

**Table S1*****Sample descriptions and localities***

Sample	IGSN <sup>a</sup>	Latitude (S)	Longitude (E)	Location
NC18-07C	IENHR0002	-20.26346	164.38982	NE HP
NC18-09B	IENHR0003	-20.29316	164.41791	NE HP
NC18-15C	IENHR0004	-20.29555	164.42465	NE HP
NC18-15D	IENHR0005	-20.29555	164.42465	NE HP
NC18-22A	IENHR0006	-20.25241	164.33636	NE HP
NC18-26B	IENHR0008	-20.34202	164.44055	NE HP
NC19-14	IENHR000G	-20.30642	164.42471	NE HP
NC19-48	IENHR000I	-20.28663	164.41519	NE HP
NC19-54	IENHR000J	-20.30266	164.44181	NE HP
NC19-63	IENHR000K	-20.29904	164.42134	NE HP
NC19-81	IENHR000L	-20.28055	164.43731	NE HP
NC19-86	IENHR000N	-20.28569	164.43714	NE HP
NC19-89	IENHR000O	-20.27831	164.42915	NE HP
NC19-94	IENHR000P	-20.28916	164.42836	NE HP
NC18-39A	IENHR0009	-20.45731	164.65489	SE HP
NC18-39B	IENHR000A	-20.45731	164.65489	SE HP
NC18-39C	IENHR000B	-20.45731	164.65489	SE HP
NC18-43	IENHR000C	-20.65633	164.92468	SE HP
NC19-42	IENHR000H	-20.45807	164.65467	SE HP
NC19-152	IENHR000Q	-20.46006	164.65543	SE HP
NC19-154A	IENHR000R	-20.46192	164.65336	SE HP
NC19-157	IENHR000S	-20.45856	164.65565	SE HP
NC19-158	IENHR000T	-20.45738	164.65575	SE HP
NC18-45	IENHR000D	-20.90704	165.11151	Boghen Terrane
NC18-46	IENHR000E	-20.94518	165.03639	Boghen Terrane
NC18-49	IENHR000F	-21.56731	166.08440	Serpentinite Sole
NC19-178	IENHR000V	-20.63114	164.41613	Kalaa-Gomen
NC19-85	IENHR000M	-20.28749	164.43612	NE HP
NC19-169	IENHR000U	-20.26362	164.38982	NE HP

*Note.* Datum: WGS84. Mineral abbreviations after Whitney and Evans (2010): Ap apatite  
a International Geo Sample Number, [www.geosamples.org](http://www.geosamples.org)

Description  
serpentine

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serpentine

peridotite

chlorite schist

talc schist

Atg antigorite, Awr awaruite, Chl chl

Mineralogy

Atg + Tlc + Mag

Atg + Tlc + Mag

Atg + Tlc + Mag

Atg + Tlc + Mag

Atg + Tlc + Mag

Atg + Chl + Ol

Atg + Tlc + Mag

Atg + Tlc + Mag + Fe-Chr + Chr

Atg + Cpx + Mag + Cr-Spl

Atg + Fe-Ni oxide

Atg + Mag + Chr + Tr

Atg + Mag

Atg + Tlc

Atg + Tr

Atg + Mag + Brc + Awr

Atg + Ol + Mag + Chr + Cpx + Awr

Atg + Mag + Chl

Atg + Tr

Atg + Opx + Mag

Atg + Opx + Ol + Mag

Atg + Mag + Opx + Ol + Awr

Atg + Mag + Opx + Ol

Atg + Opx + Ol + Tlc + Awr

Lz + Spl + Mag

Lz + Spl + Mag

Atg + Mag

Atg + Ol + Cpx + Spl

Chl + Ilm + Mag + Ap + Zrn

Tlc + Mag + Atg + Ilm

Alorite, Chr chromite, Cpx clinopyroxene, Cr-Spl Chromium spinel, Fe-Chr ferritchromite, Ilm ilmenite, Lz li

### Field context

sheared serpentinite in gradational contact with talc-mg schist reaction zone and metasediments at  
sheared serpentinite in meters-scale block-bearing shear zone exposed in roadcut along east side of  
RN7; blocks contained in serpentinite matrix include garnet blueschist and epidote-dominated rocks  
foliated serpentinite body exposed at quarry along dirt road NE of Col d'Amos  
foliated serpentinite body exposed at quarry along dirt road NE of Col d'Amos  
serpentinite in meters-scale outcrop along dirt road on NE Pam Peninsula  
meter-long serpentinite outcrop exposed in ditch at northern outer limits of Ouégoa  
small serpentinite quarry south of Col d'Amos on E side of RN7 within mafic-dominated hillside  
serpentinite in large road exposure along RN7  
numerous resistant serpentinite blocks (<10 m in length) on north-facing hillslope past antenna,  
surrounded by variably retrogressed eclogite blocks  
steeply-dipping serpentinite shear zone in direct contact with well-exposed, highly foliated  
metasediments; at top of hill directly across road from Col d'Amos  
sheared serpentinite in direct contact with metasediments along dirt road  
resistant serpentinite blocks on N-dipping ridge  
meter-long serpentinite outcrop exposed within mafic-dominated area  
elongate, resistant serpentinite blocks with anastomosing foliation and singular elongation trend on  
mafic-dominated hillslope  
streambed at Poadja Massif consisting of fresh serpentinite, cross-cutting serp veins and alteration  
rinds visible in some places  
streambed at Poadja Massif consisting of fresh serpentinite, cross-cutting serp veins and alteration  
rinds visible in some places  
streambed at Poadja Massif consisting of fresh serpentinite, cross-cutting serp veins and alteration  
rinds visible in some places  
weathered serpentinite exposure with abundant white veins exposed at water's edge along beach ~400  
m north of Tilougne  
coarser-grained serpentinite in streambed outcrop at Poadja Massif  
oxidized and weathered serpentinite outcrop on top of southern segment of Poadja Massif  
serpentinite in streambed outcrop at Poadja Massif, near inferred contact with mafic rocks  
oxidized and weathered serpentinite outcrop in natural drainage on southern segment of Poadja Massif  
serpentinite with visible pseudomorphs in float on top of southern segment of Poadja Massif  
serpentinite roadcut in Boghen Terrane containing volumetrically-minor sedimentary lenses and blocks  
serpentinite roadcut in Boghen Terrane containing volumetrically-minor sedimentary lenses and blocks  
sheared serpentinite exposed in roadcut exposing metamorphic sole  
highly weathered serpentinite in float in drainage on SE slopes of Kalaa-Gomen massif  
single chlorite schist block (~1 m<sup>3</sup>) in float along recently exposed rural roadcut  
sheared talc-magnetite schist reaction zone between serpentinite and metasediments at Abwala

zardite, Mag magnetite, Opx orthopyroxene, Spl spinel, Tlc talc, Tr tremolite, Zrn zircon