

MR-060-07

TERRITORY OF ALASKA
DEPARTMENT OF MINES
COLLEGE, ALASKA

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NOV 10 1953
JUNEAU, ALASKA

ITINERARY REPORT

TO: Phil R. Holdsworth, Commissioner of Mines.
FROM: Robert H. Saunders, Associate Mining Engineer.
SUBJECT: MINING OPERATIONS IN THE FORTY MILE DISTRICT, FAIRBANKS
PRECINCT, 1953.

During June 5 to 11, 1953, I made a trip through the **Forty-** mile District with Donald J Cook, Research Assistant for the University of Alaska School of Mines. Hr. Cook was gathering information for a book on placer mining to be published by the University. A University vehicle was used for transportation; the gasoline was purchased by the Department of Mines.

The most important event in mining in the Fortymile District in 1953 **was** the start of operations on Mosquito Fork by the United States Smelting, Refining, and Mining Co. Nearly one-half the men engaged in mining in the district were employed on this project. The company spent the 1953 season doing preparatory work, and **several** more seasons of preparatory work **will** be required before the ground is ready for dredging.

The new road through the Fortymile District has brought lower freight rates to the area. Freight now comes in directly from **Valdez**, and Fairbanks is no longer the distribution center for this part of Alaska. Some of the miners who winter **"outside"** are able to do part of their buying in the States. **The** new road and the new big-company operation **-- which may** be partly attributed to the road **--** seem to have created a trace of optimism among the miners in the Fortymile District.

Throughout the winter of **1952-53**, there **was** an exceptionally light **snowfall** in the interior of Alaska, and in the spring of 1953, there was very little rain. **As** a result of these conditions, during **May** and June there was a severe shortage of water for mining, and there were numerous forest fires. When we arrived at Chicken, we found that many of the mining operations in the vicinity were idle while the operators were out fighting a **large** forest fire between Chicken and **Tanacross**. **We** spent the **first few** days Visiting those mines that were active, **and** by the time we had accomplished that, the other miners were returning from fire-fighting and were resuming operations.

June 5 - We left Fairbanks at 8 a m and arrived at Mosquito Fork near Chicken at '7 p m.

June 6 - We drove and hiked to the placer mine operated by Vern Weaver and John Rambaud on Napoleon Creek, tributary to the South Fork of the Fortymile River. In the evening we returned to Mosquito Fork.

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On the USGS map of the Eagle Quadrangle, Edition of 1951, the road beyond Chicken is shown incorrectly. The road crosses the South Fork near the mouth of Wall Street Creek; it crosses Walkers Fork at the mouth of Wade Creek, goes nearly to the head of Wade Creek, and from there follows the route of an old trail to Boundary.

60

Weaver and Rambaud were mining on the right limit side of Napoleon Creek apparently in the same general area that Weaver was in when visited by J. A. Williams in 1950. An International 40 bulldozer is being used for building a ditch up the right limit side of Napoleon Creek. The mining is done with nozzles; a dam has been built across Napoleon Creek, and water is pumped to the nozzles by a 10-in by 12-in pump powered by a CRC 2-cycle diesel engine. Most of the gold is recovered from the rough bedrock ahead of the boxes. In June they were getting enough water for two three-hour "splashes" each 24 hours. The gold they recover is coarse and angular; it has a fineness of 870 to 872. It isn't apparent whether the deposit being mined is a bench deposit of Napoleon Creek or if it was formed by a tributary of Napoleon Creek.



Upper end of cut -- Weaver and Rambaud hydraulic mine.

June 7 -- We drove and hiked to Dan Manske's property at the mouth of Ingle Creek and returned to Mosquito Fork.

Dan Manske returned to the Fortymile this season after having been away from mining for several years. At the time of our visit he had started stripping, but he did not yet have his sluice boxes set up. He has a new International TD-14A tractor, which he purchased in Seattle; the machine, complete with blade and winch, cost about \$18,000 landed at Chicken. He has the 8-in by 10-in pump that was formerly used by Tury Anderson on Flume Creek in the Fairbanks District. Water for mining will be pumped from the Mosquito Fork. Manske told us his drilling and the hand work done by the old-timers both indicate that the paystreak will average 60¢ per bedrock-foot; J. C. Roehm obtained the same figure from him in 1949. He will use a sluice plate with steel sluice boxes, and he will mine and stack tailings with the bulldozer. The gold is medium fine with occasional two-dollar nuggets; fineness varies from 844 to 849.

22 60-19
60-35
60-36

Ed Johanssen has a cabin on some bench ground he owns at the head of Ingle Creek, and he also owns some ground on lower Ingle Creek that he has leased to Manske. Johanssen was fire-fighting at the time of our visit. He has done some work for Manske this year; it is doubtful if he will mine any of his own ground,

June 8 -- We drove to George Robinson's mine on Wade Creek, then continued on the road to Dawson as far as Boundary. We walked from the foot of the hill near Boundary to Jack Wilkey's mine on Squaw Creek. In the evening we returned to Mosquito Fork.

12 x 60-33

Ingle = 0

George Robinson has a one-man bulldozer operation on Wade Creek beside ground that was mined by the Yukon Placer Mining Co. Robinson is a former employee of the Yukon Placer Mining Co; he took over the ground and equipment from the company. The gold is coarse and is concentrated on bedrock. The deposit is covered with about two feet of muck, and the gravel varies from seven to ten feet in thickness. A D-6 Caterpillar tractor is used for mining and stacking tailings. He uses a sluice plate and 30 ft of boxes with angle-iron Hungarian riffles.

12 x 60-33

The Boundary dredge, which was formerly owned by Walter Johnson, was reported to have been purchased by Yukon Consolidated for use in Canada. The dredge is in excellent condition; the original paint is still on some of the moving parts.

Jack Wilkey is mining on Squaw Creek. In June, he was stripping a large area just upstream from the mouth of Baby Creek and mining a smaller area about one mile downstream from Baby Creek. He mines and stacks tailings with an International TD-14 bulldozer. He uses a sluice plate and steel boxes; with Hungarian riffles. The riffles are wooden two-by-fours covered with rubber strips. Punched plates (old dredge screen plates) are used to cover the riffles to permit boulders to roll through the boxes without hanging up and without damaging the riffles. The plates lie flatter than the boxes, and there is a two-inch drop at the end of each plate. A gap is left between plates to catch nuggets that do not go through the plates,

12 x 60-48



Sluice Plate at Jack Wilkey's Mine

KX60-48



Boundary Dredge.

The sides of the sluice box are lined with two-inch planks to make the boxes narrower for better efficiency with the small amount of water available. On the ground being mined, two feet of muck overlies four to twelve feet of gravel; only the lower two feet of gravel is put through the boxes. During June, Wilkey was getting one four-hour "splash" each 24 hours. He hauls his freight from Boundary with a rubber-tired tractor; before the Fortymile road was built, he did some freighting from Dawson with the tractor.

June 9 - We visited Lost Chicken Hill, the suction dredge on Mosquito Fork, and the stripping operations of the United States Smelting, Refining, and Mining Co on Mosquito Fork.

George Turner (Lost Chicken Hill Mines, Inc) is working on Lost Chicken Hill and Lost Chicken Creek. He mines with a bulldozer on Lost Chicken Hill when water is available; the cut is shown in the left side of the photograph. On Lost Chicken Creek he is building a dam to strip the muck by "booming". He will use a bulldozer to push the muck into a channel below the dam, and, when the dam is opened, the water will carry the muck down to the river. Turner plans to build a pumping plant some time in the future to pump water from the Fortymile River for his mining and stripping.



Lost Chicken Hill.

The USSR & M Co is erecting a camp near the roadhouse, which it purchased from Robert McCombe this year. The company has about 17 men employed in camp construction, stripping brush and moss with bulldozers, and laying pipelines for water stripping. Water for stripping and mining will be pumped from the Fortymile River. It is reported that the company will move in a dredge from the Fairbanks District rather than rebuild the old dredge of the Alaska Cold Dredging Corp as previously planned.

In 1952, a suction dredge was built on the Mosquito Fork by Frank Gordon and five partners. The dredge operated less than eight hours during the 1952 season. Gordon's partners became discouraged, and they sold their interests to Gordon and W. M. Emery. The dredge was designed by the late "Doc" Gordon, former river boat captain.

The "hull" of the dredge is a 15-ft by 30-ft barge made of oil drums lashed to timbers. Near the front is an 8-in by 8-in pump made by the Kansas City Hay Press Co; the pump is powered by a Continental gasoline engine. The pump suction hangs from an "A" frame at the front of the dredge; it is flexible so that it can be maneuvered by hand winches. The pump discharges into the head of the boxes, where a hood made of an oil drum prevents material from splashing over the sides of the boxes. There are two sluices, one above the other; the lower one serves as an undercurrent. The owners plan several changes in the dredge, and they expect the machine to be in the experimental stage for a season or two. They planned to float the dredge down to Atwater Bar for a trial run this season.



Suction dredge on Mosquito Fork.

June 10 - We visited the Franklin Mining Co, William Meldrum, Frank Barrett, and the Purdy brothers... We left Mosquito Fork at 6 p.m. and arrived at Logging Cabin Creek at 7 p.m.

The partners in the Franklin Mining Co- had just returned from fire-fighting and were resuming work on Chicken Creek. The operation was described by J. A. Williams in his Memorandum Report of 1950, and there have been no important changes since then.

KX 60-257

William Meldrum was mining on Chicken Creek at the mouth of Switch Fork. He uses a sluice plate and a TD-18 International bulldozer. He was getting a fifteen-minute "splash" every three hours.

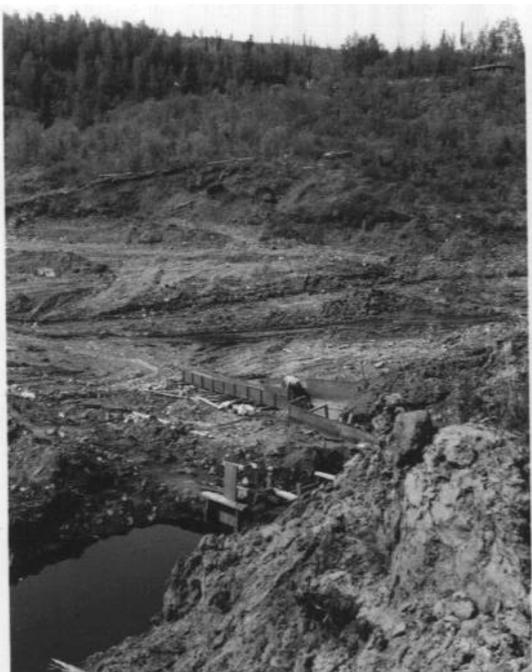
KX 60-23

Frank Barrett owns the ground on Stonehouse Creek that was formerly worked by R. A. Brown and Aubrey Dill. Brown and Dill did most of their work on a high bench on the left limit of Stonehouse Creek. Barrett was laying a S-in pipeline and was planning to mine in the present creek channel with one nozzle. There is little water for mining in either place. He hopes to lease the ground again in the future, and he mentioned William Meldrum as the most likely leasor.

KX 6076

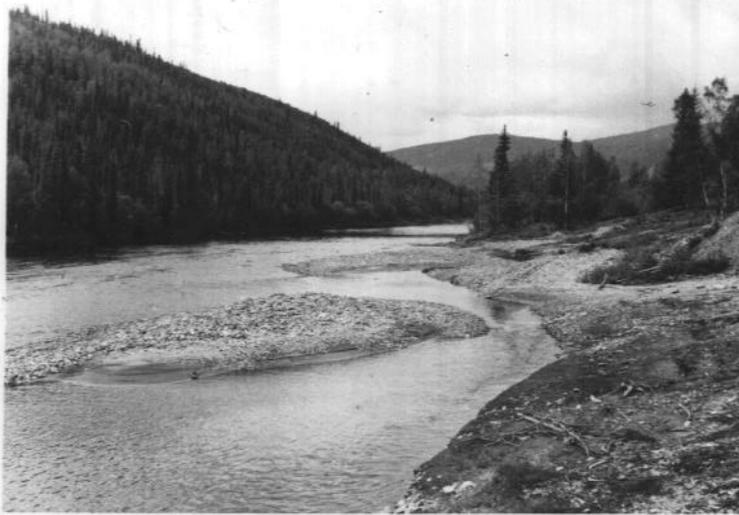
The Purdy brothers were laying a new pipeline for mining the bench on the left limit of Myers Fork. At the time of our visit they hadn't mined yet this season.

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William Meldrum's Bulldozer Cut.

Purdy Brothers Sluice Boxes and Plate.



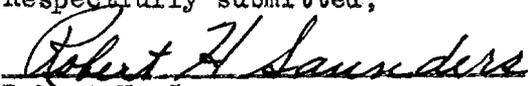
Atwater Bar on the Fortymile River.

11 - We left Logging Cabin Creek at 7 a m and arrived at Fairbanks at 4:30 p m.

On the return trip we noted drill hole stakes on a Pine of holes across Logging Cabin Creek. J. C. Roehm reported that Robert McCombe was drilling in 1949 on a creek on the north side of Mt. Fairplay; probably the holes that we saw were some that McCombe drilled. This summer McCombe was planning a placer drilling program on the left limit of the Fortymile River across from the mouth of Wall Street Creek,

In his Memorandum Report of 1951, J. A. Williams described a mining operation carried on by Vern Weaver and the Purdy brothers on Atwater Bar in the Fortymile River. The ground that they mined was rich, but the cost of mining was high; the river had to be diverted from the part of the bar that was being worked. Since 1951, no one has tried to mine on Atwater Bar, but the richness of the gravel has attracted the attention of many miners in the Fortymile District.

Respectfully submitted,


Robert H. Saunders
Associate Mining Engineer

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SUMMARY OF MINING OPERATIONS IN THE FORTY MILE DISTRICT,
 FAIRBANKS PRECINCT, 1953.

<u>Name and Address of Operator</u>	<u>Location</u>	<u>Type of Operation</u>	<u>Approx. Crew</u>
Barrett, Frank Chicken	Stonehouse Creek	Hydraulic	1
Emery, W. M. and Gordon, Frank Chicken	Mosquito Fork	Suction Dredge Construction	2
Franklin Mining Co. Chicken	Chicken Creek	Bulldozer-Drayline	5
Lost Chicken Hill Mines, Inc. Chicken	Lost Chicken Creek	Bulldozer,	2
Manske, Dan Chicken	Ingle Creek, tributary to Mosquito Fork	Bulldozer	2
Meldrum, William Chicken	Chicken Creek	Bulldozer	1
Purdy, Fred and Arthur Chicken	Myers Fork	Bulldozer-Hydraulic	3
Robinson, George Chicken	Wade Creek	Bulldozer	1
United States Smelting, Refining, and Mining Co. Boston, Mass.	Mosquito Fork	Stripping	17
Weaver, Vern and Rambaud, John Chicken	Napoleon Creek	Hydraulic	2
Wilkey, Jack Boundary	Squaw- Creek, tributary to Canyon Creek	Bulldozer	1

TOTAL 11 operations- employing 37 men.