From Pick-n-Pull's 306 Info Request response

Spill Report for incident on 5/31/13

Attachment R

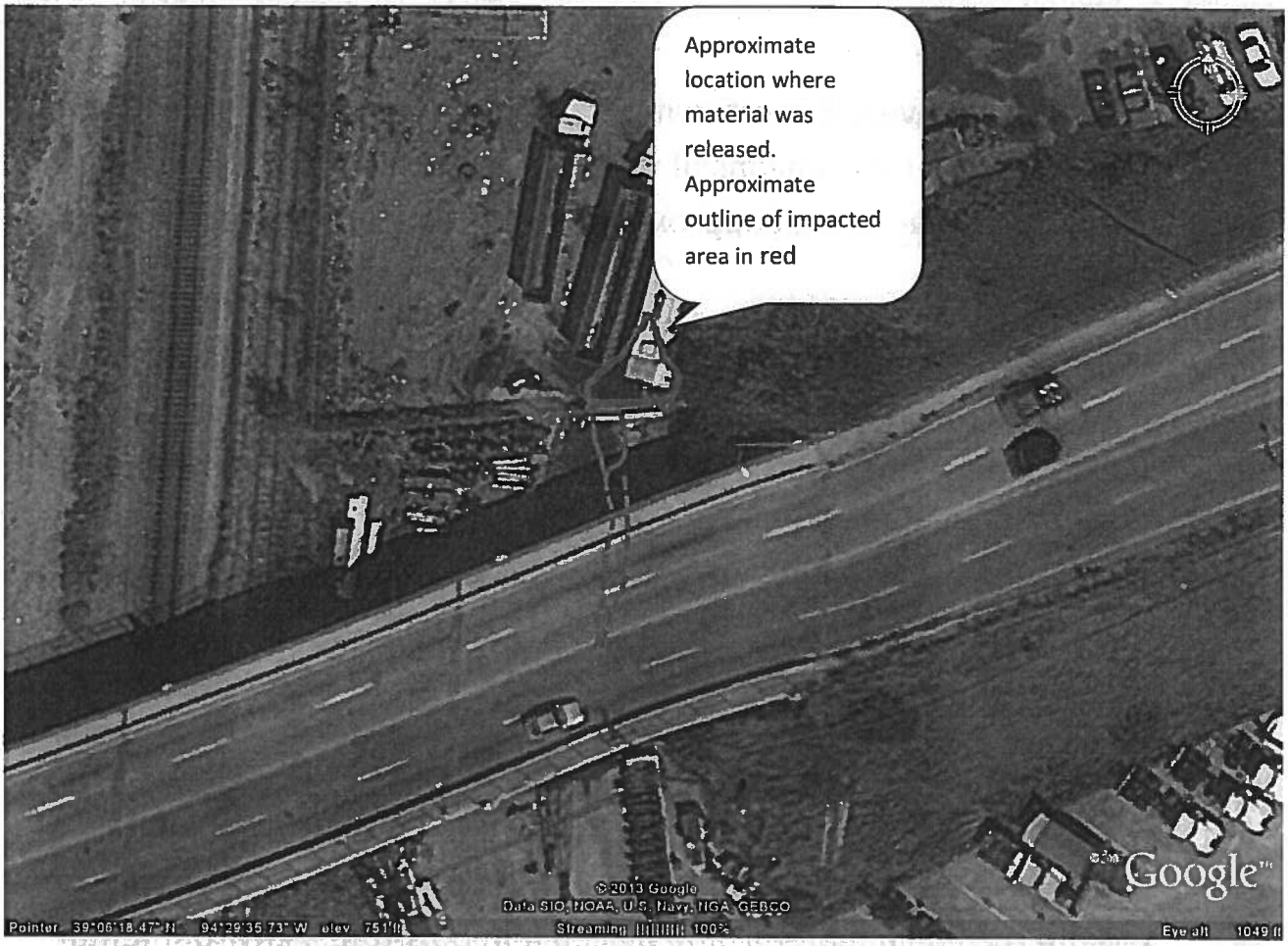
Material Discharge Report; 7700 Winner Rd. Kansas City, MO

Date of Occurrence: Friday, May 31, 2013, 5:00 PM

What Happened: Unintentional release of unknown substances when storm drain cleanout materials were dumped at the above-referenced location. Vendor technician assumed the tailings were clean water, sand and gravel as had been the case in previous cleanings on prior days at this site. In this case, the technician opened the dump gate discharging the material without first decanting water to ensure it was clean. Water bearing fine reddish material, reddish solids and having a slight paint-like odor were deposited on the ground. Some of the water and materials flowed onto adjacent property occupied by Custom Truck and Equipment Inc. Some entered two storm drains on the adjacent property. Visual inspection of the storm water discharge points along the Blue River in the vicinity of Pick N Pull and Custom Truck and Equipment did not show any signs of the reddish material either in the water or on the substrates.

Persons Involved: The discharge was caused when an employee of Ace Pipeline Maintenance who was operating their vacuum truck at the Pick N Pull site on that day. Pick N Pull is not aware of the individual's name. The store manager; Adam Brennan was the onsite pick N Pull supervisor.

Why it happened: The operator from Ace Pipeline Maintenance did not verify the nature of the contents of the vacuum truck before he released the entire load onto the ground.


Approximate location where material was released. Approximate outline of impacted area in red
© 2013 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Streaming 100%
Google

Quantity Involved: It is estimated the total volume of material was approximately 1300 gallons of water and solids. Of the total volume, Pick N Pull believes that approximately 60% was water and 40% was mixed solids.

What was in the Discharge: The contents of the vacuum truck discharged by ACE Pipeline Maintenance included water and sandy gravel, along with the reddish material. Lab analyses (attached) indicate that the discharge contained lead, chromium, barium, and other metals, PCB-1016, and small amounts of other organic compounds. These results are consistent with the observation that the material appeared to resemble old paint waste.

Remediation Measures: Environmental Works (2001 Main Street, Kansas City, MO 64105) was engaged by Pick N Pull to clean up the Custom Truck and Equipment area. They used vacuum equipment to pick up the liquid material and placed it in poly totes. Environmental Works also removed affected solid material on the Custom Truck site using a small skid-steer loader equipped with a bucket. Solid materials were placed in a temporary containment on the Custom Truck site. After the discharged and impacted materials were removed, a new covering of gravel was placed over the impacted area at Custom Truck and Equipment to restore the firm parking surface to the company's equipment storage area.

At the direction of MDNR, these materials will remain securely stored at the Custom Truck site pending disposal arrangements. The remediation measures at the Custom Truck and Equipment site were completed on June 5, 2013

ACE Pipeline Maintenance, used a vacuum truck to pick up water and mud slurry at the discharge site until it became too dry to effectively vacuum. The impacted soils at the discharge site were removed by Environmental Works using a small skid-steer loader equipped with a bucket. All solid materials were placed in a plastic-lined containment. Residue was swept from paved surfaces and placed in the containment. Equipment After the vacuum trucks operated by Ace and Environmental Works were emptied into the containment, each truck was decontaminated. All decontamination materials were collected and contained. A cargo trailer that had been parked in the discharge area was also decontaminated. The trailer was parked in a temporary containment constructed of heavy plastic sheeting to catch runoff and the entire wheel assembly was pressure washed. All decontamination materials were removed from the temporary containment by vacuum truck and discharged into the containment with the other materials removed from the discharge area. The containment was securely covered with plastic sheeting. Cleanup of the discharge site was completed by close of business on June 6, 2013

Disposal: The waste materials remain secured on site pending the results of sampling to characterize and determine the appropriate disposal options. Once the results are returned, Environmental Works will coordinate disposal operations. Pick N Pull anticipates this material will be removed within the next three weeks.

To Prevent Reoccurrence: To prevent reoccurrence, dumping of unknown materials will not normally be allowed on company property. However, if material is to be dumped on site, it must be specifically authorized and the nature of the material must first be determined. Any unknown material will be placed in a constructed containment or

other suitable water tight container until it can be analyzed and proper disposal and disposition methods determined.

Analytical Reports: Attached Lab report from Pace Analytical, dated June 7, 2013, with analysis of discharged materials

Ryan Wood
Regional Director
Pick N Pull

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

June 07, 2013

Adam Bestgen
ENVIRONMENTAL WORKS
201 Main Street
Suite 200
Kansas City, MO 64105

RE: Project: PICKnPULL
Pace Project No.: 60146172

Dear Adam Bestgen:
Enclosed are the analytical results for sample(s) received by the laboratory on June 05, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Angie Brown

Angie.Brown@pacelabs.com
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: PICKnPULL
Pace Project No.: 60146172

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-13-4
Utah Certification #: KS000212013-3
Illinois Certification #: 003097

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: PICKnPULL
Pace Project No.: 60146172

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60146172001	PICKnPULL 1	Water	06/05/13 00:00	06/05/13 15:56
60146172002	PICKnPULL 2	Solid	06/05/13 00:00	06/05/13 15:56

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9608 Loiret Blvd
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: PICKnPULL
Pace Project No.: 60146172

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60146172001	PICKnPULL 1	EPA 8082	JDH	9
		EPA 6010	SMW	7
		EPA 7470	TDS	1
		EPA 8270 by SIM	JMT, NAW	18
		EPA 8270	JMT	57
60146172002	PICKnPULL 2	EPA 8082	JDH	9
		EPA 6010	SMW	7
		EPA 7471	TDS	1
		EPA 8270 by SIM	NAW	18
		EPA 8270	JMT	56
		ASTM D2974	TMD	1

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: PICKnPULL
Pace Project No.: 60146172

Sample: PICKnPULL 1 **Lab ID: 60146172001** Collected: 06/05/13 00:00 Received: 06/05/13 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510							
PCB-1016 (Aroclor 1016)	**492**	ug/L	50.0	50	06/05/13 00:00	06/06/13 14:57	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	50.0	50	06/05/13 00:00	06/06/13 14:57	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	50.0	50	06/05/13 00:00	06/06/13 14:57	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	50.0	50	06/05/13 00:00	06/06/13 14:57	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	50.0	50	06/05/13 00:00	06/06/13 14:57	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	50.0	50	06/05/13 00:00	06/06/13 14:57	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	50.0	50	06/05/13 00:00	06/06/13 14:57	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%	36-115	50	06/05/13 00:00	06/06/13 14:57	877-09-8	D4,S4
Decachlorobiphenyl (S)	0	%	17-122	50	06/05/13 00:00	06/06/13 14:57	2051-24-3	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	10.0	1	06/06/13 14:00	06/07/13 10:17	7440-38-2	
Barium	**178**	ug/L	10.0	1	06/06/13 14:00	06/07/13 10:17	7440-39-3	
Cadmium	ND	ug/L	5.0	1	06/06/13 14:00	06/07/13 10:17	7440-43-9	
Chromium	**127**	ug/L	5.0	1	06/06/13 14:00	06/07/13 10:17	7440-47-3	
Lead	**407**	ug/L	5.0	1	06/06/13 14:00	06/07/13 10:17	7439-92-1	
Selenium	ND	ug/L	15.0	1	06/06/13 14:00	06/07/13 10:17	7782-49-2	
Silver	ND	ug/L	7.0	1	06/06/13 14:00	06/07/13 10:17	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	06/06/13 11:10	06/06/13 13:54	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510							
Acenaphthene	**0.27**	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	83-32-9	
Acenaphthylene	**0.19**	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	208-96-8	
Anthracene	ND	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	50-32-8	
Benzo(b)fluoranthene	**0.12**	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	207-08-9	
Chrysene	**0.13**	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	53-70-3	
Fluoranthene	**0.16**	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	206-44-0	
Fluorene	**0.12**	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	193-39-5	
Naphthalene	**7.0**	ug/L	0.50	1	06/05/13 00:00	06/06/13 13:38	91-20-3	
Phenanthrene	ND	ug/L	0.50	1	06/05/13 00:00	06/06/13 13:38	85-01-8	
Pyrene	**0.15**	ug/L	0.10	1	06/05/13 00:00	06/06/13 13:38	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	77	%	40-120	1	06/05/13 00:00	06/06/13 10:46	321-60-8	
Terphenyl-d14 (S)	88	%	39-120	1	06/05/13 00:00	06/06/13 10:46	1718-51-0	
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510							
Benzo(a)anthracene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	56-55-3	

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: PICKnPULL
Pace Project No.: 60146172

Sample: PICKnPULL 1 Lab ID: **60146172001** Collected: 06/05/13 00:00 Received: 06/05/13 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510							
Benzoic acid	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	1	06/05/13 00:00	06/06/13 10:46	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	85-68-7	
Carbazole	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	20.0	1	06/05/13 00:00	06/06/13 10:46	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	1	06/05/13 00:00	06/06/13 10:46	106-47-8	L3
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	39638-32-9	
2-Chloronaphthalene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	7005-72-3	
Dibenzofuran	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	1	06/05/13 00:00	06/06/13 10:46	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	120-83-2	
Diethylphthalate	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	84-66-2	
2,4-Dimethylphenol	18.0	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	117-84-0	
bis(2-Ethylhexyl)phthalate	17.1	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	67-72-1	
Isophorone	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	78-59-1	
2-Methylnaphthalene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46		
2-Nitroaniline	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	88-74-4	
3-Nitroaniline	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	99-09-2	
4-Nitroaniline	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	86-30-6	
Pentachlorophenol	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	87-86-5	
Phenol	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	108-95-2	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: PICKnPULL
Pace Project No.: 60146172

Sample: PICKnPULL 1 Lab ID: **60146172001** Collected: 06/05/13 00:00 Received: 06/05/13 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510							
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	50.0	1	06/05/13 00:00	06/06/13 10:46	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1	06/05/13 00:00	06/06/13 10:46	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	80	%	10-159	1	06/05/13 00:00	06/06/13 10:46	4165-60-0	
2-Fluorobiphenyl (S)	77	%	15-149	1	06/05/13 00:00	06/06/13 10:46	321-60-8	
Terphenyl-d14 (S)	88	%	25-142	1	06/05/13 00:00	06/06/13 10:46	1718-51-0	
Phenol-d6 (S)	32	%	12-120	1	06/05/13 00:00	06/06/13 10:46	13127-88-3	
2-Fluorophenol (S)	38	%	16-120	1	06/05/13 00:00	06/06/13 10:46	367-12-4	
2,4,6-Tribromophenol (S)	91	%	37-120	1	06/05/13 00:00	06/06/13 10:46	118-79-6	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: PICKnPULL
Pace Project No.: 60146172

Sample: PICKnPULL 2 **Lab ID: 60146172002** Collected: 06/05/13 00:00 Received: 06/05/13 15:56 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB SW	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	**20700**	ug/kg	2010	50	06/05/13 00:00	06/06/13 13:47	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	4030	50	06/05/13 00:00	06/06/13 13:47	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	2010	50	06/05/13 00:00	06/06/13 13:47	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	2010	50	06/05/13 00:00	06/06/13 13:47	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	2010	50	06/05/13 00:00	06/06/13 13:47	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	2010	50	06/05/13 00:00	06/06/13 13:47	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	2010	50	06/05/13 00:00	06/06/13 13:47	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%	34-132	50	06/05/13 00:00	06/06/13 13:47	877-09-8	D4,S4
Decachlorobiphenyl (S)	0	%	36-131	50	06/05/13 00:00	06/06/13 13:47	2051-24-3	S4
6010 MET ICP Red. Interference	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**14.0**	mg/kg	1.1	1	06/06/13 13:00	06/07/13 10:48	7440-38-2	
Barium	**330**	mg/kg	1.1	1	06/06/13 13:00	06/07/13 10:48	7440-39-3	M1,R1
Cadmium	**5.7**	mg/kg	0.55	1	06/06/13 13:00	06/07/13 10:48	7440-43-9	
Chromium	**1060**	mg/kg	0.55	1	06/06/13 13:00	06/07/13 10:48	7440-47-3	M1,R1
Lead	**1930**	mg/kg	1.1	1	06/06/13 13:00	06/07/13 10:48	7439-92-1	M1,R1
Selenium	ND	mg/kg	1.6	1	06/06/13 13:00	06/07/13 10:48	7782-49-2	
Silver	ND	mg/kg	0.76	1	06/06/13 13:00	06/07/13 10:48	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	0.067	mg/kg	0.058	1	06/07/13 08:20	06/07/13 10:08	7439-97-6	M1,R1
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	83-32-9	
Acenaphthylene	ND	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	208-96-8	
Anthracene	ND	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	120-12-7	
Benzo(a)anthracene	**371**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	56-55-3	
Benzo(a)pyrene	**385**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	50-32-8	
Benzo(b)fluoranthene	**1400**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	205-99-2	
Benzo(g,h,i)perylene	**554**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	207-08-9	
Chrysene	**744**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	53-70-3	
Fluoranthene	**1020**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	206-44-0	
Fluorene	ND	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**454**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	193-39-5	
Naphthalene	**461**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	91-20-3	
Phenanthrene	**460**	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	85-01-8	
Pyrene	887	ug/kg	202	10	06/05/13 00:00	06/06/13 15:04	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	86	%	40-120	10	06/05/13 00:00	06/06/13 15:04	321-60-8	P3
Terphenyl-d14 (S)	82	%	38-123	10	06/05/13 00:00	06/06/13 15:04	1718-51-0	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 68219
(913)599-5665

ANALYTICAL RESULTS

Project: PICKnPULL
Pace Project No.: 60146172

Sample: PICKnPULL 2 **Lab ID: 60146172002** Collected: 06/05/13 00:00 Received: 06/05/13 15:56 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles	Analytical Method: EPA 8270 Preparation Method: EPA 3546							
Benzo(a)anthracene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	56-55-3	
Benzoic acid	ND	ug/kg	102000	10	06/05/13 00:00	06/06/13 12:53	65-85-0	
Benzyl alcohol	ND	ug/kg	40400	10	06/05/13 00:00	06/06/13 12:53	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	101-55-3	
Butylbenzylphthalate	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	40400	10	06/05/13 00:00	06/06/13 12:53	59-50-7	
4-Chloroaniline	ND	ug/kg	40400	10	06/05/13 00:00	06/06/13 12:53	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	91-58-7	
2-Chlorophenol	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	7005-72-3	
Dibenzofuran	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	40400	10	06/05/13 00:00	06/06/13 12:53	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	120-83-2	
Diethylphthalate	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	105-67-9	
Dimethylphthalate	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	131-11-3	
Di-n-butylphthalate	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	102000	10	06/05/13 00:00	06/06/13 12:53	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	102000	10	06/05/13 00:00	06/06/13 12:53	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	606-20-2	
Di-n-octylphthalate	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	87-68-3	
Hexachlorobenzene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	77-47-4	
Hexachloroethane	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	67-72-1	
Isophorone	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	78-59-1	
2-Methylnaphthalene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53		
2-Nitroaniline	ND	ug/kg	40400	10	06/05/13 00:00	06/06/13 12:53	88-74-4	
3-Nitroaniline	ND	ug/kg	40400	10	06/05/13 00:00	06/06/13 12:53	99-09-2	
4-Nitroaniline	ND	ug/kg	40400	10	06/05/13 00:00	06/06/13 12:53	100-01-6	
Nitrobenzene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	98-95-3	
2-Nitrophenol	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	88-75-5	
4-Nitrophenol	ND	ug/kg	102000	10	06/05/13 00:00	06/06/13 12:53	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	86-30-6	
Pentachlorophenol	ND	ug/kg	102000	10	06/05/13 00:00	06/06/13 12:53	87-86-5	

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: PICKnPULL
Pace Project No.: 60146172

Sample: PICKnPULL 2 **Lab ID: 60146172002** Collected: 06/05/13 00:00 Received: 06/05/13 15:56 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles	Analytical Method: EPA 8270 Preparation Method: EPA 3546							
Phenol	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	20200	10	06/05/13 00:00	06/06/13 12:53	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	0	%	21-145	10	06/05/13 00:00	06/06/13 12:53	4165-60-0	D3,P3, S4
2-Fluorobiphenyl (S)	0	%	28-145	10	06/05/13 00:00	06/06/13 12:53	321-60-8	S4
Terphenyl-d14 (S)	0	%	29-158	10	06/05/13 00:00	06/06/13 12:53	1718-51-0	S4
Phenol-d6 (S)	0	%	43-120	10	06/05/13 00:00	06/06/13 12:53	13127-88-3	S4
2-Fluorophenol (S)	0	%	45-120	10	06/05/13 00:00	06/06/13 12:53	367-12-4	S4
2,4,6-Tribromophenol (S)	0	%	44-120	10	06/05/13 00:00	06/06/13 12:53	118-79-6	S4
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**19.6**	%	0.50	1		06/05/13 00:00		

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: MERP/7404
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Associated Lab Samples: 60146172001

METHOD BLANK: 1200000
Matrix: Water
Associated Lab Samples: 60146172001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	06/06/13 13:49	

LABORATORY CONTROL SAMPLE: 1200001

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1200002 1200003

Parameter	Units	60146172001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	5.0	94	100	75-125	7	20	

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: MERP/7405
QC Batch Method: EPA 7471
Analysis Method: EPA 7471
Analysis Description: 7471 Mercury
Associated Lab Samples: 60146172002

METHOD BLANK: 1200004
Matrix: Solid
Associated Lab Samples: 60146172002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.050	06/07/13 10:04	

LABORATORY CONTROL SAMPLE: 1200005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.48	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1200006 1200007

Parameter	Units	60146172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.067	.58	.62	0.44	0.58	65	82	75-125	26	20	M1,R1

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: MPRP/22953
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 60146172002

METHOD BLANK: 1200081
Matrix: Solid
Associated Lab Samples: 60146172002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	06/07/13 10:46	
Barium	mg/kg	ND	1.0	06/07/13 10:46	
Cadmium	mg/kg	ND	0.50	06/07/13 10:46	
Chromium	mg/kg	ND	0.50	06/07/13 10:46	
Lead	mg/kg	ND	1.0	06/07/13 10:46	
Selenium	mg/kg	ND	1.5	06/07/13 10:46	
Silver	mg/kg	ND	0.70	06/07/13 10:46	

LABORATORY CONTROL SAMPLE: 1200082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	100	96.6	97	80-120	
Barium	mg/kg	100	104	104	80-120	
Cadmium	mg/kg	100	97.3	97	80-120	
Chromium	mg/kg	100	96.5	96	80-120	
Lead	mg/kg	100	100	100	80-120	
Selenium	mg/kg	100	95.1	95	80-120	
Silver	mg/kg	50	47.1	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1200083 1200084

Parameter	Units	60146172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	14.0	120	117	139	131	104	100	75-125	6	20	
Barium	mg/kg	330	120	117	464	320	112	-8	75-125	37	20	M1,R1
Cadmium	mg/kg	5.7	120	117	130	125	104	102	75-125	4	20	
Chromium	mg/kg	1060	120	117	1230	673	139	-332	75-125	58	20	M1,R1
Lead	mg/kg	1930	120	117	1980	1140	36	-680	75-125	54	20	M1,R1
Selenium	mg/kg	ND	120	117	111	113	93	96	75-125	1	20	
Silver	mg/kg	ND	59.9	58.7	63.1	62.6	105	106	75-125	1	20	

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: MPRP/22963
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 60146172001

METHOD BLANK: 1200128
Matrix: Water
Associated Lab Samples: 60146172001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	10.0	06/07/13 10:06	
Barium	ug/L	ND	10.0	06/07/13 10:06	
Cadmium	ug/L	ND	5.0	06/07/13 10:06	
Chromium	ug/L	ND	5.0	06/07/13 10:06	
Lead	ug/L	ND	5.0	06/07/13 10:06	
Selenium	ug/L	ND	15.0	06/07/13 10:06	
Silver	ug/L	ND	7.0	06/07/13 10:06	

LABORATORY CONTROL SAMPLE: 1200129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	1060	106	80-120	
Barium	ug/L	1000	1060	106	80-120	
Cadmium	ug/L	1000	1070	107	80-120	
Chromium	ug/L	1000	1060	106	80-120	
Lead	ug/L	1000	1100	110	80-120	
Selenium	ug/L	1000	1080	108	80-120	
Silver	ug/L	500	527	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1200130 1200131

Parameter	Units	60145802001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	1000	1000	1100	1070	110	107	75-125	2	20	
Barium	ug/L	88.1	1000	1000	1140	1120	105	103	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	1090	1070	109	107	75-125	2	20	
Chromium	ug/L	ND	1000	1000	1040	1030	104	103	75-125	1	20	
Lead	ug/L	ND	1000	1000	1060	1040	106	104	75-125	2	20	
Selenium	ug/L	ND	1000	1000	1090	1070	109	107	75-125	2	20	
Silver	ug/L	ND	500	500	532	526	106	105	75-125	1	20	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: OEXT/38718
QC Batch Method: EPA 3546
Associated Lab Samples: 60146172002

Analysis Method: EPA 8082
Analysis Description: 8082 GCS PCB

METHOD BLANK: 1199677
Matrix: Solid
Associated Lab Samples: 60146172002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	32.5	06/06/13 10:54	
PCB-1221 (Aroclor 1221)	ug/kg	ND	65.0	06/06/13 10:54	
PCB-1232 (Aroclor 1232)	ug/kg	ND	32.5	06/06/13 10:54	
PCB-1242 (Aroclor 1242)	ug/kg	ND	32.5	06/06/13 10:54	
PCB-1248 (Aroclor 1248)	ug/kg	ND	32.5	06/06/13 10:54	
PCB-1254 (Aroclor 1254)	ug/kg	ND	32.5	06/06/13 10:54	
PCB-1260 (Aroclor 1260)	ug/kg	ND	32.5	06/06/13 10:54	
Decachlorobiphenyl (S)	%	87	36-131	06/06/13 10:54	
Tetrachloro-m-xylene (S)	%	77	34-132	06/06/13 10:54	

LABORATORY CONTROL SAMPLE: 1199678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1248 (Aroclor 1248)	ug/kg	163	135	83	62-129	M4
Decachlorobiphenyl (S)	%			84	36-131	
Tetrachloro-m-xylene (S)	%			79	34-132	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: OEXT/38714
QC Batch Method: EPA 3510
Analysis Method: EPA 8082
Analysis Description: 8082 GCS PCB
Associated Lab Samples: 60146172001

METHOD BLANK: 1199665
Matrix: Water
Associated Lab Samples: 60146172001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	1.0	06/06/13 12:55	
PCB-1221 (Aroclor 1221)	ug/L	ND	1.0	06/06/13 12:55	
PCB-1232 (Aroclor 1232)	ug/L	ND	1.0	06/06/13 12:55	
PCB-1242 (Aroclor 1242)	ug/L	ND	1.0	06/06/13 12:55	
PCB-1248 (Aroclor 1248)	ug/L	ND	1.0	06/06/13 12:55	
PCB-1254 (Aroclor 1254)	ug/L	ND	1.0	06/06/13 12:55	
PCB-1260 (Aroclor 1260)	ug/L	ND	1.0	06/06/13 12:55	
Decachlorobiphenyl (S)	%	72	17-122	06/06/13 12:55	
Tetrachloro-m-xylene (S)	%	67	36-115	06/06/13 12:55	

LABORATORY CONTROL SAMPLE: 1199666

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1248 (Aroclor 1248)	ug/L	5	4.4	88	39-130	
Decachlorobiphenyl (S)	%			82	17-122	
Tetrachloro-m-xylene (S)	%			80	36-115	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: OEXT/38719
QC Batch Method: EPA 3546
Associated Lab Samples: 60146172002

Analysis Method: EPA 8270 by SIM
Analysis Description: 8270/3546 MSSV PAH by SIM

METHOD BLANK: 1199679
Matrix: Solid
Associated Lab Samples: 60146172002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	ND	3.3	06/06/13 14:30	
Acenaphthylene	ug/kg	ND	3.3	06/06/13 14:30	
Anthracene	ug/kg	ND	3.3	06/06/13 14:30	
Benzo(a)anthracene	ug/kg	ND	3.3	06/06/13 14:30	
Benzo(a)pyrene	ug/kg	ND	3.3	06/06/13 14:30	
Benzo(b)fluoranthene	ug/kg	ND	3.3	06/06/13 14:30	
Benzo(g,h,i)perylene	ug/kg	ND	3.3	06/06/13 14:30	
Benzo(k)fluoranthene	ug/kg	ND	3.3	06/06/13 14:30	
Chrysene	ug/kg	ND	3.3	06/06/13 14:30	
Dibenz(a,h)anthracene	ug/kg	ND	3.3	06/06/13 14:30	
Fluoranthene	ug/kg	ND	3.3	06/06/13 14:30	
Fluorene	ug/kg	ND	3.3	06/06/13 14:30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	3.3	06/06/13 14:30	
Naphthalene	ug/kg	ND	3.3	06/06/13 14:30	
Phenanthrene	ug/kg	ND	3.3	06/06/13 14:30	
Pyrene	ug/kg	ND	3.3	06/06/13 14:30	
2-Fluorobiphenyl (S)	%	81	40-120	06/06/13 12:10	
Terphenyl-d14 (S)	%	87	38-123	06/06/13 12:10	

LABORATORY CONTROL SAMPLE: 1199680

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	32.8	25.6	78	58-120	
Acenaphthylene	ug/kg	32.8	25.9	79	56-120	
Anthracene	ug/kg	32.8	26.3	80	56-120	
Benzo(a)anthracene	ug/kg	32.8	29.0	88	56-120	
Benzo(a)pyrene	ug/kg	32.8	28.4	87	55-120	
Benzo(b)fluoranthene	ug/kg	32.8	32.0	98	54-120	
Benzo(g,h,i)perylene	ug/kg	32.8	19.5	60	42-120	
Benzo(k)fluoranthene	ug/kg	32.8	27.6	84	53-120	
Chrysene	ug/kg	32.8	27.3	83	48-120	
Dibenz(a,h)anthracene	ug/kg	32.8	24.8	76	44-120	
Fluoranthene	ug/kg	32.8	31.1	95	58-120	
Fluorene	ug/kg	32.8	27.7	84	59-120	
Indeno(1,2,3-cd)pyrene	ug/kg	32.8	22.5	69	45-120	
Naphthalene	ug/kg	32.8	26.4	80	58-120	
Phenanthrene	ug/kg	32.8	26.6	81	57-120	
Pyrene	ug/kg	32.8	25.9	79	55-120	
2-Fluorobiphenyl (S)	%			80	40-120	M4
Terphenyl-d14 (S)	%			86	38-123	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: OEXT/38716
QC Batch Method: EPA 3546
Associated Lab Samples: 60146172002

Analysis Method: EPA 8270
Analysis Description: 8270 Solid MSSV Microwave

METHOD BLANK: 1199673
Matrix: Solid
Associated Lab Samples: 60146172002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	325	06/06/13 12:10	
1,2-Dichlorobenzene	ug/kg	ND	325	06/06/13 12:10	
1,3-Dichlorobenzene	ug/kg	ND	325	06/06/13 12:10	
1,4-Dichlorobenzene	ug/kg	ND	325	06/06/13 12:10	
2,4,5-Trichlorophenol	ug/kg	ND	325	06/06/13 12:10	
2,4,6-Trichlorophenol	ug/kg	ND	325	06/06/13 12:10	
2,4-Dichlorophenol	ug/kg	ND	325	06/06/13 12:10	
2,4-Dimethylphenol	ug/kg	ND	325	06/06/13 12:10	
2,4-Dinitrophenol	ug/kg	ND	1640	06/06/13 12:10	
2,4-Dinitrotoluene	ug/kg	ND	325	06/06/13 12:10	
2,6-Dinitrotoluene	ug/kg	ND	325	06/06/13 12:10	
2-Chloronaphthalene	ug/kg	ND	325	06/06/13 12:10	
2-Chlorophenol	ug/kg	ND	325	06/06/13 12:10	
2-Methylnaphthalene	ug/kg	ND	325	06/06/13 12:10	
2-Methylphenol(o-Cresol)	ug/kg	ND	325	06/06/13 12:10	
2-Nitroaniline	ug/kg	ND	650	06/06/13 12:10	
2-Nitrophenol	ug/kg	ND	325	06/06/13 12:10	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	325	06/06/13 12:10	
3,3'-Dichlorobenzidine	ug/kg	ND	650	06/06/13 12:10	
3-Nitroaniline	ug/kg	ND	650	06/06/13 12:10	
4,6-Dinitro-2-methylphenol	ug/kg	ND	1640	06/06/13 12:10	
4-Bromophenylphenyl ether	ug/kg	ND	325	06/06/13 12:10	
4-Chloro-3-methylphenol	ug/kg	ND	650	06/06/13 12:10	
4-Chloroaniline	ug/kg	ND	650	06/06/13 12:10	
4-Chlorophenylphenyl ether	ug/kg	ND	325	06/06/13 12:10	
4-Nitroaniline	ug/kg	ND	650	06/06/13 12:10	
4-Nitrophenol	ug/kg	ND	1640	06/06/13 12:10	
Benzo(a)anthracene	ug/kg	ND	325	06/06/13 12:10	
Benzoic acid	ug/kg	ND	1640	06/06/13 12:10	
Benzyl alcohol	ug/kg	ND	650	06/06/13 12:10	
bis(2-Chloroethoxy)methane	ug/kg	ND	325	06/06/13 12:10	
bis(2-Chloroethyl) ether	ug/kg	ND	325	06/06/13 12:10	
bis(2-Chloroisopropyl) ether	ug/kg	ND	325	06/06/13 12:10	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	325	06/06/13 12:10	
Butylbenzylphthalate	ug/kg	ND	325	06/06/13 12:10	
Di-n-butylphthalate	ug/kg	ND	325	06/06/13 12:10	
Di-n-octylphthalate	ug/kg	ND	325	06/06/13 12:10	
Dibenzofuran	ug/kg	ND	325	06/06/13 12:10	
Diethylphthalate	ug/kg	ND	325	06/06/13 12:10	
Dimethylphthalate	ug/kg	ND	325	06/06/13 12:10	
Hexachloro-1,3-butadiene	ug/kg	ND	325	06/06/13 12:10	
Hexachlorobenzene	ug/kg	ND	325	06/06/13 12:10	
Hexachlorocyclopentadiene	ug/kg	ND	325	06/06/13 12:10	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

METHOD BLANK: 1199673 Matrix: Solid

Associated Lab Samples: 60146172002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloroethane	ug/kg	ND	325	06/06/13 12:10	
Isophorone	ug/kg	ND	325	06/06/13 12:10	
N-Nitroso-di-n-propylamine	ug/kg	ND	325	06/06/13 12:10	
N-Nitrosodiphenylamine	ug/kg	ND	325	06/06/13 12:10	
Nitrobenzene	ug/kg	ND	325	06/06/13 12:10	
Pentachlorophenol	ug/kg	ND	1640	06/06/13 12:10	
Phenol	ug/kg	ND	325	06/06/13 12:10	
2,4,6-Tribromophenol (S)	%	88	44-120	06/06/13 12:10	
2-Fluorobiphenyl (S)	%	81	28-145	06/06/13 12:10	
2-Fluorophenol (S)	%	79	45-120	06/06/13 12:10	
Nitrobenzene-d5 (S)	%	80	21-145	06/06/13 12:10	
Phenol-d6 (S)	%	84	43-120	06/06/13 12:10	
Terphenyl-d14 (S)	%	87	29-158	06/06/13 12:10	

LABORATORY CONTROL SAMPLE: 1199674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1660	1320	80	56-120	
1,2-Dichlorobenzene	ug/kg	1660	1260	76	56-120	
1,3-Dichlorobenzene	ug/kg	1660	1240	75	55-120	
1,4-Dichlorobenzene	ug/kg	1660	1260	76	55-120	
2,4,5-Trichlorophenol	ug/kg	1660	1430	87	61-120	
2,4,6-Trichlorophenol	ug/kg	1660	1390	84	59-120	
2,4-Dichlorophenol	ug/kg	1660	1360	82	59-120	
2,4-Dimethylphenol	ug/kg	1660	1290	78	48-120	
2,4-Dinitrophenol	ug/kg	1660	ND	31	10-136	
2,4-Dinitrotoluene	ug/kg	1660	1420	86	58-120	
2,6-Dinitrotoluene	ug/kg	1660	1360	82	60-120	
2-Chloronaphthalene	ug/kg	1660	1300	79	59-120	
2-Chlorophenol	ug/kg	1660	1310	79	57-120	
2-Methylnaphthalene	ug/kg	1660	1280	77	57-120	
2-Methylphenol(o-Cresol)	ug/kg	1660	1290	78	57-120	
2-Nitroaniline	ug/kg	1660	1390	84	61-120	
2-Nitrophenol	ug/kg	1660	1300	78	54-120	
3&4-Methylphenol(m&p Cresol)	ug/kg	1660	1330	81	58-120	
3,3'-Dichlorobenzidine	ug/kg	1660	1230	74	10-160	
3-Nitroaniline	ug/kg	1660	1550	94	11-140	
4,6-Dinitro-2-methylphenol	ug/kg	1660	ND	43	27-121	
4-Bromophenylphenyl ether	ug/kg	1660	1410	85	60-120	
4-Chloro-3-methylphenol	ug/kg	1660	1460	88	61-120	
4-Chloroaniline	ug/kg	1660	1480	89	10-129	
4-Chlorophenylphenyl ether	ug/kg	1660	1390	84	58-120	
4-Nitroaniline	ug/kg	1660	1340	81	11-142	
4-Nitrophenol	ug/kg	1660	1520J	92	52-120	
Benzo(a)anthracene	ug/kg	1660	1380	83	63-120	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

LABORATORY CONTROL SAMPLE: 1199674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzoic acid	ug/kg	1660	1110J	67	17-120	
Benzyl alcohol	ug/kg	1660	1360	82	49-120	
bis(2-Chloroethoxy)methane	ug/kg	1660	1230	75	56-120	
bis(2-Chloroethyl) ether	ug/kg	1660	1210	73	57-120	
bis(2-Chloroisopropyl) ether	ug/kg	1660	1170	71	49-120	
bis(2-Ethylhexyl)phthalate	ug/kg	1660	1480	89	62-120	
Butylbenzylphthalate	ug/kg	1660	1480	89	56-122	
Di-n-butylphthalate	ug/kg	1660	1410	85	64-120	
Di-n-octylphthalate	ug/kg	1660	1540	93	55-127	
Dibenzofuran	ug/kg	1660	1350	82	57-120	
Diethylphthalate	ug/kg	1660	1390	84	61-120	
Dimethylphthalate	ug/kg	1660	1350	81	60-120	
Hexachloro-1,3-butadiene	ug/kg	1660	1350	82	53-120	
Hexachlorobenzene	ug/kg	1660	1420	86	59-120	
Hexachlorocyclopentadiene	ug/kg	3310	2040	62	40-120	
Hexachloroethane	ug/kg	1660	1260	76	54-120	
Isophorone	ug/kg	1660	1240	75	56-120	
N-Nitroso-di-n-propylamine	ug/kg	1660	1260	76	57-120	
N-Nitrosodiphenylamine	ug/kg	1660	1370	83	60-120	
Nitrobenzene	ug/kg	1660	1280	77	58-120	
Pentachlorophenol	ug/kg	1660	1440J	87	54-120	
Phenol	ug/kg	1660	1280	77	56-120	
2,4,6-Tribromophenol (S)	%			92	44-120	
2-Fluorobiphenyl (S)	%			78	28-145	
2-Fluorophenol (S)	%			74	45-120	
Nitrobenzene-d5 (S)	%			75	21-145	M4
Phenol-d6 (S)	%			78	43-120	
Terphenyl-d14 (S)	%			88	29-158	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: OEXT/38721
QC Batch Method: EPA 3510
Associated Lab Samples: 60146172001

Analysis Method: EPA 8270 by SIM
Analysis Description: 8270 Water PAH by SIM MSSV

METHOD BLANK: 1199693
Matrix: Water
Associated Lab Samples: 60146172001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	0.10	06/06/13 13:03	
Acenaphthylene	ug/L	ND	0.10	06/06/13 13:03	
Anthracene	ug/L	ND	0.10	06/06/13 13:03	
Benzo(a)anthracene	ug/L	ND	0.10	06/06/13 13:03	
Benzo(a)pyrene	ug/L	ND	0.10	06/06/13 13:03	
Benzo(b)fluoranthene	ug/L	ND	0.10	06/06/13 13:03	
Benzo(g,h,i)perylene	ug/L	0.10	0.10	06/06/13 13:03	
Benzo(k)fluoranthene	ug/L	ND	0.10	06/06/13 13:03	
Chrysene	ug/L	ND	0.10	06/06/13 13:03	
Dibenz(a,h)anthracene	ug/L	ND	0.10	06/06/13 13:03	
Fluoranthene	ug/L	ND	0.10	06/06/13 13:03	
Fluorene	ug/L	ND	0.10	06/06/13 13:03	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	06/06/13 13:03	
Naphthalene	ug/L	ND	0.50	06/06/13 13:03	
Phenanthrene	ug/L	ND	0.50	06/06/13 13:03	
Pyrene	ug/L	ND	0.10	06/06/13 13:03	
2-Fluorobiphenyl (S)	%	85	40-120	06/06/13 10:03	
Terphenyl-d14 (S)	%	85	39-120	06/06/13 10:03	

LABORATORY CONTROL SAMPLE: 1199694

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/L	1	0.72	72	45-120	
Acenaphthylene	ug/L	1	0.74	74	43-120	
Anthracene	ug/L	1	0.72	72	48-120	
Benzo(a)anthracene	ug/L	1	0.79	79	51-120	
Benzo(a)pyrene	ug/L	1	0.77	77	49-120	
Benzo(b)fluoranthene	ug/L	1	0.75	75	48-120	
Benzo(g,h,i)perylene	ug/L	1	0.83	83	34-120	
Benzo(k)fluoranthene	ug/L	1	0.69	69	51-120	
Chrysene	ug/L	1	0.75	75	43-120	
Dibenz(a,h)anthracene	ug/L	1	0.89	89	32-120	
Fluoranthene	ug/L	1	0.82	82	53-120	
Fluorene	ug/L	1	0.76	76	49-120	
Indeno(1,2,3-cd)pyrene	ug/L	1	0.85	85	36-120	
Naphthalene	ug/L	1	0.74	74	44-120	
Phenanthrene	ug/L	1	0.74	74	52-120	
Pyrene	ug/L	1	0.70	70	48-120	
2-Fluorobiphenyl (S)	%			78	40-120	
Terphenyl-d14 (S)	%			78	39-120	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: OEXT/38720
QC Batch Method: EPA 3510
Associated Lab Samples: 60146172001

Analysis Method: EPA 8270
Analysis Description: 8270 Water MSSV

METHOD BLANK: 1199691
Matrix: Water
Associated Lab Samples: 60146172001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	06/06/13 10:03	
1,2-Dichlorobenzene	ug/L	ND	10.0	06/06/13 10:03	
1,3-Dichlorobenzene	ug/L	ND	10.0	06/06/13 10:03	
1,4-Dichlorobenzene	ug/L	ND	10.0	06/06/13 10:03	
2,4,5-Trichlorophenol	ug/L	ND	50.0	06/06/13 10:03	
2,4,6-Trichlorophenol	ug/L	ND	10.0	06/06/13 10:03	
2,4-Dichlorophenol	ug/L	ND	10.0	06/06/13 10:03	
2,4-Dimethylphenol	ug/L	ND	10.0	06/06/13 10:03	
2,4-Dinitrophenol	ug/L	ND	50.0	06/06/13 10:03	
2,4-Dinitrotoluene	ug/L	ND	10.0	06/06/13 10:03	
2,6-Dinitrotoluene	ug/L	ND	10.0	06/06/13 10:03	
2-Chloronaphthalene	ug/L	ND	10.0	06/06/13 10:03	
2-Chlorophenol	ug/L	ND	10.0	06/06/13 10:03	
2-Methylnaphthalene	ug/L	ND	10.0	06/06/13 10:03	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	06/06/13 10:03	
2-Nitroaniline	ug/L	ND	50.0	06/06/13 10:03	
2-Nitrophenol	ug/L	ND	10.0	06/06/13 10:03	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	06/06/13 10:03	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	06/06/13 10:03	
3-Nitroaniline	ug/L	ND	50.0	06/06/13 10:03	
4,6-Dinitro-2-methylphenol	ug/L	ND	50.0	06/06/13 10:03	
4-Bromophenylphenyl ether	ug/L	ND	10.0	06/06/13 10:03	
4-Chloro-3-methylphenol	ug/L	ND	20.0	06/06/13 10:03	
4-Chloroaniline	ug/L	ND	20.0	06/06/13 10:03	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	06/06/13 10:03	
4-Nitroaniline	ug/L	ND	50.0	06/06/13 10:03	
4-Nitrophenol	ug/L	ND	50.0	06/06/13 10:03	
Benzo(a)anthracene	ug/L	ND	10.0	06/06/13 10:03	
Benzoic acid	ug/L	ND	50.0	06/06/13 10:03	
Benzyl alcohol	ug/L	ND	20.0	06/06/13 10:03	
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	06/06/13 10:03	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	06/06/13 10:03	
bis(2-Chloroisopropyl) ether	ug/L	ND	10.0	06/06/13 10:03	
bis(2-Ethylhexyl)phthalate	ug/L	ND	10.0	06/06/13 10:03	
Butylbenzylphthalate	ug/L	ND	10.0	06/06/13 10:03	
Carbazole	ug/L	ND	10.0	06/06/13 10:03	
Di-n-butylphthalate	ug/L	ND	10.0	06/06/13 10:03	
Di-n-octylphthalate	ug/L	ND	10.0	06/06/13 10:03	
Dibenzofuran	ug/L	ND	10.0	06/06/13 10:03	
Diethylphthalate	ug/L	ND	10.0	06/06/13 10:03	
Dimethylphthalate	ug/L	ND	10.0	06/06/13 10:03	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	06/06/13 10:03	
Hexachlorobenzene	ug/L	ND	10.0	06/06/13 10:03	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

METHOD BLANK: 1199691 Matrix: Water

Associated Lab Samples: 60146172001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachlorocyclopentadiene	ug/L	ND	10.0	06/06/13 10:03	
Hexachloroethane	ug/L	ND	10.0	06/06/13 10:03	
Isophorone	ug/L	ND	10.0	06/06/13 10:03	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	06/06/13 10:03	
N-Nitrosodiphenylamine	ug/L	ND	10.0	06/06/13 10:03	
Nitrobenzene	ug/L	ND	10.0	06/06/13 10:03	
Pentachlorophenol	ug/L	ND	50.0	06/06/13 10:03	
Phenol	ug/L	ND	10.0	06/06/13 10:03	
2,4,6-Tribromophenol (S)	%	86	37-120	06/06/13 10:03	
2-Fluorobiphenyl (S)	%	85	15-149	06/06/13 10:03	
2-Fluorophenol (S)	%	43	16-120	06/06/13 10:03	
Nitrobenzene-d5 (S)	%	80	10-159	06/06/13 10:03	
Phenol-d6 (S)	%	29	12-120	06/06/13 10:03	
Terphenyl-d14 (S)	%	85	25-142	06/06/13 10:03	

LABORATORY CONTROL SAMPLE: 1199692

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	40.7	81	45-120	
1,2-Dichlorobenzene	ug/L	50	39.5	79	43-120	
1,3-Dichlorobenzene	ug/L	50	39.4	79	42-120	
1,4-Dichlorobenzene	ug/L	50	39.2	78	42-120	
2,4,5-Trichlorophenol	ug/L	50	43.9J	88	52-120	
2,4,6-Trichlorophenol	ug/L	50	42.9	86	52-120	
2,4-Dichlorophenol	ug/L	50	40.5	81	50-120	
2,4-Dimethylphenol	ug/L	50	38.2	76	37-120	
2,4-Dinitrophenol	ug/L	50	41.9J	84	37-138	
2,4-Dinitrotoluene	ug/L	50	45.9	92	59-120	
2,6-Dinitrotoluene	ug/L	50	44.9	90	58-120	
2-Chloronaphthalene	ug/L	50	42.1	84	51-120	
2-Chlorophenol	ug/L	50	37.8	76	46-120	
2-Methylnaphthalene	ug/L	50	41.0	82	49-120	
2-Methylphenol(o-Cresol)	ug/L	50	34.7	69	38-120	
2-Nitroaniline	ug/L	50	44.6J	89	54-120	
2-Nitrophenol	ug/L	50	41.7	83	48-120	
3&4-Methylphenol(m&p Cresol)	ug/L	50	31.5	63	33-120	
3,3'-Dichlorobenzidine	ug/L	50	56.5	113	16-160	
3-Nitroaniline	ug/L	50	66.8	134	55-152	
4,6-Dinitro-2-methylphenol	ug/L	50	46.9J	94	50-122	
4-Bromophenylphenyl ether	ug/L	50	45.9	92	58-120	
4-Chloro-3-methylphenol	ug/L	50	42.9	86	52-120	
4-Chloroaniline	ug/L	50	84.8	170	27-160	L0
4-Chlorophenylphenyl ether	ug/L	50	44.6	89	57-120	
4-Nitroaniline	ug/L	50	47.9J	96	55-152	
4-Nitrophenol	ug/L	50	19.3J	39	10-120	

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

LABORATORY CONTROL SAMPLE: 1199692

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(a)anthracene	ug/L	50	44.0	88	59-120	
Benzoic acid	ug/L	50	ND	28	10-120	
Benzyl alcohol	ug/L	50	35.9	72	45-120	
bis(2-Chloroethoxy)methane	ug/L	50	41.2	82	53-120	
bis(2-Chloroethyl) ether	ug/L	50	38.9	78	50-120	
bis(2-Chloroisopropyl) ether	ug/L	50	38.7	77	47-120	
bis(2-Ethylhexyl)phthalate	ug/L	50	47.3	95	58-120	
Butylbenzylphthalate	ug/L	50	44.3	89	55-120	
Carbazole	ug/L	50	44.7	89	61-120	
Di-n-butylphthalate	ug/L	50	46.1	92	60-120	
Di-n-octylphthalate	ug/L	50	46.1	92	54-122	
Dibenzofuran	ug/L	50	44.2	88	56-120	
Diethylphthalate	ug/L	50	45.6	91	58-120	
Dimethylphthalate	ug/L	50	45.5	91	58-120	
Hexachloro-1,3-butadiene	ug/L	50	42.8	86	42-120	
Hexachlorobenzene	ug/L	50	46.7	93	58-120	
Hexachlorocyclopentadiene	ug/L	100	63.4	63	29-120	
Hexachloroethane	ug/L	50	39.3	79	39-120	
Isophorone	ug/L	50	42.6	85	52-120	
N-Nitroso-di-n-propylamine	ug/L	50	41.2	82	48-120	
N-Nitrosodiphenylamine	ug/L	50	43.8	88	56-120	
Nitrobenzene	ug/L	50	41.8	84	47-120	
Pentachlorophenol	ug/L	50	48.6J	97	45-120	
Phenol	ug/L	50	16.4	33	15-120	
2,4,6-Tribromophenol (S)	%			96	37-120	
2-Fluorobiphenyl (S)	%			85	15-149	
2-Fluorophenol (S)	%			46	16-120	
Nitrobenzene-d5 (S)	%			81	10-159	
Phenol-d6 (S)	%			31	12-120	
Terphenyl-d14 (S)	%			90	25-142	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: PICKnPULL
Pace Project No.: 60146172

QC Batch: PMST/8615
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60146172002

METHOD BLANK: 1199712
Matrix: Solid
Associated Lab Samples: 60146172002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	06/05/13 00:00	

SAMPLE DUPLICATE: 1199713

Parameter	Units	60146172002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.6	22.6	14	20	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: PICKnPULL
Pace Project No.: 60146172

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: OEXT/38714

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D4	Sample was diluted due to the presence of high levels of target analytes.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M4	A matrix spike/matrix spike duplicate was not performed for this batch due to sample dilution.
P3	Sample extract could not be concentrated to the routine final volume, resulting in elevated reporting limits.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PICKnPULL
Pace Project No.: 60146172

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60146172002	PICKnPULL 2	EPA 3546	OEXT/38718	EPA 8082	GCSV/14723
60146172001	PICKnPULL 1	EPA 3510	OEXT/38714	EPA 8082	GCSV/14724
60146172002	PICKnPULL 2	EPA 3050	MPRP/22953	EPA 6010	ICP/18144
60146172001	PICKnPULL 1	EPA 3010	MPRP/22963	EPA 6010	ICP/18153
60146172001	PICKnPULL 1	EPA 7470	MERP/7404	EPA 7470	MERC/7361
60146172002	PICKnPULL 2	EPA 7471	MERP/7405	EPA 7471	MERC/7362
60146172002	PICKnPULL 2	EPA 3546	OEXT/38719	EPA 8270 by SIM	MSSV/12248
60146172002	PICKnPULL 2	EPA 3546	OEXT/38716	EPA 8270	MSSV/12245
60146172001	PICKnPULL 1	EPA 3510	OEXT/38721	EPA 8270 by SIM	MSSV/12249
60146172001	PICKnPULL 1	EPA 3510	OEXT/38720	EPA 8270	MSSV/12244
60146172002	PICKnPULL 2	ASTM D2974	PMST/8615		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO#: 60146172

60146172

Client Name: EWI

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex ☐ UPS ☐ USPS ☐ Client ☑ Commercial ☐ Pace ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☑ Seals intact: Yes ☐ No ☑

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☑ 2P16

Thermometer Used: T-112 / T-194 Type of Ice: Wet Blue None (circle one) ☐ Samples received on ice, cooling process has begun

Cooler Temperature: 9.0

Temperature should be above freezing to 6°C

Date and Initials of person examining contents: PU 6/5/13

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 holding time:	☑Yes ☐No ☐N/A	5.	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	6.	
Rush Turn Around Time requested:	☑Yes ☐No ☐N/A	7. 24Hr	
Sufficient volume:	☑Yes ☐No ☐N/A	8.	
Correct containers used:	☑Yes ☐No ☐N/A		
Pace containers used:	☑Yes ☐No ☐N/A	9.	
Containers intact:	☑Yes ☐No ☐N/A	10.	
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☑N/A	11.	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	12.	
Sample labels match COC: Includes date/time/ID/analyses Matrix: SL/WT	☑Yes ☐No ☐N/A	13.	
All containers needing preservation have been checked	☐Yes ☐No ☑N/A		
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	14.	
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐Yes ☑No	Initial when completed	Lot # of added preservative
Trip Blank present: Pace Trip Blank lot # (if purchased): _____	☐Yes ☐No ☑N/A	15.	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	16.	
Project sampled in USDA Regulated Area:	☐Yes ☑No ☐N/A	17. List State:	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: 6/7/13

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.

Page: of

1644439

Section A Required Client Information:

Company: Environmental Works
Address: 201 Main St.
KCMO 64105
Email To: Abestgen@environmentalworks.com
Phone: 816-210-1337 Fax:
Requested Due Date/TAT: RUSH - ASAP

Section B Required Project Information:

Report To: Adam Bestgen
Copy To: Paul Diel
Purchase Order No.:
Project Name: Pick n Pull Sampling
Project Number:

Section C Invoice Information:

Attention: Karen
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 16575

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

RUSH

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 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	Analysis Test (Y/N)	RCRA 8 (4 total)	PCBs	TNA SVOC	PAHs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Pick n Pull 1	SL	G			6/5				3		1							X	X	X	X		16573 16574
2	Pick n Pull 2	SL	G			6/5				2									X	X	X	X		16575 16576
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
RUSH	Michael Blanchard			[signature] PAST	6/5/13	1405	9.0	Y	N	Y
Send partial AS data complete										

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Adam Bestgen

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 6/5/13

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