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Wastewater treatment at the “Retinoids” JSC facility

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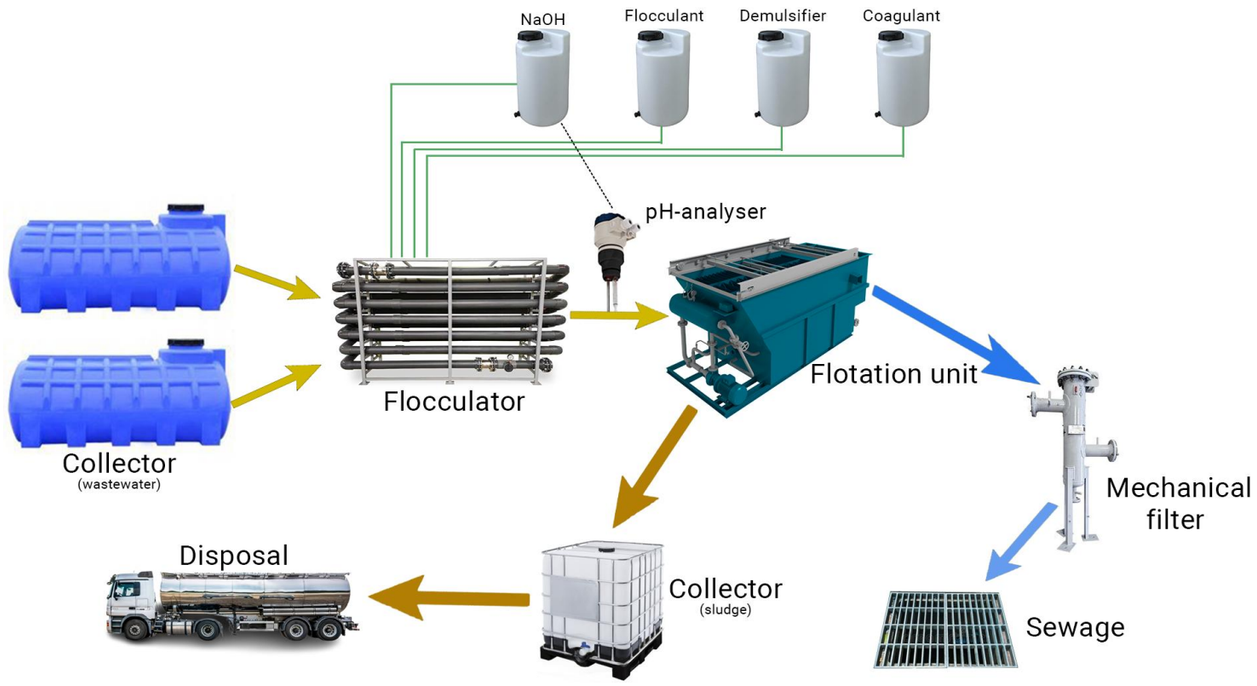
Purpose:

- Determine the effectiveness of the wastewater treatment. system and provide possible ways to improve it, if necessary.

Objectives:

- Analyze treated water based on the requirements of regulatory documentation.
- Study the engineering structure of the system.



Research methods:

- Gravimetry (for oil products).
- Gas chromatography (for fats).
- Spectrophotometry (for anionic surfactants).
- Nephelometry (for non-ionogenic surfactants).
- Potentiometry (for pH)

Analysed compound	Result	TLV
Oil products	0.065, mg/l	≤ 10, mg/l
Anionic surfactants	0.44, mg/l	≤ 10, mg/l
Non-ionogenic surfactants	6.70, mg/l	≤ 10, mg/l
Fats	< 0.5, mg/l	≤ 50, mg/l
pH	10.5	6-9

Conclusion:

All parameters, except pH, are within range of TLV, which means that wastewater treatment system is effective, but there is room for adjustments and improvment.

Perspective:

Develop a way to adjust the system to shift pH value within range.