

**Meeting Minutes**  
**Wurtsmith BCT Meeting**  
**18 November 2020**  
**Teleconference**

Bay West Project No. J150073  
Location: Teleconference

Meeting Date: Wednesday, 18 November 2020  
Meeting Time: 0900-1010 EST

**MEETING ATTENDEES VIA TELECONFERENCE:**

Dan Medina	AFCEC	Dave Gibson	AFCEC
Catharine Varley	AFCEC	Mark Weegar	Cherokee Nation
Andrea Keatley	MDHHS	Mounica Nandula	MDHHS
Jeremiah Morse	AECOM	Puneet Vij	MDHHS
Paul Walz	Bay West	Dirk Pohlmann	Bay West
Andrea Stawowy	Bay West	Ryan Morrish	Bay West
Saamih Bashir	Wood	Jay Mullet	Wood
Mike Neller	EGLE- RRD – RRD Director, Lansing	Paula Bond	Aerostar
John Bradley	EGLE-RRD – Superfund Section, Lansing	Dale Corsi	DLZ
Beth Place	EGLE-RRD – Superfund Section, Lansing	Ann Person	EGLE – RRD -Bay City
Matt Baltusis	EGLE-RRD – Superfund Section, Lansing	Charlie Bauer	EGLE-WRD –Bay City
Brad Ermisch	EGLE-RRD - Compliance/Enforcement, Lansing	Amanda Armbruster	EGLE- RRD – Bay City
David Kline	EGLE – RRD – Superfund Section Manager, Lansing		
Teresa Seidel	EGLE – WRD-Lansing		

The meeting was held via Microsoft Teams. The meeting began at 0900 hours on 18 November 2020 and adjourned at 1010 hours. The meeting agenda is attached and posted to the Bay West Collaborative Website.

**1. Opening Remarks**

P. Walz opened the meeting with a greeting and introductions. The meeting purpose was to discuss environmental restoration program work at the former Wurtsmith AFB.

**2. Previous 28 October 2020 BCT Review**

- a. 28 October 2020 meeting minutes were finalized yesterday (17 November 2020). They will be posted to the Bay West Collaborative Website, and hard copy will be placed in the information repository (IR) at the Oscoda Library on 19 November 2020.
- b. Action Items – EGLE
  - i. Review Wurtsmith UFP-QAPP and propose metrics that will be used for data quality assessment should QA/QC samples be collected by EGLE, including reconciliation if the agreed upon data quality metrics are not achieved.
    1. B. Place agreed to review the QAPP and the split sampling language. B. Place will draft a split sampling procedure for Air Force review and comment. The task is not to revise the QAPP. This task is in progress and should remain on the agenda.
    2. B. Place stated the split sampling language would be updated closer to the commencement of RI field work.
- c. Bay West
  - i. Provide a copy of the SS057 Public Notice to EGLE - completed on 30 October 2020.

- d. Air Force
  - i. D. Gibson to forward link for ESTCP In Situ PFAS Sequestration in AFFF-Impacted Groundwater pilot study to project – included as part of the 28 October 2020 Meeting minutes.

### 3. DOCUMENT SUBMISSION SCHEDULE AND STATUS

Only documents that have changed status since the previous BCT were discussed. Anticipated date which EGLE will receive the documents will be added to document table in the future agendas. The anticipated submittal date won't be populated until review of the Draft document has been completed by the Air Force and the RTC preparation/concurrence process has begun.

#### Bay West / Wood

- a. SS008 and WP004 Draft Final Work Plans
  - i. EGLE submitted comments on 28 October 2020, there were no comments on the SS008 UFP-QAPP RA-O WP/FSP. Revised RTCs for the WP004 UFP-QAPP RA-O WP/FSP were submitted yesterday (17 November). The Agenda will be updated to remove the 20 August 2020 date, the date the report was submitted to EGLE.
  - ii. B. Place asked when will the projected EGLE dates be added to the Document Schedule. D. Gibson clarified that once the Air Force provides comments on documents back to the contractor the anticipated submittal date to EGLE will be added. P. Bond stated that for Aerostar documents, the dates listed on the Agenda are the anticipated delivery dates, based on the RI schedule. D. Gibson said since the RI has a schedule the anticipated submittal dates will be moved to the comments.
  - iii. B. Place asked if the Draft Five Year Review was still on schedule for EGLE review by the end of November 2020. D. Gibson explained that there are many bases completing Five Year Reviews. The updated EGLE anticipated submittal date is 31 December 2020.
  - iv. B. Place also asked about the FT002 UST, on the schedule Bay West is preparing RTCs to Air Force comments. P. Walz stated the RTC would be submitted to Air Force this month, but the field work would not take place until April 2021 allowing sufficient time for EGLE review/approval prior to implementation.

### 4. FIELD WORK UPDATE AND SCHEDULE

#### Bay West

- a. FT002 Carbon Change out
  - i. The 22<sup>nd</sup> GAC changeout is tentatively scheduled for 04 January 2021, pending sampling results.
- b. SS057 RAWP Implementation
  - i. The fourth quarterly sampling event took place the week of 12 October 2020. The third injection took place 11 November 2020, at the middle trench only.
- c. FT002 RAWP Implementation
  - i. Field work is tentatively scheduled for April 2021.
- d. Annual LTM groundwater monitoring
  - i. The RA-O LTM Annual sampling began in May and was completed in October 2020. Bay West followed the approved 2019 Sampling Plan. 2020 IRP sites completed: FT002, LF027, LF030/031, OT016, OT024, SS005, SS006, SS008, SS021, SS072, SS071, SS057 and WP004.
- e. Annual Basewide groundwater gauging

- i. Bay West gauged 447 locations the week of 02 November 2020.
- f. SS057 IAB Update/Presentation
  - i. D. Pohlmann presented a SS057 IAB progress slide show. Slides are attached to the Meeting minutes. Take away points:
    1. COC concentrations in the southern treatment zone have consistently been below remedial objectives, monitoring for rebound will continue.
    2. Nitrate applications are being managed so nitrate concentrations do not exceed 10 mg/L outside each treatment area, or the boxes shown on the figures.
    3. November 2020 injection only included the middle trench as wells in the treatment zone down gradient of the northern trench had nitrate concentrations above 10 mg/L.
    4. Plate counts have fluctuated during the various performance monitoring events, but no evidence of bioremediation inhibitory conditions have been observed.
    5. Next monitoring event is scheduled for April 2021.
  - ii. M. Neller inquired about the SS057 IAB remedy costs. D. Pohlmann stated overall it is a fairly low-cost treatment system. D. Gibson suggested providing EGLE with projected costs be added as an action item, M. Neller agreed. M. Neller also inquired if the Air Force is looking into any alternative PFAS treatment solutions as are being used at other sites in Michigan such as PlumeStop™ at Camp Grayling. D. Gibson stated that all options will be looked into. After the RI is complete, remedial alternatives will be evaluated in a feasibility study, followed by a Proposed Plan which will include a recommended remedy or remedies.

#### **Bay West/Wood**

- g. VIAP Update
  - i. S. Bashir stated Q2 sampling results have been submitted to the Air Force. Q3 sampling took place the week of 9 November 2020. EGLE was on site 10 November 2020 to observe. Based on questions from EGLE and MDHHS, Wood will create a photo log with sample locations and buildings included for a visual to use when reviewing data. The November 2020 VIAP data should be submitted for Air Force review by the end of the year, then it will be passed on to EGLE.

#### **Aerostar**

- h. Central Treatment System (CTS) Status
  - i. P. Bond stated the CTS is operating as designed, regular sampling confirms SRD requirements are being met.
  - ii. The 4-inch line from the Benzene wells to the CTS system was flushed out this week.
- i. Mission Pump and Treatment System (MPTS) Status
  - i. P. Bond stated the MPTS is operating as designed, regular sampling confirms SRD requirements are being met.
  - ii. P. Bond stated the resin in the lead vessel was exchanged on 13 November 2020, and the lead and lag vessel positions were rotated. This was the second resin exchange since start up in December 2019.
- j. Remedial Investigation Status
  - i. Continued preparation of the UFP-QAPP and the document is now in Air Force review. The 60 % Remedial Design for the Van Etten Lake treatment area has been submitted to the Air Force and the FT002 60% Interim Remedial Action Design is in the design phase.
  - ii. P. Bond stated a Scoping Meeting was held with EGLE regarding the risk assessment on 04 November 2020, the next scoping meeting for follow up on the CSM/DQO was scheduled for

09 December but has been pushed to 17 December 2020. The goal is an in-person meeting, with a phone line available, but this is tentative due to COVID and potential travel restrictions. With the revised schedule that pushes the review time to 02 February 2021. B. Place confirmed the read ahead for the 17 December 2020 meeting will be sent the week prior, 07 December 2020.

- iii. P. Bond stated Aerostar collected 24 water levels for the CSM in conjunction with Bay West and the annual site wide gauging event. P. Bond will submit a water level spreadsheet to EGLE.
- iv. B. Place informed the group that AECOM will be in the Oscoda area this week to sample some of the EGLE wells.
- v. The RI schedule will be included as an attachment to the meeting minutes.

## **5. AIR FORCE UPDATES**

- a. OWAA 10 parcels
  - i. No update provided.
- b. RAB Update
  - i. The next RAB is scheduled for 20 January 2021 at 1700 EST.
  - ii. Oscoda Township Stormwater discharge fee – is still under Air Force review. Air Force continues to pay the fee for the CTS discharge. M. Neller asked what is left of the Stormwater discharge fee review. D. Gibson explained it is at Air Force management for review. M. Neller asked for a time frame. D. Medina stated he would follow up with M. Neller offline.
  - iii. Air Force is working on a response to the revised SRD sampling plans for CTS, MPTS and FT002, it should be submitted in a few weeks.

## **6. EGLE RRD – SUPERFUND SECTION UPDATES**

- a. Other – RAB topics
  - i. B. Place asked if the RAB focus was going to be PFAS. If other topics are on the agenda, EGLE would like to know ahead of time to be prepared. The SS057 slides from this meeting will be in the IR for review so there is no need to present at the RAB. The VIAP report will be completed before the RAB is briefed on any of the results. The VIAP is not a topic that will be included in the January 2021 RAB.
  - ii. B. Place stated an email had been sent to the Air Force letting them know that multiple reports were added to the MPART website: 2017-2018 Groundwater, Surface Water Report and the Paleochannel Report.
  - iii. B. Place informed the group that EGLE has tentatively scheduled a Town Hall meeting on 19 January 2021.
  - iv. There is an EGLE call scheduled later today with the State and Townships.

## **7. EGLE RRD – BAY CITY DISTRICT UPDATES**

- a. A. Armbruster stated that the wells installed in the 2017 and 2018 time period around the Oscoda area have been sampled for one year. A portion of the results have been received; they look similar to previous events.
- b. Kings Corner Road Dump – Due to elections, there will be significant changes to the Oscoda Township board, A. Armbruster will reach out to the new staff for an update about future investigations in the area as the previous Oscoda Township board members did not return her recent calls.

- c. D. Gibson asked if all EGLE reports on the Oscoda area sampling will be available to the Air Force, B. Place confirmed they would be

## **8. EGLE WRD – UPDATES**

- a. Revised SRD sampling plan for CTS, MPTS and FT002 is awaiting Air Force comments.
- b. Surface water/fish sampling in the area – no update.
- c. Oscoda Township Wastewater Treatment Plan (WWTP) update
  - i. No update.
  - ii. D. Gibson asked what sampling consisted of at the WWTP. C. Bauer stated that sampling was completed at the plant as part of EGLE’s Industrial Pretreatment Program (IPP) PFAS Initiative with results exceeding 70 ppt. The Township is in the process of identifying major sources of PFOS and PFOA to the WWTP. WWTP PFAS sampling is not completed on a regular basis, it was sampled to evaluate whether PFAS was present in WWTP influent. The WWTP is not required to monitor the discharge monthly for PFAS. C. Bauer noted in an 18 November 2020 email, after the meeting, that Oscoda WWTP influent and effluent is monitored for PFAS on a monthly basis.

## **9. MDHHS UPDATES**

- a. Residential Well sampling update
  - i. P. Vij stated the first round of results will be going out soon.

## **10. Next Meetings:**

- a. BCT – 16 December 2020, 0900 – 1100 EST
- b. BCT – 27 January 2021, 0900 – 1100 EST
- c. BCT – 17 February 2021 0900 – 1100 EST
- d. RAB – 20 January 2021

## **11. ACTION ITEMS:**

- a. EGLE
  - i. B. Place will review the Wurtsmith UFP-QAPP and propose metrics for assessing data quality for split samples and corrective actions if metrics are not met.
- b. Bay West / Air Force
  - i. Provide SS057 Annual O&M costs.
- c. Aerostar
  - i. Submit the water level spreadsheet to EGLE
- d. Air Force
  - i. Follow up with M. Neller on estimated time frame of storm sewer discharge fee review.

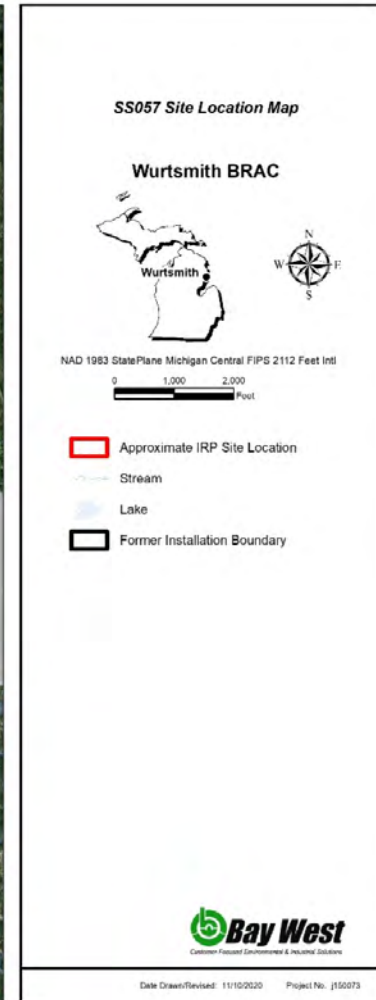


**Former Wurtsmith AFB  
RAB Meeting  
November 2020**

**SS057 In Situ Anaerobic Biobarrier (IAB)  
Remedy Implementation and  
Performance Monitoring**



# SS057 Old Apron Hydrant Fuel System Site Location



# SS057 IAB Remedy Purpose and Approach

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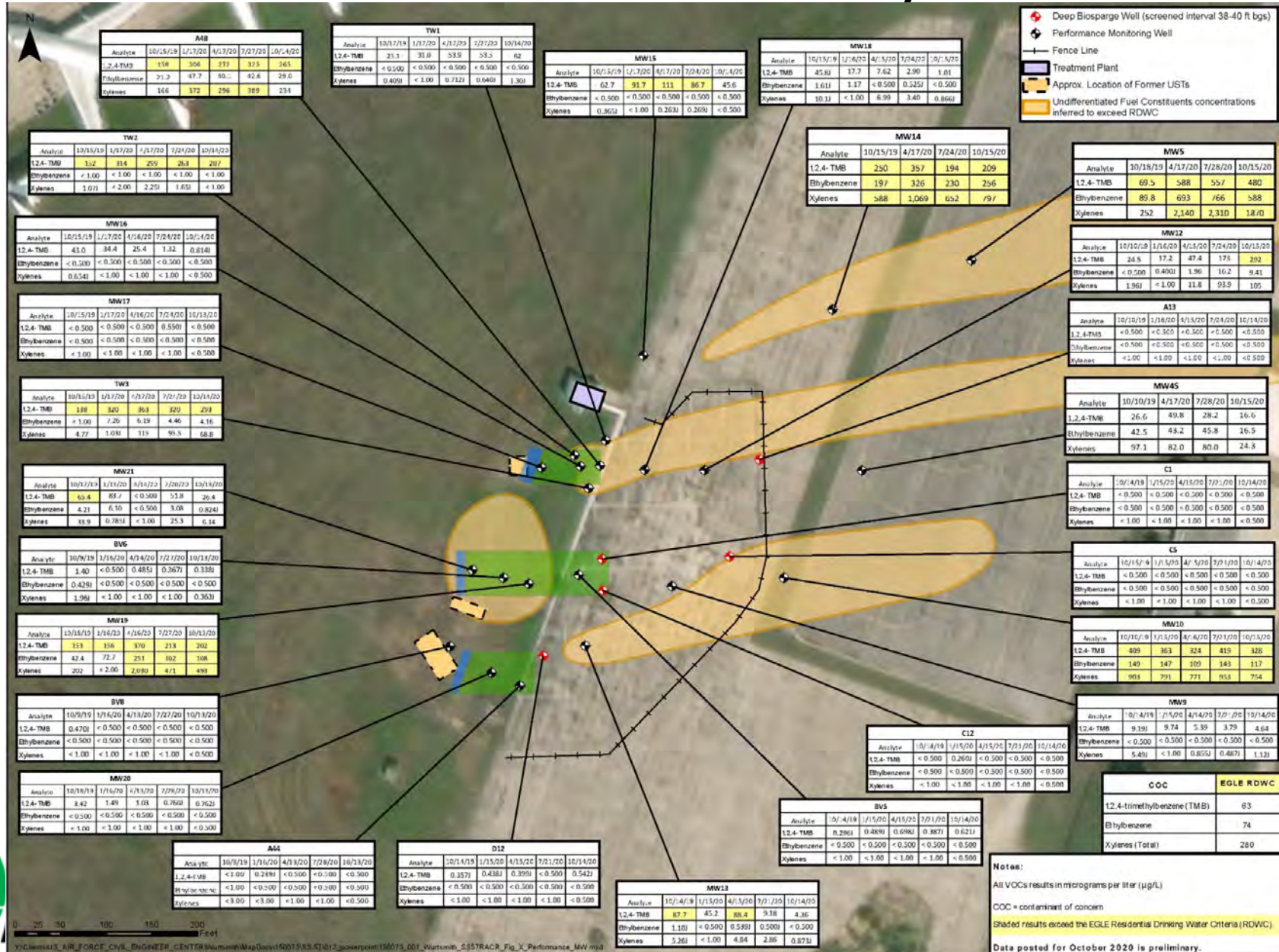
- **IAB Remedy**
  - **Purpose:** expedite achievement of Remedial Action Objectives (RAOs) as specified in the Site's Decision Document (DD)
  - **Approach:**
    - **Supply nitrate** (electron acceptor) to facilitate anerobic biodegradation to address residual fuel constituents adsorbed to subsurface soil and/or dissolved in shallow groundwater
    - **Deliver amendment** (nitrate/phosphate) to subsurface via **3 infiltration trenches** (IFs) at 3 historical source areas upgradient from biosparge and biovent systems footprint
    - **Performance Monitoring** conducted to assess effectiveness and guide frequency and duration of IAB remedy applications



## SS057 IAB Remedy Status

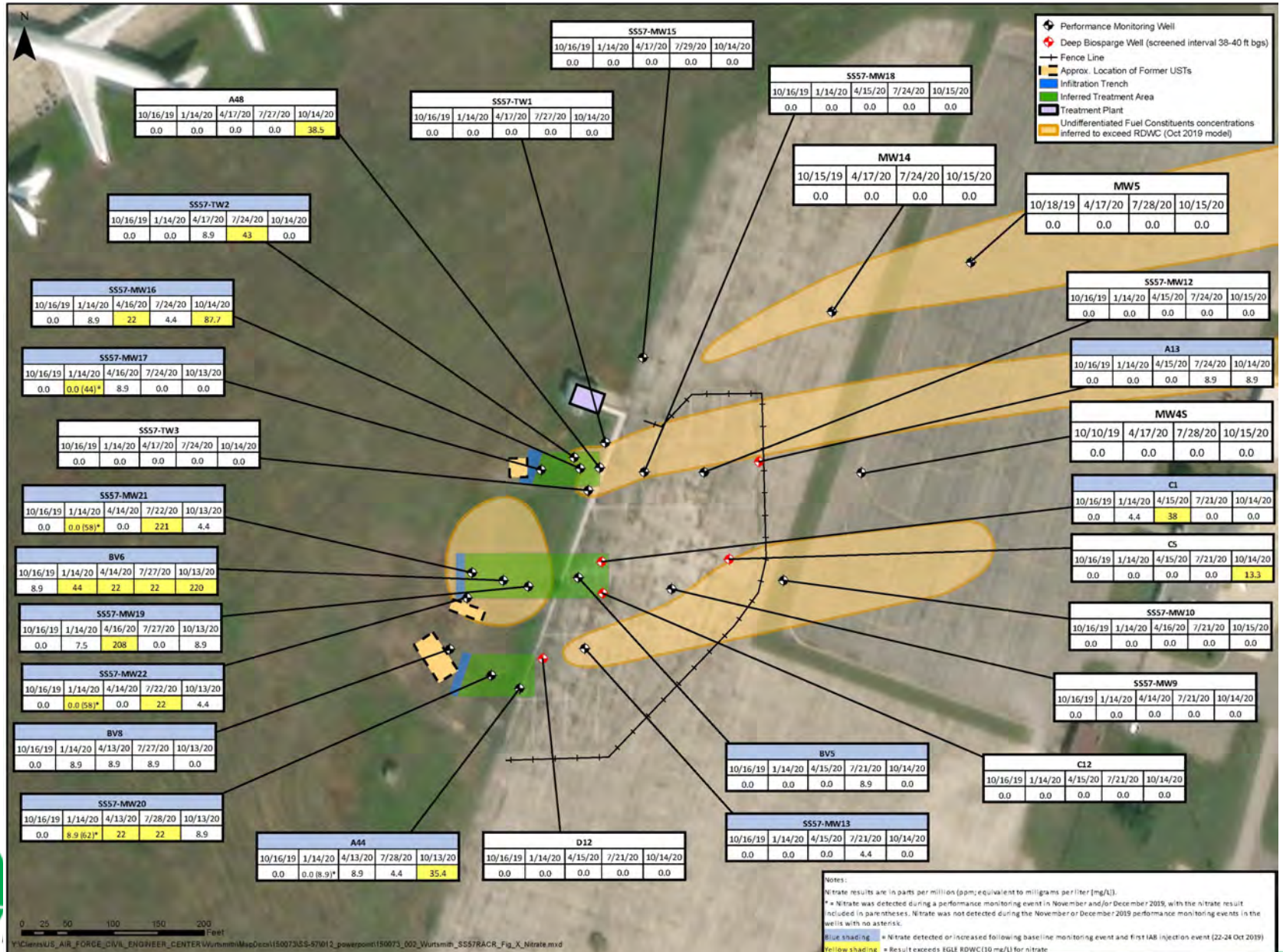
- SS057 IAB Remedy Infrastructure installed: September 2019
- Baseline sampling: 9 October 2019
- IAB Injection Events : 1<sup>st</sup> - October 2019, 2<sup>nd</sup> -June 2020, 3<sup>rd</sup> Pending November 2020
- Performance Monitoring Events : 1st Qtr.– Jan 2020, 2<sup>nd</sup> Qtr. –April 2020, 3<sup>rd</sup> Qtr. – July 2020, 4<sup>th</sup> Qtr. – Oct 2020

# SS057 IAB: VOCs Results Summary



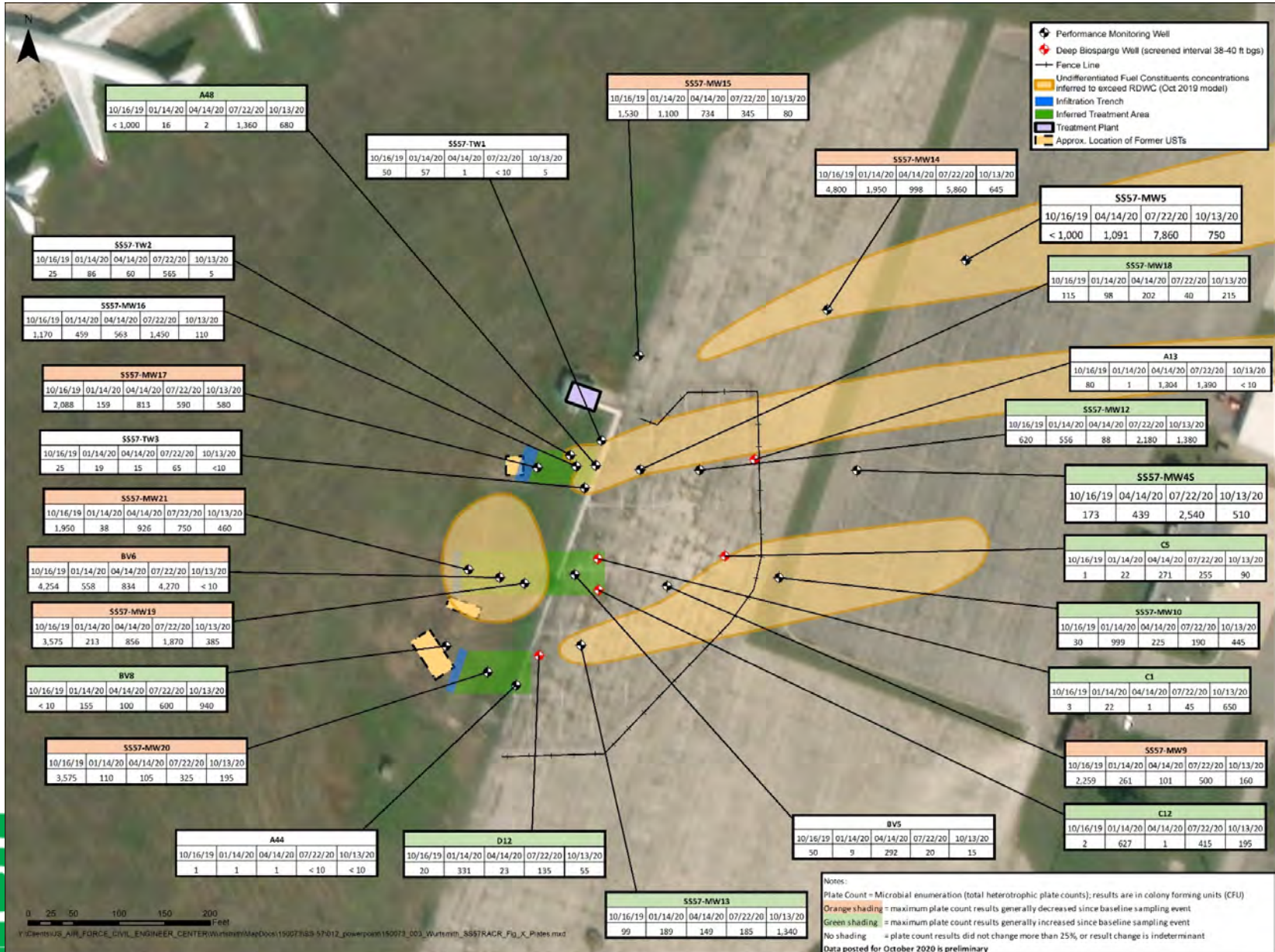


# SS057 IAB: Nitrate Results Summary





# SS057 IAB: Microbial Plate Counts Results Summary



# 2020 SS057 IAB Results Discussion

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- **Northern IAB treatment zone** - requires additional IAB application for COC concentrations to reach RDWC; however, nitrate at concentrations > 10 mg/L extends to downgradient edge of treatment zone; therefore an additional application is not recommended for Nov 2020. Performance Monitoring will proceed on a semi-annual basis going forward.
- **Middle IAB treatment zone** - requires additional IAB application for COC concentrations to reach RDWC; a third IAB application is recommended for November 2020. Performance Monitoring will proceed on a semi-annual basis going forward.
- **Southern IAB treatment zone** – concentrations of COCs appear to be consistently below RDWC; therefore an additional IAB application is not recommended for Nov 2020. Monitoring will proceed on a semi-annual basis going forward.

# 2021 SS057 IAB Project Schedule

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- In Year Two of IAB Treatment, 1<sup>st</sup> semi annual groundwater performance monitoring event scheduled for Spring 2021
- IAB injection event #4: Spring 2021
  - *Date and injection program may be adjusted based on Spring 2021 semi-annual monitoring results*

# Questions ?

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## **Dirk Pohlmann, PE, PMP**

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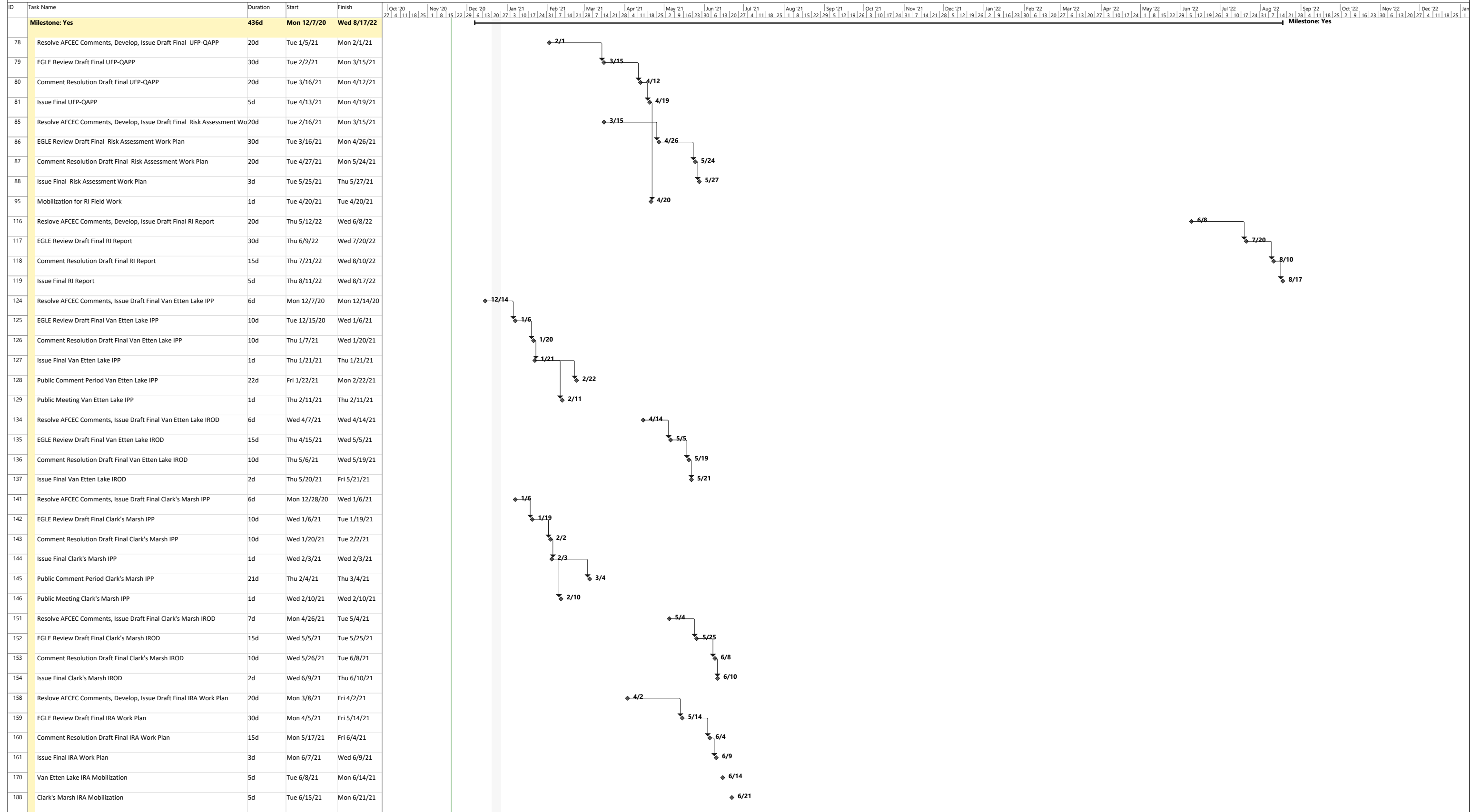
## **Marc Gesink, PG**

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Remedial Investigation/Interim Remedial Actions  
Former Wurtsmith Air Force Base



Project: Stakeholder\_Schedule Date: Thu 11/19/20

█ Milestone ◆ Project Summary █ Inactive Milestone ◆ Manual Task █ Manual Summary Rollup █ Start-only   External Tasks   Deadline █ Manual Progress █ Progress

⋯ Summary █ Inactive Summary | Duration-only █ Manual Summary █ Finish-only   External Milestone ◆ Progress



18 November 2020  
BCT Teleconference – Agenda  
Wurtsmith AFB, Oscoda, MI

**1. Air Force Opening Remarks/General Business Discussion**

**2. Previous BCT Meeting – 28 October 2020**

- a. Meeting Minutes – comments/approval
- b. Action Items - EGLE
  - i. Review Wurtsmith UFP-QAPP and propose metrics for assessing data quality for split samples and corrective actions if metrics are not met.
- c. Bay West
  - i. Provide a copy of the SS057 Public Notice to EGLE (completed on 10-30-20)
- d. Air Force
  - i. D. Gibson to forward link for ESTCP pilot study project.

**3. Document Submission Schedule and Status**

Document	Date submitted to EGLE	EGLE Review Status	Comments
<b>Bay West</b>			
Draft 2018 PTS Annual Report			Bay West preparing RTCs to AF comments received on 24 August 2020
Draft SS017 Site Closure Tech Memo.			Document in legal review. Will be posted on Bay West's box.com account for EGLE review upon receipt of Air Force concurrence.
Draft SS072 Proposed Plan			Air Force has issued an RFQ to Bay West to revise the Risk Assessment and FS. No work on Proposed Plan until these two documents have been revised.
Draft Five-Year Review			Submitted to Air Force on 23 March 2020; under Air Force review. Submission to EGLE end of November 2020.
Draft 2019 LTM Annual Report			Submitted to Air Force on 11 September 2020; under Air Force review.
FT002 RAWP Addendum			Bay West preparing RTCs to Air Force Comments received on 23 October 2020.
FT002 UST Removal Work Plan			Bay West preparing RTCs to Air Force Comments received on 23 October 2020.
<b>Bay West / Wood</b>			
WP004 UFP-QAPP RA-O WP/FSP	08-20-20		
SS008 UFP-QAPP RA-O WP/FSP			EGLE provided comments on 28 October 2020, Wood submitted RTC on 12 November 2020
<b>Aerostar</b>			

Van Etten Lake and Clark's Marsh Interim Proposed Plans	11/30/2020		
PFAS RI UFP-QAPP	01/21/2020		
MPTS Action Memorandum	01/11/2021		
<b>FPM</b>			
Final LF030/031 FS			Comments received from EGLE on 8 Oct 2020. RTCs in development.
<b>Bay West - To be submitted</b>			
Draft 2019 Systems Annual Report			Scheduled for submittal to Air Force in November 2020.
Draft 2019 PTS Annual Report			Scheduled for submittal to Air Force in November 2020.
Draft 2019 LUC Report	Report is prepared in Draft and Final version. Final version is posted to collaborative website for reference purposes.		Scheduled for submittal to Air Force in November 2020.
<b>Bay West/Wood - To be submitted</b>			
VIAP Q3 Results			Scheduled for submittal to Air Force in January 2021

#### 4. Field Work Update and Schedule

##### Bay West

- a. FT002 - Next change out tentatively scheduled for the week of 4 January 2021.
- b. SS057 RAWP Implementation – The second injection was completed 23-24 June 2020. The fourth quarterly performance monitoring sampling was completed the week of 12 October 2020. The third injection is tentatively scheduled for November 2020, dependent on the Q4 sampling results and weather.
- c. FT002 RAWP Implementation – Air Force Contract modification for the transportation and disposal of the concrete pad after it has been demolished has been awarded. Draft RAWP Addendum under Air Force review.
- d. Annual RA-O groundwater monitoring began in May and was completed in October 2020. The previously approved 2019 Sampling Plan is being followed. 2020 IRP sites completed: FT002, LF027, LF030/031, OT016 OT024, SS005, SS006, SS008, SS021, SS072, SS071, SS057 and WP004.
- e. Annual Base-wide ground water gauging took place the week of 2 November 2020, at total of 447wells were gauged.
- f. SS057 IAB Update/Presentation

##### Bay West/Wood

- a. VIAP Update – Q3 sampling event took place the week of 9 November 2020.

##### Aerostar

- a. Central GAC Treatment System (CTS) Status
  - i. BZ line cleaning scheduled for 16 and 17 November 2020
- b. Mission Pump and Treat System (MPTS) Status
  - i. Continued normal O&M. The lead resin vessel was changed out on 13 November 2020.
- c. PFAS Remedial Investigation Status/Schedule
  - i. Continued with preparation of the UFP-QAPP and remedial designs

- ii. Held additional scoping meetings with EGLE on the risk assessment on 4 November 2020. The next scoping meeting for follow up CSM and DQOs is schedule for 9 December 2020.
- iii. Aerostar gauged water levels in 24 EGLE wells between 4 and 6 November 2020.

#### **5. Air Force Updates**

- a. OWAA 10 parcels
- b. RAB Update
- c. Oscoda Township Stormwater discharge fee
- d. Status of revised CTS, MPTS, and FT002 revised sampling plan review.

#### **6. EGLE RRD - Superfund Section Updates**

- a. Other – RAB topics

#### **7. EGLE RRD - Bay City District Updates**

- a. Kings Corner Road Dump - Known PFAS contamination site off Base.
- b. Loud Drive - Known PFAS contamination site off Base.
- c. Oscoda area sampling – Other areas where PFAS is being sampled off Base.

#### **8. EGLE WRD Updates**

- a. Revised sampling plan for CTS and Mission PTS – Waiting on Air Force comments.
- b. Surface water/fish sampling in area
- c. Oscoda Township Wastewater Treatment Plant Update: status of additional PFOS/PFOA sampling; actions related to PFOS/PFOA discharges to groundwater

#### **9. MDHHS Updates**

- a. Residential Well sampling update

#### **10. Schedule Next BCT Meeting**

- a. 16 December 2020 teleconference 0900-1100 EST
- b. 27 January 2021 teleconference 0900-1100 EST
- c. RAB – 20 January 2021