

Appendix 1:
2015 sediment sampling
survey: chemical results

Sample location
M2015-1 & 1a

SAL Reference							525096 037	525096 038	525096 039
Customer Sample Reference							M2015-1a MS59	M2015-1a MS60	M2015-1a MS61
Depth (CD)							-7.8m	-8.80m	-9.80m
Date Sampled							07-Nov-15	07-Nov-15	07-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units			
Moisture @105C	T162	AR	0.1			%	12	6.1	9
As (Total)	T301	AR	1	20	70	mg/kg	17	19	23
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.88	0.83	1
Cr (Total)	T301	AR	0.2	50	370	mg/kg	270	230	330
Cu (Total)	T301	AR	0.1	30	300	mg/kg	190	170	220
Pb (Total)	T301	AR	0.2	50	400	mg/kg	110	120	140
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01	<0.01	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	180	160	200
Zn (Total)	T303	AR	2	130	600	mg/kg	72	77	80
Naphthalene	T1	AR	2	100		ug/kg	5.7	2.6	<2.0
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	7.1	<2.0	<2.0
Fluorene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	16	4.5	4.1
Anthracene	T1	AR	2	100		ug/kg	2.9	<2.0	<2.0
Fluoranthene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Pyrene	T1	AR	2	100		ug/kg	2.6	<2.0	<2.0
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	6.9	7	6.9
Chrysene	T1	AR	2	100		ug/kg	21	3.5	4.2
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	9.9	7.1	6.9
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	3.2	2.4	2.5
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	6.3	4.9	5.8
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	5.1	2.2	3.7
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	4.9	3.9	4.7
PAH (Total)				100000		ug/kg	92	38	39
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4	<1.4

Sample location
M2015-02

SAL Reference							525096 042	525096 045	525096 047
Customer Sample Reference							M2015-2 MS2	M2015-2 MS22	M2015-2 MS24
Depth (CD)							-5.56m	-7.56m	-9.56m
Date Sampled							08-Nov-15	08-Nov-15	08-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units			
Moisture @105C	T162	AR	0.1			%	10	9.9	9.2
As (Total)	T301	AR	1	20	70	mg/kg	34	23	22
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.97	1.2	1.1
Cr (Total)	T301	AR	0.2	50	370	mg/kg	270	330	290
Cu (Total)	T301	AR	0.1	30	300	mg/kg	250	250	250
Pb (Total)	T301	AR	0.2	50	400	mg/kg	140	160	140
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01	<0.01	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	180	220	200
Zn (Total)	T303	AR	2	130	600	mg/kg	83	84	83
Naphthalene	T1	AR	2	100		ug/kg	16	6.4	8.5
Acenaphthylene	T1	AR	2	100		ug/kg	3.4	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	23	<2.0	<2.0
Fluorene	T1	AR	2	100		ug/kg	21	<2.0	3
Phenanthrene	T1	AR	2	100		ug/kg	160	3.4	15
Anthracene	T1	AR	2	100		ug/kg	46	<2.0	4.5
Fluoranthene	T1	AR	2	100		ug/kg	130	2.4	6.5
Pyrene	T1	AR	2	100		ug/kg	170	2	5.3
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	75	7.3	8.3
Chrysene	T1	AR	2	100		ug/kg	61	<2.0	<2.0
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	100	2	2.1
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	71	<2.0	<2.0
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	32	<2.0	<2.0
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	8.6	0.8	0.8
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	45	<2.0	<2.0
PAH (total)				100000		ug/kg	962	24	54
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4	<1.4

Sample location
M2015-03

SAL Reference							528477 004	528477 006	528477 008
Customer Sample Reference							M2015-3 MS2	M2015-3 MS9	M2015-3 MS17
Depth (CD)							-6.60m	-8.60m	-10.60m
Date Sampled							11-Nov-15	11-Nov-15	11-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units			
Moisture @105C	T162	AR	0.1			%	31	20	4
As (Total)	T301	AR	1	20	70	mg/kg	35	28	21
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.85	0.52	1.3
Cr (Total)	T301	AR	0.2	50	370	mg/kg	79	60	270
Cu (Total)	T301	AR	0.1	30	300	mg/kg	29	24	220
Pb (Total)	T301	AR	0.2	50	400	mg/kg	77	42	120
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	0.66	<0.01	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	45	39	200
Zn (Total)	T303	AR	2	130	600	mg/kg	29	20	82
Naphthalene	T1	AR	2	100		ug/kg	12	9.5	5.7
Acenaphthylene	T1	AR	2	100		ug/kg	3.5	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	16	8.3	<2.0
Fluorene	T1	AR	2	100		ug/kg	11	7	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	130	64	3.1
Anthracene	T1	AR	2	100		ug/kg	46	19	<2.0
Fluoranthene	T1	AR	2	100		ug/kg	290	67	2
Pyrene	T1	AR	2	100		ug/kg	250	64	<2.0
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	150	35	6.9
Chrysene	T1	AR	2	100		ug/kg	110	23	<2.0
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	200	36	<2.0
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	120	24	<2.0
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	59	12	<2.0
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	14	3.4	1
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	74	16	<2.0
PAH (total)				100000		ug/kg	1486	388	19
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4	<1.4

Sample location
M2015-07

SAL Reference							528834 014	528834 016	528834 018
Customer Sample Reference							M2015-07 MS02	M2015-07 MS07	M2015-07 MS13
Depth (CD)							-4.47M	-5.47M	-6.54
Date Sampled							20-Nov-15	20-Nov-15	20-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units			
Moisture @105C	T162	AR	0.1			%	1.6	15	10
As (Total)	T301	AR	1	20	70	mg/kg	13	18	25
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.46	0.41	0.57
Cr (Total)	T301	AR	0.2	50	370	mg/kg	69	140	260
Cu (Total)	T301	AR	0.1	30	300	mg/kg	74	110	220
Pb (Total)	T301	AR	0.2	50	400	mg/kg	38	46	72
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01	<0.01	0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	60	120	210
Zn (Total)	T303	AR	2	130	600	mg/kg	26	46	97
Naphthalene	T1	AR	2	100		ug/kg	<2.0	2.1	<2.0
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Fluorene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	2.6	9	2.3
Anthracene	T1	AR	2	100		ug/kg	<2.0	2.4	<2.0
Fluoranthene	T1	AR	2	100		ug/kg	2.1	9.2	2.2
Pyrene	T1	AR	2	100		ug/kg	<2.0	7.6	<2.0
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	7.1	11	7.2
Chrysene	T1	AR	2	100		ug/kg	<2.0	4	<2.0
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	2.2	5.6	2.2
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	<2.0	3.2	<2.0
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	2.3	3.2	2.3
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	0.9	1.3	1
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	<2.0	3	<2.0
PAH (total)				100000		ug/kg	17	62	17
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4	<1.4

Sample location
M2015-08

SAL Reference							528834 019	528834 021	528834 024
Customer Sample Reference							M2015-08 MS03	M2015-08 MS08	M2015-08 MS14
Depth (CD)							-1.77M	-2.77M	-4.27M
Date Sampled							19-Nov-15	19-Nov-15	19-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units			
Moisture @105C	T162	AR	0.1			%	27	19	1.7
As (Total)	T301	AR	1	20	70	mg/kg	46	51	24
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.39	0.42	0.49
Cr (Total)	T301	AR	0.2	50	370	mg/kg	55	72	180
Cu (Total)	T301	AR	0.1	30	300	mg/kg	17	30	110
Pb (Total)	T301	AR	0.2	50	400	mg/kg	49	57	65
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01	<0.01	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	28	39	130
Zn (Total)	T303	AR	2	130	600	mg/kg	17	18	49
Naphthalene	T1	AR	2	100		ug/kg	<2.0	3.2	<2.0
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Fluorene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	4.4	4.2	2.5
Anthracene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Fluoranthene	T1	AR	2	100		ug/kg	7.6	5.4	<2.0
Pyrene	T1	AR	2	100		ug/kg	6.8	4.9	<2.0
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	13	9.6	6.4
Chrysene	T1	AR	2	100		ug/kg	7.5	2.7	<2.0
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	15	7.8	<2.0
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	6.2	4.1	<2.0
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	6.5	4.7	<2.0
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	2.4	1.2	0.7
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	7.1	5.1	<2.0
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4	<1.4

Sample location
M2015-09

SAL Reference							528834 002	528834 005	528834 009
Customer Sample Reference							M2015-09 MS03	M2015-09 MS12	M2015-09 MS21
Depth (CD)							-3.78M	-5.28M	-8.28M
Date Sampled							18-Nov-15	18-Nov-15	18-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units			
Moisture @105C	T162	AR	0.1			%	29	11	11
As (Total)	T301	AR	1	20	70	mg/kg	42	34	21
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.44	0.71	0.98
Cr (Total)	T301	AR	0.2	50	370	mg/kg	50	220	260
Cu (Total)	T301	AR	0.1	30	300	mg/kg	16	190	210
Pb (Total)	T301	AR	0.2	50	400	mg/kg	51	66	120
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01	<0.01	0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	27	170	200
Zn (Total)	T303	AR	2	130	600	mg/kg	17	69	86
Naphthalene	T1	AR	2	100		ug/kg	3.9	<2.0	5.4
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Fluorene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	9.9	4.5	17
Anthracene	T1	AR	2	100		ug/kg	3.5	<2.0	4.3
Fluoranthene	T1	AR	2	100		ug/kg	12	4.4	32
Pyrene	T1	AR	2	100		ug/kg	10	3.8	27
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	12	8.4	23
Chrysene	T1	AR	2	100		ug/kg	4.1	2.4	15
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	11	4	29
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	6.1	<2.0	17
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	5.3	3	11
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	2	1.4	3.4
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	5.7	2.7	13
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10	<100
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4	<1.4

Sample location
M2015-10

SAL Reference							531598 003	531598 005
Customer Sample Reference							M2015-10 MS 2	M2015-10 MS 8
Depth (CD)							-1.57M	-2.57M
Date Sampled							29-Nov-15	29-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units		
Moisture @105C	T162	AR	0.1			%		
As (Total)	T301	AR	1	20	70	mg/kg	<1.0	<1.0
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	<0.05	<0.05
Cr (Total)	T301	AR	0.2	50	370	mg/kg	4.7	6.6
Cu (Total)	T301	AR	0.1	30	300	mg/kg	2.7	3.9
Pb (Total)	T301	AR	0.2	50	400	mg/kg	2.8	2.2
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	3.6	5.5
Zn (Total)	T303	AR	2	130	600	mg/kg	31	40
Naphthalene	T1	AR	2	100		ug/kg	<2.0	5.8
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	<2.0	13
Fluorene	T1	AR	2	100		ug/kg	<2.0	8.7
Phenanthrene	T1	AR	2	100		ug/kg	2.7	81
Anthracene	T1	AR	2	100		ug/kg	<2.0	23
Fluoranthene	T1	AR	2	100		ug/kg	3.5	96
Pyrene	T1	AR	2	100		ug/kg	3.7	80
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	9.1	45
Chrysene	T1	AR	2	100		ug/kg	2.7	30
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	5.9	44
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	3.1	25
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	2.7	14
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	1.7	3.1
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	3.8	18
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4

Sample location
M2015-11

SAL Reference							525096 049	525096 052
Customer Sample Reference							M2015-11 MS2	M2015-11 MS11
Depth (CD)							-5.50m	-7.40m
Date Sampled							07-Nov-15	07-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units		
Moisture @105C	T162	AR	0.1			%	33	9.7
As (Total)	T301	AR	1	20	70	mg/kg	44	17
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.52	1.4
Cr (Total)	T301	AR	0.2	50	370	mg/kg	97	290
Cu (Total)	T301	AR	0.1	30	300	mg/kg	31	220
Pb (Total)	T301	AR	0.2	50	400	mg/kg	81	130
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	0.02	0.02
Ni (Total)	T301	AR	0.2	30	150	mg/kg	46	190
Zn (Total)	T303	AR	2	130	600	mg/kg	24	82
Naphthalene	T1	AR	2	100		ug/kg	560	5.5
Acenaphthylene	T1	AR	2	100		ug/kg	91	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	300	2
Fluorene	T1	AR	2	100		ug/kg	360	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	2200	6
Anthracene	T1	AR	2	100		ug/kg	810	<2.0
Fluoranthene	T1	AR	2	100		ug/kg	2200	3
Pyrene	T1	AR	2	100		ug/kg	2300	2.4
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	940	8.2
Chrysene	T1	AR	2	100		ug/kg	850	4
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	1400	3.5
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	900	<2.0
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	380	2.5
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	110	1.2
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	560	2.1
PAH (total)				100000		ug/kg	13961	40
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4

Sample location
M2015-12

SAL Reference							525096 033
Customer Sample Reference							M2015-12 MS47
Depth (CD)							-8.45m
Date Sampled							08-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units	
Moisture @105C	T162	AR	0.1			%	23
As (Total)	T301	AR	1	20	70	mg/kg	29
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.24
Cr (Total)	T301	AR	0.2	50	370	mg/kg	75
Cu (Total)	T301	AR	0.1	30	300	mg/kg	57
Pb (Total)	T301	AR	0.2	50	400	mg/kg	27
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	53
Zn (Total)	T303	AR	2	130	600	mg/kg	19
Naphthalene	T1	AR	2	100		ug/kg	2.8
Acenaphthylene	T1	AR	2	100		ug/kg	2.7
Acenaphthene	T1	AR	2	100		ug/kg	3.4
Fluorene	T1	AR	2	100		ug/kg	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	38
Anthracene	T1	AR	2	100		ug/kg	8.4
Fluoranthene	T1	AR	2	100		ug/kg	42
Pyrene	T1	AR	2	100		ug/kg	44
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	28
Chrysene	T1	AR	2	100		ug/kg	14
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	40
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	19
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	17
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	4.8
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	19
PAH (total)				100000		ug/kg	283
Tributyl tin	T16	AR	10	100	500	ug/kg	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4

Sample location
M2015-13

SAL Reference							525096 015	525096 017
Customer Sample Reference							M2015-13 MS23	M2015-13 MS25
Depth (CD)							-5.60m	-8.60m
Date Sampled							07-Nov-15	07-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units		
Moisture @105C	T162	AR	0.1			%	17	9.3
As (Total)	T301	AR	1	20	70	mg/kg	30	13
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.3	0.51
Cr (Total)	T301	AR	0.2	50	370	mg/kg	58	140
Cu (Total)	T301	AR	0.1	30	300	mg/kg	44	140
Pb (Total)	T301	AR	0.2	50	400	mg/kg	55	30
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	0.03	0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	42	150
Zn (Total)	T303	AR	2	130	600	mg/kg	33	47
Naphthalene	T1	AR	2	100		ug/kg	3.1	4.7
Acenaphthylene	T1	AR	2	100		ug/kg	3.7	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	6.4	5.1
Fluorene	T1	AR	2	100		ug/kg	5.2	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	57	12
Anthracene	T1	AR	2	100		ug/kg	10	2.3
Fluoranthene	T1	AR	2	100		ug/kg	65	2.9
Pyrene	T1	AR	2	100		ug/kg	94	2.9
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	43	9
Chrysene	T1	AR	2	100		ug/kg	26	18
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	87	13
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	56	4.5
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	34	7.6
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	10	5.8
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	39	6.7
PAH (total)				100000		ug/kg	539	95
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.5	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.5	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.5	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.5	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.5	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.5	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.5	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<3.5	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<7.0	<1.4

Sample location
M2015-14

SAL Reference							533984 003	533984 005
Customer Sample Reference							M2015-14 MS2	M2015-14 MS7
Depth (CD)							-0.55m	1.55m
Date Sampled							03-Dec-15	03-Dec-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units		
Moisture @105C	T162	AR	0.1			%	25	20
As (Total)	T301	AR	1	20	70	mg/kg	75	65
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.69	1.2
Cr (Total)	T301	AR	0.2	50	370	mg/kg	91	90
Cu (Total)	T301	AR	0.1	30	300	mg/kg	62	65
Pb (Total)	T301	AR	0.2	50	400	mg/kg	54	49
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	99	100
Zn (Total)	T303	AR	2	130	600	mg/kg	14	14
Naphthalene	T1	AR	2	100		ug/kg	2.5	<2.0
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	3	<2.0
Fluorene	T1	AR	2	100		ug/kg	2.5	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	22	5.3
Anthracene	T1	AR	2	100		ug/kg	7.5	<2.0
Fluoranthene	T1	AR	2	100		ug/kg	24	5.9
Pyrene	T1	AR	2	100		ug/kg	24	5.2
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	19	9.5
Chrysene	T1	AR	2	100		ug/kg	12	3.3
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	24	9.2
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	13	5
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	9.4	4.7
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	2.5	1.6
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	13	5.3
PAH (total)				100000			178	55
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4

Sample location
M2015-15

SAL Reference							530794 001	525096 021	525096 025
Customer Sample Reference							M2015-15 3A MS	M2015-15 MS33	M2015-15 MS37
Depth (CD)							-1.20m	-5.20m	-9.20m
Date Sampled							26-Nov-15	07-Nov-15	07-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units			
Moisture @105C	T162	AR	0.1			%		12	19
As (Total)	T301	AR	1	20	70	mg/kg	42	24	42
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.21	0.73	0.23
Cr (Total)	T301	AR	0.2	50	370	mg/kg	64	230	77
Cu (Total)	T301	AR	0.1	30	300	mg/kg	43	220	38
Pb (Total)	T301	AR	0.2	50	400	mg/kg	47	2200	980
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	0.03	<0.01	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	44	150	52
Zn (Total)	T303	AR	2	130	600	mg/kg	17	100	7.1
Naphthalene	T1	AR	2	100		ug/kg	5.7	2.5	4.7
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	2.4	<2.0	5.3
Fluorene	T1	AR	2	100		ug/kg	<2.0	<2.0	4.8
Phenanthrene	T1	AR	2	100		ug/kg	19	5.5	35
Anthracene	T1	AR	2	100		ug/kg	6.3	<2.0	9.6
Fluoranthene	T1	AR	2	100		ug/kg	35	2.8	27
Pyrene	T1	AR	2	100		ug/kg	31	2.5	30
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	33	8.3	20
Chrysene	T1	AR	2	100		ug/kg	28	5	16
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	43	13	23
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	23	3.9	16
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	15	6.9	11
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	7.4	4.7	3.8
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	19	5.9	15
PAH (total)				100000		ug/kg	268	61	221
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4	<1.4

Sample location
M2015-16

SAL Reference							531599 004	531599 009	531599 018
Customer Sample Reference							M2015-16 MS2	M2015-16 MS13	M2015-16 MS27
Depth (CD)							-1.45m	-3.45m	-7.95m
Date Sampled							30-Nov-15	30-Nov-15	30-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units			
Moisture @105C	T162	AR	0.1			%	25	12	10
As (Total)	T301	AR	1	20	70	mg/kg	1.1	<1.0	<1.0
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	<0.05	<0.05	<0.05
Cr (Total)	T301	AR	0.2	50	370	mg/kg	2.8	13	12
Cu (Total)	T301	AR	0.1	30	300	mg/kg	1.4	11	7.5
Pb (Total)	T301	AR	0.2	50	400	mg/kg	4.4	4	5
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	0.01	0.02	0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	1.2	10	8.3
Zn (Total)	T303	AR	2	130	600	mg/kg	25	74	75
Naphthalene	T1	AR	2	100		ug/kg	<2.0	4.5	<2.0
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	<2.0	5.3	<2.0
Fluorene	T1	AR	2	100		ug/kg	<2.0	<2.0	<2.0
Phenanthrene	T1	AR	2	100		ug/kg	7.7	12	<2.0
Anthracene	T1	AR	2	100		ug/kg	3	<2.0	<2.0
Fluoranthene	T1	AR	2	100		ug/kg	9.4	3.5	<2.0
Pyrene	T1	AR	2	100		ug/kg	12	3.1	<2.0
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	15	9.2	7.1
Chrysene	T1	AR	2	100		ug/kg	5.3	11	<2.0
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	21	4.5	2.7
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	12	2.3	<2.0
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	9.9	2.3	<2.0
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	2.4	1.6	1
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	13	2.8	2.2
PAH (total)				100000		ug/kg	111	62	13
Tributyl tin	T16	AR	10	100	500	ug/kg	<10	<10	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1	<0.1	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7	<0.7	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4	<1.4	<1.4

Sample location
M2015-17

SAL Reference							525096 028
Customer Sample Reference							M2015-17 MS42
Depth (CD)							-10.85m
Date Sampled							08-Nov-15
Determinand	Method	Test Sample	LOD	Action Level 1	Action Level 2	Units	
Moisture @105C	T162	AR	0.1			%	17
As (Total)	T301	AR	1	20	70	mg/kg	18
Cd (Total)	T301	AR	0.05	0.4	4	mg/kg	0.2
Cr (Total)	T301	AR	0.2	50	370	mg/kg	68
Cu (Total)	T301	AR	0.1	30	300	mg/kg	45
Pb (Total)	T301	AR	0.2	50	400	mg/kg	32
Mercury	T355	AR	0.01	0.25	1.5	mg/kg	<0.01
Ni (Total)	T301	AR	0.2	30	150	mg/kg	57
Zn (Total)	T303	AR	2	130	600	mg/kg	28
Naphthalene	T1	AR	2	100		ug/kg	2.9
Acenaphthylene	T1	AR	2	100		ug/kg	<2.0
Acenaphthene	T1	AR	2	100		ug/kg	3
Fluorene	T1	AR	2	100		ug/kg	3.1
Phenanthrene	T1	AR	2	100		ug/kg	14
Anthracene	T1	AR	2	100		ug/kg	2.1
Fluoranthene	T1	AR	2	100		ug/kg	<2.0
Pyrene	T1	AR	2	100		ug/kg	4.7
Benzo(a)Anthracene	T1	AR	2	100		ug/kg	12
Chrysene	T1	AR	2	100		ug/kg	4
Benzo(b/k)Fluoranthene	T1	AR	2	100		ug/kg	7.6
Benzo(a)Pyrene	T1	AR	2	100		ug/kg	4.1
Indeno(123-cd)Pyrene	T1	AR	2	100		ug/kg	5.2
Dibenzo(ah)Anthracene	T1	AR	0.5	10		ug/kg	2.4
Benzo(ghi)Perylene	T1	AR	2	100		ug/kg	4.8
PAH (total)				100000		ug/kg	70
Tributyl tin	T16	AR	10	100	500	ug/kg	<10
PCB BZ#28	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#52	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#101	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#118	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#153	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#138	T1	AR	0.1	20	180	ug/kg	<0.1
PCB BZ#180	T1	AR	0.1	20	180	ug/kg	<0.1
PCB EC7 (Sum)	T85	AR	0.7			ug/kg	<0.7
PCB (Total Tri-Hepta)	T1	AR	1.4			ug/kg	<1.4