

Yukon Placer Database Operations Report



Field Name: Tamarack Inc. (Aurion Placers), 1994-1998, 1999-2003

Last Update: 29-Dec-2004

Status: Active Producer

Stream: Indian: a tributary of Yukon

Map Sheet(s): 1150/10

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Operators

Name	From (Date)	To (Date)	Comment
Tony Beets	1999/01/01	2003/12/31	
Frank Short	1999/01/01	2002/12/31	
John Loveless	1998/01/01	1998/12/31	
Aurion Placers	1994/01/01	1998/12/31	

Owners

Name	From (Date)	To (Date)	Comment
Tony Beets	1999/01/01	2003/12/31	
Frank Short	1999/01/01	2002/12/31	
Tamarack Inc.	1999/01/01	2003/12/31	
John Loveless	1998/01/01	1998/12/31	
Aurion Placers	1994/01/01	1998/12/31	

General Location

The property was located on the Indian River Valley bottom, 1 mile upstream from the confluence with Eureka Creek. In 1995, the operation was located on the left limit of Indian River, and in 1997, it was located immediately upstream from the mouth of Eureka Creek. By 1998, the operation was located at the mouth of Eureka Creek on left limit of the Indian River.

Location Details

Date:	Latitude			Longitude			Elevation (feet)	Distance from Mouth (feet)
	Deg	Min	Sec	Deg	Min	Sec		
2003/01/02	63	38	0	138	53	0		
2003/01/01	63	37	43	138	49	43		
2003/01/01	63	37	16	138	48	55		
2003/01/01	63	38	0	138	51	0		
1999/01/01	63	38	0	138	53	0		
1995/01/01	63	38	0	138	51	0		
1994/01/01	63	37	48	138	55	12	2,000	

Water Licence(s)

Number	Comments
LP00164	
PM95-056	
PM98-071	Expired: 2003/05/01
PM95-055	
PM93-002	

Work History

Aurion Placers began mining this site with a crew of 3 miners working 12 hour days in 1994. Five pits were mined with surface dimensions of 394 by 300 feet, 525 by 388 feet, 500 by 394 feet, 485 by 435 feet, and 267 by

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Miner Short (1999-2001): 115000 **Stripper 200000**
475 feet respectively. A total of 240,000 cubic yards were stripped and 135,000 cubic yards were sluiced. The following year, Aurion Placers continued to mine this site with 4 miners and 2 camp staff working two 12-hour shifts. Another five cuts ranging from 250 to 400 by 500 feet were sluiced. In 1996, an additional miner was added, and three cuts measuring 250 feet wide by 350 feet long and four cuts, which ranged from 250 to 400 feet wide by 500 feet long, were mined. The operation grew to 8 miners and 2 camp staff in 1997 and six cuts averaging 225 feet by 425 feet were sluiced. 1998 was the last season for this operator to mine the Indian River placer claims located at the mouth of Eureka Creek under Aurion Placers, as the lease agreement was not renewed by Tamarack Inc. John Loveless employed 5 miners and 1 camp personnel working two 12 hour shifts daily. Six mining cuts averaging 250 feet wide by 350 feet long were made out of which a total of 200,000 cubic yards were sluiced. No old workings, shafts or even bones were found in any of the overburden or gravels. As this was Aurion's last year, reclamation of most of the mined areas was completed, barring some tailings at the mouth of Eureka that Tamarack wished to use in the construction of their access, fuel storage and general camp layout. During 1999-2001, Frank Short and Tony Beets, of Tamarack Inc., moved to this site from Paradise Hill. They employed 4 miners and 2 camp personnel, working a 12 hour shift per day. The first area stripped to thaw in 1999 measured 600 by 250 feet, and most of that season was spent setting up camp, and preparing ground for mining. The following year, another 2 cuts were made; 500 by 200 feet and 600 by 200 feet respectively. Generally, the depths did not vary from the 12 to 14 feet. An area 200 by 200 feet and one 300 by 200 feet was completed in 2001. During 2002, roughly 150 hours of sluicing was done, and Beets worked on a diversion to run Indian River through a couple of oxbows in 2003; stripping and sluicing continued on the right limit once the diversion was in place.

Production

Year	Stripped	Sluiced
1998	Unknown	200000 cubic yards
1997	Unknown	573750 square feet
1994	240000 cubic yards	135000 cubic yards

Equipment

In 1994, a D10 Caterpillar bulldozer and a D9L bulldozer were used for stripping, pushing up pay, and stacking tailings. Both were equipped with U-blades and rippers. An EL300 Caterpillar excavator equipped with either a one cubic yard frost bucket or a 1.75-yard clean up bucket was used to feed the wash plant and to dig ditches and drains. The plant, which processed 175 yards per hour, consisted of a 4 foot by 16 foot El-Rus incline shaker screen deck with four sluice runs 4 feet by 16 feet sloped at 1.5 inches per foot. Recovery was by expanded metal on un-backed Nomad matting and one 3-foot section of one inch Hungarian riffles midway down each sluice run. A combination of a two hutch jig leading into a long tom was used for clean ups. A 10 by 8 inch Morris pump powered by a 3306 Caterpillar engine provided 2000 igpm of water from an out-of-stream recycle pond on the left limit of the Indian River. Water for sluicing was usually acquired from the Indian River and then recirculated in out-of-stream settling ponds built from abandoned mine cuts. A small volume of effluent discharge occurred at the end of the settling pond system. This operation recycled all of its water. A berm at the downstream end of the operation was opened at the end of the season to release impounded water.

In 1998, the same equipment used in 1994, was used. A 5 by 16 foot El Russ incline shaker plant fed via a hopper screened material to minus 3/4 inch. Four 4 by 16 foot sluice runs were lined with unbacked Nomad matting and expanded metal. Half way down the length of each sluice run, a short 4 foot section of 1 inch Hungarian riffles were installed. Powered by a Caterpillar 3306 diesel engine, the Morris 10 by 8 inch pump was capable of pumping 2000 igpm. The operation processed around 200 cubic yards per hour. Final clean ups were dealt with using a 2 hutch jig and portable Long Tom. Sluice water was acquired from the Indian River, 75 per cent of which was recirculated in out of stream settling ponds built within previous era mining cuts at the mouth of Eureka Creek. The discharge of effluent into Indian River from the final settling facility was well below the allowable

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Max Sluice(s): 1150/10
rate for settleable solids in this area.

In 1999, while a great deal of other equipment was moved to this site from Paradise Hill, only three 657 Caterpillar scrapers were used to strip and stockpile the pay gravels. Two D9 Caterpillar bulldozers were used to push the scrapers and feed the sluice plant and other miscellaneous jobs. Essentially, this was the same set up as at Paradise Hill. A 90 cubic yard hopper with a 4 by 16 foot apron feeder put the pay gravel onto a variable speed conveyor which was 4 feet wide and 60 feet long. The gravels were conveyed to a trommel measuring 8 feet in diameter by 50 feet long where the last 6 feet classified the pay to 3/4 inch minus. A 2 foot wide by 45 foot long chute divided the slurry into six oscillating runs, each 3 x 20 feet in size. The runs were lined with Nomad matting and expanded metal. The Morris 10 by 12 inch pump was powered by a 3406 Caterpillar diesel engine capable of producing 1200 igpm. Approximately 100 yards per hour were processed. Water was acquired from the Indian River and collected by seepage and flow in an old mine cut just upstream of the mouth of Eureka. The settling ponds were out of stream and measured approximately 700 feet by 600 feet. No recycling was required due to the amount of seepage. By 2003, stripping was performed with 2 D10s; 2 D9s and a 245 backhoe; two well constructed out of stream settling ponds were built that also served as reservoirs.

Environmental Work

Year Reclamation Work

2003 Restored channels were well bermed.

1995 Reclamation was performed on an ongoing basis as each pit is stripped and sluiced.

Landforms

Landform	Comments
Alluvial Valley	

Surficial Geology

The valley of Indian River is wide and flat, and the channel meanders along the right limit. In 1994, roughly six feet of black muck covered a layer of silt and waste gravel averaging four feet in depth, over a pay layer of five feet. The black muck was frozen from 2 to 10 feet, and the silt and waste gravel layer varied from 2 to 6 feet. The pay layer was between 3 to 8 feet and was mostly small, uniform rocks with very few large boulders. The following year, the cuts on the left limit of the Indian River had an average of 6- 8 feet of frozen black muck, overlying 4 to 8 feet of frozen silt and gravel. The frozen black muck overburden in the cut at the mouth of Eureka Creek varied in depth from 5 to 35 feet with an average depth of 10 feet. The gravels varied in depth from 3 feet to 20 feet. The lower 4 feet of gravel and up to 4 feet of bedrock was sluiced. During 1998, overburden ranged anywhere from 2 to 12 feet in depth of frozen and partially frozen material. Gravels varied from a maximum of 10 feet to a minimum of 2 feet and was composed of both frozen and thawed sections. The sluice section fluctuated between 6 and 10 feet and the waste section between 6 and 16 feet. Between 1999-2002, the stratigraphy of this area proved to be 5 to 6 feet of black muck, 5 to 6 feet of barren gravels and 2 feet of pay which was sluiced.

Bedrock Geology

Bedrock was generally decomposed and wavy although solid slabby bedrock was encountered. In 1998, bedrock was decomposed and contained some clay, bands of black, slabby schist extending right across the valley.

Gold Comments

In 1994, the shape of the gold varied with 70% flat, 20% angular, and 10% round. The size of the gold was 5% +10, 85% -10 to +60, and 10% -60. It was bright with no stain, and the fineness was 820. The following year, the gold recovered from the Indian River was usually in the -10 to +60 mesh size and had a fineness of 820, in an assortment of flat, angular and round gold. The gold recovered in 1997 appeared to have come from Eureka Creek and the fineness dropped to an average of 770. In 1998, the gold tended to be travelled, floury, smooth and bright. Some small nuggets were recovered as well as some nuggets with quartz attached, with a fineness averaged 760. Between 1999-2002, the gold was extremely fine-grained with no appreciable sized nuggets. The fineness ranged from 820 to 830 in purity.

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Map Sheet(s): 1150110

District: A-6-A

References

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Pictures

Title: Aurion Placer operation on Eureka Creek



Notes:

1998 was Aurion's last year on Indian River as the lease agreement was not renewed by Tamarack Inc. Reclamation of most of the mined areas was completed.

Title: Tamarack's sluice plant on Indian River, 1999-2002



Notes: