



MONTE CRISTO MINING AREA CERCLA REMOVAL ACTION

PRESENTED BY:

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Outline of Topics

- Overview of the Monte Cristo Mining Area
- Early History of the Mining District
- Overview of Mines/Facilities Investigated
- Clean Water Act Lawsuit Review – WEC vs. USFS
- Review of Previous Investigations
- Removal Action Recommendations
- Removal Action Update/Status



Overview of the MCMA

- Located in NW Washington, near Henry Jackson Wilderness
- ~60 Mines/Prospects, plus several mills
- Total Production ~ 300,000 tons
- Complex Land Ownership, USFS/private, plus Townsite.
- 2,000 – 6,000 feet amsl (Monte Cristo Lake to Headwaters)
- Multiple Stakeholders: USFS, Monte Cristo Preservation Association, Ecology, WDNR, Seasonal Residents, Private Landowners, Hikers, Campers, etc.



Early History of MCMA

- 1889 – First discovery and early claims.
- 1891 – Rockefeller buys majority interest.
- 1892/1893 – Wagon Road/Railway completed to Monte Cristo.
- 1894 – United Concentration Company completes Mill.
- 1894 to 1906 – Period of Most Significant Mining, Ore Production ~300,000 tons.
- 1903 – ASARCO purchases Everett Smelter/Monte Cristo interests.
- 1907 – Main Production ends at Monte Cristo.



Investigations at MCMA

- 2002 – Preliminary Assessment - Concentrator/Mystery (FS)
- 2003 – IAML Report - Mystery and Justice Mines (WDNR)
- 2004 – Site Hazard Assessment (Ecology/SHD)
- 2005 – Site Inspection – Phase I/II Initiated (FS)
- 2006 – Preliminary Assessments – 4 Additional Sites (FS)
- 2007 – Site Inspection – Phase III/IV Initiated (FS)
- 2008 – Site Inspection Finalized (FS)
- 2008 – EE/CA Initiated (FS)
- 2010 – EE/CA Published, Public Comment (FS)



Main Mines/Facilities

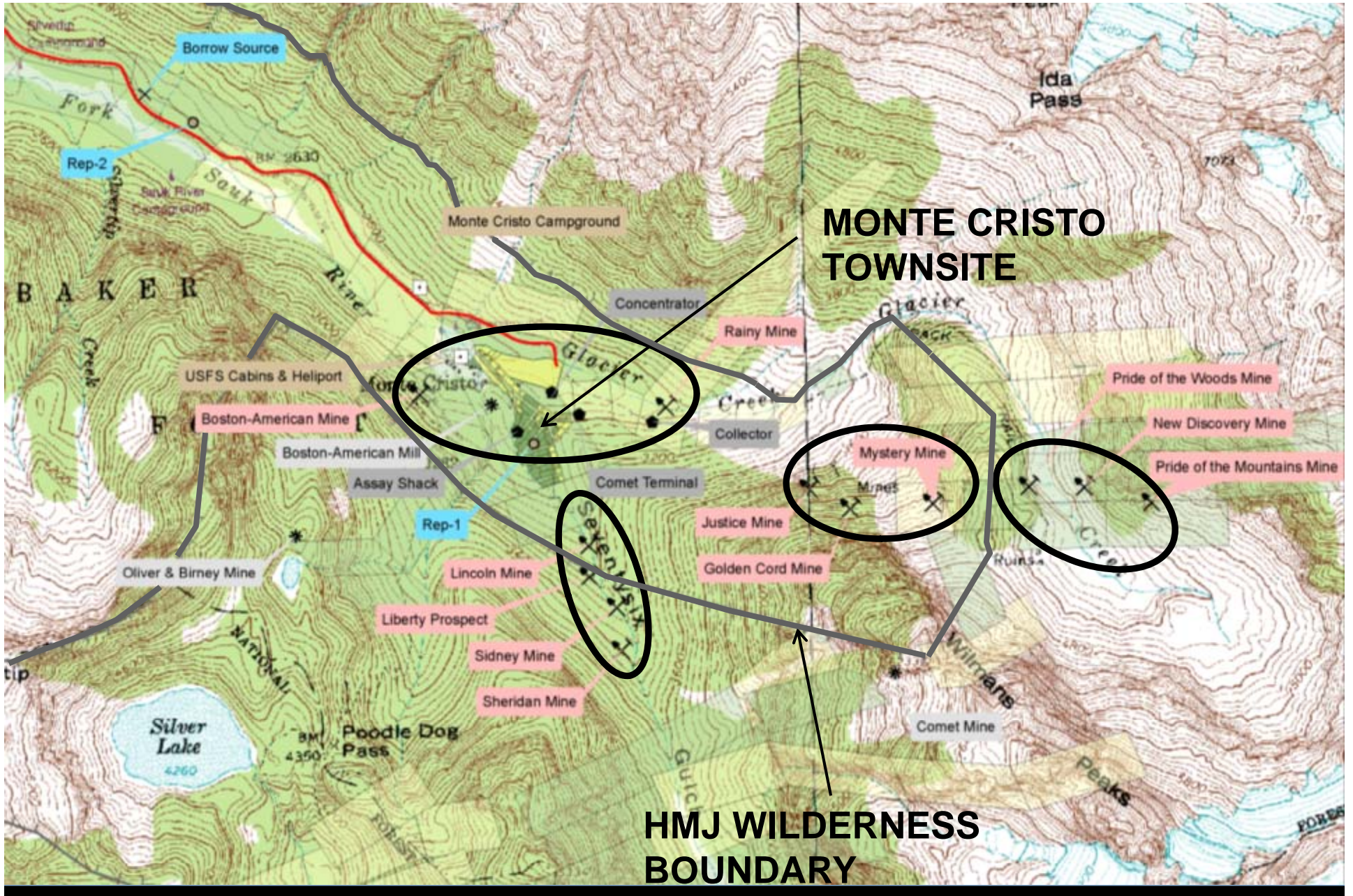
Mines/Prospects (12)

- Pride of the Mountains Mine
- Pride of the Woods Mine
- New Discovery Mine
- Mystery Mine
- Golden Cord Mine
- Justice Mine
- Rainy Mine
- Lincoln Mine
- Liberty Prospect
- Sheridan Mine
- Sidney Mine
- Boston-American Mine

Facilities (5)

- Ore Collector
- Comet Terminal
- Concentrator/Mill
- Assay Shack
- Haulage Ways





CWA Lawsuit Review

Washington Environmental Council (WEC)

v.

Mt. Baker – Snoqualmie National Forest

USDA Forest Service

The views expressed here are the speaker's and do not necessarily represent the position of the Forest Service or the United States.



LITIGATION TIMELINE

4/06	WEC FOIA Request
5/06	WEC NOI to Sue
8/06	Complaint Filed
1/07	US MSJ
	WEC Response
6/07	US MSJ DENIED w/out Prejudice

CERCLA TIMELINE

4/02	PA—MC Conc., Mystery
4/03	IAML Rpt—Mystery/Justice
1/04	Site Hazard Assessment
4/05	Phase I SI Initiated
12/05	Phase I/II SI Letter Report
9/06	PA—POM-ND-POW-Sidney
6/07	Phase III SI Initiated
7/07	Phase IV SI Initiated

WEC Charges:

- CWA violation at Monte Cristo - Discharge of pollutants into Waters of the U.S. without an NPDES Permit
 - Justice Mine and waste rock dump
 - Mystery Mine Adit #3 and waste rock dump
 - Pride of the Woods Mine adit
 - New Discovery Mine Adit #2
 - Pride of the Mountains Mine Adit #1
 - Sidney Mine waste rock dump
 - Concentrator/Collector



Primary U.S. Defense:

- CERCLA § 113(h) - "Pre-Enforcement Bar"

"No Federal court shall have jurisdiction under Federal law... to review any challenges to removal or remedial action selected under Section 9604" [U.S.C. 9613(h)]

- CERCLA § 110(23) - "Removal Actions"

"Removal actions are immediate or interim measures taken to monitor, assess, evaluate, minimize or mitigate danger to public health or the environment that may otherwise result from a release or threatened release of hazardous substances" [U.S.C. 9603(23)] (emphasis added to above)

Related Court Decisions:

- CERCLA was enacted “to protect and preserve public health and the environment by facilitating the expeditious and efficient cleanup of hazardous waste sites.” - Pritikin v. Dept of Energy, 254 F.3d 791 (9th Cir. 2001)
- “To ensure that cleanup of contaminated sites will not be slowed or halted by litigation, Congress enacted section 113(h).” - Razore v. Tulalip Tribes of WA, 66 F.3d 236, 239 (9th Cir. 1995)
- Section 113(h) broadly to encompass “any ‘challenge’ to a CERCLA cleanup” regardless of the statutory guise under which the challenge is brought. - ARCO Env'tl. Remediation v. Dept of Health and Enviro Quality of the State of MT, 213 F.3d 1108, 1115 (9th Cir. 2000)



Related Court Decisions (cont):

- A CWA challenge was specifically rejected by the 9th Circuit and suit jurisdiction barred under Section 113(h) where the plaintiffs argued that a remedial investigation/feasibility study (RI/FS) was not a 'selected removal action'. - Razore v. Tulalip Tribes of WA, 66 F3d 236, 239 (9th Cir. 1995).

(An RI/FS involves the gathering and analysis of data and alternative development and analysis to support a selected remedial [final] action, just as the PA/SI and EE/CA process would support a selected removal [interim] action)

Federal District Court Denied U.S. MSJ June 14, 2007

- “It does not appear that the [U.S.] has ‘selected a removal or remedial action’ ”
- The U.S. shown has not shown “that even preliminary evaluations have been conducted for the Justice Mine, a site include in [WECs] complaint”
- *WITHOUT PREJUDICE*; decision pending a further “[showing] of ‘progress and scope’ of the CERCLA removal activities.”



LITIGATION TIMELINE

8/07	WEC Interrogatories & Production of Docs
10/07	US Response to I & P
2-7/08	Settlement Talks (No Agreement)
9/08	US Suplmt. I & P
11/08	WEC/US MSJ Submit
1/09	WEC Opposition Resp.
2/09	US Opposition Resp.
3/09	WEC Reply to US Opp.
4/09	US Suplmt to Opp.
6/09	US MSJ GRANTED

CERCLA TIMELINE

9/07	MCMA EE/CA Initiated
10/07	PRP Report; Bankruptcy Claim
1/08	Phase II-IV SI Report

6/09	ASARCO Claim Settled
9/09	Draft EE/CA; Summary to Public
4/10	EE/CA Published; Public Comment



Federal District Court Granted U.S. MSJ & Denied WEC MSJ - June 2, 2009

- “The MCMA cleanup effort to-date is sufficiently analogous to the RI/FS of *Razore* to constitute a ‘removal action’ under CERCLA”
- “The FS is actively engaged in monitoring, assessing, and evaluating the release at [all seven sites under dispute] MCMA”



U.S. Litigation Impacts

- FS/USDJ Staff/Attorney Costs
 - 1000 work hours
 - \$60,000
- Delay of investigation/cleanup of other Sites in progress



Sampling Summary

- 10 Background Soil Samples
- 115+ Waste Rock/Tailings/Soil Samples
 - Hundreds of XRF measurements
- 41 Adit Discharge Water Samples
- 94 Surface Water/Sediment and 16 Pore Water Samples – Aquatic Stations

Nature and Extent of Contamination

- Soil (Complete Pathway) - Arsenic is the primary contaminant of concern. Approximately 80,000 cy of waste rock, tailings, and impacted soil present.
- Air (Complete Pathway) – Contaminants are concentrated at the surface where human and ecological receptors could be exposed. Accounted for in the Soil Pathway.
- Groundwater (Incomplete Pathway) – No known wells within 4-miles of the MCMA. Adit discharges/seeps are included in the Surface Water Pathway.
- Surface Water (Complete Pathway) – General increase in contaminant concentrations in surface water and sediment from upstream to downstream.

Aquatic Stations

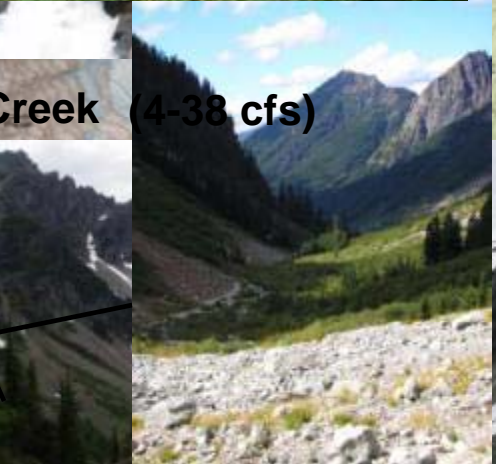
Monte Cristo Lake

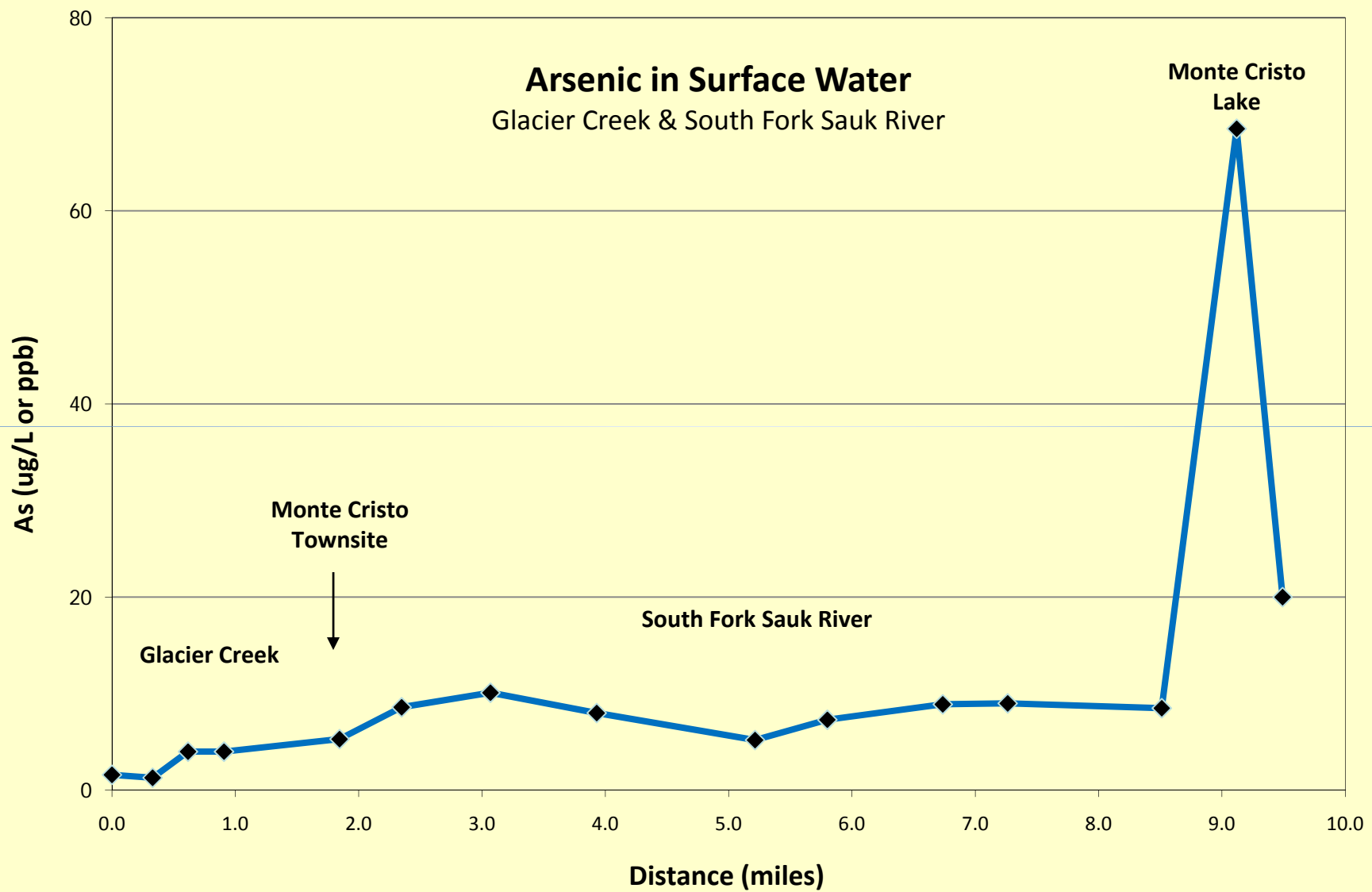
South Fork Sauk River
(40-340 cfs)

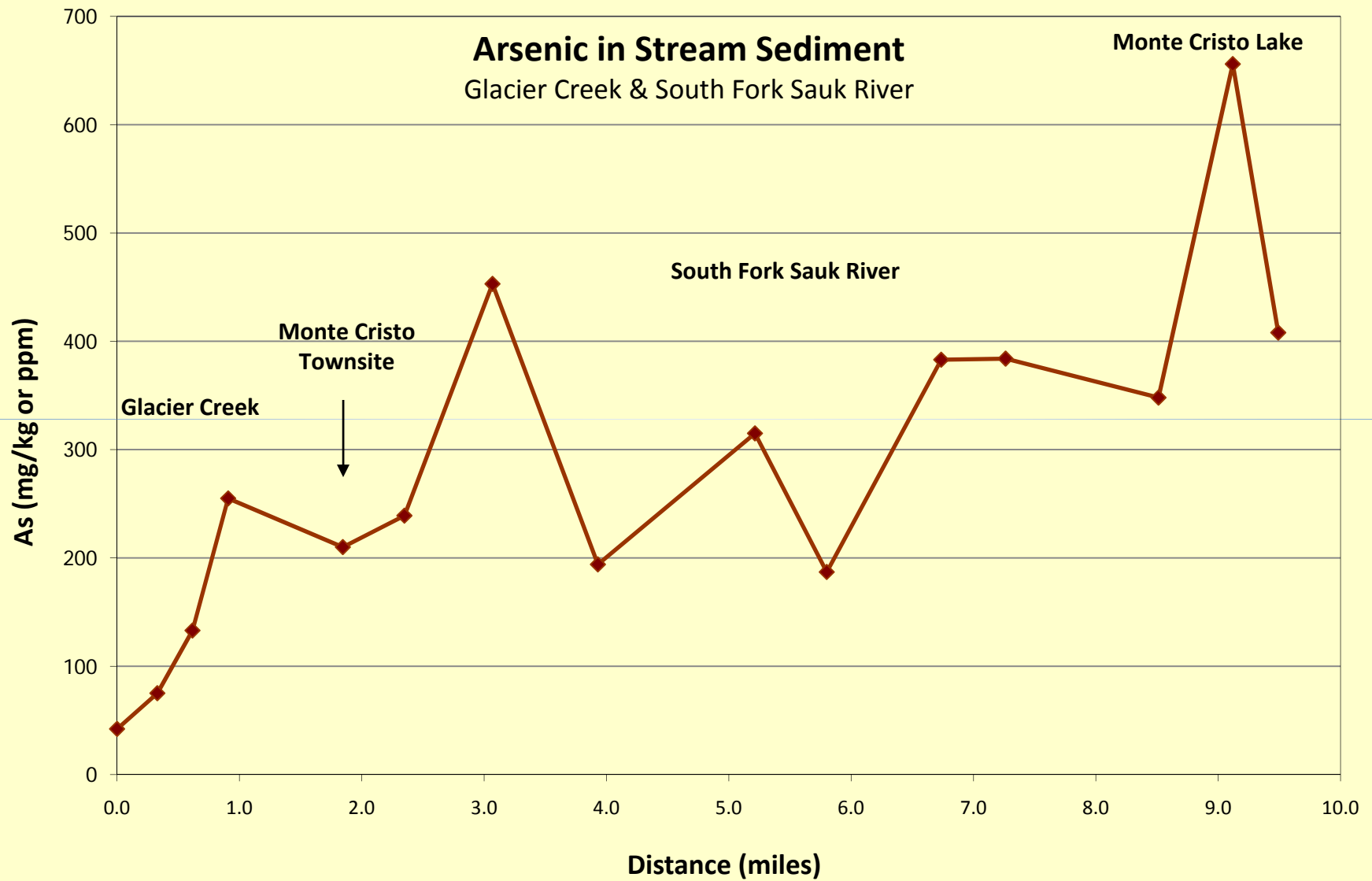
Monte Cristo Townsite

Seventy-Six Creek
(1-65 cfs)

Glacier Creek (4-38 cfs)







EE/CA Recommendations

- Risk-Based Cleanup Values – Waste Rock/Tailings
 - Near Areas = 67.4 ppm – Arsenic
 - Remote Areas = 659 ppm - Arsenic
- Common Items
 - Physical Hazard Mitigation / Signage
 - Preservation of Historically Significant Areas
 - Construct New Access Road on North Side of SFSR
 - Onsite Lined Repository
 - Adit Discharge Water - TBD
- Upper Glacier Basin/Creek Area
 - Pride of the Mountains Mine / New Discovery Mine - Institutional Controls Due to Remoteness, Within Wilderness Area, and Distance from SW
 - Pride of the Woods Mine - Removal and Disposal in MCMA Repository Due to Proximity to SW and Glacier Basin Trail

EE/CA Recommendations (cont.)

- Mystery Ridge/Basin Area (Mystery / Justice / Golden Cord)
 - Institutional Controls – Due to Remoteness/Access, Proximity to Wilderness Area, and Distance from SW
- Lower Glacier Creek/Townsite Area
 - Rainy Mine, Concentrator, Collector, Assay Shack and Haulage Ways
 - Removal and Disposal in MCMA Repository Due to Proximity to Townsite, Glacier Basin Trail, and Glacier Creek.
 - Boston-American Mine - Institutional Controls – Due to Low Concentrations
- Seventy-Six Gulch/Creek Area
 - Sidney Mine - Removal and Disposal in MCMA Repository Due to Proximity to SW
 - Sheridan Mine - Institutional Controls – Due to Remoteness/Access, Within the Wilderness Area, and Distance from SW
- Total Cost ~ \$5M

Pride of the Woods Mine



Rainy Mine



Ore Collector/Concentrator



Assay Shack / Haulage Ways



Removal Action Data Gap Investigation

- 2010 Low-Flow and High-Flow Aquatic Sampling
- Investigation of 4 Additional Features
- Borrow Area/Repository Assessment
- Ownership/Topographic Survey
- Humidity Cell Tests
- Finalize New Access Road Alignment Design



Liberty Prospect



- 246-ft-long Adit / No waste rock
- Caving at portal
- Water ponded behind slough pile
- Recommend sample ponded water and close working

Lincoln Mine



- Limited waste rock remaining
- Low As Concentrations
- Failed hillside covers remainder of dump
- No further action

Weden Area



- Possible concentrates/tails
- As = 222 to 347 ppm
- Small area
- No Further Action

Comet Terminal



- Ruins/spillage piles at terminus of Comet Mine Tram
- Located on Glacier Basin Trail
- 11 ore stockpiles/spillage piles
- As = Up to 10% As
- ~ 1000 cy of piles & ~ 0.5 ft soil to repository

Removal Action Update

- New Site Evaluations
 - Weden and Lincoln Mine – No Future Action
 - Liberty Prospect – Physical Hazard Mitigation of Adit
 - Comet Terminal – Excavation and Placement in Repository
- Borrow Area/Repository Evaluation
 - Existing Borrow Area Along Access Road
 - Two Repositories, 1 within the Townsite and 1 near the Borrow Area
- Ownership/Topographic Maps – Complete
- Kinetic Humidity Cell Testing – In Progress (week 6 of 21)
- New Access Road Design
 - 95% Complete, Waiting for Final Alignment
 - Construction scheduled for 2011



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Removal Action Timeline

- Winter 2010/2011 – Finalize New Access Road Plans/Specs
- Spring 2011 – High Flow Aquatic Baseline Monitoring
- Summer 2011 – Construct Access Road/Repair Existing Road
- Fall 2011 – Low Flow Aquatic Baseline Monitoring
- Fall/Winter 2011 – Adit Discharge Sampling and Bench Testing of Remote Water Treatment Alternatives
- Winter 2011/2012 – Removal Action Design, Plans/Specs
- Summer 2012 – Removal Action Implementation (Season 1)
- Summer 2013 – Removal Action Implementation (Season 2)
- Fall 2013 – TBD – Post Removal Action Monitoring - Repository, Revegetation, and Aquatic



Questions?

