

**Supporting Information for: The Impact of Hurricanes Katrina and Rita on the Chemistry of Bottom Sediments in Lake Pontchartrain, Louisiana, USA**  
Van Metre et al.

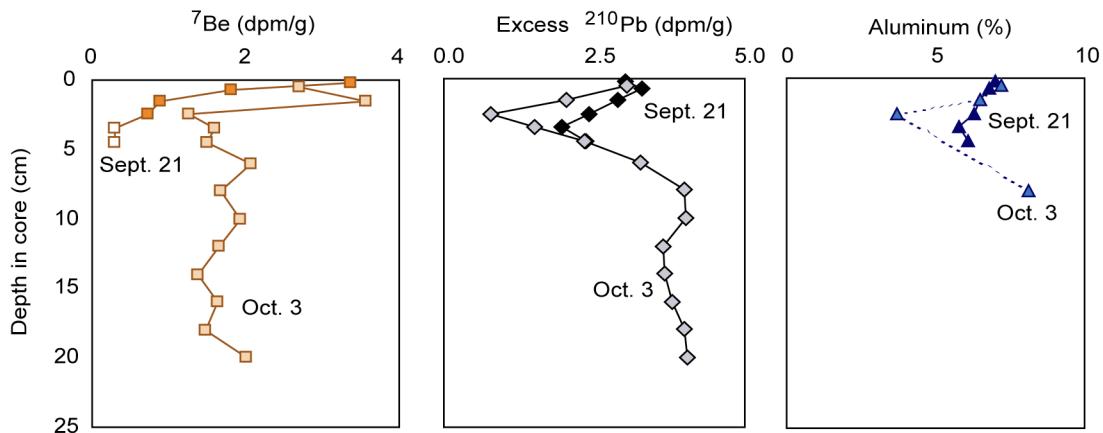
**Sample E2**



**Sample E3**



**Figure SI-1. Photographs showing color and texture of surficial sediment in samples E2 and E3, collected on September 20 off the mouth of the 17th Street Canal in Lake Pontchartrain. Photographs by Jennifer Wilson.**



**Figure SI-2. Profiles of  $^{7}\text{Be}$ , excess  $^{210}\text{Pb}$ , and Al in cores collected at site H2 on Sept. 21 and Oct. 3. Decrease to non-detections in  $^{7}\text{Be}$  at 3-4 and 4-5 cm intervals (open symbols) on Sept. 21 indicates newly deposited sediment at surface underlain by older sediment at depth. Detections of  $^{7}\text{Be}$  to the bottom of the core (19-21 cm sample) and the profile in excess  $^{210}\text{Pb}$  on Oct. 3 suggest deposition of 20+ cm of material mobilized by Hurricane Rita on Sept. 24. Dip in excess  $^{210}\text{Pb}$  activity and aluminum concentration at 2-3 cm in the Oct. 3 core suggests a sand lens.**

Constituent	Factor 1	Factor 2	Factor 3
As	<b>0.840</b>	0.470	0.077
Ba	0.592	0.326	<b>-0.546</b>
Cd	<b>0.847</b>	-0.122	0.202
Cr	<b>0.788</b>	<b>0.568</b>	-0.046
Cu	<b>0.942</b>	0.254	0.076
Hg	<b>0.777</b>	0.015	-0.011
Li	<b>0.734</b>	<b>0.629</b>	0.029
Ni	<b>0.801</b>	<b>0.522</b>	0.042
Pb	<b>0.954</b>	-0.045	-0.022
Zn	<b>0.955</b>	0.175	0.001
p,p'-DDD	<b>0.657</b>	<b>-0.580</b>	0.079
p,p'-DDE	<b>0.672</b>	<b>-0.615</b>	0.001
PCB Aroclor 1260	<b>0.664</b>	<b>-0.517</b>	-0.069
trans-Chlordane	<b>0.735</b>	<b>-0.544</b>	0.000
Phenanthrene	<b>0.857</b>	-0.311	-0.223
Fluoranthene	<b>0.917</b>	-0.174	-0.217
Benzo(a)pyrene	<b>0.917</b>	-0.180	-0.235
SPAHsqg	<b>0.881</b>	-0.248	-0.237
Phenol	0.463	-0.163	<b>0.588</b>
para-Cresol	0.539	-0.159	<b>0.583</b>
Indole	<b>0.740</b>	0.301	0.174
Carbazole	0.587	<b>-0.511</b>	0.159
Anthraquinone	<b>0.816</b>	-0.257	-0.236
Diethylhexyl phthalate	0.593	<b>-0.496</b>	-0.086
3-beta-Coprostanol	0.540	-0.069	0.366
Cholesterol	<b>0.798</b>	0.479	-0.065
beta-Sitosterol	<b>0.862</b>	0.373	-0.100
beta-Stigmastanol	0.587	0.402	0.358
Variance Explained	16.37	4.18	1.66
% of Var. Exp.	58.5	14.9	5.9

**Table SI-1. Factor loadings for analytes associated in three street mud and 39 Lake Pontchartrain sediment samples. Bold-faced type indicates relatively strong positive (black) or negative (red) loading.**

<b>Site</b>	<b>Sample date</b>	<b>Score 1</b>	<b>Score 2</b>	<b>Score 3</b>
A1	10/09/2005	-0.058	0.636	-0.247
B1	10/09/2005	0.364	0.824	<b>1.001</b>
BON	09/29/2005	0.051	-0.986	<b>-1.282</b>
C1	10/09/2005	0.148	0.201	-0.774
C2	10/09/2005	-0.269	<b>1.001</b>	-1.033
CD	10/03/2005	<b>1.721</b>	<b>-0.926</b>	<b>1.156</b>
D1	10/09/2005	-0.917	0.236	-0.594
E2	09/21/2005	<b>1.725</b>	<b>-1.078</b>	<b>1.887</b>
E2	10/09/2005	<b>1.059</b>	-0.848	-0.573
E3	09/21/2005	<b>1.414</b>	<b>-1.387</b>	0.495
E3	10/09/2005	<b>1.359</b>	-0.515	0.396
E4	09/21/2005	0.412	0.887	-0.735
E5	10/09/2005	0.089	0.804	<b>2.442</b>
ELM	09/26/2005	0.387	<b>-1.104</b>	-0.277
ELM	09/30/2005	-0.117	0.001	-0.395
FDL	10/03/2005	<b>1.498</b>	<b>-1.443</b>	0.216
G2	10/10/2005	-0.599	-0.374	-0.578
G3	10/10/2005	0.625	0.927	-0.272
G4	10/10/2005	0.143	<b>1.477</b>	-0.549
H2	09/21/2005	0.435	0.308	<b>-1.872</b>
ITC	09/29/2005	0.118	0.375	<b>1.233</b>
ITC	10/05/2005	-0.106	-0.312	<b>-1.665</b>
ITC	10/20/2005	0.175	0.843	<b>1.510</b>
J2 0-1	10/10/2005	<b>-1.797</b>	-0.593	0.182
J3 0-1	10/10/2005	-0.088	0.693	-0.203
J4 0-1	10/10/2005	0.118	<b>1.487</b>	-0.407
J5 0-1	10/10/2005	-0.615	0.552	-0.561
J7 0-1	10/10/2005	-0.121	<b>1.194</b>	-0.286
JNK	09/27/2005	-0.596	-0.158	<b>-1.274</b>
JNK	10/01/2005	0.301	-0.289	-0.266
K1 0-1	10/10/2005	0.001	<b>1.151</b>	-0.857
MET	09/29/2005	<b>1.497</b>	<b>-2.287</b>	-0.694
MID	09/28/2005	0.293	<b>0.945</b>	<b>1.235</b>
MID	10/04/2005	0.110	<b>1.350</b>	<b>1.332</b>
MID	10/20/2005	-0.052	<b>1.589</b>	<b>1.109</b>
MNT	09/28/2005	<b>-1.901</b>	-0.669	0.266
MNT	10/21/2005	<b>-1.888</b>	-0.672	0.299
NAV	10/05/2005	-0.376	0.113	-0.107
ONE	10/04/2005	0.143	0.199	-0.309
RGO	09/28/2005	<b>-2.579</b>	-1.951	<b>1.432</b>
RGO	10/21/2005	<b>-2.233</b>	<b>-1.325</b>	<b>0.951</b>
STJ	09/26/2005	0.124	-0.878	<b>-1.333</b>

**Table SI-2. Factor analysis scores for three street mud and 39 Lake Pontchartrain sediment samples. Bold-faced type indicates relatively strong positive (black) or negative (red) scores. Scores for factors 1 and 2 are shown on Figure SI-3.**