Table 5. Examples of Air Sampling Methods

Oil

Media	Analyte(s)	Sampling time and flow rate	Method
SKC 575-002 Passive Sampler or charcoal tube[1]	Benzene, cyclohexane, toluene, ethyl benzene, xylene, trimethylbenzes	4 hours for SKC 575-002, 4 hours at 0.05 L/min for charcoal tube	OSHA Method 7 OSHA Method 111 OSHA Method 1002 OSHA Method 1005
Charcoal tube	Petroleum distillates	4 hours at 0.05 L/min	OSHA Method 48
ULTRA I Passive Sampler containing Tenax TA[2]	Heavy aliphatics and aromatics	Minimum of 4 hours, maximum of 16 hours	OSHA Marines Project Study
Assay Technology ChemDisk Aldehyde Monitor[3]	Formaldehyde	4 hours (TWA)	OSHA Method 1007

[1] Sample side-by-side with charcoal tubes and SKC 575-002 badges to establish the correspondence in exposure levels between the two samplers and the levels of exposure to the following chemicals: Cyclohexane, Benzene, Toluene, Ethyl benzene, Xylene, Petroleum Distillates

- SKC 575-002 Passive Sampler collect for 4 hours, and request analysis for cyclohexane, benzene, ethyl benzene, xylene, and Q115 (Q115 is a qualitative/quantitative analysis of any chemicals found on the sampler that were not requested by the industrial hygienist).
- Charcoal tubes collect at 0.05 L/min for 4 hours, and request analysis for cyclohexane, benzene, toluene, ethyl benzene, xylene, petroleum distillates, and Q115. (If there is correspondence between the charcoal tubes and the 575-002 Passive Samplers, then the charcoal tube sampling could be discontinued)

[2] To characterize the low levels of less volatile chemicals and heavy aliphatics in the exposures collect with ULTRA I Tenax TA Passive Sampler for up to 16 hours (minimum time of 4 hours) and request analysis for Mass spec (IMIS code M125). Once the chemicals are characterized for the less volatile chemicals, sampling with this sampler can be discontinued.

[3] Sample for Formaldehyde: In areas where there is potential exposure to combustion products of burning of oil, collect with ChemDisk Aldehyde Passive Sampler for 4 hours. Submit at least one blank for each set of samples. Keep samplers cool before and after sampling. Follow manufacturer's instructions.

(see List of Key Terms and Acronyms for sampling terms TWA, STEL, C)

Dispersants

Media	Analyte(s)	Sampling time and flow rate	Method
SKC 575-002 Passive Sampler or charcoal tube	2-butoxyethanol	4 hours for SKC 575-002, 4 hours at 0.05 L/min for charcoal tube	OSHA Method 83 (must be separate sample from other analytes due to different extracting solvent)
OVS-7 tube	Propylene glycol	2 hours at 1 L/min	OSHA Method PV2051

In areas where the dispersant has been sprayed collect with SKC 575-002 Passive Sampler for 4 hours and request analysis for 2-butoxyethanol

In areas where the dispersant has been sprayed collect with OVS-7 tubes at 1 L/min for 2 hours and request analysis for propylene glycol

Acid Gases/Mist

Media	Analyte(s)	Sampling time and flow rate	Method
Silica Gel Tube with pre-filter	Acid Gases and Mists	0.2 L/min for 8 hours	OSHA Method ID-165SG

In areas where there is potential exposure to combustion products of burning of oil and other contaminants collect representative samples with pre-filtered silica gel tubes for acid gases. Submit at least one blank for each set of samples. Keep samplers cool before and after sampling. Follow manufacturer's instructions.

Because the method analyte is the acid ion, any other sources for the ion will be a positive interference. For example, salt spray could interfere with hydrogen chloride analysis; a large part of this could be mitigated through the use of a pre-filter that would capture any spray before the air enters the sampling tube.