

# Yukon Placer Database Operations Report



**Field Name: Midas Rex Mining & Exploration, 1993-2002**

**Last Update: 17-Feb-2005**

**Status: Recent Producer 1978-present**

**Stream: Indian: a tributary of Yukon**

**Map Sheet(s): 1150/10, 1150/14**

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## Operators

Name	From (Date)	To (Date)	Comment
Stuart Schmidt	1993/01/01	2002/12/31	

## Owners

Name	From (Date)	To (Date)	Comment
Stuart Schmidt	1993/01/01	2002/12/31	
Midas Rex Mining and Exploration	1993/01/01	2002/12/31	

## General Location

The first operation mined the bottom of Indian River upstream from 9-Mile Creek, mining from rim to rim with a floating wash plant. The second was located near the mouth of Ruby Creek. In the fall of 1997, Midas Rex moved to near and around the mouth of Eureka Creek on Indian River.

## Location Details

Date:	Latitude Deg : Min : Sec	Longitude Deg : Min : Sec	Elevation (feet)	Distance from Mouth (feet)
2005/01/01	63 37 46	138 48 54		
2002/01/01	63 40 0	138 55 0		
1999/01/01	63 45 0	139 15 0		
1998/01/01	63 40 0	138 55 0		
1995/01/01	63 45 0	139 6 0		
1993/01/01	63 46 12	139 22 48	2,000	

## Water Licence(s)

Number	Comments
LP00075	
PM94-080	
PM93-093	Expired: 2004/05/01

## Work History

In 1993-1994, Stuart Schmidt employed a crew of 12 miners at two locations on the Indian River area. There were also 3 camp workers located on Quartz Creek at the mouth of Calder Creek. A second operation was located near the mouth of Ruby Creek. The following year a crew of 6 miners at two locations were employed. About 40,000 square feet per year were mined by the operation at the mouth of Ruby Creek; about 2 million square feet per year were mined with the floating trommel in the Indian River. The operation at Ruby Creek was discontinued in 1997, and the dredge was moved upstream above the confluence with Quartz Creek. For the years 1998 and 1999, 6 miners continued working this operation on two 12 hour shifts with 1 camp personnel. In 2000-2001, this was reduced to 4 miners with 2 camp personnel. Seven cuts were mined per season, and over a mile of the right limit of Indian River was excavated, processed, and reclaimed averaging 750 feet in width. Nearly 1,500,000 cubic yards of material were moved and 900,000 cubic yards were sluiced. Focus was then placed on restoration and reclamation of tailings which was accomplished, along with camp clean up and removal of structures, in 2002.

**Production**

<b>Year</b>	<b>Stripped</b>	<b>Sluiced</b>
1997	Unknown	2000000 cubic yards
1996	Unknown	2040000 cubic yards
1995	Unknown	2040000 cubic yards

**Equipment**

In 1993, the Ruby Creek Operation's settling ponds were located in old mining cuts with discharge back to the Indian River. At the Indian River Operation, the wash plant was floated within a mining cut which averaged 150 feet wide by 50 feet long. Mining progressed back and forth in an upstream direction, in the fashion of the old dredging operations. Approximately two million square feet of surface area was mined by this method. Water was recycled within the mining cut, with make up water supplied by seepage or pumped from the river. Discharge was by seepage only. In 1995, a floating trommel was used in the Indian River Valley, downstream from Quartz Creek, and a stationary sluice box was used near the mouth of Ruby Creek. One Caterpillar D10N bulldozer was used for stripping, digging pay gravel, feeding the wash plant and removing tailings from the conventional sluicing operation at the mouth of Ruby Creek. One Caterpillar 235D excavator was used to dig pay gravel and feed the floating trommel in the Indian River Valley. The D10N bulldozer was used to strip ahead of the trommel and to flatten tailings behind it. Ruby Creek: The conventional sluice at Ruby Creek had a 14 by 20 foot dump box with 5 parallel sluice runs. Approximately 200 cubic yards per hour were processed using about 3000 igpm of water, supplied by a 10 by 12 inch Morris pump powered by a Caterpillar 3408 diesel engine. Indian: The floating trommel was 8 feet in diameter with 6 sluice runs, each 4 feet wide. Tailings were removed and stacked by a 40-foot long conveyor. About 300 cubic yards per hour were processed using approximately 3000 igpm of water supplied by a 10 by 12 inch Morris pump powered by a Caterpillar 3306 diesel engine. Water was ditched from Ruby Creek by gravity feed and seepage water was recycled from the dredged pond for the trommel. In 1998, a Caterpillar D10N with a U blade was used for stripping overburden and pushing pay gravels up to the big box. The dump or big box measured 16 by 20 feet and was connected to a 4 run sluice lined with Nomad matting, expanded metal and 1 inch Hungarian riffles made out of angle iron. An additional run using 3/4 inch punch plate was used to handle the oversized material. The box tender washed the material as it was dropping into the dump box. The concentrate was run through a long tom, screened for particle size and run over a dicer table. Water was supplied by a 12 by 14 Morris pump powered by a Caterpillar 3408 diesel engine capable of pumping 2500 igpm. Approximately 160 cubic yards were processed per hour. All water acquisition was from the Indian River, using previously mined cuts for out of stream settling ponds. A minimum of three ponds were used at all times to settle out effluent prior to re-entry into the Indian River. No recycling was required.

**Environmental Work**

<b>Year</b>	<b>Reclamation Work</b>
2002	Restoration and reclamation were completed for final decommissioning.

**Landforms**

<b>Landform</b>	<b>Comments</b>
Alluvial Valley	

**Surficial Geology**

At the mouth of Ruby Creek, frozen overburden composed of sand, silt, clay, and mud was 10 to 14 feet deep covering 8 to 12 feet deep gravel layers. The bottom 4 to 6 feet of gravel plus up to three feet of bedrock were sluiced. At the Indian River operation, overburden was 10 to 14 feet deep, consisting of silt, clay, mud and sand in the Indian River Valley bottom. Gravel layers up to 10 ft deep covered irregular bedrock. The bottom 4 ft of gravel plus up to 3 ft of bedrock were sluiced. The Indian River Valley, upstream from Quartz Creek, had 4 to 8 feet of frozen muck and clay on top of gravel layers averaging 12 feet deep. In 1998, the ground encountered was

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very consistent, averaging 2 to 4 feet of sand and muck intermixed, 6 to 10 feet of barren reddish coloured gravels and the bottom 4 feet only containing greyish pay gravels.

### **Bedrock Geology**

The Indian River area is underlain by mainly Paleozoic metasedimentary (Klondike Schist and Nasina Assemblage) rock of Yukon-Tanana Terrane. Minor amounts of altered ultramafic rocks occur locally. Early Cretaceous gold-bearing quartz veins intrude the schist and Late Cretaceous sedimentary and volcanic rocks overlay the earlier rocks.

### **Gold Comments**

The gold recovered at Ruby Creek in 1993 was fine and coarse, with an average fineness of 780. The Indian River operation only recovered fine gold with a fineness of 790. The 1995 season at Ruby Creek recovered mostly fines, under 12 mesh, with fineness around 800. On Indian River, the gold recovered was 8% under 20 mesh with fineness of 790. Throughout 1998, the gold was small, having a flaky, floury and pebbly type consistency and a fineness about 830.

### **References**

Mining Inspection Division, Yukon Region. Yukon Placer Mining Industry 1995, 1996, 1997. Department of Indian Affairs and Northern Development, Whitehorse, Yukon, 1998.: p. 77-79

Mining Inspection Division, Yukon Region. Yukon Placer Mining Industry 1998-2002. Department of Indian Affairs and Northern Development, Whitehorse, Yukon, 2003.: p. 96-97

Thomson, R.F. Placer Mining Year End Summary, 2002. Mining Inspection Division, DIAND, 2003.: p. 70  
van Kalsbeek L.P. Yukon Placer Mining Industry 1993-1994. Whitehorse: DIAND, 1996.: p. 59

### **Pictures**

**Title:** Midas Rex sluicing on Indian River

**Notes:**

