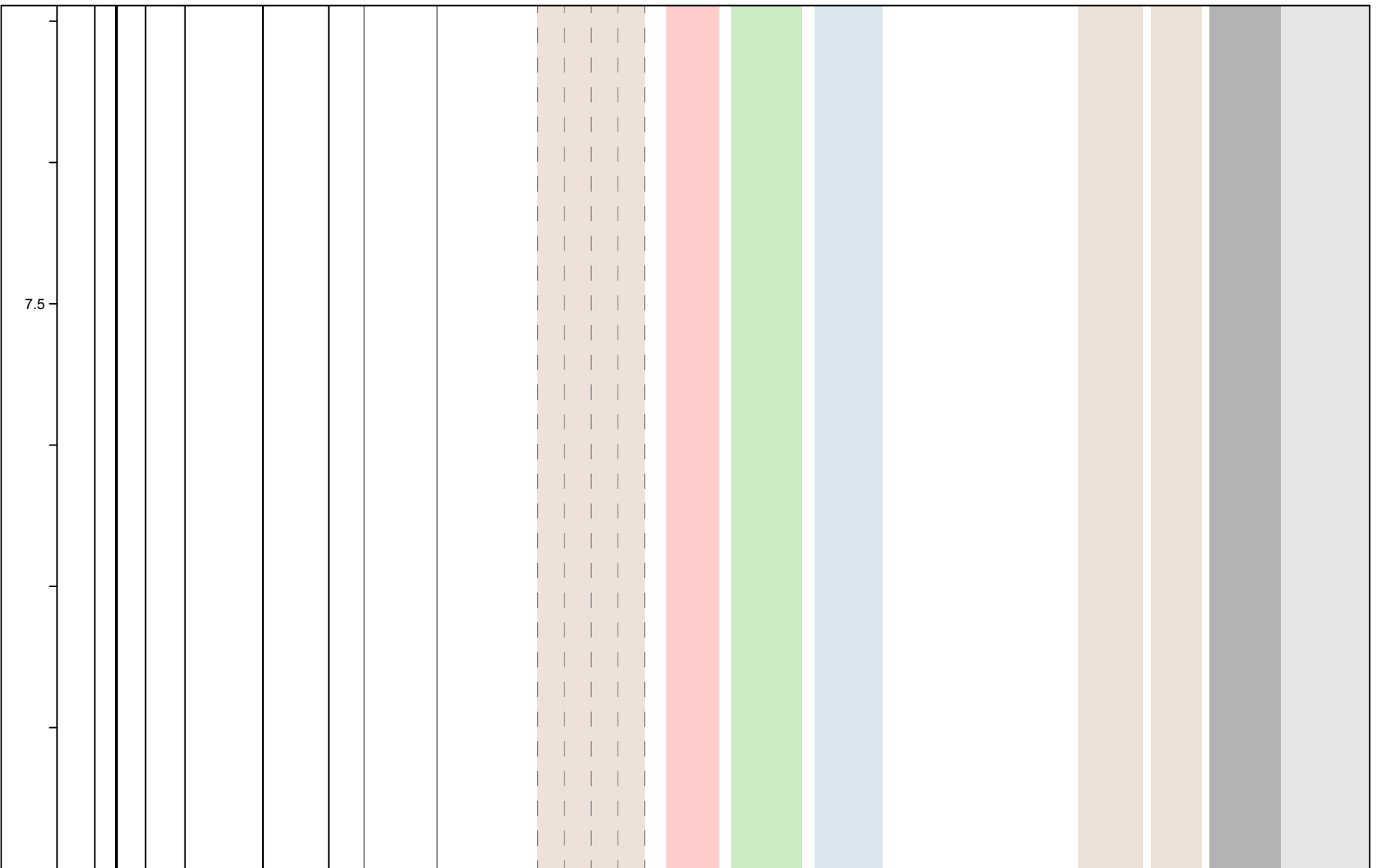
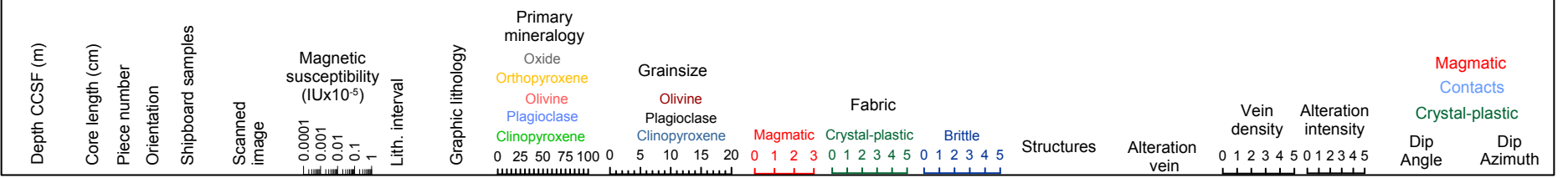


Hole 360-U1473A Core 11, Top of Section: 0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Drilled interval

Metamorphic Petrology:

Structural Geology:

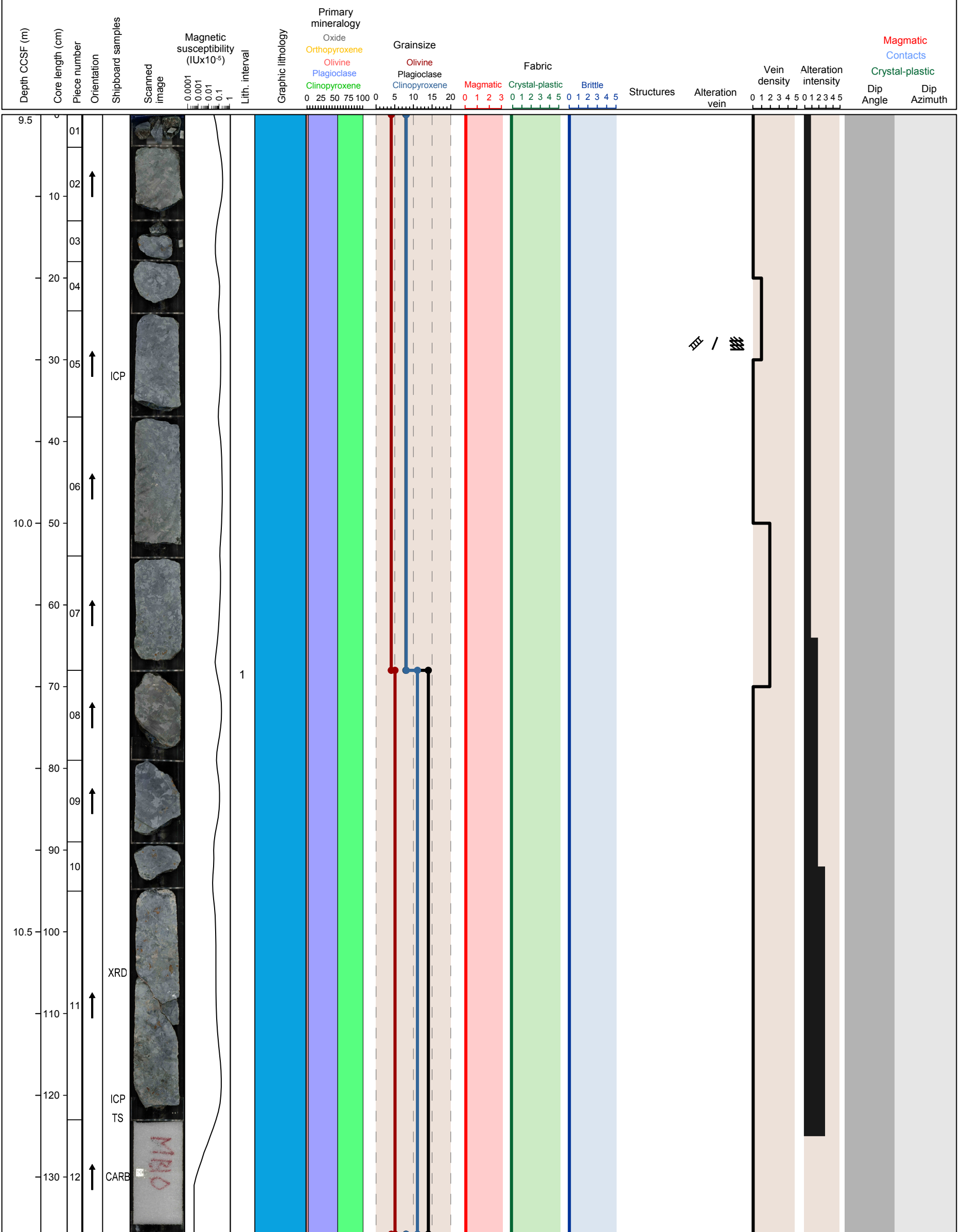


Hole 360-U1473A-2R Section 1, Top of Section: 9.5 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained subophitic olivine-bearing gabbro (interval 1)

Metamorphic Petrology: Static background alteration intensity increases from the top to bottom of the section. Alteration minerals are mainly amphibole, chlorite, talc and 2nd plagioclase. Amphibole frequently occurs as corona around pyroxene. Near an amphibole vein, pyroxene is replaced by amphibole and olivine is extensively replaced by brownish clay.

Structural Geology: Igneous contacts are defined by grain size variations.

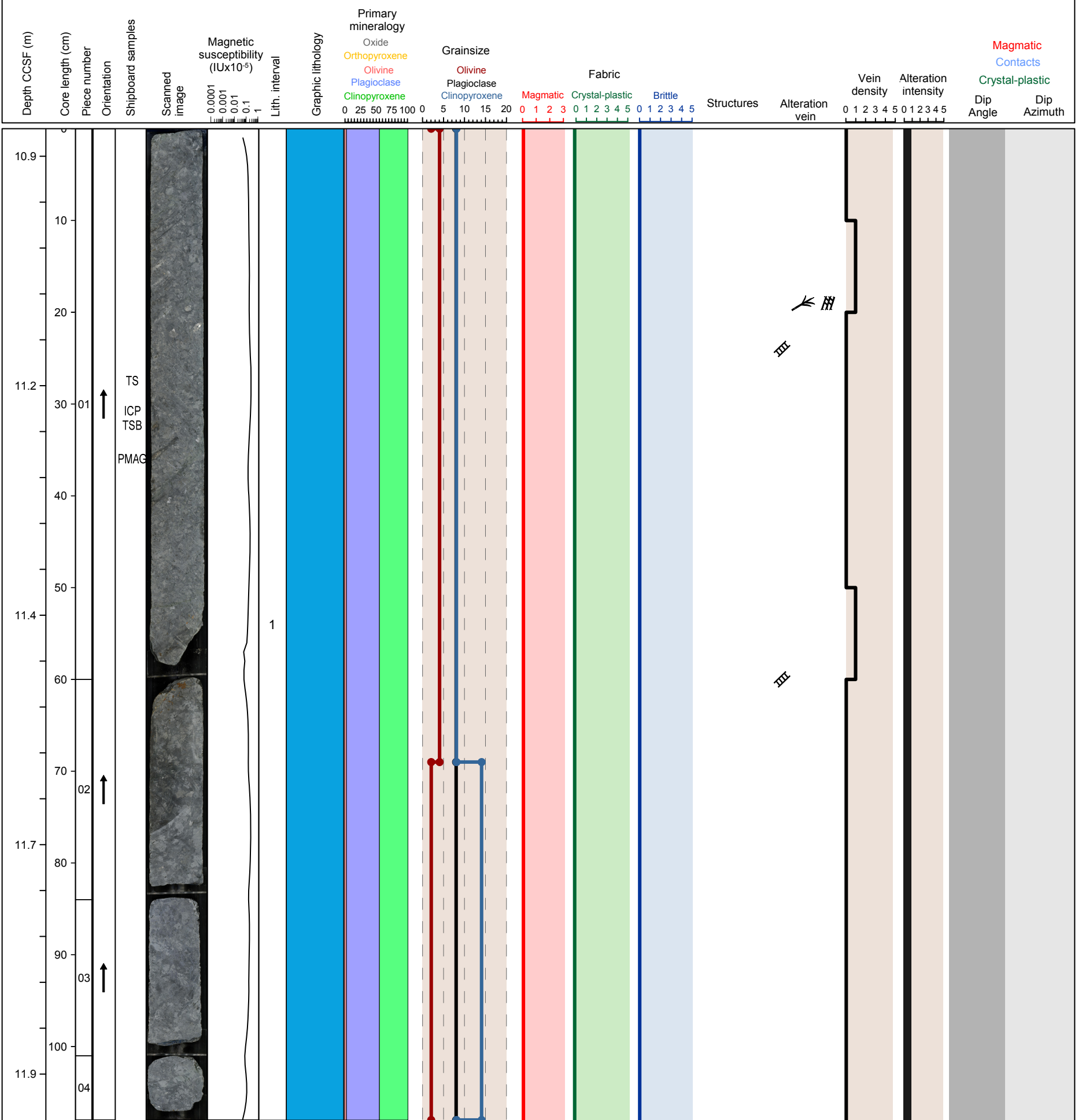


Hole 360-U1473A-2R Section 2, Top of Section: 10.87 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained subophitic olivine-bearing gabbro (interval 1)

Metamorphic Petrology: Static background alteration intensity is slight. Amphibole coronas occur around pyroxene. There are a few amphibole veins; plagioclase replaced by 2nd plagioclase and minor chlorite along the veins. Olivine is extensively replaced by brownish clay along whitish vein.

Structural Geology: Veins are parallel and crosscut fractured zone at 57 cm.

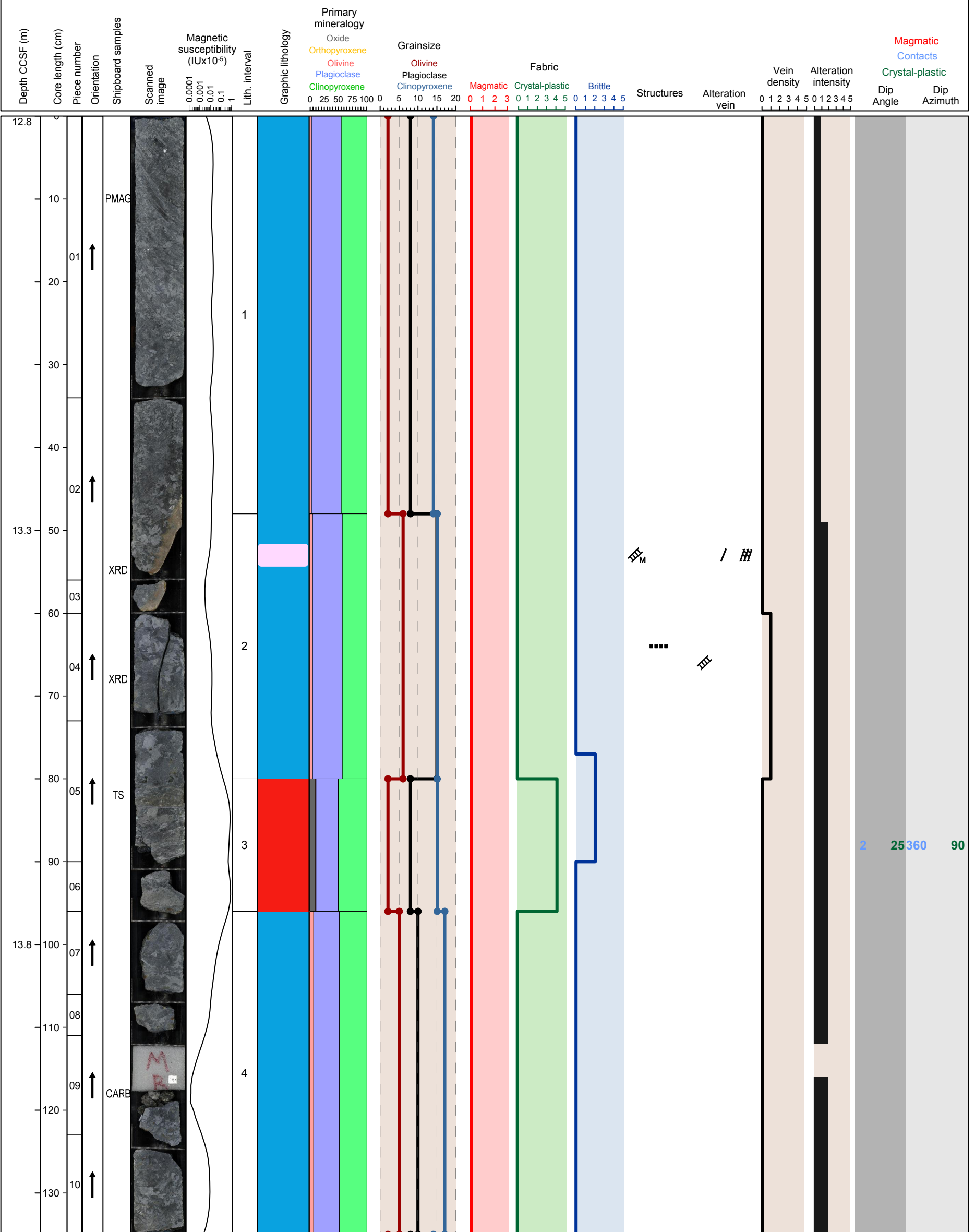


Hole 360-U1473A-3R Section 1, Top of Section: 12.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained subophitic olivine-bearing gabbro (interval 1), coarse grained subophitic olivine gabbro (interval 2 & 4) and coarse grained subophitic olivine-bearing oxide gabbro (interval 3)

Metamorphic Petrology: Static background alteration intensity is slight to moderate. This section includes one felsic vein in which plagioclase is completely altered. There is a mylonitic band where plagioclase is more altered than in adjacent gabbroic rocks.

Structural Geology: Igneous contacts defined by grain size. The crystal plastic fabric is sub-horizontal and is overprinted by fractures.

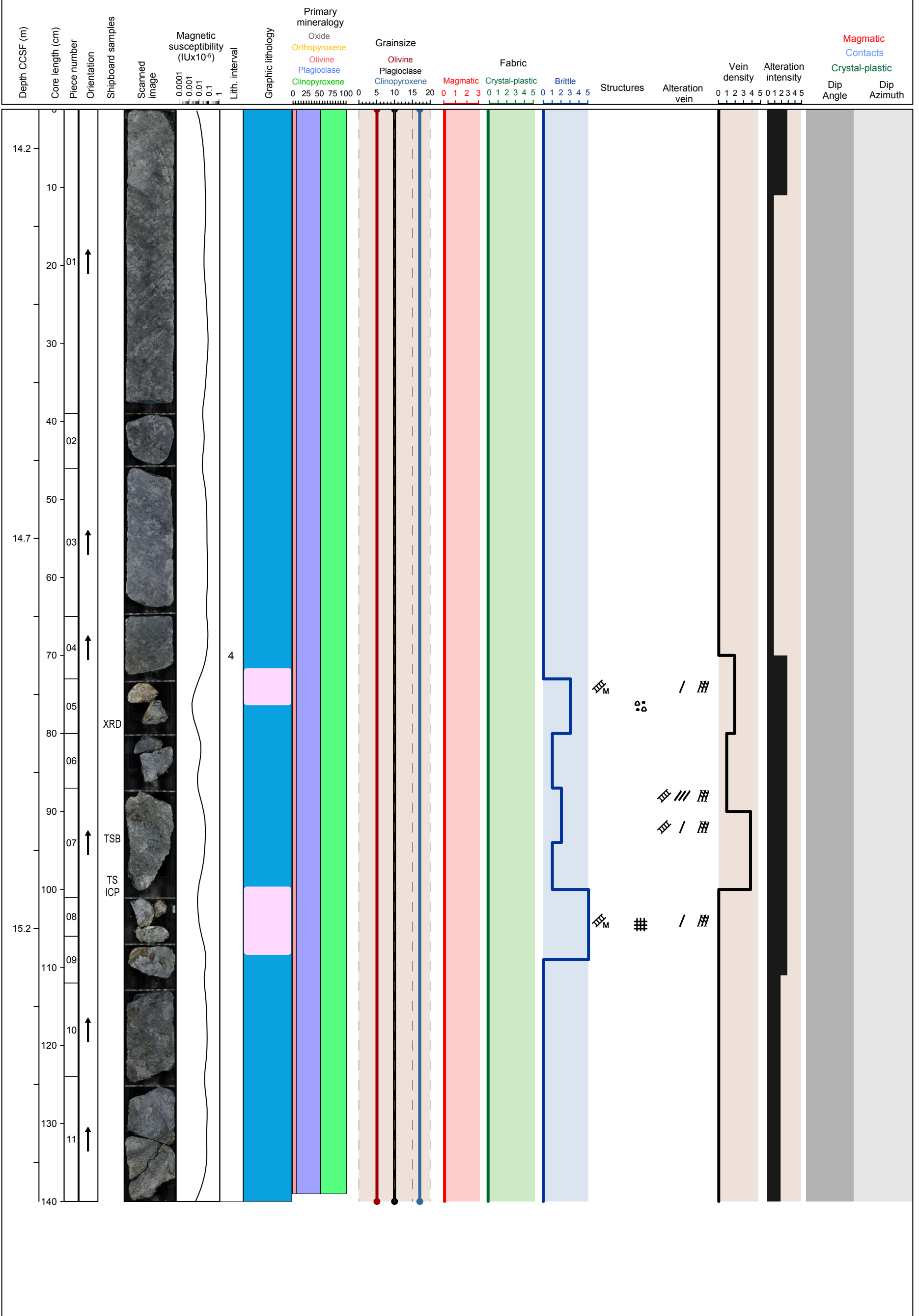


Hole 360-U1473A-3R Section 2, Top of Section: 14.15 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained subophitic olivine gabbro (interval 4)

Metamorphic Petrology: The section is hetergenously altered. A substantial alteration was observed in an interval including amphibole veins and one felsic vein. Ateration minerals are mainly amphibole, chlorite, talc and brownish clay.

Structural Geology: Brecciation and cataclasis between 79-103 cm.

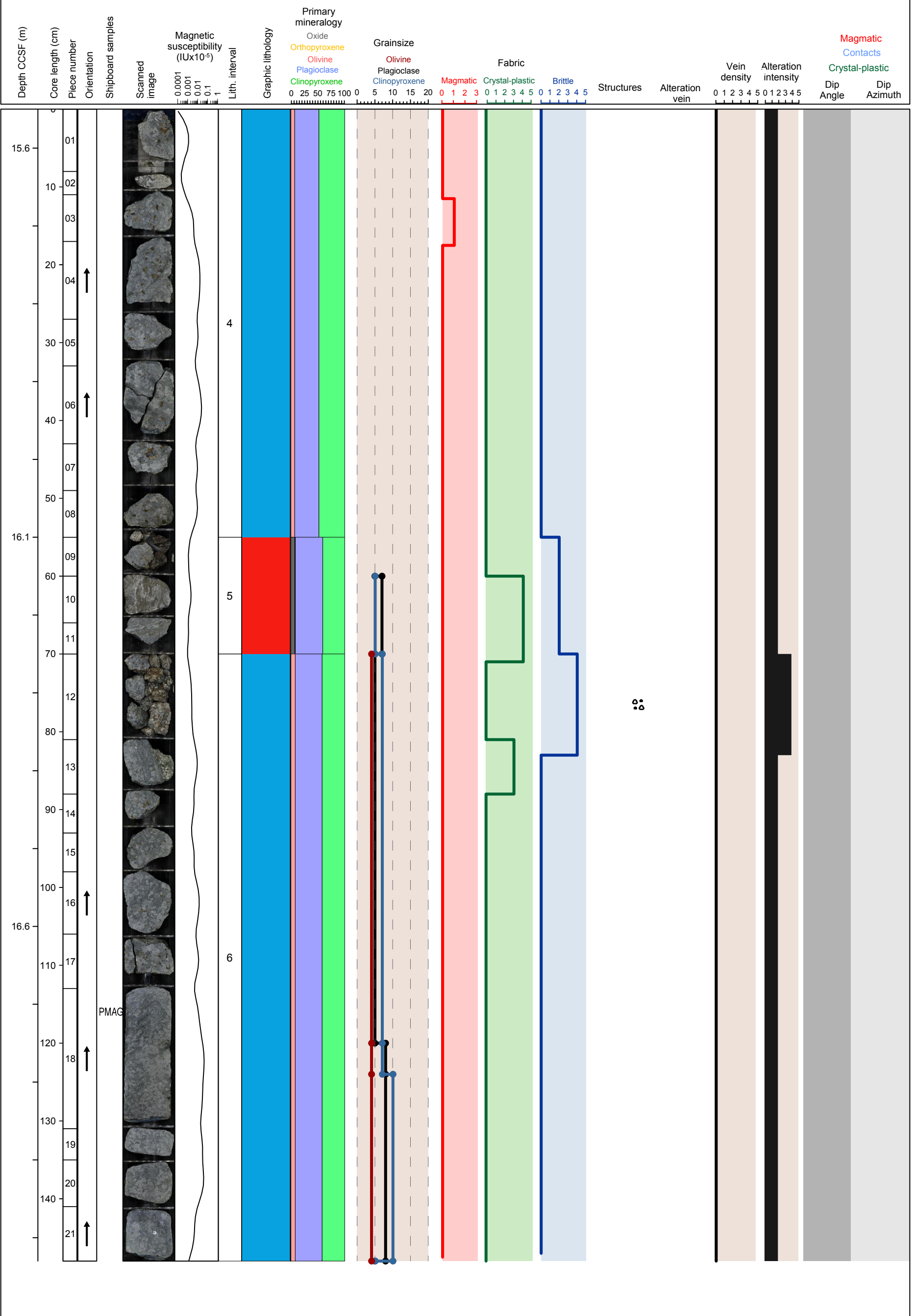


Hole 360-U1473A-3R Section 3, Top of Section: 15.55 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained subophitic olivine gabbro (interval 4 & 6) and coarse grained granular olivine-bearing oxide gabbro (interval 5)

Metamorphic Petrology: Static background alteration intensity is moderate to extensive. The extensive alteration is localized at the middle of this section and is associated with amphibole veining. Alteration minerals are mainly amphibole, chlorite, talc and brownish clay.

Structural Geology: S-fold in shear zone from 64-66 cm. Igneous contact is sharp defined by an alteration front and shear zone.

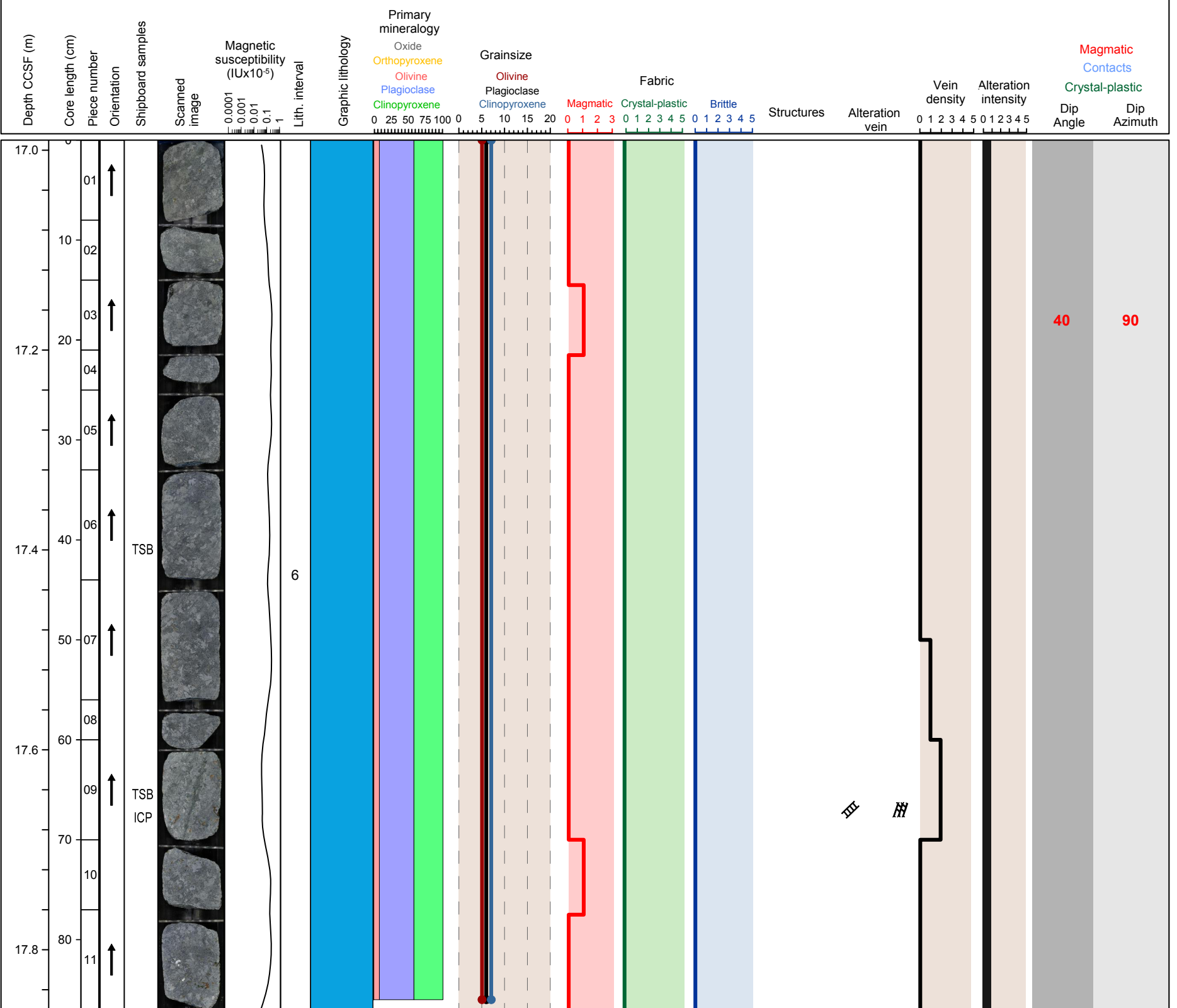


Hole 360-U1473A-3R Section 4, Top of Section: 17.03 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 6)

Metamorphic Petrology: The section is slightly altered. There is a small interval where the rock is extensively altered and associated with intense amphibole veining. Olivine, next to the vein, is completely altered into orange clay.

Structural Geology: Magmatic fabric is inclined. Alteration veins are steeply dipping and filled with amphibole.

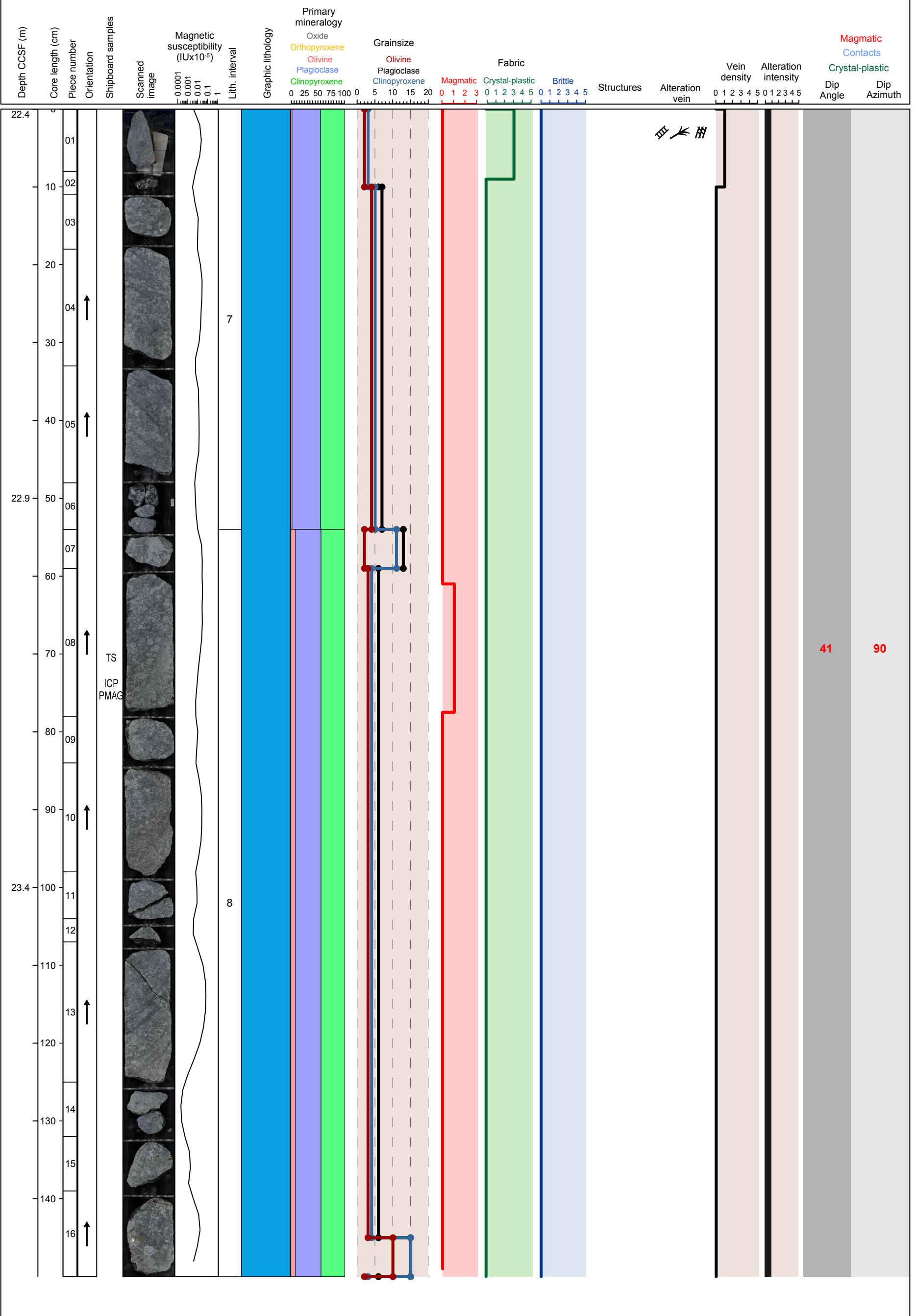


Hole 360-U1473A-4R Section 1, Top of Section: 22.4 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine-bearing gabbro (interval 7) and coarse grained subophitic olivine gabbro (interval 8)

Metamorphic Petrology: Static background alteration intensity is slight. More intense alteration in mylonitic zones and in halos. Alteration of olivine is more intense in the coarser grained rocks at the bottom part of the section.

Structural Geology: The magmatic fabrics are inclined. The crystal plastic fabric has a sharp boundary. Slickenlines have a moderate plunge at 122 cm.

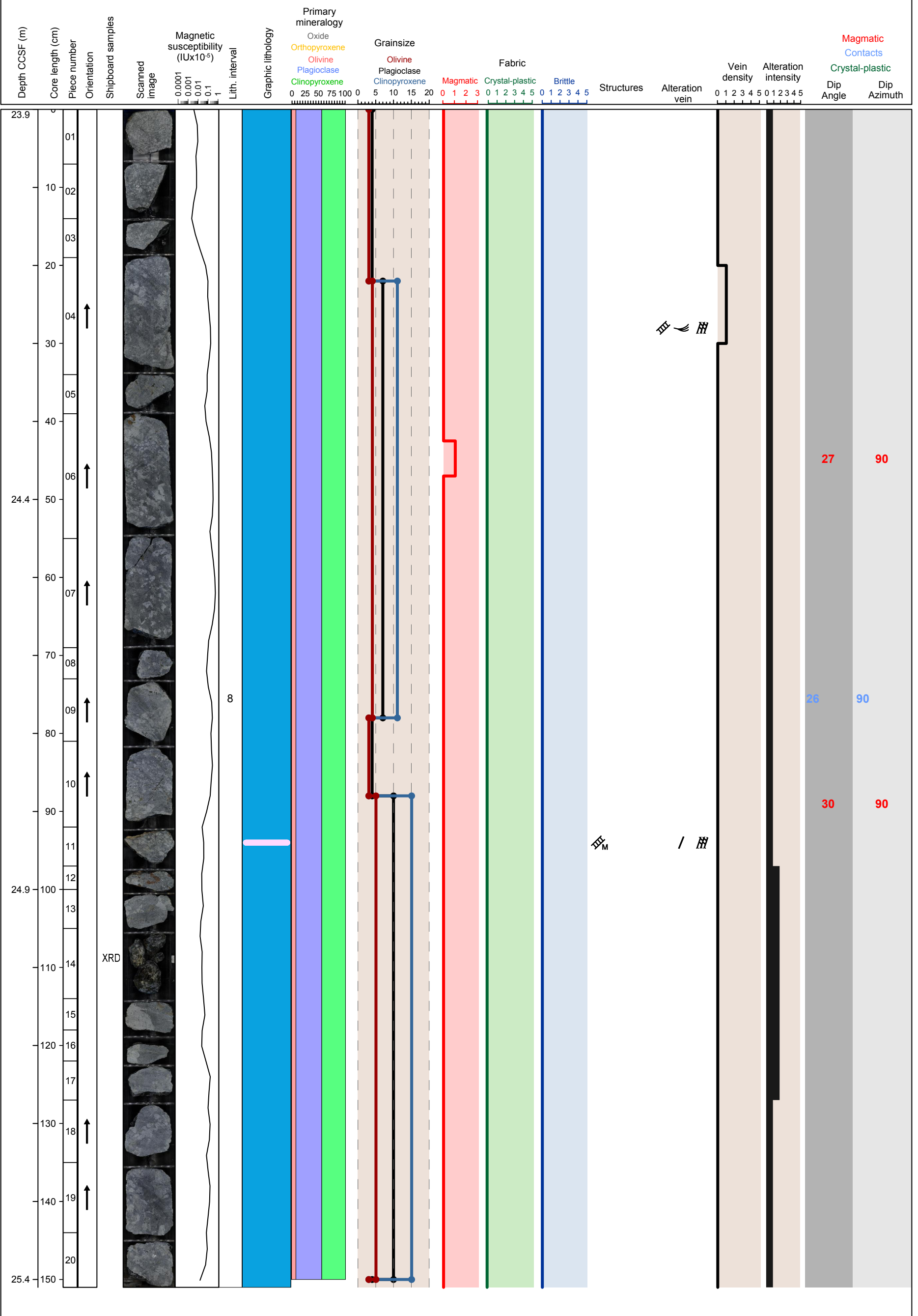


Hole 360-U1473A-4R Section 2, Top of Section: 23.9 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 8)

Metamorphic Petrology: Static background alteration is slight and mostly associated with veining. Alteration around halo is moderate.

Structural Geology: There is a 10 cm zone with grain size layering. The magmatic fabric is subhorizontal defined by pyroxene and plagioclase.

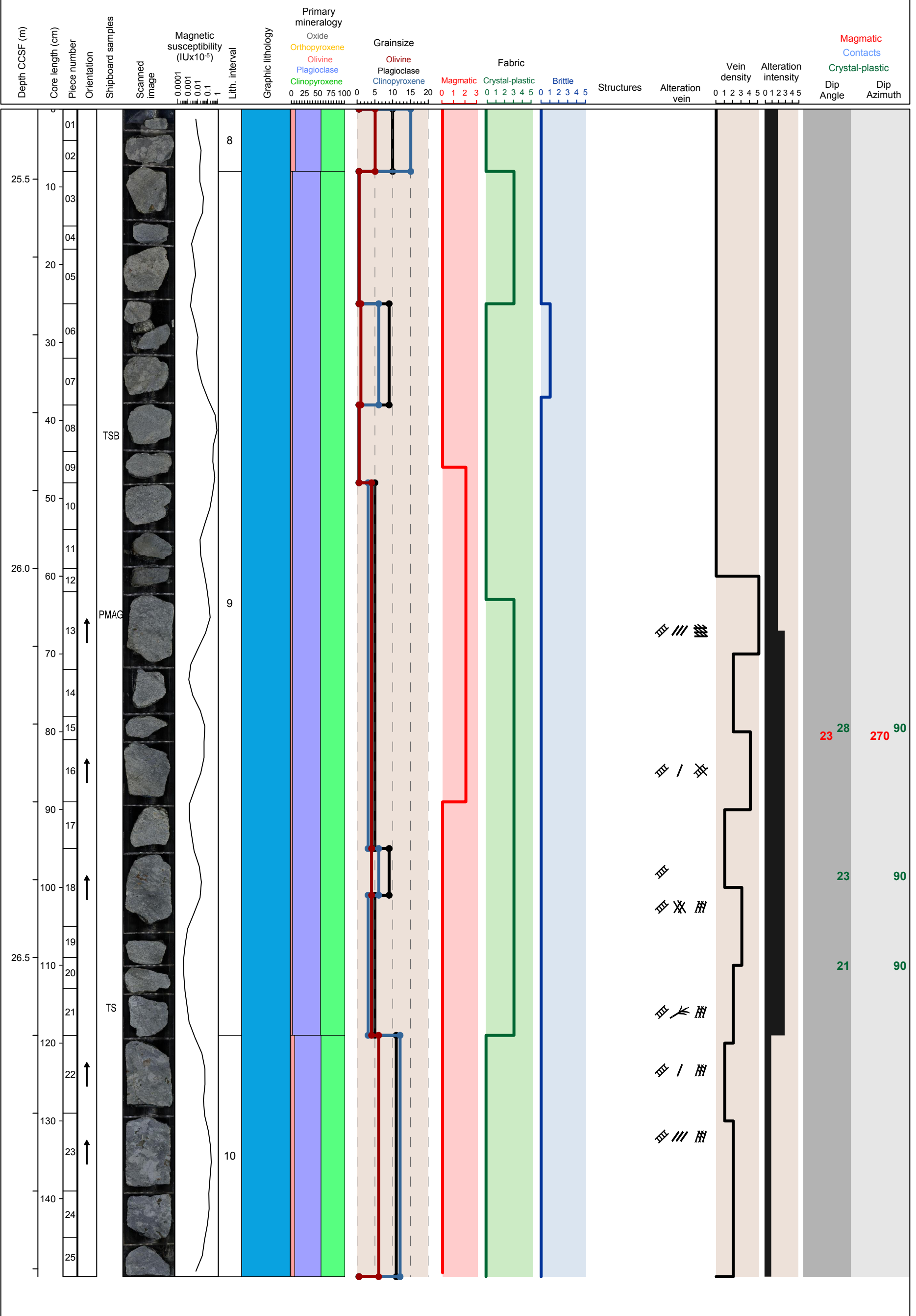


Hole 360-U1473A-4R Section 3, Top of Section: 25.41 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 8), medium grained granular olivine-bearing gabbro with fine grained granular olivine gabbro domain (interval 9) and coarse grained granular olivine gabbro (interval 10)

Metamorphic Petrology: Static background alteration is slight to substantial. The substantial alteration occurs within a mylonitic zone.

Structural Geology: The contact is sheared. The magmatic fabric is defined by pyroxene, plagioclase and locally olivine. The crystal plastic fabric is crosscut by alteration veins.

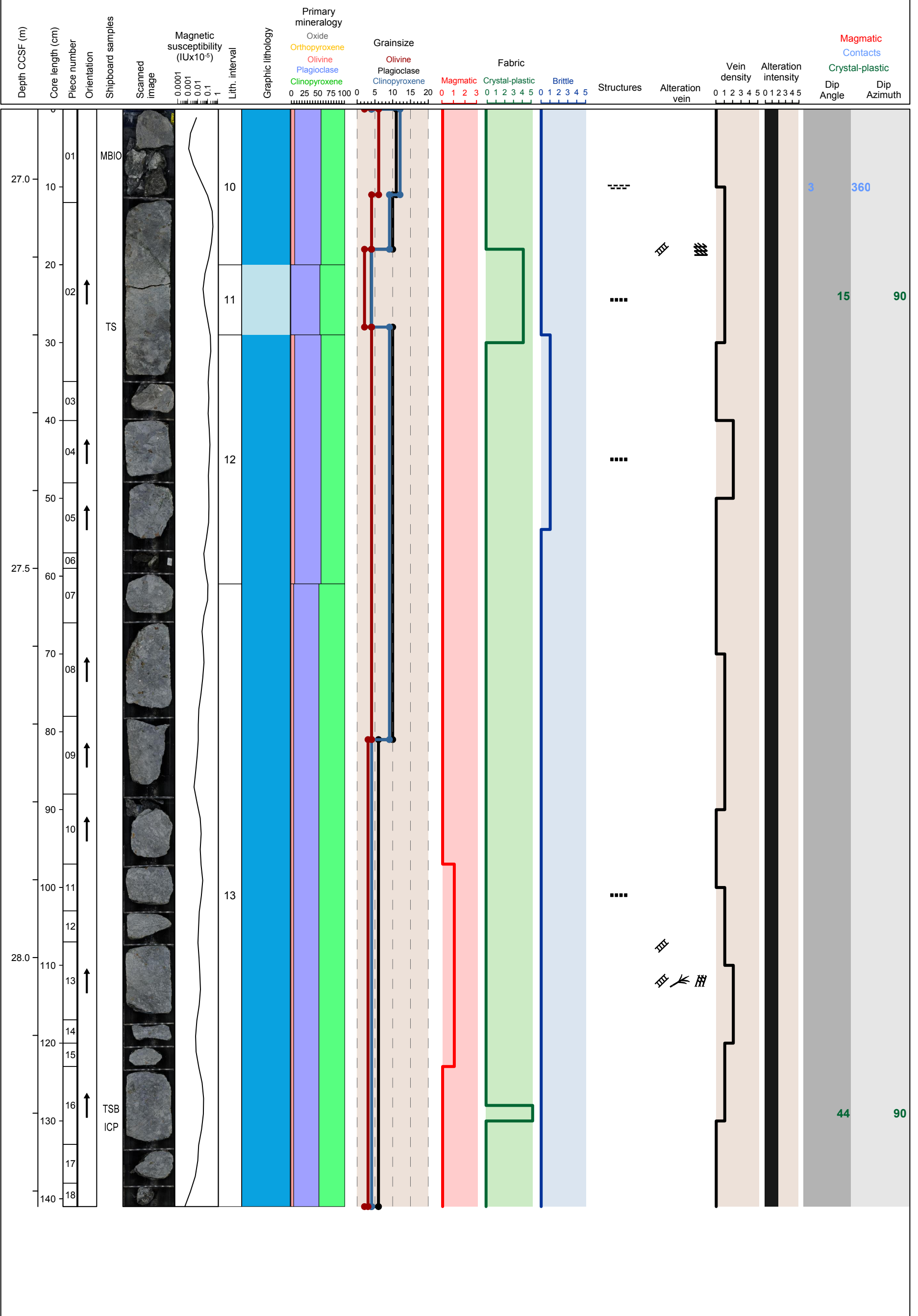


Hole 360-U1473A-4R Section 4, Top of Section: 26.91 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 10), medium grained granular gabbro (interval 11), coarse grained granular olivine gabbro (interval 12) and coarse grained subophitic olivine gabbro (interval 13)

Metamorphic Petrology: Static background alteration is overall moderate. There is a zone of substantial alteration at the upper part of the section associated with mylonitization.

Structural Geology: The contact is defined by a sharp, thin mylonite. The magmatic fabric is defined by pyroxene and plagioclase. Amphibole veins present from 20-112 cm.

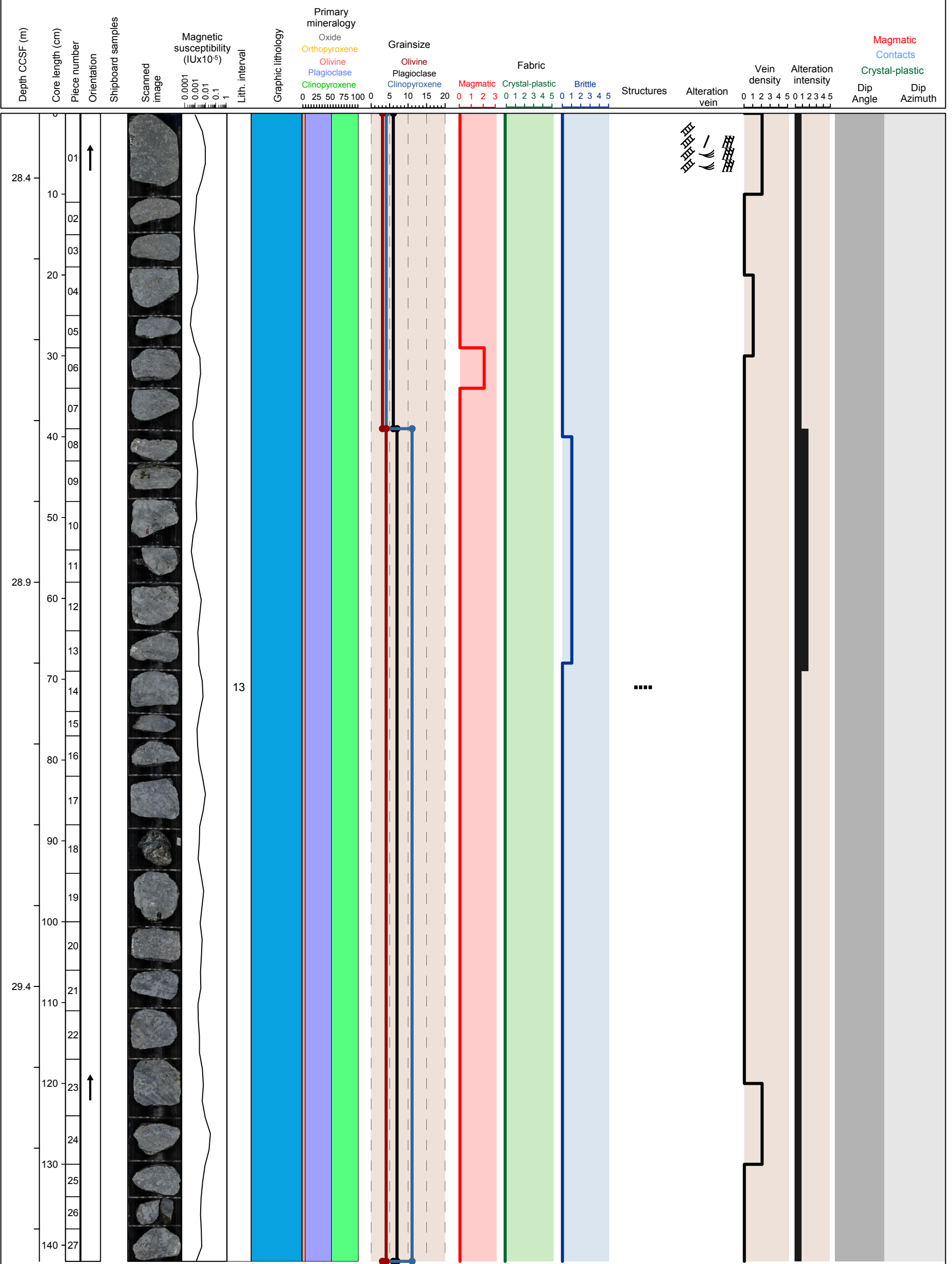


Hole 360-U1473A-4R Section 5, Top of Section: 28.32 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 13)

Metamorphic Petrology: Static background alteration is slight to substantial. Substantial alteration is present along the contact between coarse and fine grained rocks in the middle part of the section.

Structural Geology: The igneous contact is gradational. The magmatic fabric is defined by pyroxene, plagioclase, and olivine.

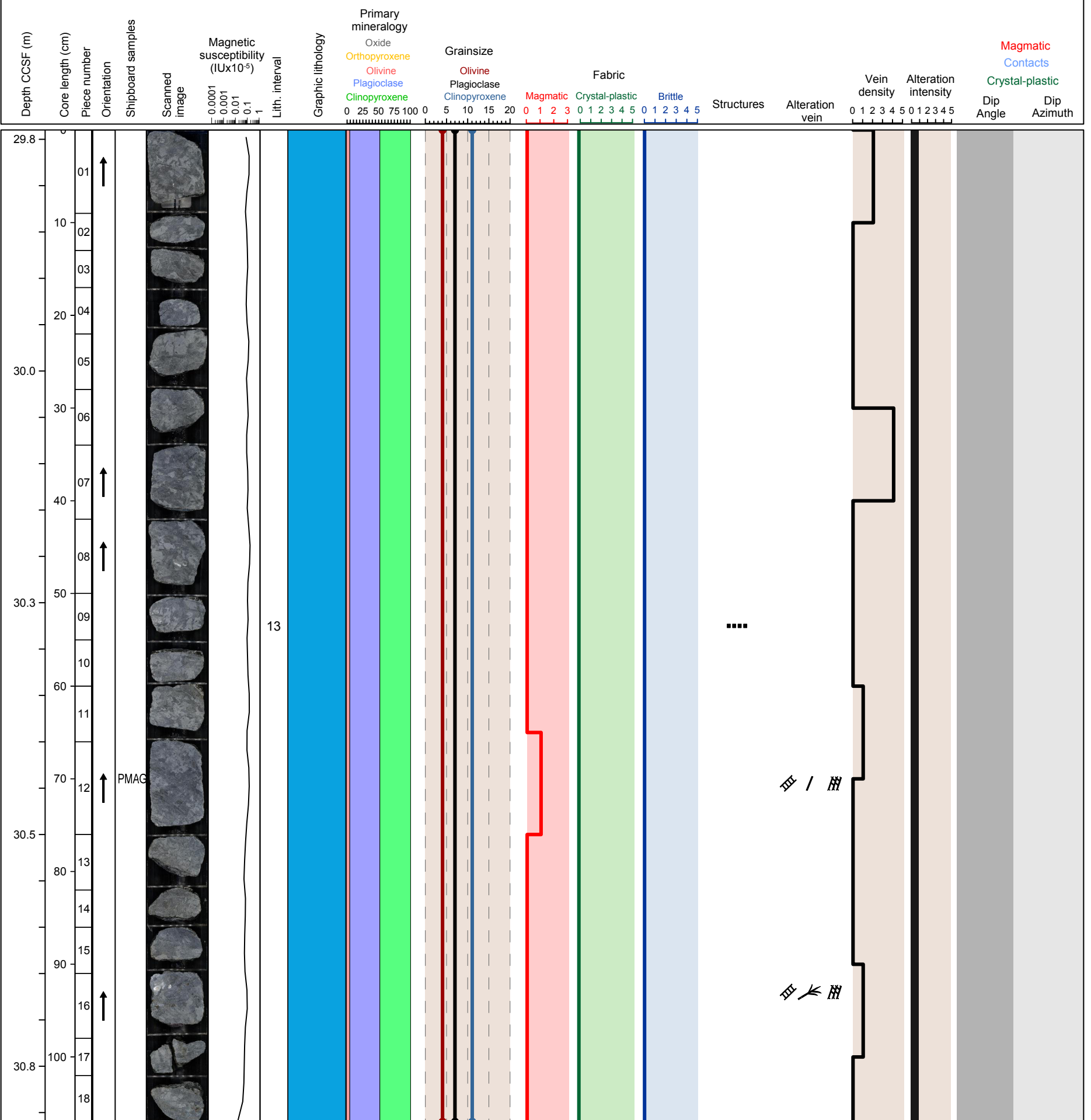


Hole 360-U1473A-4R Section 6, Top of Section: 29.74 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 13)

Metamorphic Petrology: Static background alteration is slight. Halos are present and characterize by conspicuous red clay after olivine.

Structural Geology: The magmatic fabric is defined by pyroxene.

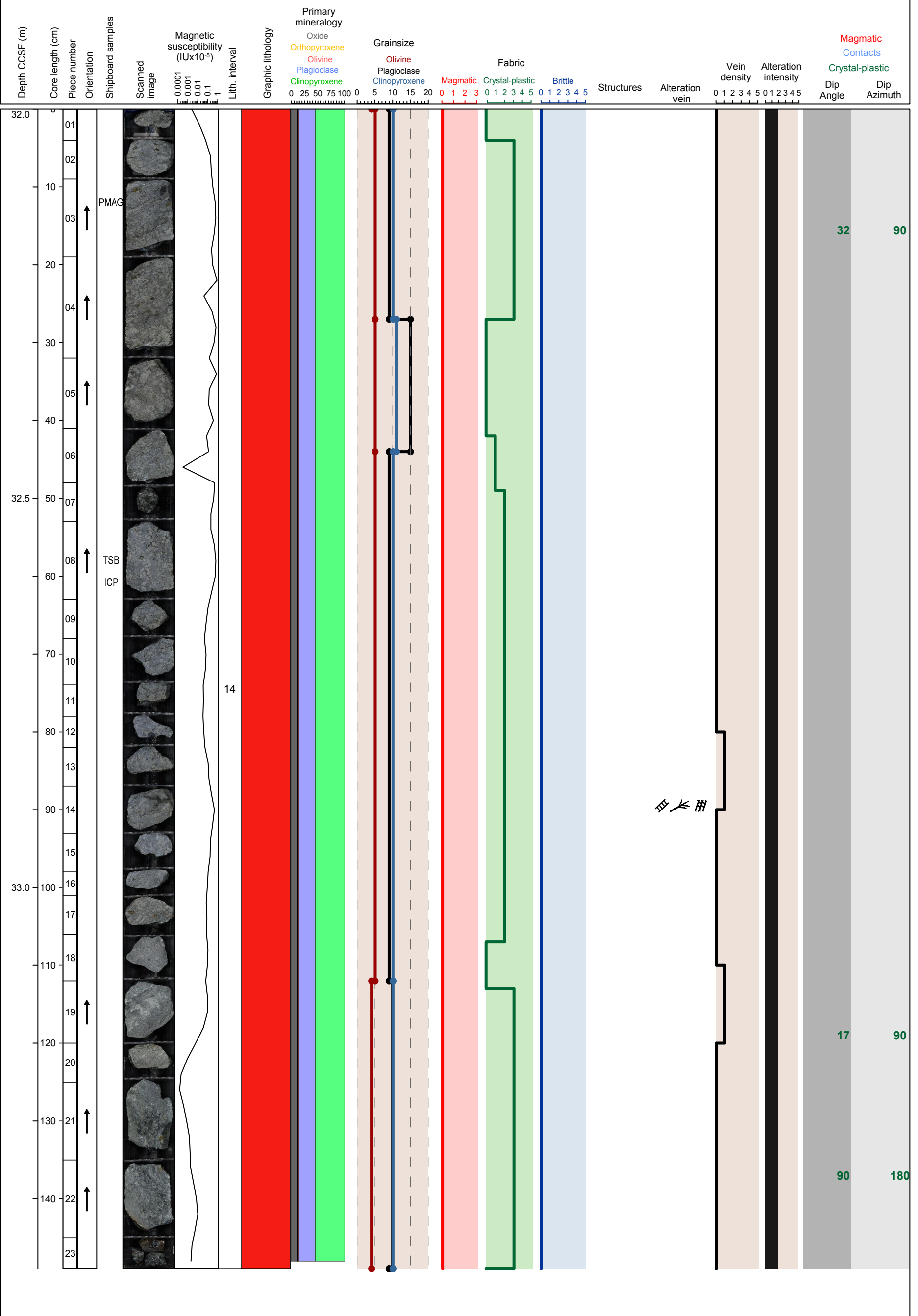


Hole 360-U1473A-5R Section 1, Top of Section: 32.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine-bearing oxide gabbro (interval 14)

Metamorphic Petrology: Static background alteration is moderate. Mylonitic zones have higher alteration compared to the rest of the section.

Structural Geology: The crystal plastic fabric is near vertical defined by oxide-rich bands.

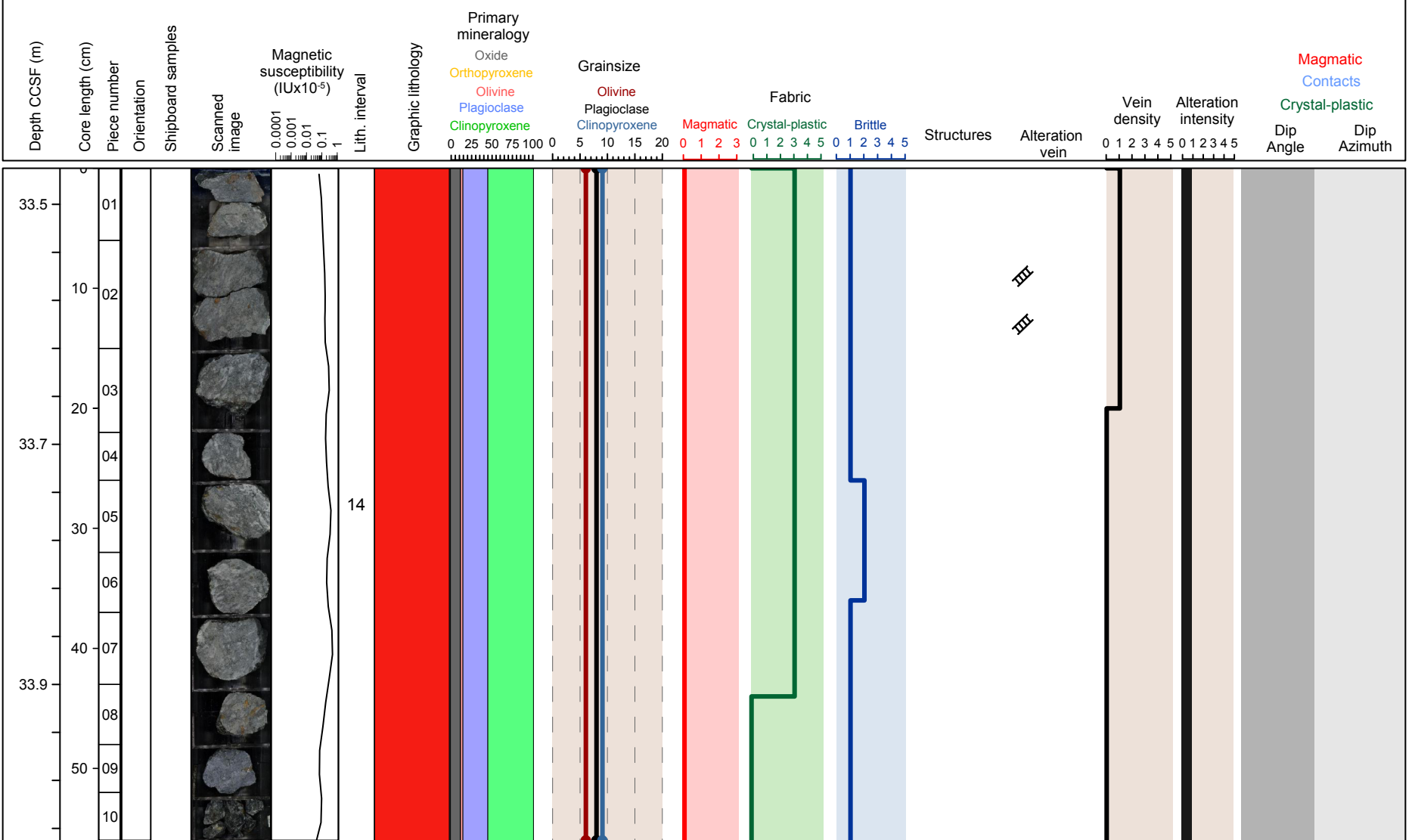


Hole 360-U1473A-5R Section 2, Top of Section: 33.49 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine-bearing oxide gabbro (interval 14)

Metamorphic Petrology: Static background alteration is slight. Olivine is locally extensively altered into clay.

Structural Geology: The crystal plastic fabric is overprinted by brittle deformation.

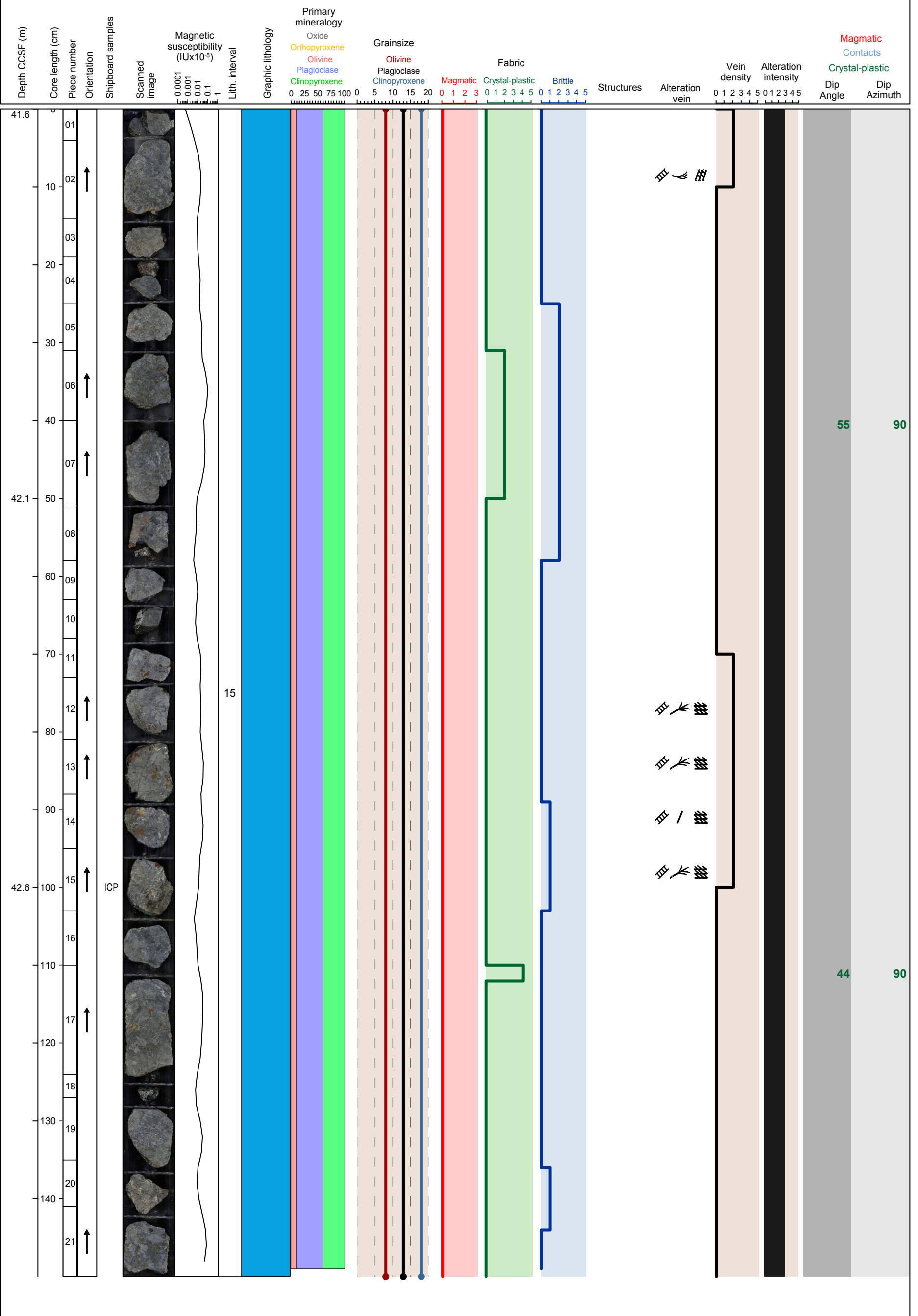


Hole 360-U1473A-6R Section 1, Top of Section: 41.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 15)

Metamorphic Petrology: Static background alteration intensity is heterogeneously moderate to substantial throughout the section.

Structural Geology:

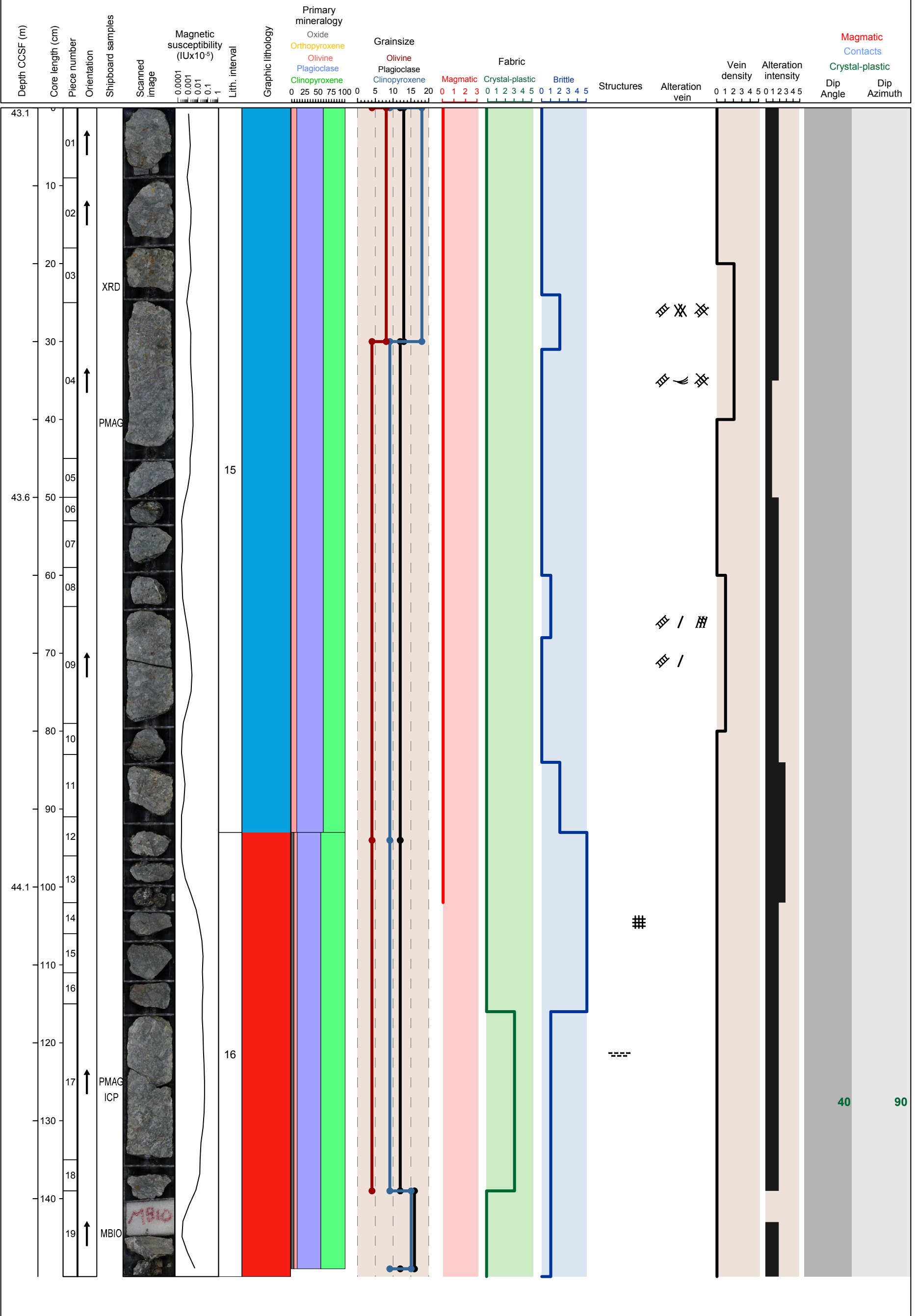


Hole 360-U1473A-6R Section 2, Top of Section: 43.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 15) and coarse grained granular olivine oxide gabbro (interval 16)

Metamorphic Petrology: Static background alteration intensity is mostly moderate to substantial. Alteration is associated with veining.

Structural Geology: The mylonite is defined by elongate plagioclase. There is a fault zone cored by cataclasite from 93-116 cm. The fracture at 71 cm have slickenlines with a shallow plunge.

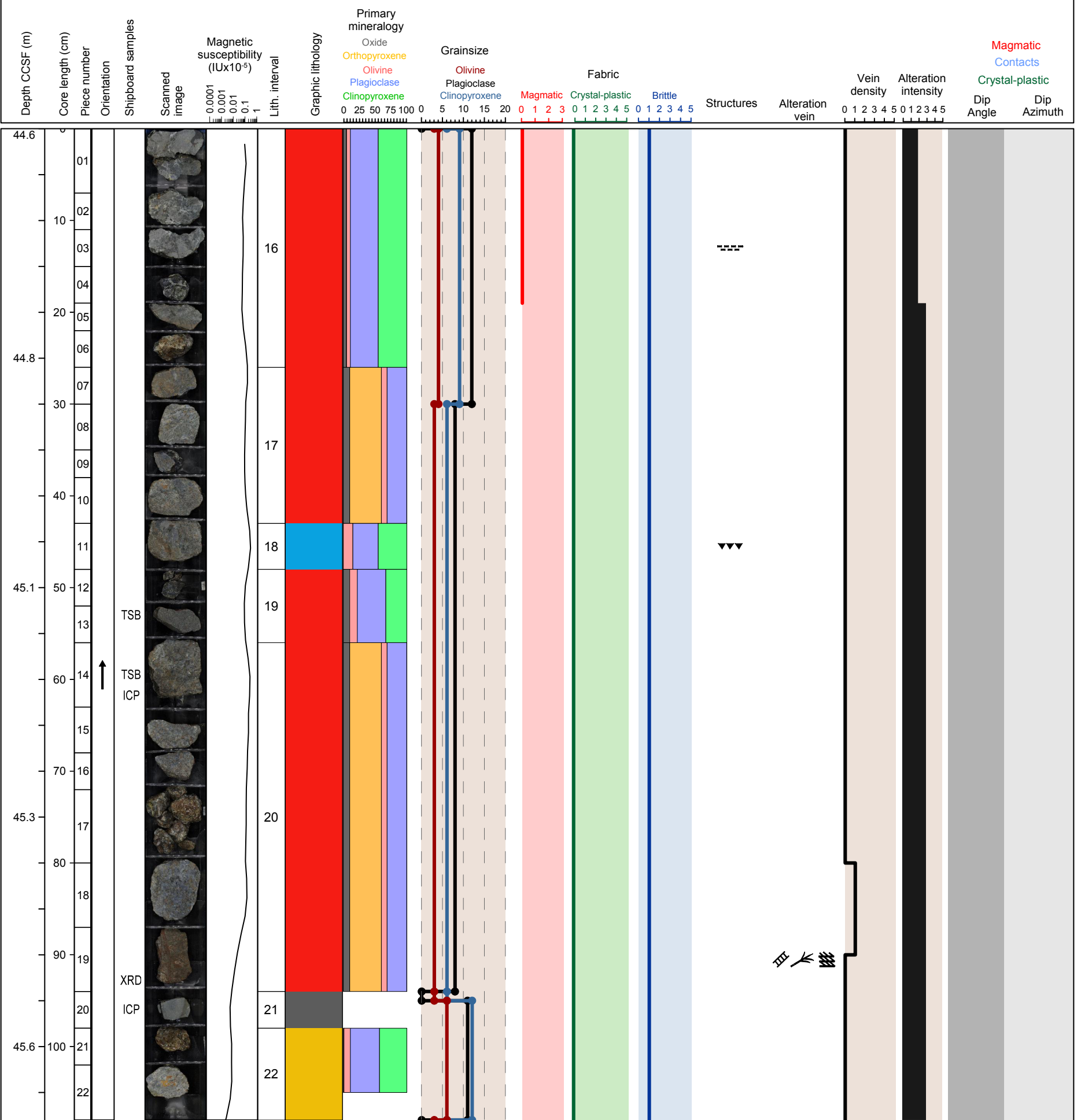


Hole 360-U1473A-6R Section 3, Top of Section: 44.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 16), coarse grained granular olivine oxide norite (??) (interval 17), medium grained subophitic olivine gabbro (interval 18), fine grained granular olivine oxide microgabbro (interval 19), coarse grained granular olivine oxide norite (??) (interval 20), fine grained diabase (interval 21) and coarse grained subophitic disseminated-oxide olivine gabbro (interval 22)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial. The bottom of the section is marked by a few instances of extensive to almost complete alteration.

Structural Geology: Fractured zone with alteration through oxide gabbro.

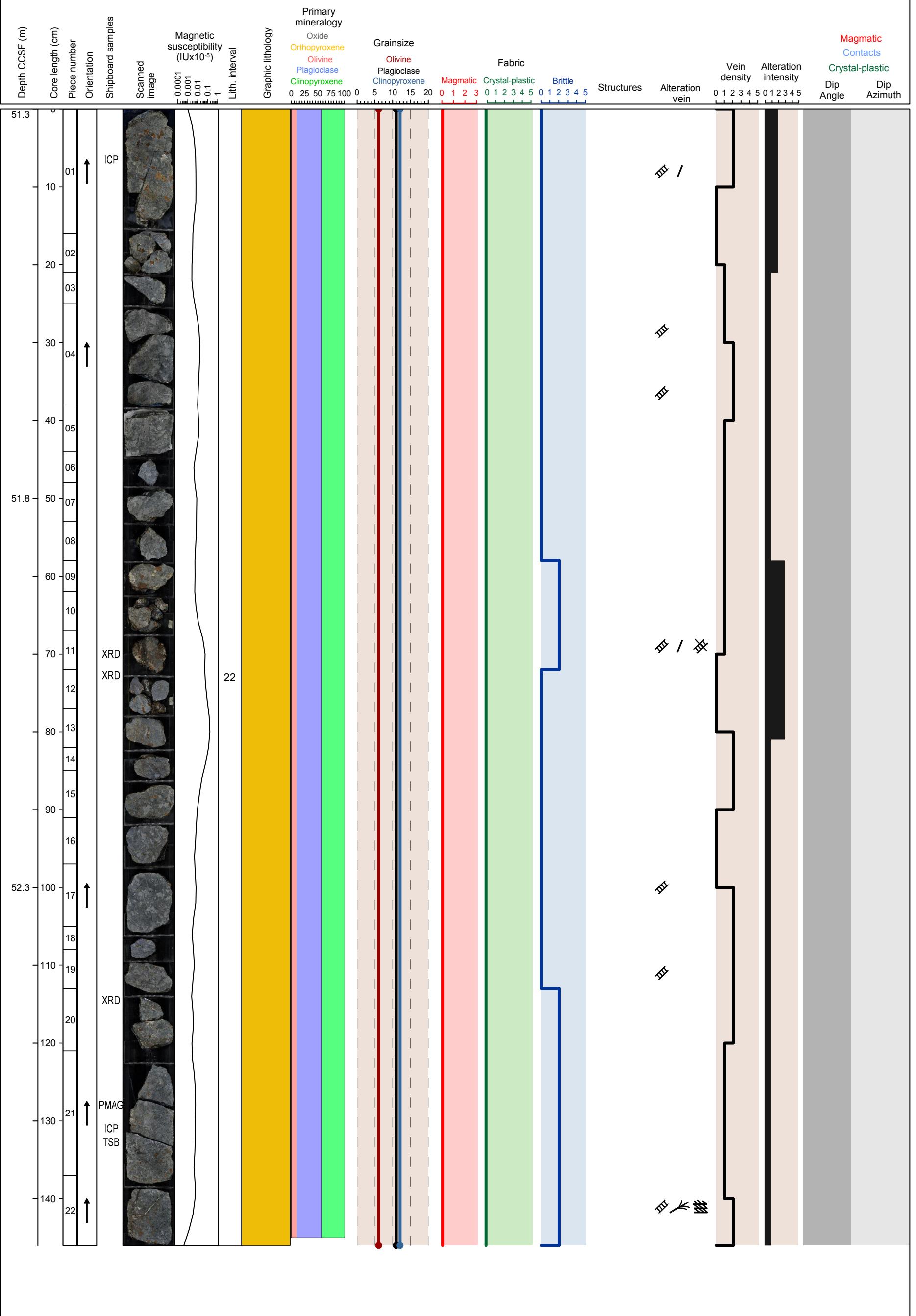


Hole 360-U1473A-7R Section 1, Top of Section: 51.3 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic disseminated-oxide olivine gabbro (interval 22)

Metamorphic Petrology: Static background alteration ranges from slight to substantial. Black veins with whitish materials were observed. The interval of substantial alteration is associated with veining.

Structural Geology: The magmatic contact crosscuts the crystal plastic shear zone.

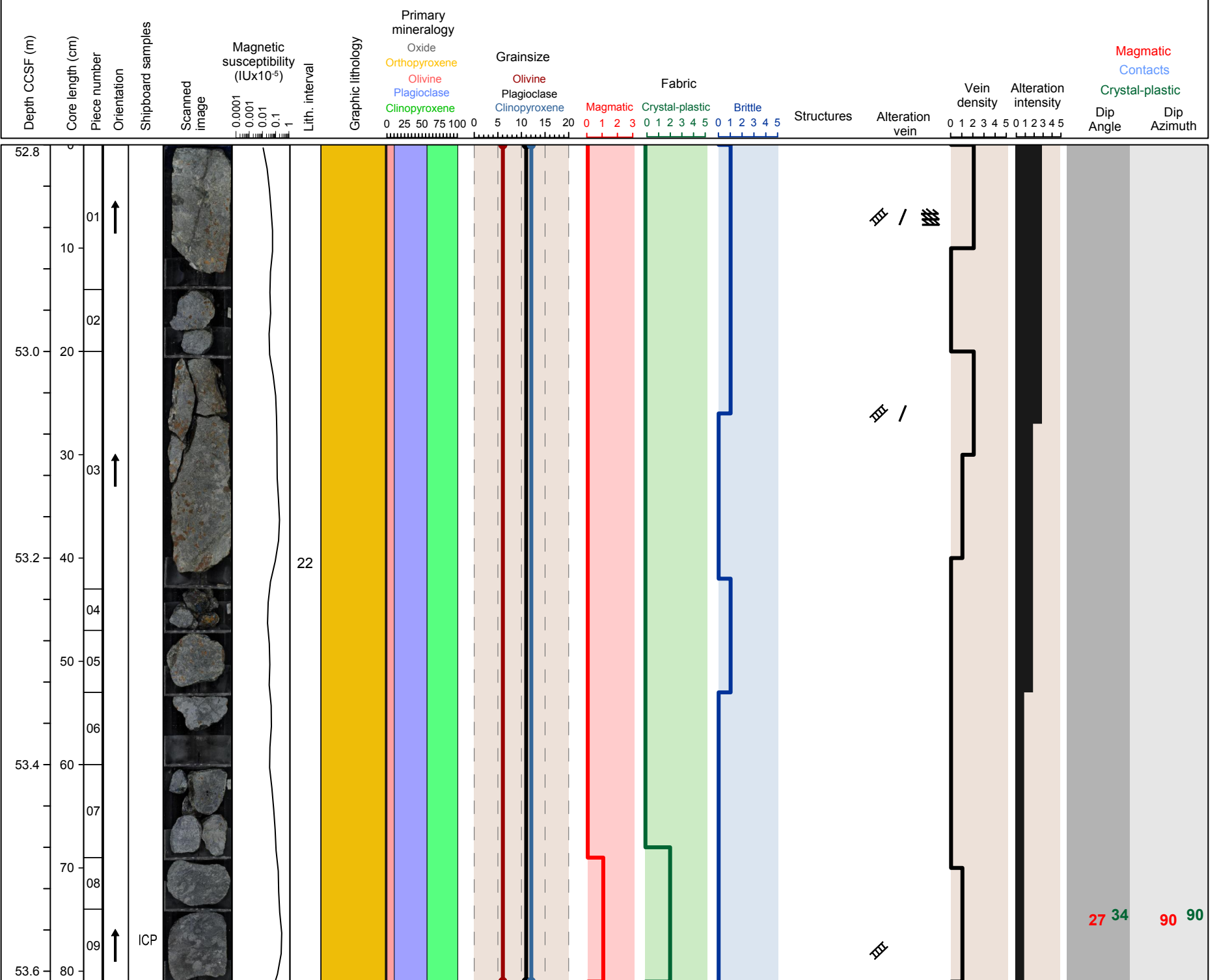


Hole 360-U1473A-7R Section 2, Top of Section: 52.76 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic disseminated-oxide olivine gabbro (interval 22)

Metamorphic Petrology: Static background alteration intensity is slight to substantial. Alteration degree decreases downhole in the section and is related to olivine and plagioclase replacement. Existence of amphibole vein crosscut by whitish veins.

Structural Geology: The crystal plastic fabric has a sub-vertical dip. The magmatic fabric is inclined defined by plagioclase and pyroxene.

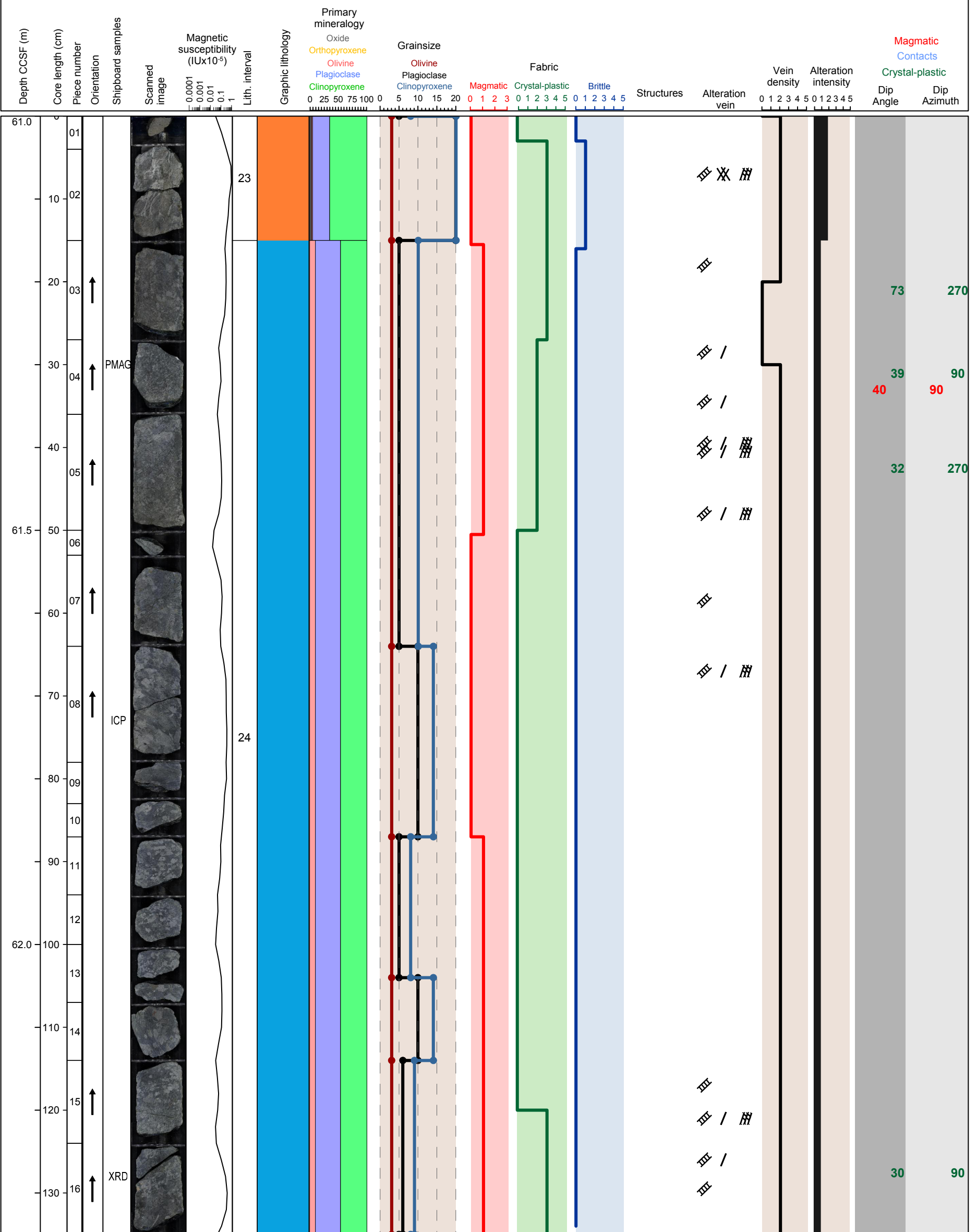


Hole 360-U1473A-8R Section 1, Top of Section: 61.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: pegmatitic granular oxide and olivine bearing gabbro (interval 23) and coarse grained subophitic olivine gabbro (interval 24)

Metamorphic Petrology: Static background alteration intensity is slight to moderate of the section; Random alteration of olivine and rarely of plagioclase are related to white veins and amphibole veins, respectively.

Structural Geology: The magmatic fabric is inclined defined by pyroxene and plagioclase. The crystal plastic fabric has intermediate to steep dips. There are slickenlines at 126 cm with moderate plunge.

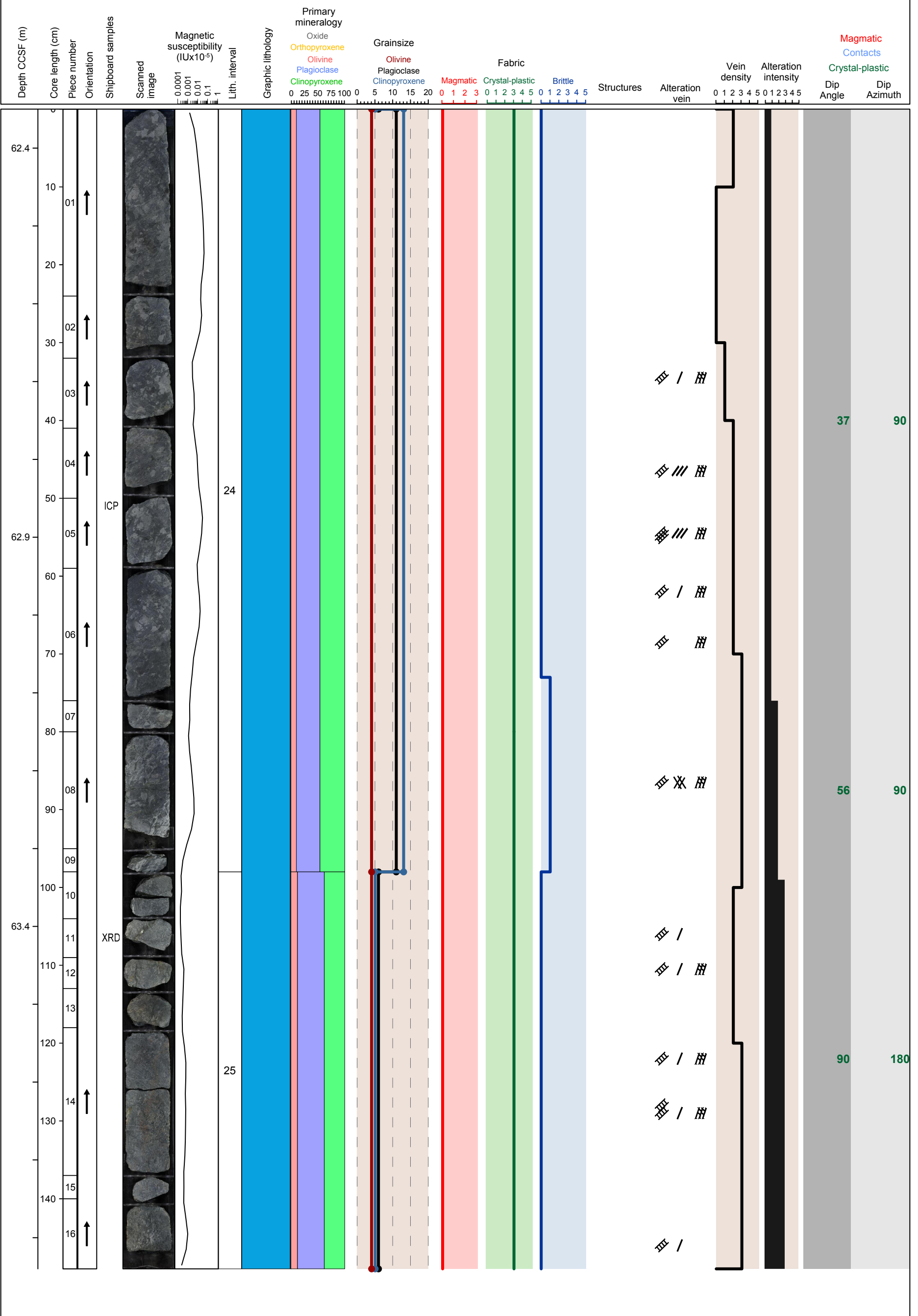


Hole 360-U1473A-8R Section 2, Top of Section: 62.35 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 24) and medium grained granular olivine gabbro (interval 25)

Metamorphic Petrology: Static background alteration intensity is slight to substantial from the top to bottom. Plagioclase alteration correlates with increasing vein intensity.

Structural Geology: Transect of coarse and fine grained gabbro with intermittent crystal plastic shear zones defined by plagioclase bands.

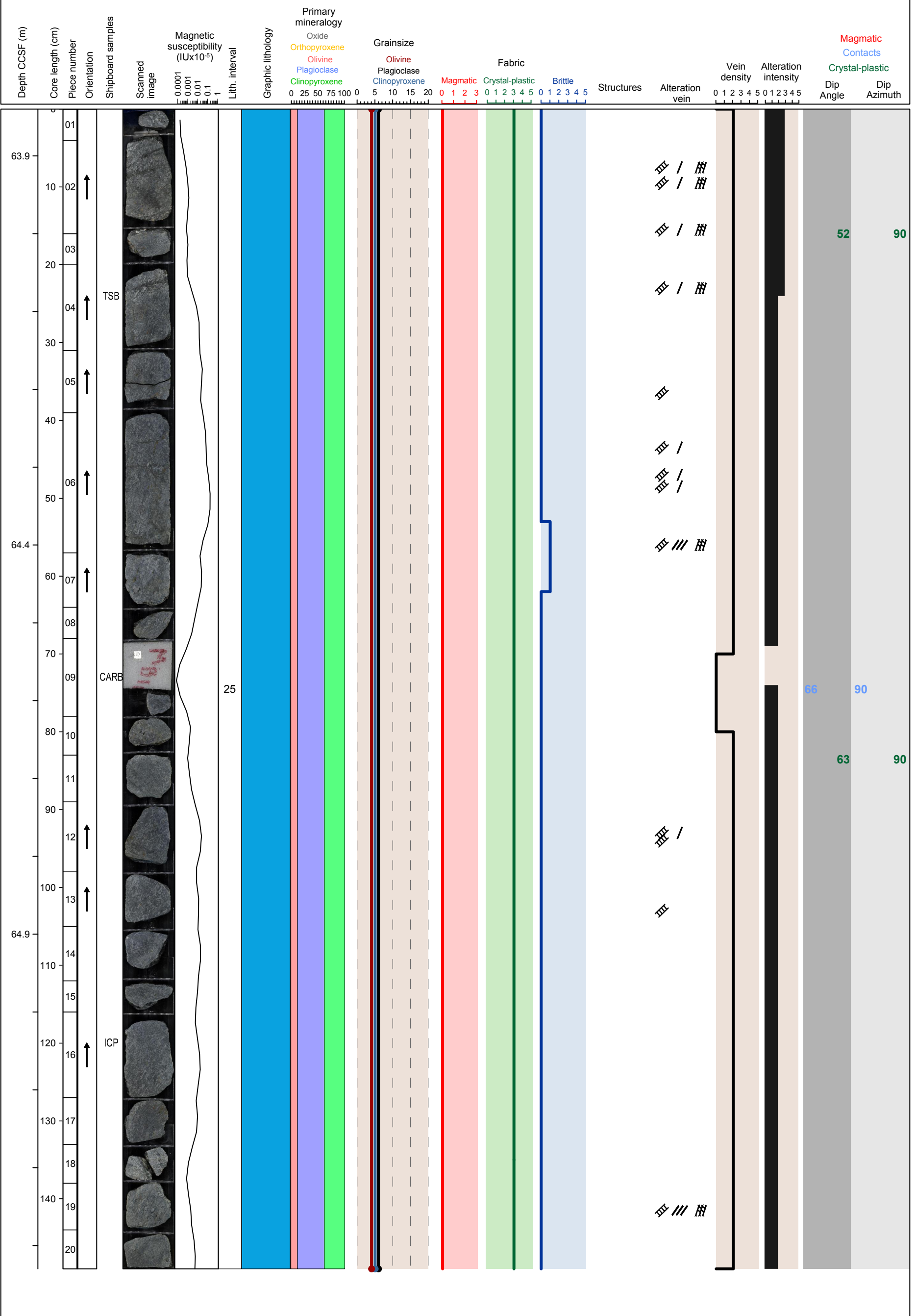


Hole 360-U1473A-8R Section 3, Top of Section: 63.84 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 25)

Metamorphic Petrology: Alteration intensity is moderate to substantial. Amphibole vein produced halos up to 1 cm in scale, with more intense alteration of pyroxene and plagioclase.

Structural Geology: The crystal plastic fabrics are crosscut and sheared by amphibole veins at 8 cm and 36 cm.

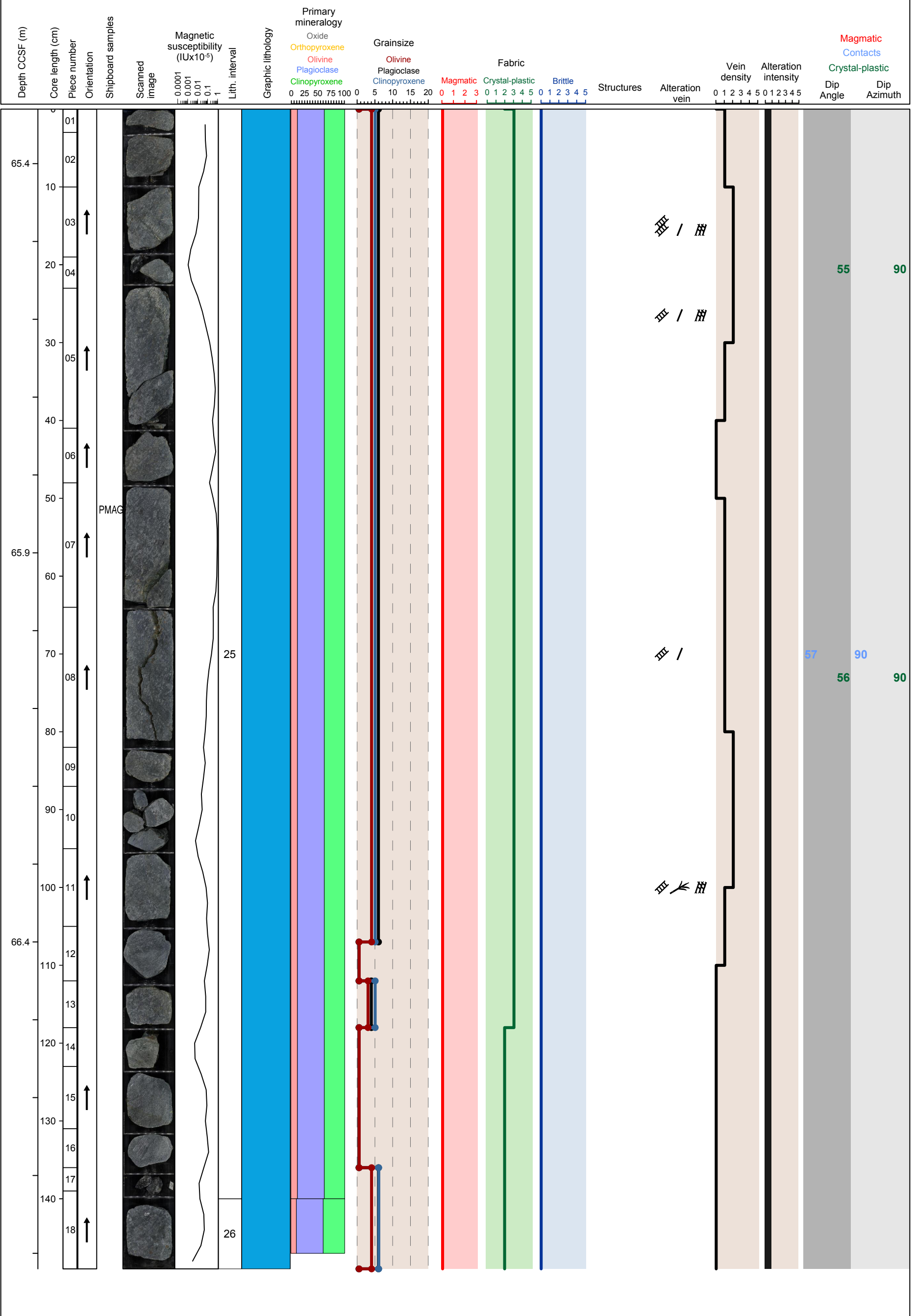


Hole 360-U1473A-8R Section 4, Top of Section: 65.33 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 25) and coarse grained subophitic olivine gabbro (interval 26)

Metamorphic Petrology: Static background alteration is slight. Small halo was observed and alteration is more intense in this area.

Structural Geology: Grain size layering is parallel to a moderately to steeply inclined crystal plastic fabric.

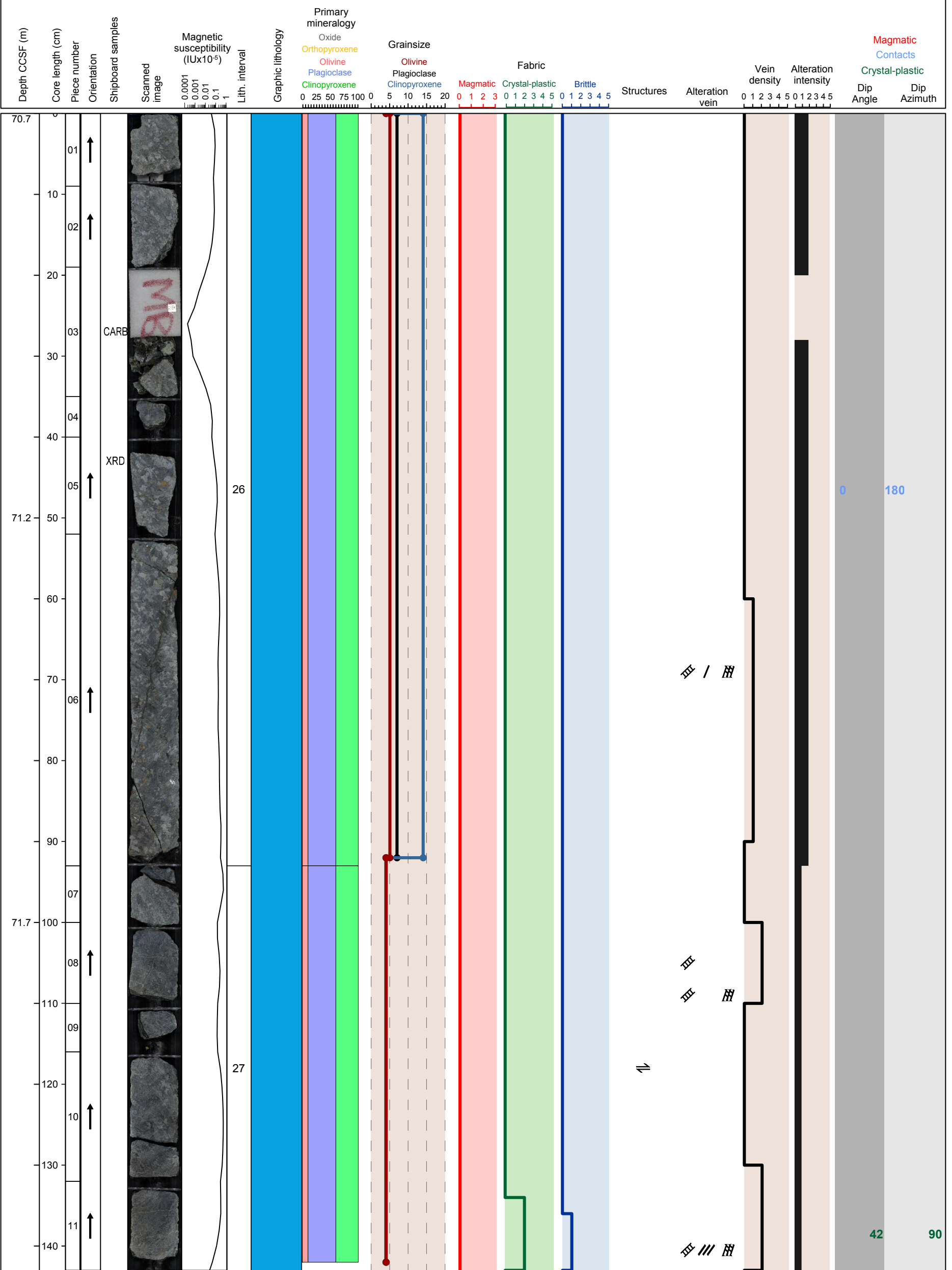


Hole 360-U1473A-9R Section 1, Top of Section: 70.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subop[hitic olivine gabbro (interval 26) and medium grained granular olivine gabbro (interval 27)

Metamorphic Petrology: Static background alteration intensity is slight for pyroxene and plagioclase throughout the section. The alteration intensity of olivine changes downwards from extensive to moderate. In the upper part of the section, there is one dark vein producing a thin halo made up of brown clay in the host gabbro.

Structural Geology: Contacts between fine and medium grained olivine gabbro are vertical. The crystal plastic fabric is vertical. The veins are steeply dipping.

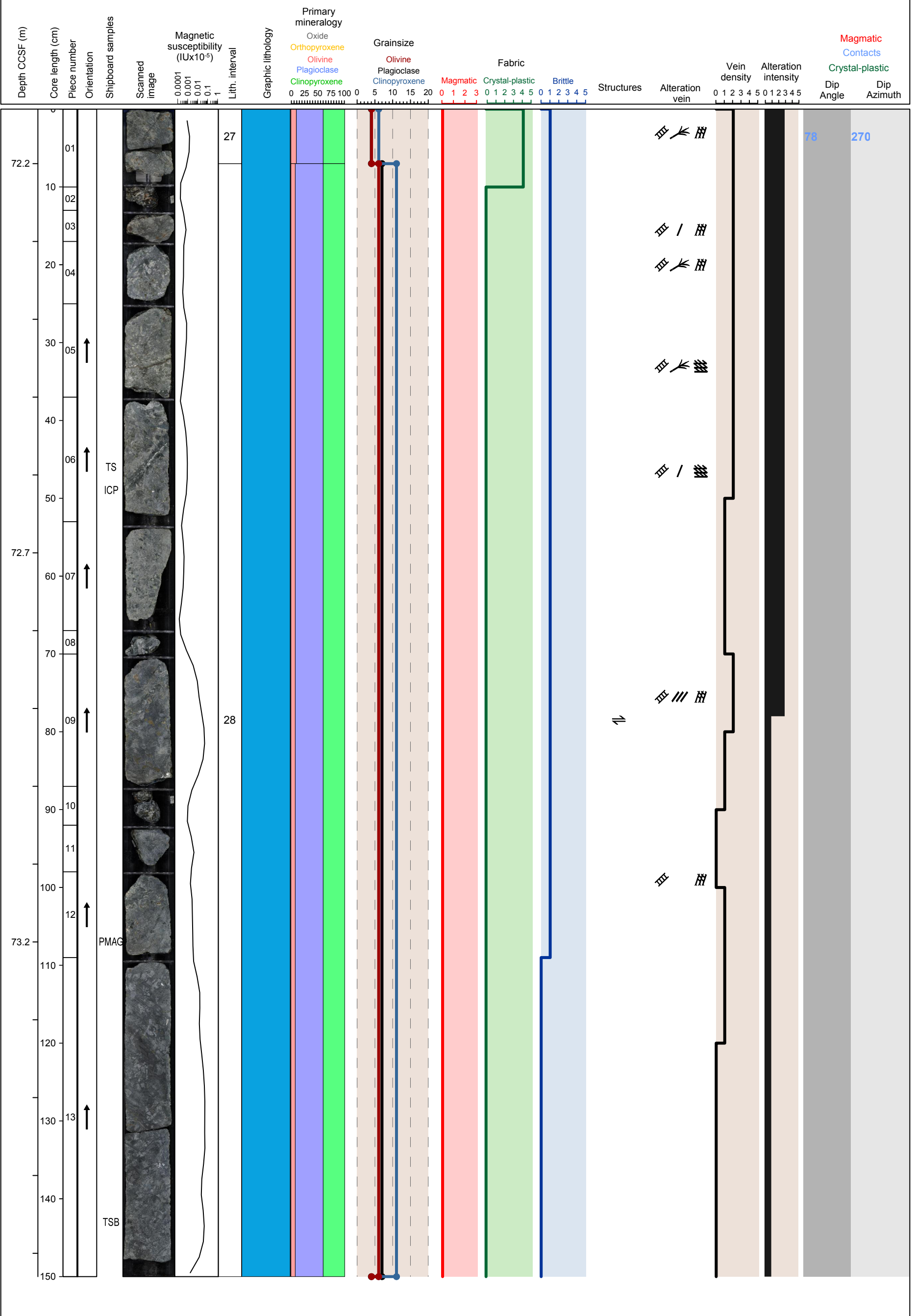


Hole 360-U1473A-9R Section 2, Top of Section: 72.13 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 27) and coarse grained subophitic olivine gabbro (interval 28)

Metamorphic Petrology: Static background alteration intensity ranges from slight to substantial. The most altered areas are associated with veins and halos.

Structural Geology: The vein is inclined with an alteration halo.

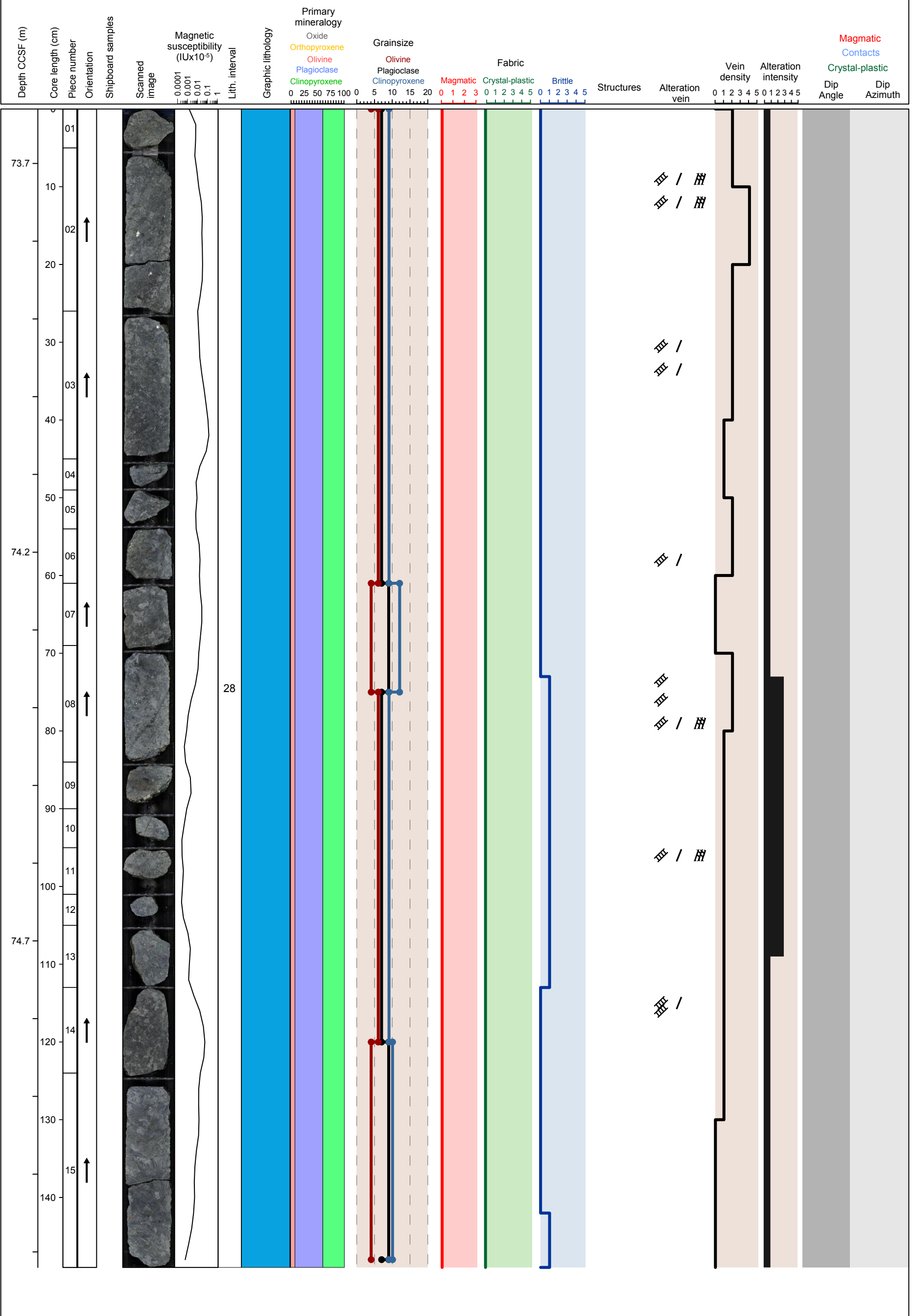


Hole 360-U1473A-9R Section 3, Top of Section: 73.63 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subop[hitic olivine gabbro (interval 28)

Metamorphic Petrology: Static background alteration intensity ranges from slight to substantial. Most altered areas are associated with veins. Some of the altered areas, however, have no clear association with veining.

Structural Geology:

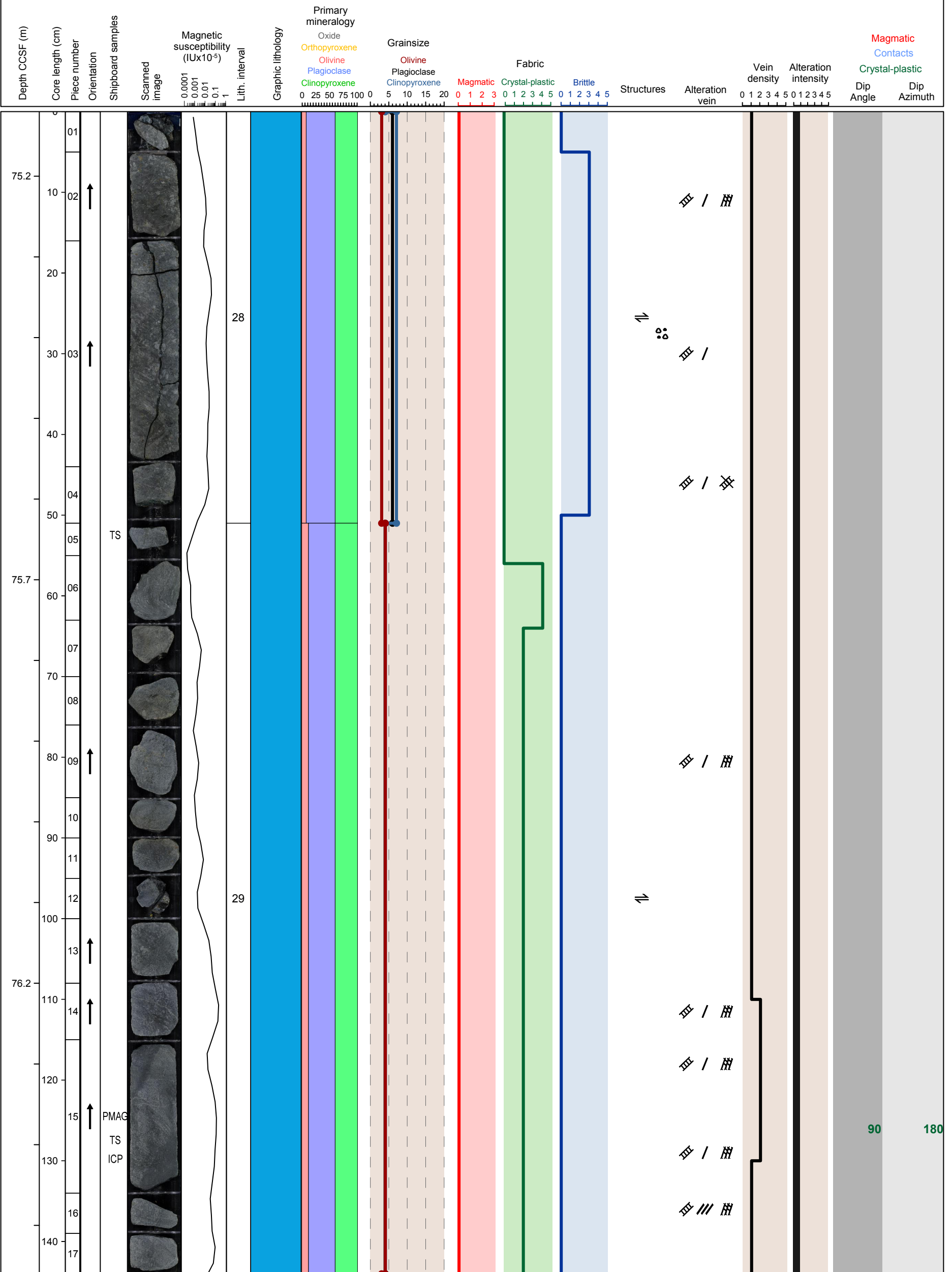


Hole 360-U1473A-9R Section 4, Top of Section: 75.12 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subop[hitic olivine gabbro (interval 28) and medium grained granular olivine gabbro (interval 29)

Metamorphic Petrology: Static background alteration intensity is slight. In some areas, there is a wide development of brownish clay.

Structural Geology: The contact is vertical between fine grained and medium grained gabbro. The foliation is within the fine grained gabbro and vertical to sub-vertical. The amphibole vein at 117 cm crosscuts and shears the crystal plastic fabric.

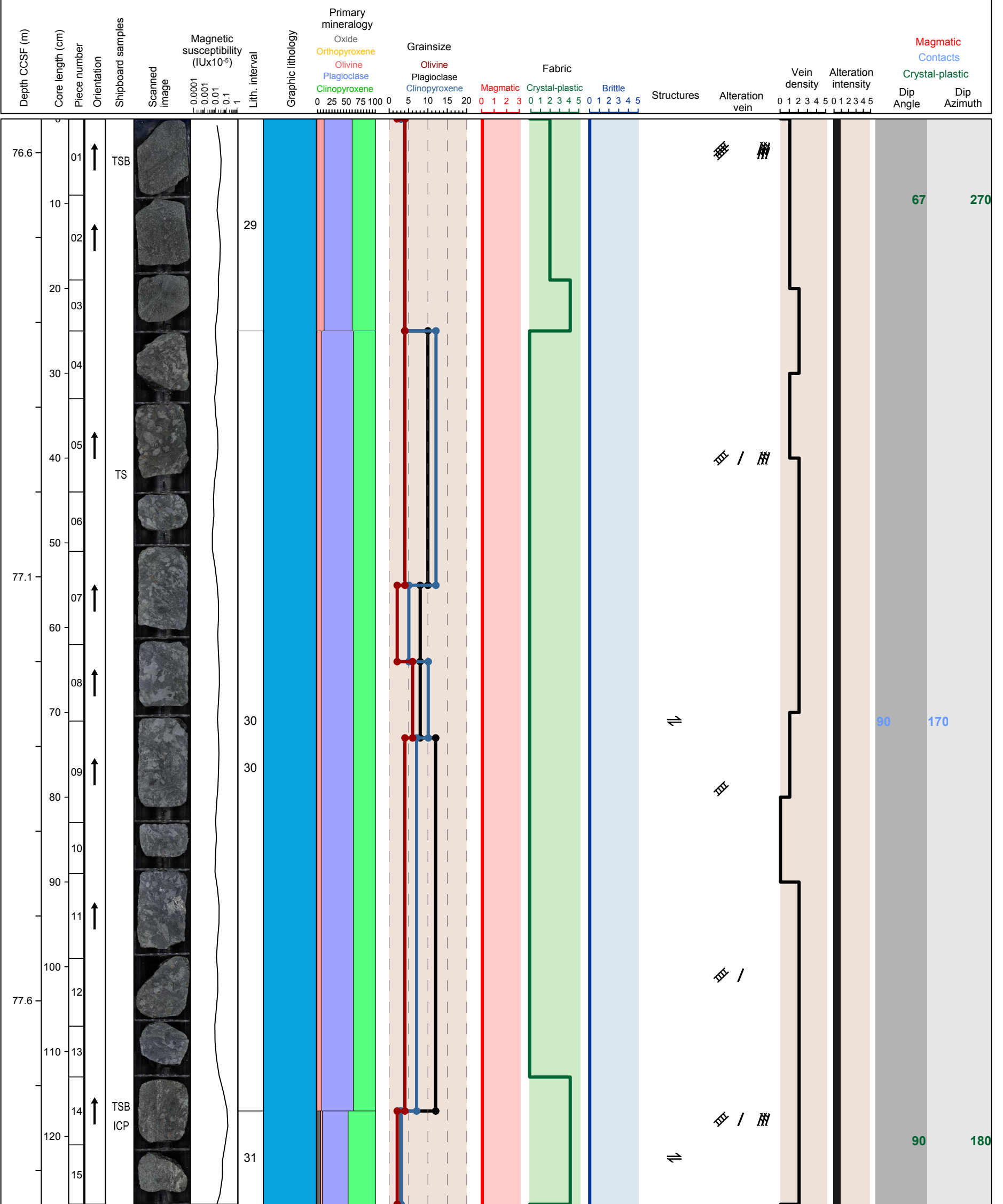


Hole 360-U1473A-9R Section 5, Top of Section: 76.56 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 29), coarse grained subophitic olivine gabbro (interval 30) and medium grained granular olivine-bearing oxide gabbro

Metamorphic Petrology: Static background alteration intensity is slight. Alteration is mostly represented by olivine replacement by brownish clay and by amphibole coronas around pyroxene. Alteration of mylonitic areas at the top and bottom is similar to the rest of the section.

Structural Geology: Sheared contact between fine and coarse grained zones. The crystal plastic fabric is sub-vertical with plagioclase rich mylonites and porphyroclastic gabbro.

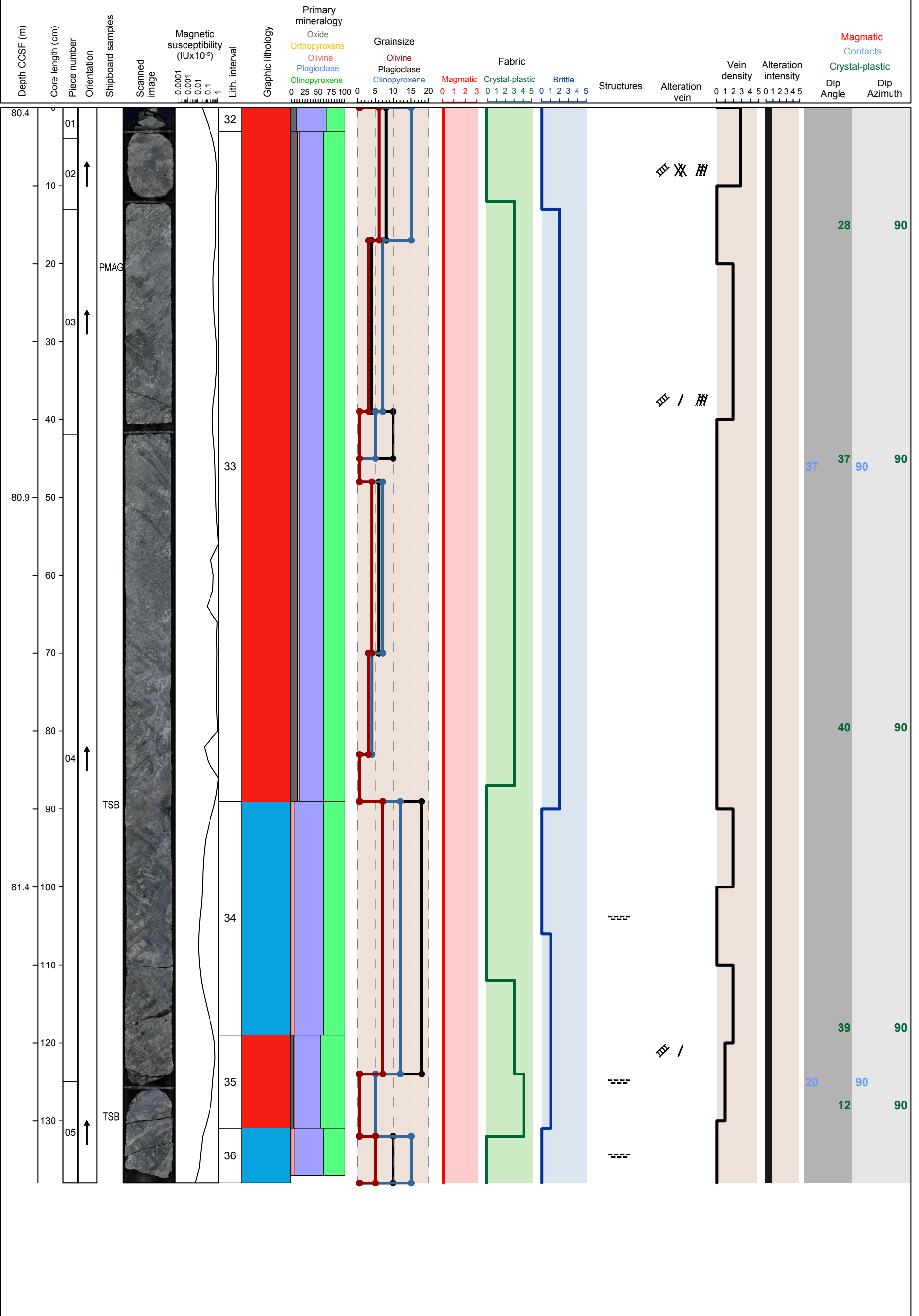


Hole 360-U1473A-10R Section 1, Top of Section: 80.4 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 33), coarse grained subophitic olivine gabbro (interval 34), coarse grained granular oxide gabbro (interval 35), coarse grained subophitic olivine gabbro (interval 36) and small amount of fine grained granular oxide gabbro (interval 32)

Metamorphic Petrology: Static background alteration intensity is slight with few areas of intense alteration. These zones are usually associated with halos and lithology contacts.

Structural Geology: The contacts are moderately dipping and are gradational between undeformed and deformed intervals. The crystal plastic fabric has a moderate dip. The fracture zone located between two shear zones (13-90 cm) is defined by microfractures in plagioclase.

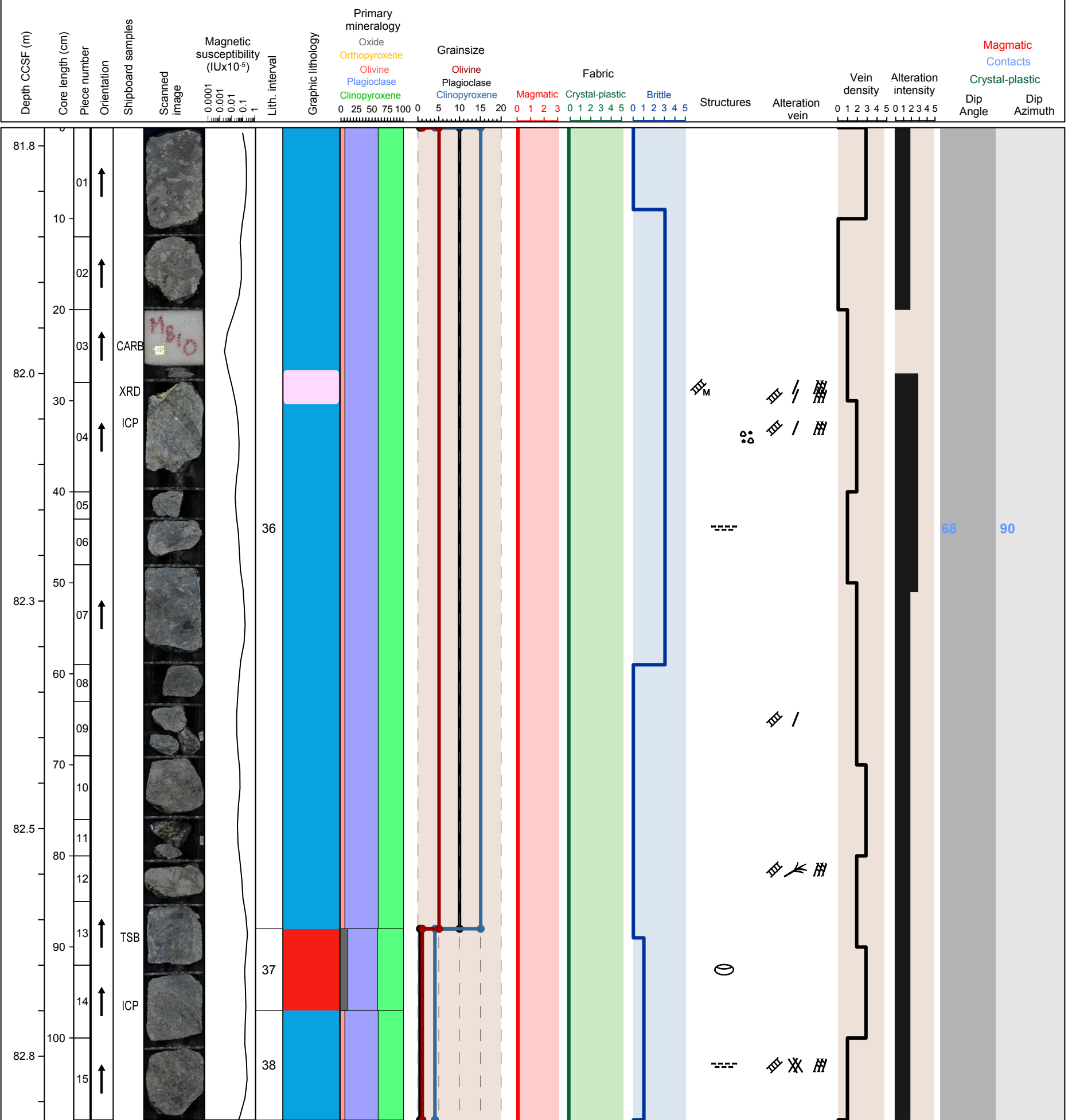


Hole 360-U1473A-10R Section 2, Top of Section: 81.78 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 36), medium grained granular amphibole oxide gabbro (interval 37) and coarse grained subophitic olivine gabbro (interval 38)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial. The area with substantial alteration is associated with a halo.

Structural Geology:

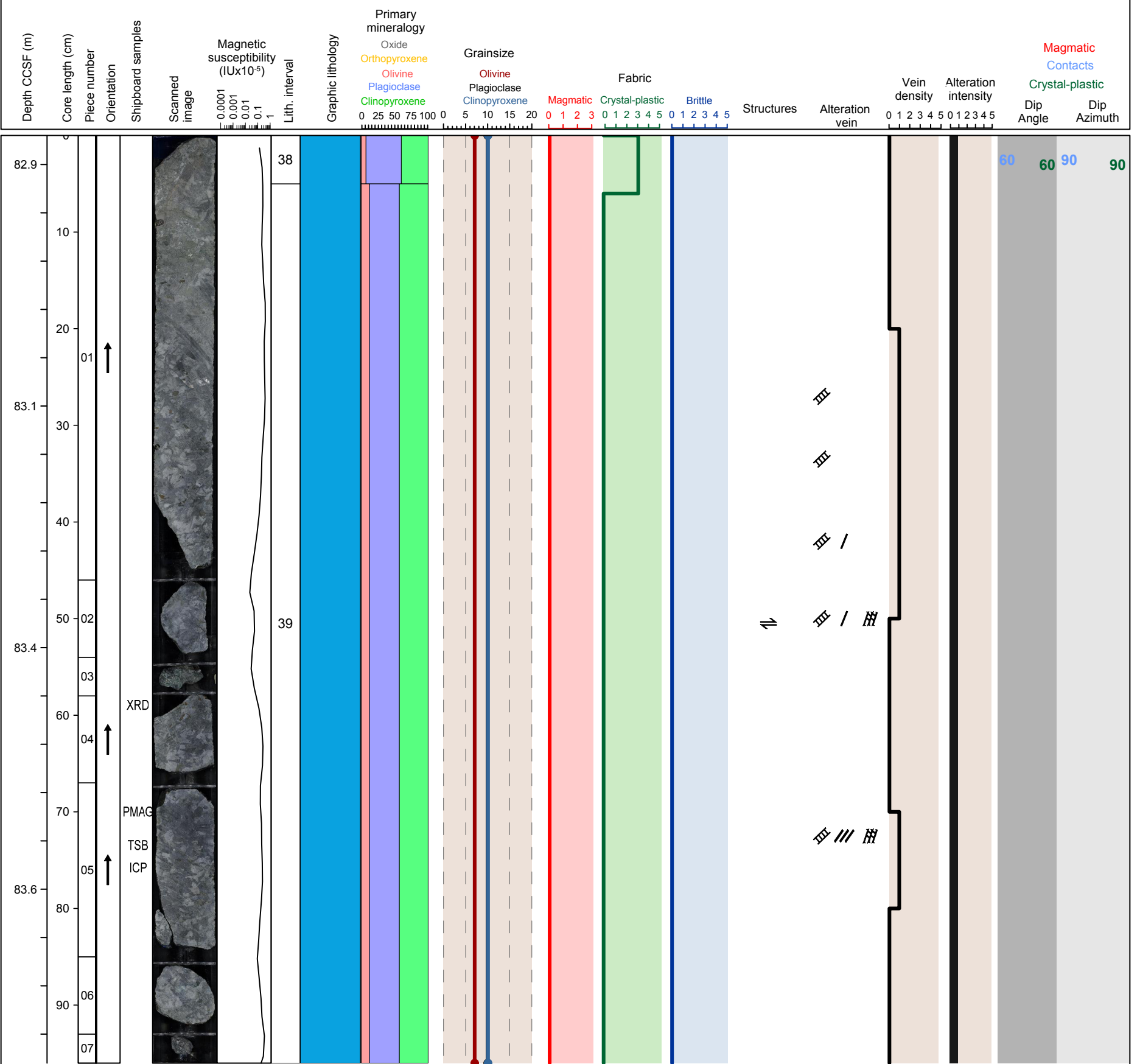


Hole 360-U1473A-10R Section 3, Top of Section: 82.87 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 38) and coarse grained granular olivine gabbro (interval 39)

Metamorphic Petrology: Static background alteration intensity is slight with few areas of increased olivine replacement by clays near veins.

Structural Geology: The contact between deformed and undeformed gabbro is sheared and moderately dipping.

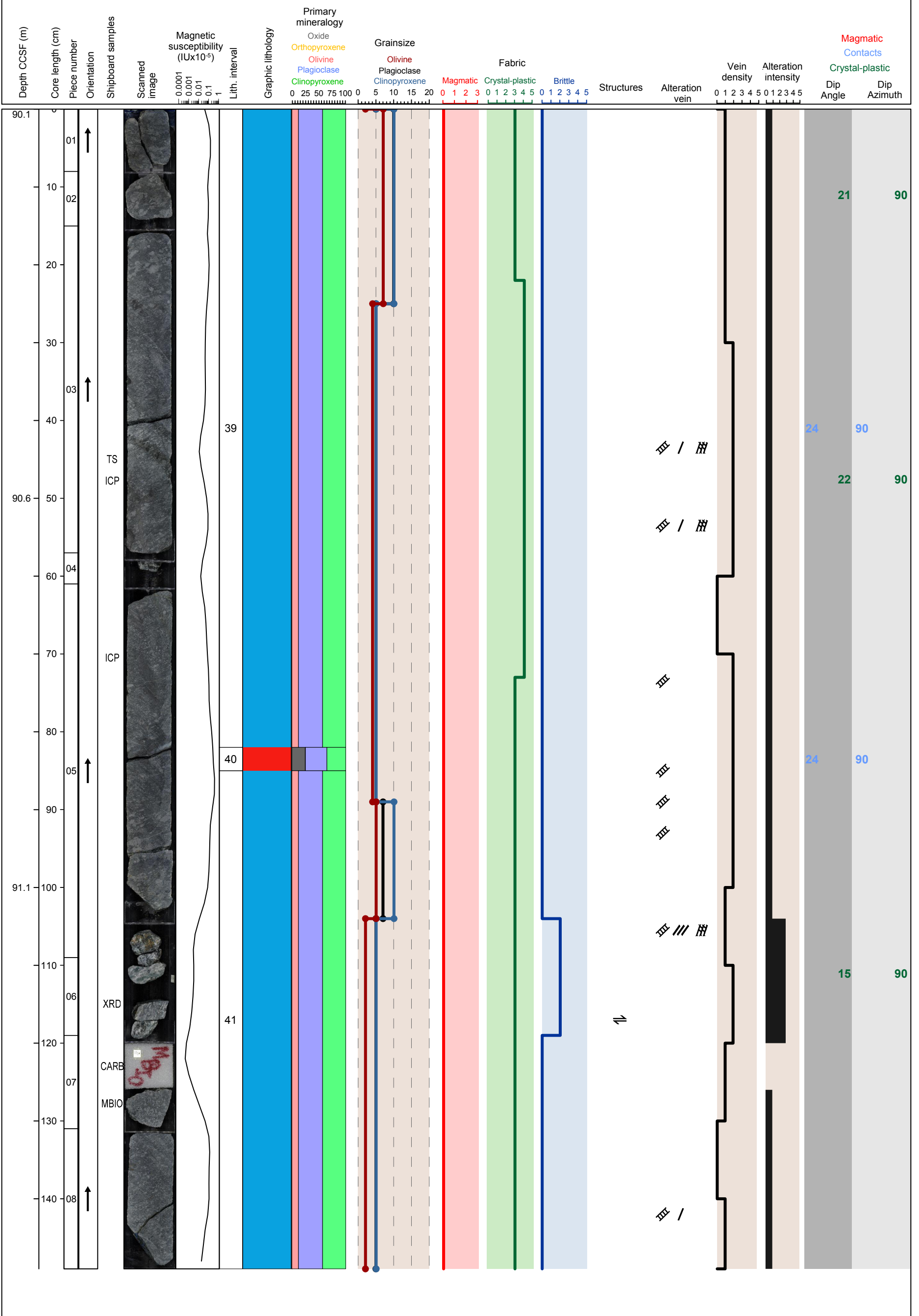


Hole 360-U1473A-11R Section 1, Top of Section: 90.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 39 and 41) and coarse grained deformed oxide gabbro (interval 40)

Metamorphic Petrology: Static background alteration intensity is slight to substantial. Secondary plagioclase is abundant in the halo. Substantial altered interval could be a halo.

Structural Geology: There is grain size layering that dips moderately. The alteration veins are massive, inclined, and have a halo.

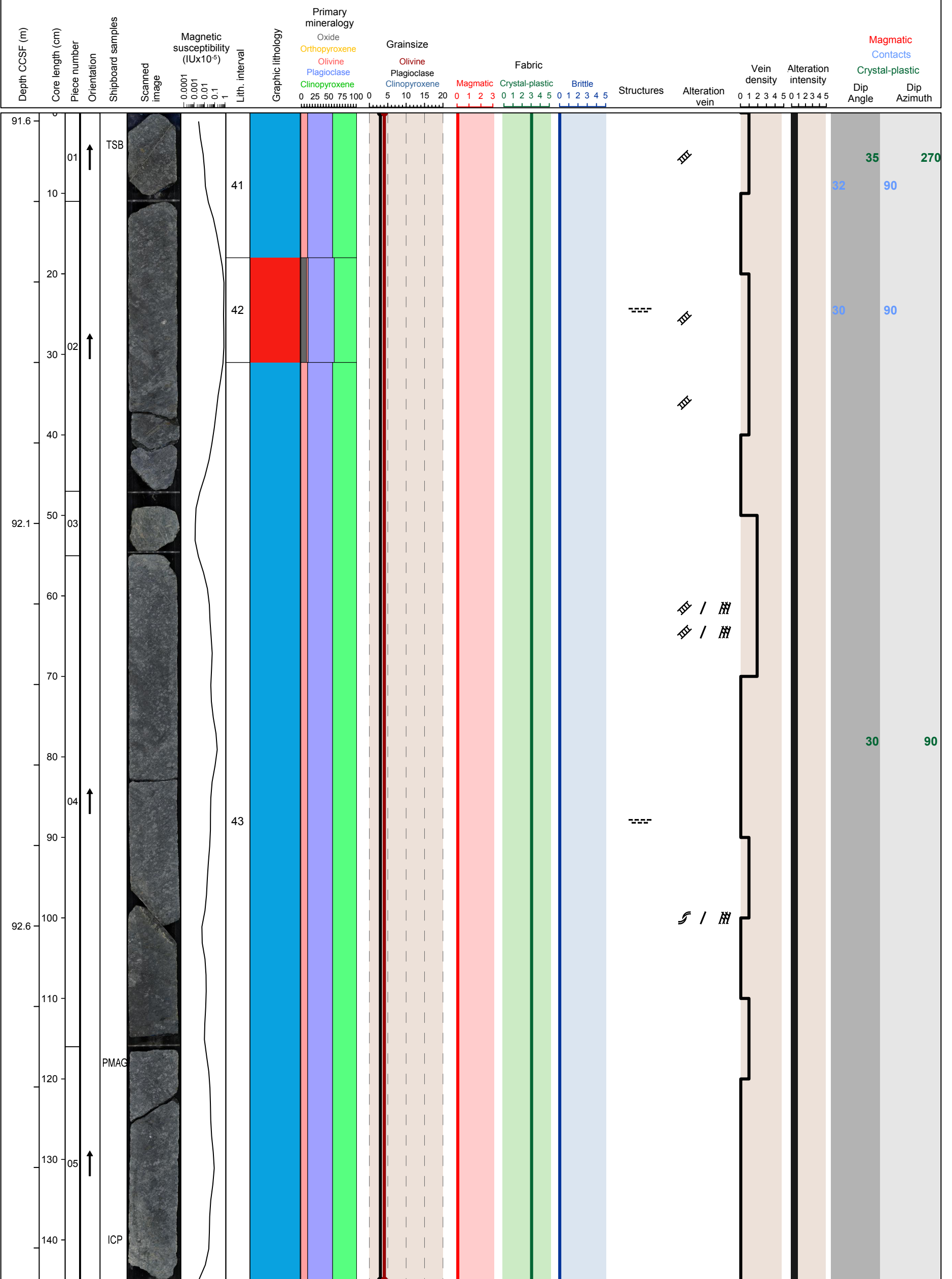


Hole 360-U1473A-11R Section 2, Top of Section: 91.59 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 41 and 43 domain 1), coarse grained granular olivine bearing oxide gabbro (interval 42) and coarse grained granular oxide gabbro (interval 43 domain 2)

Metamorphic Petrology: Static background alteration intensity is slight to moderate. Secondary plagioclase is abundant in halos.

Structural Geology: The crystal plastic fabric is moderately inclined. The hybrid vein is fractured and has moderately plunging slickenlines at 101 cm.

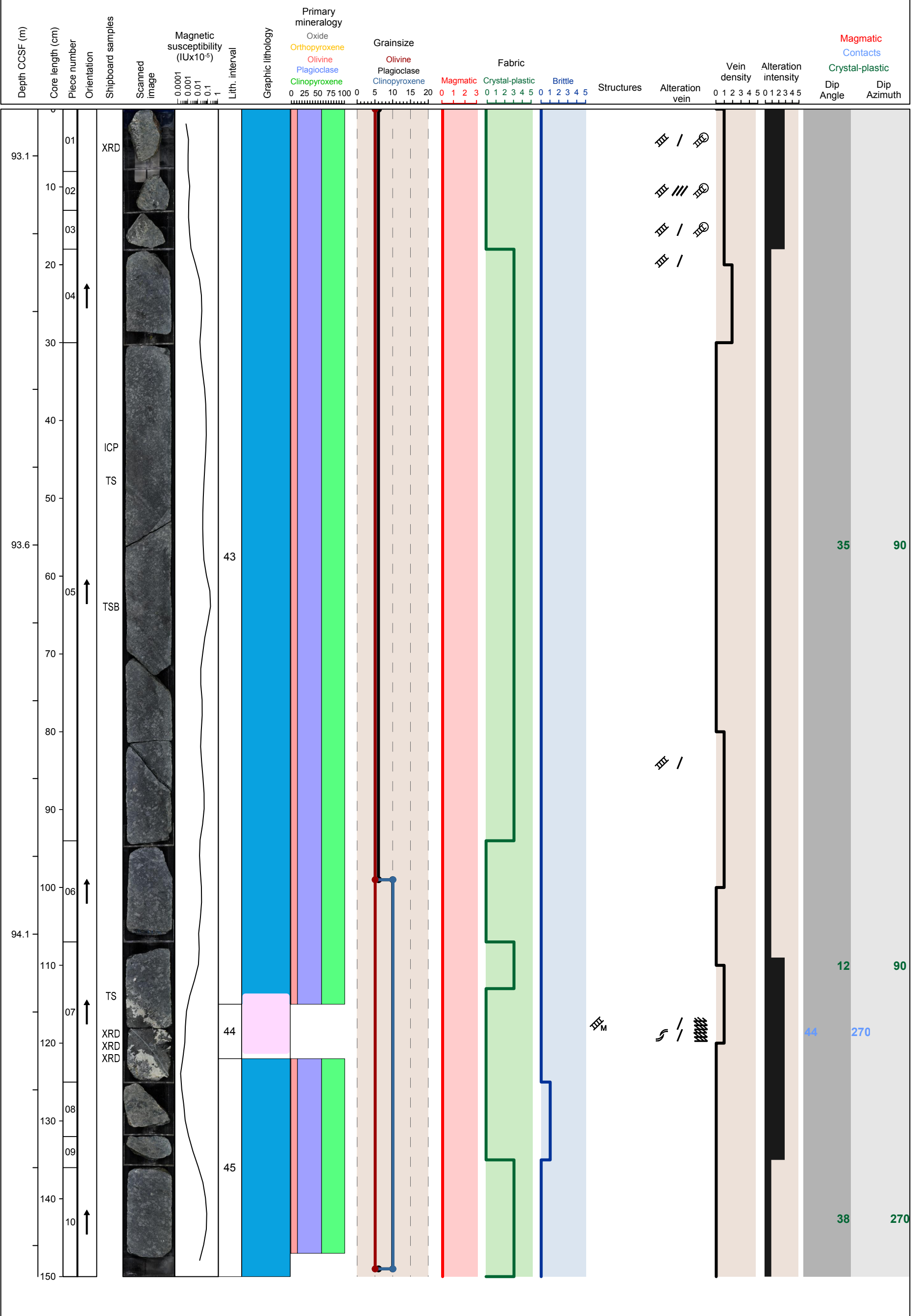


Hole 360-U1473A-11R Section 3, Top of Section: 93.04 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro with oxide gabbro domain (interval 43 and 45) and coarse grained granular diorite vein (interval 44)

Metamorphic Petrology: Static background alteration intensity is slight to substantial. This section includes wide vein and halo.

Structural Geology: The contact has a moderate dip. The layering is gneissic with a moderate to shallow dip. The vein is hybrid, steeply dipping, and has a halo. There is a fracture with slickenlines that are moderately plunging at 19 cm.

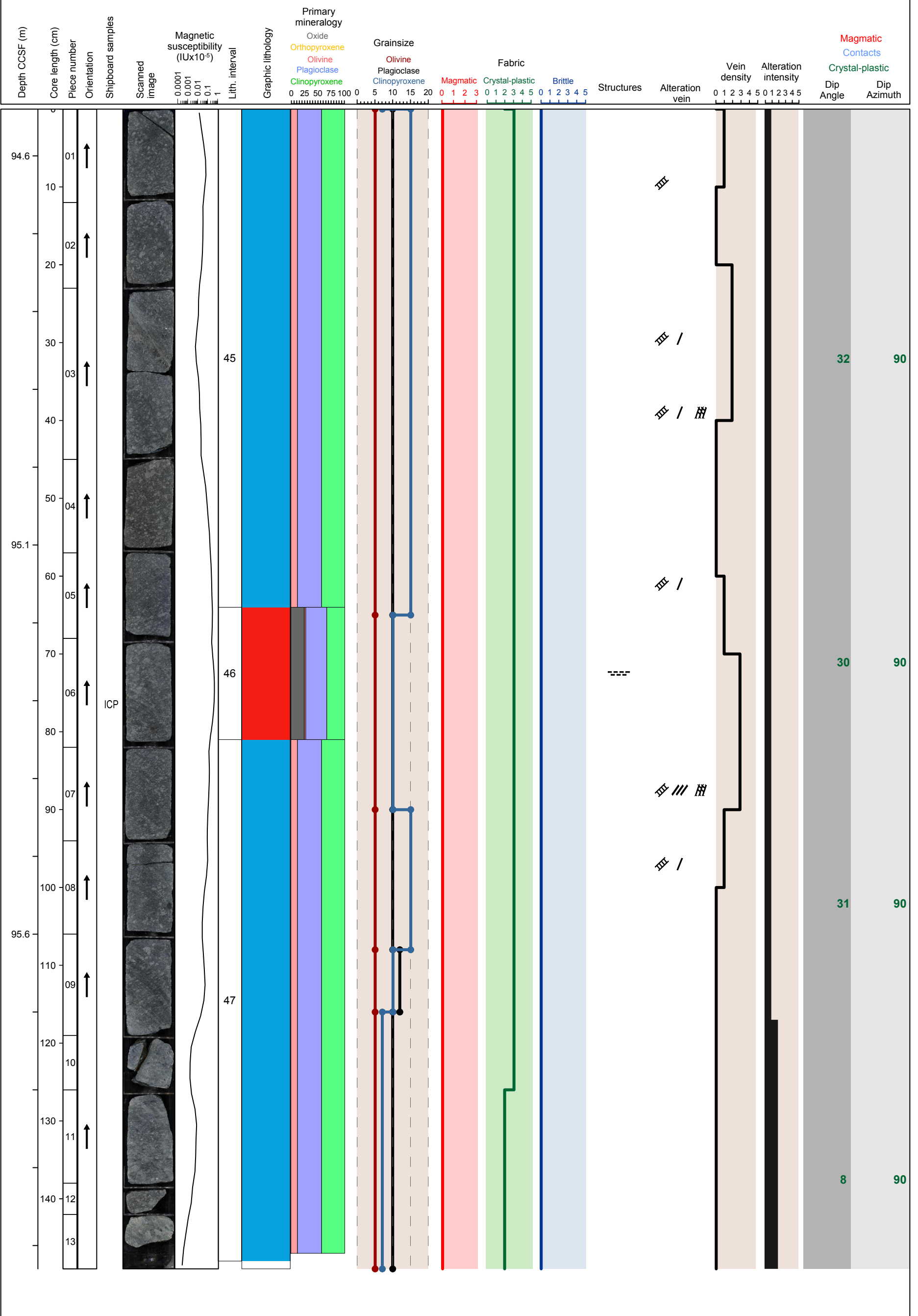


Hole 360-U1473A-11R Section 4, Top of Section: 94.54 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 45 domain 1 and interval 47), coarse grained granular oxide gabbro (interval 45 domain 2) and coarse grained granular olivine bearing oxide gabbro (interval 46)

Metamorphic Petrology: Static background alteration intensity is slight to moderate.

Structural Geology: The crystal plastic foliation has a shallow dip. The vein is inclined and filled with amphibole.

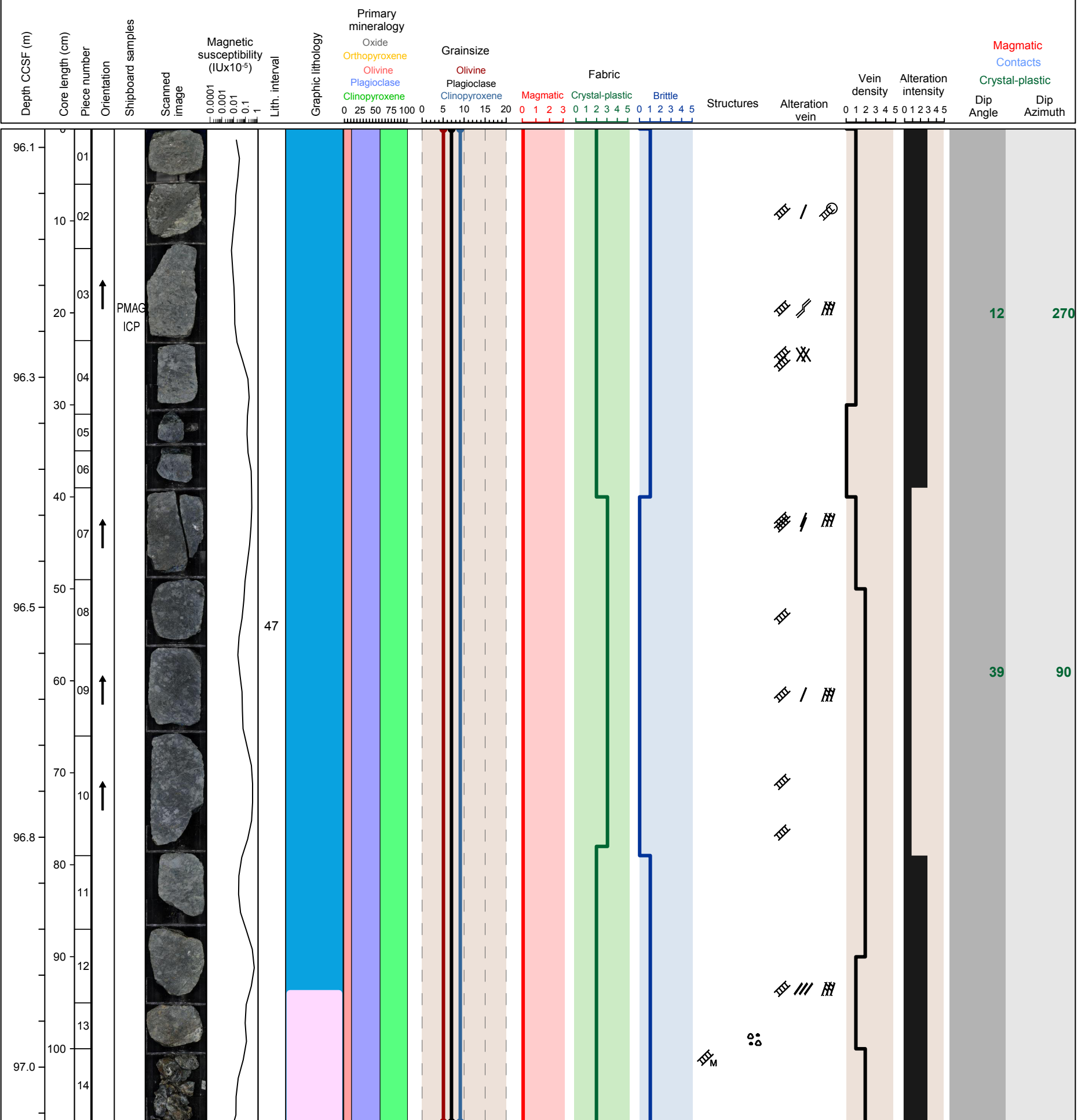


Hole 360-U1473A-11R Section 5, Top of Section: 96.03 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 47) and intrusive coarse grained comb textured diorite magmatic vein (interval 48)

Metamorphic Petrology: Static background alteration intensity is mostly substantial. Olivine is mostly replaced by amphibole and plagioclase by chlorite. The middle part of the section is only slightly altered.

Structural Geology:

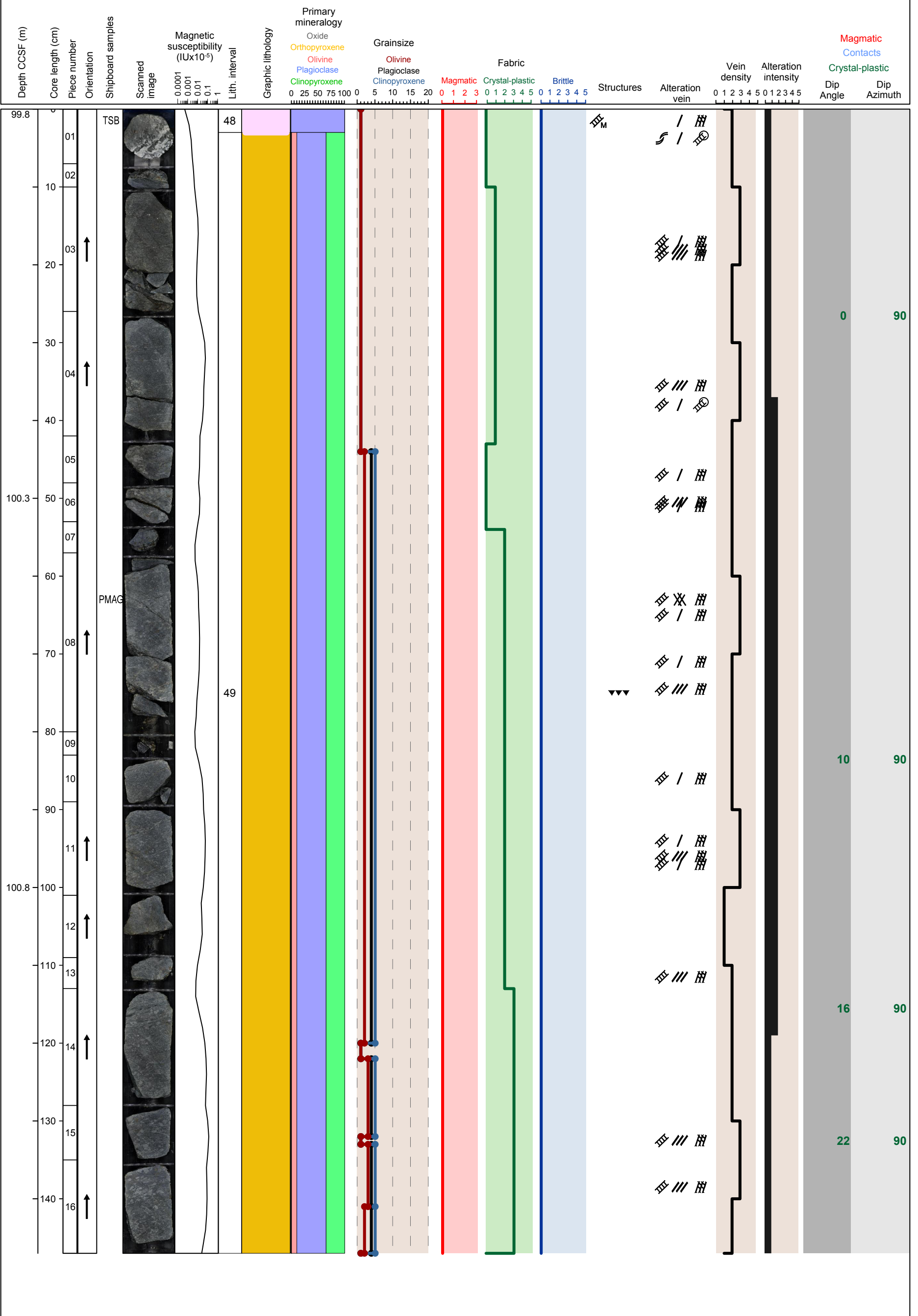


Hole 360-U1473A-12R Section 1, Top of Section: 99.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: intrusive coarse grained comb textured diorite magmatic vein (interval 48) , medium grained granular disseminated oxide olivine gabbro (interval 49)

Metamorphic Petrology: Static background alteration intensity ranges from slight to moderate. Higher degree of alteration is associated with areas around veins.

Structural Geology: The crystal plastic fabric is fine grained and sub-horizontal. The fracture at 42 cm has moderately dipping amphibole slickenlines.

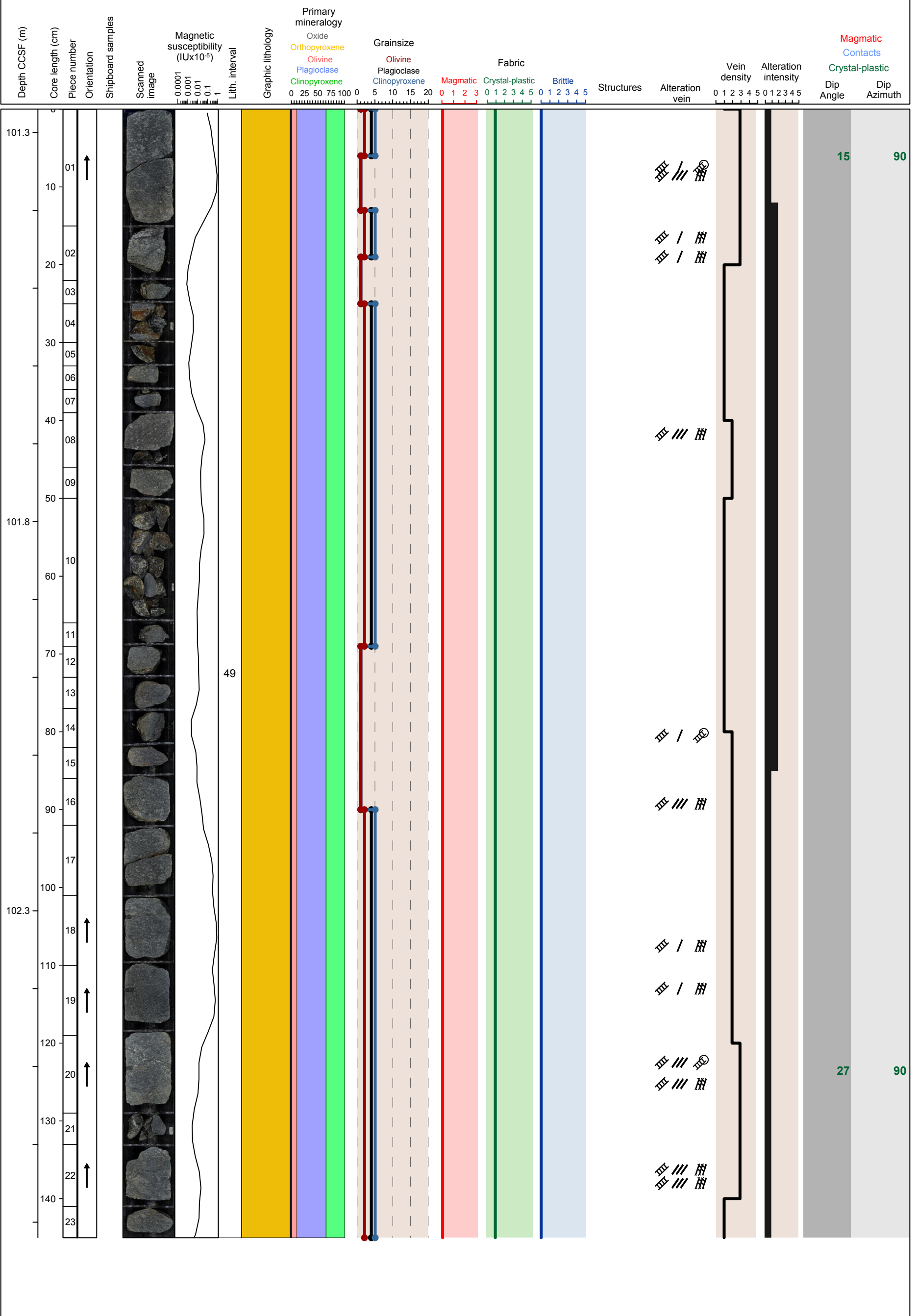


Hole 360-U1473A-12R Section 2, Top of Section: 101.27 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular disseminated oxide olivine gabbro (interval 49)

Metamorphic Petrology: Static background alteration intensity ranges from slight to moderate. Higher degree of alteration is associated with areas around veins and low recovery.

Structural Geology: Alternation of fine and coarse grained foliated zones that have a sub-horizontal dip.

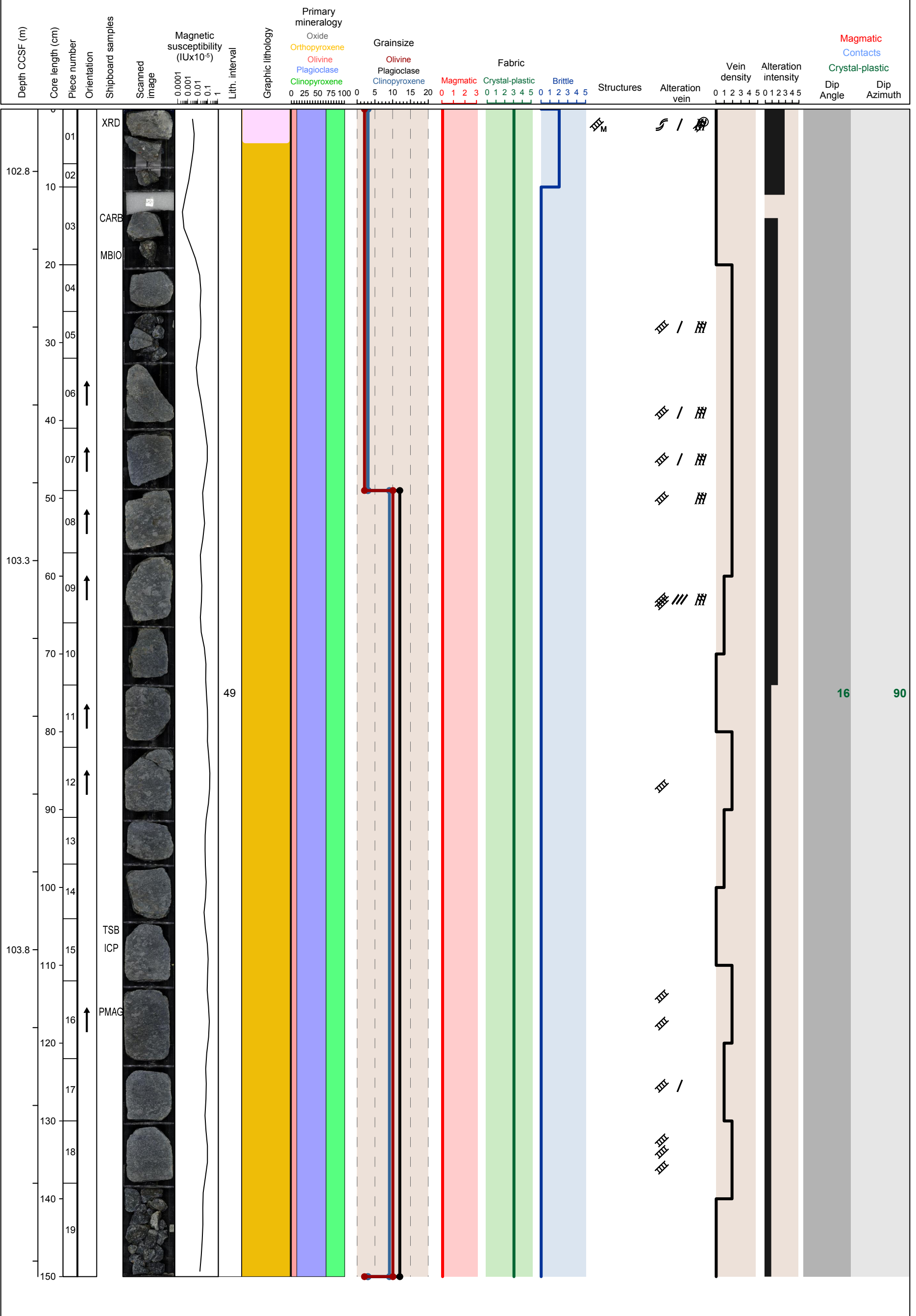


Hole 360-U1473A-12R Section 3, Top of Section: 102.72 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular disseminated oxide olivine gabbro (interval 49)

Metamorphic Petrology: Static background alteration ranges from slight to substantial. Alteration degree decreases downhole throughout the section.

Structural Geology: Fine and coarse grained foliation that dip shallowly. At 131 cm the fracture has moderately plunging slickenlines.

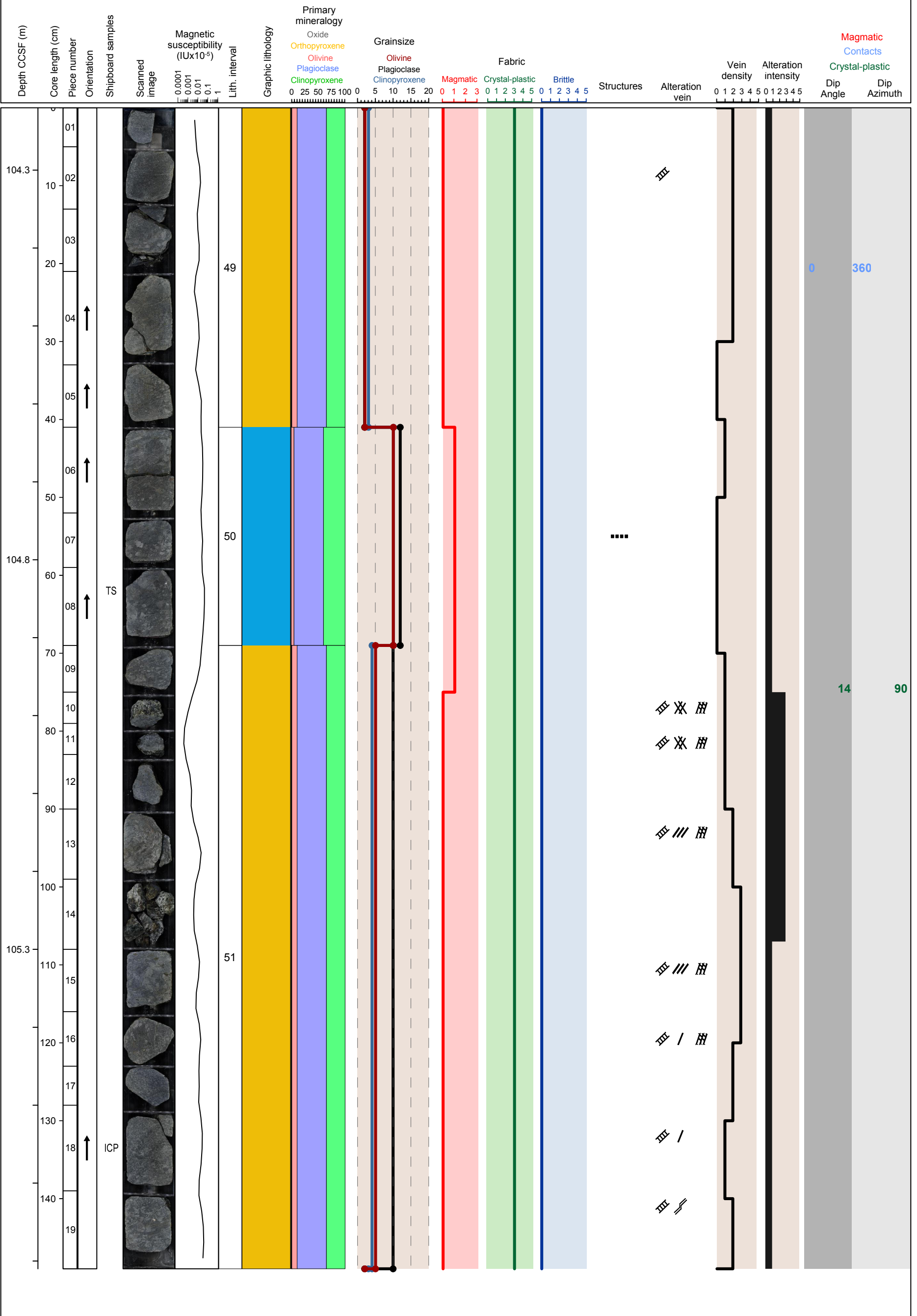


Hole 360-U1473A-12R Section 4, Top of Section: 104.22 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular disseminated oxide olivine gabbro (interval 49) , deformed coarse grained granular olivine gabbro (interval 50) and deformed medium grained granular disseminated oxide olivine gabbro (interval 51)

Metamorphic Petrology: Static background alteration intensity is mostly slight. Substantial alteration occurs in the middle of the section and is related to amphibole veining.

Structural Geology: The magmatic fabric is defined by grain size layering of plagioclase and pyroxene. The crystal plastic fabric is composed of alternating fine and coarse grained shear zones and shallowly dipping. At 95 cm the crystal plastic fabric is sub-vertical.

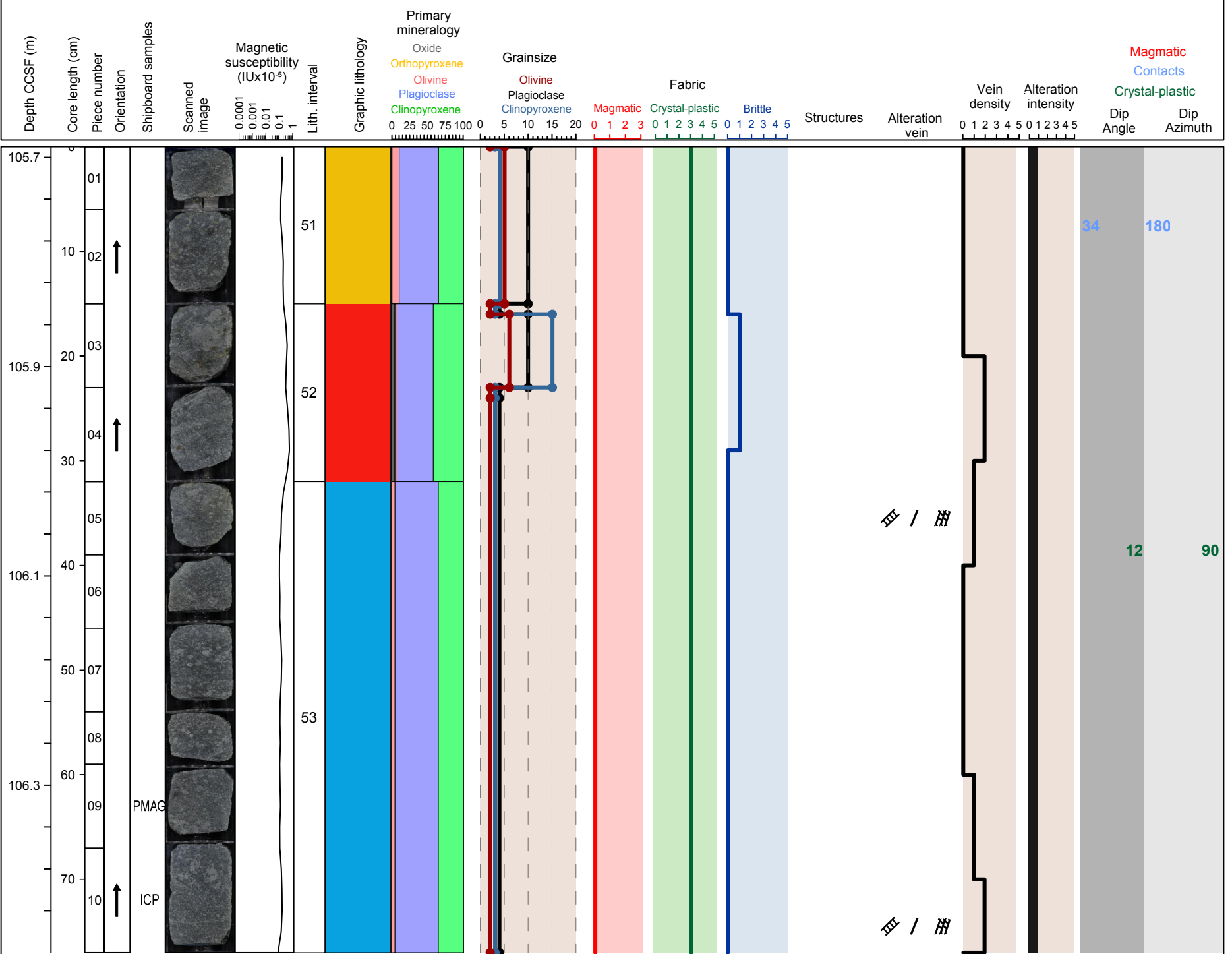


Hole 360-U1473A-12R Section 5, Top of Section: 105.71 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: deformed medium grained granular disseminated oxide olivine gabbro (interval 51) and coarse grained subophitic olivine-bearing oxide gabbro (interval 52) and medium grained granular olivine gabbro (interval 53)

Metamorphic Petrology: Static background alteration intensity is slight. Olivine and plagioclase is slightly more altered at the upper part of the section.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip. The brittle deformation is defined by fractures in plagioclase and pyroxene.

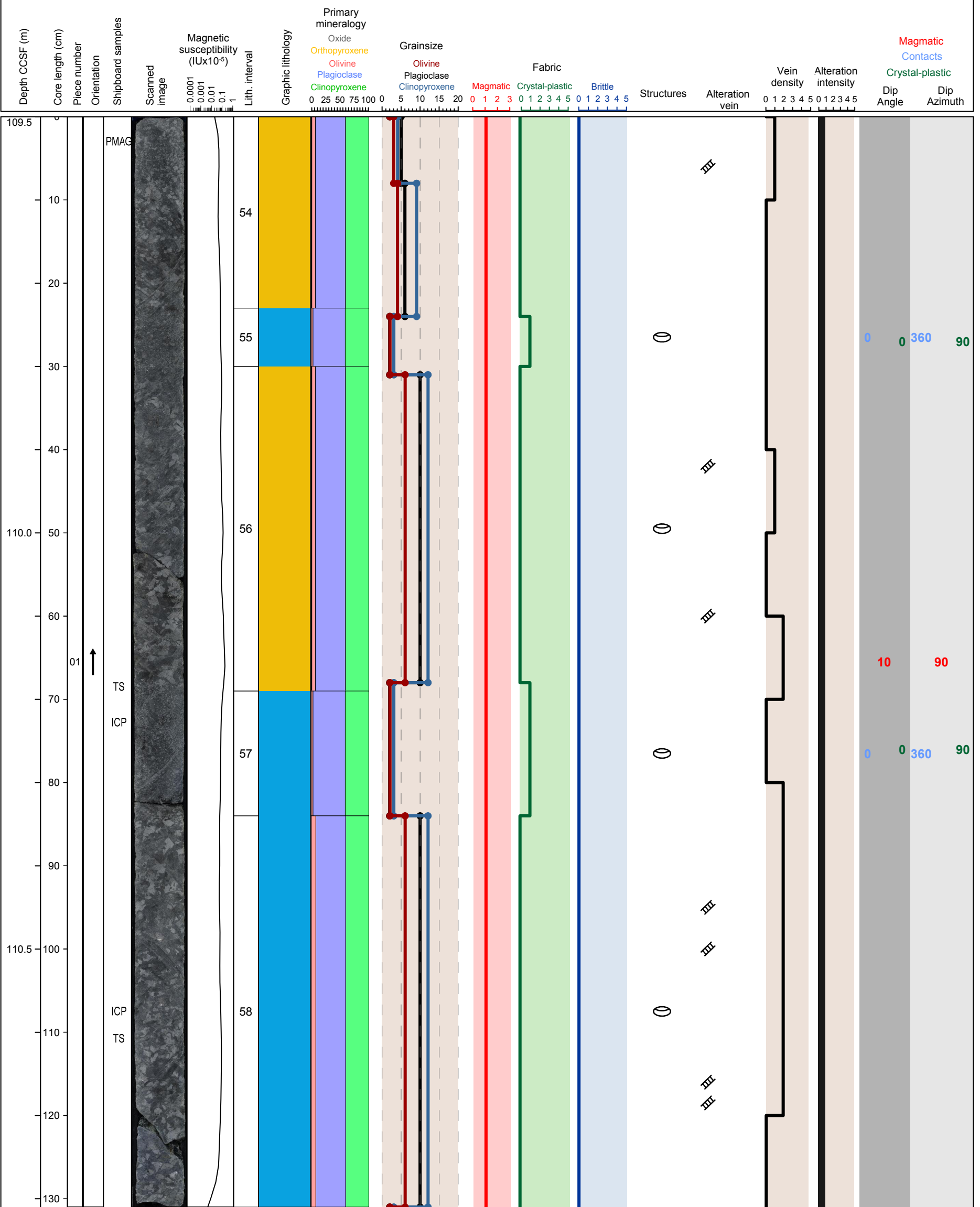


Hole 360-U1473A-13R Section 1, Top of Section: 109.5 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 54) and medium grained granular olivine bearing gabbro (interval 55) and coarse grained subophitic disseminated oxide olivine gabbro (interval 56) and medium grained granular olivine bearing gabbro (interval 57) and coarse grained subophitic olivine gabbro (interval 58)

Metamorphic Petrology: Static background alteration is slight and is related to partial olivine transformation into serpentine and to development of thin amphibole coronas around pyroxene. Plagioclase is fresh throughout the section.

Structural Geology: There is 10 cm thick grain size layering that has a magmatic fabric defined by plagioclase pyroxene.

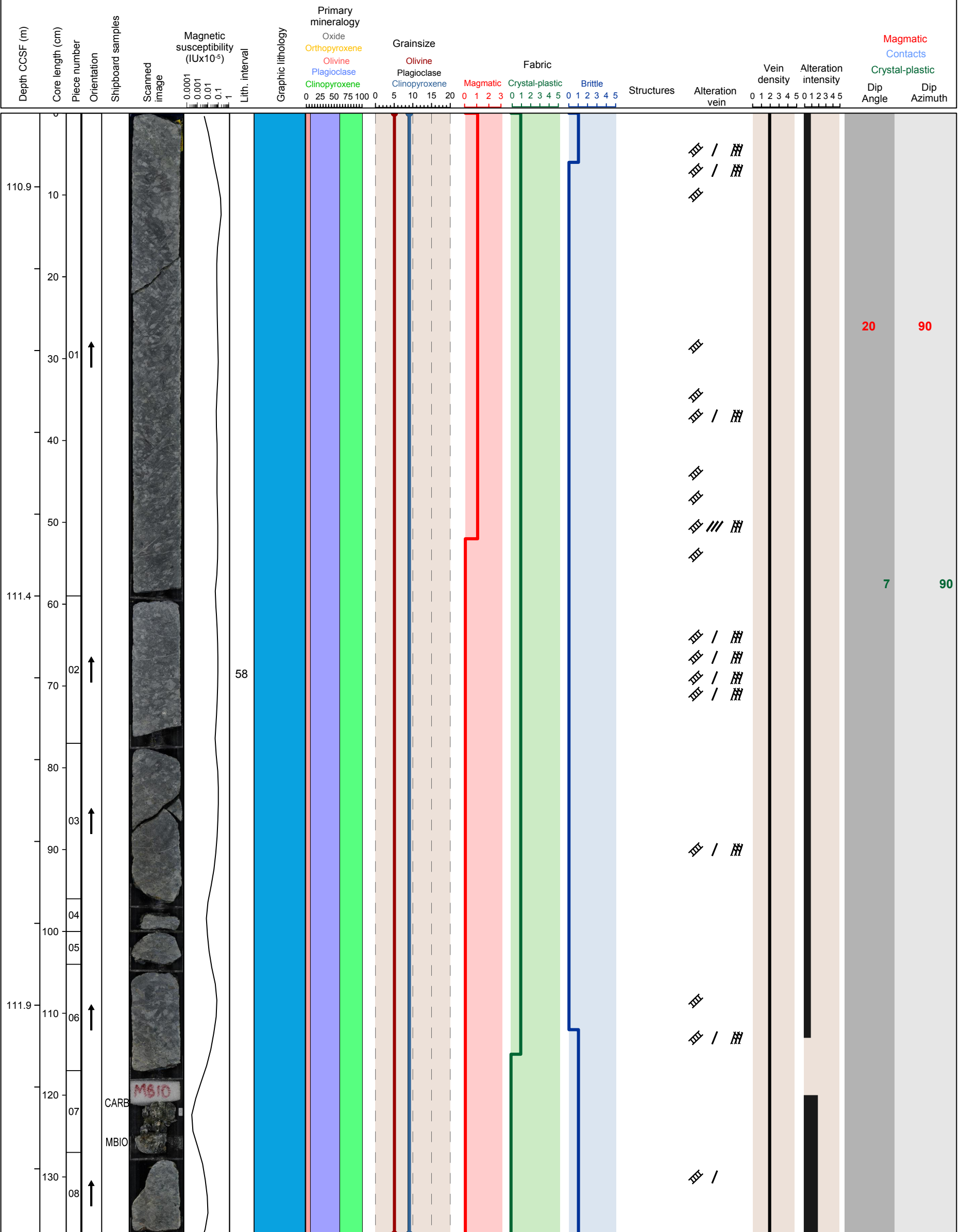


Hole 360-U1473A-13R Section 2, Top of Section: 110.81 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 58)

Metamorphic Petrology: Static background alteration is mostly slight. Substantial alteration intensity was observed at the lower part of the section and is associated with more intense amphibole vein density.

Structural Geology: The crystal plastic fabric is sub-horizontal crosscut by parallel sets of alteration veins. The magmatic fabric is inclined defined by plagioclase and pyroxene.

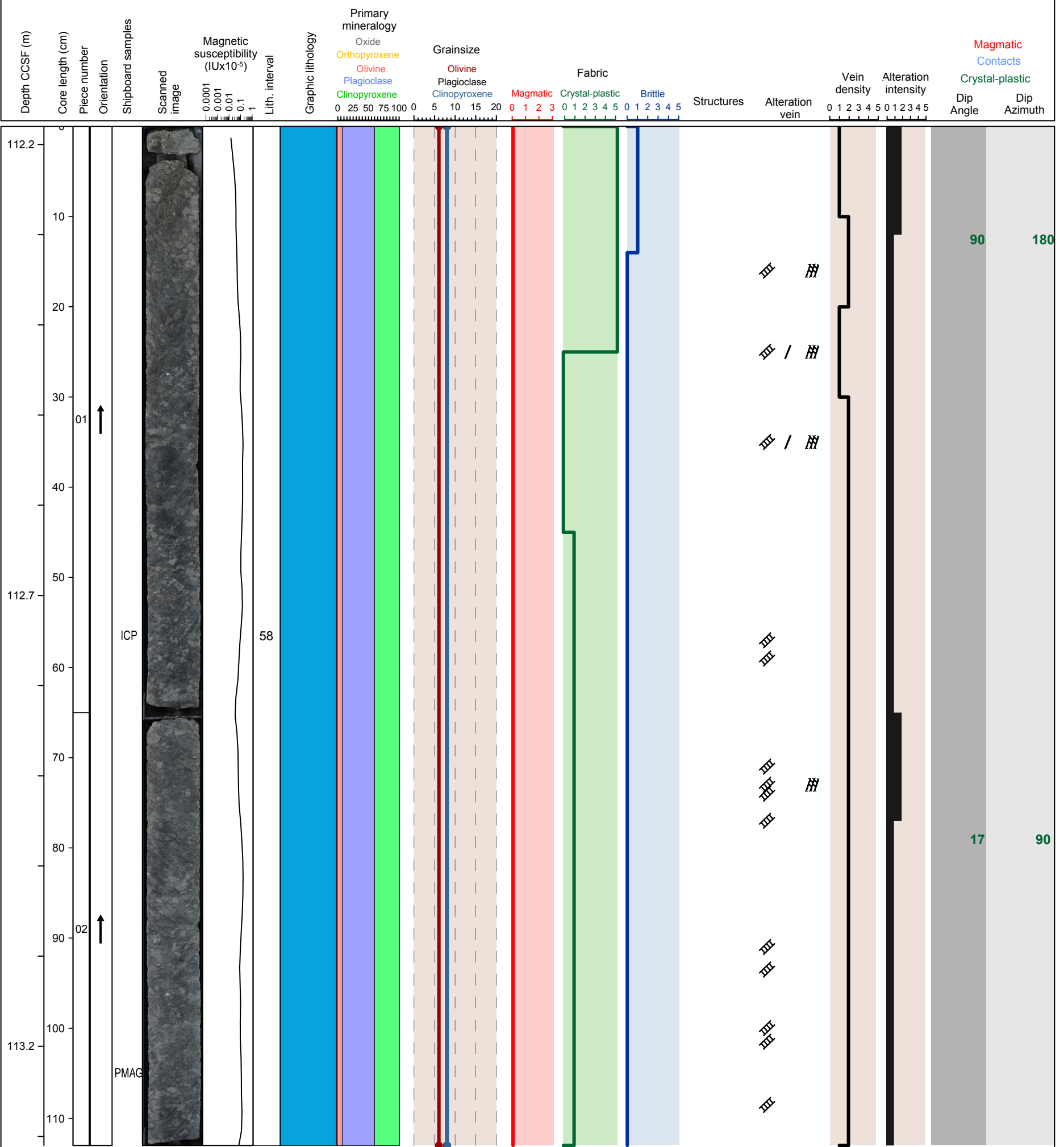


Hole 360-U1473A-13R Section 3, Top of Section: 112.18 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 58)

Metamorphic Petrology: Static background alteration is mostly slight. Intervals of moderate alteration is marked by brownish red clay replacement.

Structural Geology: There is a steep shear vein from 7-35 cm. There is a fracture on the back of piece 1a that has steeply plunging slickenlines.

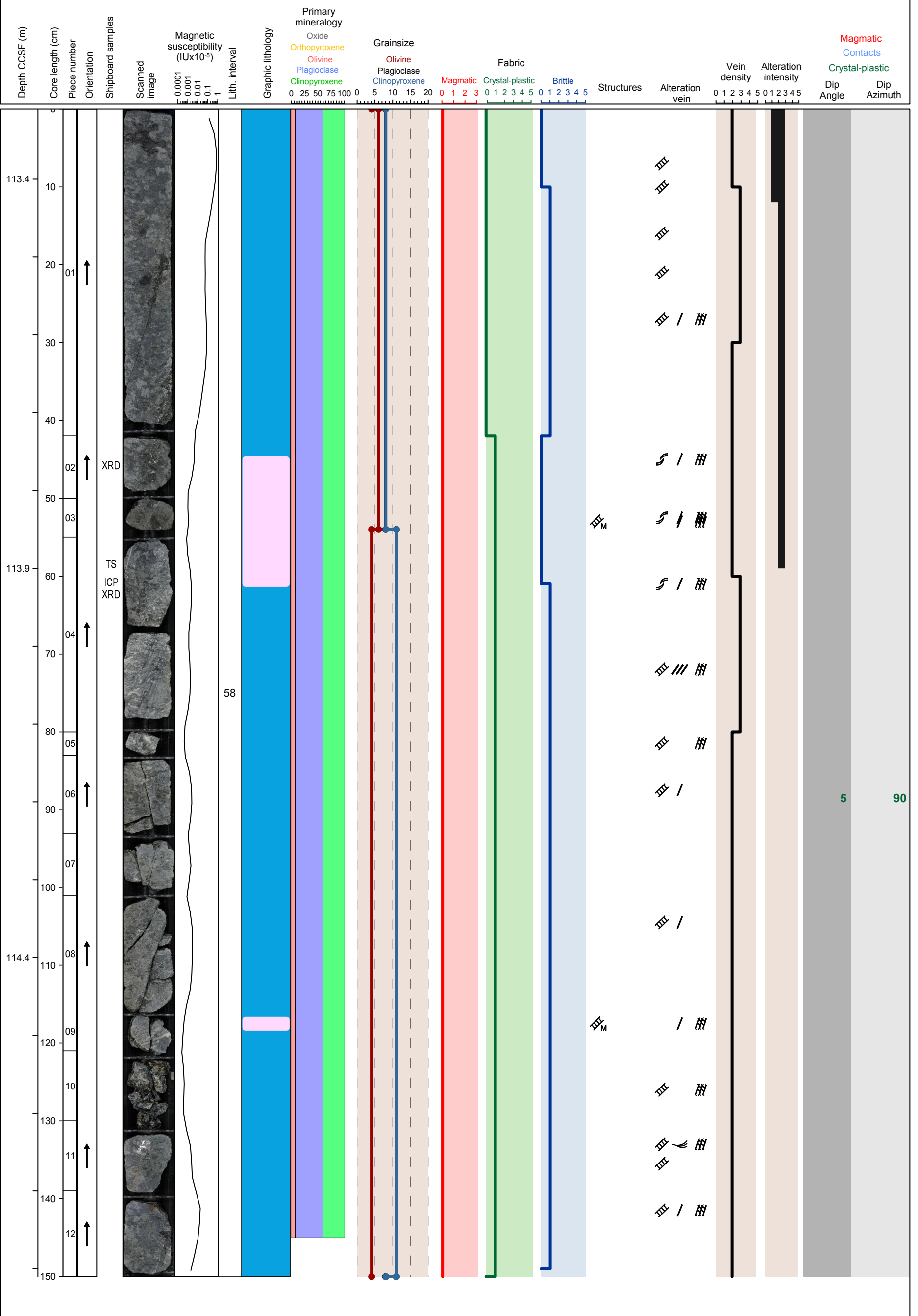


Hole 360-U1473A-13R Section 4, Top of Section: 113.31 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 58)

Metamorphic Petrology: Static background alteration varies from slight to substantial. The more intense alteration degree is associated with amphibole veining.

Structural Geology: The crystal plastic fabric is defined by coarse, polygonal recrystallized aggregates that have a sub-horizontal dip. The alteration veins are parallel, crosscut the crystal plastic fabric, and are filled with pegmatitic amphibole.

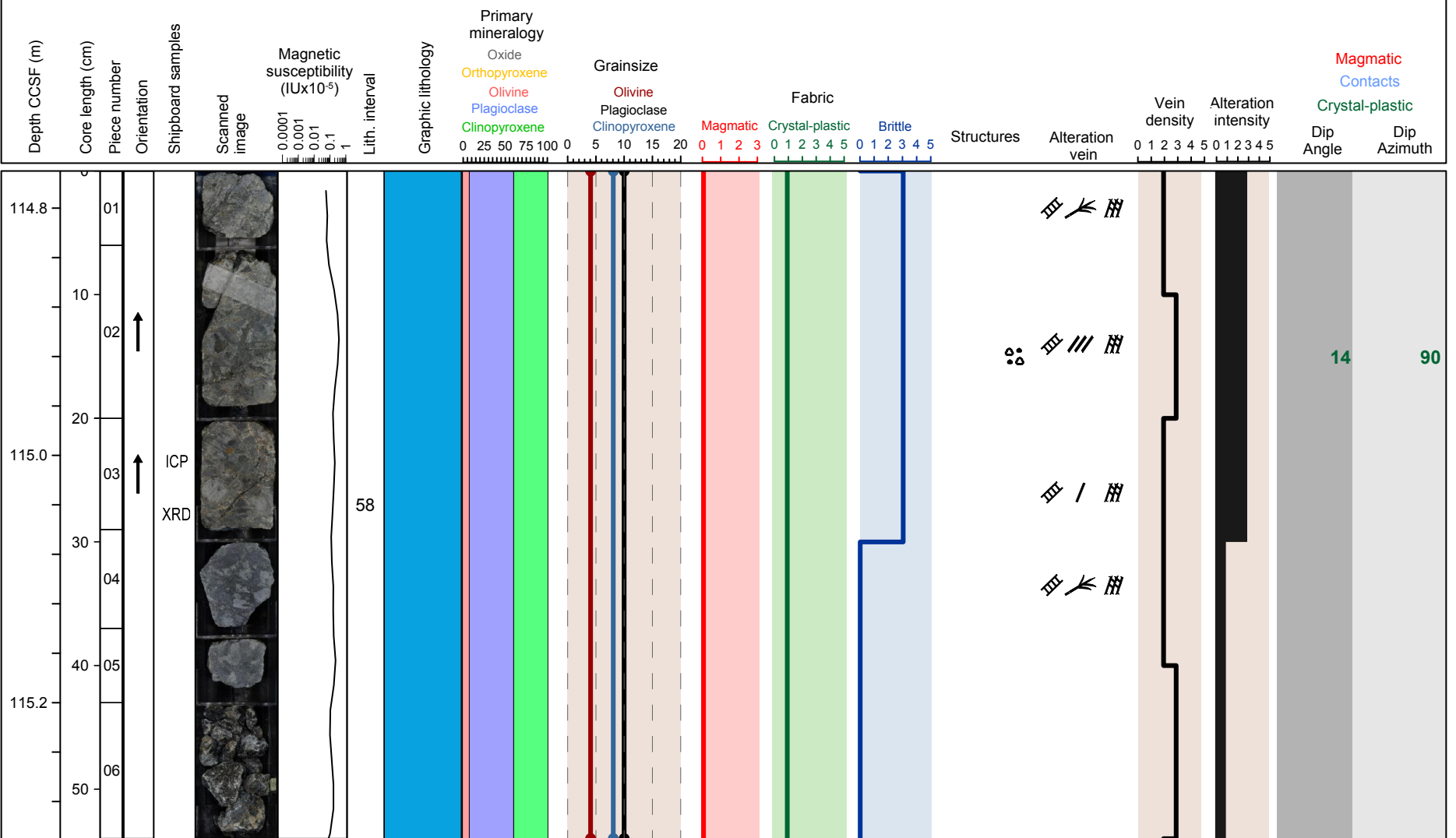


Hole 360-U1473A-13R Section 5, Top of Section: 114.81 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 58)

Metamorphic Petrology: Static background alteration intensity is slight to moderate. Top part of the section is more intense altered.

Structural Geology: The crystal plastic fabric is sub-horizontal and crosscut by veins. The fracture at 7 cm has amphibole slickenlines with a moderate plunge.

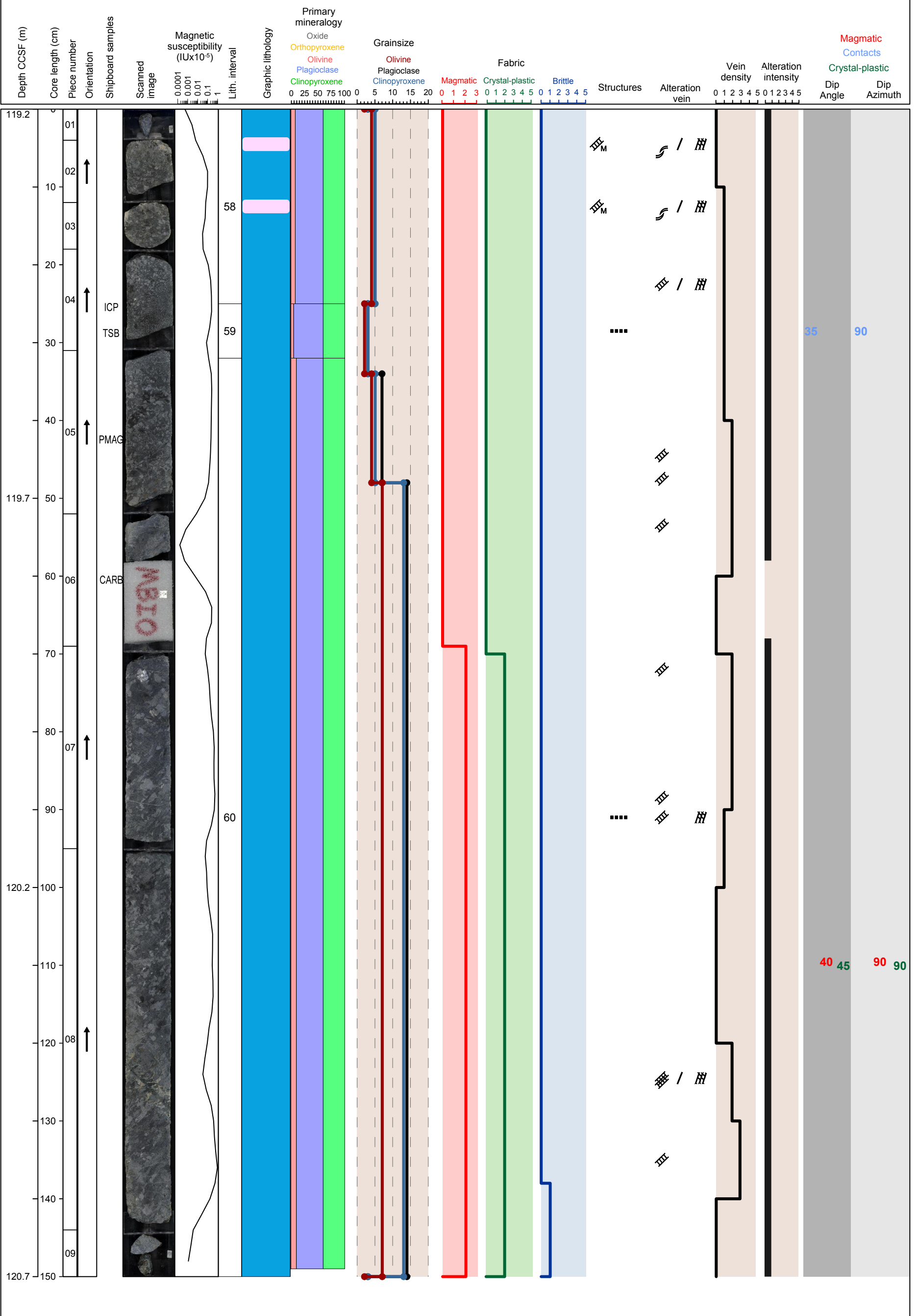


Hole 360-U1473A-14R Section 1, Top of Section: 119.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 58) and medium grained granular olivine gabbro (interval 59) and coarse grained subophitic olivine gabbro (interval 60)

Metamorphic Petrology: Static background alteration intensity is slight; more intense alteration occurs in halos.

Structural Geology: There is grain size layering. The foliations are moderately dipping with a moderate magmatic fabric overprinted by a weak crystal plastic fabric. The veins are steeply dipping filled with amphibole and have a halo. The fracture at 142 cm on the back of the piece has moderately plunging slickenlines.

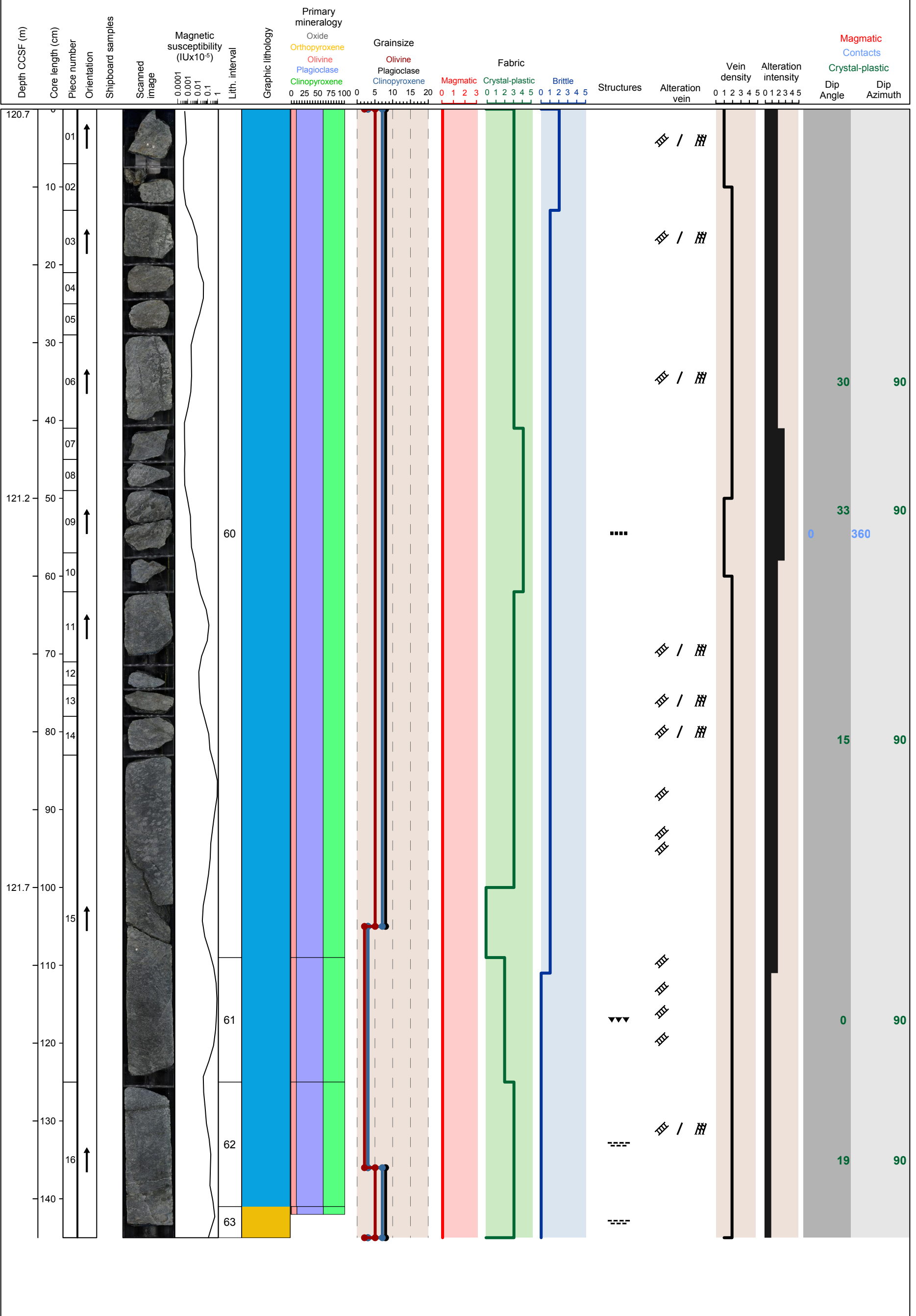


Hole 360-U1473A-14R Section 2, Top of Section: 120.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 60, 61 and 62) and coarse grained subophitic disseminated oxide olivine gabbro (interval 63)

Metamorphic Petrology: Static background alteration intensity is slight to substantial; more intense alteration occurs in halos.

Structural Geology: The crystal plastic fabric changes dip with depth from moderate to sub-horizontal. The vein is vertical with a halo.

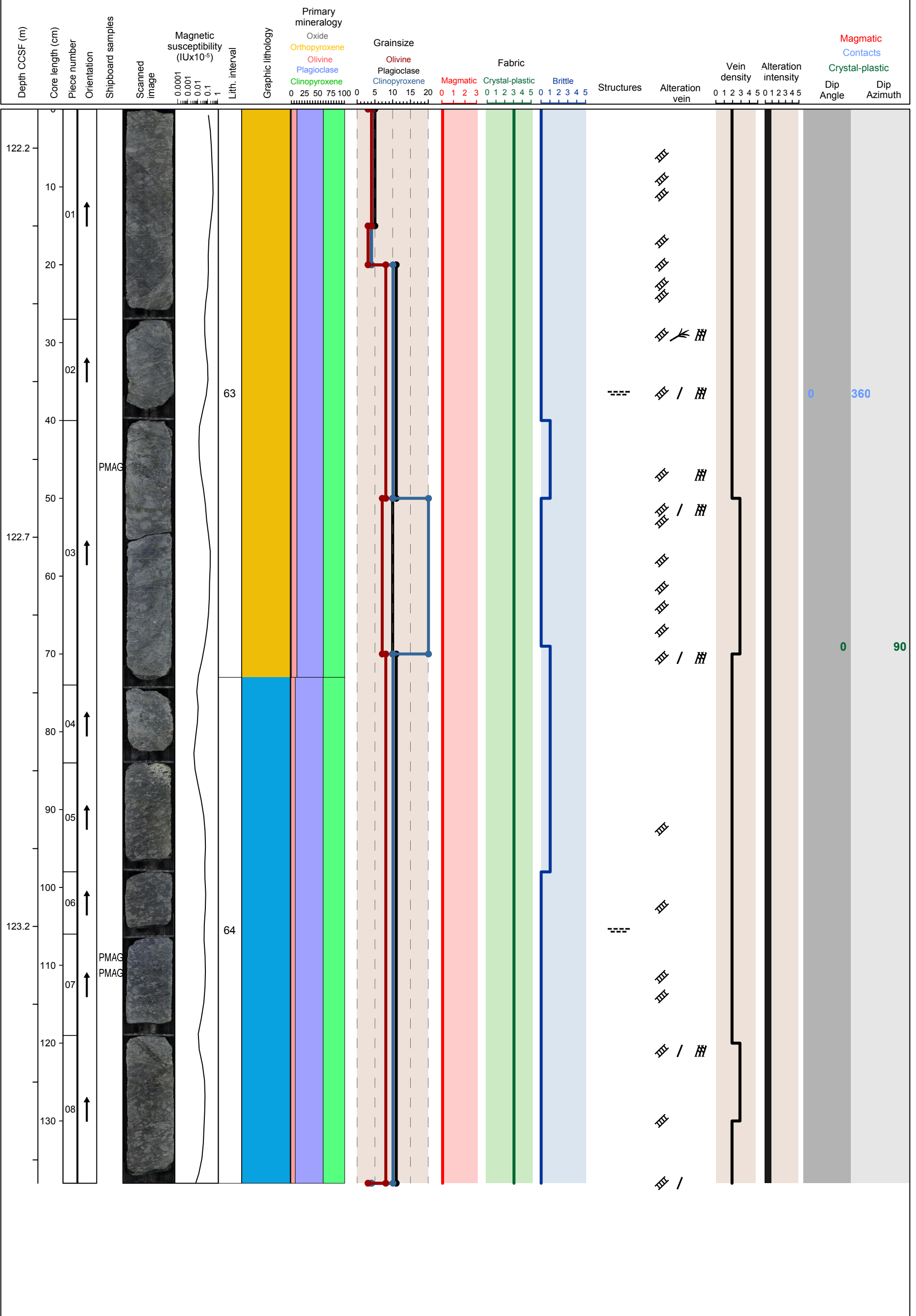


Hole 360-U1473A-14R Section 3, Top of Section: 122.15 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 63) and coarse grained subophitic olivine gabbro (interval 64)

Metamorphic Petrology: Static background alteration is slight. Some areas include rather altered olivines into brown clay. There is an amphibole vein producing a cm scale halo.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip throughout the section. The vein is inclined filled with a mass of amphibole surrounded by a halo.

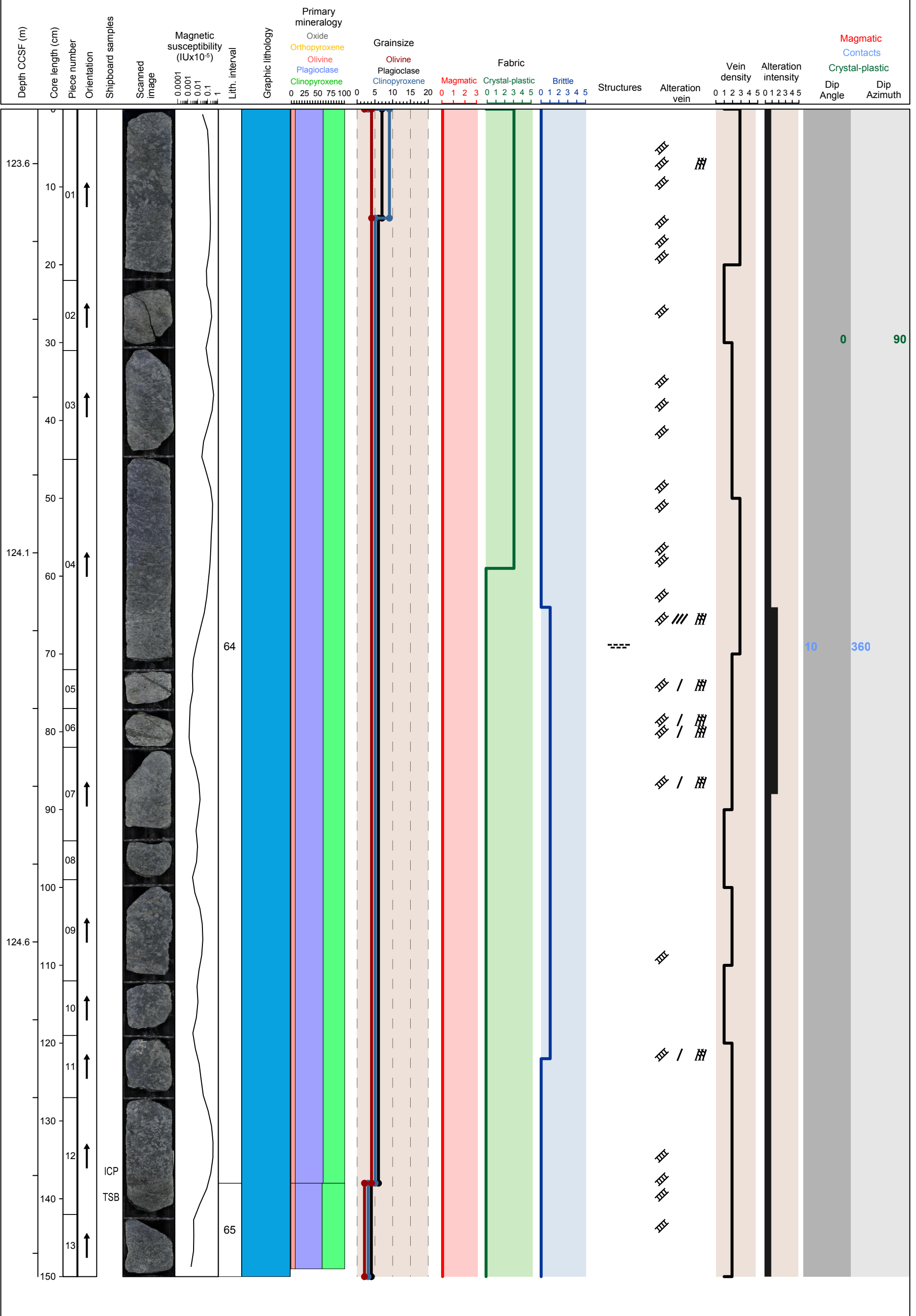


Hole 360-U1473A-14R Section 4, Top of Section: 123.53 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 64) and medium grained granular olivine gabbro (interval 65)

Metamorphic Petrology: Static background alteration is mostly slight. The middle part of the section is moderately altered and it is associated with intense amphibole veining.

Structural Geology: The magmatic fabric grades into a crystal plastic fabric, both with shallowly dipping.

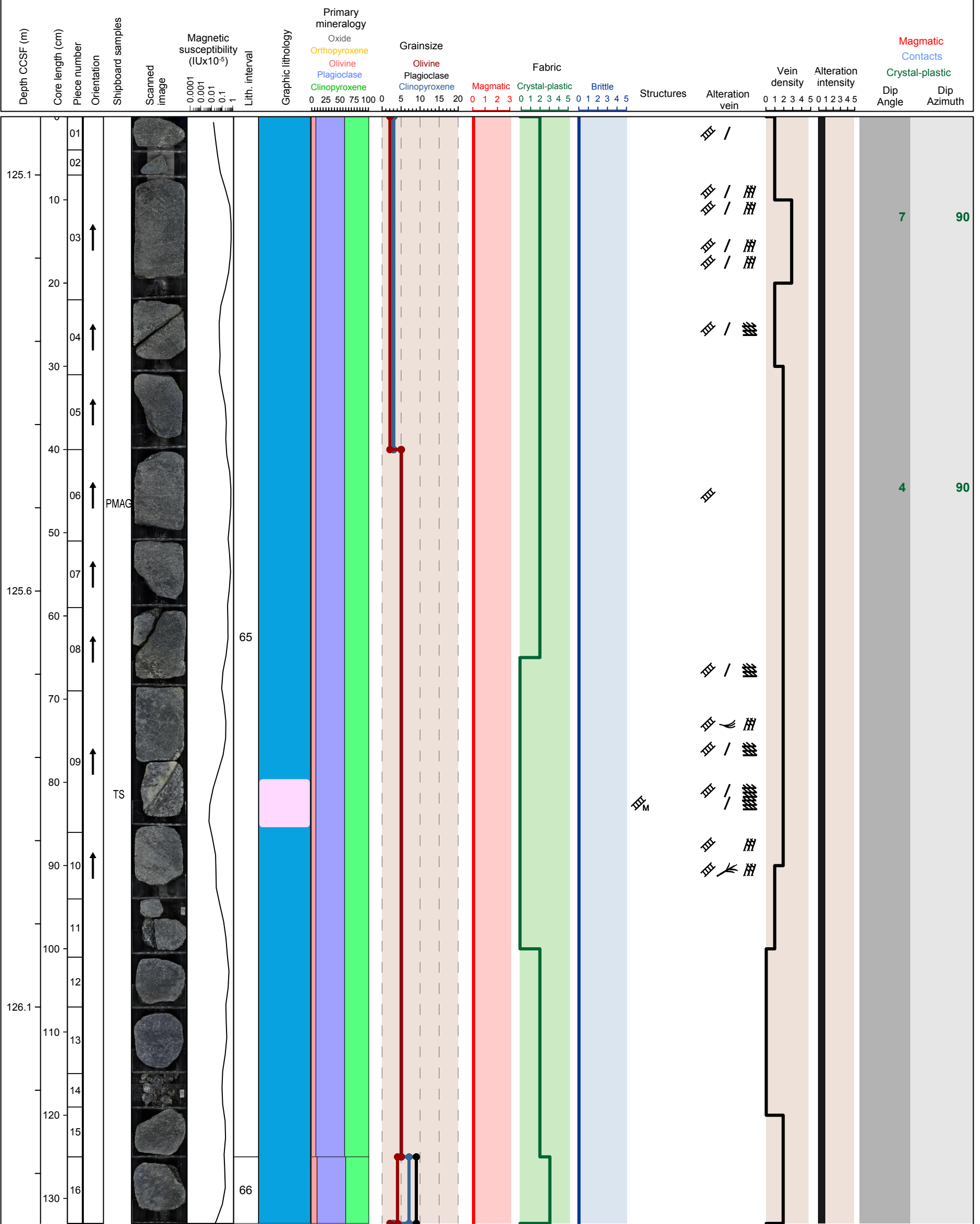


Hole 360-U1473A-14R Section 5, Top of Section: 125.03 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 65) and medium grained subophitic olivine gabbro (interval 66)

Metamorphic Petrology: Static background alteration is slight. One felsic vein was observed and is associated with amphibole veins. Intense alteration were observed on areas surrounding the veins.

Structural Geology: The crystal plastic fabric is subhorizontal with grain size variations.

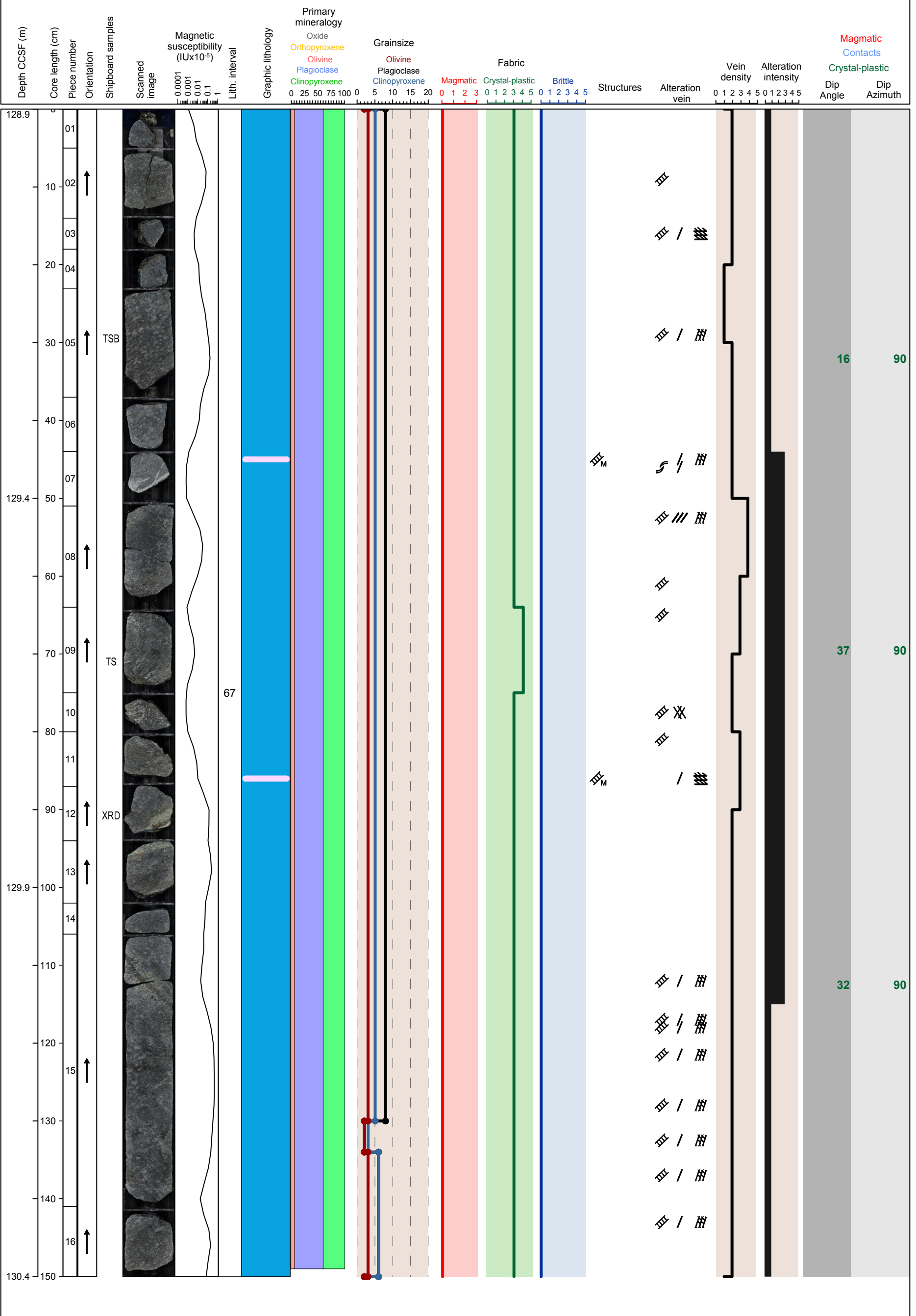


Hole 360-U1473A-15R Section 1, Top of Section: 128.9 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 67)

Metamorphic Petrology: Static background alteration is mostly slight. A zone marked by numerous veins and halos was observed in the middle part of the section. One halo is related to an albitic vein. Extensive alteration of olivine and plagioclase was observed in this halo while pyroxene is rather preserved. Plagioclase has greenish tinge in the halo.

Structural Geology: The crystal plastic fabric has a moderate dip overprinting variations in grain size.

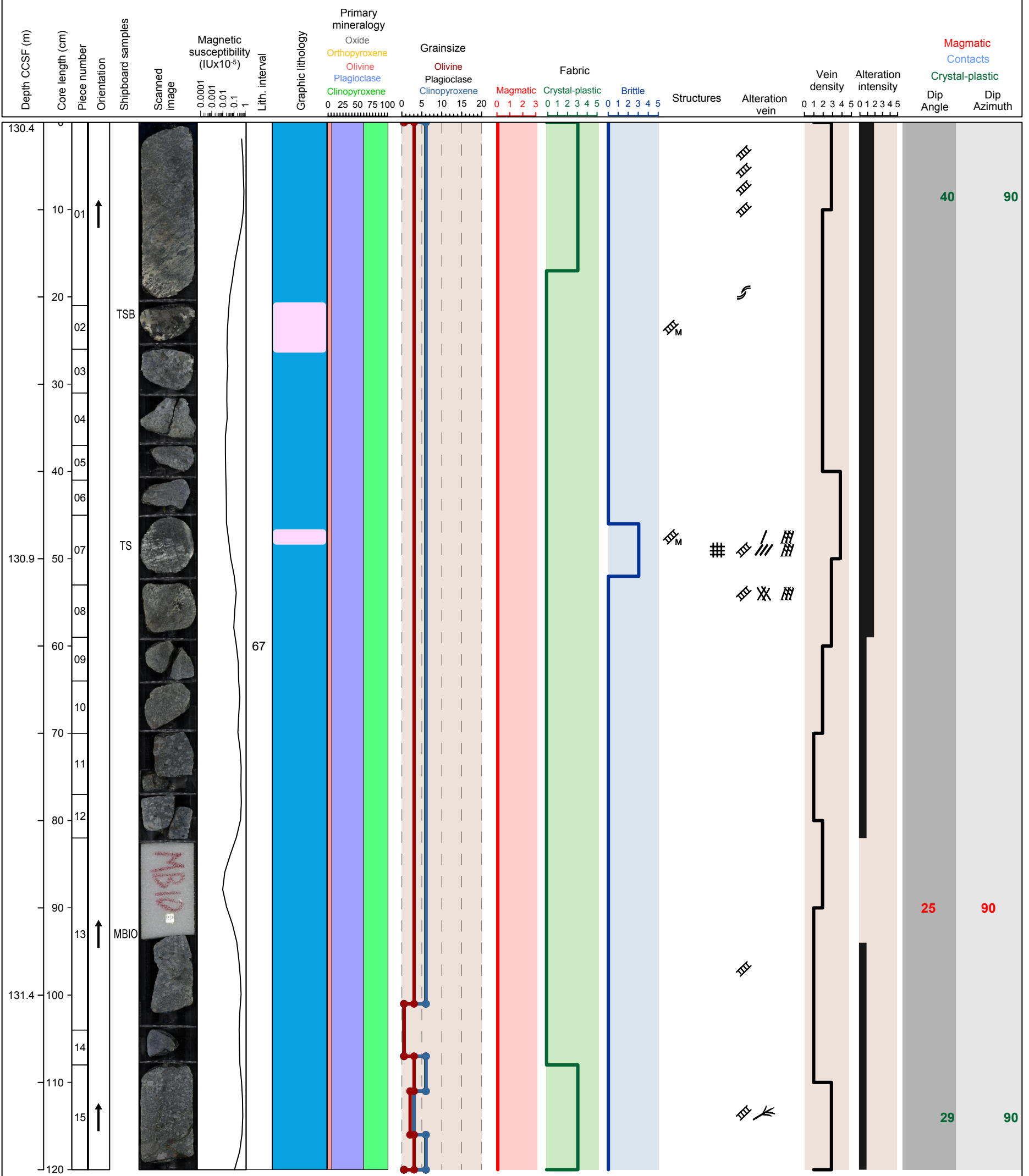


Hole 360-U1473A-15R Section 2, Top of Section: 130.4 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 67)

Metamorphic Petrology: Static background alteration ranges from slight to moderate. The more altered portion is associated with denser amphibole veining as well as the presence of coarse-grained amphibole-plagioclase vein.

Structural Geology: The magmatic fabric is inclined defined by grain size layering. The crystal plastic fabric overprints grain size layering, both with moderate dips. Amphibole veins are at high angles to and offset the crystal plastic fabric.

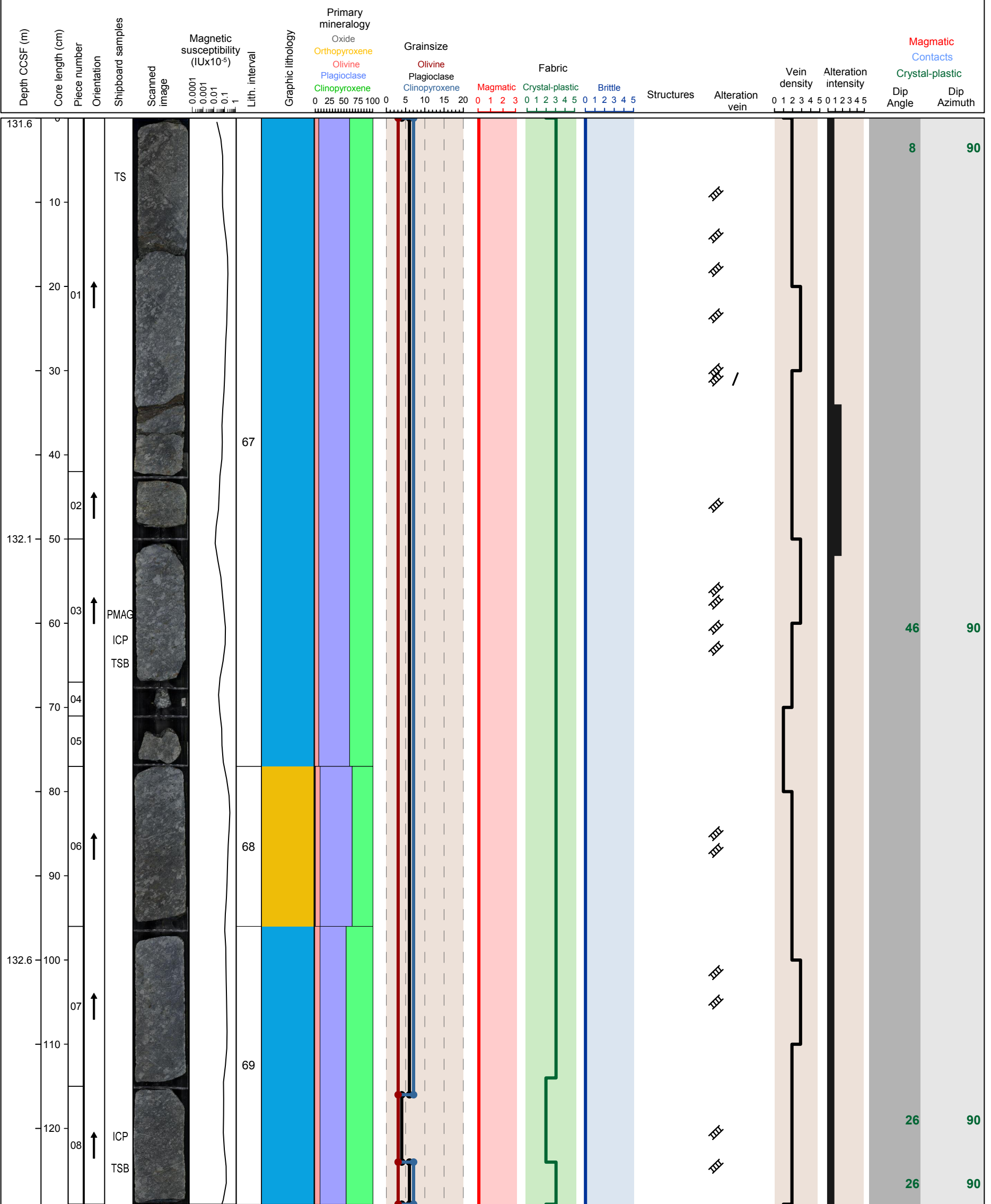


Hole 360-U1473A-15R Section 3, Top of Section: 131.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 67 and 69) and coarse grained subophitic disseminated oxide olivine gabbro (interval 68)

Metamorphic Petrology: Static background alteration is mostly slight. The middle part of the section is moderately altered where plagioclase is partially replaced by secondary plagioclase and clays.

Structural Geology: The crystal plastic fabrics have moderate dips overprinting fine grained layers.

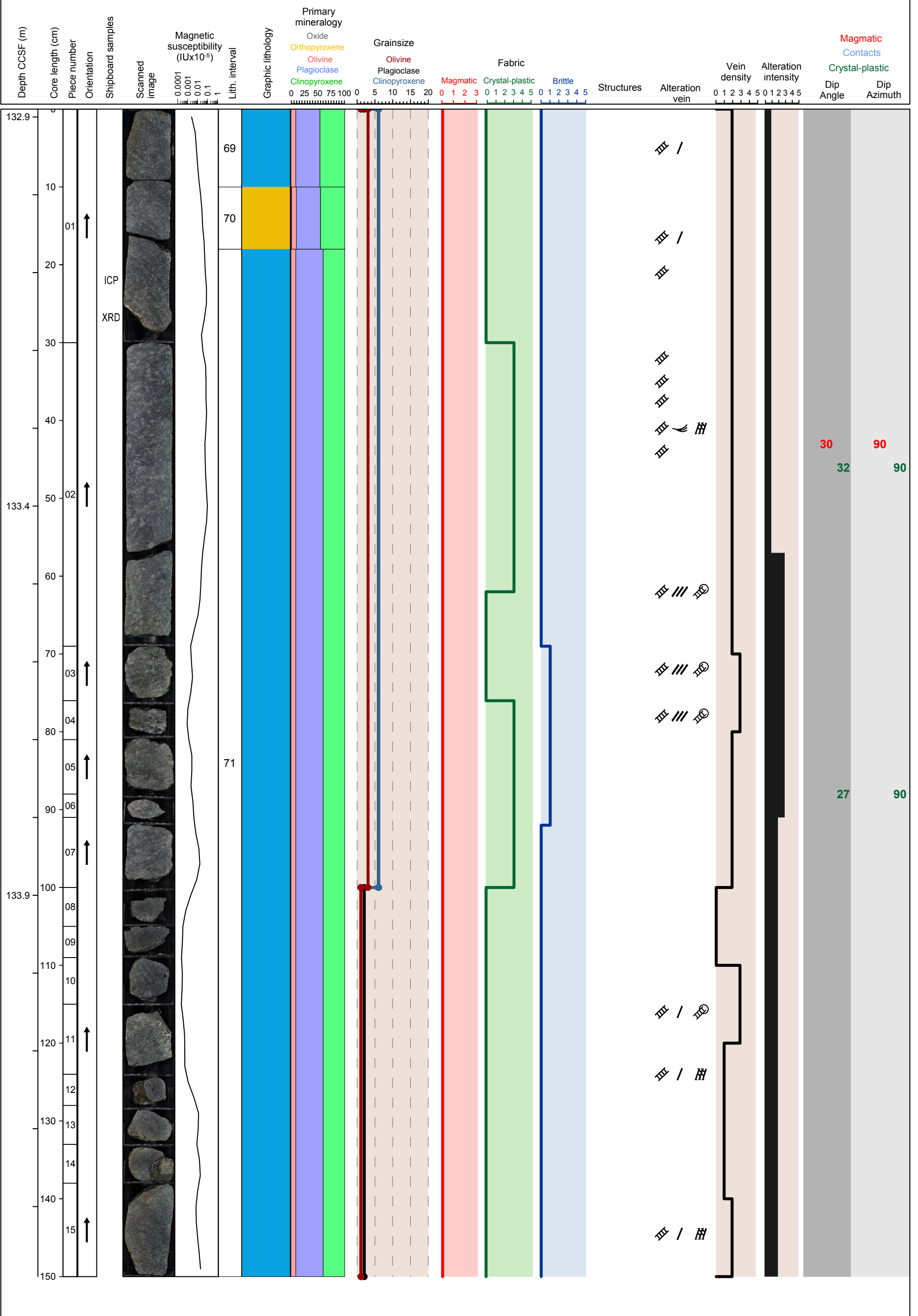


Hole 360-U1473A-15R Section 4, Top of Section: 132.89 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 69 and 71) and coarse grained subophitic disseminated oxide olivine gabbro (interval 70)

Metamorphic Petrology: Static background alteration intensity is heterogenous throughout the section. The top of the section is slightly altered. At the lower part of the section, moderate to substantial alteration was observed and is associated with heavy amphibole veining.

Structural Geology: The magmatic fabric is inclined defined by grain size layering. The crystal plastic fabric has moderate dip defined by olivine sigma clasts. The fracture at 116 cm has amphibole slickenlines that have a moderate plunge and normal offset.

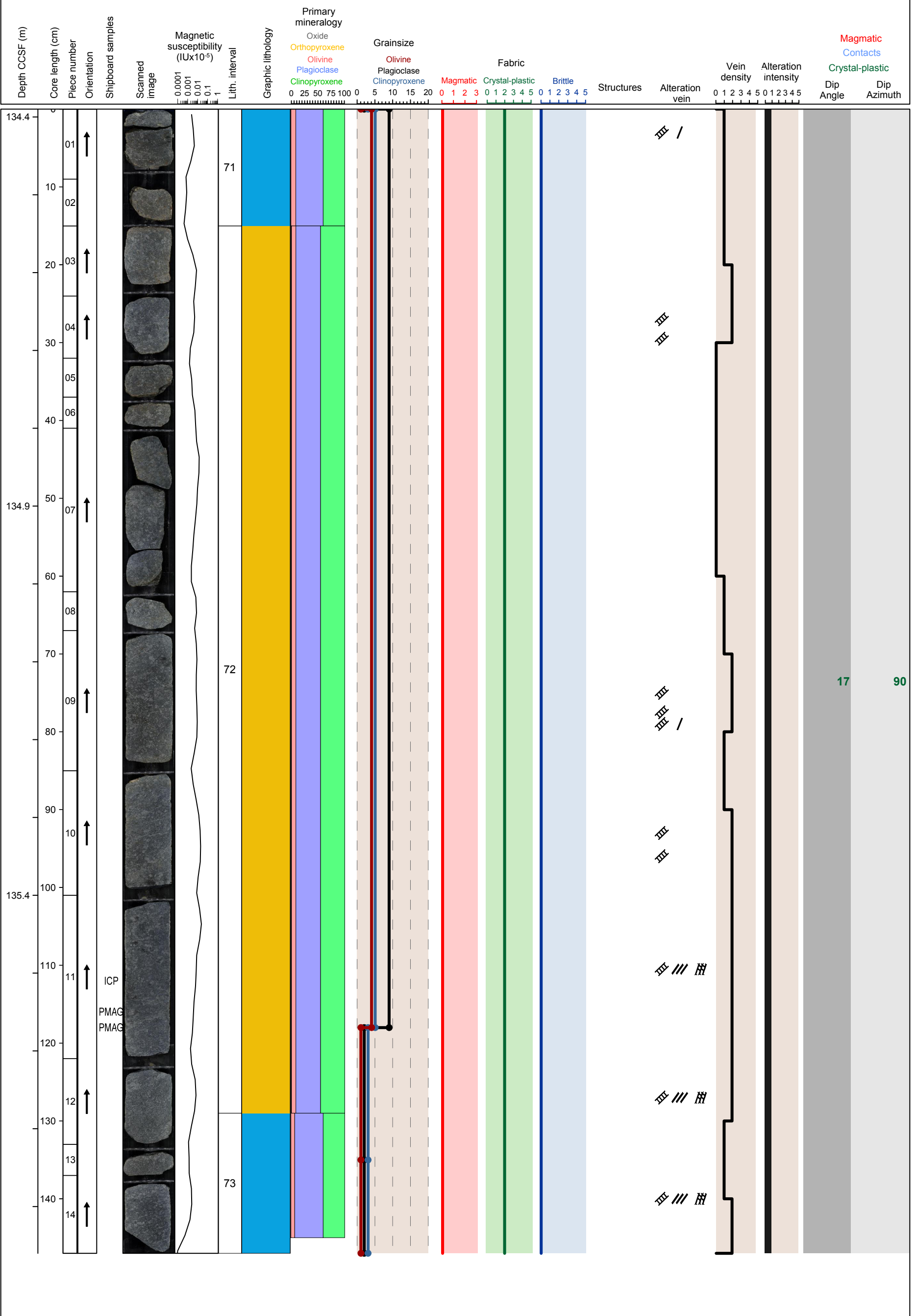


Hole 360-U1473A-15R Section 5, Top of Section: 134.39 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained subophitic olivine gabbro (interval 71 and 73) and coarse grained subophitic disseminated oxide olivine gabbro (interval 72)

Metamorphic Petrology: Static background alteration intensity is slight. Olivine is more altered to brown clay at the top of the section.

Structural Geology: The crystal plastic fabric has a shallow dip.

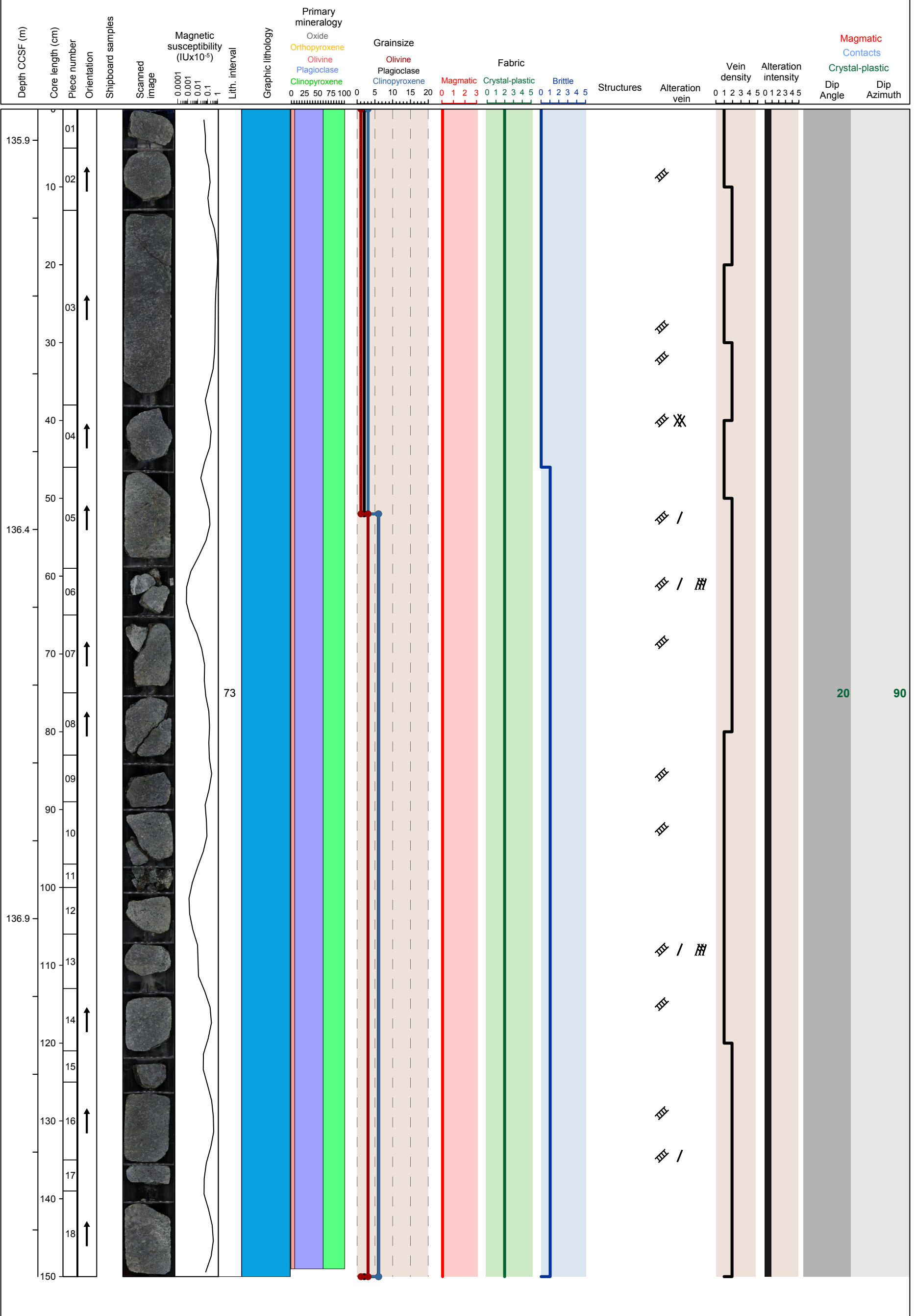


Hole 360-U1473A-15R Section 6, Top of Section: 135.86 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 73)

Metamorphic Petrology: Static background alteration intensity is slight. Olivine is more altered towards the bottom of the section. Plagioclase is locally more altered near amphibole veins.

Structural Geology: The crystal plastic fabric has moderate to shallow dip. The fracture at 48 cm has moderately plunging slickenlines.

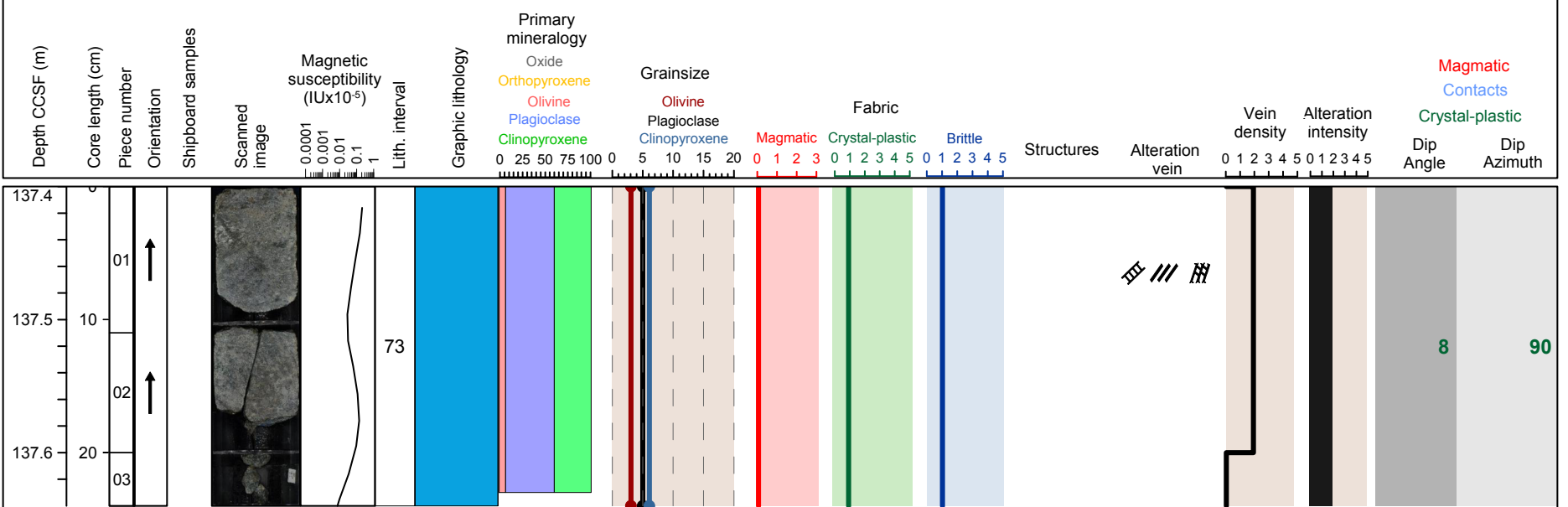


Hole 360-U1473A-15R Section 7, Top of Section: 137.36 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 74)

Metamorphic Petrology: Static background alteration intensity is moderate. Plagioclase is locally more altered near amphibole veins.

Structural Geology: The crystal plastic fabric has moderate to shallow dip.

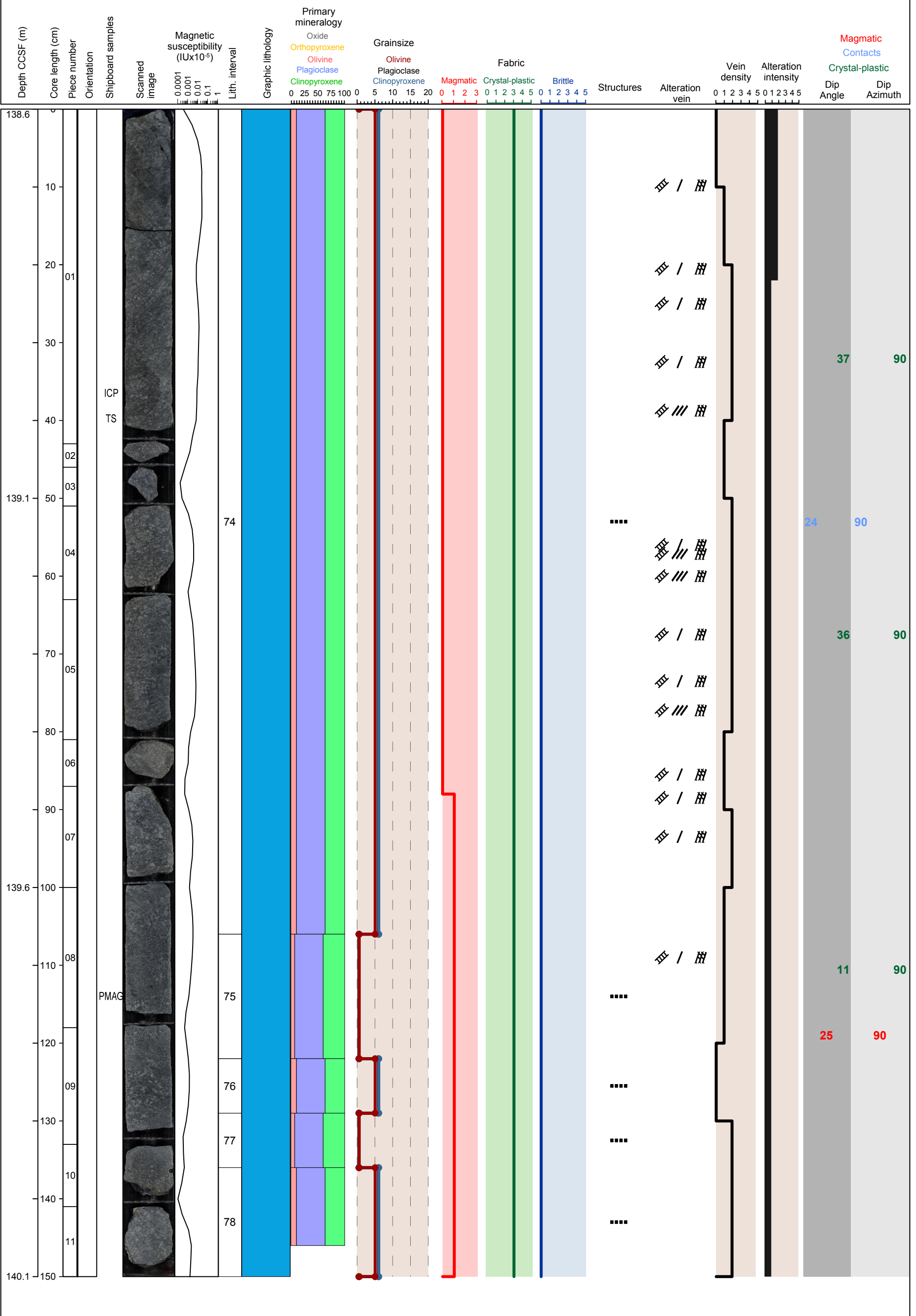


Hole 360-U1473A-16R Section 1, Top of Section: 138.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 74, 76 and 78) and fine grained granular olivine gabbro (interval 75 and 77)

Metamorphic Petrology: Static background alteration intensity is slight to moderate of this section. More intense alteration occurs near the white veins.

Structural Geology: Grain size layering is irregularly developed. The crystal plastic fabric has a moderate dip. The magmatic fabric is sub-horizontal defined by plagioclase, pyroxene, and grain size layering.

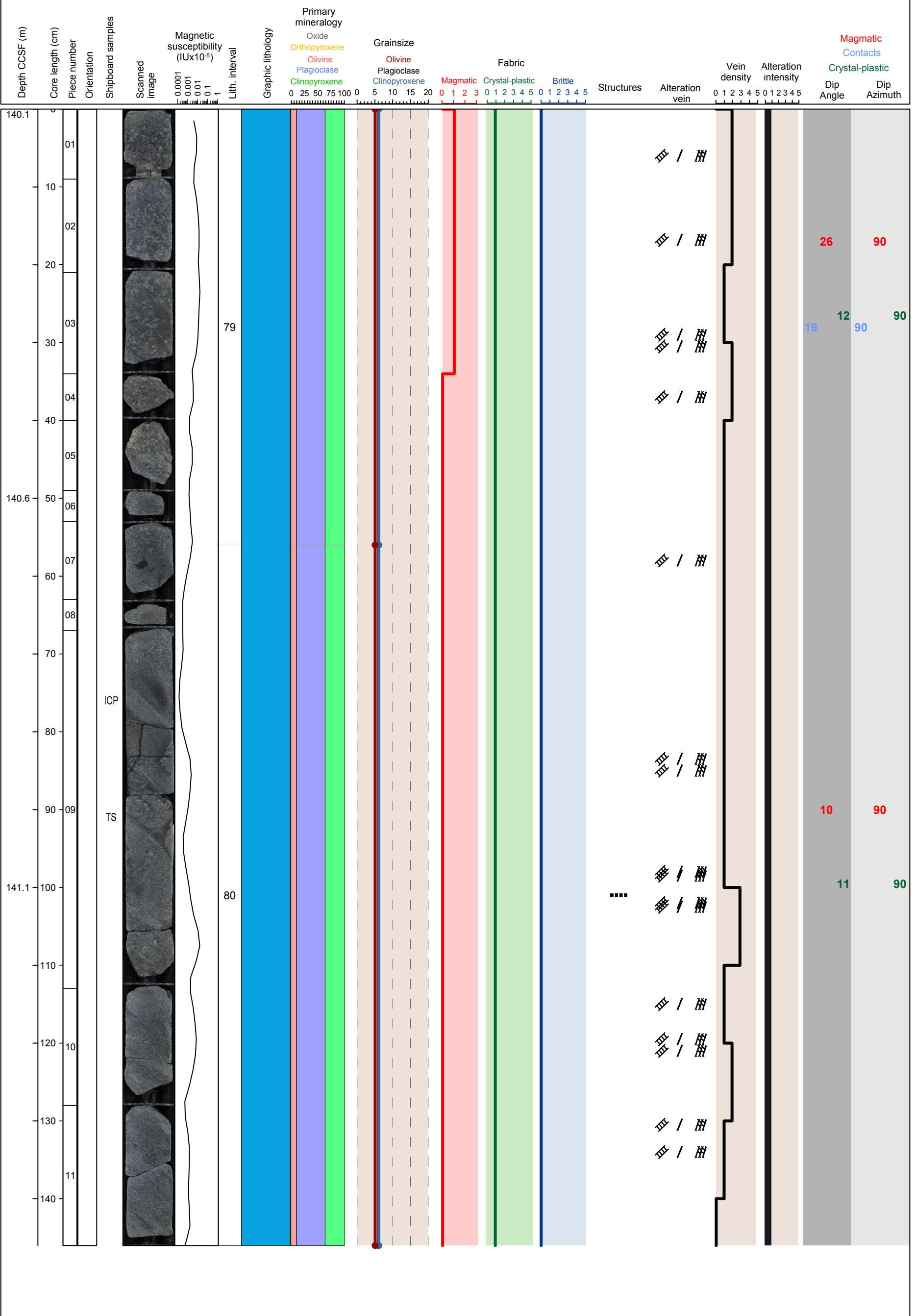


Hole 360-U1473A-16R Section 2, Top of Section: 140.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: fine grained granular olivine gabbro (interval 79) and coarse grained granular olivine gabbro (interval 80)

Metamorphic Petrology: Static background alteration intensity is slight. More intense alteration occurs in the halo.

Structural Geology: The grain size layering is irregular. The coarse layer has a moderate dip.

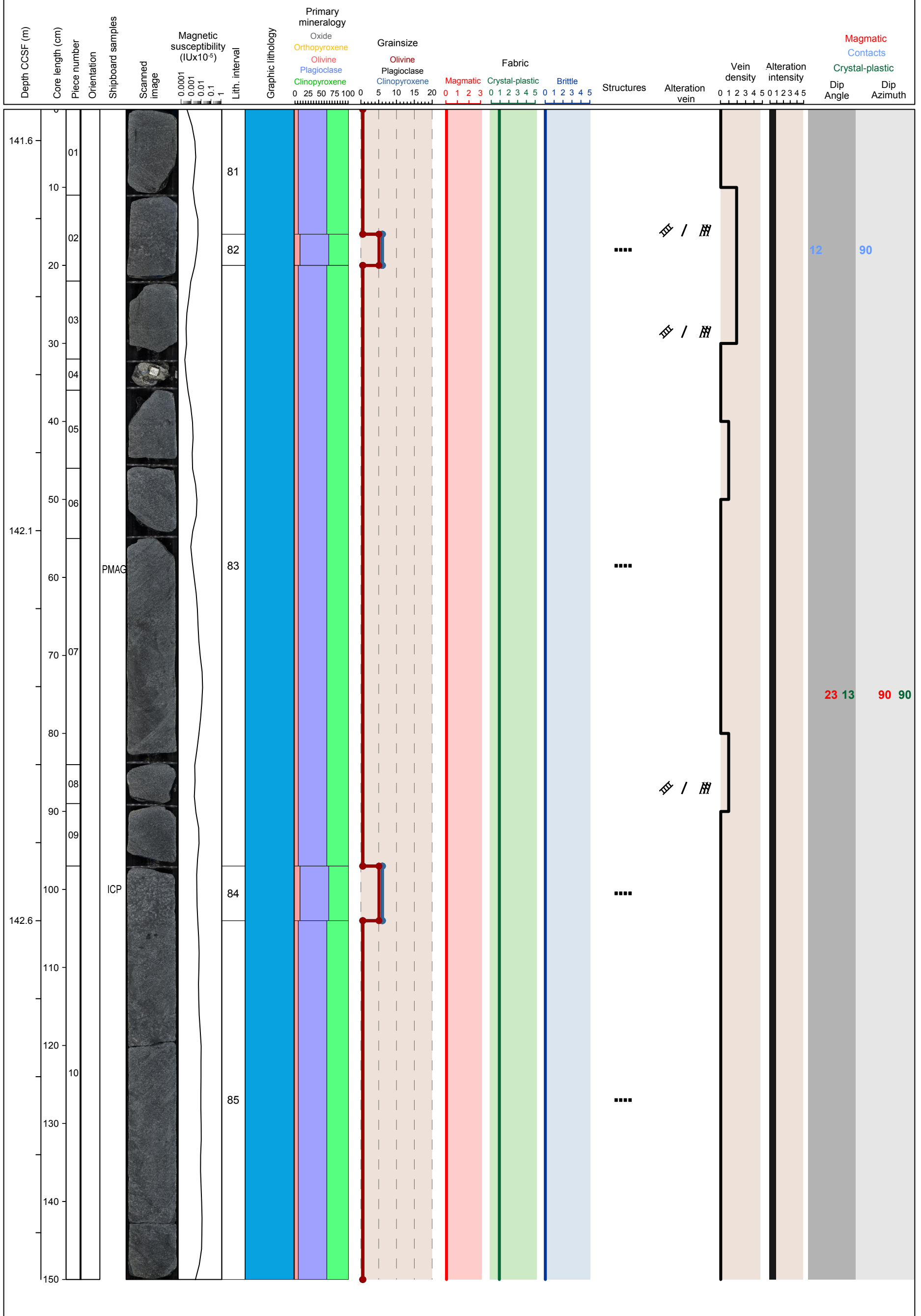


Hole 360-U1473A-16R Section 3, Top of Section: 141.56 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: fine grained granular olivine gabbro (interval 81, 83 and 85) and coarse grained granular olivine gabbro (interval 82 and 84)

Metamorphic Petrology: Static background alteration intensity is slight.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip. The fracture at 54 cm has slickenlines with a moderate plunge.

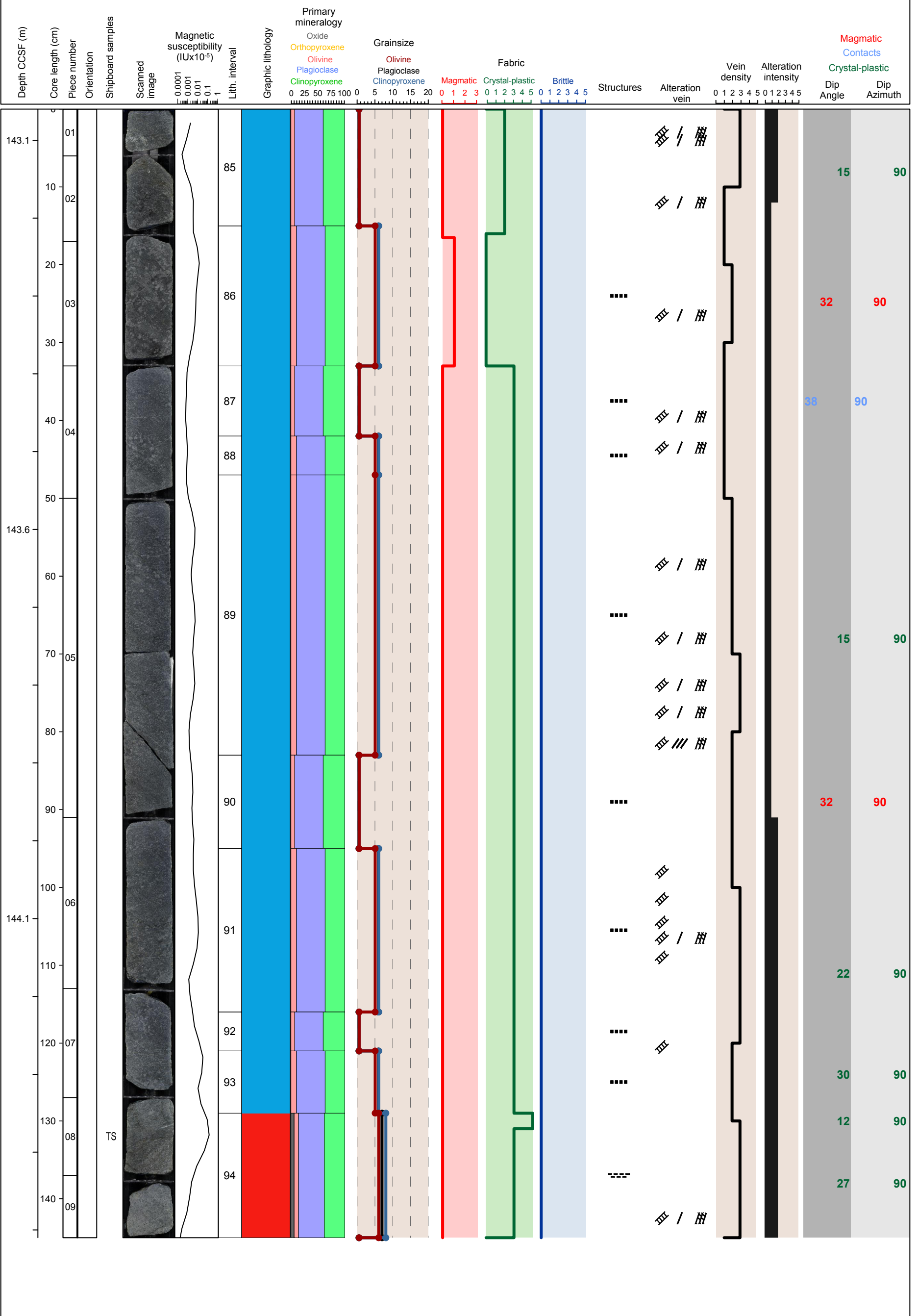


Hole 360-U1473A-16R Section 4, Top of Section: 143.06 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: fine grained granular olivine gabbro (interval 85, 87, 90 and 92), coarse grained granular olivine gabbro (interval 86, 88, 91 and 93), coarse grained subophitic olivine gabbro (interval 89) and coarse grained granular olivine oxide gabbro (interval 94)

Metamorphic Petrology: Static background alteration intensity is slight to moderate. More intense alteration occurs in the halo. Moderately altered part near the bottom of the section could also be halos.

Structural Geology: The grain size layering is irregular between fine and coarse grained gabbro. The magmatic fabric is inclined defined by pyroxene and plagioclase. The fracture at 82 cm has moderately plunging slickenlines.

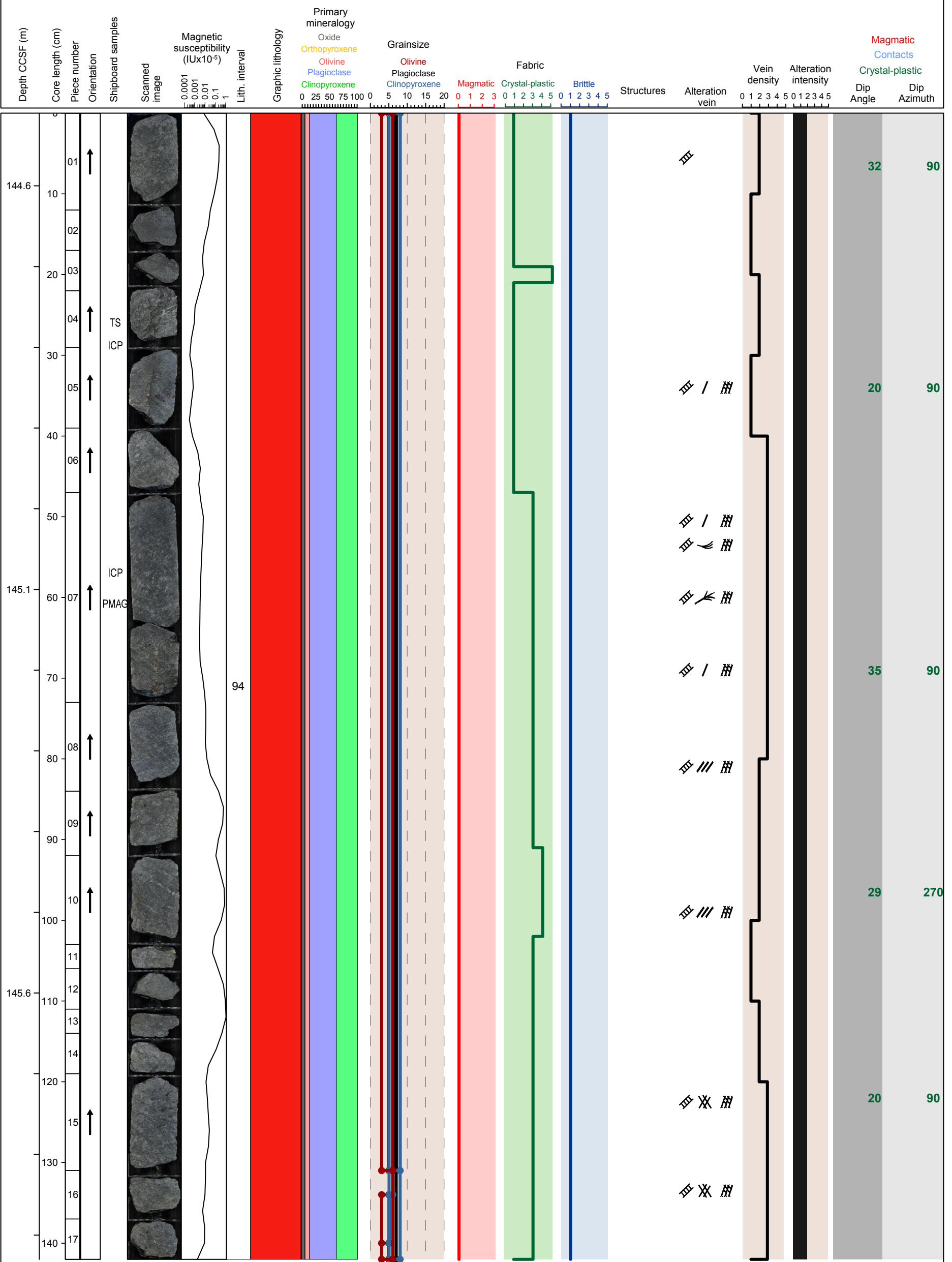


Hole 360-U1473A-16R Section 5, Top of Section: 144.51 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 94)

Metamorphic Petrology: Static background alteration is moderate. More intensy altered parts could be halos.

Structural Geology: There are fine and coarse grain layers. The fracture at 38 cm has moderately plunging slickenlines.

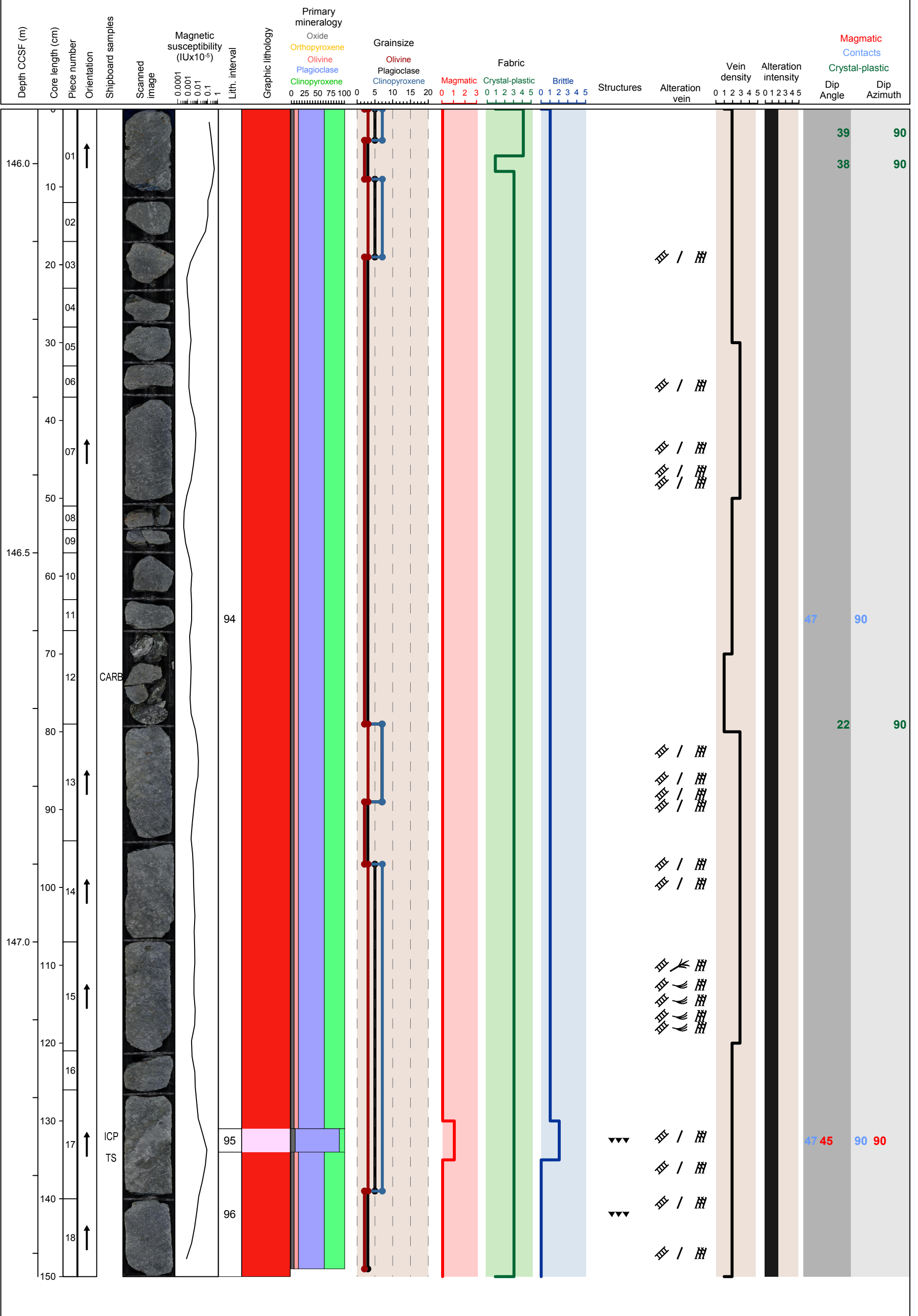


Hole 360-U1473A-16R Section 6, Top of Section: 145.93 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 94 and 96) and coarse grained granular felsic material (interval 95)

Metamorphic Petrology: Static background alteration intensity is moderate. More intensely altered part could be halos

Structural Geology: The magmatic fabric is inclined and defined by plagioclase and pyroxene. There is an anorthositic layer discordant to the crystal plastic fabric.

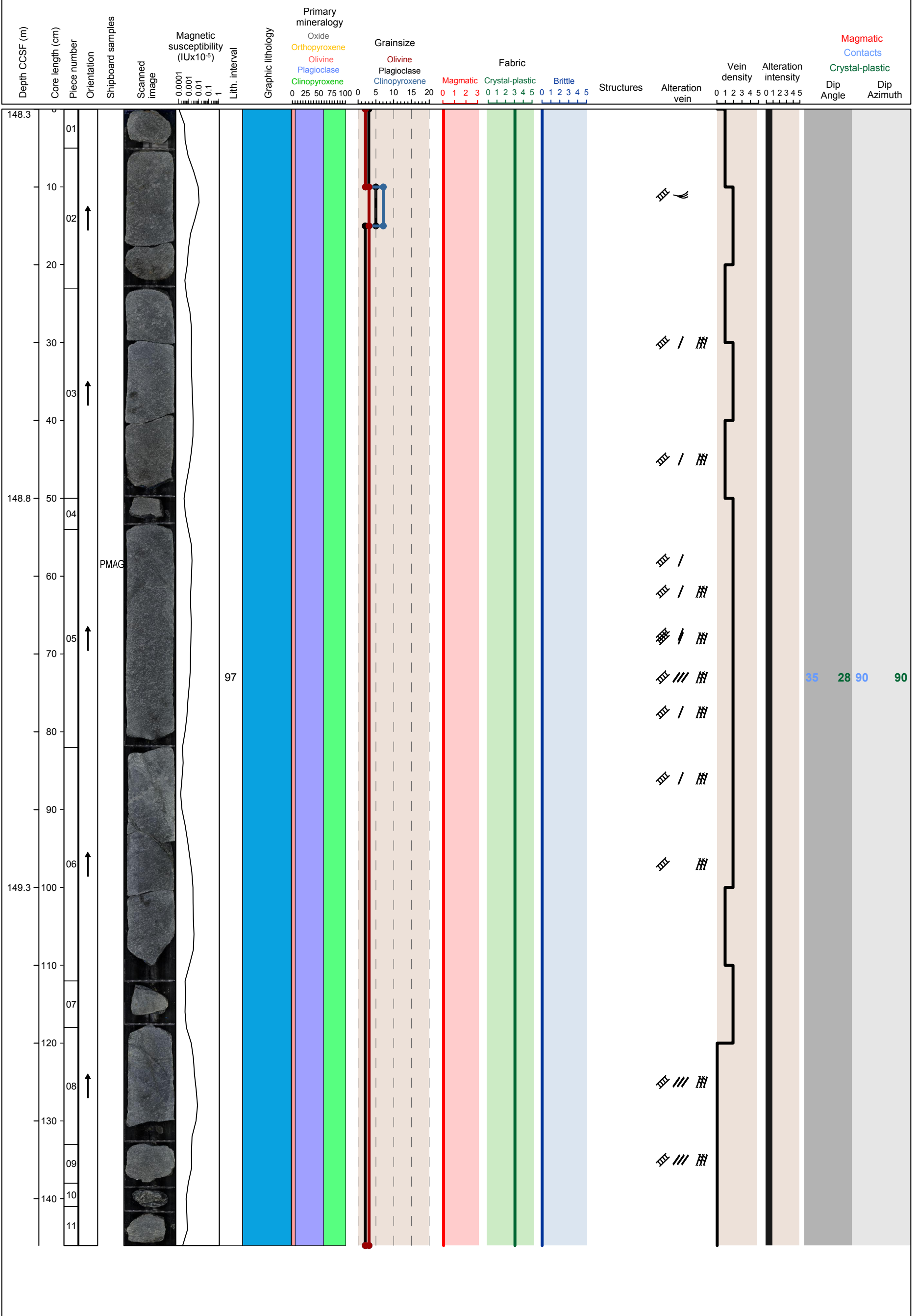


Hole 360-U1473A-17R Section 1, Top of Section: 148.3 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: granular olivine gabbro with coarse grained and fine grained domain (interval 97)

Metamorphic Petrology: Static background alteration intensity is slight. Higher alteration degree is only localized in a few halos associated with amphibole veins.

Structural Geology: The crystal plastic fabric has a monotonous moderate dip. The alteration veins are steeply dipping and offset the crystal plastic fabric.

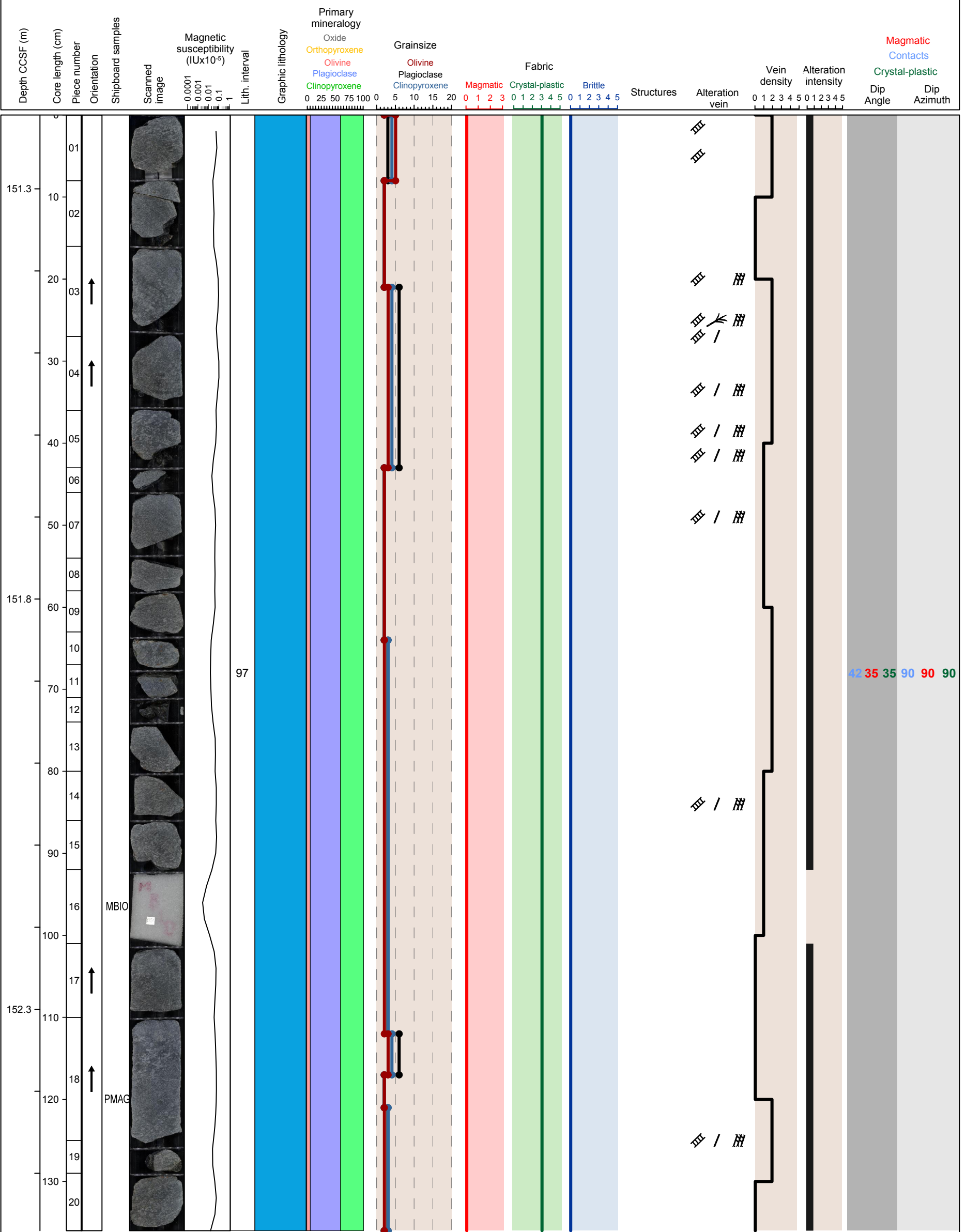


Hole 360-U1473A-17R Section 3, Top of Section: 151.21 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: granular olivine gabbro with coarse grained and fine grained domain (interval 97)

Metamorphic Petrology: Static background alteration intensity is only slight. Only minor amount of olivine substantially replaced by clays were observed.

Structural Geology: Shallow to moderately dipping crystal plastic fabric. The grain size layering has the same dip as the fabric.

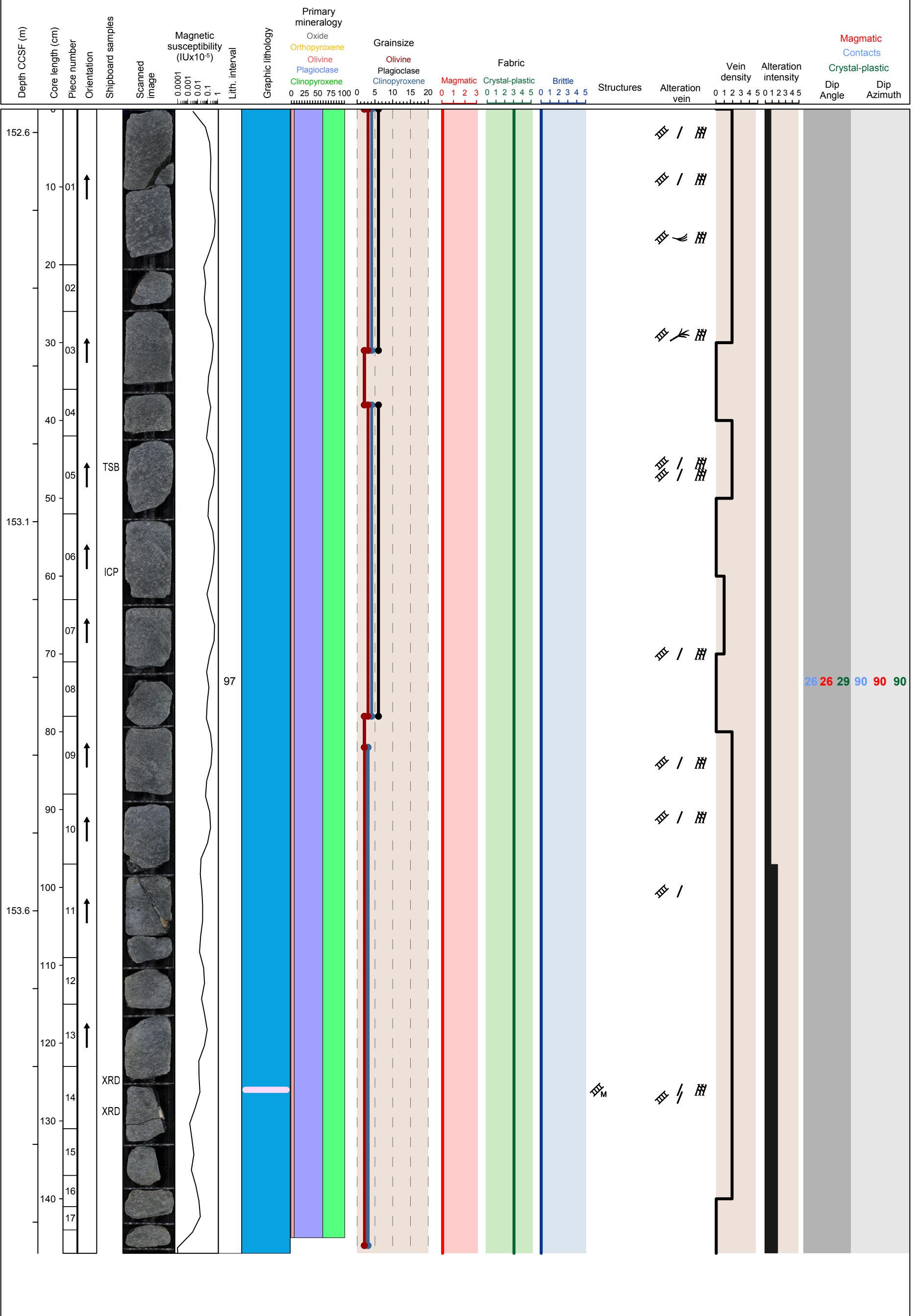


Hole 360-U1473A-17R Section 4, Top of Section: 152.57 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: granular olivine gabbro with coarse grained and fine grained domain (interval 97)

Metamorphic Petrology: Static background alteration intensity ranges from slight to moderate. Alteration is more intense at the bottom of the section and is associated with a felsic vein.

Structural Geology: The crystal plastic fabric has a constant moderate to shallow dip.

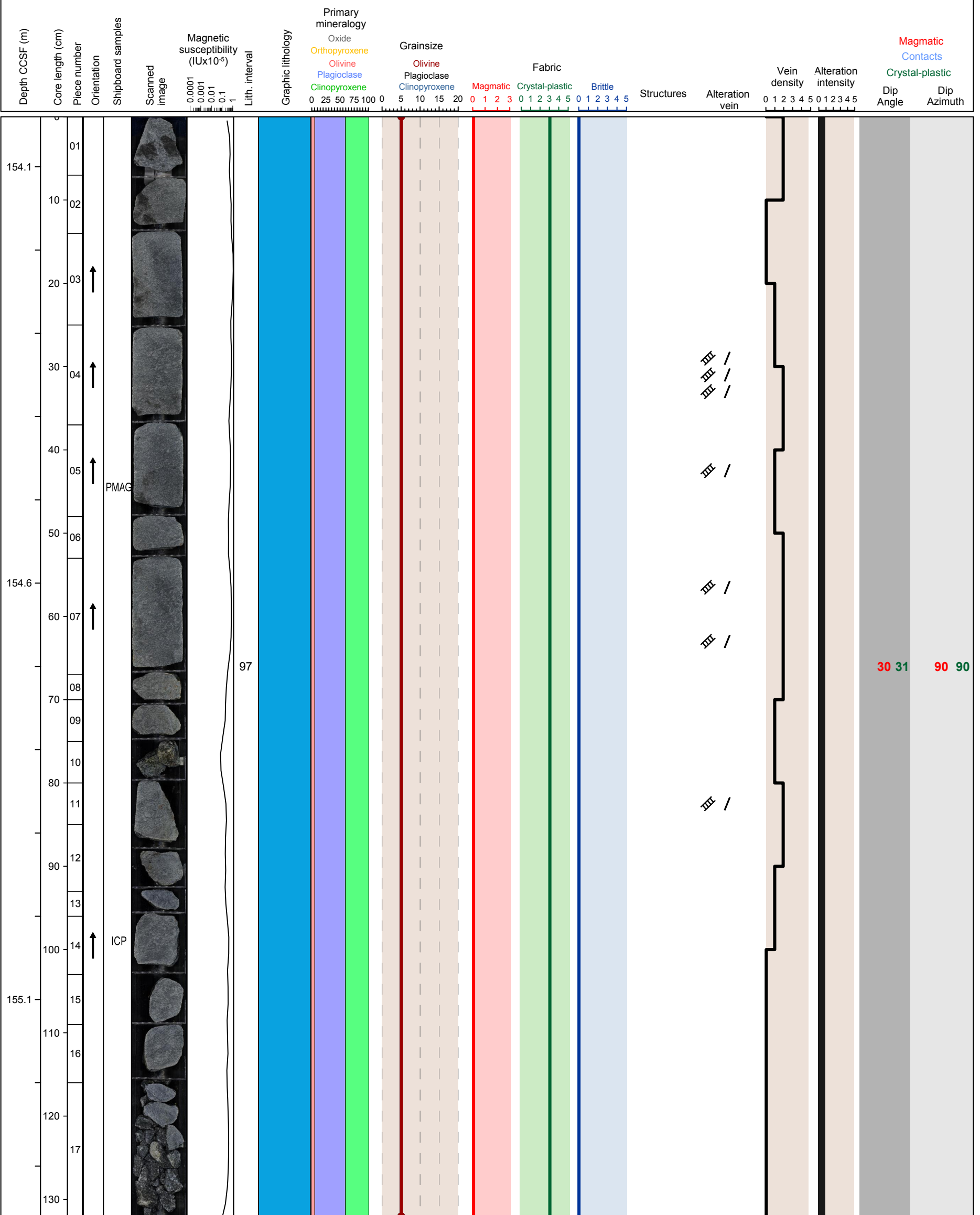


Hole 360-U1473A-17R Section 5, Top of Section: 154.04 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: granular olivine gabbro with coarse grained and fine grained domain (interval 97)

Metamorphic Petrology: Static background alteration intensity is only slight. Minor amount of olivine are substantially replaced by brownish clays.

Structural Geology: The crystal plastic fabric has a constant moderate to shallow dip.

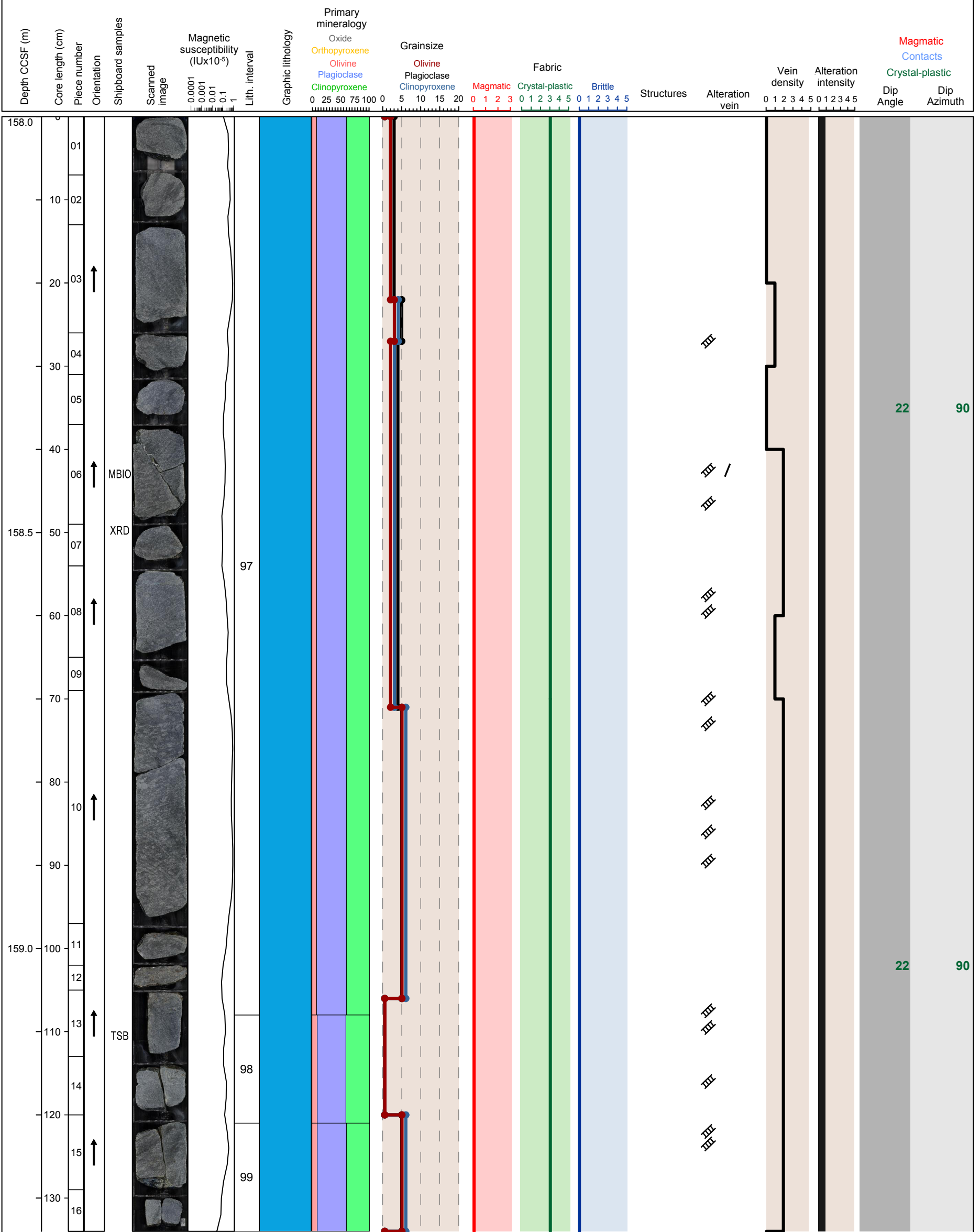


Hole 360-U1473A-18R Section 1, Top of Section: 158.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained granular olivine gabbro (interval 97 and 99), fine grained granular olivine gabbro (interval 98)

Metamorphic Petrology: Static background alteration intensity is slight. A small area of moderate alteration was observed and can be associated with a halo.

Structural Geology: The crystal plastic fabric has a shallow dip. Some grain size layering present.

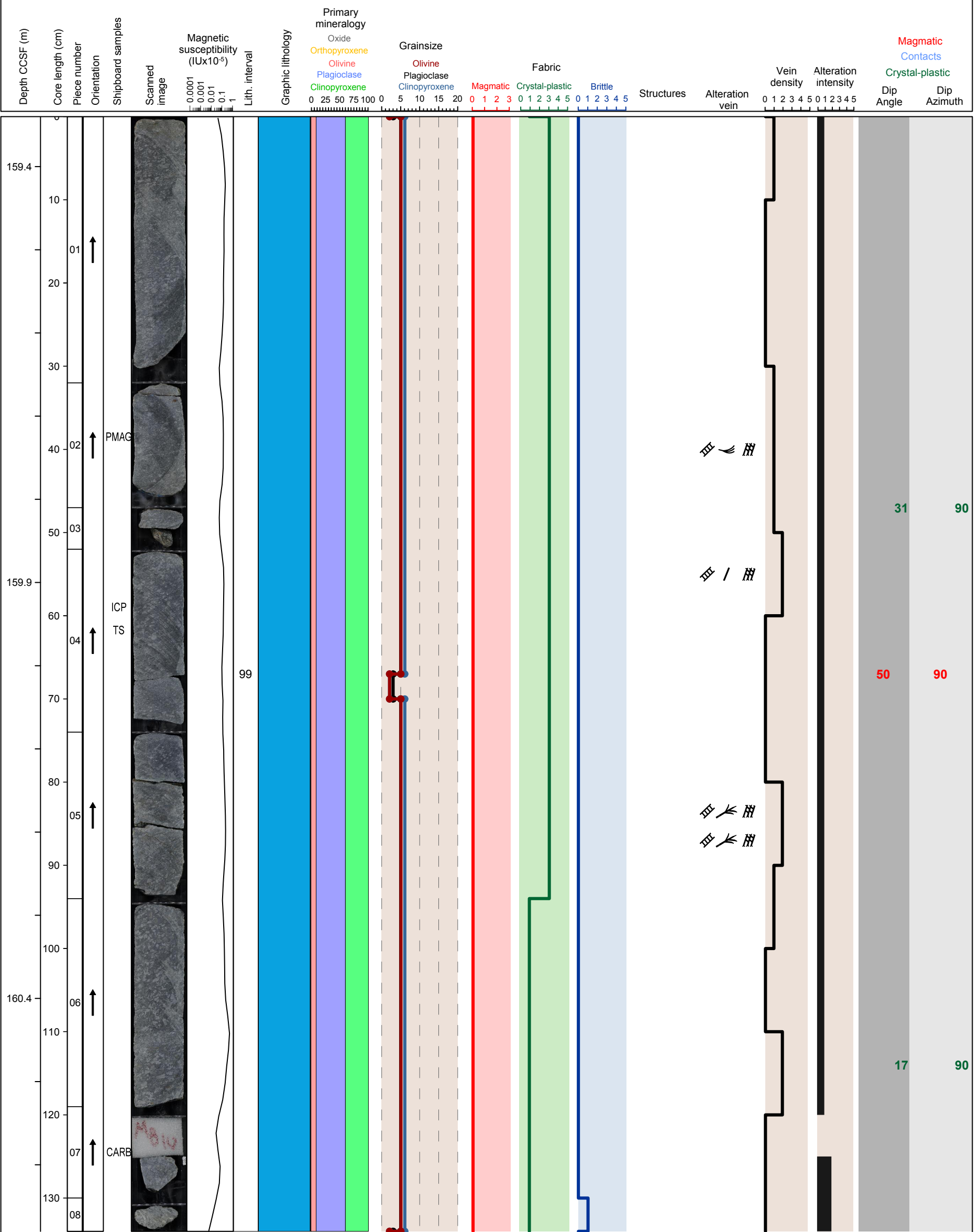


Hole 360-U1473A-18R Section 2, Top of Section: 159.34 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained granular olivine gabbro (interval 99)

Metamorphic Petrology: Static background alteration intensity is slight to moderate.

Structural Geology: Intervals of grain size layering with better developed crystal plastic fabric in the fine grained zones.

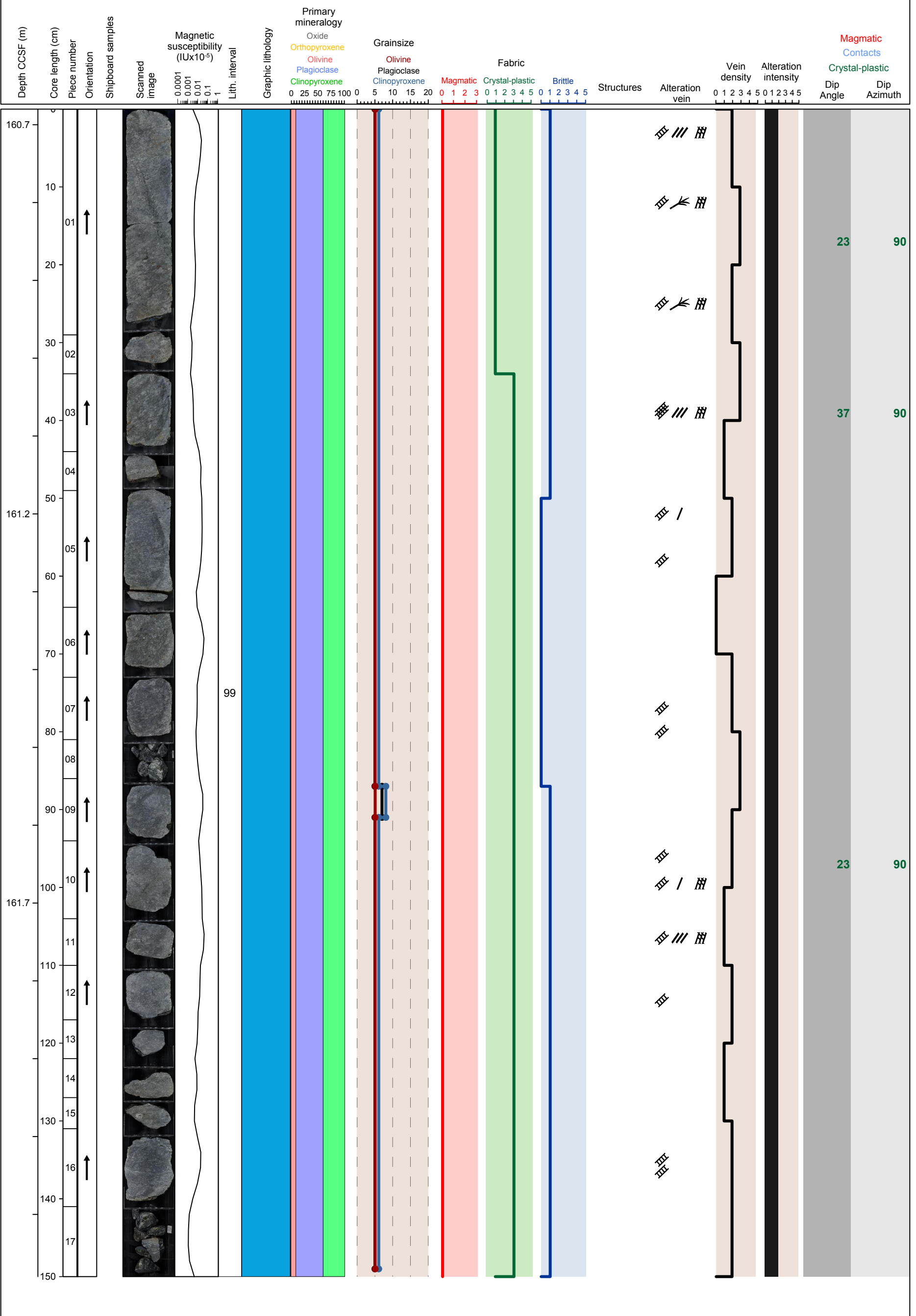


Hole 360-U1473A-18R Section 3, Top of Section: 160.68 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained granular olivine gabbro (interval 99)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense alteration occurs in the halo.

Structural Geology: The crystal plastic fabric has a consistent moderate to shallow dip.

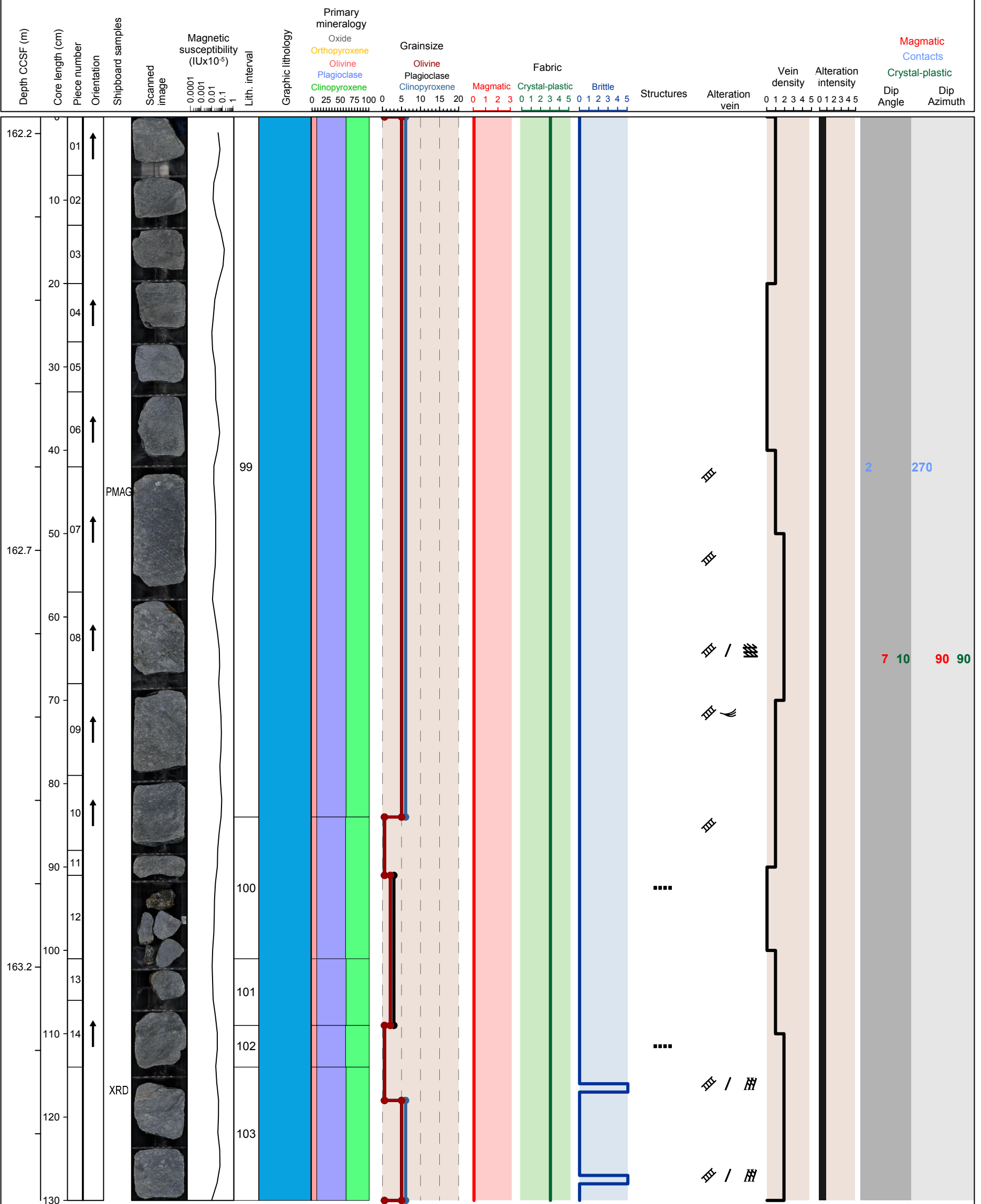


Hole 360-U1473A-18R Section 4, Top of Section: 162.18 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained granular olivine gabbro (interval 99, 101 and 103) and fine grained granular olivine gabbro (interval 100 and 102)

Metamorphic Petrology: Static background alteration intensity is slight. More intense alteration is associated with the veins.

Structural Geology: The crystal plastic foliation is sub-horizontal, discordant with layering. There are two cataclasites with a shallow dip at 116 and 127 cm.

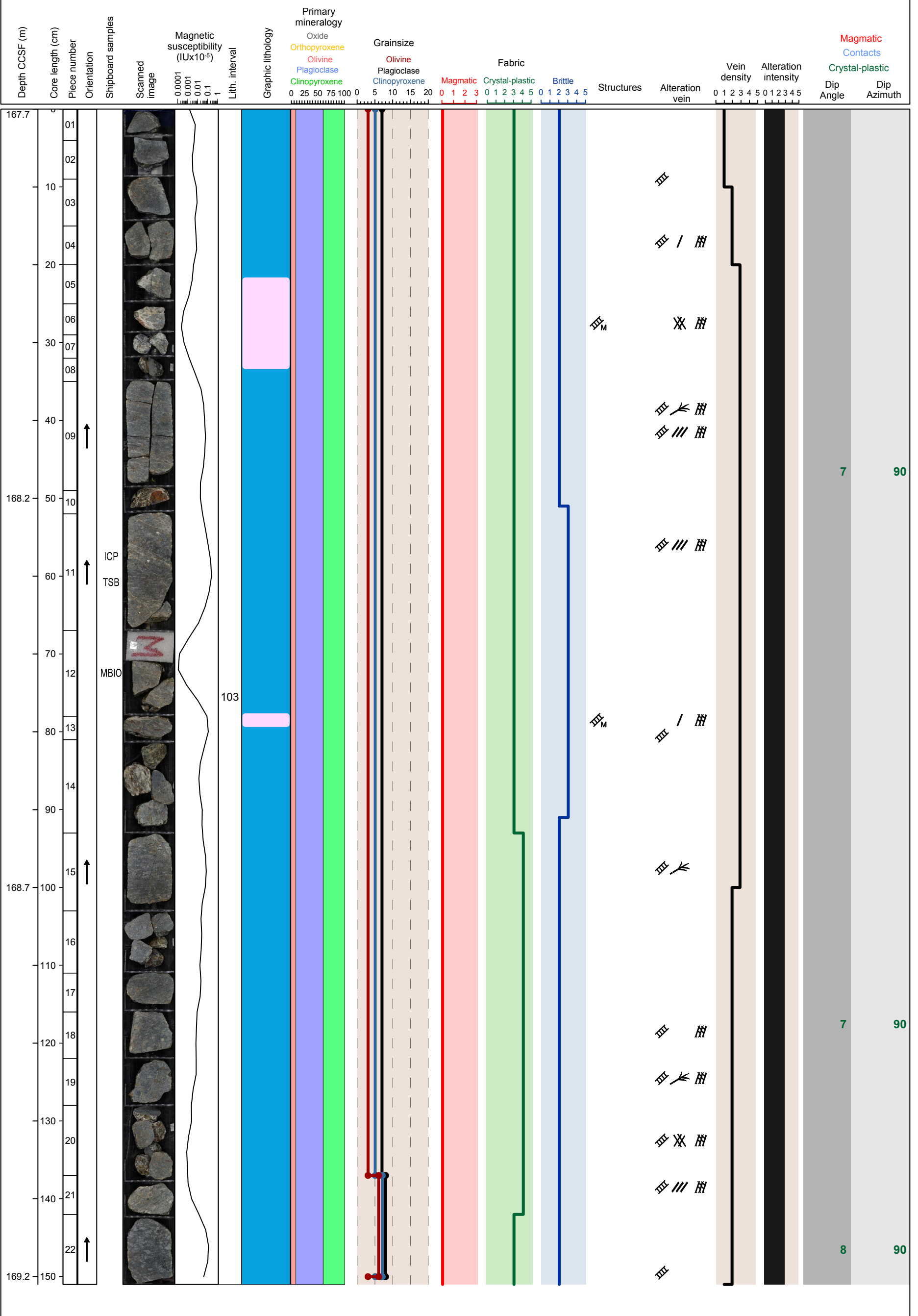


Hole 360-U1473A-19R Section 1, Top of Section: 167.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained granular olivine gabbro (interval 103)

Metamorphic Petrology: Static background alteration intensity is substantial. Numerous veins were observed and the intense alteration is associated with these veins.

Structural Geology: The crystal plastic fabric has a shallow to moderate dip with shallower discordant crosscutting shear bands. The alteration veins are inclined in parallel sets filled with carbonate. A magmatic breccia is present. Brittle fracturing overprinted the crystal plastic fabric.

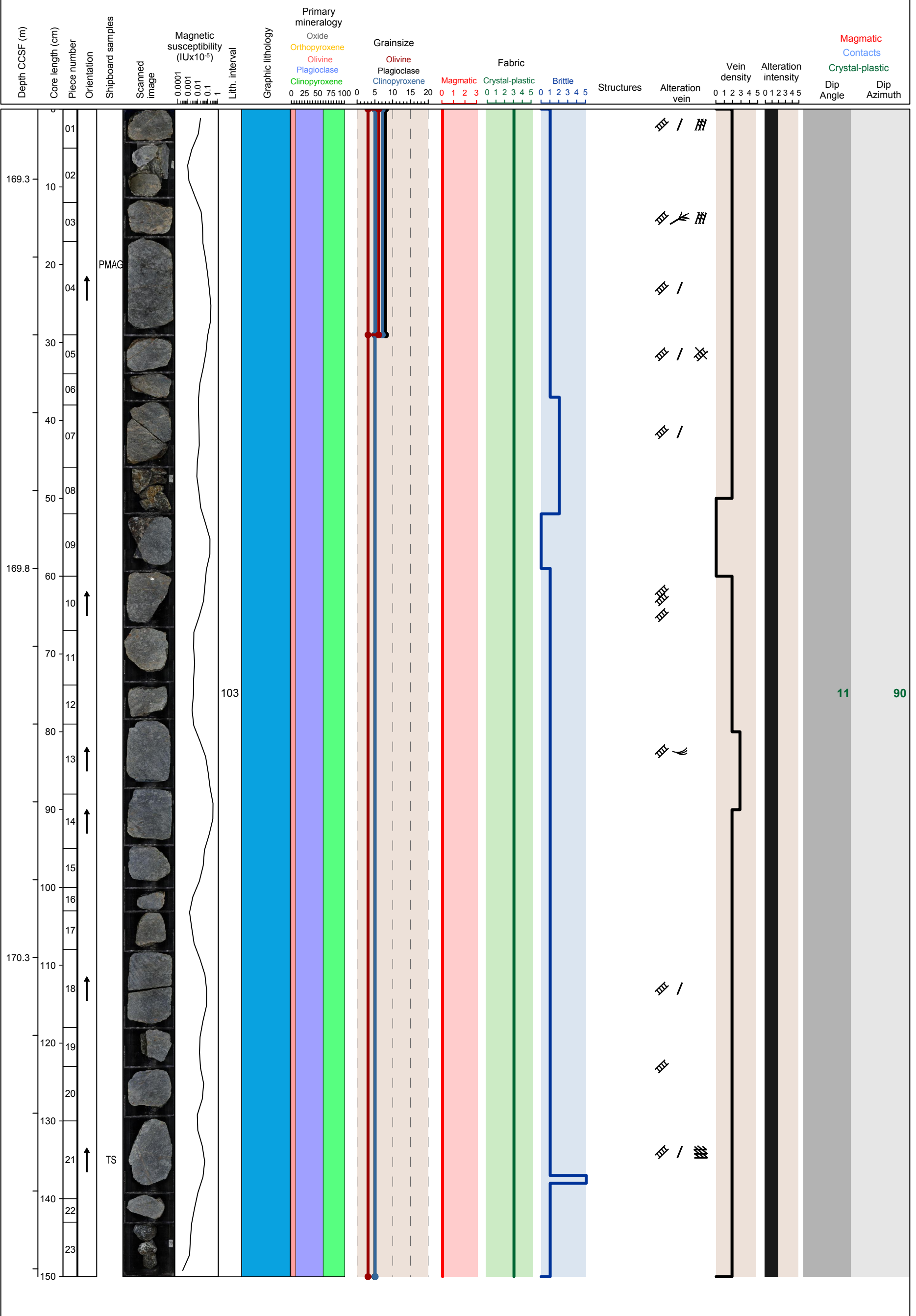


Hole 360-U1473A-19R Section 2, Top of Section: 169.21 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Coarse grained granular olivine gabbro (interval 103)

Metamorphic Petrology: Static background alteration intensity is moderate. Several areas of intense alteration were observed to occur near the veins.

Structural Geology: Shallowly dipping crystal plastic fabrics with some domains of intense shear. The alteration veins are steeply dipping filled with carbonate. There is a steeply dipping, normal sense cataclasite at 137 cm.

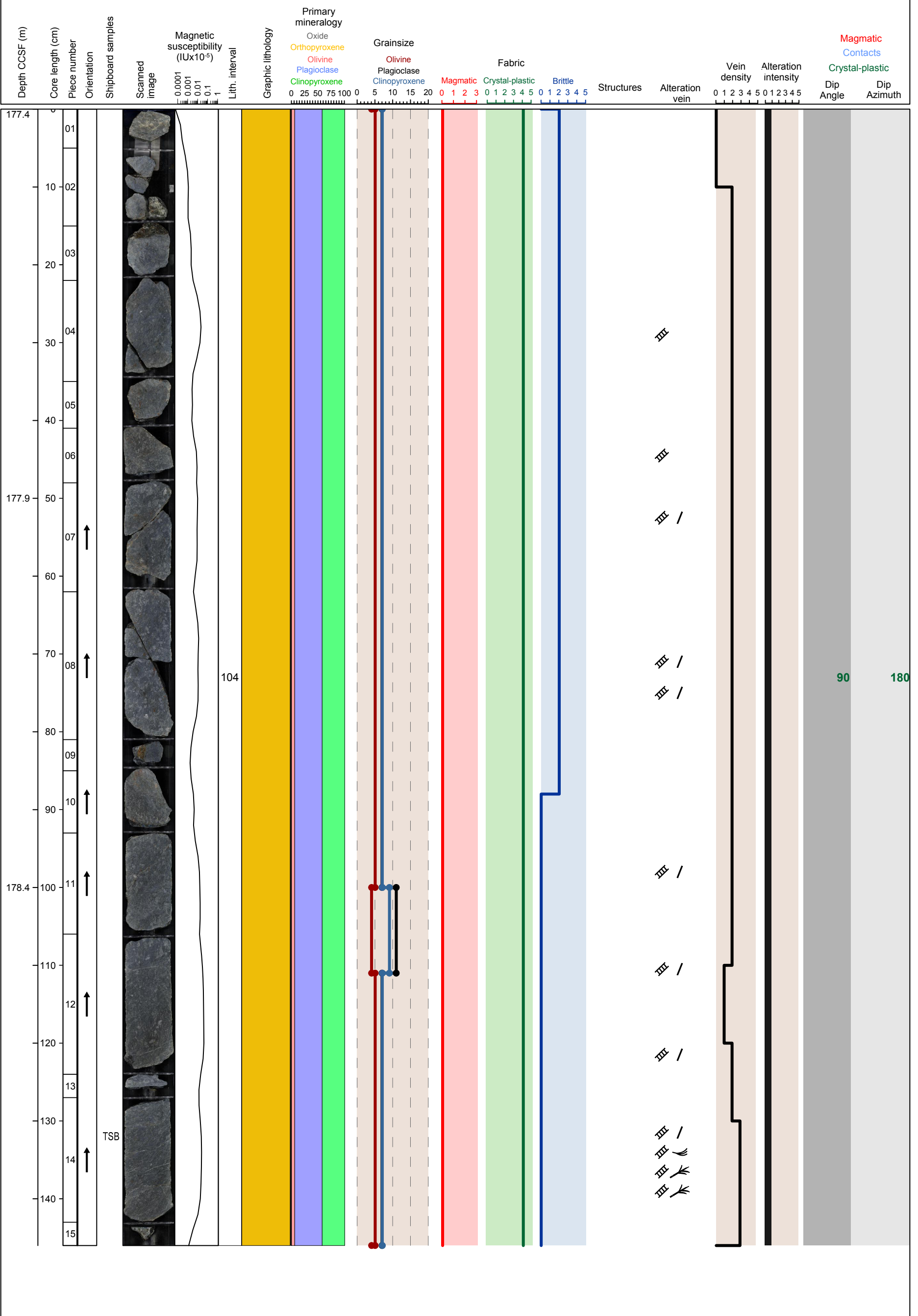


Hole 360-U1473A-20R Section 1, Top of Section: 177.4 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained ophitic disseminated oxide olivine gabbro (interval 104)

Metamorphic Petrology: Static background alteration intensity is slight; substantial clay mineral formation is mostly recorded in vein halos in upper part of this section.

Structural Geology: The crystal plastic fabric is vertical to sub-vertical overprinting shallowly dipping grain size layering, all offset by moderately dipping shear bands.

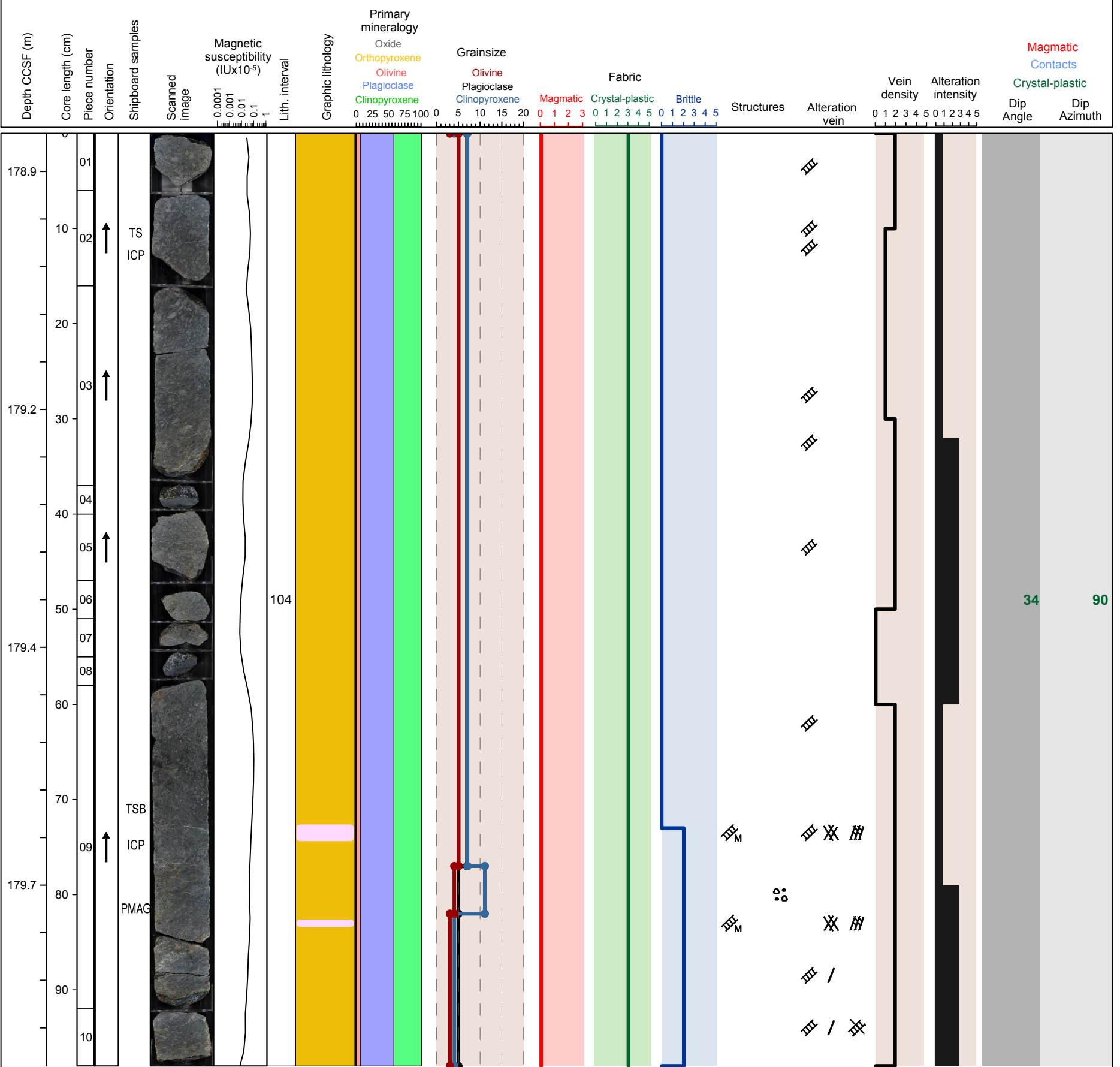


Hole 360-U1473A-20R Section 2, Top of Section: 178.86 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained ophitic disseminated oxide olivine gabbro with a oxide bearing trondhjemite patchy domain (interval 104)

Metamorphic Petrology: Static background alteration intensity is slight to substantial. Intensely altered intervals contain significant amounts of brown clay, which could be formed by low-temperature veining.

Structural Geology: The crystal plastic fabric is steeply dipping crosscut and offset by lower angle shear bands. There is a magmatic breccia at 77-81 cm.

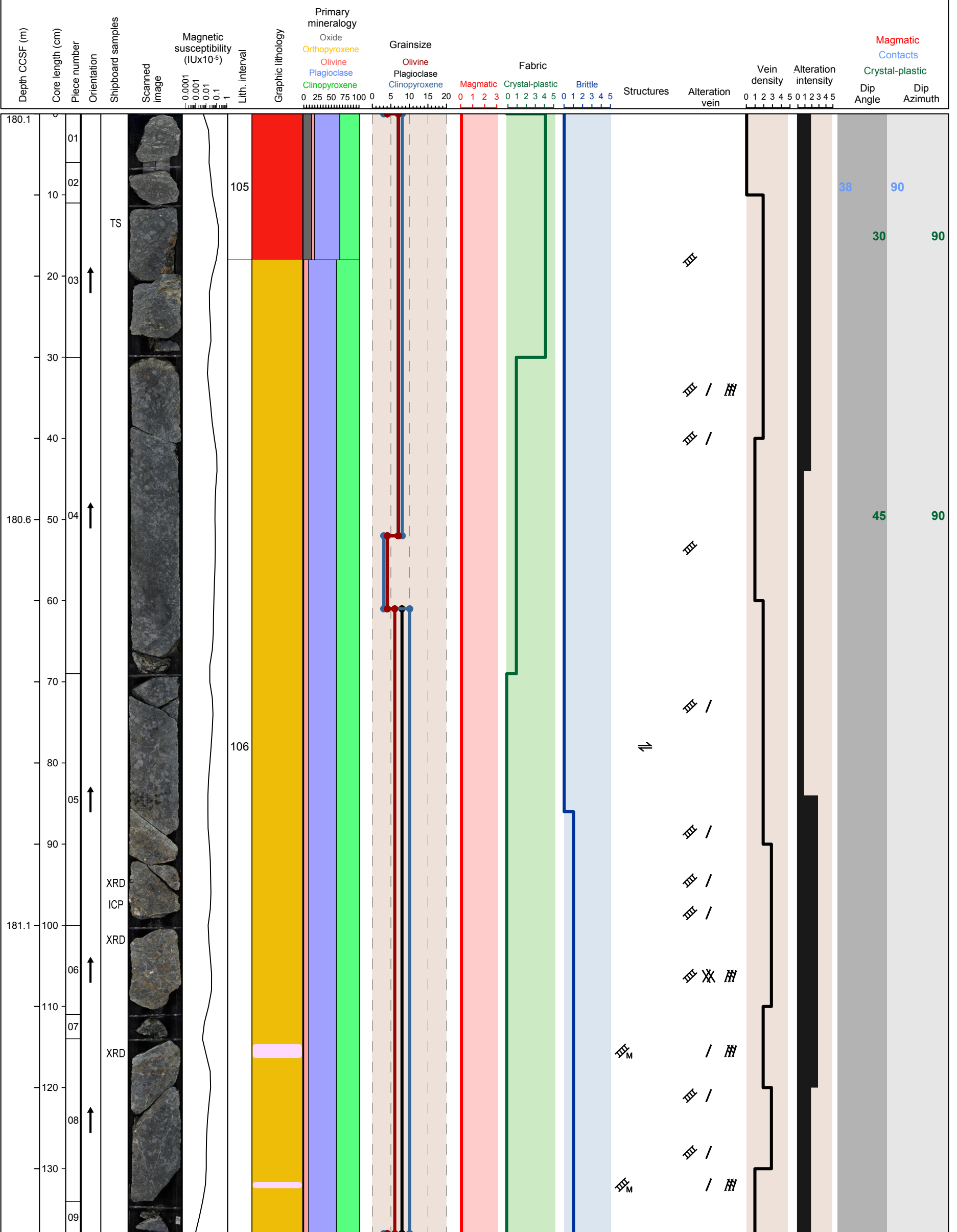


Hole 360-U1473A-21R Section 1, Top of Section: 180.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 105) and coarse grained granular disseminated oxide olivine gabbro (interval 106)

Metamorphic Petrology: Static background alteration intensity ranges from slight to substantial. The most altered part is associated with an interval of dense veining between two conspicuous veins.

Structural Geology: Sharp contact between disseminated oxide gabbro and an oxide-rich layer. Moderately dipping crystal plastic fabric near the top of the section. Alteration veins are inclined and filled with carbonate.

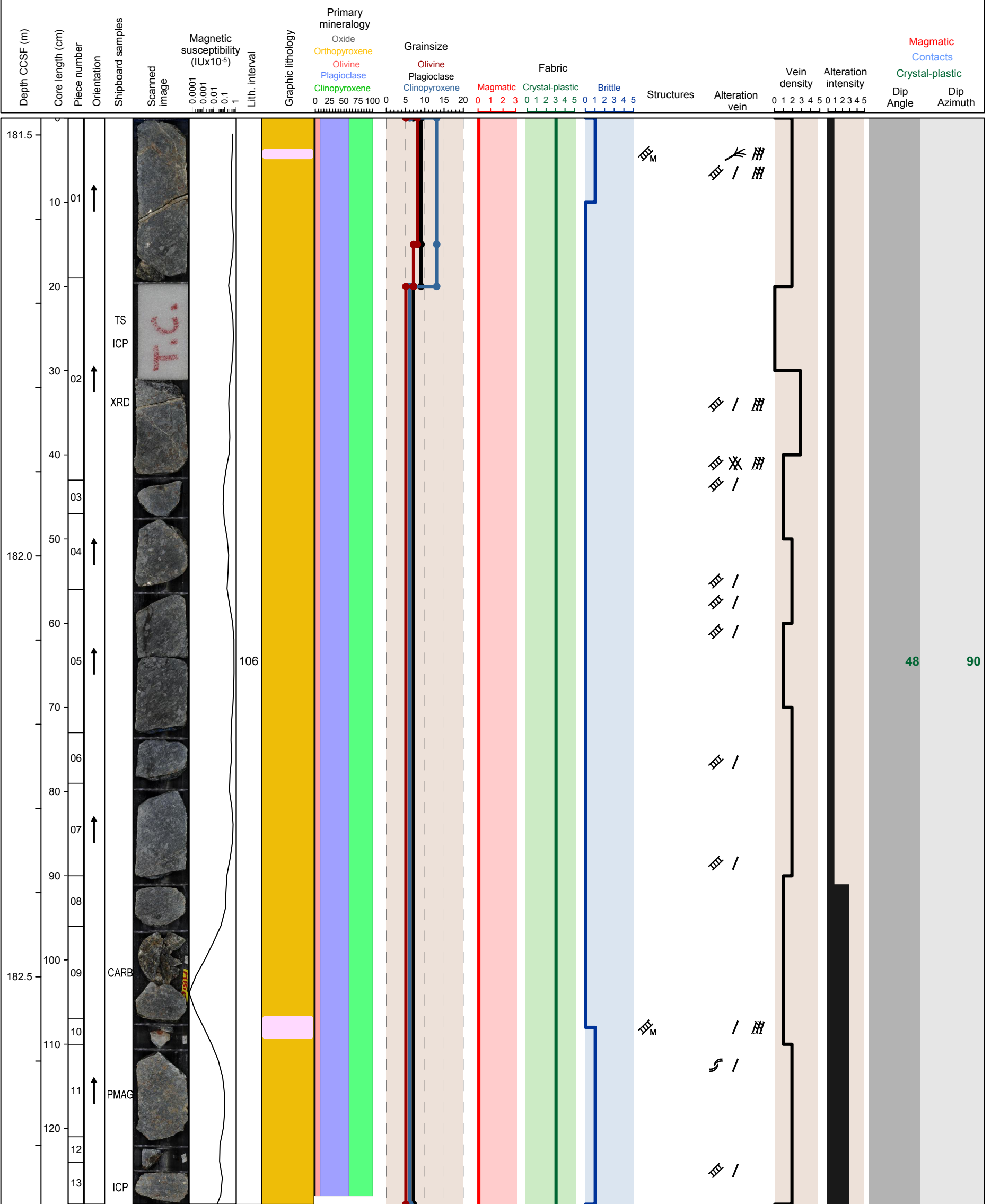


Hole 360-U1473A-21R Section 2, Top of Section: 181.48 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 106)

Metamorphic Petrology: Static background alteration intensity ranges from slight to substantial. Substantial alteration was observed at the bottom of the section and can be associated with dense veining.

Structural Geology: The crystal plastic fabric has a moderate dip. The alteration veins are inclined and filled with carbonate.

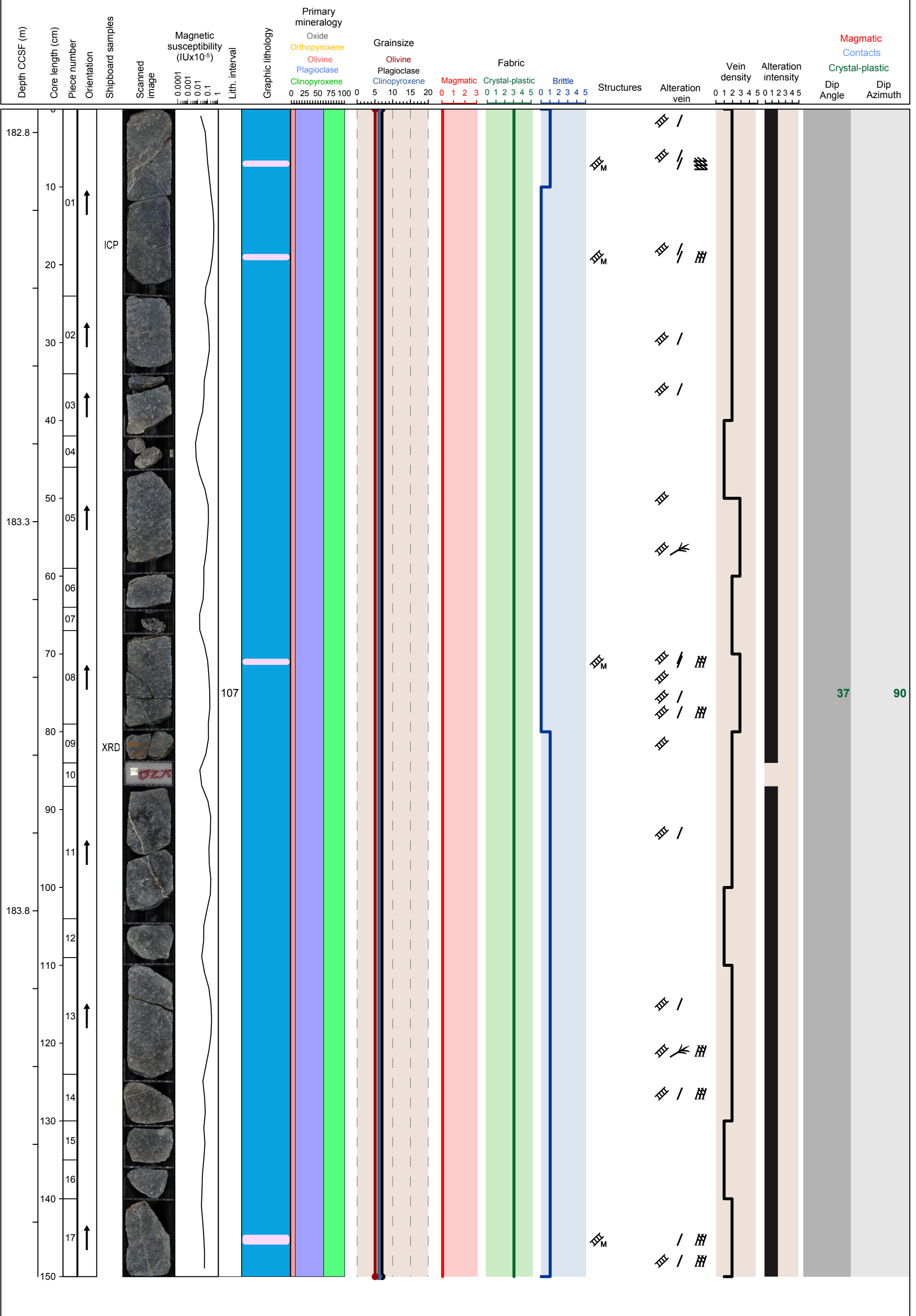


Hole 360-U1473A-21R Section 3, Top of Section: 182.77 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 107)

Metamorphic Petrology: Static background alteration intensity is moderate. There are some areas with substantial degree of alteration and these areas are associated with veins, mostly carbonate.

Structural Geology: The crystal plastic fabric has a shallow to moderate dip. The alteration veins are inclined and filled with carbonate.

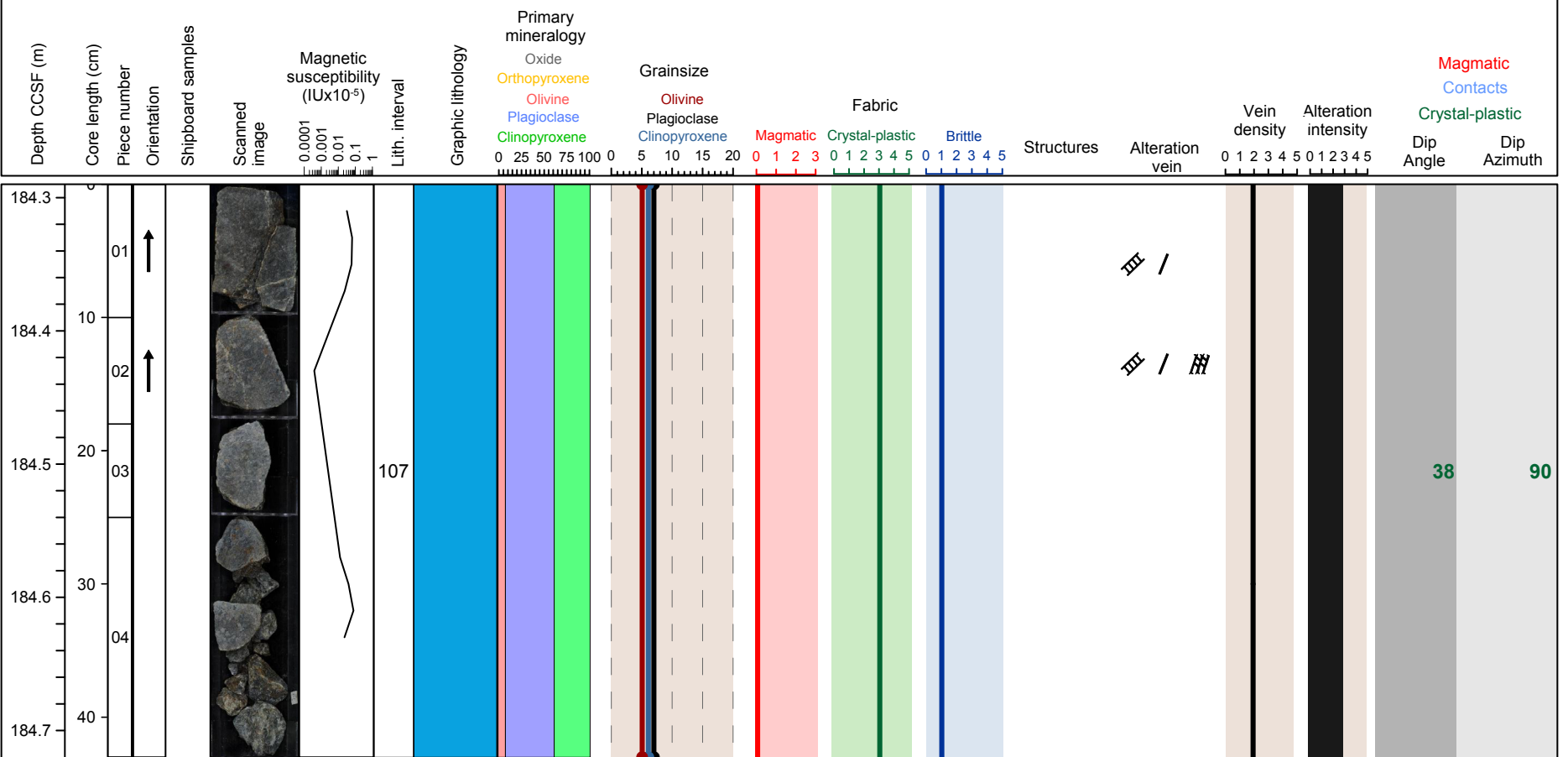


Hole 360-U1473A-21R Section 4, Top of Section: 184.27 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 107)

Metamorphic Petrology: Static background alteration intensity is substantial.

Structural Geology:

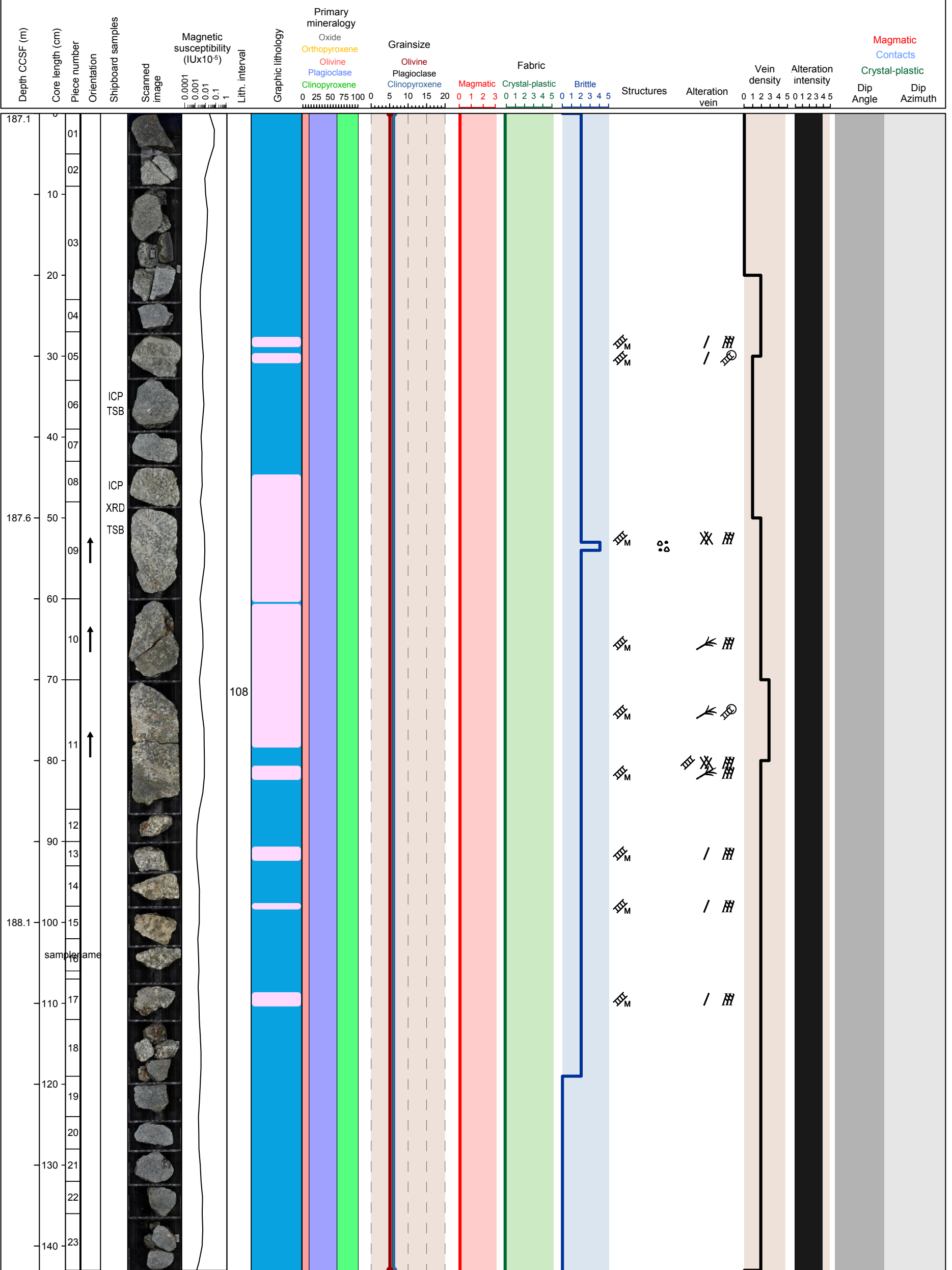


Hole 360-U1473A-22R Section 1, Top of Section: 187.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro with a oxide bearing trondhjemite patchy domain (interval 108)

Metamorphic Petrology: Static background alteration intensity is extensive. The interval is marked by numerous felsic veins. The extensive alteration is associated with these veins.

Structural Geology: Felsic vein network form a localization of alteration. At 53 cm a reverse-sense fault cuts a felsic vein.

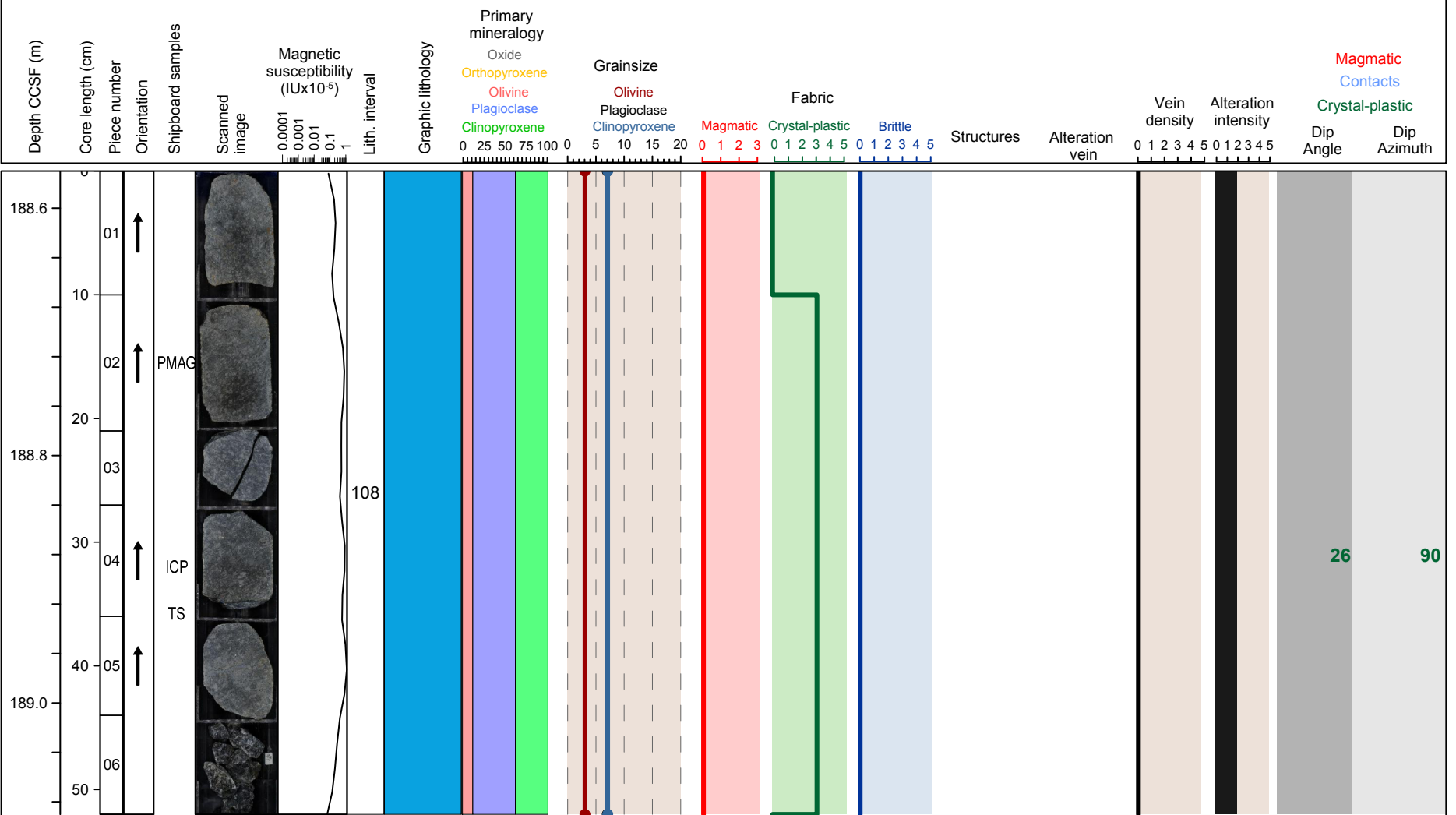


Hole 360-U1473A-22R Section 2, Top of Section: 188.53 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 108)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense altered part could be halo.

Structural Geology: The crystal plastic fabric has a moderate dip.

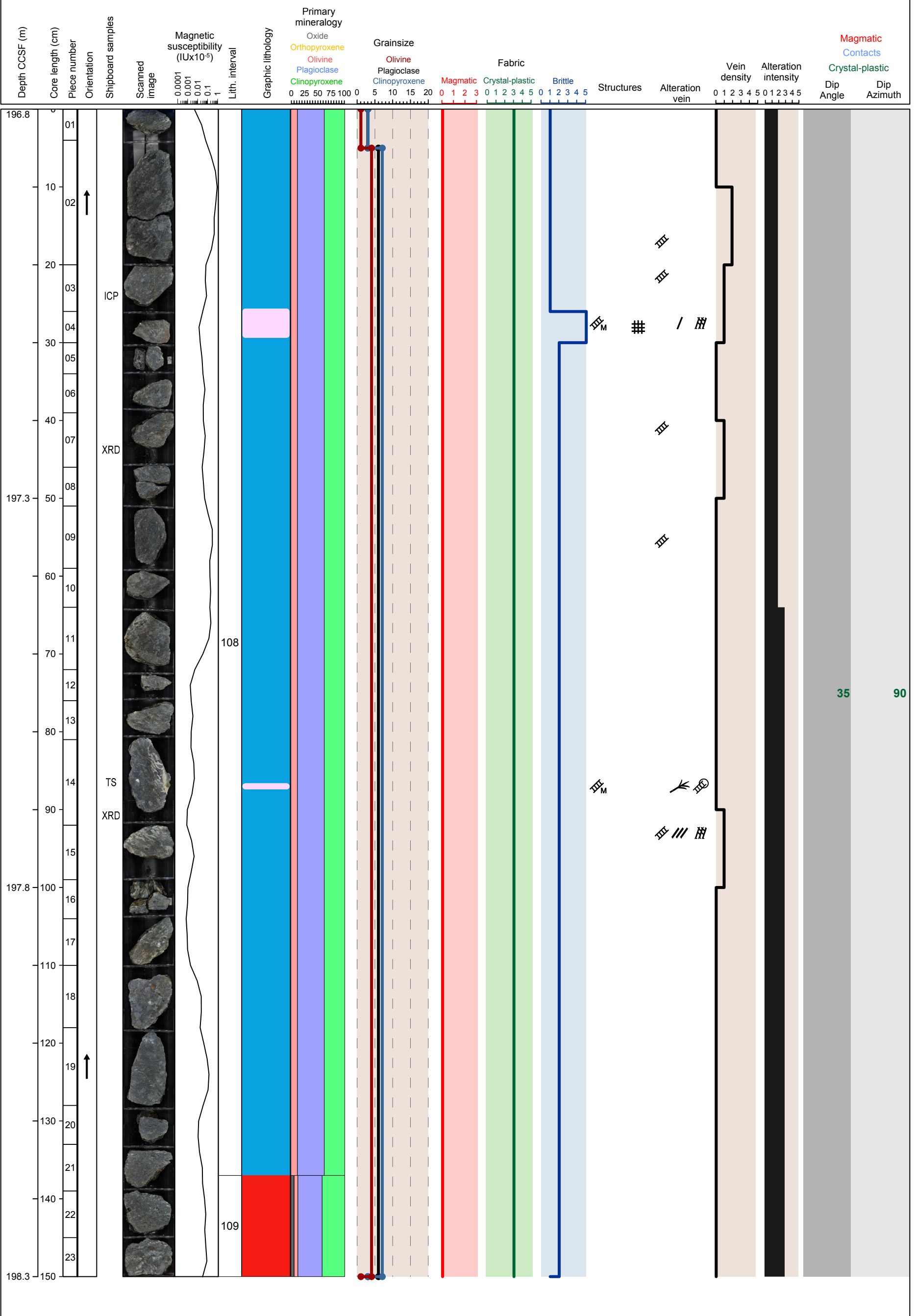


Hole 360-U1473A-23R Section 1, Top of Section: 196.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro with a fine grained oxide bearing trondhjemite felsic domain (interval 108) and coarse grained granular olivine oxide gabbro (interval 109)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial. More intense alteration occur near the halos.

Structural Geology: The crystal plastic fabric is moderately dipping. The cataclasite at 81 cm cuts an amphibole vein.

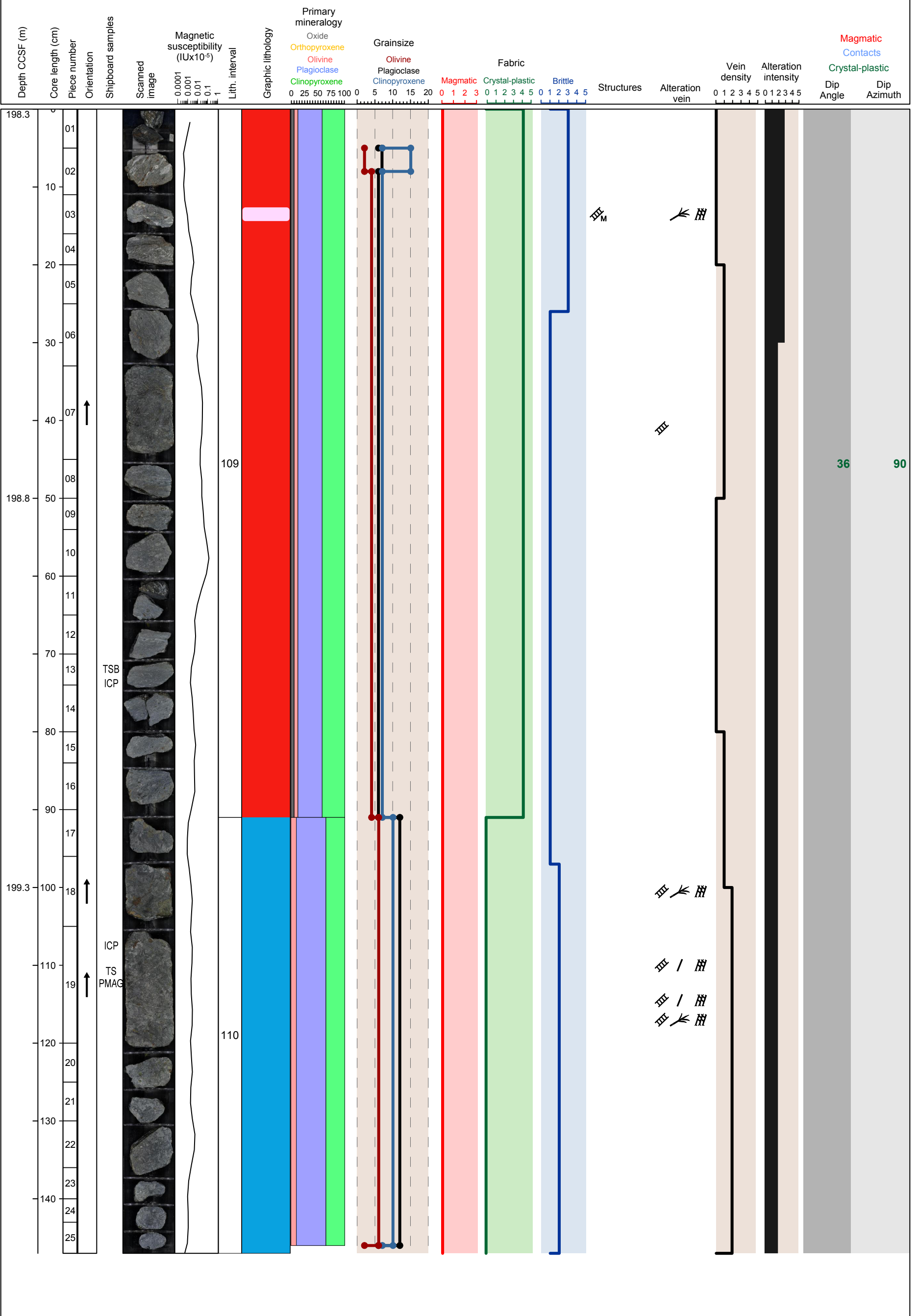


Hole 360-U1473A-23R Section 2, Top of Section: 198.3 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 109) and coarse grained subophitic olivine gabbro with fine grained granular oxide bearing trondhjemite felsic domain (interval 110)

Metamorphic Petrology: Static background alteration intensity is moderate. The uppermost part of the section is substantially altered and is related to a mylonitized zone.

Structural Geology: The mylonites are fine grained and have a near-horizontal dip. Narrow shear bands deform the mylonites.

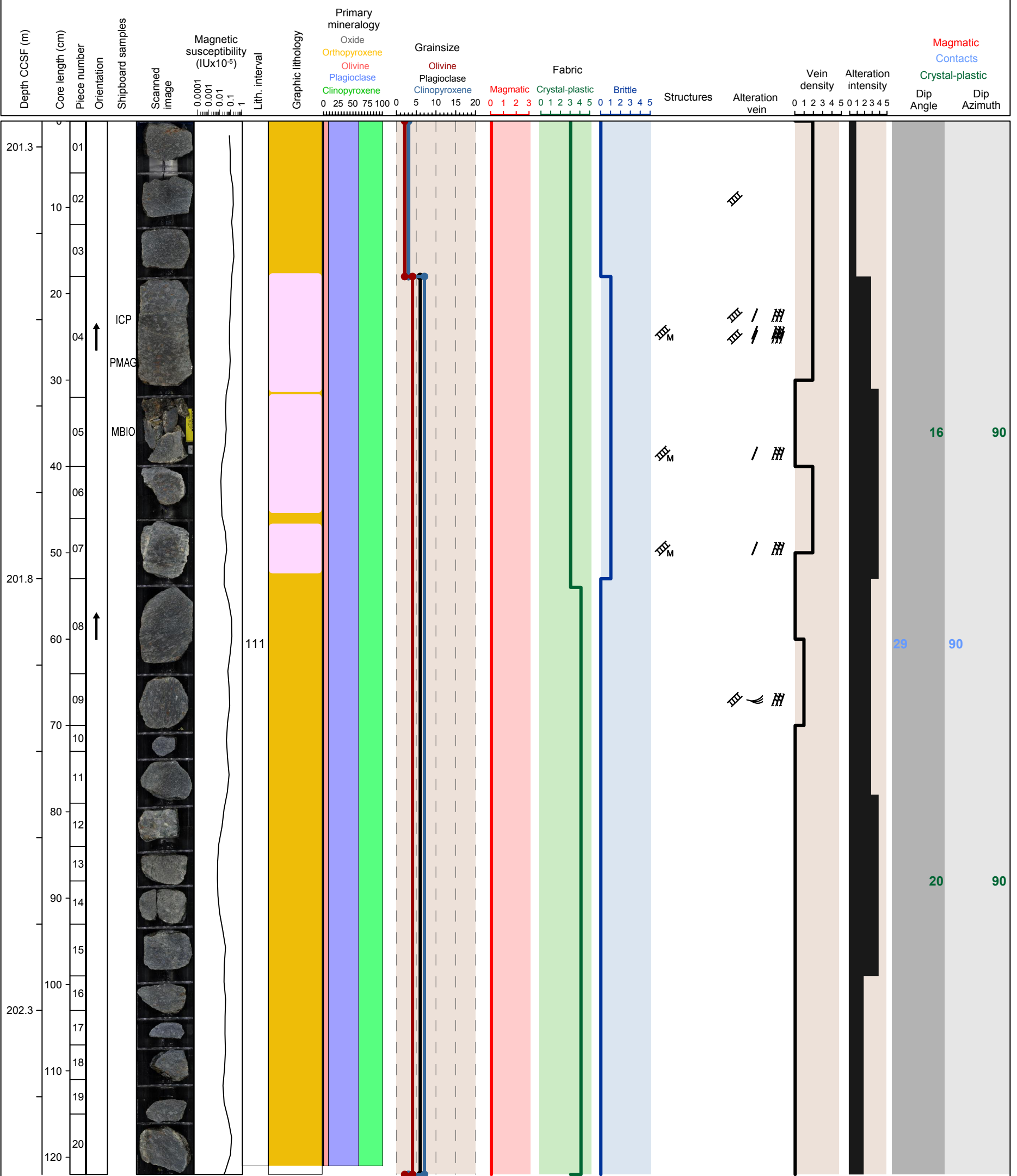


Hole 360-U1473A-23R Section 4, Top of Section: 201.27 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro with fine grained granular oxide bearing ironhemite felsic domain (interval 111)

Metamorphic Petrology: Static background alteration intensity in this section is variable, ranging from slight to extensive. The more intense alteration are associated with the veins and the host rock surrounding it.

Structural Geology: The crystal plastic fabric is defined by discrete shear bands with shallow dips.

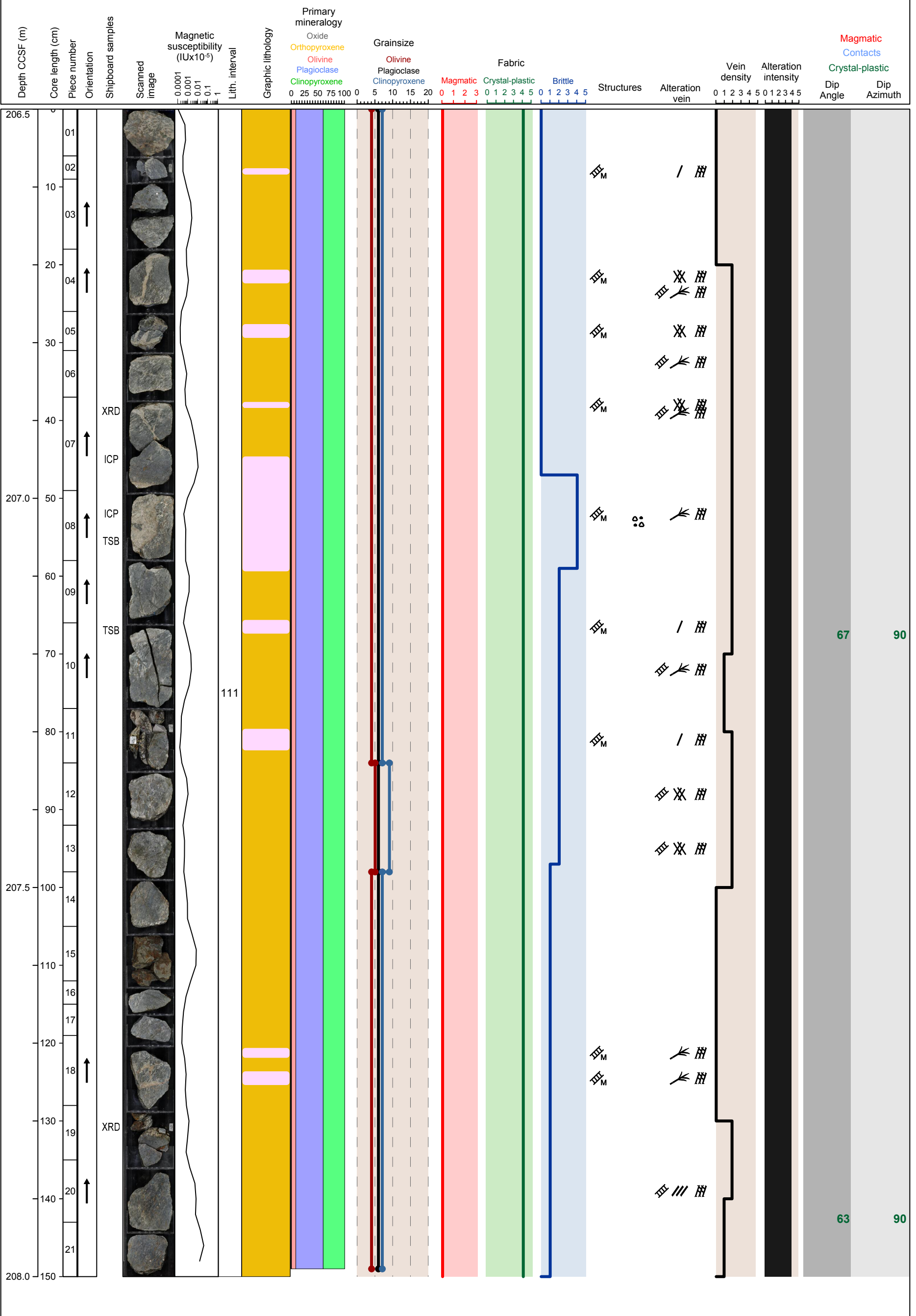


Hole 360-U1473A-24R Section 1, Top of Section: 206.5 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro with fine grained granular oxide bearing trondhjemite felsic domain (interval 111)

Metamorphic Petrology: Static background alteration is extensive. Numerous cm scale felsic veins occurs in this section and more intense alteration occur near these veins.

Structural Geology: Fine and medium grained layering cut by steep crystal plastic fabrics. The felsic material forms a network vein. There is a magmatic breccia at 47-59 cm.

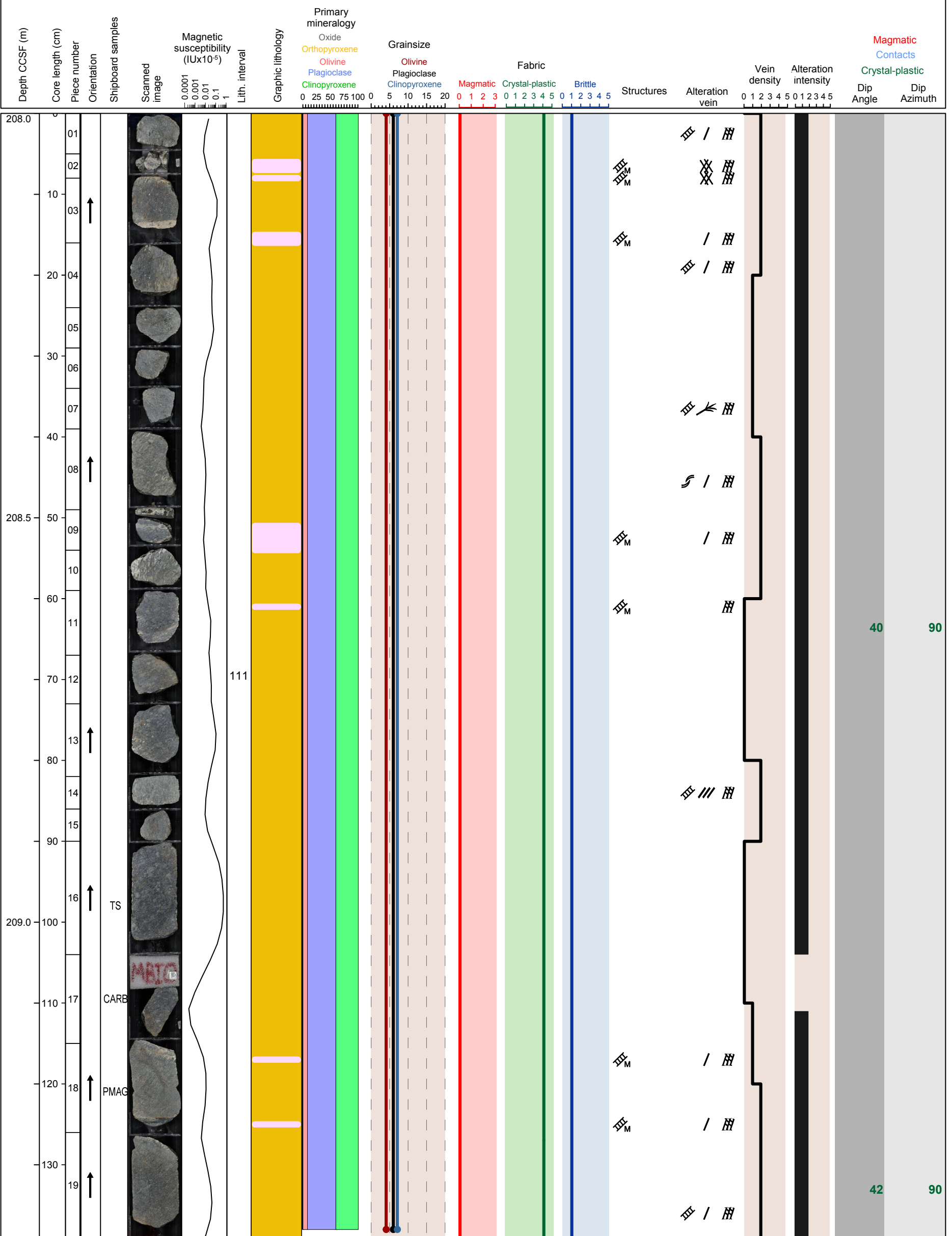


Hole 360-U1473A-24R Section 2, Top of Section: 208.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro with fine grained granular oxide bearing ironhemite felsic domain (interval 111)

Metamorphic Petrology: Static background alteration intensity is moderate. Felsic veins were observed throughout in the section and intense alteration was noted for areas surrounding these veins.

Structural Geology: The crystal plastic fabric has a moderate dip overprinting fine and coarse grained layering.

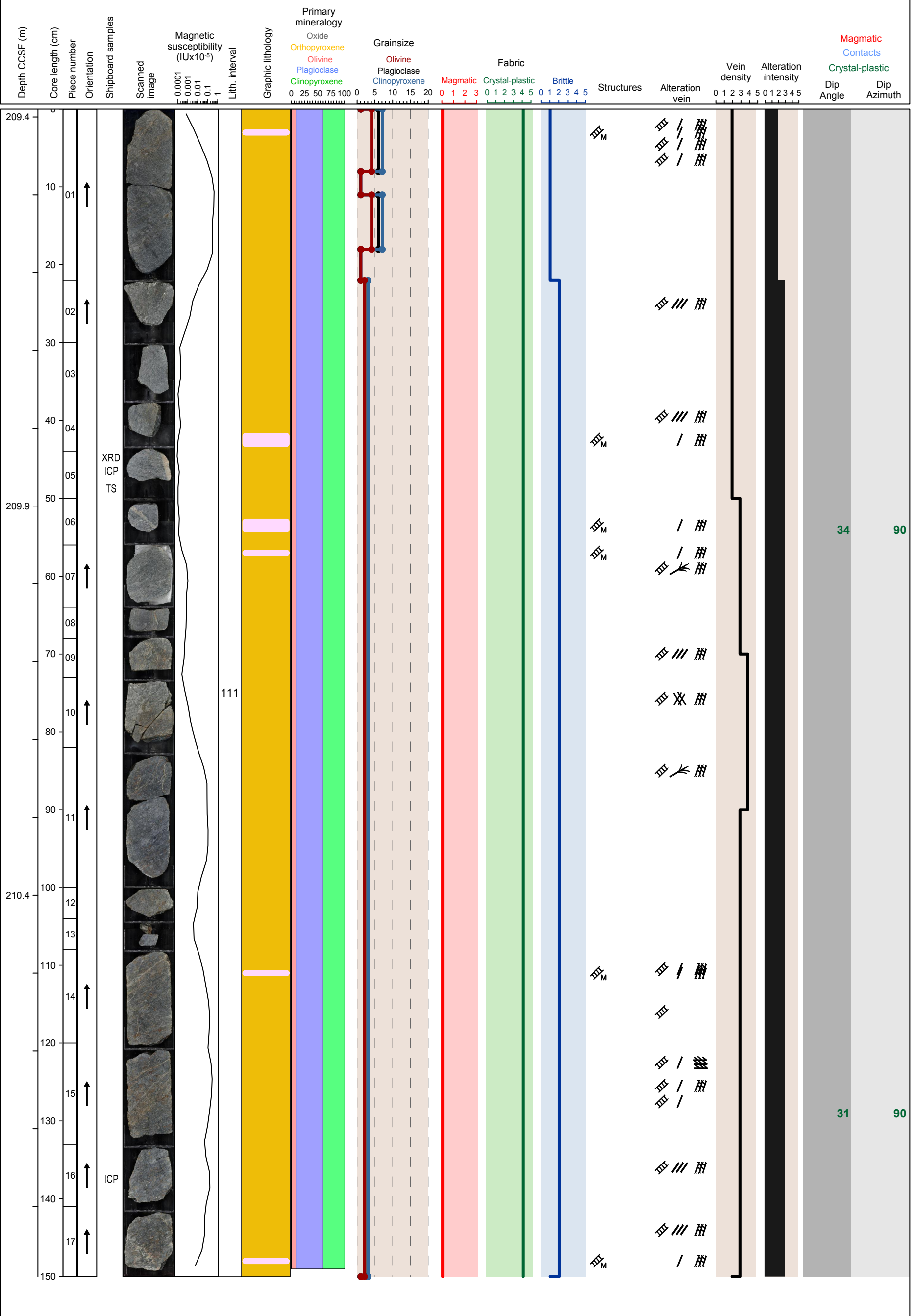


Hole 360-U1473A-24R Section 3, Top of Section: 209.39 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro with fine grained granular oxide bearing ironhemite felsic domain (interval 111)

Metamorphic Petrology: Static background alteration intensity is mostly substantial. The more intensely altered areas are associated with veins.

Structural Geology: There is an oxide-rich shear zone with a moderate to shallow dip. Alteration veins are filled with carbonate in inclined sub-parallel sets.

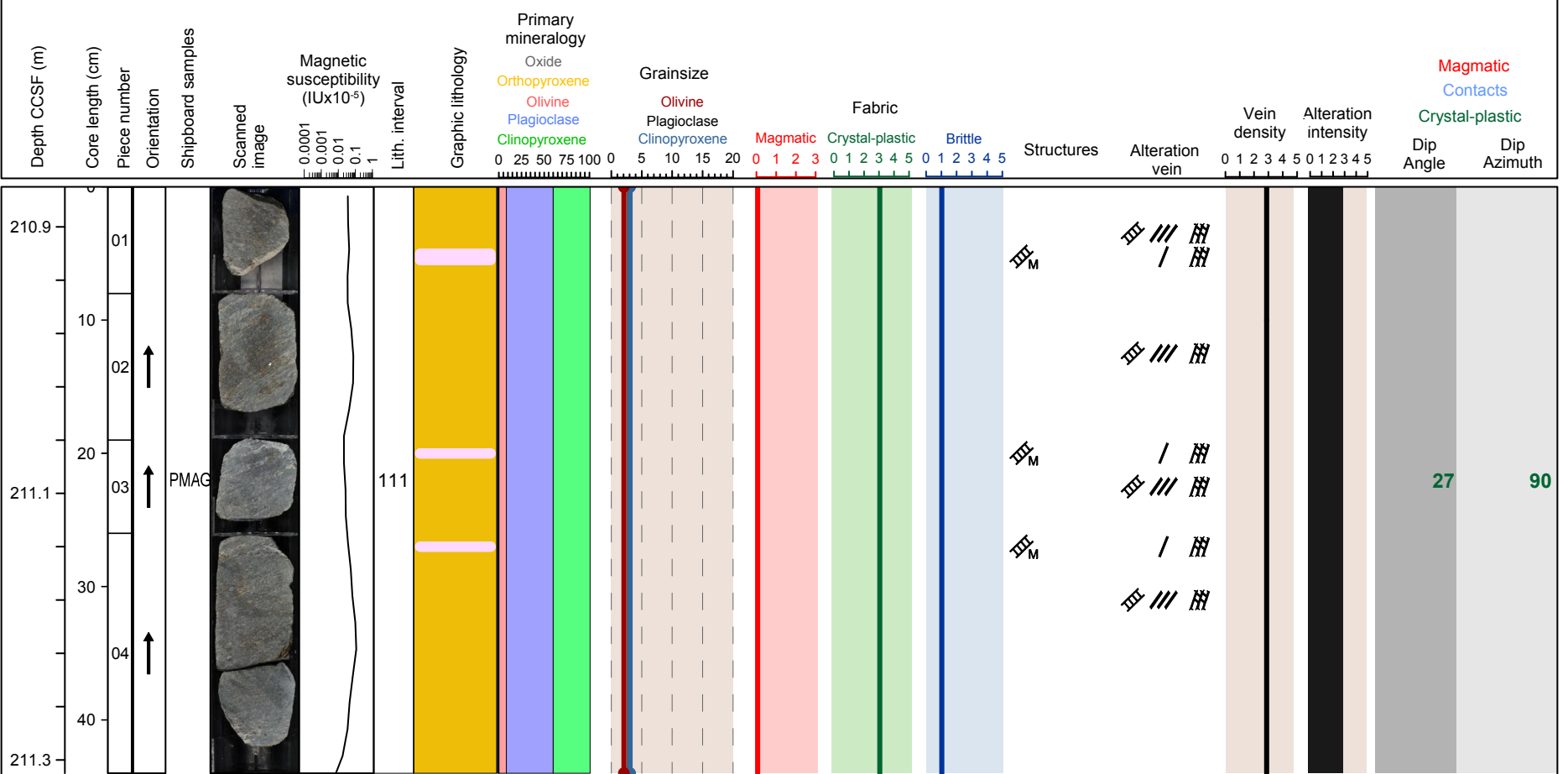


Hole 360-U1473A-24R Section 4, Top of Section: 210.89 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro with fine grained granular oxide bearing ironhemite felsic domain (interval 111)

Metamorphic Petrology: Static background alteration intensity is substantial. Intense alteration is associated with felsic veins.

Structural Geology: Oxide-rich layer has a moderate to shallow dip. The fine grained zone has a moderate to strong fabric.

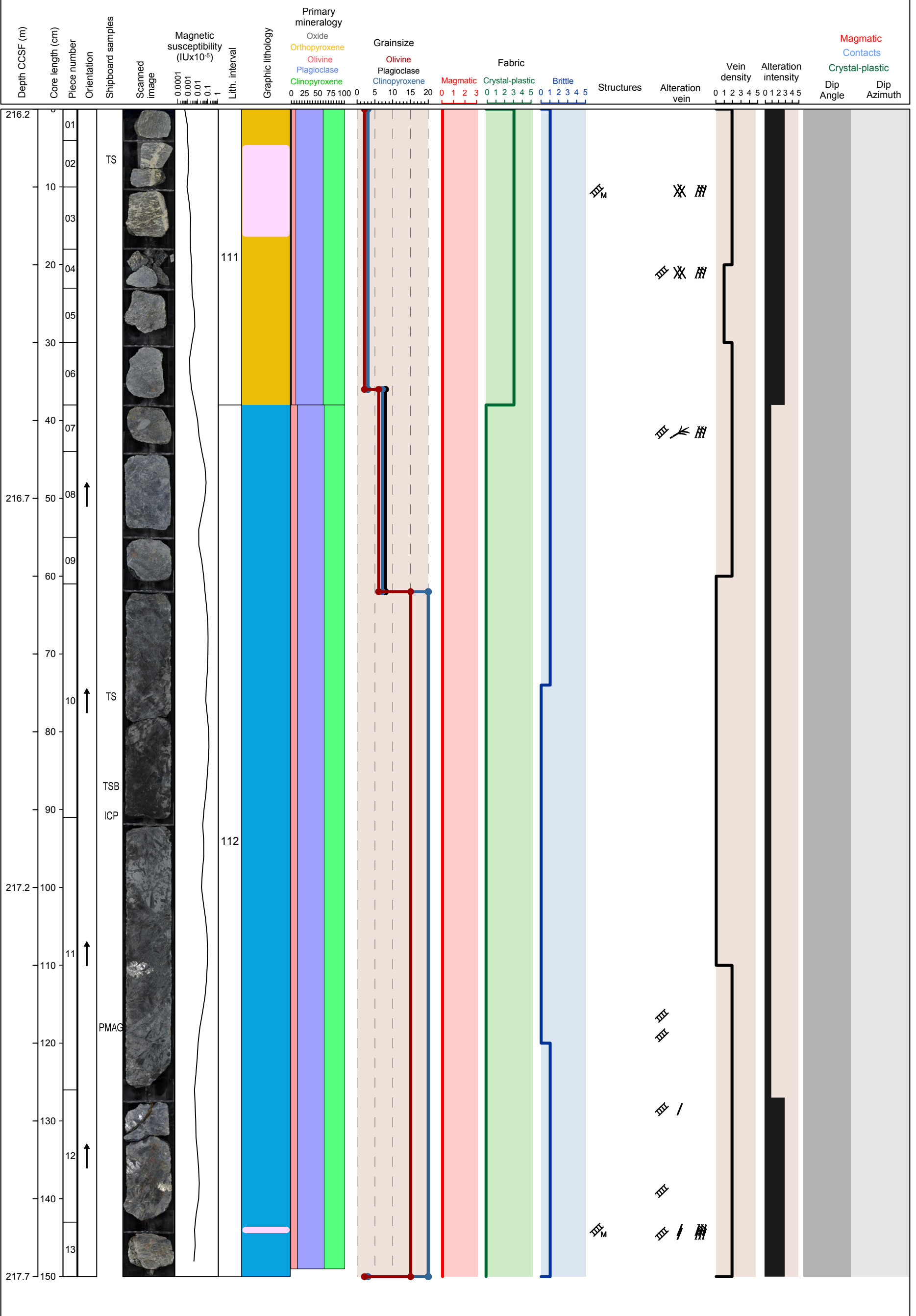


Hole 360-U1473A-25R Section 1, Top of Section: 216.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro with fine grained granular oxide bearing trondhjemite felsic domain (interval 111) and coarse grained ophitic olivine gabbro background domain with medium grained granular oxide bearing trondhjemite felsic domain (interval 112)

Metamorphic Petrology: The top and bottom part of this section are substantially altered likely due to the occurrence of the veins.

Structural Geology: Porphyroclastic to mylonitic shear zone in contact with very coarse grained olivine gabbro. The coarse gabbro is internally sheared.

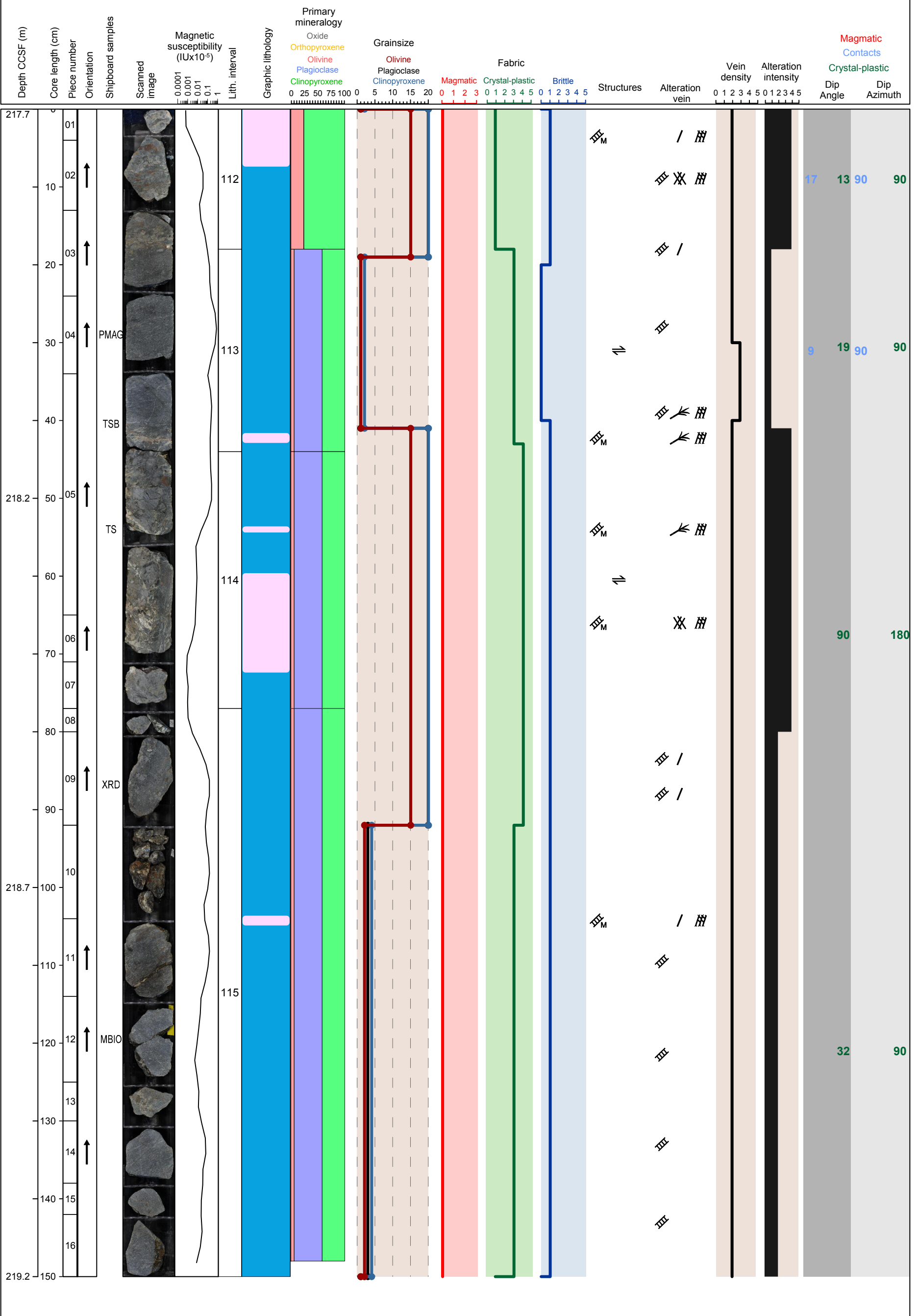


Hole 360-U1473A-25R Section 2, Top of Section: 217.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained ophitic olivine gabbro background domain with medium grained granular oxide bearing trondhjemite felsic domain (interval 112), medium grained granular olivine gabbro (interval 113), coarse grained granular olivine gabbro background with one medium grained granular oxide bearing trondhjemite felsic domain and medium grained granular olivine gabbro domain (interval 114) and medium grained granular olivine gabbro (interval 115)

Metamorphic Petrology: Static background alteration is variable cross the section. Some parts, especially the deformed coarse grained olivine gabbros, are extensively altered. The rest of this section are only slightly to moderately altered.

Structural Geology: The mylonites are sub-horizontal and sub-vertical in contact with coarse grained to pegmatitic olivine gabbro. The pegmatitic gabbro exhibits semi-brittle deformation with fractured pyroxene crystals filled with leucocratic material.

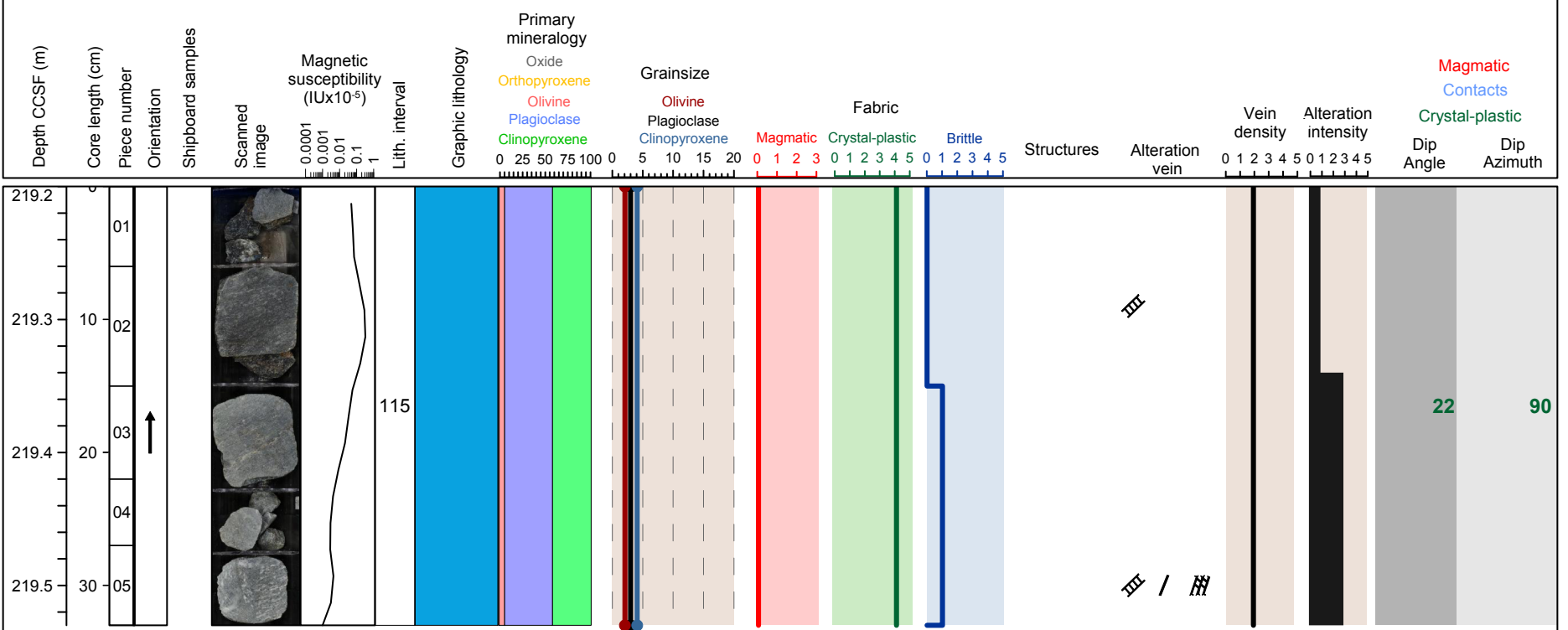


Hole 360-U1473A-25R Section 3, Top of Section: 219.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 115)

Metamorphic Petrology: Static background alteration intensity is slight to substantial. Veins were observed in the more altered part.

Structural Geology: The mylonite is shallow with plagioclase-rich layers.

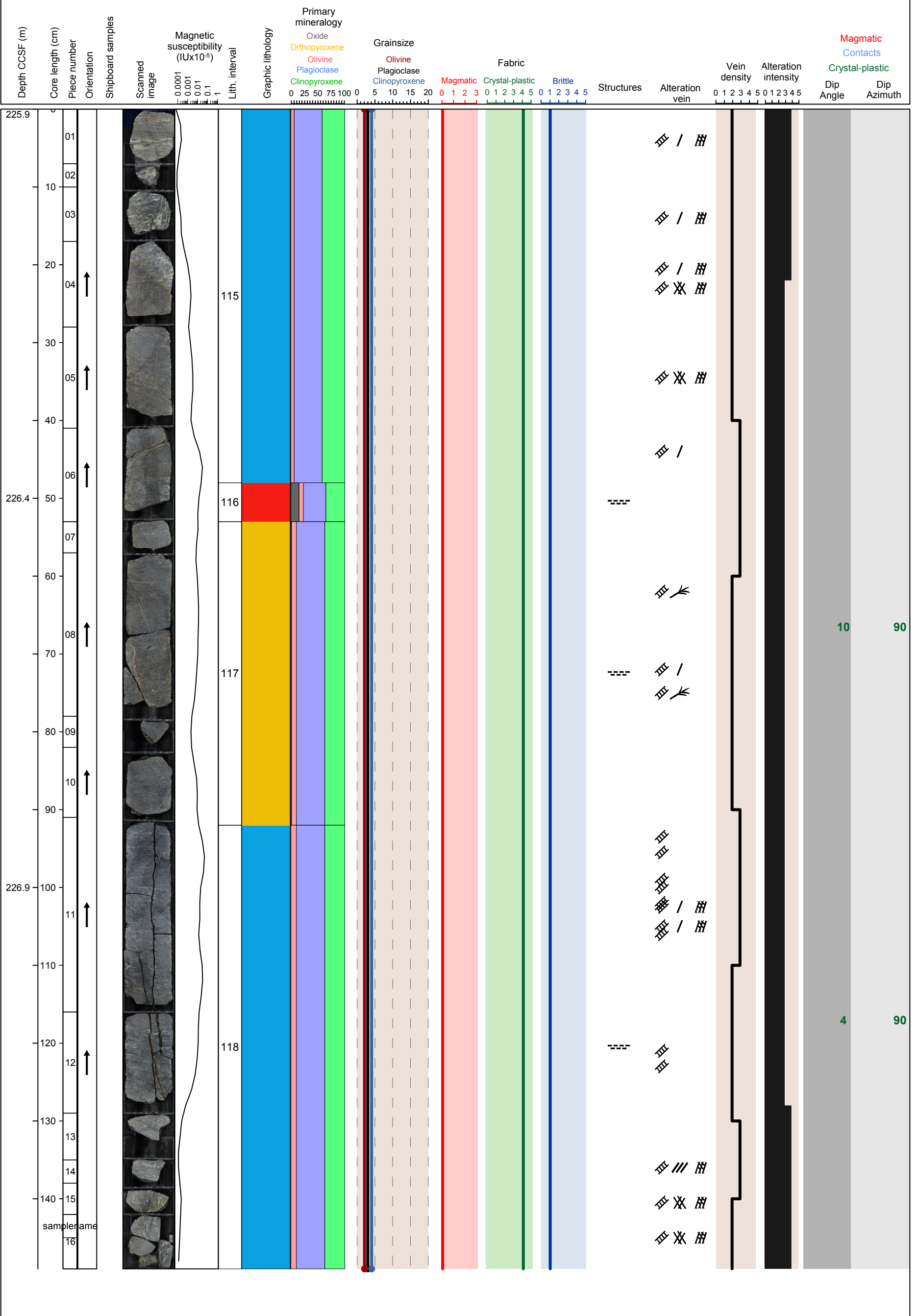


Hole 360-U1473A-26R Section 1, Top of Section: 225.9 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 115 and 118), medium grained granular oxide gabbro (interval 116), medium grained granular disseminated oxide olivine gabbro (interval 117)

Metamorphic Petrology: Static background alteration intensity is substantial to extensive. The section is marked by numerous veins and more intense alteration was observed near veins.

Structural Geology: The mylonite is shallowly dipping with plagioclase-rich layers.

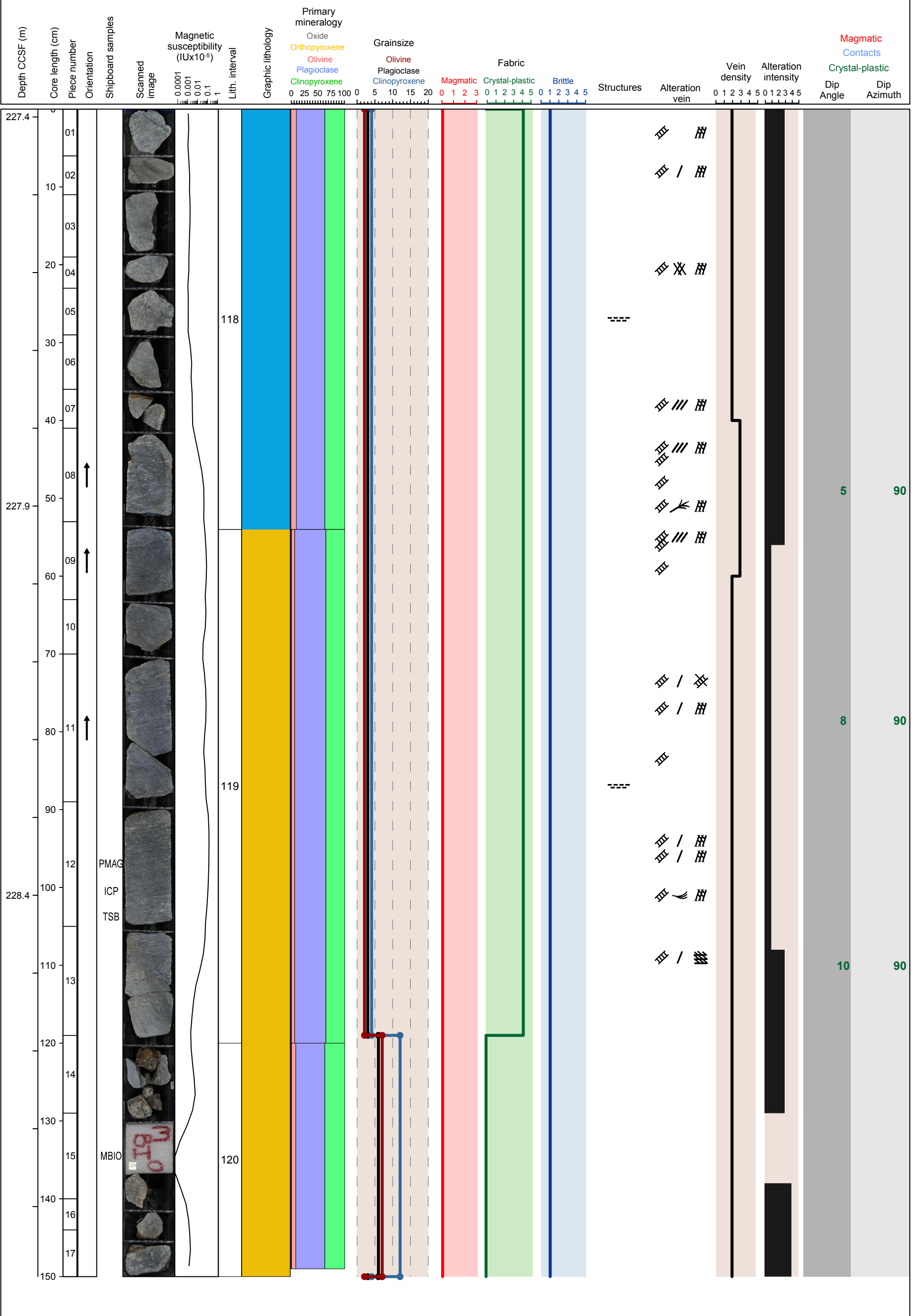


Hole 360-U1473A-26R Section 2, Top of Section: 227.39 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 118), medium grained granular disseminated oxide olivine gabbro (interval 119) and medium grained subophitic disseminated oxide olivine gabbro (interval 120)

Metamorphic Petrology: Static background alteration intensity is variable.

Structural Geology: Mylonites are shallowly dipping at the top of the section in contact with weakly deformed coarser grained gabbro in the bottom of the section. Alteration veins are filled with clay and form in parallel sets sub-parallel to the crystal plastic fabric.

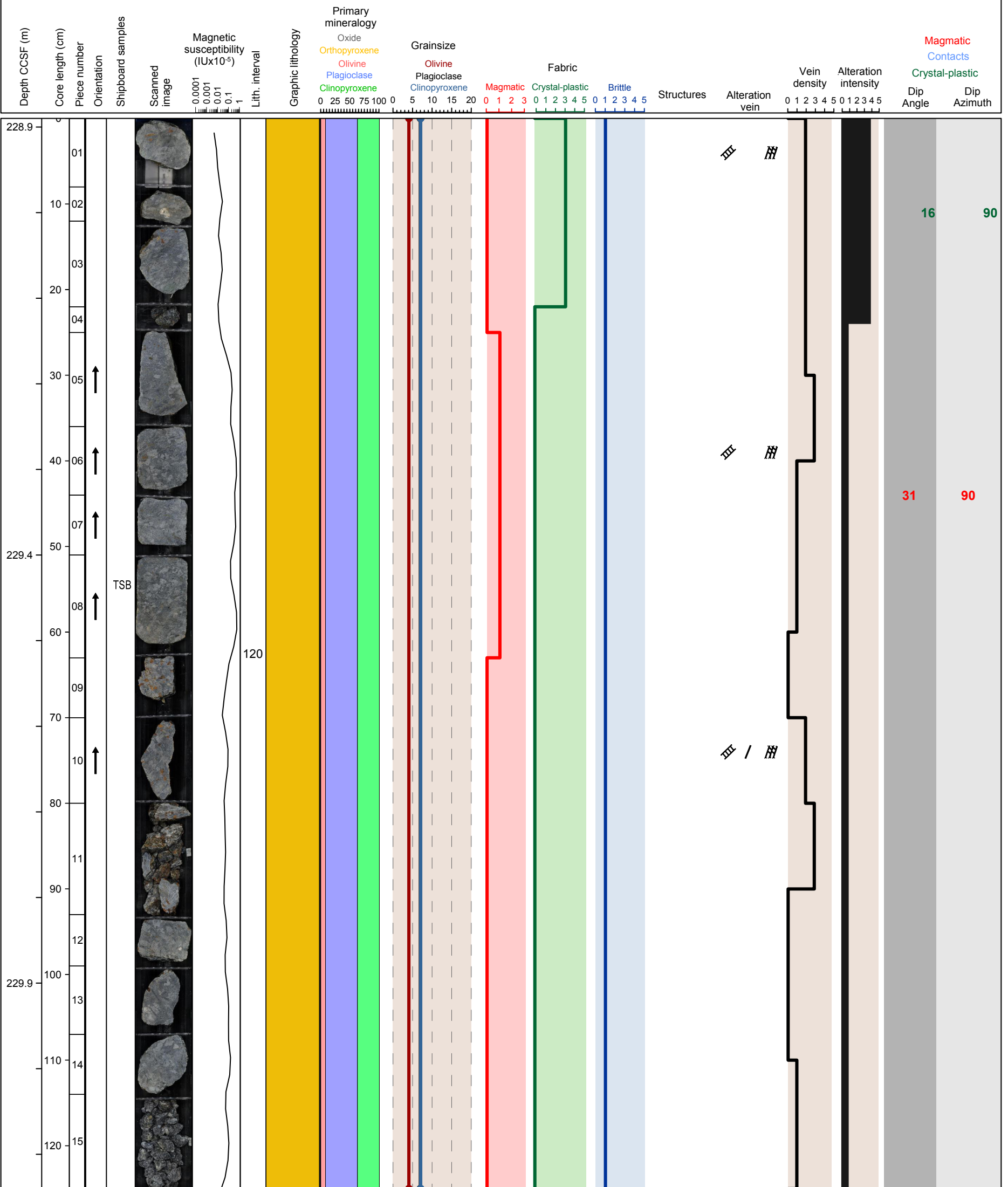


Hole 360-U1473A-26R Section 3, Top of Section: 228.89 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained subophitic disseminated oxide olivine gabbro (interval 120)

Metamorphic Petrology: Static background alteration intensity of the section is mostly slight while the upper part is intensely altered.

Structural Geology: Weakly deformed medium grained gabbro with a moderate to shallow dip. The magmatic fabric is inclined and defined by plagioclase and pyroxene.

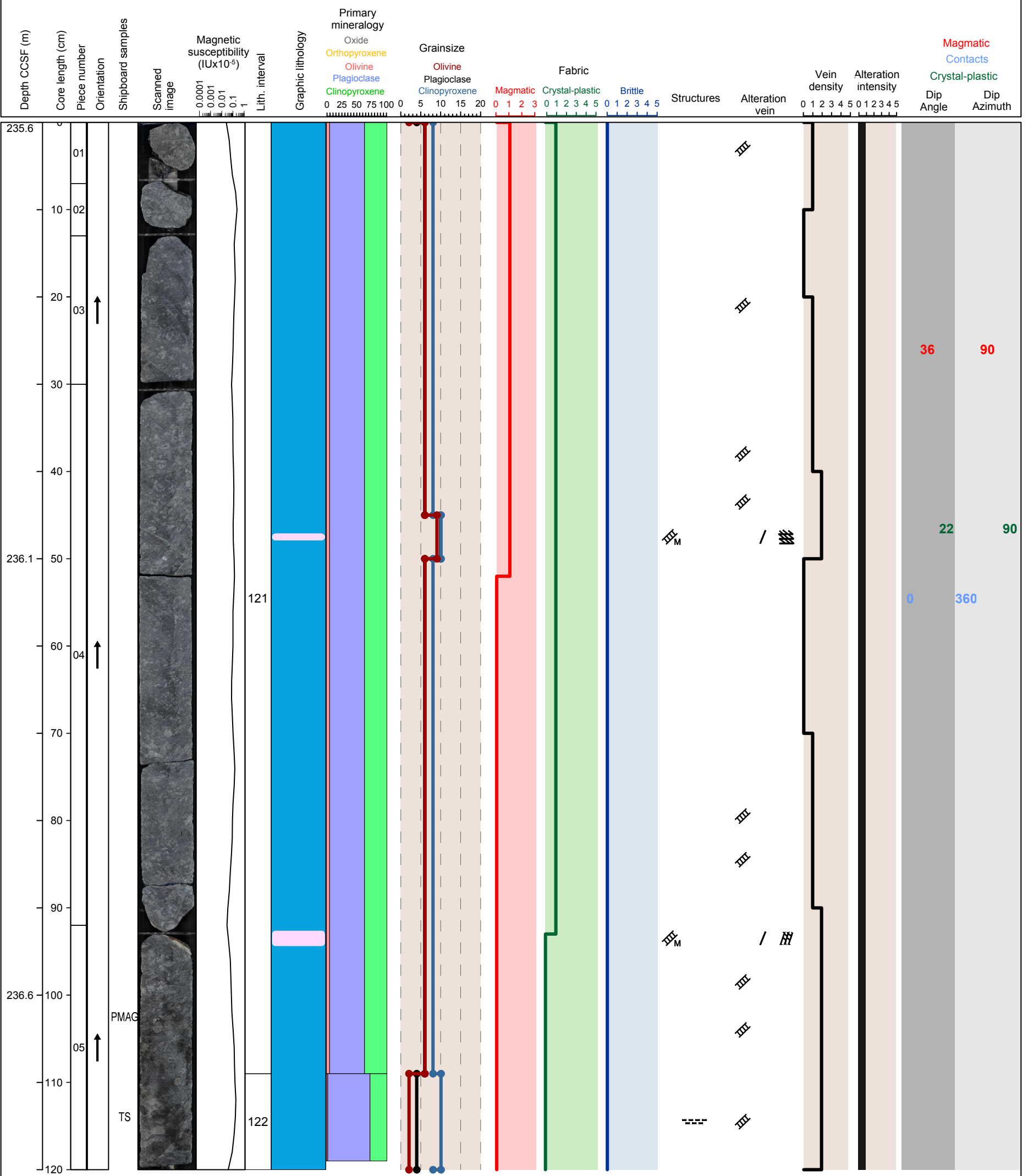


Hole 360-U1473A-27R Section 1, Top of Section: 235.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 121) and coarse grained granular olivine bearing gabbro (interval 122)

Metamorphic Petrology: The intensity of the static background alteration of the section is only slight.

Structural Geology: The crystal plastic fabric is weak and sub-horizontal. There is a shear zone at the modal boundary.

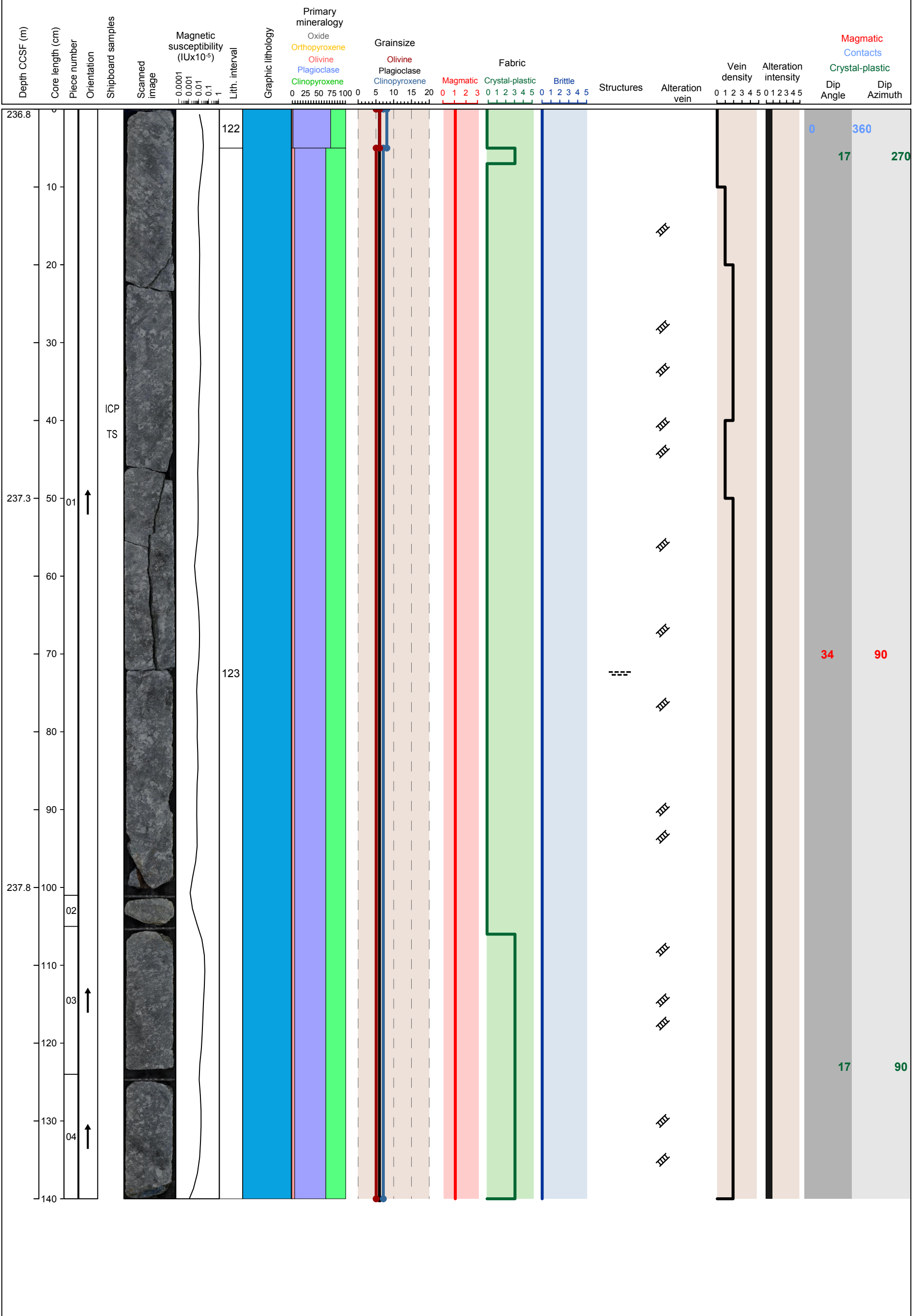


Hole 360-U1473A-27R Section 2, Top of Section: 236.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine bearing gabbro (interval 122) and coarse grained subophitic olivine gabbro (interval 123)

Metamorphic Petrology: The intensity of the static background alteration of the section is only slight.

Structural Geology: The crystal plastic fabric is sub-horizontal. There is shear along the modal boundary. The magmatic fabric is inclined and defined by plagioclase and pyroxene.

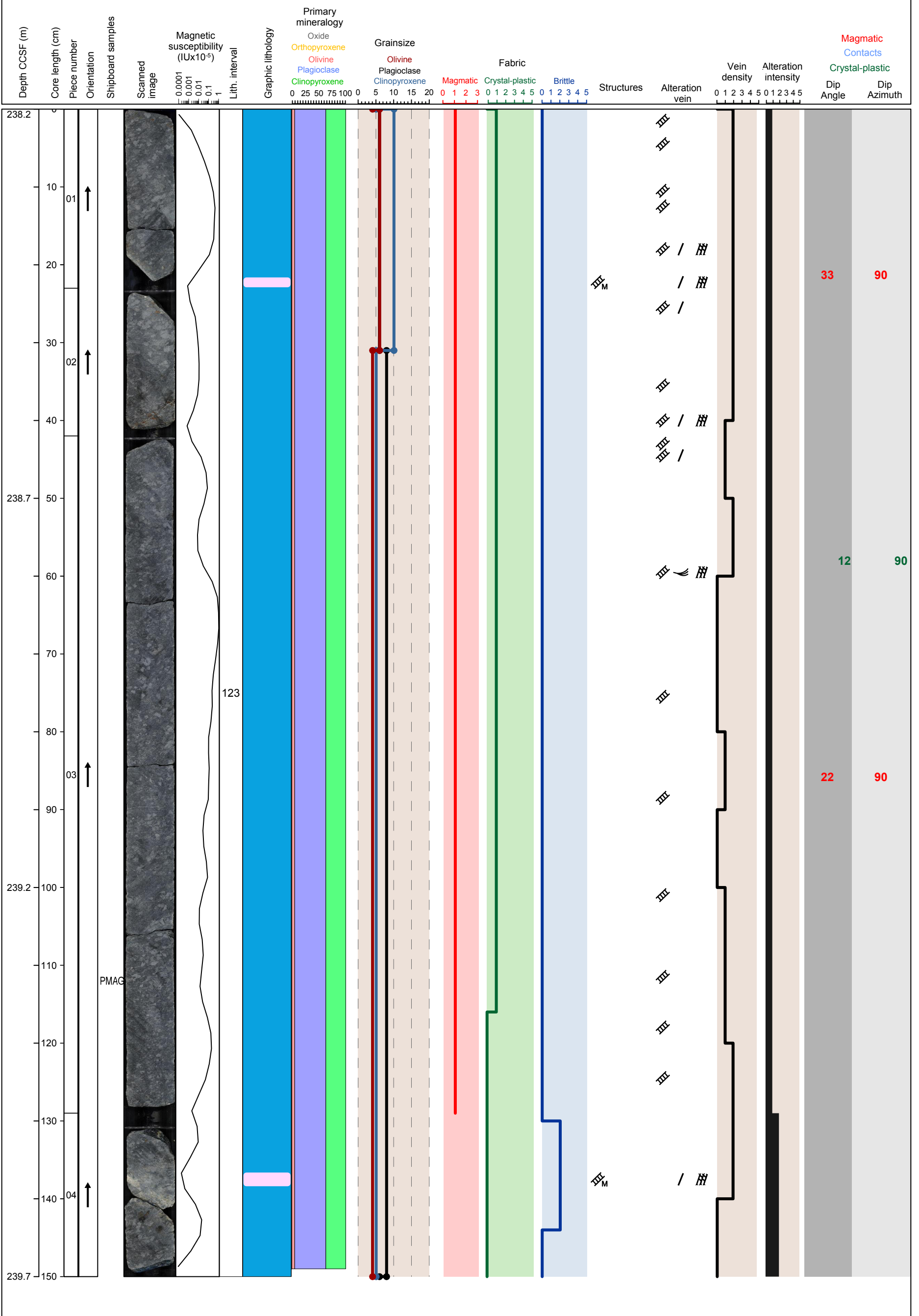


Hole 360-U1473A-27R Section 3, Top of Section: 238.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 123)

Metamorphic Petrology: Static background alteration is mostly slight. Moderate alteration occurs in areas near veins.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip. The magmatic fabric is inclined defined by plagioclase and pyroxene. There is weak grain size layering.

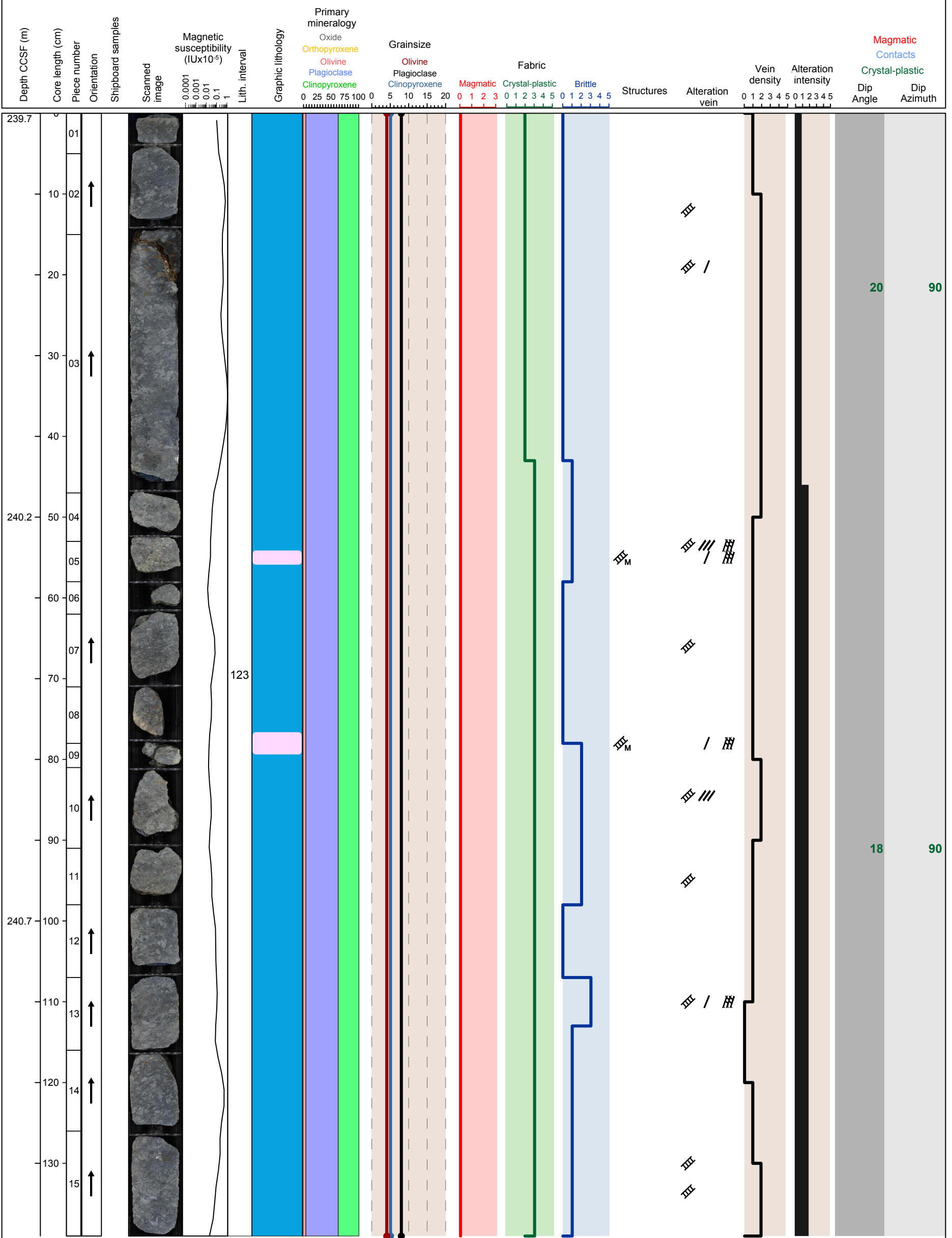


Hole 360-U1473A-27R Section 4, Top of Section: 239.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 123)

Metamorphic Petrology: Static background alteration intensity ranges from slight to moderate. The more altered portions of the section is associated with veining.

Structural Geology: The crystal plastic fabrics are in discrete zones.

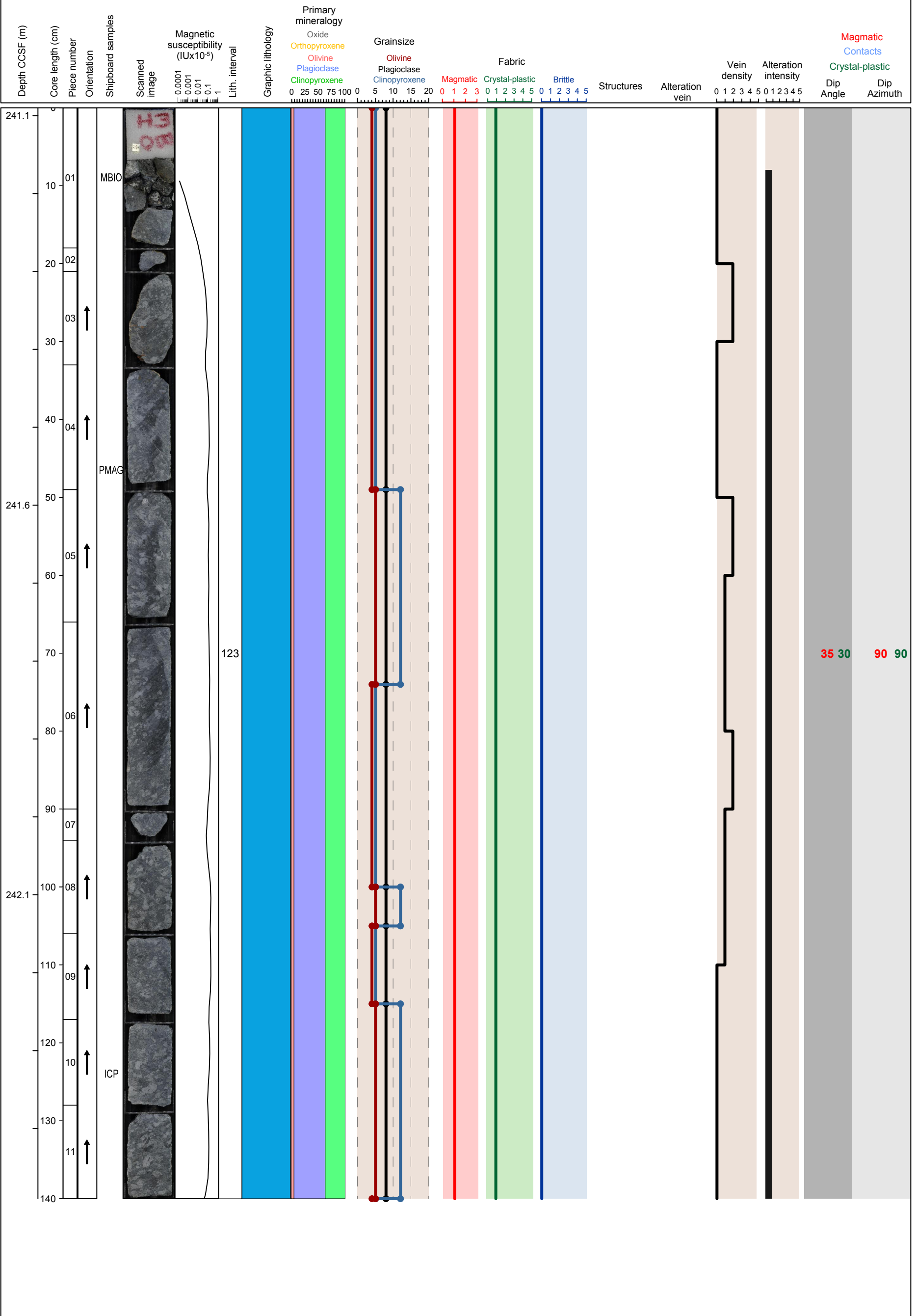


Hole 360-U1473A-27R Section 5, Top of Section: 241.09 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 123)

Metamorphic Petrology: The section is only slightly altered. A carbonate vein was observed and olivine is locally more altered near this vein.

Structural Geology: The crystal plastic fabric has a sub-horizontal dip in localized shear zones.

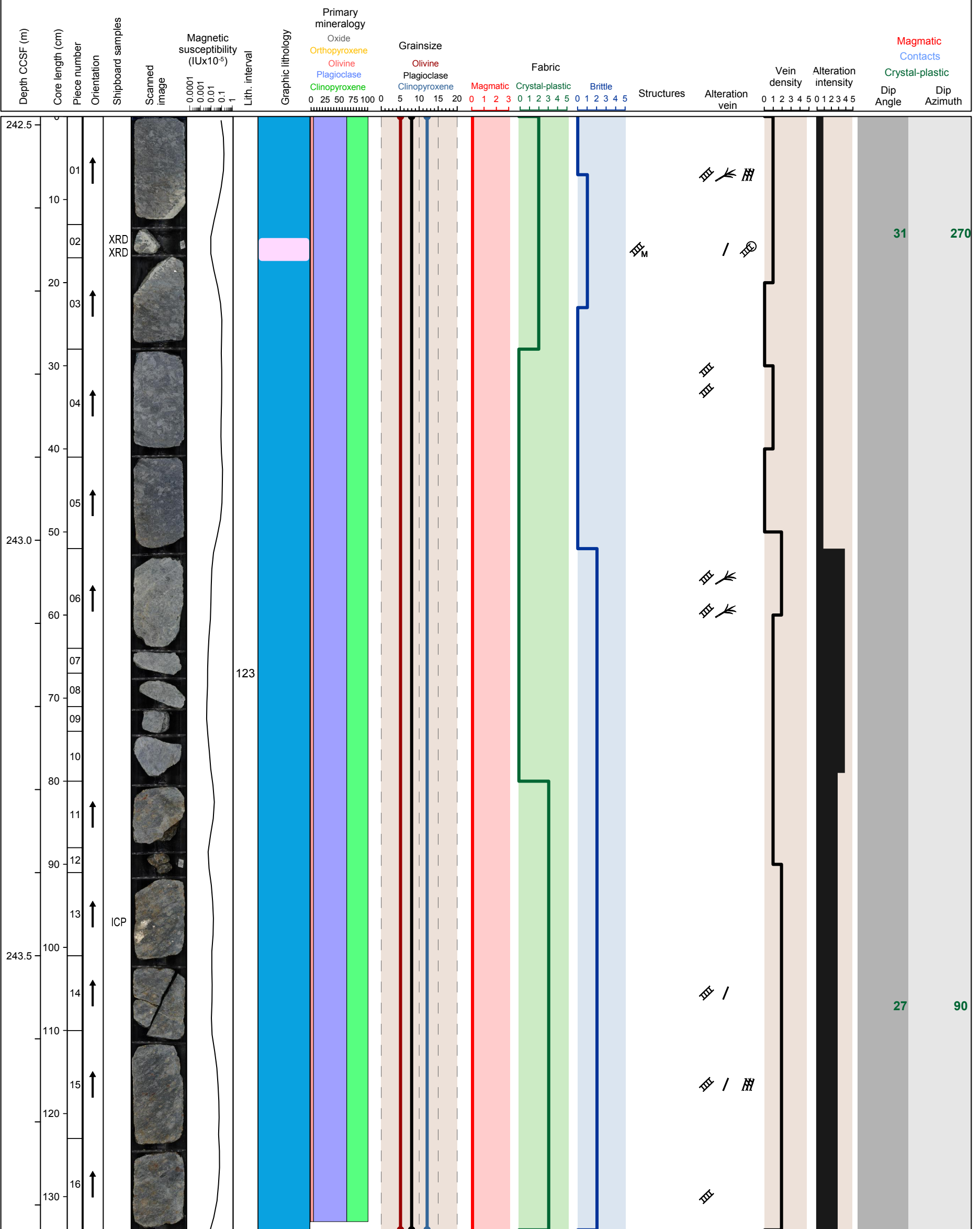


Hole 360-U1473A-27R Section 6, Top of Section: 242.49 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 123)

Metamorphic Petrology: The upper part of the section is only slightly altered while the bottom part of the section is substantially to extensively altered due to heavy veining.

Structural Geology: There is a magmatic breccia at 52-64 cm. The crystal plastic fabric has a moderate to shallow dip. The fracture at 53 cm has slickensides with a rake of 90.

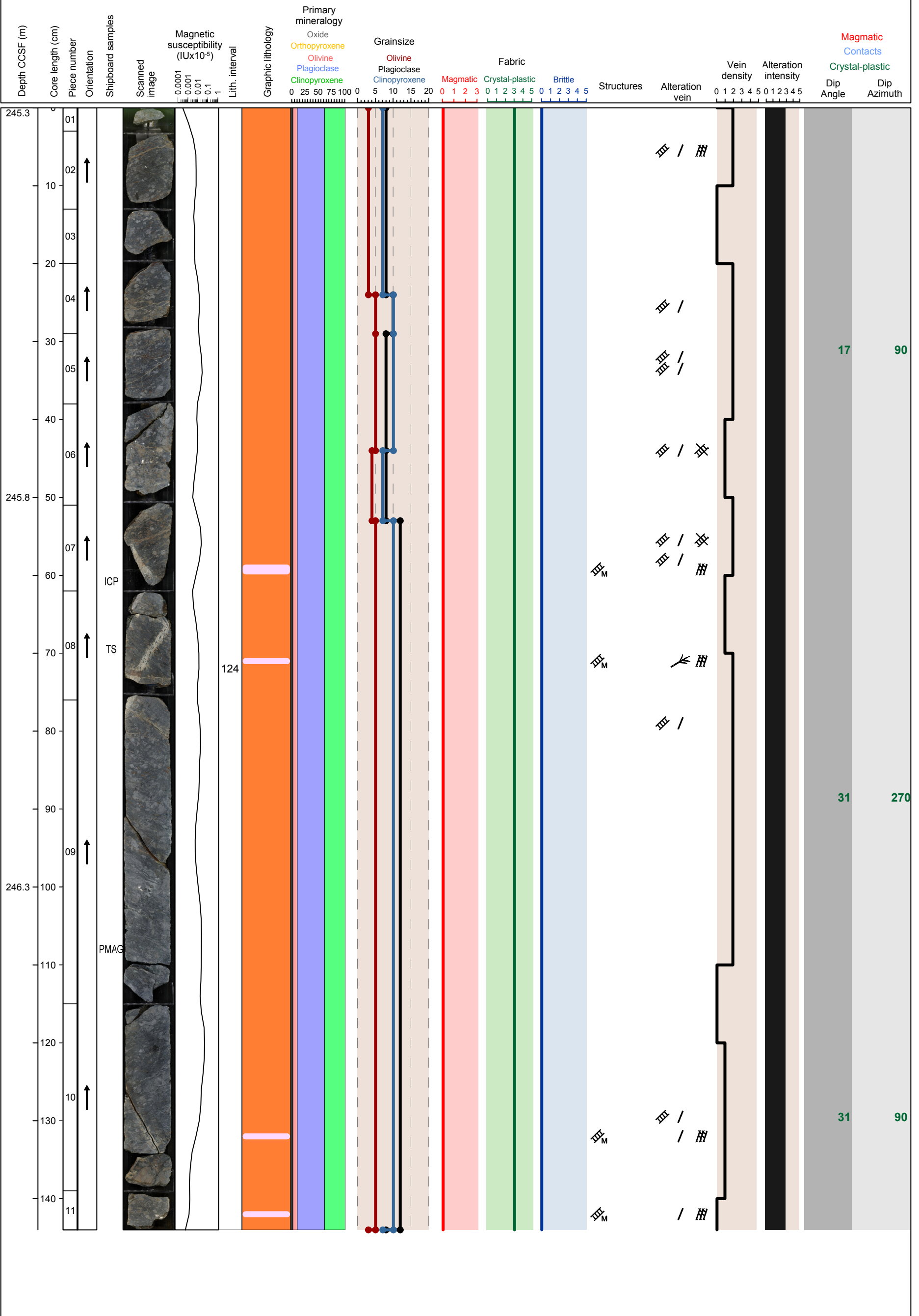


Hole 360-U1473A-28R Section 1, Top of Section: 245.3 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 124)

Metamorphic Petrology: Static background alteration intensity is heterogeneous. More intense alteration occurs in the halo.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip overprinting grain size layering.

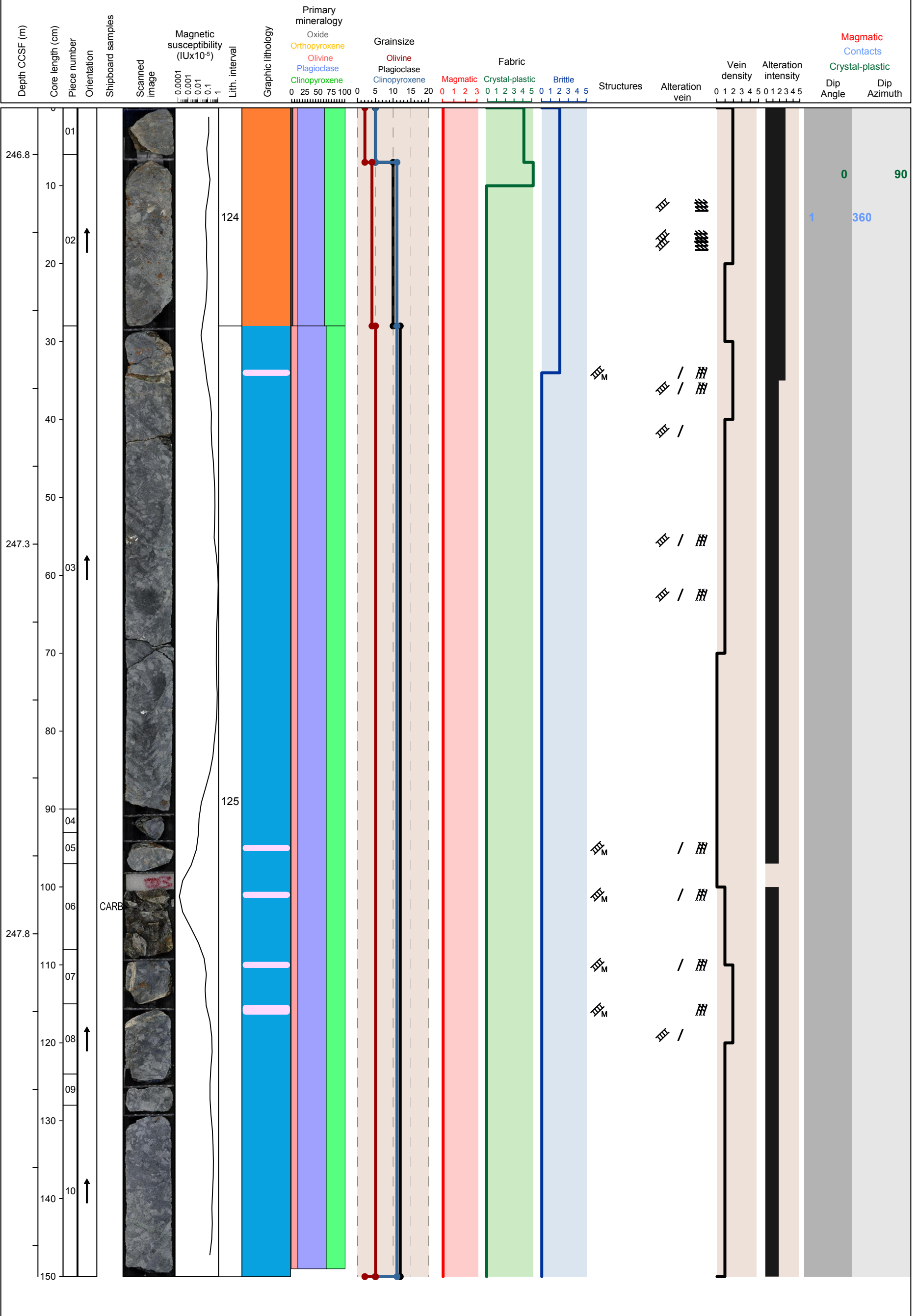


Hole 360-U1473A-28R Section 2, Top of Section: 246.74 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 124) and coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial. More intense alteration occurs in the halos.

Structural Geology: Oxide-rich mylonite within the top 10 cm of the section.

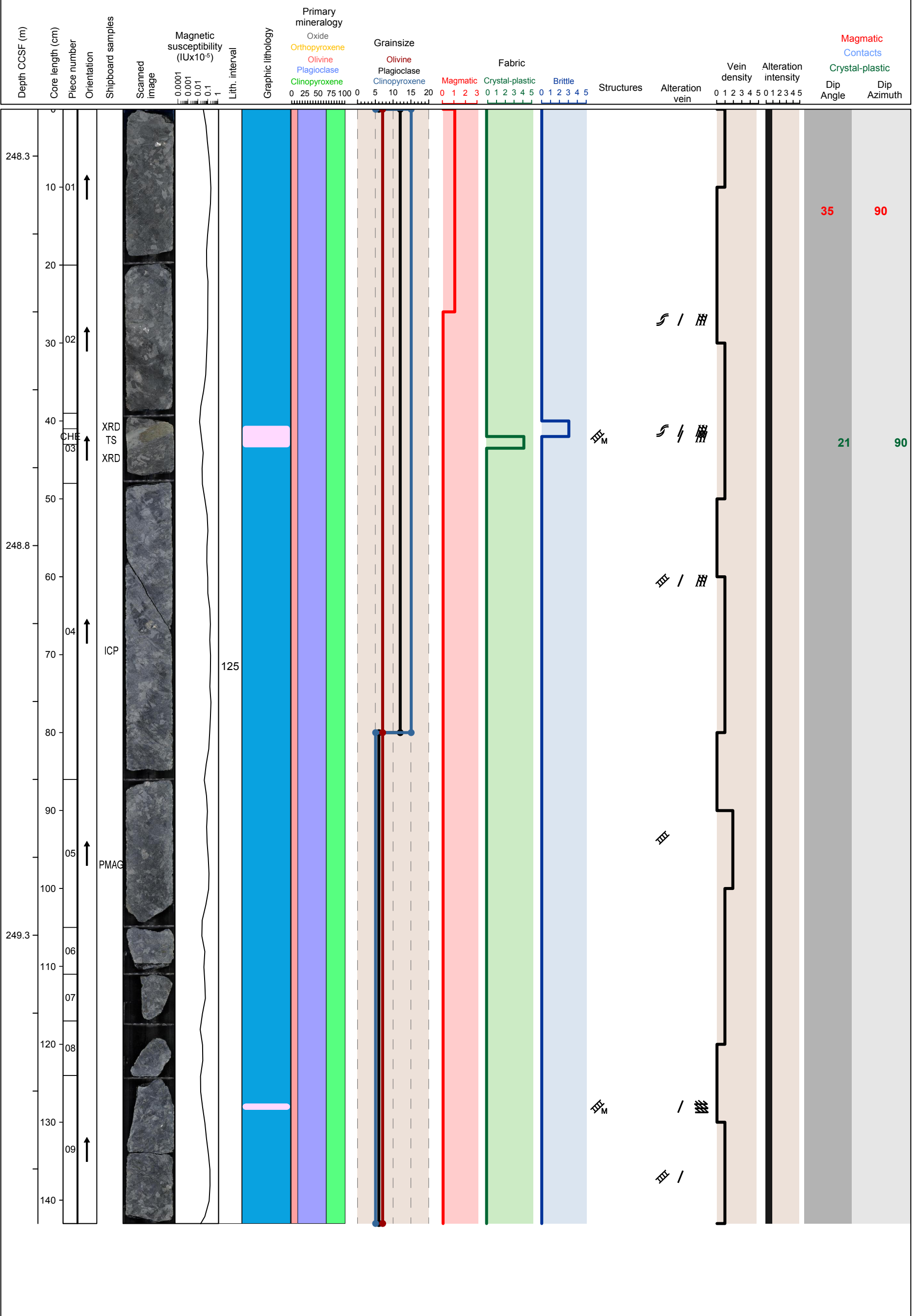


Hole 360-U1473A-28R Section 3, Top of Section: 248.24 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is slight.

Structural Geology: The magmatic fabric is inclined and defined by plagioclase and pyroxene.

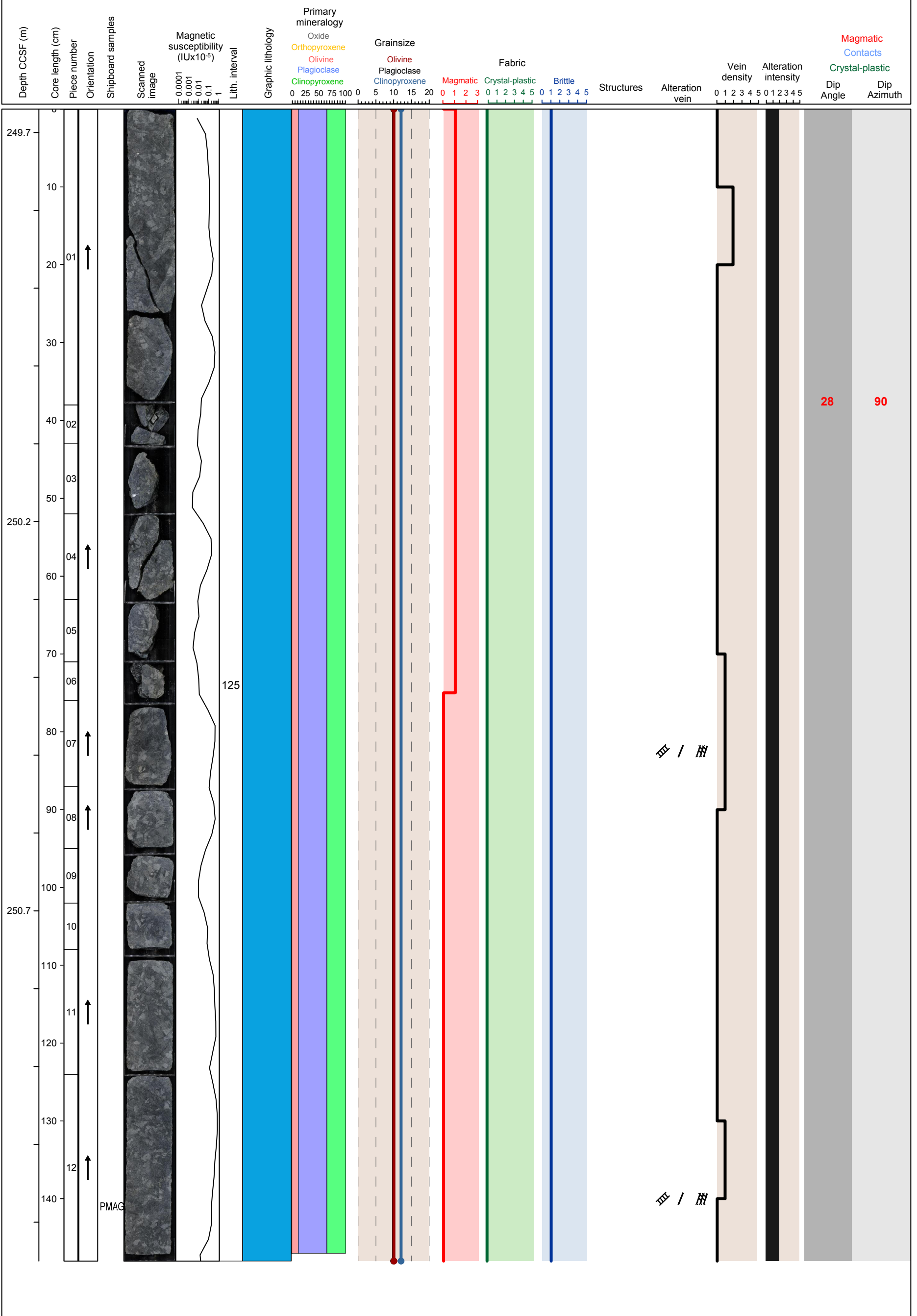


Hole 360-U1473A-28R Section 4, Top of Section: 249.67 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: The magmatic fabric is inclined and defined by plagioclase and pyroxene.

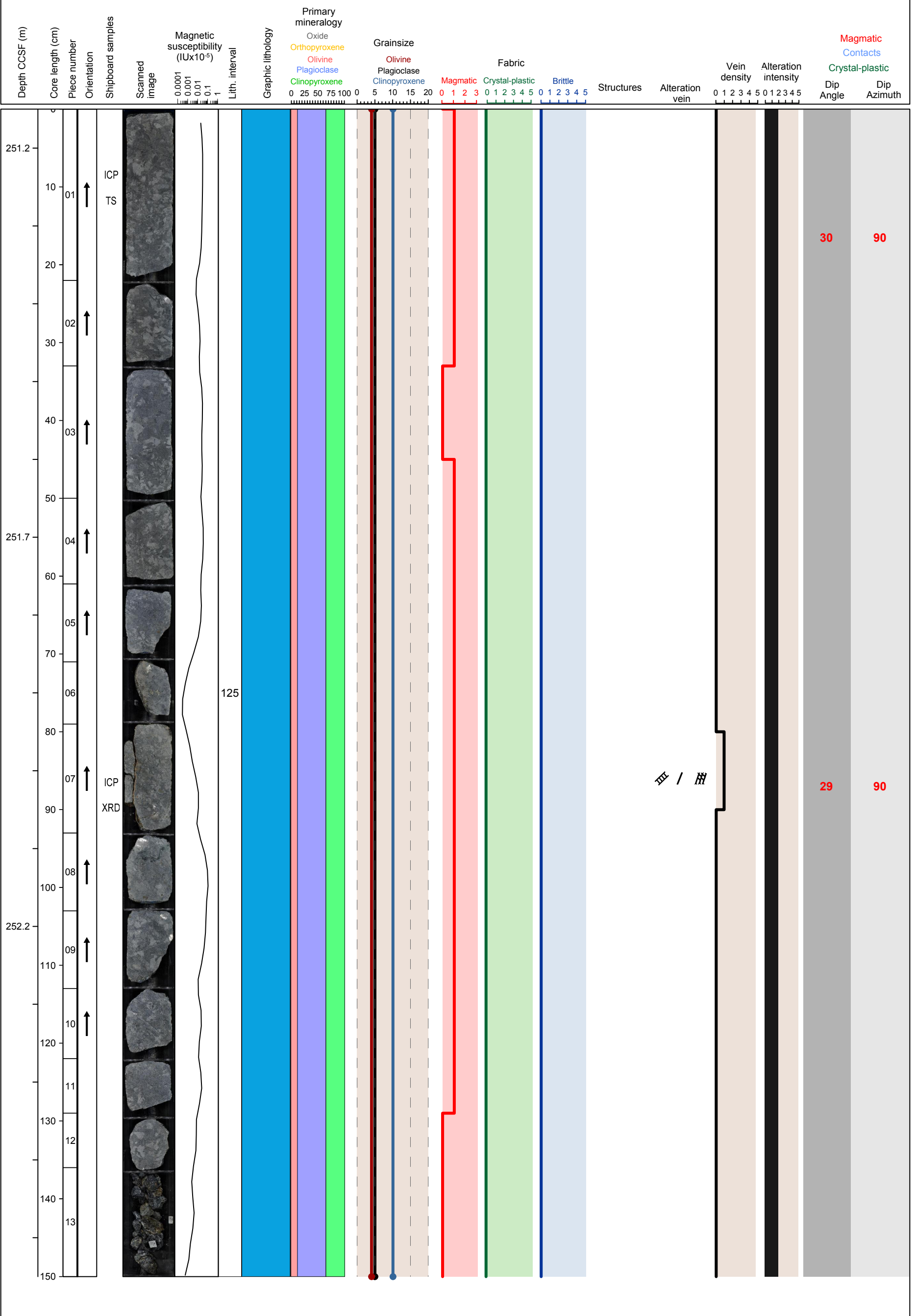


Hole 360-U1473A-28R Section 5, Top of Section: 251.15 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: There is some grain size variation. The magmatic fabric is inclined defined by plagioclase and pyroxene.

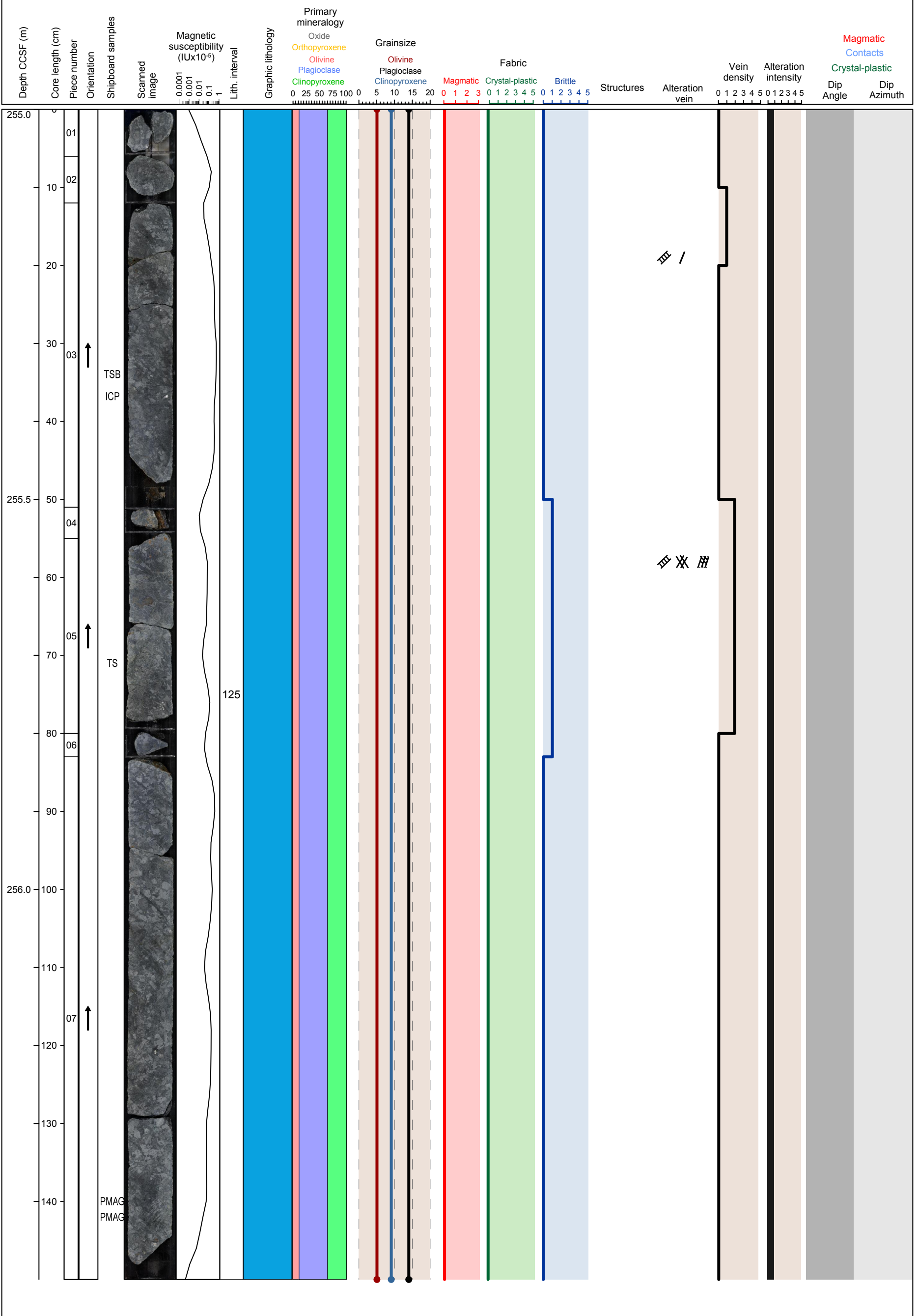


Hole 360-U1473A-29R Section 1, Top of Section: 255.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is slight. More intense alteration occurs in the halo.

Structural Geology: Some grain size variation.

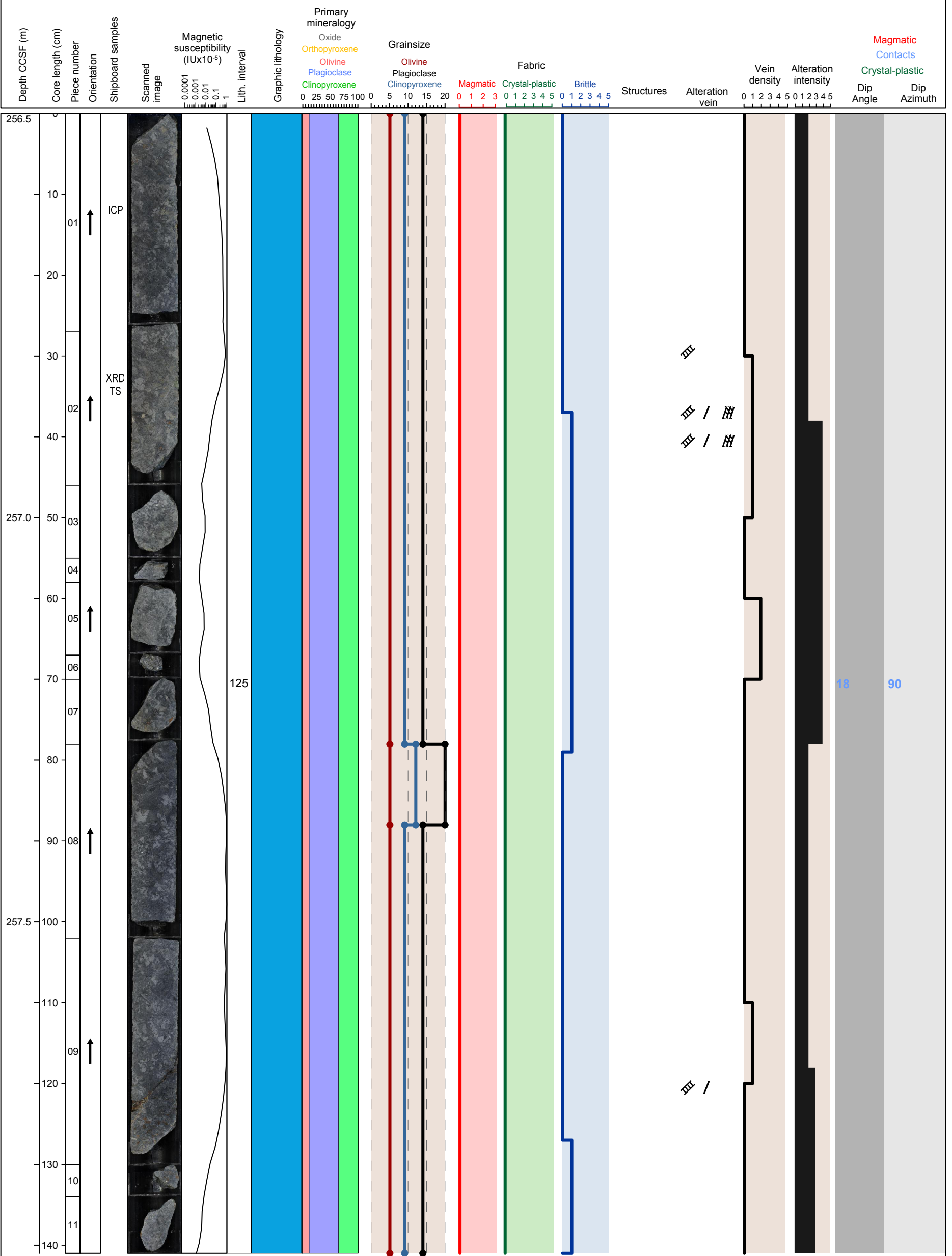


Hole 360-U1473A-29R Section 2, Top of Section: 256.5 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is moderate to extensive. More intense alteration occurs in halo.

Structural Geology: Grain size variation.

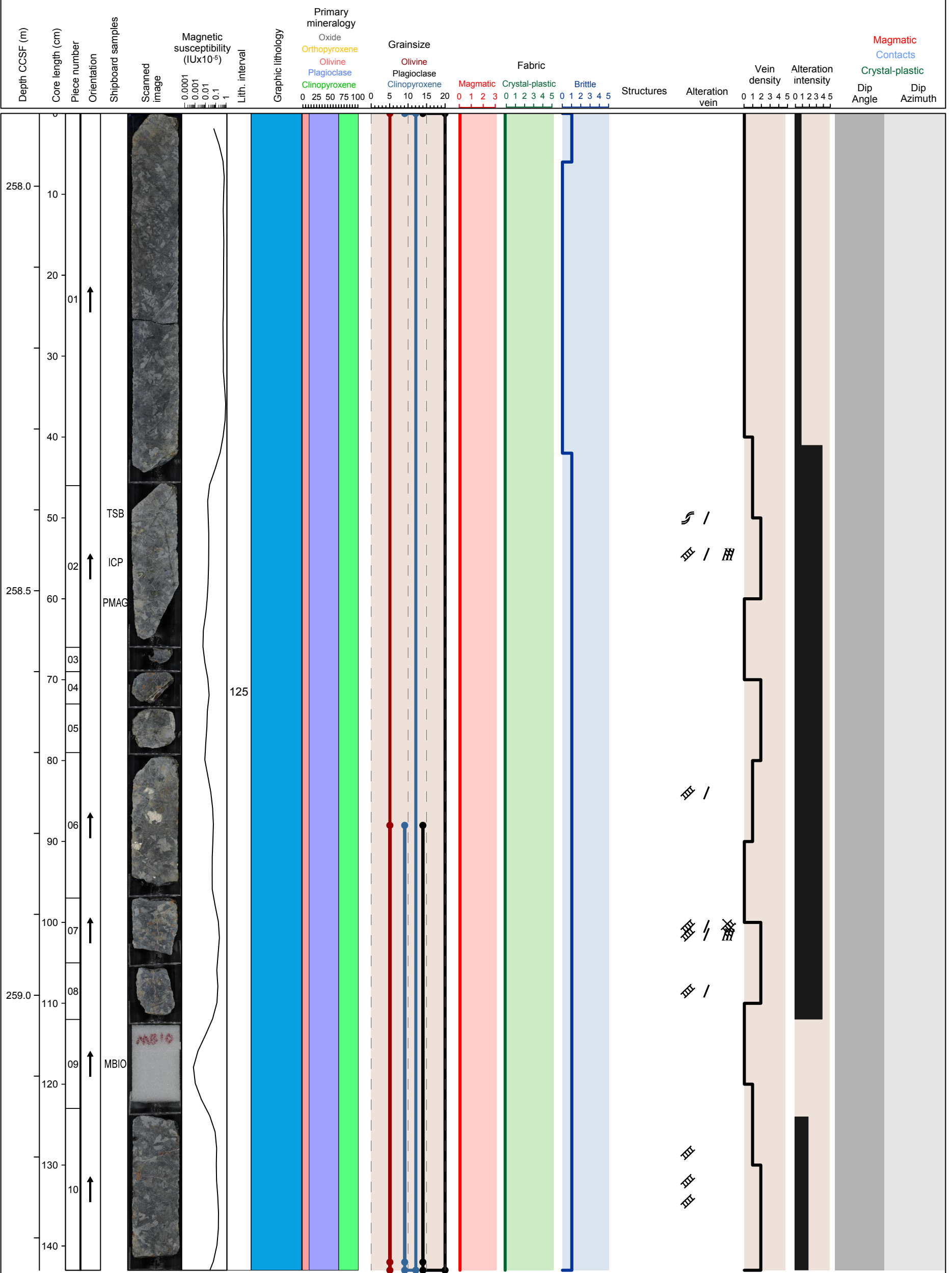


Hole 360-U1473A-29R Section 3, Top of Section: 257.91 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is slight to extensive. More intense altered parts could be halo.

Structural Geology:

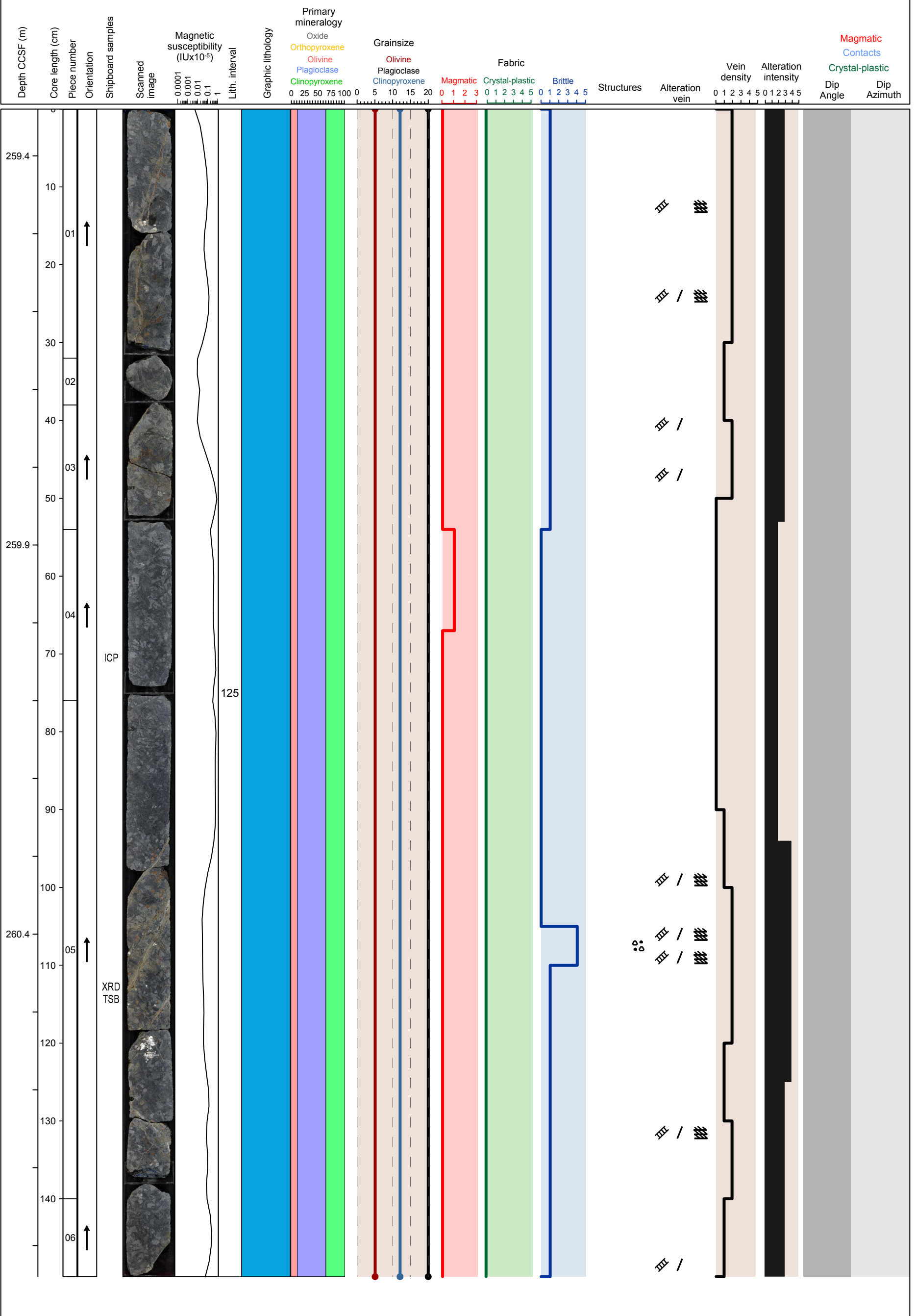


Hole 360-U1473A-29R Section 4, Top of Section: 259.34 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is moderate to extensive. More intense alteration occurs in the halos.

Structural Geology: At 109 cm there is a vuggy carbonate fault.

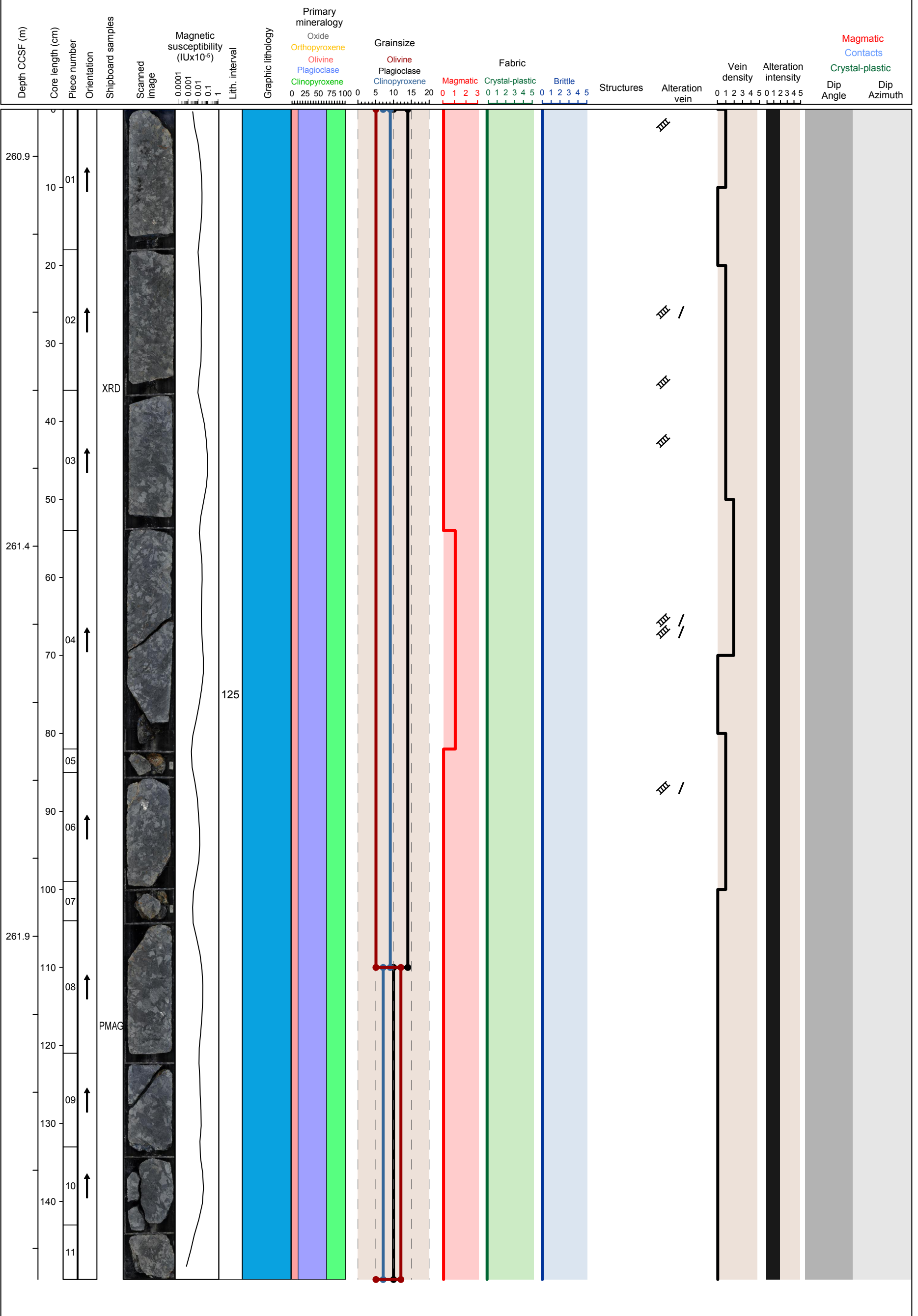


Hole 360-U1473A-29R Section 5, Top of Section: 260.84 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense alteration occurs in the halo.

Structural Geology:

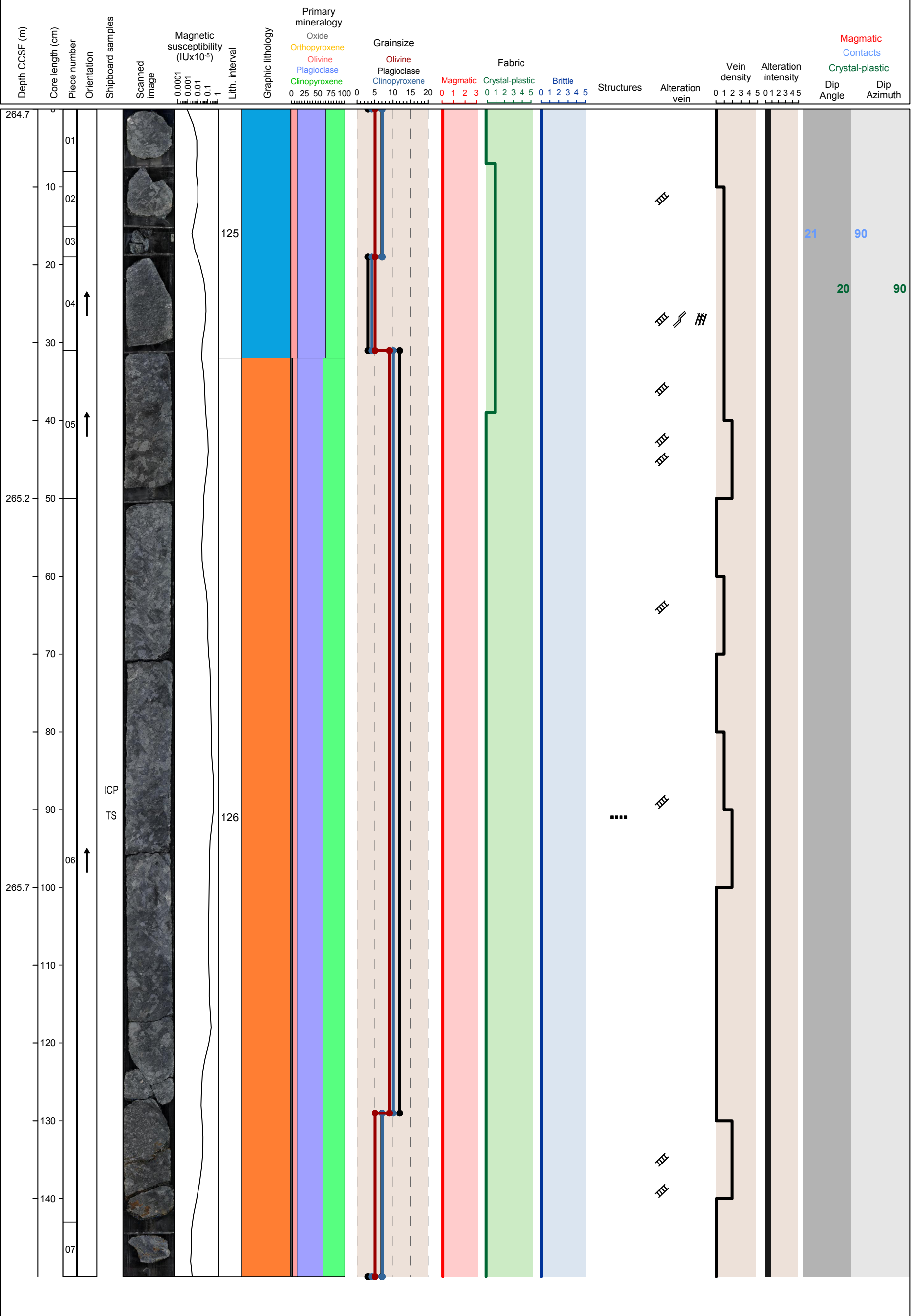


Hole 360-U1473A-30R Section 1, Top of Section: 264.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 125) and coarse grained subophitic oxide bearing olivine gabbro (interval 126)

Metamorphic Petrology: The section is only slightly altered.

Structural Geology:

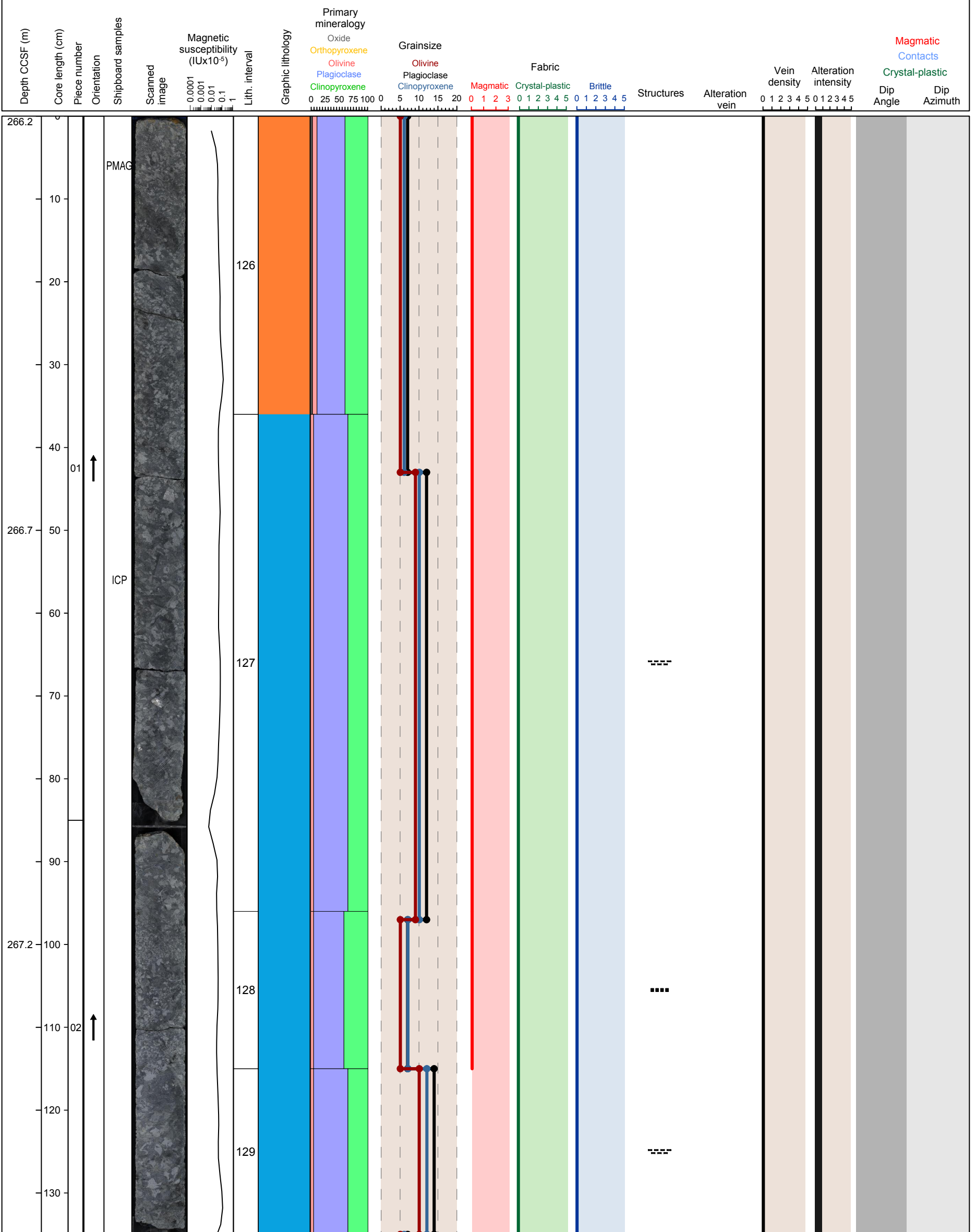


Hole 360-U1473A-30R Section 2, Top of Section: 266.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic oxide bearing olivine gabbro (interval 126), coarse grained subophitic olivine gabbro (interval 127 and 129) and coarse grained granular olivine gabbro (interval 128)

Metamorphic Petrology: The section is only slightly altered.

Structural Geology: Irregular fine and coarse grained patches.

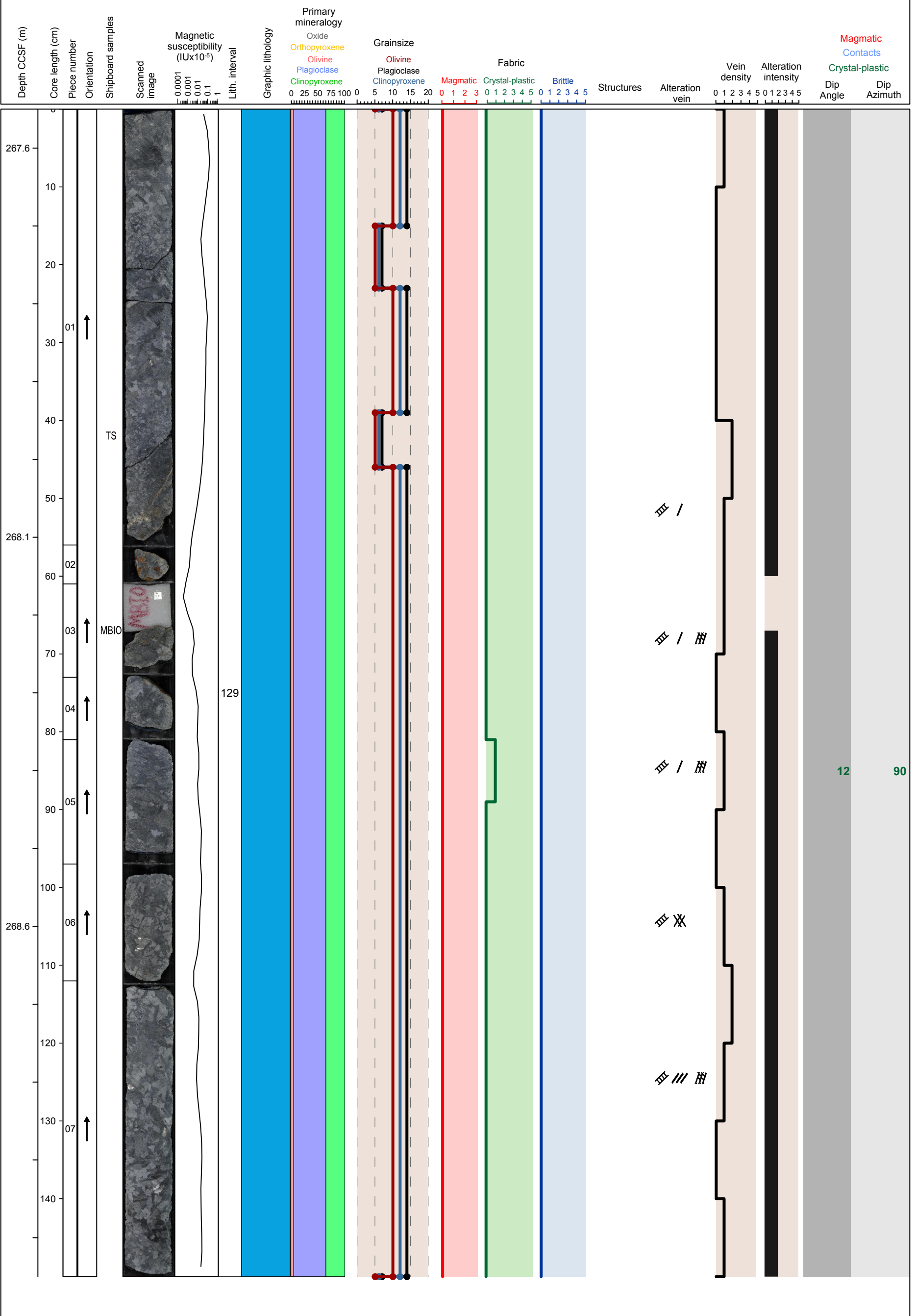


Hole 360-U1473A-30R Section 3, Top of Section: 267.55 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 129)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense alteration occurs near a vein.

Structural Geology: Alteration vein is steeply dipping.

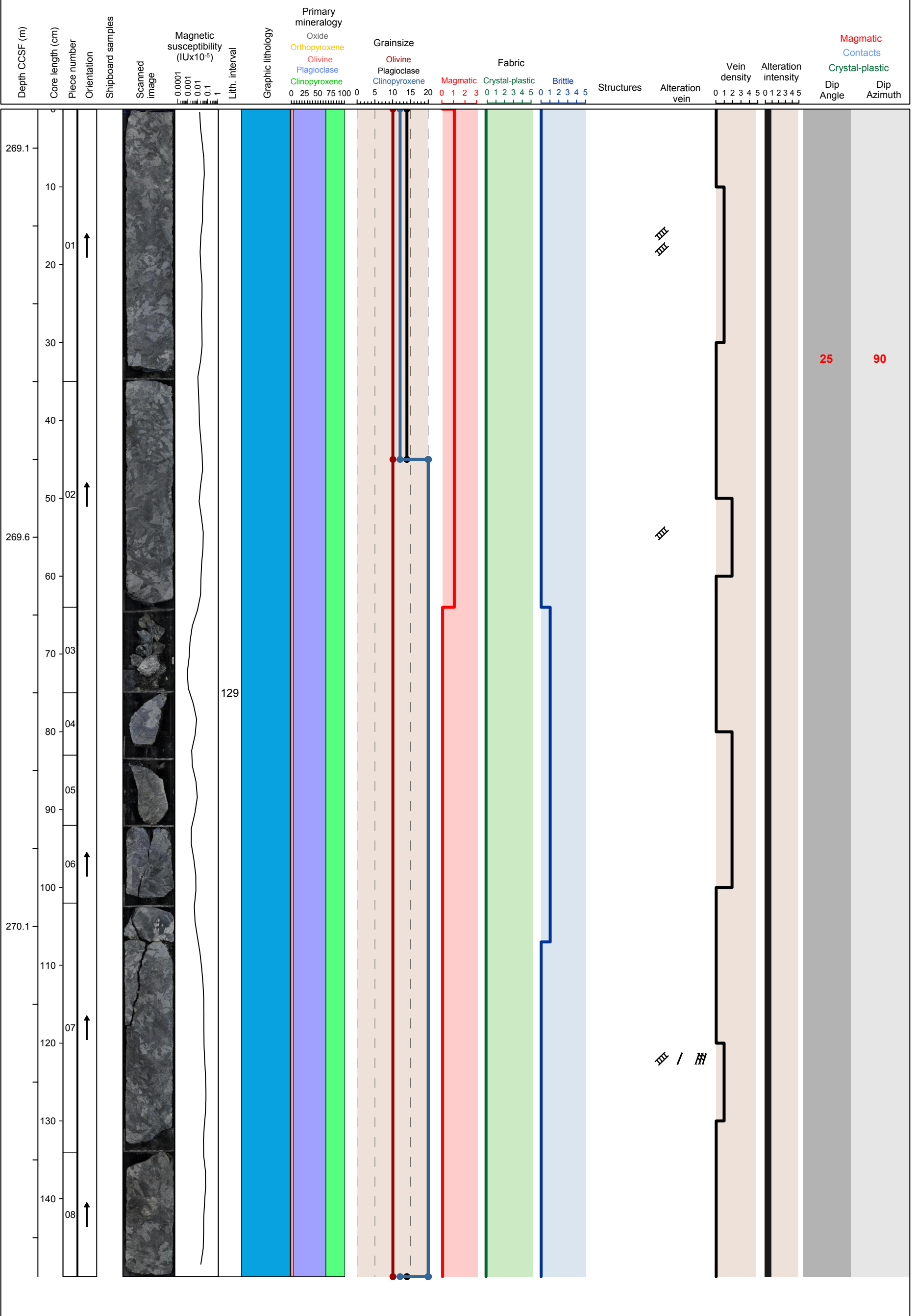


Hole 360-U1473A-30R Section 4, Top of Section: 269.05 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 129)

Metamorphic Petrology: The section is moderately altered (~15% secondary replacement)

Structural Geology: The magmatic fabric is sub-horizontal defined by plagioclase and pyroxene.

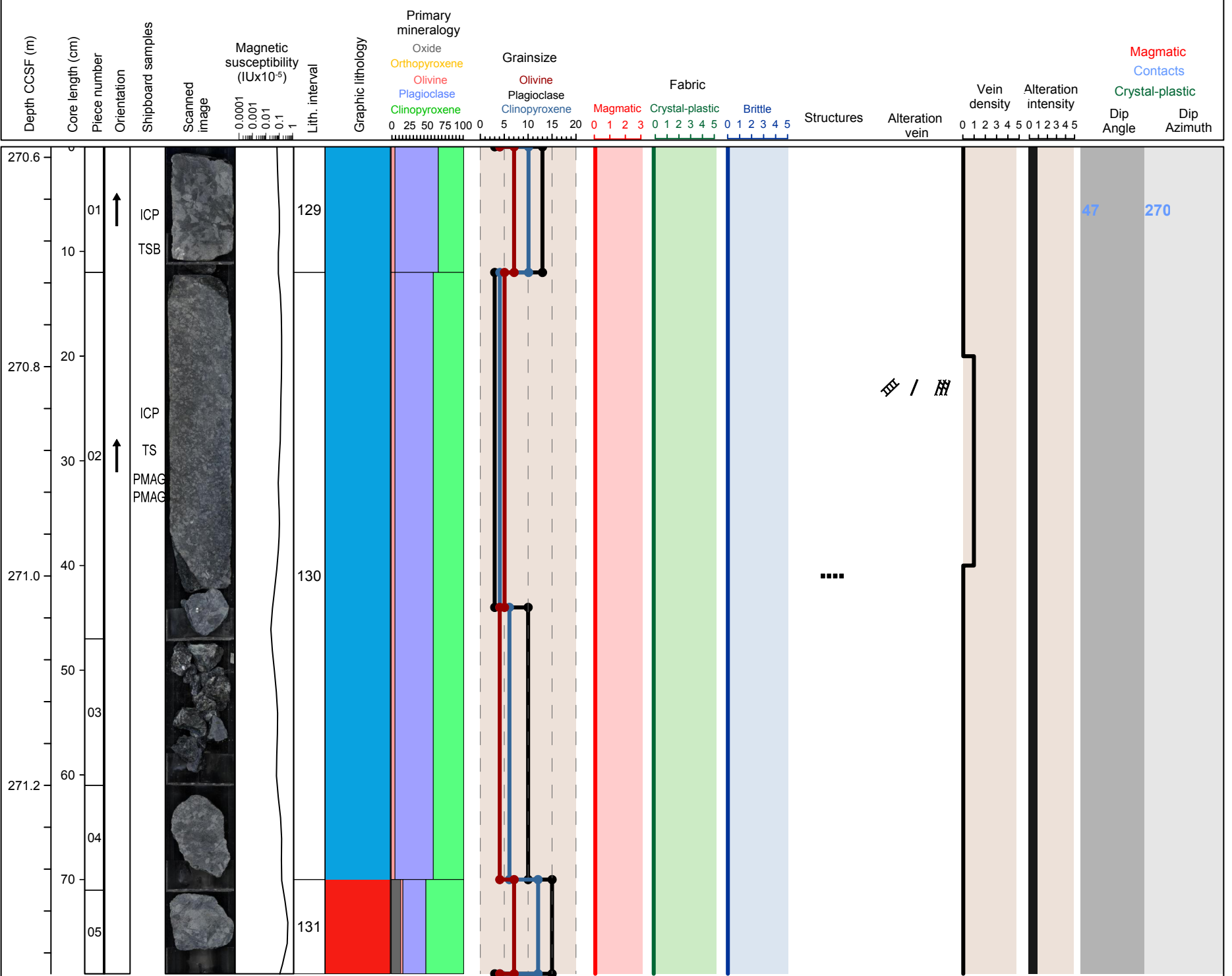


Hole 360-U1473A-30R Section 5, Top of Section: 270.55 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 129), coarse grained granular olivine gabbro (interval 130) and coarse grained granular olivine bearing oxide gabbro (interval 131)

Metamorphic Petrology: The section is slightly to moderately altered.

Structural Geology: Some grain size variation.

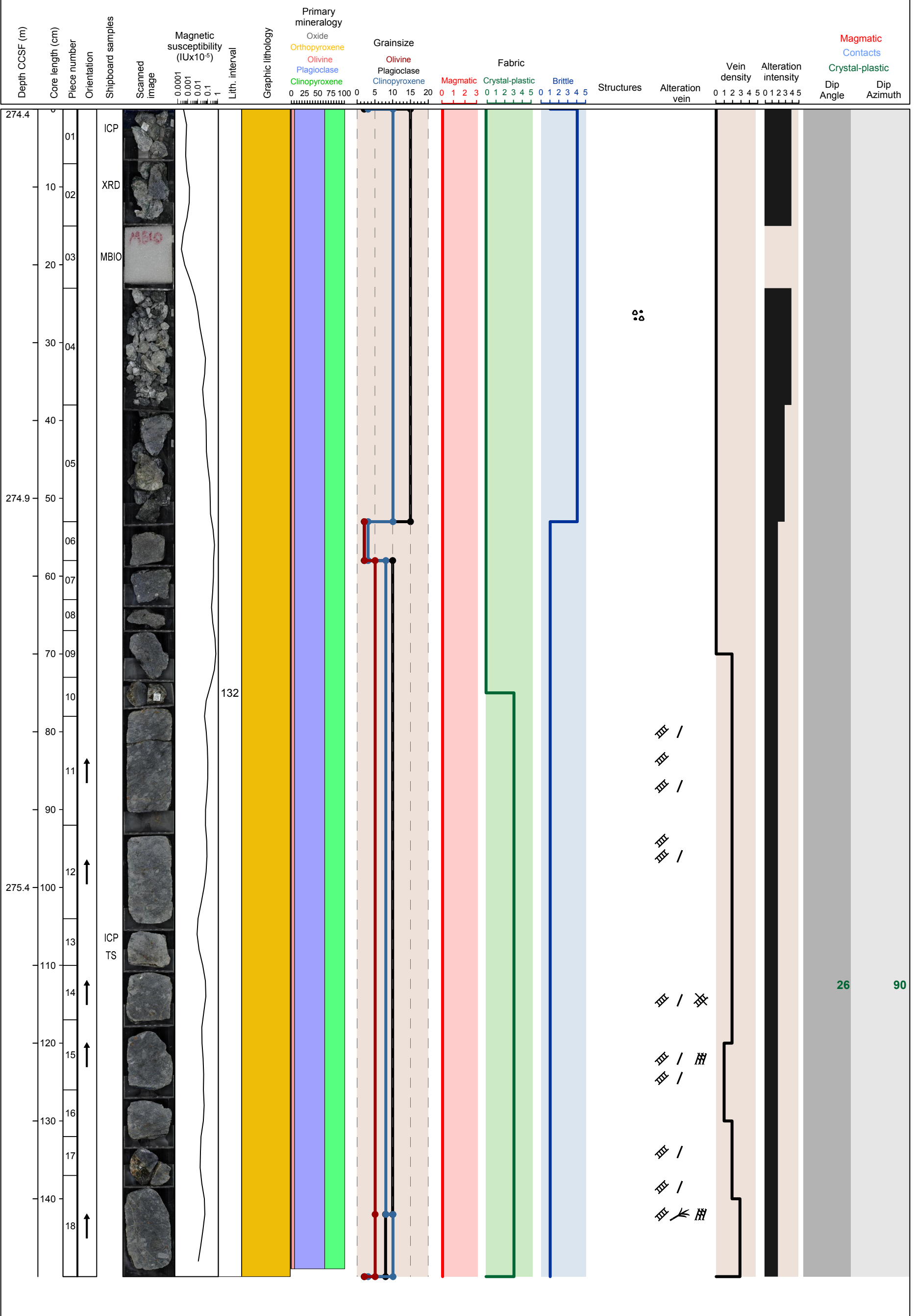


Hole 360-U1473A-31R Section 1, Top of Section: 274.4 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained ophitic disseminated oxide olivine gabbro (Interval 132)

Metamorphic Petrology: The upper part the section is heavily veined, friable and extensively altered. The bottom part, however, is mostly of moderate alteration degree.

Structural Geology: The top 53 cm is a fault breccia with fine grained matrix and clasts of angular pyroxene.

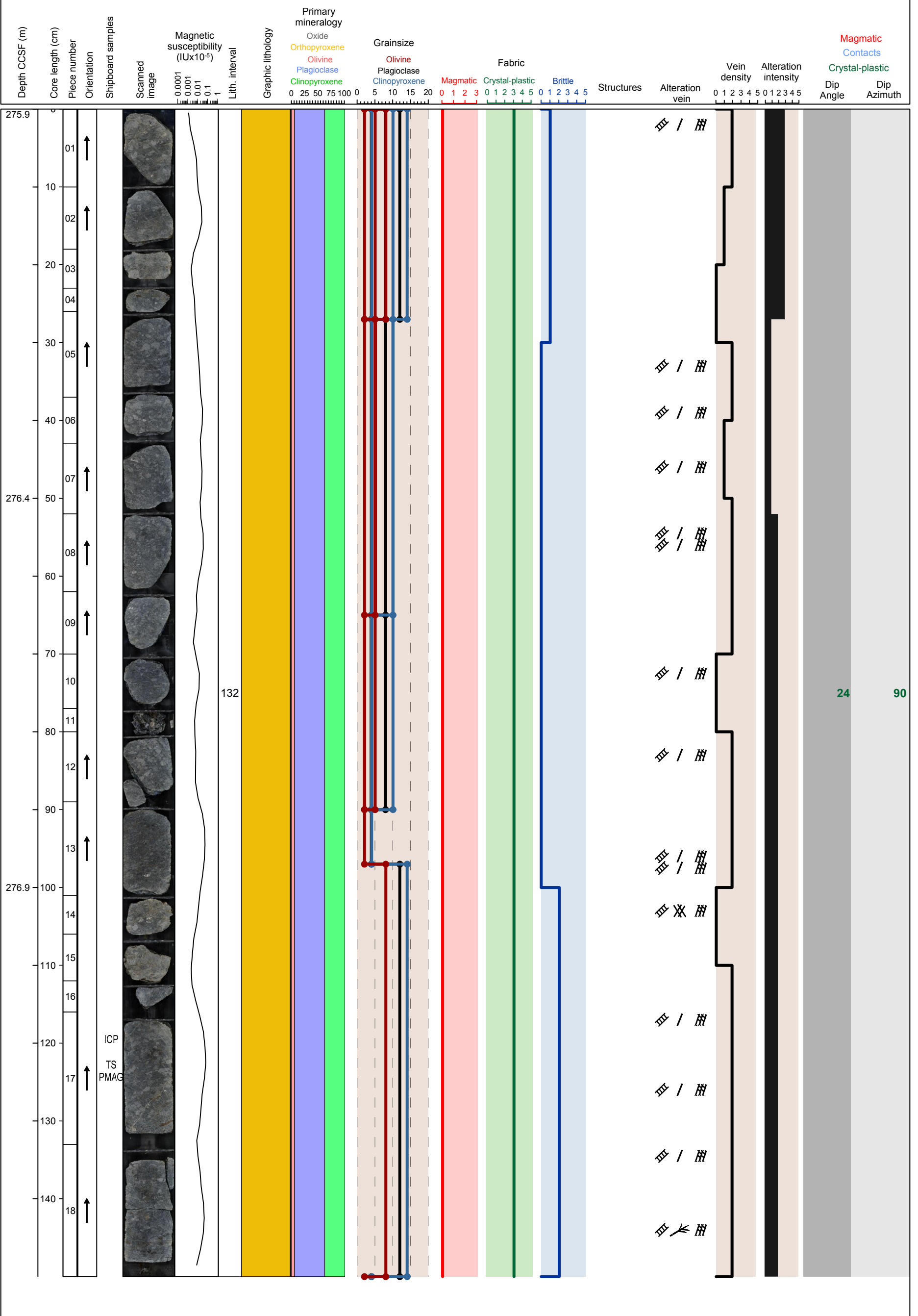


Hole 360-U1473A-31R Section 2, Top of Section: 275.9 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained ophitic disseminated oxide olivine gabbro (Interval 132)

Metamorphic Petrology: Static background alteration intensity ranges slight to substantial. Areas with more intense alteration are associated with veining and deformation.

Structural Geology: The broad crystal plastic fabric has a moderate dip with localized higher intensity shear zones.

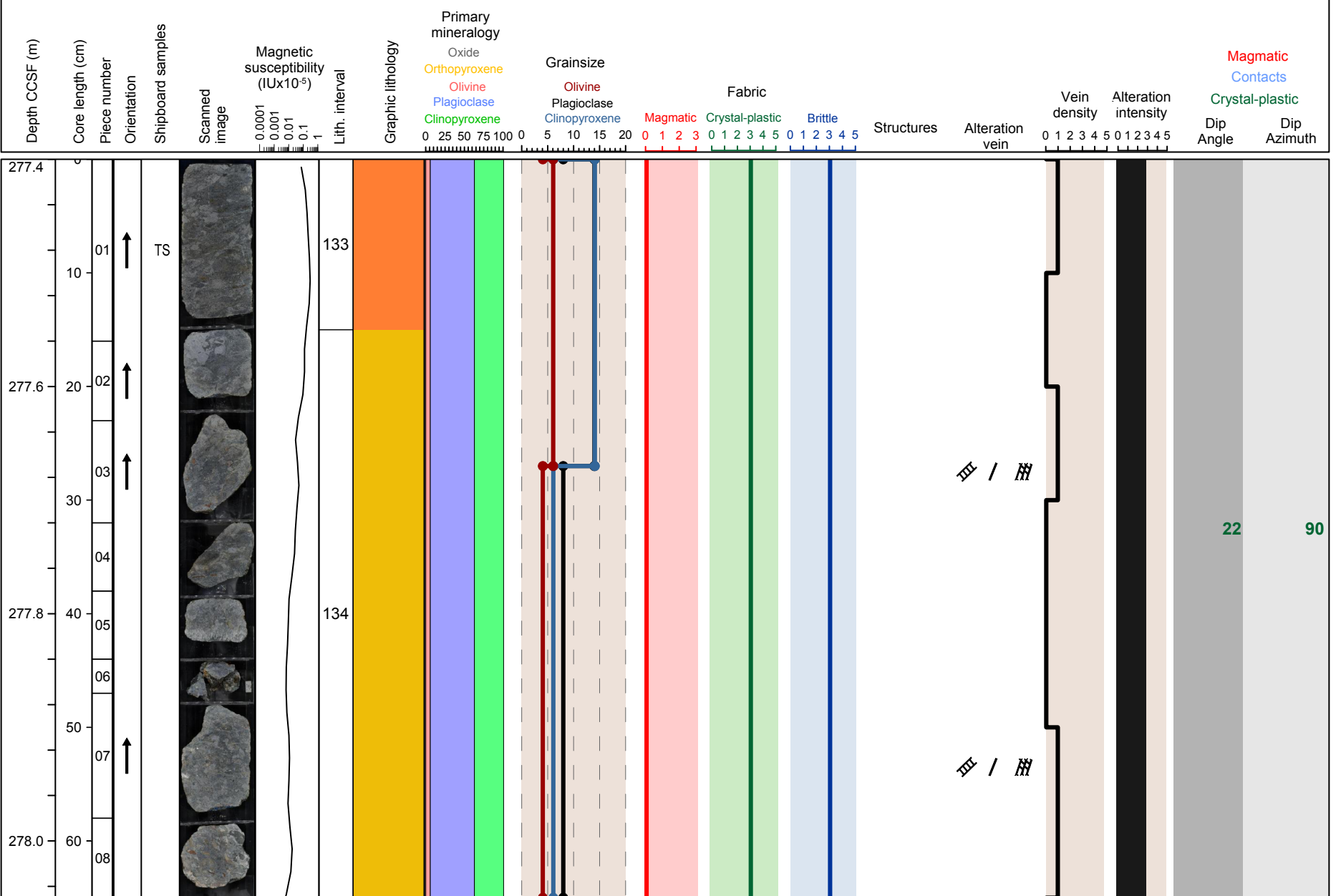


Hole 360-U1473A-31R Section 3, Top of Section: 277.4 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained ophitic oxide bearing olivine gabbro (Interval 133) and coarse grained ophitic disseminated oxide olivine gabbro (Interval 134)

Metamorphic Petrology: The section is substantially altered. Olivine is extensively replaced by clay while plagioclase and pyroxene are substantially altered into 2nd plagioclase and amphibole, respectively.

Structural Geology: The crystal plastic fabric has a moderate dip.

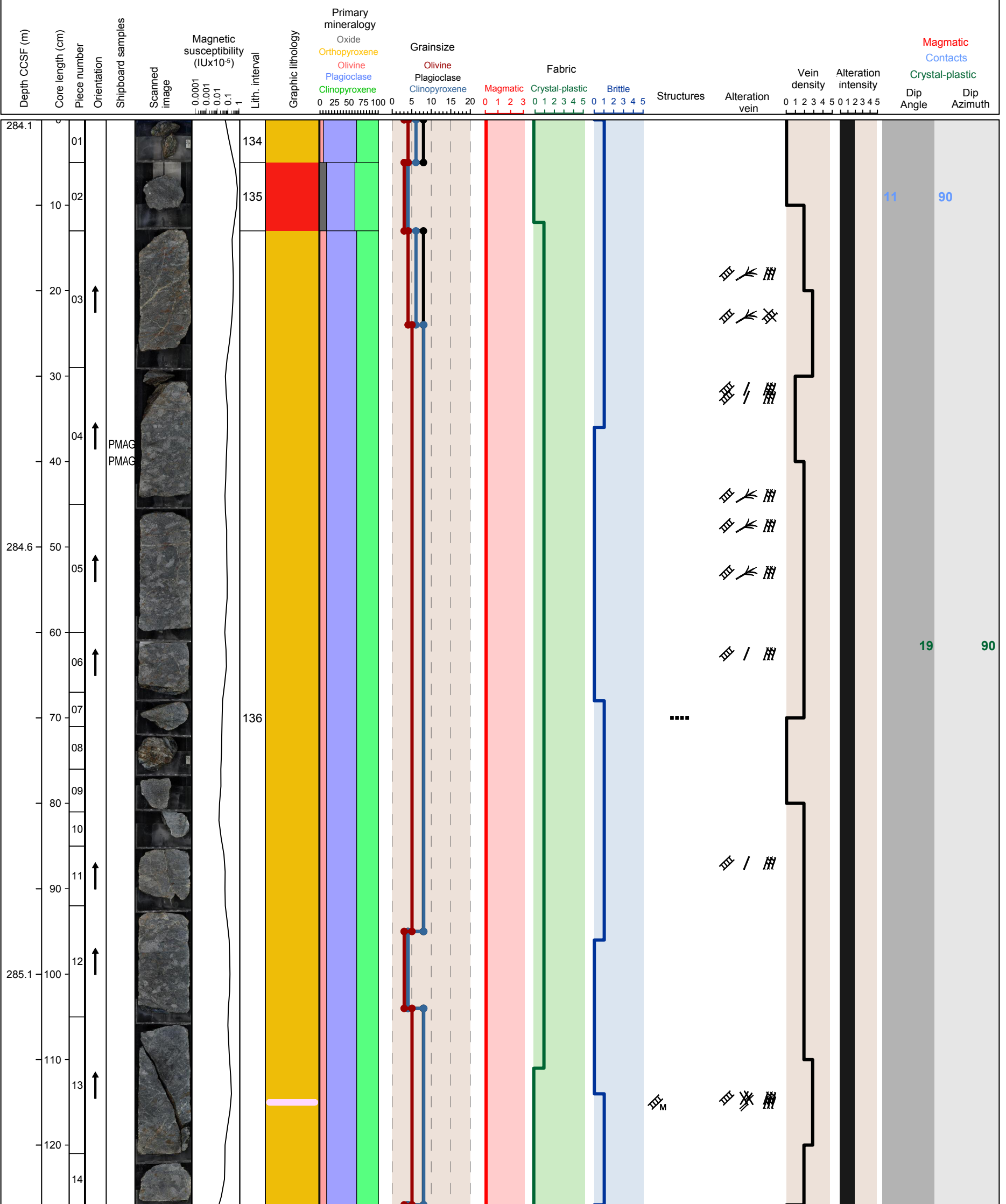


Hole 360-U1473A-32R Section 1, Top of Section: 284.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 134 and 136) and coarse grained granular oxide gabbro (interval 135)

Metamorphic Petrology: Static background alteration intensity is variable. More intense alteration occurs around the veins in the mylonitic parts.

Structural Geology: The crystal plastic fabric is sub-horizontal. There is a carbonate network vein.

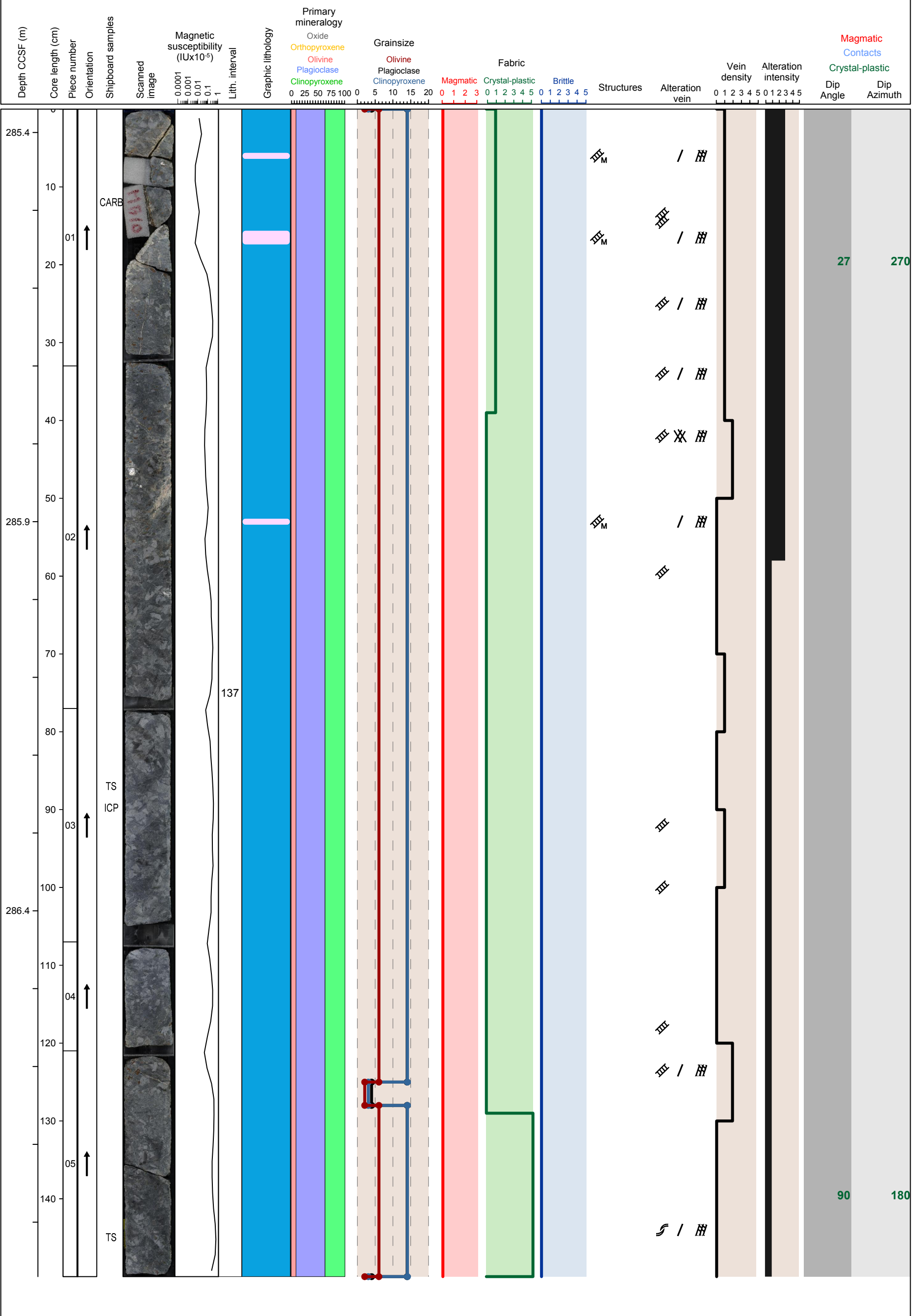


Hole 360-U1473A-32R Section 2, Top of Section: 285.37 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background domain (interval 137)

Metamorphic Petrology: Static background alteration intensity is slight to substantial. More intense alteration occurs in vein halos.

Structural Geology: The thin ultramylonites have sharp boundaries.

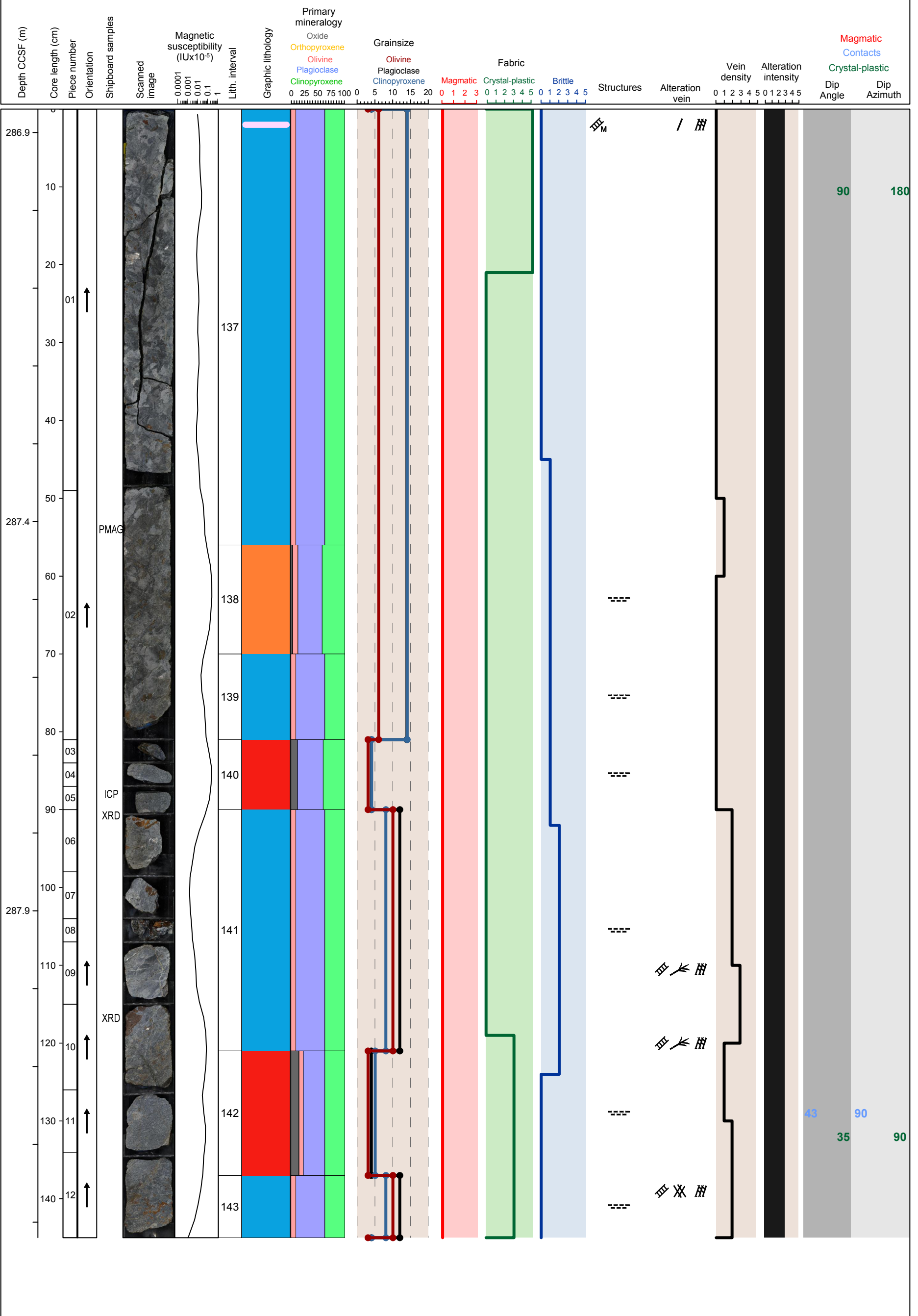


Hole 360-U1473A-32R Section 3, Top of Section: 286.87 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background domain and medium grained granular felsic patch domain (interval 137), coarse grained granular oxide bearing olivine gabbro (interval 138), coarse grained subophitic olivine gabbro (interval 139, 141 and 143), coarse grained granular oxide gabbro (interval 140)

Metamorphic Petrology: Static background alteration intensity is substantial. More intense alteration intensity occurs in the halo.

Structural Geology: Oxide-gabbro mylonite with a moderate dip.

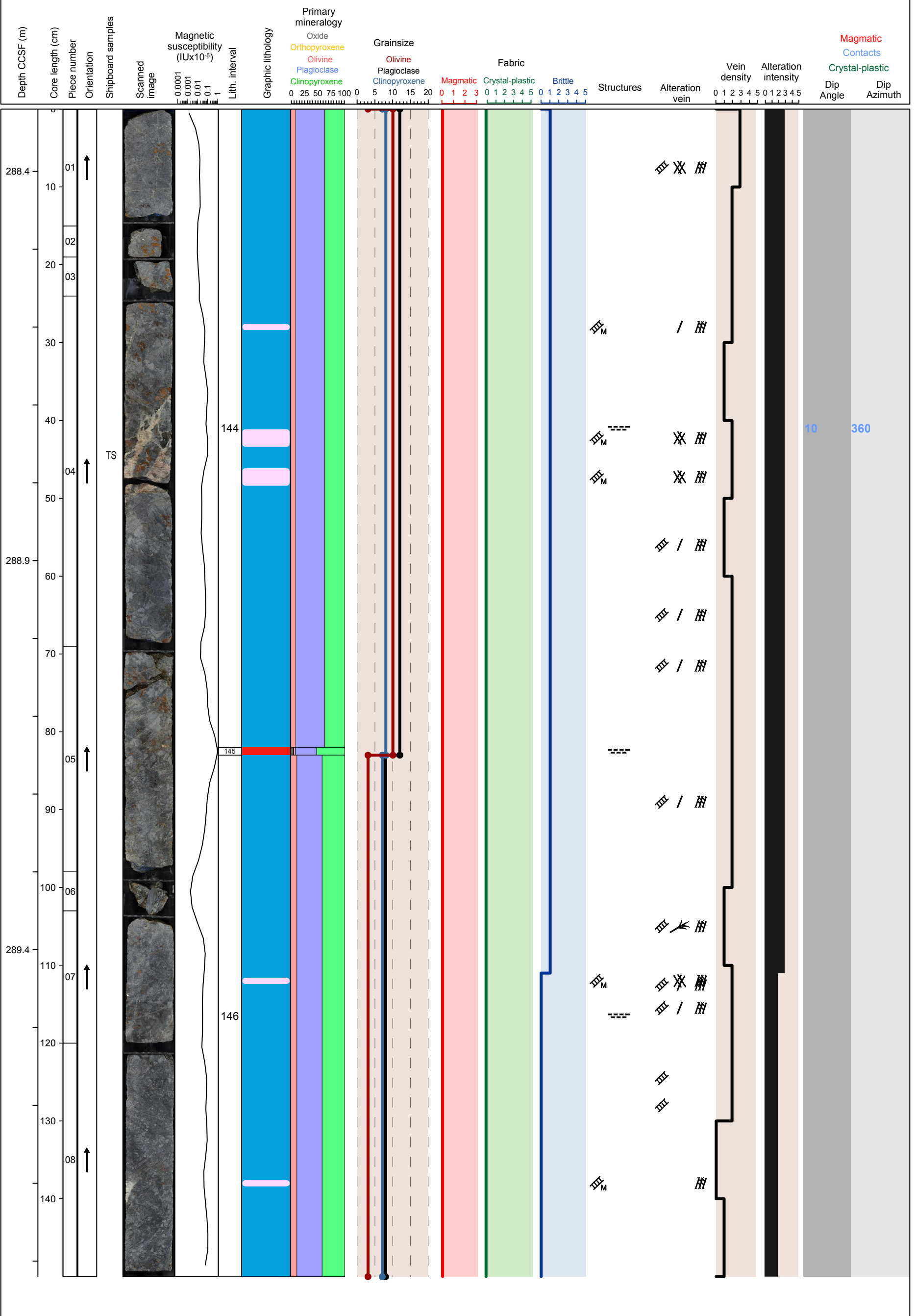


Hole 360-U1473A-32R Section 4, Top of Section: 288.32 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background domain and medium grained granular felsic patch domain (interval 144), coarse grained granular olivine bearing oxide gabbro (interval 145) and coarse grained subophitic olivine gabbro background domain (interval 146)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial. More intense alteration occurs in the halos.

Structural Geology: Crystal plastic fabric overprinting coarse and fine grained gabbro.

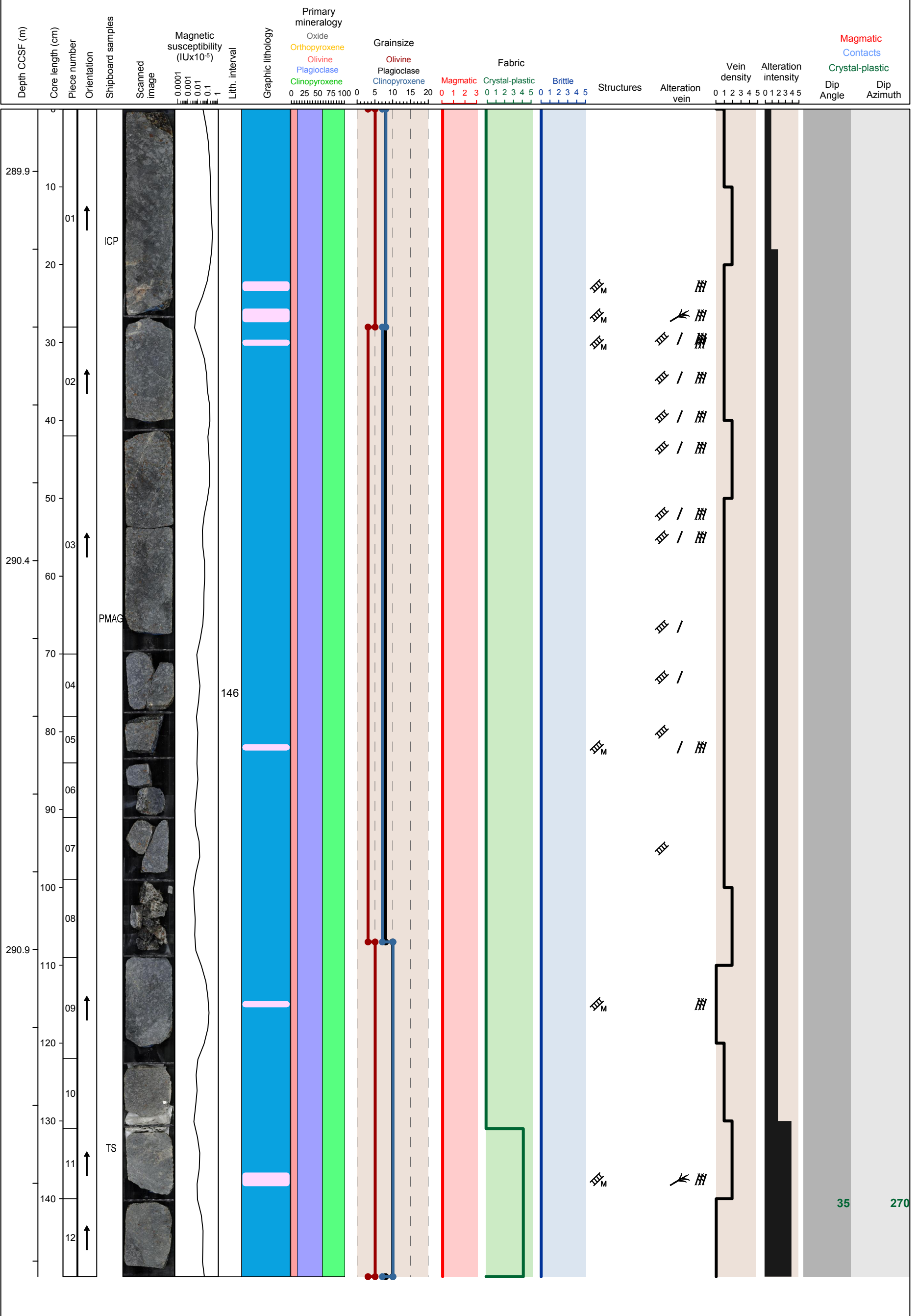


Hole 360-U1473A-32R Section 5, Top of Section: 289.82 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background domain and medium grained granular felsic patch domain (interval 146)

Metamorphic Petrology: Static background alteration intensity is slight to extensive. More intense alteration occurs in mylonitic zone.

Structural Geology: Mylonite crosscut by later shear zones. The mylonites have a moderate to shallow dip.

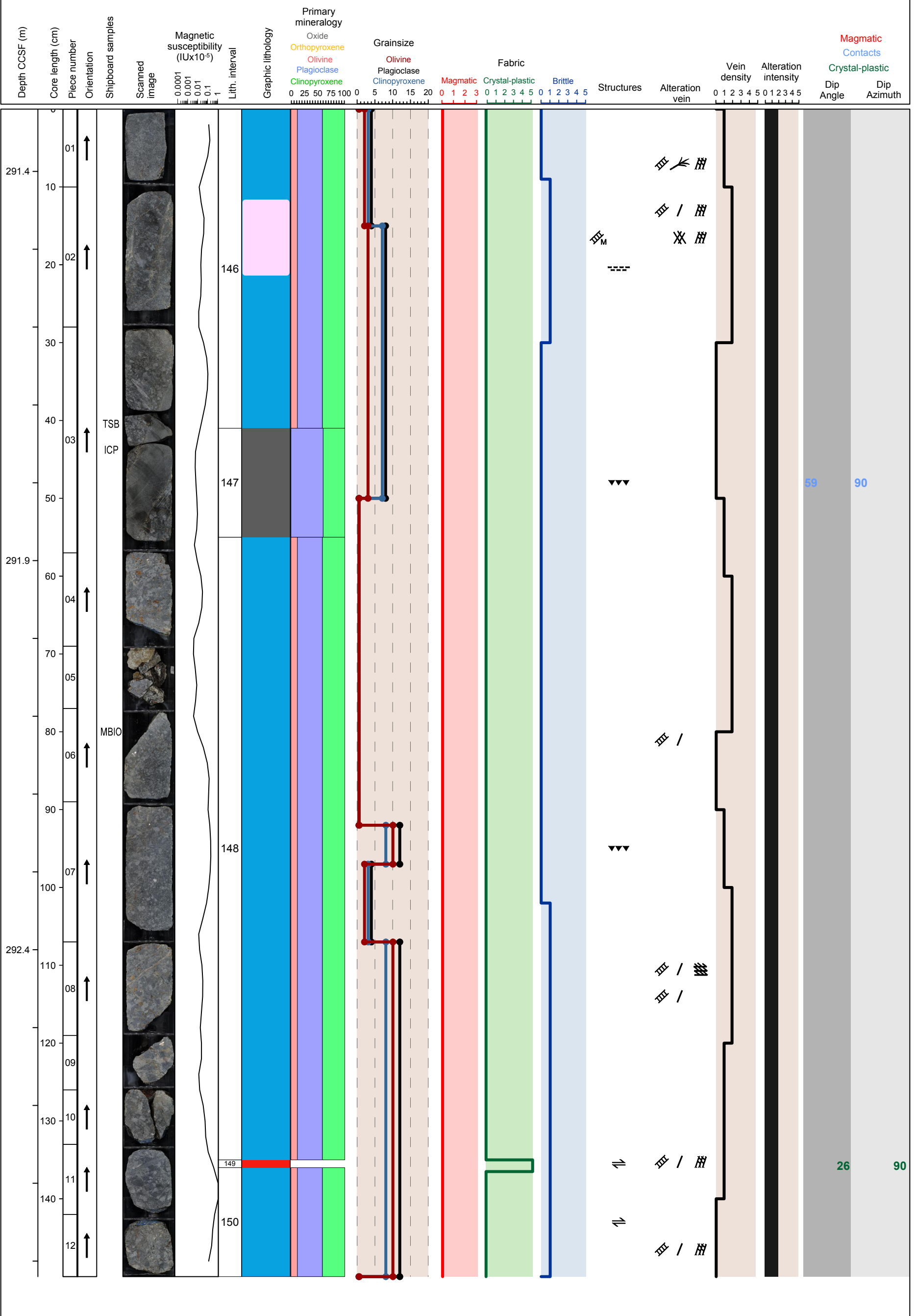


Hole 360-U1473A-32R Section 6, Top of Section: 291.32 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background domain and fine grained granoblastic microgabbro domain (interval 146), fine grained granoblastic microgabbro (interval 147), coarse grained subophitic olivine gabbro (interval 148 and 150) and fine grained granular oxide gabbro (interval 149)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense alteration is associated with veins.

Structural Geology: Vein network breccia. Inclined carbonate vein.

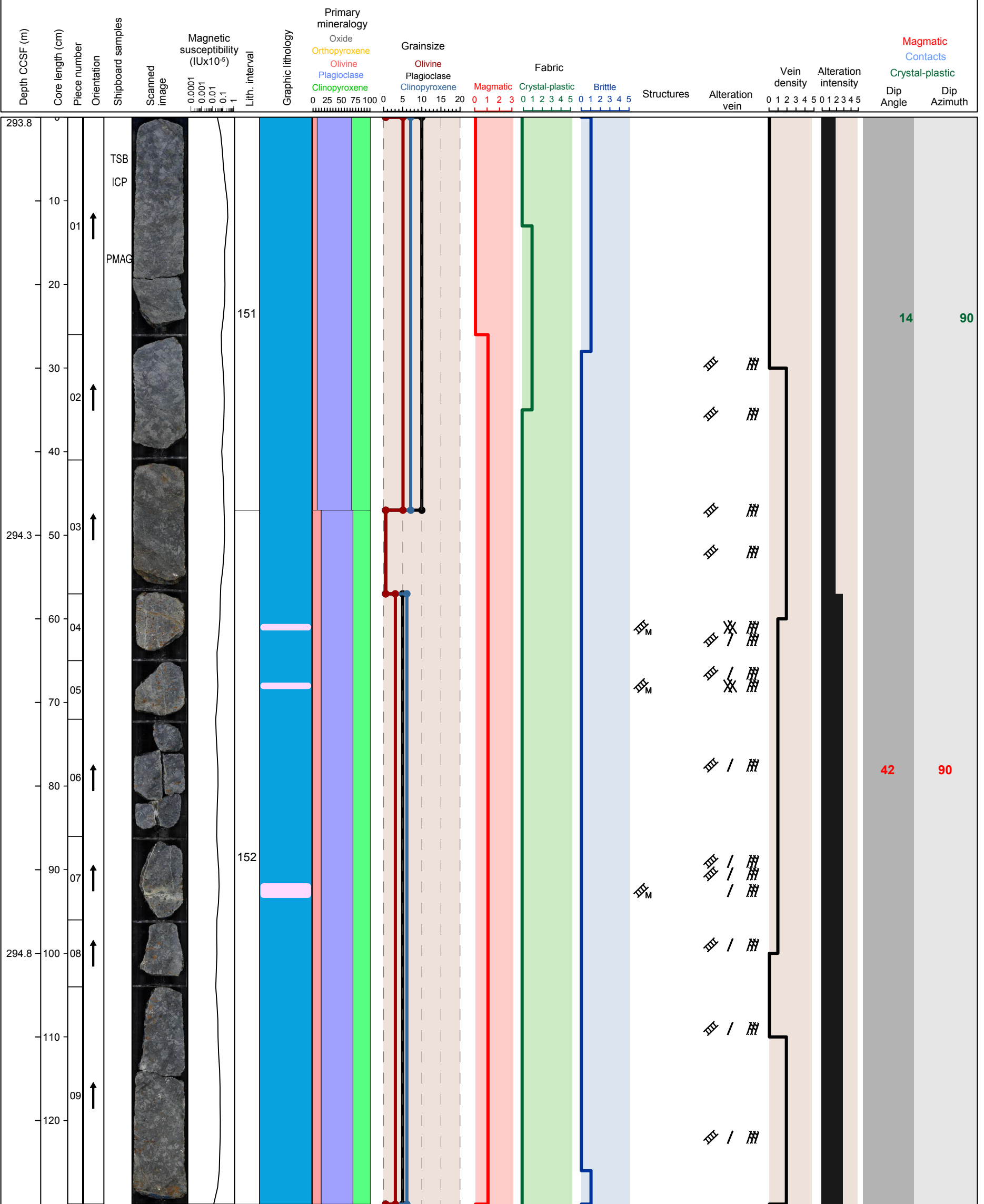


Hole 360-U1473A-33R Section 1, Top of Section: 293.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 151) and coarse grained subophitic olivine gabbro (interval 152)

Metamorphic Petrology: The section is moderately to substantially altered. At the bottom part of the section, olivine is completely altered and is associated with veining.

Structural Geology: Weak fabric with very discrete shear bands. The magmatic fabric is inclined defined by pyroxene. The carbonate vein is thick and inclined.

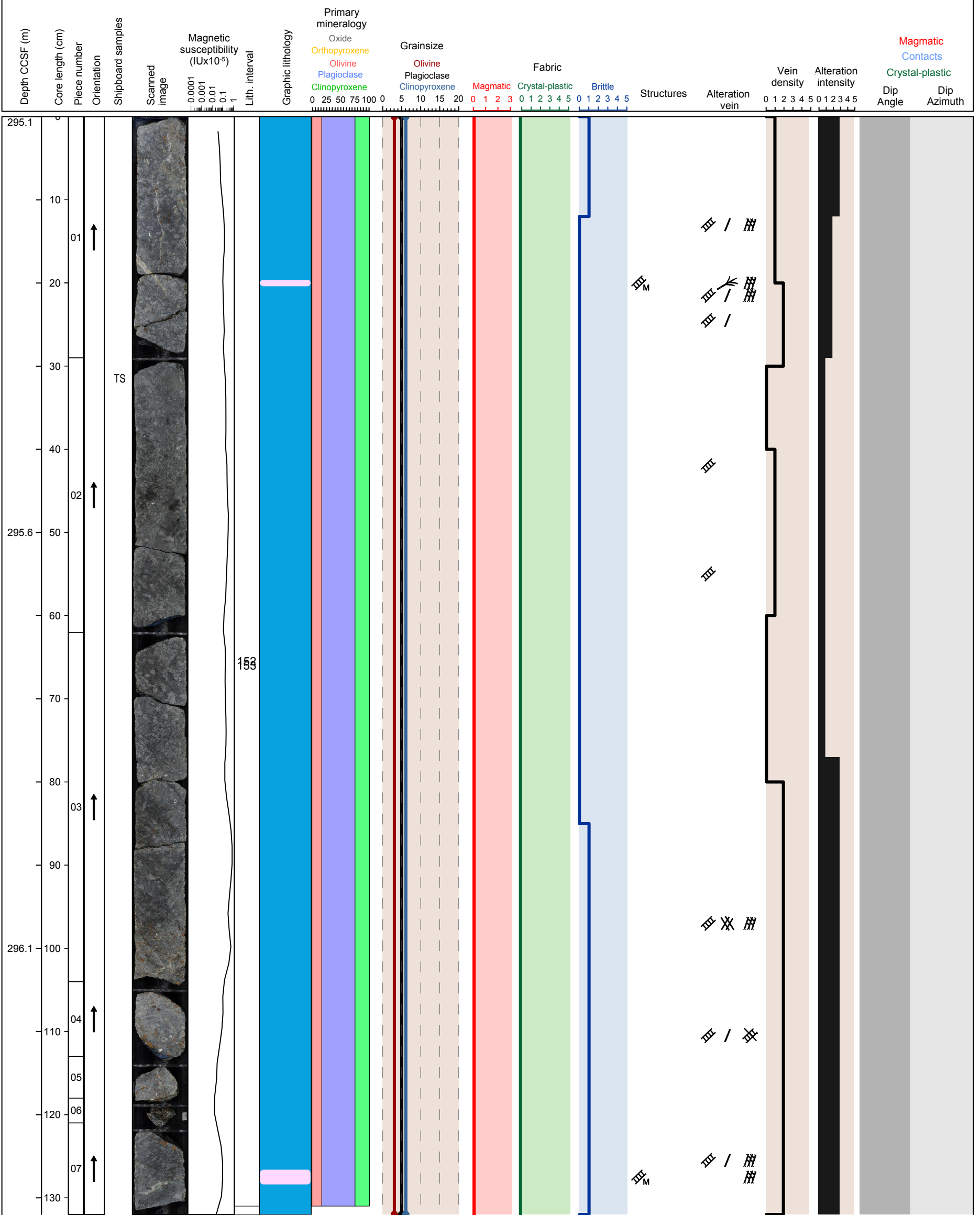


Hole 360-U1473A-33R Section 2, Top of Section: 295.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background with fine grained granular microgabbro domain (interval 153)

Metamorphic Petrology: Static background alteration intensity is moderate to extensive. More intense alteration were related to the veins.

Structural Geology: An enclave of basalt is present. There are two discrete shear zones.

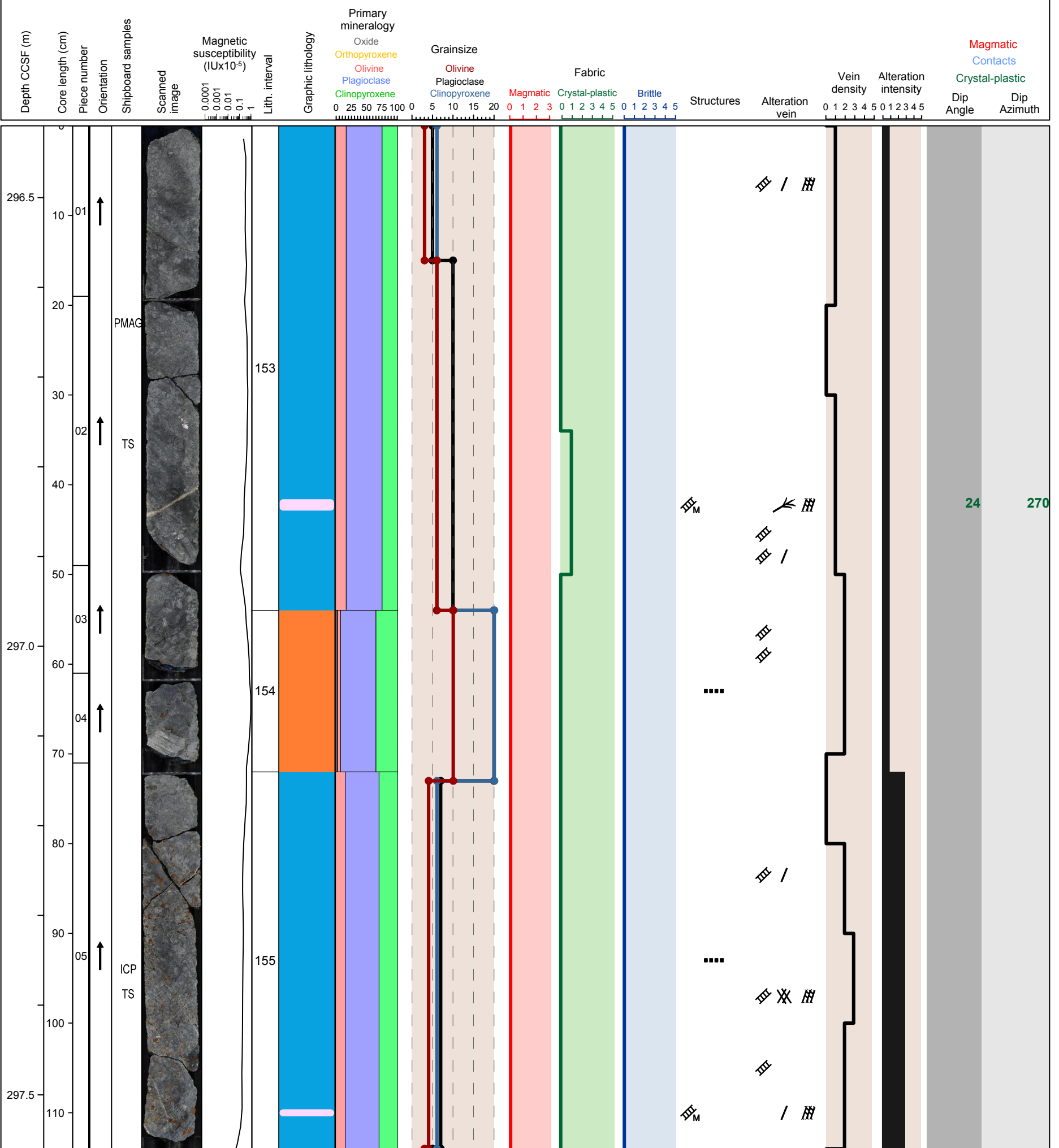


Hole 360-U1473A-33R Section 3, Top of Section: 296.42 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background (interval 153), pegmatitic granular oxide bearing olivine gabbro (interval 154) and coarse grained granular olivine gabbro background (interval 155)

Metamorphic Petrology: The upper part of the section is only slightly altered. The bottom part, however, is substantially altered. The bottom part is marked by complete olivine replacement by clay close to carbonate veins.

Structural Geology: Alteration veins are filled with carbonate and clay.

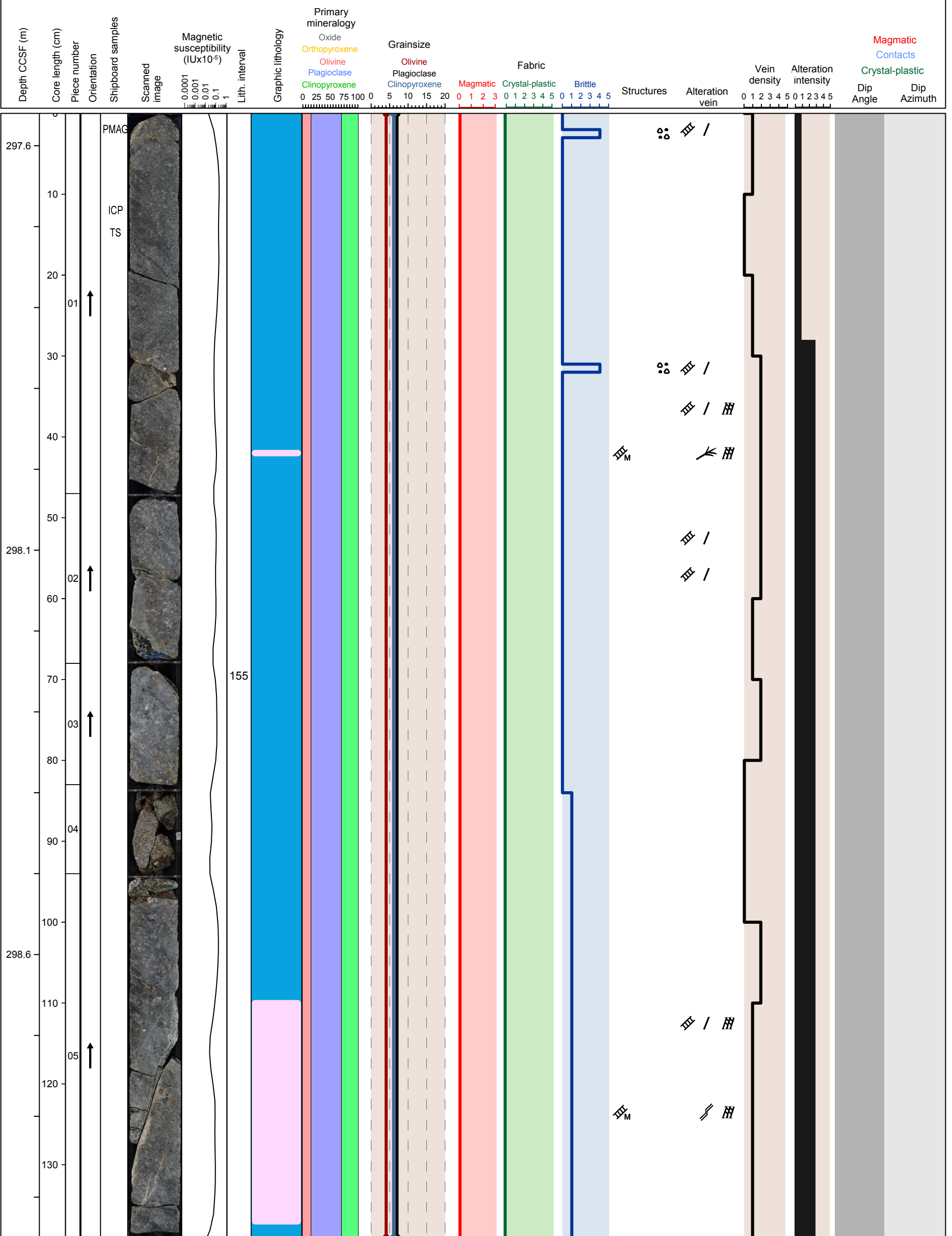


Hole 360-U1473A-33R Section 4, Top of Section: 297.56 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro background and coarse grained granular felsic patch domain (interval 155)

Metamorphic Petrology: The upper part of the section is slightly altered. The lower part, however, is substantially altered. Olivine in the lower part of the section is heavily altered and the high alteration degree is associated with the numerous veins.

Structural Geology: There are two 1-5 mm thick faults filled with carbonate at 2 and 31 cm. The fracture at 121 cm is parallel to the felsic vein and has moderate plunging slickenlines.

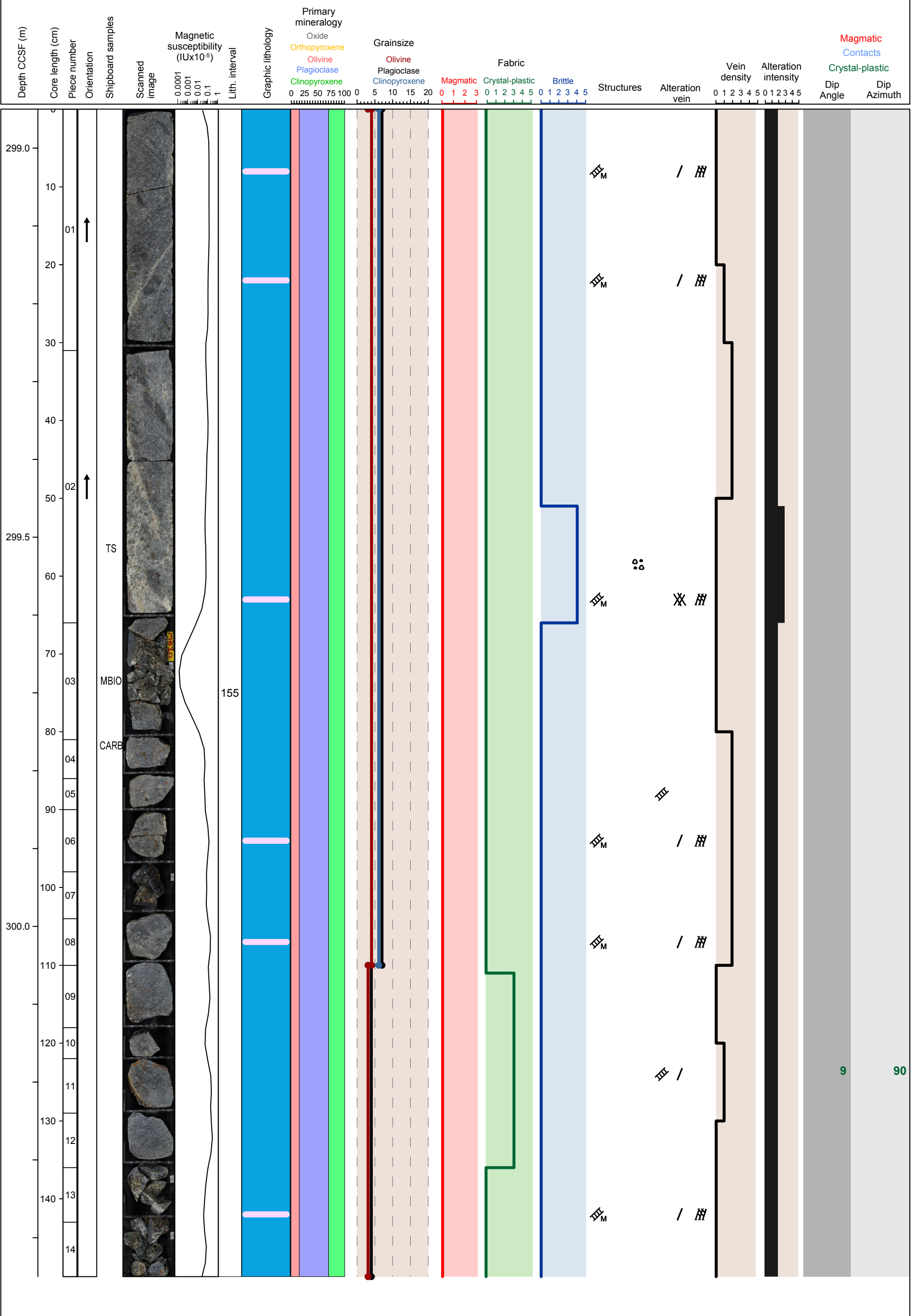


Hole 360-U1473A-33R Section 5, Top of Section: 298.95 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro background and coarse grained granular felsic patch domain (interval 155)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial. More intense alteration were observed around the felsic veins and amphibole veins.

Structural Geology: There is a magmatic breccia at 51 cm and other felsic veins throughout the section.

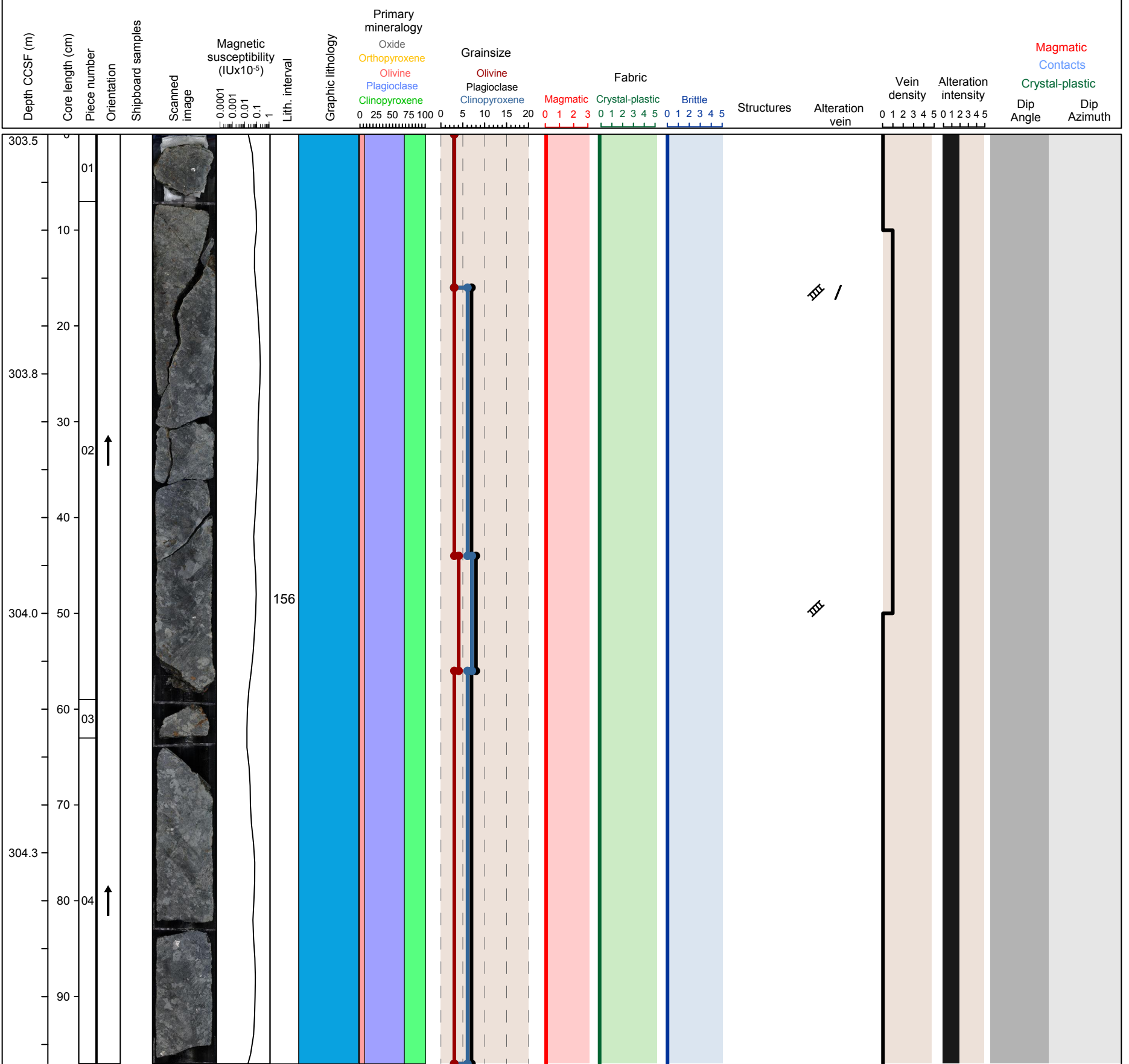


Hole 360-U1473A-34R Section 1, Top of Section: 303.5 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 156)

Metamorphic Petrology: Section is moderately altered. More altered portions of the section are associated with halos around veins.

Structural Geology:

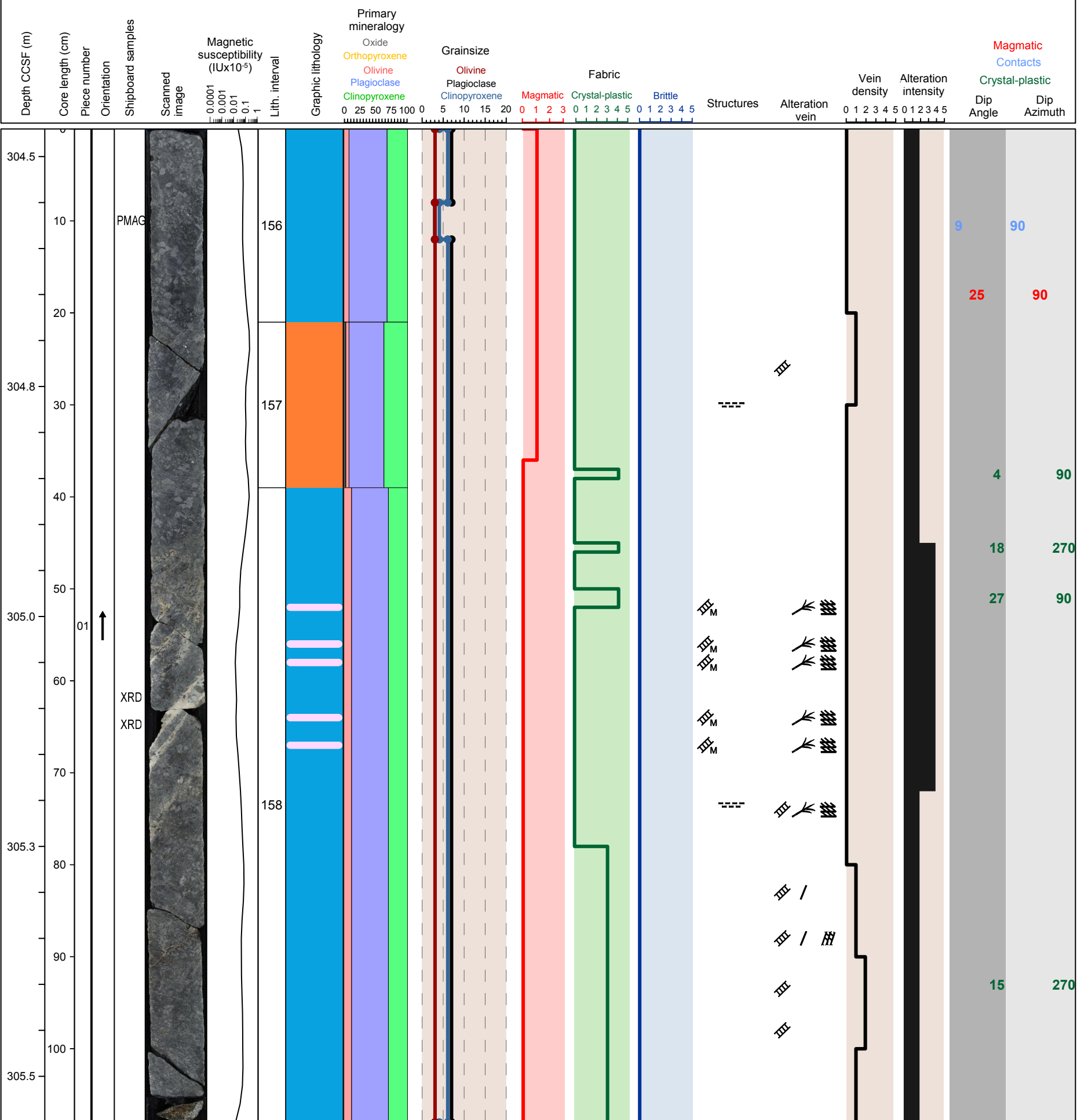


Hole 360-U1473A-34R Section 2, Top of Section: 304.47 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 156), coarse grained subophitic oxide bearing olivine gabbro (interval 157) and coarse grained subophitic olivine gabbro background with medium grained granular felsic vein domain (interval 158)

Metamorphic Petrology: Most of the section is moderately altered. The middle part, however, is marked by intense veining and is extensively altered.

Structural Geology: The shear bands are sub-horizontal. Felsic network vein present.

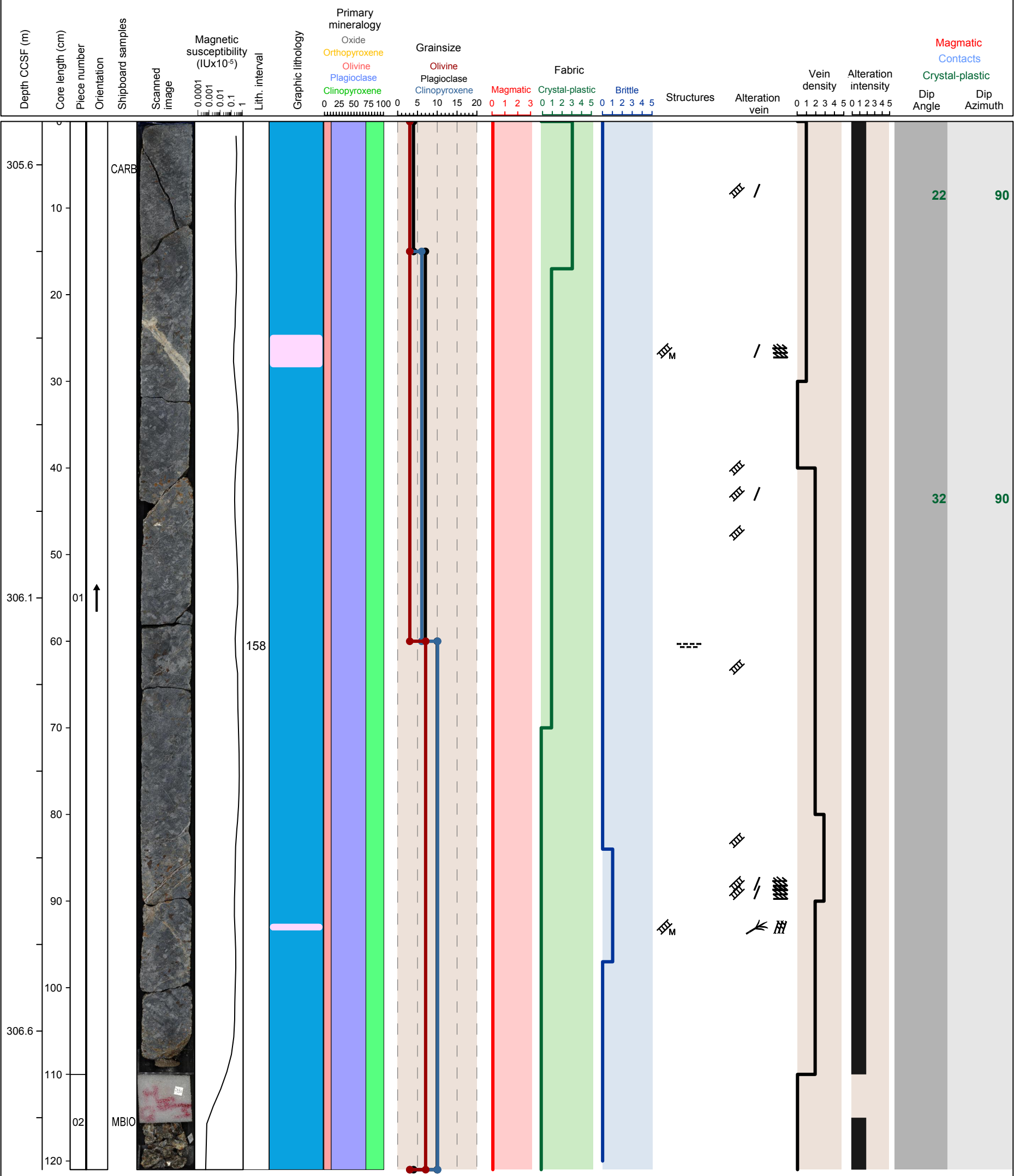


Hole 360-U1473A-34R Section 3, Top of Section: 305.55 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background (interval 158)

Metamorphic Petrology: The section is moderately altered. Areas near veins are the most altered portions of the section.

Structural Geology: Shallow to moderately dipping crystal plastic fabric. Alteration veins are inclined in parallel sets filled with carbonate.

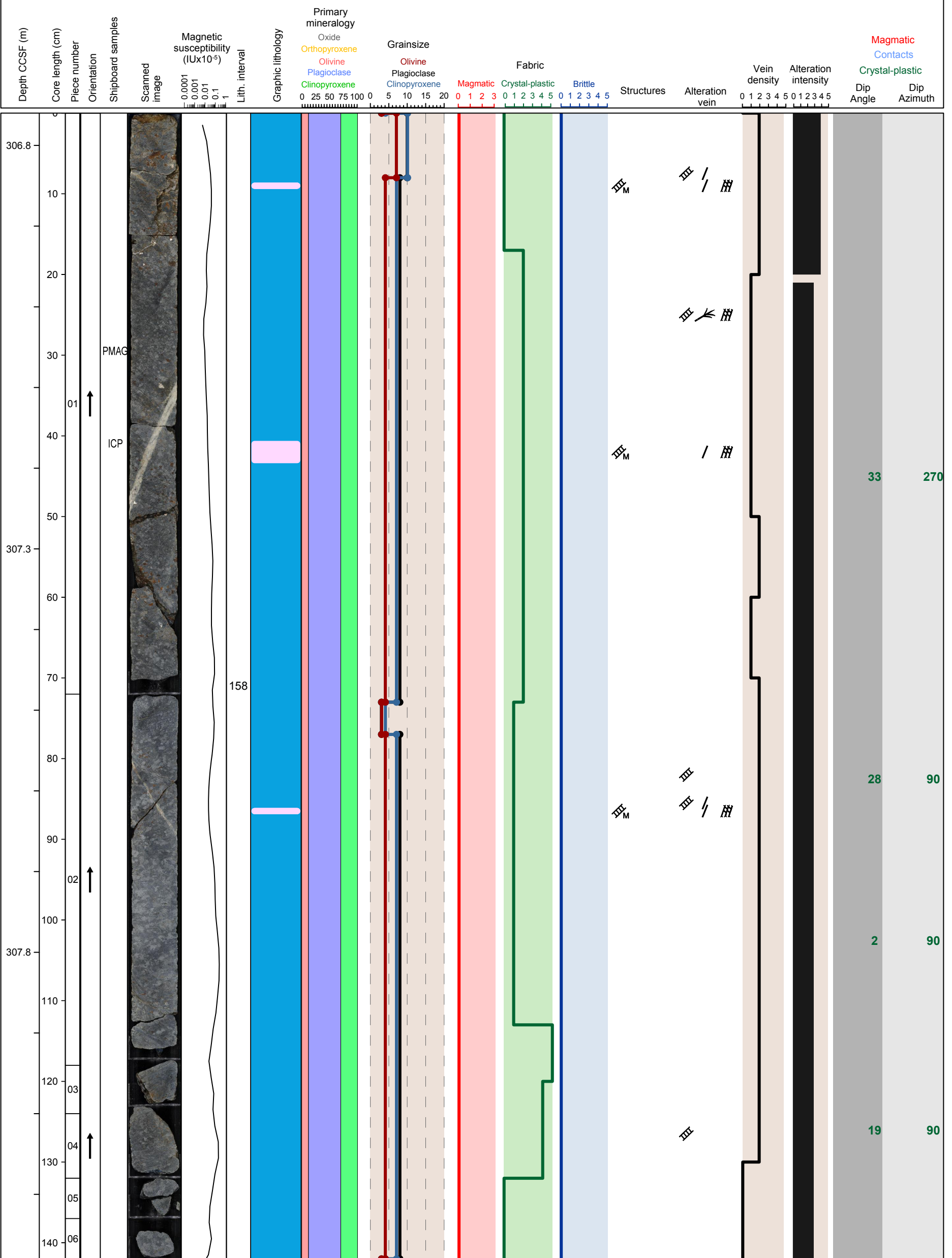


Hole 360-U1473A-34R Section 4, Top of Section: 306.76 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro background (interval 158)

Metamorphic Petrology: The section is substantially to extensively altered. Most of the intense alteration occurs near veins.

Structural Geology: The shear bands are sub-horizontal with sharp contacts.

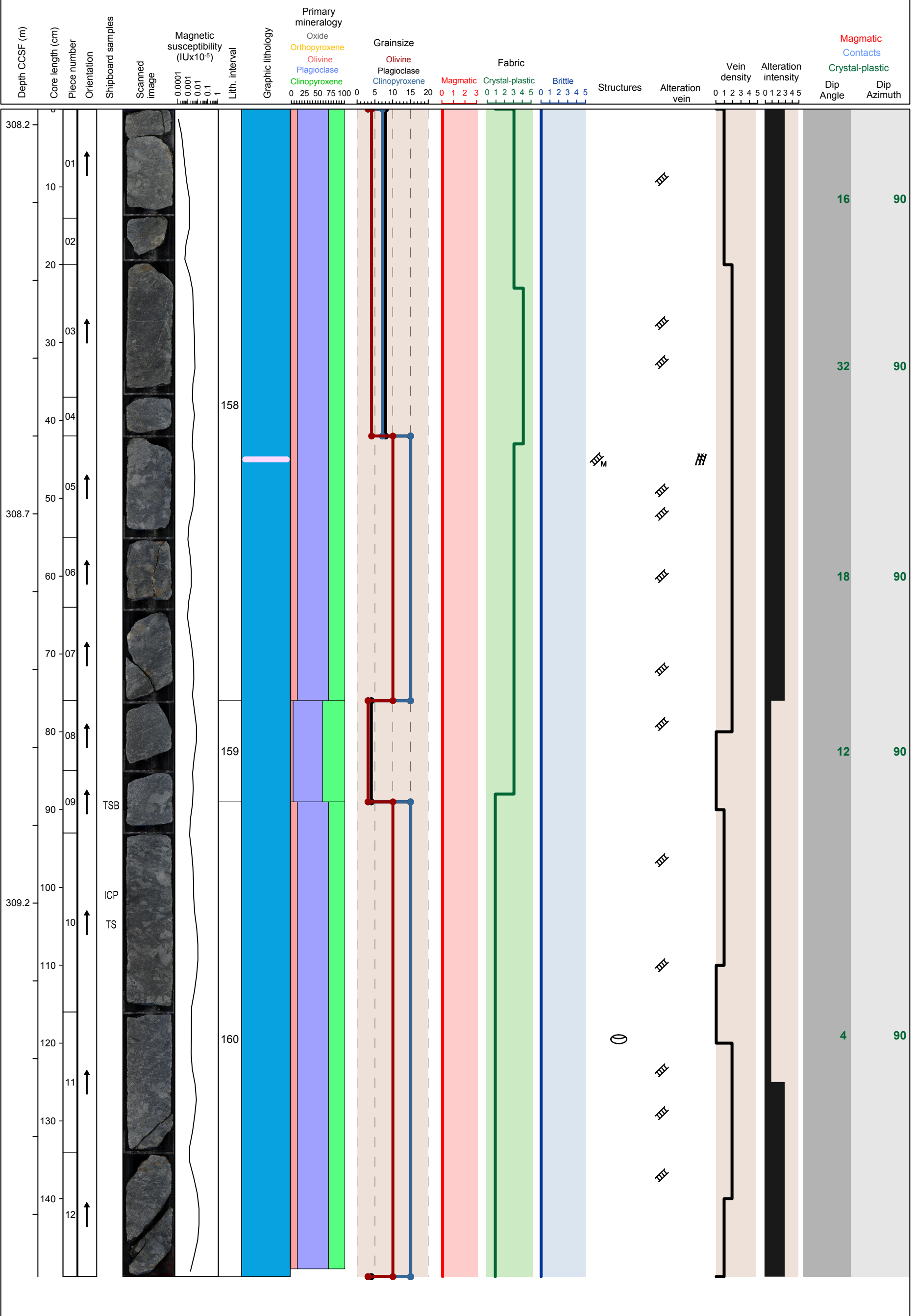


Hole 360-U1473A-34R Section 5, Top of Section: 308.18 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 158 and 160), medium grained granular olivine bearing gabbro (interval 159)

Metamorphic Petrology: The section is mostly substantially altered. Olivine is conspicuously replaced by red clay throughout most of the section.

Structural Geology: The crystal plastic fabrics are steeper at the top of the section and shallow toward the bottom. Alteration veins overprint the crystal plastic fabric.

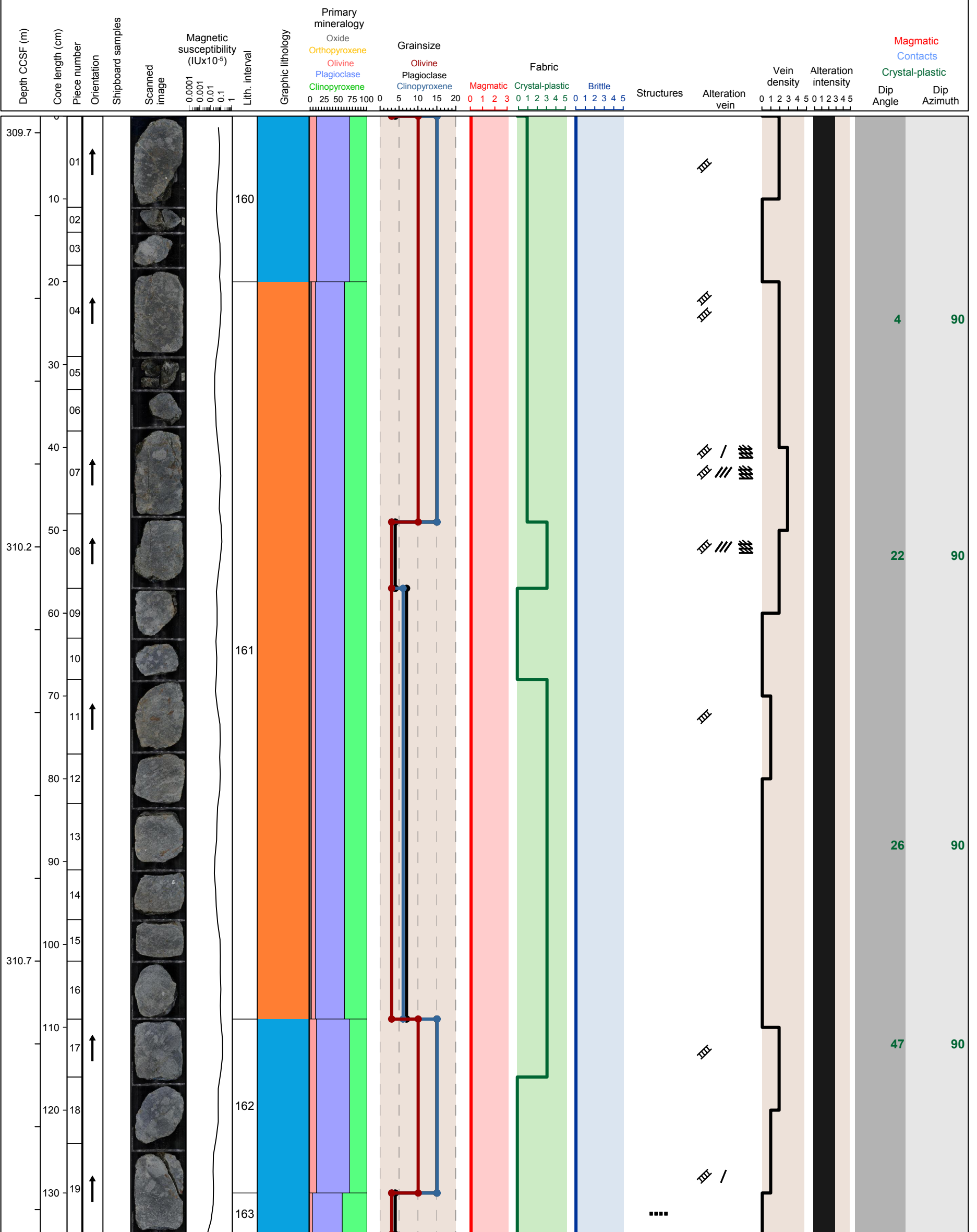


Hole 360-U1473A-34R Section 6, Top of Section: 309.68 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 160 and 162), coarse grained granular oxide bearing olivine gabbro (interval 161) and medium grained granular olivine gabbro (interval 163)

Metamorphic Petrology: The section is substantially altered. The most altered parts are proximal to the veins.

Structural Geology: The crystal plastic fabric is plagioclase-rich with a shallow to moderate dip.

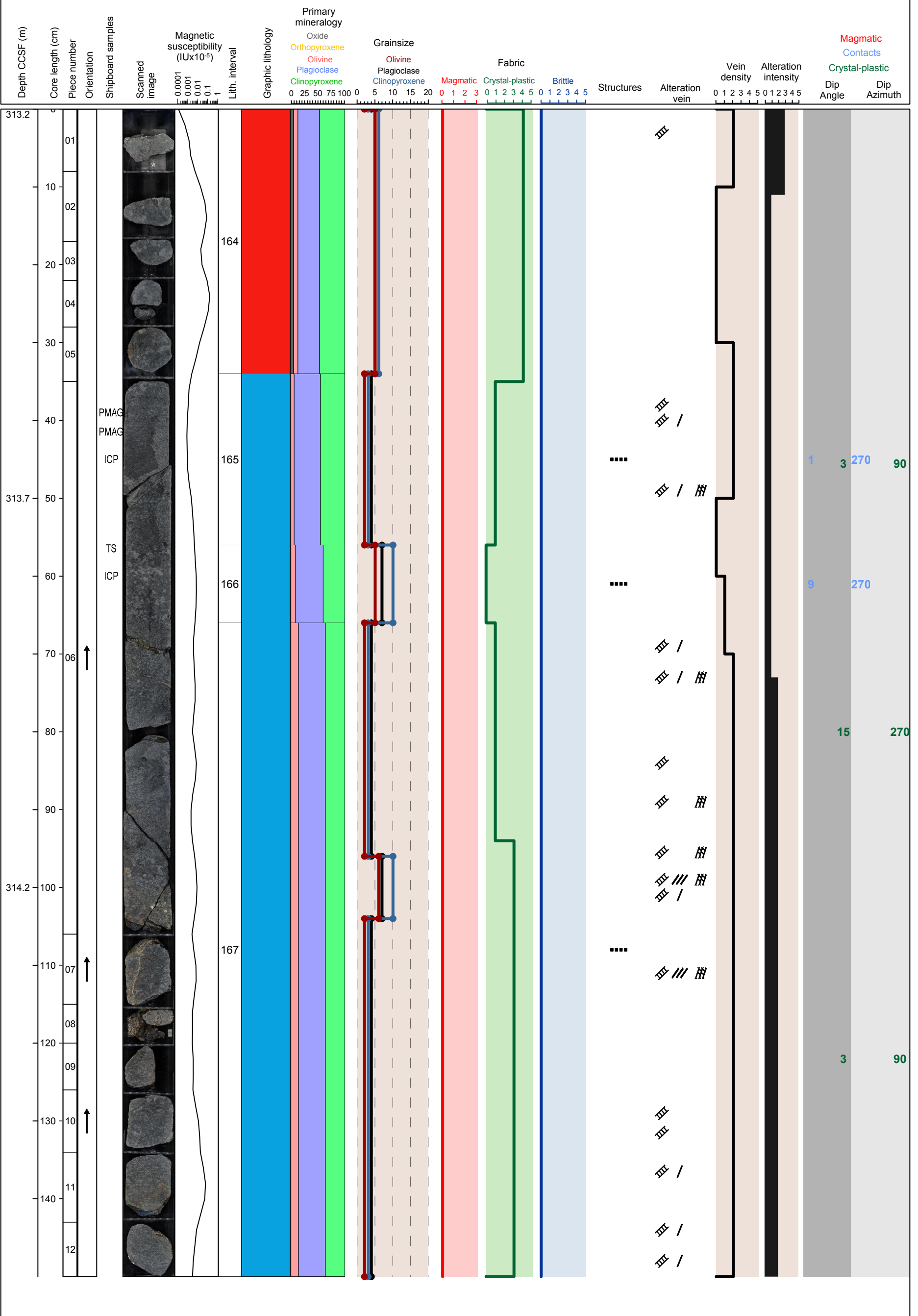


Hole 360-U1473A-35R Section 1, Top of Section: 313.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide olivine gabbro (interval 164), medium grained granular olivine gabbro (interval 165 and 167) and coarse grained granular olivine gabbro (interval 166)

Metamorphic Petrology: Static background alteration intensity is slight to substantial. More intense alteration occurred in the halos.

Structural Geology: Grain size variation with sub-horizontal dip. Inclined carbonate and clay veins

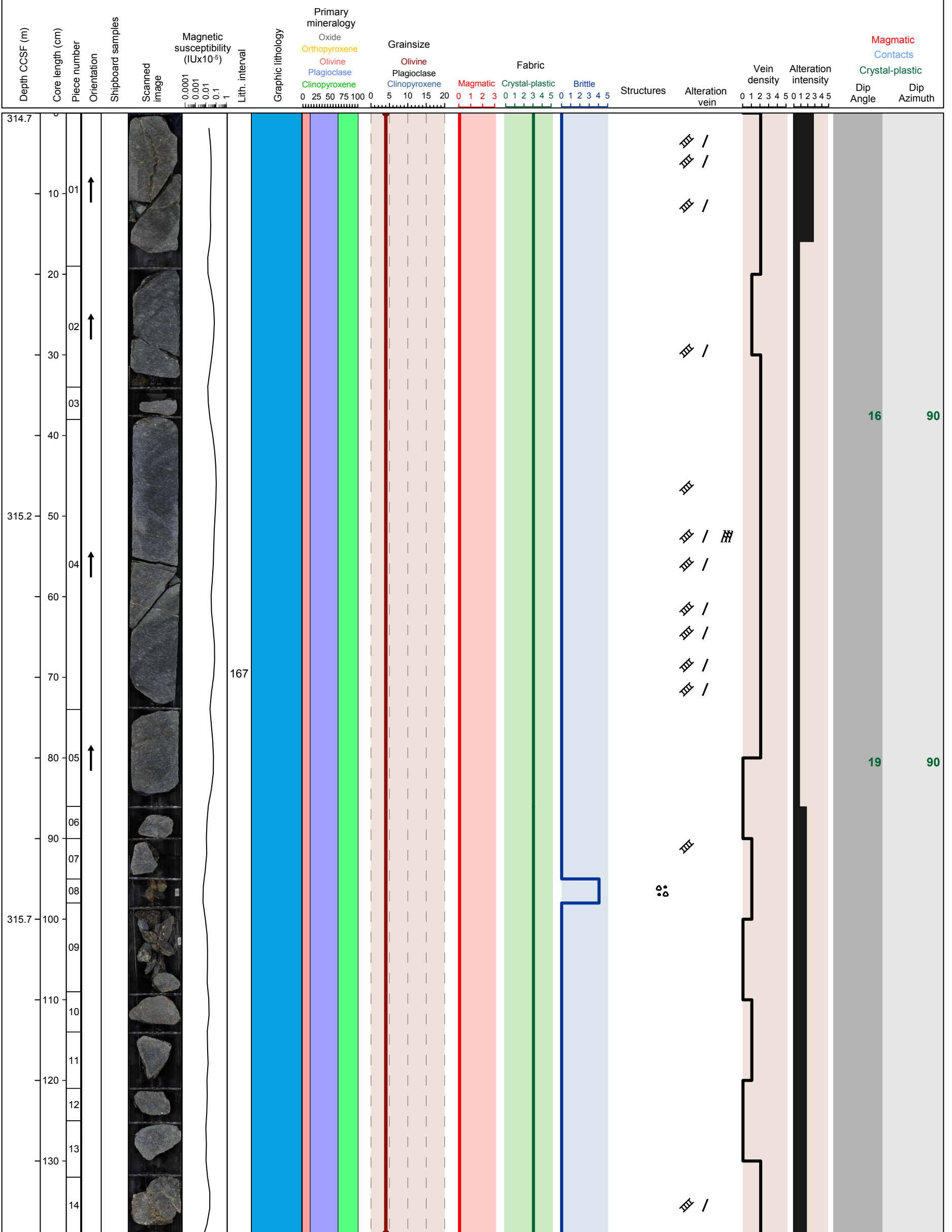


Hole 360-U1473A-35R Section 2, Top of Section: 314.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 167)

Metamorphic Petrology: Static background alteration intensity is slight to substantial. More intense alteration occurred in the halo.

Structural Geology: The mylonite has a steep dip. Alteration veins are inclined filled with carbonate and clay. The fracture at 60 cm has a moderate rake and is cut by a carbonate filled fracture.

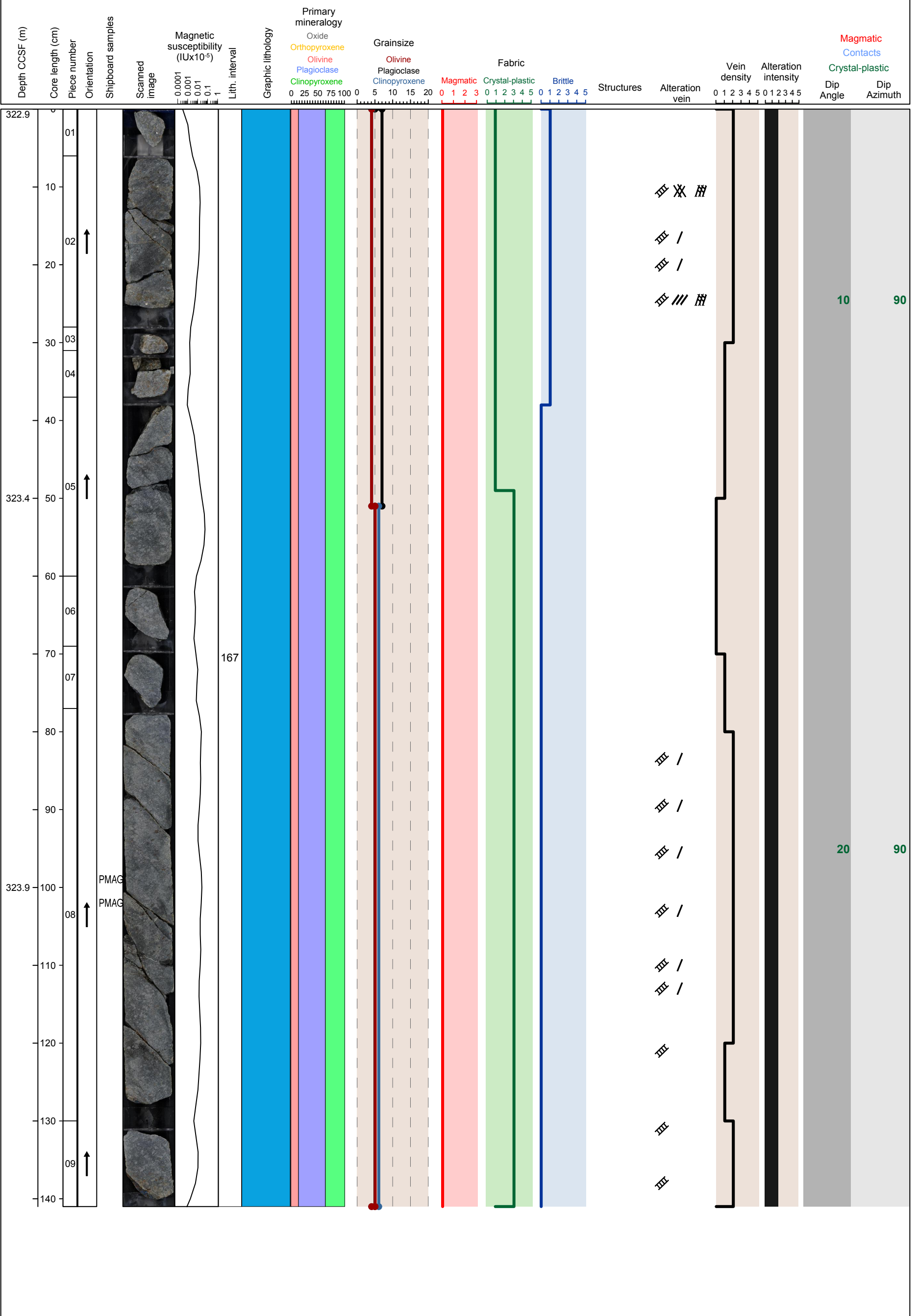


Hole 360-U1473A-36R Section 1, Top of Section: 322.9 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 167)

Metamorphic Petrology: Static background alteration intensity is moderate. Several carbonate veins were observed.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip. Fractures are in parallel sets filled with carbonate.

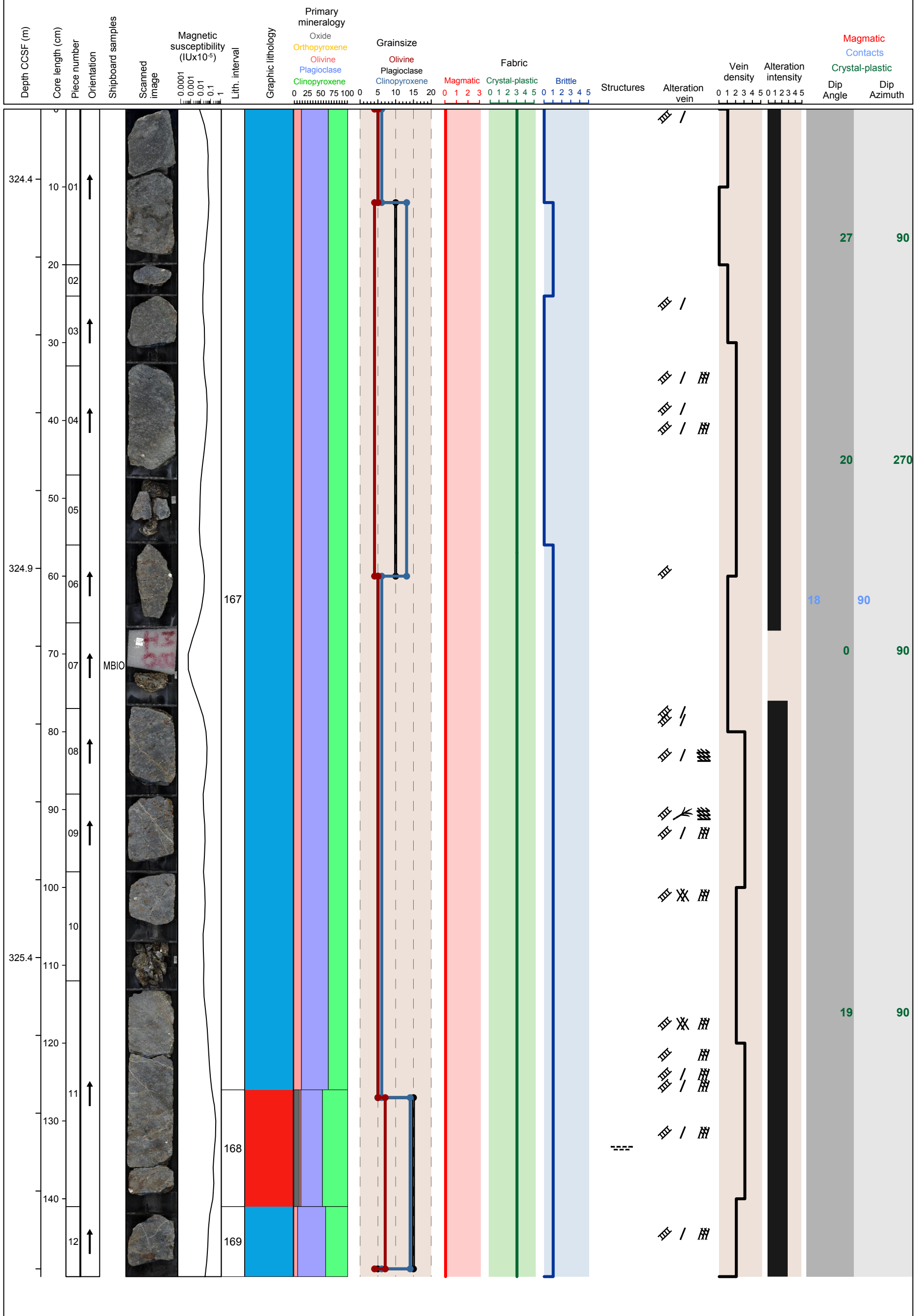


Hole 360-U1473A-36R Section 2, Top of Section: 324.31 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 167), coarse grained granular oxide olivine gabbro (interval 168) and coarse grained granular olivine gabbro (interval 169)

Metamorphic Petrology: Section is moderately to substantially altered. Higher alteration intensity are associated with the heavy carbonate veining.

Structural Geology: The crystal plastic fabric has a shallow dip. Alteration veins are steeply dipping and filled with carbonate.

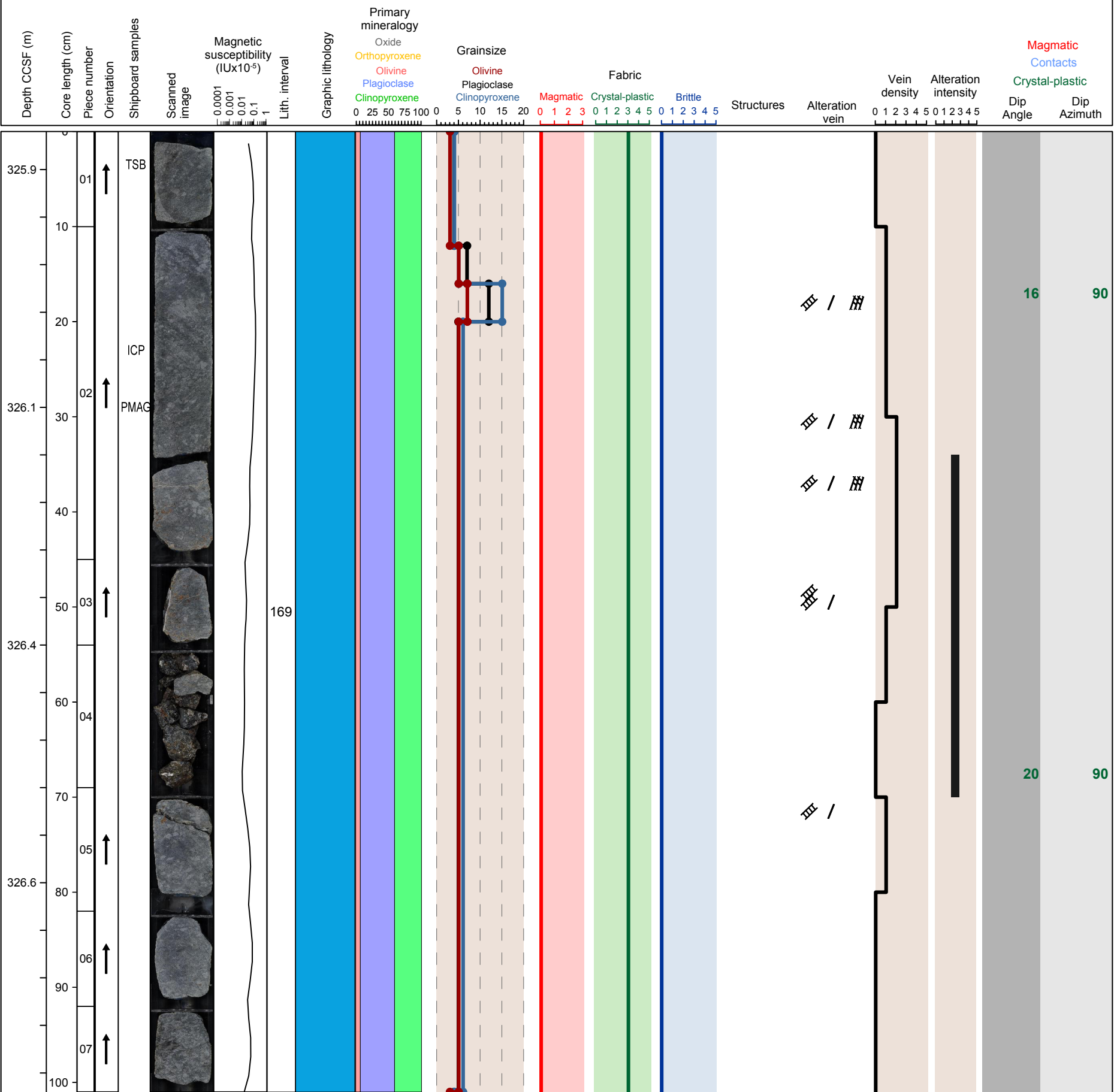


Hole 360-U1473A-36R Section 3, Top of Section: 325.81 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 169)

Metamorphic Petrology: The section is mostly moderately altered. Zones of substantial alteration are located near veins.

Structural Geology: The crystal plastic fabric has a shallow dip and is cut by a fine grained intrusion.

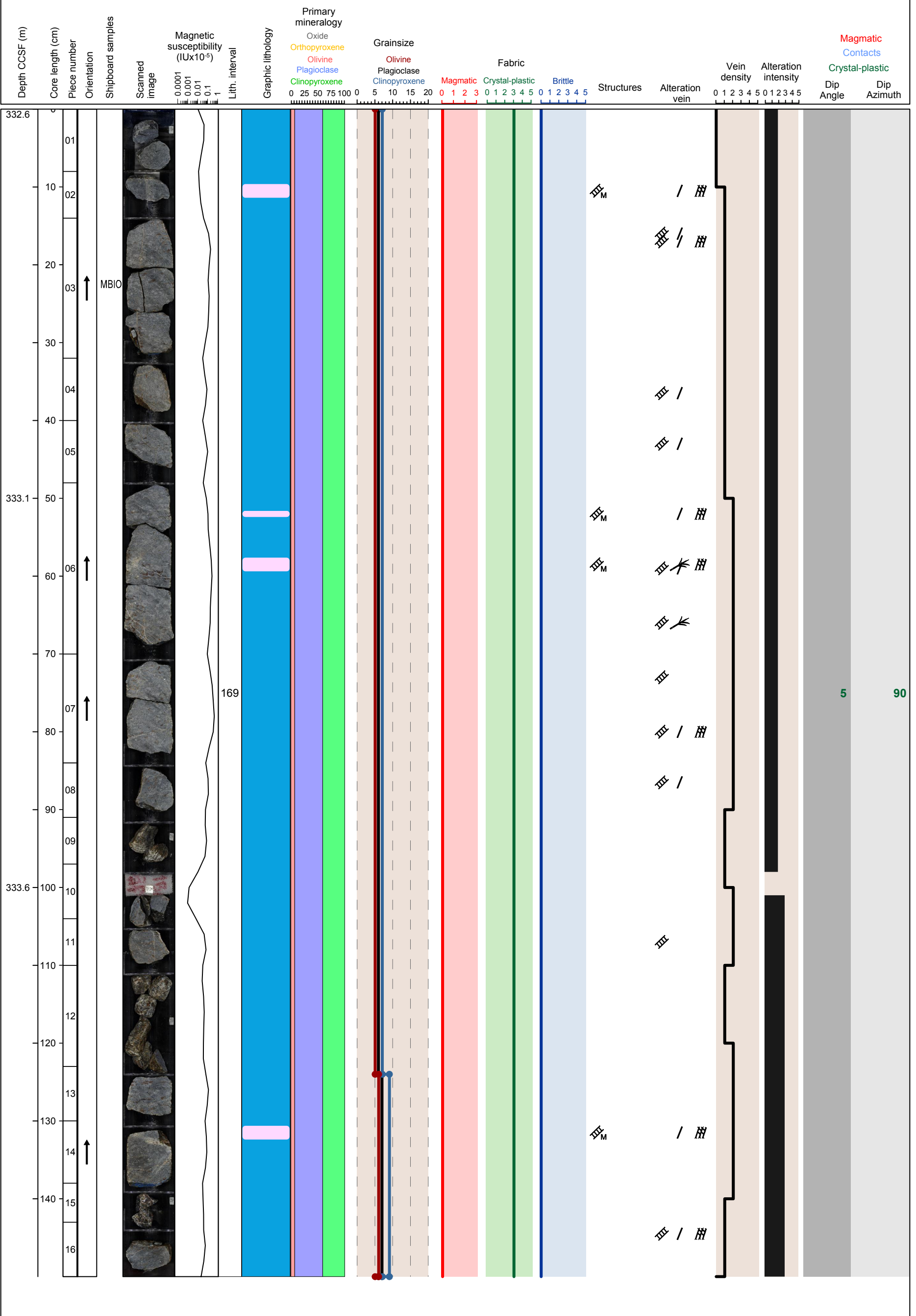


Hole 360-U1473A-37R Section 1, Top of Section: 332.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 169)

Metamorphic Petrology: Section is moderately to substantially altered. The bottom part is more altered characterized extensive olivine replacement by reddish clay.

Structural Geology: Sub-horizontal crystal plastic fabric is cut by higher angle shear bands.

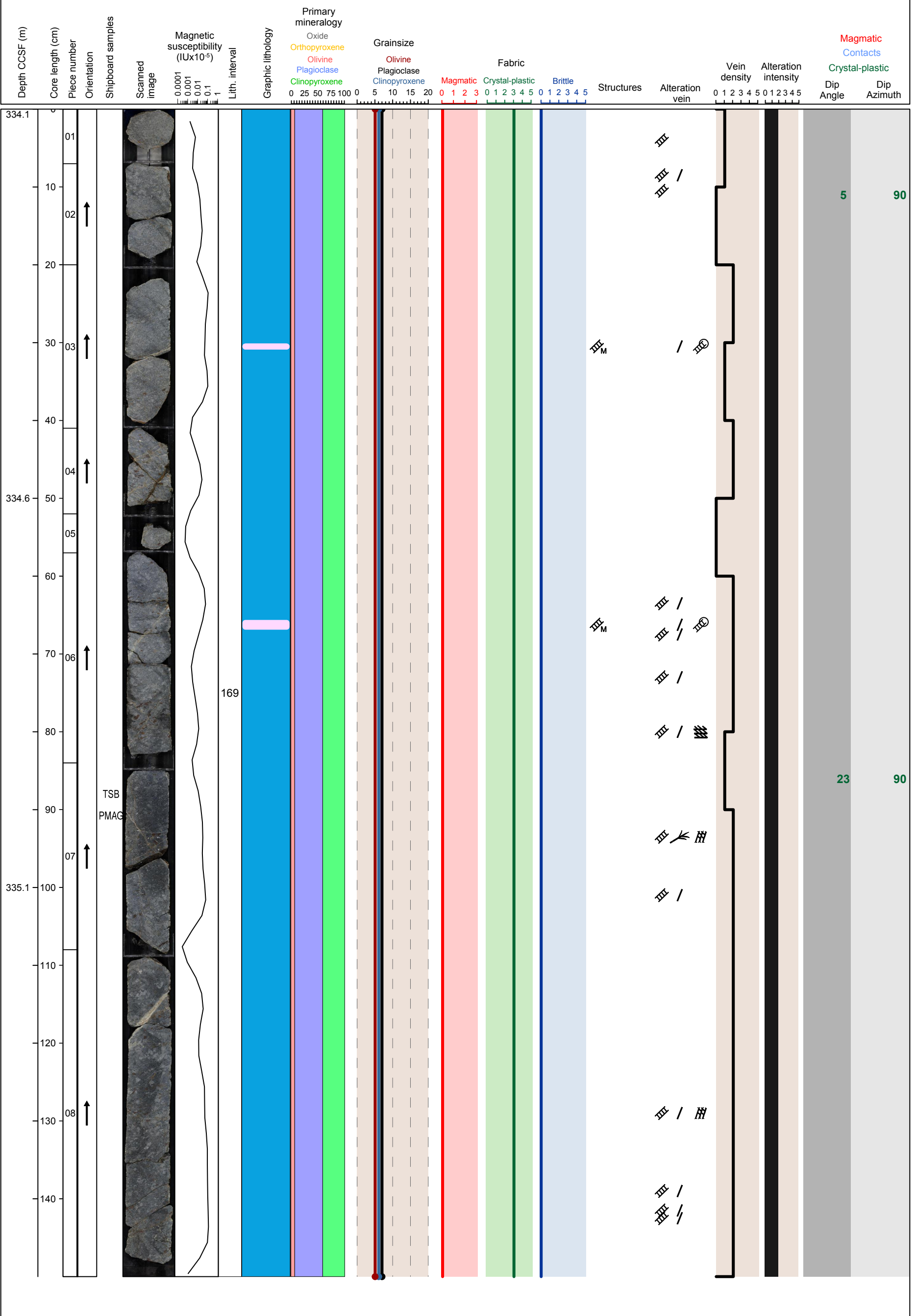


Hole 360-U1473A-37R Section 2, Top of Section: 334.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 169)

Metamorphic Petrology: The section is moderately altered. High alteration intensity was observed near veins.

Structural Geology: The crystal plastic fabric steepens with depth crosscut by shear bands.

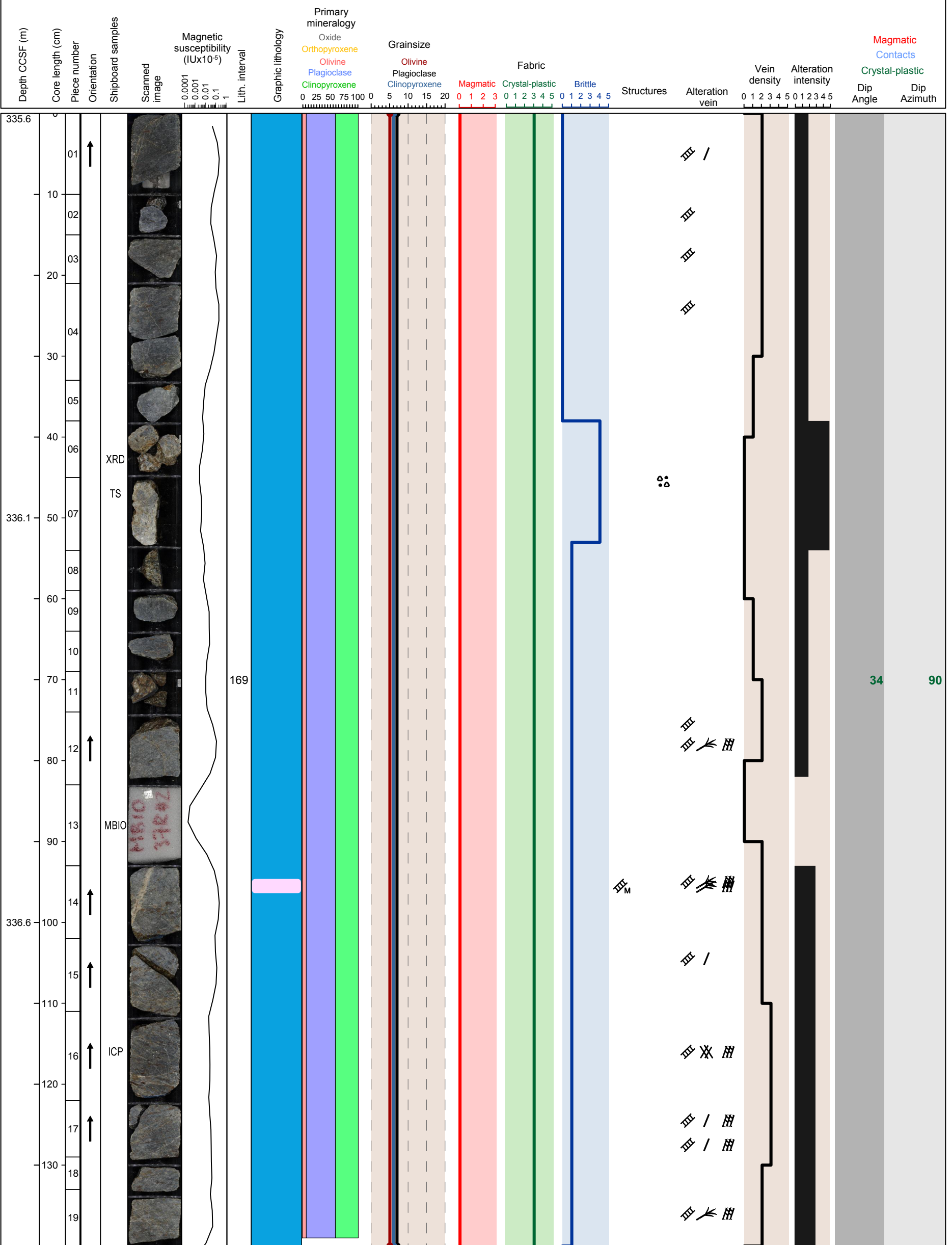


Hole 360-U1473A-37R Section 3, Top of Section: 335.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 169)

Metamorphic Petrology: Section is mostly moderately to substantially altered. An interval of complete alteration was observed in a brecciated zone and could be a product of cataclastic processes.

Structural Geology: The crystal plastic fabric shallows and is crosscut by sub-vertical shear bands. Alteration veins are carbonate network veins. The fault breccia at 38 cm is brown and has a high proportion of clasts.

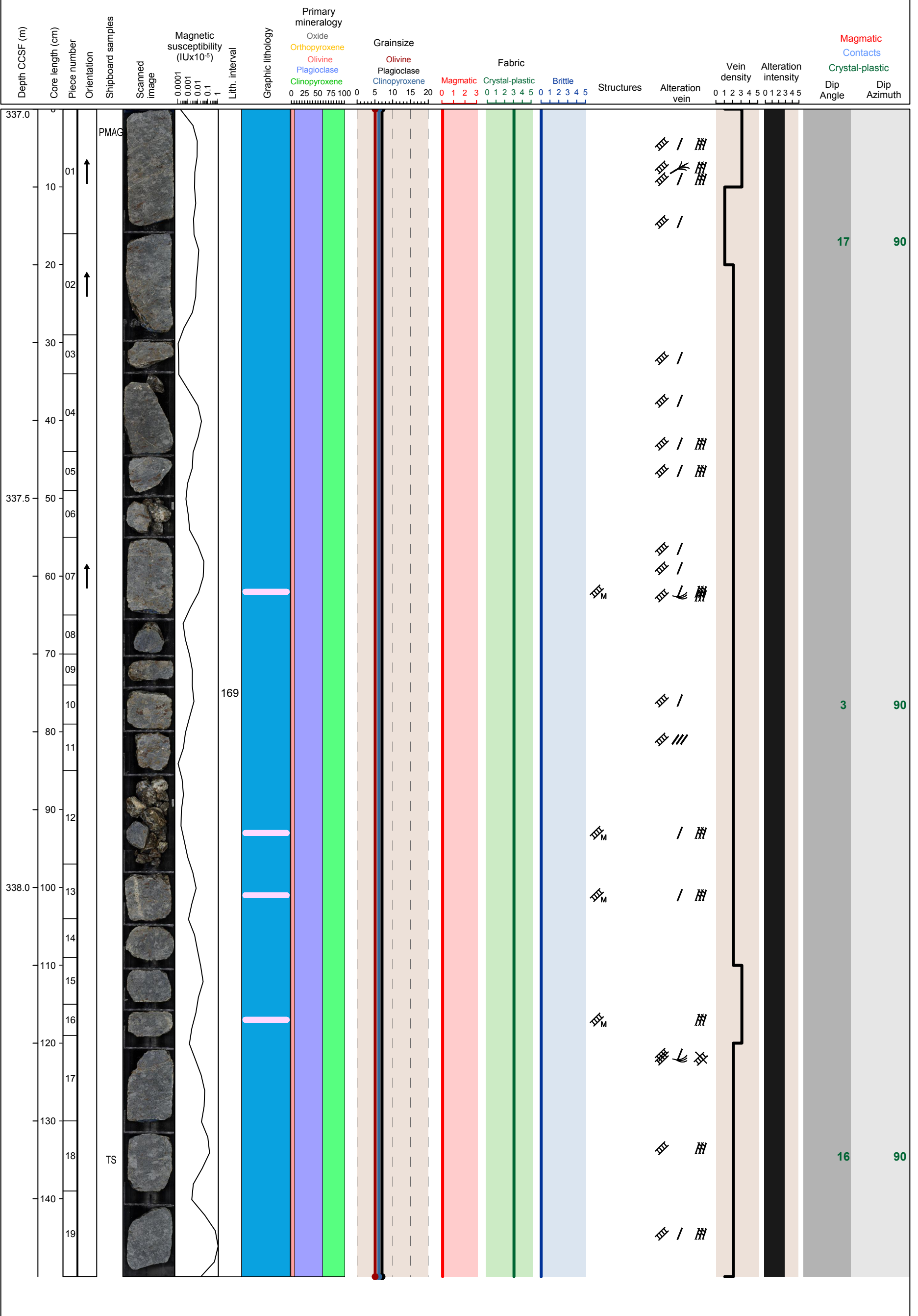


Hole 360-U1473A-37R Section 4, Top of Section: 337.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 169)

Metamorphic Petrology: Section is substantially altered. Higher alteration degree occurs in areas near veins.

Structural Geology: The crystal plastic fabric has a shallow to sub-horizontal dip.

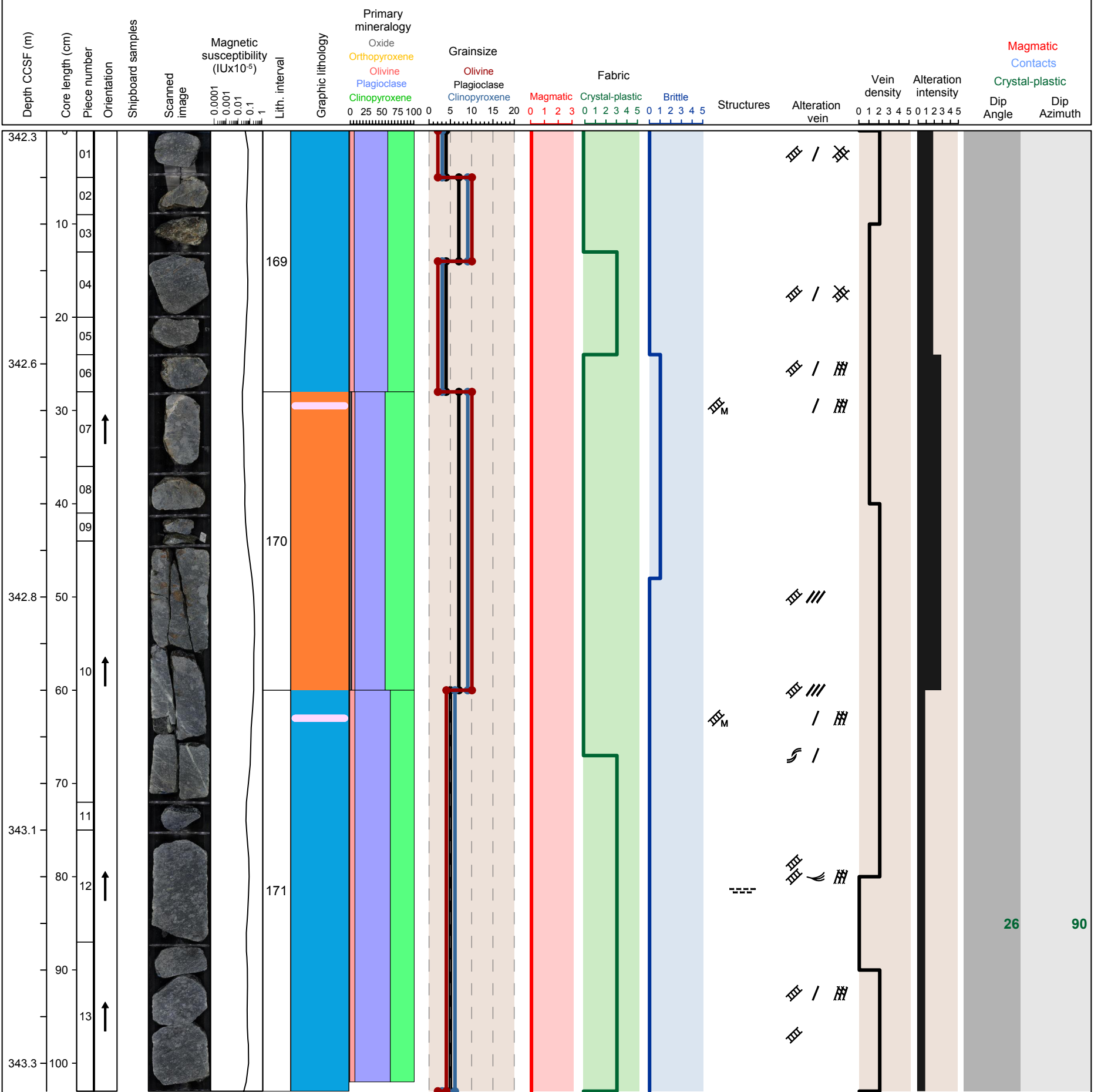


Hole 360-U1473A-38R Section 1, Top of Section: 342.3 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 169), coarse grained granular oxide bearing olivine gabbro (interval 170) and coarse grained subophitic olivine gabbro (interval 171)

Metamorphic Petrology: Alteration is variable in the section. The most intensely altered part of the section is in the upper portion where it is heavily veined.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip.

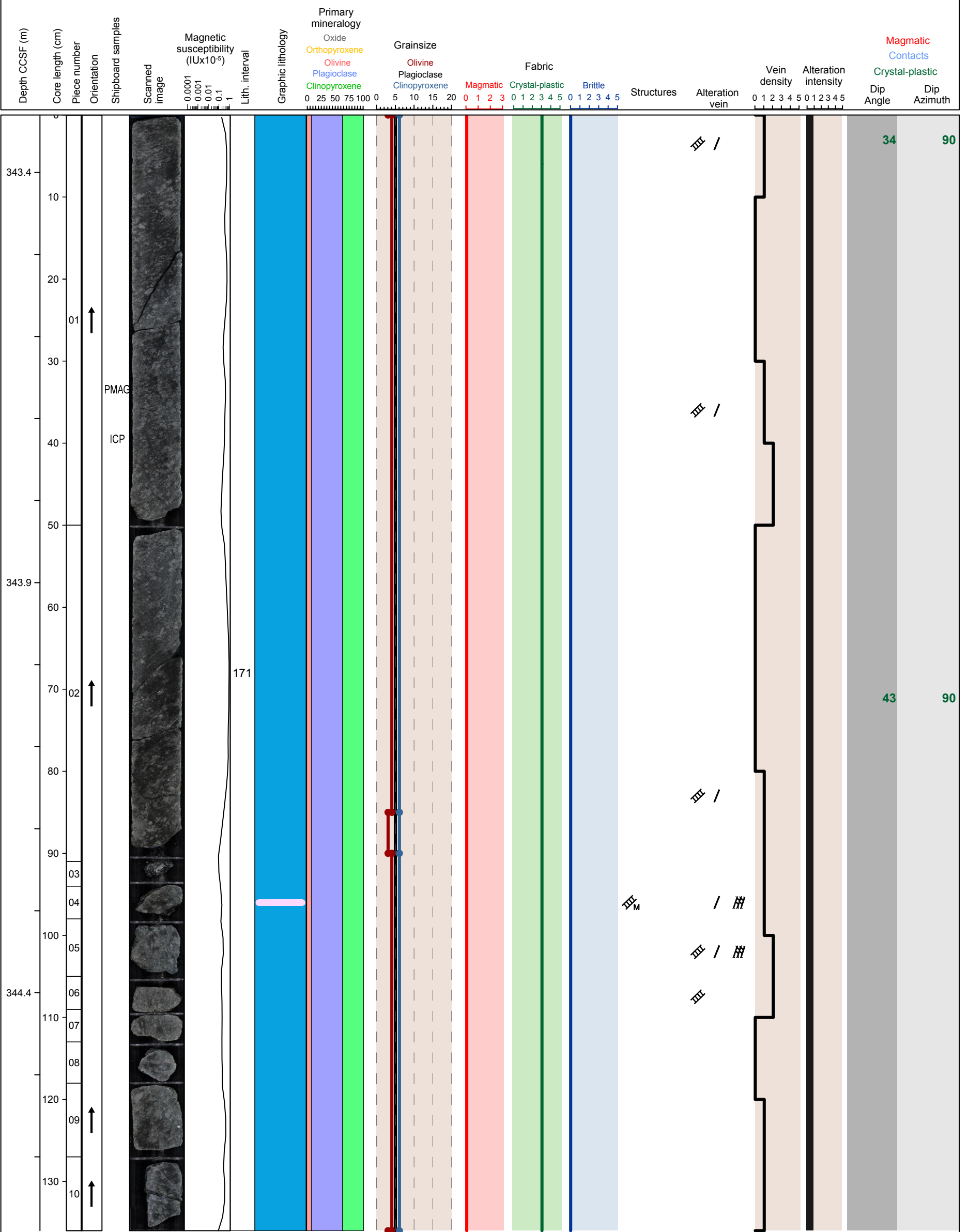


Hole 360-U1473A-38R Section 2, Top of Section: 343.33 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 171)

Metamorphic Petrology: The section is only slightly altered.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip.

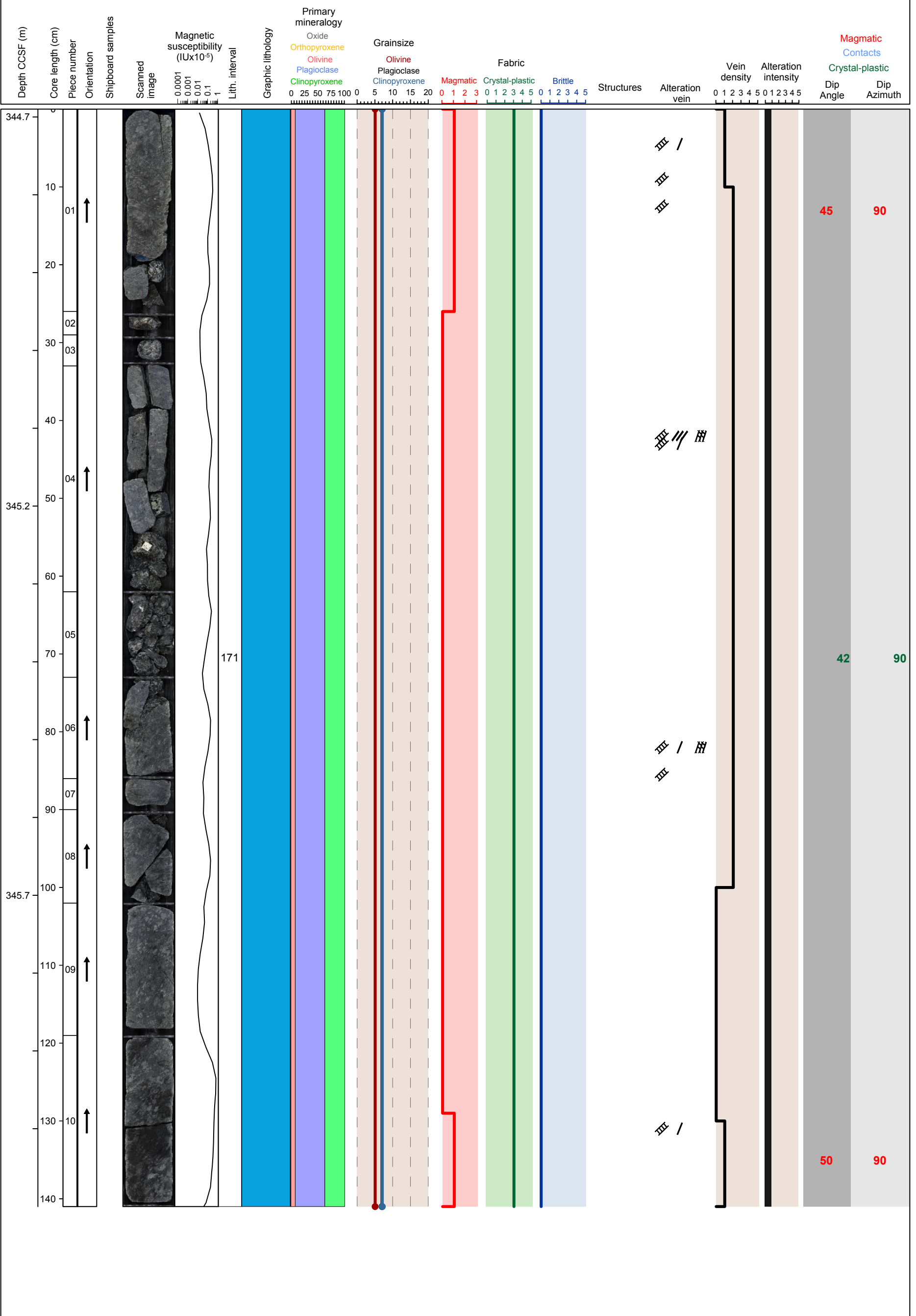


Hole 360-U1473A-38R Section 3, Top of Section: 344.69 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 171)

Metamorphic Petrology: Static background alteration intensity is slight. More intense alteration occurred near the veins.

Structural Geology: The crystal plastic fabric has a moderate dip. The magmatic fabric is inclined and defined by plagioclase.

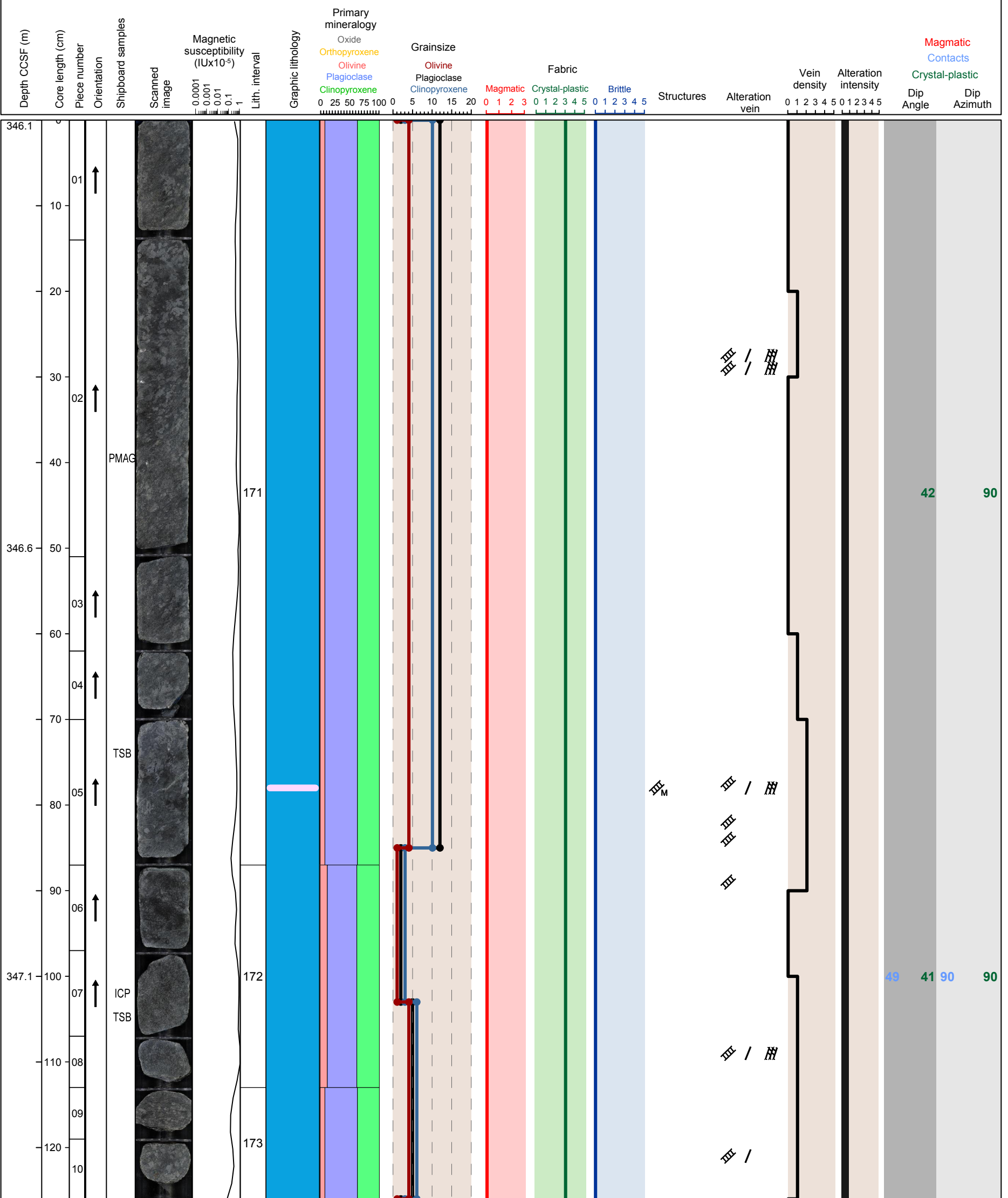


Hole 360-U1473A-38R Section 4, Top of Section: 346.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 171 and 173) and fine grained granular olivine gabbro

Metamorphic Petrology: Static background alteration intensity is slight. More intense alteration occurred near the veins.

Structural Geology: The crystal plastic fabric has a moderate dip. In piece 2 there is a gradation between magmatic texture and the crystal plastic foliation.

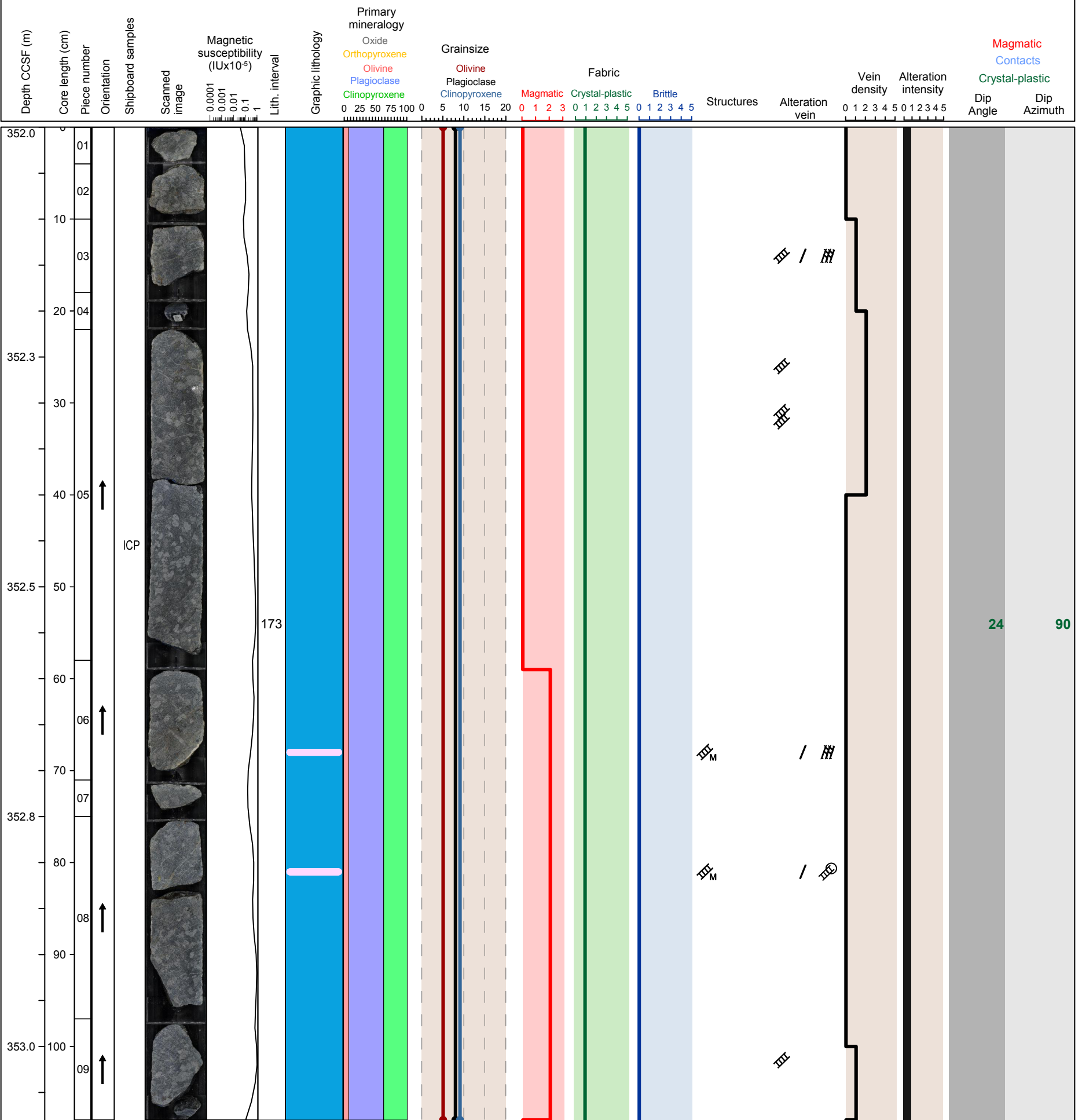


Hole 360-U1473A-39R Section 1, Top of Section: 352.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 173)

Metamorphic Petrology: Static background alteration intensity is slight. Alteration is more intense in vein halos.

Structural Geology: The crystal plastic fabric has a moderate dip. The magmatic fabric is inclined defined by pyroxene.

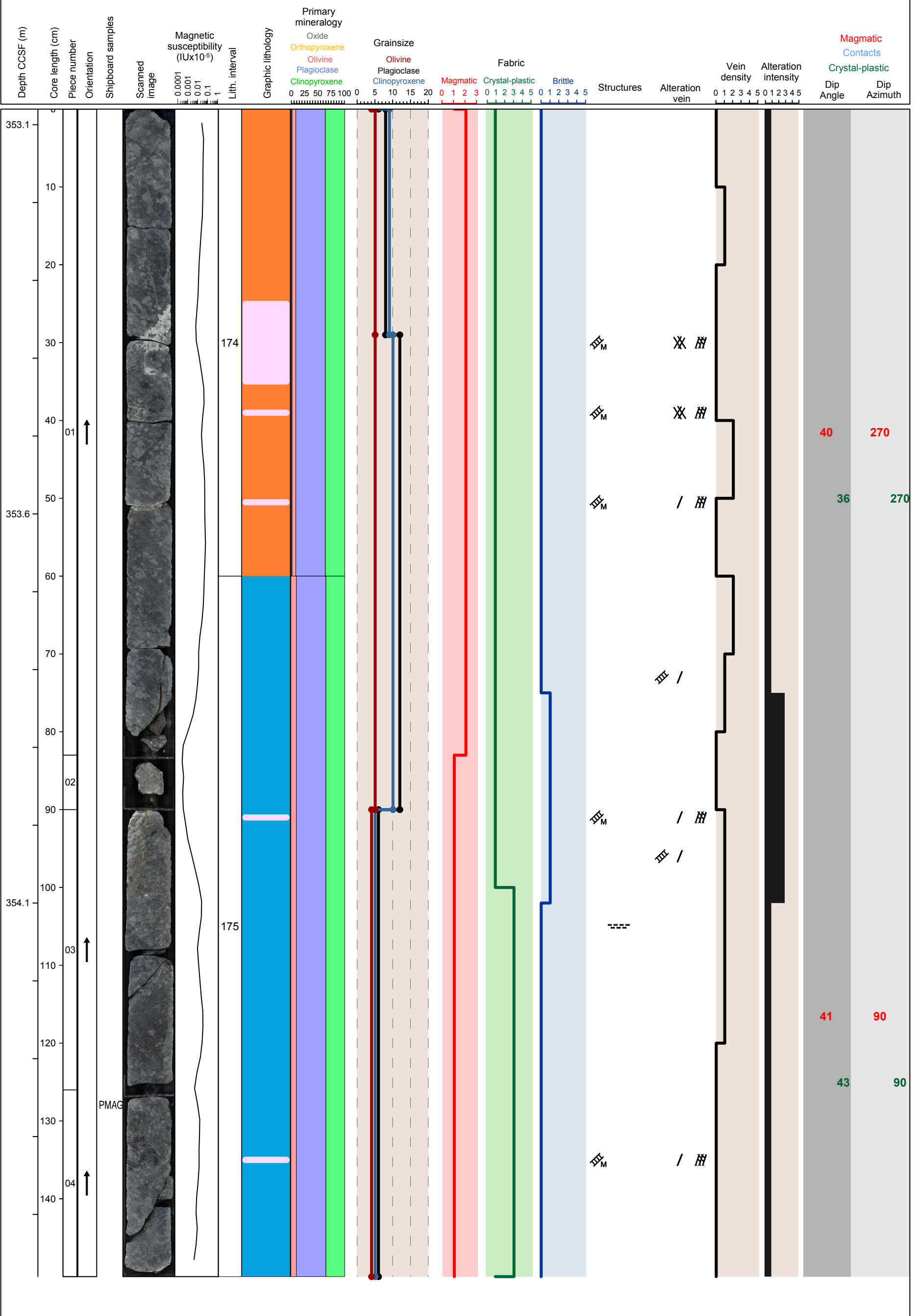


Hole 360-U1473A-39R Section 2, Top of Section: 353.08 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 174) and coarse grained subophitic olivine gabbro (interval 175)

Metamorphic Petrology: Static background alteration intensity is mostly slight. Intense alteration occurs near and within a felsic vein.

Structural Geology: Shear band at 29 cm ends in a leucocratic zone. The magmatic fabric is inclined and defined by plagioclase and pyroxene.

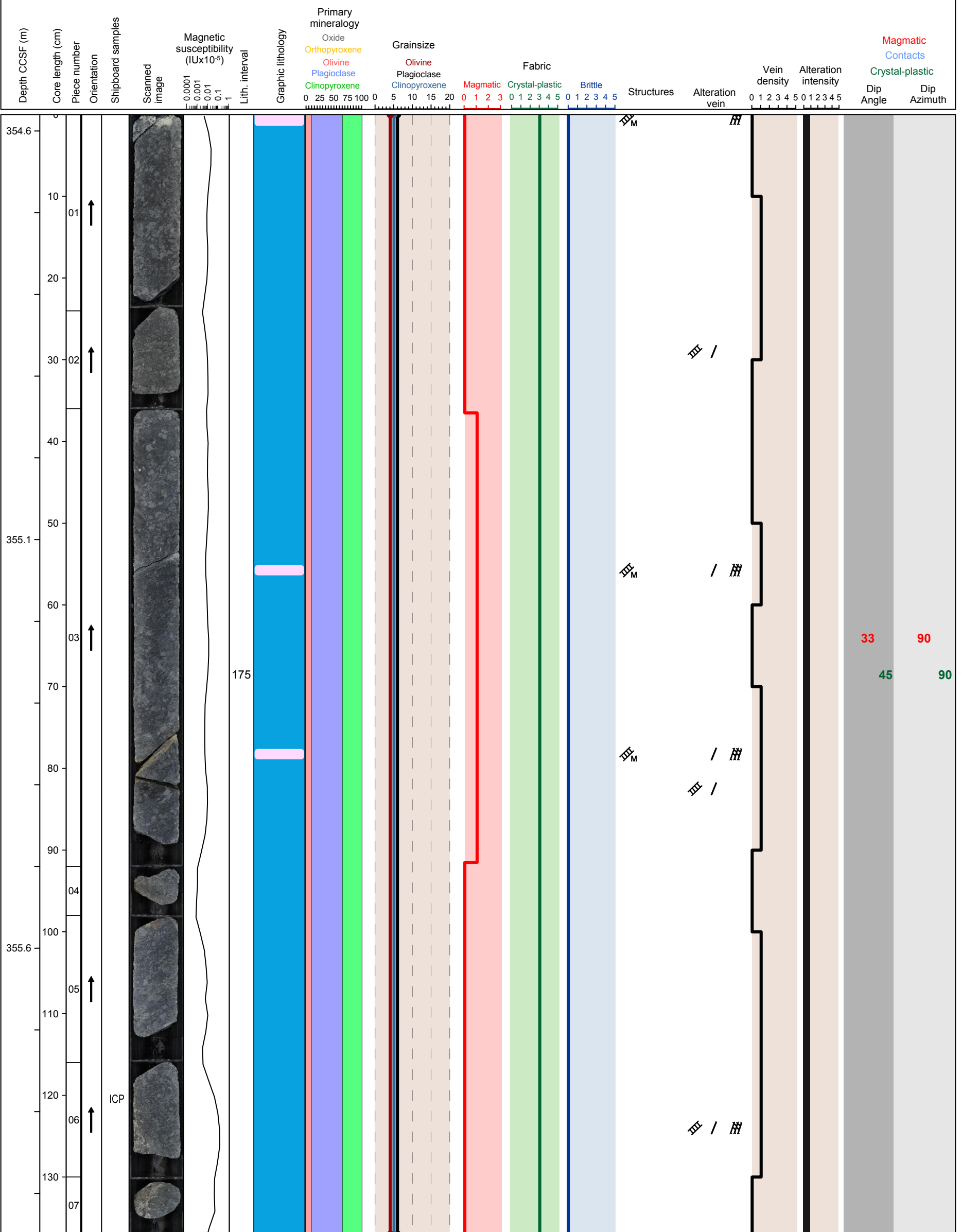


Hole 360-U1473A-39R Section 3, Top of Section: 354.58 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 175)

Metamorphic Petrology: Static background alteration intensity is slight. Moderate alteration occurs near a carbonate vein.

Structural Geology: The crystal plastic fabric has a moderate dip and is cut by high angle shear bands. The magmatic fabric is inclined and defined by plagioclase and pyroxene.

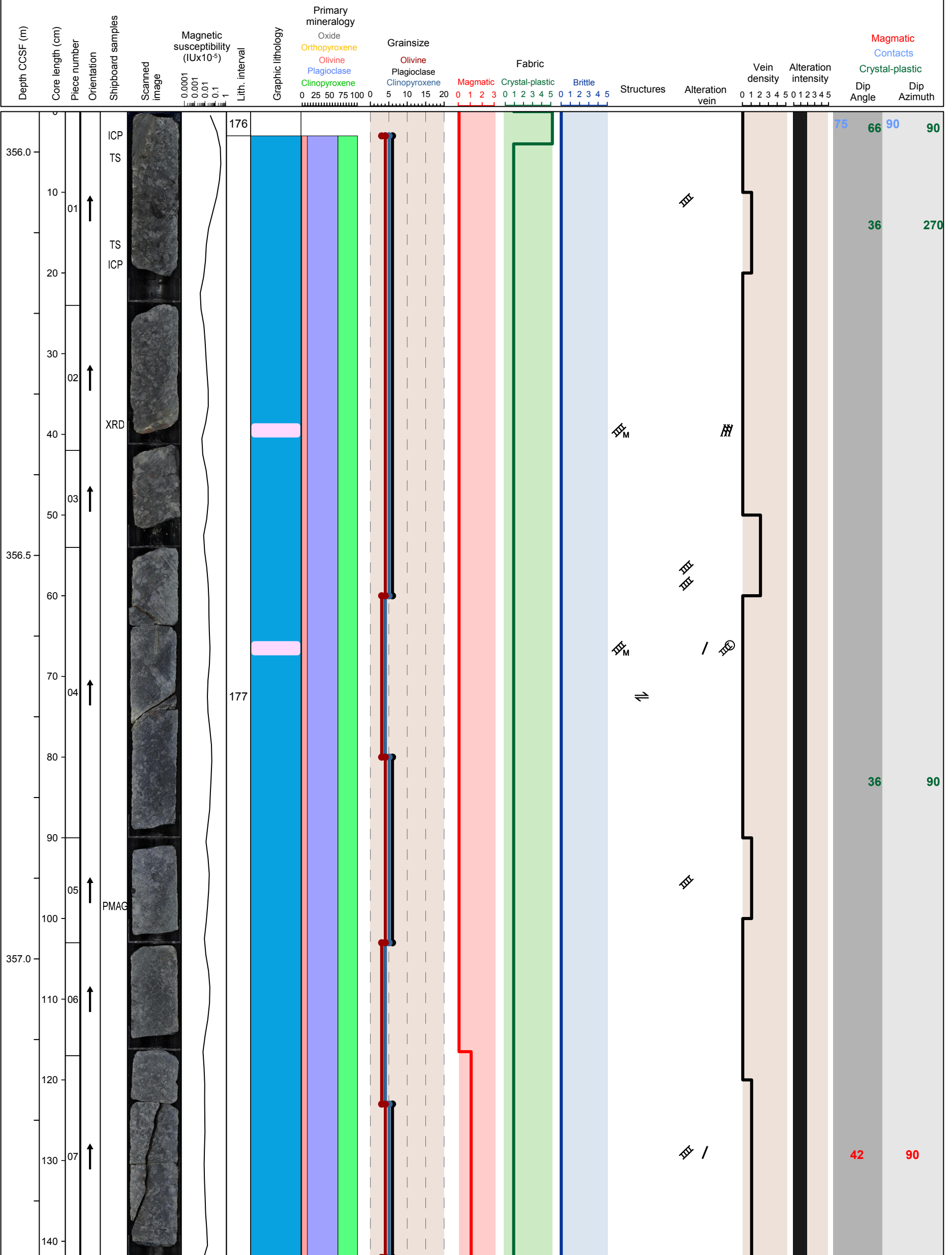


Hole 360-U1473A-39R Section 4, Top of Section: 355.95 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: very fine grained mylonitised material (interval 176) and coarse grained subophitic olivine gabbro (interval 177)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense alteration occurred in the halos.

Structural Geology: Ultramylonite is in sharp contact with a leucocratic oxide-rich zone. The magmatic fabric is inclined and defined by plagioclase and pyroxene.

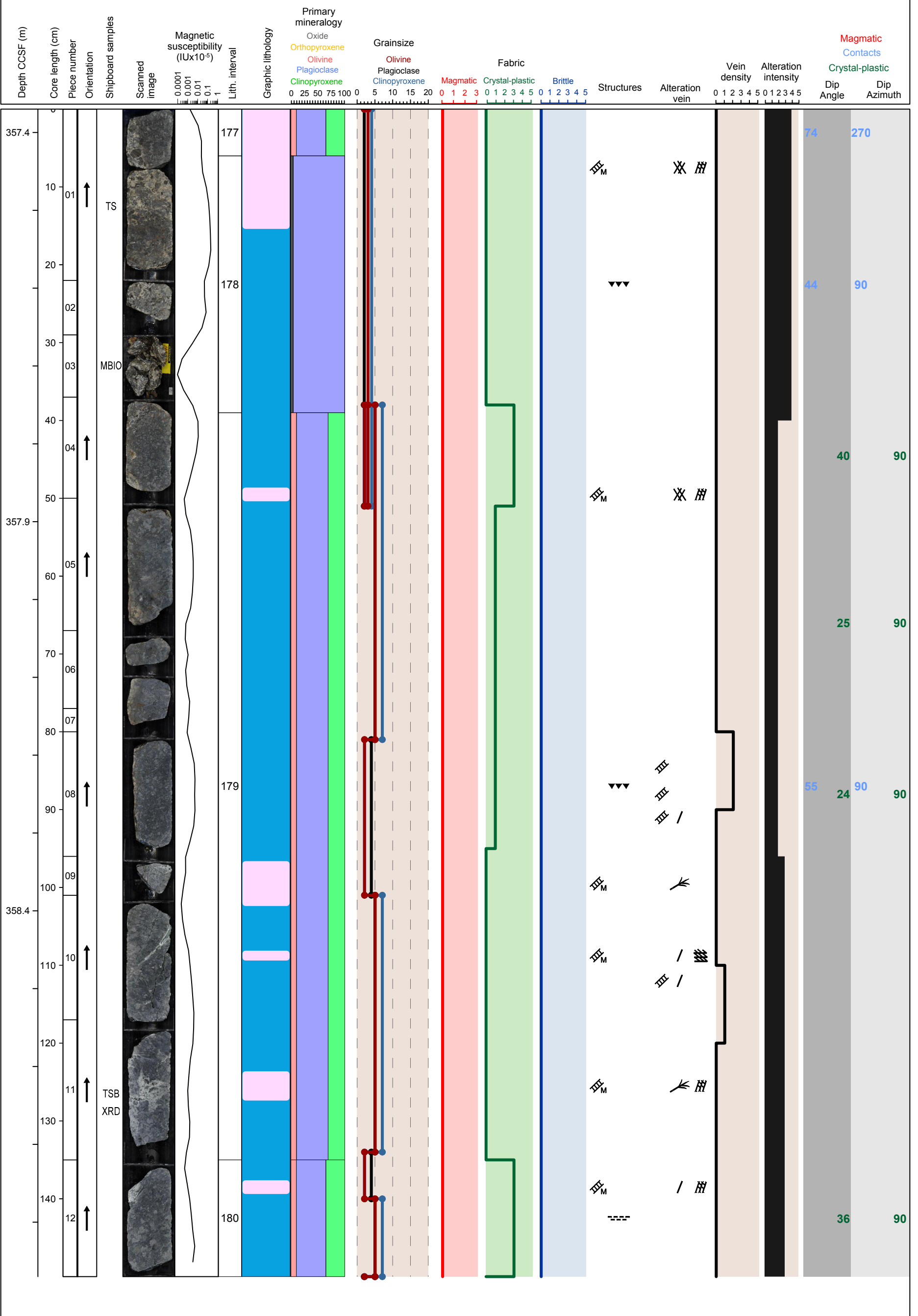


Hole 360-U1473A-39R Section 5, Top of Section: 357.37 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 177), coarse grained granular diorite (interval 178), coarse grained granular amphibole bearing olivine gabbro domain with coarse grained granular diorite patch domain (interval 179) and coarse grained subophitic olivine gabbro (interval 180)

Metamorphic Petrology: Static background alteration intensity is moderate to extensive. More altered parts occur within or around felsic vein.

Structural Geology: Magmatic breccia in leucocratic zones. The crystal plastic fabric is cut by high angle shear bands.

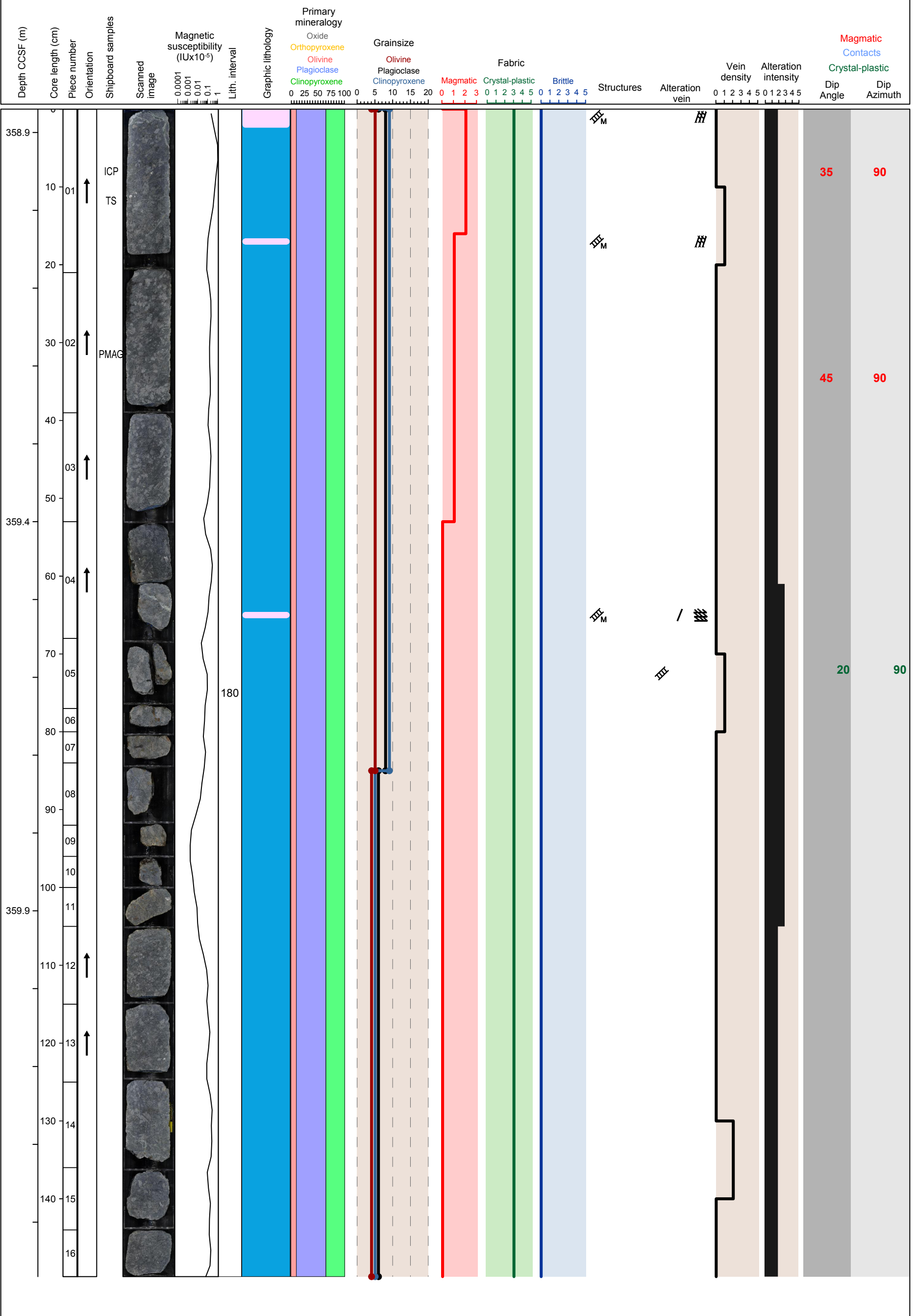


Hole 360-U1473A-39R Section 6, Top of Section: 358.87 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 180)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial.

Structural Geology: The magmatic fabric is defined by pyroxene.

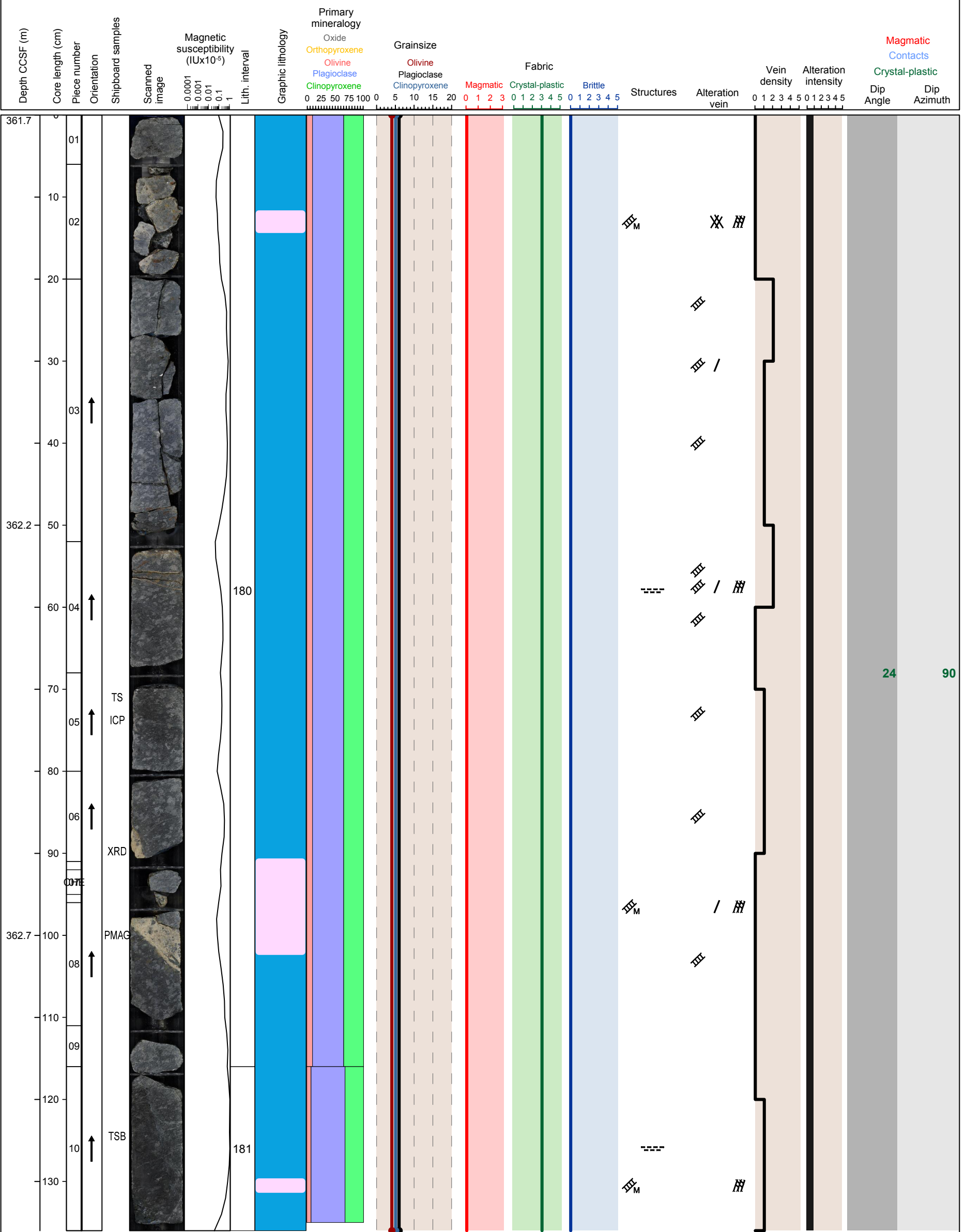


Hole 360-U1473A-40R Section 1, Top of Section: 361.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 180) and coarse grained granular amphibole bearing olivine gabbro (interval 181)

Metamorphic Petrology: Static background alteration intensity is slight. More intense alteration is associated with veins. A large felsic vein was observed.

Structural Geology: There is a shear band with a moderate dip and has a normal sense of shear. There is a magmatic breccia at 88-102 cm.

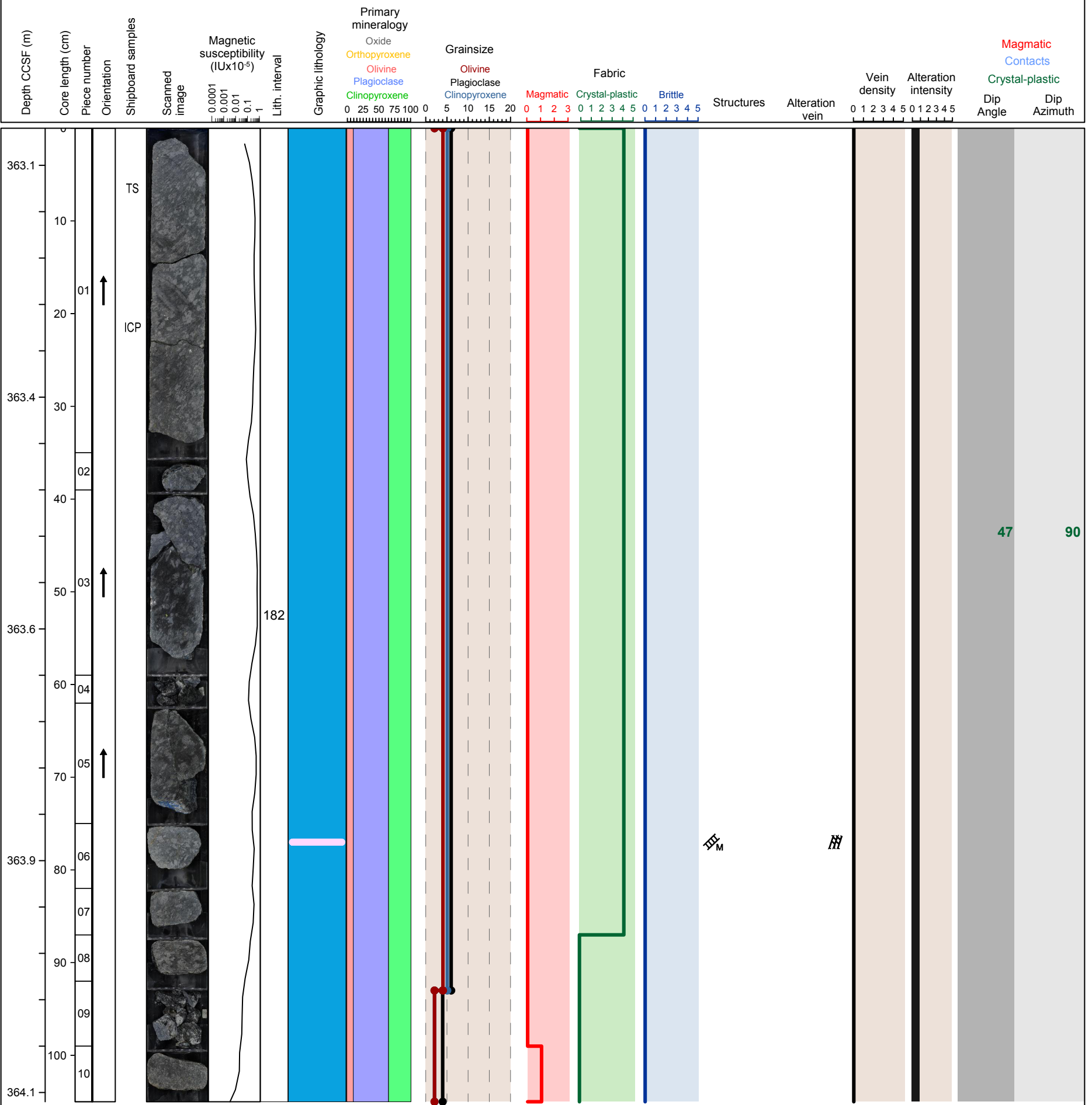


Hole 360-U1473A-40R Section 2, Top of Section: 363.06 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 182)

Metamorphic Petrology: Static background alteration intensity is slight.

Structural Geology: The mylonite has a moderate dip. A shear band crosscuts the section.

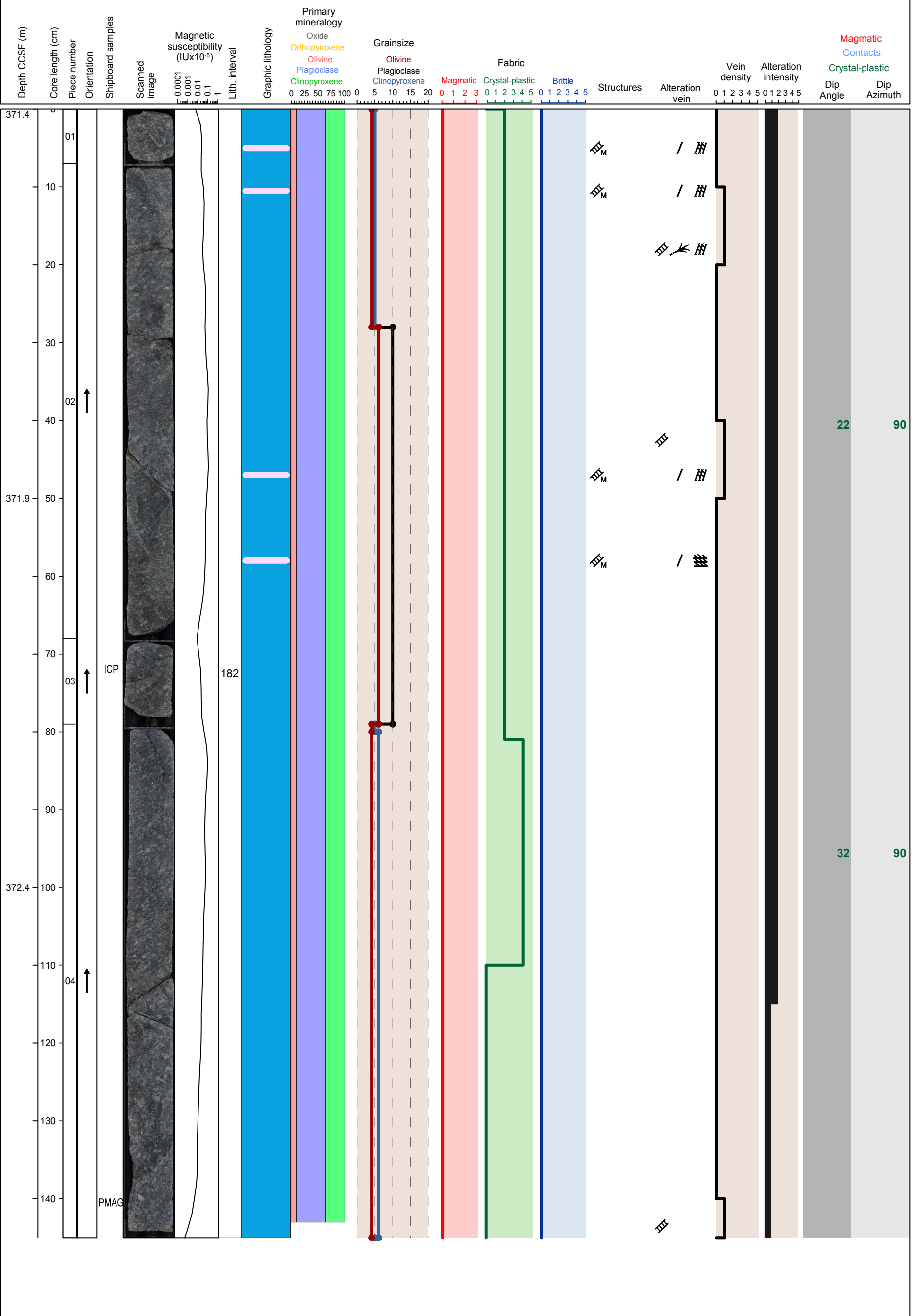


Hole 360-U1473A-41R Section 1, Top of Section: 371.4 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 182)

Metamorphic Petrology: Static background alteration intensity is slight to moderate.

Structural Geology: The crystal plastic fabric steepens with depth from shallow to moderate.

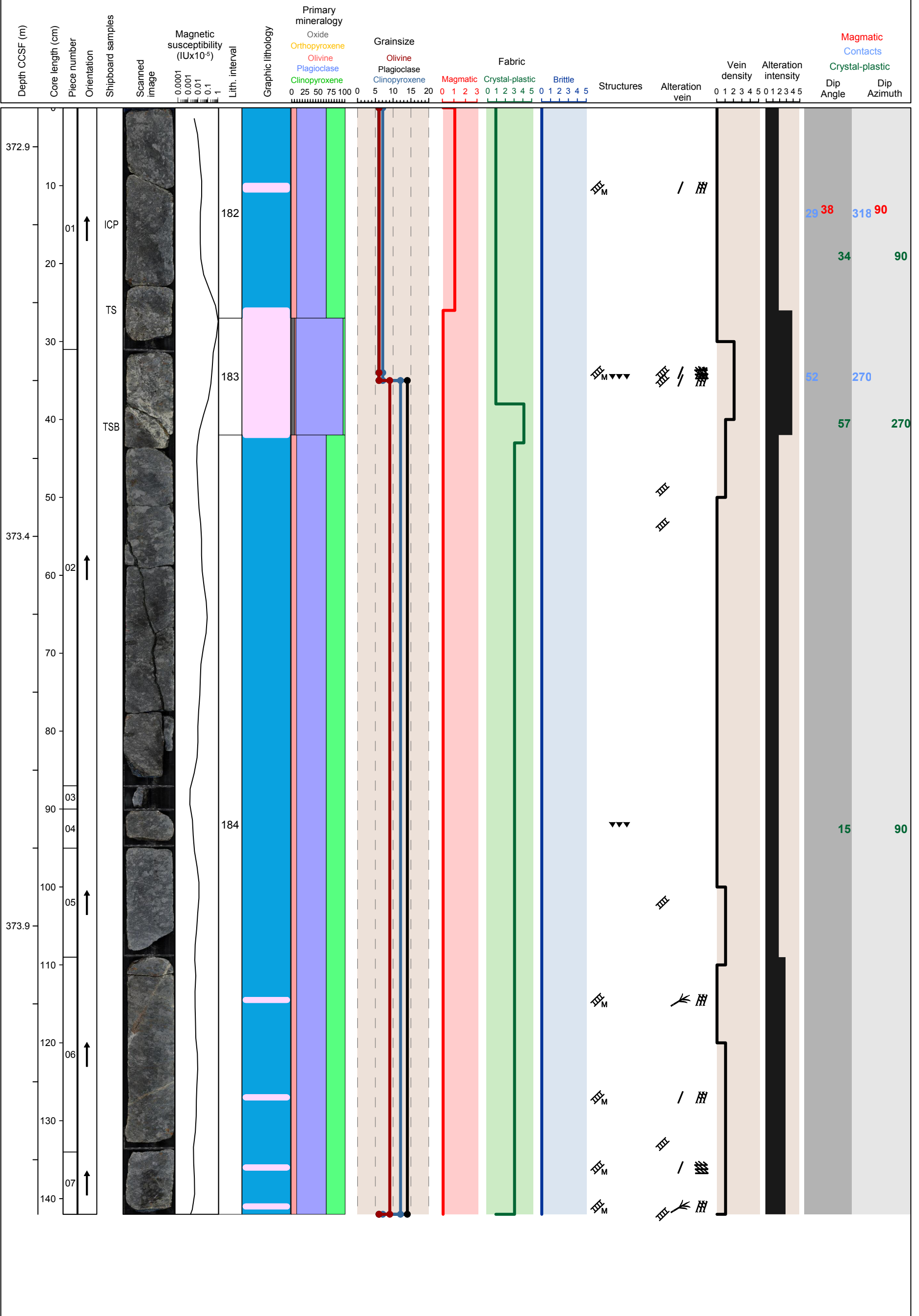


Hole 360-U1473A-41R Section 2, Top of Section: 372.85 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 182 and 184) and medium grained granular diorite (interval 183)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial. Substantial alteration occurs around the felsic vein.

Structural Geology: The magmatic fabric is inclined and defined by plagioclase and pyroxene. There is a magmatic breccia at 20-40 cm characterized by a felsic net vein and host rock breccia. The top boundary is oxide-rich, sharp, and mylonitic.

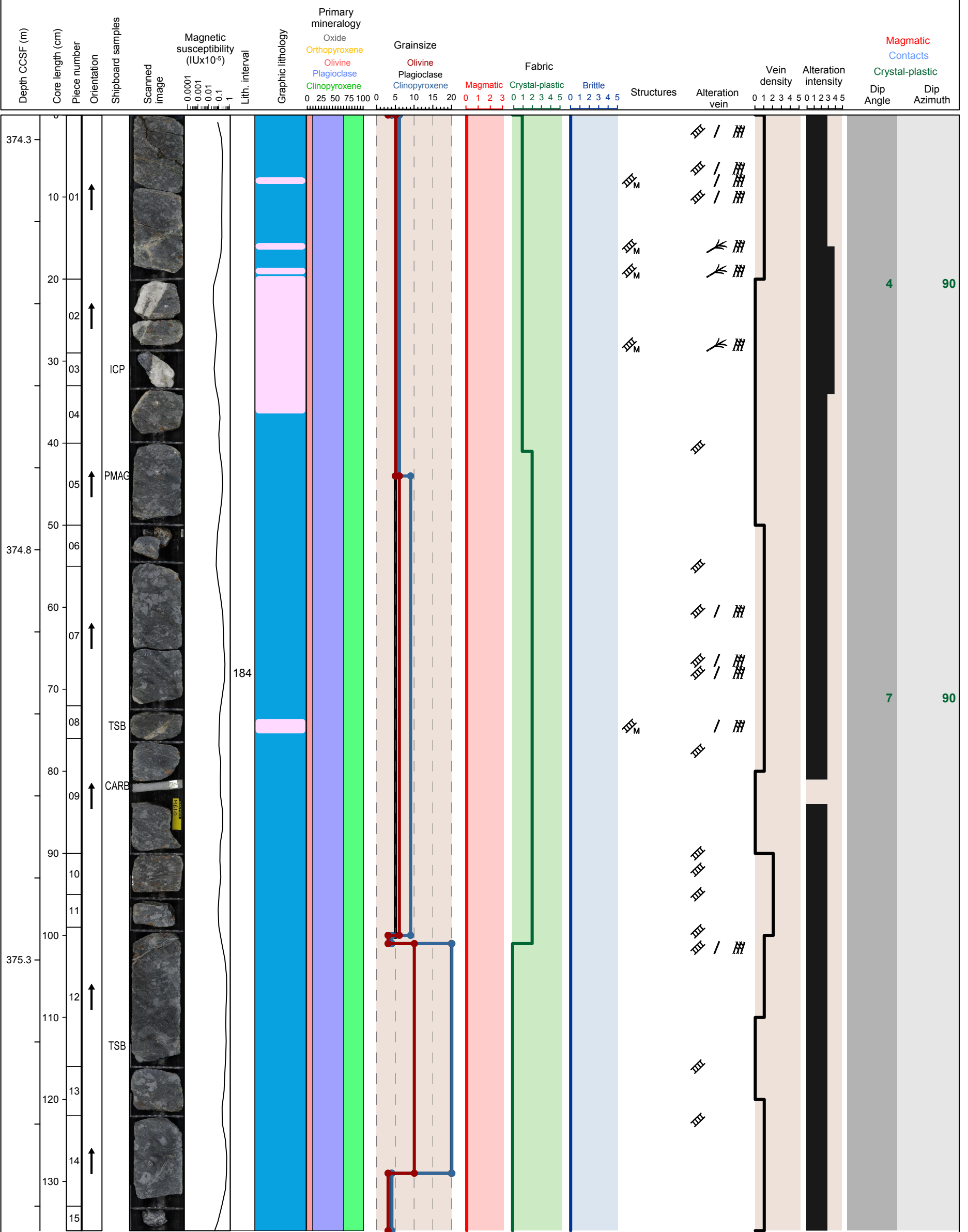


Hole 360-U1473A-41R Section 3, Top of Section: 374.27 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 184)

Metamorphic Petrology: Most of the section is substantially altered. The most altered portion occurs within and near a felsic vein.

Structural Geology: The crystal plastic fabric has a shallow dip. The alteration veins are inclined and filled with carbonate.

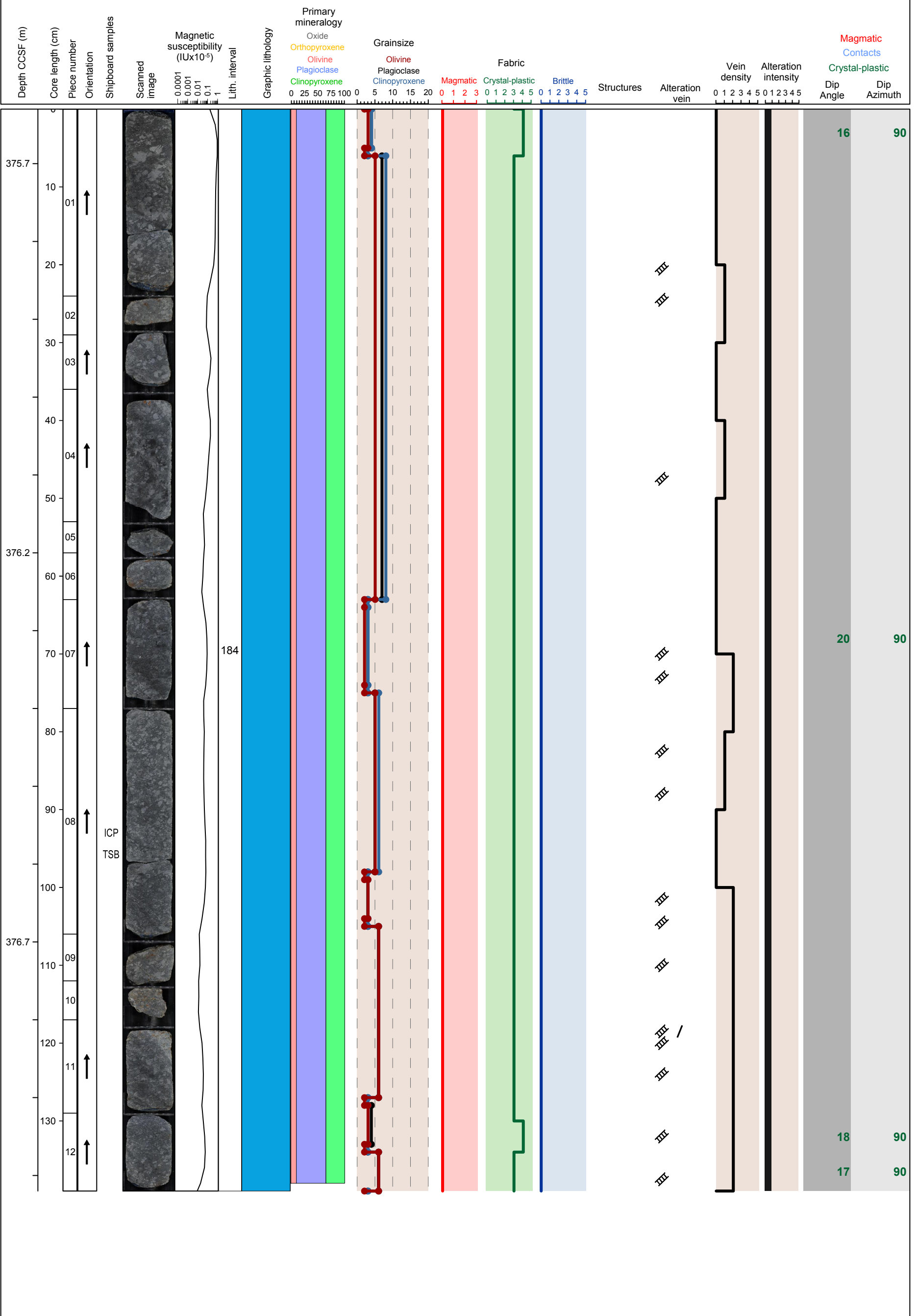


Hole 360-U1473A-41R Section 4, Top of Section: 375.63 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 184)

Metamorphic Petrology: Most of the section is only slightly altered. A few parts proximal to veins are more intensely altered.

Structural Geology: The crystal plastic fabric has a shallow to moderate dip.

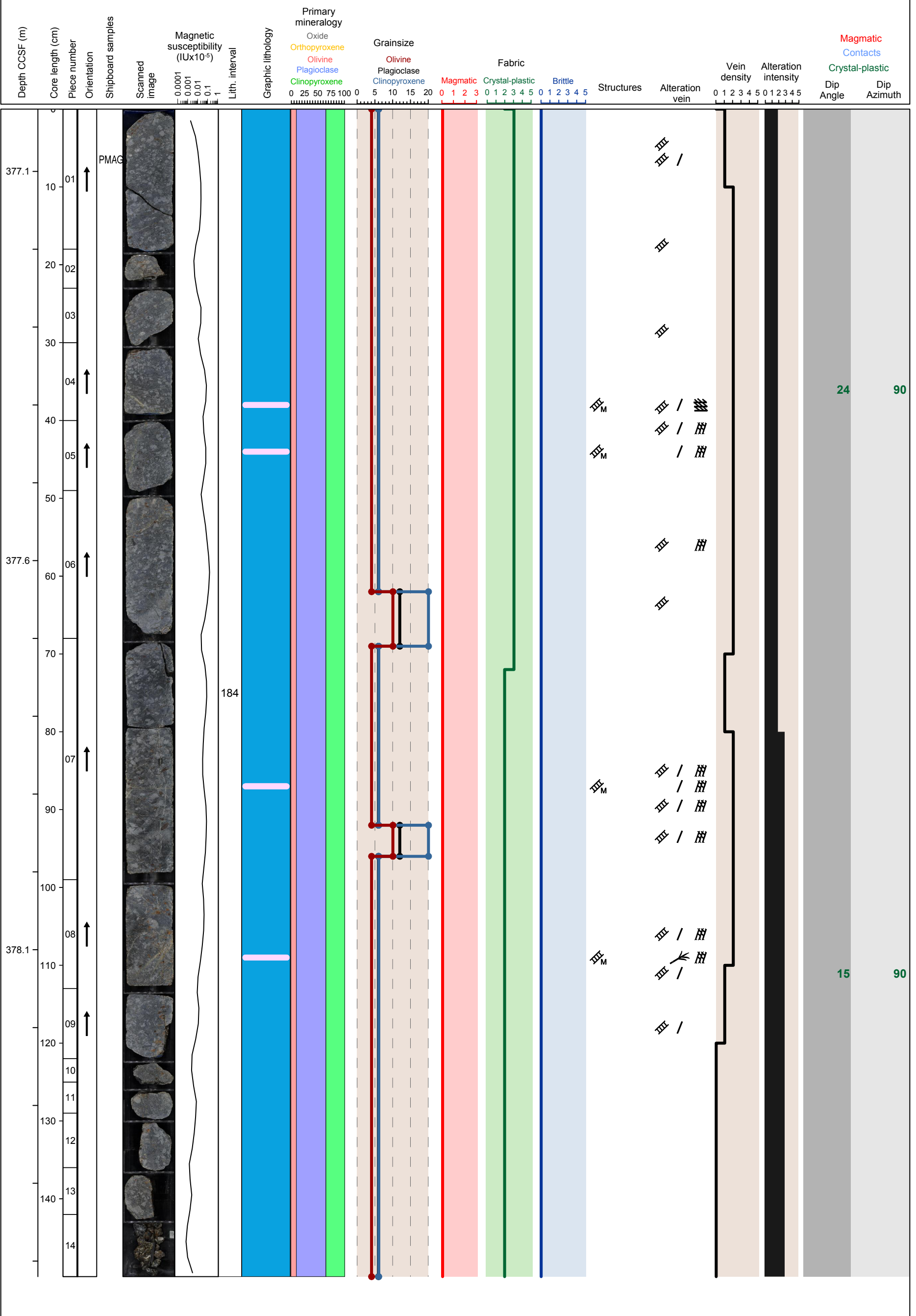


Hole 360-U1473A-41R Section 5, Top of Section: 377.02 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 184)

Metamorphic Petrology: The upper part of the section is only moderately altered. More intense alteration occur in the lower part due to heavy veining.

Structural Geology: The crystal plastic fabric has a shallow to moderate dip.

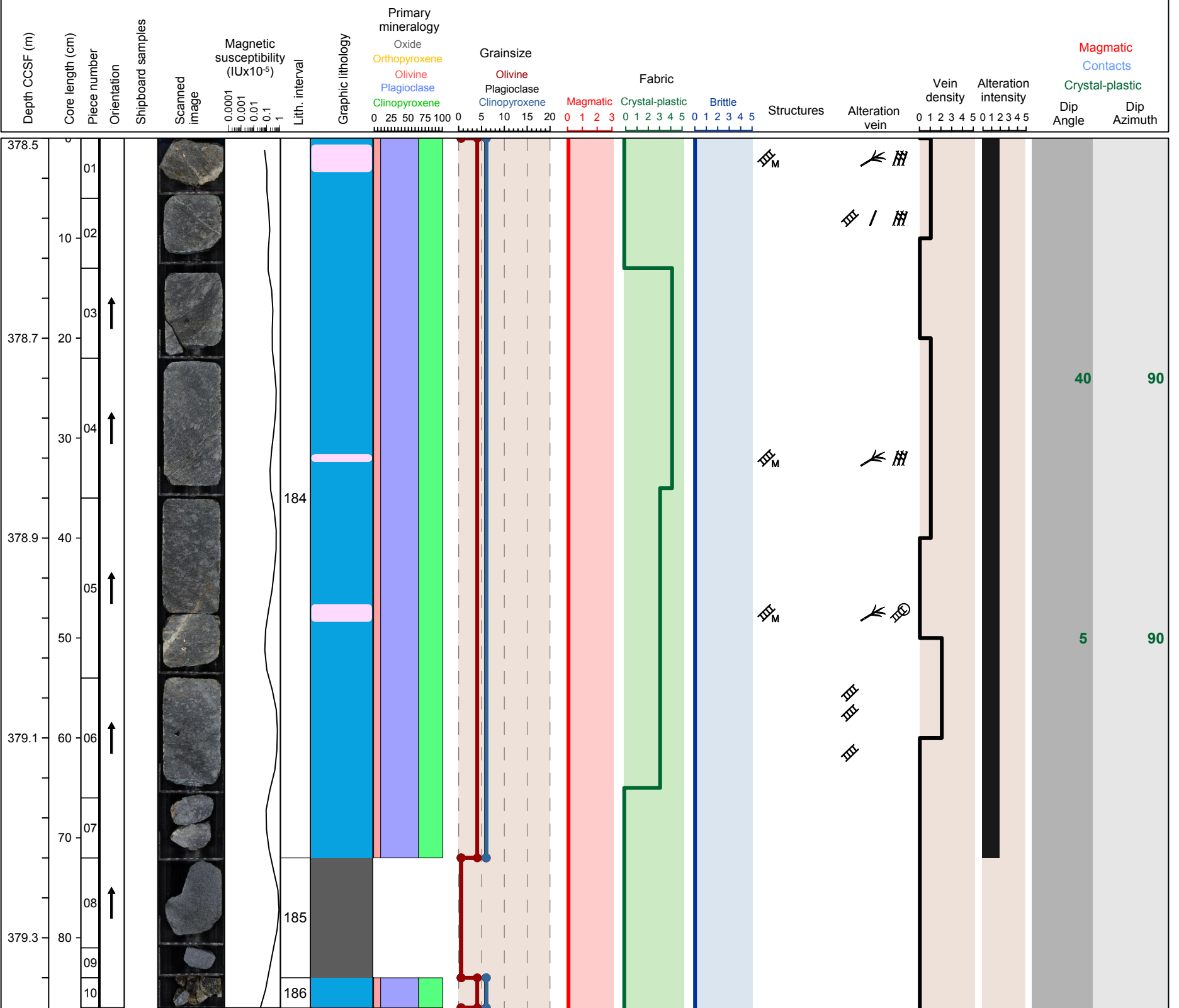


Hole 360-U1473A-41R Section 6, Top of Section: 378.52 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 184 and 186) and fine grained granular diabase (interval 185)

Metamorphic Petrology: Alteration degree for most of the section is moderate. A lesser degree of alteration is associated with the fine-grained lithology at the bottom of the section.

Structural Geology: The protomylonite has a moderate to steep dip.

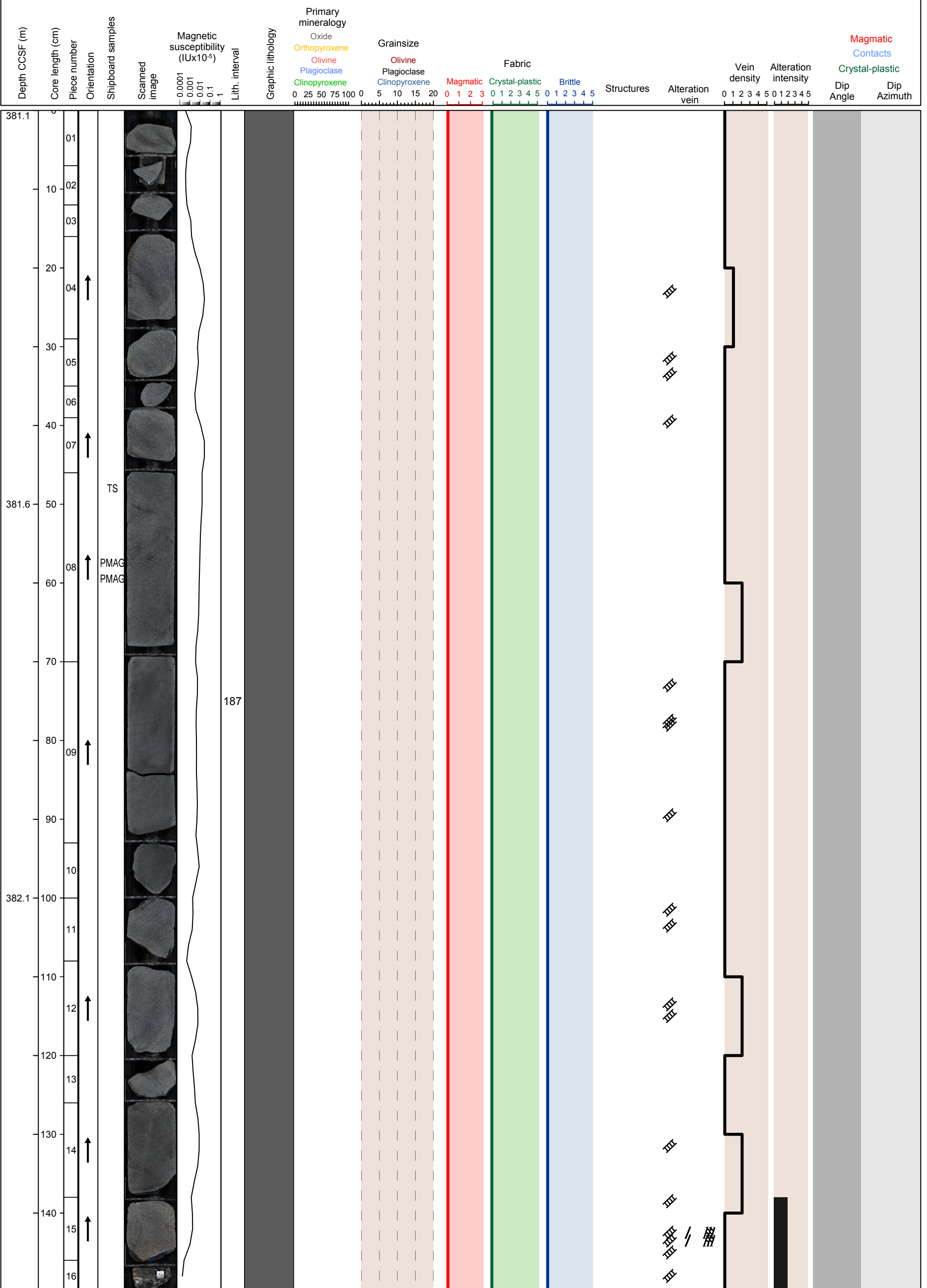


Hole 360-U1473A-42R Section 1, Top of Section: 381.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: fine grained aphyric diabase (interval 187)

Metamorphic Petrology: Section is composed of fresh fine-grained rocks characterized by a uniform dark color.

Structural Geology:

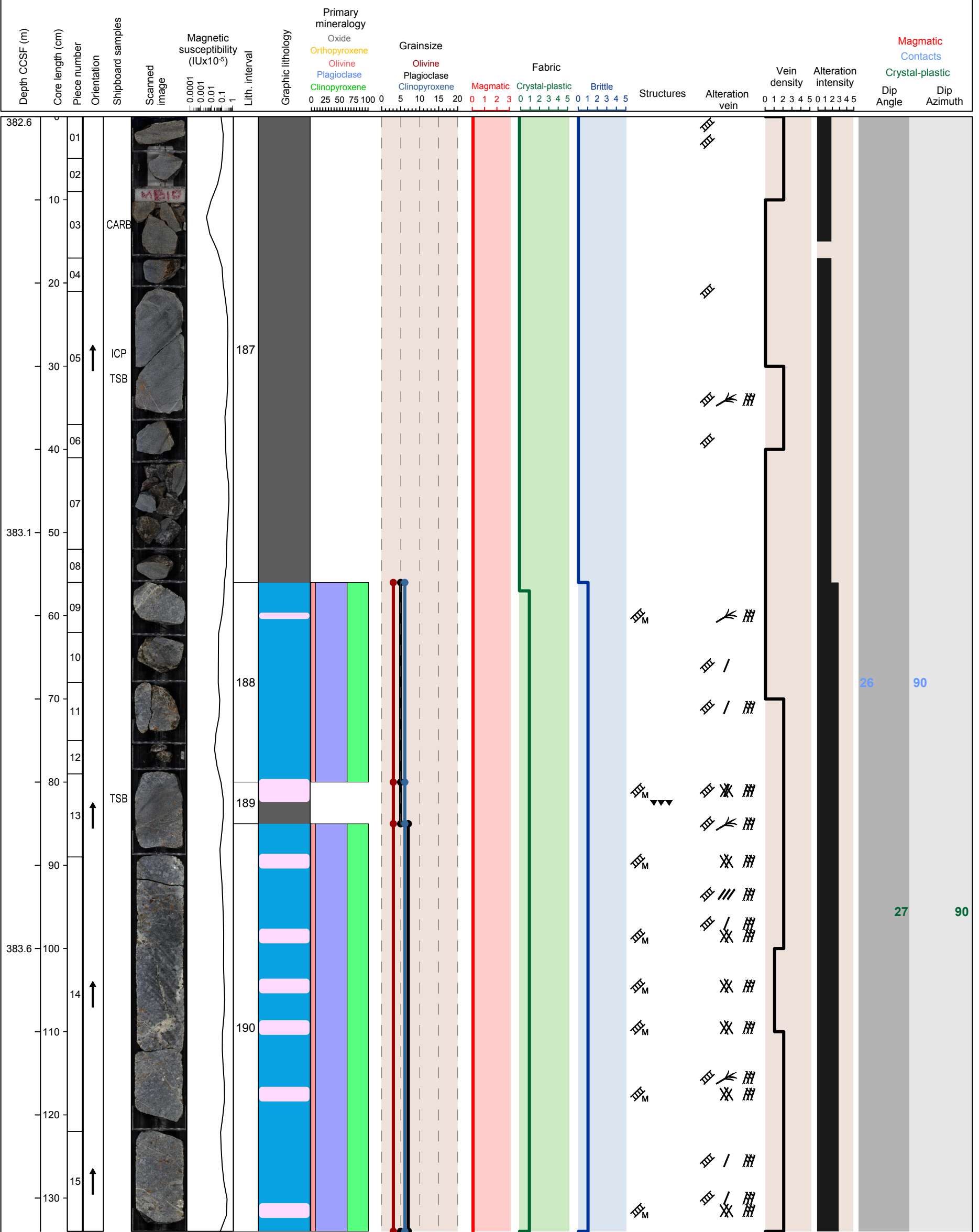


Hole 360-U1473A-42R Section 2, Top of Section: 382.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: fine grained aphyric diabase (interval 187 and 189), coarse grained granular olivine gabbro (interval 188) and coarse grained granular olivine gabbro background with coarse grained granular diorite domain (interval 190)

Metamorphic Petrology: Section is moderately to substantially altered. Fine-grained rocks are relatively less altered. Intense alteration occurs at vein halos.

Structural Geology: Diabase dike with a branch that has sharp boundaries. The vein is back veined by felsic material.

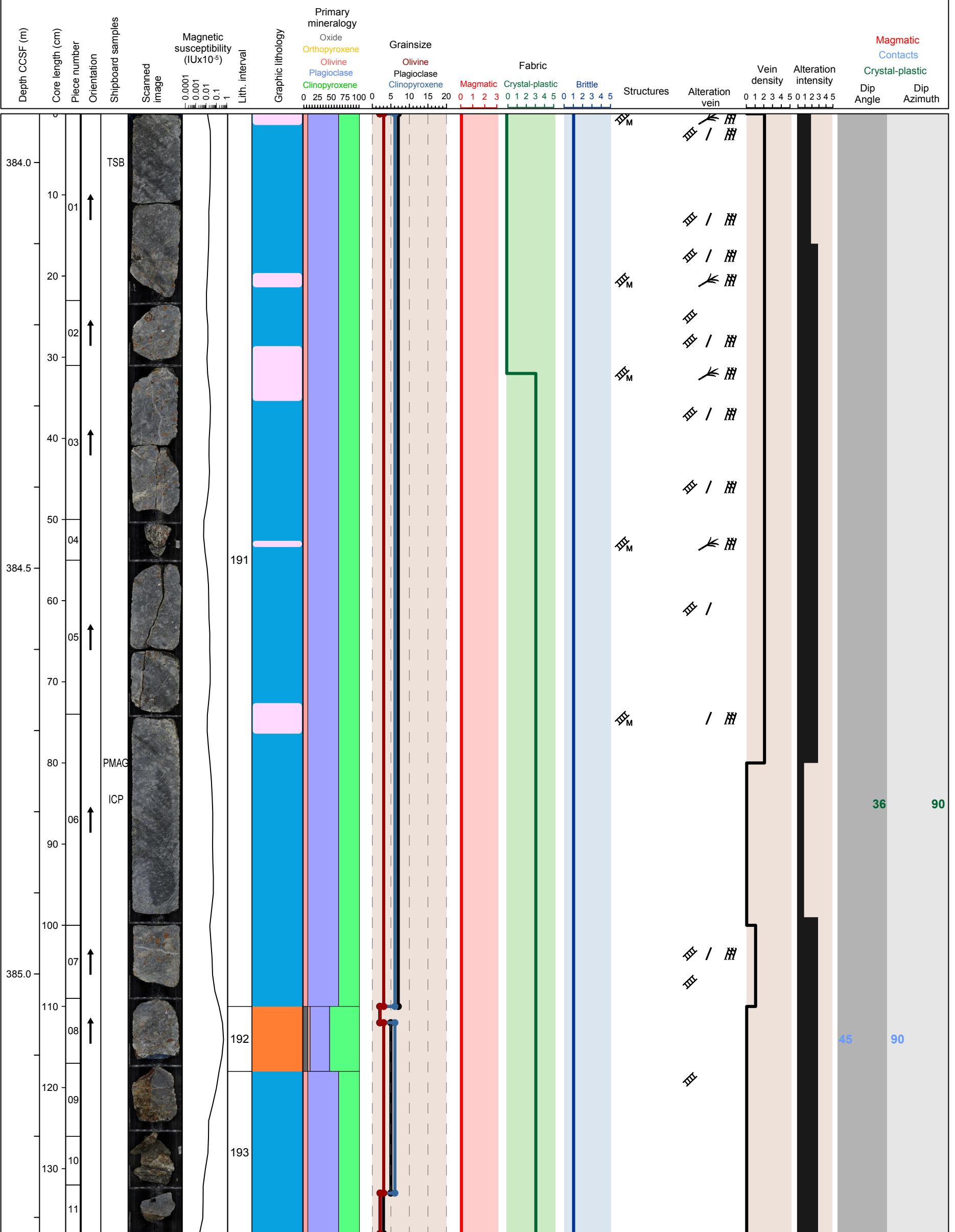


Hole 360-U1473A-42R Section 3, Top of Section: 383.94 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 191 and 193) and coarse grained granular oxide bearing olivine gabbro (interval 192)

Metamorphic Petrology: Most of the section is substantially altered. Heavy alteration are associated with vein halos.

Structural Geology: The crystal plastic fabric has a moderate to shallow dip. There is an incipient magmatic breccia. Alteration veins are in networks and filled with carbonate.

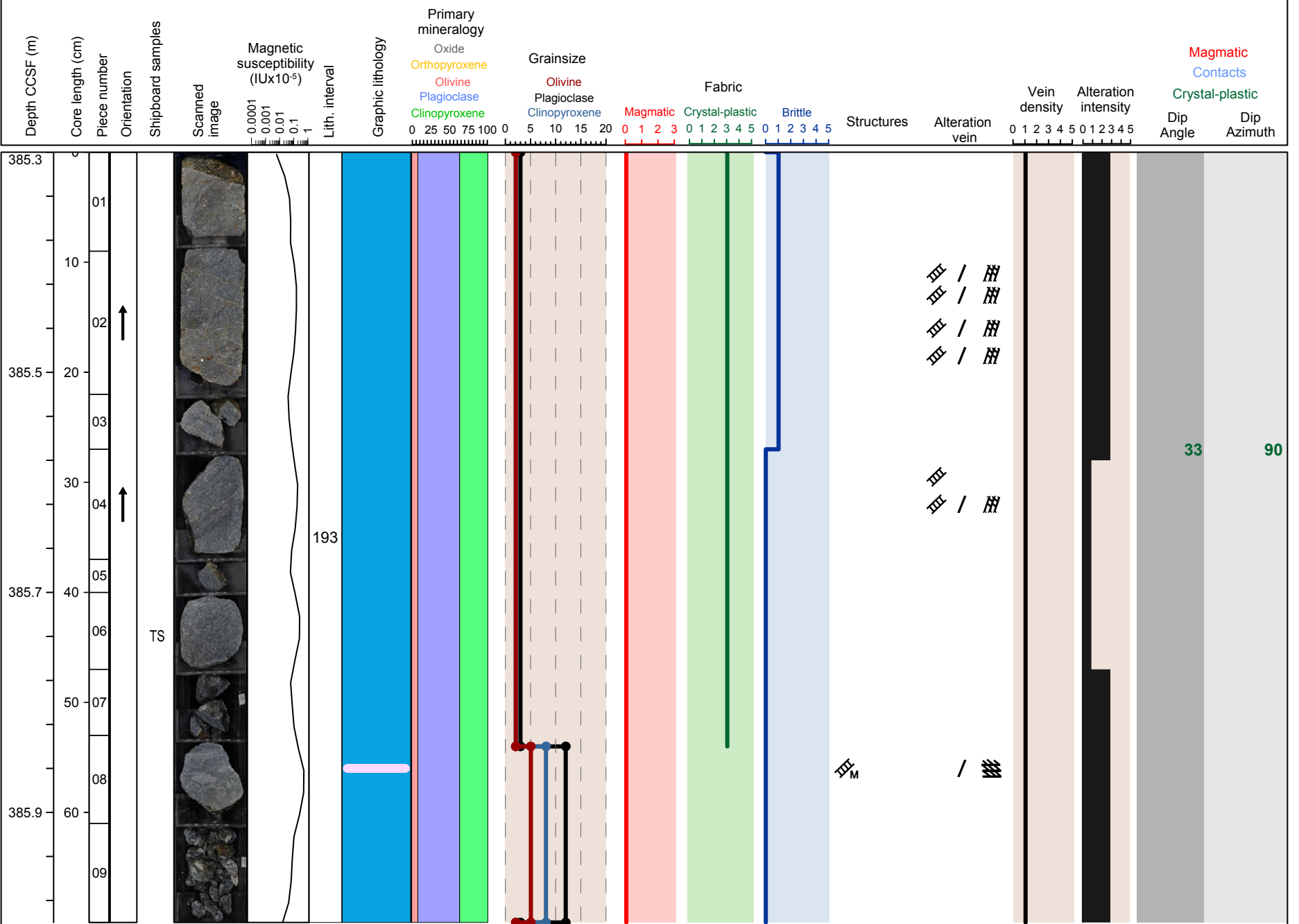


Hole 360-U1473A-42R Section 4, Top of Section: 385.32 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 193)

Metamorphic Petrology: Section is slightly to substantially altered. The upper part of the section is heavily veined and is intensely altered.

Structural Geology: The crystal plastic foliation has a moderate to steep dip and is truncated by a late intrusion. Alteration veins form parallel sets filled with carbonate.

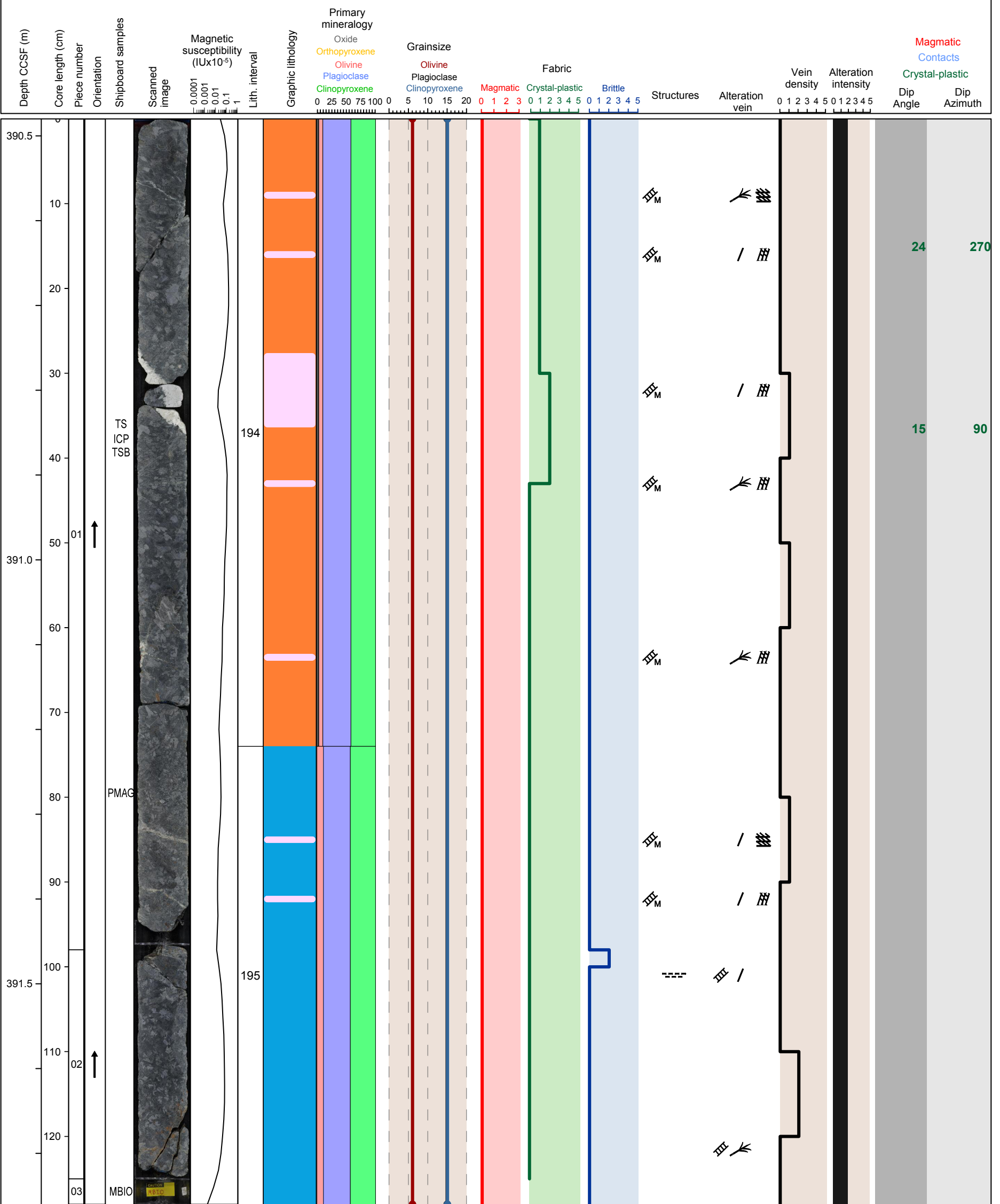


Hole 360-U1473A-43R Section 1, Top of Section: 390.48 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 194) and coarse grained subophitic olivine gabbro (interval 195)

Metamorphic Petrology: The section is moderately altered. More intense alteration occur at vein halos.

Structural Geology: Fine to coarse patchy layering with gradational contacts that have a sub-horizontal dip.

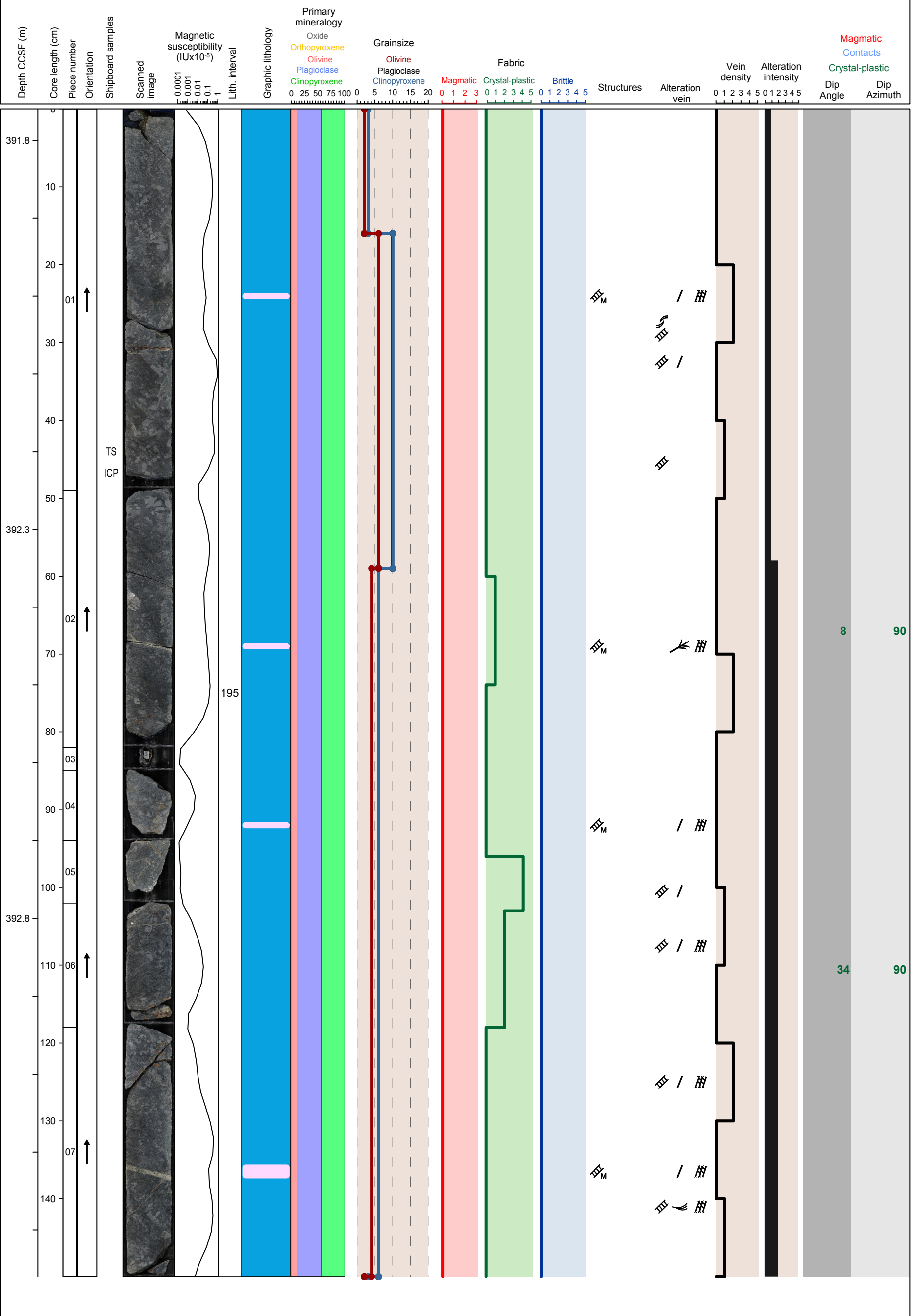


Hole 360-U1473A-43R Section 2, Top of Section: 391.76 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 195)

Metamorphic Petrology: Section is slightly to moderately altered. Intense alteration occurs at the bottom of the section which has more veins.

Structural Geology: There are sub-vertical localized shear bands.

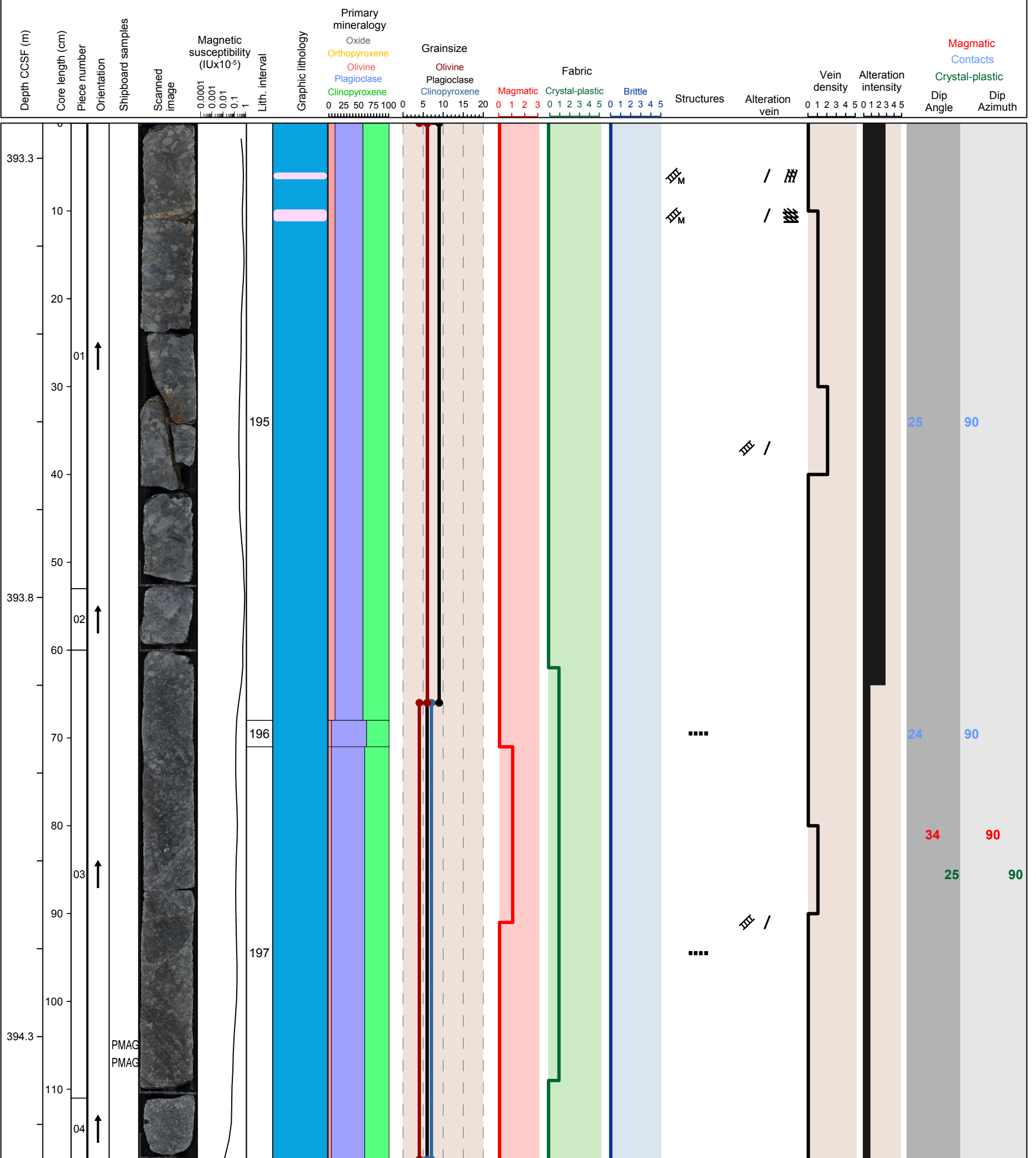


Hole 360-U1473A-43R Section 3, Top of Section: 393.26 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 195 and 197) and medium grained granular olivine gabbro (interval 196)

Metamorphic Petrology: Section is slightly to moderately altered. Intense alteration occurs in the upper part of the section which has relatively more veins than the lower section.

Structural Geology: The magmatic foliation is weak defined by plagioclase and pyroxene.

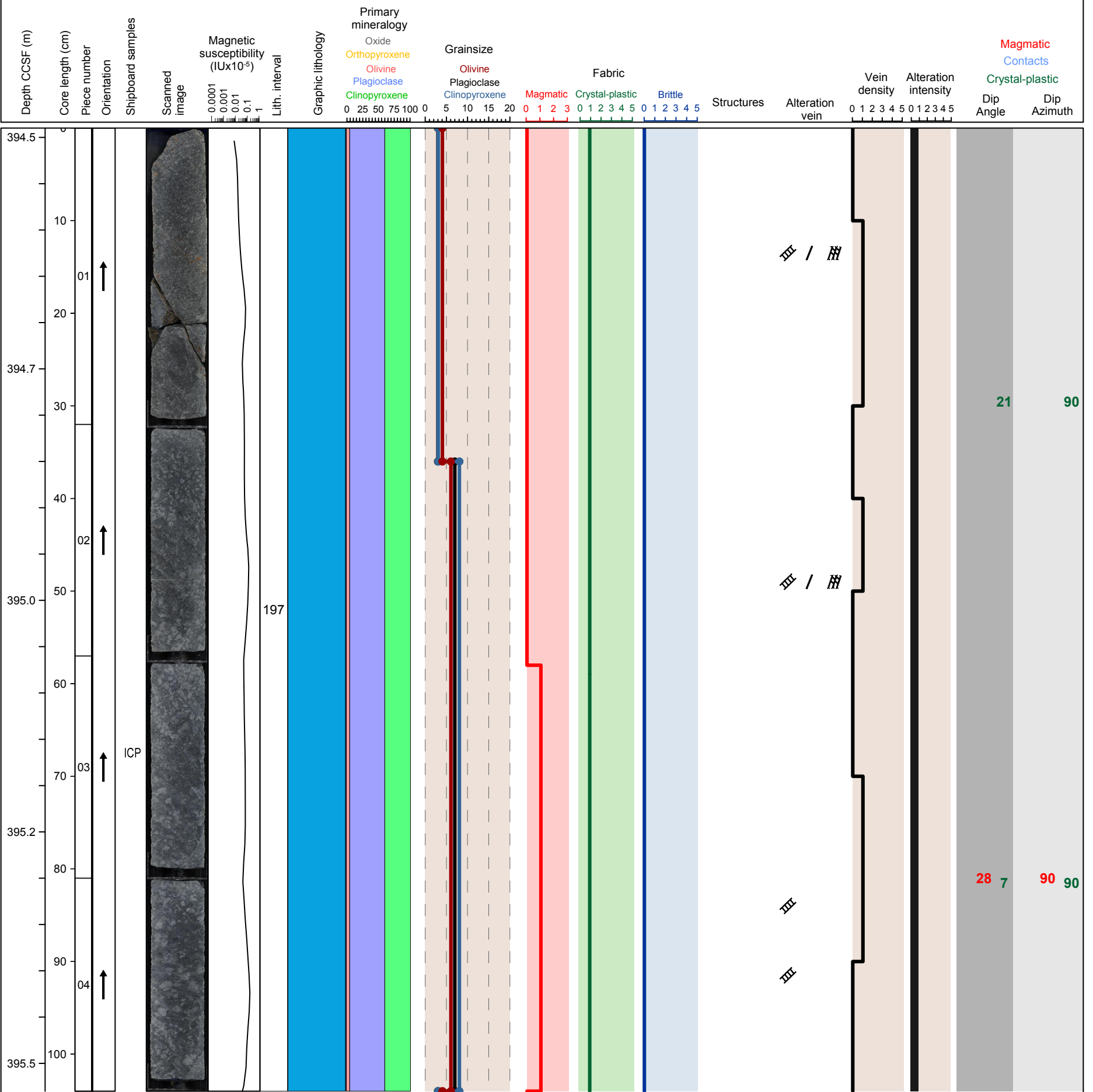


Hole 360-U1473A-43R Section 4, Top of Section: 394.44 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 197)

Metamorphic Petrology: Static background alteration intensity is only slight. Olivine is more intensely altered at vein halos.

Structural Geology: Weak magmatic fabric with shallow to moderate dip defined by plagioclase and pyroxene.

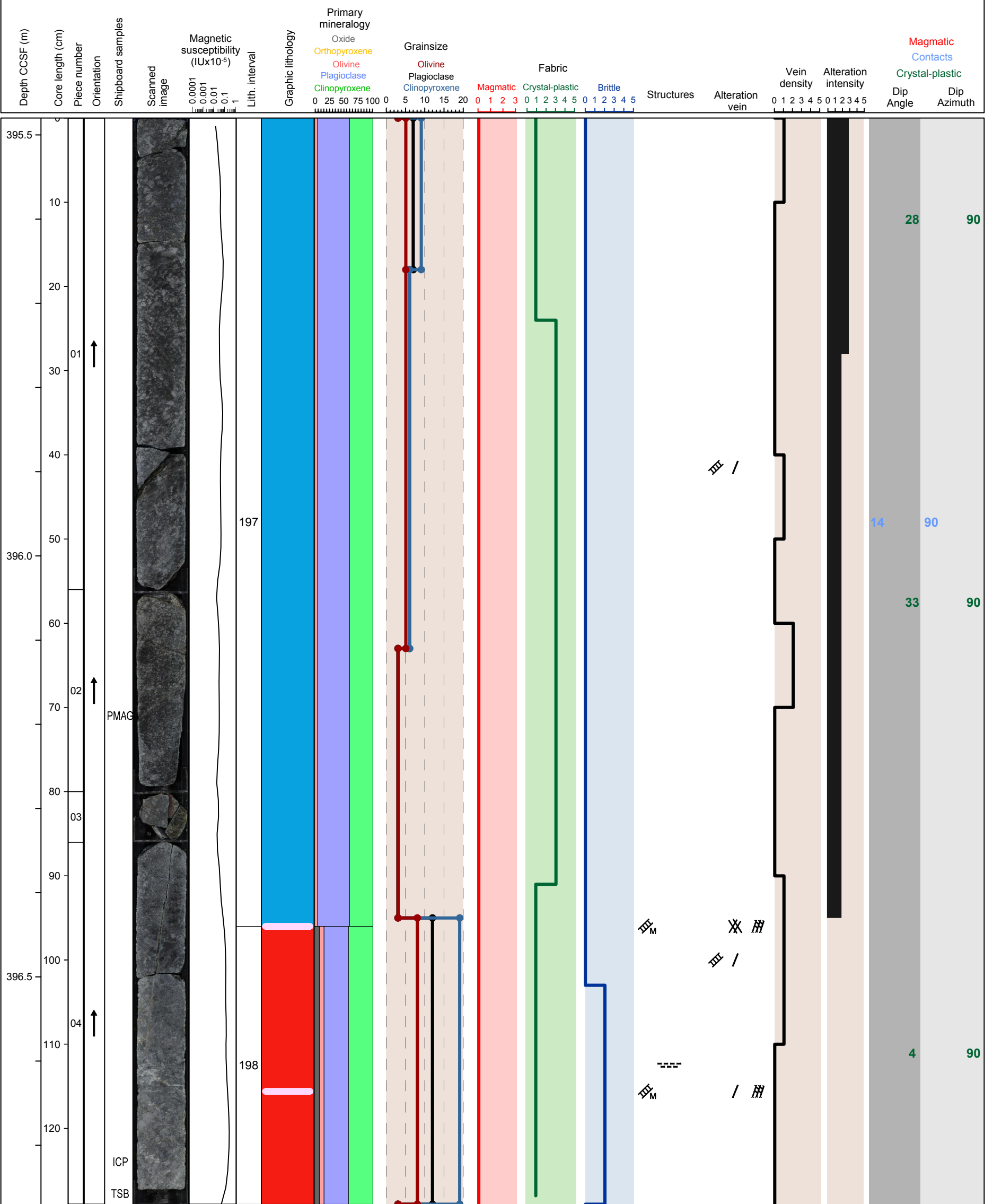


Hole 360-U1473A-43R Section 5, Top of Section: 395.48 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 197) and coarse grained granular oxide olivine gabbro (interval 198)

Metamorphic Petrology: Alteration is moderate to substantial. More intense alteration is related to the oxide-bearing lithology and vein halos.

Structural Geology:

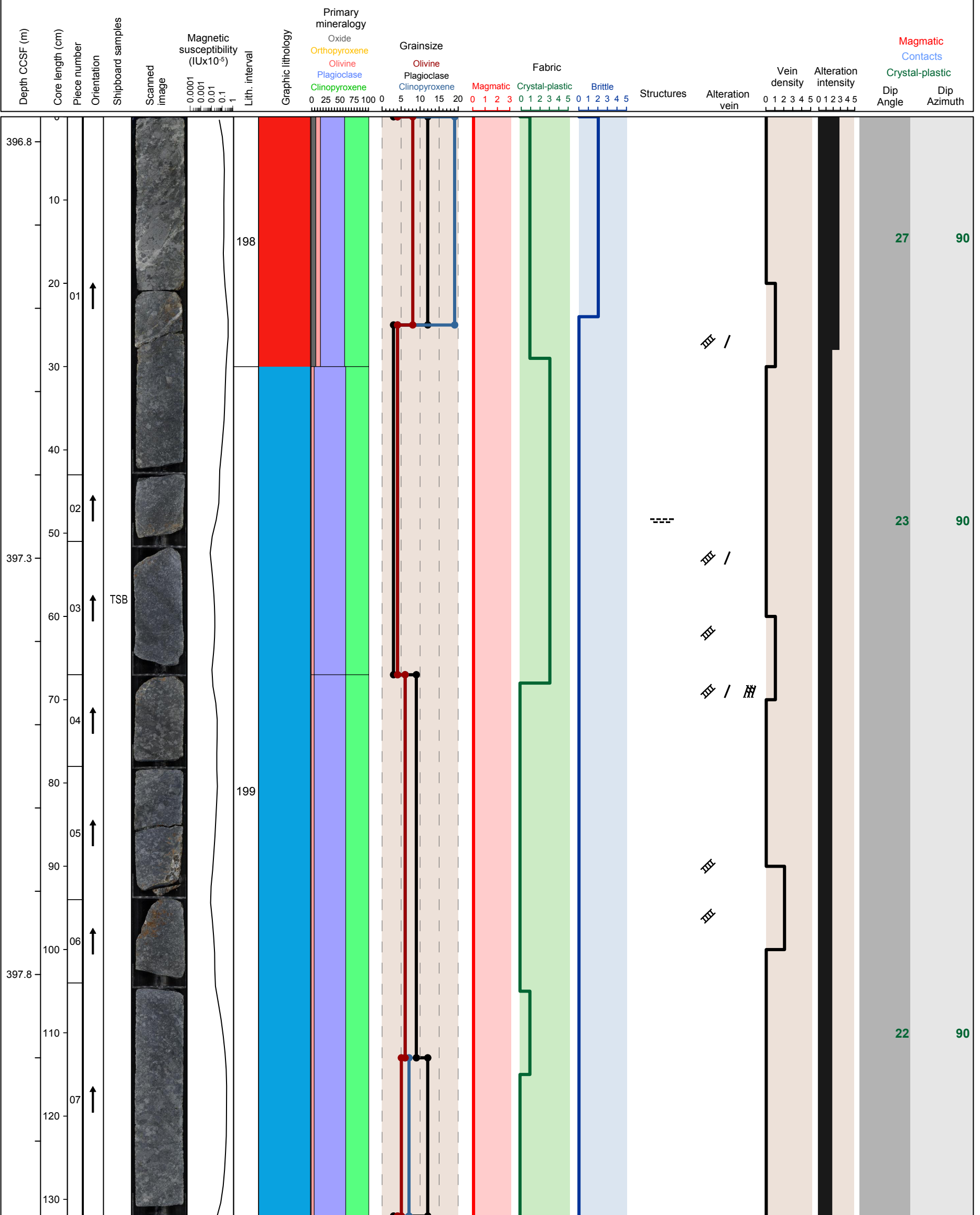


Hole 360-U1473A-43R Section 6, Top of Section: 396.77 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide olivine gabbro (interval 198) and coarse grained subophitic olivine gabbro (interval 199)

Metamorphic Petrology: Alteration is moderate to substantial. More intense alteration is related to the oxide-bearing lithology and vein halos.

Structural Geology: Incipient breccia in coarser grained gabbro. Finer grained gabbro has a weak magmatic foliation with a moderate to shallow dip.

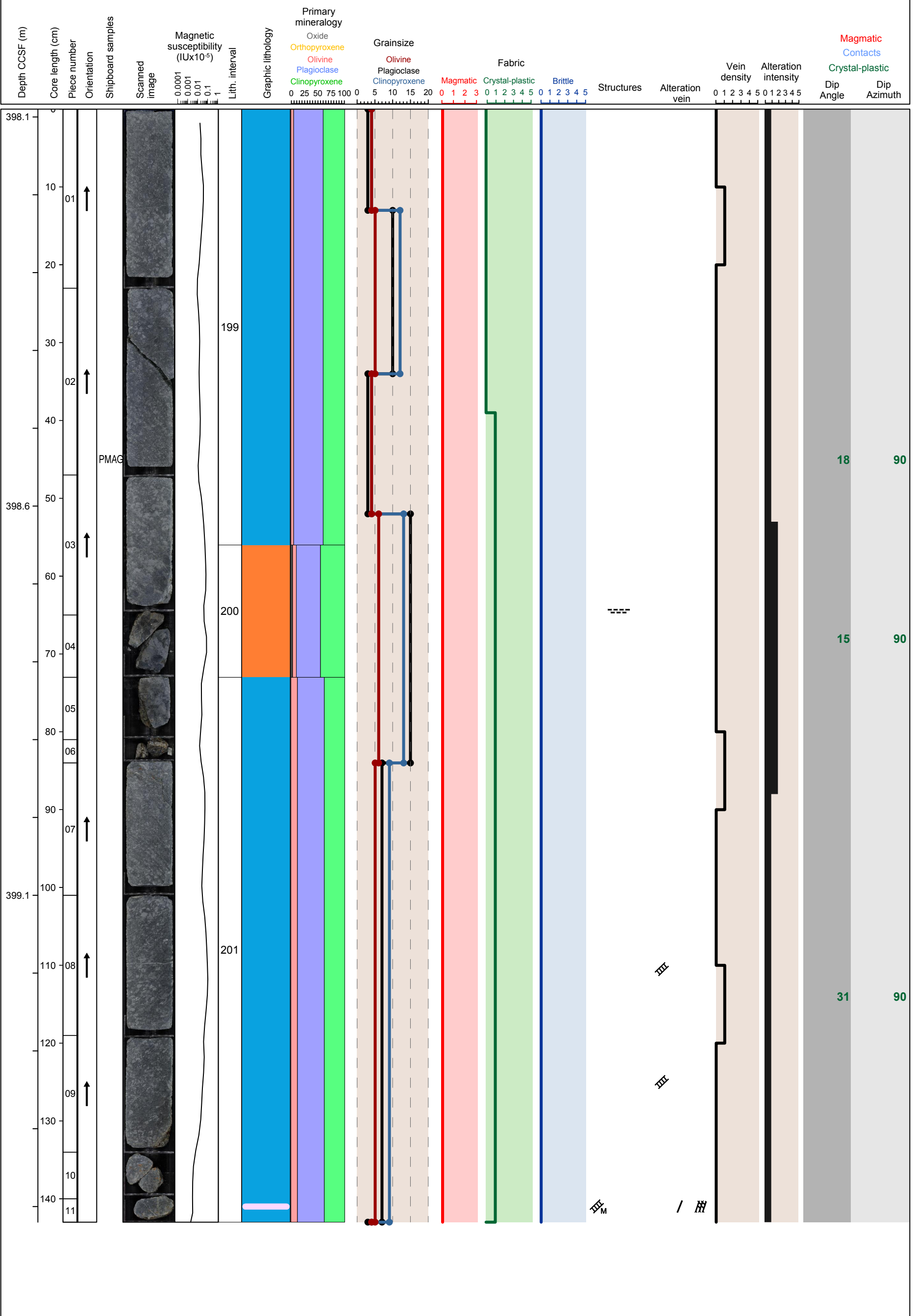


Hole 360-U1473A-43R Section 7, Top of Section: 398.09 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 199 and 201) and coarse grained granular oxide bearing olivine gabbro (interval 200)

Metamorphic Petrology: Most of the section is only slightly altered. Intense alteration is associated with vein halos.

Structural Geology: Weak magmatic fabric in finer grained gabbro with a shallow to moderate dip.

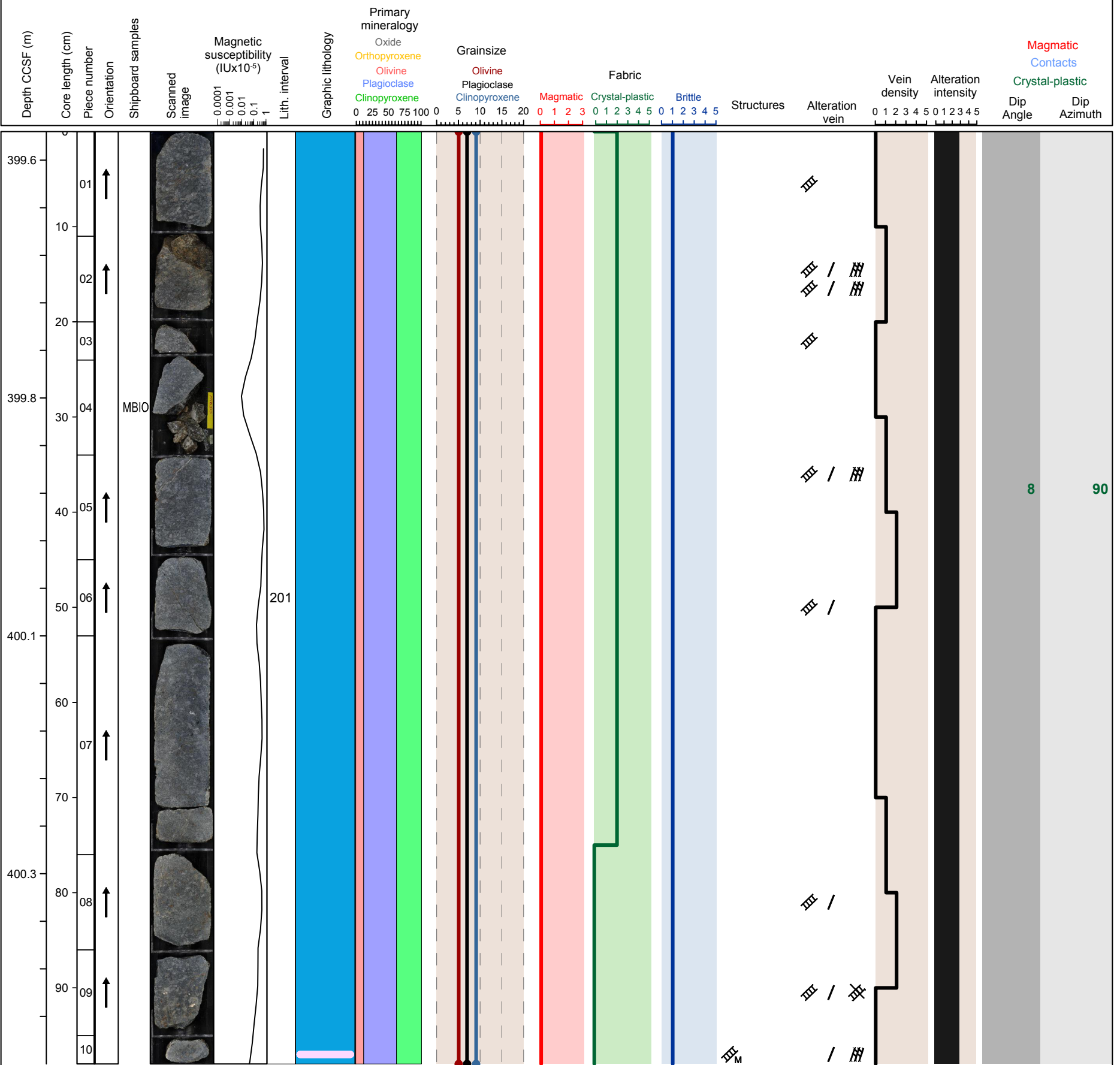


Hole 360-U1473A-43R Section 8, Top of Section: 399.52 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 201)

Metamorphic Petrology: Section is substantially altered. Areas with more intense alteration are related to vein halos.

Structural Geology: Weak magmatic fabric in finer grained gabbro with a shallow to moderate dip.

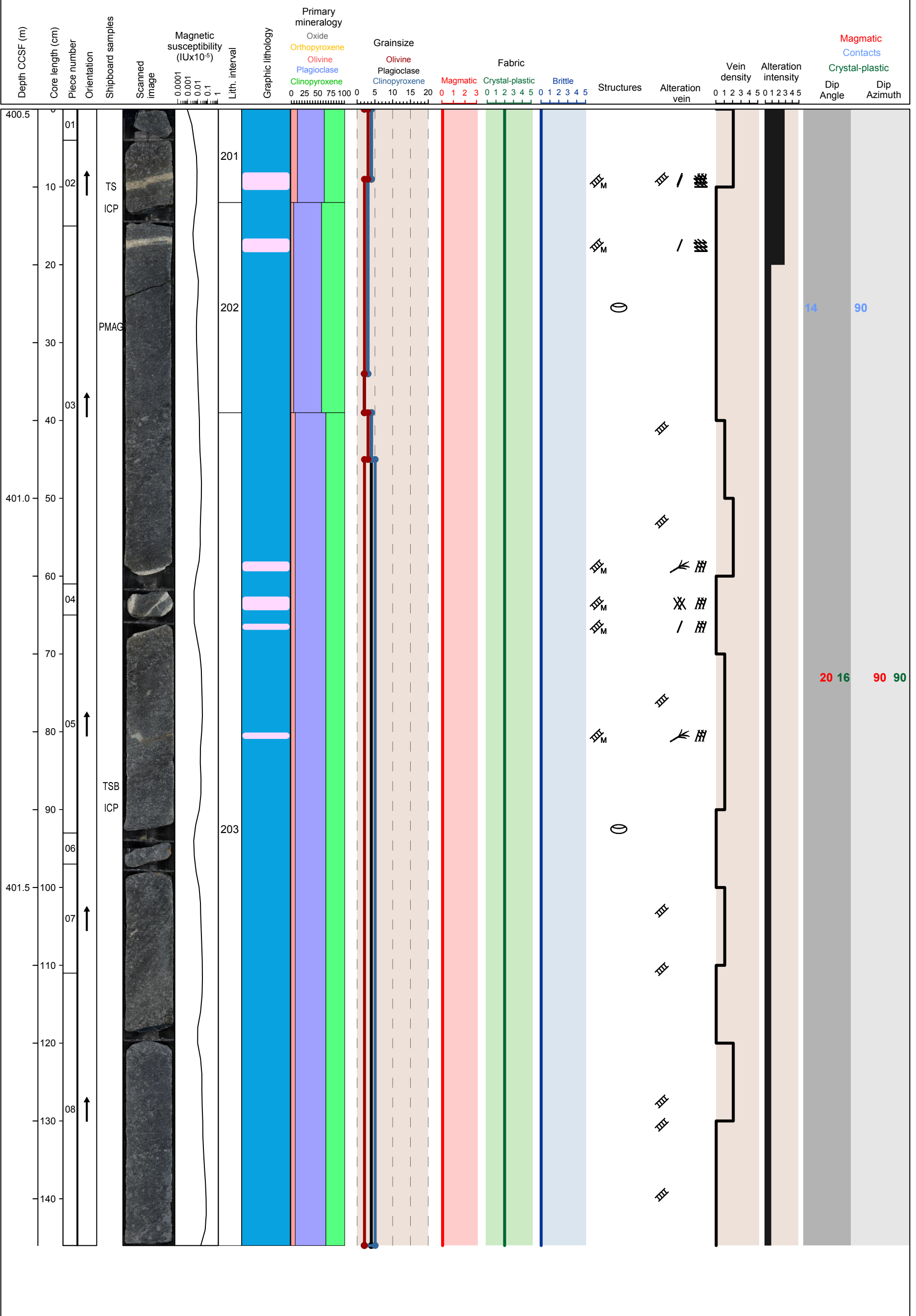


Hole 360-U1473A-44R Section 1, Top of Section: 400.5 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 201 and 203) and medium grained granular olivine gabbro (interval 202)

Metamorphic Petrology: Static background alteration intensity of this thin section is mostly slight. Substantial alteration was associated with felsic veins.

Structural Geology: Irregularly developed grain size variations. Several magmatic veins present. The felsic vein at 9 cm is offset with a reverse sense of shear.

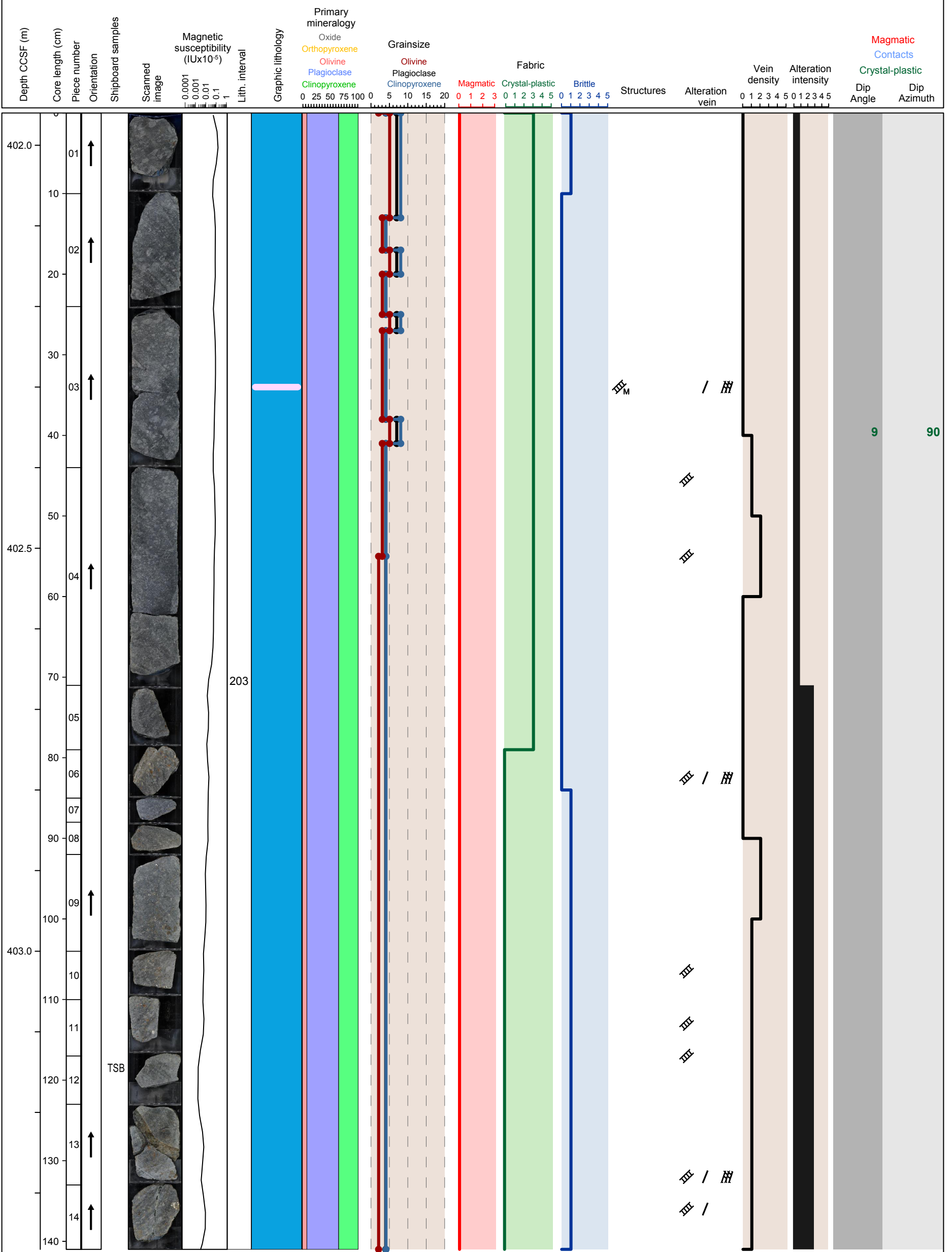


Hole 360-U1473A-44R Section 2, Top of Section: 401.96 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 203)

Metamorphic Petrology: The upper part of this section is slightly altered and the lower part showed substantial alteration.

Structural Geology: Weak magmatic fabric.

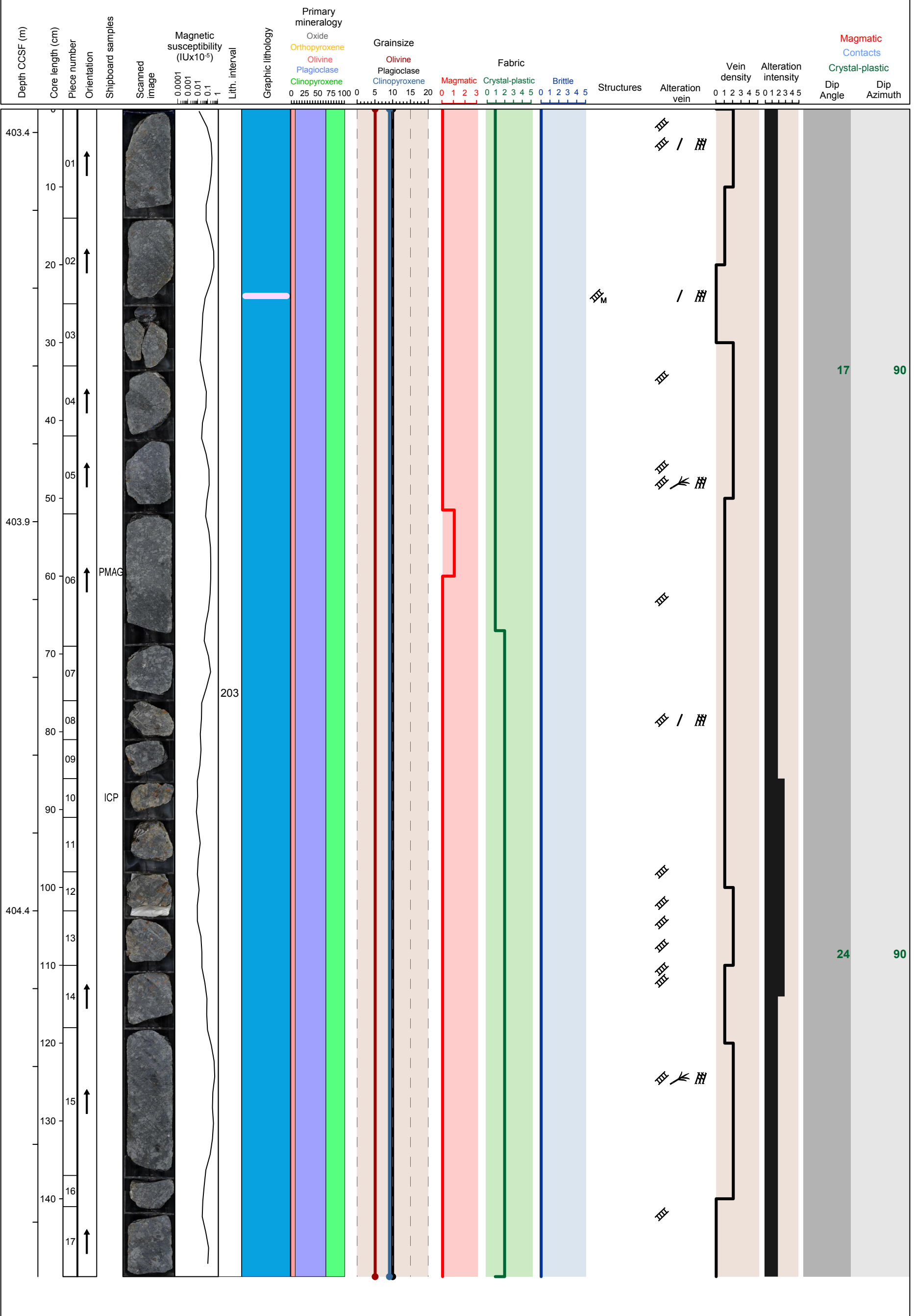


Hole 360-U1473A-44R Section 3, Top of Section: 403.37 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 203)

Metamorphic Petrology: Static background alteration intensity is moderate to substantial. More intense altered part could be related to the veins.

Structural Geology: Weak crystal plastic fabric with a shallow to moderate dip.

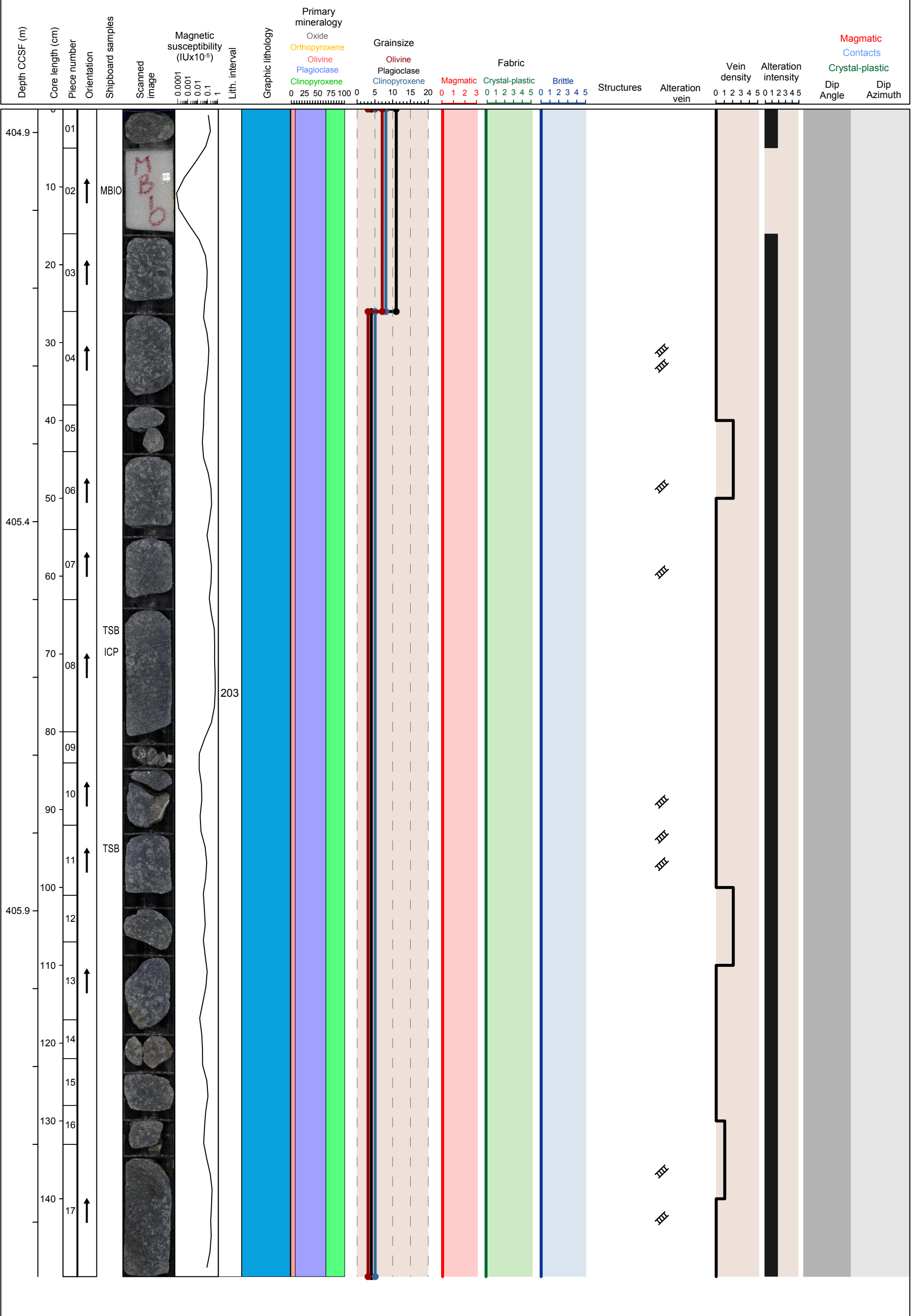


Hole 360-U1473A-44R Section 4, Top of Section: 404.87 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 203)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense alteration are associated with veins.

Structural Geology:

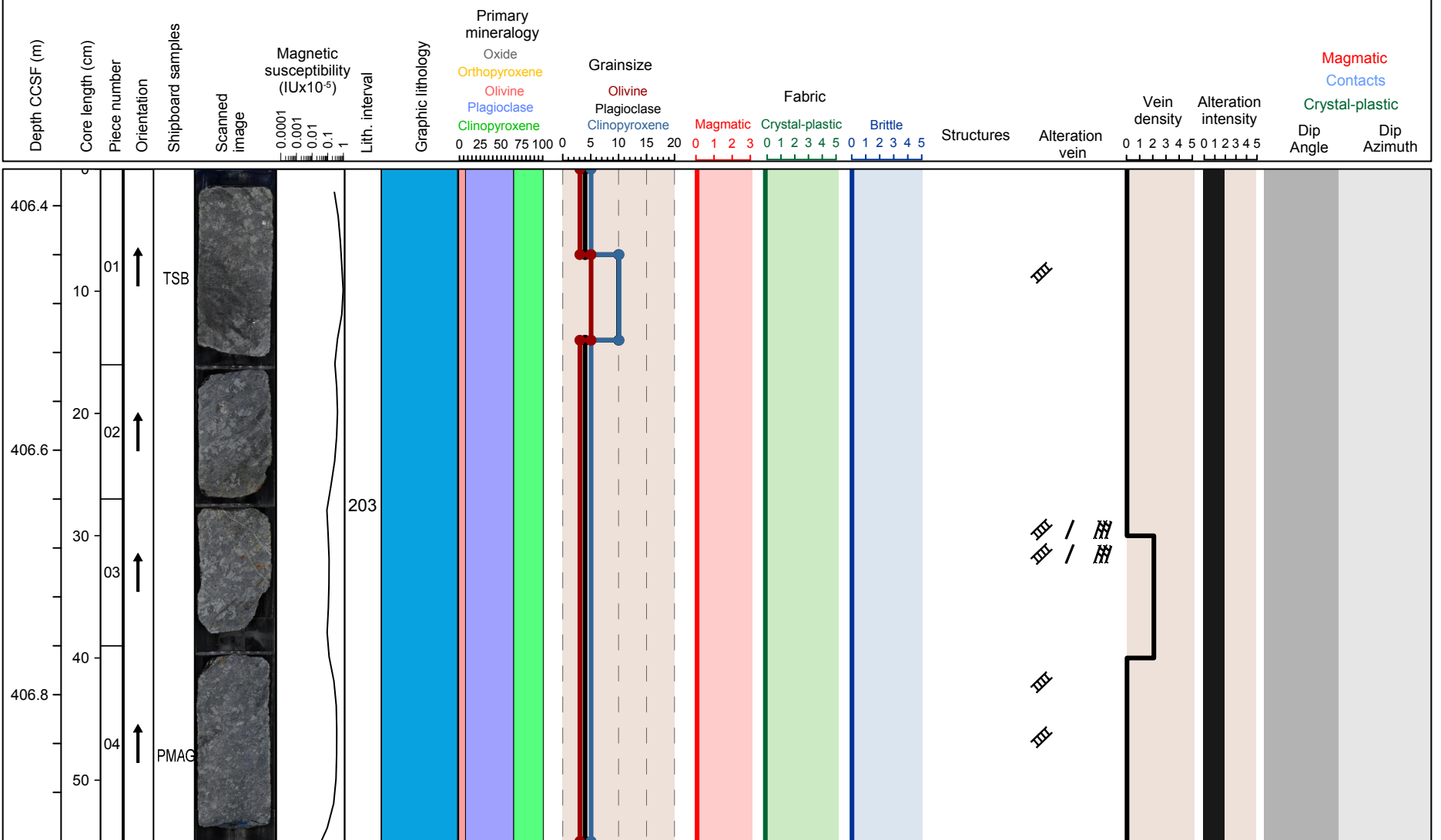


Hole 360-U1473A-44R Section 5, Top of Section: 406.37 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 203)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense alteration occurs in the halo.

Structural Geology:

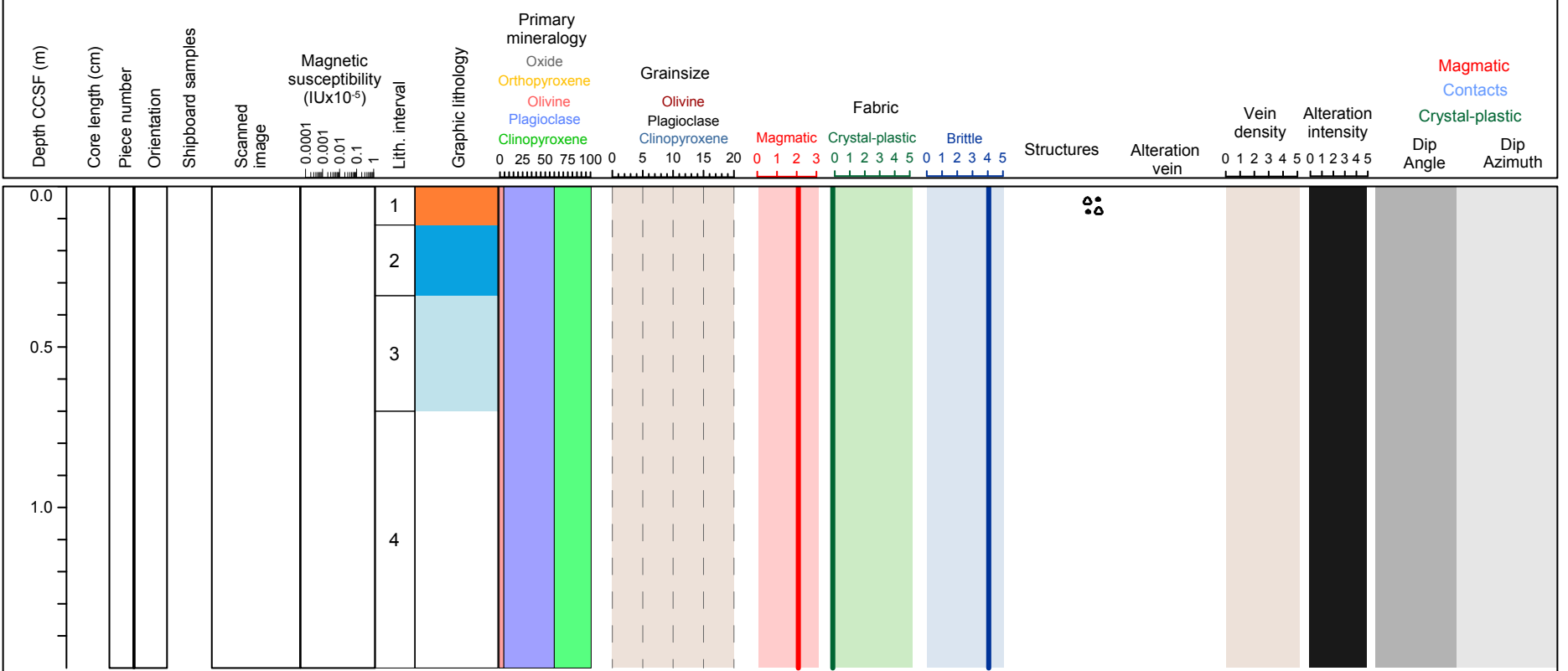


Hole 360-U1473A-Run08FMM, 0-410.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Run08FMM: 0-410.2

Metamorphic Petrology: Interval consists of highly friable sand to pebble-sized fragments and larger, more intact fragments. The former is totally altered into greenish and whitish minerals, likely chlorite and albite, and probably minor talc due to the soapy texture. The larger fragments are also heavily altered, but lacks the conspicuous green and white colors. Relic clinopyroxene mineral grains were observed, and is characterized by a brassy color.

Structural Geology: Green fault breccia with a high matrix to clast ratio.

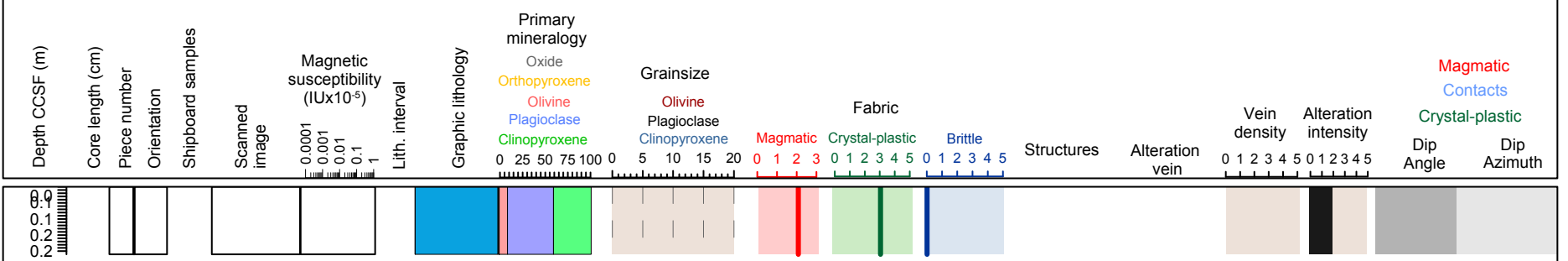


Hole 360-U1473A-Run09RCJB, 0-410.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Run09RCJB: 0-410.2

Metamorphic Petrology: Alteration intensity of this interval is moderate.

Structural Geology: One cobble has a crystal plastic fabric. Several pieces are bound by at least one, in some cases up to four, carbonate veins.

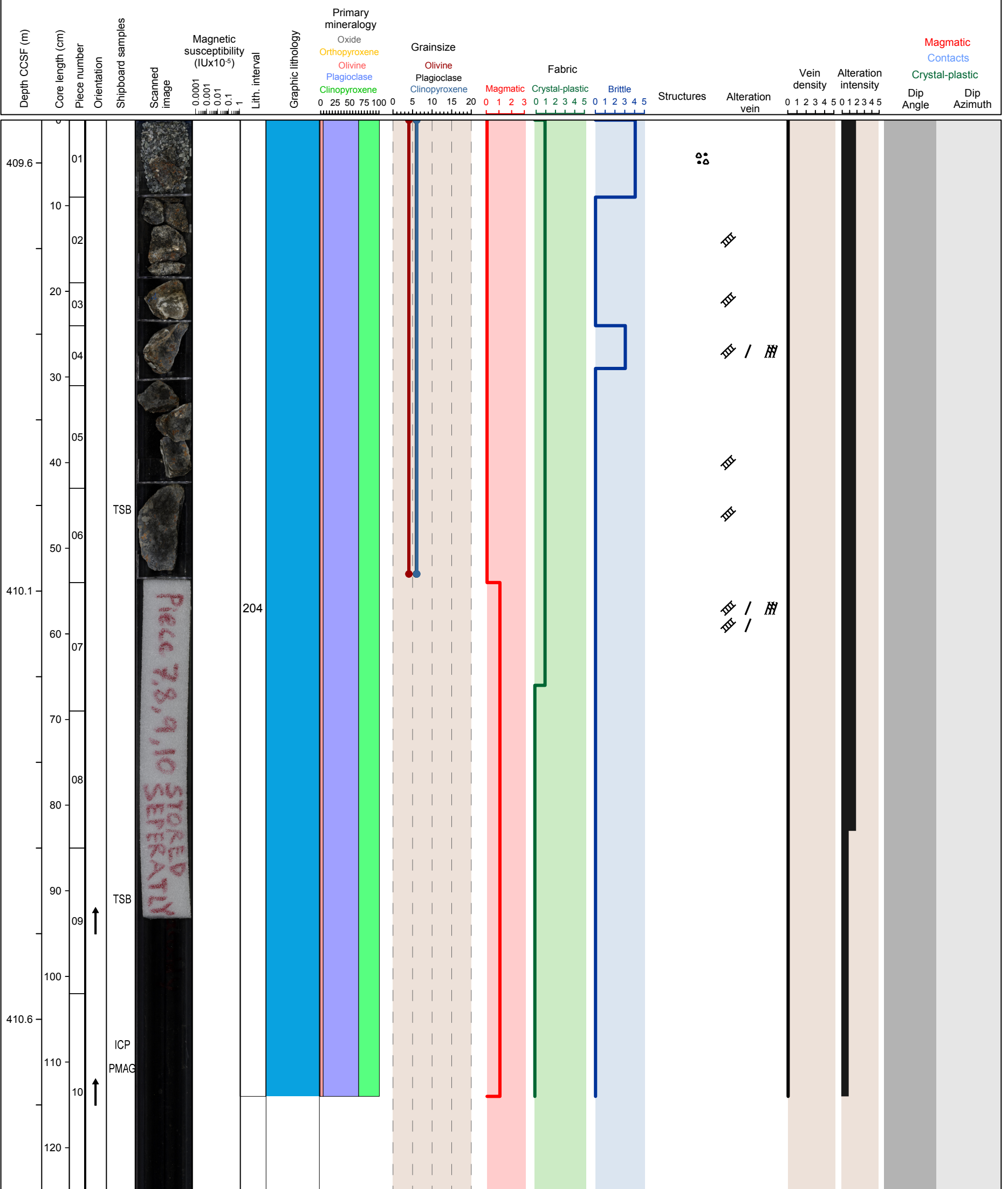


Hole 360-U1473A-45M Section 1, Top of Section: 409.55 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 204)

Metamorphic Petrology: Section is only slightly to moderately altered. The smaller pieces at the top of the section are relatively more altered. Some pieces are surrounded by carbonates, and olivine is conspicuously replaced by reddish clays near the carbonates.

Structural Geology: Grain size variation evident in larger pieces. There is a weak magmatic fabric defined by plagioclase and pyroxene in some of the grain size patches. The top interval is composed of green fault breccia. At 28 cm there is a carbonate fault breccia. Most fractures have some amount of carbonate material.

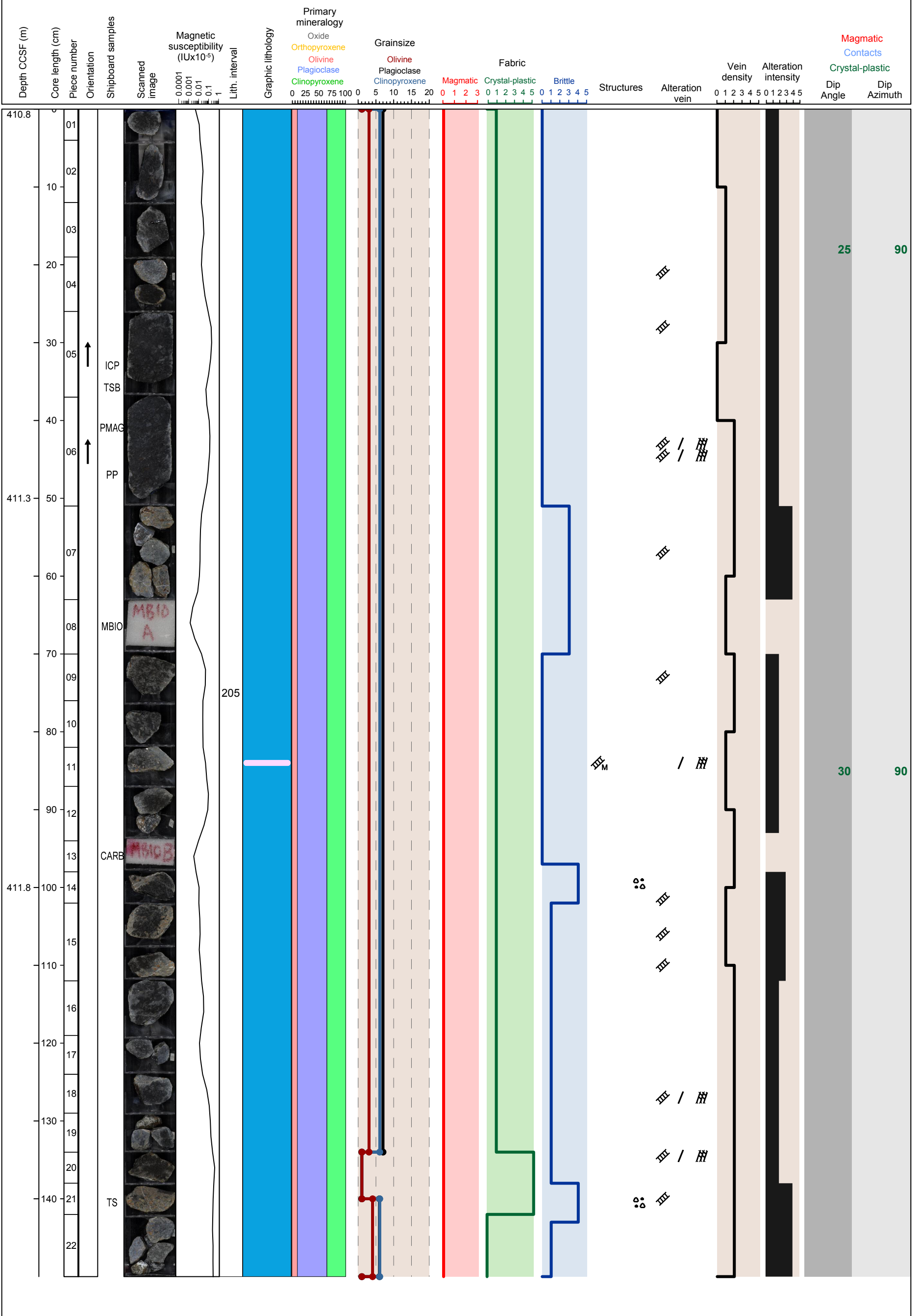


Hole 360-U1473A-46R Section 1, Top of Section: 410.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 205)

Metamorphic Petrology: Static background alteration intensity ranges from moderate to extensive. The more altered parts of the section are associated with carbonate veining.

Structural Geology: The crystal plastic fabric is weak with a shallow dip overprinted by thin mylonitic bands. There is an incipient fault breccia between 51-70 cm that is highly carbonated. At 140 cm there is a carbonate filled fault that offsets a fine grained mylonite.

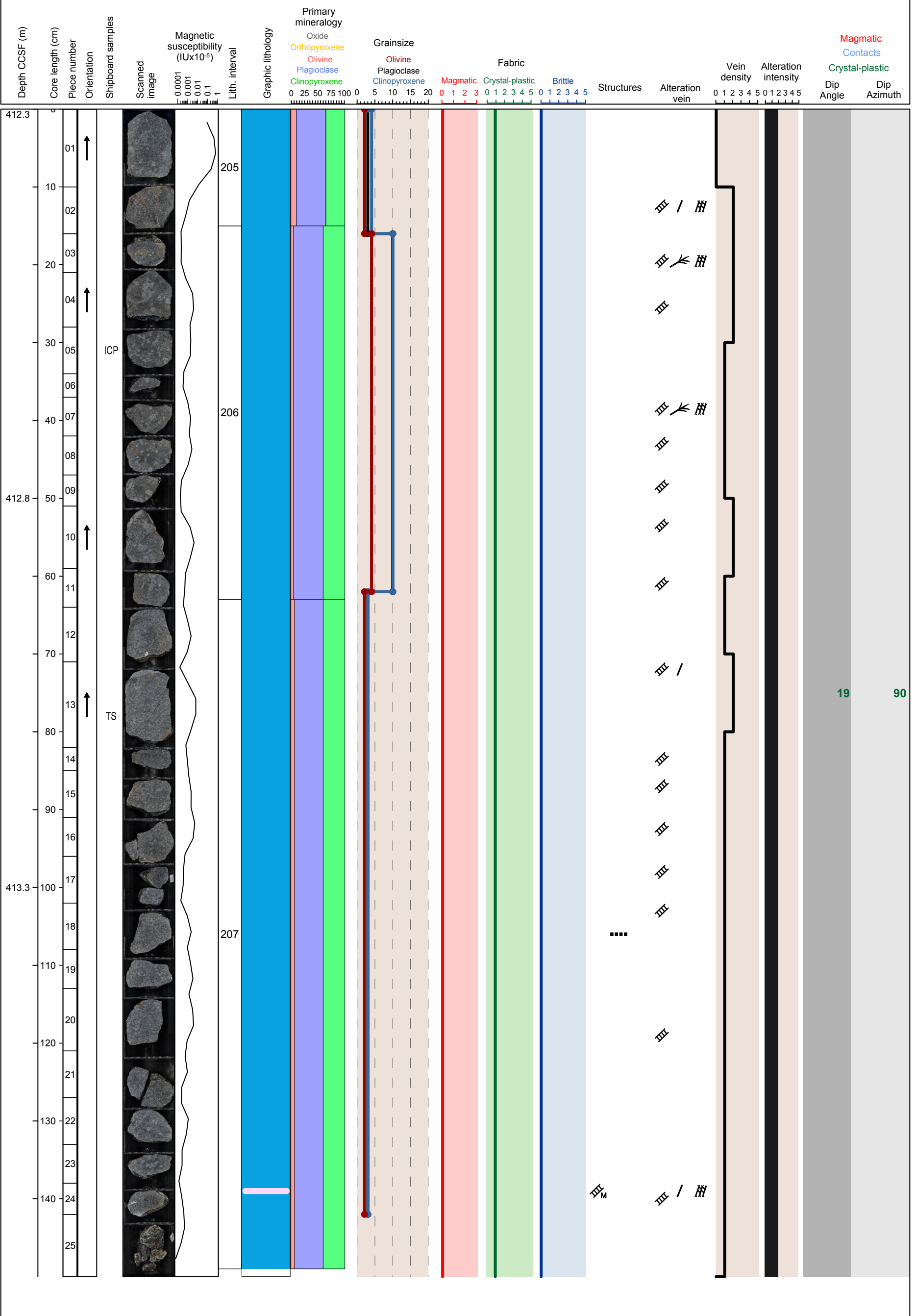


Hole 360-U1473A-46R Section 2, Top of Section: 412.3 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 205 and 207) and coarse grained granular olivine gabbro (interval 206)

Metamorphic Petrology: Section is moderately altered. Olivine is conspicuously replaced by red clay, especially near carbonate veins.

Structural Geology: The contact between medium and fine grained rocks is sharp. Some pieces have an incipient crystal plastic foliation.

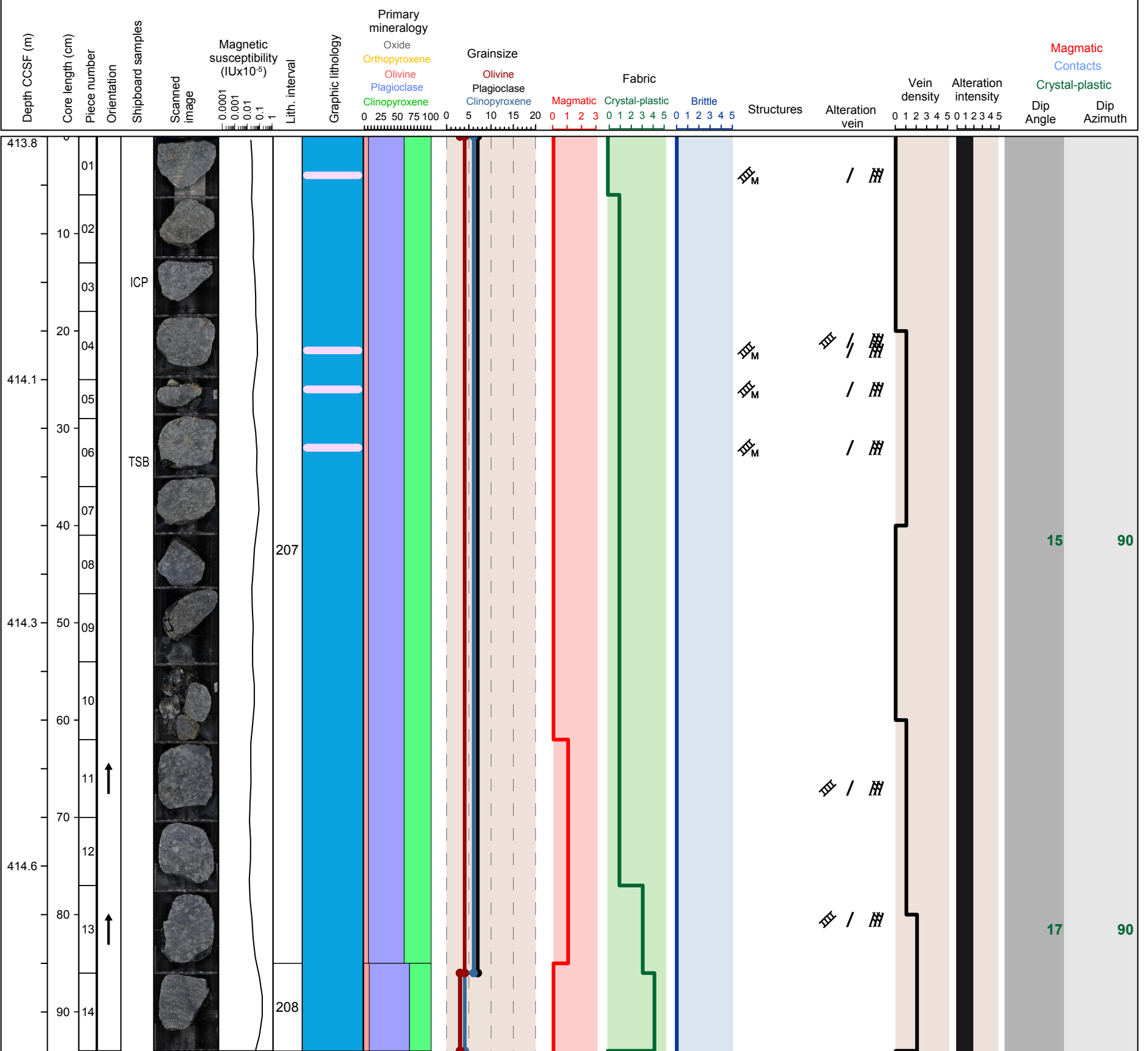


Hole 360-U1473A-46R Section 3, Top of Section: 413.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 207) and medium grained granular olivine gabbro (interval 208)

Metamorphic Petrology: Section is heterogeneously altered. Overall, the alteration is moderate and the alteration are associated with the veins.

Structural Geology: There is a fine grained sub-horizontal mylonite from 86-94. The magmatic fabric is weak defined by pyroxene and plagioclase.

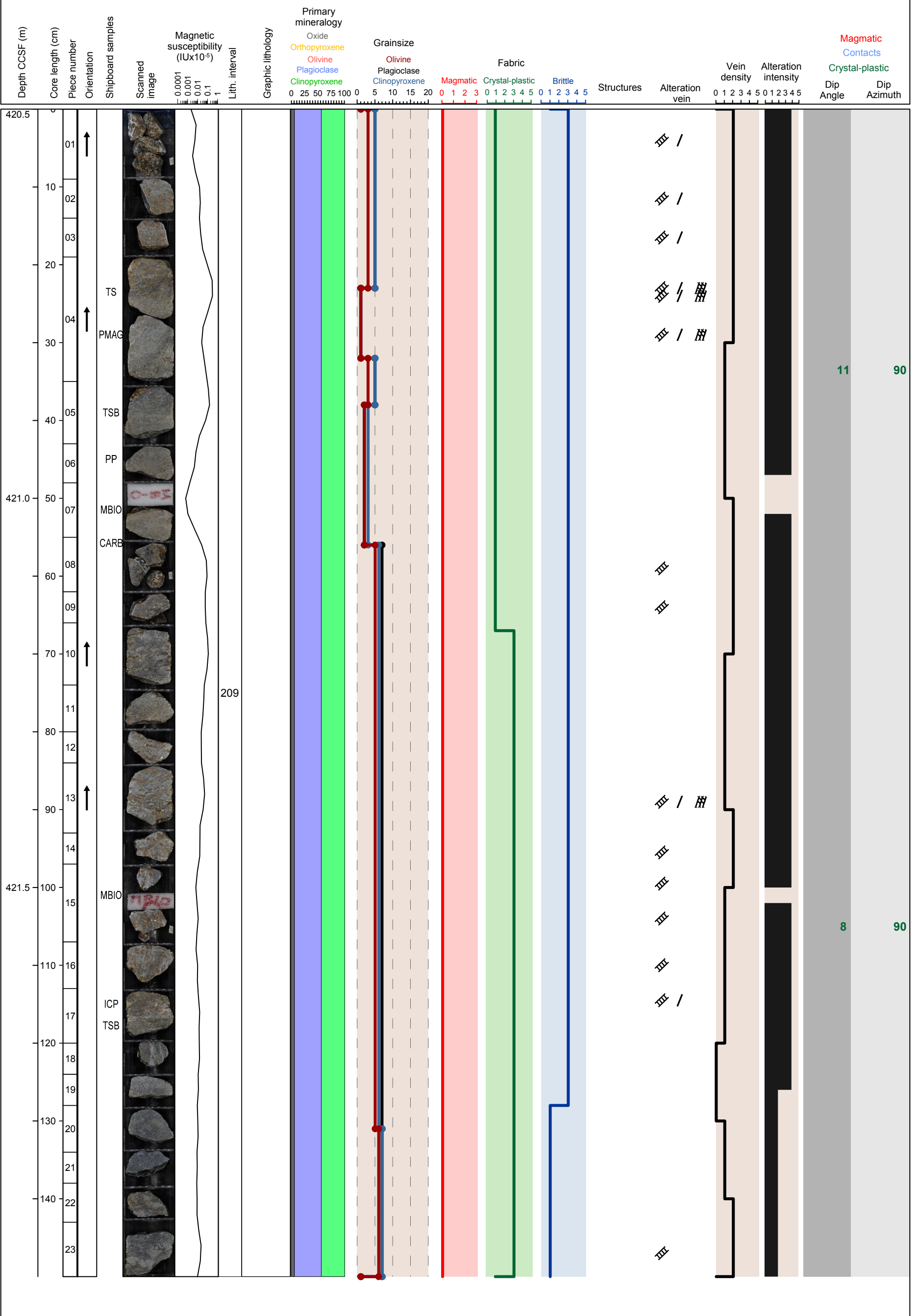


Hole 360-U1473A-47R Section 1, Top of Section: 420.5 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide gabbronorite (interval 209)

Metamorphic Petrology: Static background alteration intensity of this section is mostly extensive. Pyroxene is conspicuously replaced by red clay. Numerous carbonate veins were observed.

Structural Geology: Shallow medium grained gabbro with a crystal plastic fabric with discordant oxide bands. The top meter of the section has a highly carbonated incipient breccia.

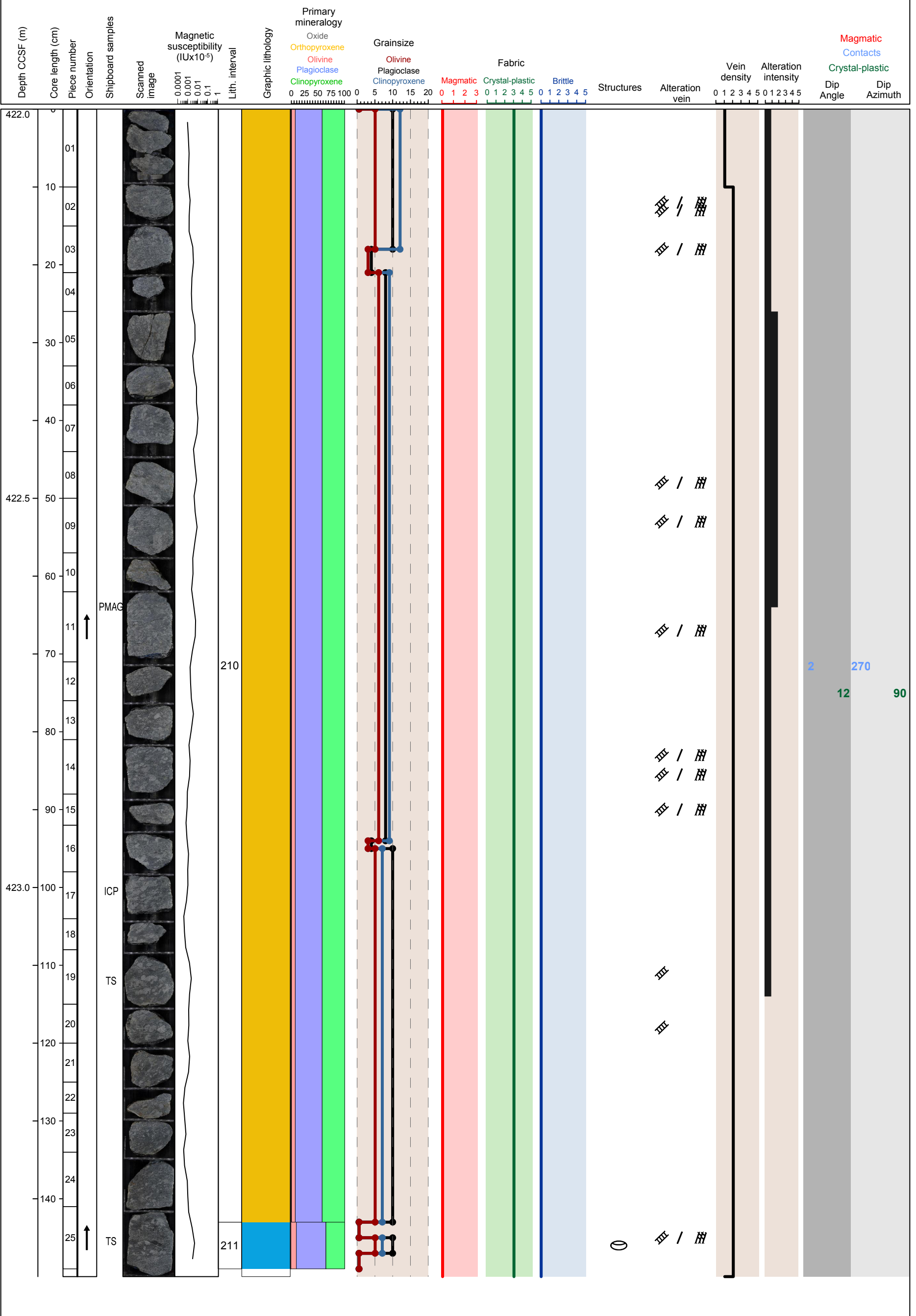


Hole 360-U1473A-47R Section 2, Top of Section: 422.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 210) and fine grained granular olivine gabbro (interval 211)

Metamorphic Petrology: Static background alteration intensity of this section is slight to moderate.

Structural Geology: Intrusive fine grained patches in a plastically deformed medium grained gabbro.

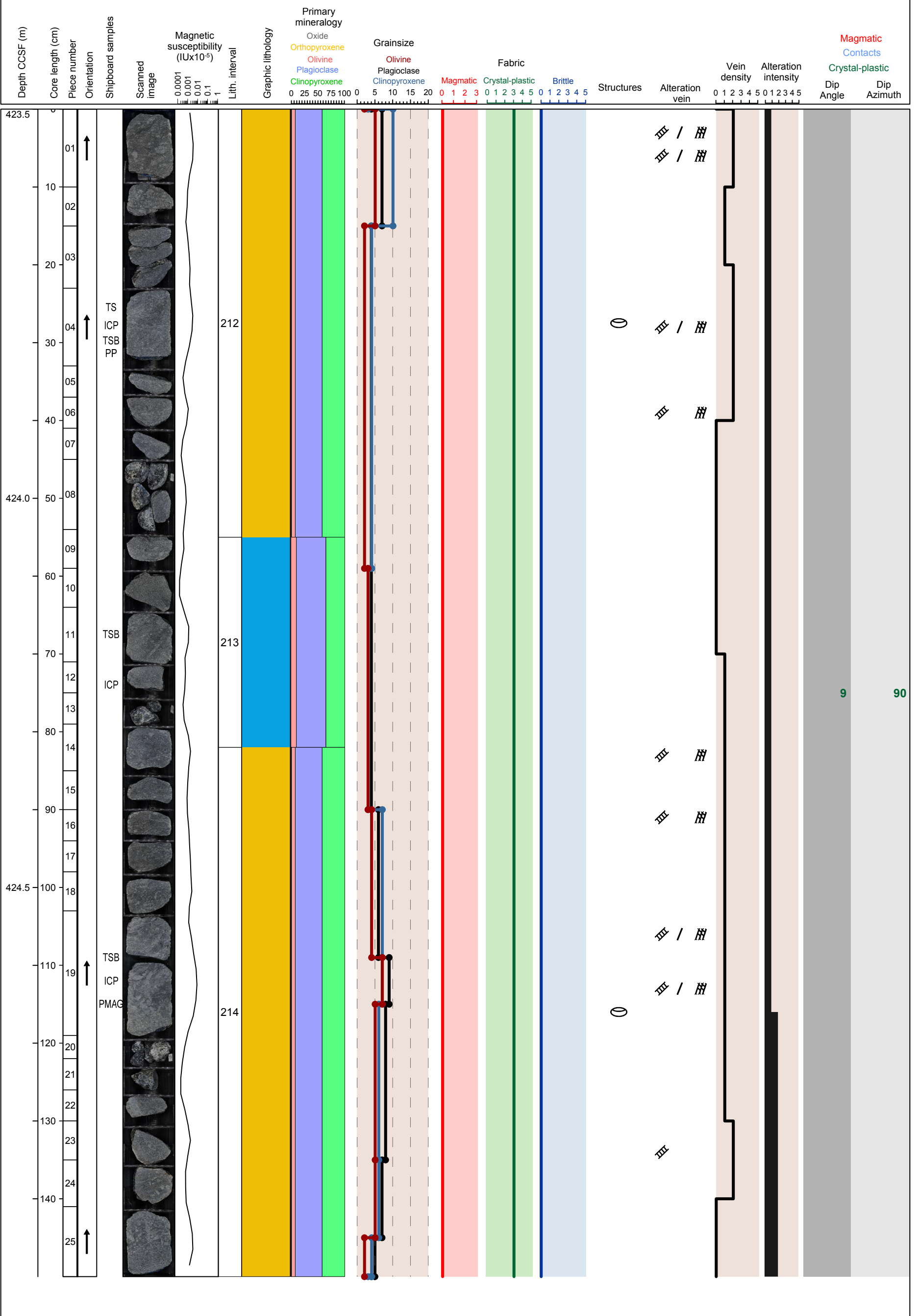


Hole 360-U1473A-47R Section 3, Top of Section: 423.5 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 212 and 214) and fine grained granular olivine gabbro (interval 213)

Metamorphic Petrology: Static background alteration intensity of the section is mostly slight.

Structural Geology: Fine grained gabbro intruded medium grained gabbro, both of which have a shallow crystal plastic fabric.

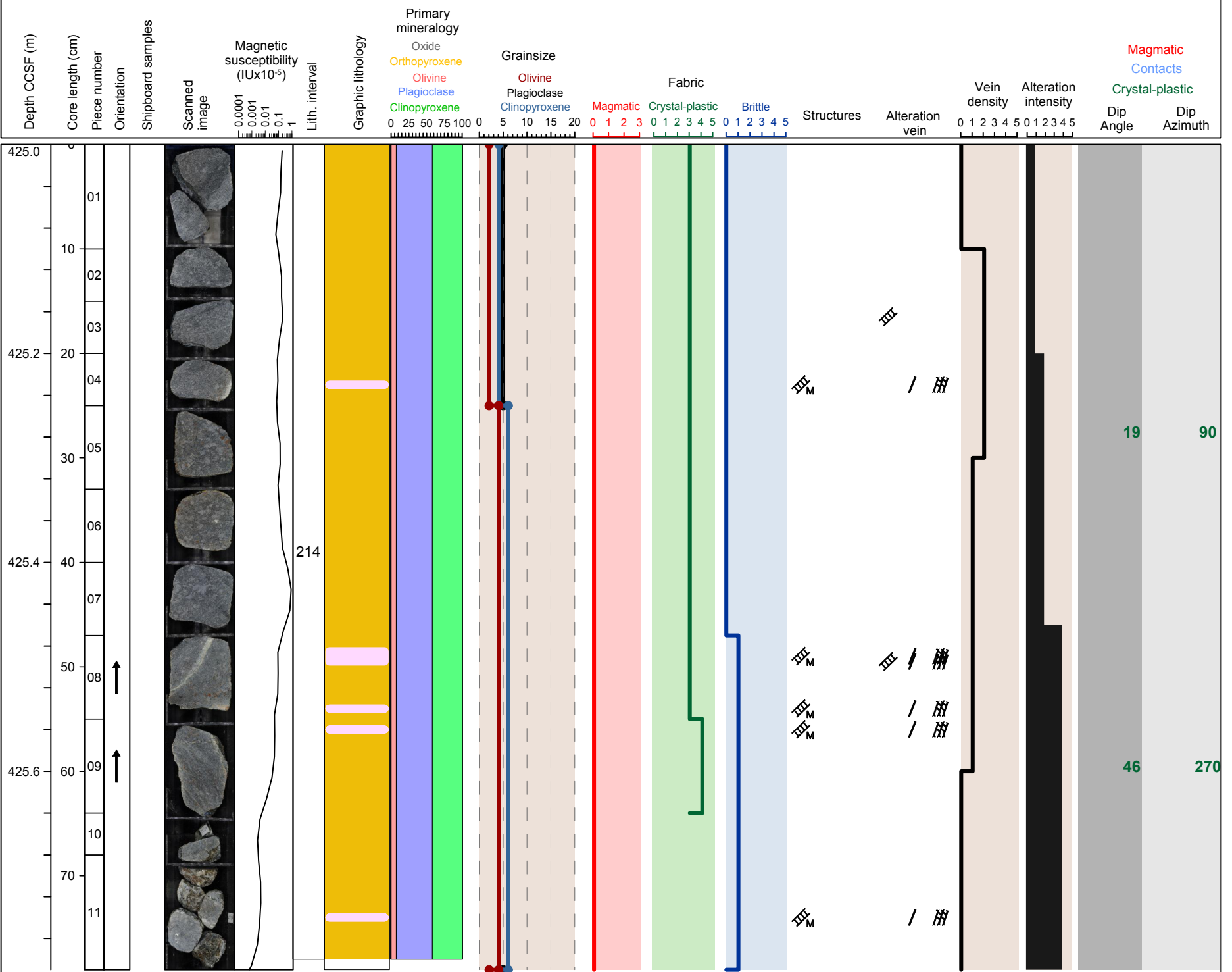


Hole 360-U1473A-47R Section 4, Top of Section: 425.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 214)

Metamorphic Petrology: Section is heterogeneously altered. Bottom part is marked by felsic veins and is extensively altered.

Structural Geology: The crystal plastic fabric gets steeper with depth.

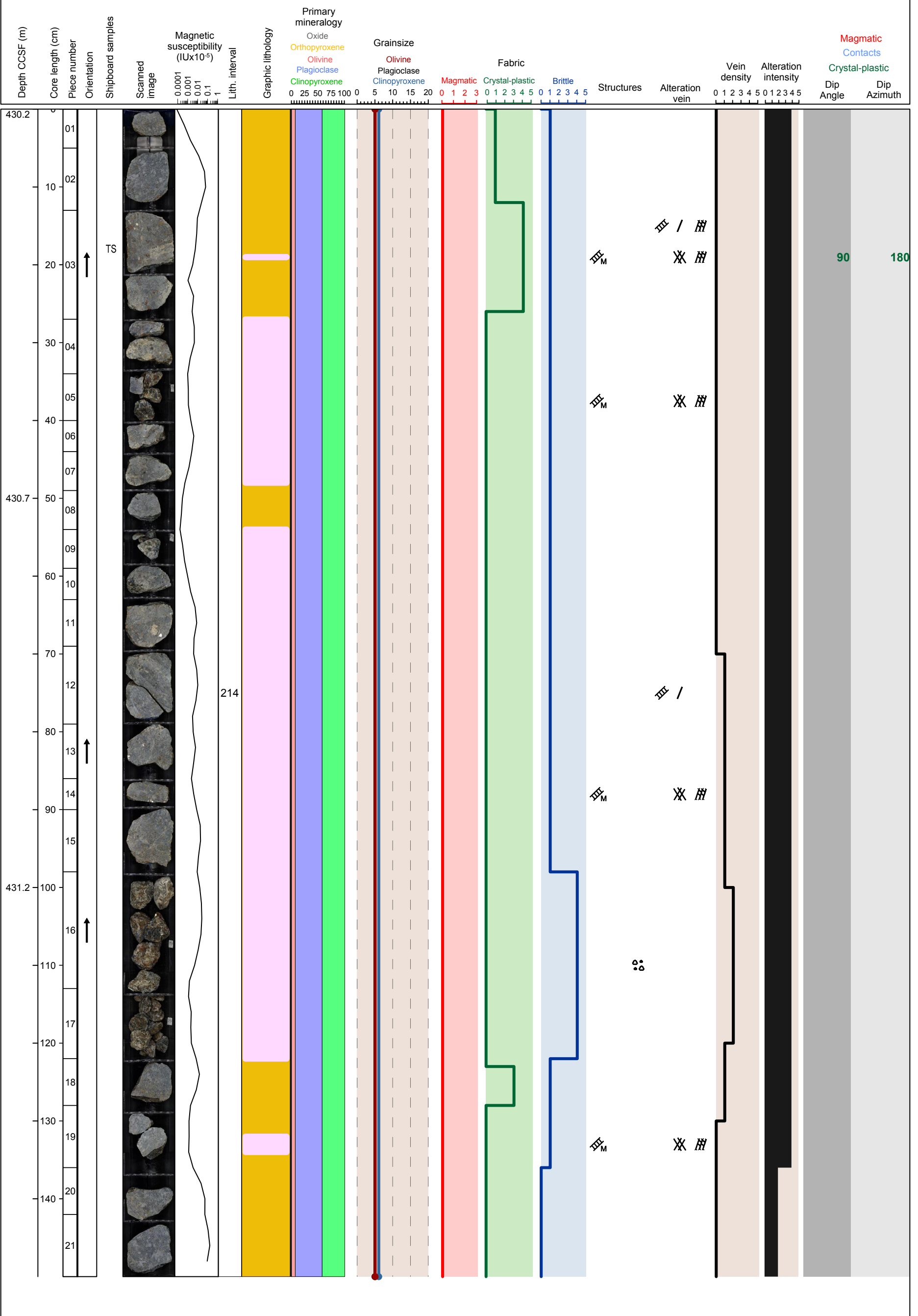


Hole 360-U1473A-48R Section 1, Top of Section: 430.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 214)

Metamorphic Petrology: Section is mostly extensively altered. Felsic patches are conspicuous and alteration is more intense at these areas.

Structural Geology: Vertical mm-thick shear band crosscuts a crystal plastically deformed felsic vein at 19 cm. From 98-112 cm there is a carbonate breccia.

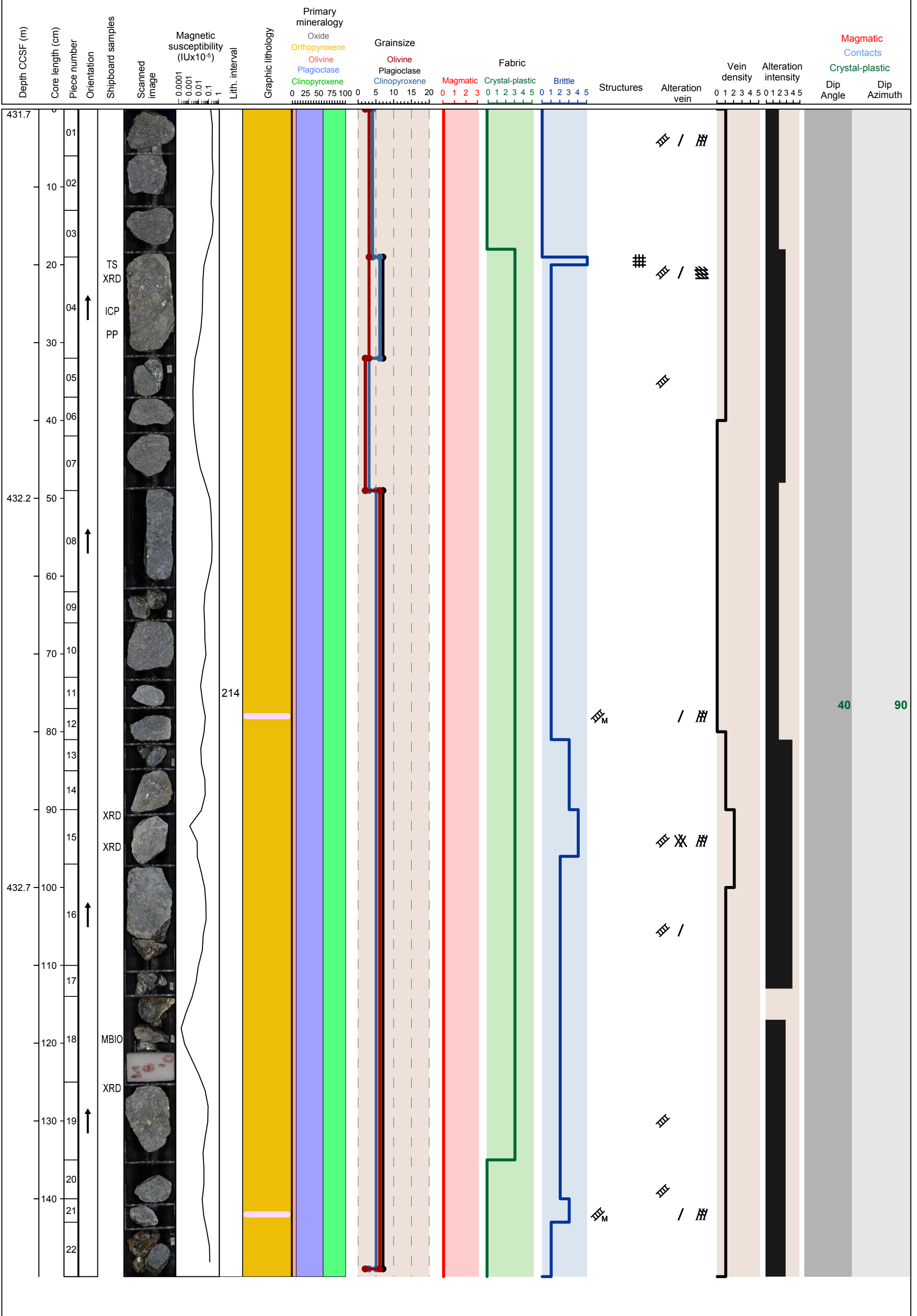


Hole 360-U1473A-48R Section 2, Top of Section: 431.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 214)

Metamorphic Petrology: Section is heterogeneously altered, from moderate to extensive. Carbonate veining is commonly observed.

Structural Geology: The crystal plastic fabric has a steep dip. At 19 cm there is a carbonated cataclasite and at 90 cm there is a carbonate-rich breccia.

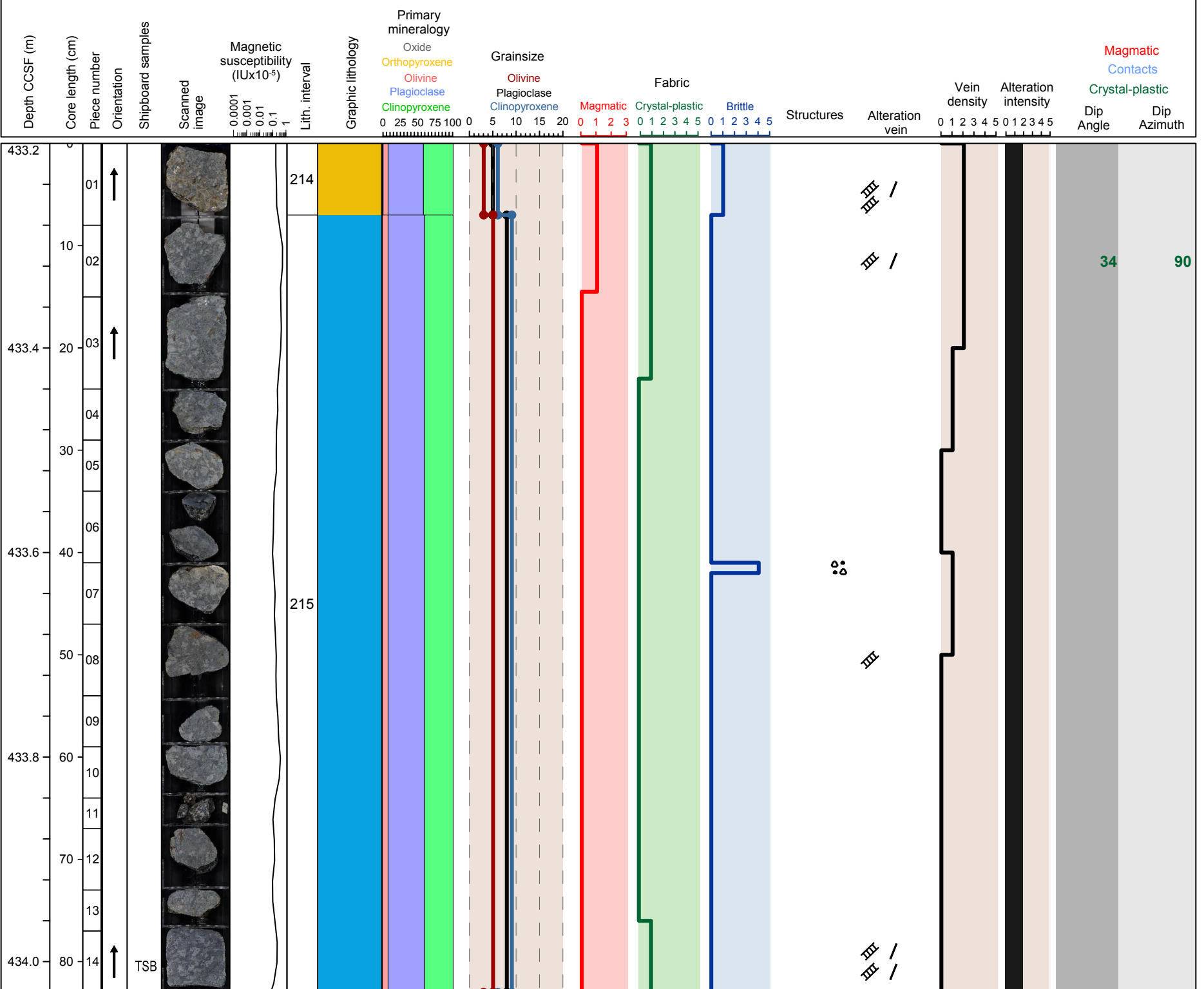


Hole 360-U1473A-48R Section 3, Top of Section: 433.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 214) and coarse grained subophitic olivine gabbro (interval 215)

Metamorphic Petrology: Static background alteration intensity is moderate. More intense alteration occurs at vein halos.

Structural Geology: The top part of the section has a weak magmatic fabric defined by pyroxene and plagioclase. At 41 cm there is a carbonate-rich breccia.

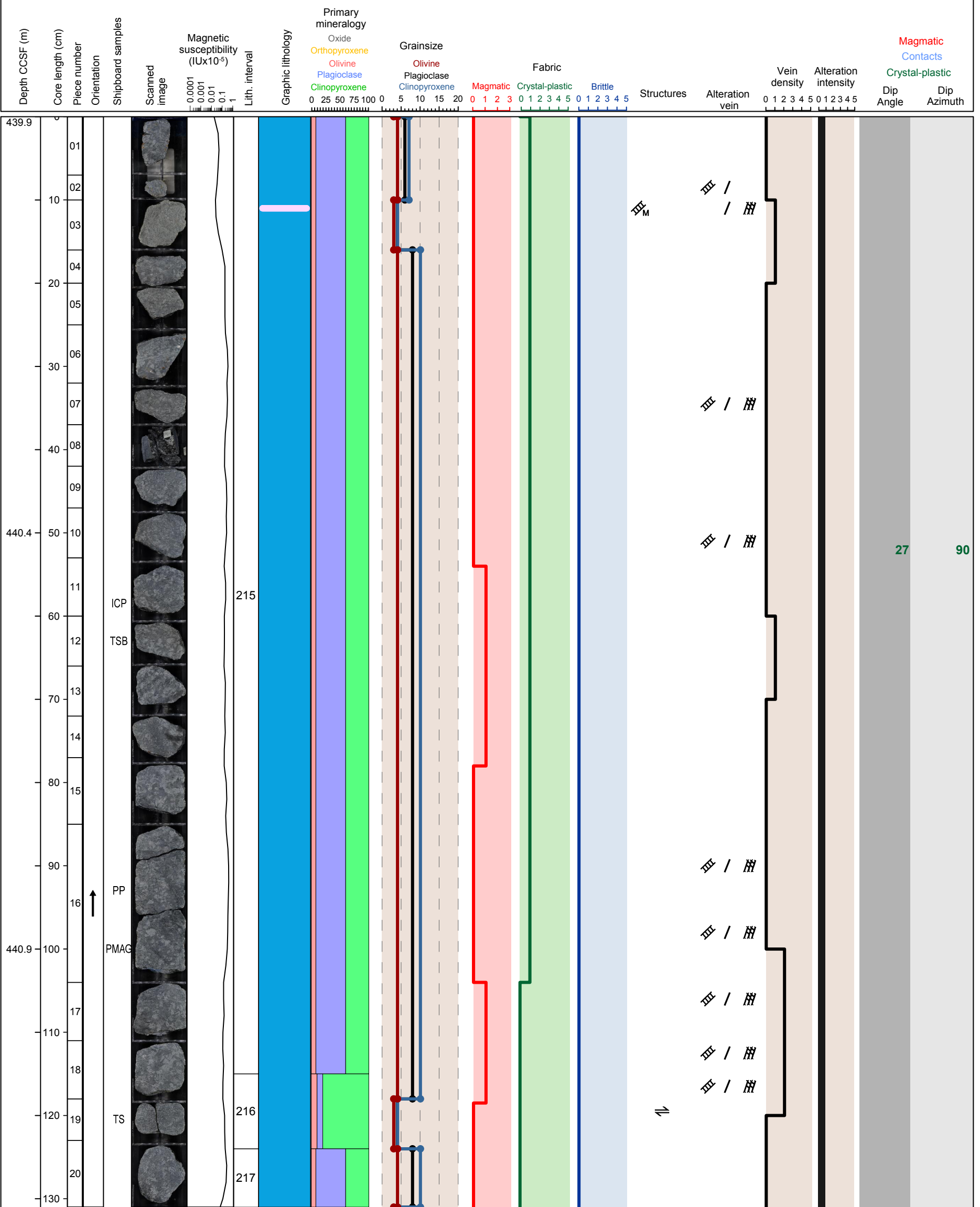


Hole 360-U1473A-49R Section 1, Top of Section: 439.9 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 215 and 217) and medium grained granular olivine gabbro (interval 216)

Metamorphic Petrology: Total static alteration intensity is slight. There are several white veins without halo except for one that has a halo 1 cm wide. Piece #2 and #3 are intensely altered, but relationship to veining is unclear.

Structural Geology: Patchy fine and medium grained zones. The magmatic fabric is weak defined by plagioclase and pyroxene.

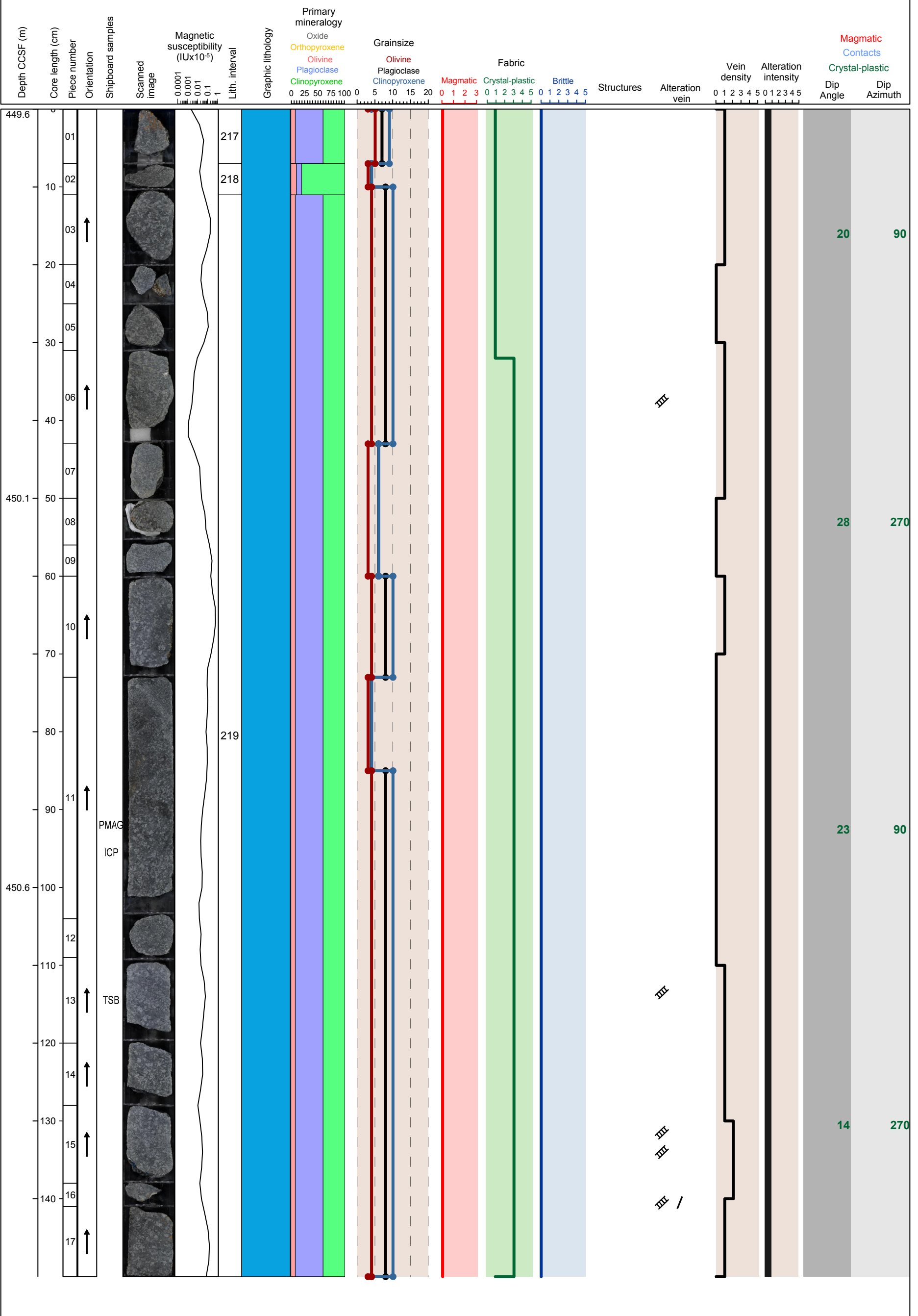


Hole 360-U1473A-50R Section 1, Top of Section: 449.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 217 and 219) and medium grained granular olivine gabbro (interval 218)

Metamorphic Petrology: Total static alteration intensity is slight. Brown clay formation is significant in some intervals, where could be halos of white veins.

Structural Geology: Weak magmatic foliation with moderate to shallow dip. Patchy grain size variation.

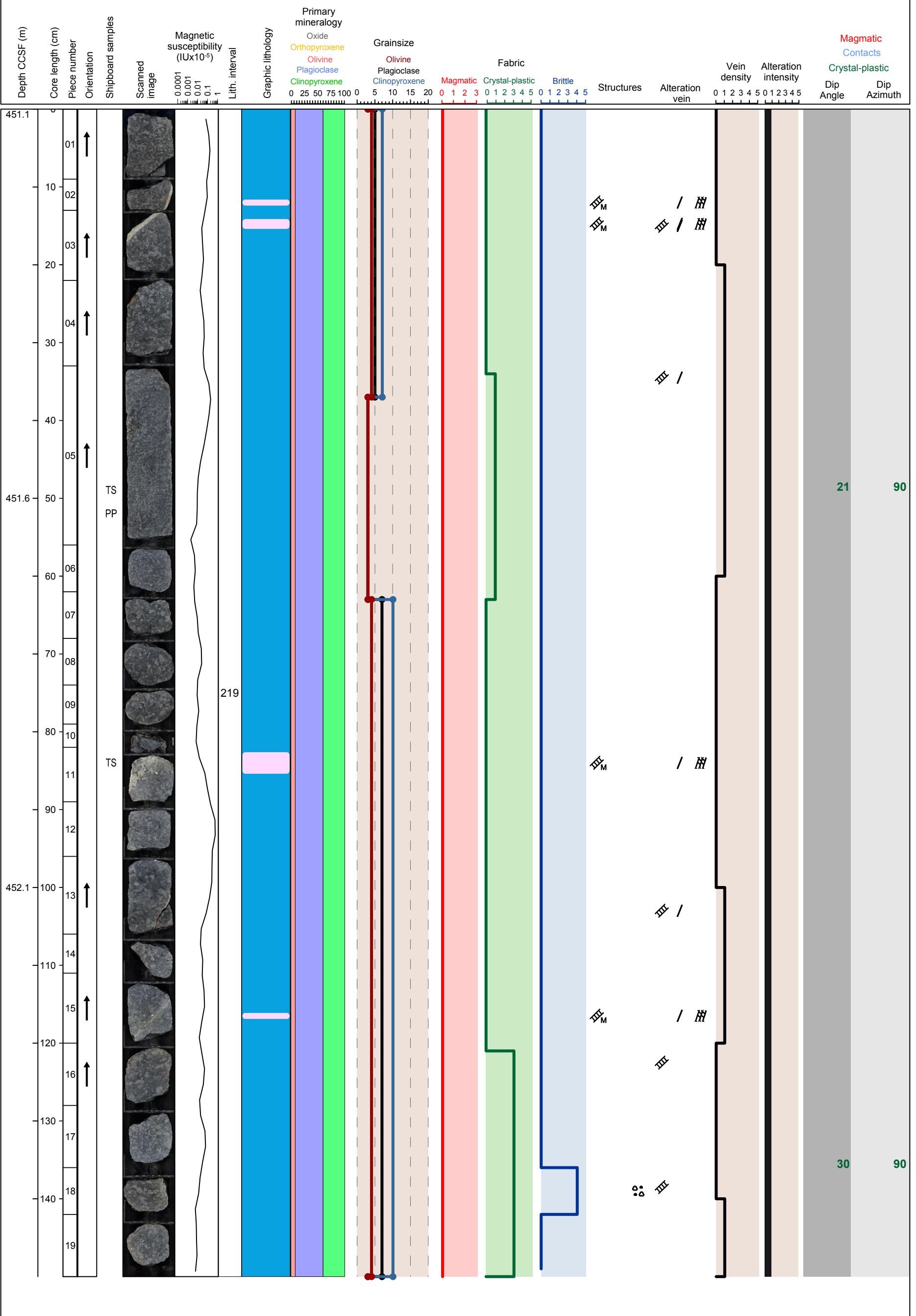


Hole 360-U1473A-50R Section 2, Top of Section: 451.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 219)

Metamorphic Petrology: Total static alteration intensity is slight. Brown clay formation is significant near white veins and felsic veins.

Structural Geology: Several magmatic veins. Patchy grain size variation. Carbonate-rich breccia at 136 cm.

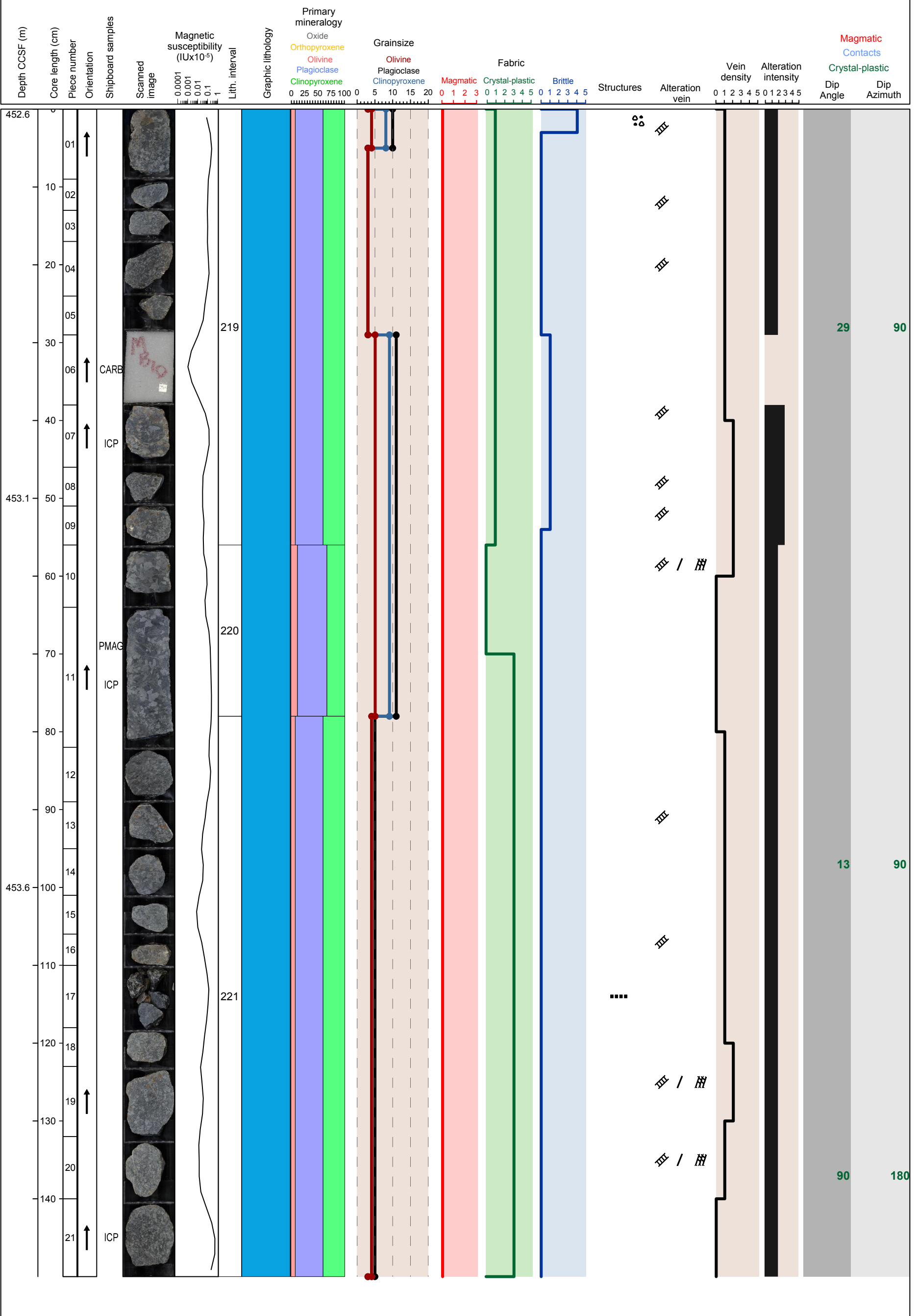


Hole 360-U1473A-50R Section 3, Top of Section: 452.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 219, 220 and 221)

Metamorphic Petrology: Static background alteration intensity of this section is slight to substantial. More intense alteration were associated with the veins.

Structural Geology: Sub-vertical crystal plastic foliation at the bottom of the section. Carbonate-rich breccia at 3 cm.

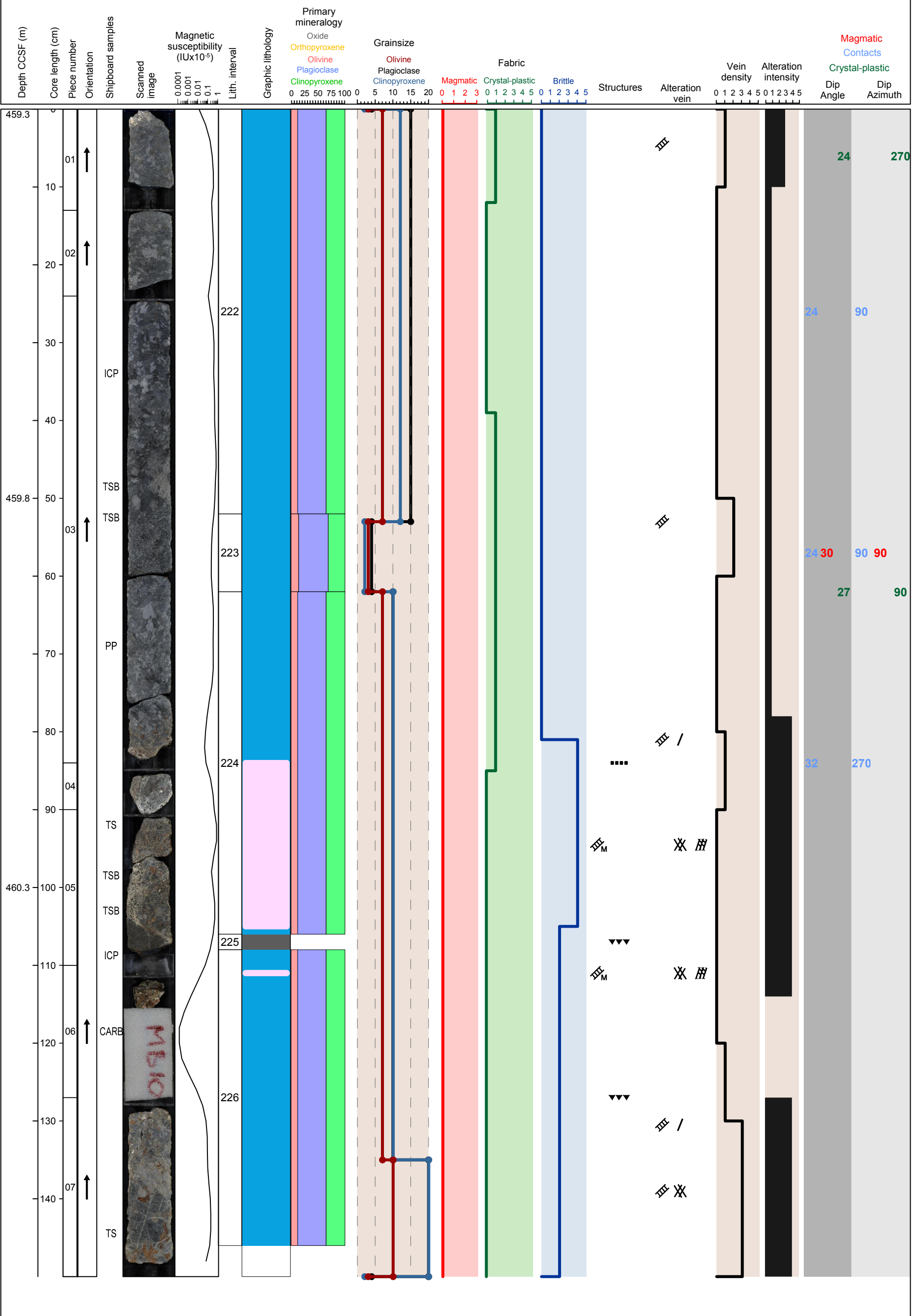


Hole 360-U1473A-51R Section 1, Top of Section: 459.3 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 222, 224 and 226), medium grained subophitic olivine gabbro (interval 223) and fine grained diabase intrusion (interval 225)

Metamorphic Petrology: Static background alteration intensity is slight to extensive. Extensively altered parts were associated with veining.

Structural Geology: Diabase dike in contact with a felsic vein and magmatic breccia. Patchy grain size variations.

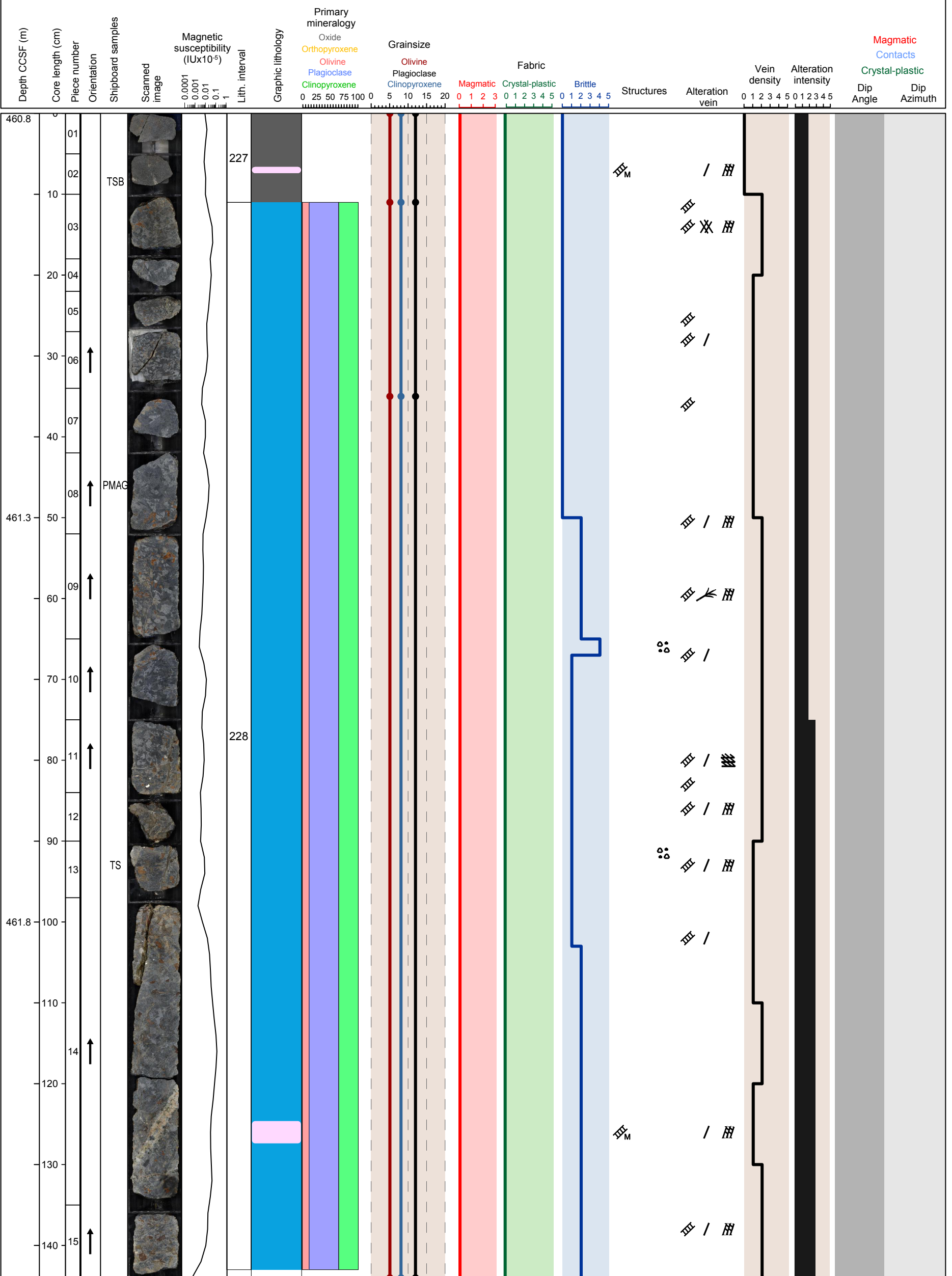


Hole 360-U1473A-51R Section 2, Top of Section: 460.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 228) and fine grained diabase intrusion (interval 227)

Metamorphic Petrology: Static background alteration intensity of this section is moderate to substantial. More intense alteration was associated with the veining.

Structural Geology: Pieces of diabase dike at the top of the section. Extensive carbonate veining throughout the interval and a carbonate-rich breccia at 66 cm.

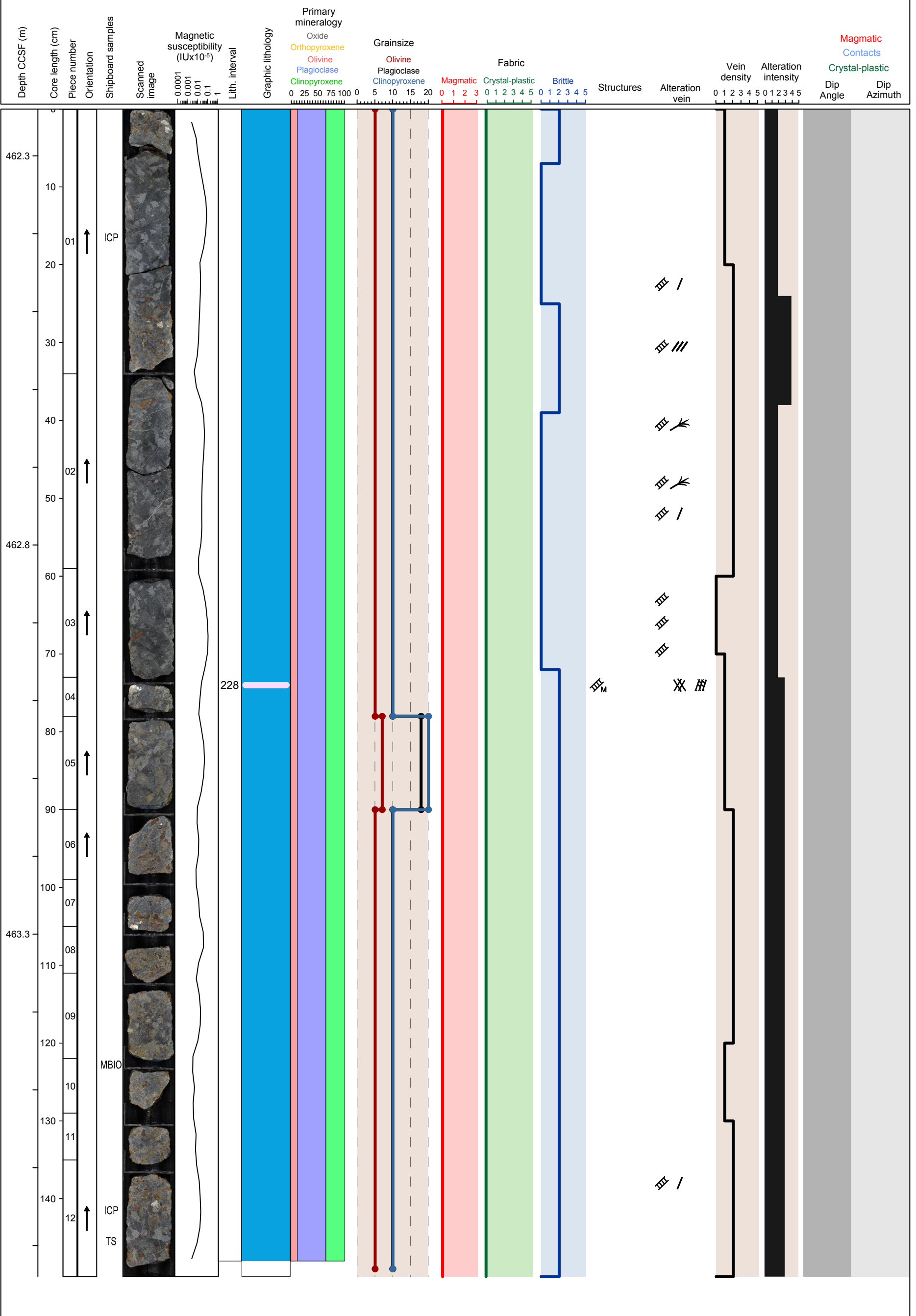


Hole 360-U1473A-51R Section 3, Top of Section: 462.24 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 228)

Metamorphic Petrology: Static background alteration intensity ranges from moderate to extensive. Intense alteration is associated with carbonate vein halos.

Structural Geology: Extensive carbonate veining, typically with a steep dip.

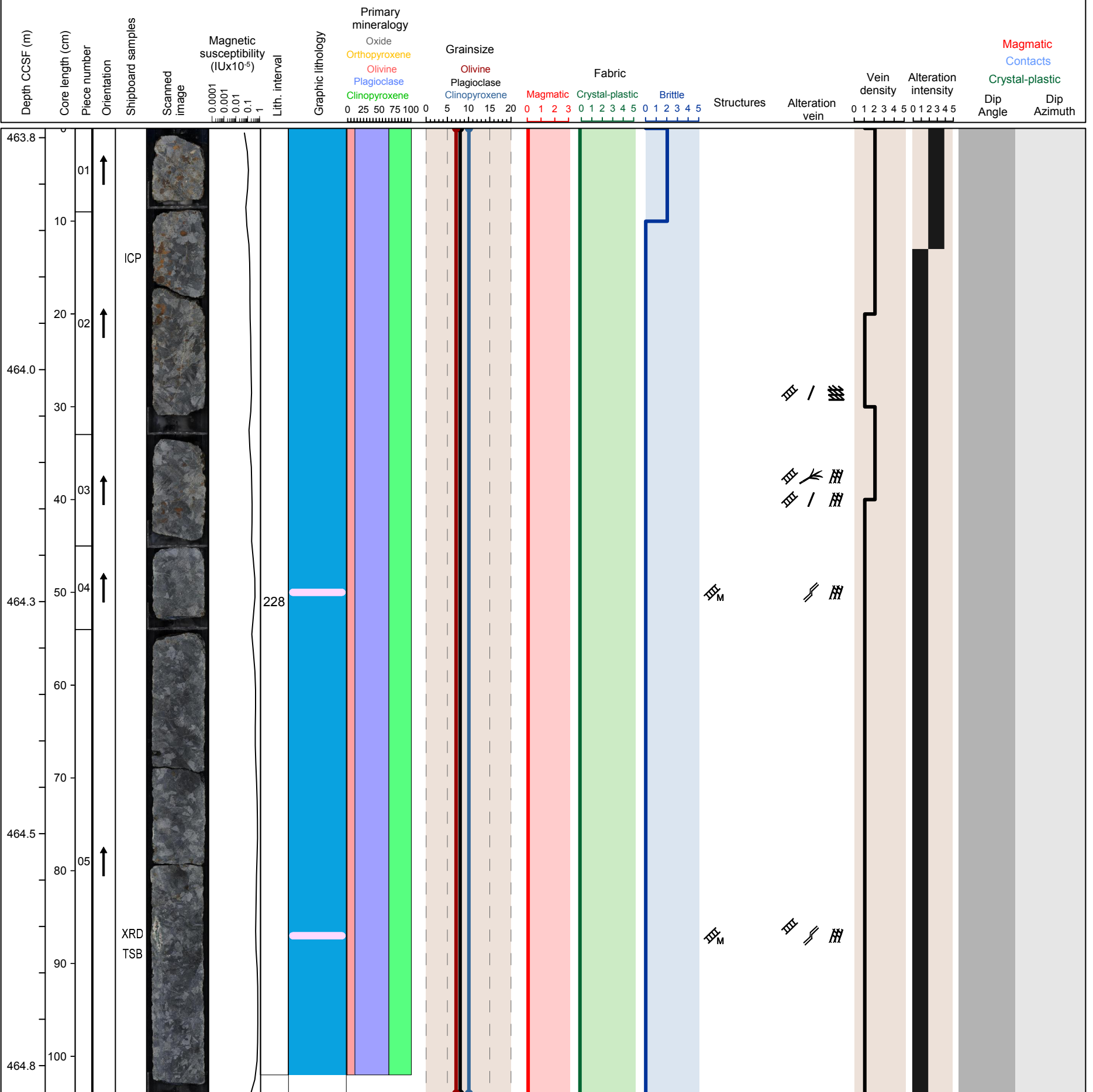


Hole 360-U1473A-51R Section 4, Top of Section: 463.74 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 228)

Metamorphic Petrology: Static background alteration intensity is mostly moderate. The upper part, however, is extensively altered due to veining.

Structural Geology: Sub-vertical, normal-sense, 5 mm thick shear band with intermittent leucocratic patches crosscut undeformed gabbro.

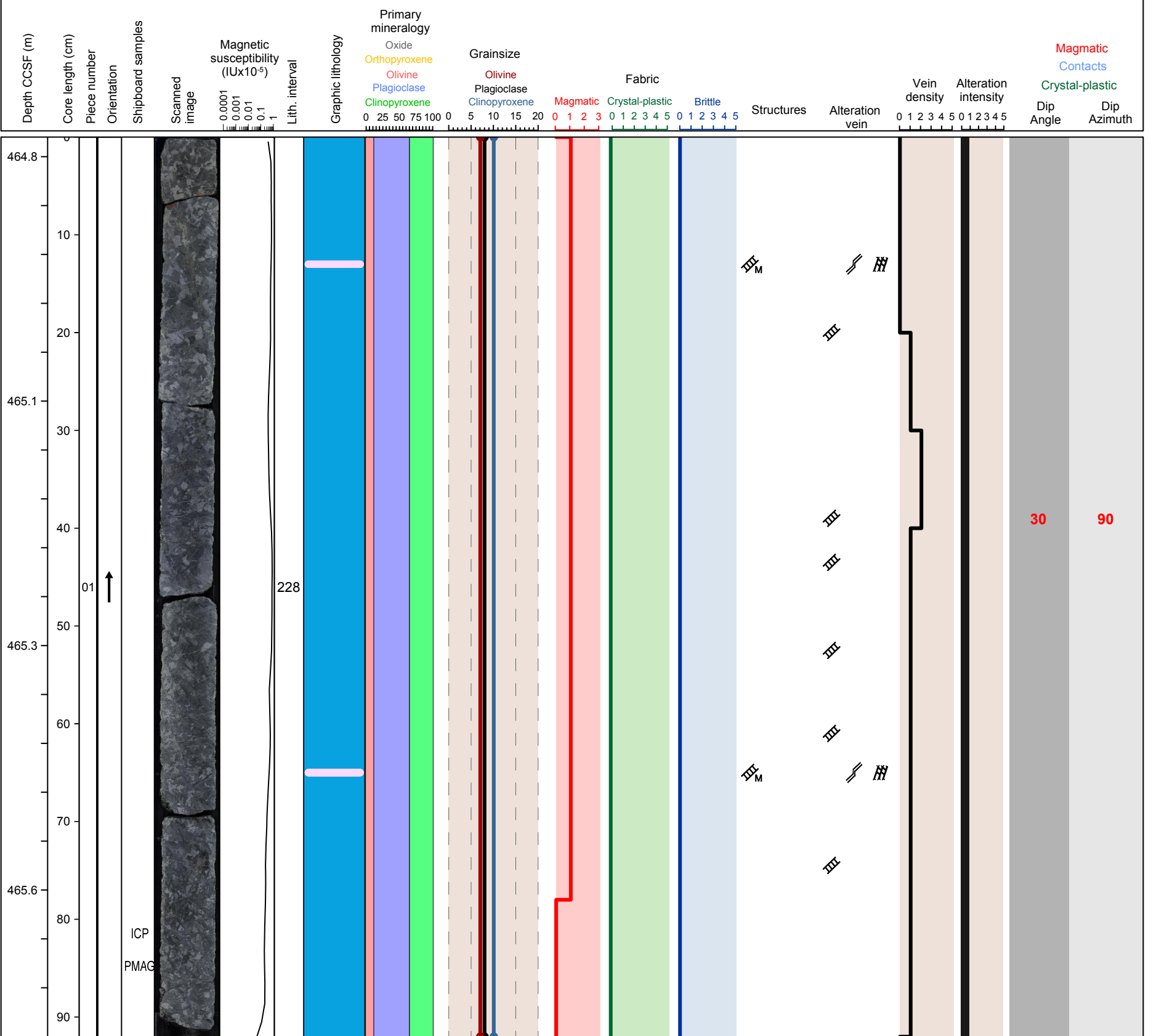


Hole 360-U1473A-51R Section 5, Top of Section: 464.78 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 228)

Metamorphic Petrology: This section is only slightly altered.

Structural Geology: En echelon, normal-sense, 5 mm thick shear bands with intermittent leucocratic patches.

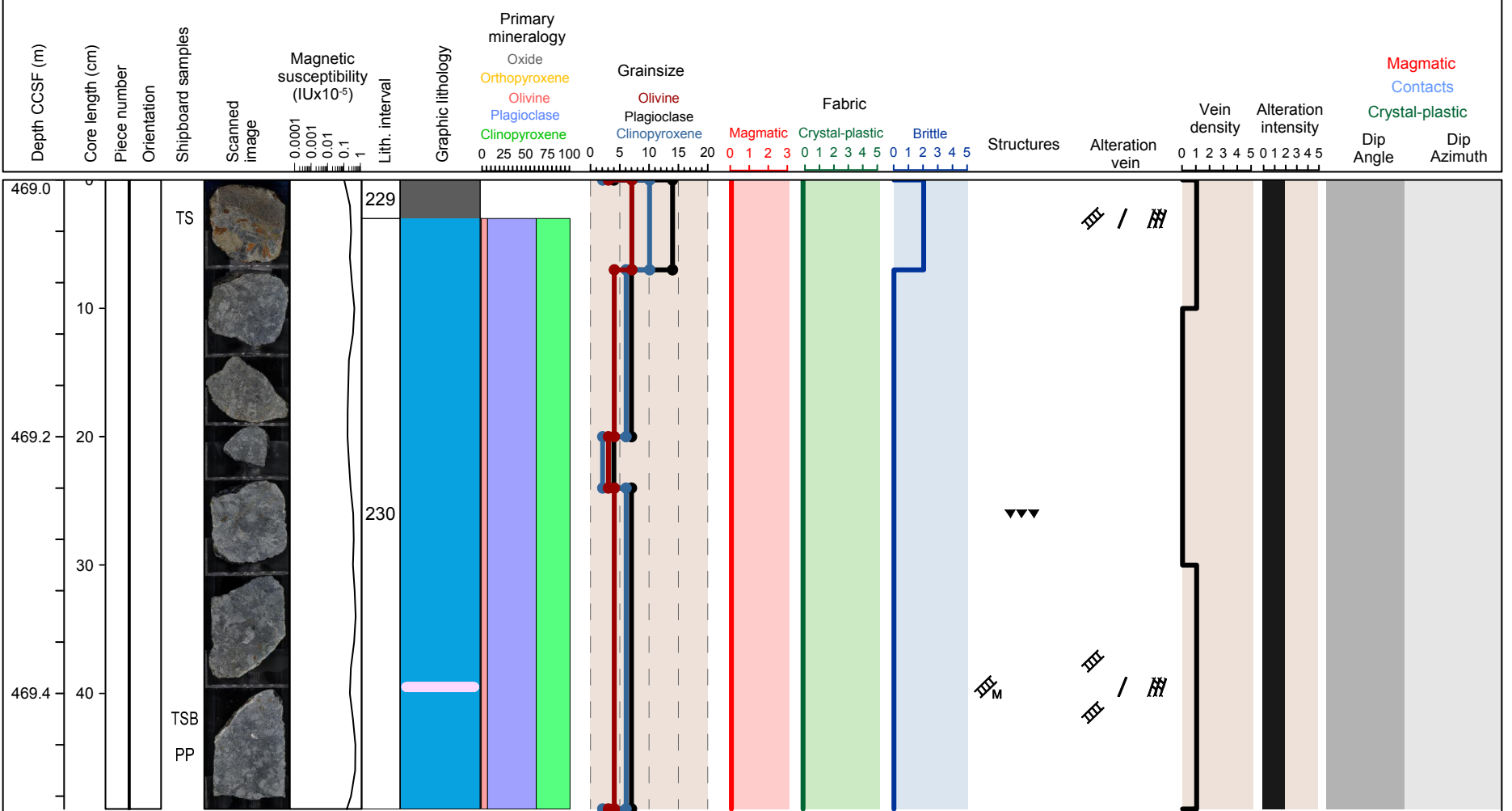


Hole 360-U1473A-52R Section 1, Top of Section: 469.0 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 230) and fine grained diabase intrusion (interval 229)

Metamorphic Petrology: Static background alteration intensity of this section is moderate. Heavy alteration occurred at the upper part of the section in association with veining.

Structural Geology: 1.7 cm wide foliated dike at the top of the section. Host rock is unfoliated and altered.

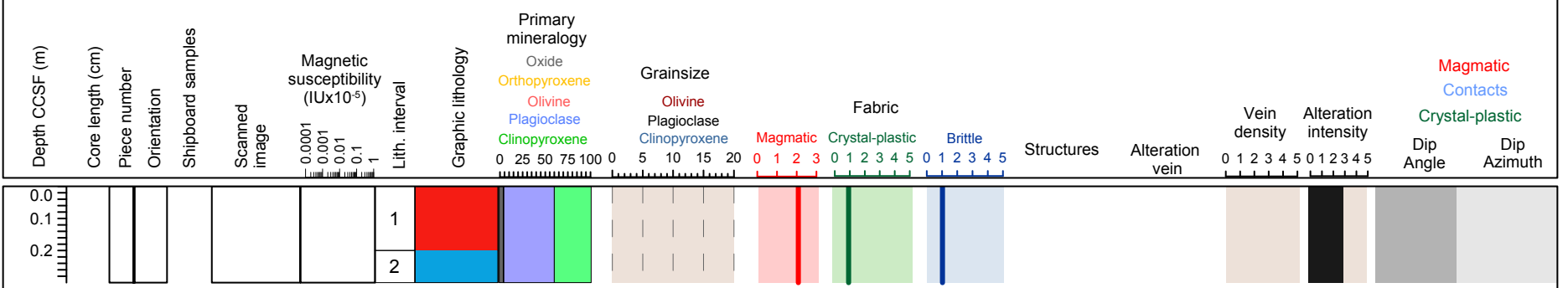


Hole 360-U1473A-Run12RCJB, 0-469.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Run12RCJB: 0-469.6

Metamorphic Petrology: Static background alteration intensity is substantial.

Structural Geology: The plagioclase has minor fractures.

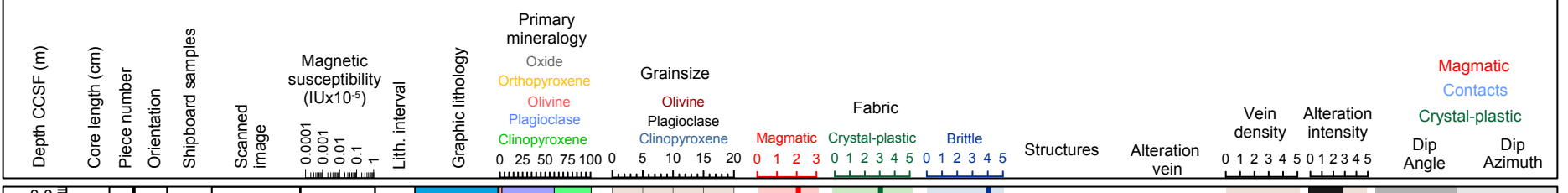


Hole 360-U1473A-Run13RCJB, 0-469.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Run13RCJB:0-469.6

Metamorphic Petrology: Static background alteration intensity is substantial. Plagioclase is conspicuously replaced by chlorite.

Structural Geology: Several pieces of fault breccia with a 50/50 ratio of matrix and clasts. The coble of gabbro has a weak crystal plastic fabric.

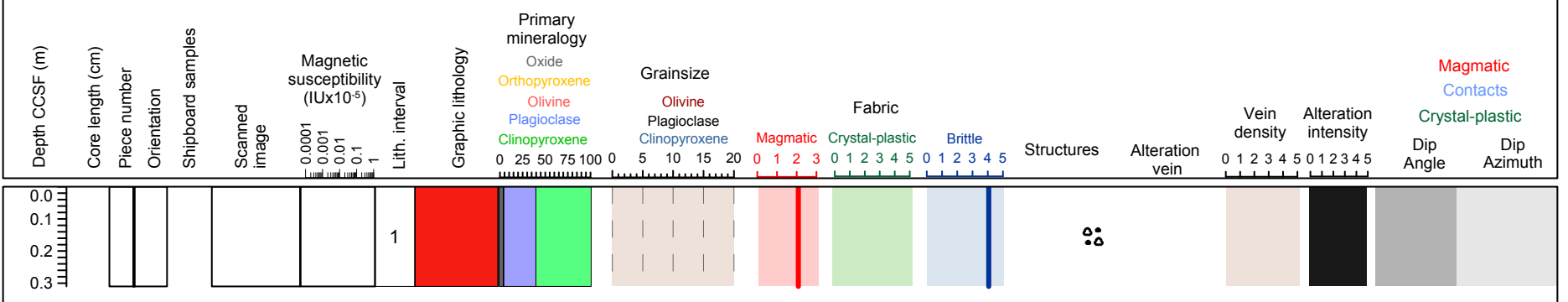


Hole 360-U1473A-Run15FMM, 0-481.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Run15FMM: 0-481.7

Metamorphic Petrology: Section is almost completely altered into mostly chlorite, amphibole and 2nd plagioclase.

Structural Geology: Fault breccia with a 30/70 clast to matrix ratio. Some of the pieces have slickensides.

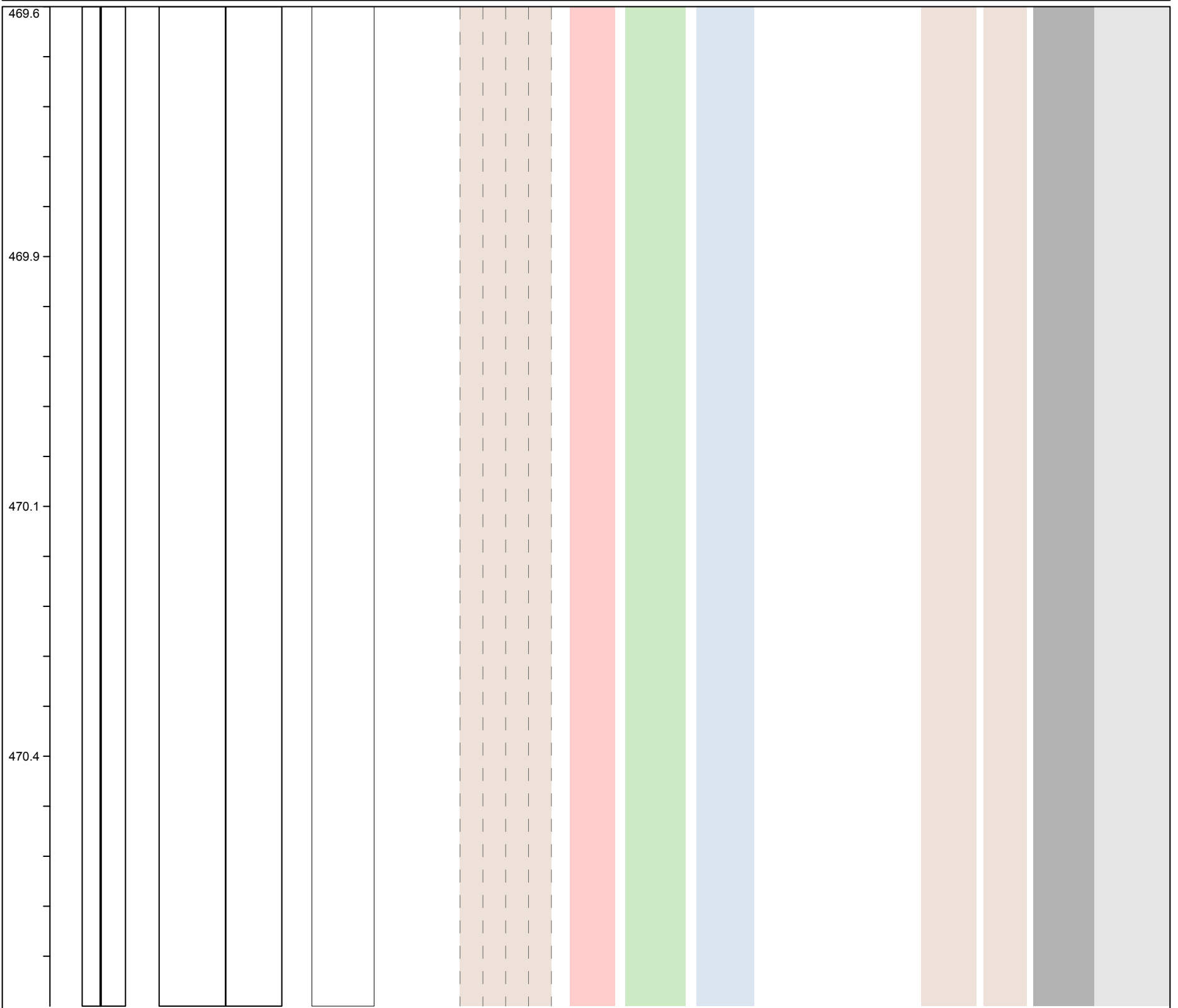
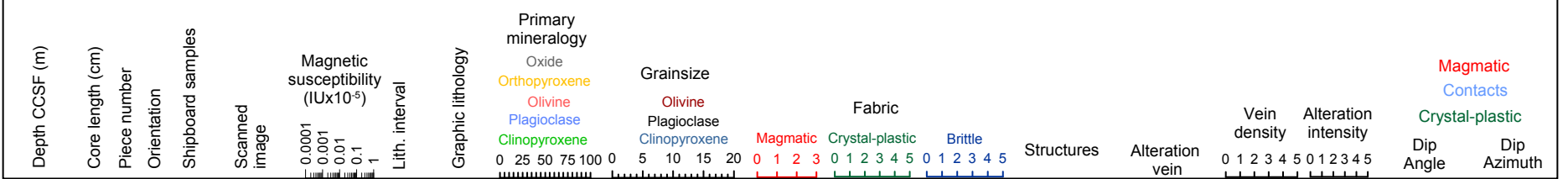


Hole 360-U1473A-53R Section 1, Top of Section: 469.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: No recovery

Metamorphic Petrology:

Structural Geology:

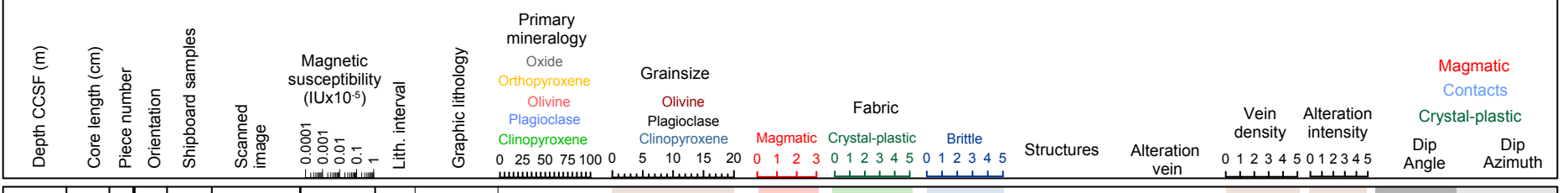


Hole 360-U1473A-54R Section 1, Top of Section: 470.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: No recovery

Metamorphic Petrology:

Structural Geology:

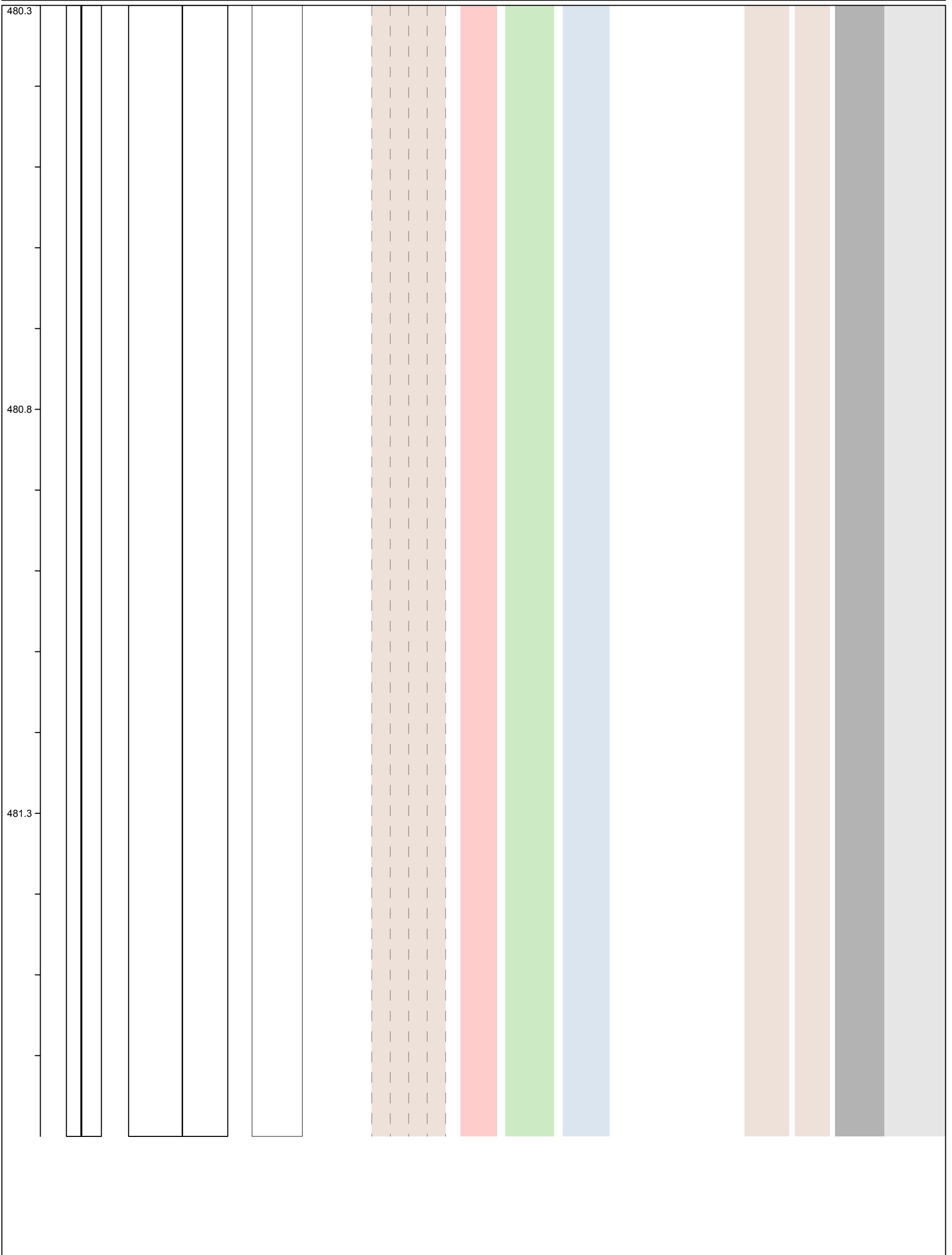
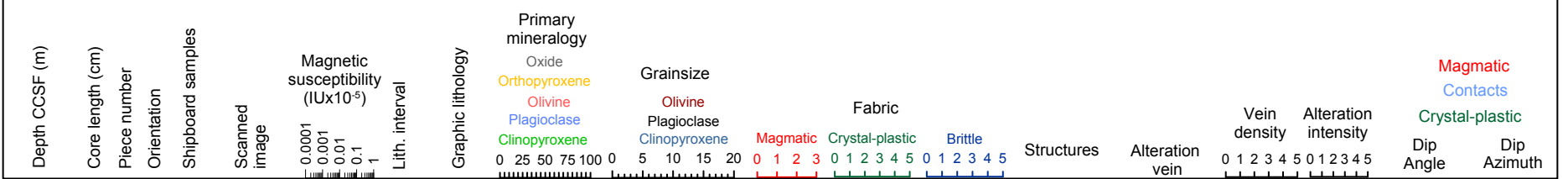


Hole 360-U1473A-55R Section 1, Top of Section: 480.3 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: No recovery

Metamorphic Petrology:

Structural Geology:

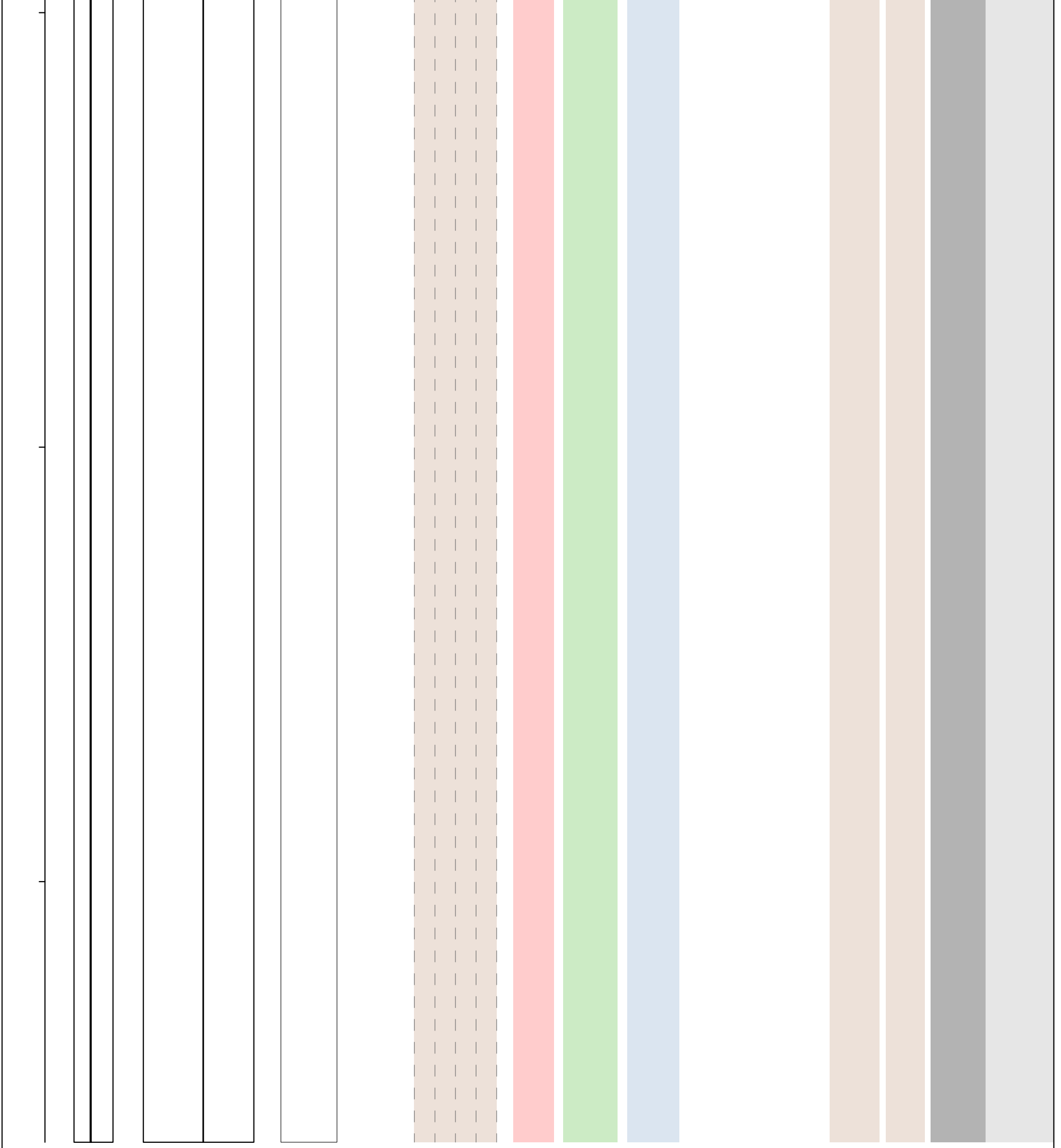
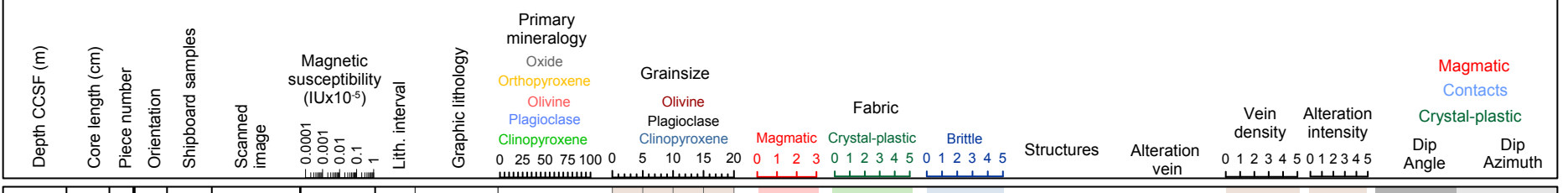


Hole 360-U1473A Core 561, Top of Section: 481.7 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: Drilled interval

Metamorphic Petrology:

Structural Geology:

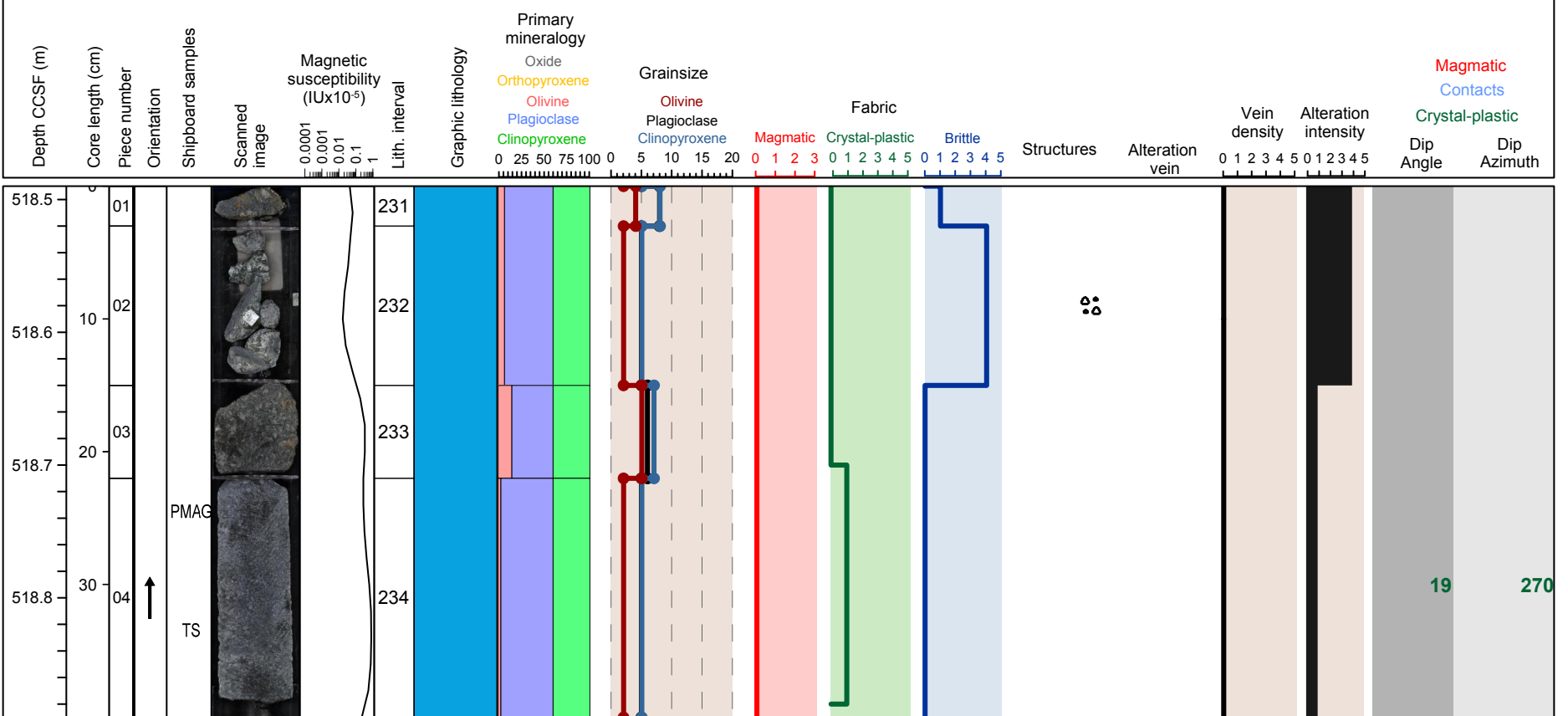


Hole 360-U1473A-57R Section 1, Top of Section: 518.45 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 231 and 233), cataclasite (interval 232) and medium grained granular olivine bearing gabbro (interval 234)

Metamorphic Petrology: The top part of the section is extensively altered while the bottom part is only slightly altered. Plagioclase is conspicuously replaced by chlorite in the top part of the section.

Structural Geology: Chlorite-rich breccia. Gabbro has a weak sub-horizontal crystal plastic fabric parallel to magmatic contact.

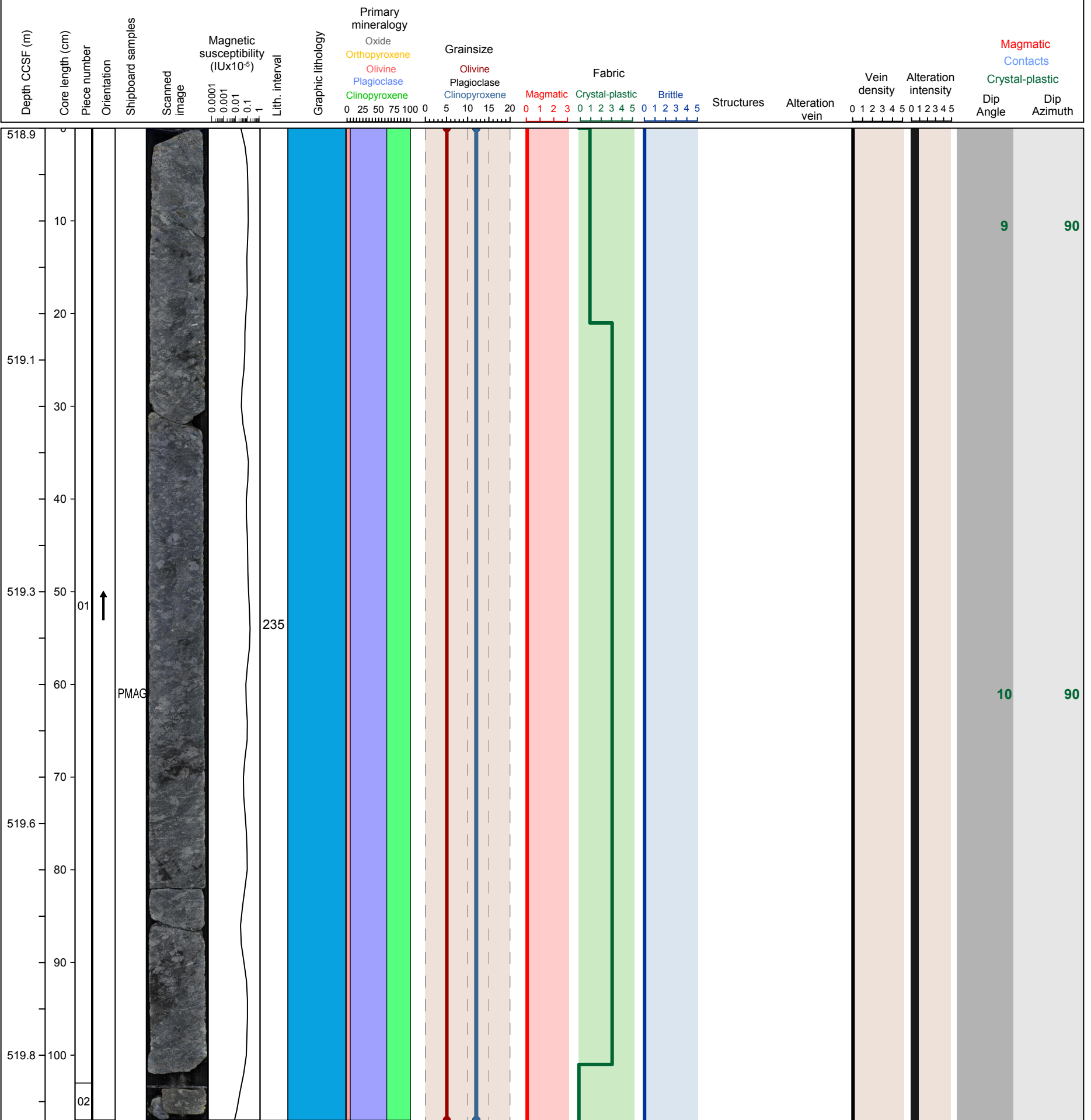


Hole 360-U1473A-58R Section 1, Top of Section: 518.85 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 235)

Metamorphic Petrology: Total background static alteration intensity is slight. Brownish clay minerals are locally abundant.

Structural Geology: The crystal plastic fabric is weak with a sub-horizontal dip. There are slickenlines with a steep rake at 102 cm.

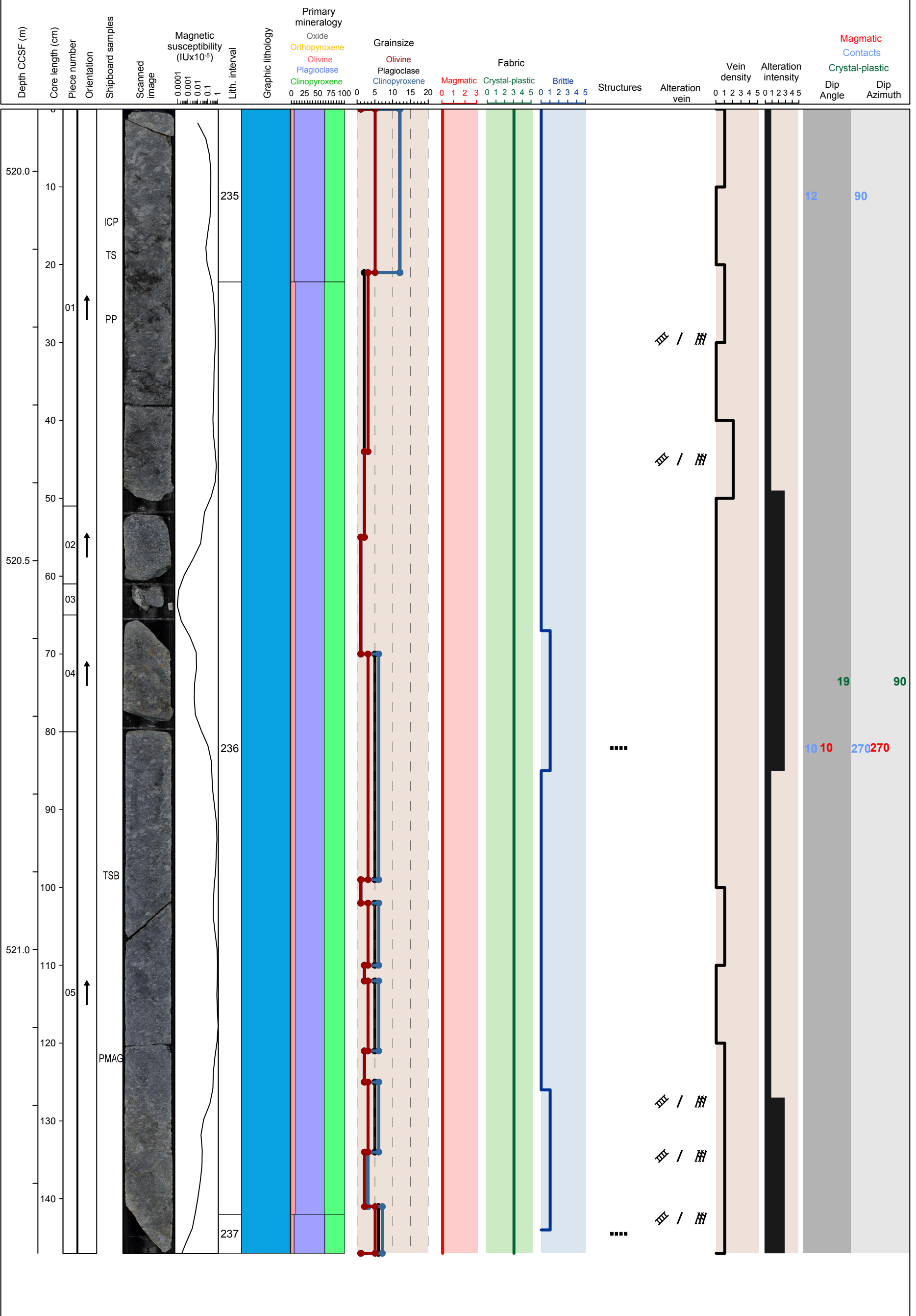


Hole 360-U1473A-58R Section 2, Top of Section: 519.92 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 235 and 237) and medium grained subophitic olivine gabbro (interval 236)

Metamorphic Petrology: Total background static alteration is slight to substantial. Intensely altered parts with significant amounts of brown clays could be wide halos due to heavy veining.

Structural Geology: There is patchy grain size variation. There are slickenlines with a moderate rake at 67 cm.

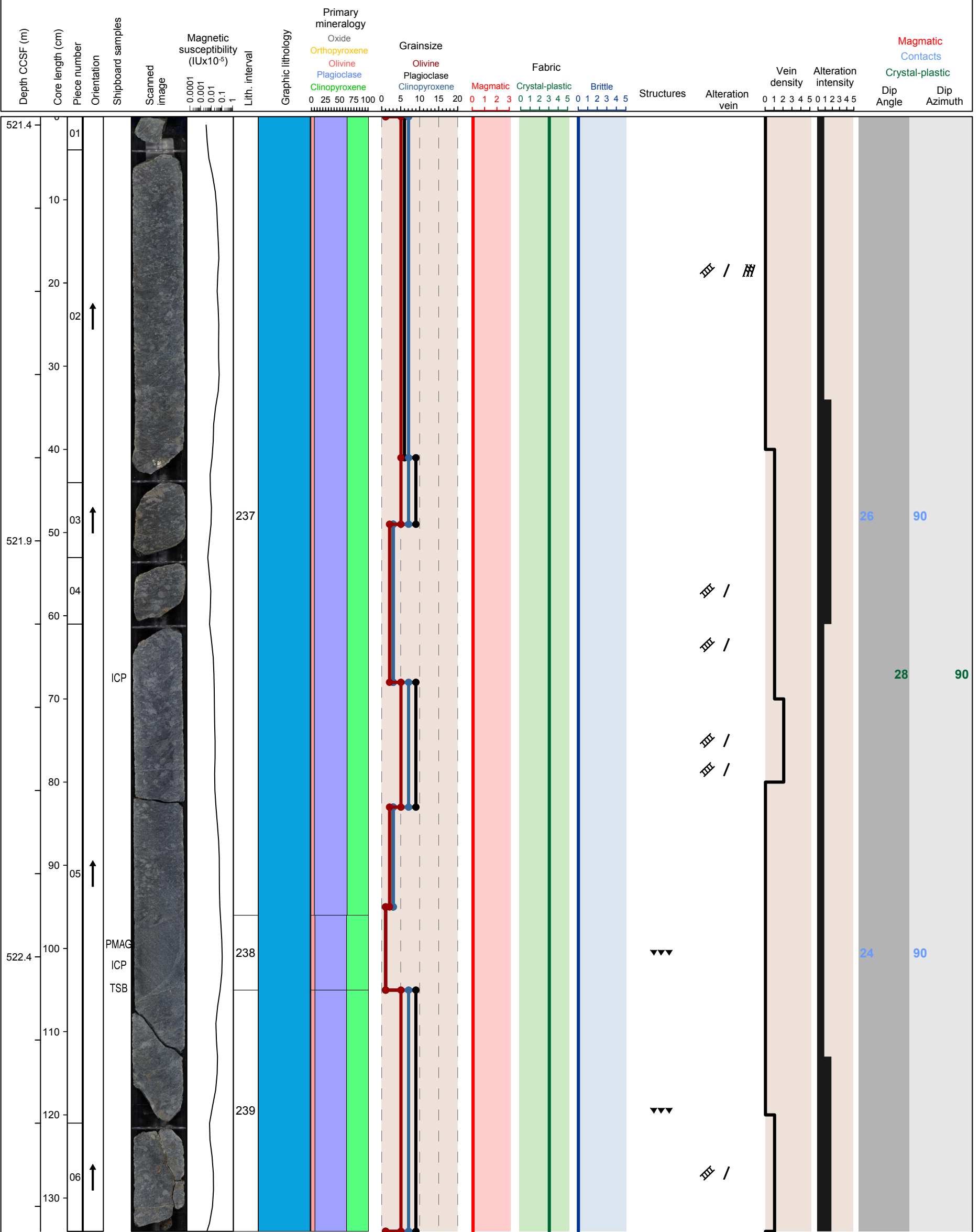


Hole 360-U1473A-58R Section 3, Top of Section: 521.39 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 237 and 239) and fine grained granular olivine gabbro (interval 238)

Metamorphic Petrology: Static background alteration intensity of this section is slight to moderate. Moderately altered parts contain relative amount of clay.

Structural Geology: There is patchy grain size variation. The finer grained intervals have a stronger crystal plastic fabric.

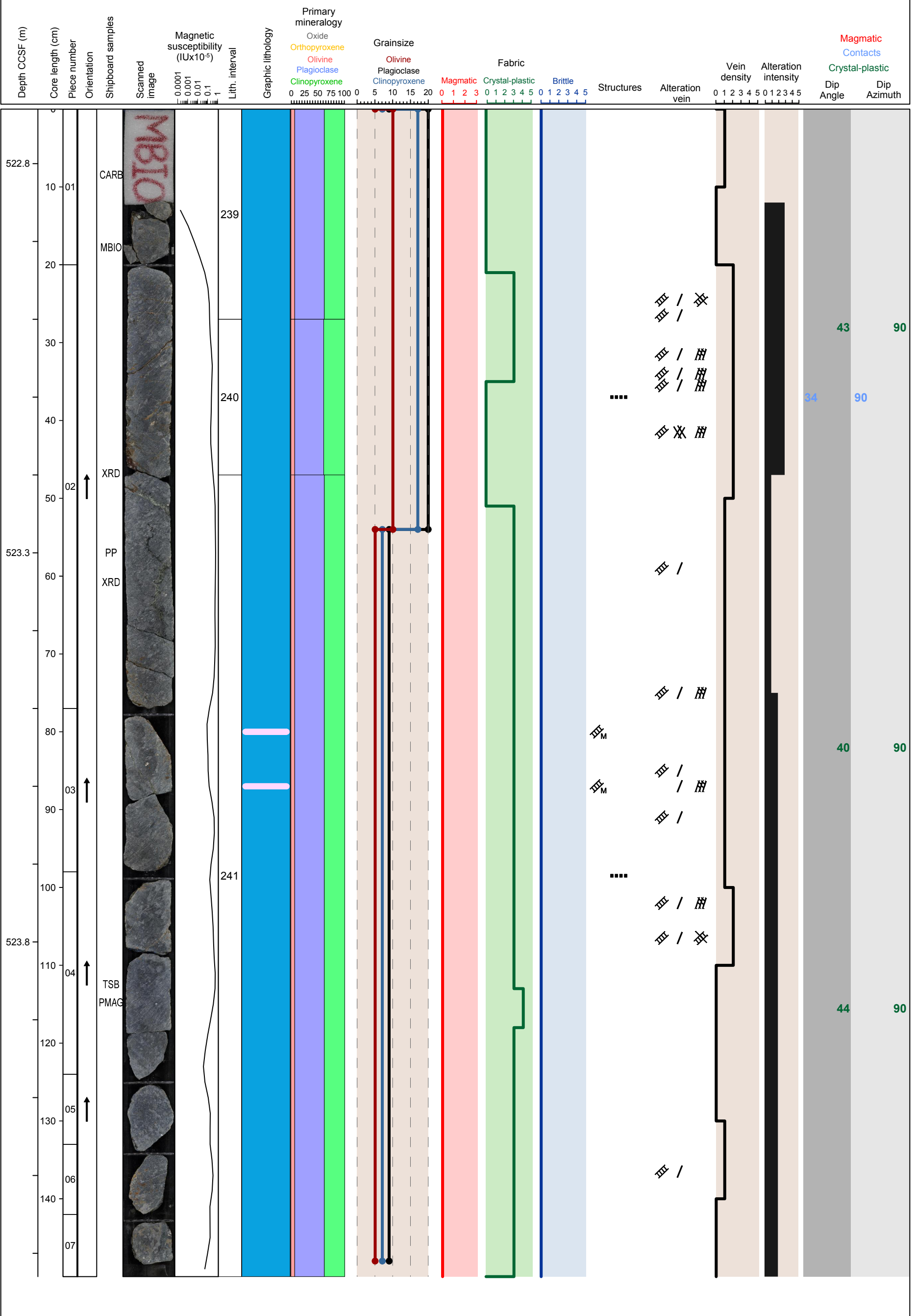


Hole 360-U1473A-58R Section 4, Top of Section: 522.73 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 239 and 241) and fine grained granular olivine gabbro (interval 240)

Metamorphic Petrology: Static background alteration intensity of this section is slight to substantial. More intense alteration are associated with veins.

Structural Geology: Moderate crystal plastic fabric with moderate dip. Millimeter thick shear band cuts crystal plastic fabric at 113 cm. Slickenlines at 80 cm.

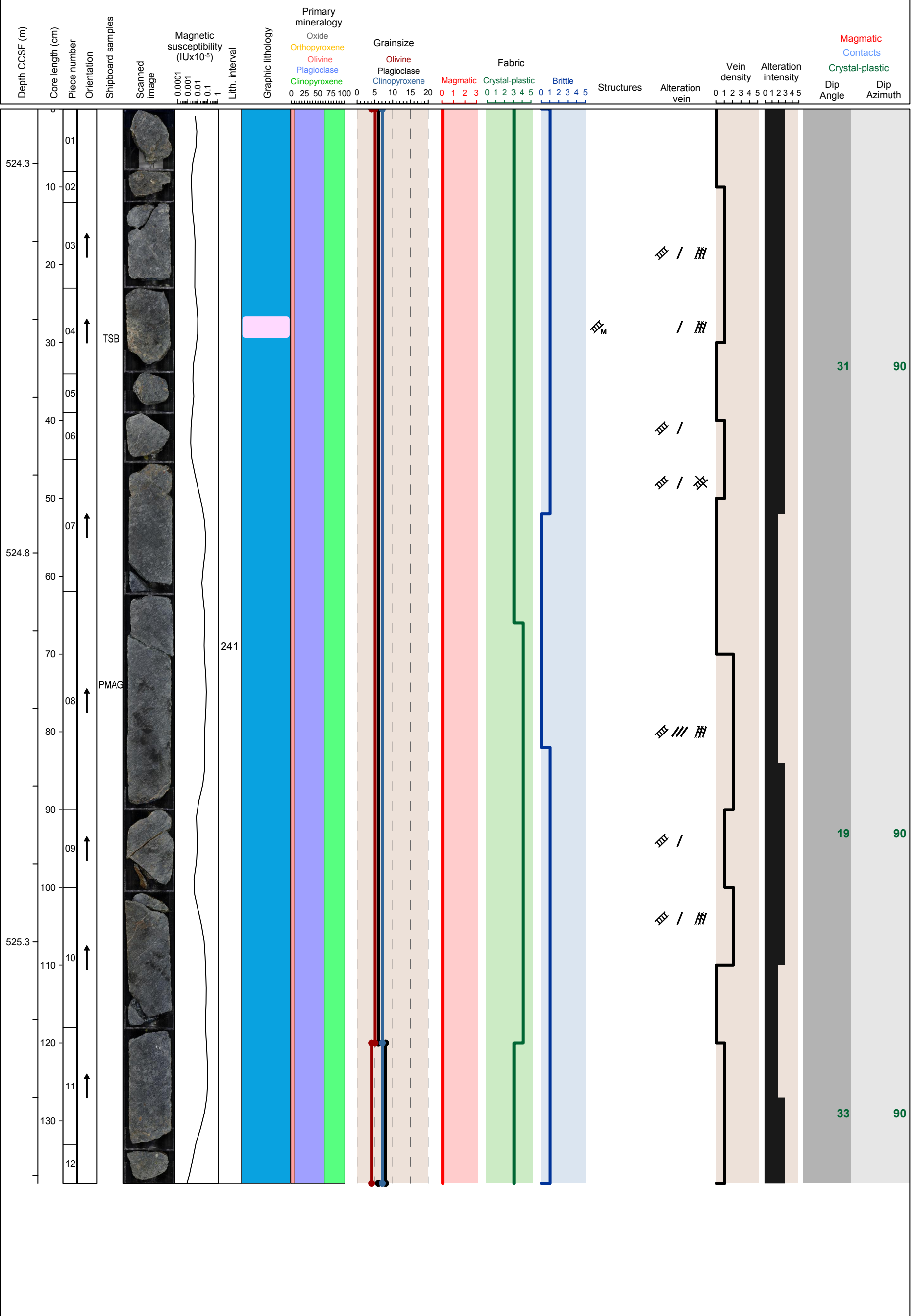


Hole 360-U1473A-58R Section 5, Top of Section: 524.23 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 241)

Metamorphic Petrology: Static background alteration intensity of this section ranges from slight to moderate. More intensely altered part is associated with the more heavily veined part of the section.

Structural Geology: Moderately dipping mylonite zone crosscut by mm-thick shear band.

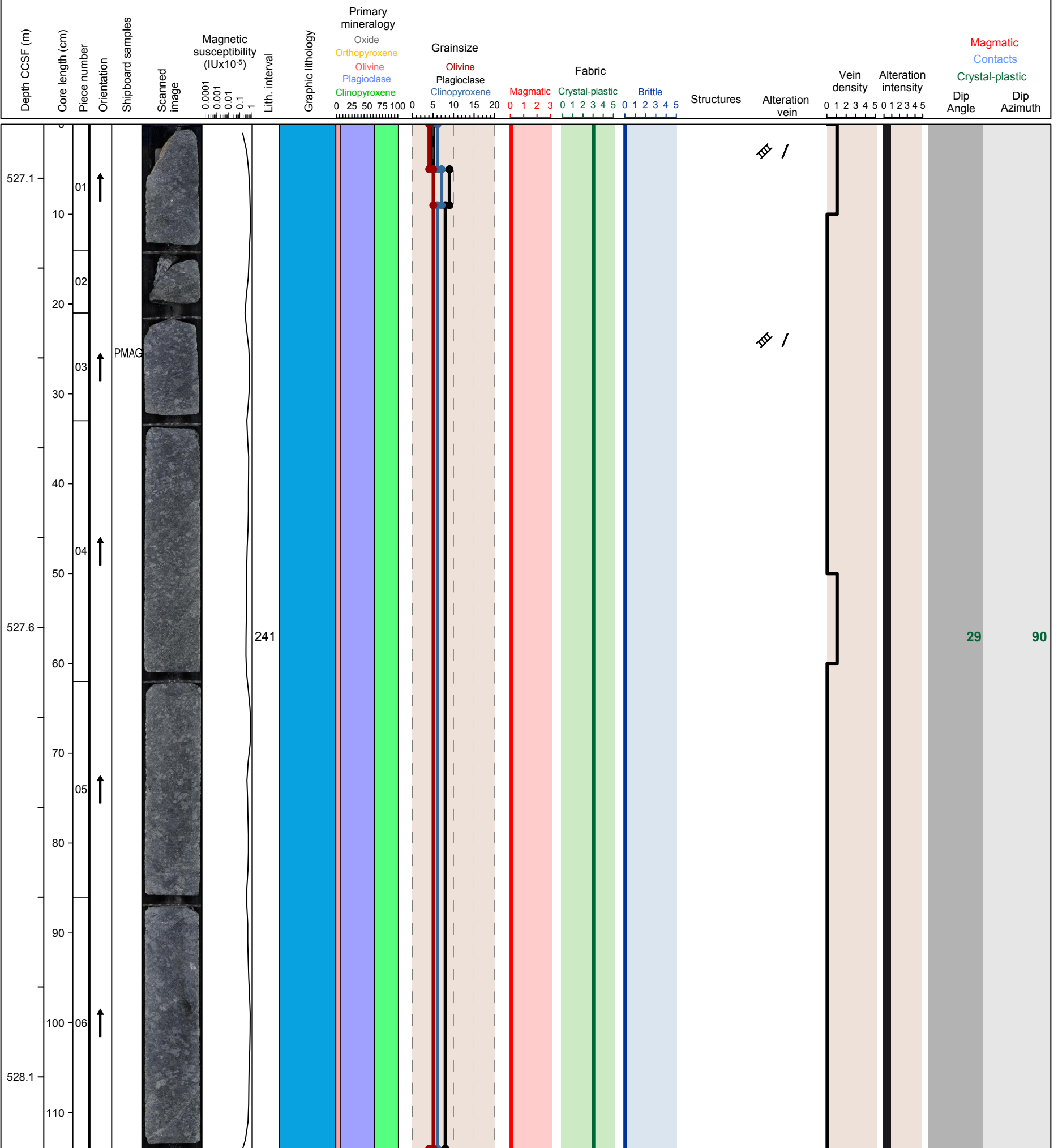


Hole 360-U1473A-58R Section 7, Top of Section: 527.04 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 241)

Metamorphic Petrology: Static background alteration intensity of this section is slight.

Structural Geology: The crystal plastic fabric is better developed in the finer grained intervals and have a moderate dip. There are mm-thick shear bands at 68 and 93 cm.

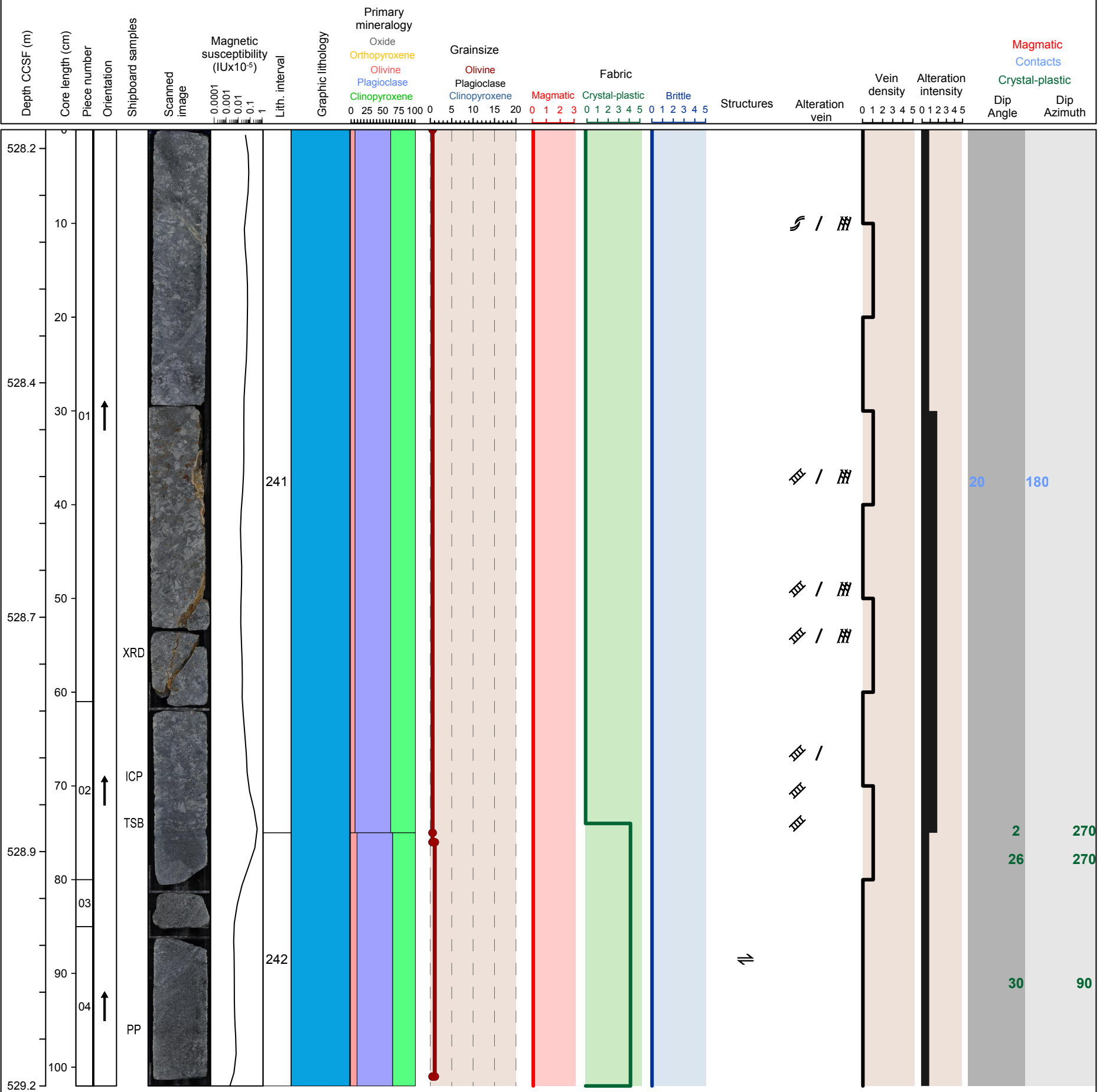


Hole 360-U1473A-58R Section 8, Top of Section: 528.18 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 241) and fine grained granular olivine gabbro (interval 242)

Metamorphic Petrology: Static background alteration intensity of this section ranges from slight to moderate. More intense alteration is associated with carbonate vein halos.

Structural Geology: Moderate to shallowly dipping ultramylonite forms the boundary between coarser grained on top and finer grained on bottom at 74 cm. Carbonate veins are moderately to steeply dipping.

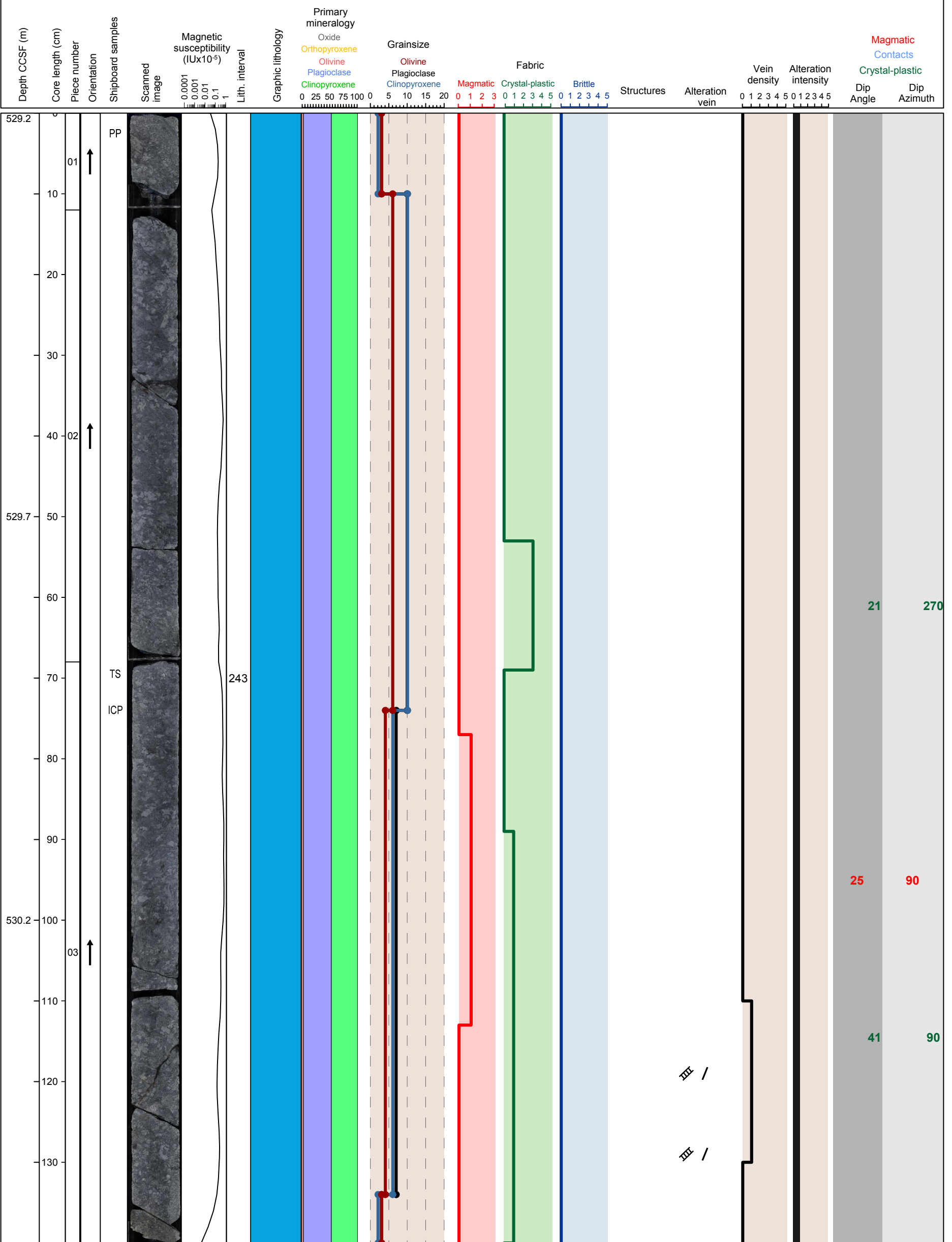


Hole 360-U1473A-59R Section 1, Top of Section: 529.2 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine bearing gabbro (interval 243)

Metamorphic Petrology: Static background alteration intensity of this section is slight.

Structural Geology: Weak magmatic fabric defined by plagioclase. Crystal plastic fabric is weak and moderately dipping. Slickensides at 136 cm.

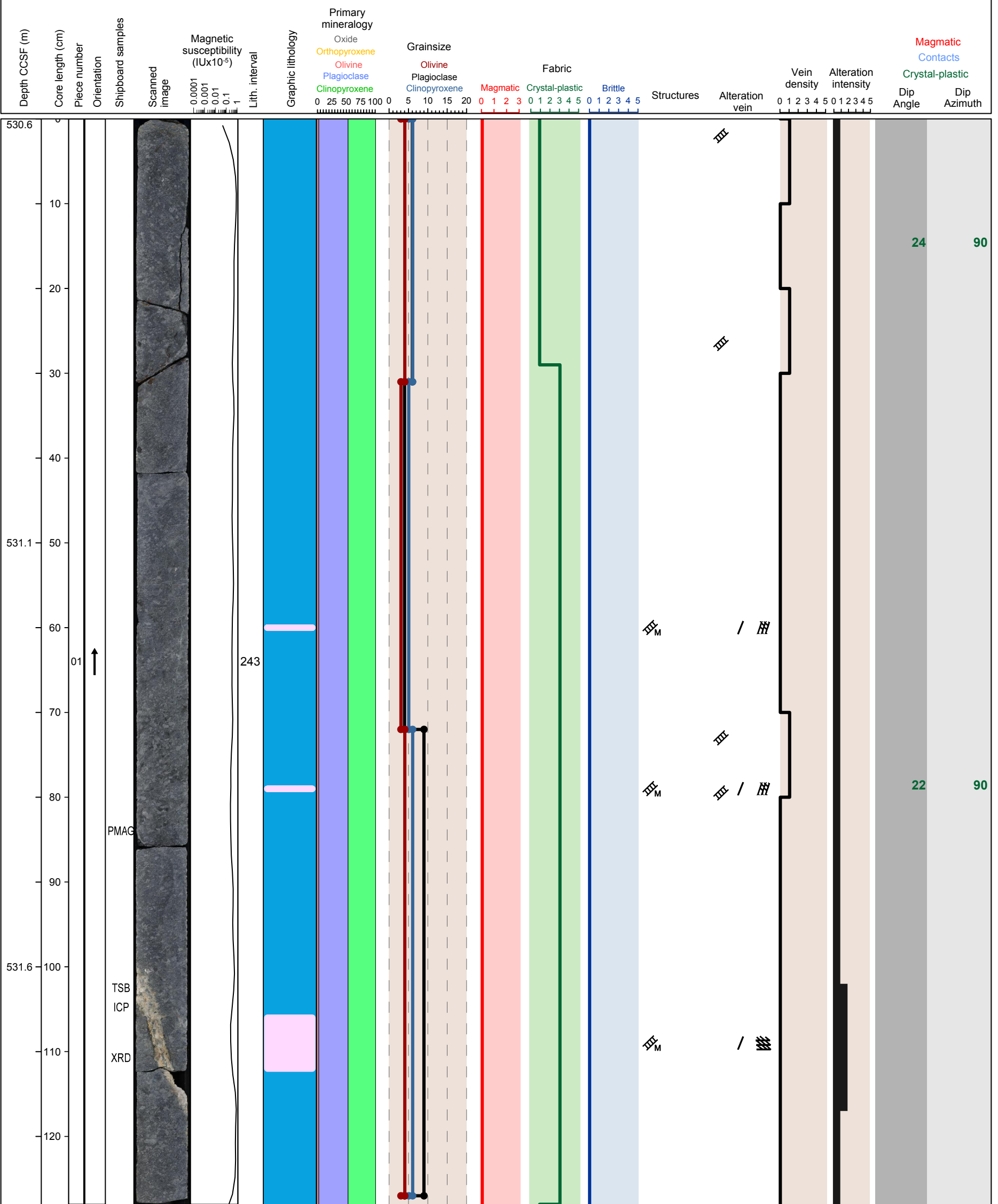


Hole 360-U1473A-59R Section 2, Top of Section: 530.6 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine bearing gabbro (interval 243)

Metamorphic Petrology: Static background alteration intensity of this section is mostly slight. Moderately alteration occur at vein halos.

Structural Geology: The crystal plastic fabric is variably developed in alternating intervals.

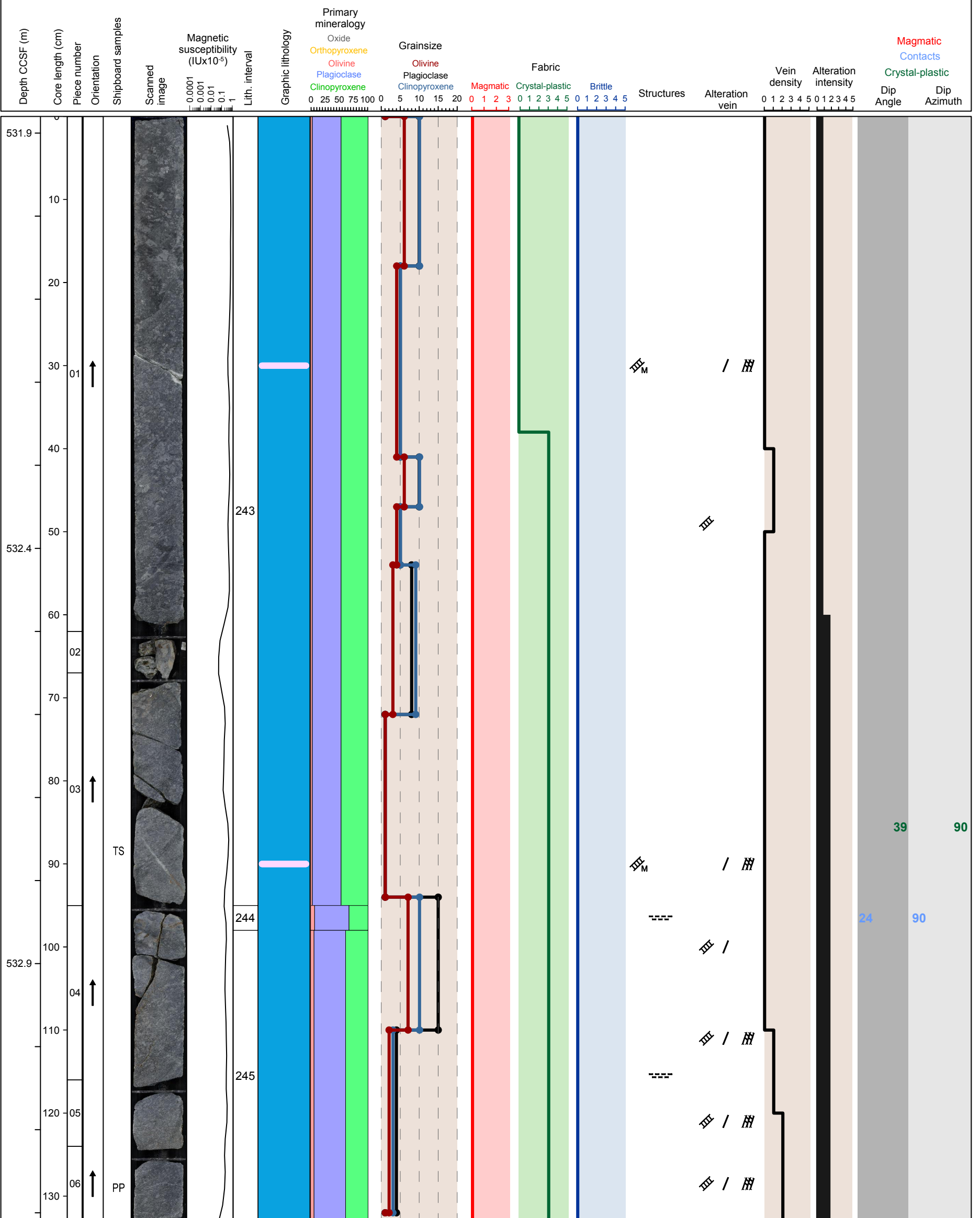


Hole 360-U1473A-59R Section 3, Top of Section: 531.88 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine bearing gabbro (interval 243), coarse grained subophitic olivine gabbro (interval 244) and medium grained granular olivine gabbro (interval 245)

Metamorphic Petrology: Static background alteration intensity ranges from slight to moderate. Moderate alteration occurs in vein halos.

Structural Geology: Moderately developed, moderately dipping crystal plastic fabric.

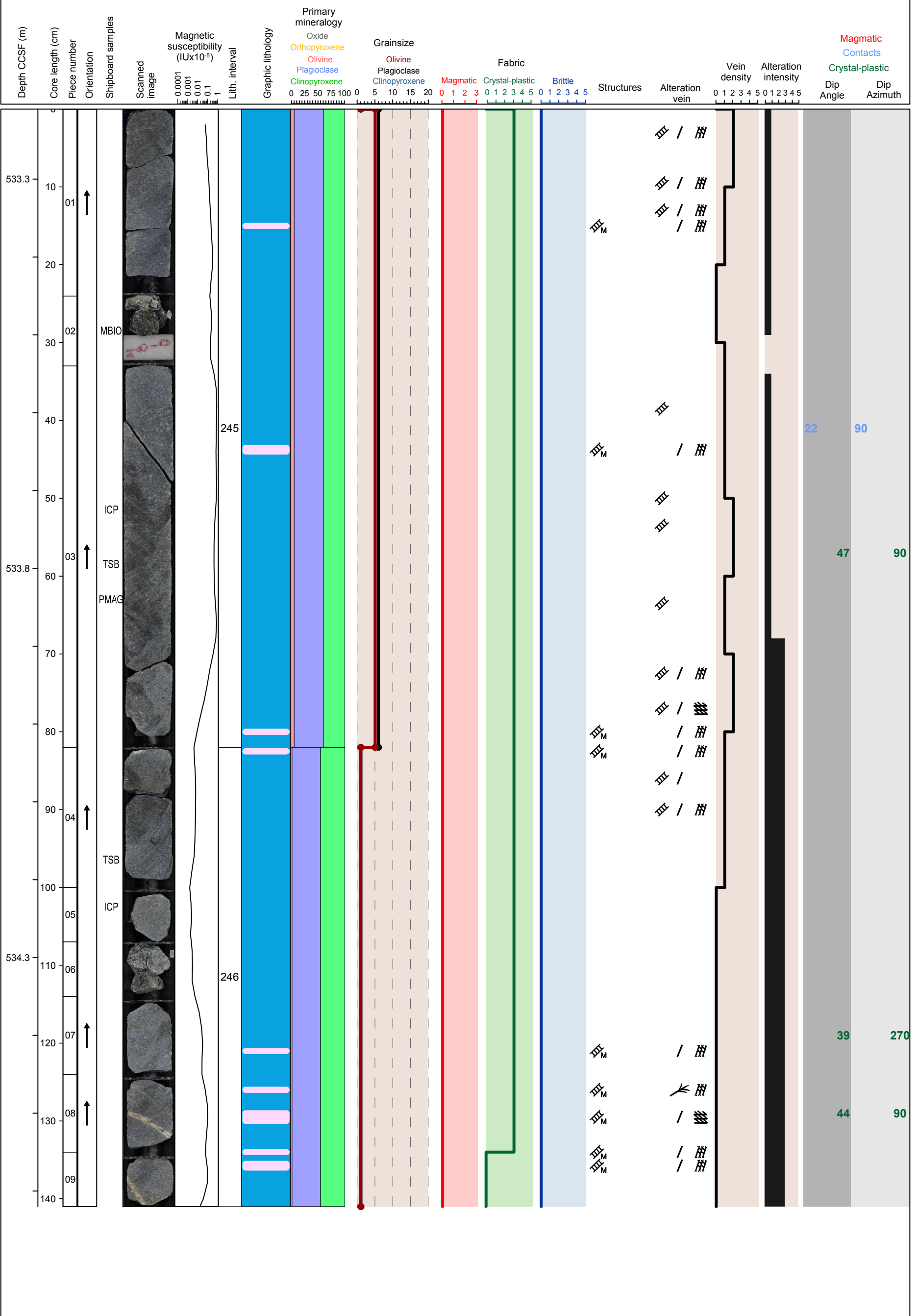


Hole 360-U1473A-59R Section 4, Top of Section: 533.21 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 245) and medium grained granular olivine bearing gabbro (interval 246)

Metamorphic Petrology: Static background alteration intensity is mostly slight. The bottom part is moderately altered due to relatively denser veining.

Structural Geology: Finer grained domains with a shallow and weak crystal plastic fabric.

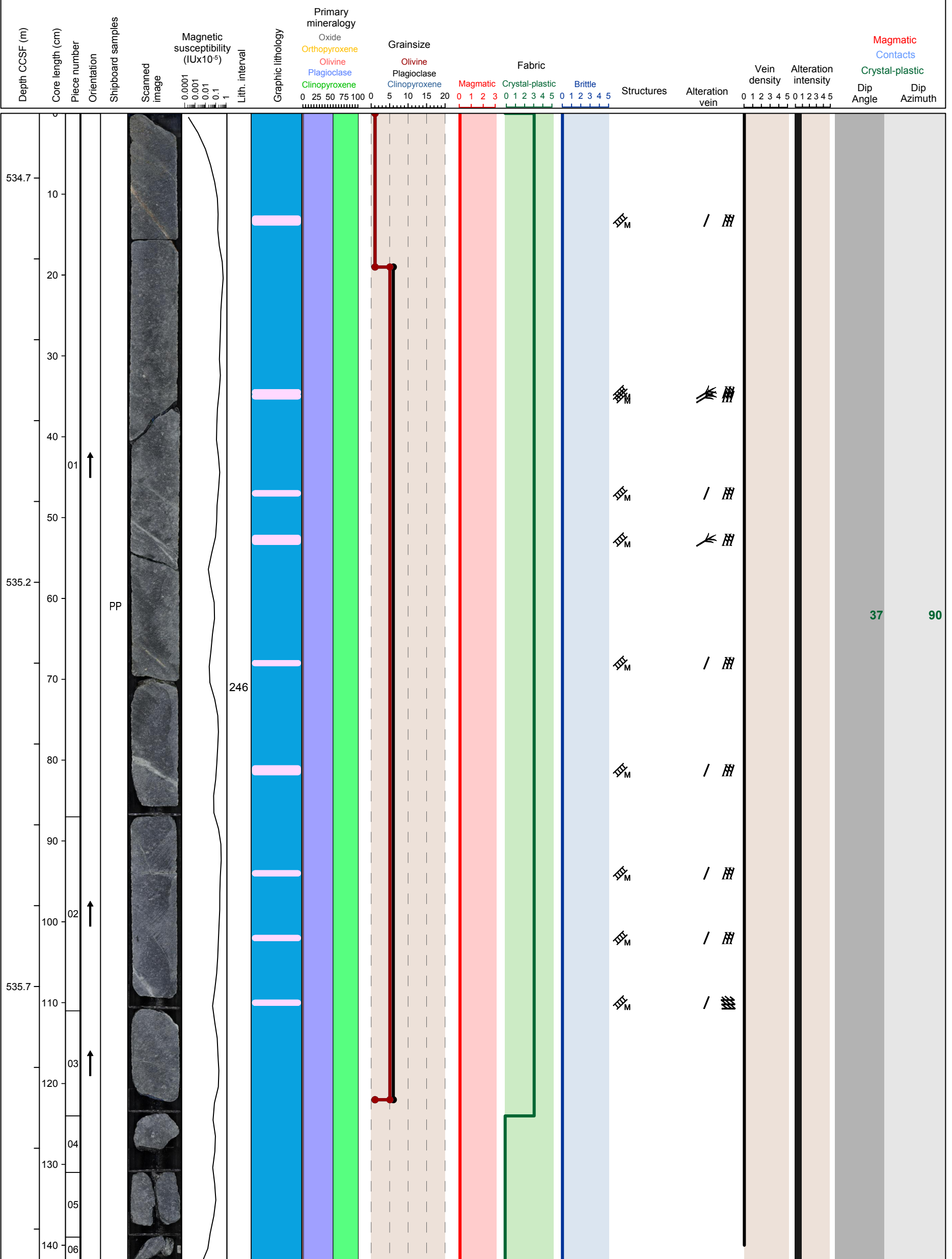


Hole 360-U1473A-59R Section 5, Top of Section: 534.62 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine bearing gabbro (interval 246)

Metamorphic Petrology: Static background alteration intensity of this section is slight.

Structural Geology: The crystal plastic fabric is weak in alternating intervals. Slickenlines with steep rakes at 56 and 70 cm.

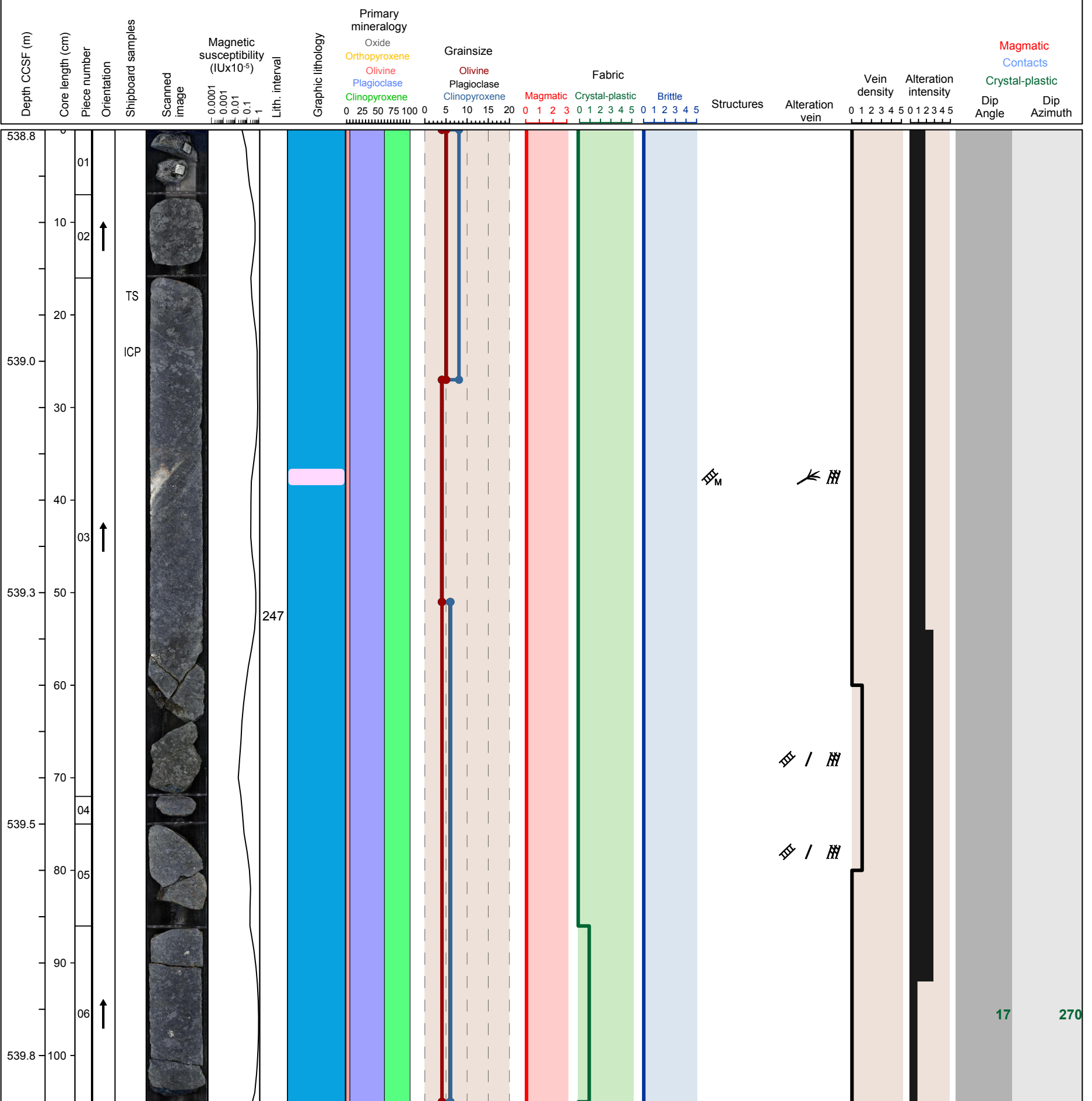


Hole 360-U1473A-60R Section 1, Top of Section: 538.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 247)

Metamorphic Petrology: Static background alteration intensity of the core is heterogeneous. Most of the core is characterized by chlorite replacement on plagioclase.

Structural Geology: Grain size variations.

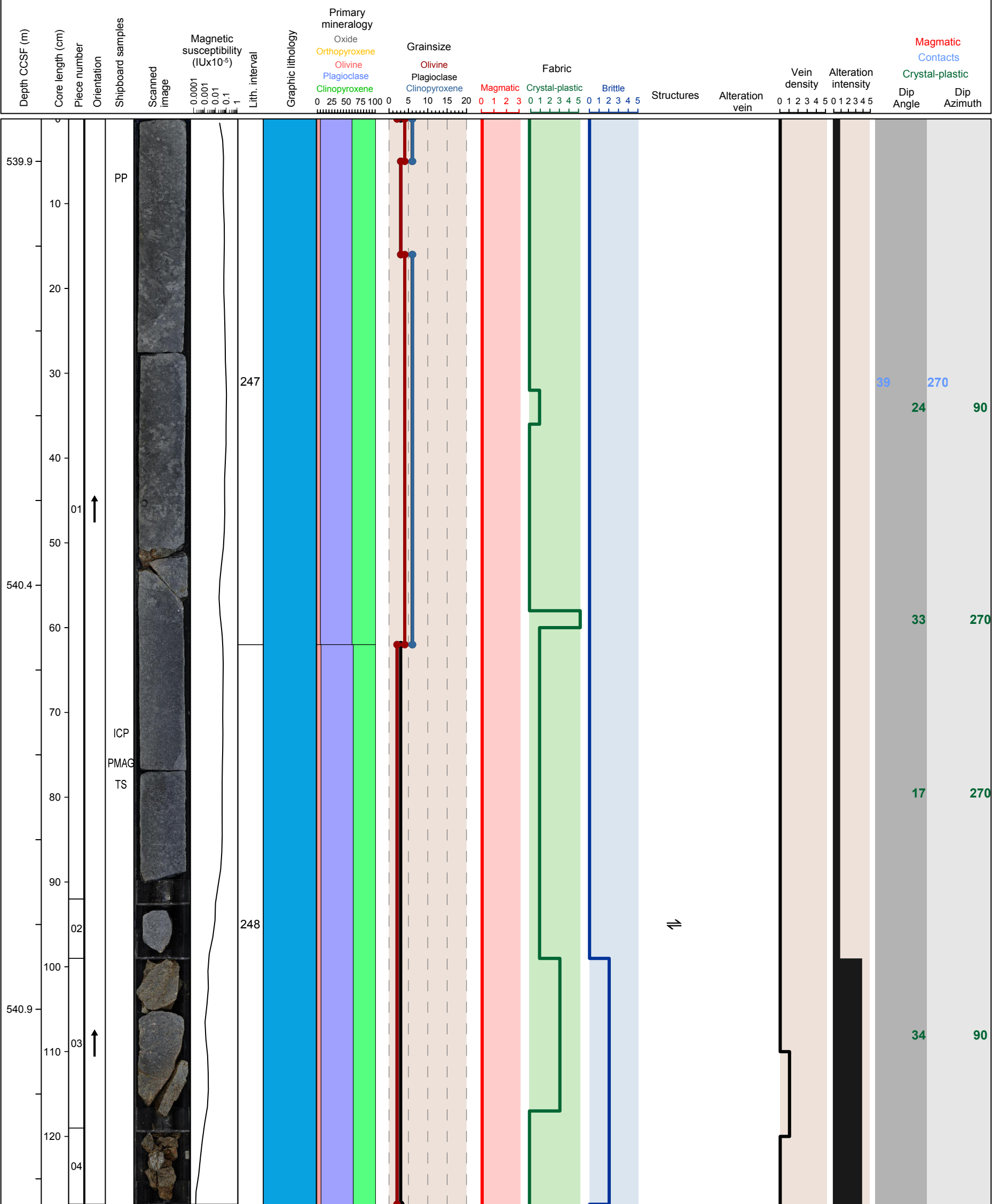


Hole 360-U1473A-60R Section 2, Top of Section: 539.85 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 247) and medium grained granular olivine gabbro (interval 248)

Metamorphic Petrology: Section is mostly only slightly altered. Bottom part is extensively altered into mostly reddish clays.

Structural Geology: Grain size variations.

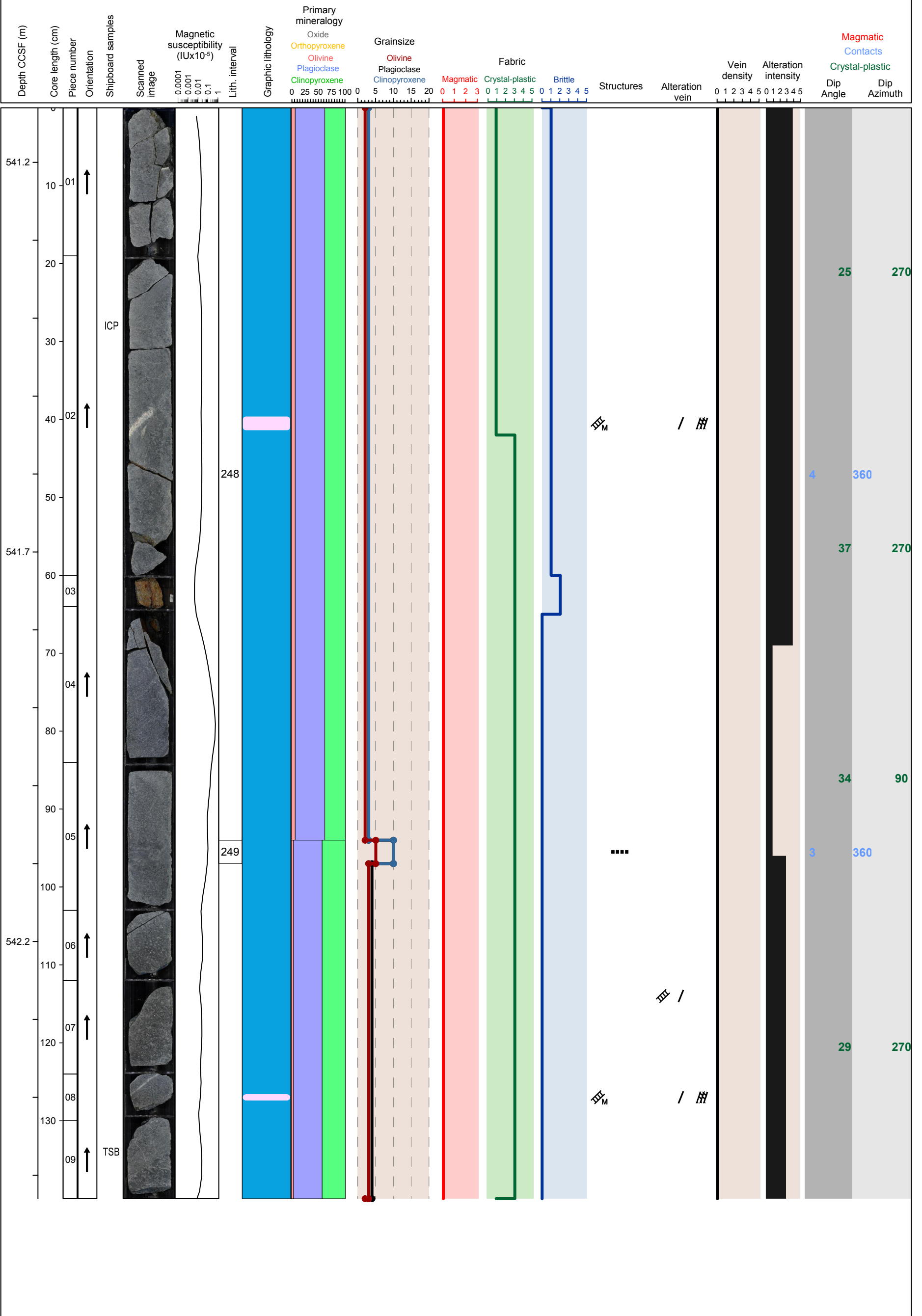


Hole 360-U1473A-60R Section 3, Top of Section: 541.13 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 248) and coarse grained subophitic olivine bearing gabbro (interval 249)

Metamorphic Petrology: Section is heterogeneously altered, ranging from slight to extensive. Chlorite replacement is conspicuous in this section.

Structural Geology: Amphibole shear band with a reverse sense of shear at 137 cm. Slickenlines at 4, 14, and 106 cm with shallow to steep rakes.

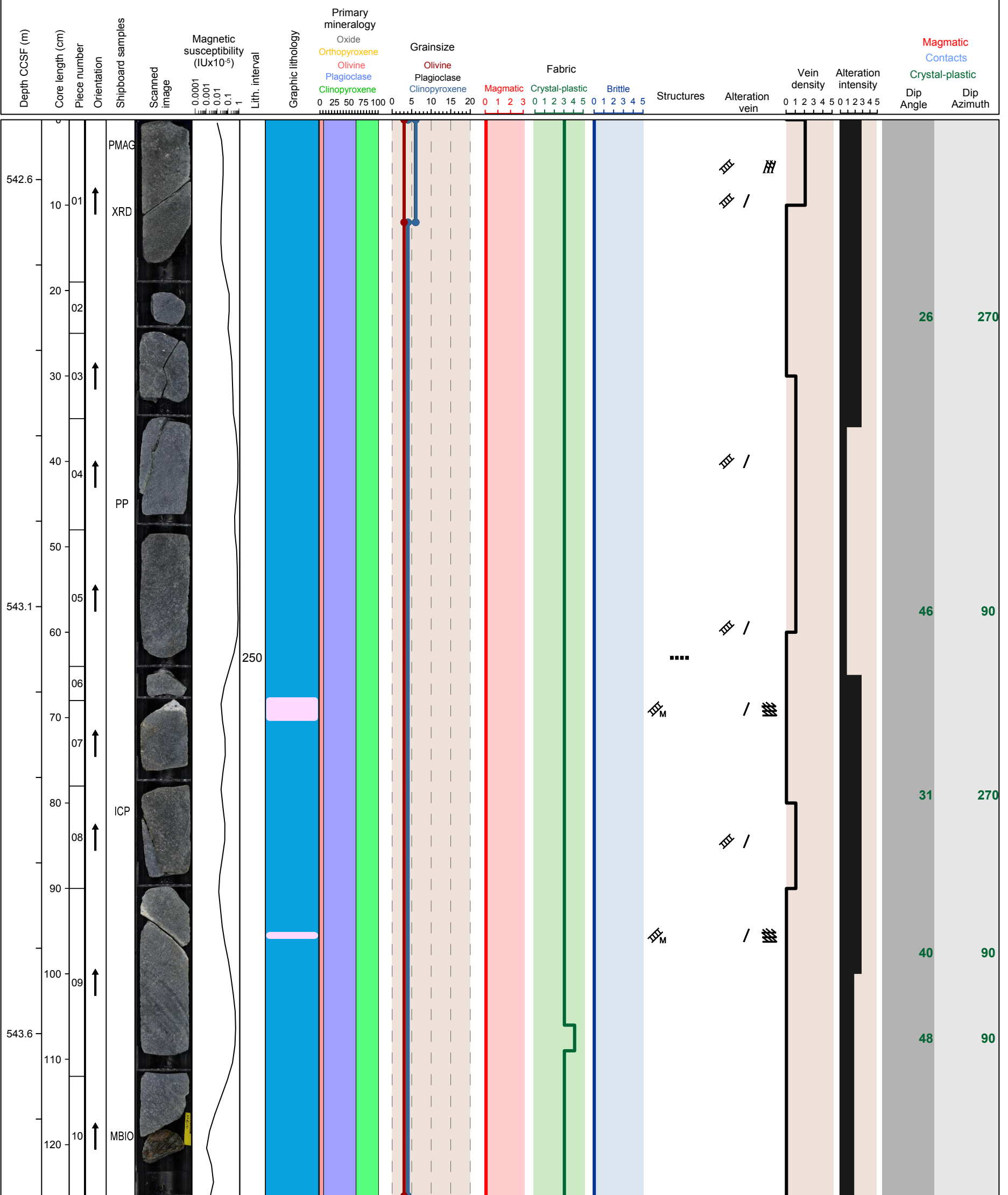


Hole 360-U1473A-60R Section 4, Top of Section: 542.53 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 250)

Metamorphic Petrology: Static background alteration intensity ranges from slight to substantial. Substantial alteration is associated with intense chlorite replacement.

Structural Geology: Moderate to steep crystal plastic fabric. Slickenlines at 92, 97, and 120 cm with moderate rakes.

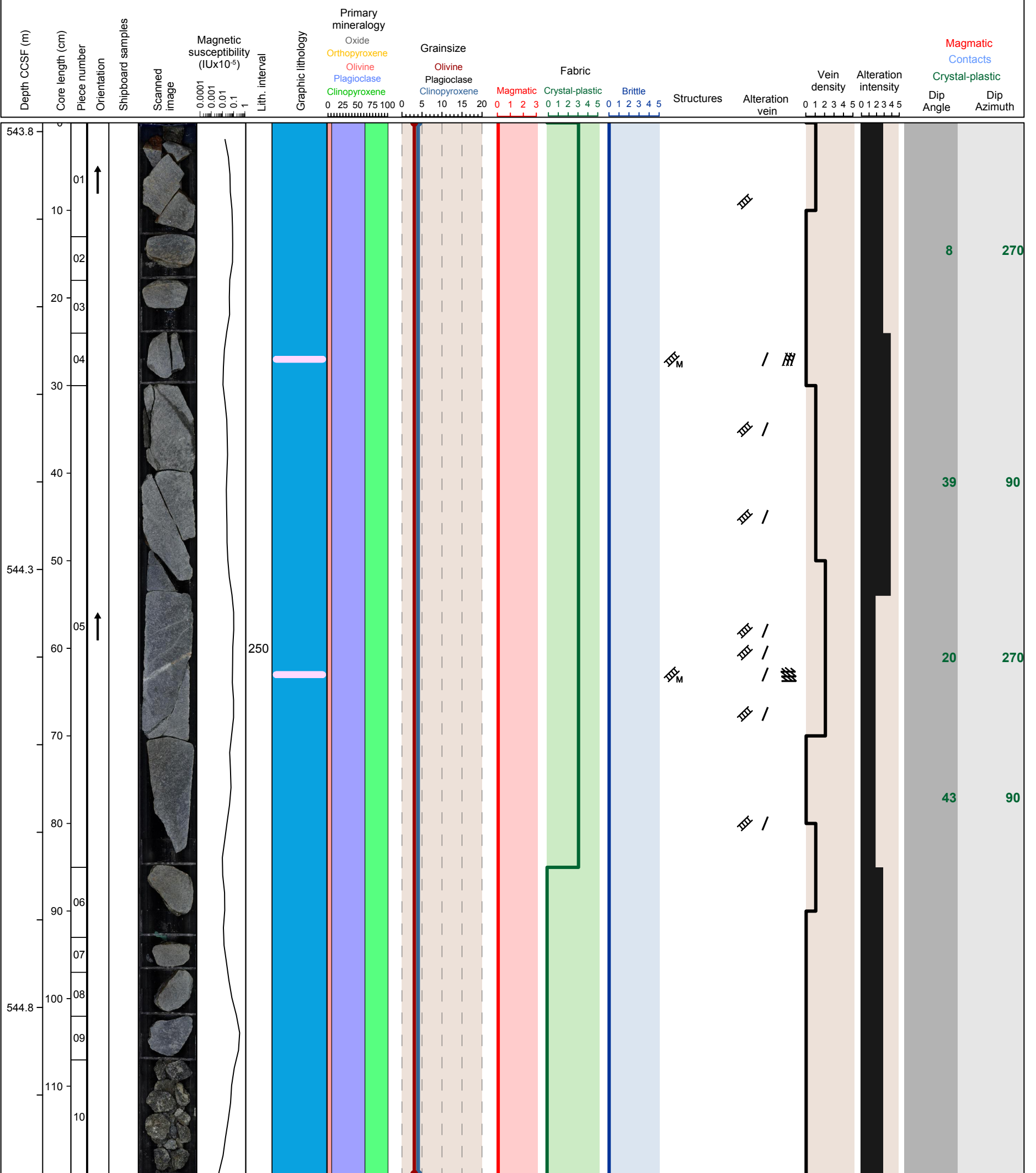


Hole 360-U1473A-60R Section 5, Top of Section: 543.79 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 250)

Metamorphic Petrology: Static background alteration intensity of this section varies from slight to substantial. Interval of intense alteration is associated with chlorite replacement.

Structural Geology: Patchy moderate to steeply dipping crystal plastic fabrics. Slickenlines at 32, 45, 52, 66, 70, and 76 cm with shallow to steep rakes.

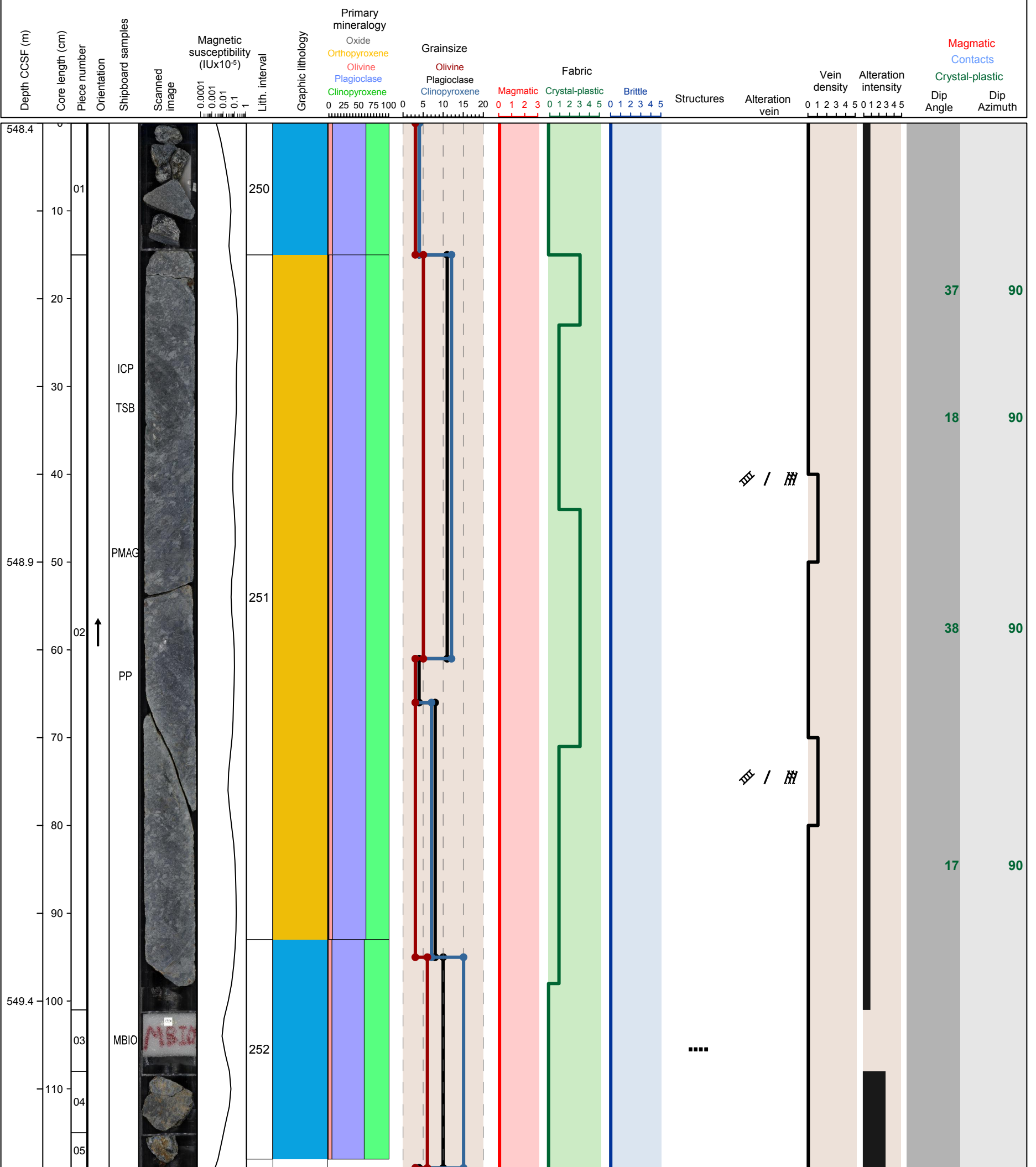


Hole 360-U1473A-61R Section 1, Top of Section: 548.4 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine gabbro (interval 250), coarse grained subophitic disseminated oxide olivine gabbro (interval 251) and coarse grained granular olivine gabbro (interval 252)

Metamorphic Petrology: Total static alteration intensity is slight to substantial. Brown clay is abundant near the bottom of section. A halo with intense alteration occurs.

Structural Geology: Fine grained gabbro with moderately dipping, weak crystal plastic fabric. Slickensides at 72 cm with a steep rake.

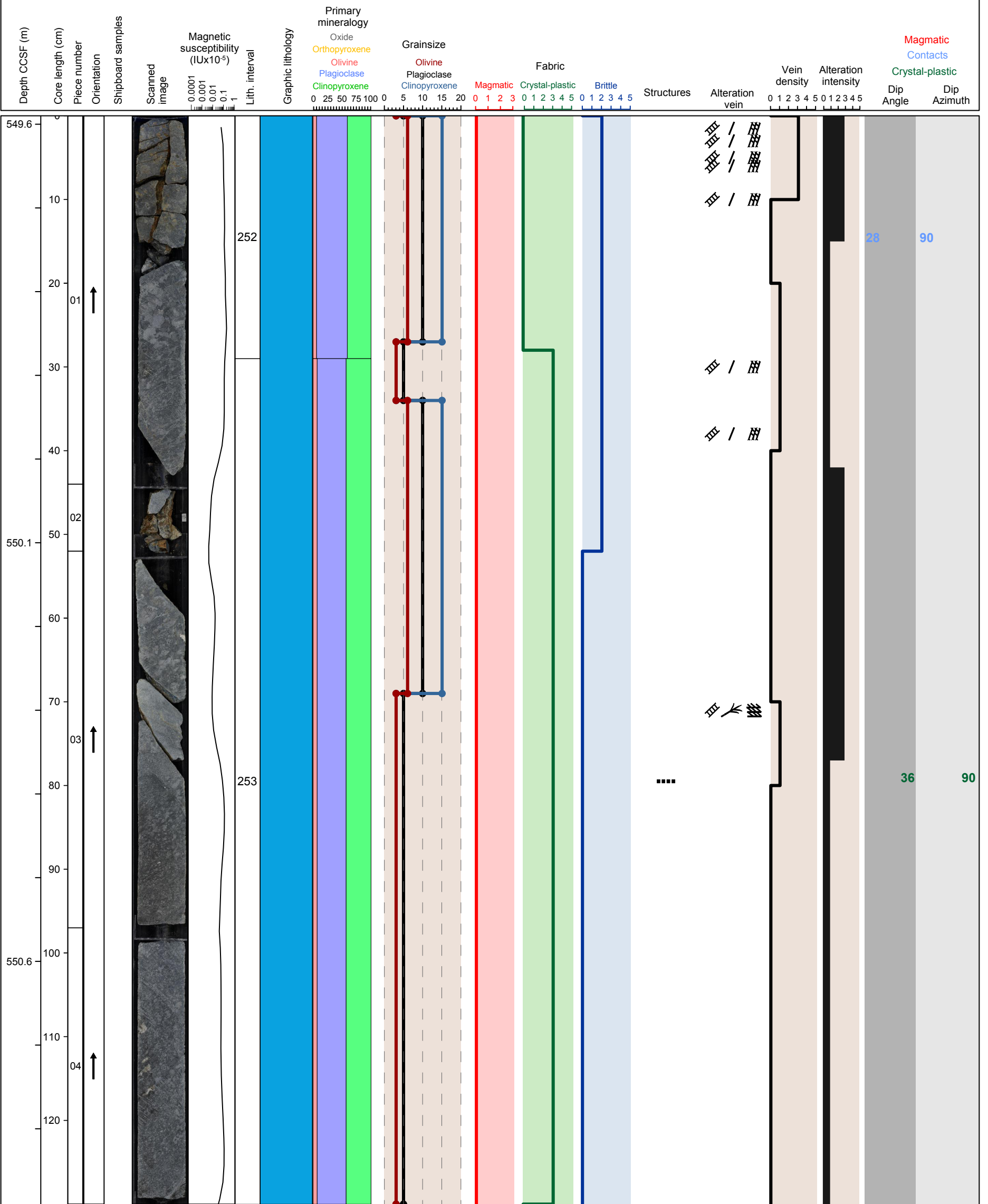


Hole 360-U1473A-61R Section 2, Top of Section: 549.59 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 252 and 253)

Metamorphic Petrology: Static alteration intensity is slight to substantial. Intensely altered parts are vein halos.

Structural Geology: Grain size variations overprinted by moderately to shallowly dipping porphyroclastic crystal plastic foliation better developed in finer grained rocks. Slickenlines at 1, 2, 38, and 56 cm with steep rakes.

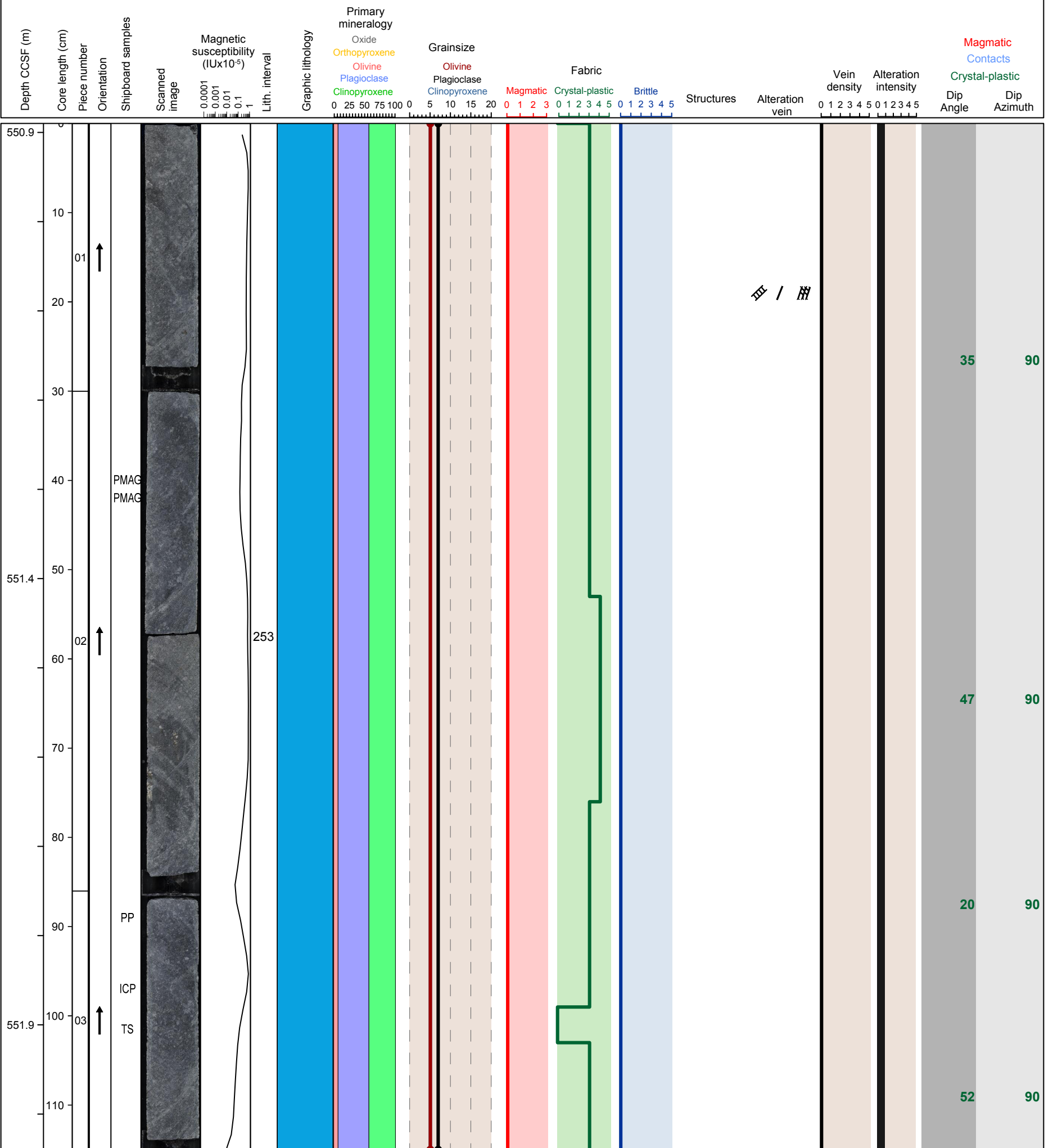


Hole 360-U1473A-61R Section 3, Top of Section: 550.89 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 253)

Metamorphic Petrology: Static background alteration intensity is slight.

Structural Geology: Porphyroclastic foliation. High angle chlorite vein which crosscuts crystal plastic fabric.

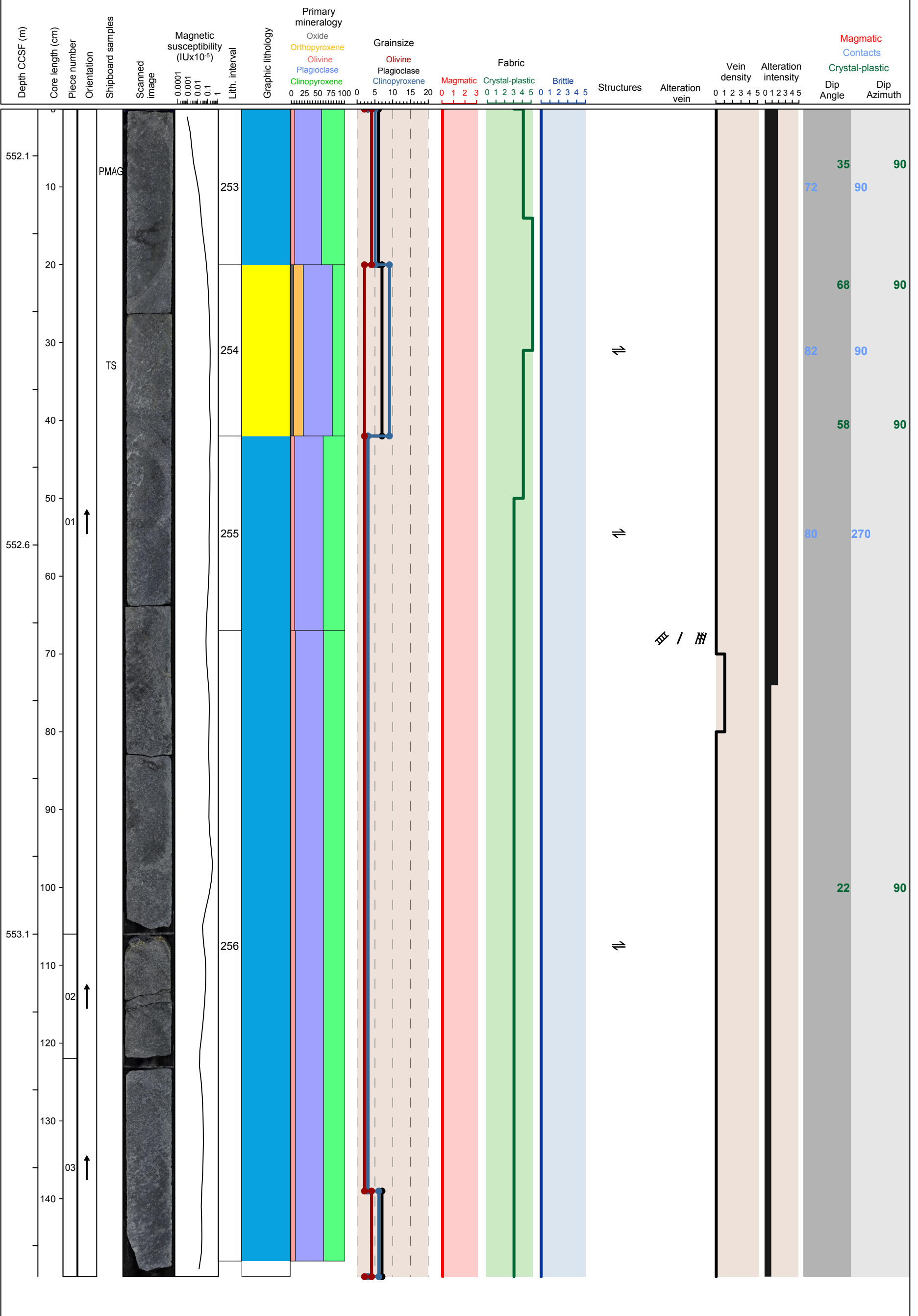


Hole 360-U1473A-61R Section 4, Top of Section: 552.04 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 253 and 256), coarse grained granular oxide gabbro (interval 254) and medium grained granular olivine gabbro (interval 255)

Metamorphic Petrology: Static background alteration intensity of the section ranges from slight to moderate.

Structural Geology: 7 cm thick ultramylonite in contact with coarse-grained, leucocratic mylonite crosscutting finer grained, less deformed gabbro. Contact between fine and coarse grained gabbro is sheared at 133 cm.

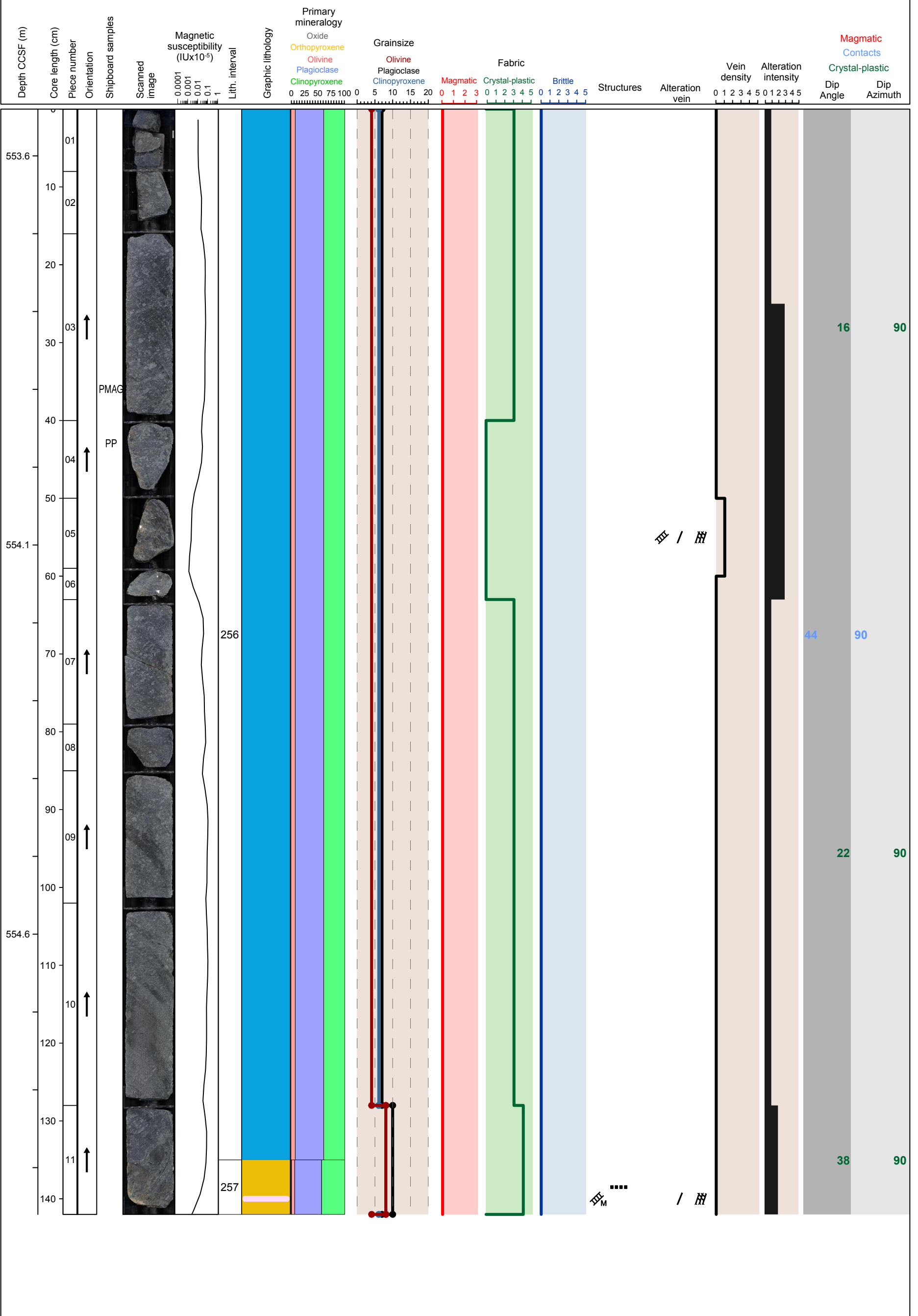


Hole 360-U1473A-61R Section 5, Top of Section: 553.54 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 256) and coarse grained granular disseminated oxide olivine gabbro (interval 257)

Metamorphic Petrology: Most of the section is only slightly altered. Moderate to substantial alteration is associated with veining and felsic intrusions.

Structural Geology: Contact between medium and fine grained gabbro is defined by a gradation from weak to mylonitic. Porphyroclastic band crosscuts the gabbro from 130-140 cm.

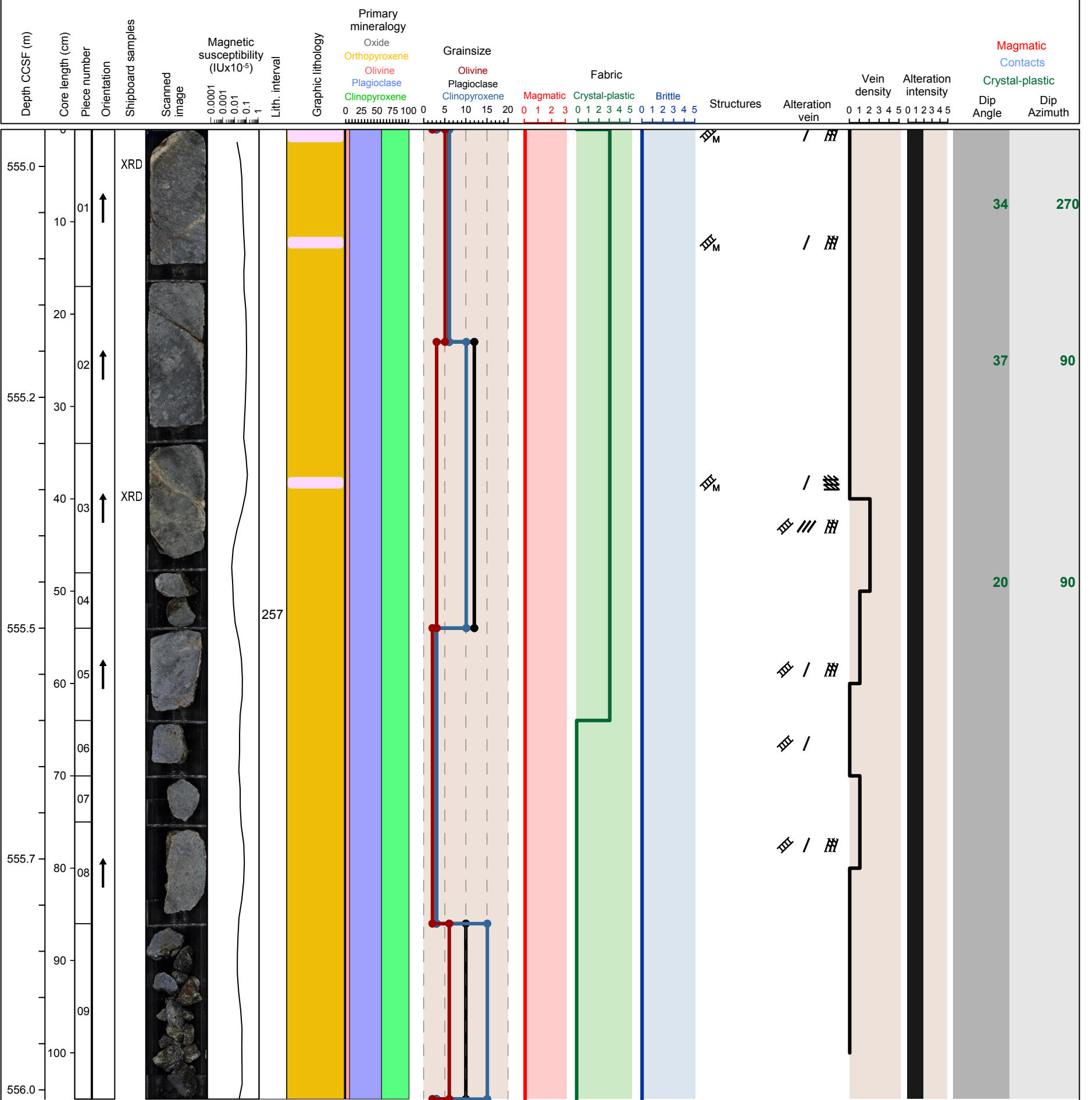


Hole 360-U1473A-61R Section 6, Top of Section: 554.96 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 257)

Metamorphic Petrology: Section is heterogeneously altered. Overall, static background alteration intensity is moderate.

Structural Geology: Magmatic veins are at a high angle to the crystal plastic foliation. The crystal plastic fabric is better developed in finer grained rocks. Slickenside at 45 cm.

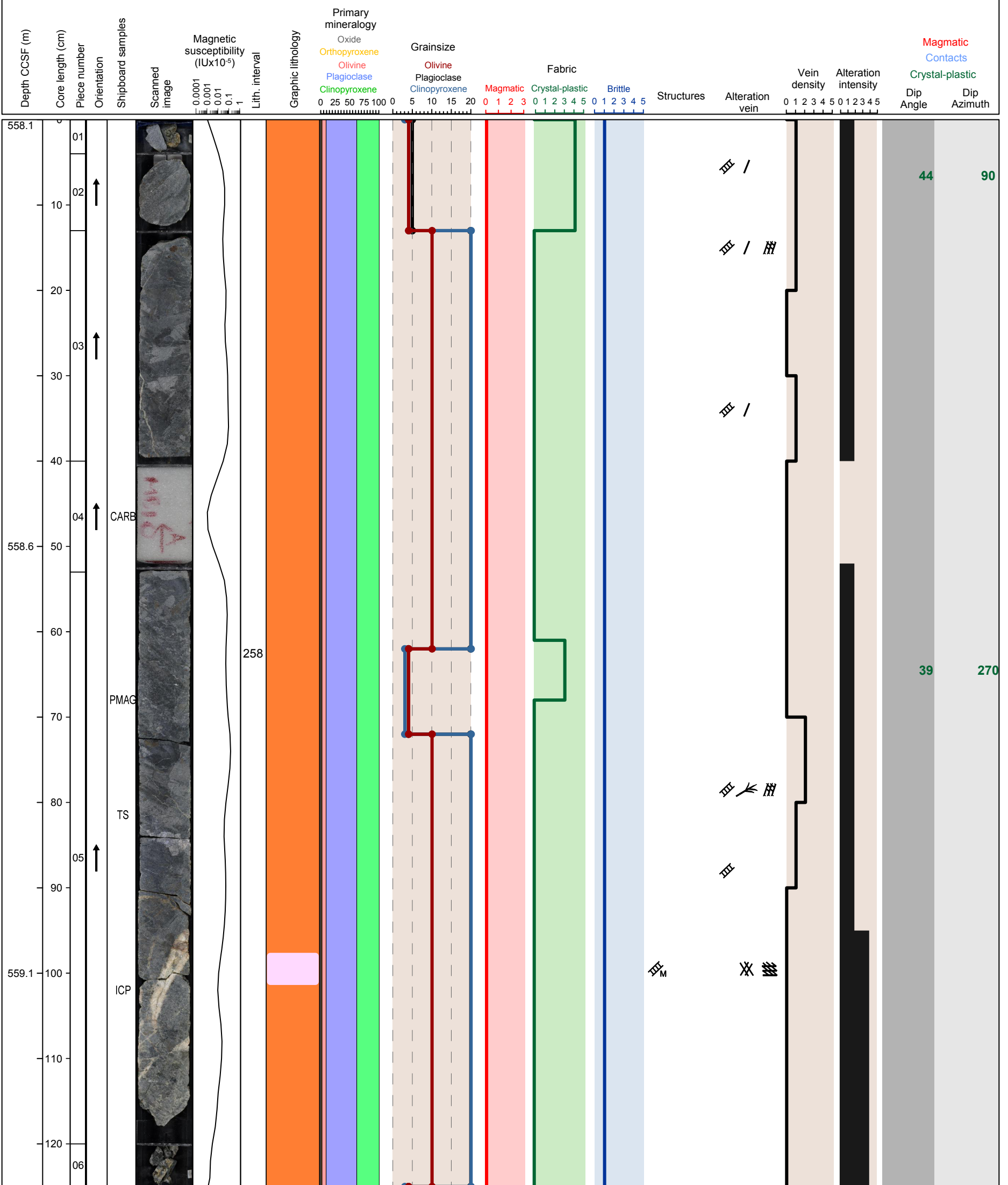


Hole 360-U1473A-62R Section 1, Top of Section: 558.1 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 258)

Metamorphic Petrology: Static background alteration intensity of this section is mostly moderate. The lower part is extensively altered and is associated with a felsic patch.

Structural Geology: Moderate crystal plastic fabric. Magmatic breccia at 110 cm. Moderately dipping oxide shear band at 62 cm. Carbonate veins are steeply dipping.

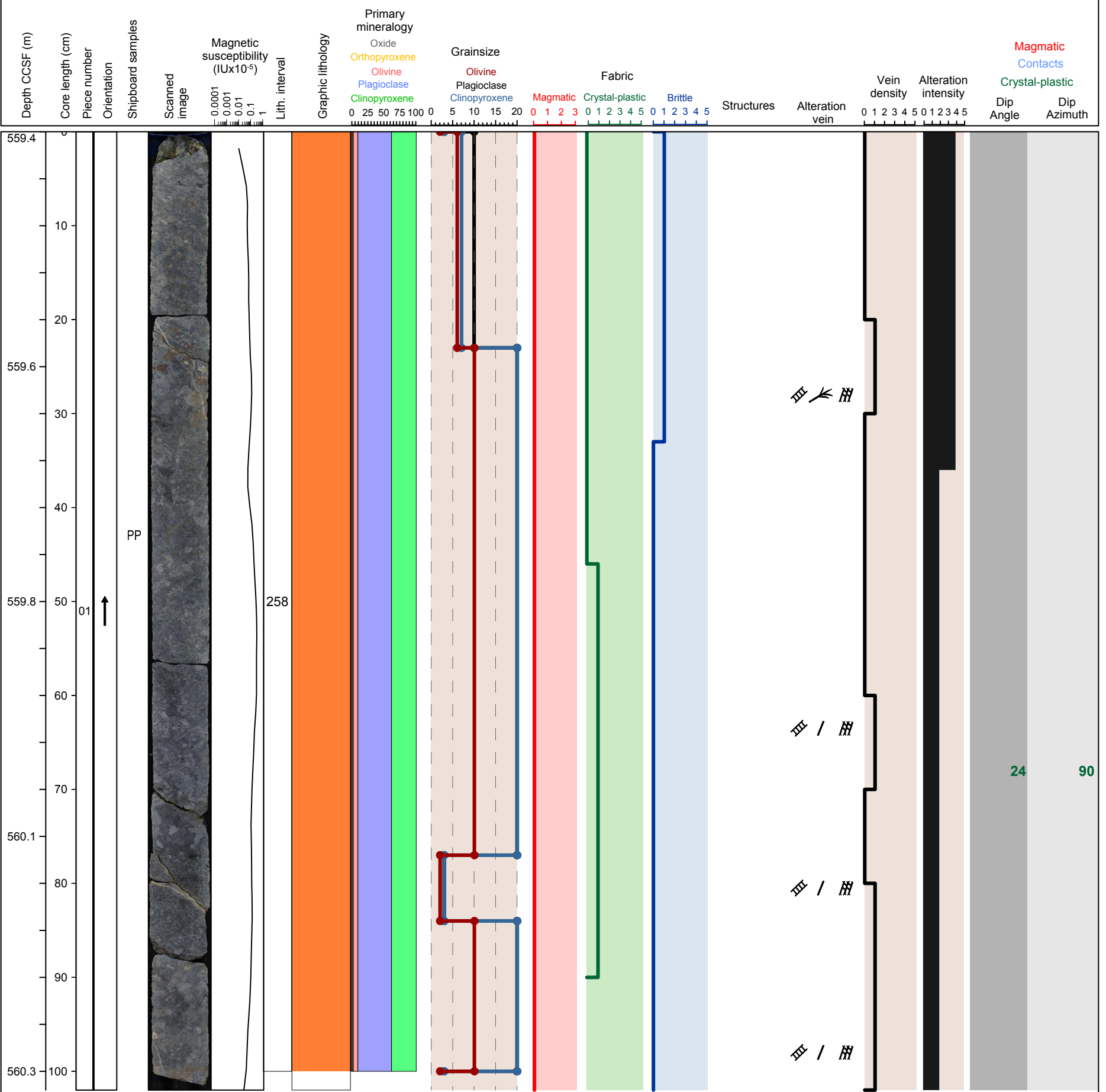


Hole 360-U1473A-62R Section 2, Top of Section: 559.35 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 258)

Metamorphic Petrology: Top of the section is extensively altered. It is marked by felsic patches and carbonate veining. The lower part is moderately altered.

Structural Geology: Grain size variation overprinted by weak crystal plastic fabric. 1 cm thick mylonitic band crosscuts the section at 85 cm. There are carbonate veins.

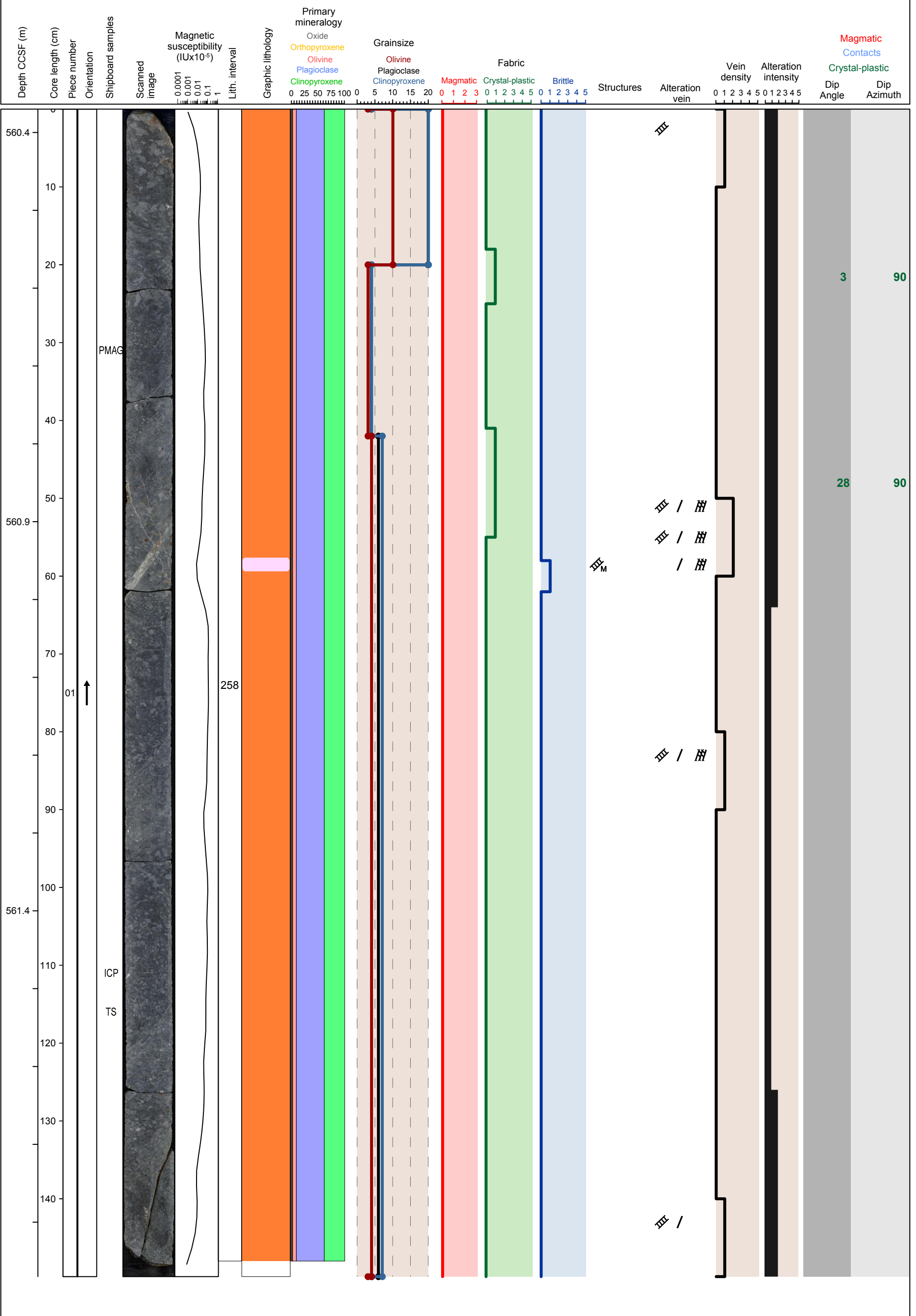


Hole 360-U1473A-62R Section 3, Top of Section: 560.37 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 258)

Metamorphic Petrology: Section is slightly to moderately altered. More intensely altered portions of the section is associated with vein halos.

Structural Geology: Weak, coarse, moderately to shallowly dipping crystal plastic fabric. High angle amphibole veins.

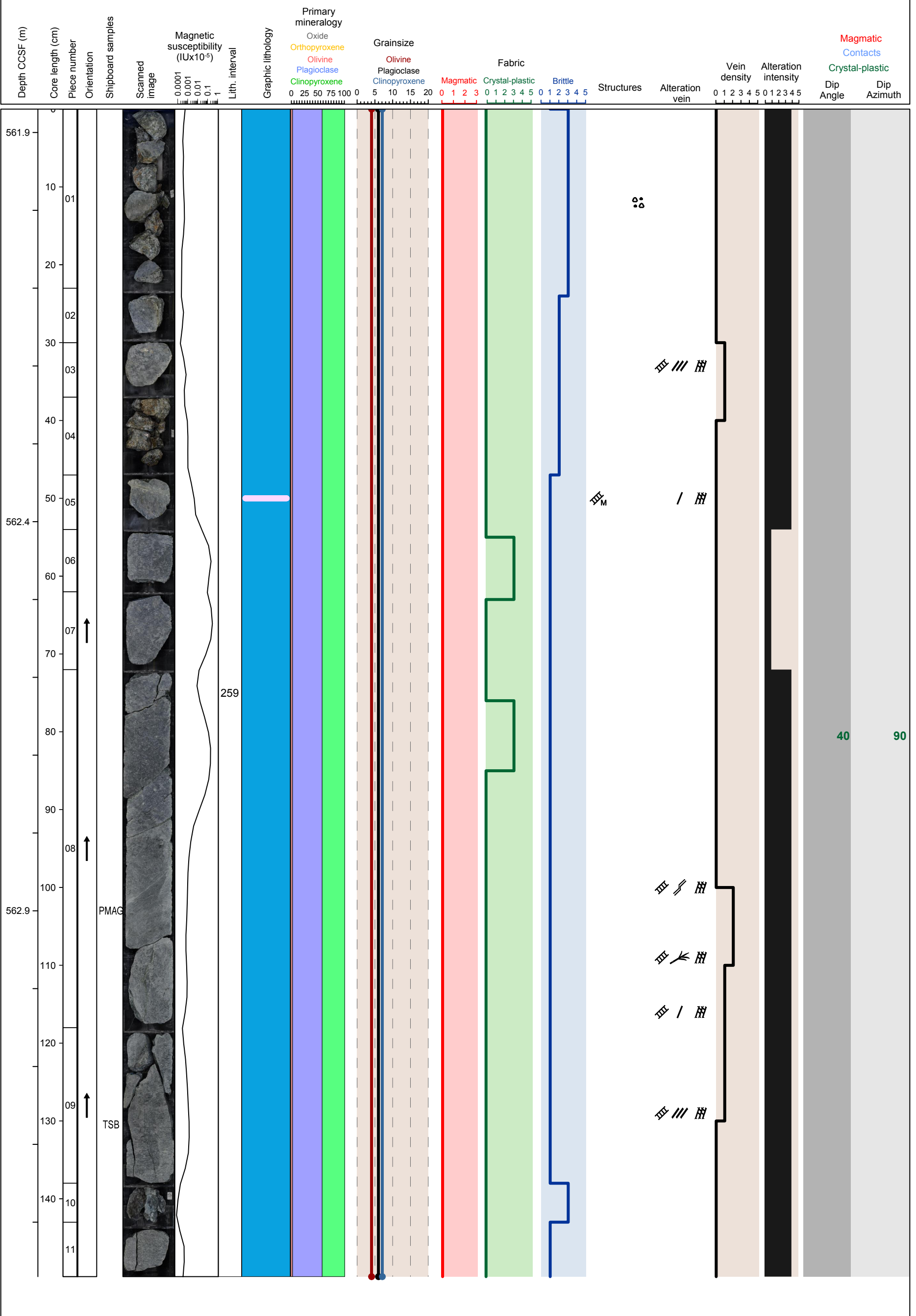


Hole 360-U1473A-62R Section 4, Top of Section: 561.87 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine bearing gabbro (interval 259)

Metamorphic Petrology: Section is mostly extensively altered into greenschist facies assemblages.

Structural Geology: Sub-horizontal crystal plastic fabric in bottom third of the section. Incipient breccia at 0-24 cm. Slickenlines at 123 and 132 cm with moderate rakes.

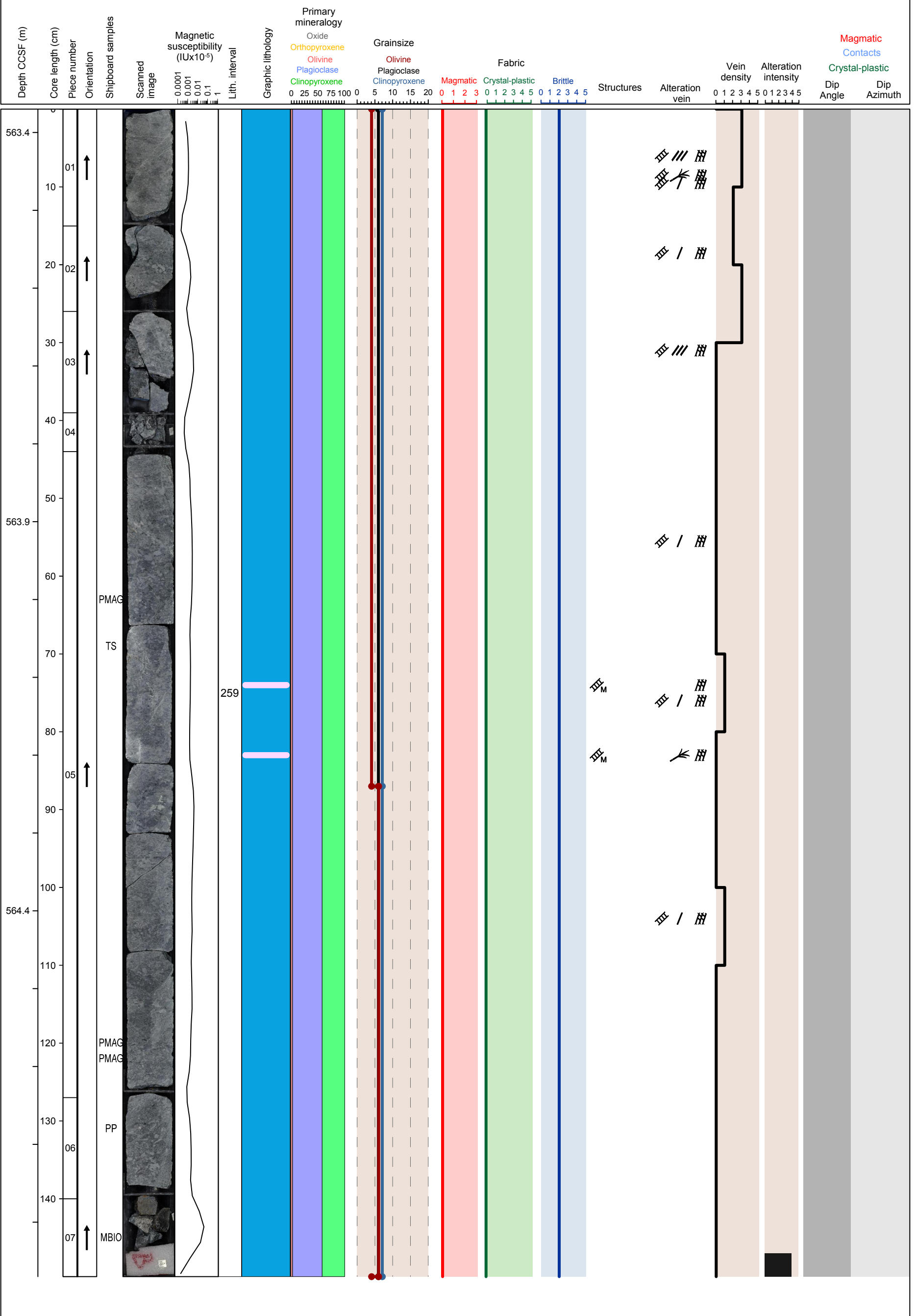


Hole 360-U1473A-62R Section 5, Top of Section: 563.37 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine bearing gabbro (interval 259)

Metamorphic Petrology: Section is extensively altered into greenschist assemblages.

Structural Geology: High angle amphibole veins with haloes and moderate fracturing/incipient breccia.

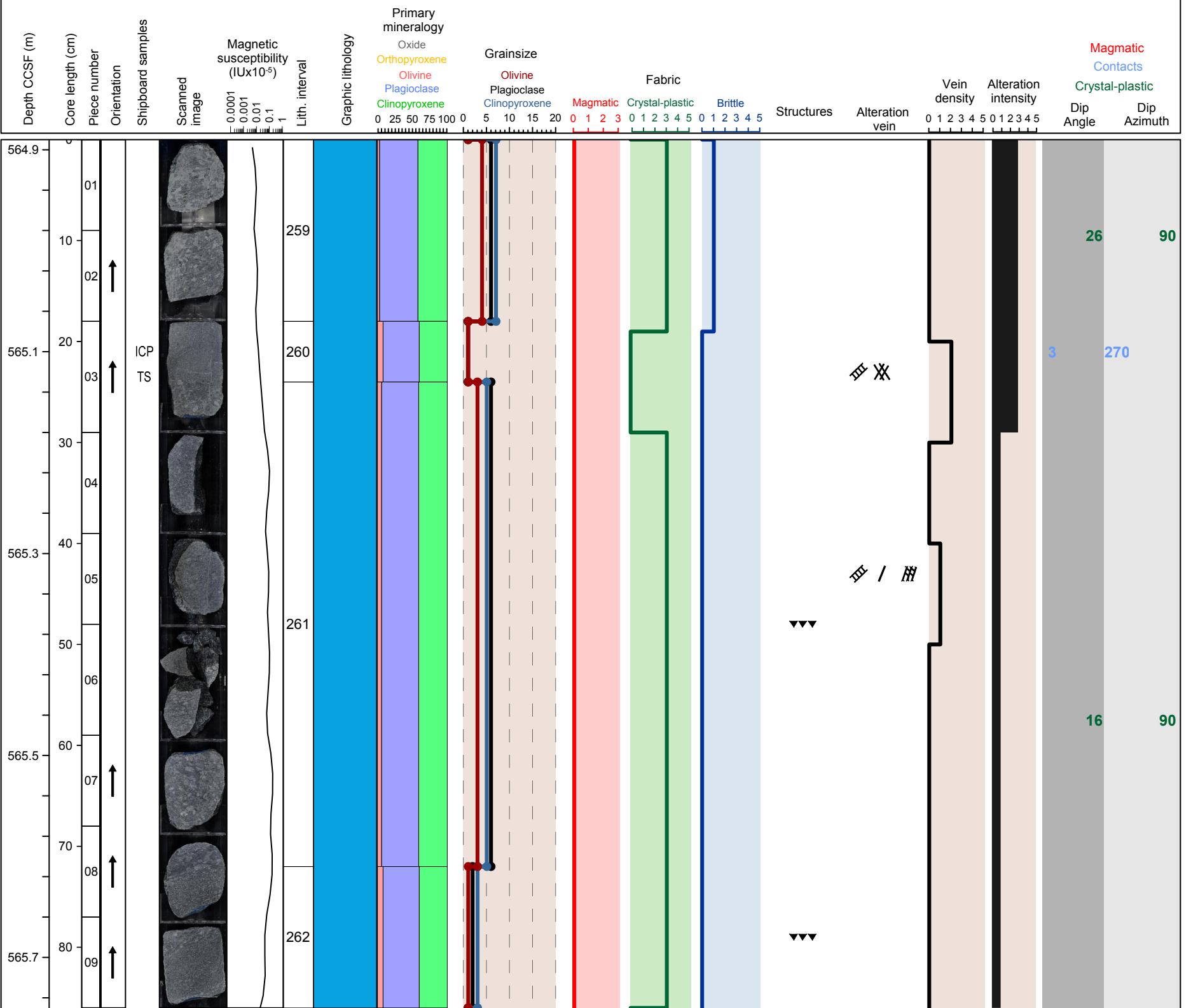


Hole 360-U1473A-62R Section 6, Top of Section: 564.87 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: medium grained granular olivine bearing gabbro (interval 259), fine grained granular olivine gabbro (interval 260 and 262) and coarse grained granular olivine gabbro (interval 261)

Metamorphic Petrology: Top of the section is substantially replaced by greenschist assemblages. Bottom of the section is only slightly altered.

Structural Geology: Fine grained-coarse grained shear contact with crystal plastic fabric on both sides parallel to contact.

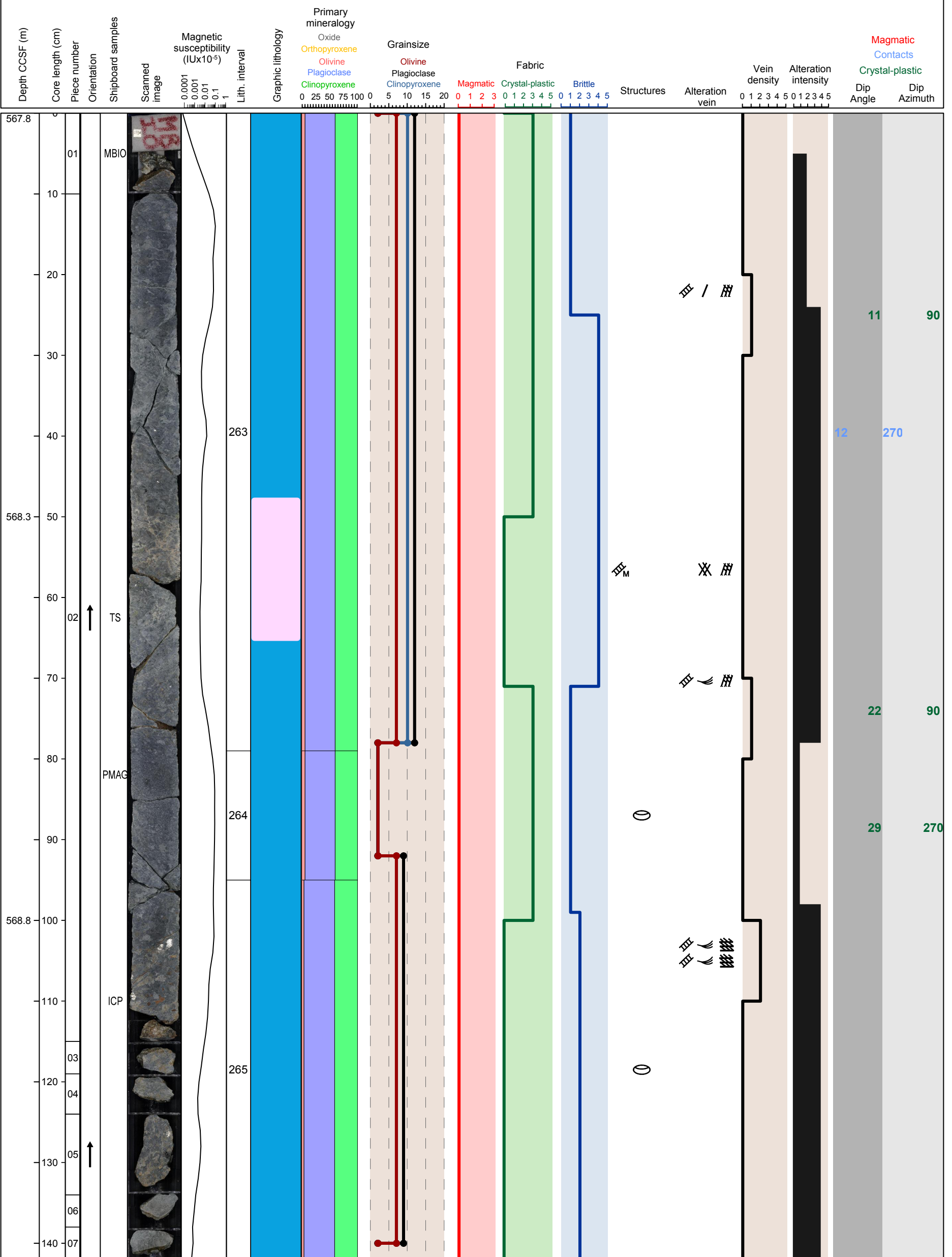


Hole 360-U1473A-63R Section 1, Top of Section: 567.8 m (CCSF-360-U1473-A-20160118)

Igneous Petrology: coarse grained granular olivine gabbro (interval 263), medium grained granular olivine gabbro (interval 264) and coarse grained granular olivine bearing gabbro (interval 265)

Metamorphic Petrology: Section is heterogeneously altered. Most of the intense alteration occur at/near felsic patches.

Structural Geology: Magmatic breccia from 40-60 cm.

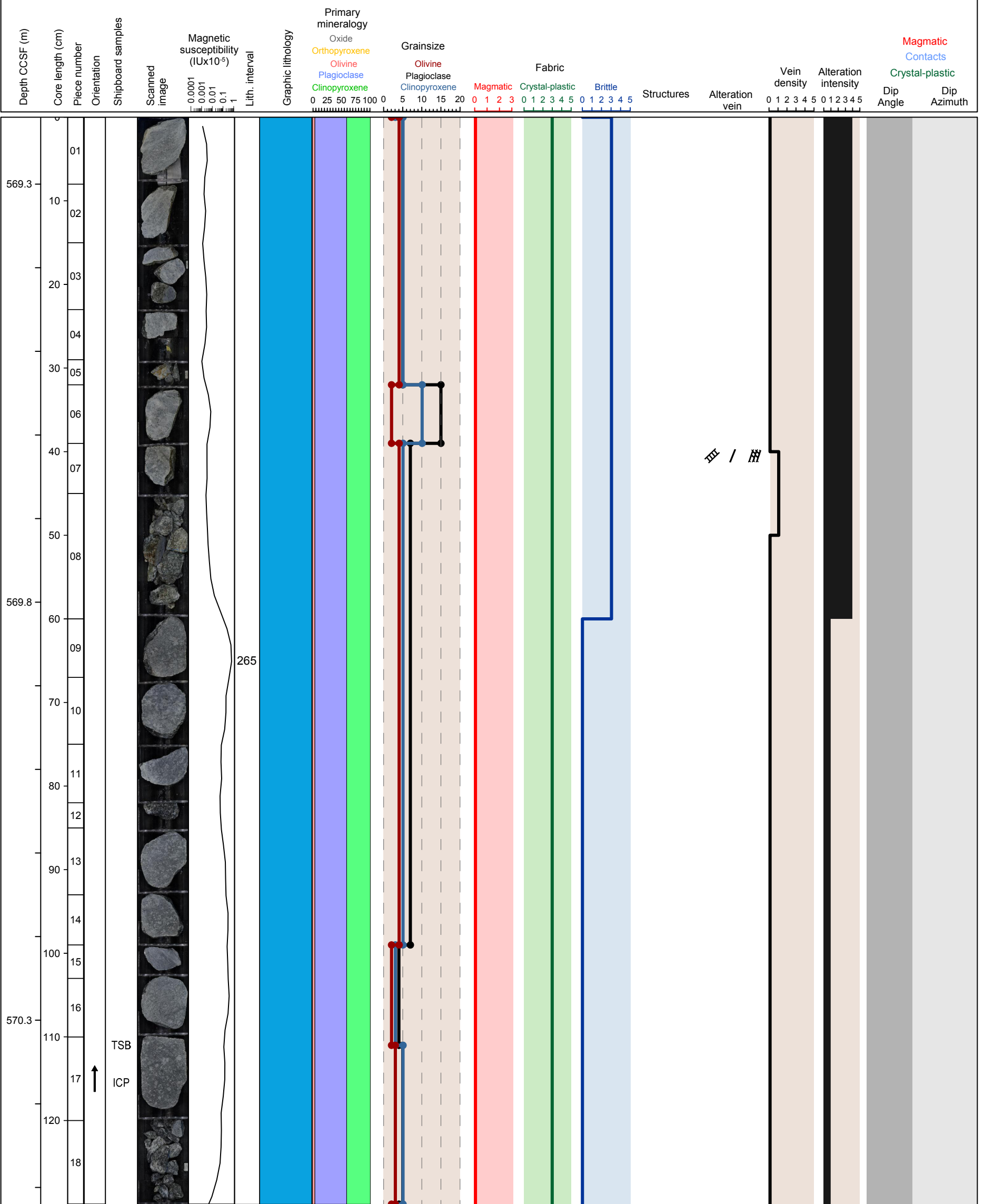


Hole 360-U1473A-63R Section 2, Top of Section: 569.22 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine bearing gabbro (interval 265)

Metamorphic Petrology: Upper part of the section is extensively altered into chlorite. Lower part is only slightly altered.

Structural Geology: Weak crystal plastic fabric overprinting grain size variations. Anastomosing greenschist grade bands at 0-10 cm.

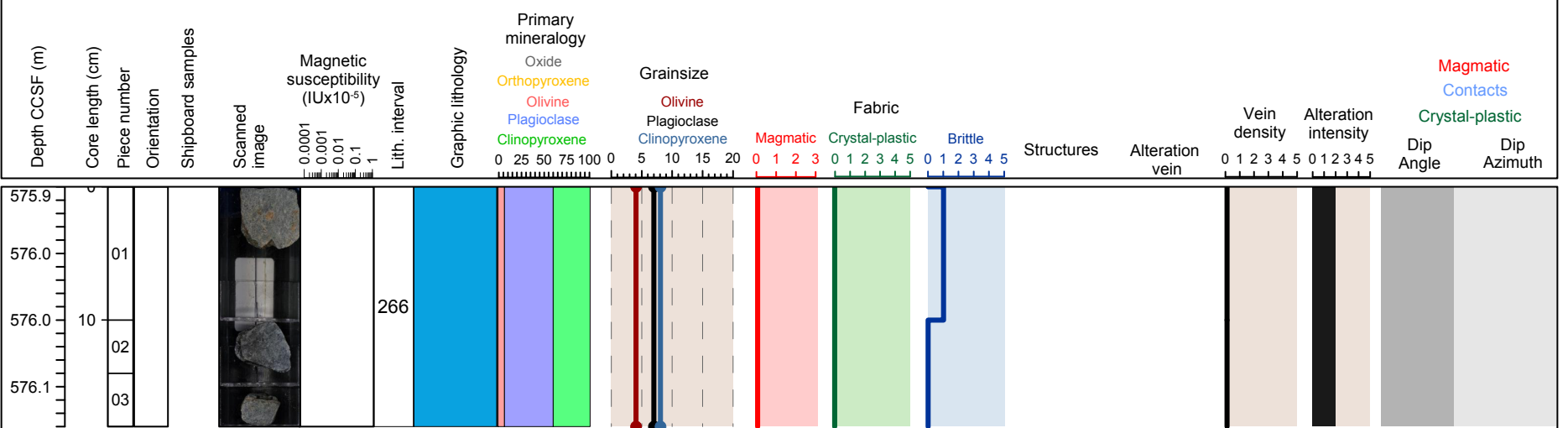


Hole 360-U1473A-64R Section 1, Top of Section: 575.94 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: Section is, overall, moderately altered.

Structural Geology:

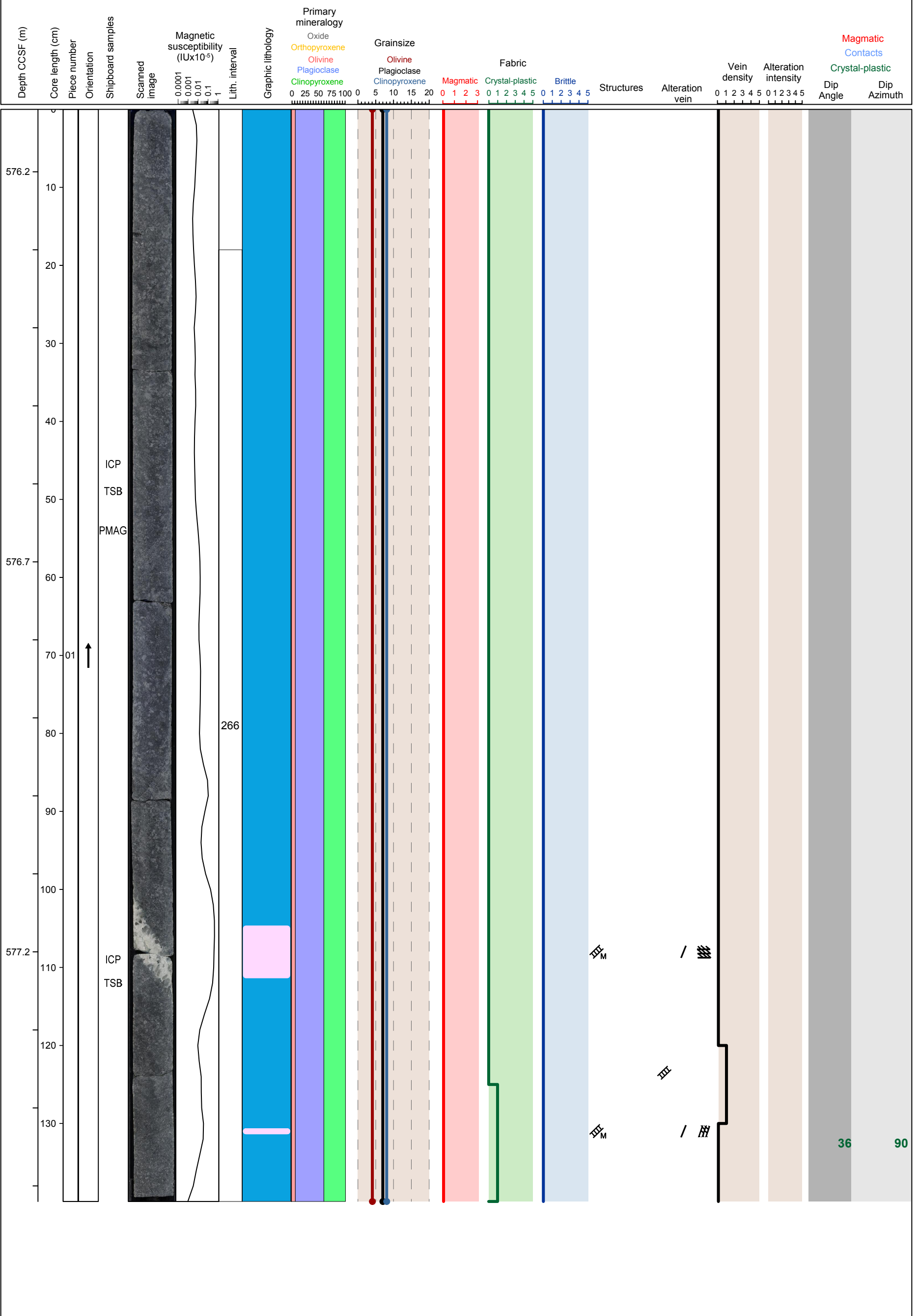


Hole 360-U1473A-64R Section 2, Top of Section: 576.12 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: This section is fresh. A felsic vein was also observed.

Structural Geology: Weak crystal plastic fabric.

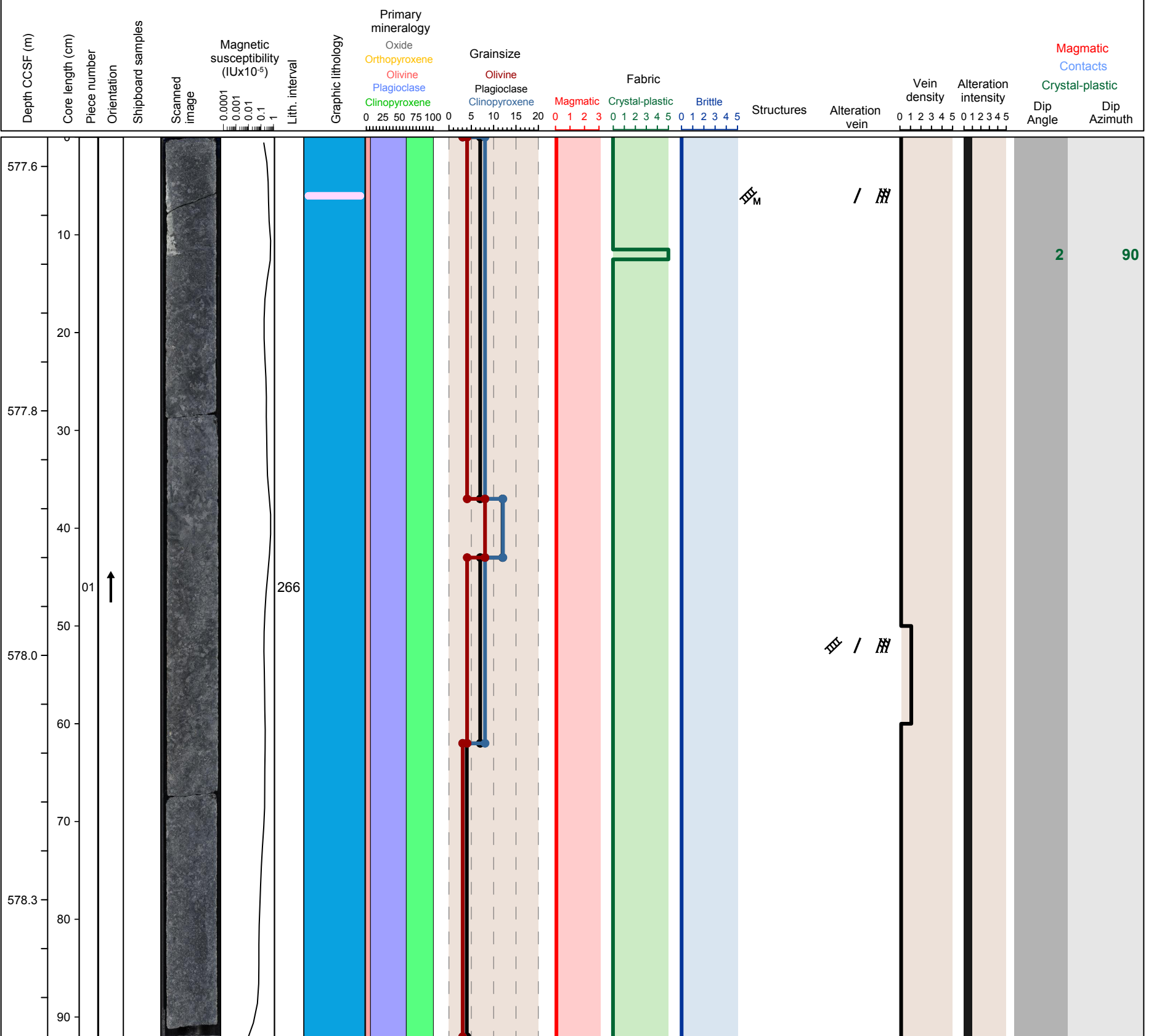


Hole 360-U1473A-64R Section 3, Top of Section: 577.52 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: Static background alteration intensity of this section is slight.

Structural Geology: Thin 1 cm-thick ultramylonite crosscuts section.

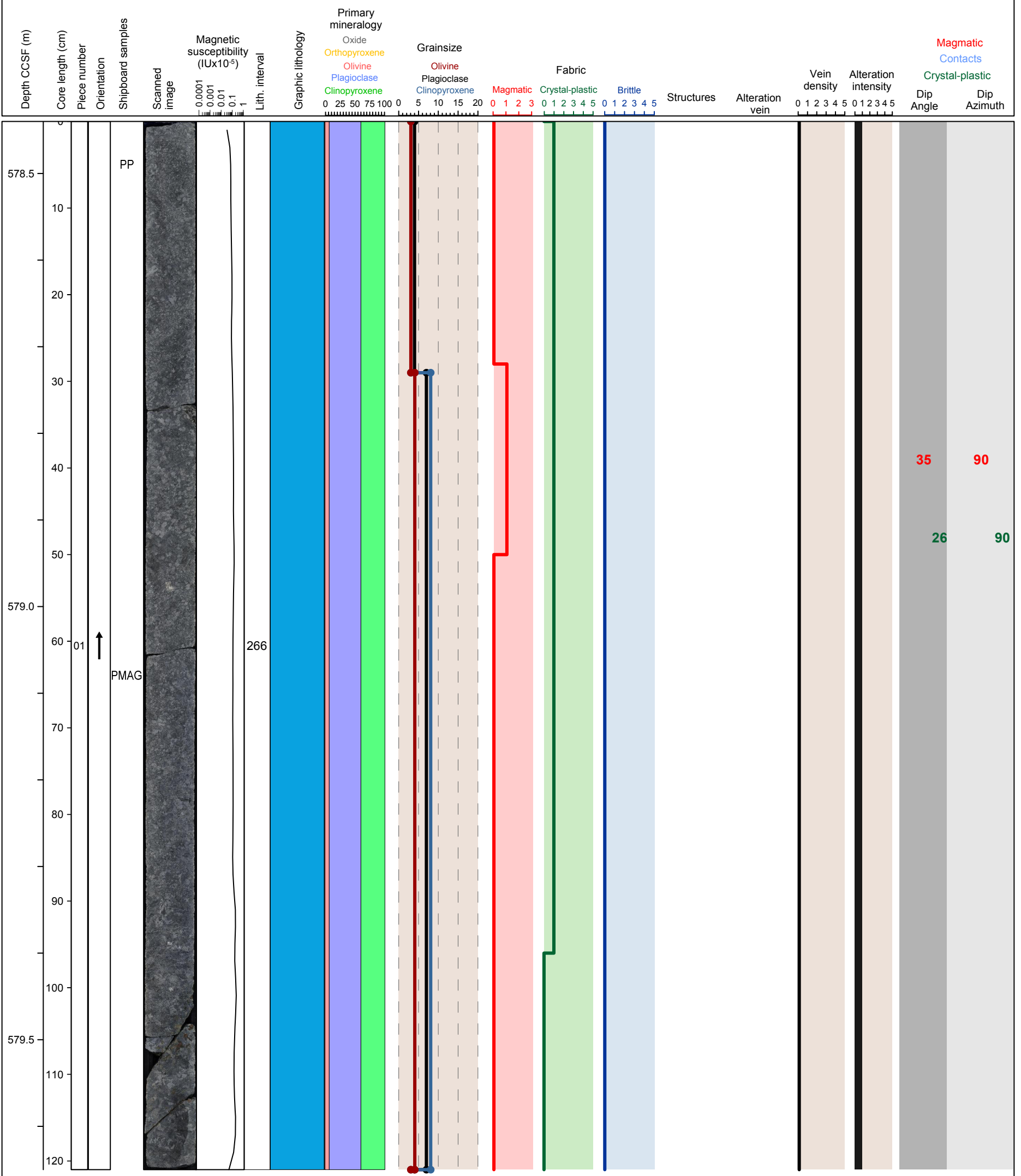


Hole 360-U1473A-64R Section 4, Top of Section: 578.44 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: Static background alteration intensity of this section is slight.

Structural Geology: Weak magmatic and crystal plastic fabric with moderate to shallow dip.

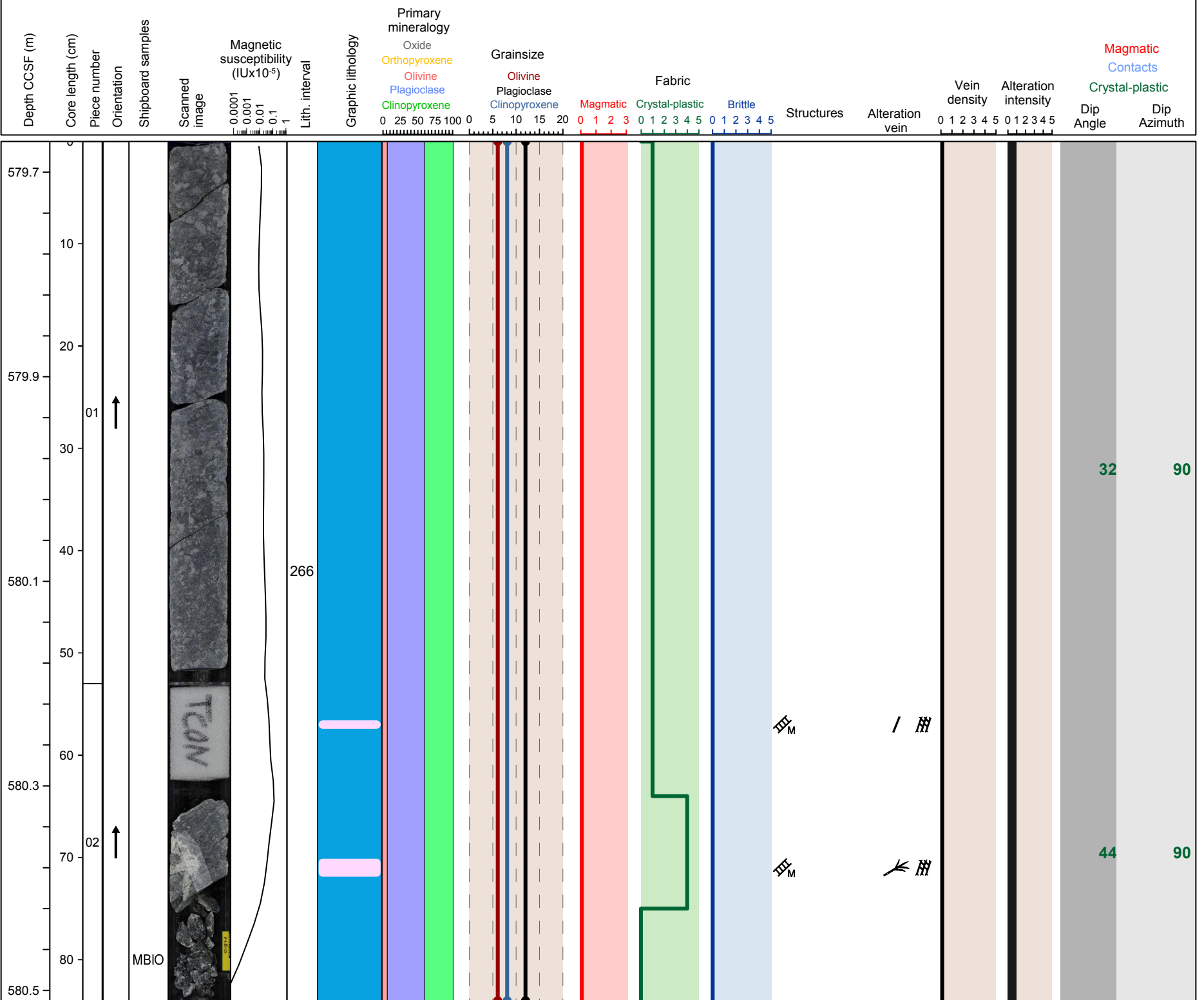


Hole 360-U1473A-64R Section 5, Top of Section: 579.65 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: Section is only slightly altered. Felsic intrusions were observed.

Structural Geology: Porphyroclastic fabric is folded crosscut by branched, undeformed magmatic vein.

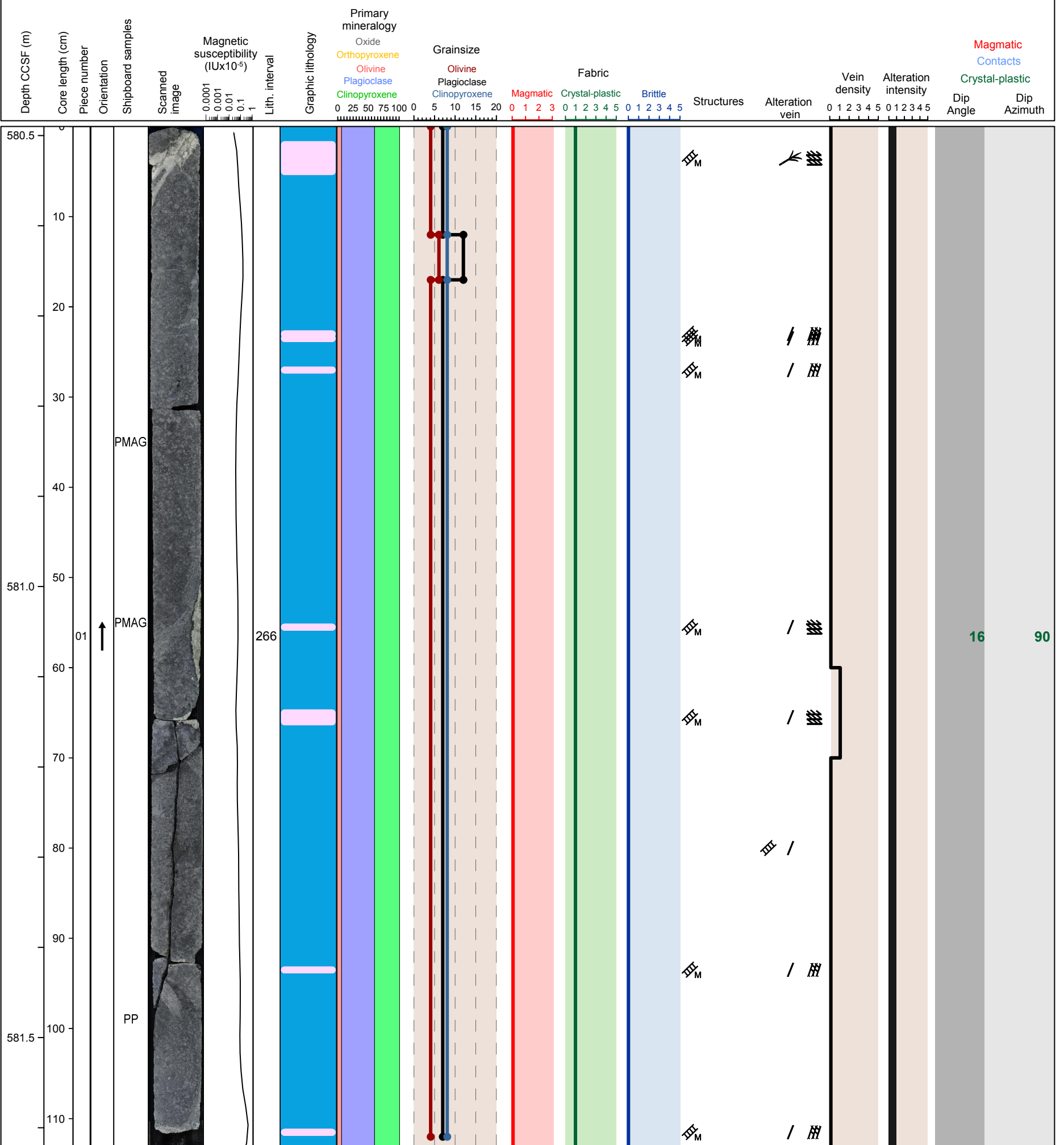


Hole 360-U1473A-64R Section 6, Top of Section: 580.49 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: Felsic veins have moderate dips, others are anastomosing.

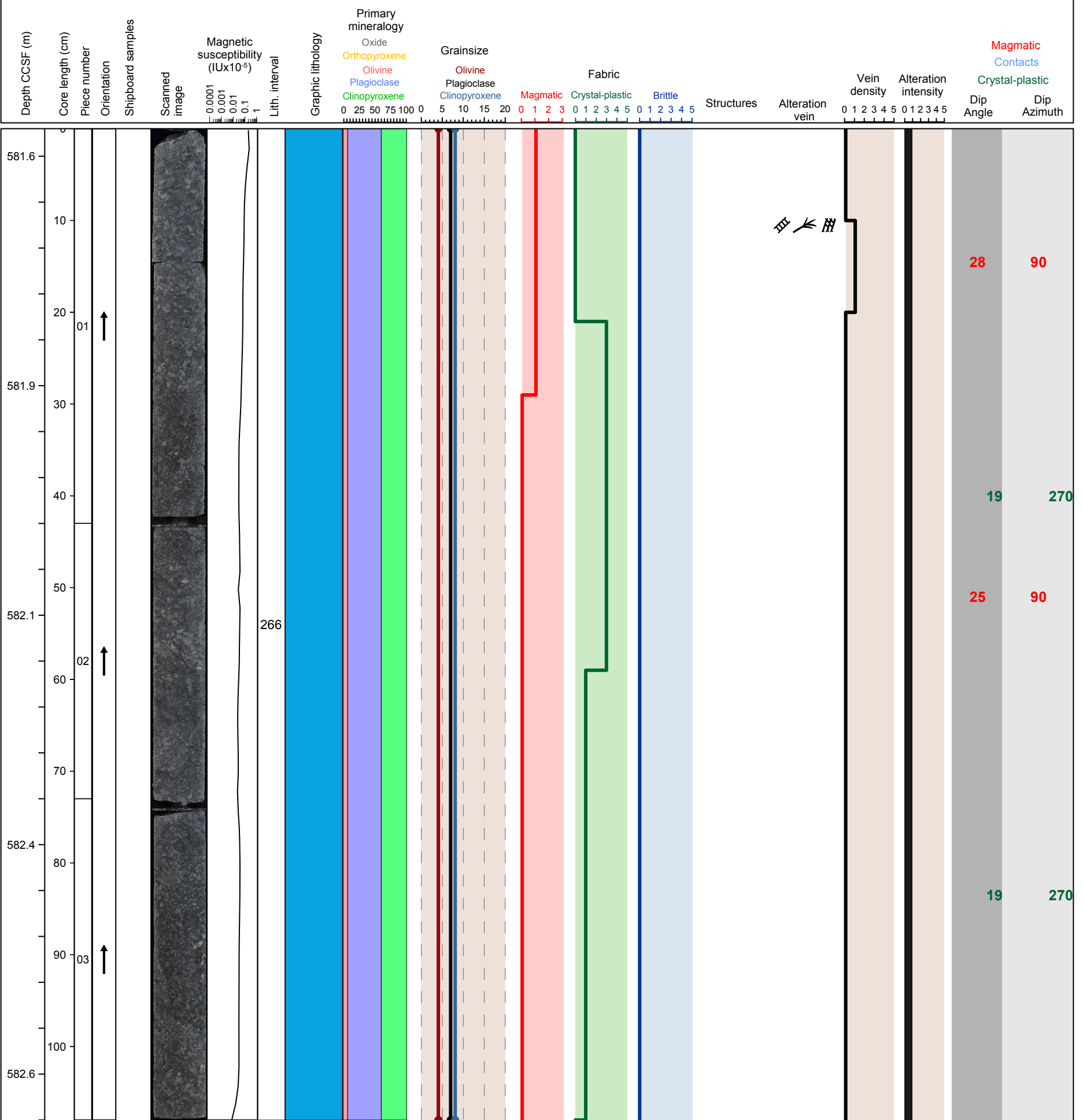


Hole 360-U1473A-64R Section 7, Top of Section: 581.62 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: Grain size variations, in some intervals a weak magmatic fabric defined by the alignment of plagioclase and pyroxene.

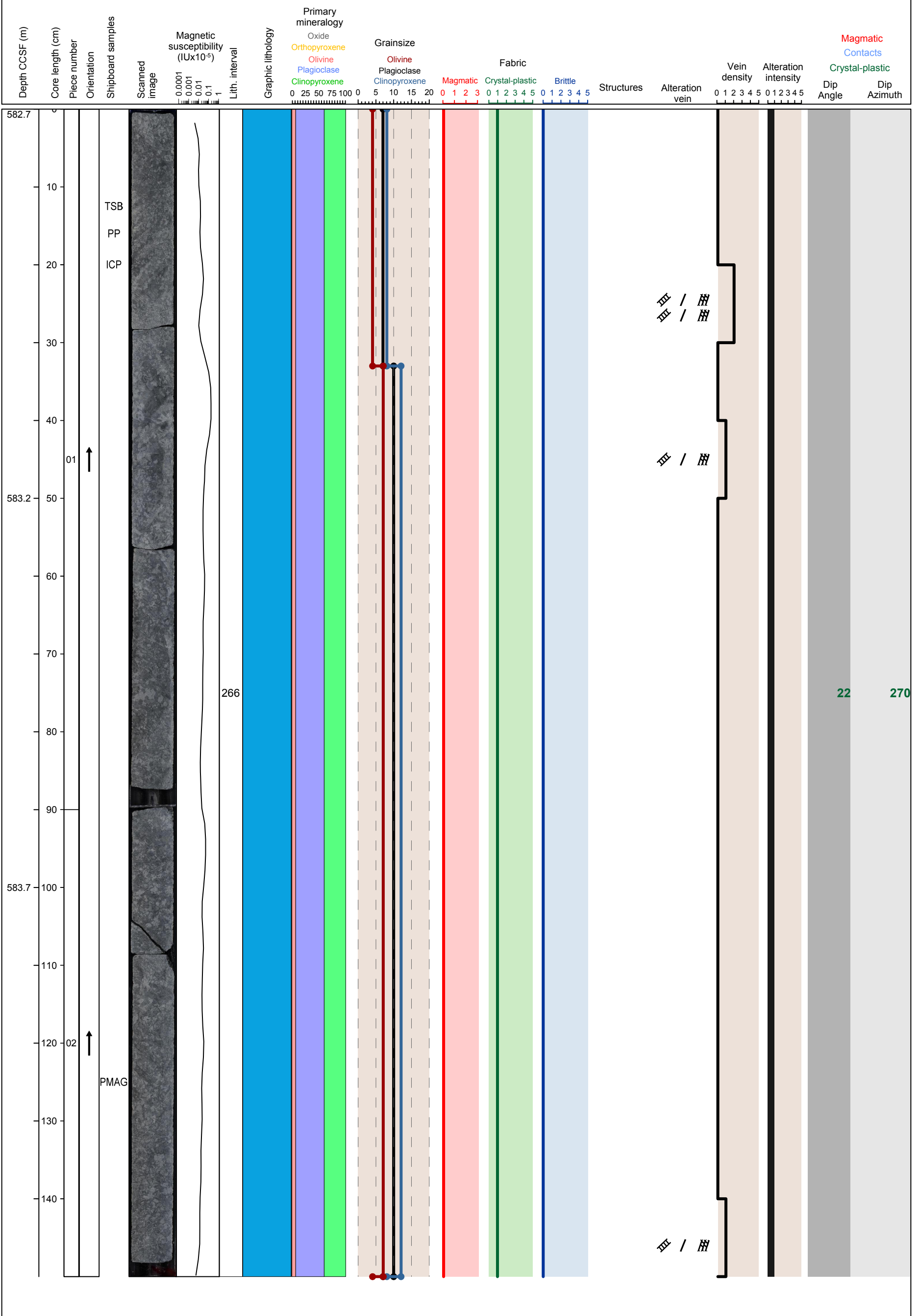


Hole 360-U1473A-64R Section 8, Top of Section: 582.7 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: Section is only slightly altered

Structural Geology: Grain size variations.

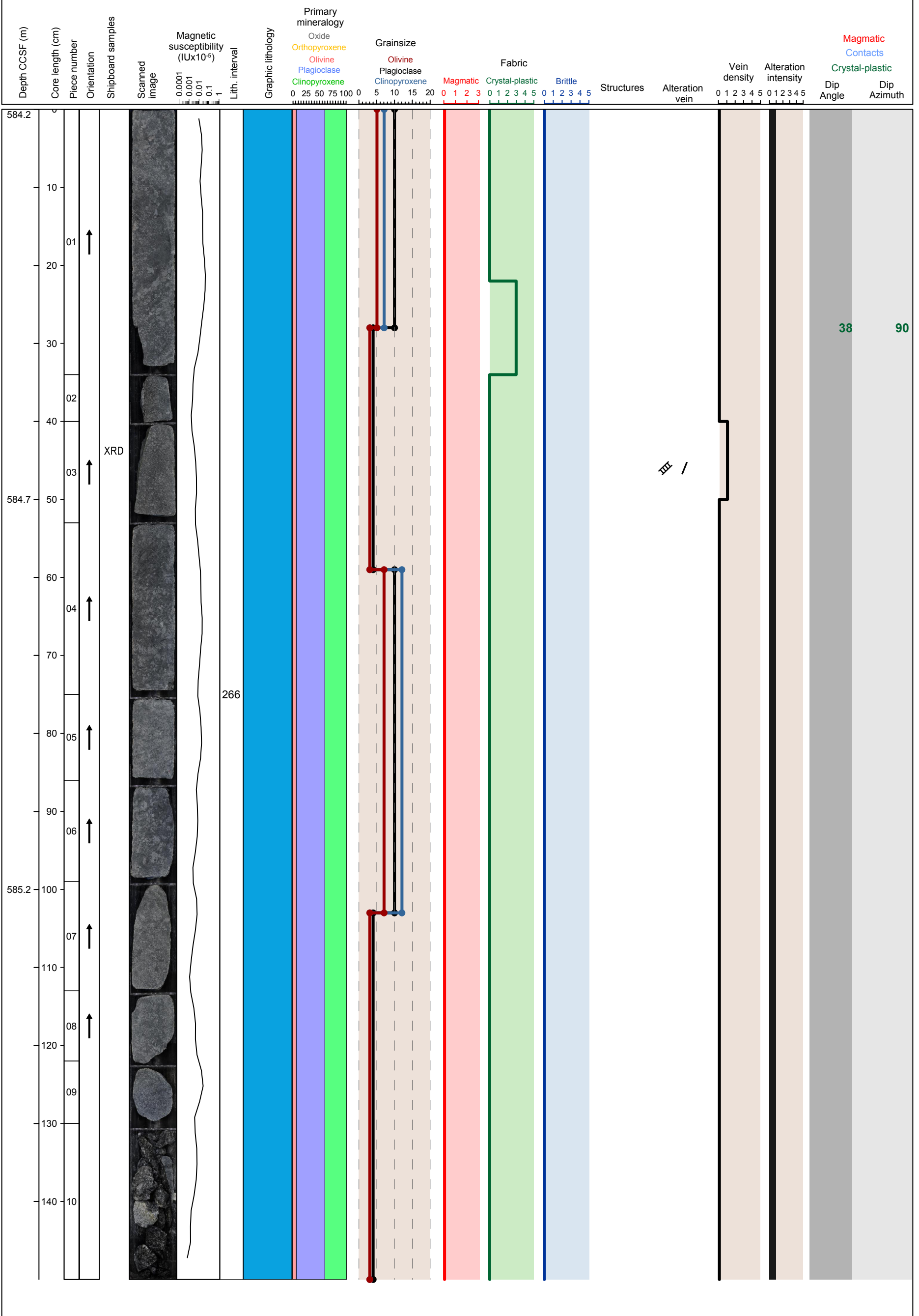


Hole 360-U1473A-64R Section 9, Top of Section: 584.2 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: Grain size variations.

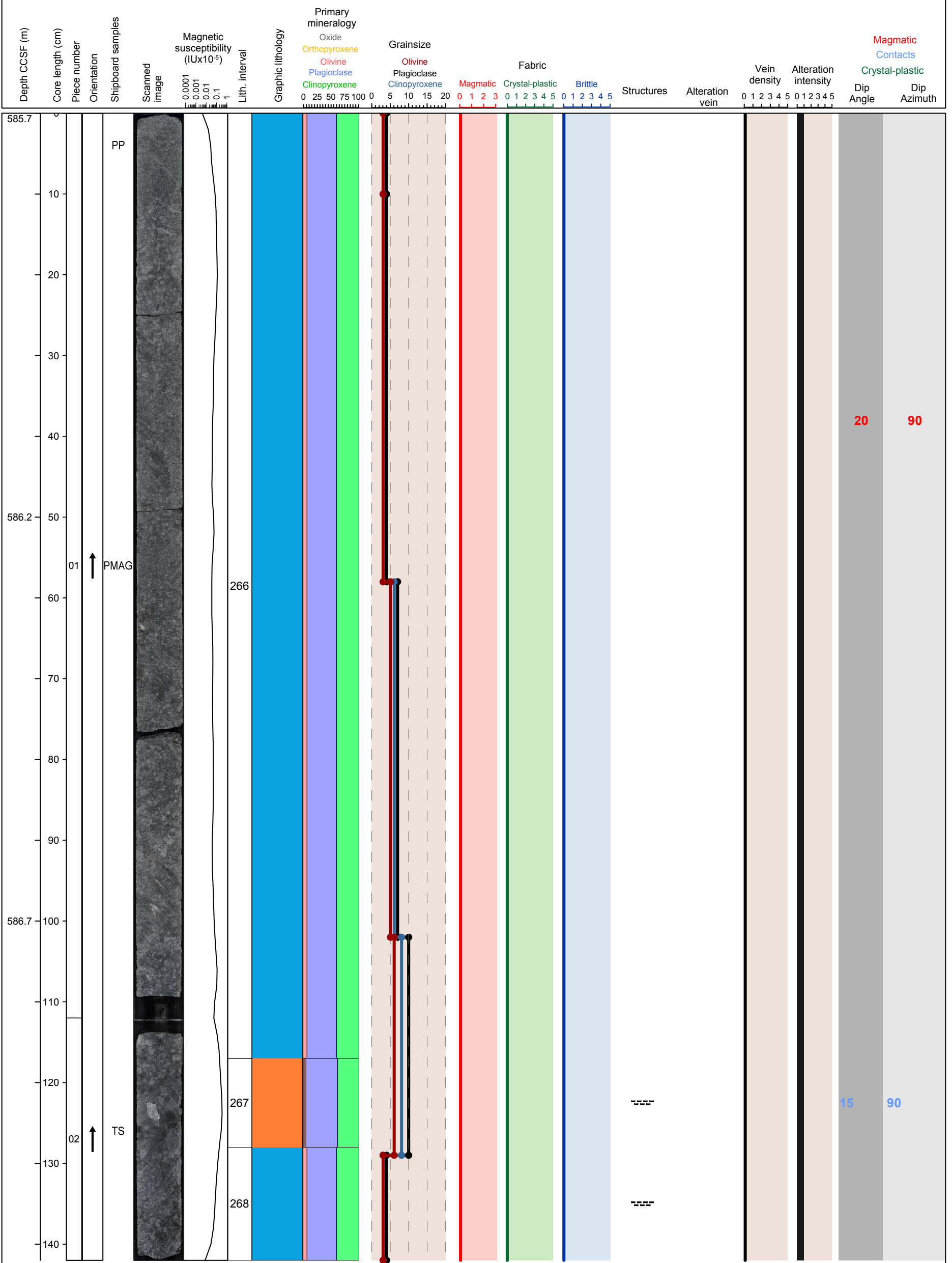


Hole 360-U1473A-65R Section 1, Top of Section: 585.7 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 266 and 268) and coarse grained granular olivine and oxide bearing gabbro (interval 267)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: Grain size layering with layers 6-10 cm thick.

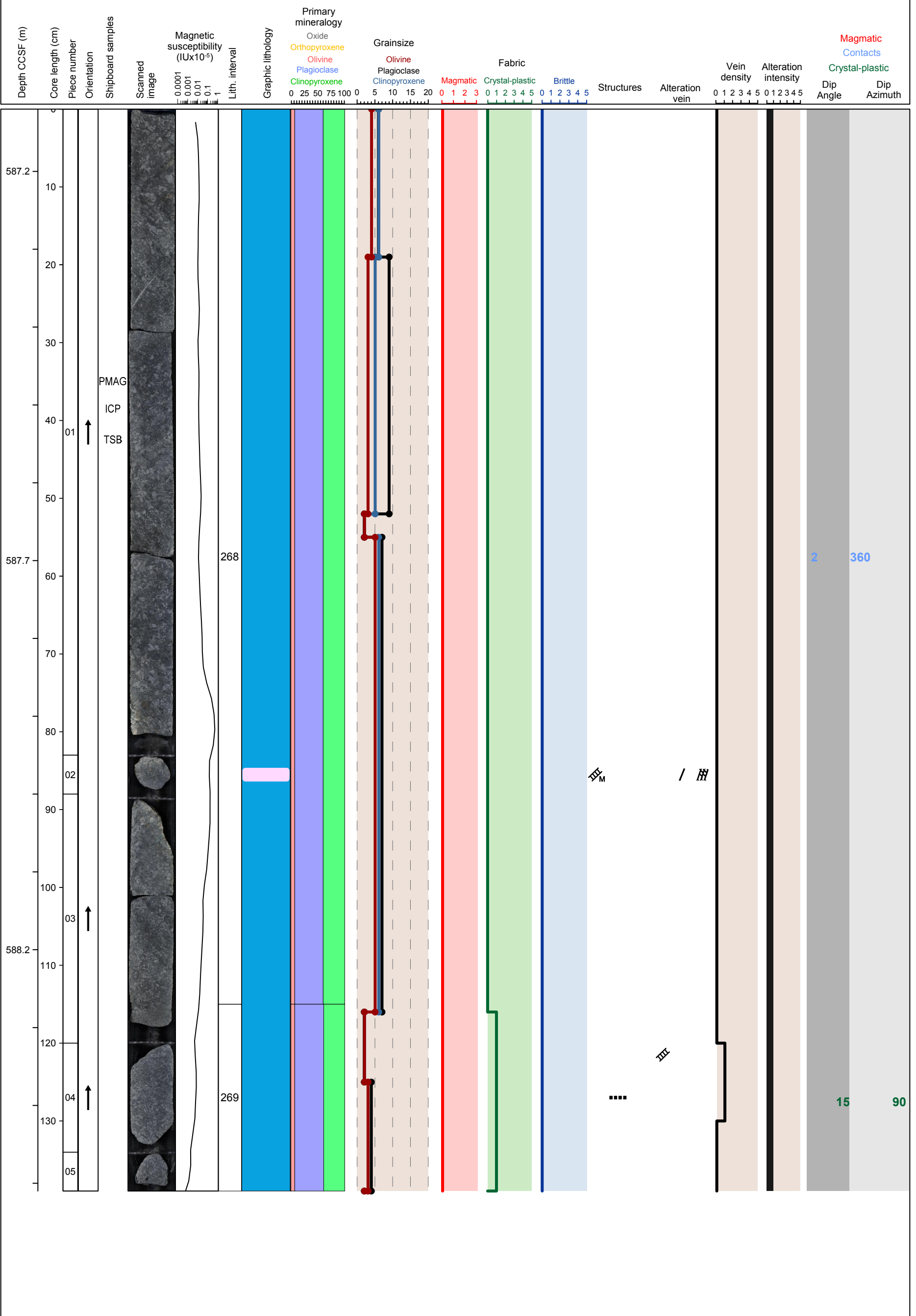


Hole 360-U1473A-65R Section 2, Top of Section: 587.12 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 268) and coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 269)

Metamorphic Petrology: Section is mostly only slightly altered. Parts that are relatively altered are associated with vein halos.

Structural Geology: Grain size layering has a weak shallow crystal plastic overprint. Oxide-rich felsic dike at 85 cm.

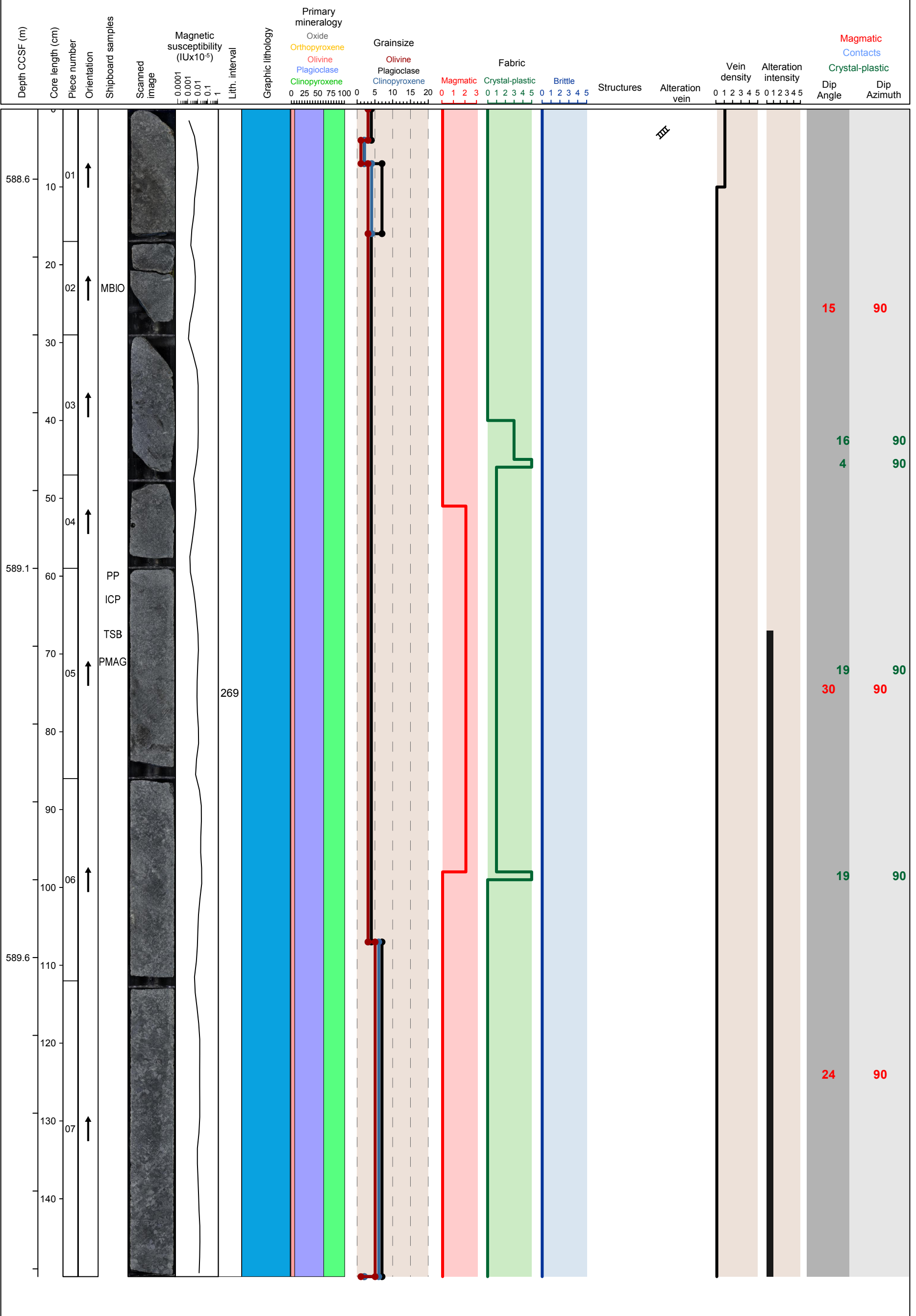


Hole 360-U1473A-65R Section 3, Top of Section: 588.51 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 269)

Metamorphic Petrology: Section alteration intensity ranges from negligible to slight.

Structural Geology: Moderate magmatic fabric parallel to grain size layering. Mylonite bands parallel to grain size layering at 45 and 99 cm. Slickenlines at 32 cm with a steep rake.

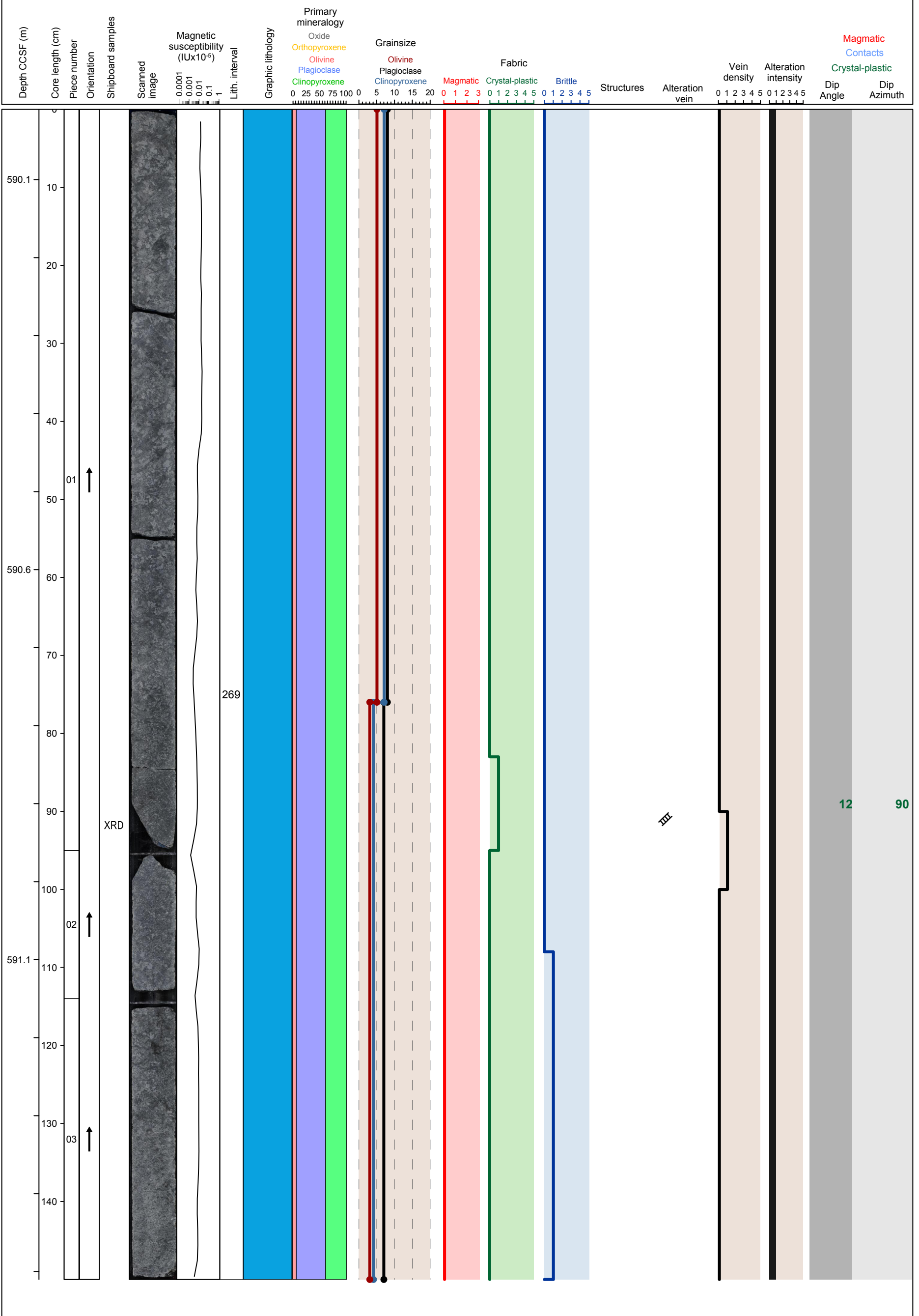


Hole 360-U1473A-65R Section 4, Top of Section: 590.01 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 269)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: 4 cm thick grain size layering. Weak crystal plastic fabric with shallow dip.

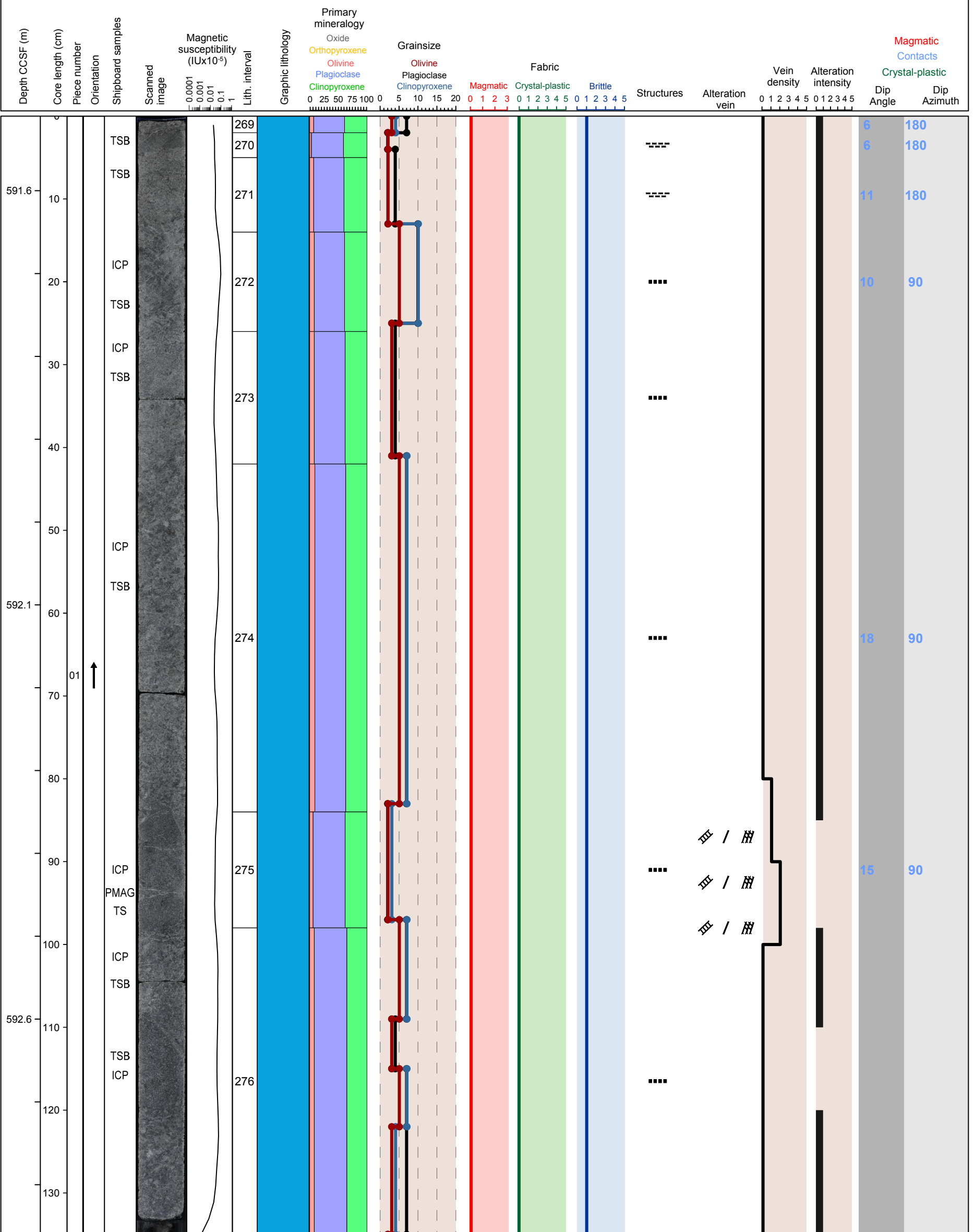


Hole 360-U1473A-65R Section 5, Top of Section: 591.51 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 269, 272 and 274), fine grained granular olivine bearing gabbro (interval 270), fine grained granular olivine gabbro (interval 271 and 275), medium grained granular olivine gabbro (interval 273) and coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 276)

Metamorphic Petrology: Alteration intensity of this section ranges from negligible to slight.

Structural Geology: Weak sub-horizontal crystal plastic fabric overprinted grain size layering with 12 cm thick layers. Minor fracturing in plagioclase better developed in coarser grained intervals throughout the section.

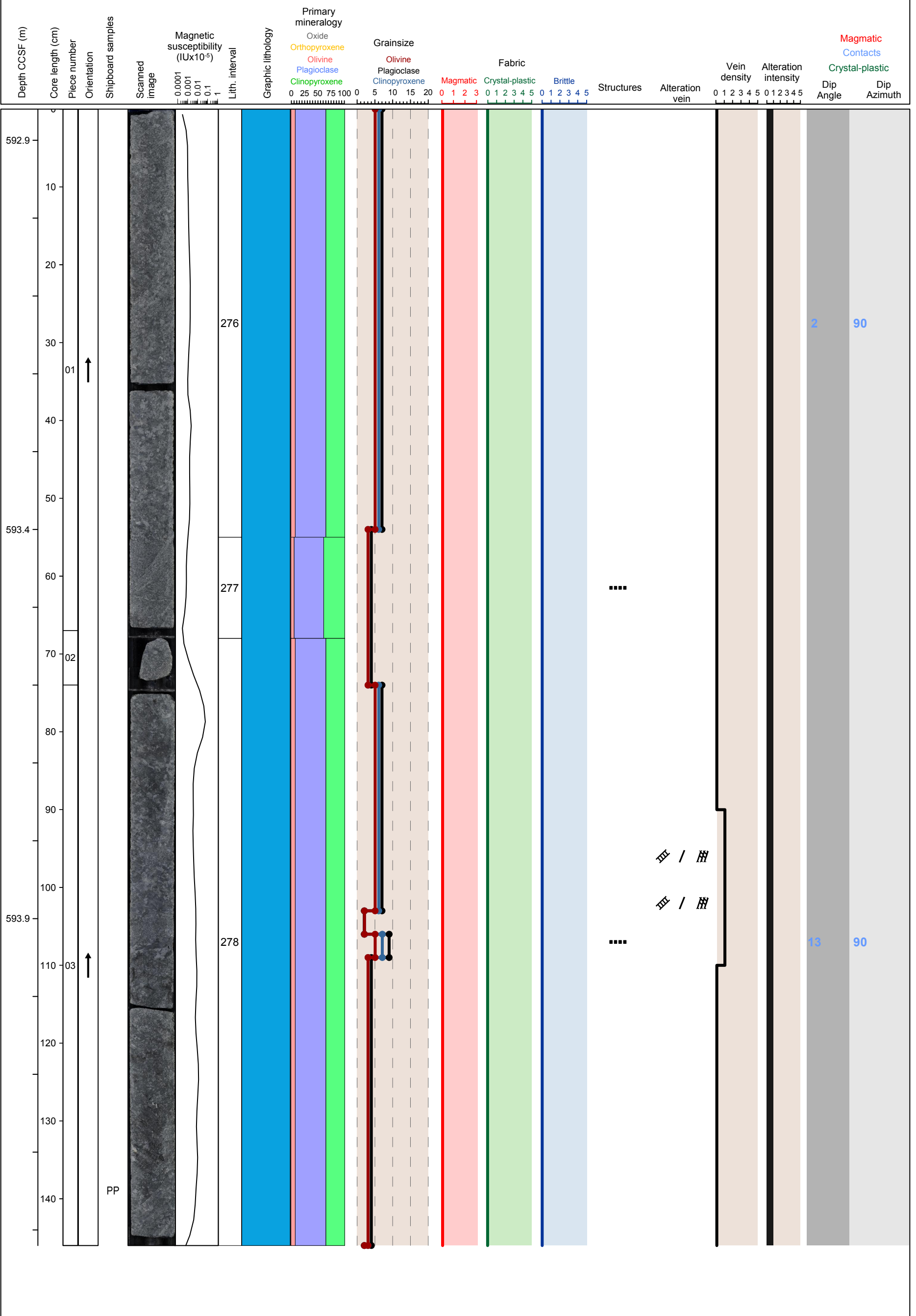


Hole 360-U1473A-65R Section 6, Top of Section: 592.86 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 276), medium grained granular olivine gabbro (interval 277) and coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 278)

Metamorphic Petrology: This section is fresh.

Structural Geology: Grain size layering with irregular boundaries.

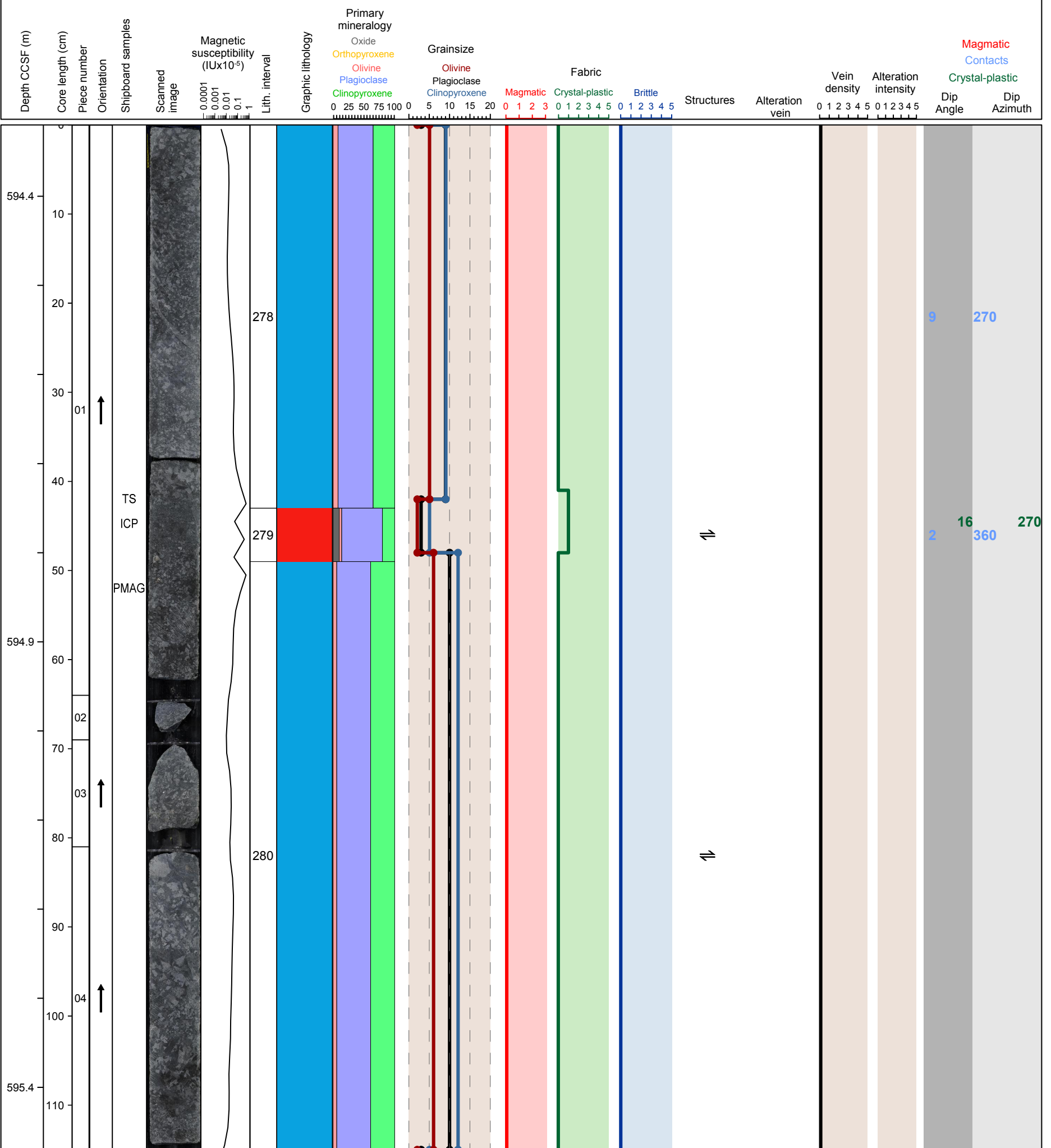


Hole 360-U1473A-65R Section 7, Top of Section: 594.32 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 278), coarse grained granular olivine bearing oxide gabbro (interval 279) and coarse grained ophitic olivine gabbro (interval 280)

Metamorphic Petrology: This section is fresh.

Structural Geology: Sub-horizontal oxide-rich shear zone at 42-45 cm. Slickenlines at 72 cm with a steep rake.

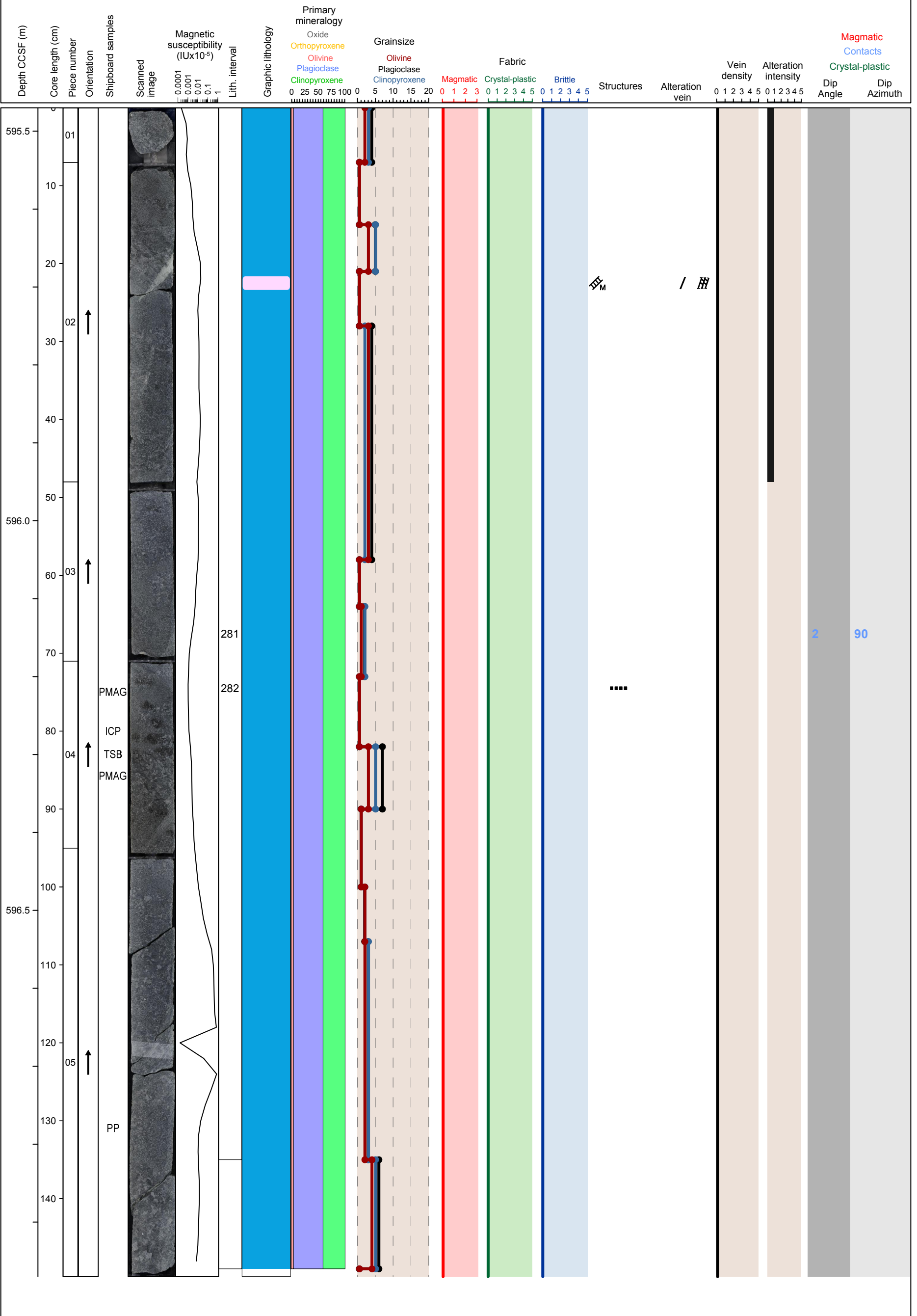


Hole 360-U1473A-66R Section 1, Top of Section: 595.47 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine bearing gabbro with fine grained granular olivine bearing gabbro domain (interval 281) and coarse grained subophitic olivine bearing gabbro (interval 282)

Metamorphic Petrology: Alteration of this section ranges from negligible to slight. Minor alteration occurs near/at the felsic vein.

Structural Geology: Complex layering with two fine grained intervals within thicker coarser grained intervals.

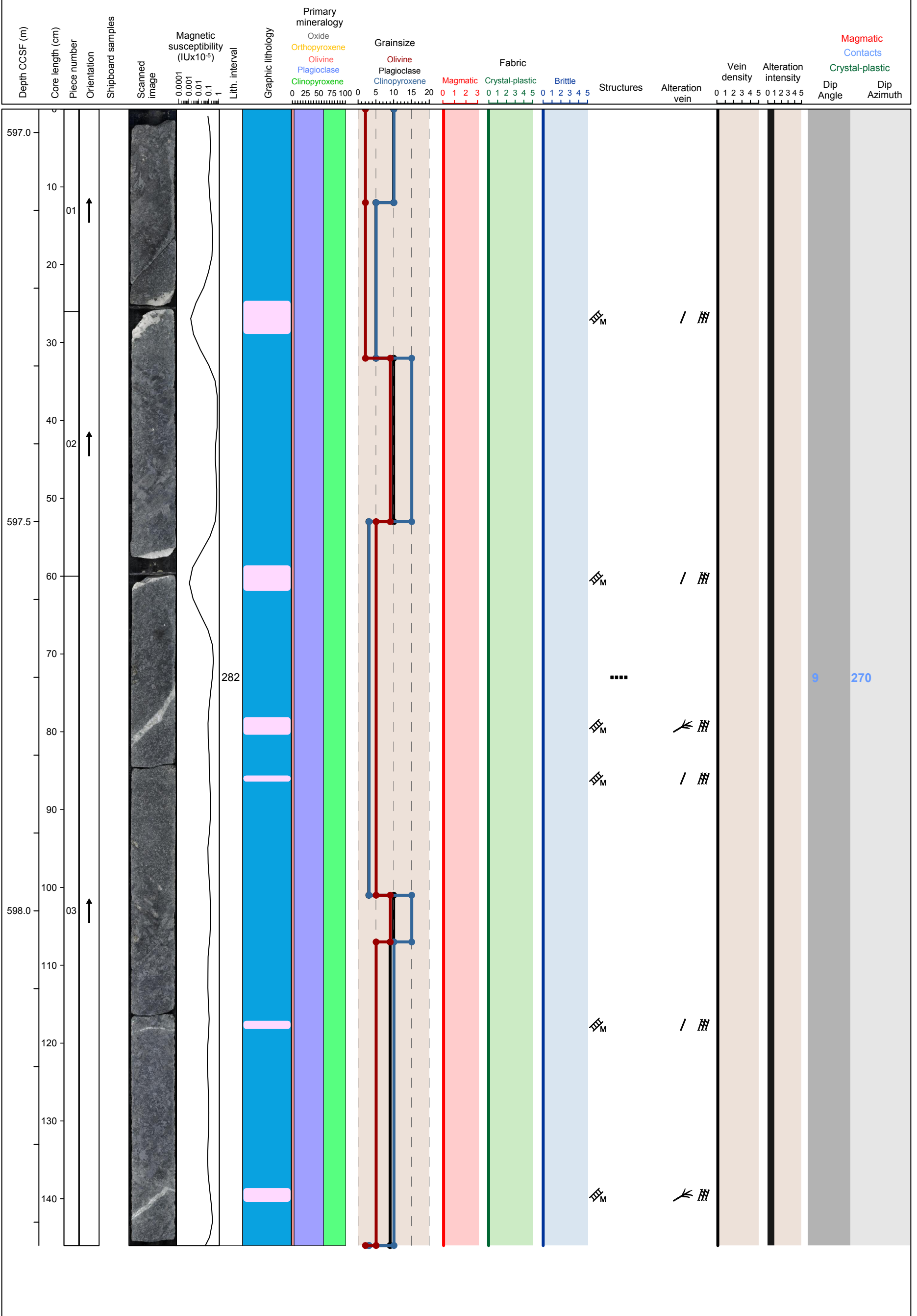


Hole 360-U1473A-66R Section 2, Top of Section: 596.97 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine bearing gabbro with coarse grained subophitic olivine gabbro domain (interval 282)

Metamorphic Petrology: Section is only slightly altered. Moderate alteration occurs near/at felsic veins.

Structural Geology: Sub-horizontal crystal plastic foliation. Grain size layering. One grain size contact is sharp. Six moderate to steeply dipping felsic veins.

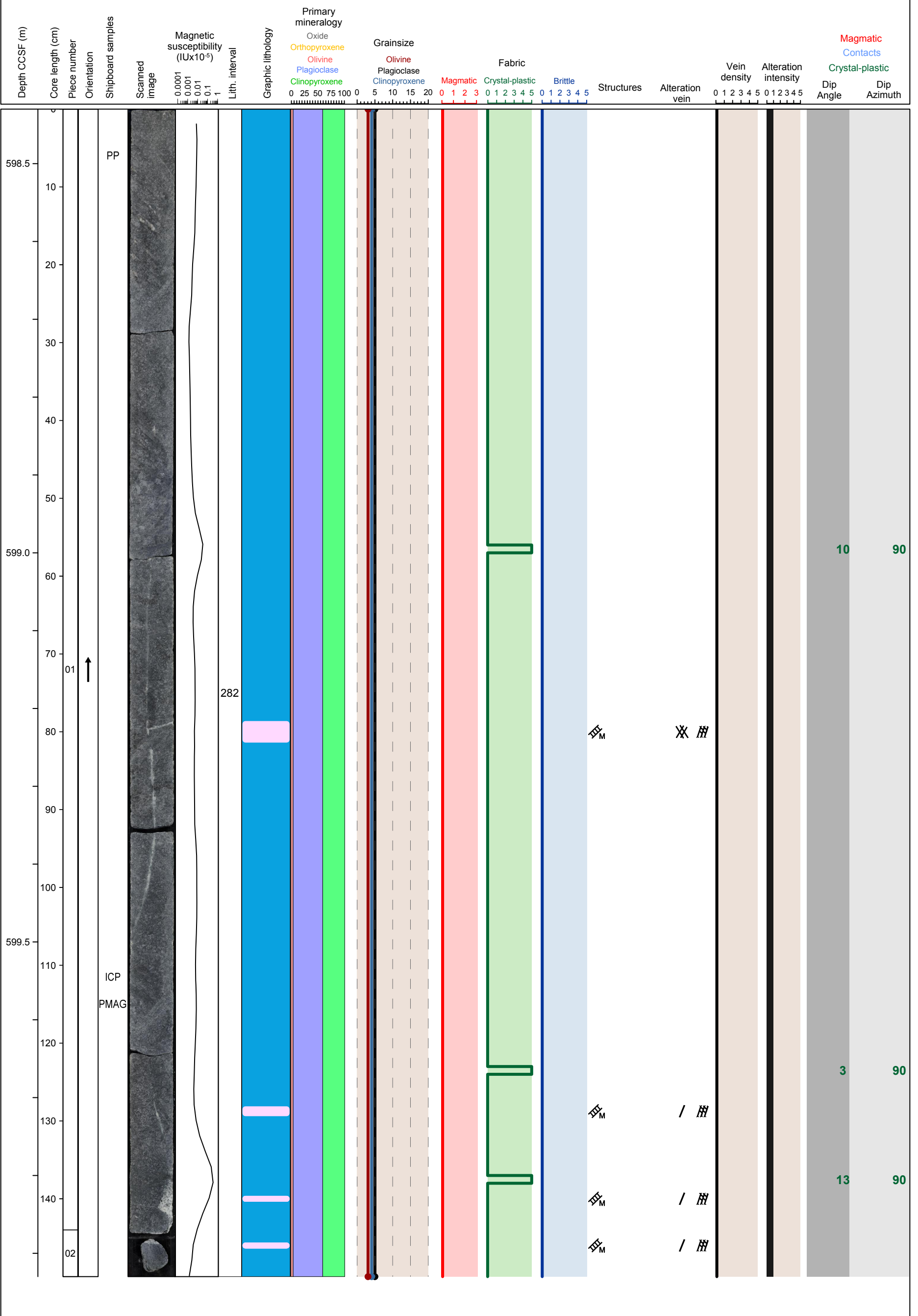


Hole 360-U1473A-66R Section 3, Top of Section: 598.43 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olvine bearing gabbro (interval 282)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: Three cm-thick mylonites with sub-horizontal dips at 45, 123, and 137 cm. The mylonite at 45 cm crosscuts and plastically deforms a vertical felsic vein. Four felsic veins.

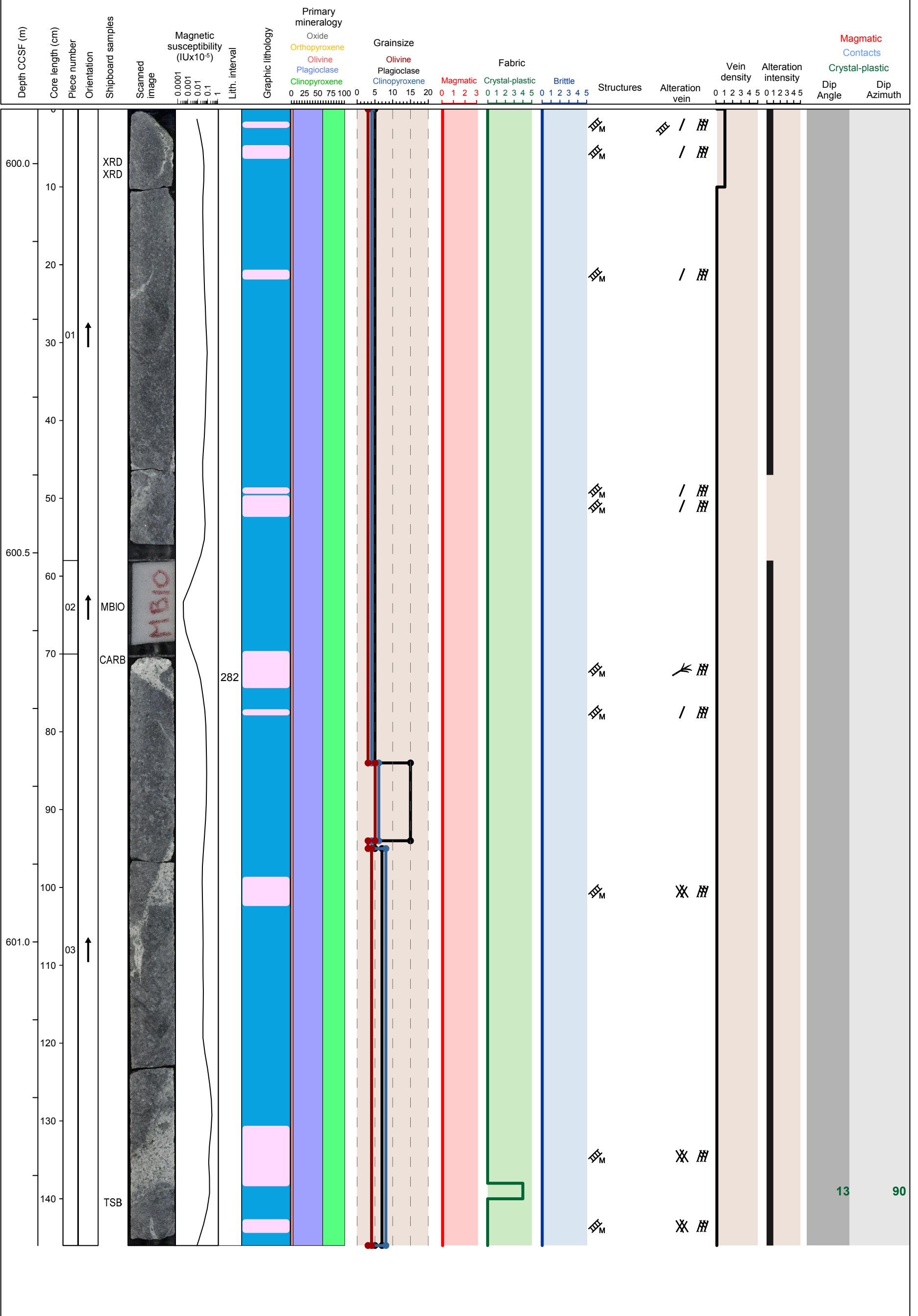


Hole 360-U1473A-66R Section 4, Top of Section: 599.93 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine bearing gabbro (interval 282)

Metamorphic Petrology: The section is only slightly altered.

Structural Geology: Nine felsic veins. The bottom contact of the felsic vein at 125 cm is mylonitic and inclined.

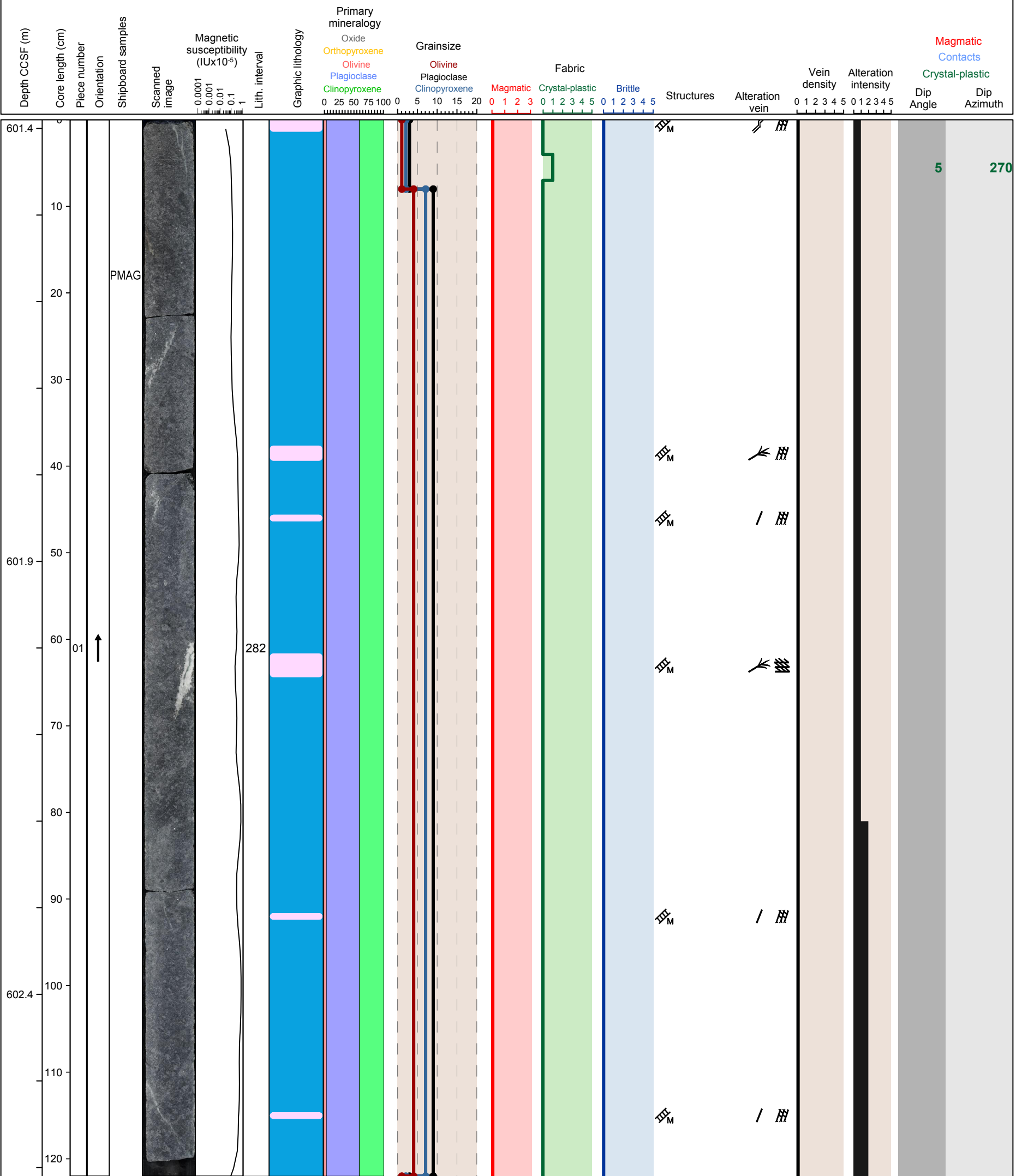


Hole 360-U1473A-66R Section 5, Top of Section: 601.39 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine bearing gabbro (interval 282)

Metamorphic Petrology: Section is slightly to moderately altered. The bottom part of the section is moderately altered into mostly chlorite.

Structural Geology: Six felsic veins. The felsic vein at 44 cm is an extensional pull-a-part structure.

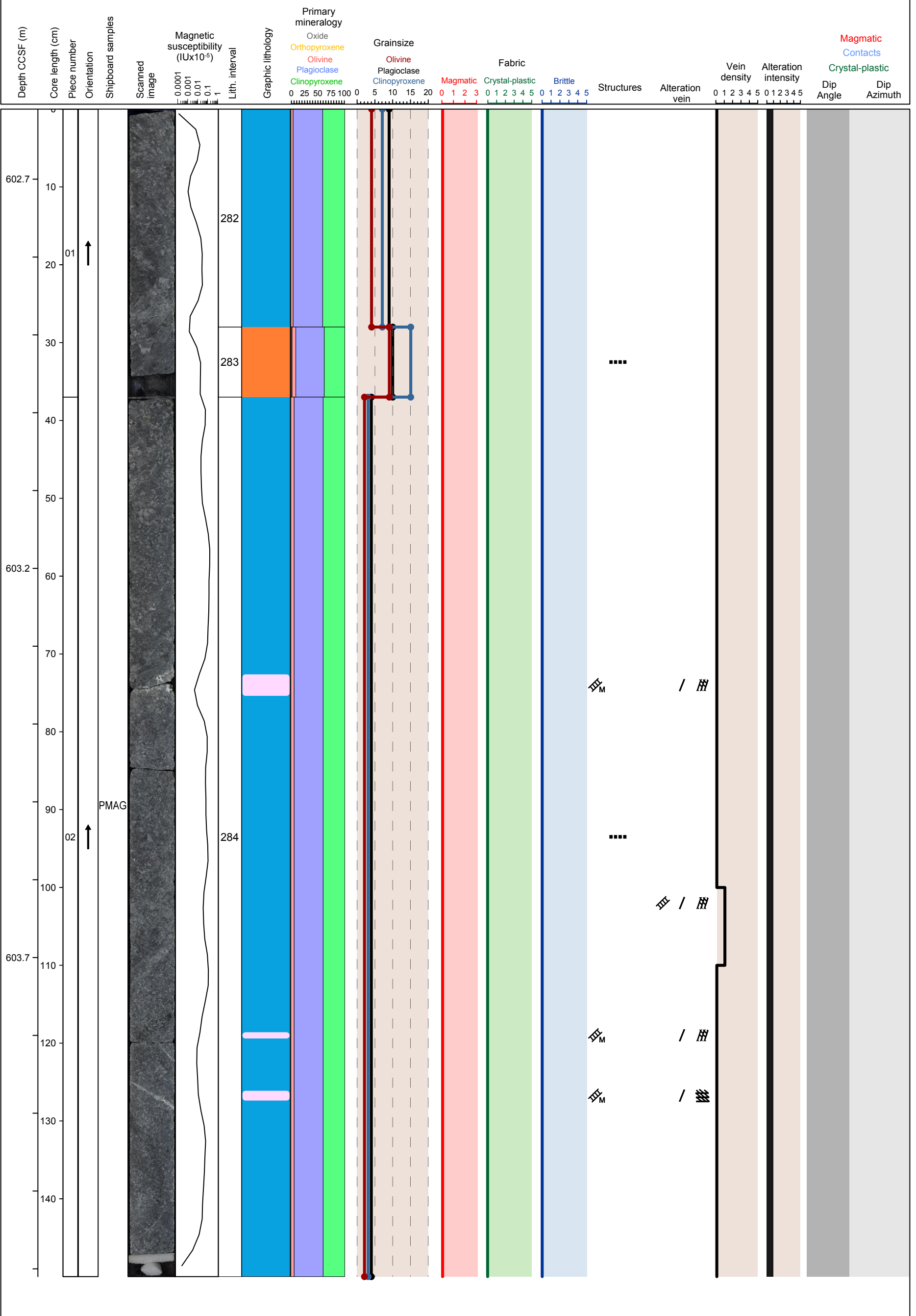


Hole 360-U1473A-66R Section 6, Top of Section: 602.61 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine bearing gabbro (interval 282), coarse grained granular oxide bearing olivine gabbro (interval 283) and coarse grained subophitic olivine gabbro (interval 284)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: Three magmatic veins.

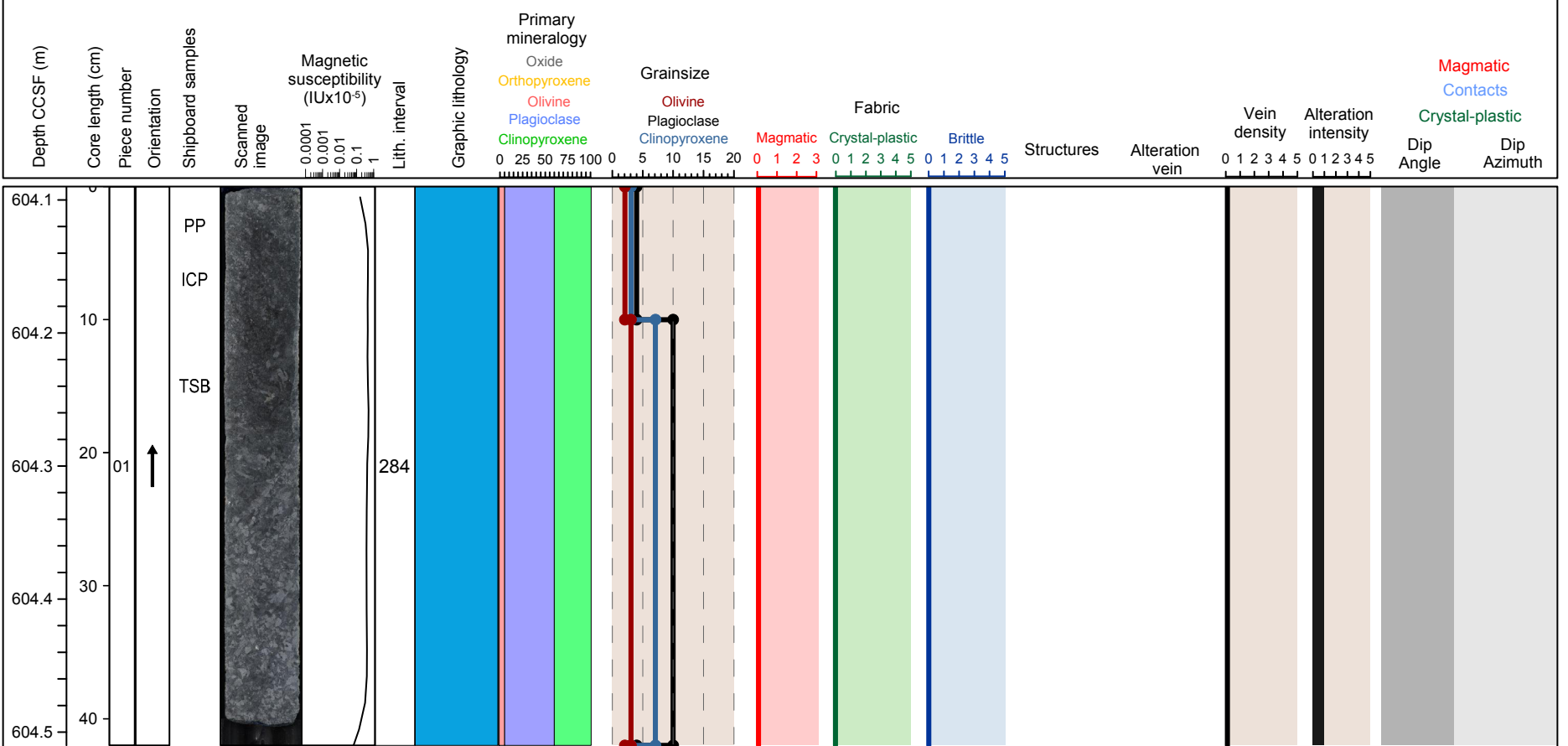


Hole 360-U1473A-66R Section 7, Top of Section: 604.11 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 284)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: Grain size layering. One fine grained interval is intrusive.

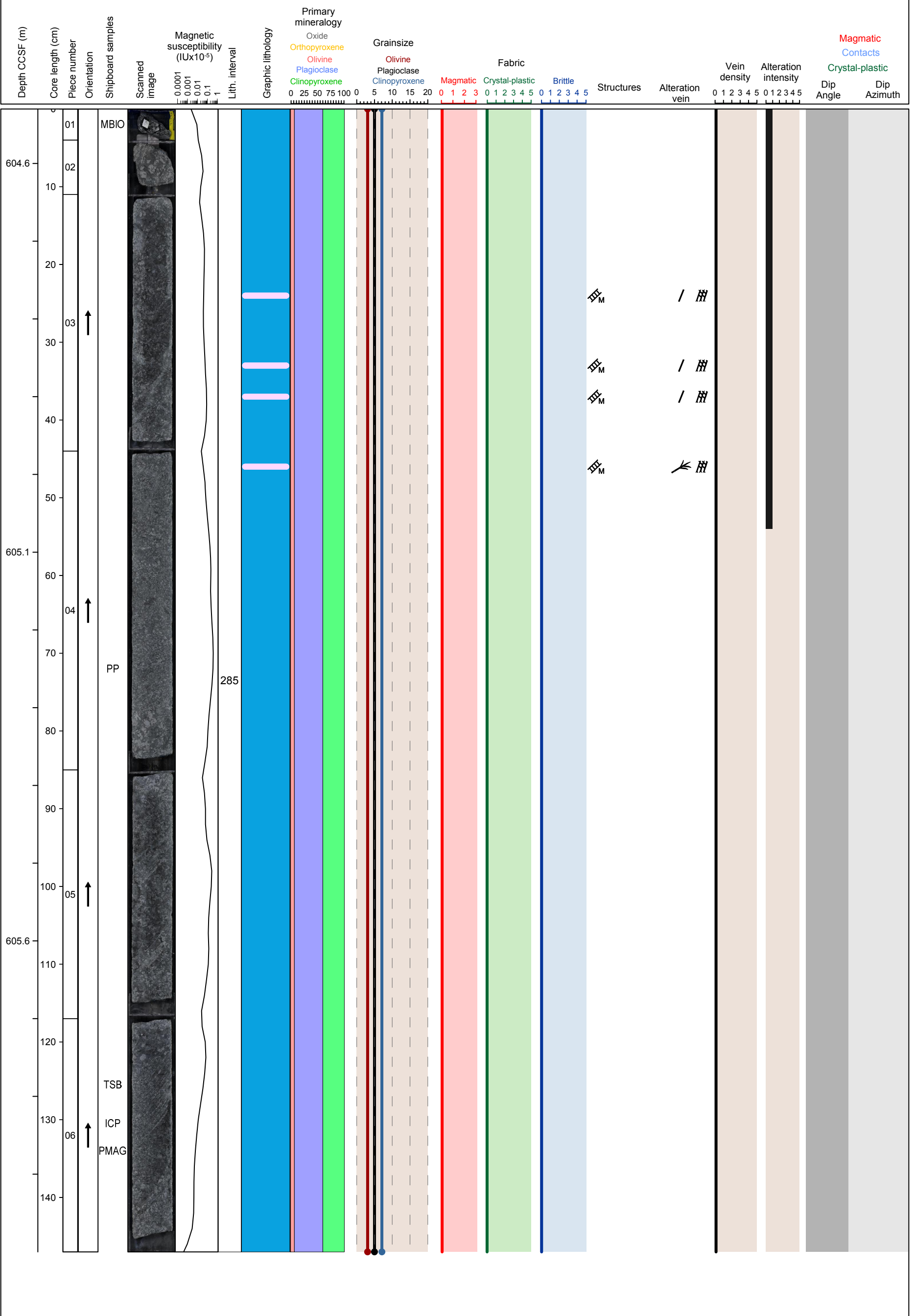


Hole 360-U1473A-67R Section 1, Top of Section: 604.53 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 285)

Metamorphic Petrology: Alteration intensity of this section ranges from negligible to slight. Minor alteration occur near felsic intrusions.

Structural Geology:

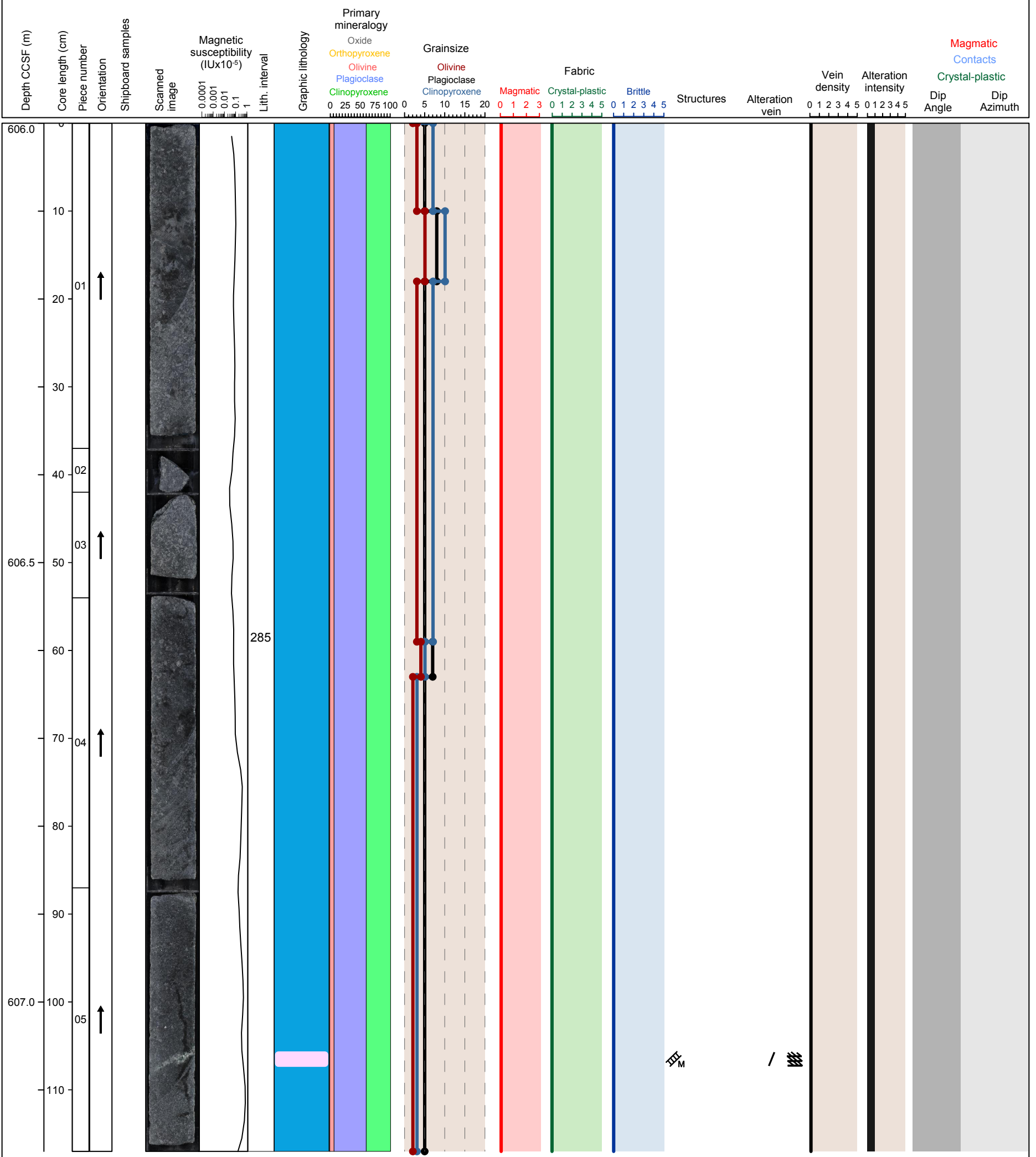


Hole 360-U1473A-67R Section 2, Top of Section: 606.0 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 285)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology:

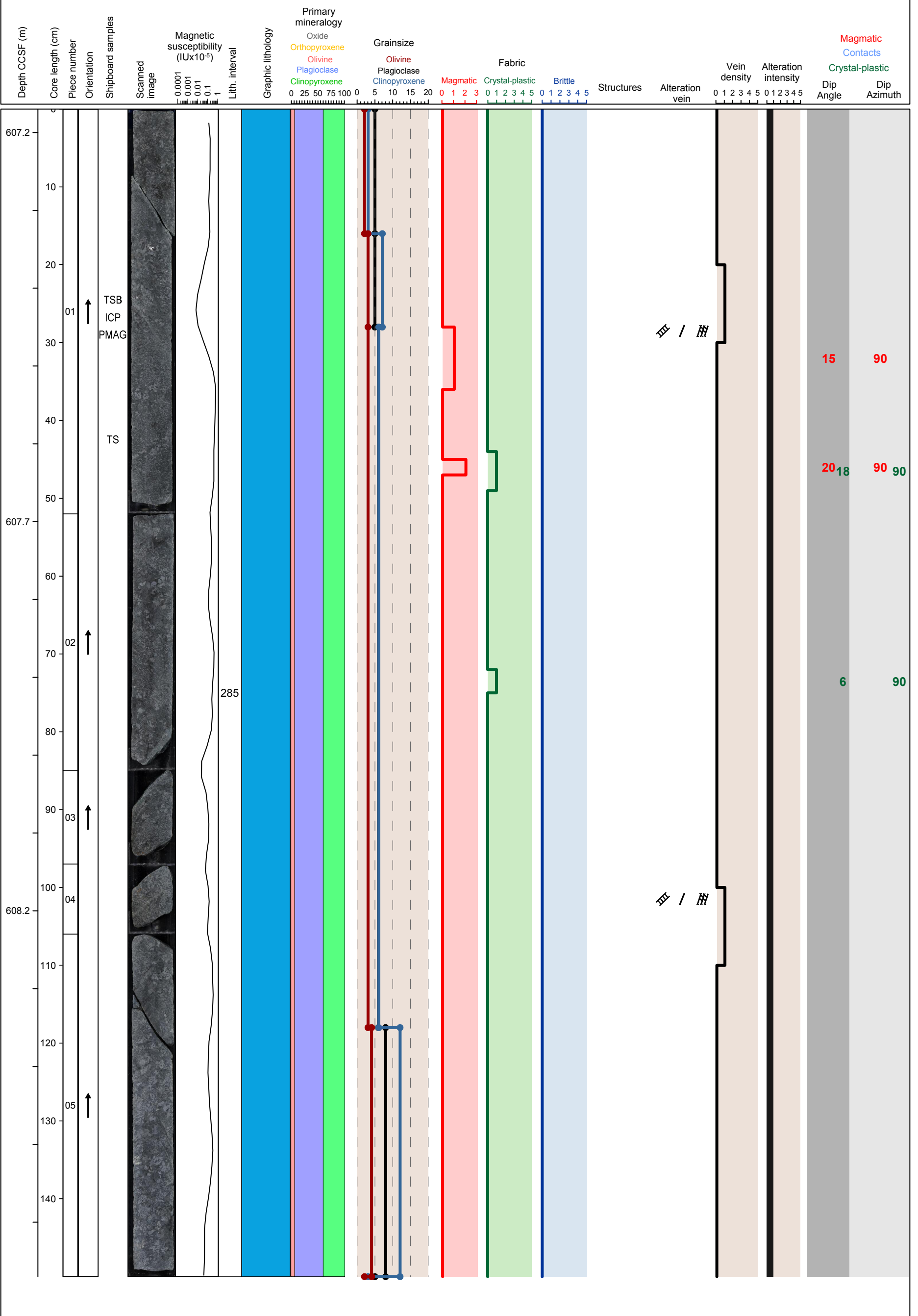


Hole 360-U1473A-67R Section 3, Top of Section: 607.17 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 285)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology:

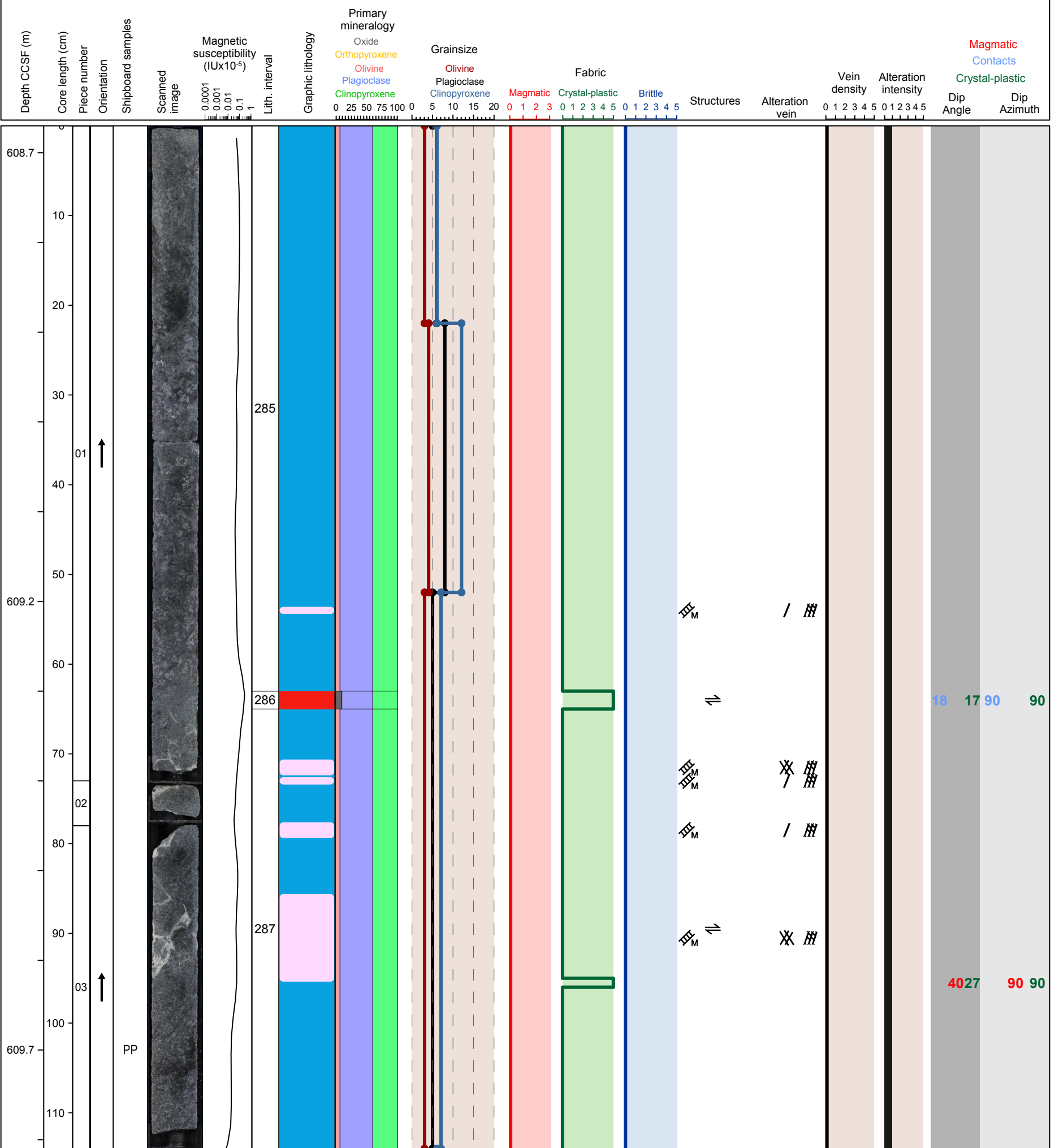


Hole 360-U1473A-67R Section 4, Top of Section: 608.67 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 285 and 287) and fine grained granular oxide gabbro (interval 286)

Metamorphic Petrology: Static background alteration intensity of this section is slight. More intense altered parts were associated with felsic veins.

Structural Geology:

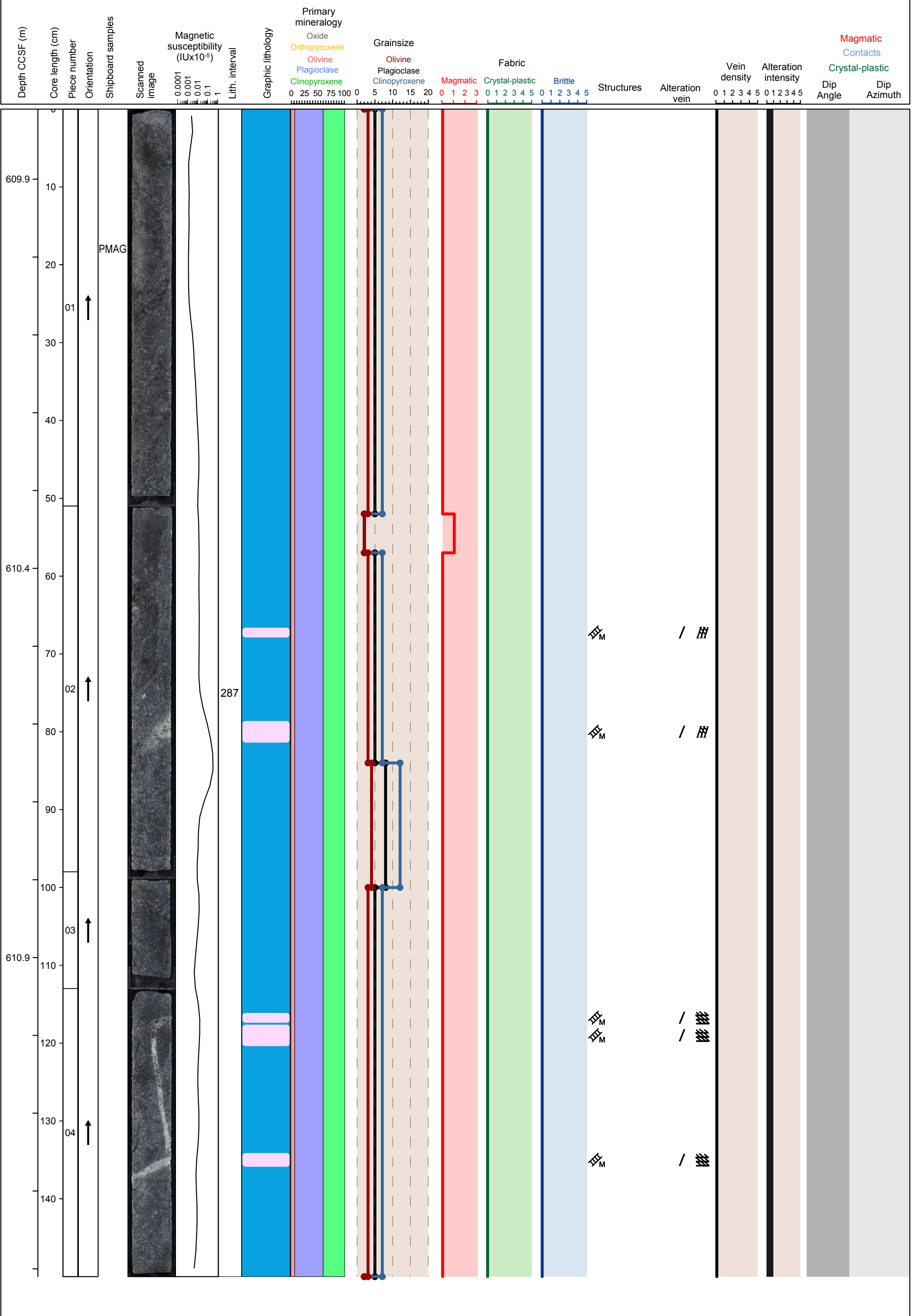


Hole 360-U1473A-67R Section 5, Top of Section: 609.81 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 287)

Metamorphic Petrology: Static background alteration intensity of this section is slight. More intense altered parts were associated with veins.

Structural Geology:

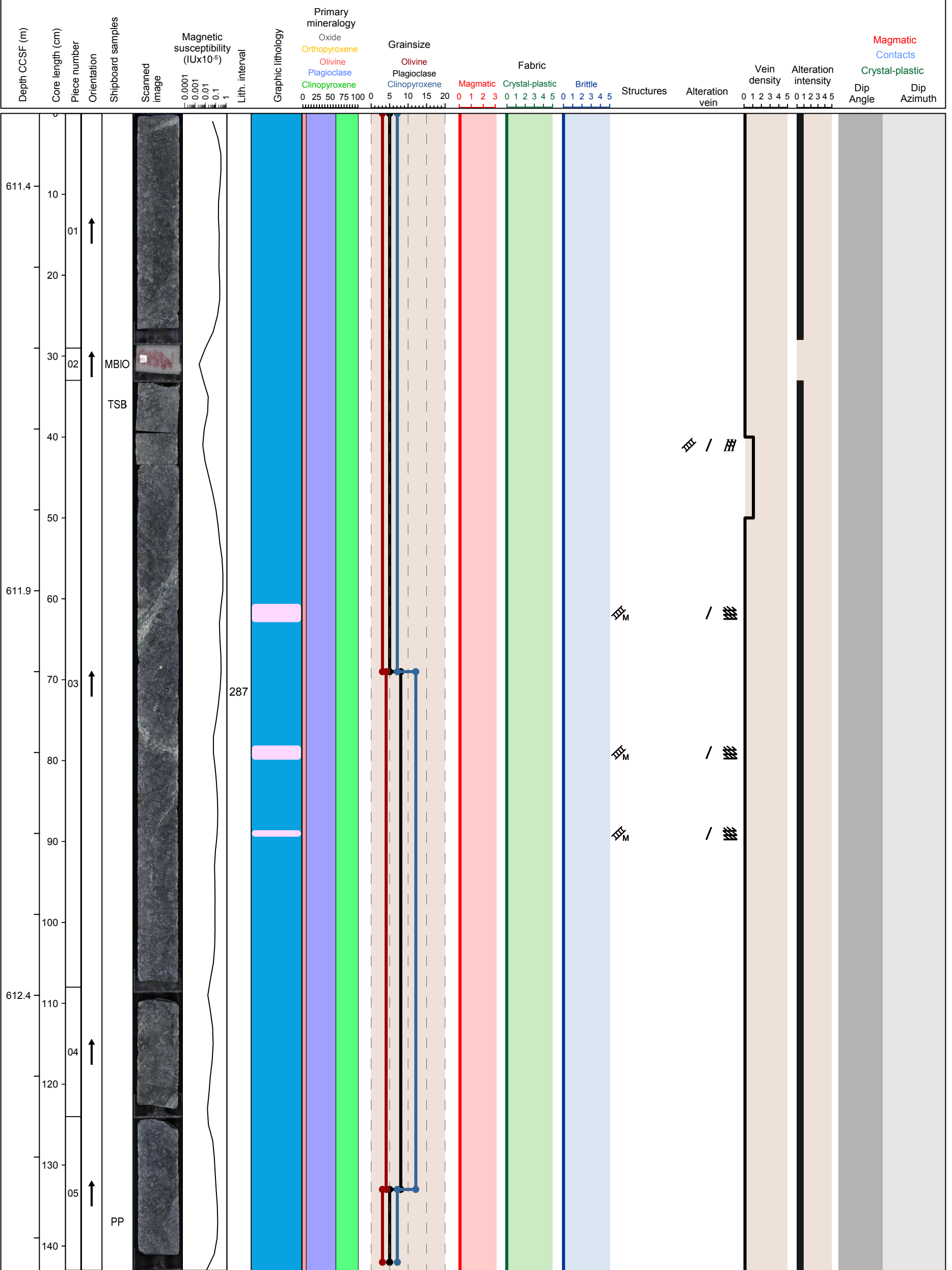


Hole 360-U1473A-67R Section 6, Top of Section: 611.31 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 287)

Metamorphic Petrology: Static background alteration intensity of this section is slight. More intense altered parts are associated with veins.

Structural Geology:

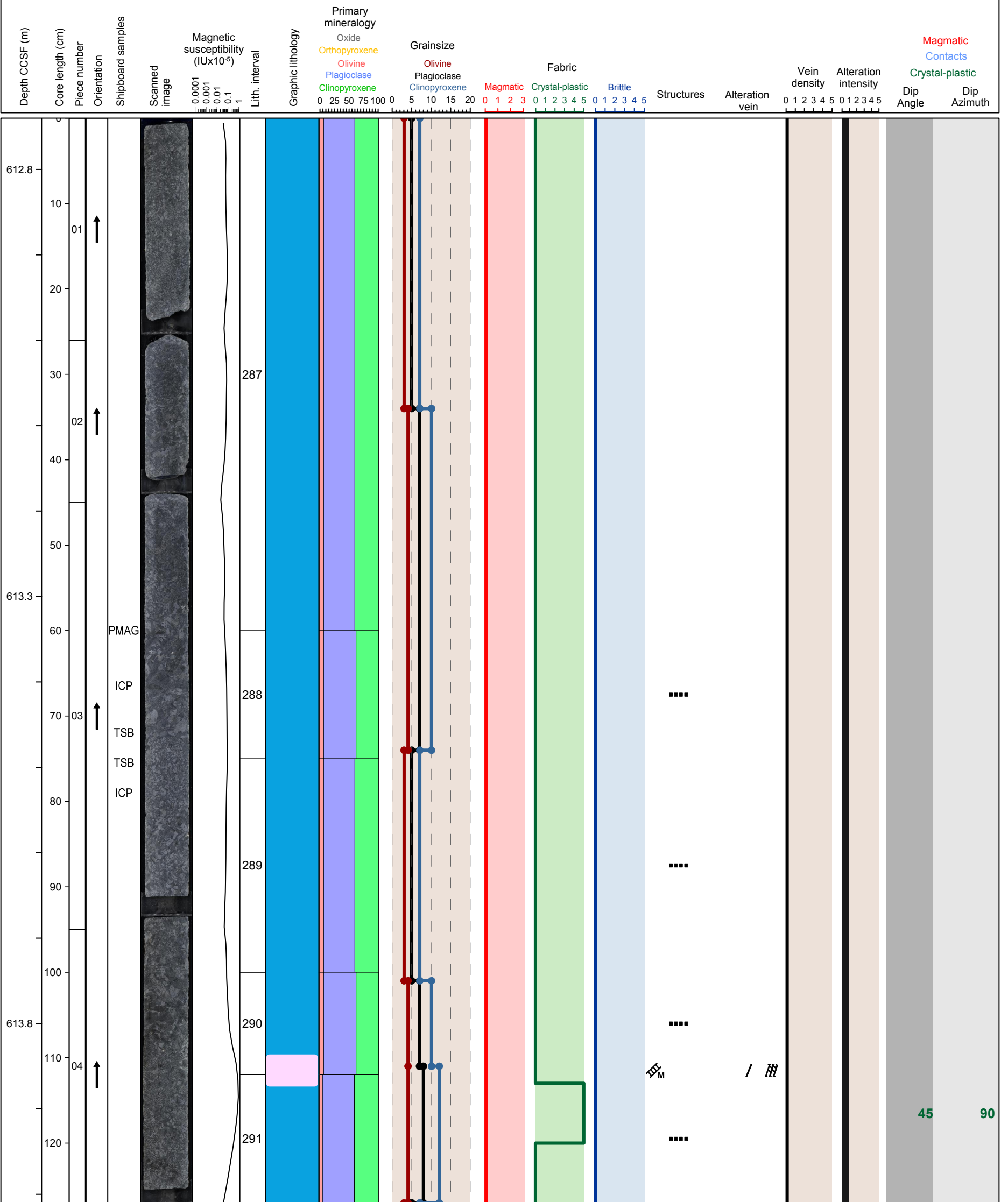


Hole 360-U1473A-67R Section 7, Top of Section: 612.74 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 287, 288, 289, 290 and 291)

Metamorphic Petrology: Static background alteration intensity of this section is slight.

Structural Geology:

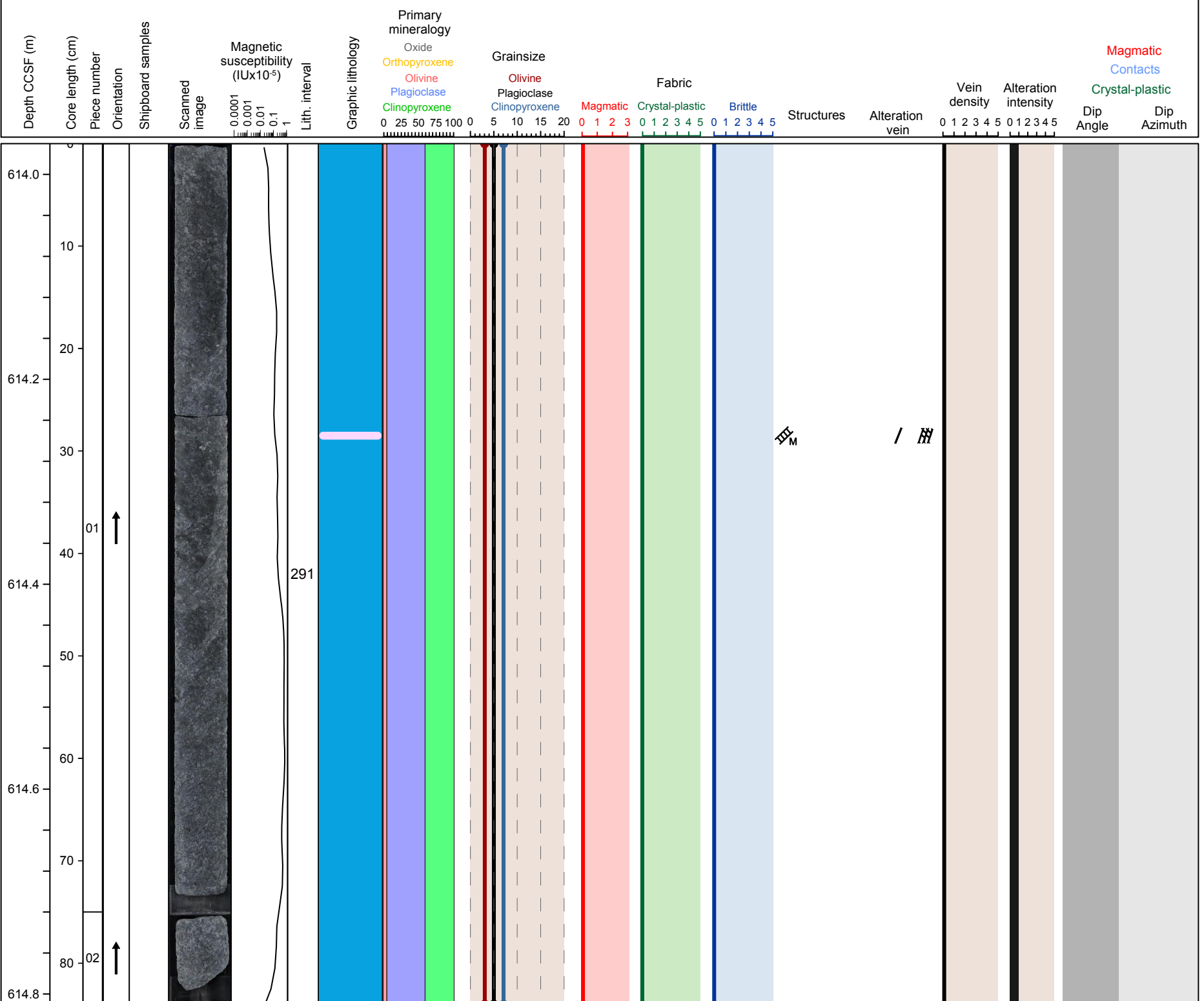


Hole 360-U1473A-67R Section 8, Top of Section: 614.01 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 291)

Metamorphic Petrology: Static background alteration intensity of this section is slight.

Structural Geology:

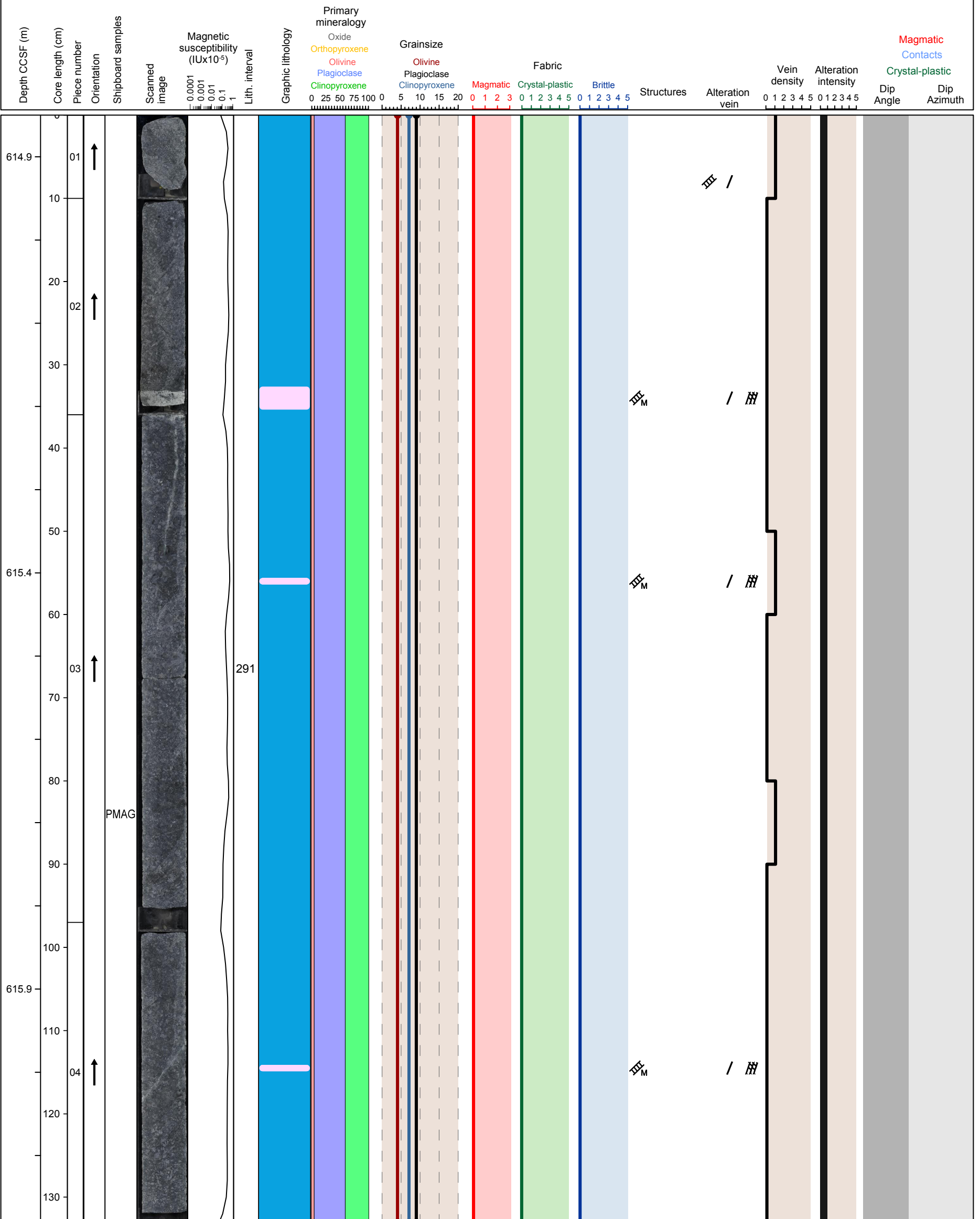


Hole 360-U1473A-68R Section 1, Top of Section: 614.85 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 291)

Metamorphic Petrology: Static background alteration intensity of this section is only slight.

Structural Geology: Moderate to shallowly dipping grain size layering. Three felsic veins. One felsic vein crosscuts and disrupts a mm-thick mylonite.

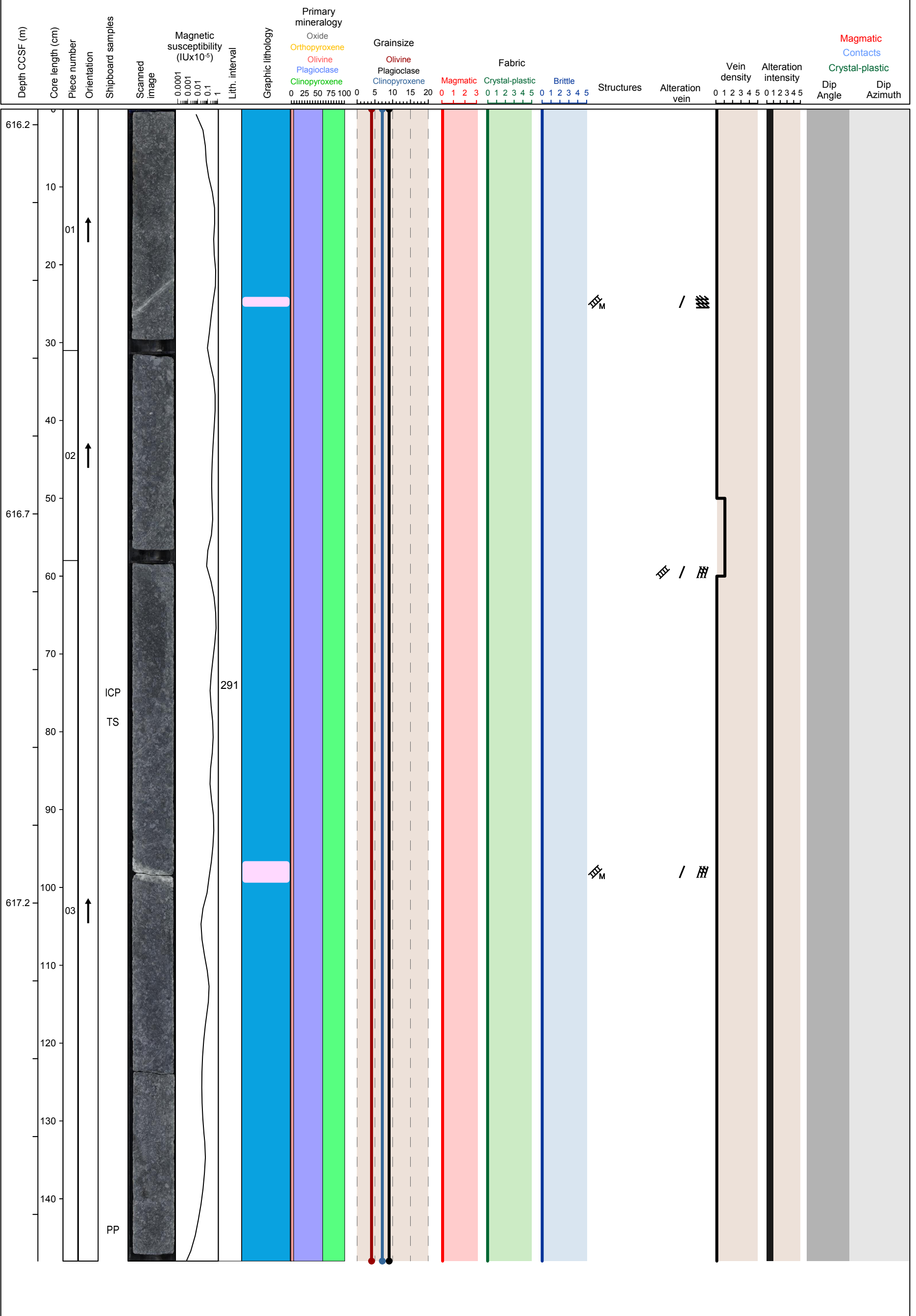


Hole 360-U1473A-68R Section 2, Top of Section: 616.18 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 291)

Metamorphic Petrology: Static background alteration intensity of this section is only slight.

Structural Geology: Two magmatic veins.

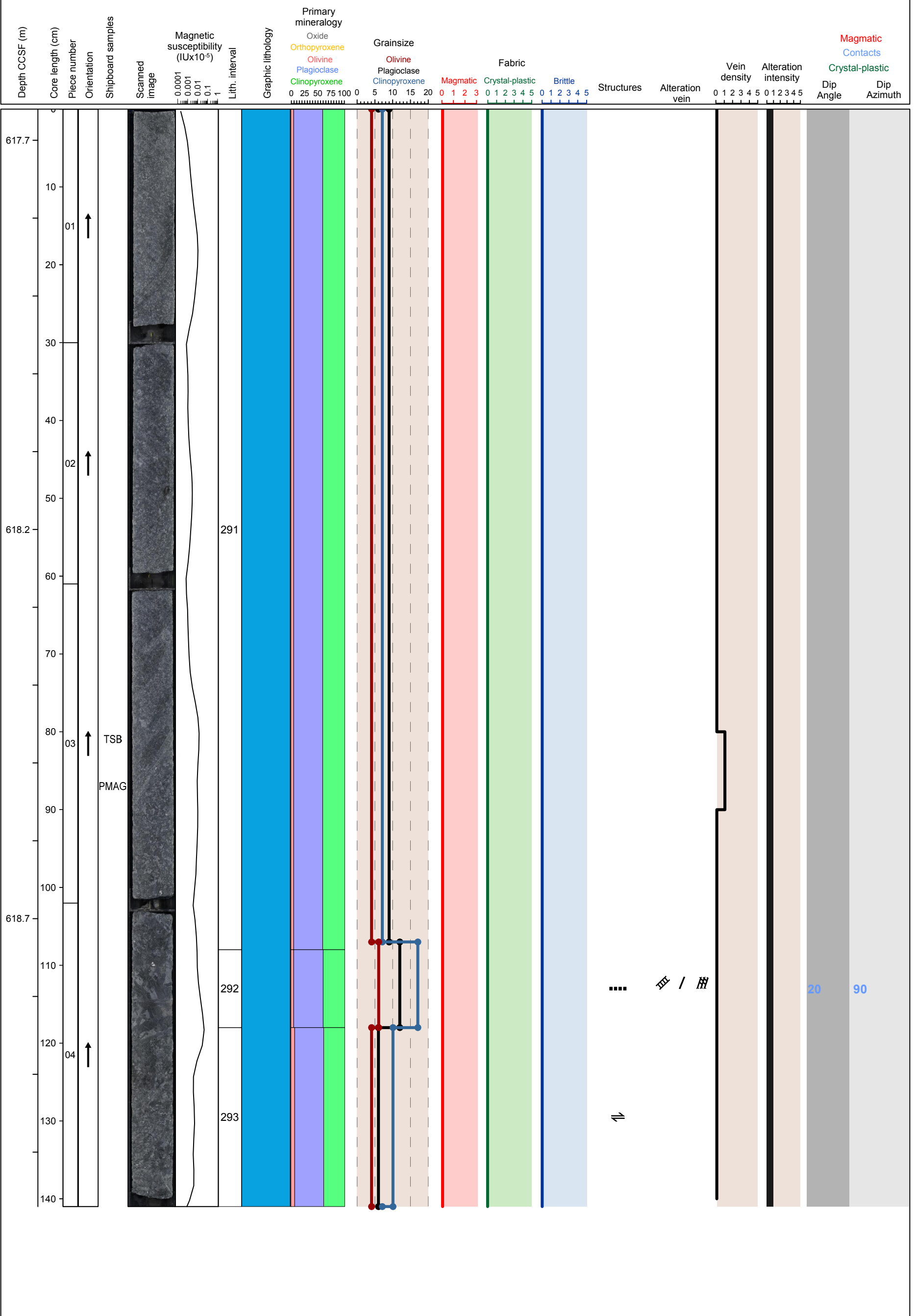


Hole 360-U1473A-68R Section 3, Top of Section: 617.66 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 291, 292 and 293)

Metamorphic Petrology: Static background alteration intensity of this section is only slight.

Structural Geology: 10 cm thick grain size layers. Thin sub-horizontal mylonite at 118 cm.

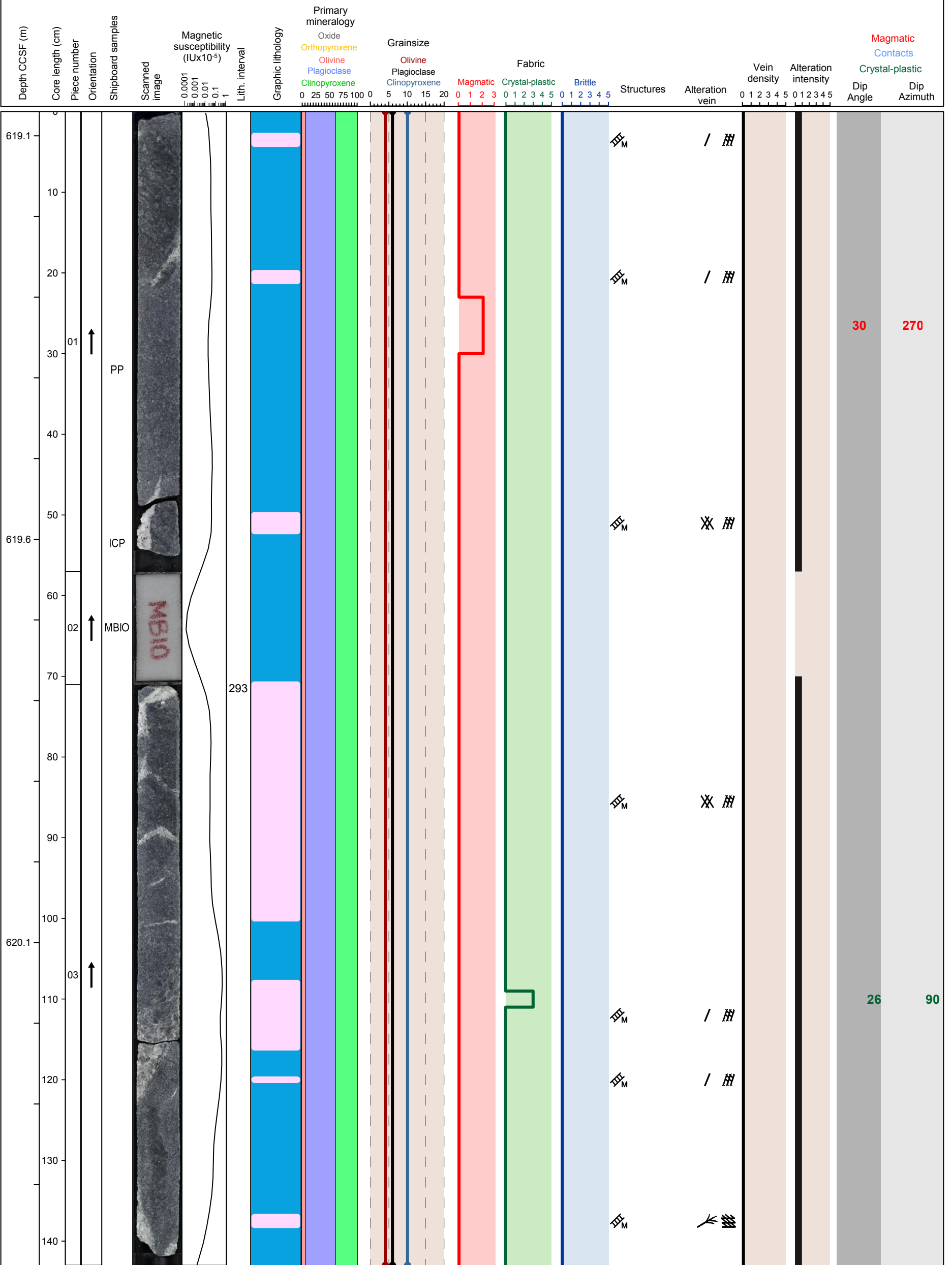


Hole 360-U1473A-68R Section 4, Top of Section: 619.07 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 293)

Metamorphic Petrology: Static background alteration intensity of this section is only slight.

Structural Geology: 7 felsic veins, some of which form incipient magma breccias. Some veins are sheared. Weak to moderate magmatic fabric in finer-grained intervals. Silicate porphyroclasts within a fine-grained matrix of Fe-Ti oxides with a moderate to shallow dip.

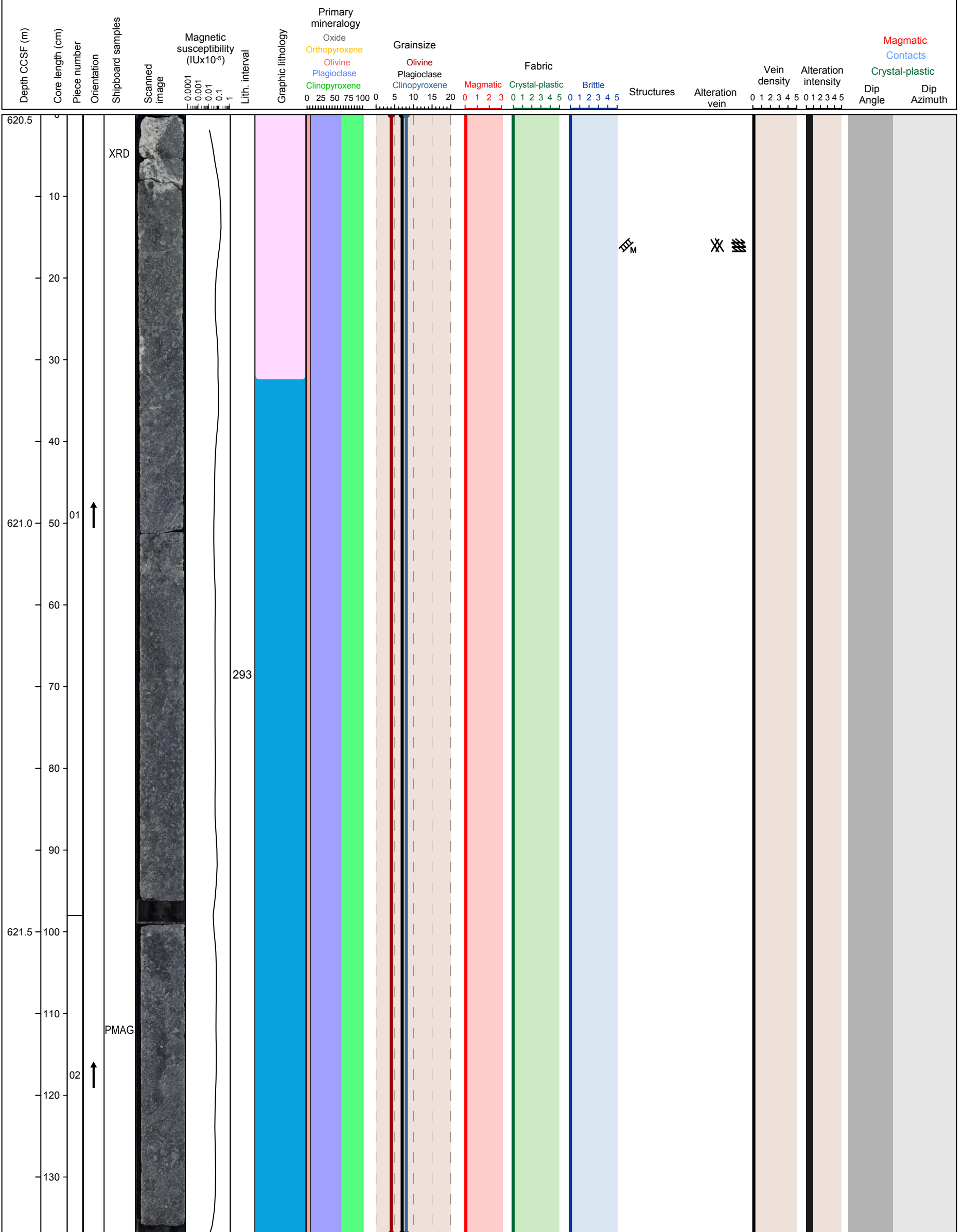


Hole 360-U1473A-68R Section 5, Top of Section: 620.5 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 293)

Metamorphic Petrology: Static background alteration intensity of this section is only slight.

Structural Geology: Inclined, patchy grain size layering. Incipient magmatic breccia network.

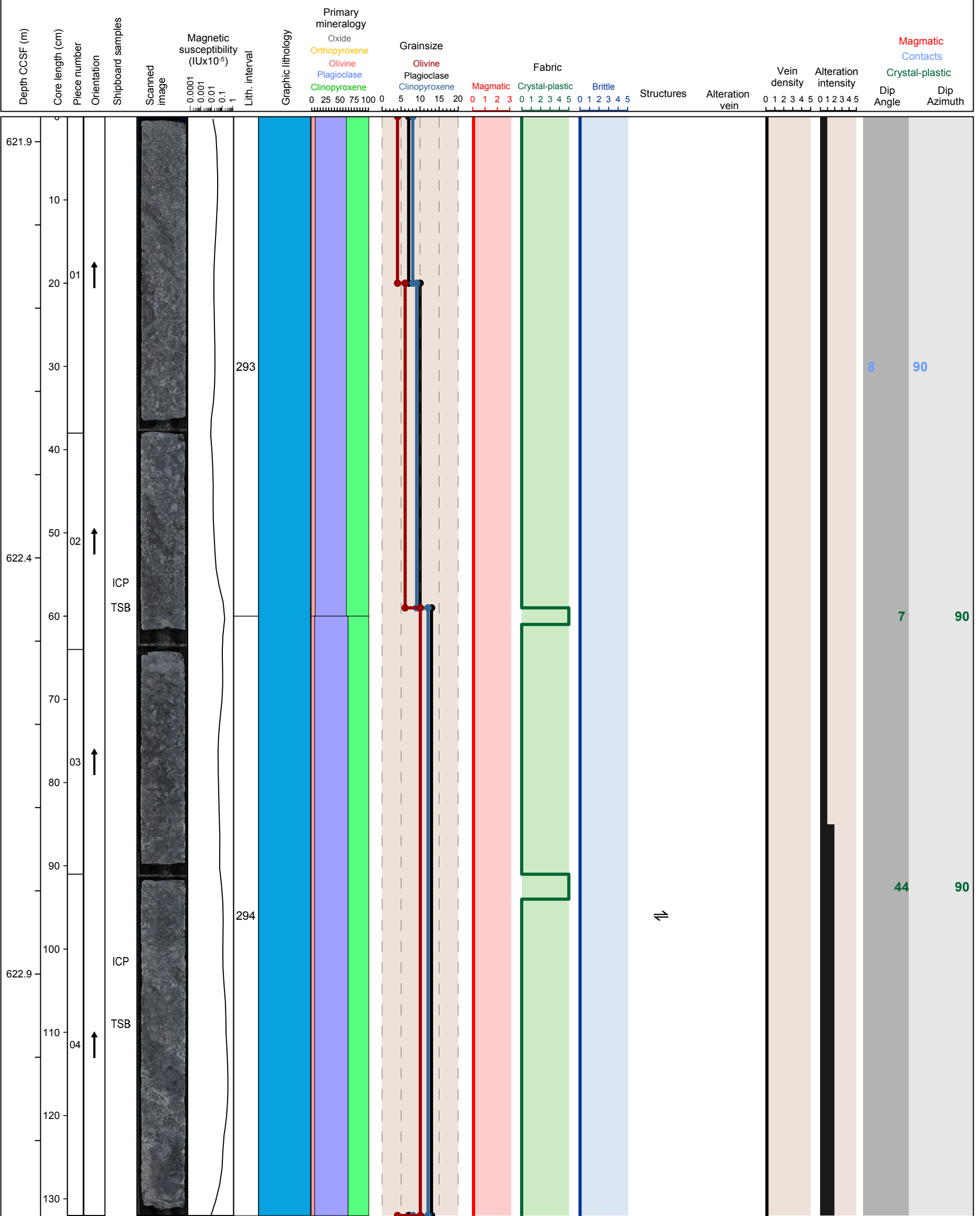


Hole 360-U1473A-68R Section 6, Top of Section: 621.87 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 293) and coarse grained granular olivine gabbro (interval 294)

Metamorphic Petrology: Static background alteration intensity of this section ranges from slight to moderate. Moderate alteration is associated with a felsic patch.

Structural Geology: Oxide-rich ultramylonite as a discrete, sub-horizontal band at 60 cm. Magmatic breccia at 120 cm.

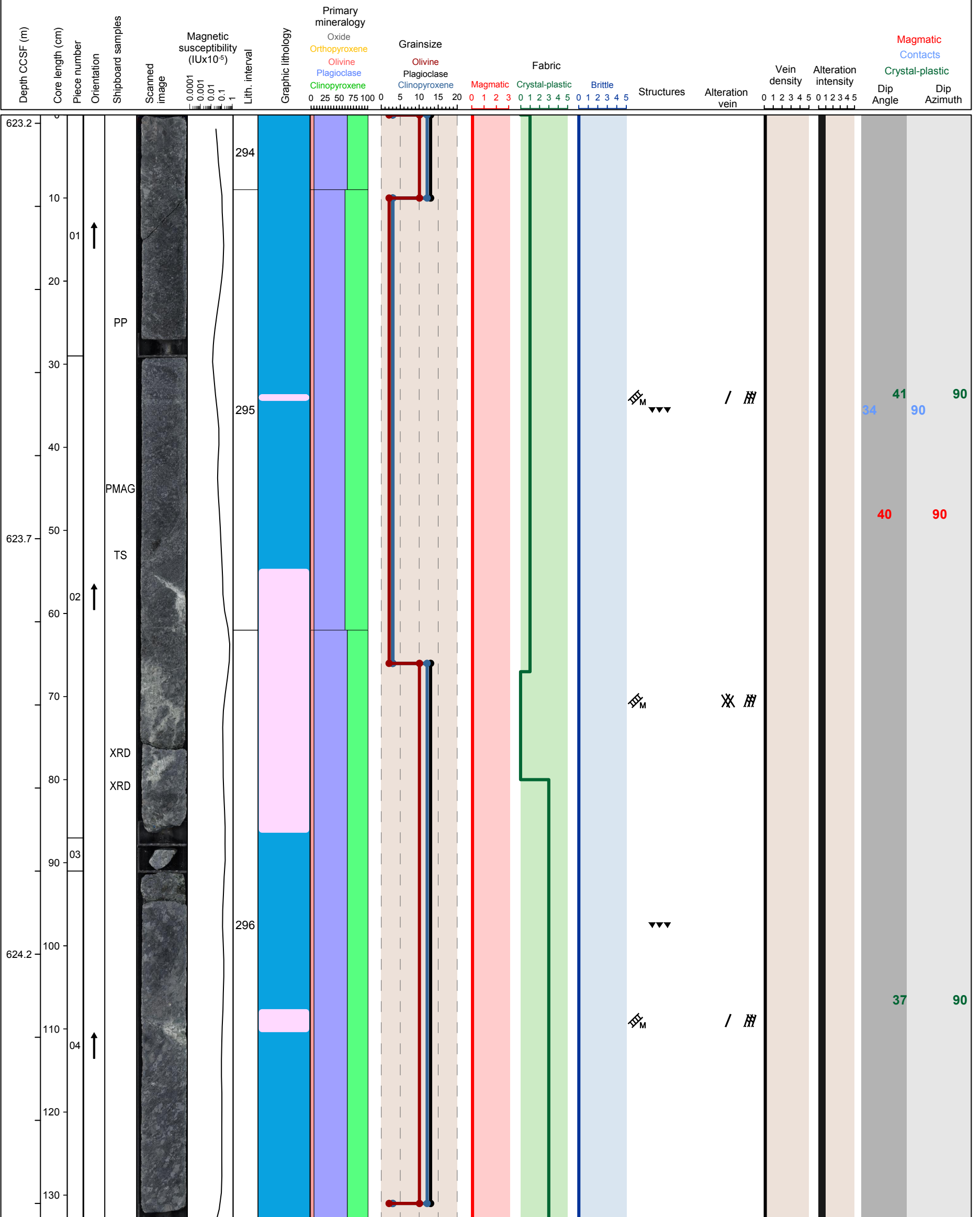


Hole 360-U1473A-68R Section 7, Top of Section: 623.19 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 294 and 296) and medium grained granular olivine gabbro (interval 295)

Metamorphic Petrology: Static background alteration intensity of this section ranges from slight to moderate. Moderate alteration occur near/at a felsic patch.

Structural Geology: Grain size layering with a weak crystal plastic overprint that has a moderate dip. In some cases the crystal plastic fabric crosscuts the finer layers. 3 incipient magmatic breccias.

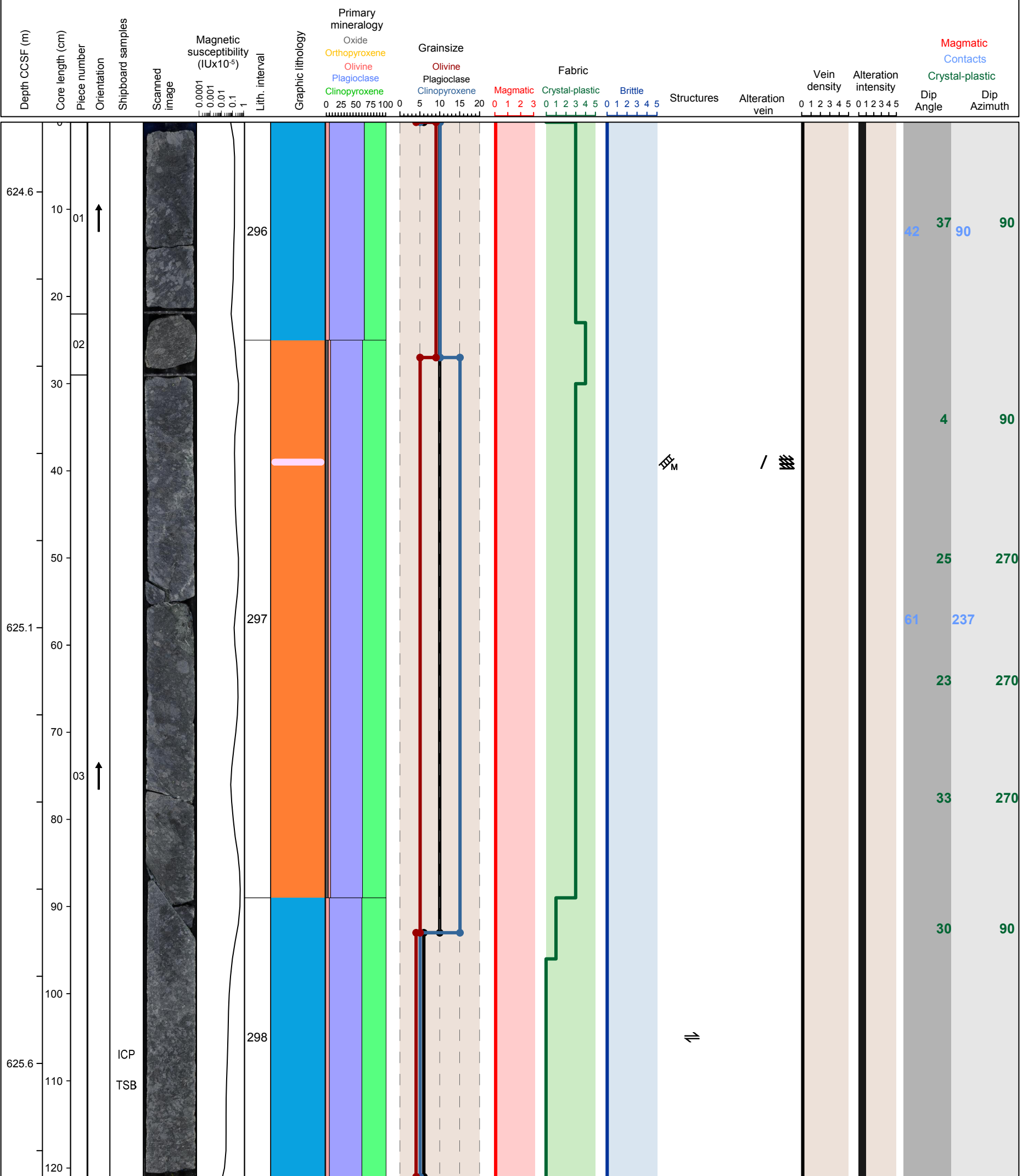


Hole 360-U1473A-69R Section 1, Top of Section: 624.52 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 296), coarse grained granular olivine and oxide bearing gabbro (interval 297) and coarse grained subophitic olivine gabbro (interval 298)

Metamorphic Petrology: Static background alteration intensity of this section is only slight.

Structural Geology: Porphyroclastic foliation in fine grained domains with a moderate to shallow dip. 1 magmatic breccia with a weak crystal plastic overprint.

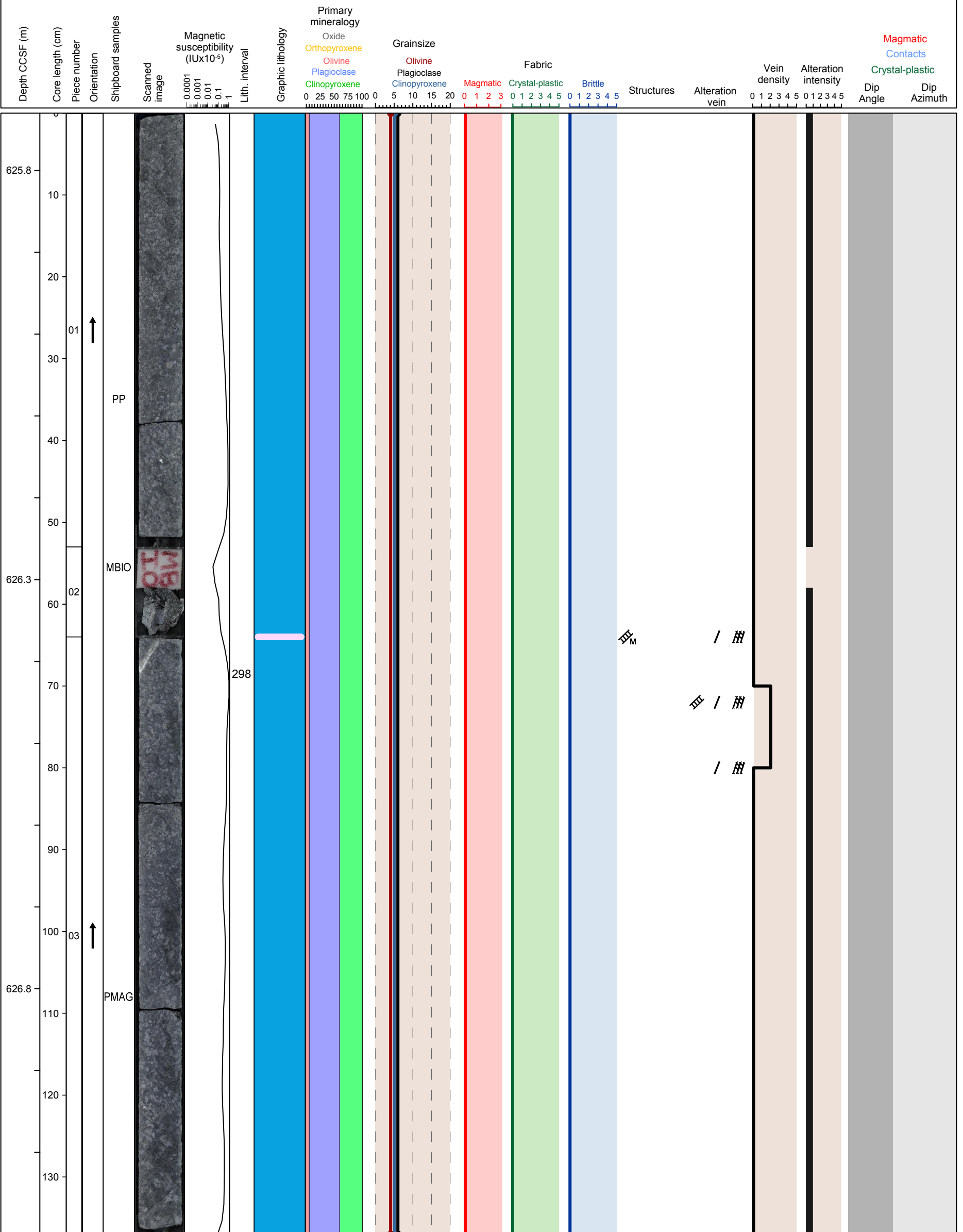


Hole 360-U1473A-69R Section 2, Top of Section: 625.73 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 298)

Metamorphic Petrology: Static background alteration intensity of this section is only slight.

Structural Geology: One magmatic vein.

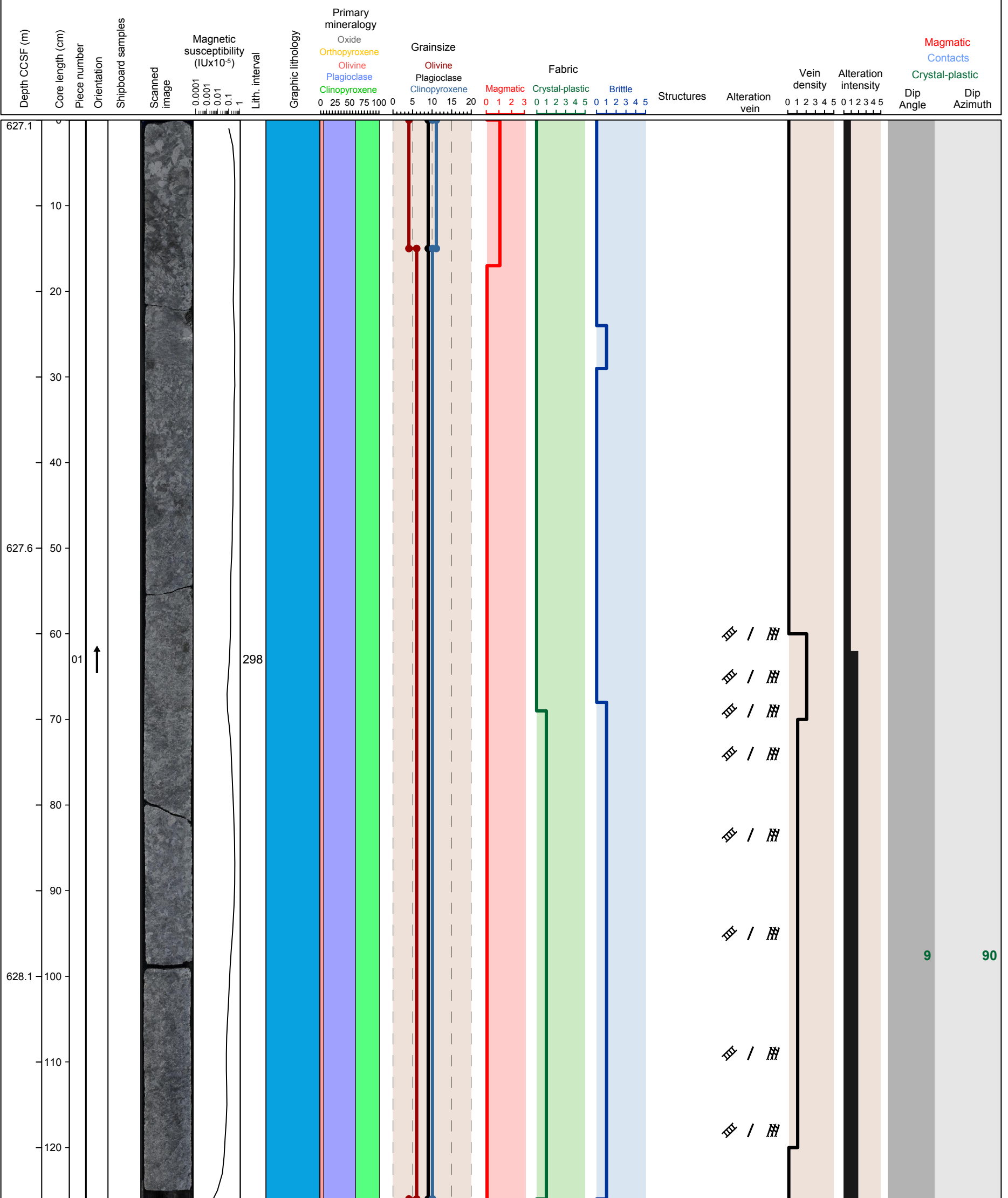


Hole 360-U1473A-69R Section 3, Top of Section: 627.1 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 298)

Metamorphic Petrology: Static background alteration intensity ranges from slight to moderate. Milky white plagioclase are more common in the lower part of the section.

Structural Geology: Weak, diffuse, coarse grained foliation with a shallow dip.

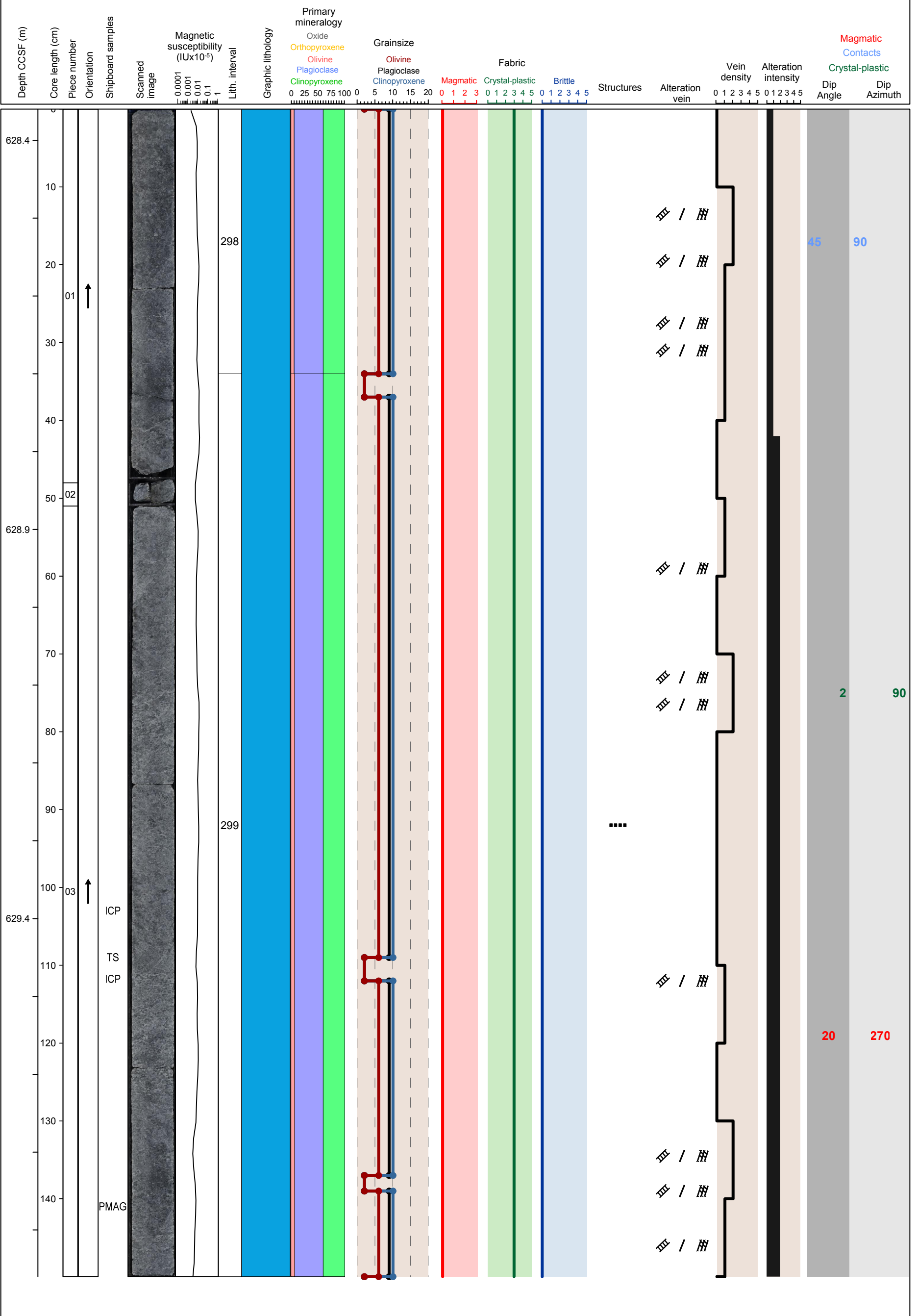


Hole 360-U1473A-69R Section 4, Top of Section: 628.36 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 298) and coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 299)

Metamorphic Petrology: Static background alteration intensity of this section ranges from slight to moderate. Milky white plagioclase is more pronounced at the bottom part of the section.

Structural Geology: Sub-horizontal coarse to fine-grained porphyroclastic fabric. Grain size layering is discordant to magmatic fabric. The magmatic fabric intensity increases with depth. Sub-horizontal, discontinuous fractures are filled with clay.

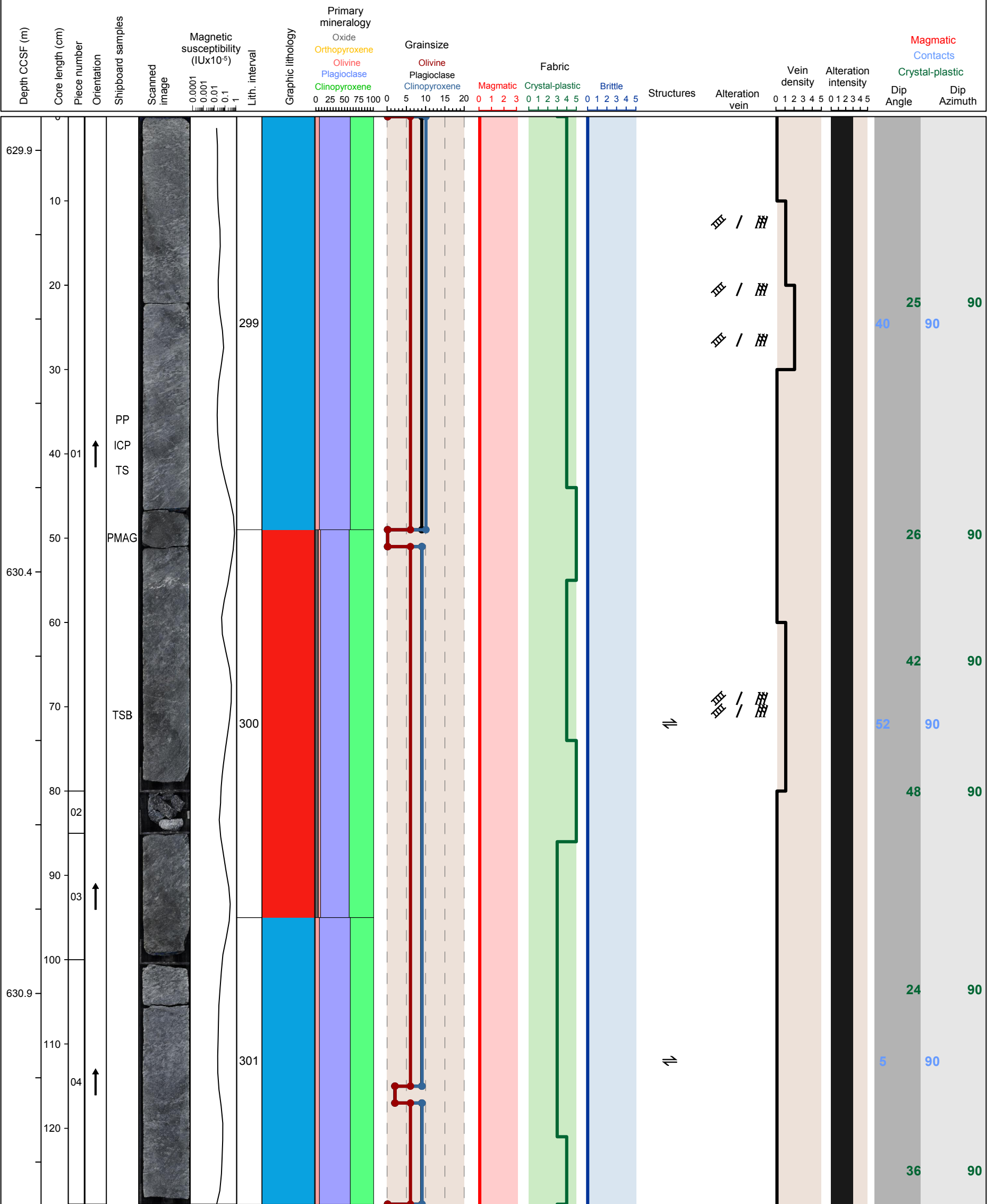


Hole 360-U1473A-69R Section 5, Top of Section: 629.86 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 299), coarse grained granular olivine bearing oxide gabbro (interval 300) and coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 301)

Metamorphic Petrology: Alteration intensity of this section is substantial. Plagioclase is mostly transformed to 2nd plagioclase.

Structural Geology: Sequence of mylonitic to ultramylonitic zones with shallow to moderate dips. The shallow crystal plastic fabrics are cut by higher angle, more intense crystal plastic fabrics. Sub-horizontal, discontinuous fractures are filled with clay.

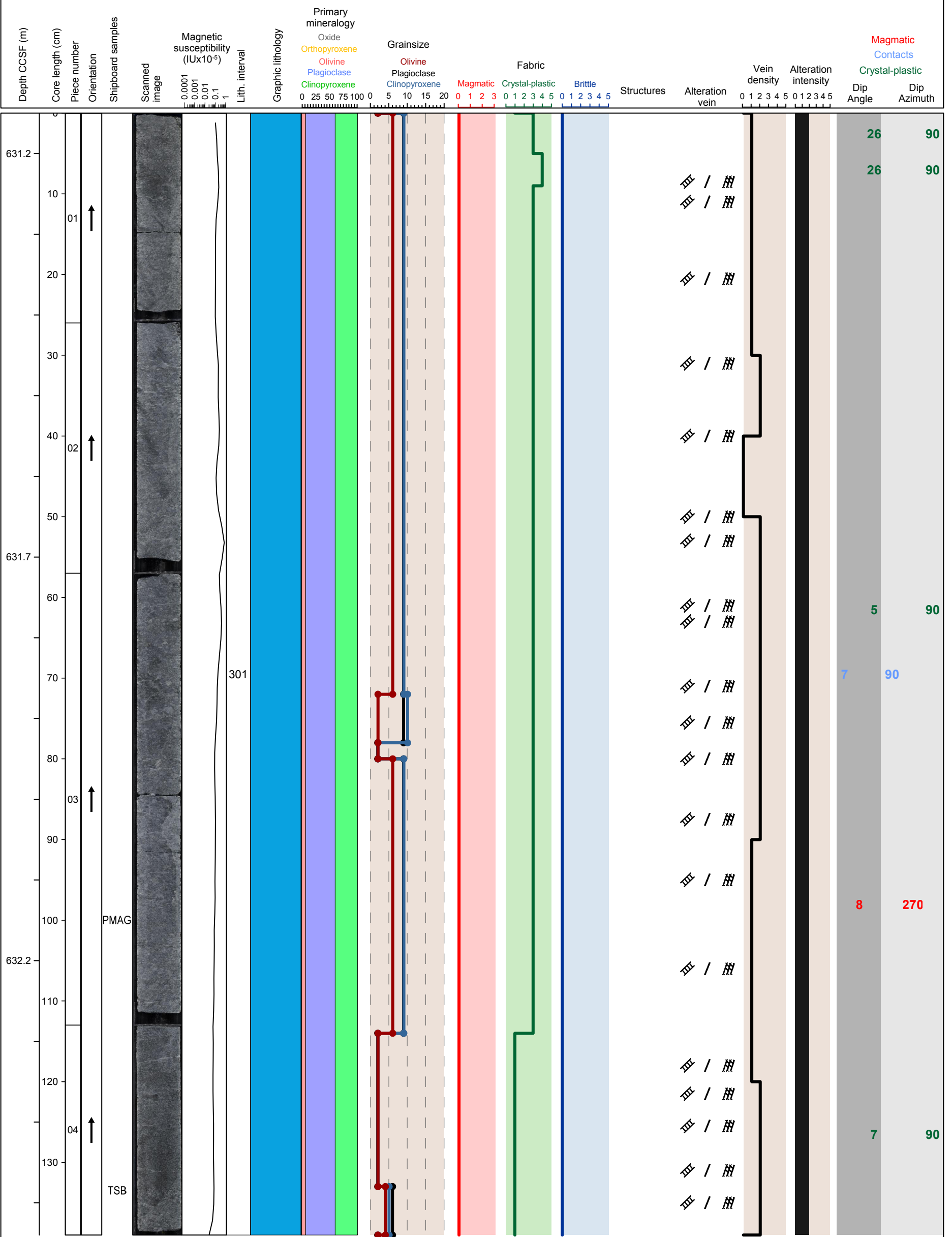


Hole 360-U1473A-69R Section 6, Top of Section: 631.15 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 301)

Metamorphic Petrology: Alteration intensity of this section is moderate.

Structural Geology: Grain size layering with shallow porphyroclastic overprint. Sub-horizontal, discontinuous fractures are filled with clay.

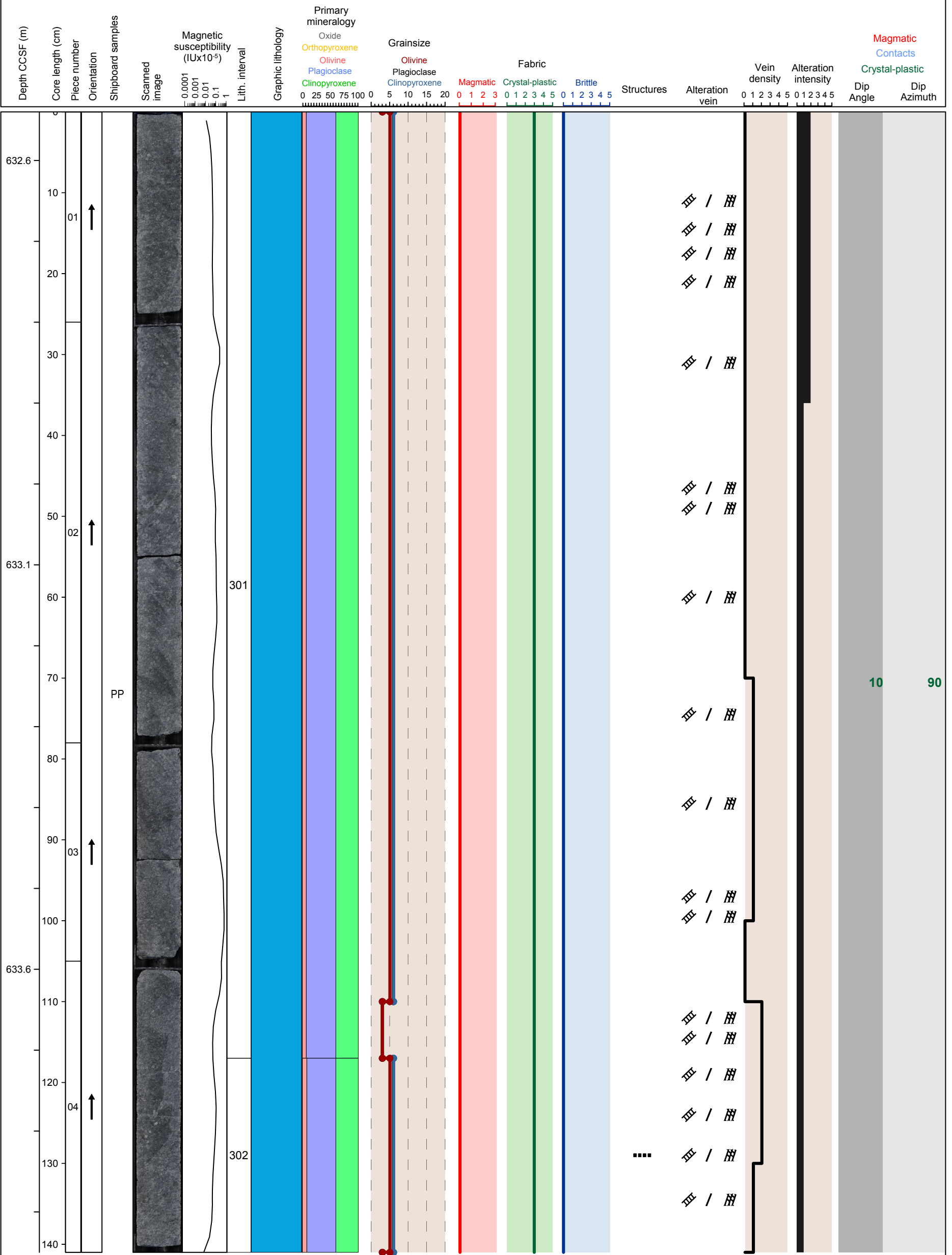


Hole 360-U1473A-69R Section 7, Top of Section: 632.54 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 301) and coarse grained granular olivine gabbro (interval 302)

Metamorphic Petrology: Alteration intensity of this section ranges from slight to moderate.

Structural Geology: Weak, diffuse crystal plastic fabric with a shallow dip. Sub-horizontal, discontinuous fractures are filled with clay.

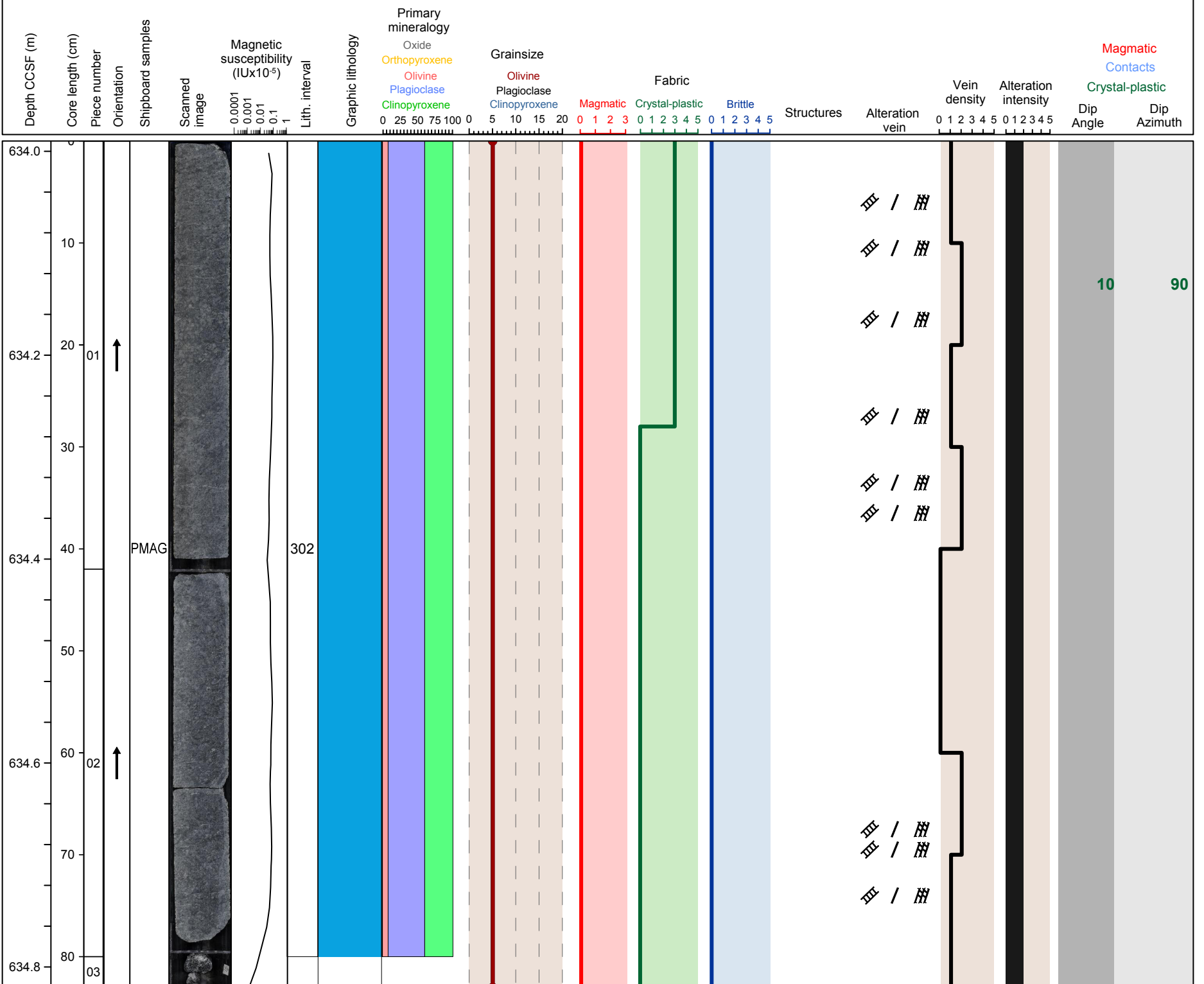


Hole 360-U1473A-69R Section 8, Top of Section: 633.95 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 303)

Metamorphic Petrology: Alteration intensity of this core is moderate,

Structural Geology: Weak, diffuse crystal plastic fabric with a shallow dip. Sub-horizontal, discontinuous fractures are filled with clay.

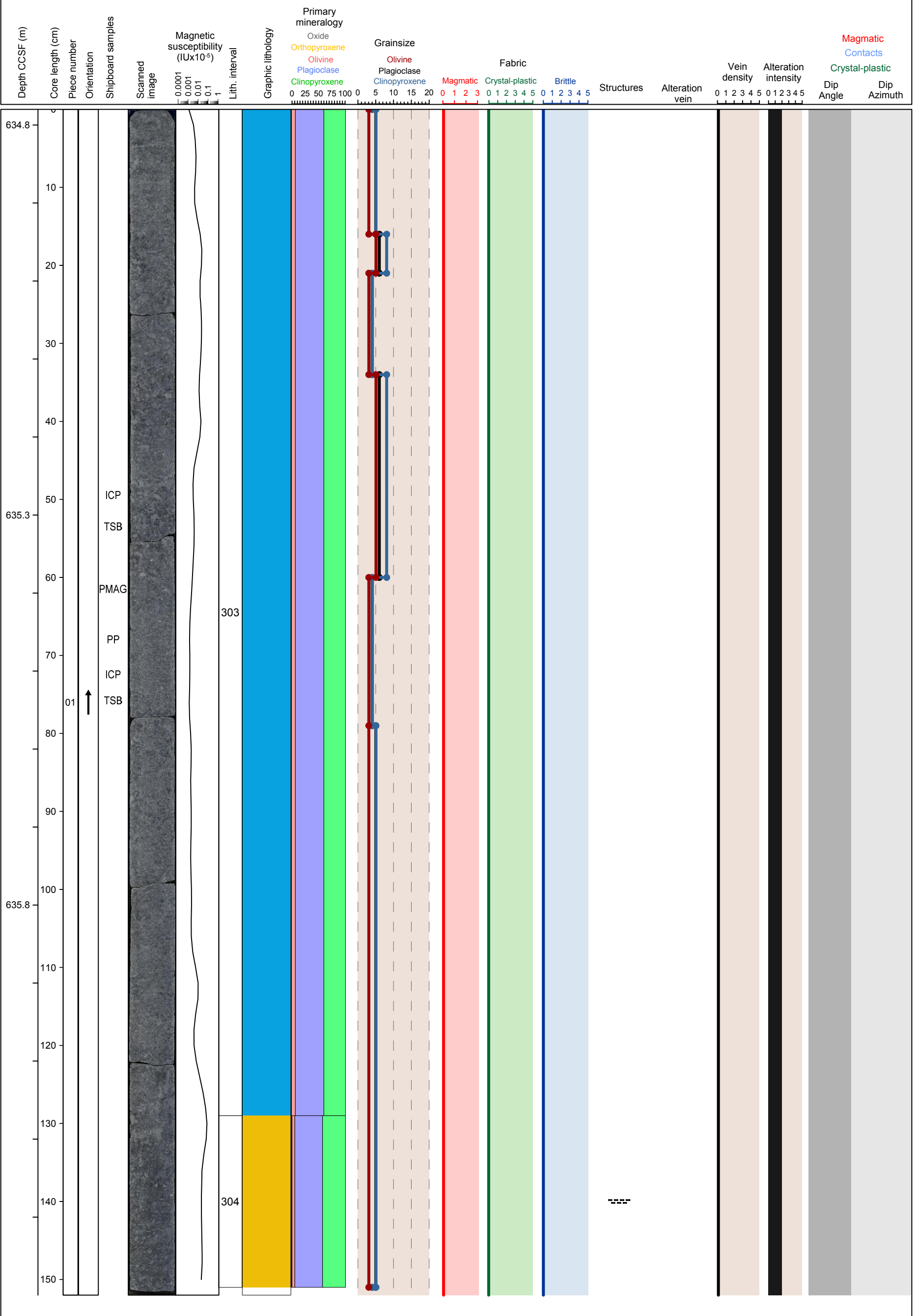


Hole 360-U1473A-70R Section 1, Top of Section: 634.78 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 303) and coarse grained granular disseminated oxide olivine gabbro (interval 304)

Metamorphic Petrology: Static background alteration intensity of this section is moderate.

Structural Geology: Grain size layering with shallow dip.

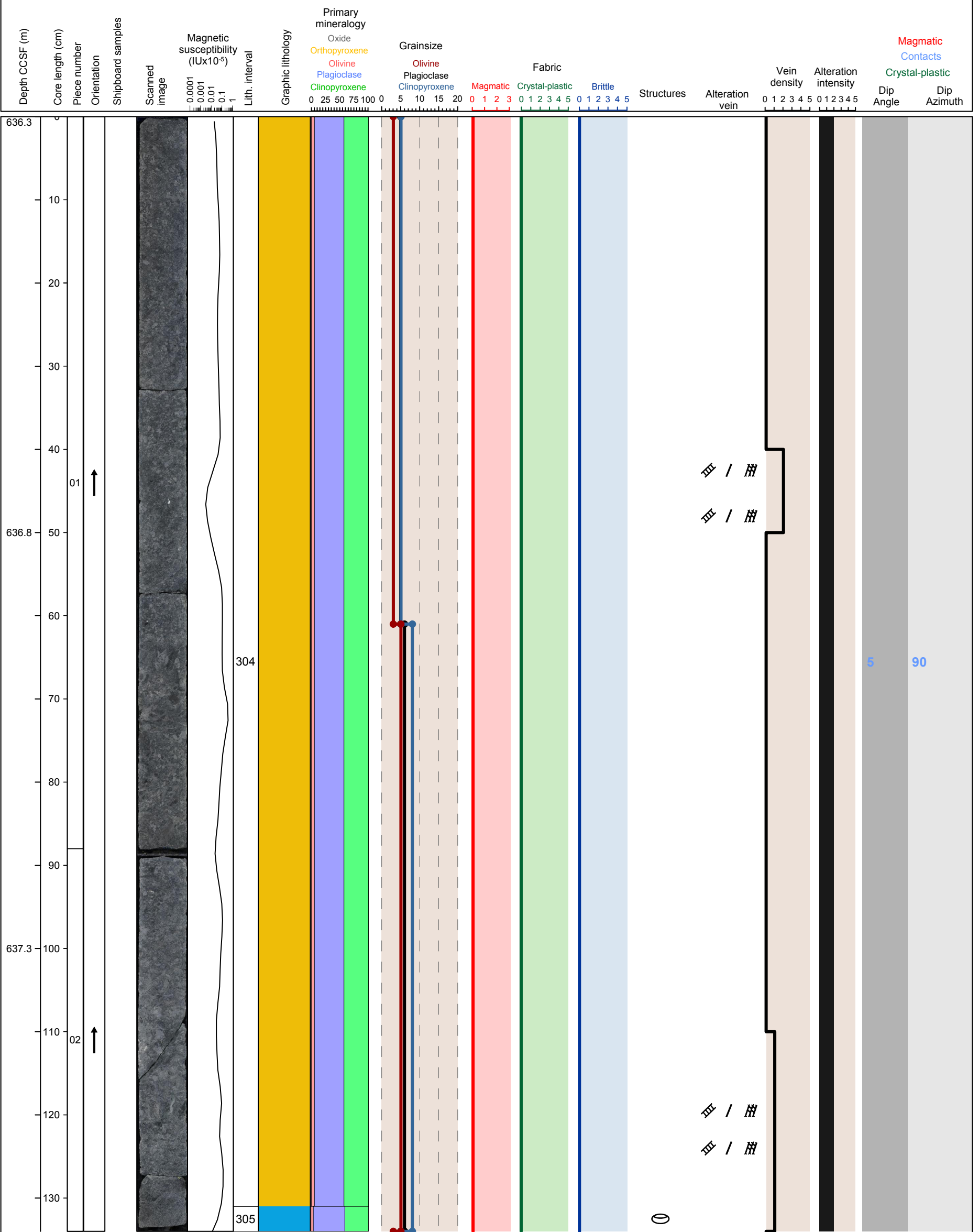


Hole 360-U1473A-70R Section 2, Top of Section: 636.3 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 304) and fine grained granular olivine bearing gabbro (interval 305)

Metamorphic Petrology: Static background alteration intensity of this core is moderate. More intense alteration occurs near veins.

Structural Geology: Alteration veins are steeply dipping and sheared.

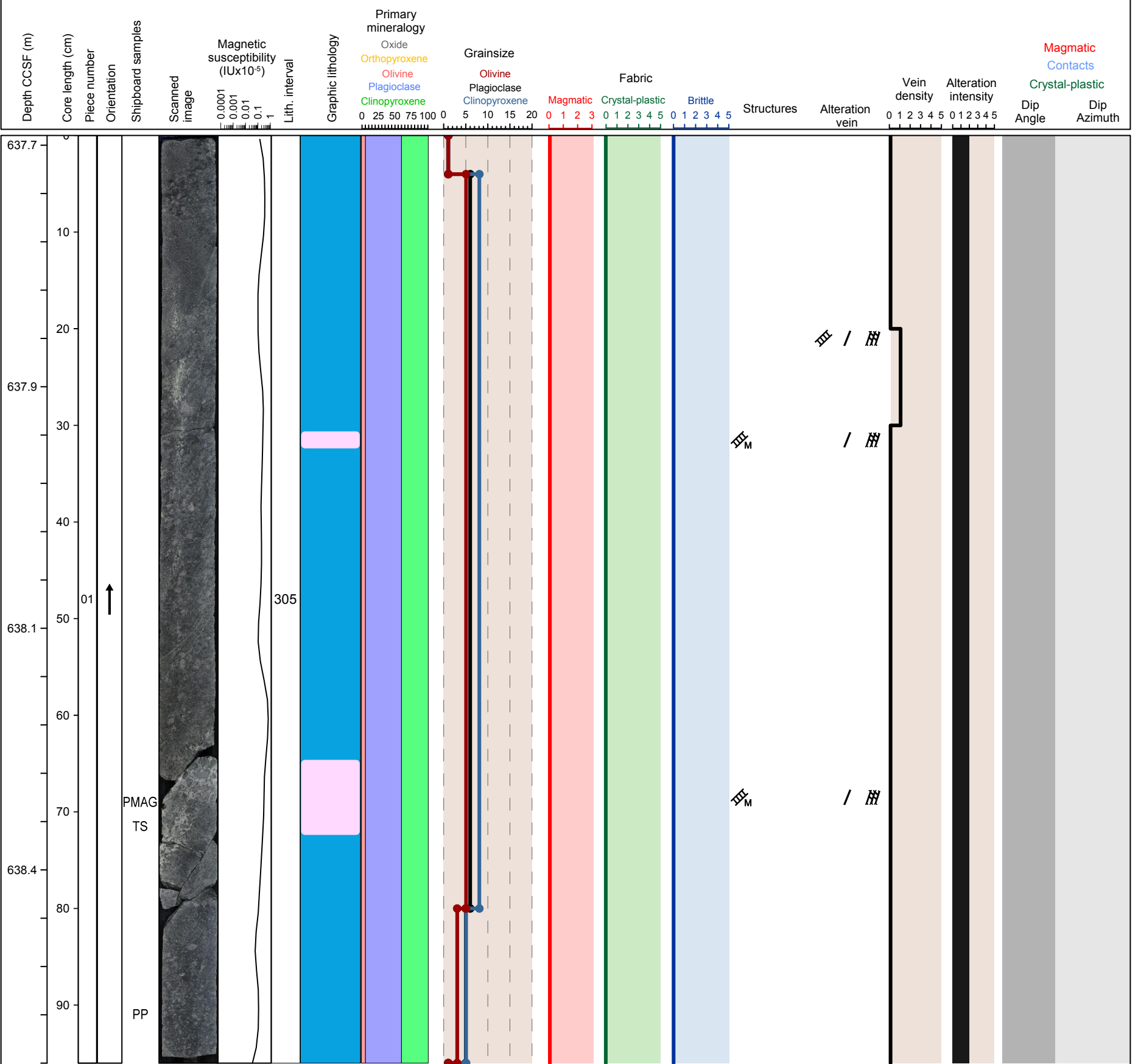


Hole 360-U1473A-70R Section 3, Top of Section: 637.64 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro with fine grained granular olivine bearing gabbro domain (interval 305)

Metamorphic Petrology: Static background alteration intensity is moderate. Chlorite is common.

Structural Geology: Irregular, fine-grained bodies. Two magmatic veins. Steeply dipping shear veins.

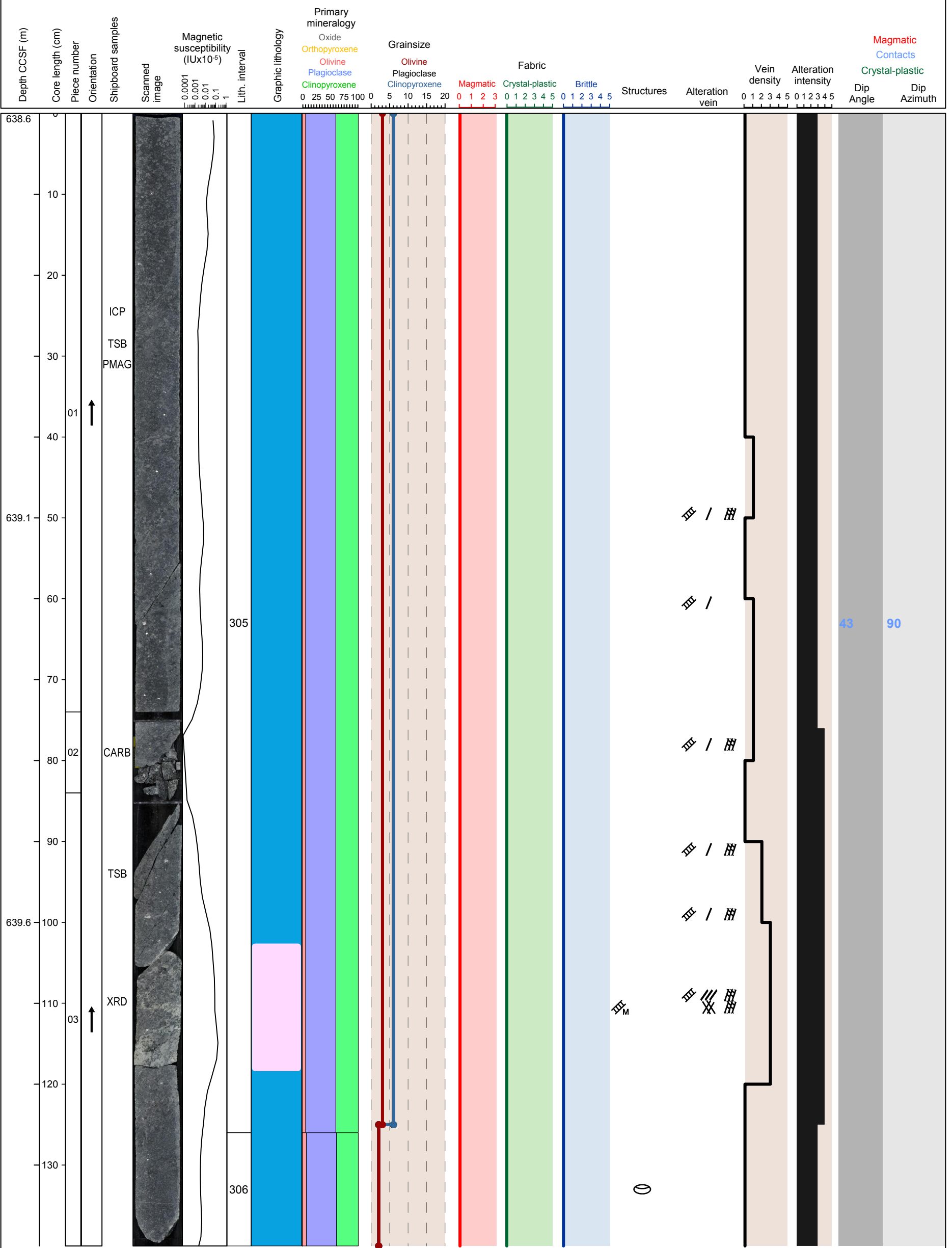


Hole 360-U1473A-70R Section 4, Top of Section: 638.6 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 305) and medium grained granular olivine gabbro (interval 306)

Metamorphic Petrology: Static background alteration intensity ranges from substantial to extensive. Intense alteration occurs at/near the felsic patch.

Structural Geology: Moderately dipping grain size layering. Incipient magmatic breccia at 110 cm. High angle shear veins near 110 cm.

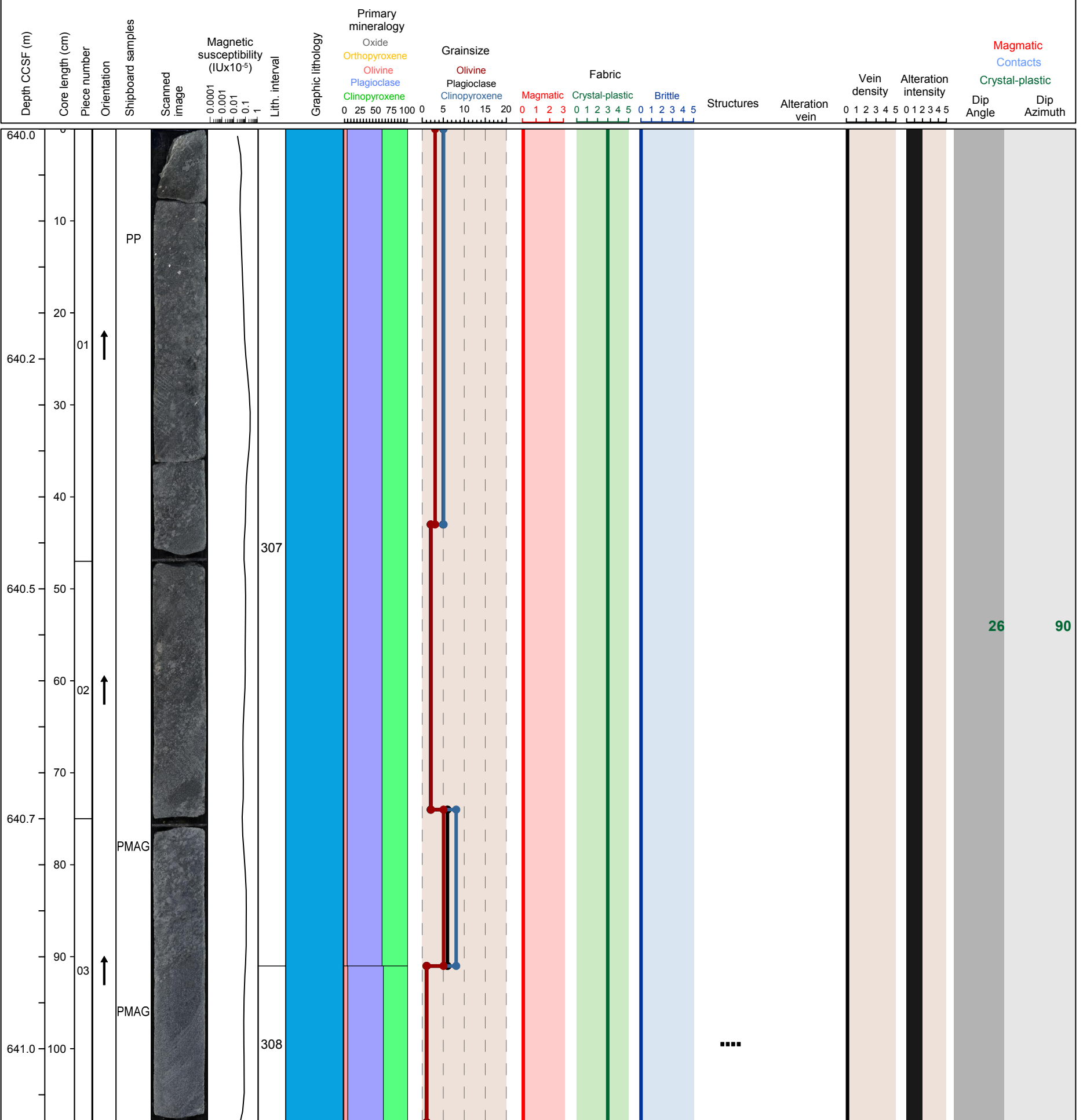


Hole 360-U1473A-70R Section 5, Top of Section: 640.0 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro with fine grained granular olivine bearing gabbro domain (interval 307) and fine grained granular olivine gabbro (interval 308)

Metamorphic Petrology: Static background alteration intensity of this section is moderate. Chlorite is conspicuous.

Structural Geology: Cm-thick, shallow to moderately dipping porphyroclastic fabric at 2 cm. Inclined grain size layers with moderate dips.

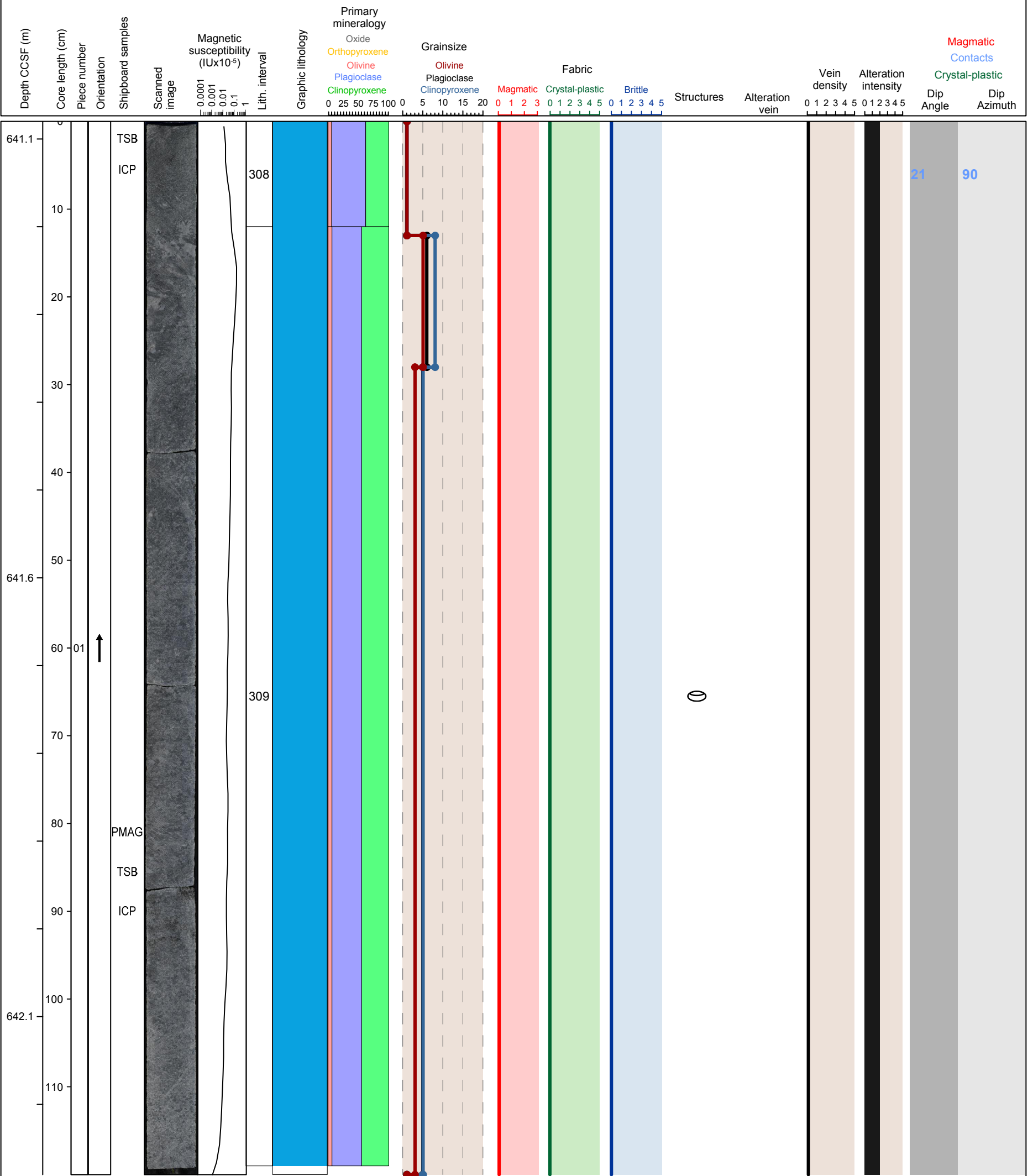


Hole 360-U1473A-70R Section 6, Top of Section: 641.08 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: fine grained granular olivine gabbro (interval 308) and coarse grained subophitic olivine gabbro (interval 309)

Metamorphic Petrology: Static background alteration intensity of this section is moderate. Chlorite is conspicuous.

Structural Geology: Grain size layering has shallow to moderate dips.

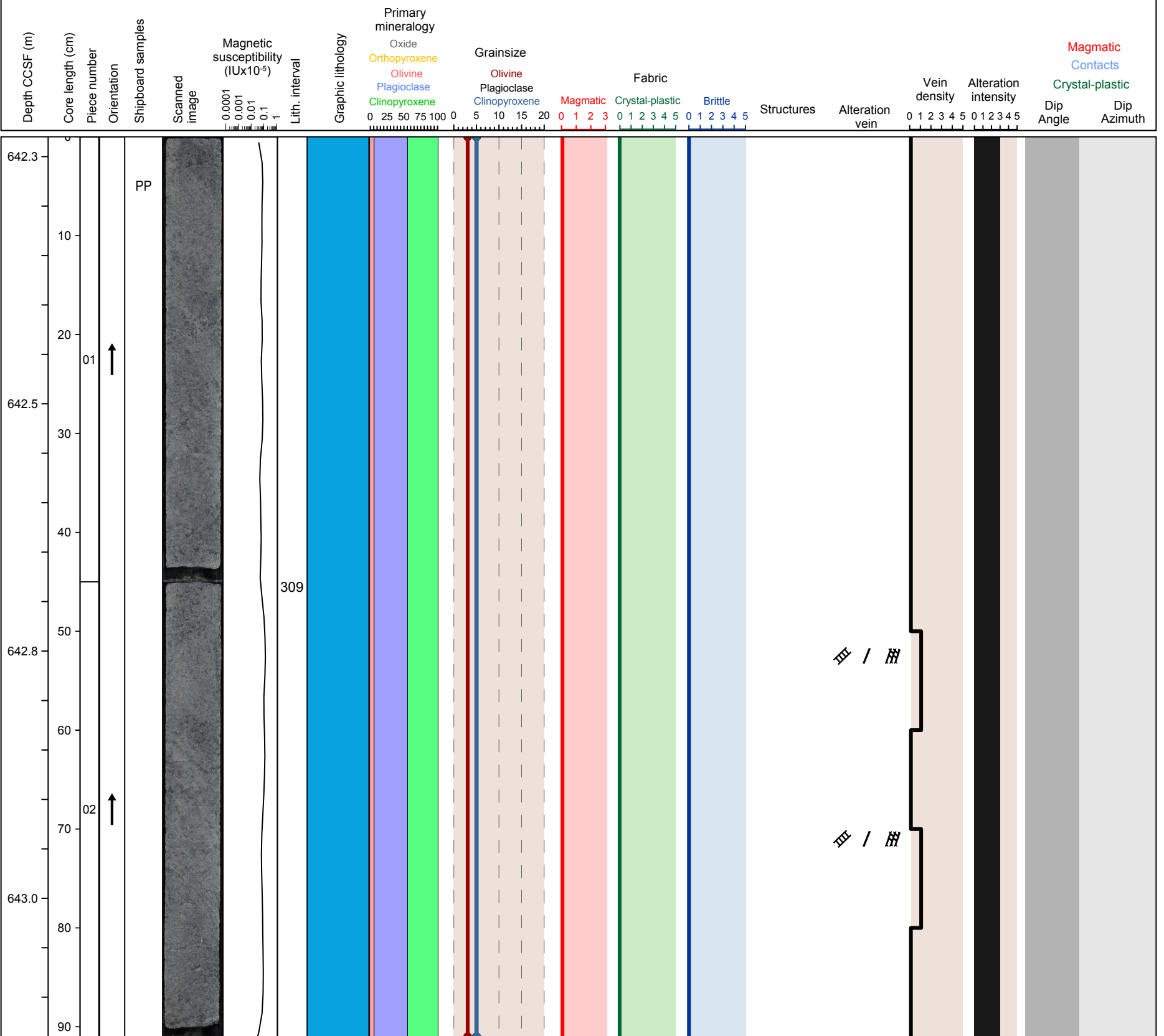


Hole 360-U1473A-70R Section 7, Top of Section: 642.28 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 309)

Metamorphic Petrology: Static background alteration intensity of this section is substantial. 2nd plagioclase and amphibole are conspicuous.

Structural Geology:

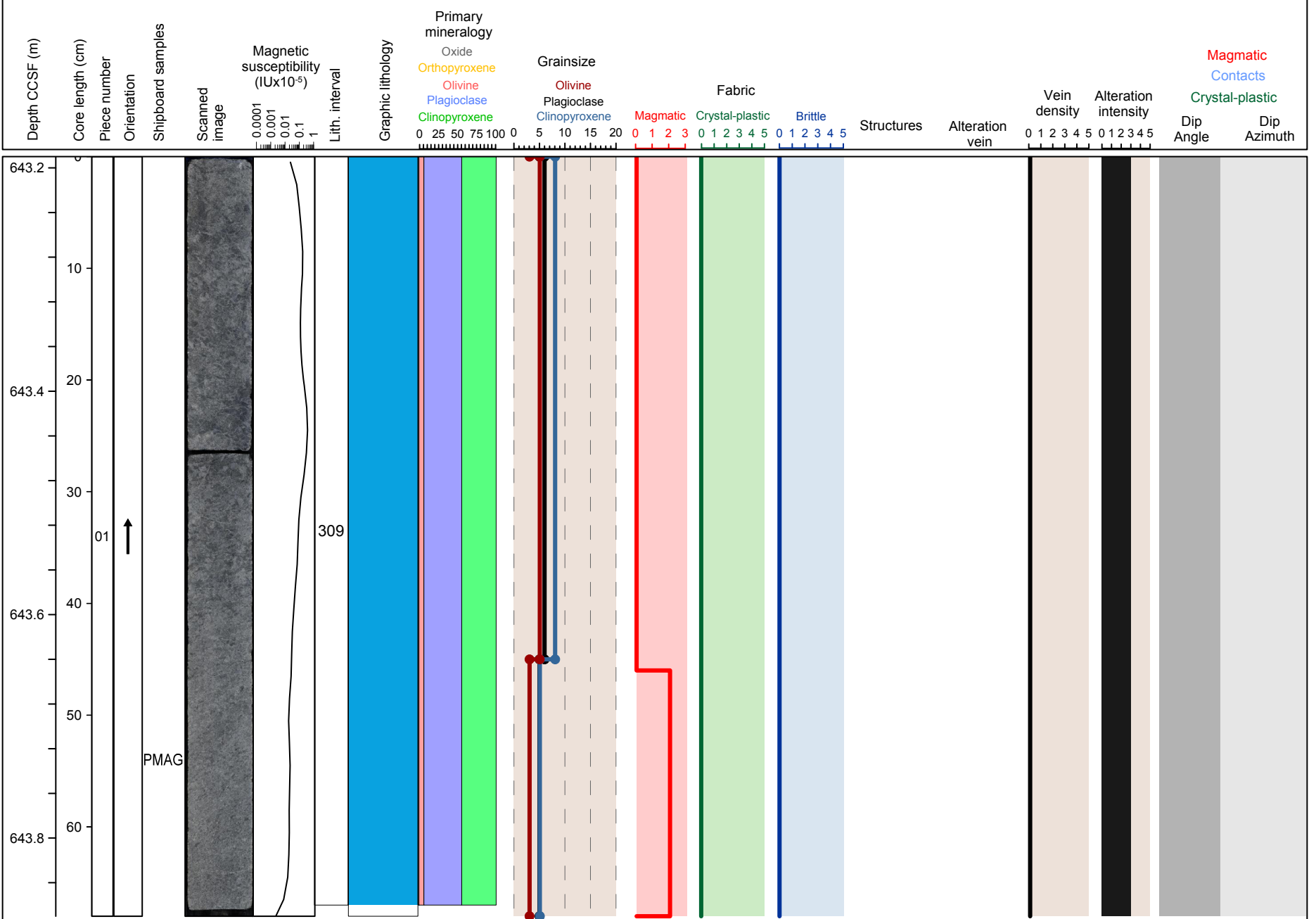


Hole 360-U1473A-70R Section 8, Top of Section: 643.19 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 309)

Metamorphic Petrology: Static background alteration intensity of this section is substantial. 2nd plagioclase and amphibole are conspicuous.

Structural Geology: Moderate magmatic fabric defined by plagioclase and pyroxene.

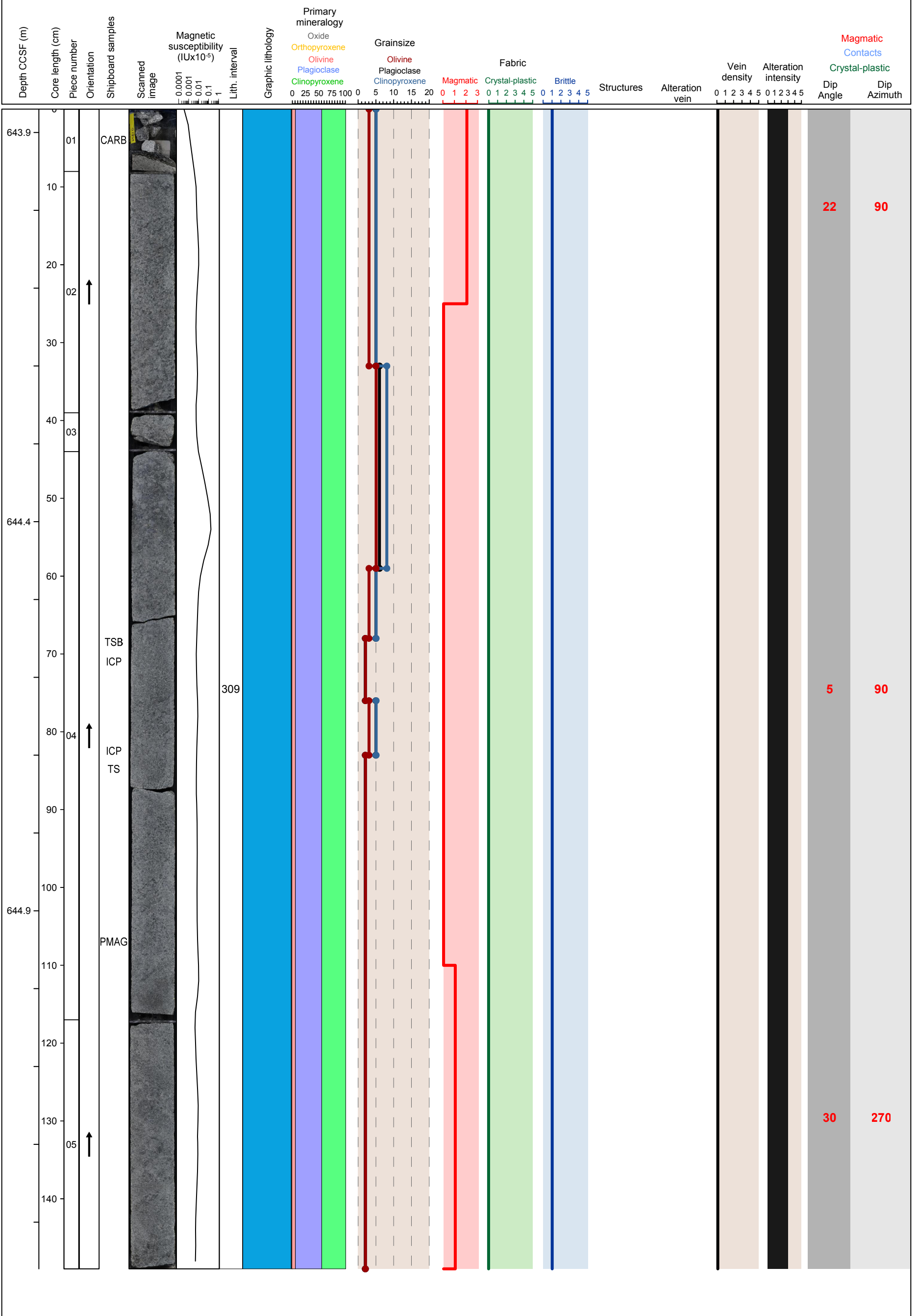


Hole 360-U1473A-71R Section 1, Top of Section: 643.87 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olvine gabbro (interval 309)

Metamorphic Petrology: Static background alteration intensity of this section is substantial. Plagioclase exhibit milky white coloration.

Structural Geology: Sub-horizontal grain size layering with 5-10 cm thick layers with a weak to moderate magmatic fabric.

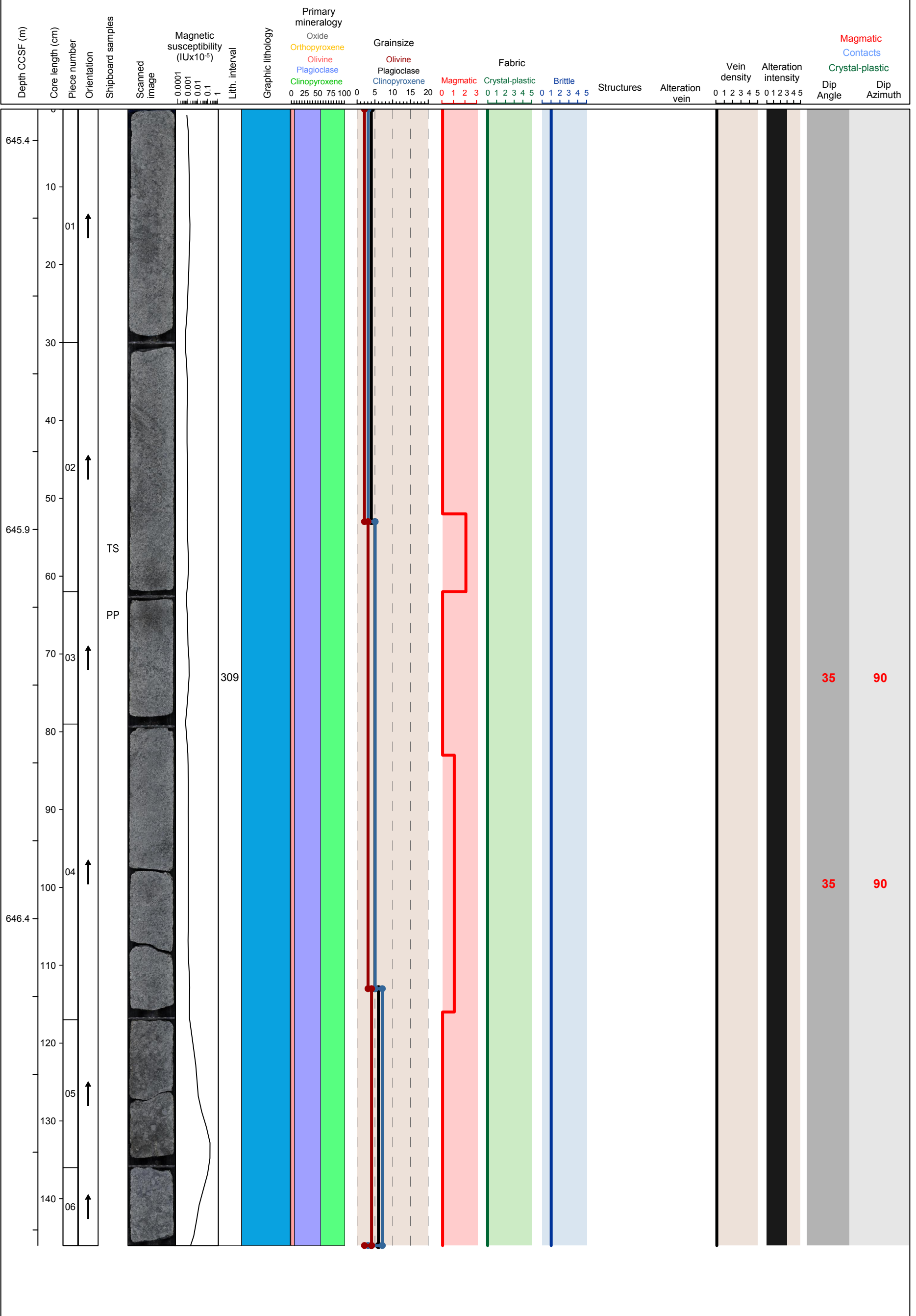


Hole 360-U1473A-71R Section 2, Top of Section: 645.36 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 309)

Metamorphic Petrology: Static background alteration intensity of this section is substantial. Milky white plagioclase is conspicuous.

Structural Geology: Grain size layering with a weak to moderate sub-horizontal magmatic fabric near the bottom of the interval.

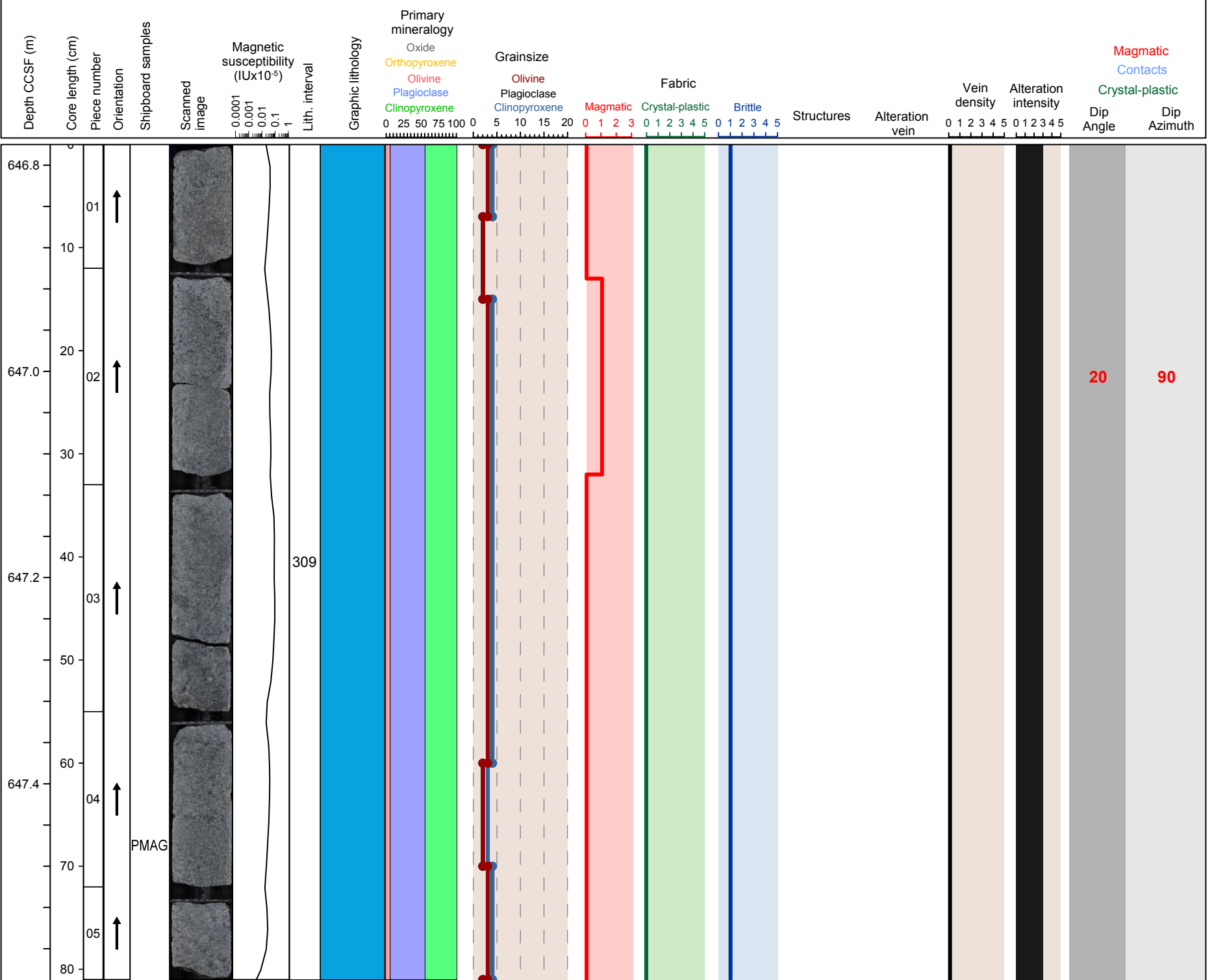


Hole 360-U1473A-71R Section 3, Top of Section: 646.82 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 309)

Metamorphic Petrology: Static background alteration intensity of this section is substantial. Milky white plagioclase is conspicuous.

Structural Geology: Grain size variations that are 10 cm thick with a weak magmatic fabric defined by plagioclase and pyroxene.

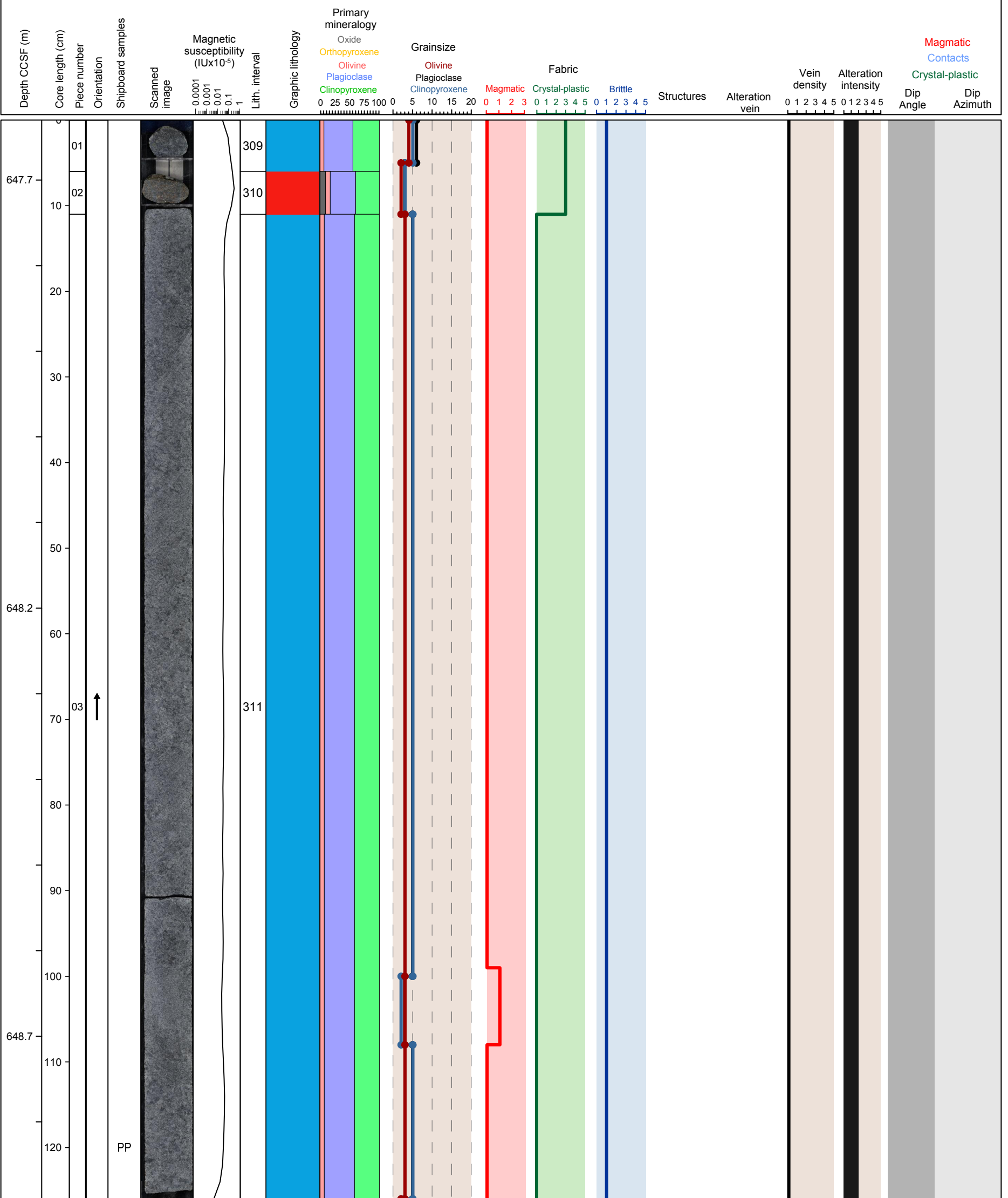


Hole 360-U1473A-72R Section 1, Top of Section: 647.63 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 309 and 311) and coarse grained granular olivine oxide gabbro (interval 310)

Metamorphic Petrology: Static background alteration intensity of this section is moderate.

Structural Geology: Weak magmatic fabric defined by plagioclase and pyroxene.

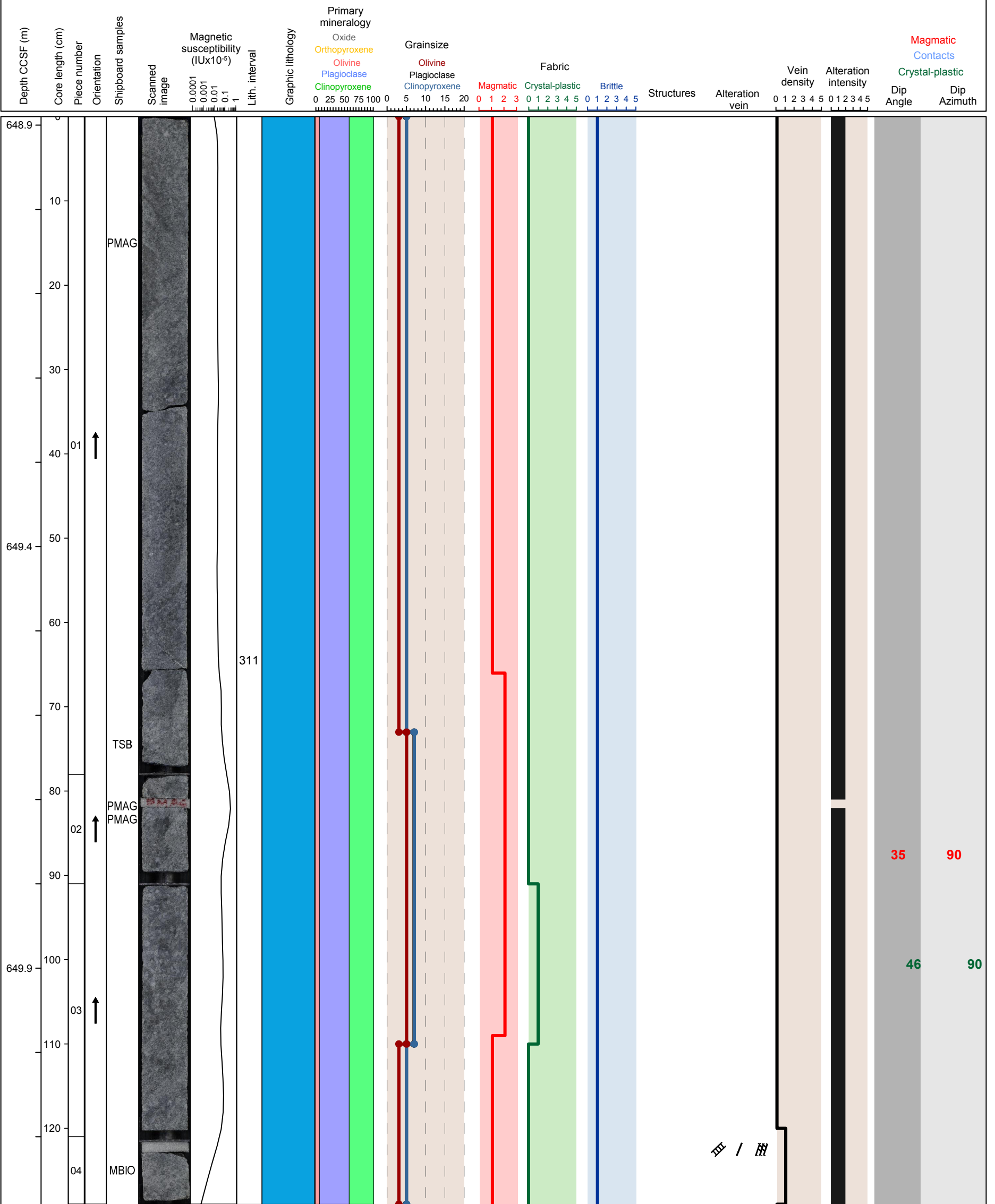


Hole 360-U1473A-72R Section 2, Top of Section: 648.89 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 311)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Irregular grain size layering with 12 cm thick intervals overprinted by a weak to moderate magmatic fabric and a weak moderately dipping crystal plastic fabric.

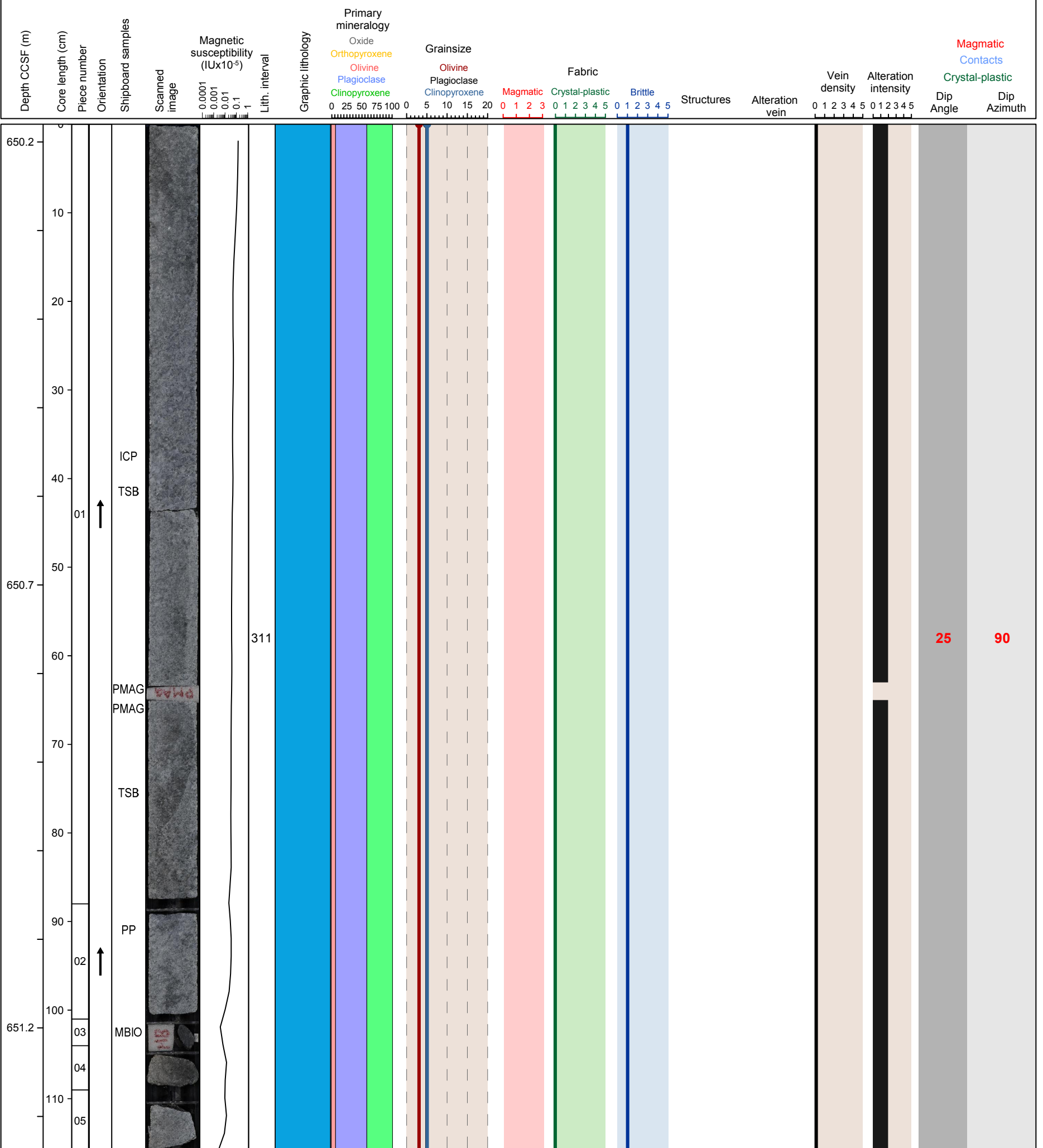


Hole 360-U1473A-72R Section 3, Top of Section: 650.18 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 311)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Inclined grain size layering of variable thickness.

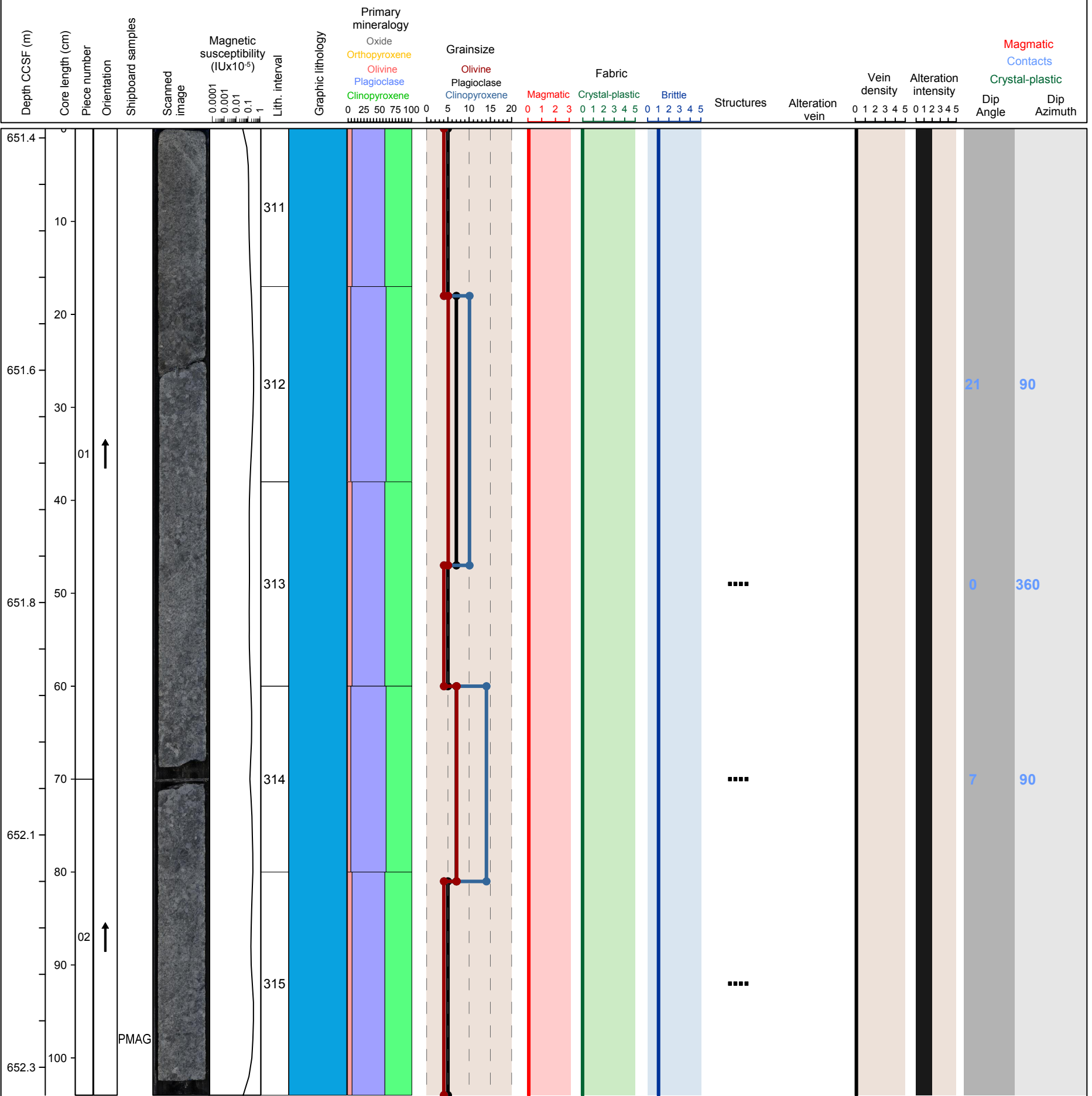


Hole 360-U1473A-73R Section 1, Top of Section: 651.34 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 311, 313 and 315) and coarse grained granular olivine gabbro (interval 312 and 314)

Metamorphic Petrology: Static background alteration is moderate.

Structural Geology: Irregular grain size layering with 10 cm thick layers. 1 cm thick shear zone at 75 cm.

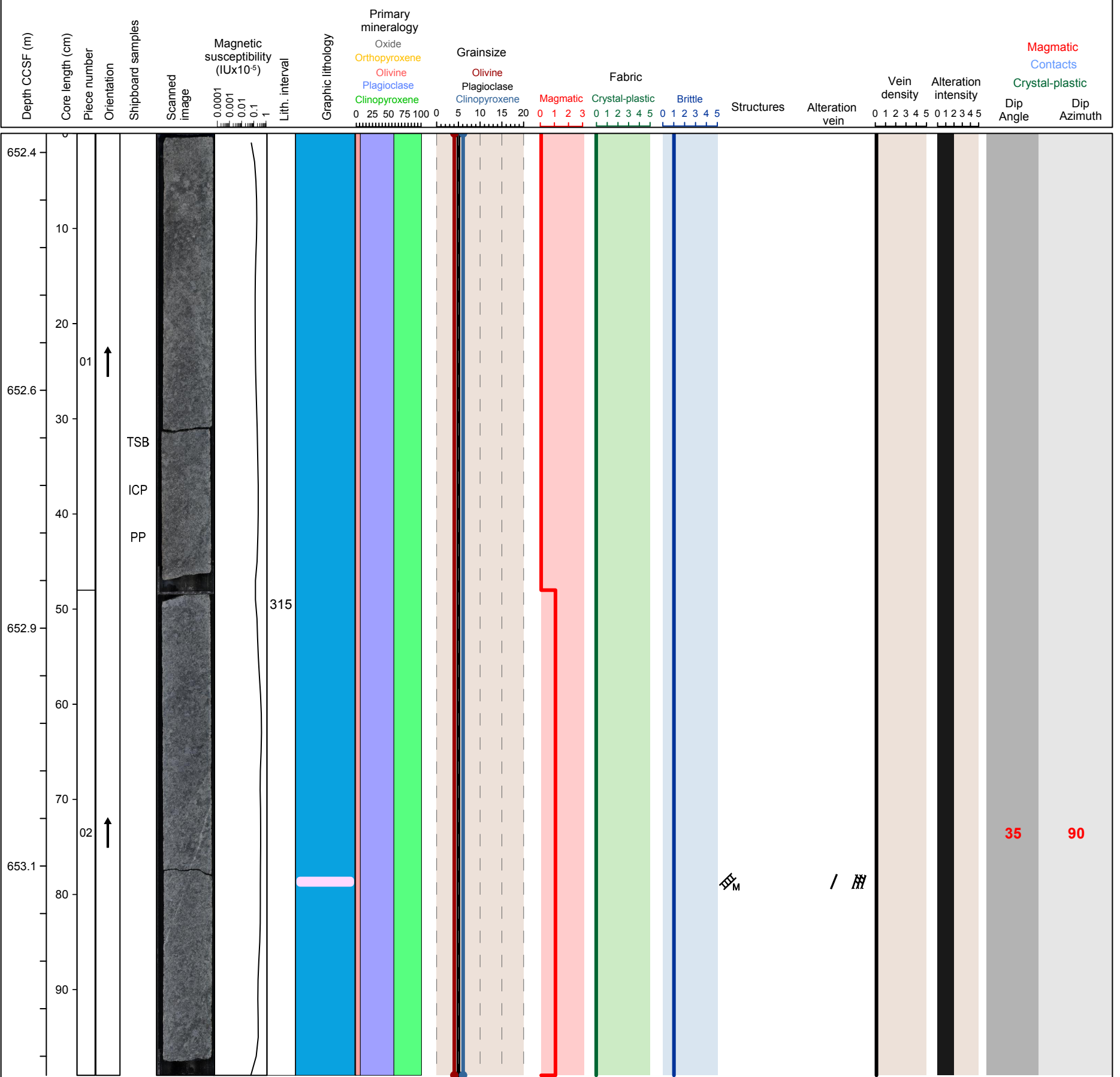


Hole 360-U1473A-73R Section 2, Top of Section: 652.38 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 315)

Metamorphic Petrology: Static background alteration intensity of this section is moderate.

Structural Geology: Weak, inclined magmatic fabric defined by plagioclase and pyroxene.

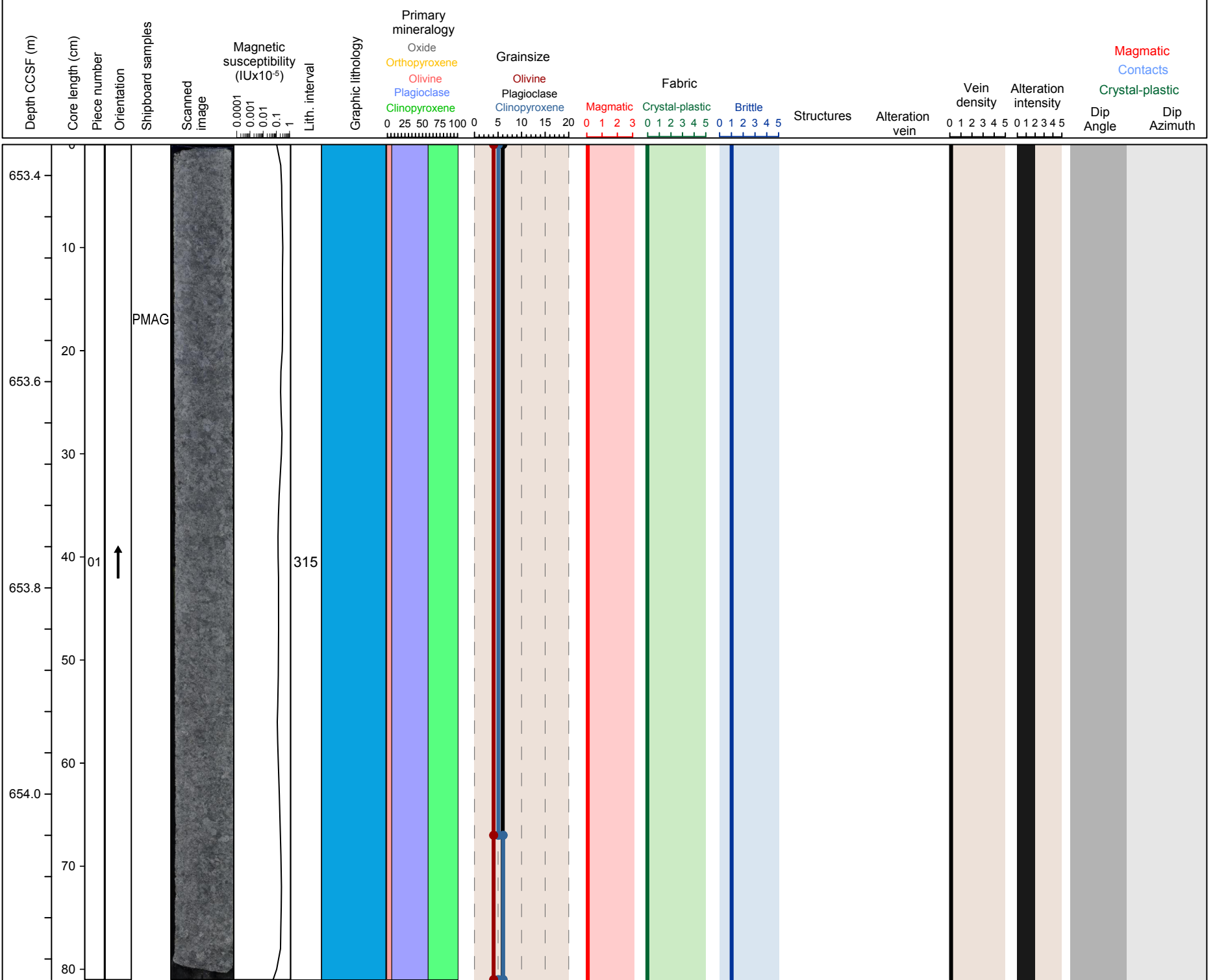


Hole 360-U1473A-74R Section 1, Top of Section: 653.37 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 315)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology:

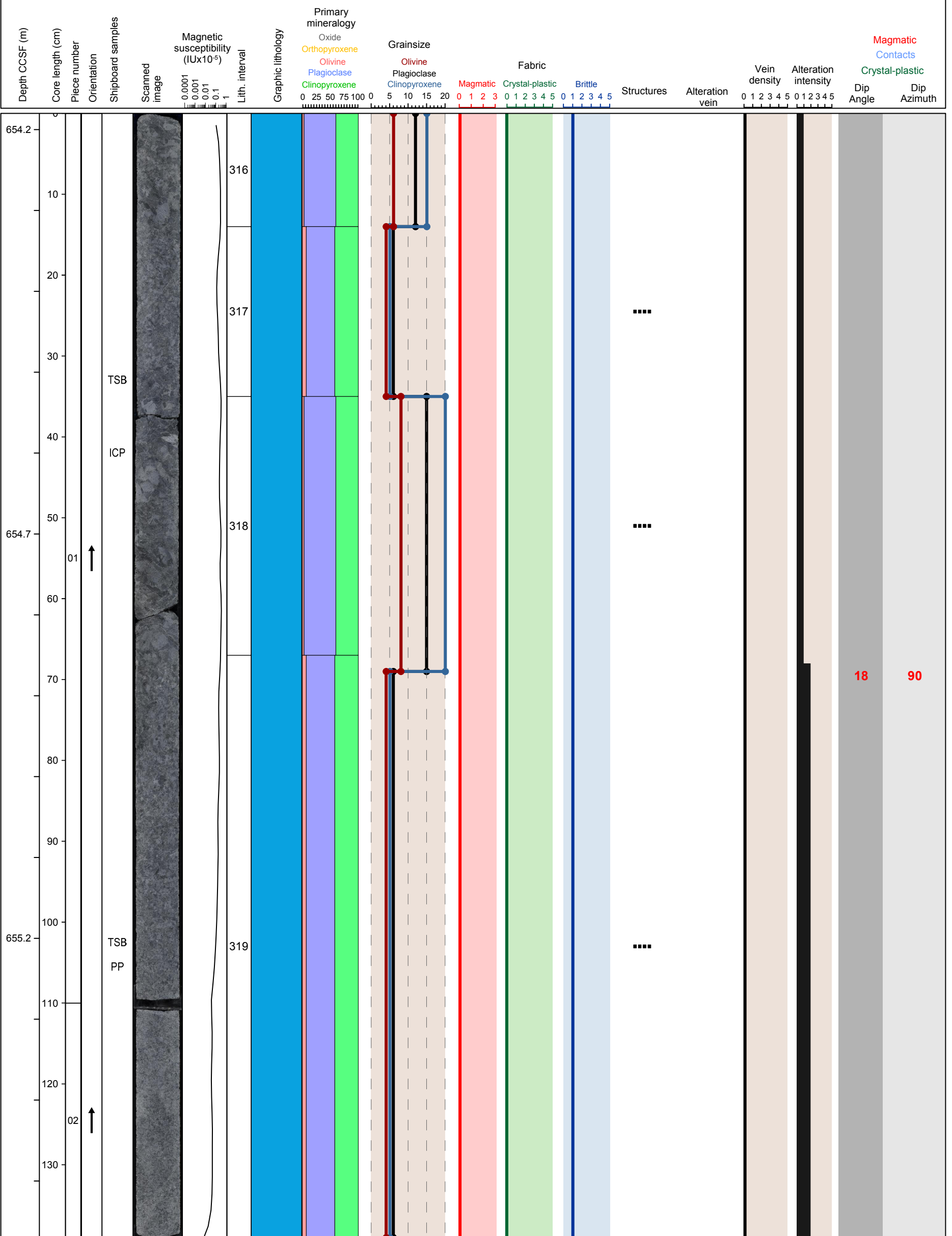


Hole 360-U1473A-74R Section 2, Top of Section: 654.18 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine bearing gabbro (interval 316 and 318) and coarse grained subophitic olivine gabbro (interval 317 and 319)

Metamorphic Petrology: Static background alteration intensity ranges from slight to moderate.

Structural Geology: Sub-horizontal grain size layering. Microfractures in coarse-grained pyroxene from 50-70 cm.

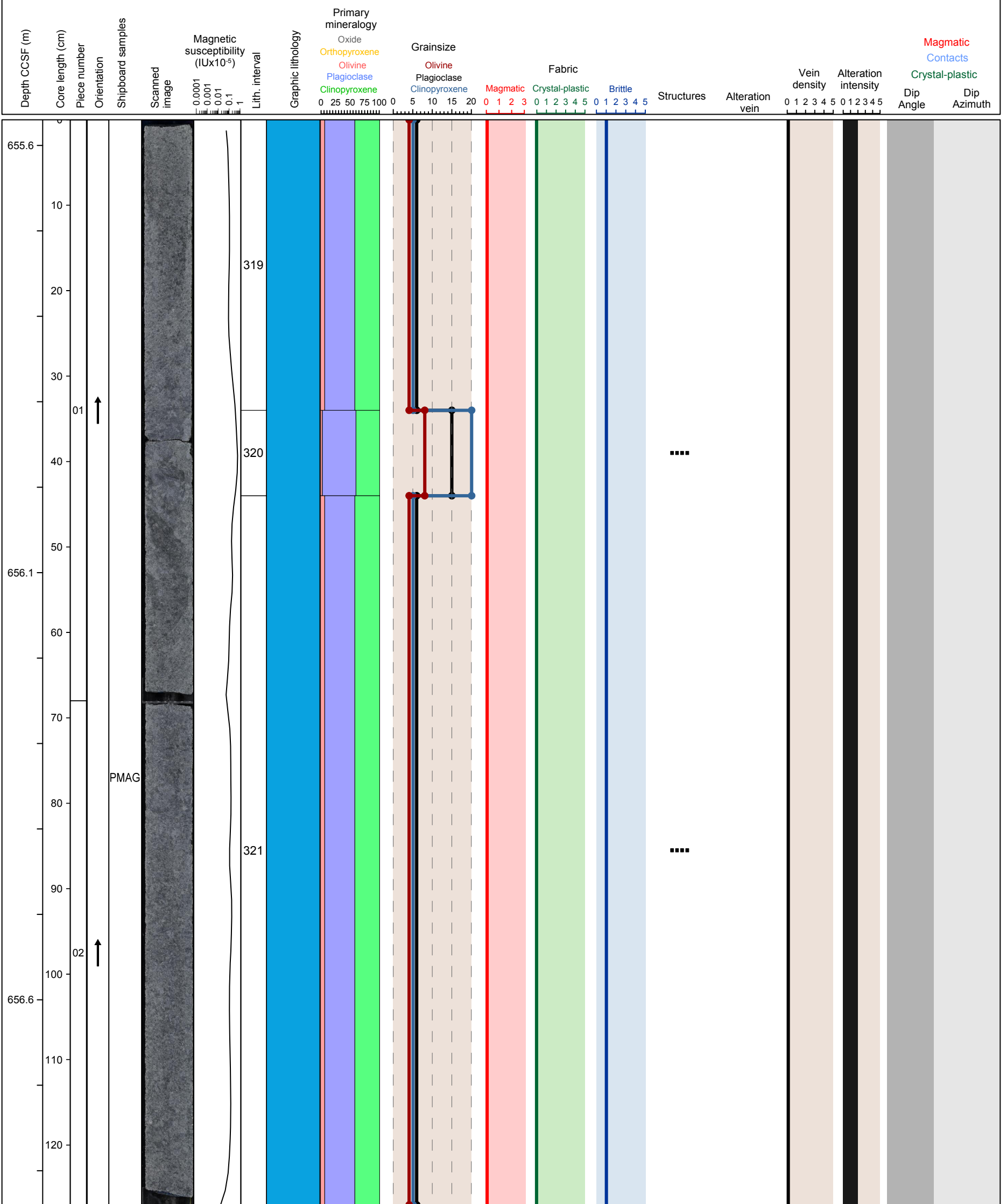


Hole 360-U1473A-74R Section 3, Top of Section: 655.57 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 319 and 321) and coarse grained granular olivine bearing gabbro (interval 320)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology:

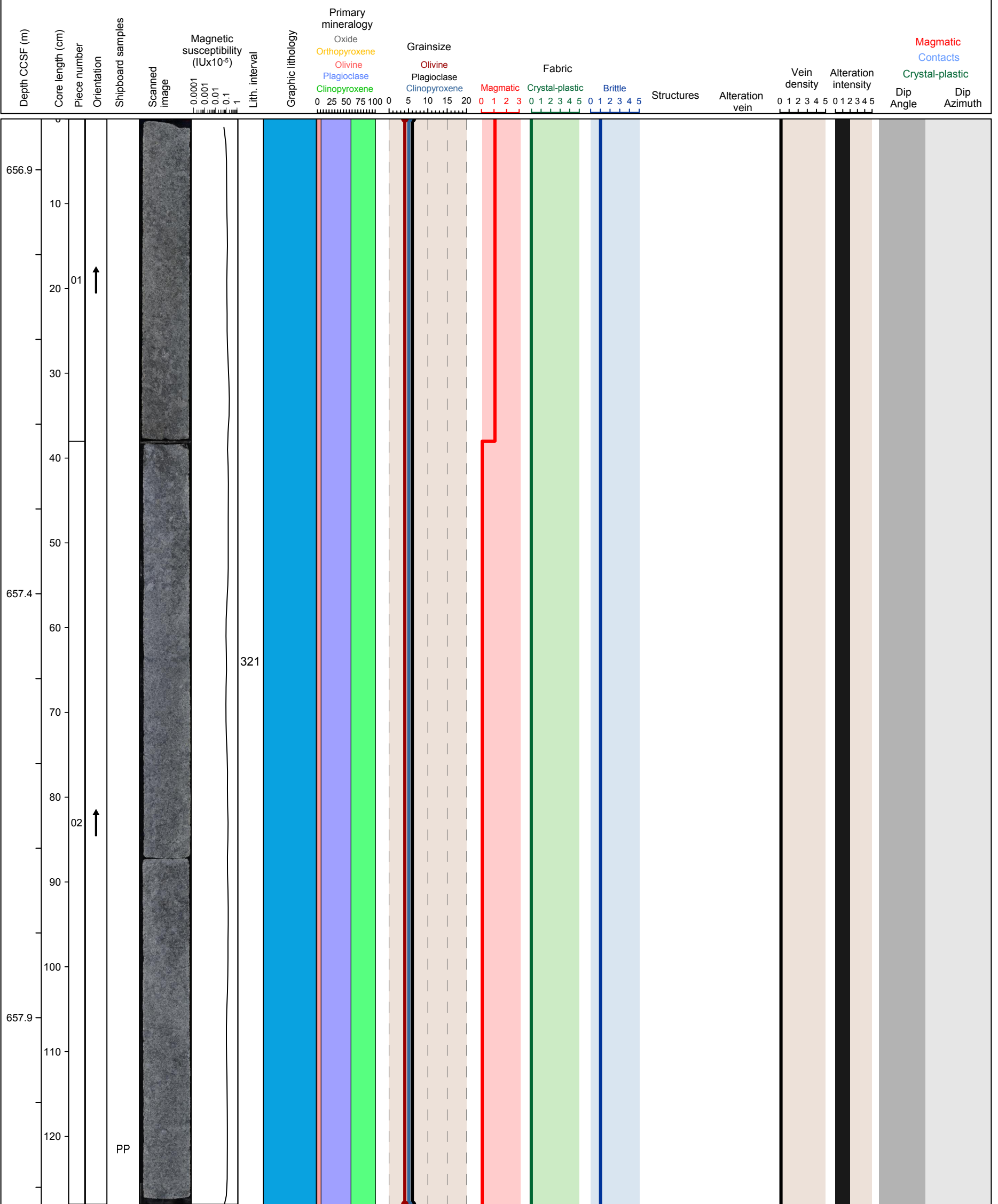


Hole 360-U1473A-74R Section 4, Top of Section: 656.84 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 321)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Irregular grain size variations. Weak and inclined magmatic fabric defined by pyroxene and plagioclase.

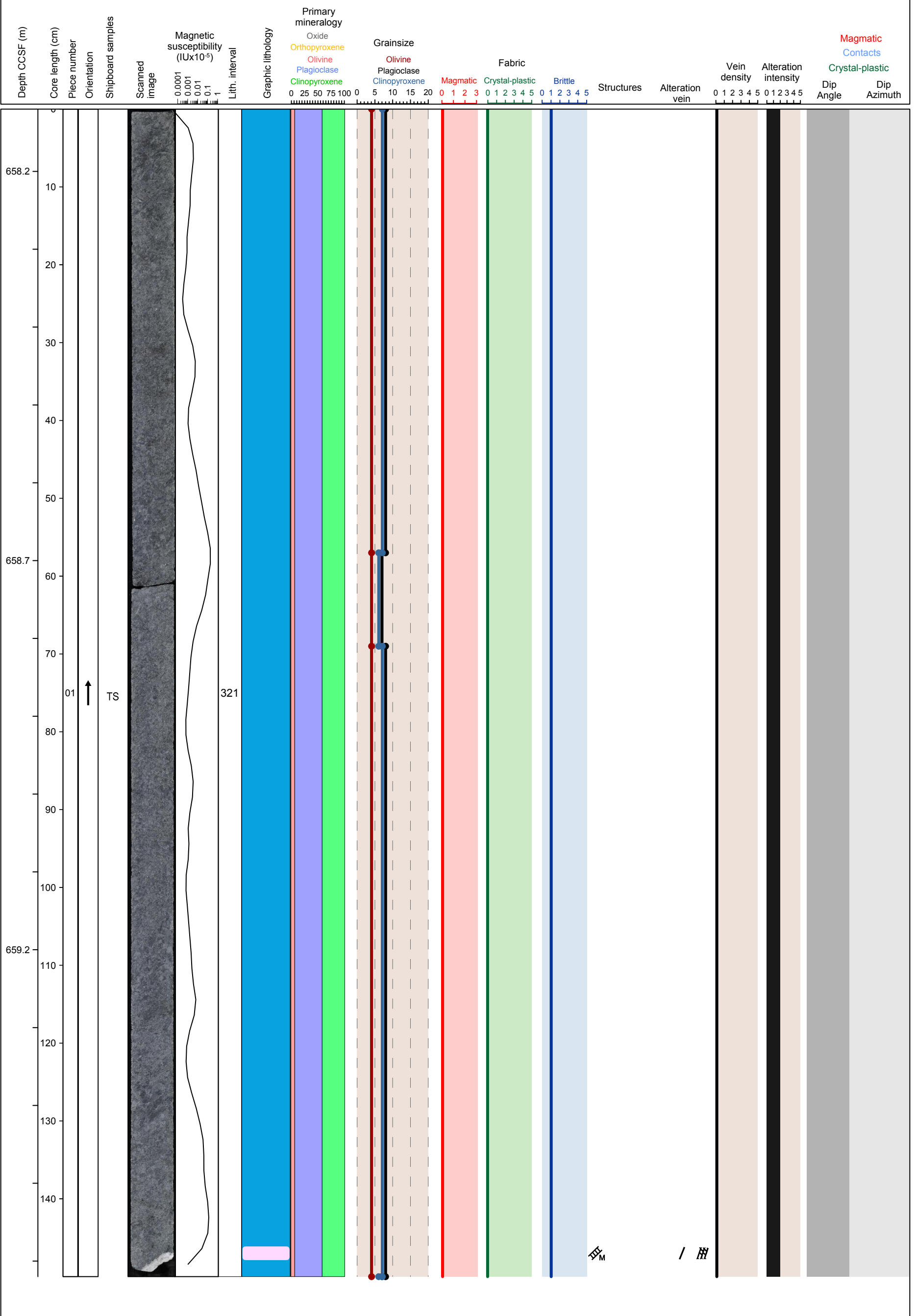


Hole 360-U1473A-74R Section 5, Top of Section: 658.12 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 321)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: One felsic vein.

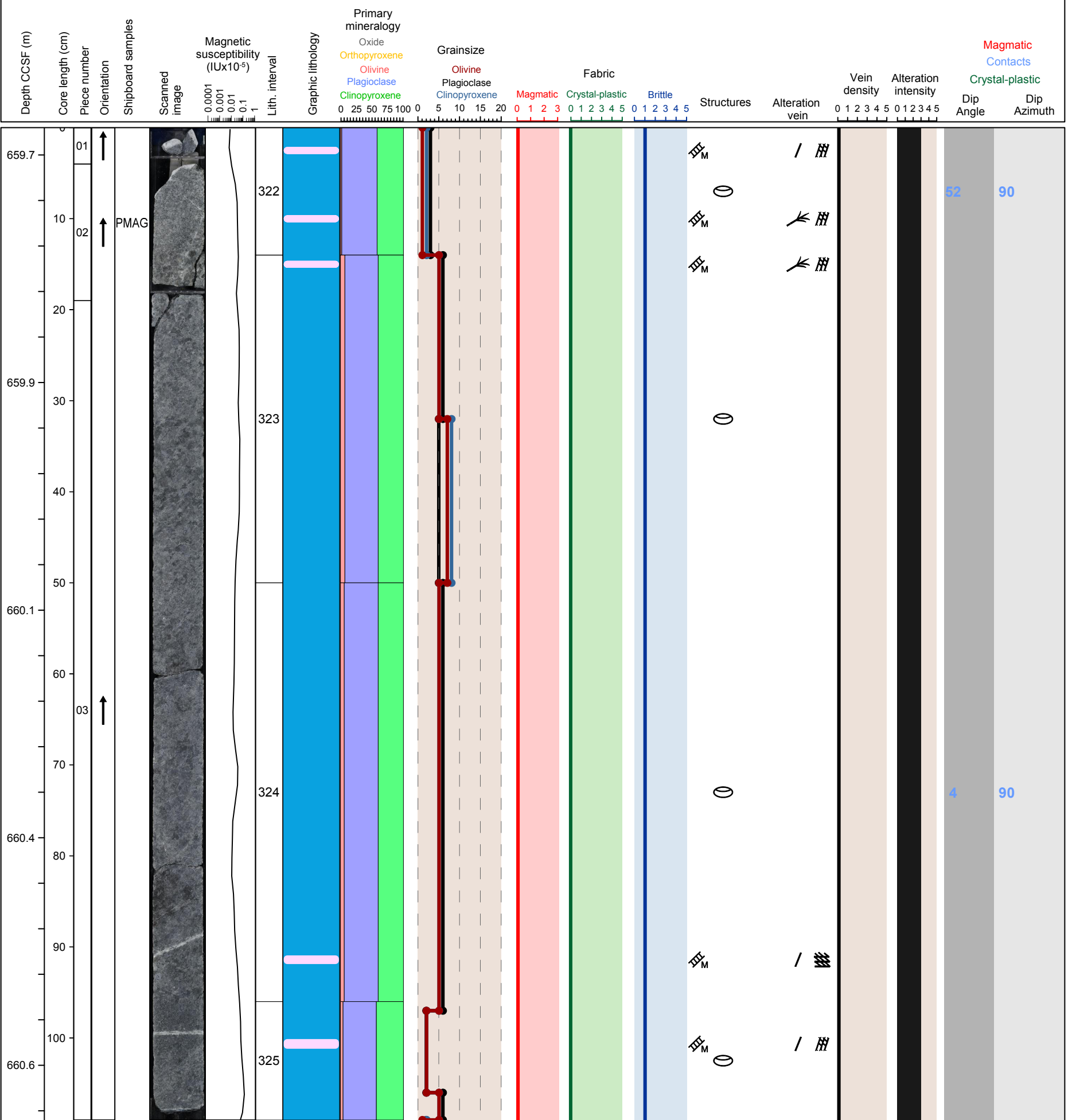


Hole 360-U1473A-74R Section 6, Top of Section: 659.62 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: medium grained subophitic olivine bearing gabbro (interval 322), coarse grained subophitic olivine gabbro (interval 323 and 324) and medium grained granular olivine gabbro with coarse grained subophitic olivine gabbro domain (interval 325)

Metamorphic Petrology: Alteration intensity is substantial. Milky white plagioclase is conspicuous.

Structural Geology: Grain size layering of variable thickness and orientation. Inclined cm-thick mylonite at 72 cm.

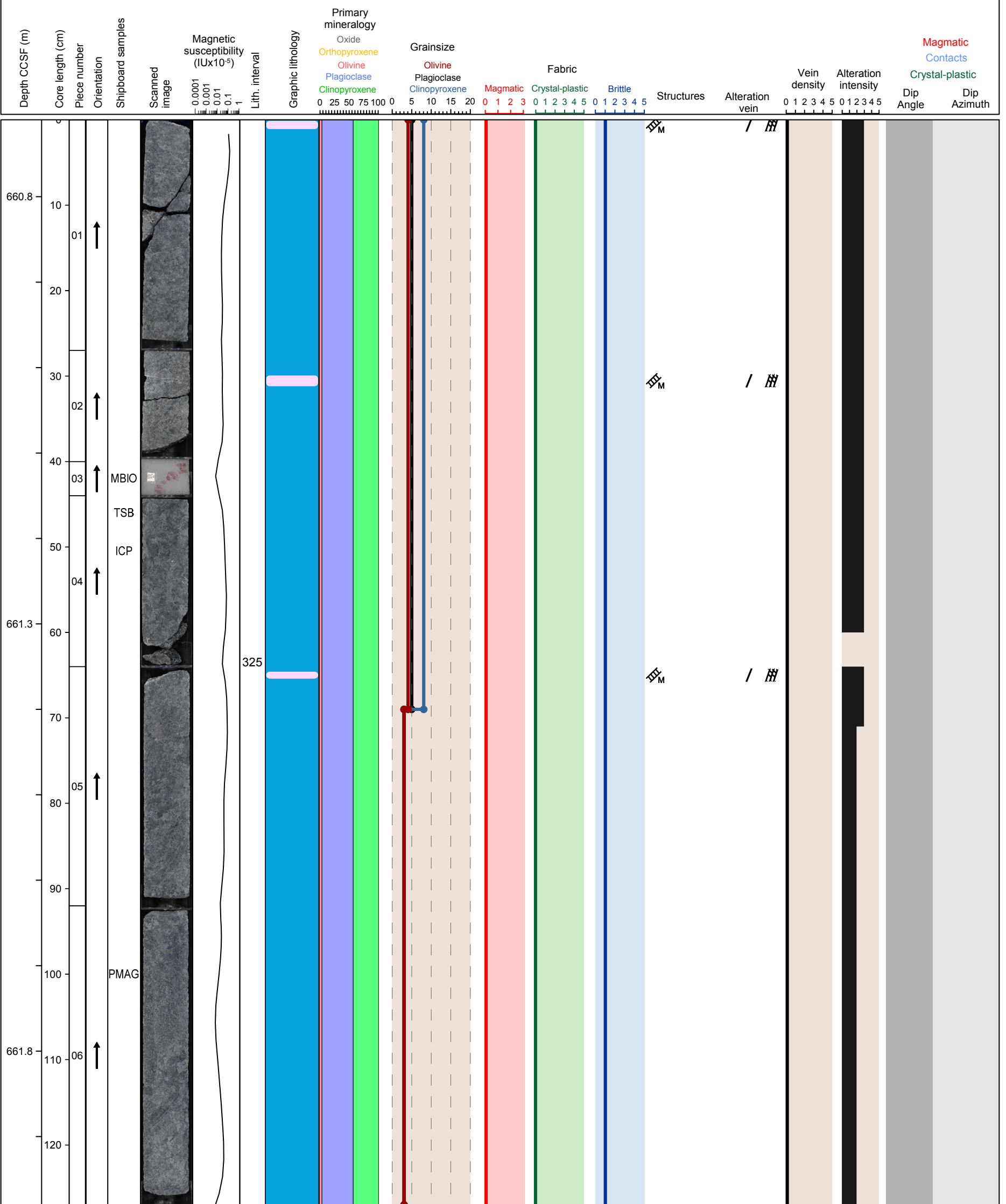


Hole 360-U1473A-74R Section 7, Top of Section: 660.71 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro with medium grained granular olivine gabbro domain (interval 325)

Metamorphic Petrology: Alteration intensity ranges from moderate to substantial. Milky white plagioclase is more conspicuous at the top of the section.

Structural Geology: Grain size layering of variable thickness and orientation. Three magmatic veins.

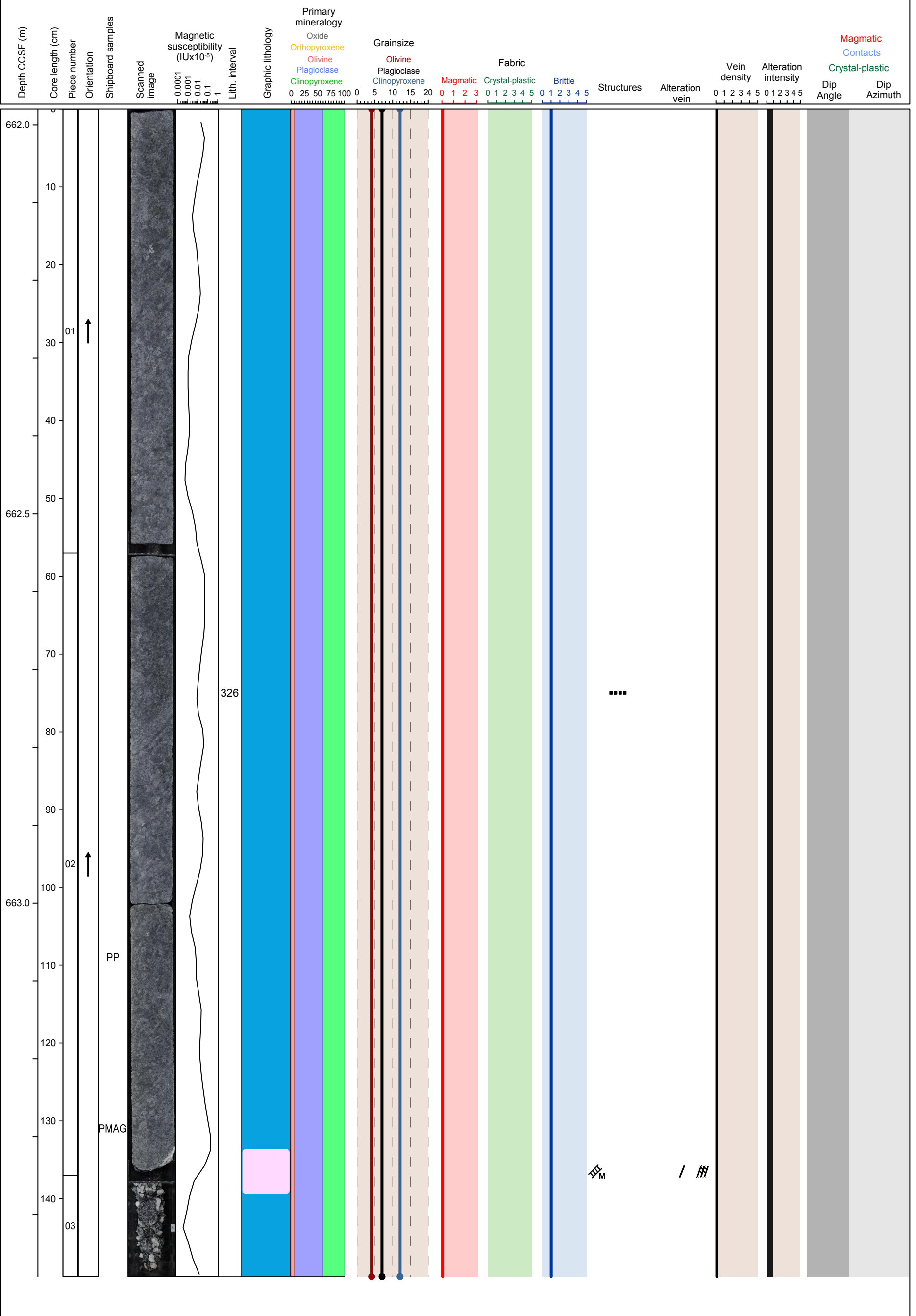


Hole 360-U1473A-74R Section 8, Top of Section: 661.98 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 326)

Metamorphic Petrology: Alteration intensity is only slight.

Structural Geology: One magmatic vein.

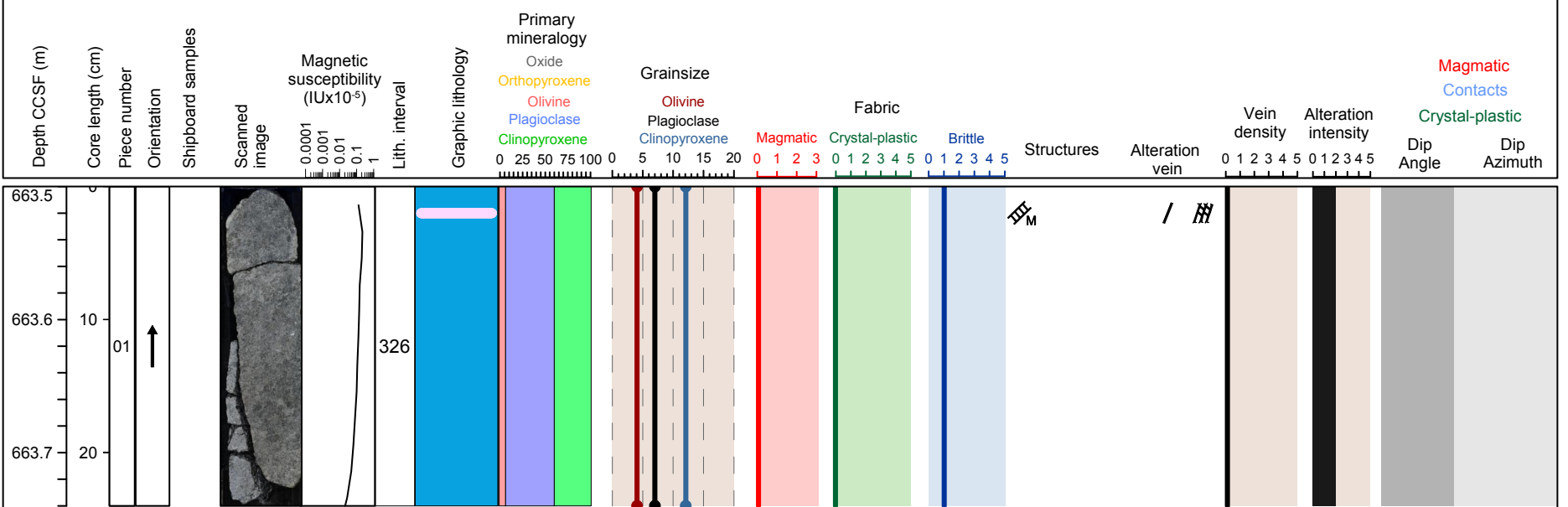


Hole 360-U1473A-74R Section 9, Top of Section: 663.48 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 321)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: One magmatic vein.

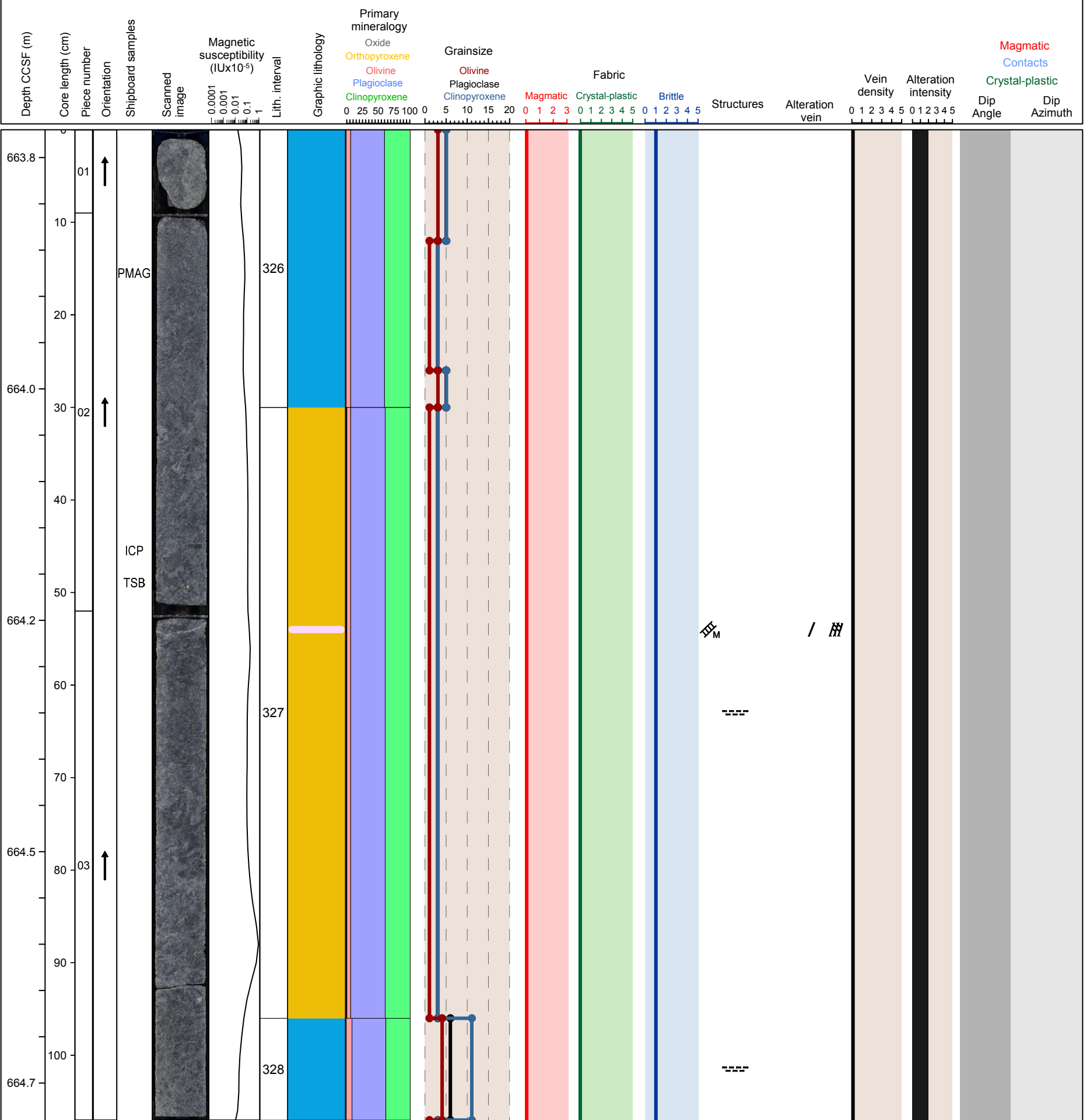


Hole 360-U1473A-75R Section 1, Top of Section: 663.72 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 326 and 328) and coarse grained subophitic disseminated oxide olivine gabbro (interval 327)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: One magmatic vein.

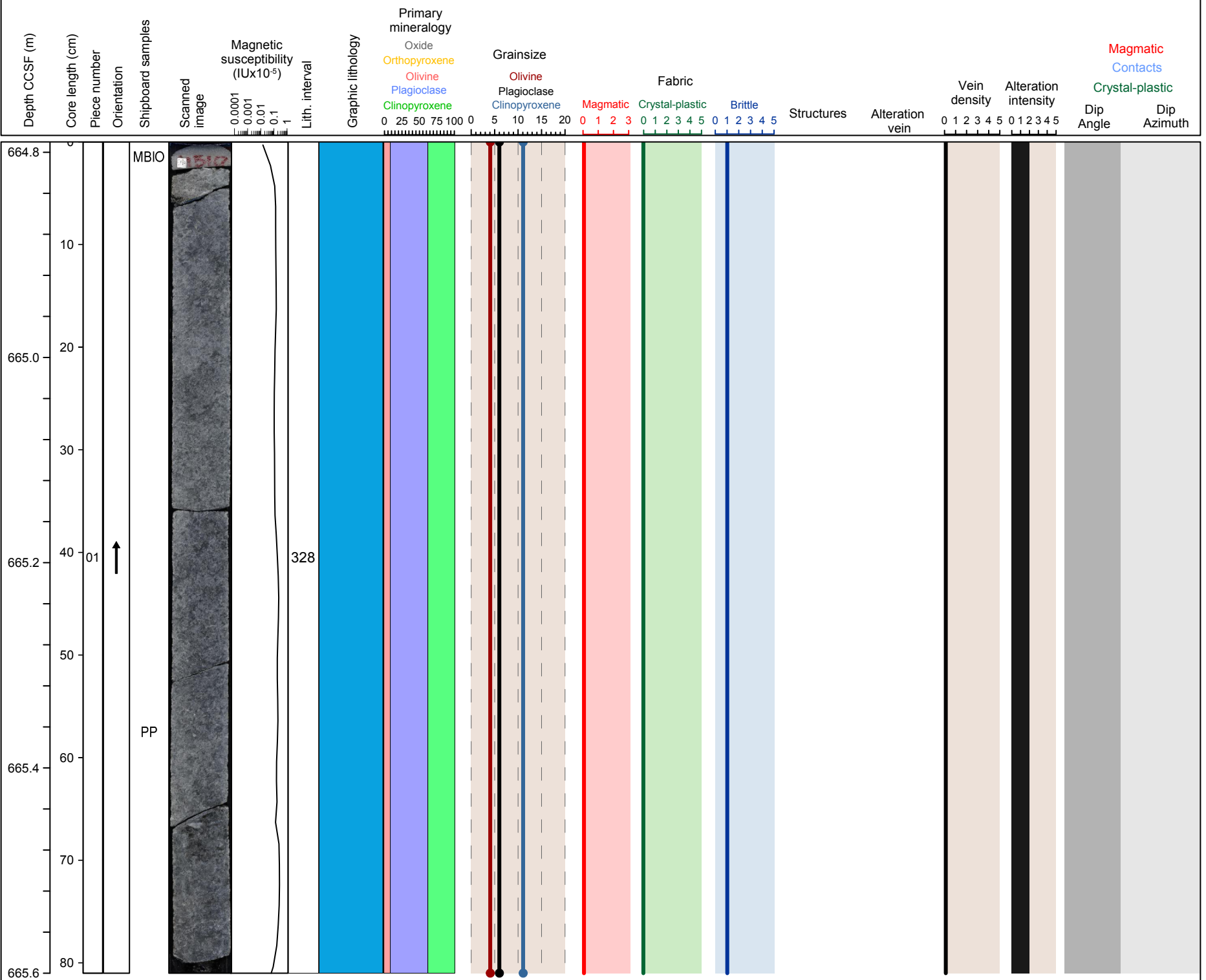


Hole 360-U1473A-75R Section 2, Top of Section: 664.79 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 328)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology:

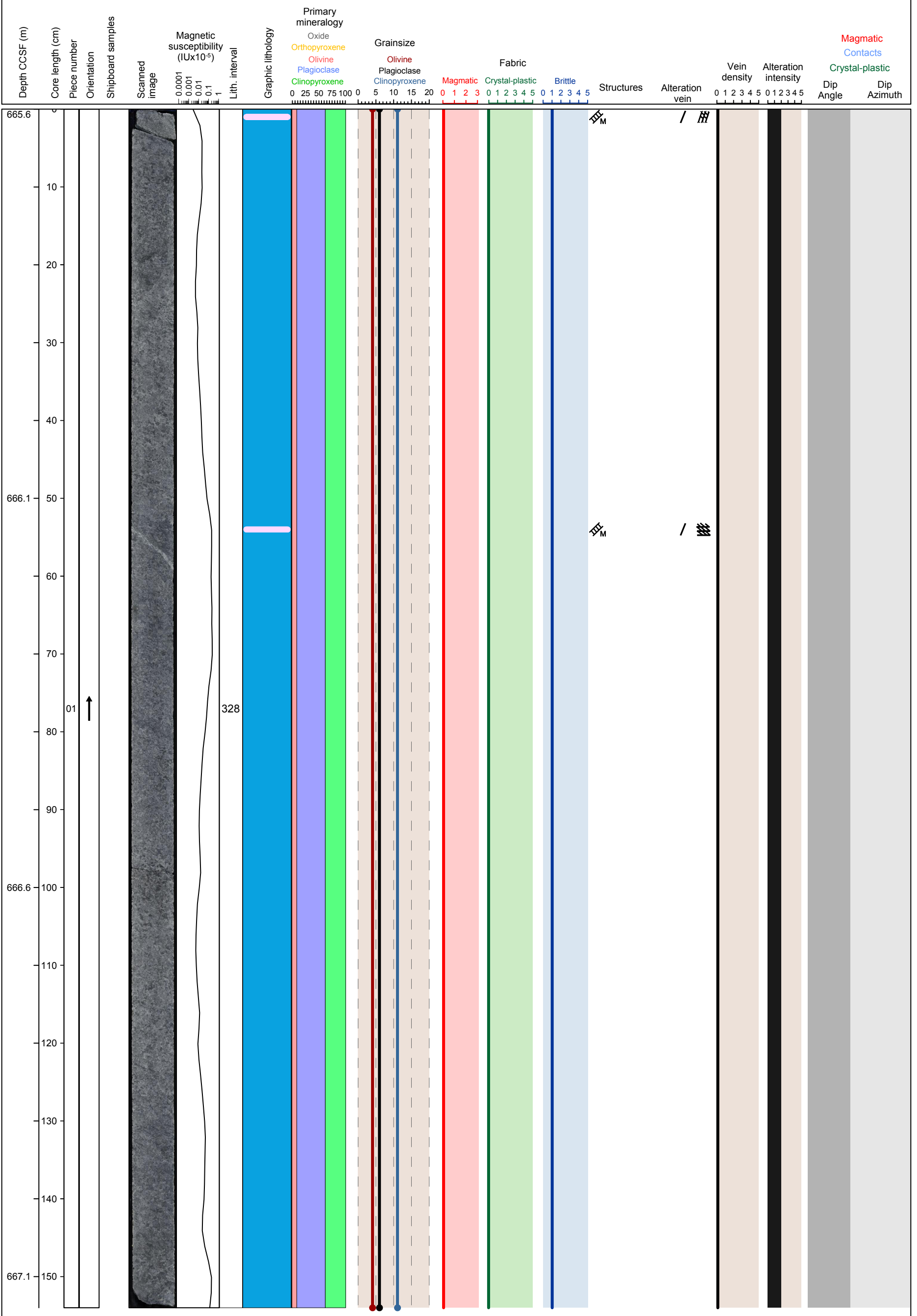


Hole 360-U1473A-75R Section 3, Top of Section: 665.6 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 328)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Two magmatic veins.

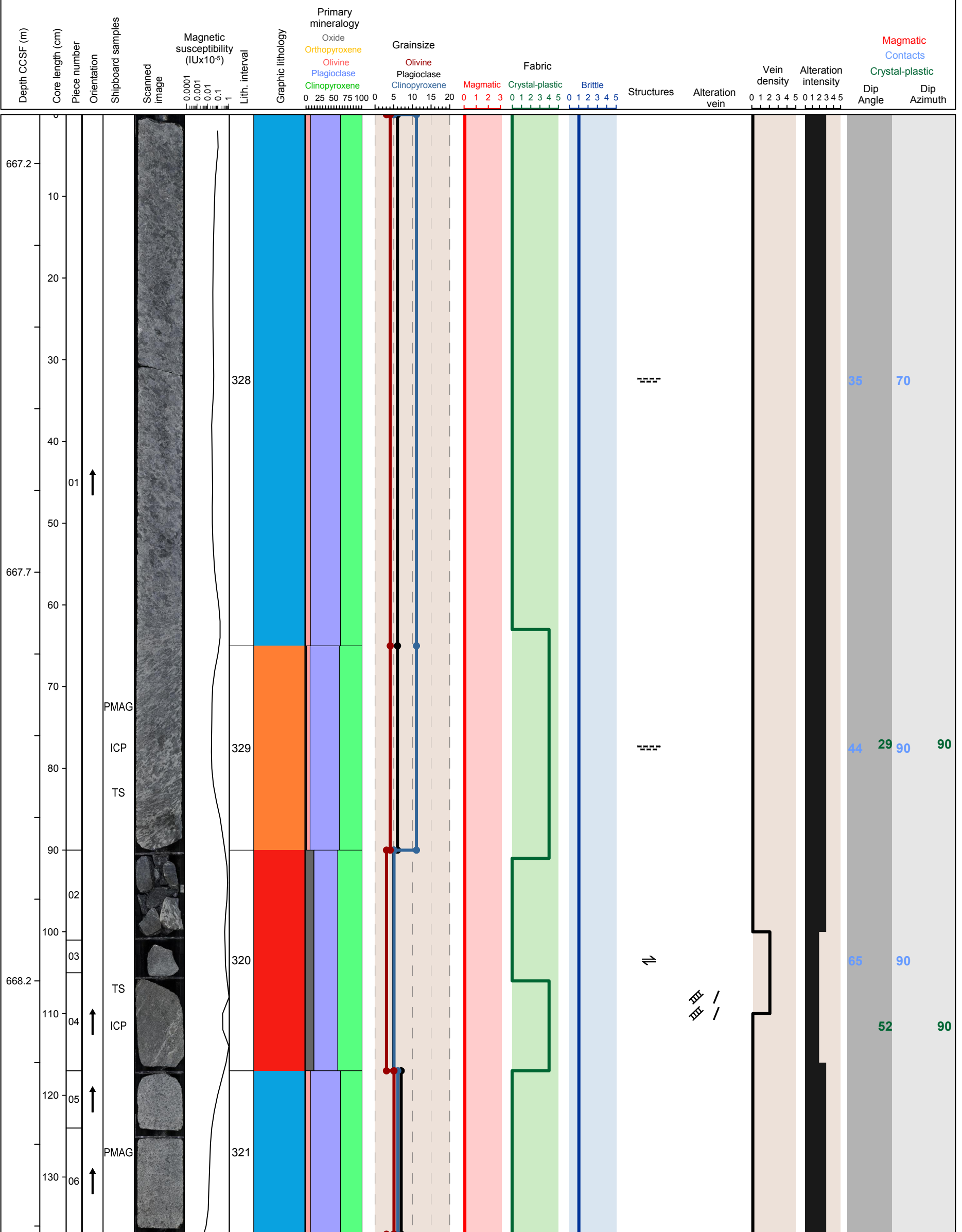


Hole 360-U1473A-75R Section 4, Top of Section: 667.14 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 328 and 331), coarse grained granular oxide bearing olivine gabbro (interval 329) and fine grained granular oxide gabbro (interval 328)

Metamorphic Petrology: Most of the section is substantially altered. Milky white plagioclase is very conspicuous especially in the mylonitic zone.

Structural Geology: Coarse plagioclase-rich, variably dipping and variable intensity shear zone, culminating with an oxide-rich ultramylonite at 90-117 cm.

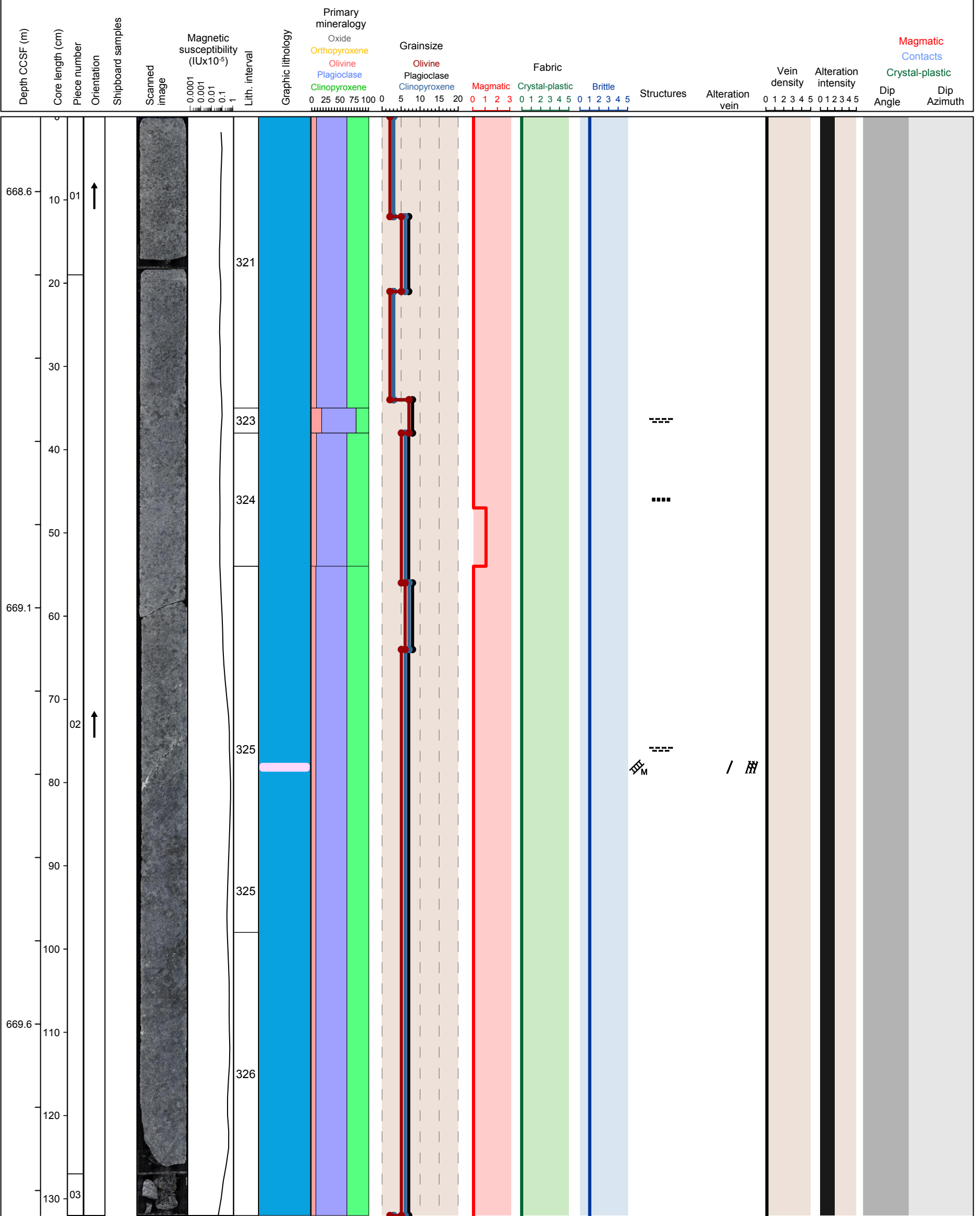


Hole 360-U1473A-75R Section 5, Top of Section: 668.51 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 332, 333, 334 and 335)

Metamorphic Petrology: Section is moderately altered.

Structural Geology: Weak magmatic fabric defined by plagioclase and pyroxene. Cm-thick mylonitic shear zone at 125 cm.

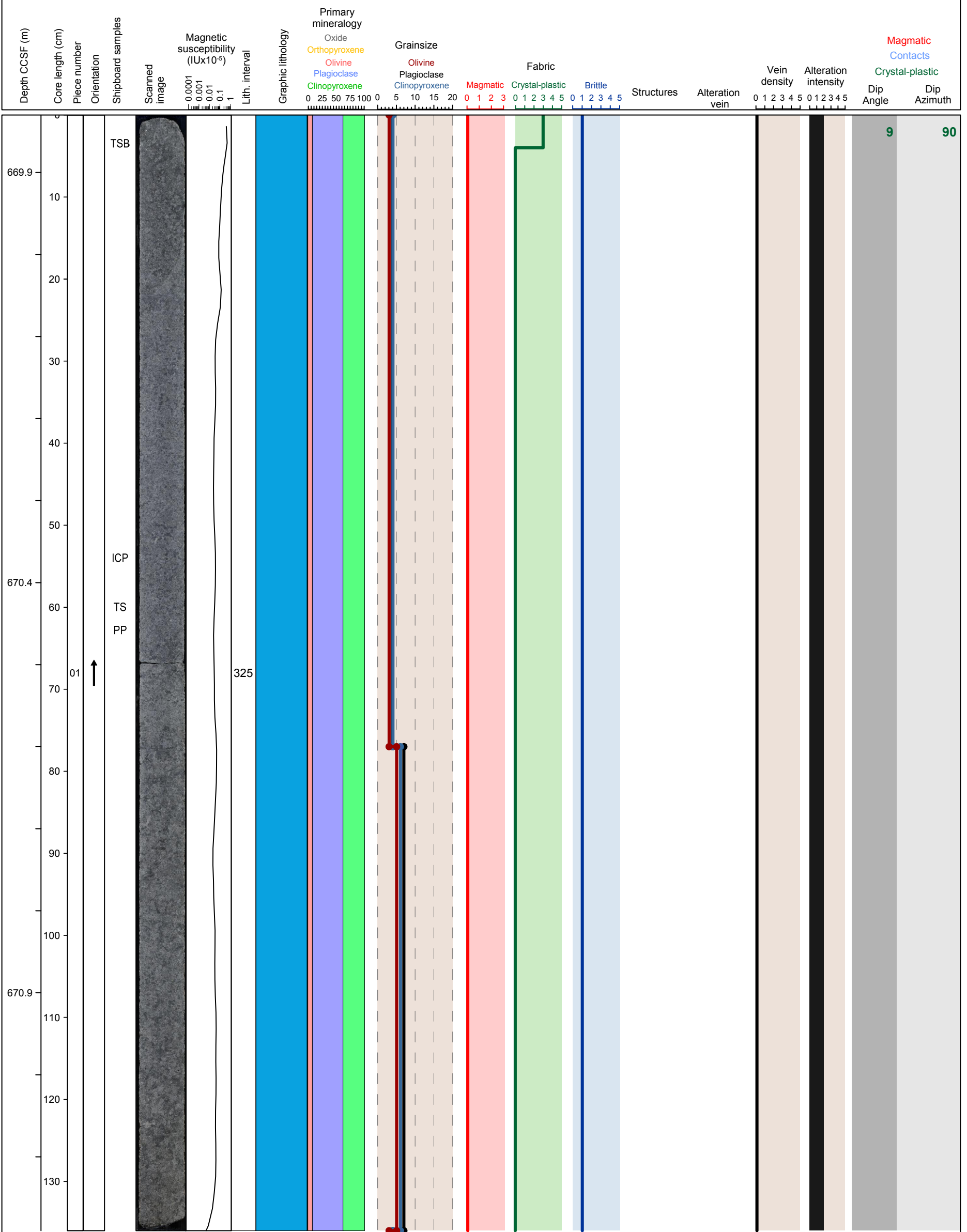


Hole 360-U1473A-75R Section 6, Top of Section: 669.83 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olvine gabbro (interval 335)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Sub-horizontal oxide-rich ultramylonite at 2 cm.

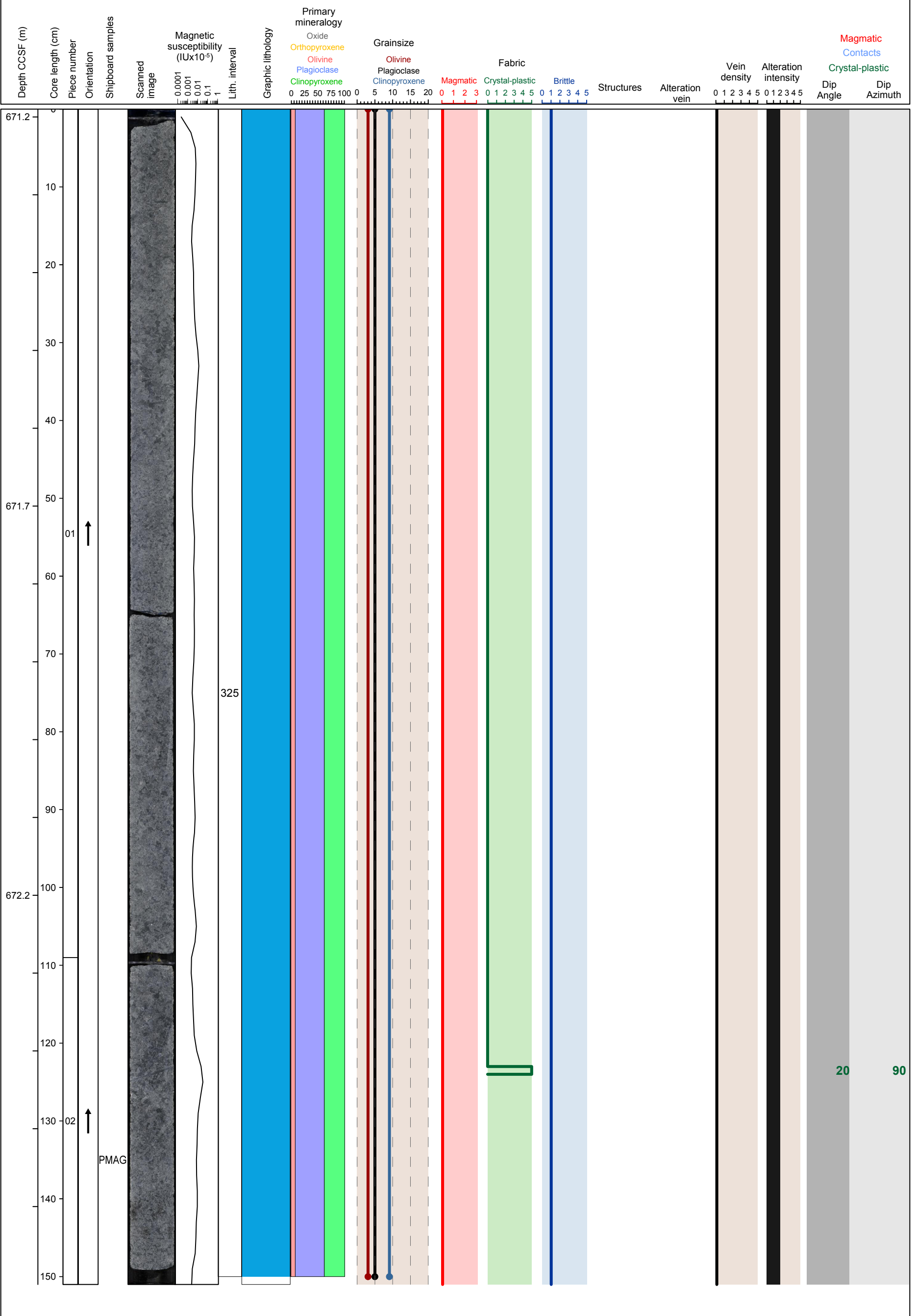


Hole 360-U1473A-75R Section 7, Top of Section: 671.19 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 335)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Two cm-thick mylonites at 2 cm. One is sub-horizontal, the other is sub-vertical. A third cm-thick mylonite occurs at 125 cm.

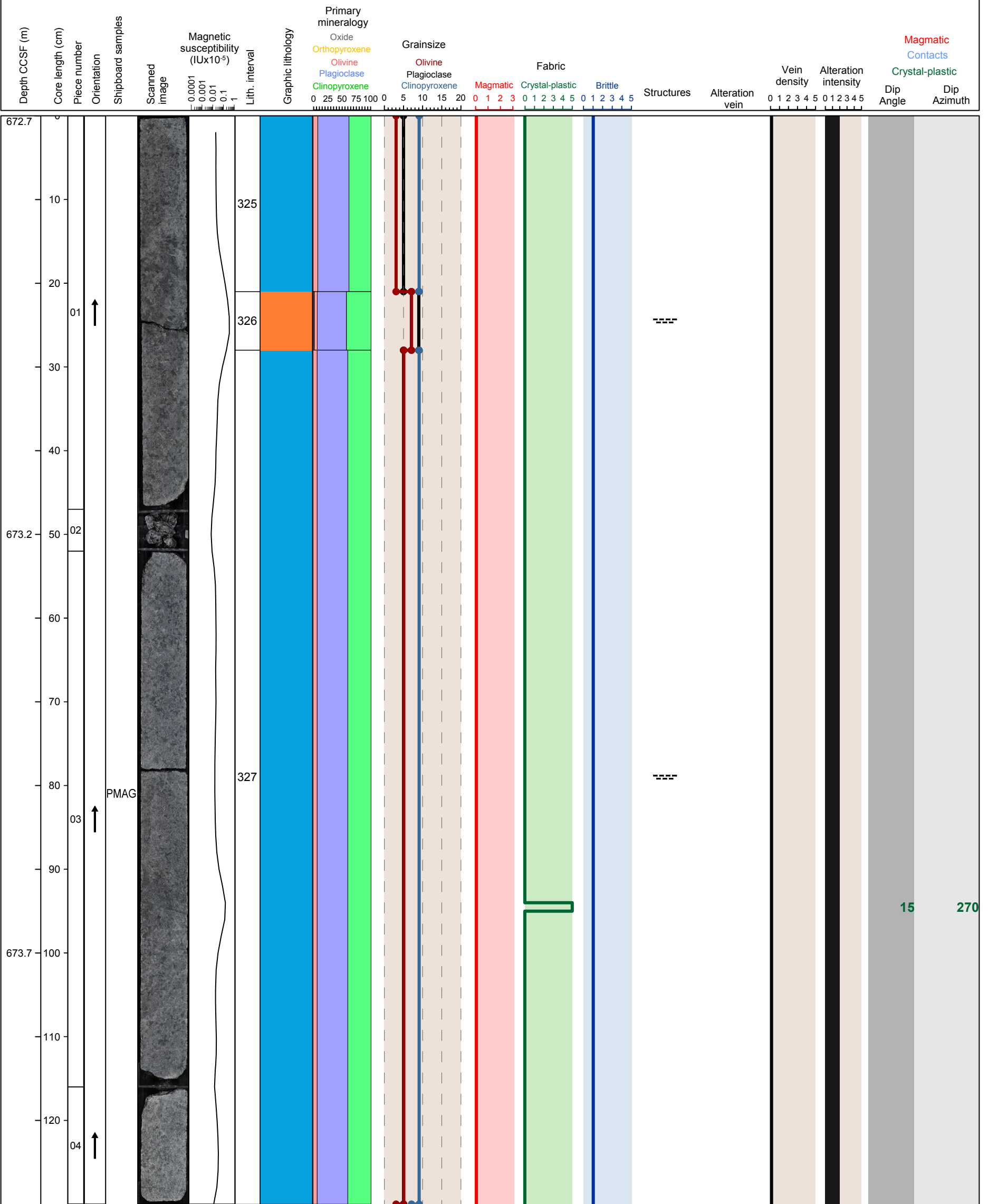


Hole 360-U1473A-75R Section 8, Top of Section: 672.7 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 335 and 337) and coarse grained granular oxide bearing olivine gabbro (interval 336)

Metamorphic Petrology: The alteration intensity of this section is moderate.

Structural Geology: Oxide-rich, cm-thick ultramylonite at 95 cm.

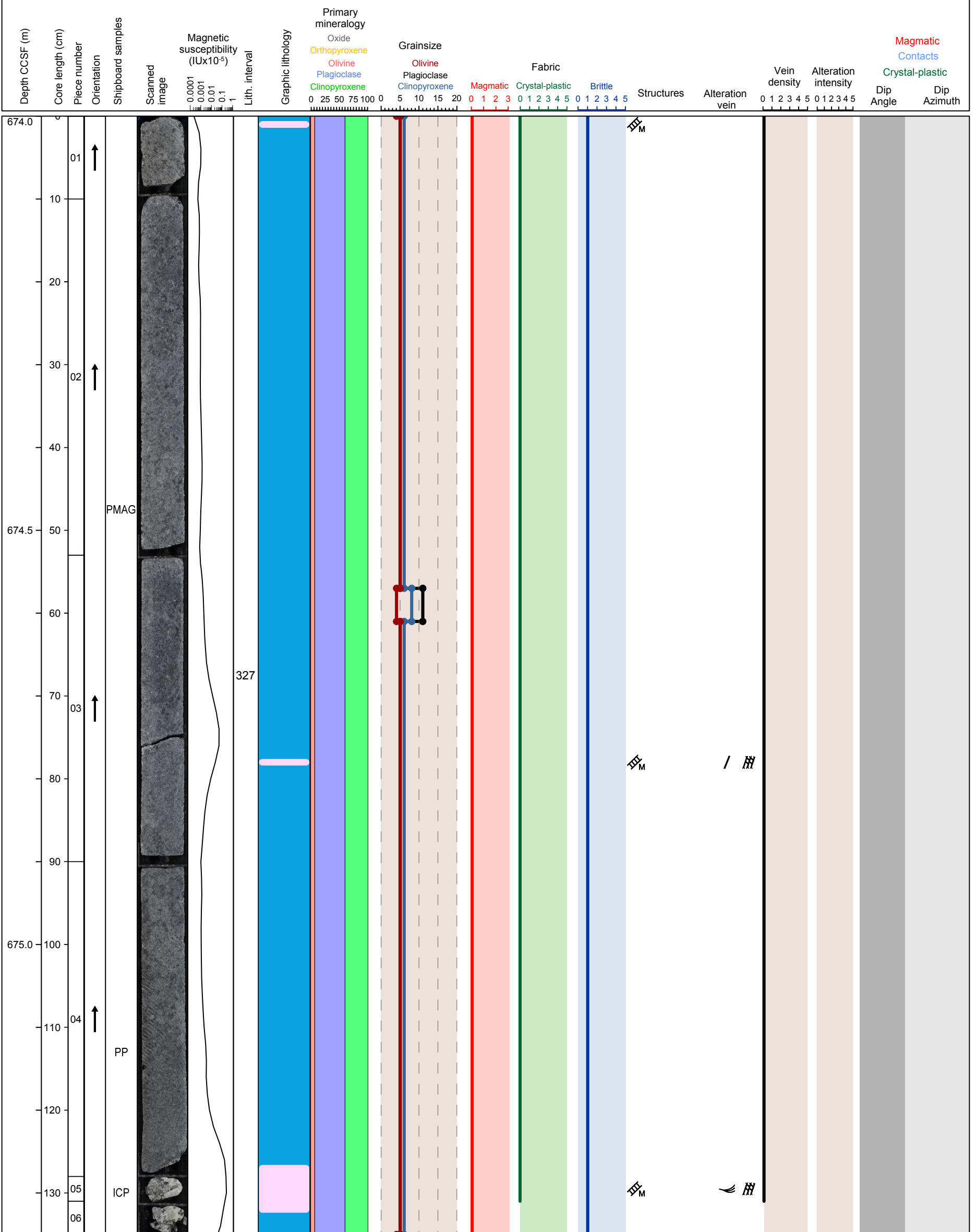


Hole 360-U1473A-76R Section 1, Top of Section: 674.0 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 337)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology:

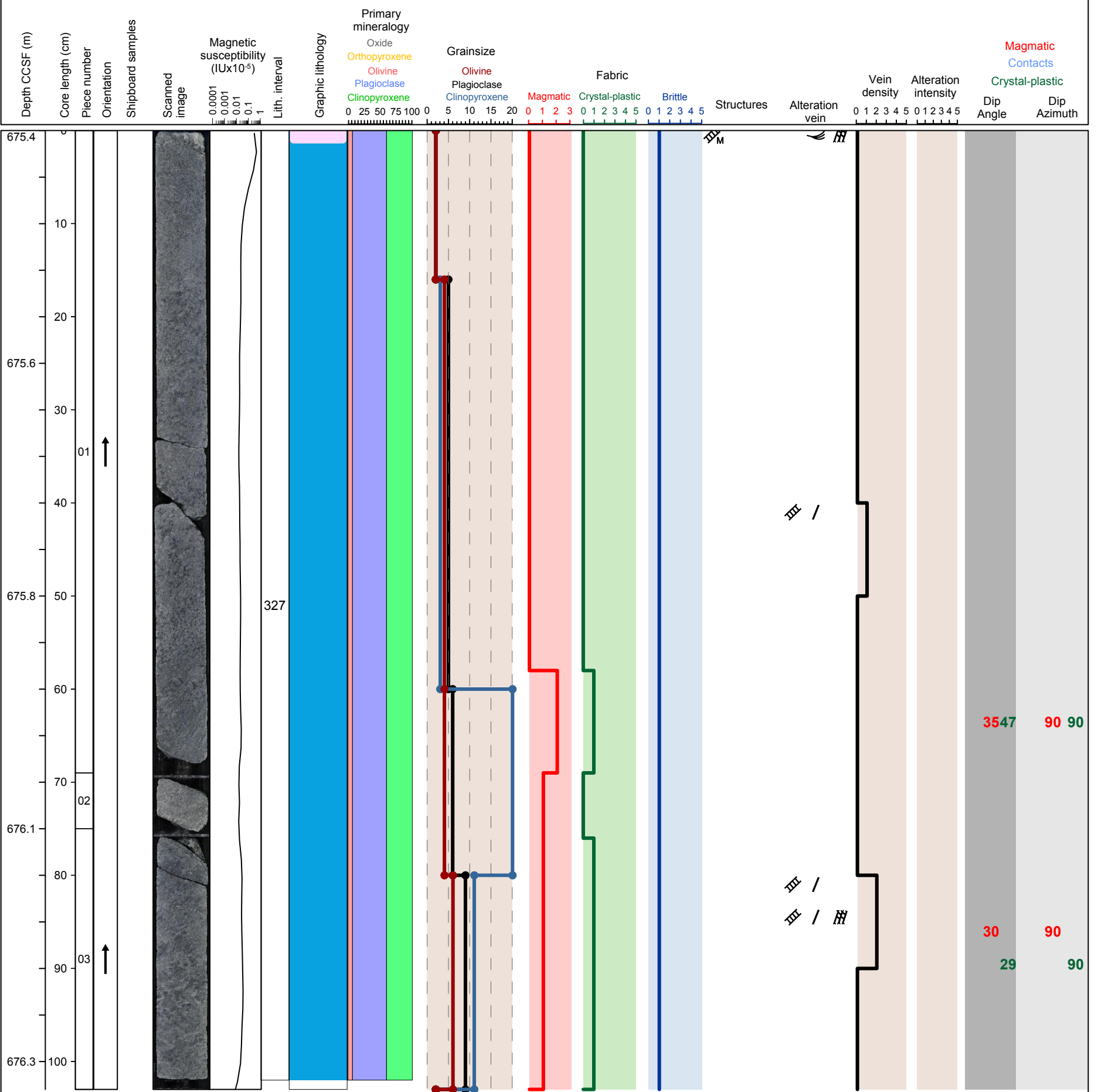


Hole 360-U1473A-76R Section 2, Top of Section: 675.35 m (CCSF-360-U1473-A-20160123)

Igneous Petrology:

Metamorphic Petrology:

Structural Geology:

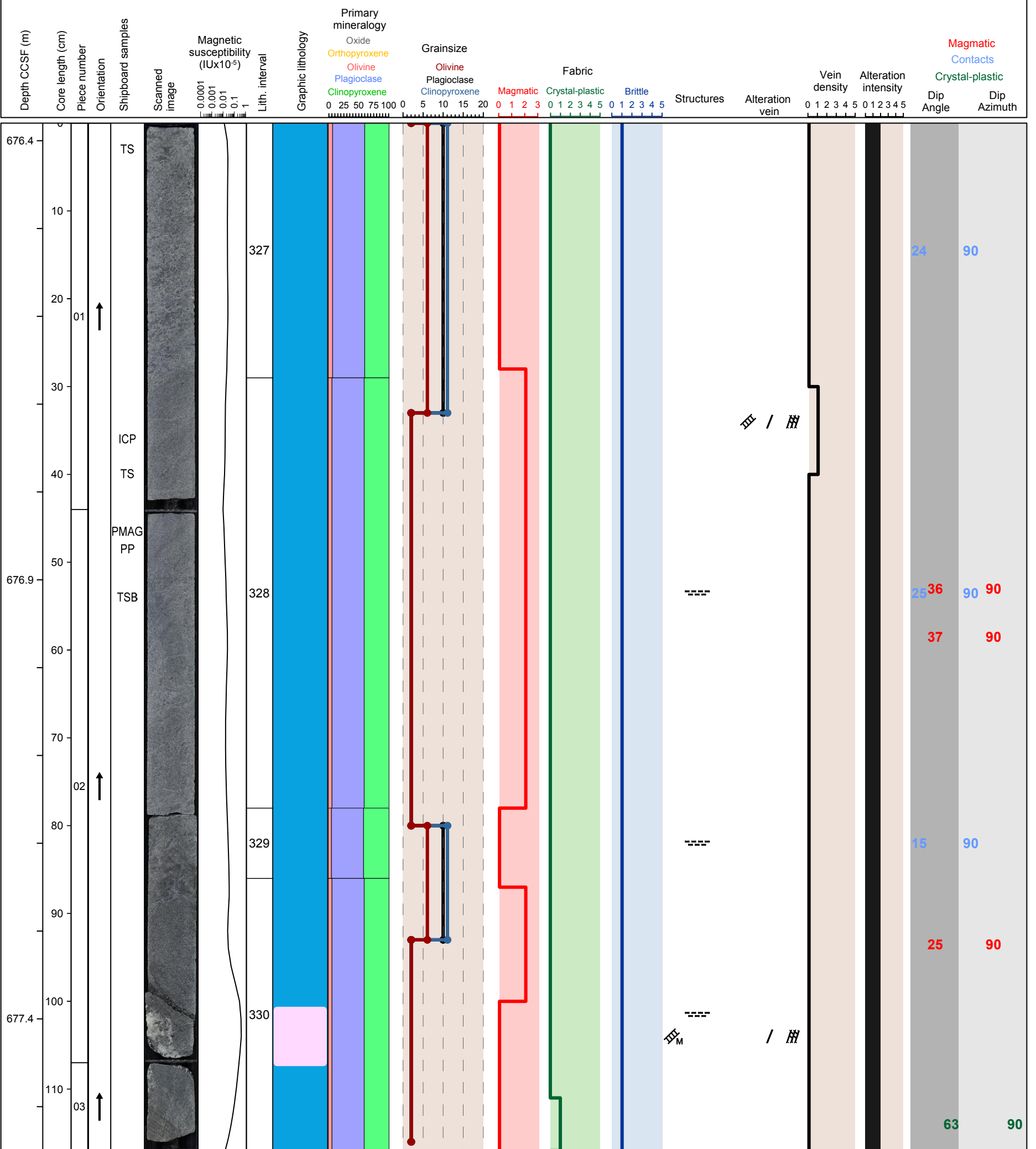


Hole 360-U1473A-76R Section 3, Top of Section: 676.38 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 337)

Metamorphic Petrology: Alteration intensity is moderate

Structural Geology:

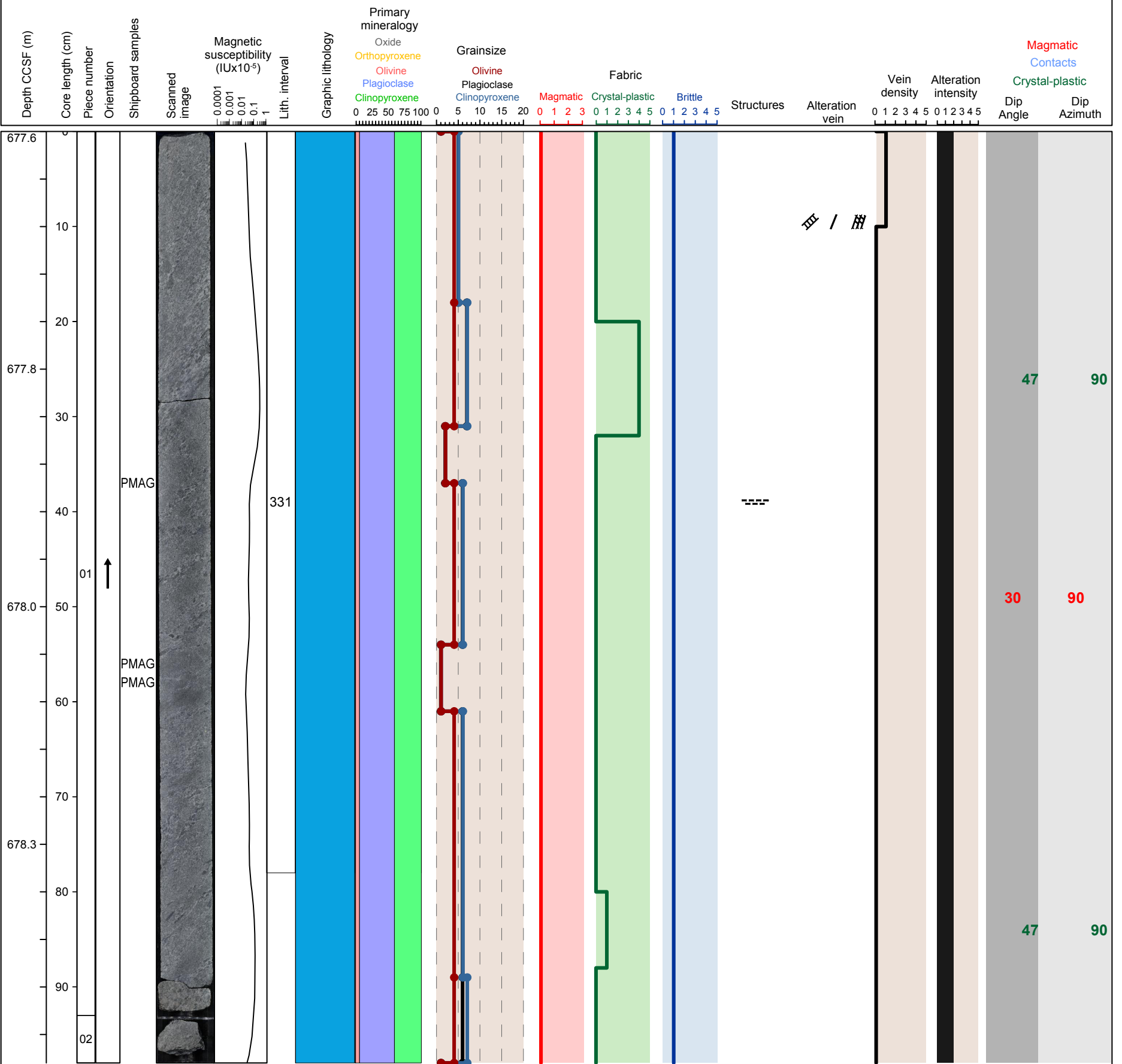


Hole 360-U1473A-76R Section 4, Top of Section: 677.55 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 337), medium grained granular olivine gabbro (interval 338 and 340) and coarse grained granular olivine gabbro (interval 339)

Metamorphic Petrology: The alteration intensity of this section is moderate.

Structural Geology:

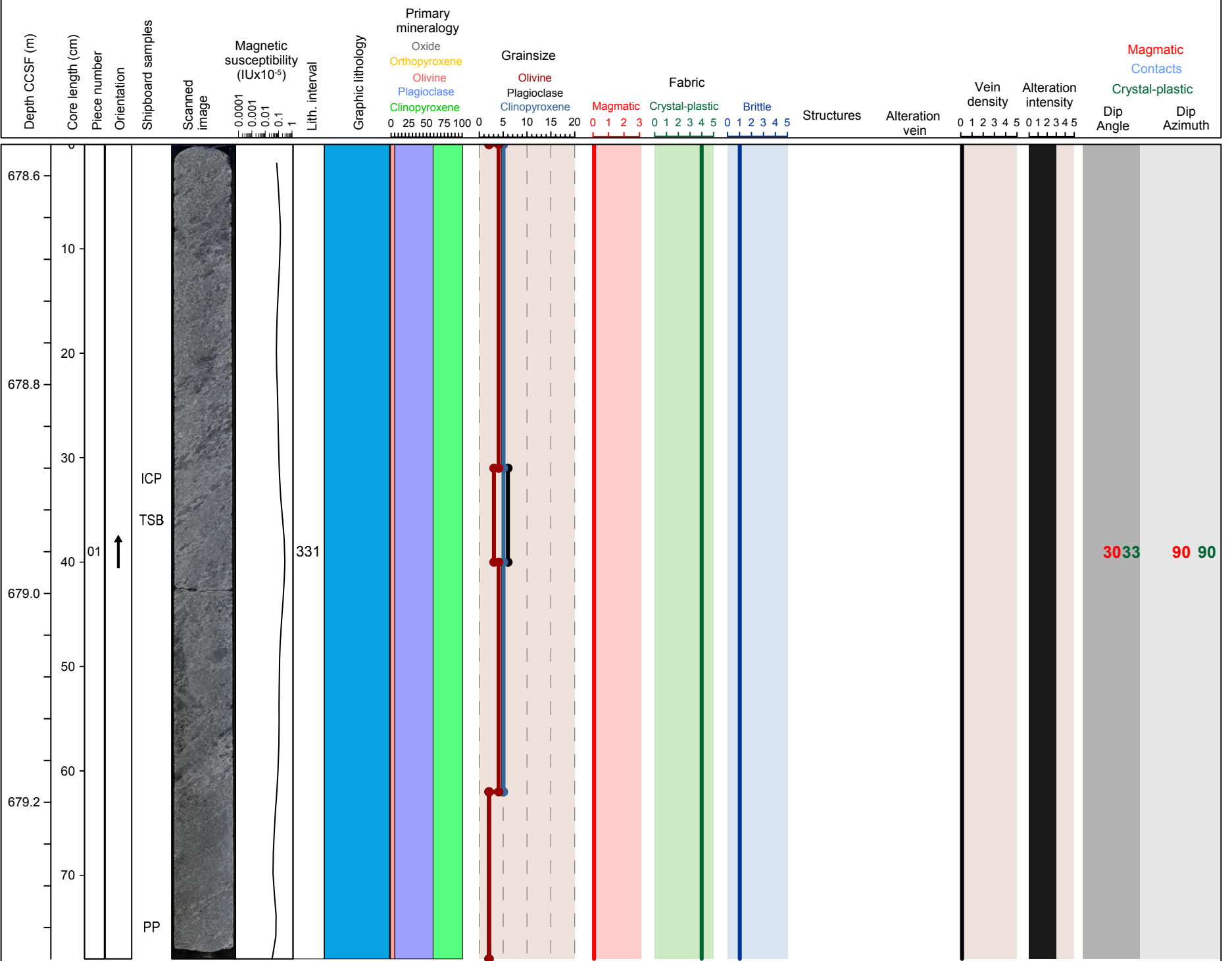


Hole 360-U1473A-76R Section 5, Top of Section: 678.53 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro with medium grained granular olivine gabbro domain (interval 341)

Metamorphic Petrology: The alteration intensity of this section is substantial.

Structural Geology:

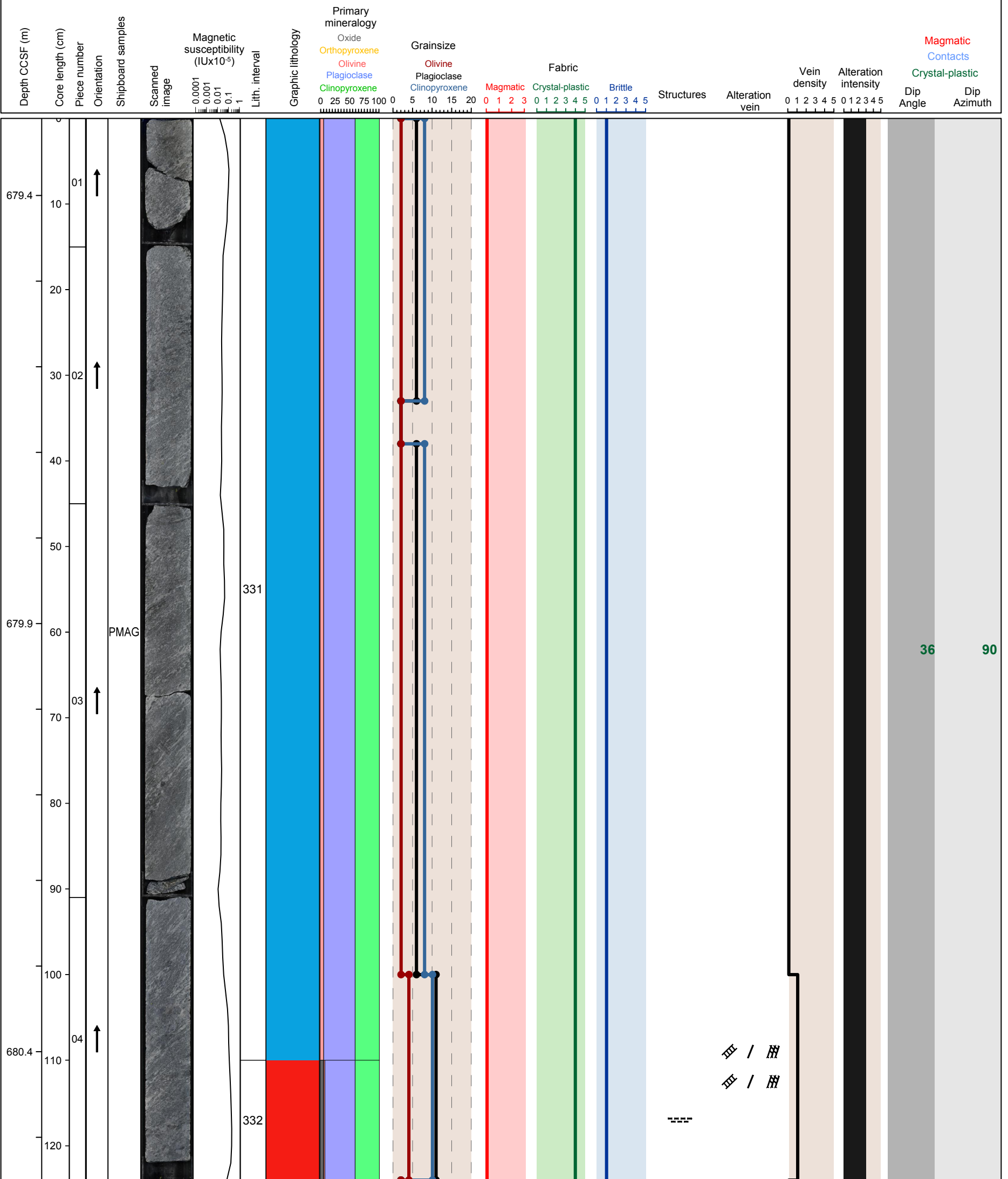


Hole 360-U1473A-77R Section 1, Top of Section: 679.31 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: medium grained granular olivine gabbro with coarse grained granular olivine gabbro domain (interval 341)

Metamorphic Petrology: The alteration intensity of this section is substantial.

Structural Geology: Highly deformed plagioclase layers with fine and coarse domains. Steeply dipping, sheared amphibole veins.

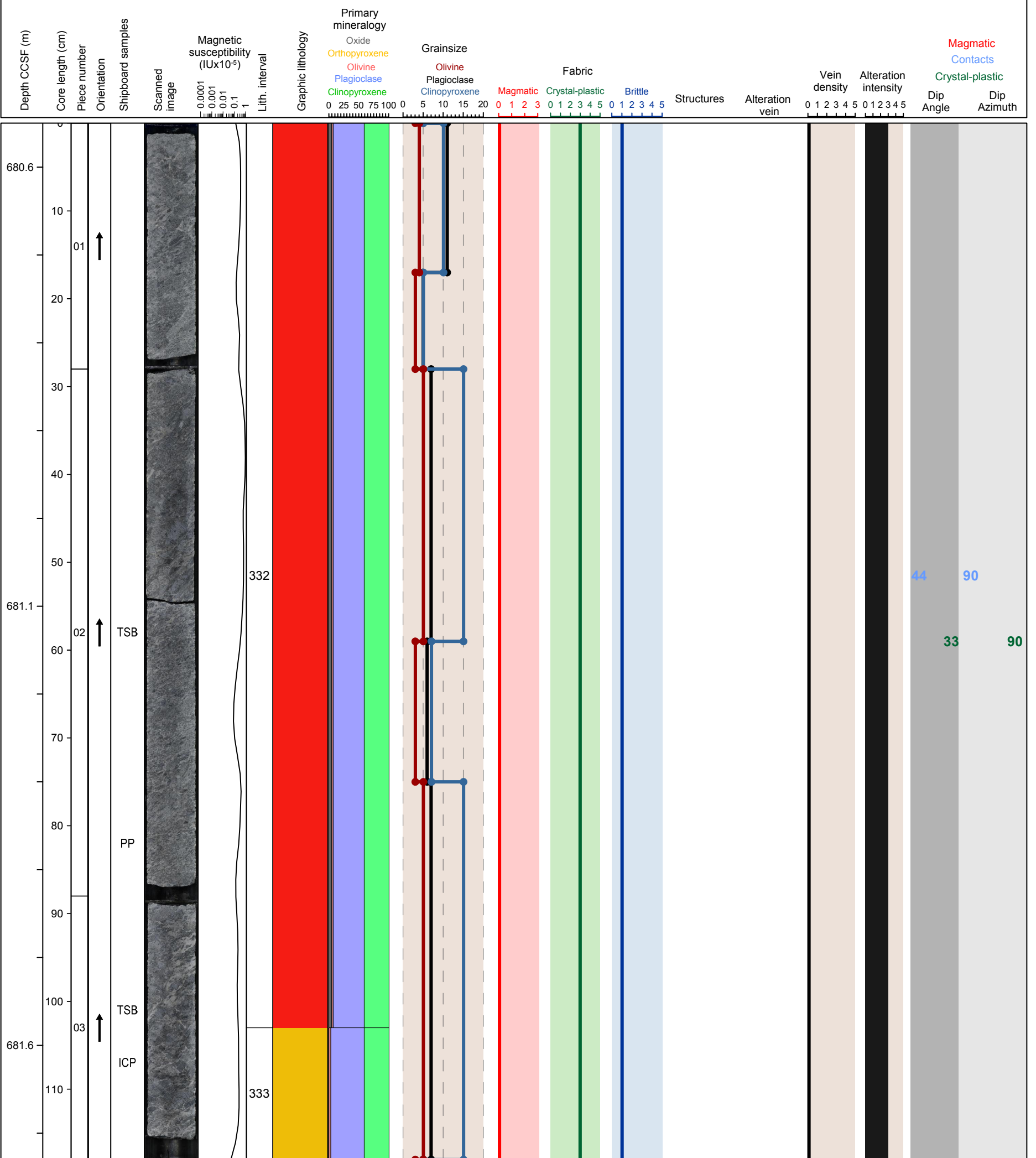


Hole 360-U1473A-77R Section 2, Top of Section: 680.55 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: medium grained granular olivine gabbro with coarse grained granular olivine gabbro domain (interval 341) and coarse grained granular olivine bearing oxide gabbro (interval 342)

Metamorphic Petrology: The alteration intensity of this section is substantial.

Structural Geology: Oxide-rich bands within mylonitic foliation.

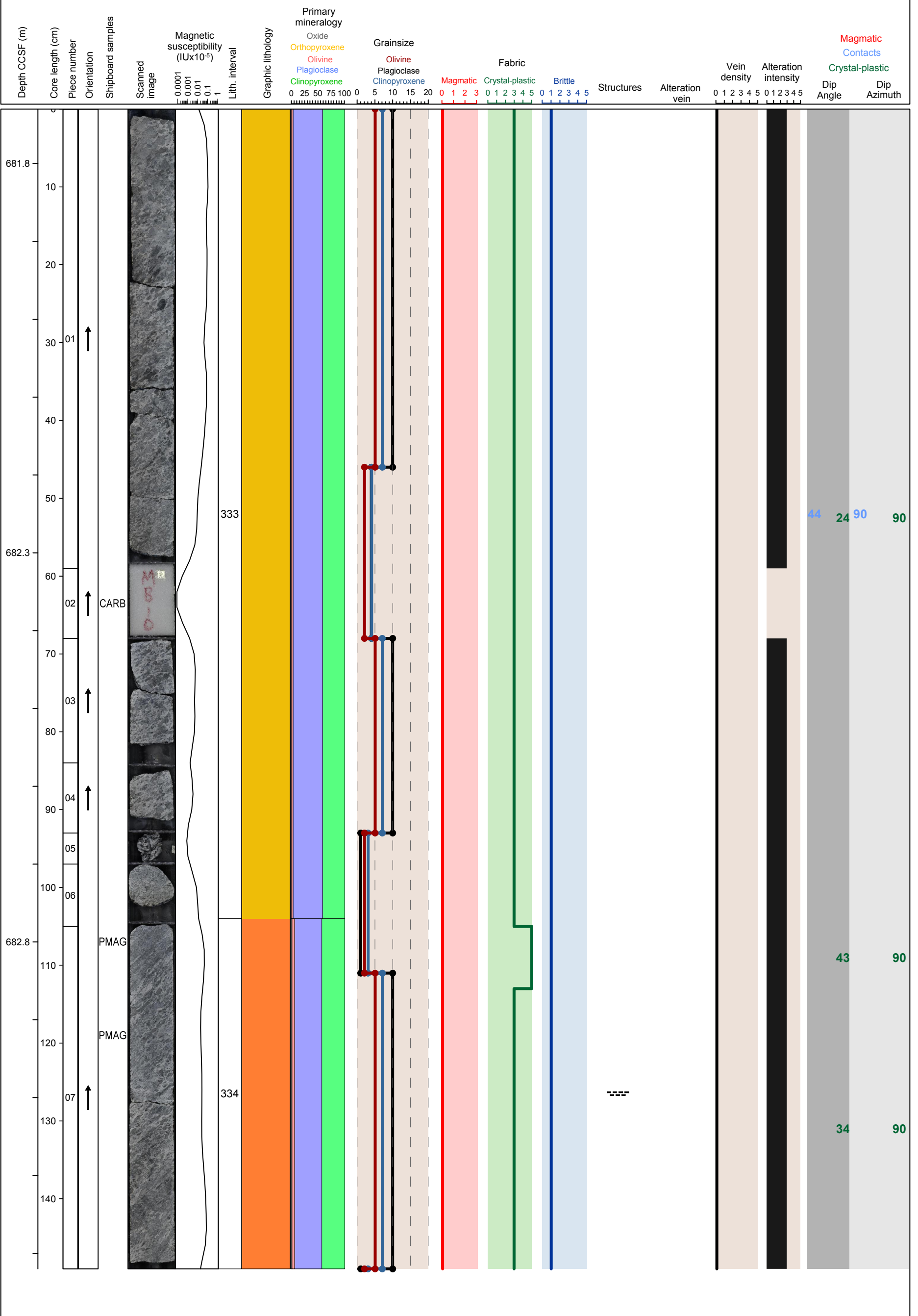


Hole 360-U1473A-78R Section 1, Top of Section: 681.73 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 342) and coarse grained granular disseminated oxide olivine bearing gabbro (interval 343)

Metamorphic Petrology: Alteration intensity is substantial. Milky white plagioclase is conspicuous.

Structural Geology: Fine-grained ultramylonitic to mylonitic shear zone with intercalated porphyroclastic, plagioclase-rich bands.

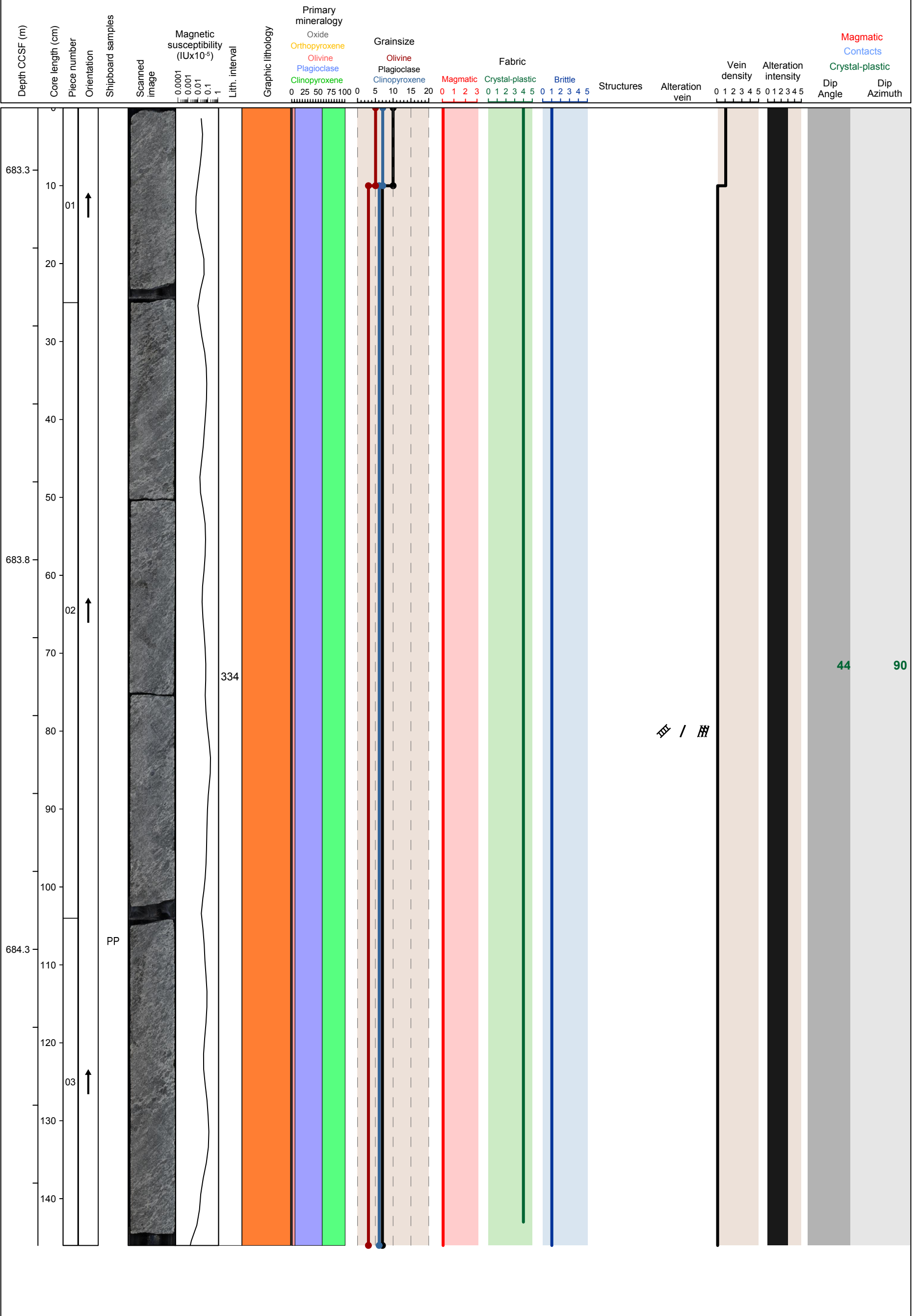


Hole 360-U1473A-78R Section 2, Top of Section: 683.22 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular disseminated oxide olivine bearing gabbro (interval 343) and coarse grained granular oxide bearing olivine gabbro (interval 344)

Metamorphic Petrology: Alteration intensity is substantial. Milky white plagioclase is conspicuous.

Structural Geology: Moderately dipping coarse and fine grained mylonites. Steeply dipping shear veins.

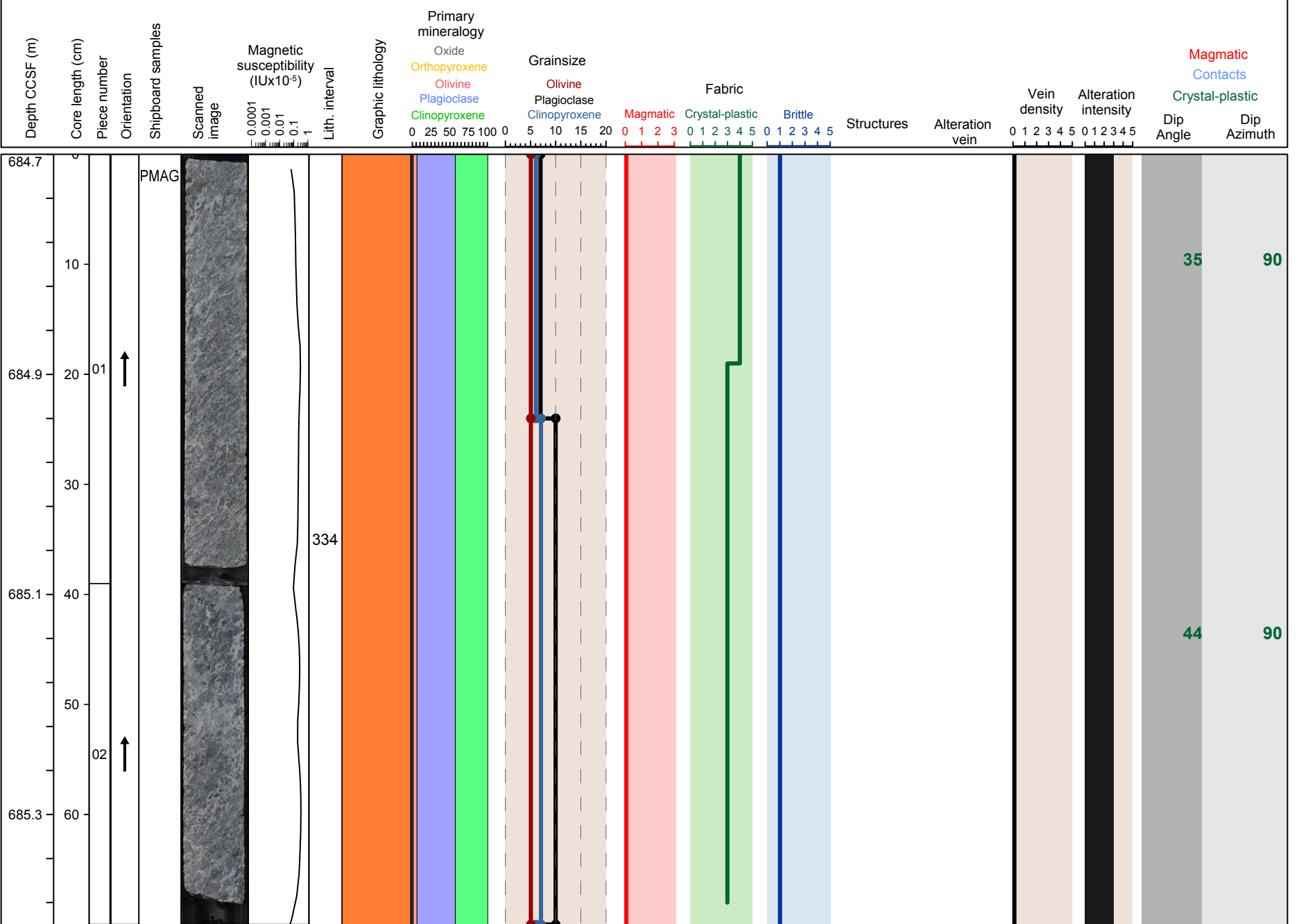


Hole 360-U1473A-78R Section 3, Top of Section: 684.68 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 344)

Metamorphic Petrology: Alteration intensity is substantial. Milky white plagioclase is conspicuous.

Structural Geology: Moderately dipping porphyroclastic to mylonitic fabric.

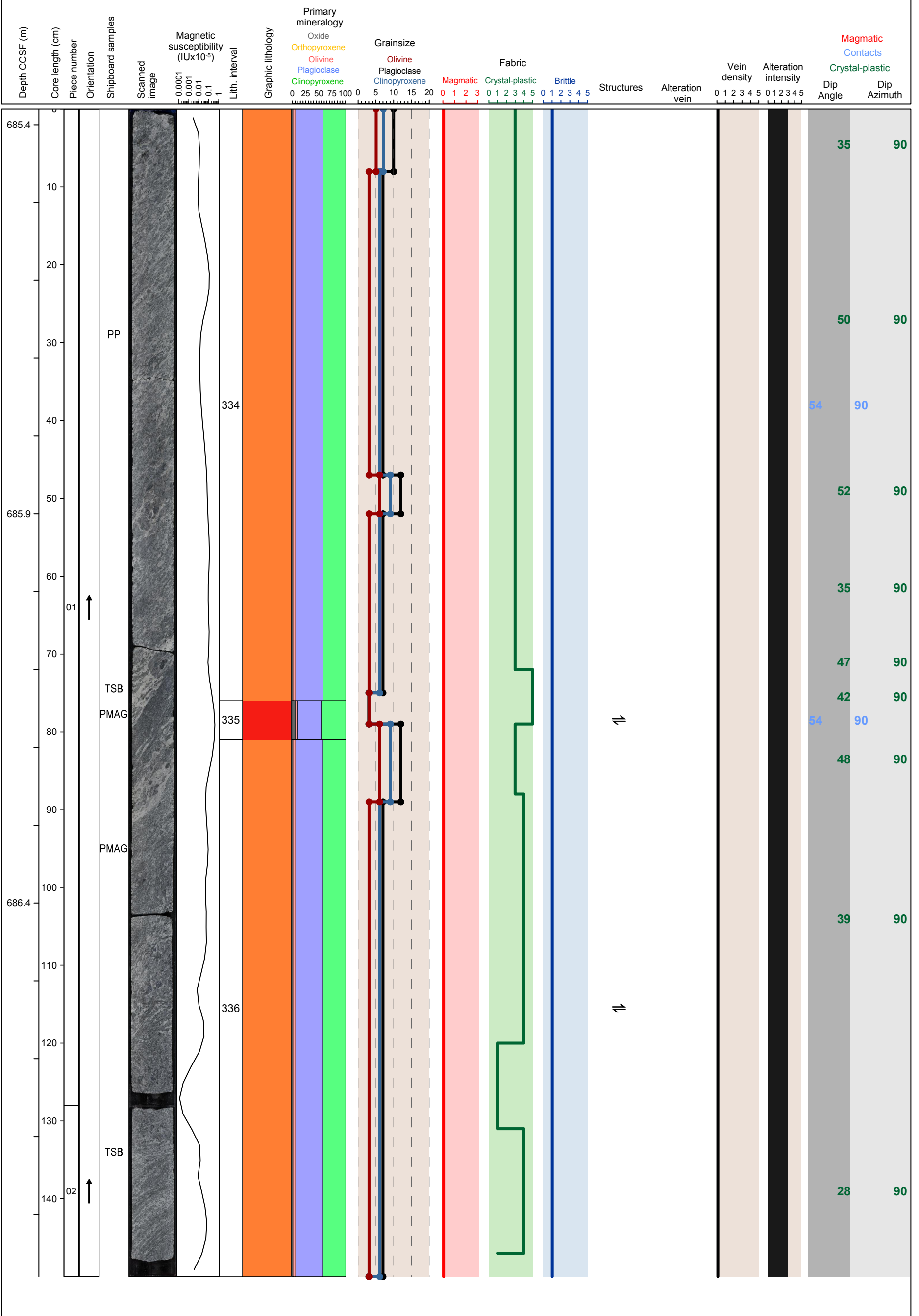


Hole 360-U1473A-78R Section 4, Top of Section: 685.38 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 344)

Metamorphic Petrology: Alteration intensity is substantial. Milky white plagioclase is conspicuous.

Structural Geology: Culmination of 11 meter thick shear zone starting in 76R-4 with a normal sense, 5 cm thick, inclined oxide-rich ultramylonite with leucocratic zones.

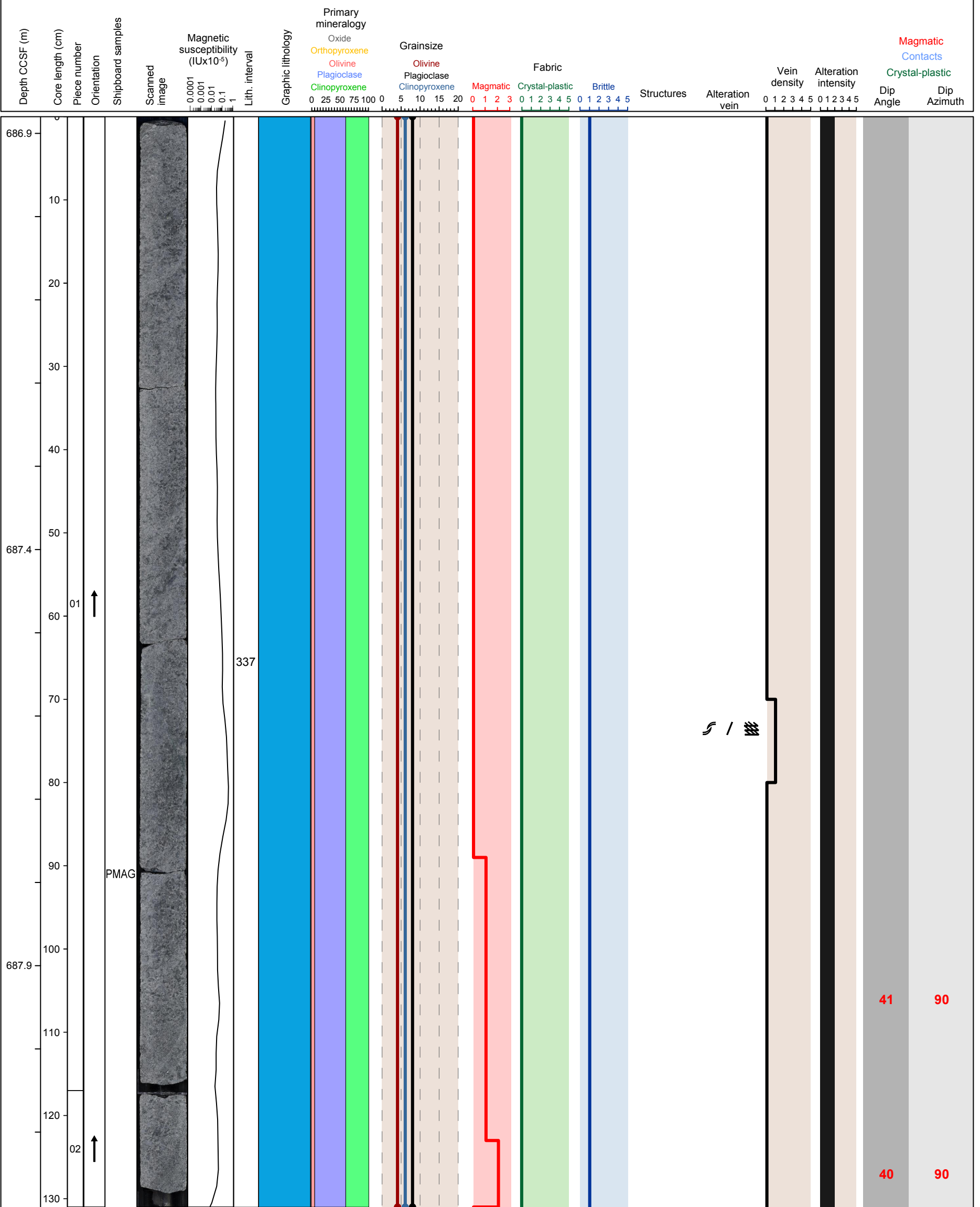


Hole 360-U1473A-78R Section 5, Top of Section: 686.88 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 344 and 346) and coarse grained granular olivine bearing oxide gabbro (interval 345)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Inclined, weak to moderate magmatic fabric. Inclined, cm-thick mylonite at 1 cm. Steeply dipping amphibole shear veins.

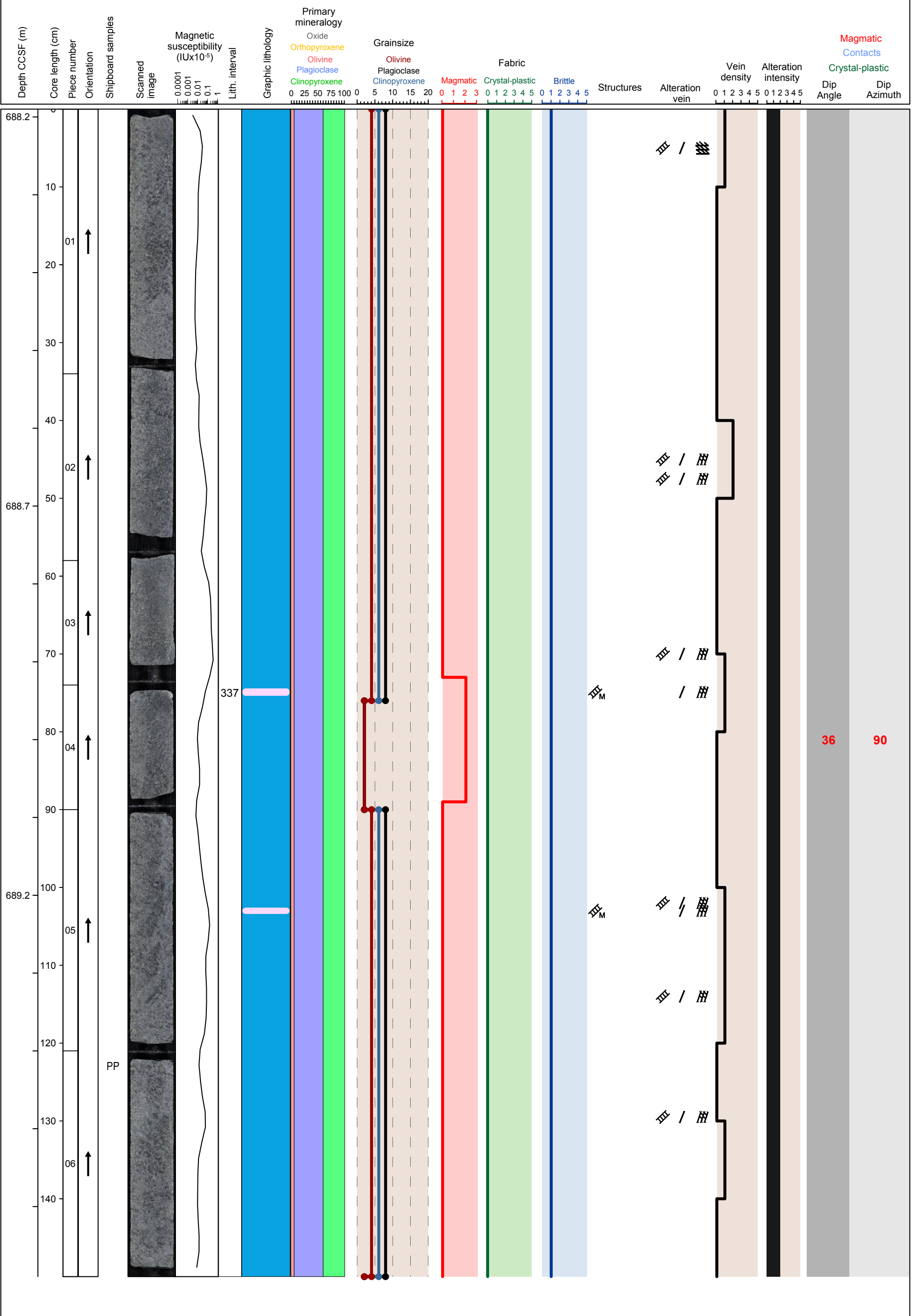


Hole 360-U1473A-78R Section 6, Top of Section: 688.19 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 347)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Moderate inclined magmatic fabric. Cm-thick vertical shear zone at 72 cm. Sub-horizontal to sub-vertical amphibole veins, some with haloes.

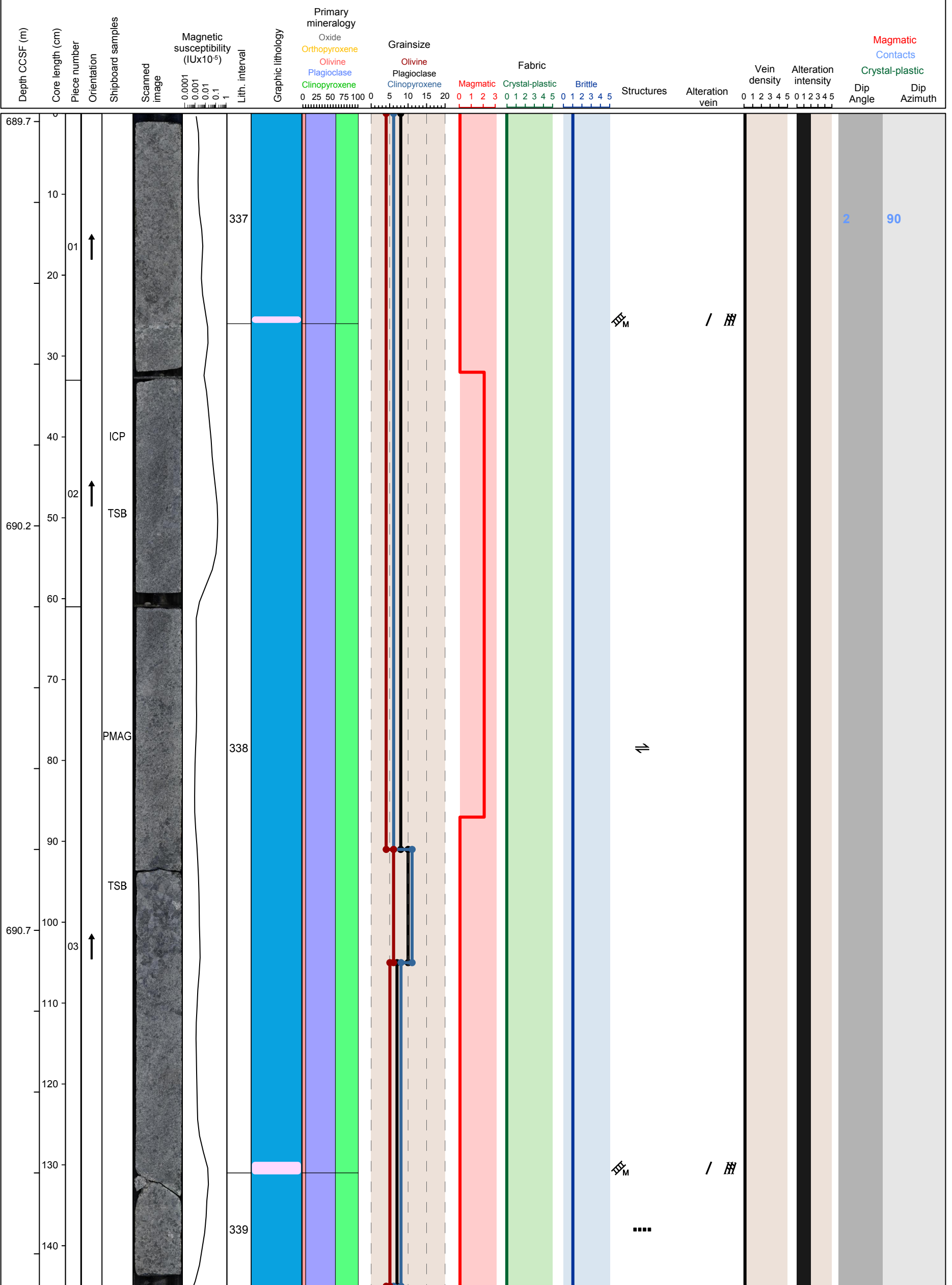


Hole 360-U1473A-78R Section 7, Top of Section: 689.69 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 347)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Moderate magmatic fabric with variable dip. Horizontal shear leucocratic contact between coarse and fine grained gabbro at 26 cm.

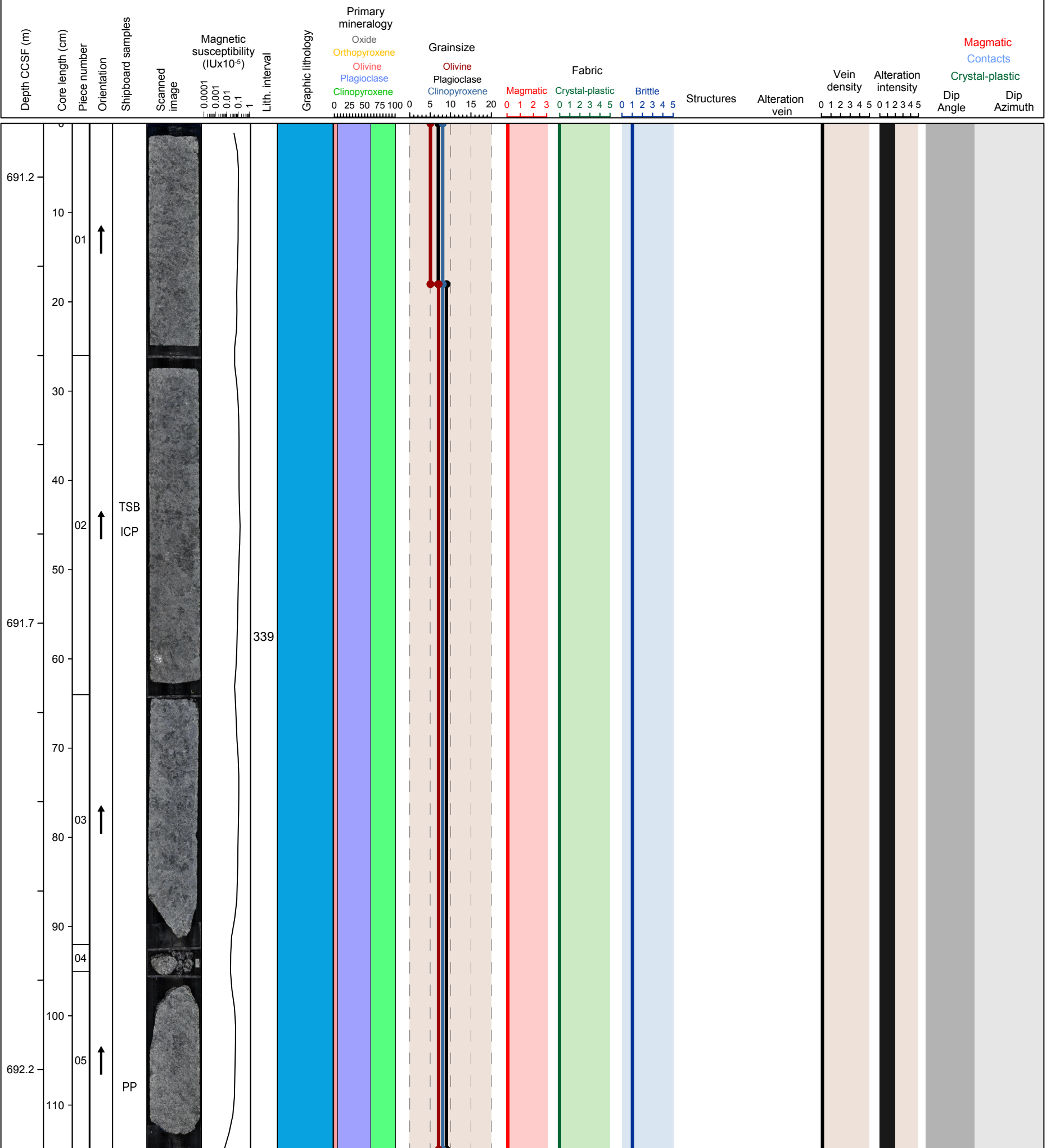


Hole 360-U1473A-78R Section 8, Top of Section: 691.14 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 347), coarse grained subophitic olivine gabbro with medium grained subophitic olivine gabbro domain (interval 348) and coarse grained subophitic olivine gabbro (interval 349)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology:

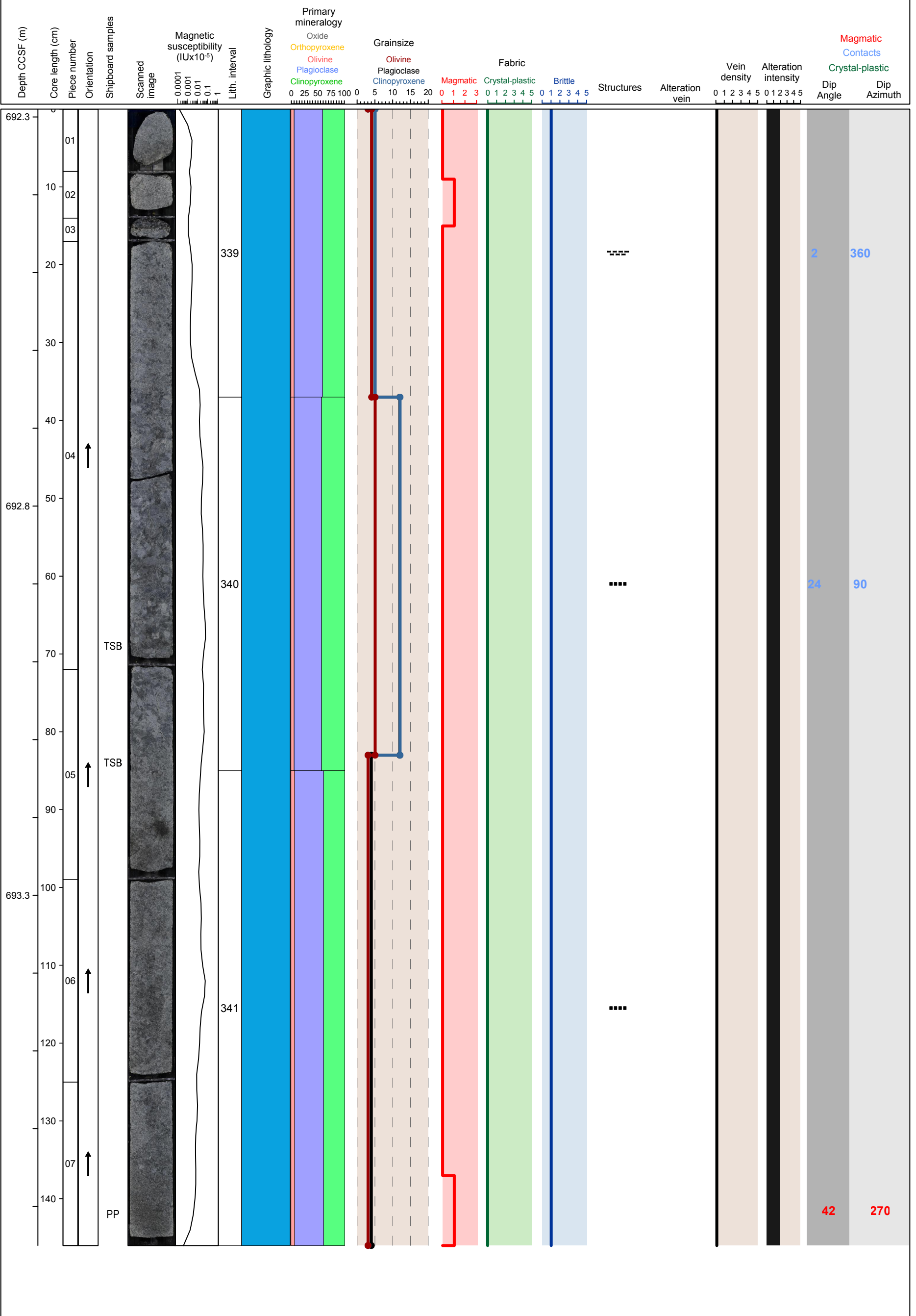


Hole 360-U1473A-79R Section 1, Top of Section: 692.29 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 349)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Weak magmatic fabric in fine grained interval.

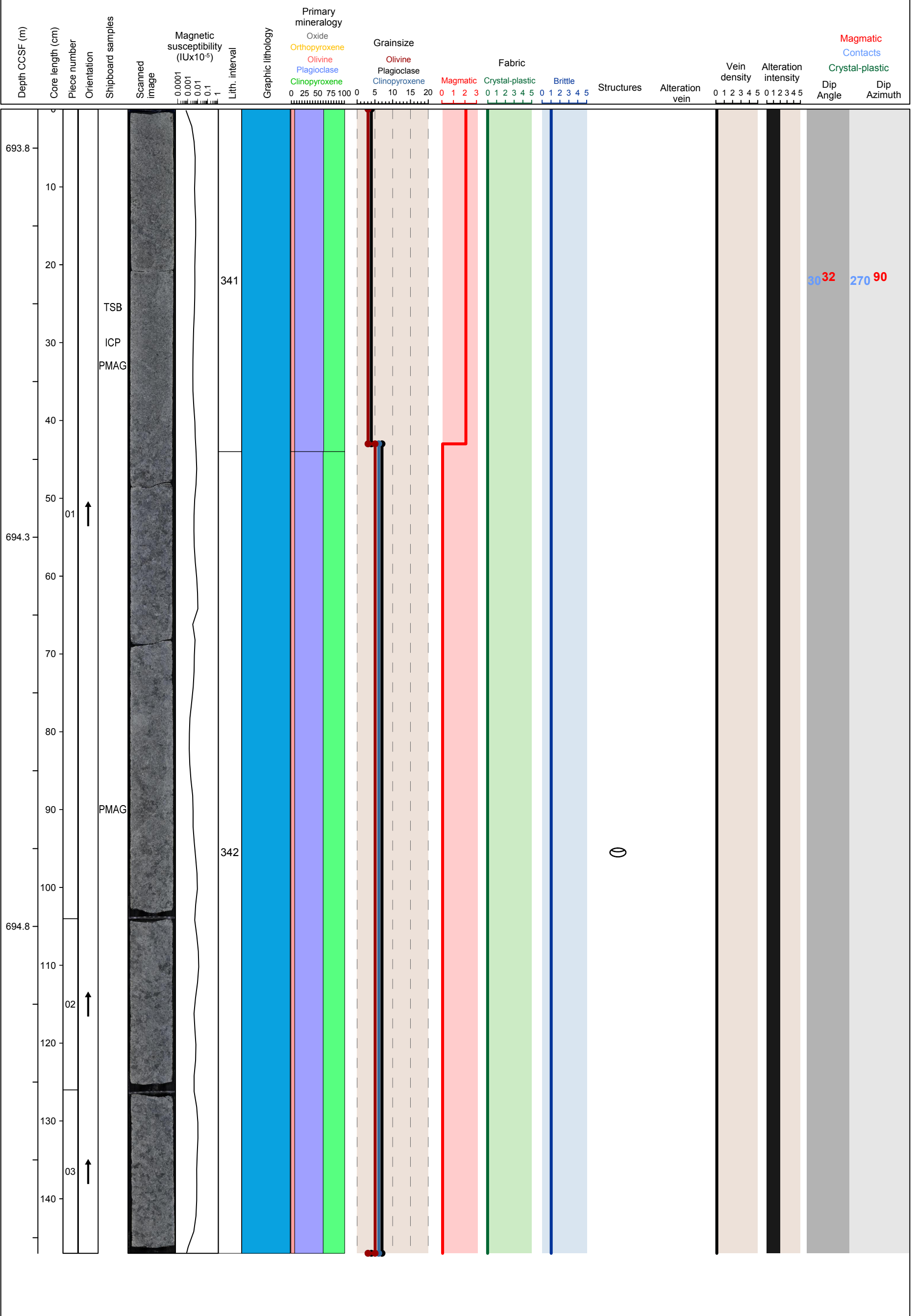


Hole 360-U1473A-79R Section 2, Top of Section: 693.75 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 349 and 350) and coarse grained granular olivine gabbro (interval 351)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Sub-horizontal, moderate magmatic fabric.

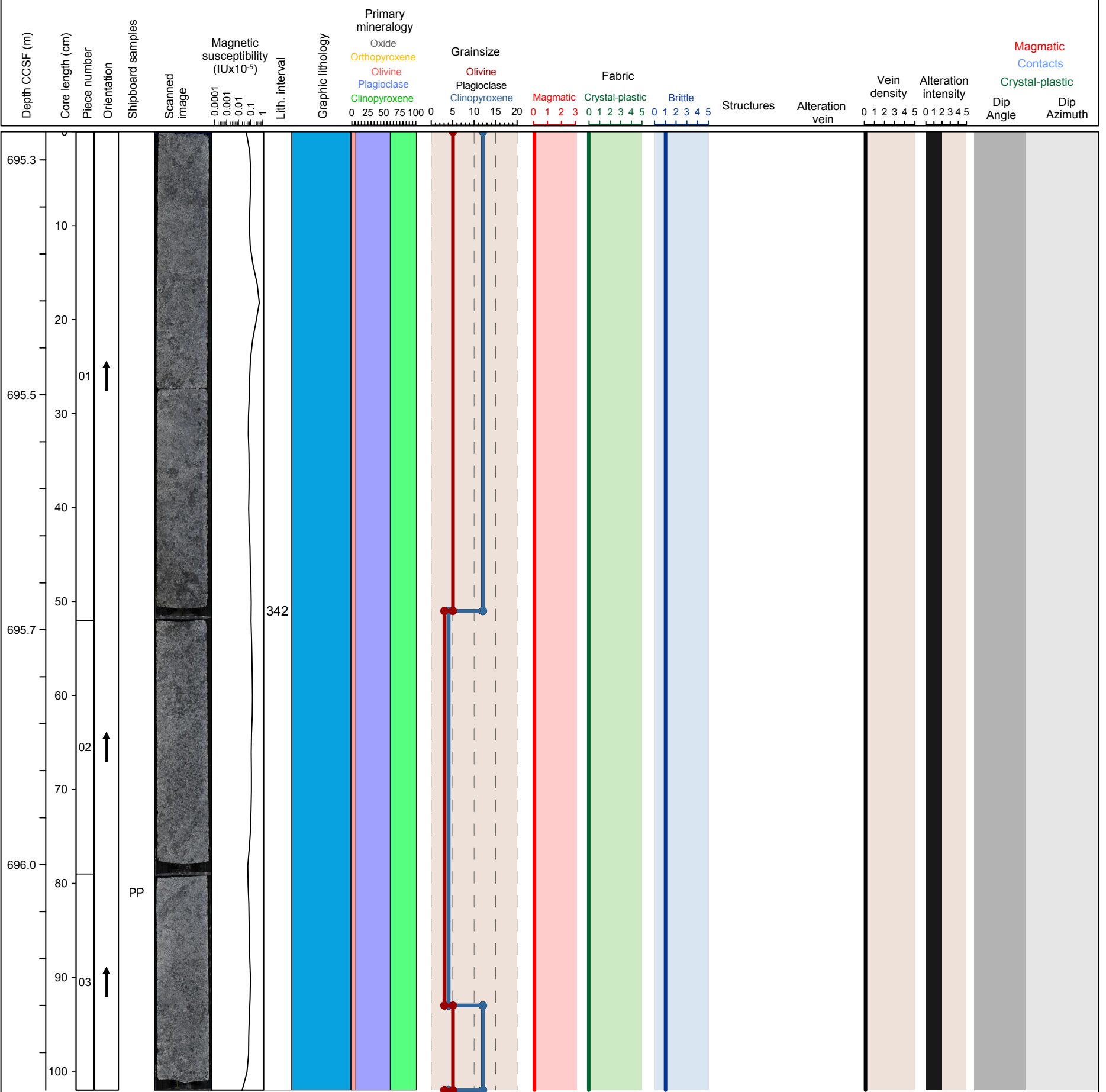


Hole 360-U1473A-79R Section 3, Top of Section: 695.22 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular olivine gabbro (interval 351) and coarse grained subophitic olivine gabbro (interval 352)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology:

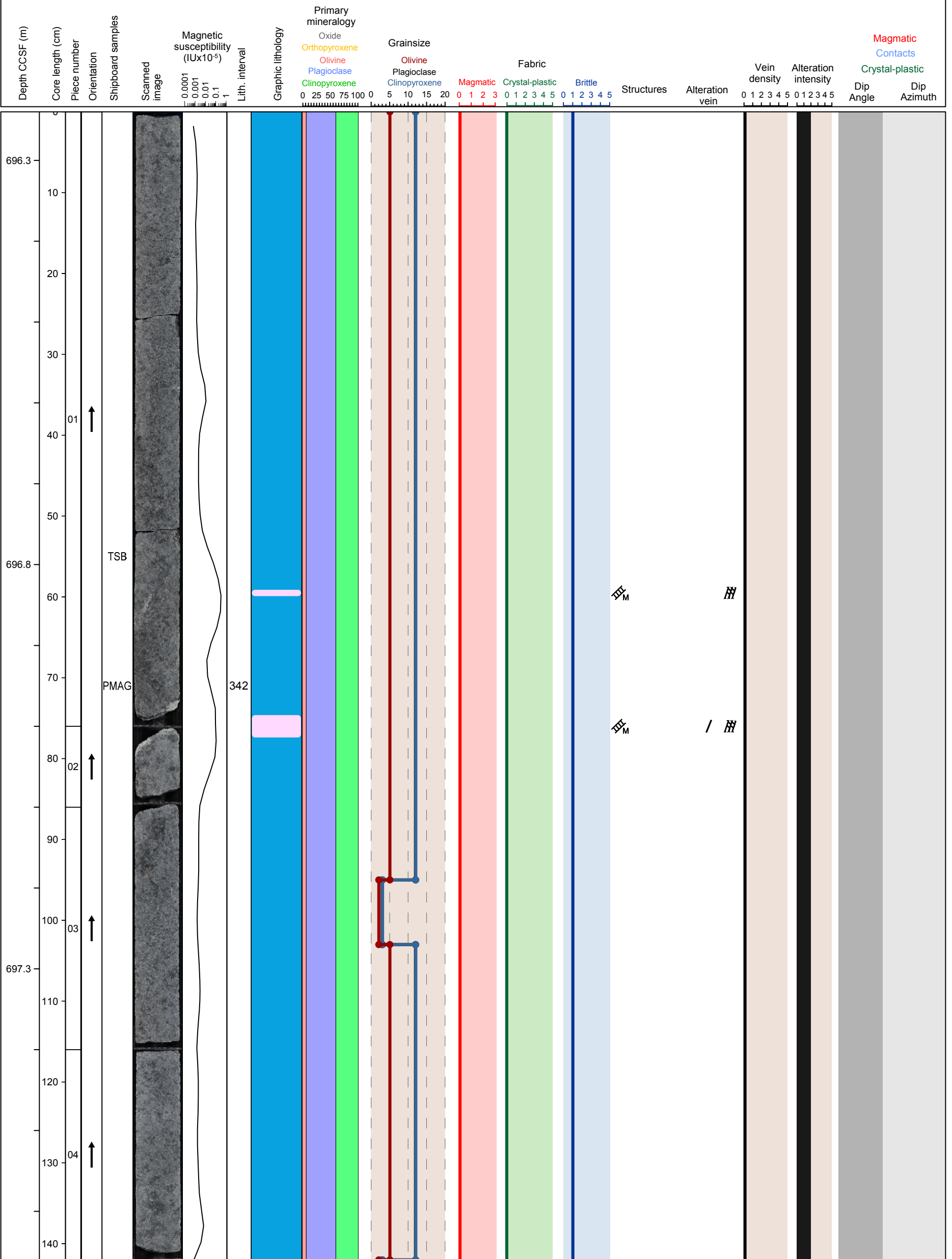


Hole 360-U1473A-79R Section 4, Top of Section: 696.24 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olvine gabbro (interval 352)

Metamorphic Petrology: Section is moderately altered.

Structural Geology: Leucocratic Fe-Ti oxide shear zone with moderate to steep dip at 60 cm.

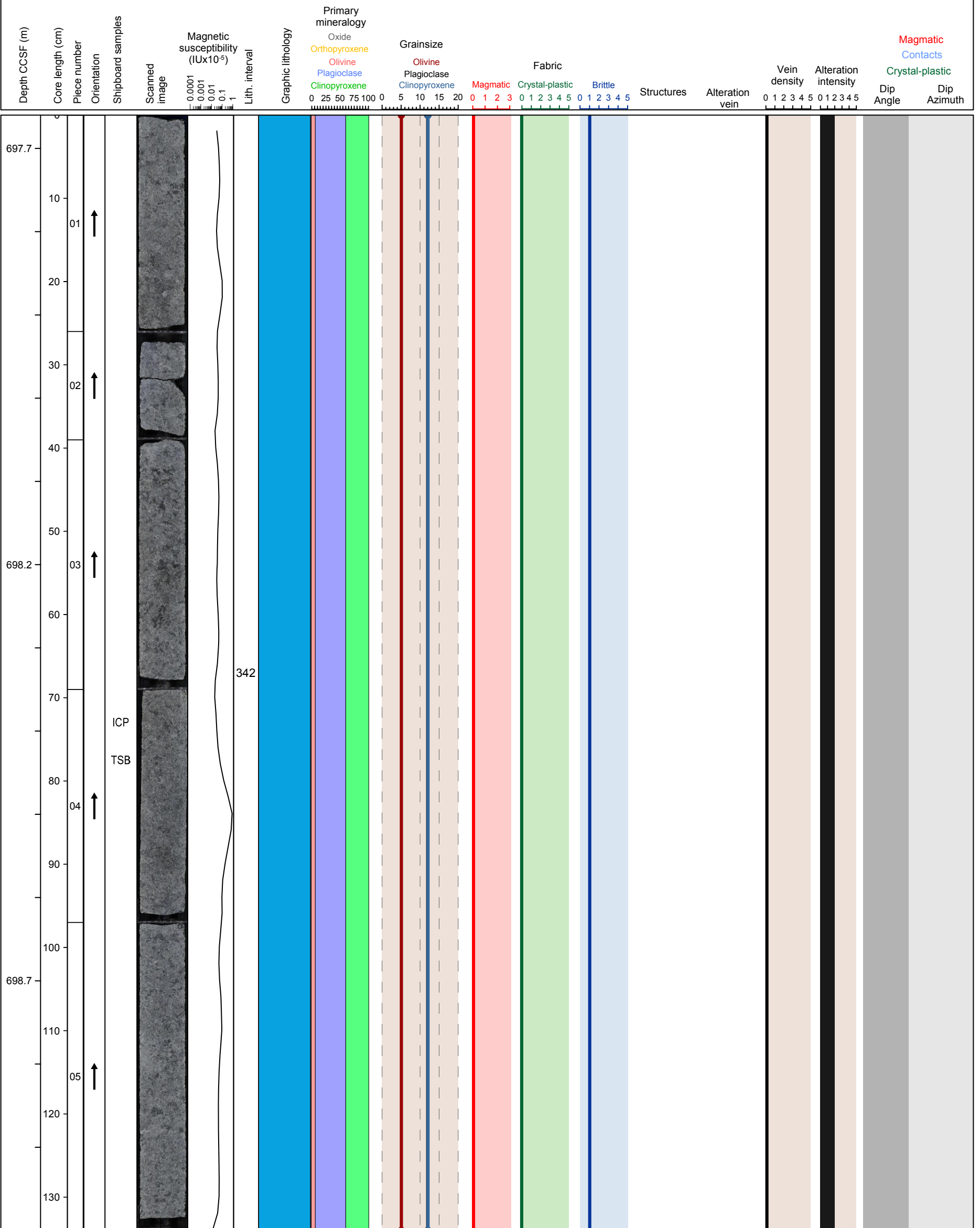


Hole 360-U1473A-79R Section 5, Top of Section: 697.66 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 352)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology:

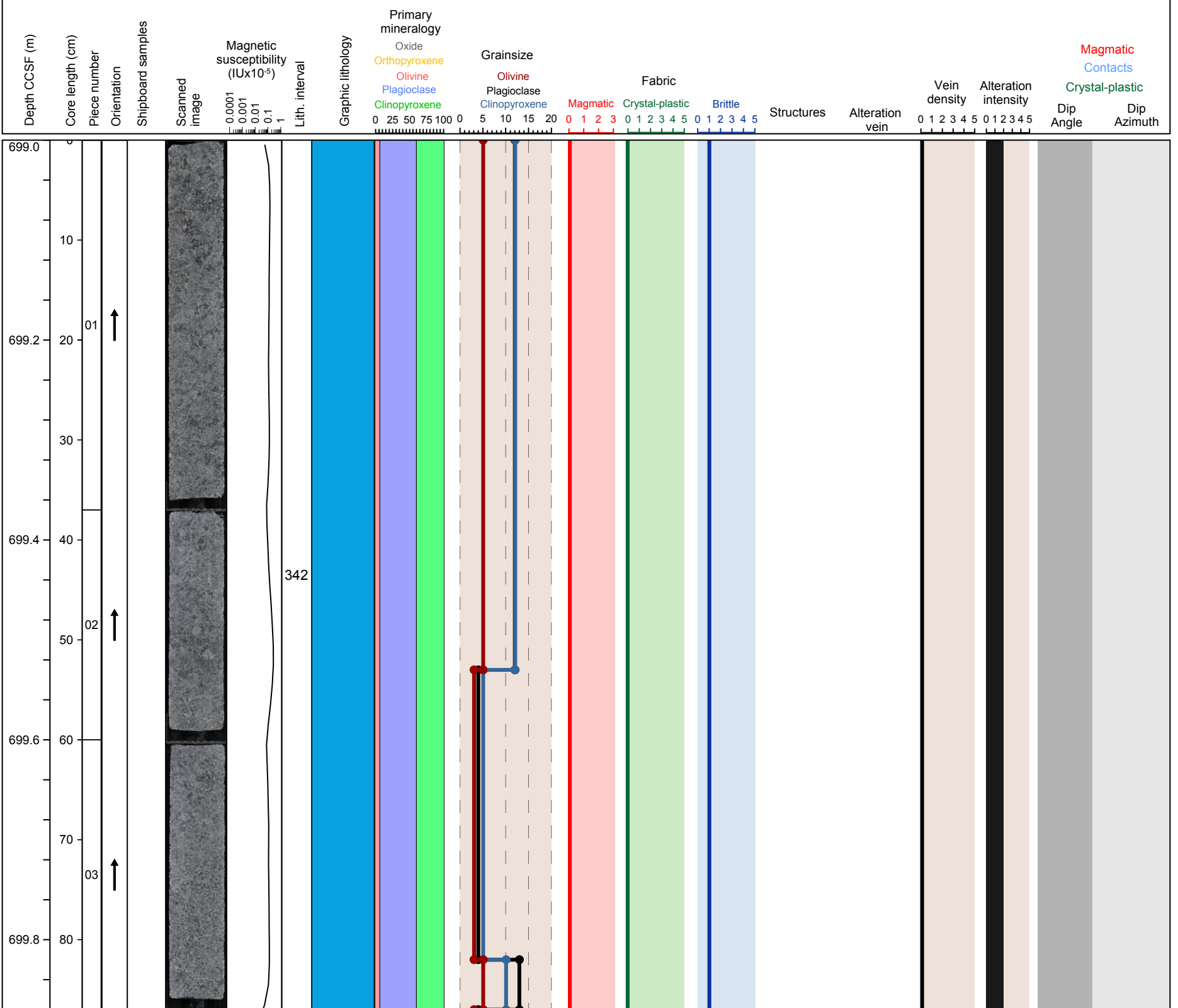


Hole 360-U1473A-79R Section 6, Top of Section: 699.0 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 352)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology:

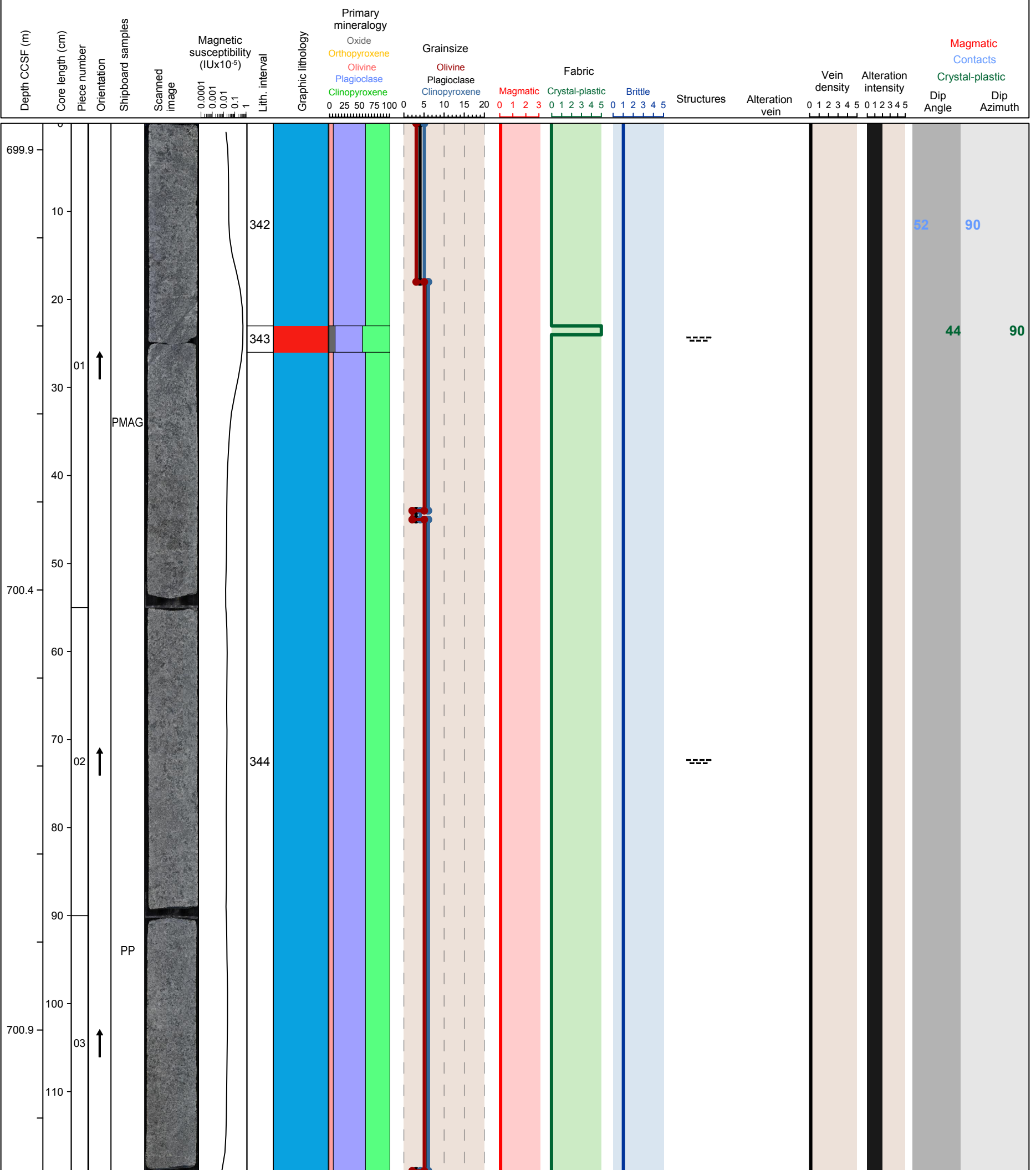


Hole 360-U1473A-79R Section 7, Top of Section: 699.87 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 352)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Cm-thick oxide-rich ultramylonite at 24 cm.

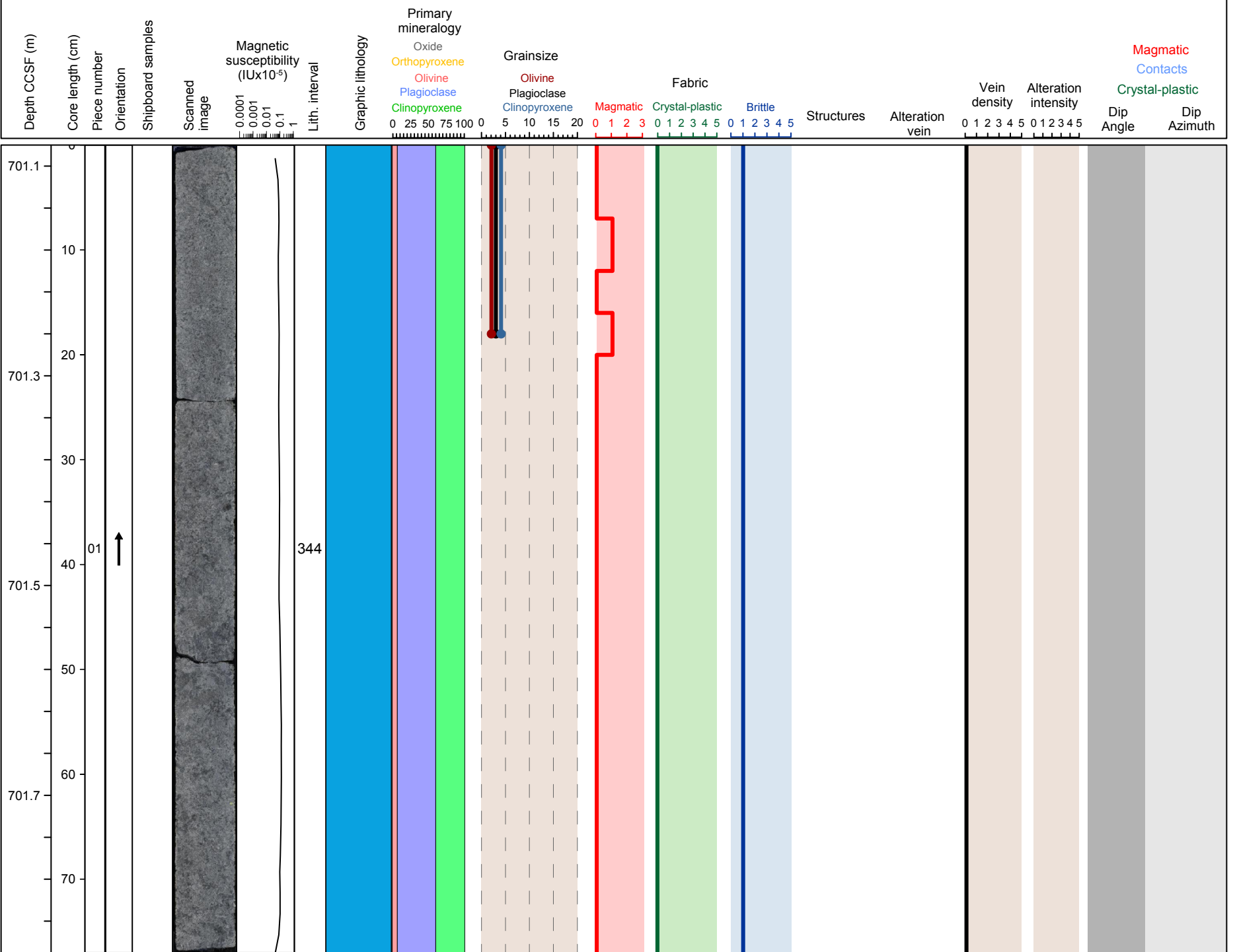


Hole 360-U1473A-79R Section 8, Top of Section: 701.06 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 352), fine grained granular oxide gabbro (interval 353) and coarse grained subophitic olivine gabbro with fine grained granular olivine gabbro domain (interval 354)

Metamorphic Petrology:

Structural Geology: Weak magmatic fabric. Grain size variations with shallow dips.

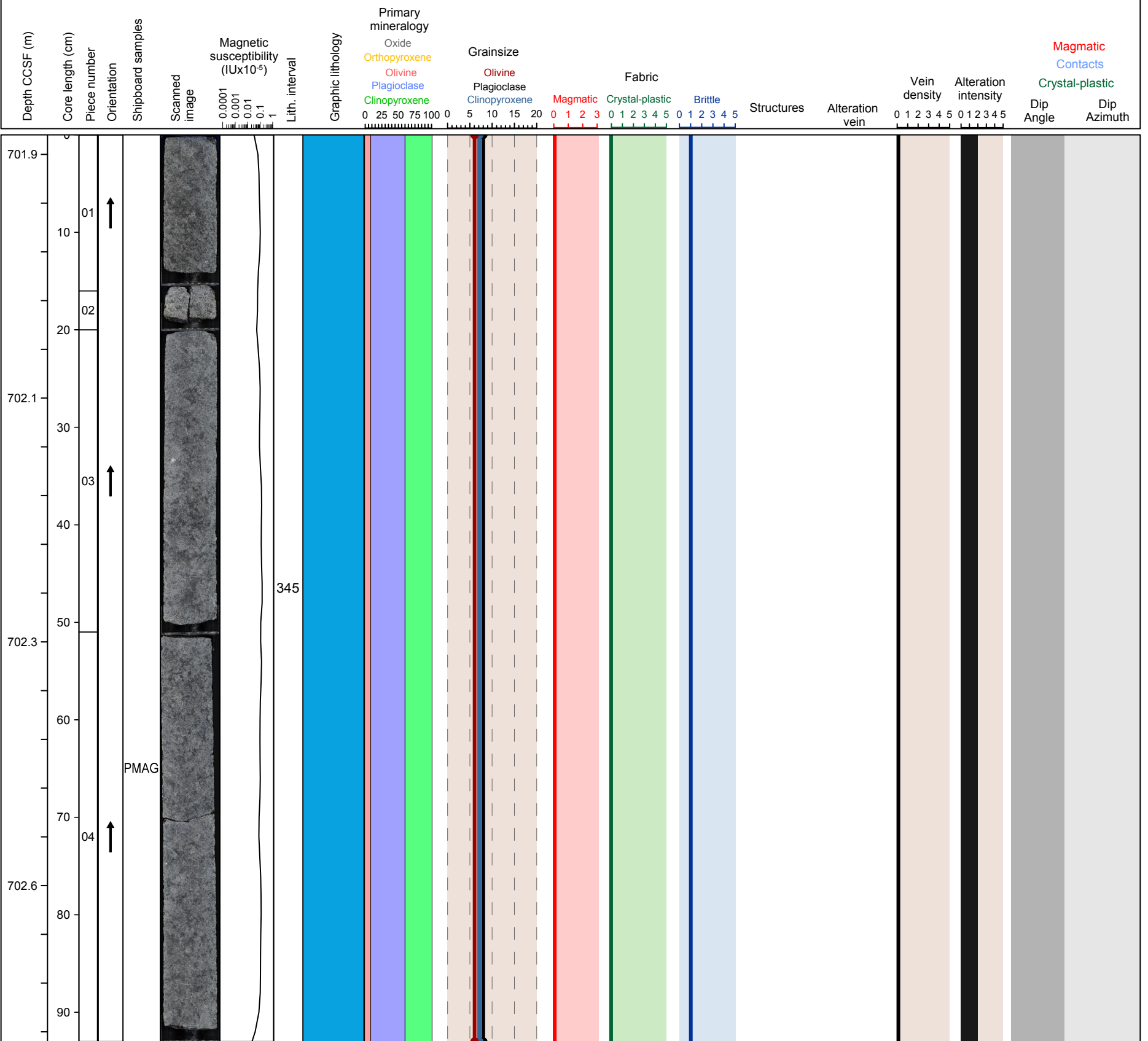


Hole 360-U1473A-80R Section 1, Top of Section: 701.83 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro with fine grained granular olivine gabbro domain (interval 354)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology:

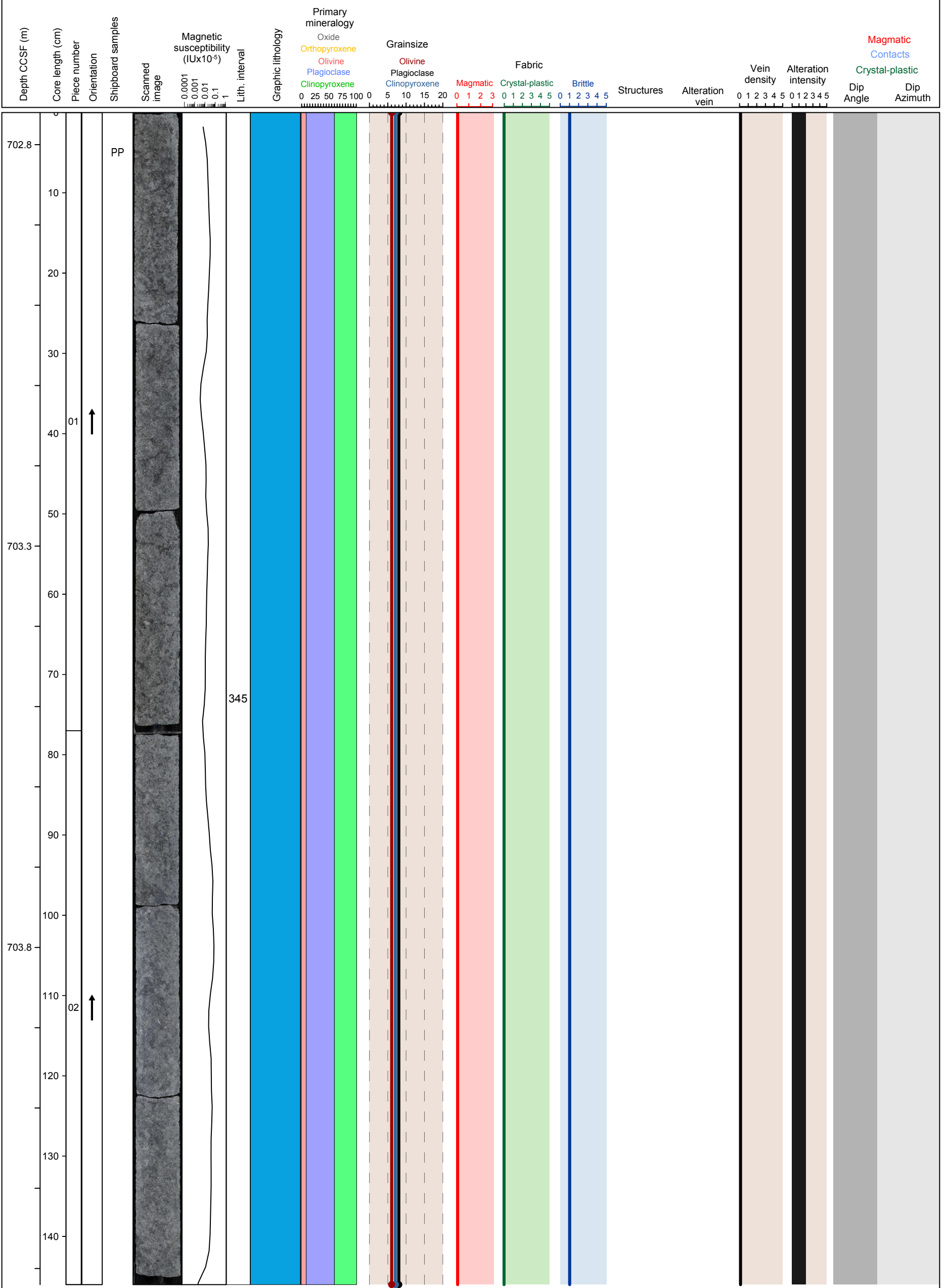


Hole 360-U1473A-80R Section 2, Top of Section: 702.76 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olvine gabbro (interval 355)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology:

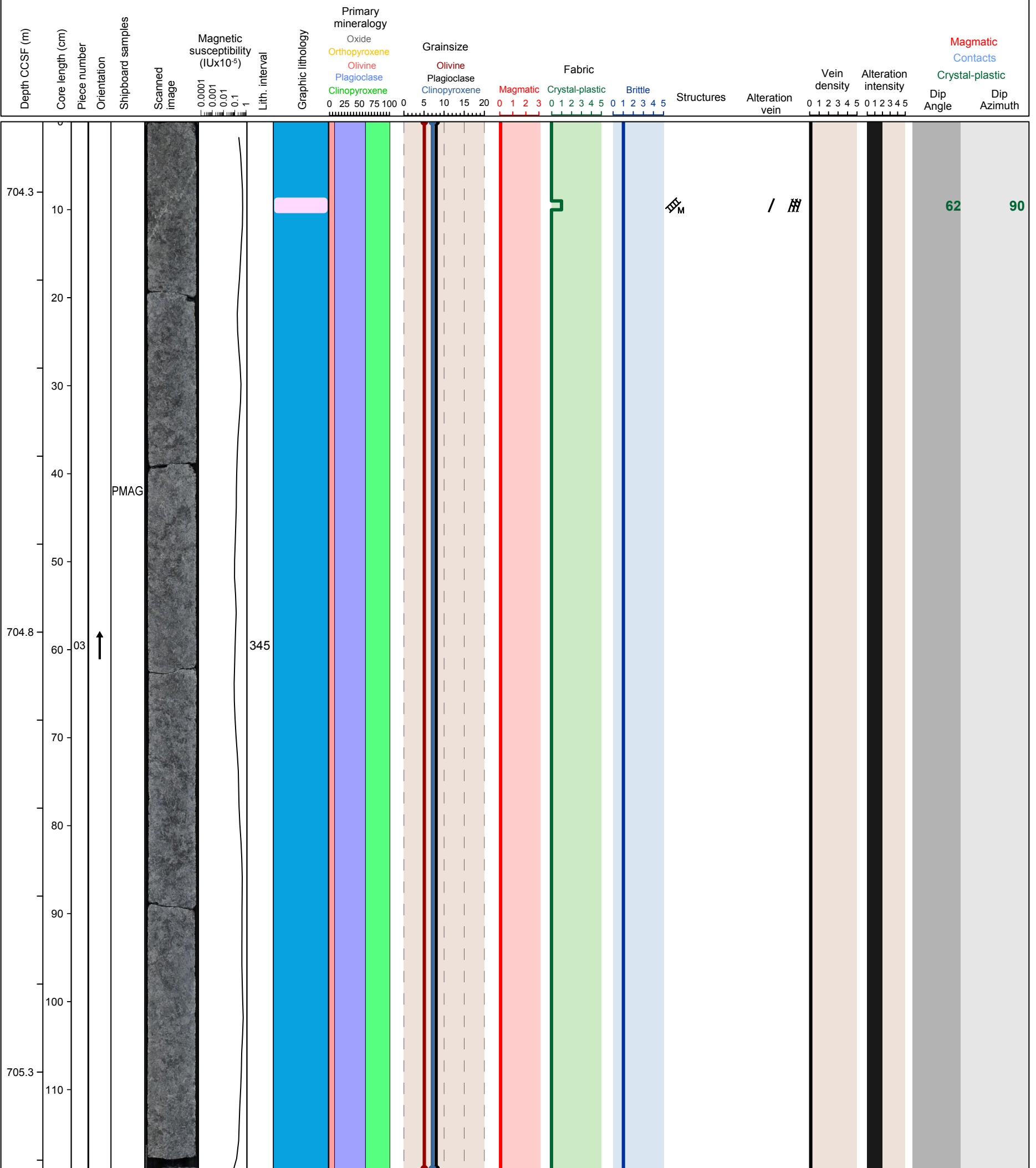


Hole 360-U1473A-80R Section 3, Top of Section: 704.22 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 355)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Pull-a-part vein at 8 cm.

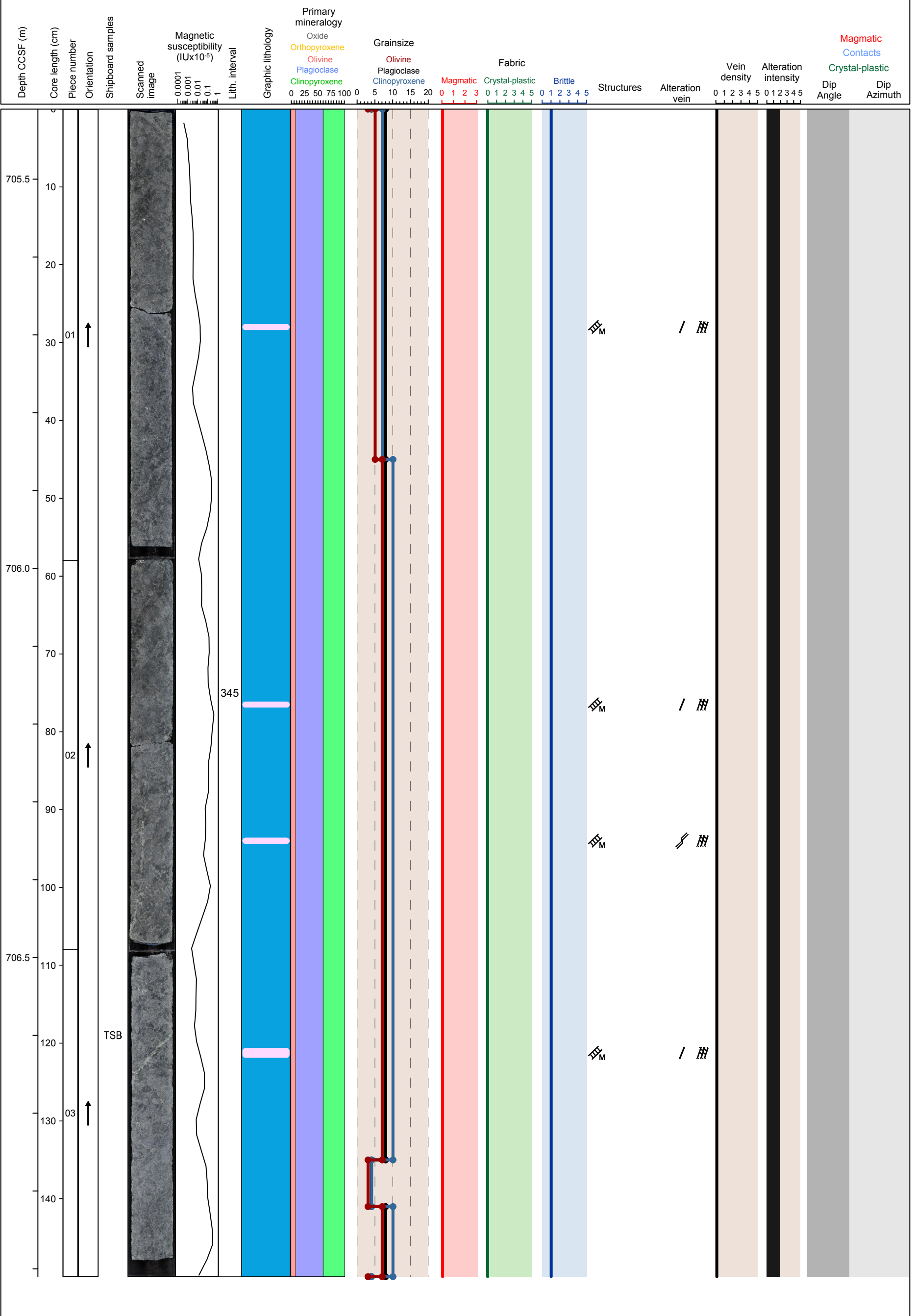


Hole 360-U1473A-80R Section 4, Top of Section: 705.41 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 355)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Four magmatic veins that are patchy and range in orientation from sub-horizontal to sub-vertical.

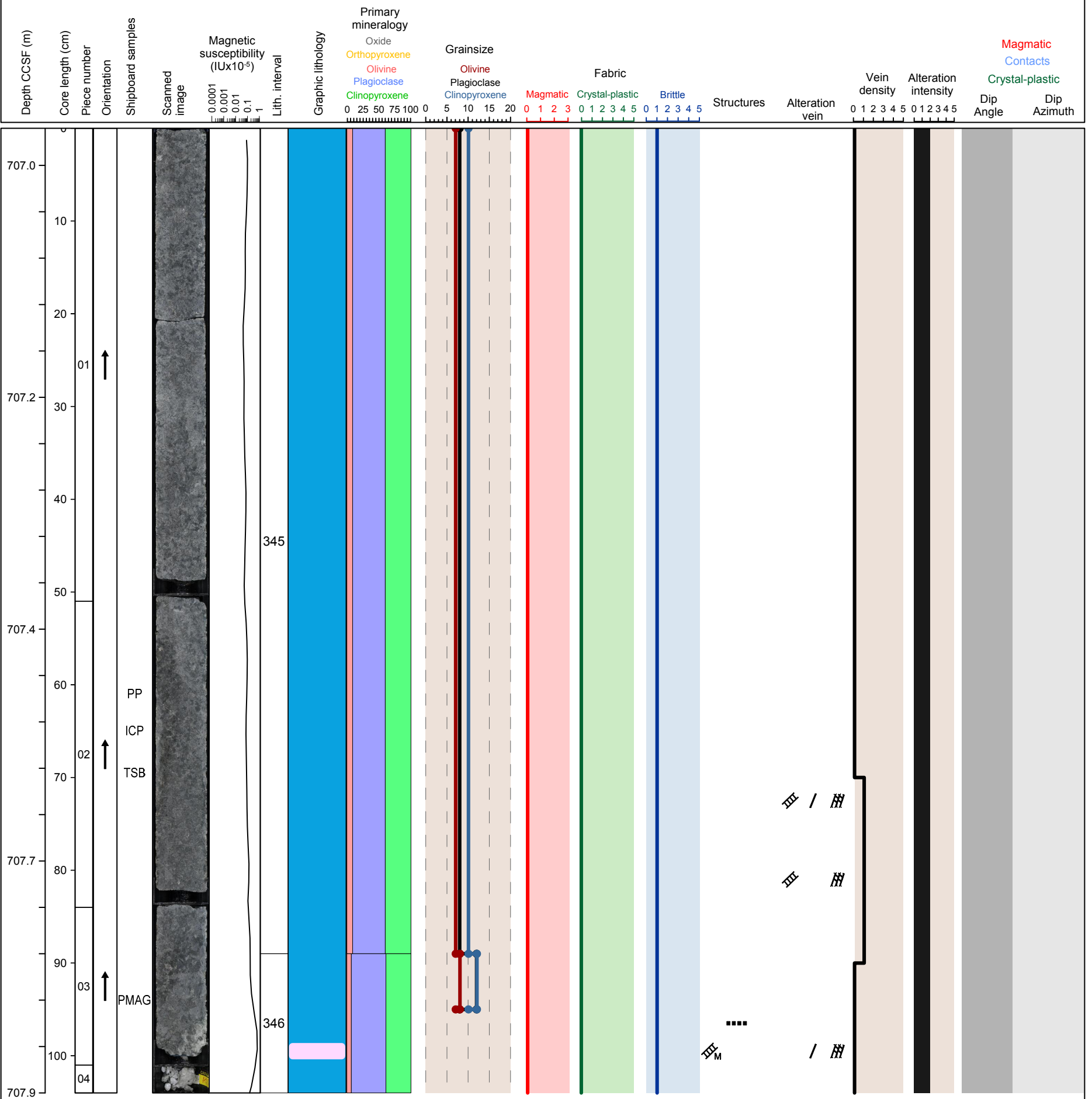


Hole 360-U1473A-80R Section 5, Top of Section: 706.91 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 355)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: One magmatic vein. Steeply dipping amphibole shear veins.

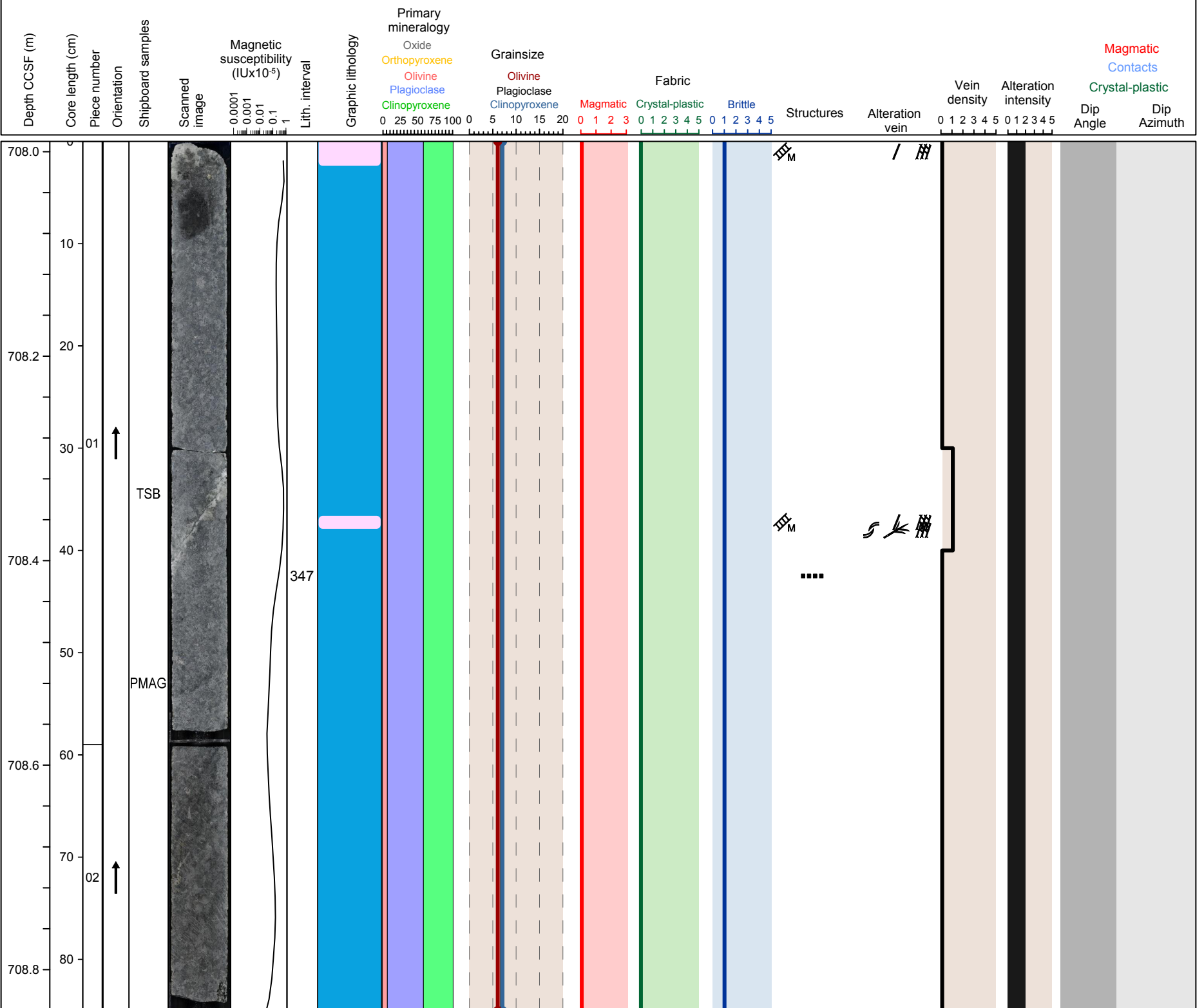


Hole 360-U1473A-80R Section 6, Top of Section: 707.95 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 355 and 356)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Two magmatic veins with moderate dips.

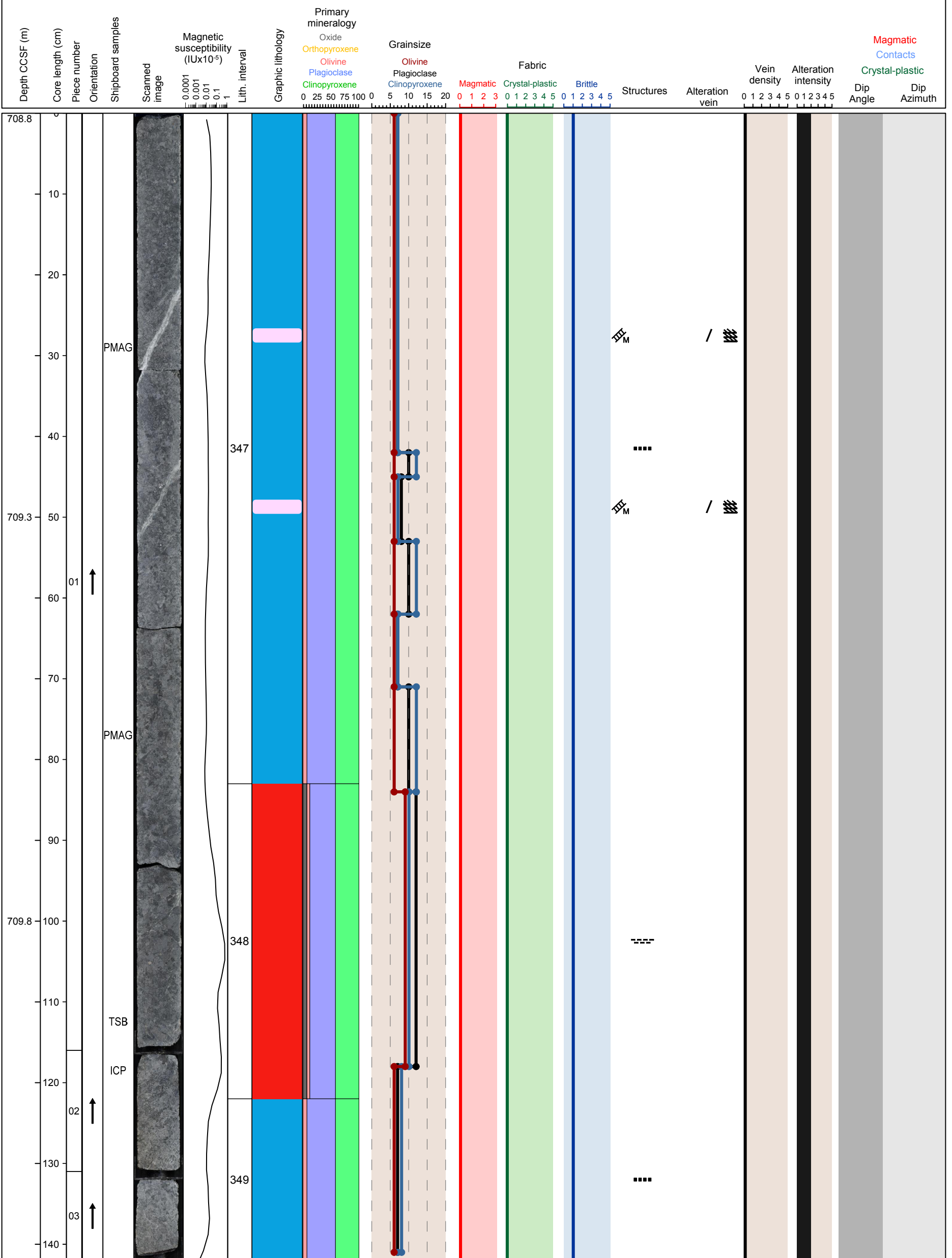


Hole 360-U1473A-80R Section 7, Top of Section: 708.8 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 357)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Two magmatic veins with steep to moderate dips.

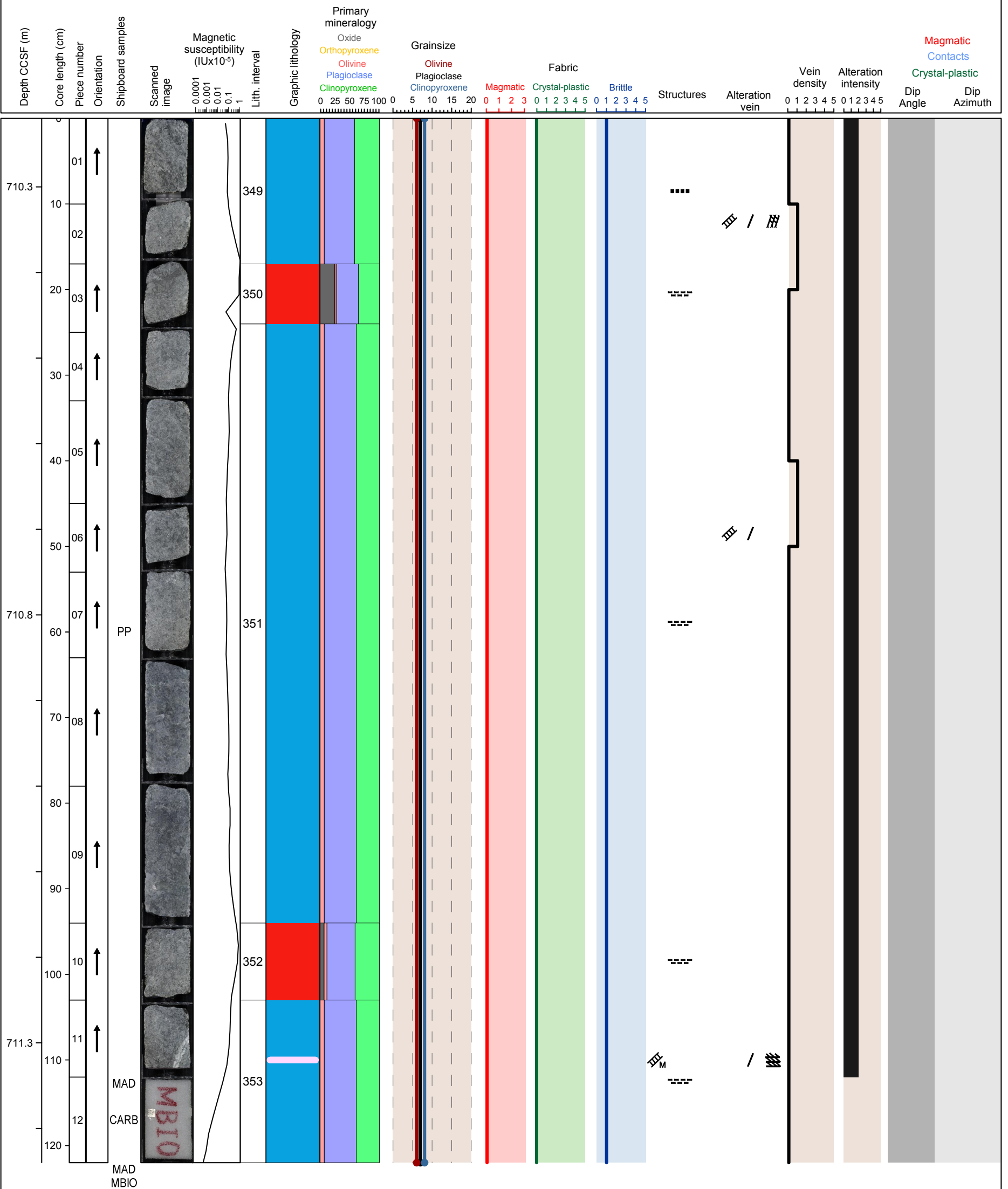


Hole 360-U1473A-80R Section 8, Top of Section: 710.22 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 357 and 359) and coarse grained granular olivine oxide gabbro (interval 358)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: One magmatic vein with a steep dip.

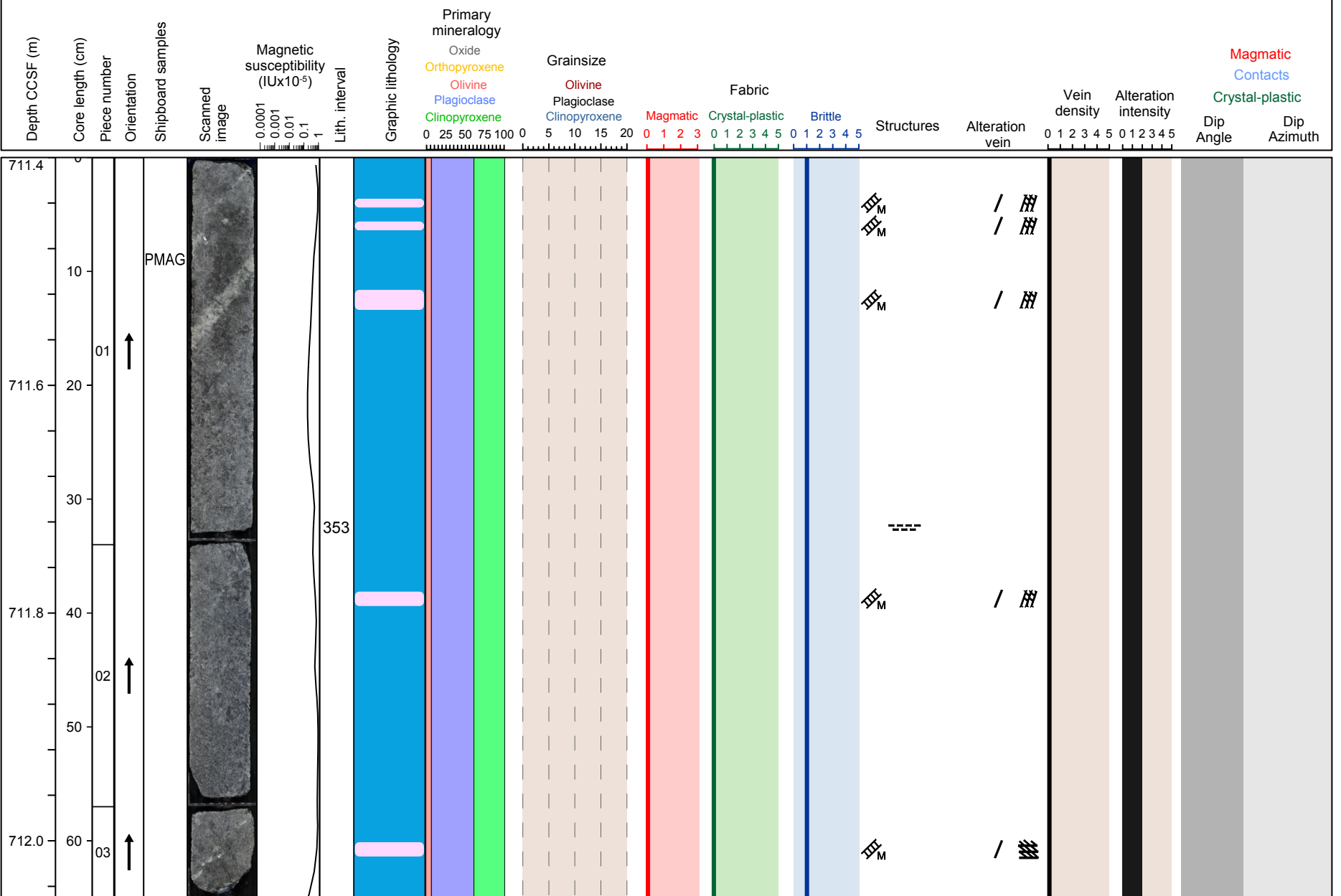


Hole 360-U1473A-80R Section 9, Top of Section: 711.44 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 359, 361 and 363), coarse grained granular olivine bearing oxide gabbro (interval 360) and coarse grained granular olivine oxide gabbro (interval 362)

Metamorphic Petrology: Static background alteration intensity is moderate.

Structural Geology: Five magmatic veins with steep to moderate dips.

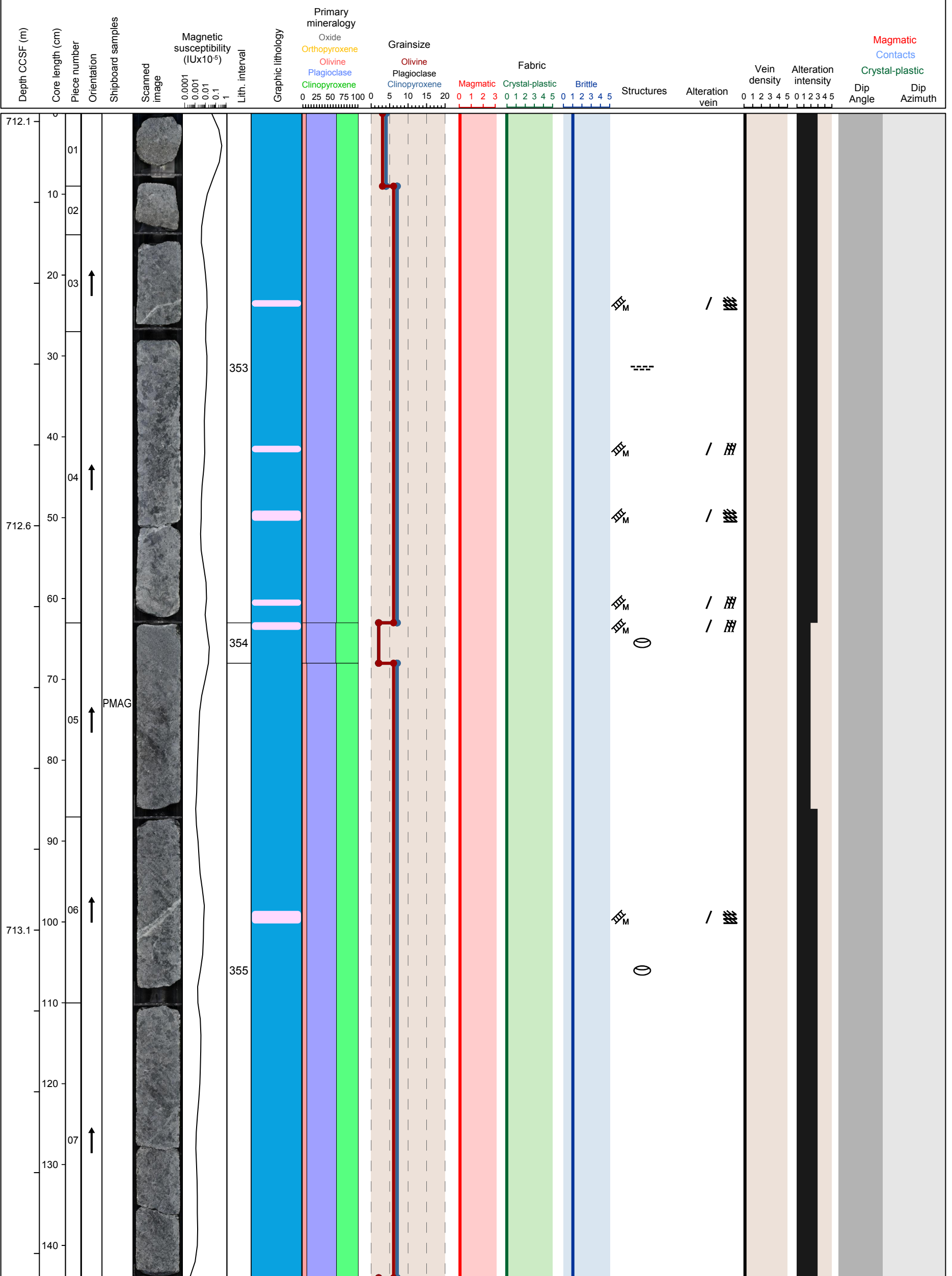


Hole 360-U1473A-81R Section 1, Top of Section: 712.09 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 363)

Metamorphic Petrology: Alteration intensity ranges from moderate to substantial. Milky white plagioclase and chlorite are conspicuous in the more altered portions.

Structural Geology: Six felsic veins that range from horizontal to inclined.

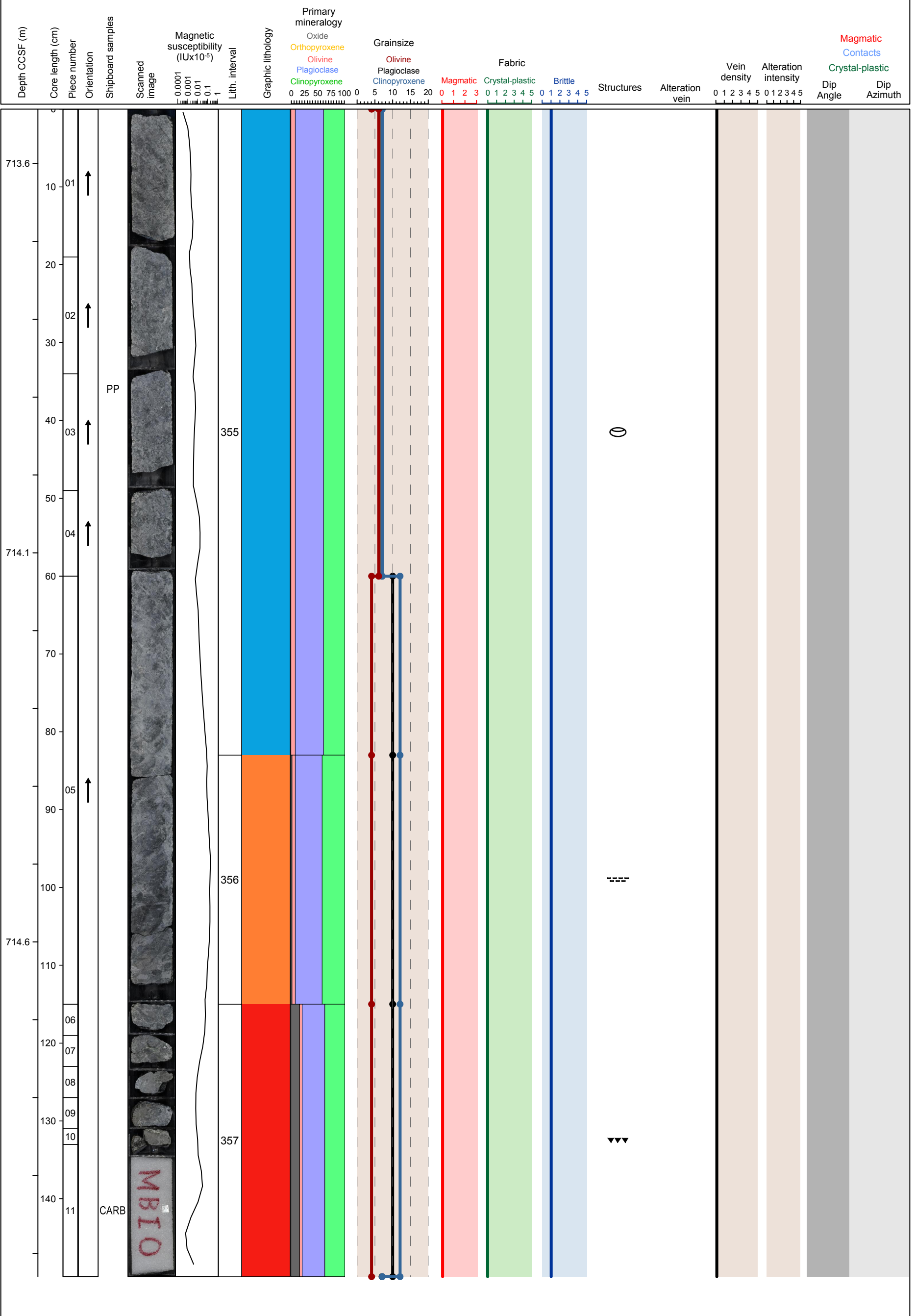


Hole 360-U1473A-81R Section 2, Top of Section: 713.53 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 363 and 365) and medium grained granular olivine gabbro (interval 364)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology:

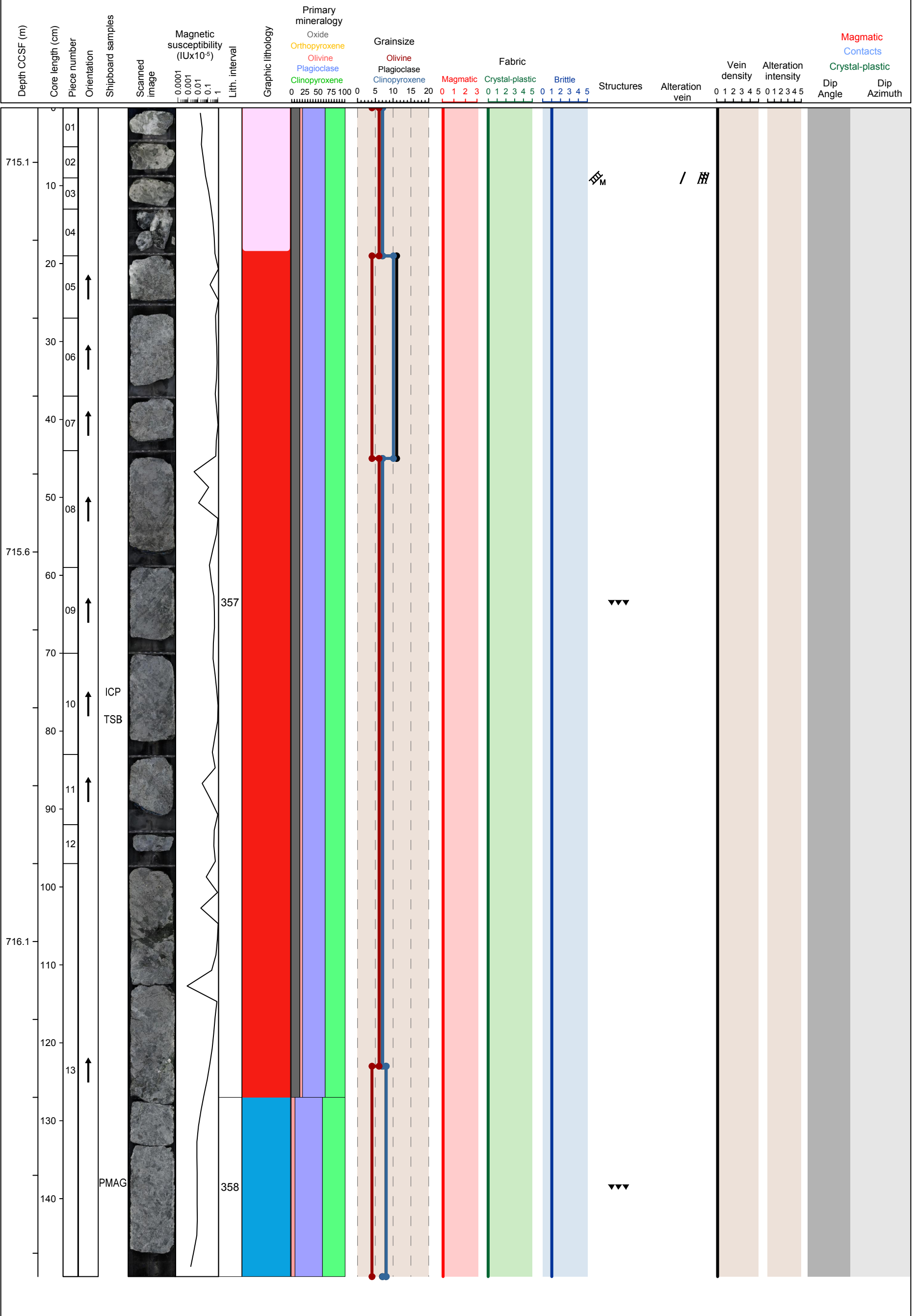


Hole 360-U1473A-81R Section 3, Top of Section: 715.03 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 365), coarse grained granular oxide bearing olivine gabbro (interval 366) and coarse grained granular oxide gabbro (interval 367)

Metamorphic Petrology: Alteration intensity is substantial.

Structural Geology: 20 cm-thick inclined felsic vein at the top of the section. Fe-Ti oxide-rich and sulfide-rich horizons that are unfoliated.

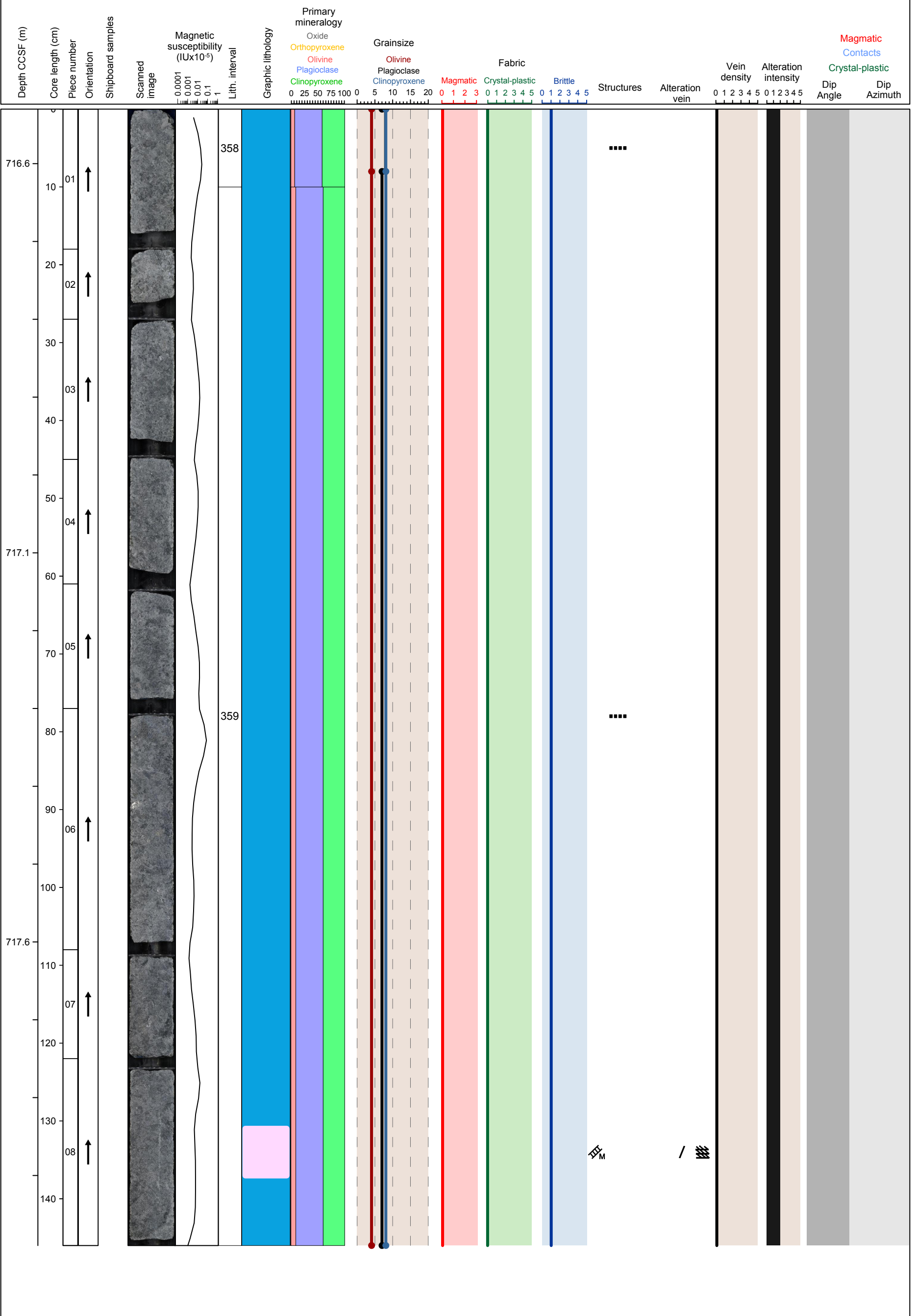


Hole 360-U1473A-81R Section 4, Top of Section: 716.53 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained granular oxide gabbro (interval 367) and coarse grained subophitic olivine gabbro (interval 368)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Cm-thick felsic vein that continues into the next section.

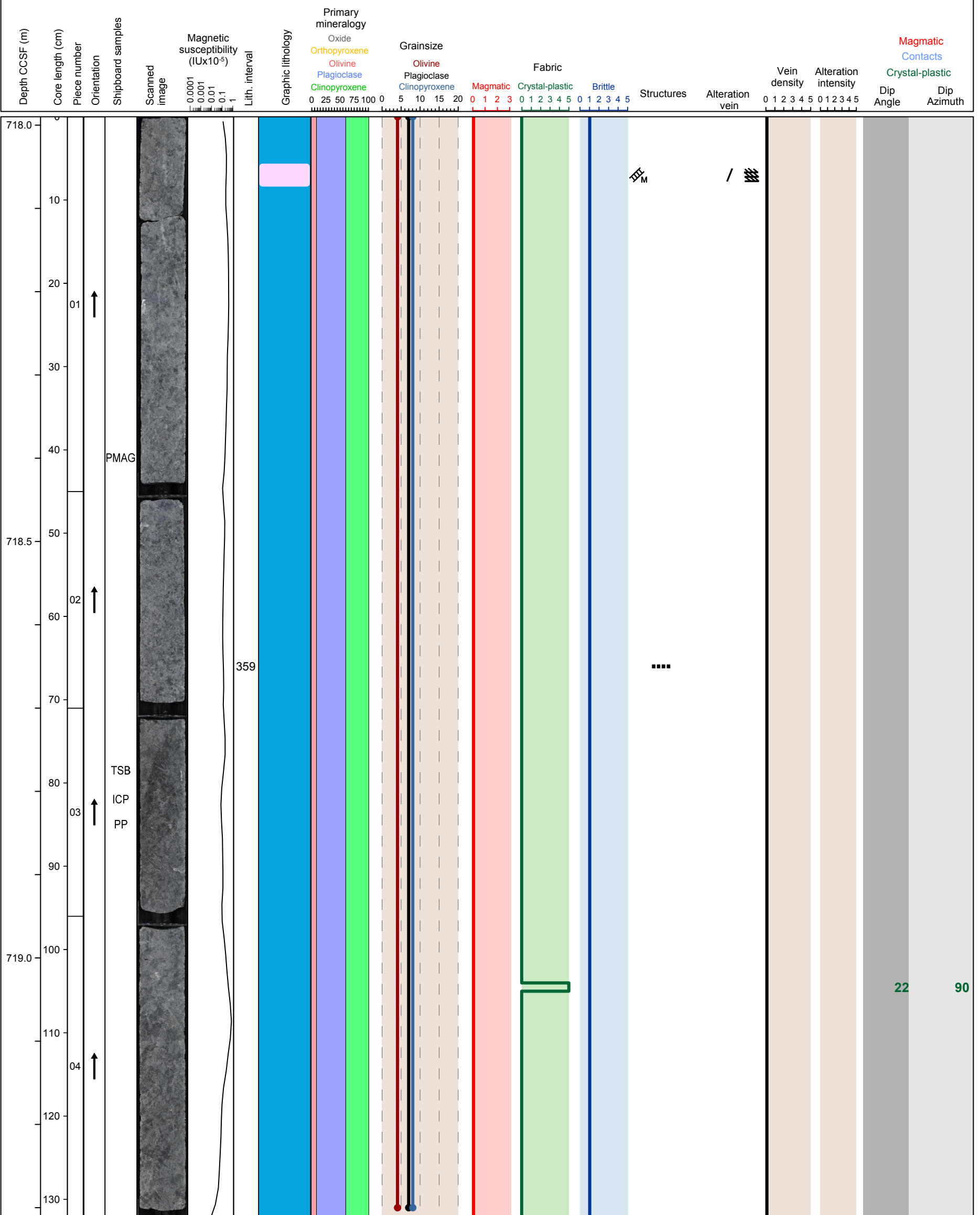


Hole 360-U1473A-81R Section 5, Top of Section: 717.99 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 368)

Metamorphic Petrology: Alteration intensity ranges from moderate to substantial. Intense alteration occurs near the felsic intrusion.

Structural Geology: One inclined felsic vein. Mm-tichi inclined shear zone at 76 cm.

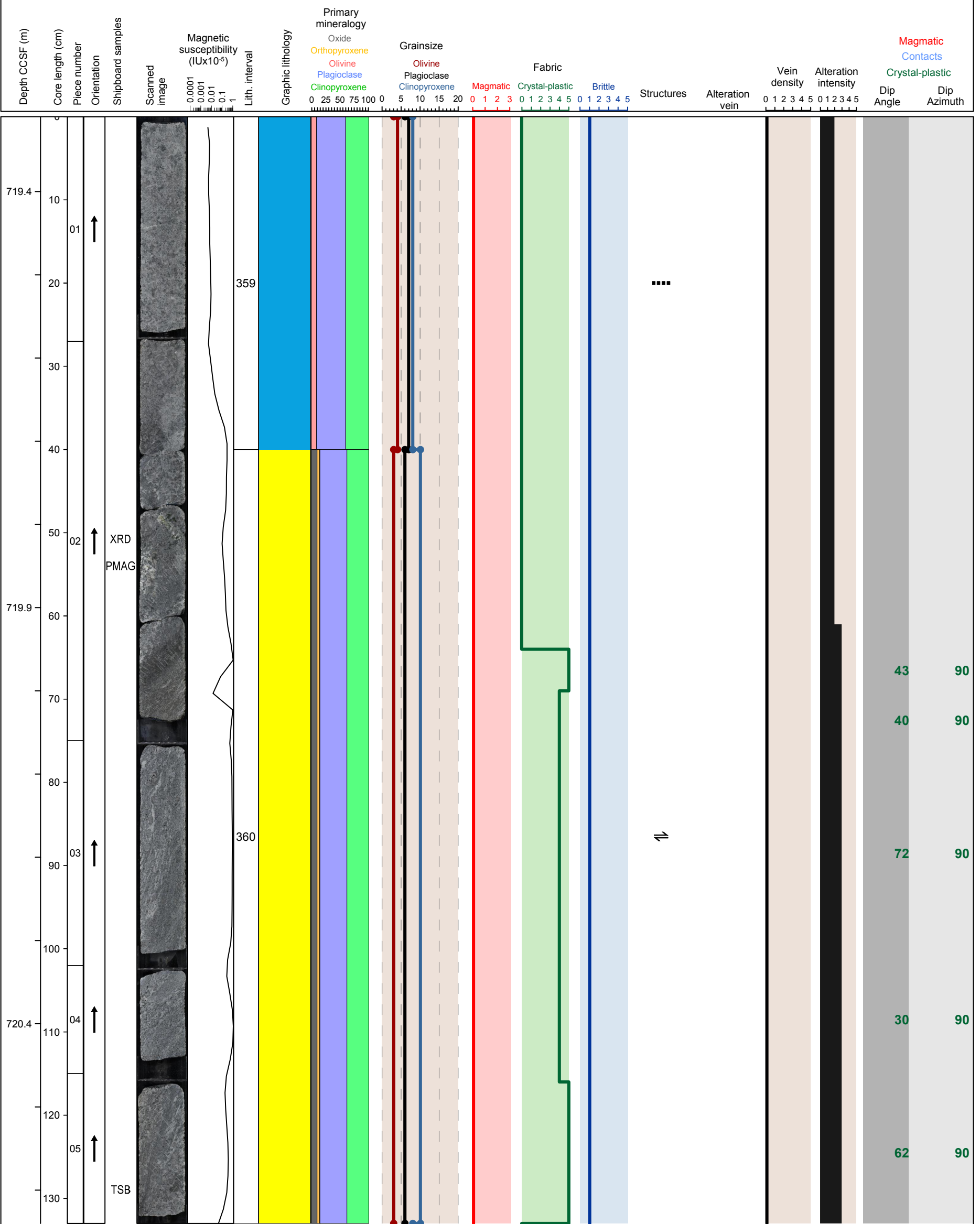


Hole 360-U1473A-81R Section 6, Top of Section: 719.31 m (CCSF-360-U1473-A-20160123)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 368)

Metamorphic Petrology: Alteration intensity ranges from moderate to substantial. More intense alteration is located in mylonitic zone and areas near felsic patches.

Structural Geology: Shear zone at the top is fine grained and inclined, grades into very steep and leucocratic to leucocratic and inclined. The very bottom of the shear zone is crosscut by a cm-thick, steeply dipping oxide-rich shear zone.

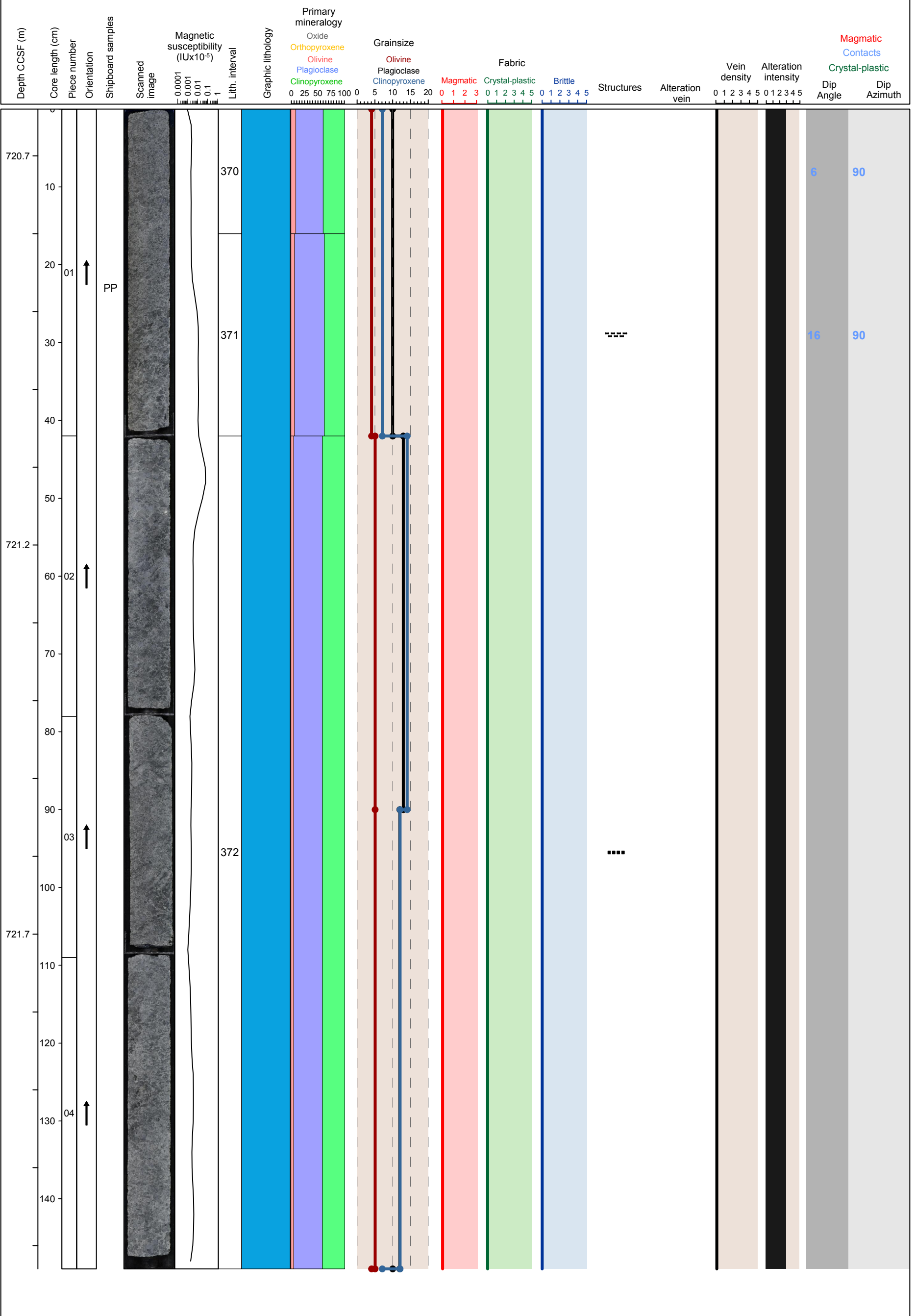


Hole 360-U1473A-82R Section 1, Top of Section: 720.64 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 370) and coarse grained granular olivine gabbro (interval 371 and 372)

Metamorphic Petrology: Alteration intensity is substantial along the entire section.

Structural Geology: Weak crystal plastic foliation with shallow dip.

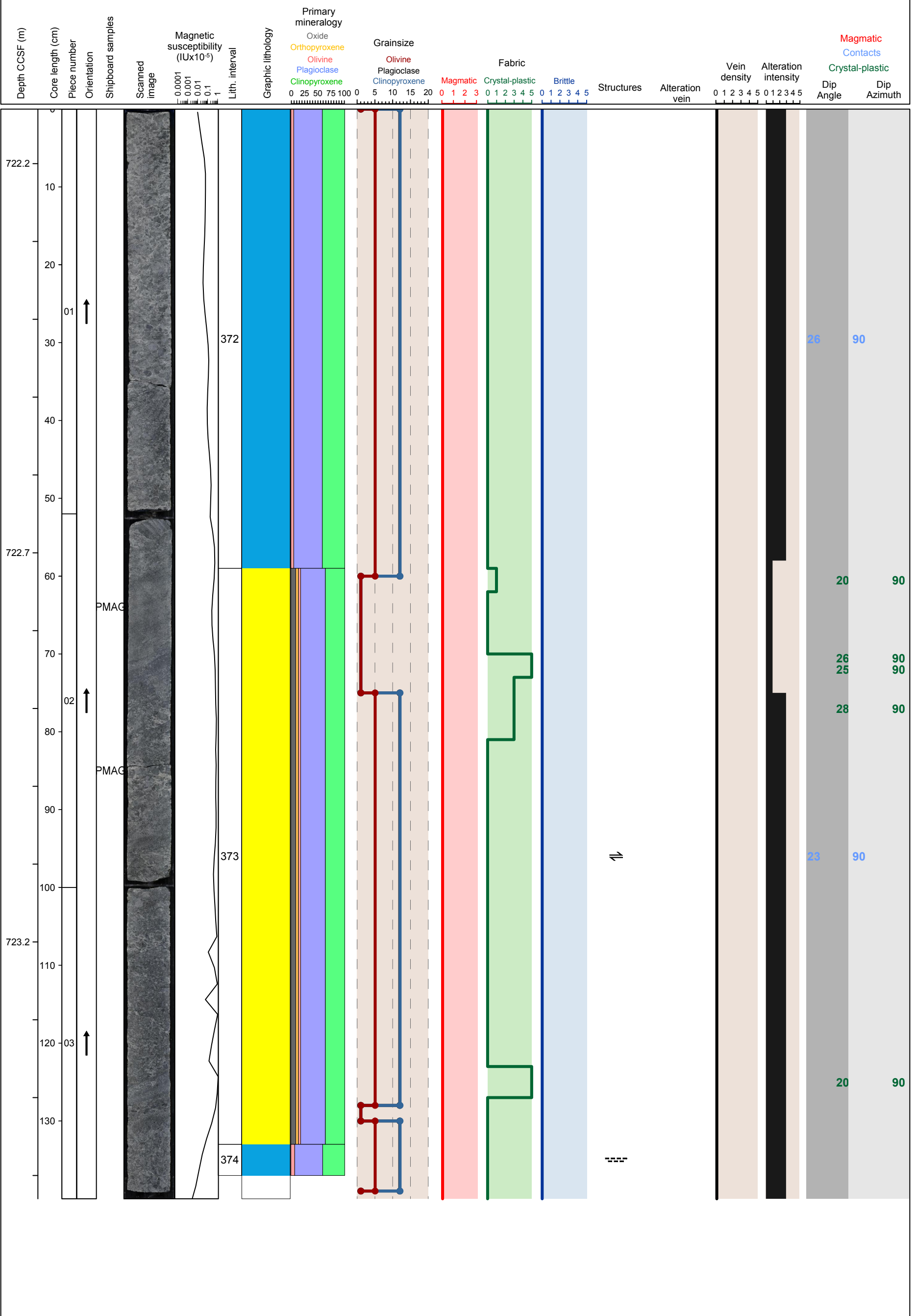


Hole 360-U1473A-82R Section 2, Top of Section: 722.13 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular olivine gabbro (interval 372), medium grained granular olivine bearing oxide gabbro (interval 373) and coarse grained subophitic olivine gabbro (interval 374)

Metamorphic Petrology: Alteration is substantial in the undeformed rocks and slight in the mylonites.

Structural Geology: Shear zone strating with shallowly dipping, very weak crystal plastic fabric grading into fine grained mylonite at 70 cm. Below there are two oxide-rich mylonites at 95 and 126 cm.

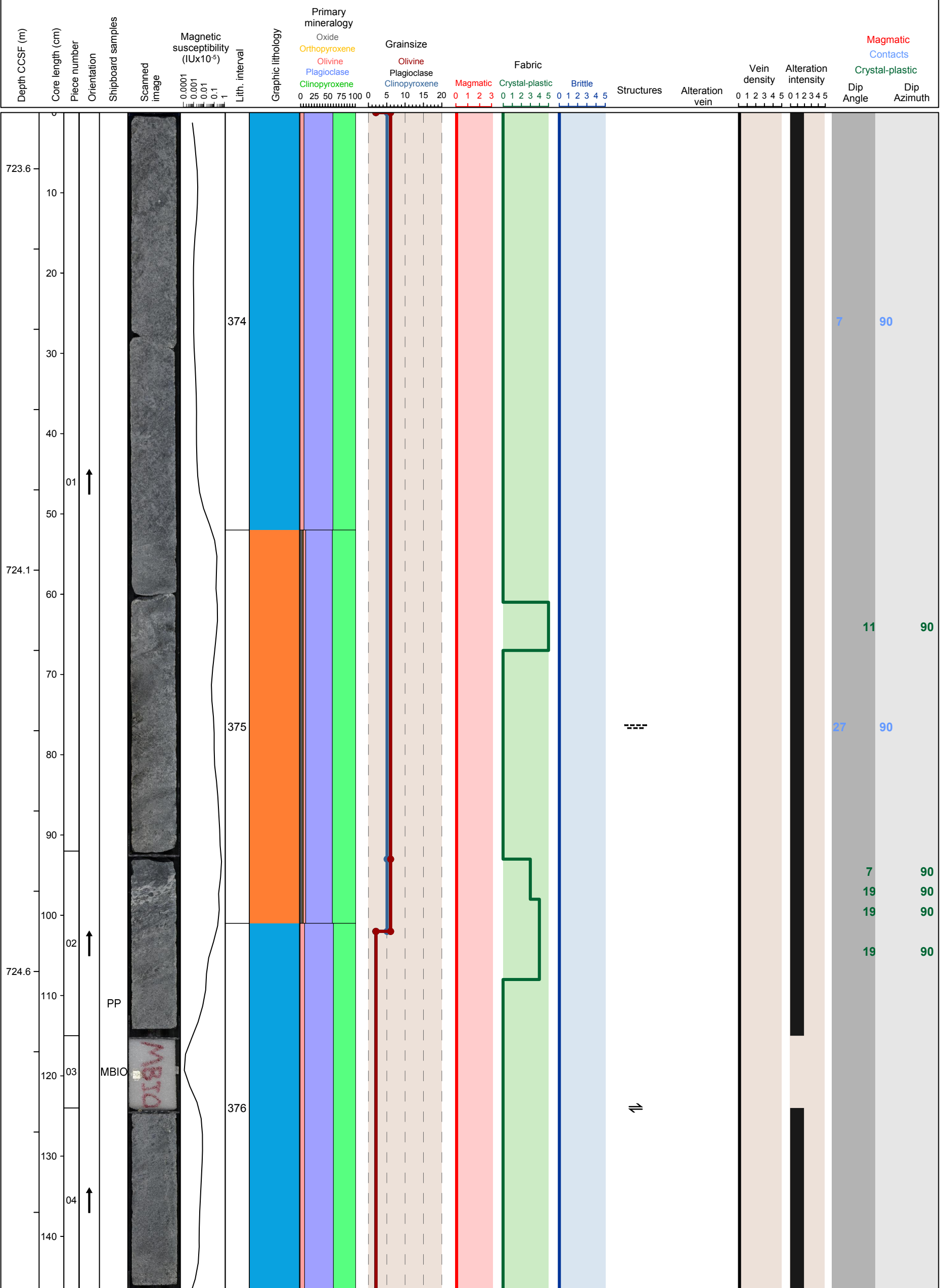


Hole 360-U1473A-82R Section 3, Top of Section: 723.53 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 374 and 376) and medium grained granular olivine and oxide bearing gabbro (interval 375)

Metamorphic Petrology: Static background alteration of this section is moderate.

Structural Geology:

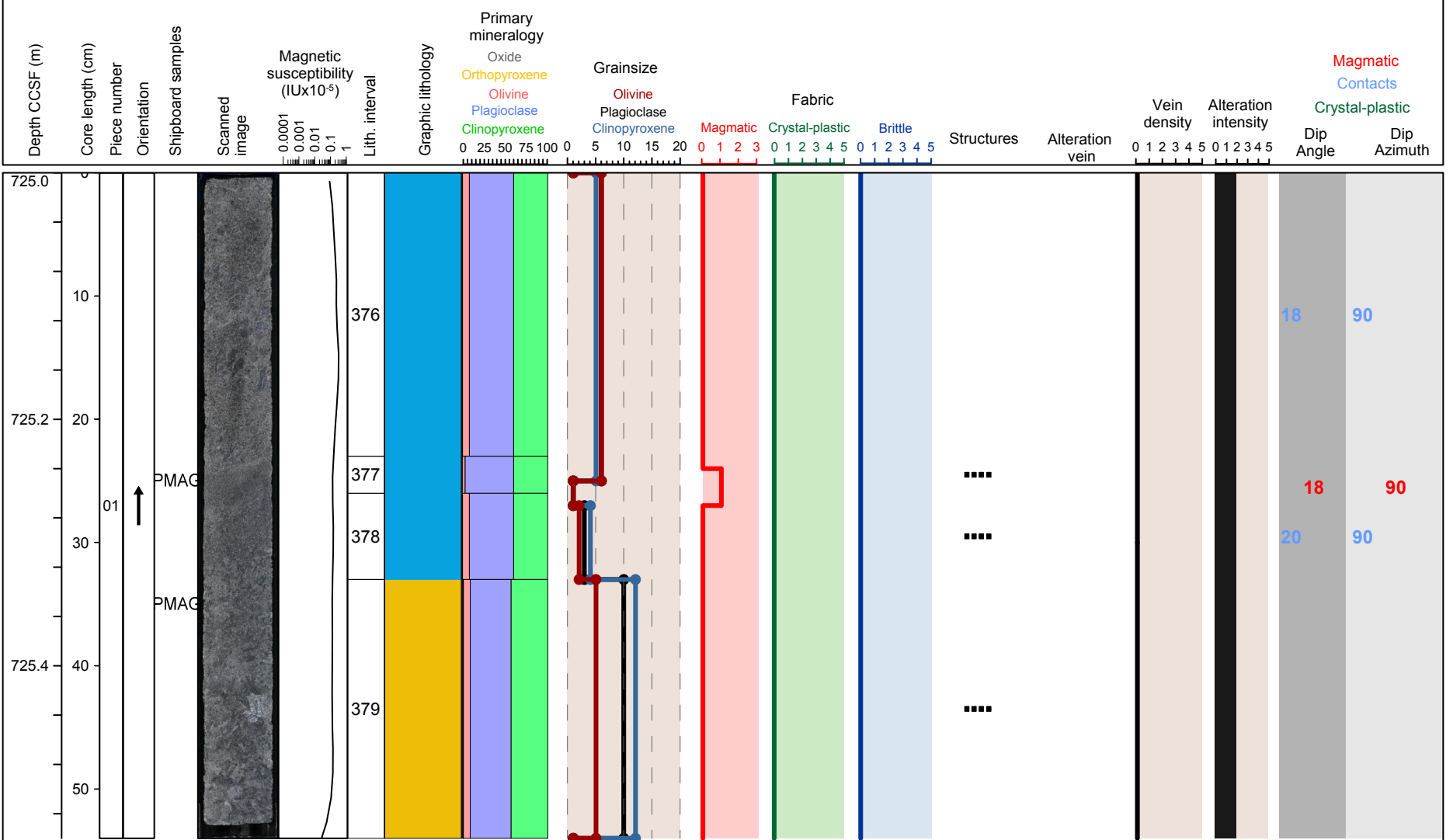


Hole 360-U1473A-82R Section 4, Top of Section: 725.0 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 376 and 378), medium grained granular olivine bearing gabbro (interval 377) and coarse grained subophitic disseminated oxide olivine gabbro (interval 379)

Metamorphic Petrology: Static background alteration intensity of this section is moderate.

Structural Geology: Weak, fine-grained, shallowly dipping magmatic fabric.

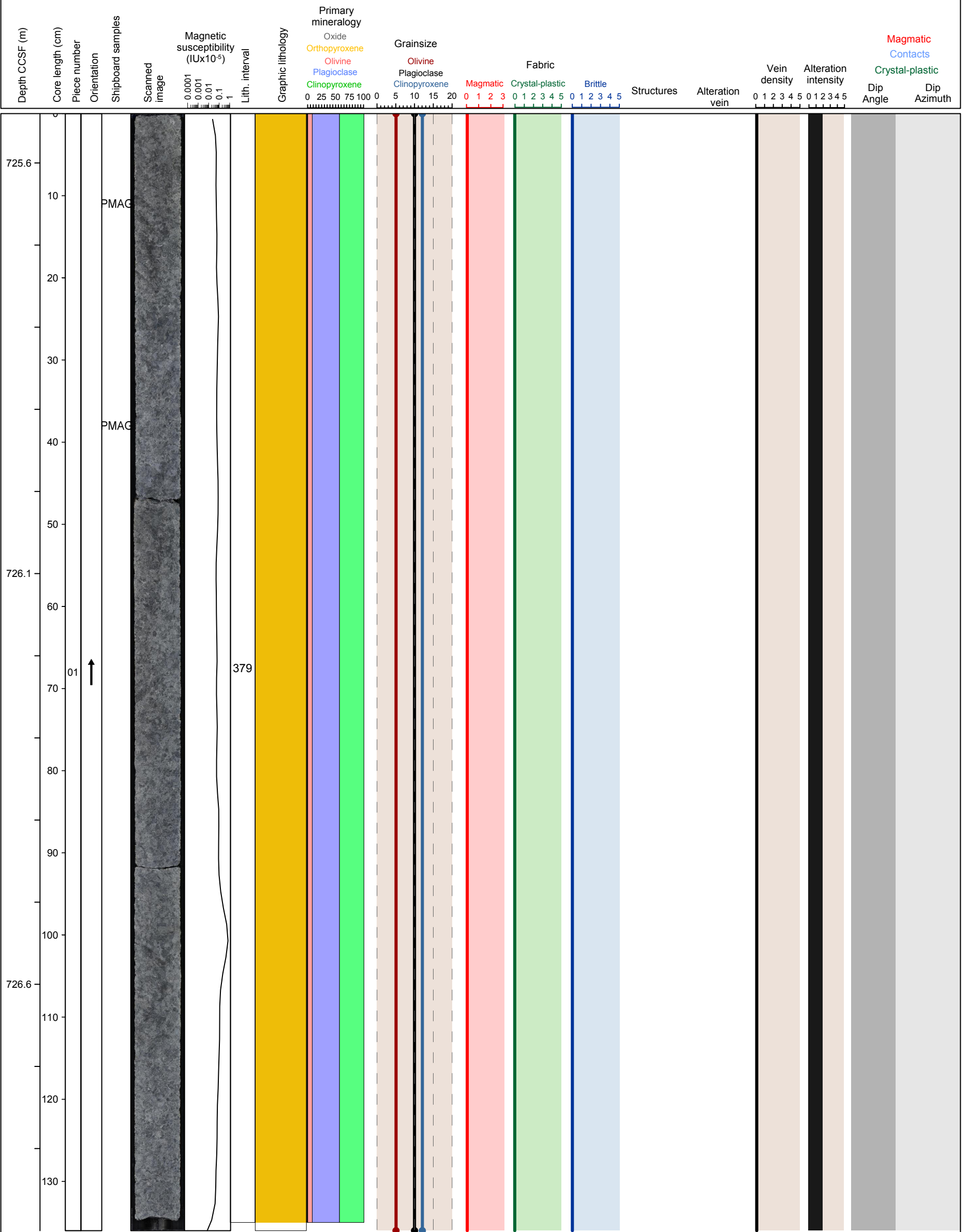


Hole 360-U1473A-82R Section 5, Top of Section: 725.54 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 379)

Metamorphic Petrology: Static background alteration intensity of this section is moderate.

Structural Geology:

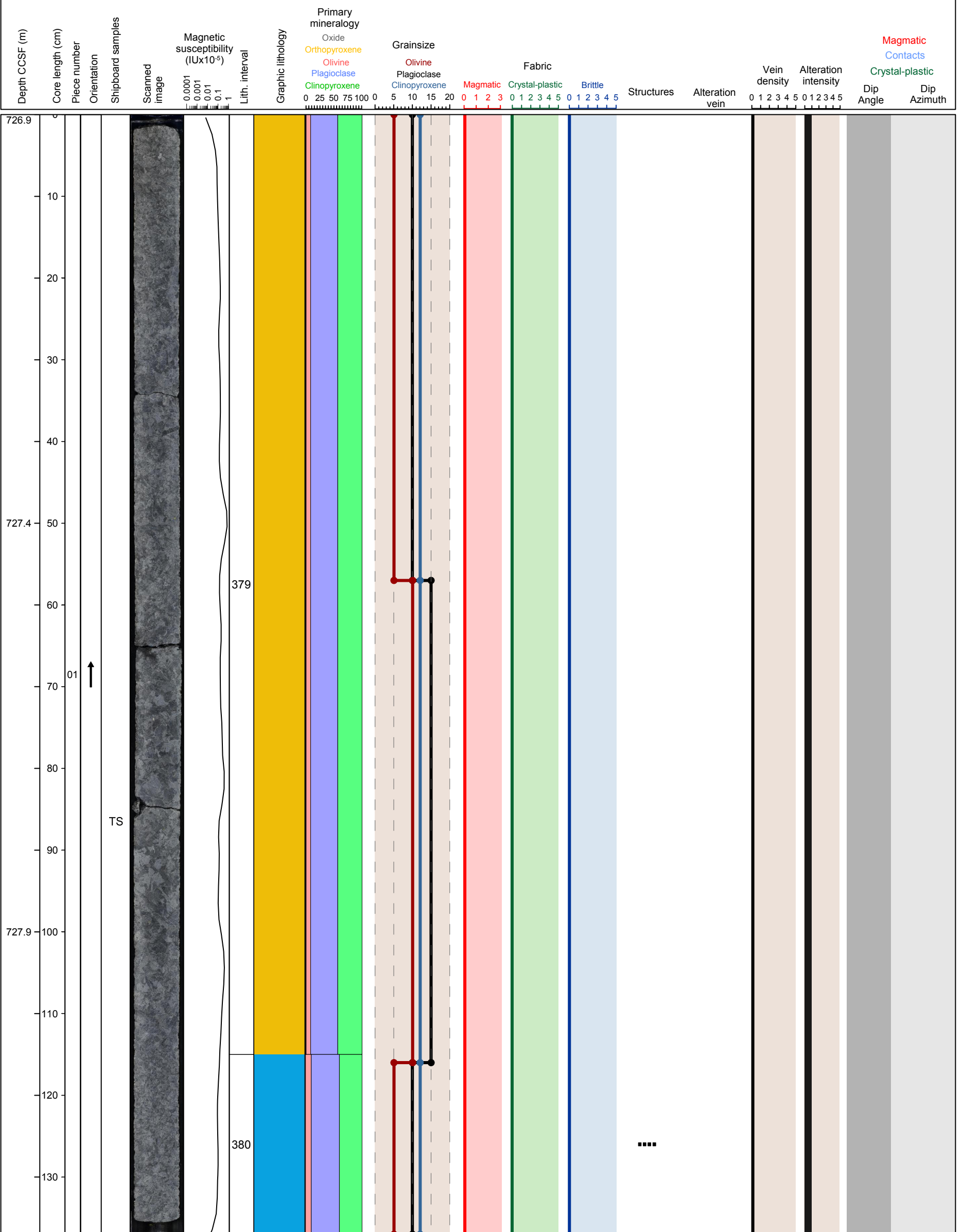


Hole 360-U1473A-82R Section 6, Top of Section: 726.9 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 379) and coarse grained subophitic olivine gabbro (interval 380)

Metamorphic Petrology: Alteration intensity is only slight.

Structural Geology:

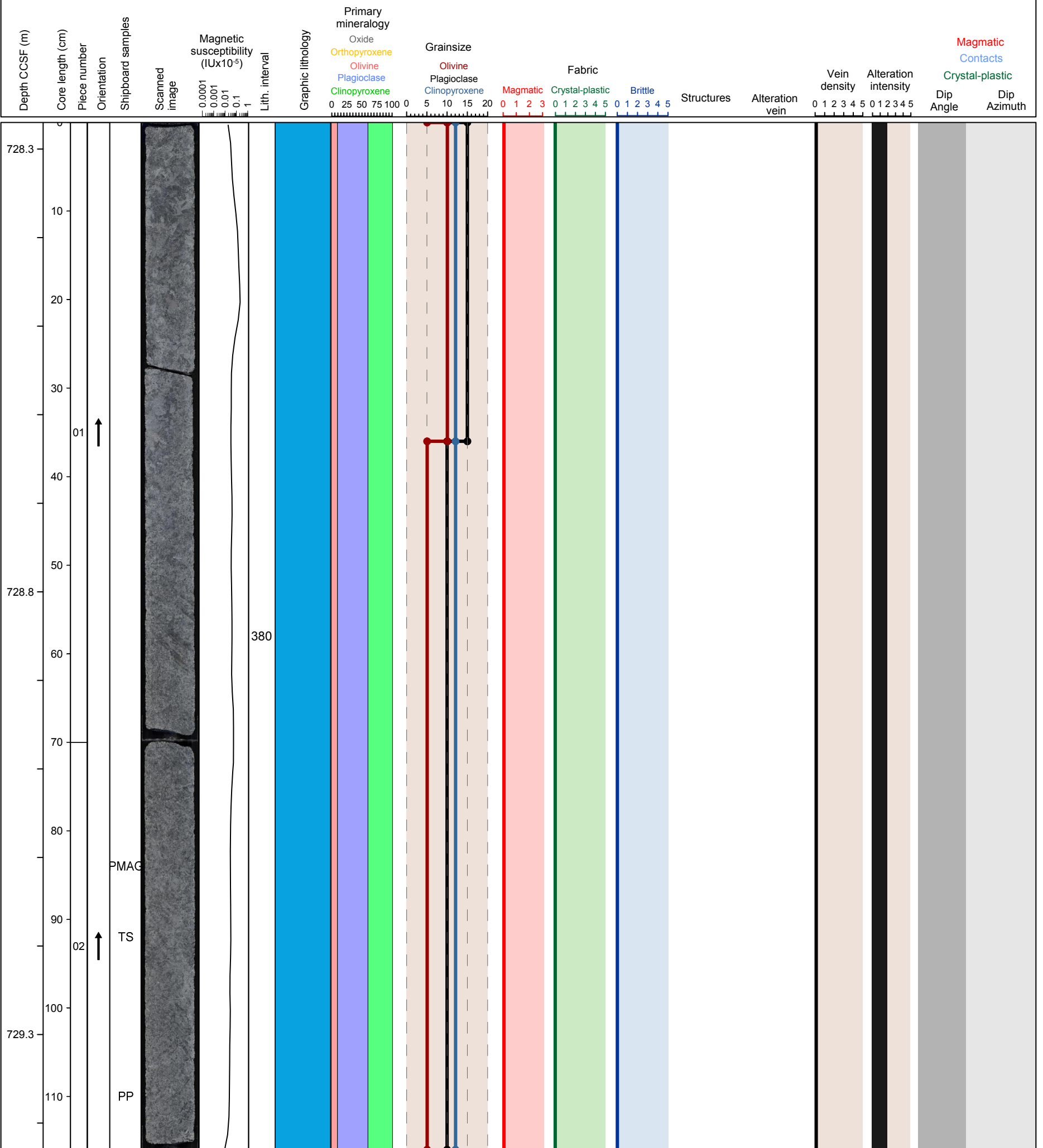


Hole 360-U1473A-82R Section 7, Top of Section: 728.27 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 380)

Metamorphic Petrology: The alteration intensity of this section is moderate.

Structural Geology:

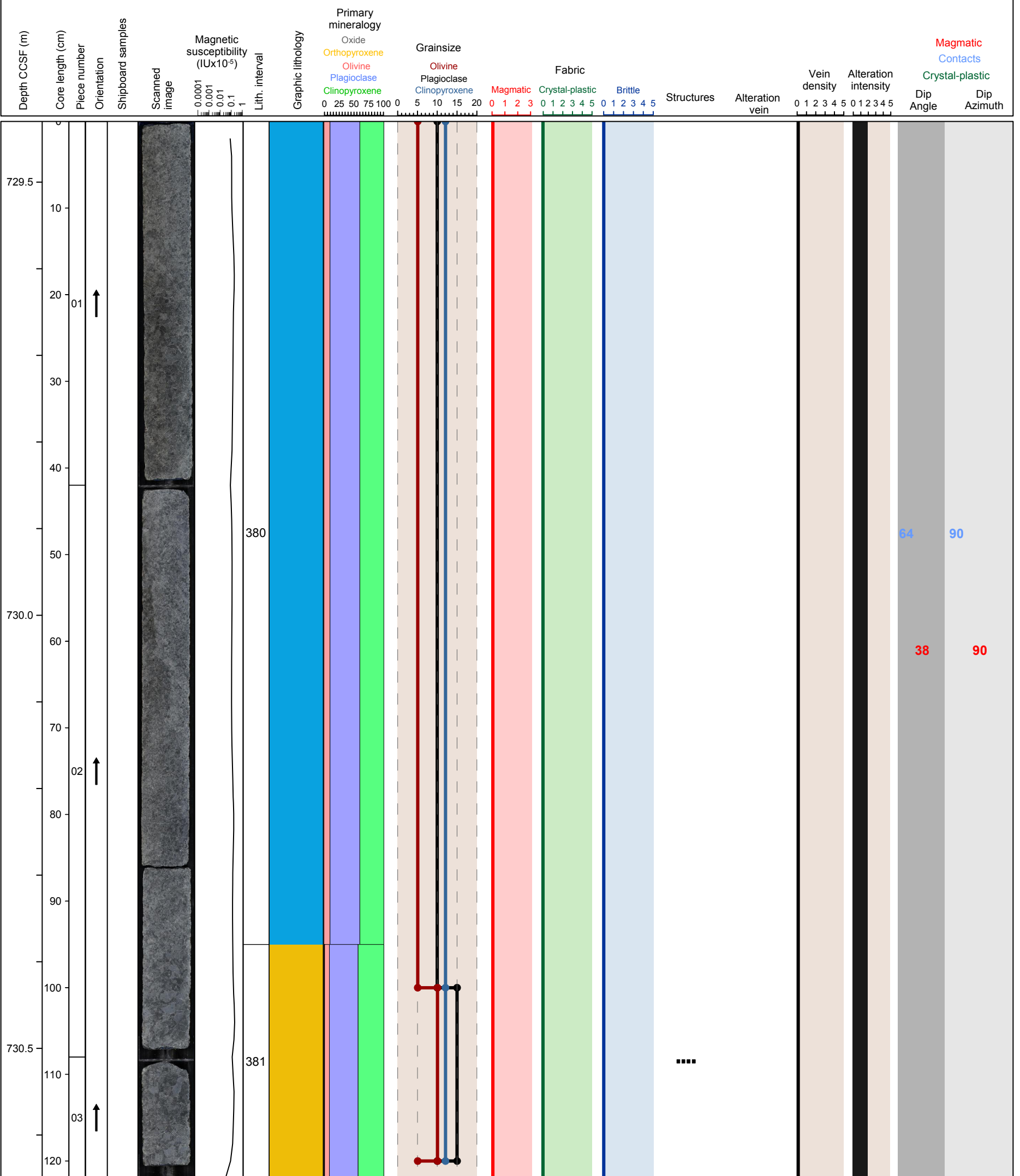


Hole 360-U1473A-82R Section 8, Top of Section: 729.43 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 380) and coarse grained subophitic disseminated oxide olivine gabbro (interval 381)

Metamorphic Petrology: Alteration intensity of this section is moderate.

Structural Geology:

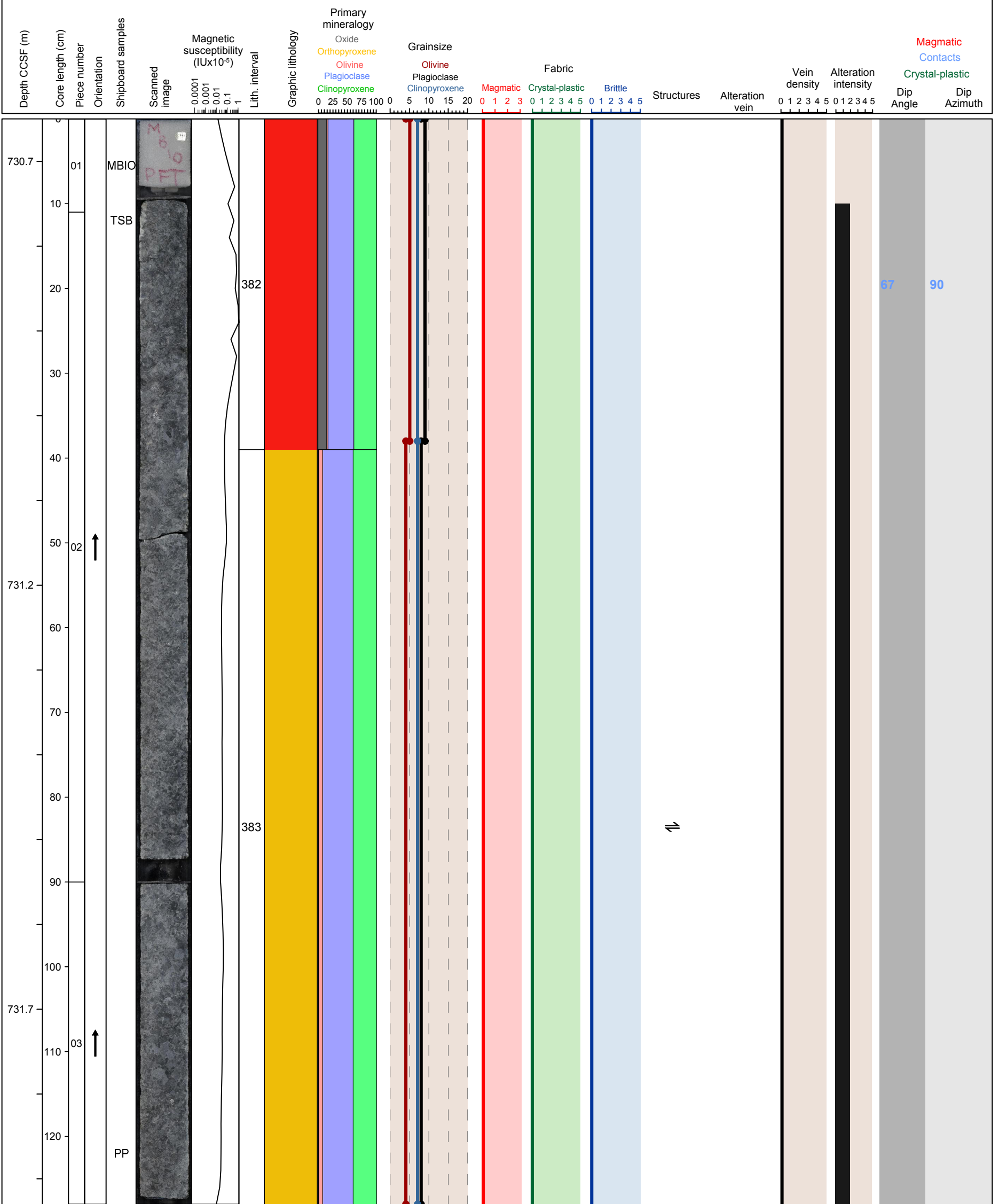


Hole 360-U1473A-83R Section 1, Top of Section: 730.65 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 382) and coarse grained subophitic disseminated oxide olivine gabbro (interval 383)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

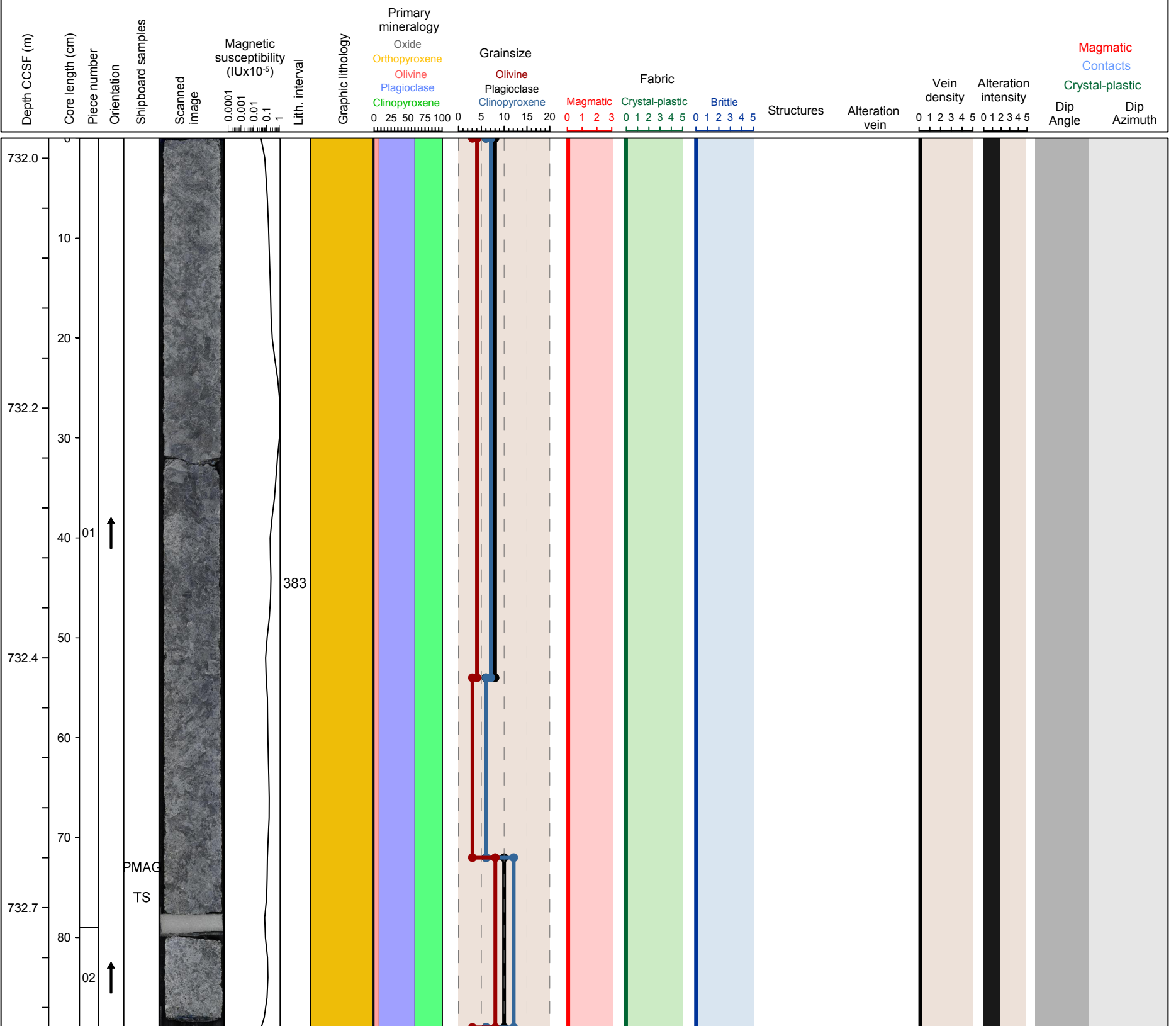


Hole 360-U1473A-83R Section 2, Top of Section: 731.93 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 383)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

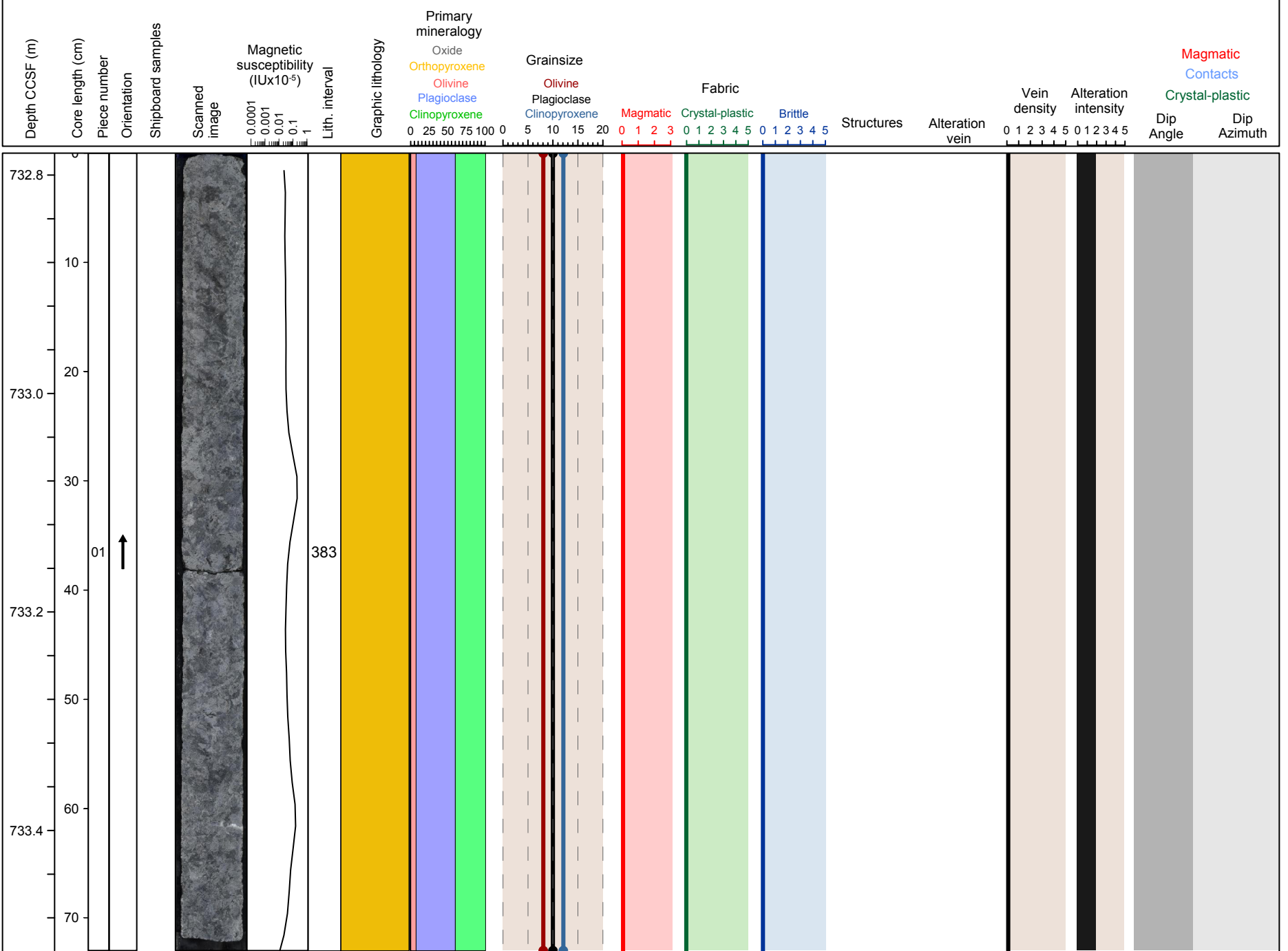


Hole 360-U1473A-83R Section 3, Top of Section: 732.82 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 383)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

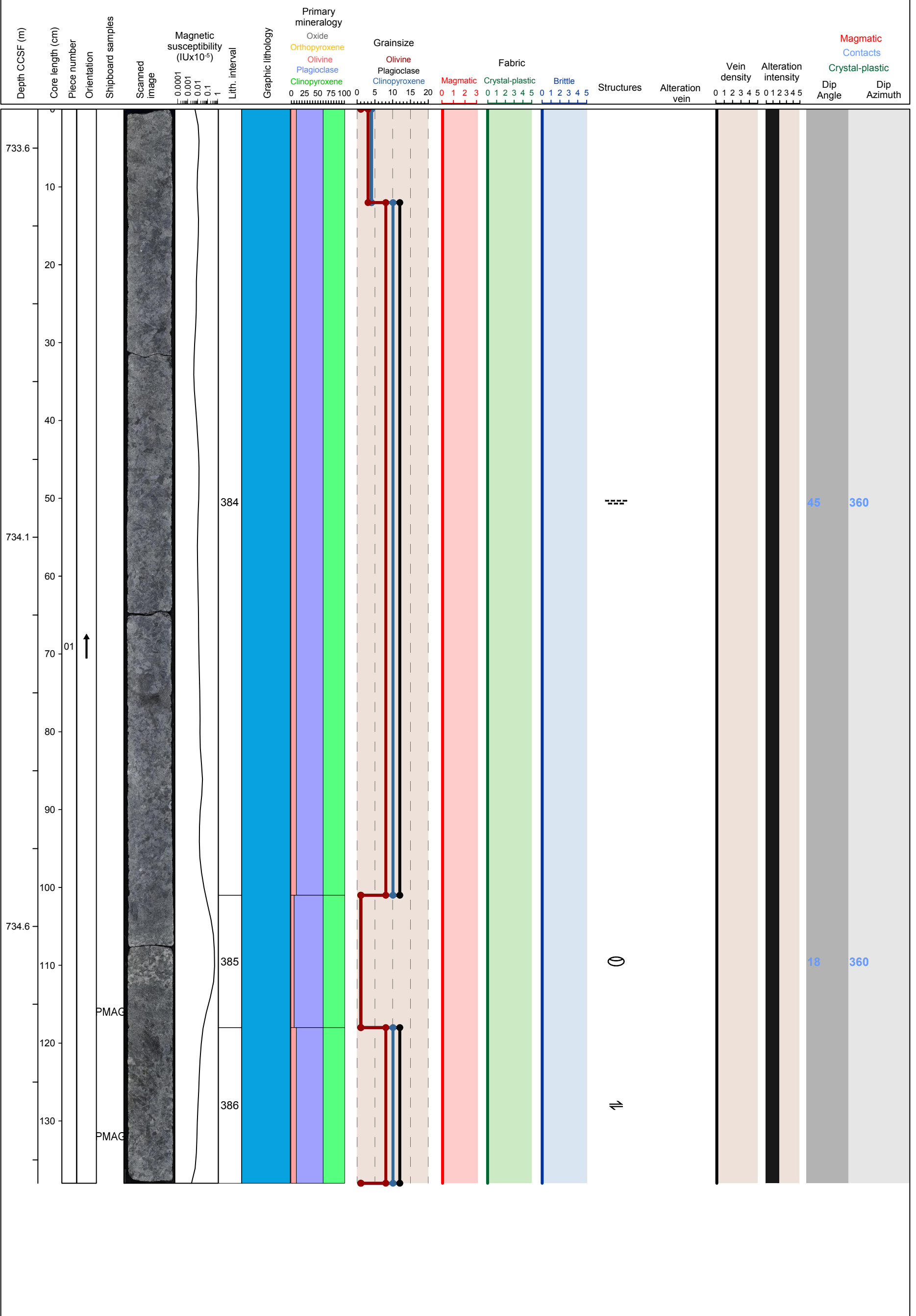


Hole 360-U1473A-83R Section 4, Top of Section: 733.55 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 384 and 386) and fine grained granular olivine gabbro (interval 385)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

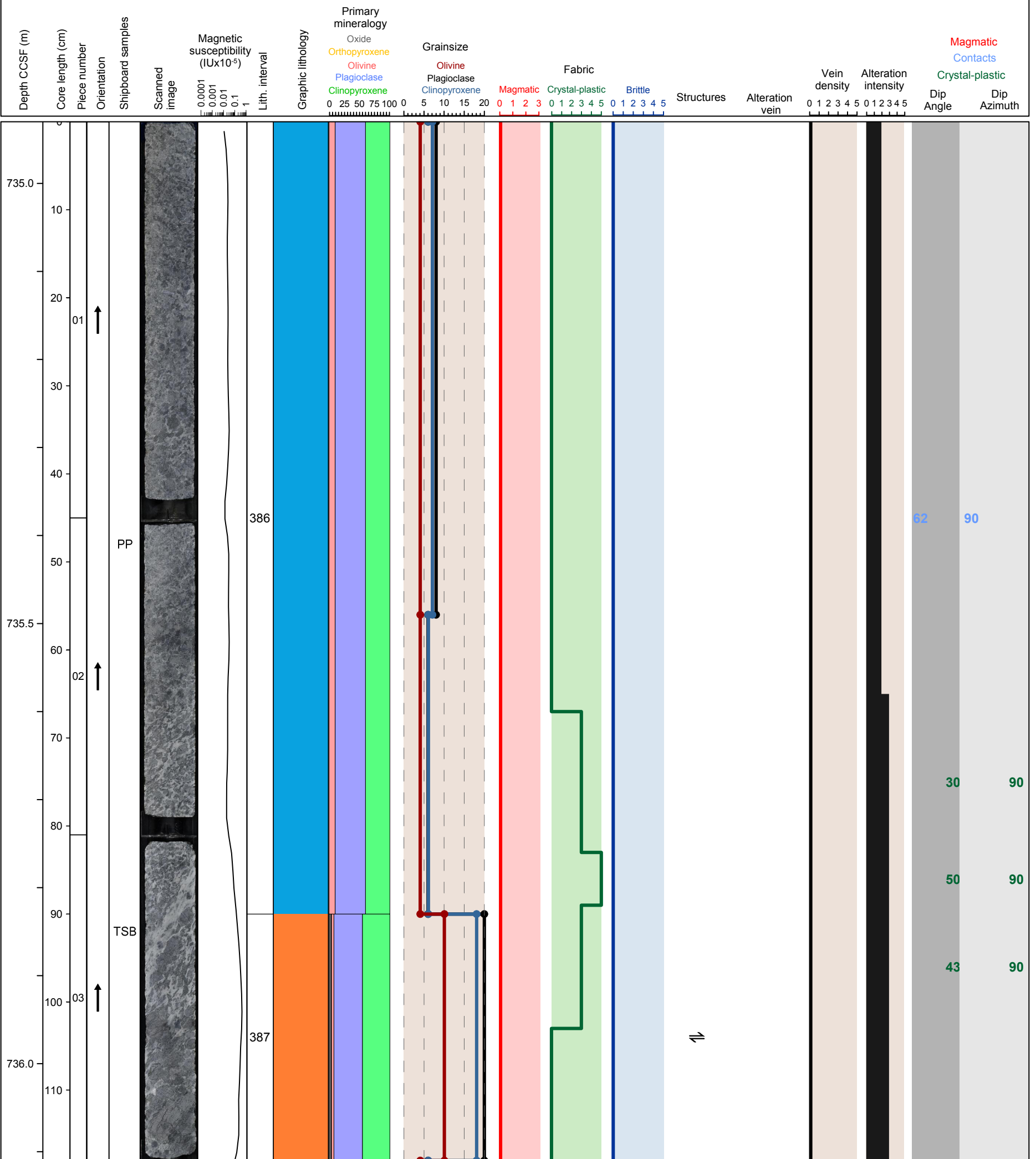


Hole 360-U1473A-83R Section 5, Top of Section: 734.93 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 386) and coarse grained granular olivine and oxide bearing gabbro (interval 387)

Metamorphic Petrology: Alteration intensity ranges from moderate to substantial. Alteration is more intense in the deformed rocks.

Structural Geology: Inclined, leucocratic porphyroclastic shear zone with coarse grained pyroxene that is bounded.

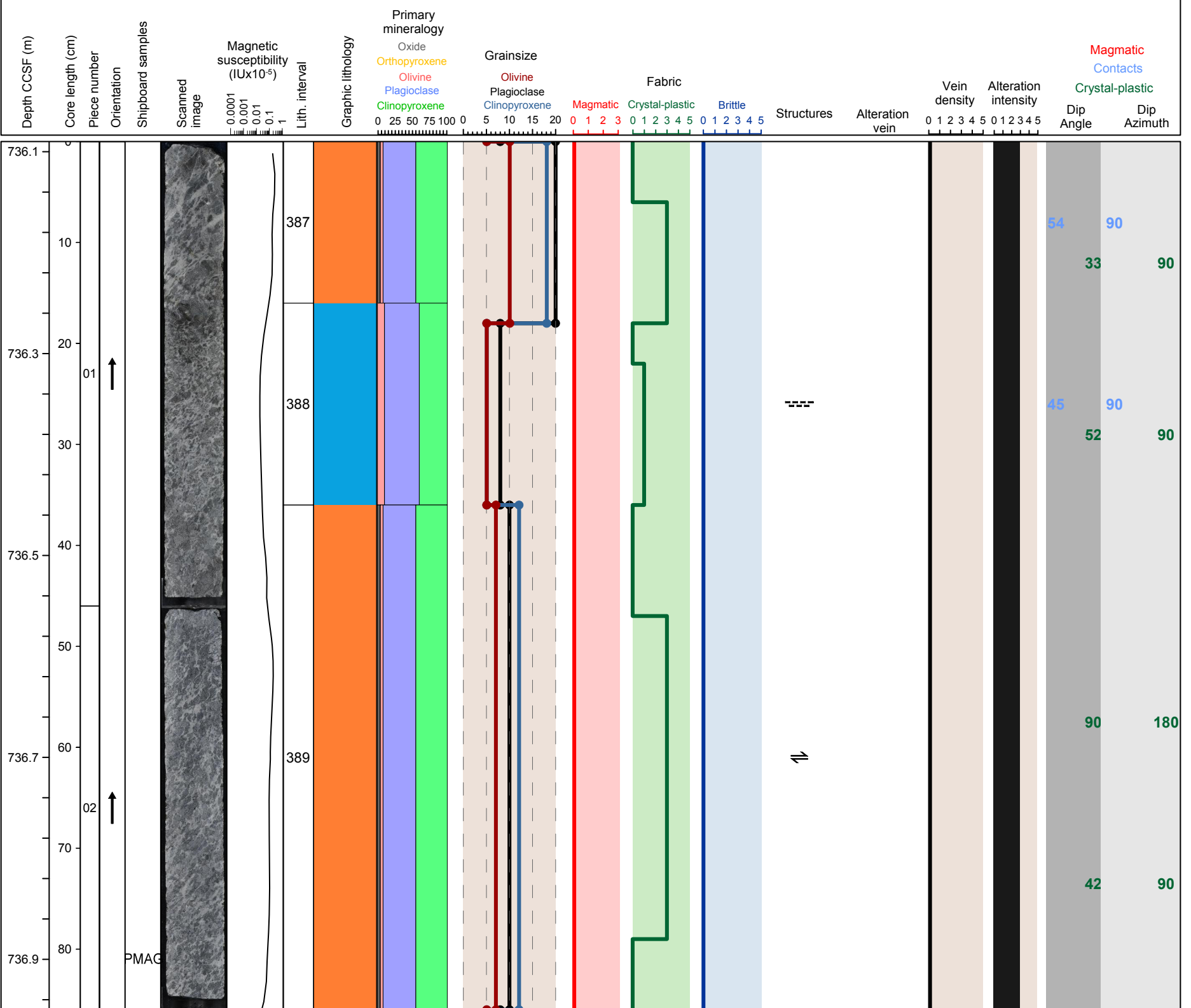


Hole 360-U1473A-83R Section 6, Top of Section: 736.11 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular olivine and oxide bearing gabbro (interval 387 and 389) and coarse grained subophitic olivine gabbro (interval 388)

Metamorphic Petrology: Static background alteration intensity is substantial. Milky white plagioclase is conspicuous.

Structural Geology: Leucocratic, normal sense, porphyroclastic to mylonitic shear zone that changes dip with depth from inclined to vertical to inclined.

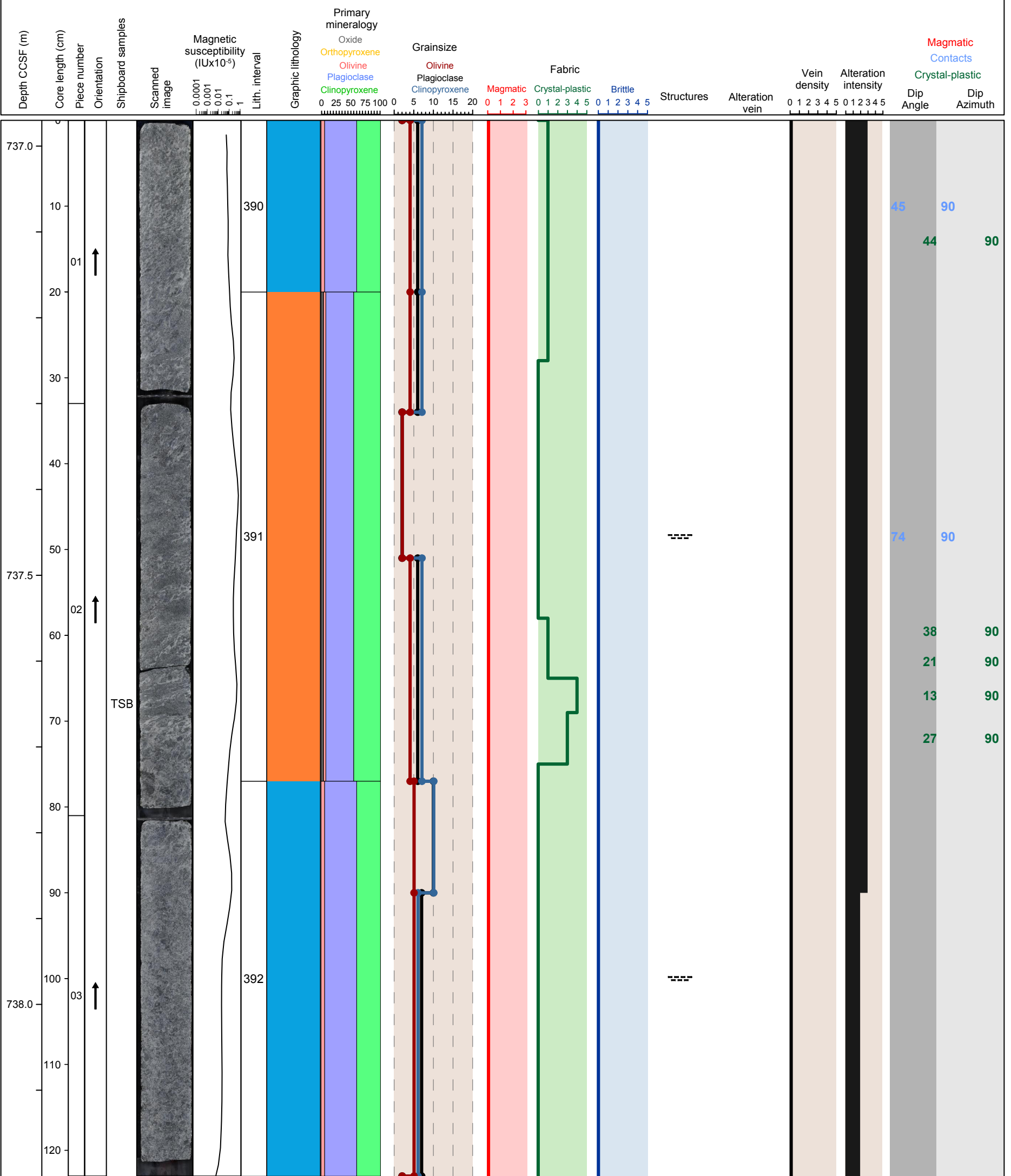


Hole 360-U1473A-83R Section 7, Top of Section: 736.97 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 390 and 392) and coarse grained granular olivine and oxide bearing gabbro (interval 391)

Metamorphic Petrology: Alteration intensity ranges from moderate to substantial. Deformed rocks are more altered, dominated by milky white plagioclase.

Structural Geology: Inclined layering is overprinted with a crystal plastic fabric, crosscut by a sub-horizontal, reverse sense mylonite.

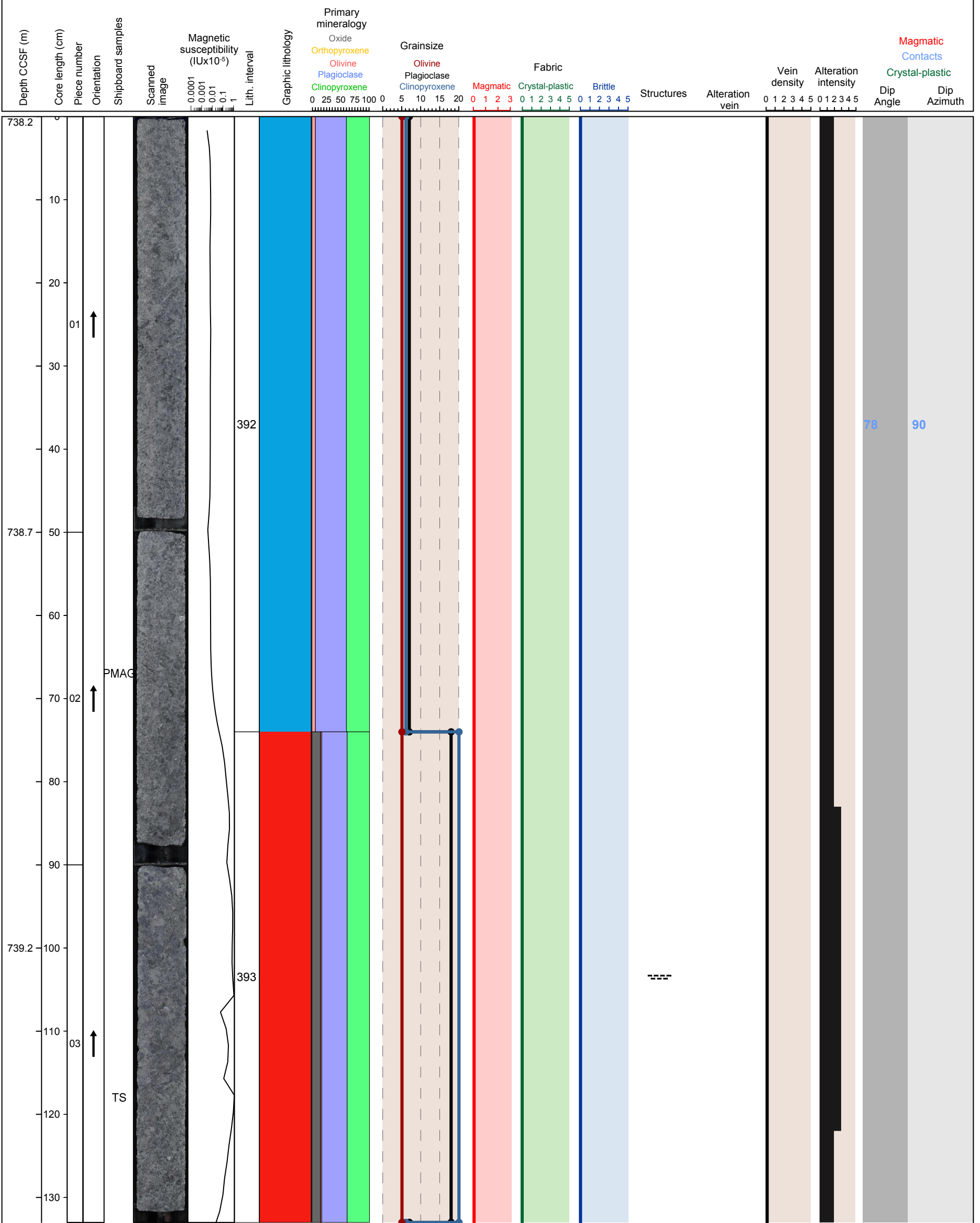


Hole 360-U1473A-83R Section 8, Top of Section: 738.2 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 392) and coarse grained granular olivine bearing oxide gabbro (interval 393)

Metamorphic Petrology: Alteration intensity ranges from moderate to substantial. Oxide rich zones are more altered.

Structural Geology: Inclined coarse-grained Fe-Ti oxide rich layer at 115 cm.

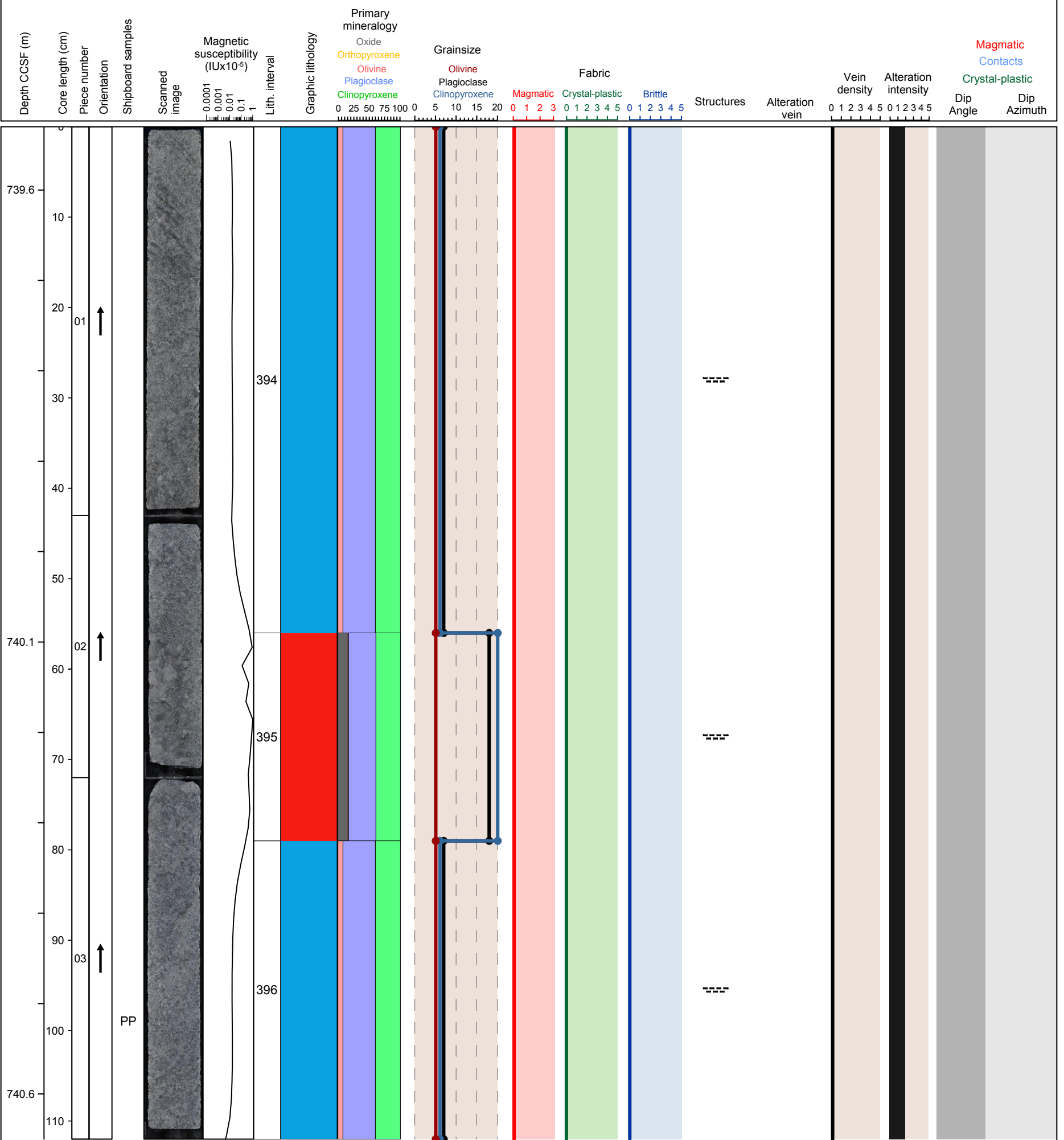


Hole 360-U1473A-83R Section 9, Top of Section: 739.53 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 394 and 396) and coarse grained granular olivine bearing oxide gabbro (interval 395)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Vertical Fe-Ti oxide-rich and sulfide rich layer at 60 cm.

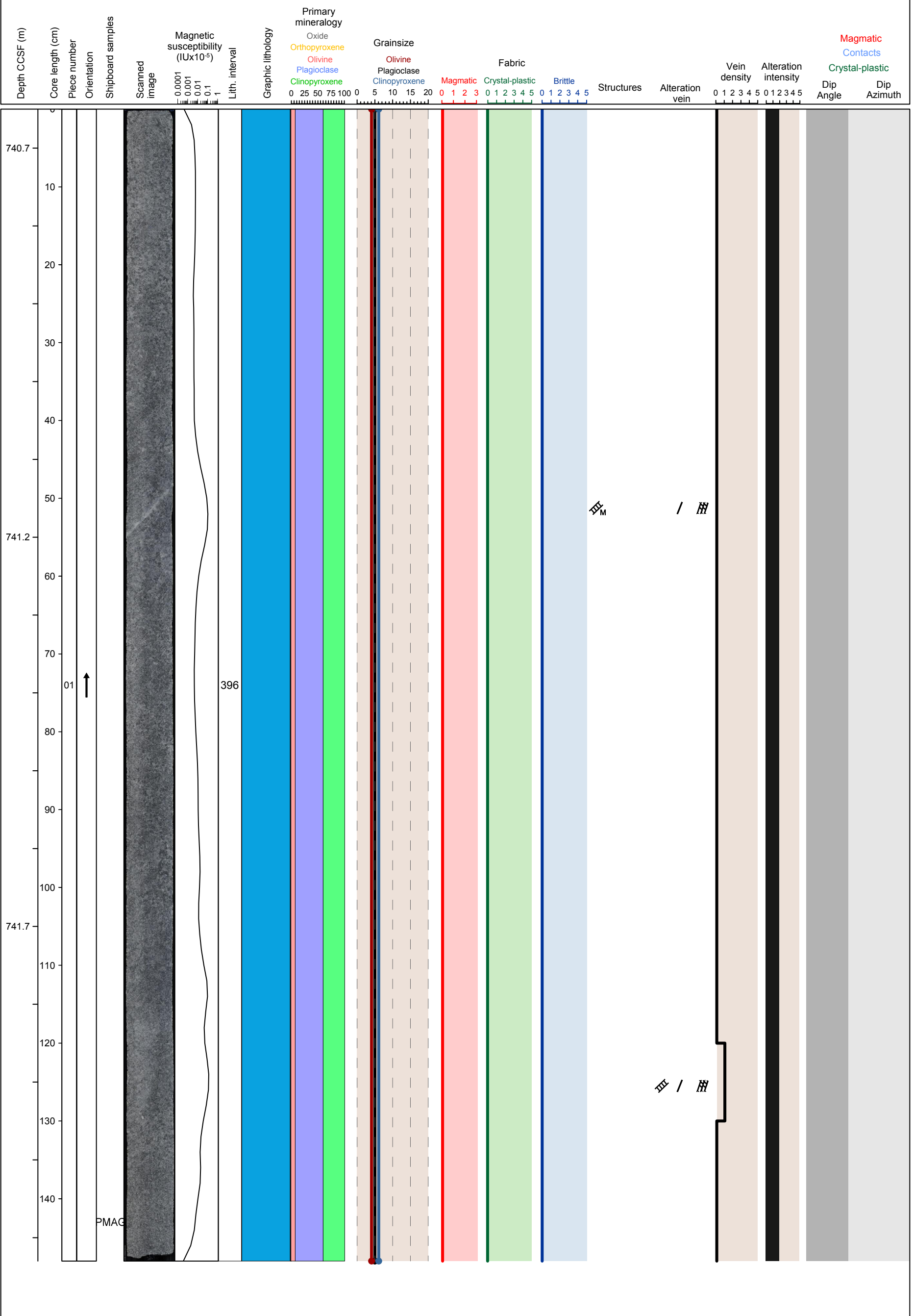


Hole 360-U1473A-84R Section 1, Top of Section: 740.65 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olvine gabbro (interval 396)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Inclined felsic vein.

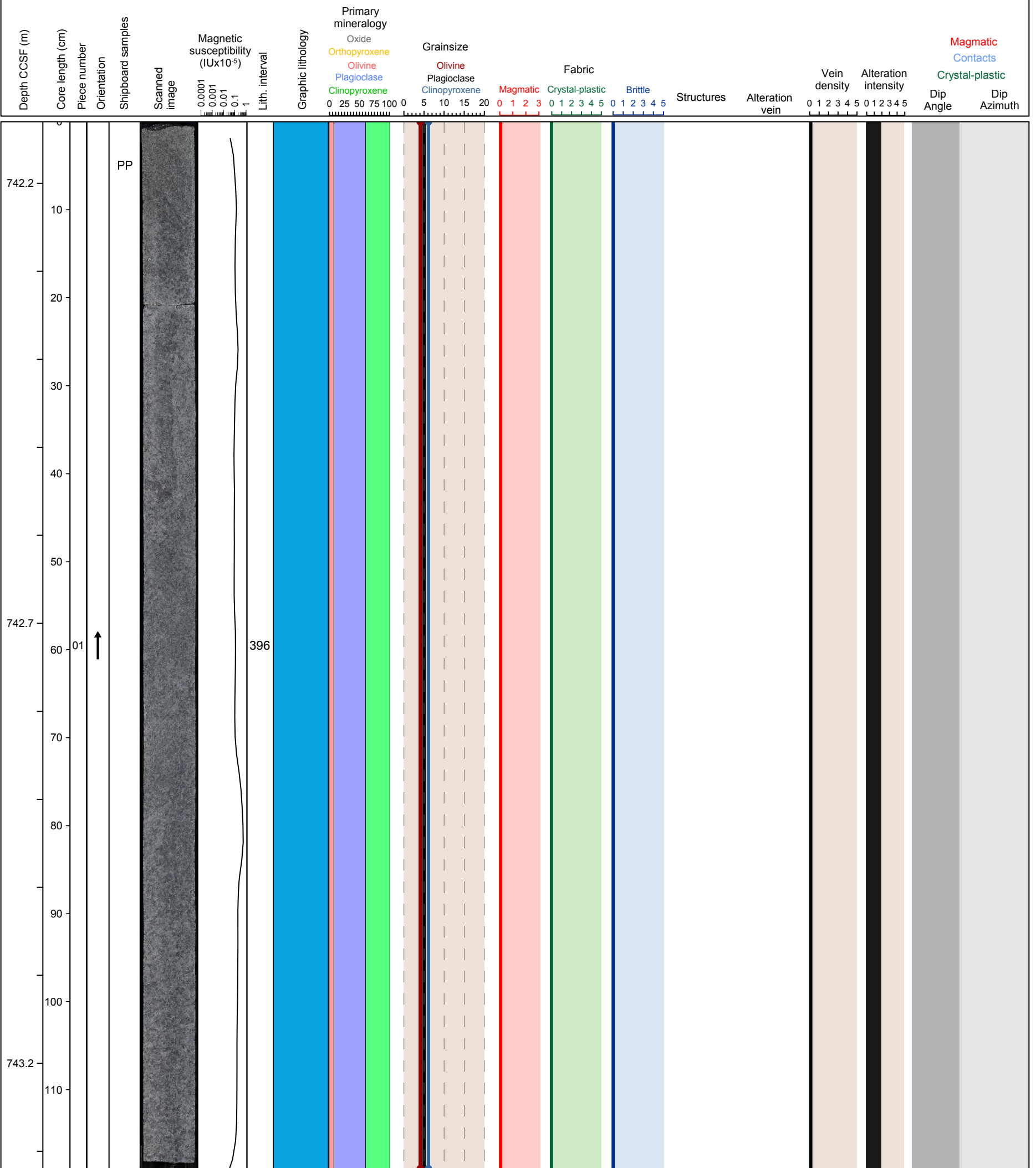


Hole 360-U1473A-84R Section 2, Top of Section: 742.13 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 396)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic to patchy grain size variations.

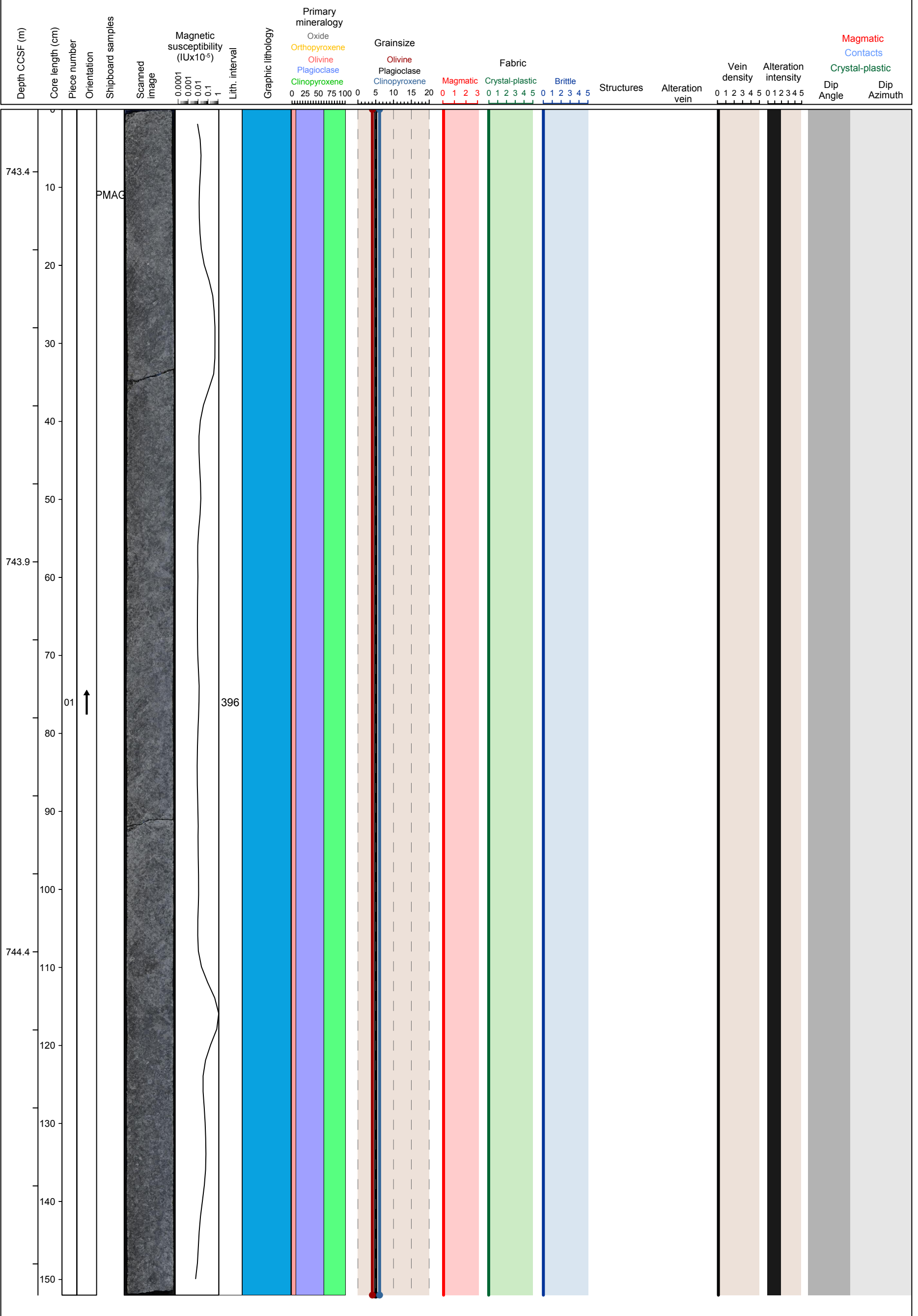


Hole 360-U1473A-84R Section 3, Top of Section: 743.32 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 396)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic to patchy grain size variations.

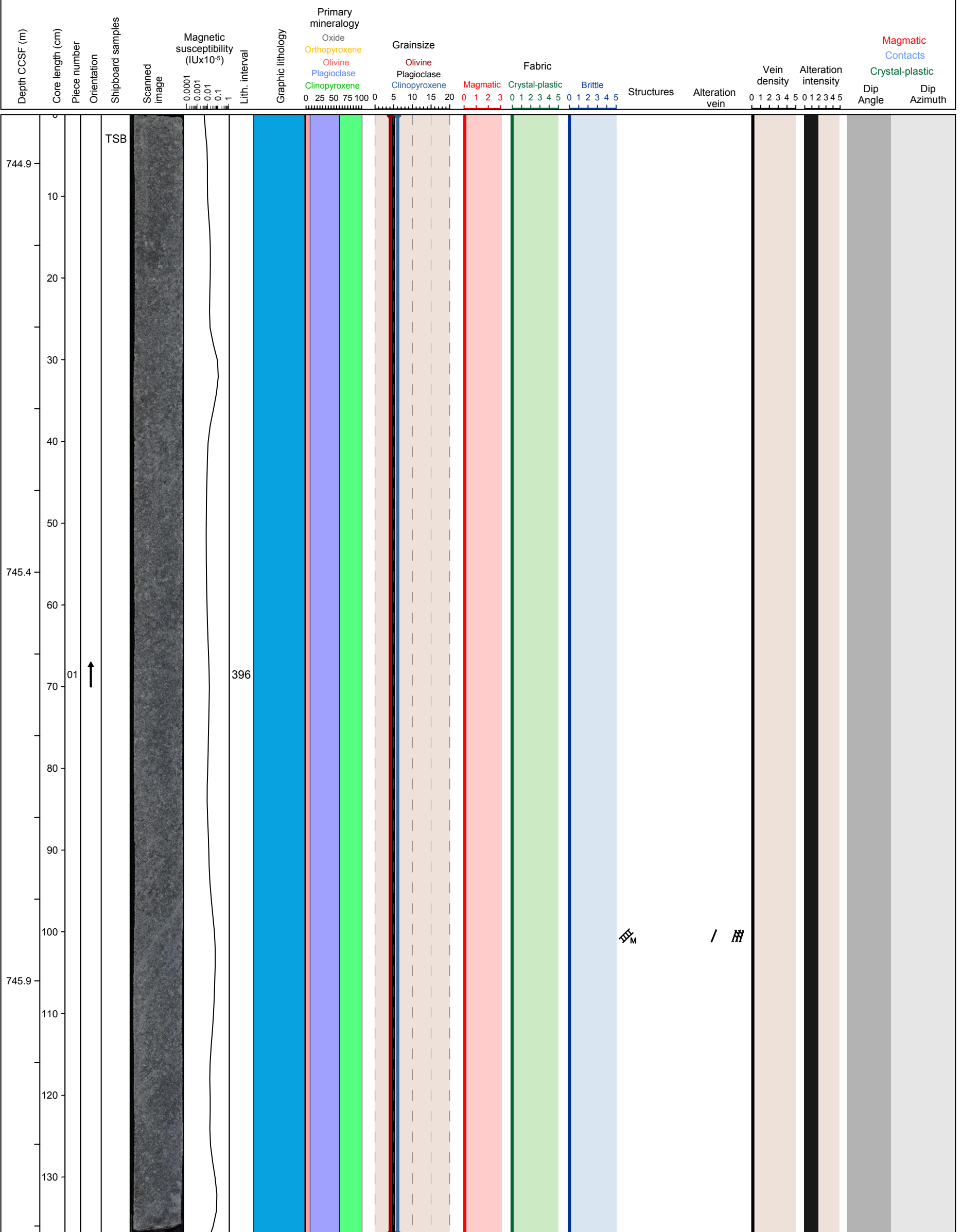


Hole 360-U1473A-84R Section 4, Top of Section: 744.84 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 396)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Inclined felsic vein.

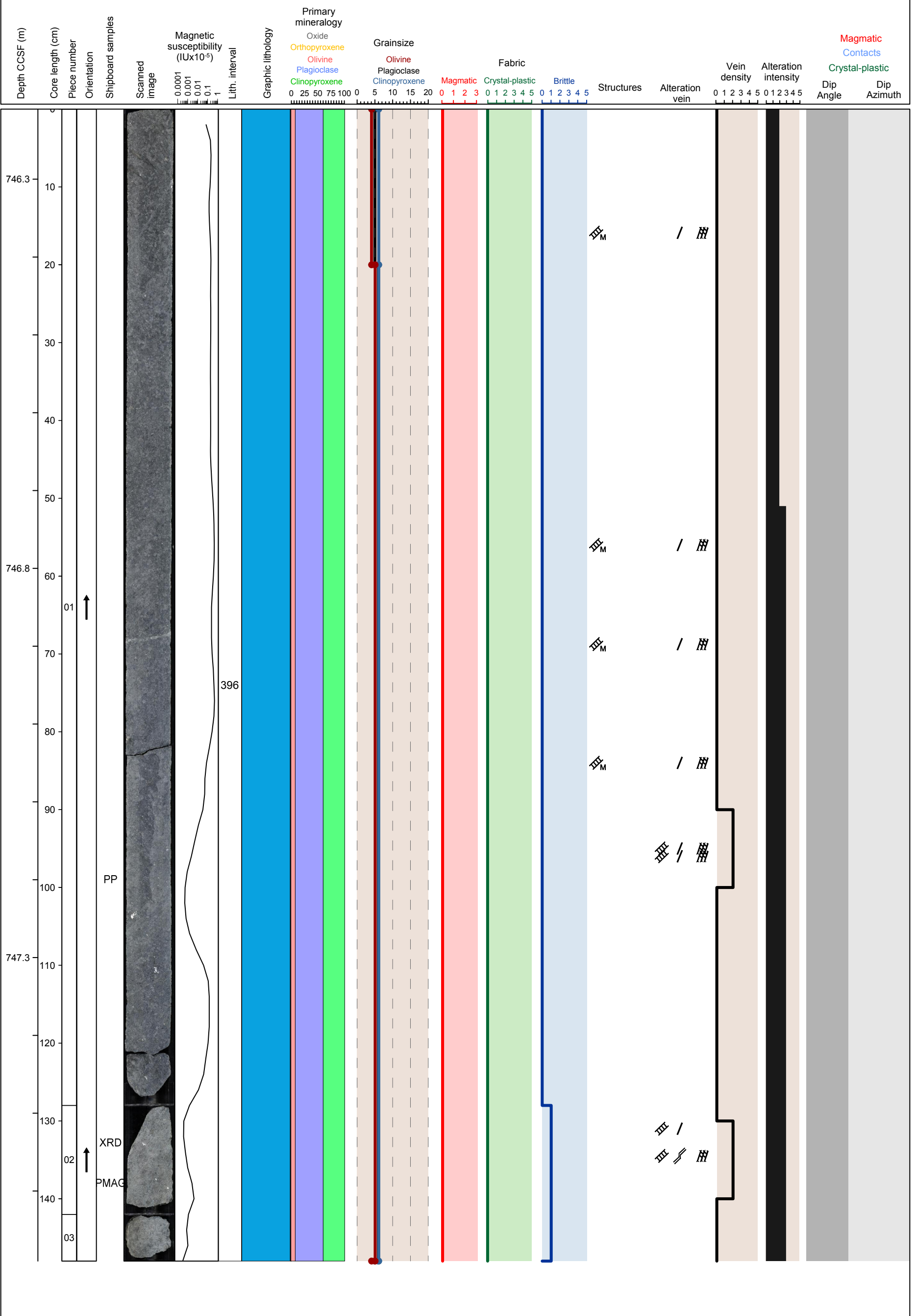


Hole 360-U1473A-84R Section 5, Top of Section: 746.21 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 396)

Metamorphic Petrology: Alteration intensity ranges from moderate to extensive. Chlorite alteration is more pronounced in the bottom part of the section.

Structural Geology: Four sub-horizontal to inclined felsic veins.

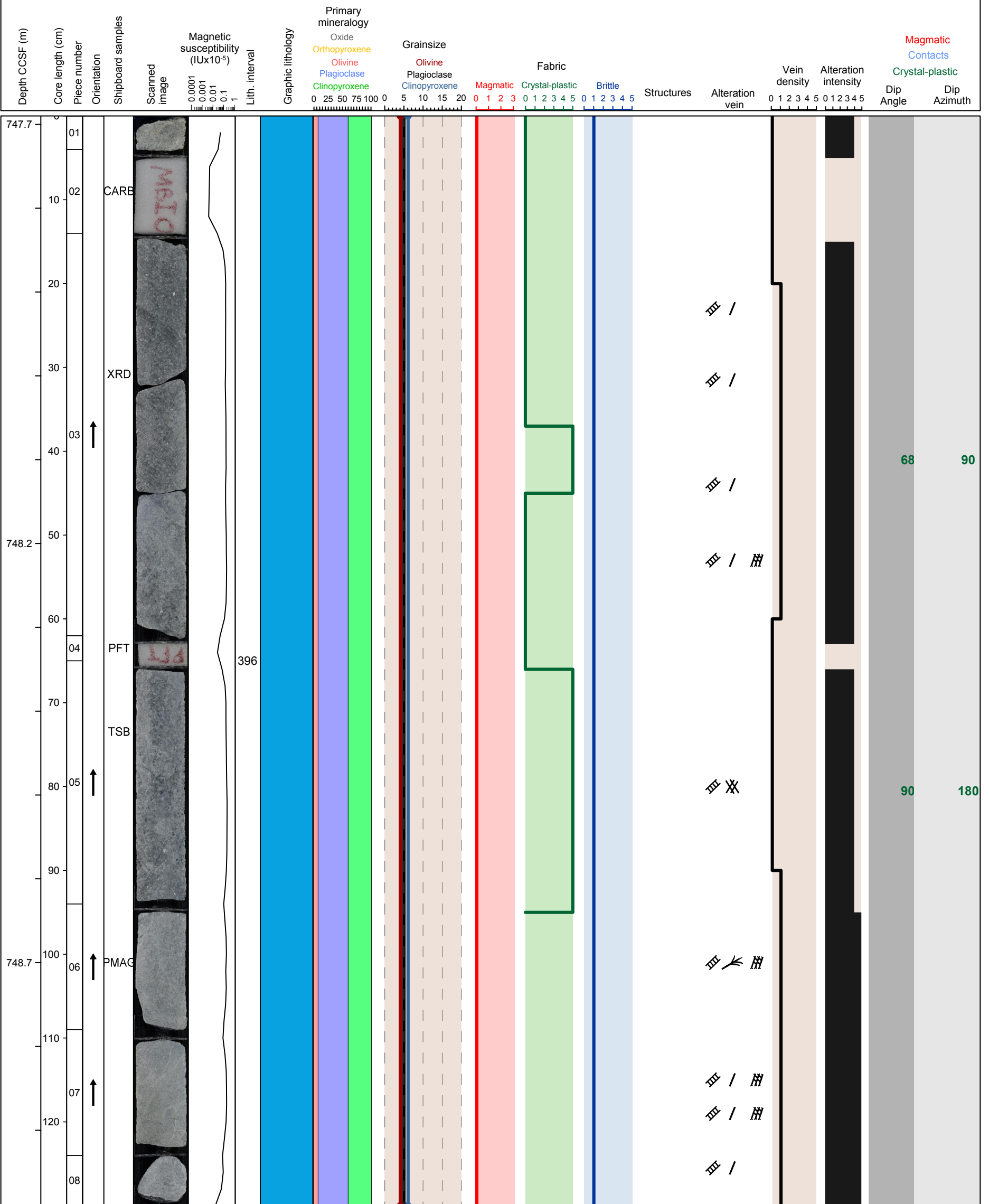


Hole 360-U1473A-84R Section 6, Top of Section: 747.69 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 396)

Metamorphic Petrology: Alteration intensity ranges from extensive to complete. Greenschist alteration is very pronounced.

Structural Geology: Sheared, sub-parallel, sub-horizontal amphibole veins.

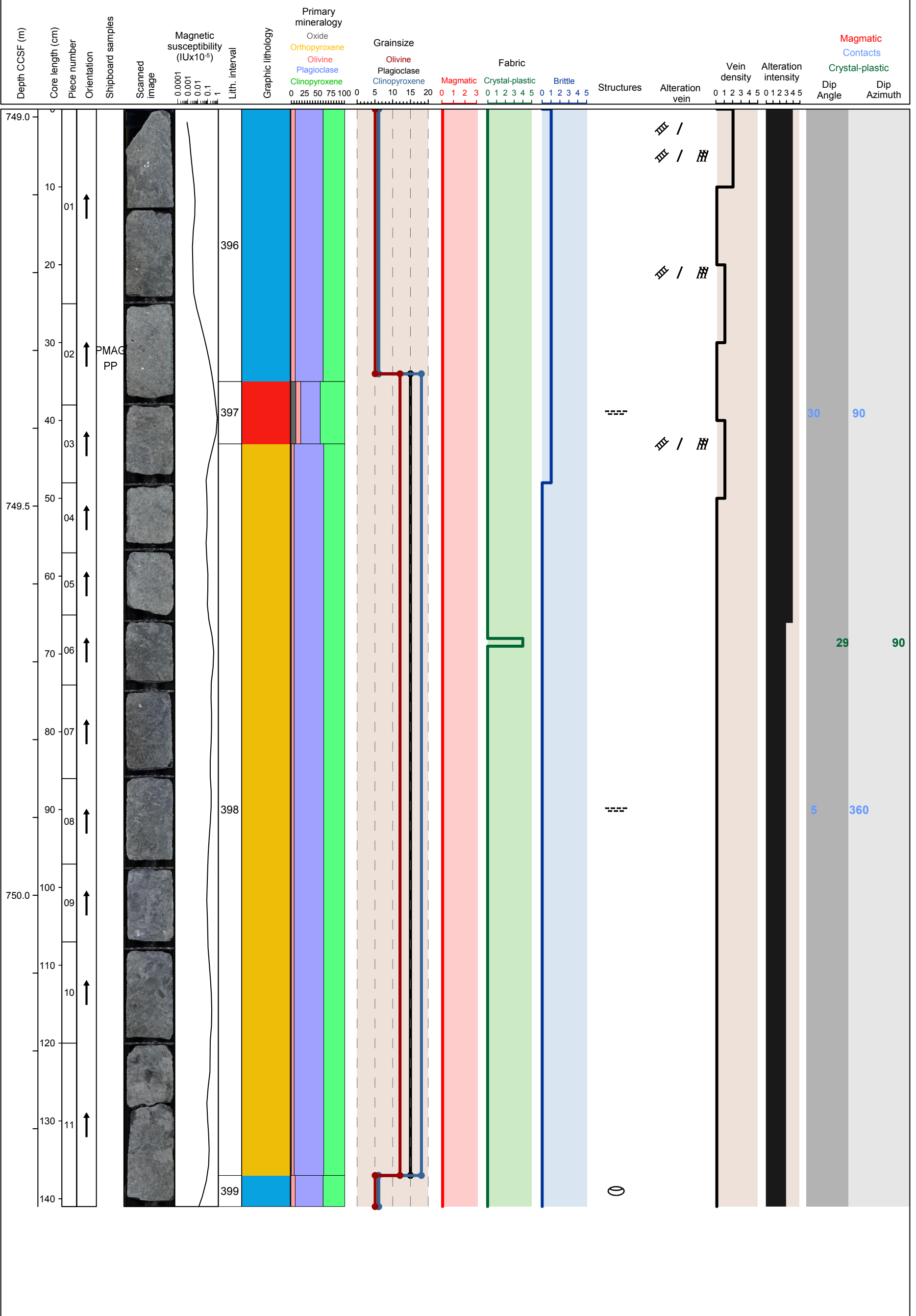


Hole 360-U1473A-84R Section 7, Top of Section: 748.99 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 396 and 399), coarse grained granular olivine oxide gabbro (interval 397) and coarse grained granular disseminated oxide olivine gabbro (interval 398)

Metamorphic Petrology: Alteration intensity ranges from substantial to extensive. Greenschist alteration is pronounced.

Structural Geology: Shear zone at 70 cm. Slickenlines with moderate rake at 2 cm.

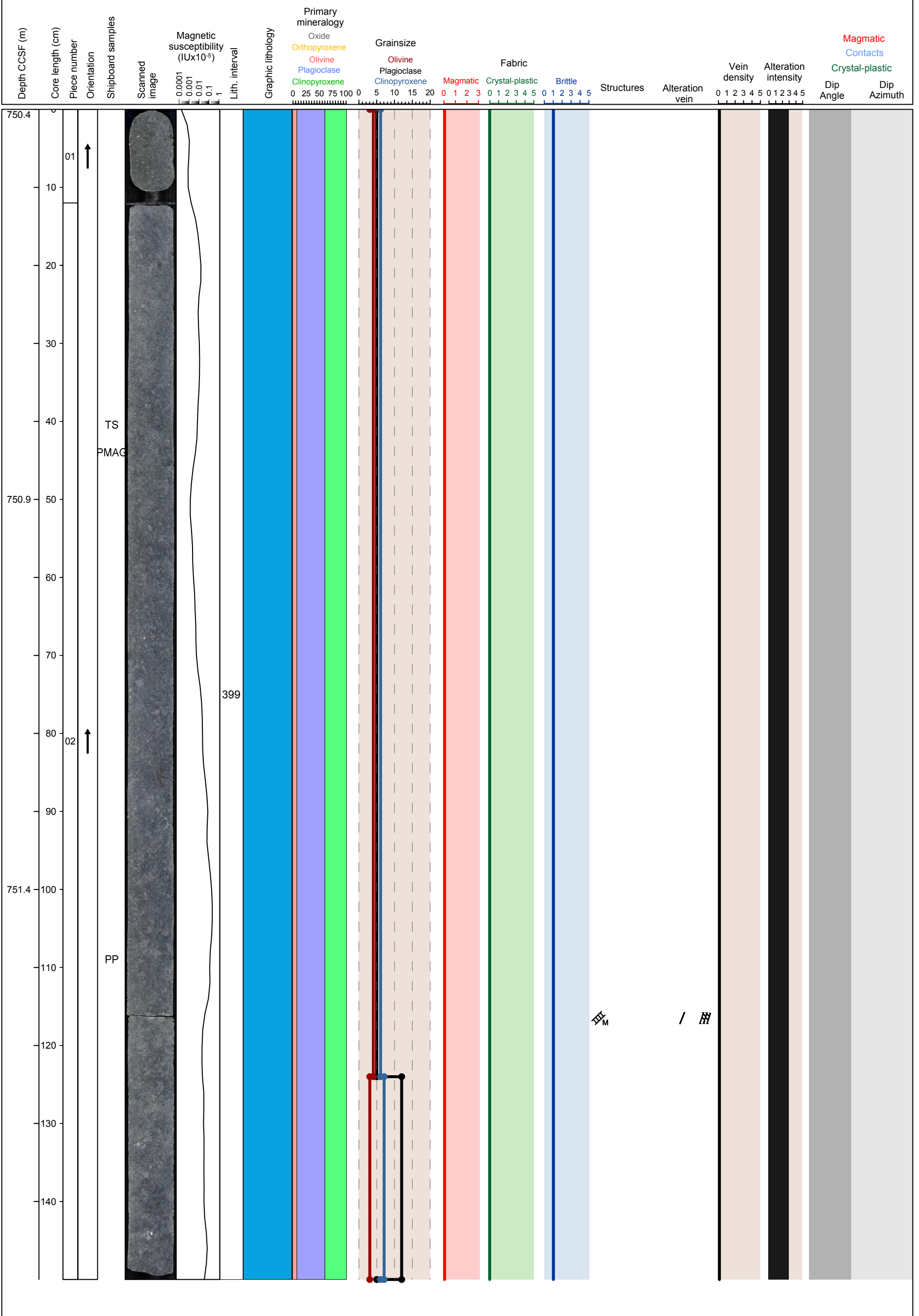


Hole 360-U1473A-85R Section 1, Top of Section: 750.4 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olvine gabbro (interval 399)

Metamorphic Petrology: Section is substantially altered into greenschist assemblages.

Structural Geology: One sub-horizontal felsic vein. Microfractures related to alteration.

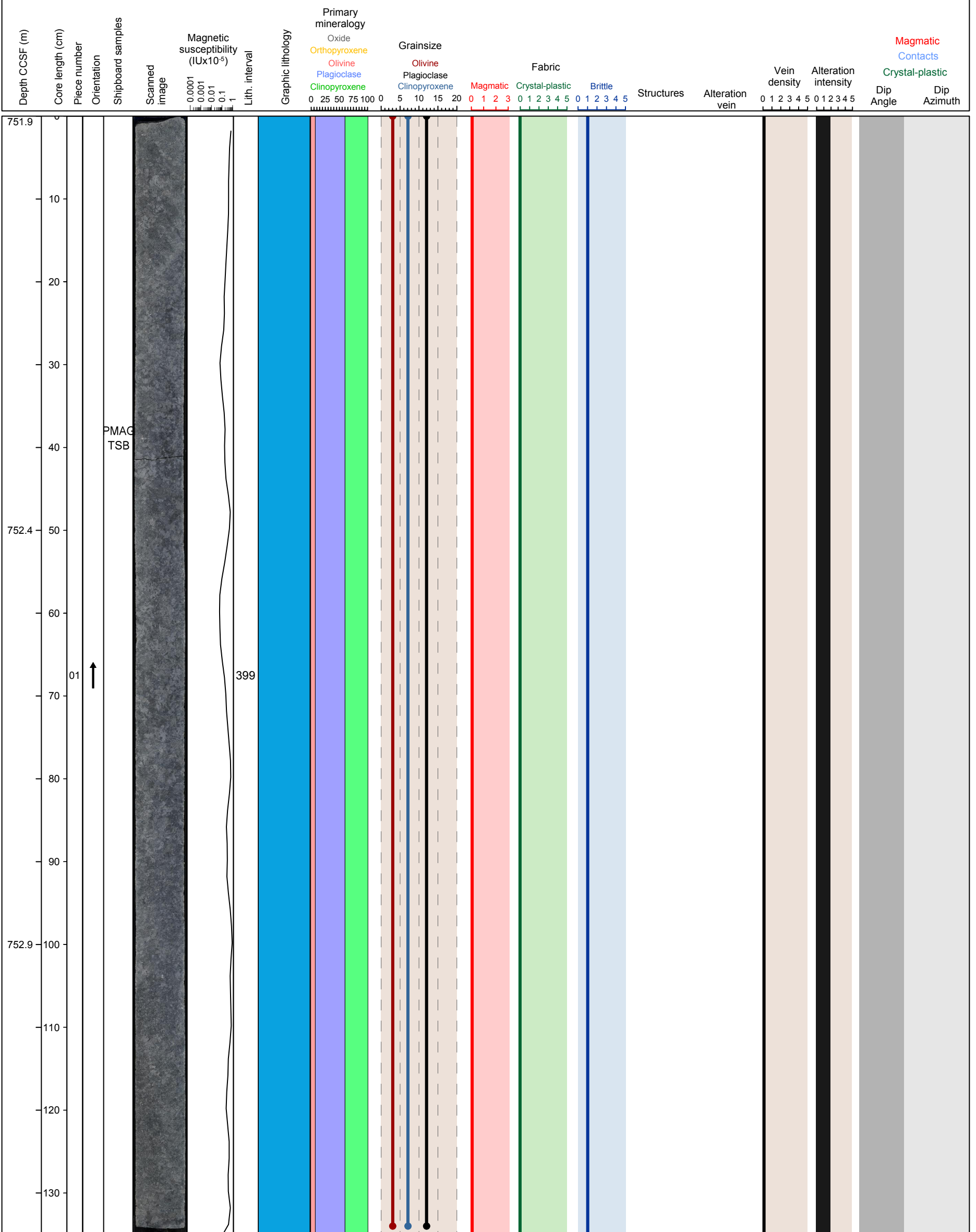


Hole 360-U1473A-85R Section 2, Top of Section: 751.9 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 399)

Metamorphic Petrology: Section is moderately altered into greenschist assemblages.

Structural Geology: Microfractures related to alteration.

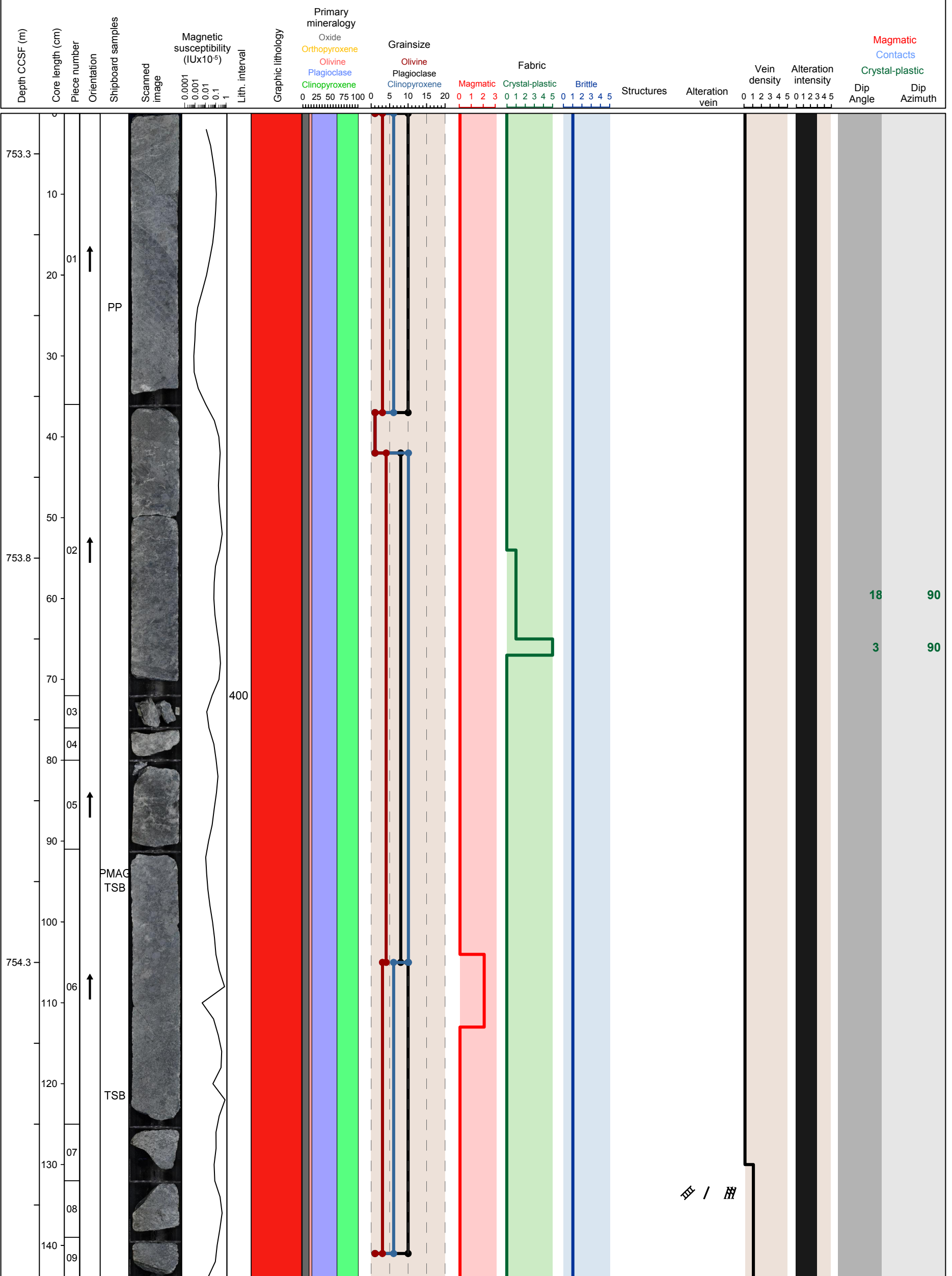


Hole 360-U1473A-85R Section 3, Top of Section: 753.25 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 400)

Metamorphic Petrology: Alteration intensity of this section is substantial.

Structural Geology: Sub-horizontal, Fe-Ti oxide-rich ultramylonite at 70 cm. Majority of zone has a weak, leucocratic crystal plastic fabric. Weak to moderate magmatic fabric defined by pyroxene. Microfractures related to alteration.

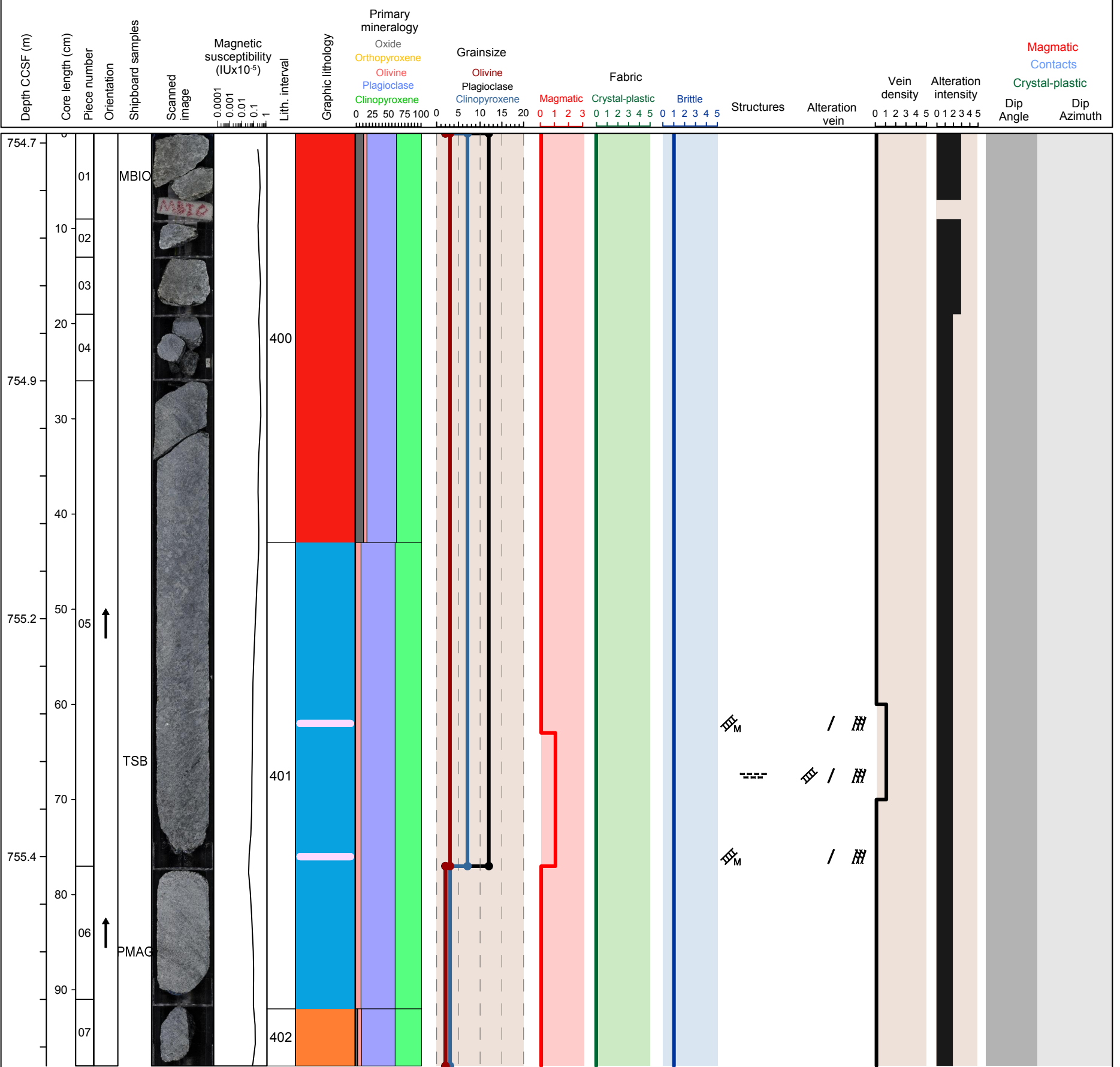


Hole 360-U1473A-85R Section 4, Top of Section: 754.69 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 400), coarse grained subophitic olivine gabbro (interval 401) and coarse grained granular oxide bearing olivine gabbro (interval 402)

Metamorphic Petrology: Alteration intensity ranges from moderate to substantial.

Structural Geology: Two felsic veins. Weak magmatic fabric defined by pyroxene and plagioclase.

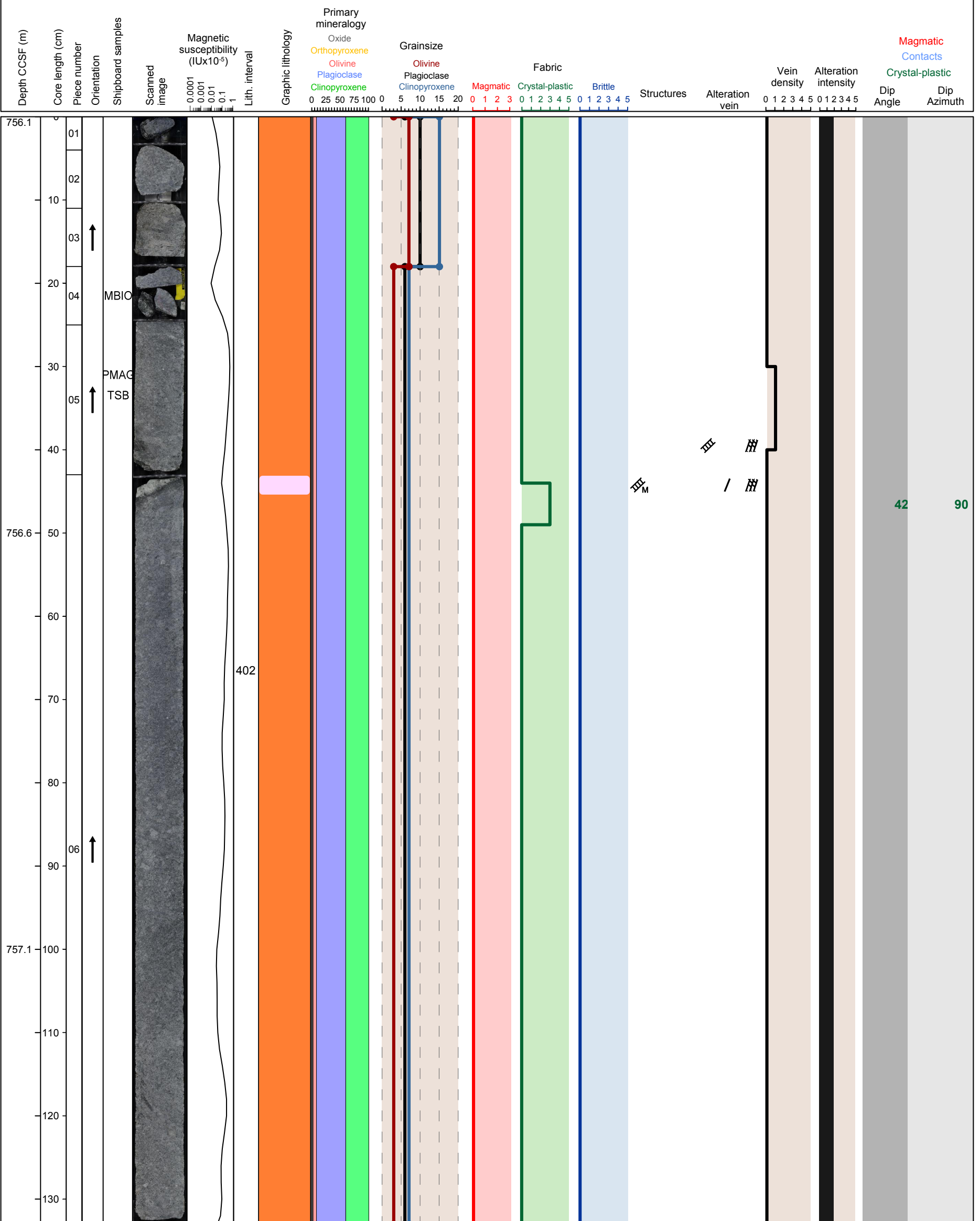


Hole 360-U1473A-86R Section 1, Top of Section: 756.1 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 402)

Metamorphic Petrology: Alteration intensity is moderate

Structural Geology: One inclined felsic vein. Moderately dipping porphyroclastic fabric.

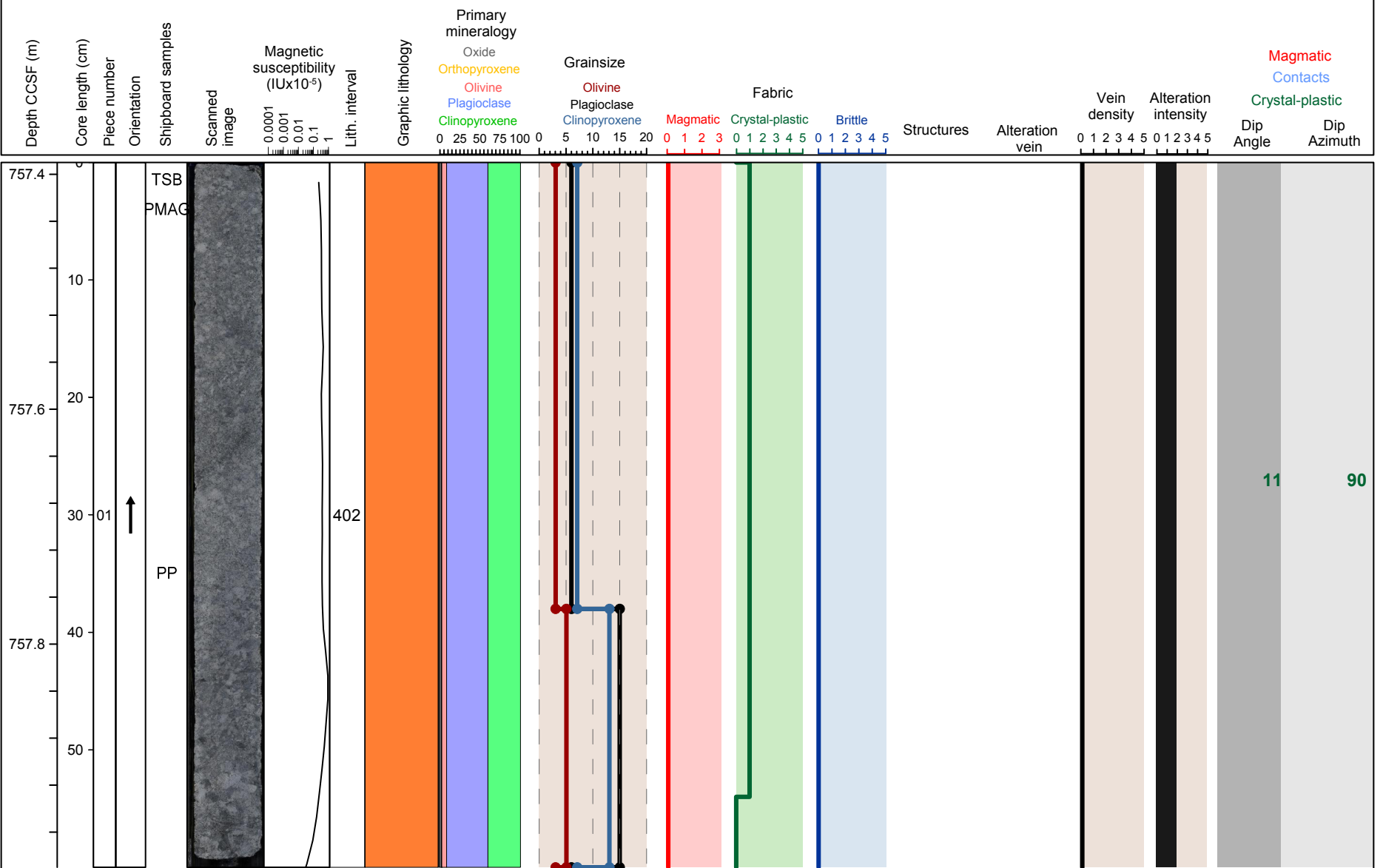


Hole 360-U1473A-86R Section 2, Top of Section: 757.43 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 402)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Weak, coarse-grained, sub-horizontal crystal plastic fabric.

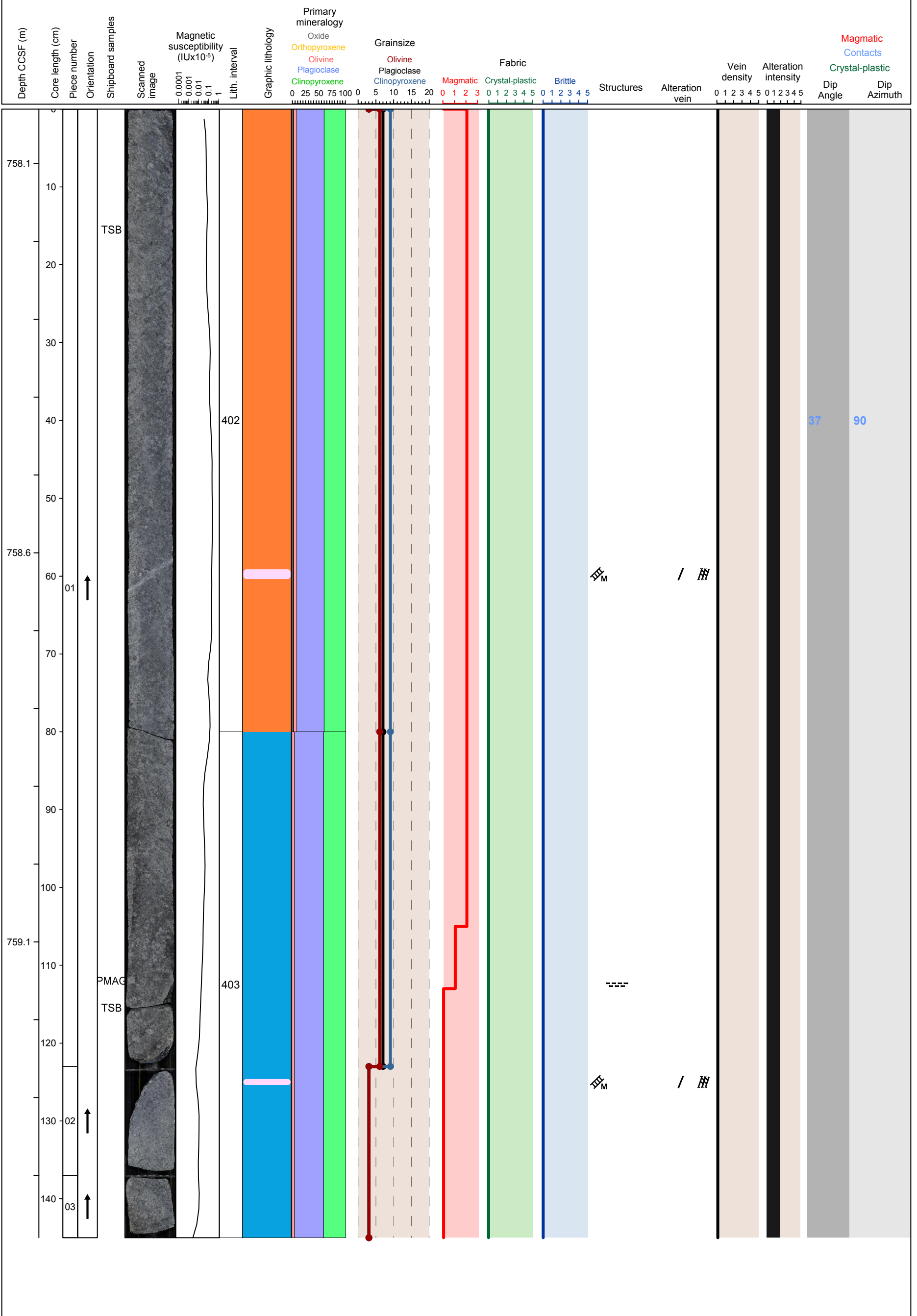


Hole 360-U1473A-86R Section 3, Top of Section: 758.03 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 402) and coarse grained subophitic olivine gabbro (interval 403)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Two inclined felsic veins. Moderate to weak, inclined magmatic fabric defined by pyroxene and plagioclase.

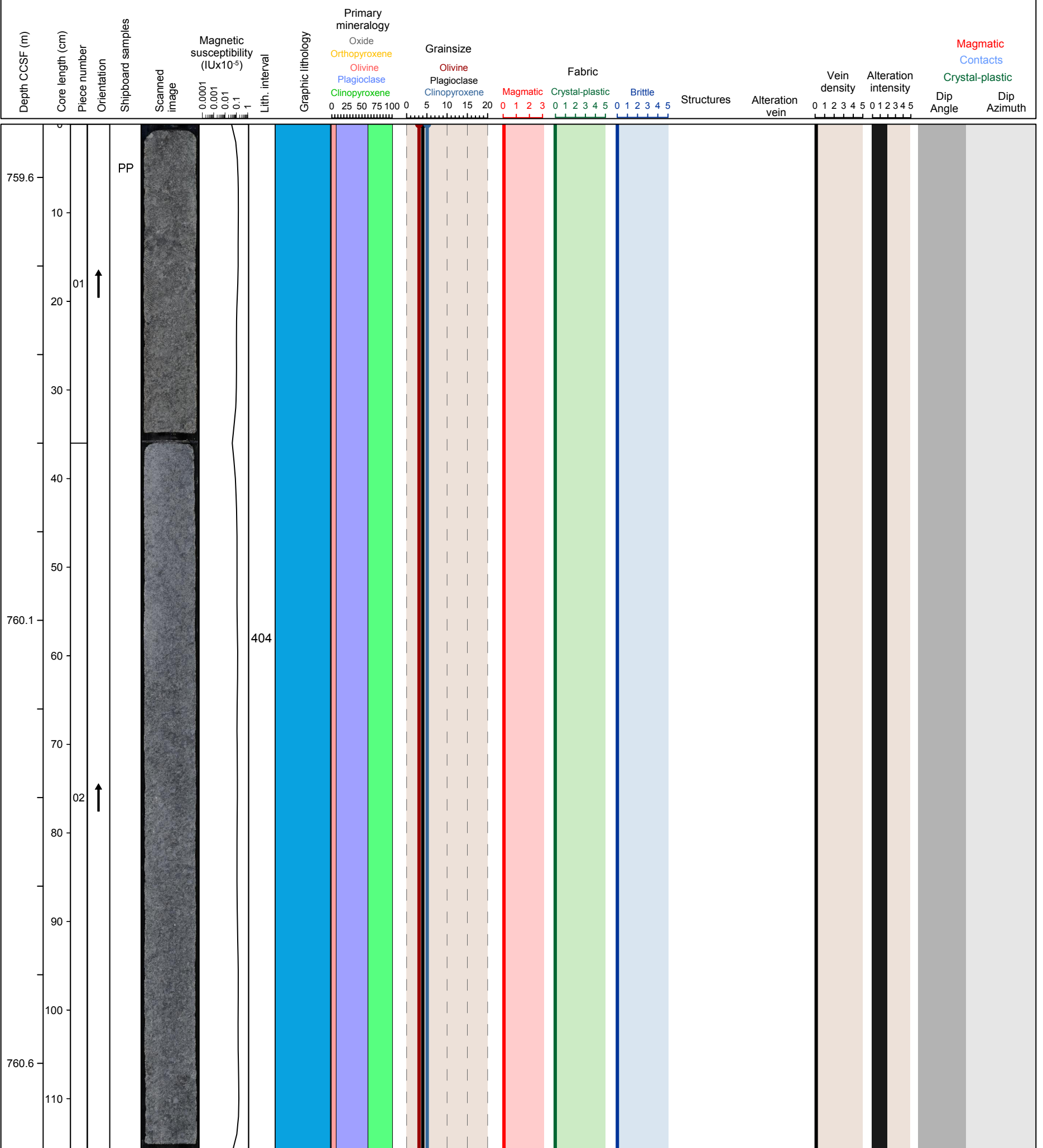


Hole 360-U1473A-87R Section 1, Top of Section: 759.54 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 404)

Metamorphic Petrology: Alteration intensity is moderate

Structural Geology: Isotropic.

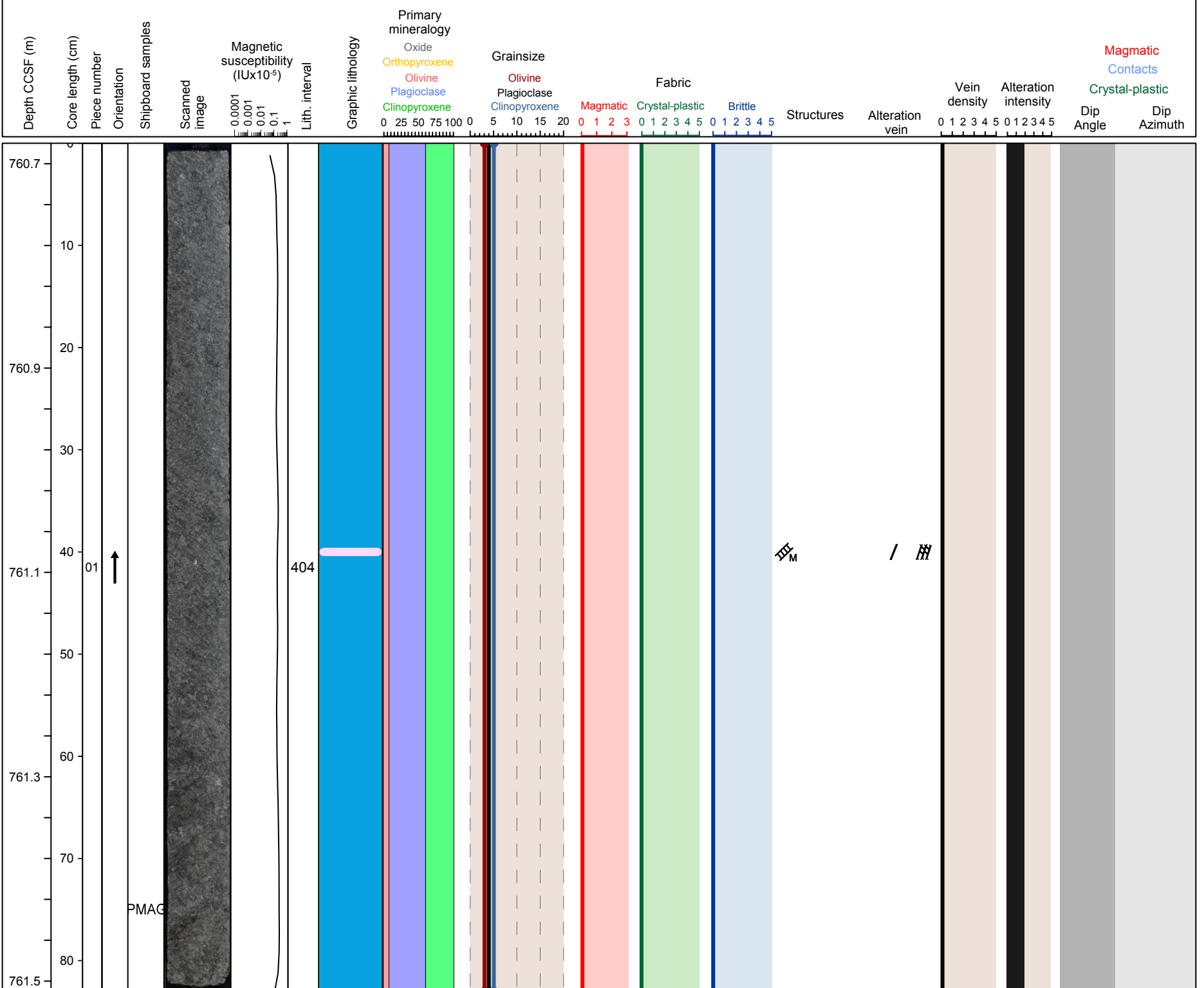


Hole 360-U1473A-87R Section 2, Top of Section: 760.7 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 404)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: One felsic vein.

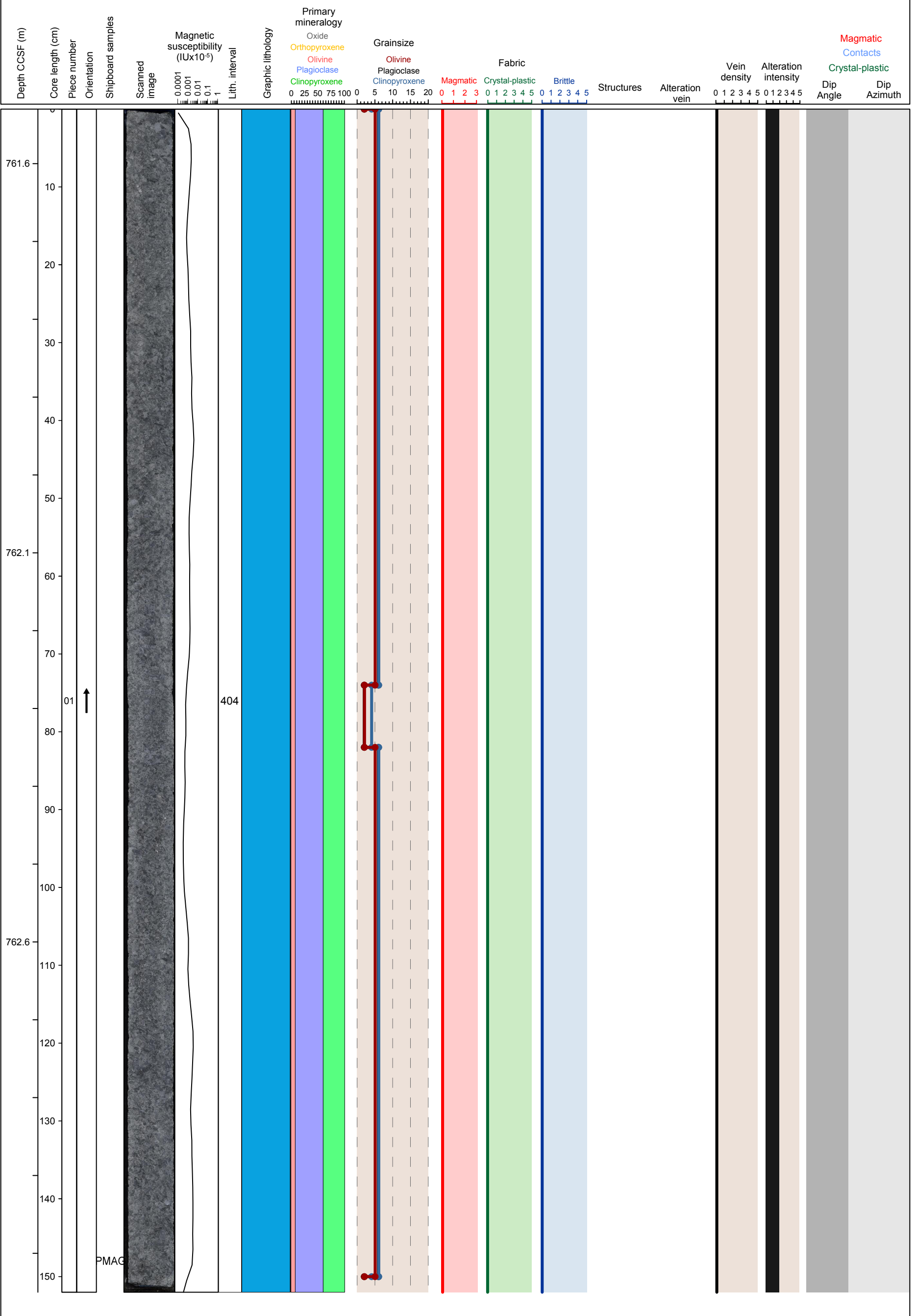


Hole 360-U1473A-87R Section 3, Top of Section: 761.53 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 404)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

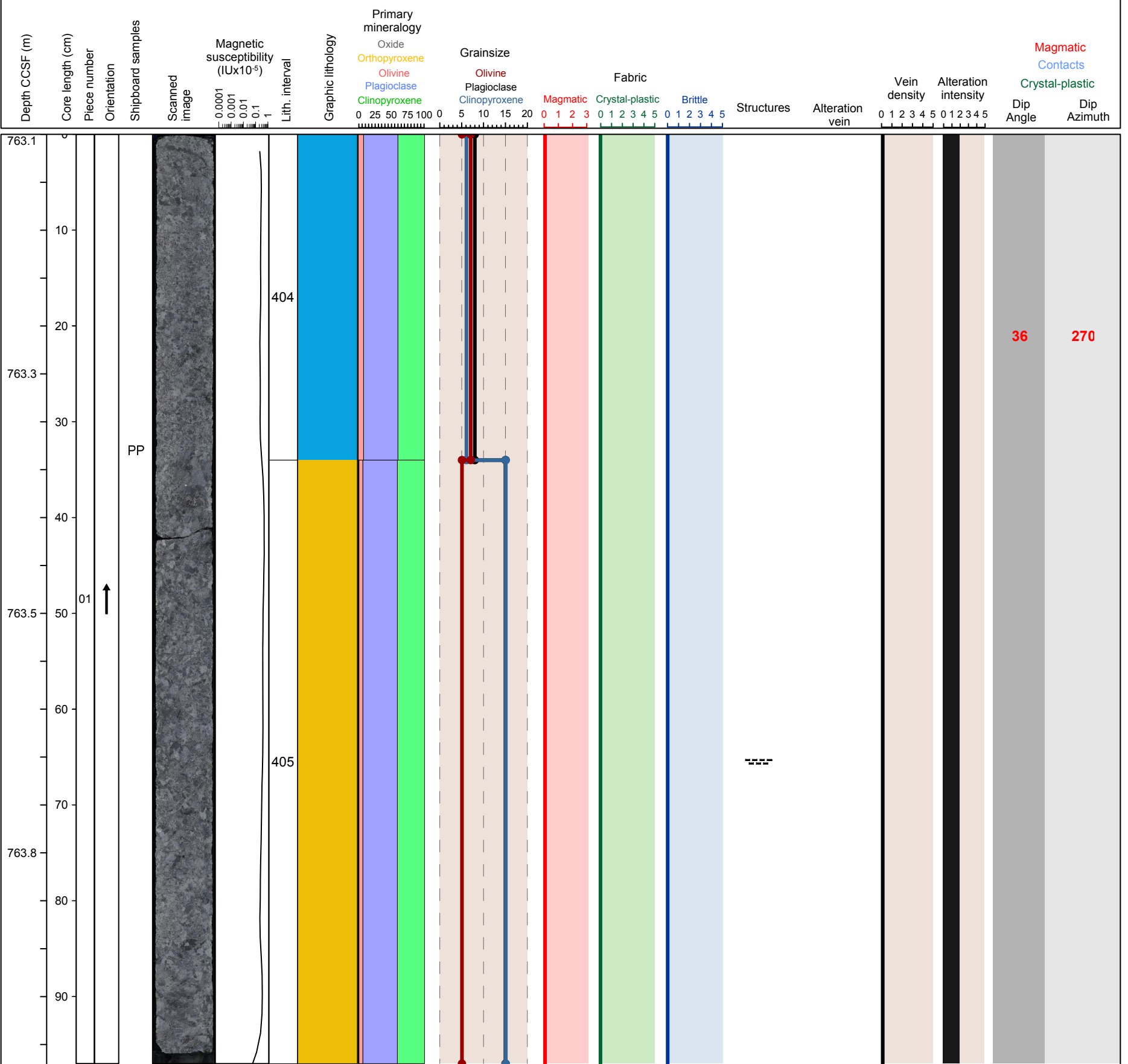


Hole 360-U1473A-87R Section 4, Top of Section: 763.05 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 404) and coarse grained granular disseminated oxide olivine gabbro (interval 405)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Inclined, irregular grain size layering of variable thickness.

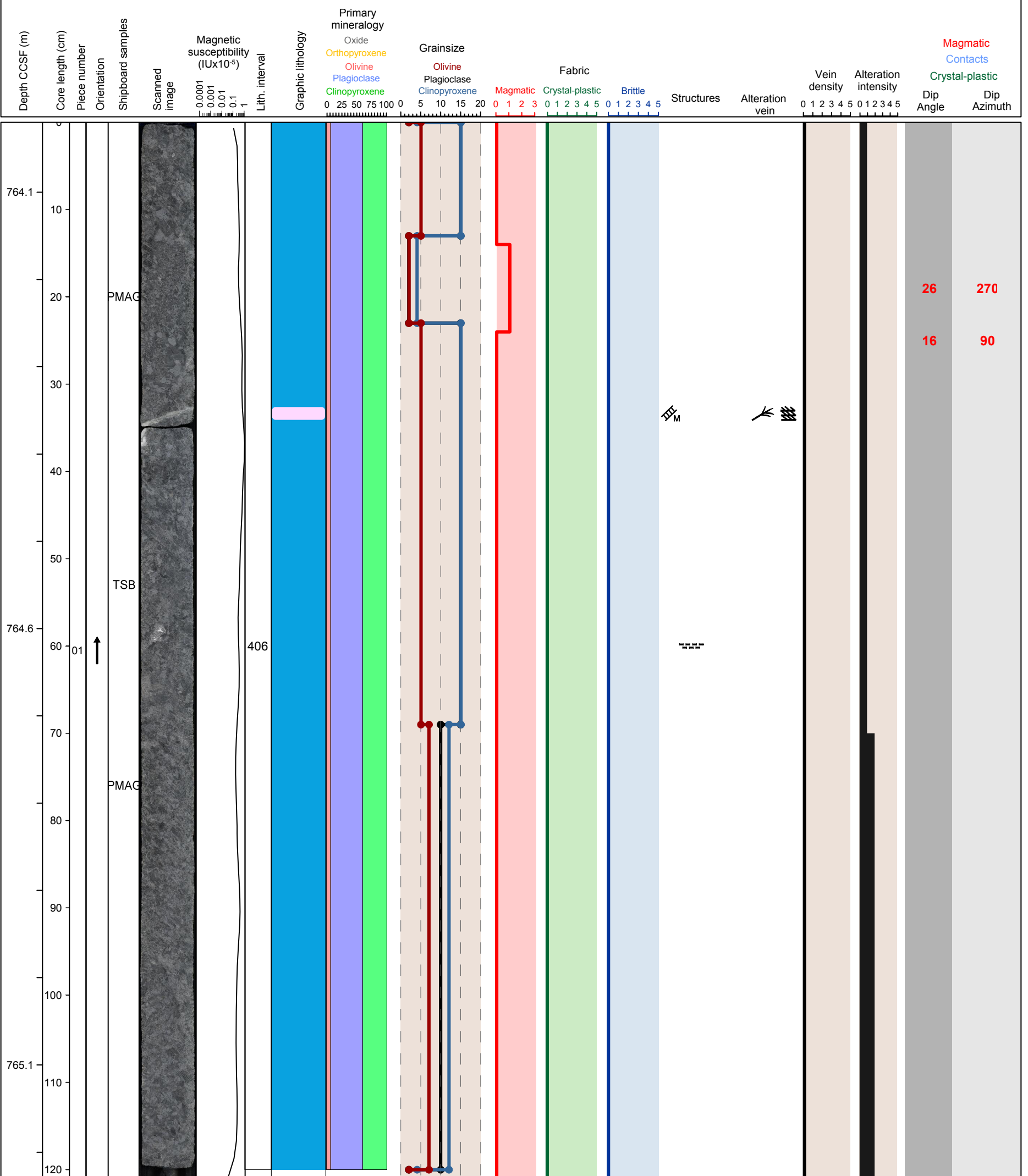


Hole 360-U1473A-87R Section 5, Top of Section: 764.02 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 406)

Metamorphic Petrology: Section is only slightly altered.

Structural Geology: Weak magmatic fabric and inclined, irregular grain size layering.

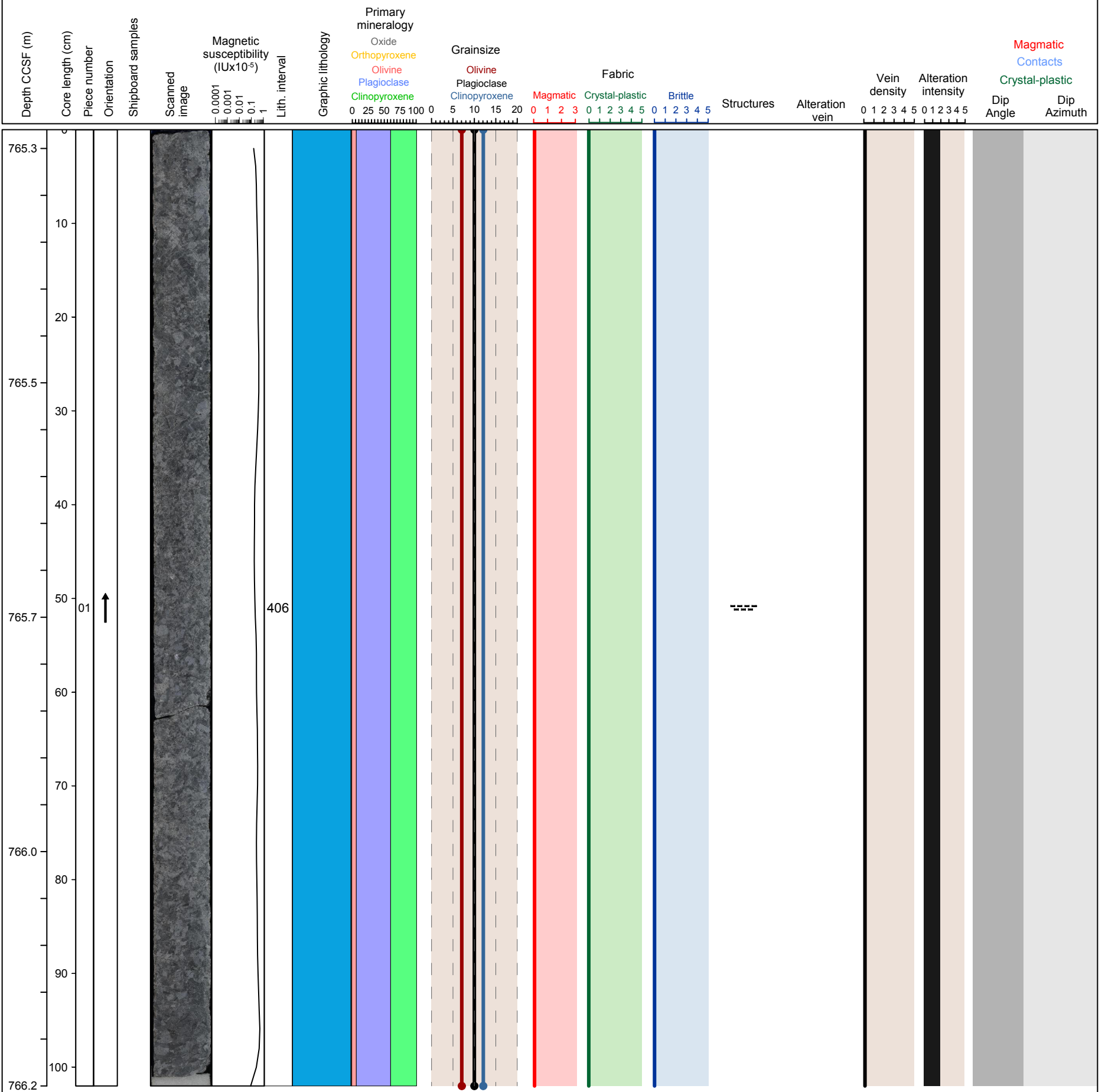


Hole 360-U1473A-87R Section 6, Top of Section: 765.23 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 406)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

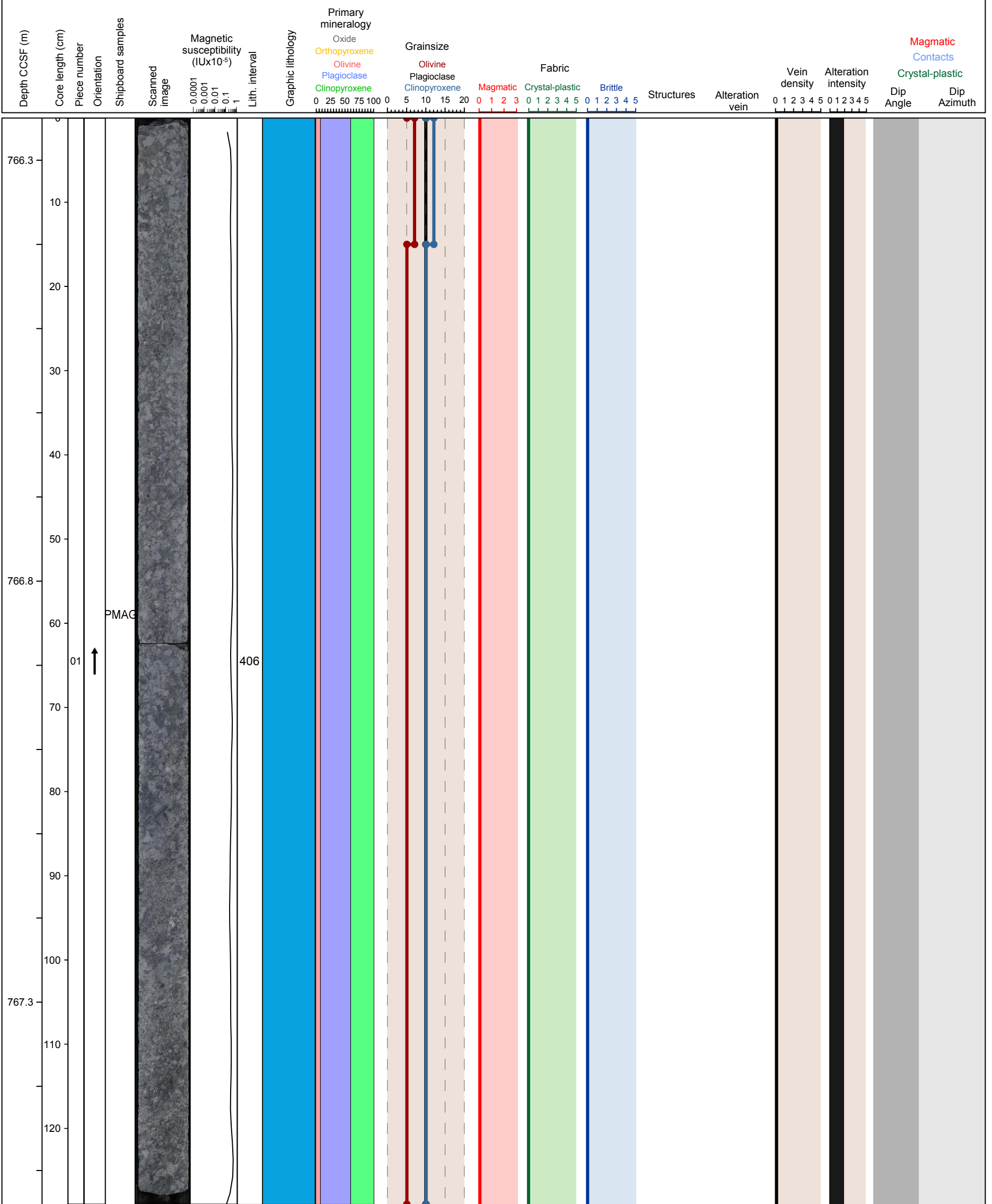


Hole 360-U1473A-87R Section 7, Top of Section: 766.25 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 406)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

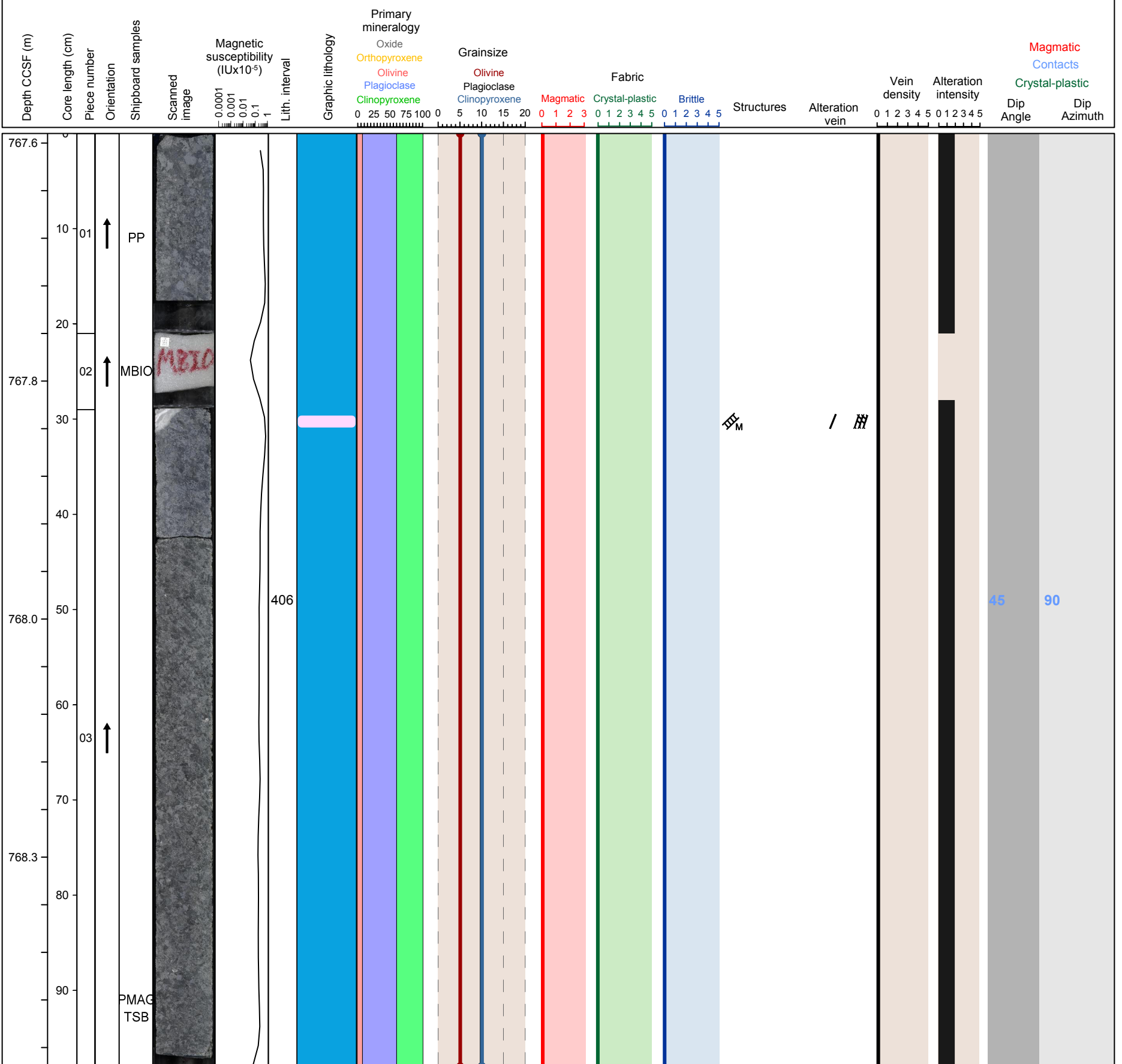


Hole 360-U1473A-87R Section 8, Top of Section: 767.54 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 406)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: One felsic vein.

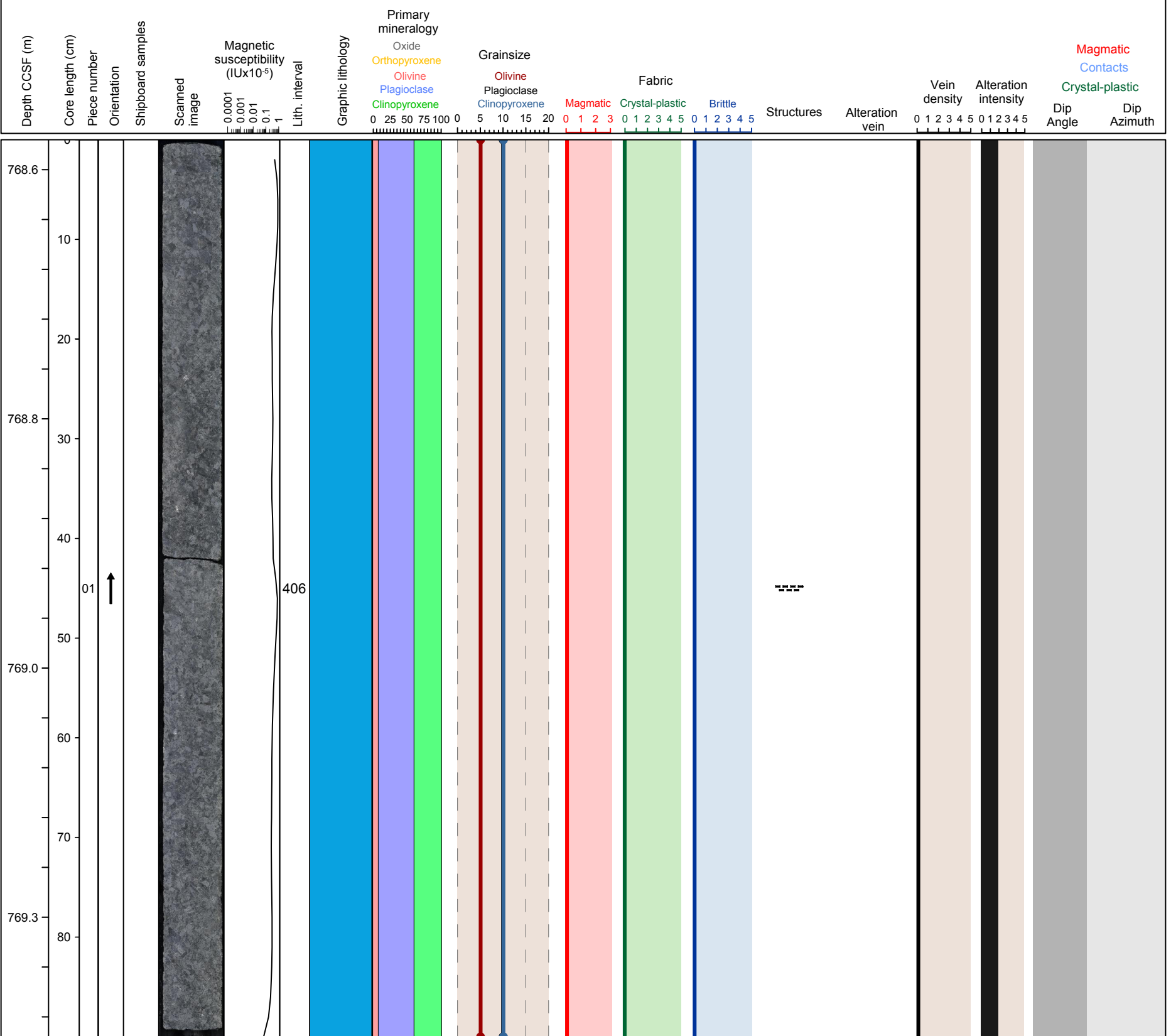


Hole 360-U1473A-87R Section 9, Top of Section: 768.52 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 406)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

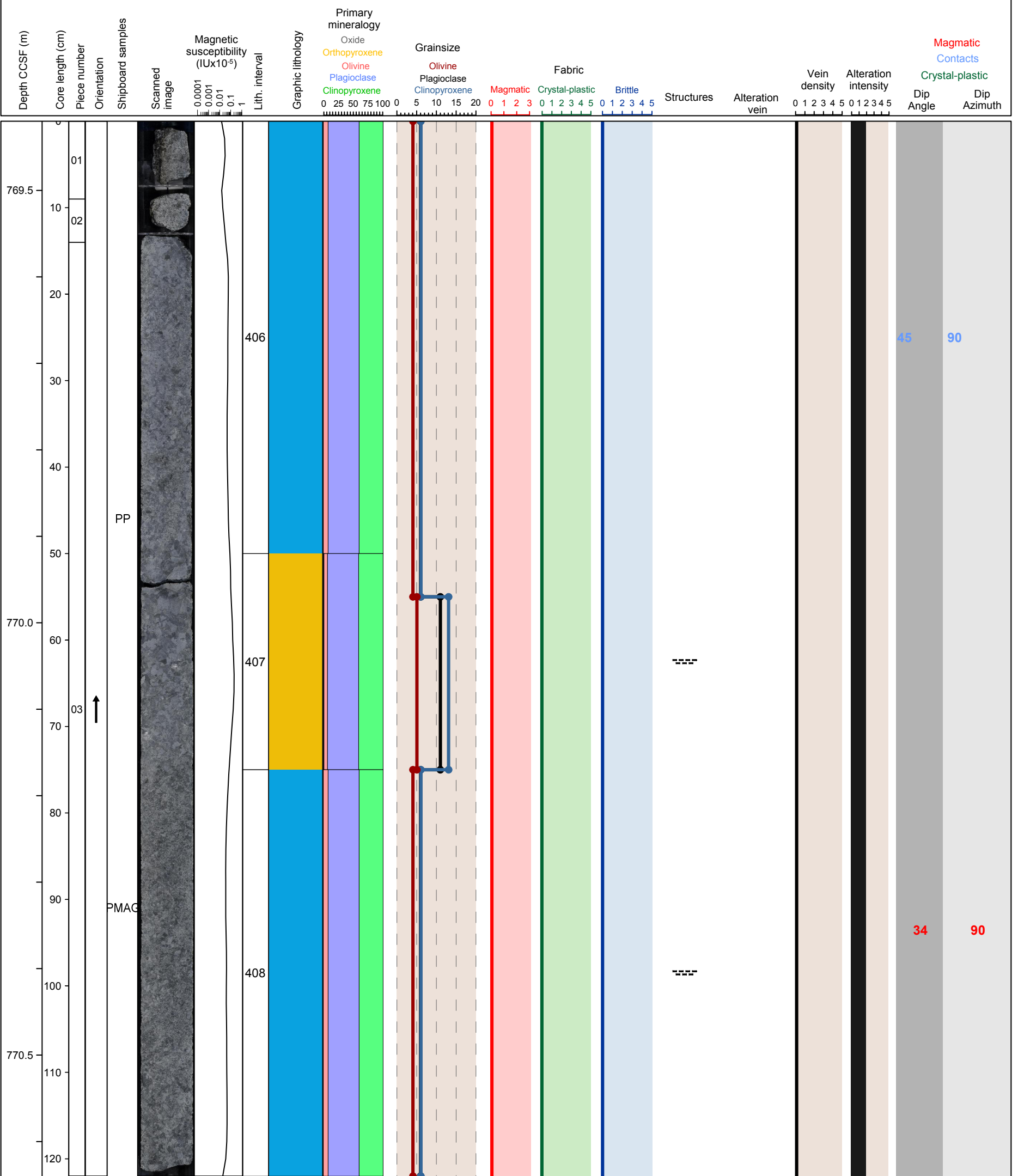


Hole 360-U1473A-88R Section 1, Top of Section: 769.42 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 406 and 408) and coarse grained disseminated oxide olivine gabbro (interval 407)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Inclined grain size layering with 10 cm thick grain size intervals.

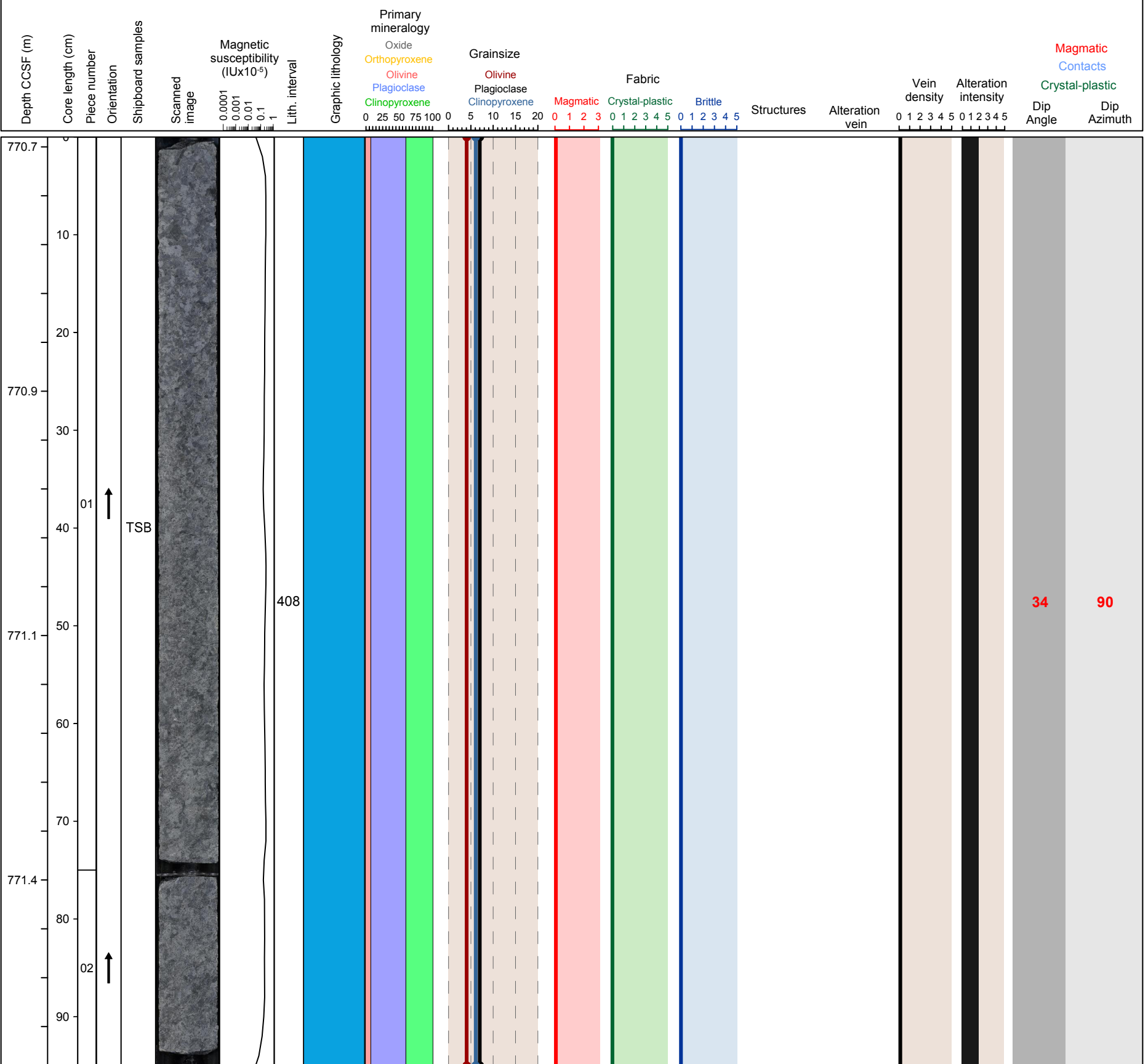


Hole 360-U1473A-88R Section 2, Top of Section: 770.64 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 408)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Inclined grain size layering.

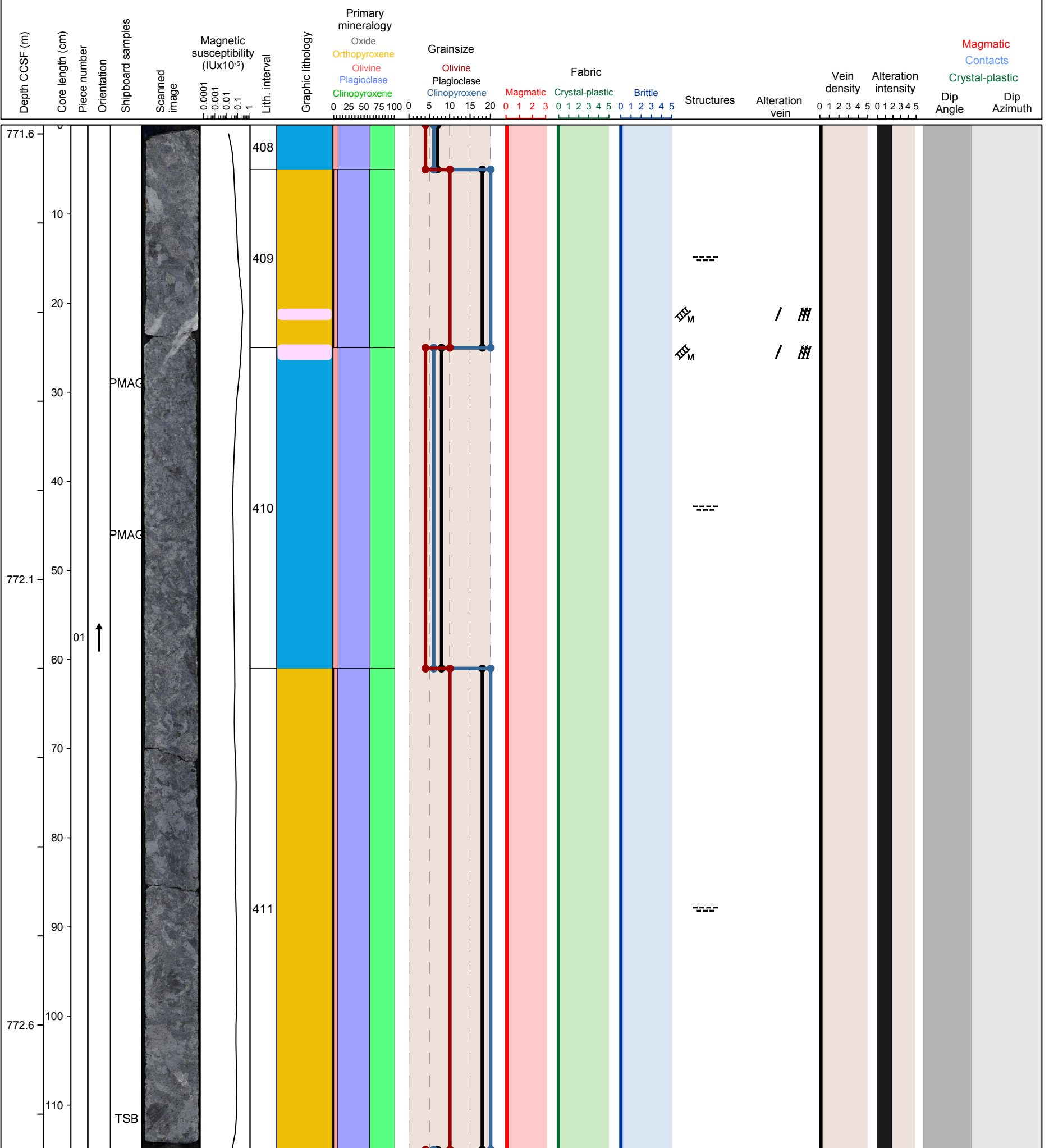


Hole 360-U1473A-88R Section 3, Top of Section: 771.59 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 408 and 410) and coarse grained granular disseminated oxide olivine gabbro (interval 409 and 411)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Sub-horizontal grain size layering. En echelon, tapered felsic vein pair with gabbroic xenoliths.

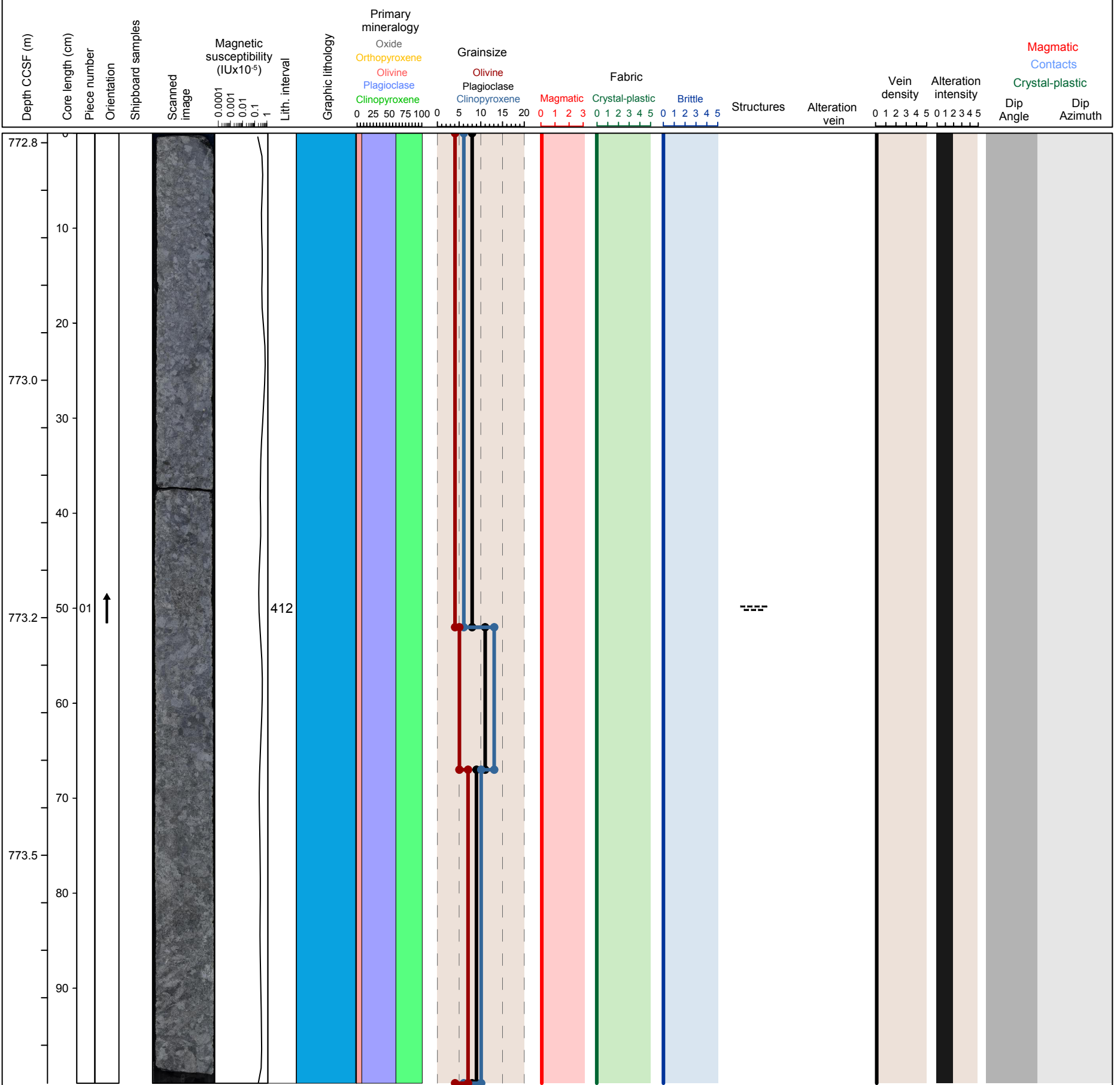


Hole 360-U1473A-88R Section 4, Top of Section: 772.74 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 412)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

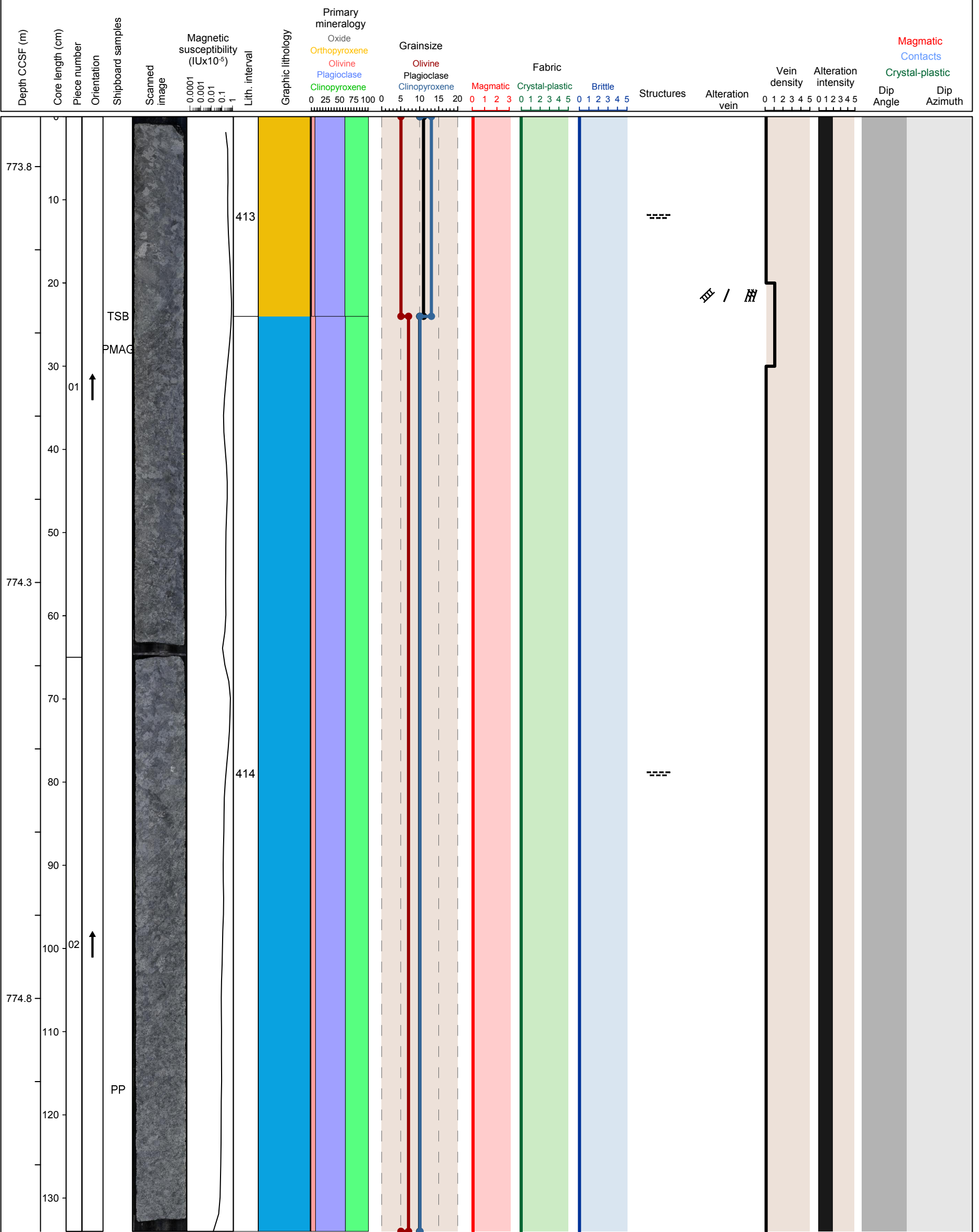


Hole 360-U1473A-88R Section 5, Top of Section: 773.74 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 413) and coarse grained subophitic olivine gabbro (interval 414)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Patchy grain size variations.

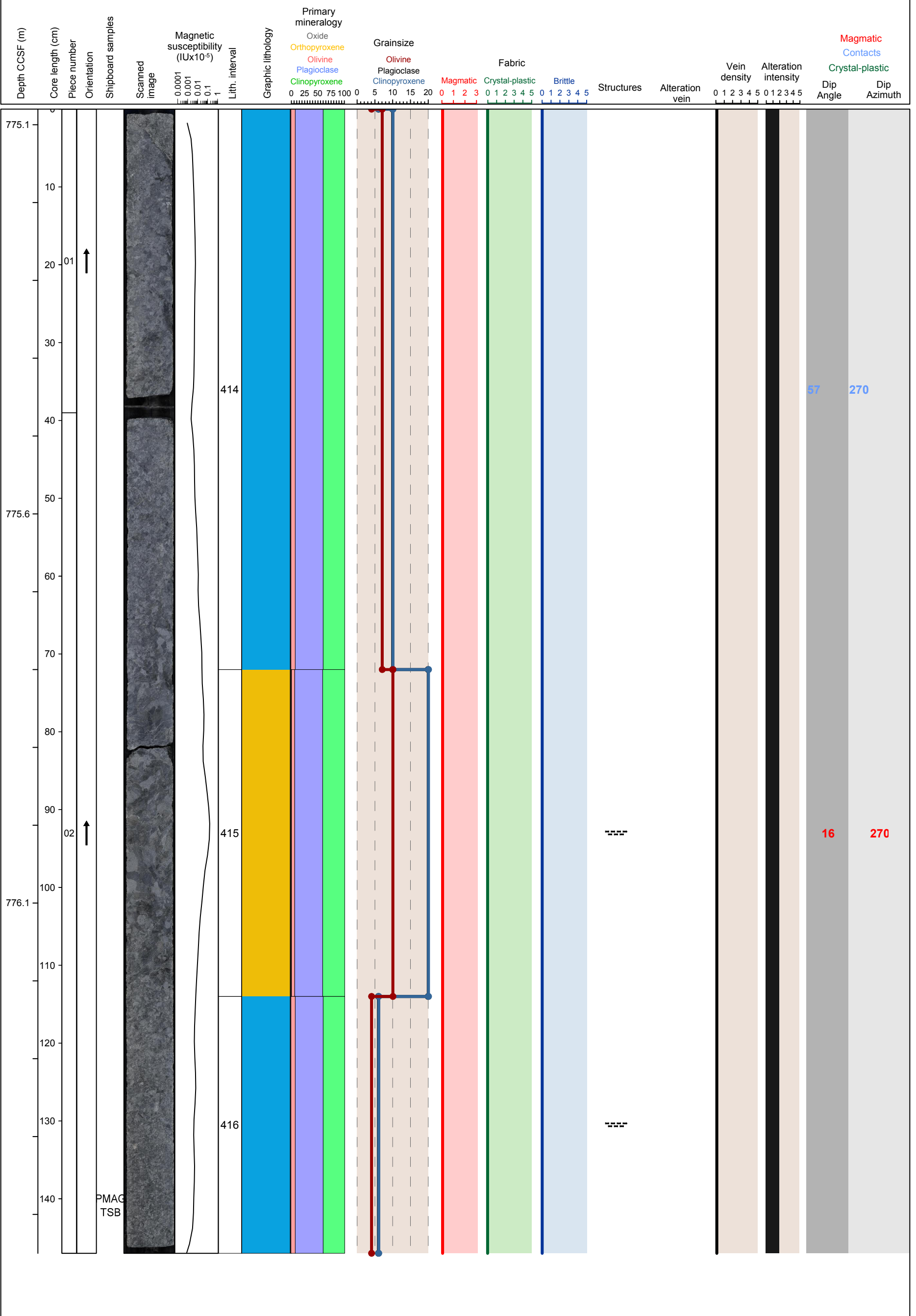


Hole 360-U1473A-88R Section 6, Top of Section: 775.08 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 414 and 416) and coarse grained granular disseminated oxide olivine gabbro (interval 415)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Sub-horiztonal patchy to regular grain size layering with 20 cm thick grain size intervals.

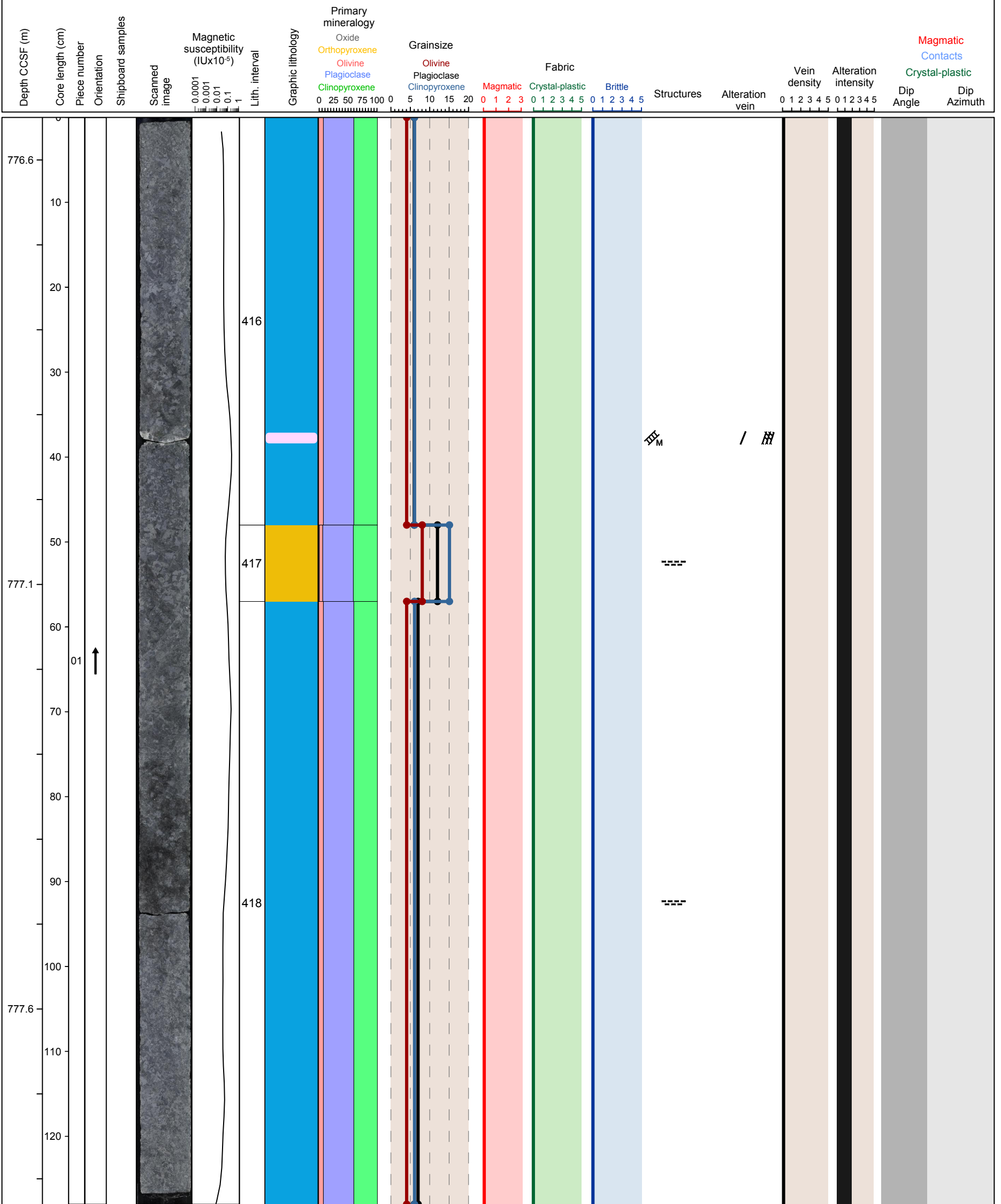


Hole 360-U1473A-88R Section 7, Top of Section: 776.55 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 416 and 418) and coarse grained granular disseminated oxide olivine gabbro (interval 417)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Felsic veins are partchy and sub-horizontal.

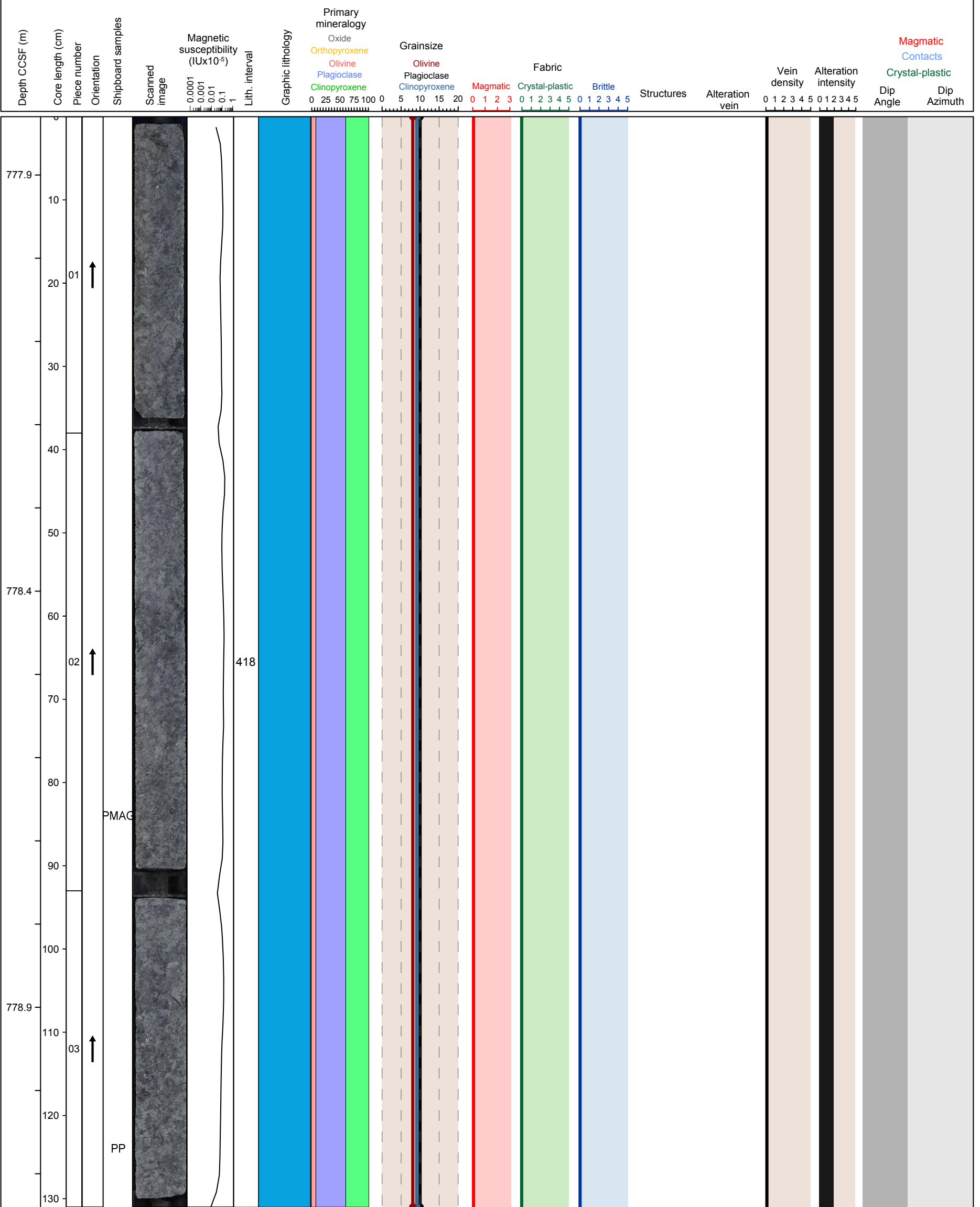


Hole 360-U1473A-88R Section 8, Top of Section: 777.83 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 418)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

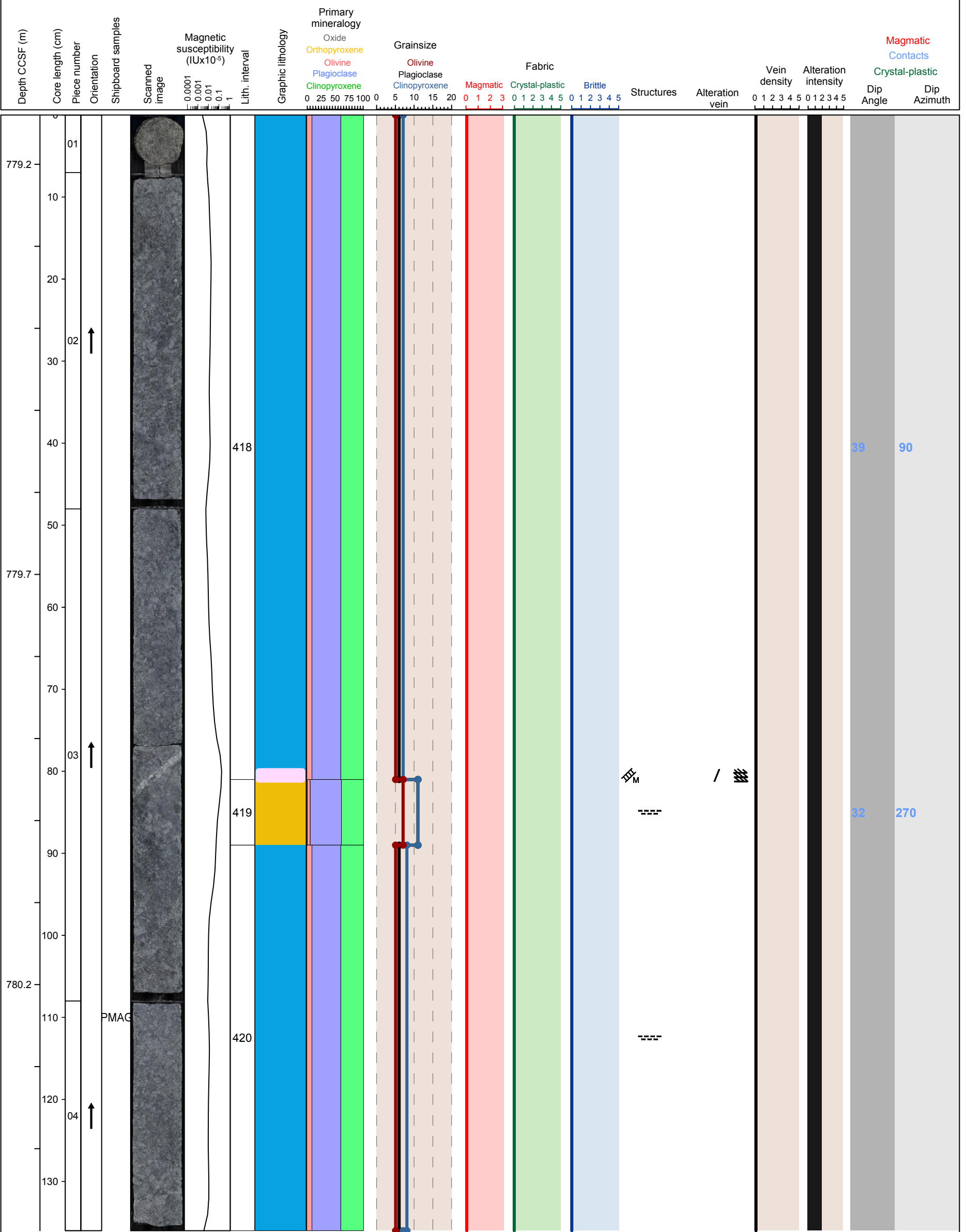


Hole 360-U1473A-89R Section 1, Top of Section: 779.14 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 418 and 420) and coarse grained granular disseminated oxide olivine gabbro (interval 419)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Isotropic.

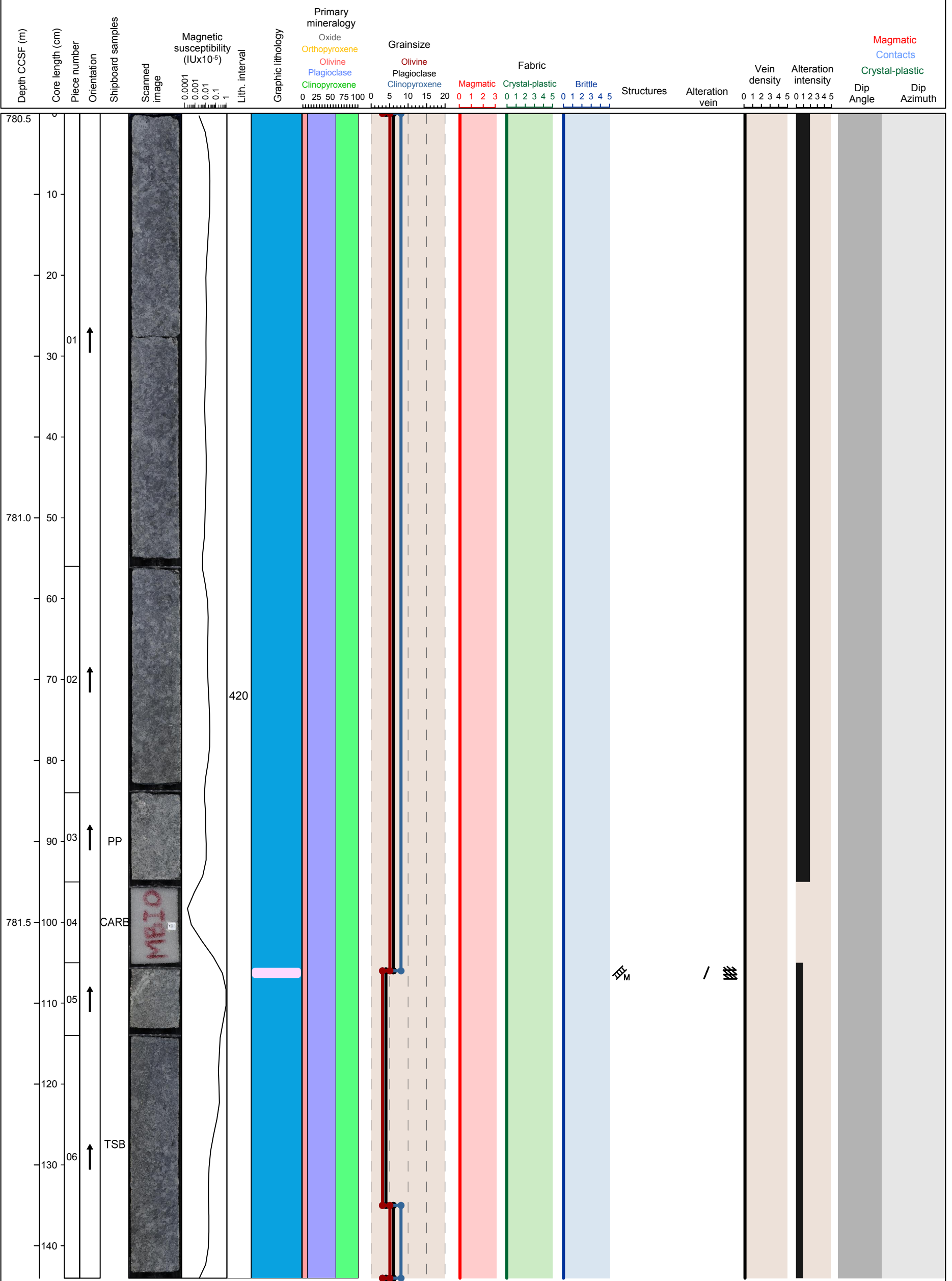


Hole 360-U1473A-89R Section 2, Top of Section: 780.5 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olvine gabbro (interval 420)

Metamorphic Petrology: Alteration intensity ranges from slight to moderate.

Structural Geology: One felsic vein. Incipient, leucocratic shear bands.

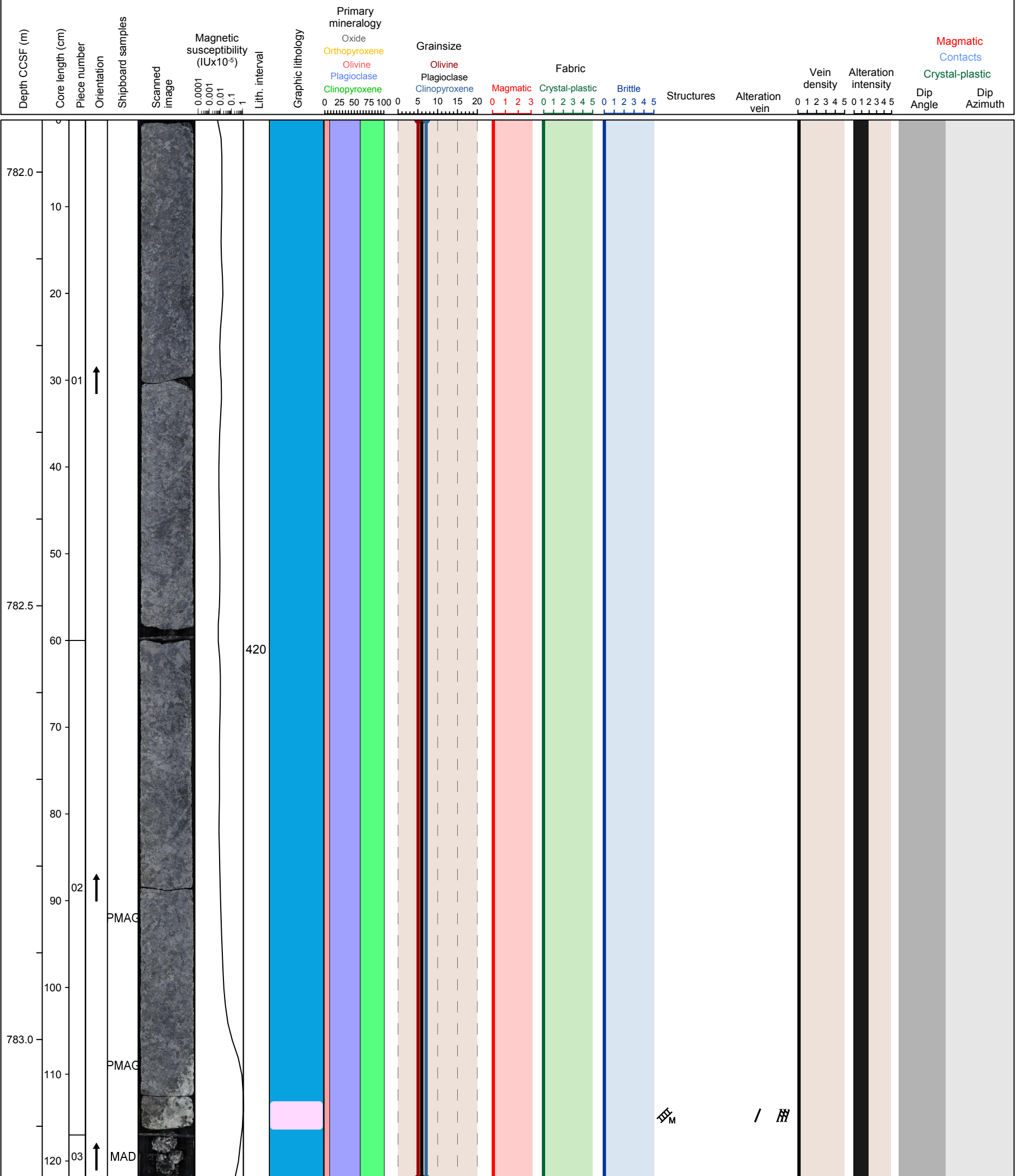


Hole 360-U1473A-89R Section 3, Top of Section: 781.94 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 420)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: 4 cm thick felsic vein.

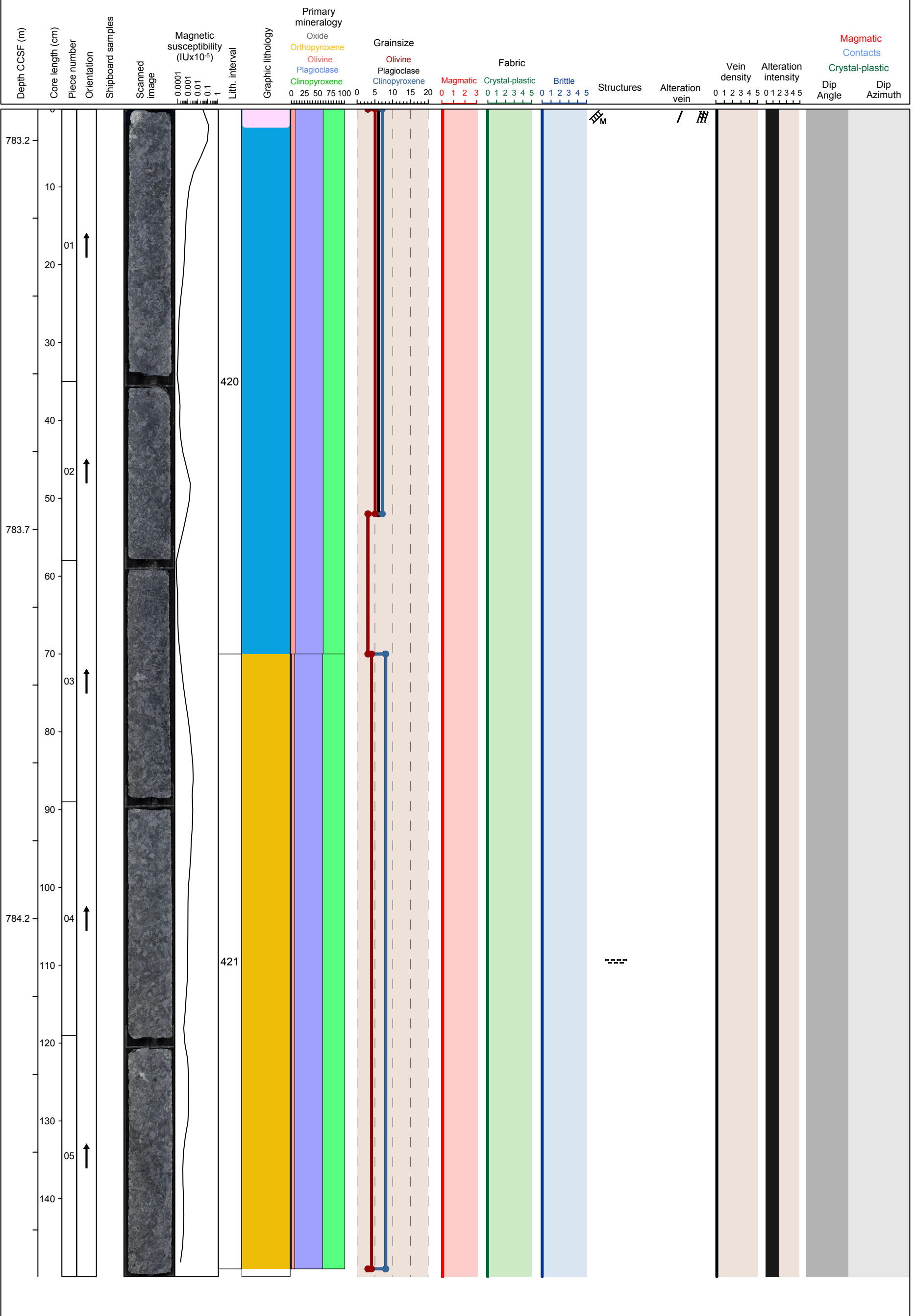


Hole 360-U1473A-89R Section 4, Top of Section: 783.16 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 420) and coarse grained granular disseminated oxide olivine gabbro (interval 421)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: One felsic vein.

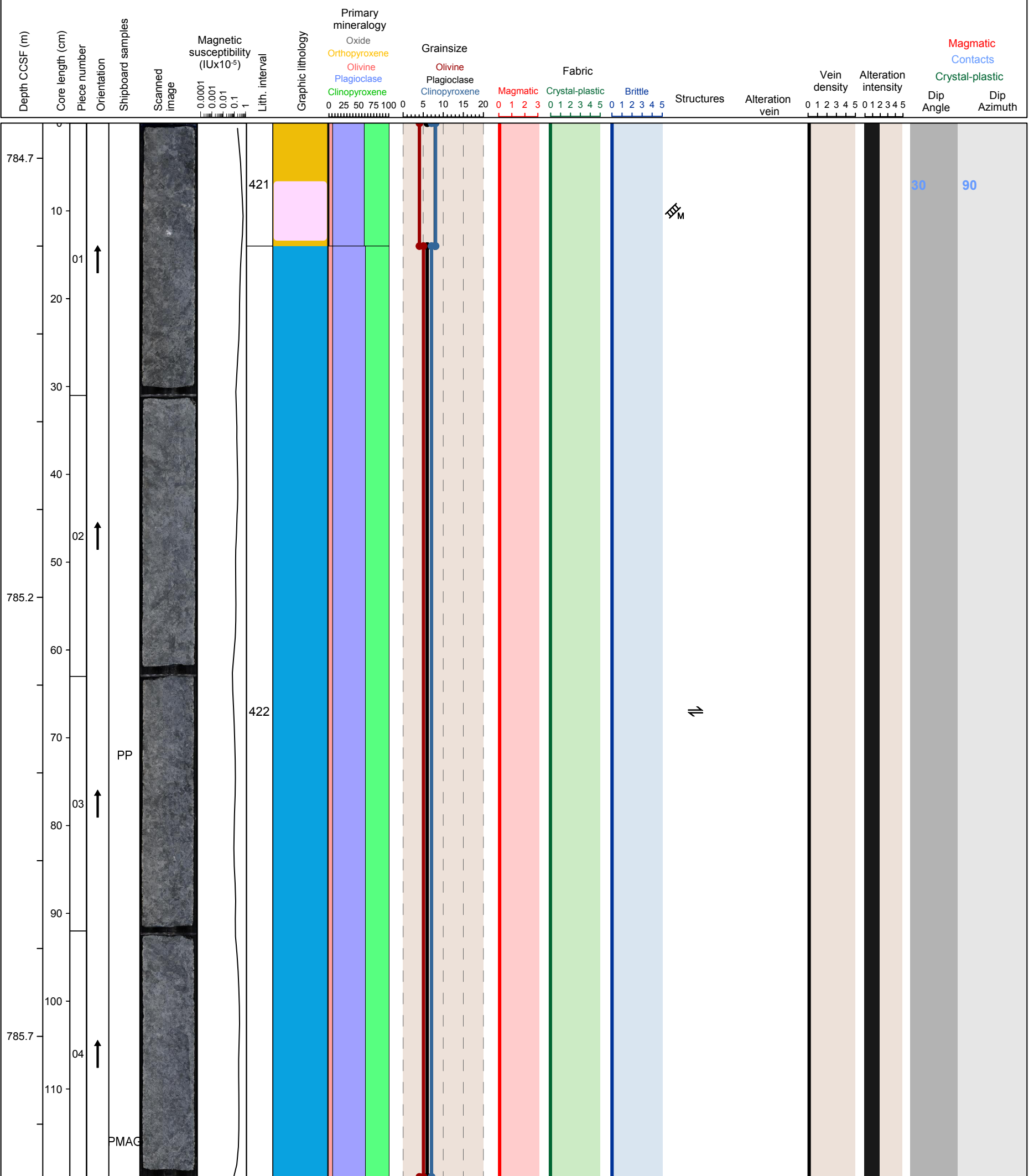


Hole 360-U1473A-89R Section 5, Top of Section: 784.66 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 421) and coarse grained subophitic olivine gabbro (interval 422)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Small magmatic breccia and shear band.

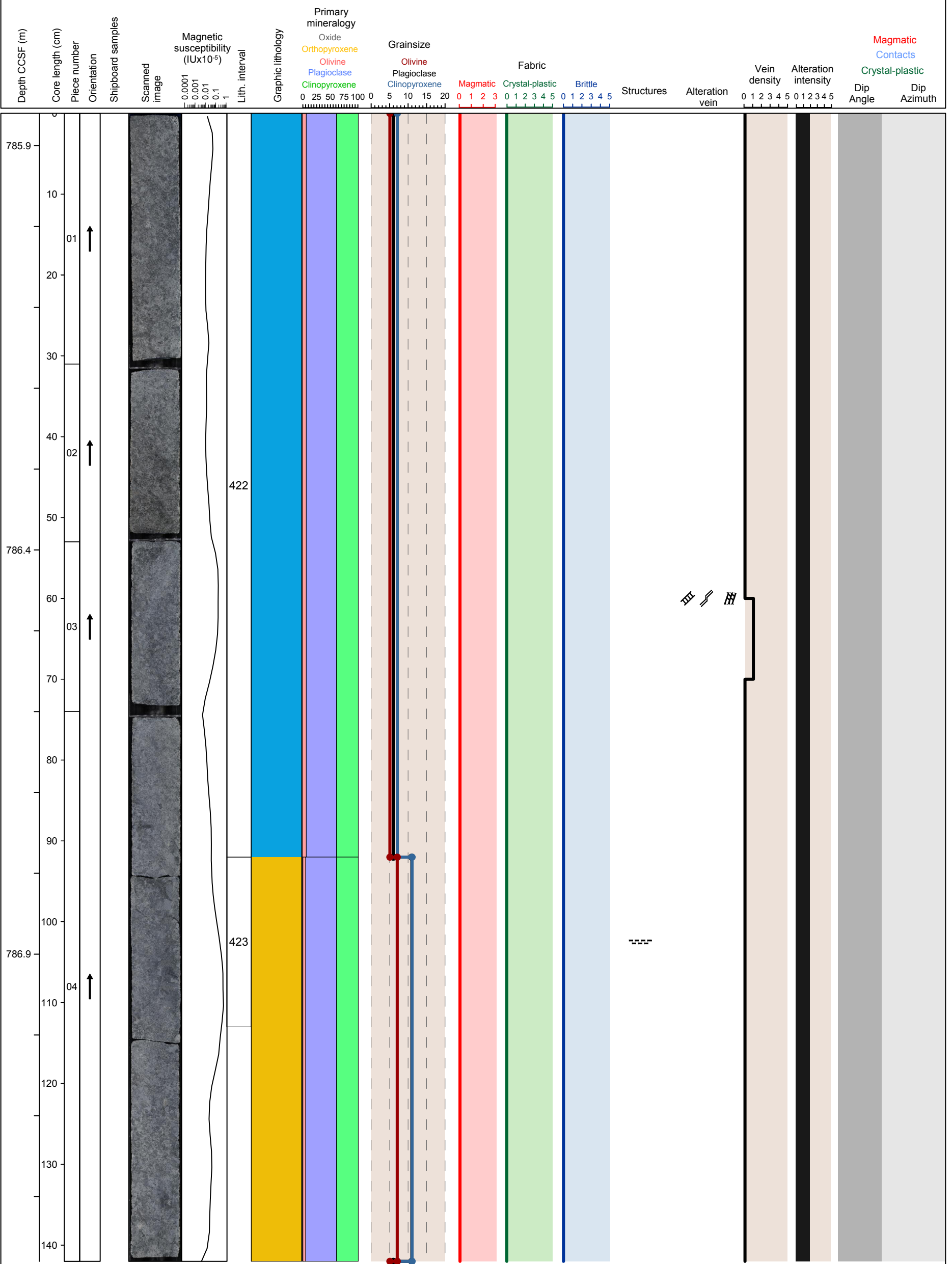


Hole 360-U1473A-89R Section 6, Top of Section: 785.86 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 422) and coarse grained granular disseminated oxide olivine gabbro (interval 423)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Irregular and patchy grain size layering. Irregular pyroxene-rich vein. Steeply dipping amphibole vein.

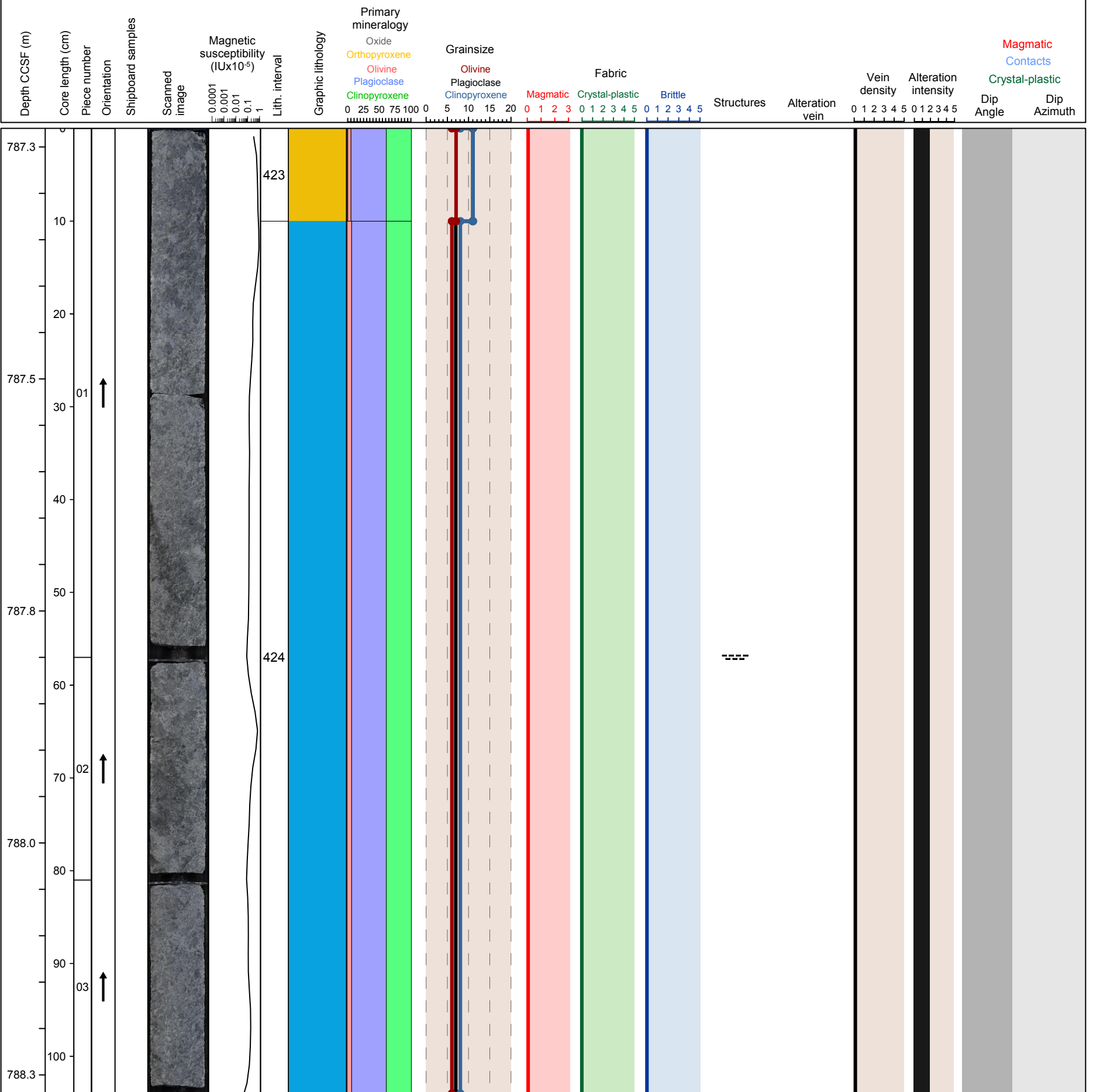


Hole 360-U1473A-89R Section 7, Top of Section: 787.28 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained granular disseminated oxide olivine gabbro (interval 423) and coarse grained subophitic olivine gabbro (interval 424)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Two leucocratic, mm-thick shear bands formed in patches between pyroxene crystals.



Hole 360-U1473A-89R Section 8, Top of Section: 788.32 m (CCSF-360-U1473-A-20160126)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 424)

Metamorphic Petrology: Alteration intensity is moderate.

Structural Geology: Weak to moderate magmatic fabric defined by elongated pyroxene and plagioclase. Incipient, leucocratic, mm-thick shear bands.

