ABERFOYLE

DIAMOND DRILL LOG

HOLE Nº 975 Page No 1

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	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
1·3	5	Lt. grey green f.g. volc. arenite. Gen. massive highly tuffaceous sediment. Fine sand size tuffaceous material. Core is very broken.						5	
	10							10	
	10·5	Dk. grey shale - well bedded at 15° to c.A.							
	11·0								
1·0		Interbedded Lt. grey green f.g. volc arenite, lt. grey green tuffaceous mudstone and lt. to dk. grey (tuffaceous) shale. Bulk of interval is f.g. volc. arenite of bedded to massive character. This grades down in grainsize to tuffaceous mudstone. Dark coloured well bedded shales (tuffaceous) become common toward the base of the interval. Grading is common as is truncation of beds and small scale sed. or diagenetic fracturing. Younging is uphole. Bedding is relatively constant at around 35-40° to c.A. Core is very broken.							Py rare.
1·2	15							15	
·6									
·5									
·2									
·5									
·6	20							20	
·7									
·6									
·7									
·7									
·1								25	

Feature Bedding, Foliation, Fragment size & shape; Shearing, Fault, Vein (F; 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
·8		Lithology – as above – Interbedded lt. grey green f.g. volc. arenite, tuffaceous mudstone and lt to dk grey shale.							
·7		Bedding 25m – 35° to c.A.							
·7		30m – 35° "							
·5		35m – 40° "							
·6		40m – 40° "							
	30	45m – 15° "						30	
1·0									
·7									
·6									
·7									
·5									
1·4	35							35	
1·8									Py rare
		FAULT – Pug ?° to c.A.	F					36·9	
1·0									
		BASE OF BROKEN GROUND.							
	≈38·5	← Carbonate veins (diagenetic?) become common from here. Irregular with no pretered orientation and gen less than ·5cm.							
3·1	40							40	
2·5									
	43·3	Interbedded finely laminated lt. to dk. grey vo (black carbonaceous) mudstone to shale & (siltstone) (pyritic).							
2·0	45 45·2	FAULT ZONE? Broken core & pug? at unknown angle to c.A.						45	
	46·0								
1·3									Py rare.
	47·4								
1·0		FAULT ZONE – A broad zone of broken core and pug w. local healed fault breccia. Individual fractures toward the base of the zone indicate a low angle, 10°?, to c.A.							
·6									
·5									
	50							50	

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	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		FAULT ZONE - as above						50.7	
1.3		Interval of finely laminated pelites locally w. common v. finely bedded py.							py trace to (10) as v.f.g. diss. and (bedded) py. Rare py mudstone clasts of oblate shape.
.8									
.5		Interlamination is on m.m. and c.m. scale.							
.8	55	Soft sed. defm. is locally common as slumping, sed. faulting & loading (younging uphole).						55	
.7		Lt. grey to grey green mudstones are tuffaceous?							
.6		Bedding is variable but gen. at low to mod. angle to C.A.							
	58.0								
.7		Bedding 50 m - 25° to c.A.							
.6		55 m - —							
1.3	60	60 m - 5° to c.A.						60	
.9		65 m - —							
.6		70 m - 35° to c.A.							
.6		75 m - —							
.6	65							65	
.4									
.5									
	68.8								
1.8	70							70	
	70.5								
.6		FAULT ZONE Broken core and pug ?° to C.A.							
	71.5								
2.6									
	73.8							74	
.7		FAULT ZONE Broken core and pug.							py rare.
	75							75	

Feature Bedding, Foliation, Fragment size & shape; Shearing, Fault, Vein; F; 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
·3		FAULT ZONE – as above. probably low to mod. angle to c.A. based on individual fractures.							
1·5		Lithology – as above – interbedded finely laminated lt. to dkc grey to black mudstone to shale & (siltstone) (pyritic).							Py rare
1·3								78·0	Py trace as v.f.g. in c. veins
1·4	80							80	
2·3								80·3	Py 2-3 (10) as v.f.g. in white c. veinlets from 0-35° to c.A. in general.
	82·5							82·6	
3·0		Bedding – 80m – 0° to c.A. 85m – 20° to c.A. 90m – 20° to c.A. 95m – 0° to c.A. 100m –							
	85							85	Py rare in c. veinlets as above.
2·8									
		FAULT – broken core 35° ?cA	F					87·4	
·7									
1·9	90							89·4 89·6 89·9 90	Py 70, sp 5, Tr gn, ?sid vein 65° to c.A. Py 10 v.f.g. & tr. vfg in c. veins.
									Py rare assoc. w. c. veins
								91·8	10cm py 60, tr sp. c. vein 40° to c.A.
3·2	92·6	FAULT – Pug 40° to c.A.						92·4	
	93·4	Rounded f.g. qtzite clasts to 1cm. in mudstone matrix.							
	95							95	
3·0									
2·0									
1·4	99·5								
	100							100	

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Feature Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein, F, 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
1.0		Lt. grey green f.g. volc. arenite w. (lt. grey green tuffaceous mudstone & black shale). Top ½ of interval is massive to well bedded tuffaceous arenite. From approx. 104 m tuffaceous sed. is much finer grained and interbedded w. thin black shale bands. Bedding is around 25° to c.A.	F					100.4	
2.6		100.4 - FAULT - pug ?° to c.A.							Py rare.
1.3	105	FAULT - pug 15° to c.A.	F					105 / 105.3	
3.0	107.0	FAULT - pug 35°? to c.A. Dk. grey to grey green (tuffaceous shale) Interval of shale w (tuffaceous) component - gradational contact w. unit below. ie shale becomes more tuffaceous.	F					107.4	
2.6	109.9 / 110	FAULT ZONE Broken core & pug at 10°? to c.A.						110	
	112.6								
3.0		Lt. grey green f.g. to m.g. volc. arenite							
	114.0								
3.0	115	FAULT ZONE Broken core & pug 15°? to c.A.						115	
3.0	117.8								
3.0	120	Bulk of interval is monotonous massive grey green f.g. to m.g. volc arenite w. a rare grit size component. From 112-119 m the grain size is coarse silt to v. fine sand w. minor interbedded tuffaceous muds at gen. 10-15° to c.A. From 119 m the rock is very uniform in grain size. Bedding is locally evident from rare intraformational conglomerate bands <10 cm thick. Elongate lithic? grains tend to weakly define bedding by P.O. at 10-15° to c.A.						120	
2.0									
	125							125	

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DIAMOND DRILL LOG

HOLE Nº 975

Feature

Bedding
Foliation
Fragment size & shape
Shearing
Fault
Vein
F
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
3.0		Lithology - as above - lt. grey green f.g. to m.g. volc. arenite.							
		FAULT - Pug & C. veins 30° c.A.	F					126.7	
3.0									
	130							130	
3.0									
2.0									Py rare.
Q	135							135	
Q 1.0									
3.0									
	140							140	
2.9									
3.0	143.6	FAULT ZONE Broken core & pug 25°? to c.A.							
	145							145	
	145.3								
3.0									
3.0									
	150							150	

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DIAMOND DRILL LOG

HOLE Nº 975 Page No 7

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	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		Lithology - as above - lt. grey green f.g. to m.g. volc arenite.							
3.0									
3.0	155							155	Py rare
3.0									
3.0	160							160	
.5									
2.5	165		Py					165	
								165.6 / 166.8	15cm Py+Po sp 1-2 c vein 20° to c.A. Py in f.g.
3.0	166.5	Lt. grey green slumped & rafted tuffaceous mudstone & f.g volc. arenite (intraformational conq.) Gen. decrease in grain size and incoming of mudstone which is gen. slumped and fractured. Volc. arenite varies from massive to intraformational conq. Bedding 20° to c.A. 10cm c vein 55° to c.A.							Py rare
3.0	170		c					170 / 170.6	
		FAULT ? c vein 70° to c.A.							
3.0	172.3	Interbedded dk. grey to black mudstone to shale, grey to grey green (tuffaceous?) mudstone and grey green f.g. volc. arenite							
	174.5	FAULT ZONE Broken core 10° to c.A.						175	
	175.0								

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DIAMOND DRILL LOG

HOLE Nº 975 Page Nº 8

Feature Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein, F, 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
3.0		A broad interval of dk. grey to black pelite w. irregularly interbedded lighter gen. tuffaceous rock of mudstone to fine arenaceous character. These interbeds are gen up to 1-2cm thick. and may locally make up the bulk of the rock.							
3.0	180	Bedding is gen. at a low angle to c.A. ; typically 10-15°.						180	
3.0		Slumping & piding of beds is common but not intense in gen.							
2.0	185							185	
.3									
1.8									
2.0		FAULT - C healed breccia 25° to c.A	F					189.2	
	190							190	
	191.3								
.5		FAULT ZONE Interval of extremely puggy & broken ground. Possible correlation to zone in G74.							
.4		?° to c.A.							
.2									
.4									
.3									
.3									
.5	194.7								
	195							195	
3.0	197.0	FAULT ZONE Broken core. Prob. low angle to c.A. 10-20° ?							
	198.2								
3.0									
	200							200	

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DIAMOND DRILL LOG

HOLE Nº 475

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	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		Lithology – as above. – interbedded dk. grey to black mudstone to shale, grey to grey green mudstone & gray green f.g. volc. arenite.							
2.4		Bedding 5–20° to c.A.							Py rare.
2.0	205							205	
3.2									
1.4	210							210	
3.0									
3.0	215	FAULT – Pug 60° to c.A.	F					215 215.2	
2.9		FAULT – Pug 20°? to c.A. FAULT – Pug ?° to c.A.	F F					218.3 219.2	
2.8	220							220	
1.5	224.0	FAULT ZONE & Broken core & pug 0–10°? to CA.							
	225							225	

Feature Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein, F, 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
.5		FAULT ZONE as above.							
.4									
.3									
1.8	227.7								
		FAULT - ?° to c.A. - Broken core	F					229.5	
2.0	230	Lithology - as above - dk. grey to black mudstone to shale w. grey to grey green mudstone & grey green f.g. volc. arenite interbeds. Dominantly black shale.						230	Py rare.
1.5									
1.0									
3.1	235							235	
		FAULT - Plug - ?° to c.A.	F					236.3	
1.4									
		FAULT - Plug 10°? to c.A.	F					238.3	
1.6									
	240	FAULT - Plug ?° to c.A.	F					240 240.1	
1.0	241.0	FAULT ZONE ?? Broken core. low angle? to c.A. 10-15°?							
.9	243								
.3									
3.0	245							245	
.4									
3.0									
	250.0							250	

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
3.0		Lt. grey green to cream (slumped, rafted & cong.) tuffaceous mudstone to (siltstone). Interval of dominantly mudstone showing local extensive s. sed. defm. Massive to locally v. well bedded at 15 to 25° to c.A.		251.6	Py rare. Py 1 as rare veinlets assoc. w. sid at 10–30° to c.A. Also rare blebs of sid containg rare py.
3.0	255			255	
	255.6	Dk. grey to black shale w. interbeds, rafts & frag. of lt grey shale to siltstone & f.g. quartzite 45° sed. contact w. unit above. Then 30cm of tuffaceous? siltstone w. irregular clots of black shale. Then irregular slmped interbedded shale & silt (tuffaceous?). Then at 256.4 f.g. quartzite clasts in shale matrix continuing sporadically to the end of the interval w. interbedded silt & shale. Bedding 20° to c.A.		256.2	Py rare. Py 1–2 (5) v.f.g. dissem., rare veinlets 30–40° to c.A assoc. w. sid.
3.0				258.6	Py 90 vein 25° to c.A. Py 5 v.f.g. & f.g. in fault pug.
	258.9	FAULT – 3cm pug & breccia 15° c.A.	F	258.9	
2.3	260	Lt. grey to med. grey f.g. quartzite		259.8 260	Py 1 f.g., flecks & blebs.
.4		FAULT – Pug 60° to c.A. FAULT – Pug 65° to c.A.	F	261.1 261.3	
.2					
1.7		Interval begins as lt. grey quartzose qs w. lt. grey shale interbeds gen <1cm interbedded w. qtzite. From 264 m massive to bedded to highly silicic qtzite to base of interval. Thin qtz veins (<1cm) locally common.			Py rare.
3.0	265	FAULT – Pug 45° to c.A.		264.8 265 265.3 265.7	10cm Py 10 veinlets 45° to c.A. 1cm Py 20, Sp 20, Cm 30 vein assoc. w. F. 15cm Sp 10 veinlets 50° to c.A & f.g. Py rare.
		2cm qv ver 50° to c.A.		266.4 266.7 266.8	Cm 5–7, Sp 2–3. veinlets assoc. w. sid 45° to c.A.
.8					Py trace as f.g. flecks and blebs <1%
3.0	270	q. veins 1–5cm common 45–60° to c.A.		269.9 270 271.4	
3.0		7cm qv ver. 60° to c.A. 2cm qv ver 45° to c.A.		273.0	
	275			275	

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DIAMOND DRILL LOG

HOLE Nº 575. Page No 12

Feature Bedding, Foliation, Fragment (size & shape), Shearing, Fault, Vein, F, 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
2.0		lithology - as above - lt. to med grey f.g. quartzite.							Py rare.
	276.7	FAULT ZONE Broken core 50° ? to c.A.	Py					277.2 277.4	20cm py 2-3 veinlet stockwork. 3cm Py 90 vein 50° to c.A.
.5	277.7	quartzite darker and micaceous on this side of fault zone.							
2.6	278.7	Med grey bedded micaceous quartzite w. local dk grey shale interbeds containg qtzite rafts & frag.							Py rare.
	280	From 277.7 the qtzite contains a pelite fraction here becomes darker & micaceous. At 278.7m shale becomes interbedded w. quartzite. Qtzite is also slumped rafted and fractured into clasts.						280	
1.0	280.6	FAULT ZONE Broken core, pug and core loss. Unknown angle to c.A.							Py 1-5 as f.g. in fault pug.
.4			Py					284.7 285	5cm? Py 90 sid vein 25° to c.A.
	285								
.2									
.6	287.3 287.5	END OF HOLE lt. grey f.g. qtzite							Py rare
	290							290	
	295							295	
	300							300	