

Air Force Civil Engineer Center



Pease AFB RAB Meeting

22 March 2017



Agenda

- **October 5 2016 Minutes approval**
- **RAB Member Administrative Items**
- **Restoration Activities General Update**
- **PFCs at Pease Update**
- **Public Comments**
- **Meeting Recap, Next Steps,
Upcoming Meeting Dates**
- **Adjourn**



RAB Member Administrative Items

- **Approve Summary From Oct 2016 RAB Meeting**
- **RAB Operating Procedures Update**



Air Force Restoration Program

- **83 IRP sites**
 - **51 sites closed (cleanup finished, unrestricted use)**
- **Of remaining 32 sites**
 - **11 have cleanup activities complete (monitoring continues)**
 - **21 have active cleanup ongoing, including**
 - Groundwater treatment
 - Air sparging/soil vapor extraction
 - Permeable reactive barrier
 - Monitored natural attenuation
 - Long-term monitoring



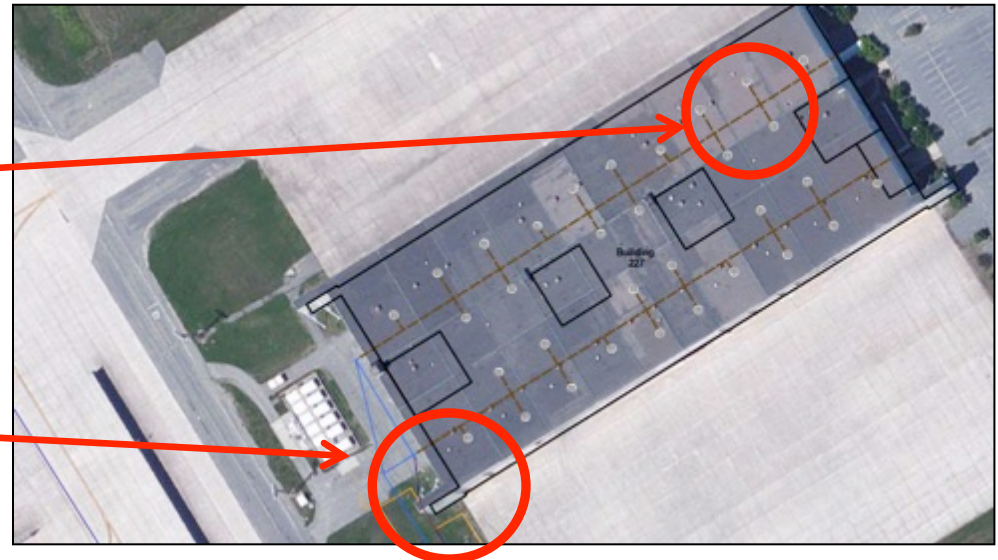
Site 39- Bldg 227 Hangar

- Largest Hangar at Pease
 - Constructed in 1956
 - 600ft L x 250ft W x 60ft H
- Aircraft Maintenance facility
 - Degreasing
 - Paint stripping
 - Aircraft repairs
 - Wash down of aircraft



Areas of Concern

- Former Wash Rack & HWSA in NE corner
- Floor drains/Sewer-Industrial waste lines – SW Corner





Site 39 - Bldg 227 Hangar

- Current Use – Storage of plow equipment for Airfield snow removal



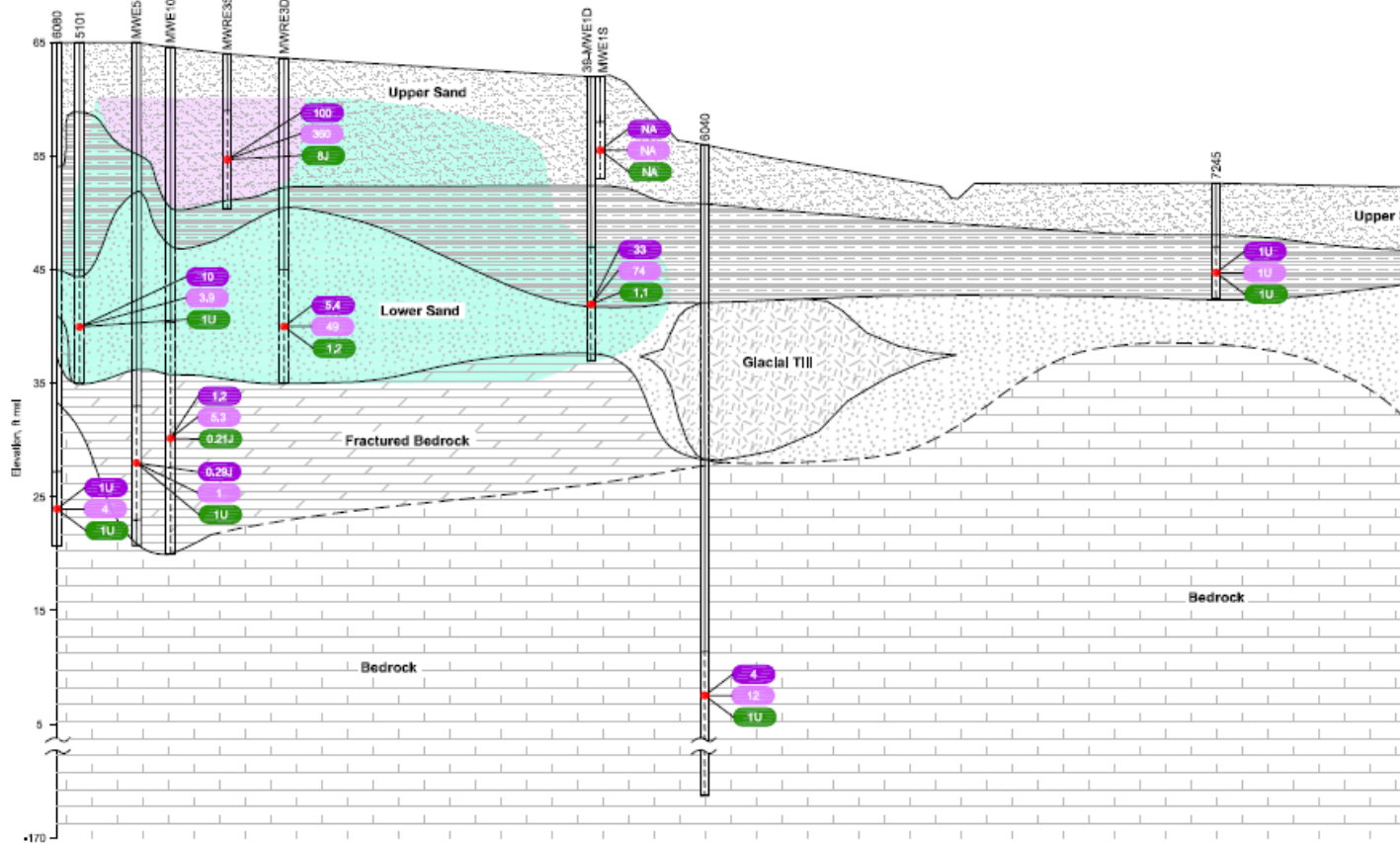


Site 39 - Restoration Program

- 1991 – Base Closure
- 1991 to 1993 – Initial Site Characterization & Remedial Investigation
 - COCs (PCE, TCE, BTEX, PAHs)
 - PCE → TCE → cis-1,DCE → vinyl chloride
- 1991 – Floor drains cleaned and sealed
- 1992 to 1993 - dual-phase groundwater/SVE treatment system
- 1995 – Zone 3 Record of Decision
- 1996 – Soil removal – 2 areas outside SW corner
- 1997 to 2015 **GW Extraction & Treatment – LS/SBR**
 - Substantially cleaned up Site GW
- 2011 to 2013 Vapor Intrusion Investigation – **Subslab PCE/TCE vapors**
- 2014 – Supplemental Soil Investigation
- 2015 - **GW Bio Treatment – Lower Sand**
- 2016 to 2017 – Supplemental subslab vapor/shallow GW investigation
- 2017 – **SVE under building**



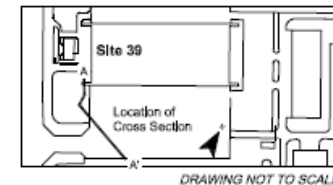
Site 39 – GW Treatment – 2004



Legend

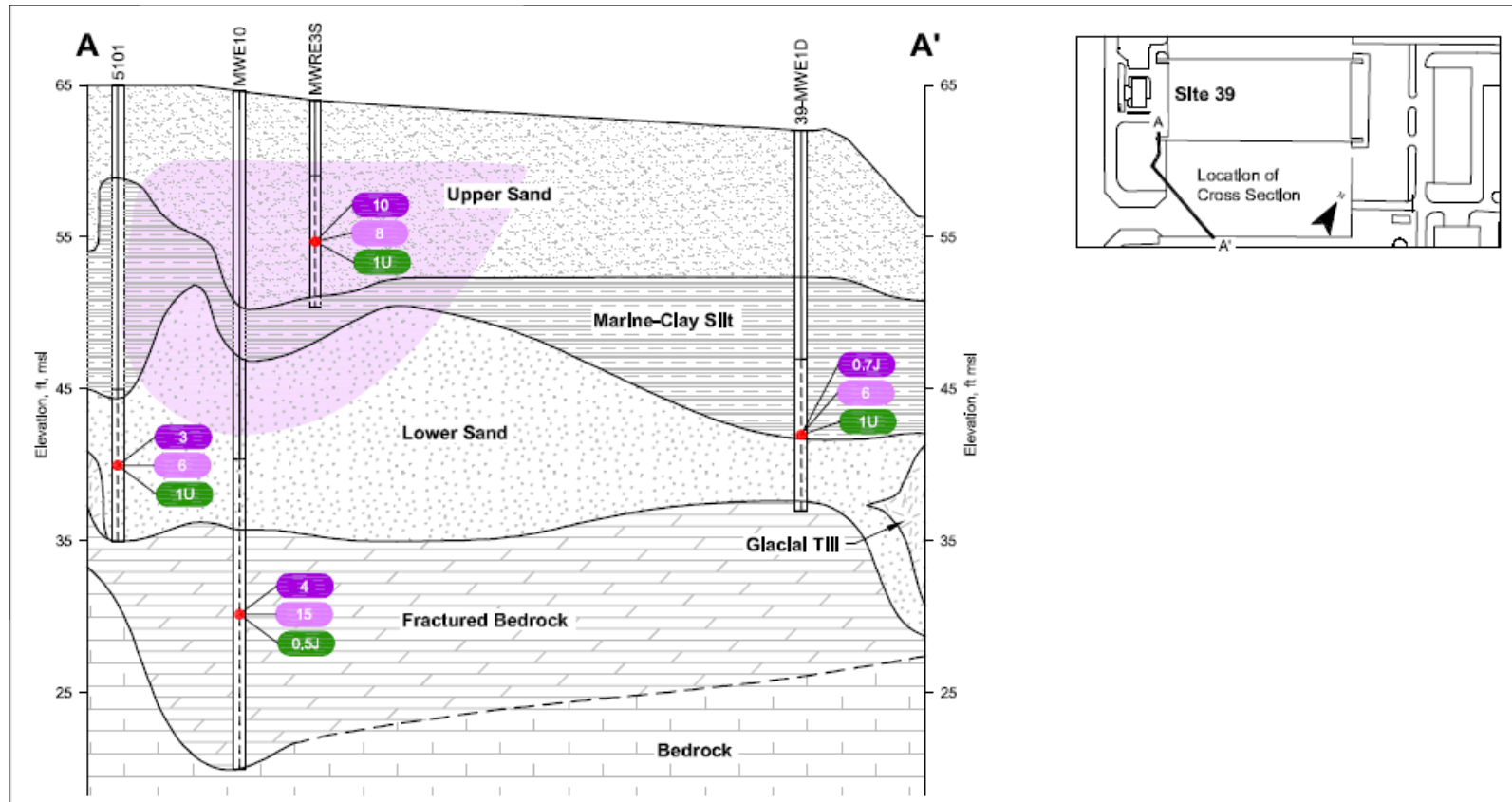
- Screened Interval
- Inferred Contact
- Trichloroethylene (TCE) (µg/L) (Restoration Goal = 5 µg/L)
- cis-1,2-Dichloroethylene (DCE) (µg/L) (Restoration Goal = 70 µg/L)
- Vinyl Chloride (µg/L) (Restoration Goal = 2 µg/L)
- Contaminant Plume consisting of TCE, cis-1,2-DCE and Vinyl Chloride above Zone 3 restoration goals
- Contaminant Plume consisting of TCE above Zone 3 restoration goals

1. Well construction data as presented in the "GeosInfo" database (Weston), Site 39 Tech Memo Phase II Groundwater Investigation Report, or Tech Memo: Site 39 Groundwater Investigation Phase II.
2. J = Estimated
3. ft.msl = Feet Mean Sea Level
4. NA = Not Analyzed
5. U = Analyzed for, but not detected. Associated value is the sample quantitation limit.



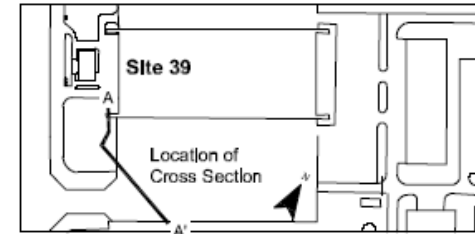
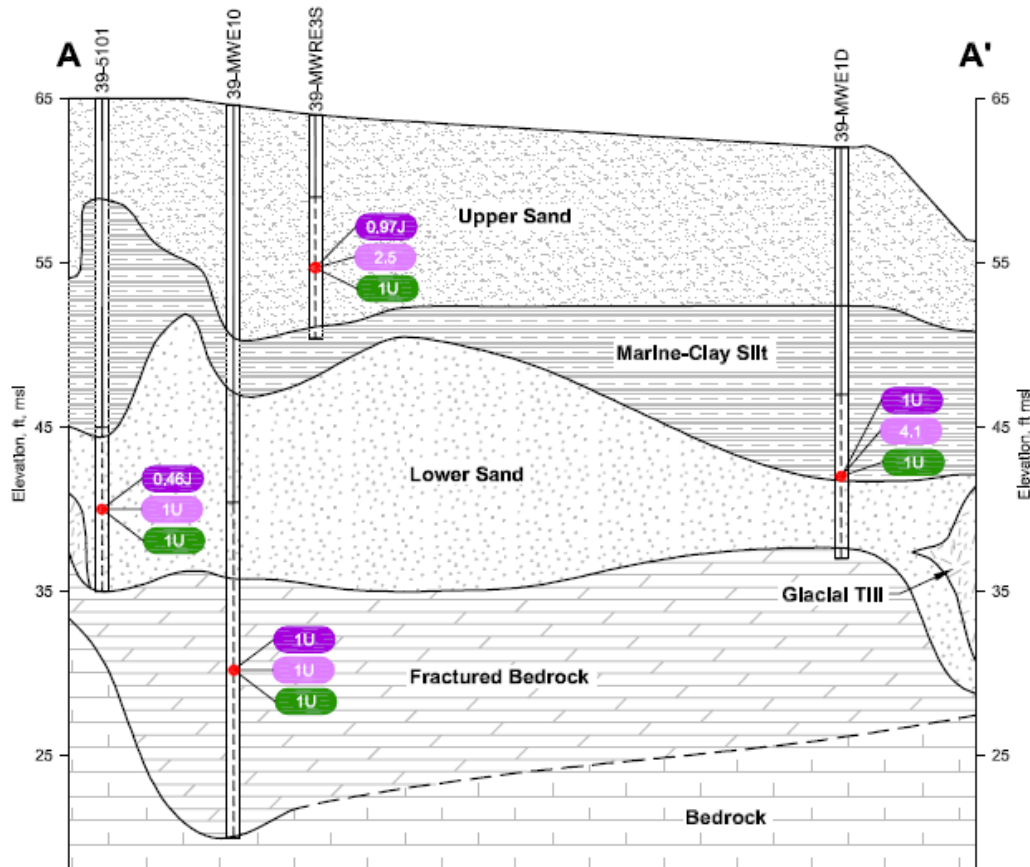


Site 39 – GW Treatment - 2009



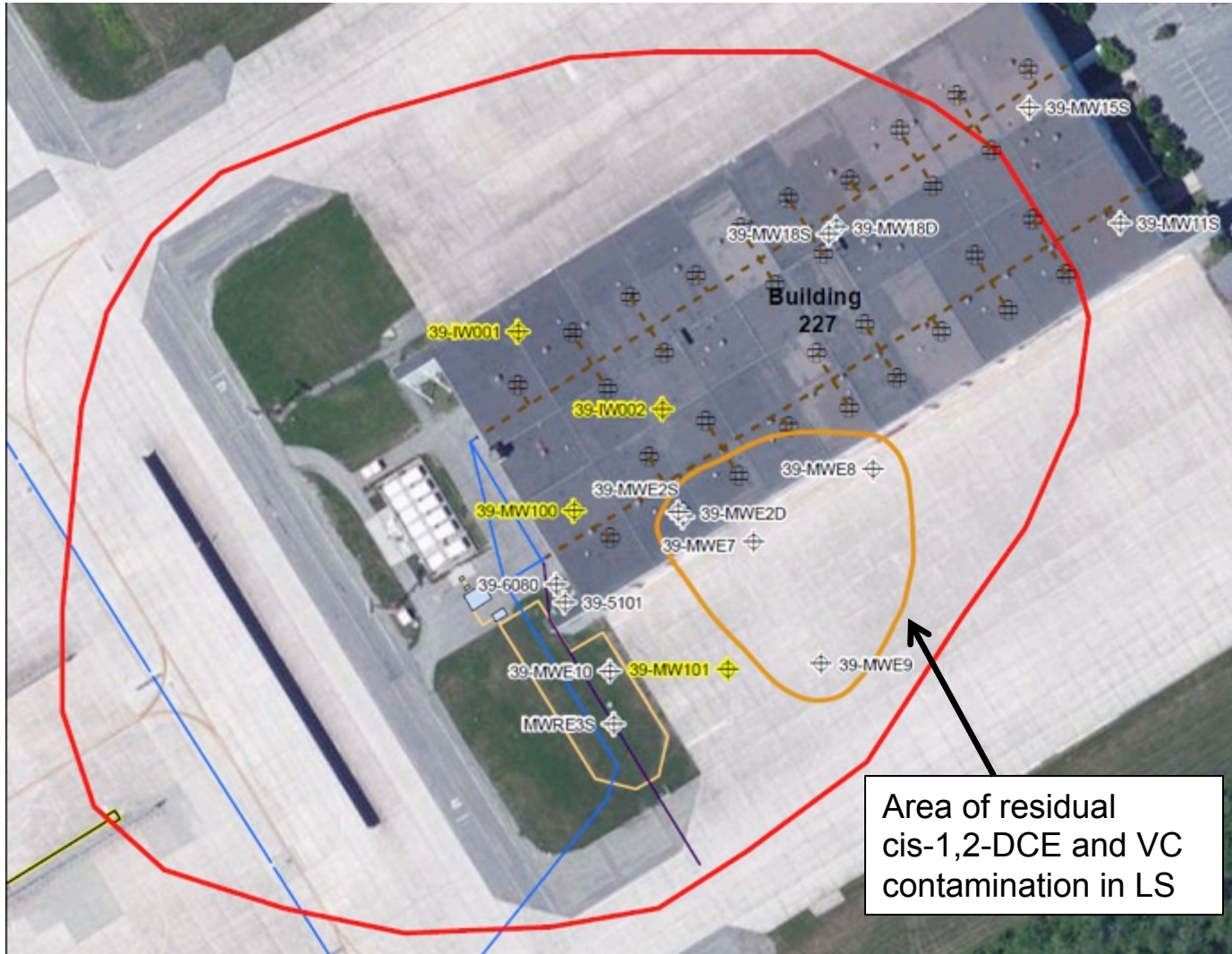


Site 39 – GW Treatment - 2015





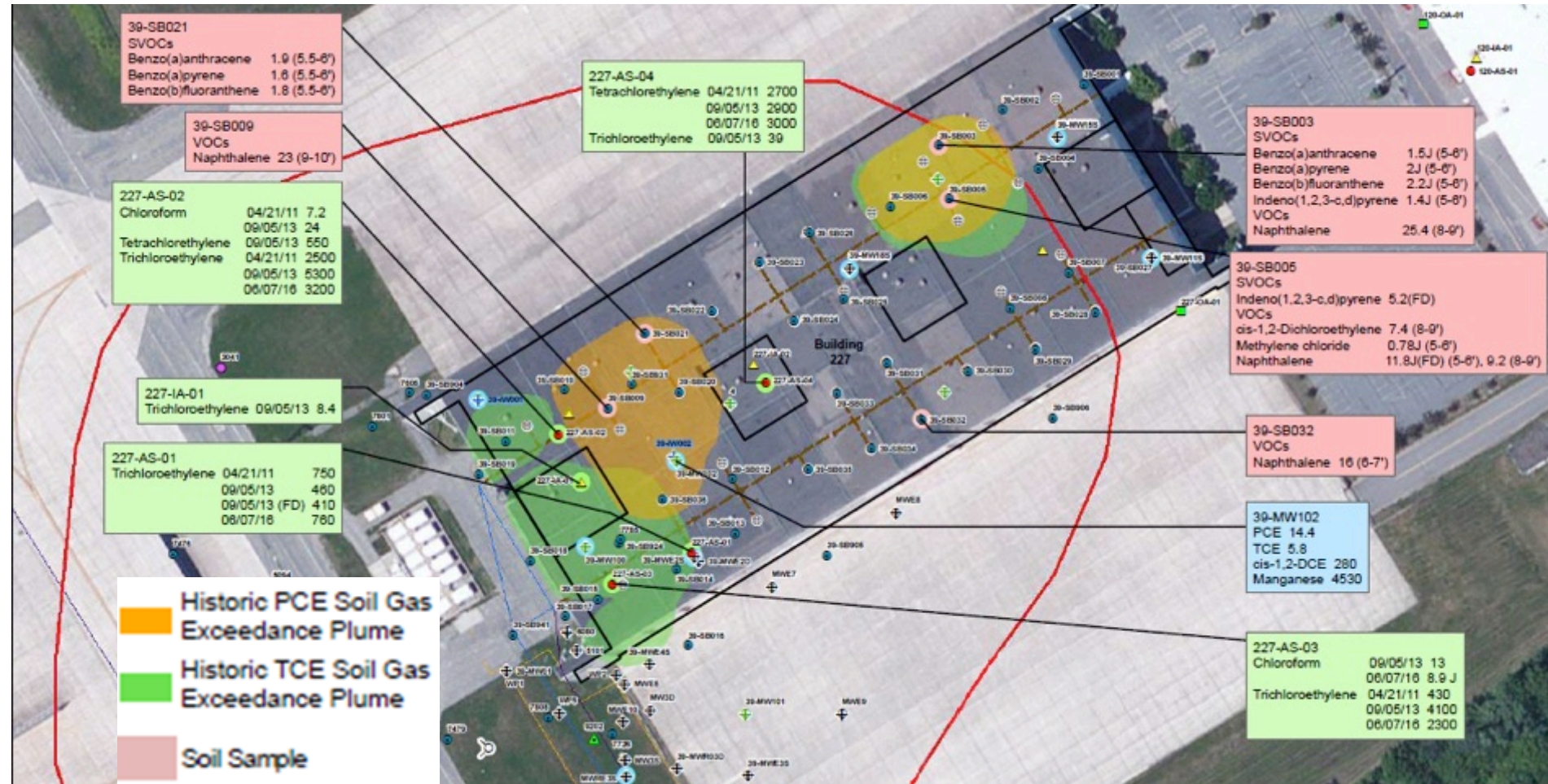
Site 39 – GW Treatment - 2015



Area of residual
cis-1,2-DCE and VC
contamination in LS



Site 39 - Conditions Under Hangar

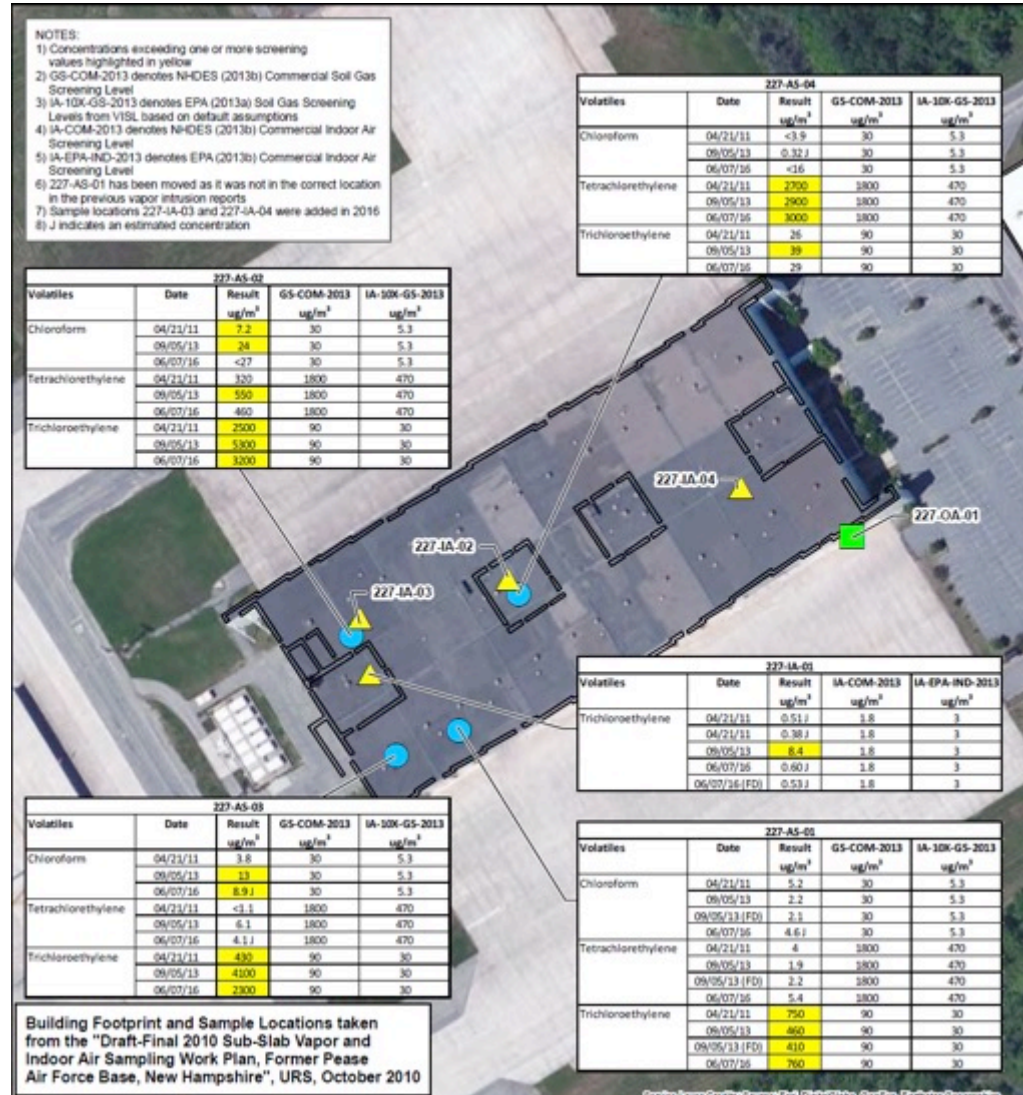


- Restoration planned this year to address residual contaminant sources under Building.



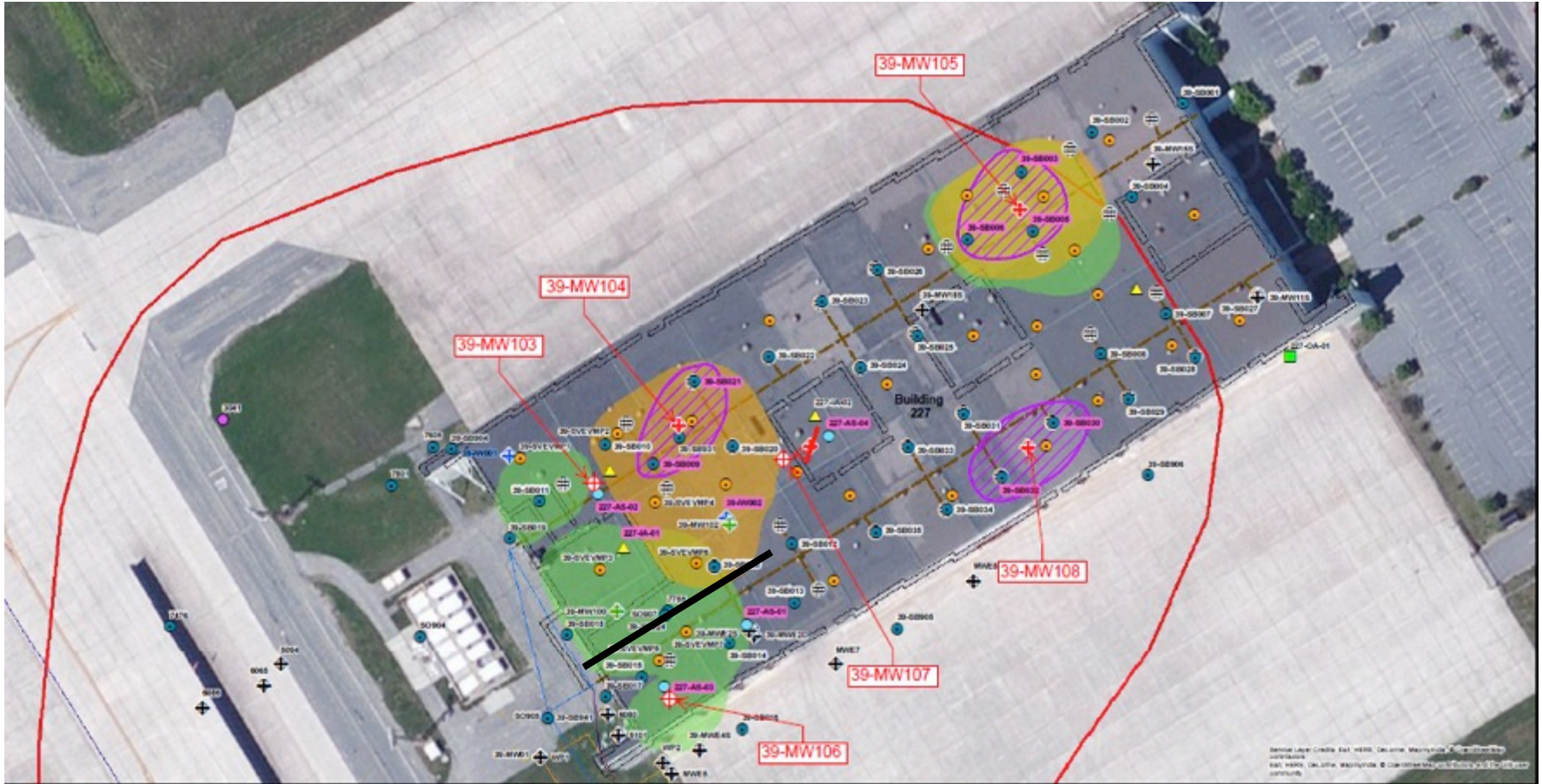
Vapor Intrusion Investigation

- Data indicate VI is not a significant concern for commercial use of Building.
- TCE detected above EPA and DES indoor air screening level in one out of three testing events – Tower D
- Planned SVE in 2017 to address sub slab vapors






Site 39 - New Wells Installations



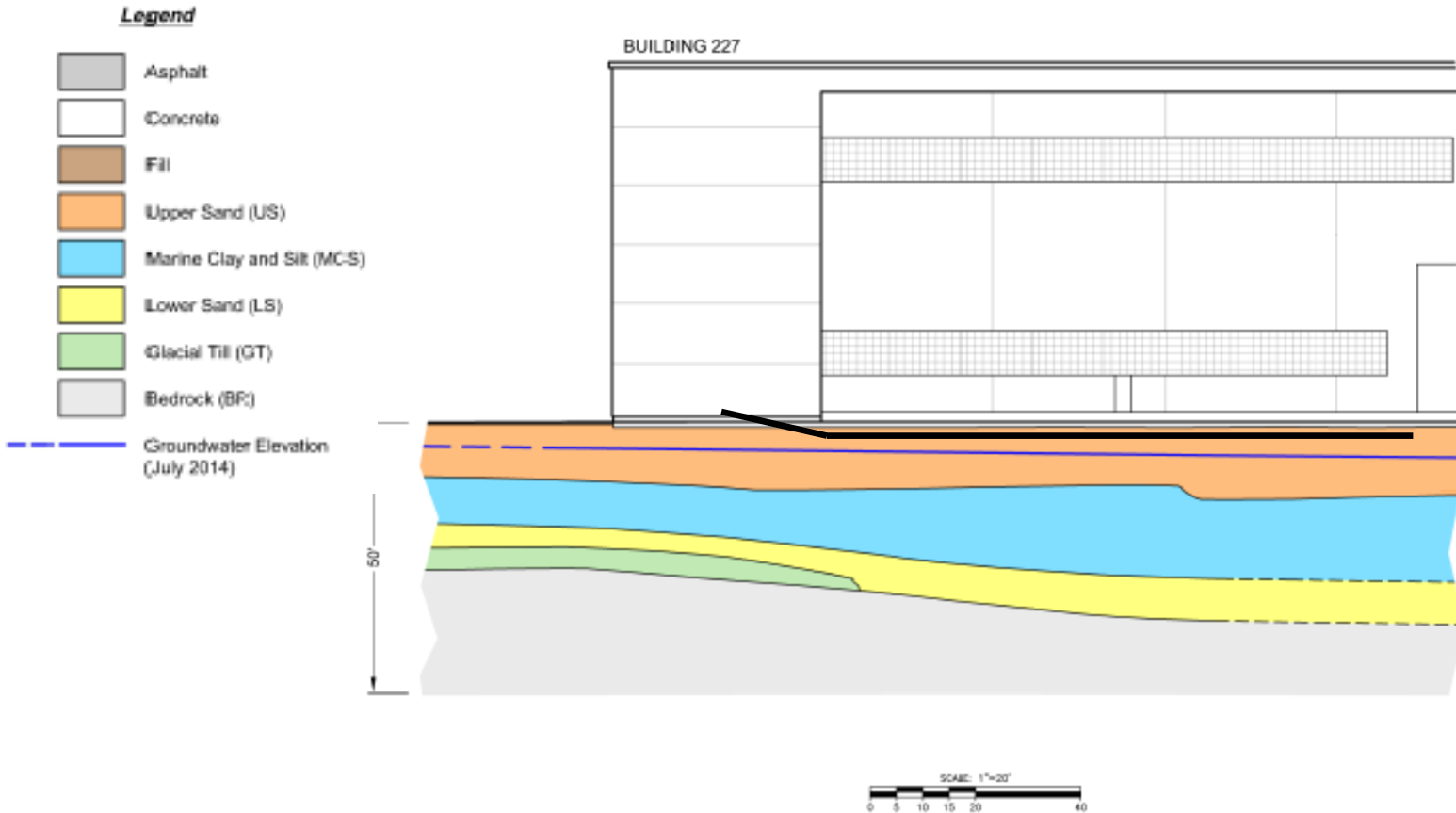
 New Shallow GW Wells

 Proposed SVE Well

 New Sub Slab Vapor Wells



Site 39- SVE Well Installation





Site 39 - Summary

- **Air Force has been conducting restoration activities at Site 39 since the Base was closed in 1991.**
- **Cleanup is almost Complete**
 - Low level groundwater contamination – small plume
 - Isolated, low level shallow soil contamination under building
- **Unrestricted Site Closure anticipated by 2020.**



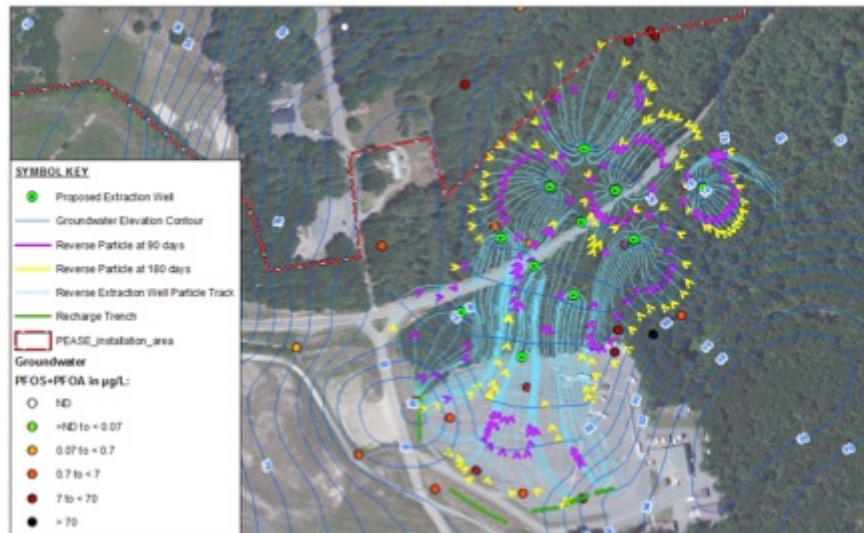
Update on PFCs at Pease

- **PFC-Related Quick Updates**
 - Wildlife
 - Old water
 - Coakley Landfill
- **Portsmouth Drinking Water Treatment System Update**
- **Air Force PFC Response Update**



Site 8 Interim Mitigation System

- **System Concept: Reduce further impacts to private wells downgradient of the former FTA**
 - Intercept PFOS and PFOA-impacted groundwater before it enters the bedrock groundwater
 - Cut off overburden groundwater flow to the north
 - Treat water using sorbent resin media
 - Discharge treated water back into the ground at the FTA

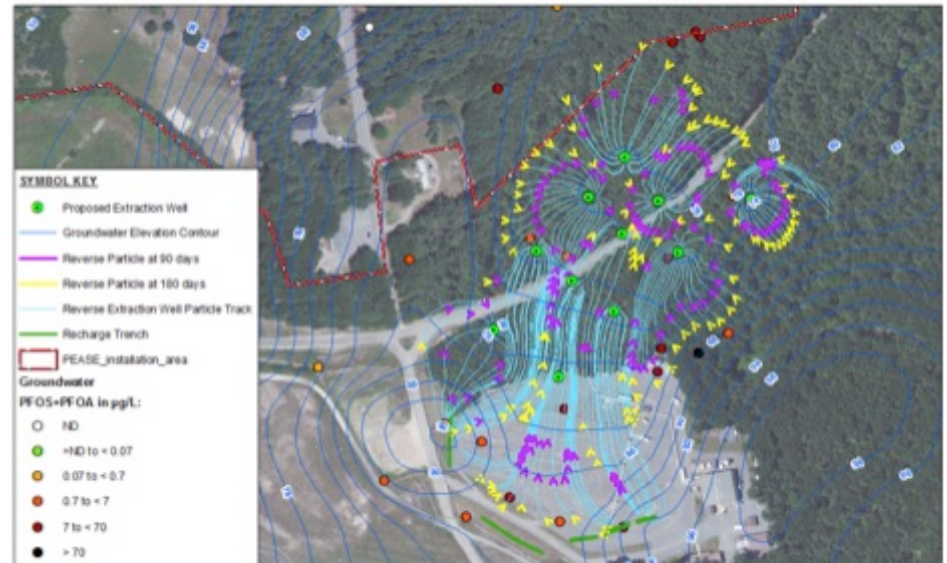




Site 8 Interim Mitigation System

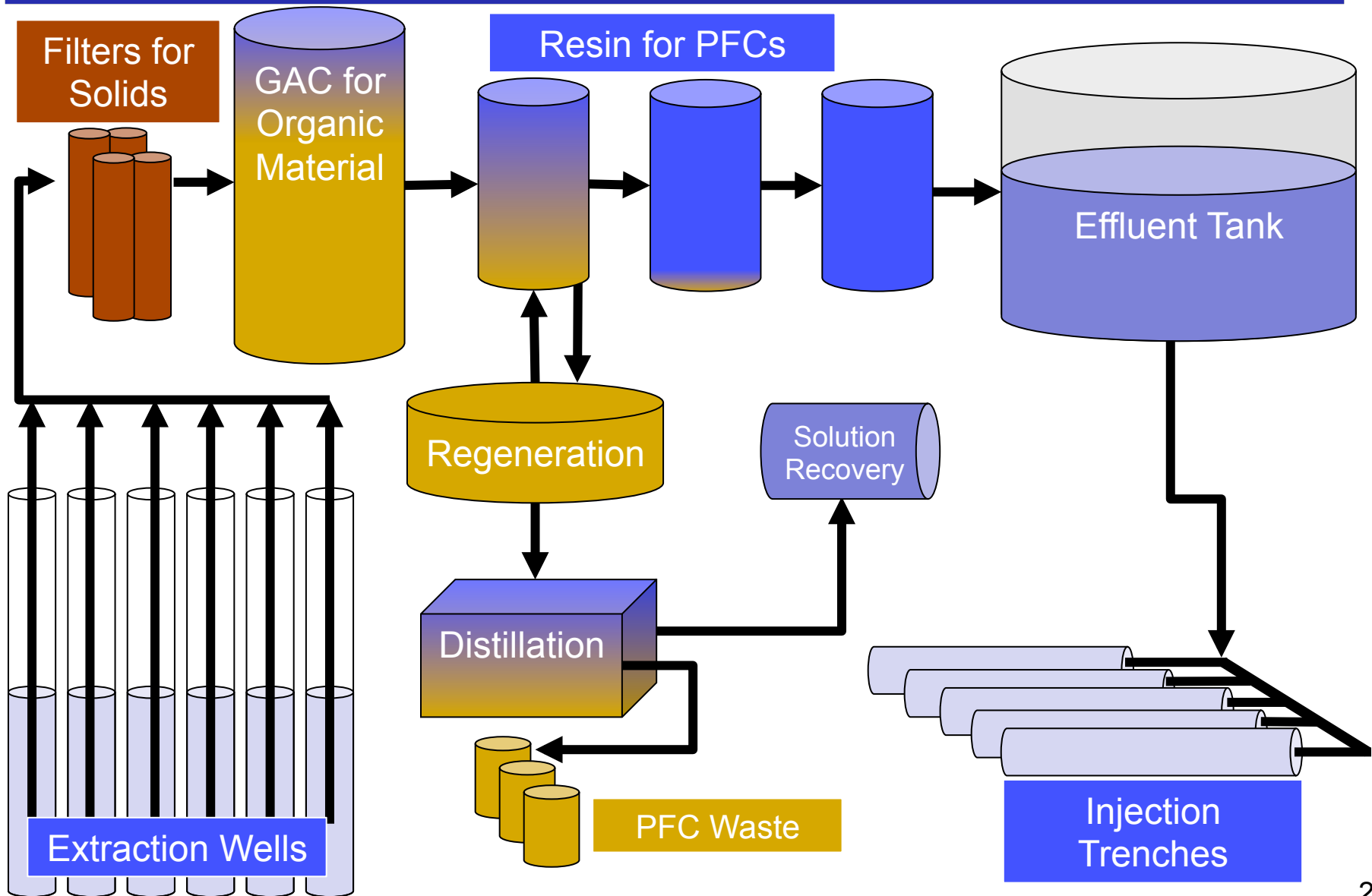
•System Facts

- Design Flow: 200 gallons per minute
- Number of extraction wells: 11
- Treatment process: Particle filters, granular activated carbon, sorbent media, in place regeneration of media





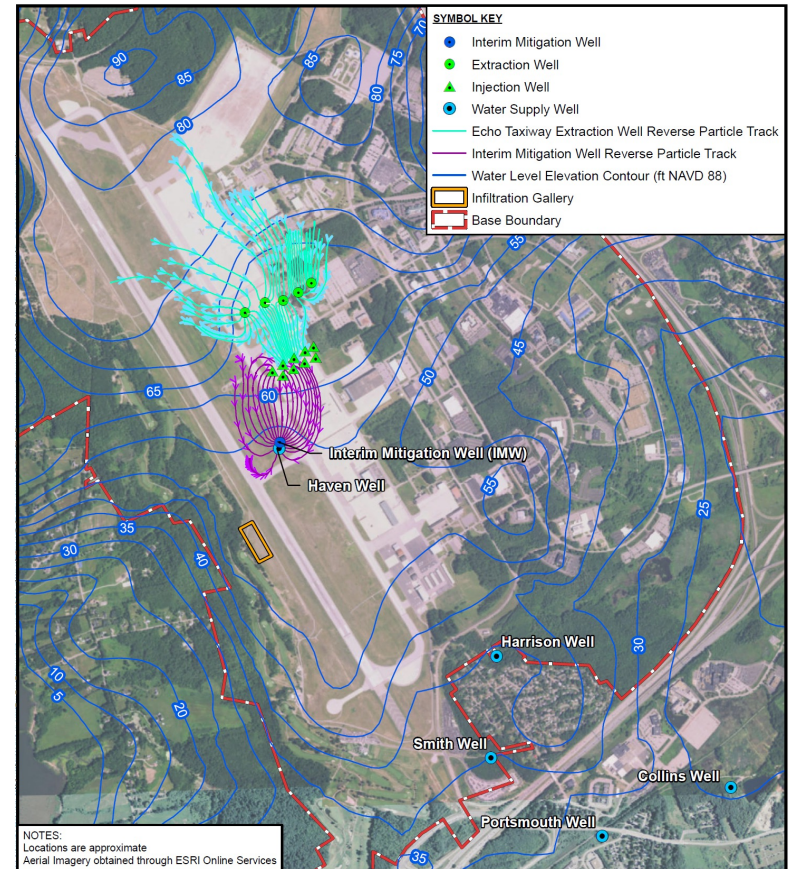
Site 8 Interim Mitigation System





Airfield Interim Mitigation System

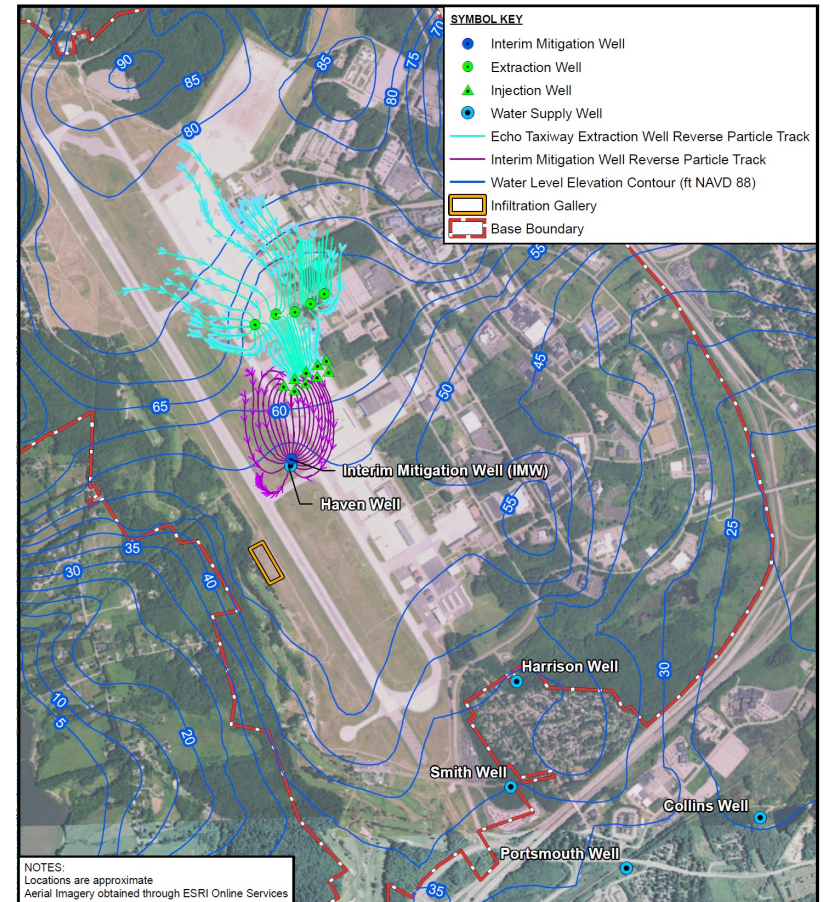
- **System Concept: Protect the Haven Well and Smith and Harrison Wells from further impacts**
 - Intercept PFOS and PFOA-impacted groundwater upgradient of Haven Well
 - Use a high-capacity well near the Haven Well to control flow towards the Smith and Harrison Wells
 - Treat water using granular activate carbon
 - Discharge treated water back to the aquifer to flush clean water to the Haven Well





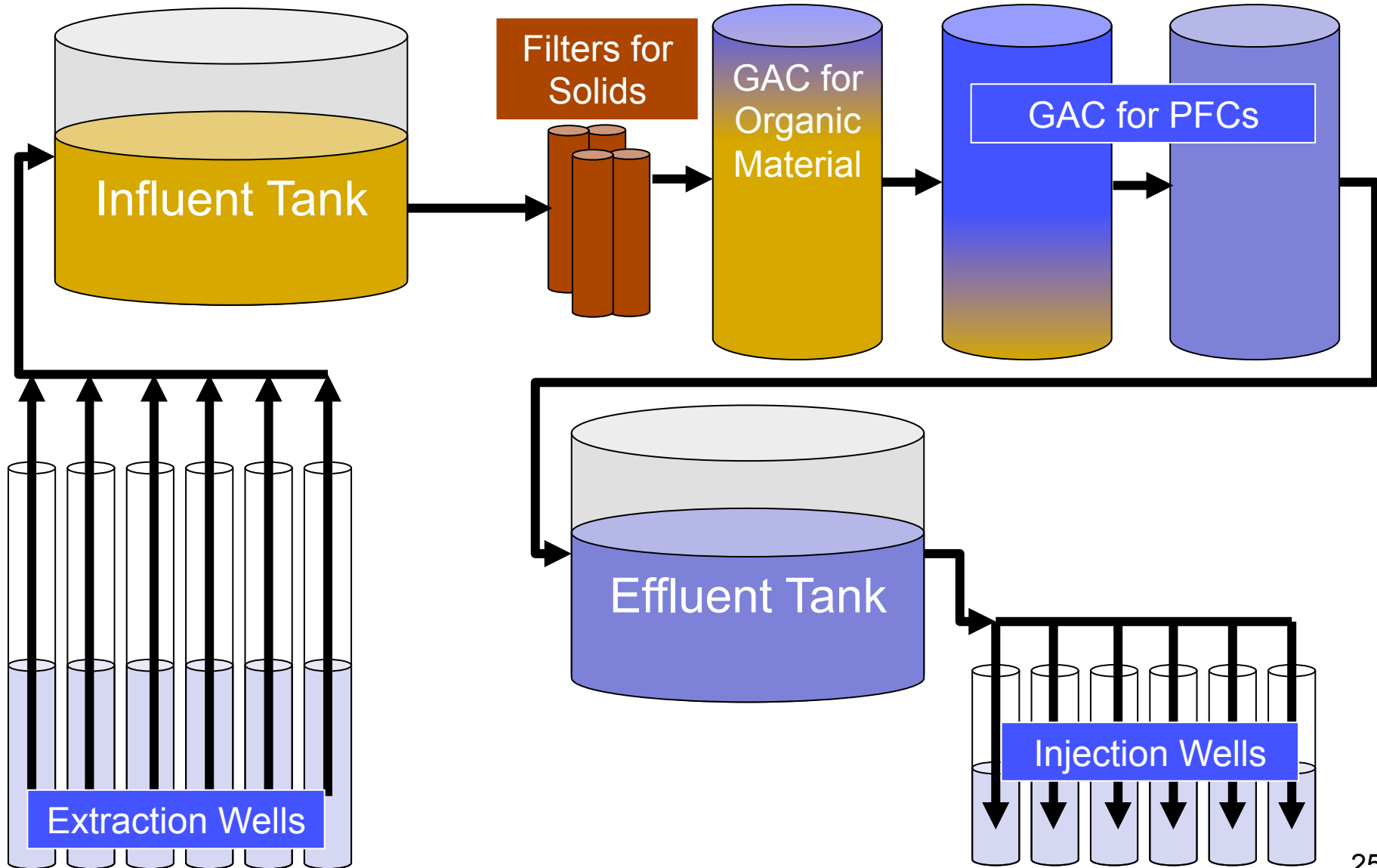
Airfield Interim Mitigation System

- **System Facts**
 - **Design Flow: 700 gallons per minute**
 - **Number of extraction wells: 6**
 - **Treatment process: Particle filters, granular activated carbon**





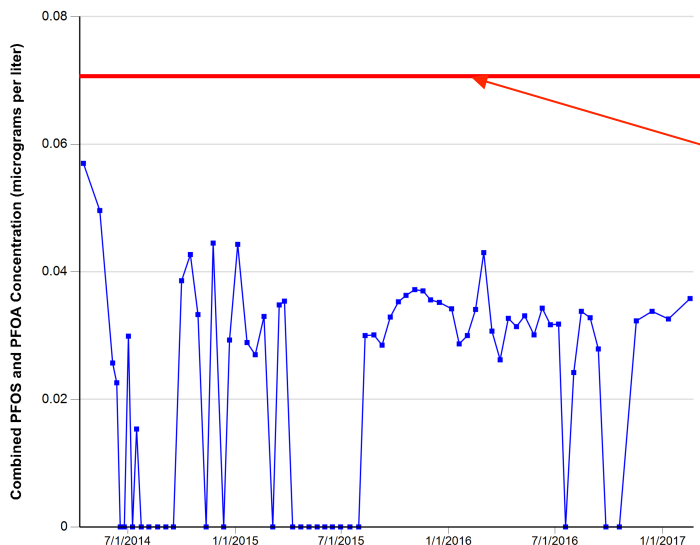
Airfield Interim Mitigation System



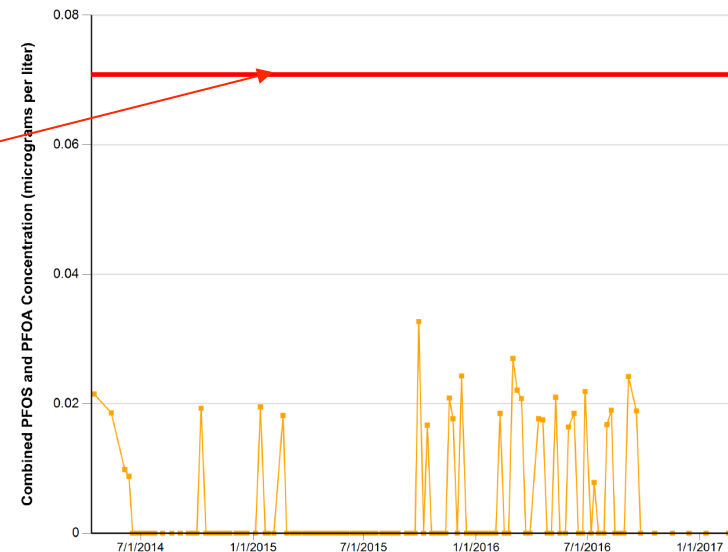


Update on PFCs at Pease

- **Air Force has continued to sample the Smith, Harrison, Portsmouth, and Collins Wells**
 - 117 sampling events and 773 samples (supply wells, sentry wells, and distribution points)
 - Concentrations are very stable – no changes
 - Data posted to City website
 - Sentry Monitoring performed in November 2016 - no changes



Harrison



Smith



Update on PFCs at Pease

- **2017 Planned Activities**
 - Test the groundwater injection field
 - Construct interim mitigation systems
 - Continue sentry well monitoring
 - Install wells and sample soil and groundwater to better understand distribution of PFOS and PFOA at Pease



RAB Discussion

Questions?



Public Comment

Goal: Provide opportunity for members of the public to comment.

Process: Public members fill out a comment card indicating they wish to speak. Statements are timed and are limited to 3 minutes for each speaker. The timer will notify the speaker when they have 30 seconds remaining and when they have reached 3 minutes.

Outcome: Questions will be answered in writing in Meeting Minutes and individually, if you leave us an email address



RAB Recap

- **Meeting Recap**
- **Next Steps**
- **Upcoming Meeting Dates**



Adjournment

