

Type area: ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheets 101 Eisenerz, 131 Kalwang and 132 Trofaiach).

Type section: Not defined; typical outcrops are mentioned from the Sauerbrunn- and Weiritzgraben area (HERITSCH, 1931b; HABERFELNER & HERITSCH, 1932a).

Reference section(s): -

Derivation of name: Derived from the color and lithology.

Synonyms: -

Lithology: Black siliceous schists, alaun schists, lydites and rare intercalations of black limestones.

Fossils: Conodonts in limestone intercalations (FLAJS, 1964, 1967).

Origin, facies: Sapropelitic basinal sediments (SCHÖNLAUB, 1982a).

Chronostratigraphic age: Silurian (Llandovery–Ludlow).

Biostratigraphy: *amorphognathoides*, *sagitta* and *ploeckensis* conodont zones.

Thickness: 50–80 m (SCHÖNLAUB, 1982a).

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Crinoidal Limestone, Lydites, Arkoses, Schists (SCHÖNLAUB, 1982a).

Overlying unit(s): Cavernous Banded Limestone.

Lateral unit(s): Intercalations of Black Lydites, Alaun Schists with the Orthoceratid Limestone are named “Mischfazies” (SCHÖNLAUB, 1992).

Geographic distribution: E-GWZ; Styria, Eisenerzer Alpen.

Remarks: The graptolites described by HERITSCH (1931 b) and HABERFELNER & HERITSCH (1932a) from the Black Lydites, Alaun Schists were recognized as anorganic remains (GRÄF, 1966).

Complementary references: TOLLMANN (1977), SCHÖNLAUB (1979, 1980a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

„Löchrige Bänderkalke“ / Cavernous Banded Limestone

FRITZ EBNER

Validity: Invalid; not formalized working term (SCHÖNLAUB, 1977b, 1982a).

Type area: ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheet 101 Eisenerz).

Type section: Not defined.

Reference section(s): -

Derivation of name: According to holes at the surface of the limestones due the weathering of pyrite.

Synonyms: Partim “Bunter Kalk” (SCHÖNLAUB, 1982a).

Lithology: Well bedded and platy, grey sometimes reddish, spotted limestone with characteristic, cm-sized holes at the surface.

Fossils: Conodonts, rare orthoceratids.

Origin, facies: Pelagic facies.

Chronostratigraphic age: Upper Silurian (Pridoli).

Biostratigraphy: -

Thickness: ~ 20 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Black Lydites, Alaun Schists.

Overlying unit(s): Flaser Limestone.

Lateral unit(s): Lower Polster Limestones.

Geographic distribution: E-GWZ; Styria: Eisenerzer Alpen.

Remarks: The lithology resembles the upper Silurian “Alticola/Megaerella Limestones” of the Carnic Alps (SCHÖNLAUB, 1977b, 1982a). However, the Cavernous Banded Limestone was also compared with upper Devonian flaser limestones of the Carnic Alps (HABERFELNER, 1935).

Complementary references: TOLLMANN (1977), SCHÖNLAUB (1980a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

Flaserkalk / Flaser Limestones

FRITZ EBNER

Validity: Invalid; informal working term (SCHÖNLAUB, 1982a).

Type area: ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheets 101 Eisenerz and 131 Kalwang).

Type section: -

Reference section(s): -

Derivation of name: According to the lithology.

Synonyms: “Erzführender Kalk” (CZERMAK, 1931); “Bunter Flaser-Bänderkalk und geschieferter Kalk” (SCHÖNLAUB, 1982a).

Lithology: a) in basal parts subordinate thin platy black limestones; b) variegated flaser- and banded limestones and reddish calcareous schists; c) within (b) occasionally layers of grey organodetritic limestones; d) stocks of meta-somatic siderite-ankerite mineralization.

Fossils: Conodonts, *dacryoconarides* (in b); c) crinoids and stromatoporoids.

Origin, facies: Pelagic environment; c) allodapic deposits.

Chronostratigraphic age: Lower Devonian: a) Lochkovian; b) Pragian–upper Emsian (middle Dalejeum).

Biostratigraphy: Based on conodonts.

Thickness: a) ~ 30 m; b) 200–250 m; c) 40 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Cavernous Banded Limestone, Orthoceratid Limestone.

Overlying unit(s): -

Lateral unit(s): Lower and Upper Polster Limestone, Sauerberg Limestone, ? Massive Limestone.

Geographic distribution: E-GWZ; Styria, Eisenerzer Alpen.

Remarks: -

Complementary references: TOLLMANN (1977), SCHÖNLAUB (1980a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

Untere Polsterkalke / Lower Polster Limestone

FRITZ EBNER

Validity: Invalid; informal working term (FLAJS & SCHÖNLAUB, 1976).

Type area: Eisenerzer Alpen, Polster area; ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheet 101 Eisenerz).

Type section: Not designated; FLAJS & SCHÖNLAUB (1976) presented a comprehensive description of a section along the track below the material lift from the foot station (N 47°31'52" / E 14°58'29") to the Leobner Hütte (N 47°37'00" / E 14°57'42"), ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheet 101 Eisenerz).

Reference section(s): -

Derivation of name: After the mountain Polster (1,910 m; N 47°31'11" / E 14°58'28"), ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN; map sheet 101 Eisenerz).

Synonyms: "Untere Polsterkalke" (FLAJS & SCHÖNLAUB, 1976); "Rötlicher Bankkalk vom Typus der Polsterkalke" (SCHÖNLAUB, 1982a).

Lithology: At the section mentioned above from bottom to top (FLAJS & SCHÖNLAUB, 1976):

3 m bluish grey to violet sparry limestones (similar to the Silurian Orthoceratid Limestones; some meters of "Rohwand" (= metasomatic ankeritic mineralization) intercalated with 3–4 m greenish and violet schists. The bulk is made up of 45–50 m variegated limestones (light grey to pinkish flamed, ± bedded, weakly banded dense limestone with intercalation of dark, more sparry limestone). In the upper parts 5 m thick "Rohwand" and a band of green schists occur.

Fossils: Conodonts.

Origin, facies: Pelagic environment.

Chronostratigraphic age: (?) uppermost Silurian–lowermost Devonian (Lochkovian).

Biostratigraphy: *Icriodus woschmidti* – *I. postwoschmidti* Zone in the upper parts of the unit (FLAJS & SCHÖNLAUB, 1976).

Thickness: Around 65–70 m; the upper variegated part: 45–50 m (FLAJS & SCHÖNLAUB, 1976).

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Orthoceratid Limestone.

Overlying unit(s): Crinoid-Stromatoporeid Limestone.

Lateral unit(s): Flaser Limestones.

Geographic distribution: E-GWZ; Styria, Eisenerzer Alpen.

Remarks: -

Complementary references: TOLLMANN (1977), SCHÖNLAUB (1979, 1980a, 1982a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

Crinoiden-Stromatoporen-Kalke / Crinoid-Stromatoporeid Limestone

FRITZ EBNER

Validity: Invalid; informal working term (FLAJS & SCHÖNLAUB, 1976).

Type area: Eisenerzer Alpen, Polster area, ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheet 101 Eisenerz).

Type section: Not designated; FLAJS & SCHÖNLAUB (1976) presented a comprehensive description of a sec-

tion along the track below the material lift from the foot station (N 47°31'52" / E 14°58'29") to the Leobner Hütte (N 47°37'00" / E 14°57'42"), ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheet 101 Eisenerz).

Reference section(s): -

Derivation of name: Named after the rock forming fossils.

Synonyms: "Crinoiden-Stromatoporen-Horizont" (FLAJS & SCHÖNLAUB, 1976).

Lithology: Dm-bedded, light grey and weakly banded limestones made up of recrystallized fragments of stromatoporeids (2–30 cm) within a sparry matrix of crinoidal detritus.

Fossils: Stromatoporeids, crinoids, conodonts.

Origin, facies: Allodapic limestones.

Chronostratigraphic age: Lower Devonian (Lochkovian–(?) Emsian) (FLAJS & SCHÖNLAUB, 1976).

Biostratigraphy: -

Thickness: 10–40 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Lower Polster Limestone (FLAJS & SCHÖNLAUB, 1976); Flaser Limestones.

Overlying unit(s): Upper Polster Limestone, Flaser Limestones.

Lateral unit(s): -

Geographic distribution: E-GWZ; Styria, Eisenerzer Alpen, Polster area.

Remarks: -

Complementary references: TOLLMANN (1977), SCHÖNLAUB (1979, 1980a, 1982a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

Obere Polsterkalke / Upper Polster Limestone

FRITZ EBNER

Validity: Invalid; informal working term (FLAJS & SCHÖNLAUB, 1976).

Type area: Eisenerzer Alpen, Polster area, ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheet 101 Eisenerz).

Type section: Not designated; FLAJS & SCHÖNLAUB (1976) presented a comprehensive description of a section along the track below the material lift from the foot station (N 47°31'52" / E 14°58'29") to the Leobner Hütte (N 47°37'00" / E 14°57'42"); ÖK50-UTM, map sheet 4215 Eisenerz (ÖK 50-BMN, map sheet 101 Eisenerz).

Reference section(s): -

Derivation of name: After the mountain Polster (1,910 m; N 47°31'11" / E 14°58'28") in the Präbichl area; ÖK50-UTM, map sheet 4215 Eisenerz (ÖK50-BMN, map sheet 101 Eisenerz).

Synonyms: -

Lithology: Light violet and pinkish-violet flaserlimestones and banded limestones with layers of up to 60 cm thick organodetritic (stromatoporeids, crinoids) limestones in their lower parts. The uppermost parts, 4 m thick, consist of grey sparry limestone (FLAJS & SCHÖNLAUB, 1976).

Austrian Stratigraphic Chart 2004 - Paleozoic

(sedimentary successions)

Austrian Stratigraphic Commission



ERA	SYSTEM / PERIOD / SERIES / EPOCH	STAGE / AGE	DURATION Ma	Global Classification					
				ERATHM / ERA	SYSTEM / PERIOD / SERIES / EPOCH				
PALEOZOIC	PERMIAN	CHANGHSINGIAN / Dorashanian	251	PERMIAN	MID PERMIAN / GUADALUPIAN / LOPINGIAN				
		WUCHIAPINGIAN / Dzhulfian	255						
		CAPITANIAN	260						
		WORDIAN	265						
		ROADIAN	270						
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275		
						ARTINSKIAN	280		
						SAKMARIAN	285		
						ASSELIAN	290		
		PERMIAN	TRIAS			GZHELIAN	295	TRIAS	U. CARBONIFEROUS / PENNSYLVANIAN
KASIMOVIAN	300								
MOSKOVIAN	305								
BASHKIRIAN	310								
TRIAS	LOWER CARBONIFEROUS / MISSISSIPPIAN			SERPUKHOVIAN	315				
				VISEAN	320				
				TOURNAISIAN	325				
PERMIAN	DEVONIAN			FAMENNIAN	350	DEVONIAN	UPPER DEVONIAN		
				FRASNIAN	355				
				GIVETIAN	360				
		EIFELIAN	365						
		DEVONIAN	LOWER DEVONIAN	EMSIAN	370				
				LOCHKOVIAN	375				
		PERMIAN	DEVONIAN	LUDFORDIAN / GORSTIAN	380			DEVONIAN	MIDDLE DEVONIAN
				HOMERIAN / SHEINWOOD	385				
				TELYCHIAN	390				
				AERONIAN	395				
RHUDDANIAN	400								
DEVONIAN	LOWER DEVONIAN			PRAGIAN	405				
				LOCHKOVIAN	410				
PERMIAN	DEVONIAN			WEN-LOCK / LOW	415	DEVONIAN	LOWER DEVONIAN		
				HIRNANTIAN	420				
				LLANDOVERY	425				
		AERONIAN	430						
		RHUDDANIAN	435						
		DEVONIAN	LOWER DEVONIAN	PRAGIAN	440				
				LOCHKOVIAN	445				
		PERMIAN	DEVONIAN	WEN-LOCK / LOW	450			DEVONIAN	UPPER ORDOVICIAN
				LLANDOVERY	455				
				AERONIAN	460				
RHUDDANIAN	465								
DEVONIAN	LOWER DEVONIAN			PRAGIAN	470				
				LOCHKOVIAN	475				
PERMIAN	DEVONIAN			WEN-LOCK / LOW	480	DEVONIAN	MIDDLE ORDOVICIAN		
				LLANDOVERY	485				
				AERONIAN	490				
				RHUDDANIAN	495				
		DEVONIAN	LOWER DEVONIAN	PRAGIAN	500				
				LOCHKOVIAN	505				
		PERMIAN	DEVONIAN	WEN-LOCK / LOW	510			DEVONIAN	LOWER ORDOVICIAN
				LLANDOVERY	515				
				AERONIAN	520				
				RHUDDANIAN	525				
DEVONIAN	LOWER DEVONIAN			PRAGIAN	530				
				LOCHKOVIAN	535				
PERMIAN	DEVONIAN			WEN-LOCK / LOW	540	DEVONIAN	UPPER CAMBRIAN		
				LLANDOVERY	545				
				AERONIAN	550				
				RHUDDANIAN	555				
		DEVONIAN	LOWER DEVONIAN	PRAGIAN	560				
				LOCHKOVIAN	565				
		PERMIAN	DEVONIAN	WEN-LOCK / LOW	570			DEVONIAN	MIDDLE CAMBRIAN
				LLANDOVERY	575				
				AERONIAN	580				
				RHUDDANIAN	585				
DEVONIAN	LOWER DEVONIAN			PRAGIAN	590				
				LOCHKOVIAN	595				
PERMIAN	DEVONIAN			WEN-LOCK / LOW	600	DEVONIAN	LOWER CAMBRIAN		
				LLANDOVERY	605				
				AERONIAN	610				
				RHUDDANIAN	615				
		DEVONIAN	LOWER DEVONIAN	PRAGIAN	620				
				LOCHKOVIAN	625				



- Legend**
- pelagic, offshore, siliciclastic
 - pelagic, nearshore, calcareous
 - shallow marin, neritic
 - terrestrial-continental, coarse clastic
 - terrestrial-continental, fine clastic
 - evaporite (chloride, sulphate)
 - rhyolite, dacite
 - (basaltic) andesite, trachyandesite
 - basalt
 - phyllite
 - mixed-facies (in corresponding colors)
 - coal (may include several seams)
 - ? position/age doubtful/controversial
 - | equal units
 - \ older unit left \ younger unit right
 - hiatus
 - unconformity
 - GSSP
 - Fm. Formation
 - Ls. Limestone

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