

DRILL HOLE LOG

HOLE No. 80A-3
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COORDINATES 0+25N - 16+10W
ELEVATION 4125 FT. (1257 M)
DIP 50°
AZIMUTH 032°
SCALE

CORE SIZE NQ
HOLE STARTED APRIL 26/80
HOLE COMPLETED
LOGGED BY U. SCHMIDT

FOOTAGE	DESCRIPTION	DIP
10		
15	BED ROCK (CANOL FM, ?)	4.0
30	med to dark grey pellicly mudstone, non-calcareous 30-40% light to med grey silt fragments and minor lithic fragments - also pyritic carbonate concretions - weakly graphitic	
50	pyritic 1-5%	
30		
40	3MM QUARTZ VEINS cutting matrix and fragments, large flat clast,	
50	irregular pyritic bands	
60	highly fractured core most fracture - have failed along bedding/fol. planes, allensided surfaces are graphitic.	

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CORE SIZE WQ
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE**DESCRIPTION**

M

60

py Ca qtz, var. 15mm 30°

20

10mm mudstone bands

3 pyritic laminae in fragment and py calc. concretions

30

30° 20mm grey colored and red mudstone hard

10mm pyritic carbonates var.

80

black mudstone hard. pyritic graphitic

Cave

90

Sand seam, mostly quartz fragments recovered

60% core remaining highly fractured

100

abundant light grey silty and lithic fragments in mudstone

30°

110

graphitic pellicular mudstone continued slightly > content of black mudstone fragments also an increase in carbon.

30°

40

120

DRILL HOLE LOG

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COORDINATES
ELEVATION
DIP
AZIMUTH
SCALE

CORE SIZE
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE	DESCRIPTION	DIP
120	dark grey, graphitic pebbly mudstone continued a light grey chert and dark lithic fragments. non calcareous, to very weakly calcareous. mudstone clast displays, soft sediment deformation.	
130	2 laminar mudstone bands at 30° // 1 a 2 qtz vein pyritic clasts.	30°
140	interlaminated mudstone pyritic clasts.	30°
150	highly broken core - 20% core recovered mud seam sand seam no core.	
160	5" of core recovered. 6" core	
170	20° / 30° massive graphitic silty sand band.	20°
180	4" broken core	30°

mr - 49

DRILL HOLE LOG

HOLE No. 30A3
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COORDINATES
ELEVATION
DIP
AZIMUTH
SCALE

CORE SIZE NQ/BQ
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE	DESCRIPTION	DIP
180	Dark grey to black, pelitic, mudstone continued	
30	graphitic, minor to thin clasts,	
★	grey mudstone clast with pyritic laminations.	
★	Broken core lining along fractures.	
★	laminated black mudstone band 30"	
190	pyritic mudstone clast	
30		
40	pyritic laminations, band of mudstone in pelitic mudstone	
195	large chert and lithic clasts up to 4cm along axis	
200	pyritic chert fragment	
30		
205	pyritic chert fragment 6cm diam.	
210		
	Sand seam no core	
220	REDUCED TO BQ --	
229.5	FAULT CONTACT	
230	red to dark grey, banded graphitic mudstone	70
70	o grey chert bands, banding 70° to core axis.	
70	- weathers to iron concretions	
40		
60	237 TRANSITIONAL ABRUPT	
70	dark grey pelitic mudstone typical of upper unit	72.2
240		

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CORE SIZE BQ
HOLE STARTED
HOLE COMPLETED
LOGGED BY U. Schmidt

FOOTAGE	DESCRIPTION
240	pyritic 241
250	band. dark and light grey banded graphitic laminated cherty mudstone -
260	calcite pseudobeds "bedding" - 2 secondary calcite veins // to and across bedding laminated from 5-10 mm.
270	calcite veins med grey limestone. (reminiscent of Ca veins. & graphite)
280	dark grey to black banded laminated siliceous mudstone. - abundant calcite pseudobeds and calcite veins to core. - graphitic, usually weakly calcareous. - colour bands vary from 2 → 20 mm. - calcite in pseudo bed and fractures 5% to 10% of rock. - blocky core graphitic chert every 4 cm.
290	carbonaceous shale. colour bands dark grey to black. - calcite fragments - laminated massive black graphitic siliceous mudstone & calcite fracture common.

DRILL HOLE LOG

HOLE NO. 8913
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COORDINATES
ELEVATION
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CORE SIZE
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE

DESCRIPTION

DIP

260

270

limy black massive graphitic siliceous mudstone (continued)

50

80

30

310

highly fractured core

highly fractured core

3" of core fragments recovered

12 "pebbles" recovered

320

340

med to dark grey banded siliceous and limy mudstone

350

380

430

Black limy graphitic mudstone

460

330

480

510

1 foot core recovered

340

med grey limestone

350

540

few "pebbles" recovered

grey banded limy mudstone

calcite vein fragments

570

calcite in hairline fracture

600

calcite vein fragments

360

DRILL HOLE LOG

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COORDINATES
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CORE SIZE Bq
HOLE STARTED
HOLE COMPLETED
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FOOTAGE

DESCRIPTION

dark grey
Black graphitic mudstone continued
— mostly massive, no bedding seen
siliceous

360

370

← calc. vein fragment

30"

Ca vein 20"

10" 20" faint grey colour banding

30"

20"

380

60" faint colour banding

Ca veins

40" faint colour banding

60"

390

strongly graphitic zone

all pebble size fragments

400

Ca vein

graphitic gorge

410

10" mixed colour banding

Ca vein 30 mm

6" broken core

420

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COORDINATES
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FOOTAGE	DESCRIPTION	DIP
420	dark grey to black graphitic siliceous, limy mudstone Continued.	
430	graphitic gouge cleavage 60° wavy weak colour banding, 0-10° to core axis. weak laminations.	
440	30° thinly laminated dark to med grey laminated, limy mudstone caliche nodules concretions & pyritic cores. faint py ll to bedding 50-60° Ca vein fragments	
450	Ca vein 500' core piece missing. Ca matrix abundant Ca filled fractures 1' or broken core curved light grey laminations Ca matrix	
460	graphitic gouge black carbonaceous limy siliceous mudstone few fragments recovered 1' broken core.	
470	graphite and Ca fragments in fault. 20° 30° curved laminations Ca in fractures 2mm-20mm 20° core also stylolite present.	
480	Ca vein and Ca fragments	

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FOOTAGE

DESCRIPTION

DIP

780

Ca vein - dark grey laminated limy mudstone ~~and~~

720

Ca in harden fractures <1-5mm 10-30° to core.

490

med grey siliceous carbonaceous mudstone

med → dark grey laminated graphitic limy mudstone
- frequently cut by calcite veins

thin med grey laminations

wavy laminations

500

40° fine laminations minor pyrit.

wavy med grey laminations

pyritic limy lamina 0-10° to core axis.

pyritic limy laminae

calcite veins 20° core axis

510

Calcite veins

520

calcite matrix
py laminae 40°

pyritic laminations increase - v. fine grained
mica present, possibly other fine grained
sulphides, mainly limy

158.5

50

Ca vein
Ca vein

60 - grey pyritic laminae for 20 mm

py laminated

530

30 - pyritic laminae

calcite veins

calcite matrix

540

DRILL HOLE LOG

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COORDINATES
ELEVATION
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CORE SIZE BQ
HOLE STARTED
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FOOTAGE	DESCRIPTION	DIP
540	Carmin. dark grey to black limy carbonaceous mudstone with minor py. laminae continued. weak to moderately limy lighter coloured rock and laminar.	
80°	pyritic hard py & calcite nod. in concretions.	
70	med grey laminations	
60		
550		
60		
Carmin.	increased pyritic concretions. 11 bedding 2.11 x 1.2 x 3 mm.	
50	slightly lighter grey tone laminations more visible	
Carmin 9cm wide	weakly to moderately limy lighter coloured rock and laminar	
60° to core.		
560	py concretion 10 x 20 mm	
60		
pyritic concretions.		
70	pyritic laminar and small concretions continued but carbon content higher. darker core.	
py concretion		
570		
Carmin. py.		
up to 50 mm wide	gradational change.	
Carmin.		
py in carbonate band.	med grey laminated limy, graphitic mudstone, (chippy mudstone texture)	175
disrupted streaky laminations.		
grey sulphide band, could be pure & py? or am? too fine		
580	disrupted laminar med to light grey with small carb-py concretions	
internally banded calcite py concretion 20 x 40 mm.		
40		
40		
Carmin. concretion	med to light grey limestone interbedded with limy mudstone bedding less distinct.	179
590		
40		
med & light grey disrupted laminated limy mudstone "chippy mudstone texture"		181
50		
py concretions		
600		

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FOOTAGE	DESCRIPTION	DIP
600	- "chippy mudstone" continued moderately limy, the grey light, grey beds are linear.	
50		
30		
50	← difficult to tell if foliation or bedding.	
610		
80		
	- pyritic bands	
80		
10		
620		
30	light grey, somewhat irregularly bedded limestone.	
	- pyritic concretions.	
80		
50	med and light grey chippy mudstone, weathery limy - dark grey mudstone sections.	
630	light grey rounded elongated clasts, brownish "concretions" in darker matrix 2mm diameter 5-20mm long	
90?		
50 / 50?		
640		
	moderately limy	
	limy	
650	dark grey to black chippy mudstone equivalent. weathery limy & 50% py & ca concretions.	
60		
	carbonate py concretion.	
	pyritic concretion	
660		

DRILL HOLE LOG

HOLE No. 4078
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COORDINATES
ELEVATION
DIP
AZIMUTH
SCALE

CORE SIZE B9
HOLE STARTED
HOLE COMPLETED
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FOOTAGE	DESCRIPTION	DIP
6060	dark grey to black "chippymudstone" continued.	
	end of hole	
6060	test at 230' - 41' <i>unconsolidated?</i>	
	test at 240' - 12' <i>unconsolidated?</i>	