



Uploaded to the VFC Website

▶▶▶ February 2014 ◀◀◀

This Document has been provided to you courtesy of Veterans-For-Change!

Feel free to pass to any veteran who might be able to use this information!

For thousands more files like this and hundreds of links to useful information, and hundreds of "Frequently Asked Questions, please go to:

[Veterans-For-Change](http://www.veteransforchange.org)

*Veterans-For-Change is a A 501(c)(3) Non-Profit Organization
Tax ID #27-3820181
CA Incorporation ID #3340400
CA Dept. of Charities ID #: CT-0190794*

If Veterans don't help Veterans, who will?

We appreciate all donations to continue to provide information and services to Veterans and their families.

https://www.paypal.com/cgi-bin/webscr?cmd=_s-xclick&hosted_button_id=WGT2M5UTB9A78

Note:

VFC is not liable for source information in this document, it is merely provided as a courtesy to our members & subscribers.



Table 7. Continued

No	Borehole → Sample ID → Analyte ↓ Depth, m →	E11-183	E11-183	E11-184	E11-184	E11-184	E11-184	E11-185	E11-185	E11-185	E11-185
		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
		~5.0	~10.0	0.0~0.5	~2.0	~5.0	~8.75	0.0~0.5	~2.0	~5.0	~8.8
35	Carbon disulfide	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Carbon tetrachloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Chlorobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chloroethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Chloroform	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Chloromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	cis-1,2-Dichloroethene	μg/kg	8.35	2.31 J	ND	ND	ND	ND	ND	ND	ND
42	cis-1,3-Dichloropropene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Dibromochloromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Dibromomethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Dichlorodifluoromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Ethyl Benzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobutadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Isopropylbenzene (Cumene)	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	m,p-Xylene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Methyl iodide	μg/kg	ND	ND	ND	2.02 J	1.07 J	ND	2.66 J	0.723 J	1.51 J
51	Methylene chloride	μg/kg	2.07 J	2.48 J	ND	ND	ND	2.76 J	ND	ND	ND
52	Naphthalene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	n-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	n-Propylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	o-Xylene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	sec-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Styrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	tert-Butyl methyl ether (MTBE)	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	tert-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
60	Tetrachloroethene	μg/kg	26.7	5.05	1.42 J	0.854 J	0.797 J	5.52	0.666 J	0.706 J	1.96 J
61	Toluene	μg/kg	ND	ND	0.724 J	ND	ND	ND	0.735 J	ND	ND
62	trans-1,2-Dichloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
63	trans-1,3-Dichloropropene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
64	trans-1,4-Dichloro-2-butene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
65	Trichloroethene	μg/kg	27.6	2.59 J	ND	3.7 J	3.08 J	0.802 J	ND	3.63 J	4.86 J
66	Trichlorofluoromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
67	Vinyl chloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3401

Table 7. Continued

No	Analyte ↓	Borehole →	E11-186	E11-186	E11-186	E11-186	E11-187	E11-187	E11-187	E11-187	E11-188	E11-188
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
		Depth, m →	0.0~0.5	~2.0	~5.0	~8.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	1,1,1,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,1,1-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,1,2,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,1,2-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,1-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,1-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	1,1-Dichloropropene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	1,2,3-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	1,2,3-Trichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	1,2,4-Trimethylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	1,2-Dibromo-3-chloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	1,2-Dibromoethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	1,2-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	1,3,5-Trimethylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	1,3-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	2,2-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	2-Butanone	µg/kg	27	4.4 J	ND	ND	ND	5.7 J	ND	ND	9.5 J	ND
23	2-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	2-Hexanone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	4-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	4-Isopropyltoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	4-Methyl-2-pentanone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Acetone	µg/kg	85.9	17.6 J	3.97 J	7.73 J	ND	ND	ND	ND	ND	ND
29	Benzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Bromobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Bromochloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Bromodichloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
33	Bromoform	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bromomethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3402

Table 7. Continued

No	Borehole → Sample ID → Analyte ↓ Depth, m →	E11-186	E11-186	E11-186	E11-186	E11-187	E11-187	E11-187	E11-187	E11-188	E11-188
		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
		0.0~0.5	~2.0	~5.0	~8.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
35	Carbon disulfide	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Carbon tetrachloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Chlorobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chloroethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Chloroform	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Chloromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	cis-1,2-Dichloroethene	μg/kg	ND	ND	ND	ND	2.67 J	ND	ND	ND	ND
42	cis-1,3-Dichloropropene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Dibromochloromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Dibromomethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Dichlorodifluoromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Ethyl Benzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobutadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Isopropylbenzene (Cumene)	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	m,p-Xylene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Methyl iodide	μg/kg	3.12 J	1.43 J	ND	ND	ND	ND	ND	ND	ND
51	Methylene chloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Naphthalene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	n-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	n-Propylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	o-Xylene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	sec-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Styrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	tert-Butyl methyl ether (MTBE)	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	tert-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
60	tetrachloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
61	Toluene	μg/kg	2.26 J	1.4 J	1.05 J	ND	ND	ND	ND	ND	ND
62	trans-1,2-Dichloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
63	trans-1,3-Dichloropropene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
64	trans-1,4-Dichloro-2-butene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
65	Trichloroethene	μg/kg	ND	ND	ND	ND	1.73 J	ND	ND	ND	ND
66	Trichlorofluoromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
67	Vinyl chloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3403

Table 7. Continued

No	Analyte ↓	Borehole →	E11-188	E11-188	E11-189	E11-189	E11-189	E11-189	E11-189	E11-190	E11-190	E11-190	E11-190
		Sample ID →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4	
		Depth, m →	~5.0	~9.6	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~10.0	
1	1,1,1,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,1,1-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,1,2,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,1,2-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,1-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,1-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	1,1-Dichloropropene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	1,2,3-Trichlorobenzene	µg/kg	ND	ND	2.39 J	ND	ND	ND	ND	ND	ND	ND	ND
9	1,2,3-Trichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	1,2,4-Trichlorobenzene	µg/kg	ND	ND	10.8	ND	ND	ND	ND	ND	ND	ND	ND
11	1,2,4-Trimethylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	1,2-Dibromo-3-chloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	1,2-Dibromoethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	1,2-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	1,3,5-Trimethylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	1,3-Dichlorobenzene	µg/kg	ND	ND	1.36 J	ND	ND	ND	ND	ND	ND	ND	ND
19	1,3-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	1,4-Dichlorobenzene	µg/kg	ND	ND	13.6	ND	ND	ND	ND	ND	ND	ND	ND
21	2,2-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	2-Butanone	µg/kg	ND	ND	27.4	ND	ND	ND	ND	ND	ND	7.36 J	ND
23	2-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	2-Hexanone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	4-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	4-Isopropyltoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	4-Methyl-2-pentanone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Acetone	µg/kg	ND	ND	86.6	ND	ND	ND	ND	ND	ND	31.2 J	4.97 J
29	Benzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Bromobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Bromochloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Bromodichloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
33	Bromoform	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bromomethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3404

Table 7. Continued

No	Borehole →		E11-188	E11-188	E11-189	E11-189	E11-189	E11-189	E11-190	E11-190	E11-190	E11-190
	Sample ID →		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓	Depth, m →	~5.0	~9.6	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~10.0
35	Carbon disulfide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Carbon tetrachloride	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Chlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Chloroform	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Chloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	cis-1,2-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	cis-1,3-Dichloropropene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Dibromochloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Dibromomethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Dichlorodifluoromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Ethyl Benzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Isopropylbenzene (Cumene)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	m,p-Xylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Methyl iodide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Methylene chloride	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	n-Butylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	n-Propylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	o-Xylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	sec-Butylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Styrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	tert-Butyl methyl ether (MTBE)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	tert-Butylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
60	Tetrachloroethene	µg/kg	ND	ND	26.3	ND	ND	ND	ND	ND	ND	ND
61	Toluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
62	trans-1,2-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
63	trans-1,3-Dichloropropene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
64	trans-1,4-Dichloro-2-butene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
65	Trichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
66	Trichlorofluoromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
67	Vinyl chloride	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3405

Table 7. Continued

No	Borehole → Sample ID → Analyte ↓ Depth, m →	E11-191	E11-191	E11-191	E11-191	E11-192	E11-192	E11-192	E11-192	E11-193	E11-193
		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
		0.0~0.5	~2.0	~5.0	~7.7	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	2-Butanone	7.66 J	ND	ND	ND	ND	16.3 J	ND	ND	25.1 J	ND
23	2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	4-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Acetone	39.6	15.4 J	ND	ND	ND	ND	ND	ND	108	ND
29	Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
33	Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3406

Table 7. Continued

No	Borehole → Sample ID → Analyte ↓ Depth, m →	E11-191	E11-191	E11-191	E11-191	E11-192	E11-192	E11-192	E11-192	E11-193	E11-193
		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
		0.0~0.5	~2.0	~5.0	~7.7	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
35	Carbon disulfide	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Carbon tetrachloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Chlorobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chloroethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Chloroform	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Chloromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	cis-1,2-Dichloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	cis-1,3-Dichloropropene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Dibromochloromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Dibromomethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Dichlorodifluoromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Ethyl Benzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobutadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Isopropylbenzene (Cumene)	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	m,p-Xylene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Methyl iodide	μg/kg	ND	ND	ND	ND	ND	ND	ND	3.36 J	ND
51	Methylene chloride	μg/kg	ND	ND	ND	ND	1.77 J	5.05 J	1.93 J	4.02 J	ND
52	Naphthalene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	n-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	n-Propylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	o-Xylene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	sec-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Styrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	tert-Butyl methyl ether (MTBE)	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	tert-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
60	Tetrachloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	1.11 J	ND
61	Toluene	μg/kg	ND	ND	ND	ND	ND	2.4 J	ND	2.29 J	ND
62	trans-1,2-Dichloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
63	trans-1,3-Dichloropropene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
64	trans-1,4-Dichloro-2-butene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
65	Trichloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
66	Trichlorofluoromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
67	Vinyl chloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3407

Table 7. Continued

No	Borehole →	E11-193	E11-193	E11-194	E11-194	E11-194	E11-194	E11-195	E11-195	E11-195	E11-195	
	Sample ID →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4	
	Analyte ↓	Depth, m →	~5.0	~8.6	0.3~0.8	~2.0	~5.0	~10.0	0.3~0.8	~2.0	~5.0	~10.0
1	1,1,1,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,1,1-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,1,2,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,1,2-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,1-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,1-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	1,1-Dichloropropene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	1,2,3-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	1,2,3-Trichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	1,2,4-Trimethylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	1,2-Dibromo-3-chloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	1,2-Dibromoethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	1,2-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	1,3,5-Trimethylbenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	1,3-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	2,2-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	2-Butanone	µg/kg	2.6 J	ND	2.19 J	1.71 J	ND	ND	7.21 J	1.6 J	ND	ND
23	2-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	2-Hexanone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	4-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	4-Isopropyltoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	4-Methyl-2-pentanone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Acetone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Bromobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Bromochloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Bromodichloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
33	Bromoform	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bromomethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3408

Table 7. Continued

No	Borehole →	E11-193	E11-193	E11-194	E11-194	E11-194	E11-194	E11-195	E11-195	E11-195	E11-195
	Sample ID →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓ Depth, m →	~5.0	~8.6	0.3~0.8	~2.0	~5.0	~10.0	0.3~0.8	~2.0	~5.0	~10.0
35	Carbon disulfide	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Carbon tetrachloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Chlorobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chloroethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Chloroform	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Chloromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	cis-1,2-Dichloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	cis-1,3-Dichloropropene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Dibromochloromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Dibromomethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Dichlorodifluoromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Ethyl Benzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobutadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Isopropylbenzene (Cumene)	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	m,p-Xylene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Methyl iodide	μg/kg	ND	ND	0.809 J	ND	ND	ND	1.32 J	ND	0.864 J
51	Methylene chloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Naphthalene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	n-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	n-Propylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	o-Xylene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	sec-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Styrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	tert-Butyl methyl ether (MTBE)	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	tert-Butylbenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
60	Tetrachloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
61	Toluene	μg/kg	ND	ND	ND	ND	ND	ND	5.9	ND	ND
62	trans-1,2-Dichloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
63	trans-1,3-Dichloropropene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
64	trans-1,4-Dichloro-2-butene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
65	Trichloroethene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
66	Trichlorofluoromethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
67	Vinyl chloride	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3409

Table 7. Continued

No.	Borehole →		E11-196	E11-196	E11-196	E11-196
	Sample ID →		S1	S2	S3	S4
	Analyte ↓	Depth, m →	0.3~0.8	~2.3	~5.3	~10.3
1	1,1,1,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND
2	1,1,1-Trichloroethane	µg/kg	ND	ND	ND	ND
3	1,1,2,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND
4	1,1,2-Trichloroethane	µg/kg	ND	ND	ND	ND
5	1,1-Dichloroethane	µg/kg	ND	ND	ND	ND
6	1,1-Dichloroethene	µg/kg	ND	ND	ND	ND
7	1,1-Dichloropropene	µg/kg	ND	ND	ND	ND
8	1,2,3-Trichlorobenzene	µg/kg	ND	ND	ND	ND
9	1,2,3-Trichloropropane	µg/kg	ND	ND	ND	ND
10	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND
11	1,2,4-Trimethylbenzene	µg/kg	ND	ND	ND	ND
12	1,2-Dibromo-3-chloropropane	µg/kg	ND	ND	ND	ND
13	1,2-Dibromoethane	µg/kg	ND	ND	ND	ND
14	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND
15	1,2-Dichloroethane	µg/kg	ND	ND	ND	ND
16	1,2-Dichloropropane	µg/kg	ND	ND	ND	ND
17	1,3,5-Trimethylbenzene	µg/kg	ND	ND	ND	ND
18	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND
19	1,3-Dichloropropane	µg/kg	ND	ND	ND	ND
20	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND
21	2,2-Dichloropropane	µg/kg	ND	ND	ND	ND
22	2-Butanone	µg/kg	8.62 J	ND	1.72 J	ND
23	2-Chlorotoluene	µg/kg	ND	ND	ND	ND
24	2-Hexanone	µg/kg	ND	ND	ND	ND
25	4-Chlorotoluene	µg/kg	ND	ND	ND	ND
26	4-Isopropyltoluene	µg/kg	ND	ND	ND	ND
27	4-Methyl-2-pentanone	µg/kg	ND	ND	ND	ND
28	Acetone	µg/kg	59.8	ND	ND	ND
29	Benzene	µg/kg	ND	ND	ND	ND
30	Bromobenzene	µg/kg	ND	ND	ND	ND
31	Bromochloromethane	µg/kg	ND	ND	ND	ND
32	Bromodichloromethane	µg/kg	ND	ND	ND	ND
33	Bromoform	µg/kg	ND	ND	ND	ND
34	Bromomethane	µg/kg	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3410

Table 7. Continued

No	Borehole →		E11-196	E11-196	E11-196	E11-196
	Sample ID →		S1	S2	S3	S4
	Analyte ↓	Depth, m →	0.3~0.8	~2.3	~5.3	~10.3
35	Carbon disulfide	µg/kg	ND	ND	ND	ND
36	Carbon tetrachloride	µg/kg	ND	ND	ND	ND
37	Chlorobenzene	µg/kg	ND	ND	ND	ND
38	Chloroethane	µg/kg	ND	ND	ND	ND
39	Chloroform	µg/kg	ND	ND	ND	ND
40	Chloromethane	µg/kg	ND	ND	ND	ND
41	cis-1,2-Dichloroethene	µg/kg	ND	ND	ND	ND
42	cis-1,3-Dichloropropene	µg/kg	ND	ND	ND	ND
43	Dibromochloromethane	µg/kg	ND	ND	ND	ND
44	Dibromomethane	µg/kg	ND	ND	ND	ND
45	Dichlorodifluoromethane	µg/kg	ND	ND	ND	ND
46	Ethyl Benzene	µg/kg	ND	ND	ND	ND
47	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND
48	Isopropylbenzene (Cumene)	µg/kg	ND	ND	ND	ND
49	m,p-Xylene	µg/kg	ND	ND	ND	ND
50	Methyl iodide	µg/kg	1.72 J	ND	ND	ND
51	Methylene chloride	µg/kg	ND	ND	ND	ND
52	Naphthalene	µg/kg	ND	ND	ND	ND
53	n-Butylbenzene	µg/kg	ND	ND	ND	ND
54	n-Propylbenzene	µg/kg	ND	ND	ND	ND
55	o-Xylene	µg/kg	ND	ND	ND	ND
56	sec-Butylbenzene	µg/kg	ND	ND	ND	ND
57	Styrene	µg/kg	ND	ND	ND	ND
58	tert-Butyl methyl ether (MTBE)	µg/kg	ND	ND	ND	ND
59	tert-Butylbenzene	µg/kg	ND	ND	ND	ND
60	Tetrachloroethene	µg/kg	ND	ND	ND	ND
61	Toluene	µg/kg	ND	ND	ND	ND
62	trans-1,2-Dichloroethene	µg/kg	ND	ND	ND	ND
63	trans-1,3-Dichloropropene	µg/kg	ND	ND	ND	ND
64	trans-1,4-Dichloro-2-butene	µg/kg	ND	ND	ND	ND
65	Trichloroethene	µg/kg	ND	ND	ND	ND
66	Trichlorofluoromethane	µg/kg	ND	ND	ND	ND
67	Vinyl chloride	µg/kg	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

R: Data rejected

3411

Table 8. Summary of Semivolatile Organic Compound Results for Phase II and IIb Soil Samples

No	Borehole →		E11-154	E11-154	E11-155	E11-155	E11-156	E11-156	E11-156	E11-157	E11-157	E11-157
	Sample ID →		S1	S2	S1	S2	S1	S2	S3	S1	S2	S3
	Analyte ↓	Depth, m →	0.0~0.5	~2.3	0.0~0.5	~1.8	0.0~0.5	~2.0	~6.45	0.0~0.5	~2.0	~4.5
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3412

Table 8. Continued

No	Borehole →		E11-154	E11-154	E11-155	E11-155	E11-156	E11-156	E11-156	E11-157	E11-157	E11-157
	Sample ID →		S1	S2	S1	S2	S1	S2	S3	S1	S2	S3
	Analyte ↓	Depth, m →	0.0~0.5	~2.3	0.0~0.5	~1.8	0.0~0.5	~2.0	~6.45	0.0~0.5	~2.0	~4.5
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3413

Table 8. Continued

No	Borehole →		E11-158	E11-158	E11-158	E11-158	E11-159	E11-159	E11-159	E11-159	E11-160	E11-160
	Sample ID →		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte ↓	Depth, m →	0.0~0.5	~2.0	~5.0	~8.5	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3414

Table 8. Continued

No	Borehole →	E11-158	E11-158	E11-158	E11-158	E11-159	E11-159	E11-159	E11-159	E11-160	E11-160
	Sample ID →	S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte ↓ Depth, m →	0.0~0.5	~2.0	~5.0	~8.5	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
33	Bis(2-Chloroethoxy)methane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	μg/kg	29.8 J	ND	ND	ND	154 J	ND	ND	51 J	ND
37	Butyl benzyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	μg/kg	ND	68 J	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3415

Table 8. Continued

No	Borehole →		E11-160	E11-161	E11-161	E11-161	E11-161	E11-162	E11-162	E11-163	E11-163	E11-163
	Sample ID →		S3	S1	S2	S3	S4	S1	S2	S1	S2	S3
	Analyte ↓	Depth, m →	~3.4	0.0~0.5	~2.0	~5.0	~7.9	0.0~0.5	~1.52	0.0~0.5	~2.0	~5.0
1	1,2,4-Trichlorobenzene	µg/kg	28.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	41.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	37.0 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	31.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	31.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	34.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	44.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	34.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	31.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	34.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	31.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	34.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	82.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	28.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	44.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	47.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	37.9 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	56.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4 Nitroaniline	µg/kg	41.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	44.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	47.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	50.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	53.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	53.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	56.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	53.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	63.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34/16

Table 8. Continued

No	Borehole →	E11-160	E11-161	E11-161	E11-161	E11-161	E11-162	E11-162	E11-163	E11-163	E11-163
	Sample ID →	S3	S1	S2	S3	S4	S1	S2	S1	S2	S3
	Analyte ↓	Depth, m →	~3.4	0.0~0.5	~2.0	~5.0	~7.9	0.0~0.5	~1.52	0.0~0.5	~2.0
33	Bis(2-Chloroethoxy)methane	µg/kg	31.6 J	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	123 J	38.2 J	ND	ND	ND	ND	78.8 J	102 J	ND
37	Butyl benzyl phthalate	µg/kg	60 J	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	56.8 J	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	47.4 J	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	47.4 J	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	56.8 J	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	53.7 J	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	63.2 J	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	63.2 J	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	56.8 J	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	53.7 J	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	44.2 J	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	50.5 J	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	28.4 J	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	50.5 J	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	53.7 J	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

- J: Estimated amount between the detection limit and reporting limit
- ND: Not detected

3417

Table 8. Continued

No	Borehole →		E11-163	E11-164	E11-164	E11-164	E11-164	E11-165	E11-165	E11-165	E11-165	E11-166
	Sample ID →		S4	S1	S2	S3	S4	S1	S2	S3	S4	S1
	Analyte ↓	Depth, m →	~10.0	0.0~0.5	~2.0	~5.0	~11.0	0.0~0.5	~2.0	~5.0	~10.0	0.3~0.8
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3418

Table 8. Continued

No	Borehole →	E11-163	E11-164	E11-164	E11-164	E11-164	E11-165	E11-165	E11-165	E11-165	E11-166
	Sample ID →	S4	S1	S2	S3	S4	S1	S2	S3	S4	S1
	Analyte ↓ Depth, m →	~10.0	0.0~0.5	~2.0	~5.0	~11.0	0.0~0.5	~2.0	~5.0	~10.0	0.3~0.8
33	Bis(2-Chloroethoxy)methane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	95.4 J	ND
37	Butyl benzyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3419

Table 8. Continued

No	Borehole →		E11-166	E11-167	E11-167	E11-167	E11-168	E11-168	E11-169	E11-169	E11-170	E11-170
	Sample ID →		S2	S1	S2	S3	S1	S2	S1	S2	S1	S2
	Analyte ↓	Depth, m →	~2.7	0.0~0.5	~2.0	~5.5	0.0~0.5	~3.0	0.0~0.5	~1.8	0.0~0.5	~2.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

- J: Estimated amount between the detection limit and reporting limit
- ND: Not detected

3420

Table 8. Continued

No	Borehole →	E11-166	E11-167	E11-167	E11-167	E11-168	E11-168	E11-169	E11-169	E11-170	E11-170
	Sample ID →	S2	S1	S2	S3	S1	S2	S1	S2	S1	S2
	Analyte ↓ Depth, m →	~2.7	0.0~0.5	~2.0	~5.5	0.0~0.5	~3.0	0.0~0.5	~1.8	0.0~0.5	~2.0
33	Bis(2-Chloroethoxy)methane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	μg/kg	ND	47.5 J	163 J	ND	44 J	ND	123 J	ND	173 J
37	Butyl benzyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3421

Table 8. Continued

No	Borehole →		E11-170	E11-170	E11-171	E11-171	E11-171	E11-172	E11-172	E11-172	E11-172	E11-173
	Sample ID →		S3	S4	S1	S2	S3	S1	S2	S3	S4	S1
	Analyte ↓	Depth, m →	~5.0	~7.5	0.0~0.5	~2.0	~6.5	0.0~0.5	~2.0	~5.0	~8.7	0.0~0.5
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3422

Table 8. Continued

No	Borehole → Sample ID → Analyte ↓ Depth, m →	E11-170	E11-170	E11-171	E11-171	E11-171	E11-172	E11-172	E11-172	E11-172	E11-173	
		S3	S4	S1	S2	S3	S1	S2	S3	S4	S1	
		~5.0	~7.5	0.0~0.5	~2.0	~6.5	0.0~0.5	~2.0	~5.0	~8.7	0.0~0.5	
33	Bis(2-Chloroethoxy)methane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	μg/kg	ND	ND	ND	ND	ND	76.1 J	ND	ND	ND	ND
37	Butyl benzyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	μg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3423

Table 8. Continued

No	Borehole →		E11-173	E11-173	E11-173	E11-174	E11-174	E11-174	E11-174	E11-175	E11-175	E11-175
	Sample ID →		S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte ↓	Depth, m →	~2.0	~5.0	~10.0	0.3~0.8	~2.3	2.3~5.3	~8.9	0.0~0.5	~2.0	~5.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	35.4 J	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	1450	878	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3424

Table 8. Continued

No	Borehole →		E11-173	E11-173	E11-173	E11-174	E11-174	E11-174	E11-174	E11-175	E11-175	E11-175
	Sample ID →		S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte ↓	Depth, m →	~2.0	~5.0	~10.0	0.3~0.8	~2.3	2.3~5.3	~8.9	0.0~0.5	~2.0	~5.0
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	ND	ND	602	42.2 J	ND	ND	ND	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	60.2 J	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	191 J	193 J	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n Nitrosodi n propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3425

Table 8. Continued

No	Borehole →		E11-175	E11-176	E11-176	E11-176	E11-176	E11-177	E11-177	E11-177	E11-177	E11-178
	Sample ID →		S4	S1	S2	S3	S4	S1	S2	S3	S4	S1
	Analyte ↓	Depth, m →	~7.25	0.0~0.5	~2.0	~5.0	~10.0	0.4~0.9	~2.4	~5.4	~9.0	0.0~0.5
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3426

Table 8. Continued

No	Borehole →		E11-175	E11-176	E11-176	E11-176	E11-176	E11-177	E11-177	E11-177	E11-177	E11-178
	Sample ID →		S4	S1	S2	S3	S4	S1	S2	S3	S4	S1
	Analyte ↓	Depth, m →	~7.25	0.0~0.5	~2.0	~5.0	~10.0	0.4~0.9	~2.4	~5.4	~9.0	0.0~0.5
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	83.8 J	39.4 J	55.2 J	ND	297 J	ND	ND	ND	27 J
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenzo(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3497

Table 8. Continued

No	Borehole →		E11-178	E11-178	E11-178	E11-179	E11-179	E11-179	E11-179	E11-180	E11-180	E11-180
	Sample ID →		S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte ↓	Depth, m →	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	30.9 J
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	37.8 J
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	56.7 J	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	73.4 J	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3428

Table 8. Continued

No	Borehole →		E11-178	E11-178	E11-178	E11-179	E11-179	E11-179	E11-179	E11-180	E11-180	E11-180
	Sample ID →		S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte ↓	Depth, m →	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	93.6 J	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34 29

Table 8. Continued

No	Borehole →		E11-180	E11-181	E11-181	E11-181	E11-182	E11-182	E11-182	E11-182	E11-183	E11-183
	Sample ID →		S4	S1	S2	S3	S1	S2	S3	S4	S1	S2
	Analyte ↓	Depth, m →	~10.0	0.0~0.5	~2.0	~5.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	58.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3430

Table 8. Continued

No	Borehole →		E11-180	E11-181	E11-181	E11-181	E11-182	E11-182	E11-182	E11-182	E11-183	E11-183
	Sample ID →	Depth, m →	S4	S1	S2	S3	S1	S2	S3	S4	S1	S2
Analyte ↓			~10.0	0.0~0.5	~2.0	~5.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	56.4 J	ND	ND	35.1 J	108 J	58 J	35 J	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	44.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi n propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3431

Table 8. Continued

No	Borehole →		E11-183	E11-183	E11-184	E11-184	E11-184	E11-184	E11-185	E11-185	E11-185	E11-185
	Sample ID →	Depth, m →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
Analyte ↓			~5.0	~10.0	0.0~0.5	~2.0	~5.0	~8.75	0.0~0.5	~2.0	~5.0	~8.8
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34 32

Table 8. Continued

No	Borehole →		E11-183	E11-183	E11-184	E11-184	E11-184	E11-184	E11-185	E11-185	E11-185	E11-185
	Sample ID →	Depth, m →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
Analyte ↓			~5.0	~10.0	0.0~0.5	~2.0	~5.0	~8.75	0.0~0.5	~2.0	~5.0	~8.8
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

- J: Estimated amount between the detection limit and reporting limit
- ND: Not detected

34 33

Table 8. Continued

No	Borehole →		E11-186	E11-186	E11-186	E11-186	E11-187	E11-187	E11-187	E11-187	E11-188	E11-188
	Sample ID →		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte ↓	Depth, m →	0.0~0.5	~2.0	~5.0	~8.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34/34

Table 8. Continued

No	Borehole →		E11-186	E11-186	E11-186	E11-186	E11-187	E11-187	E11-187	E11-187	E11-188	E11-188
	Sample ID →		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte ↓	Depth, m →	0.0~0.5	~2.0	~5.0	~8.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	ND	ND	57.8 J	ND	27 J	ND	ND	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34 35

Table 8. Continued

No	Borehole →		E11-188	E11-188	E11-189	E11-189	E11-189	E11-189	E11-190	E11-190	E11-190	E11-190
	Sample ID →		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓	Depth, m →	~5.0	~9.6	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~10.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3436

Table 8. Continued

No	Borehole →		E11-188	E11-188	E11-189	E11-189	E11-189	E11-189	E11-190	E11-190	E11-190	E11-190
	Sample ID →		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓	Depth, m →	~5.0	~9.6	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~10.0
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	42 J
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34 37

Table 8. Continued

No	Borehole →		E11-191	E11-191	E11-191	E11-191	E11-192	E11-192	E11-192	E11-192	E11-193	E11-193
	Sample ID →		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte ↓	Depth, m →	0.0~0.5	~2.0	~5.0	~7.7	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3438

Table 8. Continued

No	Analyte ↓	Borehole → Sample ID → Depth, m →	E11-191	E11-191	E11-191	E11-191	E11-192	E11-192	E11-192	E11-192	E11-193	E11-193
			S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
			0.0~0.5	~2.0	~5.0	~7.7	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	50.7 J	49.8 J	261 J	708	ND	150 J	ND	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3439

Table 8. Continued

No	Borehole →		E11-193	E11-193	E11-194	E11-194	E11-194	E11-194	E11-195	E11-195	E11-195	E11-195
	Sample ID →		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓	Depth, m →	~5.0	~8.6	0.3~0.8	~2.0	~5.0	~10.0	0.3~0.8	~2.0	~5.0	~10.0
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34410

Table 8. Continued

No	Borehole →		E11-193	E11-193	E11-194	E11-194	E11-194	E11-194	E11-195	E11-195	E11-195	E11-195
	Sample ID →		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓	Depth, m →	~5.0	~8.6	0.3~0.8	~2.0	~5.0	~10.0	0.3~0.8	~2.0	~5.0	~10.0
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55	n Nitrosodi n propylamine	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57	Plenanthrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34 41

Table 8. Continued

No	Borehole →		E11-196	E11-196	E11-196	E11-196
	Sample ID →		S1	S2	S3	S4
	Analyte ↓	Depth, m →	0.3~0.8	~2.3	~5.3	~10.3
1	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND
2	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND
3	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND
4	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND
5	2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	ND
6	2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	ND
7	2,4-Dichlorophenol	µg/kg	ND	ND	ND	ND
8	2,4-Dimethylphenol	µg/kg	ND	ND	ND	ND
9	2,4-Dinitrotoluene	µg/kg	ND	ND	ND	ND
10	2,6-Dinitrotoluene	µg/kg	ND	ND	ND	ND
11	2-Chloronaphthalene	µg/kg	ND	ND	ND	ND
12	2-Chlorophenol	µg/kg	ND	ND	ND	ND
13	2-Methylnaphthalene	µg/kg	ND	ND	ND	ND
14	2-Methylphenol	µg/kg	ND	ND	ND	ND
15	2-Nitroaniline	µg/kg	ND	ND	ND	ND
16	2-Nitrophenol	µg/kg	ND	ND	ND	ND
17	3 and/or 4-Methylphenol	µg/kg	ND	ND	ND	ND
18	3-Nitroaniline	µg/kg	ND	ND	ND	ND
19	4-Bromophenyl phenyl ether	µg/kg	ND	ND	ND	ND
20	4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	ND
21	4-Chloroaniline	µg/kg	ND	ND	ND	ND
22	4-Chlorophenyl phenyl ether	µg/kg	ND	ND	ND	ND
23	4-Nitroaniline	µg/kg	ND	ND	ND	ND
24	4-Nitrophenol	µg/kg	ND	ND	ND	ND
25	Acenaphthene	µg/kg	ND	ND	ND	ND
26	Acenaphthylene	µg/kg	ND	ND	ND	ND
27	Anthracene	µg/kg	ND	ND	ND	ND
28	Benzo(a)anthracene	µg/kg	ND	ND	ND	ND
29	Benzo(a)pyrene	µg/kg	ND	ND	ND	ND
30	Benzo(b)fluoranthene	µg/kg	ND	ND	ND	ND
31	Benzo(g,h,i)perylene	µg/kg	ND	ND	ND	ND
32	Benzo(k)fluoranthene	µg/kg	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34 42

Table 8. Continued

No	Borehole →		E11-196	E11-196	E11-196	E11-196
	Sample ID →		S1	S2	S3	S4
	Analyte ↓	Depth, m →	0.3~0.8	~2.3	~5.3	~10.3
33	Bis(2-Chloroethoxy)methane	µg/kg	ND	ND	ND	ND
34	Bis(2-Chloroethyl)ether	µg/kg	ND	ND	ND	ND
35	Bis(2-Chloroisopropyl)ether	µg/kg	ND	ND	ND	ND
36	Bis(2-Ethylhexyl)phthalate	µg/kg	ND	ND	ND	ND
37	Butyl benzyl phthalate	µg/kg	ND	ND	ND	ND
38	Chrysene	µg/kg	ND	ND	ND	ND
39	Dibenz(a,h)anthracene	µg/kg	ND	ND	ND	ND
40	Dibenzofuran	µg/kg	ND	ND	ND	ND
41	Diethyl phthalate	µg/kg	ND	ND	ND	ND
42	Dimethyl phthalate	µg/kg	ND	ND	ND	ND
43	Di-n-butyl phthalate	µg/kg	ND	ND	ND	ND
44	Di-n-octyl phthalate	µg/kg	ND	ND	ND	ND
45	Fluoranthene	µg/kg	ND	ND	ND	ND
46	Fluorene	µg/kg	ND	ND	ND	ND
47	Hexachlorobenzene	µg/kg	ND	ND	ND	ND
48	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND
49	Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	ND
50	Hexachloroethane	µg/kg	ND	ND	ND	ND
51	Indeno(1,2,3-cd)pyrene	µg/kg	ND	ND	ND	ND
52	Isophorone	µg/kg	ND	ND	ND	ND
53	Naphthalene	µg/kg	ND	ND	ND	ND
54	Nitrobenzene	µg/kg	ND	ND	ND	ND
55	n-Nitrosodi-n-propylamine	µg/kg	ND	ND	ND	ND
56	Pentachlorophenol	µg/kg	ND	ND	ND	ND
57	Phenanthrene	µg/kg	ND	ND	ND	ND
58	Phenol	µg/kg	ND	ND	ND	ND
59	Pyrene	µg/kg	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34 43

Table 9. Summary of Metal Results for Phase II and IIb Soil Samples

No	Borehole →		E11-154	E11-154	E11-155	E11-155	E11-156	E11-156	E11-156	E11-157	E11-157	E11-157
	Sample ID →		S1	S2	S1	S2	S1	S2	S3	S1	S2	S3
	Analyte ↓	Depth, m →	0.0~0.5	~2.3	0.0~0.5	~1.8	0.0~0.5	~2.0	~6.45	0.0~0.5	~2.0	~4.5
1	Arsenic	mg/kg	15.6	3.48	308	40.1	4.75	4.48	3.17	2.95	4.58	1.82
2	Barium	mg/kg	91.4	55	111	63.7	87.6	80.2	63.7	71.1	78.9	72.6
3	Cadmium	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Chromium	mg/kg	3.58	3.8	3.5	4.02	4.11	6.54	6.38	4.41	3.91	4.31
5	Lead	mg/kg	19	10.2	19.7	7.62	8.89	10.6	9.53	9	14	5.96
6	Mercury	mg/kg	ND	0.00161 J	0.00453 J	0.00631 J	ND	0.0016 J	0.00511 J	0.00682 J	0.00448 J	0.00269 J
7	Selenium	mg/kg	0.792 J	0.99 J	ND	0.665 J	ND	0.884 J	0.454 J	ND	0.442 J	0.932 J
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3444

Table 9. Continued

No	Borehole →		E11-158	E11-158	E11-158	E11-158	E11-159	E11-159	E11-159	E11-159	E11-160	E11-160
	Analyte ↓	Depth, m →	S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
1	Arsenic	mg/kg	4.93	5.08	7.42	2.16	4.72	4.94	5.97	4.46	2.7	2.99
2	Barium	mg/kg	69.7	103	45.9	78.4	89.4	104	89.2	64.5	101	108
3	Cadmium	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Chromium	mg/kg	3.2	4.22	9.05	4.72	3.59	4.43	7.6	7.95	5.12	4.14
5	Lead	mg/kg	17.6	11.6	17.2	7.83	9.6	9.37	13.2	12.2	6	6.63
6	Mercury	mg/kg	0.00683 J	0.00669 J	0.00549 J	0.00413 J	0.00571 J	0.00488 J	0.00926 J	0.0145 J	0.00355 J	0.00183 J
7	Selenium	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3445

Table 9. Continued

No	Borehole →		E11-160	E11-161	E11-161	E11-161	E11-161	E11-162	E11-162	E11-163	E11-163	E11-163
	Sample ID →		S3	S1	S2	S3	S4	S1	S2	S1	S2	S3
	Analyte ↓	Depth, m →	~3.4	0.0~0.5	~2.0	~5.0	~7.9	0.0~0.5	~1.52	0.0~0.5	~2.0	~5.0
1	Arsenic	mg/kg	3.28	2.65	13.7	6.92	3.3	5.07	3.03	76.6	7.3	4.33
2	Barium	mg/kg	83.8	80.4	91	80.9	101	73.3	58	112	106	76.8
3	Cadmium	mg/kg	ND	ND	ND	ND	ND	ND	ND	1.65	1.51	ND
4	Chromium	mg/kg	5.91	4.08	4.58	15.2	2.85	3.07	2.74	2.4	4.79	5.46
5	Lead	mg/kg	6.88	7.15	13.2	15.7	9.39	11.8	7.31	31.7	22	9.21
6	Mercury	mg/kg	0.00159 J	ND	ND	0.00276 J	ND	ND	ND	0.00812 J	0.0104 J	0.00613 J
7	Selenium	mg/kg	1.03 J	0.446 J	ND	0.908 J	ND	0.4 J	0.744 J	ND	ND	ND
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3446

Table 9. Continued

No	Borehole →	E11-163	E11-164	E11-164	E11-164	E11-164	E11-165	E11-165	E11-165	E11-165	E11-166
	Sample ID →	S4	S1	S2	S3	S4	S1	S2	S3	S4	S1
	Analyte ↓ Depth, m →	~10.0	0.0~0.5	~2.0	~5.0	~11.0	0.0~0.5	~2.0	~5.0	~10.0	0.3~0.8
1	Arsenic mg/kg	2.95	6.02	5.61	4.51	3.3	6.8	14.6	4.79	8.44	4.34
2	Barium mg/kg	128	77.9	105	90.3	84.9	70.5	75.2	95.7	73.3	80.7
3	Cadmium mg/kg	ND	ND	1.16	1.17	ND	0.817	1.72	1.13	ND	ND
4	Chromium mg/kg	3.44	3.64	3.82	5.67	4.14	3.11	2.94	4.17	11.7	4.19
5	Lead mg/kg	6.39	15.4	15	11.4	7.64	15.6	34.1	15.2	28.8	14.1
6	Mercury mg/kg	0.00716 J	0.00438 J	0.00104 J	0.00968 J	0.00631 J	0.00549 J	0.00488 J	ND	0.00483 J	0.00493 J
7	Selenium mg/kg	ND	0.574 J	ND	ND	ND	0.501 J	ND	0.542 J	0.496 J	ND
8	Silver mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3447

Table 9. Continued

No	Borehole →		E11-166	E11-167	E11-167	E11-167	E11-168	E11-168	E11-169	E11-169	E11-170	E11-170
	Analyte ↓	Depth, m →	S2	S1	S2	S3	S1	S2	S1	S2	S1	S2
1	Arsenic	mg/kg	2.85	6.72	5.39	4.92	3.22	4.98	4.51	5.11	3.49	6.62
2	Barium	mg/kg	78.2	81.6	81.6	74.8	77.4	64.3	62.6	54.7	62.3	79.3
3	Cadmium	mg/kg	ND	0.789	0.817	ND	0.578	0.527	0.811	0.927	0.641	0.668
4	Chromium	mg/kg	3.24	6.33	3.92	10.2	11.5	3.49	5.05	2.28	7.37	15.9
5	Lead	mg/kg	5.51	24.4	15.7	10.5	14.4	5.22	21.8	23.7	18.6	14
6	Mercury	mg/kg	0.0024 J	0.00962 J	0.00937 J	0.0126 J	0.0202	ND	0.0171 J	0.00345 J	0.00552 J	0.0142 J
7	Selenium	mg/kg	0.836 J	ND	0.462 J	0.605 J	0.439 J	ND	ND	ND	0.428 J	1.15 J
8	Silver	mg/kg	ND	ND	ND	ND	0.367 J	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3448

Table 9. Continued

No	Borehole →		E11-170	E11-170	E11-171	E11-171	E11-171	E11-172	E11-172	E11-172	E11-172	E11-173
	Sample ID →		S3	S4	S1	S2	S3	S1	S2	S3	S4	S1
	Analyte ↓	Depth, m →	~5.0	~7.5	0.0~0.5	~2.0	~6.5	0.0~0.5	~2.0	~5.0	~8.7	0.0~0.5
1	Arsenic	mg/kg	16.4	3.48	2.98	11.2	4.27	5.73	4.42	7.23	5.96	2.54
2	Barium	mg/kg	77.2	82.9	88.3	85.6	77.4	93.2	83.6	70.7	92.6	32.9
3	Cadmium	mg/kg	0.659	0.448 J	0.712	0.92	0.763	0.9	0.752	0.734	0.812	ND
4	Chromium	mg/kg	9.43	4.63	8.75	5.41	6	6.36	2.78	3.62	5.33	9.56
5	Lead	mg/kg	23.3	7.97	14.9	28.9	25.1	18.3	16.4	20.9	12	14.5
6	Mercury	mg/kg	0.00581 J	ND	0.0238	0.00748 J	0.0105 J	0.00768 J	0.00504 J	0.00205 J	0.00211 J	0.0158 J
7	Selenium	mg/kg	0.479 J	0.89 J	0.594 J	ND	ND	ND	ND	ND	0.977 J	ND
8	Silver	mg/kg	ND	ND	0.157 J	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3449

Table 9. Continued

No	Borehole →		E11-173	E11-173	E11-173	E11-174	E11-174	E11-174	E11-174	E11-175	E11-175	E11-175
	Sample ID →		S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte ↓	Depth, m →	~2.0	~5.0	~10.0	0.3~0.8	~2.3	2.3~5.3	~8.9	0.0~0.5	~2.0	~5.0
1	Arsenic	mg/kg	8.59	4.19	4.35	3.85	4.26	7.85	5.66	8.36	5.48	5.53
2	Barium	mg/kg	73	80.7	64.6	62.9	90.8	75.9	83	61.5	77.8	84.4
3	Cadmium	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Chromium	mg/kg	19.6	5.4	11.1	8.72	5.85	3.43	8.98	3.6	4.53	5.73
5	Lead	mg/kg	14	12.3	18.9	12.2	16.3	13.1	18.9	13.8	14.8	21
6	Mercury	mg/kg	0.0153 J	0.00672 J	0.00797 J	0.00849 J	0.00666 J	0.002 J	0.00371 J	0.0307	ND	ND
7	Selenium	mg/kg	0.811 J	0.742 J	ND	ND	ND	0.85 J	1.32 J	0.426 J	0.696 J	ND
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

- J: Estimated amount between the detection limit and reporting limit
- ND: Not detected

3450

Table 9. Continued

No	Borehole →		E11-175	E11-176	E11-176	E11-176	E11-176	E11-177	E11-177	E11-177	E11-177	E11-178
	Sample ID →		S4	S1	S2	S3	S4	S1	S2	S3	S4	S1
Analyte ↓	Depth, m →		~7.25	0.0~0.5	~2.0	~5.0	~10.0	0.4~0.9	~2.4	~5.4	~9.0	0.0~0.5
1	Arsenic	mg/kg	5.9	3.29	6.54	4.63	4.9	5.35	6.18	7.8	3.8	7.21
2	Barium	mg/kg	65.8	43.9	64.9	87	67.1	69.7	87.5	76.7	70	99.7
3	Cadmium	mg/kg	ND	ND	ND	ND	ND	1.07	0.757	0.676	0.568	0.965
4	Chromium	mg/kg	8.62	9.08	18.8	5.03	9.62	10.7	4.26	3.09	5.66	5.5
5	Lead	mg/kg	26.8	17.1	14.6	10.2	20.2	28	13.3	14.8	10.8	29.2
6	Mercury	mg/kg	ND	0.0104 J	0.0166 J	ND	ND	0.0155 J	0.0252	ND	0.0046 J	0.00395 J
7	Selenium	mg/kg	ND	ND	0.911 J	0.753 J	ND	ND	ND	ND	ND	ND
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3451

Table 9. Continued

No	Borehole →		E11-178	E11-178	E11-178	E11-179	E11-179	E11-179	E11-179	E11-180	E11-180	E11-180
	Sample ID →		S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte ↓	Depth, m →	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0
1	Arsenic	mg/kg	7.33	4.52	3.17	6.81	3.98	10.4	24.6	5.15	7.34	7.64
2	Barium	mg/kg	132	66.6	72.5	119	77.7	77.3	73.5	91.7	105	101
3	Cadmium	mg/kg	1.4	0.8	0.456 J	ND	ND	ND	ND	0.713	ND	ND
4	Chromium	mg/kg	4.23	4.52	5.3	5.37	5.22	3.99	6.76	5.09	4.09	4.54
5	Lead	mg/kg	24.9	12.5	12.2	23.7	15.8	15.2	12.4	11.5	24	13
6	Mercury	mg/kg	0.00242 J	0.00334 J	0.00345 J	ND	0.0171 J	ND	0.0261	0.00318 J	0.00416 J	0.00187 J
7	Selenium	mg/kg	0.717 J	0.716 J	0.689 J	0.966 J	0.458 J	0.615 J	1.48 J	0.606 J	ND	ND
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	2.34	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3452

Table 9. Continued

No	Borehole →		E11-180	E11-181	E11-181	E11-181	E11-182	E11-182	E11-182	E11-182	E11-183	E11-183
	Sample ID →		S4	S1	S2	S3	S1	S2	S3	S4	S1	S2
Analyte ↓	Depth, m →		~10.0	0.0~0.5	~2.0	~5.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	Arsenic	mg/kg	6.65	5.77	4.17	3.69	4.91	6.11	5.09	4.5	3.05	9.01
2	Barium	mg/kg	90.1	92.5	103	95.1	100	95.5	79.8	89.8	90.8	87.8
3	Cadmium	mg/kg	0.652	ND	1.41	1.48	ND	ND	1.54	ND	ND	ND
4	Chromium	mg/kg	10.1	4.26	2.84	3.73	3.4	3.48	3.82	6.7	3.31	2.93
5	Lead	mg/kg	19.4	12.4	10.3	18.7	13.2	15.5	15.3	15.6	6.84	27.7
6	Mercury	mg/kg	0.00467 J	0.00344 J	0.0034 J	0.00571 J	0.00342 J	0.00329 J	0.00437 J	0.00392 J	0.00115 J	0.003 J
7	Selenium	mg/kg	0.439 J	0.752 J	0.448 J	0.954 J	0.529 J	1.02 J	1.02 J	1.24 J	0.923 J	ND
8	Silver	mg/kg	0.162 J	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

34/53

Table 9. Continued

No	Borehole →		E11-183	E11-183	E11-184	E11-184	E11-184	E11-184	E11-185	E11-185	E11-185	E11-185
	Sample ID →		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓	Depth, m →	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~8.75	0.0~0.5	~2.0	~5.0	~8.8
1	Arsenic	mg/kg	5.06	4.32	5.68	4.8	3.25	2.33	4.13	4.57	3.03	4.52
2	Barium	mg/kg	84.2	65.8	69.7	88.5	74.1	61	80.4	87.4	78.4	102
3	Cadmium	mg/kg	ND	ND	0.773	0.766	0.595	ND	0.742	1.19	0.607	0.549 J
4	Chromium	mg/kg	4.1	5.91	3.42	3.86	4.48	3.82	3.93	3.39	3.64	12.5
5	Lead	mg/kg	16.9	12.6	15.4	14	10.2	4.35	13.4	24.5	12.1	13.6
6	Mercury	mg/kg	0.00258 J	0.00953 J	0.0297	0.0035 J	0.00356 J	0.00117 J	0.00327 J	0.00288 J	ND	0.00355 J
7	Selenium	mg/kg	0.779 J	0.825 J	ND	ND	0.6 J	ND	ND	ND	ND	0.819 J
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3454

Table 9. Continued

No	Borehole →		E11-186	E11-186	E11-186	E11-186	E11-187	E11-187	E11-187	E11-187	E11-188	E11-188
	Sample ID →		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte ↓	Depth, m →	0.0~0.5	~2.0	~5.0	~8.0	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	Arsenic	mg/kg	5.47	4.25	5.9	3.94	5.41	5.48	3.91	3.51	8.04	4.97
2	Barium	mg/kg	84.1	69.8	81.6	80.3	101	94.3	86.3	77.1	89.4	79.1
3	Cadmium	mg/kg	1.12	0.602	0.735	0.56	ND	ND	ND	ND	1.63	ND
4	Chromium	mg/kg	3.47	3.01	4.6	10.1	3.39	4.35	3.76	6.53	4.21	4.46
5	Lead	mg/kg	28.3	10.2	16.1	11.4	14.2	12.4	11.1	12.1	16.5	12.5
6	Mercury	mg/kg	0.0241	0.00557 J	0.00342 J	0.00422 J	0.00243 J	0.0176 J	0.00643 J	0.00331 J	0.00834 J	0.0341
7	Selenium	mg/kg	ND	0.815 J	ND	ND	ND	ND	ND	ND	ND	ND
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3455

Table 9. Continued

No	Borehole →		E11-188	E11-188	E11-189	E11-189	E11-189	E11-189	E11-190	E11-190	E11-190	E11-190
	Sample ID →		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓	Depth, m →	~5.0	~9.6	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0	~5.0	~10.0
1	Arsenic	mg/kg	56.2	3.22	4.57	8.08	7.42	5.27	9.71	11.6	7.04	2.1
2	Barium	mg/kg	89.5	64	79.3	102	97.7	79.3	88.4	106	104	75.1
3	Cadmium	mg/kg	ND	ND	ND	ND	ND	ND	1.69	ND	1.21	ND
4	Chromium	mg/kg	4.16	6.88	3.58	3.99	3.89	8.37	2.76	3.31	3.3	6.53
5	Lead	mg/kg	16.6	10.2	13.5	13.8	14.1	13.4	15.3	10.7	34.7	9.08
6	Mercury	mg/kg	0.00105 J	0.00693 J	0.0129 J	0.0107 J	0.00167 J	0.00649 J	0.00284 J	0.00241 J	0.00434 J	0.00502 J
7	Selenium	mg/kg	0.576 J	ND	ND	ND	ND	ND	0.688 J	ND	0.554 J	0.756 J
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

- J: Estimated amount between the detection limit and reporting limit
- ND: Not detected

3456

Table 9. Continued

No	Borehole →		E11-191	E11-191	E11-191	E11-191	E11-192	E11-192	E11-192	E11-192	E11-193	E11-193
	Sample ID →		S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte ↓	Depth, m →	0.0~0.5	~2.0	~5.0	~7.7	0.0~0.5	~2.0	~5.0	~10.0	0.0~0.5	~2.0
1	Arsenic	mg/kg	4.49	1.76	1.25	0.856 J	4.28	8.73	10.1	1.81	4.39	3.32
2	Barium	mg/kg	81.6	101	143	131	92	114	104	88.5	72	65.8
3	Cadmium	mg/kg	ND	ND	ND	ND	ND	1.3	1.35	ND	ND	ND
4	Chromium	mg/kg	3.53	3.21	2.4	3.02	3.91	3.55	5.19	3.49	3.65	3.89
5	Lead	mg/kg	11.1	8	9.45	5.73	10.8	14.1	21.4	8.57	8.36	8.35
6	Mercury	mg/kg	0.00605 J	0.00222 J	ND	ND	0.00592 J	0.00568 J	0.00804 J	0.00756 J	0.00456 J	0.00504 J
7	Selenium	mg/kg	0.629 J	0.636 J	ND	0.732 J	ND	ND	1.15 J	0.565 J	ND	ND
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3457

Table 9. Continued

No	Borehole →		E11-193	E11-193	E11-194	E11-194	E11-194	E11-194	E11-195	E11-195	E11-195	E11-195
	Sample ID →		S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte ↓	Depth, m →	~5.0	~8.6	0.3~0.8	~2.0	~5.0	~10.0	0.3~0.8	~2.0	~5.0	~10.0
1	Arsenic	mg/kg	3.46	2.55	1.28	1.76	4.3	1.69	1.85	2.24	5.77	1.61
2	Barium	mg/kg	53.1	102	76.3	78.6	86.6	101	57	76.6	79.6	84
3	Cadmium	mg/kg	ND	0.67	ND	ND	ND	ND	ND	ND	ND	ND
4	Chromium	mg/kg	3.37	2.08	3.85	3.07	2.28	4.13	3.91	5.1	15.4	4.1
5	Lead	mg/kg	6.23	7.72	6.93	3.19	4.81	4.17	6.8	8.99	13.1	4.83
6	Mercury	mg/kg	0.00567 J	0.0075 J	0.0116 J	0.0073 J	0.0079 J	0.00401 J	0.0046 J	0.00821 J	0.0196 J	0.004 J
7	Selenium	mg/kg	ND	0.485 J	0.631 J	0.433 J	1.1 J	0.781 J	0.999 J	1.11 J	0.965 J	0.504 J
8	Silver	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

- J: Estimated amount between the detection limit and reporting limit
- ND: Not detected

3458

Table 9. Continued

No	Borehole →		E11-196	E11-196	E11-196	E11-196
	Sample ID →		S1	S2	S3	S4
	Analyte ↓	Depth, m →	0.3~0.8	~2.3	~5.3	~10.3
1	Arsenic	mg/kg	2.23	3.61	2.46	1.68
2	Barium	mg/kg	57.7	53.7	78.9	99.8
3	Cadmium	mg/kg	ND	ND	ND	ND
4	Chromium	mg/kg	4.11	6.81	6.54	3.8
5	Lead	mg/kg	8.06	8.2	8.05	6.91
6	Mercury	mg/kg	0.00506 J	0.0145 J	0.0144 J	0.00626 J
7	Selenium	mg/kg	1.15 J	1.48 J	1.22 J	1.18 J
8	Silver	mg/kg	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

ND: Not detected

3459

Table 10. Comparison of Duplicate Sample Results in Primary Laboratory

Parameter	Analyte	Unit	Result: E11-154-S1		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	1.04 J EMPC	1.15 J	0.90	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDD	pg/g	0.247 J	< 2.38	-	-	Agree
	1,2,3,4,7,8-HxCDF	pg/g	0.189 J	0.04 J EMPC	4.73	0.33-3.00	Disagree
	1,2,3,6,7,8-HxCDD	pg/g	0.175 J EMPC	< 2.38	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	0.189 J EMPC	0.0419 J	4.51	0.33-3.00	Disagree
	1,2,3,7,8,9-HxCDD	pg/g	0.354 J	< 2.38	-	-	Agree
	1,2,3,7,8,9-HxCDF	pg/g	0.329 J EMPC	< 2.38	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	0.154 J	< 2.38	-	-	Agree
	1,2,3,7,8-PeCDF	pg/g	0.226 J	< 2.38	-	-	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.195 J EMPC	< 2.38	-	-	Agree
	2,3,4,7,8-PeCDF	pg/g	0.201 J EMPC	0.0552 J EMPC	3.64	0.33-3.00	Disagree
	2,3,7,8-TCDD	pg/g	< 0.487	0.101 J EMPC	-	-	Agree
	OCDD	pg/g	24.2	31.7	0.76	0.25-4.00	Agree
	OCDF	pg/g	< 4.87	1.27 J EMPC	-	-	Agree
OC-P	4,4'-DDE	µg/kg	1.07 J	1.06 J	1.01	0.33-3.00	Agree
	4,4'-DDT	µg/kg	3.61	3.49	1.03	0.25-4.00	Agree
Metal	Arsenic	mg/kg	15.6	18.9	0.83	0.50-2.00	Agree
	Barium	mg/kg	91.4	89.7	1.02	0.50-2.00	Agree
	Chromium	mg/kg	3.58	3.93	0.91	0.50-2.00	Agree
	Lead	mg/kg	19	19	1.00	0.50-2.00	Agree
	Selenium	mg/kg	0.792 J	0.896 J	0.88	0.33-3.00	Agree

Parameter	Analyte	Unit	Result: E11-154-S2		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.429 J	0.505 J EMPC	0.85	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	0.0959 J	< 2.53	-	-	Agree
	2,3,4,7,8-PeCDF	pg/g	< 2.35	0.0707 J EMPC	-	-	Agree
	OCDD	pg/g	16.3	12.2	1.34	0.25-4.00	Agree
OC-P	4,4'-DDD	µg/kg	2.74	9.38	0.29	0.25-4.00	Agree
	4,4'-DDE	µg/kg	1.71 J	2.93 J	0.58	0.33-3.00	Agree
	4,4'-DDT	µg/kg	5.22	5.06	1.03	0.25-4.00	Agree
VOC	2-Butanone	µg/kg	1.87 J	< 25.2	-	-	Agree
	Carbon disulfide	µg/kg	0.976 J	< 5.05	-	-	Agree
Metal	Arsenic	mg/kg	3.48	5.5	0.63	0.50-2.00	Agree
	Barium	mg/kg	55	64.1	0.86	0.50-2.00	Agree
	Chromium	mg/kg	3.8	4.57	0.83	0.50-2.00	Agree
	Lead	mg/kg	10.2	24.1	0.42	0.50-2.00	Disagree
	Mercury	mg/kg	0.00161 J	< 0.0185	-	-	Agree
	Selenium	mg/kg	0.99 J	0.733 J	1.35	0.33-3.00	Agree

3460

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-167-S2		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	3.74	3.97	0.94	0.25-4.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	1.58 J	2.96	0.53	0.33-3.00	Agree
	1,2,3,4,7,8,9-HpCDF	pg/g	< 2.49	0.231 J	-	-	Agree
	1,2,3,4,7,8-HxCDD	pg/g	< 2.49	0.0784 J	-	-	Agree
	1,2,3,4,7,8-HxCDF	pg/g	0.297 J	0.485 J	0.61	0.33-3.00	Agree
	1,2,3,6,7,8-HxCDD	pg/g	< 2.49	0.285 J	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	0.205 J EMPC	0.357 J	0.57	0.33-3.00	Agree
	1,2,3,7,8,9-HxCDD	pg/g	< 2.49	0.173 J EMPC	-	-	Agree
	1,2,3,7,8,9-HxCDF	pg/g	< 2.49	0.155 J EMPC	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	0.116 J EMPC	0.138 J EMPC	0.84	0.33-3.00	Agree
	1,2,3,7,8-PeCDF	pg/g	0.243 J EMPC	0.287 J EMPC	0.85	0.33-3.00	Agree
	2,3,4,7,8-PeCDF	pg/g	0.152 J	0.242 J EMPC	0.63	0.33-3.00	Agree
	2,3,7,8-TCDD	pg/g	< 0.498	0.142 J EMPC	-	-	Agree
	2,3,7,8-TCDF	pg/g	< 0.498	0.619	0.80	0.33-3.00	Agree
	OCDD	pg/g	70.1	70.9	0.99	0.25-4.00	Agree
OCDF	pg/g	2.77 J	3.42 J	0.81	0.33-3.00	Agree	
OC-P	4,4'-DDD	µg/kg	617	1850	0.33	0.25-4.00	Agree
	4,4'-DDE	µg/kg	297 J	302	0.98	0.33-3.00	Agree
	4,4'-DDT	µg/kg	9150	11100	0.82	0.25-4.00	Agree
	alpha-BHC	µg/kg	47.8	< 164	-	-	Agree
	alpha-Chlordane	µg/kg	3.29 J	4.57	0.72	0.33-3.00	Agree
	beta-BHC	µg/kg	24.3	16.5	1.47	0.25-4.00	Agree
	delta-BHC	µg/kg	56.5	< 164	-	-	Agree
	Dieldrin	µg/kg	52.9	88.6 J	0.60	0.33-3.00	Agree
	gamma-BHC (Lindane)	µg/kg	870	883	0.99	0.25-4.00	Agree
	gamma-Chlordane	µg/kg	3.69 J	5.55	0.66	0.33-3.00	Agree
VOC	2-Butanone	µg/kg	4.48 J	3.4 J	1.32	0.33-3.00	Agree
	Acetone	µg/kg	31.6 J	22.4 J	1.41	0.33-3.00	Agree
	Methyl iodide	µg/kg	1.75 J	1.8 J	0.97	0.33-3.00	Agree
	Tetrachloroethene	µg/kg	< 4.25	0.784 J	-	-	Agree
SVOC	Bis(2-Ethylhexyl)phthalate	µg/kg	163 J	101 J	1.61	0.33-3.00	Agree
Metal	Arsenic	mg/kg	5.39	5.62	0.96	0.50-2.00	Agree
	Barium	mg/kg	81.6	81.9	1.00	0.50-2.00	Agree
	Cadmium	mg/kg	0.817	0.639	1.28	0.50-2.00	Agree
	Chromium	mg/kg	3.92	5.79	0.68	0.50-2.00	Agree
	Lead	mg/kg	15.7	11.3	1.39	0.50-2.00	Agree
	Mercury	mg/kg	0.00937 J	0.0103 J	0.91	0.33-3.00	Agree
	Silver	mg/kg	0.365 J	0.309 J	1.18	0.33-3.00	Agree

3461

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-178-S1		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	46.5	17	2.74	0.25-4.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	19.7	5.42	3.63	0.25-4.00	Agree
	1,2,3,4,7,8,9-HpCDF	pg/g	0.727 J EMPC	0.31 J	2.35	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDD	pg/g	0.491 J EMPC	0.194 J	2.53	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDF	pg/g	0.958 J	0.383 J	2.50	0.33-3.00	Agree
	1,2,3,6,7,8-HxCDD	pg/g	1.94 J	0.649 J	2.99	0.33-3.00	Agree
	1,2,3,6,7,8-HxCDF	pg/g	0.737 J	0.319 J EMPC	2.31	0.33-3.00	Agree
	1,2,3,7,8,9-HxCDD	pg/g	0.583 J	0.329 J	1.77	0.33-3.00	Agree
	1,2,3,7,8,9-HxCDF	pg/g	< 2.54	0.166 J EMPC	-	-	Agree
	1,2,3,7,8-PeCDF	pg/g	0.274 J EMPC	0.115 J EMPC	2.38	0.33-3.00	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.993 J	0.373 J	2.66	0.33-3.00	Agree
	2,3,4,7,8-PeCDF	pg/g	0.784 J	0.458 J EMPC	1.71	0.33-3.00	Agree
	2,3,7,8-TCDD	pg/g	0.207 J EMPC	< 0.481	-	-	Agree
	2,3,7,8-TCDF	pg/g	1.02	0.431 J	2.37	0.33-3.00	Agree
	OCDD	pg/g	278	113	2.46	0.25-4.00	Agree
OCDF	pg/g	20.2	6.73	3.00	0.25-4.00	Agree	
OC-P	4,4'-DDD	µg/kg	7400	6360	1.16	0.25-4.00	Agree
	4,4'-DDE	µg/kg	1600	1700	0.94	0.25-4.00	Agree
	4,4'-DDT	µg/kg	26900	25100	1.07	0.25-4.00	Agree
	beta-BHC	µg/kg	10.7	13.3	0.80	0.25-4.00	Agree
	Dieldrin	µg/kg	336 J	510 J	0.66	0.33-3.00	Agree
	gamma-BHC (Lindane)	µg/kg	5.26 J	< 8.08	-	-	Agree
	gamma-Chlordane	µg/kg	< 806	255 J	-	-	Agree
	Heptachlor	µg/kg	4 J	4.34 J	0.92	0.33-3.00	Agree
	Heptachlor epoxide	µg/kg	11.1	11.4	0.97	0.25-4.00	Agree
VOC	2-Butanone	µg/kg	7.07 J	7.9	0.25	0.33-3.00	Disagree
	Acetone	µg/kg	41.7	128	0.33	0.20-5.00	Agree
	Benzene	µg/kg	< 4.12	0.76 J	-	-	Agree
	Methyl iodide	µg/kg	1.77 J	1.9 J	0.93	0.33-3.00	Agree
	Tetrachloroethene	µg/kg	0.841 J	1.29 J	0.65	0.33-3.00	Agree
	Toluene	µg/kg	< 4.12	0.834 J	-	-	Agree
SVOC	Bis(2-Ethylhexyl)phthalate	µg/kg	27 J	< 316	-	-	Agree
Metal	Arsenic	mg/kg	7.21	6.98	1.03	0.50-2.00	Agree
	Barium	mg/kg	99.7	112	0.89	0.50-2.00	Agree
	Cadmium	mg/kg	0.965	1.01	0.96	0.50-2.00	Agree
	Chromium	mg/kg	5.5	6.28	0.88	0.50-2.00	Agree
	Lead	mg/kg	29.2	32	0.91	0.50-2.00	Agree
	Mercury	mg/kg	0.00395 J	0.00524 J	0.75	0.33-3.00	Agree

3462

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-178-S2		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.971 J	0.656 J EMPC	1.48	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	0.181 J	0.106 J	1.71	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDF	pg/g	0.0917 J	< 2.65	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	0.0834 J	< 2.65	-	-	Agree
	1,2,3,7,8,9-HxCDD	pg/g	0.286 J	0.0847 J EMPC	3.38	0.33-3.00	Disagree
	1,2,3,7,8,9-HxCDF	pg/g	0.0834 J EMPC	< 2.65	-	-	Agree
	1,2,3,7,8-PeCDF	pg/g	0.123 J EMPC	< 2.65	-	-	Agree
	2,3,4,7,8-PeCDF	pg/g	0.119 J EMPC	0.0614 J	1.94	0.33-3.00	Agree
	2,3,7,8-TCDD	pg/g	0.0917 J EMPC	0.106 J EMPC	0.87	0.33-3.00	Agree
	2,3,7,8-TCDF	pg/g	< 0.521	0.203 J	-	-	Agree
	OCDD	pg/g	37.1	25.9	1.43	0.25-4.00	Agree
	OCDF	pg/g	0.729 J	0.205 J EMPC	3.56	0.33-3.00	Disagree
OC-P	4,4'-DDD	µg/kg	74.7	650	0.11	0.25-4.00	Disagree
	4,4'-DDE	µg/kg	29.2	23.9	1.22	0.25-4.00	Agree
	4,4'-DDT	µg/kg	243	575	0.42	0.25-4.00	Agree
	beta-BHC	µg/kg	0.6 J	0.634 J	0.95	0.33-3.00	Agree
	Dieldrin	µg/kg	3.13	2.98	1.05	0.25-4.00	Agree
	gamma-BHC (Lindane)	µg/kg	1.9	1.91	0.99	0.25-4.00	Agree
VOC	2-Butanone	µg/kg	1.89 J	1.89 J	1.00	0.33-3.00	Agree
	Acetone	µg/kg	10.8 J	6.14 J	1.76	0.33-3.00	Agree
	Tetrachloroethene	µg/kg	2.35 J	1.63 J	1.44	0.33-3.00	Agree
Metal	Arsenic	mg/kg	7.33	4.96	1.48	0.50-2.00	Agree
	Barium	mg/kg	132	132	1.00	0.50-2.00	Agree
	Cadmium	mg/kg	1.4	0.978	1.43	0.50-2.00	Agree
	Chromium	mg/kg	4.23	3.3	1.28	0.50-2.00	Agree
	Lead	mg/kg	24.9	17.7	1.41	0.50-2.00	Agree
	Mercury	mg/kg	0.00242 J	0.00278 J	0.87	0.33-3.00	Agree
	Selenium	mg/kg	0.717 J	< 1.83	-	-	Agree

3463

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-178-S3		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.733 J	0.661 J	1.11	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	0.182 J EMPC	< 2.68	-	-	Agree
	OCDD	pg/g	31.2	28.4	1.10	0.25-4.00	Agree
OC-P	4,4'-DDD	µg/kg	11.6	22.9	0.51	0.25-4.00	Agree
	4,4'-DDE	µg/kg	2.39	6.81	0.35	0.25-4.00	Agree
	4,4'-DDT	µg/kg	36	75.1	0.48	0.25-4.00	Agree
	Dieldrin	µg/kg	0.851 J	1.17 J	0.73	0.33-3.00	Agree
	gamma-BHC (Lindane)	µg/kg	4.11	3.47	1.18	0.25-4.00	Agree
VOC	2-Butanone	µg/kg	1.8 J	1.53 J	1.18	0.33-3.00	Agree
	Acetone	µg/kg	11.1 J	6.72 J	1.65	0.33-3.00	Agree
	Methyl iodide	µg/kg	0.728 J	< 4.15	-	-	Agree
	Tetrachloroethene	µg/kg	30.3	19.5	1.55	0.20-5.00	Agree
	Trichloroethene	µg/kg	2.29 J	1.59 J	1.44	0.33-3.00	Agree
Metal	Arsenic	mg/kg	4.52	4.6	0.98	0.50-2.00	Agree
	Barium	mg/kg	66.6	69.9	0.95	0.50-2.00	Agree
	Cadmium	mg/kg	0.8	0.884	0.90	0.50-2.00	Agree
	Chromium	mg/kg	4.52	5.19	0.87	0.50-2.00	Agree
	Lead	mg/kg	12.5	13.8	0.91	0.50-2.00	Agree
	Mercury	mg/kg	0.00334 J	0.00381 J	0.88	0.33-3.00	Agree
	Selenium	mg/kg	0.716 J	< 2.18	-	-	Agree

34 64

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-178-S4		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	1.57 J	1.76 J	0.89	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	0.239 J EMPC	< 2.7	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	0.0809 J EMPC	< 2.7	-	-	Agree
	OCDD	pg/g	62.3	74.7	0.83	0.25-4.00	Agree
OC-P	4,4'-DDD	µg/kg	8.36	6.29	1.33	0.25-4.00	Agree
	4,4'-DDE	µg/kg	2.46	3.5	0.70	0.25-4.00	Agree
	4,4'-DDT	µg/kg	18.1	13	1.39	0.25-4.00	Agree
	Dieldrin	µg/kg	< 2.33	0.942 J	-	-	Agree
VOC	1,1-Dichloroethane	µg/kg	1.36 J	1.47 J	0.93	0.33-3.00	Agree
	2-Butanone	µg/kg	1.95 J	1.65 J	1.18	0.33-3.00	Agree
	2-Chlorotoluene	µg/kg	10.4	11	0.95	0.20-5.00	Agree
	4-Chlorotoluene	µg/kg	19.7	20.1	0.98	0.20-5.00	Agree
	Acetone	µg/kg	7.21 J	6.42 J	1.12	0.33-3.00	Agree
	Benzene	µg/kg	1.21 J	1.28 J	0.95	0.33-3.00	Agree
	Carbon disulfide	µg/kg	1.22 J	1.07 J	1.14	0.33-3.00	Agree
	Chlorobenzene	µg/kg	0.939 J	1 J	0.94	0.33-3.00	Agree
	Chloroethane	µg/kg	< 4.56	2.5 J	-	-	Agree
	cis-1,2-Dichloroethene	µg/kg	1.56 J	0.973 J	1.60	0.33-3.00	Agree
	Tetrachloroethene	µg/kg	0.72 J	< 4.73	-	-	Agree
	Toluene	µg/kg	3.31 J	2.05 J	1.61	0.33-3.00	Agree
Metal	Arsenic	mg/kg	3.17	2.54	1.25	0.50-2.00	Agree
	Barium	mg/kg	72.5	82.3	0.88	0.50-2.00	Agree
	Cadmium	mg/kg	0.456 J	0.517	0.88	0.33-3.00	Agree
	Chromium	mg/kg	5.3	5.21	1.02	0.50-2.00	Agree
	Lead	mg/kg	12.2	9.52	1.28	0.50-2.00	Agree
	Mercury	mg/kg	0.00345 J	0.00318 J	1.08	0.33-3.00	Agree
	Selenium	mg/kg	0.689 J	< 1.98	-	-	Agree

3465

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-181-S1		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	7.97	7.48	1.07	0.25-4.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	1.93 J	2.32	0.83	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDD	pg/g	< 2.62	0.195 J	-	-	Agree
	1,2,3,4,7,8-HxCDF	pg/g	< 2.62	0.541 J	-	-	Agree
	1,2,3,6,7,8-HxCDD	pg/g	0.356 J EMPC	0.421 J EMPC	0.85	0.33-3.00	Agree
	1,2,3,6,7,8-HxCDF	pg/g	< 2.62	0.283 J EMPC	-	-	Agree
	1,2,3,7,8,9-HxCDD	pg/g	< 2.62	0.396 J	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	< 2.62	0.181 J EMPC	-	-	Agree
	1,2,3,7,8-PeCDF	pg/g	< 2.62	0.295 J	-	-	Agree
	2,3,4,6,7,8-HxCDF	pg/g	< 2.62	0.251 J	-	-	Agree
	2,3,4,7,8-PeCDF	pg/g	0.222 J	0.338 J EMPC	0.66	0.33-3.00	Agree
	2,3,7,8-TCDD	pg/g	0.57	0.568	1.00	0.25-4.00	Agree
	OCDD	pg/g	69	63	1.10	0.25-4.00	Agree
OCDF	pg/g	3.46 J	3.98 J	0.87	0.33-3.00	Agree	
OC-P	4,4'-DDD	µg/kg	210	139	1.51	0.25-4.00	Agree
	4,4'-DDE	µg/kg	216	209	1.03	0.25-4.00	Agree
	4,4'-DDT	µg/kg	1970	953	2.07	0.25-4.00	Agree
	alpha-Chlordane	µg/kg	6.46	< 79.3	-	-	Agree
	Dieldrin	µg/kg	16.3	< 106	-	-	Agree
	gamma-Chlordane	µg/kg	5.92	< 79.3	-	-	Agree
	Heptachlor epoxide	µg/kg	1.36 J	< 106	-	-	Agree
VOC	Acetone	µg/kg	< 41.3	7.68 J	-	-	Agree
SVOC	Bis(2-Ethylhexyl)phthalate	µg/kg	56.4 J	< 330	-	-	Agree
Metal	Arsenic	mg/kg	5.77	4.56	1.27	0.50-2.00	Agree
	Barium	mg/kg	92.5	95.6	0.97	0.50-2.00	Agree
	Chromium	mg/kg	4.26	4.03	1.06	0.50-2.00	Agree
	Lead	mg/kg	12.4	12.1	1.02	0.50-2.00	Agree
	Mercury	mg/kg	0.00344 J	0.00607 J	0.57	0.33-3.00	Agree
	Selenium	mg/kg	0.752 J	0.662 J	1.14	0.33-3.00	Agree

Parameter	Analyte	Unit	Result: E11-181-S2		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.559 J	< 2.45	-	-	Agree
	1,2,3,4,7,8-HxCDF	pg/g	< 2.47	0.22 J	-	-	Agree
	OCDD	pg/g	23.6	27.1	0.87	0.25-4.00	Agree
OC-P	4,4'-DDD	µg/kg	9.35 J	11.8 J	0.79	0.33-3.00	Agree
	4,4'-DDE	µg/kg	11.2 J	11.1 J	1.01	0.33-3.00	Agree
	4,4'-DDT	µg/kg	89.1	88.8	1.00	0.25-4.00	Agree
VOC	Tetrachloroethene	µg/kg	4.85	5.36	0.90	0.20-5.00	Agree
Metal	Arsenic	mg/kg	4.17	4.73	0.88	0.50-2.00	Agree
	Barium	mg/kg	103	97.2	1.06	0.50-2.00	Agree
	Cadmium	mg/kg	1.41	1.36	1.04	0.50-2.00	Agree
	Chromium	mg/kg	2.84	3.07	0.93	0.50-2.00	Agree
	Lead	mg/kg	10.3	10.1	1.02	0.50-2.00	Agree
	Mercury	mg/kg	0.0034 J	0.0022 J	1.55	0.33-3.00	Agree
	Selenium	mg/kg	0.448 J	0.591 J	0.76	0.33-3.00	Agree

3466

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-181-S3		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.821 J EMPC	0.653 J	1.26	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	0.185 J EMPC	< 2.6	-	-	Agree
	2,3,7,8-TCDF	pg/g	0.39 J	< 0.52	-	-	Agree
	OCDD	pg/g	31.9	25.4	1.26	0.25-4.00	Agree
OC-P	4,4'-DDD	µg/kg	13	12.1	1.07	0.25-4.00	Agree
	4,4'-DDE	µg/kg	6.94	7.88	0.88	0.25-4.00	Agree
	4,4'-DDT	µg/kg	48	24.4	1.97	0.25-4.00	Agree
	alpha-Chlordane	µg/kg	0.55 J	< 1.68	-	-	Agree
	beta-BHC	µg/kg	0.841 J	1.23 J	0.68	0.33-3.00	Agree
	delta-BHC	µg/kg	0.573 J	0.801 J	0.72	0.33-3.00	Agree
	Dieldrin	µg/kg	< 2.29	1.12 J	-	-	Agree
	gamma-BHC (Lindane)	µg/kg	0.818 J	1.58 J	0.52	0.33-3.00	Agree
	gamma-Chlordane	µg/kg	< 1.71	0.548 J	-	-	Agree
VOC	cis-1,2-Dichloroethene	µg/kg	3.64 J	3.51 J	1.04	0.33-3.00	Agree
	Tetrachloroethene	µg/kg	9.39	7.97	1.18	0.20-5.00	Agree
	Trichloroethene	µg/kg	2.02 J	1.87 J	1.08	0.33-3.00	Agree
Metal	Arsenic	mg/kg	3.69	5.66	0.65	0.50-2.00	Agree
	Barium	mg/kg	95.1	65.2	1.46	0.50-2.00	Agree
	Cadmium	mg/kg	1.48	< 0.521	2.84	0.33-3.00	Agree
	Chromium	mg/kg	3.73	3.77	0.99	0.50-2.00	Agree
	Lead	mg/kg	18.7	15.1	1.24	0.50-2.00	Agree
	Mercury	mg/kg	0.00571 J	0.00335 J	1.70	0.33-3.00	Agree
	Selenium	mg/kg	0.954 J	0.485 J	1.97	0.33-3.00	Agree

3467

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-186-S1		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	3.81	4.17	0.91	0.25-4.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	2.01 J	1.95 J	1.03	0.33-3.00	Agree
	1,2,3,4,7,8,9-HpCDF	pg/g	0.367 J EMPC	< 2.55	-	-	Agree
	1,2,3,4,7,8-HxCDD	pg/g	0.18 J EMPC	< 2.55	-	-	Agree
	1,2,3,6,7,8-HxCDD	pg/g	0.336 J	< 2.55	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	0.452 J EMPC	0.246 J EMPC	1.84	0.33-3.00	Agree
	1,2,3,7,8,9-HxCDD	pg/g	0.252 J	< 2.55	-	-	Agree
	1,2,3,7,8,9-HxCDF	pg/g	0.19 J	< 2.55	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	0.355 J EMPC	0.134 J EMPC	2.65	0.33-3.00	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.353 J	< 2.55	-	-	Agree
	2,3,7,8-TCDD	pg/g	0.163 J EMPC	< 0.509	-	-	Agree
	OCDD	pg/g	54.1	59.3	0.91	0.25-4.00	Agree
	OCDF	pg/g	4.06 J	4.19 J	0.97	0.33-3.00	Agree
OC-P	4,4'-DDD	µg/kg	121	185	0.65	0.25-4.00	Agree
	4,4'-DDE	µg/kg	72.1	80	0.90	0.25-4.00	Agree
	4,4'-DDT	µg/kg	1130	1810	0.62	0.25-4.00	Agree
	alpha-Chlordane	µg/kg	< 16.6	5.26 J	-	-	Agree
	Dieldrin	µg/kg	16.9 J	18.2 J	0.93	0.33-3.00	Agree
	gamma-Chlordane	µg/kg	< 16.6	5.21 J	-	-	Agree
VOC	2-Butanone	µg/kg	27	33.5	0.81	0.20-5.00	Agree
	Acetone	µg/kg	85.9	120	0.72	0.20-5.00	Agree
	Methyl iodide	µg/kg	3.12 J	2.83 J	1.10	0.33-3.00	Agree
	Toluene	µg/kg	2.26 J	0.971 J	2.33	0.33-3.00	Agree
Metal	Arsenic	mg/kg	5.47	5.96	0.92	0.50-2.00	Agree
	Barium	mg/kg	84.1	89.1	0.94	0.50-2.00	Agree
	Cadmium	mg/kg	1.12	0.938	1.19	0.50-2.00	Agree
	Chromium	mg/kg	3.47	4.64	0.75	0.50-2.00	Agree
	Lead	mg/kg	28.3	18.3	1.55	0.50-2.00	Agree
	Mercury	mg/kg	0.0241	0.0195 J	1.24	0.33-3.00	Agree
	Selenium	mg/kg	< 2.16	0.681 J	-	-	Agree

3468

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-186-S2		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	1.54 J	1.4 J EMPC	1.10	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDD	pg/g	0.166 J EMPC	< 2.39	-	-	Agree
	1,2,3,6,7,8-HxCDD	pg/g	0.182 J	< 2.39	-	-	Agree
	1,2,3,7,8,9-HxCDD	pg/g	0.135 J EMPC	< 2.39	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	0.172 J	< 2.39	-	-	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.126 J EMPC	< 2.39	-	-	Agree
	OCDD	pg/g	32.8	29	1.13	0.25-4.00	Agree
	OCDF	pg/g	1.45 J	1.33 J	1.09	0.33-3.00	Agree
OC-P	4,4'-DDD	µg/kg	22.2	22.1	1.00	0.25-4.00	Agree
	4,4'-DDE	µg/kg	18.7	19.6	0.95	0.25-4.00	Agree
	4,4'-DDT	µg/kg	178	214	0.83	0.25-4.00	Agree
	alpha-Chlordane	µg/kg	0.703 J	0.827 J	0.85	0.33-3.00	Agree
	beta-BHC	µg/kg	0.654 J	< 1.65	-	-	Agree
	Dieldrin	µg/kg	2.92	3.59	0.81	0.25-4.00	Agree
	gamma-BHC (Lindane)	µg/kg	< 1.68	0.556 J	-	-	Agree
	gamma-Chlordane	µg/kg	0.744 J	0.837 J	0.89	0.33-3.00	Agree
VOC	2-Butanone	µg/kg	4.4 J	4.24 J	1.04	0.33-3.00	Agree
	Acetone	µg/kg	17.6 J	16.5 J	1.07	0.33-3.00	Agree
	Methyl iodide	µg/kg	1.43 J	1.45 J	0.99	0.33-3.00	Agree
	Toluene	µg/kg	1.4 J	0.982 J	1.43	0.33-3.00	Agree
Metal	Arsenic	mg/kg	4.25	5.21	0.82	0.50-2.00	Agree
	Barium	mg/kg	69.8	83.8	0.83	0.50-2.00	Agree
	Cadmium	mg/kg	0.602	0.759	0.79	0.50-2.00	Agree
	Chromium	mg/kg	3.01	4.35	0.69	0.50-2.00	Agree
	Lead	mg/kg	10.2	14.1	0.72	0.50-2.00	Agree
	Mercury	mg/kg	0.00557 J	0.00363 J	1.53	0.33-3.00	Agree
	Selenium	mg/kg	0.815 J	< 2.14	-	-	Agree

Parameter	Analyte	Unit	Result: E11-186-S3		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.522 J	0.624 J	0.84	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDD	pg/g	< 2.48	0.0558 J	-	-	Agree
	1,2,3,6,7,8-HxCDD	pg/g	< 2.48	0.0729 J EMPC	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	< 2.48	0.0944 J	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	0.0854 J EMPC	0.0923 J EMPC	0.93	0.33-3.00	Agree
	2,3,4,6,7,8-HxCDF	pg/g	< 2.48	0.0751 J EMPC	-	-	Agree
	OCDD	pg/g	19.2	23.1	0.83	0.25-4.00	Agree
	OC-P	4,4'-DDD	µg/kg	3.38	7.76	0.44	0.25-4.00
4,4'-DDE		µg/kg	2.32	4.34	0.53	0.25-4.00	Agree
4,4'-DDT		µg/kg	18.4	51.5	0.36	0.25-4.00	Agree
VOC	Acetone	µg/kg	3.97 J	3.87 J	1.03	0.33-3.00	Agree
	Toluene	µg/kg	1.05 J	1.35 J	0.78	0.33-3.00	Agree
Metal	Arsenic	mg/kg	5.9	4.78	1.23	0.50-2.00	Agree
	Barium	mg/kg	81.6	85.5	0.95	0.50-2.00	Agree
	Cadmium	mg/kg	0.735	0.729	1.01	0.50-2.00	Agree
	Chromium	mg/kg	4.6	4.49	1.02	0.50-2.00	Agree
	Lead	mg/kg	16.1	11.7	1.38	0.50-2.00	Agree
	Mercury	mg/kg	0.00342 J	0.00108 J	3.17	0.33-3.00	Disagree

3469

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-188-S1		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	4.18 EMPC	4.52	0.92	0.25-4.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	1.74 J EMPC	1.75 J	0.99	0.33-3.00	Agree
	1,2,3,7,8-PeCDF	pg/g	0.185 J	< 2.51	-	-	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.265 J	< 2.51	-	-	Agree
	OCDD	pg/g	80.4	74.8	1.07	0.25-4.00	Agree
	OCDF	pg/g	3.8 J	3.46 J EMPC	1.10	0.33-3.00	Agree
OC-P	4,4'-DDD	µg/kg	2670	2820	0.95	0.25-4.00	Agree
	4,4'-DDE	µg/kg	435 J	522 J	0.83	0.33-3.00	Agree
	4,4'-DDT	µg/kg	8020	9290	0.86	0.25-4.00	Agree
	alpha-BHC	µg/kg	2.16	6.19	0.35	0.25-4.00	Agree
	alpha-Chlordane	µg/kg	5.23	9.72	0.54	0.25-4.00	Agree
	beta-BHC	µg/kg	6.46	9.82	0.66	0.25-4.00	Agree
	delta-BHC	µg/kg	12.7	< 803	-	-	Agree
	Endrin ketone	µg/kg	2.31 J	< 5.35	-	-	Agree
	gamma-BHC (Lindane)	µg/kg	< 825	269 J	-	-	Agree
	gamma-Chlordane	µg/kg	6.89	12.8	0.54	0.25-4.00	Agree
	Heptachlor	µg/kg	< 2.2	1.15 J	-	-	Agree
VOC	2-Butanone	µg/kg	9.5 J	< 21.6	-	-	Agree
Metal	Arsenic	mg/kg	8.04	5.99	1.34	0.50-2.00	Agree
	Barium	mg/kg	89.4	78.5	1.14	0.50-2.00	Agree
	Cadmium	mg/kg	1.63	< 0.487	3.35	0.33-3.00	Disagree
	Chromium	mg/kg	4.21	3.97	1.06	0.50-2.00	Agree
	Lead	mg/kg	16.5	14	1.18	0.50-2.00	Agree
	Mercury	mg/kg	0.00834 J	0.012 J	0.70	0.33-3.00	Agree

3470

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-188-S2		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	8.16	3.65	2.24	0.25-4.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	3.57	10.4	0.34	0.25-4.00	Agree
	1,2,3,4,7,8,9-HpCDF	pg/g	0.95 J EMPC	2.44 EMPC	0.39	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDF	pg/g	1.03 J	3.06	0.34	0.33-3.00	Agree
	1,2,3,6,7,8-HxCDD	pg/g	0.352 J	< 2.28	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	0.433 J EMPC	2.3 EMPC	0.19	0.33-3.00	Disagree
	1,2,3,7,8-PeCDF	pg/g	0.502 J	1.51 J EMPC	0.33	0.33-3.00	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.386 J	1.43 J	0.27	0.33-3.00	Disagree
	2,3,4,7,8-PeCDF	pg/g	0.261 J EMPC	0.858 J	0.30	0.33-3.00	Disagree
	OCDD	pg/g	99.3	62.2	1.60	0.25-4.00	Agree
OCDF	pg/g	12.6	14.7	0.86	0.25-4.00	Agree	
OC-P	4,4'-DDD	µg/kg	1640	923	1.78	0.25-4.00	Agree
	4,4'-DDE	µg/kg	297 J	146	2.03	0.33-3.00	Agree
	4,4'-DDT	µg/kg	4450	2330	1.91	0.25-4.00	Agree
	alpha-BHC	µg/kg	11.4 J	9.3 J	1.23	0.33-3.00	Agree
	alpha-Chlordane	µg/kg	9.9 J	7.07 J	1.40	0.33-3.00	Agree
	beta-BHC	µg/kg	9.76 J	7.53 J	1.30	0.33-3.00	Agree
	delta-BHC	µg/kg	19.3	14.9 J	1.30	0.33-3.00	Agree
	Dieldrin	µg/kg	61.2	34.1	1.79	0.25-4.00	Agree
	gamma-BHC (Lindane)	µg/kg	190	135	1.41	0.25-4.00	Agree
	gamma-Chlordane	µg/kg	12.6 J	8.71 J	1.45	0.33-3.00	Agree
Metal	Arsenic	mg/kg	4.97	5.01	0.99	0.50-2.00	Agree
	Barium	mg/kg	79.1	95.6	0.83	0.50-2.00	Agree
	Chromium	mg/kg	4.46	4.65	0.96	0.50-2.00	Agree
	Lead	mg/kg	12.5	11.6	1.08	0.50-2.00	Agree
	Mercury	mg/kg	0.0341	0.0305	1.12	0.50-2.00	Agree
	Selenium	mg/kg	< 2.14	0.174 J	-	-	Agree

Parameter	Analyte	Unit	Result: E11-188-S3		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.441 J	1.21 J EMPC	0.36	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	< 2.56	1.54 J	-	-	Agree
	1,2,3,4,7,8-HxCDF	pg/g	< 2.56	0.411 J EMPC	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	< 2.56	0.355 J	-	-	Agree
	OCDD	pg/g	21.9	43.3	0.51	0.25-4.00	Agree
	OCDF	pg/g	< 5.12	2.09 J	-	-	Agree
OC-P	4,4'-DDD	µg/kg	5.69	3.73	1.53	0.25-4.00	Agree
	4,4'-DDE	µg/kg	1.63 J	1.31 J	1.24	0.33-3.00	Agree
	4,4'-DDT	µg/kg	17.6	12.3	1.43	0.25-4.00	Agree
	gamma-BHC (Lindane)	µg/kg	0.934 J	1.03 J	0.91	0.33-3.00	Agree
Metal	Arsenic	mg/kg	56.2	5.63	9.98	0.50-2.00	Disagree
	Barium	mg/kg	89.5	84.3	1.06	0.50-2.00	Agree
	Chromium	mg/kg	4.16	3.81	1.09	0.50-2.00	Agree
	Lead	mg/kg	16.6	11.6	1.43	0.50-2.00	Agree
	Mercury	mg/kg	0.00105 J	0.00145 J	0.72	0.33-3.00	Agree
	Selenium	mg/kg	0.576 J	< 2.11	-	-	Agree

3471

Table 10. Continued

Parameter	Analyte	Unit	Result: E11-188-54		Compare: Primary vs. Dup		
			Primary	Primary Dup	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.346 J EMPC	0.51 J	0.68	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	< 2.64	0.323 J	-	-	Agree
	2,3,7,8-TCDF	pg/g	< 0.527	0.259 J	-	-	Agree
	OCDD	pg/g	8.38	12.7	0.66	0.25-4.00	Agree
OC-P	4,4'-DDD	µg/kg	1.43 J	1.11 J	1.29	0.33-3.00	Agree
	4,4'-DDE	µg/kg	0.768 J	< 2.29	-	-	Agree
Metal	Arsenic	mg/kg	3.22	3.52	0.91	0.50-2.00	Agree
	Barium	mg/kg	64	64	1.00	0.50-2.00	Agree
	Chromium	mg/kg	6.88	6.8	1.01	0.50-2.00	Agree
	Lead	mg/kg	10.2	9.73	1.05	0.50-2.00	Agree

3472

Table 11. Comparison of Duplicate Sample Results between Primary and QA Laboratories

Parameter	Analyte	Unit	Result: E11-186-S1		Compare: Primary vs. QA		
			Primary	QA	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	3.81	3.3 J	1.15	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	2.01 J	< 5.4	-	-	Agree
	1,2,3,4,7,8,9-HpCDF	pg/g	0.367 J EMPC	< 5.4	-	-	Agree
	1,2,3,4,7,8-HxCDD	pg/g	0.18 J EMPC	< 5.4	-	-	Agree
	1,2,3,6,7,8-HxCDD	pg/g	0.336 J	< 5.4	-	-	Agree
	1,2,3,7,8,9-HxCDD	pg/g	0.252 J	< 5.4	-	-	Agree
	1,2,3,7,8,9-HxCDF	pg/g	0.19 J	< 5.4	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	0.355 J EMPC	< 5.4	-	-	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.353 J	< 5.4	-	-	Agree
	2,3,7,8-TCDD	pg/g	0.163 J EMPC	< 1.1	-	-	Agree
	OCDD	pg/g	54.1	52	1.04	0.25-4.00	Agree
OCDF	pg/g	4.06 J	< 11	-	-	Agree	
OC-P	4,4'-DDD	ug/Kg	121	28	4.32	0.25-4.00	Disagree
	4,4'-DDE	ug/Kg	72.1	74	0.97	0.25-4.00	Agree
	4,4'-DDT	ug/Kg	1130	1000	1.13	0.25-4.00	Agree
	alpha-Chlordane	ug/Kg	< 16.6	2.4 J	-	-	Agree
	beta-BHC	ug/Kg	< 16.6	0.9 J	-	-	Agree
	Dieldrin	ug/Kg	16.9 J	16	1.06	0.33-3.00	Agree
	gamma-BHC (Lindane)	ug/Kg	< 16.6	1.4 J	-	-	Agree
gamma-Chlordane	ug/Kg	< 16.6	2.3 J	-	-	Agree	
VOC	2-Butanone	ug/Kg	27	71	0.38	0.20-5.00	Agree
	2-Hexanone	ug/Kg	< 12.1	13	1.07	0.33-3.00	Agree
	Acetone	ug/Kg	85.9	390	0.22	0.20-5.00	Agree
	Benzene	ug/Kg	< 4.85	1.7 J	-	-	Agree
	Methyl iodide	ug/Kg	3.12 J	< 4.8	-	-	Agree
	Toluene	ug/Kg	2.26 J	3.2 J	0.71	0.33-3.00	Agree
Metal	Arsenic	mg/kg	5.47	4.1 J	1.33	0.33-3.00	Agree
	Barium	mg/kg	84.1	85	0.99	0.50-2.00	Agree
	Cadmium	mg/kg	1.12	1.6 J	0.70	0.33-3.00	Agree
	Chromium	mg/kg	3.47	3.5 J	0.99	0.33-3.00	Agree
	Lead	mg/kg	28.3	16	1.77	0.50-2.00	Agree
	Mercury	mg/kg	0.0241	0.013	1.85	0.50-2.00	Agree
	Silver	mg/kg	< 1.08	0.21 J	-	-	Agree

3473

Table 11. Continued

Parameter	Analyte	Unit	Result: E11-186-S2		Compare: Primary vs. QA		
			Primary	QA	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	1.54 J	2.6 J	0.59	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	< 2.41	6.6	0.37	0.33-3.00	Agree
	1,2,3,4,7,8-HxCDD	pg/g	0.166 J EMPC	< 5.5	-	-	Agree
	1,2,3,4,7,8-HxCDF	pg/g	< 2.41	2.9 J	0.83	0.33-3.00	Agree
	1,2,3,6,7,8-HxCDD	pg/g	0.182 J	< 5.5	-	-	Agree
	1,2,3,7,8,9-HxCDD	pg/g	0.135 J EMPC	< 5.5	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	0.172 J	< 5.5	-	-	Agree
	1,2,3,7,8-PeCDF	pg/g	< 2.41	1.9 J	-	-	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.126 J EMPC	< 5.5	-	-	Agree
	2,3,7,8-TCDF	pg/g	< 0.483	1.2	0.40	0.33-3.00	Agree
	OCDD	pg/g	32.8	33	0.99	0.25-4.00	Agree
	OCDF	pg/g	1.45 J	5.4 J	0.27	0.33-3.00	Disagree
OC-P	4,4'-DDD	ug/Kg	22.2	11	2.02	0.25-4.00	Agree
	4,4'-DDE	ug/Kg	18.7	71	0.89	0.25-4.00	Agree
	4,4'-DDT	ug/Kg	178	240	0.74	0.25-4.00	Agree
	alpha-Chlordane	ug/Kg	0.703 J	0.54 J	1.30	0.33-3.00	Agree
	beta-BHC	ug/Kg	0.654 J	< 11	-	-	Agree
	Dieldrin	ug/Kg	2.92	3.3 J	0.88	0.33-3.00	Agree
	gamma-Chlordane	ug/Kg	0.744 J	< 11	-	-	Agree
VOC	2-Butanone	ug/Kg	4.4 J	7.7 J	0.57	0.33-3.00	Agree
	Acetone	ug/Kg	17.6 J	48	0.37	0.33-3.00	Agree
	Methyl iodide	ug/Kg	1.43 J	< 3.9	-	-	Agree
	Toluene	ug/Kg	1.4 J	1.6 J	0.88	0.33-3.00	Agree
Metal	Arsenic	mg/kg	4.25	2.7 J	1.57	0.33-3.00	Agree
	Barium	mg/kg	69.8	78	0.89	0.50-2.00	Agree
	Cadmium	mg/kg	0.602	1.3 J	0.46	0.33-3.00	Agree
	Chromium	mg/kg	3.01	3.2 J	0.94	0.33-3.00	Agree
	Lead	mg/kg	10.2	12	0.85	0.50-2.00	Agree
	Mercury	mg/kg	0.00557 J	0.0089 J	0.63	0.33-3.00	Agree
	Selenium	mg/kg	0.815 J	< 11	-	-	Agree

3474

Table 11. Continued

Parameter	Analyte	Unit	Result: E11-186-S3		Compare: Primary vs. QA		
			Primary	QA	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.522 J	< 5.7	-	-	Agree
	1,2,3,7,8-PeCDD	pg/g	0.0854 J EMPC	< 5.7	-	-	Agree
	OCDD	pg/g	19.2	16	1.20	0.25-4.00	Agree
OC-P	4,4'-DDD	ug/Kg	3.38	< 11	-	-	Agree
	4,4'-DDE	ug/Kg	2.32	2.6 J	0.89	0.33-3.00	Agree
	4,4'-DDT	ug/Kg	18.4	30	0.61	0.25-4.00	Agree
VOC	Acetone	ug/Kg	3.97 J	17 J	0.23	0.33-3.00	Disagree
	Toluene	ug/Kg	1.05 J	1.2 J	0.88	0.33-3.00	Agree
Metal	Arsenic	mg/kg	5.9	< 45	-	-	Agree
	Barium	mg/kg	81.6	89	0.92	0.50-2.00	Agree
	Cadmium	mg/kg	0.735	1.5 J	0.49	0.33-3.00	Agree
	Chromium	mg/kg	4.6	3.6 J	1.28	0.33-3.00	Agree
	Lead	mg/kg	16.1	9.6 J	1.68	0.33-3.00	Agree
	Mercury	mg/kg	0.00342 J	< 0.013	-	-	Agree

Parameter	Analyte	Unit	Result: E11-188-S1		Compare: Primary vs. QA		
			Primary	QA	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	4.18 EMPC	2.2 J	1.90	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	1.74 J EMPC	< 5.5	-	-	Agree
	1,2,3,7,8-PeCDF	pg/g	0.185 J	< 5.5	-	-	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.265 J	< 5.5	-	-	Agree
	2,3,7,8-TCDF	pg/g	< 0.538	0.44 J	-	-	Agree
	OCDD	pg/g	80.4	45	1.79	0.25-4.00	Agree
	OCDF	pg/g	3.8 J	< 11	-	-	Agree
OC-P	4,4'-DDD	ug/Kg	2670	460	5.80	0.25-4.00	Disagree
	4,4'-DDE	ug/Kg	435 J	400	1.09	0.33-3.00	Agree
	4,4'-DDT	ug/Kg	8020	10000	0.80	0.25-4.00	Agree
	alpha-BHC	ug/Kg	2.16	2.7 J	0.80	0.33-3.00	Agree
	alpha-Chlordane	ug/Kg	5.23	7.7 J	0.68	0.33-3.00	Agree
	beta-BHC	ug/Kg	6.46	14	0.46	0.25-4.00	Agree
	delta-BHC	ug/Kg	12.7	17	0.75	0.25-4.00	Agree
	Dieldrin	ug/Kg	< 1100	77	-	-	Agree
	Endrin ketone	ug/Kg	2.31 J	1.2 J	1.93	0.33-3.00	Agree
	gamma-DHC (Lindane)	ug/Kg	< 825	25	-	-	Agree
	gamma-Chlordane	ug/Kg	6.89	7.6 J	0.91	0.33-3.00	Agree
Heptachlor	ug/Kg	< 2.2	2.3 J	1.05	0.33-3.00	Agree	
VOCs	2-Butanone	ug/Kg	9.5 J	14	0.68	0.33-3.00	Agree
	Acetone	ug/Kg	< 44.1	120	0.37	0.33-3.00	Agree
	Toluene	ug/Kg	< 4.41	1 J	-	-	Agree
Metals	Arsenic	mg/kg	8.01	2.7 J	2.98	0.33-3.00	Agree
	Barium	mg/kg	89.4	100	0.89	0.50-2.00	Agree
	Cadmium	mg/kg	1.63	1.8 J	0.91	0.33-3.00	Agree
	Chromium	mg/kg	4.21	4.3 J	0.98	0.33-3.00	Agree
	Lead	mg/kg	16.5	18	0.92	0.50-2.00	Agree
	Mercury	mg/kg	0.00834 J	0.014	0.60	0.33-3.00	Agree

3475

Table 11. Continued

Parameter	Analyte	Unit	Result: E11-188-S2		Compare: Primary vs. QA		
			Primary	QA	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	8.16	4.7 J	1.74	0.33-3.00	Agree
	1,2,3,4,6,7,8-HpCDF	pg/g	3.57	2 J	1.79	0.33-3.00	Agree
	1,2,3,4,7,8,9-HpCDF	pg/g	0.95 J EMPC	< 5.3	-	-	Agree
	1,2,3,4,7,8-HxCDF	pg/g	1.03 J	< 5.3	-	-	Agree
	1,2,3,6,7,8-HxCDD	pg/g	0.352 J	< 5.3	-	-	Agree
	1,2,3,6,7,8-HxCDF	pg/g	0.433 J EMPC	< 5.3	-	-	Agree
	1,2,3,7,8-PeCDF	pg/g	0.502 J	< 5.3	-	-	Agree
	2,3,4,6,7,8-HxCDF	pg/g	0.386 J	< 5.3	-	-	Agree
	2,3,4,7,8-PeCDF	pg/g	0.261 J EMPC	< 5.3	-	-	Agree
	2,3,7,8-TCDF	pg/g	< 0.473	0.55 J	0.86	0.33-3.00	Agree
	OCDD	pg/g	99.3	73	1.36	0.25-4.00	Agree
OCDF	pg/g	12.6	5.4 J	2.33	0.33-3.00	Agree	
OC-P	4,4'-DDD	ug/Kg	1640	210	7.81	0.25-4.00	Disagree
	1,1'-DDE	ug/Kg	297 J	170	1.75	0.33-3.00	Agree
	4,4'-DDT	ug/Kg	4450	4100	1.09	0.25-4.00	Agree
	alpha-BHC	ug/Kg	11.4 J	8.8 J	1.30	0.33-3.00	Agree
	alpha-Chlordane	ug/Kg	9.9 J	5.1 J	1.94	0.33-3.00	Agree
	beta-BHC	ug/Kg	9.76 J	9 J	1.08	0.33-3.00	Agree
	delta-BHC	ug/Kg	19.3	15	1.29	0.25-4.00	Agree
	Dieldrin	ug/Kg	61.2	34	1.80	0.25-4.00	Agree
	gamma-BHC (Lindane)	ug/Kg	190	200	0.95	0.25-4.00	Agree
	gamma-Chlordane	ug/Kg	12.6 J	5.4 J	2.33	0.33-3.00	Agree
VOCs	Acetone	ug/Kg	< 44.5	41	-	-	Agree
	Tetrachloroethene	ug/Kg	< 4.45	1.4 J	-	-	Agree
	Toluene	ug/Kg	< 4.45	0.97 J	-	-	Agree
Metals	Arsenic	mg/kg	4.97	< 40	-	-	Agree
	Barium	mg/kg	79.1	98	0.81	0.50-2.00	Agree
	Cadmium	mg/kg	< 0.534	1.6 J	0.33	0.33-3.00	Agree
	Chromium	mg/kg	4.46	4.4 J	1.01	0.33-3.00	Agree
	Lead	mg/kg	12.5	11	1.14	0.50-2.00	Agree
	Mercury	mg/kg	0.0341	0.045	0.76	0.50-2.00	Agree

3476

Table 11. Continued

Parameter	Analyte	Unit	Result: E11-188-S3		Compare: Primary vs. QA		
			Primary	QA	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.441 J	< 5.6	-	-	Agree
	OCDD	pg/g	21.9	18	1.22	0.25-4.00	Agree
OC-P	4,4'-DDD	ug/Kg	5.69	2 J	2.85	0.33-3.00	Agree
	4,4'-DDE	ug/Kg	1.63 J	1.2 J	1.36	0.33-3.00	Agree
	4,4'-DDT	ug/Kg	17.6	26	0.68	0.25-4.00	Agree
	gamma-BHC (Lindane)	ug/Kg	0.934 J	0.8 J	1.17	0.33-3.00	Agree
VOCs	2-Butanone	ug/Kg	< 21.6	6.2 J	-	-	Agree
	Acetone	ug/Kg	< 43.3	190	4.39	0.33-3.00	Disagree
	Carbon disulfide	ug/Kg	< 4.33	1.6 J	-	-	Agree
	Toluene	ug/Kg	< 4.33	1.3 J	-	-	Agree
Metals	Arsenic	mg/kg	56.2	4.9 J	11.47	0.33-3.00	Disagree
	Barium	mg/kg	89.5	93	0.96	0.50-2.00	Agree
	Cadmium	mg/kg	< 0.551	1.6 J	2.90	0.33-3.00	Agree
	Chromium	mg/kg	4.16	5 J	0.83	0.33-3.00	Agree
	Lead	mg/kg	16.6	13	1.28	0.50-2.00	Agree
	Mercury	mg/kg	0.00105 J	< 0.013	-	-	Agree
	Selenium	mg/kg	0.576 J	< 11	-	-	Agree

Parameter	Analyte	Unit	Result: E11-188-S4		Compare: Primary vs. QA		
			Primary	QA	Ratio	Criteria	Evaluation
Dioxin	1,2,3,4,6,7,8-HpCDD	pg/g	0.346 J EMPC	< 5.8	-	-	Agree
	OCDD	pg/g	8.38	11 J	0.76	0.33-3.00	Agree
OC-P	4,4'-DDD	ug/Kg	1.43 J	< 11	-	-	Agree
	4,4'-DDE	ug/Kg	0.768 J	< 11	-	-	Agree
VOCs	Acetone	ug/Kg	< 40.2	16 J	-	-	Agree
	Toluene	ug/Kg	< 4.02	0.81 J	-	-	Agree
Metals	Arsenic	mg/kg	3.22	< 42	-	-	Agree
	Barium	mg/kg	64	72	0.89	0.50-2.00	Agree
	Cadmium	mg/kg	< 0.567	1.5 J	2.65	0.33-3.00	Agree
	Chromium	mg/kg	6.88	6.7 J	1.03	0.33-3.00	Agree
	Lead	mg/kg	10.2	9.8 J	1.04	0.33-3.00	Agree
	Mercury	mg/kg	0.00693 J	0.0067 J	1.03	0.33-3.00	Agree

3477

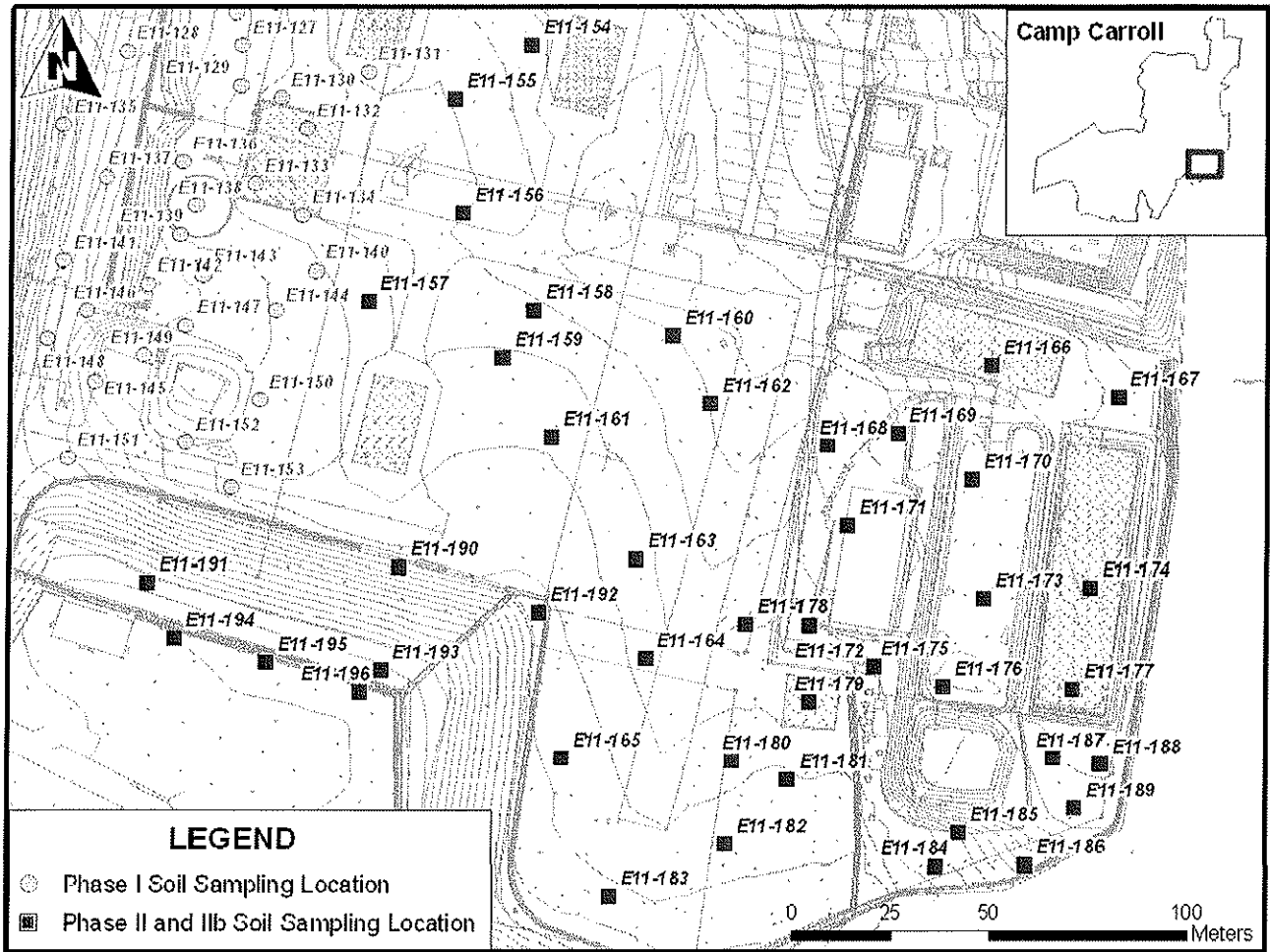


Figure 1. Borehole Locations at Phase II and IIb Sites

3478

**APPENDIX VIII. REPORT FOR PHASE 1 GROUNDWATER
SAMPLE TEST RESULT**

3479



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, FAR EAST DISTRICT
Unit #15546
APO AP 96205-5546

REPLY TO
ATTENTION OF:

CEPOF-ED-GE

JUL 11 2011

MEMORANDUM FOR Deputy Commander, Eighth Army (Brigadier General David J. Conboy), APO AP 96204

SUBJECT: Test Results of Groundwater Samples for Herbicides and Dioxins, Cp Carroll, Korea (G&E 11-032E/E2011-38)

1. Enclosed is the summary of test results for groundwater samples collected from water supply and monitoring wells at Cp Carroll. A total of 33 samples were collected from 2 Jun to 26 Jun 2011 by Geotechnical and Environmental Engineering Branch, US Army Corps of Engineers, Far East District (FED). The samples were tested according to US EPA Method 8151A for chlorinated herbicides and 8290A for dioxins/furans.

2. Out of 33 samples, 28 samples were tested by primary laboratory, SGS North America. The other 5 samples were tested in US Army Public Health Command as duplicate analyses for quality assurance (QA) purposes. The twenty eight (28) samples tested by the primary lab consisted of 22 primary field samples, 5 blind duplicates, and 1 equipment rinsate blank.

3. Laboratory Findings

a. A summary of test results for 22 primary field samples is provided in Table 1. In chlorinated herbicides, 2,4,5-T was found in 3 samples at concentrations of 1.02 ~ 2.83 µg/L. The 2,4,5-T was detected in other 2 samples at levels between the detection limit and the reporting limit. Those results were J-flagged (estimated value). No other herbicides were detected in the collected samples.

b. For the dioxin and furan analytical group, 2,3,7,8-TCDD was not detected. Other dioxin and furan congeners were found in 4 samples at levels between detection limits and reporting limits. These estimated results were identified with the flag "J" or "EMPC" (estimated maximum possible concentration).

c. Table 2 shows results of the equipment rinsate blank. The equipment blank was collected by analyte-free water passed through and over the sampling equipment. There was no contaminant detected in equipment blank and it verifies that no potential cross-contamination occurred between sampling locations during equipment decontamination procedures.

3480

CEPOF-ED-GE

SUBJECT: Test Results of Groundwater Samples for Herbicides and Dioxins, Cp Carroll, Korea
(G&E 11-032E/E2011-38)

d. A summary of test results is provided in Table 3 for five (5) sets of triplicate samples that were split between the primary and QA laboratories. As all detected concentrations were less than reporting limit, they are evaluated as "agreement" based on the procedure outlined in EM 200-1-6 Chemical Quality Assurance for Hazardous, Toxic and Radioactive Waste Projects.

4. The POC for this matter is Ms [REDACTED] b6 at [REDACTED] b6 or Dr. [REDACTED] b6 at [REDACTED] b6. The US Army Public Health Command will be the POC for evaluating health related effects.

Encl

[REDACTED] b6

Chief, Geotechnical and Environmental
Engineering Branch

34 81

Table 1. Summary of Groundwater Test Result at Cp Carroll

Sample ID		12-247	13-279	14-283	15-286	16-289	20-575	
Sampling date		6/3/2011	6/3/2011	6/2/2011	6/3/2011	6/2/2011	6/2/2011	
Location		Supply Well	Supply Well	Supply Well	Supply Well	Supply Well	Supply Well	
Herbicide	2,4-D	ug/L	< 0.569	< 0.588	< 0.571	< 0.568	< 0.589	< 0.551
	2,4,5-T	ug/L	< 0.569	< 0.588	< 0.571	0.0579 J	< 0.589	< 0.551
	2,4,5-TP (Silvex)	ug/L	< 0.569	< 0.588	< 0.571	< 0.568	< 0.589	< 0.551
	2,4-DB	ug/L	< 0.569	< 0.588	< 0.571	< 0.568	< 0.589	< 0.551
	Dicamba	ug/L	< 0.569	< 0.588	< 0.571	< 0.568	< 0.589	< 0.551
Dioxin	2,3,7,8 TCDD	ng/L	< 0.00499	< 0.00506	< 0.00501	< 0.00500	< 0.00498	< 0.00502
	1,2,3,7,8-PeCDD	ng/L	< 0.0250	< 0.0253	< 0.0251	< 0.0250	< 0.0249	< 0.0251
	1,2,3,4,7,8-HxCDD	ng/L	< 0.0250	< 0.0253	< 0.0251	< 0.0250	< 0.0249	< 0.0251
	1,2,3,6,7,8-HxCDD	ng/L	< 0.0250	< 0.0253	< 0.0251	< 0.0250	< 0.0249	< 0.0251
	1,2,3,7,8,9-HxCDD	ng/L	< 0.0250	< 0.0253	< 0.0251	< 0.0250	< 0.0249	< 0.0251
	1,2,3,4,6,7,8-HpCDD	ng/L	< 0.0250	< 0.0253	0.00431 EMPC	< 0.0250	< 0.0249	< 0.0251
Furan	OCDD	ng/L	< 0.0499	< 0.0506	0.0206 EMPC	< 0.0500	< 0.0498	< 0.0502
	2,3,7,8-TCDF	ng/L	< 0.00499	< 0.00506	< 0.00501	< 0.00500	< 0.00498	0.000763 EMPC
	1,2,3,7,8-PeCDF	ng/L	< 0.0250	< 0.0253	< 0.0251	< 0.0250	< 0.0249	0.00108 EMPC
	2,3,4,7,8-PeCDF	ng/L	< 0.0250	0.000425 J	0.000962 EMPC	< 0.0250	< 0.0249	< 0.0251
	1,2,3,4,7,8-HxCDF	ng/L	< 0.0250	< 0.0253	0.00124 J	< 0.0250	< 0.0249	< 0.0251
	1,2,3,6,7,8-HxCDF	ng/L	< 0.0250	< 0.0253	0.00130 J	< 0.0250	< 0.0249	< 0.0251
	2,3,4,6,7,8-HxCDF	ng/L	< 0.0250	< 0.0253	< 0.0251	< 0.0250	< 0.0249	< 0.0251
	1,2,3,7,8,9-HxCDF	ng/L	< 0.0250	< 0.0253	< 0.0251	< 0.0250	< 0.0249	< 0.0251
	1,2,3,4,6,7,8-HpCDF	ng/L	< 0.0250	< 0.0253	0.00285 J	< 0.0250	< 0.0249	< 0.0251
	1,2,3,4,7,8,9-HpCDF	ng/L	< 0.0250	< 0.0253	< 0.0251	< 0.0250	< 0.0249	< 0.0251
	OCDF	ng/L	< 0.0499	< 0.0506	0.0156 J	< 0.0500	< 0.0498	< 0.0502
	WHO-2005 TEQ (ND=0)	ng/L	0	0.000127	0.000287	0	0	0
	WHO-2005 TEQ w/EMPC (ND=0)	ng/L	0	0.000127	0.000625	0	0	0.000109

NOTES:

1. J: Estimated amount detected between the method detection limit and lower calibration limit
2. EMPC: Estimated maximum possible concentration due to ion ratio failure
3. WHO-2005 TEQ: Toxic Equivalent (TEQ) based on 2005 World Health Organization (WHO) evaluation
4. The highlighted numbers indicate detection of contaminants

3482

Table 1. (continued)

Sample ID		B09-176MW	B09-177MW	B09-178MW	B07-217MW	B07-218MW	B07-219MW
Sampling date		6/8/2011	6/9/2011	6/9/2011	6/12/2011	6/13/2011	6/11/2011
Location		Helipad	Helipad	Helipad	Landfarm	Landfarm	Landfarm
Herbicide	2,4-D	ug/L	< 0.604	< 0.604	< 1.15	< 0.599	< 0.615
	2,4,5-T	ug/L	< 0.604	< 0.604	2.13	< 0.599	< 0.615
	2,4,5-TP (Silvex)	ug/L	< 0.604	< 0.604	< 1.15	< 0.599	< 0.615
	2,4-DB	ug/L	< 0.604	< 0.604	< 1.15	< 0.599	< 0.615
	Dicamba	ug/L	< 0.604	< 0.604	< 1.15	< 0.599	< 0.615
Dioxin	2,3,7,8-TCDD	ng/L	< 0.00496	< 0.00498	< 0.00499	< 0.00509	< 0.00507
	1,2,3,7,8-PeCDD	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,4,7,8-HxCDD	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,6,7,8-HxCDD	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,7,8,9-HxCDD	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,4,6,7,8-HpCDD	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
Furan	OCDD	ng/L	< 0.0496	< 0.0498	< 0.0499	< 0.0509	< 0.0507
	2,3,7,8-TCDF	ng/L	< 0.00496	< 0.00498	< 0.00499	< 0.00509	< 0.00507
	1,2,3,7,8-PeCDF	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	2,3,4,7,8-PeCDF	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,4,7,8-HxCDF	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,6,7,8-HxCDF	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	2,3,4,6,7,8-HxCDF	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,7,8,9-HxCDF	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,4,6,7,8-HpCDF	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	1,2,3,4,7,8,9-HpCDF	ng/L	< 0.0248	< 0.0249	< 0.0250	< 0.0255	< 0.0254
	OCDF	ng/L	< 0.0496	< 0.0498	< 0.0499	< 0.0509	< 0.0507
	WHO-2005 TEQ (ND=0)	ng/L	0	0	0	0	0
	WHO-2005 TEQ w/EMPC (ND=0)	ng/L	0	0	0	0	0

NOTES:

1. J: Estimated amount detected between the method detection limit and lower calibration limit
2. EMPC: Estimated maximum possible concentration due to ion ratio failure
3. WHO-2005 TEQ: Toxic Equivalent (TEQ) based on 2005 World Health Organization (WHO) evaluation
4. The highlighted numbers indicate detection of contaminants

3483

Table 1. (continued)

Sample ID		B07-220MW	B07-221MW	B03-463MW	B03-464MW	B03-465MW	B03-466MW	
Sampling date		6/12/2011	6/12/2011	6/10/2011	6/15/2011	6/16/2011	6/14/2011	
Location		Landfarm	Landfarm	Area D	Area D	Area D	Area D	
Herbicide	2,4-D	ug/L	< 0.600	< 0.593	< 1.17	< 0.590	< 0.606	< 0.582
	2,4,5-T	ug/L	< 0.600	< 0.593	2.83	< 0.590	< 0.606	1.02
	2,4,5-TP (Silvex)	ug/L	< 0.600	< 0.593	< 1.17	< 0.590	< 0.606	< 0.582
	2,4-DB	ug/L	< 0.600	< 0.593	< 1.17	< 0.590	< 0.606	< 0.582
	Dicamba	ug/L	< 0.600	< 0.593	< 1.17	< 0.590	< 0.606	< 0.582
Dioxin	2,3,7,8-TCDD	ng/L	< 0.00502	< 0.00499	< 0.00498	< 0.00499	< 0.00507	< 0.00504
	1,2,3,7,8-PeCDD	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	1,2,3,4,7,8-HxCDD	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	1,2,3,6,7,8-HxCDD	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	1,2,3,7,8,9-HxCDD	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	1,2,3,4,6,7,8-HpCDD	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
Furan	OCDD	ng/L	< 0.0502	< 0.0499	< 0.0498	< 0.0499	< 0.0507	< 0.0504
	2,3,7,8-TCDF	ng/L	< 0.00502	< 0.00499	< 0.00498	< 0.00499	< 0.00507	< 0.00504
	1,2,3,7,8-PeCDF	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	2,3,4,7,8-PeCDF	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	0.00205 EMPC
	1,2,3,4,7,8-HxCDF	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	1,2,3,6,7,8-HxCDF	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	2,3,4,6,7,8-HxCDF	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	1,2,3,7,8,9-HxCDF	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	1,2,3,4,6,7,8-HpCDF	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	1,2,3,4,7,8,9-HpCDF	ng/L	< 0.0251	< 0.0249	< 0.0249	< 0.0249	< 0.0253	< 0.0252
	OCDF	ng/L	< 0.0502	< 0.0499	< 0.0498	< 0.0499	< 0.0507	< 0.0504
WHO-2005 TEQ (ND=0)		ng/L	0	0	0	0	0	0
WHO-2005 TEQ w/EMPC (ND=0)		ng/L	0	0	0	0	0	0.000615

NOTES:

1. J: Estimated amount detected between the method detection limit and lower calibration limit
2. EMPC: Estimated maximum possible concentration due to ion ratio failure
3. WHO-2005 TEQ: Toxic Equivalent (TEQ) based on 2005 World Health Organization (WHO) evaluation
4. The highlighted numbers indicate detection of contaminants

3484

Table 1. (continued)

Sample ID		B03-467MW	B03-468MW	B09-193MW	B09-221MW	
Sampling date		6/15/2011	6/16/2011	6/14/2011	6/10/2011	
Location		Area D	Area D	Area D	Area D	
Herbicide	2,4-D	ug/L	< 0.593	< 0.617	< 0.601	< 0.612
	2,4,5-T	ug/L	0.308 J	< 0.617	< 0.601	< 0.612
	2,4,5-TP (Silvex)	ug/L	< 0.593	< 0.617	< 0.601	< 0.612
	2,4-DB	ug/L	< 0.593	< 0.617	< 0.601	< 0.612
	Dicamba	ug/L	< 0.593	< 0.617	< 0.601	< 0.612
Dioxin	2,3,7,8-TCDD	ng/L	< 0.00506	< 0.00503	< 0.00508	< 0.00497
	1,2,3,7,8-PeCDD	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,4,7,8-HxCDD	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,6,7,8-HxCDD	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,7,8,9-HxCDD	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,4,6,7,8-HpCDD	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
Furan	OCDD	ng/L	< 0.0506	< 0.0503	< 0.0508	< 0.0497
	2,3,7,8-TCDF	ng/L	< 0.00506	< 0.00503	< 0.00508	< 0.00497
	1,2,3,7,8-PeCDF	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	2,3,4,7,8-PeCDF	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,4,7,8-HxCDF	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,6,7,8-HxCDF	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	2,3,4,6,7,8-HxCDF	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,7,8,9-HxCDF	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,4,6,7,8-HpCDF	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	1,2,3,4,7,8,9-HpCDF	ng/L	< 0.0253	< 0.0251	< 0.0254	< 0.0248
	OCDF	ng/L	< 0.0506	< 0.0503	< 0.0508	< 0.0497
	WHO-2005 TEQ (ND=0)	ng/L	0	0	0	0
	WHO-2005 TEQ w/EMPC (ND=0)	ng/L	0	0	0	0

NOTES:

1. J: Estimated amount detected between the method detection limit and lower calibration limit
2. EMPC: Estimated maximum possible concentration due to ion ratio failure
3. WHO-2005 TEQ: Toxic Equivalent (TEQ) based on 2005 World Health Organization (WHO) evaluation
4. The highlighted numbers indicate detection of contaminants

3485

Table 2. Summary of Equipment Blank Result

	Sample ID		Rin
	Sampling date		6/9/2011
Equipment Blank			
Herbicide	2,4-D	ug/L	< 0.588
	2,4,5-T	ug/L	< 0.588
	2,4,5-TP (Silvex)	ug/L	< 0.588
	2,4-DB	ug/L	< 0.588
	Dicamba	ug/L	< 0.588
Dioxin	2,3,7,8-TCDD	ng/L	< 0.00497
	1,2,3,7,8-PeCDD	ng/L	< 0.0248
	1,2,3,4,7,8-HxCDD	ng/L	< 0.0248
	1,2,3,6,7,8-HxCDD	ng/L	< 0.0248
	1,2,3,7,8,9-HxCDD	ng/L	< 0.0248
	1,2,3,4,6,7,8-HpCDD	ng/L	< 0.0248
	OCDD	ng/L	< 0.0497
Furan	2,3,7,8-TCDF	ng/L	< 0.00497
	1,2,3,7,8-PeCDF	ng/L	< 0.0248
	2,3,4,7,8-PeCDF	ng/L	< 0.0248
	1,2,3,4,7,8-HxCDF	ng/L	< 0.0248
	1,2,3,6,7,8-HxCDF	ng/L	< 0.0248
	2,3,4,6,7,8-HxCDF	ng/L	< 0.0248
	1,2,3,7,8,9-HxCDF	ng/L	< 0.0248
	1,2,3,4,6,7,8-HpCDF	ng/L	< 0.0248
	1,2,3,4,7,8,9-HpCDF	ng/L	< 0.0248
	OCDF	ng/L	< 0.0497
	WHO-2005 TEQ (ND=0)	ng/L	0
	WHO 2005 TEQ w/EMPC (ND=0)	ng/L	0

3486

Table 3. Comparison of Triplicate Sample Results Obtained from Primary and QA Laboratories

Sample Location	Testing Lab	15-286 Supply Well			B09-177MW Helipad		
		Primary	Primary-dup	QA lab	Primary	Primary-dup	QA lab
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Herbicide	2,4-D	< 0.568	< 0.569	< 0.50	< 0.604	< 0.612	< 0.50
	2,4,5-T	0.0579 J	< 0.569	< 0.50	< 0.604	< 0.612	< 0.50
	2,4,5-TP (Silvex)	< 0.568	< 0.569	< 0.50	< 0.604	< 0.612	< 0.50
	2,4-DB	< 0.568	< 0.569	< 0.50	< 0.604	< 0.612	< 0.50
	Dicamba	< 0.568	< 0.569	< 0.50	< 0.604	< 0.612	< 0.50
Dioxin	2,3,7,8-TCDD	< 0.00500	< 0.00499	< 0.0100	< 0.00498	< 0.00501	< 0.0100
	1,2,3,7,8-PeCDD	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,4,7,8-HxCDD	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,6,7,8-HxCDD	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,7,8,9-HxCDD	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,4,6,7,8-HpCDD	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	OCDD	< 0.0500	< 0.0499	< 0.100	< 0.0498	< 0.0501	0.0040 J
Furan	2,3,7,8-TCDF	< 0.00500	< 0.00499	< 0.0100	< 0.00498	< 0.00501	< 0.0100
	1,2,3,7,8-PeCDF	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	2,3,4,7,8-PeCDF	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,4,7,8-HxCDF	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,6,7,8-HxCDF	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	2,3,4,6,7,8-HxCDF	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,7,8,9-HxCDF	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,4,6,7,8-HpCDF	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	1,2,3,4,7,8,9-HpCDF	< 0.0250	< 0.0249	< 0.0500	< 0.0249	< 0.0251	< 0.0500
	OCDF	< 0.0500	< 0.0499	< 0.100	< 0.0498	< 0.0501	< 0.100
WHO-2005 TEQ (ND=0)	ng/L	0	0	0	0	0	0.00000120
WHO-2005 TLQ w/EMPC (ND=0)	ng/L	0	0	0	0	0	0

NOTES:

1. J: Estimated amount detected between the method detection limit and lower calibration limit
2. EMPC: Estimated maximum possible concentration due to ion ratio failure
3. Primary: Result obtained by primary lab, SGS North America, Maryland
4. Primary-dup: Blind duplicate result in primary lab
5. QA lab: US Army Public Health Command

3487

Table 3. (continued)

Sample Location	Testing Lab	B07-217MW Landfarm			B09-221MW Area D			
		Primary	Primary-dup	QA lab	Primary	Primary-dup	QA lab	
Herbicide 2,4-D	ug/L	< 0.599	< 0.577	< 0.50	< 0.612	< 0.603	< 0.50	
	2,4,5-T	ug/L	< 0.599	< 0.577	< 0.50	< 0.612	< 0.603	< 0.50
	2,4,5-TP (Silvex)	ug/L	< 0.599	< 0.577	< 0.50	< 0.612	< 0.603	< 0.50
	2,4-DB	ug/L	< 0.599	< 0.577	< 0.50	< 0.612	< 0.603	< 0.50
	Dicamba	ug/L	< 0.599	< 0.577	< 0.50	< 0.612	< 0.603	< 0.50
Dioxin	2,3,7,8-TCDD	ng/L	< 0.00509	< 0.00499	< 0.0100	< 0.00497	< 0.00500	< 0.0100
	1,2,3,7,8-PeCDD	ng/L	< 0.0255	< 0.0250	< 0.0500	< 0.0248	< 0.0250	< 0.0500
	1,2,3,4,7,8-HxCDD	ng/L	< 0.0255	< 0.0250	0.00097 EMPC	< 0.0248	< 0.0250	< 0.0500
	1,2,3,6,7,8-HxCDD	ng/L	< 0.0255	< 0.0250	< 0.0500	< 0.0248	< 0.0250	< 0.0500
	1,2,3,7,8,9-HxCDD	ng/L	< 0.0255	< 0.0250	0.00081 J	< 0.0248	< 0.0250	< 0.0500
	1,2,3,4,6,7,8-HpCDD	ng/L	< 0.0255	< 0.0250	0.00140 J	< 0.0248	< 0.0250	< 0.0500
	OCDD	ng/L	< 0.0509	< 0.0499	0.00420 J	< 0.0497	< 0.0500	< 0.100
Furan	2,3,7,8-TCDF	ng/L	< 0.00509	< 0.00499	< 0.0100	< 0.00497	< 0.00500	< 0.0100
	1,2,3,7,8-PeCDF	ng/L	< 0.0255	< 0.0250	< 0.0500	< 0.0248	< 0.0250	< 0.0500
	2,3,4,7,8-PeCDF	ng/L	< 0.0255	< 0.0250	0.00089 EMPC	< 0.0248	< 0.0250	< 0.0500
	1,2,3,4,7,8-HxCDF	ng/L	< 0.0255	< 0.0250	0.00110 J	< 0.0248	< 0.0250	< 0.0500
	1,2,3,6,7,8-HxCDF	ng/L	< 0.0255	< 0.0250	0.00100 J	< 0.0248	< 0.0250	< 0.0500
	2,3,4,6,7,8-HxCDF	ng/L	< 0.0255	< 0.0250	0.00100 J	< 0.0248	< 0.0250	< 0.0500
	1,2,3,7,8,9-HxCDF	ng/L	< 0.0255	< 0.0250	0.00110 EMPC	< 0.0248	< 0.0250	< 0.0500
	1,2,3,4,6,7,8-HpCDF	ng/L	< 0.0255	< 0.0250	0.00110 J	< 0.0248	< 0.0250	< 0.0500
	1,2,3,4,7,8,9-HpCDF	ng/L	< 0.0255	< 0.0250	0.00120 J	< 0.0248	< 0.0250	< 0.0500
	OCDF	ng/L	< 0.0509	< 0.0499	0.00240 J	< 0.0497	< 0.0500	< 0.100
WHO-2005 TEQ (ND=0)	ng/L	0	0	0.000430	0	0	0	
WHO-2005 TEQ w/EMPC (ND=0)	ng/L	0	0	0.000904	0	0	0	

NOTES:

1. J: Estimated amount detected between the method detection limit and lower calibration limit
2. EMPC: Estimated maximum possible concentration due to ion ratio failure
3. Primary: Result obtained by primary lab, SGS North America, Maryland
4. Primary-dup: Blind duplicate result in primary lab
5. QA lab: US Army Public Health Command

3488

Table 3. (continued)

	Sample Location	Testing Lab	B09-193MW		
			Area D		
			Primary	Primary-dup	QA lab
Herbicide	2,4-D	ug/L	< 0.601	< 0.606	< 0.50
	2,4,5-T	ug/L	< 0.601	0.228 J	< 0.50
	2,4,5-TP (Silvex)	ug/L	< 0.601	< 0.606	< 0.50
	2,4-DB	ug/L	< 0.601	< 0.606	< 0.50
	Dicamba	ug/L	< 0.601	< 0.606	< 0.50
Dioxin	2,3,7,8-TCDD	ng/L	< 0.00508	< 0.00507	< 0.0100
	1,2,3,7,8-PeCDD	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,4,7,8-HxCDD	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,6,7,8-HxCDD	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,7,8,9-HxCDD	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,4,6,7,8-HpCDD	ng/L	< 0.0254	< 0.0253	0.00084 EMPC
	OCDD	ng/L	< 0.0508	< 0.0507	0.00280 EMPC
Furan	2,3,7,8-TCDF	ng/L	< 0.00508	< 0.00507	< 0.0100
	1,2,3,7,8-PeCDF	ng/L	< 0.0254	< 0.0253	< 0.0500
	2,3,4,7,8-PeCDF	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,4,7,8-HxCDF	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,6,7,8-HxCDF	ng/L	< 0.0254	< 0.0253	< 0.0500
	2,3,4,6,7,8-HxCDF	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,7,8,9-HxCDF	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,4,6,7,8-HpCDF	ng/L	< 0.0254	< 0.0253	< 0.0500
	1,2,3,4,7,8,9-HpCDF	ng/L	< 0.0254	< 0.0253	< 0.0500
	OCDF	ng/L	< 0.0508	< 0.0507	< 0.100
	WHO-2005 TEQ (ND=0)	ng/L	0	0	0
WHO-2005 TEQ w/EMPC (ND=0)	ng/L	0	0	0.00000924	

NOTES:

1. J: Estimated amount detected between the method detection limit and lower calibration limit
2. EMPC: Estimated maximum possible concentration due to ion ratio failure
3. Primary: Result obtained by primary lab, SGS North America, Maryland
4. Primary-dup: Blind duplicate result in primary lab
5. QA lab: US Army Public Health Command

3489

APPENDIX IX. REPORT FOR PHASE 1 GROUNDWATER RE-SAMPLING TEST RESULT

3490



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, FAR EAST DISTRICT
Unit #15546
APO AP 96205-5546

REPLY TO
ATTENTION OF:

CEPOF-ED-G

AUG 02 2011

MEMORANDUM FOR USFK Assistant Chief of Staff, Engineers, ATTN: Colonel Joseph F. Birchmeier, UNIT #15237, APO AP 96205-5237

SUBJECT: Test Results of Groundwater Samples for Herbicide, Cp Carroll, Korea (G&E 11-032E/E2011-44)

1. Enclosed is the summary of test results for groundwater samples collected from water supply and monitoring wells at Cp Carroll. The samples were collected by Geotechnical and Environmental Engineering Branch, US Army Corps of Engineers, Far East District (FED) and tested for 2,4,5-T (chlorinated herbicides) according to US EPA Method 8151A.

2. Laboratory Findings for Original Sampling

a. Original sampling was conducted from 3 Jun to 15 Jun 2011 and the samples were tested by SGS North America. Based on test results in FED memorandum E2011-38, dated 11 July 2011, 2,4,5-T was found in 3 samples at concentrations of 1.02 ~ 2.83 µg/L and detected in other 2 samples at levels between the detection limit and the reporting limit.

b. Five (5) sample extracts obtained from original samples which had detected concentrations of 2,4,5-T were re-analyzed by gas chromatography (GC) equipped with electron capture detector (ECD) and verified with mass spectrometry to confirm presence of 2,4,5-T. Subsequent reanalysis showed that there was no 2,4,5-T detected in any of the water samples. The results of re-test are provided in Table 1.

c. The 5 samples had false positives for 2,4,5-T in the first test due to the reasons below.

(1) The laboratory failed to perform sufficient sample preparation which resulted in interferences of 2,4,5-T analysis by Lindane which is one of the chlorinated pesticide compound.

(2) The laboratory failed to follow their protocols for flagging data that exceeded analytical tolerances. The data should have been flagged because of the high relative percent difference (RPD) between the results from the two columns/detectors.

(3) The laboratory has been implementing the corrective actions to ensure a similar mistake does not happen again. Summary of corrective actions is attached at Appendix A.

3. Laboratory Findings for Re-Sampling Event

3491

CEPOF-ED-G

SUBJECT: Test Results of Groundwater Samples for Herbicide, Cp Carroll, Korea (G&E 11-032E/E2011-44)

a. Groundwater samples were re-collected on 22 Jul from 5 locations where 2,4,5-T was detected in the 1st test of original samples. The water samples from monitoring well were collected in both methods of filtered and unfiltered. Filtered samples were obtained by using in-line filter with 0.45 μ m pore size.

b. Samples were tested by ECCS Laboratory according to US EPA Method 8151A. As provided in Table 1, **there was no 2,4,5-T detected in any of the water samples.**

4. The POC for this matter is Mr [REDACTED] at [REDACTED] b6

Encl

[REDACTED] b6

Chief, Geotechnical and Environmental
Engineering Branch

3492

Table 1. Results of 2,4,5-T in Groundwater at Cp Carroll

Unit: µg/L

Location	Sample filtering	Original sampling (3 Jun to 15 Jun 2011)		Re-sampling (22 Jul 2011)
		1 st test*	Re-test	
15-286	Unfiltered	0.0579 J	< 0.568	< 0.41
B09-178MW	Unfiltered	2.13	< 0.573	< 0.41
	Filtered	-	-	< 0.41
B03-463MW	Unfiltered	2.83	< 0.584	< 0.41
	Filtered	-	-	< 0.40
B03-466MW	Unfiltered	1.02	< 0.582	< 0.39
	Filtered	-	-	< 0.39
B03-467MW	Unfiltered	0.308 J	< 0.593	< 0.40
	Filtered	-	-	< 0.91**

NOTES:

1. J: Estimated amount detected between method detection limit and reporting limit
2. The non-detects are reported as "less than (<) sample reporting limit".
3. * Result of 1st test was issued by FED memorandum E2011-38, dated 11 Jul 2011.
4. ** Increase of sample reporting limit is caused by less sample volume taken. An accidental spill of sample occurred during extraction procedure in the lab.

3493



SGS Environmental Services

From: [REDACTED] b6

Office: Wilmington NC

Date: 7/29/2011

Copy: NA

Re: CAR G11-3

To: [REDACTED] b6

The following concerns were placed into our corrective action process:

1. Herbicide dual column results with RPD > 40% were not flagged with P qualifier as stated in SGS SOP SV_7.13.
2. Results were reported from the column with the higher result when the RPD was > 40%.

The root cause for the concerns was determined as follows:

1. The Acode testing for the dual column method was not thorough enough to catch this error.
2. The analyst did not suspect interference at the time; therefore the higher result was reported on the original data set. The interpretation of section 10.5 of the SOP lead SGS to report the results from the column with the higher number.

Actions taken are as follows:

1. Performed various analytical testing to demonstrate that interference was present including GCMS confirmations. (see attachments)
2. Provided revised reports to client.
3. Writing code to trigger calculation in LIMS on the upload that will automatically calculate the RPD. If the RPD is > 40% it will set the qualifier to "P". The program will report the lower value of the two columns if the RPD is >40%. If the RPD is ≤40% the higher value will be reported. (this will be completed on 7/29/2011)
4. Revise SOP SV_7.13 and SV_5.14 to reflect P flag procedure.

TEL [REDACTED] b6

FAX [REDACTED] b6



Member of the SGS Group (Société Générale de Surveillance)

3494

**APPENDIX X. REPORT FOR AREA 41 GROUNDWATER
SAMPLE TEST RESULT**

34 95



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, FAR EAST DISTRICT
Unit #15546
APO AP 96205-5546

REPLY TO
ATTENTION OF:

AUG 31 2011

CEPOF-ED-G

MEMORANDUM FOR USFK Assistant Chief of Staff, Engineers, ATTN: Colonel Joseph F. Birchmeier, UNIT #15237, APO AP 96205-5237

SUBJECT: Final Test Results of Groundwater Samples at Area 41, Cp Carroll, Korea (G&E 11-032E/E2011-57)

1. Enclosed are the final test results for groundwater samples collected from 5 monitoring wells at Area 41, Cp Carroll. Water sampling was conducted from 26 Jul to 28 Jul 2011 by the Geotechnical and Environmental Engineering Branch, US Army Corps of Engineers, Far East District (FED). The monitoring well locations are shown in Figure 1 and the well and water sample information is provided in Table 1.

2. The samples were tested by SGS North America located in Wilmington, NC, according to US EPA SW-846 Methods. The analytical parameters tested were dioxins and furans, chlorinated herbicides, organochlorine (OC) pesticides, organophosphorus (OP) pesticides, volatile organic compounds (VOC), semivolatile organic compounds (SVOC), and RCRA (Resource Conservation and Recovery Act) metals. A total of 208 analytes were tested for each sample. Table 2 provides test method information for each analytical parameter.

3. Laboratory Findings

Summaries of test results for each analytical parameter are provided in Table 3-9. The highlighted numbers indicate detection of contaminants. The summary tables presented in this memorandum are only for those which were detected above the reporting limit or at least estimated. The full laboratory reports are provided on the separate compact disk (CD).

a. **Dioxin and Furan, Chlorinated Herbicide:** The Agent Orange related compounds such as 2,4-dichlorophenoxyacetic acid (2,4-D), 2,4,5-trichlorophenoxyacetic acid (2,4,5-T), and 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) were not detected in any of the collected samples. One sample, B03-471MW was found to have dioxin and furan congeners. 2,3,7,8-TCDF and 1,2,3,7,8-PeCDF were detected at concentrations of 0.00538 and 0.132 ng/L respectively. 1,2,3,4,7,8-HxCDF was detected at the level between detection limit and reporting limit. No dioxin and furan congeners were detected in other samples. No chlorinated herbicides were detected in any of the collected samples.

b. **OC-Pesticide:** The analytes such as 4,4'-DDD; 4,4'-DDT; alpha-, beta-, delta-, and gamma-BHCs; dieldrin; and endosulfan sulfate were detected in B03-470MW and B09-181MW

3496

CEPOF-ED-G

SUBJECT: Final Test Results of Groundwater Samples at Area 41, Cp Carroll, Korea (G&E 11-032E/E2011-57)

with a concentration range of 0.0544~0.467 µg/L. The sample was analyzed by GC along with electron capture detector but the presence of the analytes was not confirmed by mass spectrometry due to low concentration of analytes.

c. **OP-Pesticide:** No OP-pesticides were detected in any of the collected samples.

d. **VOC:** A number of VOCs were detected in the collected samples. Tetrachloroethene (PCE) and Trichloroethene (TCE) were detected in all five samples. The highest concentrations were 8390 µg/L of PCE at B03-470MW and 2320 µg/L of TCE at B09-181MW. Benzene and 1,2,4-trimethylbenzene were detected in three samples with highest concentrations of 57.5 µg/L for benzene and 150 µg/L for 1,2,4-trimethylbenzene at B03-470MW. 1,1,2,2-Tetrachloroethane was detected in B09-181MW at concentration of 113 µg/L.

e. **SVOC:** Bis(2-ethylhexyl)phthalate (DEHP) was detected in all samples in concentration range of 2.09~6.28 µg/L. DEHP is a common plasticizer used in PVC products, it is possible contaminant from monitoring well casing. No other analytes were detected above the reporting limits.

f. **Metal:** Barium was detected in four samples with the highest concentration of 0.417 mg/L.

4. Quality Control and Quality Assurance

Laboratory data packages were reviewed for quality procedures to determine if they conform to the requirements in Engineering Manual (EM) 200-1-6 (Chemical Quality Assurance for Hazardous, Toxic and Radioactive Waste Projects), EM 200-1-10 (Guidance for Evaluating Performance-Based Chemical Data) and DoD Quality System Manual. Resultant Quality Assurance / Quality Control (QA/QC) Report is attached in Appendix A. From the overall assessment of the data package, quality and usability of the data were verified despite the following issues. Main issues discussed in QA/QC report were as follows,

a. Sample Preservation Temperature

One sample delivery group consisting of samples B03-472MW, B09-181MW, and B09-187MW arrived at the SGS Wilmington laboratory with a cooler temperature of 16~20 °C. This temperature range exceeded the temperature criteria for sample preservation (0~6 °C). Results of VOC analysis may be affected most by this problem. Analytical data for VOCs may be biased low because of increased temperature during shipping. Results of other analyses, including 2,4-D, 2,4,5-T and dioxins/furans, were unlikely affected by the increased temperature during shipment.

b. VOC Detection Limit

3497

CEPOF-ED-G

SUBJECT: Final Test Results of Groundwater Samples at Area 41, Cp Carroll, Korea (G&E 11-032E/E2011-57)

Due to high concentration of tetrachloroethene (PCE) and trichloroethene (TCE), a dilution factor of 250 was used in the analysis of samples B03-470MW and B09-181MW. High dilution factors caused high detection limits for analyses other than PCE and TCE in those two samples.

5. The POC for this matter is Mr. [REDACTED] at [REDACTED]
b6 b6

Encl

[REDACTED] b6

Chief, Geotechnical and Environmental
Engineering Branch

3498

Table 1. Groundwater Sample Information at Area 41

Location (Monitoring Well)	Sampling Date	Temperature (°C)	Electrical Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	Oxidation Reduction Potential (mV)	Well Depth (m)	Water Level (m)
B03-470MW	7/28/2011	18.2	0.503	5.75	5.23	530	13.5	8.5
B03-471MW	7/27/2011	18.1	0.051	8.23	5.48	368	12.2	3.8
B03-472MW	7/27/2011	17.8	0.871	4.10	5.42	272	15.1	8.5
B09-181MW	7/26/2011	17.1	0.185	4.59	5.63	280	14.7	8.9
B09-187MW	7/26/2011	17.4	0.140	7.19	5.58	513	15.0	3.8

3499

Table 2. Goundwater Test Methods

Parameter	Number of Analytes	Method: Preparation	Description
		Analysis	
Dioxins and furans	17	3520C	Liquid-Liquid Extraction
		8290A	High-resolution Gas Chromatography/High Resolution Mass Spectrometry (HRGC/HRMS)
Chlorinated herbicides	5	8151A Modified	GC-MS Using Methylation Derivatization
OC pesticides	22	3520C	Continuous Liquid-Liquid Extraction
		8081B	GC-Electron Capture Detector
OP pesticides	27	3510C	Separatory Funnel Liquid-Liquid Extraction
		8141B	GC-Flame Photometric Detector
VOCs	67	5030B	Purge and Trap
		8260B	GC/MS
SVOCs	62	3520C	Continuous Liquid-Liquid Extraction
		8270D	GC/MS
RCRA Metals (total)	8	3010A	Acid Digestion
		6010C	Inductively Coupled Plasma-Atomic Emission Spectrometry
		7470A mercury	Cold-Vapor Technique

3500