

# Yukon Placer Database Operations Report



Field Name: Paydirt Holdings Ltd., 1983-1984, 1989-2003

Last Update: 21-Mar-2005

Status: Active Producer

Stream: Black Hills: a tributary of Stewart

Map Sheet(s): 1150/10, 1150/7

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## Operators

Name	From (Date)	To (Date)	Comment
Carl Jonas	2003/01/01	2003/12/31	
Tim Nixdorf	1991/01/01	2003/12/31	Tim Nixdorf is the mine manager.
Paydirt Holdings Ltd.	1989/01/01	2002/12/31	
Paydirt Holdings Ltd.	1983/01/01	1984/12/31	

## Owners

Name	From (Date)	To (Date)	Comment
Carl Jonas	2003/01/01	2003/12/31	
Tim Nixdorf	1991/01/01	2003/12/31	Tim Nixdorf is the mine manager.
Paydirt Holdings Ltd.	1989/01/01	2002/12/31	
Paydirt Holdings Ltd.	1983/01/01	1984/12/31	

## General Location

In 1983, the property was located on Black Hills Creek, directly across from the mouth of left limit tributary, Oil Gulch. In 1989, the property was located just downstream of Childs Gulch. Working their way upstream, the operation was located at the mouth of Childs Gulch by 1992. By 1997, mining had continued in an upstream direction on Black Hills Creek, with the main operation now located approximately one mile upstream from the mouth of Childs Gulch. A single cut was also mined downstream near the main camp in 1997. In 2003 the operation continued working upstream on Black Hills Creek.

## Location Details

Date:	Latitude			Longitude			Elevation	Distance from Mouth
	Deg	Min	Sec	Deg	Min	Sec	(feet)	(feet)
2003/01/01	63	30	27	138	55	37		
1998/01/01	63	30	0	138	52	0		
1995/01/01	63	30	0	138	52	48	1,500	
1991/01/01	63	29	0	138	52	0		
1989/01/01	63	29	0	138	52	0		
1983/01/01	63	29	0	138	51	0		

## Water Licence(s)

Number	Comments
PM99-118	Expires: 2004/11/30
PM95-006	
PM87-079	
PM89-079	
PM92-097	

## Work History

In 1983 and 1984, the company mined at this property with a crew of four. Three cuts 300 feet wide by 500 feet long were mined in 1989.

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In 1990, a cut 200 feet wide by 350 feet long, and a cut 200 feet wide by 400 feet long were mined. Two more cuts were expected before the end of the season. A crew of nine, including the site managers and cook ran the mine.

During 1991, the operation mined upstream on Black Hills Creek from where they left off in 1990. The operation was scaled down from 8 employees in 1991 to 4 in 1992. Three claims were mined in 1991, in 4 cuts with average dimensions of 200 feet by 400 feet.

In 1992, three cuts measuring approximately 150 feet by 200 feet were sluiced. The mouth of Childs Gulch was mined in 1992.

In 1993, Paydirt Holdings Ltd continued mining upstream from where they finished in 1992. Five miners and a camp cook ran the operation. Five cuts with an average size of 200 feet by 150 feet were mined. The width of the valley decreased towards the end of the season.

Several narrower cuts were mined in the 1994 season. The main valley widens again upstream of the last cut mined.

In 1995, three cuts averaging 150 feet wide by 400 feet long were sluiced.

In 1996, four cuts averaging 200 feet wide by 300 feet long were mined.

Four cuts averaging 200 feet wide by 300 feet long were mined in 1997 at the upstream end of the property, along with a single cut 100 feet wide by 250 feet long near the main camp. Four miners and a camp person ran a single 12 hour shift in 1995 and 1996. Two additional miners were employed in 1997.

From 1998 to 2001, there were three miners and one camp worker doing one 12 hour shift. In 2001, the number of mine workers was reduced to two. In 1998, four mining cuts were excavated about 200 feet on each side. In 1999 and 2000 about the same amount was mined but in 2001 only one cut was mined about 225 feet wide by 300 to 350 feet long.

No sluicing was done in 2002 although people were on site and no ground preparation occurred.

2003 - Operation was run by Tim Nixdorf again this season. Carl Jonas stripped and sluiced at the mouth of Dome Creek.

### **Production**

<b>Year</b>	<b>Stripped</b>	<b>Sluiced</b>
1997	Unknown	265000 square feet
1996	Unknown	240000 square feet
1995	Unknown	180000 square feet
1993	Unknown	150000 square feet
1992	Unknown	90000 square feet
1991	Unknown	320000 square feet
1990	Unknown	150000 square feet
1989	Unknown	450000 square feet

### **Equipment**

In 1983, one Caterpillar D8K bulldozer, one Caterpillar D8H bulldozer, one Caterpillar 966 loader, and one Caterpillar 366 Bantam hoe were used. The bulldozers were used for stripping, and to feed the sluicing plant. Only the lowermost 4 feet of gravel were sluiced. The loader was used to remove tailings. The sluicing plant consisted of a dump box and a single run sluice box. The dump box was 12 feet wide and 16 feet long. The lower half of it was lined with punch plate over 1 1/4-inch riffles and coco matting. The sluice run was 36 inches wide and 40 feet long, and was lined with 1 1/4 inch riffles over coco matting. All but the last 4 feet of the sluice run had punch plate with 1-inch hoes set over the riffles. Water for sluicing was pumped at a rate of 2,000 to 3,000 igpm. Two 6-inch Flygt submersible pumps, powered by a Cummings diesel generator, were used during part of the season. A third pump was used along with the other two during the rest of the season. Water was pumped from Black Hills Creek, and was not recirculated. Effluent from sluicing was settled in a series of 3 settling ponds

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downstream from the sluicing plant.

In 1989, two Caterpillar D9H bulldozers were used for stripping the cuts and stockpiling pay for sluicing. Two Caterpillar bulldozers, a D8H and D8K, were used as spare machinery or any odd jobs. Tailings were hauled away and ramped with two Caterpillar 966 loaders and a Caterpillar 980C loader. A Caterpillar 235 hoe fed the sluice plant. A Derocker feeding a single 42 inches wide by 30-foot long sluice run was used. Production was estimated at 80 cubic yards per hour.

In 1990, a third Caterpillar D9H bulldozer was acquired for the same purpose. In order to increase production, two Derockers side by side were used, each feeding a 42 inches wide by 70-foot long sluice run. The 235 hoe fed both Derockers from the same location. Water was pumped to the two Derockers from the same location. Water was pumped to them by two 10 by 12 inch pumps powered by 3208 Caterpillar engines. Production was estimated at 150 cubic yards per hour. Water was pumped from instream recirculation ponds constructed from previous cuts. Effluent outflow was usually by seepage from the first pond. Additional settling occurred in other downstream instream ponds.

In 1993, three D9H Caterpillar bulldozers equipped with U-blades and rippers were used for stripping the cuts and stockpiling the pay gravel. A 235 Caterpillar excavator fed the sluice plant and a 980C Caterpillar loader carried the tailings away. Two other 980C loaders and two D8 Caterpillar bulldozers were available if needed. Two 10 foot Derockers set side by side were used to classify the pay in 1993. A single Derocker was used in 1994. The pay was washed in either one or two sluice runs 42 inches wide by 40 feet long lined with Nomad matting and 1.5 inch angle iron riffles. A Caterpillar pump supplied the 3,500 igpm needed to sluice approximately 150 cubic yards per hour. Water was pumped from instream reservoirs on Black Hills Creek. Due to the volume of water required a recycle system was needed. Effluent treatment occurred in the recycle ponds with discharge back to Black Hills Creek. A large finishing pond was built downstream of the main camp near the bottom of the property.

In 1995-'97, the sluice run was lined with Nomad matting and expanded metal. Two-inch angle iron riffles were also used randomly in the run. A 12-inch pump powered by a 3208 Caterpillar engine supplied the 3000 igpm needed to sluice between 90 and 120 cubic yards per hour. Water for sluicing came from instream reservoirs on Black Hills Creek. Usually water is discharged to a series of downstream settling ponds, which are both instream, and out of stream. A final finishing pond continued to be used at the bottom of the property. During very dry periods the operation had to recycle the sluice water due to lack of make-up water.

In 1998-2001, the same equipment used in 1993 was used. A 6 feet by 8 feet dump box fed into a 10 feet long Derocker. A single sluice run, 3 feet wide by 40 feet long, had expanded metal riffles over Nomad mat. A Cornell 10 inch water pump, powered by a Caterpillar 3208 diesel engine, supplied about 2500 igpm of water which was used to process about 100 cubic yards per hour. Water was pumped from an instream reservoir and was cleaned in three out of stream settling ponds built from mined-out cuts along the left limit of Black Hills Creek.

In 2003 settling was done in a long series of out of stream settling ponds built from old mine cuts. The final settling pond was located near the bottom of the property.

### **Environmental Work**

<b>Year</b>	<b>Reclamation Work</b>
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2003	Liners and berms were added for the mobile tanker and other large tanks.
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### **Landforms**

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

### **Surficial Geology**

Low-level gravel is also being mined in the upper part of Black Hills Creek. Approximately 1 meter of sandy, very coarse-pebble gravel resting on muscovite schist, marble and quartzite is overlain by 2-3 meters of overbank fines and muck. At the property located across from the mouth of left limit tributary Oil Gulch, deposits present in the centre of the valley were 12 to 14 feet deep. They consisted of 4 to 8 feet of black muck overlying 6 to 8 feet of brown gravel. Eight feet of gravel was overlain by up to 20 feet of black muck along the margins of the valley.

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Just downstream from Childs Gulch, the stratigraphic section remained relatively constant. On average, an 8-foot layer of frozen gravels was overlain by 12 feet of frozen black muck. Bedrock was fractured to a depth of 2 feet. The lower 3 feet of gravel and up to 2 feet of the bedrock were sluiced. The upper gravels did not contain gold. The stratigraphic section varied from cut to cut. A layer of frozen black muck 6 to 15 feet deep covered 3 to 8 feet of frozen gravel. Large quartz boulders were common. Bedrock varied from blocky to fully decomposed. The lower three feet of gravel and the first three feet of bedrock were sluiced.

In 1995 to 1997, an average cut has an 18 to 20 foot layer of frozen muck overlying 4 feet of gravel. The bedrock along the left limit tends to be solid with gray clay streaks throughout whereas the bedrock along the right limit is decomposed. Many old shafts, underground drifts and cabins were found in this area of Black Hills Creek. Generally all the gravels and between 2 and 3 feet of the bedrock was sluiced.

In 1998, the surface mud layer was 10 to 15 feet deep followed by 2 to 3 feet of coarse gravel and then a layer of finer gravel with clay on top of decomposed bedrock. The bottom 2 to 4 feet of gravel plus 2 feet of bedrock were sluiced.

### **Bedrock Geology**

On the ground mined in 1983-1984, bedrock was decomposed in places and competent in others.

### **Gold Comments**

In 1989, approximately 40% of the gold is +8 mesh with the remainder being fine grained and flat. Quartz is common on the nuggets. The fineness varies between 730 and 750.

In 1991 to 1994, the gold was fine and jagged, with the majority 20 screen in size. Some wire gold and small nuggets were recovered. Fineness was 710.

In 1995-97, the gold was reported to be angular, chunky and rough. Some wire gold and small nuggets were recovered. The fineness varied between 700 and 718.

In 1998-2002, fineness varied from 660 to 680. The gold was cleaned up using a jig, a gold wheel and by hand panning. The gold tended to be flat, although a mixture of several types of gold was recovered.

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### **Pictures**

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**Title:** Paydirt Holdings Ltd., Black Hills Creek.

**Notes:**

Paydirt Holdings have continued to mine upstream on Black Hills Creek since the mid 1980s.

