NPS Form 10-900
(3-82)

OMB No. 1024-0018
Exp. 10-31-84

United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
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See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Goldstream Dredge No. 8 (AHRS Site No. FAI-003)

and/or common F.E. Dredge #3

2. Location

street & number Mile 9, Steese Highway, Goldstream Valley ___ not for publication

city, town Fox X vicinity of Fairbanks

state Alaska code 02 county ~~North Star~~ Fairbanks North Star Borough code 090

3. Classification

Category	Ownership	Status	Present Use	
___ district	___ public	X occupied	___ agriculture	___ museum
___ building(s)	X private	___ unoccupied	___ commercial	___ park
X structure	___ both	___ work in progress	X educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	X yes: restricted	___ government	___ scientific
	N/A being considered	___ yes: unrestricted	___ industrial	___ transportation
		___ no	___ military	X other: Tourism

4. Owner of Property

name John Reeves (907) 452-2522

street & number P.O. Box 81941

city, town College ___ vicinity of state Alaska 99708

5. Location of Legal Description

courthouse, registry of deeds, etc. District Recorder, Fairbanks

street & number 604 Barnette Street

city, town Fairbanks state 99708

6. Representation in Existing Surveys

title Alaska Heritage Resources Survey (AHRS), Division of Parks, Office of History & Archaeology
North Star Borough Historic Survey has this property been determined eligible? X yes ___ no

date 7-29-71
11-81 ___ federal X state ___ county ___ local

depository for survey records 619 Warehouse Drive Suite 210
North Star Borough, P.O. Box 1267

city, town Anchorage
Fairbanks state Alaska 99501
Alaska 99507

7. Description

Condition		Check one	Check one
___ excellent	___ deteriorated	_xx_ unaltered	_xx_ original site
_xx_ good	___ ruins	___ altered	___ moved date _____
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

THE DREDGE

Goldstream Dredge No. 8 was manufactured in 1927-28, by Bethlehem Steel Co., ship-building division. It was shipped, in massive carload sections, from Pennsylvania by transcontinental train and ocean-going barge, and was assembled in early 1928 by Fairbanks Exploration Company mechanics near upper Goldstream Valley. This area, at the head of Goldstream Creek--as formed by Gilmore and Pedro Creeks--is only a short distance west of the historic placer-gold camp of Fox. Goldstream No. 8 has never left the valley. In 32 years it has progressed only a distance of 4½ miles; yet has filled the wide upper and mid-Goldsteam valley with vast wavy rows of rock tailing debris.

Dredge No. 8 was built as a self-contained electrically-powered gold-recovery machine, capable of digging 35' below the water line in the permafrost muck of Goldstream Valley. Gold-bearing gravel was prodigiously scooped from the ancient stream bed by the dredge's massive steel, continuous bucket-chain. Then the gravel was passed on (using assembly-line techniques) to great "tumblers"--eventually down to sophisticated gold-saving "tables" and array of internal sluices--where gold dust, and nuggets ("color") was recovered. Vast ridges of boulders were deposited back behind Goldstream Dredge as "tailings" by the steel-reinforced rubber conveyor belt which carried tons of rocks and gravel every hour of operation, both day and nite. (Boswell, 1979: 2-4, 16, 22-25).

As the third F.E. Company mechanical giant, Dredge No. 8 incorporated a ship-like steel hull, 99' long, 50' wide, and 10'6" deep. Fully loaded, her 7'9" draft displaced 1065 tons, including the balast of steel machinery and on-board equipment. A coal-fired boiler produced steam, which powered the internal generators, air compressors, and pumps. This also provided sufficient heat under the conveyor belts and at other vital locations to prevent permafrost-chilled sand and gravel from freezing to the moving parts. Steam was also used to thaw the early-season pond ice and surface frost. The great dredge itself was powered by electricity from the large coal-fired generating plant built in Fairbanks by F.E. Co., in 1926. (Reeves, 1983).

The seventy magnesium-steel buckets, each with a capacity of 6 cu. ft., discharged into a "dump-hopper" at a rate of 22.2 buckets per minute. The gravel then passed to a belt-driven "tommel-screen", where perforations ranging in size from 3/8" to 1-5/8", caught the occasional larger gold nuggets as the dredged material traveled down a 1-5/8"/foot incline. All gravel was washed by overhead nozzles and finally went on to the ever-growing waste-pile (as "tailings") behind the dredge, via a steel-reinforced conveyor belt. A 32"-wide belt-driven "stacker" conveyor, which ran at 262 ft./min. (seperately powered by a 25-HP electric motor) was capable of discharging the waste tailings to a height of 27' above water level. Gold-bearing material, after passing through the "screens" was sent to 30"-wide goldsaving "tables". The 26 extraction tables (1,460 sq. ft.) were set at an incline of 1¼"/foot to "Jigs" which handed, by roughing, cleaning, pulsating, milling, and washing all gold-bearing material. The fine "sludge", washed with ample water, was then sluiced over special coco matting; and mixed

8. Significance

Period	Areas of Significance—Check and justify below				
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion	
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science	
___ 1500–1599	___ agriculture	_X_ economics	___ literature	___ sculpture	
___ 1600–1699	_X_ architecture	___ education	___ military	___ social/ humanitarian	
___ 1700–1799	___ art	_X_ engineering	___ music	___ theater	
___ 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	___ transportation	
_X_ 1900–1958	___ communications	_X_ industry	___ politics/government	X other (specify) Mining History	
		___ invention			

Specific dates 1927-8, 1958 **Builder/Architect** Fairbanks Exploration Co., Bethlehem Steel

Statement of Significance (in one paragraph)

Gold Stream Dredge #8 is the most accessible reminder, nearest to Fairbanks, of eight industrial giants which from 1922 to 1970 transmogrified the declining Fairbanks placer goldfields into Alaska's richest gold producer. Despite its number, Goldstream #8 was actually the third giant dredge to be built and operated by the Fairbanks Engineering Company. Gold Stream Dredge, for 52 years, added significantly to the broad spectrum of Fairbanks history and the bold story of countless hardy men, and women, who came to this Arctic region from 1901 to the 1960's to work the goldfields. The dredge also had strong associations with other mechanized mining in Alaska, particularly at Nome--where after 1918 there was cross-fertilization of men, machinery, and corporate entity--between Fairbanks Engineering Company, Yuba Construction Co., and Hammond Consolidated Gold Fields (at Nome), and the parent Boston-based international syndicate, United States Smelting, Refining and Mining Corporation (USSR&M). Goldstream Dredge interprets well the story of high-finance second-generation corporate gold mining in Alaska. It recalls the events, people, and circumstances which made Fairbanks so uniquely a focal point of Alaska's 20th century placer mining history.

Historical Prelude

On July 22, 1902, Felix Pedro discovered gold on Pedro Creek, 16.5 miles northeast of Fairbanks. Pedro's discovery speedily launched a major gold rush which resulted in discoveries and establishment of camps on Goldstream, Cleary, Ester, Dome, Eldorado, Fish, Fairbanks and Vault Creeks--and their tributary streams--all soon connected by the thriving narrow-gauge Tanana Valley Railroad.

Fairbanks actually got its start in the summer of 1901, when Captain E.T. Barnette--heading up the Tanana River with a boatload of trade goods--was sidetracked into the Chena River by seasonal floodwater. Barnette decided to make a winter cache (near the present site of First Avenue and Cushman Street). Pedro had already told him about promising placer deposits in the area and then followed up with his actual discovery 12 miles north. The stampedes in 1903 and 1904 established the mining community, named by Judge James A. Wickersham for his friend, Senator Charles Fairbanks of Indiana; who later became Vice President of the United States under Theodore Roosevelt. Fairbanks also became an administrative center when Judge Wickersham moved his Third Judicial Division court from Eagle--a move which later helped Fairbanks stay alive when other boom camps were heading for obscurity. In the U.S. census of 1910, Fairbanks listed a population of 3,541; but miners living beside their claims on the countless creeks north of town brought total population for the area to about 11,000 people.

9. Major Bibliographical References

(See Continuation Sheet)

10. Geographical Data

Acreage of nominated property 1

Quadrangle name Fairbanks (D-2), Alaska **Quadrangle scale** 1: 63 360

UTM References

	Zone	Easting	Northing
A	06	469150	7201450
B			
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification

See Attachment

List all states and counties for properties overlapping state or county boundaries

state	N/A	**code**	**county**	**code**
state	N/A	**code**	**county**	**code**

11. Form Prepared By

name/title John Reeves, owner assisted by Michael S. Kennedy, State Historian, OHA

organization Gold Stream Dredge Number 8 / Office of History and Archaeology **date** April 11, 1983

street & number P.O. Box 81941 / 619 Warehouse Drive, Suite 210 **telephone** (907) 452-2522 / (907) 264-2138

city or town Fairbanks / Anchorage **state** Alaska 99708 / Alaska 99501

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national X state ___ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature Timothy A. Smith, Deputy SHPO

title **date** Oct. 27, 1983

For NPS use only

I hereby certify that this property is included in the National Register

Keeper of the National Register **date** 2/28/84

Attest: **date**

Chief of Registration

with mercury to become "amalgam". Finally recovered in the "retorting process", it was melted and cast into solid gold bars at the F.E. shop in Fairbanks. The evaporated mercury was recovered. (Boxwell, op. cit. 1979: 22-25, 31-33).

Goldstream Dredge had a distinctly steep (43'9" high) "bow-gantry" to support its close-connected belt-driven "bucket line". The massive, managanese-steel buckets (each weighing 1,583 lbs.) were combined with a 64,500-lb. all-plate steel girder-type "digging ladder", which measured 84'1" long. The main "gantry" of No. 8 dredge rose 39'7" (or about 5 stories) above the deck. This provided structural support for an enclosed "winchroom and screen room"--set nearly 20' above the deck. The dominant "stern-gantry" reached a height of 55'10". From this an enclosed "stacker" was hung. Two steel "I" beams, called "spuds"--46' long and 49½" wide--were located near the balance center of Goldstream Dredge. Winch lines connected to the "spuds" helped maneuver the dredge's bow and stern in a sweeping motion; so that a channel could be dredged wider than the giant craft's hull.

Other equipment included separate electric motors for the "jitney winches", "hoist winches", "jibs", "cranes", and air-compressors. Most of the dredge machinery and superstructure eventually was enclosed and sheltered from the almost always cold prevailing winds; even in summer. The "monster" was indeed "ingenious and efficient"--its technology being so effective, over the years, that it had a reputed 96% recovery of all gold-bearing permafrost gravel mined. (Company records do not reveal the value or amount of gold recovered by Goldstream No. 8--but obviously, this represented millions of dollars during every one of the three-plus decades that the dredge operated from 1928-1959). (Boxwell, 1979; op. cit.)

Goldstream Dredge No. 8 has not suffered modifications or alterations beyond basic maintenance since it was last operated in 1959. Apart from replacing worn-out parts, the dredge remains today as it was built. Essentially a huge machine to extract and process gold-bearing gravel, the dredge is a monument to the expediency and efficiency of an engineering age.

THE BUNKHOUSE

The bunkhouse--now sited about 100 feet east of the dredge and just off the right-of-way of Steese Highway--is a 2-story, rectangular, frame structure covered with metal-siding, as well as metal roof. It was built, just before the dredge parts began to arrive; early in 1928. The bunkhouse measures 73 feet long and 37 feet wide. It has 1" x 6" fir subfloor paneling, covered by 1" x 3" tongue and groove vertical grain fir flooring on both levels. The walls are of 1" x 8" fir paneling. Exterior walls are the same; except they are sheathed with metal siding. Total weight of the dredge's bunkhouse is estimated to be more than 100,000 lbs. (FNM, 1983).

There are 12 partitioned bedrooms upstairs; each with a window. The ground floor (which contained the mess hall, kitchen and dining area for dredge crews and thaw-point workers) has floor joists of fir, 2" x 10", spaced on 12" centers on both levels. The roof is constructed of trusses; and sub-roof is 1" x 6" fir-paneling, with metal on the exterior side.

Four 12" x 12" fir beams, which run the full length of the building underneath, are spaced every 9 feet. (The floor joists tie into the beams for support). The present foundation consists of a continous 8" x 20" poured concrete footing, with 5-block-high concrete blocks on top. This was placed in April 1983, when the old original bunkhouse had to be moved approximately ½ mile by a massive D-9 Caterpillar and Kenworth trucks (with a crew of four assisting the owner) in March 1983; in order to avert demolition.

The bunkhouse has been associated with mining operations involving the dredge since it was built. It housed the dredge operators and crew and served as a "home away from home" for these miners in their isolated location. In its original location the bunkhouse was a quick walk from the dredge for the off-duty dredge crew. The Old Steese Highway, a narrow, gravel road, ran north and south between the bunkhouse and dredge. Supplies could be trucked along the highway (from Fairbanks) and delivered to either location on side roads. In more recent times, the Steese Highway has been improved and is now a four lane, paved, divided highway. The Trans Alaska Pipeline, also a recent addition, displays above-ground support piers, cooling vanes, and a huge stainless-steel pipe which now parallels the Steese Highway and creates a physical and visual barrier between the dredge and the original location of the bunkhouse.

The dredge and bunkhouse (in its present location) contribute to the historic integrity of the site. By bringing the two structures together the history of the men and equipment associated with the goldrush is easier to understand than if the two structures were separated by a highway and pipeline. It should also be noted that neither the bunkhouse nor the dredge were intended to remain in one location when mining operations were underway. Bunkhouses were often moved to make way for dredges; dredges also were moved about to locate pay dirt. Both the dredge and the bunkhouse are presently located on a site associated with mining in the Fairbanks area. Finally, the history of the site itself is inextricably intertwined with the dredge and bunkhouse and is manifested by acres of dredge trailings that show where men once worked and lived in search of gold.

Both the dredge and its bunkhouse had been restored sufficiently by May 15, 1983 to accommodate visitors. The owner hopes within a few years--as parts and machinery are found--to place the dredge in fully-operating condition, so that people may observe and enjoy its significant authenticity and technology.

However, no further mining will ever again be done--even if the dredge is fully restored. The Dredge, instead, will be restored to the status of a "living museum", simulating and interpreting its operation methods for the edification of present and future generations. (Ibid, 1983).

Goldstream Valley, from the time the dredge and bunkhouse were first built in 1928, until operations ceased in 1959--has altered little. The surrounding hills remain, treeless and seer--except for slight new growth of alder, and birch trees. The trailings, however, in any direction--(but principally east and north) appear as a vast sea of gravel--a vivid reminder of the millions of cubic yards worked by this dredge in the heart of Goldstream Valley.

For countless visitors, this National Register object will provide a superb experience; while Alaska's fabulous mining history image will be remembered, and honored. Goldstream Dredge is now the best, and most accessible, interpretive focal point in the historic Fairbanks Gold Fields.

Fairbanks Exploration Co., and U.S.S.R. & M.C.

Other events fortuitous to large-scale mechanical mining were: 1) Construction of the government's Alaska Railroad from Seward to Nenana--ordered by President Woodrow Wilson in April 1915, which continued until the golden spike was driven by President Warren G. Harding at North Nenana on July 15, 1923. The tracks, finally, reached Fairbanks in 1925. 2) With the railroad in Fairbanks, growth of the new Alaska Agricultural College and School of Mines (established on a hill, four miles west in 1917) gave Fairbanks an added lease on life. Even though mining--for the man with his crude pick and shovel--had gradually declined in the decade following discovery, there was still much gold in the ground. 3) This shot-in-the arm, stimulated by the railroad and college, became manifest in the early 1920's when the Fairbanks Exploration Co. (F.E. Co.) as part of the giant USSR&M--began to buy up most of the small operations. F.E. planned large-scale mining methods to effectively re-work these extensive gold claims. After 1925, this huge company, United States Smelting, Refining and Mining Co., was for 35 years thereafter the largest contributor to the economy of Interior Alaska. An abundant supply of water--provided from the massive and costly Davidson Ditch--proved a vital factor in F.E.'s (and USSR&M's) success.

In 1923, United States Smelting, Refining and Mining Company acquired an interest (and soon total ownership) in Hammond Consolidated Gold Fields, which already operated the largest dredges in Alaska, at Nome. The operation continued there, under the name of Hammond Consolidated Gold Fields, until 1938 when it changed to the parent name, United States Smelting, Refining and Mining Company, a Maine corporation, with headquarters in Boston, Massachusetts.

Fairbanks Exploration Co. in 1920 entered the field north of Fairbanks after nearly $7 million worth of gold had already been mined from the frozen deep muck deposits by small mining ventures, using placer and crude underground methods. After the company had acquired large blocks of these already-worked claims, it then invested some $10 million more in equipment, and in building the Davidson Ditch.

The F.E. Co. operated 8 dredges in the Fairbanks area between 1928 and 1958. To support these huge operations, they constructed a complex of warehouses and offices in Fairbanks, on Illinois Street, including the first concrete-block building in the Arctic. The complex included a large, completely equipped machine-shop, and a smaller building housing the "gold rooms" where assaying and retorting were handled, and their dredge's gold, was melted down into large bars. The company also had to construct a large power plant--which dominated the skyline; until finally dismantled in 1974. In addition, F.E. Co. constructed a score of houses for its employees--in a park-like setting across Illinois Street from the company headquarters--plus an elegant, two-story colonial house for the Manager. Though the company no longer exists, most of the evidence of its residency remains.

The Davidson Ditch

James M. Davidson was the ingenious Civil Engineer who proposed, and then built, the all-important 90-mile ditch which made possible the massive strip-mining dredge and hydraulic operations of the F.E. Company. During the earlier phases of pick and shovel placer and hard-rock mining in the Fairbanks Mining District--water had been the critical element for sluicing the "dumps" of ore--laboriously hand-dug from tunnels and shafts during each winter season. Ditches had to be constructed on a local basis from creek to creek, following the contours of the low hills. But the near-desert climate of Alaska's Interior meant that adequate water, always, was a major stumbling block for mining operations--not only before the 1920's, but after as well.

Thus, Davidson's brilliant routing of vast amounts of water transported 90 miles (from the Chatanika River to Fox, and the Goldstream Valley) proved to be the bold, daring plan on which the success of F.E. Company operations rested. The extent of F.E.'s proposed dredge operations (as well as the high water usage for stripping and thawing frozen ground) necessitated even larger amounts of water than for all of the earlier stampmills and sluiceways combined.

Work started on the Davidson Ditch in 1925. Ten to 12 feet wide at the bottom, the 90-mile complex followed the contours of many hillsides, in order to maintain an even grade (with a drop of some two feet per mile). The "ditch" crossed valleys and stream beds by means of 15 inverted siphons, constructed of 4"-diameter iron pipe. (The longest of these, the 1½ mile Chatanika siphon, can yet be seen where it crosses the Steese Highway, at Mile 32.) The "ditch" crossed from Chatanika River to the Goldstream Creek watershed through a 3716' tunnel, timbered 7' x 7' inside. Later (in the earlier 1930's) the Chief Engineer of the F.E. Company developed an additional scheme for mining more rich ground in the Cripple Creek drainage near Ester. A pump house (now on the National Register) was constructed to pump vast quantities of water up over Chena Ridge from Chena River. This provided abundant water, under pressure, for the hydraulic "giants" required to strip the massive overburden of "muck." Chena Pump Station thus augmented Davidson Ditch in providing water for the extensive stripping, thawing, and dredging of most of the large Goldstream Valley.

Geologic Characteristics

In the area north of Fairbanks, characteristically, most gold-bearing gravels were deeply buried beneath thick layers of silt-like frozen "muck" up to 200' deep. This permafrost residue had accumulated over eons--even before the ancient period when Pliocene-age mammals roamed the unglaciated Interior of Alaska. In order for any dredge to effectively operate, all muck had to be removed. This process of "stripping"--involved slowly washing away the layers of muck (a few inches at a time), allowing each frozen layer underneath to be exposed to the warmer air--effected slow but necessary thawing. Water under pressure was then forced thorugh hydraulic "giants", to wash away the daily

accumulation of the thawed material--at an average rate of about 9" per day. Thirty-six to 48 "giants" had to be set up for each dredge, covering an area of some 30 acres per season. The stripping process, carried on during the warmest weather (only 150-180 days per year) took up to three years just to dredge an average 50-acre tract. (It was during this eternal process of stripping the exposed surface of the ancient permafrost deposits, that countless superb museum-quality ivory and bone fossil remains of pleistocene mammals were uncovered for the University of Alaska museum and others in the U.S. and Canada).

Stripping exposed the sought-after, underlying layers of gravel, which contained the precious gold. But this layer, too, was frozen down to bedrock. It had to be thawed before it could be worked by dredge down to the deep permafrost gravel, at bedrock. To do this a grid of pipes--16-32 feet apart--was driven onto the ground; or set in holes drilled during the previous winter. Cold water, a few degrees above the temperatures of the permafrost, was run into the pipes, at low pressure. As the water percolated back to the surface, the frozen ground absorbed sufficient heat for thawing. Thawing progressed at a slow rate--averaging from 1½ to 2½ days per foot of depth. (The thawed gravel did not fully freeze back to original depth during the winter.) But every spring it was again necessary to steam-thaw from two- to six-foot accumulations of surface frost. Only after this lengthy process (stripping and thawing) could the dredges begin scooping up the ancient gravels and extracting the gold from them--usually with almost 95% efficiency.

Dredging at Goldstream

Gold dredging is actually a type of strip-mining, utilizing monsterous ship-like, mechanical, four-to-five-story, 1,000-ton dredges. Floating in their self-created ponds, these new-age dinosaurs scoop up alluvial gold-bearing gravels down to the layer of bedrock, with their bucket chain, the gravels sorted, sifted, and washed in the gold tables of the factory-like bowels of the dredge. The heavier gold finally is trapped on intricate riffles. The waste gravels are sent out the conveyor chute at the rear of the dredge--to be deposited as the extensive, snakelike tailing piles still seen in the artificially created valleys of Gold-stream Creek, at Fox, Chatanika, and Ester. Goldstream Dredge, typically, operated on a three-shift 24-hour basis; its operating time for almost 30 years averaging 93 percent efficiency. Minor repairs were only made during periodic cleanups; major repairs were usually held back until winter shutdown. The average length of the dredging season before World War II was 153 days.

The crew of Goldstream Dredge (a typical one) consisted of one dredgemaster, three skilled winchmen, six oilers, and from two to four all-purpose "roust-about" workmen. An average of 13 men per crew worked around-the-clock in shifts for 2/3 of each year. During the 30-year life of the F.E. stripping and dredging operations--which ended for Goldstream #8 in 1958--257,000,000 cubic yards of muck and silt were removed--an average (over the years) of 19.0 cubic yards per miner's-inch day. The peak year of all F.E. operations was in 1940--when 23,911,000 cubic yards of muck had to be removed by F.E. Company dredge operations.

The necessary spring ice cutting at Goldsgream Dredge was performed with rectangular steam cutters supplied with steam from the dredge boiler. The cutting rate averaged about 70 sq. ft. per cutter hour--one man operating two to four cutters. The ice, cut into huge 3000- to 5000-lb. cakes, was "choked" with a loop of ½-inch chain. It was then hoisted on a "high line" from the "stern gantry" while being held with a "jitney line." The great blocks were released to a dump point on shore, well clear of the pond area. As much as 15,000 tons of ice had to be removed each season by all F.E. Company operations; Goldstream Dredge averaged about 1,000 tons each year.

When thawed, Goldstream gravel did not freeze back at depth; although each winter saw an accumulation of 2-6 ft. of surface frost. Each year in the early spring, it was necessary to steam-thaw directly ahead of the dredge. The steam (supplied by coal-burning, hand-fired shore boilers equipped with induced-draft fans) was distributed through "header pipes" and hoses to "steam points"--hand-driven to the bottom of permafrost on 5-ft. "centers" with from eight to twelve hours required for an adequate area. Only sufficient "connections" were thawed, as needed, to reduce the possibility of huge frozen chunks caving from the bank into the pond; and thus retarding the dredge's progress. In an average season, as much as 100,000 sq. ft. of surface "muck" had to be thawed ahead of Goldstream Dredge #8.

Pleistocene mammals, a by-product of gold dredging.

The removal of frozen muck from the major mining creeks in the Fairbanks area resulted in the recovering of a remarkable variety of Pleistocene specimens. Much of the work of recovering the fossil remains--of identifying, cataloging and preserving them--was done under the skilled direction of Dr. Otto Wm. Geist of the University of Alaska. He collected countless mammoth skulls (with their ivory tusks) bison skulls, and tons of ancient bones. Maximum size of these mammoth and mastodon tusks ranged up to ten feet in length; with diameters from six to nine inches at the base of the skull. Specimens went to the Museum of Natural History in New York, to The Smithsonian Institution in Washington, D.C., as well as to the University Museum's already enormous, growing collection. Each spring, despite a winter of hard work, Otto Geist would eagerly resume what he called his "Operations at the Creeks." Often these discoveries were highly significant. One spring, for example, hydraulic giants uncovered the skull and skeletal remains of a "superbison" at Little Eldorado Creek near Chatanika. Soon the giants uncovered another, then another and another, until finally 48 such skulls, bones and almost intact remains were scattered in an area not more than thirty-five yards square. At another time, Richard Osborne, an alert assistant working at Fairbanks Creek, discovered a foot which thousands of years earlier somehow had been torn from the body of a young wooly mammoth. It was almost totally preserved by the permafrost--complete with hoof, full growth of hair and fine undercoat; also the preserved carcass of a prehistoric bison--wool, hide, hair, muscle, meat fibers and fat, and a complete skull with intact horn-cores and preserved shell-cover. Another of Otto's "renowned finds" was the preserved body, head, eyeballs, trunk and leg of a baby wooly mammoth.

United States Department of the Interior
Heritage Conservation and Recreation Service

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Concluding Remarks

When the ubiquitous Italian prospector, Felix Pedro, made his discovery strike--that ultimately proved to be the richest goldfield in Alaska's history--the genesis for Goldstream Dredge #8 was in being; albeit some 26 years later.

The city of Fairbanks' modern economy--much diversified--is linked to its role as the service and supply point for most of Interior and Arctic Industrial Alaska. Fairbanks now is Alaska's second-largest city, and "the unofficial capital" of interior Alaska. It is the northern terminus of the Alaska Highway, and thus a convergence point for the Steese, Elliott, Richardson and George Parks (formerly Anchorage-Fairbanks) Highways. It is also served by the Alaska Railroad; and by several daily jet flights from Seattle (3 hours, 10 minutes) and many dozen more flights from other points within Alaska.

Today, one senses the magic that made Fairbanks a romantic gold camp (although it bears little resemblance, especially since the 1970's building of the trans-Alaskan oil pipeline). The "gold feeling' still permeates the city. One example is this paragraph in Alaska's leading travel guide on Fairbanks' life-style:

> "Pan for Gold: Buy a gold pan, available at a local surplus store or gift shop, and head north on the Steese Highway. Our suggested gold-panning location may not be very hot if you're really serious about striking it rich, but it's certainly romantic; drive 16.5 miles out the Steese Highway and try the spot where Felix Pedro found colors. WARNING: Do not pan where a creek is posted. 'Keep Off' signs must be taken very seriously."
>
> (The Milepost, 1979: 259)

Goldstream Dredge #8--only half the distance to the Pedro Monument--is the ideal starting point for an interpretive tour of the Fairbanks goldfields.

United States Department of the Interior
Heritage Conservation and Recreation Service

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Chapin, Theodore, "Lode Mining Near Fairbanks", Mineral Resources of Alaska, USGS Bulletin No. 592, Government Printing Office, Washington, D.C., 1914.

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