

Outokumpu Mines Ltd.

Diamond Drilling Report

on the

Adams-Deloro-Eldorado Property

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Paul Davis Outokumpu Mines Ltd. February, 1996



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1.0 Introduction

Bradley Bros. Limited was contracted by Outokumpu Mines Ltd. to diamond drill 7 holes on the Adams-Deloro-Eldorado property located in Adams, Deloro, and Eldorado Townships, Porcupine Mining Division, District of Cochrane. The property is comprised of 45 contiguous unpatented mining claims totaling 145 units (Fig. 1).

A total of 2027 metres of BQ diamond drilling was completed in 7 diamond drill holes between November 16 and December 12, 1995. All of the core was logged by Outokumpu personnel at the Outokumpu Mines Ltd office in Timmins, Ontario. Copies of all of the logs are attached in appendix 1 at the back of this report.

The objective of this program was to test the komatilitic stratigraphy on the property. The diamond drilling was concentrated on the komatilitic succession approximately 2 to 6 kilometres west of the Redstone Nickel Mine (Fig. 1). Coincident high magnetic anomalies and electromagnetic conductors were targeted within this diamond drill program.

2.0 Location, Access, and Topography

The Adams-Deloro-Eldorado property is located in Adams (G-3925), Deloro (G-3993), and Eldorado (G-4001) Townships, District of Cochrane, Porcupine Mining Division. The property is situated approximately 16 kilometres south of the City of Timmins. The claim block is located in the northeastern corner of Adams Township, the northwestern corner of Eldorad Township, and the southeastern portion of Deloro Township. The Shaw Creek crosses the property in Deloro Township (Fig. 2).

The northern portion of the property is accessed by a bush road (Shaw Creek Road) that originates by the Buffalo Arkerite Tailings Dam during the spring, summer, and fall. The property was accessed via a winter road off of Mountjor Road which connects to Pine St. South. All roads used were pre-existing exploration or lumber roads.

The area is dominated by muskeg swamp and beaver ponds separated by outcrop ridges and eskers which comprise approximately 5 percent of the property. Outcrop exposure is less than 2 percent and is limited to areas dominated by the ridges.

3.0 Property

The Adams-Deloro-Eldorad property consists of 45 contiguous unpatented mining claims comprising 145 units in Adams, Deloro, and Eldorado Townships (table 1). The property is 100% owned by Outokumpu Mines Ltd.. There are currently no extensions on any of the mining claims within this property.

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Komatiite Nickel Exploration Projects:

Grassroots Exploration Program l'au (

- Н Hart Deposit
- M **McWatters** Deposit
- Т Texmont Mine

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Figure 2: Outokumpu Mines Ltd., Claim Location Map Adams. Eldoarado, and Deloro Townships. Scale 1:40,000



Claim Number	Township	Number of Unit
1198993	Adams	1
1204098	Adams	3
1204099	Adams	1
1204309	Adams	2
1204310	Adams	2
1204311	Adams	2
1204318	Adams	9
1204319	Adams	5
1204320	Adams	1
1204321	Adams	6
1204322	Adams	6
1204323	Adams	1
1204327	Adams	9
1204328	Adams	2
1204329	Adams	1
1204335	Adams	2
1204342	Adams	4
1204343	Adams	4
1204344	Adams	4
1204345	Adams	4
1204346	Adams	6
1204347	Adams	2
1204348	Adams	9
1204349	Adams	2
1181900	Deloro	1
1198831	Deloro	3
1198922	Deloro	1
1198923	Deloro	2
1198924	Deloro	2
1204100	Deloro	4
1204404	Deloro	1
1204405	Deloro	1
1204406	Deloro	2
1204407	Deloro	6
1204595	Deloro	4
1204597	Deloro	3
1204599	Deloro	1
1204600	Deloro	
1204304	Eldorado	5
1204305	Eldorado	8
1204306	Eldorado	6
1204307	Eldorado	2
1204317	Eldorado	2
1204325	Eldorado	1
1 1204399	i Eldorado	i 1

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 1204399
 Eldorado
 1

 Table 1: Outokumpu Mines Ltd. Property Holdings; Adams-Deloro-Eldorado property.

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4.0 Regional Geology

The Adams-Deloro-Eldorado property is located in the southwestern portion of the Abitibi greenstone belt (Fig. 3). The Abitibi greenstone belt is characterized by east-west trending metasedimentary rocks and metavoleanic rocks that have been intruded by a series of felsic to intermediate plutons and diabase dykes.

The area south of the Destor-Porcupine Fault in the Timmins camp is comprised of a series of calcalkalic mafic to felsic volcanic rocks, overlain by a series of thick sulphide and oxide iron formations, overlain by kornatiitic dunites to basalts which are intercalated with minor proportions of tholeiitic volcanics, and is topped by a thick sequence of kornatiitic basalts and tholeiitic mafic to intermediate volcanics. The entire sequence has been intruded by numerous granitic and granodoritic intrusions, tholeiitic dykes and sills, and several generations of diabase dykes.

5.0 Property Geology

The property consists of a succession of calc-alkalic intermediate volcanic rocks, overlain by a discontinuous and sporadic series of dominantly oxide and sulphide iron formation, overlain by a series of komatiitic dunites, peridotites, pyroxenites, and basalts. This stratigraphy is repeated in Adams Township resulting in an inner and an outer komatiite horizons. Diabase dykes cross-cut all other rock types.

The volcanic rocks top to the south as indicated by spinifex textures within the komatiitic flows, strikes roughly east-west, and dips steeply to the southwest as indicated by flow contacts, geophysics, and diamond drill sections. The rocks have been cut by several episodes of brittle faulting which has offset much of the iron formation stratigraphy.

No nickel mineralization has been discovered on the property to date.

6.0 Diamond Drilling

Seven diamond drill holes were completed for a total of 2027 metres of BQ diamond drill core (table 2). The diamond drill core was picked up daily from the drill and transported to the Outokumpu Mines Ltd. office in Timmins, Ontario. The core was than logged and sampled by Outokumpu personnel. Complete diamond drill logs with plans and sections have been attached to the back of this report in appendices 1 and 2.



Fig. 6. Regional geological map showing the distribution of komatility successions in the Abitibi greenstone size 1.15, and the adjacent Pontal metasedimentary belt. 14 medified from Goodwin and Ridier 10.10. MERG are 1.453, and Heather 1993).

Hole Number	Total Depth
AD-1-95	309m
AD-2-95	254m
AD-3-95	290m
AD-4-95	319m
AD-5-95	293m
AD-6-95	302m
AD-7-95	260m

Table 3: Diamond Drill Hole Depths; Adams-Deloro-Eldorado Property.

7.0 Results and Conclusions

No economic or sub-economic iron-nickel-copper sulphides were intersected within the komatiitic rocks during this diamond drill hole program. Several thick sections of komatiitic peridotites and pyroxenites were drilled, but lacked the sulphide component which hosts the nickel mineralization. Diamond drilling also intersected thick intersections of sulphide and oxide facies iron formation that contains between trace and 90 percent pyrite and pyrrhotite.

Diamond drilling indicated that the komatiitic succession is present on both sides of the iron formations in Adams and Eldorado Townships. Metamorphism and alteration associated with the intrusions, diabase dykes, and shears and faults has resulted in the alteration of komatiitic peridotites and pyroxenites to tale-carbonate and chlorite-tremolite schists, respectively. This pervasive alteration has destroyed many of the igneous textures making accurate rock identifications difficult, but relict spinifex textures and cumulate textures were identifiable in areas with a lesser degree of alteration. The alteration has also destroyed the magnetite component of some of the komatiitic rocks in effect masking their presence on the magnetic survey map and resulting in much thicker and continuous komatiite successions than originally interpreted.

Several alkalic dykes were intersected along the same stratigraphic horizon with high proportions of phlogopite and olivine indicating some late stage, primitive igneous activity.

Minor proportions of pyrite were discovered within the komatiitic rocks, but appears to be the result of secondary sulphide development associated with metamorphism and alteration.

8.0 Recommendations

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Additional diamond drilling is recommended for the Adams-Deloro-Eldorado property. This area has not been adequately explored in the past and the stratigraphic associations are not well described due to

poor outcrop exposure. Further diamond drilling may follow a geochemical survey of the soils within the property boundaries.

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Appendix 1

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Diamond Drill Hole Logs

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Area/Township	T.S.			Year			Project	Project			
Adams Townshi	-A-6	6					Abitibi Kon	natiite			
Hole Sign Hole N					Bearing	g Survey Gri	id °/Gra	d Bearing N.	T.S. Grid [«] /Grad		
AD	1-1	95			027			027	027		
Co-ordinates: >	K/M m cm		Co-ordina	tes: Y/L	m	cm	Co-ore	linates: Z	m cm		
39+00W			10+50N				300				
Logged By	ed By Date Drilled By Core S		ze	Started	1	Finished	Hole Length				
PAV Ful Davis	Nov 24, 1995	Brad	ley Bros	Bros BQ		Nov 20, 19	95	Nov 24, 1995	309		

Remarks:Core stored at Hollin	nger building; Claim #: 1204318
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Outokumpu Mines Limited

Diamond Drill Record

Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth
0			10			29	49.5	027	30		
40			50	51		60			70		
80			90			100	53		110		
120			130			140			150	53	
160			170			180			190		
200	54.5		210			220			230		
240			250	54.5		260			270		
280			290			300	54.5		310		ſ
320			330			340			350		
360			370			380			390		
400			410			420			430		
440			450			460			470		-
480			490			500			510		
520			530			540			550		
560			570			580			590		
600			610		·	620			630		
640			650			660			670		
680			690			700			710		
720			730			740			750	·	
760			770			780			790		
800			810			820			830		· · · · · · · · · · · · · · · · · · ·

					Sulphides			Sample			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
0.0	19.0	Casing	·вw	Casing							
19.0	21.2	Spinifex-textured Komatiite	 -rock is light greenish grey, weakly to non- magnetic -core grades downwards from thin randomly oriented olivine blades to coarse olivine books -downhole contact is gradational over 20cm 	Kosx							
21.2	28.0	Pyroxenite/ Peridotite	-rock is light greenish grey to light greyish black, massive, aphanitic, serp- entinized and tremolitized, non-magnetic -basal 30cm is very blocky, carbonatized -basal contact is sharp and undulatory	Кос				WR	27889	24.0	27.0
28.0	34.6	Spinifex-textured Komatiite	 rock is light greenish grey becoming darker downhole, weakly to non-magnetic fine randomly oriented minifex over 10cm at uphole contact grading downward into coarse olivine spinifex -33.5-34.6 is a gradational loss of spinifex and increase in olivine (pseudo- morphed by serpentine) phenocrysts -downhole contact is gradational 	Kosx							
34.6	42.7	Peridotite/ Pyroxenite	-unit is light grey, speckled with 1mm leucoxene (5-10 %) -weakly to non-magnetic -grades downward into orthocumulate over basal 3m	Кос				WR	27890	38.0	41.0
42.7	68.3	Peridotite	-unit is dark grey, serpentinized (+/- talc magnesite), fairly soft, weakly to non-	Koc/mc				WR	27891	62.0	65.0

						Sulphides			Sample			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	To	
			magnetic -basal 3m is greenish grey talcy, very soft (scratch with fingernail) -downhole contact is gradational, the basal 1m has several rounded autobrecciated fragments of peridotite, rounded									
68.3	73.9	Pyroxenite	-unit is light grey, speckled with tremolite -locally autobrecciated -up to 5-7% py+/-po in thin veinlets over basal 1.2m -unit is crosscut by 2-5% carbonate/talc vein assemblage -basal contact is sharp with qtz-carb vein	Кос	5-7	ру/ро	v,d	WR AS	27892 13364	69.3 72.7	69.9 73.9	
73.9	76.4	Graphitic BIF	-unit is thinly laminated at 720 to AC.A. -5-10% py+/-po in both fractures and as layers in laminae -unit is an interlayering of black graphitic laminae and brownish grey aphanitic argillaceous sediment -downhole contact is sharp	IF,Sg	5-10	ру/ро	~	AS	13365	73.9	76.4	
76.4	79.1	Pyroxenite	-unit is light grey, highly altered to talc- tremolite, magnesite assemblage -interdigitated with highly altered and BIF fragments over basal 1m -basal contact is sharp	Кос								
79.1	81.3	Feldspar? Porphyry	-highly altered, very hard, massive, fine grained to aphanitic, light reddish brown -crosscut by abundant qtz veins	FPor				WR	27893	79.1	81.3	
81.3	85.2	BIF	-predominately thinly laminated	IF,Sg	15-20	ру/ро	v,b	AS	13366	81.3	82.2	

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				T		Sulphides			Sample			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То	
			graphitic to argillaceous sediments, -strongly carbonatized and cherty from 81.3- 81.5 and 84.1-85.2 -py+/-po is up to 15-20%, in laminae and veinlets, particularly 81.3-82.2, and 84.0-85.2					AS	13367	84.0	85.2	
85.2	88.8	Pyroxenite/ Peridotite	-unit is light grey, highly altered to tak- tremolite, magnesite assemblage -highly chloritized over basal 1.5m with 1-3% disseminated po -chloritized zone appears to be an autolithic breccia with round peridotite fragments up to 3-4cm -sulphides are disseminated in chloritic matrix	Кос	1-2	po	d	WR AS	27894 13373	85.2 87.4	87.4 88.5	
88.8	97.8	Andesite	-unit is light grey, non-magnetic, aphanitic to fine grained, and massive -unit appears tuffaceous 95.0-97.8 with a foliation at 70o to C.A., feldspar xenocrysts? up to 1 cm are elongate parallel to foliation -upper and lower contacts are sharp	Ad				WR	27895	89.0	92.0	
97.8	98.1	Alkalic Intrusive	 -rock is pinkish brown with 15-25% phlogopite as both connate and xenocrystal phases -2-5% of rock is pelletal to rounded olivine (<1-1mm) -matrix is a brown aphanitic to fine grained mostly indeterminate assemblage including olivine, pyroxene, and carbonate -upper and lower contacts are sharp 	ALa				WR	27896	97.8	98.1	
98.1	98.6	Andesitic Tuff	-unit is light grey, non-magnetic, aphanitic to fine grained with up to 40% fragments	Ad								

					Sulphides		Sample				
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
			of rounded to sub-angular feldspar and aphanitic andesite, generally 1cm, several fragment of andesite from 5-15cm -upper and lower contacts are sharp								
98.6	98.8	Alkalic Intrusive	-rock is pinkish brown with 15-25% phlogopite as both connate and xenocrystal phases -2-5% of rock is pelletal to rounded olivine (<1-1mm) -matrix is a brown aphanitic to fine grained mostly indeterminate assemblage including olivine, pyroxene, and carbonate -upper and lower contacts are sharp	ALa							
98.8	161.3	Andesitic Tuff	-an interval including intercalations of ash, crystal, and lapilli tuff, and massive aphanitic andesite -unit is generally hard, light grey, with 30-40% feldspar grains (2mm-1cm) which appear annealed -occasional lithic fragments of andesite, angular to sub-rounded -unit has a weak foliation at 60-800 to C.A. -some euhedral to subhedral py in a highly sericitized zone 112.6-112.7m -from 133-150m unit contains several heterolithic fragments including basalt and chert, and the matrix becomes a darker grey below 136m -trace disseminated euhedral py at -133.8 and 139.5m -basal contact gradational over 1m	Ad	tr-1%	Py	d	WR	27897 13368	140.0	143.0
161.3	178.9	Andesite	-unit is light greenish grey, moderately hard, fine grained to medium grained, non- magnetic, and massive	Ad	tr	ру	d	WR	27898	170.0	173.0

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					_	Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	To
			-feldspar and quartz comprise up to 50% of unit in a chloritized matrix -unit contains trace euhedral disseminated py -Fe-carb staining in carbonate rich velnlets from 167-172m -uphole and downhole contacts gradational							i	
178.9	191.0	Andesitic Lapilli Tuff	-unit is light greyish green, up to 30-60% lapilli fragments which are rounded to sub- angular and elongate parallel to a moderate foliation at 650 to C.A. -fragments are fine grained to aphanitic andesite, and several appear to be xenocrystal feldspar -fault zone with abundant qtz-carb alteration and veining from 183.8-184,5 -uphole and downhole contacts are gradational	Ad							
191.0	208.7	Andesite	-unit is light greenish grey, moderately hard, fine grained to medium grained, non- magnetic, and massive -quartz with minor feldspar comprise up to 30% of unit in a chloritized matrix -an alteration zone containing some green carbonate from 198.6-198.9 -uphole and downhole contacts gradational	Ad	tr	ру	d	WR AS	27899 13369	194.0 198.6	197.0 198.9
208.7	222.0	Andesite/Diorite	-similar to previous unit but coarser grained, 2-4mm blueish qtz (20%), feldspar (15-20%), chloritized amphibole (20-30%) -basal 0.5m is highly chloritized, contact is obscured in this zone	Ad				WR	27900	218.0	221.0
222.0	236.0	Talc-Magnesite Altered Peridotite	-unit is very soft, talc-magnesite altered, variably light to dark grey, speckled with	Koc/mc				WR	37101	231.9	232.5

	1			T		Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
			talc rich porphyroblastic pseudomorphs of olivine and crosscut by abundant talc- magnesite veinlets -unit is weakly to moderately magnetic with trace euhedral py associated particularly with alteration veinlets -there is a chloritized alteration zone (231.9- 232.5m) which may be an altered flow top								
236.0	238.4	Feldspar Porphyry	-very hard, silicified, light brownish pink to salmon pink, non-magnetic, trace to 1% disseminated py -basal contact sharp at 10cm quart-carb vein	FPor	tr-1%	ру	đ	WR AS	37102 13370	236.4 236.4	238.4 238.4
238.4	239.3	Talc-Magnesite Altered Peridotite	-unit appears to be an inclusion in feldspar porphyry -unit is mottled light green, soft talc, non- magnetic -uphole and downhole contacts are sharp, with 10cm highly chloritized aphanitic assemblage on both margins	Koc/mc							
239.3	242.1	Feldspar Porphyry	-very hard, silicified, light brownish pink to salmon pink, non-magnetic, trace to 1% disseminated py -basal contact sharp	FPor							
242.1	309.0 EOH	Talc-Magnesite Altered Peridotite	-unit is very soft, talc-magnesite altered, variably light to dark grey, speckled with talc rich porphyroblastic pseudomorphs of olivine and crosscut by abundant talc- magnesite veinlets there are chloritized alteration zones (244.5- 244.7m, 248.2-249.4, and 279.0-279.3) which	Koc/mc	tr tr	ру ру	đ	WR WR WR AS AS	37103 37104 37105 13371 13372	257.0 279.0 296.0 296.0 299.0	260.0 279.3 299.0 299.0 302.0

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						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
			may be altered flow tops -zone from 279.0-279.3 has 2-5% euhedral magnetite and possible spinifex pseudomorphs which are dark green, 3mm by 5-15mm in a chloritized matrix -trace disseminated euhedral py, fine grained, from 287m to end of hole -a highly magnetic zone with euhedrat magnetite (2-5%) from 295.7-297.9								

Area/Township	N	.T.S.			Year			Project	
Adams Township	. 42	2-A-6			1995			Abitibi Kor	natiite
Hole Sign	H	ole No			Bearin	g Survey Gr	id °./Grad	Bearing N.	T.S. Grid [•] /Grad
AD	2-	.95		·····	027			027	
Co-ordinates: X	K/M m cm		Co-ordina	ates: Y/L	m	cm	Co-ordi	nates: Z	m cm
31+00W			13+25N				300		·····
Logged By Date I			ed By	Core Si	ze	Started	Fi	nished	Hole Length
PAV Paul Downs	Nov 19, 1995	Brad	lev Bros	BO		Nov 16, 19	95 N	ov 19, 1995	254

Remarks: Core stored at Hollinger building; Claim #	#: 12	:04321
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Page 1

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Outokumpu Mines Limited

Depth	Dip	Azimuth									
0			10			23	50.5	027	30		
40			50	52.5		60			70		
80			90			100	53.5		110		
120			130			140			150	52.5	
160			170			180			190		
200	55.5		210			220			230		
240			250	55.5		260			270		
280			290			300			310		
320			330			340			350		
360			370			380			390		
400			410			420			430		
440			450			460			470		
480			490			500			510		
520			530			540			550		
560			570			580			590		
600			610			620			630		
640			650	·		660			670		
680			690			700			710		
720			730			740			750		

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						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
0.00	13.00	Casing	-BW								
13.00	24.60	Talc Magnesite Altered Komatiite	-upper 1.5m of section is surface weathered with thin rusty brown Fe-carb bands intermixed with carbonate talc assemblage in thin undulating bands (1mm to 1cm) -unit is massive with light brown matrix to creamy white coloured talc-magnesite altered olivines' basal contact zone contains 5-15% disseminated and fracture controlled py +/- po -basal contact is sharp	Кос	5-15	ρу/ρο	d,b	WR	27882 13441	20.0 24.0	23.0 24.8
24.60	31.70	Graphitic BIF	-unit is predominately graphitic chert -a chert fragment sagging into a wacke matrix at 24.7m indicates tops uphole -unit is aphanitic and black, intercalated with gritty really fine grained greywacke -10-15% disseminated and thin laminae of py locally	IF,Sg	10-15	ру	d,b	AS AS	13442 13443	24.8 27.8	27.8 31.7
31.70	36.30	Wacke	-unit is mostly thinly laminated wacke bedding 56° to C.A. with occasional 1mm-2cm chert bands -py+/- po is disseminated along thin bands in concentration 1-10%	Sw	1-10	ργ/ρο	v,d	AS AS	13444 13445	31.7 34.7	34.7 36.3
36.30	38.40	Graphitic Cherty BIF	-thinly laminated banding at 48° to C.A., black, non magnetic, gradational with uphole unit, sharp contact with downhole unit -pyrite lenses, 1mm to 1cm and parallel to banding, <1mm wide	Sg	5	Ру	d	AS	13446	36.3	38.4

						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
38.40	38.60	Feldspar Porphyry	-light greenish grey with a light brown tinge -25-40% feldspar, 1-5mm sub-anhedral in a matrix of fine grained feldspar and chloritized amphibole, massive -uphole and downhole contacts sharp at 55° to C.A.	FPor							
38.60	39.00	Graphitic Cherty BIF	-thinly laminated banding at 48° to C.A., black, non magnetic, sharp contact uphole unit, sharp contact with downhole with both uphole and downhole unit -pyrite lenses, 1mmto 1cm and parallel to banding, <1mm wide	Sg	5	ру	đ	AS	13447	38.6	39.0
39.00	40.40	Feldspar Porphyry	 -light greenish grey with a light brown tinge -25-40% feldspar, 1-5mm sub-anhedral in a matrix of fine grained feldspar and chloritized amphibole, massive -uphole and downhole contacts sharp at 58° to C.A. -unit contains 1-2% po veinlets 	FPor	1-2	ρο	v	AS	13448	39.0	40.4
40.40	43.67	Graphitic BIF	-thinly laminated banding at 48° to C.A., black, non magnetic, gradational with downhole unit, sharp contact with uphole unit unit -massive py band 3.34-43.42 -po concretions (pseudomorphs after marcasite?) 1-2cm, 10-15% at 43.50-43.67	Sg	10-MS	ρу/ρο	d	AS	13449	40.4	43.7
43.67	43.82	Greywacke	-light greyish brown gritty laminated zone -graphitic flame structure indicates tops uphole	Sw							

						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
43.82	48.10	Graphitic BIF	-thinly laminated banding at 83° to C.A., -46.36-46.44 is graphitic fault gouge -gradational downhole contact -massive po band 47.55-47.77 and 47.9- 48.1	Sg	2-5 2∙MS	ру ру/ро	d d,MS	AS AS	13350 13351	43.8 45.1	45.1 48.1
48.10	56.90	Cherty BIF	-strongly banded unit comprised of bolly white qtz, blue grey chert, and argillite -upto 10% of unit is thin massive po bands with larger bands at 49.01-49.05, 49.26- 49.30, and 54.6-54.93 -banding at 80° to C.A	Sg	10	ру/ро	b	AS AS AS	13352 13353 13354	48.1 51.1 54.1	51.1 54.1 56.9
56.90	59.36	Greywacke	-gradational with upper unit over 0.7m -thin laminations at 80o to C.A.	Sw	tr-5	ру	d,b	AS	13355	56.9	59.4
59.36	64.30	Cherty BIF	-strongly banded unit comprised of bolly white qtz, blue grey chert, and argiilite -upto 10% of unit is thin massive po bands with larger bands of 30%po at 62.5-63.6, and 63.95-64.0	Sg	MS	ρο	MS,d	AS	13356	59.4	64.3
64.30	66.13	Argillite	-unit is dark brownish grey, finely banded fine grained -2-5% of unit is feldspar 1-2mm -upper and lower contacts are sharp -trace-5% disseminated py+/- po	Sg,w	5-10	ру/ро	d	AS	13357	64.3	66.3
66.13	69.47	Cherty BIF	-strongly banded unit comprised of 20-30% blue grey chert, and argillite -bands generally 1-8mm -trace disseminated py	Sw	tr	γq	d	AS	13358	66.1	69.5

						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
69.47	79.10	Greywacke/ Arkose	-unit is thinly laminated at 85-90° to C.A. -light grey to dark grey -5% of unit is crosscutting qtz-carb veins -5-10% of unit is thin massive po bands 2mm-1cm, py disseminated throughout	Sw	5-10	ру/ро	d,b	AS AS AS	13359 13360 13361	69.5 72.5 75.5	72.5 75.5 79.1
79.10	121.50	Arkose	-unit is light grey, generally massive thinly bedded locally -trace disseminated pyrite locally -upper contact is gradational, lower contact is sharp -5-10% of unit is qtz-carb veins 1mm-5mm, which variably carry up to 1-5% pyrite -pyrrhotite lens 1cm*3mm at 80.3m	St	tr-1	ργ/ρο					
121.50	165.40	Diorite	-grey, speckled, medium grained diorite -upper 1.7m is aphantitc to fine grained chilled margin -unit comprises 40-60% euhedral to subhedral plagioclase 2-6mm, 5% fine leucoxene, 30-40% aphanitic matrix with occasional chloritized amphibole blotches upto 7mm -carb-qtz fractures 1% of unit, and are abundant at 145-148m -unit has occasional patches disseminated euhedral pyrite, trace-1% -unit is non-magnetic -basal contact sharp	Di	tr	ру	d	WR	27883	121.5	123.2
165.40	176.70	Talc Magnesite Altered Peridotite/ Pyroxenite	-unit is dark grey with 40-50% of comprised of talc-carbonate, with talcy blotches 5-7mm and talc-carbonate veins -highly fractured and sheared from 174m to downhole contact at 176.7, basal contact is sharp	Кос				WR	27884	170.0	173.0

		··· ··· ·				Sulphides			Sample		
From (m)	To (m)	Rock Type	Description -unit is very soft, weakly to non-magnetic	Legend	%	Туре	Mode	Туре	Tag #	From	То
176.70	177.50	Alkalic Intrusive	-unit is pinkish brown, 15-25% phlogopite, both connate and xenocrystal -10-20% of unit is pelletal to rounded olivine (<1mm-5mm) -matrix is aphanitic and brown, with fine grained whitish mineral (feldspar?) 30-40% -basal part of section is comprised of several veinlets of alkalic intrusive invading diorite, all contacts sharp	ALa				WR	27885	176.7	177.5
177.50	181.00	Diorite	-unit is pervasively altered to a pinkish grey, protolith is questionable -contacts are sharp -trace sub/euhedral pyrite occurs locally -alteration appears to be silicified, sericitized, and iron stained -least altered sections appear a light greyish green, and aphanitic	Di	tr	РУ	d				
181.00	181.95	Taic Magnesite Altered Pyroxenite	-unit is dark grey with 40-50% of comprised of talc-carbonate, with talcy blotches 5-7mm and talc-carbonate veins -highly fractured and sheared over basal 0.5m -unit is very soft, weakly to non-magnetic -sharp downhole contact	Koc							
181.95	182.00	Alkalic Intrusive	-unit is pinkish brown, 15-25% phlogopite, both connate and xenocrystal -10-20% of unit is pelletal to rounded olivine (<1mm-5mm) -sharp uphole and downhole contacts, undulatory	ALa							

						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	To
182.00	182.10	Talc Magnesite Altered Pyroxenite	-unit is dark grey with 40-50% of comprised of taic-carbonate , with taicy blotches 5-7mm and taic-carbonate veins -unit is very soft, weakly to non-magnetic -sharp up/downhole contacts	Кос							
182.10	182.15	Alkalic Intrusive	-same as previous alkalic intrusive units i.e. 181.95-182.00 -sharp undulatory contacts with chilled margins	ALa							
182.15	222.70	Talc Magnesite Altered Pyroxenite	-unit is the same as previous intervals of taic magnesite altered pyroxenite in this hole i.e. 165.4-176.7m -there are several 5-30cm zones of highly chloritized aphanitic zones which may represent relict flow tops, although all primary textures are obliterated -uphole and downhole contacts are sharp	Koc				WR	27886	215.0	218.0
222.70	226.80	Feldspar Porphyry	-salmon pink colour, very hard, siliceous, aphanitic matrix with 20-30% eu/subhedral plagioclase phenocrysts -uphole and downhole contacts are margined by 10cm of aphanitic chlorite with sharp contacts	FPor				WR	27887	223.0	226.0
226.80	254.00 EOH	Talc Magnesite Altered Pyroxenite	-unit is the same as previous intervals of talc magnesite altered pyroxenite in this hole i.e. 165.4-176.7m -bolly carb vein at 239.0-239.2m with 1% pyrite	Кос	tr	ру	d	WR AS	27888 13362	239 251	239.2 254

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Area/Township	√.T.S.			Year			Project	Project			
Adams Townshi	p 4	12-A-6			1995	<u></u>		Abitibi Kor	Abitibi Komatiite		
Hole Sign	ŀ	Hole No	<u></u>		Bearin	ng Survey G	rid "/Gr	ad Bearing N.	Bearing N.T.S. Grid */Grad		
AD	3	3-95			027			027			
Co-ordinates: >	X/M m cm	n.	Co-ordin	ates: Y/L	m	cm	Co-or	dinates: Z	m cm		
28+00W			7+00N	7+00N			300				
Logged By	Date	Drill	ed By	Core Si	Core Size Started			Finished	Hole Length		
PAV Part Daw Nov 28, 1995 B		Brad	lev Bros	BO		Nov 25, 1	995	Nov 28, 1995			

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Outokumpu Mines Limited Diamond Drill Record

Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth
0			17	52.5	027	20			30		
40			50	50		60			70		
80			90			100	51.5		110		
120			130			140			150	52.0	
160			170			180			190		
200	52.5		210			220			230		
240			250	53.0		260			270		
280			290	55		300			310		
320			330			340			350		
360			370			380			390		
400			410			420			430		
440			450			460			470		
480			490			500			510		
520			530			540	-		550		
560			570			590			<u> </u>		
600			610			620			630		
640			650			660			670		
680			600			700			710		
720			720			740			/10		
740			730			740			/50		
900			910			/00			/90		

DDH Ad3-95

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					Sulphides						
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
0.00	7.00	Casing	BW								
7.00	16.30	Perklotitic Komatiite	-unit dark grey to black, orthocumulate textured, strongly magnetic, serp. -highly blocky core 7-11m -downhole contact apparently sharp in a 5cm rubbly zone	Koc/mc							
16.30	30.40	Spinifex Textured Komatiite	-light greyish green, weakly to non- magnetic -grades downward from olivine to pyroxene spinifex at 25m, coarsening downhole -there is 15-20cm of olivine orthocumulate at base of unit -downhole contact is sharp	Ковх							
30.40	67.80	Peridotitc Komatiite	-dark grey to black, occasionally spotted with 10-25% light whitish green talc carbonate blotches (40-56m) -trace to 1% po, py 32-35m, 36.5-37.5, and 44-47m -talc-carbonate-serpentine shear at 44.2- 44.4m -moderately magnetic -basal 1.7m is strongly serpentinized, possibly some flow bottom breccia -downhole contact sharp at 650 to C.A.	Koc/mc	tr-1 tr-1 tr-1 tr-1	ру/ро ру/ро ру/ро ру/ро	0 0 0	WR WR AS AS AS	37106 37107 13386 13387 13388 13389	35.0 53.0 32.0 36.5 44.2 53.0	38.0 56.0 35.0 37.5 44.9 56.0
67.80	74.40	Spinifex Textured Komatiite	-unit is light greyish green -upper 1.5m is brecciated and blocky, contact masked -spinifex is fine, random at 71m, coarsens downward into cumulate at	Kosx				WR	37108	70.0	71.0

DDH Ad3-95

					Sulphides						
From (m)	To (m)	Rock Type	Description	Legend	%	Type	Mode	Туре	Tag #	From	То
			72.8m -74.0-74.4m is flow breccia								
74.40	80.20	Spinitex Textured Komatiite	-unit is light greyish green, weakly to non-magnetic -trace disseminated pyrite associated with alteration veinlet 78.9-79.0m -downhole contact is gradational over 15cm	Kosx							
80.20	84.30	Peridotitic Komatilte	-unit is light to medium dark grey, weakly magnetic -basal 10cm is orthocumulate textured -basal contact is sharp -81.6-84.3m contains zones of flow breccia and orthocumulate peridotite -it appears that overlying flow may have picked up or invaded underlying unit	Кос							
84.30	86.80	Spinitex Textured Komatilite	-unit light grey to light greyish green -fine feathery spinifex grades downhole to coarse crescumulate at 86.0m -upper contact sharp, downhole contact gradational over 20-30cm	Kosx							
86.80	121.70	Peridotitic Komatiite	-unit is medium to dark grey, moderately magnetic, pervasively serpentinized with occasional 1 m zones of intense talc-carbonatization -1% disseminated py present, mainly in least talc-carb altered zones -basal contact is sharp -basal 0.5m has spotty talc-carbonate atteration	Koc/mc	1 1 1 1 1	ру/ро ру/ро ру/ро ру/ро ру/ро ру/ро ру/ро	0 0 0 0 0 0 0 0 0 0 0	WR AS AS AS AS AS AS	37113 13390 13391 13392 13393 13394 13395 13396 13397	116.0 88.7 92.0 95.0 105.3 107.0 110.0 113.0 116.0	119.0 92.0 95.0 107.0 110.0 113.0 116.0 119.0

DDH Au3-95

					Sulphides		Sample				
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
121.70	128.20	Spinifex Textured Komatilte	-downhole contact is sharp -light green to light grey, carb-filled amygdules at 123.6-124.2m -fine spinifex from 122.2-123.6m, grading into amygdaloidal zone, then coarse spinifex grading into "gabbroic" textured spinifex toward downhole contact	Kosx				WR WR WR	37109 37110 37111	122.0 124.0 127.0	123.0 126.0 128.0
128.20	151.10	Diabase/ Basaltic Komatiite	-unit is light grey, diabasic textured, fine to medium grained, non-magnetic -trace to 1% pyrite disseminated through- out unit -grades into a pyroxenite 143-151m -basal contact sharp at 70o to C.A. -basal contact appears conformable, possibly unit is a basaltic komatiite	Db/KBa				WR WR	37112 37114	129.0 146.0	131.0 149.0
151.10	151.40	Interflow Sediment	-unit is composed of graphitic sediment carbonate, and some pyroxenite -foliation 70-750 to C.A. -basal contact and upper contact sharp	Sg							
151.40	165.20	Pyroxenitic Komatiite	-unit is light grey to greyish green -coarse (<1-3cm) olivine and pyroxene spinifex grades into fine spinifex at 152.3-153.2m -grades into pyroxenite orthocumulate at 153.2m -a coarse olivine crescumulate zone at 158.2-159m -2-5% fine (<1mm) leucoxene -non-magnetic, generally serpentinized with a moderately tremolitized and chloritized matrix	Kosx/oc				WR	37115	155.0	158.0

DDH Ad3-95

					Sulphides		Sample				
From (m)	<u>To (m)</u>	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
165.20	183.50	Peridotitic Komatiite	-unit generally greyish black with some zones have a light brown tinge -unit weakly to non-magnetic, serpentinized with some talc-carbon- itized zones -trace-1% po+/-pn+/-py disseminated throughout unit -orthocumulate texture, with a grada- tional upper contact, sharp basal contact, basal 1.5m is brecciated and talc carbonatized, possibly a flow bottom breccia	Koc/mc				WR AS AS AS AS AS AS	37116 13399 13400 0501 0502 0503 0504 0505 0506	176.0 164.0 165.2 167.0 170.0 173.0 176.0 179.0 182.0	179.0 165.2 167.0 170.0 173.0 176.0 179.0 182.0 183.5
183.50	183.90	Graphitic Interflow Sediments	-sharp but undulatory up/downhole contacts -unit generally black, graphitic with some pyroxenite invading it -10-15% py in bands, foliation 60-70o to C.A.	Sg				AS	0507	183.5	183.9
183.90	185.10	Pyroxenitic Komatiite	-light grey green, non-magnetic -trace pyrite along fracture at 184.8m -cumulate textured with a few fine spinifex zones, non-magnetic, up/ downhole contacts are sharp	Кос							
185.1	213.50	Spinifex Textured Komatiite	-unit light greenish grey, non-magnetic -fine spinifex at uphole contact, coarsening downwards to crescumulate zone at 191-195m -grades in and out of ortho/crescumulate toward basal gradational contact noted as a loss of crescumulate	Kosx				WR WR	37117 37118	191.0 196.0	194.0 198.0

DDH Ad3-95

					Sulphides						
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
213.50	242.40	Peridotitic Komatiite	-gradational upper contact, unit weakly to non-magnetic, talc-carbonate altered, very soft, black and spotted with 20-75% carbonate blotches 1-4mm -unit cross-cut by 5-10% talc carbonate veins -downhole contact sharp and undulatory	Koc/mc				WR	37119	236.0	239.0
242.40	249.10	Basaltic Komatilte?	-sharp uphole and downhole contacts, may be a mafic dyke -light grey, fine grained salt and pepper -locally crosscut by carbonate veinlets -fine spinifex over basal 0.6m	KBa?				WR	37120	243.0	246.0
249.10	255.10	Pyroxenitic Komatiite	-light grey to greenish mottled grey -moderately to strongly talc-carbonate altered -some crescumulate zones, 30-40cm -basal 2.5m is strongly talc-carbonate altered, very soft and light grey -downhole contact masked in rubble	Кос				WR	37121	253.0	254.0
255.10	276.40	Spinifex Textured Komatilite	-spinifex mostly coarse, upper 8m is strongly talc-carbonate altered, spinifex blades appear to align to foliation at 60- 80o to C.A. -non-magnetic, sharp basal contact	Кобх							
276.40	276.70	Mafic Dyke	-light grey, 1-3% disseminated pyrite, sharp undulatory up/downhole contacts -non magnetic, fine grained	MD				WR	37122	276.4	276.7
276.70	277.50	Spinifex	-spinifex mostly coarse, strongly talc-	Kosx							
					Sulphides						
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From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
		Textured Komatilite	carbonate attered -non-magnetic, sharp basal contact								
277.50	279.50	Mafic Dyke	-light grey, 1-3% disseminated pyrite, sharp undulatory up/downhole contacts -non magnetic, fine grained -inclusion of spinifex textured pyroxenite at 278.15-278.25	MD							
279.50	290.00 EOH	Spinifex Textured Komatiite	-spinifex mostly coarse, strongly talc- carbonate altered -non-magnetic, sharp basal contact	Kosx							

Area/Township	N.	N.T.S.						Project			
Adams Townshij	o 42	2-A-6			1995			Abitibi Komatiite			
Hole Sign	Hole No				g Survey Gri	d °/Grad	Bearing N.T.S. Grid */Gr				
AD	95			027	· · · · · · · · · · · · · · · · · · ·		027	0100			
Co-ordinates: X	۲/M m cm	Co-ordinates: Y/L			m	cm	Co-ordi	nates: Z	m cm		
12+00W			18+00N			······································	300				
Logged By	Date	Drilled By Core Siz		ze	Started	Fi	nished	Hole Length			
PAV Paul Duris	Dec 6, 1995	Brad	Bradley Bros BQ			Dec 6, 1995 De			319		

Remarks:Core stored at Hollinger building; Claim #: 1204348

Outokumpu Mines Limited

Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth
0			17			25	49.5	027	30		
40			50	49.5		60			70		_
80			90			100	50		110		
120			130			140			150	50.5	
160			170			180			190		
200	50		210			220			230		
240			248	50		260			270		
280			290			300	50.5		310		
320			330			340			350		
360			370			380			390		
400			410			420			430		
440	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	410			460			430		-
480			430			500			510		
520			<u> </u>			540			550		
560			570			580			500		
600			610			620			630		
640			650			660			670		
680			600			700			710		
720			720			740			750		
720			/30			/40			750		
00/			770			/80			/90		
800 1			810			820			830		

					Sulphides			Sample			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
0.0	25.0	Casing	-BW								
25.0	26.4	IF	-NW sized reamed boulders -15-26 is mafic volcanic, 26-26.4 is magnetite rich iron formation	IF							
26.4	27.3	Cherty Magnetite Iron Formation	-black, aphanitic, strongly magnetic -basal contact with tuff is gradational over 15cm, thin laminations at 38° to C.A. -laminations of 1 mm-4cm massive magnetite and magnetite rich graphitic argillite -15cm from basal contact there is a 1cm band of 20-30% 1-3mm euhedral py	IF, Sg	20-30	ру	b,đ				
27.3	31.7	Andesitic Tuff	-abundant andesite, chert and wacke fragments (2mm-1cm) comprising 30-70% of unit are angular to rounded in a chloritized leucoxene rich matrix -30-30.4m grades into a chloritized olive green unit (intermediate to mafic volcanic) with 10-20% flow breccia fragments -basal contact gradational over 30cm -30-31.7m 1-2% disseminated pyrite	Ad	1-2	ру	d	AS	' 0560	30.0	31.7
31.7	32.7	Magnetite Iron Formation	-unit black, strongly magnetic with massive magnetite bands interlayered with bands of magnetite-rich graphitic argillite -unit appears to have soft sediment deformation -some bands of massive pyrite (1-2cm) and occasional crosscutting stringers of pyrite (1-2mm, 2-3% of unit) -basal contact sharp at 10-20° to C.A	IF				AS	0580	31.7	32.1

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DDH Ad4-95

					Sulphides				Sample			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То	
32.7	34.2	Intermediate Dyke	-unit is olive green, 20-30% 1mm leucoxene in an aphanitic matrix -unit contains several fragments of magnetite iron formation -unit appears to have intruded soft seds	D								
34.2	39.4	Magnetite and Cherty Iron Formation	-unit black, strongly magnetic with massive magnetite bands interlayered with bands of magnetite-rich graphitic argillite, and some partly fragmental cherty zones -occasional quartz veins with 40-50% pyrite (36-36.9m) -basal contact gradational over 20cm	IF	40-50	ру	MS	AS	0561	36.0	36.9	
39.4	49.5	Andesitic to Basaltic Tuffs and Volcanics	-unit varies from tuffaceous, fragmental to thin massive flows -foliation of tuffaceous units from 30-70° to C.A. -<1% euhedral to subhedral pyrite -unit is chioritized, and locally crosscut by carb and quartz-carb veins which comprise 2% overall -basal contact gradation over 20cm with a bedding contact at 45-50° to C.A.	Ad				WR	37192 ''	41.0	44.0	
49.5	56.0	Magnetite and Cherty Iron Formation	-unit black, strongly magnetic with massive magnetite bands interlayered with bands of magnetite-rich graphitic argiilite, and some partly fragmental cherty zones -locally crosscut by quartz-carb veins -basal contact is gradational over 10cm	F								
56.0	67.6	Andesitic Tuffs and Volcanics	-unit varies from tuffaceous, fragmental to thin massive flows -basal contact gradational over 10cm	Ad								

DDH A04-95

					Sulphides			Sample			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
			-banding at 35° to C.A.								
67.6	69.6	Magnetite and Cherty Iron Formation	-unit black, strongly magnetic with massive magnetite bands interlayered with bands of magnetite-rich graphitic argillite, and some partly fragmental cherty zones -basal contact masked in 40cm sheared and blocky zone, but appears gradational over 10cm -5-10% euhedral disseminated pyrite in basal 10cm and into shear zone	IF	5-10 5-10	ру РУ	0 0	AS AS	0562 0563	67.5 69.5	69.5 70.1
69.6	77.0	Andesitic Tuffs and Volcanics	-unit varies from tuffaceous, fragmental to thin massive flows -contains up to 5-10% magnetite rich bands are subparallel to foliation -basal contact is sharp and undulatory -5-10% euhedral pyrite, 1-7mm, disseminated and in bands 71.4-72.4m and trace pyrite throughout remainder of unit	Ad	5-10	ру	d,b	AS	0564	71.4	72.4
77.0	78.0	Magnetite and Cherty Iron Formation	-unit black, strongly magnetic with massive magnetite bands interlayered with bands of magnetite-rich graphitic argillite, and some cherty zones -sharp upper and lower contacts -foliation at 50-60° to C.A.	IF							
78.0	78.7	Andesitic Tuff	-unit comprised of tuffaceous fragments in an andesitic matrix -trace disseminated pyrite throughout unit -basal contact sharp	Ad							
78.7	80.3	Magnetite and	-unit black, strongly magnetic with massive	IF							

DDH Ad4-95

				Sulphides			Sample				
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
		Cherty Iron Formation	magnetite bands interlayered with bands of magnetite-rich graphitic argillite, and some cherty zones -banding at 40-60° to C.A -sharp basal contact, trace pyrite throughout								
80.3	96.0	Andesitic to Dacitic Tuffs and Volcanics	-generally a mottled yellowish to greyish colour -a sequence of thin (1-5m) tuffs and flows -5-10% pyrite as disseminations and in bands from 84.5-86m and 94.1-96m -intense carbonate-quartz veining, some smoky grey, crosscut volcanics with 5-10% pyrite -basal contact is masked in quartz-carbonate veins	Ad				AS AS	0565 0566	84.5 94.1	86.0 96.0
96.0	101.0	Diorite	-salt and pepper grey, silicified, occasionally crosscut by quartz and carbonate veins, 1% of unit overall -unit has 15-25% altered light brown feldspar 1-2mm, an/subhedral with chioritized mafics making up remainder of unit (1-3mm and generally anhedral) -2-3% sub/euhedral pyrite 2mm, disseminated	Di	2-3 2-3	ру Ру	9 9	WR AS AS	37193 0567 0568	96.5 96.0 99.0	99.5 99.0 101.0
101.0	106.0	Talc-carbonatized Gabbro	-unit varies from light greenish to altered rusty yellowed -fairly soft (2-3) 5-10% of unit is black, non- magnetic unaltered fine grained gabbro -upper contact appears gradational over 20cm -core altered salmon pink from 102.5-104 and 105.7-106 -basal contact sharp at 5cm fault gouge	Gb				WR	37194	102.0	105.0
106.0	122.1	Quartz	-unit is salmon pink, upper 2m is chilled	QFPor				WR	37195	110.0	113.0

DDH 204-95

		[Sulphides		Sample				
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
		Feldspar Porphyry	-1-3% disseminated pyrite throughout -inclusion of intermediate tuff 119.3-120.2m, sharp contacts -unit is highly silicified, quartz veined and silica flooded 121-122m, with up to 10% pyrite particularly associated with ankerite 30cm from basal contact		1-3 10	ру Ру	d d,b	AS AS	0569 0570	116.0 121.0	119.3 122.1
122.1	123.2	Andesitic Tuffs and Volcanics	-unit is highly quartz carbonate altered, with 2-10% disseminated and vein controlled pyrite throughout unit -protolith guess of intermediate volcanic, all primary textures obscured by alteration -basal contact is strongly sheared	Ad	2-10	ру	đ	AS	0571	122.1	123.2
123.2	127.2	Talc-carbonate Pyroxenite? Gabbro?	-unit varies from light greenish to altered rusty yellowed, fairly soft (2-3) -foliation at 40-50° to C.A. -unit similar to previous talc-carbonate zone, possibly a pyroxenite or gabbro -basal contact highly altered	Gb/Px				WR	37196	124.0	127.0
127.2	137.8	Andesitic Tuffs and Volcanics	-a jumbled mess of mostly carbonate and quartz altered intermediate to mafic intrusives? and volcanics -abundant small shears and faults, with some intense quartz carbonate flooded zones -basal contact sharp	Ad?							

DDH Ad4-95

					Sulphides			Sample			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	To
137.8	150. 9	Cherty Sulfide and Magnetite Iron Formation	-unit comprised of magnetite and cherty rich layers which grade in and out of eachother over both cm and meter scales -unit comprised of 5-15% pyrite as disseminated and matrix, massive to veinlet and banded which grades into an abundance of pyrrhotite as the dominant sulfide below 143.8m	IF	5-15 5-15 5-15 5-15 5-15 5-15	ру ру ро/ру ро/ру ро/ру	d,b,v d,b,v d,b,v d,b,v d,b,v d,b,v	AS AS AS AS AS	0572 0573 0574 0575 0576 0577	137.8 140.0 140.8 143.8 146.7 150.1	140.0 140.8 143.8 146.7 150.1 150.9
150.9	156.5	Taic-carbonate Altered Andesitic Tuff	-unit is mottled light green and white, translucent -light green talc carb is soft (1-2) -White has a relict fragmental appearance, possibly feldspar or rhyolite fragments of which the green material appears to be matrix to -white fragments comprise 20-60%, 1mm to 20cm, angular -5-8% is black blotches, non-magnetic, maybe amphibole, soft -unit grades into a portion from 152.6-154.9m in which matrix green material is a less altered light grey, and this section looks like a tuff -Whole rock taken of grey and green sections -unit weakly foliated at 40-70° to C.A.	Ad?				WR WR	37197 37198	154.7 155.2	154.9 156.4
156.5	158.3	Intermediate Dyke	-greyish to salmon pink, 30-40% grey feldspar, 1-2mm, anhedral, in a matrix of matics -2-5% disseminated pyrite, 1mm, euhedral	ID	2-5	PY	đ	WR AS	37199 0578	156.5 156.5	158.3 158.3
158.3	162.3	Taic-carbonate Altered Andesitic Tuff	-unit same as previous unit (150.9-156.5) -upper and lower contacts sharp at fractures -basel contact has 10cm of blocky core and fault gouge	Ad							
162.3	163.4	Intermediate	-greyish to salmon pink, 30-40% grey feldspar,	ID							

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DDH A04-95

T					Sulphides			Sample			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	To
		Dyke	1-2mm, anhedral, in a matrix of mafics								
163.4	192.2	Andesitic Tuffs and	-unit same as previous unit (150.9-156.5) until 170.35m below which alteration is far	Ad				WR	37200	176.0	179.0
		Volcanics	less intense -tuffs intercalated with thin 1-2m mafic flows toward downhole contact		2	ру	d	AS	0579	169.0	170.0
			-trace to 2% disseminated pyrite -unit well-foliated at 50-60° to C.A. -basal contact is gradational		5	ру	b,d	AS	0581	190.2	192.2
192.2	319.0	Andesitic to Basaitic Tuffs and Volcanics	 -unit is light grey to light greenish grey, mostly massive, aphanitic to fine grained intermediate to mafic volcanics -some interflow units composed of argillaceous sediments (none of which are greater than 1 m in size, most of which are 2-10cm) -flows range from 1-15m, and 1-2% overall disseminated pyrite -sulfide-rich intervals, mostly interflow sediment layers, have been assayed -unit is crosscut by 5-7% quartz and quartz-carbonate veins -sections from 214-222m are locally strongly sericitized and lilicified with 5-7% disseminated pyrite -at 222m core becomes darker grey, and flows are massive -255.2-255.5 has 2-15% disseminated pyrite, chalcopyrite bleb in interflow sediment -some green carbonate at 270-270.2 and 277.4-277.7m 	Ad/Ba	5-7 10-15 10-30 10-20 1-3 10 2 1-2 5-7 15-20 2-5	ру ру ру/сру ру ру ру ру ру ру ру ру ру	d d,b d,b d,b d,b d,b d d d d d	WR WR WR AS AS AS AS AS AS AS AS	37001 37002 37003 37004 0582 0583 0584 0585 0586 0587 0588 0589 0589 0590 0591 0592	209.0 236.0 266.0 299.0 215.8 219.4 255.2 256.2 257.1 258.8 270.0 277.4 281.2 288.8 309.5	212.0 239.0 269.0 302.0 216.2 219.7 255.5 257.1 258.8 259.8 270.4 277.7 281.8 289.2 309.9

Area/Township	ח	N.T.S.			Year			Project			
Adams Township 42-A-6 1995						Andre in the second	Abitibi Ko	matiite			
Hole Sign	F	Hole No	<u>.,</u>		Bearin	ig Survey Gi	rid °/Grad	ad Bearing N.T.S. Grid %			
AD	5	5-95			027			027			
Co-ordinates: X	۲/M m cm	n	Co-ordin:	ates: Y/L	m	cm	Co-ordi	nates: Z	m cm		
23+00W			18+55N				300				
Logged By	Date	Drill	ed By	Core Si	ze	Started	Fi	nished	Hole Length		
PAV Peu Vans	Dec 2, 1995	Brad	lev Bros	BO		Nov 29, 1'	995 De		293		

Remarks:Core stored at Hollinger building; Claim #'s: 1204349, 1204348

Outokumpu Mines Limited

Diamond Drill Record

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Depth	Dip	Azimutb	Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth
0			10			20			39	49.5	027
40			50	49.5		60			70		
80			90			100	49.5		110		
120			130			140			150	51	
160			170			180			190		
200	51		210			220			230		
240			250	51.5		260			270		
280			293	52.5		300			310		
320			330			340			350		
360	· · · · · · · · ·		370			380			390		
400			410			420			430		
440			450			460			470		
480			490			500			510		
520			530			540			550		
560			570			580			590		
600			610			620			630		
640			650			660			670		
680			600			700			710		
720			720			740			760		
760			770			790			750		
200						/00			/90		

_	_					Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag#	From	То
0.00	26.00	Casing	-BW								
26.00	118.20	Dunitic Peridotite	-jet black, strongly magnetic, pervasively serpentinized adcumulate -crosscut by veinlets of serpentine, lizardite and chrysotile, bright green and jade-blue green -trace-0.5% fine disseminated pyrite/ pyrrhotite 98-104m -intense alteration occurs at 113m to end of unit, core harder (4-6) light green with a pseudomorphed adcum- ulate texture -basal contact is sharp at a 1cm wide carbonate vein	Kad	0.5 0.5	ру/ро ру/ро	đ	WR WR WR WR AS AS	37140 37141 37142 37143 37144 37145 0508 0509	32.0 56.0 83.0 101.0 110.0 113.5 98.0 101.0	35.0 59.0 86.0 104.0 113.0 118.0 101.0 104.0
118.20	129.50	Pyroxenite	-light grey to whitish grey, highly talc carbonatized, non-magnetic -basal contact masked in intense alteration zone -basal 2m massive magnesite	Кос							
129.50	154.20	Graphitic Argillites and Wackes	-unit is thinly laminated -upper 1m is highly carbonatized, contact masked in alteration -trace fine grained anhedral pyrite in thin bands 130.5-138m -laminae oriented 40-70° to C.A -unit is dark grey to black laminae alternating with whitish bands to 140m, gradational change to light grey wacke, foliation at 55-60° to C.A. -basal 5m massive, dark grey, gritty wacke, basal contact sharp	Sg.w	2-5	ру	d,b	AS	0510	131.0	134.0

DDH ~15-95

						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
154.20	162.80	Granite	-medium grained, 5-10% fine pyrite, reddish pink alteration, bleached for 1m on up/downhole contacts -30-50% chloritized mafics 1-3mm, 40-60% feldspar and quartz, locally crosscut by calcite veins at 159.5 and 161m -basal contact masked in intense sericitic and silicified alteration zone over basal 30cm	Gr	5-10	ру	d	WR AS	37146 0511	155.0 155.0	158.0 158.0
162.80	195.80	Andesitic Tuffs and Volcanics	-unit is generally light greyish green -intercalations of tuff and massive flows, 3-10m thick -tuffs have moderate foliation, 60-80° to C.A. -tuffs contain 30-40% fragments of quartz, feldspar, chert, and andesite 2-15mm in size -pyrite present as disseminations in matrix and in quartz-carbonate veinlets which comprise 5% of unit -basal 30cm Fe-stained pink	Ad				WR WR	37147 37148	167.0 176.0	170.0 179.0
195.80	197.40	Granite	-pink, medium grained, highly altered Fe-stained, silicified -sharp upper and lower contacts -unit similar to 154.2-162.8m but more highly altered	Gr				WR	37149	196.5	197.3
197.40	201.40	Andesitic Tuffs and Volcanics	-unit is generally light greyish green -intercalations of tuff and massive flows, 3-10m thick -tuffs have moderate foliation, 60-80° to C.A.	Ad							

						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	To
			-sharp up/downhole contacts								
201.40	204.70	Granite	-same as 154.2-162.8m -basal 1.2m is coarse, basal contact is sharp -basal contact is silica flooded	Gr							
204.70	219.50	Andesitic Tuffs and Volcanics	-unit is generally light greyish green -intercalations of tuff and massive flows, 3-10m thick -tuffs have moderate foliation, 75-85° to C.A. -disseminated pyrite zones up to 5% 1mm, euhedral -basal contact gradational over 30cm	Ad	1-5%	РУ	đ				
219.50	293.00 EOH	Andesitic Volcanics and Tuffs	-generally massive, light grey, 5-10% mafics (pyroxene and amphibole), chloritized, anhedral feldspar 5-10% in a fine grained to aphanitic matrix comprised of feldspar, black to greenish pyroxene, amphibole and chlorite -tuffaceous section from 246-250m with coarse cherty fragments up to 10cm comprising 10-20% of zone with 5% euhedral pyrite also in zone	Ad				WR	37150	227.0	230.0

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Area/Township	N.	.T.S.			Year			Project		
Adams Townshij	p 42	2-A-6			1995			Abitibi Ko	matiite	
Hole Sign	Hole Sign Ho AD 6-9				Bearin	g Survey Gri	d °/Grad	Bearing N.T.S. Grid %Grad		
AD	AD 6-95				027			027		
Co-ordinates: X		Co-ordina	ites: Y/L	m	cm	Co-ordin	ates: Z	m cm		
23+00W			16+40N				300			
Logged By Date Dr			ed By	Core Siz	ze	Started	Fin	ished	Hole Length	
PAV Find Pouris Dec 6, 1995		Brad	ley Bros	во		Dec 2, 1995	Dec	5, 1995	302	

Remarks:Core stored at Hollinger building; Claim #: 1204310

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Outokumpu Mines Limited

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Diamond Drill Record

Page 2

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Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	. Dip	Azimuth
0			10			20			30		027
47	51	027	50			60			70		
80			90			100	51.5		110		
120			130			140			150	49.5	
160			170			180			190		
200	52		210			220			230		
240			250	53		260			270		
280			293			300	55		310		
320			330			340			350		
360			370			380			390		
400			410			420			430		
440			450		r	460			470		
480			490			500			510		
520			530			540			550		
560			570			580			590		
600			610			620			630		
640			650			660			670		
680			690			700			710		
720			730			740			750	·	
760			770			780			790		
800			810			820			830		

DDH A06-95

						Bulphide	8		Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
0.00	40.00	Casing	BW								
40.00	115.00	Talc-Magnesite Altered Peridotite/ Pyroxenite	-unit is mottled, whitelsh grey to light greenish grey, weakly to moderately magnetic, soft (1-3) -40-48m has a brown tinge, probably from reaction to meteoric water -unit crosscut by 5-30% talc-carbonate veins and veinlets -magnetite blotches, 2-3mm, comprise 3-10% of unit -unit becomes darker grey downhole from 90m to end of unit -at 115m there is a drastic loss of talc- carbonate at a talc-carbonate vein i.e. below vein the peridotite is serp- entinized but not talc-carbonatized	Кос				WR WR WR	37172 37173 37174 37175	50.0 74.0 104.0 119.0	53.0 77.0 107.0 122.0
115.00	184.00	Peridotite	-unit is dark grey to black, moderately to strongly magnetic, pervasively serp- entinized -meso/adcumulate texture occasionally -up to 5-15% tremolitized pyroxene present locally -serpentine veinlets comprise 2-5% -occasional presence of carbonate veins 1% of unit overall -gradational downhole contact with dunite at 180-184m -rubbly zones 164.5-168.0 and 179-182m	Koc/mc				WR	37179	155.0	158.0
184.00	302.00	Dunite	-unit has an adcumulate texture with three major alteration types with corresponding magnetic signatures: talc-carbonatized zones are weakly	Kad	dk	green tc carb gr. to dk	Ъ	WR WR WR WR	37180 37181 37182 37183	176.0 186.0 230.0 269.0	179.0 188.0 233.0 272.0

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DDH Ad6-95

						Sulphide	8		Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
			magnetic, apple-green serpentinite are moderately magnetic, and dark black serpentinized strongly magnetic zones -230-247m and 283-302m are talc- carbonate zones -serpentinized olivine pseudomorphs 2-7mm with 120° junctions -very trace (<0.2%) disseminated py noted variably throughout unit, some samples taken for petrography		tr	tc carb Py	d	WR	37184	284.0	287.0

Area/Township	N	.T.S.			Year			Project	
Adams Township	. 42	2-A-6			1995			Abitibi Kor	natiite
Hole Sign			Bearii	ng Survey Gr	id °/Grad	Bearing N.	T.S. Grid [«] /Grad		
AD	AD 7-95				027			027	
Co-ordinates: X	Co-ordina	ites: Y/L	m	cm	Co-ordin	ates: Z	m cm		
14+00E			9+75S				300		
Logged By Date Drill			ed By	Core Si	ze	Started	Fin	ished	Hole Length
PAV Pour Pour J	PAV Paul Pour d Dec 16, 1995 Bi			BQ		Dec 12, 19	95 Dec	ec 15, 1995 260	

Remarks:Core	stored at	Hollinger	building;	Claim #	#: 1204306
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Outokumpu Mines Limited

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Diamond Drill Record

Page 2

Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth	Depth	Dip	Azimuth
0			14	51.5	027	20			30		027
40	-		50	52.5		60			70		
80			90			100	52		110		
120			130			140			150	49.5	
160			170			180			190		
200			210			220			230		
240			250			260	52		270		
280			293			300			310		
320			330			340			350		_
360			370			380			390		
400			410			420			430		
440			450			460			470		
480			490			500			510		
520			530			540			550		
560			570			580			590		
600			610			620			630	5	
640			650			660			670		
680			690			700			710		
720			730			740			750		
760			770			780			790		
800			810			820			830		

DDH Au7-95

						Sulphides			Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	To
0.0	10.0	Casing	-BW	Casing							
10.0	22.8	Basaltic Tuffs and Volcanics	-core is highly surface weathered, blocky -some relict sections appear tuffaceous and others appear as massive basalt	Ba							
22.8	42.5	Talc-carbonate Altered Pyroxenite?	-light grey, non-magnetic talc-carbonatized, several 10cm sections appear flow brecciated indicating that flows are thin -unit may be a talc carbonate altered mafic or pyroxenite -basal 2m blocky, and moderately foliated at 50-60° to C.A.	Кос				WR	37005	35.0	38.0
42.5	51.0	Graphitic Argillites and Wackes	 -non-magnetic graphite and graphitic argillite intercalated with wackes and possibly thin mafic volcanics (which carry some eggshell breccia fragments of graphitic argillite) -unit contains 2-5% disseminated to banded pyrite overall -some bolly white quartz carb veins 10-30cm occur randomly throughout section 	Sg,w	2-10 2-5 2-5	ру ру/ро ру	p'q p'q p'q	AS AS AS	0593 0594 0595	43.2 45.5 48.5	45.5 48.5 51.0
51.0	61.7	Wacke	-unit is thinly laminated, light greyish brown -laminae at 70-90° to C.A. with 30-50% angular wacke fragments -trace to 2% pyrite and pyrrhotite locally in thin laminae -basal contact sharp	Sw				WR	37006	58.0	61.0
61.7	95.9	Graphitic Argillite	-unit comprised 80% of graphite and graphitic argillite, remainder of section are some intervals of wacke	Sg	10-15	py/po	d,b	AS AS AS	0596 0597 0598	62.0 65.0 68.0	65.0 68.0 71.0

DDH Au7-95

						Sulphides		1	Sample		
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То
			-wacke units contain eggshell breccia					AS	0599	71.0	74.0
			fragments of graphitic argillite					AS	0600	74.0	77.0
			-small bands of massive magnetite comprise					AS	0601	77.0	80.0
			5% of argillite					AS	0602	80.0	83.0
			-86-90m has abundant graphite and graphitic					AS	0603	83.0	86.0
			gouge-rich sections					AS	0604	86.0	89 .0
			-sulfide pyrite and pyrrhotite are abundant, 10-					AS	0605	89.0	92.0
			15% overall and particularly in assayed zones -wacke sections contain some minor sulfide pyrrhotite clasts -basal contact is gradational					AS	0606	92.0	95.0
95. 9	105.7	Wacke and	-unit is comprised of 80% wacke, brown and	Sg,w	2-10	py/po	d,b	AS	0607	95.0	98.0
		Graphitic Argillite	gritty, with some 20% thin 20-40cm black		2-10	py/po	d,b	AS	0608	98.0	101.0
			graphitic argillite zones		2-10	py/po	d,b	AS	0609	101.0	103.4
			-foliation 0-70° to C.A.		2-10	py/po	d,b	AS	0610	103.4	105.0
			-both wackes and arguintes contain 2-10%		MS	py/po	MS	AS	0611	105.0	105.1
			bands, locally massive -gradational downhole contact over 3m		2-10	ру/ро	0,0	A0	0612	105.1	100.1
105.7	149.0	Iron Formation	unit is mottled michmash of short 20%	LE I	10	~	db	49	0613	109.1	110.0
105.7	148.0	ron Formation	magnetite bands 30% warks 20% and	нг 	10	μ ω	0,0		0614	110.0	113.0
			amillite (20%) comprised of 5% graphite					AS	0615	113.0	116.0
			-all of these units are jumpled up over 1-10 cm					AS	0616	116.0	119.0
			as fragments and soft sedimentary deformed					AS	0617	119.0	122.0
			units					AS	0618	122.0	125.0
			-pyrrhotite comprises 10% of unit overall,					AS	0619	125.0	128.0
			occasionally massive over 10cm sections					AS	0620	128.0	131.0
			-pyrrhotite mostly occurs in matrix to fragments					AS	0621	131.0	134.0
			but also as veinlets, bands, and replacing					AS	0622	134.0	137.0
			graphitic argillite; it is occasionally massive					AS	0623	137.0	140.0
			over 10cm sections					AS	0624	140.0	141.4
			-sulphide is less abundant downhole i.e. 134 to					AS	0625	141.4	142.7
			end of unit pyrrhotite is 2-5% overall, and					AS	0626	142.7	143.2
			magnetite is 10-15% of this interval in bands					AS	0627	143.2	146.0
			2mm to 25cm					AS	0628	146.0	148.4

DDH Ad7-95

				Sulphides Samp				Sulphides Sample			Sulphides			
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	То			
			-downhole contact is sharp					AS	0629	148.4	149.0			
149.0	153.9	Mafic Tuff	-unit is dark grey to dark greyish brown -fragments are basaltic and rounded to sub- angular, 1mm-7cm -matrix is fine grained to aphanitic, and locally magnetite rich with 2-5% disseminated pyrite	Ba	2-5	ру	ď							
153.9	188.9	Andesite to Basalt	-unit light to dark grey, massive flows -interflow tuffs and sediments contain 5-10% pyrrhotite and pyrite, as disseminations and as bands over assayed -foliation at 50-60° to C.A. -local carb-filled amygdules 1-2%, basal 0.5m is silica flooded, and basal contact is sharp	Ad	10 5 5-7 2-5 2-5 2-5	ро/ру ро/ру ро/ру ро/ру ро/ру ро/ру	0,0 0,0 0,0 0,0 0,0 0,0 0,0	WR AS AS AS AS AS	37007 0639 0640 0641 0642 0643 0643	167.0 164.9 170.2 177.1 177.7 180.8 188.0	170.0 165.3 170.6 177.7 179.4 181.9 188.9			
188.9	193.9	Diorite	-unit is medium grained, salmon pink to greenish grey -fekdspar 20-30% an/subhedral, 2-3mm; mafics remainder of section, mostly amphibole and pyroxene, 3-4mm -disseminated pyrite 2-5% overall -basal 30cm is blocky -unit is locally silica flooded and crosscut by quartz carbonate veins	Di	2-5 2-5	ру ру	αa	AS AS	0644 0645	188.9 191.9	191.9 193.6			
193.9	213.0	Talc-magnesite Altered Pyroxenite	-unit is mottled grey to whitish grey talc-carb altered, soft, and weakly magnetic -very trace disseminated pyrite locally -some thin aphanitic chloritic zones may indicate relict flow contacts i.e. 202-203m, 210-211.2m and 212.2-213m -locally unit contains porphyritic black blotches 2-3%, which are non-magnetic, 1-2mm, and very soft	Кос	1	ру	ð	WR AS	37008 0646	194 196.0	197 197.0			

DDH A07-95

					Sulphides			Semple		-	
From (m)	To (m)	Rock Type	Description	Legend	%	Туре	Mode	Туре	Tag #	From	To
213.0	215.3	Diorite	-unit is medium grained, salmon pink to greenish grey -feldspar 20-30% an/subhedral, 2-3mm; mafics remainder of section, mostly amphibole and pyroxene, 3-4mm -disseminated pyrite 2-5% overall	Di				WR	37009	213.0	215.3
215.3	260.0	Talc-magnesite Altered Pyroxenite	-unit is mottled grey to whitish grey talc-carb altered, soft, and weakly magnetic -aphanitic chloritic zone at 215.3-215.6m with some fault gouge - local zones of massive magnesite veinlets -unit also crosscut by 5% talc carbonate veins which are randomly oriented	Koc				WR WR	37010 37011	216.0 245.0	219.0 248.0



Ministry of Northern Development and Mines

Report of Work Conducted After Recording Claim



Mining Act

Personal information collected on this form is obtained under the authority of the this collection should be directed to the Provincial Manager, Mining Lands, Iv Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.



- Instructions: Please type or print and submit in duplicate. 900 42A06SE0056 W9660-000 - Refer to the Mining Act and Regulations for regulations of consult the Mining 111111J C Recorder.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s)		Client No.
Outo kumpa Mines Ltd.		178525
Address		Telephone No.
P.O. Box 1123 Suite 200, 637 Algonaul	a Blod A. Timmins, Outon's. 14N TH9	(705) 264-5024
Mining Division	Township/Afea	M or G Plan No.
Porcupine	Adams, Delaro, Eldorado Townships	6-3925, 6-3993, 6-4001
Dates Work From: November 16, 199	To: December /	5, 1995

Work Performed (Check One Work Group Only)

Work Group		Туре	
Geotechnical Survey			
Physical Work, Including Drilling	Piamond Drilling	RECORDED	
Rehabilitation		FFR 7 1996	
Other Authorized Work			
Assays		Receipt	
Assignment from Reserve		· ·	
Total Assessment Work	Claimed on the Attached Statement of	Costs \$ 94.863	

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address					
Bradley Bros. Limited	P.O. Box 485, Timmine, Ontarto, PHN TET					
Paul Davis Outokumpu Mines Ltd.	1.0. Box 1/23, Timmins, Ontario, PYN 7H9					

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work	Date	Recorded Holder or Agent (Signature)
report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Jan 16/96	Paul

Certification of Work Report

I certify that I have a personal ka its completion and annexed repo	nowledge of the facts set forti Int is true.	h in this Work report, having performed (the work or witnessed same during and	for after
Name and Address of Person Certify Paul Davis, Outskunge	ing	Box 1/23, Timmins, Outoris	P4N 7H9	
Telepone No.	Date	Certified By (Signature)		
(705) 264-5024	Jan 16/96	Paul		
For Office Use Only				ŋ
Total Value Cr. Recorded Date	EB 7/96	Mining Recorder	Received Stamp	<u> </u>
94,863 M	NAY 7/96	MAY 6/96	FEB 7 1996	-
Date	Notiče for Afhendments Sent		PORCUPINE MINING DIVIS	SION
0241 (03/91)				

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Page 1

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (ν) one of the following:

1. Credits are to be cut back starting with the claim listed last, working backwards.

2. K Credits are to be cut back equally over all claims contained in this report of work.

3. Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

t certify that the recorded holder had a beneficial interest in the patented	Signature	
or leased land at the time the work was performed.		



Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Lol sur les mines

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6AS, telephone (705) 670-7264.

	W9660,00364
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2. Indirect Costs/Coûts Indirects

** Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les

coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Туре	Descrip	tion	Amount Montant	Totals Total global
Transportation Transport	Туре			
Food and Lodging Nourriture et hébergement				
Mobilization and Demobilization Mobilisation et démobilisation				
	Sub To Total partiel	tal of Indir des coûts	ect Costs indirects	
Amount Allowable (i Montant admissible	not greater than (n'excédant par	20% of Din 20 % des d	ect Coets) ::oûts directs)	
Total Value of Asse (Total of Direct and A Indirect costs)	sement Credit Nowable	Valeur total d'évaluation (Total des co	le du crédit n die directe	, , , , , , , , , , , , , , , , , , , ,

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Remises pour dépôt

- 1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
- 2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation × 0	P.F.GEBV/EI
Attestation de l'état des co	FEB 7 199/
J'atteste par la présente : que les montants indiqués sont dépenses ont été engagées pour sur les terrains indiqués dans la f	PORCUPINE MINING DIVISION le plus exact possible et que ces r effectuer les travaux d'évaluation ormule de rapport de travail ci-joint.
Et qu'à titre de	je suis autorisé , poste occupé dans la compagnie)

h	faire	cette	attestation.

Signe

kire	<u> </u>	Dele
Paul	• •	Da 14/96

1. Direct Costs/Coûts directs

Туре	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de	Type Piternal Poilling	¥97,863	
l'entrepreneur et de l'experi- conseil			17753
Supplies Used Fournitures utilisées	Type		· ·
P	Туре		
Equipment Rental Location de matériel			1 Pres 1 1 Store 2 Store
	Total Di Total des coi	rect Costs Its directs	17, 82 3-

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If rification is not made, the Minister may reject for assessment work W all or part of the assessment work submitted.

Filing Discounts

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- 1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- 2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit **Total Assessment Claimed** $\times 0.50 =$

Certification Verifying Statement of Costs

I hereby certify:

that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Areject Geolog, 17 (Recorded Holder, Agent, Position in Company) I am authorized

to make this certification

0212 (04/01)

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collece de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

	Labour Main-d'oeuvre			
	Field Supervision Supervision sur le terrain			
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