



PDC Laboratories, Inc.

3278 N Highway 67 • Florissant, MO 63033
(314) 432-0550 • (800) 333-FAST • FAX (314) 432-4977



Bridgeton Landfill
13570 St Charles Rock Road
St. Louis, MO 63044
Attn: Bill Abernathy

Date Received: 04/01/14 12:00
Report Date: 04/10/14
Customer #: 277310

Laboratory Results

Sample No: **4040078-01**
Sample Description: **BTF Filter Cake**

Collect Date: **04/01/14 09:53**
Matrix: **Solid**

Parameters	Result	Qual	Analysis Date	Analyst	Method
General Chemistry - PIA					
Cyanide - reactive	< 4.7 mg/kg dry	Q3	04/07/14 14:18	lgsjf	SW 9010B - 9012A - 7.3.3.2 KS,IL
Solids - total solids (TS)	43 %		04/01/14 15:00	ACV	SM 2540G 18Ed*
Halide-extractable organic (EOX)	620 mg/kg dry		04/04/14 11:41	TTH	SW 9023*
Reactive Sulfide	< 47 mg/kg dry		04/07/14 08:30	SMP	SW 9034 & 7.3.4.1*
General Chemistry - STL					
Ignitability	145 °F		04/02/14 08:15	DWM	SW 1020 04KS
Paint Filter	Pass		04/01/14 12:00	ACV	SW 9095A 04KS
pH	12 pH Units	H	04/01/14 12:30	ACV	SW 9045C 04KS
Phenol	370 mg/kg dry		04/03/14 10:10	DWM	EPA 9065 04KS
Herbicides - TCLP - PIA					
2,4-D	< 0.1 mg/L		04/07/14 23:37	ELS	SW 8151A IL,KS,IA
Silvex	< 0.05 mg/L		04/07/14 23:37	ELS	SW 8151A IL,KS,IA
Pesticides -TCLP - PIA					
Chlordane (technical)	< 0.010 mg/L		04/05/14 03:38	ELS	SW 8081A*
Endrin	< 0.0005 mg/L		04/05/14 03:38	ELS	SW 8081A*
gamma-BHC (Lindane)	< 0.0005 mg/L		04/05/14 03:38	ELS	SW 8081A*
Heptachlor	< 0.0005 mg/L		04/05/14 03:38	ELS	SW 8081A*
Heptachlor epoxide	< 0.0005 mg/L		04/05/14 03:38	ELS	SW 8081A*
Methoxychlor	< 0.002 mg/L		04/05/14 03:38	ELS	SW 8081A*
Toxaphene	< 0.010 mg/L		04/05/14 03:38	ELS	SW 8081A*
Polychlorinated Biphenyls (PCBs) - STL					
Aroclor 1016	< 4900 ug/kg dry	X	04/02/14 18:23	JBK	SW 8082*
Aroclor 1221	< 4900 ug/kg dry		04/02/14 18:23	JBK	SW 8082*
Aroclor 1232	< 4900 ug/kg dry		04/02/14 18:23	JBK	SW 8082*
Aroclor 1242	< 4900 ug/kg dry		04/02/14 18:23	JBK	SW 8082*
Aroclor 1248	< 4900 ug/kg dry		04/02/14 18:23	JBK	SW 8082*
Aroclor 1254	< 4900 ug/kg dry		04/02/14 18:23	JBK	SW 8082*
Aroclor 1260	< 4900 ug/kg dry	X	04/02/14 18:23	JBK	SW 8082*
Aroclors - Total	< 4900 ug/kg dry		04/02/14 18:23	JBK	SW 8082*
Surrogate: TCMX	% 10-154	S	04/02/14 18:23	JBK	SW 8082
Surrogate: Decachlorobiphenyl	% 10-135	S	04/02/14 18:23	JBK	SW 8082



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<u>Semivolatile Organics - TCLP - STL</u>					
2,4,5-Trichlorophenol	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
2,4,6-Trichlorophenol	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
2,4-Dinitrotoluene	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
2-Methylphenol	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
3- & 4-Methylphenol	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
Hexachlorobenzene	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
Hexachlorobutadiene	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
Hexachloroethane	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
Nitrobenzene	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
Pentachlorophenol	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
Pyridine	< 400 ug/L		04/09/14 17:30	jk	SW 8270C 04KS
Surrogate: 2-Fluorophenol	56 % 20-77		04/09/14 17:30	jk	SW 8270C
Surrogate: Phenol- d5	58 % 14-75		04/09/14 17:30	jk	SW 8270C
Surrogate: Nitrobenzene-d5	67 % 42-93		04/09/14 17:30	jk	SW 8270C
Surrogate: 2-Fluorobiphenyl	60 % 39-90		04/09/14 17:30	jk	SW 8270C
Surrogate: 2,4,6-Tribromophenol	55 % 22-105		04/09/14 17:30	jk	SW 8270C
Surrogate: p-Terphenyl-d14	63 % 38-115		04/09/14 17:30	jk	SW 8270C
<u>TCLP - STL</u>					
Final pH	9.1		04/02/14 06:40	FM	SW 1311*
<u>TCLP Metals - STL</u>					
Final pH	9.1		04/02/14 06:40	FM	SW 1311 04KS
Mercury	< 0.0002 mg/L		04/03/14 11:23	WPS	SW 7470A 04KS
Arsenic	0.033 mg/L		04/03/14 11:20	WPS	SW 6010B 04KS
Barium	0.19 mg/L		04/03/14 11:20	WPS	SW 6010B 04KS
Cadmium	< 0.0040 mg/L		04/03/14 11:20	WPS	SW 6010B 04KS
Chromium	0.012 mg/L		04/03/14 11:20	WPS	SW 6010B 04KS
Lead	< 0.020 mg/L		04/03/14 11:20	WPS	SW 6010B 04KS
Selenium	0.057 mg/L		04/03/14 11:20	WPS	SW 6010B 04KS
Silver	< 0.0030 mg/L		04/03/14 11:20	WPS	SW 6010B 04KS
<u>Volatile Organics - TCLP - STL</u>					
1,1-Dichloroethene	< 200 ug/L		04/02/14 14:49	BP	SW 8260B*
1,2-Dichloroethane	< 200 ug/L		04/02/14 14:49	BP	SW 8260B*



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<u>Volatiles Organics - TCLP - STL</u>					
1,4-Dichlorobenzene	1000 ug/L		04/02/14 14:49	BP	SW 8260B*
2-Butanone	3200 ug/L		04/02/14 14:49	BP	SW 8260B*
Benzene	840 ug/L		04/02/14 14:49	BP	SW 8260B*
Carbon tetrachloride	< 200 ug/L		04/02/14 14:49	BP	SW 8260B*
Chlorobenzene	< 200 ug/L		04/02/14 14:49	BP	SW 8260B*
Chloroform	< 200 ug/L		04/02/14 14:49	BP	SW 8260B*
Tetrachloroethene	< 200 ug/L		04/02/14 14:49	BP	SW 8260B*
Trichloroethene	< 200 ug/L		04/02/14 14:49	BP	SW 8260B*
Vinyl chloride	< 200 ug/L		04/02/14 14:49	BP	SW 8260B*
Surrogate: 1,2-Dichloroethane-d4	98 % 60.7-121		04/02/14 10:41	BP	SW 8260B
Surrogate: Toluene-d8	100 % 60.6-116		04/02/14 10:41	BP	SW 8260B
Surrogate: Bromofluorobenzene	88 % 69.7-113		04/02/14 10:41	BP	SW 8260B



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Notes

This report shall not be reproduced, except in full, without the written approval of the laboratory.

PDC Laboratories participates in the following accreditation/certification and proficiency programs at the following locations. Endorsement by Federal or State Governments or their agencies is not implied.

- PIA PDC Laboratories - Peoria, IL
 - TNI Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
 - Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553
 - Drinking Water Certifications: Kansas (E-10338); Missouri (870); Wisconsin (998284430); Iowa (240)
 - Wastewater Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
 - Hazardous/Solid Waste Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
 - UST Certification; Iowa (240)
- SPM PDC Laboratories - Springfield, MO
 - EPA DMR-QA Program
- STL PDC Laboratories - St. Louis, MO
 - TNI Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS Lab No. E-10389
- JER PDC Laboratories - Jerseyville, IL
 - Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17521
 - Drinking Water Certifications: Missouri (430)

* Not a TNI accredited analyte

- X Matrix spike diluted out, due to matrix.
- S Surrogate compound diluted below a reliable quantitation level.
- Q3 MS/MSD both failed %R
- H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.

Certified by: Roxann Shull, Client Services Supervisor

SUBCONTRACT ORDER

PDC Laboratories, Inc.

4040078

VA

SENDING LABORATORY:

- PDC Laboratories, Inc, 2231 W Altorfer Peoria, IL 61615
- PDC Laboratories, Inc, 1805 W Sunset, Springfield, MO 65807
- PDC Laboratories, Inc, 3278 N Highway 67, Florissant, MO 63033

Project Manager: Roxann Shull

rshull@pdclab.com Phone: 314-595-7337

RECEIVING LABORATORY:

PDC Laboratories, Inc.
PO Box 9071
Peoria, IL 61612
Phone : (309) 692-9688

Date Shipped 4/2/14
Sample Origin (State) MO
PO# _____
Total # of Containers 3

Analysis	Due	Expires	Comments
Sample ID: 4040078-01	Solid	Sampled:04/01/14 09:53	
M8081TCLP	04/03/14 16:00	04/08/14 09:53	All TCLP tumbled at STL
EOX	04/03/14 16:00	04/29/14 09:53	
CN-R	04/03/14 16:00	04/15/14 09:53	
SW 1311 - TCLP Organics	04/03/14 16:00	04/15/14 09:53	All TCLP tumbled at STL
S2-R	04/03/14 16:00	04/08/14 09:53	
M8151TCLP	04/03/14 16:00	04/08/14 09:53	All TCLP tumbled at STL

Turn-Around Time Requested (circle one): NORMAL **RUSH** Date Results Needed: 4/3/14

Relinquished By <u>Heather Carhart</u> Date/Time <u>4/1/14</u>		Received By _____ Date/Time _____	Sample Temperature Upon Receipt <u>10</u> C
Relinquished By _____ Date/Time _____		Received By <u>GH</u> Date/Time <u>4/3/14 930</u>	Sample(s) Received on Ice <u>Y</u> or N
			Proper Bottles Received in Good Condition <u>Y</u> or N
			Bottles Filled with Adequate Volume <u>Y</u> or N
			Samples Received Within Hold Time <u>Y</u> or N
			Date/Time Taken From Sample Bottle <u>Y</u> or N



PDC Laboratories TCLP Extraction Worksheet

Analyst: Jimmie

RotaStart: 13:30

Temp: 22.3

Date: 04-01-14

RotaStop: 0630

Speed: 30 rpm

(5)
Blank-2
Fluid #2
100

100%
0%

#2/2.91

4003030
pH 2.87
2000ml

1
B-4
3528031

	-1-	-2-	-3-	-4-
Lab ID	4040059-01	4040059-02	Blank	4040078-01
Description	Black Debris	Black Debris	Fluid #1	Fit + 5 metals Brown tar soil/soil mixture
Sample Wt	100.2	100.1	100	100.3
(a) Dry Filter Wt				
(b) Solids + Filter Wt				
(c) Solids Wt = (b) - (a)				
(d) Beaker Tare Wt				
(e) Beaker + Liquid Wt				
(f) Liquid Phase Wt = (e) - (d)				
% Liquid Phase = (f) * 100 / ((f) + (c))	0%	0%	100%	0%
% Solids = (c) * 100 / ((c) + (f))	100%	100%	0%	
pH(1) / pH(2)	9.30 / 4.06	9.56 / 3.71	1 / 4.92	12.08 / 9.65
Fluid # / pH(EF)	1# / 4.92	#1 / 4.92	4.92	#2 / 2.85
Extraction Fluid ID	4005058	4005058	4005058	4B26041
Fluid Volume	2000ml	2000ml	2000ml	2000ml
pH(f)	5.49	5.35	4.87	9.07
# of Phases	1	1	1	1
% Volume of each Phase				
Apparatus	B-2	B-3	B-1	B-5
Nitric Acid Lot# (metals)	3528031	3528031	3528031	3528031
Comments:				

Jan 4-14 JMM

Leachate Transferred	Relinquished by	Date	Time	Transferred to:	Org	Metals
1/23/14	Jimmie	04-02-14	7:00	Heather Carhart		X
4/5	Jimmie	04-02-14	0700	Jimmie	X	X
4/5	Jimmie	04-02-14	08:45	Heather Carhart		X

1/23/14
LOS-IN

SER #: B405007