WP-6275A

803743

IMPERIAL OIL LIMITED

MINERALS SECTION

DRILL LOG

PROJECT: Sulphurets 2153	GROUND ELEV.
HOLE NO.: 17	BEARING: 215
LOCATION: Brucejack Lake 42 m at 040° from showing	DIP: -45°
	TOTAL LENGTH: 148.44 m
LOGGED BY: L. Ferguson Geologist	HORIZONTAL PROJECT
DATE: Sept. 13, 1980	VERTICAL PROJECT
CONTRACTOR: Arctic	ALTERATION SCALE
CORE SIZE: BQ	absent slight moderate intense
DATE STARTED: September 11 (drill start Sept. 12 AM)	TOTAL SULPHIDE SCALE
DATE COMPLETED: September 13 (8 PM)	traces only < 1% 1% – 3% 3% – 10% > 10%

DIP TESTS Depth	Dip	Azimuth
145.39	-30	208
114.91	-31	214
84.43	-33	216
53.95	-35	217
23.47	-40	222

COMMENTS

LEGEND

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DEPTH (METRES)	% Core Recy	LITHOLOGY	STRUCTURE		GEOLOGICAL DESCRIPTION	ALTERATION
				0-4.27	Overburden: 3.76-4.27 cored	
				~~4.27~~ Altered Tuff?	4.27-148.44: Altered Volcanic Tuff? light ~~[illegible]~~ green, intensely sericitized unit; fine to medium grained; green color due to sericite but also may be a result of some chlorite; moderate foliation common; fine grained qtz-feldspar; quartz veinlets and veinlet stockwork common throughout; gray zones typically contain more pyrite — often patchy grey or grey layers in a general light host; small sericitic spots common; thin secondary carbonate veinlets common throughout	
5			40° foliation			
					4.27-10.4: oxidized qtz veins and fractures; locally bleached;	
10					8.6: small porphyry clasts?	
					9.3-10.5: altered feldspar rich crystal tuff? abundant white feldspars (<2mm) in sericite rich host.	
			foliation 55°/A		11.8: probable relict tuffaceous texture	
					4.27-17.5: patchy grey py-rich zonation common;	
15					Veining very variable and irregular in orientation throughout; sericitization of tuffaceous material pervasive: relict tuffaceous material throughout	
20			contact 45-50°C/A		20.55-20.85: barite-qtz vein.	
					23.13: 1cm veinlet barite c/w qtz on outside edges of veinlet.	
25			foliation 45°/A		24.7: relict feldspar or amphibole? sericitized in a sericitic host; possibly tuffaceous?	
			foliation 45°/A			
30						

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLE INTERVAL	SAMPLE WIDTH	ASSAY NUMBER	% Cu	% Mo	% Zn	Au	Ag	COMPOSITE ASSAYS % Pb
4.27-14.44: disseminated py only sulphide except where noted; overall 3 to 10%; locally		4.27								
as bands <1% in green sections and 20-25% in the gray patches layers; veins usually <1% sulphide			1.73	18.45				.002	.09	
although host within & adjacent to		6.0								
veins are strongly pyritized; qtz ± calcite ±										
barite veins usually contain			3.0	1846				.001	.10	
minor cpy, gal, sphalerite and										
possible telluride??; most		9.0								
mineralized veins parallel										
foliation; at least some or perhaps			3.0	1847				.001	.09	
all of the "telluride" might be sphalerite										
and galena; the "telluride" typically		12.0								
occurs as wispy and fine grains										
in boulders cracks in qtz veins;										
it is soft, silver luster, with a black			3.0	1848				.002	.10	
streak?										
		15.0								
			3.0	1849				.002	.11	
		18.0								
			3.0	1850	.001		.09	.001	.12	.03
20.55-20.85: ~~[illegible]~~ trace fine										
grained cpy and galena with		21.0								
"wispy patches fill with black			3.0	1851				.010	.21	
soft, silver luster) near gypsum										
contact										
23.13: 1cm veinlet with minor										
cpy and telluride? occurring		24.0								
as little slivers in the veinlet,										
veinlet parallel foliation;										
possibly sphalerite;			3.0	1852				.048	6.93	
		27.0								
27.44: 1/2cm qtz-barite veinlet										
rich in sphalerite? occurring										
as slivers along fais-fine trace py-rich mantles along veinlet;			3.0	1853				.001	.14	
veinlet parallel foliation;										
		30.0								

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DEPTH (METRES)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION
				-32.7:	
				32.5 ∧ py-sericite spotting; clusters of fine py in a gray sericite host	
			foliation 50-55°c/A	32.5-36.4: abundant tiny white feldspars oriented parallel foliation	
35				34.0-34.75: brecciated qtz veining; fragments of vein host stretched; locally py-rich groundmass, orientation irregular (~20-50°c/A).	
			foliation 55°c/A		
				37.8-40.2: intense milky white qtz veining with local calcite; wispy irregular patches of host common	
40					
				42.5-44.8: intense qtz veining	
45					
			shear 50-60°c/A	45.8: ~~G~~ shear zone; mud and crushed material	
50			55°c/A foliation		
				50.5-54.5: gray less sericitized, more qtz-feldspathic zone; gradational boundaries	
				52.65: altered fine-grained clastic?? ~~debris~~	
55				~~55.0~~	
			50-60°c/A foliation		
60				59.8-75.6: strong qtz veining	

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLE INTERVAL	SAMPLE WIDTH	ASSAY NUMBER	% Cu	% Mo	% Zn	Au	Ag	COMPOSITE ASSAYS % Pb
			3.0	1854				.004	.30	
		33.0								
34.41: trace moly; ~~10% galena~~ very fine grained			3.0	1855	.002	.002	.03	.004	.11	.01
35 34.0 - 46.5: locally, min very fine grained silver grey mineral; uncertain of nature; maybe moly or galena.		36.0								
			3.0	1856				.002	.21	
		39.0								
40										
			3.0	1857				.005	.59	
		42.0								
			3.0	1858				.005	.36	
45		45.0								
			3.0	1859				.001	.21	
		48.0								
50 50.5-51.5: 10-15% disseminated pyrite			3.0	1860				.001	.12	
		51.0								
			3.0	1861				.001	.20	
		54.0								
55 55.05-59.35: distinctive wispy ~~py~~ patchis elongate // foliation			3.0	1862				.001	.19	
		57.0								
				1863			.02	.004	.19	
59.38-59.39: black soft sulphide along hair line fractures ~~off~~		contact								
60		60.0								

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DEPTH (METRES)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION
65					
70		45-55°	Foliation 55°C/A Lamination 45°C/A	69.8: possible sericitized ~~tuffaceous~~ material 69.~~4~~-69.6: well laminated vein - py - sericite sequence // foliation	
				71.5-74.5: Strong brecciation of host; probable qtz stockwork	
75				75.8-80.8: probable sericitized ~~tuffaceous~~ material (< 5mm in size); irregular shapes.	
			Foliation 60°C/A		
80				80.9-83.1: intense qtz and basite veining	
85			Foliation 60°C/A		
				86.05-86.2: qtz vein // foliation	
90					

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLE INTERVAL	SAMPLE WIDTH	ASSAY NUMBER	% Cu	% Mo	% Zn	Au	Ag	COMPOSITE ASSAYS % Pb
59.8-69.0 locally minor to trace amounts of black telluride? or sphalerite? associated with qtz veins				1864				.004	.39	
			3.0							
		63.0								
65			3.0	1865				.003	.30	
		66.0								
			3.0	1866	.008		.08	.068	.81	.02
68.6-69.0: strong sphalerite mineralization with or without pyrite occuring in patches & fractures within the qtz vein; qtz vein subparallel foliation;		69.0								
70			3.0	1867				.011	.51	
		72.0								
			3.0	1868				.005	1.02	
75		75.0								
			3.0	1869				.001	.17	
		78.0								
80 pyr			3.0	1870				.002	.12	
80.9-82.0: minor cpy, gal locally with the barite and qtz veins locally strong sphalerite? mineralization in fractures and possible former mag/pyrrhotite? pale sphalerite locally especially at 81.2 and 81.96;		81.0								
			3.0	1871	.036		.17	.027	1.82	.09
		84.0								
85			3.0	1872				.005	.28	
		87.0								
			3.0	1873				.002	.10	
90		90.0								

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DEPTH (METRES)	%Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION
				93.05-93.18 : Qtz vein, ~~fr~~	
95					
100					
105				104.65 - 113.1 : less altd crystal tuff?; more qtz-feldspar rich but still green and strongly sericitized; rich in fine grained feldspathic detrital slightly coarser sericitized material; variation in altn is quick but gradational.	
110					
				113.8 - 114.8: strong qtz veining; some sericitic shears probable; well fractured	
115					
120					

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLE INTERVAL	SAMPLE WIDTH	ASSAY NUMBER	% Cu	% Mo	%	Au	Ag	COMPOSITE ASSAYS
			3.0	1874				.003	.10	
93.05-93.18: black telluride? common in fracturing in qtz vein		93.0								
93.05-94.3: minor to trace cpy, sphalerite? and telluride in qtz veinlets			3.0	1875				.003	.12	
		96.0								
			3.0	1876				.005	.10	
		99.0								
			3.0	1877				.004	.11	
		102.0								
			3.0	1878				.003	.09	
		105.0								
			3.0	1879				.002	.09	
		108.0								
			3.0	1880				.001	.10	
		111.0								
113.10: 1cm qtz veinlet with trace telluride?			3.0	1881				.001	.02	
114.61: trace telluride?		114.0								
			3.0	1882				.002	.19	
		117.0								
			3.0	1883				.001	.11	
		120.0								

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DEPTH (METRES)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION
125					
130			Bedding 75°/A	130.9: 2cm mud seam; shear 131.0, 131.06: py seams 131.1-131.4: finely bedded sequence of sericitized siltstone?	
135			75°/A	134.9: bedding contact?	
				138.7-139.3: crushed and granulated locally; shearing probable.	
140				140.0-141.5: strong qtz veining; probable brecciation; intense sericite locally and strong pyritization locally.	
				143.5-143.75: qtz vein with white barite	
145					

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLE INTERVAL	SAMPLE WIDTH	ASSAY NUMBER	%	% Mo	% Zn	Au	Ag	COMPOSITE ASSAYS % Pb
			3.0	1884				.002	.07	
		123.0								
			3.0	1885				.003	.07	
125		126.0								
			3.0	1886				.002	.09	
		129.0								
130 ~~130.0 15~~			3.0	1887				.002	.07	
		132.0								
			3.0	1888				.002	.09	
135		135.0								
135.60 : moly? veinlet section qtz-calcite veinlet, also trace sphalerite			3.0	1889		.002	.02	.003	.07	.01
		138.0								
140			3.0	1890		.002	.06	.019	2.11	.02
140.0-140.15 : qtz vein with minor py, trace cpy and 2%? very fine grained gal or ~~blue~~ moly? along fracture, and in small patches.		141.0								
			3.0	1891		.002	.43	.004	.28	.24
143.66-143.7 : intense sph, gal and minor cpy mineralization.		144.0								
145										
			3.0	1892				.003	.12	
		147.0								
		148.44	1.44	1893				.003	.13	
		EOH								

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DEPTH (METRES)	%Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION
150					
155					
160					
165					
170					
175					