

169-1036A-3H-2, 83-86 cm

Thin section: #43

ROCK NAME: Mudstone breccia

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<b>OPAQUE</b>				
<b>MINERALOGY</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
Pyrite	0.1	0.01	Anhedral	
<b>NON-OPAQUE</b>				
<b>MINERALOGY</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
Clay	90	0.002	Flakes	
Quartz	10	0.01		

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**COMMENTS:**

Hydraulic breccia. Angular clasts of mudstone, less than one centimeter in size, with jig-saw cracks in a coarser-grained clay matrix.

**169-858G-17W-2, 58-63 cm****Thin section:** # 31**ROCK NAME:** Anhydrite in CORK chimney

<b>NON-OPAQUE MINERALOGY</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
<i>Percentage of section: 70</i>				
Anhydrite	70	0.05-10.0	Euhedral lath-shaped and fibrous crystals.	

<b>VOID SPACE</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
	30			Open space between anhydrite crystals.

**COMMENTS:** Interlocking open network of anhydrite crystals.**169-858G-18W-1, 123-129 cm****Thin section:** # 33 (Polished slab)**ROCK NAME:** Sulfide chimney in CORK

<b>OPAQUE MINERALOGY</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
<i>Percentage of section: 30</i>				
Pyrrhotite	60	0.02-0.1	Subhedral lath-shaped; or anhedral grains.	Cut hexagonal blades; Fine-grained aggregates with dark inclusions in cores.
Sphalerite	40	0.01-0.02	Rounded anhedral and subhedral with partly hexagonal outline.	Possible replacement after wurtzite.
Pyrite	Trace	~ 0.005	A few inclusions in pyrrhotite.	

<b>NON-OPAQUE MINERALOGY</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
<i>Percentage of section: 50</i>				
Hose material and a few crystals of anhydrite				

<b>VOID SPACE</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
	20		Rounded holes in hose.	

**COMMENTS:** Pyrrhotite and sphalerite occur within CORK hose material. Two different morphologies of pyrrhotite; one as fine-grained aggregates and the other as coarser-grained hexagonal crystals.

**169-858G-18W-1, 61-123 cm****Thin section:** # 32 (Polished slab)**ROCK NAME:** Sulfide chimney in CORK

<b>OPAQUE MINERALOGY</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
<i>Percentage of section: 10-15</i>				
Pyrrhotite	79	0.02-0.08	Subhedral lath-shaped to hexagonal and anhedral fine-grained aggregates.	
Sphalerite	1	0.005-0.01	Anhedral, rounded.	
Pyrite	20	0.01-0.04	Subhedral to euhedral cubes and pyritohedrons.	Partly replaces pyrrhotite.

<b>NON-OPAQUE MINERALOGY</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
<i>Percentage of section: 80</i>				
Anhydrite	30	0.05-1.0	Euhedral lath-shaped crystals.	
Hose (ex CORK material)	50	-		

<b>VOID SPACE</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
	5-10		Rounded holes in hose.	

**COMMENTS:** Pyrrhotite, pyrite and sphalerite in hose material. Two different morphologies of pyrrhotite; one as fine-grained aggregates and the other more common, as coarser-grained hexagonal crystals. Pyrite is partly replacing the pyrrhotite.

**169-858G-19W-1, 0-9 cm****Thin section:** # 34**ROCK NAME:** CORK Chimney sample

<b>OPAQUE MINERALOGY</b>	<b>PERCENT</b>	<b>SIZE (mm)</b>	<b>MORPHOLOGY</b>	<b>COMMENTS</b>
<i>Percentage of section: 10</i>				
Pyrite		<0.001-0.1	Anhedral, spheroidal grains, some framboidal, some collomorphic. Some subhedral to euhedral grains.	
Pyrrhotite		0.01-0.1	Few euhedral laths and hexagonal grains, few anhedral grains.	One grain with spongy texture, possible replacement artifact?
Chalcopyrite		0.01-0.04	Anhedral.	Partly rounded grains.
Sphalerite		0.002-0.05	Anhedral.	Partly rounded grains.
Galena		0.01-0.02	Anhedral grains.	Five grains observed.
Brown phase, associated with galena		0.005-0.01	Isotropic, anhedral.	

**COMMENTS:** Difficult to estimate percentages as many phases plucked out during thin sectioning.