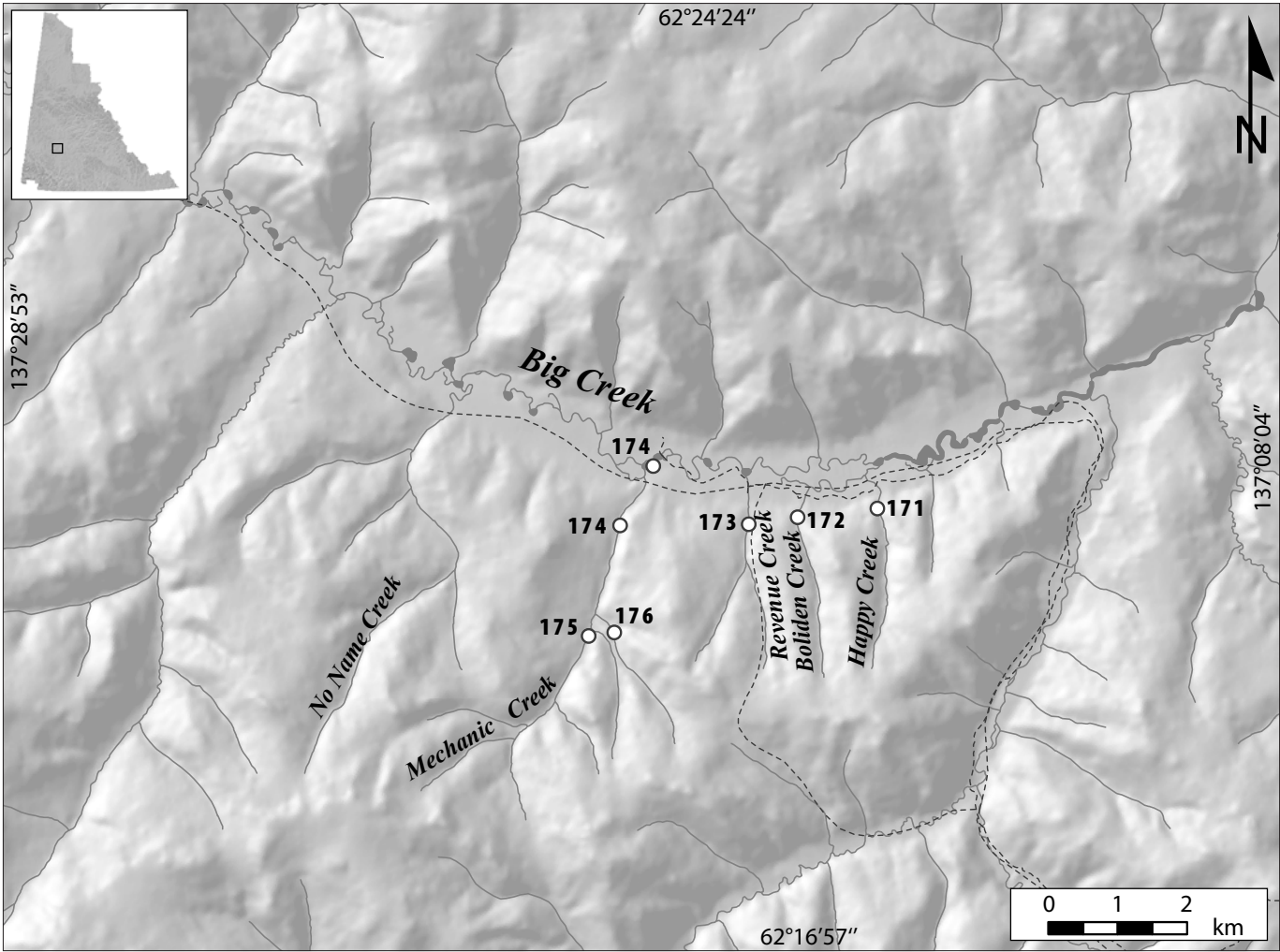


DAWSON RANGE DRAINAGES

BIG CREEK

PLACER AREA

**SITES
171-176**



LEGEND

- 171.....Acker
- 172.....Warde
- 173.....Right Fork Mining/ Gow - Revenue Creek
- 174.....Right Fork Mining/ Gow - Mechanic Creek
- 175.....Fehr
- 176.....Darling

HAPPY CREEK, a tributary of Big Creek

1151/6

2006: 62°20'34"N, 137°14'16"W

David Acker

Water licenses: PM03-343 (2013), PM97-043 (2003)

Active producer (2003-2006)

Operation no. 171

LOCATION The operation is located on Happy Creek, a tributary of Big Creek.

WORK HISTORY AND MINING CUTS Since 1998, Mr. Acker has concentrated his efforts of stripping and sluicing on the upper left-limit bench, as well as working upstream in the valley. In 2005, the operator sluiced material at the bank on the left limit and worked upstream.

EQUIPMENT AND WATER TREATMENT Several types and sizes of equipment have been utilized at this operation. A bulldozer was used to strip overburden and to push pay gravel, and a loader was used to feed the sluice plant. A small screen deck was utilized to process pay material. Water was obtained primarily by recirculation from the final settling pond. Total

creek flow from Happy Creek was diverted in the settling pond system.

BEDROCK GEOLOGY Bedrock consists of granite and decomposed schist.

BOLIDEN CREEK, a tributary of Big Creek

1151/6

2005: 62°20'32"N, 137°15'37"W

Mike Warde, Ella Baker

Water license: PM04-391 (2015)

Active producer (2003-2006)

Operation no. 172

LOCATION The operation was located at the confluence of Boliden Creek with Big Creek and farther upstream on Boliden Creek.

WORK HISTORY AND MINING CUTS Mike Warde began working here in 1999. In the 2003 to 2005 mining seasons, Mike Warde and Ella Baker worked a daily 10-hour shift to mine three cuts. Each of these was 300 feet (100 m) long by 30 to 40 feet (9 to 10 m) wide, tapering off upstream at the upper edge of



David Acker's operation on Happy Creek, 2003.



Mike Warde's operation on Boliden Creek, 2005.

the fan. Overburden was pushed to one side and the gravel and some silt layers were thawed with a monitor. In 2006, mining continued as an in-stream cut was excavated.

EQUIPMENT AND WATER TREATMENT Equipment included two Caterpillar D8 bulldozers which were used to strip, push pay and push tailings, and a Caterpillar 235 excavator with a 1.5-cubic-yard bucket used to feed the wash plant and clean the settling ponds. The wash plant consisted of a 4- by 8-foot double screen deck (1½-inch and 1⅝-inch openings) with one 4- by 12-foot sluice run lined with expanded metal and one 4- by 6-foot sluice run with active riffles. Water was pumped by a 4-cylinder diesel-powered 6- by 5-inch Vancouver pump with enough water to process 30 to 35 loose cubic yards per hour. Effluent was 100% recycled from 5 out-of-stream ponds each 40 by 80 feet (10 x 20 m) in size. Clean-ups were done with a long tom and Deister table.

SURFICIAL GEOLOGY AND STRATIGRAPHY From 2003 to 2006, the operation concentrated on a paleo-alluvial fan which has a gentle slope on the upstream end, but drops sharply into Big Creek valley. The section consisted of 4 to 20 feet (1 to 6 m) of red-stained angular gravel interbedded with silt, black muck and bones, overlying up to 30 feet (10 m) of angular gravel with occasional boulders up to 3 feet (0.9 m)

in diameter. Up to 30 feet (10 m) of the lowest gravel was sluiced, as well as 2 to 3 feet (0.6 to 0.9 m) of bedrock.

BEDROCK GEOLOGY Bedrock consists of blocky and decomposed red and green stained granite.

GOLD CHARACTERISTICS The gold was reported as mostly fine and angular, with some wires. In the fan, 5% of the gold was plus 10 mesh, 20% was 20 to 40 mesh and 60% was minus 100 mesh. The fineness was 870 to 900. The gold was coarser at the top of the fan with nuggets from ¼ to ¾ ounce (8 to 20 g).

REVENUE CREEK, a tributary of Big Creek

1151/6

2003: 62°20'30"N, 137°16'27"W

Right Fork Mining, John Gow, Diane Gow, Buddy Gow

Water licenses: PM03-346 (2014), PM99-149 (2005), PM99-053 (2004)

Active producer (2003-2004)

Operation no. 173

LOCATION The operation was located in the right limit of Revenue Creek.

WORK HISTORY AND MINING CUTS The Gow family has been mining in this area since 1993. In 2003, stripping began on the right limit of Revenue Creek again, just upstream from the settling facilities. A cut was started which was subsequently monitored, drained and stockpiled through the summer and mined in the fall of 2003 and finished in 2004. This pit was 200 feet (60 m) long, 80 feet (20 m) wide and 20 feet (6 m) deep, for a total of 10,750 cubic yards (8220 m³) sluiced during those two years. Hank Fehr, a miner from upper Mechanic Creek, moved his sluice plant to Revenue Creek in 2003 and assisted in sluicing stockpiled pay gravel in the fall of 2003 and for part of 2004.

EQUIPMENT AND WATER TREATMENT From 2003 to 2004, equipment included an 890 John Deere excavator with a 1¾-cubic-yard digging bucket for feeding the sluice plant, a Hitachi UH172 excavator with a 1¾-cubic-yard digging bucket for stripping, excavating pay gravel and cleaning out settling ponds, and a Caterpillar 980B loader for hauling tailings. In addition, a Caterpillar D9L bulldozer was used for stripping and recontouring tailings, and a Caterpillar D7 bulldozer was used to push pay material to the sluice plant. A hydraulic monitor mounted on a Bombardier Muskeg Carrier was used to monitor the cut.

The wash plant consisted of a 4-cubic-yard hopper attached to a vibrating screen deck measuring 4 feet wide by 10 feet long. Materials passed through a 4-inch screen, a 2-inch screen and a ⅝-inch screen before entering a triple-run sluice 10 feet wide by 20 feet long. The first 10 feet were lined with 6-pound expanded metal and the bottom 8 feet held Hungarian riffles. Nomad matting lined the entire sluice run, the expanded metal portion of which had a 1¾-inch per foot

slope. The riffle section was sloped at 3 inches to the foot. A 30 kilowatt generator powered by a Dorman engine ran the screening plant. Approximately 35 loose cubic yards of material were processed per hour. Water was acquired from in-stream recirculation ponds at a rate of 1000 igpm using a 6- by 5-inch Cornell pump powered by a 6-cylinder Deutz diesel engine. The effluent was treated in a series of these in-stream ponds before the final point of compliance. Clean-ups were done with a 'Green Machine', where concentrates were poured into a 1-cubic-foot hopper, which fed onto a 10- by 30-inch vibrating 1/8-inch screen and into a 1- by 4-foot sluice run with live bottom riffles. Tailings off the 1/8-inch screen fed into a boil box which retained gold that did not go through the 1/8-inch screen. Final concentrates were put through a gold wheel, dried and smelted.

SURFICIAL GEOLOGY AND STRATIGRAPHY From 2003 to 2004, the section on Revenue Creek consisted of 10 feet (3 m) of layered sand, silt and fine gravel overlying 20 feet (6 m) of interbedded gravel, silt and black muck with rocks up to 6 feet (2 m) in diameter. A thin clay layer was draped on bedrock. The top 10 feet (3 m) were considered overburden and the bottom 20 feet (6 m) of gravel just above the clay layer were sluiced. Fine gold was found in all gravel layers up to 5 feet (1.5 m) from the surface.

BEDROCK GEOLOGY Bedrock at this site is fractured to partially decomposed quartz-feldspar porphyry with abundant quartz veinlets.

GOLD CHARACTERISTICS In 2003 and 2004, the gold was a mixture of wires, beady round balls up to 0.19 oz (6 g) in weight, and fine-grained nuggets in a range of sizes. Of the fine gold, 50 to 60% was 40 to 50 mesh, 20% was 20 mesh and 20 to 30% was minus 80 to minus 200 mesh. Fineness was 890 to 910.

MECHANIC CREEK, a tributary of Big Creek

1151/6

2005: 62°20'33"N, 137°18'37"W

2003: 62°21'00"N, 137°18'00"W

Right Fork Mining, John Gow, Diane Gow, Buddy Gow

Water license: PM03-347 (2014)

Active producer (2000-2006)

Operation no. 174

LOCATION This operation was located at the mouth of Mechanic Creek and upstream.

WORK HISTORY AND MINING CUTS The Gow family has mined on Mechanic Creek since September 2000. In 2003, a mining cut which they had started in 2002 was finished, and another cut 350 by 80 by 20 feet (105 x 25 x 6 m) was completed, for a total of 16,700 cubic yards (12 800 m³) sluiced. In 2004, a cut 350 by 90 by 10 feet (105 x 30 x 3 m) was processed for a total of 11,612 cubic yards (8872 m³) sluiced. A cut measuring 160 by 33 by 4 feet (50 x 10 x 1 m) was stripped on the left limit and stockpiled for future reclamation work. In 2005, a cut 450 by 100 by 20 feet (140 x 30 x 6 m) was processed; the top 5 feet (1.5 m) were stripped and the bottom 15 feet (5 m) were sluiced, for a total of 20,000 cubic yards (15 000 m³) sluiced. Some monitoring was also done. A cut on the left limit was stripped for a total of 5000 cubic yards (4000 m³). In 2006, approximately 3000 cubic yards (2000 m³) of material were processed. The Gows also rented out their Revenue Creek camp to a local hardrock exploration company.

EQUIPMENT AND WATER TREATMENT Equipment included a John Deere 890 excavator with a 1¾-cubic-yard digging bucket for feeding the sluice plant, a Hitachi UH172 excavator with a 1¾-cubic-yard digging bucket for stripping, excavating pay gravel and cleaning out settling ponds, and a Caterpillar 980B loader for hauling tailings. In addition, a Caterpillar D9L bulldozer was used for stripping and recontouring tailings, and a Caterpillar D7 bulldozer was used to push pay material to the sluice plant. A hydraulic monitor mounted on a Bombardier Muskeg Carrier was used to monitor the cut. The wash plant consisted of a 4-cubic-yard hopper attached to a vibrating screen deck measuring 4 feet wide by 10 feet long. In 2006, a Derocker was added to the screen deck because of the coarse boulders present. Materials passed through a 4-inch screen, a 2-inch screen and a 5/8-inch screen before entering a triple-run sluice 10 feet wide by 20 feet long. The first 10 feet were lined with 6-pound expanded metal and the bottom 8 feet held Hungarian riffles. Nomad matting lined the entire sluice run, the expanded metal portion of which had a 1¾ inch per foot slope. The riffle section was sloped at 3 inches to the foot. A 30-kilowatt generator powered by a Dorman engine ran the screening plant. Approximately 35 loose cubic yards of material were processed per hour. Water was acquired from out-of-stream

settling/recirculation ponds at a rate of 1000 igpm using a Gorman Rupp trash pump powered by a 5-cylinder Dorman diesel engine. The effluent was treated in these same ponds with no discharge to Mechanic Creek. Clean-ups were done with a 'Green Machine', where concentrates were poured into a 1-cubic-foot hopper, which fed onto a 10- by 30-inch vibrating 1/8-inch screen and into a 1- by 4-foot sluice run with live bottom riffles. Tailings off the 1/8-inch screen fed into a boil box which retained any gold that did not go through the 1/8-inch screen. Final concentrates were put through a gold wheel, dried and smelted.

SURFICIAL GEOLOGY AND STRATIGRAPHY In 2003 and 2004, the area worked was thawed due to previous stripping activity. The section consisted of 10 feet (3 m) of gravel overlying a clay layer, lying directly on top of bedrock. The gravel varied in texture from well sorted, fine-grained gravel to poorly sorted coarse gravel with 50% boulders. All of the gravel down to the clay layer was sluiced. Large boulders ranging from 2 to 4 feet (0.6 to 1 m) in diameter were scattered on bedrock. In

2005, the section consisted of 5 feet (1.5 m) of moss, ash and silt overlying 15 feet (5 m) of gravel interlayered with black muck and silt. The gravel ranged in texture from fine grained to very coarse grained with large boulders. A clay layer lined the bedrock. Gold was found in all gravel layers, and all of the gravel was sluiced down to the clay layer.

BEDROCK GEOLOGY Bedrock at this site is a fractured to partially decomposed quartz-feldspar porphyry with abundant quartz veinlets.

GOLD CHARACTERISTICS From 2001 to 2005, the gold was a mixture of wire gold and round balls up to 0.2 oz (6 grams) and nuggets with a range in sizes. Some gold had quartz attached. Approximately 50% to 60% was 40 to 50 mesh, 20% was 20 mesh, and 20% to 30% was from minus 80 to minus 200 mesh. The fineness was 870 to 900.



Right Fork Mining's operation on Mechanic Creek, 2005. The Gow family sometimes fed Hank Febr's plant as well as their own.

MECHANIC CREEK, a tributary of Big Creek

1151/6

2003: 62°19'42"N, 137°19'15"W

Hank Fehr

Water license: PM04-400 (2015)

Active producer (2003)

Operation no. 175

LOCATION This operation was located on Mechanic Creek in the vicinity of an unnamed right-limit tributary.

WORK HISTORY AND MINING CUTS Hank Fehr began working on this creek in 1998. He mined the property alone, working a single 10-hour shift. A small amount of stripping was completed in 2003. Mr. Fehr worked with Right Fork Mining in 2004 and 2005.

EQUIPMENT AND WATER TREATMENT Equipment consisted of a bulldozer utilized for stripping, and an excavator and a front-end loader for feeding pay material to the sluice plant and for general site maintenance. The wash plant was a trommel with a single sluice run. Water was supplied to the plant from Mechanic Creek and effluent was treated through a series of both in-stream and out-of-stream settling ponds.

BEDROCK GEOLOGY Bedrock is a fractured to partially decomposed quartz-feldspar porphyry with abundant quartz veinlets.

MECHANIC CREEK, a tributary of Big Creek

1151/6

2005: 62°19'52"N, 137°19'06"W

Wes Darling

Water license: PM00-195 (2010)

Exploration (2003-2005)

Operation no. 176

LOCATION This operation was located on an unnamed tributary of Mechanic Creek.

WORK HISTORY AND MINING CUTS A number of test pits were excavated and material was test sluiced in the summer seasons between 2001 and 2005.

EQUIPMENT AND WATER TREATMENT A small test plant and bulldozer were used for the testing.

SURFICIAL GEOLOGY AND STRATIGRAPHY The testing was conducted on a paleo-alluvial fan adjacent to Mechanic Creek.



Hank Fehr's bulldozer and two sluice plants on Mechanic Creek, 2003. Wes Darling's operation can be seen in the upper left background.