

Analyserapport

Certicon Kwaliteitsk. BV
Keplerlaan 14
6716 BS EDE

Blad 1 van 7

Uw projectnaam : Onderzoek TGG Eemshaven - deelpartij 4
Uw projectnummer : P2019-0404
SYNLAB rapportnummer : 12991548, versienummer: 1
Rapport-verificatienummer : VM16X55E

Rotterdam, 29-03-2019

Geachte heer/mevrouw,

Hierbij ontvangt u de analyse resultaten van het laboratoriumonderzoek ten behoeve van uw project P2019-0404. Het onderzoek werd uitgevoerd conform uw opdracht. De gerapporteerde resultaten hebben uitsluitend betrekking op de geteste monsters. De door u aangegeven omschrijvingen voor de monsters en het project zijn overgenomen in dit analyserapport.

Het onderzoek is uitgevoerd door SYNLAB Analytics & Services B.V., gevestigd aan de Steenhouwerstraat 15 in Rotterdam (NL). Indien het onderzoek is uitgevoerd door derden of het SYNLAB laboratorium in Frankrijk (99-101 Avenue Louis Roche, Gennevilliers) is dit in het rapport aangegeven.

Dit analyserapport bestaat inclusief bijlagen uit 7 pagina's. In geval van een versienummer van '2' of hoger vervallen de voorgaande versies. Alle bijlagen maken onlosmakelijk onderdeel uit van het rapport. Alleen vermenigvuldiging van het hele rapport is toegestaan.

Mocht u vragen en/of opmerkingen hebben naar aanleiding van dit rapport, bijvoorbeeld als u nadere informatie nodig heeft over de meetonzekerheid van de analyseresultaten in dit rapport, dan verzoeken wij u vriendelijk contact op te nemen met de afdeling Customer Support.

Wij vertrouwen er op u met deze informatie van dienst te zijn.



Analyserapport

Projectnaam Onderzoek TGG Eemshaven - deelpartij 4
 Projectnummer P2019-0404
 Rapportnummer 12991548 - 1

Orderdatum 11-03-2019
 Startdatum 12-03-2019
 Rapportagedatum 29-03-2019

Nummer	Monstersoort	Monsterspecificatie
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001	Grond	M1-5
002	Grond	M1-6

Analyse	Eenheid	Q	001	002
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ANALYSES UITGEVOERD DOOR DERDEN

Dioxines (PCDD/PCDF)			zie bijlage	zie bijlage
I-PCDD/F-TEQ Lower Bound	ng/kgds		8.5	3.6
I-PCDD/F-TEQ Upper Bound	ng/kgds		10	6.8
WHO-PCDD/F-TEQ Lower Bound	ng/kgds		9.6	3.4
WHO-PCDD/F-TEQ Upper Bound	ng/kgds		11	7.1
PBDE			zie bijlage	zie bijlage

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 Projectnummer P2019-0404
 Rapportnummer 12991548 - 1

Orderdatum 11-03-2019
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 Rapportagedatum 29-03-2019

Analyse	Monstersoort	Relatie tot norm
Dioxines (PCDD/PCDF)	Grond	Analyse uitbesteed
I-PCDD/F-TEQ Lower Bound	Grond	Idem
I-PCDD/F-TEQ Upper Bound	Grond	Idem
WHO-PCDD/F-TEQ Lower Bound	Grond	Idem
WHO-PCDD/F-TEQ Upper Bound	Grond	Idem
PBDE	Grond	Idem

Monster	Barcode	Aanlevering	Monstername	Verpakking
001	Y7651509	12-03-2019	11-03-2019	ALC201
002	Y7651510	12-03-2019	11-03-2019	ALC201


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REPORT

Page 1 (2)

issued by an Accredited Laboratory

Report No. 19098948

Assigner

 SYNLAB Analytics & Services BV
 Rotterdam

 Steenhouwerstraat 15
 3194 AG ROTTERDAM

Applies to

Information about the project
Soil

Project number : 12991548

Information about sample and sampling

Invoice reference	: P77236	Date of Arrival	: 2019-03-14
Sampling date	: 2019-03-11	Time of Arrival	: 1100
Sample name	: 12991548-001 M1-5		
Depth of sampling	: -		
Sampler	: -		

Results of the analyses

Test method	Analysis / Investigation of	Result	Uncertainty	Unit
SS-EN 11465	Dry substance	86.4	± 8.64	%
SIS-CEN/TS 16190:2013mod	2378 TCDD	4.4	± 1.3	ng/kg DS
SIS-CEN/TS 16190:2013mod	12378 PeCDD	2.8	± 0.84	ng/kg DS
SIS-CEN/TS 16190:2013mod	123478 HxCDD	< 2	± 0.70	ng/kg DS
SIS-CEN/TS 16190:2013mod	123678 HxCDD	3.1	± 1.1	ng/kg DS
SIS-CEN/TS 16190:2013mod	123789 HxCDD	5.4	± 1.9	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234678 HpCDD	49	± 15	ng/kg DS
SIS-CEN/TS 16190:2013mod	OCDD	390	± 120	ng/kg DS
SIS-CEN/TS 16190:2013mod	2378 TCDF	2.5	± 0.75	ng/kg DS
SIS-CEN/TS 16190:2013mod	12378 PeCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	23478 PeCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123478 HxCDF	2.6	± 0.78	ng/kg DS
SIS-CEN/TS 16190:2013mod	123678 HxCDF	2.5	± 0.75	ng/kg DS
SIS-CEN/TS 16190:2013mod	123789 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	234678 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234678 HpCDF	14	± 4.2	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234789 HpCDF	< 5	± 1.5	ng/kg DS
SIS-CEN/TS 16190:2013mod	OCDF	49	± 15	ng/kg DS
Calculated acc. NATO	I-PCDD/F-TEQ Lower Bound	8.5	± 3.0	ng/kg DS
Calculated acc. NATO	I-PCDD/F-TEQ Upper Bound	10	± 3.5	ng/kg DS
Calculated acc. WHO2005	WHO-PCDD/F-TEQ LB	9.6	± 3.4	ng/kg DS
Calculated acc. WHO2005	WHO-PCDD/F-TEQ UB	11	± 3.9	ng/kg DS
	Dry substance (1)	-		%
GC/MS (*)	2,4,4'-TrBDE #28 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4'-TeBDE # 47 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5-PnBDE #99 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',6-PnBDE #100 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5,5'-HxBDE #153 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5,6'-HxBDE #154 (1)	< 0.2		mg/kg TS

(*) :Method not accredited by Swedac

(1) Result supplied by RPS Mountainheath, UK

 The stated uncertainty of measurement is calculated using a coverage $k = 2$. Measurement uncertainty for accredited microbiological analyses are available from the laboratory upon request.

(continued)



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Applies to

Information about the project	Soil
Project number	: 12991548

Information about sample and sampling			
Invoice reference	: P77236	Date of Arrival	: 2019-03-14
Sampling date	: 2019-03-11	Time of Arrival	: 1100
Sample name	: 12991548-001 M1-5		
Depth of sampling	: -		
Sampler	: -		

Results of the analyses				
<i>Test method</i>	<i>Analysis / Investigation of</i>	<i>Result</i>	<i>Uncertainty</i>	<i>Unit</i>
GC/MS (*)	2,2',3,4,4',5',6-HpBDE #183 (1)	< 0.2		mg/kg TS
GC/MS (*)	DekaBDE #209 (1)	< 0.2		mg/kg TS
(*) :Method not accredited by Swedac				
(1) Result supplied by RPS Mountainheath, UK				

The stated uncertainty of measurement is calculated using a coverage $k = 2$. Measurement uncertainty for accredited microbiological analyses are available from the laboratory upon request.

Linköping 2019-03-29

The report has been reviewed and approved by

Responsible reviewer

Control numbers 5182 0016 9708 1205


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Assigner

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 3194 AG ROTTERDAM

Applies to

Information about the project
Soil

Project number : 12991548

Information about sample and sampling

Invoice reference	: P77236	Date of Arrival	: 2019-03-14
Sampling date	: 2019-03-11	Time of Arrival	: 1100
Sample name	: 12991548-002 M1-6		
Depth of sampling	: -		
Sampler	: -		

Results of the analyses

Test method	Analysis / Investigation of	Result	Uncertainty	Unit
SS-EN 11465	Dry substance	87.0	± 8.70	%
SIS-CEN/TS 16190:2013mod	2378 TCDD	2.1	± 0.63	ng/kg DS
SIS-CEN/TS 16190:2013mod	12378 PeCDD	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123478 HxCDD	< 2	± 0.70	ng/kg DS
SIS-CEN/TS 16190:2013mod	123678 HxCDD	2.4	± 0.84	ng/kg DS
SIS-CEN/TS 16190:2013mod	123789 HxCDD	2.1	± 0.74	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234678 HpCDD	24	± 7.2	ng/kg DS
SIS-CEN/TS 16190:2013mod	OCDD	210	± 63	ng/kg DS
SIS-CEN/TS 16190:2013mod	2378 TCDF	3.1	± 0.93	ng/kg DS
SIS-CEN/TS 16190:2013mod	12378 PeCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	23478 PeCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123478 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123678 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123789 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	234678 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234678 HpCDF	26	± 7.8	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234789 HpCDF	< 5	± 1.5	ng/kg DS
SIS-CEN/TS 16190:2013mod	OCDF	41	± 12	ng/kg DS
Calculated acc. NATO	I-PCDD/F-TEQ Lower Bound	3.6	± 1.3	ng/kg DS
Calculated acc. NATO	I-PCDD/F-TEQ Upper Bound	6.8	± 2.4	ng/kg DS
Calculated acc. WHO2005	WHO-PCDD/F-TEQ LB	3.4	± 1.2	ng/kg DS
Calculated acc. WHO2005	WHO-PCDD/F-TEQ UB	7.1	± 2.5	ng/kg DS
	Dry substance (1)	-		%
GC/MS (*)	2,4,4'-TrBDE #28 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4'-TeBDE # 47 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5-PnBDE #99 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',6-PnBDE #100 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5,5'-HxBDE #153 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5,6'-HxBDE #154 (1)	< 0.2		mg/kg TS

(*) :Method not accredited by Swedac

(1) Result supplied by RPS Mountainheath, UK

 The stated uncertainty of measurement is calculated using a coverage $k = 2$. Measurement uncertainty for accredited microbiological analyses are available from the laboratory upon request.

(continued)



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Applies to

Information about the project	Soil
Project number	: 12991548

Information about sample and sampling			
Invoice reference	: P77236	Date of Arrival	: 2019-03-14
Sampling date	: 2019-03-11	Time of Arrival	: 1100
Sample name	: 12991548-002 M1-6		
Depth of sampling	: -		
Sampler	: -		

Results of the analyses				
<i>Test method</i>	<i>Analysis / Investigation of</i>	<i>Result</i>	<i>Uncertainty</i>	<i>Unit</i>
GC/MS (*)	2,2',3,4,4',5',6-HpBDE #183 (1)	< 0.2		mg/kg TS
GC/MS (*)	DekaBDE #209 (1)	< 0.2		mg/kg TS
(*) :Method not accredited by Swedac				
(1) Result supplied by RPS Mountainheath, UK				

The stated uncertainty of measurement is calculated using a coverage k = 2. Measurement uncertainty for accredited microbiological analyses are available from the laboratory upon request.

Comment

The analysis is performed according to standard, ie on the fraction of the submitted sample that is < 2 mm.

Linköping 2019-03-29

The report has been reviewed and approved by


 Responsible reviewer

Control numbers 5082 0216 9809 1102