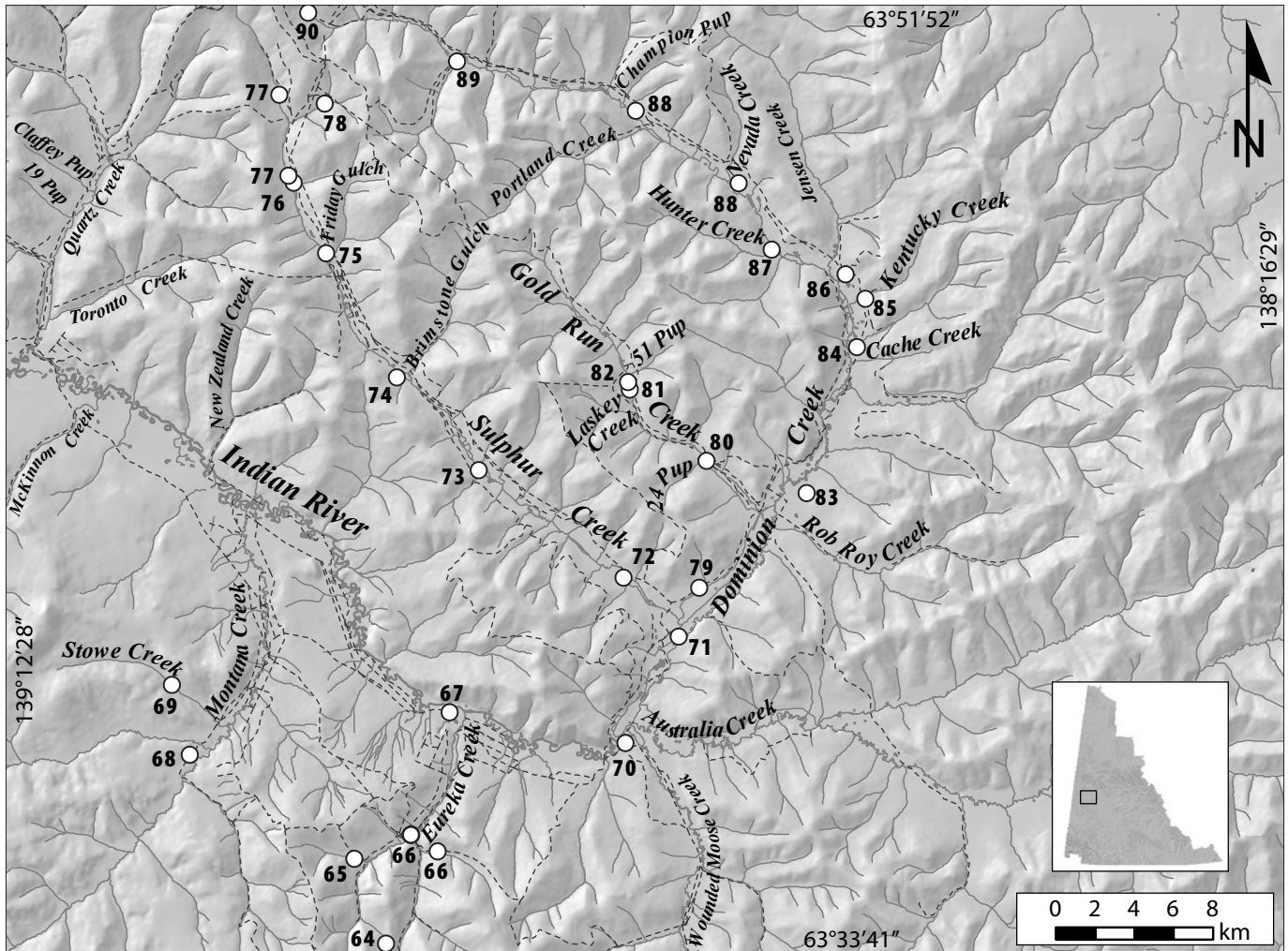


# KLONDIKE: DOMINION-SULPHUR PLACER AREA

SITE NO.  
64-90



## LEGEND

- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| 64.....Ripper Mining/Cahoon         | 77.....Sprokkreef                    |
| 65.....Hamar Placers                | 78.....Morgan/ Coulee Resources Ltd. |
| 66.....Eureka Placers Ltd.          | 79.....Gimlex Enterprises Ltd.       |
| 67.....Tamarack Inc.                | 80.....Mary Ange Resources Ltd.      |
| 68.....Matkovich (19651 Yukon Inc.) | 81.....D & P Mining Exploration Ltd. |
| 69.....Allen                        | 82.....Alberta Gold Diggers Ltd.     |
| 70.....Abermeth                     | 83.....Ross Mining Services Ltd.     |
| 71.....Gatenby Mining               | 84.....A-1 Cats/365334 Alberta Ltd.  |
| 72.....Sulphur Dom Inc.             | 85.....Bodin                         |
| 73.....Kruger                       | 86.....Hollis                        |
| 74.....Lucky Lady Placers           | 87.....Conklin                       |
| 75.....Cross                        | 88.....Sailer                        |
| 76.....Coulee Resources Ltd.        | 89.....Stuart                        |
|                                     | 90.....Coles                         |

**EUREKA CREEK, a tributary of Indian River**

1150/10

2005: 63°33'12"N, 138°52'49"W

**Ripper Mining, Troy Cahoon**

Water license: PM01-242 (2006)

Active producer (2003-2005)

**Operation no. 64**

**LOCATION** This operation was on an unnamed right-limit tributary of the right fork of Eureka Creek.

**WORK HISTORY AND MINING CUTS** Work was first conducted on this unnamed right-limit tributary of the right fork of Eureka Creek in 1998.

Between 2003 and 2005, a crew of two miners worked a daily 10-hour shift. One cut mined in 2003 was 60 by 120 feet (20 x 40 m) in size.

**EQUIPMENT AND WATER TREATMENT** Between 2003 and 2005, a Caterpillar 966 loader and a leased excavator were used for various duties while the wash plant was a small trommel with a generator and a hydraulic system. Water was supplied from the right-limit tributary and pumped by two Honda 3- by 3-inch gas-powered pumps rated at 500 igpm each. Approximately 40 loose cubic yards per hour were processed with this system. Effluent was 100% recycled from a 50- by 40-foot pond (15 x 10 m). Clean-ups were done with a Diester table and hand-panning.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The stratigraphic section consisted of 25 feet (8 m) of black muck mixed with gravel, overlying 6 feet (2 m) of gravel on bedrock. All of the gravel plus 3 feet (1 m) of bedrock were sluiced.

**BEDROCK GEOLOGY** Bedrock at this site is shattered, fragmented schist.

**GOLD CHARACTERISTICS** Gold was described as hackly and coarse, with a dull yellow colour and a fineness of 670.



*Troy Cahoon collecting a pay sample at his operation on Eureka Creek, 2004.*



*Hamar Placers operation on Eureka Creek, 2003.*

**EUREKA CREEK, a tributary of Indian River**

1150/10

2003: 63°34'54"N, 138°54'06"W

**Hamar Placers, Troy Cahoon, Hiroaki Miyahama**

Water license: PM01-241 (2006)

Active producer (2003-2005)

**Operation no. 65**

**LOCATION** This operation was located on an unnamed left-limit tributary of the right fork of Eureka Creek.

**WORK HISTORY AND MINING CUTS** The operators began mining here in 2002. Two miners worked one 8-hour shift per day. In 2003, the mining cut was 60 feet wide and 120 feet (20 x 40 m) long. In 2004, work was completed to stabilize the creek channel by pulling black muck away from the perimeter. In 2005, a small amount of sluicing was completed.

**EQUIPMENT AND WATER TREATMENT** A D9H Caterpillar bulldozer with ripper was used to strip material and push pay. A 690B John Deere excavator was rented in 2002 and a Hitachi excavator was used in 2005. The wash plant was a 5- by 40-foot trommel leading to a 4- by 10-foot sluice run with 1½-inch Hungarian riffles, expanded metal and Nomad matting. Approximately 80 loose cubic yards per hour were processed. Water was acquired from the tributary and pumped at 500 to 800 igpm by a New Zealand 'T' 6- by 6-inch pump powered by a 4-cylinder Detroit engine. Effluent was settled in-stream in a 60- by 100-foot (20 x 30 m) pond which was 100% recycled. Final clean-ups were performed by Don and Rose Kenzie using a jig and a Diester table.

**GOLD CHARACTERISTICS** Gold recovered was coarse and bright yellow, with some small nuggets. The fineness was 685.

**EUREKA CREEK, a tributary of Indian River**

1150/10

2005: 63°35'21"N, 138°51'35"W

2003: 63°35'00"N, 138°50'26"W

**Eureka Placers Ltd., Don Marino, Richard Allen**

Water licenses: PM01-236 (2006), PM03-327 (2005)

Active producer (2003-2006)

**Operation no. 66**

**LOCATION** In 2004, the operators worked on the right limit of the confluence of the right and left forks as well as on the main stem of Eureka Creek. In 2005, some work was done high on the left-limit bench of the right fork of Eureka Creek. In 2006, the operation was near the top of the left fork.

**WORK HISTORY AND MINING CUTS** Two miners worked a daily 10-hour shift. In 2003, the operators mined a cut 200 by 100 feet (60 x 30 m) on the upper right fork of Eureka Creek, and in 2004, a cut 1000 by 100 feet (300 x 30 m) was stripped and partially sluiced on the right limit of the confluence of the right and left forks and on the main stem of Eureka Creek. In 2005, a cut 400 by 150 feet (100 x 50 m) was stripped and mined high on the left-limit bench of the

right fork of Eureka Creek. Waste was stockpiled with the bulldozers and excavators. In 2006, a cut on the upper end of the left fork was stripped and sluiced.

**EQUIPMENT AND WATER TREATMENT** Equipment included a Caterpillar D9 bulldozer and a Caterpillar D8 bulldozer with a ripper, and two Caterpillar excavators (235 and 225). The wash plant was a 6-foot-diameter trommel with 1-inch angle iron riffles and expanded metal, with a total recovery area of 128 square feet. Water was supplied from the right fork of Eureka by a Morris 10- by 12-inch pump powered by a Caterpillar 3406 engine rated at 2000 igpm, enough to process 90 loose cubic yards per hour. Effluent was settled out-of-stream in downstream ponds which varied between 50 by 50 feet (15 x 15 m) and 300 by 100 feet (100 x 30 m) in size. Clean-ups were done with a long tom.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** In 2005, the stratigraphic section on the left-limit bench on the right fork consisted of 50 feet (15 m) of frozen washed gravel on wavy bedrock. The bottom 3 feet (1 m) plus 3 feet (1 m) of bedrock were sluiced.



*Eureka Placers' pit on the left-limit bench of the right fork of Eureka Creek, 2005.*

**BEDROCK GEOLOGY** Bedrock at this site is decomposed chlorite schist.

**GOLD CHARACTERISTICS** In 2005, the gold was reported to be less than 30 mesh in size, bright and red-stained, and having a fineness of 740.

**INDIAN RIVER, a tributary of Yukon River**

1150/10 2005: 63°38'17"N, 138°52'09"W  
2003: 63°37'43"N, 138°49'43"W

**Tamarack Inc., Tony Beets**

Water licenses: PM04-422 (2010), PM98-071 (2003)

Active producer (2003-2005) **Operation no. 67**

**LOCATION** The operation was located at the mouth of Eureka Creek on the right limit of the Indian River.

**WORK HISTORY AND MINING CUTS** Aurion Placers mined claims that had been leased from Tamarack Inc. from 1994 to 1998, and Tamarack began mining in this area in 1999. The crew between 2003 and 2005 consisted of 12 miners and one camp personnel working two 12-hour shifts. In 2003, three cuts were mined: one was 300 by 1800 feet (100 x 550 m), and the other two were 300 by 600 feet (100 x 200 m). In 2004, two cuts were mined: 150 by 3000 feet (50 x 1000 m), and 1200 by 300 feet (400 x 100 m). In 2005, five cuts were mined, with a total size of 300 by 3000 feet (100 x 1000 m). The operation moved to Paradise Hill at the end of the 2005 season.

**EQUIPMENT AND WATER TREATMENT** Between 2003 and 2005, equipment included two Caterpillar D10 bulldozers for stripping, two Caterpillar D9 bulldozers for sluicing,

a Caterpillar 245 excavator for loading scrapers, four Caterpillar 657 scrapers for hauling pay, a Caterpillar 988 loader for hauling tailings, and a Hitachi 181 excavator to feed the wash plant. The wash plant consisted of a Pearson box with five runs: one for coarse material and four for fine material. The four fine runs were 4 feet wide by 20 feet long with the first 4 feet containing 1½-inch hydraulic riffles and the rest expanded metal with Nomad matting. The coarse run was 3 feet wide and 20 feet long and contained punch plate with ¾-inch screen over 1½-inch Hungarian riffles over Nomad matting. Water was acquired from a screened intake ditch to the out-of-stream pond and was pumped by a Morris 10- by 12-inch, 3406 Caterpillar-powered pump with a capacity of 5000 to 6000 igpm. The plant processed 300 loose cubic yards per hour. Effluent was settled out-of-stream in a pond which began at 100 by 300 feet (30 x 100 m) and grew with each mined out cut. Clean-ups were done with a two-cell 'Propulse' clean-up jig.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** Between 2003 and 2005, the section consisted of 6 feet (2 m) of muck overlying 8 feet (2.5 m) of gravel on bedrock. The lowest 2 feet (0.6 m) of gravel along with 2 feet (0.6 m) of bedrock were sluiced.

**BEDROCK GEOLOGY** The bedrock at this site varies between decomposed and fractured schist.

**GOLD CHARACTERISTICS** The gold recovered was fine grained (flour to sugar-sized), dark yellow and had a fineness of 820 to 830.

**MONTANA CREEK, a tributary of Indian River**

1150/10, 1150/11 2003: 63°37'02"N, 139°01'11"W

**19651 Yukon Inc., Vern Matkovich**

Water license: PM02-268 (2007)

Active producer (2003) **Operation no. 68**

**LOCATION** In 2003, the operation was located upstream of Stowe Creek near the mouth of Bismark Creek.

**WORK HISTORY AND MINING CUTS** Vern Matkovich has been working on Montana Creek since 1993. In 2003, Mr. Matkovich sluiced bench gravel along the left limit of Montana Creek upstream from Stowe Creek. That season was used to process a large bulk test to confirm mineable reserves for the future.

**EQUIPMENT AND WATER TREATMENT** Equipment on-site included an excavator and Caterpillar D8 bulldozer. The wash plant was a 3- by 10-foot double screen deck over an 8-foot by 32-inch sluice run equipped with angle iron riffles, which in turn fed two 8-foot by 24-inch sluice runs lined with expanded metal. A full recycle sluicing system was used with no discharge.



Tamarack Inc. operation on Indian River, 2004.



19651 Yukon Inc. (Vern Matkovich) operating on Montana Creek, 2003.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** In 2003, the section consisted of 6 feet (2 m) of silt and organic material overlying 3 to 6 feet (1 to 2 m) of subangular sandy cobble pay gravel. Wood in the overlying silt was carbon dated at >45 800 years old.

**BEDROCK GEOLOGY** Bedrock at this site is green chloritic or graphitic schist.

### STOWE CREEK, a tributary of Montana Creek

1150/10, 1150/11

2003: 63°38'25"N, 139°01'54"W

Richard Allen

Water license: PM98-070 (2009)

Active producer (2003)

Operation no. 69

**LOCATION** This operation started at the mouth and worked upstream on Stowe Creek.

**WORK HISTORY AND MINING CUTS** This operation began mining on Stowe Creek in 2002 and mining continued for the early part of 2003, but Mr. Allen ceased operations in mid-summer.

**EQUIPMENT AND WATER TREATMENT** Equipment included Caterpillar D9G and D8H bulldozers with rippers which were used to strip cuts, prepare settling facilities and ramp tailings. The wash plant was a converted Clinton Creek screen deck, built by Tom Nichol, measuring 5 by 11 feet and screening to ¾-inch minus. The sluice trays consisted of two 6 by 2-foot-wide runs lined with expanded metal riffles and Nomad matting. Water for the plant was supplied by a Caterpillar 3406-powered Morris pump rated at 2000 igpm. Material was processed at approximately 80 loose yards per hour.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The section consisted of 15 to 30 feet (5 to 10 m) of black muck and silt overlying 1½ feet



Richard Allen's operation on Stowe Creek, 2003.

(0.5 m) of cobble-pebble gravel. All the gravel was sluiced along with 2 to 3 feet (0.6 to 0.9 m) of bedrock.

**BEDROCK GEOLOGY** Bedrock at this site is sandy decomposed granite, and some conglomerate.

**GOLD CHARACTERISTICS** Gold was reported as fine grained with a purity of 770.

**WOUNDED MOOSE CREEK, a tributary of Indian River**

1150/10

2003: 63°37'00"N, 138°42'01"W

**George Abermeth**

Water license: PM03-311 (2008)

Exploration (2003)

**Operation no. 70**

**LOCATION** Abermeth's exploratory operation was located on Wounded Moose Creek, a tributary of the Indian River.

**WORK HISTORY AND MINING CUTS** The Wounded Moose property was acquired by Abermeth in 2003. In the same year, some stripping was accomplished, and a trench was established over previously mined areas.

**EQUIPMENT AND WATER TREATMENT** A bulldozer, excavator and test plant were used, with a pump rated at 600 igpm.

**BEDROCK GEOLOGY** Bedrock is mapped as Pelly gneiss.

**DOMINION CREEK, a tributary of Indian River**

1150/10

2006: 63°39'03"N, 138°39'31"W

**Gatenby Mining, Lisle Gatenby**

Water license: PM04-407 (2012)

Active producer (2003-2006)

**Operation no. 71**

**LOCATION** Mining on this operation took place at an area of Dominion Creek known as Granville, at the confluence of Dominion and Sulphur creeks.

**WORK HISTORY AND MINING CUTS** Work began at this site by Gatenby Mining in 1998 and the mine has operated each season since. Between 2003 and 2006, the crew consisted of three miners working 1½ shifts for 18 hours a day. Four cuts were mined each year in that time, each with the dimensions approximately 300 feet long by 150 feet wide (100 x 50 m). Approximately 60,000 to 70,000 bank cubic yards (46 000 to 55 000 bank m<sup>3</sup>) were processed through the plant each year. The 2006 cut was 300 feet long and 150 feet wide (100 x 50 m).

**EQUIPMENT AND WATER TREATMENT** Equipment between 2003 and 2006 consisted of Caterpillar D9L and Caterpillar D8H bulldozers with U-blades and rippers; a Kawasaki 957 III loader with a 7½-cubic-yard bucket, and a John Deere 844 loader with a 5½-cubic-yard bucket. Two Hitachi excavators



*Aerial view of Gatenby Mining's operation, Dominion Creek, towards the northwest, 2006.*

(EX400 and EX200) were also on site. The wash plant consisted of a 36-inch El-Russ feeder with a 42-inch belt, a 6- by 20-foot double horizontal rubber-coated screen deck which classified first to 1 inch and then to ½ inch, and four 4- by 16-foot sluice runs at 12% slope. The sluice runs were lined with 5 lb grating expanded metal and Nomad matting. Water was acquired from the Dominion 'Miners ditch' and pit dewatering water, and pumped by a Cummins-powered 8- by 10-inch Gould's pump rated at 2000 igpm.

Approximately 100 bank cubic yards per hour (or 130 to 150 loose cubic yards per hour) were processed and effluent was settled out-of-stream in a 100% recycled 400- by 200-foot (120- x 60-m) pond. Clean-ups of the trommel feed (½ inch) were done using a two-stage mechanical jig with stainless steel ragging in the first hutch followed by iron ragging in the second hutch.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The stratigraphic section consisted of 8 to 10 feet (2 to 3 m) of peat and silt overlying 5 to 15 feet (1.5 to 5 m) of rusty orange gravel, overlying 5 to 15 feet (1.5 to 5 m) of white, kaolinite and quartz-clast rich gravel.

The bottom 4 to 6 feet (1 to 2 m) of the white gravel were sluiced along with 2 to 3 feet (0.6 to 0.9 m) of bedrock. The rusty orange gravel is known locally as the 'Dominion' gravel, and the white, kaolinite and quartz-clast-rich gravel is locally called the 'EL' gravel. The EL gravel is immediately downstream of the 'Ross' gravel described by Froese *et al.* (2000) and may be a product of both the Gold Run Creek paleochannel and the Ross gravel. The Ross Gravel is greater than 780 000 years old as indicated by paleomagnetism studies by Froese *et al.* (2000). It was likely originally reworked from the older 'White Channel' gravel which is found on higher level terraces. The 'Dominion' gravel is normally polarized and therefore younger than 780 000 years old.

**BEDROCK GEOLOGY** The bedrock was described as decomposed chloritic schist with cross-cutting quartz veins.



*Gatenby Mining's wash plant, Dominion Creek, 2004.*

**GOLD CHARACTERISTICS** Between 2003 and 2006, the gold was mainly fine grained ('flat, pounded-out flakes') with the majority between 30 and 100 mesh and less than 5% greater than 10 mesh in size. Locally, angular gold was found. The gold was bright, with a fineness of 865-870.

#### **SULPHUR CREEK, a tributary of Dominion Creek**

1150/10

2003: 63°40'14"N, 138°41'52"W

**Sulphur Dom Inc.**

Water license: PM00-203 (2006)

Active producer (2003)

**Operation no. 72**

**LOCATION** The operation was located on lower Sulphur Creek.

**WORK HISTORY AND MINING CUTS** Some stripping was performed early in the 2002 season on the right limit of the valley, at the upstream end of the area previously mined by Murray Conner. The operation remained active throughout the 2003 season.

**BEDROCK GEOLOGY** Bedrock is mapped as Klondike Schist.

**SULPHUR CREEK, a tributary of Dominion Creek**

1150/10, 1150/15

2005: 63°42'26"N, 138°48'05"W

**Henry Kruger**

Water license: PM04-358 (2007)

Active producer (2003-2006)

**Operation no. 73**

**LOCATION** The operation was located on the right limit of Sulphur Creek valley.

**WORK HISTORY AND MINING CUTS** Henry Kruger has mined on Sulphur Creek since 1975. Mr. Kruger worked 8 hours per day, beginning sluicing each year near the end of June. Each season from 2003 to 2006, he processed a cut 150 feet (50 m) long on each side and 15 feet (5 m) deep.

**EQUIPMENT AND WATER TREATMENT** Equipment included a Caterpillar 955K loader, two Caterpillar bulldozers (D7 and D9), a Caterpillar 225 excavator, two Hough 120C loaders and a Koehring 605 dragline. The wash plant was a dump box with a punch plate screen deck feeding to two sluice runs, each 4 feet wide by 20 feet long and lined with Coco matting, expanded metal and Nomad matting. Water was acquired from Sulphur Creek and seepage, and pumped by a Murphy 8- by 8-inch 671 Detroit-powered pump supplying between 1500 and 2000 igpm. Approximately 50 loose cubic yards per hour were processed. Clean-ups were conducted once a season with a long tom, gold wheel and panning. Effluent was settled out-of-stream and 50% recycled from a 20-foot-wide, 1-mile-long (6 m x 2 km) old miner's ditch on the lower claims.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The stratigraphic section consisted of 15 feet (5 m) of frozen black muck overlying 15 to 20 feet (5 to 6 m) of various gravel layers. These gravel units had 'White Channel' rocks, oxidized rounded rocks and flat slide rocks, and were comprised of a 4-foot (1-m) rusty layer, a 4-foot (1-m) yellow layer and a 4-foot (1-m)



Henry Kruger's pit and dragline on Sulphur Creek, 2005.



Lance Gibson's automatic monitor on Sulphur Creek, 2003.

grey layer on bedrock. From 15 to 20 feet (5 to 6 m) of gravel were sluiced along with ½ to 1 foot (0.2 to 0.3 m) of bedrock.

**BEDROCK GEOLOGY** The bedrock at this site is decomposed schist.

**GOLD CHARACTERISTICS** Between 2003 and 2006, the gold was fine grained and bright yellow with a fineness of 790 to 820.

**SULPHUR CREEK, a tributary of Dominion Creek**

1150/10, 1150/15

2006: 63°44'18"N, 138°51'34"W

2005: 63°44'20"N, 138°51'05"W

**Lucky Lady Placers, Lance Gibson**

Water license: PM01-263 (2014)

Active producer (2003-2006)

**Operation no. 74**

**LOCATION** The operation was located on Sulphur Creek near its confluence with Brimstone Gulch.

**WORK HISTORY AND MINING CUTS** The property has been mined continuously since the early seventies by the Gibson family. In the mining seasons 2003 to 2006, a crew of two to four miners worked a daily 10- to 12-hour shift. In 2003, a 300- by 300-foot (90- x 90-m) cut at Brimstone was mined. In 2004, another cut 300 by 300 feet (90 x 90 m) was mined and in 2005 two cuts were mined, one 400 by 120 feet (120 x 35 m) and one 200 by 150 feet (60 x 45 m). Operations continued in 2006 and were relocated to a right-limit bench above camp.

**EQUIPMENT AND WATER TREATMENT** Between 2003 and 2006, equipment included three Caterpillar D9 bulldozers, two Caterpillar 980 loaders, one Caterpillar 977 loader, one Caterpillar 245 excavator, a Caterpillar 621 Scraper, two 35-tonne Terex rock trucks and one Caterpillar 12E grader. An automatic hydraulic monitor was used to strip overburden. The wash plant included a 5- by 14-foot double

inclined deck, a 60-foot by 42-inch conveyor, two 80-foot by 36-inch feed conveyors, an 8-foot by 36-inch dozer trap feeder, a 65-foot by 36-inch tailings stacking conveyor, and two 4- by 20-foot sluice runs lined with angle iron riffles and Nomad matting. Pumps for monitoring and supplying the wash plant included a Cornell 6- by 8-inch-powered by Detroit Jimmy V671 and rated at 1800 igpm, a Gorman Rupp 12- by 12-inch-powered by Caterpillar 3406 rated at 3500 igpm, and a Cornell 10- by 10-inch-powered by Caterpillar 3406 rated at 3500 igpm. Approximately 100 to 125 loose cubic yards per hour were processed. Water was acquired from Sulphur Creek and settled both in-stream and out-of-stream. A pre-settling pond 1500 by 3000 feet (500 x 1000 m) in size was established in the creek downstream of previous pond locations and was being used as a conduit to assist in sluicing, monitoring and draining the area. Clean-ups were done with a double-breasted jig, gold wheel and Diester table every 40 hours.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The section encountered between 2003 and 2006 was 30 to 60 feet (9 to 20 m) of black muck overlying 6 to 8 feet (2 to 3 m) of gravel on bedrock. Localized pockets of black sand were found on bedrock, and the gravel deposits were well-sorted pebbles with localized quartz boulders. All of the gravel plus 4 feet (1 m) of the slabby bedrock were sluiced.

**BEDROCK GEOLOGY** Bedrock is schist.

**GOLD CHARACTERISTICS** In 2005 and 2006, the gold was mostly fine grained and dark yellow with little quartz. Some coarse nuggets were found at Brimstone Gulch. The fineness was 810 to 840.

#### FRIDAY GULCH, a tributary of Sulphur Creek

1150/15 2006: 63°46'46"N, 138°54'32"W

Neil Cross

Water license: PM04-373 (2015)

Exploration (2006) **Operation no. 75**

**LOCATION** This operation was located at the mouth of Friday Gulch, a left-limit tributary of Sulphur Creek.

**WORK HISTORY AND MINING CUTS** Work was first conducted on this property in 1989 and continued into the early 1990s. The property was largely inactive until 2006, when Mr. Cross stripped cuts on both the left and right limits of Friday Gulch.

**EQUIPMENT AND WATER TREATMENT** Mr. Cross used a bulldozer for stripping. No water was acquired or discharged.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** Previous work on the property exposed a section which consisted of 12 feet (3.6 m) of black

muck with gravel lenses, overlying 4 feet (1.2 m) of washed gravel with many schist and quartz pebbles. The lower gravel and 2 feet (0.6m) of bedrock were sluiced.

**BEDROCK GEOLOGY** Bedrock at this site is Klondike schist.

**GOLD CHARACTERISTICS** The gold recovered in past seasons was fine grained, porous, flaky, and angular. Quartz was attached to most of the gold and fineness was between 790 and 810.

#### SULPHUR CREEK, a tributary of Dominion Creek

1150/10, 1150/15 2003: 63°48'10"N, 138°55'53"W

Coulee Resources Ltd., Joel White, Sulphur Gold Placers

Water licenses: PM04-355 (2014, Licensee: Coulee Resources Ltd.),

PM99-125, LP00059 (2009, Licensee: Sulphur Gold Placers)

Active producer (2003-2006) **Operation no. 76**

**LOCATION** From 2002 to 2004, this property was located on Sulphur Creek at the mouth of Meadow Gulch. In late October 2006, the operation was located just downstream of Henry Kruger's operation.

**WORK HISTORY AND MINING CUTS** In 2002, Coulee Resources mined three cuts at this site working under Sulphur Gold Placers' water license. In 2003, most equipment was moved from this site to Black Hills Creek, and Sulphur Gold Placers ran a monitoring program in the beginning of June. Coulee Resources returned to the site in mid-August and completed a cut 100 by 500 feet (30 x 150 m). They sluiced until the end of October. In 2004, Coulee Resources Ltd. had a crew of four miners and one camp person. They completed two cuts, one 1000 by 100 feet (300 x 30 m) and one 350 by 50 feet (100 x 15 m). In 2005, Coulee Resources conducted restoration at this site and worked under Darrell Morgan's water license on Green Gulch. For most of 2006, Coulee Resources' operation was on Green Gulch, but in October it moved downstream of Henry Kruger's operation and began a stripping program. Sluicing was planned if the weather remained warm.

**EQUIPMENT AND WATER TREATMENT** In 2003 and 2004, equipment included a Caterpillar D8L bulldozer, a Komatsu D455A bulldozer, a Komatsu PC400 excavator and a Komatsu PC1000 excavator. Two Caterpillar loaders were used (980 and 980B) as well as two Caterpillar 740 rock trucks. The wash plant consisted of an El Russ 6- by 16-foot inclined double screen deck with four 4- by 16-foot oscillating sluice runs, lined with Nomad matting and No. 8 expanded metal. The gradient was 1.5 inches per foot. Water for the plant was supplied by a Caterpillar 3406 diesel engine-powered Morris 10- by 12-inch pump capable of approximately 2300 igpm. Approximately 140 loose cubic yards per hour were processed. Water was pumped from the creek in 2003 but



**SURFICIAL GEOLOGY AND STRATIGRAPHY** Sulphur Creek valley is approximately 500 feet (150 m) wide in this area. Previous mining cuts consisted of 40 feet (10 m) of frozen mud, on 5 feet (2 m) of gravel on flat bedrock. All of the gravel and 2 to 5 feet (1 to 2 m) of bedrock were sluiced. The area of the settling pond was composed of old dredge tailings with medium to large boulder gravel. The section between 2003 and 2006 consisted of 30 feet (9 m) of black muck overlying 5 to 8 feet (2 to 3 m) of sandy pebbly gravel. All of the gravel plus 2 feet (0.6 m) of bedrock were sluiced.

**BEDROCK GEOLOGY** Bedrock at this site is decomposed schist.

**GOLD CHARACTERISTICS** In 2005 and 2006, the gold was reported as fine grained with some granular pieces, and dull yellow in colour with a fineness of 800.

### GREEN GULCH, a tributary of Sulphur Creek

1150/15

2005: 63°49'42"N, 138°54'24"W

**Darrell Morgan, Coulee Resources Ltd., Joel White**

Water licenses: PM98-027; LP00211 (2008)

Active producer (2003-2006)

**Operation no. 78**

**LOCATION** The property was located approximately 2600 feet (800 m) upstream from the confluence of Sulphur Creek and Green Gulch, which is a left-limit tributary of Sulphur Creek near its headwaters.

**WORK HISTORY AND MINING CUTS** Darrell Morgan began working at this location in 1979. Morgan's crew consisted of one to two miners working a five-hour shift between 2003 and 2005. Limited testing occurred in 2003. In 2004, some stripping occurred above Morgan's camp in a small area about 30 by 50 feet (10 x 15 m), and in 2005 a cut 100 by 100 by 30 feet (30 x 30 x 10 m) was stripped and mined. Sluicing this material took 50 hours. In 2005, some of this property was optioned to Coulee Resources Ltd., who mined a cut 700 by



*Coulee Resources Ltd's pit on Darrell Morgan's Green Gulch property; view to the southwest, 2006.*

50 feet (200 x 15 m). Crew consisted of four miners and one camp person working a 12-hour shift. Coulee Resources Ltd. also mined a cut on the left limit in 2006.

**EQUIPMENT AND WATER TREATMENT** Between 2003 and 2005, Morgan's equipment included a Caterpillar D8K bulldozer, a Caterpillar D4 bulldozer and a Bantam Koehring ½-cubic-yard excavator. Mr. Morgan's wash plant was a double-run sluice box with 2½-inch riffles, expanded metal and Coco matting. An 8- by 20-foot dump box was lined with 1-inch punch plate. Water was supplied by a 10- by 10-inch Gorman Rupp GM-powered pump rated at 3000 igpm. Approximately 60 loose yards per hour were processed. Water was acquired from Green Gulch and 90% recycled using two in-stream ponds, one 200 by 150 feet (60 x 45 m) and a second pond 250 by 150 feet (75 x 45 m). Clean-ups were conducted with a long tom and gold wheel.

In 2005, part of the property was optioned by Coulee Resources Ltd. Their equipment included a D8L Caterpillar bulldozer as well as a Komatsu D455A bulldozer. Excavators included a Komatsu PC400 and a Komatsu PC1000 with 48-inch 'superwide' pads and a 6-yard bucket. A Caterpillar 980 loader and 980B loader were also used, as well as two Caterpillar 740 rock trucks. Coulee Resources' wash plant consisted of an El Russ 6- by 16-foot inclined double screen deck with four 4- by 16-foot oscillating sluice runs, lined with Nomad matting and No. 8 expanded metal. The gradient was 1½ inches per foot. The plant was run by a Morris 10- by 12-inch pump, powered by a Caterpillar 3406 diesel engine, capable of approximately 2300 igpm. Approximately 140 loose cubic yards per hour were processed. Water was 100% recycled from an out-of-stream pond 1200 by 150 by 4 feet (350 x 45 x 1 m) deep. Clean-ups were conducted with a single cell jig, long tom and gold wheel.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The Green Gulch valley is narrow, with steep slopes. Between 2003 and 2005, Darrell Morgan encountered 8 to 10 feet (2.5 to 3 m) of black muck overlying 20 feet (6 m) of mixed gravel and muck which was overlying 6 feet (2 m) of

gravel. All of the gravel was sluiced. In 2005 and 2006, the stratigraphic section mined by Coulee Resources Ltd. was 35 feet (10 m) of black muck overlying 5 feet (1.5 m) of frozen gravel. All the gravel plus 2½ feet (0.8 m) of bedrock were sluiced.

**BEDROCK GEOLOGY** The bedrock at this site is Klondike Schist.

**GOLD CHARACTERISTICS** Gold recovered by Morgan in 2005 was reported to be 80% fine and 20% coarse. The occasional nugget was found and the gold was bright yellow and brassy.

**DOMINION CREEK, a tributary of Indian River**

1150/10 2004: 63°39'59"N, 138°38'32"W  
**Gimlex Enterprises Ltd., Jim Christie, Tara Christie, Dagmar Christie, Sheamus Christie**  
 Water license: PM01-246 (2006)  
 Active producer (2003-2004) **Operation no. 79**

**LOCATION** This operation was located on Dominion Creek between Gold Run and Sulphur creeks.

**WORK HISTORY AND MINING CUTS** The Christie family mined on Dominion Creek from 1994 to 2004. In 2003, a large new pit was opened up adjacent to the Dominion Creek road. Black muck was stripped hydraulically and pushed aside with



*Gimlex Enterprises Ltd.'s operation on Dominion Creek in 2004.*

bulldozers to use for future reclamation. The gravel in the pit was processed in 2003 and 2004. Later in the 2004 mining season, the mine continued to operate at this location, but Gimlex Enterprises began moving to their new minesite on Indian River. By 2005 this location was completely reclaimed and the Indian River location was active.

**EQUIPMENT AND WATER TREATMENT** Equipment included four Komatsu bulldozers (one D475, two D355s and one D155). There were also two Komatsu WA 600 loaders, one Komatsu PCL400 excavator and one Caterpillar 235 excavator. The loaders were used to feed the wash plant and remove tailings while the other equipment was used for stripping overburden and mining. Pay was processed using an El Russ feeder with two conveyors and a 4- by 16-foot screen deck on a custom-built wash plant. The 4000 to 5000 igpm of water required was supplied using a 10 by 12-inch Morris pump, powered by a Caterpillar 3406 engine. The processing rate was from 175 to 250 loose yards per hour. Concentrates from the wash plant were cleaned daily, first being screened to minus 12 mesh on a home-made mini-screen plant over a long tom. Plus 12 mesh concentrate was collected and run through a jig, while the minus 12 mesh fraction was cleaned on three 3-foot-diameter gold wheels. Process water was obtained from a drainage ditch from the upstream operation of Ross Mining Ltd., which was extended to bring water to within 500 feet (150 m) of where it was required. Effluent was recycled from a 600- by 200-foot pond (200 x 60 m).

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The section consisted of frozen gravel from 3 to 12 feet (1 to 4 m) thick, overlain by 40 to 60 feet (10 to 20 m) of frozen black silt, ice and sandy muck. The sluice section included the gravel and 1 to 2 feet (0.3 to 0.6 m) of decomposed bedrock.

**BEDROCK GEOLOGY** Bedrock was variably decomposed grey and green schist.

**GOLD CHARACTERISTICS** Most of the gold was finer than 12 mesh. The fineness was 850.

### **GOLD RUN CREEK, a tributary of Dominion Creek**

1150/10	2005: 63°42'28"N, 138°38'01"W
	2004: 63°42'03"N, 138°36'37"W
	2003: 63°42'34"N, 138°38'13"W

**Mary Ange Resources Ltd., Gerald Klein, Richard Klein, Michael Klein, Grant Klein**

Water licenses: PM98-020, LP00002 (2008)

Active producer (2003-2005)

**Operation no. 80**

**LOCATION** Mary-Ange Resources Ltd. was located on Gold Run Creek, 37.3 miles (60 km) from the Klondike turn-off at Hunker Creek through the Dominion Creek road. Various locations have been mined in the valley.

**WORK HISTORY AND MINING CUTS** Areas of this property have been hand-mined, dredged (1914-1923) and bulldozer-mined previously, with prior activity by Teck Mining Group Ltd. and the most recent activity by MAR (Mary-Ange Resources Ltd.), which began operations in 2001 and mined until 2005. In 2003, the crew of five worked two 10- to 12-hour shifts per day stripping and sluicing. An estimated volume of 479,629 cubic yards (366 702 m<sup>3</sup>) of material was stripped mechanically and 205,556 cubic yards (157 158 m<sup>3</sup>) were hydraulically stripped. One cut was mined in a 120- by 1700-foot (35 x 520 m) previously dredged area, with 41,100 cubic yards (31 400 m<sup>3</sup>) of pay gravel sluiced in 358 hours. In 2004, two cuts were stripped and mined, 1500 by 250 by 70 feet (450 x 75 x 20 m), and 100 by 200 by 70 feet (30 x 60 x 20 m). A volume of 290,629 cubic yards (222 201 m<sup>3</sup>) of waste were mechanically stripped and 205,110 cubic yards (156 800 m<sup>3</sup>) were hydraulically stripped. A total of 42,124 cubic yards (32 200 m<sup>3</sup>) were sluiced in 363.5 hours. In 2005, three cuts were mined, 420 by 160 by 22 feet (128 x 50 x 6.7 m), 320 by 270 by 22 feet (98 x 82 x 6.7 m), and 500 by 150 by 40 feet (150 x 45 x 10 m). A volume of 180,778 cubic yards (138 215 m<sup>3</sup>) of waste was mechanically stripped. A total of 55,488 cubic yards (42 424 m<sup>3</sup>) were sluiced over 407.5 hours. At the end of 2005, the operation was sold to Dave Marsters of Grew Creek Ventures.

**EQUIPMENT AND WATER TREATMENT** Equipment from 2003 to 2005 included a Caterpillar D9N bulldozer with a multishank ripper, a Caterpillar D10N with a single-shank ripper and U-blade, a Caterpillar 330BL excavator with a 54-inch clean-up bucket and a Caterpillar 966D loader with a 4-cubic-yard bucket. A Terex TA35 Haul Truck which was used in 2003 and 2004 was replaced by two rental scrapers (a Terex S-24 and a Euclid TS-18) in 2005. A Cornell 6- by 8-inch pump powered by a Caterpillar 3306 engine was used for hydraulic stripping with a monitor at 3500 igpm. The wash plant was a hopper and conveyer-fed Hewitt Robbins screen deck with 1-inch punch plate and outdoor matting. It was powered by

a Caterpillar D60P1 Olympian generator rated at 54 KW. Water for the plant at a rate of 3500 igpm was supplied by an 8- by 10-inch Cornell pump powered by a Caterpillar 3406 engine. The processing rate was 143 loose cubic yards per hour in 2003, 116 loose cubic yards per hour in 2004 and 136 loose cubic yards per hour in 2005. Water was obtained from Gold Run Creek and 100% recycled from a 1000- by 300-foot pond (300 x 90 m). Clean-ups were done with a jig and gold wheel.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** Gold Run Creek was one of the first creeks in the Klondike to be dredged, by YCGC (Yukon Consolidated Gold Company) dredge Number 6 from 1914 to 1923. At the time YCGC did very little stripping, and as a consequence, 30- to 45-foot- (9- to 10-m) high faces were normal working conditions during dredging. As the dredge dug the face, large slough-ins would occur, pushing paydirt under the bucket chain, and this paydirt was lost to the dredge. In addition, the frozen ground during that time was not thawed correctly; any frozen gravel could not be dug out and was also lost to the dredge (up to 15% of the gravel was lost). This gravel was the main pay material for Mary Ange Resources Ltd. Hydraulic water cannons were used to reduce black mud and gravel, the concentrated gravel was then sluiced to recover any gold left by the dredge.

In 2003, the section consisted of 40 to 50 feet (10 to 15 m) of thawed waste material, bedrock fragments and oldtimers' workings overlying 10 feet (3 m) of pay material. The waste material consisted of Teck's tailings, as well as both coarse

and fine tailings from the dredge. The pay material, as in past years, consisted of a mixture of black mud (80 to 90%) and gravel (10 to 20%) which was a result of remnants left by the dredge, or spillage from the dredge buckets. In 2004, the section consisted of 25 to 30 feet (7 to 9 m) of waste overlying 10 to 25 feet (3 to 7 m) of gold-bearing black mud. Five feet (2 m) of pay material and 3 feet (1 m) of bedrock were sluiced. In 2005, the section consisted of 22 to 40 feet (6 to 12 m) of waste overlying 10 feet (3 m) of gold-bearing black mud. A total of 5 feet of pay material and 3 feet (1 m) of bedrock were sluiced.

**GOLD CHARACTERISTICS** From 2003 to 2005, the gold was 75% fine-grained and 25% small to medium-sized nuggets which were bright and chunky and occasionally crystalline. The fineness was 840 to 850.

**GOLD RUN CREEK, a tributary of Dominion Creek**

1150/10, 1150/15 2004: 63°43'55"N, 138°41'18"W

**D & P Mining Exploration Ltd., Dan Cuevas, Peggy Cuevas**

Water license: PM99-065 (2009)

Active producer (2003-2004)

**Operation no. 81**

**LOCATION** The property was located in the valley bottom approximately 5 miles (10 km) upstream from its confluence with Dominion Creek.

**WORK HISTORY AND MINING CUTS** The owners were active here from 1993 to 2004, when the operation was sold to Alberta Gold Diggers Ltd. In 2003, two cuts were mined, 270 by 60 by



Mary Ange Resources Ltd. monitoring on Gold Run Creek, 2004.

5 feet (80 x 20 x 2 m) and 105 by 120 by 8 feet (30 x 35 x 2.5 m). In 2004, one cut was mined with dimensions 400 by 120 by 10 feet (120 x 35 x 3 m).

**EQUIPMENT AND WATER TREATMENT** Equipment in 2003 and 2004 included a Caterpillar D9G bulldozer equipped with a U-blade and ripper to rip and push frozen mud overburden and stockpile pay gravel, a Caterpillar 235C excavator with a 3.5-cubic-yard bucket for digging drains, cleaning up bedrock and feeding the sluice plant, and a Caterpillar 966C loader with a 4-cubic-yard bucket to remove and stockpile tailings. The wash plant was a 4-yard hopper with a belt feeder, which fed to a 4- by 10-foot double screen deck. The screen deck classified material from ¾ inch to ¾ inch and ¾ inch minus. The larger material was processed in a 3- by 20-foot sluice run with expanded metal and a Nomad carpet set at a slope of 2½ inches per foot. The majority of the gold recovered in the run classified to ¾-inch minus was processed through two in-line 4- by 4-foot jig cells. Out-of-stream reservoir and settling ponds were used. The flow of Gold Run Creek bypassed the settling system.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The stratigraphic section consisted of 35 to 40 feet (10 to 12 m) of mud above 2 to 5 feet (0.6 to 1.5 m) of gravel. The composition was uniform and frozen with particle sizes ranging from small sand and gravel to rocks with a diameter from 1 to 2 feet (0.3 to 0.6 m). The rocks were mostly quartz. The sluice section consisted of an average of 3 feet (1 m) of gravel along with 3 feet (1 m) of decomposed bedrock.

**BEDROCK GEOLOGY** The bedrock is wavy blue and green, fractured and decomposed sericite and chlorite schist.

**GOLD CHARACTERISTICS** Gold at this site was mostly round, smooth, and chunky with some flat, angular and rough pieces and some wires. About 20% percent was plus 10 mesh, 70% was minus 10 to plus 60 mesh and 10% was minus 60 mesh. Some quartz-rich ¼ ounce (8 g) and smaller nuggets were obtained. The fineness was 840.

#### **GOLD RUN CREEK, a tributary of Dominion Creek**

1150/10

2005: 63°44'04"N, 138°41'22"W

**Alberta Gold Diggers Ltd., Wayne Paddock**

Water license: PM99-065 (2009)

Active producer (2005-2006)

**Operation no. 82**

**LOCATION** This operation was located on Gold Run Creek approximately 5 miles (8 km) from the confluence with Dominion Creek. It was bought from D&P Mining Exploration Ltd.

**WORK HISTORY AND MINING CUTS** Two cuts were mined in 2005, 400 by 120 by 20 feet (120 x 35 x 6 m), and 690 by 225 by 10 feet (210 x 70 x 3 m). Operations continued at a location farther upstream in 2006.

**EQUIPMENT AND WATER TREATMENT** Equipment included a Caterpillar D9G bulldozer, a Caterpillar D8H bulldozer, a Caterpillar 966C loader and a Caterpillar 235 excavator. The wash plant was a 4-yard hopper with a belt feeder, which fed to a 4 by 10-foot double screen deck. The screen deck



*Alberta Gold Diggers Ltd.'s operation on Gold Run Creek, 2006.*

classified material from ¾ inch to ¾ inch and ¾ inch minus. The larger material was processed in a 3- by 20-foot sluice run with expanded metal and a Nomad carpet set at a slope of 2½ inches per foot. The majority of the gold recovered in the run classified to ¾ inch minus was processed through two in-line 4- by 4-foot jig cells.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** In 2005, the stratigraphic section consisted of 35 to 40 feet (11 to 12 m) of mud above 2 to 5 feet (0.6 to 1.5 m) of gravel. The composition was uniform and frozen with particle sizes ranging from small sand and gravel to rocks with a diameter from 1 to 2 feet (0.3 to 0.6 m). The sluice section consisted of an average of 3 feet (0.9 m) of gravel along with 3 feet (0.9 m) of decomposed bedrock.

**BEDROCK GEOLOGY** The bedrock is wavy blue and green, fractured and decomposed sericite and chlorite schist.

**GOLD CHARACTERISTICS** Gold at this site was chunky, bright and medium grained.

**DOMINION CREEK, a tributary of Indian River**

1150/10

2005: 63°41'46"N, 138°33'39"W

Ross Mining Services Ltd., Norm Ross, Jon Rudolph

Water license: PM97-047 (2013)

Active producer (2003-2006)

Operation no. 83

**LOCATION** Between 2003 and 2006, the operation was located just upstream of the mouth of Gold Run Creek.

**WORK HISTORY AND MINING CUTS** The property on Dominion Creek was first mined by Ross Mining Services Ltd. in 1980 and has been mined continuously since then. During the 2003, 2004 and 2005 seasons, a crew of eight to twelve miners worked along with three to six camp personnel. Shifts varied from once to twice a day and were 10.5 hours. The operation was subsequently bought by Jon Rudolph, but continued to be operated under Ross Mining Services Ltd. for the 2006 mining season. That year, the crew was increased to 20 miners and several camp personnel sharing two 10-hour shifts per day. Mining cuts averaged 1 million bedrock square feet (93 000 m<sup>2</sup>) each year, with the 2003 mining



*Aerial view of Ross Mining Ltd.'s pit on Dominion Creek, 2004.*



Loading pay at Ross Mining's operation, Dominion Creek, 2005.

cut totalling 1,080,000 square feet (100 300 m<sup>2</sup>); the 2004 mining cut totalling 980,000 square feet (91 000 m<sup>2</sup>); the 2005 mining cut totalling 1,110,000 square feet (103 000 m<sup>2</sup>) and the 2006 mining cut totalling 1,200,000 square feet (110 000 m<sup>2</sup>).

**EQUIPMENT AND WATER TREATMENT** Between 2003 and 2006, equipment included four Caterpillar bulldozers (D10L, D10N, D9L, D8L) with blade capacities from 25 to 42 cubic yards, three excavators (Hitachi EX-1100, Caterpillar 245, Komatsu PC400) with capacities from 9 cubic yards to 4 cubic yards, five Terex rock trucks (three Model 3309, 60-ton; two Model TA40, 40-ton), three loaders (Caterpillar 980, 988, 992) with capacities from 5 cubic yards to 12.5 cubic yards, and a Caterpillar 16G grader. In addition, in 2006 a Caterpillar D11R bulldozer, Hitachi ZX850 excavator, two Caterpillar 777B rock trucks, two Komatsu 330 rock trucks and three Caterpillar 631D scrapers were added.

The wash plant consisted of a grizzly hopper feeder with a conveyor to the plant, which had a 6- by 20-foot double screen deck and six oscillating sluice runs lined with angle iron riffles, expanded metal and Nomad matting. Water was supplied from run-off and Rob Roy Creek by a Berkley 12- by 14-inch Cummins-powered pump processing 3000 to 4000 igpm. Approximately 250 to 350 loose cubic yards per hour were processed by the wash plant. Effluent was 100% recycled and settled out-of-stream. Two ponds were used in 2003, one 400 by 300 feet (120 x 90 m) and one 300 by 740 feet (90 x 225 m). In 2004, three ponds were used: 500 by 400 feet (150 x 120 m), 200 by 400 feet (60 x 120 m) and 300 by 740 feet (90 x 225 m). In 2005, the ponds were 250 by 500 feet (75 x 150 m), 100 by 400 feet (30 x 120 m) and 300 by 740 feet (90 x 225 m). In 2006, the ponds were 500 by 700 feet (150 x 210 m), 400 by 500 feet (120 x 150 m) and

200 by 300 feet (60 x 90 m). Clean-ups were done with a small trommel and tables.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The bleached, quartz-rich Ross gravel commonly forms the main pay gravel for the middle reaches of Dominion Creek. It is paleomagnetically reversed and thus is greater than 780 000 years old. It forms the lowest unit stratigraphically in the main valley and is overlain by the younger, commonly iron-stained Dominion gravel. The contact between the two units has a paleosol with organic materials that is well-preserved in some areas. From 2003 to 2006, the stratigraphic section consisted of 10 to 20 feet (3 to 6 m) of black muck overlying 8 to 10 feet (2 to 3 m) of Dominion gravel and sand, overlying 8 to 12 feet (2 to 4 m) of Ross gravel. From 5 to 8 feet (1.5 to 2 m) of gravel were sluiced along with 2 to 6 feet (0.6 to 2 m) of bedrock.

**BEDROCK GEOLOGY** Bedrock consists of Klondike Schist.

**GOLD CHARACTERISTICS** The gold was reported to be 50% less than 50 mesh in size, with a fineness from 825 to 853.

#### DOMINION CREEK, a tributary of Indian River

1150/10

2005: 63°44'33"N, 138°31'05"W

2003: 63°44'17"N, 138°31'11"W

**A-1 Cats, 365334 Alberta Ltd., Ross Edenoste**

Water license: PM02-283 (2012, Licensee: 365334 Alberta Ltd.)

Active producer (2003-2006)

**Operation no. 84**

**LOCATION** In 2003, the operation was located at the west and east side of Dominion Creek valley bottom at locations 100 to 600 yards (90 to 550 m) downstream from the confluence of left-limit tributary Arkansas Creek. In 2004 and 2005, the pits were located in Dominion Creek valley across from the confluence of Cache Creek. In 2006, operations moved downstream from camp in the centre of the valley and along the left-limit portion of the Dominion Creek road.

**WORK HISTORY AND MINING CUTS** A-1 Cats began mining at the former location of the operation of Miles and Vicki Johnson in 2002. From 2003 to 2006, personnel included up to eight miners and four camp employees working one 12-hour shift per day. Two Caterpillar D11N bulldozers ran for two 12-hour shifts during stripping periods (in 2005 this was occasionally one shift). During sluicing, the wash plant was run for 12 hours in the day in addition to a 5-hour night shift (6 hours in 2005). Two mining cuts were completed in 2003. The cut on the west side of Dominion Creek road was 37,650 square yards (31 500 m<sup>2</sup>) which contained 284,000 bank cubic yards (220 000 m<sup>3</sup>) of overburden and 84,200 loose cubic yards (64 400 m<sup>3</sup>) of pay material. The cut on the east side of Dominion Creek

road was 52,700 square yards (44 000 m<sup>2</sup>) and contained 532,800 bank cubic yards (407 355 m<sup>3</sup>) of overburden and 138,000 loose cubic yards (105 500 m<sup>3</sup>) of sluiced material. In 2004, the cut on the west side of Dominion Creek road was 24,300 square yards (20 300 m<sup>2</sup>) and contained 174,000 bank cubic yards (133 000 m<sup>3</sup>) of overburden and 59,600 loose cubic yards (45 500 m<sup>3</sup>) of pay material. The cut on the east side of Dominion Creek road was 40,000 square yards (33 400 m<sup>2</sup>) and contained 393,000 bank cubic yards (300 500 m<sup>3</sup>) of overburden and 126,000 loose cubic yards (96 300 m<sup>3</sup>) of pay material. In 2005, the cut on the west side of Dominion Creek road was 24,000 square yards (20 000 m<sup>2</sup>) which contained 168,000 bank cubic yards (128 000 m<sup>3</sup>) of overburden and 56,750 loose cubic yards (43 300 m<sup>3</sup>) of pay material. The cut on the east side of Dominion Creek road was 45,600 square yards (38 100 m<sup>2</sup>) and contained 364,800 bank cubic yards (279 000 m<sup>3</sup>) of overburden and 120,000 loose cubic yards (92 000 m<sup>3</sup>) of pay material.

One cut, located between the east and west cuts mined between 2002 and 2004, was prepared for mining in the 2006 season. A thickness of up to 18 feet (5.5 m) and 408,000 bank cubic yards (312 000 m<sup>3</sup>) of waste mud was stripped in the 68,000 square yard (57 000m<sup>2</sup>) cut measuring

800 by 85 yards wide (700 x 80 m). A 1000-yard (900-m) section of Dominion Creek road was moved 100 yards (90 m) to the east to accommodate the cut. All cuts mined between 2002 and 2005, and the cut prepared for 2006, are contiguous. A total of 56 auger drill holes were drilled in May 2005 to investigate gold resources along a 650-yard (600-m) length of Dominion Creek valley floor at a location downstream from current workings.

**EQUIPMENT AND WATER TREATMENT** In 2003, 2004 and 2005, equipment included two Caterpillar D11N bulldozers, one equipped with a 20-foot (6-m) U-blade and one with a 22-foot (7-m) U-blade and single-shank rippers which were used to strip overburden. A Caterpillar D9H bulldozer equipped with a U-blade and a ripper was used for fine and coarse tailings removal, road construction and maintenance, pay gravel stockpiling, and also assisted in the removal of overburden. A Caterpillar D8K equipped with a U-blade and winch was added for coarse tailings removal in 2005. Pay gravel was loaded into two Caterpillar 300B rock trucks by a Caterpillar 235C excavator and a second 235C excavator was used to load the wash plant. A third 235C excavator and a third 300B rock truck were available on-site as standby units and were also used for the disposal of thawed waste gravel. The excavators were utilized during the later stages of



A-1 Cats/365334 Alberta Ltd.'s operation on Dominion Creek, 2006.

overburden stripping to construct pre-ripped perimeter and cross-drainage ditches to enhance waste-gravel and pay-gravel thaw. A Caterpillar LPG D6H bulldozer equipped with a winch and a straight blade was used for grooming purposes over soft ground conditions during ongoing reclamation of disturbed areas. A Caterpillar 966C wheeled loader was used on-site for a variety of work.

Pay gravel was fed into a 15-cubic-yard hopper feeder consisting of a variable speed belt measuring 3½ feet wide by 16 feet long. A second conveyor belt, measuring 4 by 50 feet, elevated the material to a 5- by 16-foot Clemro horizontal double screen wash deck. A rotating rock kicker was utilized on this conveyor to discard boulders exceeding 12 inches in diameter. The upper deck screened the material to 1½-inch minus and the lower deck screened to ⅝-inch minus, both using rubber screens. A side-mounted bottom-slotted boil box distributed the screened slurry into a primary sluice run. The primary sluice (2003 and 2004, sloped at 2 inches per foot; 2005, sloped at 1.88 inches per foot), was made up of two 4-foot-wide by 10-foot-long boxes containing 1-inch angle iron riffles. The second run (2003 and 2004, sloped at 1.75 inches per foot; 2005, sloped at 1.62 inches per foot), consisted of four 4- by 20-foot oscillating (160 RPM) sluices containing expanded metal. A 3- by 40-foot conveyor was used to stack coarse tailings and fine tailings were dispersed into an old mine cut. All sluice runs were lined with non-backing heavy traffic Nomad carpet. Gold was separated from the concentrate with the use of a long tom and a 4½- by 9-foot Wilfley table. Approximately 200 loose cubic yards per hour were processed in the plant, which was supplied with 3000 igpm of water by a 10 by 8-inch Berkley pump powered by a 250 horsepower Isuzu engine. Water was obtained from existing reservoirs in previous mine cuts with surface areas between 30,000 and 40,000 square yards (25 000 to 33 400 m<sup>2</sup>). The operation recycled 100% of the process water.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** In 2003 and 2004, the stratigraphic section on the east side of the valley consisted of black muck (sometimes layered with greyish tan silt) from 13 to 21 feet thick (4 to 6.5 m) (13 to 18 feet [4 to 5.5 m] in 2005), overlying reddish-brown sand and gravel ranging from 4 to 12 feet thick (1 to 4 m) (8 to 12 feet [2 to 4 m] in 2005). On the west side of the valley, the section consisted of 10 to 25 feet (3 to 8 m) of mud and silt overlying 7 to 13 feet (2 to 4 m) of sand and gravel. All sediments were frozen except beneath an 80-yard (70-m) natural pool of water. Bedrock ranged in depth from 29 to 37 feet (8.8 to 11 m) deep on the east side of the valley to 25 to 26 feet (7.6-7.9 m) deep on the west side of the valley. Economic concentrations of gold were mostly confined to the lowermost 3 feet (1 m) of cobble/boulder gravel units and 1 foot (0.3 m) of bedrock.

Between 3 and 5 feet (1 and 1.5 m) of gravel and 1 to 3 feet (0.3 to 1 m) of bedrock were sluiced, and overburden of mud, silt and upper sand and gravel deposits varied from 27½ to 30 feet (8.3 to 9.1 m) in the east cut. Average overburden thickness was 21½ feet (6.5 m) in the west mine cut.

**BEDROCK GEOLOGY** Bedrock is generally flat-lying with some wide dished areas up to 2 feet (0.6 m) deep. It consisted of a dark-grey and greenish-grey, garnet-rich, micaceous schist which was highly decomposed in an area proximal to Arkansas Creek. Some thin layers of white siltstone were exposed in the east pit.

**GOLD CHARACTERISTICS** The gold was fine grained, flat, dull-coloured and smooth, with a fineness of 830. In 2003 and 2004, the size distributions for the east pits were 38% minus 30 mesh, 48% minus 20 mesh, 11% minus 10 mesh and 3% plus 10 mesh. In the west pits, the gold was 52% minus 30 mesh, 46% minus 20 mesh, 1.7% minus 10 mesh and 0.3% plus 10 mesh.

#### KENTUCKY CREEK, a tributary of Dominion Creek

1150/15

2006: 63°45'32"N, 138°30'46"W

##### Peter Bodin

Water license: PM99-071 (2009)

Active producer (2000-2006)

**Operation no. 85**

**LOCATION** Kentucky Creek is a left-limit tributary of Dominion Creek. The operator worked an area upstream of the Dominion Creek road.

**WORK HISTORY AND MINING CUTS** Mr. Bodin began working here in 2001. In 2003, Mr. Bodin stripped 300 by 285 by 6 feet (90 x 87 x 2 m) to allow thawing. In 2004, three cuts were stripped; one 50 by 40 by 2 feet (15 x 10 x 1 m), one 70 by 10 by 5 feet (20 x 3 x 2 m), and another 30 by 20 by 3 feet (9 x 6 x 1 m). Some sluicing was completed, but was interrupted by the forest fires in July.

In 2005, 1175 cubic yards (900 m<sup>3</sup>) were sluiced and a cut 40 by 30 by 4 feet was stripped (12 x 10 x 1 m). In 2006, Mr. Bodin worked a daily 8-hour shift alone. A cut 270 feet (80 m) long and 180 feet (55 m) wide was stripped.

**EQUIPMENT AND WATER TREATMENT** Equipment consisted of two Caterpillar bulldozers (D8H and D6), a Caterpillar 977H front-end loader and a Caterpillar 215 excavator, which fed the wash plant. A Caterpillar 966 loader was added in 2006. A 50-foot conveyor belt from the dump box fed the 36-inch drum trommel. Sluice runs measuring 3 by 16 feet were lined with expanded metal and Nomad matting. Water was supplied using a Dietz engine-powered 4-inch Monarch pump at 1400 igpm, enough to wash 25 cubic yards per hour. Water was obtained from Kentucky Creek and almost 100%



*Stripping at Peter Bodin's operation on Kentucky Creek, 2005.*

was recycled due to low flow. The pond doubled as a reservoir and settling facility and measured about 120 by 100 feet (35 x 30 m) in size.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** The section consists of up to 40 feet (10 m) of frozen black muck overlying 3 to 6 feet (1 to 2 m) of gravel on bedrock.

**BEDROCK GEOLOGY** Bedrock is muscovite and chlorite schist.

**GOLD CHARACTERISTICS** Gold recovered was fine, flaky and bright coloured, with a fineness of 800 to 825.

**DOMINION CREEK, a tributary of Indian River**

1150/10, 1150/15

2005: 63°46'01"N, 138°31'36"W

**Adrian Hollis**

Water license: PM05-471 (2008)

Active producer (2003-2006)

**Operation no. 86**

**LOCATION** From 2003 to 2006, this operation was on the left limit of Dominion Creek downstream of the confluence with Jensen Creek.

**WORK HISTORY AND MINING CUTS** In 2003 and 2004, the crew of two miners worked a daily 12-hour shift. For 2005 and 2006, the crew was increased to four miners working 12 hours daily. Mr. Hollis continued to mine and strip ground on Dominion Creek in the area near the mouth of Jensen Creek for the 2003 to 2006 seasons. In 2003, the area stripped and mined was 150 feet (45 m) wide. In 2006, the area mined was 750 by 360 feet (230 x 110 m).

**EQUIPMENT AND WATER TREATMENT** Equipment from 2003 to 2006 included a Komatsu PC 400-3 excavator for feeding the wash plant and a rented Caterpillar D9L bulldozer for stripping. In 2004, a Komatsu PC300-5 excavator and Komatsu PC400-5 excavator were added. In 2005, a 120-by 4-foot mobile conveyor mounted on a Hitachi EX450-LCH was added. Muck was stripped by the bulldozer and two of the excavators which fed the mobile conveyor. An extension 'slinger' on the conveyor allowed an additional throw of 45 feet. The wash plant consisted of an 8- by 8-foot dump box over a 5- by 11-foot oscillating screen deck with  $\frac{7}{16}$ -inch screen, leading to three, 8- by 3-foot sluice runs with hydraulic riffles. Two rubberized screens with  $\frac{1}{2}$ -inch openings were added in 2005. Water was supplied to the plant by a Caterpillar 3208-powered 10- by 5-inch Cornell pump rated at 1000 igpm, enough to process 90 to 100 loose cubic yards per hour. Water was acquired from Dominion Creek and effluent was settled out-of-stream into six ponds, 50% to 75% recycled and eventually discharged to Kentucky Creek after a retention period of two days. Clean-ups were done every 100 hours using a long tom and gold wheel.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** In 2003, the section consisted of 20 to 25 feet (6 to 8 m) of black muck overlying bedrock.



*Adrian Hollis' track-mounted tailings stacker, Dominion Creek, 2005. This conveyor can move 500 yd<sup>3</sup> per hour.*

From 2 to 6 feet (1 to 2 m) of bedrock were sluiced. In 2004, the section consisted of interbedded thawed muck



*Aerial view of Adrian Hollis operation, Dominion Creek, 2006.*

and gravel from 20 to 30 feet (6 to 9 m) thick, on bedrock. From 2 to 6 feet (1 to 2 m) of bedrock were sluiced. In 2005, the section consisted of 30 feet (10 m) of thawed muck and gravel overlying bedrock. From 2 to 6 feet (1 to 2 m) of bedrock were sluiced. The section in 2006 was frozen in places and thawed in places. From 32 to 34 feet (9 to 10 m) of black muck and gravel were stripped off. The sluiced section consisted of 4 to 5 feet (1 to 1.5 m) of fractured and decomposed bedrock.

**GOLD CHARACTERISTICS** The gold was described as fine grained, flat and bright yellow, with a fineness from 825 to 860.

**DOMINION CREEK, a tributary of Indian River**

1150/15

2005: 63°46'33"N, 138°34'49"W

**Jim Conklin, Shirley Conklin**

Water license: PM05-460 (2015)

Active producer (2003-2006)

**Operation no. 87**

**LOCATION** This operation was located on a moderately wide section of Dominion Creek on the right limit of the valley at the mouth of Hunter Creek.

**WORK HISTORY AND MINING CUTS** Jim and Shirley Conklin began mining here in 1998. In 2003, the crew of two miners worked a daily 8-hour shift. In 2004 and 2005, the crew increased to three personnel working 8 hours a day. In 2006, two miners and three camp personnel worked 10 hours per day. From 2003 to 2006, a mining cut was expanded during each season. In 2006, the cut was 400 by 400 by 20 feet (120 x 120 x 6 m) deep.

**EQUIPMENT AND WATER TREATMENT** From 2003 to 2006, equipment consisted of a Caterpillar D9H bulldozer for stripping, a Michigan 175B loader for feeding the wash plant, and a Bucyrus Erie 350 excavator for digging pay and stripping. An International 350 rock truck with a 45-cubic-yard capacity was added for hauling pay in 2004. The wash plant was a 4- by 8-foot screen deck with ¾-inch punch plate and four 8- by 4-foot oscillating sluice runs lined with expanded metal and Nomad matting. Water for the plant was supplied at 800 igpm by a Gorman Rupp 6-inch pump powered by a 4-cylinder Perkins engine, and from 80 to 100 loose cubic yards per hour were processed. Water was supplied by an intake on Hunter Creek and effluent was settled out-of-stream and 100% recycled from two ponds,



*Jim Conklin's operation at the mouth of Hunter Creek on Dominion, 2005.*

100 by 150 feet (30 x 45 m) and 100 by 250 feet (30 x 75 m). Clean-ups were done with a long tom and an 18-inch gold wheel.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** From 2003 to 2006, the section consisted of 5 to 8 feet (1.5 to 2 m) of frozen muck overlying 16 to 17 feet (4.8 to 5.2 m) of gravel. A total of 4 feet (1.2 m) of gravel plus 3 to 4 feet (0.9 to 1.2 m) of bedrock were sluiced.

**BEDROCK GEOLOGY** Bedrock is fractured green schist.

**GOLD CHARACTERISTICS** Between 2003 and 2006, the gold was reported as fine grained and yellow, with 80% minus 60 mesh and 20% plus 60 mesh. Much of the gold was minus 200 mesh. The fineness was 823.

### DOMINION CREEK, a tributary of Indian River

1150/15

2006: 63°47'53"N, 138°36'11"W

2005: 63°49'22"N, 138°40'38"W

**Arthur Sailer, Noreen Sailer**

Water licenses: PM04-421 (2015), PM98-040 (2009)

Active producer (2003-2006)

**Operation no. 88**

**LOCATION** Arthur Sailer mined on three properties on Dominion Creek, including Nevada Creek and Champion Pup. From 2003 to 2006, the locations varied between 15 and 25 miles (25 and 40 km) from the confluence. The pits on Dominion Creek at Champion Pup and the pits on Dominion Creek at Nevada Creek were on the left-limit bench. There was also a pit in the creek valley on Dominion Creek at Champion Creek.

**WORK HISTORY AND MINING CUTS** The Sailer family has been working on their various properties on Dominion Creek and tributaries since 1990. The crew from 2003 to 2006 consisted of six miners and one camp person working a daily 10-hour shift. In 2003, five cuts were stripped and sluiced on Dominion at the mouth of Champion Creek, with an approximate volume of 198,000 cubic yards (150 000 m<sup>3</sup>). In



*Art Sailer's operation on Dominion Creek, 2005.*

2004, six cuts were stripped and sluiced on Dominion Creek at the mouth of Champion, and Dominion at the mouth of Nevada Creek. The total volume was 255,000 cubic yards (195 000 m<sup>3</sup>). Drilling was carried out in both locations. In 2005, three cuts were stripped and sluiced on Dominion Creek at the confluences of both Champion Pup and Nevada Creek. The total volume was 230,000 cubic yards (175 000 m<sup>3</sup>). Drilling was carried out on Dominion Creek at the mouth of Lombard Pup. In 2006, four cuts were stripped and sluiced in two locations, on Dominion Creek at the mouth of Champion Pup and Dominion Creek the mouth of Nevada Creek. The total volume was 200,000 cubic yards (150 000 m<sup>3</sup>).

**EQUIPMENT AND WATER TREATMENT** Equipment consisted of four Caterpillar bulldozers (D9G with U-blade and ripper, D9H with U-blade and ripper, D8-14A with U-blade and ripper, D8-14A with S-blade and winch), four Caterpillar 980B loaders with 5-cubic-yard buckets, three Caterpillar excavators (225 with 1¼-cubic-yard bucket, 235 with 2½-cubic-yard bucket, EL300 with 1¾ and 2½-cubic-yard buckets), and an International Payhauler rock truck with a 35-cubic-yard capacity. The plants consisted of a 10- by 20-foot Derocker (Dominion/Champion), a 5- by 14-foot screen deck (Dominion/Nevada), and a 5- by 20-foot trommel (Dominion/Nevada). The screen plant had a 10- by 10-foot sluice run with expanded metal and Nomad matting. The trommel had a 4- by 18-foot sluice run with expanded metal, angle iron and hydraulic riffles. Pumps included a Byron Jackson 12- by 14-inch powered by a Caterpillar D1300, a Dayton Dowd 10- by 12-inch powered by a Caterpillar D1300, and a Marlow 8- by 10-inch powered by a 6-cylinder Deutz engine. The processing rate was 100 to 150 loose cubic yards per hour. Water was acquired from Dominion, Nevada and Champion creeks. Effluent was settled out-of-stream and acquired from in-stream reservoirs in Dominion Creek and Dominion and Champion creeks.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** Deposits on the bench and in the valley had a total depth from 30 to 50 feet (9 to 15 m). Of the total depth, 10 to 40 feet (3 to 10 m) was reported to be muck and 5 to 15 feet (1.5 to 5 m) was gravel. From 6 to 12 feet (2 to 4 m) of the gravel and up to 5 feet (1.5 m) of the bedrock were sluiced. Gravel grain sizes were varied and bedrock types ranged from soft gumbo to slabby and hard.

**GOLD CHARACTERISTICS** From 2003 to 2006, gold on Dominion Creek at the mouth of Nevada Creek was fine and flaky with some spongy and quartz-rich nuggets. The sizes were 1% 10 mesh, 50% minus 10 mesh to plus 60 mesh, and 49% minus 60 mesh. Gold on Dominion Creek at the mouth of Champion Pup was similar but slightly coarser. The fineness was 820.

## CARIBOU CREEK, a tributary of Dominion Creek

1150/15

2005: 63°50'27"N, 138°48'28"W

**Jim Stuart**

Water licenses: PM04-451 (2009), PM98-049 (2005)

Active producer (2003-2005)

**Operation no. 89**

**LOCATION** From 2003 to 2005, the operation was on Dominion Creek at the mouth of Caribou Creek.

**WORK HISTORY AND MINING CUTS** The Stuart family moved to Caribou Creek from Allgold Creek in 1977, and mined in the area between upper Caribou Creek and Dominion Creek until 2005. From 2003 to 2005, two miners worked between 10 and 11 hours per day. In 2003, one cut 800 feet (240 m) long and 100 feet (30 m) wide was mechanically stripped on the left limit of Dominion Creek across from Caribou Creek. In 2004, the previously stripped cut was mined to a depth of 20 feet (6 m). In 2005, a cut 200 by 500 feet (60 x 150 m) was mined. Most of that cut had been mined by oldtimers and hundreds of cribbing logs were encountered in the mud and gravel.

**EQUIPMENT AND WATER TREATMENT** Equipment included a Caterpillar D9G bulldozer with a U-blade for stripping and building haul roads, a Caterpillar D8H bulldozer with a U-blade for pushing tailings, a Case 125B excavator with a 1¼-cubic-yard bucket, a Caterpillar 966C loader for loading the wash plant, and a Terex 350 Payhauler 50-ton rock truck. In 2005, an additional Terex 350B Payhauler rock truck was added as well as a Hitachi EX300LC excavator. The wash plant was a trommel with a 52-inch-diameter barrel, 1-inch screen and two 5- by 8-foot sluice runs lined with expanded metal and hydraulic riffles. Water for the plant was supplied by a Monarch 6- by 8-inch pump powered by a 671 GM engine. The processing rate was 50 to 60 loose cubic yards per hour. Water was acquired from Caribou and Dominion creeks and stored in a reservoir beside the cut. Effluent was settled out-of-stream into previous mine cuts. Clean-ups were done with a single-cell jig.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** In 2004, the section consisted of an average of 15 feet (5 m) of mud overlying 3 to 5 feet (1 to 2 m) of gravel on bedrock. In some places 10 to 15 feet (3 to 5 m) of dredge tailings were overlying the top 15 feet (5 m) of mud. From 2 to 3 feet (0.6 to 0.9 m) of gravel and 1 foot (0.3 m) of bedrock were sluiced. In 2005, the section consisted of 40 to 50 feet (12 to 15 m) of black muck overlying 3 to 5 feet (1 to 2 m) of gravel. From 2 to 3 feet (0.6 to 0.9 m) of gravel and 1 foot (0.3 m) of bedrock were sluiced.

**BEDROCK GEOLOGY** Bedrock at this site is quartz-sericite schist, which is partially decomposed and partially slabby.



a crew of three miners and three camp personnel worked a daily 12-hour shift. Three cuts were mined: 200 by 100 feet (60 x 30 m), 60 by 450 feet (20 x 130 m), and 400 by 24 feet (120 x 8 m). In 2004, the crew of six miners processed two cuts: 30 by 600 feet (10 x 180 m) and 900 by 100 feet (300 x 30 m). In 2005, two cuts were mined: 120 by 300 feet (40 x 100 m), and 50 by 300 feet (15 x 100 m). The property was inactive in 2006 as Tim Coles was developing a property on Bonanza Creek.

**EQUIPMENT AND WATER TREATMENT** Between 2003 and 2005, Mr. Coles' equipment included a Caterpillar EL300 excavator, a Caterpillar D9H bulldozer and a John Deere 890 excavator. In 2004, Mr. Coles leased some ground upstream and those operators brought two Hitachi EX200 excavators and a Caterpillar D8K bulldozer. Mr. Coles' plant from 2003 to 2005 was a 4-foot-diameter trommel with 8-foot-wide sluice runs. Water for this plant was supplied by a Cummin's-powered 8- by 10-inch Paco pump with a throughput of 1500 igpm. The processing rate was 75 loose cubic yards per

hour. Colonial Gold's plant in 2004 was a 5-foot-diameter New Zealand trommel with hydraulic riffles. Water was supplied by a 6- by 6-inch Isuzu pump rated at 1200 igpm. The processing rate was 100 loose cubic yards per hour. Water for both plants was acquired from an in-stream series of three to four ponds, each 40 by 100 by 8 feet (10 x 30 x 2 m). The effluent recycling rate was 90%. Clean-ups were done with a long tom and gold wheel.

**SURFICIAL GEOLOGY AND STRATIGRAPHY** In 2003 to 2005, the section consisted of 15 to 20 feet (5 to 6 m) of black muck overlying 5 feet (2 m) of gravel. All of the gravel and 2 feet (1 m) of bedrock were sluiced.

**BEDROCK GEOLOGY** Bedrock is blocky weathered schist, very decomposed with beige and green colouring.

**GOLD CHARACTERISTICS** From 2003 to 2005, gold was reported to be coarse, jagged and not very pretty. Approximately 1% was dendritic. The fineness was 770 to 790.



*Tim Coles' sluicing operation on Upper Dominion, 2004.*