033

Abminco Exploration **DRILL LOG** Hole N° G 41 Page N° 1

Feature: Bedding, Foliation, Fragment (size & shape), Shearing, Fault (F), Vein (c carbonate, q quartz)

Mineralization: Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive > 60%

307034

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG (TRACE / COMMON / ABUNDANT / MASSIVE)	DEPTH m	MINERALIZATION
		0-2m Not cored			
		(2-10 shale/mudstone.) 2.0-103 - Interbedded shales, sandstones and mudstones. The sandstones are equigranular and porous but with a small (~10%) clay content.			
	10	(10-13 sandstone.) Many elongate black particles ~0.5-1mm are characteristic. Rock fragments are also present. (greywacke?) (13-19 shale mudstone) The shales and mudstones are light grey through to black sometimes showing good bedding which is 35° at 23m.			
		(19-23 sandstone) The major sandstone and shale/mudstone units are shown in brackets.			
	20	(23-33 sandstone and mudstone)			24.3-25.0 Pyrite-galena sphalerite vein. pyrite 50%, galena 10%, sphalerite 10%. Remainder carbonate probably dolomite Vein material is fractured. Cavities would make up 5% of vein.
	30	(33-36 sandstone)			
		(36-42 sandstone and mudstone/shale)			
	40	(42-46.5 sandstone and minor mudstone)			
		(46-48 mudstone)			
		(48-49.5 sandstone)			
	50	(49.5-66.5 mudstone)			

5 cm

Abminco Exploration

DRILL LOG

Hole N° G41 Page N° 2

Feature: Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein (c carbonate q quartz)

Mineralization: Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive > 60%

307035

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION

Carbonate veinlets developed locally.

Sandstone often contains minor disseminated carbonate (dolomite).

Minor talc-kaolin developed on slip planes.

Note: Core from mineralised vein at 27, 28 and 30m.

60

Core bedding angles
@ 64m 60°
68m 40°
74m 35°

(66.5-67.5 sandstone)
(67.5-71.0 mudstones)

70

(71.0-75 sandstone)

80

90

100

5 cm

035

Abminco Exploration

DRILL LOG

Hole N° G 41 Page N° 3

Feature: Bedding, Foliation, Fragment (size & shape), Shearing, Fault, F, Vein, c carbonate, q quartz

Mineralization: Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive > 60%

307036

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION
		103m			
		103.0-184.7 Dark grey siltstone and mudstones A sequence of slumped and sheared rocks with minor disseminated pyrite. Also evident are pyrite clasts and siltstone fragments containing disseminated pyrite. No bedding presumed shearing direction is 50° to core direction. Minor quartz veining developed locally, e.g. 113.6. CBA 115 60-70° Much of the core is very broken and clayey.			Pyrite carbonate vein at 106.8 to 107.6. Pyrite.
	110				
	120				
		CBA 127m 60-70°			
	130				
	140				
	150				

5 cm

036

Abminco Exploration

DRILL LOG

Hole N° G41 Page N° 4

307037

Feature: Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization: Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive > 60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION
		CBA 151m 60°			
		153-160 section mineralised by pyrite-pyrrhotite. 25%			
		Carbonate or quartz/carbonate veinlets are commonly developed.			
		CBA 169m 40-60°			
	160				
	170				
	180				
		184.7			
		184.7-193.0 Siltstones, mudstones and sandstone massive carbonate veins.			
	190				
		193.0			
		193.0-202.8 Intermediate lava with some sediment near top CBA 55°. Fine grained with 10-15% carbonate.			
	200				

5 cm

Feature: Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization: Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive > 60%

307038

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION
		202.8			
		202.8-205.0 Black shale, mudstone and siltstone - many angular fragments. 205.0 CBA 45°			
		205.0-216.7 Pale brown dolomitic mudstone, siltstone. CBA 50-60°. Carbonate veining common.			
	210				
		216.7			
		216.7-220.5 Fine grained intermediate lava.			
	220	220.5			
		220.5-235.8 Black shale mudstone and siltstone. Carbonate veinlets common.			
	230				
		235.8			Mineralisation Pyrite - >30% 234.3-235.8 coarse grained. Some clayey patches possibly fault zone.
		235.8-241.3 Black pyritic shales. CBA 60° Pyrite introduced along beds.			
	240	241.3			
		241.3-255.6 Black shale, mudstone siltstone and dolomite. (Mudstones often dolomitic) CBA 60-70°			
	250				

5 cm

038

Abminco Exploration

DRILL LOG

Hole N° G41 Page N° 6

Feature: Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization: Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive > 60%

307039

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION
		255.6			
	260	255.6-282.7 Dolomite generally massive with some interbedded quartzite. CBA 60-70° Quartz at 262, 263, 265, 266 (271-274) interbedded quartzite and dolomite.			
	270				
	280				
		282.7			
		282.7-292.5 Massive quartzite. Blotchy quartzite - dark grey and whitish. Last 5 metres very broken.			
	290				
		292.5 END OF HOLE			

5 cm

Abminco Exploration

DRILL LOG

Hole N° G42 Page N° 2

eature: Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization: Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive > 60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE / COMMON / ABUNDANT / MASSIVE	DEPTH m	MINERALIZATION
		Pale grey to white siltstones, and shalos. generally poorly bedded or slumped. Rare carbonate veinlets.				Nil
	300	Massive quartzite - pale grey saccharoidal rock showing occasional bedding. Interbeds of greenish grey micaceous siltstone also - esp. 298-301. Carbonate speckled throughout last 15m. Dark bands towards base due to increase in graphite content.				Rare py veinlets source of which are associated with carbonate.
		Dolomitic siltstone-pale kakhi				Tr. dissem. & vein py*
		Black slate - slumped and sheared with pyrite chlorite veinlets over 328-330				
		335.3m E.O.H.				
	350					

ABMINCO EXPLORATION DIVISION **DRILL HOLE RECORD**

Location Severn Zeehan Property Zeehan Deposits Queen Hill District HQ to 146.5N Q to

Commenced 23.3.77 Completed 23.5.77 Core size 284.5 BQ

Objective Test strike extension of Severn mineralisation 100m south of discovery in G39 % Recovery

Alt./R.L. 1181 m

Co-ordinate 9998E 9800N

Bearing (M) 282 ~~-11~~ 25

Grid bearing (M) 270 ~~12~~

1486.5N 1100.00E

Hole No 2542 ~~G 42~~

Date May 77

Logged D.C.Simpson

Dip -45°

SURVEY DATA

PTH	DIP	BEARING(M)	INSTRUMENT TYPE
0	45°	282°	Theodolite & Clino
5	46°	284°	East Man.
7	49°	278°	" "
2	48.5	-	" "
0	48°	-	" "
5	47	271	" "
4	45	269	" "

GRAPH DERIVED DATA

DEPTH	DIP	BEARING(M)	NORTHING	EASTING	ALTITUDE
			1486.50	1100.00	1181.00

REMARKS

2920

Inside rods

"