

Community Advisory Group Update

10 June 2021



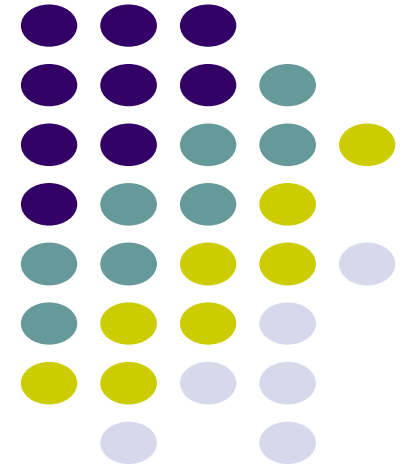
700s 1600E PCE PLUME SITE

Shannon Smith – CERCLA Program Manager

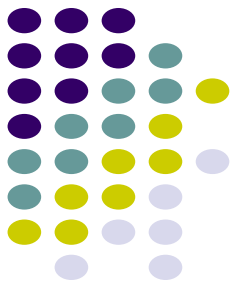
Susanne Fairclough – CERCLA Contracts Manager

Wynn John – CERCLA Technical Manager

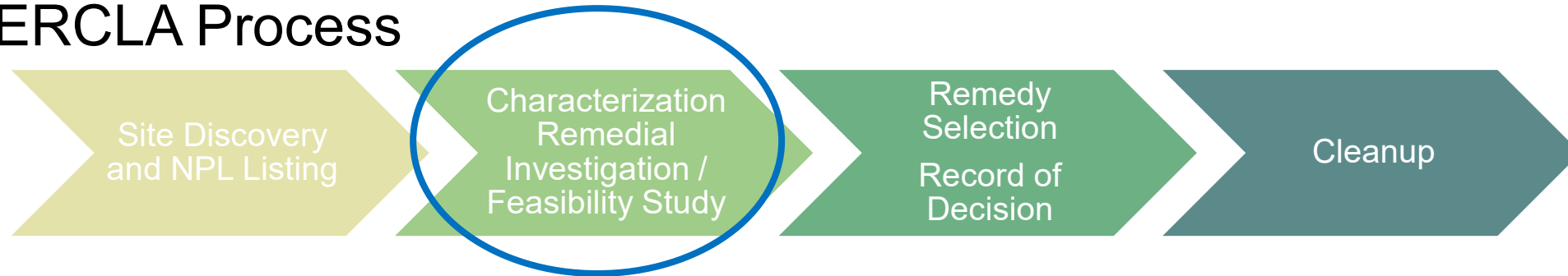
VETERANS HEALTH ADMINISTRATION – SLC VAMC



700s 1600E PCE PLUME SITE OVERVIEW



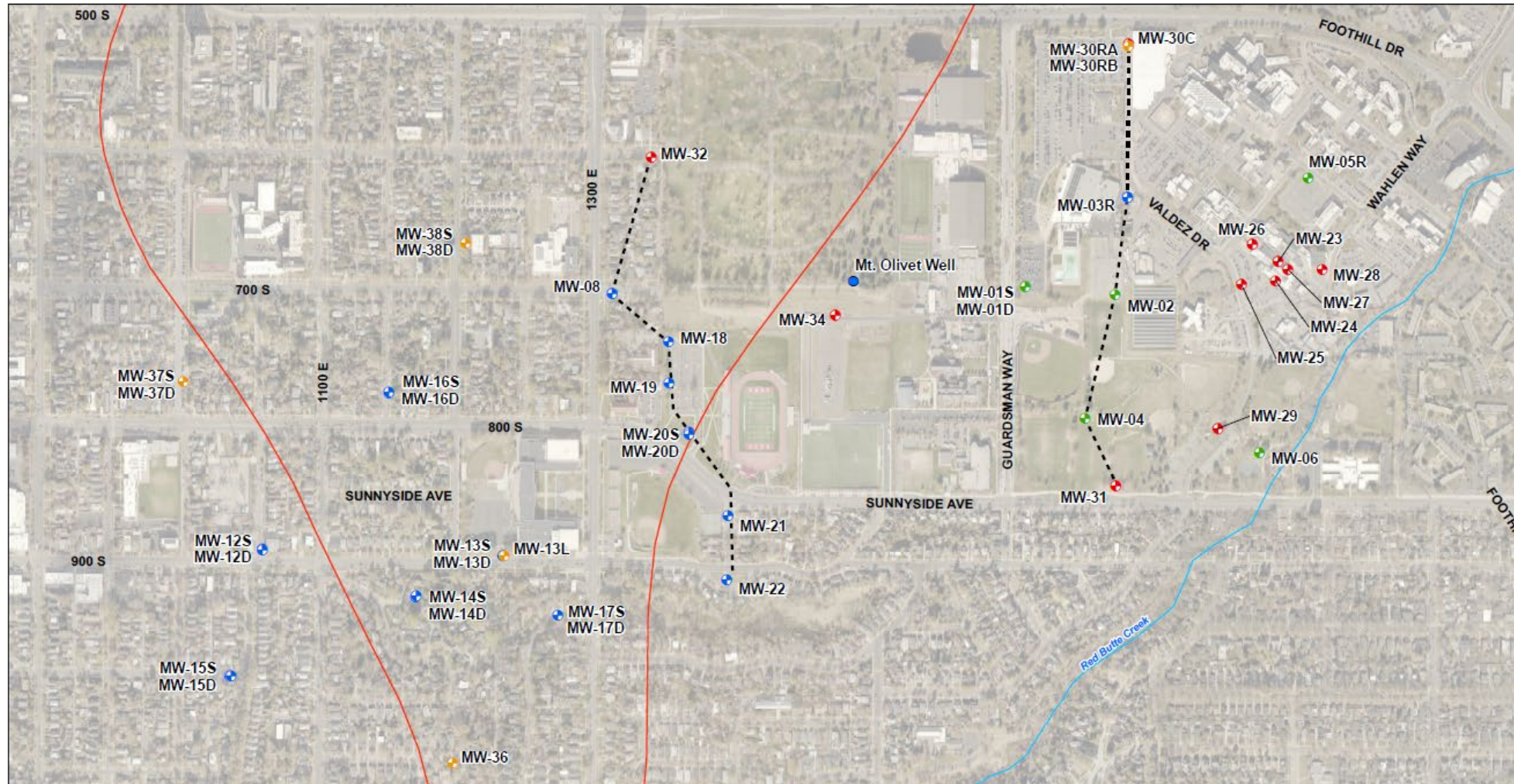
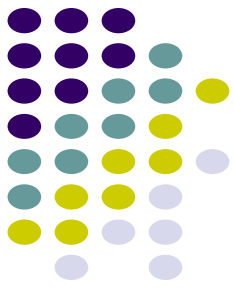
CERCLA Process



Define the problem... then evaluate solutions

- Installed monitoring wells to determine the groundwater plume boundaries (length, width, & depth)
- Collected data to determine groundwater plume conditions (such as possible migration and changes in concentration trends)
- Collected groundwater, surface water, soil gas, and indoor air samples to evaluate potential exposures and risk

GROUNDWATER MONITORING WELL NETWORK



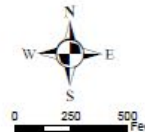
Legend

- Installed during pre-RI investigation activities
- Installed during OU2 investigation activities
- Installed during Phase 1 OU2 investigation activities
- Installed during Phase 2 OU1 investigation activities
- Irrigation Well
- Monitoring Well Transect Line
- Red Butte Creek
- Fault Line

Notes

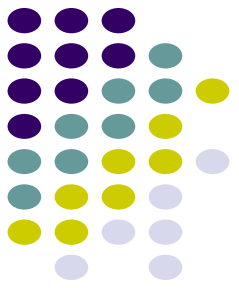
1. Location IDs MW-07, MW-09, MW-10 and MW-11 were not used. MW-33 and MW-35 were not installed.

- OU = operable unit
- RI = remedial investigation
- PCE = tetrachloroethene
- MW = monitoring well



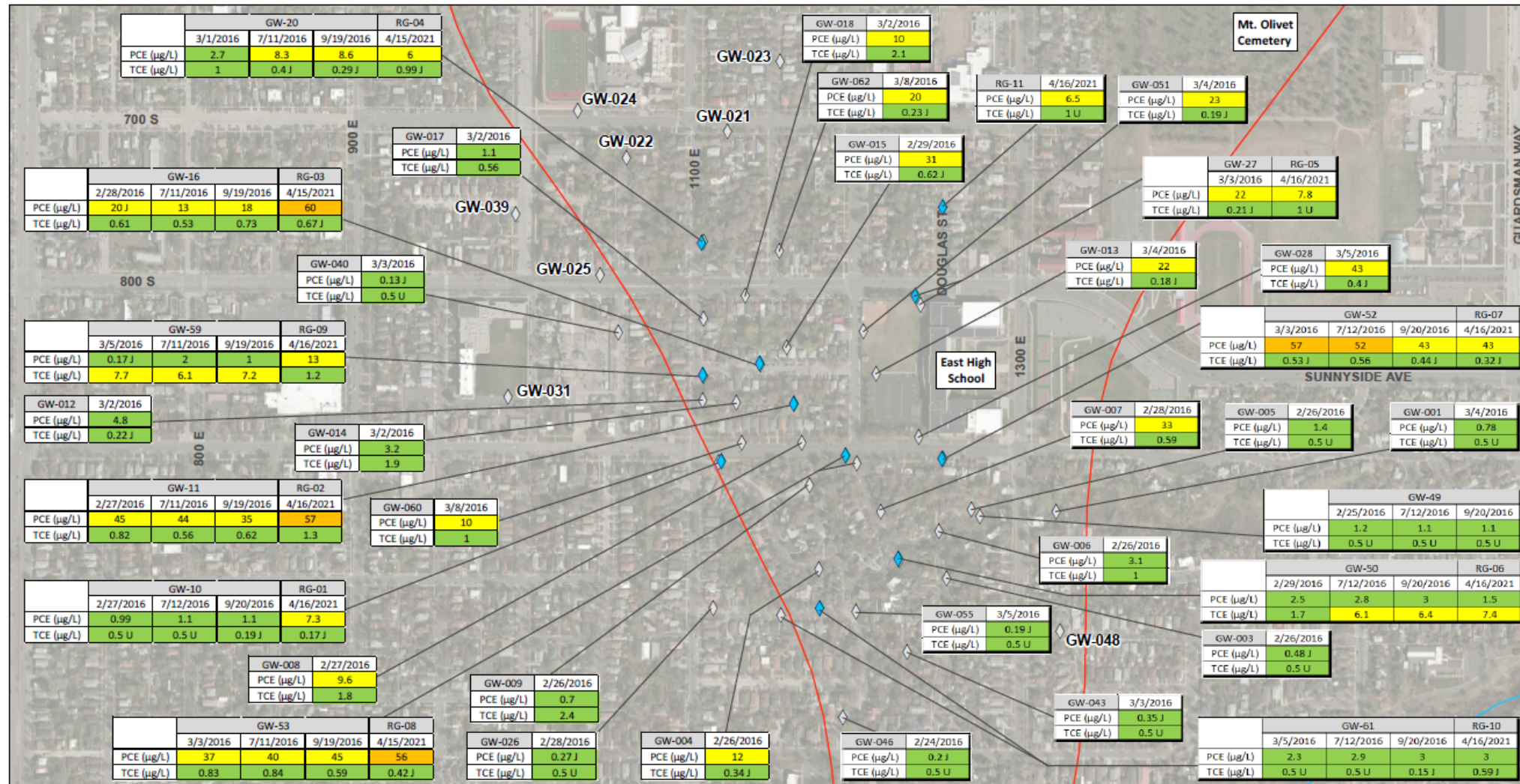
**CDM
Smith**

FIELDWORK ACTIVITIES COMPLETED (DEC 2020-MAY 2021)



- Installed 11 permanent shallow monitoring wells (RG-1 through RG-11) north, south & west of East High School
 - Most wells were previous temporary well locations (less than 30 feet deep)
 - Permanent replacement wells were installed to evaluate vapor intrusion potential
- Groundwater sampling completed at all new wells in December 2020 and March 2021
 - Collected data to determine plume conditions (such as migration and changes in concentration trends)

RESIDENTIAL (RG) MONITORING WELLS



Legend

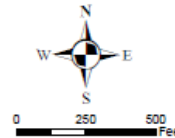
- ◆ 2021 GW Location
- ◆ 2016 GW Location
- ~ Red Butte Creek
- ~ Fault Line

PCE and TCE Concentrations (µg/L)

- < 5 µg/L
- 5 - 50 µg/L
- > 50 µg/L

Notes:

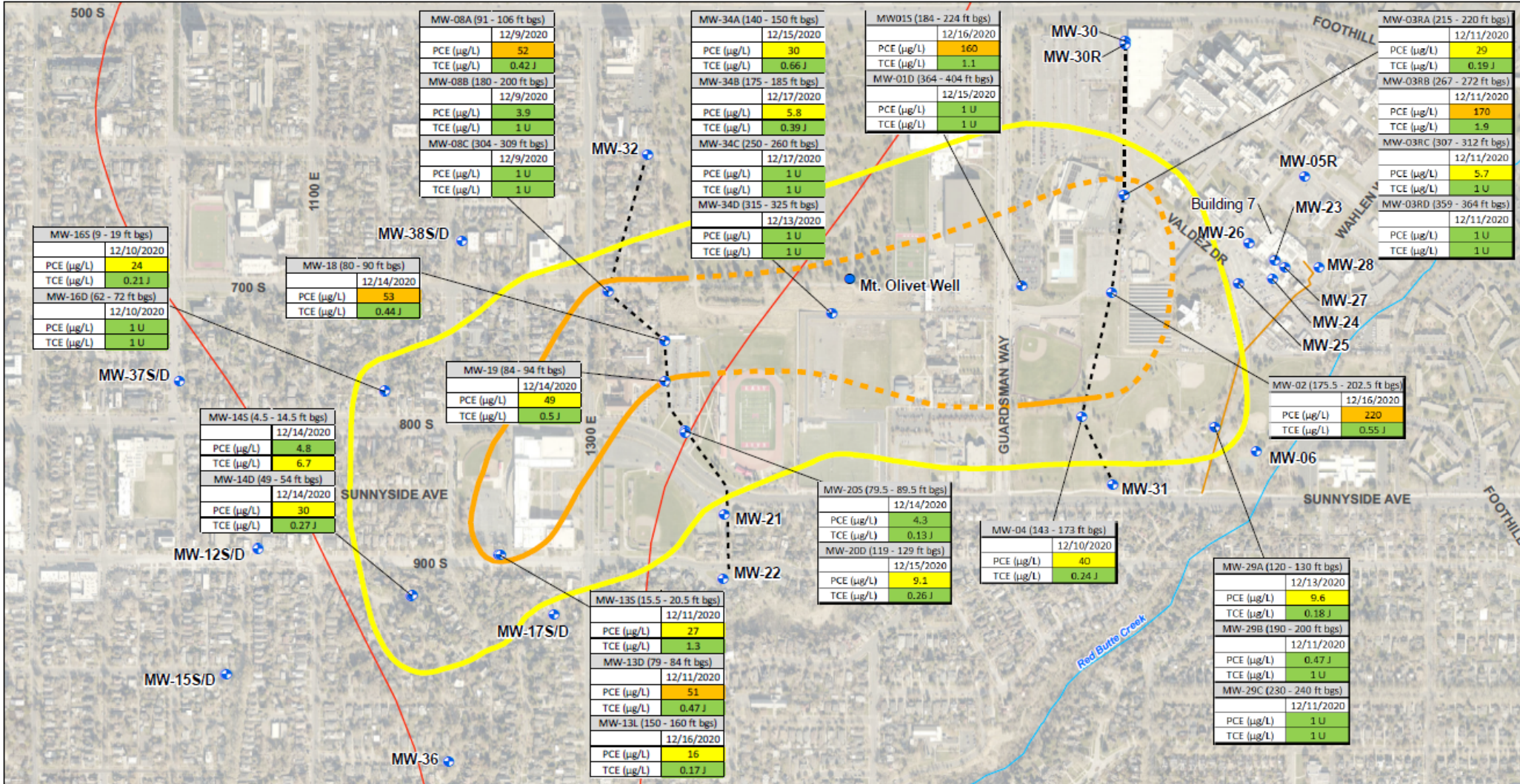
1. Groundwater sample locations without a result table did not have detectable results.
- OU = operable unit µg/L = micrograms per liter
PCE = tetrachloroethene J = Result is estimated
TCE = trichloroethene U = Analyte was not detected at the associated value



Residential Groundwater Monitoring Wells

OU1 700 South 1600 East PCE Plume
Salt Lake City, Utah

GROUNDWATER MONITORING RESULTS



- Legend**
- Monitoring Well
 - Irrigation Well
 - Monitoring Well Transect Line
 - Red Butte Creek
 - Sewer Line
 - Fault Line

PCE and TCE Concentrations (µg/L)

- < 5 µg/L
- 5 - 50 µg/L
- > 50 µg/L

PCE Contours

- 5 µg/L
- 50 µg/L

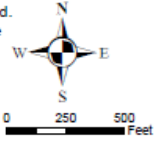
Dashed Line - Inferred Extent

Notes

- Monitoring wells without a result table did not have results above 5 µg/L during Q4 2020 groundwater sampling event.
- Proposed monitoring wells MW-07, MW-09, MW-10, MW-11, MW-33, and MW-35 were not installed.
- Plume contours were developed using Leapfrog 3-dimensional visualization software to interpolate data from the Q4 2020 groundwater sampling event. The contours represent a top-down view of the 3-dimensional extent of the plume as interpreted in the Leapfrog software.

OU = operable unit
 PCE = tetrachloroethene
 TCE = trichloroethene
 µg/L = micrograms per liter

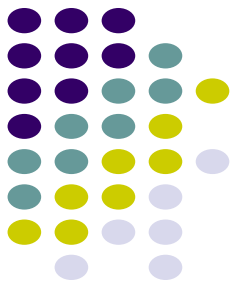
ft bgs = feet below ground surface
 J = Result is estimated
 U = Analyte was not detected at the associated value



Q4 2020 Groundwater PCE and TCE Results and Approximate Extent of PCE in Groundwater

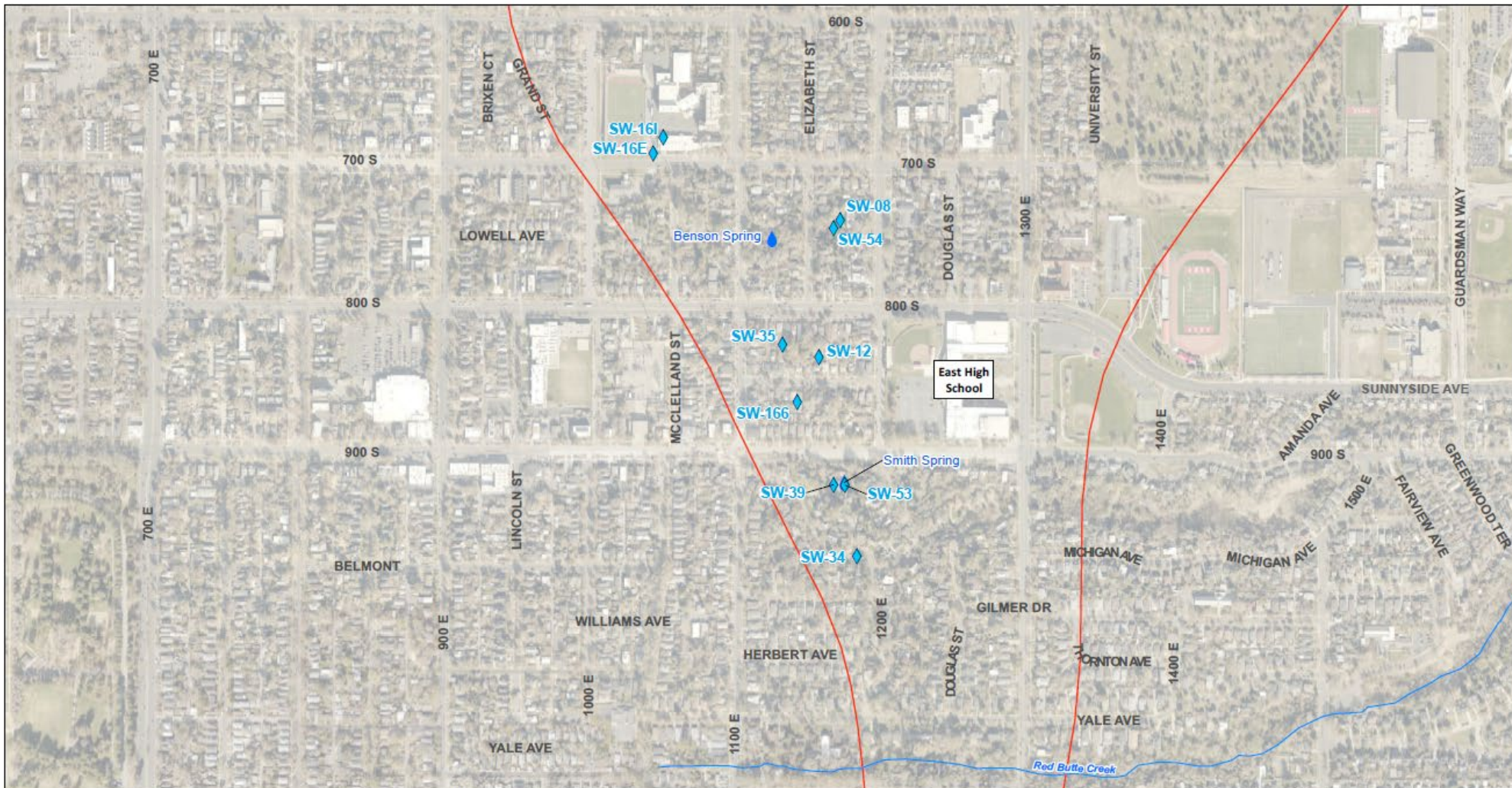
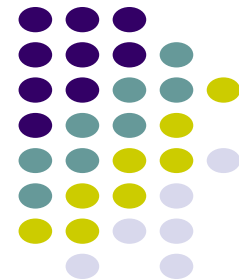
OU1 700 South 1600 East PCE Plume Salt Lake City, Utah

FIELDWORK ACTIVITIES COMPLETED (DEC 2020-MAY 2021)



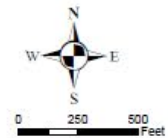
- Soil Vapor sampling completed in March 2021 at new RG well locations
 - Five of the new shallow wells included permanent soil vapor sampling points
 - Soil gas measurements collected to determine potential for vapor intrusion
 - Groundwater also collected from new RG wells to assess VI potential
- Seep and Springs sampling completed in April 2021
 - Measured flow rates of springs for use in groundwater model
 - Laboratory samples were collected to evaluate current conditions

SURFACE WATER SAMPLING LOCATIONS



- Legend**
- ◆ Surface Water or Spring Sample Location
 - Spring Location
 - ~ Red Butte Creek
 - ~ Fault Line

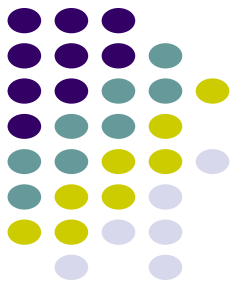
Notes:
 SW = surface water sampling location
 OU = operable unit
 PCE = tetrachloroethene



Q1 2021 Surface Water and Spring Sampling Locations

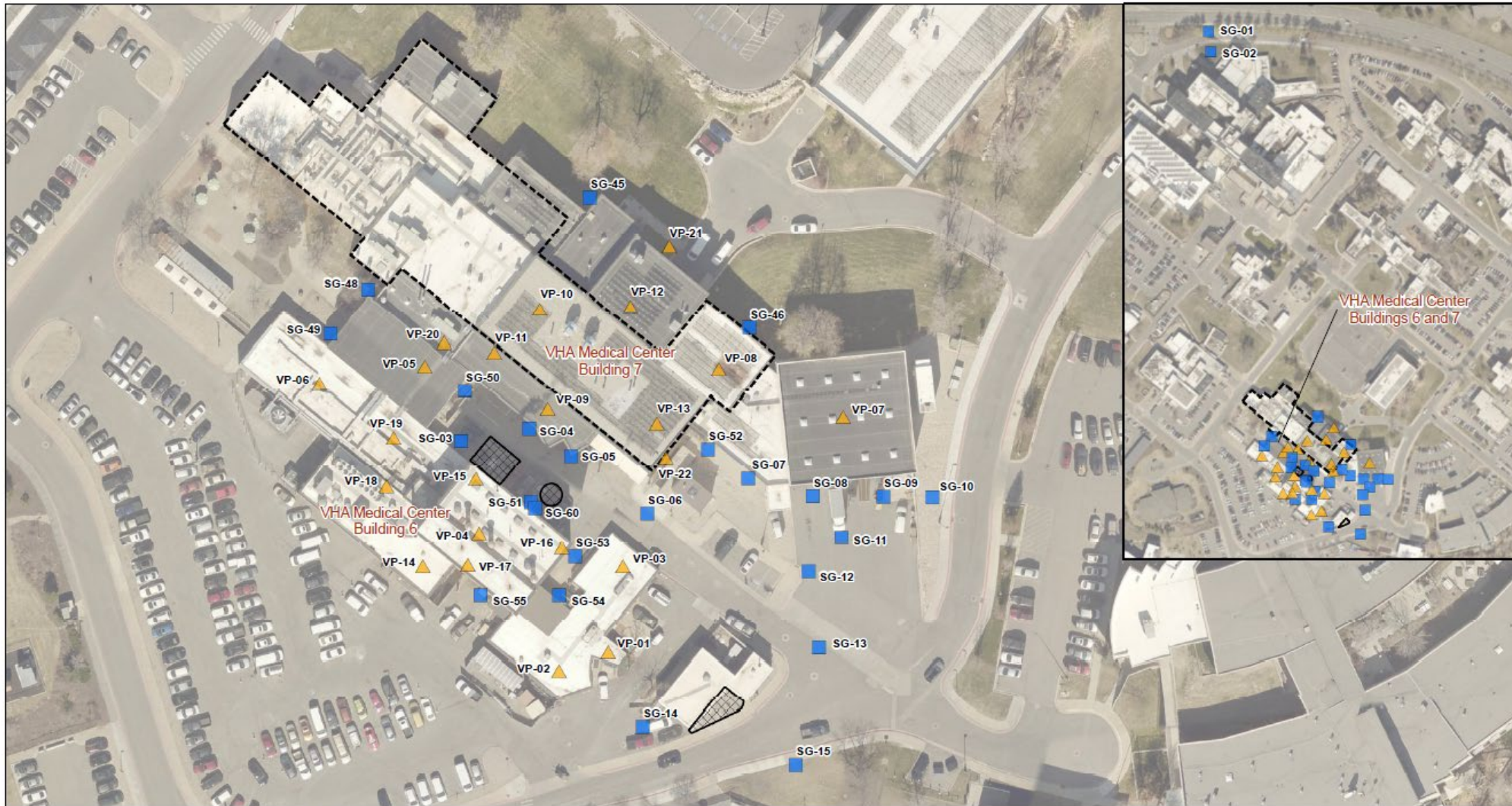
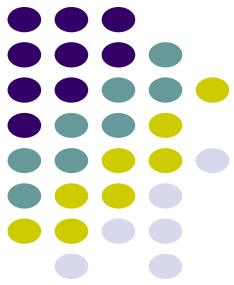
700 South 1600 East PCE Plume
 Salt Lake City, Utah

FIELDWORK ACTIVITIES COMPLETED (DEC 2020-MAY 2021)



- VA campus soil gas sampling completed in March 2021
 - Soil vapor points were previously installed near suspected source areas
- Indoor air sampling conducted at Bldgs 6 & 7 on VA campus
 - Confirmation sampling showed very low levels of PCE and TCE
 - Concentrations were well below the risk-based screening level

VA CAMPUS SOIL GAS SAMPLE LOCATIONS



Legend

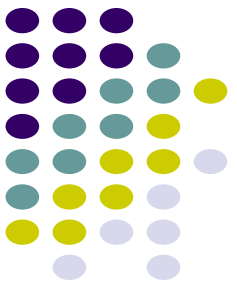
- Soil Vapor Probe
- ▲ Vapor Pin
- Perimeter of Building 7 in 1981
- Underground Storage Tank or Foundation

Notes:

- Soil gas probe SG-16 was not installed.
- SG = soil gas probe
- VP = vapor pin. Locations for vapor pins are approximate.
- VHA = Veterans Health Administration
- PCE = tetrachloroethene
- OU = operable unit

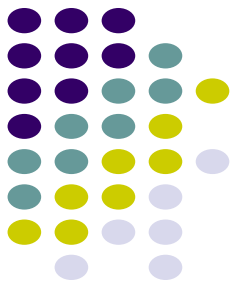


UPCOMING FIELDWORK (JUN-DEC 2021)



- Groundwater sampling planned for June, Sep, and Dec 2021
- Vapor Intrusion sampling planned for winter (Nov-Mar) 2021/22

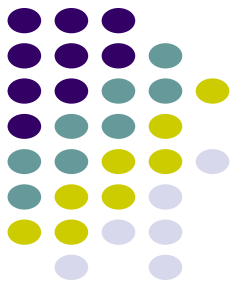
VAPOR INTRUSION TECHNICAL MEMO - TASC Q&As



Q. Should future vapor intrusion sampling continue to include PCE, TCE and DCE, vinyl chloride and 1,4-dioxane?

A. A human health and ecological risk assessment is currently being completed as a part of the Remedial Investigation. “Contaminants of concern” (COCs) for the site will be formally identified in the risk assessment. Determination of COCs is based on toxicity of the contaminant and the concentrations and frequency of detections, as well as the potential risk to human health and the environment.

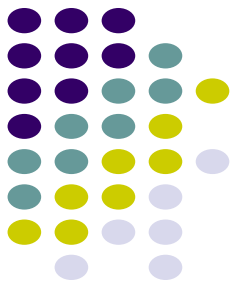
VAPOR INTRUSION TECHNICAL MEMO - TASC Q&As



Q. Should future sampling continue to use Summa canisters (vs. passive samplers) so that all the site-related chemicals that contribute to risk can be measured?

A. Both Summa canisters and passive samples can provide high quality data, and there are “pros and cons” for both methods. The best sampling approach will be largely determined by the COCs determined in the risk assessment, and the most effective and efficient methods to meet future data quality objectives.

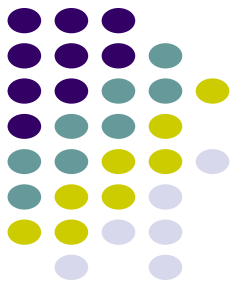
VAPOR INTRUSION TECHNICAL MEMO - TASC Q&As



Q. Is any more investigation planned to determine whether there may be vapor intrusion risk at the eight prioritized homes not sampled in 2019-2020?

A. Indoor air sampling is planned for winter (Nov-Mar) 2021/22. The sampling is open to anyone living in the PCE impacted area. Door hangers, flyers, community notices, and social media posts will be used to get the word out about indoor air sampling to try and increase the number of homes in the sampling program.

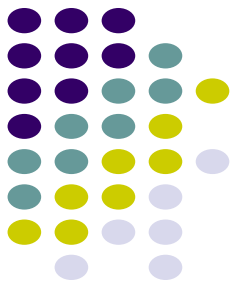
VAPOR INTRUSION TECHNICAL MEMO - TASC Q&As



Q. Why was only one home sampled for vapor intrusion in the area of highest PCE concentrations?

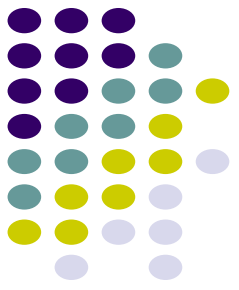
A. The higher concentration areas of this PCE plume coincide with the deeper groundwater depths. Vapor intrusion is most likely to occur in structures where the underlying contaminated groundwater is shallow (<30ft). The focus of more recent indoor air sampling has been structures where groundwater is very shallow or surfaces (near seeps and springs) where VI potential increases.

VAPOR INTRUSION TECHNICAL MEMO - TASC Q&As



Q. Would it be more appropriate to calculate risks using both detected levels and detection limits?

A. The screening-level risk estimates presented in this technical memo are only preliminary and intended to convey initial information on potential exposures from indoor air, which is why focus is on detected concentrations only. The human health risk assessment will include risk calculations that incorporate information based on both detects and non-detects and will evaluate the adequacy of the laboratory reporting and detection limits.



AVAILABLE DOCUMENTS TO REVIEW

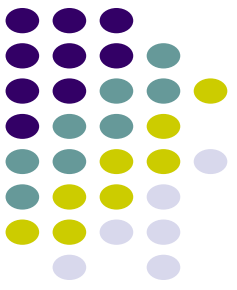
- Final Remedial Investigation Workplan Phase 2
- Final Quality Assurance Project Plan
- Final 2021 Q2 Groundwater Data Summary Report
- Final Community Involvement Plan

- *Draft Remedial Investigation Report (available late Aug 2021)*

Final Documents available at pceplume.org/administrative-record

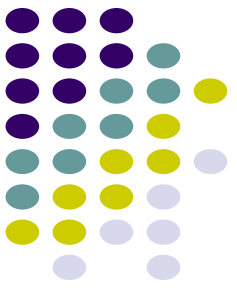
Draft Documents available by request: VHASLCSuperfund@va.gov

PCE PLUME WEBSITE: PCEPLUME.ORG



- Website contents include
 - Site History – *How did we become a Superfund site?*
 - Site Progress – *What's been accomplished and what's next?*
 - Community Involvement – Community Advisory Group info
 - Upcoming Events – Info for meetings and sampling events
 - Contact Form – Send us your questions or request sampling
 - Photos of fieldwork, FAQs, and more...

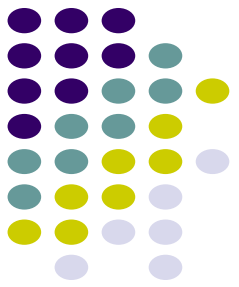
PCE PLUME WEBSITE: PCEPLUME.ORG



- Administrative Record
 - Contains documents regarding the environmental testing and sampling conducted at the site. The documents form the basis for environmental response actions and provide the public an opportunity to participate and comment on the response action selection process.

NEXT MEETING AND QUESTIONS

Next Meeting: 9 Dec 2021



Agenda items for next meeting?

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