

BiOWiSH® Odor

BiOWiSH® Helps Reduce H₂S, NH₃, and VOC Odor in a Leachate Treatment Plant in South Korea

Background

A landfill site in South Korea was facing issues with odor and poor working conditions for on-site operators. The source of these issues stemmed from odorous leachate generated from the collected waste.

Problem

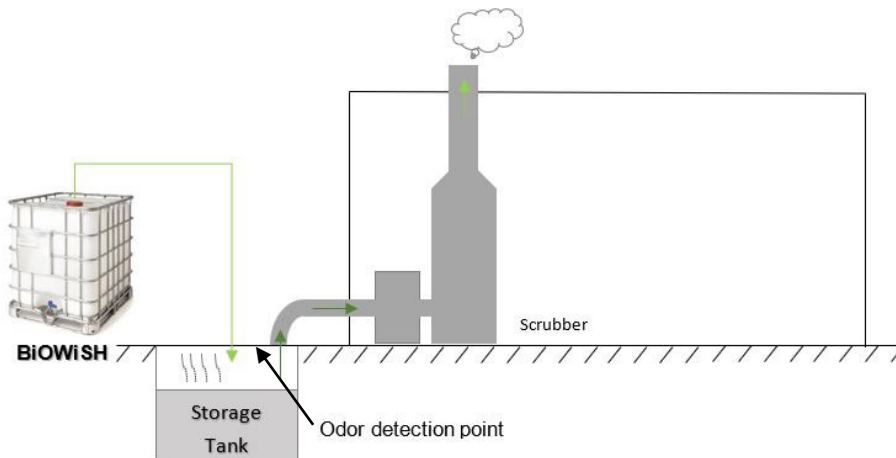
The strong leachate odor was due to high levels of H₂S, NH₃, and VOCs in areas surrounding the storage tank, scrubber, and leachate treatment plant.

Solution

BiOWiSH's local partner in South Korea, ACE Solutions, proposed a 2-week trial using BiOWiSH® Odor to reduce the odor on site. BiOWiSH® Odor begins working in minutes, reacting bio-chemically with odor-causing molecules, breaking down volatile organic compounds (VOCs) upon contact into their final inert, odorless compounds.

Dosing & Monitoring

BiOWiSH® Odor was sprayed daily into the storage tank at a concentration of 5 ppm using a 1 m³ tote and sprayer setup. Odor was monitored around the storage tank trench using GASTEC Gas Detection and MultiRAE digital self-priming tester.



BiOWiSH® Odor



- Removes rather than masks odors
- Fast acting
- Effective on a wide range of volatile organic compounds (VOC)
- Cost effective
- Operative at low dosage rates
- Long residual effective period
- Natural and non-toxic

Available Sizes

- 100 g/3.5 oz
- 1 kg/2.2 lbs
- 5 kg/11 lbs
- 10 kg/22 lbs



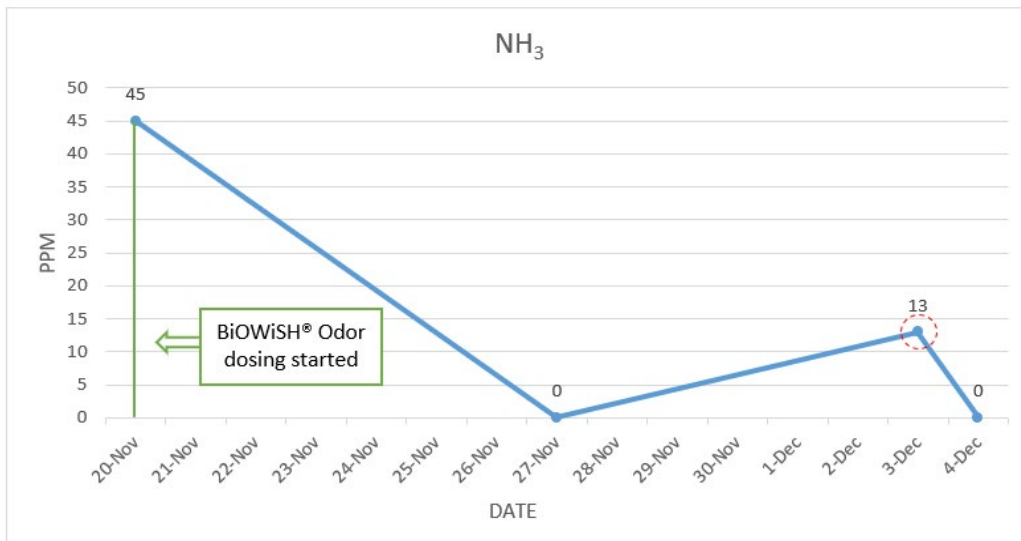
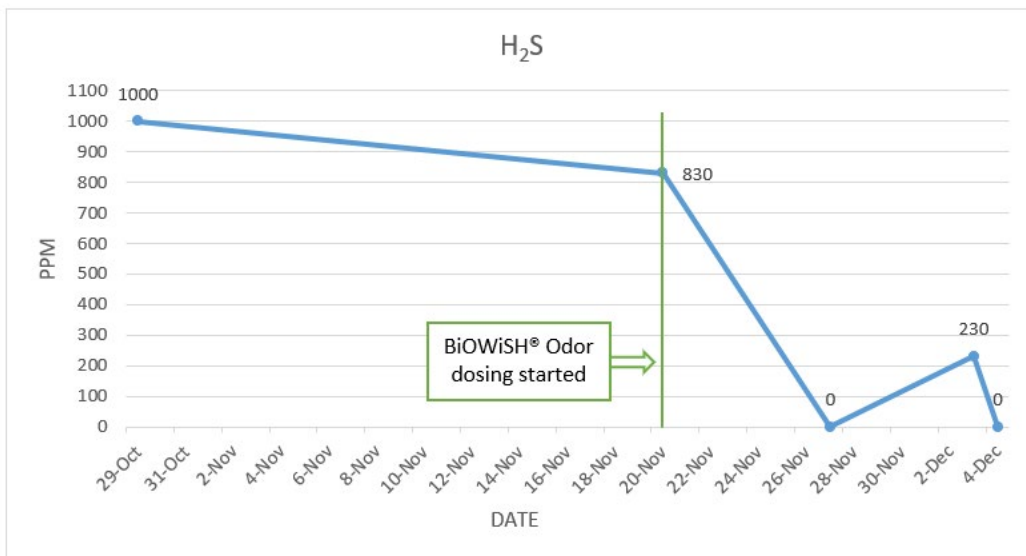
GASTEC GV - 1005

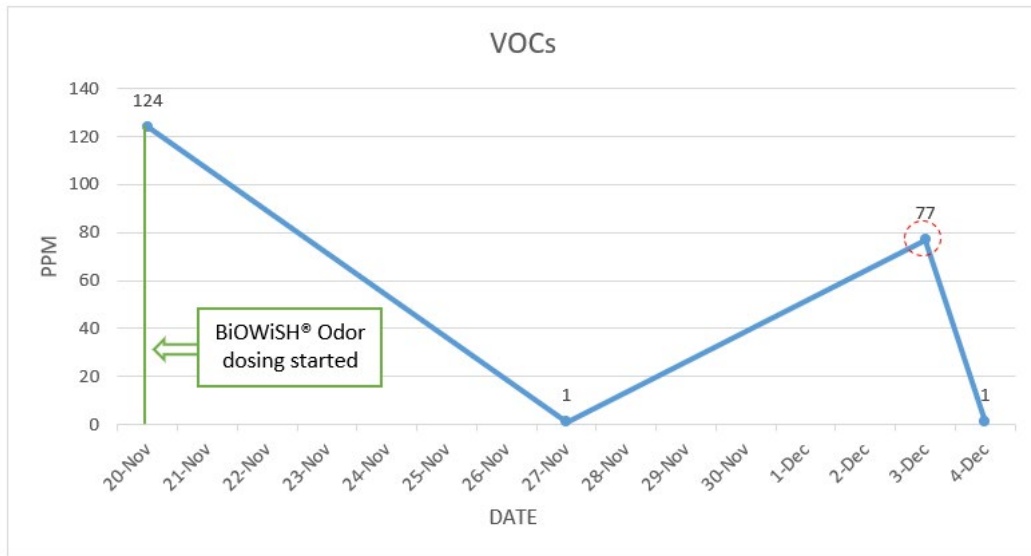


MultiRAE Lite

Results

By the end of the 2-week trial, BiOWiSH® Odor eliminated 100% of the H₂S and 99% of the VOCs near the leachate storage tank. Additionally, no H₂S or VOCs were detected at the scrubber exhaust after application of BiOWiSH® Odor.





Note: Fresh leachate was discharged into the storage tank on Dec 3rd which resulted in an increase in the H₂S, NH₃, and VOC levels. With the help of regular BiOWiSH® Odor doses, no H₂S or NH₃ were detected on Dec 4th, just 1 day after the fresh leachate was released. Only 1 ppm of VOCs was recorded on Dec 4th.

Parameter	Day 1 (Before BiOWiSH®)	Day 14 (After BiOWiSH®)
H ₂ S (ppm)	830	0
VOCs (ppm)	124	1
NH ₃ (ppm)	45	0

Conclusion

- The 2-week trial successfully proved odor reduction at this landfill site was possible by using BiOWiSH® Odor biological treatment, without any other additional investment.
- On-site measurements confirmed the reduction of major odor-causing compounds like H₂S, NH₃, and VOCs.
- The addition of BiOWiSH® Odor in the leachate also showed downstream effects in the leachate treatment plant by improving its overall efficiency.



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