Deltares

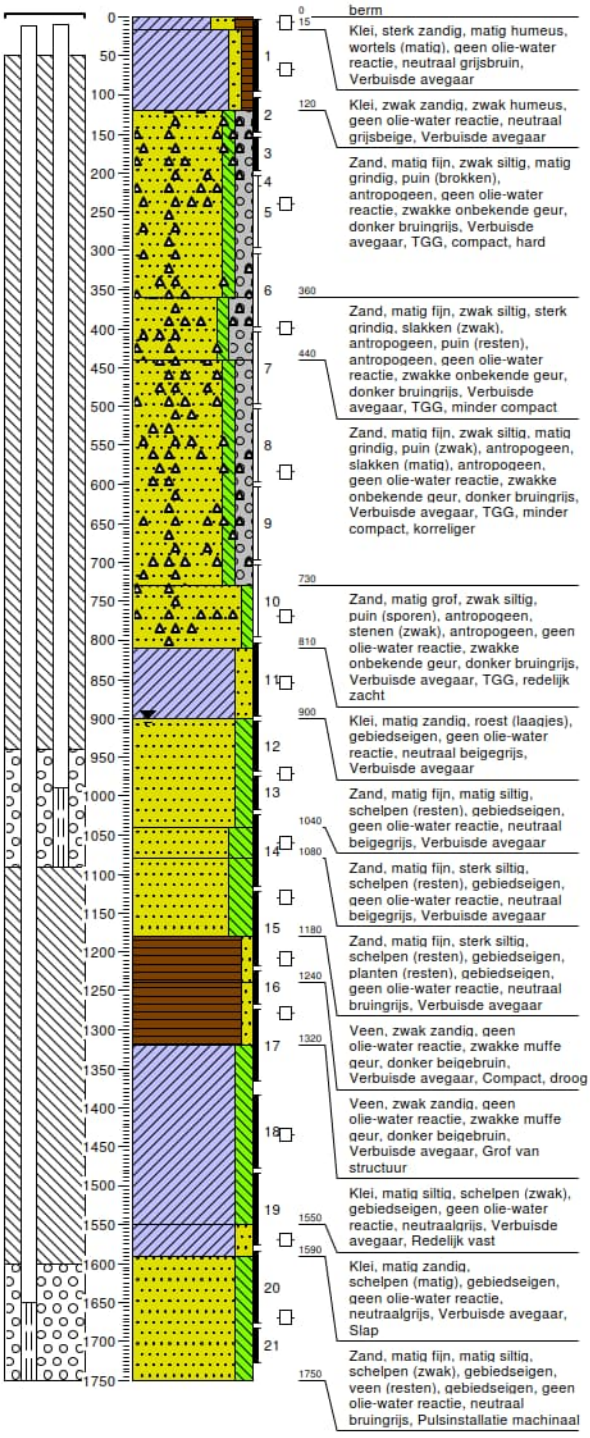
*6 november 2017, concept*

# Bijlage 1: boorstaten

# Boring: 3-1

X: 59786,11
Y: 378573,30
Datum: 26-09-2017
GWS: 900

9,167 N.A.P.




0 berm

15 Klei, sterk zandig, matig humeus, wortels (matig), geen olie-water reactie, neutraal grijsbruin, Verbuisde avegaar

120 Klei, zwak zandig, zwak humeus, geen olie-water reactie, neutraal grijsbeige, Verbuisde avegaar

Zand, matig fijn, zwak siltig, matig grindig, puin (brokken), antropogeen, geen olie-water reactie, zwakke onbekende geur, donker bruingrijs, Verbuisde avegaar, TGG, compact, hard

360 Zand, matig fijn, zwak siltig, sterk grindig, slakken (zwak), antropogeen, puin (resten), antropogeen, geen olie-water reactie, zwakke onbekende geur, donker bruingrijs, Verbuisde avegaar, TGG, minder compact

440 Zand, matig fijn, zwak siltig, matig grindig, puin (zwak), antropogeen, slakken (matig), antropogeen, geen olie-water reactie, zwakke onbekende geur, donker bruingrijs, Verbuisde avegaar, TGG, minder compact, korreliger

730 Zand, matig grof, zwak siltig, puin (sporen), antropogeen, stenen (zwak), antropogeen, geen olie-water reactie, zwakke onbekende geur, donker bruingrijs, Verbuisde avegaar, TGG, redelijk zacht

810 Klei, matig zandig, roest (laagjes), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Verbuisde avegaar

900 Zand, matig fijn, matig siltig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Verbuisde avegaar

1040 Zand, matig fijn, sterk siltig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Verbuisde avegaar

1080 Zand, matig fijn, sterk siltig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraal bruingrijs, Verbuisde avegaar

1180 Veen, zwak zandig, geen olie-water reactie, zwakke muffe geur, donker beigebruin, Verbuisde avegaar, Compact, droog

1240 Veen, zwak zandig, geen olie-water reactie, zwakke muffe geur, donker beigebruin, Verbuisde avegaar, Grof van structuur

1320 Klei, matig siltig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraalgrijs, Verbuisde avegaar, Redelijk vast

1550 Klei, matig zandig, schelpen (matig), gebiedseigen, geen olie-water reactie, neutraalgrijs, Verbuisde avegaar, Slap

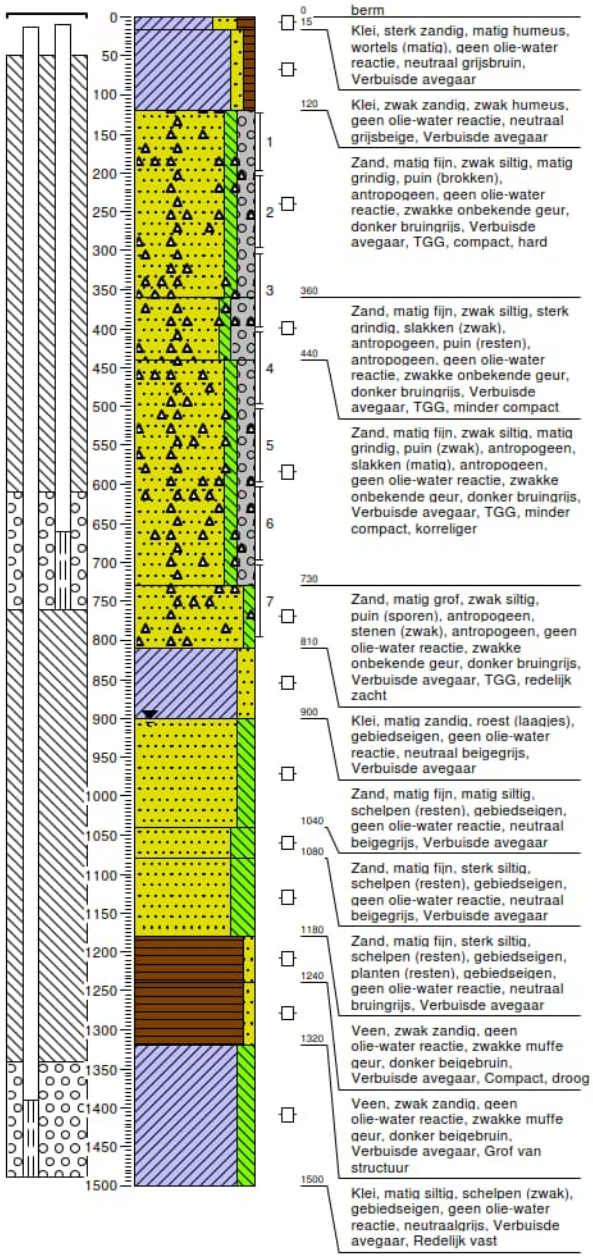
1590 Zand, matig fijn, matig siltig, schelpen (zwak), gebiedseigen, veen (resten), gebiedseigen, geen olie-water reactie, neutraal bruingrijs, Pulsinstallatie machinaal

1750

# Boring: 3-2

X: 59786,19
Y: 378572,33
Datum: 28-09-2017
GWS: 900

9,151 N.A.P.




0 berm

15 Klei, sterk zandig, matig humeus, wortels (matig), geen olie-water reactie, neutraal grijsbruin, Verbuisde avegaar

120 Klei, zwak zandig, zwak humeus, geen olie-water reactie, neutraal grijsbeige, Verbuisde avegaar

Zand, matig fijn, zwak siltig, matig grindig, puin (brokken), antropogeen, geen olie-water reactie, zwakke onbekende geur, donker bruingrijs, Verbuisde avegaar, TGG, compact, hard

360 Zand, matig fijn, zwak siltig, sterk grindig, slakken (zwak), antropogeen, puin (resten), antropogeen, geen olie-water reactie, zwakke onbekende geur, donker bruingrijs, Verbuisde avegaar, TGG, minder compact

440 Zand, matig fijn, zwak siltig, matig grindig, puin (zwak), antropogeen, slakken (matig), antropogeen, geen olie-water reactie, zwakke onbekende geur, donker bruingrijs, Verbuisde avegaar, TGG, minder compact, korreliger

730 Zand, matig grof, zwak siltig, puin (sporen), antropogeen, stenen (zwak), antropogeen, geen olie-water reactie, zwakke onbekende geur, donker bruingrijs, Verbuisde avegaar, TGG, redelijk zacht

810 Klei, matig zandig, roest (laagjes), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Verbuisde avegaar

900 Zand, matig fijn, matig siltig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Verbuisde avegaar

1040 Zand, matig fijn, sterk siltig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Verbuisde avegaar

1080 Zand, matig fijn, sterk siltig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraal bruingrijs, Verbuisde avegaar

1180 Veen, zwak zandig, geen olie-water reactie, zwakke muffe geur, donker beigebruin, Verbuisde avegaar, Compact, droog

1240 Veen, zwak zandig, geen olie-water reactie, zwakke muffe geur, donker beigebruin, Verbuisde avegaar, Grof van structuur

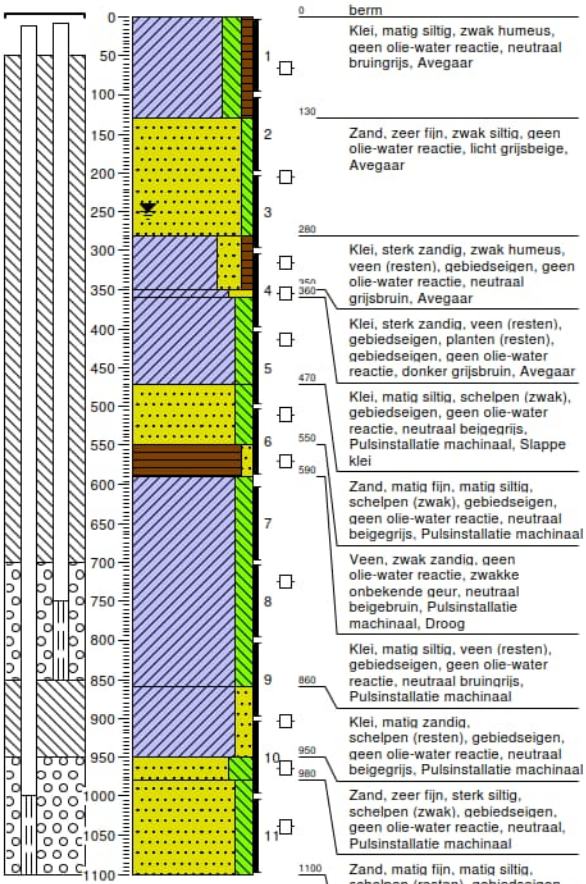
1320 Klei, matig siltig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraalgrijs, Verbuisde avegaar, Redelijk vast

1500

# Boring: 2-2

X: 59754,96
Y: 378567,18
Datum: 28-09-2017
GWS: 250

3,055 N.A.P.




0 berm

Klei, matig siltig, zwak humeus, geen olie-water reactie, neutraal bruingrijs, Avegaar

130

Zand, zeer fijn, zwak siltig, geen olie-water reactie, licht grijsbeige, Avegaar

280

Klei, sterk zandig, zwak humeus, veen (resten), gebiedseigen, geen olie-water reactie, neutraal grijsbruin, Avegaar

360

Klei, sterk zandig, veen (resten), gebiedseigen, planten (resten), gebiedseigen, geen olie-water reactie, donker grijsbruin, Avegaar

470

Klei, matig siltig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Pulsinstallatie machinaal, Slappe klei

550

590

Zand, matig fijn, matig siltig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Pulsinstallatie machinaal

Veen, zwak zandig, geen olie-water reactie, zwakke onbekende geur, neutraal beigebruin, Pulsinstallatie machinaal, Droog

Klei, matig siltig, veen (resten), gebiedseigen, geen olie-water reactie, neutraal bruingrijs, Pulsinstallatie machinaal

860

Klei, matig zandig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Pulsinstallatie machinaal

950

980

Zand, zeer fijn, sterk siltig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraal, Pulsinstallatie machinaal

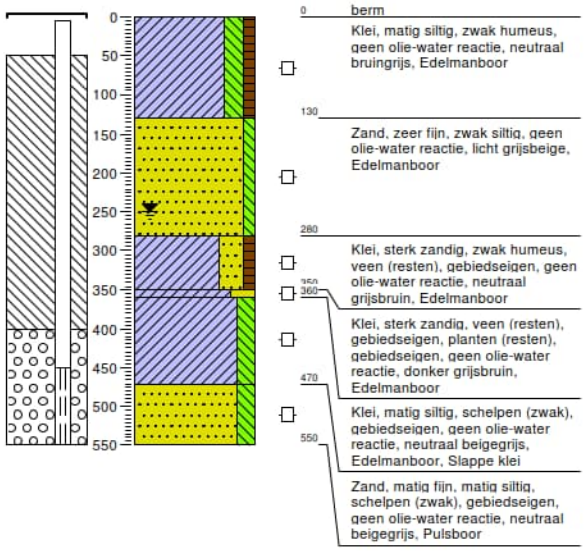
1100

Zand, matig fijn, matig siltig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraal, Pulsinstallatie machinaal

# Boring: 2-1

X: 59755,23
Y: 378566,08
Datum: 29-09-2017
GWS: 250

3,042 N.A.P.




0 berm

Klei, matig siltig, zwak humeus, geen olie-water reactie, neutraal bruingrijs, Edelmanboor

130

Zand, zeer fijn, zwak siltig, geen olie-water reactie, licht grijsbeige, Edelmanboor

280

Klei, sterk zandig, zwak humeus, veen (resten), gebiedseigen, geen olie-water reactie, neutraal grijsbruin, Edelmanboor

360

Klei, sterk zandig, veen (resten), gebiedseigen, planten (resten), gebiedseigen, geen olie-water reactie, donker grijsbruin, Edelmanboor

470

Klei, matig siltig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Edelmanboor, Slappe klei

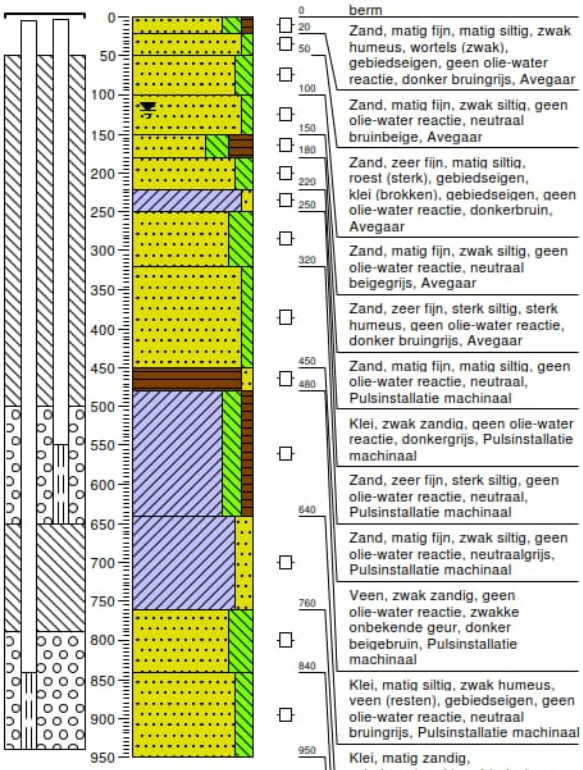
550

Zand, matig fijn, matig siltig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraal beigegrijs, Pulsboor

# Boring: 1-2

X: 59739,45
Y: 378552,26
Datum: 29-09-2017
GWS: 120

0,989 N.A.P.

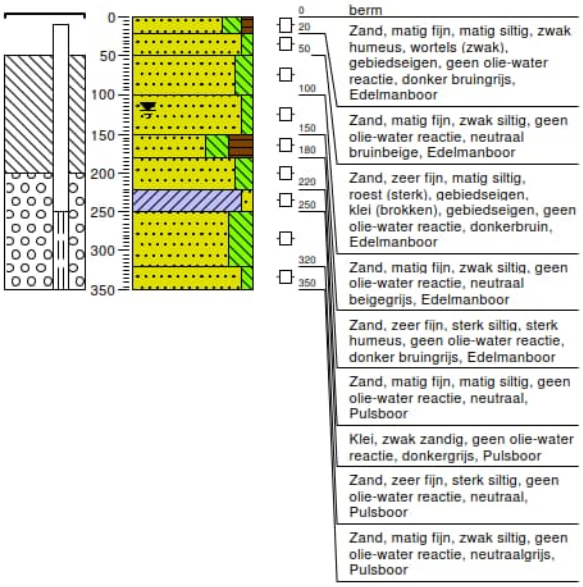



| | |
|---|---|
| 0 | berm |
| 20 | Zand, matig fijn, matig siltig, zwak humeus, wortels (zwak), gebiedseigen, geen olie-water reactie, donker bruingrijs, Avegaar |
| 50 | |
| 100 | Zand, matig fijn, zwak siltig, geen olie-water reactie, neutraal bruinbeige, Avegaar |
| 150 | |
| 180 | Zand, zeer fijn, matig siltig, roest (sterk), gebiedseigen, klei (brokken), gebiedseigen, geen olie-water reactie, donkerbruin, Avegaar |
| 220 | |
| 250 | Zand, matig fijn, zwak siltig, geen olie-water reactie, neutraal beigegrijs, Avegaar |
| 320 | Zand, zeer fijn, sterk siltig, sterk humeus, geen olie-water reactie, donker bruingrijs, Avegaar |
| 450 | Zand, matig fijn, matig siltig, geen olie-water reactie, neutraal, Pulsinstallatie machinaal |
| 480 | Klei, zwak zandig, geen olie-water reactie, donkergrijs, Pulsinstallatie machinaal |
| 640 | Zand, zeer fijn, sterk siltig, geen olie-water reactie, neutraal, Pulsinstallatie machinaal |
| | Zand, matig fijn, zwak siltig, geen olie-water reactie, neutraalgrijs, Pulsinstallatie machinaal |
| 760 | Veen, zwak zandig, geen olie-water reactie, zwakke onbekende geur, donker beigebruin, Pulsinstallatie machinaal |
| 840 | Klei, matig siltig, zwak humeus, veen (resten), gebiedseigen, geen olie-water reactie, neutraal bruingrijs, Pulsinstallatie machinaal |
| 950 | Klei, matig zandig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraal bruingrijs, Pulsinstallatie machinaal |
| | Zand, zeer fijn, sterk siltig, schelpen (zwak), gebiedseigen, geen olie-water reactie, neutraal, Pulsinstallatie machinaal |
| | Zand, matig fijn, matig siltig, schelpen (resten), gebiedseigen, geen olie-water reactie, neutraalgrijs, Pulsinstallatie machinaal |

## Boring: 1-1

X: 59739,45
Y: 378554,15
Datum: 29-09-2017
GWS: 120

0,966 N.A.P.



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# Bijlage 2: Beschrijving gegroepeerde analyses

De in Tabel 2.3 genoemde groepen parameters zijn hieronder weergegeven.

| **Tabel 1.A PAKs** |
|---|
| naftaleen |
| acenaftyleen |
| acenafteen |
| fluoreen |
| fenantreen |
| antraceen |
| fluorantheen |
| pyreen |
| benzo(a)antraceen |
| chryseen |
| benzo(b)fluorantheen |
| benzo(k)fluorantheen |
| benzo(a)pyreen |
| dibenzo(a,h)antraceen |
| benzo(ghi)peryleen |
| indeno(1,2,3cd)pyreen |

| **Tabel 1.B Chloorbenzenen** |
|---|
| monochloorbenzeen |
| dichloorbenzenen (som) |
| trichloorbenzenen (som) |
| tetrachloorbenzenen (som) |
| pentachloorbenzeen |
| hexachloorbenzeen |

| **Tabel 1.C Chloorfenolen** |
|---|
| monochloorfenolen (som) |
| dichloorfenolen (som) |
| trichloorfenolen (som) |
| tetrachloorfenolen (som) |
| pentachloorfenol |

| **Tabel 1.D Organochloorbestrijdingsmiddelen** |
|---|
| chloordaan (som) |
| DDT (som) |
| DDE (som) |
| DDD (som) |
| DDT/DDE/DDD (som) |
| aldrin |
| dieldrin |
| endrin |
| isodrin |
| telodrin |
| drins (som) |
| endosulfansulfaat |
| α-endosulfan |
| α-HCH |
| β-HCH |
| γ-HCH (lindaan) |
| δ-HCH |
| HCH-verbindingen (som) |
| heptachloor |
| heptachloorepoxide (som) |
| hexachloorbutadieen |
| organochloorhoudende bestrijdingsmiddelen (som landbodem) |

| **Tabel 1.E** |
|---|
| *Gechlorineerde dibenzo-p-dioxines* |
| 2,3,7,8-TCDD |
| 1,2,3,7,8-PeCDD |
| 1,2,3,6,7,8-HxCDD |
| 1,2,3,7,8,9-HxCDD |
| 1,2,3,4,7,8-HxCDD |
| 1,2,3,4,6,7,8-HpCDD |
| 1,2,3,4,6,7,8,9-OCDD |
| *Gechlorineerde dibenzofuranen* |
| 2,3,7,8-TCDF |
| 1,2,3,7,8-PeCDF |
| 2,3,4,7,8-PeCDF |
| 1,2,3,6,7,8-HxCDF |
| 1,2,3,7,8,9-HxCDF |
| 1,2,3,4,7,8-HxCDF |
| 2,3,4,6,7,8-HxCDF |
| 1,2,3,4,6,7,8-HpCDF |
| 1,2,3,4,7,8,9-HpCDF |
| 1,2,3,4,6,7,8,9-OCDF |
| *PCBs* |
| PCB77 |
| PCB81 |
| PCB105 |
| PCB114 |
| PCB118 |
| PCB123 |
| PCB126 |
| PCB156 |
| PCB157 |
| PCB167 |
| PCB169 |
| PCB189 |

| **Tabel 1.F PCBs** |
|---|
| PCB 28 |
| PCB 52 |
| PCB 101 |
| PCB 118 |
| PCB 138 |
| PCB 153 |
| PCB 180 |

| **Tabel 1.G chlooranilinen** |
|---|
| *monochlooranilinen* |
| 2-chlooraniline |
| 3-chlooraniline |
| 4-chlooraniline |
| *Dichlooranilinen* |
| 2,3-dichlooraniline |
| 2,4-dichlooraniline |
| 2,5-dichlooraniline |
| 2,6-dichlooraniline |
| 3,4-dichlooraniline |
| 3,5-dichlooraniline |
| *Trichlooranilinen* |
| 2,3,4-trichlooraniline |
| 2,3,5-trichlooraniline |
| 2,4,5-trichlooraniline |
| 2,4,6-trichlooraniline |
| 3,4,5-trichlooraniline |
| *Tetrachlooranilinen* |
| 2,3,4,5-tetrachlooraniline |
| 2,3,5,6-tetrachlooraniline |

| **Tabel 1.H Ftalaten** |
|---|
| dimethylftalaat |
| diethylftalaat |
| di-isobutylftalaat |
| dibutylftalaat |
| butylbenzylftalaat |
| dihexylftalaat |
| di(2-ethylhexyl)ftalaat |

# Bijlage 3: Meetresultaten samenstellingsanalyses Grond

| | | B2.2 2.00-2.30 emmer | B2.2 5.00-5.30 emmer | B2.2 10.00-10.30 emmer | B2.2 3.00-3.30 emmer | B3.1 4.00-5.00 buis | B3.1 6.00-7.00 buis | B3.1 8.00-8.40 emmer | B3.1 12.20-12.70 buis | B3.1 8.55-8.74 emmer | B3.1 13.80-14.80 buis | B3.1 9.70-11.20 buis | B3.1 16.80-17.30 buis | B3.2 5.00 - 5.3 | B3.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **locatie** | | **B2.2** | **B2.2** | **B2.2** | **B2.2** | **B3.1** | **B3.1** | **B3.1** | **B3.1** | **B3.1** | **B3.1** | **B3.1** | **B3.1** | **B3.2** | |
| **Classificatie** | | **zand** | **zand** | **zand** | **klei** | **TGG** | **TGG** | **TGG** | **veen** | **klei** | **klei** | **zand** | **zand** | **TGG** | |
| **diepte (-mv)** | | **2.15** | **5.25** | **10.15** | **3.15** | **4.5** | **6.5** | **8.2** | **12.45** | **8.65** | **14.3** | **10** | **17.05** | **5.15** | |
| **mv** | | **3.055** | **3.055** | **3.055** | **3.055** | **9.151** | **9.151** | **9.151** | **9.151** | **9.151** | **9.151** | **9.151** | **9.151** | **9.167** | **9** |
| **hoogte (m-NAP)** | | **0.905** | **-2.195** | **-7.095** | **-0.095** | **4.651** | **2.651** | **0.951** | **-3.299** | **0.501** | **-5.149** | **-0.849** | **-7.899** | **4.017** | **7** |
| **Analyse** | **Eenheid** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **1** |
| **Bodemtype correctie** | | | | | | | | | | | | | | | |
| Organische stof | | 1.7 | 0.7 | 0.7 | 1.8 | 2.5 | 2.1 | 2.5 | 90.9 | 2 | 2.8 | 1.7 | 0.7 | 2.6 | |
| Korrelgrootte < 2 µm (Lutum) | | 6.9 | 12.1 | 4.2 | 10.7 | 2.3 | 2.1 | 2 | 10.6 | 9.7 | 13.8 | 5.1 | 4.9 | 2.7 | |
| **Voorbehandeling** | | | | | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitge |
| **Bodemkundige analyses** | | | | | | | | | | | | | | | |
| Droge stof | % (m/m) | 84.1 | 75.2 | 74.2 | 79.6 | 88.1 | 87.5 | 87 | 21.3 | 81.5 | 74.9 | 83.9 | 78.5 | 87.7 | |
| Organische stof | % (m/m) ds | 1.7 | <0.7 | <0.7 | 1.8 | 2.5 | 2.1 | 2.5 | 90.9 | 2 | 2.8 | 1.7 | <0.7 | 2.6 | |
| Gloeirest | % (m/m) ds | 97.9 | 98.7 | 99.2 | 97.4 | 97.3 | 97.8 | 97.4 | 8.3 | 97.3 | 96.2 | 98 | 99.3 | 97.2 | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 6.9 | 12.1 | 4.2 | 10.7 | 2.3 | 2.1 | <2.0 | 10.6 | 9.7 | 13.8 | 5.1 | 4.9 | 2.7 | |
| **Metalen** | | | | | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 4500 | 4500 | 2400 | 5500 | 11000 | 11000 | 9900 | 1300 | 6300 | 9000 | 3700 | 1800 | 11000 | |
| Arseen (As) | mg/kg ds | 4.7 | 5.2 | <4.0 | 7.8 | 7 | 8.1 | 12 | <4.0 | 13 | 12 | 6.1 | <4.0 | 8.3 | |
| Barium (Ba) | mg/kg ds | <20 | <20 | <20 | <20 | 170 | 290 | 210 | <20 | <20 | <20 | <20 | <20 | 220 | |
| Beryllium (Be) | mg/kg ds | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | |
| Calcium (Ca) | mg/kg ds | 15000 | 30000 | 17000 | 29000 | 52000 | 53000 | 54000 | 8300 | 30000 | 56000 | 25000 | 7600 | 73000 | 5 |
| Cadmium (Cd) | mg/kg ds | <0.20 | <0.20 | <0.20 | <0.20 | 0.71 | 0.67 | 0.61 | <0.20 | 0.23 | <0.20 | <0.20 | <0.20 | 0.8 | |
| Kobalt (Co) | mg/kg ds | 3.1 | 4.5 | 3.3 | 4.4 | 9.2 | 8.7 | 7.5 | 6.7 | 5.6 | 5.9 | 3.5 | <3.0 | 9.5 | |
| Chroom (Cr) | mg/kg ds | 18 | 18 | <10 | 19 | 43 | 66 | 40 | <10 | 22 | 24 | 15 | <10 | 41 | |
| Koper (Cu) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | 27 | 27 | 20 | <5.0 | 7.9 | <5.0 | <5.0 | <5.0 | 30 | |
| IJzer(Fe) | mg/kg ds | 9700 | 11000 | 4300 | 12000 | 15000 | 14000 | 14000 | 3000 | 13000 | 19000 | 9600 | 3100 | 15000 | |
| Kwik (Hg) | mg/kg ds | <0.050 | 0.061 | <0.050 | <0.050 | 0.53 | 0.61 | 0.78 | <0.050 | 0.054 | <0.050 | <0.050 | <0.050 | 0.63 | |
| Kalium (K) | mg/kg ds | 1700 | 1800 | 960 | 1800 | 2700 | 2100 | 2100 | 1200 | 2100 | 2700 | 1600 | 750 | 2300 | |
| Magnesium (Mg) | mg/kg ds | 2100 | 2700 | 1500 | 3100 | 5900 | 6100 | 5400 | 6700 | 3500 | 6300 | 2300 | 840 | 5900 | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | <1.5 | <1.5 | <1.5 | 5.1 | 3.4 | 2.4 | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 | 4.6 | |
| Natrium (Na) | mg/kg ds | 200 | 410 | 1800 | 430 | 1000 | 1300 | 1100 | 15000 | 720 | 2300 | 370 | 910 | 1300 | |
| Nikkel (Ni) | mg/kg ds | 5.9 | 7.6 | 4.6 | 8.3 | 24 | 22 | 20 | <4.0 | 9.6 | 13 | 6.2 | <4.0 | 23 | |
| Lood (Pb) | mg/kg ds | <10 | <10 | <10 | <10 | 69 | 78 | 69 | <10 | 15 | <10 | 11 | <10 | 100 | |
| Antimoon (Sb) | mg/kg ds | <1.5 | <1.5 | <1.5 | <1.5 | 2.2 | 3.2 | 2.4 | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 | 2.9 | |
| Seleen (Se) | mg/kg ds | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | |
| Tin (Sn) | mg/kg ds | <1.5 | <1.5 | <1.5 | <1.5 | 4.8 | 5 | 4 | <1.5 | 9 | <1.5 | <1.5 | <1.5 | 6.1 | |
| Vanadium (V) | mg/kg ds | 16 | 17 | <10 | 20 | 44 | 42 | 42 | <10 | 23 | 30 | 15 | <10 | 43 | |
| Zink (Zn) | mg/kg ds | <20 | 30 | <20 | <20 | 120 | 140 | 160 | <20 | 30 | 36 | 24 | <20 | 160 | |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 0.064 | 0.059 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.056 | <0 |
| Tolueen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 2 | 0.26 | <0.050 | 0.29 | <0.050 | <0.050 | <0.050 | <0.050 | 0.076 | <0 |
| Ethylbenzeen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| o-Xyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| m,p-Xyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.055 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.09 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | |
| BTEX (som) | mg/kg ds | <0.25 | <0.25 | <0.25 | <0.25 | 2 | 0.32 | <0.25 | 0.34 | <0.25 | <0.25 | <0.25 | <0.25 | <0.25 | |
| Styreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| Trichloormethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0 |
| Tetrachloormethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| Trichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| Tetrachlooretheen | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0 |
| 1,1-Dichloorethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| CKW (som) | mg/kg ds | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 | |
| Vinylchloride | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0 |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0 |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 | <0 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0 |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| **Minerale olie** | | | | | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <12 | <3.0 | <3.0 | <3.0 | 4.1 | <3.0 | |
| Minerale olie (C12-C16) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <20 | <5.0 | <5.0 | <5.0 | 6.7 | <5.0 | |
| Minerale olie (C16-C21) | mg/kg ds | 7.9 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <20 | <5.0 | <5.0 | <5.0 | 5.2 | <5.0 | |
| Minerale olie (C21-C30) | mg/kg ds | 50 | <11 | <11 | <11 | <11 | <11 | <11 | 120 | <11 | <11 | 20 | <11 | <11 | |
| Minerale olie (C30-C35) | mg/kg ds | 18 | <5.0 | 14 | <5.0 | <5.0 | <5.0 | <5.0 | 150 | <5.0 | <5.0 | 21 | 6.4 | <5.0 | |
| Minerale olie (C35-C40) | mg/kg ds | 7.8 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <24 | <6.0 | <6.0 | 11 | <6.0 | <6.0 | |
| Minerale olie totaal (C10-C40) | mg/kg ds | 86 | <35 | <35 | <35 | <35 | <35 | <35 | 300 | <35 | <35 | 59 | <35 | <35 | |
| Chromatogram olie (GC) | | Zie bijl. | | | | | | | Zie bijl. | | | Zie bijl. | | | |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | | | | | |

| | | B2.2 2.00-2.30 emmer | B2.2 5.00-5.30 emmer | B2.2 10.00-10.30 emmer | B2.2 3.00-3.30 emmer | B3.1 4.00-5.00 buis | B3.1 6.00-7.00 buis | B3.1 8.00-8.40 emmer | B3.1 12.20-12.70 buis | B3.1 8.55-8.74 emmer | B3.1 13.80-14.80 buis | B3.1 9.70-11.20 buis | B3.1 16.80-17.30 buis | B3.2 5.00 - 5.3 | B3.2 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **locatie** | | B2.2 | B2.2 | B2.2 | B2.2 | B3.1 | B3.1 | B3.1 | B3.1 | B3.1 | B3.1 | B3.1 | B3.1 | B3.2 | |
| **Classificatie** | | zand | zand | zand | klei | TGG | TGG | TGG | veen | klei | klei | zand | zand | TGG | |
| **diepte (-mv)** | | 2.15 | 5.25 | 10.15 | 3.15 | 4.5 | 6.5 | 8.2 | 12.45 | 8.65 | 14.3 | 10 | 17.05 | 5.15 | |
| **mv** | | 3.055 | 3.055 | 3.055 | 3.055 | 9.151 | 9.151 | 9.151 | 9.151 | 9.151 | 9.151 | 9.151 | 9.151 | 9.167 | 9 |
| **hoogte (m-NAP)** | | 0.905 | -2.195 | -7.095 | -0.095 | 4.651 | 2.651 | 0.951 | -3.299 | 0.501 | -5.149 | -0.849 | -7.899 | 4.017 | 7 |
| **Analyse** | **Eenheid** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **1** |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0.0049 | 0 |
| **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 0.064 | 0.059 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.093 | < |
| Acenaftyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | < |
| Acenafteen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | < |
| Fluoreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | < |
| Fenanthreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 0.13 | 0.13 | 0.085 | <0.050 | <0.050 | <0.050 | 0.089 | <0.050 | 0.26 | |
| Anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.055 | < |
| Fluorantheen | mg/kg ds | 0.072 | <0.050 | <0.050 | <0.050 | 0.11 | 0.12 | 0.078 | <0.050 | <0.050 | <0.050 | 0.44 | <0.050 | 0.22 | < |
| Pyreen | mg/kg ds | 0.052 | <0.050 | <0.050 | <0.050 | 0.078 | 0.085 | 0.058 | <0.050 | <0.050 | <0.050 | 0.33 | <0.050 | 0.15 | < |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.052 | <0.050 | <0.050 | <0.050 | <0.050 | 0.21 | <0.050 | 0.082 | < |
| Chryseen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 0.065 | 0.073 | <0.050 | <0.050 | <0.050 | <0.050 | 0.26 | <0.050 | 0.11 | < |
| Benzo(b)fluorantheen | mg/kg ds | 0.053 | <0.050 | <0.050 | <0.050 | 0.054 | 0.062 | <0.050 | <0.050 | <0.050 | <0.050 | 0.29 | <0.050 | 0.086 | < |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.1 | <0.050 | <0.050 | < |
| Benzo(a)pyreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.15 | <0.050 | <0.050 | < |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | < |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.09 | <0.050 | <0.050 | < |
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.1 | <0.050 | <0.050 | < |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 1.4 | <0.50 | 0.82 | |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | 2.1 | <0.80 | 1 | |
| **Fysisch-chemische analyses** | | | | | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 21 | 20 | 20 | 20 | 20 | 20 | |
| Zuurgraad (pH-H20) | | 8.4 | 8.7 | 9.1 | 8.7 | 9.4 | 9.2 | 9.2 | 7.3 | 8.6 | 8.6 | 8.6 | 9.2 | 9.4 | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | 20 | 20 | 20 | 20 | 21 | 20 | 21 | 20 | 20 | 20 | 20 | 20 | |
| Meettemperatuur (pH-KCl) | °C | 20 | 20 | 20 | 20 | 20 | 21 | 20 | 21 | 20 | 20 | 20 | 20 | 20 | |
| Zuurgraad (pH-CaCl2) | | 6.9 | 7.9 | 8.3 | 7.8 | 9.3 | 8.9 | 9.2 | 6.8 | 7.9 | 7.9 | 8 | 8.4 | 9.2 | |
| Zuurgraad (pH-KCl) | | 7.7 | 8.1 | 8.7 | 7.8 | 9.6 | 9.4 | 9.5 | 6.6 | 8 | 8 | 8.1 | 8.8 | 9.6 | |
| EC-temp. corr. factor (mathematisch) | | 1.086 | 1.089 | 1.086 | 1.091 | 1.091 | 1.086 | 1.089 | | 1.089 | 1.089 | 1.103 | 1.086 | 1.091 | |
| Geleidingsvermogen (25°C) | µS/cm | 240 | 380 | 1600 | 340 | 1900 | 2400 | 2400 | | 720 | 2200 | 470 | 890 | 2400 | |
| Meettemperatuur (EC) | °C | 21.2 | 21.1 | 21.2 | 21 | 21 | 21.2 | 21.1 | | 21.1 | 21.1 | 20.5 | 21.2 | 21 | |
| **Anorganische verbindingen** | | | | | | | | | | | | | | | |
| Bromide | mg/kg ds | <5.0 | 23 | 8.4 | <5.0 | 150 | 190 | 160 | 57 | 51 | 7.9 | 18 | <5.0 | 190 | |
| Chloride | mg/kg ds | 72 | 340 | 5600 | 190 | 740 | 1300 | 1100 | 17000 | 730 | 2400 | 310 | 1100 | 1100 | |
| Fluoride | mg/kg ds | 2.4 | 3.1 | 2.1 | 2.9 | 9.5 | 8.1 | 6.4 | 12 | 5.8 | 7.2 | 5.3 | 1.8 | 9.6 | |
| Sulfaat | mg/kg ds | 230 | 190 | 290 | 220 | 3000 | 3100 | 3400 | 100 | 130 | 230 | 300 | 130 | 3400 | |
| **Cyanide** | | | | | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | |
| Cyanide totaal | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.185 | <0.183 | <0.170 | <0.176 | <0.177 | <0.171 | <0.173 | <0.428 | <0.167 | <0.143 | <0.147 | | <0.175 | < |
| 12378-PentaCDD | ng/kg ds | <0.247 | <0.243 | <0.226 | <0.234 | <0.236 | <0.228 | <0.231 | <0.571 | <0.223 | <0.190 | <0.196 | | 0.242 | < |
| 123478-HexaCDD | ng/kg ds | <0.494 | <0.487 | <0.452 | <0.471 | <0.471 | <0.455 | <0.461 | <1.14 | <0.447 | <0.381 | <0.392 | | <0.466 | < |
| 123678-HexaCDD | ng/kg ds | <0.494 | <0.487 | <0.452 | <0.471 | <0.471 | <0.455 | <0.461 | <1.14 | <0.447 | <0.381 | <0.392 | | 0.921 | < |
| 123789-HexaCDD | ng/kg ds | <0.494 | <0.487 | <0.452 | <0.471 | <0.471 | <0.455 | <0.461 | <1.14 | <0.447 | <0.381 | <0.392 | | <0.466 | < |
| 1234678-HeptaCDD | ng/kg ds | 1.32 | 2.26 | <0.509 | 1.98 | 2.54 | 2.01 | 2.17 | <1.28 | 4.12 | 1.08 | 1.93 | | 9.57 | |
| OctaCDD | ng/kg ds | 6.73 | 10.4 | <2.07 | 13.4 | 5.71 | 5.05 | 6.9 | <5.23 | 27.9 | 7.6 | 12.2 | | 18.4 | |
| 2378-TetraCDF | ng/kg ds | <0.329 | <0.324 | <0.302 | <0.314 | 1.34 | 1.24 | 0.909 | <0.761 | 0.433 | <0.254 | <0.261 | | 1.24 | |
| 12378-PentaCDF | ng/kg ds | <0.453 | <0.446 | <0.415 | <0.431 | <0.432 | <0.417 | <0.423 | <1.05 | <0.409 | <0.349 | <0.359 | | 0.489 | < |
| 23478-PentaCDF | ng/kg ds | <0.453 | <0.446 | <0.415 | <0.431 | 1.14 | 1.34 | 0.825 | <1.05 | <0.409 | <0.349 | <0.359 | | 1.17 | |
| 123478-HexaCDF | ng/kg ds | <0.411 | <0.406 | <0.377 | <0.392 | 0.783 | 1.4 | 0.754 | <0.951 | 0.388 | <0.317 | <0.327 | | 2.08 | < |
| 123678-HexaCDF | ng/kg ds | <0.411 | <0.406 | <0.377 | <0.392 | <0.393 | <0.379 | <0.384 | <0.951 | <0.372 | <0.317 | <0.327 | | 0.555 | < |
| 123789-HexaCDF | ng/kg ds | <0.411 | <0.406 | <0.377 | <0.392 | <0.393 | <0.379 | <0.384 | <0.951 | <0.372 | <0.317 | <0.327 | | <0.388 | < |
| 234678-HexaCDF | ng/kg ds | <0.411 | <0.406 | <0.377 | <0.392 | <0.393 | <0.379 | <0.384 | <0.951 | <0.372 | <0.317 | <0.327 | | 0.401 | < |
| 1234678-HeptaCDF | ng/kg ds | 0.863 | <0.527 | <0.490 | 0.514 | 0.732 | 0.794 | 0.666 | <1.24 | 2.31 | <0.412 | 0.711 | | 2.66 | |
| 1234789-HeptaCDF | ng/kg ds | <0.391 | 0.42 | <0.358 | <0.373 | <0.373 | <0.360 | <0.365 | <0.904 | <0.354 | <0.301 | <0.310 | | 0.832 | < |
| OctaCDF | ng/kg ds | <3.29 | 6.62 | <3.02 | <5.25 | <3.14 | <3.03 | <3.07 | <7.61 | 3.38 | <2.54 | <2.61 | | 3.95 | |
| WHO(`05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.0238 | 0.0319 | ND | 0.029 | 0.59 | 0.695 | 0.444 | ND | 0.156 | 0.0131 | 0.03 | | 1.26 | |
| WHO(`05) PCDD/F TEQ incl LOQ | ng/kg ds | 0.956 | 0.951 | 0.864 | 0.918 | 1.28 | 1.36 | 1.12 | 2.18 | 0.931 | 0.735 | 0.77 | | 1.57 | |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.0285 | 0.0439 | ND | 0.0384 | 0.823 | 0.967 | 0.614 | ND | 0.178 | 0.0184 | 0.0386 | | 1.4 | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 0.939 | 0.94 | 0.846 | 0.908 | 1.4 | 1.53 | 1.18 | 2.13 | 0.931 | 0.724 | 0.762 | | 1.71 | |
| **Fenolen** | | | | | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| o-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| m-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| p-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| Cresolen (som) | mg/kg ds | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |

Deltares

# Bijlage 4: Voorlopig certificaat samenstellingsanalyses Grond

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Deltares

Postbus 177
2600 MH DELFT

## Voorlopig analysecertificaat

Datum: 01-Nov-2017

Hierbij ontvangt u de resultaten van het navolgende laboratoriumonderzoek.

| | |
|---|---|
| Certificaatnummer | 2017131481 |
| Uw project/verslagnummer | 11200482 |
| Uw projectnaam | Perkpolder |
| Uw ordernummer | Inkoop: 1117470 |
| Monster(s) ontvangen | 04-Oct-2017 |

Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.
De analyse resultaten hebben alleen betrekking op het beproefde object.

De grondmonsters worden tot 4 weken na datum ontvangst bewaard en watermonsters tot 2 weken na datum ontvangst. Zonder tegenbericht worden de monsters nadien afgevoerd.
Indien de monsters langer bewaard dienen te blijven verzoeken wij U dit exemplaar uiterlijk 1 werkdag voor afloop van de standaardbewaarperiode ondertekend aan ons te retourneren. Voor de kosten van het langer bewaren van monsters verwijzen wij naar de prijslijst.

Bewaren tot:
Datum: Naam: Handtekening:

Wij vertrouwen erop uw opdracht hiermee naar verwachting te hebben uitgevoerd, mocht U naar aanleiding van dit analysecertificaat nog vragen hebben verzoeken wij U contact op te nemen met de afdeling Verkoop en Advies.

Met vriendelijke groet,

Eurofins Analytico B.V.

Ing. A. Veldhuizen
Technical Manager

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 1/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | **Voorbehandeling** | | | | | | |
| | Cryogeen malen AS3000 | | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd |
| | **Bodemkundige analyses** | | | | | | |
| S | Droge stof | % (m/m) | 84.1 | 79.6 | 75.2 | 74.2 | 88.1 |
| S | Organische stof | % (m/m) ds | 1.7 | 1.8 | <0.7 | <0.7 | 2.5 |
| | Gloeirest | % (m/m) ds | 97.9 | 97.4 | 98.7 | 99.2 | 97.3 |
| S | Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 6.9 | 10.7 | 12.1 | 4.2 | 2.3 |
| | **Metalen** | | | | | | |
| | Boor (B) | mg/kg ds | ***** | ***** | ***** | ***** | ***** |
| Q | Aluminium (Al) | mg/kg ds | 4500 | 5500 | 4500 | 2400 | 11000 |
| S | Arseen (As) | mg/kg ds | 4.7 | 7.8 | 5.2 | <4.0 | 7.0 |
| S | Barium (Ba) | mg/kg ds | <20 | <20 | <20 | <20 | 170 |
| S | Beryllium (Be) | mg/kg ds | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Q | Calcium (Ca) | mg/kg ds | 15000 | 29000 | 30000 | 17000 | 52000 |
| S | Cadmium (Cd) | mg/kg ds | <0.20 | <0.20 | <0.20 | <0.20 | 0.71 |
| S | Kobalt (Co) | mg/kg ds | 3.1 | 4.4 | 4.5 | 3.3 | 9.2 |
| S | Chroom (Cr) | mg/kg ds | ***** | ***** | ***** | ***** | ***** |
| S | Koper (Cu) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | 27 |
| Q | IJzer(Fe) | mg/kg ds | ***** | ***** | ***** | ***** | ***** |
| S | Kwik (Hg) | mg/kg ds | <0.050 | <0.050 | 0.061 | <0.050 | 0.53 |
| Q | Kalium (K) | mg/kg ds | 1700 | 1800 | 1800 | 960 | 2700 |
| Q | Magnesium (Mg) | mg/kg ds | 2100 | 3100 | 2700 | 1500 | 5900 |
| S | Molybdeen (Mo) | mg/kg ds | <1.5 | <1.5 | <1.5 | <1.5 | 5.1 |
| Q | Natrium (Na) | mg/kg ds | 200 | 430 | 410 | 1800 | 1000 |
| S | Nikkel (Ni) | mg/kg ds | 5.9 | 8.3 | 7.6 | 4.6 | 24 |
| S | Lood (Pb) | mg/kg ds | <10 | <10 | <10 | <10 | 69 |
| S | Antimoon (Sb) | mg/kg ds | <1.5 | <1.5 | <1.5 | <1.5 | 2.2 |
| S | Seleen (Se) | mg/kg ds | <10 | <10 | <10 | <10 | <10 |
| S | Tin (Sn) | mg/kg ds | <1.5 | <1.5 | <1.5 | <1.5 | 4.8 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 1 | B2.2 | 2.00-2.30 | emmer | 25-Sep-2017 | 9748687 |
| 2 | B2.2 | 3.00-3.30 | emmer | 25-Sep-2017 | 9748688 |
| 3 | B2.2 | 5.00-5.30 | emmer | 25-Sep-2017 | 9748689 |
| 4 | B2.2 | 10.00-10.30 | emmer | 25-Sep-2017 | 9748690 |
| 5 | B3.1 | 4.00-5.00 | buis | 25-Sep-2017 | 9748691 |

kwaliteitswaarborg bodembeheer SIKB

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 2/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| S | Vanadium (V) | mg/kg ds | 16 | 20 | 17 | <10 | 44 |
| S | Zink (Zn) | mg/kg ds | <20 | <20 | 30 | <20 | 120 |
| | **Vluchtige Aromatische Koolwaterstoffen** | | | | | | |
| S | Benzeen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 0.064 |
| S | Tolueen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 2.0 |
| S | Ethylbenzeen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | o-Xyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | m,p-Xyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Xylenen (som) (factor 0,7) | mg/kg ds | 0.070 2) | 0.070 2) | 0.070 2) | 0.070 2) | 0.070 2) |
| | BTEX (som) | mg/kg ds | <0.25 | <0.25 | <0.25 | <0.25 | 2.0 |
| S | Styreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| | **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | |
| S | Dichloormethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Trichloormethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| S | Tetrachloormethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Trichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Tetrachlooretheen | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | 1,1-Dichloorethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| S | 1,2-Dichloorethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| S | 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| | CKW (som) | mg/kg ds | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 |
| S | Vinylchloride | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| S | trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 |
| S | 1,1-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | 1,2-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 1 | B2.2 | 2.00-2.30 | emmer | 25-Sep-2017 | 9748687 |
| 2 | B2.2 | 3.00-3.30 | emmer | 25-Sep-2017 | 9748688 |
| 3 | B2.2 | 5.00-5.30 | emmer | 25-Sep-2017 | 9748689 |
| 4 | B2.2 | 10.00-10.30 | emmer | 25-Sep-2017 | 9748690 |
| 5 | B3.1 | 4.00-5.00 | buis | 25-Sep-2017 | 9748691 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 3/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| S | 1,3-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Dichloorpropanen som factor 0.7 | mg/kg ds | 0.10 2) | 0.10 2) | 0.10 2) | 0.10 2) | 0.10 2) |
| | **Minerale olie** | | | | | | |
| | Minerale olie (C10-C12) | mg/kg ds | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| | Minerale olie (C12-C16) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| | Minerale olie (C16-C21) | mg/kg ds | 7.9 | <5.0 | <5.0 | <5.0 | <5.0 |
| | Minerale olie (C21-C30) | mg/kg ds | 50 | <11 | <11 | <11 | <11 |
| | Minerale olie (C30-C35) | mg/kg ds | 18 | <5.0 | <5.0 | 14 | <5.0 |
| | Minerale olie (C35-C40) | mg/kg ds | 7.8 | <6.0 | <6.0 | <6.0 | <6.0 |
| S | Minerale olie totaal (C10-C40) | mg/kg ds | 86 | <35 | <35 | <35 | <35 |
| | Chromatogram olie (GC) | | Zie bijl. | | | | |
| | **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | |
| S | alfa-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | beta-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | 0.0046 |
| S | gamma-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | delta-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Hexachloorbenzeen | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloor | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Hexachloorbutadieen | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Aldrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Dieldrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | 0.0019 |
| S | Endrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Isodrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Telodrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | alfa-Endosulfan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| Q | beta-Endosulfan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Endosulfansulfaat | mg/kg ds | <0.0020 | <0.0020 | <0.0020 | <0.0020 | <0.0020 |
| S | alfa-Chloordaan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 1 | B2.2 | 2.00-2.30 | emmer | 25-Sep-2017 | 9748687 |
| 2 | B2.2 | 3.00-3.30 | emmer | 25-Sep-2017 | 9748688 |
| 3 | B2.2 | 5.00-5.30 | emmer | 25-Sep-2017 | 9748689 |
| 4 | B2.2 | 10.00-10.30 | emmer | 25-Sep-2017 | 9748690 |
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kwaliteitswaarborg bodembeheer SIKB

Q: door RvA geaccrediteerde verrichting
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Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 4/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| S | gamma-Chloordaan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | o,p'-DDT | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | p,p'-DDT | mg/kg ds | <0.0010 | <0.0010 | 0.0013 | <0.0010 | <0.0010 |
| S | o,p'-DDE | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | p,p'-DDE | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | o,p'-DDD | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | p,p'-DDD | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | HCH (som) (factor 0,7) | mg/kg ds | 0.0021 2) | 0.0021 2) | 0.0021 2) | 0.0021 2) | 0.0060 |
| S | Drins (som) (factor 0,7) | mg/kg ds | 0.0021 2) | 0.0021 2) | 0.0021 2) | 0.0021 2) | 0.0033 |
| S | Heptachloorepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | DDD (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | DDE (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | DDT (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0020 | 0.0014 2) | 0.0014 2) |
| S | DDX (som) (factor 0,7) | mg/kg ds | 0.0042 2) | 0.0042 2) | 0.0048 | 0.0042 2) | 0.0042 2) |
| S | Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | OCB (som) LB (factor 0,7) | mg/kg ds | 0.015 2) | 0.015 2) | 0.015 | 0.015 2) | 0.020 |
| S | OCB (som) WB (factor 0,7) | mg/kg ds | 0.016 2) | 0.016 2) | 0.017 | 0.016 2) | 0.021 |
| | **Polychloorbifenylen, PCB** | | | | | | |
| S | PCB 28 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 52 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 101 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 118 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 138 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 153 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 180 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 2) | 0.0049 2) | 0.0049 2) | 0.0049 2) | 0.0049 2) |
| | **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | | |
| S | Naftaleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 0.064 |
| Q | Acenaftyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 1 | B2.2 | 2.00-2.30 | emmer | 25-Sep-2017 | 9748687 |
| 2 | B2.2 | 3.00-3.30 | emmer | 25-Sep-2017 | 9748688 |
| 3 | B2.2 | 5.00-5.30 | emmer | 25-Sep-2017 | 9748689 |
| 4 | B2.2 | 10.00-10.30 | emmer | 25-Sep-2017 | 9748690 |
| 5 | B3.1 | 4.00-5.00 | buis | 25-Sep-2017 | 9748691 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
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V: VLAREL erkende verrichting
M: MCERTS erkend

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 5/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| Q | Acenafteen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Fluoreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Fenanthreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 0.13 |
| S | Anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Fluorantheen | mg/kg ds | 0.072 | <0.050 | <0.050 | <0.050 | 0.11 |
| Q | Pyreen | mg/kg ds | 0.052 | <0.050 | <0.050 | <0.050 | 0.078 |
| S | Benzo(a)anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Chryseen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | 0.065 |
| Q | Benzo(b)fluorantheen | mg/kg ds | 0.053 | <0.050 | <0.050 | <0.050 | 0.054 |
| S | Benzo(k)fluorantheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Benzo(a)pyreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Benzo(ghi)peryleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Indeno(123-cd)pyreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | PAK Totaal VROM (10) | mg/kg ds | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Q | PAK Totaal EPA (16) | mg/kg ds | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 |
| | **Fysisch-chemische analyses** | | | | | | |
| | Meettemperatuur (pH-H20) | °C | 20 | 20 | 20 | 20 | 20 |
| Q | Zuurgraad (pH-H20) | | 8.4 | 8.7 | 8.7 | 9.1 | 9.4 |
| | Meettemperatuur (pH-CaCl2) | °C | 20 | 20 | 20 | 20 | 20 |
| | Meettemperatuur (pH-KCl) | °C | 20 | 20 | 20 | 20 | 20 |
| S | Zuurgraad (pH-CaCl2) | | 6.9 | 7.8 | 7.9 | 8.3 | 9.3 |
| Q | Zuurgraad (pH-KCl) | | 7.7 | 7.8 | 8.1 | 8.7 | 9.6 |
| | EC-temp. corr. factor (mathematisch) | | 1.086 | 1.091 | 1.089 | 1.086 | 1.091 |
| Q | Geleidingsvermogen (25°C) | µS/cm | 240 | 340 | 380 | 1600 | 1900 |
| Q | Meettemperatuur (EC) | °C | 21.2 | 21.0 | 21.1 | 21.2 | 21.0 |
| | **Anorganische verbindingen** | | | | | | |
| | Bromide | mg/kg ds | <5.0 | <5.0 | 23 | 8.4 | 150 |
| S | Chloride | mg/kg ds | 72 | 190 | 340 | 5600 | 740 |

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|---|---|---|---|
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| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 6/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | Fluoride | mg/kg ds | 2.4 | 2.9 | 3.1 | 2.1 | 9.5 |
| | Sulfaat | mg/kg ds | 230 | 220 | 190 | 290 | 3000 |
| | **Cyanide** | | | | | | |
| S | Cyanide vrij | mg/kg ds | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| | Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 |
| | Cyanide EPA (335.5) | mg/kg ds | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 |
| S | Cyanide totaal | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| | Cyanide complex (mathematisch) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| | **Uitbesteed / Overig onderzoek** | | | | | | |
| | 2378TetraCDD | ng/kg ds | < 0.185 4) | < 0.176 4) | < 0.183 4) | < 0.170 4) | < 0.177 4) |
| | 12378-PentaCDD | ng/kg ds | < 0.247 4) | < 0.234 4) | < 0.243 4) | < 0.226 4) | < 0.236 4) |
| | 123478-HexaCDD | ng/kg ds | < 0.494 4) | < 0.471 4) | < 0.487 4) | < 0.452 4) | < 0.471 4) |
| | 123678-HexaCDD | ng/kg ds | < 0.494 4) | < 0.471 4) | < 0.487 4) | < 0.452 4) | < 0.471 4) |
| | 123789-HexaCDD | ng/kg ds | < 0.494 4) | < 0.471 4) | < 0.487 4) | < 0.452 4) | < 0.471 4) |
| | 1234678-HeptaCDD | ng/kg ds | 1.32 4) | 1.98 4) | 2.26 4) | < 0.509 4) | 2.54 4) |
| | OctaCDD | ng/kg ds | 6.73 4) | 13.4 4) | 10.4 4) | < 2.07 4) | 5.71 4) |
| | 2378-TetraCDF | ng/kg ds | < 0.329 4) | < 0.314 4) | < 0.324 4) | < 0.302 4) | 1.34 4) |
| | 12378-PentaCDF | ng/kg ds | < 0.453 4) | < 0.431 4) | < 0.446 4) | < 0.415 4) | < 0.432 4) |
| | 23478-PentaCDF | ng/kg ds | < 0.453 4) | < 0.431 4) | < 0.446 4) | < 0.415 4) | 1.14 4) |
| | 123478-HexaCDF | ng/kg ds | < 0.411 4) | < 0.392 4) | < 0.406 4) | < 0.377 4) | 0.783 4) |
| | 123678-HexaCDF | ng/kg ds | < 0.411 4) | < 0.392 4) | < 0.406 4) | < 0.377 4) | < 0.393 4) |
| | 123789-HexaCDF | ng/kg ds | < 0.411 4) | < 0.392 4) | < 0.406 4) | < 0.377 4) | < 0.393 4) |
| | 234678-HexaCDF | ng/kg ds | < 0.411 4) | < 0.392 4) | < 0.406 4) | < 0.377 4) | < 0.393 4) |
| | 1234678-HeptaCDF | ng/kg ds | 0.863 4) | 0.514 4) | < 0.527 4) | < 0.490 4) | 0.732 4) |
| | 1234789-HeptaCDF | ng/kg ds | < 0.391 4) | < 0.373 4) | 0.420 4) | < 0.358 4) | < 0.373 4) |
| | OctaCDF | ng/kg ds | < 3.29 4) | < 5.25 4) | 6.62 4) | < 3.02 4) | < 3.14 4) |
| | WHO(`05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.0238 4) | 0.0290 4) | 0.0319 4) | ND 5) | 0.590 4) |
| | WHO(`05) PCDD/F TEQ incl LOQ | ng/kg ds | 0.956 4) | 0.918 4) | 0.951 4) | 0.864 4) | 1.28 4) |
| | I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.0285 4) | 0.0384 4) | 0.0439 4) | ND 4) | 0.823 4) |
| | I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 0.939 4) | 0.908 4) | 0.940 4) | 0.846 4) | 1.40 4) |

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|---|---|---|---|---|---|
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| 2 | B2.2 | 3.00-3.30 | emmer | 25-Sep-2017 | 9748688 |
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 7/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | Uitbesteding onderzoek | | ***** | ***** | ***** | ***** | ***** |
| | **Fenolen** | | | | | | |
| Q | Fenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | o-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | m-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | p-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Cresolen (som) | mg/kg ds | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Q | 2,4-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,5-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,6-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 3,4-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | o-Ethylfenol | mg/kg ds | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Q | m-Ethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Thymol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| | **Chloorfenolen** | | | | | | |
| Q | o-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | m-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | p-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Monochloorfenolen (som) | mg/kg ds | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Q | 2,3-Dichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 2,6-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 3,4-Dichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | 3,5-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | Dichloorfenolen (som) | mg/kg ds | <0.007 | <0.007 | <0.007 | <0.007 | <0.007 |
| Q | 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
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|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 8/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| Q | 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | Trichloorfenolen (som) | mg/kg ds | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Q | 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Tetrachloorfenolen (som) | mg/kg ds | <0.012 | <0.012 | <0.012 | <0.012 | <0.012 |
| Q | Pentachloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| | **Overige org.-verontreinigingen** | | | | | | |
| Q | Tributyltin (TBT) | mg/kg ds | <0.0098 | <0.0098 | <0.0098 | <0.0098 | <0.0098 |
| Q | Triphenyltin (TPhT) | mg/kg ds | <0.012 | <0.012 | <0.012 | <0.012 | <0.012 |
| Q | Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | <0.0040 | <0.0040 | <0.0040 | <0.0040 |
| Q | Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | <0.0040 | <0.0040 | <0.0040 | <0.0040 |
| Q | Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 2) | 0.0056 2) | 0.0056 2) | 0.0056 2) | 0.0056 2) |
| Q | Organotin som (factor 0,7) | mg/kg ds | 0.015 2) | 0.015 2) | 0.015 2) | 0.015 2) | 0.015 2) |
| | **Ftalaten** | | | | | | |
| Q | Dimethylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Diethylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Di-isobutylftalaat | mg/kg ds | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Q | Dibutylftalaat | mg/kg ds | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Q | Butylbenzylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Di-n-octylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Ftalaten (som) | mg/kg ds | -- | -- | -- | -- | -- |
| | Uitbesteding onderzoek | | | | | ***** | |

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|---|---|---|---|---|---|
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## Voorlopig analysecertificaat

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|---|---|---|---|
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| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 9/26 |
| Monstermatrix | Grond (AS3000) | | |

| Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| Uitbesteding onderzoek | | ***** | ***** | ***** | ***** | ***** |

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 10/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 6 | 7 | 8 | 1) 9 | 10 |
|---|---|---|---|---|---|---|---|
| | **Voorbehandeling** | | | | | | |
| | Cryogeen malen AS3000 | | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd |
| | **Bodemkundige analyses** | | | | | | |
| S | Droge stof | % (m/m) | 87.5 | 83.9 | | 74.9 | 78.5 |
| S | Droge stof | % (m/m) | | | 21.3 | | |
| S | Organische stof | % (m/m) ds | 2.1 | 1.7 | 90.9 | 2.8 | <0.7 |
| | Gloeirest | % (m/m) ds | 97.8 | 98.0 | 8.3 | 96.2 | 99.3 |
| S | Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 2.1 | 5.1 | 10.6 | 13.8 | 4.9 |
| | **Metalen** | | | | | | |
| | Boor (B) | mg/kg ds | ***** | ***** | ***** | ***** | ***** |
| Q | Aluminium (Al) | mg/kg ds | 11000 | 3700 | 1300 | 9000 | 1800 |
| S | Arseen (As) | mg/kg ds | 8.1 | 6.1 | <4.0 | 12 | <4.0 |
| S | Barium (Ba) | mg/kg ds | 290 | <20 | <20 | <20 | <20 |
| S | Beryllium (Be) | mg/kg ds | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Q | Calcium (Ca) | mg/kg ds | 53000 | 25000 | 8300 | 56000 | 7600 |
| S | Cadmium (Cd) | mg/kg ds | 0.67 | <0.20 | <0.20 | <0.20 | <0.20 |
| S | Kobalt (Co) | mg/kg ds | 8.7 | 3.5 | 6.7 | 5.9 | <3.0 |
| S | Chroom (Cr) | mg/kg ds | ***** | ***** | ***** | ***** | ***** |
| S | Koper (Cu) | mg/kg ds | 27 | <5.0 | <5.0 | <5.0 | <5.0 |
| Q | IJzer(Fe) | mg/kg ds | ***** | ***** | ***** | ***** | ***** |
| S | Kwik (Hg) | mg/kg ds | 0.61 | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Kalium (K) | mg/kg ds | 2100 | 1600 | 1200 | 2700 | 750 |
| Q | Magnesium (Mg) | mg/kg ds | 6100 | 2300 | 6700 | 6300 | 840 |
| S | Molybdeen (Mo) | mg/kg ds | 3.4 | <1.5 | <1.5 | <1.5 | <1.5 |
| Q | Natrium (Na) | mg/kg ds | 1300 | 370 | 15000 | 2300 | 910 |
| S | Nikkel (Ni) | mg/kg ds | 22 | 6.2 | <4.0 | 13 | <4.0 |
| S | Lood (Pb) | mg/kg ds | 78 | 11 | <10 | <10 | <10 |
| S | Antimoon (Sb) | mg/kg ds | 3.2 | <1.5 | <1.5 | <1.5 | <1.5 |
| S | Seleen (Se) | mg/kg ds | <10 | <10 | <10 | <10 | <10 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 6 | B3.1 | 6.00-7.00 | buis | 25-Sep-2017 | 9748692 |
| 7 | B3.1 | 9.70-11.20 | buis | 25-Sep-2017 | 9748693 |
| 8 | B3.1 | 12.20-12.70 | buis | 25-Sep-2017 | 9748694 |
| 9 | B3.1 | 13.80-14.80 | buis | 25-Sep-2017 | 9748695 |
| 10 | B3.1 | 16.80-17.30 | buis | 25-Sep-2017 | 9748696 |

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| Monsternemer | | Pagina | 11/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 6 | 7 | 8 1) | 9 | 10 |
|---|---|---|---|---|---|---|---|
| S | Tin (Sn) | mg/kg ds | 5.0 | <1.5 | <1.5 | <1.5 | <1.5 |
| S | Vanadium (V) | mg/kg ds | 42 | 15 | <10 | 30 | <10 |
| S | Zink (Zn) | mg/kg ds | 140 | 24 | <20 | 36 | <20 |
| | **Vluchtige Aromatische Koolwaterstoffen** | | | | | | |
| S | Benzeen | mg/kg ds | 0.059 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Tolueen | mg/kg ds | 0.26 | <0.050 | 0.29 | <0.050 | <0.050 |
| S | Ethylbenzeen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | o-Xyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | m,p-Xyleen | mg/kg ds | <0.050 | <0.050 | 0.055 | <0.050 | <0.050 |
| S | Xylenen (som) (factor 0,7) | mg/kg ds | 0.070 2) | 0.070 2) | 0.090 | 0.070 2) | 0.070 2) |
| | BTEX (som) | mg/kg ds | 0.32 | <0.25 | 0.34 | <0.25 | <0.25 |
| S | Styreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| | **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | |
| S | Dichloormethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Trichloormethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| S | Tetrachloormethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Trichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Tetrachlooretheen | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | 1,1-Dichloorethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| S | 1,2-Dichloorethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| S | 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| | CKW (som) | mg/kg ds | <0.42 | <0.42 | <0.42 | <0.42 | <0.42 |
| S | Vinylchloride | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| S | trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | <0.040 | <0.040 | <0.040 | <0.040 |
| S | 1,1-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |

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| Monsternemer | | Pagina | 12/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 6 | 7 | 8 1) | 9 | 10 |
|---|---|---|---|---|---|---|---|
| S | 1,2-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | 1,3-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Dichloorpropanen som factor 0.7 | mg/kg ds | 0.10 2) | 0.10 2) | 0.10 2) | 0.10 2) | 0.10 2) |
| | **Minerale olie** | | | | | | |
| | Minerale olie (C10-C12) | mg/kg ds | <3.0 | <3.0 | <12 | <3.0 | 4.1 |
| | Minerale olie (C12-C16) | mg/kg ds | <5.0 | <5.0 | <20 | <5.0 | 6.7 |
| | Minerale olie (C16-C21) | mg/kg ds | <5.0 | <5.0 | <20 | <5.0 | 5.2 |
| | Minerale olie (C21-C30) | mg/kg ds | <11 | 20 | 120 | <11 | <11 |
| | Minerale olie (C30-C35) | mg/kg ds | <5.0 | 21 | 150 | <5.0 | 6.4 |
| | Minerale olie (C35-C40) | mg/kg ds | <6.0 | 11 | <24 | <6.0 | <6.0 |
| S | Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 59 | 300 | <35 | <35 |
| | Chromatogram olie (GC) | | | Zie bijl. | Zie bijl. | | |
| | **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | |
| S | alfa-HCH | mg/kg ds | 0.0027 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | beta-HCH | mg/kg ds | 0.0041 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | gamma-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | delta-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Hexachloorbenzeen | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloor | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Hexachloorbutadieen | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Aldrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Dieldrin | mg/kg ds | 0.0036 | 0.0012 | <0.0010 | <0.0010 | <0.0010 |
| S | Endrin | mg/kg ds | 0.0015 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Isodrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Telodrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | alfa-Endosulfan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| Q | beta-Endosulfan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Endosulfansulfaat | mg/kg ds | <0.0020 | <0.0020 | <0.0020 | <0.0020 | <0.0020 |

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| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 13/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 6 | 7 | 8 | 1) 9 | 10 |
|---|---|---|---|---|---|---|---|
| S | alfa-Chloordaan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0015 | <0.0010 | <0.0010 | <0.0010 |
| S | o,p'-DDT | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | p,p'-DDT | mg/kg ds | <0.0010 | <0.0010 | 0.036 | <0.0010 | <0.0010 |
| S | o,p'-DDE | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | p,p'-DDE | mg/kg ds | <0.0010 | 0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | o,p'-DDD | mg/kg ds | <0.0010 | <0.0010 | 0.0014 | <0.0010 | <0.0010 |
| S | p,p'-DDD | mg/kg ds | <0.0010 | <0.0010 | 0.0038 | <0.0010 | <0.0010 |
| S | HCH (som) (factor 0,7) | mg/kg ds | 0.0075 | 0.0021 2) | 0.0021 2) | 0.0021 2) | 0.0021 2) |
| S | Drins (som) (factor 0,7) | mg/kg ds | 0.0058 | 0.0026 | 0.0021 2) | 0.0021 2) | 0.0021 2) |
| S | Heptachloorepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | DDD (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0053 | 0.0014 2) | 0.0014 2) |
| S | DDE (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0017 | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | DDT (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.037 | 0.0014 2) | 0.0014 2) |
| S | DDX (som) (factor 0,7) | mg/kg ds | 0.0042 2) | 0.0045 | 0.043 | 0.0042 2) | 0.0042 2) |
| S | Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0022 | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | OCB (som) LB (factor 0,7) | mg/kg ds | 0.024 | 0.016 | 0.054 | 0.015 2) | 0.015 2) |
| S | OCB (som) WB (factor 0,7) | mg/kg ds | 0.025 | 0.018 | 0.055 | 0.016 2) | 0.016 2) |
| | **Polychloorbifenylen, PCB** | | | | | | |
| S | PCB 28 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 52 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 101 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 118 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 138 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 153 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 180 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 2) | 0.0049 2) | 0.0049 2) | 0.0049 2) | 0.0049 2) |
| | **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | | |
| S | Naftaleen | mg/kg ds | 0.059 | <0.050 | <0.050 | <0.050 | <0.050 |

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| Monsternemer | | Pagina | 14/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 6 | 7 | 8 | 1) | 9 | 10 |
|---|---|---|---|---|---|---|---|---|
| Q | Acenaftyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | | <0.050 | <0.050 |
| Q | Acenafteen | mg/kg ds | <0.050 | <0.050 | <0.050 | | <0.050 | <0.050 |
| Q | Fluoreen | mg/kg ds | <0.050 | <0.050 | <0.050 | | <0.050 | <0.050 |
| S | Fenanthreen | mg/kg ds | 0.13 | 0.089 | <0.050 | | <0.050 | <0.050 |
| S | Anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | | <0.050 | <0.050 |
| S | Fluorantheen | mg/kg ds | 0.12 | 0.44 | <0.050 | | <0.050 | <0.050 |
| Q | Pyreen | mg/kg ds | 0.085 | 0.33 | <0.050 | | <0.050 | <0.050 |
| S | Benzo(a)anthraceen | mg/kg ds | 0.052 | 0.21 | <0.050 | | <0.050 | <0.050 |
| S | Chryseen | mg/kg ds | 0.073 | 0.26 | <0.050 | | <0.050 | <0.050 |
| Q | Benzo(b)fluorantheen | mg/kg ds | 0.062 | 0.29 | <0.050 | | <0.050 | <0.050 |
| S | Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.10 | <0.050 | | <0.050 | <0.050 |
| S | Benzo(a)pyreen | mg/kg ds | <0.050 | 0.15 | <0.050 | | <0.050 | <0.050 |
| Q | Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | | <0.050 | <0.050 |
| S | Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.090 | <0.050 | | <0.050 | <0.050 |
| S | Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.10 | <0.050 | | <0.050 | <0.050 |
| S | PAK Totaal VROM (10) | mg/kg ds | <0.50 | 1.4 | <0.50 | | <0.50 | <0.50 |
| Q | PAK Totaal EPA (16) | mg/kg ds | <0.80 | 2.1 | <0.80 | | <0.80 | <0.80 |
| | **Fysisch-chemische analyses** | | | | | | | |
| | Meettemperatuur (pH-H20) | °C | 20 | 20 | 21 | | 20 | 20 |
| Q | Zuurgraad (pH-H20) | | 9.2 | 8.6 | 7.3 | | 8.6 | 9.2 |
| | Meettemperatuur (pH-KCl) | °C | 21 | 20 | 21 | | 20 | 20 |
| | Meettemperatuur (pH-CaCl2) | °C | 21 | 20 | 21 | | 20 | 20 |
| S | Zuurgraad (pH-CaCl2) | | 8.9 | 8.0 | 6.8 | | 7.9 | 8.4 |
| Q | Zuurgraad (pH-KCl) | | 9.4 | 8.1 | 6.6 | | 8.0 | 8.8 |
| | EC-temp. corr. factor (mathematisch) | | 1.086 | 1.103 | | | 1.089 | 1.086 |
| Q | Geleidingsvermogen (25°C) | µS/cm | 2400 | 470 | | | 2200 | 890 |
| Q | Meettemperatuur (EC) | °C | 21.2 | 20.5 | | | 21.1 | 21.2 |
| | **Anorganische verbindingen** | | | | | | | |
| | Bromide | mg/kg ds | 190 | 18 | 57 | | 7.9 | <5.0 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 6 | B3.1 | 6.00-7.00 | buis | 25-Sep-2017 | 9748692 |
| 7 | B3.1 | 9.70-11.20 | buis | 25-Sep-2017 | 9748693 |
| 8 | B3.1 | 12.20-12.70 | buis | 25-Sep-2017 | 9748694 |
| 9 | B3.1 | 13.80-14.80 | buis | 25-Sep-2017 | 9748695 |
| 10 | B3.1 | 16.80-17.30 | buis | 25-Sep-2017 | 9748696 |

Q: door RvA geaccrediteerde verrichting
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 15/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 6 | 7 | 8 1) | 9 | 10 |
|---|---|---|---|---|---|---|---|
| S | Chloride | mg/kg ds | 1300 | 310 | 17000 | 2400 | 1100 |
| | Fluoride | mg/kg ds | 8.1 | 5.3 | 12 | 7.2 | 1.8 |
| | Sulfaat | mg/kg ds | 3100 | 300 | 100 | 230 | 130 |
| | **Cyanide** | | | | | | |
| S | Cyanide vrij | mg/kg ds | <3.0 | <3.0 | <3.0 3) | <3.0 | <3.0 |
| | Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 |
| | Cyanide EPA (335.5) | mg/kg ds | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 |
| S | Cyanide totaal | mg/kg ds | <5.0 | <5.0 | <5.0 3) | <5.0 | <5.0 |
| | Cyanide complex (mathematisch) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| | **Uitbesteed / Overig onderzoek** | | | | | | |
| | 2378TetraCDD | ng/kg ds | < 0.171 4) | < 0.147 4) | < 0.428 4) | < 0.143 4) | ***** |
| | 12378-PentaCDD | ng/kg ds | < 0.228 4) | < 0.196 4) | < 0.571 4) | < 0.190 4) | ***** |
| | 123478-HexaCDD | ng/kg ds | < 0.455 4) | < 0.392 4) | < 1.14 4) | < 0.381 4) | ***** |
| | 123678-HexaCDD | ng/kg ds | < 0.455 4) | < 0.392 4) | < 1.14 4) | < 0.381 4) | ***** |
| | 123789-HexaCDD | ng/kg ds | < 0.455 4) | < 0.392 4) | < 1.14 4) | < 0.381 4) | ***** |
| | 1234678-HeptaCDD | ng/kg ds | 2.01 4) | 1.93 4) | < 1.28 4) | 1.08 4) | ***** |
| | OctaCDD | ng/kg ds | 5.05 4) | 12.2 4) | < 5.23 4) | 7.60 4) | ***** |
| | 2378-TetraCDF | ng/kg ds | 1.24 4) | < 0.261 4) | < 0.761 4) | < 0.254 4) | ***** |
| | 12378-PentaCDF | ng/kg ds | < 0.417 4) | < 0.359 4) | < 1.05 4) | < 0.349 4) | ***** |
| | 23478-PentaCDF | ng/kg ds | 1.34 4) | < 0.359 4) | < 1.05 4) | < 0.349 4) | ***** |
| | 123478-HexaCDF | ng/kg ds | 1.40 4) | < 0.327 4) | < 0.951 4) | < 0.317 4) | ***** |
| | 123678-HexaCDF | ng/kg ds | < 0.379 4) | < 0.327 4) | < 0.951 4) | < 0.317 4) | ***** |
| | 123789-HexaCDF | ng/kg ds | < 0.379 4) | < 0.327 4) | < 0.951 4) | < 0.317 4) | ***** |
| | 234678-HexaCDF | ng/kg ds | < 0.379 4) | < 0.327 4) | < 0.951 4) | < 0.317 4) | ***** |
| | 1234678-HeptaCDF | ng/kg ds | 0.794 4) | 0.711 4) | < 1.24 4) | < 0.412 4) | ***** |
| | 1234789-HeptaCDF | ng/kg ds | < 0.360 4) | < 0.310 4) | < 0.904 4) | < 0.301 4) | ***** |
| | OctaCDF | ng/kg ds | < 3.03 4) | < 2.61 4) | < 7.61 4) | < 2.54 4) | ***** |
| | WHO(`05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.695 4) | 0.0300 4) | ND 5) | 0.0131 4) | ***** |
| | WHO(`05) PCDD/F TEQ incl LOQ | ng/kg ds | 1.36 4) | 0.770 4) | 2.18 4) | 0.735 4) | ***** |
| | I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.967 4) | 0.0386 4) | ND 4) | 0.0184 4) | ***** |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 6 | B3.1 | 6.00-7.00 | buis | 25-Sep-2017 | 9748692 |
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| 10 | B3.1 | 16.80-17.30 | buis | 25-Sep-2017 | 9748696 |

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|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 16/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 6 | 7 | 8 1) | 9 | 10 |
|---|---|---|---|---|---|---|---|
| | I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 1.53 4) | 0.762 4) | 2.13 4) | 0.724 4) | ***** |
| | Uitbesteding onderzoek | | ***** | ***** | ***** | ***** | ***** |
| | **Fenolen** | | | | | | |
| Q | Fenol | mg/kg ds | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | o-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | m-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | p-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Cresolen (som) | mg/kg ds | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Q | 2,4-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,5-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,6-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 3,4-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | o-Ethylfenol | mg/kg ds | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Q | m-Ethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Thymol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| | **Chloorfenolen** | | | | | | |
| Q | o-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | m-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | p-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Monochloorfenolen (som) | mg/kg ds | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Q | 2,3-Dichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 2,6-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 3,4-Dichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | 3,5-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | Dichloorfenolen (som) | mg/kg ds | <0.007 | <0.007 | <0.007 | <0.007 | <0.007 |
| Q | 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |

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|---|---|---|---|---|---|
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 17/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 6 | 7 | 8 | 1) | 9 | 10 |
|---|---|---|---|---|---|---|---|---|
| Q | 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 |
| Q | 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 |
| Q | 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 |
| Q | 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | | <0.002 | <0.002 |
| Q | Trichloorfenolen (som) | mg/kg ds | <0.02 | <0.02 | <0.02 | | <0.02 | <0.02 |
| Q | 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | | <0.002 | <0.002 |
| Q | 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | <0.010 | <0.010 | | <0.010 | <0.010 |
| Q | Tetrachloorfenolen (som) | mg/kg ds | <0.012 | <0.012 | <0.012 | | <0.012 | <0.012 |
| Q | Pentachloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 |
| Q | 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 |
| | **Overige org.-verontreinigingen** | | | | | | | |
| Q | Tributyltin (TBT) | mg/kg ds | <0.0098 | <0.0098 | <0.020 | | <0.0098 | <0.0098 |
| Q | Triphenyltin (TPhT) | mg/kg ds | <0.012 | <0.012 | <0.024 | | <0.012 | <0.012 |
| Q | Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | <0.0040 | <0.0040 | | <0.0040 | <0.0040 |
| Q | Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | <0.0040 | <0.0040 | | <0.0040 | <0.0040 |
| Q | Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 2) | 0.0056 2) | 0.0056 2) | | 0.0056 2) | 0.0056 2) |
| Q | Organotin som (factor 0,7) | mg/kg ds | 0.015 2) | 0.015 2) | 0.031 2) | | 0.015 2) | 0.015 2) |
| | **Ftalaten** | | | | | | | |
| Q | Dimethylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 |
| Q | Diethylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 |
| Q | Di-isobutylftalaat | mg/kg ds | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 |
| Q | Dibutylftalaat | mg/kg ds | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 |
| Q | Butylbenzylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 |
| Q | Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 |
| Q | Di-n-octylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 |
| Q | Ftalaten (som) | mg/kg ds | -- | -- | -- | | -- | -- |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 6 | B3.1 | 6.00-7.00 | buis | 25-Sep-2017 | 9748692 |
| 7 | B3.1 | 9.70-11.20 | buis | 25-Sep-2017 | 9748693 |
| 8 | B3.1 | 12.20-12.70 | buis | 25-Sep-2017 | 9748694 |
| 9 | B3.1 | 13.80-14.80 | buis | 25-Sep-2017 | 9748695 |
| 10 | B3.1 | 16.80-17.30 | buis | 25-Sep-2017 | 9748696 |

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 18/26 |
| Monstermatrix | Grond (AS3000) | | |

| Analyse | Eenheid | 6 | 7 | 8 | 1) | 9 | 10 |
|---|---|---|---|---|---|---|---|
| Uitbesteding onderzoek | | | | | | ***** | |
| Uitbesteding onderzoek | | ***** | ***** | ***** | | ***** | ***** |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 6 | B3.1 | 6.00-7.00 | buis | 25-Sep-2017 | 9748692 |
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| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 19/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| | **Voorbehandeling** | | | | | |
| | Cryogeen malen AS3000 | | Uitgevoerd | Uitgevoerd | Uitgevoerd | Uitgevoerd |
| | **Bodemkundige analyses** | | | | | |
| S | Droge stof | % (m/m) | 86.1 | 81.5 | 87.0 | 87.7 |
| S | Organische stof | % (m/m) ds | 2.1 | 2.0 | 2.5 | 2.6 |
| | Gloeirest | % (m/m) ds | 97.8 | 97.3 | 97.4 | 97.2 |
| S | Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | <2.0 | 9.7 | <2.0 | 2.7 |
| | **Metalen** | | | | | |
| | Boor (B) | mg/kg ds | ***** | ***** | ***** | ***** |
| Q | Aluminium (Al) | mg/kg ds | 11000 | 6300 | 9900 | 11000 |
| S | Arseen (As) | mg/kg ds | 10 | 13 | 12 | 8.3 |
| S | Barium (Ba) | mg/kg ds | 200 | <20 | 210 | 220 |
| S | Beryllium (Be) | mg/kg ds | <1.0 | <1.0 | <1.0 | <1.0 |
| Q | Calcium (Ca) | mg/kg ds | 58000 | 30000 | 54000 | 73000 |
| S | Cadmium (Cd) | mg/kg ds | 0.71 | 0.23 | 0.61 | 0.80 |
| S | Kobalt (Co) | mg/kg ds | 9.1 | 5.6 | 7.5 | 9.5 |
| S | Chroom (Cr) | mg/kg ds | ***** | ***** | ***** | ***** |
| S | Koper (Cu) | mg/kg ds | 34 | 7.9 | 20 | 30 |
| Q | IJzer(Fe) | mg/kg ds | ***** | ***** | ***** | ***** |
| S | Kwik (Hg) | mg/kg ds | 0.68 | 0.054 | 0.78 | 0.63 |
| Q | Kalium (K) | mg/kg ds | 2000 | 2100 | 2100 | 2300 |
| Q | Magnesium (Mg) | mg/kg ds | 5400 | 3500 | 5400 | 5900 |
| S | Molybdeen (Mo) | mg/kg ds | 9.9 | <1.5 | 2.4 | 4.6 |
| Q | Natrium (Na) | mg/kg ds | 740 | 720 | 1100 | 1300 |
| S | Nikkel (Ni) | mg/kg ds | 31 | 9.6 | 20 | 23 |
| S | Lood (Pb) | mg/kg ds | 98 | 15 | 69 | 100 |
| S | Antimoon (Sb) | mg/kg ds | 2.9 | <1.5 | 2.4 | 2.9 |
| S | Seleen (Se) | mg/kg ds | <10 | <10 | <10 | <10 |
| S | Tin (Sn) | mg/kg ds | 4.8 | 9.0 | 4.0 | 6.1 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 11 | B3.2 | 2.00-2.30 | emmer | 25-Sep-2017 | 9748697 |
| 12 | B3.1 | 8.55-8.74 | emmer | 25-Sep-2017 | 9748698 |
| 13 | B3.1 | 8.00-8.40 | emmer | 25-Sep-2017 | 9748699 |
| 14 | B3.2 | 5.00 - 5.30 | emmer | 25-Sep-2017 | 9748701 |

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| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 20/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| S | Vanadium (V) | mg/kg ds | 60 | 23 | 42 | 43 |
| S | Zink (Zn) | mg/kg ds | 130 | 30 | 160 | 160 |
| | **Vluchtige Aromatische Koolwaterstoffen** | | | | | |
| S | Benzeen | mg/kg ds | <0.050 | <0.050 | <0.050 | 0.056 |
| S | Tolueen | mg/kg ds | <0.050 | <0.050 | <0.050 | 0.076 |
| S | Ethylbenzeen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | o-Xyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | m,p-Xyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Xylenen (som) (factor 0,7) | mg/kg ds | 0.070 2) | 0.070 2) | 0.070 2) | 0.070 2) |
| | BTEX (som) | mg/kg ds | <0.25 | <0.25 | <0.25 | <0.25 |
| S | Styreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| | **Vluchtige organische halogeenkoolwaterstoffen** | | | | | |
| S | Dichloormethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Trichloormethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 |
| S | Tetrachloormethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Trichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Tetrachlooretheen | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 |
| S | 1,1-Dichloorethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 |
| S | 1,2-Dichloorethaan | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 |
| S | 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| | CKW (som) | mg/kg ds | <0.42 | <0.42 | <0.42 | <0.42 |
| S | Vinylchloride | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 |
| S | cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 |
| S | trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | <0.040 | <0.040 | <0.040 |
| S | 1,1-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | 1,2-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 11 | B3.2 2.00-2.30 emmer | 25-Sep-2017 | 9748697 |
| 12 | B3.1 8.55-8.74 emmer | 25-Sep-2017 | 9748698 |
| 13 | B3.1 8.00-8.40 emmer | 25-Sep-2017 | 9748699 |
| 14 | B3.2 5.00 - 5.30 emmer | 25-Sep-2017 | 9748701 |

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| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 21/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| S | 1,3-dichloorpropaan | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Dichloorpropanen som factor 0.7 | mg/kg ds | 0.10 2) | 0.10 2) | 0.10 2) | 0.10 2) |
| | **Minerale olie** | | | | | |
| | Minerale olie (C10-C12) | mg/kg ds | <3.0 | <3.0 | <3.0 | <3.0 |
| | Minerale olie (C12-C16) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 |
| | Minerale olie (C16-C21) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 |
| | Minerale olie (C21-C30) | mg/kg ds | <11 | <11 | <11 | <11 |
| | Minerale olie (C30-C35) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 |
| | Minerale olie (C35-C40) | mg/kg ds | <6.0 | <6.0 | <6.0 | <6.0 |
| S | Minerale olie totaal (C10-C40) | mg/kg ds | <35 | <35 | <35 | <35 |
| | **Organo chloorbestrijdingsmiddelen, OCB** | | | | | |
| S | alfa-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | 0.0010 |
| S | beta-HCH | mg/kg ds | <0.0010 | <0.0010 | 0.0024 | 0.0077 |
| S | gamma-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | delta-HCH | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Hexachloorbenzeen | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloor | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Hexachloorbutadieen | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Aldrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | 0.0048 |
| S | Dieldrin | mg/kg ds | <0.0010 | <0.0010 | 0.0029 | 0.017 |
| S | Endrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | 0.0014 |
| S | Isodrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Telodrin | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | alfa-Endosulfan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| Q | beta-Endosulfan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | Endosulfansulfaat | mg/kg ds | <0.0020 | <0.0020 | <0.0020 | <0.0020 |
| S | alfa-Chloordaan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | gamma-Chloordaan | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |

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|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
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| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 22/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| S | o,p'-DDT | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | p,p'-DDT | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | o,p'-DDE | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | p,p'-DDE | mg/kg ds | <0.0010 | 0.0026 | <0.0010 | <0.0010 |
| S | o,p'-DDD | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | p,p'-DDD | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | HCH (som) (factor 0,7) | mg/kg ds | 0.0021 2) | 0.0021 2) | 0.0038 | 0.0094 |
| S | Drins (som) (factor 0,7) | mg/kg ds | 0.0021 2) | 0.0021 2) | 0.0043 | 0.023 |
| S | Heptachloorepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | DDD (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | DDE (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0033 | 0.0014 2) | 0.0014 2) |
| S | DDT (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | DDX (som) (factor 0,7) | mg/kg ds | 0.0042 2) | 0.0061 | 0.0042 2) | 0.0042 2) |
| S | Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 2) | 0.0014 2) | 0.0014 2) | 0.0014 2) |
| S | OCB (som) LB (factor 0,7) | mg/kg ds | 0.015 2) | 0.017 | 0.019 | 0.043 |
| S | OCB (som) WB (factor 0,7) | mg/kg ds | 0.016 2) | 0.018 | 0.020 | 0.044 |
| | **Polychloorbifenylen, PCB** | | | | | |
| S | PCB 28 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 52 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 101 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 118 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 138 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 153 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB 180 | mg/kg ds | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| S | PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 2) | 0.0049 2) | 0.0049 2) | 0.0049 2) |
| | **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | |
| S | Naftaleen | mg/kg ds | <0.050 | <0.050 | <0.050 | 0.093 |
| Q | Acenaftyleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Acenafteen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |

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|---|---|---|---|
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|---|---|---|---|
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| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 23/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| Q | Fluoreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Fenanthreen | mg/kg ds | 0.063 | <0.050 | 0.085 | 0.26 |
| S | Anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | 0.055 |
| S | Fluorantheen | mg/kg ds | <0.050 | <0.050 | 0.078 | 0.22 |
| Q | Pyreen | mg/kg ds | <0.050 | <0.050 | 0.058 | 0.15 |
| S | Benzo(a)anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | 0.082 |
| S | Chryseen | mg/kg ds | <0.050 | <0.050 | <0.050 | 0.11 |
| Q | Benzo(b)fluorantheen | mg/kg ds | <0.050 | <0.050 | <0.050 | 0.086 |
| S | Benzo(k)fluorantheen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Benzo(a)pyreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Benzo(ghi)peryleen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | Indeno(123-cd)pyreen | mg/kg ds | <0.050 | <0.050 | <0.050 | <0.050 |
| S | PAK Totaal VROM (10) | mg/kg ds | <0.50 | <0.50 | <0.50 | 0.82 |
| Q | PAK Totaal EPA (16) | mg/kg ds | <0.80 | <0.80 | <0.80 | 1.0 |
| | **Fysisch-chemische analyses** | | | | | |
| | Meettemperatuur (pH-H20) | °C | 20 | 20 | 20 | 20 |
| Q | Zuurgraad (pH-H20) | | 9.5 | 8.6 | 9.2 | 9.4 |
| | Meettemperatuur (pH-CaCl2) | °C | 20 | 20 | 20 | 20 |
| | Meettemperatuur (pH-KCl) | °C | 20 | 20 | 20 | 20 |
| S | Zuurgraad (pH-CaCl2) | | 9.3 | 7.9 | 9.2 | 9.2 |
| Q | Zuurgraad (pH-KCl) | | 9.8 | 8.0 | 9.5 | 9.6 |
| | EC-temp. corr. factor (mathematisch) | | 1.086 | 1.089 | 1.089 | 1.091 |
| Q | Geleidingsvermogen (25°C) | µS/cm | 1800 | 720 | 2400 | 2400 |
| Q | Meettemperatuur (EC) | °C | 21.2 | 21.1 | 21.1 | 21.0 |
| | **Anorganische verbindingen** | | | | | |
| | Bromide | mg/kg ds | 61 | 51 | 160 | 190 |
| S | Chloride | mg/kg ds | 260 | 730 | 1100 | 1100 |
| | Fluoride | mg/kg ds | 11 | 5.8 | 6.4 | 9.6 |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
| 11 | B3.2 | 2.00-2.30 | emmer | 25-Sep-2017 | 9748697 |
| 12 | B3.1 | 8.55-8.74 | emmer | 25-Sep-2017 | 9748698 |
| 13 | B3.1 | 8.00-8.40 | emmer | 25-Sep-2017 | 9748699 |
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| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 24/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| | Sulfaat | mg/kg ds | 4300 | 130 | 3400 | 3400 |
| | **Cyanide** | | | | | |
| S | Cyanide vrij | mg/kg ds | <3.0 | <3.0 | <3.0 | <3.0 |
| | Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | <2.5 | <2.5 | <2.5 |
| | Cyanide EPA (335.5) | mg/kg ds | <2.5 | <2.5 | <2.5 | <2.5 |
| S | Cyanide totaal | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 |
| | Cyanide complex (mathematisch) | mg/kg ds | <5.0 | <5.0 | <5.0 | <5.0 |
| | **Uitbesteed / Overig onderzoek** | | | | | |
| | 2378TetraCDD | ng/kg ds | < 0.183 4) | < 0.167 4) | < 0.173 4) | < 0.175 4) |
| | 12378-PentaCDD | ng/kg ds | < 0.244 4) | < 0.223 4) | < 0.231 4) | 0.242 4) |
| | 123478-HexaCDD | ng/kg ds | < 0.489 4) | < 0.447 4) | < 0.461 4) | < 0.466 4) |
| | 123678-HexaCDD | ng/kg ds | < 0.489 4) | < 0.447 4) | < 0.461 4) | 0.921 4) |
| | 123789-HexaCDD | ng/kg ds | < 0.489 4) | < 0.447 4) | < 0.461 4) | < 0.466 4) |
| | 1234678-HeptaCDD | ng/kg ds | 0.812 4) | 4.12 4) | 2.17 4) | 9.57 4) |
| | OctaCDD | ng/kg ds | 3.63 4) | 27.9 4) | 6.90 4) | 18.4 4) |
| | 2378-TetraCDF | ng/kg ds | 1.26 4) | 0.433 4) | 0.909 4) | 1.24 4) |
| | 12378-PentaCDF | ng/kg ds | < 0.448 4) | < 0.409 4) | < 0.423 4) | 0.489 4) |
| | 23478-PentaCDF | ng/kg ds | 0.835 4) | < 0.409 4) | 0.825 4) | 1.17 4) |
| | 123478-HexaCDF | ng/kg ds | < 0.407 4) | 0.388 4) | 0.754 4) | 2.08 4) |
| | 123678-HexaCDF | ng/kg ds | < 0.407 4) | < 0.372 4) | < 0.384 4) | 0.555 4) |
| | 123789-HexaCDF | ng/kg ds | < 0.407 4) | < 0.372 4) | < 0.384 4) | < 0.388 4) |
| | 234678-HexaCDF | ng/kg ds | < 0.407 4) | < 0.372 4) | < 0.384 4) | 0.401 4) |
| | 1234678-HeptaCDF | ng/kg ds | 1.08 4) | 2.31 4) | 0.666 4) | 2.66 4) |
| | 1234789-HeptaCDF | ng/kg ds | < 0.387 4) | < 0.354 4) | < 0.365 4) | 0.832 4) |
| | OctaCDF | ng/kg ds | < 3.65 4) | 3.38 4) | < 3.07 4) | 3.95 4) |
| | WHO(`05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.397 4) | 0.156 4) | 0.444 4) | 1.26 4) |
| | WHO(`05) PCDD/F TEQ incl LOQ | ng/kg ds | 1.15 4) | 0.931 4) | 1.12 4) | 1.57 4) |
| | I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.566 4) | 0.178 4) | 0.614 4) | 1.40 4) |
| | I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 1.21 4) | 0.931 4) | 1.18 4) | 1.71 4) |
| | Uitbesteding onderzoek | | ***** | ***** | ***** | ***** |

| Nr. | Monsteromschrijving | | | Datum monstername | Monster nr. |
|---|---|---|---|---|---|
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| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 25/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| | **Fenolen** | | | | | |
| Q | Fenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | o-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | m-Cresol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | p-Cresol | mg/kg ds | <0.01 | 0.01 | <0.01 | <0.01 |
| Q | Cresolen (som) | mg/kg ds | <0.03 | <0.03 | <0.03 | <0.03 |
| Q | 2,4-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,5-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,6-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 3,4-Dimethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | o-Ethylfenol | mg/kg ds | <0.02 | <0.02 | <0.02 | <0.02 |
| Q | m-Ethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Thymol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| | **Chloorfenolen** | | | | | |
| Q | o-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | m-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | p-Chloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Monochloorfenolen (som) | mg/kg ds | <0.03 | <0.03 | <0.03 | <0.03 |
| Q | 2,3-Dichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 2,6-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 3,4-Dichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | 3,5-Dichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | Dichloorfenolen (som) | mg/kg ds | <0.007 | <0.007 | <0.007 | <0.007 |
| Q | 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 11 | B3.2 2.00-2.30 emmer | 25-Sep-2017 | 9748697 |
| 12 | B3.1 8.55-8.74 emmer | 25-Sep-2017 | 9748698 |
| 13 | B3.1 8.00-8.40 emmer | 25-Sep-2017 | 9748699 |
| 14 | B3.2 5.00 - 5.30 emmer | 25-Sep-2017 | 9748701 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 11200482 | Certificaatnummer/Versie | 2017131481/0 |
| Uw projectnaam | Perkpolder | Startdatum | 05-Oct-2017 |
| Uw ordernummer | Inkoop: 1117470 | Rapportagedatum | 01-Nov-2017/10:07 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 26/26 |
| Monstermatrix | Grond (AS3000) | | |

| | Analyse | Eenheid | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| Q | 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | Trichloorfenolen (som) | mg/kg ds | <0.02 | <0.02 | <0.02 | <0.02 |
| Q | 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | <0.002 | <0.002 | <0.002 |
| Q | 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Tetrachloorfenolen (som) | mg/kg ds | <0.012 | <0.012 | <0.012 | <0.012 |
| Q | Pentachloorfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |
| Q | 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | <0.001 | <0.001 | <0.001 |
| | **Overige org.-verontreinigingen** | | | | | |
| Q | Tributyltin (TBT) | mg/kg ds | <0.0098 | <0.0098 | <0.0098 | <0.0098 |
| Q | Triphenyltin (TPhT) | mg/kg ds | <0.012 | 0.019 | <0.012 | <0.012 |
| Q | Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | <0.0040 | <0.0040 | <0.0040 |
| Q | Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.0066 | <0.0040 | <0.0040 |
| Q | Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 2) | 0.0094 | 0.0056 2) | 0.0056 2) |
| Q | Organotin som (factor 0,7) | mg/kg ds | 0.015 2) | 0.026 | 0.015 2) | 0.015 2) |
| | **Ftalaten** | | | | | |
| Q | Dimethylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Diethylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Di-isobutylftalaat | mg/kg ds | <0.5 | <0.5 | <0.5 | <0.5 |
| Q | Dibutylftalaat | mg/kg ds | <0.5 | <0.5 | <0.5 | <0.5 |
| Q | Butylbenzylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Di-n-octylftalaat | mg/kg ds | <0.2 | <0.2 | <0.2 | <0.2 |
| Q | Ftalaten (som) | mg/kg ds | -- | -- | -- | -- |
| | Uitbesteding onderzoek | | ***** | ***** | ***** | ***** |
| | Uitbesteding onderzoek | | ***** | ***** | ***** | ***** |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 11 | B3.2 2.00-2.30 emmer | 25-Sep-2017 | 9748697 |
| 12 | B3.1 8.55-8.74 emmer | 25-Sep-2017 | 9748698 |
| 13 | B3.1 8.00-8.40 emmer | 25-Sep-2017 | 9748699 |
| 14 | B3.2 5.00 - 5.30 emmer | 25-Sep-2017 | 9748701 |

Akkoord
Pr.coörd.

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.

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## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017131481/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9748687 | | B2.2 | 200 | 230 | | B2.2 2.00-2.30 emmer |
| 9748687 | | | | | 0901808907 | B2.2 2.00-2.30 emmer |
| 9748688 | | B2.2 | 300 | 330 | | B2.2 3.00-3.30 emmer |
| 9748688 | | | | | 0901808906 | B2.2 3.00-3.30 emmer |
| 9748689 | | B2.2 | 500 | 530 | | B2.2 5.00-5.30 emmer |
| 9748689 | | | | | 0901808902 | B2.2 5.00-5.30 emmer |
| 9748690 | | B2.2 | 1,000 | 1,030 | | B2.2 10.00-10.30 emmer |
| 9748690 | | | | | 0901808904 | B2.2 10.00-10.30 emmer |
| 9748691 | | B3.1 | 400 | 500 | | B3.1 4.00-5.00 buis |
| 9748691 | | | | | 0901808894 | B3.1 4.00-5.00 buis |
| 9748692 | | B3.1 | 600 | 700 | | B3.1 6.00-7.00 buis |
| 9748692 | | | | | 0901987447 | B3.1 6.00-7.00 buis |
| 9748693 | | B3.1 | 970 | 1,120 | | B3.1 9.70-11.20 buis |
| 9748693 | | | | | 0901808899 | B3.1 9.70-11.20 buis |
| 9748694 | | B3.1 | 1,220 | 1,270 | | B3.1 12.20-12.70 buis |
| 9748694 | | | | | 0901808893 | B3.1 12.20-12.70 buis |
| 9748695 | | B3.1 | 1,380 | 1,480 | | B3.1 13.80-14.80 buis |
| 9748696 | | B3.1 | 1,680 | 1,730 | | B3.1 16.80-17.30 buis |
| 9748696 | | | | | 0901808898 | B3.1 16.80-17.30 buis |
| 9748697 | | B3.2 | 200 | 230 | | B3.2 2.00-2.30 emmer |
| 9748697 | | | | | 0901808901 | B3.2 2.00-2.30 emmer |
| 9748698 | | B3.1 | 855 | 874 | | B3.1 8.55-8.74 emmer |
| 9748698 | | | | | 0901808908 | B3.1 8.55-8.74 emmer |
| 9748699 | | B3.1 | 800 | 840 | | B3.1 8.00-8.40 emmer |
| 9748699 | | | | | 0901808900 | B3.1 8.00-8.40 emmer |
| 9748701 | | emmer | 500 | 530 | | B3.2 5.00 - 5.30 emmer |
| 9748701 | | | | | 0901808905 | |

## Bijlage (B) met opmerkingen behorende bij analysecertificaat 2017131481/0



**Opmerking 1)**

De monstermatrix van betreffend monster is voor de analyse geleidingsvermogen helaas niet geschikt.

**Opmerking 2)**

De toetswaarde van de som is gelijk aan de sommatie van 0,7*RG

**Opmerking 3)**

Indicatieve waarde omdat een kwaliteitscriterium niet aan de eis voldoet van ons kwaliteitssysteem volgens NEN-EN-ISO/IEC 17025.

**Opmerking 4)**

Deze bepaling is uitbesteed bij Eurofins GFA te Hamburg.

**Opmerking 5)**

Deze bepaling is uitbesteed bij Eurofins GFA te Hamburg.
ND: niet bepaald, aangezien het gehalte van geen van de corresponderende congeneren boven de rapportagegrens lag

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**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017131481/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Aromaten (BTEXN) | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| Xylenen som AS/AP | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| Cryogeen malen AS3000 | W0106 | Voorbehandeling | Cf. AS3000 |
| Droge stof | W0104 | Gravimetrie | Cf. pb 3010-2 en gw. NEN-EN 15934 |
| Droge Stof | W0104 | Gravimetrie | Cf. pb 3010-2 en gw. NEN-EN 15934 |
| Organische stof (gloeiverlies) | W0109 | Gravimetrie | Cf. pb 3010-3 en cf. NEN 5754 |
| Korrelgrootte < 2 µm (lutum) | W0171 | Sedimentatie | Cf. pb 3010-4 en cf. NEN 5753 |
| Aluminium (Al) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Arseen (As) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Barium (Ba) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Berylium (Be) | W0423 | ICP-MS | Cf. pb 3050-1/2 & cf.NEN-EN-ISO 17294-2 |
| Calcium (Ca) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Cadmium (Cd) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Kobalt (Co) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Koper (Cu) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Kwik (Hg) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Kalium (K) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Magnesium (Mg) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Molybdeen (Mo) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Natrium (Na) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Nikkel (Ni) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Lood (Pb) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Antimoon (Sb) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Seleen (Se) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Tin (Sn) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Vanadium (V) | W0423 | ICP-MS | Cf. pb 3050-1/2 & cf.NEN-EN-ISO 17294-2 |
| Zink (Zn) | W0423 | ICP-MS | Cf. pb 3010-5 en cf. NEN-EN-ISO 17294-2 |
| Styreen | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| VOCl (11) | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| Vinylchloride | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| VOCl: Cis 1,2-Dichlooretheen | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| VOCl: Trans 1,2-Dichlooretheen | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| Som 1,2-Dichloorethenen | W0254 | HS-GC-MS | Cf. NEN-ISO 22155 |
| 1,1-dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| 1,2-dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| 1,3-dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| DiChlprop. som AS300 | W0254 | HS-GC-MS | Cf. pb 3030-1 & NEN-EN-ISO 22155 |
| Minerale Olie (C10-C40) | W0202 | GC-FID | Cf. pb 3010-7 en gw. NEN-EN-ISO 16703 |

**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017131481/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Chromatogram M0 (GC) | W0202 | GC-FID | Gelijkw. NEN-EN-ISO 16703 |
| OCB (25) | W0262 | GC-MS | Cf. pb 3020-1/2/3 |
| OCB som AP04/AS3X | W0262 | GC-MS | Cf. pb 3020-1/2/3 |
| PCB (7) | W0262 | GC-MS | Cf. pb 3010-8 en gw. NEN 6980 |
| PAK (16) (EPA) | W0271 | GC-MS | Cf. pb. 3010-6 en gw. NEN-ISO 18287 |
| Zuurgraad (pH-H20) | W0524 | Potentiometrie | Cf. NEN-ISO 10390 |
| Zuurgraad (pH-CaCl2) | W0524 | Potentiometrie | Cf. pb 3010-1 en cf. NEN-ISO 10390 |
| Zuurgraad (pH-KCl) | W0524 | Potentiometrie | Cf. NEN-ISO 10390 / CMA/2/II/A.20 |
| Geleidingsvermogen (EC) | W0506 | Conductometrie | Cf. NEN 5749 |
| Bromide | W0504 | Ionchromatografie | Eigen methode |
| Chloride (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3040-2 & cf. NEN-EN-ISO 10304-1 |
| Fluoride | W0504 | Ionchromatografie | Eigen methode |
| Sulfaat (ionchromatografie) | W0504 | Ionchromatografie | Eigen methode |
| Cyanide vrij | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Thiocyanaat (mathematisch) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Cyanide EPA | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Cyanide totaal | W0517 | Spectrometrie (CFA) | Cf. pb3040-1 en cf. NEN-ISO 17380 |
| Cyanide complex (mathematisch) | W- | Berekening | Berekening |
| Dioxines (uitbesteed) | W0004 | Uitbesteed | Uitbesteding |
| Fenolen (10) en cresolen (3) | W6331 | GC-MS | Eigen methode |
| Chloorfenolen (20) | W6331 | GC-MS | Eigen methode |
| Tributyltin (TBT + TPhT) | W0268 | GC-MS | Cf. pb 3260-2 en cf. NEN-EN-ISO 23161 |
| Ftalaten (7) | W6331 | GC-MS | Eigen methode |

Nadere informatie over de toegepaste onderzoeksmethoden alsmede een classificatie van de meetonzekerheid staan vermeld in ons overzicht "Specificaties analysemethoden", versie juni 2016.

**Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017131481/0**



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

## Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017131481/0



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

| Analyse | Monster nr. |
|---|---|
| De conserveringstermijn is voor de betreffende analyse overschreden. | |
| Meettemperatuur (EC) | 9748687 |
| | 9748688 |
| | 9748689 |
| | 9748690 |
| | 9748691 |
| | 9748692 |
| | 9748693 |
| | 9748694 |
| | 9748695 |
| | 9748696 |
| | 9748697 |
| | 9748698 |
| | 9748699 |
| | 9748701 |
| Vluchtige componenten (Voorbehandeling) | 9748687 |
| | 9748688 |
| | 9748689 |
| | 9748690 |
| | 9748691 |
| | 9748692 |
| | 9748693 |
| | 9748694 |
| | 9748695 |
| | 9748696 |
| | 9748697 |
| | 9748698 |
| | 9748699 |
| | 9748701 |
| Cyanide (Voorb. NAT) | 9748687 |
| | 9748688 |
| | 9748689 |
| | 9748690 |
| | 9748691 |
| | 9748692 |
| | 9748693 |
| | 9748694 |
| | 9748695 |
| | 9748696 |
| | 9748697 |
| | 9748698 |
| | 9748699 |

## Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017131481/0



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

| | |
|---|---|
| | 9748701 |
| Minerale Olie (GC) (Voorbehandeling) | 9748687 |
| | 9748688 |
| | 9748689 |
| | 9748690 |
| | 9748691 |
| | 9748692 |
| | 9748693 |
| | 9748694 |
| | 9748695 |
| | 9748696 |
| | 9748697 |
| | 9748698 |
| | 9748699 |
| | 9748701 |
| Voorbehandeling organische parameters | 9748687 |
| | 9748688 |
| | 9748689 |
| | 9748690 |
| | 9748691 |
| | 9748692 |
| | 9748693 |
| | 9748694 |
| | 9748695 |
| | 9748696 |
| | 9748697 |
| | 9748698 |
| | 9748699 |
| | 9748701 |
| Extractie organische parameters | 9748687 |
| | 9748688 |
| | 9748689 |
| | 9748690 |
| | 9748691 |
| | 9748692 |
| | 9748693 |
| | 9748694 |
| | 9748695 |
| | 9748696 |
| | 9748697 |
| | 9748698 |
| | 9748699 |
| | 9748701 |

## Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017131481/0



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

| | |
|---|---|
| Voorbewerking Org Sn | 9748687 |
| | 9748688 |
| | 9748689 |
| | 9748690 |
| | 9748691 |
| | 9748692 |
| | 9748693 |
| | 9748694 |
| | 9748695 |
| | 9748696 |
| | 9748697 |
| | 9748698 |
| | 9748699 |
| | 9748701 |
| Extractie PCB/PAK | 9748688 |
| | 9748689 |
| | 9748690 |
| | 9748694 |
| | 9748696 |

Deltares

# Bijlage 5: Toetsing grondmonsters

**BoToVa T8 Beoordeling kwaliteit van grond bij grootschalige toepassing op de bod**

| | |
|---|---|
| Deltares projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25/09/2017 |
| Certificaatnummer | 2017131481 (voorlopig certificaat) |
| Startdatum | 05/10/2017 |
| Rapportagedatum | 01/11/2017 |

| | B2.2 2.00-2.30 emmer | B2.2 5.00-5.30 emmer | B2.2 10.00-10.30 emmer | B2.2 3.00-3.30 emmer | B3.1 4.00-5.00 buis | B3.1 6.00-7.00 buis | B3.1 8.00-8.40 emmer | B3.1 12.20-12.70 buis | B3.1 8.55-8.74 emmer |
|---|---|---|---|---|---|---|---|---|---|
| **locatie** | **B2.2** | **B2.2** | **B2.2** | **B2.2** | **B3.1** | **B3.1 TGG** | **B3.1** | **B3.1** | **B3.1** |
| **Classificatie** | **zand** | **zand** | **zand** | **klei** | **TGG** | **TGG** | **TGG** | **veen** | **klei** |
| **diepte (-mv)** | **2.15** | **5.25** | **10.15** | **3.15** | **4.5** | **6.5** | **8.2** | **12.45** | **8.65** |
| **mv** | **3.055** | **3.055** | **3.055** | **3.055** | **9.151** | **9.151** | **9.151** | **9.151** | **9.151** |
| **hoogte (m-NAP)** | **0.905** | **-2.195** | **-7.095** | **-0.095** | **4.651** | **2.651** | **0.951** | **-3.299** | **0.501** |

| Analyse | Eenheid | 1 | Oordeel | 2 | Oordeel | 3 | Oordeel | 4 | Oordeel | 5 | Oordeel | 6 | Oordeel | 7 | Oordeel | 8 | Oordeel | 9 | Oordee |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | | | | | | | | | |
| Organische stof | | 1.7 | | 0.7 | | 0.7 | | 1.8 | | 2.5 | | 2.1 | | 2.5 | | 90.9 | | 2 | |
| Korrelgrootte < 2 µm (Lutum) | | 6.9 | | 12.1 | | 4.2 | | 10.7 | | 2.3 | | 2.1 | | 2 | | 10.6 | | 9.7 | |
| **Voorbehandeling** | | | | | | | | | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | Uitgevoerd | | Uitgevoerd | | Uitgevoerd | | Uitgevoerd | | Uitgevoerd | | Uitgevoerd | | Uitgevoerd | | Uitgevoerd | |
| **Bodemkundige analyses** | | | | | | | | | | | | | | | | | | | |
| | % (m/m) | | | | | | | | | | | | | | | | | | |
| Organische stof | % (m/m) ds | 84.1 | | 75.2 | | 74.2 | | 79.6 | | 88.1 | | 87.5 | | 2.5 | | 21.3 | | 2 | |
| Gloeirest | % (m/m) ds | 1.7 | | 0.49 | | 0.49 | | 1.8 | | 2.5 | | 2.1 | | | | 90.9 | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | | | | | | | | | | | | | 1.4 | | | | 9.7 | |
| Droge stof | | 6.9 | | 12.1 | | 4.2 | | 10.7 | | 2.3 | | 2.1 | | 87 | | 10.6 | | 81.5 | |
| **Metalen** | | | | | | | | | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 4500 | | 4500 | | 2400 | | 5500 | | 11000 | | 11000 | | 9900 | | 1300 | | 6300 | |
| Arseen (As) | mg/kg ds | 7.344 | <=AW | 7.306 | <=AW | 4.645 | <=AW | 11.26 | <=AW | 12 | <=AW | 14.08 | <=AW | 20.71 | Wonen | 1.46 | <=AW | 19.16 | <=AW |
| Barium (Ba) | mg/kg ds | 33.64 | | 23.98 | | 42.55 | | 25.99 | | 329.375 | | 561.9 | | 406.9 | | 26.14 | | 27.64 | |
| Beryllium (Be) | mg/kg ds | 1.502 | | 1.13 | | 1.812 | | 1.211 | | 2.12 | | 2.159 | | 2.179 | | 1.217 | | 1.276 | |
| Calcium (Ca) | mg/kg ds | 15000 | | 30000 | | 17000 | | 29000 | | 52000 | | 53000 | | 54000 | | 8300 | | 30000 | |
| Cadmium (Cd) | mg/kg ds | 0.2241 | <=AW | 0.2087 | <=AW | 0.2331 | <=AW | 0.2126 | <=AW | 1.189 | Wonen | 1.146 | Wonen | 1.026 | Wonen | 0.0461 | <=AW | 0.3541 | <=AW |
| Kobalt (Co) | mg/kg ds | 7.096 | <=AW | 7.517 | <=AW | 9.351 | <=AW | 7.926 | <=AW | 31.32 | Wonen | 30.26 | Wonen | 26.37 | Wonen | 12.14 | <=AW | 10.69 | <=AW |
| Chroom (Cr) | mg/kg ds | 28.21 | <=AW | 24.26 | <=AW | 11.99 | <=AW | 26.61 | <=AW | 78.75 | Industrie | 121.8 | Industrie | 74.07 | Industrie | 9.831 | <=AW | 31.7 | <=AW |
| Koper (Cu) | mg/kg ds | 6.195 | <=AW | 5.371 | <=AW | 6.731 | <=AW | 5.57 | <=AW | 54.36 | Industrie | 55.48 | Industrie | 40.68 | Wonen | 1.66 | <=AW | 12.92 | <=AW |
| IJzer (Fe) | mg/kg ds | 9700 | | 11000 | | 4300 | | 12000 | | 15000 | | 14000 | | 14000 | | 3000 | | 13000 | |
| Kwik (Hg) | mg/kg ds | 0.0465 | <=AW | 0.0753 | <=AW | 0.0485 | <=AW | 0.044 | <=AW | 0.7548 | Wonen | 0.8743 | Industrie | 1.116 | Industrie | 0.027 | <=AW | 0.0689 | <=AW |
| Kalium (K) | mg/kg ds | 1700 | | 1800 | | 960 | | 1800 | | 2700 | | 2100 | | 2100 | | 1200 | | 2100 | |
| Magnesium (Mg) | mg/kg ds | 2100 | | 2700 | | 1500 | | 3100 | | 5900 | | 6100 | | 5400 | | 6700 | | 3500 | |
| Molybdeen (Mo) | mg/kg ds | 1.05 | <=AW | 1.05 | <=AW | 1.05 | <=AW | 1.05 | <=AW | 5.1 | Wonen | 3.4 | Wonen | 2.4 | Wonen | 1.05 | <=AW | 1.05 | <=AW |
| Natrium (Na) | mg/kg ds | 200 | | 410 | | 1800 | | 430 | | 1000 | | 1300 | | 1100 | | 15000 | | 720 | |
| Nikkel (Ni) | mg/kg ds | 12.22 | <=AW | 12.04 | <=AW | 11.34 | <=AW | 14.03 | <=AW | 68.29 | Industrie | 63.64 | Industrie | 58.33 | Industrie | 4.757 | <=AW | 17.06 | <=AW |
| Lood (Pb) | mg/kg ds | 10.1 | <=AW | 9.282 | <=AW | 10.59 | <=AW | 9.49 | <=AW | 107 | Wonen | 122.3 | Wonen | 107.6 | Wonen | 3.927 | <=AW | 20.66 | <=AW |
| Antimoon (Sb) | mg/kg ds | 1.05 | <=AW | 1.05 | <=AW | 1.05 | <=AW | 1.05 | <=AW | 2.2 | <=AW | 3.2 | <=AW | 2.4 | <=AW | 1.05 | <=AW | 1.05 | <=AW |
| Seleen (Se) | mg/kg ds | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | |
| Tin (Sn) | mg/kg ds | 2.451 | <=AW | 1.772 | <=AW | 3.06 | <=AW | 1.915 | <=AW | 16.95 | Wonen | 18.06 | Wonen | 14.62 | Wonen | 1.926 | <=AW | 17.41 | Woner |
| Vanadium (V) | mg/kg ds | 33.14 | <=AW | 26.92 | <=AW | 17.25 | <=AW | 33.82 | <=AW | 125.2 | Industrie | 121.5 | Industrie | 122.5 | Industrie | 11.89 | <=AW | 40.86 | <=AW |
| Zink (Zn) | mg/kg ds | 26.59 | <=AW | 47.03 | <=AW | 29.88 | <=AW | 23.03 | <=AW | 277 | Industrie | 329.7 | Industrie | 374.9 | Industrie | 8.985 | <=AW | 51.16 | <=AW |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | | | | | | | | | |
| Benzeen | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.256 | Industrie | 0.281 | Industrie | 0.14 | <=AW | 0.0116 | <=AW | 0.175 | <=AW |
| Tolueen | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 8 | iet toepasbaa | 1.238 | Industrie | 0.14 | <=AW | 0.0966 | <=AW | 0.175 | <=AW |
| Ethylbenzeen | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.14 | <=AW | 0.1667 | <=AW | 0.14 | <=AW | 0.0116 | <=AW | 0.175 | <=AW |
| o-Xyleen | mg/kg ds | 0.175 | | 0.175 | | 0.175 | | 0.175 | | 0.14 | | 0.1667 | | 0.14 | | 0.0116 | | 0.175 | |
| m,p-Xyleen | mg/kg ds | 0.175 | | 0.175 | | 0.175 | | 0.175 | | 0.14 | | 0.1667 | | 0.14 | | 0.0183 | | 0.175 | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.35 | <=AW | 0.35 | <=AW | 0.35 | <=AW | 0.35 | <=AW | 0.28 | <=AW | 0.3333 | <=AW | 0.28 | <=AW | 0.03 | <=AW | 0.35 | <=AW |
| BTEX (som) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Styreen | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.14 | <=AW | 0.1667 | <=AW | 0.14 | <=AW | 0.0116 | <=AW | 0.175 | <=AW |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.14 | <=AW | 0.1667 | <=AW | 0.14 | <=AW | 0.0116 | <=AW | 0.175 | <=AW |
| Trichloormethaan | mg/kg ds | 0.07 | <=AW | 0.07 | <=AW | 0.07 | <=AW | 0.07 | <=AW | 0.056 | <=AW | 0.0666 | <=AW | 0.056 | <=AW | 0.0046 | <=AW | 0.07 | <=AW |
| Tetrachloormethaan | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.14 | <=AW | 0.1667 | <=AW | 0.14 | <=AW | 0.0116 | <=AW | 0.175 | <=AW |
| Trichlooretheen | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.14 | <=AW | 0.1667 | <=AW | 0.14 | <=AW | 0.0116 | <=AW | 0.175 | <=AW |
| Tetrachlooretheen | mg/kg ds | 0.035 | <=AW | 0.035 | <=AW | 0.035 | <=AW | 0.035 | <=AW | 0.028 | <=AW | 0.0333 | <=AW | 0.028 | <=AW | 0.0023 | <=AW | 0.035 | <=AW |
| 1,1-Dichloorethaan | mg/kg ds | 0.07 | <=AW | 0.07 | <=AW | 0.07 | <=AW | 0.07 | <=AW | 0.056 | <=AW | 0.0666 | <=AW | 0.056 | <=AW | 0.0046 | <=AW | 0.07 | <=AW |
| 1,2-Dichloorethaan | mg/kg ds | 0.07 | <=AW | 0.07 | <=AW | 0.07 | <=AW | 0.07 | <=AW | 0.056 | <=AW | 0.0666 | <=AW | 0.056 | <=AW | 0.0046 | <=AW | 0.07 | <=AW |
| 1,1,1-Trichloorethaan | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.14 | <=AW | 0.1667 | <=AW | 0.14 | <=AW | 0.0116 | <=AW | 0.175 | <=AW |
| 1,1,2-Trichloorethaan | mg/kg ds | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.175 | <=AW | 0.14 | <=AW | 0.1667 | <=AW | 0.14 | <=AW | 0.0116 | <=AW | 0.175 | <=AW |
| cis 1,2-Dichlooretheen | mg/kg ds | 0.175 | | 0.175 | | 0.175 | | 0.175 | | 0.14 | | 0.1667 | | 0.14 | | 0.0116 | | 0.175 | |
| trans 1,2-Dichlooretheen | mg/kg ds | 0.175 | | 0.175 | | 0.175 | | 0.175 | | 0.14 | | 0.1667 | | 0.14 | | 0.0116 | | 0.175 | |
| CKW (som) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Vinylchloride | mg/kg ds | 0.035 | <=AW | 0.035 | <=AW | 0.035 | <=AW | 0.035 | <=AW | 0.028 | <=AW | 0.0333 | <=AW | 0.028 | <=AW | 0.0023 | <=AW | 0.035 | <=AW |
| cis 1,2-Dichloroetheen | mg/kg ds | | | | | | | | | | | | | | | | | | |
| trans 1,2-Dichloroetheen | mg/kg ds | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlooretheen (som) | mg/kg ds | 0.35 | <=AW | 0.35 | <=AW | 0.35 | <=AW | 0.35 | <=AW | 0.28 | <=AW | 0.3333 | <=AW | 0.28 | <=AW | 0.0233 | <=AW | 0.35 | <=AW |
| 1,1-dichloorpropaan | mg/kg ds | 0.175 | | 0.175 | | 0.175 | | 0.175 | | 0.14 | | 0.1667 | | 0.14 | | 0.0116 | | 0.175 | |
| 1,2-dichloorpropaan | mg/kg ds | 0.175 | | 0.175 | | 0.175 | | 0.175 | | 0.14 | | 0.1667 | | 0.14 | | 0.0116 | | 0.175 | |
| 1,3-dichloorpropaan | mg/kg ds | 0.175 | | 0.175 | | 0.175 | | 0.175 | | 0.14 | | 0.1667 | | 0.14 | | 0.0116 | | 0.175 | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.525 | <=AW | 0.525 | <=AW | 0.525 | <=AW | 0.525 | <=AW | 0.42 | <=AW | 0.5 | <=AW | 0.42 | <=AW | 0.035 | <=AW | 0.525 | <=AW |
| **Minerale olie** | | | | | | | | | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | 10.5 | | 10.5 | | 10.5 | | 10.5 | | 8.4 | | 10 | | 8.4 | | 2.8 | | 10.5 | |
| Minerale olie (C12-C16) | mg/kg ds | 17.5 | | 17.5 | | 17.5 | | 17.5 | | 14 | | 16.67 | | 14 | | 4.667 | | 17.5 | |
| Minerale olie (C16-C21) | mg/kg ds | 39.5 | | 17.5 | | 17.5 | | 17.5 | | 14 | | 16.67 | | 14 | | 4.667 | | 17.5 | |
| Minerale olie (C21-C30) | mg/kg ds | 250 | | 38.5 | | 38.5 | | 38.5 | | 30.8 | | 36.67 | | 30.8 | | 40 | | 38.5 | |
| Minerale olie (C30-C35) | mg/kg ds | 90 | | 17.5 | | 70 | | 17.5 | | 14 | | 16.67 | | 14 | | 50 | | 17.5 | |
| Minerale olie (C35-C40) | mg/kg ds | 39 | | 21 | | 21 | | 21 | | 16.8 | | 20 | | 16.8 | | 5.6 | | 21 | |
| Minerale olie totaal (C10-C40) | mg/kg ds | 430 | Industrie | 122.5 | <=AW | 122.5 | <=AW | 122.5 | <=AW | 98 | <=AW | 116.7 | <=AW | 98 | <=AW | 100 | <=AW | 122.5 | <=AW |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0028 | <=AW | 0.0128 | Industrie | 0.0028 | <=AW | 0.0002 | <=AW | 0.0035 | <=AW |
| beta-HCH | mg/kg ds | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0184 | Industrie | 0.0195 | Industrie | 0.0096 | Industrie | 0.0002 | <=AW | 0.0035 | <=AW |
| gamma-HCH | mg/kg ds | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0028 | <=AW | 0.0033 | <=AW | 0.0028 | <=AW | 0.0002 | <=AW | 0.0035 | <=AW |
| delta-HCH | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| Hexachloorbenzeen | mg/kg ds | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0028 | <=AW | 0.0033 | <=AW | 0.0028 | <=AW | 0.0002 | <=AW | 0.0035 | <=AW |
| Heptachloor | mg/kg ds | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0028 | <=AW | 0.0033 | <=AW | 0.0028 | <=AW | 0.0002 | <=AW | 0.0035 | <=AW |
| Heptachloorepoxide(cis- of A) | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |

| | B2.2 2.00-2.30 emmer | B2.2 5.00-5.30 emmer | B2.2 10.00-10.30 emmer | B2.2 3.00-3.30 emmer | B3.1 4.00-5.00 buis | B3.1 6.00-7.00 buis | B3.1 8.00-8.40 emmer | B3.1 12.20-12.70 buis | B3.1 8.55-8.74 emmer |
|---|---|---|---|---|---|---|---|---|---|
| **locatie** | **B2.2** | **B2.2** | **B2.2** | **B2.2** | **B3.1** | **B3.1 TGG** | **B3.1** | **B3.1** | **B3.1** |
| **Classificatie** | **zand** | **zand** | **zand** | **klei** | **TGG** | **TGG** | **TGG** | **veen** | **klei** |
| **diepte (-mv)** | **2.15** | **5.25** | **10.15** | **3.15** | **4.5** | **6.5** | **8.2** | **12.45** | **8.65** |
| **mv** | **3.055** | **3.055** | **3.055** | **3.055** | **9.151** | **9.151** | **9.151** | **9.151** | **9.151** |
| **hoogte (m-NAP)** | **0.905** | **-2.195** | **-7.095** | **-0.095** | **4.651** | **2.651** | **0.951** | **-3.299** | **0.501** |

| Analyse | Eenheid | 1 | Oordeel | 2 | Oordeel | 3 | Oordeel | 4 | Oordeel | 5 | Oordeel | 6 | Oordeel | 7 | Oordeel | 8 | Oordeel | 9 | Oordee |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heptachloorepoxide(trans- of B) | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| Hexachloorbutadieen | mg/kg ds | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0028 | <=AW | 0.0033 | <=AW | 0.0028 | <=AW | 0.0002 | <=AW | 0.0035 | <=AW |
| Aldrin | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| Dieldrin | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0076 | | 0.0171 | | 0.0116 | | 0.0002 | | 0.0035 | |
| Endrin | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0071 | | 0.0028 | | 0.0002 | | 0.0035 | |
| Isodrin | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| Telodrin | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| alfa-Endosulfan | mg/kg ds | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0028 | <=AW | 0.0033 | <=AW | 0.0028 | <=AW | 0.0002 | <=AW | 0.0035 | <=AW |
| beta-Endosulfan | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| Endosulfansulfaat | mg/kg ds | 0.007 | | 0.007 | | 0.007 | | 0.007 | | 0.0056 | | 0.0066 | | 0.0056 | | 0.0004 | | 0.007 | |
| alfa-Chloordaan | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| gamma-Chloordaan | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| o,p'-DDT | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| p,p'-DDT | mg/kg ds | 0.0035 | | 0.0065 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.012 | | 0.0035 | |
| o,p'-DDE | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| p,p'-DDE | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.013 | |
| o,p'-DDD | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0004 | | 0.0035 | |
| p,p'-DDD | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0012 | | 0.0035 | |
| HCH (som) (factor 0,7) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0105 | <=AW | 0.0105 | <=AW | 0.0105 | <=AW | 0.0105 | <=AW | 0.0132 | <=AW | 0.0276 | Wonen | 0.0172 | Wonen | 0.0007 | <=AW | 0.0105 | <=AW |
| Heptachloorepoxide (som) (factor 0,7) | mg/kg ds | 0.007 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.0056 | <=AW | 0.0066 | <=AW | 0.0056 | <=AW | 0.0004 | <=AW | 0.007 | <=AW |
| DDD (som) (factor 0,7) | mg/kg ds | 0.007 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.0056 | <=AW | 0.0066 | <=AW | 0.0056 | <=AW | 0.0017 | <=AW | 0.007 | <=AW |
| DDE (som) (factor 0,7) | mg/kg ds | 0.007 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.0056 | <=AW | 0.0066 | <=AW | 0.0056 | <=AW | 0.0004 | <=AW | 0.0165 | <=AW |
| DDT (som) (factor 0,7) | mg/kg ds | 0.007 | <=AW | 0.01 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.0056 | <=AW | 0.0066 | <=AW | 0.0056 | <=AW | 0.0122 | <=AW | 0.007 | <=AW |
| DDX (som) (factor 0,7) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.007 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.007 | <=AW | 0.0056 | <=AW | 0.0066 | <=AW | 0.0056 | <=AW | 0.0004 | <=AW | 0.007 | <=AW |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.0735 | <=AW | 0.0765 | <=AW | 0.0735 | <=AW | 0.0735 | <=AW | 0.0792 | <=AW | 0.1133 | <=AW | 0.0744 | <=AW | 0.0179 | <=AW | 0.083 | <=AW |
| OCB (som) WB (factor 0,7) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | | | | | | | | | |
| PCB 28 | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| PCB 52 | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| PCB 101 | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| PCB 118 | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| PCB 138 | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| PCB 153 | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| PCB 180 | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0245 | <=AW | 0.0245 | <=AW | 0.0245 | <=AW | 0.0245 | <=AW | 0.0196 | <=AW | 0.0233 | <=AW | 0.0196 | <=AW | 0.0016 | <=AW | 0.0245 | <=AW |
| **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | | | | | | | | | | | | | | | |
| Naftaleen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.064 | | 0.059 | | 0.035 | | 0.0116 | | 0.035 | |
| Acenaftyleen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| Acenafteen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| Fluoreen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| Fenanthreen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.13 | | 0.13 | | 0.085 | | 0.0116 | | 0.035 | |
| Anthraceen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| Fluorantheen | mg/kg ds | 0.072 | | 0.035 | | 0.035 | | 0.035 | | 0.11 | | 0.12 | | 0.078 | | 0.0116 | | 0.035 | |
| Pyreen | mg/kg ds | 0.052 | | 0.035 | | 0.035 | | 0.035 | | 0.078 | | 0.085 | | 0.058 | | 0.0116 | | 0.035 | |
| Benzo(a)anthraceen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.052 | | 0.035 | | 0.0116 | | 0.035 | |
| Chryseen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.065 | | 0.073 | | 0.035 | | 0.0116 | | 0.035 | |
| Benzo(b)fluorantheen | mg/kg ds | 0.053 | | 0.035 | | 0.035 | | 0.035 | | 0.054 | | 0.062 | | 0.035 | | 0.0116 | | 0.035 | |
| Benzo(k)fluorantheen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| Benzo(a)pyreen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| Dibenzo(ah)anthraceen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| Benzo(ghi)peryleen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| Indeno(123-cd)pyreen | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.0116 | | 0.035 | |
| PAK Totaal VROM (10) | mg/kg ds | 0.387 | <=AW | 0.35 | <=AW | 0.35 | <=AW | 0.35 | <=AW | 0.579 | <=AW | 0.609 | <=AW | 0.443 | <=AW | 0.1167 | <=AW | 0.35 | <=AW |
| PAK Totaal EPA (16) | mg/kg ds | 0.632 | | 0.56 | | 0.56 | | 0.56 | | 0.851 | | 0.896 | | 0.676 | | 0.1867 | | 0.56 | |
| **Fysisch-chemische analyses** | | | | | | | | | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | | | | | | | | | | | | | | | | | | |
| Zuurgraad (pH-H20) | | | | | | | | | | | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | | | | | | | | | | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | | | | | | | | | | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | | | | | | | | | | | | | | | | | | |
| Zuurgraad (pH-KCl) | | | | | | | | | | | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | | | | | | | | | | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | | | | | | | | | | | | | | | | | | |
| Meettemperatuur (EC) | °C | | | | | | | | | | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | | | | | | | | | |
| Bromide | mg/kg ds | 3.5 | | 23 | | 8.4 | | 3.5 | | 150 | | 190 | | 160 | | 57 | | 51 | |
| Chloride | mg/kg ds | 72 | | 340 | | 5600 | | 190 | | 740 | | 1300 | | 1100 | | 17000 | | 730 | |
| Fluoride | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Sulfaat | mg/kg ds | | | | | | | | | | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | 2.1 | <=AW | 2.1 | <=AW | 2.1 | <=AW | 2.1 | <=AW | 2.1 | <=AW | 2.1 | <=AW | 2.1 | <=AW | 2.1 | <=AW | 2.1 | <=AW |
| Thiocyanaat (mathematisch) | mg/kg ds | 1.75 | <=AW | 1.75 | <=AW | 1.75 | <=AW | 1.75 | <=AW | 1.75 | <=AW | 1.75 | <=AW | 1.75 | <=AW | 1.75 | <=AW | 1.75 | <=AW |
| Cyanide EPA (335.5) | mg/kg ds | 1.75 | | 1.75 | | 1.75 | | 1.75 | | 1.75 | | 1.75 | | 1.75 | | 1.75 | | 1.75 | |
| Cyanide totaal | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Cyanide complex (mathematisch) | | 3.5 | <=AW | 3.5 | <=AW | 3.5 | <=AW | 3.5 | <=AW | 3.5 | <=AW | 3.5 | <=AW | 3.5 | <=AW | 3.5 | <=AW | 3.5 | <=AW |
| **Dioxines** | | | | | | | | | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | 0.6475 | | 0.6405 | | 0.595 | | 0.616 | | 0.4956 | | 0.57 | | 0.4844 | | 0.0998 | | 0.5845 | |
| 12378-PentaCDD | ng/kg ds | 0.8645 | | 0.8505 | | 0.791 | | 0.819 | | 0.6608 | | 0.76 | | 0.6468 | | 0.1332 | | 0.7805 | |
| 123478-HexaCDD | ng/kg ds | 1.729 | | 1.704 | | 1.582 | | 1.649 | | 1.319 | | 1.517 | | 1.291 | | 0.266 | | 1.565 | |
| 123678-HexaCDD | ng/kg ds | 1.729 | | 1.704 | | 1.582 | | 1.649 | | 1.319 | | 1.517 | | 1.291 | | 0.266 | | 1.565 | |
| 123789-HexaCDD | ng/kg ds | 1.729 | | 1.704 | | 1.582 | | 1.649 | | 1.319 | | 1.517 | | 1.291 | | 0.266 | | 1.565 | |
| 1234678-HeptaCDD | ng/kg ds | 6.6 | | 11.3 | | 1.782 | | 9.9 | | 10.16 | | 9.571 | | 8.68 | | 0.2987 | | 20.6 | |
| OctaCDD | ng/kg ds | 33.65 | | 52 | | 7.245 | | 67 | | 22.84 | | 24.05 | | 27.6 | | 1.22 | | 139.5 | |
| 2378-TetraCDF | ng/kg ds | 1.151 | | 1.134 | | 1.057 | | 1.099 | | 5.36 | | 5.905 | | 3.636 | | 0.1776 | | 2.165 | |
| 12378-PentaCDF | ng/kg ds | 1.585 | | 1.561 | | 1.452 | | 1.508 | | 1.21 | | 1.39 | | 1.184 | | 0.245 | | 1.431 | |
| 23478-PentaCDF | ng/kg ds | 1.585 | | 1.561 | | 1.452 | | 1.508 | | 4.56 | | 6.381 | | 3.3 | | 0.245 | | 1.431 | |
| 123478-HexaCDF | ng/kg ds | 1.438 | | 1.421 | | 1.319 | | 1.372 | | 3.132 | | 6.667 | | 3.016 | | 0.2219 | | 1.94 | |

| | B2.2 2.00-2.30 emmer | B2.2 5.00-5.30 emmer | B2.2 10.00-10.30 emmer | B2.2 3.00-3.30 emmer | B3.1 4.00-5.00 buis | B3.1 6.00-7.00 buis | B3.1 8.00-8.40 emmer | B3.1 12.20-12.70 buis | B3.1 8.55-8.74 emmer |
|---|---|---|---|---|---|---|---|---|---|
| **locatie** | **B2.2** | **B2.2** | **B2.2** | **B2.2** | **B3.1** | **B3.1 TGG** | **B3.1** | **B3.1** | **B3.1** |
| **Classificatie** | **zand** | **zand** | **zand** | **klei** | **TGG** | **TGG** | **TGG** | **veen** | **klei** |
| **diepte (-mv)** | **2.15** | **5.25** | **10.15** | **3.15** | **4.5** | **6.5** | **8.2** | **12.45** | **8.65** |
| **mv** | **3.055** | **3.055** | **3.055** | **3.055** | **9.151** | **9.151** | **9.151** | **9.151** | **9.151** |
| **hoogte (m-NAP)** | **0.905** | **-2.195** | **-7.095** | **-0.095** | **4.651** | **2.651** | **0.951** | **-3.299** | **0.501** |

| Analyse | Eenheid | 1 | Oordeel | 2 | Oordeel | 3 | Oordeel | 4 | Oordeel | 5 | Oordeel | 6 | Oordeel | 7 | Oordeel | 8 | Oordeel | 9 | Oordee |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 123678-HexaCDF | ng/kg ds | 1.438 | | 1.421 | | 1.319 | | 1.372 | | 1.1 | | 1.263 | | 1.075 | | 0.2219 | | 1.302 | |
| 123789-HexaCDF | ng/kg ds | 1.438 | | 1.421 | | 1.319 | | 1.372 | | 1.1 | | 1.263 | | 1.075 | | 0.2219 | | 1.302 | |
| 234678-HexaCDF | ng/kg ds | 1.438 | | 1.421 | | 1.319 | | 1.372 | | 1.1 | | 1.263 | | 1.075 | | 0.2219 | | 1.302 | |
| 1234678-HeptaCDF | ng/kg ds | 4.315 | | 1.845 | | 1.715 | | 2.57 | | 2.928 | | 3.781 | | 2.664 | | 0.2893 | | 11.55 | |
| 1234789-HeptaCDF | ng/kg ds | 1.369 | | 2.1 | | 1.253 | | 1.306 | | 1.044 | | 1.2 | | 1.022 | | 0.2109 | | 1.239 | |
| OctaCDF | ng/kg ds | 11.52 | | 33.1 | | 10.57 | | 18.38 | | 8.792 | | 10.1 | | 8.596 | | 1.776 | | 16.9 | |
| WHO(`05) PCDD/F TEQ excl LOQ | ng/kg ds | | | | | | | | | | | | | | | | | | |
| WHO(`05) PCDD/F TEQ incl LOQ | ng/kg ds | 3.486 | <=AW | 3.482 | <=AW | 3.131 | <=AW | 3.354 | <=AW | 4.37 | <=AW | 5.633 | <=AW | 3.75 | <=AW | 0.5162 | <=AW | 3.594 | <=AW |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | | | | | | | | | | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | | | | | | | | | | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | | | | | | | | | |
| Fenol | mg/kg ds | 0.035 | <=AW | 0.035 | <=AW | 0.035 | <=AW | 0.035 | <=AW | 0.028 | <=AW | 0.0952 | <=AW | 0.028 | <=AW | 0.0023 | <=AW | 0.035 | <=AW |
| o-Cresol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| m-Cresol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| p-Cresol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.05 | |
| Cresolen (som) | mg/kg ds | 0.105 | <=AW | 0.105 | <=AW | 0.105 | <=AW | 0.105 | <=AW | 0.084 | <=AW | 0.1 | <=AW | 0.084 | <=AW | 0.007 | <=AW | 0.12 | <=AW |
| 2,4-Dimethylfenol | mg/kg ds | | | | | | | | | | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | | | | | | | | | | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| 3,4-Dimethylfenol | mg/kg ds | | | | | | | | | | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | 0.07 | | 0.07 | | 0.07 | | 0.07 | | 0.056 | | 0.0666 | | 0.056 | | 0.0046 | | 0.07 | |
| m-Ethylfenol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| Thymol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | | | | | | | | | | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| m-Chloorfenol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| p-Chloorfenol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| Monochloorfenolen (som) | mg/kg ds | 0.105 | Industrie | 0.105 | Industrie | 0.105 | Industrie | 0.105 | Industrie | 0.084 | Industrie | 0.1 | Industrie | 0.084 | Industrie | 0.007 | <=AW | 0.105 | Industri |
| 2,3-Dichloorfenol | mg/kg ds | 0.007 | | 0.007 | | 0.007 | | 0.007 | | 0.0056 | | 0.0066 | | 0.0056 | | 0.0004 | | 0.007 | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| 2,6-Dichloorfenol | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| 3,4-Dichloorfenol | mg/kg ds | 0.007 | | 0.007 | | 0.007 | | 0.007 | | 0.0056 | | 0.0066 | | 0.0056 | | 0.0004 | | 0.007 | |
| 3,5-Dichloorfenol | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| Dichloorfenolen (som) | mg/kg ds | 0.0245 | <=AW | 0.0245 | <=AW | 0.0245 | <=AW | 0.0245 | <=AW | 0.0196 | <=AW | 0.0233 | <=AW | 0.0196 | <=AW | 0.0016 | <=AW | 0.0245 | <=AW |
| 2,3,4-Trichloorfenol | mg/kg ds | 0.035 | | 0.035 | | 0.035 | | 0.035 | | 0.028 | | 0.0333 | | 0.028 | | 0.0023 | | 0.035 | |
| 2,3,5-Trichloorfenol | mg/kg ds | | | | | | | | | | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| 2,4,5-Trichloorfenol | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| 2,4,6-Trichloorfenol | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| 3,4,5-Trichloorfenol | mg/kg ds | 0.007 | | 0.007 | | 0.007 | | 0.007 | | 0.0056 | | 0.0066 | | 0.0056 | | 0.0004 | | 0.007 | |
| Trichloorfenolen (som) | mg/kg ds | 0.0525 | Industrie | 0.0525 | Industrie | 0.0525 | Industrie | 0.0525 | Industrie | 0.042 | Industrie | 0.05 | Industrie | 0.042 | Industrie | 0.0035 | Industrie | 0.0525 | Industri |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | 0.007 | | 0.007 | | 0.007 | | 0.007 | | 0.0056 | | 0.0066 | | 0.0056 | | 0.0004 | | 0.007 | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Pentachloorfenol | mg/kg ds | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0035 | <=AW | 0.0028 | <=AW | 0.0033 | <=AW | 0.0028 | <=AW | 0.0002 | <=AW | 0.0035 | <=AW |
| 4-Chloor-3-methylfenol | mg/kg ds | 0.0035 | | 0.0035 | | 0.0035 | | 0.0035 | | 0.0028 | | 0.0033 | | 0.0028 | | 0.0002 | | 0.0035 | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | 0.014 | <=AW | 0.014 | <=AW | 0.014 | <=AW | 0.014 | <=AW | 0.0112 | <=AW | 0.0133 | <=AW | 0.0112 | <=AW | 0.0009 | <=AW | 0.014 | <=AW |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | 0.014 | | 0.014 | | 0.014 | | 0.014 | | 0.0112 | | 0.0133 | | 0.0112 | | 0.0009 | | 0.033 | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0754 | <=AW | 0.0754 | <=AW | 0.0754 | <=AW | 0.0754 | <=AW | 0.0603 | <=AW | 0.0718 | <=AW | 0.0603 | <=AW | 0.005 | <=AW | 0.1315 | <=AW |
| Organotin som (factor 0,7) | mg/kg ds | | | | | | | | | | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | 0.7 | Wonen | 0.7 | Wonen | 0.7 | Wonen | 0.7 | Wonen | 0.56 | Wonen | 0.6667 | Wonen | 0.56 | Wonen | 0.0466 | Wonen | 0.7 | Wonen |
| Diethylftalaat | mg/kg ds | 0.7 | Wonen | 0.7 | Wonen | 0.7 | Wonen | 0.7 | Wonen | 0.56 | Wonen | 0.6667 | Wonen | 0.56 | Wonen | 0.0466 | Wonen | 0.7 | Wonen |
| Di-isobutylftalaat | mg/kg ds | 1.75 | Industrie | 1.75 | Industrie | 1.75 | Industrie | 1.75 | Industrie | 1.4 | Industrie | 1.667 | Industrie | 1.4 | Industrie | 0.1167 | Wonen | 1.75 | Industri |
| Dibutylftalaat | mg/kg ds | 1.75 | Wonen | 1.75 | Wonen | 1.75 | Wonen | 1.75 | Wonen | 1.4 | Wonen | 1.667 | Wonen | 1.4 | Wonen | 0.1167 | Wonen | 1.75 | Wonen |
| Butylbenzylftalaat | mg/kg ds | 0.7 | Wonen | 0.7 | Wonen | 0.7 | Wonen | 0.7 | Wonen | 0.56 | Wonen | 0.6667 | Wonen | 0.56 | Wonen | 0.0466 | <=AW | 0.7 | Wonen |
| Bis(ethylhexyl)ftalaat | mg/kg ds | 0.7 | Wonen | 0.7 | Wonen | 0.7 | Wonen | 0.7 | Wonen | 0.56 | Wonen | 0.6667 | Wonen | 0.56 | Wonen | 0.0466 | Wonen | 0.7 | Wonen |
| Di-n-octylftalaat | mg/kg ds | 0.7 | | 0.7 | | 0.7 | | 0.7 | | 0.56 | | 0.6667 | | 0.56 | | 0.0466 | | 0.7 | |
| Ftalaten (som) | mg/kg ds | 0.7 | | -- | | -- | | -- | | -- | | -- | | 0.56 | | 0.0466 | | -- | |

BoTo'n'a T8 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 1 | GSSD | Oordeel | RIG Eis | AW | AW x 2 | Wonen | industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 1.7 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 6.9 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Droge stof | % (m/m) | 84.1 | 84.1 | | | | | | | | |
| Organische stof | % (m/m) ds | 1.7 | 1.7 | | | | | | | | |
| Gloeirest | % (m/m) ds | 97.9 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 6.9 | 6.9 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 4500 | 4500 | | | | | | | | |
| Arseen (As) | mg/kg ds | 4.7 | 7.344 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | <20 | 31.64 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 1.502 | | 1 | | | | | | 30 |
| Calcium (Ca) | mg/kg ds | 15000 | 15000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | <0.20 | 0.2241 | <=AW | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 3.1 | 7.096 | <=AW | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 18 | 28.21 | <=AW | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | <5.0 | 6.195 | <=AW | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 9700 | 9700 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | <0.050 | 0.0465 | <=AW | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 1700 | 1700 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 2100 | 2100 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 200 | 200 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 5.9 | 12.22 | <=AW | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | <10 | 10.1 | <=AW | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | <1.5 | 2.451 | <=AW | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 16 | 33.14 | <=AW | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | <20 | 26.59 | <=AW | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.35 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.35 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.525 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 10.5 | | | | | | | | |
| Minerale olie (C13-C16) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | 7.9 | 39.5 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | 50 | 250 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | 18 | 90 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | 7.8 | 39 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | 86 | 430 | Indicatief | 35 | 190 | 190 | 190 | 500 | | 5000 |
| Chromatogram olie (GC) | | Zie bijl. | | | | | | | | | |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0035 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.007 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0021 | 0.0105 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooreposide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.015 | 0.0735 | <=AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.016 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0245 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen.** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoranthaen | mg/kg ds | 0.072 | 0.072 | | | | | | | | |
| Pyreen | mg/kg ds | 0.052 | 0.052 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | 0.053 | 0.053 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |

BoToVa T8.Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 1 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.387 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.632 | | | | | | | | |
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 8.4 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 6.9 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 7.7 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.086 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 240 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21.2 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | <5.0 | 3.5 | | | | | | | | |
| Chloride | mg/kg ds | 72 | 72 | | | | | | | | |
| Fluoride | mg/kg ds | 2.4 | | | | | | | | | |
| Sulfaat | mg/kg ds | 230 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.185 | 0.6475 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.247 | 0.8645 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.494 | 1.729 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.494 | 1.729 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.494 | 1.729 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 1.32 | 6.6 | | | | | | | | |
| OctaCDD | ng/kg ds | 6.73 | 33.65 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | <0.329 | 1.151 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.453 | 1.585 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | <0.453 | 1.585 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | <0.411 | 1.438 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.411 | 1.438 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.411 | 1.438 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.411 | 1.438 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 0.863 | 4.315 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.391 | 1.369 | | | | | | | | |
| OctaCDF | ng/kg ds | <1.29 | 11.52 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.0238 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 0.956 | 3.486 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.0285 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 0.939 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.035 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.105 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.07 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.105 | Indust/ne | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0245 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0525 | Indust/ne | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0035 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0754 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.75 | Indust/ne | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.75 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.7 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 1 | 9748687 | B2.2 2.00-2.30 emmer |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoTo'n'a T8 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 2 | GSSD | Oordeel | RIG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 1.8 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 10.7 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Droge stof | % (m/m) | 79.6 | 79.6 | | | | | | | | |
| Organische stof | % (m/m) ds | 1.8 | 1.8 | | | | | | | | |
| Gloeirest | % (m/m) ds | 97.4 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 10.7 | 10.7 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 5500 | 5500 | | | | | | | | |
| Arseen (As) | mg/kg ds | 7.8 | 11.26 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | <20 | 25.99 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 1.211 | | 1 | | | | | | 30 |
| Calcium (Ca) | mg/kg ds | 29000 | 29000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | <0.20 | 0.2126 | <=AW | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 4.4 | 7.926 | <=AW | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 19 | 26.61 | <=AW | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | <5.0 | 5.57 | <=AW | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 12000 | 12000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | <0.050 | 0.044 | <=AW | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 1800 | 1800 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 3100 | 3100 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 430 | 430 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 8.3 | 14.03 | <=AW | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | <10 | 9.49 | <=AW | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | <1.5 | 1.915 | <=AW | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 20 | 33.82 | <=AW | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | <20 | 21.03 | <=AW | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.35 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichlooretheen (som) | mg/kg ds | <0.040 | 0.35 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.525 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 10.5 | | | | | | | | |
| Minerale olie (C13-C16) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 38.5 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 21 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 122.5 | <=AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0035 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.007 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0021 | 0.0105 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooreposide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.015 | 0.0735 | <=AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.016 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0245 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen.** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |

BoToVa '18 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 2 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.095 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.35 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.56 | | | | | | | | |
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 8.7 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 7.8 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 7.8 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.091 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 340 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | <5.0 | 3.5 | | | | | | | | |
| Chloride | mg/kg ds | 190 | 190 | | | | | | | | |
| Fluoride | mg/kg ds | 2.9 | | | | | | | | | |
| Sulfaat | mg/kg ds | 220 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.176 | 0.616 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.234 | 0.819 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.471 | 1.649 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.471 | 1.649 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.471 | 1.649 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 1.98 | 9.9 | | | | | | | | |
| OctaCDD | ng/kg ds | 13.4 | 67 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | <0.314 | 1.099 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.431 | 1.508 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | <0.431 | 1.508 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | <0.392 | 1.372 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.392 | 1.372 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.392 | 1.372 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.392 | 1.372 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 0.514 | 2.57 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.373 | 1.306 | | | | | | | | |
| OctaCDF | ng/kg ds | <5.25 | 18.38 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.029 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 0.918 | 3.354 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.0384 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 0.908 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.035 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.105 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.07 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.105 | Indust/Etw | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0245 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0525 | Indust/Etw | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0035 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0754 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.75 | Indust/Etw | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.75 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.7 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 2 | 9748688 | B2.2 3.00-3.30 emmer |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoTo'n'a T8 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 3 | GSSD | Oordeel | RIG Eis | AW | AW x 2 | Wonen | industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 0.7 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 12.1 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Droge stof | % (m/m) | 75.2 | 75.2 | | | | | | | | |
| Organische stof | % (m/m) ds | <0.7 | 0.49 | | | | | | | | |
| Gloeirest | % (m/m) ds | 98.7 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 12.1 | 12.1 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 4500 | 4500 | | | | | | | | |
| Arseen (As) | mg/kg ds | 5.2 | 7.306 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | <20 | 21.98 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 1.13 | | 1 | | | | | | 30 |
| Calcium (Ca) | mg/kg ds | 30000 | 30000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | <0.20 | 0.2087 | <=AW | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 4.5 | 7.517 | <=AW | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 18 | 24.26 | <=AW | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | <5.0 | 5.371 | <=AW | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 11000 | 11000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | 0.061 | 0.0753 | <=AW | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 1800 | 1800 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 2700 | 2700 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 410 | 410 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 7.6 | 12.04 | <=AW | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | <10 | 9.282 | <=AW | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | <1.5 | 1.772 | <=AW | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 17 | 26.92 | <=AW | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | 30 | 47.03 | <=AW | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.35 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstoffs** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichlooretheen | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichlooretheen | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichlooretheen (som) | mg/kg ds | <0.040 | 0.35 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.525 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 10.5 | | | | | | | | |
| Minerale olie (C13-C16) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 38.5 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 21 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 122.5 | <=AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0035 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.007 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDT | mg/kg ds | 0.0013 | 0.0065 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0021 | 0.0105 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooreposide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.002 | 0.01 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0048 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.015 | 0.0765 | <=AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.017 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0245 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen.** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |

BoToVa '18 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 3 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.095 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.35 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.56 | | | | | | | | |
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 8.7 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 7.9 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 8.1 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.089 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 380 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21.1 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 23 | 23 | | | | | | | | |
| Chloride | mg/kg ds | 340 | 340 | | | | | | | | |
| Fluoride | mg/kg ds | 3.1 | | | | | | | | | |
| Sulfaat | mg/kg ds | 190 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.183 | 0.6405 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.243 | 0.8505 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.487 | 1.704 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.487 | 1.704 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.487 | 1.704 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 2.26 | 11.3 | | | | | | | | |
| OctaCDD | ng/kg ds | 10.4 | 52 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | <0.324 | 1.134 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.446 | 1.561 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | <0.446 | 1.561 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | <0.406 | 1.421 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.406 | 1.421 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.406 | 1.421 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.406 | 1.421 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | <0.527 | 1.845 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | 0.42 | 2.1 | | | | | | | | |
| OctaCDF | ng/kg ds | 6.62 | 33.1 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.0319 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 0.951 | 3.482 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.0439 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 0.94 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.035 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.105 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.07 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.105 | Indust/ne | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0245 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0525 | Indust/ne | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0035 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0754 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.75 | Indust/ne | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.75 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.7 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 3 | 97486689 | 82.2 5.00-5.30 emmer |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoToVa T8 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 4 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|

BoTo'n'a T8 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
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| Certificaatnummer | 2017131481 |
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| Rapportagedatum | |

| Analyse | Eenheid | S | GSSD | Oordeel | Wonen | industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | |
| Organische stof | | 2.5 | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 2.3 | | | | | | |
| **Voorbehandeling** | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | |
| **Bodemkundige analyses** | | | | | | | | |
| Droge stof | % (m/m) | 88.1 | 88.1 | | | | | |
| Organische stof | % (m/m) ds | 2.5 | 2.5 | | | | | |
| Gloeiverlies | % (m/m) ds | 97.3 | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 2.3 | 2.3 | | | | | |
| **Metalen** | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 11000 | 11000 | | | | | |
| Arseen (As) | mg/kg ds | 7 | 12 | <=AW | 20 | 27 | 27 | 76 |
| Barium (Ba) | mg/kg ds | 170 | 614.9 | | 220 | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 2.12 | | 1 | | | 30 |
| Calcium (Ca) | mg/kg ds | 52000 | 52000 | | | | | |
| Cadmium (Cd) | mg/kg ds | 0.71 | 1.189 | Wonen | 0.6 | 1.2 | 1.2 | 4.3 |
| Kobalt (Co) | mg/kg ds | 9.2 | 31.32 | Wonen | 15 | 30 | 35 | 190 |
| Chroom (Cr) | mg/kg ds | 43 | 78.75 | Industrie | 55 | 62 | 62 | 180 |
| Koper (Cu) | mg/kg ds | 27 | 54.36 | Industrie | 40 | 54 | 54 | 190 |
| IJzer(Fe) | mg/kg ds | 15000 | 15000 | | | | | |
| Kwik (Hg) | mg/kg ds | 0.53 | 0.7548 | Wonen | 0.15 | 0.3 | 0.83 | 4.8 |
| Kalium (K) | mg/kg ds | 2700 | 2700 | | | | | |
| Magnesium (Mg) | mg/kg ds | 5900 | 5900 | | | | | |
| Molybdeen (Mo) | mg/kg ds | 5.1 | 5.1 | Wonen | 1.5 | 3 | 88 | 190 |
| Natrium (Na) | mg/kg ds | 1000 | 1000 | | | | | |
| Nikkel (Ni) | mg/kg ds | 24 | 68.29 | Industrie | 35 | 39 | 39 | 100 |
| Lood (Pb) | mg/kg ds | 69 | 107 | Wonen | 50 | 100 | 210 | 530 |
| Antimoon (Sb) | mg/kg ds | 2.2 | 2.2 | <=AW | 4 | 8 | 15 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | | | | |
| Tin (Sn) | mg/kg ds | 4.8 | 16.95 | Wonen | 6.5 | 13 | 180 | 900 |
| Vanadium (V) | mg/kg ds | 44 | 125.2 | Industrie | 80 | 97 | 97 | 250 |
| Zink (Zn) | mg/kg ds | 120 | 277 | Industrie | 140 | 200 | 200 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | mg/kg ds | 0.064 | 0.256 | Industrie | 0.2 | 0.2 | 0.2 | 1 |
| Tolueen | mg/kg ds | 2 | 8 | Niet toepasbaar | 0.2 | 0.2 | 1.25 | |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.14 | <=AW | 0.2 | 0.2 | 1.25 | |
| o-Xyleen | mg/kg ds | <0.050 | 0.14 | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.14 | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.28 | <=AW | 0.45 | 0.45 | 0.45 | 1.25 |
| BTEX (som) | mg/kg ds | 2 | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.14 | <=AW | 0.25 | 0.25 | 0.25 | 2.5 |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.14 | <=AW | 0.1 | 0.1 | 0.1 | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.056 | <=AW | 0.25 | 0.25 | 0.25 | 3 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.14 | <=AW | 0.3 | 0.3 | 0.3 | 0.7 |
| Trichloorethaan | mg/kg ds | <0.050 | 0.14 | <=AW | 0.25 | 0.25 | 0.25 | 2.5 |
| Tetrachloorethaan | mg/kg ds | <0.010 | 0.028 | <=AW | 0.15 | 0.15 | 0.15 | 4 |
| 1,1-Dichloorethaan | mg/kg ds | <0.020 | 0.056 | <=AW | 0.2 | 0.2 | 0.2 | 0.2 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.056 | <=AW | 0.2 | 0.2 | 0.2 | 4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.14 | <=AW | 0.25 | 0.25 | 0.25 | 0.25 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.14 | <=AW | 0.3 | 0.3 | 0.3 | 0.3 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.14 | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.14 | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.028 | <=AW | 0.1 | 0.1 | 0.1 | 0.1 |
| cis 1,2-Dichloroetheen | mg/kg ds | <0.020 | | | | | | |
| trans 1,2-Dichloroetheen | mg/kg ds | <0.020 | | | | | | |
| 1,2-Dichlooretheen (som) | mg/kg ds | <0.040 | 0.28 | <=AW | 0.3 | 0.3 | 0.3 | 0.3 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.14 | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.14 | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.14 | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.42 | <=AW | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 8.4 | | | | | |
| Minerale olie (C13-C16) | mg/kg ds | <5.0 | 14 | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 14 | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 30.8 | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 14 | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 16.8 | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 98 | <=AW | 190 | 190 | 190 | 500 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0028 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 |
| beta-HCH | mg/kg ds | 0.0046 | 0.0184 | Industrie | 0.002 | 0.002 | 0.002 | 0.002 |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0028 | <=AW | 0.003 | 0.003 | 0.006 | 0.04 |
| delta-HCH | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0028 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 |
| Heptachloor | mg/kg ds | <0.0010 | 0.0028 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 |
| Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0028 | <=AW | 0.001 | 0.003 | 0.006 | |
| Aldrin | mg/kg ds | <0.0010 | 0.0028 | | 0.001 | | | |
| Dieldrin | mg/kg ds | 0.0019 | 0.0076 | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0028 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.0056 | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.006 | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0033 | 0.0132 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 |
| Heptachloorepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.02 | 0.0792 | <=AW | | 0.4 | 0.8 | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.021 | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0028 | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0196 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 |
| **Polycyclische Aromatische Koolwaterstoffen.** | | | | | | | | |
| Naftaleen | mg/kg ds | 0.064 | 0.064 | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | |
| Fenanthreen | mg/kg ds | 0.13 | 0.13 | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | |
| Fluoranthaen | mg/kg ds | 0.11 | 0.11 | | | | | |
| Pyreen | mg/kg ds | 0.078 | 0.078 | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | |
| Chryseen | mg/kg ds | 0.065 | 0.065 | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | 0.054 | 0.054 | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | |

BoToVa T8.Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | S | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.055 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.579 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.851 | | | | | | | | |
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 9.4 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 9.3 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 9.6 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.091 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 1900 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 150 | 150 | | | | | | | | |
| Chloride | mg/kg ds | 740 | 740 | | | | | | | | |
| Fluoride | mg/kg ds | 9.5 | | | | | | | | | |
| Sulfaat | mg/kg ds | 3000 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.177 | 0.4956 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.236 | 0.6608 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.471 | 1.319 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.471 | 1.319 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.471 | 1.319 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 2.54 | 10.16 | | | | | | | | |
| OctaCDD | ng/kg ds | 5.71 | 22.84 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | 1.34 | 5.36 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.432 | 1.21 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | 1.14 | 4.56 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | 0.783 | 3.132 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.393 | 1.1 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.393 | 1.1 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.393 | 1.1 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 0.732 | 2.928 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.373 | 1.044 | | | | | | | | |
| OctaCDF | ng/kg ds | <3.14 | 8.792 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.59 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 1.28 | 4.37 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.823 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 1.4 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.028 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.084 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.056 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.084 | Indust/ETW | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.0056 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.0056 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0196 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.0056 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.042 | Indust/ETW | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.0056 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0028 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.0112 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.0112 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0603 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.56 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.56 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.4 | Indust/ETW | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.4 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.56 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.56 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.56 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 5 | 9748691 | B3.1 4.00-5.00 buis |

Eindoordeel: Niet Toepasbaar > industrie

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoTo'n'a T8 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | R | GSSD | Oordeel | RIG Eis | AW | AW x 2 | Wonen | industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 2.1 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 2.1 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Droge stof | % (m/m) | 87.5 | 87.5 | | | | | | | | |
| Organische stof | % (m/m) ds | 2.1 | 2.1 | | | | | | | | |
| Gloeirest | % (m/m) ds | 97.8 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 2.1 | 2.1 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 11000 | 11000 | | | | | | | | |
| Arseen (As) | mg/kg ds | 8.1 | 14.08 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | 290 | 1110 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 2.159 | | 1 | | | | | | 30 |
| Calcium (Ca) | mg/kg ds | 53000 | 53000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | 0.67 | 1.146 | Wonen | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 8.7 | 30.26 | Wonen | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 66 | 121.8 | Industrie | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | 27 | 55.48 | Industrie | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 14000 | 14000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | 0.61 | 0.8743 | Industrie | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 2100 | 2100 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 6100 | 6100 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | 3.4 | 3.4 | Wonen | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 1300 | 1300 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 22 | 61.64 | Industrie | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | 78 | 122.3 | Wonen | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | 3.2 | 3.2 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | 5 | 18.06 | Wonen | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 42 | 121.5 | Industrie | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | 140 | 329.7 | Industrie | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | 0.059 | 0.281 | Industrie | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | 0.26 | 1.238 | Industrie | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.1667 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.3333 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | 0.32 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.1667 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.1667 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.0666 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.1667 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.1667 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.0333 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethaan | mg/kg ds | <0.020 | 0.0666 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.0666 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.1667 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.1667 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.0333 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichloroetheen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichloroetheen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.3333 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.5 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 10 | | | | | | | | |
| Minerale olie (C13-C16) | mg/kg ds | <5.0 | 16.67 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 16.67 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 36.67 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 16.67 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 20 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 116.7 | <=AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | 0.0027 | 0.0128 | Industrie | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | 0.0041 | 0.0195 | Industrie | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0033 | <=WB | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0033 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0033 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0033 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0033 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | 0.0036 | 0.0171 | | | | | | | | |
| Endrin | mg/kg ds | 0.0015 | 0.0071 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0033 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.0066 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0075 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0058 | 0.0276 | Wonen | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooreposide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | <=WB | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | <=WB | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | <=WB | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | <=WB | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.024 | 0.1133 | <=WB | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.025 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0233 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen.** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | 0.059 | 0.059 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | 0.13 | 0.13 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoranthaen | mg/kg ds | 0.12 | 0.12 | | | | | | | | |
| Pyreen | mg/kg ds | 0.085 | 0.085 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | 0.052 | 0.052 | | | | | | | | |
| Chryseen | mg/kg ds | 0.073 | 0.073 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | 0.062 | 0.062 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |

BoToVa T8.Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | lit | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.055 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.609 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.896 | | | | | | | | |
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 9.2 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 21 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 21 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 8.9 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 9.4 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.086 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 2400 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21.2 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 190 | 190 | | | | | | | | |
| Chloride | mg/kg ds | 1300 | 1300 | | | | | | | | |
| Fluoride | mg/kg ds | 8.1 | | | | | | | | | |
| Sulfaat | mg/kg ds | 3100 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.171 | 0.57 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.228 | 0.76 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.455 | 1.517 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.455 | 1.517 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.455 | 1.517 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 2.01 | 9.571 | | | | | | | | |
| OctaCDD | ng/kg ds | 5.05 | 24.05 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | 1.24 | 5.905 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.417 | 1.39 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | 1.34 | 6.381 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | 1.4 | 6.667 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.379 | 1.263 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.379 | 1.263 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.379 | 1.263 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 0.794 | 3.781 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.360 | 1.2 | | | | | | | | |
| OctaCDF | ng/kg ds | <3.03 | 10.1 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.695 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 1.36 | 5.633 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.967 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 1.53 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | 0.02 | 0.0952 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.1 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.0666 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.1 | Industrie | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.0066 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.0066 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0233 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.0066 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.05 | Industrie | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.0066 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0033 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.0133 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.0133 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0718 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.6667 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.6667 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.667 | Industrie | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.667 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.6667 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.6667 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.6667 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 6 | 9748692 | B3.1 6.00-7.00 buis |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoTeVa T8 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 7 | GSSD | Oordeel | RIG Eis | AW | AW x 2 | Wonen | industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 1.7 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 5.1 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Droge stof | % (m/m) | 83.9 | 83.9 | | | | | | | | |
| Organische stof | % (m/m) ds | 1.7 | 1.7 | | | | | | | | |
| Gloeirest | % (m/m) ds | 98 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 5.1 | 5.1 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 3700 | 3700 | | | | | | | | |
| Arseen (As) | mg/kg ds | 6.1 | 9.916 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | <20 | 39.1 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 1.696 | | 1 | | | | | | 30 |
| Calcium (Ca) | mg/kg ds | 25000 | 25000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | <0.20 | 0.2301 | <=AW | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 3.5 | 9.189 | <=AW | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 15 | 24.92 | <=AW | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | <5.0 | 6.542 | <=AW | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 9600 | 9600 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | <0.050 | 0.0478 | <=AW | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 1600 | 1600 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 2300 | 2300 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 370 | 370 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 6.2 | 14.37 | <=AW | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | 11 | 16.37 | <=AW | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | <1.5 | 2.826 | <=AW | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 15 | 34.77 | <=AW | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | 24 | 49.19 | <=AW | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.35 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.35 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.525 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 10.5 | | | | | | | | |
| Minerale olie (C13-C16) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | 20 | 100 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | 21 | 105 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | 11 | 55 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | 59 | 295 | Industrie | 35 | 190 | 190 | 190 | 500 | | 5000 |
| Chromatogram olie (GC) | | Zie bijl. | | | | | | | | | |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0035 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | 0.0012 | 0.006 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.007 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | 0.0015 | 0.0075 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDE | mg/kg ds | 0.001 | 0.005 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0026 | 0.013 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooreposide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0017 | 0.0085 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0045 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0022 | 0.011 | Industrie | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.016 | 0.0815 | <=AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.018 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0245 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen.** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | 0.089 | 0.089 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoranthaen | mg/kg ds | 0.44 | 0.44 | | | | | | | | |
| Pyreen | mg/kg ds | 0.33 | 0.33 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | 0.21 | 0.21 | | | | | | | | |
| Chryseen | mg/kg ds | 0.26 | 0.26 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | 0.29 | 0.29 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | 0.1 | 0.1 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | 0.15 | 0.15 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | 0.09 | 0.09 | | | | | | | | |

BoToVa Tbeoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 7 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Indeno(123-cd)pyreen | mg/kg ds | 0.1 | 0.1 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | 1.4 | 1.509 | Wonen | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | 2.1 | 2.269 | | | | | | | | |
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 8.6 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 8 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 8.1 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.103 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 470 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 20.5 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 18 | 18 | | | | | | | | |
| Chloride | mg/kg ds | 310 | 310 | | | | | | | | |
| Fluoride | mg/kg ds | 5.3 | | | | | | | | | |
| Sulfaat | mg/kg ds | 300 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.147 | 0.5145 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.196 | 0.686 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.392 | 1.372 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.392 | 1.372 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.392 | 1.372 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 1.93 | 9.65 | | | | | | | | |
| OctaCDD | ng/kg ds | 12.2 | 61 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | <0.261 | 0.9135 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.359 | 1.256 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | <0.359 | 1.256 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | <0.327 | 1.145 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.327 | 1.145 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.327 | 1.145 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.327 | 1.145 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 0.711 | 3.555 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.310 | 1.085 | | | | | | | | |
| OctaCDF | ng/kg ds | <2.61 | 9.135 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.03 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 0.77 | 2.845 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.0386 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 0.762 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.035 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.105 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.07 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.105 | Industrie | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0245 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0525 | Industrie | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0035 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0754 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.75 | Industrie | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.75 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.7 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 7 | 9748693 | B3.1 9.70-11.20 bura |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 1 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Industr. | ETW | INI |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 90.9 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 10.6 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Droge stof | % (m/m) | 21.3 | 21.3 | | | | | | | | |
| Organische stof | % (m/m) ds | 90.9 | 90.9 | | | | | | | | |
| Gloeirest | % (m/m) ds | 8.3 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 10.6 | 10.6 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 1300 | 1300 | | | | | | | | |
| Arseen (As) | mg/kg ds | <4.0 | 1.46 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | <20 | 26.14 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 1.217 | | 1 | | | | | | 10 |
| Calcium (Ca) | mg/kg ds | 8300 | 8300 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | <0.20 | 0.0461 | <=AW | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 6.7 | 12.14 | <=AW | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | <10 | 9.831 | <=AW | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | <5.0 | 1.66 | <=AW | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 3000 | 3000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | <0.050 | 0.027 | <=AW | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 1200 | 1200 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 6700 | 6700 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 15000 | 15000 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | <4.0 | 4.757 | <=AW | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | <10 | 3.927 | <=AW | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | <1.5 | 1.926 | <=AW | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | <10 | 11.89 | <=AW | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | <20 | 8.985 | <=AW | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.0116 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | 0.29 | 0.0966 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.0116 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | 0.055 | 0.0183 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.09 | 0.03 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | 0.34 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.0116 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstof** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.0116 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.0046 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.0116 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.0116 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.0023 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethan | mg/kg ds | <0.020 | 0.0046 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.0046 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.0116 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.0116 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichloorethen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| trans 1,2-Dichloorethen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.0023 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichloorethen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichloorethen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.0233 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.035 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <12 | 2.8 | | | | | | | | |
| Minerale olie (C12-C16) | mg/kg ds | <20 | 4.667 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <20 | 4.667 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | 120 | 40 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | 150 | 50 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <24 | 5.6 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | 300 | 100 | <=AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| Chromatogram olie (GC) | | Zie bijl. | | | | | | | | | |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0002 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0002 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0002 | <=AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| Hexachlorbenzeen | mg/kg ds | <0.0010 | 0.0002 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0002 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachlooroxepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| Heptachlooroxepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0002 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0002 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0002 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.0004 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| p,p'-DDT | mg/kg ds | 0.036 | 0.012 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| o,p'-DDD | mg/kg ds | 0.0014 | 0.0004 | | | | | | | | |
| p,p'-DDD | mg/kg ds | 0.0038 | 0.0012 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0021 | 0.0007 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooroxepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0004 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0053 | 0.0017 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0004 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.037 | 0.0122 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.043 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0004 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.054 | 0.0179 | <=AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.055 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0002 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0016 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Fenanthreen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Fluorantheen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Pyreen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.0116 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.1167 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.1867 | | | | | | | | |

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyte | Eenheid | 1 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 21 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 7.3 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 21 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 21 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 6.8 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 6.6 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 57 | 57 | | | | | | | | |
| Chloride | mg/kg ds | 17000 | 17000 | | | | | | | | |
| Fluoride | mg/kg ds | 12 | | | | | | | | | |
| Sulfaat | mg/kg ds | 100 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.428 | 0.0998 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.571 | 0.1332 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <1.14 | 0.266 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <1.14 | 0.266 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <1.14 | 0.266 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | <1.28 | 0.2987 | | | | | | | | |
| OctaCDD | ng/kg ds | <5.23 | 1.22 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | <0.761 | 0.1776 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <1.05 | 0.245 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | <1.05 | 0.245 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | <0.951 | 0.2219 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.951 | 0.2219 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.951 | 0.2219 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.951 | 0.2219 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | <1.24 | 0.2893 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.904 | 0.2109 | | | | | | | | |
| OctaCDF | ng/kg ds | <7.61 | 1.776 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | ND | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 2.18 | 0.5162 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | ND | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 2.13 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.0023 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.007 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.0046 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.007 | <=AW | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.0004 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0002 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0002 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.0004 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0002 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0016 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.0023 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0002 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0002 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0002 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.0004 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0035 | Indicatief | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.0004 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0002 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0002 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.020 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.024 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.0009 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.0009 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.005 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.031 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.0466 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.0466 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 0.1167 | Wonen | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 0.1167 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.0466 | <=AW | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.0466 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.0466 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 1 | 9748694 | B5.1 12.20-12.70 buis |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 2 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 2.8 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 13.8 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Organische stof | % (m/m) ds | 2.8 | 2.8 | | | | | | | | |
| Gloeirest | % (m/m) ds | 96.2 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 13.8 | 13.8 | | | | | | | | |
| Droge stof | % (m/m) | 74.9 | 74.9 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 9000 | 9000 | | | | | | | | |
| Arseen (As) | mg/kg ds | 12 | 16.08 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | <20 | 21.92 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 1.046 | | 1 | | | | | | 10 |
| Calcium (Ca) | mg/kg ds | 56000 | 56000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | <0.20 | 0.1979 | <=AW | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 5.9 | 9.055 | <=AW | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 24 | 30.93 | <=AW | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | <5.0 | 5.048 | <=AW | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 19000 | 19000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | <0.050 | 0.042 | <=AW | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 2700 | 2700 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 6300 | 6300 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 2300 | 2300 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 13 | 19.12 | <=AW | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | <10 | 8.934 | <=AW | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | <1.5 | 1.625 | <=AW | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 30 | 44.12 | <=AW | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | 36 | 52.72 | <=AW | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.125 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.125 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.25 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstof** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.05 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.025 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethan | mg/kg ds | <0.020 | 0.05 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.05 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.125 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.125 | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.125 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.025 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.25 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.125 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.125 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.125 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.375 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 7.5 | | | | | | | | |
| Minerale olie (C12-C16) | mg/kg ds | <5.0 | 12.5 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 12.5 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 27.5 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 12.5 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 15 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 87.5 | <=AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0025 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0025 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0025 | <=AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0025 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0025 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachlooroxepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| Heptachlooroxepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0025 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0025 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0025 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.005 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0021 | 0.0075 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooroxepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.005 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.005 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.005 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.005 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.005 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.015 | 0.0525 | <=AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.016 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0025 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0175 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen.** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.35 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.56 | | | | | | | | |

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyte | Eenheid | 2 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 8.6 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 7.9 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 8 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.089 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 2200 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21.1 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 7.9 | 7.9 | | | | | | | | |
| Chloride | mg/kg ds | 2400 | 2400 | | | | | | | | |
| Fluoride | mg/kg ds | 7.2 | | | | | | | | | |
| Sulfaat | mg/kg ds | 230 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.143 | 0.3575 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.190 | 0.475 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.381 | 0.9525 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.381 | 0.9525 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.381 | 0.9525 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 1.08 | 3.857 | | | | | | | | |
| OctaCDD | ng/kg ds | 7.6 | 27.14 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | <0.254 | 0.635 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.349 | 0.8725 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | <0.349 | 0.8725 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | <0.317 | 0.7925 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.317 | 0.7925 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.317 | 0.7925 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.317 | 0.7925 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | <0.412 | 1.03 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.301 | 0.7525 | | | | | | | | |
| OctaCDF | ng/kg ds | <2.54 | 6.35 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.0131 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 0.735 | 1.928 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.0184 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 0.724 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.025 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.075 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.05 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.075 | industrie | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.005 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0025 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0025 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.005 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0025 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0175 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.025 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0025 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0025 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0025 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.005 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0375 | industrie | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.005 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0025 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0025 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.01 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.01 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0539 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.5 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.5 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.25 | Wonen | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.25 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.5 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.5 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.5 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 2 | 97486695 | B5.1 11.80-14.80 buis |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoToVa T8 Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 3 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 0.7 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 4.9 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Organische stof | % (m/m) ds | <0.7 | 0.49 | | | | | | | | |
| Gloeirest | % (m/m) ds | 99.3 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 4.9 | 4.9 | | | | | | | | |
| Droge stof | % (m/m) | 78.5 | 78.5 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 1800 | 1800 | | | | | | | | |
| Arseen (As) | mg/kg ds | <4.0 | 4.572 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | <20 | 39.82 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 1.72 | | 1 | | | | | | 30 |
| Calcium (Ca) | mg/kg ds | 7600 | 7600 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | <0.20 | 0.2307 | <=AW | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | <3.0 | 5.605 | <=AW | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | <10 | 11.71 | <=AW | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | <5.0 | 6.583 | <=AW | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 3100 | 3100 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | <0.050 | 0.048 | <=AW | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 750 | 750 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 840 | 840 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 910 | 910 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | <4.0 | 6.577 | <=AW | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | <10 | 10.46 | <=AW | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | <1.5 | 2.875 | <=AW | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | <10 | 16.44 | <=AW | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | <20 | 28.95 | <=AW | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.35 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstoffe** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 1 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichloorethetheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| trans 1,2-Dichloorethetheen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichloorethetheen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichloorethetheen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.35 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.525 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | 4.1 | 20.5 | | | | | | | | |
| Minerale olie (C12-C16) | mg/kg ds | 6.7 | 33.5 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | 5.2 | 26 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 38.5 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | 6.4 | 32 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 21 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 122.5 | <=AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachlooreepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Heptachlooreepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0035 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.007 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0021 | 0.0105 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooreepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.015 | 0.0735 | <=AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.016 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0245 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen, P** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |

BoToVa Tlll Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monstermemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 3 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.35 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.56 | | | | | | | | |
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H20) | | 9.2 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 8.4 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 8.8 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.086 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 890 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21.2 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | <5.0 | 3.5 | | | | | | | | |
| Chloride | mg/kg ds | 1100 | 1100 | | | | | | | | |
| Fluoride | mg/kg ds | 1.8 | | | | | | | | | |
| Sulfaat | mg/kg ds | 130 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.035 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.105 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.07 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.105 | Industrie | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0245 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0525 | Industrie | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0035 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0754 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.75 | Industrie | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.75 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.7 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 3 | 9748696 | B3.1 16.80-17.30 buis |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 4 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 2.1 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 2 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Organische stof | % (m/m) ds | 2.1 | 2.1 | | | | | | | | |
| Gloeirest | % (m/m) ds | 97.8 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | <2.0 | 1.4 | | | | | | | | |
| Droge stof | % (m/m) | 86.1 | 86.1 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 11000 | 11000 | | | | | | | | |
| Arseen (As) | mg/kg ds | 10 | 17.43 | =<AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | 200 | 775 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 2.179 | | 1 | | | | | | 10 |
| Calcium (Ca) | mg/kg ds | 58000 | 58000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | 0.71 | 1.217 | Industrie | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 9.1 | 31.99 | Wonen | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 38 | 70.37 | Industrie | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | 34 | 70.1 | Industrie | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 17000 | 17000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | 0.68 | 0.9762 | Industrie | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 2000 | 2000 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 5400 | 5400 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | 9.9 | 9.9 | Wonen | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 740 | 740 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 31 | 90.42 | Industrie | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | 98 | 154 | Wonen | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | 2.9 | 2.9 | =<AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | 4.8 | 17.54 | Wonen | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 60 | 175 | Industrie | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | 130 | 307.7 | Industrie | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.3333 | =<AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstof** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.0666 | =<AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.0333 | =<AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethan | mg/kg ds | <0.020 | 0.0666 | =<AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.0666 | =<AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.1667 | =<AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.0333 | =<AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichloorethen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.3333 | =<AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.1667 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.5 | =<AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 10 | | | | | | | | |
| Minerale olie (C12-C16) | mg/kg ds | <5.0 | 16.67 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 16.67 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 36.67 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 16.67 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 20 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 116.7 | =<AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0033 | =<AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0033 | =<AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0033 | =<AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0033 | =<AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0033 | =<AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachlooroxepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Heptachlooroxepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0033 | =<AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0033 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0033 | =<AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.0066 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0021 | 0.01 | =<AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooroxepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | =<AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | =<AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | =<AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | =<AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0066 | =<AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.015 | 0.07 | =<AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.016 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0033 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0233 | =<AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | 0.063 | 0.063 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.178 | =<AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.588 | | | | | | | | |

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyte | Eenheid | 4 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 9.5 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 9.3 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 9.8 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.086 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 1800 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21.2 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 61 | 61 | | | | | | | | |
| Chloride | mg/kg ds | 260 | 260 | | | | | | | | |
| Fluoride | mg/kg ds | 11 | | | | | | | | | |
| Sulfaat | mg/kg ds | 4300 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbreiding / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.183 | 0.61 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.244 | 0.8133 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.489 | 1.63 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.489 | 1.63 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.489 | 1.63 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 0.813 | 3.867 | | | | | | | | |
| OctaCDD | ng/kg ds | 3.63 | 17.29 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | 1.26 | 6 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.448 | 1.493 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | 0.835 | 3.976 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | <0.407 | 1.357 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.407 | 1.357 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.407 | 1.357 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.407 | 1.357 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 1.08 | 5.143 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.387 | 1.29 | | | | | | | | |
| OctaCDF | ng/kg ds | <3.65 | 12.17 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.397 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 1.15 | 4.504 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.566 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 1.21 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.0333 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.1 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.0666 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.1 | industrie | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.0066 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.0066 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0233 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.0333 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.0066 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.05 | industrie | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.0066 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0033 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0033 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.0133 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.0133 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0718 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.6667 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.6667 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.667 | industrie | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.667 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.6667 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.6667 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.6667 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 4 | 9748697 | B5.2 2.00-2.30 emmer |

Eindoordeel: Overschrijding emissietoetswaarde

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | S | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Industr. | ETW | INI |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 2 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 9.7 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Organische stof | % (m/m) ds | 2 | 2 | | | | | | | | |
| Gloeirest | % (m/m) ds | 97.3 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 9.7 | 9.7 | | | | | | | | |
| Droge stof | % (m/m) | 81.5 | 81.5 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 6300 | 6300 | | | | | | | | |
| Arseen (As) | mg/kg ds | 13 | 19.16 | <=AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | <20 | 27.64 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 1.276 | | 1 | | | | | | 10 |
| Calcium (Ca) | mg/kg ds | 30000 | 30000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | 0.23 | 0.3541 | <=AW | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 5.6 | 10.69 | <=AW | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 22 | 31.7 | <=AW | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | 7.9 | 12.92 | <=AW | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 13000 | 13000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | 0.054 | 0.0689 | <=AW | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 2100 | 2100 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 3500 | 3500 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 720 | 720 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 9.6 | 17.06 | <=AW | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | 15 | 20.66 | <=AW | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | <1.5 | 1.05 | <=AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | 9 | 17.41 | Wonen | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 23 | 40.86 | <=AW | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | 30 | 51.16 | <=AW | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.35 | <=AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstof** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.07 | <=AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.175 | <=AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichloorethen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| trans 1,2-Dichloorethen | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.035 | <=AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichloorethen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichloorethen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.35 | <=AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.175 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.525 | <=AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 10.5 | | | | | | | | |
| Minerale olie (C12-C16) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 38.5 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 17.5 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 21 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 122.5 | <=AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachlooroxepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Heptachlooroxepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0035 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | <=AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.007 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDE | mg/kg ds | 0.0026 | 0.013 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0021 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0021 | 0.0105 | <=AW | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooroxepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0033 | 0.0165 | <=AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0061 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.007 | <=AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.017 | 0.083 | <=AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.018 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0035 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0245 | <=AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.35 | <=AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.56 | | | | | | | | |

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyte | Eenheid | S | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 8.6 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 7.9 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 8 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.089 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 720 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21.1 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 51 | 51 | | | | | | | | |
| Chloride | mg/kg ds | 730 | 730 | | | | | | | | |
| Fluoride | mg/kg ds | 5.8 | | | | | | | | | |
| Sulfaat | mg/kg ds | 130 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbreiding / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.167 | 0.5845 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.223 | 0.7805 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.447 | 1.565 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.447 | 1.565 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.447 | 1.565 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 4.12 | 20.6 | | | | | | | | |
| OctaCDD | ng/kg ds | 27.9 | 139.5 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | 0.433 | 2.165 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.409 | 1.431 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | <0.409 | 1.431 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | 0.388 | 1.94 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.372 | 1.302 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.372 | 1.302 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.372 | 1.302 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 2.31 | 11.55 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.354 | 1.239 | | | | | | | | |
| OctaCDF | ng/kg ds | 3.38 | 16.9 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.156 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 0.931 | 3.594 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.178 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 0.931 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.035 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Cresol | mg/kg ds | 0.01 | 0.05 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.12 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.07 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.105 | industrie | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0245 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.035 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0525 | industrie | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.007 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0035 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0035 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | 0.019 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.014 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | 0.0066 | 0.033 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0094 | 0.1315 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.026 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.75 | industrie | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.75 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.7 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.7 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 5 | 97486698 | B5.1 8.55-8.74 emmer |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.ravaleforngeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | S | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 2.5 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 2 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Organische stof | % (m/m) ds | 2.5 | 2.5 | | | | | | | | |
| Gloeirest | % (m/m) ds | 97.4 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | <2.0 | 1.4 | | | | | | | | |
| Droge stof | % (m/m) | 87 | 87 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 9900 | 9900 | | | | | | | | |
| Arseen (As) | mg/kg ds | 12 | 20.71 | Wonen | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | 210 | 813.8 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 2.179 | | 1 | | | | | | 10 |
| Calcium (Ca) | mg/kg ds | 54000 | 54000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | 0.61 | 1.026 | Wonen | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 7.5 | 26.37 | Wonen | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 40 | 74.07 | Industrie | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | 20 | 40.68 | Wonen | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 14000 | 14000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | 0.78 | 1.116 | Industrie | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 2100 | 2100 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 5400 | 5400 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | 2.4 | 2.4 | Wonen | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 1100 | 1100 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 20 | 58.33 | Industrie | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | 69 | 107.6 | Wonen | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | 2.4 | 2.4 | n.o.m. | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | 4 | 14.62 | Wonen | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 42 | 122.5 | Industrie | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | 160 | 174.9 | Industrie | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.14 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.14 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.28 | n.o.m. | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstof** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.056 | n.o.m. | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.028 | n.o.m. | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethan | mg/kg ds | <0.020 | 0.056 | n.o.m. | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.056 | n.o.m. | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.14 | n.o.m. | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichloorethen | mg/kg ds | <0.050 | 0.14 | | | | | | | | |
| trans 1,2-Dichloorethen | mg/kg ds | <0.050 | 0.14 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.028 | n.o.m. | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichloorethen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichloorethen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.28 | n.o.m. | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.14 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.14 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.14 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.42 | n.o.m. | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 8.4 | | | | | | | | |
| Minerale olie (C12-C16) | mg/kg ds | <5.0 | 14 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 14 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 30.8 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 14 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 16.8 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 98 | n.o.m. | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | <0.0010 | 0.0028 | n.o.m. | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | 0.0024 | 0.0096 | Industrie | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0028 | n.o.m. | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| Hexachlorbenzeen | mg/kg ds | <0.0010 | 0.0028 | n.o.m. | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0028 | n.o.m. | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachlooroxepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| Heptachlooroxepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0028 | n.o.m. | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | <0.0010 | 0.0028 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | 0.0029 | 0.0116 | | | | | | | | |
| Endrin | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0028 | n.o.m. | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.0056 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0058 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.0043 | 0.0172 | Wonen | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachlooroxepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | n.o.m. | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | n.o.m. | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | n.o.m. | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | n.o.m. | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0056 | n.o.m. | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.019 | 0.0744 | n.o.m. | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.02 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0028 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0196 | n.o.m. | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | 0.085 | 0.085 | | | | | | | | |
| Anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluorantheen | mg/kg ds | 0.078 | 0.078 | | | | | | | | |
| Pyreen | mg/kg ds | 0.058 | 0.058 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Chryseen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | <0.50 | 0.443 | n.o.m. | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | <0.80 | 0.676 | | | | | | | | |

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyte | Eenheid | 6 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Indust. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 9.2 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 9.2 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 9.5 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.089 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 2400 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21.1 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 160 | 160 | | | | | | | | |
| Chloride | mg/kg ds | 1100 | 1100 | | | | | | | | |
| Fluoride | mg/kg ds | 6.4 | | | | | | | | | |
| Sulfaat | mg/kg ds | 3400 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbesteed / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.173 | 0.4844 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | <0.231 | 0.6468 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.461 | 1.291 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | <0.461 | 1.291 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.461 | 1.291 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 2.17 | 8.68 | | | | | | | | |
| OctaCDD | ng/kg ds | 6.9 | 27.6 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | 0.909 | 3.636 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | <0.423 | 1.184 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | 0.825 | 3.3 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | 0.754 | 3.016 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | <0.384 | 1.075 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.384 | 1.075 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | <0.384 | 1.075 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 0.666 | 2.664 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | <0.365 | 1.022 | | | | | | | | |
| OctaCDF | ng/kg ds | <3.07 | 8.596 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 0.444 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 1.12 | 3.75 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 0.614 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 1.18 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.028 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.084 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.056 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.084 | industrie | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.0056 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.0056 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0196 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.028 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.0056 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.042 | industrie | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.0056 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0028 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0028 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.0112 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.0112 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.0603 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.56 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.56 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.4 | industrie | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.4 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.56 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.56 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.56 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 6 | 97486699 | B5.1 8.00-8.40 emmer |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | T | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bodemtype correctie** | | | | | | | | | | | |
| Organische stof | | 2.6 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | | 2.7 | | | | | | | | | |
| **Voorbehandeling** | | | | | | | | | | | |
| Cryogeen malen AS3000 | | Uitgevoerd | | | | | | | | | |
| **Bodemkundige analyses** | | | | | | | | | | | |
| Organische stof | % (m/m) ds | 2.6 | 2.6 | | | | | | | | |
| Gloeirest | % (m/m) ds | 97.2 | | | | | | | | | |
| Korrelgrootte < 2 µm (Lutum) | % (m/m) ds | 2.7 | 2.7 | | | | | | | | |
| Droge stof | % (m/m) | 87.7 | 87.7 | | | | | | | | |
| **Metalen** | | | | | | | | | | | |
| Aluminium (Al) | mg/kg ds | 11000 | 11000 | | | | | | | | |
| Arseen (As) | mg/kg ds | 8.3 | 14.06 | =<AW | 4 | 20 | 27 | 27 | 76 | 42 | 76 |
| Barium (Ba) | mg/kg ds | 220 | 783.9 | | 20 | | | | | | 920 |
| Beryllium (Be) | mg/kg ds | <1.0 | 2.047 | | 1 | | | | | | 10 |
| Calcium (Ca) | mg/kg ds | 73000 | 73000 | | | | | | | | |
| Cadmium (Cd) | mg/kg ds | 0.8 | 1.326 | Industrie | 0.2 | 0.6 | 1.2 | 1.2 | 4.3 | 4.3 | 13 |
| Kobalt (Co) | mg/kg ds | 9.5 | 31.02 | Wonen | 3 | 15 | 30 | 35 | 190 | 130 | 190 |
| Chroom (Cr) | mg/kg ds | 41 | 74.01 | Industrie | 10 | 55 | 62 | 62 | 180 | 180 | 180 |
| Koper (Cu) | mg/kg ds | 30 | 59.41 | Industrie | 5 | 40 | 54 | 54 | 190 | 113 | 190 |
| IJzer(Fe) | mg/kg ds | 15000 | 15000 | | | | | | | | |
| Kwik (Hg) | mg/kg ds | 0.63 | 0.8907 | Industrie | 0.05 | 0.15 | 0.3 | 0.83 | 4.8 | 4.8 | 36 |
| Kalium (K) | mg/kg ds | 2300 | 2300 | | | | | | | | |
| Magnesium (Mg) | mg/kg ds | 5900 | 5900 | | | | | | | | |
| Molybdeen (Mo) | mg/kg ds | 4.6 | 4.6 | Wonen | 1.5 | 1.5 | 3 | 88 | 190 | 105 | 190 |
| Natrium (Na) | mg/kg ds | 1300 | 1300 | | | | | | | | |
| Nikkel (Ni) | mg/kg ds | 23 | 63.39 | Industrie | 4 | 35 | 39 | 39 | 100 | 100 | 100 |
| Lood (Pb) | mg/kg ds | 100 | 153.7 | Wonen | 10 | 50 | 100 | 210 | 530 | 308 | 530 |
| Antimoon (Sb) | mg/kg ds | 2.9 | 2.9 | =<AW | 1.5 | 4 | 8 | 15 | 22 | 9 | 22 |
| Seleen (Se) | mg/kg ds | <10 | 7 | | 1.5 | | | | | | 100 |
| Tin (Sn) | mg/kg ds | 6.1 | 20.62 | Wonen | 1.5 | 6.5 | 13 | 180 | 900 | 450 | 900 |
| Vanadium (V) | mg/kg ds | 43 | 118.5 | Industrie | 10 | 80 | 97 | 97 | 250 | 146 | 250 |
| Zink (Zn) | mg/kg ds | 160 | 361.3 | Industrie | 20 | 140 | 200 | 200 | 720 | 430 | 720 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Benzeen | mg/kg ds | 0.056 | 0.2154 | Industrie | 0.05 | 0.2 | 0.2 | 0.2 | 1 | | 1.1 |
| Tolueen | mg/kg ds | 0.076 | 0.2923 | Industrie | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 32 |
| Ethylbenzeen | mg/kg ds | <0.050 | 0.1346 | =<AW | 0.05 | 0.2 | 0.2 | 0.2 | 1.25 | | 110 |
| o-Xyleen | mg/kg ds | <0.050 | 0.1346 | | | | | | | | |
| m,p-Xyleen | mg/kg ds | <0.050 | 0.1346 | | | | | | | | |
| Xylenen (som) (factor 0,7) | mg/kg ds | 0.07 | 0.2692 | =<AW | 0.1 | 0.45 | 0.45 | 0.45 | 1.25 | | 17 |
| BTEX (som) | mg/kg ds | <0.25 | | | | | | | | | |
| Styreen | mg/kg ds | <0.050 | 0.1346 | =<AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 86 |
| **Vluchtige organische halogeenkoolwaterstof** | | | | | | | | | | | |
| Dichloormethaan | mg/kg ds | <0.050 | 0.1346 | =<AW | 0.05 | 0.1 | 0.1 | 0.1 | 3.9 | | 3.9 |
| Trichloormethaan | mg/kg ds | <0.020 | 0.0538 | =<AW | 0.05 | 0.25 | 0.25 | 0.25 | 3 | | 5.6 |
| Tetrachloormethaan | mg/kg ds | <0.050 | 0.1346 | =<AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.7 | | 0.7 |
| Trichlooretheen | mg/kg ds | <0.050 | 0.1346 | =<AW | 0.05 | 0.25 | 0.25 | 0.25 | 2.5 | | 2.5 |
| Tetrachlooretheen | mg/kg ds | <0.010 | 0.0269 | =<AW | 0.05 | 0.15 | 0.15 | 0.15 | 4 | | 8.8 |
| 1,1-Dichloorethan | mg/kg ds | <0.020 | 0.0538 | =<AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 15 |
| 1,2-Dichloorethaan | mg/kg ds | <0.020 | 0.0538 | =<AW | 0.1 | 0.2 | 0.2 | 0.2 | 4 | | 6.4 |
| 1,1,1-Trichloorethaan | mg/kg ds | <0.050 | 0.1346 | =<AW | 0.05 | 0.25 | 0.25 | 0.25 | 0.25 | | 15 |
| 1,1,2-Trichloorethaan | mg/kg ds | <0.050 | 0.1346 | =<AW | 0.05 | 0.3 | 0.3 | 0.3 | 0.3 | | 10 |
| cis 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.1346 | | | | | | | | |
| trans 1,2-Dichlooretheen | mg/kg ds | <0.050 | 0.1346 | | | | | | | | |
| CKW (som) | mg/kg ds | <0.42 | | | | | | | | | |
| Vinylchloride | mg/kg ds | <0.010 | 0.0269 | =<AW | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 |
| cis 1,2-Dichloorethenen | mg/kg ds | <0.020 | | | | | | | | | |
| trans 1,2-Dichloorethenen | mg/kg ds | <0.020 | | | | | | | | | |
| 1,2-Dichloorethenen (som) | mg/kg ds | <0.040 | 0.2692 | =<AW | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | | 1 |
| 1,1-dichloorpropaan | mg/kg ds | <0.050 | 0.1346 | | | | | | | | |
| 1,2-dichloorpropaan | mg/kg ds | <0.050 | 0.1346 | | | | | | | | |
| 1,3-dichloorpropaan | mg/kg ds | <0.050 | 0.1346 | | | | | | | | |
| Dichloorpropanen som factor 0.7 | mg/kg ds | 0.1 | 0.4038 | =<AW | | | | | | | |
| **Minerale olie** | | | | | | | | | | | |
| Minerale olie (C10-C12) | mg/kg ds | <3.0 | 8.077 | | | | | | | | |
| Minerale olie (C12-C16) | mg/kg ds | <5.0 | 13.46 | | | | | | | | |
| Minerale olie (C16-C21) | mg/kg ds | <5.0 | 13.46 | | | | | | | | |
| Minerale olie (C21-C30) | mg/kg ds | <11 | 29.62 | | | | | | | | |
| Minerale olie (C30-C35) | mg/kg ds | <5.0 | 13.46 | | | | | | | | |
| Minerale olie (C35-C40) | mg/kg ds | <6.0 | 16.15 | | | | | | | | |
| Minerale olie totaal (C10-C40) | mg/kg ds | <35 | 94.23 | =<AW | 35 | 190 | 190 | 190 | 500 | | 5000 |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | |
| alfa-HCH | mg/kg ds | 0.001 | 0.0038 | Industrie | 0.001 | 0.001 | 0.001 | 0.001 | 0.5 | | |
| beta-HCH | mg/kg ds | 0.0077 | 0.0296 | Industrie | 0.001 | 0.002 | 0.002 | 0.002 | 0.5 | | |
| gamma-HCH | mg/kg ds | <0.0010 | 0.0026 | =<AW | 0.001 | 0.003 | 0.006 | 0.04 | 0.5 | | |
| delta-HCH | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| Hexachloorbenzeen | mg/kg ds | <0.0010 | 0.0026 | =<AW | 0.001 | 0.0085 | 0.017 | 0.027 | 1.4 | | |
| Heptachloor | mg/kg ds | <0.0010 | 0.0026 | =<AW | 0.001 | 0.0007 | 0.0007 | 0.0007 | 0.1 | | |
| Heptachloorepoxide(cis- of A) | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| Heptachloorepoxide(trans- of B) | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| Hexachloorbutadieen | mg/kg ds | <0.0010 | 0.0026 | =<AW | 0.001 | 0.003 | 0.006 | | | | |
| Aldrin | mg/kg ds | 0.0048 | 0.0184 | | 0.001 | | | | | | |
| Dieldrin | mg/kg ds | 0.017 | 0.0653 | | | | | | | | |
| Endrin | mg/kg ds | 0.0014 | 0.0053 | | | | | | | | |
| Isodrin | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| Telodrin | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| alfa-Endosulfan | mg/kg ds | <0.0010 | 0.0026 | =<AW | 0.001 | 0.0009 | 0.0009 | 0.0009 | 0.1 | | |
| beta-Endosulfan | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| Endosulfansulfaat | mg/kg ds | <0.0020 | 0.0053 | | | | | | | | |
| alfa-Chloordaan | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| gamma-Chloordaan | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| o,p'-DDT | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| p,p'-DDT | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| o,p'-DDE | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| p,p'-DDE | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| o,p'-DDD | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| p,p'-DDD | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| HCH (som) (factor 0,7) | mg/kg ds | 0.0094 | | | | | | | | | |
| Drins (som) (factor 0,7) | mg/kg ds | 0.023 | 0.0892 | Industrie | 0.001 | 0.015 | 0.03 | 0.04 | 0.14 | | 4 |
| Heptachloorepoxide (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0053 | =<AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| DDD (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0053 | =<AW | 0.001 | 0.02 | 0.04 | 0.84 | 34 | | 34 |
| DDE (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0053 | =<AW | 0.001 | 0.1 | 0.13 | 0.13 | 1.3 | | 2.3 |
| DDT (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0053 | =<AW | 0.001 | 0.2 | 0.2 | 0.2 | 1 | | 1.7 |
| DDX (som) (factor 0,7) | mg/kg ds | 0.0042 | | | | | | | | | |
| Chloordaan (som) (factor 0,7) | mg/kg ds | 0.0014 | 0.0053 | =<AW | 0.001 | 0.002 | 0.002 | 0.002 | 0.1 | | 4 |
| OCB (som) LB (factor 0,7) | mg/kg ds | 0.043 | 0.1658 | =<AW | | 0.4 | 0.8 | | | | |
| OCB (som) WB (factor 0,7) | mg/kg ds | 0.044 | | | | | | | | | |
| **Polychloorbifenylen, PCB** | | | | | | | | | | | |
| PCB 28 | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| PCB 52 | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| PCB 101 | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| PCB 118 | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| PCB 138 | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| PCB 153 | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| PCB 180 | mg/kg ds | <0.0010 | 0.0026 | | | | | | | | |
| PCB (som 7) (factor 0,7) | mg/kg ds | 0.0049 | 0.0188 | =<AW | 0.0049 | 0.02 | 0.04 | 0.04 | 0.5 | | |
| **Polycyclische Aromatische Koolwaterstoffen** | | | | | | | | | | | |
| Naftaleen | mg/kg ds | 0.093 | 0.093 | | | | | | | | |
| Acenaftyleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Acenafteen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fluoreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Fenanthreen | mg/kg ds | 0.26 | 0.26 | | | | | | | | |
| Anthraceen | mg/kg ds | 0.055 | 0.055 | | | | | | | | |
| Fluorantheen | mg/kg ds | 0.22 | 0.22 | | | | | | | | |
| Pyreen | mg/kg ds | 0.15 | 0.15 | | | | | | | | |
| Benzo(a)anthraceen | mg/kg ds | 0.082 | 0.082 | | | | | | | | |
| Chryseen | mg/kg ds | 0.11 | 0.11 | | | | | | | | |
| Benzo(b)fluorantheen | mg/kg ds | 0.086 | 0.086 | | | | | | | | |
| Benzo(k)fluorantheen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(a)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Dibenzo(ah)anthraceen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Benzo(ghi)peryleen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| Indeno(123-cd)pyreen | mg/kg ds | <0.050 | 0.035 | | | | | | | | |
| PAK Totaal VROM (10) | mg/kg ds | 0.82 | 0.96 | =<AW | 0.5 | 1.5 | 3 | 6.8 | 40 | | 40 |
| PAK Totaal EPA (16) | mg/kg ds | 1 | 1.336 | | | | | | | | |

BoToVa TB Beoordeling kwaliteit van grond bij GBT op landbodem (emissietoetswaarden)

| | |
|---|---|
| Projectnummer | 11200482 |
| Projectnaam | Perkpolder |
| Ordernummer | Inkoop: 1117470 |
| Datum monstername | 25-09-2017 |
| Monsternemer | |
| Certificaatnummer | 2017131481 |
| Startdatum | 05-10-2017 |
| Rapportagedatum | |

| Analyte | Eenheid | 7 | GSSD | Oordeel | RG Eis | AW | AW x 2 | Wonen | Industr. | ETW | IW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | | | | |
| Meettemperatuur (pH-H2O) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-H2O) | | 9.4 | | | | | | | | | |
| Meettemperatuur (pH-CaCl2) | °C | 20 | | | | | | | | | |
| Meettemperatuur (pH-KCl) | °C | 20 | | | | | | | | | |
| Zuurgraad (pH-CaCl2) | | 9.2 | | | | | | | | | |
| Zuurgraad (pH-KCl) | | 9.6 | | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1.091 | | | | | | | | | |
| Geleidingsvermogen (25°C) | µS/cm | 2400 | | | | | | | | | |
| Meettemperatuur (EC) | °C | 21 | | | | | | | | | |
| **Anorganische verbindingen** | | | | | | | | | | | |
| Bromide | mg/kg ds | 190 | 190 | | | | | | | | |
| Chloride | mg/kg ds | 1100 | 1100 | | | | | | | | |
| Fluoride | mg/kg ds | 9.6 | | | | | | | | | |
| Sulfaat | mg/kg ds | 3400 | | | | | | | | | |
| **Cyanide** | | | | | | | | | | | |
| Cyanide vrij | mg/kg ds | <3.0 | 2.1 | <=AW | 2 | 3 | 3 | 3 | 20 | | 20 |
| Thiocyanaat (mathematisch) | mg/kg ds | <2.5 | 1.75 | <=AW | | 6 | 6 | 6 | 20 | | 20 |
| Cyanide EPA (335.5) | mg/kg ds | <2.5 | 1.75 | | | | | | | | |
| Cyanide totaal | mg/kg ds | <5.0 | | | | | | | | | |
| Cyanide complex (mathematisch) | mg/kg ds | <5.0 | 3.5 | <=AW | | 5.5 | 5.5 | 5.5 | 50 | | 50 |
| **Uitbreiding / Overig onderzoek** | | | | | | | | | | | |
| 2378TetraCDD | ng/kg ds | <0.175 | 0.4712 | | | | | | | | |
| 12378-PentaCDD | ng/kg ds | 0.242 | 0.9308 | | | | | | | | |
| 123478-HexaCDD | ng/kg ds | <0.466 | 1.255 | | | | | | | | |
| 123678-HexaCDD | ng/kg ds | 0.921 | 3.542 | | | | | | | | |
| 123789-HexaCDD | ng/kg ds | <0.466 | 1.255 | | | | | | | | |
| 1234678-HeptaCDD | ng/kg ds | 9.57 | 36.81 | | | | | | | | |
| OctaCDD | ng/kg ds | 18.4 | 70.77 | | | | | | | | |
| 2378-TetraCDF | ng/kg ds | 1.24 | 4.769 | | | | | | | | |
| 12378-PentaCDF | ng/kg ds | 0.489 | 1.881 | | | | | | | | |
| 23478-PentaCDF | ng/kg ds | 1.17 | 4.5 | | | | | | | | |
| 123478-HexaCDF | ng/kg ds | 2.08 | 8 | | | | | | | | |
| 123678-HexaCDF | ng/kg ds | 0.555 | 2.135 | | | | | | | | |
| 123789-HexaCDF | ng/kg ds | <0.388 | 1.045 | | | | | | | | |
| 234678-HexaCDF | ng/kg ds | 0.401 | 1.542 | | | | | | | | |
| 1234678-HeptaCDF | ng/kg ds | 2.66 | 10.23 | | | | | | | | |
| 1234789-HeptaCDF | ng/kg ds | 0.832 | 3.2 | | | | | | | | |
| OctaCDF | ng/kg ds | 3.95 | 15.19 | | | | | | | | |
| WHO('05) PCDD/F TEQ excl LOQ | ng/kg ds | 1.26 | | | | | | | | | |
| WHO('05) PCDD/F TEQ incl LOQ | ng/kg ds | 1.57 | 5.772 | <=AW | | 55 | 55 | 55 | 55 | | 180 |
| I-TEQ (NATO/CCMS) excl. LOQ | ng/kg ds | 1.4 | | | | | | | | | |
| I-TEQ (NATO/CCMS) incl. LOQ | ng/kg ds | 1.71 | | | | | | | | | |
| **Fenolen** | | | | | | | | | | | |
| Fenol | mg/kg ds | <0.01 | 0.0269 | <=AW | | 0.25 | 0.25 | 0.25 | 1.25 | | 14 |
| o-Cresol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| m-Cresol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| p-Cresol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| Cresolen (som) | mg/kg ds | <0.03 | 0.0807 | <=AW | | 0.3 | 0.3 | 0.3 | 5 | | 13 |
| 2,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,5-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| 2,6-Dimethylfenol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| 3,4-Dimethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| o-Ethylfenol | mg/kg ds | <0.02 | 0.0538 | | | | | | | | |
| m-Ethylfenol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| Thymol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | mg/kg ds | <0.01 | | | | | | | | | |
| **Chloorfenolen** | | | | | | | | | | | |
| o-Chloorfenol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| m-Chloorfenol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| p-Chloorfenol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| Monochloorfenolen (som) | mg/kg ds | <0.03 | 0.0807 | industrie | | 0.045 | 0.045 | 0.045 | 5.4 | | 5.4 |
| 2,3-Dichloorfenol | mg/kg ds | <0.002 | 0.0053 | | | | | | | | |
| 2,4/2,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0026 | | | | | | | | |
| 2,6-Dichloorfenol | mg/kg ds | <0.001 | 0.0026 | | | | | | | | |
| 3,4-Dichloorfenol | mg/kg ds | <0.002 | 0.0053 | | | | | | | | |
| 3,5-Dichloorfenol | mg/kg ds | <0.001 | 0.0026 | | | | | | | | |
| Dichloorfenolen (som) | mg/kg ds | <0.007 | 0.0188 | <=AW | | 0.2 | 0.2 | 0.2 | 6 | | 22 |
| 2,3,4-Trichloorfenol | mg/kg ds | <0.01 | 0.0269 | | | | | | | | |
| 2,3,5-Trichloorfenol | mg/kg ds | <0.001 | | | | | | | | | |
| 2,3,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0026 | | | | | | | | |
| 2,4,5-Trichloorfenol | mg/kg ds | <0.001 | 0.0026 | | | | | | | | |
| 2,4,6-Trichloorfenol | mg/kg ds | <0.001 | 0.0026 | | | | | | | | |
| 3,4,5-Trichloorfenol | mg/kg ds | <0.002 | 0.0053 | | | | | | | | |
| Trichloorfenolen (som) | mg/kg ds | <0.02 | 0.0403 | industrie | | 0.003 | 0.003 | 0.003 | 6 | | 22 |
| 2,3,4,5-Tetrachloorfenol | mg/kg ds | <0.002 | 0.0053 | | | | | | | | |
| 2,3,4,6 / 2,3,5,6-Tetrachloorfenol | mg/kg ds | <0.010 | | | | | | | | | |
| Tetrachloorfenolen (som) | mg/kg ds | <0.012 | | | | 0.015 | 0.03 | 1 | 6 | | 21 |
| Pentachloorfenol | mg/kg ds | <0.001 | 0.0026 | <=AW | 0.003 | 0.003 | 0.006 | 1.4 | 5 | | 12 |
| 4-Chloor-3-methylfenol | mg/kg ds | <0.001 | 0.0026 | | | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | | | | |
| Tributyltin (TBT) | mg/kg ds | <0.0098 | | | | | | | | | |
| Triphenyltin (TPhT) | mg/kg ds | <0.012 | | | | | | | | | |
| Tributyltin (TBT) Sn | mg Sn/kg ds | <0.0040 | 0.0107 | <=AW | 0.004 | 0.065 | 0.065 | 0.065 | 0.065 | | |
| Triphenyltin (TPhT) Sn | mg Sn/kg ds | <0.0040 | 0.0107 | | | | | | | | |
| Organotin som Sn factor 0,7 | mg Sn/kg ds | 0.0056 | 0.058 | <=AW | | 0.15 | 0.3 | 0.5 | 2.5 | | 2.5 |
| Organotin som (factor 0,7) | mg/kg ds | 0.015 | | | | | | | | | |
| **Ftalaten** | | | | | | | | | | | |
| Dimethylftalaat | mg/kg ds | <0.2 | 0.5385 | Wonen | | 0.045 | 0.09 | 9.2 | 60 | | 82 |
| Diethylftalaat | mg/kg ds | <0.2 | 0.5385 | Wonen | | 0.045 | 0.09 | 5.3 | 53 | | 53 |
| Di-isobutylftalaat | mg/kg ds | <0.5 | 1.346 | industrie | | 0.045 | 0.09 | 1.3 | 17 | | 17 |
| Dibutylftalaat | mg/kg ds | <0.5 | 1.346 | Wonen | | 0.07 | 0.14 | 5 | 36 | | 36 |
| Butylbenzylftalaat | mg/kg ds | <0.2 | 0.5385 | Wonen | | 0.07 | 0.14 | 2.6 | 48 | | 48 |
| Bis(ethylhexyl)ftalaat | mg/kg ds | <0.2 | 0.5385 | Wonen | | 0.045 | 0.09 | 8.3 | 60 | | 60 |
| Di-n-octylftalaat | mg/kg ds | <0.2 | 0.5385 | | | | | | | | |
| Ftalaten (som) | mg/kg ds | -- | | | | | | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 7 | 9748701 | B3.2 5.00 - 5.30 emmer |

Eindoordeel: Toepasbaar in GBT

Gebruikte afkortingen

| | |
|---|---|
| <= AW | kleiner dan of gelijk aan achtergrondwaarde |
| RG Eis | Vereiste rapportagegrens |
| GSSD | Gestandaardiseerd gehalte |
| IW | Interventiewaarde |
| ETW | Emissie Toets Waarde |
| GBT | Grootschalige BodemToepassing |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

Deltares

# Bijlage 6: Meetresultaten grondwater en oppervlaktewateranalyses

| | | EC-101-1-1 EC-101 (350-450) | EC-102-1-1 EC-102 (350-450) | EC-102-2-1 EC-102 (900-1000) | Pb 2a-1-1 Pb 2a (700-800) | Pb 2a-2-1 Pb 2a (1100-1200) | Pb 2a-3-1 Pb 2a (1700-1800) | TGG-1.1-1-1 TGG-1.1 (250-350) | TGG-1.2-2-1 TGG-1.2 (840-940) | TGG-1.2-1-1 TGG-1.2 (550-650) | TGG-2.1-1-1 TGG-2.1 (450-550) | TGG-2.2-1-1 TGG-2.2 (750-850) | TGG-2.2-2-1 TGG-2.2 (1000-1100) | TGG-3.1-1-1 TGG-3.1 (990-1090) | TGG-3.1-2-1 TGG-3.1 (1650-1750) | T1-1-1 T1 (600-70 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **locatie** | | EC 101 | EC 102 | EC 102 | Pb 2a | Pb 2a | Pb 2a | B1.1 | B1.2 | B 1.2 | B2.1 | B2.1 | B2.2 | B3.1 | B3.1 | T1 |
| **Peilfilter** | | 3.50-4.50 | 3.50-4.50 | 9.00-10.00 | 7.00-8.00 | 11.00-12.00 | 11.00-12.00 | 2.50-3.50 | 8.40-9.40 | 5.50-6.50 | 4.50-5.50 | 7.50-8.50 | 10.00-11.00 | 9.90-10.90 | 16.50-17.50 | 6.00-7.00 1 |
| **diepte (-mv)** | | 4 | 4 | 9.5 | 7.5 | 11.5 | 11.5 | 3 | 8.9 | 6 | 5 | 8 | 10.5 | 10.4 | 17 | 6.5 |
| **mv** | | 0.942 | 0.456 | 0.456 | 0.56 | 0.56 | 0.56 | 0.966 | 0.989 | 0.989 | 3.042 | 3.042 | 3.055 | 9.167 | 9.167 | 0.36 |
| **hoogte (m-NAP)** | | -3.058 | -3.544 | -9.044 | -6.94 | -10.94 | -10.94 | -2.034 | -7.911 | -5.011 | -1.958 | -4.958 | -7.445 | -1.233 | -7.833 | -6.14 |
| **Analyse** | **Eenheid** | 12 | 16 | 13 | 6 | 7 | 8 | 17 | 15 | 14 | 3 | 4 | 5 | 11 | 9 | 1 |
| **Metalen** | | | | | | | | | | | | | | | | |
| Boor (B) | mg/L | - | 2 | - | - | - | - | 0.5 | - | - | - | - | | 0.8 | - | - |
| Arseen (As) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 7.7 | 18 | 60 | 14 | 7.1 | 16 | <5.0 | <5.0 |
| Barium (Ba) | µg/L | 310 | 470 | 410 | 240 | 250 | 260 | 84 | 130 | 600 | 55 | 640 | 480 | 550 | 680 | 80 |
| Beryllium (Be) | µg/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Calcium (Ca) | mg/L | 150 | 280 | 350 | 320 | 350 | 350 | 160 | 350 | 270 | 710 | 130 | 250 | 270 | 300 | 970 |
| Cadmium (Cd) | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Kobalt (Co) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | 2.3 | <2.0 | <2.0 | <2.0 | 12 | <2.0 | <2.0 |
| Chroom (Cr) | µg/L | <1.0 | 2.2 | 2.4 | 2.6 | 2.1 | 1.7 | <1.0 | 2.6 | 1.9 | 2.5 | 1.8 | 3.7 | <1.0 | 3.4 | 1.1 |
| Koper (Cu) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| Kwik (Hg) | µg/L | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | 0.074 | 0.14 | <0.050 | <0.050 | 0.073 |
| Kalium (K) | mg/L | 1.6 | 190 | 210 | 190 | 250 | 250 | 18 | 190 | 180 | 15 | 90 | 180 | 19 | 180 | 78 |
| Magnesium (Mg) | mg/L | 13 | 580 | 730 | 800 | 910 | 940 | 46 | 580 | 480 | 49 | 180 | 550 | 59 | 630 | 330 |
| Molybdeen (Mo) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | 2.8 | 3.9 | <2.0 | 7 | <2.0 | 6.6 | <2.0 | <2.0 |
| Natrium (Na) | mg/L | 23 | 4800 | 5900 | 6600 | 7300 | 7400 | 470 | 5000 | 4500 | 880 | 2000 | 4800 | 400 | 5400 | 2800 |
| Nikkel (Ni) | µg/L | <3.0 | <3.0 | <3.0 | 4.3 | 3.8 | 3.6 | <3.0 | <3.0 | 14 | <3.0 | 7.5 | <3.0 | 23 | 3.3 | <3.0 |
| Lood (Pb) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | 310 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| Antimoon (Sb) | µg/L | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Seleen (Se) | µg/L | <5.0 | 5.2 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 5.8 | <5.0 | <5.0 | <5.0 | <5.0 | 5.6 |
| Tin (Sn) | µg/L | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 |
| Vanadium (V) | µg/L | <2.0 | 3.2 | 3.3 | 5.1 | 4.7 | 3.7 | <2.0 | 2.3 | 2.6 | <2.0 | <2.0 | 4.5 | <2.0 | 3.8 | <2.0 |
| Zink (Zn) | µg/L | 87 | 31 | 43 | 14 | 16 | 16 | <10 | <10 | 110 | <10 | 130 | 10 | 130 | 32 | <10 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | | | | | | |
| Benzeen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | 0.29 | <0.20 | <0.20 |
| Tolueen | µg/L | <0.20 | 72 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | 0.31 | 0.22 | <0.20 | 0.39 | 0.26 | 0.23 | 0.29 | <0.20 |
| Ethylbenzeen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| o-Xyleen | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | 0.12 | <0.10 | <0.10 | 0.27 | <0.10 | 0.31 | 0.19 | <0.10 |
| m,p-Xyleen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | 0.3 | <0.20 | <0.20 | 0.64 | 0.27 | 0.65 | 0.39 | <0.20 |
| Xylenen (som) factor 0,7 | µg/L | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.42 | 0.21 | 0.21 | 0.91 | 0.34 | 0.97 | 0.58 | 0.21 |
| BTEX (som) | µg/L | <0.90 | 72 | <0.90 | <0.90 | <0.90 | <0.90 | <0.90 | <0.90 | <0.90 | <0.90 | 1.3 | <0.90 | 1.5 | <0.90 | <0.90 |
| Styreen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| 1,2,3-Trimethylbenzeen | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| 1,2,4-Trimethylbenzeen | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | 0.11 | <0.10 | <0.10 | 0.2 | 0.12 | 0.21 | <0.10 | <0.10 |
| 1,3,5-Trimethylbenzeen | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| n-Propylbenzeen | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| Isopropylbenzeen (cumeen) | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| 2-Ethyltolueen | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| 3-Ethyltolueen | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| 4-Ethyltolueen | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | | | | | | | | | |
| cis 1,2-Dichlooretheen | µg/L | - | <0.10 | - | - | - | - | <0.10 | - | - | - | - | | <0.10 | - | - |
| trans 1,2-Dichlooretheen | µg/L | - | <0.10 | - | - | - | - | <0.10 | - | - | - | - | | <0.10 | - | - |
| 1,2-Dichloorethenen (Som) factor 0,7 | µg/L | - | 0.14 | - | - | - | - | 0.14 | - | - | - | - | | 0.14 | - | - |
| 1,1-Dichloorpropaan | µg/L | - | <0.20 | - | - | - | - | <0.20 | - | - | - | - | | <0.20 | - | - |
| 1,2-Dichloorpropaan | µg/L | - | <0.20 | - | - | - | - | <0.20 | - | - | - | - | | <0.20 | - | - |
| 1,3-Dichloorpropaan | µg/L | - | <0.20 | - | - | - | - | <0.20 | - | - | - | - | | <0.20 | - | - |
| Dichloorpropanen som factor 0.7 | µg/L | - | 0.42 | - | - | - | - | 0.42 | - | - | - | - | | 0.42 | - | - |
| Monochloorbenzeen | µg/L | - | <0.10 | - | - | - | - | <0.10 | - | - | - | - | | <0.10 | - | - |
| 1,2-Dichloorbenzeen | µg/L | - | <0.10 | - | - | - | - | <0.10 | - | - | - | - | | <0.10 | - | - |
| 1,3-Dichloorbenzeen | µg/L | - | <0.10 | - | - | - | - | <0.10 | - | - | - | - | | <0.10 | - | - |
| 1,4-Dichloorbenzeen | µg/L | - | <0.10 | - | - | - | - | <0.10 | - | - | - | - | | <0.10 | - | - |
| Som dichloorbenzenen corr. *0.7 | µg/L | - | 0.21 | - | - | - | - | 0.21 | - | - | - | - | | 0.21 | - | - |
| Som mono& dichloorbenzenen corr. *0.7 | µg/L | - | 0.28 | - | - | - | - | 0.28 | - | - | - | - | | 0.28 | - | - |
| **Minerale olie** | | | | | | | | | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | <10 | <10 | | <10 | <10 | <10 | 10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Minerale olie (C12-C16) | µg/L | <10 | <10 | <10 | | <10 | <10 | <10 | 25 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Minerale olie (C16-C21) | µg/L | <10 | <10 | <10 | | <10 | <10 | <10 | 22 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Minerale olie (C21-C30) | µg/L | <15 | <15 | <15 | | <15 | <15 | <15 | <15 | <15 | <15 | <15 | <15 | <15 | <15 | <15 |
| Minerale olie (C30-C35) | µg/L | <10 | <10 | <10 | | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 13 | <10 | <10 | <10 |
| Minerale olie (C35-C40) | µg/L | <10 | <10 | <10 | | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Minerale olie totaal (C10-C40) | µg/L | <50 | <50 | <50 | | <50 | <50 | <50 | 61 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Chromatogram | | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | | Zie bijl. | | Zie bijl. | Zie bijl. | |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | | | | | | |
| alfa-HCH | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| beta-HCH | µg/L | - | <0.0080 | - | - | - | - | <0.0080 | - | - | - | - | | <0.0080 | - | - |
| gamma-HCH | µg/L | - | <0.0090 | - | - | - | - | <0.0090 | - | - | - | - | | <0.0090 | - | - |
| delta-HCH | µg/L | - | <0.0080 | - | - | - | - | <0.0080 | - | - | - | - | | <0.0080 | - | - |
| Hexachloorbenzeen | µg/L | - | <0.0050 | - | - | - | - | <0.0050 | - | - | - | - | | <0.0050 | - | - |
| Heptachloor | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| Heptachloorepoxide (cis,beta) | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| Heptachloorepoxide (trans,alfa) | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| Aldrin | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| Dieldrin | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| Endrin | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| alfa-Endosulfan | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| alfa-Chloordaan | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| gamma-Chloordaan | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| o,p-DDT | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| p,p-DDT | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| o,p-DDE | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| p,p-DDE | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| o,p-DDD | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| p,p-DDD | µg/L | - | <0.010 | - | - | - | - | <0.010 | - | - | - | - | | <0.010 | - | - |
| HCH (som) (factor 0,7) | µg/L | - | 0.024 | - | - | - | - | 0.024 | - | - | - | - | | 0.024 | - | - |

| | | EC-101-1-1 EC-101 (350-450) | EC-102-1-1 EC-102 (350-450) | EC-102-2-1 EC-102 (900-1000) | Pb 2a-1-1 Pb 2a (700-800) | Pb 2a-2-1 Pb 2a (1100-1200) | Pb 2a-3-1 Pb 2a (1700-1800) | TGG-1.1-1-1 TGG-1.1 (250-350) | TGG-1.2-2-1 TGG-1.2 (840-940) | TGG-1.2-1-1 TGG-1.2 (550-650) | TGG-2.1-1-1 TGG-2.1 (450-550) | TGG-2.2-1-1 TGG-2.2 (750-850) | TGG-2.2-2-1 TGG-2.2 (1000-1100) | TGG-3.1-1-1 TGG-3.1 (990-1090) | TGG-3.1-2-1 TGG-3.1 (1650-1750) | T1-1-1 T1 (600-70 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **locatie** | | EC 101 | EC 102 | EC 102 | Pb 2a | Pb 2a | Pb 2a | B1.1 | B1.2 | B 1.2 | B2.1 | B2.1 | B2.2 | B3.1 | B3.1 | T1 |
| **Peilfilter** | | 3.50-4.50 | 3.50-4.50 | 9.00-10.00 | 7.00-8.00 | 11.00-12.00 | 11.00-12.00 | 2.50-3.50 | 8.40-9.40 | 5.50-6.50 | 4.50-5.50 | 7.50-8.50 | 10.00-11.00 | 9.90-10.90 | 16.50-17.50 | 6.00-7.00 |
| **diepte (-mv)** | | 4 | 4 | 9.5 | 7.5 | 11.5 | 11.5 | 3 | 8.9 | 6 | 5 | 8 | 10.5 | 10.4 | 17 | 6.5 |
| **mv** | | 0.942 | 0.456 | 0.456 | 0.56 | 0.56 | 0.56 | 0.966 | 0.989 | 0.989 | 3.042 | 3.042 | 3.055 | 9.167 | 9.167 | 0.36 |
| **hoogte (m-NAP)** | | -3.058 | -3.544 | -9.044 | -6.94 | -10.94 | -10.94 | -2.034 | -7.911 | -5.011 | -1.958 | -4.958 | -7.445 | -1.233 | -7.833 | -6.14 |
| **Analyse** | **Eenheid** | 12 | 16 | 13 | 6 | 7 | 8 | 17 | 15 | 14 | 3 | 4 | 5 | 11 | 9 | 1 |
| Meettemperatuur (pH) | °C | 20.4 | 19.8 | 20.3 | 20.3 | 20.5 | 20.3 | 19.8 | 20.4 | 20.4 | 20.3 | 20.1 | 20.4 | 19.9 | 20.3 | 20.7 |
| pH | | 7.4 | 7.3 | 7.2 | 7.2 | 7.1 | 7.1 | 7.2 | 7.3 | 7.2 | 6.9 | 7.3 | 7.2 | 7 | 7.2 | 6.8 |
| **Anorganische verbindingen & natte chemie** | | | | | | | | | | | | | | | | |
| Fluoride totaal | mg/L | 0.47 | 0.69 | 0.37 | 0.42 | <0.3 | <0.3 | 0.88 | 0.75 | 0.81 | 0.57 | 0.59 | 0.56 | 0.64 | 0.61 | 0.58 |
| Bromide | mg/L | 0.15 | 30 | 52 | 40 | 43 | 42 | 26 | 29 | 23 | 180 | 1.5 | 44 | 4.2 | 19 | 25 |
| Chloride | mg/L | 26 | 11000 | 11000 | 11000 | 13000 | 13000 | 520 | 9500 | 7900 | 2400 | 3700 | 9400 | 490 | 2600 | 6000 |
| Sulfaat | mg/L | 78 | 770 | 1700 | 1100 | 1300 | 1200 | 110 | 930 | 900 | 230 | 330 | 780 | 240 | 380 | 990 |
| **Anorganische verbindingen** | | | | | | | | | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Nitraat (NO3) | mg/L | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| **Cyanide** | | | | | | | | | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cyanide-totaal | µg/L | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cyanide-vrij | µg/L | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Cyanide EPA (335.3) | µg/L | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cyanide complex (mathematisch) | µg/L | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | | |
| **Dioxines** | | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | | | Zie bijl. | Zi |
| 2378TetraCDD | pg/L | - | - | - | - | - | - | <0.655 | - | - | - | - | - | <0.655 | - | - |
| 12378-PentaCDD | pg/L | - | - | - | - | - | - | <0.873 | - | - | - | - | - | <0.873 | - | - |
| 123478-HexaCDD | pg/L | - | - | - | - | - | - | <1.75 | - | - | - | - | - | <1.75 | - | - |
| 123678-HexaCDD | pg/L | - | - | - | - | - | - | <1.75 | - | - | - | - | - | 4.06 | - | - |
| 123789-HexaCDD | pg/L | - | - | - | - | - | - | <1.75 | - | - | - | - | - | 3.27 | - | - |
| 1234678-HeptaCDD | pg/L | - | - | - | - | - | - | <1.49 | - | - | - | - | - | 32.3 | - | - |
| OctaCDD | pg/L | - | - | - | - | - | - | <10.5 | - | - | - | - | - | 207 | - | - |
| 2378-TetraCDF | pg/L | - | - | - | - | - | - | <1.16 | - | - | - | - | - | 1.93 | - | - |
| 12378-PentaCDF | pg/L | - | - | - | - | - | - | <1.56 | - | - | - | - | - | <1.56 | - | - |
| 23478-PentaCDF | pg/L | - | - | - | - | - | - | <1.56 | - | - | - | - | - | 1.64 | - | - |
| 123478-HexaCDF | pg/L | - | - | - | - | - | - | <1.45 | - | - | - | - | - | 1.7 | - | - |
| 123678-HexaCDF | pg/L | - | - | - | - | - | - | <1.45 | - | - | - | - | - | 1.76 | - | - |
| 123789-HexaCDF | pg/L | - | - | - | - | - | - | <1.45 | - | - | - | - | - | <1.45 | - | - |
| 234678-HexaCDF | pg/L | - | - | - | - | - | - | <1.45 | - | - | - | - | - | 2.21 | - | - |
| 1234678-HeptaCDF | pg/L | - | - | - | - | - | - | <1.38 | - | - | - | - | - | 18.9 | - | - |
| 1234789-HeptaCDF | pg/L | - | - | - | - | - | - | <1.38 | - | - | - | - | - | <1.38 | - | - |
| OctaCDF | pg/L | - | - | - | - | - | - | <2.91 | - | - | - | - | - | 8.75 | - | - |
| WHO2005 excl. LOQ | pg/L | - | - | - | - | - | - | ND | - | - | - | - | - | 2.56 | - | - |
| WHO2005incl. LOQ | pg/L | - | - | - | - | - | - | 3.31 | - | - | - | - | - | 4.47 | - | - |
| TEQ (WHO) excl. LOQ [a] | pg/L | - | - | - | - | - | - | ND | - | - | - | - | - | 3.04 | - | - |
| TEQ (WHO) incl. LOQ [b] | pg/L | - | - | - | - | - | - | 3.23 | - | - | - | - | - | 4.54 | - | - |
| **Fenolen** | | | | | | | | | | | | | | | | |
| Fenol | µg/L | <0.50 | <0.50 | <0.50 | <0.50 | 5.9 | 60 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| o-Cresol | µg/L | <0.30 | 0.98 | <0.30 | <0.30 | 0.88 | 7.8 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 |
| m-Cresol | µg/L | <0.30 | 0.55 | <0.30 | <0.30 | 1.7 | 15 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 |
| p-Cresol | µg/L | <0.20 | 120 | <0.20 | <0.20 | 1 | 8.3 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Cresolen (som) | µg/L | <0.80 | 120 | <0.80 | <0.80 | 3.6 | 31 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 |
| 2,4-Dimethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 | 0.25 | 1.9 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | 0.042 | <0.020 | <0.020 |
| 2,5-Dimethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 | 0.12 | 0.98 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| 2,6-Dimethylfenol | µg/L | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | 0.11 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 |
| 3,4-Dimethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 | 0.069 | 0.59 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| o-Ethylfenol | µg/L | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | 0.058 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 |
| m-Ethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 | 0.069 | 0.59 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Thymol | µg/L | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 | 0.33 | 2.8 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | 0.022 | <0.020 | <0.020 |
| **Chloorfenolen** | | | | | | | | | | | | | | | | |
| o-Chloorfenol | µg/L | - | <0.10 - | - | - | - | - | <0.10 | - | - | - | - | - | <0.10 | - | - |
| m-Chloorfenol | µg/L | - | <0.02 - | - | - | - | - | <0.02 | - | - | - | - | - | <0.02 | - | - |
| p-Chloorfenol | µg/L | - | 0.08 - | - | - | - | - | <0.02 | - | - | - | - | - | <0.02 | - | - |
| Monochloorfenolen (som) | µg/L | - | <0.14 - | - | - | - | - | <0.14 | - | - | - | - | - | <0.14 | - | - |
| 2,3-Dichloorfenol | µg/L | - | <0.02 - | - | - | - | - | <0.02 | - | - | - | - | - | <0.02 | - | - |
| 2,4/2,5-Dichloorfenol | µg/L | - | 0.01 - | - | - | - | - | 0.007 | - | - | - | - | - | 0.01 | - | - |
| 2,6-Dichloorfenol | µg/L | - | <0.03 - | - | - | - | - | <0.03 | - | - | - | - | - | <0.03 | - | - |
| 3,4-Dichloorfenol | µg/L | - | <0.02 - | - | - | - | - | <0.02 | - | - | - | - | - | <0.02 | - | - |
| 3,5-Dichloorfenol | µg/L | - | <0.03 - | - | - | - | - | <0.03 | - | - | - | - | - | <0.03 | - | - |
| Dichloorfenolen (som) | µg/L | - | <0.10 - | - | - | - | - | <0.10 | - | - | - | - | - | <0.10 | - | - |
| 2,3,4-Trichloorfenol | µg/L | - | <0.02 - | - | - | - | - | <0.02 | - | - | - | - | - | <0.02 | - | - |
| 2,3,5+2,4,5-Trichloorfenol | µg/L | - | <0.02 - | - | - | - | - | <0.02 | - | - | - | - | - | <0.02 | - | - |
| 2,3,6-Trichloorfenol | µg/L | - | <0.01 - | - | - | - | - | <0.01 | - | - | - | - | - | <0.01 | - | - |
| 2,4,6-Trichloorfenol | µg/L | - | <0.05 - | - | - | - | - | <0.05 | - | - | - | - | - | <0.05 | - | - |
| 3,4,5-Trichloorfenol | µg/L | - | <0.01 - | - | - | - | - | <0.01 | - | - | - | - | - | <0.01 | - | - |
| Trichloorfenolen (som) | µg/L | - | <0.11 - | - | - | - | - | <0.11 | - | - | - | - | - | <0.11 | - | - |
| 2,3,4,5-Tetrachloorfenol | µg/L | - | <0.01 - | - | - | - | - | <0.01 | - | - | - | - | - | <0.01 | - | - |
| 2,3,4,6 + 2,3,5,6-Tetrachloorfenol | µg/L | - | <0.020 - | - | - | - | - | <0.020 | - | - | - | - | - | <0.020 | - | - |
| Tetrachloorfenolen (som) | µg/L | - | <0.03 - | - | - | - | - | <0.03 | - | - | - | - | - | <0.03 | - | - |
| Pentachloorfenol | µg/L | - | <0.010 - | - | - | - | - | <0.010 | - | - | - | - | - | <0.010 | - | - |
| 4-Chloor-3-methylfenol | µg/L | - | <0.02 - | - | - | - | - | <0.02 | - | - | - | - | - | <0.02 | - | - |
| **Overige org.-verontreinigingen** | | | | | | | | | | | | | | | | |
| Bifenyl | µg/L | - | | | <0.01 | <0.01 | <0.01 - | | - | | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 |
| Nitrobenzeen | µg/L | - | | | <0.3 | <0.3 | <0.3 - | | - | | <0.3 | <0.3 | <0.3 | - | <0.3 | <0.3 |
| Dibenzofuran | µg/L | - | | | <0.1 | <0.1 | <0.1 - | | - | | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 |
| Monobutyltin | µg/L | - | 0.011 - | - | - | - | - | <0.010 | - | - | - | - | - | <0.010 | - | - |
| Dibutyltin | µg/L | - | <0.010 - | - | - | - | - | <0.010 | - | - | - | - | - | <0.010 | - | - |
| Tributyltin | µg/L | - | 0.011 - | - | - | - | - | <0.010 | - | - | - | - | - | <0.010 | - | - |
| Tributyltin | µg/L | - | <0.010 - | - | - | - | - | <0.010 | - | - | - | - | - | <0.010 | - | - |
| Tetrabutyltin | µg/L | - | <0.010 - | - | - | - | - | <0.010 | - | - | - | - | - | <0.010 | - | - |
| Monooctyltin | µg/L | - | <0.010 - | - | - | - | - | <0.010 | - | - | - | - | - | <0.010 | - | - |
| Dioctyltin | µg/L | - | <0.010 - | - | - | - | - | <0.010 | - | - | - | - | - | <0.010 | - | - |

Deltares

# Bijlage 7: Voorlopig certificaat grondwater en oppervlaktewateranalyses

eurofins | — analytico®

Antea Group
T.a.v. A. Eijke
Rivium Westln.72, 2909 LD Cap.a/d IJssel
3009 AN ROTTERDAM

## Voorlopig analysecertificaat

Datum: 27-Oct-2017

Hierbij ontvangt u de resultaten van het navolgende laboratoriumonderzoek.

| | |
|---|---|
| Certificaatnummer | 2017137892 |
| Uw project/verslagnummer | 418938 |
| Uw projectnaam | Grondwatermonitoring Perkpolder |
| Uw ordernummer | |
| Monster(s) ontvangen | 17-Oct-2017 |

Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.
De analyse resultaten hebben alleen betrekking op het beproefde object.

De grondmonsters worden tot 4 weken na datum ontvangst bewaard en watermonsters tot 2 weken na datum ontvangst. Zonder tegenbericht worden de monsters nadien afgevoerd.
Indien de monsters langer bewaard dienen te blijven verzoeken wij U dit exemplaar uiterlijk 1 werkdag voor afloop van de standaardbewaarperiode ondertekend aan ons te retourneren. Voor de kosten van het langer bewaren van monsters verwijzen wij naar de prijslijst.

Bewaren tot:
Datum: Naam: Handtekening:

Wij vertrouwen erop uw opdracht hiermee naar verwachting te hebben uitgevoerd, mocht U naar aanleiding van dit analysecertificaat nog vragen hebben verzoeken wij U contact op te nemen met de afdeling Verkoop en Advies.

Met vriendelijke groet,

Eurofins Analytico B.V.

Ing. A. Veldhuizen
Technical Manager

eurofins | — analytico®

## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017137892/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 18-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:18 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 1/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | **Metalen** | | | | | | |
| S | Arseen (As) | µg/L | <5.0 | <5.0 | 60 | 14 | 7.1 |
| S | Barium (Ba) | µg/L | 80 | 230 | 55 | 640 | 480 |
| S | Beryllium (Be) | µg/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Q | Calcium (Ca) | mg/L | 970 | 360 | 710 | 130 | 250 |
| S | Cadmium (Cd) | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| S | Kobalt (Co) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| S | Chroom (Cr) | µg/L | 1.1 | 2.2 | 2.5 | 1.8 | 3.7 |
| S | Koper (Cu) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| S | Kwik (Hg) | µg/L | 0.073 | 0.21 | <0.050 | 0.074 | 0.14 |
| Q | Kalium (K) | mg/L | 78 | 200 | 15 | 90 | 180 |
| Q | Magnesium (Mg) | mg/L | 330 | 760 | 49 | 180 | 550 |
| S | Molybdeen (Mo) | µg/L | <2.0 | <2.0 | <2.0 | 7.0 | <2.0 |
| Q | Natrium (Na) | mg/L | 2800 | 6200 | 880 | 2000 | 4800 |
| S | Nikkel (Ni) | µg/L | <3.0 | <3.0 | <3.0 | 7.5 | <3.0 |
| S | Lood (Pb) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| S | Antimoon (Sb) | µg/L | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| S | Seleen (Se) | µg/L | 5.6 | <5.0 | 5.8 | <5.0 | <5.0 |
| S | Tin (Sn) | µg/L | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 |
| S | Vanadium (V) | µg/L | <2.0 | 3.3 | <2.0 | <2.0 | 4.5 |
| S | Zink (Zn) | µg/L | <10 | 51 | <10 | 130 | 10 |
| | **Vluchtige Aromatische Koolwaterstoffen** | | | | | | |
| S | Benzeen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| S | Tolueen | µg/L | <0.20 | <0.20 | <0.20 | 0.39 | 0.26 |
| S | Ethylbenzeen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| S | o-Xyleen | µg/L | <0.10 | <0.10 | <0.10 | 0.27 | <0.10 |
| S | m,p-Xyleen | µg/L | <0.20 | <0.20 | <0.20 | 0.64 | 0.27 |
| S | Xylenen (som) factor 0,7 | µg/L | 0.21 [1)] | 0.21 [1)] | 0.21 [1)] | 0.91 | 0.34 |
| | BTEX (som) | µg/L | <0.90 | <0.90 | <0.90 | 1.3 | <0.90 |
| S | Styreen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | T1-1-1 T1 (600-700) | 17-Oct-2017 | 9768955 |
| 2 | T1-2-1 T1 (1100-1200) | 17-Oct-2017 | 9768956 |
| 3 | TGG-2.1-1-1 TGG-2.1 (450-550) | 17-Oct-2017 | 9768957 |
| 4 | TGG-2.2-1-1 TGG-2.2 (750-850) | 17-Oct-2017 | 9768958 |
| 5 | TGG-2.2-2-1 TGG-2.2 (1000-1100) | 17-Oct-2017 | 9768959 |

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S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017137892/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 18-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:18 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 2/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| S | 1,2,3-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 1,2,4-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | 0.20 | 0.12 |
| S | 1,3,5-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | n-Propylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| Q | Isopropylbenzeen (cumeen) | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 2-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 3-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| Q | 4-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| | **Minerale olie** | | | | | | |
| | Minerale olie (C10-C12) | µg/l | <10 | <10 | <10 | <10 | <10 |
| | Minerale olie (C12-C16) | µg/l | <10 | <10 | <10 | <10 | <10 |
| | Minerale olie (C16-C21) | µg/l | <10 | <10 | <10 | <10 | <10 |
| | Minerale olie (C21-C30) | µg/l | <15 | <15 | <15 | <15 | <15 |
| | Minerale olie (C30-C35) | µg/l | <10 | <10 | <10 | <10 | 13 |
| | Minerale olie (C35-C40) | µg/l | <10 | <10 | <10 | <10 | <10 |
| S | Minerale olie totaal (C10-C40) | µg/l | <50 | <50 | <50 | <50 | <50 |
| | **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | | |
| S | Naftaleen | µg/l | <0.020 | <0.020 | <0.020 | 0.084 | 0.045 |
| Q | Acenaftyleen | µg/l | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Acenafteen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Fluoreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Fenanthreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Anthraceen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Pyreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(a)anthraceen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Chryseen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Benzo(b)fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(k)fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(a)pyreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
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| 2 | T1-2-1 T1 (1100-1200) | 17-Oct-2017 | 9768956 |
| 3 | TGG-2.1-1-1 TGG-2.1 (450-550) | 17-Oct-2017 | 9768957 |
| 4 | TGG-2.2-1-1 TGG-2.2 (750-850) | 17-Oct-2017 | 9768958 |
| 5 | TGG-2.2-2-1 TGG-2.2 (1000-1100) | 17-Oct-2017 | 9768959 |

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017137892/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 18-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:18 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 3/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| Q | Dibenzo(a,h)anthraceen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(ghi)peryleen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Indeno(123-cd)pyreen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | PAK Totaal EPA (16) | µg/L | <0.21 | <0.21 | <0.21 | <0.21 | <0.21 |
| S | PAK Totaal VROM (10) | µg/L | <0.11 | <0.11 | <0.11 | <0.11 | <0.11 |
| | **Fysisch-chemische analyses** | | | | | | |
| | EC-temp. corr. factor (mathematisch) | | 1.119 | 1.126 | 1.113 | 1.129 | 1.119 |
| S | Geleidingsvermogen 25°C | µS/cm | 18000 | 34000 | 7600 | 12000 | 28000 |
| S | Geleidingsvermogen 25°C | mS/m | 1800 | 3400 | 760 | 1200 | 2800 |
| Q | Geleidingsvermogen 20°C | mS/m | 1600 | 3000 | 690 | 1100 | 2500 |
| | Meettemperatuur (EC) | °C | 19.9 | 19.6 | 20.1 | 19.5 | 19.9 |
| | Meettemperatuur (pH) | °C | 20.7 | 20.0 | 20.3 | 20.1 | 20.4 |
| S | pH | | 6.8 | 7.0 [2)] | 6.9 | 7.3 | 7.2 [2)] |
| Q | Zuurstof | mg O2/L | 0.6 | 0.8 | <0.1 | 2.2 | <0.1 |
| | **Anorganische verbindingen & natte chemie** | | | | | | |
| Q | Fluoride totaal | mg/L | 0.58 | 0.37 | 0.57 | 0.59 | 0.56 |
| Q | Bromide | mg/L | 25 | 43 | 180 | 1.5 | 44 |
| S | Chloride | mg/L | 6000 | 12000 | 2400 | 3700 | 9400 |
| S | Sulfaat | mg/L | 990 | 1100 | 230 | 330 | 780 |
| | **Anorganische verbindingen** | | | | | | |
| S | Nitraat (NO3-N) | mg N/L | <0.40 | <0.40 | <0.40 | <0.40 | <0.40 |
| S | Nitraat (NO3) | mg/L | <0.90 | <0.90 | <0.90 | <0.90 | <0.90 |
| | **Cyanide** | | | | | | |
| | Thiocyanaat (mathematisch) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Cyanide-totaal | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Cyanide-vrij | µg/L | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| | Cyanide EPA (335.3) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |

**Uitbesteed / Overig onderzoek**

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | T1-1-1 T1 (600-700) | 17-Oct-2017 | 9768955 |
| 2 | T1-2-1 T1 (1100-1200) | 17-Oct-2017 | 9768956 |
| 3 | TGG-2.1-1-1 TGG-2.1 (450-550) | 17-Oct-2017 | 9768957 |
| 4 | TGG-2.2-1-1 TGG-2.2 (750-850) | 17-Oct-2017 | 9768958 |
| 5 | TGG-2.2-2-1 TGG-2.2 (1000-1100) | 17-Oct-2017 | 9768959 |

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
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| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 18-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:18 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 4/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | Uitbesteding onderzoek | | Zie bijl. | Zie bijl. | Zie bijl. | Zie bijl. | ***** |
| | **Fenolen** | | | | | | |
| Q | Fenol | µg/l | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Q | o-Cresol | µg/l | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 |
| Q | m-Cresol | µg/l | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 |
| Q | p-Cresol | µg/l | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Q | Cresolen (som) | µg/l | <0.80 | <0.80 | <0.80 | <0.80 | <0.80 |
| Q | 2,4-Dimethylfenol | µg/l | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | 2,5-Dimethylfenol | µg/l | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | 2,6-Dimethylfenol | µg/l | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 |
| Q | 3,4-Dimethylfenol | µg/l | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | o-Ethylfenol | µg/l | <0.030 | <0.030 | <0.030 | <0.030 | <0.030 |
| Q | m-Ethylfenol | µg/l | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | Thymol | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/l | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| | **Overige org.-verontreinigingen** | | | | | | |
| Q | Bifenyl | µg/l | <0.01 | <0.01 | <0.01 | | <0.01 |
| Q | Bifenyl | µg/l | | | | <0.01 | |
| Q | Nitrobenzeen | µg/l | | | | <0.3 | |
| Q | Nitrobenzeen | µg/l | <0.3 | <0.3 | <0.3 | | <0.3 |
| Q | Dibenzofuran | µg/l | | | | <0.1 | |
| Q | Dibenzofuran | µg/l | <0.1 | <0.1 | <0.1 | | <0.1 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | T1-1-1 T1 (600-700) | 17-Oct-2017 | 9768955 |
| 2 | T1-2-1 T1 (1100-1200) | 17-Oct-2017 | 9768956 |
| 3 | TGG-2.1-1-1 TGG-2.1 (450-550) | 17-Oct-2017 | 9768957 |
| 4 | TGG-2.2-1-1 TGG-2.2 (750-850) | 17-Oct-2017 | 9768958 |
| 5 | TGG-2.2-2-1 TGG-2.2 (1000-1100) | 17-Oct-2017 | 9768959 |

**Akkoord**
**Pr.coörd.**

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## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017137892/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9768955 | | 1 | | | 0650108185 | T1-1-1 T1 (600-700) |
| 9768955 | | 10 | | | 0810314703 | |
| 9768955 | | 11 | | | 0625008391 | |
| 9768955 | | 12 | | | 0805029666 | |
| 9768955 | | 2 | | | 0650108184 | |
| 9768955 | | 3 | | | 0650108182 | |
| 9768955 | | 4 | | | 0650108183 | |
| 9768955 | | 5 | | | 0645009515 | |
| 9768955 | | 6 | | | 0645009520 | |
| 9768955 | | 7 | | | 0685034925 | |
| 9768955 | | 8 | | | 0685034918 | |
| 9768955 | | 9 | | | 0810314711 | |
| 9768956 | | 1 | | | 0650108187 | T1-2-1 T1 (1100-1200) |
| 9768956 | | 2 | | | 0650108188 | |
| 9768956 | | 3 | | | 0650108189 | |
| 9768956 | | 4 | | | 0650108186 | |
| 9768956 | | 5 | | | 0645009514 | |
| 9768956 | | 6 | | | 0645009522 | |
| 9768956 | | 7 | | | 0620068263 | |
| 9768956 | | 8 | | | 0685034917 | |
| 9768956 | | 9 | | | 0810314710 | |
| 9768956 | | 10 | | | 0685034923 | |
| 9768956 | | 11 | | | 0810314709 | |
| 9768956 | | 12 | | | 0805029713 | |
| 9768957 | | 1 | | | 0650108248 | TGG-2.1-1-1 TGG-2.1 (450-550) |
| 9768957 | | 2 | | | 0650108243 | |
| 9768957 | | 3 | | | 0650108242 | |
| 9768957 | | 4 | | | 0650108249 | |
| 9768957 | | 5 | | | 0645009517 | |
| 9768957 | | 6 | | | 0645009512 | |
| 9768957 | | 7 | | | 0625008402 | |
| 9768957 | | 8 | | | 0810314704 | |
| 9768957 | | 9 | | | 0685034911 | |
| 9768957 | | 10 | | | 0685034913 | |
| 9768957 | | 11 | | | 0810314719 | |
| 9768957 | | 12 | | | 0805029667 | |
| 9768958 | | 1 | | | 0650108244 | TGG-2.2-1-1 TGG-2.2 (750-850) |
| 9768958 | | 2 | | | 0650108247 | |

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**Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017137892/0**



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9768958 | | 3 | | | 0650108246 | TGG-2.2-1-1 TGG-2.2 (750-850) |
| 9768958 | | 4 | | | 0650108245 | |
| 9768958 | | 5 | | | 0645009513 | |
| 9768958 | | 6 | | | 0645009536 | |
| 9768958 | | 7 | | | 0810314695 | |
| 9768958 | | 8 | | | 0685034919 | |
| 9768958 | | 9 | | | 0685034936 | |
| 9768958 | | 10 | | | 0810314702 | |
| 9768958 | | 11 | | | 0625008388 | |
| 9768958 | | 12 | | | 0805029642 | |
| 9768959 | | 1 | | | 0650108191 | TGG-2.2-2-1 TGG-2.2 (1000-1100) |
| 9768959 | | 2 | | | 0650108192 | |
| 9768959 | | 3 | | | 0650108193 | |
| 9768959 | | 4 | | | 0650108190 | |
| 9768959 | | 5 | | | 0685034930 | |
| 9768959 | | 6 | | | 0645009521 | |
| 9768959 | | 7 | | | 0645009510 | |
| 9768959 | | 8 | | | 0625008390 | |
| 9768959 | | 9 | | | 0685034929 | |
| 9768959 | | 10 | | | 0810314708 | |
| 9768959 | | 11 | | | 0810314700 | |
| 9768959 | | 12 | | | 0805029694 | |

**Bijlage (B) met opmerkingen behorende bij analysecertificaat 2017137892/0**



**Opmerking 1)**

De toetswaarde van de som is gelijk aan de sommatie van 0,7*RG

**Opmerking 2)**

De pH waarde is gemeten bij een geleidingsvermogen >20000 µS/cm. Dit is buiten het toepassingsgebied van de methode volgens NEN-EN-ISO 10523.

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## Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017137892/0



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Cyanide vrij | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Cyanide totaal (EPA) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Arseen (As) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Barium (Ba) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Beryllium (Be) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Calcium (Ca) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Cadmium (Cd) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kobalt (Co) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Chroom (Cr) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Koper (Cu) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kwik (Hg) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kalium (K) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Magnesium (Mg) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Molybdeen (Mo) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Natrium (Na) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Nikkel (Ni) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Lood (Pb) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Antimoon (Sb) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Seleen (Se) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Tin (Sn) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Vanadium (V) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Zink (Zn) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Xylenen som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Aromaten (BTEX) | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Styreen | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,2,3-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,2,4-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,3,5-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Propylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Isopropylbenzeen (cumeen) | W0254 | HS-GC-MS | Eigen methode |
| 2-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 3-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 4-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| Minerale olie (C10-C40) | W0215 | GC-FID | Cf. pb 3110-5 |
| PAK (16) (EPA) | W0260 | GC-MS | Cf. pb. 3110-4 en gw ISO 28540 |
| Geleidingsvermogen | W0506 | Conductometrie | Cf. pb 3110-2 en cf. NEN-ISO 7888 |

**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017137892/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Zuurstof | W0556 | Potentiometrie | Cf. NEN-EN-ISO 17289 |
| Zuurgraad (pH) | W0524 | Potentiometrie | Cf. pb 3110-1 en cf. NEN-EN-ISO 10523 |
| Fluoride totaal | W0546 | Potentiometrie | Cf. pb 3140-2 en cf. NEN 6483 |
| Bromide (ionchromatografie) | W0504 | Ionchromatografie | Cf. NEN-EN-ISO 10304-1 |
| Chloride (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Sulfaat (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Nitraat | W0566 | Spectrometrie | Cf. pb 3140-2 en cf.NEN-ISO 15923-1 |
| Thiocyanaat (mathematisch) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Cyanide totaal | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Uitbesteed Onderzoek | W0004 | Uitbesteed | Uitbesteding |
| Fenolen (10) & cresolen (3) | W6336 | GC-MS | Eigen methode |
| Overige organische verontreinigingen | W6336 | GC-MS | Eigen methode |
| Overige organische verontreinigingen (TAT) | W6336 | GC-MS | TerrAttesT |

Nadere informatie over de toegepaste onderzoeksmethoden alsmede een classificatie van de meetonzekerheid staan vermeld in ons overzicht "Specificaties analysemethoden", versie juni 2016.

## Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017137892/0



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

| Analyse | Monster nr. |
|---|---|
| De conserveringstermijn is voor de betreffende analyse overschreden. | |
| Nitraat (N03) | 9768955 |
| | 9768956 |
| | 9768957 |
| | 9768958 |
| | 9768959 |
| pH | 9768955 |
| | 9768956 |
| | 9768957 |
| | 9768958 |
| | 9768959 |
| Geleidingsvermogen 25°C | 9768955 |
| | 9768956 |
| | 9768957 |
| | 9768958 |
| | 9768959 |
| Zuurstof | 9768955 |
| | 9768956 |
| | 9768957 |
| | 9768958 |
| | 9768959 |

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T.a.v. A. Eijke
Rivium Westln.72, 2909 LD Cap.a/d IJssel
3009 AN ROTTERDAM

## Voorlopig analysecertificaat

Datum: 27-Oct-2017

Hierbij ontvangt u de resultaten van het navolgende laboratoriumonderzoek.

| | |
|---|---|
| Certificaatnummer | 2017138514 |
| Uw project/verslagnummer | 418938 |
| Uw projectnaam | Grondwatermonitoring Perkpolder |
| Uw ordernummer | |
| Monster(s) ontvangen | 18-Oct-2017 |

Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.
De analyse resultaten hebben alleen betrekking op het beproefde object.

De grondmonsters worden tot 4 weken na datum ontvangst bewaard en watermonsters tot 2 weken na datum ontvangst. Zonder tegenbericht worden de monsters nadien afgevoerd.
Indien de monsters langer bewaard dienen te blijven verzoeken wij U dit exemplaar uiterlijk 1 werkdag voor afloop van de standaardbewaarperiode ondertekend aan ons te retourneren. Voor de kosten van het langer bewaren van monsters verwijzen wij naar de prijslijst.

Bewaren tot:
Datum: Naam: Handtekening:

Wij vertrouwen erop uw opdracht hiermee naar verwachting te hebben uitgevoerd, mocht U naar aanleiding van dit analysecertificaat nog vragen hebben verzoeken wij U contact op te nemen met de afdeling Verkoop en Advies.

Met vriendelijke groet,

Eurofins Analytico B.V.

Ing. A. Veldhuizen
Technical Manager

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138514/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 1/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | **Metalen** | | | | | | |
| S | Arseen (As) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Barium (Ba) | µg/L | 240 | 250 | 260 | 680 | 28 |
| S | Beryllium (Be) | µg/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Q | Calcium (Ca) | mg/L | 320 | 350 | 350 | 300 | 240 |
| S | Cadmium (Cd) | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| S | Kobalt (Co) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| S | Chroom (Cr) | µg/L | 2.6 | 2.1 | 1.7 | 3.4 | <1.0 |
| S | Koper (Cu) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| S | Kwik (Hg) | µg/L | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Kalium (K) | mg/L | 190 | 250 | 250 | 180 | 110 |
| Q | Magnesium (Mg) | mg/L | 800 | 910 | 940 | 630 | 380 |
| S | Molybdeen (Mo) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | 2.3 |
| Q | Natrium (Na) | mg/L | 6600 | 7300 | 7400 | 5400 | 3100 |
| S | Nikkel (Ni) | µg/L | 4.3 | 3.8 | 3.6 | 3.3 | <3.0 |
| S | Lood (Pb) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| S | Antimoon (Sb) | µg/L | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| S | Seleen (Se) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Tin (Sn) | µg/L | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 |
| S | Vanadium (V) | µg/L | 5.1 | 4.7 | 3.7 | 3.8 | <2.0 |
| S | Zink (Zn) | µg/L | 14 | 16 | 16 | 32 | <10 |
| | **Vluchtige Aromatische Koolwaterstoffen** | | | | | | |
| S | Benzeen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| S | Tolueen | µg/L | <0.20 | <0.20 | <0.20 | 0.29 | <0.20 |
| S | Ethylbenzeen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| S | o-Xyleen | µg/L | <0.10 | <0.10 | <0.10 | 0.19 | <0.10 |
| S | m,p-Xyleen | µg/L | <0.20 | <0.20 | <0.20 | 0.39 | <0.20 |
| S | Xylenen (som) factor 0,7 | µg/L | 0.21 [1)] | 0.21 [1)] | 0.21 [1)] | 0.58 | 0.21 [1)] |
| | BTEX (som) | µg/L | <0.90 | <0.90 | <0.90 | <0.90 | <0.90 |
| S | Styreen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | Pb 2a-1-1 Pb 2a (700-800) | 18-Oct-2017 | 9771002 |
| 2 | Pb 2a-2-1 Pb 2a (1100-1200) | 18-Oct-2017 | 9771003 |
| 3 | Pb 2a-3-1 Pb 2a (1700-1800) | 18-Oct-2017 | 9771004 |
| 4 | TGG-3.1-2-1 TGG-3.1 (1650-1750) | 18-Oct-2017 | 9771005 |
| 5 | TGG-4b-1-1 TGG-4b (0-1) | 18-Oct-2017 | 9771006 |

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A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
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| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 2/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| S | 1,2,3-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 1,2,4-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 1,3,5-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | n-Propylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| Q | Isopropylbenzeen (cumeen) | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 2-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 3-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| Q | 4-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| | **Minerale olie** | | | | | | |
| | Minerale olie (C10-C12) | µg/l | <10 | <10 | <10 | <10 | <10 |
| | Minerale olie (C12-C16) | µg/l | <10 | <10 | <10 | <10 | <10 |
| | Minerale olie (C16-C21) | µg/l | <10 | <10 | <10 | <10 | <10 |
| | Minerale olie (C21-C30) | µg/l | <15 | <15 | <15 | <15 | <15 |
| | Minerale olie (C30-C35) | µg/l | <10 | <10 | <10 | <10 | <10 |
| | Minerale olie (C35-C40) | µg/l | <10 | <10 | <10 | <10 | <10 |
| S | Minerale olie totaal (C10-C40) | µg/l | <50 | <50 | <50 | <50 | <50 |
| | **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | | |
| S | Naftaleen | µg/l | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | Acenaftyleen | µg/l | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Acenafteen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | 0.024 |
| Q | Fluoreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Fenanthreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Anthraceen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Pyreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(a)anthraceen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Chryseen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Benzo(b)fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(k)fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(a)pyreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | Pb 2a-1-1 Pb 2a (700-800) | 18-Oct-2017 | 9771002 |
| 2 | Pb 2a-2-1 Pb 2a (1100-1200) | 18-Oct-2017 | 9771003 |
| 3 | Pb 2a-3-1 Pb 2a (1700-1800) | 18-Oct-2017 | 9771004 |
| 4 | TGG-3.1-2-1 TGG-3.1 (1650-1750) | 18-Oct-2017 | 9771005 |
| 5 | TGG-4b-1-1 TGG-4b (0-1) | 18-Oct-2017 | 9771006 |

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138514/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 3/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| Q | Dibenzo(a,h)anthraceen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(ghi)peryleen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Indeno(123-cd)pyreen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | PAK Totaal EPA (16) | µg/L | <0.21 | <0.21 | <0.21 | <0.21 | <0.21 |
| S | PAK Totaal VROM (10) | µg/L | <0.11 | <0.11 | <0.11 | <0.11 | <0.11 |
| | **Fysisch-chemische analyses** | | | | | | |
| | EC-temp. corr. factor (mathematisch) | | 1.134 | 1.142 | 1.142 | 1.137 | 1.131 |
| S | Geleidingsvermogen 25°C | µS/cm | 32000 | 35000 | 35000 | 28000 | 18000 |
| S | Geleidingsvermogen 25°C | mS/m | 3200 | 3500 | 3500 | 2800 | 1800 |
| Q | Geleidingsvermogen 20°C | mS/m | 2900 | 3100 | 3100 | 2500 | 1600 |
| | Meettemperatuur (EC) | °C | 19.3 | 19.0 | 19.0 | 19.2 | 19.4 |
| | Meettemperatuur (pH) | °C | 20.3 | 20.5 | 20.3 | 20.3 | 20.3 |
| S | pH | | 7.2 [2)] | 7.1 [2)] | 7.1 [2)] | 7.2 [2)] | 7.5 |
| Q | Zuurstof | mg O2/L | 0.7 | 0.8 | 0.4 | <0.1 | 5.9 |
| | **Anorganische verbindingen & natte chemie** | | | | | | |
| Q | Fluoride totaal | mg/L | 0.42 | <0.30 | <0.30 | 0.61 | 0.96 |
| Q | Bromide | mg/L | 40 | 43 | 42 | 19 | 18 |
| S | Chloride | mg/L | 11000 | 13000 | 13000 | 2600 | 5500 |
| S | Sulfaat | mg/L | 1100 | 1300 | 1200 | 380 | 840 |
| | **Anorganische verbindingen** | | | | | | |
| S | Nitraat (NO3-N) | mg N/L | <0.40 | <0.40 | <0.40 | <0.40 | 0.48 |
| S | Nitraat (NO3) | mg/L | <0.90 | <0.90 | <0.90 | <0.90 | 2.1 |
| | **Cyanide** | | | | | | |
| | Thiocyanaat (mathematisch) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Cyanide-totaal | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Cyanide-vrij | µg/L | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| | Cyanide EPA (335.3) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |

### Uitbesteed / Overig onderzoek

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | Pb 2a-1-1 Pb 2a (700-800) | 18-Oct-2017 | 9771002 |
| 2 | Pb 2a-2-1 Pb 2a (1100-1200) | 18-Oct-2017 | 9771003 |
| 3 | Pb 2a-3-1 Pb 2a (1700-1800) | 18-Oct-2017 | 9771004 |
| 4 | TGG-3.1-2-1 TGG-3.1 (1650-1750) | 18-Oct-2017 | 9771005 |
| 5 | TGG-4b-1-1 TGG-4b (0-1) | 18-Oct-2017 | 9771006 |

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Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138514/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 4/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | Uitbesteding onderzoek | | ***** | ***** | ***** | ***** | ***** |
| | **Fenolen** | | | | | | |
| Q | Fenol | µg/l | <0.50 | 5.9 | 60 | <0.50 | <0.50 |
| Q | o-Cresol | µg/l | <0.30 | 0.88 | 7.8 | <0.30 | <0.30 |
| Q | m-Cresol | µg/l | <0.30 | 1.7 | 15 | <0.30 | <0.30 |
| Q | p-Cresol | µg/l | <0.20 | 1.0 | 8.3 | <0.20 | <0.20 |
| Q | Cresolen (som) | µg/l | <0.80 | 3.6 | 31 | <0.80 | <0.80 |
| Q | 2,4-Dimethylfenol | µg/l | <0.020 | 0.25 | 1.9 | <0.020 | <0.020 |
| Q | 2,5-Dimethylfenol | µg/l | <0.020 | 0.12 | 0.98 | <0.020 | <0.020 |
| Q | 2,6-Dimethylfenol | µg/l | <0.030 | <0.030 | 0.11 | <0.030 | <0.030 |
| Q | 3,4-Dimethylfenol | µg/l | <0.020 | 0.069 | 0.59 | <0.020 | <0.020 |
| Q | o-Ethylfenol | µg/l | <0.030 | <0.030 | 0.058 | <0.030 | <0.030 |
| Q | m-Ethylfenol | µg/l | <0.020 | 0.069 | 0.59 | <0.020 | <0.020 |
| Q | Thymol | µg/l | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/l | <0.020 | 0.33 | 2.8 | <0.020 | <0.020 |
| | **Overige org.-verontreinigingen** | | | | | | |
| Q | Bifenyl | µg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Q | Nitrobenzeen | µg/l | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 |
| Q | Dibenzofuran | µg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | Pb 2a-1-1 Pb 2a (700-800) | 18-Oct-2017 | 9771002 |
| 2 | Pb 2a-2-1 Pb 2a (1100-1200) | 18-Oct-2017 | 9771003 |
| 3 | Pb 2a-3-1 Pb 2a (1700-1800) | 18-Oct-2017 | 9771004 |
| 4 | TGG-3.1-2-1 TGG-3.1 (1650-1750) | 18-Oct-2017 | 9771005 |
| 5 | TGG-4b-1-1 TGG-4b (0-1) | 18-Oct-2017 | 9771006 |

**Akkoord**
**Pr.coörd.**

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A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend

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## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017138514/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9771002 | | 1 | | | 0650180283 | Pb 2a-1-1 Pb 2a (700-800) |
| 9771002 | | 10 | | | 0685034905 | |
| 9771002 | | 11 | | | 0685034906 | |
| 9771002 | | 12 | | | 0805029703 | |
| 9771002 | | 2 | | | 0650180279 | |
| 9771002 | | 3 | | | 0650180271 | |
| 9771002 | | 4 | | | 0650180267 | |
| 9771002 | | 5 | | | 0645009519 | |
| 9771002 | | 6 | | | 0640155679 | |
| 9771002 | | 7 | | | 0625008442 | |
| 9771002 | | 8 | | | 0810314752 | |
| 9771002 | | 9 | | | 0810314743 | |
| 9771003 | | 1 | | | 0650108258 | Pb 2a-2-1 Pb 2a (1100-1200) |
| 9771003 | | 2 | | | 0650108256 | |
| 9771003 | | 3 | | | 0650108255 | |
| 9771003 | | 4 | | | 0650108260 | |
| 9771003 | | 5 | | | 0645009533 | |
| 9771003 | | 6 | | | 0645009538 | |
| 9771003 | | 7 | | | 0810314693 | |
| 9771003 | | 8 | | | 0810314692 | |
| 9771003 | | 9 | | | 0625008399 | |
| 9771003 | | 10 | | | 0685034931 | |
| 9771003 | | 11 | | | 0685034941 | |
| 9771003 | | 12 | | | 0805029659 | |
| 9771004 | | 1 | | | 0650108199 | Pb 2a-3-1 Pb 2a (1700-1800) |
| 9771004 | | 2 | | | 0650108200 | |
| 9771004 | | 3 | | | 0650108251 | |
| 9771004 | | 4 | | | 0650108250 | |
| 9771004 | | 5 | | | 0645009525 | |
| 9771004 | | 6 | | | 0645009524 | |
| 9771004 | | 7 | | | 0685034943 | |
| 9771004 | | 8 | | | 0685034942 | |
| 9771004 | | 9 | | | 0810314690 | |
| 9771004 | | 10 | | | 0810314698 | |
| 9771004 | | 11 | | | 0625008417 | |
| 9771004 | | 12 | | | 0805029693 | |
| 9771005 | | 1 | | | 0650074480 | TGG-3.1-2-1 TGG-3.1 (1650-1750) |
| 9771005 | | 2 | | | 0650074493 | |

## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017138514/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9771005 | | 3 | | | 0650108196 | TGG-3.1-2-1 TGG-3.1 (1650-1750) |
| 9771005 | | 4 | | | 0650108195 | |
| 9771005 | | 5 | | | 0645009511 | |
| 9771005 | | 6 | | | 0645009516 | |
| 9771005 | | 7 | | | 0685034948 | |
| 9771005 | | 8 | | | 0685034947 | |
| 9771005 | | 9 | | | 0810314705 | |
| 9771005 | | 10 | | | 0810314706 | |
| 9771005 | | 11 | | | 0625008416 | |
| 9771005 | | 12 | | | 0805029648 | |
| 9771006 | | 1 | | | F5792993 | TGG-4b-1-1 TGG-4b (0-1) |
| 9771006 | | 2 | | | 0650074495 | |
| 9771006 | | 3 | | | 0650074287 | |
| 9771006 | | 4 | | | 0650074477 | |
| 9771006 | | 5 | | | 0685034949 | |
| 9771006 | | 6 | | | 0810314689 | |
| 9771006 | | 7 | | | 0685034937 | |
| 9771006 | | 8 | | | 0810314697 | |
| 9771006 | | 9 | | | 0625008428 | |
| 9771006 | | 10 | | | 0645009523 | |
| 9771006 | | 11 | | | 0645009537 | |
| 9771006 | | 12 | | | 0805029695 | |

**Bijlage (B) met opmerkingen behorende bij analysecertificaat 2017138514/0**



**Opmerking 1)**

De toetswaarde van de som is gelijk aan de sommatie van 0,7*RG

**Opmerking 2)**

De pH waarde is gemeten bij een geleidingsvermogen >20000 µS/cm. Dit is buiten het toepassingsgebied van de methode volgens NEN-EN-ISO 10523.

**Eurofins Analytico B.V.**

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**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017138514/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Cyanide vrij | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Cyanide totaal (EPA) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Arseen (As) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Barium (Ba) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Beryllium (Be) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Calcium (Ca) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Cadmium (Cd) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kobalt (Co) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Chroom (Cr) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Koper (Cu) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kwik (Hg) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kalium (K) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Magnesium (Mg) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Molybdeen (Mo) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Natrium (Na) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Nikkel (Ni) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Lood (Pb) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Antimoon (Sb) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Seleen (Se) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Tin (Sn) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Vanadium (V) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Zink (Zn) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Aromaten (BTEX) | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Xylenen som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Styreen | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,2,3-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,2,4-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,3,5-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Propylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Isopropylbenzeen (cumeen) | W0254 | HS-GC-MS | Eigen methode |
| 2-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 3-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 4-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| Minerale olie (C10-C40) | W0215 | GC-FID | Cf. pb 3110-5 |
| PAK (16) (EPA) | W0260 | GC-MS | Cf. pb. 3110-4 en gw ISO 28540 |
| Geleidingsvermogen | W0506 | Conductometrie | Cf. pb 3110-2 en cf. NEN-ISO 7888 |

**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017138514/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Zuurgraad (pH) | W0524 | Potentiometrie | Cf. pb 3110-1 en cf. NEN-EN-ISO 10523 |
| Zuurstof | W0556 | Potentiometrie | Cf. NEN-EN-ISO 17289 |
| Fluoride totaal | W0546 | Potentiometrie | Cf. pb 3140-2 en cf. NEN 6483 |
| Bromide (ionchromatografie) | W0504 | Ionchromatografie | Cf. NEN-EN-ISO 10304-1 |
| Chloride (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Sulfaat (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Nitraat | W0566 | Spectrometrie | Cf. pb 3140-2 en cf.NEN-ISO 15923-1 |
| Thiocyanaat (mathematisch) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Cyanide totaal | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Fenolen (10) & cresolen (3) | W6336 | GC-MS | Eigen methode |
| Overige organische verontreinigingen (TAT) | W6336 | GC-MS | TerrAttesT |

Nadere informatie over de toegepaste onderzoeksmethoden alsmede een classificatie van de meetonzekerheid staan vermeld in ons overzicht "Specificaties analysemethoden", versie juni 2016.

## Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017138514/0



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

| Analyse | Monster nr. |
|---|---|
| De conserveringstermijn is voor de betreffende analyse overschreden. | |
| Nitraat (N03) | 9771004 |
| pH | 9771002 |
| | 9771003 |
| | 9771004 |
| | 9771005 |
| | 9771006 |
| Geleidingsvermogen 25°C | 9771002 |
| | 9771003 |
| | 9771004 |
| | 9771005 |
| | 9771006 |
| Zuurstof | 9771002 |
| | 9771003 |
| | 9771004 |
| | 9771005 |
| | 9771006 |

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Antea Group
T.a.v. A. Eijke
Rivium Westln.72, 2909 LD Cap.a/d IJssel
3009 AN ROTTERDAM

## Voorlopig analysecertificaat

Datum: 27-Oct-2017

Hierbij ontvangt u de resultaten van het navolgende laboratoriumonderzoek.

| | |
|---|---|
| Certificaatnummer | 2017138518 |
| Uw project/verslagnummer | 418938 |
| Uw projectnaam | Grondwatermonitoring Perkpolder |
| Uw ordernummer | |
| Monster(s) ontvangen | 18-Oct-2017 |

Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.
De analyse resultaten hebben alleen betrekking op het beproefde object.

De grondmonsters worden tot 4 weken na datum ontvangst bewaard en watermonsters tot 2 weken na datum ontvangst. Zonder tegenbericht worden de monsters nadien afgevoerd.
Indien de monsters langer bewaard dienen te blijven verzoeken wij U dit exemplaar uiterlijk 1 werkdag voor afloop van de standaardbewaarperiode ondertekend aan ons te retourneren. Voor de kosten van het langer bewaren van monsters verwijzen wij naar de prijslijst.

Bewaren tot:
Datum: Naam: Handtekening:

Wij vertrouwen erop uw opdracht hiermee naar verwachting te hebben uitgevoerd, mocht U naar aanleiding van dit analysecertificaat nog vragen hebben verzoeken wij U contact op te nemen met de afdeling Verkoop en Advies.

Met vriendelijke groet,

Eurofins Analytico B.V.

Ing. A. Veldhuizen
Technical Manager

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 1/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 |
|---|---|---|---|
| | **Metalen** | | |
| | Boor (B) | mg/L | 0.8 [1)] |
| S | Arseen (As) | µg/L | 16 |
| S | Barium (Ba) | µg/L | 550 |
| S | Beryllium (Be) | µg/L | <1.0 |
| Q | Calcium (Ca) | mg/L | 270 |
| S | Cadmium (Cd) | µg/L | <0.20 |
| S | Kobalt (Co) | µg/L | 12 |
| S | Chroom (Cr) | µg/L | <1.0 |
| S | Koper (Cu) | µg/L | <2.0 |
| S | Kwik (Hg) | µg/L | <0.050 |
| Q | Kalium (K) | mg/L | 19 |
| Q | Magnesium (Mg) | mg/L | 59 |
| S | Molybdeen (Mo) | µg/L | 6.6 |
| Q | Natrium (Na) | mg/L | 400 |
| S | Nikkel (Ni) | µg/L | 23 |
| S | Lood (Pb) | µg/L | <2.0 |
| S | Antimoon (Sb) | µg/L | <3.0 |
| S | Seleen (Se) | µg/L | <5.0 |
| S | Tin (Sn) | µg/L | <2.5 |
| S | Vanadium (V) | µg/L | <2.0 |
| S | Zink (Zn) | µg/L | 130 |
| | **Vluchtige Aromatische Koolwaterstoffen** | | |
| S | Benzeen | µg/L | 0.29 |
| S | Tolueen | µg/L | 0.23 |
| S | Ethylbenzeen | µg/L | <0.20 |
| S | o-Xyleen | µg/L | 0.31 |
| S | m,p-Xyleen | µg/L | 0.65 |
| S | Xylenen (som) factor 0,7 | µg/L | 0.97 |
| | BTEX (som) | µg/L | 1.5 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 2/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 |
|---|---|---|---|
| S | Styreen | µg/l | <0.20 |
| S | 1,2,3-Trimethylbenzeen | µg/l | <0.10 |
| S | 1,2,4-Trimethylbenzeen | µg/l | 0.21 |
| S | 1,3,5-Trimethylbenzeen | µg/l | <0.10 |
| S | n-Propylbenzeen | µg/l | <0.10 |
| Q | Isopropylbenzeen (cumeen) | µg/l | <0.10 |
| S | 2-Ethyltolueen | µg/l | <0.10 |
| S | 3-Ethyltolueen | µg/l | <0.10 |
| Q | 4-Ethyltolueen | µg/l | <0.10 |
| | **Vluchtige organische halogeenkoolwaterstoffen** | | |
| S | cis 1,2-Dichlooretheen | µg/l | <0.10 |
| S | trans 1,2-Dichlooretheen | µg/l | <0.10 |
| S | 1,2-Dichloorethenen (Som) factor 0,7 | µg/l | 0.14 2) |
| S | 1,1-Dichloorpropaan | µg/l | <0.20 |
| S | 1,2-Dichloorpropaan | µg/l | <0.20 |
| S | 1,3-Dichloorpropaan | µg/l | <0.20 |
| S | Dichloorpropanen som factor 0.7 | µg/l | 0.42 |
| S | Monochloorbenzeen | µg/l | <0.10 |
| S | 1,2-Dichloorbenzeen | µg/l | <0.10 |
| S | 1,3-Dichloorbenzeen | µg/l | <0.10 |
| S | 1,4-Dichloorbenzeen | µg/l | <0.10 |
| S | Som dichloorbenzenen corr. *0.7 | µg/l | 0.21 |
| S | Som mono& dichloorbenzenen corr. *0.7 | µg/l | 0.28 |
| | **Minerale olie** | | |
| | Minerale olie (C10-C12) | µg/l | <10 |
| | Minerale olie (C12-C16) | µg/l | <10 |
| | Minerale olie (C16-C21) | µg/l | <10 |
| | Minerale olie (C21-C30) | µg/l | <15 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 3/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 |
|---|---|---|---|
| | Minerale olie (C30-C35) | µg/l | <10 |
| | Minerale olie (C35-C40) | µg/l | <10 |
| S | Minerale olie totaal (C10-C40) | µg/l | <50 |
| | **Organo chloorbestrijdingsmiddelen, OCB** | | |
| S | alfa-HCH | µg/l | <0.010 |
| S | beta-HCH | µg/l | <0.0080 |
| S | gamma-HCH | µg/l | <0.0090 |
| S | delta-HCH | µg/l | <0.0080 |
| S | Hexachloorbenzeen | µg/l | <0.0050 |
| S | Heptachloor | µg/l | <0.010 |
| S | Heptachloorepoxide (cis,beta) | µg/l | <0.010 |
| S | Heptachloorepoxide (trans,alfa) | µg/l | <0.010 |
| S | Aldrin | µg/l | <0.010 |
| S | Dieldrin | µg/l | <0.010 |
| S | Endrin | µg/l | <0.010 |
| S | alfa-Endosulfan | µg/l | <0.010 |
| S | alfa-Chloordaan | µg/l | <0.010 |
| S | gamma-Chloordaan | µg/l | <0.010 |
| S | o,p-DDT | µg/l | <0.010 |
| S | p,p-DDT | µg/l | <0.010 |
| S | o,p-DDE | µg/l | <0.010 |
| S | p,p-DDE | µg/l | <0.010 |
| S | o,p-DDD | µg/l | <0.010 |
| S | p,p-DDD | µg/l | <0.010 |
| S | HCH (som) (factor 0,7) | µg/l | 0.024 2) |
| S | Drins (som) (factor 0,7) | µg/l | 0.021 2) |
| S | Heptachloorepoxide (som) (factor 0,7) | µg/l | 0.014 2) |
| S | DDD (som) (factor 0,7) | µg/l | 0.014 2) |
| S | DDE (som) (factor 0,7) | µg/l | 0.014 2) |
| S | DDT (som) (factor 0,7) | µg/l | 0.014 2) |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.

## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 4/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 |
|---|---|---|---|
| S | DDX (som) (factor 0,7) | µg/l | 0.042 2) |
| S | Chloordaan (som) (factor 0,7) | µg/l | 0.014 2) |
| | OCB (som) (factor 0,7) | µg/l | 0.18 |
| | **Chlooranilines** | | |
| | 2-chlooraniline | µg/l | <0.10 |
| | 3+4-chlooraniline | µg/l | <0.40 |
| | 2,6-dichlooraniline | µg/l | <0.08 |
| | 3,4-dichlooraniline | µg/l | <0.08 |
| | 3,5-dichlooraniline | µg/l | <0.40 |
| | 2,3,4-trichlooraniline | µg/l | <0.40 |
| | 2,4,5-trichlooraniline | µg/l | <0.32 |
| | 2,4,6-trichlooraniline | µg/l | <0.08 |
| | 3,4,5-trichlooraniline | µg/l | <0.08 |
| | 2,3,4,5-tetrachlooraniline | µg/l | <0.16 |
| | 2,3,5,6-tetrachlooraniline | µg/l | <0.08 |
| | Pentachlooraniline | µg/l | <0.08 |
| | Som 2,3 + 2,4 + 2,5 - Dichlooranilines | µg/l | <0.08 |
| | **Chloorbenzenen** | | |
| S | 1,2,3-Trichloorbenzeen | µg/l | <0.010 |
| S | 1,2,4-Trichloorbenzeen | µg/l | <0.010 |
| S | 1,3,5-Trichloorbenzeen | µg/l | <0.010 |
| S | 1245/1235-Tetrachloorbenzeen | µg/l | <0.010 |
| S | 1,2,3,4-Tetrachloorbenzeen | µg/l | <0.010 |
| S | Pentachloorbenzeen | µg/l | <0.0050 |
| S | Hexachloorbenzeen | µg/l | <0.0050 |
| S | Som minder vluchtig chloorbenzenen | µg/l | <0.055 |
| S | Som tri-hexachloorbenzenen corr. *0.7 | µg/l | 0.042 2) |
| S | Som trichloorbenzenen corr *0.7 | µg/l | 0.021 2) |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 5/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 |
|---|---|---|---|
| S | Som tetrachloorbenzenen corr *0.7 | µg/l | 0.014 2) |
| | **Polycyclische Aromatische Koolwaterstoffen, PAK** | | |
| S | Naftaleen | µg/l | 0.070 |
| Q | Acenaftyleen | µg/l | <0.050 |
| Q | Acenafteen | µg/l | 0.015 |
| Q | Fluoreen | µg/l | <0.010 |
| S | Fenanthreen | µg/l | <0.010 |
| Q | Anthraceen | µg/l | <0.010 |
| S | Fluorantheen | µg/l | 0.017 |
| Q | Pyreen | µg/l | 0.014 |
| S | Benzo(a)anthraceen | µg/l | <0.010 |
| S | Chryseen | µg/l | <0.010 |
| Q | Benzo(b)fluorantheen | µg/l | <0.010 |
| S | Benzo(k)fluorantheen | µg/l | <0.010 |
| S | Benzo(a)pyreen | µg/l | <0.010 |
| Q | Dibenzo(a,h)anthraceen | µg/l | <0.010 |
| S | Benzo(ghi)peryleen | µg/l | <0.010 |
| S | Indeno(123-cd)pyreen | µg/l | <0.010 |
| Q | PAK Totaal EPA (16) | µg/l | <0.21 |
| S | PAK Totaal VROM (10) | µg/l | <0.11 |
| | **Fysisch-chemische analyses** | | |
| | EC-temp. corr. factor (mathematisch) | | 1.129 |
| S | Geleidingsvermogen 25°C | µS/cm | 3100 |
| S | Geleidingsvermogen 25°C | mS/m | 310 |
| Q | Geleidingsvermogen 20°C | mS/m | 280 |
| | Meettemperatuur (EC) | °C | 19.5 |
| | Meettemperatuur (pH) | °C | 19.9 |
| S | pH | | 7.0 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
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| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 6/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 |
|---|---|---|---|
| Q | Zuurstof | mg O2/l | <0.1 |
| | **Anorganische verbindingen & natte chemie** | | |
| Q | Fluoride totaal | mg/l | 0.64 |
| Q | Bromide | mg/l | 4.2 |
| S | Chloride | mg/l | 490 |
| S | Sulfaat | mg/l | 240 |
| | **Anorganische verbindingen** | | |
| S | Nitraat (NO3-N) | mg N/l | <0.40 |
| S | Nitraat (NO3) | mg/l | <0.90 |
| | **Cyanide** | | |
| | Thiocyanaat (mathematisch) | µg/l | <5.0 |
| S | Cyanide-totaal | µg/l | <5.0 |
| S | Cyanide-vrij | µg/l | <3.0 |
| | Cyanide EPA (335.3) | µg/l | <5.0 |
| | **Uitbesteed / Overig onderzoek** | | |
| | 2378TetraCDD | pg/l | < 0.655 3) |
| | 12378-PentaCDD | pg/l | < 0.873 3) |
| | 123478-HexaCDD | pg/l | < 1.75 3) |
| | 123678-HexaCDD | pg/l | 4.06 3) |
| | 123789-HexaCDD | pg/l | 3.27 3) |
| | 1234678-HeptaCDD | pg/l | 32.3 3) |
| | OctaCDD | pg/l | 207 3) |
| | 2378-TetraCDF | pg/l | 1.93 3) |
| | 12378-PentaCDF | pg/l | < 1.56 3) |
| | 23478-PentaCDF | pg/l | 1.64 3) |
| | 123478-HexaCDF | pg/l | 1.70 3) |
| | 123678-HexaCDF | pg/l | 1.76 3) |
| | 123789-HexaCDF | pg/l | < 1.45 3) |
| | 234678-HexaCDF | pg/l | 2.21 3) |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

Q: door RvA geaccrediteerde verrichting
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 7/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 |
|---|---|---|---|
| | 1234678-HeptaCDF | pg/l | 18.9 3) |
| | 1234789-HeptaCDF | pg/l | < 1.38 3) |
| | OctaCDF | pg/l | 8.75 3) |
| | WHO2005 excl. LOQ | pg/l | 2.56 3) |
| | WHO2005incl. LOQ | pg/l | 4.47 3) |
| | TEQ (WHO) excl. LOQ [a] | pg/l | 3.04 3) |
| | TEQ (WHO) incl. LOQ [b] | pg/l | 4.54 3) |
| | **Fenolen** | | |
| Q | Fenol | µg/l | <0.50 |
| Q | o-Cresol | µg/l | <0.30 |
| Q | m-Cresol | µg/l | <0.30 |
| Q | p-Cresol | µg/l | <0.20 |
| Q | Cresolen (som) | µg/l | <0.80 |
| Q | 2,4-Dimethylfenol | µg/l | 0.042 |
| Q | 2,5-Dimethylfenol | µg/l | <0.020 |
| Q | 2,6-Dimethylfenol | µg/l | <0.030 |
| Q | 3,4-Dimethylfenol | µg/l | <0.020 |
| Q | o-Ethylfenol | µg/l | <0.030 |
| Q | m-Ethylfenol | µg/l | <0.020 |
| Q | Thymol | µg/l | <0.010 |
| Q | 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/l | 0.022 |
| | **Chloorfenolen** | | |
| Q | o-Chloorfenol | µg/l | <0.10 |
| Q | m-Chloorfenol | µg/l | <0.02 |
| Q | p-Chloorfenol | µg/l | <0.02 |
| Q | Monochloorfenolen (som) | µg/l | <0.14 |
| Q | 2,3-Dichloorfenol | µg/l | <0.02 |
| Q | 2,4/2,5-Dichloorfenol | µg/l | 0.01 |
| Q | 2,6-Dichloorfenol | µg/l | <0.03 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

kwaliteitswaarborg bodembeheer SIKB

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 8/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 |
|---|---|---|---|
| Q | 3,4-Dichloorfenol | µg/l | <0.02 |
| Q | 3,5-Dichloorfenol | µg/l | <0.03 |
| Q | Dichloorfenolen (som) | µg/l | <0.10 |
| Q | 2,3,4-Trichloorfenol | µg/l | <0.02 |
| Q | 2,3,5+2,4,5-Trichloorfenol | µg/l | <0.02 |
| Q | 2,3,6-Trichloorfenol | µg/l | <0.01 |
| Q | 2,4,6-Trichloorfenol | µg/l | <0.05 |
| Q | 3,4,5-Trichloorfenol | µg/l | <0.01 |
| Q | Trichloorfenolen (som) | µg/l | <0.11 |
| Q | 2,3,4,5-Tetrachloorfenol | µg/l | <0.01 |
| Q | 2,3,4,6 + 2,3,5,6-Tetrachloorfenol | µg/l | <0.020 |
| Q | Tetrachloorfenolen (som) | µg/l | <0.03 |
| Q | Pentachloorfenol | µg/l | <0.010 |
| Q | 4-Chloor-3-methylfenol | µg/l | <0.02 |
| | **Overige org.-verontreinigingen** | | |
| | Monobutyltin | µg/l | <0.010 |
| | Dibutyltin | µg/l | <0.010 |
| | Tributyltin | µg/l | <0.010 |
| | Tetrabutyltin | µg/l | <0.010 |
| | Monooctyltin | µg/l | <0.010 |
| | Dioctyltin | µg/l | <0.010 |
| | Tricyclohexyltin | µg/l | <0.010 |
| | Triphenyltin | µg/l | <0.010 |
| | Monobutyltin | µg Sn/l | <0.010 |
| | Dibutyltin | µg Sn/l | <0.010 |
| | Tributyltin | µg Sn/l | <0.010 |
| | Tetrabutyltin | µg Sn/l | <0.010 |
| | Monooctyltin | µg Sn/l | <0.010 |
| | Dioctyltin | µg Sn/l | <0.010 |
| | Tricyclohexyltin | µg Sn/l | <0.010 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017138518/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 19-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/16:25 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 9/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| Analyse | Eenheid | 1 |
|---|---|---|
| Triphenyltin | µg Sn/L | <0.010 |
| Organotin som Sn factor 0,7 | µg Sn/L | 0.014 2) |
| Organotin som (factor 0,7) | µg/L | 0.014 2) |
| Tributyltin | µg/L | <0.010 |
| Tributyltin | µg Sn/L | <0.010 |
| **Ftalaten** | | |
| Dimethylftalaat | µg/L | <0.20 |
| Diethylftalaat | µg/L | <1.0 |
| Di-isobutylftalaat | µg/L | <2.0 |
| Di-n-butylftalaat | µg/L | <2.0 |
| Butylbenzylftalaat | µg/L | <2.0 |
| Bis(ethylhexyl)ftalaat | µg/L | <2.0 |
| Di-n-octylftalaat | µg/L | <1.0 |
| Ftalaten (som) | µg/L | <10 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | TGG-3.1-1-1 TGG-3.1 (990-1090) | 18-Oct-2017 | 9771020 |

Akkoord
Pr.coörd.

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## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017138518/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9771020 | | 1 | | | 0650108253 | TGG-3.1-1-1 TGG-3.1 (990-1090) |
| 9771020 | | 10 | | | 0650108259 | |
| 9771020 | | 11 | | | 0645009529 | |
| 9771020 | | 12 | | | 0645009528 | |
| 9771020 | | 13 | | | 0625008411 | |
| 9771020 | | 14 | | | 0685034946 | |
| 9771020 | | 15 | | | 0685034945 | |
| 9771020 | | 16 | | | 0685034944 | |
| 9771020 | | 17 | | | 0810314699 | |
| 9771020 | | 18 | | | 0810314691 | |
| 9771020 | | 19 | | | 0805029690 | |
| 9771020 | | 2 | | | 0650108257 | |
| 9771020 | | 20 | | | 0805029646 | |
| 9771020 | | 3 | | | 0650108252 | |
| 9771020 | | 4 | | | 0650108261 | |
| 9771020 | | 5 | | | 0650108254 | |
| 9771020 | | 6 | | | 0650108198 | |
| 9771020 | | 7 | | | 0650108197 | |
| 9771020 | | 8 | | | 0650108194 | |
| 9771020 | | 9 | | | 0650108201 | |

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## Bijlage (B) met opmerkingen behorende bij analysecertificaat 2017138518/0



**Opmerking 1)**

Deze bepaling is uitbesteed bij Eurofins Environnement te Saverne.

**Opmerking 2)**

De toetswaarde van de som is gelijk aan de sommatie van 0,7*RG

**Opmerking 3)**

Deze bepaling is uitbesteed bij Eurofins GFA te Hamburg.

**Eurofins Analytico B.V.**

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**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017138518/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Cyanide vrij | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Cyanide totaal (EPA) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Chlooranilines | W6336 | GC-MS | Eigen methode |
| Boor (B) Uitbesteed | W0004 | Uitbesteed | Uitbesteding |
| Arseen (As) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Barium (Ba) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Beryllium (Be) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Calcium (Ca) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Cadmium (Cd) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kobalt (Co) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Chroom (Cr) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Koper (Cu) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kwik (Hg) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kalium (K) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Magnesium (Mg) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Molybdeen (Mo) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Natrium (Na) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Nikkel (Ni) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Lood (Pb) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Antimoon (Sb) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Seleen (Se) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Tin (Sn) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Vanadium (V) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Zink (Zn) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Xylenen som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Aromaten (BTEX) | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Styreen | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,2,3-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,2,4-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,3,5-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Propylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Isopropylbenzeen (cumeen) | W0254 | HS-GC-MS | Eigen methode |
| 2-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 3-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 4-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| VOCl: Cis 1,2-Dichlooretheen | W0254 | HS-GC-MS | Cf. pb 3130-1 |

**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017138518/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| VOCl: Trans 1,2-Dichlooretheen | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| DiClEtheen som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,1-Dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,2-Dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,3-Dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| DiChlprop. som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Monochloorbenzeen | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| 1,2-Dichloorbenzeen | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| 1,3-Dichloorbenzeen | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| 1,4-Dichloorbenzeen | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| CB (4 vl) som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| Minerale olie (C10-C40) | W0215 | GC-FID | Cf. pb 3110-5 |
| OCB som AS3000 | W0260 | GC-MS | Cf. pb 3120-1/2 en gw. NEN-EN-ISO 6468 |
| OCB (25) | W0260 | GC-MS | Cf. pb 3120-1/2 en gw. NEN-EN-ISO 6468 |
| Chloorbenzenen (8) (minder vluchtig) | W0260 | GC-MS | Cf. pb 3120-1/2 en gw. NEN-EN-ISO 6468 |
| CB (8 mvl) som AS3000 | W0260 | GC-MS | Eigen methode |
| PAK (16) (EPA) | W0260 | GC-MS | Cf. pb. 3110-4 en gw ISO 28540 |
| Geleidingsvermogen | W0506 | Conductometrie | Cf. pb 3110-2 en cf. NEN-ISO 7888 |
| Zuurstof | W0556 | Potentiometrie | Cf. NEN-EN-ISO 17289 |
| Zuurgraad (pH) | W0524 | Potentiometrie | Cf. pb 3110-1 en cf. NEN-EN-ISO 10523 |
| Fluoride totaal | W0546 | Potentiometrie | Cf. pb 3140-2 en cf. NEN 6483 |
| Bromide (ionchromatografie) | W0504 | Ionchromatografie | Cf. NEN-EN-ISO 10304-1 |
| Chloride (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Sulfaat (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Nitraat | W0566 | Spectrometrie | Cf. pb 3140-2 en cf.NEN-ISO 15923-1 |
| Thiocyanaat (mathematisch) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Cyanide totaal | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Dioxines (PCDD/PCDF) | W0004 | Uitbesteed | Uitbesteding |
| Fenolen (10) & cresolen (3) | W6336 | GC-MS | Eigen methode |
| Chloorfenolen (20) | W6336 | GC-MS | Eigen methode |
| Organotin | W0274 | GC-MS | NEN-EN-ISO 17353 |
| Organotin (TBT+TPhT) som AS3000 | W0274 | GC-MS | NEN-EN-ISO 17353 |
| Tributyltin (TBT) | W0274 | GC-MS | NEN-EN-ISO 17353 |
| Ftalaten (7) | W6336 | GC-MS | Eigen methode |

Nadere informatie over de toegepaste onderzoeksmethoden alsmede een classificatie van de meetonzekerheid staan vermeld in ons overzicht "Specificaties analysemethoden", versie juni 2016.

## Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017138518/0



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

| Analyse | Monster nr. |
|---|---|
| De conserveringstermijn is voor de betreffende analyse overschreden. | |
| Nitraat (N03) | 9771020 |
| pH | 9771020 |
| Geleidingsvermogen 25°C | 9771020 |
| Zuurstof | 9771020 |

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Antea Group
T.a.v. A. Eijke
Rivium Westln.72, 2909 LD Cap.a/d IJssel
3009 AN ROTTERDAM

## Voorlopig analysecertificaat

Datum: 27-Oct-2017

Hierbij ontvangt u de resultaten van het navolgende laboratoriumonderzoek.

| | |
|---|---|
| Certificaatnummer | 2017139259 |
| Uw project/verslagnummer | 418938 |
| Uw projectnaam | Grondwatermonitoring Perkpolder |
| Uw ordernummer | |
| Monster(s) ontvangen | 19-Oct-2017 |

Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.
De analyse resultaten hebben alleen betrekking op het beproefde object.

De grondmonsters worden tot 4 weken na datum ontvangst bewaard en watermonsters tot 2 weken na datum ontvangst. Zonder tegenbericht worden de monsters nadien afgevoerd.
Indien de monsters langer bewaard dienen te blijven verzoeken wij U dit exemplaar uiterlijk 1 werkdag voor afloop van de standaardbewaarperiode ondertekend aan ons te retourneren. Voor de kosten van het langer bewaren van monsters verwijzen wij naar de prijslijst.

Bewaren tot:
Datum: Naam: Handtekening:

Wij vertrouwen erop uw opdracht hiermee naar verwachting te hebben uitgevoerd, mocht U naar aanleiding van dit analysecertificaat nog vragen hebben verzoeken wij U contact op te nemen met de afdeling Verkoop en Advies.

Met vriendelijke groet,

Eurofins Analytico B.V.

Ing. A. Veldhuizen
Technical Manager

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139259/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 1/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| | **Metalen** | | | | | |
| S | Arseen (As) | µg/L | <5.0 | <5.0 | 18 | 7.7 |
| S | Barium (Ba) | µg/L | 310 | 410 | 600 | 130 |
| S | Beryllium (Be) | µg/L | <1.0 | <1.0 | <1.0 | <1.0 |
| Q | Calcium (Ca) | mg/L | 150 | 350 | 270 | 350 |
| S | Cadmium (Cd) | µg/L | <0.20 | <0.20 | <0.20 | <0.20 |
| S | Kobalt (Co) | µg/L | <2.0 | <2.0 | 2.3 | <2.0 |
| S | Chroom (Cr) | µg/L | <1.0 | 2.4 | 1.9 | 2.6 |
| S | Koper (Cu) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 |
| S | Kwik (Hg) | µg/L | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Kalium (K) | mg/L | 1.6 | 210 | 180 | 190 |
| Q | Magnesium (Mg) | mg/L | 13 | 730 | 480 | 580 |
| S | Molybdeen (Mo) | µg/L | <2.0 | <2.0 | 3.9 | 2.8 |
| Q | Natrium (Na) | mg/L | 23 | 5900 | 4500 | 5000 |
| S | Nikkel (Ni) | µg/L | <3.0 | <3.0 | 14 | <3.0 |
| S | Lood (Pb) | µg/L | <2.0 | <2.0 | <2.0 | <2.0 |
| S | Antimoon (Sb) | µg/L | <3.0 | <3.0 | <3.0 | <3.0 |
| S | Seleen (Se) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Tin (Sn) | µg/L | <2.5 | <2.5 | <2.5 | <2.5 |
| S | Vanadium (V) | µg/L | <2.0 | 3.3 | 2.6 | 2.3 |
| S | Zink (Zn) | µg/L | 87 | 43 | 110 | <10 |
| | **Vluchtige Aromatische Koolwaterstoffen** | | | | | |
| S | Benzeen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 |
| S | Tolueen | µg/L | <0.20 | <0.20 | 0.22 | 0.31 |
| S | Ethylbenzeen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 |
| S | o-Xyleen | µg/L | <0.10 | <0.10 | <0.10 | 0.12 |
| S | m,p-Xyleen | µg/L | <0.20 | <0.20 | <0.20 | 0.30 |
| S | Xylenen (som) factor 0,7 | µg/L | 0.21 [1)] | 0.21 [1)] | 0.21 [1)] | 0.42 |
| | BTEX (som) | µg/L | <0.90 | <0.90 | <0.90 | <0.90 |
| S | Styreen | µg/L | <0.20 | <0.20 | <0.20 | <0.20 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-101-1-1 EC-101 (350-450) | 19-Oct-2017 | 9773295 |
| 2 | EC-102-2-1 EC-102 (900-1000) | 19-Oct-2017 | 9773296 |
| 3 | TGG-1.2-1-1 TGG-1.2 (550-650) | 19-Oct-2017 | 9773297 |
| 4 | TGG-1.2-2-1 TGG-1.2 (840-940) | 19-Oct-2017 | 9773298 |

kwaliteitswaarborg bodembeheer SIKB

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139259/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 2/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| S | 1,2,3-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 1,2,4-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | 0.11 |
| S | 1,3,5-Trimethylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 |
| S | n-Propylbenzeen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 |
| Q | Isopropylbenzeen (cumeen) | µg/l | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 2-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 |
| S | 3-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 |
| Q | 4-Ethyltolueen | µg/l | <0.10 | <0.10 | <0.10 | <0.10 |
| | **Minerale olie** | | | | | |
| | Minerale olie (C10-C12) | µg/l | <10 | <10 | <10 | 10 |
| | Minerale olie (C12-C16) | µg/l | <10 | <10 | <10 | 25 |
| | Minerale olie (C16-C21) | µg/l | <10 | <10 | <10 | 22 |
| | Minerale olie (C21-C30) | µg/l | <15 | <15 | <15 | <15 |
| | Minerale olie (C30-C35) | µg/l | <10 | <10 | <10 | <10 |
| | Minerale olie (C35-C40) | µg/l | <10 | <10 | <10 | <10 |
| S | Minerale olie totaal (C10-C40) | µg/l | <50 | <50 | <50 | 61 |
| | Chromatogram | | | | | Zie bijl. |
| | **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | |
| S | Naftaleen | µg/l | 0.046 | <0.020 | 0.086 | 0.079 |
| Q | Acenaftyleen | µg/l | <0.050 | <0.050 | <0.050 | <0.050 |
| Q | Acenafteen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Fluoreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Fenanthreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Anthraceen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Pyreen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(a)anthraceen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Chryseen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Benzo(b)fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(k)fluorantheen | µg/l | <0.010 | <0.010 | <0.010 | <0.010 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-101-1-1 EC-101 (350-450) | 19-Oct-2017 | 9773295 |
| 2 | EC-102-2-1 EC-102 (900-1000) | 19-Oct-2017 | 9773296 |
| 3 | TGG-1.2-1-1 TGG-1.2 (550-650) | 19-Oct-2017 | 9773297 |
| 4 | TGG-1.2-2-1 TGG-1.2 (840-940) | 19-Oct-2017 | 9773298 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.

## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139259/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 3/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| S | Benzo(a)pyreen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | Dibenzo(a,h)anthraceen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Benzo(ghi)peryleen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 |
| S | Indeno(123-cd)pyreen | µg/L | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | PAK Totaal EPA (16) | µg/L | <0.21 | <0.21 | <0.21 | <0.21 |
| S | PAK Totaal VROM (10) | µg/L | <0.11 | <0.11 | <0.11 | <0.11 |
| | **Fysisch-chemische analyses** | | | | | |
| | EC-temp. corr. factor (mathematisch) | | 1.119 | 1.119 | 1.113 | 1.116 |
| S | Geleidingsvermogen 25°C | µS/cm | 890 | 33000 | 25000 | 28000 |
| S | Geleidingsvermogen 25°C | mS/m | 89 | 3300 | 2500 | 2800 |
| Q | Geleidingsvermogen 20°C | mS/m | 80 | 2900 | 2300 | 2500 |
| | Meettemperatuur (EC) | °C | 19.9 | 19.9 | 20.1 | 20.0 |
| | Meettemperatuur (pH) | °C | 20.4 | 20.3 | 20.4 | 20.4 |
| S | pH | | 7.4 | 7.2 2) | 7.2 2) | 7.3 2) |
| Q | Zuurstof | mg O2/L | 0.3 | <0.1 | 0.6 | <0.1 |
| | **Anorganische verbindingen & natte chemie** | | | | | |
| Q | Fluoride totaal | mg/L | 0.47 | 0.37 | 0.81 | 0.75 |
| Q | Bromide | mg/L | 0.15 | 52 | 23 | 29 |
| S | Chloride | mg/L | 26 | 11000 | 7900 | 9500 |
| S | Sulfaat | mg/L | 78 | 1700 | 900 | 930 |
| | **Anorganische verbindingen** | | | | | |
| S | Nitraat (NO3-N) | mg N/L | <0.40 | <0.40 | <0.40 | <0.40 |
| S | Nitraat (NO3) | mg/L | <0.90 | <0.90 | <0.90 | <0.90 |
| | **Cyanide** | | | | | |
| | Thiocyanaat (mathematisch) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Cyanide-totaal | µg/L | <5.0 | <5.0 | <5.0 | <5.0 |
| S | Cyanide-vrij | µg/L | <3.0 | <3.0 | <3.0 | <3.0 |
| | Cyanide EPA (335.3) | µg/L | <5.0 | <5.0 | <5.0 | <5.0 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-101-1-1 EC-101 (350-450) | 19-Oct-2017 | 9773295 |
| 2 | EC-102-2-1 EC-102 (900-1000) | 19-Oct-2017 | 9773296 |
| 3 | TGG-1.2-1-1 TGG-1.2 (550-650) | 19-Oct-2017 | 9773297 |
| 4 | TGG-1.2-2-1 TGG-1.2 (840-940) | 19-Oct-2017 | 9773298 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
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V: VLAREL erkende verrichting
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139259/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 4/4 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| | **Uitbesteed / Overig onderzoek** | | | | | |
| | Uitbesteding onderzoek | | ***** | ***** | ***** | ***** |
| | **Fenolen** | | | | | |
| Q | Fenol | µg/L | <0.50 | <0.50 | <0.50 | <0.50 |
| Q | o-Cresol | µg/L | <0.30 | <0.30 | <0.30 | <0.30 |
| Q | m-Cresol | µg/L | <0.30 | <0.30 | <0.30 | <0.30 |
| Q | p-Cresol | µg/L | <0.20 | <0.20 | <0.20 | <0.20 |
| Q | Cresolen (som) | µg/L | <0.80 | <0.80 | <0.80 | <0.80 |
| Q | 2,4-Dimethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | 2,5-Dimethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | 2,6-Dimethylfenol | µg/L | <0.030 | <0.030 | <0.030 | <0.030 |
| Q | 3,4-Dimethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | o-Ethylfenol | µg/L | <0.030 | <0.030 | <0.030 | <0.030 |
| Q | m-Ethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 |
| Q | Thymol | µg/L | <0.010 | <0.010 | <0.010 | <0.010 |
| Q | 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0.020 | <0.020 | <0.020 | <0.020 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-101-1-1 EC-101 (350-450) | 19-Oct-2017 | 9773295 |
| 2 | EC-102-2-1 EC-102 (900-1000) | 19-Oct-2017 | 9773296 |
| 3 | TGG-1.2-1-1 TGG-1.2 (550-650) | 19-Oct-2017 | 9773297 |
| 4 | TGG-1.2-2-1 TGG-1.2 (840-940) | 19-Oct-2017 | 9773298 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend

Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.

Akkoord
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## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017139259/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9773295 | | 1 | | | 0650180270 | EC-101-1-1 EC-101 (350-450) |
| 9773295 | | 10 | | | 0810314722 | |
| 9773295 | | 11 | | | 0625008422 | |
| 9773295 | | 12 | | | 0805029569 | |
| 9773295 | | 2 | | | 0650180269 | |
| 9773295 | | 3 | | | 0650180278 | |
| 9773295 | | 4 | | | 0650180274 | |
| 9773295 | | 5 | | | 0685034935 | |
| 9773295 | | 6 | | | 0640259948 | |
| 9773295 | | 7 | | | 0640259956 | |
| 9773295 | | 8 | | | 0685034952 | |
| 9773295 | | 9 | | | 0810314723 | |
| 9773296 | | 1 | | | 0650180282 | EC-102-2-1 EC-102 (900-1000) |
| 9773296 | | 2 | | | 0650180277 | |
| 9773296 | | 3 | | | 0650180286 | |
| 9773296 | | 4 | | | 0650180273 | |
| 9773296 | | 5 | | | 0685034940 | |
| 9773296 | | 6 | | | 0685034916 | |
| 9773296 | | 7 | | | 0810314734 | |
| 9773296 | | 8 | | | 0810314742 | |
| 9773296 | | 9 | | | 0640259952 | |
| 9773296 | | 10 | | | 0640259943 | |
| 9773296 | | 11 | | | 0625008420 | |
| 9773296 | | 12 | | | 0805029568 | |
| 9773297 | | 1 | | | 0650180307 | TGG-1.2-1-1 TGG-1.2 (550-650) |
| 9773297 | | 2 | | | 0650180313 | |
| 9773297 | | 3 | | | 0650180314 | |
| 9773297 | | 4 | | | 0650180308 | |
| 9773297 | | 5 | | | 0685034933 | |
| 9773297 | | 6 | | | 0810314725 | |
| 9773297 | | 7 | | | 0810314726 | |
| 9773297 | | 8 | | | 0685034939 | |
| 9773297 | | 9 | | | 0640259955 | |
| 9773297 | | 10 | | | 0640259947 | |
| 9773297 | | 11 | | | 0625008405 | |
| 9773297 | | 12 | | | 0805029674 | |
| 9773298 | | 1 | | | 0650180312 | TGG-1.2-2-1 TGG-1.2 (840-940) |
| 9773298 | | 2 | | | 0650180317 | |

## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017139259/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9773298 | | 3 | | | 0650180318 | TGG-1.2-2-1 TGG-1.2 (840-940) |
| 9773298 | | 4 | | | 0650180311 | |
| 9773298 | | 5 | | | 0640259965 | |
| 9773298 | | 6 | | | 0640259960 | |
| 9773298 | | 7 | | | 0625008403 | |
| 9773298 | | 8 | | | 0685034938 | |
| 9773298 | | 9 | | | 0685034926 | |
| 9773298 | | 10 | | | 0810314748 | |
| 9773298 | | 11 | | | 0810314740 | |
| 9773298 | | 12 | | | 0805029691 | |

## Bijlage (B) met opmerkingen behorende bij analysecertificaat 2017139259/0



**Opmerking 1)**

De toetswaarde van de som is gelijk aan de sommatie van 0,7*RG

**Opmerking 2)**

De pH waarde is gemeten bij een geleidingsvermogen >20000 µS/cm. Dit is buiten het toepassingsgebied van de methode volgens NEN-EN-ISO 10523.

**Eurofins Analytico B.V.**

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BNP Paribas S.A. 227 9245 25
IBAN: NL71BNPA0227924525

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## Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017139259/0



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Cyanide vrij | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Cyanide totaal (EPA) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Arseen (As) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Barium (Ba) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Beryllium (Be) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Calcium (Ca) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Cadmium (Cd) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kobalt (Co) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Chroom (Cr) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Koper (Cu) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kwik (Hg) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kalium (K) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Magnesium (Mg) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Molybdeen (Mo) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Natrium (Na) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Nikkel (Ni) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Lood (Pb) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Antimoon (Sb) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Seleen (Se) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Tin (Sn) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Vanadium (V) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Zink (Zn) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Xylenen som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Aromaten (BTEX) | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Styreen | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,2,3-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,2,4-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,3,5-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Propylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Isopropylbenzeen (cumeen) | W0254 | HS-GC-MS | Eigen methode |
| 2-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 3-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 4-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| Minerale olie (C10-C40) | W0215 | GC-FID | Cf. pb 3110-5 |
| Chromatogram olie (GC) | W0215 | GC-FID | Eigen methode |
| PAK (16) (EPA) | W0260 | GC-MS | Cf. pb. 3110-4 en gw ISO 28540 |

**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017139259/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Geleidingsvermogen | W0506 | Conductometrie | Cf. pb 3110-2 en cf. NEN-ISO 7888 |
| Zuurgraad (pH) | W0524 | Potentiometrie | Cf. pb 3110-1 en cf. NEN-EN-ISO 10523 |
| Zuurstof | W0556 | Potentiometrie | Cf. NEN-EN-ISO 17289 |
| Fluoride totaal | W0546 | Potentiometrie | Cf. pb 3140-2 en cf. NEN 6483 |
| Bromide (ionchromatografie) | W0504 | Ionchromatografie | Cf. NEN-EN-ISO 10304-1 |
| Chloride (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Sulfaat (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Nitraat | W0566 | Spectrometrie | Cf. pb 3140-2 en cf.NEN-ISO 15923-1 |
| Thiocyanaat (mathematisch) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Cyanide totaal | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Fenolen (10) & cresolen (3) | W6336 | GC-MS | Eigen methode |

Nadere informatie over de toegepaste onderzoeksmethoden alsmede een classificatie van de meetonzekerheid staan vermeld in ons overzicht "Specificaties analysemethoden", versie juni 2016.

## Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017139259/0



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

| Analyse | Monster nr. |
|---|---|
| De conserveringstermijn is voor de betreffende analyse overschreden. | |
| Geleidingsvermogen 25°C | 9773295 |
| | 9773296 |
| | 9773297 |
| | 9773298 |
| Zuurstof | 9773295 |
| | 9773296 |
| | 9773297 |
| | 9773298 |

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Antea Group
T.a.v. A. Eijke
Rivium Westln.72, 2909 LD Cap.a/d IJssel
3009 AN ROTTERDAM

## Voorlopig analysecertificaat

Datum: 27-Oct-2017

Hierbij ontvangt u de resultaten van het navolgende laboratoriumonderzoek.

| | |
|---|---|
| Certificaatnummer | 2017139266 |
| Uw project/verslagnummer | 418938 |
| Uw projectnaam | Grondwatermonitoring Perkpolder |
| Uw ordernummer | |
| Monster(s) ontvangen | 19-Oct-2017 |

Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.
De analyse resultaten hebben alleen betrekking op het beproefde object.

De grondmonsters worden tot 4 weken na datum ontvangst bewaard en watermonsters tot 2 weken na datum ontvangst. Zonder tegenbericht worden de monsters nadien afgevoerd.
Indien de monsters langer bewaard dienen te blijven verzoeken wij U dit exemplaar uiterlijk 1 werkdag voor afloop van de standaardbewaarperiode ondertekend aan ons te retourneren. Voor de kosten van het langer bewaren van monsters verwijzen wij naar de prijslijst.

Bewaren tot:
Datum: Naam: Handtekening:

Wij vertrouwen erop uw opdracht hiermee naar verwachting te hebben uitgevoerd, mocht U naar aanleiding van dit analysecertificaat nog vragen hebben verzoeken wij U contact op te nemen met de afdeling Verkoop en Advies.

Met vriendelijke groet,

Eurofins Analytico B.V.

Ing. A. Veldhuizen
Technical Manager

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 1/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 |
|---|---|---|---|---|
| | **Metalen** | | | |
| | Boor (B) | mg/L | 2 [1)] | 0.5 [1)] |
| S | Arseen (As) | µg/L | <5.0 | <5.0 |
| S | Barium (Ba) | µg/L | 470 | 84 |
| S | Beryllium (Be) | µg/L | <1.0 | <1.0 |
| Q | Calcium (Ca) | mg/L | 280 | 160 |
| S | Cadmium (Cd) | µg/L | <0.20 | <0.20 |
| S | Kobalt (Co) | µg/L | <2.0 | <2.0 |
| S | Chroom (Cr) | µg/L | 2.2 | <1.0 |
| S | Koper (Cu) | µg/L | <2.0 | <2.0 |
| S | Kwik (Hg) | µg/L | <0.050 | <0.050 |
| Q | Kalium (K) | mg/L | 190 | 18 |
| Q | Magnesium (Mg) | mg/L | 580 | 46 |
| S | Molybdeen (Mo) | µg/L | <2.0 | <2.0 |
| Q | Natrium (Na) | mg/L | 4800 | 470 |
| S | Nikkel (Ni) | µg/L | <3.0 | <3.0 |
| S | Lood (Pb) | µg/L | <2.0 | 310 |
| S | Antimoon (Sb) | µg/L | <3.0 | <3.0 |
| S | Seleen (Se) | µg/L | 5.2 | <5.0 |
| S | Tin (Sn) | µg/L | <2.5 | <2.5 |
| S | Vanadium (V) | µg/L | 3.2 | <2.0 |
| S | Zink (Zn) | µg/L | 31 | <10 |
| | **Vluchtige Aromatische Koolwaterstoffen** | | | |
| S | Benzeen | µg/L | <0.20 | <0.20 |
| S | Tolueen | µg/L | 72 | <0.20 |
| S | Ethylbenzeen | µg/L | <0.20 | <0.20 |
| S | o-Xyleen | µg/L | <0.10 | <0.10 |
| S | m,p-Xyleen | µg/L | <0.20 | <0.20 |
| S | Xylenen (som) factor 0,7 | µg/L | 0.21 [2)] | 0.21 [2)] |
| | BTEX (som) | µg/L | 72 | <0.90 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 2/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 |
|---|---|---|---|---|
| S | Styreen | µg/l | <0.20 | <0.20 |
| S | 1,2,3-Trimethylbenzeen | µg/l | <0.10 | <0.10 |
| S | 1,2,4-Trimethylbenzeen | µg/l | <0.10 | <0.10 |
| S | 1,3,5-Trimethylbenzeen | µg/l | <0.10 | <0.10 |
| S | n-Propylbenzeen | µg/l | <0.10 | <0.10 |
| Q | Isopropylbenzeen (cumeen) | µg/l | <0.10 | <0.10 |
| S | 2-Ethyltolueen | µg/l | <0.10 | <0.10 |
| S | 3-Ethyltolueen | µg/l | <0.10 | <0.10 |
| Q | 4-Ethyltolueen | µg/l | <0.10 | <0.10 |
| | **Vluchtige organische halogeenkoolwaterstoffen** | | | |
| S | cis 1,2-Dichlooretheen | µg/l | <0.10 | <0.10 |
| S | trans 1,2-Dichlooretheen | µg/l | <0.10 | <0.10 |
| S | 1,2-Dichloorethenen (Som) factor 0,7 | µg/l | 0.14 2) | 0.14 2) |
| S | 1,1-Dichloorpropaan | µg/l | <0.20 | <0.20 |
| S | 1,2-Dichloorpropaan | µg/l | <0.20 | <0.20 |
| S | 1,3-Dichloorpropaan | µg/l | <0.20 | <0.20 |
| S | Dichloorpropanen som factor 0.7 | µg/l | 0.42 | 0.42 |
| S | Monochloorbenzeen | µg/l | <0.10 | <0.10 |
| S | 1,2-Dichloorbenzeen | µg/l | <0.10 | <0.10 |
| S | 1,3-Dichloorbenzeen | µg/l | <0.10 | <0.10 |
| S | 1,4-Dichloorbenzeen | µg/l | <0.10 | <0.10 |
| S | Som dichloorbenzenen corr. *0.7 | µg/l | 0.21 | 0.21 |
| S | Som mono& dichloorbenzenen corr. *0.7 | µg/l | 0.28 | 0.28 |
| | **Minerale olie** | | | |
| | Minerale olie (C10-C12) | µg/l | <10 | <10 |
| | Minerale olie (C12-C16) | µg/l | <10 | <10 |
| | Minerale olie (C16-C21) | µg/l | <10 | <10 |
| | Minerale olie (C21-C30) | µg/l | <15 | <15 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 3/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 |
|---|---|---|---|---|
| | Minerale olie (C30-C35) | µg/l | <10 | <10 |
| | Minerale olie (C35-C40) | µg/l | <10 | <10 |
| S | Minerale olie totaal (C10-C40) | µg/l | <50 | <50 |
| | **Organo chloorbestrijdingsmiddelen, OCB** | | | |
| S | alfa-HCH | µg/l | <0.010 | <0.010 |
| S | beta-HCH | µg/l | <0.0080 | <0.0080 |
| S | gamma-HCH | µg/l | <0.0090 | <0.0090 |
| S | delta-HCH | µg/l | <0.0080 | <0.0080 |
| S | Hexachloorbenzeen | µg/l | <0.0050 | <0.0050 |
| S | Heptachloor | µg/l | <0.010 | <0.010 |
| S | Heptachloorepoxide (cis,beta) | µg/l | <0.010 | <0.010 |
| S | Heptachloorepoxide (trans,alfa) | µg/l | <0.010 | <0.010 |
| S | Aldrin | µg/l | <0.010 | <0.010 |
| S | Dieldrin | µg/l | <0.010 | <0.010 |
| S | Endrin | µg/l | <0.010 | <0.010 |
| S | alfa-Endosulfan | µg/l | <0.010 | <0.010 |
| S | alfa-Chloordaan | µg/l | <0.010 | <0.010 |
| S | gamma-Chloordaan | µg/l | <0.010 | <0.010 |
| S | o,p-DDT | µg/l | <0.010 | <0.010 |
| S | p,p-DDT | µg/l | <0.010 | <0.010 |
| S | o,p-DDE | µg/l | <0.010 | <0.010 |
| S | p,p-DDE | µg/l | <0.010 | <0.010 |
| S | o,p-DDD | µg/l | <0.010 | <0.010 |
| S | p,p-DDD | µg/l | <0.010 | <0.010 |
| S | HCH (som) (factor 0,7) | µg/l | 0.024 2) | 0.024 2) |
| S | Drins (som) (factor 0,7) | µg/l | 0.021 2) | 0.021 2) |
| S | Heptachloorepoxide (som) (factor 0,7) | µg/l | 0.014 2) | 0.014 2) |
| S | DDD (som) (factor 0,7) | µg/l | 0.014 2) | 0.014 2) |
| S | DDE (som) (factor 0,7) | µg/l | 0.014 2) | 0.014 2) |
| S | DDT (som) (factor 0,7) | µg/l | 0.014 2) | 0.014 2) |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend

Dit certificaat mag uitsluitend in zijn geheel worden gereproduceerd.

## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 4/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 |
|---|---|---|---|---|
| S | DDX (som) (factor 0,7) | µg/l | 0.042 2) | 0.042 2) |
| S | Chloordaan (som) (factor 0,7) | µg/l | 0.014 2) | 0.014 2) |
| | OCB (som) (factor 0,7) | µg/l | 0.18 | 0.18 |
| | **Chlooranilines** | | | |
| | 2-chlooraniline | µg/l | <0.10 | <0.10 |
| | 3+4-chlooraniline | µg/l | <0.40 | <0.40 |
| | 2,6-dichlooraniline | µg/l | <0.08 | <0.08 |
| | 3,4-dichlooraniline | µg/l | <0.08 | <0.08 |
| | 3,5-dichlooraniline | µg/l | <0.40 | <0.40 |
| | 2,3,4-trichlooraniline | µg/l | <0.40 | <0.40 |
| | 2,4,5-trichlooraniline | µg/l | <0.32 | <0.32 |
| | 2,4,6-trichlooraniline | µg/l | <0.08 | <0.08 |
| | 3,4,5-trichlooraniline | µg/l | <0.08 | <0.08 |
| | 2,3,4,5-tetrachlooraniline | µg/l | <0.16 | <0.16 |
| | 2,3,5,6-tetrachlooraniline | µg/l | <0.08 | <0.08 |
| | Pentachlooraniline | µg/l | <0.08 | <0.08 |
| | Som 2,3 + 2,4 + 2,5 - Dichlooranilines | µg/l | <0.08 | <0.08 |
| | **Chloorbenzenen** | | | |
| S | 1,2,3-Trichloorbenzeen | µg/l | <0.010 | <0.010 |
| S | 1,2,4-Trichloorbenzeen | µg/l | <0.010 | <0.010 |
| S | 1,3,5-Trichloorbenzeen | µg/l | <0.010 | <0.010 |
| S | 1245/1235-Tetrachloorbenzeen | µg/l | <0.010 | <0.010 |
| S | 1,2,3,4-Tetrachloorbenzeen | µg/l | <0.010 | <0.010 |
| S | Pentachloorbenzeen | µg/l | <0.0050 | <0.0050 |
| S | Hexachloorbenzeen | µg/l | <0.0050 | <0.0050 |
| S | Som minder vluchtig chloorbenzenen | µg/l | <0.055 | <0.055 |
| S | Som tri-hexachloorbenzenen corr. *0.7 | µg/l | 0.042 2) | 0.042 2) |
| S | Som trichloorbenzenen corr *0.7 | µg/l | 0.021 2) | 0.021 2) |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 5/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 |
|---|---|---|---|---|
| S | Som tetrachloorbenzenen corr *0.7 | µg/l | 0.014 2) | 0.014 2) |
| | **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | |
| S | Naftaleen | µg/l | 0.030 | 0.052 |
| Q | Acenaftyleen | µg/l | <0.050 | <0.050 |
| Q | Acenafteen | µg/l | <0.010 | <0.010 |
| Q | Fluoreen | µg/l | <0.010 | <0.010 |
| S | Fenanthreen | µg/l | <0.010 | <0.010 |
| Q | Anthraceen | µg/l | <0.010 | <0.010 |
| S | Fluorantheen | µg/l | <0.010 | <0.010 |
| Q | Pyreen | µg/l | <0.010 | <0.010 |
| S | Benzo(a)anthraceen | µg/l | <0.010 | <0.010 |
| S | Chryseen | µg/l | <0.010 | <0.010 |
| Q | Benzo(b)fluorantheen | µg/l | <0.010 | <0.010 |
| S | Benzo(k)fluorantheen | µg/l | <0.010 | <0.010 |
| S | Benzo(a)pyreen | µg/l | <0.010 | <0.010 |
| Q | Dibenzo(a,h)anthraceen | µg/l | <0.010 | <0.010 |
| S | Benzo(ghi)peryleen | µg/l | <0.010 | <0.010 |
| S | Indeno(123-cd)pyreen | µg/l | <0.010 | <0.010 |
| Q | PAK Totaal EPA (16) | µg/l | <0.21 | <0.21 |
| S | PAK Totaal VROM (10) | µg/l | <0.11 | <0.11 |
| | **Fysisch-chemische analyses** | | | |
| | EC-temp. corr. factor (mathematisch) | | 1.129 | 1.129 |
| S | Geleidingsvermogen 25°C | µS/cm | 29000 | 2800 |
| S | Geleidingsvermogen 25°C | mS/m | 2900 | 280 |
| Q | Geleidingsvermogen 20°C | mS/m | 2600 | 250 |
| | Meettemperatuur (EC) | °C | 19.5 | 19.5 |
| | Meettemperatuur (pH) | °C | 19.8 | 19.8 |
| S | pH | | 7.3 3) | 7.2 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
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V: VLAREL erkende verrichting
M: MCERTS erkend
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 6/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 |
|---|---|---|---|---|
| Q | Zuurstof | mg O2/l | <0.1 | <0.1 |
| | **Anorganische verbindingen & natte chemie** | | | |
| Q | Fluoride totaal | mg/l | 0.69 | 0.88 |
| Q | Bromide | mg/l | 30 | 26 |
| S | Chloride | mg/l | 11000 | 520 |
| S | Sulfaat | mg/l | 770 | 110 |
| | **Anorganische verbindingen** | | | |
| S | Nitraat (NO3-N) | mg N/l | <0.40 | <0.40 |
| S | Nitraat (NO3) | mg/l | <0.90 | <0.90 |
| | **Cyanide** | | | |
| | Thiocyanaat (mathematisch) | µg/l | <5.0 | <5.0 |
| S | Cyanide-totaal | µg/l | <5.0 | <5.0 |
| S | Cyanide-vrij | µg/l | <3.0 | <3.0 |
| | Cyanide EPA (335.3) | µg/l | <5.0 | <5.0 |
| | **Uitbesteed / Overig onderzoek** | | | |
| | 2378TetraCDD | pg/l | | ***** |
| | 12378-PentaCDD | pg/l | | ***** |
| | 123478-HexaCDD | pg/l | | ***** |
| | 123678-HexaCDD | pg/l | | ***** |
| | 123789-HexaCDD | pg/l | | ***** |
| | 1234678-HeptaCDD | pg/l | | ***** |
| | OctaCDD | pg/l | | ***** |
| | 2378-TetraCDF | pg/l | | ***** |
| | 12378-PentaCDF | pg/l | | ***** |
| | 23478-PentaCDF | pg/l | | ***** |
| | 123478-HexaCDF | pg/l | | ***** |
| | 123678-HexaCDF | pg/l | | ***** |
| | 123789-HexaCDF | pg/l | | ***** |
| | 234678-HexaCDF | pg/l | | ***** |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

Q: door RvA geaccrediteerde verrichting
A: AP04 erkende verrichting
S: AS SIKB erkende verrichting
V: VLAREL erkende verrichting
M: MCERTS erkend
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 7/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 |
|---|---|---|---|---|
| | 1234678-HeptaCDF | pg/l | | ***** |
| | 1234789-HeptaCDF | pg/l | | ***** |
| | OctaCDF | pg/l | | ***** |
| | WHO2005 excl. LOQ | pg/l | | ***** |
| | WHO2005incl. LOQ | pg/l | | ***** |
| | TEQ (WHO) excl. LOQ [a] | pg/l | | ***** |
| | TEQ (WHO) incl. LOQ [b] | pg/l | | ***** |
| | Uitbesteed onderzoek | | ***** | ***** |
| | Uitbesteding onderzoek | | ***** | ***** |
| | **Fenolen** | | | |
| Q | Fenol | µg/l | <0.50 | <0.50 |
| Q | o-Cresol | µg/l | 0.98 | <0.30 |
| Q | m-Cresol | µg/l | 0.55 | <0.30 |
| Q | p-Cresol | µg/l | 120 4) | <0.20 |
| Q | Cresolen (som) | µg/l | 120 | <0.80 |
| Q | 2,4-Dimethylfenol | µg/l | <0.020 | <0.020 |
| Q | 2,5-Dimethylfenol | µg/l | <0.020 | <0.020 |
| Q | 2,6-Dimethylfenol | µg/l | <0.030 | <0.030 |
| Q | 3,4-Dimethylfenol | µg/l | <0.020 | <0.020 |
| Q | o-Ethylfenol | µg/l | <0.030 | <0.030 |
| Q | m-Ethylfenol | µg/l | <0.020 | <0.020 |
| Q | Thymol | µg/l | <0.010 | <0.010 |
| Q | 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/l | <0.020 | <0.020 |
| | **Chloorfenolen** | | | |
| Q | o-Chloorfenol | µg/l | <0.10 | <0.10 |
| Q | m-Chloorfenol | µg/l | <0.02 | <0.02 |
| Q | p-Chloorfenol | µg/l | 0.08 | <0.02 |
| Q | Monochloorfenolen (som) | µg/l | <0.14 | <0.14 |
| Q | 2,3-Dichloorfenol | µg/l | <0.02 | <0.02 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

Q: door RvA geaccrediteerde verrichting
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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 8/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| | Analyse | Eenheid | 1 | 2 |
|---|---|---|---|---|
| Q | 2,4/2,5-Dichloorfenol | µg/l | 0.01 | 0.007 |
| Q | 2,6-Dichloorfenol | µg/l | <0.03 | <0.03 |
| Q | 3,4-Dichloorfenol | µg/l | <0.02 | <0.02 |
| Q | 3,5-Dichloorfenol | µg/l | <0.03 | <0.03 |
| Q | Dichloorfenolen (som) | µg/l | <0.10 | <0.10 |
| Q | 2,3,4-Trichloorfenol | µg/l | <0.02 | <0.02 |
| Q | 2,3,5+2,4,5-Trichloorfenol | µg/l | <0.02 | <0.02 |
| Q | 2,3,6-Trichloorfenol | µg/l | <0.01 | <0.01 |
| Q | 2,4,6-Trichloorfenol | µg/l | <0.05 | <0.05 |
| Q | 3,4,5-Trichloorfenol | µg/l | <0.01 | <0.01 |
| Q | Trichloorfenolen (som) | µg/l | <0.11 | <0.11 |
| Q | 2,3,4,5-Tetrachloorfenol | µg/l | <0.01 | <0.01 |
| Q | 2,3,4,6 + 2,3,5,6-Tetrachloorfenol | µg/l | <0.020 | <0.020 |
| Q | Tetrachloorfenolen (som) | µg/l | <0.03 | <0.03 |
| Q | Pentachloorfenol | µg/l | <0.010 | <0.010 |
| Q | 4-Chloor-3-methylfenol | µg/l | <0.02 | <0.02 |
| | **Overige org.-verontreinigingen** | | | |
| | Monobutyltin | µg/l | 0.011 | <0.010 |
| | Dibutyltin | µg/l | <0.010 | <0.010 |
| | Tributyltin | µg/l | 0.011 | <0.010 |
| | Tetrabutyltin | µg/l | <0.010 | <0.010 |
| | Monooctyltin | µg/l | <0.010 | <0.010 |
| | Dioctyltin | µg/l | <0.010 | <0.010 |
| | Tricyclohexyltin | µg/l | <0.010 | <0.010 |
| | Triphenyltin | µg/l | <0.010 | <0.010 |
| | Monobutyltin | µg Sn/l | <0.010 | <0.010 |
| | Dibutyltin | µg Sn/l | <0.010 | <0.010 |
| | Tributyltin | µg Sn/l | <0.010 | <0.010 |
| | Tetrabutyltin | µg Sn/l | <0.010 | <0.010 |
| | Monooctyltin | µg Sn/l | <0.010 | <0.010 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

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## Voorlopig analysecertificaat

| | | | |
|---|---|---|---|
| Uw project/verslagnummer | 418938 | Certificaatnummer/Versie | 2017139266/0 |
| Uw projectnaam | Grondwatermonitoring Perkpolder | Startdatum | 20-Oct-2017 |
| Uw ordernummer | | Rapportagedatum | 27-Oct-2017/15:19 |
| | | Bijlage | A,B,C,D |
| Monsternemer | | Pagina | 9/9 |
| Monstermatrix | Water (AS3000) | | |
| Projectcode | 4366 - Antea - Project Dioxine Monitoring | | |

| Analyse | Eenheid | 1 | 2 |
|---|---|---|---|
| Dioctyltin | µg Sn/L | <0.010 | <0.010 |
| Tricyclohexyltin | µg Sn/L | <0.010 | <0.010 |
| Triphenyltin | µg Sn/L | <0.010 | <0.010 |
| Organotin som Sn factor 0,7 | µg Sn/L | 0.014 2) | 0.014 2) |
| Organotin som (factor 0,7) | µg/L | 0.018 | 0.014 2) |
| Tributyltin | µg/L | <0.010 | <0.010 |
| Tributyltin | µg Sn/L | <0.010 | <0.010 |
| **Ftalaten** | | | |
| Dimethylftalaat | µg/L | <0.20 | <0.20 |
| Diethylftalaat | µg/L | <1.0 | <1.0 |
| Di-isobutylftalaat | µg/L | <2.0 | <2.0 |
| Di-n-butylftalaat | µg/L | <2.0 | <2.0 |
| Butylbenzylftalaat | µg/L | <2.0 | <2.0 |
| Bis(ethylhexyl)ftalaat | µg/L | <2.0 | <2.0 |
| Di-n-octylftalaat | µg/L | <1.0 | <1.0 |
| Ftalaten (som) | µg/L | <10 | <10 |

| Nr. | Monsteromschrijving | Datum monstername | Monster nr. |
|---|---|---|---|
| 1 | EC-102-1-1 EC-102 (350-450) | 19-Oct-2017 | 9773370 |
| 2 | TGG-1.1-1-1 TGG-1.1 (250-350) | 19-Oct-2017 | 9773371 |

Q: door RvA geaccrediteerde verrichting
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## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017139266/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9773370 | | 1 | | | 0650180276 | EC-102-1-1 EC-102 (350-450) |
| 9773370 | | 10 | | | 0650180309 | |
| 9773370 | | 11 | | | 0640259954 | |
| 9773370 | | 12 | | | 0640259963 | |
| 9773370 | | 13 | | | 0685034951 | |
| 9773370 | | 14 | | | 0685034950 | |
| 9773370 | | 15 | | | 0685034932 | |
| 9773370 | | 16 | | | 0810314741 | |
| 9773370 | | 17 | | | 0810314733 | |
| 9773370 | | 18 | | | 0625008386 | |
| 9773370 | | 19 | | | 0805029683 | |
| 9773370 | | 2 | | | 0650180281 | |
| 9773370 | | 20 | | | 0805029660 | |
| 9773370 | | 3 | | | 0650180275 | |
| 9773370 | | 4 | | | 0650180285 | |
| 9773370 | | 5 | | | 0650180272 | |
| 9773370 | | 6 | | | 0650180280 | |
| 9773370 | | 7 | | | 0650180310 | |
| 9773370 | | 8 | | | 0650180268 | |
| 9773370 | | 9 | | | 0650180284 | |
| 9773371 | | 1 | | | 0650180315 | TGG-1.1-1-1 TGG-1.1 (250-350) |
| 9773371 | | 2 | | | 0650180316 | |
| 9773371 | | 3 | | | 0650180320 | |
| 9773371 | | 4 | | | 0650180321 | |
| 9773371 | | 5 | | | 0650180322 | |
| 9773371 | | 6 | | | 0650180319 | |
| 9773371 | | 7 | | | 0650180325 | |
| 9773371 | | 8 | | | 0650180324 | |
| 9773371 | | 9 | | | 0650180326 | |
| 9773371 | | 10 | | | 0650180323 | |
| 9773371 | | 11 | | | 0685034922 | |
| 9773371 | | 12 | | | 0685034921 | |
| 9773371 | | 13 | | | 0685034928 | |
| 9773371 | | 14 | | | 0810314732 | |
| 9773371 | | 15 | | | 0810314717 | |
| 9773371 | | 16 | | | 0640259959 | |
| 9773371 | | 17 | | | 0640259966 | |
| 9773371 | | 18 | | | 0625008433 | |

## Bijlage (A) met deelmonsterinformatie behorende bij analysecertificaat 2017139266/0



| Monster nr. | Boornr | Omschrijving | Van | Tot | Barcode | Monsteromschrijving |
|---|---|---|---|---|---|---|
| 9773371 | | 19 | | | 0805029686 | TGG-1.1-1-1 TGG-1.1 (250-350) |
| 9773371 | | 20 | | | 0805029638 | |

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## Bijlage (B) met opmerkingen behorende bij analysecertificaat 2017139266/0



**Opmerking 1)**

Deze bepaling is uitbesteed bij Eurofins Environnement te Saverne.

**Opmerking 2)**

De toetswaarde van de som is gelijk aan de sommatie van 0,7*RG

**Opmerking 3)**

De pH waarde is gemeten bij een geleidingsvermogen >20000 µS/cm. Dit is buiten het toepassingsgebied van de methode volgens NEN-EN-ISO 10523.

**Opmerking 4)**

Meetwaarde valt buiten het calibratiegebied van de methode.

**Eurofins Analytico B.V.**

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**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017139266/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| Cyanide vrij | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Cyanide totaal (EPA) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Chlooranilines | W6336 | GC-MS | Eigen methode |
| Boor (B) Uitbesteed | W0004 | Uitbesteed | Uitbesteding |
| Arseen (As) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Barium (Ba) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Beryllium (Be) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Calcium (Ca) | W0423 | ICP-MS | Cf. NEN-EN-ISO 17294-2 |
| Cadmium (Cd) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kobalt (Co) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Chroom (Cr) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Koper (Cu) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kwik (Hg) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Kalium (K) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Magnesium (Mg) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Molybdeen (Mo) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Natrium (Na) | W0421 | ICP-MS | Cf. NEN-EN-ISO 17294-2 / cf. CMA2/I/B.5 |
| Nikkel (Ni) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Lood (Pb) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Antimoon (Sb) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Seleen (Se) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Tin (Sn) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Vanadium (V) | W0421 | ICP-MS | Cf. pb 3150-1/2 en cf. NEN-EN-ISO 17294-2 |
| Zink (Zn) | W0421 | ICP-MS | Cf. pb 3110-3 en cf. NEN-EN-ISO 17294-2 |
| Aromaten (BTEX) | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Xylenen som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Styreen | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,2,3-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,2,4-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| 1,3,5-Trimethylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Propylbenzeen | W0254 | HS-GC-MS | Eigen methode |
| Isopropylbenzeen (cumeen) | W0254 | HS-GC-MS | Eigen methode |
| 2-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 3-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| 4-Ethyltolueen | W0254 | HS-GC-MS | Eigen methode |
| VOCl: Cis 1,2-Dichlooretheen | W0254 | HS-GC-MS | Cf. pb 3130-1 |

**Bijlage (C) met methodeverwijzingen behorende bij analysecertificaat 2017139266/0**



| Analyse | Methode | Techniek | Methode referentie |
|---|---|---|---|
| VOCl: Trans 1,2-Dichlooretheen | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| DiClEtheen som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,1-Dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,2-Dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| 1,3-Dichloorpropaan | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| DiChlprop. som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-1 |
| Monochloorbenzeen | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| 1,2-Dichloorbenzeen | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| 1,3-Dichloorbenzeen | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| 1,4-Dichloorbenzeen | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| CB (4 vl) som AS3000 | W0254 | HS-GC-MS | Cf. pb 3130-2 |
| Minerale olie (C10-C40) | W0215 | GC-FID | Cf. pb 3110-5 |
| OCB (25) | W0260 | GC-MS | Cf. pb 3120-1/2 en gw. NEN-EN-ISO 6468 |
| OCB som AS3000 | W0260 | GC-MS | Cf. pb 3120-1/2 en gw. NEN-EN-ISO 6468 |
| Chloorbenzenen (8) (minder vluchtig) | W0260 | GC-MS | Cf. pb 3120-1/2 en gw. NEN-EN-ISO 6468 |
| CB (8 mvl) som AS3000 | W0260 | GC-MS | Eigen methode |
| PAK (16) (EPA) | W0260 | GC-MS | Cf. pb. 3110-4 en gw ISO 28540 |
| Geleidingsvermogen | W0506 | Conductometrie | Cf. pb 3110-2 en cf. NEN-ISO 7888 |
| Zuurstof | W0556 | Potentiometrie | Cf. NEN-EN-ISO 17289 |
| Zuurgraad (pH) | W0524 | Potentiometrie | Cf. pb 3110-1 en cf. NEN-EN-ISO 10523 |
| Fluoride totaal | W0546 | Potentiometrie | Cf. pb 3140-2 en cf. NEN 6483 |
| Bromide (ionchromatografie) | W0504 | Ionchromatografie | Cf. NEN-EN-ISO 10304-1 |
| Chloride (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Sulfaat (ionchromatografie) | W0504 | Ionchromatografie | Cf.pb 3140-2 en cf. NEN-EN-ISO 10304-1 |
| Nitraat | W0566 | Spectrometrie | Cf. pb 3140-2 en cf.NEN-ISO 15923-1 |
| Thiocyanaat (mathematisch) | W0518 | Spectrometrie (CFA) | EPA 335.3 |
| Cyanide totaal | W0517 | Spectrometrie (CFA) | Cf. pb3140-1 en cf. NEN-EN-ISO 14403-2 |
| Fenolen (10) & cresolen (3) | W6336 | GC-MS | Eigen methode |
| Chloorfenolen (20) | W6336 | GC-MS | Eigen methode |
| Organotin | W0274 | GC-MS | NEN-EN-ISO 17353 |
| Organotin (TBT+TPhT) som AS3000 | W0274 | GC-MS | NEN-EN-ISO 17353 |
| Tributyltin (TBT) | W0274 | GC-MS | NEN-EN-ISO 17353 |
| Ftalaten (7) | W6336 | GC-MS | Eigen methode |

Nadere informatie over de toegepaste onderzoeksmethoden alsmede een classificatie van de meetonzekerheid staan vermeld in ons overzicht "Specificaties analysemethoden", versie juni 2016.

## Bijlage (D) opmerkingen aangaande de monstername en conserveringstermijn 2017139266/0



Er zijn verschillen met de richtlijnen geconstateerd die de betrouwbaarheid van de resultaten van onderstaande monsters of analyses mogelijk hebben beinvloed.

| Analyse | Monster nr. |
|---|---|
| De conserveringstermijn is voor de betreffende analyse overschreden. | |
| Nitraat (N03) | 9773370 |
| | 9773371 |
| pH | 9773370 |
| | 9773371 |
| Geleidingsvermogen 25°C | 9773370 |
| | 9773371 |
| Zuurstof | 9773370 |
| | 9773371 |

Deltares

# Bijlage 8: Toetsing grondwater- en oppervlaktewatermonsters

| | EC-101-1-1 EC-101 (350-450) | EC-102-1-1 EC-102 (350-450) | EC-102-2-1 EC-102 (900-1000) | Pb 2a-1-1 Pb 2a (700-800) | Pb 2a-2-1 Pb 2a (1100-1200) | Pb 2a-3-1 Pb 2a (1700-1800) | TGG-1.1-1-1 TGG-1.1 (250-350) | TGG-1.2-2-1 TGG-1.2 (840-940) | TGG-1.2-1-1 TGG-1.2 (550-650) | TGG-2.1-1-1 TGG-2.1 (450-550) | TGG-2.2-1-1 TGG-2.2 (750-850) | TGG-2.2-2-1 TGG-2.2 (1000-1100) | TGG-3.1-1-1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **locatie** | EC 101 | EC 102 | EC 102 | Pb 2a | Pb 2a | Pb 2a | B1.1 | B1.2 | B 1.2 | B2.1 | B2.1 | B2.2 | B3 |
| **Peilfilter** | 3.50-4.50 | 3.50-4.50 | 9.00-10.00 | 7.00-8.00 | 11.00-12.00 | 11.00-12.00 | 2.50-3.50 | 8.40-9.40 | 5.50-6.50 | 4.50-5.50 | 7.50-8.50 | 10.00-11.00 | 9.90-10.5 |
| **diepte (-mv)** | 4 | 4 | 9.5 | 7.5 | 11.5 | 11.5 | 3 | 8.9 | 6 | 5 | 8 | 10.5 | 10 |
| **mv** | 0.942 | 0.456 | 0.456 | 0.56 | 0.56 | 0.56 | 0.966 | 0.989 | 0.989 | 3.042 | 3.042 | 3.055 | 9.16 |
| **hoogte (m-NAP)** | -3.058 | -3.544 | -9.044 | -6.94 | -10.94 | -10.94 | -2.034 | -7.911 | -5.011 | -1.958 | -4.958 | -7.445 | -1.25 |

| Analyse | Eenheid | 12 | Oordeel | 16 | Oordeel | 13 | Oordeel | 6 | Oordeel | 7 | Oordeel | 8 | Oordeel | 17 | Oordeel | 15 | Oordeel | 14 | Oordeel | 3 | Oordeel | 4 | Oordeel | 5 | Oordeel | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boor (B) | mg/L | | | 2 | - | | | | | | | | | 0.5 | | | | | | | | | | | | 0.8 |
| Arseen (As) | µg/L | <5.0 | - | <5.0 | - | <5.0 | - | <5.0 | - | <5.0 | - | <5.0 | - | <5.0 | - | 7.7 | - | 18 | * | 60 | ** | 14 | * | 7.1 | - | 16 |
| Barium (Ba) | µg/L | 310 | * | 470 | ** | 410 | ** | 240 | * | 250 | * | 260 | * | 84 | * | 130 | * | 600 | ** | 55 | * | 640 | *** | 480 | ** | 550 |
| Beryllium (Be) | µg/L | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 | | <1.0 |
| Calcium (Ca) | mg/L | 150 | | 280 | | 350 | | 320 | | 350 | | 350 | | 160 | | 350 | | 270 | | 710 | | 130 | | 250 | | 270 |
| Cadmium (Cd) | µg/L | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 |
| Kobalt (Co) | µg/L | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | 2.3 | - | <2.0 | - | <2.0 | - | <2.0 | - | 12 |
| Chroom (Cr) | µg/L | <1.0 | - | 2.2 | * | 2.4 | * | 2.6 | * | 2.1 | * | 1.7 | * | <1.0 | - | 2.6 | * | 1.9 | * | 2.5 | * | 1.8 | * | 3.7 | * | <1.0 |
| Koper (Cu) | µg/L | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 |
| Kwik (Hg) | µg/L | <0.050 | - | <0.050 | - | <0.050 | - | <0.050 | - | <0.050 | - | <0.050 | - | <0.050 | - | <0.050 | - | <0.050 | - | <0.050 | - | 0.074 | * | 0.14 | * | <0.050 |
| Kalium (K) | mg/L | 1.6 | | 190 | | 210 | | 190 | | 250 | | 250 | | 18 | | 190 | | 180 | | 15 | | 90 | | 180 | | 19 |
| Magnesium (Mg) | mg/L | 13 | | 580 | | 730 | | 800 | | 910 | | 940 | | 46 | | 580 | | 480 | | 49 | | 180 | | 550 | | 59 |
| Molybdeen (Mo) | µg/L | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | 2.8 | - | 3.9 | - | <2.0 | - | 7 | * | <2.0 | - | 6.6 |
| Natrium (Na) | mg/L | 23 | | 4800 | | 5900 | | 6600 | | 7300 | | 7400 | | 470 | | 5000 | | 4500 | | 880 | | 2000 | | 4800 | | 400 |
| Nikkel (Ni) | µg/L | <3.0 | - | <3.0 | - | <3.0 | - | 4.3 | - | 3.8 | - | 3.6 | - | <3.0 | - | <3.0 | - | 14 | - | <3.0 | - | 7.5 | - | <3.0 | - | 23 |
| Lood (Pb) | µg/L | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | 310 | *** | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 | - | <2.0 |
| Antimoon (Sb) | µg/L | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 | | <3.0 |
| Seleen (Se) | µg/L | <5.0 | | 5.2 | | <5.0 | | <5.0 | | <5.0 | | <5.0 | | <5.0 | | <5.0 | | <5.0 | | 5.8 | | <5.0 | | <5.0 | | <5.0 |
| Tin (Sn) | µg/L | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 | | <2.5 |
| Vanadium (V) | µg/L | <2.0 | | 3.2 | | 3.3 | | 5.1 | | 4.7 | | 3.7 | | <2.0 | | 2.3 | | 2.6 | | <2.0 | | <2.0 | | 4.5 | | <2.0 |
| Zink (Zn) | µg/L | 87 | * | 31 | - | 43 | - | 14 | - | 16 | - | 16 | - | <10 | - | <10 | - | 110 | * | <10 | - | 130 | * | 10 | - | 1 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzeen | µg/L | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | 0.29 |
| Tolueen | µg/L | <0.20 | - | 72 | * | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | 0.31 | - | 0.22 | - | <0.20 | - | 0.39 | - | 0.26 | - | 0.23 |
| Ethylbenzeen | µg/L | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 |
| o-Xyleen | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | 0.12 | | <0.10 | | <0.10 | | 0.27 | | <0.10 | | 0.31 |
| m,p-Xyleen | µg/L | <0.20 | | <0.20 | | <0.20 | | <0.20 | | <0.20 | | <0.20 | | <0.20 | | 0.3 | | <0.20 | | <0.20 | | 0.64 | | 0.27 | | 0.65 |
| Xylenen (som) factor 0,7 | µg/L | 0.21 | - | 0.21 | - | 0.21 | - | 0.21 | - | 0.21 | - | 0.21 | - | 0.21 | - | 0.42 | * | 0.21 | - | 0.21 | - | 0.91 | * | 0.34 | * | 0.97 |
| BTEX (som) | µg/L | <0.90 | | 72 | | <0.90 | | <0.90 | | <0.90 | | <0.90 | | <0.90 | | <0.90 | | <0.90 | | <0.90 | | 1.3 | | <0.90 | | 1.5 |
| Styreen | µg/L | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 | - | <0.20 |
| 1,2,3-Trimethylbenzeen | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 |
| 1,2,4-Trimethylbenzeen | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | 0.11 | | <0.10 | | <0.10 | | 0.2 | | 0.12 | | 0.21 |
| 1,3,5-Trimethylbenzeen | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 |
| n-Propylbenzeen | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 |
| Isopropylbenzeen (cumeen) | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 |
| 2-Ethyltolueen | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 |
| 3-Ethyltolueen | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 |
| 4-Ethyltolueen | µg/L | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 | | <0.10 |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cis 1,2-Dichlooretheen | µg/L | | | <0.10 | - | | | | | | | | | <0.10 | | | | | | | | | | | | <0.10 |
| trans 1,2-Dichlooretheen | µg/L | | | <0.10 | - | | | | | | | | | <0.10 | | | | | | | | | | | | <0.10 |
| 1,2-Dichlooretheen (Som) factor 0,7 | µg/L | | | 0.14 | - | | | | | | | | | 0.14 | - | | | | | | | | | | | 0.14 |
| 1,1-Dichloorpropaan | µg/L | | | <0.20 | - | | | | | | | | | <0.20 | | | | | | | | | | | | <0.20 |
| 1,2-Dichloorpropaan | µg/L | | | <0.20 | - | | | | | | | | | <0.20 | | | | | | | | | | | | <0.20 |
| 1,3-Dichloorpropaan | µg/L | | | <0.20 | - | | | | | | | | | <0.20 | | | | | | | | | | | | <0.20 |
| Dichloorpropanen som factor 0.7 | µg/L | | | 0.42 | - | | | | | | | | | 0.42 | - | | | | | | | | | | | 0.42 |
| Monochloorbenzeen | µg/L | | | <0.10 | - | | | | | | | | | <0.10 | - | | | | | | | | | | | <0.10 |
| 1,2-Dichloorbenzeen | µg/L | | | <0.10 | - | | | | | | | | | <0.10 | | | | | | | | | | | | <0.10 |
| 1,3-Dichloorbenzeen | µg/L | | | <0.10 | - | | | | | | | | | <0.10 | | | | | | | | | | | | <0.10 |
| 1,4-Dichloorbenzeen | µg/L | | | <0.10 | - | | | | | | | | | <0.10 | | | | | | | | | | | | <0.10 |
| Som dichloorbenzenen corr. *0.7 | µg/L | | | 0.21 | - | | | | | | | | | 0.21 | | | | | | | | | | | | 0.21 |
| Som mono& dichlorbenzenen corr. *0.7 | µg/L | | | 0.28 | - | | | | | | | | | 0.28 | | | | | | | | | | | | 0.28 |
| **Minerale olie** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | | <10 | | <10 | | | | <10 | | <10 | | <10 | | 10 | | <10 | | <10 | | <10 | | <10 | | <10 |
| Minerale olie (C12-C16) | µg/L | <10 | | <10 | | <10 | | | | <10 | | <10 | | <10 | | 25 | | <10 | | <10 | | <10 | | <10 | | <10 |
| Minerale olie (C16-C21) | µg/L | <10 | | <10 | | <10 | | | | <10 | | <10 | | <10 | | 22 | | <10 | | <10 | | <10 | | <10 | | <10 |
| Minerale olie (C21-C30) | µg/L | <15 | | <15 | | <15 | | | | <15 | | <15 | | <15 | | <15 | | <15 | | <15 | | <15 | | <15 | | <15 |
| Minerale olie (C30-C35) | µg/L | <10 | | <10 | | <10 | | | | <10 | | <10 | | <10 | | <10 | | <10 | | <10 | | <10 | | 13 | | <10 |
| Minerale olie (C35-C40) | µg/L | <10 | | <10 | | <10 | | | | <10 | | <10 | | <10 | | <10 | | <10 | | <10 | | <10 | | <10 | | <10 |
| Minerale olie totaal (C10-C40) | µg/L | <50 | - | <50 | - | <50 | - | | | <50 | - | <50 | - | <50 | - | 61 | * | <50 | - | <50 | - | <50 | - | <50 | - | <5 |
| Chromatogram | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | | | | | Zie bijl. | | Zie bijl. |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| alfa-HCH | µg/L | | | <0.010 | - | | | | | | | | | <0.010 | - | | | | | | | | | | | <0.010 |
| beta-HCH | µg/L | | | <0.0080 | - | | | | | | | | | <0.0080 | - | | | | | | | | | | | <0.0080 |
| gamma-HCH | µg/L | | | <0.0090 | - | | | | | | | | | <0.0090 | - | | | | | | | | | | | <0.0090 |
| delta-HCH | µg/L | | | <0.0080 | | | | | | | | | | <0.0080 | | | | | | | | | | | | <0.0080 |
| Hexachloorbenzeen | µg/L | | | <0.0050 | - | | | | | | | | | <0.0050 | - | | | | | | | | | | | <0.0050 |
| Heptachloor | µg/L | | | <0.010 | - | | | | | | | | | <0.010 | - | | | | | | | | | | | <0.010 |
| Heptachlooreposide (cis,beta) | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.01 |
| Heptachlooreposide (trans,alfa) | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| Aldrin | µg/L | | | <0.010 | - | | | | | | | | | <0.010 | - | | | | | | | | | | | <0.010 |
| Dieldrin | µg/L | | | <0.010 | - | | | | | | | | | <0.010 | - | | | | | | | | | | | <0.010 |
| Endrin | µg/L | | | <0.010 | - | | | | | | | | | <0.010 | - | | | | | | | | | | | <0.010 |
| alfa-Endosulfan | µg/L | | | <0.010 | - | | | | | | | | | <0.010 | - | | | | | | | | | | | <0.010 |
| alfa-Chloordaan | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| gamma-Chloordaan | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| o,p-DDT | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| p,p-DDT | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| o,p-DDE | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| p,p-DDE | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| o,p-DDD | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| p,p-DDD | µg/L | | | <0.010 | | | | | | | | | | <0.010 | | | | | | | | | | | | <0.010 |
| HCH (som) (factor 0,7) | µg/L | | | 0.024 | - | | | | | | | | | 0.024 | - | | | | | | | | | | | 0.024 |
| Drins (som) (factor 0,7) | µg/L | | | 0.021 | | | | | | | | | | 0.021 | | | | | | | | | | | | 0.021 |
| Heptachlooreposide (som) (factor 0,7) | µg/L | | | 0.014 | - | | | | | | | | | 0.014 | - | | | | | | | | | | | 0.014 |
| DDD (som) (factor 0,7) | µg/L | | | 0.014 | | | | | | | | | | 0.014 | | | | | | | | | | | | 0.014 |
| DDE (som) (factor 0,7) | µg/L | | | 0.014 | | | | | | | | | | 0.014 | | | | | | | | | | | | 0.014 |
| DDT (som) (factor 0,7) | µg/L | | | 0.014 | | | | | | | | | | 0.014 | | | | | | | | | | | | 0.014 |
| DDX (som) (factor 0,7) | µg/L | | | 0.042 | - | | | | | | | | | 0.042 | - | | | | | | | | | | | 0.042 |
| Chloordaan (som) (factor 0,7) | µg/L | | | 0.014 | - | | | | | | | | | 0.014 | - | | | | | | | | | | | 0.014 |
| OCB (som) (factor 0,7) | µg/L | | | 0.18 | | | | | | | | | | 0.18 | | | | | | | | | | | | 0.18 |
| **Chlooranilines** | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | EC-101-1-1 EC-101 (350-450) | EC-102-1-1 EC-102 (350-450) | EC-102-2-1 EC-102 (900-1000) | Pb 2a-1-1 Pb 2a (700-800) | Pb 2a-2-1 Pb 2a (1100-1200) | Pb 2a-3-1 Pb 2a (1700-1800) | TGG-1.1-1-1 TGG-1.1 (250-350) | TGG-1.2-2-1 TGG-1.2 (840-940) | TGG-1.2-1-1 TGG-1.2 (550-650) | TGG-2.1-1-1 TGG-2.1 (450-550) | TGG-2.2-1-1 TGG-2.2 (750-850) | TGG-2.2-2-1 TGG-2.2 (1000-1100) | TGG-3.1-1-1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **locatie** | | EC 101 | EC 102 | EC 102 | Pb 2a | Pb 2a | Pb 2a | B1.1 | B1.2 | B 1.2 | B2.1 | B2.1 | B2.2 | B3 |
| **Peilfilter** | | 3.50-4.50 | 3.50-4.50 | 9.00-10.00 | 7.00-8.00 | 11.00-12.00 | 11.00-12.00 | 2.50-3.50 | 8.40-9.40 | 5.50-6.50 | 4.50-5.50 | 7.50-8.50 | 10.00-11.00 | 9.90-10.5 |
| **diepte (-mv)** | | 4 | 4 | 9.5 | 7.5 | 11.5 | 11.5 | 3 | 8.9 | 6 | 5 | 8 | 10.5 | 10 |
| **mv** | | 0.942 | 0.456 | 0.456 | 0.56 | 0.56 | 0.56 | 0.966 | 0.989 | 0.989 | 3.042 | 3.042 | 3.055 | 9.16 |
| **hoogte (m-NAP)** | | -3.058 | -3.544 | -9.044 | -6.94 | -10.94 | -10.94 | -2.034 | -7.911 | -5.011 | -1.958 | -4.958 | -7.445 | -1.25 |

| **Analyse** | **Eenheid** | **12** | **Oordeel** | **16** | **Oordeel** | **13** | **Oordeel** | **6** | **Oordeel** | **7** | **Oordeel** | **8** | **Oordeel** | **17** | **Oordeel** | **15** | **Oordeel** | **14** | **Oordeel** | **3** | **Oordeel** | **4** | **Oordeel** | **5** | **Oordeel** | **11** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thiocyanaat (mathematisch) | µg/L | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 |
| Cyanide-totaal | µg/L | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 |
| Cyanide-vrij | µg/L | 3 | - | 3 | - | 3 | - | 3 | - | 3 | - | 3 | - | 3 | | 3 | | 3 | - | 3 | - | 3 | - | 3 | - | 3 |
| Cyanide EPA (335.3) | µg/L | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 |
| Cyanide complex (mathematisch) | µg/L | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | 5 | <=AW | |
| **Dioxines** | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | Zie bijl. | | | | |
| 2378TetraCDD | pg/L | | | | | - | | | | | | - | | <0.655 | | | | - | | - | | - | | - | | <0.655 |
| 12378-PentaCDD | pg/L | | | | | - | | | | | | - | | <0.873 | | | | - | | - | | - | | - | | <0.873 |
| 123478-HexaCDD | pg/L | | | | | - | | | | | | - | | <1.75 | | | | - | | - | | - | | - | | <1.75 |
| 123678-HexaCDD | pg/L | | | | | - | | | | | | - | | <1.75 | | | | - | | - | | - | | - | | 4.06 |
| 123789-HexaCDD | pg/L | | | | | - | | | | | | - | | <1.75 | | | | - | | - | | - | | - | | 3.27 |
| 1234678-HeptaCDD | pg/L | | | | | - | | | | | | - | | <1.49 | | | | - | | - | | - | | - | | 32.3 |
| OctaCDD | pg/L | | | | | - | | | | | | - | | <10.5 | | | | - | | - | | - | | - | | 207 |
| 2378-TetraCDF | pg/L | | | | | - | | | | | | - | | <1.16 | | | | - | | - | | - | | - | | 1.93 |
| 12378-PentaCDF | pg/L | | | | | - | | | | | | - | | <1.56 | | | | - | | - | | - | | - | | <1.56 |
| 23478-PentaCDF | pg/L | | | | | - | | | | | | - | | <1.56 | | | | - | | - | | - | | - | | 1.64 |
| 123478-HexaCDF | pg/L | | | | | - | | | | | | - | | <1.45 | | | | - | | - | | - | | - | | 1.7 |
| 123678-HexaCDF | pg/L | | | | | - | | | | | | - | | <1.45 | | | | - | | - | | - | | - | | 1.76 |
| 123789-HexaCDF | pg/L | | | | | - | | | | | | - | | <1.45 | | | | - | | - | | - | | - | | <1.45 |
| 234678-HexaCDF | pg/L | | | | | - | | | | | | - | | <1.45 | | | | - | | - | | - | | - | | 2.21 |
| 1234678-HeptaCDF | pg/L | | | | | - | | | | | | - | | <1.38 | | | | - | | - | | - | | - | | 18.9 |
| 1234789-HeptaCDF | pg/L | | | | | - | | | | | | - | | <1.38 | | | | - | | - | | - | | - | | <1.38 |
| OctaCDF | pg/L | | | | | - | | | | | | - | | <2.91 | | | | - | | - | | - | | - | | 8.75 |
| WHO2005 excl. LOQ | pg/L | | | | | | - | | | | | | | ND | | | | | | | | | | | | 2.56 |
| WHO2005incl. LOQ | pg/L | | | | | - | | | | | | - | | 3.31 | | | | - | | - | | - | | - | | 4.47 |
| TEQ (WHO) excl. LOQ [a] | pg/L | | | | | | - | | | | | | | ND | | | | | | | | | | | | 3.04 |
| TEQ (WHO) incl. LOQ [b] | pg/L | | | | | | - | | | | | | | 3.23 | | | | | | | | | | | | 4.54 |
| **Fenolen** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fenol | µg/L | <0.50 | * | <0.50 | * | <0.50 | * | <0.50 | * | 5.9 | * | 60 | * | <0.50 | * | <0.50 | * | <0.50 | * | <0.50 | * | <0.50 | * | <0.50 | * | <0.50 |
| o-Cresol | µg/L | <0.30 | | 0.98 | | <0.30 | | <0.30 | | 0.88 | | 7.8 | | <0.30 | | <0.30 | | <0.30 | | <0.30 | | <0.30 | | <0.30 | | <0.30 |
| m-Cresol | µg/L | <0.30 | | 0.55 | | <0.30 | | <0.30 | | 1.7 | | 15 | | <0.30 | | <0.30 | | <0.30 | | <0.30 | | <0.30 | | <0.30 | | <0.30 |
| p-Cresol | µg/L | <0.20 | | 120 | | <0.20 | | <0.20 | | 1 | | 8.3 | | <0.20 | | <0.20 | | <0.20 | | <0.20 | | <0.20 | | <0.20 | | <0.20 |
| Cresolen (som) | µg/L | <0.80 | * | 120 | ** | <0.80 | * | <0.80 | * | 3.6 | * | 31 | * | <0.80 | * | <0.80 | * | <0.80 | * | <0.80 | * | <0.80 | * | <0.80 | * | <0.80 |
| 2,4-Dimethylfenol | µg/L | <0.020 | | <0.020 | | <0.020 | | <0.020 | | 0.25 | | 1.9 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | 0.042 |
| 2,5-Dimethylfenol | µg/L | <0.020 | | <0.020 | | <0.020 | | <0.020 | | 0.12 | | 0.98 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 |
| 2,6-Dimethylfenol | µg/L | <0.030 | | <0.030 | | <0.030 | | <0.030 | | <0.030 | | 0.11 | | <0.030 | | <0.030 | | <0.030 | | <0.030 | | <0.030 | | <0.030 | | <0.030 |
| 3,4-Dimethylfenol | µg/L | <0.020 | | <0.020 | | <0.020 | | <0.020 | | 0.069 | | 0.59 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 |
| o-Ethylfenol | µg/L | <0.030 | | <0.030 | | <0.030 | | <0.030 | | <0.030 | | 0.058 | | <0.030 | | <0.030 | | <0.030 | | <0.030 | | <0.030 | | <0.030 | | <0.030 |
| m-Ethylfenol | µg/L | <0.020 | | <0.020 | | <0.020 | | <0.020 | | 0.069 | | 0.59 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 |
| Thymol | µg/L | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 | | <0.010 |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0.020 | | <0.020 | | <0.020 | | <0.020 | | 0.33 | | 2.8 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | <0.020 | | 0.022 |
| **Chloorfenolen** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| o-Chloorfenol | µg/L | | | <0.10 | - | | | | | | | - | | <0.10 | | | | - | | - | | - | | - | | <0.10 |
| m-Chloorfenol | µg/L | | | <0.02 | - | | | | | | | - | | <0.02 | | | | - | | - | | - | | - | | <0.02 |
| p-Chloorfenol | µg/L | | | 0.08 | - | | | | | | | - | | <0.02 | | | | - | | - | | - | | - | | <0.02 |
| Monochloorfenolen (som) | µg/L | | | <0.14 | - | | | | | | | - | | <0.14 | - | | | - | | - | | - | | - | | <0.14 |
| 2,3-Dichloorfenol | µg/L | | | <0.02 | - | | | | | | | - | | <0.02 | | | | - | | - | | - | | - | | <0.02 |
| 2,4/2,5-Dichloorfenol | µg/L | | | 0.01 | - | | | | | | | - | | 0.007 | | | | - | | - | | - | | - | | 0.01 |
| 2,6-Dichloorfenol | µg/L | | | <0.03 | - | | | | | | | - | | <0.03 | | | | - | | - | | - | | - | | <0.03 |
| 3,4-Dichloorfenol | µg/L | | | <0.02 | - | | | | | | | - | | <0.02 | | | | - | | - | | - | | - | | <0.02 |
| 3,5-Dichloorfenol | µg/L | | | <0.03 | - | | | | | | | - | | <0.03 | | | | - | | - | | - | | - | | <0.03 |
| Dichloorfenolen (som) | µg/L | | | <0.10 | - | | | | | | | - | | <0.10 | - | | | - | | - | | - | | - | | <0.10 |
| 2,3,4-Trichloorfenol | µg/L | | | <0.02 | - | | | | | | | - | | <0.02 | | | | - | | - | | - | | - | | <0.02 |
| 2,3,5+2,4,5-Trichloorfenol | µg/L | | | <0.02 | - | | | | | | | - | | <0.02 | | | | - | | - | | - | | - | | <0.02 |
| 2,3,6-Trichloorfenol | µg/L | | | <0.01 | - | | | | | | | - | | <0.01 | | | | - | | - | | - | | - | | <0.01 |
| 2,4,6-Trichloorfenol | µg/L | | | <0.05 | - | | | | | | | - | | <0.05 | | | | - | | - | | - | | - | | <0.05 |
| 3,4,5-Trichloorfenol | µg/L | | | <0.01 | - | | | | | | | - | | <0.01 | | | | - | | - | | - | | - | | <0.01 |
| Trichloorfenolen (som) | µg/L | | | <0.11 | * | | | | | | | - | | <0.11 | * | | | - | | - | | - | | - | | <0.11 |
| 2,3,4,5-Tetrachloorfenol | µg/L | | | <0.01 | - | | | | | | | - | | <0.01 | | | | - | | - | | - | | - | | <0.01 |
| 2,3,4,6 + 2,3,5,6-Tetrachloorfenol | µg/L | | | <0.020 | - | | | | | | | - | | <0.020 | | | | - | | - | | - | | - | | <0.020 |
| Tetrachloorfenolen (som) | µg/L | | | <0.03 | - | | | | | | | - | | <0.03 | | | | - | | - | | - | | - | | <0.03 |
| Pentachloorfenol | µg/L | | | <0.010 | - | | | | | | | - | | <0.010 | - | | | - | | - | | - | | - | | <0.010 |
| 4-Chloor-3-methylfenol | µg/L | | | <0.02 | - | | | | | | | - | | <0.02 | | | | - | | - | | - | | - | | <0.02 |
| **Overige org.-verontreinigingen** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bifenyl | µg/L | | - | | | | | <0.01 | | <0.01 | | <0.01 | - | | | | | | | <0.01 | | <0.01 | | <0.01 | | - |
| Nitrobenzeen | µg/L | | - | | | | | <0.3 | | <0.3 | | <0.3 | - | | | | | | | <0.3 | | <0.3 | | <0.3 | | - |
| Dibenzofuran | µg/L | | - | | | | | <0.1 | | <0.1 | | <0.1 | - | | | | | | | <0.1 | | <0.1 | | <0.1 | | - |
| Monobutyltin | µg/L | | | 0.011 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Dibutyltin | µg/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Tributyltin | µg/L | | | 0.011 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Tributyltin | µg/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Tetrabutyltin | µg/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Monooctyltin | µg/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Dioctyltin | µg/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Tricyclohexyltin | µg/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Triphenyltin | µg/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Tributyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Monobutyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Dibutyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Tributyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Tetrabutyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Monooctyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Dioctyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Tricyclohexyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Triphenyltin | µg Sn/L | | | <0.010 | - | | | | | | | - | | <0.010 | | | | - | | - | | - | | - | | <0.010 |
| Organotin som Sn factor 0,7 | µg Sn/L | | | 0.014 | - | | | | | | | - | | 0.014 | | | | - | | - | | - | | - | | 0.014 |
| Organotin som (factor 0,7) | µg/L | | | 0.018 | - | | | | | | | - | | 0.014 | | | | - | | - | | - | | - | | 0.014 |
| **Ftalaten** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimethylftalaat | µg/L | | | <0.20 | - | | | | | | | - | | <0.20 | | | | - | | - | | - | | - | | <0.20 |
| Diethylftalaat | µg/L | | | <1.0 | - | | | | | | | - | | <1.0 | | | | - | | - | | - | | - | | <1.0 |
| Di-isobutylftalaat | µg/L | | | <2.0 | - | | | | | | | - | | <2.0 | | | | - | | - | | - | | - | | <2.0 |
| Di-n-butylftalaat | µg/L | | | <2.0 | - | | | | | | | - | | <2.0 | | | | - | | - | | - | | - | | <2.0 |
| Butylbenzylftalaat | µg/L | | | <2.0 | - | | | | | | | - | | <2.0 | | | | - | | - | | - | | - | | <2.0 |
| Bis(ethylhexyl)ftalaat | µg/L | | | <2.0 | - | | | | | | | - | | <2.0 | | | | - | | - | | - | | - | | <2.0 |

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 17-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017137892 |
| Startdatum | 18-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 1 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 80 | 80 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 970 | 970 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 1,1 | 1,1 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | 0,073 | 0,073 | * | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 78 | 78 | | | | | |
| Magnesium (Mg) | mg/L | 330 | 330 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 2800 | 2800 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | 5,6 | 5,6 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | <2,0 | 1,4 | | 2 | | | 70 |
| Zink (Zn) | µg/L | <10 | 7 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,119 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 18000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 1800 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 1600 | | | | | | |
| Meettemperatuur (EC) | °C | 19,9 | | | | | | |
| Zuurstof | mg O2/L | 0,6 | 0,6 | | | | | |
| Meettemperatuur (pH) | °C | 20,7 | | | | | | |
| pH | | 6,8 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,58 | | | | | | |
| Bromide | mg/L | 25 | 25 | | | | | |
| Chloride | mg/L | 6000 | 6000 | | 50 | 100 | | |
| Sulfaat | mg/L | 990 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 1 | 9768955 | T1-1-1 T1 (600-700) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 17-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017137892 |
| Startdatum | 18-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 2 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 230 | 230 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 360 | 360 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 2,2 | 2,2 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | 0,21 | 0,21 | ** | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 200 | 200 | | | | | |
| Magnesium (Mg) | mg/L | 760 | 760 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 6200 | 6200 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 3,3 | 3,3 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 51 | 51 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,126 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 34000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 3400 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 3000 | | | | | | |
| Meettemperatuur (EC) | °C | 19,6 | | | | | | |
| Zuurstof | mg O2/L | 0,8 | 0,8 | | | | | |
| Meettemperatuur (pH) | °C | 20 | | | | | | |
| pH | | 7 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,37 | | | | | | |
| Bromide | mg/L | 43 | 43 | | | | | |
| Chloride | mg/L | 12000 | 12000 | | 50 | 100 | | |
| Sulfaat | mg/L | 1100 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 2 | 9768956 | T1-2-1 T1 (1100-1200) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 17-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017137892 |
| Startdatum | 18-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 3 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | 60 | 60 | ** | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 55 | 55 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 710 | 710 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 2,5 | 2,5 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 15 | 15 | | | | | |
| Magnesium (Mg) | mg/L | 49 | 49 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 880 | 880 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | 5,8 | 5,8 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | <2,0 | 1,4 | | 2 | | | 70 |
| Zink (Zn) | µg/L | <10 | 7 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,113 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 7600 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 760 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 690 | | | | | | |
| Meettemperatuur (EC) | °C | 20,1 | | | | | | |
| Zuurstof | mg O2/L | <0,1 | 0,07 | | | | | |
| Meettemperatuur (pH) | °C | 20,3 | | | | | | |
| pH | | 6,9 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,57 | | | | | | |
| Bromide | mg/L | 180 | 180 | | | | | |
| Chloride | mg/L | 2400 | 2400 | | 50 | 100 | | |
| Sulfaat | mg/L | 230 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 3 | 9768957 | TGG-2.1-1-1 TGG-2.1 (450-550) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 17-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017137892 |
| Startdatum | 18-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 4 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | 14 | 14 | * | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 640 | 640 | *** | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 130 | 130 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 1,8 | 1,8 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | 0,074 | 0,074 | * | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 90 | 90 | | | | | |
| Magnesium (Mg) | mg/L | 180 | 180 | | | | | |
| Molybdeen (Mo) | µg/L | 7 | 7 | * | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 2000 | 2000 | | | | | |
| Nikkel (Ni) | µg/L | 7,5 | 7,5 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | <2,0 | 1,4 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 130 | 130 | * | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | 0,39 | 0,39 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | 0,27 | 0,27 | | | | | |
| m,p-Xyleen | µg/L | 0,64 | 0,64 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,91 | 0,91 | * | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | 1,3 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | 0,2 | 0,2 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | 0,084 | 0,084 | * | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,62 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,129 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 12000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 1200 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 1100 | | | | | | |
| Meettemperatuur (EC) | °C | 19,5 | | | | | | |
| Zuurstof | mg O2/L | 2,2 | 2,2 | | | | | |
| Meettemperatuur (pH) | °C | 20,1 | | | | | | |
| pH | | 7,3 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,59 | | | | | | |
| Bromide | mg/L | 1,5 | 1,5 | | | | | |
| Chloride | mg/L | 3700 | 3700 | | 50 | 100 | | |
| Sulfaat | mg/L | 330 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 2,34 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 4 | 9768958 | TGG-2.2-1-1 TGG-2.2 (750-850) |

Eindoordeel: Overschrijding Interventiewaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 17-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017137892 |
| Startdatum | 18-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 5 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | 7,1 | 7,1 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 480 | 480 | ** | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 250 | 250 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 3,7 | 3,7 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | 0,14 | 0,14 | * | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 180 | 180 | | | | | |
| Magnesium (Mg) | mg/L | 550 | 550 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 4800 | 4800 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 4,5 | 4,5 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 10 | 10 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | 0,26 | 0,26 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | 0,27 | 0,27 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,34 | 0,34 | * | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | 0,12 | 0,12 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | 13 | 13 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| Chromatogram | | Zie bijl. | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | 0,045 | 0,045 | * | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,6194 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,119 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 28000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 2800 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 2500 | | | | | | |
| Meettemperatuur (EC) | °C | 19,9 | | | | | | |
| Zuurstof | mg O2/L | <0,1 | 0,07 | | | | | |
| Meettemperatuur (pH) | °C | 20,4 | | | | | | |
| pH | | 7,2 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,56 | | | | | | |
| Bromide | mg/L | 44 | 44 | | | | | |
| Chloride | mg/L | 9400 | 9400 | | 50 | 100 | | |
| Sulfaat | mg/L | 780 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,56 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 5 | 9768959 | TGG-2.2-2-1 TGG-2.2 (1000-1100) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 18-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017138514 |
| Startdatum | 19-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 1 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 240 | 240 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 320 | 320 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 2,6 | 2,6 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 190 | 190 | | | | | |
| Magnesium (Mg) | mg/L | 800 | 800 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 6600 | 6600 | | | | | |
| Nikkel (Ni) | µg/L | 4,3 | 4,3 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 5,1 | 5,1 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 14 | 14 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Chromatogram | | Zie bijl. | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,134 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 32000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 3200 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 2900 | | | | | | |
| Meettemperatuur (EC) | °C | 19,3 | | | | | | |
| Zuurstof | mg O2/L | 0,7 | 0,7 | | | | | |
| Meettemperatuur (pH) | °C | 20,3 | | | | | | |
| pH | | 7,2 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,42 | | | | | | |
| Bromide | mg/L | 40 | 40 | | | | | |
| Chloride | mg/L | 11000 | 11000 | | 50 | 100 | | |
| Sulfaat | mg/L | 1100 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 1 | 9771002 | Pb 2a-1-1 Pb 2a (700-800) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 18-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017138514 |
| Startdatum | 19-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 2 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 250 | 250 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 350 | 350 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 2,1 | 2,1 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 250 | 250 | | | | | |
| Magnesium (Mg) | mg/L | 910 | 910 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 7300 | 7300 | | | | | |
| Nikkel (Ni) | µg/L | 3,8 | 3,8 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 4,7 | 4,7 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 16 | 16 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Chromatogram | | Zie bijl. | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,142 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 35000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 3500 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 3100 | | | | | | |
| Meettemperatuur (EC) | °C | 19 | | | | | | |
| Zuurstof | mg O2/L | 0,8 | 0,8 | | | | | |
| Meettemperatuur (pH) | °C | 20,5 | | | | | | |
| pH | | 7,1 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | <0,30 | | | | | | |
| Bromide | mg/L | 43 | 43 | | | | | |
| Chloride | mg/L | 13000 | 13000 | | 50 | 100 | | |
| Sulfaat | mg/L | 1300 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | 5,9 | 5,9 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | 0,88 | 0,88 | | | | | |
| m-Cresol | µg/L | 1,7 | 1,7 | | | | | |
| p-Cresol | µg/L | 1 | 1 | | | | | |
| Cresolen (som) | µg/L | 3,6 | 3,58 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | 0,25 | | | | | | |
| 2,5-Dimethylfenol | µg/L | 0,12 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | 0,069 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | 0,069 | 0,069 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | 0,33 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 2 | 9771003 | Pb 2a-2-1 Pb 2a (1100-1200) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 18-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017138514 |
| Startdatum | 19-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 3 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 260 | 260 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 350 | 350 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 1,7 | 1,7 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 250 | 250 | | | | | |
| Magnesium (Mg) | mg/L | 940 | 940 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 7400 | 7400 | | | | | |
| Nikkel (Ni) | µg/L | 3,6 | 3,6 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 3,7 | 3,7 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 16 | 16 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Chromatogram | | Zie bijl. | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,142 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 35000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 3500 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 3100 | | | | | | |
| Meettemperatuur (EC) | °C | 19 | | | | | | |
| Zuurstof | mg O2/L | 0,4 | 0,4 | | | | | |
| Meettemperatuur (pH) | °C | 20,3 | | | | | | |
| pH | | 7,1 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | <0,30 | | | | | | |
| Bromide | mg/L | 42 | 42 | | | | | |
| Chloride | mg/L | 13000 | 13000 | | 50 | 100 | | |
| Sulfaat | mg/L | 1200 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | 60 | 60 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | 7,8 | 7,8 | | | | | |
| m-Cresol | µg/L | 15 | 15 | | | | | |
| p-Cresol | µg/L | 8,3 | 8,3 | | | | | |
| Cresolen (som) | µg/L | 31 | 31,1 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | 1,9 | | | | | | |
| 2,5-Dimethylfenol | µg/L | 0,98 | | | | | | |
| 2,6-Dimethylfenol | µg/L | 0,11 | 0,11 | | | | | |
| 3,4-Dimethylfenol | µg/L | 0,59 | | | | | | |
| o-Ethylfenol | µg/L | 0,058 | 0,058 | | | | | |
| m-Ethylfenol | µg/L | 0,59 | 0,59 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | 2,8 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 3 | 9771004 | Pb 2a-3-1 Pb 2a (1700-1800) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 18-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017138514 |
| Startdatum | 19-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 4 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 680 | 680 | *** | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 300 | 300 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 3,4 | 3,4 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 180 | 180 | | | | | |
| Magnesium (Mg) | mg/L | 630 | 630 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 5400 | 5400 | | | | | |
| Nikkel (Ni) | µg/L | 3,3 | 3,3 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 3,8 | 3,8 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 32 | 32 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | 0,29 | 0,29 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | 0,19 | 0,19 | | | | | |
| m,p-Xyleen | µg/L | 0,39 | 0,39 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,58 | 0,58 | * | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Chromatogram | | Zie bijl. | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,137 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 28000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 2800 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 2500 | | | | | | |
| Meettemperatuur (EC) | °C | 19,2 | | | | | | |
| Zuurstof | mg O2/L | <0,1 | 0,07 | | | | | |
| Meettemperatuur (pH) | °C | 20,3 | | | | | | |
| pH | | 7,2 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,61 | | | | | | |
| Bromide | mg/L | 19 | 19 | | | | | |
| Chloride | mg/L | 2600 | 2600 | | 50 | 100 | | |
| Sulfaat | mg/L | 380 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,78 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 4 | 9771005 | TGG-3.1-2-1 TGG-3.1 (1650-1750) |

Eindoordeel: Overschrijding Interventiewaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 18-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017138514 |
| Startdatum | 19-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 5 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 28 | 28 | - | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 240 | 240 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | <1,0 | 0,7 | - | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 110 | 110 | | | | | |
| Magnesium (Mg) | mg/L | 380 | 380 | | | | | |
| Molybdeen (Mo) | µg/L | 2,3 | 2,3 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 3100 | 3100 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | <2,0 | 1,4 | | 2 | | | 70 |
| Zink (Zn) | µg/L | <10 | 7 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Chromatogram | | Zie bijl. | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | 0,024 | 0,024 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,131 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 18000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 1800 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 1600 | | | | | | |
| Meettemperatuur (EC) | °C | 19,4 | | | | | | |
| Zuurstof | mg O2/L | 5,9 | 5,9 | | | | | |
| Meettemperatuur (pH) | °C | 20,3 | | | | | | |
| pH | | 7,5 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,96 | | | | | | |
| Bromide | mg/L | 18 | 18 | | | | | |
| Chloride | mg/L | 5500 | 5500 | | 50 | 100 | | |
| Sulfaat | mg/L | 840 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | 0,48 | | | | | | |
| Nitraat (NO3) | mg/L | 2,1 | 2,1 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Overige org.-verontreinigingen** | | | | | | | | |
| Bifenyl | µg/L | <0,01 | | | | | | |
| Nitrobenzeen | µg/L | <0,3 | 0,21 | | | | | |
| Dibenzofuran | µg/L | <0,1 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 5 | 9771006 | TGG-4b-1-1 TGG-4b (0-1) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 18-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017138518 |
| Startdatum | 19-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 1 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Boor (B) | mg/L | 0,8 | | | | | | |
| Arseen (As) | µg/L | 16 | 16 | * | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 550 | 550 | ** | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 270 | 270 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | 12 | 12 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | <1,0 | 0,7 | - | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 19 | 19 | | | | | |
| Magnesium (Mg) | mg/L | 59 | 59 | | | | | |
| Molybdeen (Mo) | µg/L | 6,6 | 6,6 | * | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 400 | 400 | | | | | |
| Nikkel (Ni) | µg/L | 23 | 23 | * | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | <2,0 | 1,4 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 130 | 130 | * | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | 0,29 | 0,29 | * | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | 0,23 | 0,23 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | 0,31 | 0,31 | | | | | |
| m,p-Xyleen | µg/L | 0,65 | 0,65 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,97 | 0,96 | * | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | 1,5 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | 0,21 | 0,21 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | |
| cis 1,2-Dichlooretheen | µg/L | <0,10 | 0,07 | | | | | |
| trans 1,2-Dichlooretheen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2-Dichloorethenen (Som) factor 0,7 | µg/L | 0,14 | 0,14 | - | 0,2 | 0,01 | 10 | 20 |
| 1,1-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| 1,2-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| 1,3-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| Dichloorpropanen som factor 0.7 | µg/L | 0,42 | 0,42 | - | 0,6 | 0,8 | 40,4 | 80 |
| Monochloorbenzeen | µg/L | <0,10 | 0,07 | - | 0,2 | 7 | 93,5 | 180 |
| 1,2-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,4-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Som dichloorbenzenen corr. *0.7 | µg/L | 0,21 | | | | | | |
| Som mono& dichloorbenzenen corr. *0.7 | µg/L | 0,28 | | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| Chromatogram | | Zie bijl. | | | | | | |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | |
| alfa-HCH | µg/L | <0,010 | 0,007 | - | 0,01 | 0,033 | | |
| beta-HCH | µg/L | <0,0080 | 0,0056 | - | 0,008 | 0,008 | | |
| gamma-HCH | µg/L | <0,0090 | 0,0063 | - | 0,009 | 0,009 | | |
| delta-HCH | µg/L | <0,0080 | 0,0056 | | | | | |
| Hexachloorbenzeen | µg/L | <0,0050 | 0,0035 | - | 0,005 | 0,00009 | 0,25 | 0,5 |
| Heptachloor | µg/L | <0,010 | 0,007 | - | 0,01 | 0,000005 | 0,15 | 0,3 |
| Heptachloorepoxide (cis,beta) | µg/L | <0,010 | 0,007 | | | | | |
| Heptachloorepoxide (trans,alfa) | µg/L | <0,010 | 0,007 | | | | | |
| Aldrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,000009 | | |
| Dieldrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | | |
| Endrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,00004 | | |
| alfa-Endosulfan | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0002 | 2,5 | 5 |
| alfa-Chloordaan | µg/L | <0,010 | 0,007 | | | | | |
| gamma-Chloordaan | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDT | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDT | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDE | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDE | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDD | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDD | µg/L | <0,010 | 0,007 | | | | | |
| HCH (som) (factor 0,7) | µg/L | 0,024 | 0,0245 | - | 0,05 | 0,05 | 0,525 | 1 |
| Drins (som) (factor 0,7) | µg/L | 0,021 | 0,021 | | 0,03 | | | 0,1 |
| Heptachloorepoxide (som) (factor 0,7) | µg/L | 0,014 | 0,014 | - | 0,02 | 0,000005 | 1,5 | 3 |
| DDD (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDE (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDT (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDX (som) (factor 0,7) | µg/L | 0,042 | 0,042 | - | 0,06 | 0,000004 | 0,005 | 0,01 |
| Chloordaan (som) (factor 0,7) | µg/L | 0,014 | 0,014 | - | 0,02 | 0,00002 | 0,1 | 0,2 |
| OCB (som) (factor 0,7) | µg/L | 0,18 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Chlooranilines** | | | | | | | | |
| 3+4-chlooraniline | µg/L | <0,40 | | | | | | |
| Som 2,3 + 2,4 + 2,5 - Dichlooranilines | µg/L | <0,08 | | | | | | |
| **Chloorbenzenen** | | | | | | | | |
| 1,2,3-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,2,4-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,3,5-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1245/1235-Tetrachloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,2,3,4-Tetrachloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| Pentachloorbenzeen | µg/L | <0,0050 | 0,0035 | - | 0,005 | 0,003 | 0,501 | 1 |
| Hexachloorbenzeen | µg/L | <0,0050 | | | 0,005 | 0,00009 | 0,25 | 0,5 |
| Som minder vluchtig chloorbenzenen | µg/L | <0,055 | | | | | | |
| Som tri-hexachloorbenzenen corr. *0.7 | µg/L | 0,042 | | | | | | |
| Som trichloorbenzenen corr *0.7 | µg/L | 0,021 | | | | | | |
| Som tetrachloorbenzenen corr *0.7 | µg/L | 0,014 | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | | | | |
| Naftaleen | µg/L | 0,07 | 0,07 | * | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | 0,015 | 0,015 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | 0,017 | 0,017 | * | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | 0,014 | 0,014 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,6298 | | | | | 1 |
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,129 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 3100 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 310 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 280 | | | | | | |
| Meettemperatuur (EC) | °C | 19,5 | | | | | | |
| Zuurstof | mg O2/L | <0,1 | 0,07 | | | | | |
| Meettemperatuur (pH) | °C | 19,9 | | | | | | |
| pH | | 7 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,64 | | | | | | |
| Bromide | mg/L | 4,2 | 4,2 | | | | | |
| Chloride | mg/L | 490 | 490 | | 50 | 100 | | |
| Sulfaat | mg/L | 240 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| 2378TetraCDD | pg/L | <0,655 | | | | | | |
| 12378-PentaCDD | pg/L | <0,873 | | | | | | |
| 123478-HexaCDD | pg/L | <1,75 | | | | | | |
| 123678-HexaCDD | pg/L | 4,06 | | | | | | |
| 123789-HexaCDD | pg/L | 3,27 | | | | | | |
| 1234678-HeptaCDD | pg/L | 32,3 | | | | | | |
| OctaCDD | pg/L | 207 | | | | | | |
| 2378-TetraCDF | pg/L | 1,93 | | | | | | |
| 12378-PentaCDF | pg/L | <1,56 | | | | | | |
| 23478-PentaCDF | pg/L | 1,64 | | | | | | |
| 123478-HexaCDF | pg/L | 1,7 | | | | | | |
| 123678-HexaCDF | pg/L | 1,76 | | | | | | |
| 123789-HexaCDF | pg/L | <1,45 | | | | | | |
| 234678-HexaCDF | pg/L | 2,21 | | | | | | |
| 1234678-HeptaCDF | pg/L | 18,9 | | | | | | |
| 1234789-HeptaCDF | pg/L | <1,38 | | | | | | |
| OctaCDF | pg/L | 8,75 | | | | | | |
| WHO2005 excl. LOQ | pg/L | 2,56 | | | | | | |
| WHO2005incl. LOQ | pg/L | 4,47 | | | | | | |
| TEQ (WHO) excl. LOQ [a] | pg/L | 3,04 | | | | | | |
| TEQ (WHO) incl. LOQ [b] | pg/L | 4,54 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fenolen** | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | 0,042 | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | 0,022 | | | | | |
| **Chloorfenolen** | | | | | | | |
| o-Chloorfenol | µg/L | <0,10 | 0,07 | | | | |
| m-Chloorfenol | µg/L | <0,02 | 0,014 | | | | |
| p-Chloorfenol | µg/L | <0,02 | 0,014 | | | | |
| Monochloorfenolen (som) | µg/L | <0,14 | 0,098 | - | 0,3 | 50,1 | 100 |
| 2,3-Dichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 2,4/2,5-Dichloorfenol | µg/L | 0,01 | 0,01 | | | | |
| 2,6-Dichloorfenol | µg/L | <0,03 | 0,021 | | | | |
| 3,4-Dichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 3,5-Dichloorfenol | µg/L | <0,03 | 0,021 | | | | |
| Dichloorfenolen (som) | µg/L | <0,10 | 0,08 | - | 0,2 | 15,1 | 30 |
| 2,3,4-Trichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 2,3,5+2,4,5-Trichloorfenol | µg/L | <0,02 | | | | | |
| 2,3,6-Trichloorfenol | µg/L | <0,01 | 0,007 | | | | |
| 2,4,6-Trichloorfenol | µg/L | <0,05 | 0,035 | | | | |
| 3,4,5-Trichloorfenol | µg/L | <0,01 | 0,007 | | | | |
| Trichloorfenolen (som) | µg/L | <0,11 | 0,063 | * | 0,03 | 5,01 | 10 |
| 2,3,4,5-Tetrachloorfenol | µg/L | <0,01 | 0,007 | | | | |
| 2,3,4,6 + 2,3,5,6-Tetrachloorfenol | µg/L | <0,020 | | | | | |
| Tetrachloorfenolen (som) | µg/L | <0,03 | | | 0,01 | 5 | 10 |
| Pentachloorfenol | µg/L | <0,010 | 0,007 | - | 0,04 | 1,52 | 3 |
| 4-Chloor-3-methylfenol | µg/L | <0,02 | 0,014 | | | | |
| **Overige org.-verontreinigingen** | | | | | | | |
| Monobutyltin | µg/L | <0,010 | | | | | |
| Dibutyltin | µg/L | <0,010 | | | | | |
| Tributyltin | µg/L | <0,010 | | | | | |
| Tributyltin | µg/L | <0,010 | | | | | |
| Tetrabutyltin | µg/L | <0,010 | | | | | |
| Monooctyltin | µg/L | <0,010 | | | | | |
| Dioctyltin | µg/L | <0,010 | | | | | |
| Tricyclohexyltin | µg/L | <0,010 | | | | | |
| Triphenyltin | µg/L | <0,010 | | | | | |
| Tributyltin | µg Sn/L | <0,010 | | | | | |
| Monobutyltin | µg Sn/L | <0,010 | | | | | |
| Dibutyltin | µg Sn/L | <0,010 | | | | | |
| Tributyltin | µg Sn/L | <0,010 | 0,007 | | | | |
| Tetrabutyltin | µg Sn/L | <0,010 | | | | | |
| Monooctyltin | µg Sn/L | <0,010 | | | | | |
| Dioctyltin | µg Sn/L | <0,010 | | | | | |
| Tricyclohexyltin | µg Sn/L | <0,010 | | | | | |
| Triphenyltin | µg Sn/L | <0,010 | 0,007 | | | | |
| Organotin som Sn factor 0,7 | µg Sn/L | 0,014 | | | | | |
| Organotin som (factor 0,7) | µg/L | 0,014 | | | 0,016 | 0,358 | 0,7 |
| **Ftalaten** | | | | | | | |
| Dimethylftalaat | µg/L | <0,20 | 0,14 | | | | |
| Diethylftalaat | µg/L | <1,0 | 0,7 | | | | |
| Di-isobutylftalaat | µg/L | <2,0 | 1,4 | | | | |
| Di-n-butylftalaat | µg/L | <2,0 | 1,4 | | | | |
| Butylbenzylftalaat | µg/L | <2,0 | | | | | |
| Bis(ethylhexyl)ftalaat | µg/L | <2,0 | 1,4 | | | | |
| Di-n-octylftalaat | µg/L | <1,0 | | | | | |
| Ftalaten (som) | µg/L | <10 | 5,04 | *** | 0,5 | 2,75 | 5 |
| **Extra parameters** | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 2,39 | Geen oordeel mogelijk | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 1 | 9771020 | TGG-3.1-1-1 TGG-3.1 (990-1090) |

Eindoordeel: Overschrijding Interventiewaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 19-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017139259 |
| Startdatum | 20-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 1 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 310 | 310 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 150 | 150 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | <1,0 | 0,7 | - | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 1,6 | 1,6 | | | | | |
| Magnesium (Mg) | mg/L | 13 | 13 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 23 | 23 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | <2,0 | 1,4 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 87 | 87 | * | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| Chromatogram | | Zie bijl. | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | 0,046 | 0,046 | * | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,6195 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,119 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 890 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 89 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 80 | | | | | | |
| Meettemperatuur (EC) | °C | 19,9 | | | | | | |
| Zuurstof | mg O2/L | 0,3 | 0,3 | | | | | |
| Meettemperatuur (pH) | °C | 20,4 | | | | | | |
| pH | | 7,4 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,47 | | | | | | |
| Bromide | mg/L | 0,15 | 0,15 | | | | | |
| Chloride | mg/L | 26 | 26 | | 50 | 100 | | |
| Sulfaat | mg/L | 78 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 1 | 9773295 | EC-101-1-1 EC-101 (350-450) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 19-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017139259 |
| Startdatum | 20-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 2 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 410 | 410 | ** | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 350 | 350 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 2,4 | 2,4 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 210 | 210 | | | | | |
| Magnesium (Mg) | mg/L | 730 | 730 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 5900 | 5900 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 3,3 | 3,3 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 43 | 43 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| Chromatogram | | Zie bijl. | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | <0,020 | 0,014 | - | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,619 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,119 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 33000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 3300 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 2900 | | | | | | |
| Meettemperatuur (EC) | °C | 19,9 | | | | | | |
| Zuurstof | mg O2/L | <0,1 | 0,07 | | | | | |
| Meettemperatuur (pH) | °C | 20,3 | | | | | | |
| pH | | 7,2 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,37 | | | | | | |
| Bromide | mg/L | 52 | 52 | | | | | |
| Chloride | mg/L | 11000 | 11000 | | 50 | 100 | | |
| Sulfaat | mg/L | 1700 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 2 | 9773296 | EC-102-2-1 EC-102 (900-1000) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 19-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017139259 |
| Startdatum | 20-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 3 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | 18 | 18 | * | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 600 | 600 | ** | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 270 | 270 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | 2,3 | 2,3 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 1,9 | 1,9 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 180 | 180 | | | | | |
| Magnesium (Mg) | mg/L | 480 | 480 | | | | | |
| Molybdeen (Mo) | µg/L | 3,9 | 3,9 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 4500 | 4500 | | | | | |
| Nikkel (Ni) | µg/L | 14 | 14 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 2,6 | 2,6 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 110 | 110 | * | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | 0,22 | 0,22 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| Chromatogram | | Zie bijl. | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | 0,086 | 0,086 | * | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,62 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,113 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 25000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 2500 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 2300 | | | | | | |
| Meettemperatuur (EC) | °C | 20,1 | | | | | | |
| Zuurstof | mg O2/L | 0,6 | 0,6 | | | | | |
| Meettemperatuur (pH) | °C | 20,4 | | | | | | |
| pH | | 7,2 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,81 | | | | | | |
| Bromide | mg/L | 23 | 23 | | | | | |
| Chloride | mg/L | 7900 | 7900 | | 50 | 100 | | |
| Sulfaat | mg/L | 900 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,34 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 3 | 9773297 | TGG-1.2-1-1 TGG-1.2 (550-650) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 19-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017139259 |
| Startdatum | 20-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 4 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Arseen (As) | µg/L | 7,7 | 7,7 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 130 | 130 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 350 | 350 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 2,6 | 2,6 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 190 | 190 | | | | | |
| Magnesium (Mg) | mg/L | 580 | 580 | | | | | |
| Molybdeen (Mo) | µg/L | 2,8 | 2,8 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 5000 | 5000 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 2,3 | 2,3 | | 2 | | | 70 |
| Zink (Zn) | µg/L | <10 | 7 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | 0,31 | 0,31 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | 0,12 | 0,12 | | | | | |
| m,p-Xyleen | µg/L | 0,3 | 0,3 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,42 | 0,42 | * | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | 0,11 | 0,11 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | 10 | 10 | | | | | |
| Minerale olie (C12-C16) | µg/L | 25 | 25 | | | | | |
| Minerale olie (C16-C21) | µg/L | 22 | 22 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | 61 | 61 | * | 50 | 50 | 325 | 600 |
| Chromatogram | | Zie bijl. | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | 0,079 | 0,079 | * | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,6199 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,116 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 28000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 2800 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 2500 | | | | | | |
| Meettemperatuur (EC) | °C | 20 | | | | | | |
| Zuurstof | mg O2/L | <0,1 | 0,07 | | | | | |
| Meettemperatuur (pH) | °C | 20,4 | | | | | | |
| pH | | 7,3 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,75 | | | | | | |
| Bromide | mg/L | 29 | 29 | | | | | |
| Chloride | mg/L | 9500 | 9500 | | 50 | 100 | | |
| Sulfaat | mg/L | 930 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | | |
| **Extra parameters** | | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,68 | Geen oordeel mogelijk | | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 4 | 9773298 | TGG-1.2-2-1 TGG-1.2 (840-940) |

Eindoordeel: Overschrijding Streefwaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 19-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017139266 |
| Startdatum | 20-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 1 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Boor (B) | mg/L | 2 | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 470 | 470 | ** | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 280 | 280 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | 2,2 | 2,2 | * | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 190 | 190 | | | | | |
| Magnesium (Mg) | mg/L | 580 | 580 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 4800 | 4800 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | 5,2 | 5,2 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | 3,2 | 3,2 | | 2 | | | 70 |
| Zink (Zn) | µg/L | 31 | 31 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | 72 | 72 | * | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | 72 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | |
| cis 1,2-Dichlooretheen | µg/L | <0,10 | 0,07 | | | | | |
| trans 1,2-Dichlooretheen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2-Dichloorethenen (Som) factor 0,7 | µg/L | 0,14 | 0,14 | - | 0,2 | 0,01 | 10 | 20 |
| 1,1-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| 1,2-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| 1,3-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| Dichloorpropanen som factor 0.7 | µg/L | 0,42 | 0,42 | - | 0,6 | 0,8 | 40,4 | 80 |
| Monochloorbenzeen | µg/L | <0,10 | 0,07 | - | 0,2 | 7 | 93,5 | 180 |
| 1,2-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,4-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Som dichloorbenzenen corr. *0.7 | µg/L | 0,21 | | | | | | |
| Som mono& dichloorbenzenen corr. *0.7 | µg/L | 0,28 | | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| Chromatogram | | Zie bijl. | | | | | | |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | |
| alfa-HCH | µg/L | <0,010 | 0,007 | - | 0,01 | 0,033 | | |
| beta-HCH | µg/L | <0,0080 | 0,0056 | - | 0,008 | 0,008 | | |
| gamma-HCH | µg/L | <0,0090 | 0,0063 | - | 0,009 | 0,009 | | |
| delta-HCH | µg/L | <0,0080 | 0,0056 | | | | | |
| Hexachloorbenzeen | µg/L | <0,0050 | 0,0035 | - | 0,005 | 0,00009 | 0,25 | 0,5 |
| Heptachloor | µg/L | <0,010 | 0,007 | - | 0,01 | 0,000005 | 0,15 | 0,3 |
| Heptachloorepoxide (cis,beta) | µg/L | <0,010 | 0,007 | | | | | |
| Heptachloorepoxide (trans,alfa) | µg/L | <0,010 | 0,007 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Aldrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,000009 | | |
| Dieldrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | | |
| Endrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,00004 | | |
| alfa-Endosulfan | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0002 | 2,5 | 5 |
| alfa-Chloordaan | µg/L | <0,010 | 0,007 | | | | | |
| gamma-Chloordaan | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDT | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDT | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDE | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDE | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDD | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDD | µg/L | <0,010 | 0,007 | | | | | |
| HCH (som) (factor 0,7) | µg/L | 0,024 | 0,0245 | - | 0,05 | 0,05 | 0,525 | 1 |
| Drins (som) (factor 0,7) | µg/L | 0,021 | 0,021 | | 0,03 | | | 0,1 |
| Heptachloorepoxide (som) (factor 0,7) | µg/L | 0,014 | 0,014 | - | 0,02 | 0,000005 | 1,5 | 3 |
| DDD (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDE (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDT (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDX (som) (factor 0,7) | µg/L | 0,042 | 0,042 | - | 0,06 | 0,000004 | 0,005 | 0,01 |
| Chloordaan (som) (factor 0,7) | µg/L | 0,014 | 0,014 | - | 0,02 | 0,00002 | 0,1 | 0,2 |
| OCB (som) (factor 0,7) | µg/L | 0,18 | | | | | | |
| **Chlooranilines** | | | | | | | | |
| 3+4-chlooraniline | µg/L | <0,40 | | | | | | |
| Som 2,3 + 2,4 + 2,5 - Dichlooranilines | µg/L | <0,08 | | | | | | |
| **Chloorbenzenen** | | | | | | | | |
| 1,2,3-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,2,4-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,3,5-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1245/1235-Tetrachloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,2,3,4-Tetrachloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| Pentachloorbenzeen | µg/L | <0,0050 | 0,0035 | - | 0,005 | 0,003 | 0,501 | 1 |
| Hexachloorbenzeen | µg/L | <0,0050 | | | 0,005 | 0,00009 | 0,25 | 0,5 |
| Som minder vluchtig chloorbenzenen | µg/L | <0,055 | | | | | | |
| Som tri-hexachloorbenzenen corr. *0.7 | µg/L | 0,042 | | | | | | |
| Som trichloorbenzenen corr *0.7 | µg/L | 0,021 | | | | | | |
| Som tetrachloorbenzenen corr *0.7 | µg/L | 0,014 | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAI** | | | | | | | | |
| Naftaleen | µg/L | 0,03 | 0,03 | * | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,6192 | | | | | 1 |
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,129 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 29000 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 2900 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 2600 | | | | | | |
| Meettemperatuur (EC) | °C | 19,5 | | | | | | |
| Zuurstof | mg O2/L | <0,1 | 0,07 | | | | | |
| Meettemperatuur (pH) | °C | 19,8 | | | | | | |
| pH | | 7,3 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,69 | | | | | | |
| Bromide | mg/L | 30 | 30 | | | | | |
| Chloride | mg/L | 11000 | 11000 | | 50 | 100 | | |
| Sulfaat | mg/L | 770 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Fenolen** | | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | 0,98 | 0,98 | | | | | |
| m-Cresol | µg/L | 0,55 | 0,55 | | | | | |
| p-Cresol | µg/L | 120 | 120 | | | | | |
| Cresolen (som) | µg/L | 120 | 121,5 | ** | | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | |
| **Chloorfenolen** | | | | | | | |
| o-Chloorfenol | µg/L | <0,10 | 0,07 | | | | |
| m-Chloorfenol | µg/L | <0,02 | 0,014 | | | | |
| p-Chloorfenol | µg/L | 0,08 | 0,08 | | | | |
| Monochloorfenolen (som) | µg/L | <0,14 | 0,164 | - | 0,3 | 50,1 | 100 |
| 2,3-Dichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 2,4/2,5-Dichloorfenol | µg/L | 0,01 | 0,01 | | | | |
| 2,6-Dichloorfenol | µg/L | <0,03 | 0,021 | | | | |
| 3,4-Dichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 3,5-Dichloorfenol | µg/L | <0,03 | 0,021 | | | | |
| Dichloorfenolen (som) | µg/L | <0,10 | 0,08 | - | 0,2 | 15,1 | 30 |
| 2,3,4-Trichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 2,3,5+2,4,5-Trichloorfenol | µg/L | <0,02 | | | | | |
| 2,3,6-Trichloorfenol | µg/L | <0,01 | 0,007 | | | | |
| 2,4,6-Trichloorfenol | µg/L | <0,05 | 0,035 | | | | |
| 3,4,5-Trichloorfenol | µg/L | <0,01 | 0,007 | | | | |
| Trichloorfenolen (som) | µg/L | <0,11 | 0,063 | * | 0,03 | 5,01 | 10 |
| 2,3,4,5-Tetrachloorfenol | µg/L | <0,01 | 0,007 | | | | |
| 2,3,4,6 + 2,3,5,6-Tetrachloorfenol | µg/L | <0,020 | | | | | |
| Tetrachloorfenolen (som) | µg/L | <0,03 | | | 0,01 | 5 | 10 |
| Pentachloorfenol | µg/L | <0,010 | 0,007 | - | 0,04 | 1,52 | 3 |
| 4-Chloor-3-methylfenol | µg/L | <0,02 | 0,014 | | | | |
| **Overige org.-verontreinigingen** | | | | | | | |
| Monobutyltin | µg/L | 0,011 | | | | | |
| Dibutyltin | µg/L | <0,010 | | | | | |
| Tributyltin | µg/L | 0,011 | | | | | |
| Tributyltin | µg/L | <0,010 | | | | | |
| Tetrabutyltin | µg/L | <0,010 | | | | | |
| Monooctyltin | µg/L | <0,010 | | | | | |
| Dioctyltin | µg/L | <0,010 | | | | | |
| Tricyclohexyltin | µg/L | <0,010 | | | | | |
| Triphenyltin | µg/L | <0,010 | | | | | |
| Tributyltin | µg Sn/L | <0,010 | | | | | |
| Monobutyltin | µg Sn/L | <0,010 | | | | | |
| Dibutyltin | µg Sn/L | <0,010 | | | | | |
| Tributyltin | µg Sn/L | <0,010 | 0,007 | | | | |
| Tetrabutyltin | µg Sn/L | <0,010 | | | | | |
| Monooctyltin | µg Sn/L | <0,010 | | | | | |
| Dioctyltin | µg Sn/L | <0,010 | | | | | |
| Tricyclohexyltin | µg Sn/L | <0,010 | | | | | |
| Triphenyltin | µg Sn/L | <0,010 | 0,007 | | | | |
| Organotin som Sn factor 0,7 | µg Sn/L | 0,014 | | | | | |
| Organotin som (factor 0,7) | µg/L | 0,018 | | | 0,016 | 0,358 | 0,7 |
| **Ftalaten** | | | | | | | |
| Dimethylftalaat | µg/L | <0,20 | 0,14 | | | | |
| Diethylftalaat | µg/L | <1,0 | 0,7 | | | | |
| Di-isobutylftalaat | µg/L | <2,0 | 1,4 | | | | |
| Di-n-butylftalaat | µg/L | <2,0 | 1,4 | | | | |
| Butylbenzylftalaat | µg/L | <2,0 | | | | | |
| Bis(ethylhexyl)ftalaat | µg/L | <2,0 | 1,4 | | | | |
| Di-n-octylftalaat | µg/L | <1,0 | | | | | |
| Ftalaten (som) | µg/L | <10 | 5,04 | *** | 0,5 | 2,75 | 5 |
| **Extra parameters** | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 73,12 | Geen oordeel mogelijk | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 1 | 9773370 | EC-102-1-1 EC-102 (350-450) |

Eindoordeel: Overschrijding Interventiewaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/

**BoToVa T13 Toetsing Wbb grondwater (ondiep)**

| | |
|---|---|
| Projectnummer | 418938 |
| Projectnaam | Grondwatermonitoring Perkpolder |
| Ordernummer | |
| Datum monstername | 19-10-2017 |
| Monsternemer | |
| Certificaatnummer | 2017139266 |
| Startdatum | 20-10-2017 |
| Rapportagedatum | |

| Analyse | Eenheid | 2 | GSSD | Oordeel | RG | S | T | I |
|---|---|---|---|---|---|---|---|---|
| **Metalen** | | | | | | | | |
| Boor (B) | mg/L | 0,5 | | | | | | |
| Arseen (As) | µg/L | <5,0 | 3,5 | - | 5 | 10 | 35 | 60 |
| Barium (Ba) | µg/L | 84 | 84 | * | 20 | 50 | 338 | 625 |
| Beryllium (Be) | µg/L | <1,0 | 0,7 | | 1 | | | 15 |
| Calcium (Ca) | mg/L | 160 | 160 | | | | | |
| Cadmium (Cd) | µg/L | <0,20 | 0,14 | - | 0,2 | 0,4 | 3,2 | 6 |
| Kobalt (Co) | µg/L | <2,0 | 1,4 | - | 2 | 20 | 60 | 100 |
| Chroom (Cr) | µg/L | <1,0 | 0,7 | - | 1 | 1 | 15,5 | 30 |
| Koper (Cu) | µg/L | <2,0 | 1,4 | - | 2 | 15 | 45 | 75 |
| Kwik (Hg) | µg/L | <0,050 | 0,035 | - | 0,05 | 0,05 | 0,175 | 0,3 |
| Kalium (K) | mg/L | 18 | 18 | | | | | |
| Magnesium (Mg) | mg/L | 46 | 46 | | | | | |
| Molybdeen (Mo) | µg/L | <2,0 | 1,4 | - | 2 | 5 | 153 | 300 |
| Natrium (Na) | mg/L | 470 | 470 | | | | | |
| Nikkel (Ni) | µg/L | <3,0 | 2,1 | - | 3 | 15 | 45 | 75 |
| Lood (Pb) | µg/L | 310 | 310 | *** | 2 | 15 | 45 | 75 |
| Antimoon (Sb) | µg/L | <3,0 | 2,1 | | 3 | | | 20 |
| Seleen (Se) | µg/L | <5,0 | 3,5 | | | | | 160 |
| Tin (Sn) | µg/L | <2,5 | 1,75 | | 2,5 | | | 50 |
| Vanadium (V) | µg/L | <2,0 | 1,4 | | 2 | | | 70 |
| Zink (Zn) | µg/L | <10 | 7 | - | 10 | 65 | 433 | 800 |
| **Vluchtige Aromatische Koolwaterstoffen** | | | | | | | | |
| Benzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 0,2 | 15,1 | 30 |
| Tolueen | µg/L | <0,20 | 0,14 | - | 0,2 | 7 | 504 | 1000 |
| Ethylbenzeen | µg/L | <0,20 | 0,14 | - | 0,2 | 4 | 77 | 150 |
| o-Xyleen | µg/L | <0,10 | 0,07 | | | | | |
| m,p-Xyleen | µg/L | <0,20 | 0,14 | | | | | |
| Xylenen (som) factor 0,7 | µg/L | 0,21 | 0,21 | - | 0,2 | 0,2 | 35,1 | 70 |
| BTEX (som) | µg/L | <0,90 | | | | | | |
| Styreen | µg/L | <0,20 | 0,14 | - | 0,2 | 6 | 153 | 300 |
| 1,2,3-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2,4-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3,5-Trimethylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| n-Propylbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Isopropylbenzeen (cumeen) | µg/L | <0,10 | 0,07 | | | | | |
| 2-Ethyltolueen | µg/L | <0,10 | | | | | | |
| 3-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| 4-Ethyltolueen | µg/L | <0,10 | 0,07 | | | | | |
| **Vluchtige organische halogeenkoolwaterstoffen** | | | | | | | | |
| cis 1,2-Dichlooretheen | µg/L | <0,10 | 0,07 | | | | | |
| trans 1,2-Dichlooretheen | µg/L | <0,10 | 0,07 | | | | | |
| 1,2-Dichloorethenen (Som) factor 0,7 | µg/L | 0,14 | 0,14 | - | 0,2 | 0,01 | 10 | 20 |
| 1,1-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| 1,2-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| 1,3-Dichloorpropaan | µg/L | <0,20 | 0,14 | | | | | |
| Dichloorpropanen som factor 0.7 | µg/L | 0,42 | 0,42 | - | 0,6 | 0,8 | 40,4 | 80 |
| Monochloorbenzeen | µg/L | <0,10 | 0,07 | - | 0,2 | 7 | 93,5 | 180 |
| 1,2-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,3-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| 1,4-Dichloorbenzeen | µg/L | <0,10 | 0,07 | | | | | |
| Som dichloorbenzenen corr. *0.7 | µg/L | 0,21 | | | | | | |
| Som mono& dichloorbenzenen corr. *0.7 | µg/L | 0,28 | | | | | | |
| **Minerale olie** | | | | | | | | |
| Minerale olie (C10-C12) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C12-C16) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C16-C21) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C21-C30) | µg/L | <15 | 10,5 | | | | | |
| Minerale olie (C30-C35) | µg/L | <10 | 7 | | | | | |
| Minerale olie (C35-C40) | µg/L | <10 | 7 | | | | | |
| Minerale olie totaal (C10-C40) | µg/L | <50 | 35 | - | 50 | 50 | 325 | 600 |
| Chromatogram | | Zie bijl. | | | | | | |
| **Organo chloorbestrijdingsmiddelen, OCB** | | | | | | | | |
| alfa-HCH | µg/L | <0,010 | 0,007 | - | 0,01 | 0,033 | | |
| beta-HCH | µg/L | <0,0080 | 0,0056 | - | 0,008 | 0,008 | | |
| gamma-HCH | µg/L | <0,0090 | 0,0063 | - | 0,009 | 0,009 | | |
| delta-HCH | µg/L | <0,0080 | 0,0056 | | | | | |
| Hexachloorbenzeen | µg/L | <0,0050 | 0,0035 | - | 0,005 | 0,00009 | 0,25 | 0,5 |
| Heptachloor | µg/L | <0,010 | 0,007 | - | 0,01 | 0,000005 | 0,15 | 0,3 |
| Heptachloorepoxide (cis,beta) | µg/L | <0,010 | 0,007 | | | | | |
| Heptachloorepoxide (trans,alfa) | µg/L | <0,010 | 0,007 | | | | | |
| Aldrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,000009 | | |
| Dieldrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | | |
| Endrin | µg/L | <0,010 | 0,007 | - | 0,01 | 0,00004 | | |
| alfa-Endosulfan | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0002 | 2,5 | 5 |
| alfa-Chloordaan | µg/L | <0,010 | 0,007 | | | | | |
| gamma-Chloordaan | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDT | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDT | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDE | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDE | µg/L | <0,010 | 0,007 | | | | | |
| o,p-DDD | µg/L | <0,010 | 0,007 | | | | | |
| p,p-DDD | µg/L | <0,010 | 0,007 | | | | | |
| HCH (som) (factor 0,7) | µg/L | 0,024 | 0,0245 | - | 0,05 | 0,05 | 0,525 | 1 |
| Drins (som) (factor 0,7) | µg/L | 0,021 | 0,021 | | 0,03 | | | 0,1 |
| Heptachloorepoxide (som) (factor 0,7) | µg/L | 0,014 | 0,014 | - | 0,02 | 0,000005 | 1,5 | 3 |
| DDD (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDE (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDT (som) (factor 0,7) | µg/L | 0,014 | | | | | | |
| DDX (som) (factor 0,7) | µg/L | 0,042 | 0,042 | - | 0,06 | 0,000004 | 0,005 | 0,01 |
| Chloordaan (som) (factor 0,7) | µg/L | 0,014 | 0,014 | - | 0,02 | 0,00002 | 0,1 | 0,2 |
| OCB (som) (factor 0,7) | µg/L | 0,18 | | | | | | |
| **Chlooranilines** | | | | | | | | |
| 3+4-chlooraniline | µg/L | <0,40 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Som 2,3 + 2,4 + 2,5 - Dichlooranilines | µg/L | <0,08 | | | | | | |
| **Chloorbenzenen** | | | | | | | | |
| 1,2,3-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,2,4-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,3,5-Trichloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1245/1235-Tetrachloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| 1,2,3,4-Tetrachloorbenzeen | µg/L | <0,010 | 0,007 | | | | | |
| Pentachloorbenzeen | µg/L | <0,0050 | 0,0035 | - | 0,005 | 0,003 | 0,501 | 1 |
| Hexachloorbenzeen | µg/L | <0,0050 | | | 0,005 | 0,00009 | 0,25 | 0,5 |
| Som minder vluchtig chloorbenzenen | µg/L | <0,055 | | | | | | |
| Som tri-hexachloorbenzenen corr. *0.7 | µg/L | 0,042 | | | | | | |
| Som trichloorbenzenen corr *0.7 | µg/L | 0,021 | | | | | | |
| Som tetrachloorbenzenen corr *0.7 | µg/L | 0,014 | | | | | | |
| **Polycyclische Aromatische Koolwaterstoffen, PAK** | | | | | | | | |
| Naftaleen | µg/L | 0,052 | 0,052 | * | 0,02 | 0,01 | 35 | 70 |
| Acenaftyleen | µg/L | <0,050 | 0,035 | | | | | |
| Acenafteen | µg/L | <0,010 | 0,007 | | | | | |
| Fluoreen | µg/L | <0,010 | 0,007 | | | | | |
| Fenanthreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 2,5 | 5 |
| Anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0007 | 2,5 | 5 |
| Fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,501 | 1 |
| Pyreen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(a)anthraceen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0001 | 0,25 | 0,5 |
| Chryseen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,003 | 0,102 | 0,2 |
| Benzo(b)fluorantheen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(k)fluorantheen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| Benzo(a)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0005 | 0,0253 | 0,05 |
| Dibenzo(a,h)anthraceen | µg/L | <0,010 | 0,007 | | | | | |
| Benzo(ghi)peryleen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0003 | 0,0251 | 0,05 |
| Indeno(123-cd)pyreen | µg/L | <0,010 | 0,007 | - | 0,01 | 0,0004 | 0,0252 | 0,05 |
| PAK Totaal EPA (16) | µg/L | <0,21 | | | | | | |
| PAK Totaal VROM (10) | µg/L | <0,11 | 0,6195 | | | | | 1 |
| **Fysisch-chemische analyses** | | | | | | | | |
| EC-temp. corr. factor (mathematisch) | | 1,129 | | | | | | |
| Geleidingsvermogen 25°C | µS/cm | 2800 | | | | | | |
| Geleidingsvermogen 25°C | mS/m | 280 | | | | | | |
| Geleidingsvermogen 20°C | mS/m | 250 | | | | | | |
| Meettemperatuur (EC) | °C | 19,5 | | | | | | |
| Zuurstof | mg O2/L | <0,1 | 0,07 | | | | | |
| Meettemperatuur (pH) | °C | 19,8 | | | | | | |
| pH | | 7,2 | | | | | | |
| **Anorganische verbindingen & natte chemie** | | | | | | | | |
| Fluoride totaal | mg/L | 0,88 | | | | | | |
| Bromide | mg/L | 26 | 26 | | | | | |
| Chloride | mg/L | 520 | 520 | | 50 | 100 | | |
| Sulfaat | mg/L | 110 | | | | | | |
| **Anorganische verbindingen** | | | | | | | | |
| Nitraat (NO3-N) | mg N/L | <0,40 | | | | | | |
| Nitraat (NO3) | mg/L | <0,90 | 0,63 | | | | | |
| **Cyanide** | | | | | | | | |
| Thiocyanaat (mathematisch) | µg/L | <5,0 | 3,5 | | | | | 1500 |
| Cyanide-totaal | µg/L | <5,0 | 3,5 | | | | | |
| Cyanide-vrij | µg/L | <3,0 | 2,1 | - | 3 | 5 | 753 | 1500 |
| Cyanide EPA (335.3) | µg/L | <5,0 | | | | | | |
| **Uitbesteed / Overig onderzoek** | | | | | | | | |
| Uitbesteding onderzoek | | Zie bijl. | | | | | | |
| 2378TetraCDD | pg/L | <0,655 | | | | | | |
| 12378-PentaCDD | pg/L | <0,873 | | | | | | |
| 123478-HexaCDD | pg/L | <1,75 | | | | | | |
| 123678-HexaCDD | pg/L | <1,75 | | | | | | |
| 123789-HexaCDD | pg/L | <1,75 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1234678-HeptaCDD | pg/L | <1,49 | | | | | |
| OctaCDD | pg/L | <10,5 | | | | | |
| 2378-TetraCDF | pg/L | <1,16 | | | | | |
| 12378-PentaCDF | pg/L | <1,56 | | | | | |
| 23478-PentaCDF | pg/L | <1,56 | | | | | |
| 123478-HexaCDF | pg/L | <1,45 | | | | | |
| 123678-HexaCDF | pg/L | <1,45 | | | | | |
| 123789-HexaCDF | pg/L | <1,45 | | | | | |
| 234678-HexaCDF | pg/L | <1,45 | | | | | |
| 1234678-HeptaCDF | pg/L | <1,38 | | | | | |
| 1234789-HeptaCDF | pg/L | <1,38 | | | | | |
| OctaCDF | pg/L | <2,91 | | | | | |
| WHO2005 excl. LOQ | pg/L | ND | | | | | |
| WHO2005incl. LOQ | pg/L | 3,31 | | | | | |
| TEQ (WHO) excl. LOQ [a] | pg/L | ND | | | | | |
| TEQ (WHO) incl. LOQ [b] | pg/L | 3,23 | | | | | |
| **Fenolen** | | | | | | | |
| Fenol | µg/L | <0,50 | 0,35 | * | 0,2 | 1000 | 2000 |
| o-Cresol | µg/L | <0,30 | 0,21 | | | | |
| m-Cresol | µg/L | <0,30 | 0,21 | | | | |
| p-Cresol | µg/L | <0,20 | 0,14 | | | | |
| Cresolen (som) | µg/L | <0,80 | 0,56 | * | 0,2 | 100 | 200 |
| 2,4-Dimethylfenol | µg/L | <0,020 | | | | | |
| 2,5-Dimethylfenol | µg/L | <0,020 | | | | | |
| 2,6-Dimethylfenol | µg/L | <0,030 | 0,021 | | | | |
| 3,4-Dimethylfenol | µg/L | <0,020 | | | | | |
| o-Ethylfenol | µg/L | <0,030 | 0,021 | | | | |
| m-Ethylfenol | µg/L | <0,020 | 0,014 | | | | |
| Thymol | µg/L | <0,010 | 0,007 | | | | |
| 2,3/3,5-Dimethylfenol + 4-Ethylfenol | µg/L | <0,020 | | | | | |
| **Chloorfenolen** | | | | | | | |
| o-Chloorfenol | µg/L | <0,10 | 0,07 | | | | |
| m-Chloorfenol | µg/L | <0,02 | 0,014 | | | | |
| p-Chloorfenol | µg/L | <0,02 | 0,014 | | | | |
| Monochloorfenolen (som) | µg/L | <0,14 | 0,098 | - | 0,3 | 50,1 | 100 |
| 2,3-Dichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 2,4/2,5-Dichloorfenol | µg/L | 0,007 | 0,007 | | | | |
| 2,6-Dichloorfenol | µg/L | <0,03 | 0,021 | | | | |
| 3,4-Dichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 3,5-Dichloorfenol | µg/L | <0,03 | 0,021 | | | | |
| Dichloorfenolen (som) | µg/L | <0,10 | 0,077 | - | 0,2 | 15,1 | 30 |
| 2,3,4-Trichloorfenol | µg/L | <0,02 | 0,014 | | | | |
| 2,3,5+2,4,5-Trichloorfenol | µg/L | <0,02 | | | | | |
| 2,3,6-Trichloorfenol | µg/L | <0,01 | 0,007 | | | | |
| 2,4,6-Trichloorfenol | µg/L | <0,05 | 0,035 | | | | |
| 3,4,5-Trichloorfenol | µg/L | <0,01 | 0,007 | | | | |
| Trichloorfenolen (som) | µg/L | <0,11 | 0,063 | * | 0,03 | 5,01 | 10 |
| 2,3,4,5-Tetrachloorfenol | µg/L | <0,01 | 0,007 | | | | |
| 2,3,4,6 + 2,3,5,6-Tetrachloorfenol | µg/L | <0,020 | | | | | |
| Tetrachloorfenolen (som) | µg/L | <0,03 | | | 0,01 | 5 | 10 |
| Pentachloorfenol | µg/L | <0,010 | 0,007 | - | 0,04 | 1,52 | 3 |
| 4-Chloor-3-methylfenol | µg/L | <0,02 | 0,014 | | | | |
| **Overige org.-verontreinigingen** | | | | | | | |
| Monobutyltin | µg/L | <0,010 | | | | | |
| Dibutyltin | µg/L | <0,010 | | | | | |
| Tributyltin | µg/L | <0,010 | | | | | |
| Tributyltin | µg/L | <0,010 | | | | | |
| Tetrabutyltin | µg/L | <0,010 | | | | | |
| Monooctyltin | µg/L | <0,010 | | | | | |
| Dioctyltin | µg/L | <0,010 | | | | | |
| Tricyclohexyltin | µg/L | <0,010 | | | | | |
| Triphenyltin | µg/L | <0,010 | | | | | |
| Tributyltin | µg Sn/L | <0,010 | | | | | |
| Monobutyltin | µg Sn/L | <0,010 | | | | | |
| Dibutyltin | µg Sn/L | <0,010 | | | | | |
| Tributyltin | µg Sn/L | <0,010 | 0,007 | | | | |
| Tetrabutyltin | µg Sn/L | <0,010 | | | | | |
| Monooctyltin | µg Sn/L | <0,010 | | | | | |
| Dioctyltin | µg Sn/L | <0,010 | | | | | |
| Tricyclohexyltin | µg Sn/L | <0,010 | | | | | |
| Triphenyltin | µg Sn/L | <0,010 | 0,007 | | | | |
| Organotin som Sn factor 0,7 | µg Sn/L | 0,014 | | | | | |
| Organotin som (factor 0,7) | µg/L | 0,014 | | | 0,016 | 0,358 | 0,7 |
| **Ftalaten** | | | | | | | |
| Dimethylftalaat | µg/L | <0,20 | 0,14 | | | | |
| Diethylftalaat | µg/L | <1,0 | 0,7 | | | | |
| Di-isobutylftalaat | µg/L | <2,0 | 1,4 | | | | |
| Di-n-butylftalaat | µg/L | <2,0 | 1,4 | | | | |
| Butylbenzylftalaat | µg/L | <2,0 | | | | | |
| Bis(ethylhexyl)ftalaat | µg/L | <2,0 | 1,4 | | | | |
| Di-n-octylftalaat | µg/L | <1,0 | | | | | |
| Ftalaten (som) | µg/L | <10 | 5,04 | *** | 0,5 | 2,75 | 5 |
| **Extra parameters** | | | | | | | |
| som 16 aromatische oplosmiddelen | µg/L | | 1,26 | Geen oordeel mogelijk | | | |

Legenda

| Nr. | Analytico-nr | Monster |
|---|---|---|
| 2 | 9773371 | TGG-1.1-1-1 TGG-1.1 (250-350) |

Eindoordeel: Overschrijding Interventiewaarde

Gebruikte afkortingen

| | |
|---|---|
| - | kleiner dan of gelijk aan Streefwaarde |
| * | groter dan Streefwaarde |
| ** | groter dan Tussenwaarde |
| *** | groter dan Interventiewaarde |

| | |
|---|---|
| GSSD | Gestandaardiseerd gehalte |
| RG | Vereiste Rapportagegrens |
| S | Streefwaarde |
| T | Tussenwaarde |
| I | Interventiewaarde |

Deze toetsing is uitgevoerd met behulp van BoToVa.
Zie voor info: http://www.rwsleefomgeving.nl/onderwerpen/bodem-ondergrond/bbk/instrumenten/botova/