

## Central Davis Sewer District Algal ID and Enumeration Report

Prepared: June 1, 2021

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Samples: 2 (Collected on 3/12/21)

1. FB1
2. FB4

### Sample 1: FB1

Total cell numbers in the FB1 sample collected on 3/12/21 were 112,631 cells/mL. Green algae (Chlorophyta; 69,398 cells/mL) were the most abundant algal group in the sample accounting for 61.6% of total cell numbers. Other algal groups in the sample were diatoms (Bacillariophyceae; 38,614 cells/mL), blue-green algae (Cyanobacteria; 3,207 cells/mL), euglenophytes (Euglenophyta; 627 cells/mL) and unknown unicells (Unknown; 785 cells/mL). The most abundant algae in the sample were the colonial chlorophyte *Lobocystis* sp. (47,124 cells/mL; Fig. 1) and a species of centric diatom (36,128 cells/mL; Fig. 2). A total of 36 species were observed in the sample with green algae the most diverse group with 20 taxa.

Total cell numbers of potentially toxigenic cyanobacteria (PTOX Cyano) were 65 cells/mL (0.06% of total cell numbers). PTOX Cyano species observed in the sample included *Oscillatoria* sp. (245 cells/mL; Fig. 3).

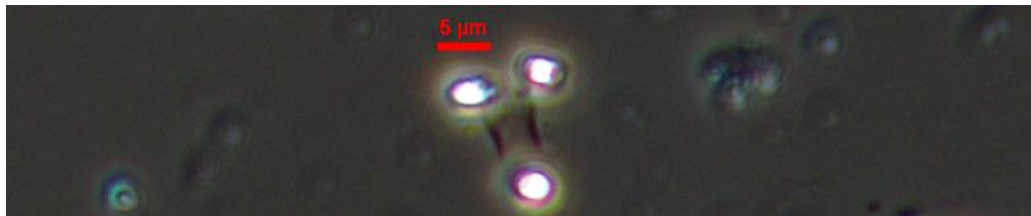


Fig. 1 *Lobocystis* sp. 400X (scale bar = 5 $\mu$ m)

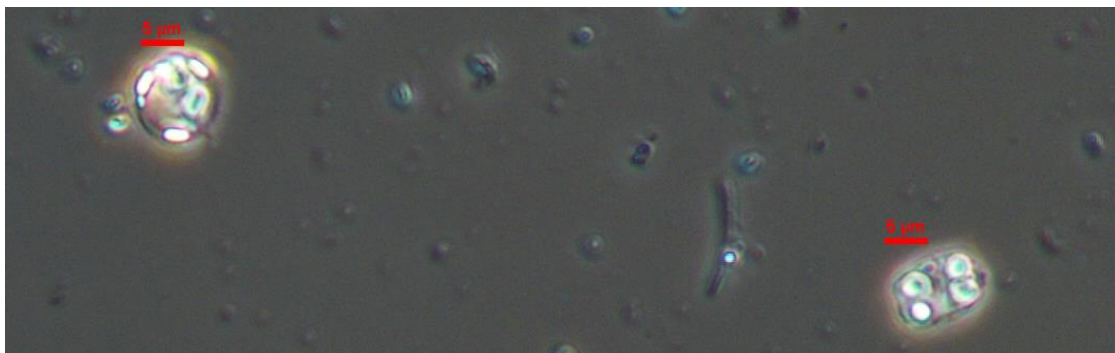


Fig. 2 centric diatom sp. 400X (scale bar = 5 $\mu$ m)



Fig. 3 *Oscillatoria* sp. 400X (scale bar = 5 $\mu$ m)

### Sample 2: FB4

Total cell numbers in the FB4 sample collected on 3/12/21 were 50,063 cells/mL. Green algae (Chlorophyta; 25,765 cells/mL) were the most abundant algal group in the sample accounting for 51.5% of total cell numbers. Other algal groups in the sample were diatoms (Bacillariophyceae; 11,136 cells/mL), blue-green algae (Cyanobacteria; 11,036 cells/mL), euglenophytes (Euglenophyta; 84 cells/mL) and unknown unicells and flagellates (Unknown; 2,042 cells/mL). The most abundant alga in the sample was the colonial chlorophyte *Lobocystis* sp. (11,310 cells/mL; Fig. 4). A total of 53 species were observed in the sample with green algae the most diverse group with 22 taxa.

Total cell numbers of potentially toxigenic cyanobacteria (PTOX Cyano) were 147 cells/mL (0.3% of total cell numbers). PTOX Cyano species observed in the sample included *Oscillatoria* sp. (82 cells/mL) and *Phormidium* sp. (65 cells/mL).

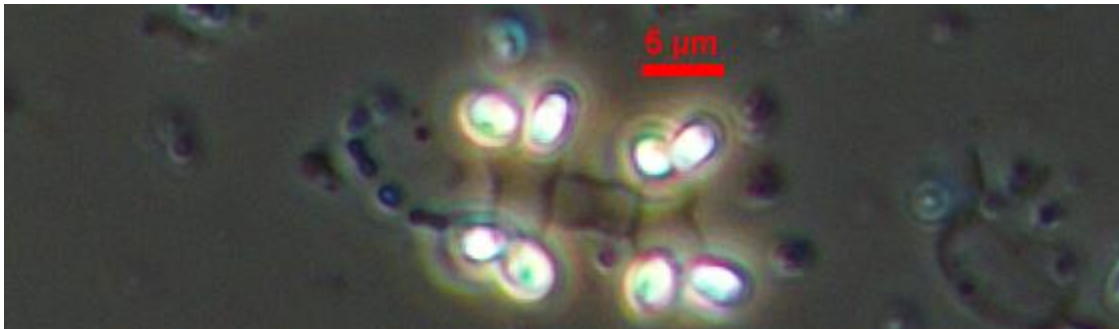


Fig. 4 *Lobocystis* sp. 400X (scale bar = 5 $\mu$ m)