

**Final Meeting Minutes**  
**Former Galena FOL Restoration Advisory Board (RAB) Meeting**  
**Galena, Alaska**  
**19 August 2014**

**Time/Place:** 7:00 pm, 19 August 2014 – Larson Charlie Hall, Galena, Alaska

**Attendees (not a comprehensive list):**

Tim Bodony (RAB Member)  
Jon Korta – Mayor City of Galena (RAB Member)  
AL Weilbacher, Air Force Civil Engineer Center (AFCEC)  
Donna Kozak, Booz Allen Hamilton (BAH)  
Bruce Henry, Parsons  
Ed Heyse, Parsons  
Win Westervelt, CH2M HILL  
Mike Sanchez, CH2M HILL  
Tom Palaia, CH2M HILL  
Adam Plack, USACE Omaha  
Jamie Oakley, Ahtna Engineering Services  
Dennis Shepherd, Alaska Department of Environmental Conservation (ADEC)  
Monte Garrouette, ADEC  
Sam Myers, Alaska Department of Transportation (ADOT)  
Phil Koontz, Louden Tribal Council  
Betty Huntington, Gana-A'Yoo Limited

**Agenda:** See **Attachment 1**

**Introduction:**

AL Weilbacher. The lack of RAB membership was discussed. One RAB member has passed away, some others have been inactive. Tim Bodony said he would try to recruit other RAB members. AL Weilbacher also discussed the RAB schedule noting the difficulty of having RAB meetings in late summer due to multiple commitments among community members during this busy time of year. Suggested considering one RAB meeting per year in April. Tim indicated the community would like to continue to have two meetings per year.

**Presentations:**

A presentation was provided to update status of the Military Munitions Response Program (MMRP) for the Former Galena FOL. An introduction was provided by Adam Plack (USACE).

- Jamie Oakley presented the results of MMRP investigations at the Former Galena FOL (**Attachment 2**). Several sites in the Former Galena FOL were investigated. Although some munitions debris were discovered, including rocket casings, no MEC, hazards or explosives were discovered at any of the sites.
  - o Question: Phil Koontz asked whether similar investigations will be conducted at Campion? Answer: yes, information to be presented separate from the Former Galena FOL presentation.
  - o Question: Win Westervelt asked whether these are the final MMRP investigations at Galena: Answer: The only remaining work under the current MMRP for the Former Galena FOL is the firing range cleanup.

Bruce Henry and Win Westervelt presented the proposed remedies under the Former Galena FOL Performance-Based Remediation (PBR) contract (**Attachment 3**). The presentation explained the various technologies that are proposed and emphasized that public comment was being solicited for sites regulated under the ADEC Contaminated Sites Program ("SC" sites). Also presented were approaches for sites regulated under the U.S. Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or "RI" sites) to provide a comprehensive cleanup picture. However, it was explained that formal public comment will be solicited for these sites in accordance with the CERCLA process. AL Weilbacher and Bruce Henry's contact information were presented and comments were requested by 29 August 2014 (phone, email, letter all acceptable).

Dennis Shepard (ADEC) re-emphasized the public comment process and the opportunity to provide input on the remedies. ADEC will compare the nature and extent of contamination to the effectiveness of proposed remedies, and approve approaches that are effective for the contaminants of concern. However, the first step is to obtain community input on proposed cleanup methods. Dennis also noted that more details on the proposed remedies, and refinement of the approaches, will be forthcoming as the cleanup plans are developed. Dennis also discussed the ADEC GIS database. Air Force geo-referenced data has been put into a data base and compared to ADEC standards, and is available for public review. This will help the Galena community to identify potential hazards from contaminants for proposed construction or other intrusive activities. Maps of contaminants will change over time as cleanup proceeds.

Sam Myers (ADOT) stated that ADOT has a construction safety process, permit process, and traffic safety plan requirements that will be included in their review of the proposed cleanup plans. In general ADOT is pleased to see remediation move forward.

**Questions/Discussion on Proposed PBR Remedies:**

- Questions from Phil Koontz: Asked several questions about sulfate-enhanced bioremediation. Bruce Henry explained that natural bacteria could use several compounds, including sulfate, to respire as they degrade petroleum hydrocarbons. Sulfate has some advantages over other compounds, particularly its high solubility. He stressed that sulfate injection is a polishing step to be implemented if most electron acceptors are depleted (i.e., methanogenic conditions have been established and natural biodegradation has slowed). Phil asked what was the cation associated with the sulfate to be injected. Answer: Calcium or magnesium. These sources of sulfate are commonly known as gypsum and Epsom salts, respectively. Gypsum is the same material that comprises dry wall. Phil asked if it was corrosive. Answer: No. While sulfate will be reduced to sulfide in the process, the sulfide will precipitate with iron as mineral pyrite.
- Question from Tim Bodony: Asked about the excavation schedule for 2015. Answer: Win explained that excavations need to be scheduled in late summer / early fall when the water table is as low as possible. Tim wanted to make sure the PBR contractor was aware of GILA concerns with the schedule. Answer: PBR contractor had a discussion with Chris Reitan of GILA earlier that same day to discuss details of the proposed remedies and will be working with GILA regarding their concerns.
- Question from Audience: Would local labor be used and what safety training/certification was required? Answer: Subcontracts would be competitively bid, but prime and subcontractors would be looking to use local labor to the extent possible, including working with Loudon for support. 40-Hr HAZWOPER and current 8-Hr HAZWOPER refresher are the hazmat safety certifications for work performed in Level D protection.

Invited the person who asked the question to provide resume and qualifications so PBR contractors and subcontractors could consider him when looking for support.

- Question from Betty Huntington: Why aren't the PBR contractors coming to the property owners for support? Bruce Henry and AL Weilbacher explained that Loudon was simply mentioned as an example because they have provided HAZWOPER trained labor in the past. However, there is still a need for other non-technical support, for example: lodging. Discussed how the PBR contractors use the list of lodging providers from the Radio Station to find local people and companies providing lodging and other non-technical support.
- Jon Korta (City Mayor and RAB member) was invited to provide any comments to the RAB. He had no questions, but indicated he was pleased to see progress on cleaning up the sites.

RAB meeting was adjourned, but interested parties were invited to stay after the meeting to see the ADEC GIS database. Dennis Shepard and Monte Garrouette demonstrated the system for several people, including Phil Koontz and Jon Korta.

**Attachments:**

- 1 – RAB Agenda
- 2 – MMRP Investigation Results at Former Galena FOL
- 3 – Performance Based Remediation (PBR) at Former Galena FOL

**Attachment 1**  
**RAB Meeting Agenda**

# Galena Restoration Advisory Board (RAB)

## Meeting Agenda

August 19, 2014

7:00 p.m. to 9:00 p.m.

Larsen Charlie Community Hall

Galena, Alaska

### **Welcome**

- Introductions

**AL Weilbacher, AFCEC**

### **Overview of Environmental Restoration**

- Military Munitions Response Program (MMRP)
- Remediation Contract Remedy Selection

**Adam Plack, USACE**  
**Bruce Henry, PARSONS**  
**Win Westervelt, CH2M HILL**

### **Remarks from ADEC**

**Dennis Shepard, ADEC**

### **Remarks from ADOT**

**Sam Myers, ADOT**

### **Questions from the Public**

**Bruce Henry (Facilitator)**

### **Closing Remarks**

**AL Weilbacher**

### **Adjournment**

For more information about the Galena Environmental Cleanup program, please contact the AFCEC Public Affairs hotline at 1-866-725-7616 or via email at [AFCEC.PA@us.af.mil](mailto:AFCEC.PA@us.af.mil).

**Attachment 2**

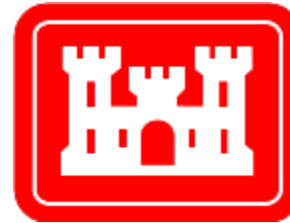
**MMRP Investigation Results at Former Galena FOL**

Former Galena FOL  
Military Munitions Response Program  
(MMRP) Supplemental Comprehensive Site  
Evaluation (CSE) Phase II  
RAB Meeting

19 August 2014



# The Project Team





# Project Overview

**Goal of the CSE Phase II was to determine the presence or absence of Munitions and Explosives of Concern (MEC) at the Former Galena Forward Operating Location (FOL)**



# Project Overview

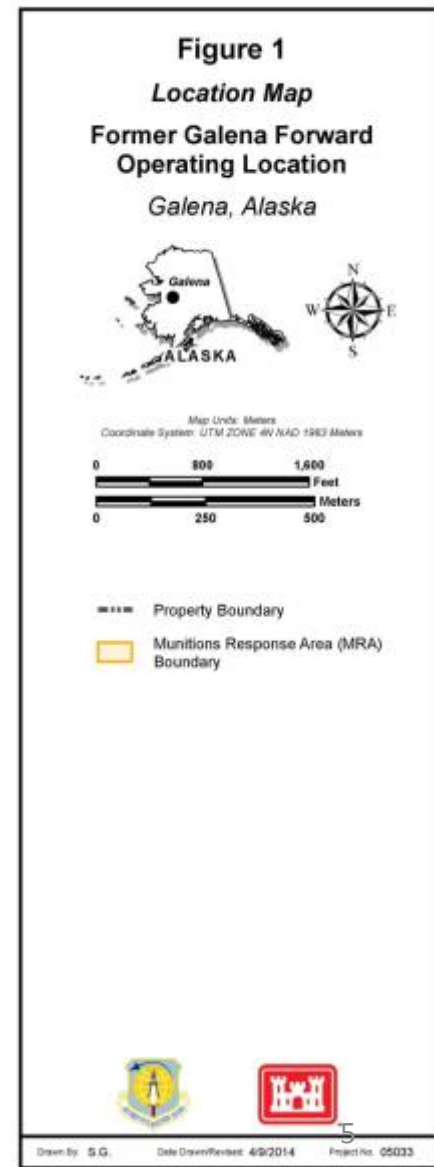
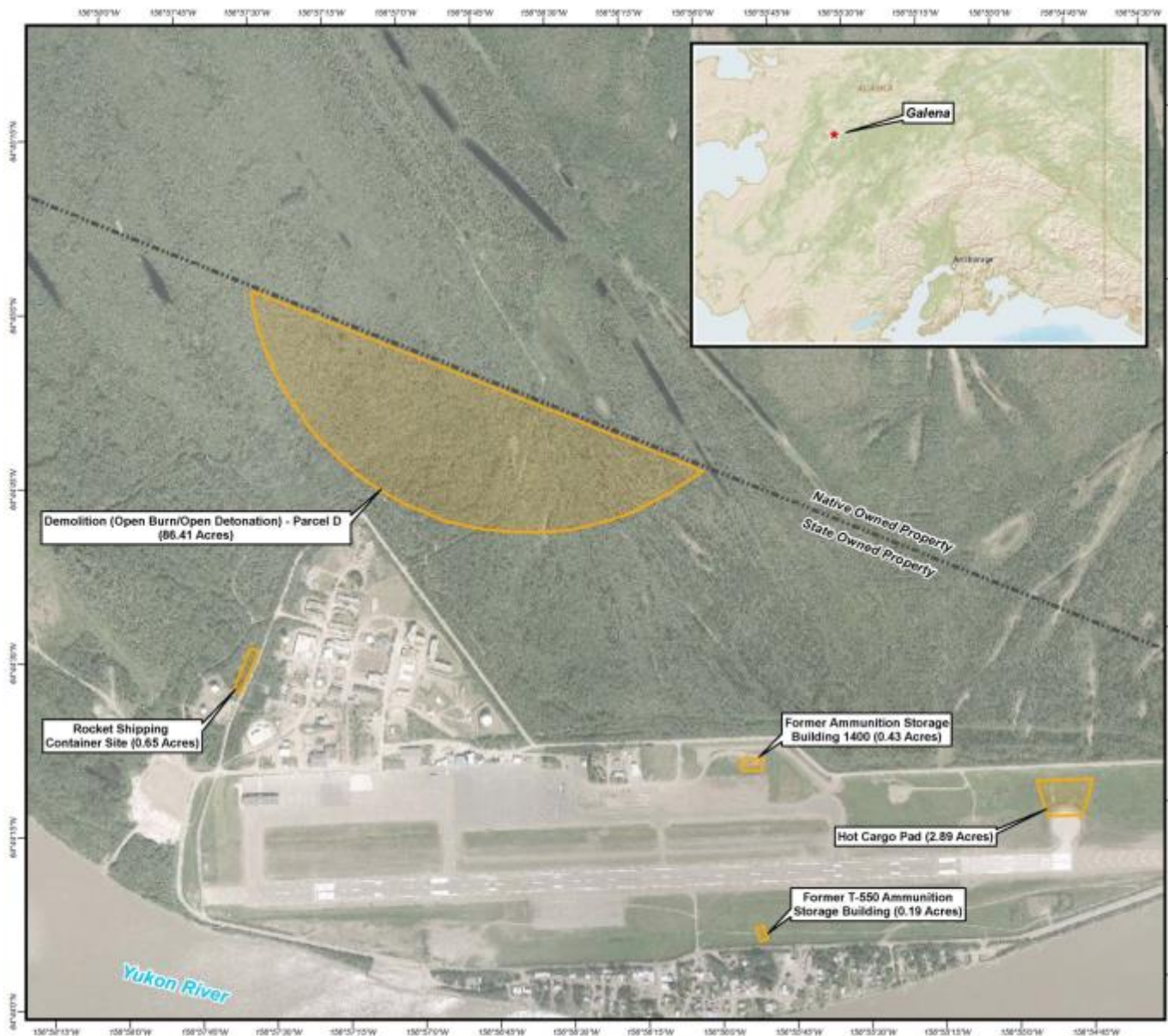
## **5 Munitions Response Areas (MRA) were investigated under this Contract**

- Former Ammunition Storage Building 1400
- Hot Cargo Pad
- Demolition Area (Open Burn/Open Detonation [OB/OD]) – Parcel D
- Rocket Shipping Container Site
- Former Ammunition Storage Building T-550





# Projects Location Map



# Project Schedule

JUNE				JULY				AUG
WEEKS								
1	2	3	4	5	6	7	8	9

**4 June 2014**

**Began Field Work**

- Began work at Former Ammunition Storage Building 1400

**27 June 2014**

**Field Work Completed**

- Demolition (OB/OD) – Parcel D was the final site to be investigated

**28 June 2014**

**Demobilized from the field**

# Field Activities

- Crew of qualified UXO technicians reacquired anomalies identified during a previous geophysical investigation.
- Each location was marked with a pin flag.
- Anomalies were intrusively investigated by a combination of hand digging and mechanical means.





# Summary of Findings

- No MEC was encountered at any site
- Military munitions debris encountered:
  - Former Ammunition Storage Building 1400
    - Two (2) expended M200 5.56 blanks
  - Rocket Shipping Container Site
    - One (1) expended .30 caliber cartridge case
  - Demolition (OB/OD) - Parcel D
    - Three (3) M2 .50 caliber ball projectile
    - One (1) 20 mm M55 target practice projectile
    - One (1) bomb lanyard assembly
    - One (1) shroud line holder and partial suspension wire from 81 mm illumination mortar
    - One (1) spacer from 81 mm illumination mortar



# Summary of Findings Continued

- Military munitions packaging encountered:
  - Rocket Shipping Container Site
    - Empty rocket shipping containers:
      - 369 each, this includes whole or partial containers and those recovered from surface or subsurface
  - Demolition (OB/OD) - Parcel D
    - One (1) empty 81 mm mortar shipping container



# Report and NFA Process and Timeline

- All MRAs investigated as part of this project are expected to require No Further Action (NFA).
  - The local public will be offered the opportunity to review and comment on project recommendations.
- Approximate Reporting Timeline
  - Draft Document – October 2014
  - Final Document – December 2014
  - Public Comment Period - Early 2015
  - Final Decision – Spring 2015



# Conclusion

- The goal of the Supplemental CSE Phase II was fulfilled
  - No MEC was encountered
- AFCEC /USACE are recommending NFA at all MRAs investigated as part of this project
- Site closure/final decision is pending regulatory and DoD review and approval of the final report





Questions?

**Attachment 3**  
**Performance Based Remediation (PBR) at Former Galena FOL**



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***PERFORMANCE-BASED REMEDIATION  
(PBR) AT FORMER GALENA FORWARD  
OPERATING LOCATION (FOL), ALASKA***

**RAB Meeting, 19 August 2014**



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# Former Galena FOL Performance Based Contract

- Parsons - Prime Contractor
- Partnering Team – CH2M HILL and Ahtna Engineering Services
- 6.5 year contract
- 31 Sites





# *Performance Objectives*

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- **Remedy-in-Place (RIP): All 31 Sites by 30 September 2019**
- **Stretch Goals**
  - **Response Complete (cleanup complete with restrictions): 8 Sites**
  - **Site Closeout (cleanup complete with no restrictions): 8 sites**



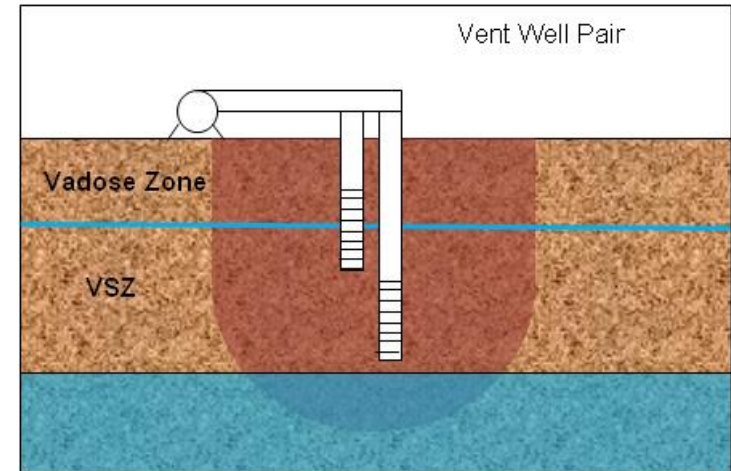




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# Cleanup Techniques

- Excavation and Landfarming/Disposal
- Air Blower Technologies
  - Bioventing
  - Soil Vapor Extraction
  - Biosparging
- Injection Technologies
  - Sulfate-Enhanced Bioremediation
  - In-situ Bioremediation and Biogeochemical Transformation
  - In-situ Chemical Oxidation



- Monitored Natural Attenuation

***ADEC and US EPA regulations require public review periods for proposed cleanup methods***



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# Cleanup Techniques

## Excavation

- Most excavations are smaller than the 2013 excavation at SS016
  - Petroleum-contaminated soil goes to landfarm for treatment
  - Non-petroleum contaminated soil transported off site for disposal



Estimated Excavation Volumes			
Year	Number Excavations	Individual Volume (CY)	Total Volume (CY)
2013	1	8,791	8,791
2015	12	25 – 9,200	18,865
2016	6	10 – 3,000	5,055
2018	2	60 – 270	330

Large excavation in 2015 is at DP023/DSWD







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# ***Cleanup Techniques***

## ***Air Blower Technologies***

- **Soil Vapor Extraction – Extracts air to remove volatile compounds**
- **Bioventing – Injects air to biodegrade petroleum in unsaturated soil**
- **Biosparge – Injects air below water table to biodegrade petroleum in saturated soil and groundwater**



- **Common elements:**
  - **Blower in above-ground shed**
  - **Buried piping between blower and vent wells**
  - **Operate mainly in fall-winter when water table is low**



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# Cleanup Techniques

## Air Blower Technologies

### Anticipated System Construction

Year	SVE	Bioventing	Biosparge
2015	4	1	0
2016	6	7	5
2017	0	0	2





# Cleanup Techniques

## Injection Technologies

- Enhanced Anaerobic Bioremediation / Biogeochemical Transformation – Inject vegetable oil to degrade chlorinated VOCs
- Sulfate Bioremediation – Inject sulfate to biodegrade petroleum
- ISCO – Inject chemicals to oxidize contaminants



Anticipated Injection Events			
Year	EAB/EBT	Sulfate	ISCO
2015	0	0	1
2016	0	0	0
2017	2	0	0
2018	0	3	0

- Common elements:
  - Injection through DPT rig
  - Tanks/chemicals on site a few days to weeks only



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# ***Cleanup Techniques***

## ***Monitored Natural Attenuation***

- **Contaminants degrade over time through natural processes**
- **Sample groundwater (annually) to monitor the process**
- **Used in conjunction with active remedies**
- **Anticipate conducting MNA or performance monitoring of groundwater at 20 sites.**







# Scope of Work – SC Sites

- SC Sites are regulated under the Alaska Contaminated Sites Program
  - Contaminated by petroleum releases
- Annual Groundwater Monitoring (work plan updated annually with annual report)
- Report sequence:
  - PBR Fact Sheet – *Public Review*
  - Site Characterization Report Addendum (SCR Addendum)
  - Cleanup Plan (CP)
  - Construction Completion Reports (CCR)
  - Performance Monitoring Reports (PMR)
  - Remedy Complete or Site Closure Reports (as appropriate)



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# ***SC Site List (21)***

- **CG001 – Million Gallon Hill**
- **CG002 – Missile Storage Area**
- **SS005 – Wilderness Hall**
- **CB001 – GAVTC Building**
- **ST005 – POL Tank Farm**
- **ST009 - West Unit JP-4 Fuel Stands**
- **ST010 – Southeast Runway Fuel Spill**
- **SS014 – Birchwood Hangar**
- **SS016 – Bldg 2541 Former POL Fuel Lab**
- **SS017 – Former Truck Fill Stands**
- **ST020 – Building 1837 – Former UST**
- **SS021 – Building 1549 Old Fire Station**
- **TU001 – Power Plant Tank 49**
- **CSS001 (AST1569) – Electric Power Station AST**
- **CSS002 (B1812) – Building 1812 Former Hazardous Waste Satellite Accumulation Point**
- **CSS005 (PADS) – Refueling Pads**
- **CLP006 (OAP) – Old Abandoned Pipelines**
- **CST011 (UST1428) – Combat Alert Cell USTs**
- **CST013 (UST1770) – Former Incinerator USTs**
- **CST014 (UST1859) – Dining Facility UST**
- **CST009 (UST1400) – Building 1400 Former Ammunition Storage UST**

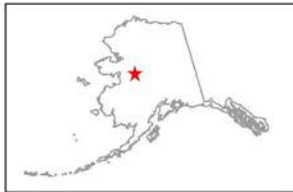
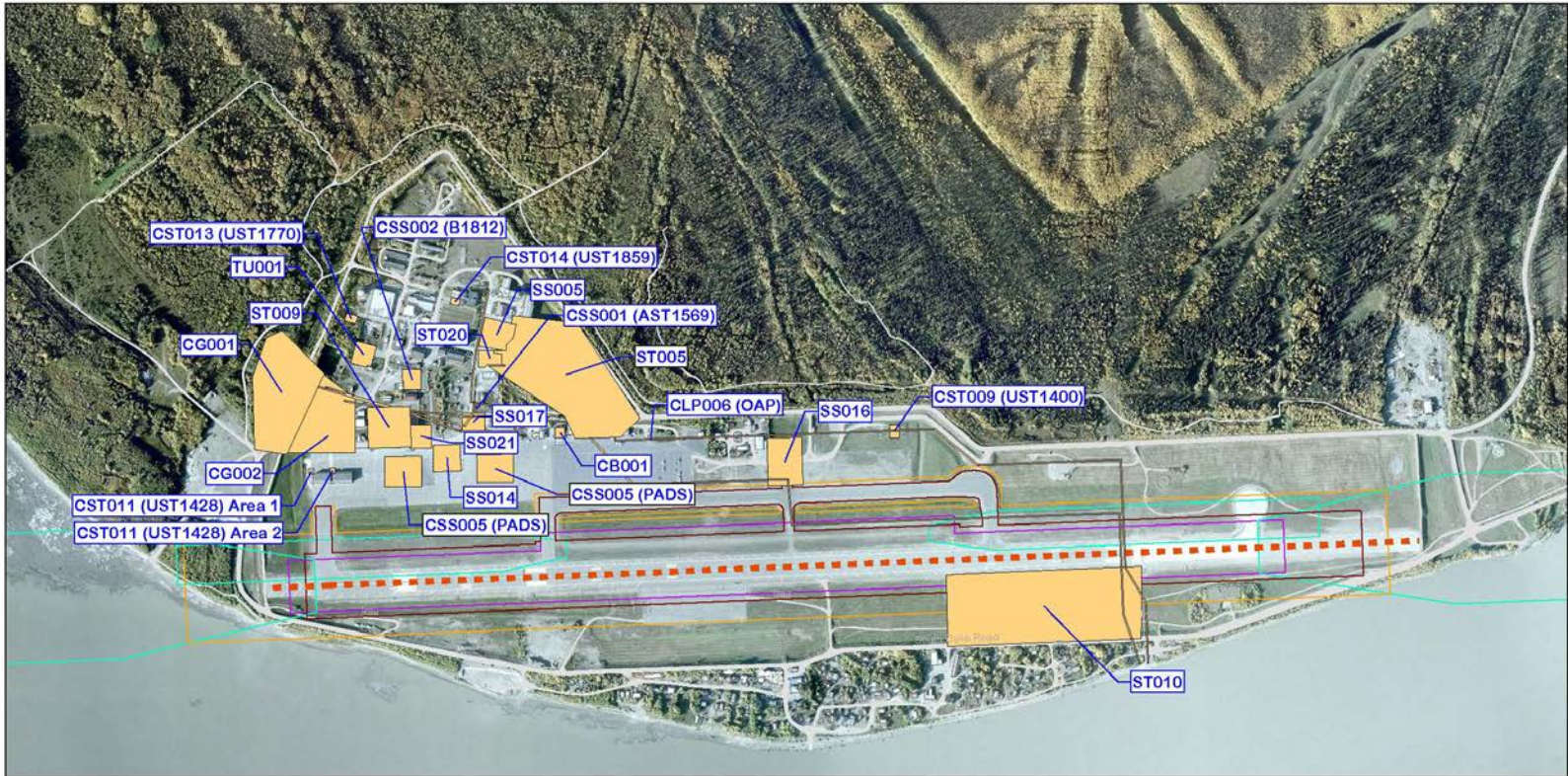
***Note: Old site identifiers in parenthesis***

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# SC Site Locations



- Legend**
- ADOT Runway Control Areas
    - Approach (TERPS)
    - OFA
    - OFZ
    - Safety Area
    - Runway Centerline
  - Site Characterization Areas
    - Building



Figure 1  
Investigation Areas  
for Site Characterization

Former Galena Forward Operating Location, Alaska



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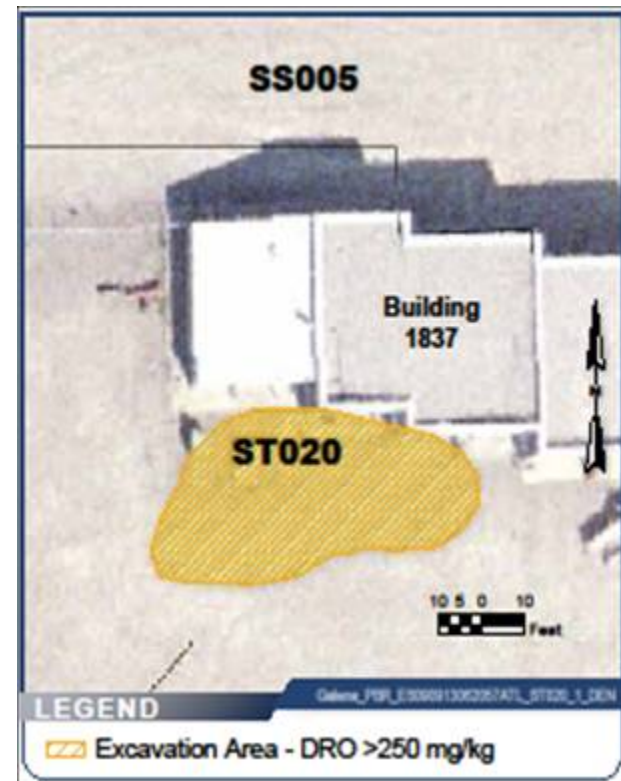
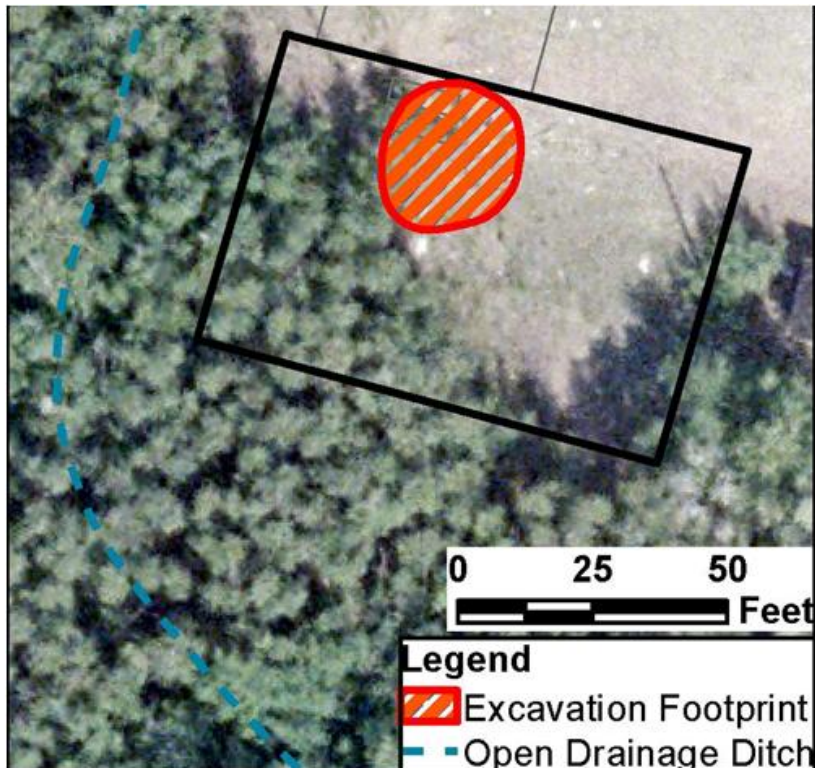




# SC Sites – CST013 and ST020

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- Smaller sites like CST013 (UST1770) and ST020 (Building 1857) that do not have groundwater contamination will be cleaned up by excavating and landfarming contaminated soil



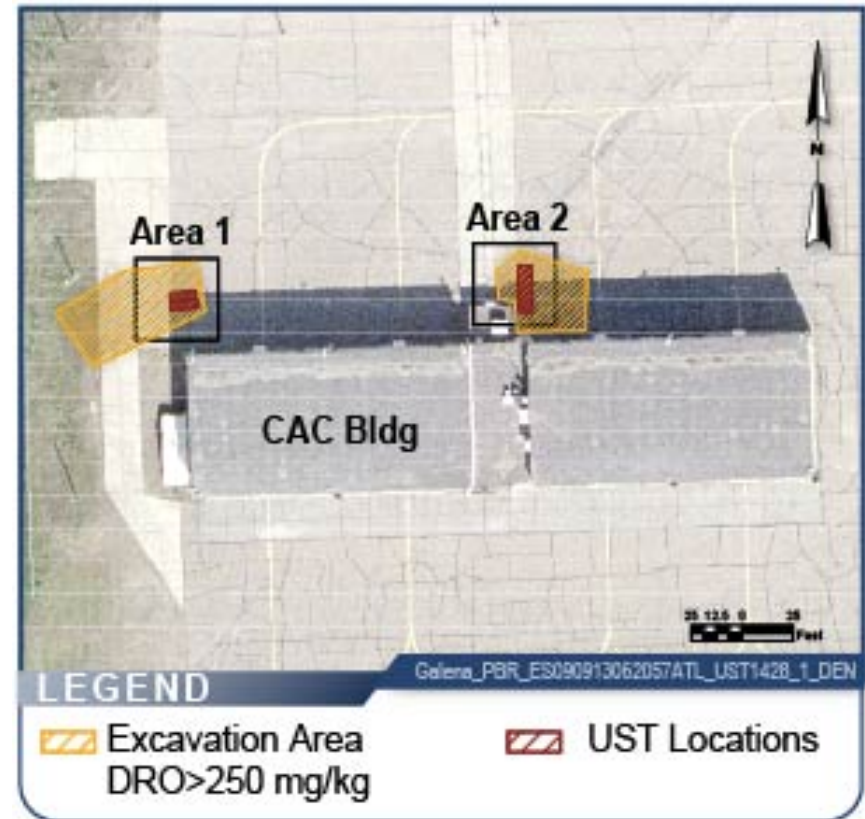




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# SC Sites – CST011

- Smaller sites like CST011 (UST 1428) that do not have groundwater contamination will be cleaned up by excavating and landfarming contaminated soil
- If contaminated soil extends under the building and cannot be removed without damaging the building, soil will be treated by injecting chemical oxidants (ISCO)

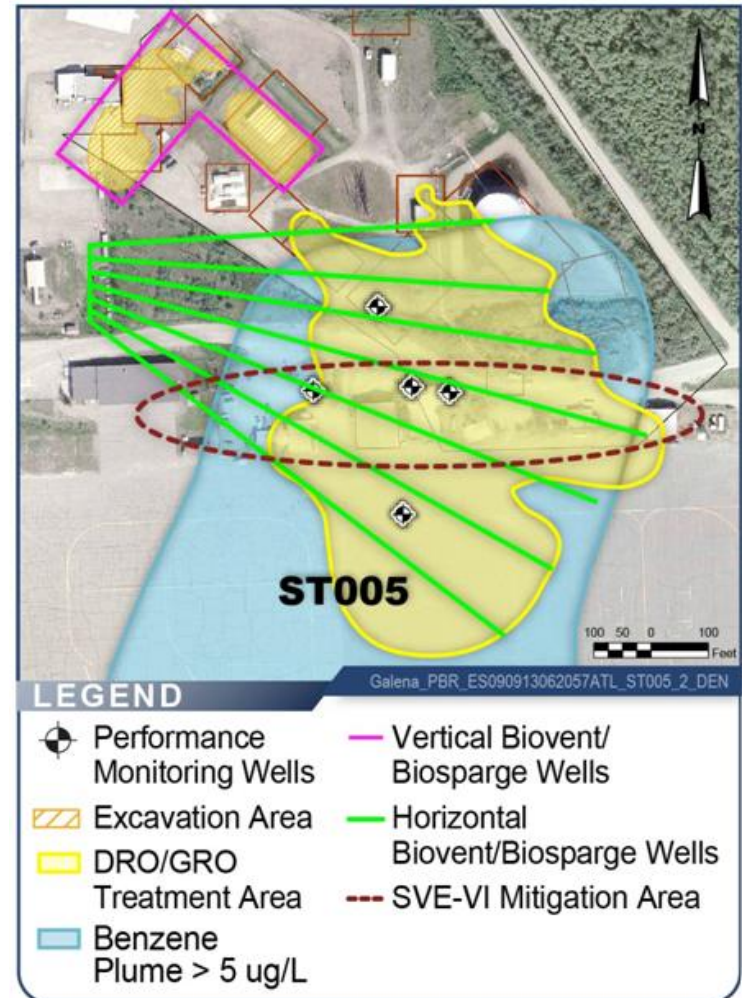




# SC Sites – ST005/CB001

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- Larger sites use horizontal wells to biovent and biosparge fuel contaminants in variably saturated zone – for example beneath ST005 where plume extends beneath airfield area
- Horizontal wells at 25-35 feet below ground surface
- Operate in the winter when water table is low

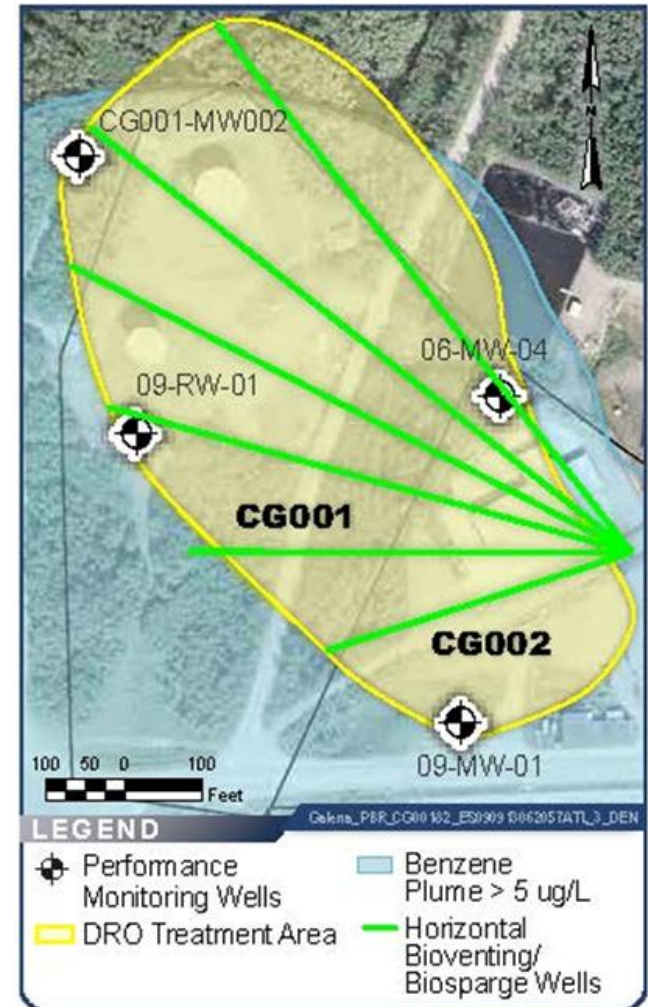




# SC Sites – CG001/CG002

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- Similar approach using horizontal wells for a large site beneath Million Gallon Hill and Former Missile Storage Area

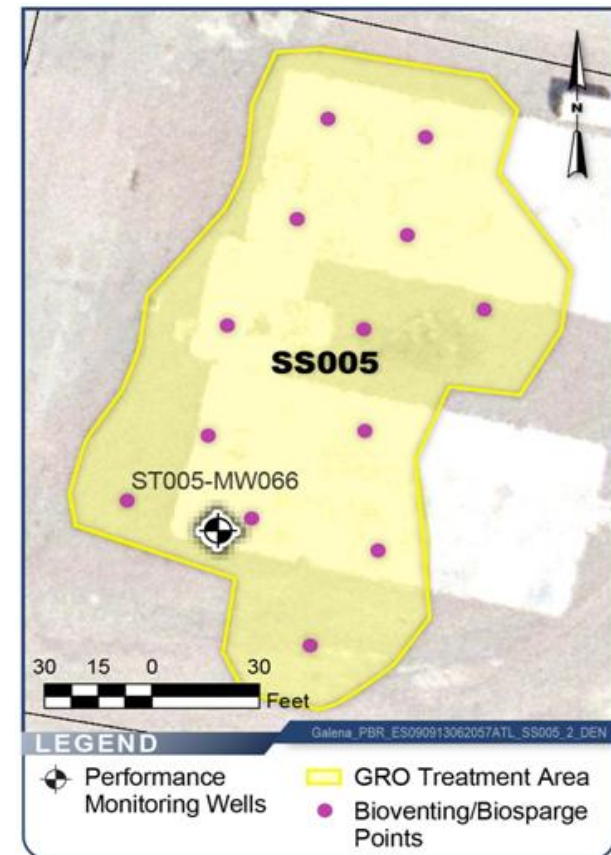
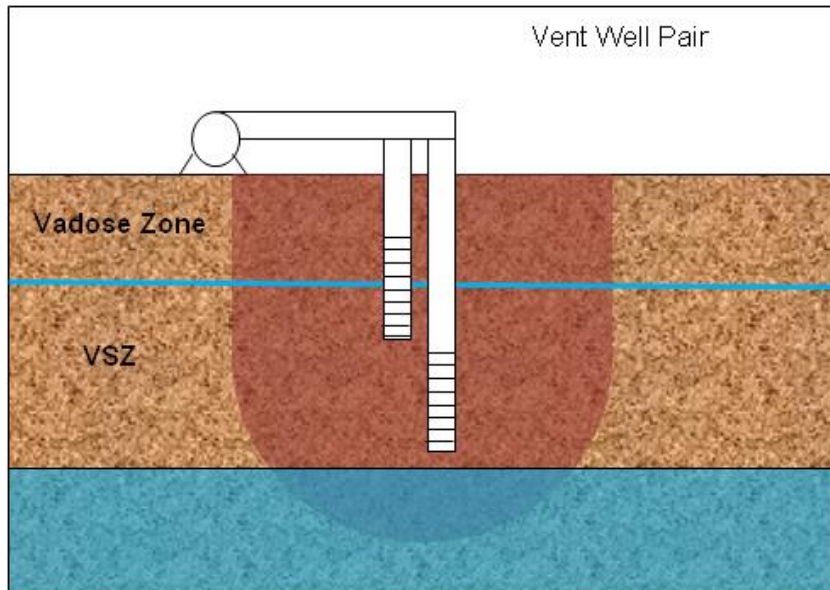




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# SC Sites – SS005

- Smaller sites such as SS005 will have vertical bioventing wells, typically installed in pairs to treat entire variably saturated zone



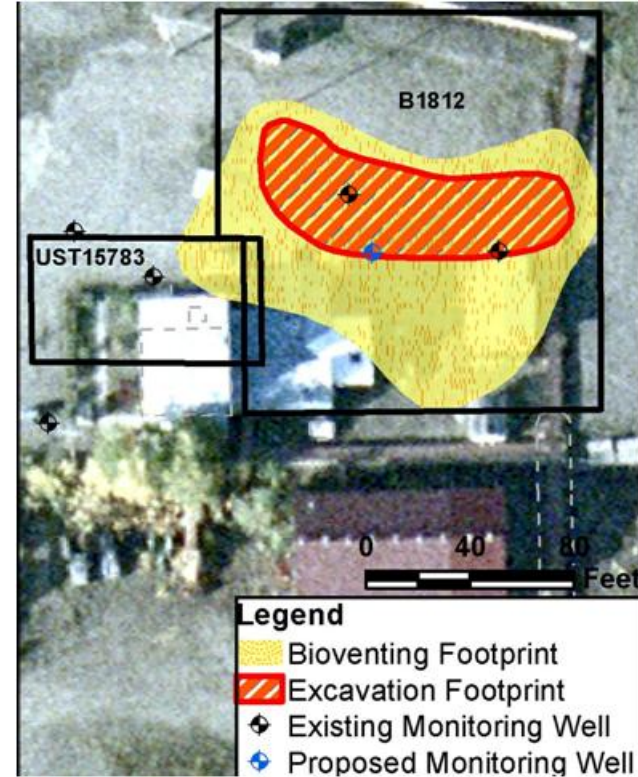
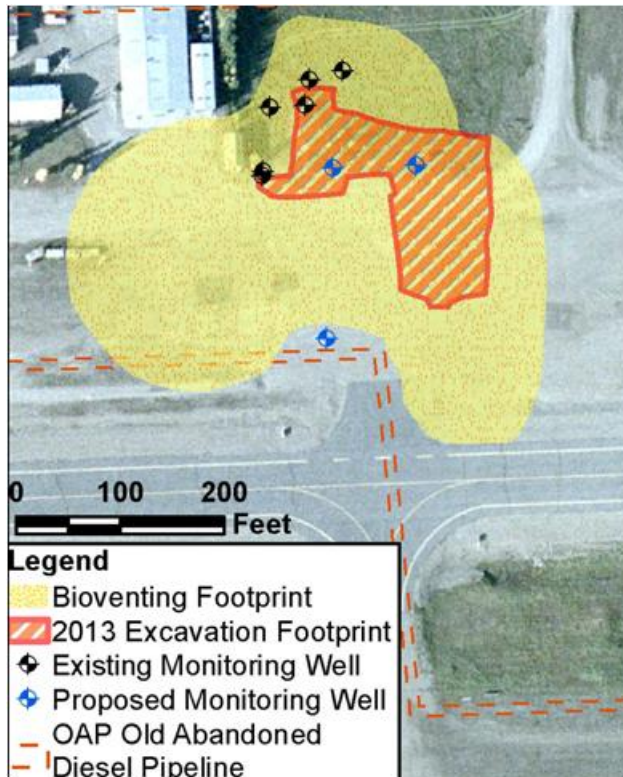




# SC Sites – SS016 and B1812

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- Some sites like SS016 and Building 1812 will be cleaned up with a combination of technologies such as excavation and bioventing

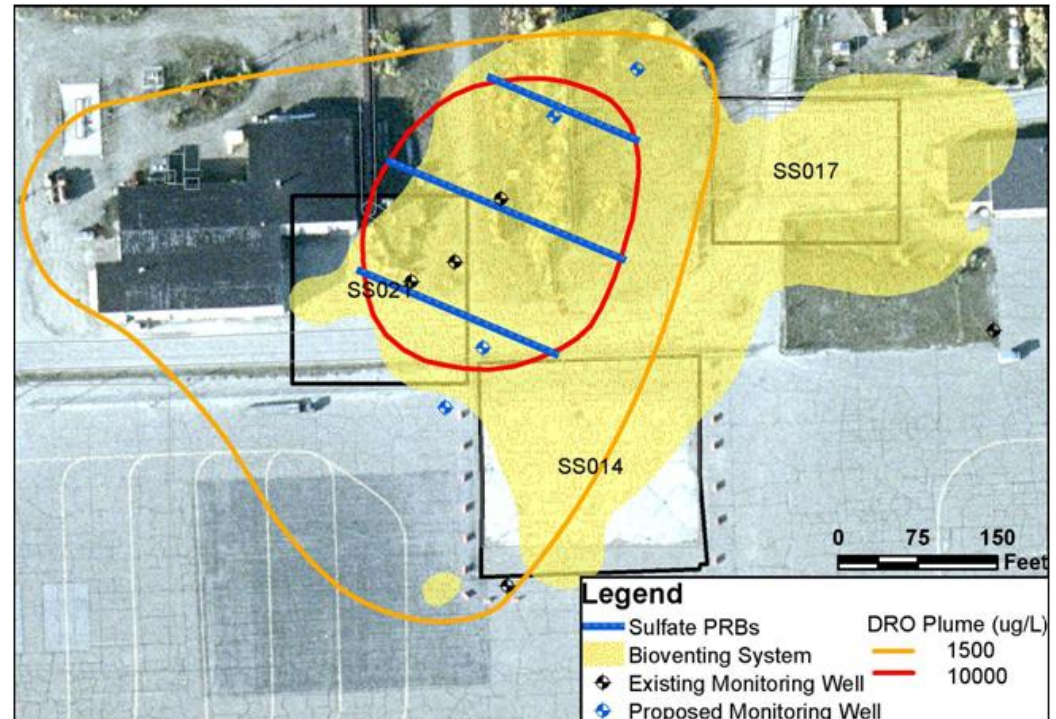




# SC Sites – SS017/SS014

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- Some sites will be combined and contaminated groundwater treated with bioremediation using sulfate biobarriers
- Biobarriers are rows of temporary injections points installed and removed using a direct push rig
- Anaerobic microbes eat the fuel compounds and breathe sulfate after oxygen is used up
- More passive approach used for saturated soil and groundwater





# PBR Cleanup Summary (SC)

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Site ID	Site Name	Performance Objective (Target Date)	Description of Technical Approach
CG001/ CG002	Million Gallon Hill/ Missile Storage Area	RIP (4/18)	Replace existing bioventing system with expanded biosparge/bioventing system to treat petroleum contamination in the deeper VSZ soil and groundwater using horizontal wells
SS005	Wilderness Hall (Bldg 1872)	Response Complete (7/20)	Biosparge/bioventing to treat petroleum contamination in deeper VSZ soil and groundwater.
ST005/ CB001	POL Tank Farm/ Galena Aviation Vocation Technical Center	RIP (3/18)	Expand the existing bioventing and SVE systems with biosparge/bioventing to treat petroleum contamination in deeper VSZ soil and groundwater. Expand the SVE system to ensure VI mitigation.
ST009	West Unit JP-4 Fuel Stands	RIP (11/17)	Spot excavation to remove PAH/PCB/pesticide compounds in surface soil. SVE to reduce benzene and GRO concentrations in unsaturated soil, transition to bioventing for DRO after benzene concentrations decrease. Sulfate-enhanced MNA for petroleum contaminants in groundwater.
ST010	Southeast Runway Fuel Spill	RIP (10/17)	Bioventing for petroleum contamination in unsaturated soil, MNA for contamination in groundwater.



# PBR Cleanup Summary (SC)

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Site ID	Site Name	Performance Objective (Target Date)	Description of Technical Approach
SS014/ SS017	Birchwood Hangar/ Former Truck Fillstands	RIP (11/17)	Bioventing for petroleum contamination in unsaturated soil, sulfate-enhanced MNA for petroleum contaminants in groundwater.
SS016	Building 2541 – Former POL Fuel Lab	RIP (10/17)	Bioventing for petroleum contamination in unsaturated soil, MNA for groundwater.
SS021	Building 1549 Old Fire Station	Site Closeout (3/15)	Site Characterization has not detected any contaminant releases sourced from SS021. Close out SS021 and address deep VSZ and groundwater contamination under SS017.
ST020	Building 1837 – Former UST	Site Closeout (9/16)	Excavate petroleum-contaminated soil to MGW CULs. Treat excavated soil in landfarm.
TU001	Power Plant Tank 49	RIP (3/17)	Excavate contaminated surface soil and sediment. Biosparge/bioventing to treat petroleum contamination in VSZ soil and groundwater.
CSS001	Electric Power Station AST	Site Closeout (7/16)	Excavate petroleum-contaminated soil to MGW CULs. Treat excavated soil in landfarm.
CSS002	Building 1812 Former Hazardous Waste Satellite Accumulation Point	Response Complete (9/20)	Excavate and landfarm petroleum-contaminated soil to 15 feet bgs, as well as surface soil contaminated with PAHs / lead. Bioventing to treat remaining petroleum contaminants in soil to less than M2 HH CUL.





# PBR Cleanup Summary (SC)

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Site ID	Site Name	Performance Objective (Target Date)	Description of Technical Approach
CSS005	Refueling Pads	Site Closeout (7/16)	Excavate petroleum-contaminated soil to MGW CULs. Treat excavated soil in landfarm.
CPL006	Old Abandoned Pipeline	RIP (10/17)	Bioventing for petroleum-contaminated soil, MNA for groundwater.
CST011	Combat Alert Cell USTs	Response Complete (7/20)	Remove USTs and excavate/landfarm petroleum-contaminated soil. ISCO to treat contaminants below the bottom of the excavation and under the building.
CST013	Former Incinerator USTs	Site Closeout (10/16)	Excavate petroleum-contaminated soil to MGW CULs. Treat excavated soil in landfarm.
CST014	Dining Facility UST	RIP (12/16)	Biosparge/bioventing to treat petroleum contamination in deeper VSZ soil and groundwater.
CST009	Building 1400 Former Ammunition Storage UST	Site Closeout (7/16)	Excavate petroleum-contaminated soil to MGW CULs. Treat excavated soil in landfarm.



# Scope of Work – RI Sites

- RI Sites are regulated under the US EPA Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
  - Site contaminants include chemicals in addition to petroleum
- Report sequence:
  - Feasibility Study (FS)
  - Proposed Plan (PP) – *Public Review*
  - Record of Decision (ROD)
  - Remedial Design/Remedial Action Work Plan (RD/RAWP)
  - Remedial Action Completion Report (RACR)
  - Remedial Action-Operations Reports (RA-O)
  - Remedy Complete or Site Closure Reports (as appropriate)



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# ***RI Site List (10 Sites)***

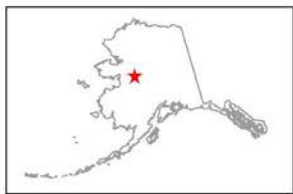
- **FT001 – Fire Training Area**
- **SS006 – TCE Area (Bldg 1845)**
- **SS013 – Control Tower Drum Storage Area South**
- **SS015 – South Apron Maintenance Area**
- **SS019 – Building 1700 Refueler Maintenance Shop**
- **SS018 (AOC023) – Waste Accumulation Area**
- **SS022 (B400) – Bldg 400 Former CAA/AF Weather Station**
- **DP023 (DSWD) – Former Disposal Site West of Dike**
- **OW024 (OWS1833) – MWR Storage Dry Well**
- **SS025 (new) – West Perimeter Road TCE Spill Site**

*Note: Old site identifiers in parenthesis*



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# RI Site Locations



- Legend**
- ADOT Runway Control Areas
    - Approach (TERPS)
    - OFA
    - OFZ
    - Safety Area
    - Runway Centerline
  - Remedial Investigation Areas
  - Building

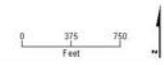


Figure 2  
Investigation Areas  
for Remedial Investigation  
Former Galena Forward Operating Location, Alaska  
**PARSONS**

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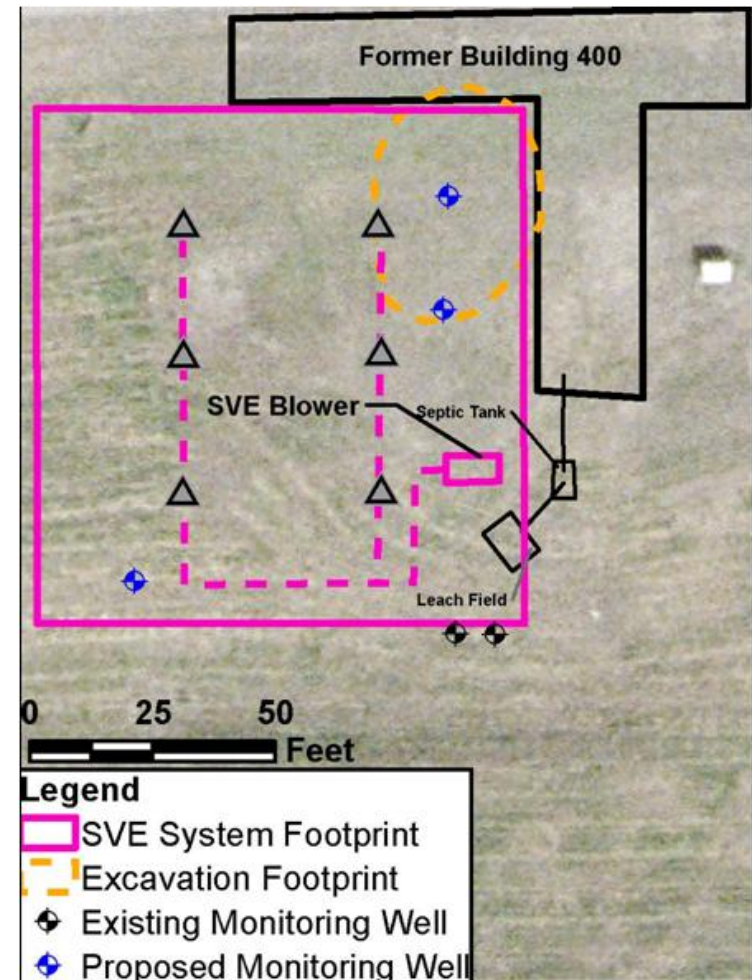




# RI Sites – Former Building 400

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- RI sites with TCE such as B400 can be treated using soil vapor extraction
- Anticipate TCE in shallow groundwater will attenuate with treatment of vadose and variably saturated zones

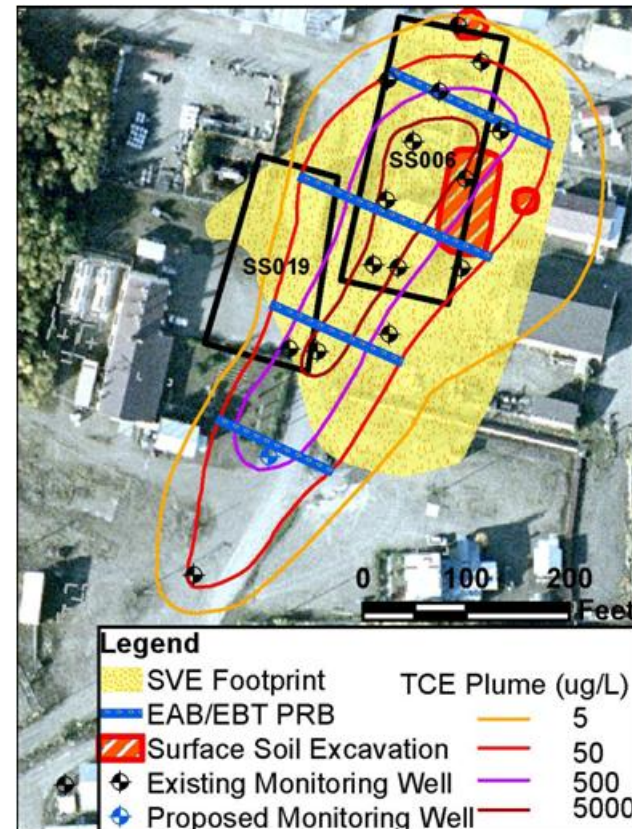
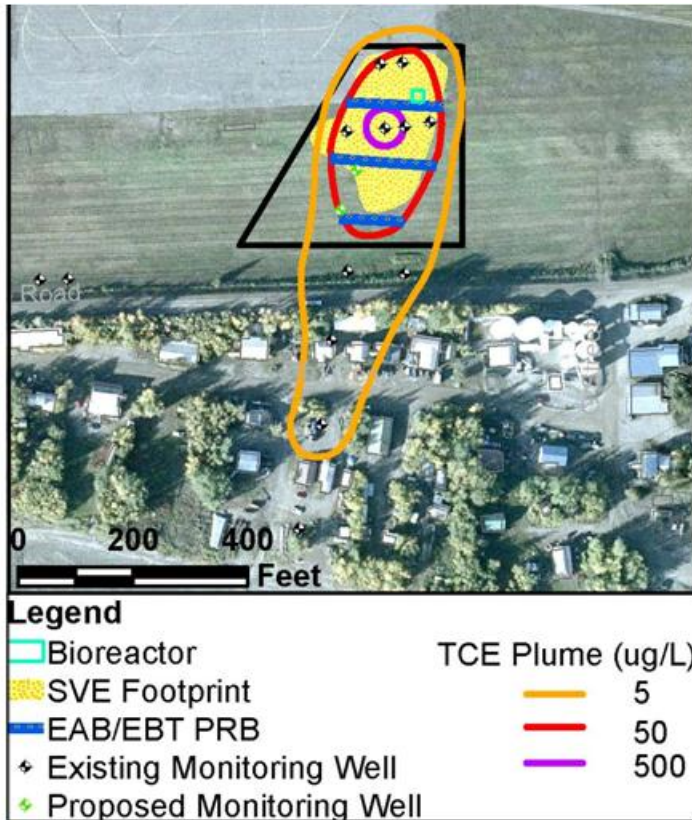




# RI Sites – SS015 and SS006

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- Other sites with fuel and chlorinated solvents will be treated with excavation/SVE for unsaturated or variably saturated soil combined in situ bioremediation for groundwater



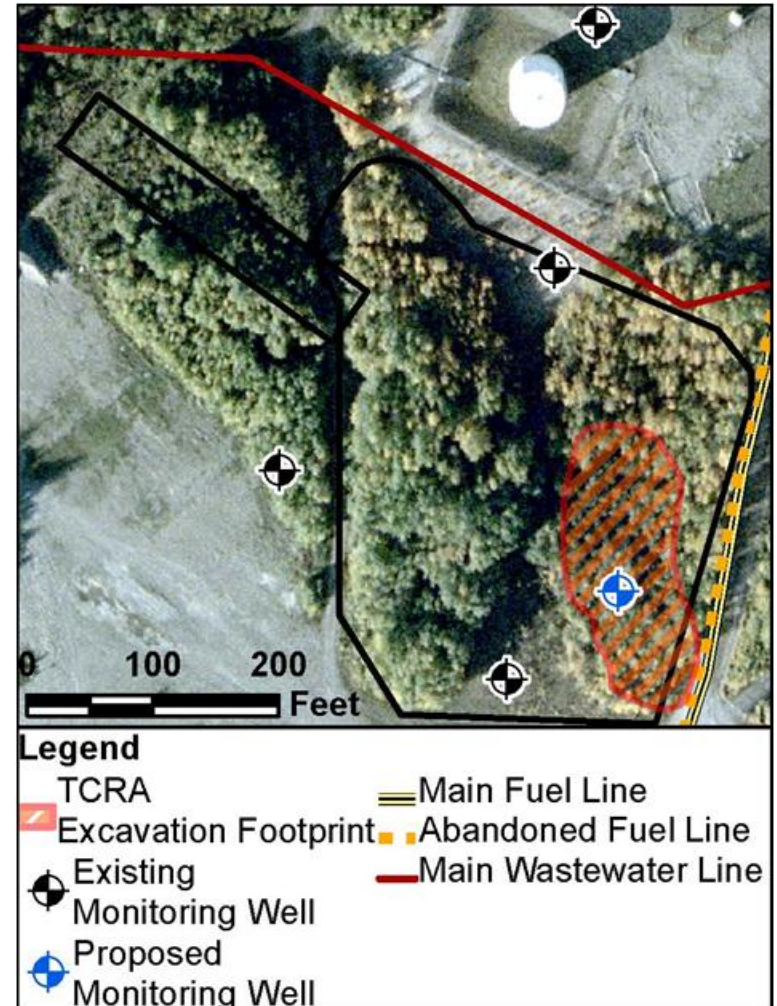




# Disposal Site West of Dike

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- The DSWD site will have an interim soil sampling and removal action to remove debris and contamination in the disposal area and to determine if there is any contamination that cannot be excavated





# PBR Cleanup Summary (RI)

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Site ID	Site Name	Performance Objective (Target Date)	Description of Technical Approach
FT001	Fire Protection Training Area	RIP (10/17)	Bioventing for petroleum-contaminated soil, MNA for petroleum contaminants in groundwater
SS006	TCE Area (Bldg 1845)	RIP (11/17)	SVE for VOCs in unsaturated (vadose zone and VSZ) soil, and EAB/EBT for chlorinated VOCs in saturated soil and groundwater.
SS019	Building 1700 – Refueler Maintenance Shop	Response Complete (4/20)	Excavate/landfarm petroleum-contaminated soil near former UST and dry well. SVE for remaining contaminants in unsaturated soil. Address chlorinated VOC contamination east of Bldg 1700 under SS006.
SS015	South Apron Maintenance Area	RIP (11/17)	SVE of chlorinated VOCs in unsaturated soil. EAB/EBT for chlorinated VOCs in source area groundwater. MNA in downgradient groundwater plume.
SS018	Waste Accumulation Area - South of Bldg 1499	Response Complete (6/20)	Excavate and landfarm petroleum-contaminated soil where feasible. Bioventing to treat petroleum-contaminated soil beneath pipeline that cannot be safely excavated. Excavate pesticide-contaminated soil if it exceeds acceptable risk levels. Address chlorinated VOCs in groundwater as part of SS006.





# PBR Cleanup Summary (RI)

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Site ID	Site Name	Performance Objective (Target Date)	Brief Description of Technical Approach
SS013	Control Tower Drum Storage Area - South	Response Complete (4/18)	Complete Site Characterization Report Addendum, recommend RC based on contaminant concentrations in soil.
SS022	Building 400 Former CAA- Air Force Weather Station	Site Closeout (6/20)	Excavate and landfarm petroleum-contaminated soil. SVE to remove chlorinated VOCs from unsaturated soil. MNA for groundwater.
OW024	MWR Storage OWS	Site Closeout (6/20)	SVE to remove VOC contamination from soil; Excavate / remove arsenic contaminated surface soil if it is attributed to a source-related release.
DP023	Former Disposal Site West of Dike	Response Complete (4/20)	Conduct TCRA to excavate / remove / dispose of buried drums, debris, and contaminated soil up to 15 ft bgs. Complete CERCLA process through ROD, excavate any remaining soil contamination. Treat petroleum contaminants in deeper soil and groundwater with CG001 / CG002 biosparge/bioventing system.
SS025	West Perimeter Road TCE Spill	Response Complete (9/20)	Additional soil and groundwater samples for delineation. SVE to treat chlorinated VOCs in soil above HH CULs.



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# *Schedule Overview*

- **2014 Field Work**
  - **Annual Groundwater Monitoring (late August/September)**
  - **DSWD Soil Sampling (September)**
- **Summer 2015 – Implement select Cleanup Plans and Pilot Tests**
- **2016 to 2018 – Implement remaining remedies**
- **2019 to 2020 – Operate Remedies, Prepare close out reports as appropriate**



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# ***Communications***

- **Semi-annual RAB Meetings**
- **Public review periods for Proposed Plans under CERCLA**
- **Air Force maintains Administrative Record for Final Documents**





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# Questions?

- **Public Comments will be taken until August 29, 2014**
- **Please send comments to either of the following:**

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