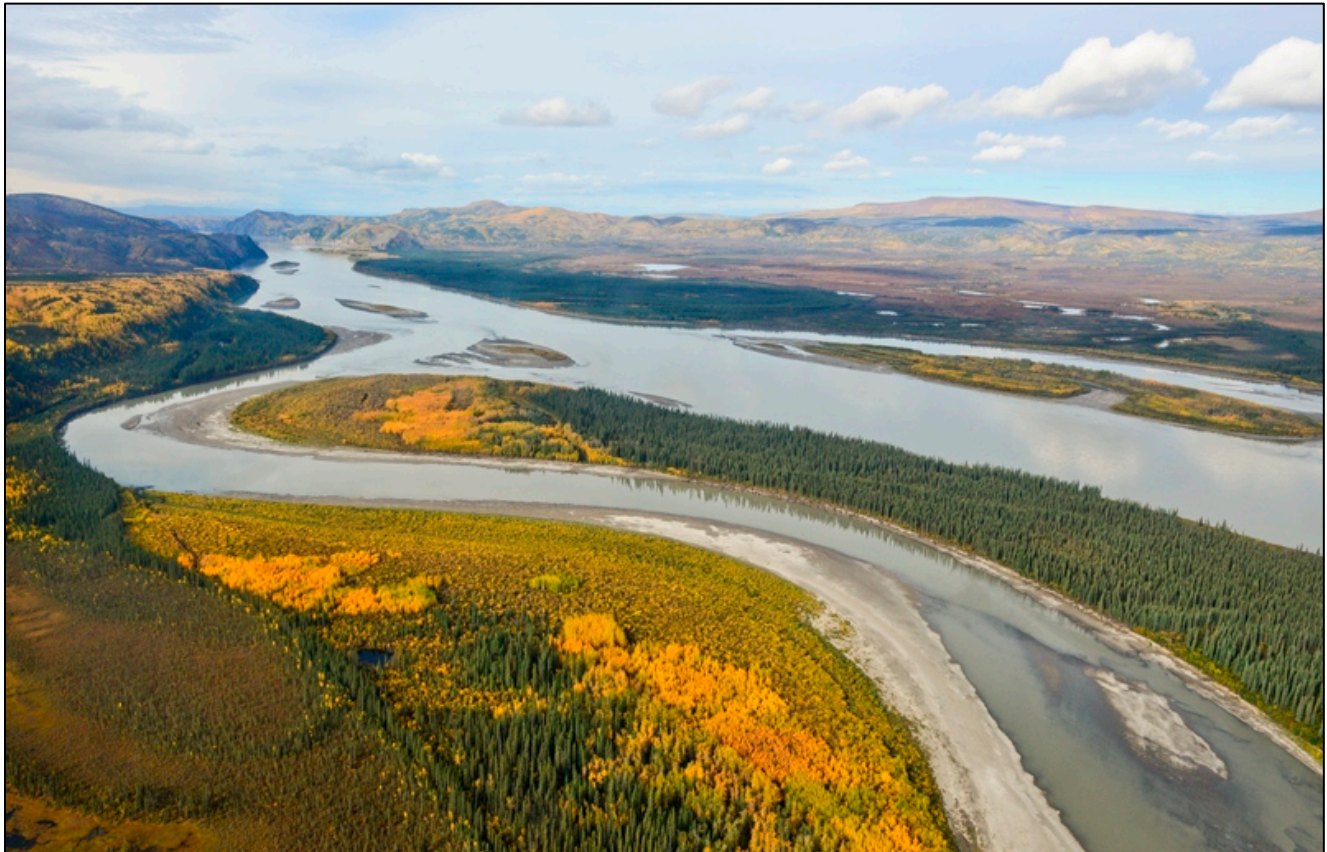




A History of National Park Service Clean-up Efforts at the Historic Coal Creek Mining District, Yukon- Charley Rivers National Preserve

Natural Resource Report NPS/YUCH/NRR—2015/1099



**ON THIS PAGE**

Slaven's Roadhouse at the mouth of Coal Creek, Yukon-Charley Rivers National Preserve.
Photograph courtesy of Chris Allan, National Park Service.

ON THE COVER

Photograph of Coal Creek Mining District, Yukon-Charley Rivers National Preserve.
Photograph courtesy of Josh Spice, National Park Service.

A History of National Park Service Clean-up Efforts at the Historic Coal Creek Mining District, Yukon- Charley Rivers National Preserve

Natural Resource Report NPS/YUCH/NRR—2015/1099

Chris Allan

Gates of the Arctic National Park and Preserve
Yukon-Charley Rivers National Preserve
4175 Geist Road
Fairbanks, Alaska 99709

December 2015

U.S. Department of the Interior
National Park Service
Natural Resource Stewardship and Science
Fort Collins, Colorado

The National Park Service, Natural Resource Stewardship and Science office in Fort Collins, Colorado, publishes a range of reports that address natural resource topics. These reports are of interest and applicability to a broad audience in the National Park Service and others in natural resource management, including scientists, conservation and environmental constituencies, and the public.

The Natural Resource Report Series is used to disseminate comprehensive information and analysis about natural resources and related topics concerning lands managed by the National Park Service. The series supports the advancement of science, informed decision-making, and the achievement of the National Park Service mission. The series also provides a forum for presenting more lengthy results that may not be accepted by publications with page limitations.

All manuscripts in the series receive the appropriate level of peer review to ensure that the information is scientifically credible, technically accurate, appropriately written for the intended audience, and designed and published in a professional manner.

This report received informal peer review by subject-matter experts who were not directly involved in the collection, analysis, or reporting of the data

Views, statements, findings, conclusions, recommendations, and data in this report do not necessarily reflect views and policies of the National Park Service, U.S. Department of the Interior. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the U.S. Government.

This report is available in digital format from the Natural Resource Publications Management website (<http://www.nature.nps.gov/publications/nrpm/>). To receive this report in a format optimized for screen readers, please email irma@nps.gov.

Please cite this publication as:

Allan, C. 2015. A history of National Park Service clean-up efforts at the historic Coal Creek Mining District, Yukon-Charley Rivers National Preserve. Natural Resource Report NPS/YUCH/NRR—2015/1099. National Park Service, Fort Collins, Colorado.

Contents

	Page
Photographs.....	iii
Abstract	v
Acknowledgments.....	v
Introduction.....	1
History of Mining at Coal Creek.....	2
Contaminant Assessments and Clean-up Efforts	4
Hazardous Materials Assessment	4
Clean-up Efforts	5
Rehabilitation and Preservation	7
Historic Preservation Efforts	7
Salmon in Coal Creek.....	7
Coal Creek Today	9

Photographs

	Page
Photo 1. Frank Slaven (foreground) and fellow Coal Creek prospectors, ca. 1930.....	10
Photo 2. A dredge worker using a “giant” to remove soil and thaw permafrost, ca. 1936.....	10
Photo 3. The Coal Creek dredge operating in the early 1940s. Note tailings piles at rear of the dredge.....	11
Photo 4. Coal Creek dredge bucket line with tailings piles in the background, ca. 1938.....	11
Photo 5. A dredge employee pouring molten gold into forms to create gold bars, ca. 1936.....	12
Photo 6. View of Coal Creek dredge and tailings piles, July 1954.....	12
Photo 7. The Coal Creek dredge operating under new management, August 1974..	13
Photo 8. Bulldozers move gold-bearing gravel for sluicing at Coal Creek, 1974	13
Photo 9. Removing boulders from a sluice box at Coal Creek, 1974. National Park Service, Coal Creek Collection	14
Photo 10. Leaking barrels numbered as part of clean-up efforts in the 1990s.....	14
Photo 11. Stockpile of 55-gallon drums at the Coal Creek airstrip, 1992	15

Photographs (continued)

	Page
Photo 12. Sign warning visitors and employees about soil contamination at Assay Office, 1990.....	15
Photo 13. Sign warning visitors and employees about contamination at Coal Creek dredge, 1992.....	16
Photo 14. Aerial view of Coal Creek Camp during clean-up efforts, 1996. National Park Service, Coal Creek Hazardous Waste Cleanup.	16
Photo 15. Workers passing contaminated soil through a separating plant at Coal Creek Camp, 1996	17
Photo 16. Members of clean-up crew shoveling soil into the mechanical separator, 1996.	17
Photo 17. Example of mercury collected by the mechanical separator, 1996	18
Photo 18. Al Hendricks, Jr. visiting the Coal Creek dredge control room, 2011.	19

Abstract

The purpose of this report is to provide historical context for the National Park Service's planning and management decisions regarding Coal Creek. These include decisions about natural and cultural resource management and the development and maintenance of facilities to support ongoing administrative use of Coal Creek. The report is intended to compile information about the environmental and administrative history of Coal Creek and to provide background for public information related to Coal Creek.

Acknowledgments

Contributors to this report include J. Chakuchin and L. Stromquist.

Introduction

Industrial placer gold mining is a messy business. To make it pay, miners turn the earth upside down by excavating the richest mineral-bearing gravels and casting away all but the dust, flakes and nuggets of gold. This operation requires not only men and machines but also chemicals, heavy metals, and large amounts of petroleum-based fuels and lubricants. And when the mining is done, these hazardous materials often remain. This was the situation in 1986 when Yukon-Charley Rivers National Preserve acquired a group of mining claims along Coal Creek, a tributary of the Yukon River roughly eighty miles from the U.S.-Canada boundary. Coal Creek is located in the heart of the preserve half way between the towns of Eagle and Circle, and it has a mining past stretching back to the Klondike-Alaska Gold Rush of 1897-1899. Dramatic reminders of that history are scattered across the land—a complete mining camp, large machines of various kinds, a historic roadhouse, and a magnificent pontoon-style bucket gold dredge. The value of the donation was unmistakable, but it came with hidden costs. Yukon-Charley Rivers National Preserve was created by the Alaska National Interest Lands Conservation Act of 1980, and part of the reason for its creation was “to protect and interpret historical sites and events related to the gold rush on the Yukon River”¹. In order to pursue this mission and to make use of the new property for other purposes, the National Park Service needed to address risks to human health and the environment posed by contamination from placer mining operations. The following is the story of gold mining at Coal Creek and the impressive campaign launched by park managers to make the Coal Creek watershed safe for use by the public and by National Park Service employees.

¹ Alaska National Interest Lands Conservation Act, December 2, 1980; Title II; Section 201.

History of Mining at Coal Creek

Before the arrival of large numbers of gold-seekers to Alaska in the 1890s, Coal Creek was indistinguishable from any other stream in the region—it was a modest waterway with mostly clear water that carved a sinuous path out of the mountains to mix with the broad, brown torso of the Yukon River. Archeological excavations near the mouth of Coal Creek revealed evidence that Alaska Native people have visited the site for at least the past four thousand years, and today the same area provides a convenient landing for boaters on the Yukon River.² In 1897 prospectors on their way to the Klondike gold fields gave the creek its name when they discovered deposits of coal several miles upstream. The gold-seekers were interested in coal because it could be sold as fuel to paddlewheel steamboats, but they were soon distracted by signs of gold in the gravels of the streambed. According to the *New York Times* in 1898, “The surface dirt [at Coal Creek] pays from 30 to 90 cents per pan, and sluices can be emptied directly into the Yukon. Prospectors are greatly encouraged by the strikes.”³ This was not a major gold strike, but it was a start.

The men and women who arrived in those early days began small-scale placer mining along Coal Creek. Using picks, shovels, and long sluice boxes that they built on site, the miners began the backbreaking process of separating gold from creek gravel. By 1901 mining claims lined both sides of the creek from its mouth to at least ten miles upstream, and a handful of miners built log cabins and stayed on their claims during the winter. Others worked their claims only in the summer and spent winters in Circle, Eagle, or Fairbanks. For the next three decades, a small but determined cadre of miners built ditches to divert water to their sluice boxes and cut trees for firewood to feed small steam boilers used to thaw the permanently frozen ground known as *permafrost*. Trees were also cut to for building material. A similar process occurred in the neighboring Woodchopper Creek valley, and over time, both drainages were largely deforested at lower elevations. Miners used ditches and dams to run water through their sluice boxes and to uncover gold-bearing gravels, and the creek often ran brown with sediment dislodged by their activity. At Coal Creek miners often processed up to eighty cubic yards of gravel to obtain a single ounce of gold. At this rate they were compelled to augment their income by trapping, woodcutting and other odd jobs.

Dramatic change came to Coal Creek in 1935 when Alexander McRae, a Canadian millionaire and mining investor, decided to buy out the old-timers’ claims and import an enormous gold dredge capable of overturning the earth to extract millions of dollars in gold. In order to mine on an industrial scale at Coal Creek, McRae’s company—Gold Placers, Inc.—built an eight-mile road from the Yukon River to the upper creek valley, a camp to feed and house the dredge crew, and a system of pipes and water diversions to harness the incredible power of water under pressure. Once this infrastructure was in place and the dredge was built, the Coal Creek watershed would never be the

² Ian Buvit and Jeffrey Rasic, “Middle Holocene Humans in Yukon-Charley Rivers National Preserve, Alaska,” *Alaska Journal of Anthropology* 9 (2011), 65-72.

³ “New Diggings in Alaska,” *New York Times*, August 8, 1898.

same. The practice of placer mining by machine is a multi-step process that involves stripping the land of trees and topsoil, thawing the permanently frozen ground below, and excavating enormous amounts of gravel with the dredge as it eats its way across the landscape. Water is essential to placer mining, and at Coal Creek the employees of Gold Placers, Inc. used water cannons to blast away topsoil and to speed the thawing of the permafrost. They diverted water to create lakes in which the dredge floated on its steel pontoons. And they washed thousands of tons of sediment into the creek. The result was what one historian called “a world turned upside down.”⁴

As the gold dredge advanced up and down the Coal Creek drainage it excavated twenty feet into the earth and scooped thousands of tons of gravel into its gavel-washing interior. Whereas a single miner using hand-tools might wash one cubic yard of gravel in a day, the dredge processed 3,000 in a 24-hour period. Water jets, revolving tumblers, and multiple sluice boxes separated gold from the waste material, which poured out of the back to create arc-shaped mounds of discarded rock called *tailings*. The dredge operated more or less continuously for the next two decades, meandering wherever the richest concentrations of subterranean gold could be found. In the process the channel of Coal Creek was repeatedly altered and most of the valley floor was scooped up, processed for gold, and re-deposited, ultimately producing around three million dollars in precious metals. After major operations under Gold Placers, Inc. ended in 1960, the dredge and mining claims were leased by individuals who mined periodically between the 1960s and 1980s. Today the dredge’s tailings—tell-tale signs of industrial placer mining—cover roughly eight miles of the Coal Creek valley. In addition the valley floor contains the massive hulk of the dredge, the mobile camp used by company employees, assorted buildings and roads, cabin ruins, garbage dumps, 55-gallon steel drums, abandoned vehicles, steam boilers, mobile drill rigs used for prospecting, and countless odds and ends left behind long ago. Another legacy of mining is less visible—contaminants in the soil like petroleum and the mercury used to capture small particles of gold in sluice boxes.

⁴ See, Doug Beckstead, “The World Turned Upside Down: A History of Mining on Coal Creek and Woodchopper Creek, Yukon-Charley River National Preserve, Alaska,” National Park Service, Fairbanks, Alaska, 2003.

Contaminant Assessments and Clean-up Efforts

Hazardous Materials Assessment

Gold mining came to an end at Coal Creek in 1985 when a joint venture called Coal Creek Mining Properties decided that mining the creek was no longer profitable and sold their claims to the National Parks Conservation Association. The following year the association donated the property to the National Park Service.⁵ By July 1987 Jacques Gusmano from the Environmental Protection Agency and National Park Service planner Steve Ulvi visited Coal Creek to begin identifying areas of concern. Their investigation began at the Assay Building where gold was processed after being collected from the dredge. In addition to a bottle of nitric acid on the building's shelves, the men were concerned about the possibility that mercury, used in the collection of gold particles, might have contaminated the area. Their reason for suspecting mercury contamination was that the retorting process—vaporizing the mercury to remove it from a mass of gold-mercury amalgamation—took place both inside and just outside of the building. To begin, Gusmano and Ulvi put a “Keep Out” sign on the building and survey flagging around the area to warn people about the risk of contamination. In addition, the investigators discovered in the camp's equipment storage area 55-gallon drums containing residue of petroleum products and considerable staining on the ground from spilled oil and fuels. There were also several discarded vehicle batteries, and storage sheds contained cans of paint, containers of hydrochloric acid, and containers of insecticide containing DDT. Also, in a shed near the camp was a stash of abandoned dynamite. Under heavy machinery and at the gold dredge they found spilled hydraulic fluid, solvents, and degreasers. It was clear that a comprehensive program was needed.⁶

In 1990 the National Park Service began a multi-year project to restore the ecological health of the watershed, to improve visitor access to the area, and to create a functioning administrative facility for agency use. The project was funded by and administered through the Comprehensive Environmental Response, Compensation and Liability Act response authority of the National Park Service. From the beginning the project focused on two goals: 1) conducting soil sampling to understand the extent of mercury contamination, and 2) assessing the quantity and contents of abandoned storage drums. The systematic collection of soil samples began immediately, and soon seventy-four samples had been collected at Coal Creek Camp and in the vicinity of the gold dredge. To do this work, personnel wore protective clothing, including rubber boots, disposable plastic exposure suits with hood and foot coverings, and plastic gloves. In addition to soil samples, they collected eighty-two abandoned lead-acid batteries from vehicles and heavy machinery, and after packing them in wooden crates for shipping they boated them to Eagle. From Eagle, a licensed hazardous waste carrier hauled the

⁵ National Park Service, “Draft Environmental Impact Statement: Mining in Yukon-Charley Rivers National Preserve, Alaska,” 1994, 97.

⁶ Steve Ulvi to Chief of Environmental Compliance Division, Alaska Regional Office, October 28, 1987.

batteries to Fairbank by truck to be recycled.⁷ The survey of abandoned storage drums began by painting numbers on the drums and marking them with bright survey tape to make finding them later an easier task. The survey identified 579 drums in the Coal Creek drainage, 109 of which contained an unknown product, waste, or water.⁸

Surveying and clean-up efforts continued through 1993 and were expanded to include water quality tests and comprehensive mapping. Also, in addition to the signs in Coal Creek Camp, signs warning of contamination were installed at the Coal Creek confluence with the Yukon River, at the Coal Creek Camp airstrip, and at the gold dredge. To prepare for removing abandoned drums, workers established a grid system that consisted of stakes set at five-hundred-foot intervals along the road through the middle of Coal Creek valley. Each stake was marked with spray paint and flagging, and workers both walked and spotted from helicopters to identify clusters of drums. The more workers searched through thickets of willow and alder and over expansive fields of tailings, the more drums they found, edging the number of identified drums closer to 800. At least 145 of these contained hazardous waste materials. By 1993 the scope of mercury contamination had been determined—significant mercury levels were present only in a small area near the Assay Building. Now that the extent of hazardous materials in the Coal Creek valley was better understood, it was time to begin the clean-up in earnest.⁹

Clean-up Efforts

While attempting to understand the scope of contamination and hazardous materials at Coal Creek, the National Park Service had identified several areas of concern: mercury in soil at Coal Creek Camp, lead and petroleum contamination in soils at various locations, and a broad distribution of badly deteriorated 55-gallon drums. In 1994, workers began a major clean-up project that included the removal of 830 drums and 18 lead-acid batteries from the watershed. From the drums, 2,500 gallons of waste fuels and 1,200 lbs. of grease were recovered and recycled. Over 500 gallons of contaminated water, 380 lbs. of paint solids and liquids and 2,500 lbs. of solid waste were also recovered and removed. As an additional benefit, over 46,000 lbs. of scrap steel recovered from the drums was delivered to a recycling facility in Fairbanks.

⁷ Penny Knuckles and Steve Ulvi, "Soil Sampling Plan for Mercury Contamination, Coal Creek Camp," National Park Service, 1990.

⁸ Memorandum from Mining and Minerals Branch Geologist, Minerals Management Division to Chief of Minerals Management Division, re: Coal Creek Abandoned Mineral Lands Project, Yukon-Charley Rivers National Preserve, October 15, 1990. Russell Kucinski to Chief of Minerals Management Division, October 15, 1990. National Park Service, Yukon-Charley Rivers National Preserve, Park Ranger Leigh Selig and Resource Management Specialist Penny Knuckles, "Abandoned Mineral Lands Program, Hazardous Waste Survey, Coal Creek and Vicinity," Research and Resource Management Report Series, 90-05, October 1990.

⁹ Kurt Menning, "Coal Creek Hazardous Waste Survey," Research and Resource Management Report Series 92-02, YUCH, 1990. Alaska District Army Corps of Engineers, Materials and Instrumentation Section, "Chemical Data Report for Yukon-Charley Rivers National Preserve," February 1, 1993.

The following year, the National Park Service began addressing the more difficult issue of soil contamination from lead, petroleum, and mercury spills. The first phase of this effort began in 1996 when workers removed lead-contaminated soils at the Blacksmith Shop, a building in the upper Coal Creek drainage near where the gold dredge was first assembled. Using an X-Ray Fluorescence instrument that could detect lead in minute concentrations, the crews located contamination from lead-based lubricants used in early dredge operations. Crews excavated approximately five cubic yards of lead-contaminated soils from the dirt floor of the building, and the material was packed into empty 55-gallon drums for shipment and disposal at a facility in Washington State licensed by the Environmental Protection Agency.

The second phase of the project involved construction of an on-site soil washing facility for mercury-contaminated soil removed from the vicinity of the Assay Building. Nearby, in the camp's equipment yard, technicians assembled a 4,000-square-foot plastic-lined work pad and a recycling pond with a capacity of 14,000 gallons. As loads of soil arrived on the pad, they were fed into a cement mixer and turned into a light slurry with a combination of water and a commercial ore cleaning solution designed to recover "floured" or fine-particulate mercury. After mixing, the slurry transferred to a commercial soil washing machine designed to collect heavy metals using a hydraulic jig, a copper plate, and a series of sluice boxes. The waste water and soil particles ended up in the recycling pond, and 172 pounds of mercury concentrates were shipped off-site for disposal. In the end the process was very much like placer mining, but instead of capturing gold, on this occasion the goal was to collect tiny particles of liquid mercury.¹⁰

In 1997 the National Park Service continued environmental mitigation at Coal Creek camp by processing an additional twenty-five cubic yards of mercury-contaminated soil and by addressing the issue of petroleum-contaminated soil in and around the Coal Creek area. After excavation of the petroleum-contaminated soils, the material was processed using a portable thermal treatment unit which was flown to the site the following year. In order to deliver this equipment and equipment for the rest of the clean-up project, the National Park Service employed a C-130 Hercules cargo plane, the largest aircraft that had ever landed at the camp's 4,000-foot airstrip. The C-130 delivered over 42,000 pounds of project equipment and supplies, including a D-3 Caterpillar tractor that excavated contaminated soil with its backhoe attachment. Also, a vintage DC-3 cargo plane was used for freight hauling and a single-engine Cessna Caravan for crew shuttles. With the close of the field season in 1998, the National Park Service completed the phased, multi-year remediation of the contaminants that were part of the legacy of mining in the Coal Creek watershed.¹¹

¹⁰ CERCLA Program, Alaska Systems Support Office, Physical Resources, "Coal Creek Hazardous Waste Mitigation Project: End of the Season Report," November 6, 1996, and Linda Stromquist, "Mining and Mitigation: The Coal Creek Remediation Project," *Alaska Park Science* 4 (December 2005), 36.

¹¹ Ibid. Note: The Coal Creek Hazardous Waste Remediation Project was managed by the Alaska Regional Office, Physical Resources Team. The clean-up effort was a component of the National Park Service CERCLA and Abandoned Mine Lands Programs. Linda Stromquist, CERCLA Program Manager, and Kevin Meyer co-managed the project. Team members from Yukon-Charley Rivers National Preserve included Jerod Roberts, Jobe Chakuchin,

Rehabilitation and Preservation

Historic Preservation Efforts

On May 4, 1995, Coal Creek was added to the National Register of Historic Places as a historic mining district, and by 2001 rehabilitation projects were completed on Slaven's Roadhouse at the creek's mouth, at the Coal Creek Gold Dredge, and at Coal Creek Camp. As an example of the type of work that was done, the gold dredge improvements included new glass windows, doors, siding repairs, and interior repair to stairways. At Coal Creek Camp, repairs were undertaken to restore six historic Bunkhouses, the Recreation Hall, Storage Building #10, the Office Building, Assay Building, Mess Hall, and Laundry Building. In addition to restoring these buildings to their 1930s historical appearance, workers installed running water, an electrical system (later supplemented by solar panels), and a garbage incinerator at Coal Creek Camp. They also built a public-use cabin near Slaven's Roadhouse and made improvements to the Coal Creek airstrip. These preservation and construction projects make it possible for Coal Creek Historic Mining District to offer visitors a unique experience—a glimpse of a place that evolved from a small-scale mining camp into an industrial mining operation over the course of seven decades. In addition, the rehabilitated camp could now serve as an important administrative center for National Park Service activities.¹²

Salmon in Coal Creek

After decades of intensive mining at Coal Creek, the streambed changed from meandering waterway with natural vegetation to a straighter, faster one surrounded in many places by piles of discarded rock. By re-sculpting the creek valley, the gold dredge had altered the course of Coal Creek forever. As a result, spring flooding at points along the creek is common. Since acquiring the property, the National Park Service has established an all-terrain vehicle trail between Coal Creek Camp and the Yukon River at Slaven's Roadhouse which intersects with the Coal Creek streambed at various locations. In 2004 the agency developed a restoration plan for the lower portion of the creek and built a rock revetment along the bank to keep the creek in its main channel and away from the trail. The goal was to prevent the creek from overtaking the trail that provides access from the Yukon River to the Gold Dredge and Coal Creek Camp. However, annual floodwaters continue to be a problem when they inundate the trail, washing sections of it away and making vehicle travel along the route impossible.

Between 2008 and 2010 studies were conducted in the Coal Creek area to determine what species of fish were utilizing the creek, and it was discovered that Coal Creek functioned as a rearing stream for juvenile Chinook salmon. The Chinook salmon's significant decline in the Yukon River over the past decade is of great concern to the National Park Service and to local residents. Many people rely on Chinook salmon to sustain their subsistence lifestyle, and the species plays an important role in the

Steve Nelson, and Dale Westeen. Additional National Park Service Alaska Regional Office personnel included Lynn Griffiths, Russ Kucinski, Jim Hollaran, and Jay Cable.

¹² National Park Service, "Coal Creek Historic Mining District Cultural Landscapes Inventory, Yukon-Charley Rivers National Preserve," 2004.

culture of the Han Athabascan Indians who live in the area. The National Park Service now faces the manifold challenge of keeping trail access to Coal Creek Camp and the Coal Creek Gold Dredge open, protecting historic resources in a National Register property, and protecting the salmon rearing habitat of Coal Creek. To this end, the National Park Service minimizes the number of stream crossings in sensitive creek channels; uses low tire pressures in vehicles to reduce displacement of sediments; reroutes the trail to avoid creek channels; and places spill kits at Coal Creek Camp and Slaven's Roadhouse to speed effective response in case of a contaminants spill.¹³

¹³ National Park Service, "Salmon Return to Coal Creek," draft statement, Yukon-Charley Rivers National Preserve, 2012, and U.S. Fish & Wildlife Service, "Canadian-Origin Chinook Salmon Rearing in Non-Natal U.S. Tributary Streams of the Yukon River, Alaska, 2006-2007," Alaska Fisheries Technical Report No. 102, Fairbanks, Alaska, May 2009, 1-39.

Coal Creek Today

Today Coal Creek is in many ways the beating heart of Yukon-Charley Rivers National Preserve. Located midway between the communities of Eagle and Circle, the creek has become the most common place for travelers to stop as they travel the river. This is primarily due to the National Park Service's public-use cabin and the restored two-story Slaven's Roadhouse, a log and frame building that has been providing people with a place to sleep and eat since the mid-1930s. These buildings shelter local subsistence hunters, work crews, and visitors to the national preserve from around the world. Each winter the racers in the 1,000-mile Yukon Quest sled dog competition stop at the roadhouse and are served a hot meal by National Park Service volunteers. In summer, when National Park Service rangers and visitors meet, the convenient boat haul-out provides an opportunity for sharing stories and interpretive talks about the area's natural and historical features. The trail up the Coal Creek valley leads to the Gold Dredge and then Coal Creek Camp, both built in the mid-1930s. The camp offers more public-use facilities and lodging for National Park Service employees and others. For example, fire-fighting crews often use the camp as a staging ground for fighting wildfires in the national preserve, and several times each year classes are held at the camp sponsored by the National Park Service and University of Alaska Fairbanks. The mission of the National Park Service is short and to the point, but it has never been easy to implement because it seeks a balance between concern for nature and interest in humanity's past in a way that protects both in perpetuity. At Coal Creek the agency has been successful at finding that balance.

The purpose [of the National Park Service] is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

--- Organic Act of 1916



Photo 1. Frank Slaven (foreground) and fellow Coal Creek prospectors, ca. 1930. National Park Service, source unknown.



Photo 2. A dredge worker using a "giant" to remove soil and thaw permafrost, ca. 1936. National Park Service, Hendricks Family Collection.

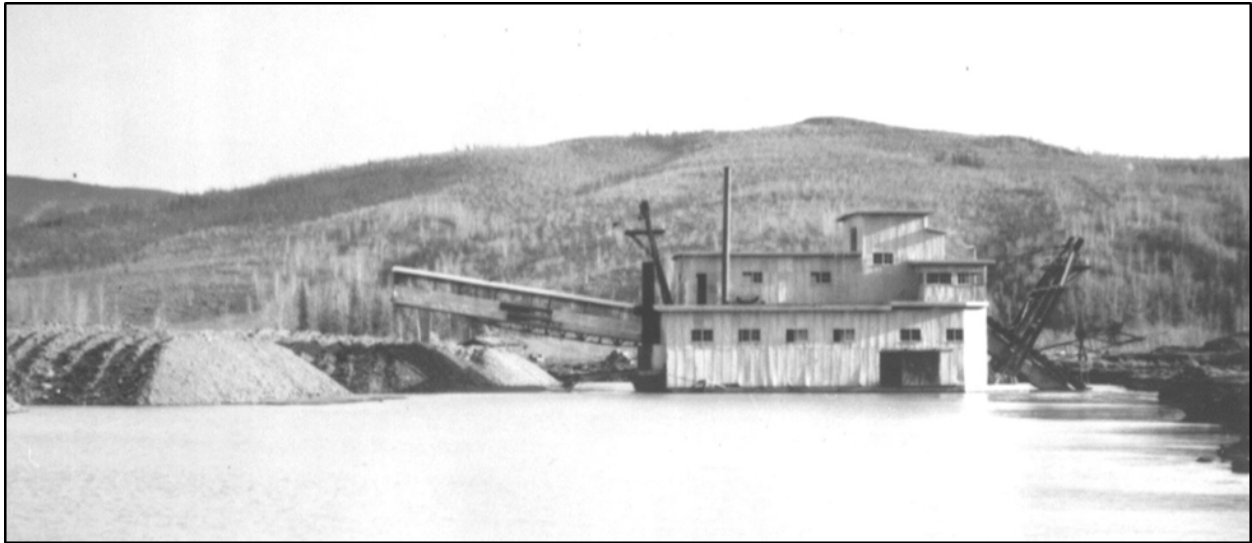


Photo 3. The Coal Creek dredge operating in the early 1940s. Note tailings piles at rear of the dredge. National Park Service, Bill Lemm Collection.



Photo 4. Coal Creek dredge bucket line with tailings piles in the background, ca. 1938. National Park Service, Hendricks Family Collection.



Photo 5. A dredge employee pouring molten gold into forms to create gold bars, ca. 1936. National Park Service, Stanton Patty Collection.



Photo 6. View of Coal Creek dredge and tailings piles, July 1954. National Park Service, Patty Family Collection.



Photo 7. The Coal Creek dredge operating under new management, August 1974. National Park Service, Coal Creek Collection.



Photo 8. Bulldozers move gold-bearing gravel for sluicing at Coal Creek, 1974. National Park Service, Coal Creek Collection.



Photo 9. Removing boulders from a sluice box at Coal Creek, 1974. National Park Service, Coal Creek Collection.



Photo 10. Leaking barrels numbered as part of clean-up efforts in the 1990s. National Park Service, Coal Creek Hazardous Waste Cleanup.



Photo 11. Stockpile of 55-gallon drums at the Coal Creek airstrip, 1992. National Park Service, Coal Creek Hazardous Waste Cleanup.



Photo 12. Sign warning visitors and employees about soil contamination at Assay Office, 1990. National Park Service, Coal Creek Hazardous Waste Cleanup.



Photo 13. Sign warning visitors and employees about contamination at Coal Creek dredge, 1992. National Park Service, Coal Creek Hazardous Waste Cleanup.



Photo 14. Aerial view of Coal Creek Camp during clean-up efforts, 1996. National Park Service, Coal Creek Hazardous Waste Cleanup.



Photo 15. Workers passing contaminated soil through a separating plant at Coal Creek Camp, 1996. Photograph courtesy of Linda Stromquist.



Photo 16. Members of clean-up crew shoveling soil into the mechanical separator, 1996. Photograph courtesy of Linda Stromquist.

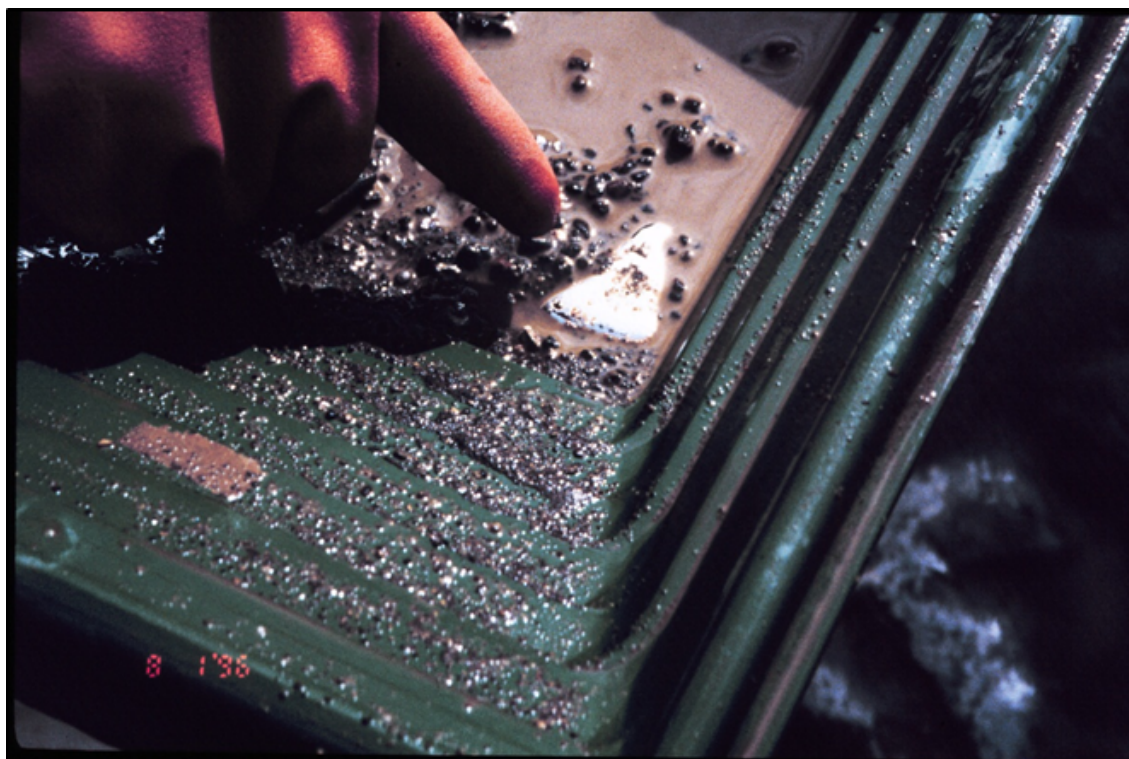


Photo 17. Example of mercury collected by the mechanical separator, 1996. Photograph courtesy of Linda Stromquist.



Photo 18. Al Hendricks, Jr. visiting the Coal Creek dredge control room, 2011. As a boy in the 1930s Mr. Hendricks lived at Coal Creek when his father was the dredge's winchman and his mother cooked for camp employees. Photograph by Chris Allan.

The Department of the Interior protects and manages the nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its special responsibilities to American Indians, Alaska Natives, and affiliated Island Communities.

NPS 191/130862, December 2015

National Park Service
U.S. Department of the Interior



Natural Resource Stewardship and Science
1201 Oakridge Drive, Suite 150
Fort Collins, CO 80525

www.nature.nps.gov

EXPERIENCE YOUR AMERICA™