

Risk-Based Site Closure Strategy – Follow-Up Items from Meeting on 08-02-2017

David D. Bohannon Organization
575 Paseo Grande
San Lorenzo, California

Agenda

1. Meeting Objectives
2. Follow-Up Items
3. Summary of Conceptual Site Model
4. Path Forward

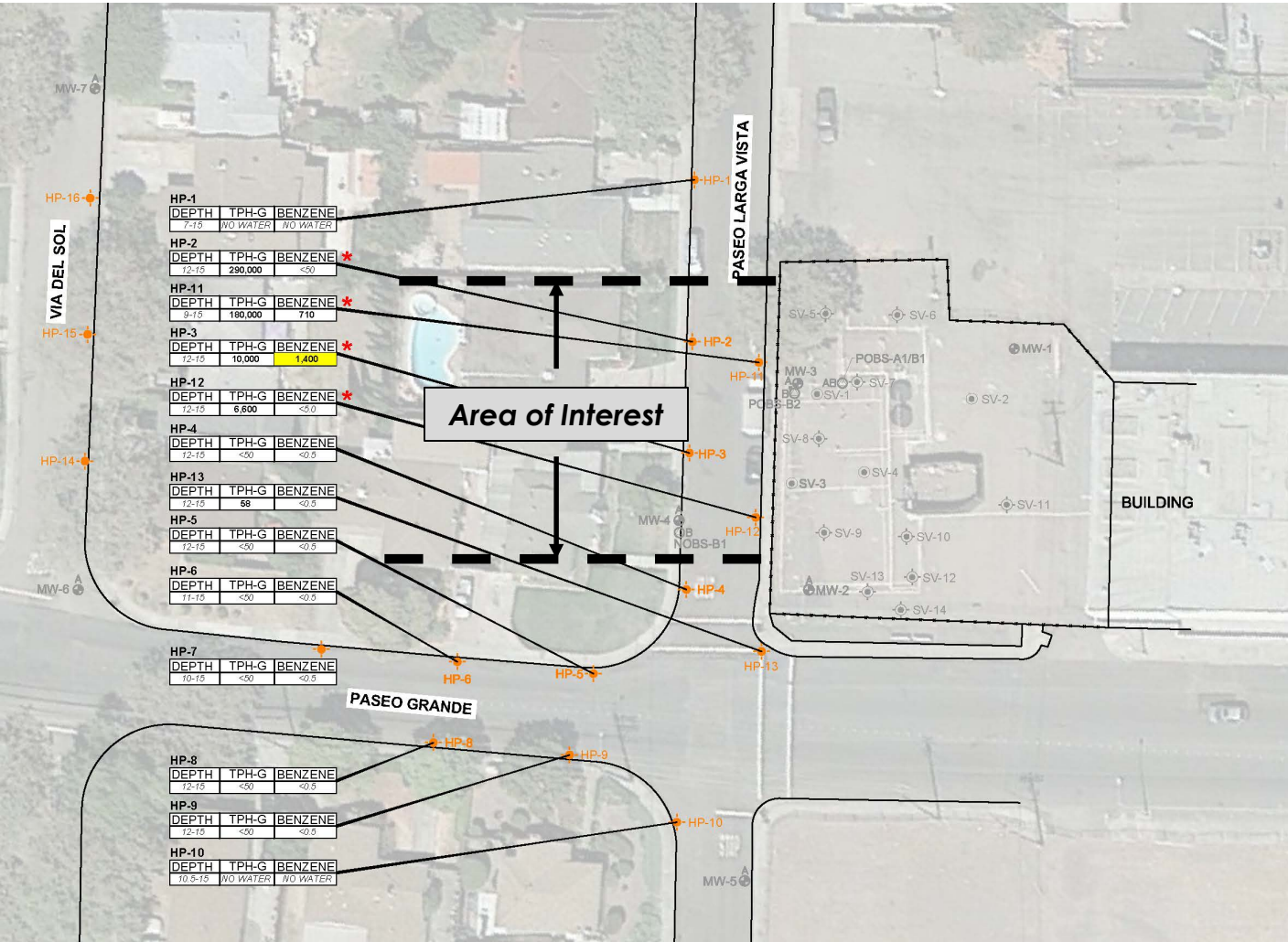
Meeting Objectives

1. Follow-Up Items
2. Concurrence on Conceptual Site Model
3. Concurrence on Path to Closure

Follow-Up Items

1. Depth of Utilities
2. Depth of Swimming Pool
3. Sanitary Seal Requirements for New Wells
4. Targeted Remedy beneath Paseo Larga Vista
5. Contact with Property Owner who may still have an Existing Well

“Area of Interest”



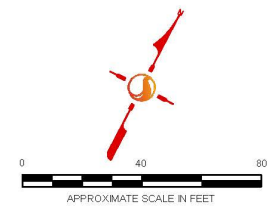
● MW-1 MONITORING WELL
 ○ NOBS-B1 OBSERVATION WELL
 ○ SV-1 SOIL VAPOR SAMPLE LOCATION (STANTEC, 2011)
 ⊕ SV-5 SOIL VAPOR SAMPLE LOCATION AND SOIL BORING LOCATION
 ⊕ HP-1 SOIL BORING/ HYDROPUNCH SAMPLE LOCATION
 ——— FENCE LINE
 ——— WELL DESIGNATION
 ▲ = INDICATES WELL IN THE A-ZONE
 ● = INDICATES WELL IN THE B-ZONE

SAMPLE DEPTH (ft. bgs)	DEPTH	TPH-G	BENZENE
	12-15	290,000	<0.5

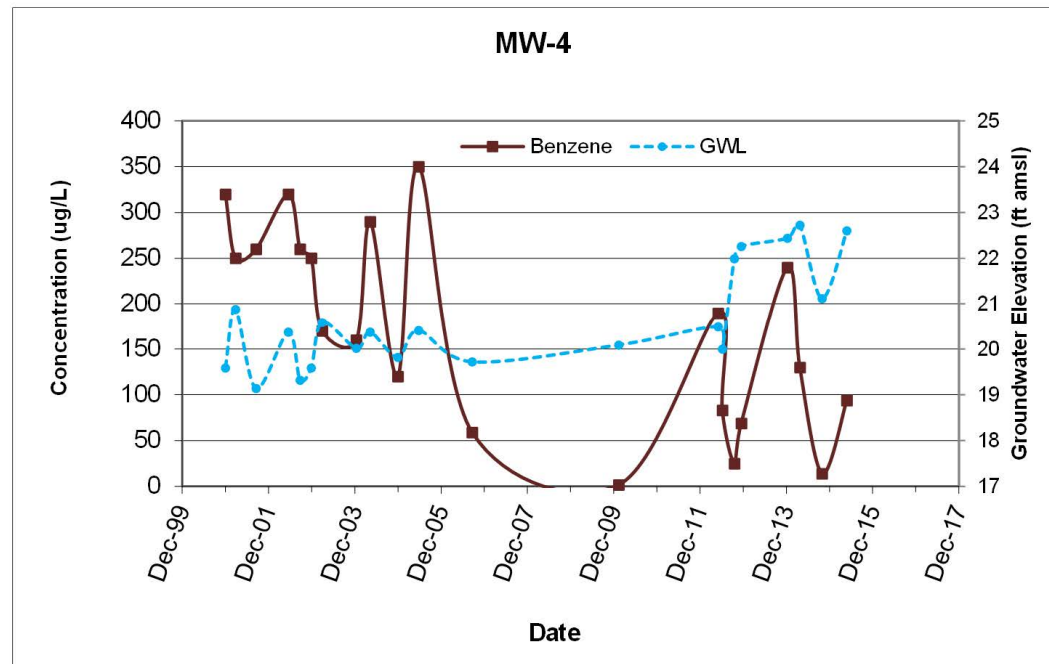
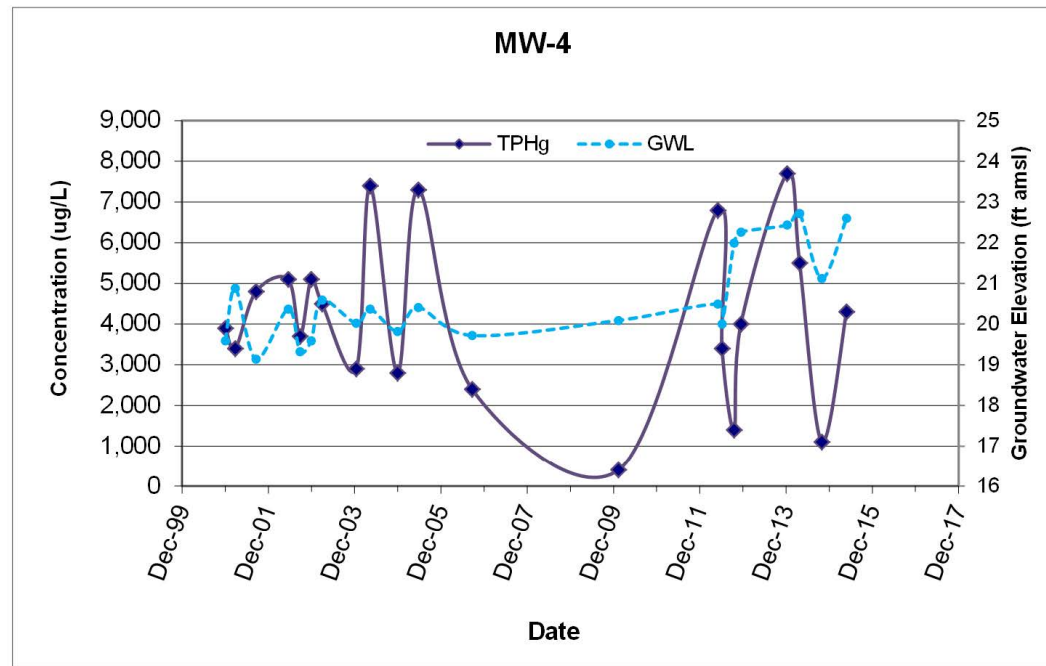
CONCENTRATIONS (µg/L)

(ft. bgs) = FEET BELOW GROUND SURFACE
 ug/L = MICROGRAMS PER LITER
 TPH-G = TOTAL PETROLEUM HYDROCARBONS, GASOLINE RANGE
 * = TPH-G EXCEEDS 100 mg/kg IN SOIL BETWEEN 5 AND 10 FT. bgs (SEE TABLE 4 AND FIGURE 4)
 ■ = RESULT EXCEEDS SCREENING VALUE OF 1,000 ug/L FOR BENZENE - RWQCB LOW THREAT CLOSURE CRITERIA FOR VAPOR INTRUSION

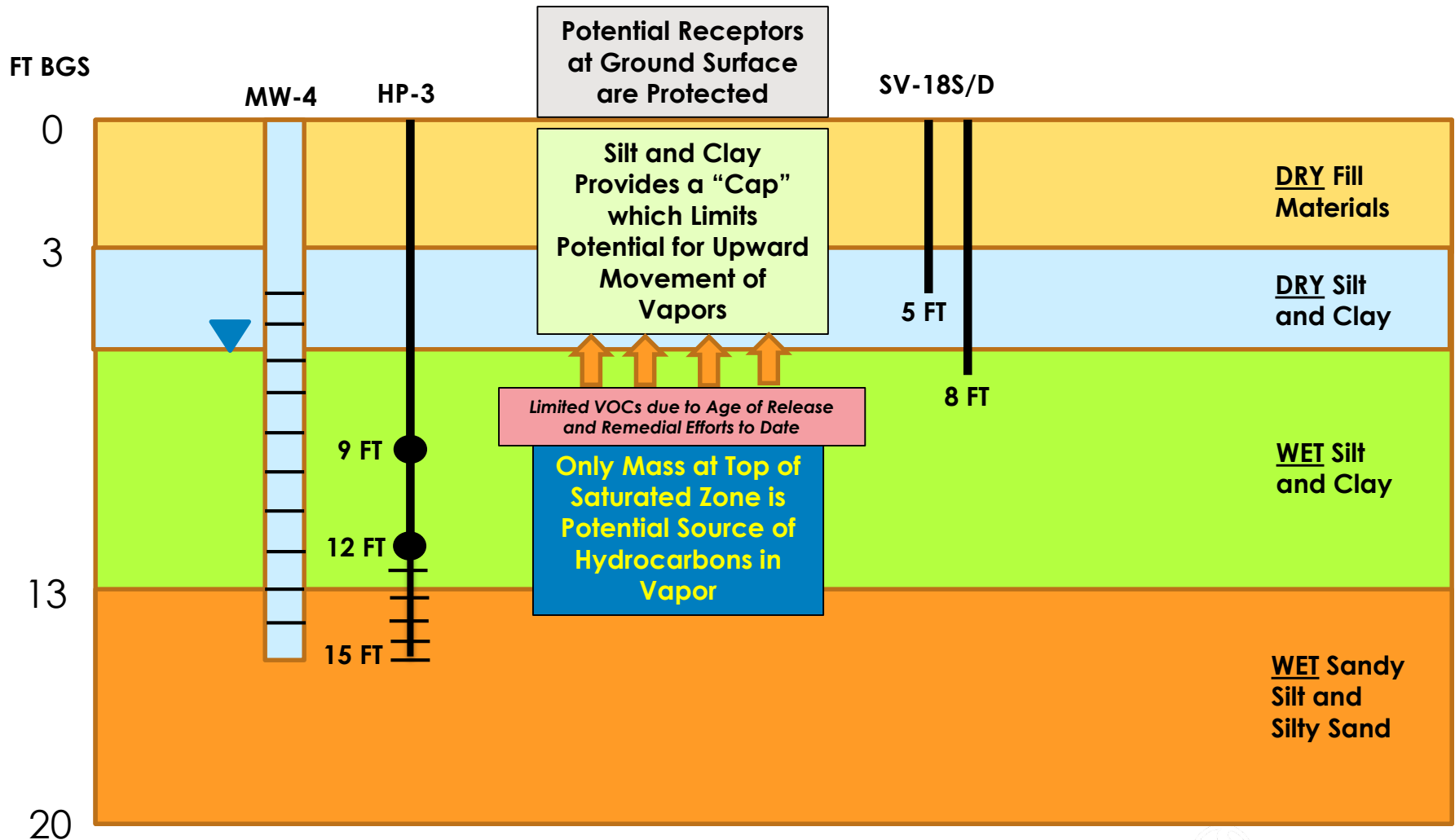
NOTE:
BOLD INDICATES DETECTED CONCENTRATION.
 SAMPLES COLLECTED MAY 16 THROUGH 21, 2014



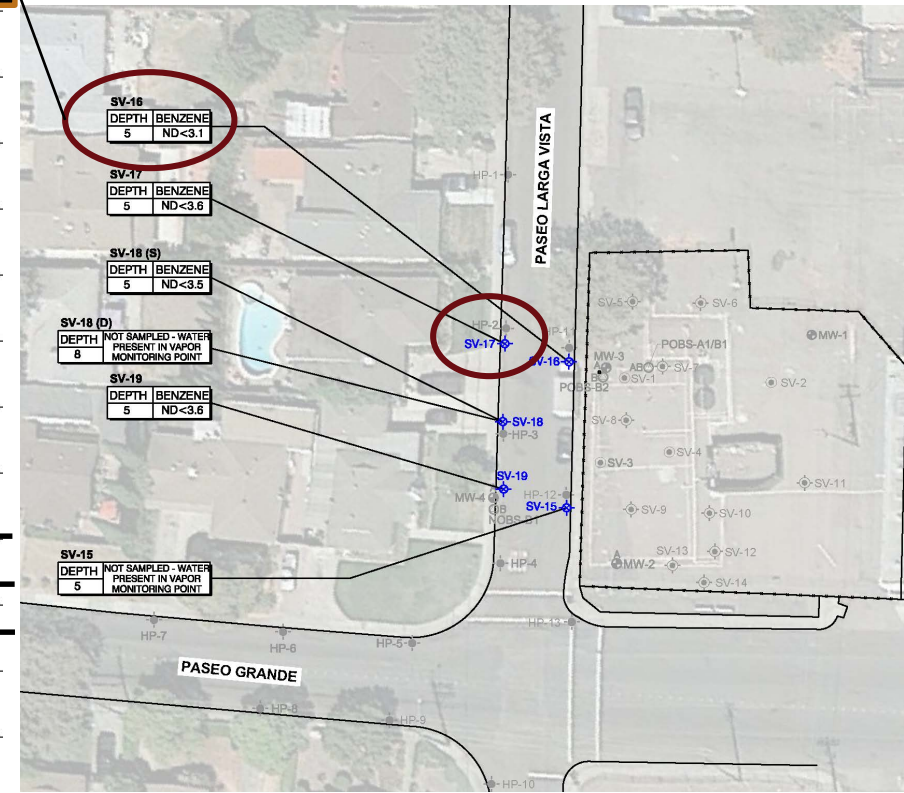
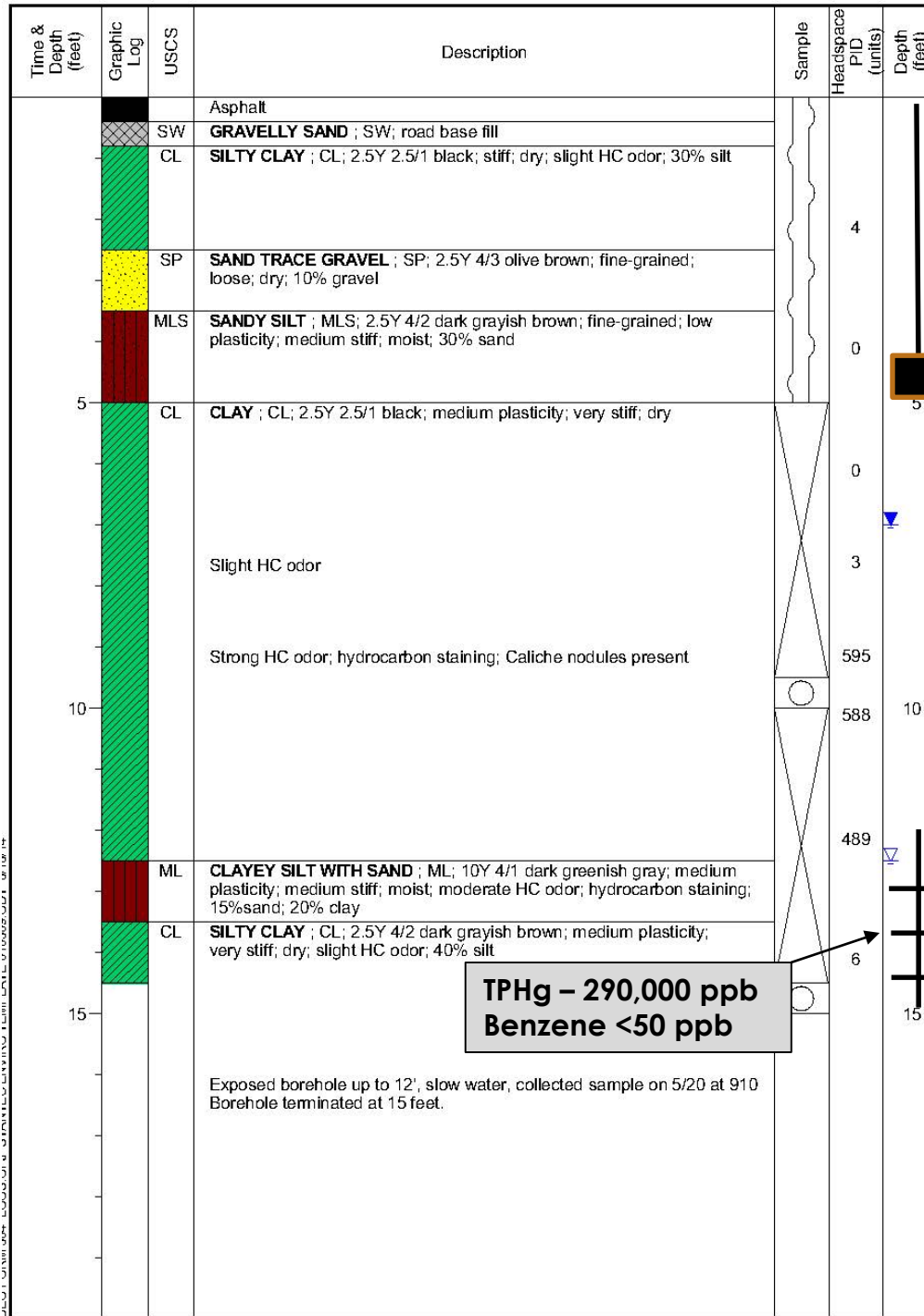
Trends MW-4 (Off-Site)



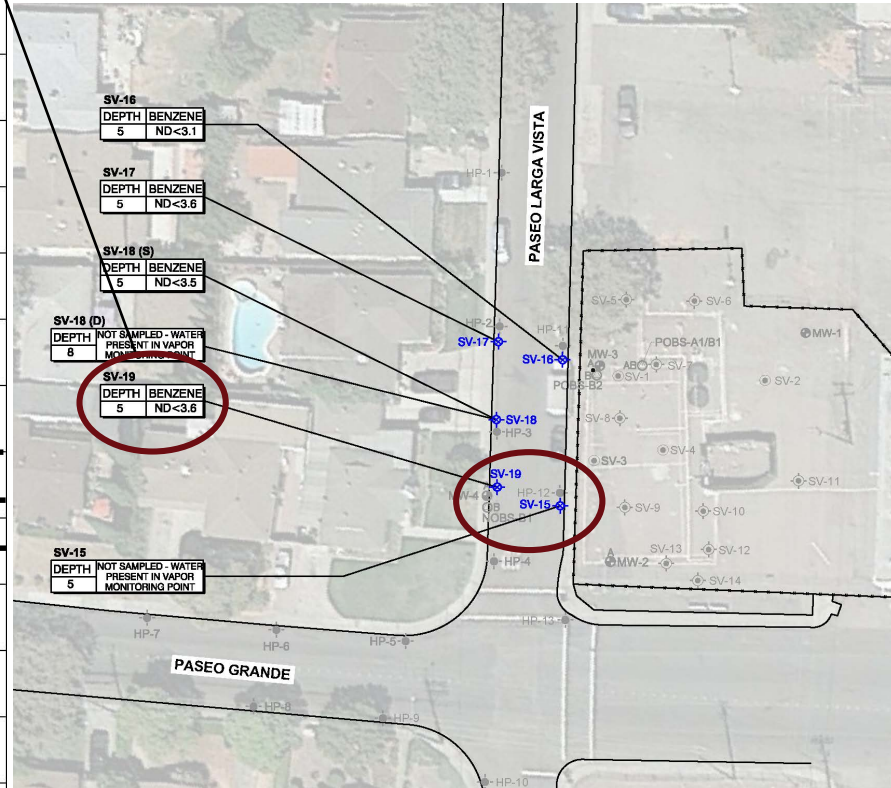
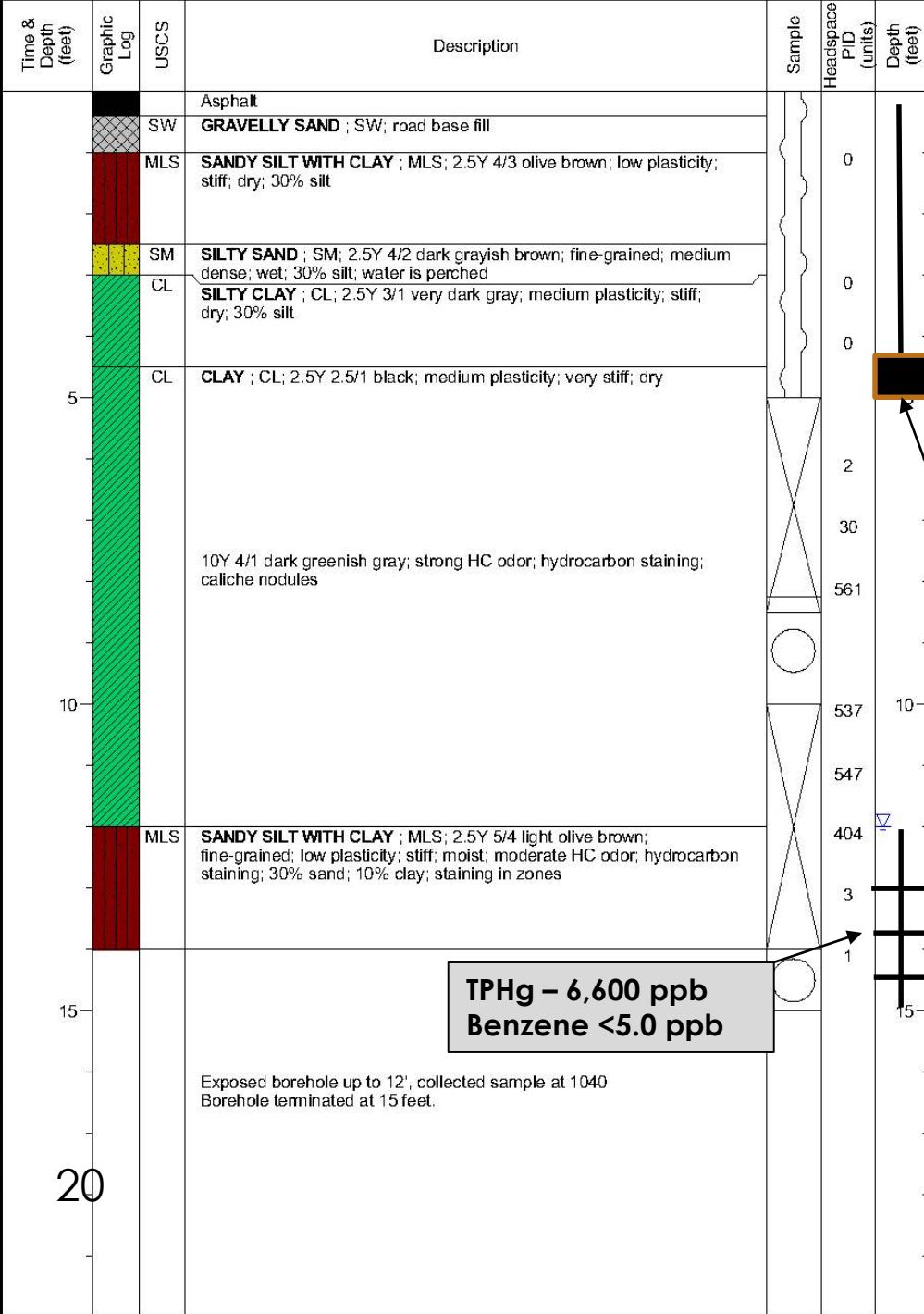
Conceptual Geologic Model



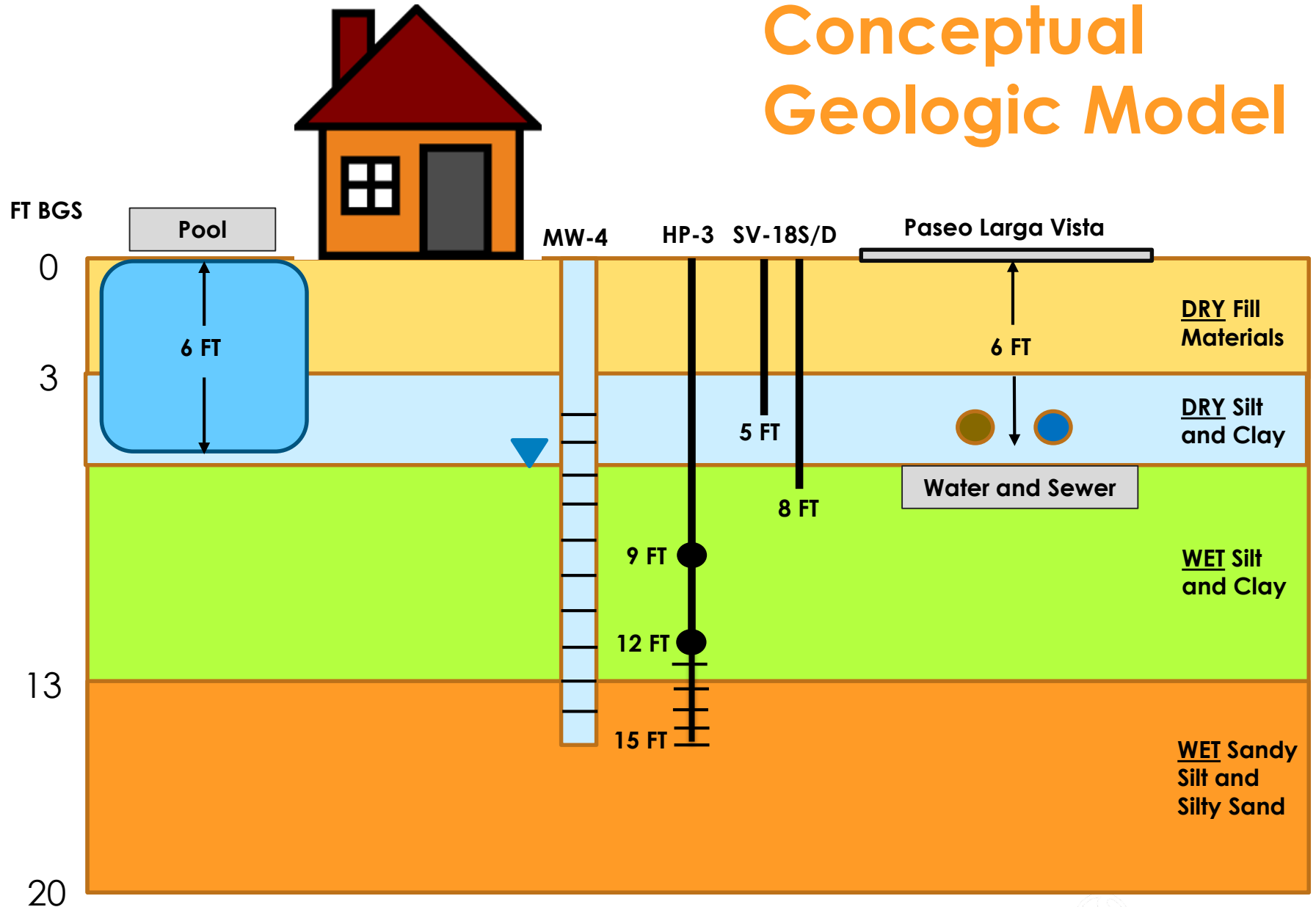
Conceptual Geologic Model – HP2 and SV17



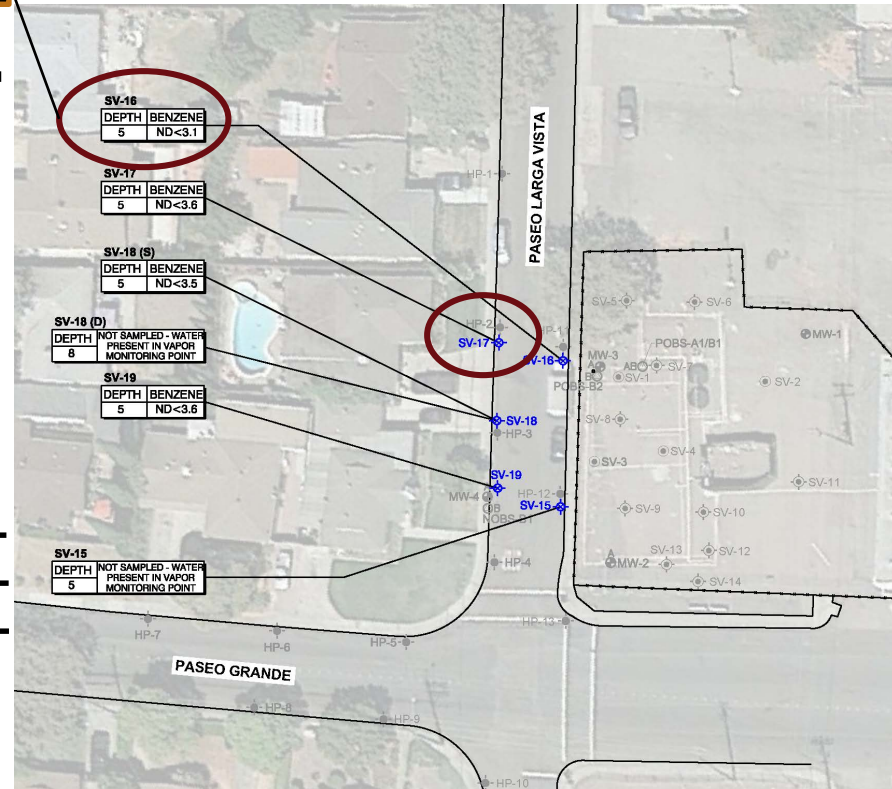
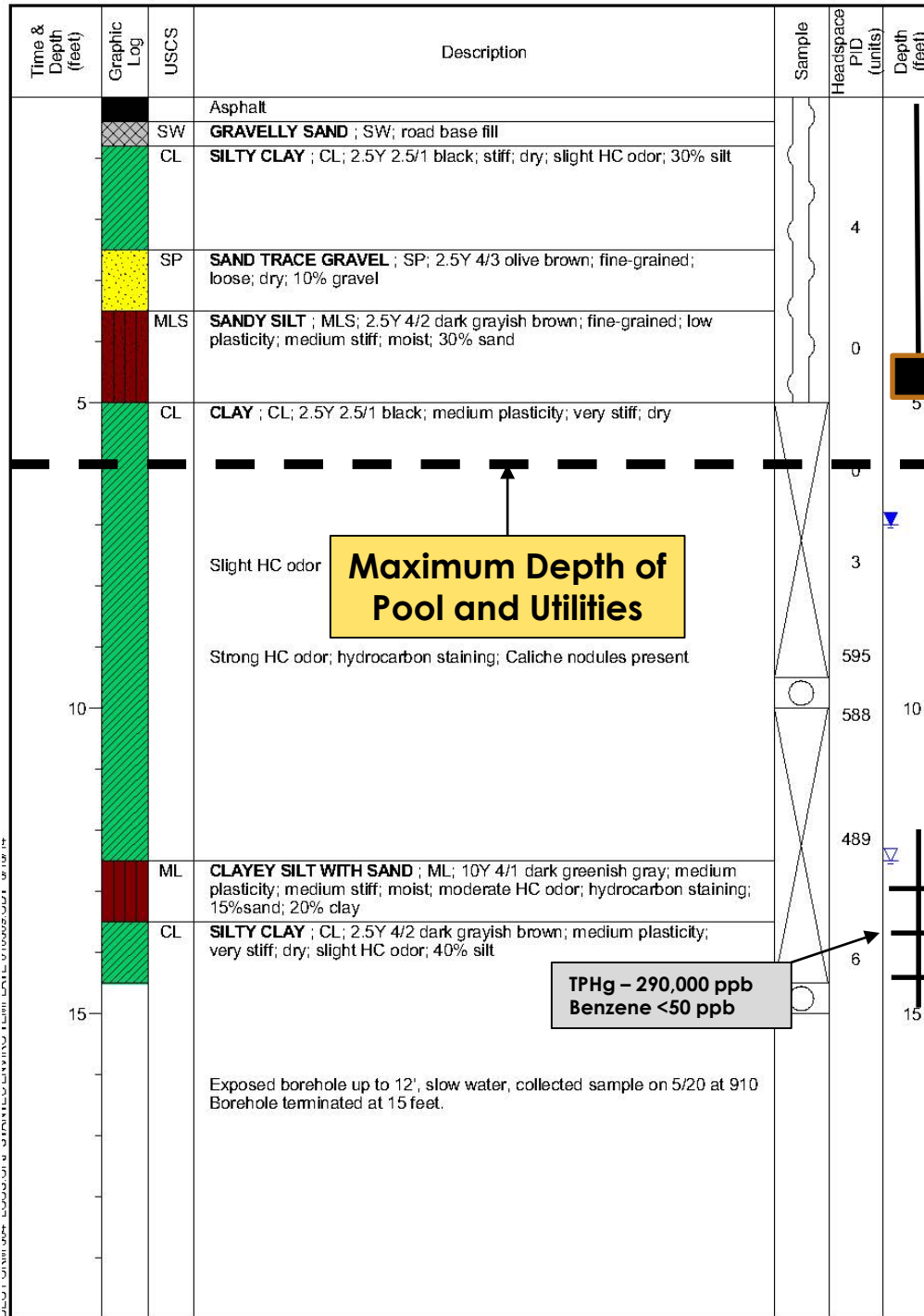
Conceptual Geologic Model – HP12, SV19, and MW-4



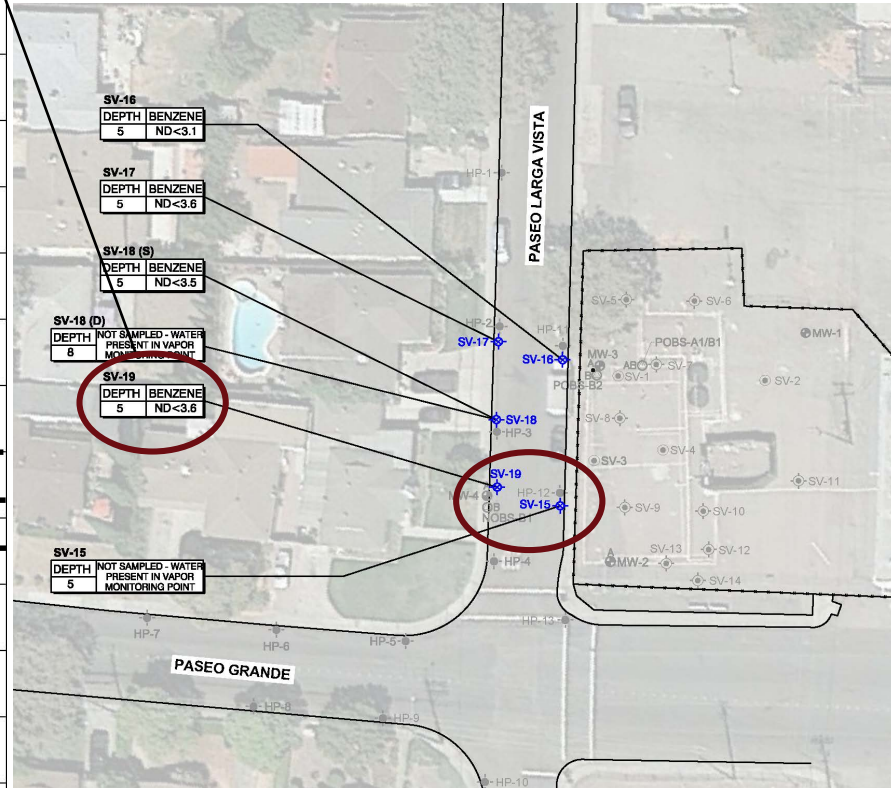
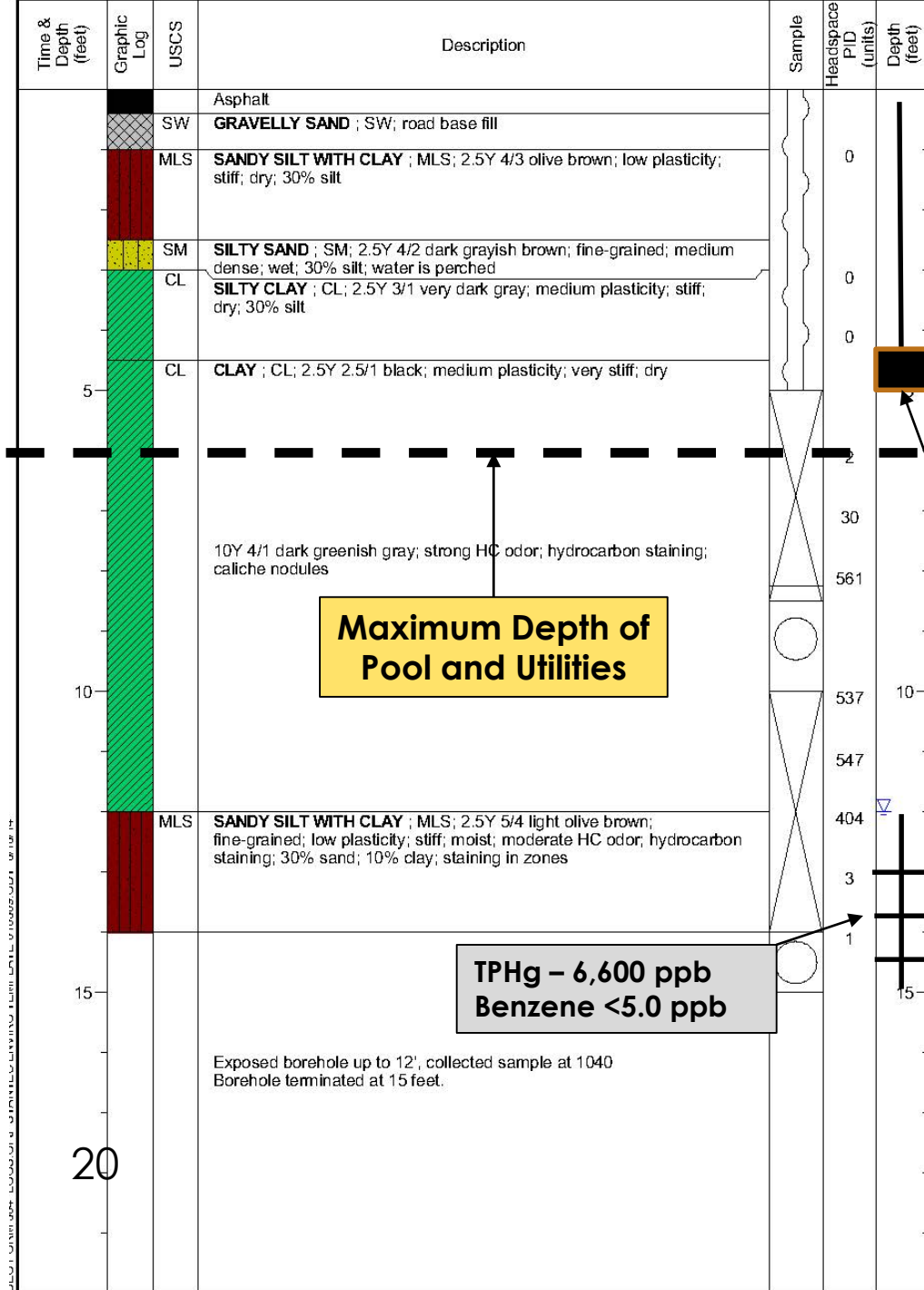
Conceptual Geologic Model



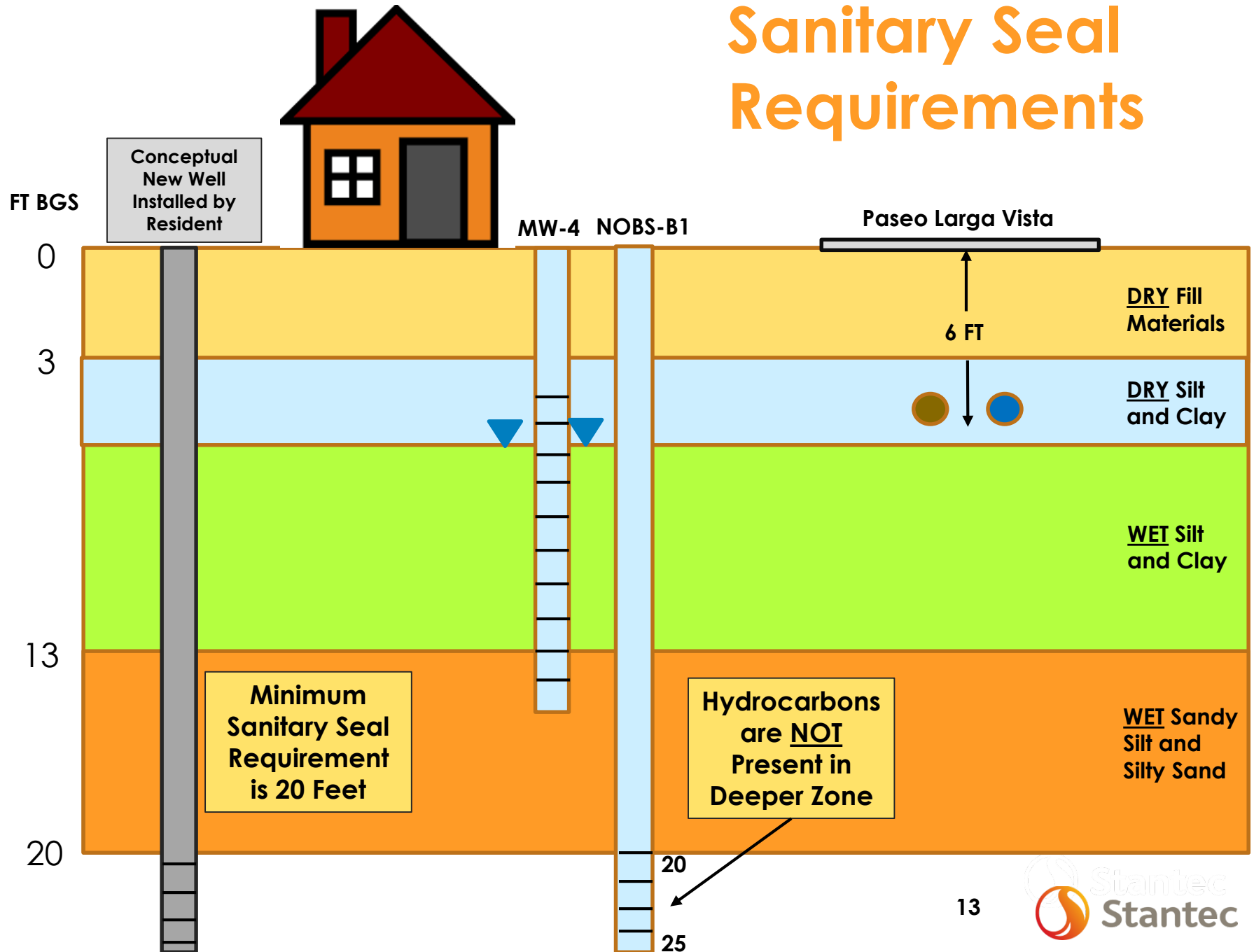
Conceptual Geologic Model – HP2 and SV17



Conceptual Geologic Model – HP12, SV19, and MW-4



Sanitary Seal Requirements



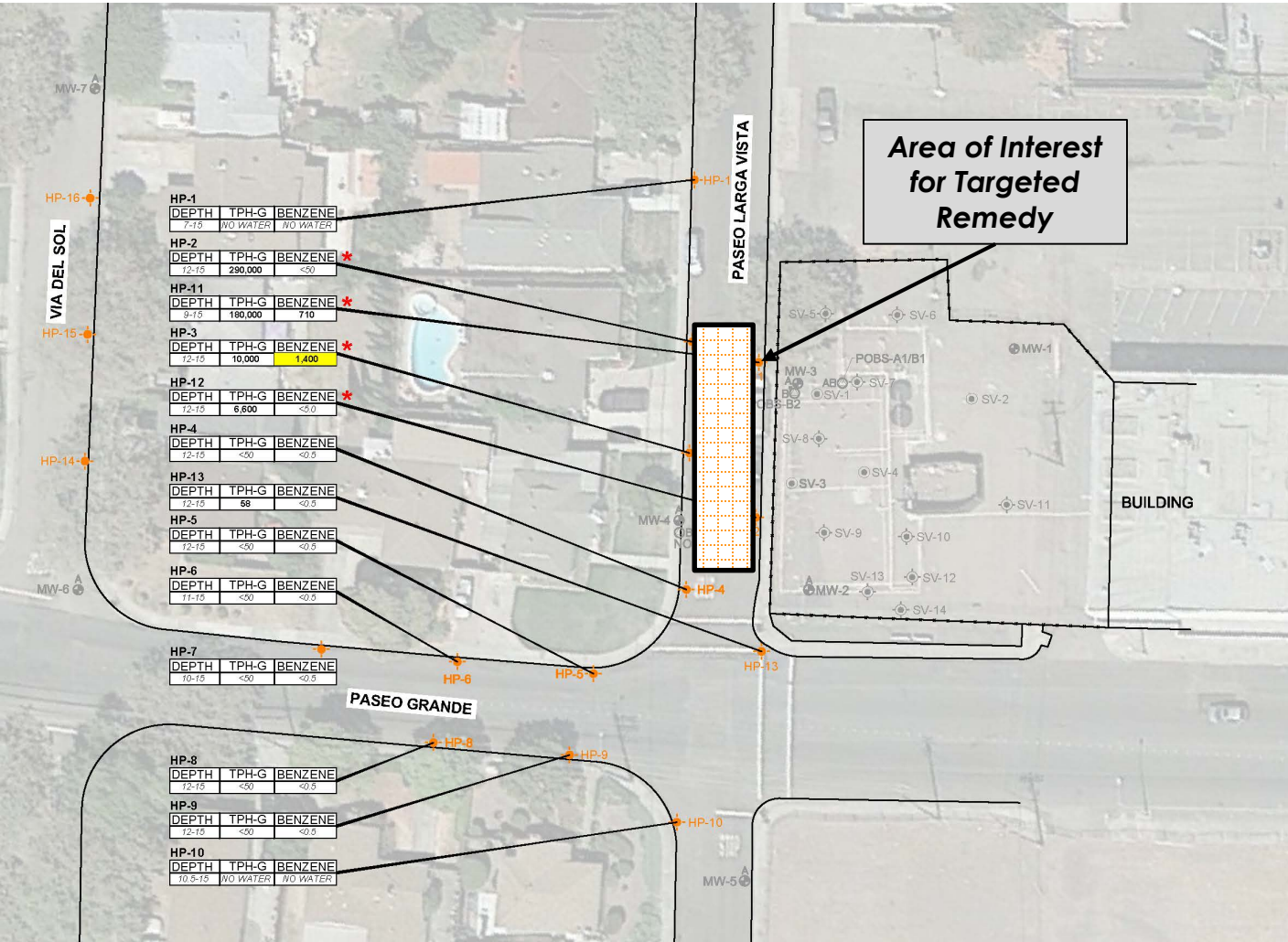
Summary of Key Items

1. Utility Depths are Above Zone of Hydrocarbons
2. Swimming Pool Depth is Above Zone of Hydrocarbons
3. Sanitary Seal Requirements Prevent Extraction of Hydrocarbons in Shallow Groundwater

Big Picture Summary

1. Remediation has been Completed to the Extent Practical and Consistent with County and State Guidance
2. Potential Future Exposure to On-Site Residual Impacts in Soil and Groundwater can be Managed through Land Use Controls
3. Data Collected beneath Paseo Largo Vista Demonstrates there is no Current or Likely Future Risk to Off-Site Receptors (Soil Contact, Groundwater Contact or Ingestion, Soil Vapor Inhalation)

Targeted Remedy



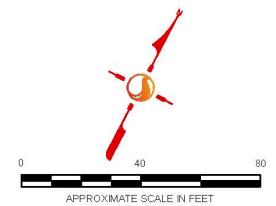
● MW-1 MONITORING WELL
 ○ NOBS-B1 OBSERVATION WELL
 ○ SV-1 SOIL VAPOR SAMPLE LOCATION (STANTEC, 2011)
 ⊕ SV-5 SOIL VAPOR SAMPLE LOCATION AND SOIL BORING LOCATION
 ⊕ HP-1 SOIL BORING/ HYDROPUNCH SAMPLE LOCATION
 ——— FENCE LINE
 WELL DESIGNATION
 A = INDICATES WELL IN THE A-ZONE
 B = INDICATES WELL IN THE B-ZONE

SAMPLE DEPTH (ft. bgs)	DEPTH	TPH-G	BENZENE
	12-15	290,000	<50

CONCENTRATIONS (µg/L)

(ft. bgs) = FEET BELOW GROUND SURFACE
 ug/L = MICROGRAMS PER LITER
 TPH-G = TOTAL PETROLEUM HYDROCARBONS, GASOLINE RANGE
 * = TPH-G EXCEEDS 100 mg/kg IN SOIL BETWEEN 5 AND 10 FT. bgs (SEE TABLE 4 AND FIGURE 4)
 = RESULT EXCEEDS SCREENING VALUE OF 1,000 ug/L FOR BENZENE - RWQCB LOW THREAT CLOSURE CRITERIA FOR VAPOR INTRUSION

NOTE:
BOLD INDICATES DETECTED CONCENTRATION.
 SAMPLES COLLECTED MAY 16 THROUGH 21, 2014



Targeted Remedy

1. Work Plan Submittal to ACHCSA
2. One-Time Targeted Injection of Materials to Enhance Reduction of Hydrocarbon Concentrations
3. Remedy to be Completed in Support of Site Closure
4. Post-Remedy Monitoring will not be Conducted

Recommended Path

1. Report Submittal to ACHCSA

- a. Updated CSM
- b. Work Plan for Targeted Remedy

2. ACHCSA Approves of Updated CSM and Plan

3. Implementation of Target Remedy

4. Report Submittal to ACHCSA

- a. Documentation of Remedy Implementation
- b. Updated Request for Closure

5. ACHCSA Approves of Closure