

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

Present claim: JY 51

Drillhole: IOE Ltd. 70-4

Inclination: -90°

Core Size: NQ

Depth: 122.12 m

Core relogged: 61.54 m

Recovery without Box 11: 61.2%,

with zero for Box 11: 51.2%

Location: 2550' S, 1000' W on IOE grid

Elevation: 1475 m  $\pm$  5 (from 1:5000  
topo map)

Drilled: 1970 07 26 to 08 10

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- 1.83	1.83	<u>Overburden</u>
1.83- 3.96	2.13	<u>Mixture of basic volcanics and latite porphyry in rubble of core fragments</u> 1.83-2.05 m 75% of fragments: dark- to medium-grey highly magnetic basic volcanics with 20% anhedral whitish spots to 1-2 mm in size in very fine grained matrix, 3-4% very finely disseminated sulfides including pyrite and some chalcopyrite; 25% of fragments: rusty-stained buffish-white latite porphyry, quartz and possibly feldspar phenocrysts in fine-grained sucrosic matrix, odd biotite phenocryst to 2 mm in size, 2-3% disseminated pyrite in grains to 1 mm 2.05-2.44 m 0.39 m lost core 2.44-3.14 m 20% of fragments: medium-grey magnetic basic volcanics as above with less abundant sulfides; 80% of fragments: latite porphyry with 10-20% cream-yellow feldspar phenocrysts and possibly some quartz in fine-grained sucrosic matrix, 4-5% disseminated pyrite in grains and aggregates to 6 mm, some malachite stains 3.14-3.35 m 0.21 m lost core 3.35-3.39 m fragments of latite porphyry as above 3.39-3.51 m 0.12 m lost core 3.51-3.53 m 50% of fragments: latite porphyry; 50% of fragments: dark-grey magnetic volcanics 3.53-3.96 m 0.43 m lost core SAMPLE 4590 1.83-3.53 m magnetic volcanics only 0.32 m (representative chips) Au 26 ppb, Cu 270 ppm, Mo 5 ppm, Pb 1 ppm, Zn 34 ppm, Ni 45 ppm

Metrage	Interval	Description
		SAMPLE 4591 1.83-3.53 m latite porphyry only 0.66 m (representative chips) Au 28 ppb, Cu 365 ppm, Mo 14 ppm, Pb 1 ppm, Zn 16 ppm, Ni 7 ppm
3.96- 10.32	6.36	<u>Tuff</u> , light-grey to greyish-white, cherty to fine-grained, pyritic 3.96-4.16 m light-grey, cherty, 3-4% pyrite disseminated and along fractures 4.16-4.59 m 0.43 m lost core 4.59-5.79 m whitish-grey similar to 3.96-4.16 m, 20-40% pyrite in blebs to 2-3 mm and along fractures becoming much less in lowest 25 cm, some pyrite associated with epidote, minor chalcopyrite, locally 3-10% disseminated magnetite
		SAMPLE 4592 3.96-5.79 m 1.40 m (representative chips) Au 375 ppb, Cu 1350 ppm, Mo 13 ppm, Pb 1 ppm, Zn 44 ppm, Ni 27 ppm
		SAMPLE 3053 (Imperial Oil Enterprises Ltd.) 1.83-4.88 m 3.05 m Cu 0.12%, MoS <sub>2</sub> 0.002% 5.79-6.39 m whitish-grey, very fine grained, 10% pyrite and some chalcopyrite disseminated and along fractures, epidote associated with some pyrite, locally disseminated magnetite partly extending from some fractures 6.39-6.99 m as above, 3-5% pyrite, some epidote, locally buff-colored, less pyrite toward bottom
		SAMPLE 4593 5.79-6.99 m 1.20 m (representative chips) Au 135 ppb, Cu 1200 ppm, Mo 18 ppm, Pb 1 ppm, Zn 41 ppm, Ni 23 ppm 6.99-7.01 m 0.02 m lost core 7.01-8.53 m as above, 5-10% pyrite locally to 20%, up to 3-4% magnetite locally, both pyrite and magnetite associated with epidote laminae at 47° CA
		SAMPLE 3054 (IOE Ltd.) 4.88-7.92 m 3.04 m Cu 0.15%, MoS <sub>2</sub> 0.002%

Metrage	Interval	Description
		SAMPLE 4594 7.01-8.53 m 1.53 m (representative chips) Au 550 ppb, Cu 2800 ppm, Mo 33 ppm, Pb 1 ppm, Zn 36 ppm, Ni 23 ppm
		8.53-9.21 m as above, odd lapilli to 1 cm of coarser-grained volcanic, 3-4% pyrite disseminated and along fractures
		SAMPLE 4595 8.53-9.21 m 0.68 m (representative chips) Au 175 ppb, Cu 1700 ppm, Mo 29 ppm, Pb 1 ppm, Zn 34 ppm, Ni 31 ppm
		9.21-10.32 m 1.11 m lost core
10.32-11.73	1.41	<u>Andesite?</u> , dark-grey to lighter- and paler-green-grey, fine-grained, pyritic
		10.32-10.52 m dark-grey, fine-grained, irregularly veined with lighter green-grey, 5% pyrite disseminated and along fractures
		10.52-10.80 m as above, paler-green-grey, brecciated with angular fragments to 2 cm surrounded by fine-grained black matrix
		10.80-11.11 m 0.31 m lost core
		11.11-11.28 m as above, pale-green-grey phases more abundant
		11.28-11.68 m as above, contact between pale-green-grey and dark-grey to black at 62° CA in one fragment but probably not related to stratification
		SAMPLE 4596 10.32-11.68 m 1.05 m (representative chips) Au 18 ppb, Cu 475 ppm, Mo 20 ppm, Pb 1 ppm, Zn 45 ppm, Ni 100 ppm
		11.68-11.73 m 0.05 m lost core
		SAMPLE 3055 (IOE Ltd.) 7.92-11.89 m 3.97 m Cu 0.25%, MoS <sub>2</sub> 0.005%
11.73-30.27	18.54	<u>Latite porphyry</u> , about 20% phenocrysts mostly feldspar to 3 mm in size but grading down to grain size of light-buff-grey matrix, 1-2% biotite phenocrysts 1 mm or so in size, 2-3% pyrite disseminated and along fractures, minor chalcopyrite along fractures

Metrage	Interval	Description
	11.93-13.06 m	1.13 m lost core
SAMPLE 4597	11.73-13.26 m	0.40 m (representative chips) Au 11 ppb, Cu 270 ppm, Mo 4 ppm, Pb 1 ppm, Zn 21 ppm
	13.26-13.86 m	feldspar phenocrysts to 10 mm both euhedral and anhedral, 2% biotite in grains to 2 mm, 2-3% pyrite and up to 5% on some fractures
	13.86-13.88 m	0.02 m lost core
	13.88-14.48 m	as above with one or two xenolithic fragments of pyritic whitish-grey tuff
SAMPLE 4598	13.26-14.48 m	1.20 m (representative chips) Au 145 ppb, Cu 100 ppm, Mo 3 ppm, Pb 1 ppm, Zn 27 ppm
	14.48-15.24 m	as above, odd clot of pyrite to 2 cm
SAMPLE 3056	(IOE Ltd.) 11.89-14.94 m	3.05 m Cu 0.05% MoS <sub>2</sub> trace
	15.24-15.81 m	0.57 m lost core
	15.81-16.31 m	as above, 2-4% biotite phenocrysts, 30% milky white feldspar phenocrysts
	16.31-16.46 m	as above
SAMPLE 4599	14.48-16.46 m	1.41 m (representative chips) Au 8 ppb, Cu 45 ppm, Mo 3 ppm, Pb 3 ppm, Zn 23 ppm
	16.46-16.76 m	0.30 m lost core
	16.76-17.12 m	matrix somewhat lighter colored from here downhole
	17.12-17.74 m	some fractures with 10-12% pyrite, biotite phenocrysts locally to 5%
SAMPLE 3057	(IOE Ltd.) 14.94-17.98 m	3.04 m Cu 0.03%, MoS <sub>2</sub> 0.002%
	17.74-18.25 m	0.51 m lost core
	18.25-19.35 m	odd xenolith of tuff

Metrage	Interval	Description
	SAMPLE 4600	16.46-19.35 m 2.08 m (representative chips) Au 6 ppb, Cu 49 ppm, Mo 1 ppm, Pb 2 ppm, Zn 18 ppm
	19.35-19.76 m	odd streak with 5-6% pyrite
	19.76-20.04 m	0.28 m lost core
	20.04-20.42 m	odd bit of chalcopyrite
	20.42-20.56 m	1-2% of greyish mineral in matrix
	20.56-20.68 m	0.12 m lost core
	20.68-21.34 m	as above
	SAMPLE 3058 (IOE Ltd.)	17.98-21.03 m 3.05 m Cu 0.03% MoS <sub>2</sub> trace
	21.34-21.74 m	as above, one fracture 60-70% coated with pyrite
	SAMPLE 4601	19.35-21.74 m 1.99 m (representative chips) Au 5 ppb, Cu 34 ppm, Mo 2 ppm, Pb 3 ppm, Zn 19 ppm
	21.74-21.95 m	0.21 m lost core
	22.17-23.03 m	0.86 m lost core
	23.47-23.89 m	locally whiter with less biotite and fewer feldspar phenocrysts
	SAMPLE 3059 (IOE Ltd.)	21.03-24.08 m 3.05 m Cu 0.04% MoS <sub>2</sub> trace
	23.89-25.25 m	1.36 m lost core
	25.25-25.45 m	local xenolithic fragments of buff-colored tuff
	SAMPLE 4602	21.95-25.45 m 1.28 m (representative chips) Au 3 ppb, Cu 60 ppm, Mo 1 ppm, Pb 2 ppm, Zn 19 ppm
	25.91-26.63 m	0.72 m lost core
	SAMPLE 3060 (IOE Ltd.)	24.08-27.13 m 3.05 m Cu 0.04% MoS <sub>2</sub> trace
	27.33-27.58 m	0.25 m lost core
	27.58-28.19 m	odd core fragment lighter-colored: free of biotite and feldspar phenocrysts, odd core fragment with slightly darker-grey matrix

Metrage	Interval	Description
		28.19-28.61 m up to 5% pyrite on one or two fractures in local whiter parts free of phenocrysts
		28.61-29.49 m 0.88 m lost core
		29.49-29.87 m odd core fragment with darker matrix, all buff and white with no biotite in lowest 6 cm
		SAMPLE 4603 25.45-29.87 m 2.57 m (representative chips) Au 5 ppb, Cu 108 ppm, Mo 1 ppm, Pb 3 ppm, Zn 20 ppm
		29.87-29.92 m as above
		29.92-30.27 m medium-grey matrix
		SAMPLE 3061 (IOE Ltd.) 27.13-30.18 m 3.05 m Cu 0.05%, MoS <sub>2</sub> trace
30.27- 31.43	1.16	<u>Fault zone</u> in latite porphyry 30.27-30.37 m fault gouge: fragments of latite porphyry with medium-grey matrix cemented with earthy material 30.37-31.09 m 0.72 m lost core 31.09-31.20 m light-buff-grey partly earthy material - alteration along a fault SAMPLE 4604 29.87-31.20 m 0.61 m (representative chips) Au 6 ppb, Cu 98 ppm, Mo 4 ppm, Pb 2 ppm, Zn 22 ppm 31.20-31.37 m latite porphyry with very light-colored matrix 31.37-31.43 m fault gouge: altered earthy rubble
31.43- 66.45	35.02	<u>Latite porphyry</u> 31.43-31.77 m very light-colored matrix 31.43-31.49 m few clots of pyrite to 8 mm in size 31.77-32.01 m 0.24 m lost core 32.01-32.46 m very light-colored matrix, no biotite 32.46-33.66 m light-buff matrix, biotite almost absent, very minor malachite in spots 2 mm in size, local clots of pyrite to 1 cm some along fractures, matrix slightly darker from 33.26-33.66 m SAMPLE 3062 (IOE Ltd.) 30.18-33.22 m 3.04 m Cu 0.03%, MoS <sub>2</sub> trace Sludge: Cu 0.04%, MoS <sub>2</sub> trace

Metrage	Interval	Description
SAMPLE 4605	31.20-33.66 m	2.22 m (representative chips) Au 1 ppb, Cu 7 ppm, Mo 6 ppm, Pb 2 ppm, Zn 27 ppm
	33.66-34.29 m	0.63 m lost core
	34.29-34.53 m	light-brown matrix, 1-2% biotite phenocrysts
	34.53-36.03 m	1.50 m lost core
SAMPLE 3063	(IOE Ltd.) 33.22-36.27 m	3.05 m Cu 0.04% MoS <sub>2</sub> trace Sludge : Cu 0.04%, MoS <sub>2</sub> trace
	36.38-37.37 m	0.99 m lost core
	37.37-38.10 m	30% pyrite on some fractures, matrix somewhat lighter-colored from 37.70-38.10 m
SAMPLE 4606	34.29-38.10 m	1.32 m (representative chips) Au 13 ppb, Cu 33 ppm, Mo 4 ppm, Pb 2 ppm, Zn 22 ppm
SAMPLE 3064	(IOE Ltd.) 36.27-39.32 m	3.05 m Cu 0.03%, MoS <sub>2</sub> trace Sludge : Cu 0.03%, MoS <sub>2</sub> trace
	39.82-40.53 m	one piece of split core with medium-grey matrix in top 8 cm
	40.53-40.76 m	0.23 m lost core
	40.84-41.12 m	0.28 m lost core
	41.12-41.76 m	light-buff matrix, pyrite to 1 mm along fractures
SAMPLE 4607	38.10-41.76 m	3.15 m (representative chips) Au 7 ppb, Cu 12 ppm, Mo 5 ppm, Pb 3 ppm, Zn 19 ppm
	42.02-42.81 m	0.79 m lost core
SAMPLE 3065	(IOE Ltd.) 39.32-42.37 m	3.05 m Cu 0.03%, MoS <sub>2</sub> trace Sludge : Cu 0.03%, MoS <sub>2</sub> trace
	42.98-44.46 m	1.48 m lost core
	44.46-44.81 m	pyrite along fractures
	44.97-45.78 m	0.81 m lost core
SAMPLE 3066	(IOE Ltd.) 42.37-45.42 m	3.05 m Cu 0.04% MoS <sub>2</sub> trace Sludge : Cu 0.03%, MoS <sub>2</sub> 0.003%

Metrage	Interval	Description
SAMPLE 4608	41.76-46.02 m	1.18 m (representative chips) Au 8 ppb, Cu 84 ppm, Mo 2 ppm, Pb 2 ppm, Zn 23 ppm
	46.12-46.65 m	0.53 m lost core
	47.39-47.71 m	0.32 m lost core
SAMPLE 3067	(IOE Ltd.) 45.42-48.46 m	3.04 m Cu 0.04% MoS <sub>2</sub> trace
	48.60-48.66 m	matrix slightly darker-grey
SAMPLE 4609	46.02-49.38 m	2.51 m (representative chips) Au 5 ppb, Cu 65 ppm, Mo 1 ppm, Pb 2 ppm, Zn 18 ppm
	49.38-49.50 m	light-grey, 10% milky white phenocrysts to 5 mm but mostly 2-3 mm and finer in fine-grained slightly darker-grey matrix, few whitish minerals in matrix, 1-2% biotite phenocrysts to 1 mm, 1% disseminated pyrite in grains less than 1 mm, minor pyrite on fractures
	49.50-49.83 m	0.33 m lost core
	49.83-49.87 m	2-3% sulfides including some chalcopyrite
	49.87-50.75 m	several unassimilated tuff fragments some larger than core diameter, 2-3% biotite phenocrysts in porphyry, also few white phenocrysts to 1 cm, odd clots of chalcopyrite and pyrite to 1 cm
	49.87 m	contact with darker-buff tuff fragment at 32° CA; fragment with 5-10% finely disseminated pyrite, other tuff fragments downhole some elongated with disseminated pyrite in aggregates 5 by 1 mm
	50.68-50.75 m	unassimilated tuff fragment with 5-10% finely disseminated sulfides including minor chalcopyrite in aphanitic light-grey matrix, few white equant cherty grains to 5 mm resembling phenocrysts, sharp contacts to fragment
	50.75-51.77 m	white phenocrysts and biotite slightly more abundant, biotite to 3 mm in size some with hexagonal shape
SAMPLE 3068	(IOE Ltd.) 48.46-51.51 m	3.05 m Cu 0.03% MoS <sub>2</sub> 0.002%
	51.77-52.11 m	unassimilated highly pyrite tuff fragment
	52.11-52.32 m	2-3% biotite phenocrysts
	52.32-52.69 m	10-15% milky white phenocrysts
	52.69-53.53 m	0.84 m lost core



Metrage	Interval	Description
	SAMPLE 3069 (IOE Ltd.)	51.51-54.56 m 3.05 m Cu 0.03%, MoS <sub>2</sub> trace
	53.91-55.30 m	1.39 m lost core
	56.11-56.69 m	medium-grey matrix
	SAMPLE 4558 55.30-56.69 m	1.39 m (representative chips) Au 7 ppb, Cu 76 ppm, Mo 2 ppm, Pb 2 ppm, Zn 22 ppm
	56.69-57.56 m	medium-grey matrix, 4-5% disseminated sulfides with some chalcopyrite, odd xenolith to 4 cm of pyritic tuff
	SAMPLE 3070 (IOE Ltd.)	54.56-57.61 m 3.05 m Cu 0.04%, MoS <sub>2</sub> trace
	57.56-58.02 m	lighter-colored matrix, pyrite content decreasing
	SAMPLE 4559 56.69-58.02 m	1.33 m (representative chips) Au 13 ppb, Cu 135 ppm, Mo 1 ppm, Pb 42 ppm, Zn 135 ppm
	58.02-58.47 m	0.45 m lost core
	58.47-59.48 m	light-colored matrix, 3% finely disseminated pyrite
	59.48-59.80 m	0.32 m lost core
	59.80-60.20 m	light-colored matrix, 2% pyrite
	SAMPLE 4560 58.47-60.20 m	1.41 m (representative chips) Au 21 ppb, Cu 107 ppm, Mo 2 ppm, Pb 5 ppm, Zn 35 ppm
	60.20-60.55 m	lighter-grey matrix, less than 2% pyrite
	SAMPLE 3071 (IOE Ltd.)	57.61-60.66 m 3.05 m Cu 0.04%, MoS <sub>2</sub> trace
	60.55-60.71 m	0.16 m lost core
	60.71-61.16 m	unassimilated tuff with 5% disseminated pyrite and 1-2% milky white grains 3-5 mm in size

Metrage	Interval	Description
		61.16-61.83 m 10-20% milky white phenocrysts in light-grey matrix with 2-3% disseminated pyrite locally to 5%
		SAMPLE 4561 60.20-61.83 m 1.47 m (representative chips) Au 10 ppb, Cu 53 ppm, Mo 2 ppb, Pb 12 ppm, Zn 34 ppm
		61.83-62.03 m 0.20 m lost core
		62.03-62.73 m 1-2% disseminated pyrite, one 4-cm fragment of very pyritic tuff
		62.73-62.80 m 0.07 m lost core
		62.80-63.40 m as immediately above
		SAMPLE 4562 62.03-63.40 m 1.30 m (representative chips) Au 4 ppb, Cu 52 ppm, Mo 1 ppm, Pb 3 ppm, Zn 19 ppm
		63.40-66.45 m core not available : IOE log indicates "Feldspar Porphyry" to 66.45 m
		SAMPLE 3072 (IOE Ltd.) 60.66-63.70 m 3.04 m Cu 0.03%, MoS <sub>2</sub> 0.002%
		SAMPLE 3073 (IOE Ltd.) 63.70-66.75 m 3.05 m Cu 0.03%, MoS <sub>2</sub> trace
66.45-71.93	5.48	<u>Fault gouge</u> 66.45-71.93 m core not available: IOE log indicates fault gouge within an interval of "Andesite" from 66.45-110.64 m
		SAMPLE 3074 (IOE Ltd.) 66.75-69.80 m 3.05 m Cu 0.05%, MoS <sub>2</sub> trace Sludge : Cu 0.05%, MoS <sub>2</sub> trace
71.93-83.21	11.28	<u>Core not available:</u> IOE log indicates "Andesite"
		SAMPLE 3075 (IOE Ltd.) 69.80-72.85 m 3.05 m Cu 0.05%, MoS <sub>2</sub> trace Sludge : Cu 0.07%, MoS <sub>2</sub> 0.002%
		SLUDGE SAMPLE (IOE Ltd.) 73.15-76.20 m 3.05 m Cu 0.06%, MoS <sub>2</sub> 0.002%
		SLUDGE SAMPLE (IOE Ltd.) 76.20-79.25 m 3.05 m Cu 0.05%, MoS <sub>2</sub> 0.002%
		SLUDGE SAMPLE (IOE Ltd.) 79.25-82.30 m 3.05 m Cu 0.07% MoS <sub>2</sub> 0.003%

Metrage	Interval	Description
83.21-89.51	6.30	<u>Basic volcanics</u>
		83.21-83.43 m possibly tuffaceous or a flow top, some core fragments medium-grey-green with highly variable amounts up to 20% of milky white grains to 3 mm but mostly about 1 mm; matrix appears clastic; boundaries of fragments with fine-grained dark-grey rock are sharp or gradational across a few mm; all non-magnetic, pyrite on fracture surfaces
		83.43-83.67 m 0.24 m lost core
		83.67-83.78 m as interval above but more dark-grey fine-grained core fragments, cut by quartz-filled shear zone 5-6 cm wide more or less parallel CA, locally with 10% pyrite in veins and irregular clots; grey-green material appears to be alteration of dark-grey
		83.78-84.05 m 0.27 m lost core
		84.05-84.45 m dark-grey to black, very fine grained, slightly magnetic, 5-10% pyrite along fractures, few irregular patches of light-green-grey to 5 cm in size veined with quartz and pyrite (alteration of black)
SAMPLE 4563	83.21-84.45 m	0.73 m (split core) Au 22 ppb, Cu 78 ppm, Mo 1 ppm, Pb 22 ppm, Zn 67 ppm, Ni 72 ppm
		84.45-84.58 m 0.13 m lost core
		84.58-84.78 m black, fine-grained, igneous texture, moderately magnetic, mostly altered to medium-grey-green, local black masses 1-2 mm in size surrounded by grey-green, few quartz veins, locally with 10% milky white round spots to 2 mm or so
		84.78-85.04 m 0.26 m lost core
		85.04-85.44 m black magnetic lava irregularly altered to grey-green, 5% pyrite on fracture surfaces, irregular quartz veins
		85.13-85.16 m fault at 30° CA, sheared clayey gouge, serpentine on shear surface
SLUDGE SAMPLE	(IOE Ltd.) 82.30-85.34 m	3.04 m Cu 0.04%, MoS <sub>2</sub> 0.003%
		85.44-85.50 m 0.06 m lost core

Metrage	Interval	Description
	85.50-85.90 m	as above, irregularly veined with quartz, pyrite, and altered grey-green, 10-20% pyrite along same fractures
	85.75 m	7-mm wide vein of massive pyrite in quartz zone up to 2 cm wide at 32° CA
SAMPLE 4564	84.58-85.90 m	1.00 m (split core) Au 16 ppb, Cu 103 ppm, Mo 4 ppm, Pb 5 ppm, Zn 50 ppm, Ni 70 ppm
	85.90-85.95 m	0.05 m lost core
	85.95-86.27 m	black with irregular altered patches of green-grey, unaltered irregular black bands at 32° CA
	86.27-86.41 m	0.14 m lost core
	86.41-87.17 m	25% black lava 75% irregularly altered to green-grey with sharp contacts, veined with quartz and pyrite, 50% or more pyrite on some fracture surfaces; one quartz-pyrite stringer 1-2 cm wide seems to feed much narrower very irregular stringers with adjacent pyrite; chalcopyrite in some fractures
	86.86-86.88 m	clayey fault gouge
	86.88-86.99 m	0.11 m lost core
	87.17-87.43 m	0.26 m lost core
	87.43-87.93 m	mostly altered black fine-grained lava with pyrite along fractures
	87.57-87.61 m	clayey fault gouge
	87.93-88.13 m	magnetic black lava with patches of altered grey-green, pyrite on fractures some 1 mm thick
SAMPLE 4565	85.95-88.13 m	1.67 m (split core) Au 24 ppb, Cu 365 ppm, Mo 6 ppm, Pb 2 ppm, Zn 50 ppm, Ni 86 ppm
	88.13-88.24 m	0.11 m lost core
SLUDGE SAMPLE (IOE Ltd.)	85.34-88.39 m	3.05 m Cu 0.05%, MoS <sub>2</sub> 0.002%
	88.24-88.33 m	as above, some fragments with 1-2 mm white spots in green-grey matrix
	88.33-88.74 m	highly fractured pale-green <u>chert</u> with numerous veinlets of green chlorite at all orientations, 5-10% pyrite in irregular veins and patches, few irregular patches of black non-magnetic lava, irregular quartz masses

Metrage	Interval	Description
		88.55-89.15 m clayey pyritic fault gouge 2 cm thick longitudinally along core
		88.74-89.15 m medium-grey volcanic, grain size about 1 mm, along one side of fault
		SAMPLE 4566 88.24-89.15 m 0.91 m (split core) Au 29 ppb, Cu 308 ppm, Mo 6 ppm, Pb 1 ppm, Zn 42 ppm, Ni 65 ppm
		89.15-89.51 m dark-grey, locally altered to green-grey, locally slightly magnetic, fine-grained pyrite along fractures
89.51-90.73	1.22	<u>Tuff</u> , medium-green-grey to pale-green to darker-green
		89.51-89.84 m mostly medium-green-grey, some core fragments of pale-green chert, pyrite blobs to 2-3 cm locally
		SAMPLE 4567 89.15-89.84 m 0.69 m (split core) Au 35 ppb, Cu 500 ppm, Mo 10 ppm, Pb 1 ppm, Zn 47 ppm, Ni 60 ppm
		89.84 m irregular vein with pyrite, epidote, and quartz along contact
		89.84-90.11 m pale-green-grey on one side, dark-green on other side of core, grain size to 1-1½ mm, dark-green moderately magnetic, planar feature (incipient flow banding?) in dark at 30° CA, irregular areas of pale-grey-green cherty rock, pyrite and epidote in irregular stringers
		90.11-90.16 m dark cut by light-green-grey with pyrite and epidote, one vein along core, other at 60° CA, blob of pyrite 2 cm in size
		90.16-90.73 m pale-green chert irregularly veined with pyrite, epidote, and darker-green-grey streaks, blobs of pyrite 1-2 cm, dark-grey - slightly magnetic and mottled with medium-grey patches
		90.24 m laminations at 30° CA, with glassy quartz grains resembling a tuff
		SAMPLE 4568 89.84-90.73 m 0.89 m (split core) Au 80 ppb, Cu 985 ppm, Mo 6 ppm, Pb 1 ppm, Zn 41 ppm, Ni 40 ppm
90.73-95.71	4.98	<u>Tuff</u> , light-whitish-grey to greyish-white, pyritic

Metrage	Interval	Description
	90.73-91.23 m	light-greyish white with 10% pyrite along laminae at 70° and disseminated, irregular masses of fine-grained medium-grey volcanics?, pyrite ½-1 mm wide in centre of white quartz veins 2-3 mm wide with many orientations, few masses of medium-buff-grey fine-grained material, minor chalcopyrite on fractures
	91.23-92.13 m	mostly greyish-white, aphanitic, intricately fractured with irregular fillings of pyrite which along with disseminated constitutes 5-10% of rock; odd medium-grey fine-grained mass, odd bit of MoS <sub>2</sub> along fractures, minor epidote associated with pyrite in some fractures, minor chalcopyrite along fractures
SAMPLE 4569	90.73-92.13 m 1.40 m	(representative chips) Au 80 ppb, Cu 1000 ppm, Mo 77 ppm, Pb 1 ppm, Zn 33 ppm, Ni 16 ppm
	92.13-92.43 m	as interval right above but no MoS <sub>2</sub> noted
	92.43-92.91 m	20-30% pyrite
	92.91-93.07 m	0.16 m lost core
SAMPLE 3076	(IOE Ltd.) 90.53-92.96 m 2.43 m	Cu 0.12%, MoS <sub>2</sub> 0.002% Sludge : Cu 0.06%, MoS <sub>2</sub> 0.002%
SAMPLE 4570	92.13-93.42 m 1.13 m	(representative chips) Au 75 ppb, Cu 790 ppm, Mo 16 ppm, Pb 1 ppm, Zn 32 ppm, Ni 15 ppm
	93.83-94.39 m	0.56 m lost core
	94.39-94.59 m	minor chalcopyrite on fractures, local magnetite on fractures
	94.95 m	laminae at 62° CA
SAMPLE 4571	93.42-94.95 m 0.97 m	(representative chips) Au 150 ppb, Cu 1400 ppm, Mo 18 ppm, Pb 3 ppm, Zn 30 ppm, Ni 8 ppm
	94.95-95.71 m	0.76 m lost core
SAMPLE 3077	(IOE Ltd.) 92.96-95.71 m 2.76 m	Cu 0.14%, MoS <sub>2</sub> 0.003% Sludge : Cu 0.09%, MoS <sub>2</sub> 0.003%
95.71-100.79	5.08	<u>Andesite?</u> , dark-grey to medium-green-grey, very fine grained

Metrage	Interval	Description
	95.71-96.47 m	dark-grey to black, locally medium-green grey, 10% fragments of green-white tuff as in unit above, 2-3% pyrite mostly along fractures but some associated with quartz and light-green-grey in irregular masses 4-5 cm long, some white spots 1-2 mm in size, locally slightly magnetic, local rounded whitish spots to 2 mm in size resembling amygdules
	96.16-96.47 m	irregular wisps of paler-green-grey and pyrite 3-4 cm long by 4-5 mm wide at 35° CA, white tuff fragments almost absent
	96.47-96.82 m	0.35 m lost core
	96.82-97.11 m	as above, non-magnetic, clots and stringers of pyrite to 4-5 cm long associated with quartz and constituting 10% of rock, few per cent white amygdules
	97.11-97.26 m	0.15 m lost core
	97.26-97.59 m	as above, amygdules to 20% of rock, some to 1 cm in size, some oval shaped
SAMPLE 4572	95.71-97.59 m	1.38 m (split core) Au 60 ppb, Cu 550 ppm, Mo 41 ppm, Pb 1 ppm, Zn 58 ppm, Ni 51 ppm
SLUDGE SAMPLE (IOE Ltd.)	94.49-97.54 m	3.05 m Cu 0.07% MoS <sub>2</sub> 0.005%
	97.59-97.81 m	0.22 m lost core
	97.81-99.26 m	as above, local bit of magnetite but mostly not, amygdules roughly aligned at 28° CA, not as much pyrite as uphole, ½ mm calcite on same fractures
SAMPLE 4573	97.81-99.26 m	1.45 m (split core) Au 23 ppb, Cu 225 ppm, Mo 5 ppm, Pb 1 ppm, Zn 56 ppm, Ni 43 ppm
	99.26-99.67 m	0.41 m lost core
	99.67-99.95 m	as above, less pyrite
	99.95-100.47 m	0.52 m lost core
	100.47-100.79 m	as above, 2-3% pyrite, fine-grained in lowest 8 cm
SLUDGE SAMPLE (IOE Ltd.)	97.54-100.58 m	3.04 m Cu 0.05%, MoS <sub>2</sub> 0.002%

Metrage	Interval	Description
		SAMPLE 4574 99.67-100.79 m 0.60 m (split core) Au 55 ppb, Cu 300 ppm, Mo 5 ppm, Pb 1 ppm, Zn 47 ppm, Ni 42 ppm
100.79- 100.86	0.07	<u>Tuff</u> , whitish, aphanitic, 5-10% pyrite along fractures and disseminated, similar to 90.73-95.71 m
		SAMPLE 4575 100.79-100.86 m 0.07 m (split core) Au 185 ppb, Cu 3900 ppm, Mo 11 ppm, Pb 1 ppm, Zn 40 ppm, Ni 37 ppm
100.86- 106.25	5.39	<u>Tuff</u> , greyish-brown and medium-grey 100.86-103.11 m 2.25 m lost core 103.11-103.35 m some core fragments greyish-brown and very fine-grained, others green-grey and like andesite above
		SAMPLE 4576 103.11-103.35 m 0.24 m (split core) Au 30 ppb, Cu 600 ppm, Mo 8 ppm, Pb 1 ppm, Zn 52 ppm, Ni 148 ppm
		103.35-104.12 m 0.77 m lost core
		SLUDGE SAMPLE (IOE Ltd.) 100.58-103.63 m 3.05 m Cu 0.07%, MoS <sub>2</sub> 0.003%
		104.12-104.70 m some core fragments fine-grained and medium-grey, others lighter-colored and cherty, grain size increasing to 1-2 mm in lower part with definite clastic texture: angular white grains to 2 mm in finer matrix, pyrite and quartz on some fractures
		SAMPLE 4577 104.12-104.70 m 0.58 m (split core) Au 38 ppb, Cu 340 ppm, Mo 4 ppm, Pb 1 ppm, Zn 32 ppm, Ni 9 ppm
		104.70-104.86 m same as lower part of run above, sparse pyrite in fractures and possibly finely disseminated
		SAMPLE 4578 104.70-104.86 m 0.16 m (split core) Au 16 ppb, Cu 56 ppm, Mo 3 ppm, Pb 1 ppm, Zn 32 ppm, Ni 5 ppm
		104.86-105.56 m 0.70 m lost core



Metrage	Interval	Description
		108.80-108.97 m some core fragments same as 107.82-107.84 m; most core fragments dark-grey and grey-green volcanics some with 1-2% pyrite possibly bombs
		108.97-109.23 m brown and greyish-brown tuff as above, fine-grained, 1-2% pyrite along fractures
SAMPLE 4581	107.82-109.23 m 0.94 m	(split core) Au 3 ppb, Cu 108 ppm, Mo 2 ppm, Pb 1 ppm, Zn 28 ppm, Ni 24 ppm
	109.23-109.61 m 0.38 m	lost core
	109.61-109.73 m	light-grey, cherty, sparse pyrite
SLUDGE SAMPLE (IOE Ltd.)	106.68-109.73 m 3.05 m	Cu 0.06%, MoS <sub>2</sub> 0.002%
	109.73-109.89 m	medium- and dark-grey, cherty, lighter- grey at bottom
	109.89-110.28 m 0.39 m	lost core
	110.28-110.40 m	medium-grey, fine-grained
	110.40-110.44 m	light-grey, cherty, 2-3% finely disseminated pyrite
	110.44 m	sharp contact at 55° CA
	110.44-110.79 m	darker-grey, fine-grained, not cherty except toward bottom with greenish-grey, odd black patch - bomb?
	110.79-110.95 m	medium- to dark-grey, very fine grained, odd pyrite on fractures
SAMPLE 4582	109.61-110.95 m 0.95 m	(split core) Au 2 ppb, Cu 68 ppm, Mo 5 ppm, Pb 2 ppm, Zn 26 ppm, Ni 17 ppm
	110.95-111.05 m 0.10 m	lost core
111.05- 115.71	4.66	<u>Tuff</u> , mostly greyish-brown with a purplish cast, grain size to ½ mm 111.05-111.80 m dark-brownish-purplish-grey, grain size less than ½ mm, sparse disseminated pyrite with more on some fractures, odd core fragment of light-grey cherty tuff with 2-3% pyrite, planar layering at 32° CA indistinctly visible on a few split pieces

Metrage	Interval	Description
		105.56-106.01 m same as run above, medium-grey, white clasts to 3 mm, less than 1% pyrite disseminated and along fractures, faint laminations at about 30° CA
		106.01-106.07 m 0.06 m lost core
		106.07-106.25 m as in run above
		SAMPLE 4579 105.56-106.25 m 0.63 m (split core) Au 7 ppb, Cu 38 ppm, Mo 4 ppm, Pb 1 ppm, Zn 36 ppm, Ni 3 ppm
106.25- 111.05	4.80	<u>Tuff</u> , medium- to light-grey to whitish-grey, locally cherty or pyritic
		106.25-106.62 m medium- to light-grey, cherty, less than 1% pyrite, lighter-grey in bottom half
		106.62-107.42 m 0.80 m lost core
		SLUDGE SAMPLE (IOE Ltd.) 103.63-106.68 m 3.05 m Cu 0.06%, MoS <sub>2</sub> 0.002%
		107.42-107.71 m many types of core fragments including fine-grained light-brownish-grey, dark-grey resembling amygdaloidal lava uphole - possibly a bomb, some with disseminated sulfides; sparse pyrite in fractures
		SAMPLE 4580 106.25-107.71 m 0.66 m (split core) Au 7 ppb, Cu 135 ppm, Mo 3 ppm, Pb 1 ppm, Zn 29 ppm, Ni 27 ppm
		107.71-107.82 m 0.11 m lost core
		107.82-107.84 m brownish-grey, fine-grained, locally veined with quartz and pyrite but less than 1% pyrite overall
		107.84-107.88 m pale-greenish-white with pyrite streaks at about 30° CA
		107.88-107.99 m same as 107.82-107.84 m, sparse pyrite along a few fractures
		107.99-108.09 m greyish-white, copiously veined with pyrite and pyrite in aggregates
		108.09-108.42 m same as 107.82-107.84 m, very sparse disseminated pyrite
		108.25 m clots of pyrite to 1 cm along fracture
		108.42-108.80 m 0.38 m lost core

Metrage	Interval	Description
	111.80-111.93 m	0.13 m lost core
	111.93-112.06 m	dark-grey, uniform grain size to ½ mm, sparse pyrite disseminated and along fractures
	112.06-112.34 m	as run above, slightly purplish on diamond-cut surface, some cherty?, 1-2% chalcopyrite and pyrite on fracture surfaces
	112.34-112.82 m	as run above, dark-brownish-grey, very fine-grained almost aphanitic, sparse sulfides, few irregular lighter-grey mottles
SAMPLE 4583	111.05-112.82 m	1.64 m (split core) Au 13 ppb, Cu 71 ppm, Mo 3 ppm, Pb 1 ppm, Zn 28 ppm, Ni 20 ppm
SLUDGE SAMPLE (IOE Ltd.)	109.73-112.78 m	3.05 m Cu 0.05%, MoS <sub>2</sub> 0.002%
	112.82-113.28 m	0.46 m lost core
	113.28-113.41 m	dark-brownish-grey, few angular white grains to 1 mm in finer matrix
	113.41-113.77 m	0.36 m lost core
	113.77-114.31 m	dark-greyish-purplish-brown, minor pyrite along some fractures, faint planar structure at about 30° CA, odd round area of lighter-grey with slightly coarser grain size - lapilli?, almost black in lowest 10 cm
	114.31-114.81 m	0.50 m lost core
	114.81-114.97 m	black in top 5 cm, below - dark-purplish-grey-brown, sparse pyrite along fractures
	114.97-115.24 m	0.27 m lost core
	115.24-115.40 m	dark-purplish-grey-brown
SAMPLE 4584	113.28-115.40 m	0.99 m (split core) Au 1 ppb, Cu 87 ppm, Mo 7 ppm, Pb 2 ppm, Zn 28 ppm, Ni 19 ppm
	115.40-115.47 m	0.07 m lost core
	115.47-115.71 m	as run above but with 3-4% pyrite as blobs to 1 cm and along fractures, black in lowest 2-3 cm
115.71- 115.92	0.21	<u>Tuff</u> , whitish, 5% or more pyrite finely disseminated and along fractures, few angular fragments of purplish-brown tuff surrounded by very fine grained white matrix

Metrage	Interval	Description
		SAMPLE 4585 115.47-115.92 m 0.45 m (split core) Au 6 ppb, Cu 250 ppm, Mo 4 ppm, Pb 1 ppm, Zn 28 ppm, Ni 20 ppm
		SLUDGE SAMPLE (IOE Ltd.) 112.78-115.82 m 3.04 m Cu 0.05%, MoS <sub>2</sub> 0.02%
115.92- 120.57	4.65	<u>Tuff</u> , mostly greyish-brown with a purplish cast 115.92-116.03 m mostly purplish-brown 116.03-116.74 m 0.71 m lost core 116.74-116.87 m dark-purplish-brownish-grey, very fine grained 116.87-117.42 m 0.55 m lost core 117.42-117.55 m somewhat lighter-colored 117.55-117.67 m as above but with whitish tuff layer 1 cm thick 117.67-118.06 m 0.39 m lost core 118.06-118.21 m as above but with 4-cm layer of whitish tuff, one core fragment with 50% pyrite some in cubes and minor chalcopyrite SAMPLE 4586 115.92-118.21 m 0.64 m (split core) Au 12 ppb, Cu 190 ppm, Mo 4 ppm, Pb 1 ppm, Zn 42 ppm, Ni 15 ppm 118.21-118.57 m 0.36 m lost core 118.57-118.74 m purplish-brown with 4-cm layer of white tuff, sparse pyrite 118.74-118.95 m 0.21 m lost core 118.95-119.13 m core fragments of purplish-brown and greenish-grey with grain size to 1 mm with minor pyrite on fractures 119.13-119.25 m 0.12 m lost core 119.25-119.38 m purplish-brown, very fine grained, one light-grey cherty core fragment, few blobs of pyrite to 1 cm in centre of whitish bleached veins to 2 cm wide 119.38-119.74 m 0.36 m lost core

Metrage	Interval	Description
		119.74-120.23 m purplish-brown, few fractures with 10-20% pyrite and adjacent white bleaching, whitish parts with 4-5% pyrite
		SAMPLE 4587 118.57-120.23 m 0.97 m (split core) Au 210 ppb, Cu 600 ppm, Mo 3 ppm, Pb 1 ppm, Zn 31 ppm, Ni 35 ppm
		120.23-120.57 m 0.34 m lost core
120.57- 120.91	0.34	<u>Tuff</u> , whitish, mottled and veined with 40-50% pyrite and minor chalcopyrite, irregular layering at about 45° CA - uncertain if parallel to bedding
		SAMPLE 4588 120.57-120.91 m 0.34 m (split core) Au 65 ppb, Cu 2500 ppm, Mo 3 ppm, Pb 1 ppm, Zn 32 ppm, Ni 15 ppm
120.91- 122.12	1.21	<u>Tuff</u> , mostly greyish-brown with a purplish cast
		120.91-120.99 m purplish-brown, sparse pyrite
		120.99-121.23 m 0.24 m lost core
		121.23-121.76 m purplish-brown, pyrite along fractures
		SAMPLE 4589 120.91-121.76 m 0.61 m (representative chips) Au 1 ppb, Cu 75 ppm, Mo 4 ppm, Pb 1 ppm, Zn 31 ppm, Ni 15 ppm
		121.76-122.12 m 0.36 m lost core
122.12	-	End of hole