

MINERAÇÃO BBX DO BRASIL LTDA

Report N° 02

PETROGRAPHIC STUDY

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SUMMARY

This report presents the result of the petrographic study of 05 (five) thin sections and 04 (four) polished thin sections of rocks, requested by MINERAÇÃO BBX DO BRASIL LTDA.

Samples EMD-007, EMD-008 and EMR-019 were classified as **Rhyolite**. They are acid volcanic rocks, showing no deformation and affected by hydrothermal alteration (sericitization and kaolinization), having the original mineralogy and texture well preserved. Sample EMD-007 is weakly altered and samples EMD-008 and EMR-019 are more intensely altered. *Hematite* (2%) was the only opaque mineral detected in sample EMD-008, forming pseudomorphs after *magnetite*.

Sample TER-026 was classified as **Rhyodacite**. It is an acid volcanic rock, showing no deformation and intensely altered (saussuritization and sericitization), having the original mineralogy and porphyritic texture well preserved. The groundmass is recrystallized, displaying a granoblastic polygonal texture.

Samples EMR-021 and EMR-023 were classified as **Diabase (Dolerite)**. They are basic intrusive igneous rock, possibly sub-volcanic (dike, sill ?), intensely hydrothermally altered (saussuritization, serpentinization & amphibolitization), displaying a typical subophitic texture. The original rock was probably *olivine diabase* and the original olivine was completely altered to serpentine. Sample EMR-023 displays also biotitization with biotite replacing plagioclase suggesting a potassium metasomatism. *Magnetite* is the most frequent opaque mineral (9% and 8% respectively). In sample EMR-023 *magnetite* is partially altered to *hematite* (4%). *Pyrite* was the only sulphide detected (1% in both samples).

Sample TER-025 was classified as **Hornblende Diabase (Dolerite)**. It is a basic intrusive igneous rock, possibly sub-volcanic (dike, sill), weakly hydrothermally altered (sericitization, chloritization & amphibolitization), displaying subophitic texture and locally hypidiomorphic granular texture. *Magnetite* (14%) is the most frequent opaque mineral, followed by *pyrite* (1%). Hornblende is primary.

Sample TER-051 was classified as **Hornblende Diabase (Dolerite)**. It is a basic intrusive igneous rock, possibly sub-volcanic, weakly altered (saussuritization & amphibolitization) displaying the original hypidiomorphic granular and subophitic textures well preserved. The rock is similar to the sample TER-025. Hornblende in both samples is primary.

Sample **TABOCAL** was classified as **Altered Diabase (Dolerite)**. It is a basic intrusive igneous rock, possibly sub-volcanic (shallow intrusion), intensely hydrothermally altered (amphibolitization, chloritization & saussuritization), displaying relicts from the original igneous subophitic and ophitic textures. The original pyroxene was completely altered to amphiboles (tremolite, actinolite and hornblende), which are all secondaries.

The **ophitic** and **subophitic** textures are typical of basic sub-volcanic rocks (diabases) whereas gabbros have usually hypidiomorphic granular texture or sometimes coronitic texture. The skeleton texture in magnetite is also typical of subvolcanic (or volcanic) rocks. The field relationships in this case are very important to confirm if those rocks are dikes, sills or another type of intrusion.

CLM PETROGRAFIA LTDA

PETROGRAPHER: Celina M. L. Marchetto

THIN SECTION

COMPANY: MINERAÇÃO BBX DO BRASIL LTDA.

SAMPLE NUMBER: EMD-007

ROCK NAME: **RHYOLITE****MESOCOPIC DESCRIPTION:**

Brownish red fine-grained massive rock, non-magnetic, displaying colorless phenocrysts of quartz and white phenocrysts of feldspars, enclosed by a felsitic aphanitic groundmass displaying a brownish red color due to fine hematite dissemination.

MINERALOGICAL COMPOSITION:

Quartz Phenocrysts	(25%)
K-Feldspar Phenocrysts	(20%)
Plagioclase Phenocrysts	(15%)
Muscovite Phenocrysts	(tr)
Sericite	(05%)
Microcrystalline Groundmass	(33%)
Opagues	(02%)
Rutile	(tr)
Zircon	(tr)

MICROSCOPIC DESCRIPTION :

Fine-grained massive rock displaying a porphyritic texture and microcrystalline felsitic groundmass.

Quartz forms euhedral and rounded phenocrysts locally displaying magmatic corrasions.

K-Feldspar is *orthoclase* displaying perthitic intergrowths and intense kaolinization.

Plagioclase is *andesine*, forming subhedral phenocrysts displaying weak sericitization.

Muscovite forms sparse lamellar colorless phenocrysts displaying lots or rutile inclusions.

Sericite occurs as very small flakes finely disseminated in the felsitic groundmass and locally associated with plagioclase phenocrysts as an alteration product.

Groundmass is microcrystalline felsitic, composed essentially of quartz, plagioclase and k-feldspar, being not possible to estimate individual proportions.

Opagues seem to be mostly **hematite** forming very fine-grained euhedral pseudomorphs after **magnetite** disseminated in the groundmass.

Rutile and **zircon** are accessories forming sparse fine-grained crystals disseminated in the rock. Rutile is frequent included in muscovite phenocrysts.

COMMENTS ON PETROGENESIS :

It is an acid volcanic rock, showing no deformation and weakly altered (sericitization and kaolinization), having the original mineralogy and texture well preserved.

COMPANY: **MINERAÇÃO BBX DO BRASIL LTDA.**

SAMPLE NUMBER: **EMD-008**

ROCK NAME: **RHYOLITE**

MESOCOPIC DESCRIPTION:

Brownish red fine-grained massive rock, non-magnetic, displaying colorless phenocrysts of quartz and white phenocrysts of feldspars locally displaying a pinkish tint due to kaolinization, enclosed by a felsitic aphanitic groundmass displaying a brownish red color due to fine hematite dissemination.

MINERALOGICAL COMPOSITION:

Quartz Phenocrysts	(30%)	Hematite	(02%)
K-Feldspar Phenocrysts	(20%)	Rutile	(tr)
Plagioclase Phenocrysts	(08%)	Zircon	(tr)
Muscovite Phenocrysts	(01%)		
Sericite	(09%)		
Microcrystalline Groundmass	(30%)		

MICROSCOPIC DESCRIPTION :

Fine-grained massive rock displaying a porphyritic texture and microcrystalline felsitic groundmass.

Quartz forms euhedral, subhedral and rounded phenocrysts locally displaying magmatic corrosions.

K-Feldspar is *orthoclase* forming euhedral to subhedral phenocrysts displaying perthitic intergrowths and intense kaolinization.

Plagioclase is *andesine* forming subhedral tabular phenocrysts displaying intense sericitization. *Albite* was locally observed forming perthitic intergrowths with k-feldspar.

Muscovite forms sparse colorless lamellar phenocrysts displaying lots of rutile inclusions.

Sericite occurs as very small flakes finely disseminated in the groundmass and associated with plagioclase phenocrysts as an alteration product.

Groundmass is microcrystalline felsitic, composed essentially of quartz, plagioclase and k-feldspar, being not possible to estimate individual proportions.

Hematite forms sparse subhedral and rounded microphenocrysts pseudomorphs after **magnetite** and occurs as very fine-grained euhedral to subhedral pseudomorphs after magnetite finely disseminated in the groundmass.

Rutile and **zircon** are accessories forming sparse fine-grained disseminated crystals. **Rutile** occurs included in muscovite and k-feldspar phenocrysts.

COMMENTS ON PETROGENESIS :

It is an acid volcanic rock, showing no deformation and intensely altered (sericitization and kaolinization), having the original mineralogy and texture well preserved. The rock is very similar to the sample EMD-007, but more intensely altered.

COMPANY: **MINERAÇÃO BBX DO BRASIL LTDA.**

SAMPLE NUMBER: **EMR-019**

ROCK NAME: **RHYOLITE**

MESOCOPIC DESCRIPTION:

Brownish red fine-grained massive rock, non-magnetic, displaying colorless phenocrysts of quartz and white phenocrysts of feldspars locally displaying a pinkish tint due to kaolinization, enclosed by a felsitic aphanitic groundmass displaying a brownish red color due to fine hematite dissemination.

MINERALOGICAL COMPOSITION:

Quartz Phenocrysts	(25%)
K-Feldspar Phenocrysts	(17%)
Plagioclase Phenocrysts	(13%)
Muscovite Phenocrysts	(01%)
Sericite	(09%)
Microcrystalline Groundmass	(34%)
Opagues	(01%)
Zircon	(tr)

MICROSCOPIC DESCRIPTION :

Fine-grained massive rock displaying a porphyritic texture and microcrystalline felsitic groundmass.

Quartz forms euhedral, subhedral and rounded phenocrysts locally displaying magmatic corrosions.

K-Feldspar is *orthoclase* forming euhedral to subhedral phenocrysts displaying perthitic intergrowths, intense kaolinization and locally Carlsbad twinning.

Plagioclase is *andesine* forming subhedral tabular phenocrysts displaying intense sericitization.

Muscovite forms sparse lamellar phenocrysts showing pleochroism in pale yellow and light brownish yellow tints and showing lots of rutile inclusions. The pleochroism suggests a high Fe content.

Sericite occurs as very small flakes finely disseminated in the groundmass and included in plagioclase as an alteration product. It is colorless.

Groundmass is microcrystalline felsitic, composed essentially of quartz, plagioclase and k-feldspar, being not possible to estimate individual proportions.

Opagues seem to be mostly **hematite** forming sparse subhedral microphenocrysts and very fine-grained euhedral crystals, pseudomorphs after **magnetite** disseminated in the groundmass.

Zircon is accessory forming sparse fine-grained euhedral crystals disseminated in the rock.

COMMENTS ON PETROGENESIS :

It is an acid volcanic rock, showing no deformation and intensely altered (sericitization and kaolinization), having the original mineralogy and texture well preserved. The rock is similar to the samples EMD-007 and EMD-008.

COMPANY: **MINERAÇÃO BBX DO BRASIL LTDA.**

SAMPLE NUMBER: **EMR-021**

ROCK NAME: **DIABASE (DOLERITE)**

MESOCOPIC DESCRIPTION:

Dark gray medium-grained massive rock, strongly magnetic, displaying white crystals of plagioclase, dark brown crystals of pyroxene, light green and light brown serpentine, black crystals of magnetite and disseminated yellow crystals of pyrite.

MINERALOGICAL COMPOSITION:

Plagioclase	(50%)
Titanaugite	(20%)
Biotite	(02%)
Tremolite-Actinolite	(08%)
Serpentine	(10%)
Magnetite	(09%)
Pyrite	(01%)

MICROSCOPIC DESCRIPTION :

Coarse-grained massive rock, intensely altered, displaying subophitic texture.

Plagioclase forms medium to coarse-grained lath-shaped crystals displaying strong saussuritization, enclosing augite crystals representing the subophitic texture.

Titanaugite occurs as medium-grained subhedral crystals showing pleochroism in light yellow and pink violet tints, usually enclosed by plagioclase laths characterizing the subophitic texture.

Tremolite and **actinolite** form fibrous aggregates enclosed by plagioclase laths and are probably alteration products after augite and / or hornblende. Tremolite is colorless and actinolite shows pleochroism in yellow, light green and bright bluish green tints. Tremolite occurs also filling fractures in the rock, forming crosscutting veinlets.

Biotite occurs as fine to medium-grained lath-shaped crystals, showing pleochroism in light orange yellow and dark reddish-brown tints, suggesting high titanium content.

Serpentine forms medium-grained subhedral pseudomorphs possibly after **olivine**. It is *chrysotile* variety, showing pleochroism in pale yellow and light green tints. A second variety of serpentine was observed, forming pseudomorphs after **orthopyroxene**. It is *bastite* variety, showing strong pleochroism in yellow, green and orange tints.

Magnetite forms medium-grained skeleton crystals and occurs also fine-grained surrounding serpentine.

Pyrite forms euhedral to subhedral phenocrysts and microphenocrysts and occurs also as fine-grained subhedral to anhedral crystals disseminated in the rock.

COMMENTS ON PETROGENESIS :

It is a basic intrusive igneous rock, possibly sub-volcanic (shallow intrusion), intensely hydrothermally altered (saussuritization, serpentinization & amphibolitization) displaying a typical subophitic texture.

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SAMPLE NUMBER: **EMR-023**ROCK NAME: **DIABASE (DOLERITE)****MESOCOPIC DESCRIPTION:**

Dark gray medium-grained massive rock, strongly magnetic, displaying white crystals of plagioclase usually showing an orange tint due to biotitization, dark brown crystals of pyroxene, light green serpentine and chlorite, black crystals of magnetite and disseminated yellow crystals of pyrite.

MINERALOGICAL COMPOSITION:

Plagioclase	(40%)
Titanaugite	(20%)
Biotite	(10%)
Chlorite	(05%)
Serpentine	(12%)
Magnetite	(08%)
Hematite	(04%)
Pyrite	(01%)

MICROSCOPIC DESCRIPTION :

Coarse-grained massive rock, intensely altered, displaying subophitic texture.

Plagioclase forms medium to coarse-grained lath-shaped non-oriented crystals, displaying intense saussuritization and biotitization and enclosing augite crystals representing a subophitic texture.

Titanaugite occurs as fine-grained prismatic subhedral to anhedral crystals, enclosed by plagioclase laths and showing pleochroism in yellow and pink violet tints.

Biotite occurs as very small flakes replacing plagioclase crystals suggesting a metasomatism with potassium enrichment. It is orange brown in color displaying weak pleochroism in orange brown tints.

Serpentine forms fine-grained euhedral pseudomorphs after **olivine**, enclosed by plagioclase laths and displaying weak pleochroism in pale yellow and light green tints.

Chlorite occurs associated with plagioclase as a secondary alteration product. It is a Fe-rich variety showing pleochroism in yellow and deep green tints.

Magnetite forms medium-grained skeleton crystals partially altered to hematite. It occurs also very fine-grained associated with serpentine.

Hematite occurs replacing magnetite crystals as an alteration product.

Pyrite forms sparse subhedral to anhedral microphenocrysts and occurs as fine-grained subhedral to anhedral crystals disseminated in the rock. It was locally observed replacing magnetite crystals.

COMMENTS ON PETROGENESIS :

It is a basic intrusive igneous rock, possibly sub-volcanic (shallow intrusion), intensely hydrothermally altered (biotitization, serpentinization, chloritization & saussuritization), displaying a typical subophitic texture. The rock is similar to the sample EMR-021, but more intensely altered.

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SAMPLE NUMBER: TER-025

ROCK NAME: **HORNBLLENDE DIABASE (DOLERITE)***MESOCOPIC DESCRIPTION:*

Dark gray medium-grained massive rock, strongly magnetic, displaying white crystals of plagioclase, light brown aggregates of k-feldspar and quartz, dark brown crystals of pyroxene and hornblende, bright green chlorite and actinolite, black crystals of magnetite and disseminated yellow crystals of pyrite.

MINERALOGICAL COMPOSITION:

Plagioclase	(43%)	Tremolite-Actinolite	(05%)
Microcline	(03%)	Biotite	(01%)
Quartz	(02%)	Apatite	(01%)
Augite	(20%)	Magnetite	(14%)
Hornblende	(10%)	Pyrite	(01%)

MICROSCOPIC DESCRIPTION :

Medium-grained massive rock displaying subophitic and locally hypidiomorphic granular textures.

Plagioclase forms medium-grained tabular subhedral non-oriented crystals, displaying weak sericitization and chloritization and usually enclosing pyroxene and hornblende crystals representing the subophitic texture.

Microcline and **quartz** occur as fine-grained anhedral and interstitial crystals locally forming micrographic intergrowths. Microcline displays tartan twinning.

Titanaugite forms fine to medium-grained euhedral to subhedral crystals displaying weak pleochroism in pale yellow and pinkish violet tints.

Hornblende forms fine-grained euhedral to subhedral crystals showing pleochroism in yellow, dark olive green and dark brown tints.

Tremolite and **actinolite** occur as alteration products of augite and hornblende, replacing them. Tremolite is colorless and actinolite shows pleochroism in light green and deep bluish green tints.

Biotite forms sparse fine-grained lath-shaped crystals displaying strong pleochroism in bright yellow and dark green tints.

Apatite occurs as fine to medium-grained euhedral crystals disseminated in the rock.

Magnetite forms fine to medium-grained euhedral, subhedral and skeleton crystals disseminated in the rock and showing no alteration.

Pyrite occurs as very fine-grained subhedral to anhedral crystals disseminated in the rock.

COMMENTS ON PETROGENESIS :

It is a basic intrusive igneous rock, possibly sub-volcanic (dike, sill ?), weakly hydothermaly altered (sericitization, chloritization & amphibolitization), displaying hypidiomorphic granular and locally subophitic texture.

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PETROGRAPHER: Celina M. L. Marchetto

THIN SECTION

COMPANY: MINERAÇÃO BBX DO BRASIL LTDA.

SAMPLE NUMBER: TER-026

ROCK NAME: **RHYODACITE****MESOCOPIC DESCRIPTION:**

Brownish red fine-grained massive rock, weakly magnetic, displaying colorless phenocrysts of quartz and white phenocrysts of feldspars, enclosed by an aphanitic groundmass displaying a brownish red color due to fine hematite dissemination.

MINERALOGICAL COMPOSITION:

Quartz Phenocrysts	(20%)	Opaques	(01%)
K-Feldspar Phenocrysts	(10%)	Epidote	(03%)
Plagioclase Phenocrysts	(25%)	Apatite	(tr)
Biotite	(09%)	Allanite	(tr)
Chlorite	(01%)	Titanite	(tr)
Groundmass	(31%)	Rutile	(tr)

MICROSCOPIC DESCRIPTION :

Fine-grained massive rock displaying a porphyritic texture and a felsitic groundmass displaying granoblastic polygonal texture.

Quartz forms euhedral, subhedral and rounded phenocrysts locally displaying magmatic corrosions.

K-Feldspar is *microcline* forming subhedral phenocrysts displaying perthitic intergrowths, weak sericitization and locally tartan twinning,

Plagioclase is *oligoclase* forming subhedral phenocrysts displaying intense saussuritization.

Biotite forms phenocrysts constituted by an aggregate of fine-grained lath-shaped biotite crystals, showing pleochroism in yellow and dark olive-green tints suggesting high Fe content. It occurs also finely disseminated in the groundmass and is probably *lepidomelane* variety. The phenocrysts are being replaced by chlorite and epidote, as secondary alteration products.

Groundmass is recrystallized, composed essentially of very fine-grained polygonal crystals of quartz, plagioclase and k-feldspar in a granoblastic textural pattern, suggesting a recrystallization. It is not possible to estimate individual proportions due to the very fine grain size.

Epidote occurs included in biotite phenocrysts as an alteration product, occurs also included in plagioclase phenocrysts as a saussuritization product and occurs also finely disseminated in the groundmass and locally concentrated in fractures.

Opaques seem to be mostly **magnetite**, forming subhedral microphenocrysts and very fine-grained euhedral crystals disseminated in the groundmass.

Rutile, apatite, allanite and **titanite** are accessories forming sparse fine-grained crystals disseminated in the rock.

COMMENTS ON PETROGENESIS :

It is an acid volcanic rock, showing no deformation and intensely altered (saussuritization and sericitization), having the original mineralogy and porphyritic texture well preserved. The groundmass is recrystallized, displaying a granoblastic polygonal texture.

CLM PETROGRAFIA LTDA

PETROGRAPHER: Celina M. L. Marchetto

THIN SECTION

COMPANY: MINERAÇÃO BBX DO BRASIL LTDA.

SAMPLE NUMBER: TER-051

ROCK NAME: **HORNBLLENDE DIABASE (DOLERITE)***MESOCOPIC DESCRIPTION:*

Dark gray medium-grained massive rock, strongly magnetic, displaying white crystals of plagioclase, dark brown crystals of pyroxene, green hornblende and actinolite and black crystals of magnetite.

MINERALOGICAL COMPOSITION:

Plagioclase	(45%)
Quartz + Microcline	(04%)
Titanaugite	(20%)
Hornblende	(05%)
Tremolite-Actinolite	(10%)
Biotite	(01%)
Chlorite	(tr)
Apatite	(tr)
Opaques	(15%)

MICROSCOPIC DESCRIPTION :

Medium-grained massive rock displaying hypidiomorphic granular and locally subophitic textures.

Plagioclase forms medium-grained lath-shaped non-oriented crystals, displaying intense saussuritization and enclosing augite and hornblende crystals representing a subophitic texture.

Quartz and **microcline** occur anhedral and interstitial, locally forming micrographic intergrowths. Microcline displays tartan twinning.

Titanaugite forms fine to medium-grained prismatic euhedral to subhedral crystals displaying pleochroism in pale yellow and pinkish violet tints.

Hornblende forms fine-grained euhedral to subhedral crystals showing pleochroism in yellow, dark olive green and dark brown tints.

Tremolite and **actinolite** occur as alteration products of augite and hornblende, replacing them. Tremolite is colorless and actinolite shows pleochroism in light green and light bluish green tints.

Biotite forms sparse fine-grained lath-shaped crystals showing pleochroism in yellow and dark olive-green tints.

Chlorite was locally observed filling a fracture in the rock and showing pleochroism in yellow and bright green tints.

Apatite is accessory forming sparse fine-grained euhedral disseminated crystals.

Opaques seem to be mostly **magnetite**, forming fine-grained euhedral and skeleton crystals, disseminated in the rock.

COMMENTS ON PETROGENESIS :

It is a basic intrusive igneous rock, possibly sub-volcanic, weakly altered (saussuritization & amphibolitization) displaying the original hypidiomorphic granular and subophitic textures well preserved.

CLM PETROGRAFIA LTDA

PETROGRAPHER: Celina M. L. Marchetto

THIN SECTION

COMPANY: MINERAÇÃO BBX DO BRASIL LTDA.

SAMPLE NUMBER: TABOCAL

ROCK NAME: **ALTERED DIABASE (DOLERITE)***MESOCOPIC DESCRIPTION:*

Dark green medium-grained massive rock, strongly magnetic, displaying white crystals of plagioclase, green crystals of amphiboles and black crystals of magnetite.

MINERALOGICAL COMPOSITION:

Plagioclase	(38%)	Chlorite	(02%)
Quartz + Microcline	(02%)	Opaques	(13%)
Hornblende	(10%)	Epidote	(08%)
Tremolite-Actinolite	(25%)	Titanite	(01%)
Biotite	(01%)	Apatite	(tr)

MICROSCOPIC DESCRIPTION :

Medium-grained massive rock intensely hydrothermally altered, displaying relicts from the original ophitic and subophitic textures.

Plagioclase occurs as fine to medium-grained subhedral crystals displaying intense saussuritization and chloritization.

Hornblende, actinolite and **tremolite** form prismatic pseudomorphs after **pyroxene**, locally enclosing plagioclase laths and representing a relict ophitic texture and enclosed by plagioclase laths representing a relict subophitic texture. Tremolite is colorless, hornblende shows pleochroism in yellow, dark olive green and bright bluish green tints and actinolite shows pleochroism in pale yellow, light green and light bluish green tints. The three amphiboles occur intergrown with each other. Tremolite occurs also filling a fracture in the rock.

Biotite occurs as fine-grained lath shaped crystals showing pleochroism in pale yellow and light brown tints. It is altering to chlorite.

Chlorite occurs associated with plagioclase product of hydrothermal alteration and occurs also replacing biotite crystals. It shows pleochroism in pale yellow and light green tints.

Opaques, mostly **magnetite**, form medium to fine-grained skeleton and subhedral crystals disseminated in the rock.

Epidote occurs as fine-grained granular crystals included in plagioclase as a saussuritization product of it.

Titanite occurs surrounding magnetite crystals suggesting it is a titanium magnetite.

Apatite is accessory forming sparse fine-grained euhedral disseminated crystals.

COMMENTS ON PETROGENESIS :

It is a basic intrusive igneous rock, possibly sub-volcanic (shallow intrusion), intensely hydrothermally altered (amphibolitization, chloritization & saussuritization), displaying relicts from the original igneous subophitic and ophitic textures.



Photomicrograph N°1 – Hematite phenocryst pseudomorph after magnetite. Sample EMD-008, 100X, plane polarized light.



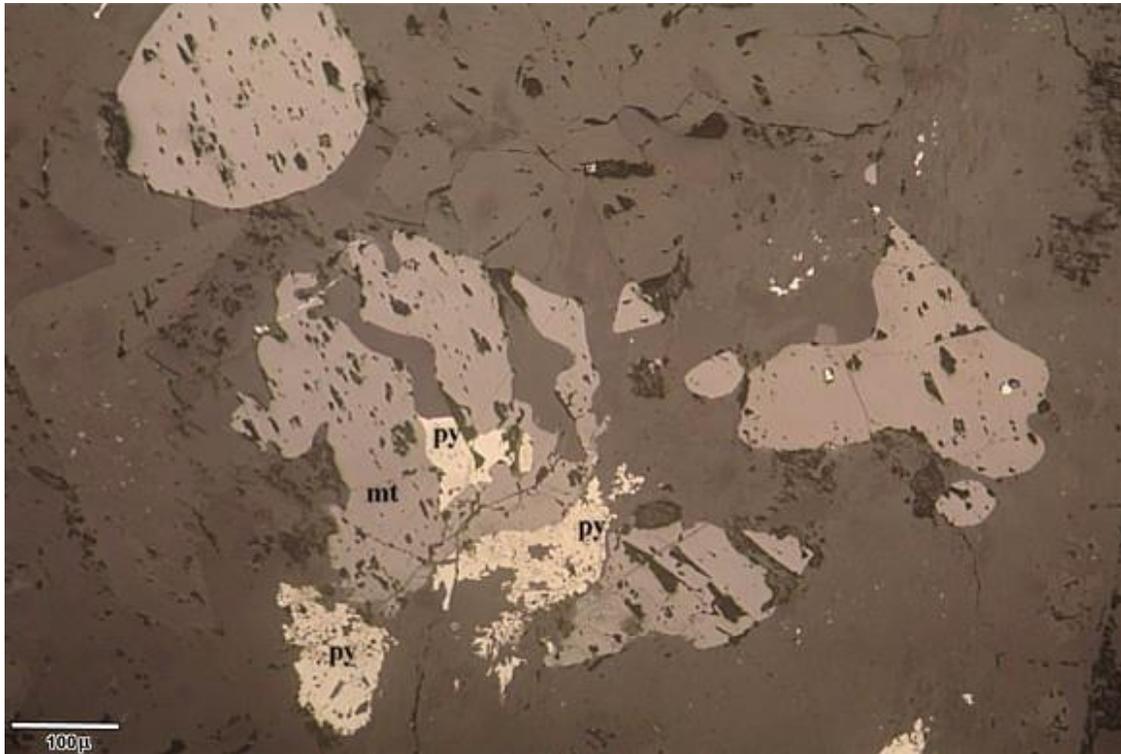
Photomicrograph N°2 – Euhedral phenocryst of pyrite. Sample EMR-021, 100X, plane polarized light.



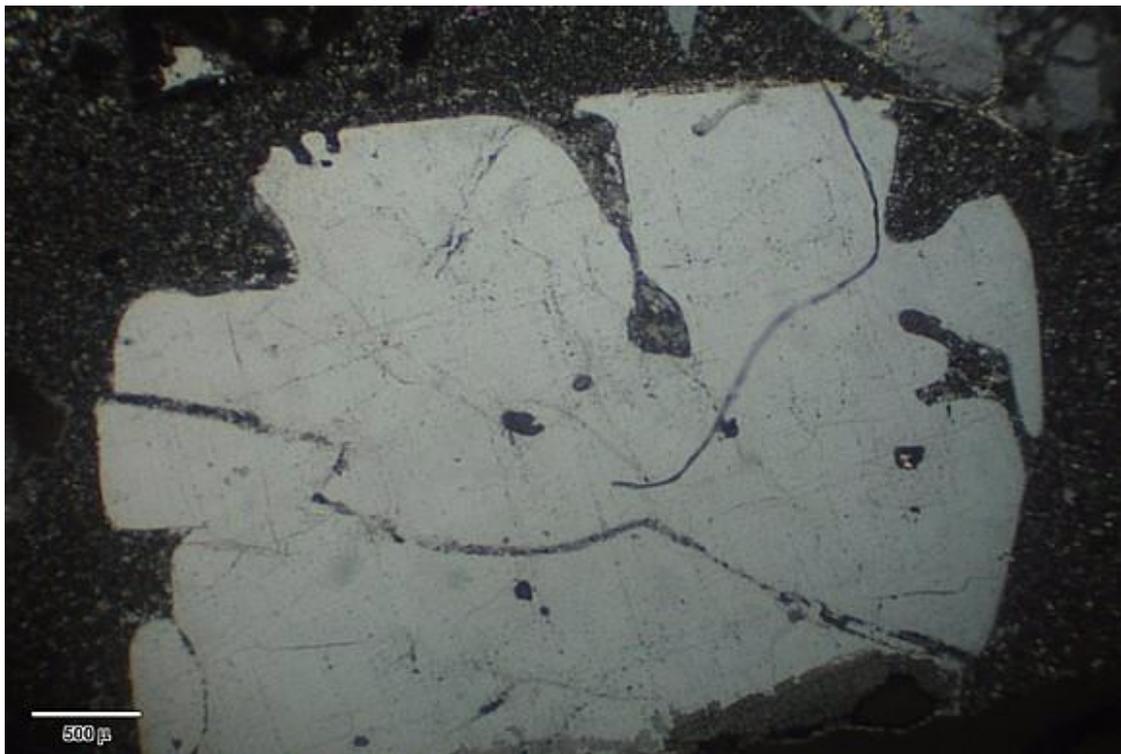
Photomicrograph N^o3 – Skeleton crystal of magnetite (mt) and fine-grained crystals of pyrite (py). Sample EMR-021, 50X, plane polarized light.



Photomicrograph N^o4 – Skeleton crystal of magnetite (mt) partially altered to hematite (he) and crystals of pyrite (py). Sample EMR-023, 100X, plane polarized light.



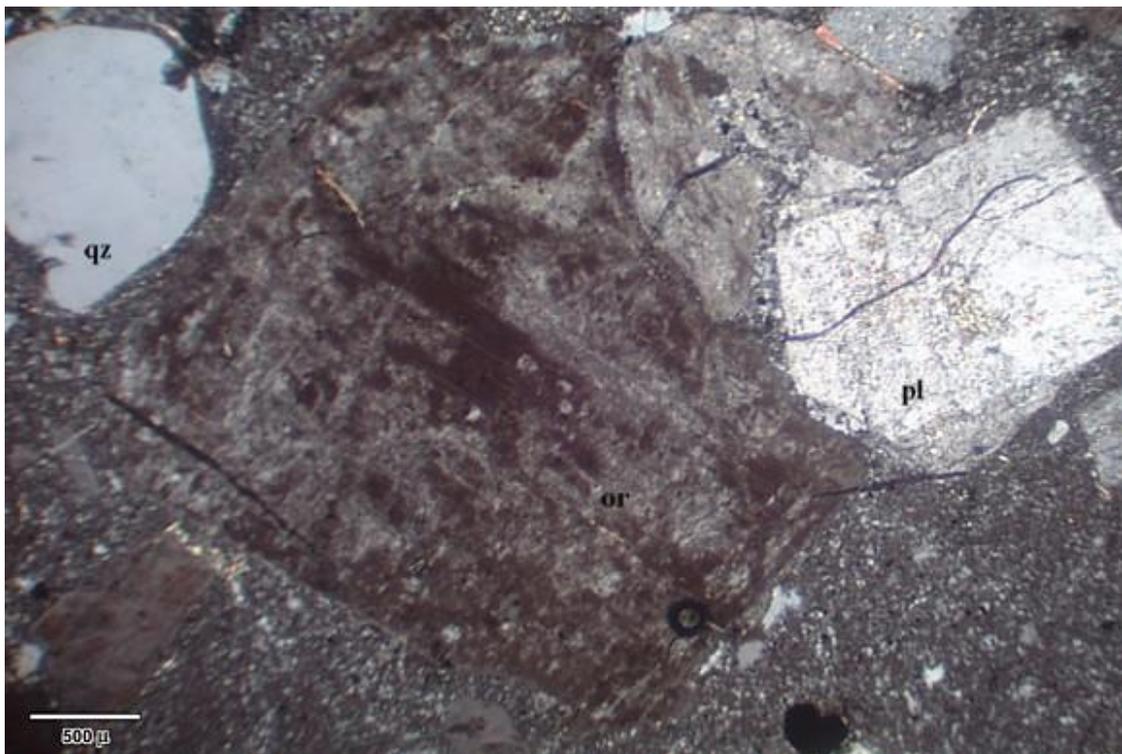
Photomicrograph N°5 – Pyrite (py) apparently replacing magnetite (mt). Sample TER-025, 100X, plane polarized light.



Photomicrograph N°6 – Rounded phenocryst of quartz displaying magmatic corrosions, enclosed by a microcrystalline felsitic groundmass. Sample EMD-008, 25X, crossed nicols.



Photomicrograph N°7 – Rounded phenocryst of quartz displaying magmatic corrosion, enclosed by a microcrystalline felsitic groundmass. Sample EMD-026, 25X, crossed nicols.



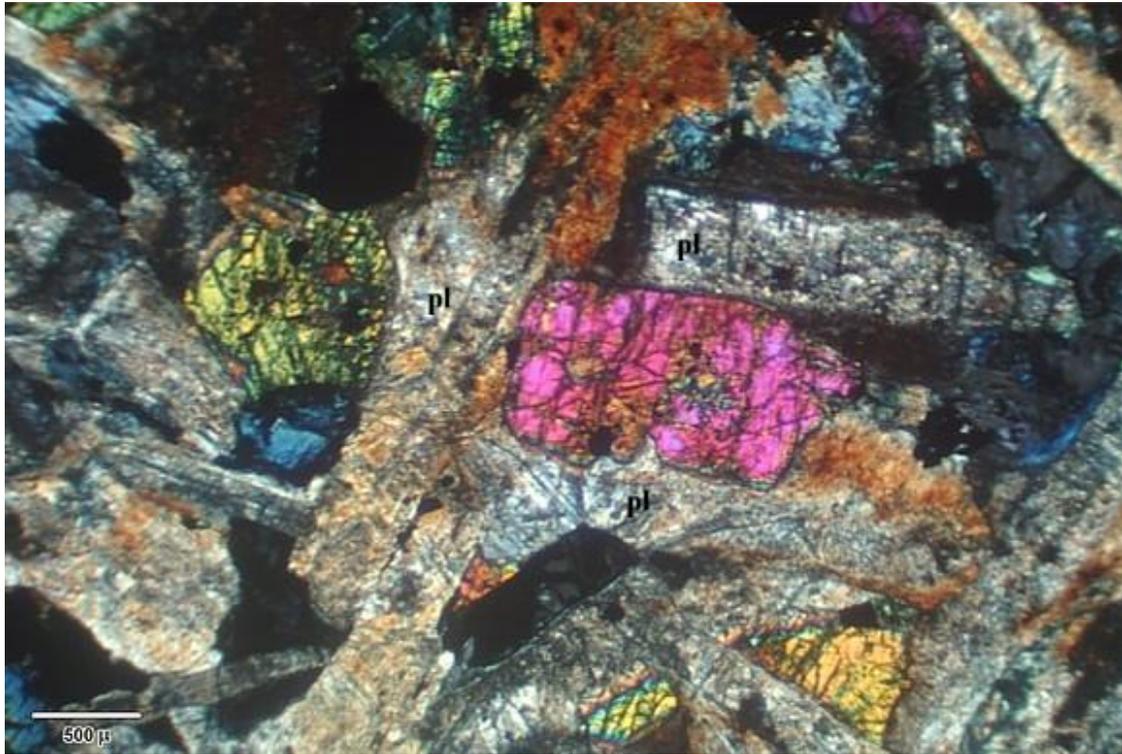
Photomicrograph N°8 – Plagioclase (pl), quartz (qz) and orthoclase (or) phenocrysts. Sample EMD-019, 25X, crossed nicols.



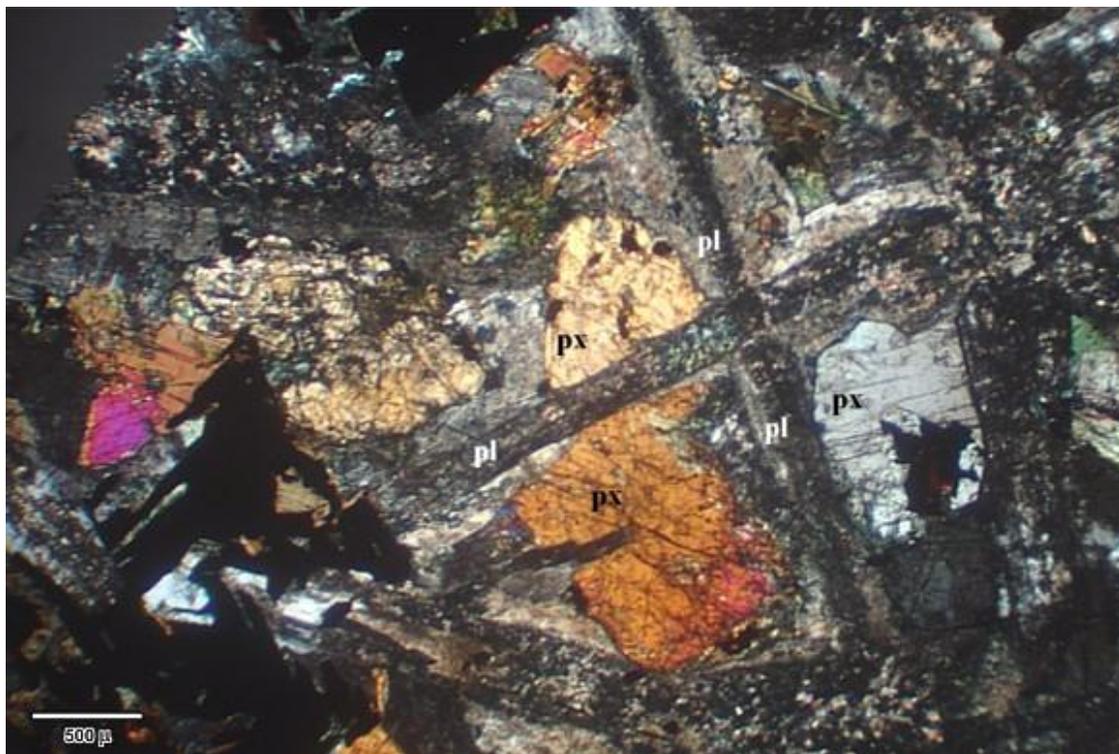
Photomicrograph N°9 – Quartz (qz), plagioclase (pl) and orthoclase (or) phenocrysts enclosed by a microcrystalline felsitic groundmass. Sample EMD-007, 25X, crossed nicols.



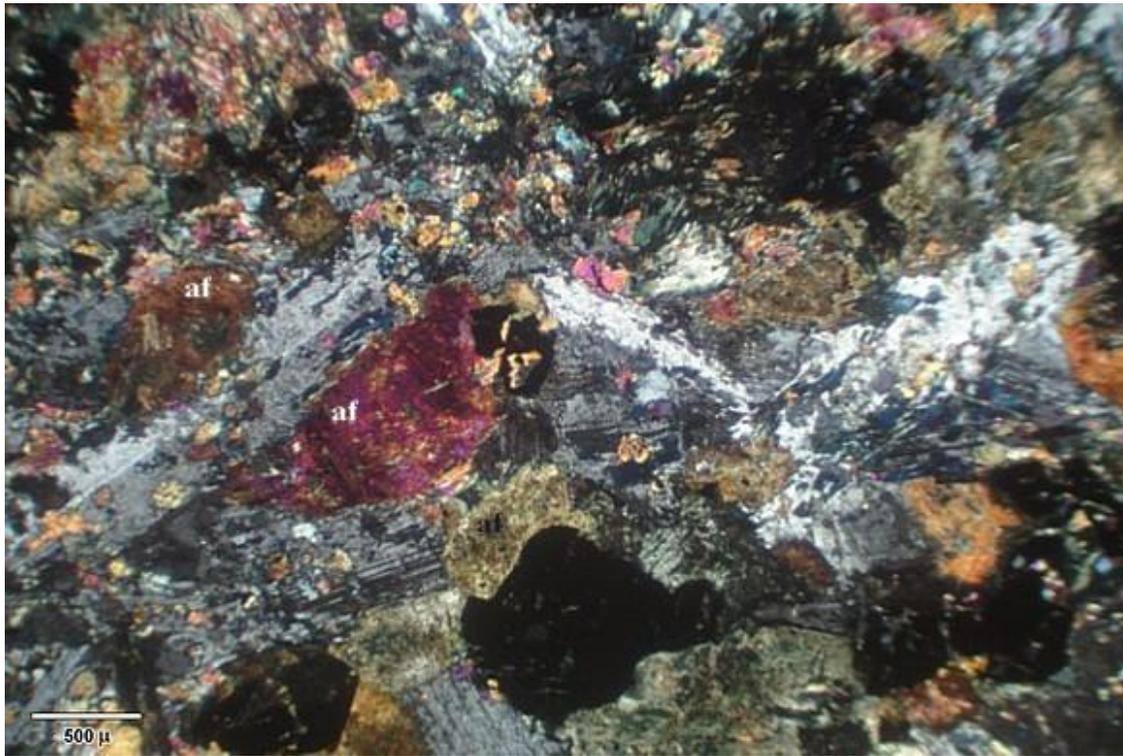
Photomicrograph N°10 – Muscovite (bright colors) and quartz phenocrysts. Sample EMR-019, 25X, crossed nicols.



Photomicrograph N°11 – Subophitic texture. Saussuritized plagioclase laths (pl) enclosing pyroxene (bright colors). Sample EMR-023, 25X, crossed nicols.



Photomicrograph N°12 – Subophitic texture. Saussuritized plagioclase laths (pl) enclosing pyroxene crystals (px). Sample EMR-021, 25X, crossed nicols.



Photomicrograph N°13 – Relict subophitic texture. Plagioclase laths enclosing amphibole after pyroxene (af). Sample TABOCAL, 25X, crossed nicols.



Photomicrograph N°14 – Subophitic texture. Plagioclase lath (pl) enclosing pyroxene crystals (px). Interstitial quartz (qz) and microcline (mc). Sample TER-051, 25X, crossed nicols.