, bioconcentrating, toxic, or harmful parameters that would remain in the water after conventional water treatment may not exceed DEQ-7 standards. The section also provides the specific water quality standards for water classified as B-2 that must be met.

In addition, the following criteria apply:

6. Dissolved oxygen concentration must not be reduced below the levels given in DEQ-7;
7. Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 9.0 must be maintained at less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0;
8. The maximum allowable increase above naturally occurring turbidity is 10 nephelometric turbidity units, except as permitted by § 75-5-318, MCA;
9. Temperature increases must be kept within prescribed limits;
10. No increase is allowed above naturally occurring concentrations of sediment, settleable solids, oils, or floating solids which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish or other wildlife;
8. True color must be kept within specified limits; and
9. E-coli must be kept below specified limits.

For the primary COC, the DEQ-7 surface water standard is listed below. However, compliance with all DEQ-7 standards is required. If both Aquatic Life Standards and Surface Water Human Health Standards exist for the same analyte, the more restrictive of these values will be used as the numeric applicable standard.

Chemical	DEQ-7 Standard
Dioxin/furans	.00000005 μg/l

Creeks, rivers, ditches, and certain other bodies of surface water must meet these requirements.[2]

ARM 17.30.637 (Applicable), requires state surface waters to be free from substances attributable to municipal, industrial, agricultural practices, or other discharges that will:

1. settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines;
2. create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials;
3. produce odors, colors or other conditions as to which create a nuisance or render undesirable tastes to fish flesh or make fish inedible;
4. create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; and
5. create conditions which produce undesirable aquatic life.

ARM 17.30.637 also states that no waste may be discharged and no activities conducted which,

[2] As provided under ARM 17.30.602(33), "'surface waters' means any waters on the earth's surface including, but not limited to, streams, lakes, ponds, and reservoirs; and irrigation and drainage systems discharging directly into a stream, lake, pond, reservoir, or other surface water. Water bodies used solely for treating, transporting, or impounding pollutants shall not be considered surface water."

either along or in combination with other waste activities, will cause violation of surface water quality standards.

ARM 17.30.705 (Applicable): This provides that for any surface water, existing and anticipated uses and the water quality necessary to protect these uses must be maintained and protected unless degradation is allowed under the nondegradation rules at ARM 17.30.708.

AIR QUALITY

The Clean Air Act (42 USC §§ 7401 et seq.) (Applicable) provides limitations on air emissions resulting from cleanup activities or emissions resulting from wind erosion of exposed hazardous substances. Sections 75-2-101, et seq, MCA (Applicable) provides that state emission standards are enforceable under the Montana Clean Air Act.

ARM 17.8.204 and 206 (Applicable) This provision establishes monitoring, data collection and analytical requirements to ensure compliance with ambient air quality standards and requires compliance with the Montana Quality Assurance Project Plan except when more stringent requirements are determined by DEQ to be necessary.

ARM 17.8.220 (Applicable). Settled particulate matter shall not exceed a thirty (30) day average of 10 grams per square meter.

ARM 17.8.222 (Applicable). Lead in ambient air shall not exceed a 90 day average of 1.5 micrograms per cubic meter of air.

ARM 17.8.223 (Applicable). PM-10 concentrations in ambient air shall not exceed a 24 hour average of 150 micrograms per cubic meter of air and an annual average of 50 micrograms per cubic meter of air.

Ambient air standards are also promulgated for carbon monoxide, hydrogen sulfide, nitrogen dioxide, sulfur dioxide, and ozone. If emissions of these compounds were to occur at the KRY Site in connection with any remedial action, these standards would also be applicable. See ARM 17.8.210, 17.8.211, 17.8.212, 17.8.213, and 17.8.214.

LOCATION SPECIFIC REQUIREMENTS

The Endangered Species Act (Relevant): This statute and implementing regulations (16 U.S.C. § 1531 et seq., 50 CFR Part 402, 40 CFR § 6.302(h), and 40 CFR § 257.3-2) require that any federal activity or federally authorized activity may not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify a critical habitat. Compliance with this requirement involves consultation with the U.S. Fish and Wildlife Service (USFWS) and a determination of whether there are listed or proposed species or critical habitats present at the facility, and, if so, whether any proposed activities will impact such wildlife or habitat.

Montana Nongame and Endangered Species Act, §§ 87-5-101 et seq (Applicable): Endangered species should be protected in order to maintain and to the extent possible enhance their numbers.

These sections list endangered species, prohibited acts and penalties. See also, § 87-5-201, MCA, (Applicable) concerning protection of wild birds, nests and eggs; and ARM 12.5.201 (Applicable) prohibiting certain activities with respect to specified endangered species.

Migratory Bird Treaty Act (Relevant): This requirement (16 U.S.C. § 703 et seq.) establishes a federal responsibility for the protection of the international migratory bird resource and requires continued consultation with the USFWS during remedial design and remedial construction to ensure that the cleanup of the facility does not unnecessarily impact migratory birds.

Bald Eagle Protection Act (Relevant): This requirement (16 U.S.C. § 668 et seq.) establishes a federal responsibility for protection of bald and golden eagles, and requires continued consultation with the USFWS during remedial design and remedial construction to ensure that any cleanup of the facility does not unnecessarily adversely affect the bald and golden eagle.

Historic Sites, Buildings, Objects and Antiquities Act (Relevant): These requirements, found at 16 U.S.C. 461 et seq., provide that, in conducting an environmental review of a proposed action, the responsible official shall consider the existence and location of natural landmarks using information provided by the National Park Service pursuant to 36 CFR § 62.6(d) to avoid undesirable impacts upon such landmarks.

Resource Conservation and Recovery Act (Relevant): Any discrete waste units created or retained must comply with the siting restrictions and conditions found at 40 CFR § 264.18(a) and (b). These sections require management units to be designed, constructed, operated, and maintained to avoid washout, because they are within or near the 100 year flood plain.

Wetlands, Floodplains, and Streambed Preservation
The majority of the KRY Site is situated outside of the 100-year floodplain, except for a small area on the west side of the KPT facility, and a small area near the railroad tracks on the northeastern edge of the Reliance facility. To the extent that there are floodplains potentially impacted by the KRY site, applicable or relevant ERCLs are identified. In addition, there are surface water bodies adjacent to the KRY Site which necessitates the identification of streambed requirements. No wetlands have been identified on the KRY Site so no wetland ERCLs have been included.

Fish and Wildlife Coordination Act (Relevant): These standards are found at 16 U.S.C. § 661 et seq. and 40 CFR § 6.302(g) and require that federally funded or authorized projects ensure that any modification of any stream or other water body affected by a funded or authorized action provide for adequate protection of fish and wildlife resources.

Floodplain Management Order (Relevant): This requirement (40 CFR Part 6, Appendix A, Executive Order No. 11,988) mandates that federally funded or authorized actions within the 100 year flood plain avoid, to the maximum extent possible, adverse impacts associated with development of a floodplain.

Montana Floodplain and Floodway Management Act and Regulations, § 76-5-401, et seq., MCA,

ARM 36.15.601, et seq. (Applicable): The Floodway Management Act and regulations specify types of uses and structures that are allowed or prohibited in the designated 100-year floodway and floodplain.

Section 76-5-401, MCA and ARM 36.15.601 (Applicable) allow certain open-space uses in a floodway.

ARM 36.15.701 (Applicable) allow certain activities in the flood fringe.

ARM 36.15.605(2) and 36.15.703 (Applicable) prohibit certain uses anywhere in either the floodway or the flood fringe.

Section 76-5-402, MCA, (Applicable) allows uses in the floodplain outside the flood way.

Section 76-5-404, MCA (Applicable), establishes that it is unlawful to alter an artificial obstruction or designated floodway without a permit. This section applies to any remedial action in the designated floodplain or designated floodway where such action requires more than maintenance. The substantive requirements of a Floodplain Development Permit are applicable to activities planned in the floodway.

The substantive requirements specify factors that must be considered in allowing diversions of the stream, changes in place of diversion of the stream, flood control works, new construction or alteration of artificial obstructions, or any other nonconforming use within the floodplain or floodway. Many of these requirements are set forth as factors that must be considered in determining whether a permit can be issued for certain obstructions or uses. Factors which must be considered in addressing any obstruction or use within the floodway or floodplain include:

1. the danger to life and property from backwater or diverted flow caused by the obstruction or use;
2. the danger that the obstruction or use will be swept downstream to the injury of others;
3. the availability of alternate locations;
4. the construction or alteration of the obstruction or use in such a manner as to lessen the danger;
5. the permanence of the obstruction or use; and
6. the anticipated development in the foreseeable future of the area which may be affected by the obstruction or use.

See § 76-5-406, MCA; ARM 36.15.216 (Applicable). Conditions or restrictions that generally apply to specific activities within the floodway or floodplain are:

1. the proposed activity, construction, or use cannot increase the upstream elevation of the 100-year flood a significant amount (0.5 foot or as otherwise determined by the permit-issuing authority) or significantly increase flood velocities, ARM 36.15.604 (Applicable); and

2. the proposed activity, construction, or use must be designed and constructed to minimize potential erosion.

For the substantive conditions and restrictions applicable to specific obstructions or uses, see the following applicable regulations:

Excavation of material from pits or pools - ARM 36.15.602(1).

Storage of materials must be readily removable – ARM 36.15.602(5)(b).

Water diversions or changes in place of diversion - ARM 36.15.603.

Flood control works (levees, floodwalls, and riprap must comply with specified safety standards) - ARM 36.15.606.

Roads, streets, highways and rail lines (must be designed to minimize increases in flood heights) - ARM 36.15.701(3)(c).

Structures and facilities for liquid or solid waste treatment and disposal (must be floodproofed to ensure that no pollutants enter flood waters and may be allowed and approved only in accordance with DEQ regulations, which include certain additional prohibitions on such disposal) - ARM 36.15.701(3)(d).

Structures -ARM 36.15.702(1)(2).

Montana Natural Streambed and Land Preservation Act and Regulations, § 75-7-101, et seq., MCA, and ARM 36.2.401 et seq. (Applicable) - Applies if a remedial action alters or affects a streambed (including a river) or its banks. The adverse effects of any such action must be minimized.

ARM 36.2.410 (Applicable) establishes minimum standards which would be applicable if a remedial action alters or affects a streambed, including any channel change, new diversion, riprap or other streambank protection project, jetty, new dam or reservoir or other commercial, industrial or residential development. Projects must be designed and constructed using methods that minimize adverse impacts to the stream (both upstream and downstream) and future disturbances to the stream. All disturbed areas must be managed during construction and reclaimed after construction to minimize erosion. Temporary structures used during construction must be designed to handle high flows reasonably anticipated during the construction period. Temporary structures must be completely removed from the stream channel at the conclusion of construction, and the area must be restored to a natural or stable condition. Channel alterations must be designed to retain original stream length or otherwise provide hydrologic stability. Streambank vegetation must be protected except where removal of such vegetation is necessary for the completion of the project. When removal of vegetation is necessary, it must be kept to a minimum. Riprap, rock, and other material used in a project must be of adequate size, shape, and density and must be properly placed to protect the streambank from erosion. The placement

of road fill material in a stream, the placement of debris or other materials in a stream where it can erode or float into the stream, projects that permanently prevent fish migration, operation of construction equipment in a stream, and excavation of streambed gravels are prohibited unless specifically authorized by the district. Such projects must also protect the use of water for any useful or beneficial purpose. See § 75-7-102, MCA.

Section 75-7-111, MCA, (Applicable) provides that a person planning to engage in any activity that will physically alter or modify the bed or banks of a stream or river must give written notice to the Board of Supervisors of a Conservation District, the Directors of a Grass Conservation District, or the Board of County Commissioners if the proposed project is not within a district and must receive approval of the project in advance.

Montana Solid Waste Management Act and regulations, § 75-10-201, et seq., MCA, ARM 17.50.501 et seq. (Applicable) - Regulations promulgated under the Solid Waste Management Act, § 75-10-201, et seq., MCA, specify requirements that apply to the location of any solid waste management facility. If any solid waste management facilities will be created at this facility, the following ERCLs apply.

ARM 17.50.505 (Applicable) provides that a facility for the treatment, storage or disposal of solid wastes:

1. must be located where a sufficient acreage of suitable land is available for solid waste management;
2. may not be located in a 100-year floodplain;
3. may be located only in areas which will prevent the pollution of ground and surface waters and public and private water supply systems;
4. must be located to allow for reclamation and reuse of the land;
5. drainage structures must be installed where necessary to prevent surface runoff from entering waste management areas; and
6. where underlying geological formations contain rock fractures or fissures which may lead to pollution of the ground water or areas in which springs exist that are hydraulically connected to a proposed disposal facility, only Class III disposal facilities may be approved.

Other applicable regulations include: ARM 17.50.523 requires that waste be transported in such a manner as to prevent its discharge, dumping, spilling or leaking from the transport vehicle; and 17.50.525 states that DEQ may inspect at reasonable hours.

Other regulations identified here (ARM 17.50.506 - design of landfills; ARM 17.50.510 and .511 - operational and maintenance requirements; ARM 17.50.530 and 531 - landfill closure requirements and post closure care) are also applicable to the proposed remedial action.

In addition, § 75-10-212, MCA, (Applicable) prohibits dumping or leaving any debris or refuse upon or within 200 yards of any highway, road, street, or alley of the State or other public property, or on privately owned property where hunting, fishing, or other recreation is permitted.

However, the restriction relating to privately owned property does not apply to the owner, his agents, or those disposing of debris or refuse with the owner's consent.

ACTION SPECIFIC REQUIREMENTS

These action specific ERCLs are identified to help guide the development of alternatives in the Feasibility Study. However, when a specific preferred alternative is identified, the ERCLs will be identified with more specificity.

Point Source Controls: If point sources of water contamination are retained or created by any remediation activity, applicable Clean Water Act standards would apply to those discharges. The State of Montana established state standards and permit requirements in conformity with the Clean Water Act and govern point source discharges. See ARM 17.30.1201 et seq., (standards) and ARM 17.30.1301 et seq. (permits).

Dredge and Fill Requirements (Applicable): Regulations found at 40 CFR Part 230 address conditions or prohibitions against depositing dredge and fill material into water of the United States. Any remediation activities associated with waste removal and creek restoration may result in activities subject to these regulations which are covered through a Section 404 Permit.

Air Quality Regulations (Applicable): Dust suppression and control of certain substances likely to be released into the air as a result of earth moving, transportation and similar actions may be necessary to meet air quality requirements. Additional air quality regulations under the state Clean Air Act, §§ 75-2-101 et seq., MCA, promulgated pursuant to the Clean Air Act, 42 U.S.C. §§ 7401, et seq., are discussed below. These standards are applicable to proposed cleanup activities.

ARM 17.8.220 (Applicable). Settled particulate matter shall not exceed a thirty (30) day average of 10 grams per square meter.

ARM 17.8.222 (Applicable). Lead in ambient air shall not exceed a 90 day average of 1.5 micrograms per cubic meter of air.

ARM 17.8.223 (Applicable). PM-10 concentrations in ambient air shall not exceed a 24 hour average of 150 micrograms per cubic meter of air and an annual average of 50 micrograms per cubic meter of air.

Ambient air standards under section 109 of the Clean Air Act are also promulgated for carbon monoxide, hydrogen sulfide, nitrogen dioxide, sulfur dioxide, and ozone. If emissions of these compounds were to occur at the KRY Site in connection with any cleanup action, these standards would also be applicable. See ARM 17.8.210, 17.8.211, 17.8.212, 17.8.213, and 17.8.214.

ARM 17.8.304 and 17.8.308 (Applicable) provide that no person shall cause or authorize the production, handling, transportation or storage of any material; or cause or authorize the use of any street, road, or parking lot; or operate a construction site or demolition project, unless reasonable precautions to control emissions of airborne particulate matter are taken. Emissions of airborne

particulate matter must be controlled so that they do not "exhibit an opacity of twenty percent (20%) or greater averaged over six consecutive minutes."

ARM 17.24.761 (Relevant) specifies a range of measures for controlling fugitive dust emissions during mining and reclamation activities and requires that a fugitive dust control program be implemented. Some of these measures could be considered relevant to control fugitive dust emissions in connection with excavation, earth moving and transportation activities conducted as part of the remedy at the site. Such measures include, for example, paving, watering, chemically stabilizing, or frequently compacting and scraping roads, promptly removing rock, soil or other dust-forming debris from roads, restricting vehicles speeds, revegetating, mulching, or otherwise stabilizing the surface of areas adjoining roads, restricting unauthorized vehicle travel, minimizing the area of disturbed land, and promptly revegetating regraded lands.

Groundwater Act (Applicable): § 85-2-505, MCA, precludes the wasting of groundwater. Any well producing waters that contaminate other waters must be plugged or capped, and wells must be constructed and maintained so as to prevent waste, contamination, or pollution of groundwater.

Section 85-2-516, MCA (Applicable)states that within 60 days after any well is completed a well log report must be filed by the driller with the Montana Bureau of Mines and Geology.

ARM 17.30.641 (Applicable) provides standards for sampling and analysis of water.

ARM 17.30.646 (Applicable) requires that bioassay tolerance concentrations be determined in a specified manner.

ARM 36.21.670-678 and 810 (Applicable) specifies certain requirements that must be fulfilled when abandoning monitoring wells.

Substantive MPDES Permit Requirements, ARM 17.30.1342-1344 (Applicable): Because the State of Montana has been delegated the authority to implement the Clean Water Act, these requirements are enforced in Montana through the Montana Pollutant Discharge Elimination System (MPDES). These regulations set forth the substantive requirements applicable to all MPDES and National Pollutant Discharge Elimination System permits. The substantive requirements, including the requirement to properly operate and maintain all facilities and systems of treatment and control, are applicable requirements.

Technology-Based Treatment, ARM 17.30.1203 (Applicable): Provisions of 40 CFR Part 125 for criteria and standards for the imposition of technology-based treatment requirements are adopted and incorporated in DEQ permits. For toxic and nonconventional pollutants treatment must apply the best available technology economically achievable (BAT); for conventional pollutants, application of the best conventional pollutant control technology (BCT) is required. Where effluent limitations are not specified for the particular industry or industrial category at issue, BCT/BAT technology-based treatment requirements are determined on a case by case basis using best professional judgment (BPJ). See CERCLA Compliance with Other Laws

Manual, Vol. I, August 1988, pp. 3-4 and 3-7.

Storm Water Runoff - ARM 17.30.1341 to 1344 (Applicable) requires a Storm Water Discharge General Permit for stormwater point sources. Generally, the permit requires the permittee to implement Best Management Practices (BMP) and to take all reasonable steps to minimize or prevent any discharge which has a reasonable likelihood of adversely affecting human health or the environment. However, if there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with the activity, additional protections may be required.

ARM 17.24.633 (Relevant): All surface drainage from a disturbed area must be treated by the best technology currently available.

RCRA Subtitle C Requirements (Applicable)
RCRA, 42 U.S.C. §§ 6901 et seq., (Applicable) and the Montana Hazardous Waste Act, §§ 75-10-401 et seq., MCA, (Applicable) and regulations under these acts establish a regulatory structure for the generation, transportation, treatment, storage and disposal of hazardous wastes. These requirements are applicable to substances and actions at the facility that involve the active management of hazardous wastes.

Wastes may be designated as hazardous by either of two methods: listing or demonstration of a hazardous characteristic. Listed wastes are the specific types of wastes determined by EPA to be hazardous as identified in 40 CFR Part 261, Subpart D (40 CFR 261.30 - 261.33) (Applicable). Listed wastes are designated hazardous by virtue of their origin or source, and must be managed as hazardous wastes. Characteristic wastes are those that by virtue of concentrations of hazardous constituents demonstrate the characteristic of ignitability, corrosivity, reactivity or toxicity, as described at 40 CFR Part 261, Subpart C (Applicable). The facility contains F032 listed hazardous wastes and the various media and wastes at the facility contaminated by the F032 wastes are hazardous wastes pursuant to 40 CFR Part 261. The RCRA requirements specified below are applicable requirements for the treatment, storage and disposal of these wastes. These ERCLs apply to remedial actions; on-going operations must comply with state and federal requirements and permits.

ARM 17.53.112 (Applicable) specifies that the presence of listed and characteristic hazardous waste require the permit requirements specified below that are applicable for the types of waste management units or the waste management practices anticipated in the remedial actions at the facility.

The RCRA regulations at 40 CFR Part 263 (Applicable) establish standards that apply to transporters of hazardous waste. These standards include requirements for immediate action for hazardous waste discharges. These standards are applicable for any onsite transportation. These standards are independently applicable for any offsite transportation.

The regulations at 40 CFR 264, Subpart B (Applicable) establish general facility requirements. These standards include requirements for general waste analysis, security and location standards.

The regulations at 40 CFR 264, Subpart F (Applicable) establish requirements for groundwater protection for RCRA-regulated solid waste management units (i.e., waste piles, surface impoundments, land treatment units, and landfills). The regulations at Subpart F establish monitoring requirements for RCRA-regulated solid waste management units (i.e., waste piles, surface impoundments, land treatment units, and landfills). Subpart F provides for three general types of groundwater monitoring: detection monitoring (40 CFR 264.98); compliance monitoring (40 CFR 264.99); and corrective action monitoring (40 CFR 264.100). Monitoring wells must be cased according to 40 CFR 264.97(c). Monitoring is required during the active life of a hazardous waste management unit. If hazardous waste remains, monitoring is required for a period necessary to protect human health and the environment.

40 CFR Part 264, Subpart G (Applicable) establishes that hazardous waste management facilities must be closed in such a manner as to (a) minimize the need for further maintenance and (b) control, minimize or eliminate, to the extent necessary to protect public health and the environment, post-closure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff or hazardous waste decomposition products to the ground or surface waters or to the atmosphere.

Requirements for facilities requiring post-closure care include the following: the facilities must undertake appropriate monitoring and maintenance actions, control public access, and control post-closure use of the property to ensure that the integrity of the final cover, liner, or containment system is not disturbed. In addition, all contaminated equipment, structures and soil must be properly disposed of or decontaminated unless exempt and free liquids must be removed or solidified, the wastes stabilized, and the waste management unit covered.

40 CFR Part 264, Subparts I and J (Applicable) apply to owners and operators of facilities that store hazardous waste in containers, and store or treat hazardous waste in tanks, respectively. These regulations are applicable to any storage or treatment in these units at the facility. The related provisions of 40 CFR 261.7 regarding residues of hazardous waste in empty containers are also applicable.

Since F032 listed waste is present at the KRY Site, the RCRA Land Disposal Restrictions (LDRs) treatment levels set forth in 40 CFR Part 268 are applicable requirements including the treatment levels for F032 listed wastes for the disposal of hazardous wastes generated at the facility. With the exception of treated soils, hazardous wastes are prohibited from disposal onsite.

The Hazardous Waste Identification Rule (HWIR) for Contaminated Media promulgated at 63 Fed. Reg. 65874 (November 30, 1998) (Applicable) allows listed waste treated to levels protective of human health and the environment to be disposed onsite without triggering land ban or minimum technology requirements for these disposal requirements. Treated soils containing hazardous waste will need to meet cleanup levels to avoid triggering land ban or minimum technology requirements for these disposal requirements.

40 CFR Part 270 (Applicable) sets forth the hazardous waste permit program. The requirements set forth in 40 CFR Part 270, Subpart C (permit conditions), including the requirement to properly operate and maintain all facilities and systems of treatment and control are applicable requirements.

For any management (i.e., treatment, storage, or disposal) or removal or retention, the RCRA regulations found at 40 CFR §§ 264.116 and .119 (governing notice and deed restrictions), 264.228(a)(2)(i) (addressing de-watering of wastes prior to disposal), and 264.228(a)(2)(iii)(B)(C)(D) and .251 (c)(d)(f) (regarding run-on and run-off controls), are relevant requirements for any waste management units created or retained at the Site that contain non-exempt waste. A construction de-watering permit covers similar requirements and is applicable to the Site.

The Montana Hazardous Waste Act, §§ 75-10-401 et seq., MCA (Applicable) and regulations under this act establishes a regulatory structure for the generation, transportation, treatment, storage and disposal of hazardous wastes. These requirements are applicable to substances and actions at the facility that involve listed and characteristic hazardous wastes.

ARM 17.53.501-502 (Applicable) adopts the equivalent of RCRA regulations at 40 CFR Part 261, establishing standards for the identification and listing of hazardous wastes, including standards for recyclable materials and standards for empty containers, with certain State exceptions and additions.

ARM 17.53.601-604 (Applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 262, establishing standards that apply to generators of hazardous waste, including standards pertaining to the accumulation of hazardous wastes, with certain State exceptions and additions.

ARM 17.53.701-708 (Applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 263, establishing standards that apply to transporters of hazardous waste, with certain State exceptions and additions.

ARM 17.53.801-803 (Applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 264, establishing standards that apply to hazardous waste treatment, storage and disposal facilities, with certain State exceptions and additions.

ARM 17.53.1101-1102 (Applicable) adopts the equivalent to RCRA regulations at 40 CFR Part, establishing land disposal restrictions, with certain State exceptions and additions.

Section 75-10-422 MCA (Applicable) prohibits the unlawful disposal of hazardous wastes.

ARM 17.53.1201-1202 (Applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 270 and 124, which establish standards for permitted facilities, with certain State exceptions and additions.

ARM 17.53.1401 (Applicable) adopts the equivalent of RCRA regulations at 40 CFR Part 279 that set forth the standards for the management of used oil.

Underground Injection Control Program

The Underground Injection Control Program provided in 40 CFR 146 (Applicable) sets forth the standards and criteria for the injection of substances into aquifers. Wells are classified as Class I through V, depending on the location and the type of substance injected. For all classes, no owner may construct, operate or maintain an injection well in a manner that results in the contamination of an underground source of drinking water at levels that violate MCLs or otherwise adversely affect the health of persons. Each classification may also contain further specific standards, depending on the classification.

Free Product Removal

Information generated during the Remedial Investigation indicates that all known tanks have been removed from the Site but that free product remains. Therefore, certain storage tank regulations are applicable or relevant.

40 CFR Part 280, Subpart F (Applicable) sets forth requirements for Release Response and Corrective Action for underground storage tank (UST) Systems Containing Petroleum or Hazardous Substances. These include initial response, initial abatement measures, facility characterization, free product removal, and investigations for soil and groundwater cleanup.

40 CFR 280.64 (Applicable) provides that where investigations in connection with leaking underground storage tanks reveal the presence of free product, owners and operators must remove free product to the maximum extent practicable as determined by the implementing agency. This regulation also requires that the free product removal be conducted in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery byproducts in compliance with applicable local, state and federal regulations. This applicable regulation also provides that abatement of free product migration is a minimum objective for the design of the free product removal system and provides that any flammable products must be handled in a safe and competent manner to prevent fires or explosions.

ARM 17.56.607 (Applicable) specifies that all free product must be removed to the maximum extent practicable before a release may be considered resolved.

Reclamation Requirements (Relevant): Certain portions of the Montana Strip and Underground Mining Reclamation Act and Montana Metal Mining Act as outlined below are relevant requirements for construction activities at the facility.

Section 82-4-231, MCA: Requires operators to reclaim and revegetate affected lands using most modern technology available. Operators must grade, backfill, topsoil, reduce high walls, stabilize subsidence, control water, minimize erosion, subsidence, land slides, and water pollution.

Section 82-4-233, MCA: Operators must plant vegetation that will yield a diverse, effective, and

permanent vegetative cover of the same seasonal variety native to the area and capable of self-regeneration.

Section 82-4-336, MCA: Disturbed areas must be reclaimed to utility and stability comparable to areas adjacent.

ARM 17.24.501: Provides general backfilling and grading requirements including the following. Backfill must be placed so as to minimize sedimentation, erosion, and leaching of acid or toxic materials into waters, unless otherwise approved. Final grading must be to the approximate original contour of the land and the disturbed area must be blended with surrounding and undisturbed ground to provide a smooth transition in topography.

ARM 17.24.519: Pertinent areas where excavation will occur will be regraded to minimize settlement.

ARM 17.24.631(1), (2), (3)(a) and (b): Disturbances to the prevailing hydrologic balance will be minimized. Changes in water quality and quantity, in the depth to groundwater and in the location of surface water drainage channels will be minimized, to the extent consistent with the selected response alternatives. Other pollution minimization devices must be used if appropriate, including stabilizing disturbed areas through land shaping, diverting runoff, planting quickly germinating and growing stands of temporary vegetation, regulating channel velocity of water, lining drainage channels with rock or vegetation, mulching, and control of acid-forming, and toxic-forming waste materials.

ARM 17.24.633: Surface drainage from a disturbed area must be treated by the best technology currently available (BTCA). Treatment must continue until the area is stabilized.

ARM 17.24.634: Disturbed drainages will be restored to the approximate pre-disturbance configuration, to the extent consistent with the selected response alternatives. Drainage design must emphasize channel and floodplain dimensions that approximate the pre-mining configuration and that will blend with the undisturbed drainage above and below the area to be reclaimed. The average stream gradient must be maintained with a concave longitudinal profile. This regulation provides specific requirements for designing the reclaimed drainage to: (1) meander naturally; (2) remain in dynamic equilibrium with the system; (3) improve unstable premining conditions; (4) provide for floods; and (5) establish a premining diversity of aquatic habitats and riparian vegetation.

ARM 17.24.635 through 17.24.637: Set forth requirements for temporary and permanent diversions.

ARM 17.24.638: Sediment control measures must be implemented during operations.

ARM 17.24.640: Discharges from diversions must be controlled to reduce erosion and enlargement of stream channels, and to minimize disturbance of the hydrologic balance.

ARM 17.24.641: Practices to prevent drainage from acid or toxic forming spoil material into ground and surface water will be employed.

ARM 17.24.643 through 17.24.646: Provisions for groundwater protection, groundwater recharge protection, and groundwater and surface water monitoring.

ARM 17.24.701 and 702: Requirements for redistributing and stockpiling of soil for reclamation. Also outlines practices to prevent compaction, slippage, erosion, and deterioration of biological properties of soil.

ARM 17.24.703: When using materials other than, or along with, soil for final surfacing in reclamation, the operator must demonstrate that the material (1) is at least as capable as the soil of supporting the approved vegetation and subsequent land use; and (2) the medium must be the best available in the area to support vegetation. Such substitutes must be used in a manner consistent with the requirements for redistribution of soil in ARM 17.24.701 and 702.

ARM 17.24.711: Requires that a diverse, effective and permanent vegetative cover of the same seasonal variety and utility as the vegetation native to the area of land to be affected must be established. This provision would not be relevant and appropriate in certain instances, for example, where there is dedicated development.

ARM 17.24.713: Seeding and planting of disturbed areas must be conducted during the first appropriate period for favorable planting after final seedbed.

ARM 17.24.714: Mulch or cover crop or both must be used until adequate permanent cover can be established.

ARM 17.24.716: Establishes method of revegetation.

ARM 17.24.717: Relates to the planting of trees and other woody species if necessary, as provided in § 82-4-233, MCA, to establish a diverse, effective, and permanent vegetative cover.

ARM 17.24.718: Requires soil amendments if necessary to establish a permanent vegetative cover.

ARM 17.24.721: Specifies that rills or gullies must be stabilized and the area reseeded and replanted if the rills and gullies are disrupting the reestablishment of the vegetative cover or causing or contributing to a violation of water quality standards for a receiving stream.

ARM 17.24.723: Requires periodic monitoring of vegetation, soils, water, and wildlife.

ARM 17.24.724: Specifies how revegetation success is measured.

ARM 17.24.726: Sets the required methods for measuring vegetative success.

ARM 17.24.731: If toxicity to plants or animals is suspected, comparative chemical analyses may be required.

ARM 17.24.751: Measures to prevent degradation of fish and wildlife habitat will be employed.

ARM 17.24.761: This specifies fugitive dust control measures that will be employed during excavation and construction activities to minimize the emission of fugitive dust.

Noxious Weeds (Applicable): § 7-22-2101(8)(a), MCA defines "noxious weeds" as any exotic plant species established or that may be introduced in the state which may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses or that may harm native plant communities and that is designated: (i) as a statewide noxious weed by rule of the department of agriculture; or (ii) as a district noxious weed by a district weed board, following public notice of intent and a public hearing. Designated noxious weeds are listed in ARM 4.5.201 through 4.5.204 and must be managed consistent with weed management criteria developed under § 7-22-2109(2)(b), MCA. Section 7-22-2152, MCA, requires that any person proposing certain actions including but not limited to a solid waste facility, a highway or road, a commercial, industrial, or government development, or any other development that needs state or local approval and that results in the potential for noxious weed infestation within a district shall notify the district weed board at least 15 days prior to the activity. The board will require that the areas be seeded, planted, or otherwise managed to reestablish a cover of beneficial plants. The person committing the action shall submit to the board a written plan specifying the methods to be used to accomplish revegetation at least 15 days prior to the activity. The plan must describe the time and method of seeding, fertilization practices, recommended plant species, use of weed-free seed, and the weed management procedures to be used. The plan is subject to approval by the board, which may require revisions to bring the revegetation plan into compliance with the district weed management plan. The activity for which notice is given may not occur until the plan is approved by the board and signed by the presiding officer of the board and by the person or a representative of the agency responsible for the action. The signed plan constitutes a binding agreement between the board and the person or agency. The plan must be approved, with revisions if necessary, within 10 days of receipt by the board.

APPENDIX E

Initial Alternatives Screening Document

DRAFT

TECHNICAL MEMORANDUM

FEASIBILITY STUDY SCOPING MEETING

KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES (KRY SITE) KALISPELL, MONTANA

February 20, 2007

Prepared for:

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
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P.O. Box 200901
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DEQ Contract No. 402014
Task Order No. 37

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CONTENTS

Section **Page**

1.0 INTRODUCTION 1

2.0 FEASIBILITY STUDY SCOPING MEETING 1

3.0 POST-FEASIBILITY STUDY SCOPING MEETING COMMENTS 5

Table

A Specific Discussion and Decisions for IASD Table 1 KRY Site
B Specific Discussion and Decisions for IASD Table 2 KRY Site

1.0 INTRODUCTION

Tetra Tech EM Inc. (TtEMI) was requested by the Montana Department of Environmental Quality (DEQ), under Contract 402014 Task Order No. 37, to prepare an initial alternatives screening document (IASD). The IASD was intended to identify and evaluate all potential remedial alternatives for remediation of contaminated soil and groundwater at the Kalispell Pole and Timber, Reliance Refinery, and Yale Oil facilities (the KRY site) near Kalispell, Montana. DEQ requested that TtEMI identify the areas and volume of contaminated media that exceed U.S. Environmental Protection Agency (EPA) Preliminary Remediation Goals (PRGs) for residential and industrial soils (as modified by the Voluntary Cleanup and Redevelopment Act [VCRA] guide), EPA Soil Screening Levels (SSLs) with a dilution attenuation factor of 10, and the Montana Tier 1 Risk-Based Screening Levels (RBSLs) for applicable compounds. TtEMI also identified and described (in table form) all potential remedial alternatives for light nonaqueous phase liquid (LNAPL), contaminated soil, and contaminated groundwater; selected and described evaluation criteria to be used for the initial screening of alternatives; provided a reference list for the alternatives and evaluation criteria; and further evaluated alternatives for cost, effectiveness, and implementability. Finally, TtEMI proposed potential remedial alternatives to be retained for subsequent evaluation in the feasibility study (FS) report.

The draft IASD consists of four tables. Table 1 is an initial screen of all potential alternatives against criteria selected from the Federal Remediation Technology Roundtable (FRTR) database. Table 2 is a more detailed screening of alternatives retained from Table 1 using the cost, effectiveness, and implementability criteria. Table 3 shows proposed alternative treatment trains. Table 4 shows the estimated volumes of contaminated material at the site as defined by initial screening criteria described in the previous paragraph. DEQ further requested that TtEMI participate in a scoping meeting with DEQ and potentially liable persons (PLPs) for the facilities to discuss the IASD and the alternatives to be evaluated in the FS. The IASD was presented to the PLPs and DEQ in advance of the scoping meeting for review. This technical memorandum presents a detailed description of the scoping meeting, the discussions that ensued, the decisions reached during and after the scoping meeting, and the rationale for the decisions.

2.0 FEASIBILITY STUDY SCOPING MEETING

The FS scoping meeting was held on Monday, February 5, 2007, at the Metcalf Building in Helena, Montana. Attendees at the meeting included Derek Swank of Swank Enterprises, Dave Smith from BNSF Railway Co., Ann Colpitts from Retec, Moriah Bucy and Denise Martin from DEQ, and Shane Broesder, Laura Newman, and Dr. Greg Swanson (via conference call) from TtEMI.

DEQ began the meeting by distributing handouts, including Figures 3-9 through 4-5, 4-6F, 4-7F, 4-8E, 4-9E, 4-10E, 4-11A, 4-12A, 4-13, 4-14A, and 4-15A from the final draft remedial investigation (RI) report and Table 1 through Table 4 from the IASD. DEQ explained that it had not yet commented on the tables. TtEMI began a discussion of the first table, which identifies, describes, and provides an initial evaluation of all potential remedial alternatives. TtEMI explained that the criteria used to evaluate the alternatives were selected from the FRTR database. TtEMI then assigned a weighting factor to the criteria. TtEMI explained that, based on the FRTR database, the following criteria were selected for use in the evaluation of alternatives: availability, implementability, effectiveness, reliability/maintainability, and cost. Based on engineering judgment, TtEMI then assigned a weighting factor to each criterion as follows (5x for availability, 4x for implementability, 3x for effectiveness, 2x for reliability/maintainability, and 1x for cost). The order of the criteria and the assigned weighting factor do not presume relative importance of one criterion over another. Instead, the order of the criteria and the weighting factors were used as an initial tool to screen out those technologies that are clearly not feasible at the site, as well as to more widely distribute the final scores of the technologies so that a clear cutoff point could be established. For example, a technology that is currently not available would not be a feasible alternative, or a technology that is available but not readily implementable at the KRY site would not be a feasible alternative. Following group discussion, it was decided that the source of the criterion selected, the assignment of the weighting factors, and the selected cutoff point would be clearly defined in the footnotes of the IASD tables. All of the alternatives identified in the first table were discussed at the scoping meeting. General questions that were asked on the first table of the IASD include:

- Mr. Smith asked if site-specific information was used in evaluating the alternatives in IASD Table 1 (for example, viscosity of product and aquifer characteristics). TtEMI responded that only general site information was used for the evaluation of alternatives in IASD Table 1 so that the initial screening could be completed in a timely manner. More site-specific information was considered as part of the evaluations in IASD Table 2.
- Ms. Colpitts asked how alternatives could be evaluated before remedial action objectives and cleanup values are established from a risk assessment. DEQ explained that TtEMI used generic screening levels to calculate areas and volumes of contaminated media and that site-specific

cleanup criteria are currently being calculated. These cleanup criteria will be available before alternatives are evaluated in the FS.

- Ms. Colpitts expressed concern that DEQ is not following the standard process of an FS and pointed out that applicable or relevant and appropriate requirements (ARARs) are generally used in the screening process. DEQ explained that Environmental Requirements, Criteria, and Limitations (ERCLs), which are the Comprehensive Environmental Cleanup and Responsibility Acts (CECRA) equivalent to ARARs, would be used to screen and evaluate alternatives in the FS since KRY is a state Superfund site. In addition, DEQ representatives said that DEQ is following the FS process.

- In response to questions from Ms. Colpitts and Mr. Smith about the risk analysis DEQ is conducting, DEQ explained that it is following a risk assessment approach for calculating cleanup values. However, the cleanup values will not be presented as a formal risk assessment document, but rather in a technical memorandum format. DEQ further explained that it intends to calculate cleanup values for residential soil for dioxins only, since no other contaminant concentrations exceeded generic screening levels in residential areas.

- A discussion of future uses of the properties ensued. DEQ explained that statute mandates factors that must be considered for future use determinations. Mr. Smith asked if current property owners are taken into account. In response, DEQ read the statute (Section 75-10-701 [18], Montana Code Annotated [MCA]), which reads, in part: "relevant indications of anticipated land use from the owner of the facility and local planning officials."

- Mr. Smith and Ms. Colpitts asked if there would be an opportunity for public comment on the risk values. DEQ responded that a separate public comment period was not included in the schedule. Mr. Smith said that, in the past, DEQ has allowed for public comment on the risk assessment at other sites and asked why the practice was changing. DEQ explained that the statute calls for public comment only on DEQ's final cleanup decision as documented in the proposed plan. However, DEQ will allow public comment elsewhere in the process based on community interest and schedule. DEQ clarified that there is no time for a separate public comment period on the cleanup values because the schedule for the project at the KRY site is legislatively mandated. However, these values will be presented in the proposed plan and FS when these documents are released for public comment and will be subject to public comment at that time. Mr. Smith offered Retec's services to assist DEQ in evaluating cleanup values for the KRY site. The DEQ representatives responded that they would consider the offer and follow up later. DEQ subsequently provided RETEC with preliminary spreadsheets and model results used to generate cleanup levels.

- Ms. Colpitts asked about the remediation goal for free-product. DEQ explained that the ERCL states that free product must be removed to the maximum extent practicable. Ms. Colpitts asked if institutional controls (ICs) would be appropriate for free product if there is no potential for leaching. DEQ explained that it is concerned about the maintainability of ICs in the long term.

Specific questions that were asked and the resulting decisions affecting IASD Table 1 are provided in Table A of this technical memorandum.

The FS scoping meeting discussions then proceeded to the second table of the IASD. All of the alternatives retained from IASD Table 1 were further evaluated in IASD Table 2 using the criteria of cost,

effectiveness, and implementability, as required by the task order. Mr. Smith suggested that only the alternatives that were not retained for consideration in the FS be discussed in detail during the scoping meeting. General questions that were asked on the second table of the IASD include:

- BNSF/RETEC asked why discharge of treated groundwater to surface water was not retained. DEQ agreed that it should be retained and pointed out that groundwater is discharged to surface water at other sites in Montana. DEQ also explained that discharge to the municipal sanitary sewer should not be retained, as this alternative has been rejected by the local community because the municipal wastewater treatment plant discharges to Flathead Lake. The group agreed that discharge to surface water would be retained as a viable alternative in IASD Table 2, and that discharge to the municipal sanitary sewer would not be retained for further evaluation in the FS.

- DEQ requested that possible odors associated with landfarming be discussed within the implementability evaluation, as odors have been a concern at other sites where this technology was implemented.

- Ms. Colpitts asked why many of the alternatives retained in IASD Table 2 are not included in the alternatives in Table 3 of the IASD. DEQ representatives agreed and said that they found Table 3 confusing. TtEMI explained that Table 3 was an initial attempt to propose site-wide treatment train alternatives that could be used to address all of the contaminated media and areas of the KRY Site. Although several technologies that were retained in IASD Table 2 are not currently included as part of the site-wide alternatives, these previous alternatives could be added at any point in the FS process. Ms. Colpitts felt that land treatment should be part of the site-wide alternatives proposed in Table 3 of the IASD. It was decided to further discuss Table 3 of the IASD after IASD Table 2 had been discussed.

Specific questions that were asked and the resulting decisions affecting IASD Table 2 are provided in Table B of this technical memorandum.

Discussions then proceeded on Table 3 of the IASD. DEQ said that it did not expect a table that would combine specific alternatives into site-wide treatment train alternatives as part of the IASD scope. Additional discussion ensued on the need to further evaluate all of the alternatives retained from IASD Table 2 in the FS using site-specific criteria. TtEMI agreed that it is premature to assemble treatment trains at this point in the process. Instead, TtEMI would prefer to evaluate all of the alternatives retained from IASD Table 2 in more detail in the FS. The group agreed to disregard Table 3 and evaluate in detail all of the alternatives retained from IASD Table 2 in the FS. The alternatives can then be combined into site-wide treatment train alternatives after they have been screened against the site-specific information (cleanup levels, ERCLs, or other criteria).

Mr. Smith and Ms. Colpitts expressed their desire that the FS consider the steps BNSF is currently taking

at KRY (ozonation and free-product recovery using absorbent socks) in the evaluation of alternatives. DEQ said that it had not received an updated figure to show the expansion of the ozonation system. Mr. Smith responded that he would provide information associated with the expansion of the system and the effectiveness evaluation to DEQ soon. Mr. Smith continued that he believes the ozonation system has been effective at treating the contamination. BNSF studies indicate that pentachlorophenol (PCP) concentrations have been reduced by 90 percent on average and that the thickness of the LNAPL has been significantly reduced as well.

The group then discussed the next steps of the FS process. TtEMI explained that it hopes to identify six to eight site-wide alternatives for detailed evaluation in the FS. Ms. Colpitts expressed concern that limiting the FS to six to eight alternatives may overlook options that warrant consideration. TtEMI clarified that six to eight overall treatment trains would be evaluated, but that all alternatives retained from the FS would be considered equally and evaluated for inclusion in the treatment trains. Mr. Smith again offered Retec's services for the FS process. He felt that its assistance could be beneficial in the long term so that DEQ and TtEMI do not rush to meet the legislative deadlines and achieve a "not so positive result." DEQ said that it would consider the offer.

Ms. Colpitts then shared with the group an LNAPL plume map that depicts a different interpretation of the LNAPL plume thicknesses DEQ measured in November 2006. Ms. Colpitts pointed out that there is a significant difference between this figure and the one included in the RI. She cautioned that DEQ and TtEMI should take all of the data into account, rather than considering only one "snapshot" in time to evaluate alternatives and make decisions. Ms. Bucy replied that DEQ is continuing to collect water levels and measure LNAPL thickness monthly, and this information will be used to make decisions. DEQ also pointed out that the Retec figure does not combine LNAPL areas that are contiguous, even when there are no clean wells between areas of measurable thicknesses. TtEMI generates LNAPL plumes based on measurable (greater than .01 foot) and immeasurable (less than .01 foot) thicknesses in each well location. Soil boring logs and the local relative lithology where the boring was completed were taken into account for the approximation of the LNAPL plume.

Mr. Swank said that some alternatives were retained that have a "High" cost designation. He added that, on behalf of Swank, he would like to see alternatives with the lowest costs used, as much as possible. DEQ responded that the criteria for screening alternatives in the FS, including cost effectiveness, are part of statute and assured Mr. Swank that cost effectiveness would be considered in the FS. However, cost effectiveness is not always the deciding factor.

3.0 POST-FEASIBILITY STUDY SCOPING MEETING COMMENTS

After the FS scoping meeting, DEQ provided TtEMI with both written and verbal comments on the IASD tables on February 12, 2007. Specific changes and decisions that were reached from these comments are included in Tables A and B of this technical memorandum. In addition, based on discussions during the FS scoping meeting as well as internal DEQ discussion after the scoping meeting, DEQ requested that the FS not include an assembly of alternatives. DEQ and TtEMI agreed that the FS would evaluate individual technologies on a stand-alone basis and would include a discussion of how the retained alternatives might be applicable at the site. This approach will allow for more flexibility in assembling treatment trains and ultimately a preferred remedy within the proposed plan.

TABLES

TABLE A

SPECIFIC DISCUSSION AND DECISIONS FOR IASD TABLE 1
KRY SITE

Alternative	Discussion	Decision
Decisions reached during the FS Scoping Meeting		
No Further Action	DEQ asked why No Further Action was assigned a "1" for reliability when it does not offer protection of human health or the environment. TtEMI explained the reliability criterion refers to the mechanical or operational reliability of the alternative. Since no further action results in no alternative to be retained (for example, no operations and maintenance), the reliability of the alternative is good. DEQ clarified that reliability is not based on protectiveness, and TtEMI agreed that it is not based on protectiveness.	No change is needed[1].
Institutional Controls	DEQ requested that Community Awareness be removed because DEQ includes Community Awareness in all aspects of any project and does not consider it part of the ICs.	Community Awareness will be removed from the list.
Hot Water/Cosolvent Flushing (NAPL Collection and Treatment)	DEQ representatives requested that Effectiveness be change from a "1" to a "2," as it believes a score of 1 does not adequately reflect the effectiveness of Hot Water/Cosolvent Flushing.	Effectiveness will be changed from "1" to "2."
Transport	DEQ said that it did not feel that Transport was an actual alternative, but a component of several of the alternatives. DEQ believes that Transport should be removed from IASD Table 1 since it is not a stand-alone alternative, but it is being evaluated as such. Mr. Smith said he believes that Transport does need to be taken into consideration since the number of trucks per day, traffic patterns, and other factors are of concern to communities. DEQ agreed and suggested that alternatives that may require use of transport will be revised to address the potential off-site transport of contaminated media.	Transport will be removed from the alternatives list but will be discussed as a component of several alternatives.
All Alternatives	Ms. Colpitts questioned why some of the alternatives that exceed the cutoff of 25 points are retained, while others are screened out even if they are assigned the same total scores. She recommended that further justification be added to IASD Table 1 as to why some alternatives that exceeded the cutoff of 25 were retained, while others were not. TtEMI explained that alternatives were in part evaluated as part of a "treatment train" and not always as stand-alone processes; therefore, some were retained for consideration as part of the "treatment train." However, TtEMI agreed that further clarification was needed in the table.	Further explanation will be provided for the retained alternatives with scores that exceed 25.
Solidification /Stabilization (In Situ Soil)	DEQ suggested that Solidification/Stabilization be retained for evaluation in IASD Table 2 since it has been used at many sites across Montana.	Solidification/Stabilization will be retained for evaluation in IASD Table 2.
Thermal Desorption (Ex Situ Soil)	DEQ requested that a discussion on potential permitting requirements be added to the evaluation and comments on Thermal Desorption.	A discussion on potential permitting requirements will be added.
Waste Repository (On-Site Disposal)	The group pointed out that the current discussion for an on-site Waste Repository is more applicable to off-site disposal.	IASD Table 1 will be revised so that the discussion on waste repositories applies to an on-site application.

TABLE A (Continued)

SPECIFIC DISCUSSION AND DECISIONS FOR IASD TABLE 1
KRY SITE

Alternative	Discussion	Decision
Decisions reached after the FS Scoping Meeting		
Title	The titles of Tables 1 and 2 should be revised to "Kalispell Pole and Timber."	The titles will be revised.
All Alternatives	DEQ provided comments on various typographical and grammatical edits within IASD Tables 1 and 2 and offered suggestions for minor changes to wording within the tables.	Grammatical and typographical edits will be made to Tables 1 and 2.
All Alternatives	DEQ requested that TtEMI ensure that the discussion within the evaluation and comments on the alternatives support the scoring of those alternatives, particularly in cases where the alternative was scored poorly for a certain criterion.	TtEMI will check to be sure that when an alternative is scored poorly for a certain criteria, this score is supported by the evaluation; or the score will be changed to better reflect the evaluation and comments.
Bioremediation	DEQ had questions on the scoring for Availability and Cost. TtEMI and DEQ discussed the scorings and agreed to revise Availability to a "2" and Cost to a "1."	IASD Table 1 will be revised as agreed with DEQ.
Landfarming and Biopiles (Ex Situ Soil)	DEQ commented that the treatment time for Landfarming and Biopiles should be the same. Currently, Landfarming is identified as a medium- to long-term technology and Biopiles is identified as a short-term technology.	The table will be revised so that biopiles is identified as a medium-to long-term technology.
In Situ Landfarm (In Situ Soil)	DEQ requested that the Effectiveness rating be changed from a "3" to a "2."	The Effectiveness rating will be changed from a "3" to a "2."
Nitrate Enhancement (In Situ Soil)	DEQ noted that the description for Nitrate Enhancement is more applicable to groundwater and requested that the description be revised to discuss how nitrate enhancement can be applied to soil.	The description of Nitrate Enhancement will be revised so that it is more applicable to soil.
Air Sparging (In -Situ Soil)	DEQ requested that the description of Air Sparging be revised to clarify that Air Sparging is typically used in conjunction with SVE.	The description of Air Sparging will be revised.
Vertical Barrier (Groundwater Containment)	DEQ said that vertical groundwater barriers are relatively expensive to implement and requested that the scoring be revised from a "2" to a "3."	The Cost score will be revised to a "3" and the overall score will be reevaluated to assess whether this alternative should be retained.
Bioremediation (Ex Situ Groundwater)	DEQ pointed out that language in the description of bioremediation contradicts the application of this technology as a groundwater technology.	The language will be revised to ensure it is consistent with application of this technology as a groundwater technology.

TABLE A (Continued)

SPECIFIC DISCUSSION AND DECISIONS FOR IASD TABLE 1
KRY SITE

Alternative	Discussion	Decision
Discharge to Stormwater and Discharge to Municipal Sanitary Sewer	DEQ noted that currently no stormwater or sanitary sewer is accessible at the KRY site and requested that the scoring for Availability and Implementability for both of these alternatives be revised to a "3," resulting in screening out these two alternatives in IASD Table 1. In addition, DEQ explained that when this alternative was explored as part of the RI, the City of Kalispell stated that it would not accept discharge of treated investigation-derived waste (IDW) water into the sanitary sewer, as the municipal wastewater treatment plant discharges into Flathead Lake.	The scores for Availability and Implementability will be revised to a "3" and these alternatives will no longer be retained for further evaluation in IASD Table 2.
Discharge to Surface Water	DEQ requested that the language within the evaluation and comments be revised for consistency with the recently completed draft version of the ERCLs.	The language will be updated as requested.
Phytoremediation (In Situ Groundwater)	DEQ requested that a discussion be added to the evaluation and comments on how the effectiveness of Phytoremediation for groundwater is affected by the depth to groundwater.	A discussion on how the effectiveness of Phytoremediation for groundwater is affected by the depth to groundwater will be added.
Notes	DEQ requested that a reference be added to the notes for the evaluation criteria (the Federal Remediation Technologies Roundtable) along with an explanation that the weighting factors were selected using engineering judgment. In addition, DEQ pointed out that a note needs to be added to clarify that a value of 25 was used as the cutoff for screening out alternatives (with the exception of those that were retained for use as part of an overall treatment train).	A note clarifying the source of the evaluation criteria, the weighting factors, and the cutoff value used will be added to IASD Table 1.
Notes	DEQ recommended that a note added to the end of Tables 1 and 2 may be a good way to discuss those components (such as Transport) that are not technically alternatives alone but that are important components of many alternatives and a likely component of most treatment trains.	TtEMI will add a note that clarifies that transport is a component of many alternatives and treatment trains.

Notes:

1 The criteria used to evaluate the alternatives were selected from the Federal Remediation Technology Roundtable (FRTR) database as follows: availability, implementability, effectiveness, reliability/maintainability, and cost. Based on engineering judgment, a weighting factor was then assigned to each criterion as follows (5x for availability, 4x for implementability, 3x for effectiveness, 2x for reliability/maintainability, and 1x for cost). The order of the criteria and the assigned weighting factor do not presume relative importance of one criterion over another. The order of the criteria and the weighting factors were used as an initial tool to screen out those technologies that were clearly not feasible at the site, as well as to more widely distribute the final scores of the technologies so that a clear cutoff point could be established.

2 A cutoff of 25 was used to screen out technologies in the initial evaluation of technologies.

DEQ Montana Department of Environmental Quality
IASD Initial Alternatives Screening Document
IC Institutional Controls
O&M Operation and Maintenance
SVE Soil Vapor Extraction
TtEMI Tetra Tech EMI

TABLE B

SPECIFIC DISCUSSION AND DECISIONS FOR IASD TABLE 2
KRY SITE

Alternative	Discussion	Decision
Decisions reached during the FS Scoping Meeting		
All alternatives	DEQ requested that all references to Northern Energy Propane in IASD Table 2 be removed since this source area is not part of the KRY Site and DEQ is addressing it through PRS.	All references to Northern Energy Propane will be removed and the FS will not evaluate alternatives for cleanup of that area since it is not related to the KRY site.
Physical Barrier (Groundwater Containment)	DEQ requested that additional discussion be added to the Implementability cell on application of a vertical barrier to certain groundwater zones. DEQ further requested that the ranking for Cost be revised to "moderate to high."	TtEMI will add this discussion to IASD Table 2 and revise the cost ranking to "moderate to high."
Air Sparging	Ms. Colpitts asked why Air Sparging was not retained since Air Sparging is part of the Ozonation system currently operating on the Kalispell Pole and Timber facility. TtEMI staff responded that they viewed Air Sparging as a separate technology primarily applicable to VOCs, which make up only a small part of the contamination at the KRY site. Ms. Colpitts explained that Air Sparging is part of the delivery mechanism for the Ozonation system.	The Chemical Oxidation discussion will be updated to clarify that Air Sparging may be part of the treatment mechanism for Chemical Oxidation using ozone, but Air Sparging by itself will not be retained.
Bioventing	Mr. Smith pointed out that the cost column for this alternative refers to SVE and should be revised, and that this revision could affect the final outcome for this technology.	The evaluation of cost for Bioventing will be revised and the decision to retain or not retain will be updated accordingly.
Decisions reached following the FS Scoping Meeting		
Title	The titles of Tables 1 and 2 should be revised to "Kalispell Pole and Timber."	The titles will be revised.
All Alternatives	DEQ provided comments on various typographical and grammatical edits within IASD Tables 1 and 2 and offered suggestions for minor changes to wording with the tables.	Grammatical and typographical edits will be made to Tables 1 and 2.
Institutional Controls	DEQ requested that TtEMI check the reference used for the Institutional Controls because a newer reference may be available.	TtEMI will check the reference and update it if necessary.
Multi-Phase Extraction (NAPL Collection)	DEQ requested that the Cost discussion be revised so that Multi-Phase Extraction is not implied to be more complex than other types of systems.	The discussion will be revised.
Carbon Adsorption (Ex Situ Groundwater)	DEQ requested that the term "halogenated" be removed from the discussion under Effectiveness, as this technology applies to all VOCs. Additionally, PCP and dioxin are not VOCs and are not halogenated.	The term "halogenated" will be removed from IASD Table 2.
Other Adsorption (Ex Situ Groundwater)	DEQ requested that the discussion on Other Adsorption be revised to describe what other adsorptions methods are available. DEQ also requested that the decision to retain be clarified with a statement that other adsorption is being retained only for areas of no free product.	The discussion will be revised to clarify what other adsorption media are available and the last cell will be revised to read, "Retained for areas without free product."
Land Application (Groundwater Discharge)	DEQ requested that the discussion under Effectiveness be clarified, as it is confusing.	The discussion will be clarified.

TABLE B (Continued)

SPECIFIC DISCUSSION AND DECISIONS FOR IASD TABLE 2
KRY SITE

Alternative	Discussion	Decision
Enhanced Bioremediation - Aerobic (In Situ Groundwater)	DEQ requested that the discussion on Effectiveness be revised to clarify the effectiveness of this alternative on dioxins.	This discussion will be revised to clarify the effectiveness on dioxins.
Enhanced Bioremediation – Anaerobic (Ex Situ and In-Situ Soil)	DEQ requested that the discussion include Fentons as a possible anaerobic agent, and that the statement that no vapor emissions will be generated be revisited, as Fentons can result in vapor emissions.	This discussion will be revised.
Incineration / Thermal Destruction	DEQ requested that a discussion on the effectiveness of this alternative on dioxins be included.	This discussion will be revised as requested.
Solid Waste Landfill (Disposal)	DEQ requested that the sentence under Implementability, which states that, "local facilities may be reluctant to accept soil with elevated levels of VOCs" be revisited, as it may not be entirely accurate for Montana facilities.	TtEMI will conduct additional research and revise this statement as appropriate.
In Situ Landfarm (In Situ Soil)	DEQ requested that the evaluation of In Situ Landfarming be revisited, taking into consideration that this type of Landfarming is typically effective only for soils less than 18 inches below ground surface. (The bulk of contaminated soil at the KRY site is deeper than 18 inches.)	TtEMI will revise this evaluation to include additional discussion on how the depth of soil affects this alternative.
Bioventing (In Situ Soil)	DEQ requested that TtEMI revisit the evaluation on Bioventing as DEQ does not completely agree with the rankings.	TtEMI will work with DEQ to reevaluate Bioventing as a potential soil treatment alternative.
Notes	DEQ recommended that a note added to the end of Tables 1 and 2 may be a good way to discuss those components (such as transport) that are not technically alternatives alone but are important components of many alternatives and a likely component of most treatment trains.	TtEMI will add a note clarifying that transport is a component of many alternatives and treatment trains.

Notes:
DEQ Montana Department of Environmental Quality
IASD Initial Alternatives Screening Document
IC Institutional Controls
KRY Kalispell Pole and Timber, Reliance Refinery, and Yale Oil Facilities
SVE Soil Vapor Extraction
TtEMI Tetra Tech EMI
VOCs Volatile Organic Compounds

TABLE 1
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
No Further Action	**None**	None	Will not remove contamination or reduce risk to human health and the environment in the long term. Limited effectiveness for risk mitigation.	Inclusion of this option is required by DEQ procedures.	1	1	3	1	1	21	Yes
Institutional Controls	**Land Use Controls**	Zoning, Deed Notices, Environmental Control Easement	Protects human health by limiting exposure pathways and risk of future exposures. Requires long-term maintenance and enforcement of LUCs.	EPA 2000b, EPA 2005a.	1	1	3	2	1	23	Yes (retained for possible use in conjunction with other technologies)
	Groundwater Use Restrictions	Controlled Groundwater Area	Protects human health by educating the community on the potential hazards and exposure pathways. Requires public outreach meetings and materials. Limited effectiveness for risk mitigation.		1	1	3	2	1	23	
	Site Administrative Procedures	Health and Safety Programs	Limited effectiveness for risk mitigation.		1	1	3	2	1	23	
		Monitoring and Site Security Measures	Limited effectiveness for risk mitigation.		1	1	3	2	1	23	
Monitored Natural Attenuation	**Natural Attenuation/Long-Term Monitoring**	Natural Attenuation	Limited effectiveness for contaminant removal or reduction of risk to human health and the environment in the short term. Not effective in source areas.	EPA 2000b, EPA 2005a.	1	1	3	2	1	23	Yes (retained for possible use in conjunction with other technologies)
NAPL Collection and Treatment	**Bioremediation**	Bioremediation This approach enhances the natural biological activity in the subsurface to reduce contaminant concentrations and to degrade oil.	Has not typically been used within LNAPL plumes, but is an area of emerging technology application and its effectiveness is uncertain. However, in general, biodegradation of pure-phase hydrocarbon does not appear practical and has not been demonstrated in the subsurface. Currently, biodegradation is most commonly used on shorelines.	EPA 2005b.	2	2	3	3	1	34	No
	Physical Collection and Treatment	Multi-Phase Extraction Multi-phase extraction is a combination of bioventing and vacuum-enhanced free-product recovery. A high-vacuum system is applied to simultaneously remove various combinations of contaminated groundwater, separate-phase petroleum product, and hydrocarbon vapor from the subsurface.	Removes contaminants from above and below the water table. Exposes more of the vadose zone by lowering the water table around the well, exposing more contaminants to vapor extraction. Once above ground, the extracted liquids and vapors are separated and treated. Effective on VOCs and fuels (such as LNAPLs). More effective than SVE for heterogeneous clays and fine sands, but not as effective on low-permeability formations. Can shorten the cleanup time for other technologies. Water (and possibly vapor) treatment is required.	FRTR 2002.	1	2	2	2	2	25	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
NAPL Collection and Treatment (cont.)	**Physical Collection and Treatment (cont.)**	Trenches/Drains Trenches and drains are the most hydraulically efficient means for removing fluids from the aquifer. May be used to recover mobile LNAPL at shallow depths (15 to 20 bgs). Trenches are excavated perpendicular to the direction of groundwater flow, and LNAPL is allowed to pool in the trench for recovery. The trench is sometimes lined on the back side to contain the LNAPL. (See description under "Vertical Barriers.") Open trenches can be converted to drains by backfilling with permeable materials. Sumps or wells may be installed along the trench or drain to collect LNAPL.	Deeper drains may be cost effective, depending on soil conditions, economics, and the availability of equipment. More effective in low-permeability soils and heterogeneous sites. Systems often have low recovery rates (if they rely on hydraulic gradient alone) and longer recovery times. Groundwater extraction to increase hydraulic gradients toward the trench or drain may be used to increase the LNAPL recovery rate. However, lowering the water table may also cause LNAPL to migrate deeper into the previously uncontaminated saturated zone	EPA 1995.	1	2	2	1	3	24	Yes
		Hydraulic Pumps (for example, bladder pumps [such as Enviroequip's Genie]) The technology involves pumping LNAPL from wells or trenches under ambient pressure. Groundwater can simultaneously be recovered to increase the hydraulic gradient to help induce the flow of LNAPL to the well or trench.	Common method for LNAPL recovery. Most effective on lighter petroleum products and permeable hydrogeologic settings.	EPA 2005b.	1	2	2	2	2	25	Yes
		Passive and Active Skimmers (for example, belt skimmers, QED passive or active skimmer [by Enviroequip], or Blackhawk's LNAPL recovery attachment) Skimmers recover LNAPL by skimming under ambient pressure. They are often applied where LNAPL can be concentrated, such as in a trench with a vertical NAPL barrier. They can also be used in an extraction well.	Common method for LNAPL recovery. Most effective on lighter petroleum products and permeable hydrogeologic settings.	EPA 2005b.	1	2	2	2	2	24	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
NAPL Collection and Treatment (cont.)	**Physical Collection and Treatment (cont.)**	Hot Water or Cosolvent Flushing Methods for enhancing oil recovery, such as injection of hot water or steam, cosolvents (for example, ethanol), surfactants, alkaline agents, and polymers, are being evaluated for remediation of LNAPL sites because typical LNAPL recovery systems (such as drains and pumping wells) will usually remove only 50 percent or less of the total LNAPL.	Has typically been used in the oil production industry. However, there has been significant research and testing for use in the environmental industry in recovery of LNAPL and DNAPL. There are practical limitations to the effectiveness of enhanced oil recovery; however, the results from on-going studies and field tests are favorable. Subsurface heterogeneity, low-permeability units, and reductions in relative permeability caused by the presence of NAPL can prevent remediation fluids from making contact with the NAPL.	EPA 1995, 1999.	2	2	2	3	2	32	Yes (retained for possible use in conjunction with other technologies)
Groundwater Containment	**Physical Barrier**	Horizontal Barrier (for example: asphalt/concrete cap, soil/bentonite/clay cap, multi-layer cover systems, Aquablok, apatite, or coke breeze in a laminate mat) These barriers are a horizontal cap intended to prevent exposure to the contaminants.	Prevents, or reduces, migration of contaminants from soils to groundwater. Prevents further migration of contaminant plumes. Does not actively remediate contaminants. Requires periodic inspections and groundwater monitoring. Barriers can also break down and need to be monitored.	FRTR 2002.	1	2	2	3	2	27	No
		Vertical Barrier (for example: grouting, sheet piling, and slurry walls) Slurry walls incorporate a vertically excavated trench that is filled with a slurry, grout, or other materials that support the trench and reduce the flow of groundwater. Sheet piles or other vertical barriers installed to just below the groundwater table can be used to trap and collect NAPL.	Often used as a long-term solution for controlling seepage or for containing or diverting groundwater. Often used in conjunction with capping. Does not reduce concentrations of contaminants in groundwater. In addition, specific contaminant types may degrade the slurry wall, or the slurry wall can degrade or deteriorate over time. Vertical barriers installed to stop migration of NAPL typically incorporate extraction wells on the upstream side of the barrier to remove NAPL. Can be effective in recovering NAPL that has dispersed into thin layers and is not recoverable by conventional extraction techniques.	FRTR 2002; EPA 1995.	1	2	2	2	3	26	No
	Hydraulic Barriers	Pumping Wells, French Drains or Extraction Trenches These barriers include various methods that hydraulically contain contaminated groundwater to prevent further spread of the contamination.	The criteria for well or trench design, pumping system, and treatment depend on the physical site characteristics and the contaminant type. Does not reduce concentrations of contaminants in groundwater. It can be expensive to obtain the permit and operate the system. Extraction wells or trenches can foul.	FRTR 2002.	1	2	2	2	2	25	Yes
Groundwater Collection	**Groundwater Extraction Systems**	Trenches Possible objectives of trenches include extraction of dissolved contaminants from the subsurface, containment of contaminated groundwater to prevent migration, and collection and extraction of LNAPL.	The design and implementation of the groundwater pumping or injection system are critical in the success of an ex situ or in situ groundwater treatment system. The criteria for trench design, pumping system, and treatment depend on the physical site characteristics and contaminant type. The effectiveness and cost of trenches is affected by the depth to groundwater.	FRTR 2002.	1	2	2	2	2	25	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Groundwater Collection (cont.)	**Groundwater Extraction Systems (cont.)**	Extraction Wells Possible objectives of wells include extraction of dissolved contaminants from the subsurface and containment of contaminated groundwater to prevent migration.	Removing groundwater can result in longer treatment times. Groundwater pumping is not applicable to contaminants with high residual saturation or high sorption capabilities. It can be expensive to obtain the permit and operate the system. Both extraction wells and injection wells can foul. The effectiveness and cost of wells are affected by the depth of the groundwater.	FRTR 2002.	1	2	2	2	2	25	Yes
		Directional Wells Drilling techniques are used to position wells horizontally, or at an angle, to reach contaminants that are not accessible by direct vertical drilling.	May be used to enhance other in situ technologies such as groundwater pumping, bioventing, and soil flushing. The potential exists for the wells to collapse. Specialized equipment is required. Wells can be difficult to position precisely, limiting their effectiveness. Installation of horizontal wells is typically costly.	FRTR 2002.	1	3	3	3	2	34	No
		Fracturing (for example, pneumatic or hydraulic fracturing or blast enhanced) Cracks are developed in low-permeability and over-consolidated sediments by fracturing beneath the surface to open new passageways. Cracks are filled with porous media that improve pumping efficiency.	There is an inability to control the final location or size of the fractures that are created, limiting their effectiveness. Fractures are anticipated to collapse through overburden pressure, particularly in non-clayey soils. The potential exists to open new pathways, leading to the unwanted spread of contamination.	Hazardous Waste Clean-up Information (CLU_IN) http://ww.cluin.org/tech focus/	2	3	3	2	1	36	No
Ex Situ Groundwater Treatment	**Bioremediation** A process that uses indigenous or inoculated micro-organisms to degrade organic contaminants found in groundwater. Organic compounds are converted to carbon dioxide, water, and microbes. Nutrients, microorganisms (bioaugmentation), oxygen, or other amendments may be added to enhance bioremediation.	Constructed Wetlands This technology incorporates the principal components of wetland ecosystems; however, microbial activity is used to remediate contaminated groundwater	Water contaminated with high concentrations of metals is directed through both aerobic and anaerobic zones of the wetland ecosystem. Metals are removed through geochemical and microbial oxidation and reduction. Precipitated and adsorbed metals settle in ponds or are filtered out as water percolates through the medium or the plants. It is a long-term technology intended to operate continuously for years. The long-term effectiveness of constructed wetlands is not well known. The cost may not be viable for many sites. Temperature and fluctuations in flow affect wetland function. (Cold weather slows the rate of contaminant removal.) Wetland aging can also affect the effectiveness.	FRTR 2002.	1	2	3	2	3	29	No

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Groundwater Treatment (cont.)	**Bioremediation (cont.)** Aerobic bioremediation uses oxygen as the electron acceptor to metabolize contaminants. Anaerobic bioremediation uses other electron acceptors (nitrate, sulfate, or organic compounds). Bioremediation approaches have been shown effective in treating petroleum hydrocarbons, solvents, pesticides, wood preservatives, and other organic chemicals. Especially effective for remediating low-level residual contamination in conjunction with source removal. High concentrations of heavy metals or highly chlorinated organic compounds can be toxic to microorganisms. Low temperatures may slow bioremediation, although successful bioremediation has been demonstrated in extremely cold climates. It is a long-term technology — long-term monitoring may be required.	Land Treatment A full-scale bioremediation technology that applies contaminated groundwater to the soil surface. The soil is then tilled to aerate and facilitate bioremediation. Liners and other methods are used to control leaching of contaminants.	Usually a medium- to long-term technology. Typically is available for application to groundwater only when a soil landfarm is implemented. The site must be managed properly to prevent off-site migration or contaminant transport. Adequate monitoring and environmental safeguards are required. Can be used to treat oily sludge, wood-preserving wastes (PCP and creosote), coke wastes, and certain pesticides.	FRTR 2002.	2	2	2	1	2	28	Yes (as a possible alternative in conjunction with soil landfarming)
		Engineered Bioreactors (applied within a tank) These bioreactors use attached or suspended growth biological systems to degrade contaminants in water. In suspended growth systems, contaminated groundwater is circulated in an aeration basin and is aerobically degraded with microbes. A sludge is formed and settled in a clarifier. In attached growth systems, microorganisms are grown on an inert support matrix such as a rotating disk contactor (RDC).	Primarily used to treat SVOCs, fuel hydrocarbons, and any other biodegradable organic material. Very high contaminant concentrations may be toxic to microorganisms. Low ambient temperatures significantly decrease rates of biodegradation, resulting in longer retention time requirements. Residuals from sludge processes require treatment or disposal.	FRTR 2002.	1	2	1	2	2	22	Yes
	Physical/Chemical Treatment	Air Stripping This full-scale technology increases the area of the contaminated groundwater that is exposed to air, thereby removing volatile organic compounds.	Medium- to long-term technology. Biological fouling of the equipment can occur. Effective only for contaminated water with concentrations of VOCs or SVOCs with a dimensionless Henry's constant greater than 0.01. High energy costs. Off-gas treatment may be required.	FRTR 2002.	1	2	2	2	2	25	Yes
		Carbon Adsorption A full-scale technology that pumps groundwater through activated carbon. Dissolved organic compounds adsorb to the carbon.	The carbon can be regenerated when concentrations reach a high level. Two most common types are fixed bed and pulsed (or moving) bed. Adsorption by activated carbon has a long history of use in treating municipal, industrial, and hazardous wastes. A short-to medium-term technology. Effective on hydrocarbons and SVOCs, with some effectiveness on halogenated VOCs and pesticides. Carbon adsorption systems can be installed quickly, and efficiencies are high. Spent carbon may need to be transported and decontaminated and eventually disposed of. Fouling can occur. Costs are high if used as the primary treatment on waste streams with high contaminant levels.	FRTR 2002.	1	2	1	2	3	23	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Groundwater Treatment (cont.)	**Physical/Chemical Treatment – (cont.)**	Other Adsorption Generally categorized as either physical adsorption or chemisorption. Weak molecular bonds drive physical adsorption. A chemical reaction forms a strong chemical bond between the compound and the surface of the solid in chemisorption.	Other natural and synthetic adsorbents include activated alumina, forage sponge, lignin adsorption, sorption clays, and synthetic resins. Effective on most organic contaminants and selected inorganic contaminants from liquid and gas streams. Costs are high if used as the primary treatment for highly contaminated material. Adsorption material often requires treatment or disposal.	FRTR 2002.	1	2	1	2	3	23	Yes
		Chemical/Ozone/UV Oxidation Addition of oxidants generates free radicals that chemically convert hazardous organic contaminants to nonhazardous or less toxic compounds. UV irradiation also generates free radicals that destroy organic contaminants and can be used to enhance chemical oxidation. A wide variety of organic contaminants are susceptible to destruction by chemical/UV oxidation, including petroleum hydrocarbons and chlorinated hydrocarbons.	The most common chemical oxidants include ozone, hydrogen peroxide, and sodium/potassium permanganate. Handling and storing hydrogen peroxide require special safety precautions. Easily oxidized organic compounds, such as simple aromatic hydrocarbons (toluene, benzene, xylene, and phenol), are rapidly destroyed. The effectiveness on SVOCs with lower water solubility is less certain. UV oxidation depends on how effectively UV light is transmitted to the dissolved contaminants. High turbidity of the water can cause interference. The water should be relatively free of heavy melts, ions, and insoluble oil or grease to minimize the potential for fouling of the lights. Pretreatment of the aqueous stream may be required. Energy requirements and costs can be very high.	FRTR 2002.	1	2	2	2	2	25	Yes
		Solar Oxidation (for example: solar detoxification, or photocatalytic destruction) Solar detoxification uses sunlight as the energy source for reactions that will break down contaminants in groundwater. The reactions are photochemical and use UV light from the solar spectrum. Photocatalytic destruction uses photocatalysts (such as hydrogen peroxide or ferrioxalate) that absorb UV light to power chemical reactions.	A medium- to long-term emerging technology. Laboratory and field test have been conducted for removal of several VOCs, SVOCs, PAHs, and metals (including lead); however, full-scale application is limited. Some field test results are showing lower removal efficiencies that the laboratory tests.	Natural Resources Canada 2006; Blake 1999.	3	2	2	2	2	35	No
		Electrokinetics The technology relies on application of direct current through the media between electrodes. Metal ions, ammonium ions, and positively charged organic compounds move toward the cathode. Anions such as chloride, cyanide, fluoride, nitrate, and negatively charged organic compounds move toward the anode.	Intended to separate heavy metals and organic compounds from groundwater. Affects the migration of contaminants by imposing an electrical field via electroosmosis, electromigration, or electrophoresis. Generally an in situ and a short- to medium-term technology. Effective on metals and most organic compounds but is difficult to implement and can result in high maintenance.	Van Cawenberghe 1997.	2	3	1	3	2	33	No

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Groundwater Treatment (cont.)	**Physical/Chemical Treatment – (cont.)**	Irradiation (electron irradiation) The treatment of substances with high energy electrons (E-beam). Electron irradiation generates free radicals, which destroy organic contaminants, similar to chemical and UV oxidation.	Demonstrated on chlorinated solvents, fuels, and MTBE, but not well tested on other groundwater contaminants. Typical applications are in areas other than environmental (such as sterilization of medical equipment). Costs are typically high.	EPA 2000c, Panel on Gamma & Electron Irradiation, 1995/1996.	2	2	2	2	3	31	No
		Ion Exchange Removes ions from the aqueous phase by the exchange of cations or anions.	Material used may include synthetic resins or inorganic and natural polymeric materials. Short- to medium-term technology. Removes dissolved metals from aqueous solutions. Other compounds that have been treated include nitrate, ammonia nitrogen, and silicate. Wastewater generated will require additional treatment and disposal.	FRTR 2002.	1	2	2	2	2	25	Yes (retained as a possible alternative for metals removal)
		Precipitation/Coagulation/ Flocculation (metals precipitation, electrocoagulation) Precipitation has been a primary method for treating metals in industrial wastewater and has also been proven successful in treating groundwater that contains metals. Metal precipitation is often used as a pretreatment for other treatment technologies when the presence of metals would interfere with the other treatment processes. In the precipitation process, coagulation and flocculation are used to increase particle size through aggregation and therefore the efficiency of the process. After the coagulants have increased particle size, flocculation is used to promote contact between the particles.	The three main types of coagulants are inorganic electrolytes (such as alum, lime, ferric chloride, and ferrous sulfate), organic polymers, and synthetic polyelectrolytes with anionic or cationic functional groups. A short- to medium-term technology that applies to metals only. Further treatment may be required, depending on the treatment requirements. The efficacy of the system relies on adequate solids separation techniques, and the process can generate sludge that requires disposal. Costs tend to be high.	FRTR 2002.	1	2	2	2	2	25	Yes (retained as a possible alternative for metals removal)

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Groundwater Treatment (cont.)	**Physical/Chemical Treatment – (cont.)**	Membrane Technologies (reverse osmosis, pervaporation) Reverse osmosis is the process of pushing a solution through a filter that traps solute on one side and allows the solvent to pass through to the other side. This process is best known for its use in desalination. Electrodialysis is a physical method for removing perchlorate. Perchlorate-contaminated water is exposed to an electric current as it passes through a semi-permeable membrane. This action separates perchlorate ions from contaminated groundwater and surface water. Pervaporation is a new membrane process to remove and concentrate VOCs from contaminated water. Two different membrane configurations have been tested using hollow fibers. Pervaporation was described by a resistance-in-series model: a liquid film resistance, and a membrane resistance.	Reverse osmosis and electrodialysis are common technologies for treatment of contaminants such as arsenic and perchlorate in drinking water, but tend to be more expensive than other technologies. The presence of organic matter and alkaline metals can foul the membrane, resulting in high maintenance costs. Pervaporation is a developing technology; initial tests show it may have a technical and cost advantage over conventional membrane technologies.	EPA 2005c.	1	2	1	3	3	25	Yes (retained as a possible alternative for metals removal)
		Other Separation/Filtration Separation physically removes contaminants from groundwater through processes that include distillation, filtration, ultrafiltration, or microfiltration, or freeze crystallization.	Used mainly as a pretreatment or post-treatment process to remove contaminants from wastewater. Short- to long-term technology. Effective on VOCs, SVOCs, pesticides, and suspended particles. Solvents may be recovered for reuse. The presence of oil and grease contaminants may interfere with these processes, limiting the effectiveness.	FRTR 2002.	1	2	3	2	2	28	No
		Volatilization Typically uses the pressurized distribution of water through a standard sprinkler irrigation system to volatilize VOCs from contaminated wastewater.	VOCs are released directly to the atmosphere. Short- to medium-term technology. Effective on VOCs, SVOCs, fuels, explosives, and pesticides. Does not treat metals. Regulatory approval may be difficult to obtain because of the potential for direct release of contaminants to the atmosphere. Temperature may reduce the effectiveness. May be limited by Clean Air Act requirements.	FRTR 2002.	1	2	3	1	2	26	No
Groundwater Discharge	**Discharge of Treated or Untreated Groundwater**	Land Application (water is spread out on the ground to either infiltrate or evaporate)	Groundwater will need to be treated to meet cleanup criteria.		1	2	1	1	1	19	Yes
		Injection Wells (shallow or deep injection wells) or Trenches	A Temporary Groundwater Discharge Permit will likely be required. Sampling of the influent and effluent will likely be required.	New Hampshire Department of Environmental Services 2005.	1	2	1	1	2	20	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

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					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Groundwater Discharge (Cont.)	**Discharge of Treated or Untreated Groundwater (Cont.)**	Discharge to Surface Water	The Montana Water Quality Act, § 75-6-112, MCA (Applicable), provides that it is unlawful to discharge drainage or other waste that will cause pollution of state waters used as a source for a public water supply or for domestic use as well as prohibits other unlawful actions. The federal Clean Water Act, 33 U.S.C. § 1251, et seq., provides the authority for each state to adopt water quality standards (40 CFR Part 131) designed to protect beneficial uses of each water body and requires each state to designate uses for each water body. Under the state Water Quality Act, § 75-5-101, et seq., MCA, and implementing regulations, ARM 17.30.601 et seq. (Applicable), Montana has promulgated regulations to protect, maintain, and improve the quality of surface waters in the state. ARM 17.30.637 also states that no waste may be discharged and no activities conducted that, either along or in combination with other waste activities, will violate surface water quality standards.		1	2	1	1	2	20	Yes
		Discharge to Stormwater Collection System	A discharge permit will likely be required, and groundwater sampling will likely be required for discharge. This option was looked into as part of the RI and no stormwater collection system currently exists in the vicinity of the KRY Site. Additionally, the stormwater collection system that is available in other areas of Kalispell eventually discharges to Flathead Lake and City officials were not comfortable with using this method of groundwater discharge.		3	3	1	1	2	31	No
		Discharge to a Municipal Sanitary Sewer	A discharge permit will likely be required, and groundwater sampling will likely be required for discharge. This option was looked into as part of the RI and there is currently no sanitary sewer system near the KRY Site. Additionally, the sanitary sewer system that is available in the general area eventually discharges to Flathead Lake and City officials were not comfortable with using this method of groundwater discharge.		3	3	1	1	1	30	No
		Disposal Off-Site	The contaminated groundwater is pumped into a vacuum truck for disposal as contaminated water. Disposal must be in accordance with all applicable local, state, and federal rules. Off-site disposal can be expensive for large volumes of water.		1	1	1	2	3	19	Yes
In Situ Groundwater Treatment	**Bioremediation** **(see general description under Ex Situ Groundwater Treatment)**	Enhanced Bioremediation (Aerobic) Enhancements include the addition of nutrients, oxygen, cultured microorganisms (bioaugmentation), or other amendments. Amended water is frequently circulated through the treatment zone to enhance mixing and contact.	Oxygen enhancement increases oxygen concentration via aeration or by using ORC or similar products and thereby enhances the rate of biological degradation of organic contaminants by naturally occurring microbes. Enhanced bioremediation is especially effective for low-level residual contamination after source removal. The need for bioaugmentation is highly site specific and highly dependent on the ecology and physiology of the subsurface. Target compounds include VOCs, SVOCs, and chlorinated compounds.	FRTR 2002.	1	2	2	2	2	25	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
		Nitrate Enhancement Solubilized nitrate is circulated throughout groundwater contamination zones to provide an alternative electron acceptor for biological activity and enhance the rate of degradation of organic contaminants	Development of nitrate enhancement is still at the pilot scale. Many states prohibit nitrate injection into groundwater because nitrate is regulated through drinking water standards.	FRTR 2002.	3	3	2	2	2	39	No
		Enhanced Bioremediation (Anaerobic) An electron donor (molasses, HRC, or similar product) is added to soil to increase the number and vitality of indigenous microorganisms involved in anaerobic bioremediation.	Anaerobic bioremediation occurs at a slower rate than aerobic bioremediation, but can treat chlorinated compounds through reductive dechlorination. Target compounds include VOCs, SVOCs, and chlorinated compounds.	FRTR 2002.	1	2	2	2	2	25	Yes
		Phytoremediation (poplar trees) Phytoremediation is a process that uses plants to remove, transfer, stabilize, and destroy contaminants in soil and sediment.	It is still in the demonstration stage. High concentrations of hazardous materials can be toxic to plants limiting the effectiveness and reliability of the system. It involves the same mass transfer limitations as other biotreatments. It may be seasonal, depending on location. The effectiveness of the alternative depends on the depth to groundwater.	FRTR 2002.	2	2	3	3	2	35	No
	Physical/Chemical Treatment	In Situ Chemical Oxidation (ISCO) Addition of oxidants generates free radicals that chemically convert hazardous organic contaminants to nonhazardous or less toxic compounds. The most common chemical oxidants include ozone, hydrogen peroxide, and sodium/potassium permanganate. The effectiveness of this technology on LNAPL removal is also being studied.	Ozone is typically injected via a sparging process. Permanganate or peroxide is injected as an aqueous liquid solution into targeted treatment zones. Target contaminant groups are VOCs, chlorinated VOCs, and SVOCs. Costs increase with high contaminant concentrations (NAPL or smear zones) because of the large amounts of oxidizing agent required. Therefore, ISCO is typically used along with a NAPL recovery system. Oil and grease in the media should be minimized to optimize process efficiency.	FRTR 2002.	1	2	2	2	2	25	Yes
		Passive/Reactive Treatment Walls These barriers allow the passage of water while adsorbing, degrading, or removing contaminants	Target contaminant groups for passive treatment walls are VOCs, SVOCs, and inorganic constituents. The technology can be used, but may be less effective, in treating some fuel hydrocarbons. Passive treatment walls may lose their reactive capacity, reducing the effectiveness and requiring replacement of the reactive medium.	USACE 1999.	2	2	3	3	1	33	No
In Situ Groundwater Treatment (cont.)	**Physical/Chemical Treatment (cont.)**	Air Sparging An in situ technology that injects air through a contaminated aquifer. Injected air traverses horizontally and vertically in channels through the soil column, creating an underground stripper that removes contaminants by volatilization.	Air flow through the saturated zone may not be uniform. The target contaminant groups for air sparging are VOCs and fuels.	FRTR 2002.	1	1	2	2	1	20	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
		In-Well Air Stripping or In-Well Aeration Air is injected into a double-screened well, lifting the water in the well and forcing it out the upper screen. Simultaneously, additional water is drawn in the lower screen. Once in the well, some of the VOCs in the contaminated groundwater are transferred from the dissolved phase to the vapor phase by air bubbles. The contaminated air rises in the well to the water surface, where vapors are drawn off and treated by a soil vapor extraction system. Water can also be pumped through the well (as in a circulating well).	Medium- to long-term technology. Biological fouling of the equipment can occur. Effective only for contaminated water with concentrations of VOCs or SVOCs with a dimensionless Henry's constant greater than 0.01. High energy costs. Off-gas may treatment may be required. In-well air stripping may not be efficient in sites with strong natural flow patterns.	FRTR 2002.	1	1	3	2	2	24	Yes
Soil Containment	**Physical Barrier**	Horizontal Barrier (caps: asphalt/concrete, soil/bentonite/clay, multi-layer cover systems, Aquablok, apatite, and coke breeze in a laminate mat).	Prevents, or reduces, migration of contaminants in soils and direct human contact. Does not actively remediate contaminants. Requires long-term operating and maintenance. Even with long-term monitoring requirements, containment is generally more economical than excavation. Most of the common materials used for caps are readily available. This alternative does not address the source; however, human contact with soil and groundwater is restricted.	FRTR 2002; EPA 2005b.	1	2	2	2	2	25	Yes
Soil Removal and Transport	**Excavation**	Contaminated material is removed and transported, either on site for treatment (such as landfarming, composting, bioslurry treatment, and thermal desorption); or to permitted off-site treatment or disposal facilities. Some pretreatment of the contaminated media usually is required to meet land disposal restrictions. Generally a short-term technology. Also effective for LNAPL removal.	Well-documented and well-proven technology. This option has been previously used at the site. Fugitive emissions can be problem during excavation and transport of contaminated material. Alternative techniques such as excavation with foam suppression can minimize fugitive emissions during excavation. The potential for fugitive emissions from transport of contaminated soil could result in a requirement for enclosed trucks with liners, burrito wrappings, covers, or other controls. Transportation of the soil through populated areas may raise community or regulator concerns.[3] Costs vary depending on the volume of material, depth of contamination, and distance from the site to the disposal facility. In addition, some waste may be subject to land-ban rules. CECRA includes a statutory preference for treatment of contaminants [75-10-721, MCA (2) (c) (iv)].	FRTR 2002; EPA 2005b.	1	2	1	1	2	20	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Soil Treatment	**Bioremediation** A process that uses indigenous or inoculated micro-organisms to degrade organic contaminants found in soil. Organic contaminants are converted to carbon dioxide, water, and microbes. The addition of nutrients, microorganisms (bioaugmentation), oxygen, or other amendments may be used to enhance bioremediation. aerobic bioremediation uses oxygen as the electron acceptorto metabolize contaminants. anaerobic bioremediation uses other electron acceptors (nitrate, sulfate, organic compounds). bioremediation approaches have been shown to be effective in treating petroleum hydrocarbons, solvents, pesticides, wood preservatives, and other organic chemicals. Especially effective for remediating low-level residual contamination in conjunction with source removal. High concentrations of heavy metals or highly chlorinated organic contaminants can be toxic to microorganisms. Cleanup goals may not be attained in certain soil matrices. Low temperatures may slow bioremediation, although successful bioremediation has been demonstrated in extremely cold climates.	Land Farming A full-scale bioremediation technology that applies contaminated soil into lined beds; the soil is then mixed or tilled to aerate the waste. Liners and other methods are used to control leaching of contaminants.	A large amount of space is required, and the site must be managed properly to prevent off-site migration or contaminant transport. Adequate monitoring and environmental safeguards are required. Usually a medium- to long-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Can be used to treat diesel fuel, No. 2 and No. 6 fuel oils, JP-5, oily sludge, wood-preserving wastes (PCP and creosote), coke wastes, and certain pesticides. Inorganic contaminants cannot be treated. Volatile contaminants, such as solvents, must be pretreated because they would volatilize into the atmosphere.	FRTR 2002.	1	2	2	1	2	23	Yes
		Composting Contaminated soil is excavated and mixed with bulking agents and organic amendments. Organic contaminants are degraded to innocuous stabilized byproducts.	This alternative can be difficult to maintain, as ideal temperature conditions must be preserved. Usually a medium- to long-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Substantial space is required for composting. The addition of bulking agents increases the volume of material. Metals may be reduced via dilution; however, heavy metals are not treated by this method. In addition, high levels of heavy metals can be toxic to the microorganisms.	FRTR 2002.	1	2	2	3	2	27	No
		Phytoremediation Uses plants to remove, transfer, stabilize, and destroy contaminants in soil and sediment.	Usually an in situ technology but can be ex situ. Applicable for remediation of metals, pesticides, solvents, crude oil, PAHs, and landfill leachates. In the demonstration stage and unfamiliar to regulators. A medium- to long-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. High concentrations of hazardous materials can be toxic to plants, limiting the effectiveness and increasing maintenance requirements. May be seasonal, depending on location. Not effective for strongly sorbed (such as PCBs) and weakly sorbed contaminants.	EPA 2000a, FRTR 2002.	2	2	3	3	2	35	No
		Biopiles A full-scale technology in which excavated soils are mixed with soil amendments and placed on a treatment area.	Leachate collection systems are used to control runoff. Biopiles are used to reduce concentrations of organic contaminants in excavated soils through biodegradation. A medium to long-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Applied to treatment of nonhalogenated VOCs and fuel hydrocarbons. Halogenated VOCs, SVOCs, and pesticides also can be treated, but the process effectiveness will vary and may be applicable only to some compounds within these contaminant groups.	FRTR 2002.	1	2	2	2	2	25	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Soil Treatment (cont.)	**Bioremediation (cont.)**	Bioslurry (slurry-phase biotreatment, soil-slurry bioreactor) The controlled treatment of excavated soil in a bioreactor.	Stones and rubble are physically separated and then soil is mixed with water. Clean sand may then be discharged, leaving only contaminated fines and washwater to biotreat. The solids are maintained in suspension in a reactor vessel and mixed with nutrients and oxygen. A medium-to long-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Treats petroleum hydrocarbons, petrochemicals, solvents, pesticides, wood preservatives, and other organic chemicals. Bioreactors are favored over in situ biological techniques for heterogeneous soils, low-permeability soils, areas where underlying groundwater would be difficult to capture, or when faster treatment times are required. Excavation of contaminated media is required, except for implementation in lagoons. Dewatering soil fines after treatment can be expensive, and disposal of treated wastewater is required.	FRTR 2002.	1	2	2	2	2	25	Yes
	Physical/Chemical Treatment	Soil Vapor Extraction (hot air vapor extraction, steam enhanced extraction) A full-scale technology in which soil is excavated and spread over aboveground piping. Organic contaminants are volatized by applying a vacuum to the soil though the piping.	The soil usually requires protection from the elements via a cover, which also prevents off-gas emissions. The handling of off-gases is required. Ex situ SVE increases the number of passageways and exposes more soil to the vacuum. Medium- to long-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Works best on VOCs. Easily maintained and does not require a full-time operator.	FRTR 2002.	1	2	2	2	2	25	Yes
		Aeration (thermal aeration, mechanical soil aeration) Involves excavation of soil and arrangement into piles or rows; the hydrocarbons and other VOCs are then allowed to passively volatilize into the atmosphere.	May be a somewhat less expensive means for dealing with soil contamination. Medium- to long-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Works best for gasoline-contaminated soils but has limited success with other contaminants. Some states prohibit this type of treatment because the hydrocarbons help to form photochemical smog. In addition, gasoline contains benzene, which is a carcinogen. This process results in high maintenance, as it requires the use of specific controls to prevent other problems and can be difficult to obtain cleanup levels.	ODEQ 2006.	1	1	3	3	2	26	No
		Soil Washing A water-based process for scrubbing soils to remove contaminants by dissolving or suspending them in the wash solution, or by concentrating them into a smaller volume of soil through particle size separation, gravity separation, and attrition scrubbing.	Applicable to a wide variety of contaminants, including heavy metals and organic contaminants; however, a complex mixture of contaminants in the soil makes it difficult remove all of the different types of contaminants. Short- to medium-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Technology is often used as a pretreatment for, or in conjunction with, other treatment technologies.	FRTR 2002.	2	2	2	2	2	30	Yes (retained for possible use for lead removal)

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Soil Treatment (cont.)	**Physical/Chemical Treatment (cont.)**	Solvent Extraction A means of separating hazardous contaminants from soils, sludges, and sediments using an extracting chemical solvent.	Physical separation is often needed before chemical extraction. Commonly used in combination with other technologies. Effective in treating PCBs, VOCs, halogenated solvents, and petroleum wastes. A medium-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Technology is often used as a pretreatment for, or in conjunction with, other treatment technologies. Soil type and moisture content may impair performance. In addition, traces of solvent may remain in the treated solids. Capital costs will vary depending on the cleanup levels required.	FRTR 2002.	1	2	2	2	2	25	Yes
		Separation (physical separation, MAECTITE Process, precipitation/filtration, or electrokinetics) A physical separation process used for removing contaminated concentrates from soils, to leave relatively uncontaminated "treated" fractions. This process is usually conducted in conjunction with another technology.	Various processes can be used, such as gravity separation, magnetic separation, and sieving. Gravity separation is a solid/liquid separation process, which relies on a difference in density between the phases. Magnetic separation is used to extract slightly magnetic particles from host materials such as water, soil, or air. Sieving and physical separation processes use different size sieves and screens to effectively concentrate contaminants into smaller volumes. Short- to medium-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. The technology is usually used as a pretreatment for, or in conjunction with, other treatment technologies. Can be used to treat SVOCs, fuels, inorganic contaminants, and selected VOCs and pesticides. High clay and moisture content can increase treatment cost.	FRTR 2002.	2	2	2	2	2	30	Yes (retained for possible use for lead removal)
		Chemical Reduction/Dechlorination (Solvated Electron Technology, Base-catalyzed Dechlorination).	These technologies result in the chemical reduction (dechlorination) of organic contaminants in soil. The Base-catalyzed Destruction process incorporates thermal desorption of the chlorinated compounds followed by reaction of with alkaline chemicals at elevated temperatures. The Solvated Electron Technology uses the reducing power of sodium metal, transferred through a solvent, to achieve the dechlorination reaction. Costs are high. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	FRTR 2002.	2	2	1	2	3	28	No
	Thermal Treatment	Dehalogenation (flame reactor) Replaces the halogen molecules or decomposes and partially volatizes the contaminants.	The contaminant is partially decomposed rather than transferred to another medium. Contaminated soil is screened, processed with a crusher and pug mill, and mixed with reagents. The mixture is then heated in a reactor. A short- to medium-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Treats SVOCs, pesticides, and PCBs, but may be less effective against selected halogenated VOCs. If used to treat halogenated VOCs, it can be more expensive than alternative technologies. The technology is more amenable to small-scale applications and can be very expensive for larger-scale applications.	FRTR 2002.	2	2	2	2	3	31	No

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Soil Treatment (cont.)	**Thermal Treatment (cont.)**	Immobilization (solidification/stabilization, vitrification, chemical fixation/solidification) A proven process that physically binds contaminants within a stabilized mass, or chemical reactions are induced to reduce the mobility of contaminants.	Does not reduce the volume of contaminated material and can result in an increase in volume. Ex situ immobilization typically requires disposal of the treated materials. Many types of immobilization are available. A short- to medium-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Typically used to treat inorganic contaminants and has limited effectiveness against organic compounds and pesticides (except vitrification, which destroys most organic contaminants). Environmental conditions may affect the long-term immobilization of contaminants. The long-term effectiveness has not been demonstrated for many processes. Costs are high.	FRTR 2002.	1	2	3	2	3	29	No
		Thermal Desorption A thermal separation process that may not completely destroy organic contaminants; disposal of residuals may be required. Wastes are heated to volatilize organic contaminants; the gas-phase contaminants are treated in a gas treatment system. Can be categorized into two groups: high temperature thermal desorption (HTTD) and low temperature thermal desorption (LTTD).	HTTD is a full-scale technology, frequently used in combination with incineration, solidification/stabilization, or dechlorination, in which wastes are heated to 600 to 1,000 °F. LTTD is a full-scale technology where wastes are heated to between 200 to 600 °F. Short-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Most effective on nonhalogenated VOCs and fuels. Less effective on SVOCs. Permits may be required for implementation or operation of this technology.	FRTR 2002.	2	1	1	2	2	23	Yes
		Incineration/Thermal Destruction Uses high temperatures to volatilize and combust halogenated and other refractory organic compounds. Incineration can be conducted on site or off site; however, on-site incineration is heavily regulated, and the permitting process can be substantial.	The destruction and removal efficiency is usually 99.99 percent. Short-term technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. A high-temperature technology that heats wastes to 1,400 to 2,200 °F. Off gases and combustion residuals generally require treatment. Effective on all organic contaminants. A limited number of off-site incinerators are permitted to burn PCBs and dioxins. Heavy metals can produce a bottom ash that requires stabilization. Volatile heavy metals, including lead, leave residuals that require gas cleaning systems for removal. Costs are high. Permits may be required for implementation or operation of this technology.	FRTR 2002.	2	1	1	2	3	24	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Ex Situ Soil Treatment (cont.)	**Thermal Treatment (cont.)**	Pyrolosis (advanced electric reactor, pyrovac vacuum pyrolysis) Chemical decomposition induced in organic materials by heat in the absence of oxygen; although it is not possible to achieve a completely oxygen-free atmosphere, and some oxidation will occur.	If volatile or semivolatile materials are present in the waste, thermal desorption will also occur. Transforms hazardous organic materials into gaseous components, liquid, and a solid residue. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Most effective on SVOCs and pesticides, less effective on other contaminants. Applicable for separation of organics from refinery wastes, coal tar wastes, wood-treating wastes, creosote-contaminated soils, hydrocarbon-contaminated soils, and mixed wastes. The technology requires drying of the soil to achieve a low soil moisture content, therefore can be difficult to maintain. High moisture content increases treatment costs. Treated media that contain heavy metals may require stabilization.	FRTR 2002.	2	2	3	3	2	35	No
		Cement-Lock A thermo-chemical manufacturing process that decontaminates soil, sludge, and sediment, and converts them to construction-grade cement. Materials and modifiers are fed to a reactive smelter operating under oxidizing conditions, where all the organic compounds are destroyed and converted to carbon dioxide and water. Chlorine and sulfur compounds are sequestered, and heavy metals are immobilized. During processing, the material is imparted with latent cementitious properties that allow it to be transformed into construction-grade cement.	An emerging technology still in the experimental phase. Demonstrated to be effective on both organic and inorganic contaminants at varying concentrations. All waste is converted to cement, which is suitable for use in general construction processes. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Information on this process is limited since it is still in the bench- and pilot-scale and the reliability of this process on full-scale applications is unknown.	Gas Technology Institute 2005. Rehmatl and others 1999.	3	3	1	3	2	38	No
		Hot-Gas Decontamination Contaminants are volatized, and the volatile constituents are then destroyed in an afterburner system.	Raises the temperature of the contaminated material for a pre-determined period of time. Contaminants are destroyed. More effective on VOCs and SVOCs. Costs are high. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	FRTR 2002.	2	2	2	2	3	32	No
		Solar Destruction Solar energy is used to thermally detoxify organic compounds after they have been removed from the contaminated medium.	This pilot-scale technology must be applied in conjunction with another treatment technology. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Doty and others 1997.	3	2	2	2	2	35	No

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Soil Disposal	**Off-Site Disposal**	Solid Waste Landfill	Waste will be subject to landfill restrictions. Contaminated material is removed and transported to permitted off-site treatment or disposal facilities. Some pretreatment of the contaminated media usually is required to meet land disposal restrictions. Transport of soil is required for this alternative, and the same considerations apply as were discussed under excavation.	FRTR 2002.	1	2	1	1	2	22	Yes
		Hazardous Waste Landfill	Will accept most waste not generally accepted by a solid waste landfill. However, is still subject to landfill restrictions. For example, waste classified as F032 is land-banned and cannot be disposed of at a hazardous waste landfill without pretreatment to meet land disposal restrictions. Transport of soil is required for this alternative, and the same considerations apply as were discussed under excavation.	FRTR 2002.	2	2	1	1	2	25	Yes
		Reclamation/Recycling (asphalt reprocessing) Petroleum-contaminated soils can be recycled into viable, safe construction materials. Two methods — encapsulation and bio-remediation — are used to convert these soils into environmentally safe products for use as construction base or as soil cover for landfills. The encapsulation process uses commercial emulsions to bind the petroleum materials, thereby preventing further migration. Bio-remediation uses naturally occurring microbes to break down the petroleum into inert substances	Usually requires a state- and locally permitted facility. Only soils contaminated with gasoline, fuel oil, or other petroleum products are accepted for recycling, and these soils must be tested to determine if the materials are classified as nonhazardous and therefore are amenable to the recycling process. Transport of soil is required for this alternative, and the same considerations apply as were discussed under excavation.	Aggregate Industries US 2006.	1	2	2	1	2	23	Yes
	On-Site Disposal	Waste Repository	Contaminated material is removed and transported to permitted on-site disposal facilities. Some pretreatment of the contaminated media usually is required to meet land disposal restrictions. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation. Applicable to all waste. Well-proven technology. Operation and maintenance lasts as long as the life of the repository. Generation of fugitive emissions may be a problem during operations. The depth and composition of the media could affect costs. Disposal options for certain waste (mixed waste or transuranic waste) may be limited. Can be difficult to obtain permits for on-site facilities.	FRTR 2002.	1	2	1	2	2	22	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
Soil Disposal (cont.)	**On-Site Disposal (cont.)**	Backfill Excavations	Using treated soil to restore a site prevents disposal of large quantities of excavated soil off site. Also saves on the cost of purchasing off-site clean fill. Soil must be treated first to meet applicable cleanup criteria, and then can be used as clean fill to backfill the excavation. Must be used in conjunction with a treatment technology. Therefore, the effectiveness depends on the effectiveness of the treatment technology. Compaction and other engineering requirements must also be considered. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	EPA 1997.	1	2	2	1	2	23	Yes
In Situ Soil Treatment	**Bioremediation (see general description under Ex Situ Soil Treatment)**	Phytoremediation (poplar trees) A process that uses plants to remove, transfer, stabilize, and destroy contaminants in soil and sediment.	Still in the demonstration stage. High concentrations of hazardous materials can be toxic to plants. It involves the same mass transfer limitations as other biotreatments. It may be seasonal, depending on location. May not be effective for the deeper subsurface contamination at the site.	FRTR 2002.	2	2	3	3	1	34	No
		In Situ Landfarm Contaminated surface soil is treated in place by tilling to achieve aeration. Primarily used in association with other technologies.	Runoff collection facilities must be constructed and monitored. Dust control is an important consideration, especially during tilling and other material handling operations. Effectiveness is limited for deeper soils.	USACE 1999.	1	1	2	2	1	20	Yes
		Enhanced Bioremediation (Aerobic) Enhancements include the addition of nutrients, oxygen, cultured microorganisms (bioaugmentation), or other amendments. Amended water is frequently circulated through the treatment zone to enhance mixing and contact.	Oxygen enhancement increases oxygen concentration via aeration or by using ORC or similar products and thereby accelerates the rate of biological degradation of organic contaminants by naturally occurring microbes. Enhanced bioremediation is especially effective for low-level residual contamination after source removal. The need for bioaugmentation is highly site specific and highly dependent on the ecology and physiology of the subsurface. Target compounds include VOCs, SVOCs, and chlorinated compounds.	FRTR 2002.	1	1	1	2	2	18	Yes
		Enhanced Bioremediation (Anaerobic) An electron donor (molasses, HRC or similar product, or nitrate) is added to soil to increase the number and vitality of indigenous microorganisms involved in anaerobic bioremediation.	Anaerobic bioremediation occurs at a slower rate than aerobic bioremediation, but can treat chlorinated compounds through reductive dechlorination. Target compounds include VOCs, SVOC, and chlorinated compounds. Development of nitrate enhancement is still at the pilot scale. Many states prohibit nitrate injection into groundwater because nitrate is regulated through drinking water standards.	FRTR 2002.	1	2	2	2	2	25	Yes
		Bioventing Stimulates the natural biodegradation of any aerobically degradable compounds in soil by providing oxygen via low-pull vacuum to the vadose zone.	A water table that is within several feet of the surface, saturated soil lenses, or low-permeability soils reduce the performance of bioventing.	FRTR 2002.	1	2	2	1	2	23	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[2]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
In Situ Soil Treatment (cont.)	**Bioremediation (cont.)**	Bioslurping Combination of bioventing and vacuum-enhanced free-product recovery.	The off-gas from the bioslurper system may require treatment before discharge. Bioslurper systems can extract large volumes of water that may need to be treated for discharge, depending on the concentration of contaminants in the process water.	FRTR 2002.	1	2	2	2	2	25	Yes
	Physical/Chemical Treatment	Soil Vapor Extraction A full-scale technology that volatilizes organic compounds by applying a vacuum to the soil though subsurface extraction wells.	The handling of off-gases is required. Medium- to long-term technology. Works best on VOCs. Easily maintained and does not require a full-time operator.	FRTR 2002.	1	2	2	2	2	25	Yes
		Air Sparging An in situ technology that injects air through contaminated material. Injected air traverses horizontally and vertically in channels through the soil column, creating an underground stripper that removes contaminants by volatilization. Air sparging is typically used in conjunction with soil vapor extraction.	Air flow through the saturated zone may not be uniform. The target contaminant groups for air sparging are VOCs and fuels.	FRTR 2002.	1	1	2	2	1	20	Yes
		In Situ Chemical Oxidation (ISCO) This process chemically converts hazardous contaminants to nonhazardous or less toxic compounds. The effectiveness of this technology on LNAPL is also being studied.	The most common chemical oxidants include ozone, hydrogen peroxide, and sodium/potassium permanganate. Ozone is typically injected below the groundwater table via a sparging process. Permanganate or peroxide is injected as an aqueous liquid solution into targeted treatment zones. Target contaminant groups are VOCs, chlorinated VOCs, and SVOCs. The process is not cost-effective for high contaminant concentrations (NAPL or smear zones) because of the large amounts of oxidizing agent required. Therefore, ISCO is typically used along with a NAPL recovery system. Oil and grease in the media should be minimized to optimize process efficiency.	FRTR 2002; EPA 2005b.	1	2	1	2	2	22	Yes
		Solidification/Stabilization The alternative reduces the mobility of hazardous substances and contaminants in the environment through both physical and chemical means	Certain wastes are incompatible with variations of this process. Treatability studies are generally required. Processing contamination below the water table may require dewatering.	USACE 1999.	1	2	2	2	2	25	Yes

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Evaluation/Comments	References	Initial Evaluation Factors [1,2]						Retained[22]
					Availability (weighted 5x)	Implementability (weighted 4x)	Effectiveness (weighted 3x)	Reliability /Maintainability (weighted 2x)	Cost (weighted 1x)	Total Score (weighted total)	
In Situ Soil Treatment (cont.)	**Physical/Chemical Treatment (cont.)**	Electrokinetic Separation (low-current DC) Relies on application of direct current through the soil between electrodes. Metal ions, ammonium ions, and positively charged organic compounds move toward the cathode. Anions such as chloride, cyanide, fluoride, nitrate, and negatively charged organic compounds move toward the anode.	Effectiveness is sharply reduced for wastes with a moisture content of less than 10 percent. Maximum effectiveness occurs if the moisture content is between 14 and 18 percent. Targeted contaminants for electrokinetics are heavy metals, anions, and polar organic compounds in soil, mud, sludge, and marine dredging. Oxidation/reduction reactions can form undesirable by-products.	FRTR 2002.	2	2	3	3	2	35	No
		Soil Flushing (cosolvent flushing) Water that contains an additive to enhance contaminant solubility is applied to the soil or injected into the groundwater to raise the water table into the contaminated soil zone. Contaminants are leached into the groundwater, which is then extracted and treated.	Aboveground separation and treatment costs for recovered fluids can drive the economics of the process. Potential for solvent being sorbed to soils. The reliability and effectiveness of this technology on LNAPL removal are being studied and are uncertain. Costs are high.	USACE 1999; EPA 2005b.	1	2	3	3	3	31	No
	Thermal Treatment	In Situ Thermal Desorption (ISTD) Primarily an unsaturated (vadose) zone soil remediation technology that applies heat to the subsurface to volatilize organic contaminants. A vacuum is applied to the soil to induce the controlled flow of air and remove the volatilized contaminants.	Options for introducing heat into the subsurface include steam injection, electrical resistance heating (including six-phase heating), and microwaves (radiofrequency heating). The volatilized gases are extracted through soil vapor extraction wells and are treated to recover or destroy the contaminants, depending on local and state air discharge regulations. ISTD removes VOCs and most SVOCs (including PCP). Can be applied below the groundwater table to treat the saturated and vadose zone simultaneously. Performance in extracting certain SVOCs varies depending on the maximum temperature achieved. The effectiveness of this technology on LNAPL removal is also being studied. Costs are high.	FRTR 2002; Hazardous Waste Clean-up Information (CLU_IN) http://ww.cluin.org/tech focus/; Davis 1998.	1	1	3	2	3	25	Yes
		In Situ Vitrification (ISV) Uses an electric current to melt soil or other earthen materials at extremely high temperatures and thereby immobilize most inorganic constituents and destroy organic pollutants by pyrolysis.	There have been few, if any, commercial applications of ISV. Still primarily at a pilot scale.	FRTR 2002.	3	3	2	3	2	41	No

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

Notes:

[1] The criteria used to evaluate the alternatives were selected from the Federal Remediation Technology Roundtable (FRTR) database as follows: availability, implementability, effectiveness, reliability/maintainability, and cost. Availability refers to the immediate and long-term availability of expertise and equipment that can be used to implement a selected alternative. Implementability refers to how readily an alternative can be implemented at a site. Effectiveness means how well the alternative can address the contaminants of concern, taking into consideration certain site specific conditions. Reliability/Maintainability refers to how reliable the alternatives operational features are and the maintenance that is required to keep the alternative operational. Finally, cost refers to the capital and operation and maintenance costs of an alternative. Based on engineering judgment, a weighting factor was then assigned to each criterion as follows: 5x for availability, 4x for implementability, 3x for effectiveness, 2x for reliability/maintainability, and 1x for cost. The order of the criteria and the assigned weighting factor do not presume relative importance of one criterion over another. The order of the criteria and the weighting factors were instead used as an initial tool to screen out the technologies that were clearly not feasible at the site, as well as to more widely distribute the final scores of the technologies so that a clear cutoff point could be established. Criteria are ranked 1, 2, or 3 as follows:

Ranking	Availability	Implementability	Effectiveness	Reliability/Maintainability	Cost
1	Readily available	Easy	Highly effective	Very reliable	Low
2	Moderately available	Moderate	Moderately effective	Moderately reliable	Moderate
3	Difficult to obtain	Difficult	Slightly effective	Low reliability	High

[2] In general, process options that score higher than 25 are not retained for further consideration. However, a process option that scores higher than 25 may be retained using engineering judgment if it is considered a valid technology for remediation of metals or other contaminants that may require special consideration in a treatment train.
[3] Transportation of soil either off site or on site can be a component of many ex situ soil treatments and should be considered accordingly; however, a detailed discussion of the considerations in soil transport is included only within the discussion on excavation.

ARM
bgs Below ground surface
CECRA Comprehensive Environmental Cleanup and Responsibility Act
CFR Code of Federal Reglations
DEQ Montana Department of Environmental Quality
DNAPL Dense nonaqueous phase liquids
EPA U.S. Environmental Protection Agency
HRC Hydrogen release compound
LNAPL Light nonaqueous phase liquids
LUC Land use controls
MCA Montana Code Annotated
MTBE Methyl tertiary butyl ether
NAPL Nonaqueous phase liquids
PAH Polynuclear aromatic hydrocarbon
PCB Polychlorinated biphenyl
PCP Pentachlorophenol
SVE Soil vapor extraction
SVOC Semivolatile organic compound
U.S.C. United States Code
UV Ultraviolet
VOC Volatile organic compound

TABLE 1 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
PRIMARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

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TABLE 2
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
No Further Action	**None**	None	Not effective The no-further-action alternative provides for no remediation to reduce the toxicity, mobility, or volume of chemicals, and no controls to limit exposure to contaminated soil and groundwater. The no-further-action alternative does not meet RAOs.	Easy to Moderately difficult The no-further-action alternative is easy to implement because it does not require any actions to be taken. Administrative implementability may be difficult because of potential resistance to this solution by the public and the regulatory agencies.	None No costs are associated with the no-further-action alternative because no actions are taken and no site monitoring is conducted	Required by DEQ procedures.	Retained (required by NCP).
Institutional Controls	**Land Use Controls**	Zoning, Deed Notices, Environmental Control Easement	Moderately effective Does not reduce the mobility, toxicity, or volume of contamination at the site. Used to manage both the short- and long-term risk to human health. Are usually more effective if they are layered (using different types of ICs at the same time) or implemented in series. Can enhance the effectiveness of another remedy by limiting access to the contamination. They are effective for managing risk. The effectiveness of ICs depends on the mechanisms used, the durability of the IC, and continued future implementation. Effectiveness for site workers depends on administration.	Easy Could be implemented as a stand-alone remedy or in combination with other alternatives. Legal requirements and authority necessary. The state prefers that treatment or engineering controls be used to address principal threat waste. ICs are generally intended to supplement treatment or engineering controls versus used as the sole remedy.	Low ICs are considered low cost.	EPA 2000b. EPA 2002. EPA 2005a.	Retained in conjunction with other alternatives
	Groundwater Use Restrictions	Controlled Groundwater Area					
	Site Administrative Procedures	Health and Safety Programs					
		Monitoring and Site Security Measures					
Monitored Natural Attenuation	**Natural Attenuation/Long Term Monitoring**	Natural Attenuation	Moderately effective The effectiveness of MNA depends on site conditions such as source strength and persistence, pH, temperature, microbial activity, and oxidation-reduction coupling. Conducive conditions may not be present throughout site. MNA will have limited effectiveness in source areas. Can be effective after sources removed or treated. Proven effective on VOCs, SVOCs, and fuel hydrocarbons. The effectiveness on metals, PCP, and dioxins/furans is not well known; therefore, it would be less effective in the commingled plume areas of Reliance and KPT. Higher pH levels detected in the soils could limit the natural attenuation processes for PCP. Cleanup usually takes years to decades.	Easy Requires only monitoring. Implementation of MNA as a remediation technology entails a comprehensive groundwater monitoring program. Institutional controls may be required to prevent exposure during attenuation processes.	Low Costs to implement a groundwater monitoring program to monitor natural attenuation are low, depending on the number of wells sampled and the frequency of sampling. MNA could provide a significant cost savings compared with active remedial technologies.	EPA 2001a, Krupka and Martin 2001.	Retained in conjunction with other alternatives
NAPL Collection and Treatment	**Physical Collection and Treatment**	Multi-Phase Extraction (dual-phase extraction, vacuum-enhanced extraction, and bioslurping)	Moderately effective Effective for removal of LNAPL and acceleration of bioremediation of soils contaminated by petroleum hydrocarbons. Low temperatures can slow bioremediation.	Moderately difficult A feasibility study would be needed. Off-gas from the bioslurper system and extracted water may require treatment before discharge. May require special oil/water separators.	Moderate to High Cost of implementing multi-phase extraction is expected to be moderate to high at the site.	FRTR 2002; EPA 1997b.	Retained
		Trenches/ Drains	Effective Effective for recovery of LNAPL in permeable hydrogeologic settings. Does not recover the same volume as multi-phase extraction.	Easy Materials are readily available. Trenches or drains are equipped with pumps or skimmers to collect the LNAPL captured. Groundwater may also be recovered at the same time and will require treatment for discharge.	Low to Moderate Cost of installing extraction trenches or drains is expected to be low to moderate.	EPA 1995.	Retained
		Hydraulic Pumps (for example, bladder pumps [such as Enviroequips Genie])	Effective Effective for recovery of LNAPL in permeable hydrogeologic settings. Does not recover the same volume as multi-phase extraction or trenches.	Easy Hydraulic pumps are installed in either wells or trenches to recover LNAPL under ambient pressure. Groundwater may also be recovered and require treatment for discharge.	Low to Moderate Cost of installing extraction trenches or drains is expected to be low to moderate.	EPA 2005b.	Retained

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
NAPL Collection and Treatment (cont.)	**Physical Collection and Treatment (cont.)**	Passive and Active Skimmers (for example, QED passive or active skimmer [by Enviroequip], Blackhawk's LNAPL recovery attachment)	Moderately effective Effective for recovery of LNAPL in permeable hydrogeologic settings. Does not recover the same volume as other traditional LNAPL recover systems.	Easy Passive or active are installed in either wells or trenches to recover LNAPL under ambient pressure. Skimmers provide for less chance of any groundwater recovery.	Low Cost of installing extraction trenches or drains is expected to be low.	EPA 2005b.	Retained
		Hot Water or Cosolvent Flushing	Moderately effective This technology can be used to treat VOCs, SVOCs, fuels, and pesticides. The flushing solution may alter the physical and chemical properties of the soil system. Surfactants can adhere to soil and reduce effective soil porosity.	Moderately difficult The potential for washing the contaminant beyond the capture zone and introducing surfactants to the subsurface are a concern.	Moderate to High Separation of the solvent from recovered flushing fluid (for reuse in the process) is a major factor in the cost of flushing.	EPA 1995, 1999, 2005b	Not Retained
Groundwater Containment	**Hydraulic Barriers**	Pumping Wells, French Drains, or Extraction Trenches	Moderately effective Hydraulic barriers are expected to be only moderately effective for limiting migration of the contaminated plume at the site. The high hydraulic conductivity and groundwater flow rates throughout a majority of the site would make it difficult to achieve optimum drawdown of the aquifer. In addition, it would require treatment and disposal of extracted water. Some reduction in contaminant mass would be achieved at the source area; however, containment by itself would not remediate source areas to achieve the RAOs.	Easy Equipment and construction methods associated with hydraulic containment are readily available, and design methods and requirements are well understood. These actions have been successfully implemented at other, similar sites.	Moderate Groundwater containment would have a moderate cost to construct and a moderate to high cost to operate and maintain.	FRTR 2002.	Retained
[1]Groundwater Collection	**Groundwater Extraction Systems**	Trenches	Effective Effective for intercepting and extracting groundwater in shallow formations. Aquifer cleanup constrained by sorption onto soil particles. The technology alone would provide only minimal reduction of the source mass (limited by source dissolution rates into groundwater) and would not be expected to achieve RAOs in the source areas within a reasonable timeframe. Unlikely to meet RAOs in source areas.	Moderately difficult Implementation of collection trenches will depend on the depth of groundwater, which varies from shallow to relatively deep across the site.	Low to Moderate Collection trenches and pumping costs are considered low to moderate and depend on the number of trenches that must be installed and the length of operation.	FRTR 2002, EPA 1997c.	Retained
		Extraction Wells	Effective Similar effectiveness as trenches for intercepting and extracting groundwater.	Easy Extraction wells are easy to construct and are a well-tested and widely available technology.	Low to Moderate Extraction wells and pumping costs are considered low to moderate and depend on the number of wells that must be installed and the length of operation.	FRTR 2002, EPA 1997c.	Retained
Ex Situ Groundwater Treatment	**Biological Treatment**	Land Treatment	Less effective Effective for degrading and volatilizing VOCs, fuel hydrocarbons, and wood preserving wastes (such as PCP). Less effective in cold climates. The effectiveness at this site depends on a variety of factors, including chemical composition and concentration of the influent waste stream. A pilot study would likely be required. Concentration reductions greater than 95 percent and constituent concentrations less than 0.1 ppm are difficult to achieve. Metals and dioxins must be treated separately.	Moderately difficult. Implementation of land treatment for groundwater application depends on the use of the land farming technology for soil treatment. Land treatment would not be implemented for groundwater alone. Sufficient area is available at the site; however, low ambient temperatures may require additional operation and maintenance.	Low to Moderate Costs to implement land treatment are relatively low. Costs to maintain and operate a land farm are expected to be higher because of the high costs of maintaining a land farm in cold weather.	FRTR 2002, EPA 2004.	Retained (in conjunction with soil land farm)

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
Ex Situ Groundwater Treatment (cont.)	**Biological Treatment (cont.)**	Engineered Bioreactors (applied within a tank)	Less effective Promotes biodegradation of a wide range of organic compounds. The effectiveness at this site depends on a variety of factors, including chemical composition and concentration of the influent waste stream. Full-scale bioreactors are most effective in treating semivolatile organic compounds, fuel hydrocarbons, and other biodegradable organic material. Less is known about its effectiveness on PCP. Metals and dioxins must be treated separately. A pilot study would be necessary to evaluate the effectiveness of this technology.	Moderately difficult A well-known technology offered as mobile package plants by authorized vendors. Very high chemical concentrations may be toxic to microorganisms. An innovative technology, with extensive experience in pilot-scale application. Residuals from sludge processes require treatment or disposal. Considered moderately difficult to implement; it is unproven for treatment of PCP and would require a pilot study.	Moderate to High The cost of implementing engineered bioreactors is considered moderate to high. Costs for O&M are also considered moderate to high, primarily because of the expected high labor and energy costs. Low ambient temperatures significantly decrease biodegradation rates, resulting in longer cleanup times or increased costs for heating.	FRTR 2002.	Retained
	Physical/Chemical Treatment	Air Stripping	Less effective One of the most commonly used technologies for remediation of groundwater contaminated with chlorinated VOCs. Most effective when used for low concentrations of chemicals. Will be less effective at the site because commingled plume contains a minimal amount of VOCs. Does not reduce chemical mass; rather, transfers chemicals from one phase to another. If necessary to meet discharge limits, liquid and vapor effluent from air stripping towers can be treated using a granular activated carbon adsorption system (see Section 4.3.5.3).	Easy Easy to implement. Well-known, commonly applied technology. The size of the air stripping system depends on pumping rates, contaminant concentrations, and discharge standards. May require vapor phase treatment.	Moderate The construction cost of an air stripping system is considered moderate. Costs of O&M are considered moderate.	FRTR 2002.	Not Retained
		Carbon Adsorption	Effective One of the most commonly used technologies for remediation of groundwater contaminated with hydrocarbons, SVOCs, and explosives. Effectiveness has also been demonstrated on VOCs and dioxins. A carbon sorption system is often used as a polishing step to achieve low discharge limits. The effectiveness of a carbon sorption system is directly dependent on the influent flow rate and contaminant concentrations. Carbon sorption could effectively remediate groundwater to discharge limits at the site.	Easy A simple, well-known, and readily available technology Carbon sorption is considered easy to implement at the site. Granular activated carbon systems require periodic regeneration or replacement. Spent granular activated carbon can be disposed of in a landfill but is typically recycled through a heat-treating process that desorbs the VOCs collected. The presence of PCP in the spent carbon could restrict the disposal alternatives for the carbon.	Moderate to High Costs depend on waste stream flow rates, types of chemicals, chemical concentrations, and discharge standards. The cost of constructing a carbon sorption system is considered low to moderate, depending on the complexity of the system. Cost of O&M is considered moderate to high because of regeneration and disposal concerns.	FRTR 2002, EPA 1997c.	Retained
		Other Adsorption (other natural and synthetic adsorbents include: activated alumina, forage sponge, lignin adsorption, sorption clays, and synthetic resins)	Less Effective Is effective on most organic contaminants and selected inorganic contaminants from liquid and gas streams. Not applicable to sites contaminated by high levels of oily substances.	Moderately difficult Other adsorption materials may not be as readily available or easy to implement at the site as carbon. Contaminated media often require treatment or disposal as hazardous wastes if they cannot be regenerated.	Moderate to High Costs are high if used as the primary treatment on waste streams with high contaminant concentration levels.	FRTR 2002.	Retained (for use in areas of site that do not contain high levels of oily substances)

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
Ex Situ Groundwater Treatment (cont.)	**Physical/ Chemical Treatment (cont.)**	Chemical/ Ozone/UV Oxidation	Effective Mixing an oxidizing agent with contaminated groundwater in a vessel is an effective method for treatment of organic contaminants. Most organic compounds are mineralized to carbon dioxide, water, and salts. This technology has been successfully used to treat VOCs and SVOCs (such as PCP). Ex situ oxidation has advantages over in situ because it allows more time for oxidation to occur in a controlled environment. However, incomplete oxidation can occur, depending on the contaminants.	Easy This commercially available technology is considered easy to implement at the site.	Moderate to High Costs to operate are higher for high contaminant concentrations because of the large amounts of oxidizing agent required.	http://www.cpeo.org/techtree/ttdescript/exchemox.htm	Retained
		Ion Exchange	Moderately effective By itself, ion exchange is not expected to be an effective treatment technology at the site. Oil and grease in the groundwater may clog the exchange resin. In addition, oxidants in groundwater may damage the ion exchange resin.	Moderately difficult This commercially available technology is considered moderately easy to implement at the site.	Moderate to High Costs to operate are higher for high contaminant concentrations because of the large amounts of exchange medium required.	FRTR 2002, EPA 1997c.	Retained for use on metals
		Precipitation/ Coagulation/ Flocculation (metals precipitation, electrocoagulation)	Moderately effective By itself, precipitation/coagulation/flocculation is not expected to be an effective treatment technology at the site. Primarily used for metals.	Easy Various precipitation technologies have been implemented at numerous sites. Implementation at the site is expected to be easy since it is a well-known and readily available technology.	Moderate to High Process can be costly, depending on reagents used, system controls required, and level of operator involvement in system operation.	FRTR 2002.	Retained for use on metals
		Membrane Technologies (reverse osmosis [RO], pervaporation)	Not effective By themselves, membrane technologies are not expected to be an effective treatment technology at the site. Primarily used for metals.	Moderately difficult RO technologies have been implemented at numerous sites. Implementation of pervaporation at this site is expected to more difficult since it is an emerging technology.	Moderate to High Cost of implementing reverse osmosis is expected to be moderate to high at the site.	FRTR 2002.	Retained for use on metals
[1]Groundwater Discharge	**Discharge of Treated or Untreated Groundwater**	Land Application (water is sprayed out on the ground to either infiltrate or evaporate)	Effective An effective means of water disposal previously used at the KRY Site. Land application can increase biodegradation of contaminants in groundwater by increasing levels of dissolved oxygen in the water. Will require that the water be treated to levels that comply with groundwater quality standards.	Easy Water is simply applied to the ground at the site and then allowed to infiltrate the ground or evaporate.	Low The cost of implementing this discharge option is considered low, depending on the distance to the application point.		Retained
		Injection Wells or Trenches	Effective An effective means of water disposal. Reinjection can increase the hydraulic gradient in the aquifer and increase the effectiveness of downgradient extraction wells or collection trenches. Reinjection can also increase biodegradation of contaminants by increasing levels of dissolved oxygen in the aquifer. Will require that the water be treated to levels that comply with groundwater quality standards.	Easy Requires pumping and injection wells or trenches, readily available and well-known technologies.	Low to Moderate The cost of implementing this discharge option is considered low to moderate, depending on the distance to the discharge point. Cost of O&M is considered low.		Retained
		Discharge to Surface Water	Effective An effective means of water disposal. Discharge to surface waters will be required to meet surface water quality standards.	Easy This method of discharge has been applied at other sites in Montana, and access to surface water is readily available. Will need to comply will all surface water standards.	Low to Moderate Subject to permitting regulations.		Retained

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
[1]Groundwater Discharge (cont.)	**Discharge Of Treated or Untreated Groundwater (cont.)**	Disposal Off Site	Effective Treated or untreated groundwater can be transported off site for disposal.	Easy to moderately difficult Implementation will depend on the distance required for transport of the water.	Moderate to High Costs will depend on the distance the water is being transported, quantity of water, and disposal costs.		Retained
In Situ Groundwater Treatment	**Biological Treatment**	Enhanced Bioremediation (Aerobic)	Moderately effective Oxygen enhancement by the addition of ORC is an effective delivery method for sites with shallow depths to groundwater (less than 60 feet), such as the KRY Site. ORC does not generate vapor emissions that would need to be collected and treated. The use of hydrogen peroxide for oxygen enhancement is limited for in situ groundwater treatment. Lower concentrations must be maintained because concentrations of hydrogen peroxide above 200 ppm in groundwater inhibit the growth of microorganisms. The achievable degradation rate and the effectiveness of the treatment are limited at these lower concentrations. Effective on most VOCs, SVOCs, and petroleum hydrocarbons. Limited studies have been completed on the effectiveness of bioremediation for dioxins; however, some studies suggest bioremediation can effectively reduce dioxin levels. Pilot testing at the KRY Site will help define reaction rates and influence areas of ORC.	Easy ORC produces minimal residual waste and requires little aboveground equipment and power input. Typically, pilot testing is completed before ORC is implemented at a site to identify full-scale design parameters.	Low to Moderate Factors that influence the cost of ORC include depth of contamination, quantity of injection points needed for areal coverage, and cost of pilot testing.	FRTR 2002; EPA 2000a.	Retained
		Enhanced Bioremediation (Anaerobic)	Moderately effective The addition of HRC creates anaerobic conditions and adds a co-substrate for anaerobic bioremediation. HRC injection is an effective delivery method for sites with shallow depths to groundwater (less than 60 feet), such as the KRY Site. HRC does not generate vapor emissions that would need to be collected and treated. However, other reagents (such as Fenton) can generate vapor emissions that require controls. Effective on most VOCs, SVOCs, and petroleum hydrocarbons. Pilot testing will help define reaction rates and influence areas of HRC.	Easy HRC produces minimal residual waste and requires little aboveground equipment and power input. Typically, pilot testing is completed before HRC is implemented to identify full-scale design parameters. The production of hydrogen sulfide gas is not expected to be a problem based on sulfate levels at the KRY Site.	Moderate Factors that influence the cost of HRC include depth of contamination, quantity of injection points needed for areal coverage, and cost of pilot testing.	FRTR 2002, EPA 2000a.	Retained
	Physical/Chemical Treatment	In Situ Chemical Oxidation (ISCO)	Moderately effective Clay lenses and subsurface chemical reactions can make it difficult to deliver the oxidant to the contaminant. Oxidants can be consumed by natural organic matter in the aquifer, other organic compounds, and dissolved iron. The amount of oxidant required is directly related to contaminant concentration levels. Oxidants are typically applied via air sparging which can also enhance biodegradation; however excessive amounts of oxidant could hinder microbial activity at the KRY Site.	Easy Chemical oxidation is a full-scale, well-established technology used frequently to treat hazardous wastes in soils. The application of in situ chemical oxidation is generally in the form of air sparging, another frequently used and well-established technology.	Moderate to High Cost for in situ chemical oxidation is directly affected by the number of injection wells required and the amount of oxidant that is injected. A significant mass of oxidant and a large number of injection points would be required because of the concentrations and the area affected at the KRY Site.	FRTR 2002, Huling and Pivitz 2006.	Retained

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
In Situ Groundwater Treatment (cont.)	**Physical/Chemical Treatment (cont.)**	Air Sparging	Moderately effective Air sparging is a commonly used technology for remediation of a saturated zone (groundwater and soil) contaminated with VOCs. However, the effectiveness of air sparging is limited for SVOCs and specifically for the heavy hydrocarbons that are present at the KRY Site. The presence of large quantities of NAPL-contaminated soil (as found in source areas at Reliance and KPT) may significantly extend remediation timeframes.	Easy to moderately difficult Air sparging and SVE are technologies with extensive full-scale application experience. Large air sparging and SVE systems require significant equipment installation, power input, and routine maintenance. The off-gas extracted as the result of air sparging and SVE may require additional treatment to collect or destroy extracted organic contaminants.	Moderate The cost of implementing air sparging, including installation of air lines, sparge points, and equipment shelters, is considered moderate; however, when combined with SVE, the cost of this alternative may increase, depending on the complexity of the air sparge and SVE network.	FRTR 2002, EPA 2005b.	Not Retained
		In-Well Air Stripping or In-Well Aeration	Moderately effective The process is most effective for high-volatility contaminants with concentrations of less than 200 mg/L. The presence of large quantities of NAPL-contaminated soil (as found in source areas at Reliance and KPT) may significantly extend remediation timeframes. If necessary to meet discharge limits, vapor effluent from air stripping can be treated using a granular activated carbon adsorption system.	Easy to moderately difficult Air stripping technologies have extensive full-scale application experience. Large air stripping systems require significant equipment installation, power input, and routine maintenance. The off-gas extracted as the result of air stripping may require additional treatment to collect or destroy extracted organic contaminants. Air stripping can cause fluctuations in the groundwater level that in the presence of NAPL would increase the smear zone.	Moderate The cost of implementing air stripping, including installation of air lines, stripping points and equipment shelters, is considered moderate.	FRTR 2002. EPA 2005b.	Not Retained
Soil Containment	**Physical Barrier**	Horizontal Barrier (caps: asphalt/concrete, soil/bentonite/clay, multi-layer cover systems, Aquablok, apatite, coke breeze in a laminate mat)	Moderately effective Prevents exposure to contaminated soil and groundwater via ingestion, inhalation, or dermal contact. Surface infiltration is reduced or eliminated. Reduces migration of contaminants in vadose zone to groundwater. However, sources would remain at and below the groundwater table and would continue to affect groundwater in the source areas; therefore, RAOs would not be achieved in the source areas using capping alone. Susceptible to long-term weathering and cracking. High pH of cement-based barriers could enhance the transport of some contaminants. Organic solvents and oils, sulfates, and halides that may be present in the soil could retard the setting of the barrier. Capping could also reduce the availability of oxygen in the area, thus limiting the degree of aerobic degradation occurring in the area and increasing the degree of anaerobic degradation. At this time, it is difficult to gauge the overall effect of a cap in the source areas.	Easy Capping is considered a standard construction practice and is easily implemented. Equipment and construction methods associated with capping are readily available, and design methods and requirements are well understood.	Moderate A single-layer cap would have a moderate cost to construct and low maintenance cost.	http://www.epa.state.il.us/land/taco/5-engineered-barriers.html	Retained

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
[1]Soil Removal and Transport	**Excavation**	Excavation	Very effective Highly effective in vadose zone, less effective below the water table. Considered an effective means of removing soil source material in the vadose zone at the site up to 30 feet bgs. Mechanical excavation in the saturated zone to similar depths can be accomplished but may be less effective because of the physical difficulties (such as sloughing) encountered with saturated materials.	Easy to moderately difficult Well-proven technology and readily implementable to 30 feet bgs, more difficult to implement at deeper depths and below the water table. Difficult to implement near or beneath buildings, foundations, and other structures. Considered easy to moderately difficult to implement at the KRY Site. This technology will be easy to implement for areas where subsurface soil contamination is at or above the water table. However, this technology will be more difficult to implement for areas (for example, the mounded areas) where soil contamination was detected below the water table. The potential for fugitive emissions from transport of contaminated soil could result in a requirement for enclosed trucks with liners, covers, or other controls. Transportation of the soil through populated areas may raise community or regulator concerns.	Low to Moderate The cost of excavation to approximately 15 feet bgs is expected to be low. The cost of excavation is moderate for greater depths and below the water table and where facilities require relocation.	EPA 1997a.	Retained
Ex Situ Soil Treatment	**Biological Treatment**	Land Farming	Moderately effective Effective for degrading and volatilizing VOCs, fuel hydrocarbons, and wood preserving wastes (such as PCP). Less effective on dioxins and metals. Effectiveness can be negated by colder climates; however landfarming has been used successfully at similar sites in Montana with similar contaminants. Treatability testing would be needed before full-scale implementation to establish the biodegradability of contaminated soils and efficient oxygenation and nutrient loading rates.	Moderately difficult Moderately difficult to implement. Requires a large amount of space. Certain volatile contaminants may require pretreatment to avoid polluting the atmosphere. Dust and runoff must be controlled. Odor control may also be required. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Low to Moderate Cost of implementing an ex situ land farm system to remediate contaminated soils is expected to be low to moderate. Cost of O&M is expected to be moderate.	FRTR 2002, Martin Marietta Energy Systems, Inc. 1993.	Retained
		Biopiles	Moderately effective Effective for degrading and volatizing VOCs and fuel hydrocarbons. Halogenated VOCs, SVOCs, and pesticides also can be treated, but the effectiveness will vary. Less effective on dioxins and metals. Treatability testing would be needed during design to establish the biodegradability of contaminated soils and efficient oxygenation and nutrient loading rates. Effectiveness can be negated by colder climates; however, biopiles have been used successfully at similar sites in Montana with similar contaminants.	Moderately difficult Engineered units are moderately difficult to implement. Dust and runoff controls are needed. Drainage may require treatment. VOCs may volatilize, requiring air treatment. Odor control may also be required. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Low to Moderate Cost of implementing an ex situ biopile to remediate contaminated soils is expected to be moderate to high. Cost of O&M is expected to be moderate.	FRTR 2002, Martin Marietta Energy Systems, Inc. 1993.	Retained
		Bioslurry (slurry-phase biotreatment, soil-slurry bioreactor)	Moderately effective Successfully used to remediate soils, sludges, and sediments contaminated by SVOCs, petroleum hydrocarbons, petrochemicals, solvents, pesticides, wood preservatives, and other organic chemicals. Residence time is typically 5 days for PCP-contaminated soil and 60 days for refinery sludge.	Moderately difficult Engineered units moderately are difficult to implement. VOCs may volatilize, requiring air treatment. Fines must be dewatered after treatment. An acceptable method for disposing of nonrecycled wastewaters is required. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	High Cost of implementing an ex situ bioslurry to remediate contaminated soils is expected to be high. Cost of O&M is expected to be moderate.	FRTR 2002.	Not retained

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
Ex Situ Soil Treatment (cont.)	**Physical/Chemical Treatment**	Soil Vapor Extraction (hot air vapor extraction, steam enhanced extraction)	Moderately effective Ex situ SVE technology is well known and widely available and is expected to be an effective process in removing VOCs from the soil. Not shown to be highly effective on SVOCs, PCP, dioxins, or metals. Pilot studies should be conducted to refine design parameters.	Easy to moderately difficult Ex situ SVE is expected to be easy to moderately difficult to implement; difficulties may be encountered because of the need to construct an engineered treatment facility. Off-gas treatment, residual liquid, and spent activated carbon may require treatment. A large amount of space is required. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Moderate to High Cost of implementing and operating an ex situ SVE system to remediate contaminated soils is expected to be moderate. Costs would be higher if treatment of vapors and leachate were required.	FRTR 2002, Martin Marietta Energy Systems, Inc. 1993.	Not retained
		Soil Washing	Effective Effective for treating SVOCs, PAHs, PCP, and metals. Potentially effective for treating dioxins. Removal of PCP may require the addition of surfactants or organic solvents. Complex mixtures of contaminants can reduce effectiveness. Moderately effective for NAPL-contaminated soil. A pilot study would be required to evaluate whether RAOs could be met.	Difficult Difficult to implement because of the need for pilot studies and the complexity of the soil matrix and contaminants. May not be cost effective for sites with a large percentage of silt and clay. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	High The cost of using soil washing is expected to be high.	FRTR 2002, EPA 1997c.	Retained for lead-contaminated soil
		Solvent Extraction	Effective Effective for treating SVOCs, PAHs, and PCP. Potentially effective for treating dioxins. Moderately effective for NAPL-contaminated soil; pilot studies would be required to evaluate effectiveness.	Difficult Difficult to implement because of the need for pilot studies and the complexity of the soil matrix and contaminants. Concentrated residual material that is produced requires further treatment or disposal. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Moderate to High Cost of implementing solvent extraction to remediate contaminated soils is expected to be moderate to high because of the need for pilot studies and the complexity of the soil matrix and contaminants.	FRTR 2002, EPA 1997c.	Not Retained.
		Separation (physical separation, MAECTITE process, precipitation/filtration, electrokinetics)	Effective Effective for treating SVOCs, fuels, and inorganic compounds. The technologies can be used on selected VOCs and pesticides. Generally used as a pre-treatment method for other technologies.	Easy to moderately difficult Readily to moderately difficult to implement, depending on the type of separation. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Low to Moderate Cost of implementing separation is considered low to moderate, depending on the specific technology selected.	FRTR 2002, USACE 2003.	Retained for lead-contaminated soil
	Thermal Treatment	Thermal Desorption (high-temperature thermal desorption, low-temperature thermal desorption, entrained bed gasification)	Highly effective Highly effective on most organic compounds and is a presumptive treatment technology for soil. Type of contaminant can affect treatment costs. Does not effectively remove metals.	Easy to moderately difficult Portable treatment units available; compliance with substantive permitting requirements may be difficult, although air emission requirements should not be difficult to attain. Space is available for staging the facilities at the site. A smaller volume of residual material must be treated or disposed of. May not be readily acceptable by the community. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Moderate to High Costs associated with thermal desorption are considered moderate to high because of the treatment costs. Treatment costs are directly related to the volume of soil to be treated.	FRTR 2002, EPA 1997c, 2001b.	Retained

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
Ex Situ Soil Treatment (cont.)	**Thermal Treatment (cont.)**	Incineration/Thermal Destruction	Highly effective Highly effective on most organic compounds. Can achieve highly stringent cleanup levels. One of the most effective technologies for destruction of dioxins. Does not destroy metals.	Moderately difficult to difficult There are no known incineration facilities near the site; however, mobile incineration units are commercially available. The nearest known off-site, RCRA-licensed incineration facility is located in Utah. On-site incineration may be difficult to implement based on air emissions concerns; off-site incineration is easily implemented. Only one off-site incinerator is permitted to burn dioxins. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	High Costs associated with incineration are considered to be high because of treatment costs (both on- and off-site) and transportation costs (for off-site treatment only).	FRTR 2002, EPA 1997c	Retained
Disposal	**Off-Site Disposal**	Solid Waste Landfill	Highly effective Waste is isolated in an engineered and licensed facility. Applicable only to nonhazardous wastes that meet state and individual facility criteria.	Easy Available only for nonhazardous waste. It is not known at this time what portion of contaminated soil, if any, could be disposed of at a solid waste landfill. Transport of soil is required for this alternative, and the same considerations apply as were discussed under excavation.	Low to Moderate Transportation and disposal costs associated with solid waste landfill are expected to be low to moderate.	FRTR 2002.	Retained for nonhazardous waste
		Hazardous Waste Landfill	Highly effective Highly effective for all contaminants except RCRA land-ban waste (FO32 waste).	Easy Facilities available. Transport of soil is required for this alternative, and the same considerations apply as were discussed under excavation.	Moderate to High Transportation and disposal costs for a hazardous waste treatment, storage, and disposal are considered moderate to high. Costs are directly related to the volume of waste disposed of.	FRTR 2002.	Retained for hazardous waste
		Reclamation/Recycling (asphalt reprocessing)	Effective Petroleum contaminated soil may be “recycled” by sending it to an asphalt plant or to a thermal treatment facility. The waste generator must ensure that the contaminated soil meets the acceptance criteria for the recycling facility. Hot-mix processes use asphalt cement and can incorporate petroleum-contaminated soils. Cold mix processes use liquid asphalts and can incorporate petroleum-contaminated soil.	Difficult No known facilities are currently accepting, or will be accepting in the foreseeable future, petroleum-contaminated soil for use in asphalt processing. Transport of soil would be required for this alternative, and the same considerations apply as were discussed under excavation.	Moderate Transportation costs are directly related to the volume of waste reprocessed.		Retained for nonhazardous waste

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
Disposal (cont.)	**On-Site Disposal**	Waste Repository	Highly effective Highly effective for all contaminants except RCRA land-ban waste (FO32 waste). On-site disposal is an effective means of disposing of untreated and treated soil; however, RAOs would not be met for disposal of untreated soil. The long-term effectiveness and permanence of an engineered repository for untreated soil depend on proper maintenance. Multilayered caps are susceptible to ponding of surface water, erosion, settlement, and disruption of the cover integrity by vehicles, deep-rooting vegetation, and burrowing animals. In addition, institutional controls would be required to prevent land uses that would be incompatible with the reclaimed site. Specifically, land uses that would compromise the repository cap should be precluded.	Easy to moderately difficult Disposal of treated or untreated soil at the site is considered technically implementable. No problems are foreseen that would hinder on-site disposal or backfilling of treated soil. Sufficient open space for a repository appears to be available. The construction of a lined repository with a multilayered cap is considered a conventional construction practice; materials and construction methods are readily available. In addition, design methods and requirements are well documented and understood. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Low to Moderate Disposal costs associated with backfilling of treated soil are considered low. Costs associated with construction and maintenance of waste repository are expected to be moderate.	FRTR 2002.	Not Retained
		[1]Backfill Excavations	Highly effective Backfilling the excavated areas with treated soil is a highly effective method for handling soil and avoiding additional transport of soil off-site. Must be used in conjunction with a treatment technology that meets all RAOs.	Easy Backfilling with treated soil is considered easy to implement at the site. Transport of soil may be required for this alternative, and the same considerations apply as were discussed under excavation.	Low Costs of backfilling treated soil are low for the site.		Retained
In Situ Soil Treatment	**Biological Treatment**	In Situ Landfarm	Moderately effective Volatile contaminants, such as solvents, must be pretreated because they would evaporate into the atmosphere, causing air pollution. Inorganic contaminants will not be biodegraded. The depth of treatment is limited to the depth of achievable tilling (normally 18 inches). However, this technology would be effective on only a portion of the contaminated soil because the majority of soil contamination is below 18 inches.	Easy Conditions affecting biological degradation of contaminants (temperature and rain fall) are largely uncontrolled, which increases the length of time to complete remediation. Dust control is an important consideration, especially during tilling and other material handling operations. Runoff collection facilities must be constructed and monitored. Topography, erosion, climate, soil stratigraphy, and permeability of the soil at the site must be evaluated to identify the optimum design of facility. Waste may be subject to RCRA land-ban regulations.	Low Costs for in situ landfarming of contaminated soil are low for the site.	USACE 2003.	Not Retained
		Enhanced Bioremediation (Aerobic)	Moderately effective Oxygen enhancement by the addition of ORC or similar products is an effective delivery method for sites with shallow depths to groundwater (less than 60 feet), such as the KRY Site. ORC type products do not generate vapor emissions that would need to be collected and treated. The use of hydrogen peroxide for oxygen enhancement is limited for in situ soil treatment because concentrations of hydrogen peroxide greater than 200 ppm in groundwater inhibit the growth of microorganisms. As a result, lower concentrations must be maintained. The achievable degradation rate and the effectiveness of the treatment are limited at these lower concentrations. Pilot testing will help define reaction rates and influence areas of ORC type products in situ.	Easy ORC-type products produce minimal residual waste and require little aboveground equipment and power input. Typically, pilot testing is completed before ORC-type products are implemented at a site to identify full-scale design parameters.	Moderate Factors that influence the cost of aerobic enhancement include depth of contamination, quantity of injection points needed for areal coverage, and cost of pilot testing.	FRTR 2002, EPA 2000a.	Retained

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
In Situ Soil Treatment (cont.)	**Biological Treatment (cont.)**	Enhanced Bioremediation (Anaerobic)	Moderately effective Anaerobic bioremediation occurs at a slower rate than aerobic bioremediation, but can treat chlorinated compounds. Molasses, HRC or a similar product, or nitrogen are generally delivered to the contaminated area. Many states prohibit nitrate injection into groundwater because nitrate is regulated through drinking water standards. HRC-type products do not generate vapor emissions that would need to be collected and treated. However, other reagents (such as Fenton) can generate vapor emissions that would require controls. Pilot testing will help define reaction rates and influence areas of HRC in situ.	Easy HRC-type products produce minimal residual waste and require little aboveground equipment and power input. Typically, pilot testing is completed before HRC-type products are implemented at a site to identify full-scale design parameters. The production of hydrogen sulfide gas is not expected to be a problem based on sulfate levels at the KRY Site.	Low to Moderate Factors that influence the cost of anaerobic enhancement include depth of contamination, quantity of injection points needed for areal coverage, and cost of pilot testing.	FRTR 2002, EPA 2000a.	Retained
	Physical/Chemical Treatment	Bioventing	Moderately effective Less effective than oxygen enhancement. Could generate vapor emissions that would need to be treated.	Easy to moderately difficult Similar to a SVE system, but run with only enough vacuum to provide oxygen to existing microorganisms; not intended to volatilize organic compounds. Bioventing systems require moderate equipment installation, power input, and routine maintenance.	Moderate The cost of implementing bioventing, including installation of air lines, extraction points, and equipment shelters, is considered moderate. The complexity of the bioventing network directly affects the cost.	FRTR 2002.	Retained
		Bioslurping	Moderately effective Bioslurper systems can extract large volumes of water that may need to be treated for discharge. The liquid and air phases mix, so separators or treatment may be required before the process water can be discharged. Aerobic biodegradation of many chlorinated compounds may not be effective without other considerations. Water removal could extend the smear zone.	Moderately difficult to difficult Bioslurping requires significant equipment installation, power input, and routine maintenance. The water extracted as the result of the system may require additional treatment.	Moderate to High The cost of implementing bioslurping includes extraction points, equipment shelters, and treatment of system water. The complexity of the system directly affects the cost.	FRTR 2002, EPA 2000a.	Not Retained
		Soil Vapor Extraction	Moderately effective SVE is a commonly used technology for remediation of vadose zone soil contaminated with VOCs and fuel hydrocarbons. Limited effectiveness for SVOCs, PAHs, and heavy hydrocarbons found at KRY Site. The presence of large quantities of NAPL-contaminated soil (as found in source areas at Reliance and KPT) may significantly extend remediation timeframes.	Easy to moderately difficult Full-scale application experience is available for SVE technologies. SVE systems require significant equipment installation, power input, and routine maintenance. The off-gas extracted as the result of the SVE may require additional treatment to collect or destroy extracted organic contaminants.	Moderate The cost of implementing SVE, including installation of air lines, extraction points, and equipment shelters, is considered moderate. The complexity of the SVE network directly affects the cost.	FRTR 2002, EPA 2005b.	Not Retained
		Air Sparging	Moderately effective Air sparging is a commonly used technology for remediation of a saturated zone (groundwater and soil) contaminated with VOCs and fuel hydrocarbons. Limited effectiveness for SVOCs, PAHs, and heavy hydrocarbons found at KRY Site. The presence of large quantities of NAPL-contaminated soil (as found in source areas at Reliance and KPT) may significantly extend remediation timeframes.	Easy to moderately difficult Air sparging and SVE are technologies with extensive full-scale application experience. Large air sparging and SVE systems require significant equipment installation, power input, and routine maintenance. The off-gas extracted as the result of air sparging and SVE may require additional treatment to collect or destroy extracted organic contaminants.	Moderate The cost of implementing air sparging, including installation of air lines, sparge points, and equipment shelters, is considered moderate; however, when combined with SVE, the cost of this alternative may increase, depending on the complexity of the air sparge and SVE network.	FRTR 2002, EPA 2005b.	Not Retained

TABLE 2 (Continued)
REMEDIAL TECHNOLOGY AND PROCESS OPTIONS FOR CONTAMINATED MEDIA
SECONDARY SCREENING SUMMARY
KALISPELL POLE AND TIMBER, RELIANCE REFINERY, AND YALE OIL FACILITIES

General Response Action	Technology Type	Process Options	Effectiveness	Implementablity	Cost	References	Retained
In Situ Soil Treatment (cont.)	**Physical/Chemical Treatment (cont.)**	In Situ Chemical Oxidation (ISCO)	Moderately effective Clay lenses and subsurface chemical reactions can make it difficult to deliver the oxidant to the contaminant. Applied oxidants can be consumed by natural organic matter in the aquifer, other organics, and dissolved iron. The amount of oxidant required is directly related to contaminant concentration levels. Excessive amounts of oxidant could hinder microbial activity at the KRY Site.	Easy Chemical oxidation is a full-scale, well-established technology used frequently to treat hazardous wastes in soils.	Moderate to High Cost for in situ chemical oxidation is directly affected by the n umber of injection wells required and the amount of oxidant that is injected. A significant number of injection points and quantity of oxidant would be required because of the concentrations and the area affected at the KRY Site.	FRTR 2002, Huling and Pivitz 2006.	Retained
		Solidification/Stabilization	Moderately to highly effective Generally used for inorganic contaminants; however, applications such as in situ vitrification can destroy or remove most organic contaminants (including dioxins). Contaminants are physically bound or enclosed within a stabilized mass, or chemical reactions are used to stabilize contaminants. Can be used alone or in combination with other technologies (such as disposal). The effective depth of in situ solidification/stabilization is limited under certain heterogeneous conditions. In addition, effects such as weathering, groundwater infiltration, and physical disturbances can affect the integrity of the stabilized material if left in place.	Moderately difficult to difficult Most reagents and additives are also widely available and relatively inexpensive industrial commodities. However, the installation of certain methods of solidification/stabilization can involve directional drilling with forced grout injection. Implementation of this technology is highly dependent on the physical properties of the soil. In addition, the depth of contaminants may limit some types of application processes. Some processes result in a significant increase in volume, and treatability studies are generally required to test the compatibility of wastes with various solidification/stabilization processes.	Moderate to High Costs vary widely according to materials or reagents used, their availability, size of the site, and the nature of contaminants. Large volumes of bulk reagents and additives may be required increasing transportation costs. Costs are also highly dependent on the methodology used. Vitrification operation cost varies with utility costs and depth of process.	FRTR 2002.	Retained for possible use in stabilizing metals
		In Situ Thermal Desorption (ISTD)	Moderately effective Target contaminants are VOCs, fuels, and SVOCs. After application of this process, subsurface conditions are excellent for biodegradation of residual contaminants. Heating can improve air flow in high moisture soils by evaporating water.	Moderate Equipment for many of these heating options is available. Heat resistant extraction wells may be necessary. The off-gas extracted as the result may require additional treatment to collect or destroy extracted organic contaminants.	High Equipment cost would be moderate, depending on the method chosen; however, energy costs would be high.	FRTR 2002. Hazardous Waste Clean-up Information (CLU_IN) http://ww.cluin.org/techfocus/ Davis 1998.	Retained (for LNAPL smear zone only)

Notes:

[1] These technologies are applied as part of a treatment train and are not considered stand-alone technologies. In addition, on-site or off-site transportation is also a technology that can be a component of many ex situ soil treatments and should be considered accordingly; however, a detailed discussion of the considerations of soil transport is included only within the discussion on excavation.

bgs Below ground surface
IC Institutional control
LNAPL Light nonaqueous phase liquid
mg/L Milligrams per liter
MNA Monitored natural attenuation
NAPL Nonaqueous phase liquid
O&M Operations and maintenance
ORC Oxygen reduction compound
PAH Polynuclear aromatic hydrocarbon
PCP Pentachlorophenol
ppm Part per million
RAO Remedial action objective
RCRA Resource Conservation and Recovery Act
SVE Soil vapor extraction
SVOC Semivolatile organic compound
UV Ultraviolet
VOC Volatile organic compound

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APPENDIX F

COST TABLES

TABLE F-1
Preliminary Cost Estimate
LNAPL
Multiphase Extraction and Disposal
KRY Site

CAPITAL COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Bio-Slurping System: Western portion	well	$11,953.08	26	$310,780	RACER
Carbon Adsorption System: Western portion	gpm	$504.51	130	$65,586	RACER
Bio-Slurping System: Eastern portion	ls	$11,625.35	20	$232,507	RACER
Carbon Adsorption System: Eastern portion	well	$429.99	100	$42,999	RACER
Treated Water Combined Discharge Pipeline	ls	$43,788.00	1	$43,788	RACER
Residual Waste Management	ls	$8,128.00	1	$7,804	RACER
Overhead Electrical Distribution System	ls	$34,874.00	1	$23,962	RACER
			SUBTOTAL	$727,430	
Construction Contingencies		25%		$181,858	10% Scope, 15% Bid
			SUBTOTAL	**$909,290**	
Project Management		6%		$54,557	EPA Cost Guidance
Remedial Design including Pilot Testing		12% plus $150,000		$259,115	EPA Cost Guidance
Construction Management		8%		$72,743	EPA Cost Guidance
			SUBTOTAL	**$386,420**	
		TOTAL CAPITAL COSTS		**$1,295,710**	
ANNUAL OPERATION AND MAINTENANCE COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Site Maintenance	ls	$36,371.50	1	$36,372	Engineer Estimate
Site Operation	ls	$106,064.00	1	$106,064	RACER
Power: Western portion	kwh	$0.08	377045	$30,164	RACER
Carbon Replacement: Western portion	lb/yr	$1.81	594	$1,075	RACER
Power: Eastern portion	kwh	$0.08	307621	$24,610	RACER
Carbon Replacement: Eastern portion	lb/yr	$1.81	457	$827	RACER
LNAPL Disposal	gal	$1.00	19000	$19,000	Vendor Quote
			SUBTOTAL	**$218,110**	
O&M Contingencies		25%		$54,528	10% Scope, 15% Bid
			SUBTOTAL	**$54,530**	
		TOTAL YEARLY O&M COST		**$272,640**	

Notes:
gpm = gallons per minute
ls = lump sum
kwh = kilowatt hour
lb/yr = pounds per year
gal = gallon

Present Value	**3%**
10 years	$3,621,400
20 years	$5,351,900
30years	$6,639,600
50 years	$8,310,700
100 years	$9,910,800

TABLE F-2
Preliminary Cost Estimate
LNAPL
Groundwater Extraction and Disposal
KRY Site

CAPITAL COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Groundwater Extraction System: Western portion	well	$11,900.69	26	$309,418	RACER
Free Product Removal: Western portion	ls	$102,698.00	1	$102,698	RACER
Carbon Adsorption System: Western portion	gpm	$504.51	130	$65,586	RACER
Groundwater Extraction System: Eastern portion	well	$11,992.80	20	$239,856	RACER
Free Product Removal: Eastern portion	ls	$79,569.00	1	$79,569	RACER
Carbon Adsorption System: Eastern portion	gpm	$429.99	100	$42,999	RACER
Treated Water Combined Discharge Pipeline	ls	$43,788.00	1	$43,788	RACER
Residual Waste Management	ls	$6,742.00	1	$6,742	RACER
Overhead Electrical Distribution System	ls	$34,874.00	1	$34,874	RACER
			SUBTOTAL	$925,530	
Construction Contingencies		25%		$231,383	10% Scope, 15% Bid
			SUBTOTAL	**$1,156,910**	
Project Management		6%		$69,415	EPA Cost Guidance
Remedial Design including Pilot Testing		12% plus $150,000		$288,829	EPA Cost Guidance
Construction Management		8%		$92,553	EPA Cost Guidance
			SUBTOTAL	**$450,800**	
		TOTAL CAPITAL COSTS		**$1,607,710**	
ANNUAL OPERATION AND MAINTENANCE COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Site Maintenance	ls	$46,276.50	1	$46,277	Engineer Estimate
Site Operation	ls	$189,977.00	1	$189,977	RACER
Power: Western portion	kwh	$0.08	121263	$9,701	RACER
Carbon Replacement: Western portion	lb/yr	$1.81	594	$1,075	RACER
Power: Eastern portion	kwh	$0.08	77105	$6,168	RACER
Carbon Replacement: Eastern portion	lb/yr	$1.81	457	$827	RACER
LNAPL Disposal	gal	$1.00	19000	$19,000	Vendor Quote
			SUBTOTAL	**$273,030**	
O&M Contingencies		25%		$68,258	10% Scope, 15% Bid
			SUBTOTAL	**$68,260**	
		TOTAL YEARLY O&M COST		**$341,290**	

Notes:
gpm = gallons per minute
ls = lump sum
kwh = kilowatt hour
lb/yr = pounds per year
gal = gallon

Present Value	**3%**
10 years	$4,519,000
20 years	$6,685,200
30years	$8,297,100
50 years	$10,389,000
100 years	$12,392,100

TABLE F-3
Preliminary Cost Estimate
Groundwater
Extraction, Ex-Situ Treatment and Disposal - 75 GPM
KRY Site

CAPITAL COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Groundwater Extraction System: Western portion					
Shallow Wells	well	$16,759.27	11	$184,352	RACER
Deep Wells	well	$39,170.00	1	$39,170	RACER
Ex-Situ Bioreactor: Western portion	gpm	$3,956.70	300	$1,187,010	RACER
Carbon Adsorption System: Western portion	gpm	$429.99	300	$128,997	RACER
Groundwater Extraction System, Deep wells: Hwy. 2 area	well	$35,009.50	2	$70,019	RACER
Ex-Situ Bioreactor: Hwy. 2 area	gpm	$4,484.91	80	$358,793	RACER
Carbon Adsorption System: Hwy. 2 area	gpm	$536.24	80	$42,899	RACER
Treated Water Combined Discharge Pipeline	ls	$72,722.00	1	$72,722	RACER
Residual Waste Management	ls	$4,050.00	1	$4,050	RACER
Overhead Electrical Distribution System	ls	$34,874.00	1	$34,874	RACER
			SUBTOTAL	**$2,122,890**	
Construction Contingencies		25%		$530,723	10% Scope, 15% Bid
			SUBTOTAL	**$2,653,610**	
Project Management		5%		$132,681	EPA Cost Guidance
Remedial Design including Pilot Testing		8% plus $100,000		$312,289	EPA Cost Guidance
Construction Management		6%		$159,217	EPA Cost Guidance
			SUBTOTAL	**$604,190**	
		TOTAL CAPITAL COSTS		**$3,257,800**	
ANNUAL OPERATION AND MAINTENANCE COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Site Maintenance	ls	$106,144.50	1	$106,145	Engineer Estimate
Site Operation	ls	$337,342.00	1	$337,342	RACER
Power: Western portion	kwh	$0.08	271657	$21,733	RACER
Natural Gas: Western portion	mcf	$6.87	41250	$283,388	RACER
Carbon Replacement: Western portion	lb/yr	$1.81	1371	$2,482	RACER
Power: Hwy. 2 area	kwh	$0.08	90909	$7,273	RACER
Natural Gas: Hwy. 2 area	mcf	$6.87	11000	$75,570	RACER
Carbon Replacement: Hwy. 2 area	lb/yr	$1.81	366	$662	RACER
			SUBTOTAL	**$834,590**	
O&M Contingencies		25%		$208,648	10% Scope, 15% Bid
			SUBTOTAL	**$208,650**	
		TOTAL YEARLY O&M COST		**$1,043,240**	

Notes:
gpm = gallons per minute
ls = lump sum
kwh = kilowatt hour
mcf = thousand cubic feet
lb/yr = pounds per year
gal = gallon

Present Value	**3%**
10 years	$12,156,800
20 years	$18,778,600
30years	$23,705,800
50 years	$30,100,100
100 years	$36,223,000

TABLE F-4
Preliminary Cost Estimate
Groundwater
In-Situ Bioremediation using Proprietary Oxygen Release Compounds
KRY Site

CAPITAL COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Injection Points: 1.5" Diameter, 22 feet deep	each	$300.00	1300	$390,000	Vendor Quote
Regenesis' ORC Compound	lb	$6.50	55158	$358,527	Vendor Quote
ORC Injection	each	$200.00	1300	$260,000	Vendor Quote
			SUBTOTAL	**$1,008,530**	
Construction Contingencies		25%		$252,133	10% Scope, 15% Bid
			SUBTOTAL	**$1,260,660**	
Project Management		6%		$75,640	EPA Cost Guidance
Remedial Design including Pilot Testing		12% plus $100,000		$251,279	EPA Cost Guidance
Construction Management		8%		$100,853	EPA Cost Guidance
			SUBTOTAL	**$427,770**	
			TOTAL CAPITAL COSTS	**$1,688,430**	
ANNUAL OPERATION AND MAINTENANCE COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Yearly ORC Injection	ls	$1,260,660.00	1	$1,260,660	Engineer Estimate
Site Operation	ls	$20,000.00	1	$20,000	RACER
			SUBTOTAL	**$1,280,660**	
O&M Contingencies		25%		$320,165	10% Scope, 15% Bid
			SUBTOTAL	**$320,170**	
			TOTAL YEARLY O&M COST	**$1,600,830**	

Notes:
lb = pound
ls = lump sum

Present Value	**3%**
10 years	$15,343,800
20 years	$25,504,700
30years	$33,065,400
50 years	$42,877,400
100 years	$52,272,900

TABLE F-5
Preliminary Cost Estimate
In Situ Chemical Oxidation
KRY Site

Item	Unit	Unit Costs	Quantity	Cost	Source
Geologist	hr	$75.00	928	$69,600	RACER
DOT Steel Drums, 55-gallon	ea	$83.22	325	$27,047	RACER
1-inch stainless steel well casing (vertical)	lf	$24.00	8,579	$205,884	Estimate from Casper distributor
1-inch stainless steel well screen (vertical)	lf	$36.00	3,677	$132,354	Estimate from Casper distributor
Swagelok Compression Fittings (3 per well)	ea	$57.00	1,044	$59,508	Vendor Quote
Rotary Drilling, 6-inch borehole (< = 100 ft)	lf	$32.00	12,255	$392,160	RACER
4-inch bentonite seal	ea	$20.16	348	$7,016	RACER
Ozone wellhead assembly	ea	$1,744.00	348	$606,912	Engineer's estimate from similar project
1-inch PVC piping (lateral connection)	lf	$1.00	14,925	$14,925	Harrington Plastics
Trenching	cy	$8.55	4,975	$42,536	RACER
Ozone System	ls	$74,685.00	25	$1,867,125	Vendor Quote (Calcon Systems)
SCADA System and radio telemetry	ls	$14,285.72	25	$357,143	Vendor Quote (Calcon Systems)
			Subtotal	**$3,782,209**	
Construction Contingencies		25%		$945,552	10% Scope, 15% bid
			Subtotal	**$4,727,762**	
Additional Tasks					
Electricity power pole drop to each system	ea	$2,500.00	25	$62,500	Engineer's estimate from similar project
Soil drum disposal (offsite)	ea	$33.42	325	$10,862	RACER
Startup and troubleshooting	ea	$1,000.00	25	$25,000	Engineer's estimate from similar project
				$98,362	
Project Management		6%		$289,567	EPA Cost Guidance
Remedial Design including Pilot Testing		5% plus $100,000		$341,306	EPA Cost Guidance
Construction Management		8%		$386,090	EPA Cost Guidance
			Subtotal	**$1,115,325**	
		TOTAL CAPITAL COSTS		**$5,843,087**	

ANNUAL OPERATIONS AND MAINTENANCE COSTS

Item	Unit	Unit Cost	Quantity	Cost	Source
Site Operation and Maintenance	hr	$65.00	2000	$130,000	Engineer's estimate
Power	kwh	$0.08	1456350	$116,508	Bridger Valley Electric
Water	gal	$2.25	1000	$2,250	Laramie City
			Subtotal	**$248,758**	
O&M Contingencies		25%		**$62,190**	10% Scope, 15% Bid
		TOTAL YEARLY O&M COSTS		**$310,948**	

Notes:
hr = hour
ea = each
lf = linear feet
cy = cubic yard
ls = lump sum
kwh = kilowatt hour
gal = gallon

Present Value	3%
10 years	$8,495,535.00
20 years	$10,469,206.00
30 years	$11,937,802.00
50 years	$13,843,702.00
100 years	$15,668,701.00

TABLE F-6
Preliminary Cost Estimate
Soil
Surface Capping - 17.6 Acres
KRY Site

CAPITAL COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Pre-Grading	acre	$2,084.61	17.6	$36,689	RACER
Geomembrane	sy	$24.66	83300	$2,053,785	RACER
Gravel Cushion	cy	$34.85	10000	$348,522	RACER
Asphalt	sy	$6.43	83300	$535,511	RACER
			SUBTOTAL	**$2,974,510**	
Construction Contingencies		25%		$743,628	10% Scope, 15% Bid
			SUBTOTAL	**$3,718,140**	
Project Management		6%		$185,907	EPA Cost Guidance
Remedial Design including Pilot Testing		12% plus $100,000		$297,451	EPA Cost Guidance
Construction Management		8%		$223,088	EPA Cost Guidance
			SUBTOTAL	**$706,450**	
		TOTAL CAPITAL COSTS		**$4,424,590**	
ANNUAL OPERATION AND MAINTENANCE COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Site Maintenance	ls	$29,745.10	1	$29,745	RACER
			SUBTOTAL	**$29,750**	
O&M Contingencies		25%		$7,438	10% Scope, 15% Bid
			SUBTOTAL	**$7,440**	
		TOTAL YEARLY O&M COST		**$37,190**	

Notes:
ac = acre
sy = square yards
cy = cubic yards
ls = lump sum

Present Value	**3%**
10 years	$4,741,800
20 years	$4,977,900
30years	$5,153,500
50 years	$5,381,500
100 years	$5,599,800

TABLE F-7
Preliminary Cost Estimate
Soil
Excavation, Off-site Disposal and Backfill
KRY Site

CAPITAL COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Excavation	cy	$3.89	272200	$1,058,550	RACER
Non-hazardous waste contaminated soil disposal	cy	$133.15	73000	$9,719,854	RACER
Hazardous waste contaminated soil disposal	cy	$985.21	69000	$67,979,584	RACER
Clean soil backfill	cy	$10.84	130200	$1,411,872	RACER
Imported soil backfill	cy	$15.93	142000	$2,261,505	RACER
			SUBTOTAL	**$82,431,370**	
Construction Contingencies		25%		$20,607,843	10% Scope, 15% Bid
			SUBTOTAL	**$103,039,210**	
Project Management		5%		$5,151,961	EPA Cost Guidance
Remedial Design including Pilot Testing		6%		$6,182,353	EPA Cost Guidance
Construction Management		6%		$6,182,353	EPA Cost Guidance
			SUBTOTAL	**$17,516,670**	
			TOTAL CAPITAL COSTS	**$120,555,880**	
ANNUAL OPERATION AND MAINTENANCE COSTS					
Item	Unit	Unit Cost	Quantity	Cost	Source
Site Maintenance	ls	$10,000.00	1	$10,000	RACER
			SUBTOTAL	**$10,000**	
O&M Contingencies		25%		$2,500	10% Scope, 15% Bid
			SUBTOTAL	**$2,500**	
		TOTAL YEARLY O&M COST		**$12,500**	

Notes:
cy = cubic yards
ls = lump sum

Present Value	**3%**
10 years	$120,662,500
20 years	$120,741,800
30years	$120,800,900
50 years	$120,877,500
100 years	$120,950,900

TABLE F-8
Preliminary Cost Estimate
Soil
Excavation, Ex-Situ Treatment, and Backfill
KRY Site

CAPITAL COSTS

Item	Unit	Unit Costs	Quantity	Cost	Source
Mobilization	%	8%	1	$100,975.26	Engineer's Estimate
Clear and Grub	ac	$186.00	6.5	$1,209.00	CostWorks 2006
Contaminated soil excavation and hauling	cy	$5.63	132822	$747,787.86	CostWorks 2006
LTU Bottom slope dozer grading	cy	$1.90	3500	$6,650.00	CostWorks 2006
LTU Berm fill	cy	$0.77	9100	$7,007.00	CostWorks 2006
LTU Berm compaction	cy	$0.38	9100	$3,458.00	CostWorks 2006
4-inch PVC leachate piping	lf	$3.28	600	$1,968.00	CostWorks 2006
2-inch PVC irrigation piping	lf	$2.50	1000	$2,500.00	CostWorks 2006
Leachate Sump manhole	ea	$2,490.00	2	$4,980.00	CostWorks 2006
1 HP Submersible pump	ea	$1,000.00	2	$2,000.00	Engineer's Estimate
10,000-gallon double-walled fiberglass aboveground tank	ea	$46,000.00	2	$92,000.00	CostWorks 2006
8-inch structural slab on grade	sf	$7.20	500	$3,600.00	RACER
Haul road construction (base course on grade, includes material)	sy	$24.86	8300	$206,338.00	Engineer's Estimate - Hudson, WY
45 MIL RPP liner	sf	$0.61	215,250	$131,302.50	Engineer's Estimate - Hudson, WY
6 OZ Geocomposite drainage layer	sf	$0.40	215,520	$86,208.00	CostWorks 2006
Tilling contaminated soils in LTU (8 times per phase)	sy	$0.59	697,000	$411,230.00	Engineer's Estimate
Treated soil backfill (assumed to be same $ as clean soil backfill)	cy	$10.84	132,822	$1,439,790.48	RACER
Berm removal after treatment is completed	cy	$1.69	9100	$15,379.00	CostWorks 2006
Demolition of piping	lf	$7.50	600	$4,500.00	CostWorks 2006
Demolition of manhole	ea	$172.00	2	$344.00	CostWorks 2006
Haul road demolition	cy	$1.44	8300	$11,952.00	CostWorks 2006
			Subtotal	**$3,281,179.10**	
Construction Contingencies		25%		$820,294.78	10% Scope, 15% bid
			Subtotal	**$4,101,473.88**	
Project Management		6%		$246,088.43	EPA Cost Guidance
Remedial Design including Pilot Testing		12% plus $100,000		$592,176.87	EPA Cost Guidance
Construction Management		8%		$328,117.91	EPA Cost Guidance
			Subtotal	**$1,166,383.21**	
		TOTAL CAPITAL COSTS		**$5,267,857.08**	

ANNUAL OPERATIONS AND MAINTENANCE COSTS

Item	Unit	Unit Cost	Quantity	Cost	Source
Site Operation and Maintenance (technician)	wk	$450.00	50	$22,500.00	
Water	ls	$2.00	25,000	$50,000.00	
Miscellaneous (repairs, fertilizer, materials, etc.)	ls	$10,000.00	1	$10,000.00	
			Subtotal	**$82,500.00**	
O&M Contingencies		25%		**$20,625.00**	10% Scope, 15% Bid
		TOTAL YEARLY O&M COSTS		**$103,125.00**	

Present Value	3%
10 years	$6,147,535
20 years	$6,802,098
30 years	$7,289,156
50 years	$7,921,242
100 years	$8,526,496

Notes:
ac = acre
cy = cubic yard
lf = linear foot
ea = each
sf = square feet
wk = week
ls = lump sum

TABLE F-9
Preliminary Cost Estimate
Common Elements
KRY Site

CAPITAL COSTS

Item	Unit	Unit Costs	Quantity	Cost	Source
Administrative Costs					
Controlled Groundwater Area	LS	$20,000	1	$20,000	DEQ estimate
Zoning/Restrictive Covenents	LS	$2,500	1	$2,500	DEQ estimate
			Subtotal	**$22,500**	
Contingencies		25%		$5,625	
		TOTAL CAPITAL COSTS		**$28,125**	

OPERATIONS AND MAINTENANCE COSTS

Item	Unit	Unit Costs	Quantity	Cost	Source
Long-Term Monitoring (one event)					
Equipment rental	LS	$1,500.00	1	$1,500	
Deep well sampling labor	HR	$80.00	45	$3,600	DEQ estimate
Shallow well sampling labor	HR	$80.00	42	$3,360	DEQ estimate
Sample Analysis	well	$1,773.00	57	$101,061	Laboratory Price Schedule
			Subtotal	**$109,521**	
Contingencies		25%		$27,380	
		TOTAL O&M COSTS (PER YEAR)		**$136,901**	

Present Value	**3%**
10 years	$1,822,885
20 years	$2,691,834
30years	$3,338,412
50 years	$4,177,523
100 years	$4,981,017

Assumptions:

- Long-term monitoring assumed to include 57 monitoring wells (15 deep and 42 shallow); sampling using a bladder pump
- Assumes that sampling will take 3 hours per deep well and 1 hour per shallow well
- Analytical suite includes MNA parameters (dissolved oxygen, temperature, pH, oxidation/reduction potential, nitrate, sulfate, ferrous iron, and dissolved manganese), PCP (low-level), SVOCs, PAhs (low level, in combination with SVOCs), dioxin/furans, petroleum hydrocarbons (EPH/VPH), and metals. Cost reported as a lump sum per well, whcih includes costs for all these analyses.
- Semi-annual sampling first five years, then annually for 45 years

TABLE F-10
Preliminary Cost Estimate
Monitored Natural Attenuation
KRY Site

CAPITAL COSTS

Item	Unit	Unit Costs	Quantity	Cost
		TOTAL CAPITAL COSTS		**$0**

OPERATIONS AND MAINTENANCE COSTS

Item	Unit	Unit Costs	Quantity	Cost
Monitoring (one event)				
Equipment rental	LS	$1,500.00	1	$1,500
Deep well sampling labor	HR	$80.00	45	$3,600
Shallow well sampling labor	HR	$80.00	42	$3,360
Sample Analysis	well	$1,773.00	57	$101,061
			Subtotal	**$109,521**
Contingencies		25%		$27,380
		TOTAL O&M COSTS (PER YEAR)		**$136,901**

Present Value
10 years
20 years
30years
50 years
100 years

Assumptions:

- Long-term monitoring assumed to include 57 monitoring wells (15 deep and 42 shallow); sampling using
- Assumes that sampling will take 3 hours per deep well and 1 hour per shallow well

- Analytical suite includes MNA parameters (dissolved oxygen, temperature, pH, oxidation/reduction pc ferrous iron, and dissolved manganese), PCP (low-level), SVOCs, PAhs (low level, in combination with petroleum hydrocarbons (EPH/VPH), and metals. Cost reported as a lump sum per well, whcih includes cc
- Semi-annual sampling first five years, then annually for 45 years

TABLE F-10
Preliminary Cost Estimate
Monitored Natural Attenuation
KRY Site

Source

Source

DEQ estimate
DEQ estimate
Laboratory Price Schedule

3%
$1,794,760
$2,663,709
$3,310,287
$4,149,398
$4,952,892

; a bladder pump

otential, nitrate, sulfate,
SVOCs), dioxin/furans,
osts for all these analyses.

TABLE F-10
Preliminary Cost Estimate
Monitored Natural Attenuation
KRY Site

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APPENDIX G

Figures

THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Kalispell Pole and Timber, Reliance Refining Company, and Yale Oil Corporation Facilities

Addendum to the Final Draft Feasibility Study

December 5, 2007

PIONEER
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December 5, 2007

Ms. Moriah Bucy
Montana Department of Environmental Quality
Remediation Division
P.O. Box 2000901
Helena, Montana 59620-0901

Re: Contract Number 407038, Task Order Number 6 – Sampling and Analysis Results Letter Report for the Kalispell Pole and Timber Facility (KRY Site)

Dear Ms. Bucy:

As required under Task 4, Task Order Number 6, the following information regarding surface water and sediment sampling at the KRY Site is being provided.

Sampling and Analysis Results Report for the Kalispell Pole and Timber, Reliance Refinery and Yale Oil (KRY) Facilities (KRY Site).

On October 9 and 10, 2007, Pioneer Technical Services, Inc. (Pioneer) personnel met Ms. Moriah Bucy of the Montana Department of Environmental Quality (DEQ) to sample the Stillwater River near the Kalispell Pole and Timber, Reliance Refinery and Yale Oil Facilities, collectively referred to as the KRY Site (Figure 1). Three locations that had been sampled for dioxin/furan analysis during the 2006 Remedial Investigation (RI) (KRY-200, KRY-202, and KRY-203) were identified by Ms. Bucy and confirmed by locating the rebar marking each point. Flow gauging was conducted at each of those three points along a transect (perpendicular to flow) to determine areas of relative high, medium, and low stream velocity as specified in the *Sampling and Analysis Plan* (SAP*) Surface Water and Sediment Sampling for the Kalispell Pole and Timber, Reliance Refinery and Yale Oil Facilities, Kalispell, Montana* (DEQ/RD-Pioneer, 2007). Results of the flow gauging are presented in Table 1 and the areas identified for the relative low, medium and high flow sampling are also identified. The low flow sample at each location was collected in the Stillwater River nearest the rebar location marker. The flow was not measured at the low flow sample collection areas at KRY-202 and KRY-203, as these were small back eddies of the Stillwater River. Water could be seen flowing in and out of these two areas, but no flow could be measured within the small ponded areas. Based on the location of the stakes, it was thought that these sample sites were near the original sample locations.

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At each sample site, all water samples were collected first and field parameters including temperature, pH, specific conductance (SC), REDOX potential (eH), and dissolved oxygen (DO) were conducted for each sample. Field parameter and sampling information is included in Table 2. Each sample location was surveyed using a handheld Global Positioning System (GPS) receiver and photographed.

The GPS coordinates are included in Table 2 and sample locations are identified on Figure 2. Photographs of each sample location are provided in Attachment A and a copy of the field logbook is included in Attachment B. The original logbook is located at Pioneer's office in Butte, Montana. Sediment sampling was undertaken once the water sampling was completed. Water and sediment sampling were completed in the following order:

- KRY-203-A, KRY-203-C, KRY-203-B, KRY-303-A, KRY-303-C, KRY-303-B;
- KRY-202-A, KRY-202-C, KRY-202-B, KRY-302-A, KRY-302-C, KRY-302-B; and
- KRY-200-A, KRY-205, KRY-200-B, KRY-200-C, KRY-300-A, KRY-300-B, KRY-300-C.

Those samples identified as "A" samples were collected in the area of the flow gauging transect identified as low flow, the "B" samples were collected in the area of the transect identified as relative medium flow, and the "C" identified samples were collected from the highest flow area of each transect.

Surface water samples were collected by immersing the sample container directly into the water by facing upstream with the sample bottle also facing upstream and slowly lowering and raising the container in the upper half of the water column, allowing the container to fill completely. Once the water sample was collected at each location, a container was collected for field parameters. Once water sampling was complete at the transect location the sediment samples were collected. At each of the low flow sampling sites (KRY-300-A, KRY-302-A, and KRY-303-A) the sediment sample was collected with a decontaminated stainless steel scoop. Sediment was placed in a decontaminated disposable aluminum pan, mixed and then placed into the appropriate sample containers. The sediment samples at KRY-303-B, KRY-303-C and KRY-302-B were also collected using a stainless steel scoop and mixed in a decontaminated disposable aluminum pan. Only enough sediment could be collected at KRY-303-C to fill half of the dioxin/furans sample container. The total organic carbon (TOC) was not collected at this sample location because of the lack of appropriately sized material (coarse sand or finer). Sediment samples collected from KRY-302-C, KRY-300-B, and KRY-300-C were collected with a decontaminated stainless steel sediment corer. Sediment collected with the corer was placed in a decontaminated disposable aluminum pan. Once enough material was collected it was mixed with a decontaminated stainless steel scoop and placed in the appropriate containers.

All equipment was decontaminated prior to use and between each sample by a tap water rinse, a soap and water wash, a tap water rinse, a de-ionized water rinse and finally a hexane rinse. Once the equipment was dry it was wrapped in foil for transport to the sampling location.

No opportunity samples were collected. A large dirt berm was in place between portions of the KRY Site and the Stillwater River, which may limit to some extent, direct surface water runoff releases to the river.

Dioxin/furans samples were submitted to PACE Analytical, Inc. in Minneapolis, Minnesota, for analysis using U.S. Environmental Protection Agency (EPA) Method 8290. The Total Suspended Solids (TSS) surface water samples were submitted to Energy Laboratories in Helena, Montana for analysis using EPA Method 160.1. The sediment samples were analyzed for Total Organic Carbon (TOC) using standard Method 5310B, as recommended by the Washington Department of Ecology. An independent validation of the laboratory data has been conducted by Portage Environmental, Inc. (Portage) of Butte, Montana.

As per the SAP (DEQ/RD-Pioneer, 2007), the sediment samples were shipped to the laboratories but were held until surface water results were received. The surface water samples did not confirm an increase of dioxin/furan concentrations in the Stillwater River as it flows through the KRY Site; therefore, the sediment samples were not analyzed.

Sample KRY-205 was collected as a field duplicate of KRY-200-A. Sample KRY-204 was collected as an equipment rinsate of a stainless steel scoop used for sediment sampling. Type II reagent water was poured down the scoop and directly into the sample container. A bottle blank, KRY-206, was generated by pouring the Type II reagent water directly into the sample containers. The above information was used by the independent data validators when examining the analytical results.

A summary table of the dioxin/furan analyses and the TSS results for the surface water samples are listed in Table 3 with both the laboratory Quality Assurance/Quality Control (QA/QC) qualifiers and data validation qualifiers for each sample. The raw data reports and independent validation reports are attached. The data validation analyst may qualify data with data reporting qualifiers following the guidelines in the EPA's *Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review* (EPA, 1999), *EPA's CLP National Functional Guidelines for Inorganic Data Review* (EPA, 1994), and the EPA's *National Functional Guidelines for Chlorinated Dioxin/Furan Review* (EPA, 2002). Several results were qualified by Portage and are summarized in the following paragraphs. Based on the data validator qualifications, a second 2,3,7,8-TCDD equivalence concentration was calculated and is also presented in Table 3.

The positive detection reported by the laboratory for 1,2,3,4,7,8-HxCDF for KRY-205 was flagged with a "UJ" validation flag indicating that the material was analyzed for, but not detected, and the sample quantitation limit was an estimate due to a positive detection in the method blank and interference in the sample. In addition, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, and total HxCDF results for KRY-205 have been qualified with a "U" validation flag to denote the reported concentration is non-detect due to a positive detection in the method blank.

The detected results for 1,2,3,4,6,7,8-HpCDF in KRY-203-A and KRY-205 have been flagged "UJ" by the validators to denote that the reported estimated maximum possible concentration (EMPC) is non-detect and the sample quantitation limit is an estimate due to positive detection in the bottle blank and interference in the sample. The reported EMPC for KRY-206 has been

qualified with a "J" validation flag to denote that the result is an estimate due to interference in the sample.

The result for Total HpCDF reported for KRY-200-B has been qualified with a "J" validation flag to denote the reported concentration is an estimate as it was reported below the quantitation limit.

The total HpCDD results for KRY-200-B, KRY-202-B, KRY-202-C and KRY-203-A have been qualified with a "U" validation flag to denote the reported concentration is non-detect due to positive detection in the bottle blank. The reported result for KRY-206 was qualified with a "J" flag to denote the reported concentration is an estimate as it was reported below the quantitation limit.

The OCDF results reported for KRY-200-A, KRY-200-B, KRY-200-C, KRY-202-A, KRY-202-C, KRY-205 and KRY-206 were all qualified with a "UJ" validation flag because of a positive detection in the method blank and interference in the samples. Sample KRY-202-A was qualified with a "U" flag due to a positive detection in the method blank.

The reported concentrations for OCDD in KRY-200-A, KRY-202-A, KRY-202-C, KRY-203-B, KRY-204, KRY-205, and KRY-206 were assigned a "U" validation flag because of a positive detection in the method blank. The reported EMPC concentrations for OCDD in KRY-200-B, KRY-200-C, KRY-202-B, KRY-203-A and KRY-203-C were qualified with a "UJ" validation flag because of a positive detection in the method blank and interference in the sample.

All TSS sample results were accepted without qualification.

The surface water results were compared to the screening criteria presented in the State of Montana *Numeric Water Quality Standards Circular DEQ-7 (DEQ-7)* (DEQ, 2006). The 2,3,7,8-TCDD equivalence concentration was calculated using the 1998 World Health Organization toxicity factors. These factors are also endorsed by the EPA. Individual PCDD and PCDF compounds are assigned an individual toxicity equivalence factor based on their toxicity relative to 2,3,7,8-TCDD. Calculating the 2,3,7,8-TCDD equivalence concentration of a sample involves multiplying the concentrations of the individual PCDD and PCDF congeners by their respective toxicity equivalence factors, then adding those individual toxicity equivalence products to obtain a total 2,3,7,8-TCDD equivalence concentration for the sample. In addition, DEQ requires that all individual PCDD and PCDF compounds that are reported by the laboratory with non-detect values, have a calculated toxicity equivalence product using one half the reporting limit (RL). The 2,3,7,8-TCDD equivalence concentration for each sample is also presented in Table 3 and on Figure 2. All surface water samples exceeded the DEQ-7 screening criteria of 0.05 picograms per Liter (pg/L) for surface water, including the upstream (background) sample.

The TSS was below the laboratory reporting level of 10 milligrams per Liter (mg/L) for all samples. The water was very clear at sample location sites KRY-202 and KRY-203 and slightly murky at KRY-200. The SC values ranged from 275 microSiemens per centimeter (µS/cm) to 318 µS/cm. Suspended solids did not appear to affect the surface water results during this sample event.

Using the 2,3,7,8-TCDD equivalence concentration for each sample, a statistical analysis was performed to determine if there were any significant differences in the data. The mean of the 2,3,7,8-TCDD equivalence concentration is slightly higher (3.4) for the 3 downstream samples than it was in the 3 samples upstream (2.8) of the KRY Site. An analysis of variance (ANOVA) was completed by comparing the means at each location (upstream, on-site and downstream), and for each of the three flow regimes (relative high, medium and low flows). The ANOVA results indicated that there was no significant difference in the means of the 3 locations or for the 3 flow regimes at the 95% confidence level.

The surface water samples collected during this sampling event did not confirm the increase of dioxin/furan concentrations in the Stillwater River as it flows through the KRY Site that was identified in the 2006 data.

REFERENCES

DEQ, 2006. Montana Department of Environmental Quality/Water Quality Bureau. Montana Numeric Water Quality Standards, Circular DEQ-7. February 2006.

DEQ/RD-Pioneer, 2007. Sampling and Analysis Plan (SAP) Surface Water and Sediment Sampling for the Kalispell Pole and Timber, Reliance Refinery and Yale Oil Facilities, Kalispell, Montana. September 2007.

EPA, 1999. Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA 540/R-99/008, United States Environmental Protection Agency, Cincinnati, Ohio. October 1999.

EPA, 1994. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA 540/R-94/013, United States Environmental Protection Agency. February, 1994.

EPA, 2002. National Functional Guidelines for Chlorinated Dioxin/Furan Review, EPA 540/R-02/003, United States Environmental Protection Analytical Operation/Data Quality Center. August 2002.

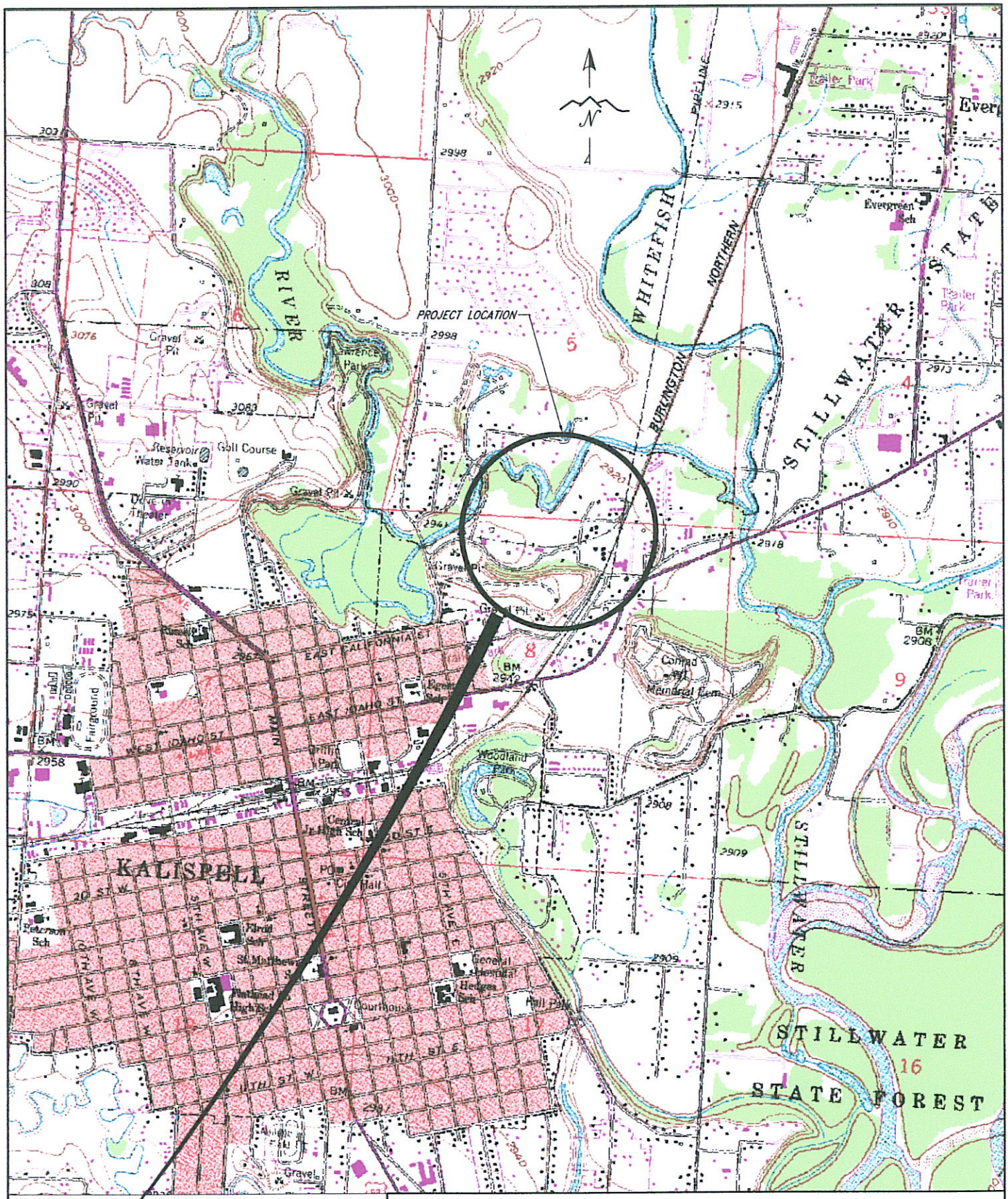
Sincerely,

Julie Flammang

Julie Flammang
Environmental Scientist

cc: Dave Tuesday
file

FIGURES



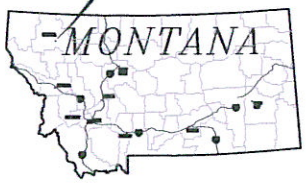


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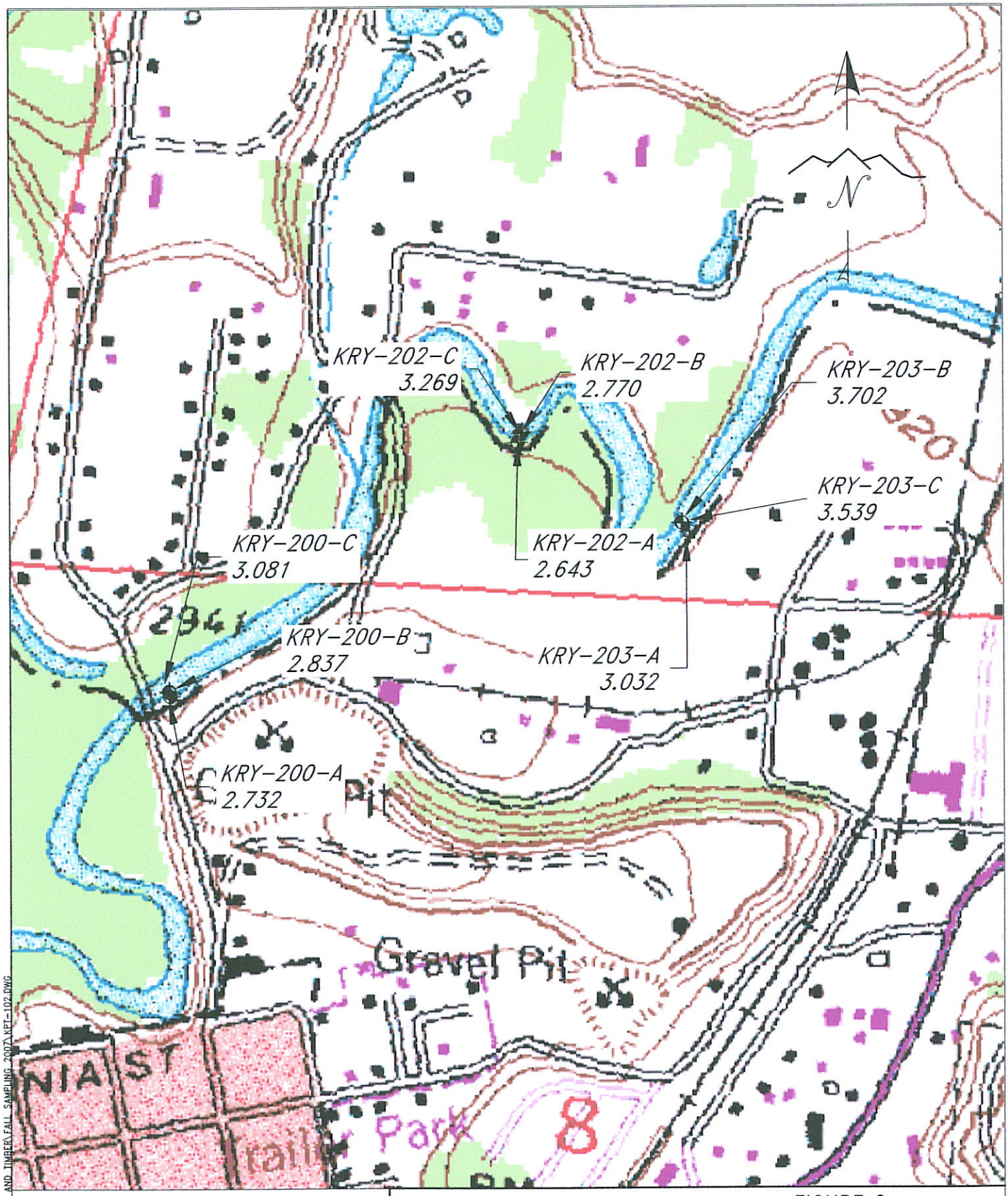
FIGURE 1
KALISPELL, MONTANA
SITE LOCATION MAP
KRY SITE

SCALE: 1"=2000'
DATE: 9/6/07

KPT_F101.DWG



LEGEND

SAMPLE LOCATION

KRY-200-A — SAMPLE ID

2.732 — 2,3,7,8-TCDD EQUIVALENCE CONCENTRATIONS

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FIGURE 2
SAMPLE LOCATION MAP
LABORATORY VALIDATED
2,3,7,8 TCDD EQUIVALENCE CONCENTRATIONS
KRY SITE

SCALE: 1"=500'
DATE: 12/6/07

STA2\D\DATA\KAUSPELL POLE AND TIMBER\FALL SAMPLING 2007\KPT-102.DWG

TABLES

Table 1
Stillwater River Flow Gauging Results
KRY Site

Distance from IP	Width	Total Depth	Average Velocity	Area	Discharge (Ave V*A)	% of Total Discharge	Relative Flow
KRY-200 Transect							
5.7	0.4	0	0	0	0	0.00	Low
6.5	1.4	0.8	0.19	1.12	0.2128	0.32	Low
8.5	2	0.8	0.22	1.6	0.352	0.52	
10.5	2	0.8	0.26	1.6	0.416	0.62	
12.5	2	1.35	0.33	2.7	0.891	1.32	
14.5	2	1.8	0.34	3.6	1.224	1.82	
16.5	2	2	0.39	4	1.56	2.31	
18.5	2	2.2	0.43	4.4	1.892	2.81	
20.5	2	2.4	0.4	4.8	1.92	2.85	
22.5	2	2.65	0.405	5.3	2.1465	3.18	Medium
24.5	2	2.9	0.445	5.8	2.581	3.83	Medium
26.5	2	3.25	0.515	6.5	3.3475	4.97	
28.5	2	3.6	0.53	7.2	3.816	5.66	High
30.5	2	3.925	0.585	7.85	4.59225	6.81	High
32.5	8	4.25	0.59	34	20.06	29.76	
Water to deep to measure							
46.5	8	4.3	0.475	34.4	16.34	24.24	
48.5	2	3.7	0.365	7.4	2.701	4.01	
50.5	2	3.25	0.31	6.5	2.015	2.99	
52.5	2	2.5	0.2	5	1	1.48	
54.5	2	2.1	0.08	4.2	0.336	0.50	
56.5	2	1.6	0	3.2	0	0.00	
58.5	2	0.95	0	1.9	0	0.00	
60.5	2	0.6	0	1.2	0	0.00	
62.5	2	0.2	0	0.4	0	0.00	
64.5	1	0.05	0	0.05	0	0.00	
Total Discharge (cfs)					67.40305		
KRY-202 Transect							
1.7	0.65	0.05	0	0.0325	0	0.00	
3	1.65	0.5	0	0.825	0	0.00	
5	2	0.4	0	0.8	0	0.00	
7	2	0.8	0.07	1.6	0.112	0.12	
9	2	0.8	0.08	1.6	0.128	0.14	
11	2	0.5	0.09	1	0.09	0.10	
13	2	0.7	0.16	1.4	0.224	0.24	
15	2	0.7	2.28	1.4	3.192	3.48	
17	2	1.35	3.14	2.7	8.478	9.24	
19	2	1.75	3.26	3.5	11.41	12.43	High
21	2	1.9	3	3.8	11.4	12.42	High
23	2	2	2.86	4	11.44	12.47	High
25	2	2	2.79	4	11.16	12.16	
27	2	1.8	2.2	3.6	7.92	8.63	
29	2	1.7	1.92	3.4	6.528	7.11	
31	2	1.5	1.76	3	5.28	5.75	Medium

Table 1
Stillwater River Flow Gauging Results
KRY Site

Distance from IP	Width	Total Depth	Average Velocity	Area	Discharge (Ave V*A)	% of Total Discharge	Relative Flow
33	2	1.5	1.44	3	4.32	4.71	Medium
35	2	1.6	1.24	3.2	3.968	4.32	Medium
37	2	1.4	0.95	2.8	2.66	2.90	
39	2	1	0.74	2	1.48	1.61	
41	2	0.725	0.57	1.45	0.8265	0.90	
43	2	0.6	0.51	1.2	0.612	0.67	
45	2	0.4	0.5	0.8	0.4	0.44	
47	2	0.2	0.35	0.4	0.14	0.15	
49	1	0.05	0	0.05	0	0.00	
Total Discharge (cfs)					91.7685		
KRY-203 Transect							
6	1	0.5	0	0.5	0	0.00	
8	2	0.3	0.55	0.6	0.33	0.34	
10	2	0.25	0.18	0.5	0.09	0.09	
12	2	0.35	0.32	0.7	0.224	0.23	
14	2	0.2	0	0.4	0	0.00	
16	2	0.5	2.02	1	2.02	2.10	
18	2	0.8	1.31	1.6	2.096	2.17	
20	2	1.25	3.54	2.5	8.85	9.18	
22	2	0.9	3.71	1.8	6.678	6.93	
24	2	1.3	2.34	2.6	6.084	6.31	
26	2	1.3	4.44	2.6	11.544	11.97	High
28	2	1.3	4.77	2.6	12.402	12.86	High
30	2	1	5.11	2	10.22	10.60	High
32	2	0.75	4.24	1.5	6.36	6.60	
34	2	0.75	3.33	1.5	4.995	5.18	Medium
36	2	0.6	3.95	1.2	4.74	4.92	Medium
38	2	0.7	3.87	1.4	5.418	5.62	Medium
40	2	0.6	2.49	1.2	2.988	3.10	
42	2	0.65	2.82	1.3	3.666	3.80	
44	2	0.5	2.97	1	2.97	3.08	
46	2	0.5	1.59	1	1.59	1.65	
48	2	0.35	1.35	0.7	0.945	0.98	
50	2	0.4	1.31	0.8	1.048	1.09	
52	2	0.4	1.44	0.8	1.152	1.19	
54	1	0.2	0	0.2	0	0.00	
Total Discharge (cfs)					96.41		

TABLE 2
FIELD PARAMETERS
KRY SITE

SAMPLE NUMBER	SAMPLE LOCATION	SAMPLE DATE	SAMPLE TIME	EASTING	NORTHING	Feet from Acess Bank	Temperature °C	pH	SC µs/cm	eH mV	DO mg/L
KRY-200--A	Upstream Stillwater River Low Velocity Area	10/10/2007	1600	797594.267	1479721.881	3.3	10.4	8.27	305	-54.28	8.66
KRY-200--B	Upstream Stillwater River Medium Velocity Area	10/10/2007	1610	797591.314	1479736.201	17.8	9.8	8.53	302	-57.6	8.09
KRY-200--C	Upstream Stillwater River High Velocity Area	10/10/2007	1620	797590.109	1479741.487	24.8	9.8	8.53	317	-48.3	8.12
KRY-202-A	Onsite Stillwater River Low Velocity Area	10/10/2007	1325	798964.305	1480628.283	*	11.2	7.87	300	100.8	8.32
KRY-202-B	Onsite Stillwater River Medium Velocity Area	10/10/2007	1345	798981.011	1480666.931	30.2	10.1	8.49	301	4.3	8.57
KRY-202-C	Onsite Stillwater River High Velocity Area	10/10/2007	1335	798975.67	1480662.067	20.2	10.1	8.07	312	74.9	8.28
KRY-203-A	Downstream Stillwater River Low Velocity Area	10/10/2007	950	799693.765	1480215.995	*	9.2	7.25	275	187.1	7.31
KRY-203-B	Downstream Stillwater River Medium Velocity Area	10/10/2007	1000	799663.814	1480250.185	29	8.7	8.10	312	171.3	9.36
KRY-203-C	Downstream Stillwater River High Velocity Area	10/10/2007	1010	799668.455	1480247.437	22	8.8	7.98	318	148.2	8.09
KRY-204	Equipment Rinsate	10/10/2007	1800								
KRY-205	Duplicate of KRY-200-A	10/10/2007	1700			3.3					
KRY-206	Bottle Blank	10/10/2007	1830								

* - sample collected from low flow area adjacent to rebar location marker, flow not measured as out of main channel
Easting and Northing coordinates are in Montana Sate Plane NAD 83

TABLE 3
Laboratory Analytical Results
KRY Site

SAMPLE I.D.	Total 2,3,7,8-TCDD Equivalence[1]	Total 2,3,7,8-TCDD Equivalence[2]	2,3,7,8-TCDF pg/L	LQ	DVQ	Total TCDF pg/L	LQ	DVQ	2,3,7,8-TCDD pg/L	LQ	DVQ	Total TCDD pg/L	LQ	DVQ	1,2,3,7,8-PeCDF pg/L	LQ	DVQ	2,3,4,7,8-PeCDF pg/L	LQ	DVQ	Total PeCDF pg/L	LQ	DVQ	1,2,3,7,8-PeCDD pg/L	LQ	DVQ	Total PeCDD pg/L	LQ	DVQ	1,2,3,4,7,8-HxCDF pg/L	LQ	DVQ	1,2,3,6,7,8-HxCDF pg/L	LQ	DVQ	2,3,4,6,7,8-HxCDF pg/L	LQ	DVQ	1,2,3,7,8,9-HxCDF pg/L	LQ	DVQ	Total HxCDF pg/L	LQ	DVQ
DEQ-7	0.05	0.05	na			na			na			na			na			na			na			na			na			na			na			na			na			na			na		
KRY-200--A	**2.732**	**2.726**	<1.60			<1.60			<1.30			<1.30			<2.50			<1.90			<2.20			<2.00			<2.00			<0.77			<0.96			<0.88			<1.00			<0.90		
KRY-200--B	**2.837**	**2.822**	<0.93			<0.93			<1.40			<1.40			<2.00			<1.80			<1.90			<2.30			<2.30			<1.10			<0.90			<0.83			<1.10			<0.97		
KRY-200--C	**3.081**	**3.074**	<0.70			<0.70			<1.50			<1.50			<1.90			<2.30			<2.10			<2.50			<2.50			<0.74			<0.91			<0.80			<1.30			<0.94		
KRY-202-A	**2.643**	**2.642**	<0.80			<0.80			<1.20			<1.20			<1.90			<1.70			<1.80			<2.20			<2.20			<1.10			<0.98			<0.67			<1.20			<0.99		
KRY-202-B	**2.770**	**2.760**	<0.99			<0.99			<1.20			<1.20			<2.30			<1.80			<2.00			<2.40			<2.40			<1.10			<1.10			<0.99			<0.92			<1.00		
KRY-202-C	**3.269**	**3.256**	<0.84			<0.84			<1.40			<1.40			<2.30			<2.00			<2.10			<3.00			<3.00			<1.10			<1.10			<1.00			<1.20			<1.10		
KRY-203-A	**3.032**	**3.015**	<1.30			<1.30			<1.40			<1.40			<1.70			<1.80			<1.80			<2.70			<2.70			<0.95			<0.99			<0.93			<1.10			<1.00		
KRY-203-B	**3.702**	**3.701**	<1.7			<1.7			<1.5			<1.5			<1.6			<2.9			<2.3			<3.0			<3.0			<1.8			<1.5			<1.5			<1.9			<1.7		
KRY-203-C	**3.539**	**3.539**	<0.90			<0.90			<1.70			<1.70			<2.40			<2.40			<2.40			<3.10			<3.10			<0.99			<1.00			<0.99			<1.50			<1.10		
KRY-204	**3.626**	**3.626**	<1.2			<1.2			<1.7			<1.7			<2.6			<3.5			<3.0			<2.8			<2.8			<1.5			<1.4			<1.3			<1.7			<1.5		
KRY-205	**3.774**	**3.541**	<1.20			<1.20			<1.60			<1.60			<2.30			<2.40			<2.30			<3.30			<3.30			**1.3**	I	UJ	<1.00			**1.4**	BJ	U	**1.5**	BJ	U	**2.9**	BJ	U
KRY-206	**2.674**	**2.665**	<0.88			<0.88			<0.70			<0.70			<1.80			<1.80			<1.80			<2.50			<2.50			<0.81			<0.88			<0.78			<1.20			<0.91		

SAMPLE I.D.	Total 2,3,7,8-TCDD Equivalence[1]	Total 2,3,7,8-TCDD Equivalence[2]	1,2,3,4,7,8-HxCDD pg/L	LQ	DVQ	1,2,3,6,7,8-HxCDD pg/L	LQ	DVQ	1,2,3,7,8,9-HxCDD pg/L	LQ	DVQ	Total HxCDD pg/L	LQ	DVQ	1,2,3,4,6,7,8-HpCDF pg/L	LQ	DVQ	1,2,3,4,7,8-HPCDF pg/L	LQ	DVQ	Total HpCDF pg/L	LQ	DVQ	1,2,3,4,6,7,8-HpCDD pg/L	LQ	DVQ	Total HpCDD pg/L	LQ	DVQ	OCDF pg/L	LQ	DVQ	OCDD pg/L	LQ	DVQ	TSS mg/l
DEQ-7	0.05	0.05	na	0.1		na			na			na			na			na			na			na			na			na			na			na			
KRY-200--A	**2.732**	**2.726**	<1.60			<2.00			<1.60			<1.70			<8.0			<1.50			<1.10			**1.1**	I, EMPC	UJ	<1.00			**2**	IY, EMPC	UJ	**8.8**	BJ	U	<10
KRY-200--B	**2.837**	**2.822**	<1.10			<1.60			<1.30			<1.30			<0.83			<1.90			1.8	J	J	**2.7**	J	U	**6**	J	U	**3**	IY,EMPC	UJ	**27**	I, EMPC	UJ	<10
KRY-200--C	**3.081**	**3.074**	<1.40			<1.30			<1.50			<1.40			<0.97			<1.20			<1.10			**1.4**	I, EMPC	UJ	<1.30			**3.3**	IY,EMPC	UJ	**9.8**	I, EMPC	UJ	<10
KRY-202-A	**2.643**	**2.642**	<1.50			<1.40			<1.40			<1.40			<0.96			<1.20			<1.10			<1.20			<1.20			**2.5**	JY	U	**8.7**	BJ	U	<10
KRY-202-B	**2.770**	**2.760**	<1.20			<1.20			<1.10			<1.20			<1.20			<1.40			<1.30			**1.9**	J	U	**1.9**	J	U	<1.6			**7.6**	I, EMPC	UJ	<10
KRY-202-C	**3.269**	**3.256**	<1.40			<1.40			<1.40			<1.40			<0.99			<1.70			<1.40			**2.3**	J	U	**7**	J	U	**3.6**	IY,EMPC	UJ	**23**	BJ	U	<10
KRY-203-A	**3.032**	**3.015**	<1.20			<1.30			<1.20			<1.20			**1.2**	I,EMPC	UJ	<1.50			<1.30			**2**	J	U	**3.6**	J	U	<2.70			**8.8**	I, EMPC	UJ	<10
KRY-203-B	**3.702**	**3.701**	<1.8			<1.5			<1.5			<1.6			<1.3			<2.3			<1.8			<1.5			<1.5			<2.9			**11.0**	BJ	U	<10
KRY-203-C	**3.539**	**3.539**	<1.50			<1.00			<1.20			<1.20			<1.40			<2.20			<1.80			<1.30			<1.30			<2.50			**5.0**	I, EMPC	UJ	<10
KRY-204	**3.626**	**3.626**	<2.3			<2.0			<1.7			<2.1			<1.2			<2.9			<2.0			<2.0			<2.0			<4.0			**6.0**	BJ	U	NR
KRY-205	**3.774**	**3.541**	<2.00			<1.80			<2.00			<1.90			**2.0**	I	UJ	<1.70			<1.50			**2.3**	I	UJ	<1.30			**3.4**	IY	UJ	**17.0**	BJ	U	<10
KRY-206	**2.674**	**2.665**	<1.50			<1.60			<1.50			<1.50			**0.73**	I	J	<0.82			<0.67			**1.6**	J	U	**3.6**	J	J	**2.00**	IY	UJ	**11.0**	BJ	U	NR

EMPC - Estimated Maximum Possible Concentration
A - Reporting Limit based on signal to noise
J - Value below calibration range
B-Less than 10x higher than method blank level
I-Interference present
Y-Calculated using average of daily RFs
<-less than the listed reporting limit
Bolded numbers were detected values
[1]Calculated using the 1998 WHO toxicity equivalence factors and the laboratory provided data
[2] Calculated using the1998 WHO Toxicity equivalence factors and the results as qualified by the independent data validator (Portage)
pg/L-picograms per Liter
mg/L- milligrams per liter
TSS-Total Suspended Solids

ATTACHMENT A

PROJECT PHOTOGRAPH LOG

KRY Site, Surface Water Sampling, Stream Gauging in the Stillwater River

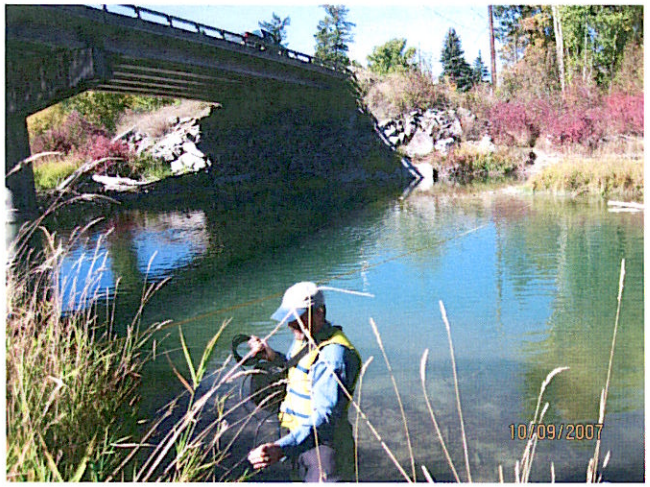


Photo # 1 – KRY-200 Stream gauging location, October 9, 2007, 1428.

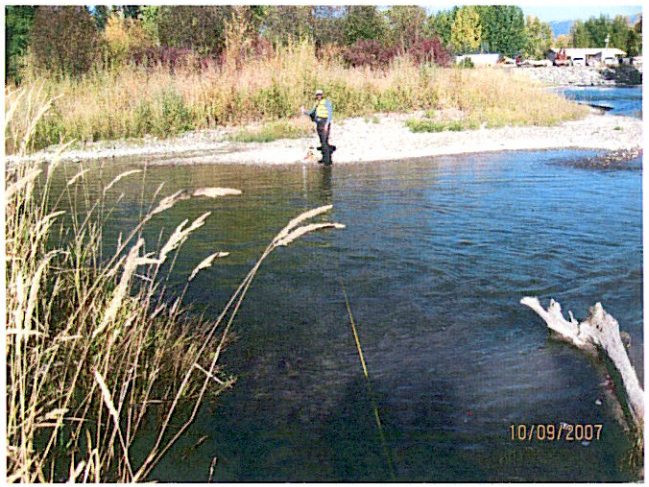


Photo # 2 – KRY-202 Stream gauging location, October 9, 2007, 1554.

Photo #3 – KRY-203 Stream gauging location Low flow area, October 9, 2007, 1700.

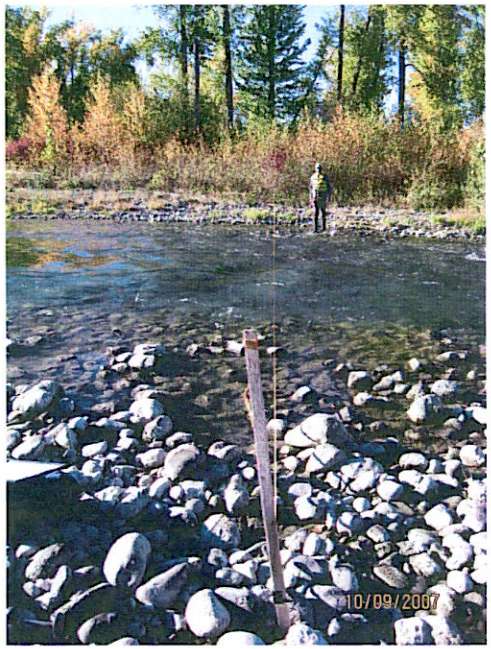


Photo # 4 – KRY-203 Stream gauging location – Main Channel, October 9, 2007, 1700.

KRY Site, KRY-203 Sampling Location

Photo # 5 – Collecting KRY-203-A, the low flow sample, October 10, 2007, 1038.

Photo #6 – KRY-203-C sample location, high flow sample, October 10, 2007, 1043

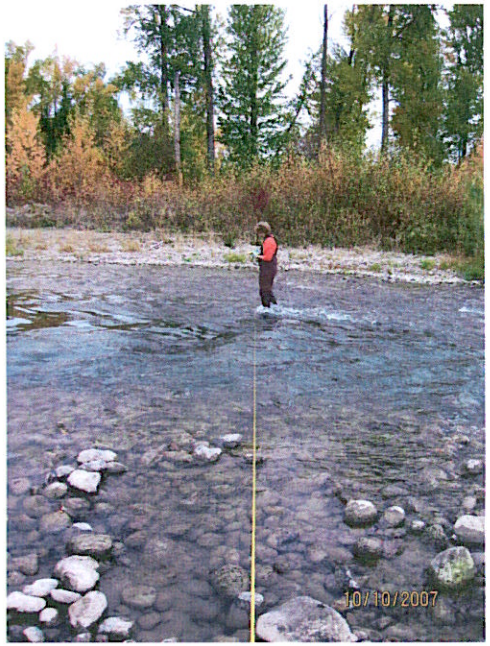


Photo # 7 – KRY-203-B, sample location, medium flow sample, October 10, 2007, 1045.

KRY Site, KRY-202 Sampling Location

Photo # 8 – Collecting KRY-202-A, low flow sample, October 10, 2007, 1330.

Photo #9 – KRY-202-C sample location, high flow sample, October 10, 2007, 1335

Photo # 10 – Collecting KRY-202-B, medium flow sample, October 10, 2007, 1340.

KRY Site, KRY-200 Sampling Location

Photo # 11 – Collecting KRY-200-A, low flow sample, October 10,2007, 1613

Photo #12 – KRY-200-B sample location, medium flow sample, October 10, 2007, 1615.

Photo #13 – KRY-200-C sample location, high flow sample, October 10. 2007. 1620.

ATTACHMENT B

COPY OF FIELD LOGBOOK AND FIELD GAUGING FORMS

Sediment/SW Conguing 10/9/07

1245 - Arrive @ Flathead Drive Road - Meet Moriah Bucy - DEQ

B. Hollamon
J. Flammang } Pioneer

Sunny, Calm, 60's

Safety Mtg
- Watch for equipment traffic @ Kalispel Post Yard Site
- Electric Fence @ KRY-203
- Water Safety
- Bees/Hornets
- Uneven ground -
- Parking/traffic along road @ KRY-200

1300 M. Bucy leads way to 1st site - Has sent letters to everyone - No one @ home locate 1st site
Discuss strategy for sampling -
- Decide to sample low flow in eddy area adjacent to stake
- it ~~was~~ may be area originally sampled - Hi Flow & Med flow areas will be sampled in main channel as determined by flow measurements

1320 - Arrive @ KRY-203 sample location Per M. Bucy area has been changed since previous visit - lots of rocks & wood debris piled up -
- Located sampling stake & discussed sampling strategy. ~~Sample~~ Low flow sample will be collected from stagnant area adjacent to stake. Flow & medium & high flow samples will be collected off point in line with sample stake -

1345 - Arrive @ KRY-200 just downstream of bridge - middle of River is to deep for wading at stake location. Decided would access part of river from far

1455 - Arrive @ KRP 202

Dist on Tape	Width	Total Depth	Vel	Ave Velocity	Area	Discharge
6	2	.5	0	0	1.0	0
8	2	.3	.55	.55	.6	.33
10	2	.25	.18	.18	.5	.09
12	2	.35	.32	.32	.7	.224
14	2	.20	Rock 0	0	.4	0
16	2	.50	2.02	2.02	1.0	2.02
18	2	.8	1.31	1.31	1.6	2.096
20	2	1.25	3.54	3.54	2.5	8.85
22	2	.9	2.71	2.71	1.8	
24	2	1.3	2.34	2.34	2.6	
26	2	1.3	4.44	4.44	2.6	
28	2	1.3	4.77	4.77	2.6	
30	2	1.0	5.11	5.11	2.0	
32	2	.75	4.24	4.24	1.5	
34	2	.75	3.33	3.33	1.5	
36	2	.6	3.95	3.95	1.2	
38	2	.7	3.87	3.87	1.4	
40	2	.6	2.49	2.49	1.2	
42	2	.65	2.82	2.82	1.3	
44	2	.5	2.97	2.97	1.0	
46	2	.5	1.59	1.59	1.0	
48	2	.35	1.35	1.35	.7	
50	2	.4	1.31	1.31	.8	
52	2	.4	1.44	1.44	.8	
54	2	.2	0	0	.4	0

10/9/07

1455-Arrive @ KRY-202

Left Bank-1.8
Right Bank-49.

Tape meas	Width	Total Depth	VOG	Area ~~Ave V~~	Avg Velocity ~~Area~~	Discharge	
49	2	.05	0	.1	0	0	
47	2	.2	.35	.4	.35	0.14	
45	2	.4	.50	.8	.50	.4	
43	2	.6	.51	1.2	.51	.612	
41	2	.725	.57	1.45	.57	.827	
39	2	1.0	.74	2.0	.74	1.48	
37	2	1.4	.95	2.8	.95	2.66	
35	2	1.6	1.24	3.2	1.24	3.97	
33	2	1.5	1.44	3.0	1.44	4.32	Medium 30-34
31	2	1.5	1.76	3.0	1.76	5.28	
29	2	1.7	1.92	3.4	1.92	6.53	
27	2	1.8	2.20	3.6	2.20	7.92	
25	2	2.0	2.79	4.0	2.79	11.16	
23	2	2.0	2.86	4.0	2.86	11.44	High 20-24
21	2	1.9	3.00	3.8	3.00	11.44	
19	2	1.75	3.26	3.5	3.26	F ~~8.48~~ 11.41	
17	2	1.35	3.14	2.7	3.14	F ~~3.192~~ 8.48	
15	2	.7	2.28	1.4	2.28	F ~~.112~~ 3.192	
13	2	.7	.16	1.4	.16	F ~~.09~~ .112	
11	2	.5	.09	1.0	.09	F ~~.128~~ .09	
9	2	.8	.08	1.6	.08	.128	
7	2	.8	.07	1.6	.07	.056	
5	2	.4	0	.8	0	0	
3	2	.5	0	1.0	0	0	
1.8	2	.05	0	.1	0	0	

photo #4 - KRY-202 Board
photo #6 } Picture of area where
photo #7 } flow measured
photo #5 - Low flow area - not measured

Flow sheet was filled out for area

Tape measure on far bank

1640 M. Berry off-site.

1700 Arrive @ KRY-203
Residents present - let them know we are sampling -

photo #8 - KRY-203 Board
photo #9 - Area of low flow
photo #10-11 - Picture of area where flow measured

Flow sheet filled out at sample site
Left Bank - 6' Right Bank - 55'
Tape measure on far bank
1750 off site for day

Tape	Width	Total Depth	(Vel) Vel	~~Ave~~ Area	Discharge
6	2	.5	0	1.0	0
8	2	.3	.55	.6	.33
10	2	.25	.18	.5	.09
12	2	.35	.32	.7	.224
14	2	.20	0	.4	0
16	2	.50	2.02	1.0	2.02
18	2	.8	1.31	1.6	2.10
20	2	1.25	3.54	2.5	8.85
22	2	.9	3.71	1.8	6.68
24	2	1.3	2.34	2.6	6.08
26	2	1.3	4.44	2.6	11.54 } High
28	2	1.3	4.77	2.6	12.40 } 26.30
30	2	1.0	5.11	2.0	10.22
32	2	.75	4.24	1.5	6.36
34	2	.75	3.33	1.5	4.995 } Me
36	2	.6	3.95	1.2	4.74 }
38	2	.7	3.87	1.4	5.418
40	2	.6	2.49	1.2	2.988
42	2	.65	2.82	1.3	3.666
44	2	.5	2.97	1.0	2.97
46	2	.5	1.59	1.0	1.59
5 ~~50~~ 48	2	.35	1.35	.7	.945
50	2	.4	1.31	.8	1.048
52	2	.4	1.44	.8	1.152
54	2	.2	0	.4	0

Sampling SW/Sed 10/10/07

0915 Arrive @ site after errands

B. Hollamon
J. Flammang } PTS

calm, p. cloudy, 50°F

Safety mtg.
- Water safety
- Watch footing while trying to get sediment
- Uneven footing while carrying equipment
- Multiple trips
- Watch equipment in yard

Calibrate Meters
pH 4.01 → 4.02 slp - 95.5
7.00 → 7.03
10.01 → 10.04
SC 1413 us/cm standard → 1416 us/cm @ 23.5°F
eH 476.1 mV lites soln → 414.2 mV
DO 2900' & 0.0% salinity

Arrive @ KRY-203 & KRY-303

950 Collect KRY-203-A
- low velocity SW sample ~~collected~~ from access bank
2-1 L amber glass, Dioxin/furans-Raw
1- ~~LL~~ ~~HDPE plastic~~ 500 ml HDPE, TSS, Raw

pH	Temp	SC	eH	DO
7.25	9.2	275	187.1	7.31

1000 Collect KRY-203-B
- medium velocity flow sample
- collected from 35' from access bank, tape measure read 6' exact distance 29'
2-1 L amber glass, Raw
1- ~~LL~~ HDPE, TSS, Raw
500 ml

pH	Temp	SC	eH	DO
8.10	8.7	312	171.3	9.36

1010 Collect KRY-203-C
- High velocity flow sample
2-1 L amber glass, Raw
1- ~~LL~~ HDPE, TSS, Raw
500 ml

KRY-203-C cont.
- sample collected @ 28' from access bank, tape measure read 6' @ bank, sample collected @ 22' from access bank
- All 3 samples collected by submerging bottle into flow approximately 1/2 the depth & then slowly raising. HDPE bottles rinsed 3x prior to filling.

1015 Collect KRY-303-A
- low velocity flow sediment
- 1-8 oz amber, Dioxin
- 1-4 oz amber, TOC

see map →

~~sample collected at 35' from access bank, tape read 6' @ bank so sample collected @ 29' from bank~~ 10/14/01

1030 Collect KRY-303-B
- medium velocity flow sediment
- 1-8 oz amber, Dioxin
- 1-4 oz amber, TOC

sample collected @ ~~27-30'~~ 32-37' from access bank, tape read 6' @ access bank sample actually collected 26-31' from bank

1045 Collect KRY-303-C
- high velocity flow sediment
- 1-8 oz amber, Dioxin (1/2 bottle)
- ~~1-4 oz amber, TOC~~ 10/14/01

sample collected @ 27-30' from access bank, tape measure read 6' @ access bank so sample collected 21-24' from access bank

Collected low sample from area adjacent to bank in low flow

photo #8 ~~low flow~~ KRY-203-A site
9 - KRY-203-C sample
10 - KRY-203-B sample site

Collected KRY-203a not enough seperate flow
KRY-203c 26-30' from access
KRY-203b KRY-303c
KRY-303a
KRY-303b

KRY-203 C Parameters

PH	Temp	SC	Eh	DO
7.93	8.8	318	148.2	8.09

~~Arrive @ KRY~~

Used stainless steel scoops to collect samples. Attempted to collect KRY 303-C prior to B but did not have luck collecting any sediment. Collected KRY-303-B in approximately an hour - & returned to KRY 303-C site - managed to collect 1/2 of the dioxin bottle - sediment was fairly coarse - River bottom composed mainly of large cobbles & smaller gravel - Very little fine sediment available. Tried for approximately 1/2 hour 2nd time - so a total of approximately an hour to get sample.

- Decon equipment - tap rinse / soap wash / tap rinse / DI / Hexane

1305 Arrive @ KRY-302/KRY-202 parking location.

1315 Arrive @ sampling pt on river

1325 Collect KRY-202-A

- low flow SW sample

KRY-202 A cont

- 2-1 L ambers jars, Dioxin, Raw
- 1-1 500 ml HDPE, Raw, TSS
- collected from stagnant (slight flow) ~~flow~~ near bank. M. Bucy ~~may~~ thought may have sampled there originally

pH	Temp	SC	ch	DO
7.87	11.2	300	100.8	8.32

1335 Collect KRY-202-C

- high velocity flow SW sample
- 2-1 L amber jars, Dioxin, Raw
- 1-1 500 ml HDPE, Raw TSS

sample collected @ 22' from access streambank. Tape measure read 1.8', so sample collected at 20.2' from bank

pH	Temp	SC	ch	DO
8.07	10.1	312	74.9	8.28

1345 Collect KRY-202-B
medium velocity flow SW sample
2-1 L amber glass, Raw, Dioxin
1-500 ml HDPE, Raw, TSS
collected at 32' from access
Stream bank. Tape measure read
1.8', so actually collected at
photo # 11-Read 30.2' from bank
12-KRY-202-A sample loc
13-KRY-202-C sample loc
14-KRY-202-B sample loc

All 3 samples collected by submerging bottle into flow approximately 1/2 the depth & raising slowly
HDPE-bottle rinsed 3 times prior to filling

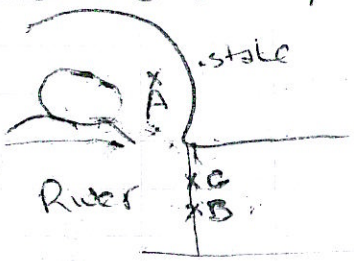
pH	Temp	SC	Eh	DO
8.49	10.1	301	4.3	8.57

1400 Collect KRY-302-A
low velocity flow sediment
1-8 oz amber glass, Dioxin
1-4 oz amber glass, TOC

- collected stagnant area (slight flow) near original sample state
- ø seaweed, organic layer-silt
- below silt v. fg grained sand
quite a bit of seed present-no rocks
- used stainless steel scoop collected in disposable aluminum pan mixed placed in jars

1430 Collect KRY-302-C
- high velocity flow sediment sample
- 1-8 oz amber glass, Dioxin
1-4 oz amber glass TOC
- collected @ 22' ~~fro~~ -25' from access bank, tape read 1.8', so actually collected at 20.2-23.2'
- mostly cobbles very little fine sediment-sediment was med grained sand
- jars were both filled 3/4 of the way
- used sediment corer to obtain sample, placed in disposable al pan (cleaned w/ DI + hexane) mixed & placed in containers

1500 Collect KRY-302-B
- medium velocity flow sediment sample
1-8 oz amber glass, Dioxin
1-4 oz amber glass, TOC
- sample collected 32'-35' from access bank, ~~as measured on~~ tape measure read 18'
at access bank, sample actually collected at 30.2-33.2'



- used stainless steel scoop placed sediment in disposible foil pan mixed & placed in jars after pulling out big rocks & excess water
- sediment was med to coarse sand
~~1520~~ 5 very sparse amidst cobbles

1515 Leave KRY-202/302 area
1520 Arrive @ KRY-200/300 area
- Decon equipment
tap water rinse, soap & water wash
tap rinse, DI rinse, triple hexane rinse
wrap in foil - steel washing pans

Arrive @ KRY-200 sample site

1600 Collect KRY-200-A
low velocity flow sample

2-1L Amber jars, Dioxin, Raw
1-1 500ml, HDPE, TSS, Raw
- Collect @ 9' from access bank on tape measure - starting at 5.7'-3.3' from bank sample

KRY-200-A Parameters

pH	Temp	SC	Eh	DO
8.27	10.4	305	-54.2	8.66

KRY-200-B Parameters

8.53	9.8	302	-57.6	8.09

KRY-200-C Parameters

8.53	9.8	317	-48.3	8.12

KRY-205 - Duplicate sample of KRY-200-A

1610 - Collect KRY-200-B
medium flow velocity sw sample
2 - 1 L amber glass, Dioxin, Raw
1 - 500 ml HDPE, TSS, Raw
- collected @ 23.5' from access bank, tape edge of water @ 5.7' = 17.8' from bank sampled

1620 - Collect KRY-200-C
- high flow velocity sw sample
2 - 1 L amber glass, Dioxin, Raw
1 - 1 L HDPE, TSS, Raw
collected @ 30.5 from access bank on tape measure, edge of water @ 5.7' so sampled at 24.8'

photo # 15 - Board
16 - low velocity flow - (200A)
17 med velocity flow - (200B)
18 hi velocity flow - (200C)

All 3 samples collected by submerging bottles directly into River - approximately 1.5' below water level for med & high flow samples & slowly raising bottle to surface. HDPE bottle rinsed 3x prior to sampling

1700 KRY-205 collected at same time as KRY-200-A
DUPLICATE SAMPLE
- bottles were labeled with 1700 time for blind duplicate
- 2 - 1 L amber glass, Dioxin, Raw
1 - 1 L HDPE, TSS, Raw

sample collected at same time as KRY-200-A. Bottles were filled alternately during sample event

1630 - Collect KRY-300-A
- low velocity flow sediment sample
- 1 - 8 oz amber glass, Dioxin
1 - 4 oz amber glass, TOC
- collected @ 9' from access bank on tape measure, edge of water was at 5.7', sampled at ' from bank
- fine silt & f g sand mixed with wood cut by beavers

- collected w/stainless steel trowel & placed in disposible foil pan mixed placed in containers

1700 - Collect KRY-300-B
medium velocity flow sediment sample
1-8 oz amber glass, Dioxin
1-4 oz amber glass, TOC
- sample collected at ~~23.5~~ 21.5-25.5' from access bank on tape measure, access bank at 5.7', collected @ 15.8-19.8' from bank
- sample collected w/sediment borer into disposible aluminum pan mixed & placed in bottles.
- sediment was coarse sand & gravel w/some algae. Algae appeared to coat large cobbles in active flow areas at this location

1730 Collect KRY-300-C
high velocity flow sediment sample
1-8 oz amber glass, Dioxin
1-4 oz amber glass - TSS
- sample collected @ ~~30.5~~ 29-31' from access bank, 5.7' on tape measure @ access bank, sample collected @ 23.3-25.3 from access bank, too deep to go further into river
- sample collected w/sediment corer into aluminum disposible pan mixed & placed in containers
- sediment was med to coarse sand w/gravel - w/algae. River bottom was cobbles coated w/algae

~~1800~~ Decon equipment w/tap rinse, soap wash, tap rinse, DI rinse hexane rinse

1800 Collect KRY-204
Equipment Rinsate
2-1 L amber glass, Dioxin, Raw

Type II Reagent water poured down stainless steel trowel used for sampling @ KRY-200-A plus others into appropriate containers

1830 Collect KRY-206
BOTTLE BLANK
2-1 L Amber glass, Dioxin, Raw
poured Type II Reagent water
directly into containers

1815-Took 13 pictures of treated
poles present on Kalispell Pole
Site per M. Bucy request-

1840- Off site for day

GROUND A.R.S. TRACKING NUMBER
1Z 45W A80 06 0009 6102

REF #/ DATE

Tracking # for Energy
Cooler

OPEN CHANNEL PROFILING FORM

Location KR4-203
Recorder F
Gauge BH
Date 10/9/07
Time 1700
Page ____ of ____

Portable Flow Meter Used Marsh McBirney

Left Bank 6' Right Bank 55'

	Distance from IP	Width	Total Depth	V0.6	V0.2	V0.8	V0.9	Average Velocity	Area	Discharge (Ave V*A)
1	6	2	.5	0				0	1.0	0
2	8	2	.3	.55				.55	.6	.33
3	10	2	.25	.18				.18	.5	.09
4	12	2	.35	.32				.32	.7	.224
5	14	2	.20	0				0	1.4	0
6	16	2	.50	2.02				2.02	1.0	2.02
7	18	2	.8	1.31				1.31	1.6	2.10
8	20	2	1.25	3.54				3.54	2.5	8.85
9	22	2	.9	3.71				3.71	1.8	6.68
10	24	2	1.3	2.34				2.34	2.6	6.08
11	26	2	1.3	4.44				4.44	2.6	11.54
12	28	2	1.3	4.77				4.77	2.6	12.40
13	30	2	1.0	5.11				5.11	2	10.22
14	32	2	.75	4.24				4.24	1.5	6.36
15	34	2	.75	3.33				3.33	1.5	4.995
16	36	2	.6	3.95				3.95	1.2	4.74
17	38	2	.7	3.87				3.87	1.4	5.418
18	40	2	.6	2.49				2.49	1.2	2.988
19	42	2	.65	2.82				2.82	1.3	3.666
20	44	2	.5	2.97				2.97	1.0	2.97
21	46	2	.5	1.59				1.59	1.0	1.59
22	48	2	.35	1.35				1.35	.7	.945
23	50	2	.4	1.31				1.31	.8	1.048
24	52	2	.4	1.44				1.44	.8	1.152
25	54	2	.2	0				0	.4	0
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
								Total Discharge (cfs)		

V 0.6 for stream depths between 0.3 & 2.5 feet
(V 0.2 + V 0.8)/2 for stream depths greater than 2.5 feet
V0.9 if flow is less than 0.3 feet (Maximum velocity x 0.9)

Staff Gauge (ft) Beginning _____ End _____

Stream Flow Conditions _____

Weather Conditions _____

OPEN CHANNEL PROFILING FORM

Location KR4-202
Recorder F
Gauge BH
Date 10/9/07
Time 1855
Page ____ of ____

Portable Flow Meter Used Marsh McBirney

Left Bank 1.8 Right Bank 49

	Distance from IP	Width	Total Depth	V0.6	V0.2	V0.8	V0.9	Average Velocity	Area	Discharge (Ave V*A)
1	49		.05	0				0	2	0
2	47	2	.2	.35				~~.0~~ .35	~~2~~ .4	.14
3	45	2	.4	.50				~~.8~~ .50	.8	.40
4	43	2	.6	.51				.51	1.2	.612
5	41	2	.725	.57				.57	1.45	.827
6	39	2	1.0	.74				.74	2.0	1.48
7	37	2	1.4	.95				.95	2.8	2.66
8	35	2	1.6	1.24				1.24	3.2	3.97
9	33	2	1.5	1.44				1.44	3.0	4.32
10	31	2	1.5	1.76				1.76	3.0	5.28
11	29	2	1.7	1.92				1.92	3.4	6.53
12	27	2	1.8	2.20				2.2	3.6	7.92
13	25	2	2.0	2.79				2.79	4.0	11.16
14	23	2	2.0	2.86				2.86	4.0	11.44
15	21	2	1.9	3.00				3.00	3.8	11.44
16	19	2	1.75	3.26				3.26	3.5	11.41
17	17	2	1.35	3.14				3.14	2.7	8.48
18	15	2	.7	2.28				2.28	1.4	3.192
19	13	2	.7	.16				.16	1.4	.112
20	11	2	.5	.09				.09	1.0	.09
21	9	2	.8	.08				.08	1.6	.128
22	7	2	.8	.07				.07	1.6	.056
23	5	2	~~.8~~ .4	0				0		
24	3	2	.5	0				0	1.0	
25	1.8	2	.05	0						
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
								Total Discharge (cfs)		

34-30

24-20

V 0.6 for stream depths between 0.3 & 2.5 feet
(V 0.2 + V 0.8)/2 for stream depths greater than 2.5 feet
V0.9 if flow is less than 0.3 feet (Maximum velocity x 0.9)

Staff Gauge (ft) Beginning _____ End _____

Stream Flow Conditions _____

Weather Conditions _____

OPEN CHANNEL PROFILING FORM

Location KR4-200
Recorder J
Gauge BH
Date 10/9/07
Time 1400
Page ____ of ____

Portable Flow Meter Used Marsh McBirney

Left Bank 64.5 Right Bank 5.7

	Distance from IP	Width	Total Depth	V0.6	V0.2	V0.8	V0.9	Average Velocity	Area	Discharge (Ave V*A)
1	64.5	2	.05	0				0		0
2	62.5	2	.2	0				0		0
3	60.5	2	.6	0				0		0
4	58.5	2	.95	0				0		0
5	56.5	2	1.6	0				0		0
6	54.5	2	2.1	.08				.08	4.2	.336
7	52.5	2	2.5	.20				.20	5.0	1.00
8	50.5	2	3.25	—	.42	.20		.31	6.5	2.015
9	48.5	2	3.7	—	.56	.17		.365	7.4	2.704
10	46.5	2	~4.3	—	.53	.42		.475	8.6	4.085
11	32.5		~4.25		.61	.57		.59		
12	30.5	2	3.925		.56	.61		.585	7.85	4.59
13	28.5	2	3.6		.49	.57		.53	7.2	3.816
14	26.5	2	3.25		.53	.50		.515	6.5	3.35
15	24.5	2	2.9		.52	.37		.445	5.8	2.58
16	22.5	2	2.65		.42	.39		.405	5.3	2.15
17	20.5	2	2.4	.40				.40	4.8	1.92
18	18.5	2	2.2	.43				.43	4.4	1.89
19	16.5	2	2.0	.39				.39	4.0	1.56
20	14.5	2	1.8	.34				.34	3.6	1.224
21	12.5	2	1.35	.33				.33	2.7	.891
22	10.5	2	.8	.26				.26	1.6	.416
23	8.5	2	.8	.22				.22	1.6	.352
24	6.5	2	.8	.19						
25	5.7									
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
								Total Discharge (cfs)		

V 0.6 for stream depths between 0.3 & 2.5 feet
(V 0.2 + V 0.8)/2 for stream depths greater than 2.5 feet
V0.9 if flow is less than 0.3 feet (Maximum velocity x 0.9)

Staff Gauge (ft) Beginning _____ End _____

Stream Flow Conditions _____

Weather Conditions _____

STATISTICAL ANALYSIS REPORTS

ONE-WAY AOV FOR TEF BY LOCATION

SOURCE	DF	SS	MS	F	P
BETWEEN	2	0.57405	0.28702	3.27	0.1097
WITHIN	6	0.52730	0.08788		
TOTAL	8	1.10134			

	CHI-SQ	DF	P
BARTLETT'S TEST OF EQUAL VARIANCES	0.75	2	0.6865

COCHRAN'S Q 0.4631
LARGEST VAR / SMALLEST VAR 3.8080

COMPONENT OF VARIANCE FOR BETWEEN GROUPS 0.06638
EFFECTIVE CELL SIZE 3.0

LOCATION	MEAN	SAMPLE SIZE	GROUP STD DEV
Downstream	3.4243	3	0.3494
Onsite	2.8940	3	0.3309
Upstream	2.8833	3	0.1791
TOTAL	3.0672	9	0.2964

CASES INCLUDED 9 MISSING CASES 0

TUKEY (HSD) COMPARISON OF MEANS OF TEF BY LOCATION

LOCATION	MEAN	HOMOGENEOUS GROUPS
Downstream	3.4243	I
Onsite	2.8940	I
Upstream	2.8833	I

THERE ARE NO SIGNIFICANT PAIRWISE DIFFERENCES AMONG THE MEANS.

CRITICAL Q VALUE	4.341	REJECTION LEVEL	0.050
CRITICAL VALUE FOR COMPARISON	0.7431		
STANDARD ERROR FOR COMPARISON	0.2421		

95% confidence

STATISTIX FOR WINDOWS KRYDIOX, 11/28/2007, 15:43

ONE-WAY AOV FOR TEF BY FLOW

SOURCE	DF	SS	MS	F	P
BETWEEN	2	0.37181	0.18591	1.53	0.2906
WITHIN	6	0.72953	0.12159		
TOTAL	8	1.10134			

	CHI-SQ	DF	P
BARTLETT'S TEST OF EQUAL VARIANCES	1.81	2	0.4047

COCHRAN'S Q 0.7408
LARGEST VAR / SMALLEST VAR 6.5051

COMPONENT OF VARIANCE FOR BETWEEN GROUPS 0.02144
EFFECTIVE CELL SIZE 3.0

FLOW	MEAN	SAMPLE SIZE	GROUP STD DEV
High Veloc	3.2963	3	0.2302
Low Veloci	2.8023	3	0.2038
Medium Vel	3.1030	3	0.5198
TOTAL	3.0672	9	0.3487

CASES INCLUDED 9 MISSING CASES 0

STATISTIX FOR WINDOWS KRYDIOX, 11/28/2007, 15:44

TUKEY (HSD) COMPARISON OF MEANS OF TEF BY FLOW

FLOW	MEAN	HOMOGENEOUS GROUPS
High Veloc	3.2963	I
Medium Vel	3.1030	I
Low Veloci	2.8023	I

THERE ARE NO SIGNIFICANT PAIRWISE DIFFERENCES AMONG THE MEANS.

CRITICAL Q VALUE	4.341	REJECTION LEVEL	0.050
CRITICAL VALUE FOR COMPARISON	0.8740		
STANDARD ERROR FOR COMPARISON	0.2847		

95% confidence

DATA VALIDATION REPORTS

Kalispell Pole and Timber Yard Reliance and Yale Oil

SDG#:	**H07100177**
Number of Samples:	**10**
Sample Matrix:	**Water**
Applicable Analytes:	**Total Suspended Solids (TSS)**
Reporting Tier:	**3**
Applicable TOS#:	**N/A**
Laboratory:	**Energy Laboratories**
Validation Level:	**EPA Level III**
Validator Affiliation:	**Portage Environmental, Inc.**
Project#:	

Validator:_____ **Date Completed:**__11/30/07_____

Portage Review:_____ **Date Completed:**_____11/30/07

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report Kalispell Pole and Timber Reliance and Yale Oil (KRY) is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.

J - The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.

R - The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.

UJ - The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540/R-94/013, February 1994.*
2. *USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.*

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The Kalispell Pole and Timber Reliance and Yale Oil (KRY) water sample results were received by Portage Environmental, Inc. in November 2007. The laboratory analytical request provided for a full deliverable and a summary data package attached for the pH results. The samples were analyzed in accordance with Standard Method 2540D. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for Kalispell Pole and Timber Reliance and Yale Oil (KRY) Water for TSS Samples					
Field Id#:	**Lab Id#:**	**Matrix:**	**Analysis Request:**	**Date of Collection:**	**Date of Laboratory Receipt:**
KRY-200-A	H07100177-001	Water	TSS	10/10/07	10/15/07
KRY-200-B	H07100177-002	Water	TSS	10/10/07	10/15/07
KRY-200-C	H07100177-003	Water	TSS	10/10/07	10/15/07
KRY-202-A	H07100177-004	Water	TSS	10/10/07	10/15/07
KRY-202-B	H07100177-005	Water	TSS	10/10/07	10/15/07
KRY-202-C	H07100177-006	Water	TSS	10/10/07	10/15/07
KRY-203-A	H07100177-007	Water	TSS	10/10/07	10/15/07
KRY-203-B	H07100177-008	Water	TSS	10/10/07	10/15/07
KRY-203-C	H07100177-009	Water	TSS	10/10/07	10/15/07
KRY-205	H07100177-010	Water	TSS	10/10/07	10/15/07

ANALYTICAL HOLDING TIMES:

The surface water samples associated with this SDG were collected on 10/10/07. The TSS results were analyzed on 10/15/06. The analysis occurred within the 7-day holding time for TSS results.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS and field duplicate (KRY-205) results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There were ten (10) water samples included in SDG# H07100177. Each was analyzed for TSS as outlined in the project QAPP.

The field sample data points have been assessed and remain unqualified..

Attachment A: Laboratory Report Forms

ENERGY LABORATORIES, INC. • P.O. Box 5688 • 3161 East Lyndale Ave. • Helena, MT 59604
877-472-0711 • 406-442-0711 • 406-442-0712 fax • helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-001
Client Sample ID: KRY-200-A

Report Date: 10/18/07
Collection Date: 10/10/07 16:00
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:14 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-002
Client Sample ID: KRY-200-B

Report Date: 10/18/07
Collection Date: 10/10/07 16:10
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:14 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-003
Client Sample ID: KRY-200-C

Report Date: 10/18/07
Collection Date: 10/10/07 16:20
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:15 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-004
Client Sample ID: KRY-202-A

Report Date: 10/18/07
Collection Date: 10/10/07 13:25
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:15 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-005
Client Sample ID: KRY-202-B

Report Date: 10/18/07
Collection Date: 10/10/07 13:45
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:16 / sid

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-006
Client Sample ID: KRY-202-C

Report Date: 10/18/07
Collection Date: 10/10/07 13:35
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:16 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-007
Client Sample ID: KRY-203-A

Report Date: 10/18/07
Collection Date: 10/10/07 09:50
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:16 / sld

Report Definitions: RL - Analyte reporting limit. QCL - Quality control limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-008
Client Sample ID: KRY-203-B

Report Date: 10/18/07
Collection Date: 10/10/07 10:00
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:17 / sld

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-009
Client Sample ID: KRY-203-C

Report Date: 10/18/07
Collection Date: 10/10/07 10:10
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:17 / sld

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-010
Client Sample ID: KRY-205

Report Date: 10/18/07
Collection Date: 10/10/07 17:00
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:17 / sld

Report Definitions: RL - Analyte reporting limit. QCL - Quality control limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Kalispell Post & Timber

1.	**SDG Number:**	1060842
2.	**Number of Samples:**	(12)
3.	**Sample Matrix:**	(12) Groundwater
4.	**Applicable Analytes:**	PCDD/PCDF
5.	**Reporting Tier:**	Level 3
6.	**Analysis Method**	USEPA SW-846 Method 8290
7.	**Laboratory:**	Pace Analytical
8.	**Validation Level:**	III
9.	**Validator Affiliation:**	Portage Environmental, Inc.
10.	**Project:**	Kalispell Post & Timber

Validator's Signature: Amber Brinly **Date: 11/29/07**

Reviewed By: **Date: 11/30/07**

1. INTRODUCTION

Twelve (12) groundwater samples were collected and analyzed for Dioxins/Furans by Pace Analytical using USEPA SW-846 Method 8290, *Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High Resolution Gas Chromatography/High Resolution Mass Spectrometry (HRGC/HRMS).* The data were validated to a Level III.

2. SAMPLE IDENTIFICATION

A sample cross-reference and holding time table is presented below.

Kalispel Post & Timber SDG Number 1060842								
Field ID	Lab ID	Matrix	Sample Collection Date	Date Received	Date Extracted	Collection to Extraction Holding Time	Analysis Date	Extraction to Analysis Holding Time
KRY-200-A	1060842001	Groundwater	10/10/07	10/12/07	10/31/07	21	11/02/07	2
KRY-200-B	1060842002	Groundwater	10/10/07	10/12/07	10/31/07	21	11/02/07	2
KRY-200-C	1060842003	Groundwater	10/10/07	10/12/07	10/31/07	21	11/02/07	2
KRY-202-A	1060842004	Groundwater	10/10/07	10/12/07	10/31/07	21	11/02/07	2
KRY-202-B	1060842005	Groundwater	10/10/07	10/12/07	10/31/07	21	11/03/07	3
KRY-202-C	1060842006	Groundwater	10/10/07	10/12/07	10/31/07	21	11/03/07	3
KRY-203-A	1060842007	Groundwater	10/10/07	10/12/07	10/31/07	21	11/03/07	3
KRY-203-B	1060842008	Groundwater	10/10/07	10/12/07	10/31/07	21	11/03/07	3
KRY-203-C	1060842009	Groundwater	10/10/07	10/12/07	10/31/07	21	11/03/07	3
KRY-204 (Equipment Rinsate)	1060842010	Groundwater	10/10/07	10/12/07	10/31/07	21	11/03/07	3
KRY-205	1060842011	Groundwater	10/10/07	10/12/07	10/31/07	21	11/03/07	3
KRY-206 (Bottle Blank)	1060842012	Groundwater	10/10/07	10/12/07	10/31/07	21	11/03/07	3

A '*' denotes an exceeded holding time.

3. DATA LIMITATION OVERVIEW

The target compound analyses, dioxin/furan, for groundwater samples from Kalispell Post & Timber showed compliance with the QC requirements set forth by USEPA SW-846 Method 8290. The data are valid and acceptable with the following exceptions:

KRY-200-A:

- 1,2,3,4,6,7,8-HpCDD and OCDF have been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect and the sample quantitation limit is an estimate due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

- OCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

KRY-200-B:

- Total HpCDF has been qualified with a 'J' validation flag to denote the reported concentration is an estimate as it was reported below the quantitation limit (see CTR comment #10).

- 1,2,3,4,6,7,8-HpCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

- total HpCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the bottle blank (see CTR comment #6).

- OCDF and OCDD have been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect and the sample quantitation limit is an estimate due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

KRY-200-C:

- 1,2,3,4,6,7,8-HpCDD, OCDF, and OCDD have been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect and the sample quantitation limit is an estimate due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

KRY-202-A:

- OCDF and OCDD have been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

KRY-202-B:

- 1,2,3,4,6,7,8-HpCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

- Total HpCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the bottle blank (see CTR comment #6).

- OCDD has been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect, and the sample quantitation limit is an estimate due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

KRY-202-C:

- 1,2,3,4,6,7,8-HpCDD and OCDD have been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

- Total HpCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the bottle blank (see CTR comment #6).

- OCDF has been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect, and the sample quantitation limit is an estimate due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

KRY-203-A:

- Total HpCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the bottle blank (see CTR comment #6).

- 1,2,3,4,6,7,8-HpCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

- 1,2,3,4,6,7,8-HpCDF has been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect, and the sample quantitation limit is an estimate due to positive detection in the bottle blank and interference in the sample (see CTR comments #6 and 10).

- OCDD has been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect, and the sample quantitation limit is an estimate due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

KRY-203-B and KRY-204 (Equipment Rinsate):

- OCDD has been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

KRY-203-C:

- OCDD has been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect, and the sample quantitation limit is an estimate due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

KRY-205:

- 1,2,3,4,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDD, and OCDF have been qualified with a 'UJ' validation flag to denote the reported EMPC results are non-detect, and the sample quantitation limits are estimates due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

- 1,2,3,4,6,7,8-HpCDF has been qualified with a 'UJ' validation flag to denote the reported EMPC is non-detect, and the sample quantitation limit is an estimate due to positive detection in the bottle blank and interference in the sample (see CTR comments #6 and 10).

- 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, total HxCDF, and OCDD have been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

KRY-206 (Bottle Blank):

- 1,2,3,4,6,7,8-HpCDF has been qualified with a 'J' validation flag to denote the reported EMPC is an estimate due to interference in the sample (see CTR comment #10).

- Total HpCDD has been qualified with a 'J' validation flag to denote the reported concentration is an estimate as it was reported below the quantitation limit (see CTR comment #10).

- 1,2,3,4,6,7,8-HpCDD and OCDD have been qualified with a 'U' validation flag to denote the reported concentration is non-detect due to positive detection in the method blank (see CTR comment #6).

- OCDF has been qualified with a 'UJ' validation flag to denote the reported EMPC result is non-detect, and the sample quantitation limit is an estimate due to positive detection in the method blank and interference in the sample (see CTR comments #6 and 10).

4. CONTRACT AND TECHNICAL REVIEW (CTR)

Project Name: Kalispell Post & Timber

Laboratory Name: Pace Analytical

SDG#: 1060842

Type of Analysis: USEPA SW-846 Method 8290

1. Data Completeness

   The data has undergone a Level III validation.

2. Sample Integrity

   No action was taken as sample integrity was compliant.

3. Sample Holding Times

   No action was taken as sample holding times were met.

4. Instrument Performance

   No action was taken as instrument performance was compliant.

5. Initial and Continuing Calibrations

   The initial and continuing calibration forms were not included in the data package as it was a level III. This was acceptable, per Montana Department of Environmental Quality. The laboratory noted in the case narrative, "the response obtained for native OCDF in calibration standard analysis F71102B_18 was outside the target range." The laboratory flagged the affected values on the Form 1s with a 'Y'. All positive OCDF results were qualified with a 'U' validation flag due to positive detection in the method blank and all EMPC OCDF results were qualified with a 'UJ' validation flag due to positive detection in the method blank and interference in the sample. No further qualification was warranted due to the calibrations standard.

6. Method and Field Blank Contamination

Method Blank. Positive detections were noted in the method blank for 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, Total HxCDF, 1,2,3,4,7,8-HxCDD, 1,2,3,4,6,7,8-HpCDD, OCDF, and OCDD. 1,2,3,4,7,8-HxCDF in KRY-205, 1,2,3,4,6,7,8-HpCDD in KRY-200-A, KRY-200-C, and KRY-205, OCDF in KRY-200-A, KRY-200-B, KRY-200-C, KRY-202-C, KRY-205, and KRY-206, and OCDD in KRY-200-B, KRY-200-C, KRY-202-B, KRY-203-A, and KRY-203-C exhibited detections at an estimated maximum possible concentration (EMPC) and have been qualified with a 'UJ' validation flag as the reported concentrations were less than five times the blank value and interference was present in the sample. 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, total HxCDF, in KRY-205, OCDD in KRY-200-A, KRY-202-A, KRY-202-C, KRY-203-B, KRY-204, KRY-205, and KRY-206, 1,2,3,4,6,7,8-HpCDD in KRY-200-B, KRY-202-B, KRY-202-C, KRY-203-A, and KRY-206, and OCDF in KRY-202-A, have been qualified with a 'U' validation flag as the reported concentration was less than five times the blank value. All 1,2,3,6,7,8-HxCDF and 1,2,3,4,7,8-HxCDD results and the remaining 1,2,3,4,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, Total HxCDF, 1,2,3,4,6,7,8-HpCDD, and OCDF results were non-detect and warrant no qualification due to detection in the method blank.

Bottle Blank (KRY-206). Positive detections were noted in the bottle blank (KRY-206) for 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,6,7,8-HpCDD, total HpCDD, OCDF, and OCDD. 1,2,3,4,6,7,8-HpCDD and OCDD have already been qualified with a 'U' validation flag due to positive detections in the method blank. OCDF has been qualified with a 'UJ' validation flag due to detection in the method blank and interference within the sample. No further qualification is warranted. 1,2,3,4,6,7,8-HpCDF in KRY-203-A and KRY-205 exhibited detections at an estimated maximum possible concentration (EMPC) and have been qualified with a 'UJ' validation flag as the reported concentrations were less than five times the bottle blank value and as interference was present in the sample. Total HpCDD in KRY-200-B, KRY-202-B, KRY-202-C, and KRY-203-A has been qualified with a 'U' validation flag as the reported concentration was less than five times the bottle blank value. The remaining 1,2,3,4,6,7,8-HpCDF and total HpCDD results were non-detect and warrant no qualification.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

A MS/MSD analysis was not required per USEPA SW-846 Method 8290. LCS and duplicate LCS analyses were performed instead.

8. Laboratory Control Sample (LCS)

No action was taken as all LCS and duplicate LCS recovery and precision criteria were met.

9. Internal Standards (IS) Performance

No action was taken as all internal standard recoveries were within the acceptance criteria.

10. Target Compound Identification and Quantitation

In KRY-200-A, 1,2,3,4,6,7,8-HpCDD and OCDF were reported at an EMPC as interference was noted in the sample for these analytes. They have been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample.

In KRY-200-B, OCDF and OCDD were reported at an EMPC as interference was noted in the sample for these analytes. They have been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample. Total HpCDF was reported below the quantitation limit. It has been qualified with a 'J' validation flag.

In KRY-200-C, 1,2,3,4,6,7,8-HpCDD, OCDF, and OCDD were reported at an EMPC as interference was noted in the sample for these analytes. They have been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample.

In KRY-202-B, OCDD was reported at an EMPC as interference was noted in the sample for this analyte. It has been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample.

In KRY-202-C, OCDF was reported at an EMPC as interference was noted in the sample for this analyte. It has been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample.

In KRY-203-A, 1,2,3,4,6,7,8-HpCDD and OCDD were reported at an EMPC as interference was noted in the sample for these analytes. OCDD has been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample. 1,2,3,4,6,7,8-HpCDF has been qualified with a 'UJ' validation flag due to positive detection in the bottle blank and as interference was present in the sample.

In KRY-203-C, OCDD was reported at an EMPC as interference was noted in the sample for this analyte. It has been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample.

In KRY-205, 1,2,3,4,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8-HpCDF and OCDF were reported at an EMPC as interference was noted in the sample for these analytes. 1,2,3,4,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDD, and OCDF has been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample. 1,2,3,4,6,7,8-HpCDF has been qualified with a 'UJ' validation flag due to positive detection in the bottle blank and as interference was present in the sample.

IN KRY-206, OCDF was reported at an EMPC as interference was noted in the sample for this analyte. It has been qualified with a 'UJ' validation flag due to positive detection in the method blank and as interference was present in the sample. 1,2,3,4,6,7,8-HpCDF was reported at an EMPC as interference was noted in the sample for this analyte. It has been qualified with a 'J' validation flag. Total HpCDD was reported at a concentration below the quantitation limit. It has been qualified with a 'J' validation flag.

11. Chromatogram Quality

No comments relating to chromatogram quality.

5. SUMMARY OF DATA USABILITY

The data validation summary flag table shows that qualifiers were applied to the target analytes for SDG# 1060842.

DATA VALIDATION SUMMARY TABLE						
Compound	**KRY-200-A**	**KRY-200-B**	**KRY-200-C**	**KRY-202-A**	**KRY-202-B**	**KRY-202-C**
2,3,7,8-TCDF						
Total TCDF						
2,3,7,8-TCDD						
Total TCDD						
1,2,3,7,8-PeCDF						
2,3,4,7,8-PeCDF						
Total PeCDF						
1,2,3,7,8-PeCDD						
Total PeCDD						
1,2,3,4,7,8-HxCDF						
1,2,3,6,7,8-HxCDF						
2,3,4,6,7,8-HxCDF						
1,2,3,7,8,9-HxCDF						
Total HxCDF						
1,2,3,4.7,8-HxCDD						
1,2,3,6,7,8-HxCDD						
1,2,3,7,8,9-HxCDD						
Total HxCDD						
1,2,3,4,6,7,8-HpCDF						
1,2,3,4,7,8,9-HpCDF						
Total HpCDF		**J**				
1,2,3,4,6,7,8-HpCDD	**UJ**	**U**	**UJ**		**U**	**U**
Total HpCDD		**U**			**U**	**U**
OCDF	**UJ**	**UJ**	**UJ**	**U**		**UJ**
OCDD	**U**	**UJ**	**UJ**	**U**	**UJ**	**U**

DATA VALIDATION SUMMARY TABLE						
Compound	**KRY-203-A**	**KRY-203-B**	**KRY-203-C**	**KRY-204 (Equipment Rinsate)**	**KRY-205**	**KRY-206 (Bottle Blank)**
2,3,7,8-TCDF						
Total TCDF						
2,3,7,8-TCDD						
Total TCDD						
1,2,3,7,8-PeCDF						
2,3,4,7,8-PeCDF						
Total PeCDF						
1,2,3,7,8-PeCDD						
Total PeCDD						
1,2,3,4,7,8-HxCDF					**UJ**	
1,2,3,6,7,8-HxCDF						
2,3,4,6,7,8-HxCDF					**U**	
1,2,3,7,8,9-HxCDF					**U**	
Total HxCDF					**U**	
1,2,3,4,7,8-HxCDD						
1,2,3,6,7,8-HxCDD						
1,2,3,7,8,9-HxCDD						
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	**UJ**				**UJ**	**J**
1,2,3,4,7,8,9-HpCDF						
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	**U**				**UJ**	**U**
Total HpCDD	**U**					**J**
OCDF					**UJ**	**UJ**
OCDD	**UJ**	**U**	**UJ**	**U**	**U**	**U**

6. REFERENCES

Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA 540/R-99/008, October 1999, U.S. Environmental Protection Agency, Cincinnati, Ohio.

USEPA Analytical Operations / Data Quality Center, *National Functional Guidelines for Chlorinated Dioxin / Furan Data Review*, EPA 540-R-02-003, August 2002.

USEPA, Methods for the Analysis of Wastes, High Resolution Gas Chromatography / Mass Spectrometry, SW-846, July 2002.

USEPA Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Doc. No. SW-846, 3rd Ed., Method 8290, Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High Resolution Gas Chromatography/High Resolution Mass Spectrometry (HRGC/HRMS), Revision 0, September 1994.

9. ATTACHMENTS

The following items are included as an attachment to this L&V report:

A. Qualified reported results (Form I)

Attachment A

Qualified Reported Results

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-200-A		
Lab Sample ID	1060842001		
Filename	F71102B_07		
Injected By	BAL		
Total Amount Extracted	953 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/02/2007 21:16

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.60	2,3,7,8-TCDF-13C	2.00	69
Total TCDF	ND	----	1.60	2,3,7,8-TCDD-13C	2.00	71
				1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	----	1.30	2,3,4,7,8-PeCDF-13C	2.00	91
Total TCDD	ND	----	1.30	1,2,3,7,8-PeCDD-13C	2.00	102
				1,2,3,4,7,8-HxCDF-13C	2.00	85
1,2,3,7,8-PeCDF	ND	----	2.50	1,2,3,6,7,8-HxCDF-13C	2.00	93
2,3,4,7,8-PeCDF	ND	----	1.90	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	----	2.20	1,2,3,7,8,9-HxCDF-13C	2.00	81
				1,2,3,4,7,8-HxCDD-13C	2.00	94
1,2,3,7,8-PeCDD	ND	----	2.00	1,2,3,6,7,8-HxCDD-13C	2.00	99
Total PeCDD	ND	----	2.00	1,2,3,4,6,7,8-HpCDF-13C	2.00	90
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	ND	----	0.77	1,2,3,4,6,7,8-HpCDD-13C	2.00	103
1,2,3,6,7,8-HxCDF	ND	----	0.96	OCDD-13C	4.00	68
2,3,4,6,7,8-HxCDF	ND	----	0.88			
1,2,3,7,8,9-HxCDF	ND	----	1.00	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.90	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.60	2,3,7,8-TCDD-37Cl4	0.20	65
1,2,3,6,7,8-HxCDD	ND	----	2.00			
1,2,3,7,8,9-HxCDD	ND	----	1.60			
Total HxCDD	ND	----	1.70			
1,2,3,4,6,7,8-HpCDF	ND	----	0.80	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.50	Equivalence: 0.0088 pg/L		
Total HpCDF	ND	----	1.10	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	----	1.1	1.00 + uJ			
Total HpCDD	ND	----	1.00			
OCDF	----	2.0	1.80 ~~Y~~ uJ			
OCDD	8.8	----	2.60 ~~BJ~~ u			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
I = Interference present
Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-200-B		
Lab Sample ID	1060842002		
Filename	F71102B_08		
Injected By	BAL		
Total Amount Extracted	978 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/02/2007 22:02

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.93	2,3,7,8-TCDF-13C	2.00	66
Total TCDF	ND	---	0.93	2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	---	1.40	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	---	1.40	1,2,3,7,8-PeCDD-13C	2.00	88
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	---	2.00	1,2,3,6,7,8-HxCDF-13C	2.00	80
2,3,4,7,8-PeCDF	ND	---	1.80	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	---	1.90	1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	76
1,2,3,7,8-PeCDD	ND	---	2.30	1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	---	2.30	1,2,3,4,6,7,8-HpCDF-13C	2.00	78
				1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	ND	---	1.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	85
1,2,3,6,7,8-HxCDF	ND	---	0.90	OCDD-13C	4.00	57
2,3,4,6,7,8-HxCDF	ND	---	0.83			
1,2,3,7,8,9-HxCDF	ND	---	1.10	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	0.97	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.10	2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	ND	---	1.60			
1,2,3,7,8,9-HxCDD	ND	---	1.30			
Total HxCDD	ND	---	1.30			
1,2,3,4,6,7,8-HpCDF	ND	---	0.83	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	1.90	Equivalence: 0.027 pg/L		
Total HpCDF	1.8	---	1.40 J J	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2.7	---	1.60 J U			
Total HpCDD	6.0	---	1.60 J U			
OCDF	---	3.0	1.80 ~~Y~~ UJ			
OCDD	---	27.0	2.90 + UJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
I = Interference present
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REPORT OF LABORATORY ANALYSIS

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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-200-C		
Lab Sample ID	1060842003		
Filename	F71102B_09		
Injected By	BAL		
Total Amount Extracted	954 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/02/2007 22:48

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.70	2,3,7,8-TCDF-13C	2.00	72
Total TCDF	ND	---	0.70	2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	74
2,3,7,8-TCDD	ND	---	1.50	2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	ND	---	1.50	1,2,3,7,8-PeCDD-13C	2.00	93
				1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	---	1.90	1,2,3,6,7,8-HxCDF-13C	2.00	86
2,3,4,7,8-PeCDF	ND	---	2.30	2,3,4,6,7,8-HxCDF-13C	2.00	82
Total PeCDF	ND	---	2.10	1,2,3,7,8,9-HxCDF-13C	2.00	71
				1,2,3,4,7,8-HxCDD-13C	2.00	82
1,2,3,7,8-PeCDD	ND	---	2.50	1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	---	2.50	1,2,3,4,6,7,8-HpCDF-13C	2.00	88
				1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	---	0.74	1,2,3,4,6,7,8-HpCDD-13C	2.00	96
1,2,3,6,7,8-HxCDF	ND	---	0.91	OCDD-13C	4.00	66
2,3,4,6,7,8-HxCDF	ND	---	0.80			
1,2,3,7,8,9-HxCDF	ND	---	1.30	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	0.94	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.40	2,3,7,8-TCDD-37Cl4	0.20	62
1,2,3,6,7,8-HxCDD	ND	---	1.30			
1,2,3,7,8,9-HxCDD	ND	---	1.50			
Total HxCDD	ND	---	1.40			
1,2,3,4,6,7,8-HpCDF	ND	---	0.97	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	1.20	Equivalence: 0.00 pg/L		
Total HpCDF	ND	---	1.10	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	---	1.4	1.30 + u J			
Total HpCDD	ND	---	1.30			
OCDF	---	3.3	1.80 ~~H~~ u J			
OCDD	---	9.8	2.40 + u J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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NC = Not Calculated

I = Interference present
Y = Calculated using average of daily RFs

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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-202-A		
Lab Sample ID	1060842004		
Filename	F71102B_10		
Injected By	BAL		
Total Amount Extracted	947 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/02/2007 23:33

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.80	2,3,7,8-TCDF-13C	2.00	90
Total TCDF	ND	----	0.80	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	86
2,3,7,8-TCDD	ND	----	1.20	2,3,4,7,8-PeCDF-13C	2.00	89
Total TCDD	ND	----	1.20	1,2,3,7,8-PeCDD-13C	2.00	106
				1,2,3,4,7,8-HxCDF-13C	2.00	95
1,2,3,7,8-PeCDF	ND	----	1.90	1,2,3,6,7,8-HxCDF-13C	2.00	92
2,3,4,7,8-PeCDF	ND	----	1.70	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	----	1.80	1,2,3,7,8,9-HxCDF-13C	2.00	78
				1,2,3,4,7,8-HxCDD-13C	2.00	90
1,2,3,7,8-PeCDD	ND	----	2.20	1,2,3,6,7,8-HxCDD-13C	2.00	103
Total PeCDD	ND	----	2.20	1,2,3,4,6,7,8-HpCDF-13C	2.00	97
				1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	ND	----	1.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	104
1,2,3,6,7,8-HxCDF	ND	----	0.98	OCDD-13C	4.00	73
2,3,4,6,7,8-HxCDF	ND	----	0.67			
1,2,3,7,8,9-HxCDF	ND	----	1.20	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.99	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.50	2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	ND	----	1.40			
1,2,3,7,8,9-HxCDD	ND	----	1.40			
Total HxCDD	ND	----	1.40			
1,2,3,4,6,7,8-HpCDF	ND	----	0.96	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.20	Equivalence: 0.011 pg/L		
Total HpCDF	ND	----	1.10	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	1.20			
Total HpCDD	ND	----	1.20			
OCDF	2.5	----	1.40 ~~JY~~ u			
OCDD	8.7	----	2.30 ~~BJ~~ u			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-202-B		
Lab Sample ID	1060842005		
Filename	F71102B_11		
Injected By	BAL		
Total Amount Extracted	969 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 00:19

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.99	2,3,7,8-TCDF-13C	2.00	85
Total TCDF	ND	---	0.99	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	93
2,3,7,8-TCDD	ND	---	1.20	2,3,4,7,8-PeCDF-13C	2.00	104
Total TCDD	ND	---	1.20	1,2,3,7,8-PeCDD-13C	2.00	114
				1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDF	ND	---	2.30	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	ND	---	1.80	2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	---	2.00	1,2,3,7,8,9-HxCDF-13C	2.00	79
				1,2,3,4,7,8-HxCDD-13C	2.00	91
1,2,3,7,8-PeCDD	ND	---	2.40	1,2,3,6,7,8-HxCDD-13C	2.00	95
Total PeCDD	ND	---	2.40	1,2,3,4,6,7,8-HpCDF-13C	2.00	87
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	ND	---	1.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	93
1,2,3,6,7,8-HxCDF	ND	---	1.10	OCDD-13C	4.00	63
2,3,4,6,7,8-HxCDF	ND	---	0.99			
1,2,3,7,8,9-HxCDF	ND	---	0.92	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	1.00	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.20	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	---	1.20			
1,2,3,7,8,9-HxCDD	ND	---	1.10			
Total HxCDD	ND	---	1.20			
1,2,3,4,6,7,8-HpCDF	ND	---	1.20	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	1.40	Equivalence: 0.019 pg/L		
Total HpCDF	ND	---	1.30	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1.9	---	0.94 J U			
Total HpCDD	1.9	---	0.94 J U			
OCDF	ND	---	1.60			
OCDD	---	7.6	2.60 J U J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
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NC = Not Calculated

J = Value below calibration range
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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-202-C		
Lab Sample ID	1060842006		
Filename	F71102B_12		
Injected By	BAL		
Total Amount Extracted	977 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 01:05

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.84	2,3,7,8-TCDF-13C	2.00	70
Total TCDF	ND	----	0.84	2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	----	1.40	2,3,4,7,8-PeCDF-13C	2.00	88
Total TCDD	ND	----	1.40	1,2,3,7,8-PeCDD-13C	2.00	99
				1,2,3,4,7,8-HxCDF-13C	2.00	81
1,2,3,7,8-PeCDF	ND	----	2.30	1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	----	2.00	2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	ND	----	2.10	1,2,3,7,8,9-HxCDF-13C	2.00	75
				1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	----	3.00	1,2,3,6,7,8-HxCDD-13C	2.00	98
Total PeCDD	ND	----	3.00	1,2,3,4,6,7,8-HpCDF-13C	2.00	86
				1,2,3,4,7,8,9-HpCDF-13C	2.00	61
1,2,3,4,7,8-HxCDF	ND	----	1.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	ND	----	1.10	OCDD-13C	4.00	62
2,3,4,6,7,8-HxCDF	ND	----	1.00			
1,2,3,7,8,9-HxCDF	ND	----	1.20	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	1.10	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.40	2,3,7,8-TCDD-37Cl4	0.20	69
1,2,3,6,7,8-HxCDD	ND	----	1.40			
1,2,3,7,8,9-HxCDD	ND	----	1.40			
Total HxCDD	ND	----	1.40			
1,2,3,4,6,7,8-HpCDF	ND	----	0.99	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.70	Equivalence: 0.046 pg/L		
Total HpCDF	ND	----	1.40	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2.3	----	1.20 J U			
Total HpCDD	7.0	----	1.20 J U			
OCDF	----	3.6	2.90 ~~IY~~ U3			
OCDD	23.0	----	3.00 ~~BJ~~ U			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-203-A		
Lab Sample ID	1060842007		
Filename	F71102B_13		
Injected By	BAL		
Total Amount Extracted	958 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 01:51

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.30	2,3,7,8-TCDF-13C	2.00	74
Total TCDF	ND	----	1.30	2,3,7,8-TCDD-13C	2.00	71
				1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	ND	----	1.40	2,3,4,7,8-PeCDF-13C	2.00	95
Total TCDD	ND	----	1.40	1,2,3,7,8-PeCDD-13C	2.00	106
				1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	----	1.70	1,2,3,6,7,8-HxCDF-13C	2.00	87
2,3,4,7,8-PeCDF	ND	----	1.80	2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	----	1.80	1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	----	2.70	1,2,3,6,7,8-HxCDD-13C	2.00	100
Total PeCDD	ND	----	2.70	1,2,3,4,6,7,8-HpCDF-13C	2.00	86
				1,2,3,4,7,8,9-HpCDF-13C	2.00	64
1,2,3,4,7,8-HxCDF	ND	----	0.95	1,2,3,4,6,7,8-HpCDD-13C	2.00	93
1,2,3,6,7,8-HxCDF	ND	----	0.99	OCDD-13C	4.00	64
2,3,4,6,7,8-HxCDF	ND	----	0.93			
1,2,3,7,8,9-HxCDF	ND	----	1.10	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	1.00	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.20	2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	ND	----	1.30			
1,2,3,7,8,9-HxCDD	ND	----	1.20			
Total HxCDD	ND	----	1.20			
1,2,3,4,6,7,8-HpCDF	----	1.2	0.99 + uJ	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.50	Equivalence: 0.020 pg/L		
Total HpCDF	ND	----	1.30	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2.0	----	1.40 J u			
Total HpCDD	3.6	----	1.40 J u			
OCDF	ND	----	2.70			
OCDD	----	8.8	2.80 + uJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
I = Interference present
Y = Calculated using average of daily RFs

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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-203-B		
Lab Sample ID	1060842008		
Filename	F71102B_14		
Injected By	BAL		
Total Amount Extracted	948 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 02:36

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.7	2,3,7,8-TCDF-13C	2.00	71
Total TCDF	ND	----	1.7	2,3,7,8-TCDD-13C	2.00	70
				1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	ND	----	1.5	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD	ND	----	1.5	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	73
1,2,3,7,8-PeCDF	ND	----	1.6	1,2,3,6,7,8-HxCDF-13C	2.00	80
2,3,4,7,8-PeCDF	ND	----	2.9	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	----	2.3	1,2,3,7,8,9-HxCDF-13C	2.00	70
				1,2,3,4,7,8-HxCDD-13C	2.00	76
1,2,3,7,8-PeCDD	ND	----	3.0	1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	----	3.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	90
				1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	----	1.8	1,2,3,4,6,7,8-HpCDD-13C	2.00	95
1,2,3,6,7,8-HxCDF	ND	----	1.5	OCDD-13C	4.00	63
2,3,4,6,7,8-HxCDF	ND	----	1.5			
1,2,3,7,8,9-HxCDF	ND	----	1.9	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	1.7	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.8	2,3,7,8-TCDD-37Cl4	0.20	72
1,2,3,6,7,8-HxCDD	ND	----	1.5			
1,2,3,7,8,9-HxCDD	ND	----	1.5			
Total HxCDD	ND	----	1.6			
1,2,3,4,6,7,8-HpCDF	ND	----	1.3	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	2.3	Equivalence: 0.011 pg/L		
Total HpCDF	ND	----	1.8	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	1.5			
Total HpCDD	ND	----	1.5			
OCDF	ND	----	2.9			
OCDD	11	----	3.0 ~~BJ~~ U			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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J = Value below calibration range
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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-203-C		
Lab Sample ID	1060842009		
Filename	F71102B_15		
Injected By	BAL		
Total Amount Extracted	975 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 03:22

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.90	2,3,7,8-TCDF-13C	2.00	72
Total TCDF	ND	---	0.90	2,3,7,8-TCDD-13C	2.00	70
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	---	1.70	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	---	1.70	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	---	2.40	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	ND	---	2.40	2,3,4,6,7,8-HxCDF-13C	2.00	82
Total PeCDF	ND	---	2.40	1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	88
1,2,3,7,8-PeCDD	ND	---	3.10	1,2,3,6,7,8-HxCDD-13C	2.00	95
Total PeCDD	ND	---	3.10	1,2,3,4,6,7,8-HpCDF-13C	2.00	93
				1,2,3,4,7,8,9-HpCDF-13C	2.00	70
1,2,3,4,7,8-HxCDF	ND	---	0.99	1,2,3,4,6,7,8-HpCDD-13C	2.00	107
1,2,3,6,7,8-HxCDF	ND	---	1.00	OCDD-13C	4.00	72
2,3,4,6,7,8-HxCDF	ND	---	0.99			
1,2,3,7,8,9-HxCDF	ND	---	1.50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	1.10	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.50	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	ND	---	1.00			
1,2,3,7,8,9-HxCDD	ND	---	1.20			
Total HxCDD	ND	---	1.20			
1,2,3,4,6,7,8-HpCDF	ND	---	1.40	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	2.20	Equivalence: 0.00 pg/L		
Total HpCDF	ND	---	1.80	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	---	1.30			
Total HpCDD	ND	---	1.30			
OCDF	ND	---	2.50			
OCDD	---	5.0	3.70 +UJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-204		
Lab Sample ID	1060842010		
Filename	F71102B_16		
Injected By	BAL		
Total Amount Extracted	939 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 04:08

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	1.2	2,3,7,8-TCDF-13C	2.00	69
Total TCDF	ND	---	1.2	2,3,7,8-TCDD-13C	2.00	67
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	---	1.7	2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD	ND	---	1.7	1,2,3,7,8-PeCDD-13C	2.00	88
				1,2,3,4,7,8-HxCDF-13C	2.00	71
1,2,3,7,8-PeCDF	ND	---	2.6	1,2,3,6,7,8-HxCDF-13C	2.00	84
2,3,4,7,8-PeCDF	ND	---	3.5	2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF	ND	---	3.0	1,2,3,7,8,9-HxCDF-13C	2.00	70
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	---	2.8	1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	---	2.8	1,2,3,4,6,7,8-HpCDF-13C	2.00	79
				1,2,3,4,7,8,9-HpCDF-13C	2.00	58
1,2,3,4,7,8-HxCDF	ND	---	1.5	1,2,3,4,6,7,8-HpCDD-13C	2.00	91
1,2,3,6,7,8-HxCDF	ND	---	1.4	OCDD-13C	4.00	55
2,3,4,6,7,8-HxCDF	ND	---	1.3			
1,2,3,7,8,9-HxCDF	ND	---	1.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	1.5	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	2.3	2,3,7,8-TCDD-37Cl4	0.20	66
1,2,3,6,7,8-HxCDD	ND	---	2.0			
1,2,3,7,8,9-HxCDD	ND	---	1.9			
Total HxCDD	ND	---	2.1			
1,2,3,4,6,7,8-HpCDF	ND	---	1.2	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	2.9	Equivalence: 0.0060 pg/L		
Total HpCDF	ND	---	2.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	---	2.0			
Total HpCDD	ND	---	2.0			
OCDF	ND	---	4.0			
OCDD	6.0	---	3.3 ~~BJ~~ U			

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EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

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NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-205		
Lab Sample ID	1060842011		
Filename	F71103B_09		
Injected By	BAL		
Total Amount Extracted	980 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 19:41

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.20	2,3,7,8-TCDF-13C	2.00	51
Total TCDF	ND	----	1.20	2,3,7,8-TCDD-13C	2.00	52
				1,2,3,7,8-PeCDF-13C	2.00	53
2,3,7,8-TCDD	ND	----	1.60	2,3,4,7,8-PeCDF-13C	2.00	56
Total TCDD	ND	----	1.60	1,2,3,7,8-PeCDD-13C	2.00	69
				1,2,3,4,7,8-HxCDF-13C	2.00	54
1,2,3,7,8-PeCDF	ND	----	2.30	1,2,3,6,7,8-HxCDF-13C	2.00	59
2,3,4,7,8-PeCDF	ND	----	2.40	2,3,4,6,7,8-HxCDF-13C	2.00	57
Total PeCDF	ND	----	2.30	1,2,3,7,8,9-HxCDF-13C	2.00	46
				1,2,3,4,7,8-HxCDD-13C	2.00	62
1,2,3,7,8-PeCDD	ND	----	3.30	1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	ND	----	3.30	1,2,3,4,6,7,8-HpCDF-13C	2.00	65
				1,2,3,4,7,8,9-HpCDF-13C	2.00	52
1,2,3,4,7,8-HxCDF	----	1.3	1.00 + UJ	1,2,3,4,6,7,8-HpCDD-13C	2.00	76
1,2,3,6,7,8-HxCDF	ND	----	1.00	OCDD-13C	4.00	53
2,3,4,6,7,8-HxCDF	1.4	----	0.78 ~~BJ~~ U			
1,2,3,7,8,9-HxCDF	1.5	----	1.10 ~~BJ~~	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	2.9	----	0.98 ~~BJ~~	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	2.00	2,3,7,8-TCDD-37Cl4	0.20	73
1,2,3,6,7,8-HxCDD	ND	----	1.80			
1,2,3,7,8,9-HxCDD	ND	----	2.00			
Total HxCDD	ND	----	1.90			
1,2,3,4,6,7,8-HpCDF	----	2.0	1.40 + UJ	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.70	Equivalence: 0.30 pg/L		
Total HpCDF	ND	----	1.50	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	----	2.3	1.30 + UJ			
Total HpCDD	ND	----	1.30			
OCDF	----	3.4	1.40 ~~JY~~ UJ			
OCDD	17.0	----	3.50 ~~BJ~~ U			

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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-206		
Lab Sample ID	1060842012		
Filename	F71103B_10		
Injected By	BAL		
Total Amount Extracted	958 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 20:27

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.88	2,3,7,8-TCDF-13C	2.00	63
Total TCDF	ND	---	0.88	2,3,7,8-TCDD-13C	2.00	64
				1,2,3,7,8-PeCDF-13C	2.00	65
2,3,7,8-TCDD	ND	---	0.70	2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	ND	---	0.70	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	ND	---	1.80	1,2,3,6,7,8-HxCDF-13C	2.00	67
2,3,4,7,8-PeCDF	ND	---	1.80	2,3,4,6,7,8-HxCDF-13C	2.00	67
Total PeCDF	ND	---	1.80	1,2,3,7,8,9-HxCDF-13C	2.00	62
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	---	2.50	1,2,3,6,7,8-HxCDD-13C	2.00	74
Total PeCDD	ND	---	2.50	1,2,3,4,6,7,8-HpCDF-13C	2.00	77
				1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	---	0.81	1,2,3,4,6,7,8-HpCDD-13C	2.00	96
1,2,3,6,7,8-HxCDF	ND	---	0.88	OCDD-13C	4.00	68
2,3,4,6,7,8-HxCDF	ND	---	0.78			
1,2,3,7,8,9-HxCDF	ND	---	1.20	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	0.91	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.50	2,3,7,8-TCDD-37Cl4	0.20	61
1,2,3,6,7,8-HxCDD	ND	---	1.60			
1,2,3,7,8,9-HxCDD	ND	---	1.50			
Total HxCDD	ND	---	1.50			
1,2,3,4,6,7,8-HpCDF	---	0.73	0.53 + J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	0.82	Equivalence: 0.027 pg/L		
Total HpCDF	ND	---	0.67	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1.6	---	1.20 J U			
Total HpCDD	3.6	---	1.20 J J			
OCDF	---	2.00	1.10 IY UJ			
OCDD	11.0	---	1.70 ~~BJ~~ U			

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Report Prepared for:

Moriah Bucy
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PO Box 200901
Helena MT 59620

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 1060842
Sample Receipt Date: 10/12/2007
Client Project #: Kalispell Post & Timber
Client Sub PO #: N/A
State Cert #: N/A

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Scott Unze, your Pace Project Manager.

This report has been reviewed and prepared by:

Scott Unze, Project Manager
(612) 607-6383
(612) 607-6444 (fax)
scott.unze@pacelabs.com

ACCREDITED IN ACCORDANCE WITH nelac

Report of Laboratory Analysis

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Report Prepared Date:

November 5, 2007

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analyses performed on twelve samples submitted by a representative of the Montana DEQ. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. Reporting limits were based on signal-to-noise measurements.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 46-114%. All of the labeled standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

In some cases, interfering substances impacted the determinations of PCDD or PCDF congeners. The affected values were flagged "I" where incorrect isotope ratios were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to contain trace levels of selected congeners. These were below the calibration range of the method. Sample levels similar to the corresponding blank levels were flagged "B" on the results tables and may be, at least partially, attributed to the background. It should be noted that levels less than ten times the background are not generally considered to be statistically different from the background.

Laboratory spike samples were also prepared with the sample batch using clean water that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 82-116%, with relative percent differences of 0.0-11.0%. These results indicate high degrees of accuracy and precision for these determinations.

The response obtained for the native OCDF in calibration standard analysis F71102B_18 was outside the target range. As specified in the method, the average of the daily response factors for this compound was used in the calculations for the samples from this runshift. The affected values were flagged "Y" on the results tables.

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Appendix A

Sample Management

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1060842

Page: 1 of 1 4 coolers

1140375

Section A Required Client Information:
Company: Pioneer Technical Services
Address: 63 1/2 W. Broadway, Butte, MT 59701
Email To: jtflammang@hotmail.com
Phone: 406-498-0628 Fax:
Requested Due Date/TAT: 21 Days

Section B Required Project Information:
Report To: Moriah Bucy (MT DEQ)
Copy To: Julie Flammang, Pioneer Technical Services
Purchase Order No.:
Project Name: Kalispell Post & Timber (KRY)
Project Number:

Section C Invoice Information:
Attention: Moriah Bucy
Company Name: MT. Dept of Env. Quality, Remediation
Address: P.O. Box 200901 Helena, MT 59620
Pace ~~Quote~~ Reference: Bottle Order # 20724
Pace Project Manager: Scott Unze
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER MT DEQ

Site Location STATE: MT

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

#	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): Dioxin, 8270, Hi Res	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	KRY-200-A	WT	G			10/6/07	1330	9	2	✓								✓		001
2	KRY-200-B	WT	G			10/6	1335	8.7	2	✓								✓		002
3	KRY-200-C	WT	G			10/6	1340	9.8	2	✓								✓		003
4	KRY-202-A	WT	G				1325	11.7	2	✓								✓		004
5	KRY-202-B	WT	G				1345	10.1	2	✓								✓		005
6	KRY-202-C	WT	G				1335	10.1	2	✓								✓		006
7	KRY-203-A	WT	G				950	10.4	2	✓								✓		007
8	KRY-203-B	WT	G				1000	9.8	2	✓								✓		008
9	KRY-203-C	WT	G				1010	9.8	2	✓								✓		009
10	KRY-204	WT	G				1800	10.4	2	✓								✓		010
11	KRY-205	WT	G				1700	10.8	2	✓								✓		011
12	KRY-206	WT	G				1630	10.4	2	✓								✓		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Report II Reporting ①	Julie Flammang / PTS	10/11/07	1330	[signature]	10/12/07	09:30	1.8/3.1 3.0/3.8	Y	X	X
① Not required per Moriah.										

10/12/07

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Report No.: 1060842

Sample Condition Upon Receipt

Pace Analytical

Client Name: Pioneer Tech Services Project # 1060842

Courier: ☐ Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 1Z A85 34E 01 9282 5370

Optional:
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 230194010 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.8, 3.1, 3.0, 3.8 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10-12-07 [illegible]

		Comments:
Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☐ Yes ☒ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☒ No ☐ N/A	10. Saple KRY-200-C HAD 1 GL Received Broken
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐ Yes ☐ No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	15.
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	16.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [illegible] **Date:** 10/12/07

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.2 11 September 2006 Report No.: 1060842

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-200-A		
Lab Sample ID	1060842001		
Filename	F71102B_07		
Injected By	BAL		
Total Amount Extracted	953 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/02/2007 21:16

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.60	2,3,7,8-TCDF-13C	2.00	69
Total TCDF	ND	----	1.60	2,3,7,8-TCDD-13C	2.00	71
				1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	----	1.30	2,3,4,7,8-PeCDF-13C	2.00	91
Total TCDD	ND	----	1.30	1,2,3,7,8-PeCDD-13C	2.00	102
				1,2,3,4,7,8-HxCDF-13C	2.00	85
.05 1,2,3,7,8-PeCDF	ND	----	2.50	1,2,3,6,7,8-HxCDF-13C	2.00	93
.5 2,3,4,7,8-PeCDF	ND	----	1.90	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	----	2.20	1,2,3,7,8,9-HxCDF-13C	2.00	81
				1,2,3,4,7,8-HxCDD-13C	2.00	94
1,2,3,7,8-PeCDD	ND	----	2.00	1,2,3,6,7,8-HxCDD-13C	2.00	99
Total PeCDD	ND	----	2.00	1,2,3,4,6,7,8-HpCDF-13C	2.00	90
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
.1 1,2,3,4,7,8-HxCDF	ND	----	0.77	1,2,3,4,6,7,8-HpCDD-13C	2.00	103
.1 1,2,3,6,7,8-HxCDF	ND	----	0.96	OCDD-13C	4.00	68
.1 2,3,4,6,7,8-HxCDF	ND	----	0.88			
.1 1,2,3,7,8,9-HxCDF	ND	----	1.00	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.90	1,2,3,7,8,9-HxCDD-13C	2.00	NA
.1 1,2,3,4,7,8-HxCDD	ND	----	1.60	2,3,7,8-TCDD-37Cl4	0.20	65
.1 1,2,3,6,7,8-HxCDD	ND	----	2.00			
1,2,3,7,8,9-HxCDD	ND	----	1.60			
Total HxCDD	ND	----	1.70			
1,2,3,4,6,7,8-HpCDF	ND	----	0.80	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.50	Equivalence: 0.0088 pg/L		
Total HpCDF	ND	----	1.10	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	----	1.1	1.00 I			
Total HpCDD	ND	----	1.00			
OCDF	----	2.0	1.80 IY			
OCDD	8.8	----	2.60 BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
I = Interference present
Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-200-B		
Lab Sample ID	1060842002		
Filename	F71102B_08		
Injected By	BAL		
Total Amount Extracted	978 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/02/2007 22:02

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.93	2,3,7,8-TCDF-13C	2.00	66
Total TCDF	ND	----	0.93	2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	----	1.40	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	----	1.40	1,2,3,7,8-PeCDD-13C	2.00	88
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	----	2.00	1,2,3,6,7,8-HxCDF-13C	2.00	80
2,3,4,7,8-PeCDF	ND	----	1.80	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	----	1.90	1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	76
1,2,3,7,8-PeCDD	ND	----	2.30	1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	----	2.30	1,2,3,4,6,7,8-HpCDF-13C	2.00	78
				1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	ND	----	1.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	85
1,2,3,6,7,8-HxCDF	ND	----	0.90	OCDD-13C	4.00	57
2,3,4,6,7,8-HxCDF	ND	----	0.83			
1,2,3,7,8,9-HxCDF	ND	----	1.10	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.97	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.10	2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	ND	----	1.60			
1,2,3,7,8,9-HxCDD	ND	----	1.30			
Total HxCDD	ND	----	1.30			
1,2,3,4,6,7,8-HpCDF	ND	----	0.83	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.90	Equivalence: 0.027 pg/L		
Total HpCDF	1.8	----	1.40 J	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2.7	----	1.60 J			
Total HpCDD	6.0	----	1.60 J			
OCDF	----	3.0	1.80 IY			
OCDD	----	27.0	2.90 I			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
I = Interference present
Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-200-C		
Lab Sample ID	1060842003		
Filename	F71102B_09		
Injected By	BAL		
Total Amount Extracted	954 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/02/2007 22:48

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.70		2,3,7,8-TCDF-13C	2.00	72
Total TCDF	ND	---	0.70		2,3,7,8-TCDD-13C	2.00	69
					1,2,3,7,8-PeCDF-13C	2.00	74
2,3,7,8-TCDD	ND	---	1.50		2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	ND	---	1.50		1,2,3,7,8-PeCDD-13C	2.00	93
					1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	---	1.90		1,2,3,6,7,8-HxCDF-13C	2.00	86
2,3,4,7,8-PeCDF	ND	---	2.30		2,3,4,6,7,8-HxCDF-13C	2.00	82
Total PeCDF	ND	---	2.10		1,2,3,7,8,9-HxCDF-13C	2.00	71
					1,2,3,4,7,8-HxCDD-13C	2.00	82
1,2,3,7,8-PeCDD	ND	---	2.50		1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	---	2.50		1,2,3,4,6,7,8-HpCDF-13C	2.00	88
					1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	---	0.74		1,2,3,4,6,7,8-HpCDD-13C	2.00	96
1,2,3,6,7,8-HxCDF	ND	---	0.91		OCDD-13C	4.00	66
2,3,4,6,7,8-HxCDF	ND	---	0.80				
1,2,3,7,8,9-HxCDF	ND	---	1.30		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	0.94		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.40		2,3,7,8-TCDD-37Cl4	0.20	62
1,2,3,6,7,8-HxCDD	ND	---	1.30				
1,2,3,7,8,9-HxCDD	ND	---	1.50				
Total HxCDD	ND	---	1.40				
1,2,3,4,6,7,8-HpCDF	ND	---	0.97		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	1.20		Equivalence: 0.00 pg/L		
Total HpCDF	ND	---	1.10		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	---	1.4	1.30	I			
Total HpCDD	ND	---	1.30				
OCDF	---	3.3	1.80	IY			
OCDD	---	9.8	2.40	I			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

I = Interference present
Y = Calculated using average of daily RFs

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-202-A		
Lab Sample ID	1060842004		
Filename	F71102B_10		
Injected By	BAL		
Total Amount Extracted	947 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/02/2007 23:33

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.80	2,3,7,8-TCDF-13C	2.00	90
Total TCDF	ND	----	0.80	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	86
2,3,7,8-TCDD	ND	----	1.20	2,3,4,7,8-PeCDF-13C	2.00	89
Total TCDD	ND	----	1.20	1,2,3,7,8-PeCDD-13C	2.00	106
				1,2,3,4,7,8-HxCDF-13C	2.00	95
1,2,3,7,8-PeCDF	ND	----	1.90	1,2,3,6,7,8-HxCDF-13C	2.00	92
2,3,4,7,8-PeCDF	ND	----	1.70	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	----	1.80	1,2,3,7,8,9-HxCDF-13C	2.00	78
				1,2,3,4,7,8-HxCDD-13C	2.00	90
1,2,3,7,8-PeCDD	ND	----	2.20	1,2,3,6,7,8-HxCDD-13C	2.00	103
Total PeCDD	ND	----	2.20	1,2,3,4,6,7,8-HpCDF-13C	2.00	97
				1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	ND	----	1.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	104
1,2,3,6,7,8-HxCDF	ND	----	0.98	OCDD-13C	4.00	73
2,3,4,6,7,8-HxCDF	ND	----	0.67			
1,2,3,7,8,9-HxCDF	ND	----	1.20	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.99	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.50	2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	ND	----	1.40			
1,2,3,7,8,9-HxCDD	ND	----	1.40			
Total HxCDD	ND	----	1.40			
1,2,3,4,6,7,8-HpCDF	ND	----	0.96	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.20	Equivalence: 0.011 pg/L		
Total HpCDF	ND	----	1.10	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	1.20			
Total HpCDD	ND	----	1.20			
OCDF	2.5	----	1.40 JY			
OCDD	8.7	----	2.30 BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-202-B		
Lab Sample ID	1060842005		
Filename	F71102B_11		
Injected By	BAL		
Total Amount Extracted	969 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 00:19

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.99	2,3,7,8-TCDF-13C	2.00	85
Total TCDF	ND	----	0.99	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	93
2,3,7,8-TCDD	ND	----	1.20	2,3,4,7,8-PeCDF-13C	2.00	104
Total TCDD	ND	----	1.20	1,2,3,7,8-PeCDD-13C	2.00	114
				1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDF	ND	----	2.30	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	ND	----	1.80	2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	----	2.00	1,2,3,7,8,9-HxCDF-13C	2.00	79
				1,2,3,4,7,8-HxCDD-13C	2.00	91
1,2,3,7,8-PeCDD	ND	----	2.40	1,2,3,6,7,8-HxCDD-13C	2.00	95
Total PeCDD	ND	----	2.40	1,2,3,4,6,7,8-HpCDF-13C	2.00	87
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	ND	----	1.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	93
1,2,3,6,7,8-HxCDF	ND	----	1.10	OCDD-13C	4.00	63
2,3,4,6,7,8-HxCDF	ND	----	0.99			
1,2,3,7,8,9-HxCDF	ND	----	0.92	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	1.00	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.20	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	----	1.20			
1,2,3,7,8,9-HxCDD	ND	----	1.10			
Total HxCDD	ND	----	1.20			
1,2,3,4,6,7,8-HpCDF	ND	----	1.20	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.40	Equivalence: 0.019 pg/L		
Total HpCDF	ND	----	1.30	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1.9	----	0.94 J			
Total HpCDD	1.9	----	0.94 J			
OCDF	ND	----	1.60			
OCDD	----	7.6	2.60 I			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-202-C		
Lab Sample ID	1060842006		
Filename	F71102B_12		
Injected By	BAL		
Total Amount Extracted	977 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 01:05

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.84	2,3,7,8-TCDF-13C	2.00	70
Total TCDF	ND	---	0.84	2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	---	1.40	2,3,4,7,8-PeCDF-13C	2.00	88
Total TCDD	ND	---	1.40	1,2,3,7,8-PeCDD-13C	2.00	99
				1,2,3,4,7,8-HxCDF-13C	2.00	81
1,2,3,7,8-PeCDF	ND	---	2.30	1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	---	2.00	2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	ND	---	2.10	1,2,3,7,8,9-HxCDF-13C	2.00	75
				1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	---	3.00	1,2,3,6,7,8-HxCDD-13C	2.00	98
Total PeCDD	ND	---	3.00	1,2,3,4,6,7,8-HpCDF-13C	2.00	86
				1,2,3,4,7,8,9-HpCDF-13C	2.00	61
1,2,3,4,7,8-HxCDF	ND	---	1.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	ND	---	1.10	OCDD-13C	4.00	62
2,3,4,6,7,8-HxCDF	ND	---	1.00			
1,2,3,7,8,9-HxCDF	ND	---	1.20	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	1.10	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.40	2,3,7,8-TCDD-37Cl4	0.20	69
1,2,3,6,7,8-HxCDD	ND	---	1.40			
1,2,3,7,8,9-HxCDD	ND	---	1.40			
Total HxCDD	ND	---	1.40			
1,2,3,4,6,7,8-HpCDF	ND	---	0.99	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	1.70	Equivalence: 0.046 pg/L		
Total HpCDF	ND	---	1.40	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2.3	---	1.20 J			
Total HpCDD	7.0	---	1.20 J			
OCDF	---	3.6	2.90 IY			
OCDD	23.0	---	3.00 BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-203-A		
Lab Sample ID	1060842007		
Filename	F71102B_13		
Injected By	BAL		
Total Amount Extracted	958 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 01:51

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	1.30		2,3,7,8-TCDF-13C	2.00	74
Total TCDF	ND	---	1.30		2,3,7,8-TCDD-13C	2.00	71
					1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	ND	---	1.40		2,3,4,7,8-PeCDF-13C	2.00	95
Total TCDD	ND	---	1.40		1,2,3,7,8-PeCDD-13C	2.00	106
					1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	---	1.70		1,2,3,6,7,8-HxCDF-13C	2.00	87
2,3,4,7,8-PeCDF	ND	---	1.80		2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	---	1.80		1,2,3,7,8,9-HxCDF-13C	2.00	77
					1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	---	2.70		1,2,3,6,7,8-HxCDD-13C	2.00	100
Total PeCDD	ND	---	2.70		1,2,3,4,6,7,8-HpCDF-13C	2.00	86
					1,2,3,4,7,8,9-HpCDF-13C	2.00	64
1,2,3,4,7,8-HxCDF	ND	---	0.95		1,2,3,4,6,7,8-HpCDD-13C	2.00	93
1,2,3,6,7,8-HxCDF	ND	---	0.99		OCDD-13C	4.00	64
2,3,4,6,7,8-HxCDF	ND	---	0.93				
1,2,3,7,8,9-HxCDF	ND	---	1.10		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	1.00		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.20		2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	ND	---	1.30				
1,2,3,7,8,9-HxCDD	ND	---	1.20				
Total HxCDD	ND	---	1.20				
1,2,3,4,6,7,8-HpCDF	---	1.2	0.99	I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	1.50		Equivalence: 0.020 pg/L		
Total HpCDF	ND	---	1.30		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2.0	---	1.40	J			
Total HpCDD	3.6	---	1.40	J			
OCDF	ND	---	2.70				
OCDD	---	8.8	2.80	I			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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NC = Not Calculated

J = Value below calibration range
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Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-203-B		
Lab Sample ID	1060842008		
Filename	F71102B_14		
Injected By	BAL		
Total Amount Extracted	948 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 02:36

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	1.7	2,3,7,8-TCDF-13C	2.00	71
Total TCDF	ND	---	1.7	2,3,7,8-TCDD-13C	2.00	70
				1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	ND	---	1.5	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD	ND	---	1.5	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	73
1,2,3,7,8-PeCDF	ND	---	1.6	1,2,3,6,7,8-HxCDF-13C	2.00	80
2,3,4,7,8-PeCDF	ND	---	2.9	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	---	2.3	1,2,3,7,8,9-HxCDF-13C	2.00	70
				1,2,3,4,7,8-HxCDD-13C	2.00	76
1,2,3,7,8-PeCDD	ND	---	3.0	1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	---	3.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	90
				1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	---	1.8	1,2,3,4,6,7,8-HpCDD-13C	2.00	95
1,2,3,6,7,8-HxCDF	ND	---	1.5	OCDD-13C	4.00	63
2,3,4,6,7,8-HxCDF	ND	---	1.5			
1,2,3,7,8,9-HxCDF	ND	---	1.9	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	1.7	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.8	2,3,7,8-TCDD-37Cl4	0.20	72
1,2,3,6,7,8-HxCDD	ND	---	1.5			
1,2,3,7,8,9-HxCDD	ND	---	1.5			
Total HxCDD	ND	---	1.6			
1,2,3,4,6,7,8-HpCDF	ND	---	1.3	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	2.3	Equivalence: 0.011 pg/L		
Total HpCDF	ND	---	1.8	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	---	1.5			
Total HpCDD	ND	---	1.5			
OCDF	ND	---	2.9			
OCDD	11	---	3.0 BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
Y = Calculated using average of daily RFs

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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-203-C		
Lab Sample ID	1060842009		
Filename	F71102B_15		
Injected By	BAL		
Total Amount Extracted	975 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 03:22

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.90	2,3,7,8-TCDF-13C	2.00	72
Total TCDF	ND	---	0.90	2,3,7,8-TCDD-13C	2.00	70
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	---	1.70	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	---	1.70	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	---	2.40	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	ND	---	2.40	2,3,4,6,7,8-HxCDF-13C	2.00	82
Total PeCDF	ND	---	2.40	1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	88
1,2,3,7,8-PeCDD	ND	---	3.10	1,2,3,6,7,8-HxCDD-13C	2.00	95
Total PeCDD	ND	---	3.10	1,2,3,4,6,7,8-HpCDF-13C	2.00	93
				1,2,3,4,7,8,9-HpCDF-13C	2.00	70
1,2,3,4,7,8-HxCDF	ND	---	0.99	1,2,3,4,6,7,8-HpCDD-13C	2.00	107
1,2,3,6,7,8-HxCDF	ND	---	1.00	OCDD-13C	4.00	72
2,3,4,6,7,8-HxCDF	ND	---	0.99			
1,2,3,7,8,9-HxCDF	ND	---	1.50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	1.10	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	1.50	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	ND	---	1.00			
1,2,3,7,8,9-HxCDD	ND	---	1.20			
Total HxCDD	ND	---	1.20			
1,2,3,4,6,7,8-HpCDF	ND	---	1.40	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	2.20	Equivalence: 0.00 pg/L		
Total HpCDF	ND	---	1.80	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	---	1.30			
Total HpCDD	ND	---	1.30			
OCDF	ND	---	2.50			
OCDD	---	5.0	3.70 I			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
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I = Interference present
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Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-204		
Lab Sample ID	1060842010		
Filename	F71102B_16		
Injected By	BAL		
Total Amount Extracted	939 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 04:08

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	1.2	2,3,7,8-TCDF-13C	2.00	69
Total TCDF	ND	---	1.2	2,3,7,8-TCDD-13C	2.00	67
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	---	1.7	2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD	ND	---	1.7	1,2,3,7,8-PeCDD-13C	2.00	88
				1,2,3,4,7,8-HxCDF-13C	2.00	71
1,2,3,7,8-PeCDF	ND	---	2.6	1,2,3,6,7,8-HxCDF-13C	2.00	84
2,3,4,7,8-PeCDF	ND	---	3.5	2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF	ND	---	3.0	1,2,3,7,8,9-HxCDF-13C	2.00	70
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	---	2.8	1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	---	2.8	1,2,3,4,6,7,8-HpCDF-13C	2.00	79
				1,2,3,4,7,8,9-HpCDF-13C	2.00	58
1,2,3,4,7,8-HxCDF	ND	---	1.5	1,2,3,4,6,7,8-HpCDD-13C	2.00	91
1,2,3,6,7,8-HxCDF	ND	---	1.4	OCDD-13C	4.00	55
2,3,4,6,7,8-HxCDF	ND	---	1.3			
1,2,3,7,8,9-HxCDF	ND	---	1.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	1.5	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	2.3	2,3,7,8-TCDD-37Cl4	0.20	66
1,2,3,6,7,8-HxCDD	ND	---	2.0			
1,2,3,7,8,9-HxCDD	ND	---	1.9			
Total HxCDD	ND	---	2.1			
1,2,3,4,6,7,8-HpCDF	ND	---	1.2	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	2.9	Equivalence: 0.0060 pg/L		
Total HpCDF	ND	---	2.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	---	2.0			
Total HpCDD	ND	---	2.0			
OCDF	ND	---	4.0			
OCDD	6.0	---	3.3 BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
Y = Calculated using average of daily RFs

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-205		
Lab Sample ID	1060842011		
Filename	F71103B_09		
Injected By	BAL		
Total Amount Extracted	980 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 19:41

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	1.20		2,3,7,8-TCDF-13C	2.00	51
Total TCDF	ND	---	1.20		2,3,7,8-TCDD-13C	2.00	52
					1,2,3,7,8-PeCDF-13C	2.00	53
2,3,7,8-TCDD	ND	---	1.60		2,3,4,7,8-PeCDF-13C	2.00	56
Total TCDD	ND	---	1.60		1,2,3,7,8-PeCDD-13C	2.00	69
					1,2,3,4,7,8-HxCDF-13C	2.00	54
1,2,3,7,8-PeCDF	ND	---	2.30		1,2,3,6,7,8-HxCDF-13C	2.00	59
2,3,4,7,8-PeCDF	ND	---	2.40		2,3,4,6,7,8-HxCDF-13C	2.00	57
Total PeCDF	ND	---	2.30		1,2,3,7,8,9-HxCDF-13C	2.00	46
					1,2,3,4,7,8-HxCDD-13C	2.00	62
1,2,3,7,8-PeCDD	ND	---	3.30		1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	ND	---	3.30		1,2,3,4,6,7,8-HpCDF-13C	2.00	65
					1,2,3,4,7,8,9-HpCDF-13C	2.00	52
1,2,3,4,7,8-HxCDF	---	1.3	1.00	I	1,2,3,4,6,7,8-HpCDD-13C	2.00	76
1,2,3,6,7,8-HxCDF	ND	---	1.00		OCDD-13C	4.00	53
2,3,4,6,7,8-HxCDF	1.4	---	0.78	BJ			
1,2,3,7,8,9-HxCDF	1.5	---	1.10	BJ	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	2.9	---	0.98	BJ	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	2.00		2,3,7,8-TCDD-37Cl4	0.20	73
1,2,3,6,7,8-HxCDD	ND	---	1.80				
1,2,3,7,8,9-HxCDD	ND	---	2.00				
Total HxCDD	ND	---	1.90				
1,2,3,4,6,7,8-HpCDF	---	2.0	1.40	I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	1.70		Equivalence: 0.30 pg/L		
Total HpCDF	ND	---	1.50		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	---	2.3	1.30	I			
Total HpCDD	ND	---	1.30				
OCDF	---	3.4	1.40	IY			
OCDD	17.0	---	3.50	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
I = Interference present
Y = Calculated using average of daily RFs

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Montana Dept. Of Env. Quality

Client's Sample ID	KRY-206		
Lab Sample ID	1060842012		
Filename	F71103B_10		
Injected By	BAL		
Total Amount Extracted	958 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2007
ICAL Date	08/30/2007	Received	10/12/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Extracted	10/31/2007
Method Blank ID	BLANK-14617	Analyzed	11/03/2007 20:27

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.88		2,3,7,8-TCDF-13C	2.00	63
Total TCDF	ND	----	0.88		2,3,7,8-TCDD-13C	2.00	64
					1,2,3,7,8-PeCDF-13C	2.00	65
2,3,7,8-TCDD	ND	----	0.70		2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	ND	----	0.70		1,2,3,7,8-PeCDD-13C	2.00	86
					1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	ND	----	1.80		1,2,3,6,7,8-HxCDF-13C	2.00	67
2,3,4,7,8-PeCDF	ND	----	1.80		2,3,4,6,7,8-HxCDF-13C	2.00	67
Total PeCDF	ND	----	1.80		1,2,3,7,8,9-HxCDF-13C	2.00	62
					1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	----	2.50		1,2,3,6,7,8-HxCDD-13C	2.00	74
Total PeCDD	ND	----	2.50		1,2,3,4,6,7,8-HpCDF-13C	2.00	77
					1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	----	0.81		1,2,3,4,6,7,8-HpCDD-13C	2.00	96
1,2,3,6,7,8-HxCDF	ND	----	0.88		OCDD-13C	4.00	68
2,3,4,6,7,8-HxCDF	ND	----	0.78				
1,2,3,7,8,9-HxCDF	ND	----	1.20		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.91		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.50		2,3,7,8-TCDD-37Cl4	0.20	61
1,2,3,6,7,8-HxCDD	ND	----	1.60				
1,2,3,7,8,9-HxCDD	ND	----	1.50				
Total HxCDD	ND	----	1.50				
1,2,3,4,6,7,8-HpCDF	----	0.73	0.53	I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.82		Equivalence: 0.027 pg/L		
Total HpCDF	ND	----	0.67		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1.6	----	1.20	J			
Total HpCDD	3.6	----	1.20	J			
OCDF	----	2.00	1.10	IY			
OCDD	11.0	----	1.70	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Value below calibration range
B = Less than 10x higher than method blank level
I = Interference present
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Method 8290 Blank Analysis Results

Lab Sample ID	BLANK-14617	Matrix	Water
Filename	F71102B_06	Dilution	NA
Total Amount Extracted	934 mL	Extracted	10/31/2007
ICAL Date	08/30/2007	Analyzed	11/02/2007 20:31
CCal Filename(s)	F71102B_01 & F71102B_18	Injected By	BAL

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.79		2,3,7,8-TCDF-13C	2.00	72
Total TCDF	ND	----	0.79		2,3,7,8-TCDD-13C	2.00	75
					1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	----	0.97		2,3,4,7,8-PeCDF-13C	2.00	92
Total TCDD	ND	----	0.97		1,2,3,7,8-PeCDD-13C	2.00	102
					1,2,3,4,7,8-HxCDF-13C	2.00	86
1,2,3,7,8-PeCDF	ND	----	1.60		1,2,3,6,7,8-HxCDF-13C	2.00	92
2,3,4,7,8-PeCDF	ND	----	1.60		2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	----	1.60		1,2,3,7,8,9-HxCDF-13C	2.00	80
					1,2,3,4,7,8-HxCDD-13C	2.00	90
1,2,3,7,8-PeCDD	ND	----	2.50		1,2,3,6,7,8-HxCDD-13C	2.00	102
Total PeCDD	ND	----	2.50		1,2,3,4,6,7,8-HpCDF-13C	2.00	89
					1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	----	1.9	0.69	I	1,2,3,4,6,7,8-HpCDD-13C	2.00	99
1,2,3,6,7,8-HxCDF	----	1.5	0.71	I	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	1.40	----	0.55	J			
1,2,3,7,8,9-HxCDF	0.96	----	0.72	J	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	2.40	----	0.67	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	----	1.2	1.10	I	2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	ND	----	1.40				
1,2,3,7,8,9-HxCDD	ND	----	1.40				
Total HxCDD	ND	----	1.30				
1,2,3,4,6,7,8-HpCDF	ND	----	1.30		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	2.50		Equivalence: 0.25 pg/L		
Total HpCDF	ND	----	1.90		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	----	3.7	1.60	I			
Total HpCDD	ND	----	1.60				
OCDF	----	4.0	2.30	IY			
OCDD	15.00	----	2.00	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

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Y = Calculated using average of daily RFs

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Minneapolis, MN 55414

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Fax: 612- 607-6444

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Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-14618		
Filename	F71102B_03	Matrix	Water
Total Amount Extracted	953 mL	Dilution	NA
ICAL Date	08/30/2007	Extracted	10/31/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Analyzed	11/02/2007 18:15
Method Blank ID	BLANK-14617	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.
2,3,7,8-TCDF	0.20	0.19	96
Total TCDF			
2,3,7,8-TCDD	0.20	0.18	92
Total TCDD			
1,2,3,7,8-PeCDF	1.00	1.02	102
2,3,4,7,8-PeCDF	1.00	0.93	93
Total PeCDF			
1,2,3,7,8-PeCDD	1.00	0.89	89
Total PeCDD			
1,2,3,4,7,8-HxCDF	1.00	0.89	89
1,2,3,6,7,8-HxCDF	1.00	0.99	99
2,3,4,6,7,8-HxCDF	1.00	0.97	97
1,2,3,7,8,9-HxCDF	1.00	0.94	94
Total HxCDF			
1,2,3,4,7,8-HxCDD	1.00	0.97	97
1,2,3,6,7,8-HxCDD	1.00	0.93	93
1,2,3,7,8,9-HxCDD	1.00	0.93	93
Total HxCDD			
1,2,3,4,6,7,8-HpCDF	1.00	0.97	97
1,2,3,4,7,8,9-HpCDF	1.00	1.06	106
Total HpCDF			
1,2,3,4,6,7,8-HpCDD	1.00	0.86	86
Total HpCDD			
OCDF	2.00	2.32	116 Y
OCDD	2.00	2.01	100

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	73
2,3,7,8-TCDD-13C	2.00	70
1,2,3,7,8-PeCDF-13C	2.00	71
2,3,4,7,8-PeCDF-13C	2.00	82
1,2,3,7,8-PeCDD-13C	2.00	99
1,2,3,4,7,8-HxCDF-13C	2.00	80
1,2,3,6,7,8-HxCDF-13C	2.00	79
2,3,4,6,7,8-HxCDF-13C	2.00	78
1,2,3,7,8,9-HxCDF-13C	2.00	71
1,2,3,4,7,8-HxCDD-13C	2.00	79
1,2,3,6,7,8-HxCDD-13C	2.00	90
1,2,3,4,6,7,8-HpCDF-13C	2.00	80
1,2,3,4,7,8,9-HpCDF-13C	2.00	61
1,2,3,4,6,7,8-HpCDD-13C	2.00	90
OCDD-13C	4.00	59
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	73

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-14619		
Filename	F71102B_04	Matrix	Water
Total Amount Extracted	945 mL	Dilution	NA
ICAL Date	08/30/2007	Extracted	10/31/2007
CCal Filename(s)	F71102B_01 & F71102B_18	Analyzed	11/02/2007 18:59
Method Blank ID	BLANK-14617	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.17	86	2,3,7,8-TCDF-13C	2.00	89
Total TCDF				2,3,7,8-TCDD-13C	2.00	87
				1,2,3,7,8-PeCDF-13C	2.00	87
2,3,7,8-TCDD	0.20	0.18	89	2,3,4,7,8-PeCDF-13C	2.00	105
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	116
				1,2,3,4,7,8-HxCDF-13C	2.00	101
1,2,3,7,8-PeCDF	1.00	0.93	93	1,2,3,6,7,8-HxCDF-13C	2.00	101
2,3,4,7,8-PeCDF	1.00	0.88	88	2,3,4,6,7,8-HxCDF-13C	2.00	100
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	90
				1,2,3,4,7,8-HxCDD-13C	2.00	102
1,2,3,7,8-PeCDD	1.00	0.85	85	1,2,3,6,7,8-HxCDD-13C	2.00	112
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	103
				1,2,3,4,7,8,9-HpCDF-13C	2.00	81
1,2,3,4,7,8-HxCDF	1.00	0.87	87	1,2,3,4,6,7,8-HpCDD-13C	2.00	114
1,2,3,6,7,8-HxCDF	1.00	0.94	94	OCDD-13C	4.00	76
2,3,4,6,7,8-HxCDF	1.00	0.91	91			
1,2,3,7,8,9-HxCDF	1.00	0.88	88	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	0.87	87	2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	1.00	0.93	93			
1,2,3,7,8,9-HxCDD	1.00	0.86	86			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	0.91	91			
1,2,3,4,7,8,9-HpCDF	1.00	0.99	99			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	0.82	82			
Total HpCDD						
OCDF	2.00	2.25	112 Y			
OCDD	2.00	1.92	96			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Method 8290

Spike Recovery Relative Percent Difference (RPD) Results

Client: Montana Dept. Of Env. Quality

Spike 1 ID: LCS-14618
Spike 1 Filename: F71102B_03

Spike 2 ID: LCSD-14619
Spike 2 Filename: F71102B_04

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	96	86	11.0
2,3,7,8-TCDD	92	89	3.3
1,2,3,7,8-PeCDF	102	93	9.2
2,3,4,7,8-PeCDF	93	88	5.5
1,2,3,7,8-PeCDD	89	85	4.6
1,2,3,4,7,8-HxCDF	89	87	2.3
1,2,3,6,7,8-HxCDF	99	94	5.2
2,3,4,6,7,8-HxCDF	97	91	6.4
1,2,3,7,8,9-HxCDF	94	88	6.6
1,2,3,4,7,8-HxCDD	97	87	10.9
1,2,3,6,7,8-HxCDD	93	93	0.0
1,2,3,7,8,9-HxCDD	93	86	7.8
1,2,3,4,6,7,8-HpCDF	97	91	6.4
1,2,3,4,7,8,9-HpCDF	106	99	6.8
1,2,3,4,6,7,8-HpCDD	86	82	4.8
OCDF	116	112	3.5
OCDD	100	96	4.1

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

** REPORT **

RECEIVED
OCT 23 2007

Pioneer Technical Services
Julie Flammang
63 1/2 W. Broadway
Butte MT 59701

ENERGY LABORATORIES
ENERGY LABORATORIES, INC. • P.O. Box 5688 • 3161 East Lyndale Ave. • Helena, MT 59604
877-472-0711 • 406-442-0711 • 406-442-0712 fax • helena@energylab.com

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ANALYTICAL SUMMARY REPORT

October 18, 2007

MT DEQ
PO Box 200901
Helena, MT 59620

Workorder No.: H07100177

Project Name: Kalispell Pole and Timber Reliance and Yale OilKRY

Energy Laboratories Inc received the following 10 samples from MT DEQ on 10/12/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H07100177-001	KRY-200-A	10/10/07 16:00	10/12/07	Aqueous	Solids, Total Suspended
H07100177-002	KRY-200-B	10/10/07 16:10	10/12/07	Aqueous	Same As Above
H07100177-003	KRY-200-C	10/10/07 16:20	10/12/07	Aqueous	Same As Above
H07100177-004	KRY-202-A	10/10/07 13:25	10/12/07	Aqueous	Same As Above
H07100177-005	KRY-202-B	10/10/07 13:45	10/12/07	Aqueous	Same As Above
H07100177-006	KRY-202-C	10/10/07 13:35	10/12/07	Aqueous	Same As Above
H07100177-007	KRY-203-A	10/10/07 9:50	10/12/07	Aqueous	Same As Above
H07100177-008	KRY-203-B	10/10/07 10:00	10/12/07	Aqueous	Same As Above
H07100177-009	KRY-203-C	10/10/07 10:10	10/12/07	Aqueous	Same As Above
H07100177-010	KRY-205	10/10/07 17:00	10/12/07	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID, EPA # ID00942
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____
Jonathan Hager

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Assistant Lab Manager

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Date: *18-Oct-07*

CLIENT: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale Oil
Sample Delivery Group: H07100177

CASE NARRATIVE

Level 4 QC not needed for work order.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-001
Client Sample ID: KRY-200-A

Report Date: 10/18/07
Collection Date: 10/10/07 16:00
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:14 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-002
Client Sample ID: KRY-200-B

Report Date: 10/18/07
Collection Date: 10/10/07 16:10
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:14 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-003
Client Sample ID: KRY-200-C

Report Date: 10/18/07
Collection Date: 10/10/07 16:20
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:15 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-004
Client Sample ID: KRY-202-A

Report Date: 10/18/07
Collection Date: 10/10/07 13:25
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:15 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-005
Client Sample ID: KRY-202-B

Report Date: 10/18/07
Collection Date: 10/10/07 13:45
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:16 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-006
Client Sample ID: KRY-202-C

Report Date: 10/18/07
Collection Date: 10/10/07 13:35
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:16 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-007
Client Sample ID: KRY-203-A

Report Date: 10/18/07
Collection Date: 10/10/07 09:50
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:16 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-008
Client Sample ID: KRY-203-B

Report Date: 10/18/07
Collection Date: 10/10/07 10:00
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:17 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-009
Client Sample ID: KRY-203-C

Report Date: 10/18/07
Collection Date: 10/10/07 10:10
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:17 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY
Lab ID: H07100177-010
Client Sample ID: KRY-205

Report Date: 10/18/07
Collection Date: 10/10/07 17:00
DateReceived: 10/12/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	10/15/07 15:17 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: MT DEQ
Project: Kalispell Pole and Timber Reliance and Yale OilKRY

Report Date: 10/18/07
Work Order: H07100177

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 D								Batch: 071015A-SLDS-TSS-W	
Sample ID: LCS1_071015A	Laboratory Control Sample				Run: SOLIDS_071015A			10/15/07 15:14	
Solids, Total Suspended TSS @ 105 C	1960	mg/L	10	98	70	130			
Sample ID: H07100177-010ADUP	Sample Duplicate				Run: SOLIDS_071015A			10/15/07 15:17	
Solids, Total Suspended TSS @ 105 C	4.00	mg/L	10				0.0	10	

Qualifiers:
RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Chain of Custody and Analytical Request Record

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

ENERGY LABORATORIES

Company Name: Pioneer Technical Services

Project Name, PWS #, Permit #, Etc.: Kalispell Pole & Timber Yard, Reliance & Yale Oil (KRY)

Report Mail Address: 631½ W. Broadway, Butte, MT 59701

Contact Name, Phone, Fax, E-mail: Julie Flammang, 406-498-0628, jtflammang@hotmail.com

Sampler Name if other than Contact:

Invoice Address: Montana Department of Env. Quality, Remediation Division, P.O. Box 200901, Helena, MT 59620-0901

Invoice Contact & Phone #: Moriah Bucy, 406-841-5069

~~Purchase Order #~~: Bottle Order # 2329

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:

NELAC ☐ A2LA ☐ Level IV ☒

Other _____

EDD/EDT ☒ Format _____

ANALYSIS REQUESTED

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Receipt Temp 0 °C

Cooler ID(s) _____

Custody Seal Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers / Sample Type: A W S V B O / Air Water Soils/Solids Vegetation Bioassay Other / MATRIX	TSS							SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments:	Lab ID (LABORATORY USE ONLY)
1	KRY-200-A	10/10/07	1400	1 W	✓											707100177-001
2	KRY-200-B		1400	1 W	✓											-002
3	KRY-200-C		1400	1 W	✓											-003
4	KRY-202-A		1325	1 W	✓											-004
5	KRY-202-B		1345	1 W	✓											-005
6	KRY-202-C		1335	1 W	✓											-006
7	KRY-203-A		950	1 W	✓											-007
8	KRY-203-B		1000	1 W	✓											-008
9	KRY-203-C		1010	1 W	✓											-009
10	KRY-205	↓	1700	1 W	✓											-010

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by: Julie Flammang	Date/Time: 10/11/07 1330	Shipped by: UPS ARS	Received by: [illegible] Date/Time: 10-12-07 13
Relinquished by:	Date/Time:	Shipped by:	Received by: Date/Time:

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY

Sample Type: _____ # of fractions _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

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Energy Laboratories Inc
Workorder Receipt Checklist

H07100177

MT DEQ

Login completed by: Wanda Johnson

Reviewed by: GBB

Reviewed Date: 10/18/07

Date and Time Received: 10/12/2007 1:35 PM

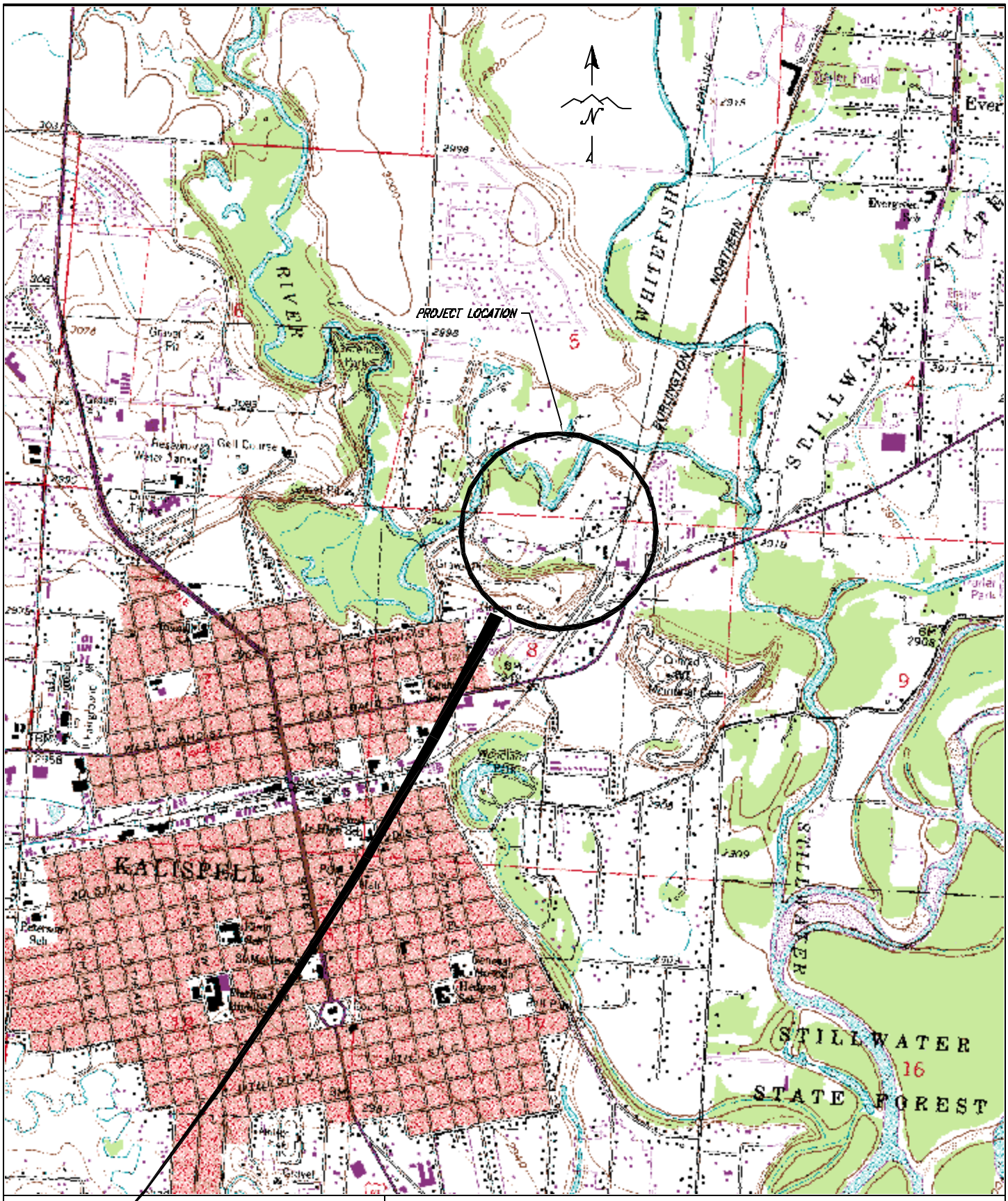
Received by: wjj

Carrier name: UPS ARS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	0°C On Ice
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Spoke with Moriah Bucy re: Level 4 QC, do not need. Wj

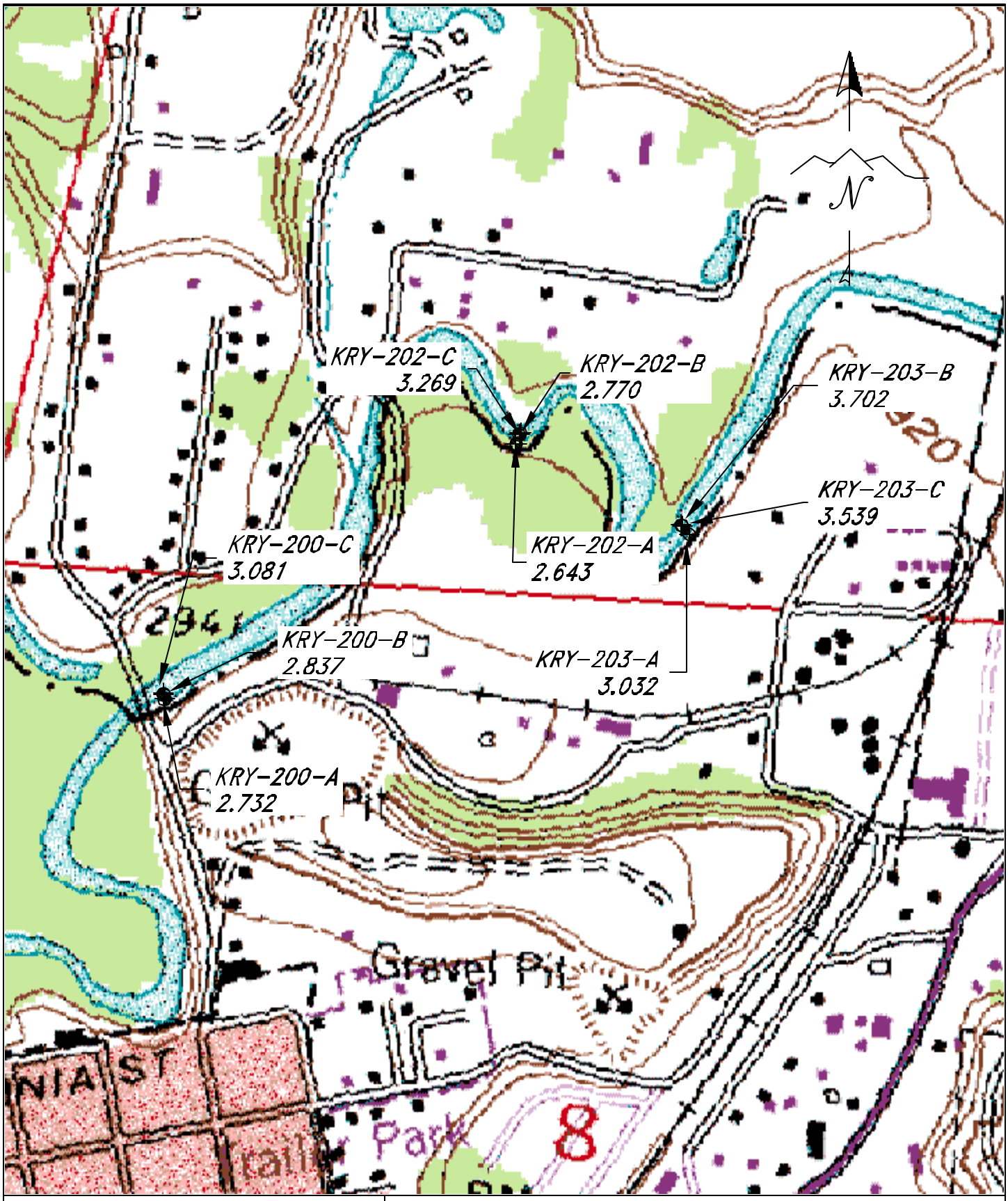


PIONEER TECHNICAL SERVICES, INC.

FIGURE 1
KALISPELL, MONTANA
SITE LOCATION MAP
KRY SITE

SCALE: 1"=2000'
DATE: 9/6/07

KRY F101.DWG



LEGEND

SAMPLE LOCATION

KRY-200-A — SAMPLE ID

2.732 — 2,3,7,8-TCDD EQUIVALENCE CONCENTRATIONS

PIONEER TECHNICAL SERVICES, INC.

FIGURE 2
SAMPLE LOCATION MAP
2,3,7,8-TCDD EQUIVALENCE CONCENTRATIONS
KRY SITE

SCALE: 1"=500'
DATE: 12/3/07

KPT_F102.DWG