

Bellevue borehole (BV-1)

Troctolite Unit: BV-TU1 and BV-TU2

Depth of BV1 borehole: 2949.50 m

Elevation: 980 m

Farm name and number: Bellevue (808 LR)

Coordinates: 23°55'34.669'S and 28°45'20.327'E

Depth in BV1: 2745.11 m – 2949.50 m

Depth rel. to UZ-MZ boundary: -11.69.31 – -1373.70 m

BV-TU1 (TU3)

Depth in BV1: 2945.50 –2809.17m

Depth in VSF2: 221.7- 88.20 m

Depth rel. UZ-MZ boundary: -1373.70 to -1575.80 m

ID: BV24

Depth BV1: 2944.95 m

Stratigraphy: BV-TU1a

Lithology: TROC?

Texture:

Overprinted by
alteration



ID: BV23

Depth BV1: 2924.27 m

Stratigraphy: BV-TU1a

Lithology: TROC

Texture:
Interstitial olivine



↓
DH



ID: BV22

Depth BV1: 2915.78 m

Stratigraphy: BV-TU1a

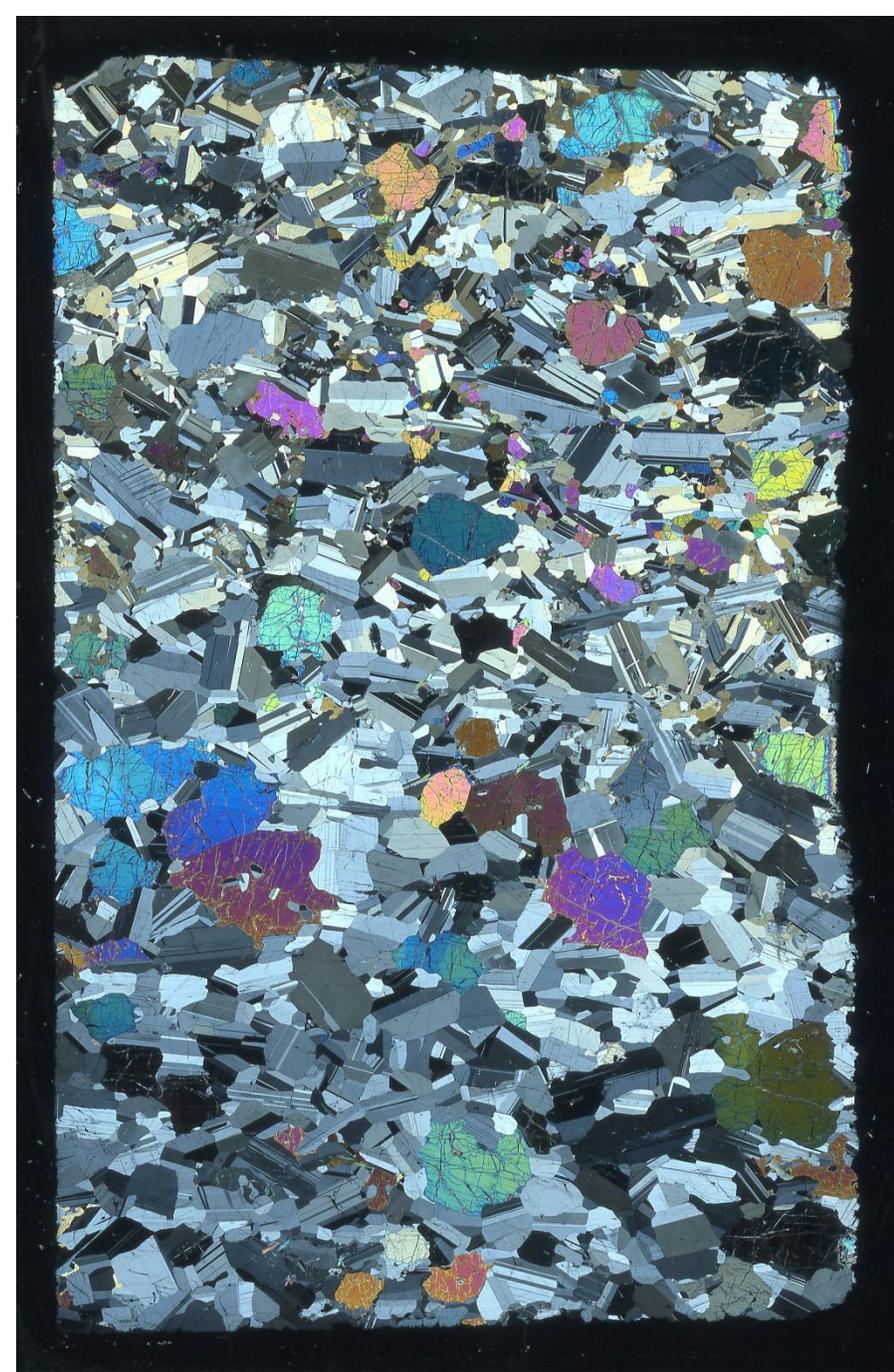
Lithology: motl. TROC

Texture:

Interstitial olivine, pyx
and olivine mottles



↓
DH



ID: BV21

Depth BV1: 2900.02 m

Stratigraphy: BV-TU1a

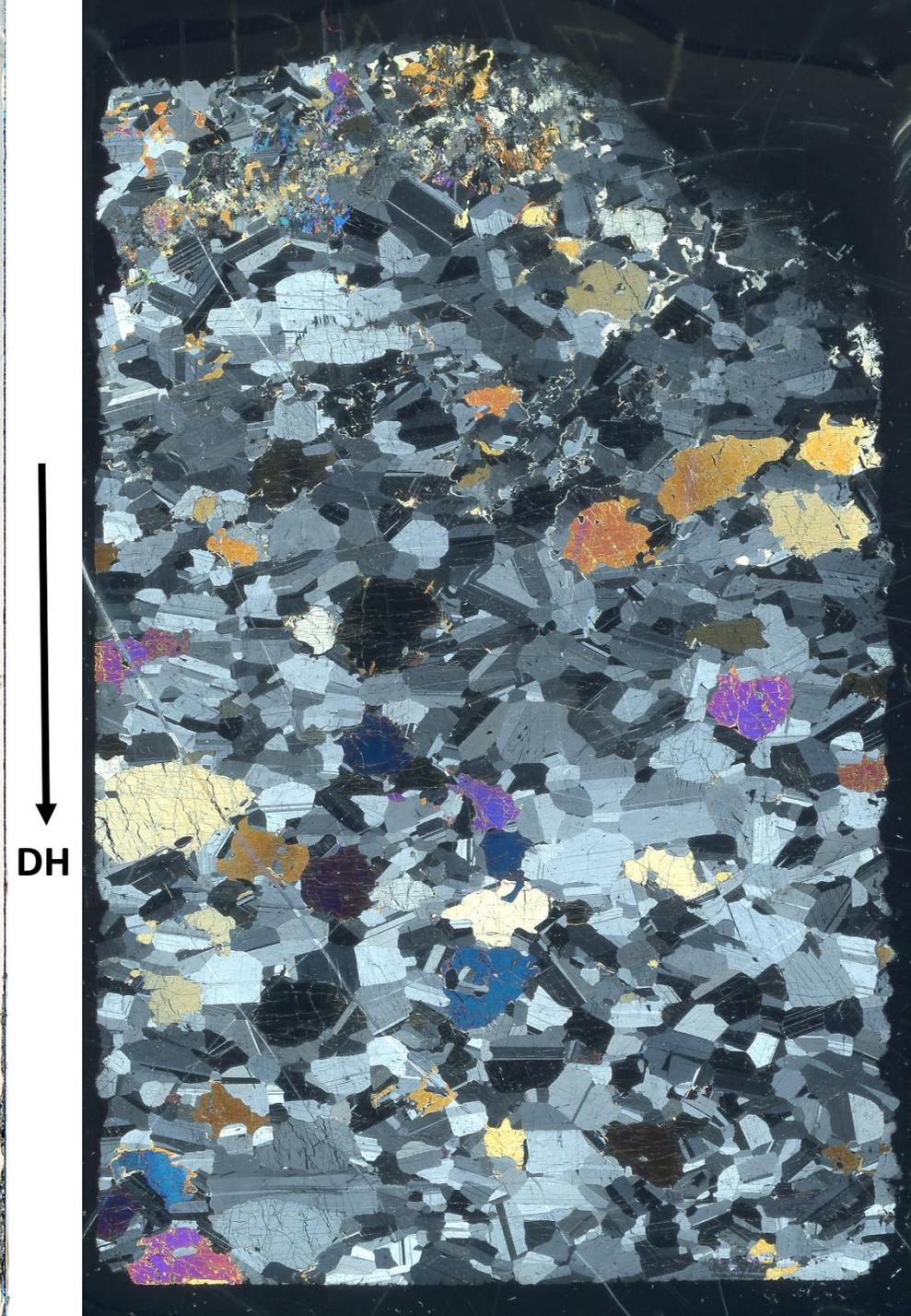
Lithology: TROC

Texture:

Interstitial olivine, pyx
mottles

$\delta^{18}\text{O}$: 7.2 (2901 m BV1;
Harris et al., 2005)

$^{87}\text{Sr}/^{86}\text{Sr}$: no analysis



ID: BV19

Depth BV1: 2888.01 m

Stratigraphy: BV-TU1b

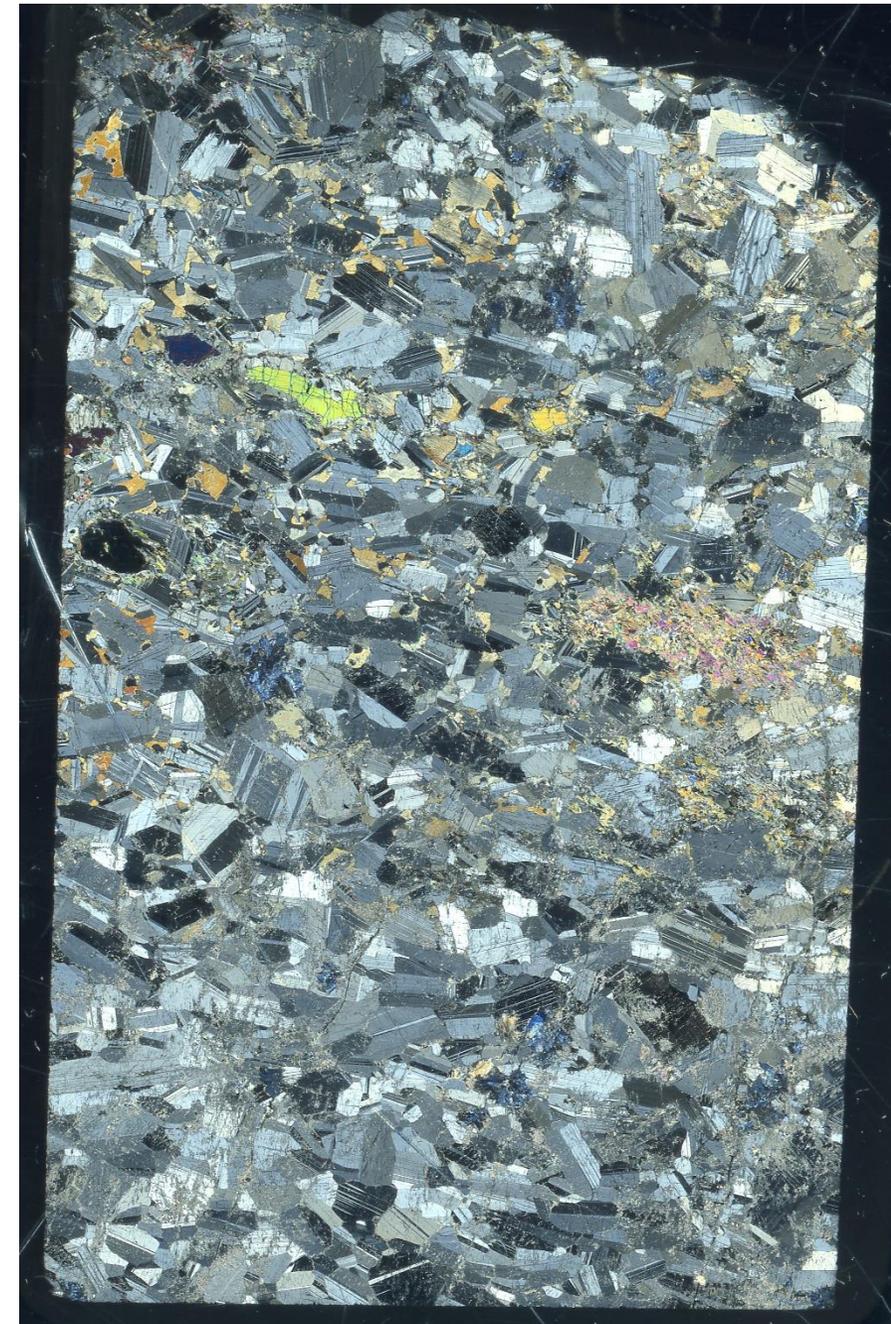
Lithology: motl. TROC

Texture:

Interstitial olivine, pyx
mottles



DH



ID: BV18

Depth BV1: 2887.70 m

Stratigraphy: BV-TU1b

Lithology: Anorthosite

Texture:
Adcumulate with small
mottles



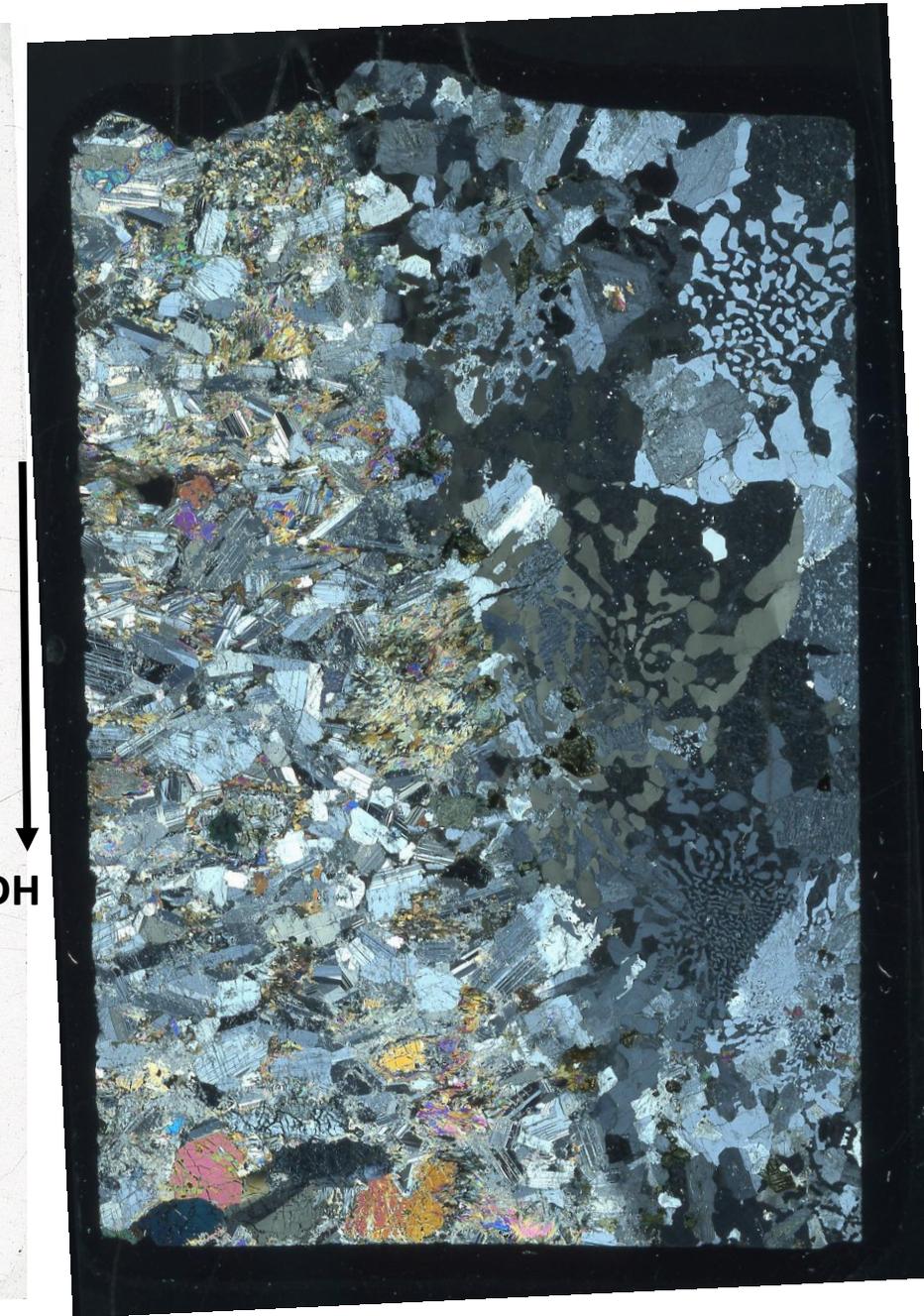
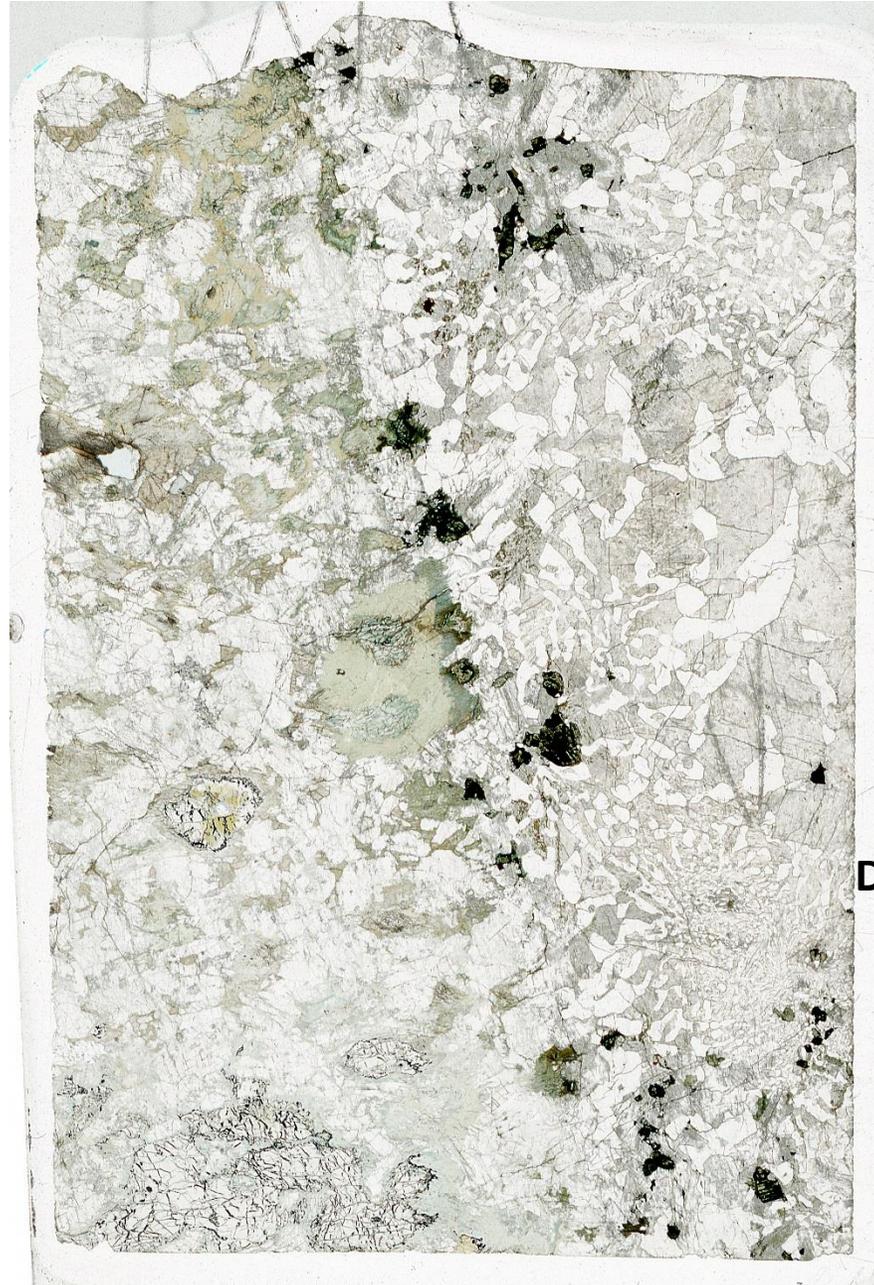
ID: BV17

Depth BV1: 2877.77 m

Stratigraphy: BV-TU1c

Lithology: TROC-granite
contact

Texture:
Reaction, myrmikitic



ID: BV14

Depth BV1: 2861.30 m

Stratigraphy: BV-TU1c

Lithology: TROC with
norite / opx lenses/ pods

Texture:

Opx phenocrysts=
mottles



↓
DH



ID: BV13

Depth BV1: 2850.38 m

Stratigraphy: BV-TU1d

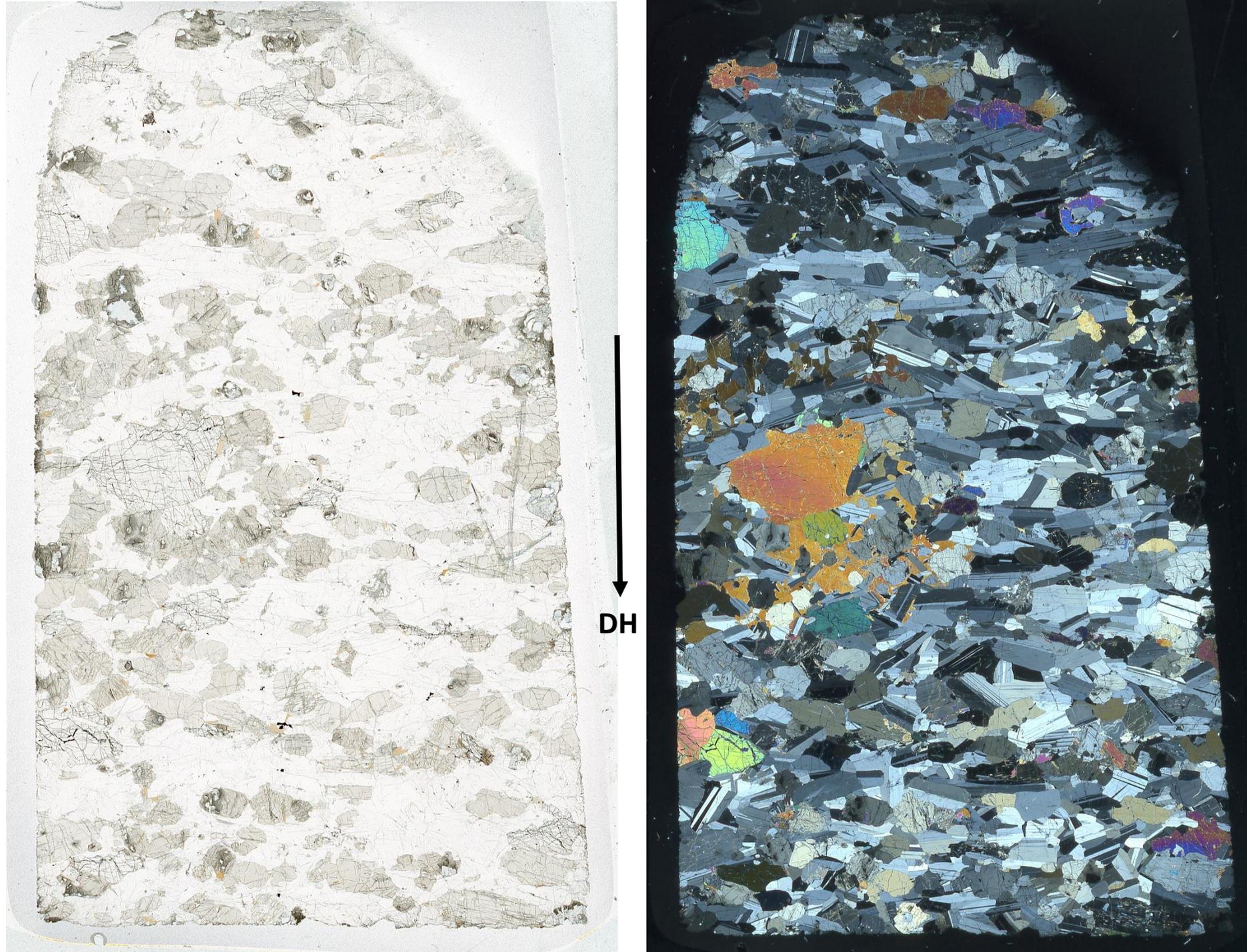
Lithology: TROC

Texture:

Interstitial olivine, pyx
phenocryst, mottles

$\delta^{18}\text{O}$: 6.8 (2845m BV1;
Harris et al., 2005)

$^{87}\text{Sr}/^{86}\text{Sr}$: no analysis



ID: BV12

Depth BV1: 2840.06 m

Stratigraphy: BV-TU1d

Lithology: motl. TROC or
OLGN

Texture:
Interstitial olivine, pyx
rims around olivine



DH



ID: BV_2829.35

Depth BV1: 2829.35 m

Stratigraphy: BV-TU1d

Lithology: TROC or
OLGN

Texture:
Interstitial olivine



ID: BV10

Depth BV1: 2815.63 m

Stratigraphy: BV-TU1d

Lithology: TROC or
OLGN

Texture:

Interstitial olivine, pyx
phenocrysts /mottles
with olivine, pyx and
plag inclusions



↓
DH

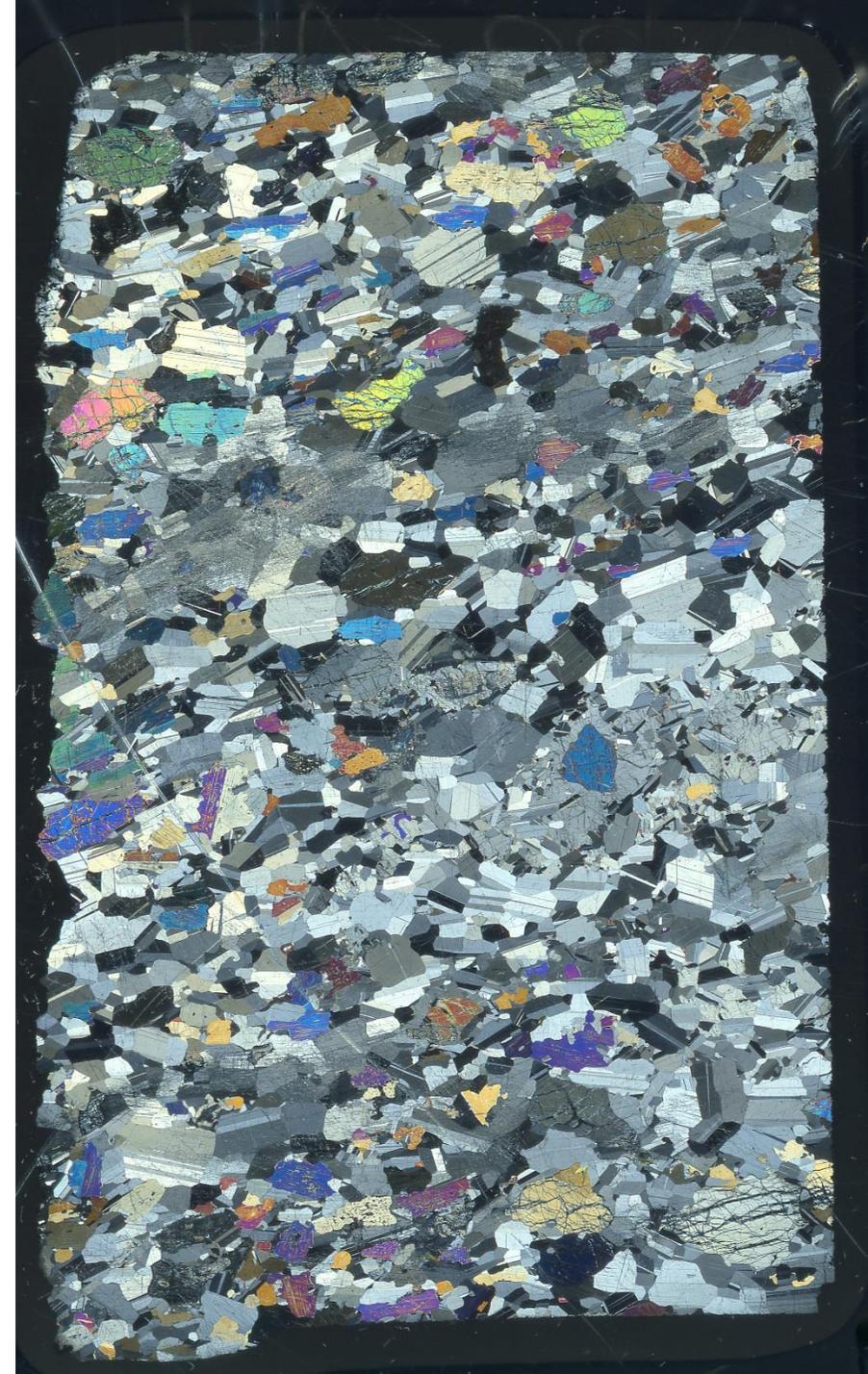
ID: BV09

Depth BV1: 2810.91 m

Stratigraphy: BV-TU1d

Lithology: TROC or
OLGN

Texture:
Interstitial olivine, pyx
rims around olv



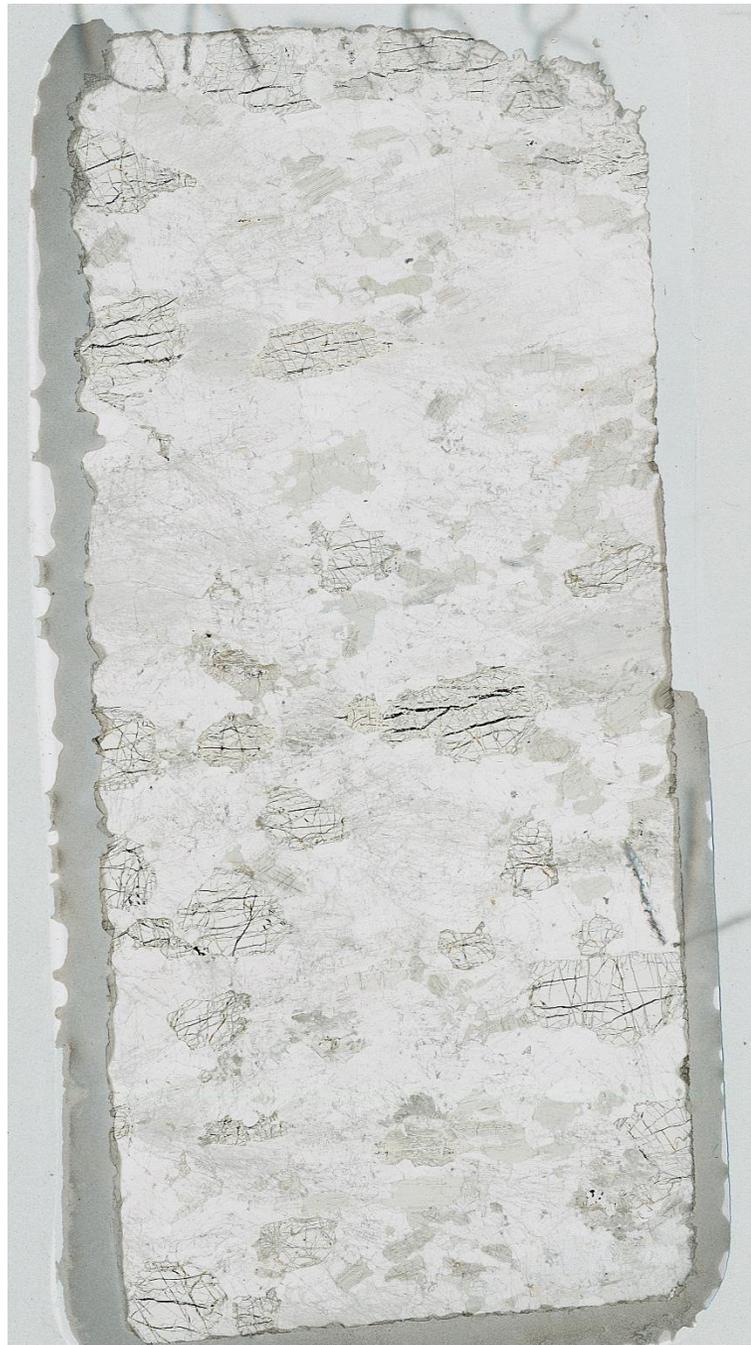
ID: BV08

Depth BV1: 2810.21 m

Stratigraphy: BV-TU1d

Lithology: TROC or
OLGN

Texture:
Interstitial olivine



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DH



ID: BV07C

Depth BV1: 2809.21 m

Stratigraphy: BV-TU1d

Lithology: motl. TROC

Texture:

Interstitial olivine, pyx
mottles and rims



ID: BV07B

Depth BV1: 2809.13 m

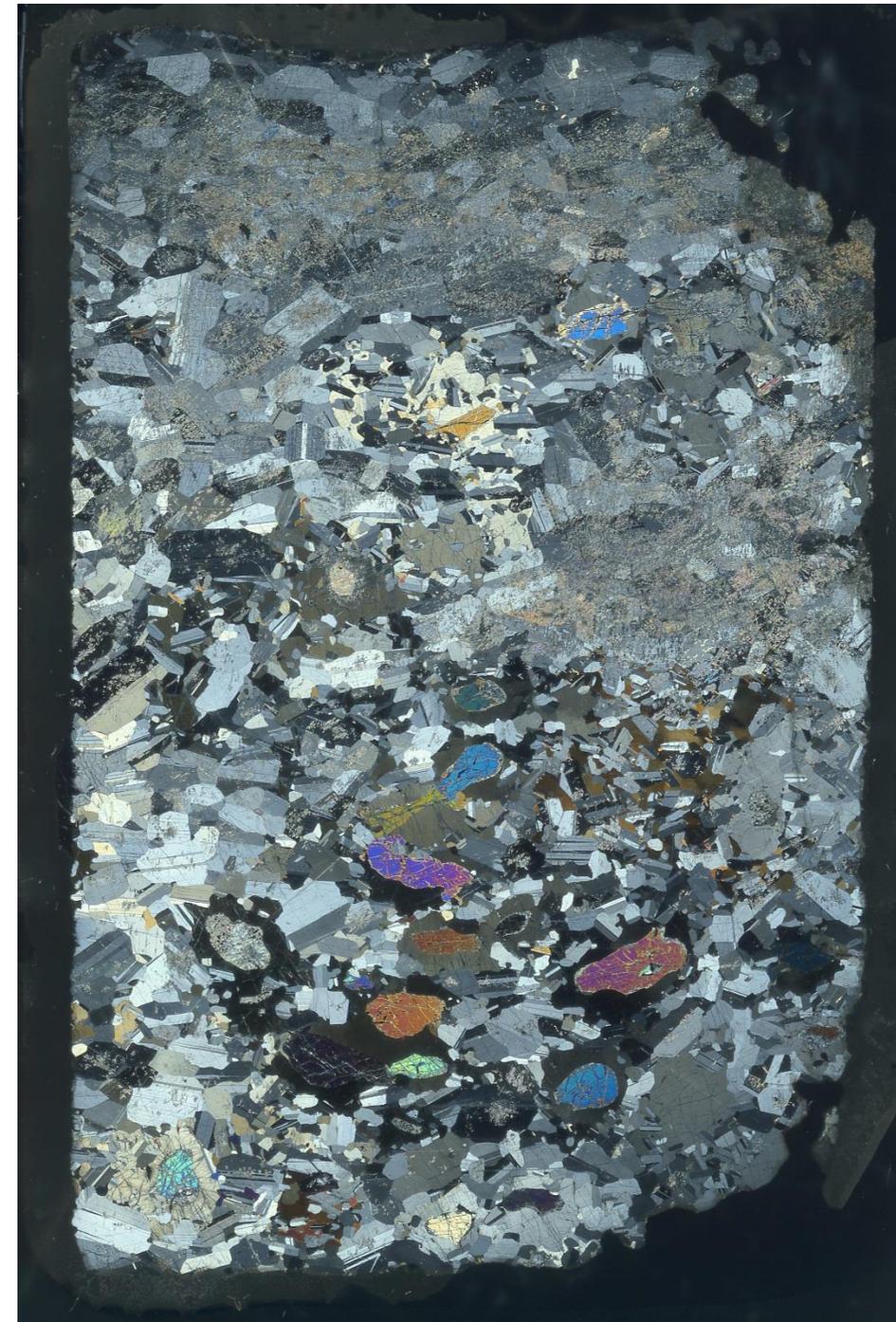
Stratigraphy: BV-TU1d

Lithology: olN

Texture:
Olivine in pyx mottles



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DH



BV-TU2 (TU4)

Depth in BV1: 2809.17 – 2745.11 m

Depth in VSF2: 88.20-0 (SOH) m

Depth rel. UZ-MZ boundary: -1233.37 to -1169.31m

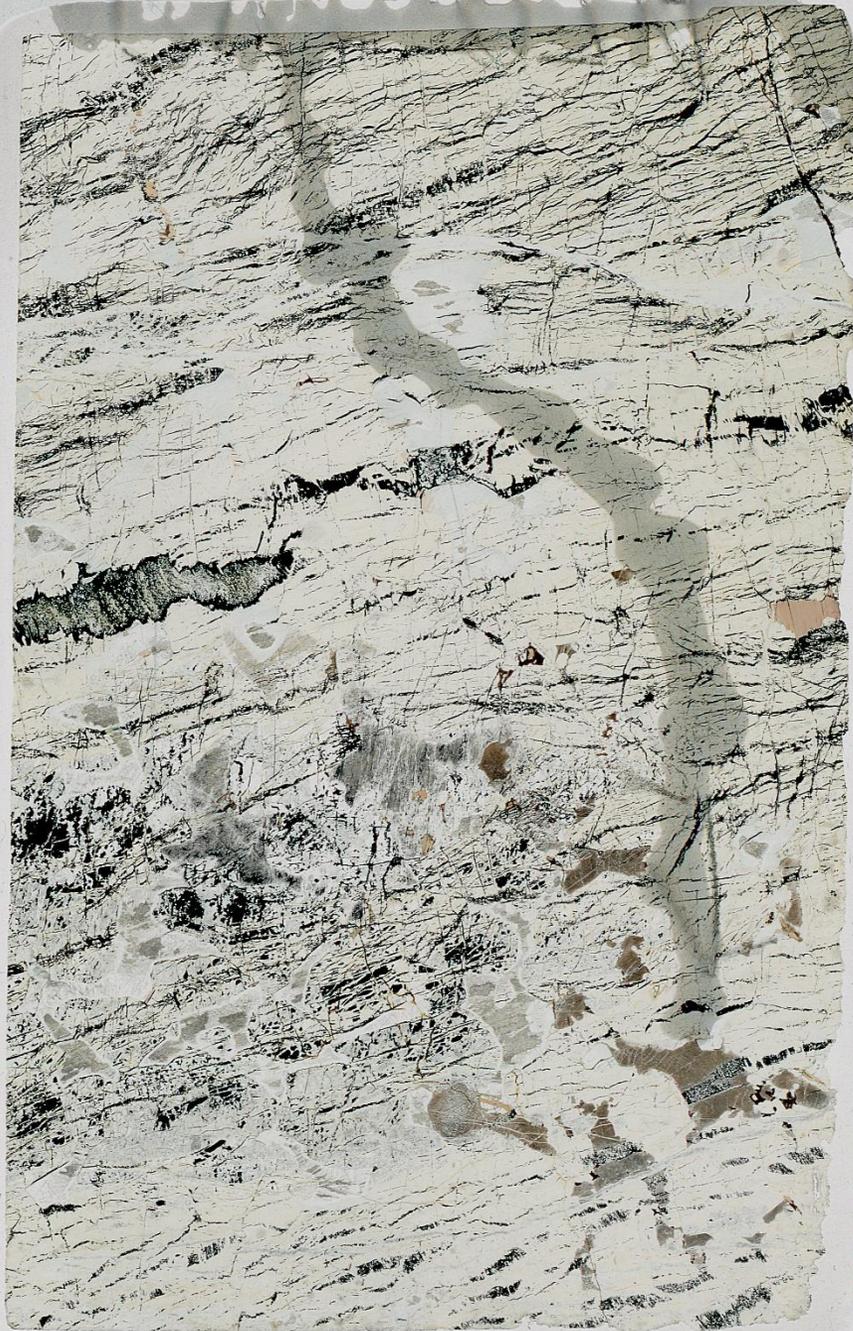
ID: BV07A

Depth BV1: 2809.04 m

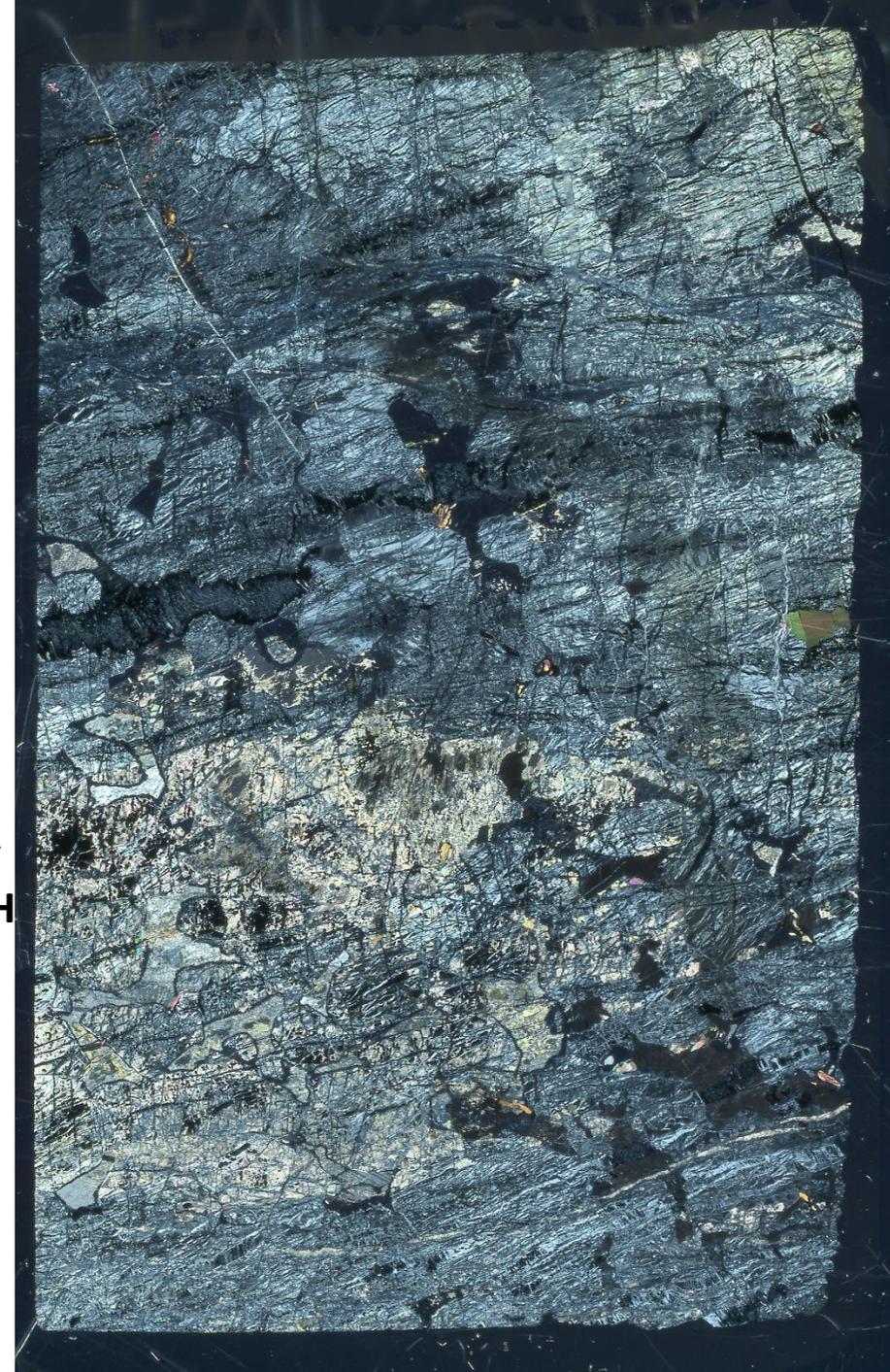
Stratigraphy: BV-TU2a

Lithology: Serpentinite
(peridotite)

Texture:
Overprinted by
alteration



↓
DH



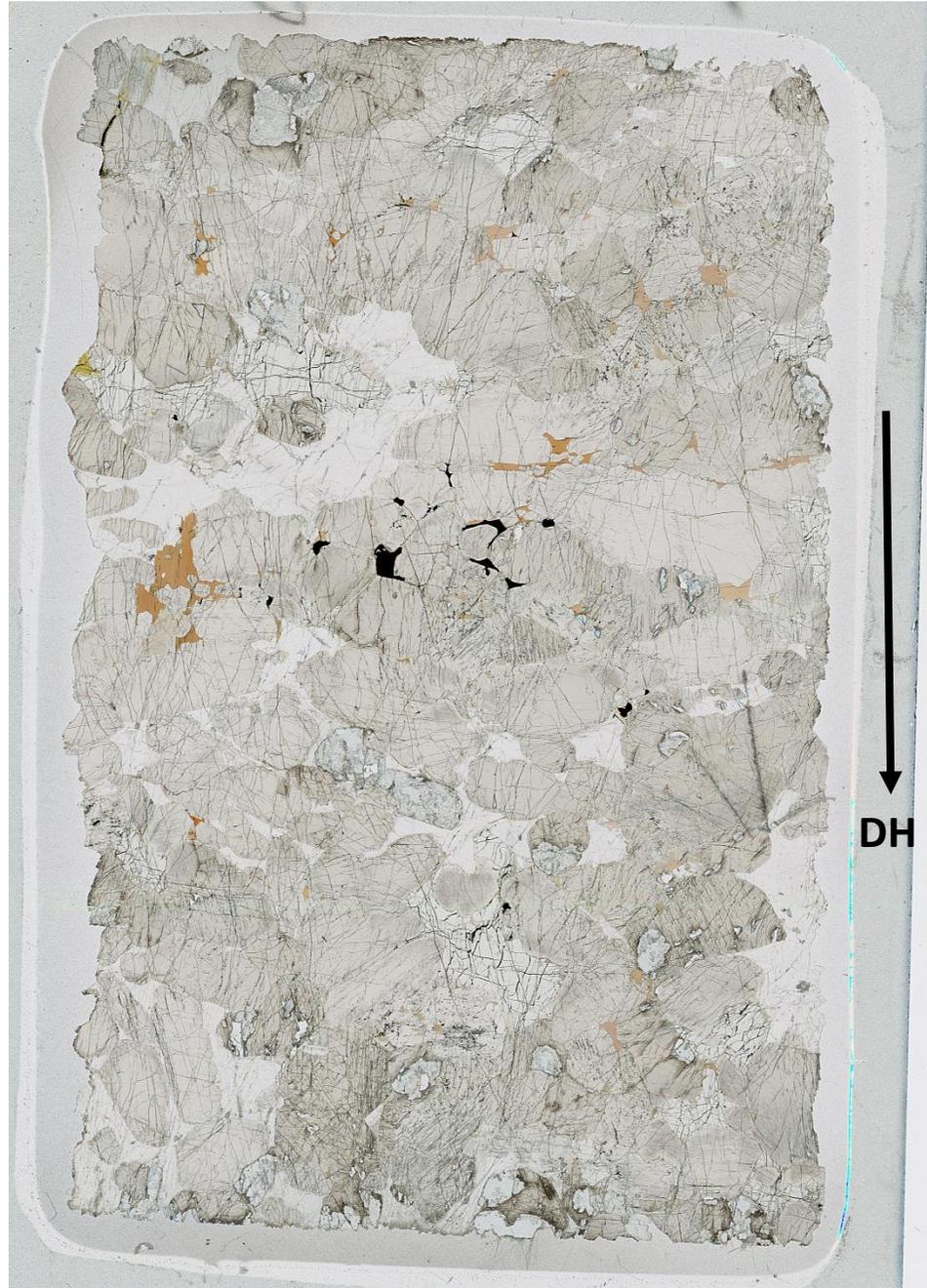
ID: BV06

Depth BV1: 2808.44 m

Stratigraphy: BV-TU2a

Lithology: Pyroxenite
(plag rich)

Texture:
Pyroxenitic / cumulate,
interstitial olivine and
cpx, bend plag, olivine
and pyx



ID: BV05

Depth BV1: 2807.69 m

Stratigraphy: BV-TU2a

Lithology: olivine
gabbro

Texture:

Pyx phenocrysts with
plag and pyx inclusions,
bend plag and olivine
crystals



↓
DH



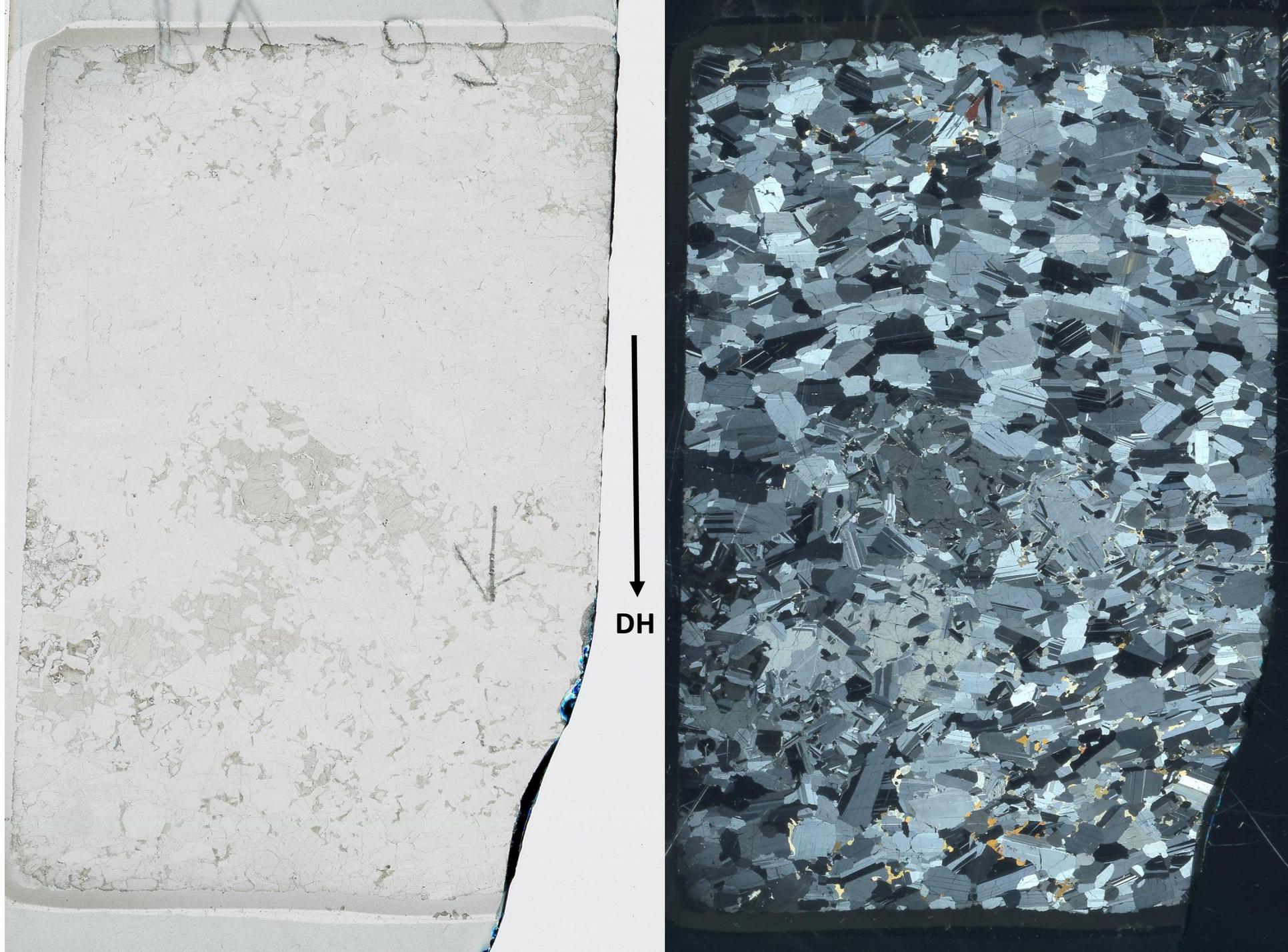
ID: BV03

Depth BV1: 2803.46 m

Stratigraphy: BV-TU2a

Lithology: Anorthosite
with pyroxene mottles

Texture:
Adcumulate, interstitial
and phenocryst (with
inclusions) of pyroxene



ID: BV02

Depth BV1: 2802.95 m

Stratigraphy: BV-TU2a

Lithology: Norite

Texture:
Cumulate



↓
DH



ID: BV01

Depth BV1: 2802.52 m

Stratigraphy: BV-TU2a

Lithology: Anorthosite

Texture:

Adcumulate, pyx
mottles/ interstitial pyx

