

Bur Property, Burwash Creek, Yukon  
(formerly Cork Property of  
Imperial Oil Enterprises Ltd.)

Present claim: JY 51

Drillhole: IOE Ltd. 70-3

Inclination -90°

Core Size: BQ

Depth: 74.37 m

Core recovered: 28.23 m, 41.0%

Location: 2300' S, 2100' W on IOE grid

Elevation: 1608 m  $\pm$  5 (from 1:5000  
topo map)

Drilled: 1970 07 04 to 17

Drilled by Arctic Drilling Ltd.

Relogged by L.B. Halferdahl 1984 01

Purpose: IOE Ltd. checked for copper and molybdenum in latite porphyry. Available core was relogged and resampled to check for gold and other metals in the intruded flows and tuffs as well as in the latite porphyry.

Metrage	Interval	Description
0.00- 5.49	5.49	<u>Overburden</u>
5.49- 12.73	7.24	<u>Latite porphyry</u> , 20% milky white feldspar phenocrysts to 5 mm in sizes in grey matrix of grain size to $\frac{1}{2}$ mm, 3% biotite phenocrysts to 3 mm in size, variable amounts of disseminated pyrite and minor chalcopyrite
	5.49-5.80 m	very sparse sulfides
	5.80-7.16 m	1.36 m lost core
	7.49-8.84 m	1.35 m lost core
	9.00-9.45 m	0.45 m lost core
	9.45-9.50 m	matrix somewhat darker-grey
	9.50-10.21 m	0.71 m lost core
	10.34-10.52 m	0.18 m lost core
	10.52-10.69 m	whitish matrix
	10.69-10.76 m	0.07 m lost core
	10.76-10.97 m	whitish matrix
	10.97-11.11 m	white-buff matrix
	11.11-11.32 m	matrix so light-colored that phenocrysts are not prominent
	11.32-11.43 m	0.11 m lost core
	11.43-11.62 m	matrix greyer in lower part
SAMPLE 3034	(Imperial Oil Enterprises Ltd.)	5.49-11.58 m
	6.09 m	Cu 0.06%, MoS <sub>2</sub> 0.003%
	11.62-12.65 m	1.03 m lost core

Metrage	Interval	Description
12.73-13.40	0.67	<u>Fault gouge</u> 12.73-13.26 m 0.53 m lost core 13.26-13.40 m light-green-brown earthy gouge
13.40-22.40	9.00	<u>Latite porphyry</u> , as 5.49-12.73 m 13.40-13.53 m medium-grey matrix 13.53-14.33 m 0.80 m lost core 14.46-14.78 m 0.32 m lost core 15.39-15.54 m 0.15 m lost core 15.69-16.31 m 0.62 m lost core 16.40-16.76 m 0.36 m lost core 16.76-16.97 m very sparse sulfides 16.97-18.29 m 1.32 m lost core SAMPLE 3035 (IOE Ltd.) 11.58-17.68 m 6.10 m Cu 0.09%, MoS <sub>2</sub> 0.003% 18.43-18.90 m 0.47 m lost core 18.90-19.13 m sulfides absent 19.13-19.35 m 0.22 m lost core 19.35-19.44 m medium-grey matrix 19.44-20.27 m 0.83 m lost core SAMPLE 4623 15.16-20.40 m 1.27 m (representative chips) Au 55 ppb, Cu 790 ppm, Mo 21 ppm, Pb 5 ppm, Zn 33 ppm 20.40-21.64 m 1.24 m lost core 21.77-22.40 m 0.63 m lost core
22.40-25.76	3.36	<u>Fault gouge</u> , light-brown, earthy, local minor rust 22.55-22.86 m 0.31 m lost core 23.06-23.47 m 0.41 m lost core SAMPLE 4624 22.40-23.73 m 0.61 m (representative chips) Au 100 ppb, Cu 780 ppm, Mo 39 ppm, Pb 6 ppm, Zn 25 ppm

Metrage	Interval	Description
		23.73-24.69 m 0.96 m lost core
		SAMPLE 3036 (IOE Ltd.) 17.68-24.38 m 6.70 m Cu 0.08%, MoS <sub>2</sub> 0.005%
		24.69-25.76 m 1.07 m lost core; drillers' block marked "washed out in front of bit"
25.76- 26.89	1.13	<u>Latite porphyry</u> , as 5.49-12.73 m
		25.80-26.21 m 0.41 m lost core
		26.21-26.61 m medium-grey matrix, minor malachite stain, sulfides absent
		26.61-26.67 m 0.06 m lost core
		26.67-26.89 m malachite stain along fractures
26.89- 27.28	0.39	<u>Fault gouge</u> , light-brown earthy rubble, some malachite
		27.04-27.28 m 0.24 m lost core
27.28- 27.70	0.42	<u>Latite porphyry</u> , as 5.49-12.73 m, locally kaolinized
		SAMPLE 3037 (IOE Ltd.) 24.38-27.43 m 3.05 m Cu 0.12%, MoS <sub>2</sub> 0.010% Sludge: Cu 0.09%, MoS <sub>2</sub> 0.005%
27.70- 28.96	1.26	<u>Fault gouge</u>
		27.70-27.88 m light- to medium-brown, earthy, minor malachite stain
		27.88-28.48 m mixture of earthy gouge and core fragments of partly argillized latite porphyry with local malachite stain
		28.48-28.96 m earthy gouge at top, few core fragments of latite porphyry at bottom
		SAMPLE 4625 26.21-28.96 m 2.45 m (representative chips) Au 90 ppb, Cu 2650 ppm, Mo 84 ppm, Pb 2 ppm, Zn 32 ppm
28.96- 29.90	0.94	<u>Latite porphyry</u> , as 5.49-12.73 m
		28.96-29.56 m 1% disseminated pyrite
		29.56-29.90 m sulfides absent

Metrage	Interval	Description
29.90- 30.06	0.16	<u>Fault gouge</u> , light-brown earthy rubble 30.01-30.06 m 0.05 m lost core
30.06- 31.59	1.53	<u>Latite porphyry</u> , as 5.49-12.73 m 30.06-30.10 m light- to medium-grey matrix 30.10-30.83 m 0.73 m lost core SAMPLE 3038 (IOE Ltd.) 27.43-30.48 m 3.05 m Cu 0.09%, MoS <sub>2</sub> 0.012% Sludge: Cu 0.15%, MoS <sub>2</sub> 0.12% 30.83-30.94 m medium-grey matrix, 1-2% disseminated sulfides, gypsum along thin fractures 30.94-31.32 m medium-grey matrix, less than 1% disseminated sulfides 31.32-31.39 m 0.07 m lost core 31.39-31.59 m medium-grey matrix
31.59- 32.46	0.87	<u>Fault gouge</u> , earthy 31.62-32.46 m 0.84 m lost core
32.46- 32.60	0.14	<u>Latite porphyry</u> , as 5.49-12.73 m 32.46-32.57 m medium-grey matrix
32.60- 34.52	1.92	<u>Fault gouge</u> , earthy brown material with small fragments of latite porphyry 33.08-34.52 m 1.43 m lost core SAMPLE 3039 (IOE Ltd.) 30.48-33.53 m 3.05 m Cu 0.13%, MoS <sub>2</sub> 0.007% Sludge: Cu 0.14%, MoS <sub>2</sub> 0.005%
34.52- 36.87	2.35	<u>Latite porphyry</u> , as 5.49-12.73 m 34.70-35.13 m 0.43 m lost core 35.37-35.66 m 0.29 m lost core 35.66-35.78 m one core fragment with light matrix and 2-3% disseminated sulfides, others with dark matrix and sparse or no sulfides 35.78-36.58 m 0.80 m lost core

Metrage	Interval	Description
		SAMPLE 3040 (IOE Ltd.) 33.53-36.58 m 3.05 m Cu 0.08%, MoS <sub>2</sub> 0.005 Sludge: Cu 0.14%, MoS <sub>2</sub> 0.006%
		36.58-36.87 m medium-light-grey-matrix, sparse sulfides
36.87- 37.69	0.82	<u>Fault gouge</u> , light-brown, earthy 36.87-37.64 m 0.77 m lost core
37.69- 74.37	36.68	<u>Latite porphyry</u> , as 5.49-12.73 m 37.69-37.96 m medium-light matrix 37.96-38.31 m 0.35 m lost core 38.31-38.40 m locally 1% disseminated sulfides 38.40-38.73 m matrix locally lighter-grey, 2-3% disseminated sulfides locally, fresher than uphole 38.73-38.86 m 0.13 m lost core 38.86-39.39 m medium-light-grey matrix with gradational contacts to fine-grained white sucrosic masses with 1-2% finely disseminated pyrite, magnetite locally on fractures 39.39-40.08 m 0.69 m lost core
		SAMPLE 3041 (IOE Ltd.) 36.58-39.62 m 3.04 m Cu 0.08%, MoS <sub>2</sub> 0.007% Sludge: Cu 0.10%, MoS <sub>2</sub> 0.007%
		40.08-40.34 m veined and cut by white sucrosic masses with finely disseminated pyrite
		40.34-40.54 m 0.20 m lost core
		40.54-40.85 m core fragments with light-grey matrix, some with medium-grey matrix, partly oxidized
		40.85-41.30 m 0.45 m lost core
		41.30-42.08 m mostly medium-grey matrix but irregularly cut and mottled with lighter-grey, sparse disseminated sulfides
		42.08-42.37 m 0.29 m lost core
		42.37-42.62 m as run above
		SAMPLE 4626 38.31-42.62 m 2.55 m (representative chips) Au 155 ppb, Cu 785 ppm, Mo 59 ppm, Pb 2 ppm, Zn 19 ppm
		42.62-42.98 m 0.36 m lost core

Metrage	Interval	Description
	SAMPLE 3042 (IOE Ltd.)	39.62-42.67 m 3.05 m Cu 0.8%, MoS <sub>2</sub> 0.007% Sludge: Cu 0.10%, MoS <sub>2</sub> 0.007%
	43.18-43.29 m	0.11 m lost core
	43.29-43.74 m	medium-light-grey matrix, sparse sulfides
	43.74-44.08 m	medium-grey matrix, 30% feldspar phenocrysts to 2-3 mm in size (smaller than typical), sparse or no sulfides
	44.08-44.17 m	0.09 m lost core
	44.17-44.65 m	as in run above
	44.65-45.05 m	mottled with light-grey matrix
	45.05-45.43 m	0.38 m lost core
	45.43-46.33 m	sparse sulfides in medium-grey matrix, cut by white sucrosic veins some with 1-2% disseminated pyrite
	SAMPLE 3043 (IOE Ltd.)	42.67-45.72 m 3.05 m Cu 0.07%, MoS <sub>2</sub> 0.007% Sludge: Cu 0.13%, MoS <sub>2</sub> 0.008%
	46.33-46.68 m	medium-grey matrix, sparse sulfides
	46.68-46.86 m	0.18 m lost core
	46.94-47.29 m	few white sucrosic veins with rust spots
	SAMPLE 4627	43.29-47.29 m 3.35 m (representative chips) Au 130 ppb, Cu 670 ppm, Mo 51 ppm, Pb 2 ppm, Zn 24 ppm
	47.29-48.25 m	0.96 m lost core
	48.25-48.62 m	cut by white sucrosic veins with 1% disseminated pyrite
	48.62-49.02 m	cut by white sucrosic veins or masses with disseminated rust spots
	SAMPLE 3044 (IOE Ltd.)	45.72-48.77 m 3.05 m Cu 0.09%, MoS <sub>2</sub> 0.008% Sludge: Cu 0.12%, MoS <sub>2</sub> 0.006%
	49.02-49.38 m	0.36 m lost core
	49.38-49.64 m	with partly assimilated xenoliths of medium- grey tuff to 4 cm in size with 3% finely disseminated pyrite
	SAMPLE 4628	49.38-49.64 m 0.26 m (representative chips) Au 130 ppb, Cu 760 ppm, Mo 55 ppm, Pb 1 ppm, Zn 21 ppm

Metrage	Interval	Description
	49.64-49.83 m	0.19 m lost core
	49.83-50.19 m	medium-grey matrix with no sulfides except locally, cut by white sucrosic veins with 1-2% finely disseminated pyrite
	50.19-50.60 m	0.41 m lost core
	50.60-50.65 m	one core fragment with malachite stain on surface, no sulfides
	50.65-50.90 m	0.25 m lost core
	51.01-51.36 m	0.35 m lost core
	51.36-51.69 m	minor magnetite along fractures
	51.69-52.88 m	1.19 m lost core
SAMPLE 3045 (IOE Ltd.)	48.77-51.82 m	3.05 m Cu 0.11%, MoS <sub>2</sub> 0.008%
	52.88-53.12 m	darker matrix, odd fragment of dark volcanic or tuff, malachite stain along fracture surfaces
	53.12-54.56 m	1.44 m lost core (fault zone?)
	54.56 m	drillers' block labelled "sand"
	54.56-55.68 m	1.12 m lost core (fault zone?)
SAMPLE 3046 (IOE Ltd.)	51.82-54.86 m	3.04 m Cu 0.17% MoS <sub>2</sub> 0.008% Sludge: Cu 0.73%, MoS <sub>2</sub> 0.008%
	55.68-55.78 m	medium-grey matrix cut by white sucrosic veins 6-7 mm thick, few per cent malachite along fractures and in matrix, at least one core fragment of black volcanic with minor malachite vein
	55.78-56.16 m	medium-grey matrix with fine phenocrysts, minor malachite stain
	56.16-56.28 m	0.12 m lost core
	56.28-57.00 m	30% xenoliths of dark-grey tuff and porphyritic volcanics all veined with malachite and pyrite
SAMPLE 4629	56.28-57.00 m	0.72 m (representative chips) Au 225 ppb, Cu 2800 ppm, Mo 61 ppm, Pb 1 ppm, Zn 48 ppm
	57.00-57.12 m	as run above but with fewer volcanic and tuff xenoliths, no malachite noted
	57.12-57.19 m	0.07 m lost core

Metrage	Interval	Description
	57.19-57.45 m	medium-grey matrix, cut by white sucrosic masses with minor disseminated pyrite, xenoliths to 1 cm of dark-grey volcanics, malachite stain on fractures
	57.45-57.67 m	medium-grey with phenocrysts only 1-2 mm and without sulfides, 10% black fine-grained xenoliths, malachite stain on fractures
	57.67-57.92 m	0.25 m lost core
SAMPLE 3047 (IOE Ltd.)	54.86-57.91 m	3.05 m Cu 0.17%, MoS <sub>2</sub> 0.007% Sludge: Cu 0.63%, MoS <sub>2</sub> 0.010%
	57.92-58.37 m	phenocrysts only marginally coarser than matrix, 5-10% xenoliths of volcanics and tuff some with sulfides, minor malachite stain, odd speck of azurite, more magnetite than previous
	58.37-58.51 m	as in run above
	58.51-58.83 m	0.32 m lost core
	58.83-59.01 m	as in run above, minor azurite stain
	59.01-59.13 m	0.12 m lost core
	59.13-59.36 m	phenocrysts more distinct, one magnetic core fragment with 10-15% angular white grains to 2 mm in size
	59.36-59.59 m	0.23 m lost core
	59.59-59.89 m	with few tuff xenoliths with disseminated pyrite
SAMPLE 4630	57.00-59.89 m	1.90 m (representative chips) Au 80 ppb, Cu 1300 ppm, Mo 66 ppm, Pb 10 ppm, Zn 37 ppm
	59.89-60.14 m	with one white tuff core fragment, few dark ones, minor malachite stain, less than 1% disseminated sulfides
	60.14-60.35 m	0.21 m lost core
	60.35-60.59 m	medium-grey matrix, 1% disseminated pyrite, minor malachite stain, few tuff and volcanic xenoliths
	60.59-60.99 m	0.40 m lost core
SAMPLE 3048 (IOE Ltd.)	57.91-60.96 m	3.05 m Cu 0.17%, MoS <sub>2</sub> 0.005% Sludge: Cu 0.39%, MoS <sub>2</sub> 0.007%
	60.99-61.11 m	with odd xenolith of white tuff
	61.11-61.38 m	minor malachite and azurite stain
	61.38-61.57 m	0.19 m lost core



Metrage	Interval	Description
	61.57-61.83 m	less than 1% disseminated pyrite, minor malachite stain, few xenoliths of tuff
	61.83-62.03 m	0.20 m lost core
	62.03-62.48 m	as run above, phenocrysts 1-2 mm in size incipiently aligned at 10° CA
	62.48-62.88 m	with 1% pyrite, malachite along fractures, dark xenoliths of tuff and volcanics to 5 cm in size, one - moderately magnetic
	62.88-63.06 m	0.18 m lost core
	63.06-63.25 m	with minor malachite stain, few or no xenoliths
	63.25-63.48 m	with minor malachite and azurite stain, few xenoliths
	63.48-63.70 m	0.22 m lost core
	63.70-63.98 m	minor core fragments of white sucrosic material with disseminated pyrite, black fine-grained xenoliths, quartz vein 1½ cm thick at 18° CA
	63.98-64.16 m	0.18 m lost core
SAMPLE 3049 (IOE Ltd.)	60.96-64.01 m	3.05 m Cu 0.16% MoS <sub>2</sub> 0.015% Sludge: Cu 0.43%, MoS <sub>2</sub> 0.008%
	64.16-64.57 m	low proportion of latite porphyry with buff-colored phenocrysts aligned at 18° CA, odd magnetic xenolith, longitudinal vein of pyrite 8 mm thick in wider mass of white sucrosic material
	64.37 m	13-mm layer of almost massive pyrite at 43° CA
SAMPLE 4631	64.16-64.57 m	0.41 m (representative chips) Au 85 ppb, Cu 615 ppm, Mo 105 ppm, Pb 6 ppm, Zn 28 ppm
	64.57-65.07 m	0.50 m lost core
	65.18-65.53 m	0.35 m lost core
	65.53-65.92 m	with phenocrysts to 2 mm maximum size, greyer matrix, few xenoliths, very sparse sulfides
	65.92-67.06 m	1.14 m lost core
SAMPLE 3050 (IOE Ltd.)	64.01-67.06 m	3.05 m Cu 0.09%, MoS <sub>2</sub> 0.035% Sludge: Cu 0.44%, MoS <sub>2</sub> 0.007%
	67.06-67.20 m	as run above, with minor malachite stain
	67.20-67.51 m	0.31 m lost core

Metrage	Interval	Description
	67.51-67.71 m	with 30% xenoliths
	67.71-68.12 m	0.41 m lost core
	68.12-68.29 m	with minor malachite stain
SAMPLE 4632	65.07-68.29 m	1.01 m (representative chips) Au 100 ppb, Cu 750 ppm, Mo 32 ppm, Pb 1 ppm, Zn 28 ppm
	68.29-69.34 m	1.05 m lost core
	69.34-69.59 m	phenocrysts 1-2 mm in size, few xenoliths
	69.59-69.65 m	0.06 m lost core
	69.65-69.95 m	fine phenocrysts, half xenoliths of volcanics some moderately magnetic, minor malachite stain
	69.95-70.56 m	0.61 m lost core
SAMPLE 3051 (IOE Ltd.)	67.06-70.10 m	3.04 m Cu 0.13% MoS <sub>2</sub> 0.005% Sludge: Cu 0.32%, MoS <sub>2</sub> 0.007%
	70.56-70.86 m	75% volcanic and tuff xenoliths in latite porphyry
	70.86-71.02 m	0.16 m lost core
	71.02-71.26 m	as run above, very sparse sulfides, minor malachite stain
	71.26-72.24 m	0.98 m lost core
	72.24-72.34 m	minor white sucrosic material
	72.34-72.54 m	0.20 m lost core
	72.54-72.74 m	20% white feldspar phenocrysts 2-3 mm in size in medium-grey matrix with sparse pyrite, 2-3% biotite phenocrysts to 2 mm, minor malachite stain on fractures, rough alignment of phenocrysts at 30° CA, odd quartz vein 3 mm thick, odd dark xenolith
	72.74-72.85 m	0.11 m lost core
	72.85-72.96 m	as run above
	72.96-73.46 m	0.50 m lost core
	73.46-73.91 m	as run above, minor azurite

Metrage	Interval	Description
		SAMPLE 4633 71.02-73.91 m 1.10 m (representative chips) Au 55 ppb, Cu 1550 ppm, Mo 34 ppm, Pb 2 ppm, Zn 29 ppm
		73.91-74.37 m 0.46 m lost core
		SAMPLE 3052 (IOE Ltd.) 70.10-74.37 m 4.27 m Cu 0.15% MoS <sub>2</sub> 0.003% Sludge: Cu 0.31%, MoS <sub>2</sub> 0.012%
74.37	-	End of hole