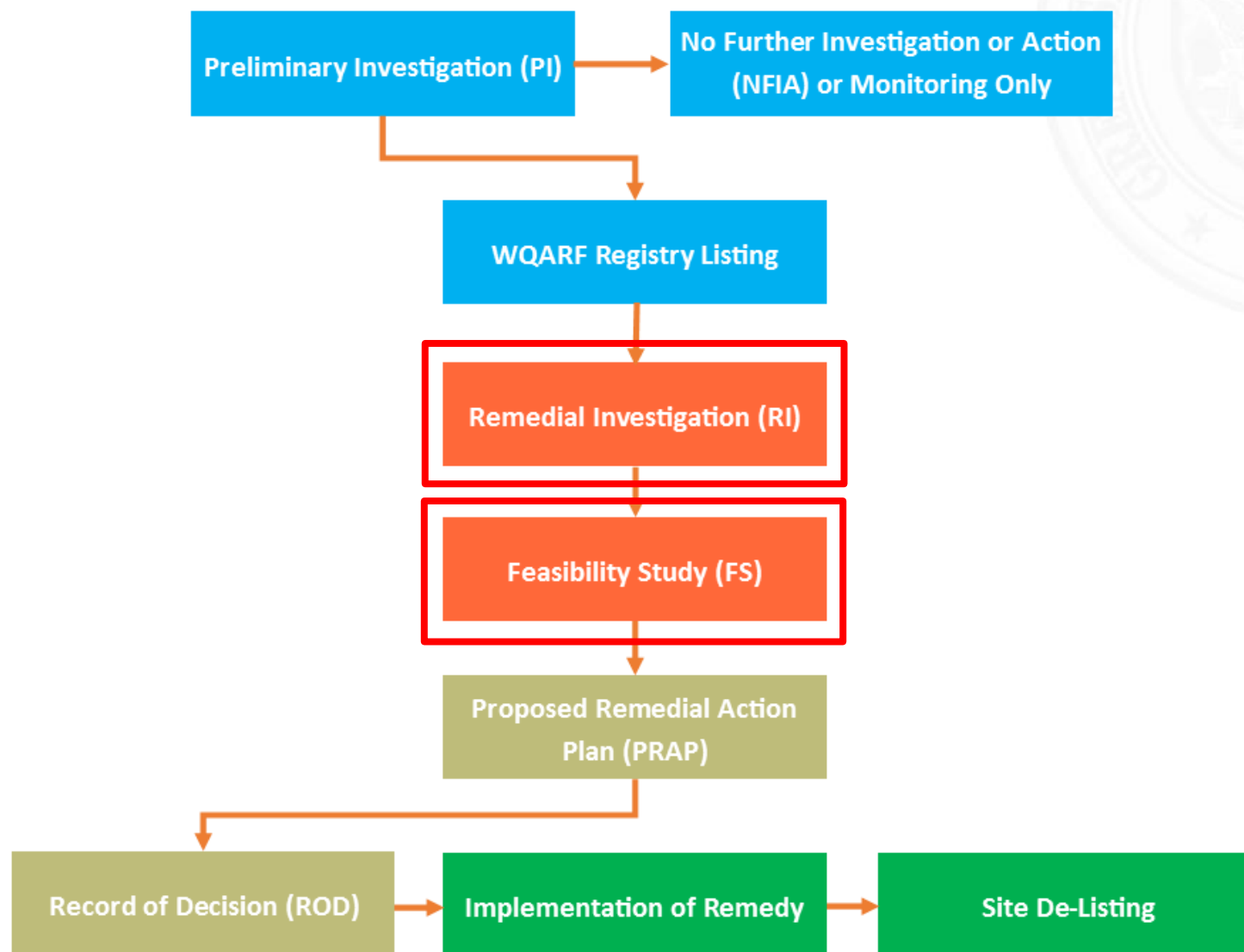




# 32<sup>nd</sup> Street & Indian School Road and 24<sup>th</sup> Street & Grand Canal WQARF Sites Draft Remedial Investigation Reports

April 22, 2019

# WQARF Phases



## R18-16-406 (A)

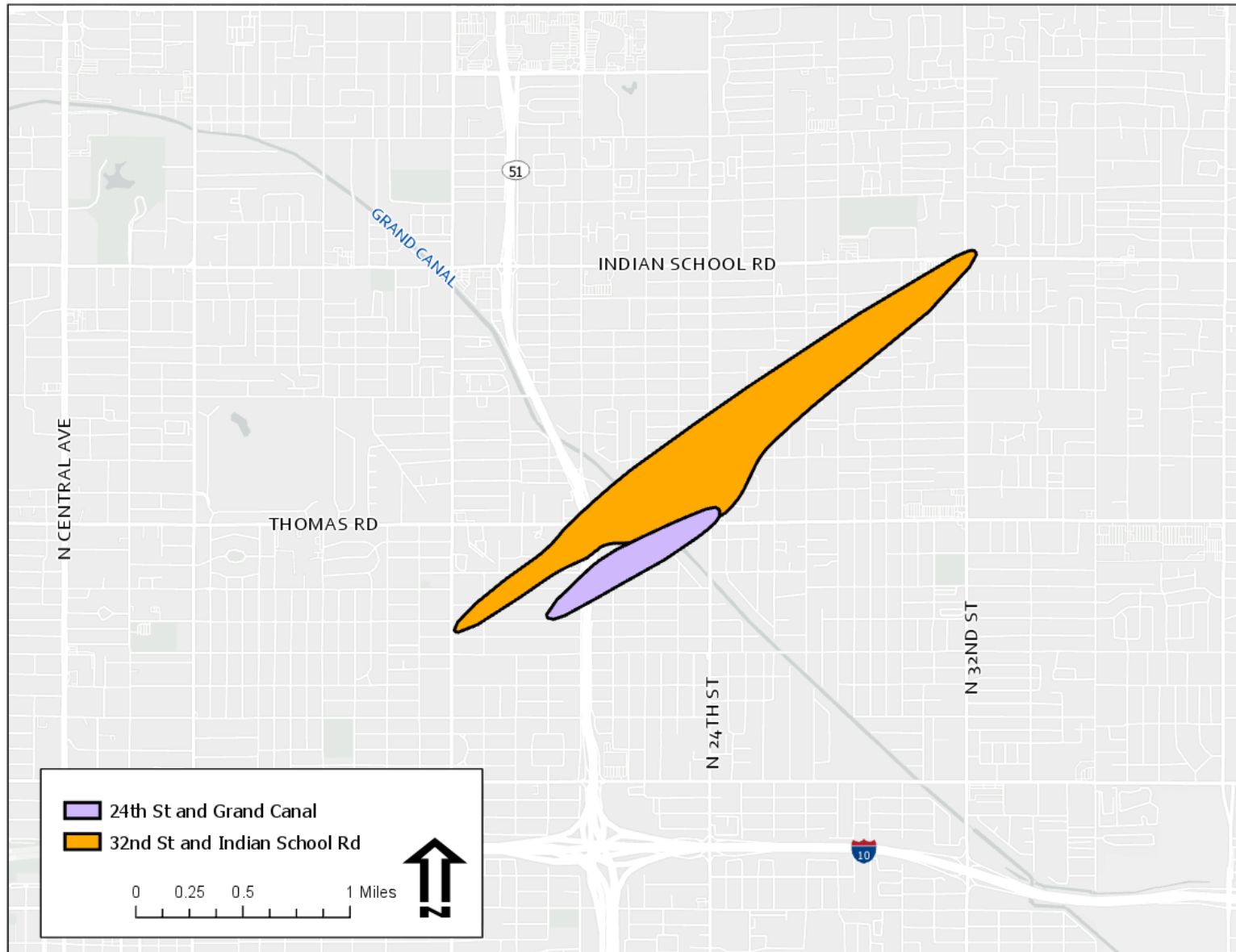
The remedial investigation for a site or portion of a site shall:

1. Establish the nature and extent of the contamination and the sources thereof,
2. Identify current and potential impacts to public health, welfare, and the environment,
3. Identify current and reasonably foreseeable uses of land and waters of the state, and
4. Obtain and evaluate any other information necessary for identification and comparison of alternative remedial actions



32<sup>nd</sup> Street and Indian School Road

# WQARF Site Boundaries

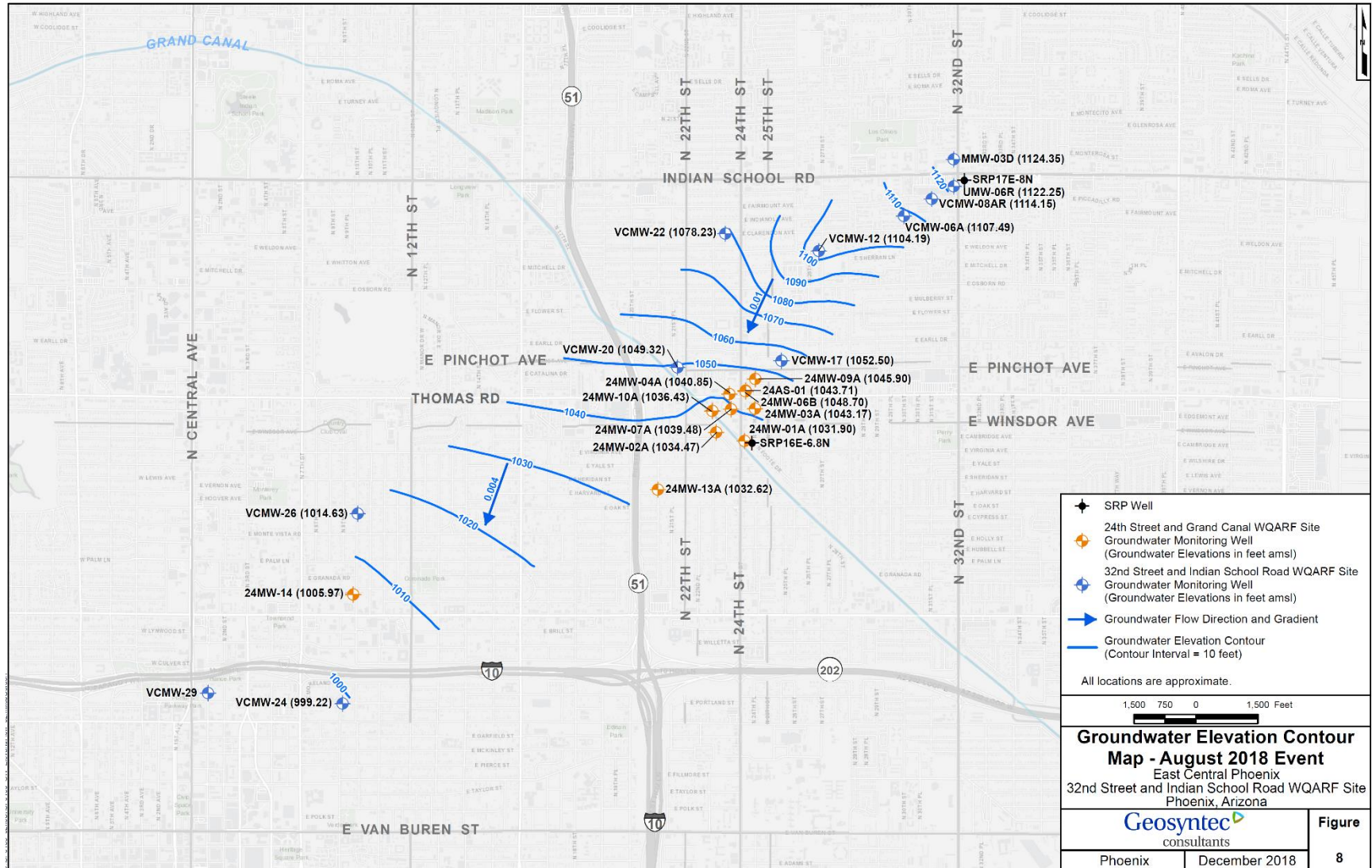


# 32<sup>nd</sup> St and Indian School Rd Source Area

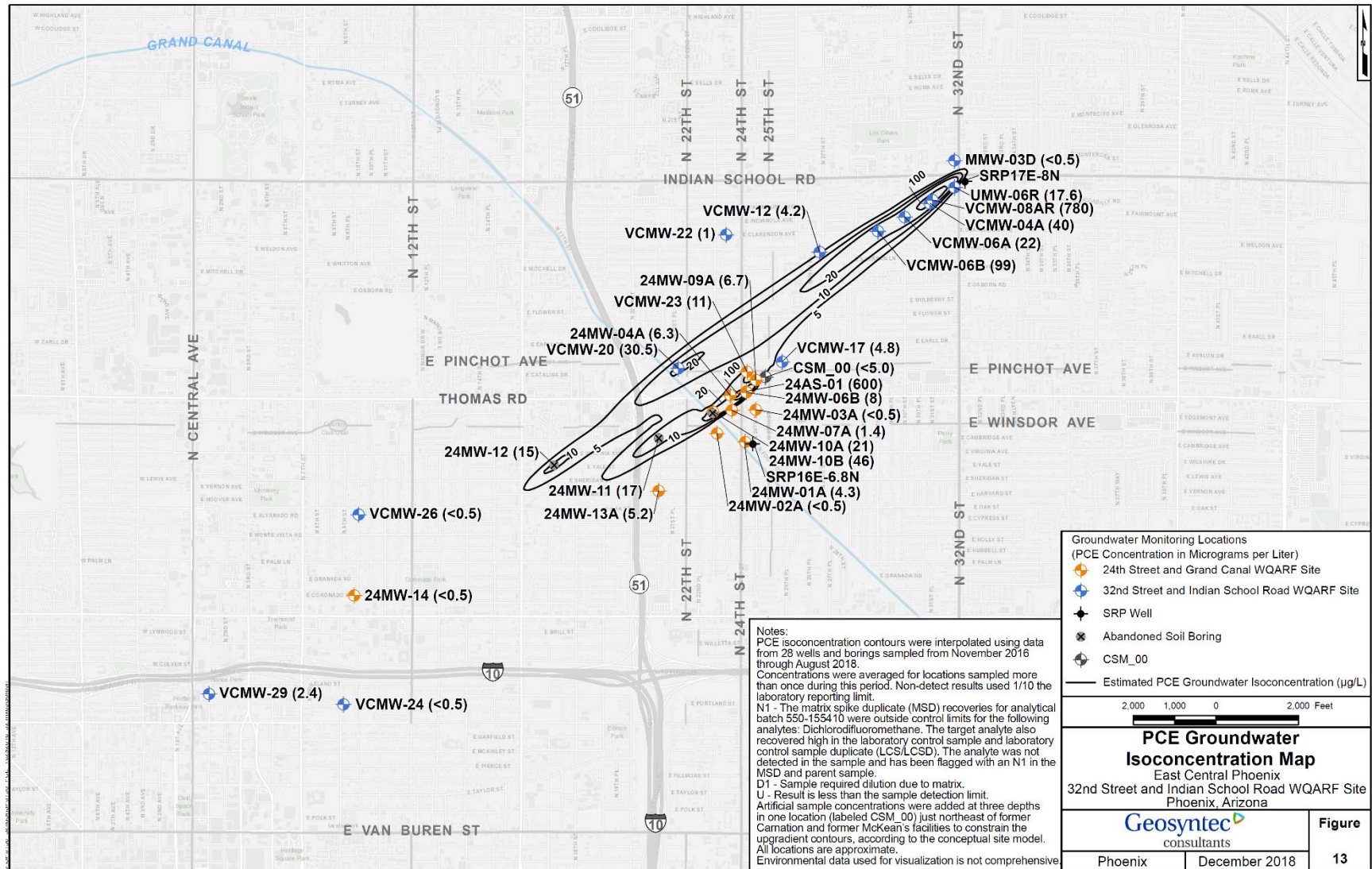




# Groundwater Elevation

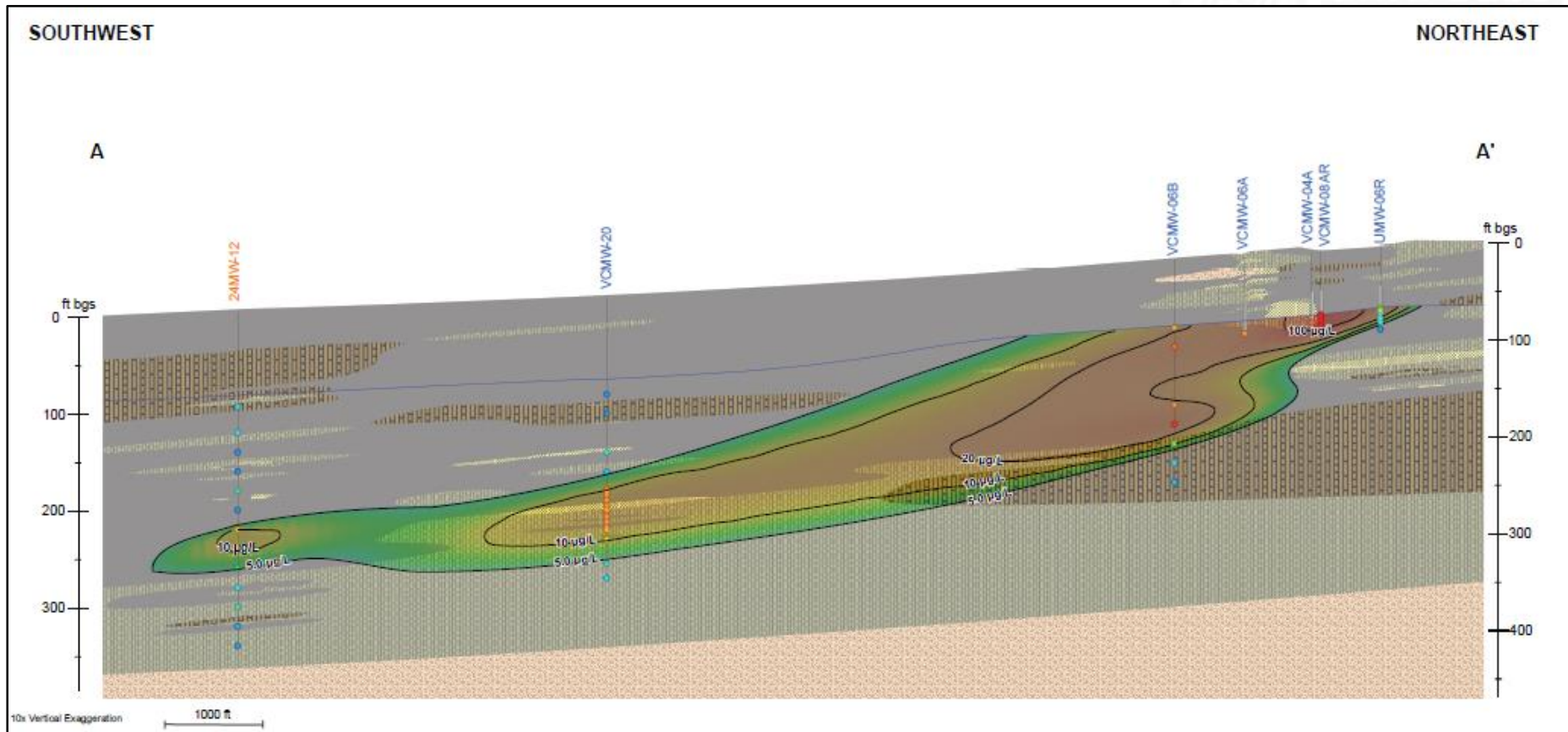


# PCE Concentrations in Groundwater

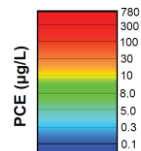




# SW-NE Plume Transect



Lithology



Groundwater Monitoring Well

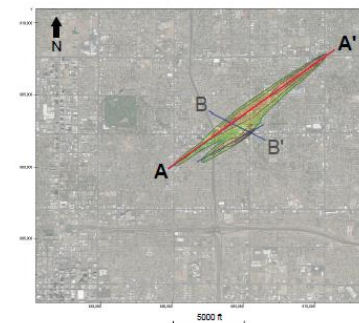
24MW-12 24th Street and Grand Canal WQARF Site

VCMW-20 32nd Street and Indian School Road WQARF Site

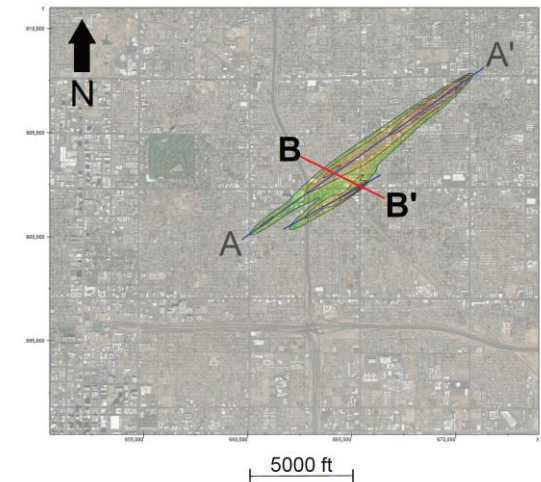
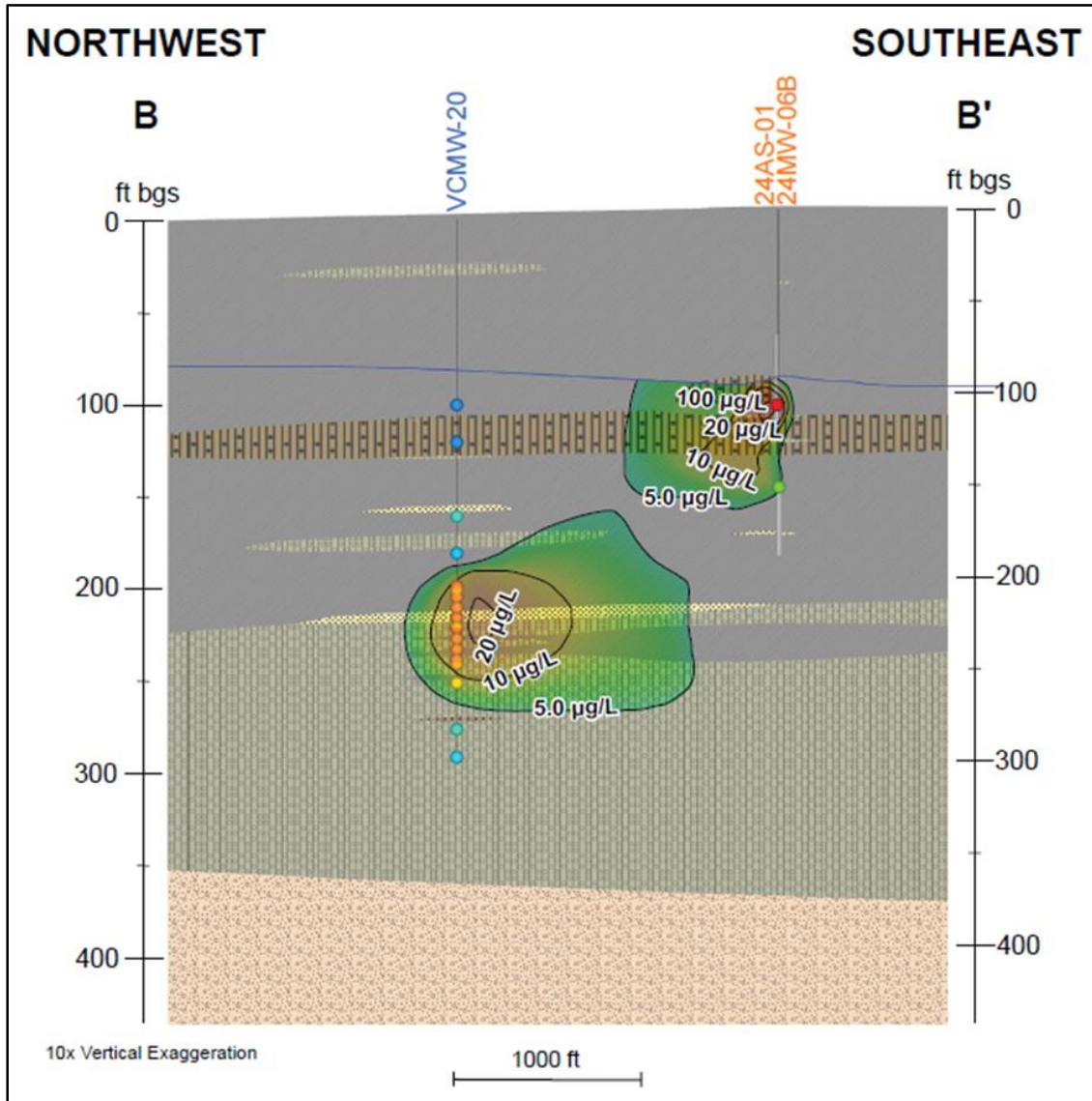
Well Screen Interval

Groundwater Surface

Concentration Isoline

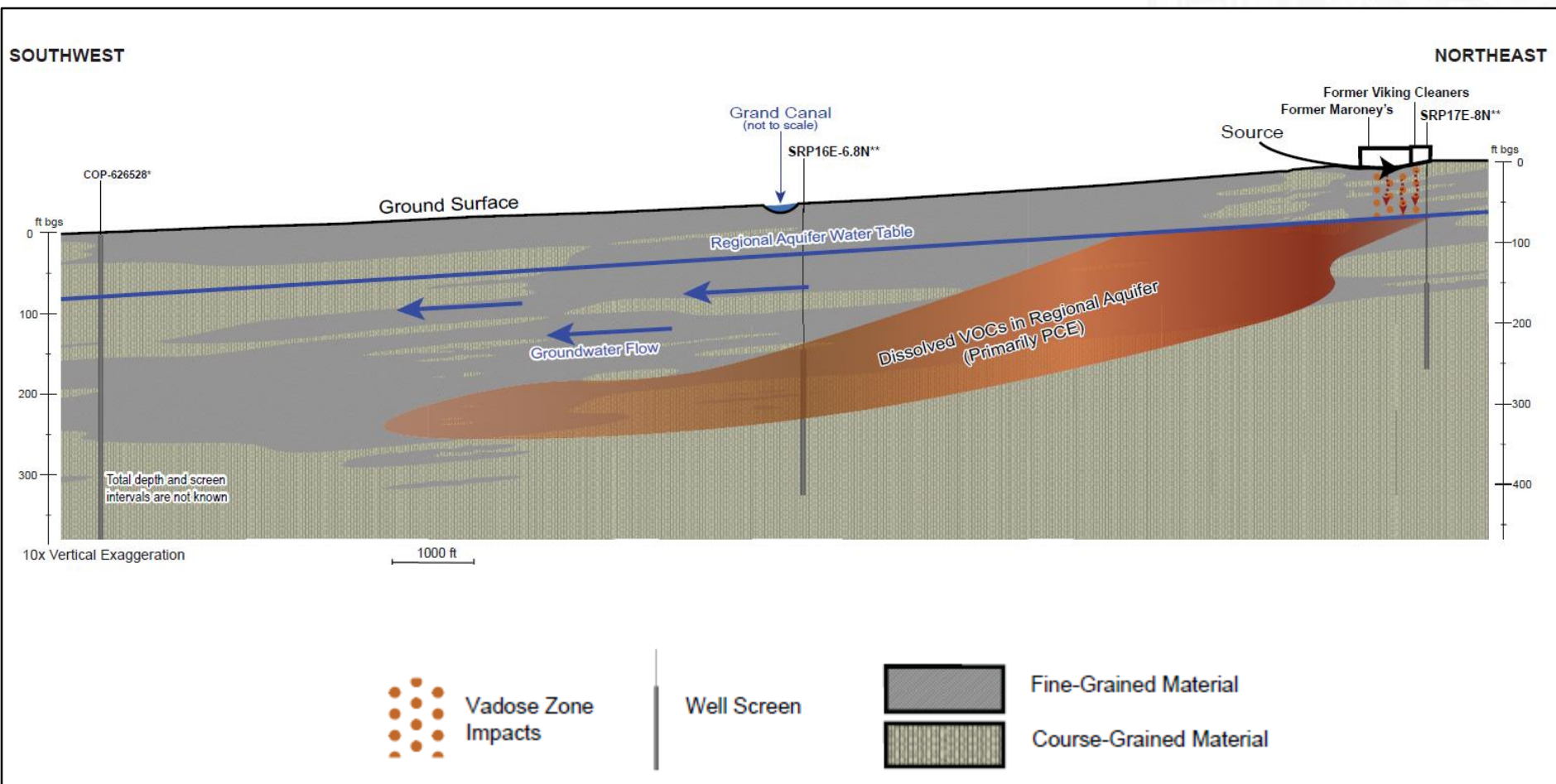


# NW-SE Plume Transect



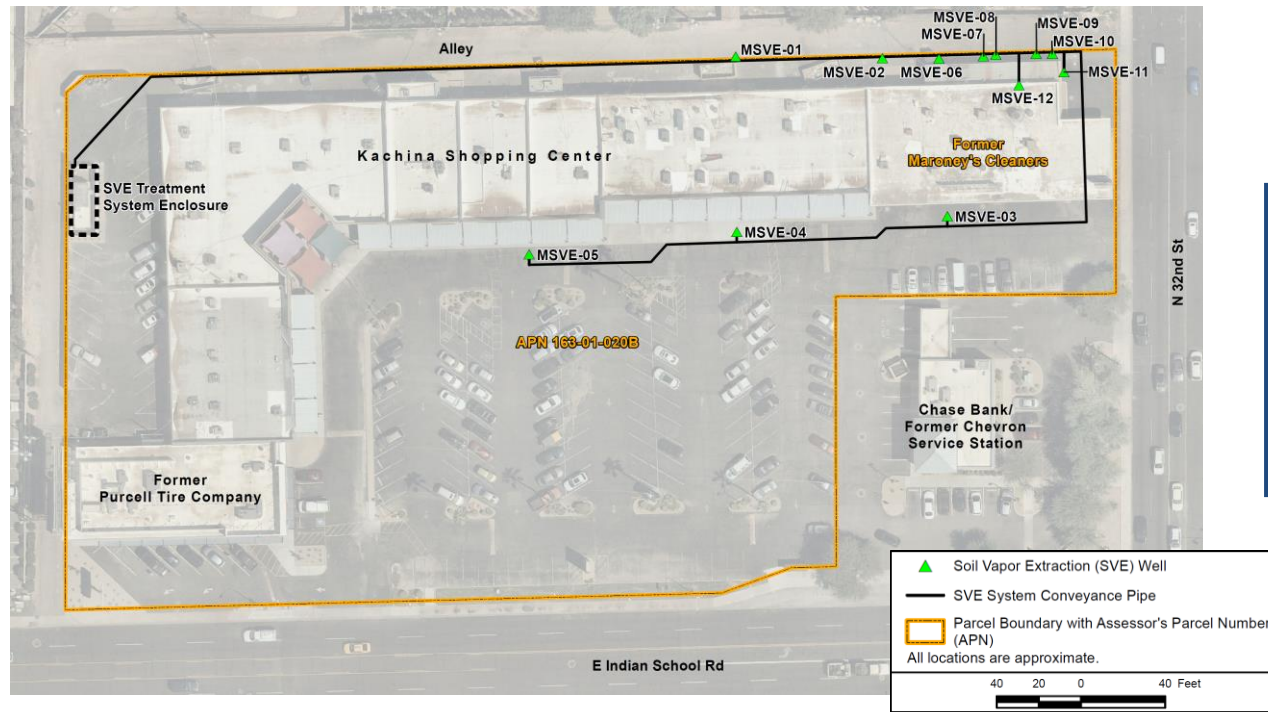
# Conceptual Site Model

DITAT DEUS





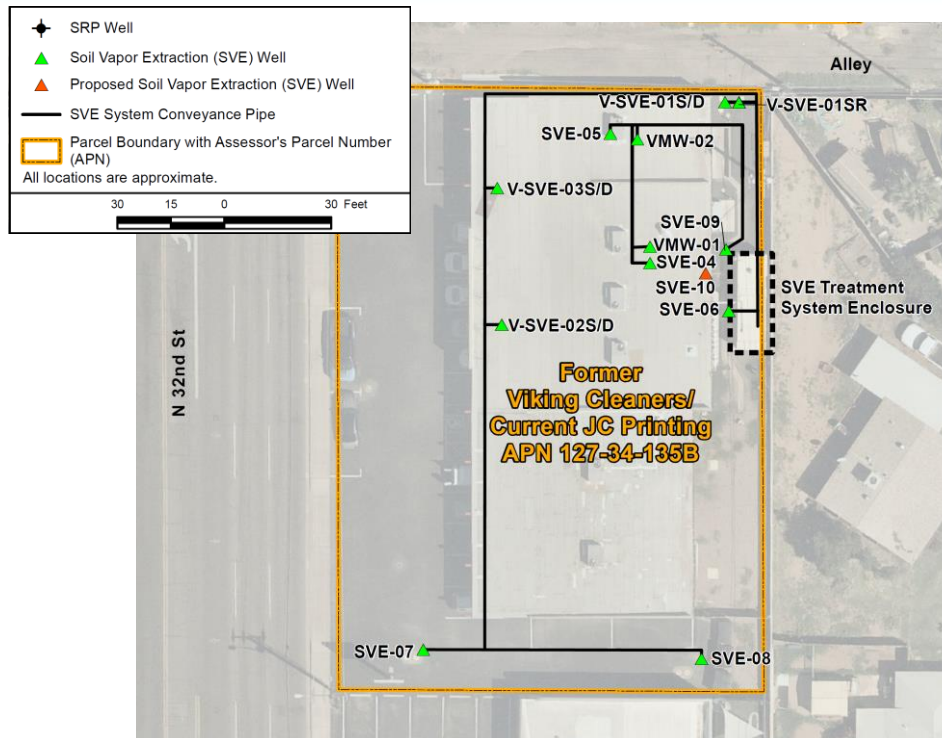
# Soil Vapor Extraction – Maroney's



- Soil vapor extraction (SVE) installed in 2011; full operation began in 2013; system was expanded in 2014 and 2017
- System has removed approximately 115 lbs VOCs
- Most recent soil gas sampling data indicate VOC concentrations do not pose an unacceptable risk to human health or groundwater – evaluation for system decommissioning is underway



# Soil Vapor Extraction – Viking Cleaners



- Soil vapor extraction (SVE)/air sparge (AS) system was installed in 2004; system was expanded several times (2006, 2011-2014; 2017-2018)
- System has removed approximately 182 lbs VOCs
- Most recent soil gas sampling data indicate VOC concentrations do not pose an unacceptable risk to human health or groundwater – evaluation for system decommissioning is underway

- Soil-gas and groundwater sampling results have identified the Former Maroney's Cleaners and Former Viking Cleaners as sources (R18-16-406A 1,4)
- Extensive groundwater data indicate the VOC groundwater plume is fully delineated (R18-16-406A 1-2,4)
- Soil vapor extraction and indoor air sampling have been conducted to mitigate ongoing sources and potential impacts to human health (R18-16-406A 2)
- Land and Water Use Study has been completed (R18-16-406A 3)



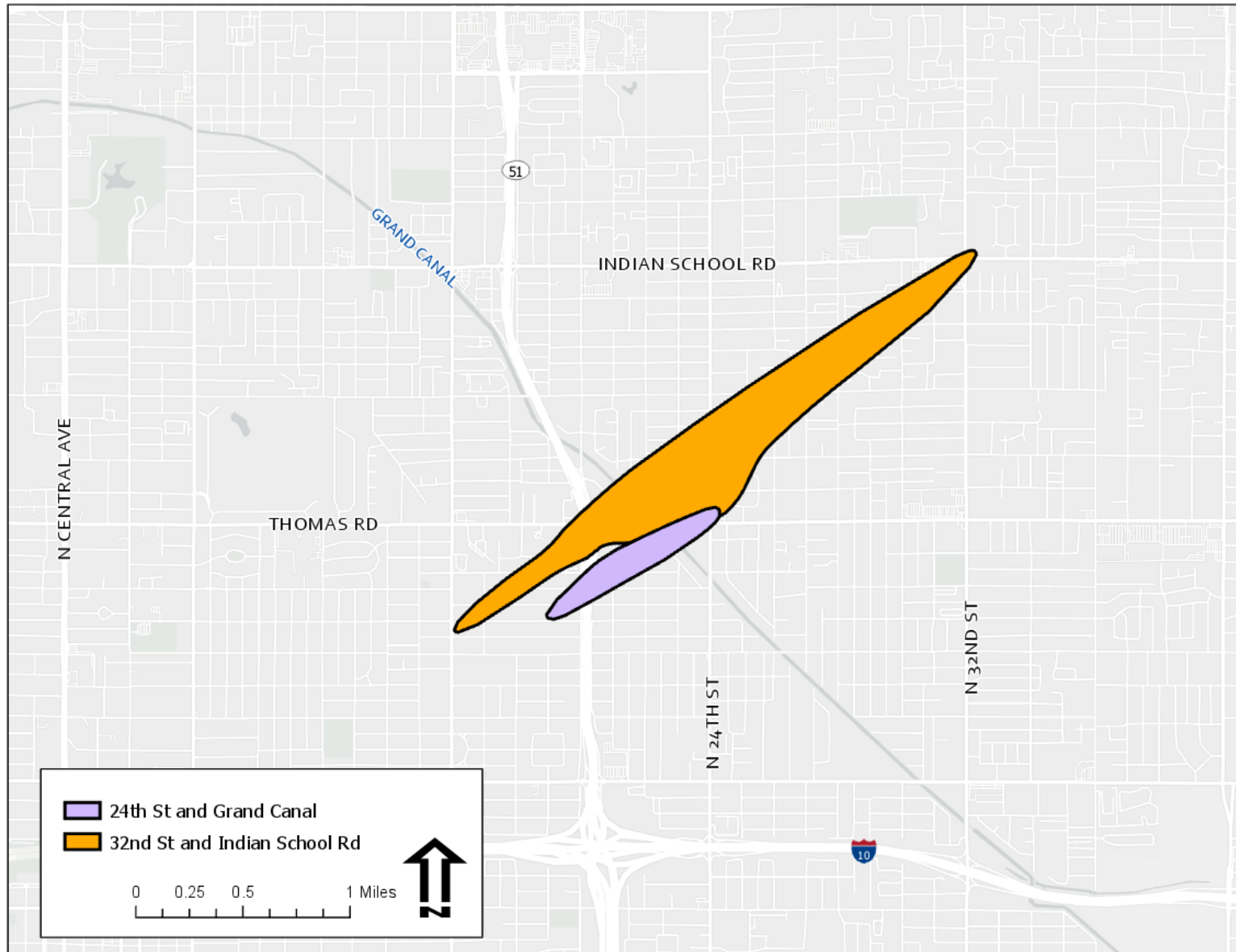
# Questions?



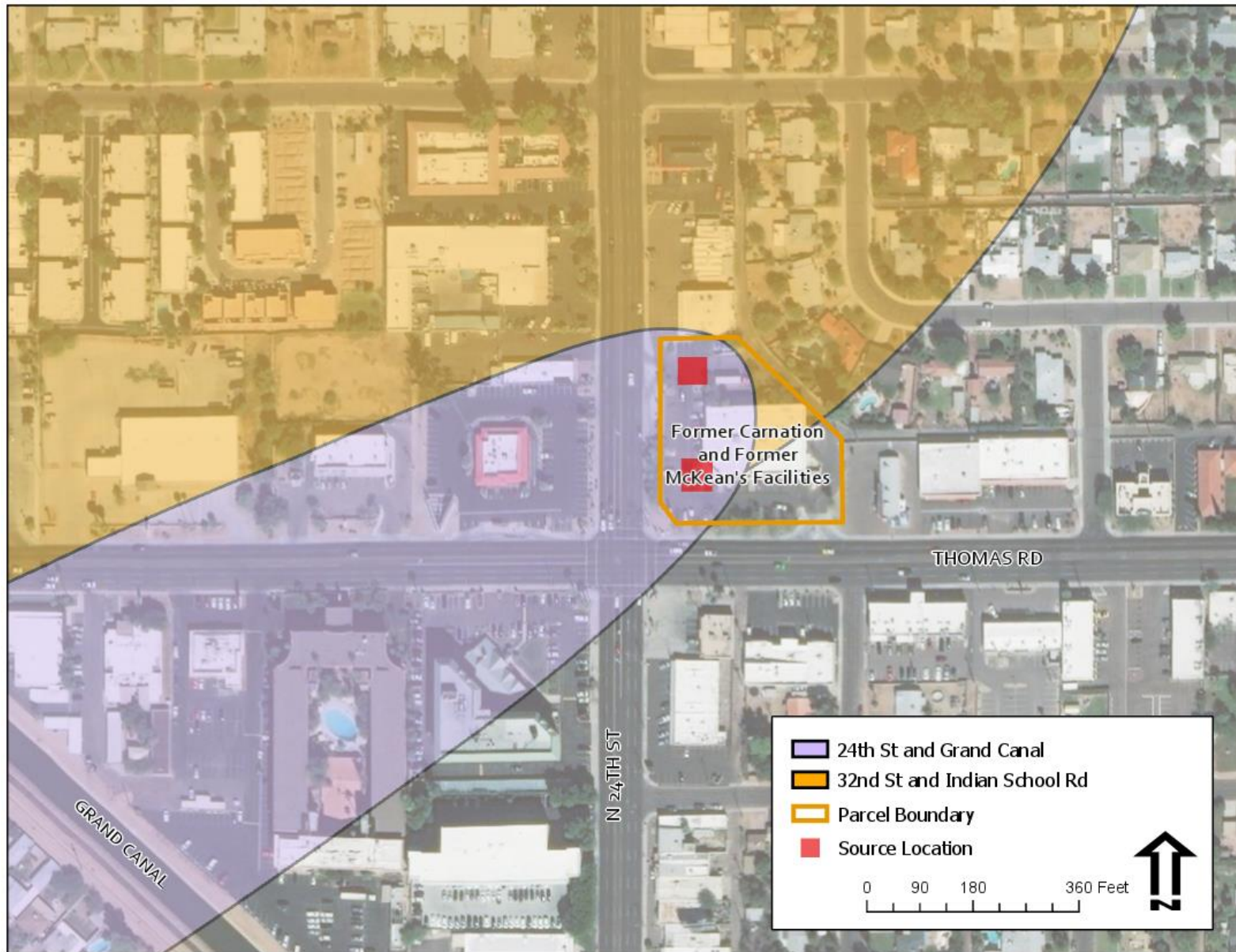
# 24<sup>th</sup> Street and Grand Canal



# WQARF Site Boundaries

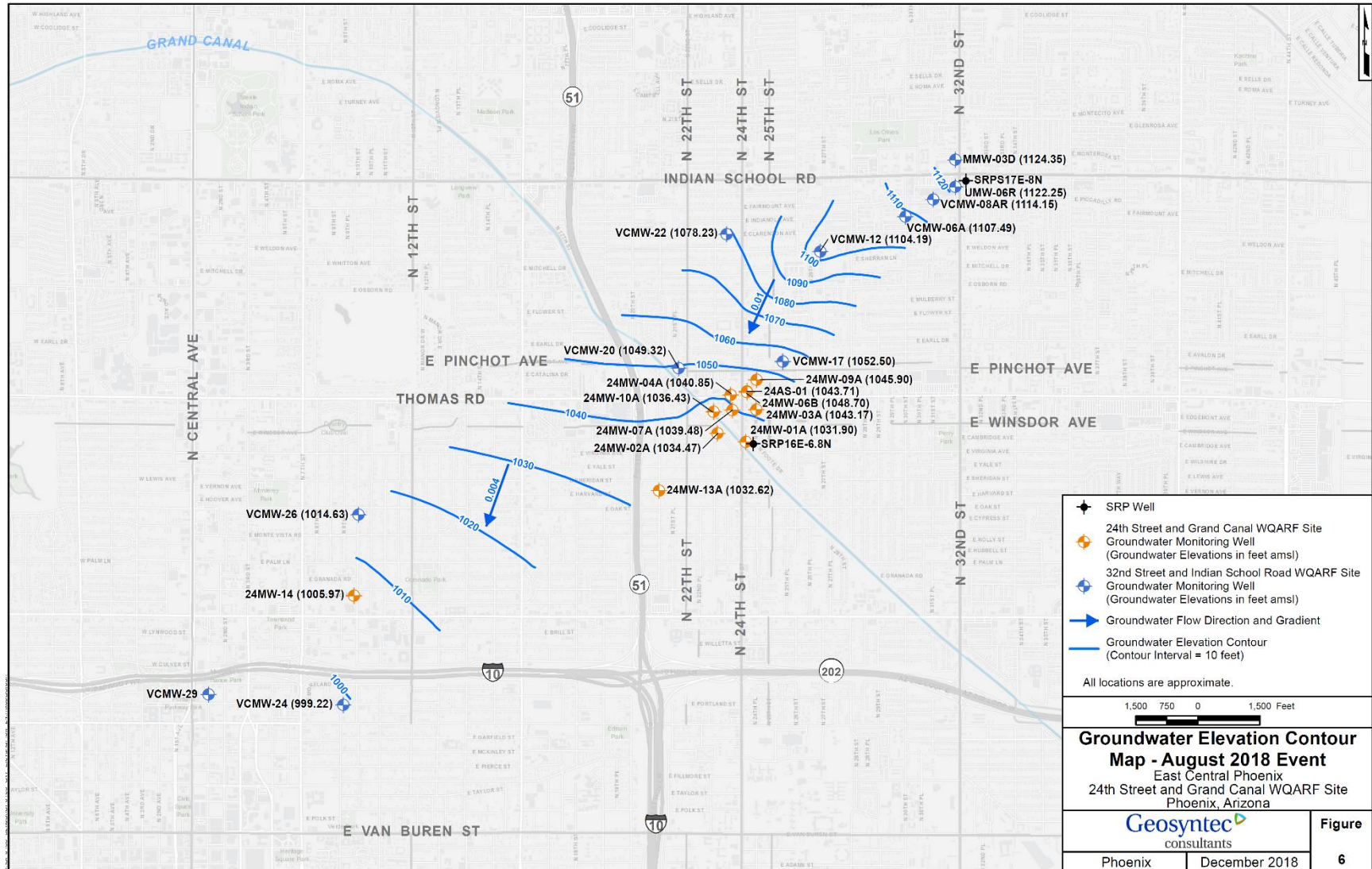


# Source Area

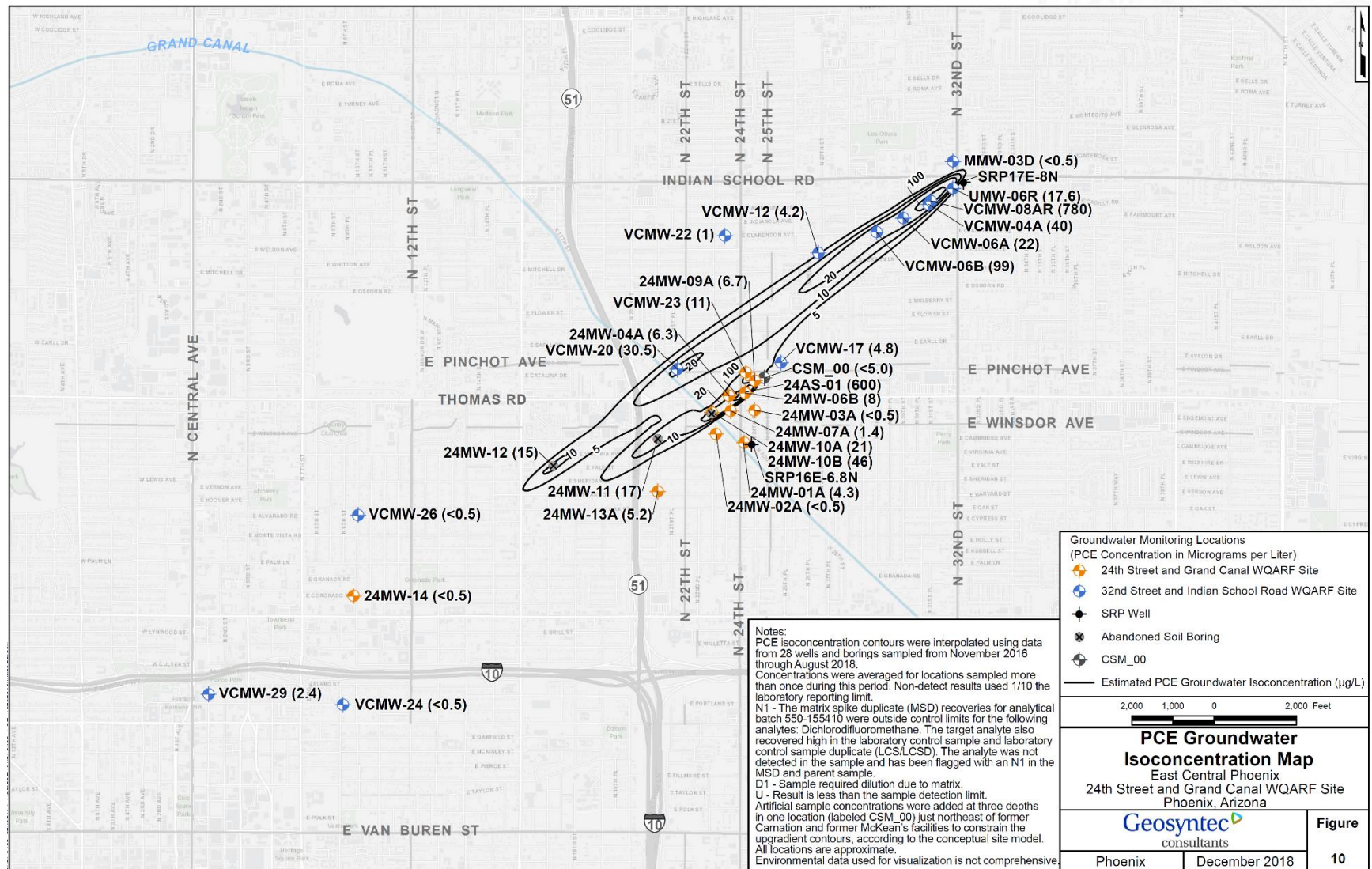




# Groundwater Elevations

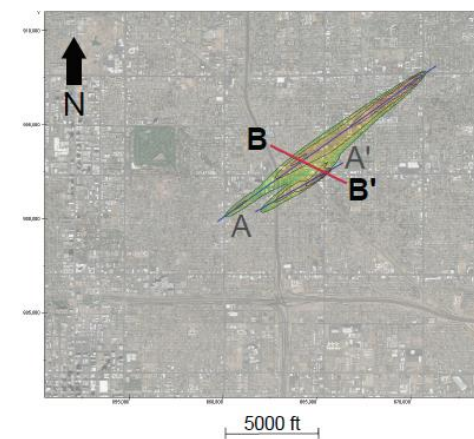
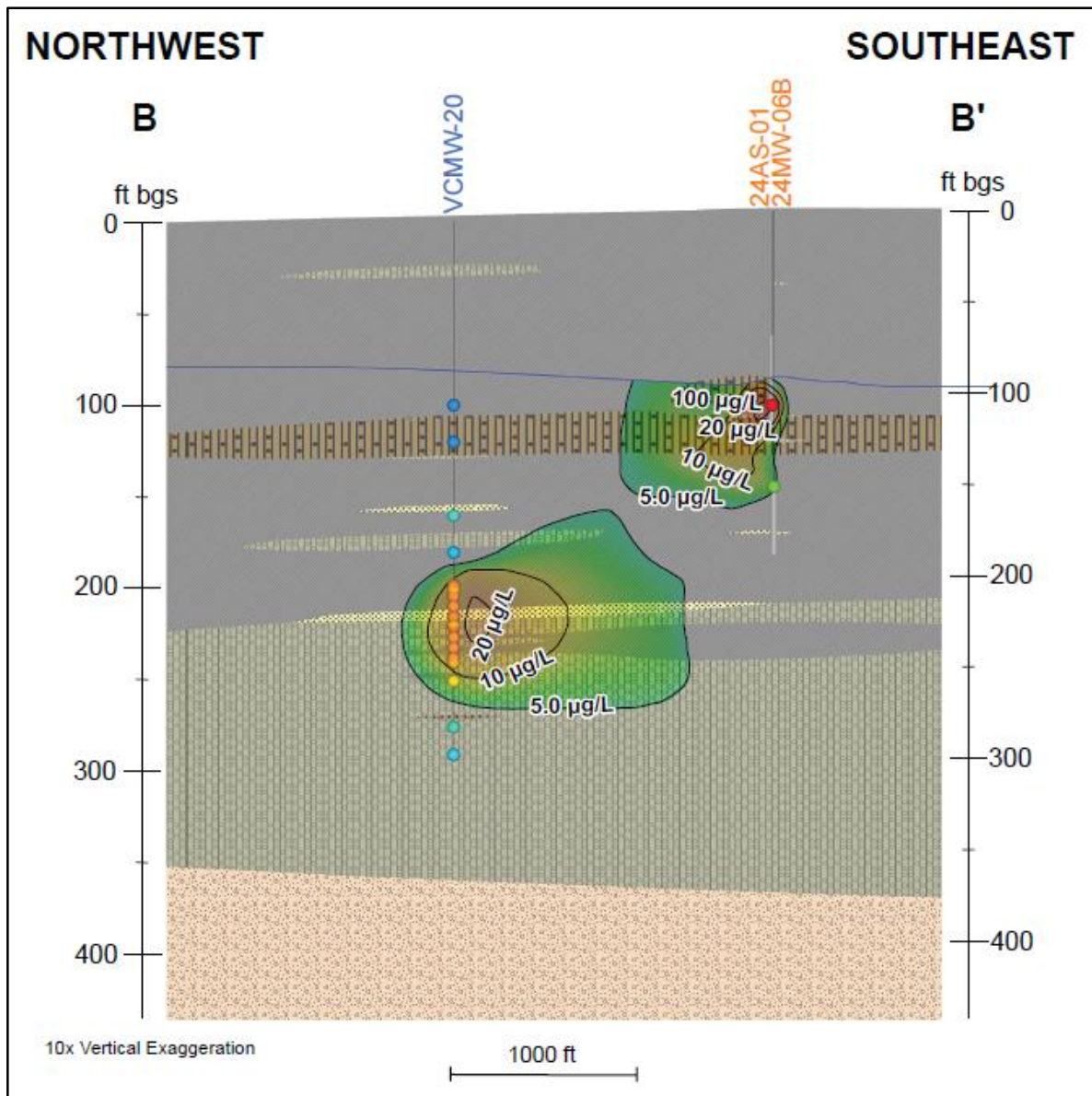


# PCE Concentrations in Groundwater

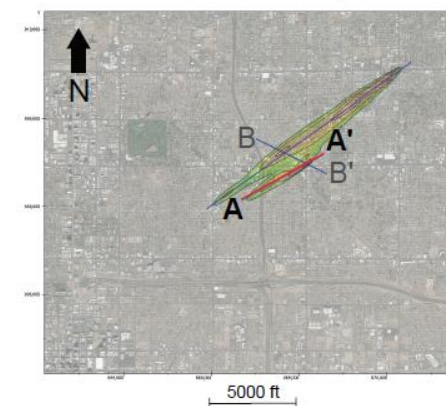
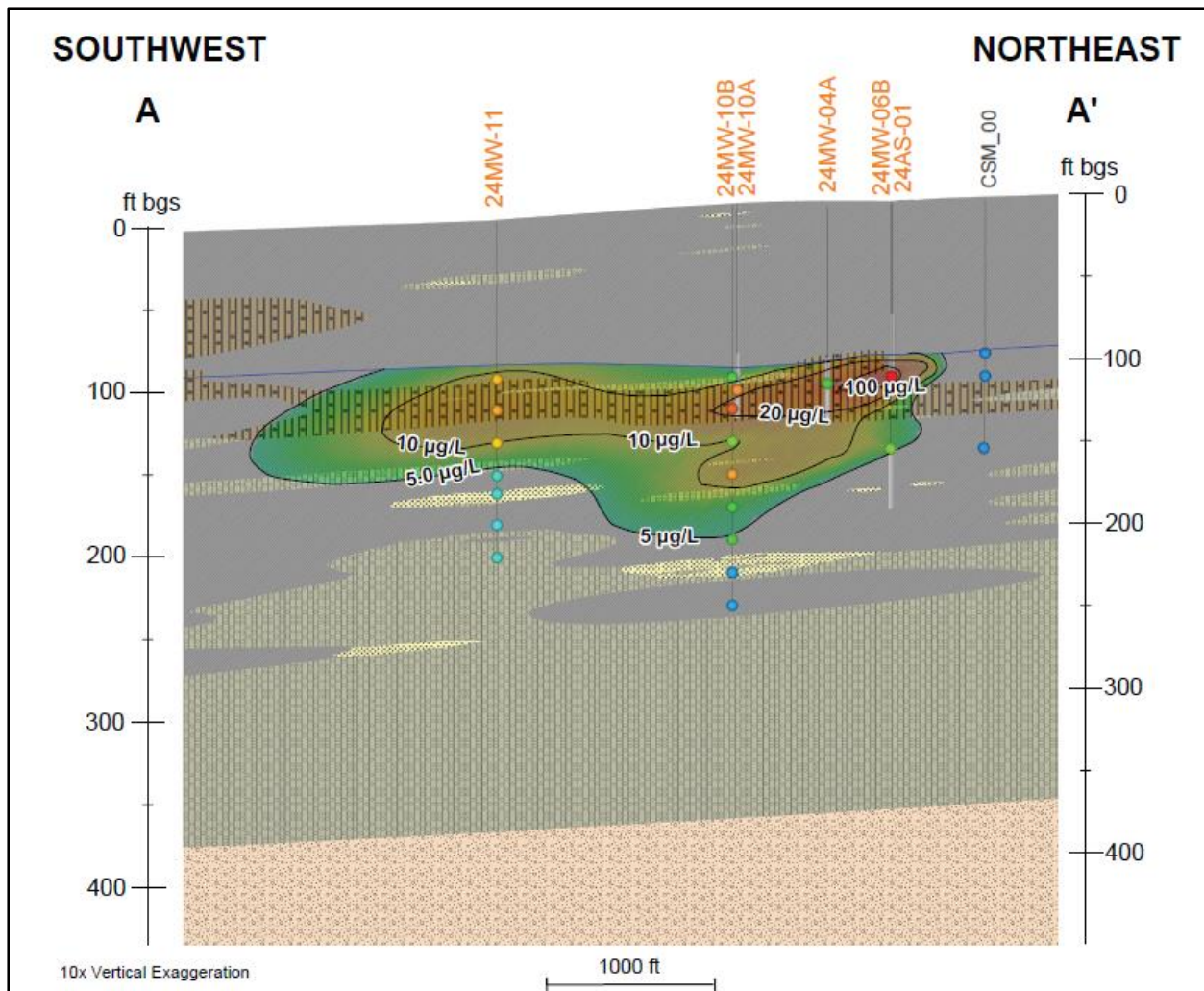




# NW-SE Plume Transect



# SW-NE Plume Transect

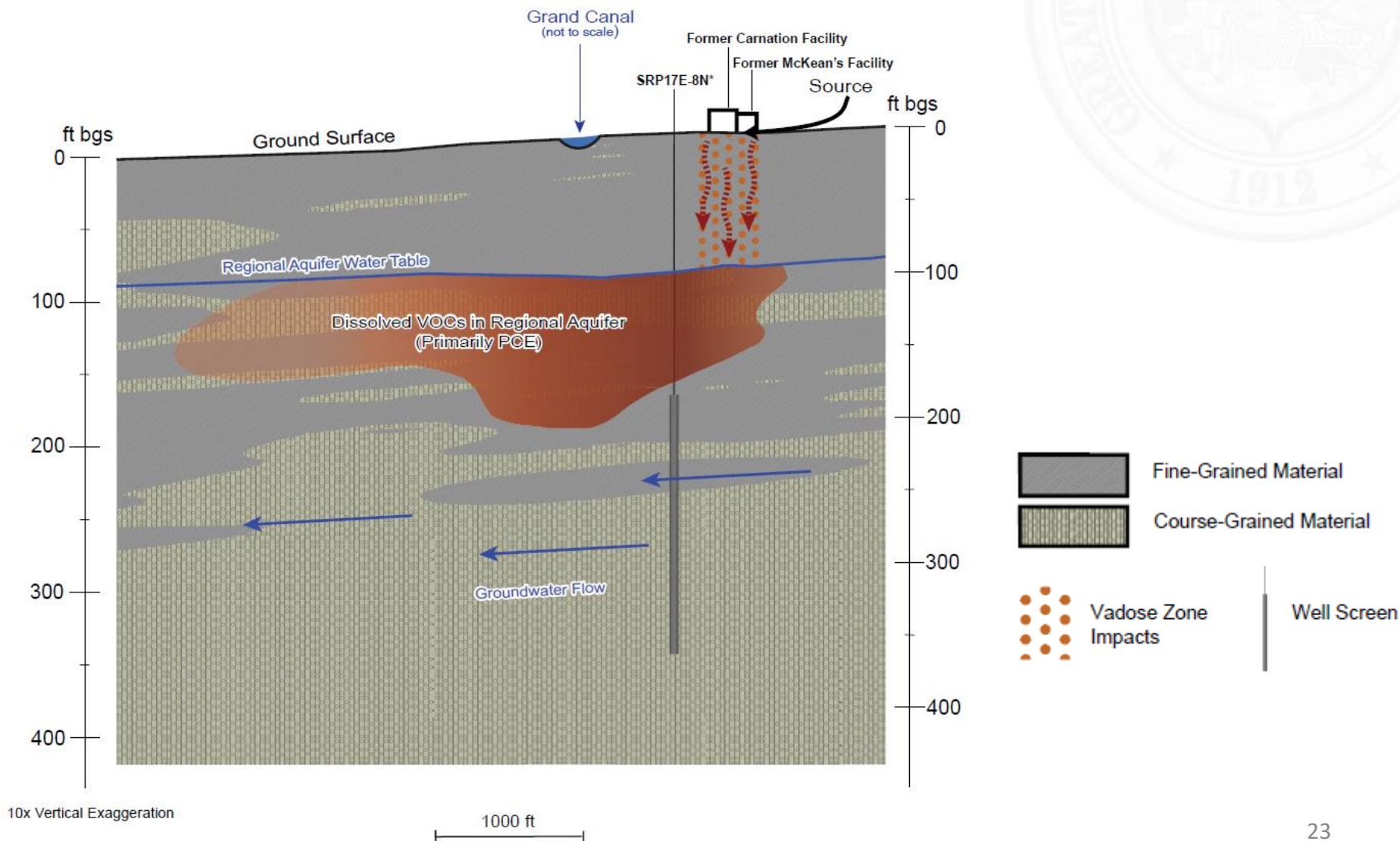




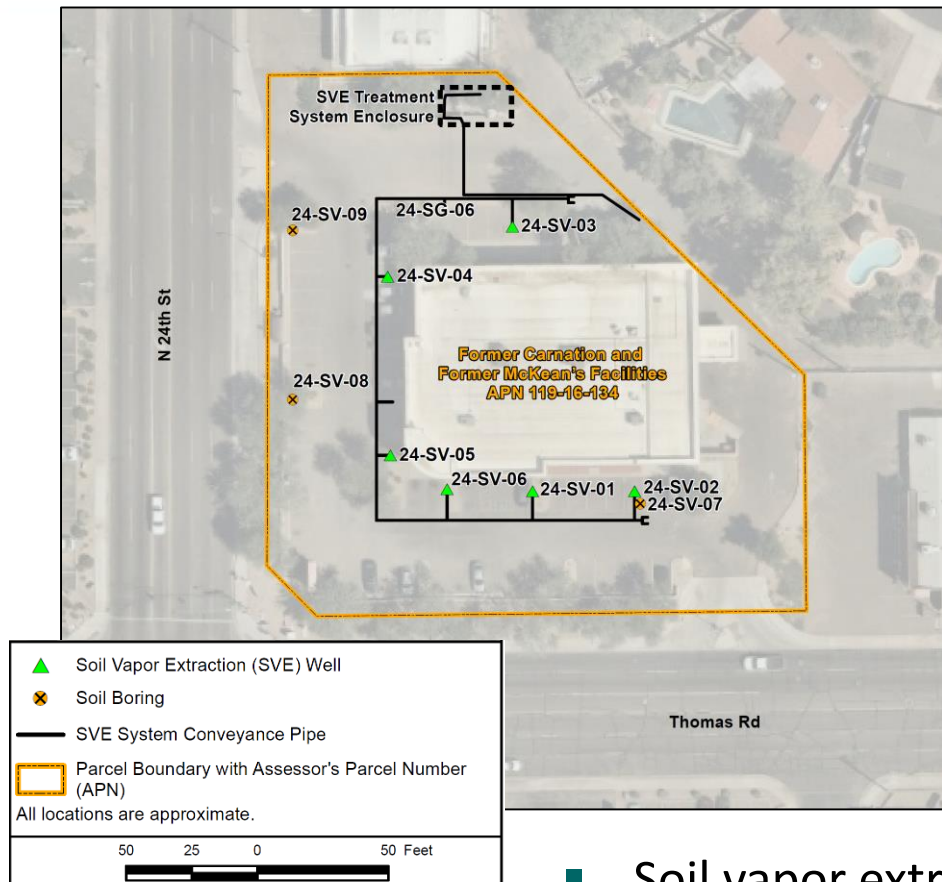
# Conceptual Site Model

SOUTHWEST

NORTHEAST



# Soil Vapor Extraction



- Soil vapor extraction (SVE) conducted from July 2016 to August 2017
- System removed approximately 76 lbs VOCs
- Concentrations are below the residential site-specific standards



- Soil-gas and groundwater sampling results have identified the Former Carnation Cleaners and Former McKean's Cleaners as sources (R18-16-406A 1,4)
- Extensive groundwater data indicate the VOC groundwater plume is fully delineated (R18-16-406A 1-2,4)
- Soil vapor extraction has been conducted to mitigate ongoing sources and potential impacts to human health (R18-16-406A 2)
- Land and Water Use Study has been completed (R18-16-406A 3)



# Questions?

- 60-day public comment period on the draft RI report ends on May 6, 2019
- **How to comment:**

- **By Email:**

mn3@azdeq.gov

- **By Mail** (*Must be postmarked by November 27, 2018*):

Arizona Department of Environmental Quality  
Waste Programs Division  
Attention: Matthew Narter  
400 W Congress, Suite 433  
Tucson, AZ 85701

- **At this meeting:**

State your name, affiliation, and verbal comment

Hand in written comment on provided form

