

**Instructions for Completing the VPH Laboratory Reporting Form**

1) Client Name: Enter the consultant’s or contractor’s company name.

2) Project Name: It could be the Incident Number, facility name, or a residence.

3) Site Location: The address

4) Laboratory Name: Laboratory that analyzed the sample. The laboratory must be certified by DWR.

5) NC Certification # (Lab): Enter the certification number issued by the Certification Section of North Carolina.

6) Lab ID: The ID number was assigned by the laboratory to track the sample.

7) Sample Description: Enter the field ID. It could be the well number or the depth of soil.

8) Sample Matrix: Indicate the sample as soil or aqueous

9) Dry Weight %: Enter the moisture % of the sample.

10) Date Collected: Enter the day that the sample was collected.

11) Date Received: Enter the day that sample was received by the laboratory.

12) Date Extracted (if Applicable): This entry is for samples that were not preserved before or after they were collected on site, for example, a sample collected with an EnCore or similar sampling device.

13) Date Analyzed: Enter the date that the sample was analyzed.

14) Diluting Factor:

a) Aqueous sample - If the sample was not analyzed straight, enter the dilution factor.

b) Soil sample - Based on a 1:1 ratio of methanol: soil and analysis of a 100uL aliquot of the methanol extract in 5mL water. There is a 50 times dilution factor when the lab deposits 100uL extract to 5mL water for the initial purge-and-trap. However, the Report Limit (RL) will not be multiplied on this initial 50 times dilution. The RL will be multiplied only if the analysis needs to be further diluted.

15) Report Limit (RL):

a) The RLs for target VPH analytes shall be based on the concentration of the lowest calibration standard for the analyte of interest.

b) The RLs for the hydrocarbon ranges will be set at 100x the concentration of the lowest calibration standard for the associated analyte. Therefore, the RL for aqueous is 100 ug/L, and soil/sediment sample is 5mg/kg. (100ug/Lx5000uL/100uL=5000ug/kg=5mg/kg)

16) Unit: Distinguish carefully between ug/l and mg/L; or ug/kg and mg/kg.

17 -19): Unadjusted C5-C8 and C9-C12 Aliphatics, and unadjusted C9-C10 Aromatics

The result before the known target compounds within the range are subtracted. An unadjusted value should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range. (The unadjusted concentration of C9-C12 is defined as the value remaining after the concentration of the unadjusted C9-C10 is subtracted from the raw concentration of C9-C12.)

20 - 26): Enter the results of individual target compounds. These results should match/confirm each other between the FID and PID detectors if both results are available (WSC-CAM-IVA, Section 2.1, p.17), but it is optional for the lab to report the individual target compounds or not.

27 - 29): Adjusted C5-C8 and C9-C12 Aliphatics, and adjusted C9-C10 Aromatics

The result after the known target compounds within the range from the unadjusted C5-C8 and C9-C12 Aliphatics, and unadjusted C9-C10 Aromatics are subtracted.

30 - 31): Enter the PID and FID Surrogate % Recovery. Use the one that will be eluted out after Naphthalene, then there is no concern about the overlap.

32) Comments: Report the result and qualify any QA/QC issues in a narrative summary.



**Instructions for Completing the EPH Laboratory Reporting Form**

1) Client Name: Enter the consultant’s or contractor’s company name.

2) Project Name: It could be the Incident Number, facility name, or a residence.

3) Site Location: The address

4) Laboratory Name: Laboratory that analyzed the sample. The laboratory must be certified by DWR.

5) NC Certification # (Lab): Enter the certification number issued by the Certification Section of North Carolina.

6) Lab ID: The ID number was assigned by the laboratory to track the sample.

7) Sample Description: Enter the field ID. It could be the well number or the depth of soil.

8) Sample Matrix: Indicate the sample as soil or aqueous

9) Dry Weight %: Enter the moisture % of the sample.

10) Date Collected: Enter the day that the sample was collected.

11) Date Received: Enter the day that sample was received by the laboratory.

12) Date Extracted: Enter the date that sample was extracted.

13) Date Analyzed: Enter the date that sample was analyzed.

14) Diluting Factor: Based on 1-liter aqueous sample or 10 grams of the solid sample. Adjust the final extract volume to 1 ml as undiluted sample. Analytical conditions that require sample dilution include:

a) Any target concentration exceeds the concentration of their respective highest calibration standard;

b) Any non-target peak exceeding twice the peak height of the highest range-specific calibration standard;

c) Anytime a saturated chromatographic peak, flap-topped peak, is encountered;

d) For 1 ml extract with 5 grams silica gel/cartridges must not be overloaded, no more than 25,000 µg/ml.

e) The target post-dilution concentration must be at least 50% of its highest calibration standard.

15) Report Limit (RL):

a) The RLs for target EPH analytes shall be based on the concentration of the lowest calibration standard for the analyte of interest.

b) The RLs for the hydrocarbon ranges will be set at 100x the concentration of the lowest calibration standard for the associated analyte.

16) Unit: Distinguish carefully between ug/l and mg/L; or ug/kg and mg/kg.

17) Unadjusted C11-C22 Aromatics:

The result before the known Polycyclic Aromatic Hydrocarbon (PAH) target compounds within the range are subtracted. An unadjusted value should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

18 - 34) Enter the results of individual target compounds. These results should be confirmed by *Gas Chromatography/Mass Spectrometry* at the first time of that particular site, but it is optional for the lab to report the individual target compounds or not.

35 - 36) Unadjusted C9-C18 and C19-C36 Aliphatics:

By definition, it is not necessary to identify or quantify individual aliphatic compounds within this range. Therefore, there is no any target compound need to be subtracted. An unadjusted value should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

37) Adjusted C11-C22 Aromatics:

The result after the known Polycyclic Aromatic Hydrocarbon (PAH) target compounds within the range from the unadjusted C11-C22 Aromatics are subtracted.

38 - 41) Enter the Surrogate % Recovery.

42) LCS/LCSD naphthalene or 2-methylnaphthalene breakthrough must ≤5% for either constituent in EPH aliphatic fraction. Sample must be re-fractionated if concentration of either compound >5% in aliphatic fraction.

43) Comments: Report the result and qualify any QA/QC issues in a narrative summary.