DIN EN ISO 16558-1:2020-11 (E)

Soil quality - Risk-based petroleum hydrocarbons - Part 1: Determination of aliphatic and aromatic fractions of volatile petroleum hydrocarbons using gas chromatography (static headspace method) (ISO 16558-1:2015 + Amd 1:2020) (includes Amendment A1:2020)

Contents

Page

European foreword ... **3**

[A1] European foreword to Amendment [A1] ... **4**

Foreword ... **5**

[A1] Foreword to Amendment [A1] ... **6**

Introduction ... **7**

1 Scope ... **8**

2 Normative references ... **8**

3 Terms and definitions ... **9**

4 Interferences ... **10**

5 Principle ... **10**

6 Reagents ... **10**

7 Apparatus ... **14**

8 Sampling, preservation, and sample pretreatment ... **15**
8.1 General ... 15
8.2 Sampling using vials pre-filled with methanol ... 15
8.3 Sampling using coring tube method ... 16

9 Procedure ... **16**
9.1 Blank determination ... 16
9.2 Extraction ... 16
9.3 Headspace-analysis ... 16
9.4 Gas chromatographic analysis ... 17
9.4.1 General ... 17
9.4.2 Calibration ... 17
9.4.3 Measurement ... 19

10 Calculation ... **19**
10.1 Calculation of the concentration in the spiked water sample ... 19
10.1.1 Volatile aromatic hydrocarbon compounds with internal standard method ... 19
10.1.2 Volatile aliphatic fractions ... 19
10.2 Calculation of the concentration of a volatile compound or fraction in the soil sample ... 20
10.3 Calculation of the concentration of volatile oil in the soil sample ... 20

11 Expression of results ... **20**

12 Precision ... **20**

13 Test report ... **20**

Annex A (informative) **Examples of GC-MS chromatograms of fuels** ... **21**

Bibliography ... **23**