



DEFENSE LOGISTICS AGENCY

THE NATION'S COMBAT LOGISTICS SUPPORT AGENCY



DFSP NORWALK

**Second Semiannual 2019
Groundwater Monitoring Event**

February 27, 2020



WARFIGHTER FIRST

FOR OFFICIAL USE ONLY



Overview



- **Fieldwork was conducted October 28 – November 7, 2019.**
- **Well gauging and groundwater sample collection was conducted by The Source Group and Blaine Tech.**
- **185 wells were gauged (treatment systems were off line).**
- **135 groundwater samples were collected from 119 wells using low-flow methodology (including duplicate, split, and confirmation samples)**



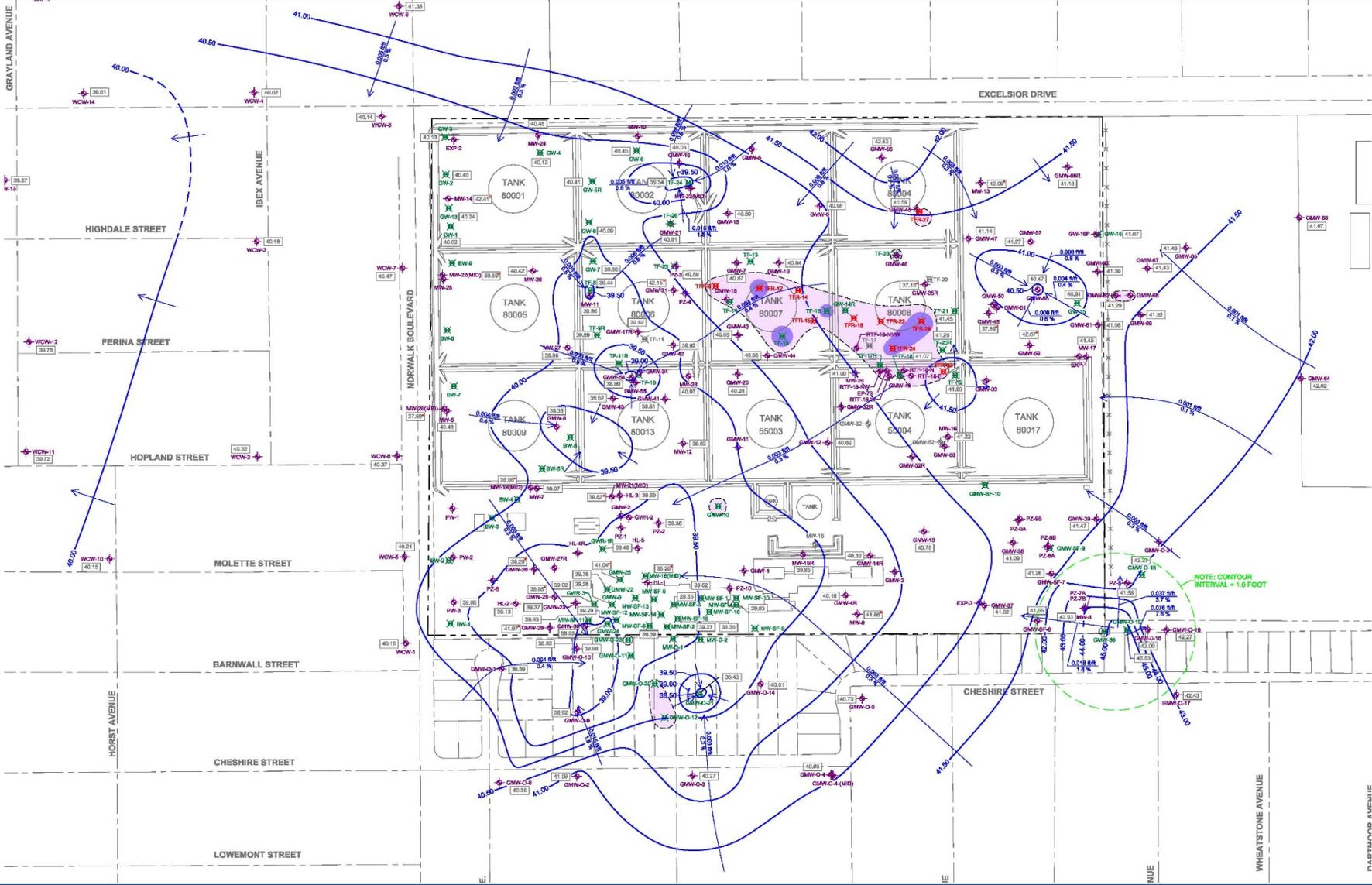
Groundwater Elevations & Gradient – Uppermost Aquifer



- **Depth to Groundwater ranged from 29.28 to 41.18 feet below top of well casings.**
- **Elevations dropped an average of 1.36 foot since the April 2019 monitoring event.**
- **The groundwater surface was generally characterized by a groundwater depression in the south-central area with gradients converging toward this depression.**



Groundwater Equipotential and Gradient Map – Uppermost Groundwater Zone – October / November 2019





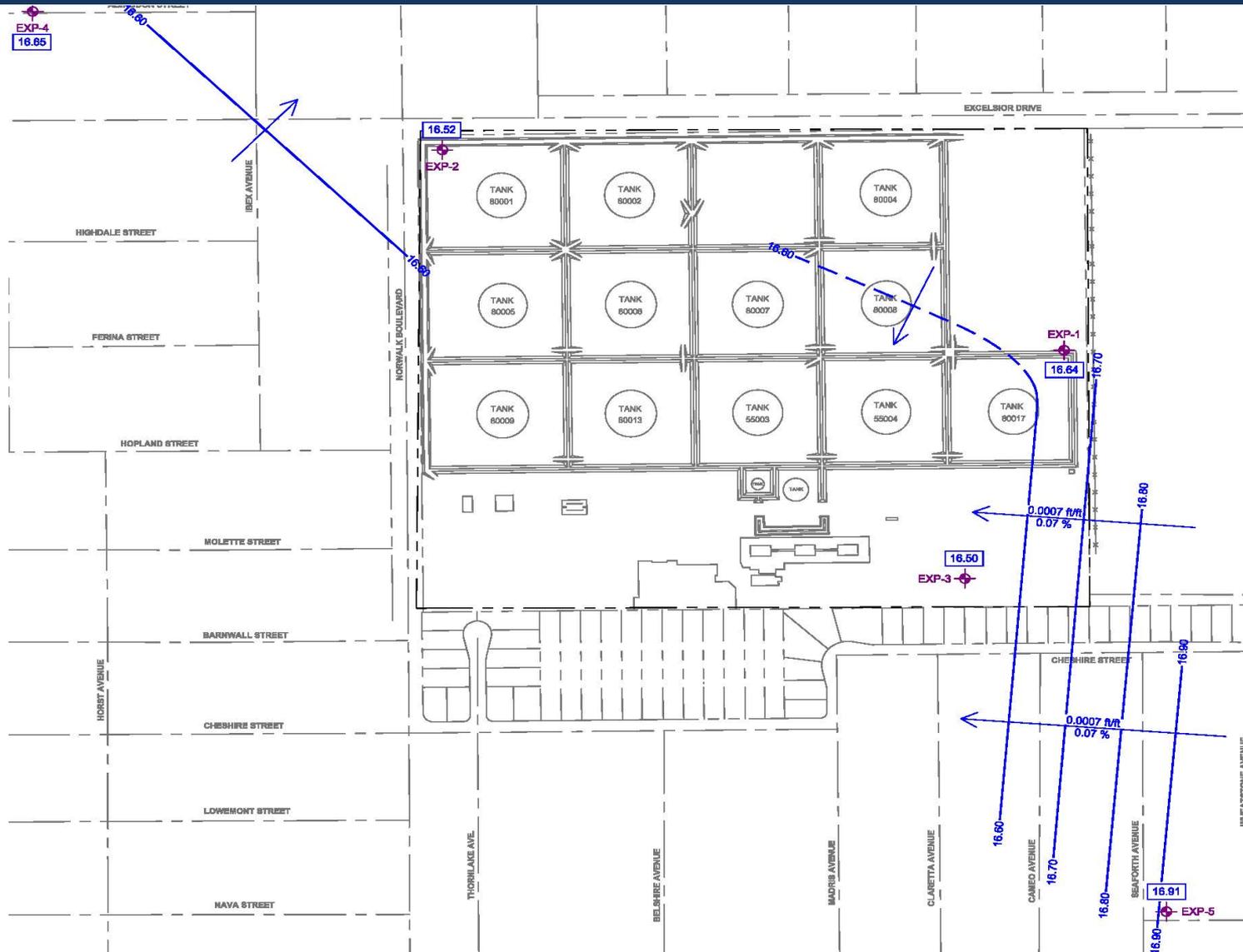
Groundwater Elevations and Gradient – Exposition Aquifer – October 28, 2019



- **Depth to Groundwater ranged from 55.50 to 63.16 feet below top of well casings.**
- **Elevations dropped an average of 1.22 foot since the April 2019 monitoring event.**
- **The groundwater gradient beneath the site was generally flat.**



Groundwater Equipotential and Gradient Map – Exposition Aquifer – October 28, 2019





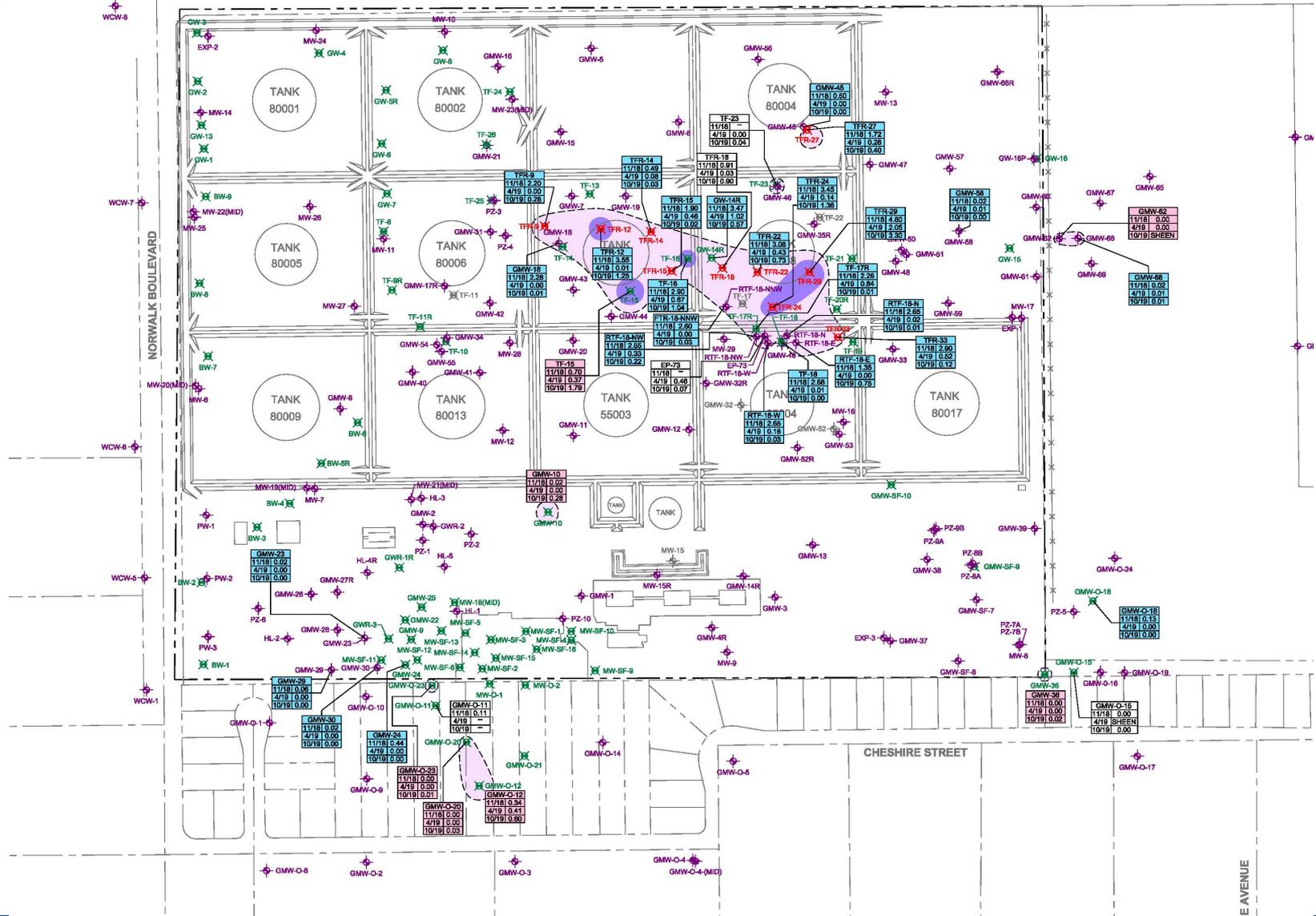
Floating Product



- **Floating product was measured or observed in 29 of the 185 wells gauged during this monitoring event.**
- **Since April 2019, measured product thicknesses increased in 19 wells and decreased in 12 wells.**
- **Product was observed in four areas of the site:**
 - **North-Central Area: Floating product was measured in 22 wells ranging from 0.01 to 3.30 feet,**
 - **Eastern Area: Floating product was present in two wells (a hydrocarbon sheen in GMW-62 and 0.01 foot in GMW-68),**
 - **South-Central Area: Floating product was measured in four wells ranging from 0.01 to 0.60 foot, and**
 - **Southeastern Area: Floating product was measured in one well (0.02 foot in GMW-36).**



Floating Product Plumes – October / November 2019





Groundwater Sampling – Uppermost Groundwater Zone



- Overall, results were similar to previous sampling events.
- TPH as Gasoline were reported in 21 of the 119 sampled wells (maximum: 28,000 µg/L in GMW-O-14).
- TPH as Diesel were reported in 59 of the 119 sampled wells (maximum: 47,000 µg/L in GMW-23).
- Benzene was reported in 19 of the 119 sampled wells (maximum: 13,000 µg/L in GMW-O-14).
- 1,2-DCA was reported in 11 of the 119 sampled wells (maximum: 11 µg/L in GMW-O-10).
- MTBE was reported in 22 of the 119 sampled wells (maximum: 530 µg/L in GMW-O-15).
- TBA was reported in 19 of the 119 sampled wells (maximum: 54,000 µg/L in PZ-5).



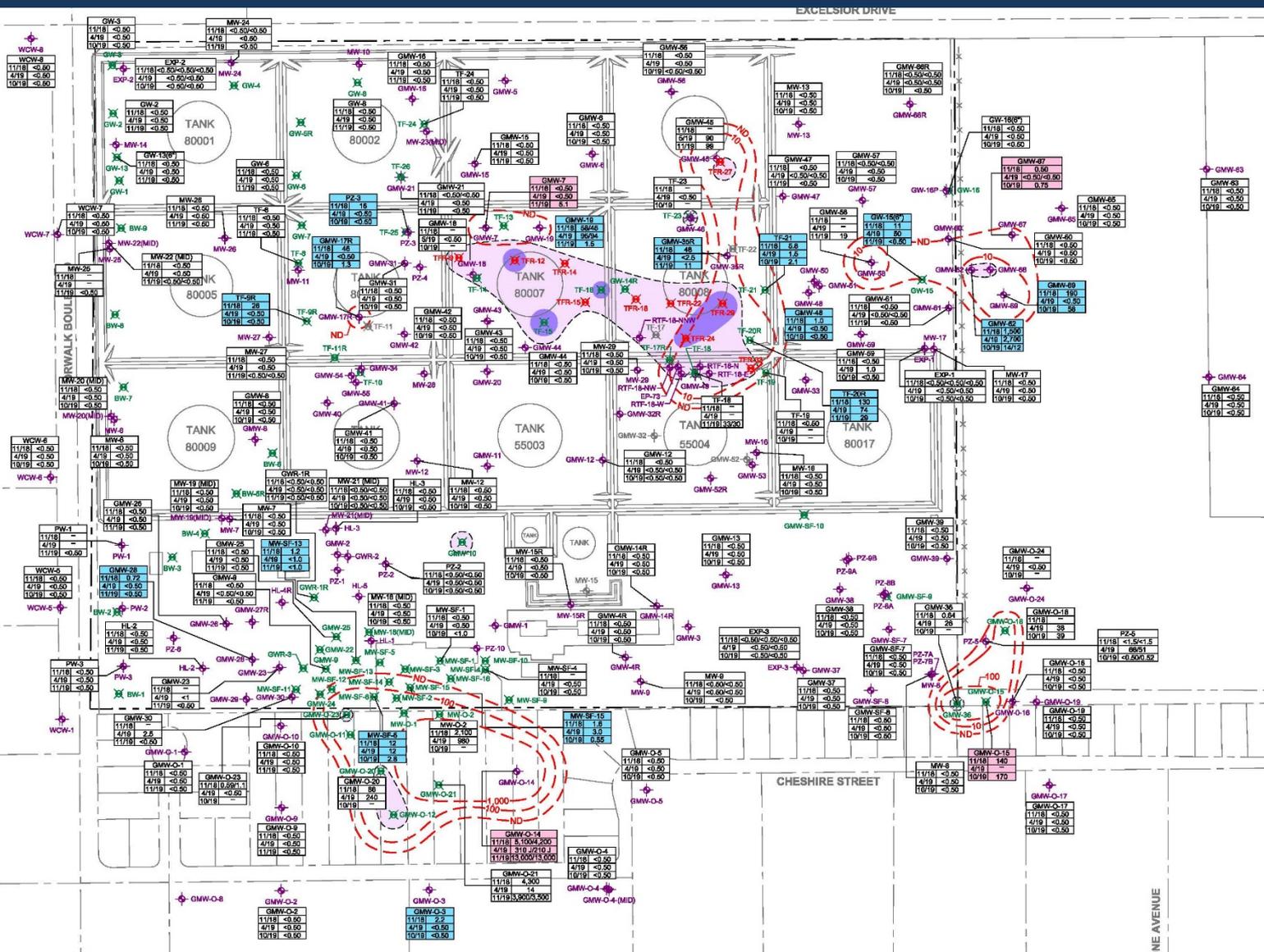
Groundwater Sampling – Exposition Aquifer



- **Split samples were collected from EXP-1, EXP-2, and EXP-3 by both The Source Group and Blaine Tech.**
- **Samples were collected from EXP-4 and EXP-5 by Blaine Tech.**
- **56 µg/L TPH as diesel were reported in Blaine Tech's sample collected from EXP-2, but was not detected (<100 µg/L) in SGI/Apex's split sample.**
- **Samples from EXP-1, EXP-3, EXP-4, and EXP-5 were non-detect for all analytes.**

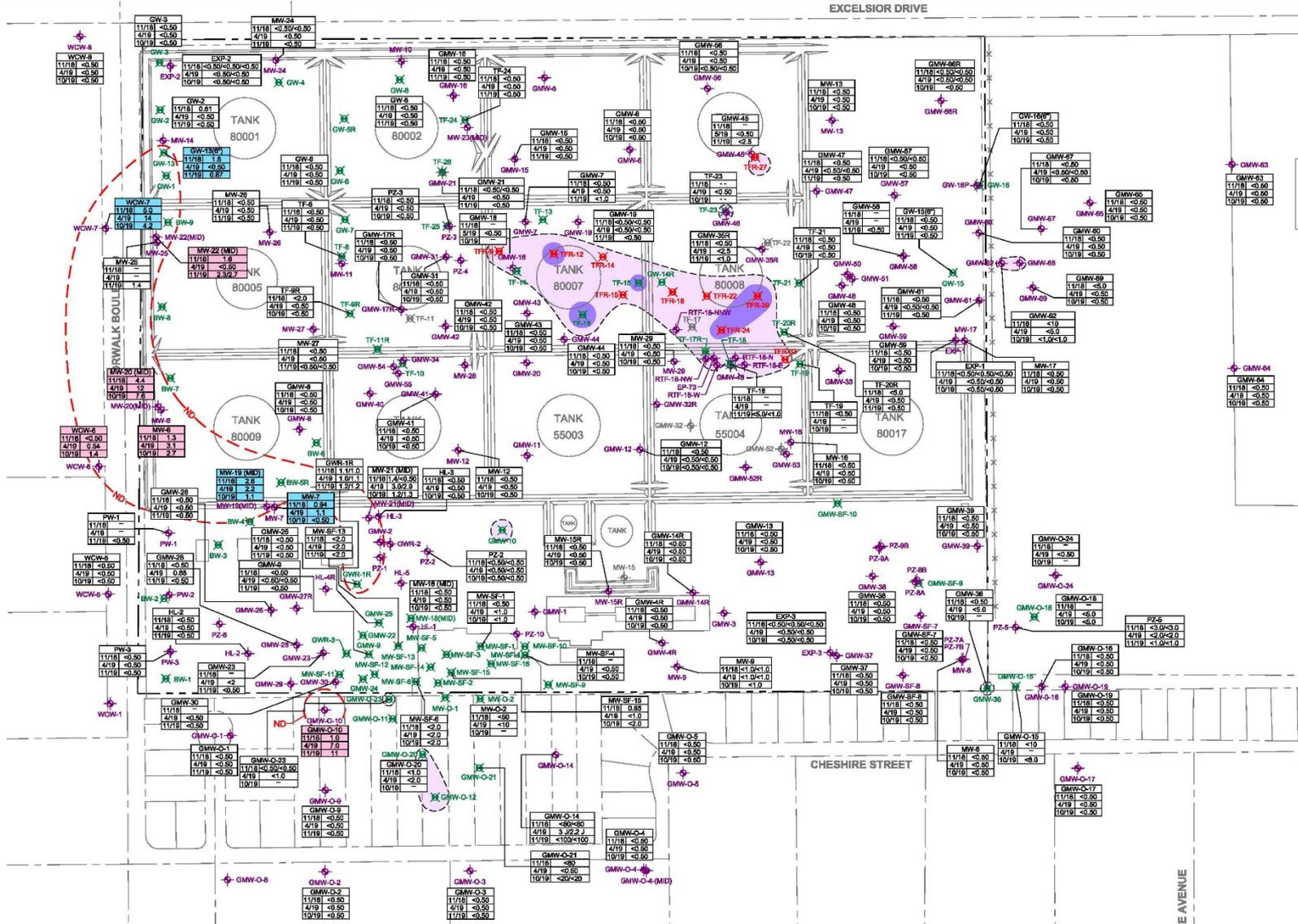


Benzene in Groundwater – October / November 2019





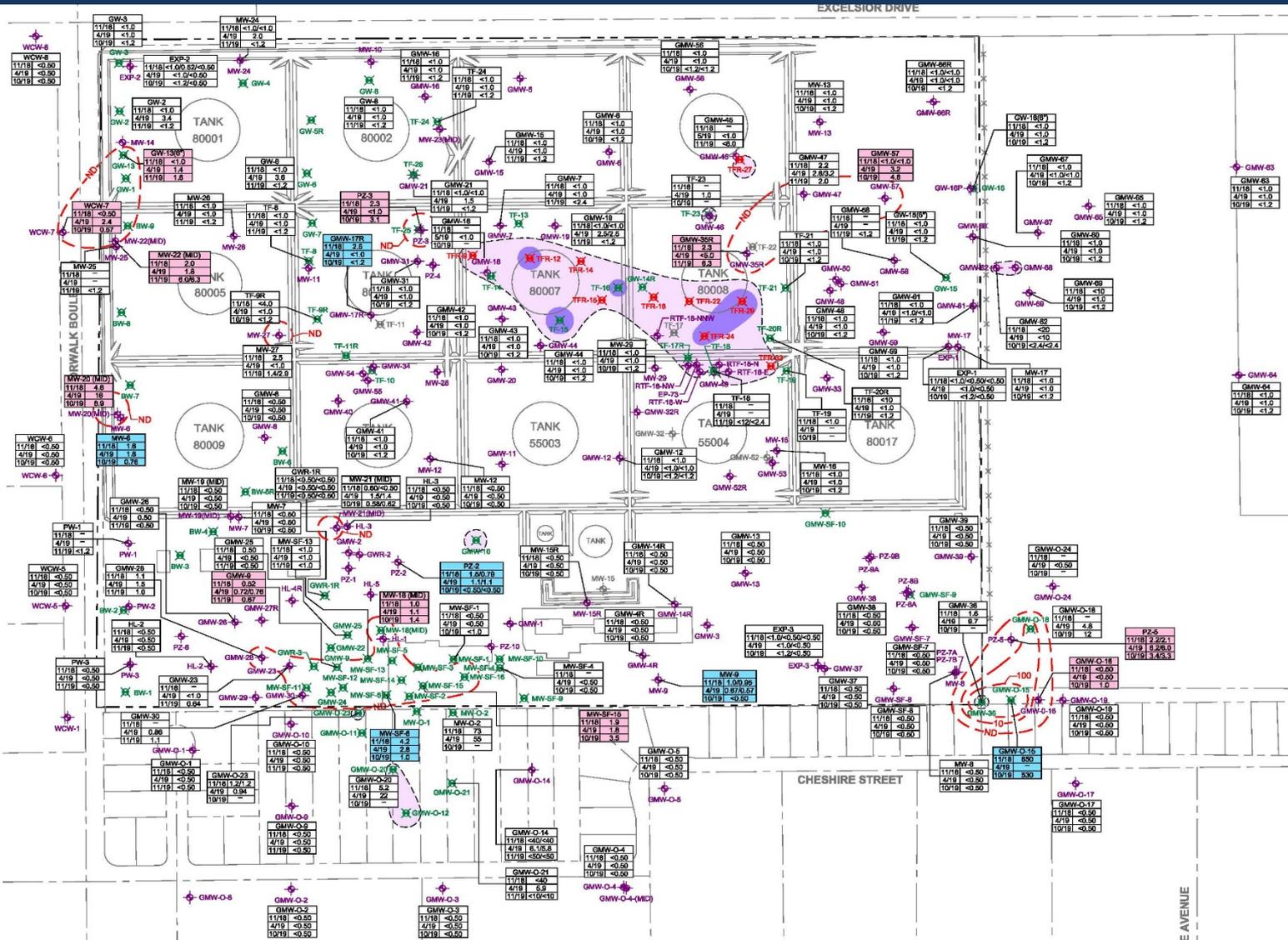
1,2-Dichloroethane in Groundwater October / November 2019





Methyl tertiary-Butyl Ether in Groundwater

October / November 2019





tertiary-Butyl Alcohol in Groundwater

October / November 2019

