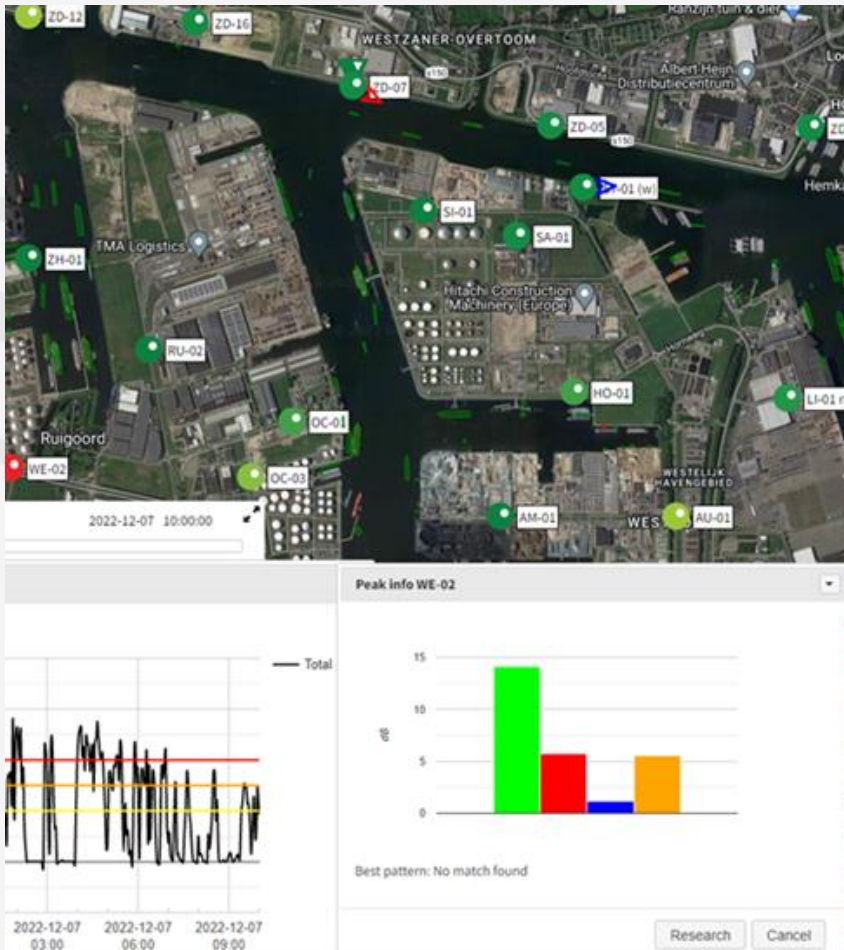


E-nose monitoring Port of Amsterdam

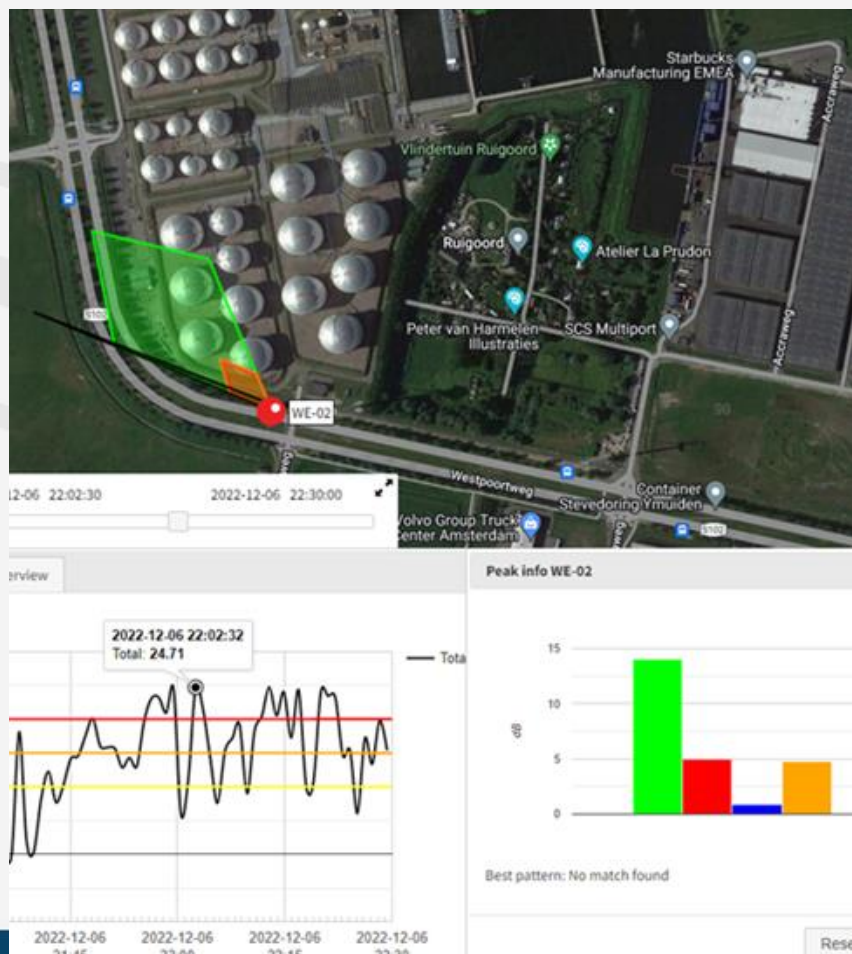


Color change of e-nose WE-02



- During 24 hours monitoring color change of e-nose WE-02 was detected.
- Wind direction checked in order to locate responsible installation.
- Information send to operator of location.
- Request for information.

Visit on location by Inspector



- Different measurements by inspector.
- 15 minutes readings shows different peaks in emission.
- Low wind speed.
- Location of emission should be very close.
- Operator started investigation.

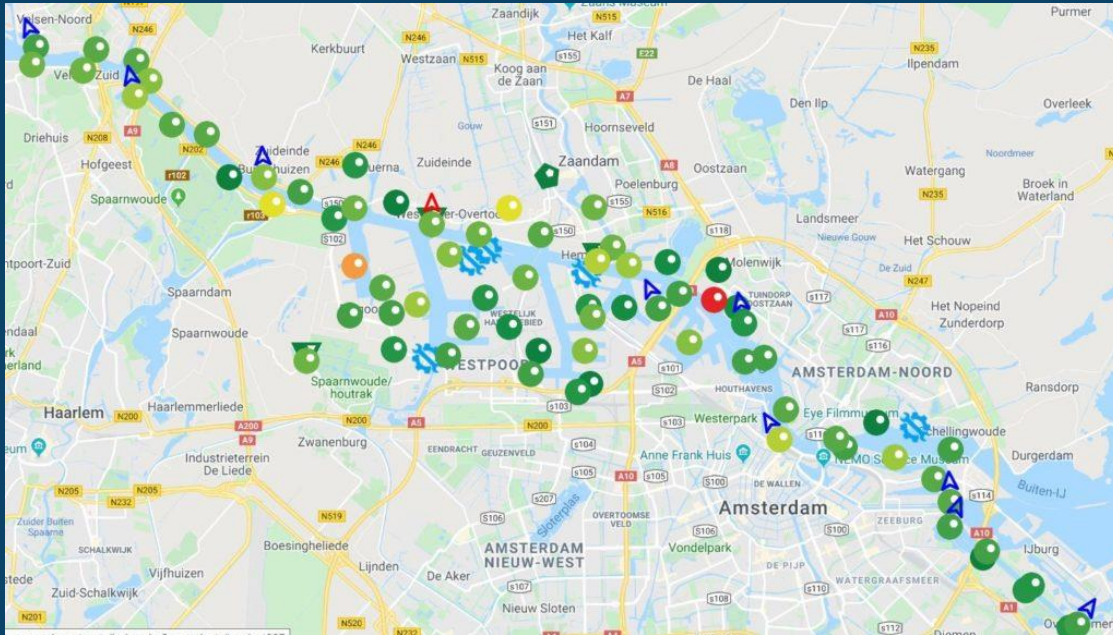
Results of investigation by operator

- During the filling of a tank, the vapor processing system was active;
- To move vapors from the tank to the vapor processing system a fan station is use;
- The fan station works automatically based on a flow control;
- The more flow is needed, the faster the fan station will run;
- The flow is controlled and measured by a flow meter;
- The flow meter has not measured any deviations in the amount of flow while the fan station was running at a (too) low speed.
- The company suspected that the flow meter is defective, as a result of which the fan station, while filling the tank, has not extracted enough vapor. As a result, vapor may have ended up above the internal floating roof through the PV valves.

Measures taken by the company

- The flow control has been turned off and has been given a manual value.
As a result, the fan station extracts more vapor from the tank than can be pumped in.
- The flow meter will be repaired and/or replaced.
- The company will continue closely monitor the e-noses.

E-nose monitoring 2nd case

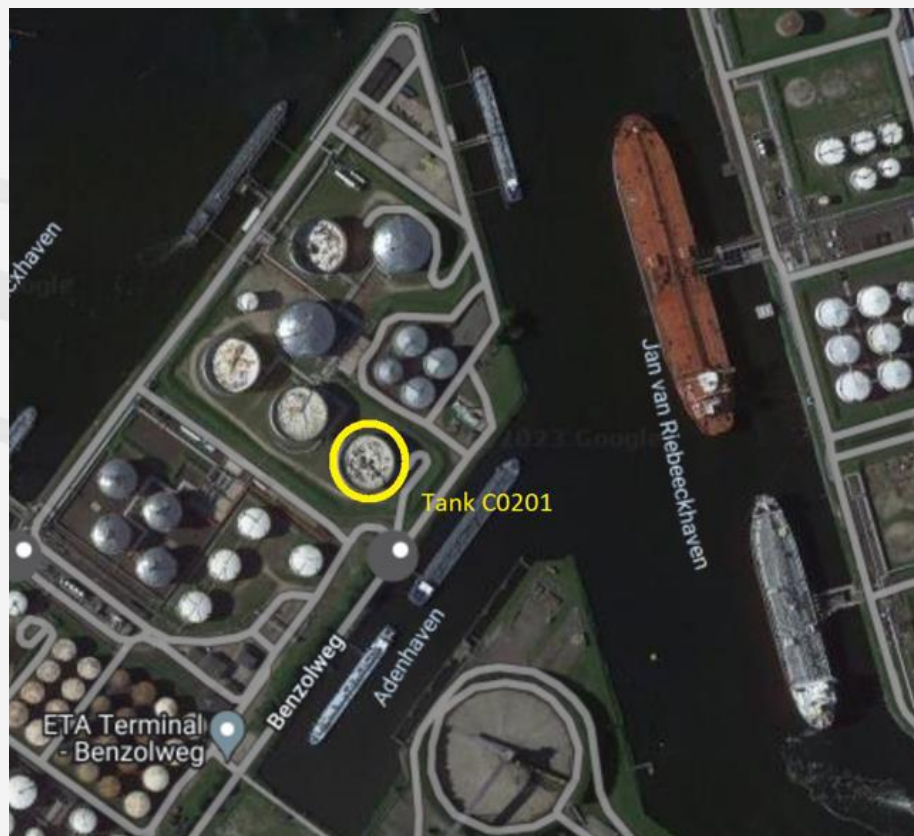


Color change of e-nose BE-01



- A very strong changes in air composition was detected.
- Moderate wind speed between 03:00 and 20:00
- Information send to operator of location.
- Request for information.

Results of investigation by operator (1)



- At the time of the observed changes in air composition, barge was unloaded from jetty 13 into tank C0201, the roof of which had landed.
- Vapors are discharged to the VRU via the VRU function.

Results of investigation by operator (2)

- During uploading into tank C0201 MTBE (methyl-tertiaire butylether) was also pumped from tank C0222 to tank C0203.
- Velocity aprox. 90 cbm and then the pipes were drained with MTBE to tank C0203.
- For this action, the VRU function was not active.
- The tank has an external floating roof.
- The cause of the emission was leaking seals from the floating roof.

Measures taken by the company

- The VRU function must be active during drainage of pipes towards tanks.
- The operator has the obligation to check the seals more frequently.



Thanks for your attention