

TERRITORY OF ALASKA
DEPARTMENT OF MINES
COLLEGE, ALASKA

~~MR 50-3~~ CIRCLE 50
MR 50-3
#200

15 October 1951

ITINERARY REPORT

TO: Leo H. Saarela, Commissioner of Mines, Juneau, Alaska
FROM: James A. Williams, Associate Mining Engineer, College, Alaska
SUBJECT: Itinerary report of James A. Williams for the period of
21 July to 29 July 1951 in the Circle Precinct.

The primary purpose of the trip into the Circle Precinct was to examine the property of Paul Connell on the left limit of the Yukon River, 28 miles upstream from Circle City. The property was reported to contain radioactive material. A detailed report on the examination will be written at a later date.

A total of twelve mining operations were found to be active in the precinct, a decrease of three from the number active in 1950. Increasing prices are forcing more operations out of business every season. Nine of the operations were visited. Four prospectors were also active in the area. The total number of men actively engaged in mining and prospecting in the Circle Precinct was forty-seven, a decrease of approximately 25% from the previous season.

The district had another abnormally dry season this year, but it was not as dry as in 1950. As before, the only operations that could sluice steadily were the ones using pumps.

A tabulation of the operations by type follows:

<u>Operations</u>	<u>No. of Operations</u>	<u>No. of Men</u>
Gold Dredge	2	24
Bulldozer-Hydraulic	3	7
Bulldozer-Washing Plant	1	1
Bulldozer	3	8
Hydraulic	2	2
Groundsluice	1	1
Prospectors	<u>4</u>	<u>4</u>
TOTALS	16	47

A detailed list of the above operations is on a separate sheet included with this report.

21 July: Left Fairbanks at noon and arrived at Central in the evening. Transportation by courtesy of the Forest Service in one of their trucks.

- 22 July: Enroute from Central to Circle City by truck, and up the Yukon River in Paul Connell's river boat to his property.
- 23 to 25 July: Examined Connell's property at 28-Mile and made a brief geological reconnaissance of the surrounding area. As mentioned earlier, a detailed report on this examination will be forthcoming.
- 26 July: Finished Connell's examination in the morning and returned to Central in the afternoon and evening.
- 27 July: Visited mining operations of Heine Carstens on Portage Creek, Henry Martin also on Portage Creek, P R & H Mining Company on Deadwood Creek, and Jens Landlow on Switch Creek. Searched for a man by the name of Evans who was reported to be mining on upper Deadwood Creek with a Denver placer machine, but could not locate him. It was learned later that he had departed earlier in the season.

Heine Carstens was finishing the building of a washing plant when visited, but had not yet added all the sluice boxes. Figure 1 is a photograph of the plant.



Figure 1. Carstens' Washing Plant.

Carstens was working alone and intended to mine the ground alone. It has been since reported that the plant operates satisfactorily when there is sufficient water. The plant is constructed of a dredge trommel screen with sluices directly beneath to catch the fines, and the

sluice boxes (when attached) extend to the right as the setup is shown in the photograph. The gravel is pushed up a ramp and into the screen from the left by a bulldozer, while another tractor rotates the screen by applying power to the leftmost gear, or sprocket, shown in the picture. The washing is accomplished in the conventional manner with jets from a pipe inside the screen. The coarse tailings are dropped on either side of the sluice boxes by means of the single screen plate, below the lower end of the screen, which is pivoted at its upper end so that it can be swung either way. From there the coarse tailings will have to be pushed away from the boxes and stacked by dozer. The plant, with the exception of the wing walls on the ramp, is mounted on skids for convenient moving. Carstens is mining on ground owned by the Bill Estes estate.

The Portage Mining Company (Heine Carstens, Calvin Anderson, and Carl Heflinger) went out of business last fall because of disagreements.

"Hank" Martin was doing some ground sluicing and shovelling in again this season, but this is his last year at mining, he claims. His water is always short and the "boulders keep getting heavier". Martin is getting too old for working.

The P R & H Mining Company were mining on Deadwood Creek with the same efficient setup as last year. They have a pump and two D-8 bulldozers, pushing in with one and stacking with the other. The operation is shown in Figure 2. They were still using the improved method of flooding the sluiceplate



Figure 2. P R & H Mining Co. on Deadwood Creek

explained in last year's report on the Circle Precinct, and have moved a large amount of gravel since last season. At least another year's operation was planned at the time of the visit, but information received shortly before the writing of this report indicates that because of a disagreement with the owner of the ground, P R & H will not be mining on Deadwood Creek next year.

The Deadwood Mining Company (Wrede Brothers) were not mining on Deadwood Creek this year.

Joe Donnelly was reported to have found a piece of wolframite float on Deadwood Creek in his prospecting there, and as a result the whole district has been enthusiastic about the possibilities of tungsten mining. Tin and scheelite have both been definitely encountered on Deadwood. The source is probably in the contact of the granite and schist that runs through the neighborhood. The geographical coordinates of this locality are $144^{\circ} 53'$ W Long and $65^{\circ} 29'$ N Lat.

Jens Landlow was mining as usual with his small hydraulic layout on Switch Creek, tributary to Deadwood, when there was sufficient water. He had reached the upper end of No. 10 Claim and was planning on working back down stream on the right limit with his future cuts. His setup is shown in Figure 3. Landlow has spent some time prospecting for the source of the tin that shows up in his concentrate. Old reports (verbal) have it that occasional large boulders of cassiterite used to be found on Switch Creek.



Figure 3. Landlow Setup on Switch Creek

28 July: Visited Berry Dredging Company on Mammoth Creek, Ray Hamilton on Harrison Creek, A. A. Zimmerman on Independence Creek, Water Roman on Mastodon Creek, and Robert Wilkerson on Miller Creek. Hunted for a tin showing on Ketchum Creek in the evening.

The Berry Dredging Company dredge was checked for safety measures and everything was found to be in good order. They are working down-

MINING OPERATIONS FOURTH DIVISION

CIRCLE PRECINCT

1951

<u>Name and Address of Operator</u>	<u>Name and Location of Mine</u>	<u>Type of Operation</u>	<u>Crew</u>
Berry Dredging Co. 1704 Sutter Street San Francisco, Calif.	Mammoth Creek	Gold Dredge	9
Carstens, Heine, Central	Portage Creek	Bulldozer-Washing Plant	1
Connell, Paul, Central	28-Mile, Yukon River	Lode Prospect	1
Donnelly, Joe, Central	Deadwood Creek	Lode Prospect	1
Frasca, John and Gibson, Charles, Miller House	Eagle Creek	Bulldozer-Hydraulic	2
Gold Placers, Inc., Fairbanks	Coal Creek	Gold Dredge	15
Hamilton, Ray and Assoc's, Miller House	Harrison Creek	Bulldozer-Hydraulic	4
Landlow, Jens, Central	Switch Creek	Hydraulic	1
Martin, Henry, Circle Hot Springs	Portage Creek	Groundsluice	1
P R & H Mining Co, Circle Hot Springs	Deadwood Creek	Bulldozer	4
Roman, Walter, Miller House	Mastodon Creek	Bulldozer	2
Soboleff, Simon, Central	Deadwood and Boulder Creeks	Lode Prospects	1
Stout, Earl, Central	Boulder Creek	Placer Prospect	1
Wells, John, Woodchopper	Iron Creek, Trib. to Woodchopper Creek	Hydraulic	1
Wilkinson, Robert W., Miller House	Miller Creek	Bulldozer	2
Zimmerman, A. A., Miller House	Independence Creek	Bulldozer-Hydraulic	1

A. A. "Tony" Zimmerman, working alone on Independence Creek, finally finished the cut that he started last year, and was getting set up to take out another when visited. He was laying a pipe line with his dozer as he is not capable of heavy work any longer. His partner of last year, Harry Peters, did not come back this season. Zimmerman also does not use a pump, and as a result of a dry season was able to sluice very little.

Walter Roman on Mastodon Creek had the only new operation in the Circle Precinct this year. He uses a company name of Lucky Seven Mining Company and has one partner who does not work full time. The operation is a bulldozer-sluiceplate splashing setup, and is apparently a good-paying proposition. The old 8, 9, and 10 Above Claims are being mined, but they have been restaked as a 1320-foot claim and a fraction. *Kt-50-40*

Robert R. Wilkinson's former partner, Franklin Kelly, is now dead, and Wilkinson owns the operation. He is mining further up Miller Creek from where he was last year, and has found better pay. He reports that he has a problem of losing fine gold in spite of his undercurrent. *Kt-50-27*

In an area of large-grained granite on Ketchum Creek it was reported that there is a contact where it was thought that there might be a showing of cassiterite. A couple of hours were spent in the evening searching for the said contact in company with Paul Connell, but it could not be located.

Transportation to the various mining operations was by Forest Service truck.

Martin Adamik, who mined on Boulder Creek, tributary to Coal Creek, last year, died during the winter. The ground and equipment (small hydraulic setup) is reported for sale or lease by Phil Berail, administrator. *Kt-50-63*

Phillip Berail is no longer mining.

Gold Placers, Inc. on Coal Creek are reported stripping the Alluvial Golds, Inc. dredge on Woodchopper to keep the Coal Creek dredge in operation. They have quit hydraulic stripping and are doing it with dozers.

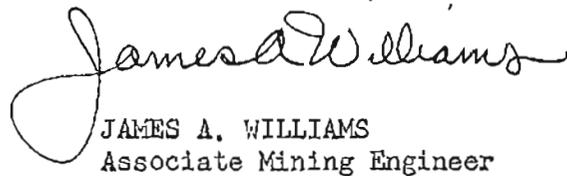
Frasca and Gibson were reported mining as usual on Eagle Creek, though very short on water. They apparently found some new pay that was better than that which they were mining last year. *Kt-50-14*

John Wells was also mining again on Iron Creek, tributary to Wood-chopper.

Louis "Cap" Stringer, who was reported to have been operating a suction dredge on Crooked Creek last year, died during the winter, and the operation was apparently not active this year. He told the writer, shortly before his death, that there was a larger suction dredge than he had been operating in transit from Seattle to Fairbanks at that time, and that it was to replace the smaller one at Crooked Creek.

29 July: Enroute Circle Hot Springs to Fairbanks via Wien Alaska Airlines.

Respectfully submitted,


JAMES A. WILLIAMS
Associate Mining Engineer

TERRITORY OF ALASKA
DEPARTMENT OF MINES
COLLEGE, ALASKA

27 November 1950

IR CIRCLE 50 DEPARTMENT OF MINES
RECEIVED
DEC 4 - 1950
JUNEAU, ALASKA

MEMORANDUM REPORT

TO: Leo H. Saarela, Commissioner of Mines, Juneau, Alaska

FROM: James A. Williams, Associate Mining Engineer, College, Alaska

SUBJECT: Mining Operations in the Circle Recording Precinct,
Fourth Division

The writer made a field trip to the Circle Precinct, August 15 to 19, 1950, using the Department of Mines pickup truck as transportation. The purpose of this trip was to visit the mining operations and gather data and information on the mining industry in that district.

There were found to be a total of fifteen operations active in the Circle Precinct, ten of which were visited. Two operations included in the Fairbanks Recording Precinct were also visited on this trip. The number of men employed in the mining operations of the Circle Precinct total sixty-two. A tabulation of the operations by type follows:

<u>Operations</u>	<u>No. of Oons</u>	<u>No. of Men</u>
Gold Dredge	2	36
Gold Dredge maintenance	1	1
Dragline-Bulldozer- Hydraulic	1	4
Dragline-Bulldozer	1	3
Bulldozer-Hydraulic	3	7
Bulldozer	1	4
Hydraulic	4	5
Groundsluice	<u>2</u>	<u>2</u>
TOTALS	15	62

A detailed list of the above operations is on a separate sheet included with this report.

In a year that was one of the driest on record, the Circle district was one of the hardest hit for lack of water. With the exception of the portage Creek Mining Company, the only operators who managed a worth-

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LEO H. SAARELA
COMMISSIONER OF MINES

while amount of sluicing were those who returned their water from a down-stream sump by means of a pumping installation. For example, Zimmerman and Peters on Independence Creek, without pumps, had had only five days of sluicing at the time of the writer's visit on the 16th of August. Even the miners using pumps could not usually sluice for more than a few hours at a time without shutting down for a short period to allow the water to build up in the sump.

With respect to the number of operations, the mining industry in the Circle Precinct has not declined since the previous season. The production for this year was probably less among the small operators because of the water shortage. But of all the mining districts the writer has visited, this one appears to be the most mined-out. It does not appear that there can be much good placer ground remaining that is not being worked at present. This district has probably less chance of future increase in gold mining activity than almost any of the other more prominent mining districts.

The writer learned of only one prospector active in the Precinct, and he was not working at it full time.

Since most of the Circle operations are small and operated by working partners, the tightening labor situation will not affect the Circle mining industry to a great extent. The two dredging concerns have mostly men on their crews that have been working for them for many seasons, so they will probably continue to come back each season.

On the other hand, most of the Circle operations are mechanized, so that the expected steel shortage will probably slow them down in the next two or three years, if not next season.

Here, as in other districts, the continually rising prices are discouraging the miners. Where they once could mine ground at a profit that paid only ten or fifteen cents per bed rock foot, they now have to have ground worth more than twenty-five cents. On the average, the small placer miners throughout the Interior seemed to feel that twenty-five cents per bed rock foot was about the break-even point.

A fairly new development in placer mining was seen in the Circle district and again in the Fortymile. It is the use of the "sluiceplate" or "slick plate" with a straight bulldozer operation. It can be used in creeks where the gravel washes easily, and does away with the need for a hydraulic giant to help push the gravel into the boxes. It is simply a large smooth sheet of iron, preferably with edges turned up

on two sides, which is set at the head of the sluiceboxes so that the water runs across it as it enters the boxes. The bulldozer pushes the gravel onto the sluiceplate from the side, and the water rushing past and hitting the gravel, slides or carries it into the boxes easily because of the smoothness or "slickness" of the plate. This makes a very efficient operation. It is limited, however, to deposits where there is no clay in the gravel. If the gravel is at all difficult to wash, a nozzle is required to break up the binding agent to properly release the gold.

John Frasca and Charles Gibson were found mining on their Eagle Creek property with a TD-18 bulldozer and a No. 2 giant on the end of a long pipe line in need of much repair. They have about three miles of ground leased on the creek, but claimed to be running into less and less gold and losing money. They did not plan on returning there next year and are looking for ground elsewhere. The Berry Holding Company owns the ground. It is related to the Berry Dredging Company. Frasca has been prospecting Fox Creek in the Fairbanks district, as mentioned in the report on that area.

A. A. "Tony" Zimmerman acquired a partner this year, Harry Peters. They spent the summer on Independence Creek, but as already mentioned, did little sluicing because of the water shortage. They had one of the Miscovich automatic giants set up below their sluiceboxes for stacking tailings. During the one time they were able to use it, prior to the writer's visit, it did a truly remarkably good job. They spent considerable time and money constructing a large ditch with a bulldozer above the left limit which should make future operations more efficient.

Ray Hamilton and associates were mining on Harrison Creek. They were formerly the Harrison Creek Mining Company. The pay seemed to be diminishing and they were considering quitting there at any time. Unless the pay improves, they will not go back there next season.

On Miller Creek, Wilkinson and a hired bulldozer operator were doing the mining. Kelly was in the hospital. They catch their water in three separate reservoirs, letting it build up, then open a sluice gate for a splash, pushing in the gravel with the D-8. They were using a sluiceplate and no giant. Frozen gravel is a problem here, and this creek also has a false bedrock that fooled early miners. From fifteen to twenty feet of frozen muck is stripped, mostly with hydraulic giants.

The Berry Dredging Company still has an apparently profitable operation. With a crew of only fifteen, their overhead is not high. Their crew

was double this before the war, but they now strip with a bulldozer instead of hydraulics and have stopped thawing, so that their mining expenses are actually slightly less than in 1942. When visited, the dredge was digging gravel from two to four feet deep, and of necessity, digging six to eight feet of bedrock for flotation. They had just come through a hard reef that had subjected the dredge to severe wear and tear. The manager and the dredgemaster, Mr. Harold Christianson and Mr. Oscar Utgaard, were most cooperative in showing the writer about.

One of the most efficient operations seen last season was that of the P.R.&H. Mining Company on Deadwood Creek. Using two D-8 bulldozers and a sluiceplate, the operation ran like clockwork, one bulldozer pushing onto the plate and the other stacking the tailings. Only the two operators were needed. When an occasional boulder hung up in the boxes, the stacking bulldozer operator jumped out and forked it on through. The three partners, Fred Parker, Jack Raymond, and Forrest Hopkins, hired one bulldozer operator and ran the operation two shifts-- two men on days and two on nights. They had also improved on the efficiency of the sluiceplate by a special arrangement of outlet pipes for the water from the main pipe which brought the water to the plate. These outlet pipes angled the water into the gravel as the bulldozer pushed it up, causing a more even and efficient sluicing. These men are very progressive miners.

The Deadwood Mining Company, further up Deadwood Creek, was found cleaning bedrock with a nozzle when visited. They were pushing material back and forth with a bulldozer prior to pushing it into the boxes. It appeared to be considerably more handling of the gravel than should be necessary, but it is generally conceded among mining men that the Wrede brothers are good miners and know what they are doing.

Jens Landlow was found mining with a small hydraulic outfit on upper Switch Creek, tributary to Deadwood Creek. He has been working there by himself since 1916. The pay is very low, and it drops into the cracks in the hard bedrock, making the situation more difficult.

The Portage Mining Company on lower Portage Creek was a new operation and was starting to sluice for the first time when visited. The ground had not been well prospected and it was not known at that time whether the venture would pay or not. It has since been unofficially reported that it did not "pan out". The three partners were men who had left other partnerships to form this company late in the season. Their names are Carl Heflinger, Calvin Anderson, and Heine Carstens. They had a dragline, two bulldozers, and a sluiceplate.

On upper Portage Creek, oldtimer Henry Martin was found repairing his splash dam on his groundsluicing setup. The gravel here is full of large boulders, and much bedrock has to be picked by hand. It is a very difficult operation from the labor standpoint. Some years, Martin does not even get a cleanup. The bedrock here, instead of the usual schist, is a very large-grained granite.

The Lakeview Mining Company on Portage Creek was not active this year. Charles Peterson who mined on Half Dollar Creek for many years was also inactive this year.

Mr. Zimmerman reported that two men from Ladd Field, Harry Chenoff and Lewis Jacobsen, were getting his property on Ketchum Creek ready to mine next year. They were coming out on weekends and making preparations for next year.

Henry Appelle was doing some prospecting up the Yukon River from Circle City, but he declined giving any information on the location of his activity.

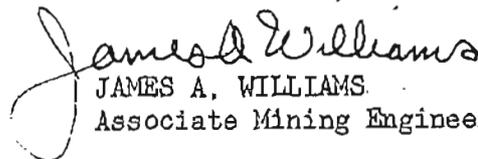
Gold Placers, Inc. were operating their dredge on Coal Creek this season, but not the one on Woodchopper. They were, however, doing some stripping on Woodchopper Creek with a varying crew which lived at the Coal Creek camp.

A visit was made to the idle Nome Creek dredge where it was learned that the dredge is now owned by the Morrison-Knudson Construction Company. They apparently are only interested in selling it. A watchman is stationed there.

There was no activity on Sourdough Creek. A man had been there earlier with a bulldozer, but had grown discouraged and went back to Fairbanks. The ground still belongs to A. A. Zimmerman and is open to anyone who wishes to lease it. He firmly believes that there is good pay there yet.

Mr. V. Watkins and one man were mining on Deep Creek, tributary to Faith Creek. They were using a bulldozer and a sluicelate and doing quite well. Watkins is apparently a very efficient miner. He is planning to prospect Faith Creek this winter.

The last three localities mentioned are in the Fairbanks Recording Precinct.


JAMES A. WILLIAMS
Associate Mining Engineer

stream now toward Crooked Creek where they have additional ground to be dredged. The outfit had only nine men this year, having eliminated the hydraulic stripping crew. They do nearly all their stripping with a bulldozer and the remainder with a novel pump-and-giant setup mounted together on skids. When there is stripping to be done with water, they merely drag the pump and giant to the location, dig a small sump or build a dam with the dozer for the intake, which is right at the pump, start the pump, and start piping. Jessen's Weekly of September 6, 1951, has a good article and picture of the setup.

Harold Christianson, Berry Dredging Company manager, intends to do some prospecting for scheelite and other minerals this fall with a "weasel".

Ray Hamilton on Harrison Creek was found preparing to start on a new cut. He was not getting water for more than a short splash each day, and the pay is getting less as he progresses upstream. Future plans were indefinite. A picture of this sluice setup from the lower end is shown in Figure 4. The boxes are set rather deeply into bedrock. He pipes the gravel into the boxes and stacks with a dozer. No pump is used.

PK 5246-17



Figure 4. Hamilton's Sluice Boxes