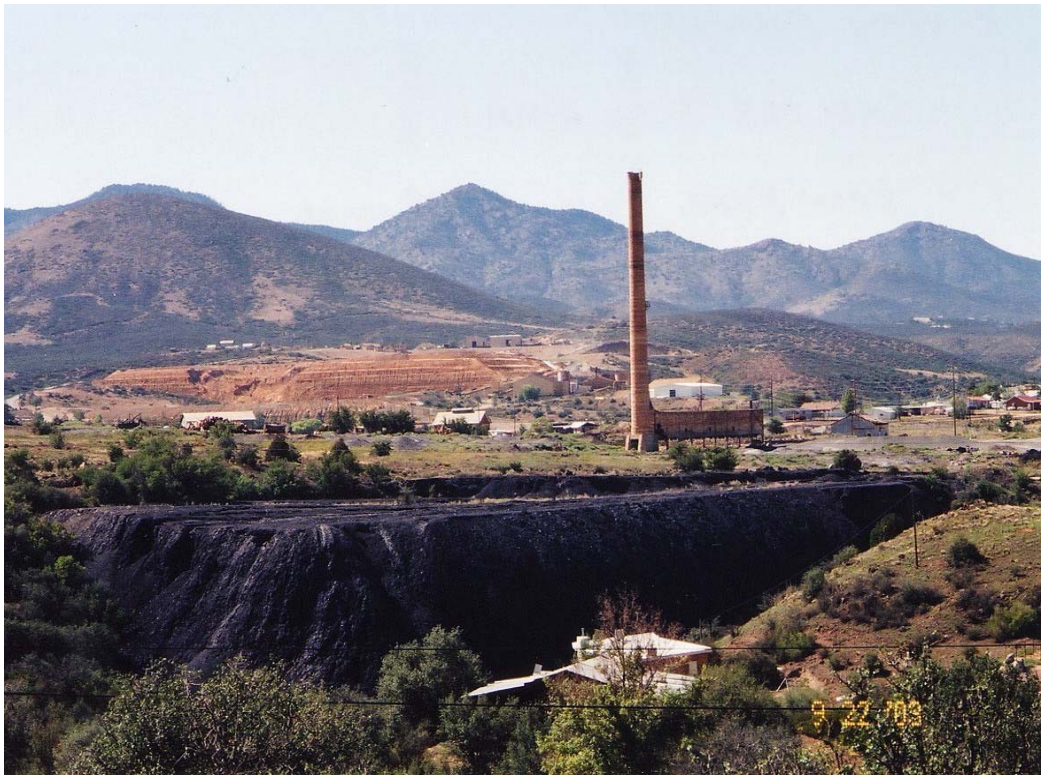
Appendix A
Current Site Photographs

Appendix A
Current Site Photographs, Iron King Mine – Humboldt Smelter Superfund Site

Overview



Photograph 1: Site Overview. Former Humboldt Smelter property in the foreground and former Iron King Mine property in the background at Viewpoint (VP) 1 (see Figure A-1)

Iron King Mine, Main Tailings Pile (NR17)

Photograph 2: Iron King Mine Main Tailings Pile at VP2

Photograph 3: Iron King Mine Main Tailings Pile at VP3

Iron King Mine, Main Tailings Pile (NR17)

Photograph 4: Iron King Mine Main Tailings Pile at VP4

Photograph 5: Iron King Mine Main Tailings Pile, Blowout at VP5

Iron King Mine, Main Tailings Pile (NR17)

Photograph 6: Iron King Mine Main Tailings Pile, looking east toward former Humboldt Smelter at VP6

Photograph 7: Iron King Mine Main Tailings Pile, Retention Pond and NAI Operations area at VP6

Iron King Mine, Main Tailings Pile (NR17)

Photograph 8: Iron King Mine Main Tailings Pile, drainage channel west of Highway 69 at VP7

Upper and Middle Chaparral Gulch (NR3, NR5, and NR6)

Photograph 9: Unnamed drainage near Blowout Path at VP8

Photograph 10: Chaparral Gulch at 3rd Street, downstream of Highway 69 at VP9. Photograph taken in 2008; additional alluvium (from other sources in the drainage basin) has been deposited at this VP in recent years.

Upper and Middle Chaparral Gulch (NR3, NR5, and NR6)

Photograph 11: Middle Chaparral Gulch at VP10; tailings evident along banks of southern channel

Smelter Tailings Swale (NR7) and Tailings Floodplain (NR8)

Photograph 12: Smelter Tailings Swale with former Iron King Mine in background at VP11

Photograph 13: Smelter Tailings Swale, tailings pond berm, and blowout at VP12

Smelter Tailings Swale (NR7) and Tailings Floodplain (NR8)

Photograph 14: Smelter Tailings Swale at VP13

Photograph 15: Smelter Tailings Swale at VP14

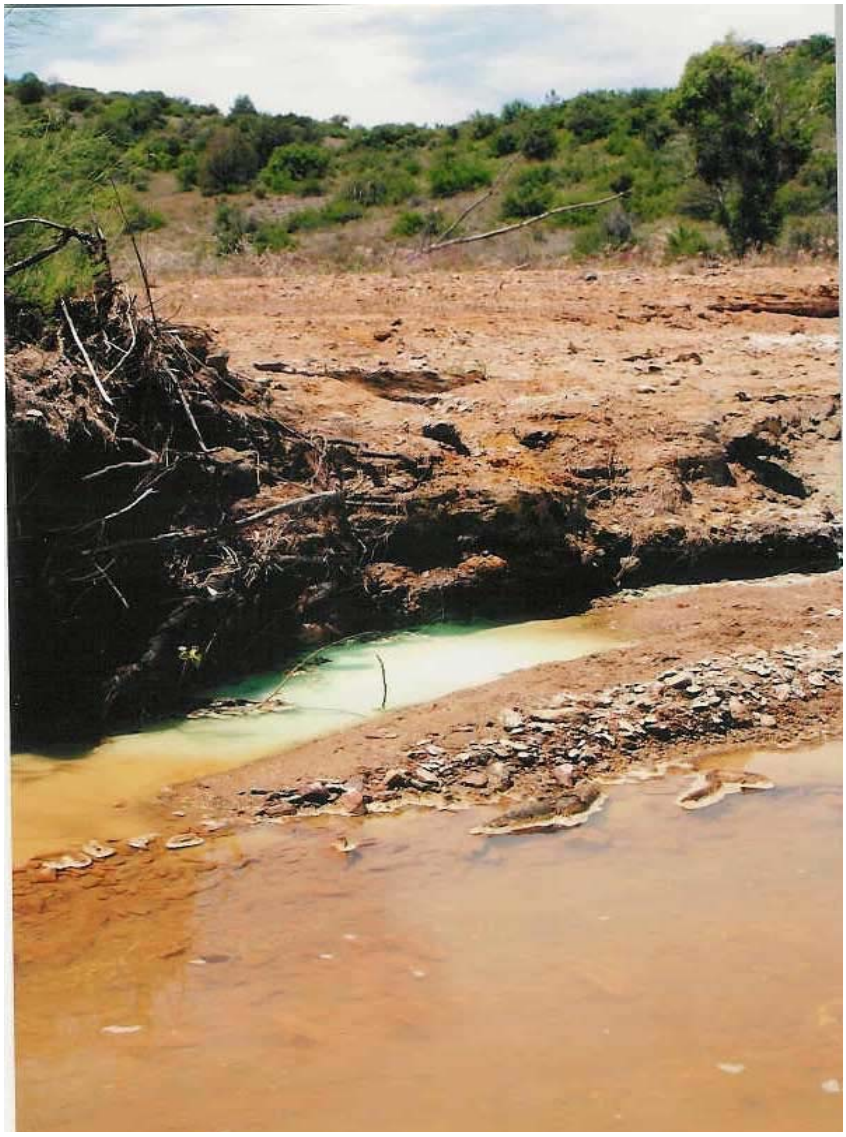
Smelter Tailings Swale (NR7) and Tailings Floodplain (NR8)

Photograph 16: Tailings Floodplain, effloresecent salts from repeated evapoconcentration at VP15

Smelter Tailings Swale (NR7) and Tailings Floodplain (NR8)

Photograph 17: Tailings Floodplain, effloresecent salts from repeated evapoconcentration at VP16

Smelter Tailings Swale (NR7) and Tailings Floodplain (NR8)



Photograph 18: Tailings Floodplain, Chaparral Gulch at VP17

Smelter Tailings Swale (NR7) and Tailings Floodplain (NR8)

Photograph 19: Tailings Floodplain at VP18

Photograph 20: Chaparral Gulch Dam at VP19

Smelter Tailings Swale (NR7) and Tailings Floodplain (NR8)

Photograph 21: Chaparral Gulch Dam at VP19

Smelter Tailings Swale (NR7) and Tailings Floodplain (NR8)

Photograph 22: Chaparral Gulch Dam at VP20

Lower Chaparral Gulch (NR9)

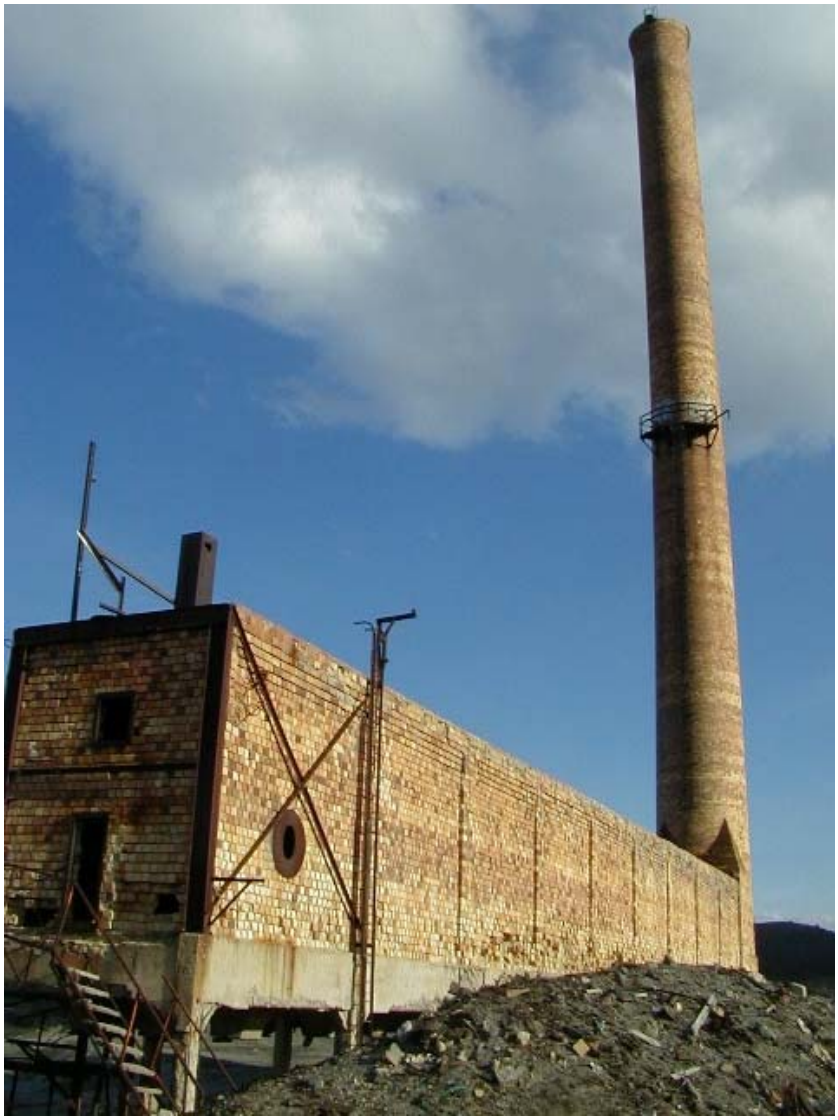
Photograph 23: Lower Chaparral Gulch at VP21

Lower Chaparral Gulch (NR9)

Photograph 24: Lower Chaparral Gulch at VP22

Photograph 25: Lower Chaparral Gulch at VP23

Dross Area and Former Pyrometallurgical Operations Area (NR11)



Photograph 26: Former Humboldt Smelter Pyrometallurgical Operations area, Smelter Stack and brick flue at VP24

Dross Area and Former Pyrometallurgical Operations Area (NR11)

Photograph 27: Former Humboldt Smelter buildings, Smelter Stack, and dross at VP25

Photograph 28: Dross at VP26

Dross Area and Former Pyrometallurgical Operations Area (NR11)

Photograph 29: Former Humboldt Smelter slag pile and Agua Fria River, looking southwest at VP27

Photograph 30: Former Humboldt Smelter slag pile and Agua Fria River, looking west at VP27

Dross Area and Former Pyrometallurgical Operations Area (NR11)

Photograph 31: Slag pile and Agua Fria River, looking west at VP27

Photograph 32: Northeastern corner of the primary slag pile, looking northwest at VP27

Dross Area and Former Pyrometallurgical Operations Area (NR11)

Photograph 33: Slag material dumped in a solid form from the retort or kiln, resulting in a funnel-shaped 3-foot-diameter fragment at VP28

Photograph 34: Slag Pile at VP29

Agua Fria River

Photograph 35: Agua Fria River at Prescott Street, looking south at VP30

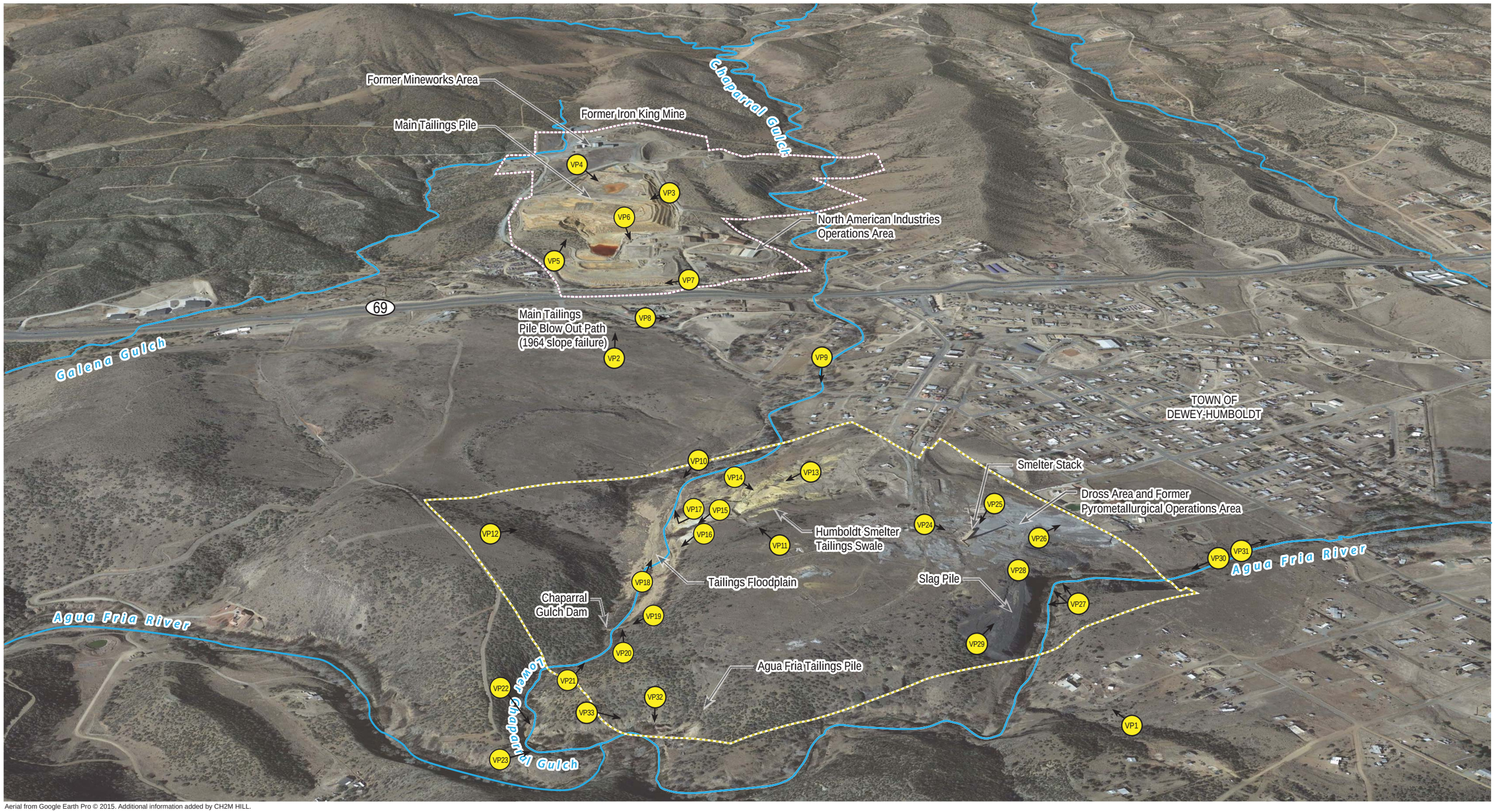
Photograph 36: Agua Fria River at Prescott Street, looking north at VP31

Agua Fria River

Photograph 37: Agua Fria Tailings Pile (NR10), just upstream of confluence with Chaparral Gulch at VP32

Agua Fria River

Photograph 38: Agua Fria River near confluence with Chaparral Gulch at VP33



Aerial from Google Earth Pro © 2015. Additional information added by CH2M HILL.

Legend

- VP1 Viewpoint
- Former Iron King Mine Property
- Former Humboldt Smelter Property

Notes:
Viewpoints are approximate.
Photos taken by EPA.

Figure A-1
Iron King Mine – Humboldt Smelter, Current Site Photo Location Key
Iron King Mine – Humboldt Smelter Superfund Site
Dewey-Humboldt, Yavapai County, Arizona

Supplemental Photographs

Photo DSC_0615: Photos during investigation: depicting percussion drill rig used to obtain cores from the ground in area of the Humboldt Smelter

Photo DSC_0643: Photos during investigation: depicting percussion drill rig used to obtain cores from the ground in the Iron King Mine Blow Out Path

Photo IMG_0814: Photos during investigation: depicting percussion drill rig used to obtain cores from the ground in the Upper Gulch

Photo D004 IMG_0830: Example of deep erosional gulley cut through existing tailings in the Smelter Tailings Swale; shows underlying natural brown clay layer

Photo DSC00116: Core samples prior to shipment to laboratory

Photo F002 DSCN0939: Chaparral Gulch Dam

Photo F004: Ponds of water at the base (downstream) of Chaparral Gulch Dam

Photo F009: Red precipitate immediately downstream of Chaparral Gulch Dam

Photo GEDC1485: Dross material covering Pyrometallurgical Operations area

Photo GEDC1486: Dross material covering Pyrometallurgical Operations area

Photo GEDC1487: Dross material covering Pyrometallurgical Operations area

Photo GEDC1488: Dross material covering Pyrometallurgical Operations area

Photo GEDC1490: Dross material covering Pyrometallurgical Operations area at Humboldt Smelter

Photo 1: Part of a core into the Tailings Floodplain showing yellow-orange oxidized tailings layer on top of other deposit material

Photo 2: Part of a core into the Tailings Floodplain, showing black reduced (anoxic) tailings