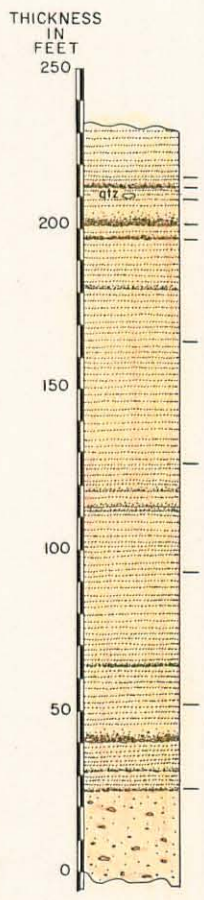
LITHOLOGIC SECTIONS OF THE PERIDOTITE ZONE, HALL COVE ULTRAMAFIC AREA

LITHOLOGIC SECTION C



DESCRIPTION

Olivine-rich olivine pyroxenite: 35-50% Olivine; well-developed 1"-1' graded layers.
Fragmental layer: about 2½' thick; 1"-6" fragments.
Layer with quartz inclusions.
Fragmental layer: 35% 1"-6" fragments of olivine pyroxenite.
Fragmental layer: well-graded; 35% 1"-3" fragments of olivine pyroxenite.

Olivine-rich olivine pyroxenite: 35-50% olivine; well-developed 1"-1' graded layers. Serpentine alteration is extensive in this area but does not conform with the layering.

Olivine-rich olivine pyroxenite: 35-40% olivine; well-developed 1"-6" graded layers. This part of the section is not well exposed.

Olivine-rich olivine pyroxenite: 35-40% olivine; well-developed 1"-6" graded layers; one 2" fragmental layer with 1"-3" olivine pyroxenite fragments.

Olivine-rich olivine pyroxenite: 35-40% olivine; well-developed 1"-6" graded layers; one 2' fragmental layer with 1"-3" olivine pyroxenite fragments.

Olivine-rich olivine pyroxenite: approximately 40% olivine; well-developed 1"-6" graded layers; two 1½'-2' graded layers and one 5'-6' graded layer have about 30% olivine pyroxenite fragments ranging from 1" to 3" and rarely to 6" in length.

Peridotite: massive; 5-10% olivine pyroxenite fragments; matrix is 55% olivine, 45% pyroxene.

LITHOLOGIC SECTION B

DESCRIPTION

Hornblende pyroxenite with magnetite: the contact with olivine pyroxenite is not exposed, but probably it is not conformable. About 15' of hornblende alteration occurs in the olivine pyroxenite adjacent the contact.

Olivine pyroxenite: 25-35% olivine; well-developed 2"-10" graded layers.

Olivine pyroxenite: 25-35% olivine; well-developed 2"-10" graded layers and rare 2' layers. Fragmental layers are essentially absent.

Fragmental layer: 1½' thick; 75% 1"-2" olivine pyroxenite fragments.
Olivine-rich olivine pyroxenite: 30-35% olivine; 3"-10" layers.
Olivine-rich olivine pyroxenite: one graded layer about 25' thick with fragments having an average maximum length of 6" at the base of the layer, 3" in the middle, and the top having individual crystals. The layer is 30-40% olivine.
Olivine-rich olivine pyroxenite to peridotite: 45-60% olivine; well-developed 6"-1' graded layers.

Olivine-rich olivine pyroxenite: massive; 25-35% olivine.

Olivine-rich olivine pyroxenite: sparse layering; 30-35% olivine; the section is poorly exposed.

Olivine-rich olivine pyroxenite: 35-40% olivine, well-developed 3"-1' graded layers.

Fragmental layer: 40-50% 1"-6" fragments of olivine pyroxenite; rare fragments as large as 6'.
Quartz inclusion: 3" in diameter with a ¼"-rim of light green pyroxene; occurs in a fragmental layer with 35% 4"-6" olivine pyroxenite fragments.
Olivine-rich olivine pyroxenite: 45-55% olivine; well-developed 1"-9" graded layers.
Fragmental layer: 3' thick; as below.
Fragmental layer: 3' thick; as below.
Olivine-rich olivine pyroxenite: 45-50% olivine; well-developed 1"-9" graded layers.
Fragmental layer: 2½' thick; 50% 2"-10' fragments of olivine pyroxenite.
Olivine-rich olivine pyroxenite: 45-50% olivine; 1"-9" graded layers.

Olivine pyroxenite: this part of the section is poorly exposed but appears to be the same as below.

Olivine pyroxenite: only slightly richer in olivine than average (about 30-35%); well-developed 1"-6" graded layers.Fragmental layers are rare.

Fragmental layer: 1½' thick; as below.
Olivine-rich olivine pyroxenite: 35-40% olivine; 1"-9" layers.
Fragmental layer: 4½' thick; as below.
Fragmental layer: 3' thick; about 65% olivine pyroxenite fragments which,generally range from 2" to 3" in length and are rarely 1'.

Olivine-rich olivine pyroxenite: 35-45% olivine; well-developed 1"-9" layers with 9"-1' fragmental layers about every 10'.

Fragmental layer: 1"-3" fragments of olivine pyroxenite make up 75% of the layer; the matrix is 40-45% olivine.

Fragmental layer: olivine pyroxenite fragments are ½"-2".
Fragmental layer: 2' thick; fragments are small, ½"-2".
Olivine-rich olivine pyroxenite: 35-40% olivine.
Fragmental layer: 6' thick; fragments are slablike, 1"-3' in length, averaging 1'.

Olivine-rich olivine pyroxenite: 35-45% olivine; ½" layers interspersed with 3"-9" graded layers; moderately rare blocks of olivine pyroxenite are present, but fragmental layers are sparse.

LITHOLOGIC SECTION A

DESCRIPTION

Fragmental layer: 6"-10" fragments of olivine pyroxenite make up 60% of the unit.

Peridotite: 50-60% olivine; well-developed 1"-6" graded layers.

Fragmental layer: 6"-1' fragments of olivine pyroxenite make up 70% of the unit.

Horizon carrying small quartz fragment.

Peridotite: 55-65% olivine; well-developed 4"-8" graded layers.
Fragmental layer: 65% 2"-4" olivine pyroxenite fragments.
Peridotite: thick-layered; zone has three 1½'-2' layers.
Fragmental layer: 45% 10"-2' fragments of olivine pyroxenite. The matrix is fine-grained, with 65-75% olivine.

Peridotite: 55-65% olivine; well-developed 4"-8" graded layers. Layers are thinner in the upper part of the unit.

Olivine pyroxenite fragmental zone: low olivine content (about 15-25% of the total unit), only rare hazy layering. Unit lenses out laterally in a few tens of feet.

Peridotite: 55-65% olivine; well-developed 6"-10" graded layers with interspersed 1" layers.

Fragmental layer: well-graded; 60-70% 6"-3' fragments of olivine pyroxenite.
Peridotite: 55-65% olivine; moderately layered with 6"-10" graded layers and interspersed 1" layers.
Fragmental layer.
Peridotite: 55-65% olivine; 6"-10" graded layers.
Fragmental layer: 3"-6" fragments of olivine pyroxenite; matrix is about 50% olivine. Just beneath is a layer with quartz inclusions; 3 occurrences over 130'.
Peridotite: 55-65% olivine. Well-developed graded layers, 1'-1½', are common. One 15' by 25' block of olivine pyroxenite is present.
Peridotite: 35-40% olivine. One 2' and six 10"-12" graded layers alternate with ½"-6" layers.
Fragmental layer: 70% 2"-4" fragments of olivine pyroxenite.

Fragmental layer: 85% 2"-3" fragments. Low olivine content.

Peridotite: 45-55% olivine; 1"-10" graded layers. One large olivine pyroxenite block, about 20' to a side is present.
Fragmental layer: 75-85% olivine pyroxenite fragments, many 1'-5' in length.
Peridotite: 75% olivine; 1"-3' layers.

Peridotite: thick layered; successive horizons approximately 3', 5', and 10', each graded at the top; 75-80% olivine pyroxenite fragments which are generally 2"-5" in length, rarely 8" in thicker layers.

Peridotite: thin to thick layered, several 1'-2' graded fragmental layers alternating with 2"-6" layers.

Fragmental layer: 70% 2"-4' olivine pyroxenite fragments; matrix is about 50% olivine.

Peridotite: 60-65% olivine; 2"-9" graded layers.
Fragmental layer: 80% 2"-4" olivine pyroxenite fragments.
Peridotite: 60-65% olivine; 2"-9" graded layers.

Olivine pyroxenite: massive; 20% olivine.

Peridotite: 6"-10" graded layers. Contains several olivine pyroxenite blocks ranging in length from 4' to 15'. Layers are disturbed by the blocks.

Olivine pyroxenite: massive; 20-25% olivine; 75-80% pyroxene. Forms a large block with irregular outline.

Peridotite: 75-80% olivine; poorly-developed 2"-4" layers.

Fragmental layer: fragments range from 2" to 20', are composed of 75-80 pyroxenite, 20-25% olivine.

Peridotite: well-developed 3"-9" layers; 60-65% olivine.

Fragmental layer: 1"-1' olivine pyroxenite fragments.
Peridotite: well-developed 2"-10" graded layers composed of 50-60% olivine; 3 fragmental layers, each approximately 2'-3' thick with 65% 1"-1'(av. 4"-5") fragments.

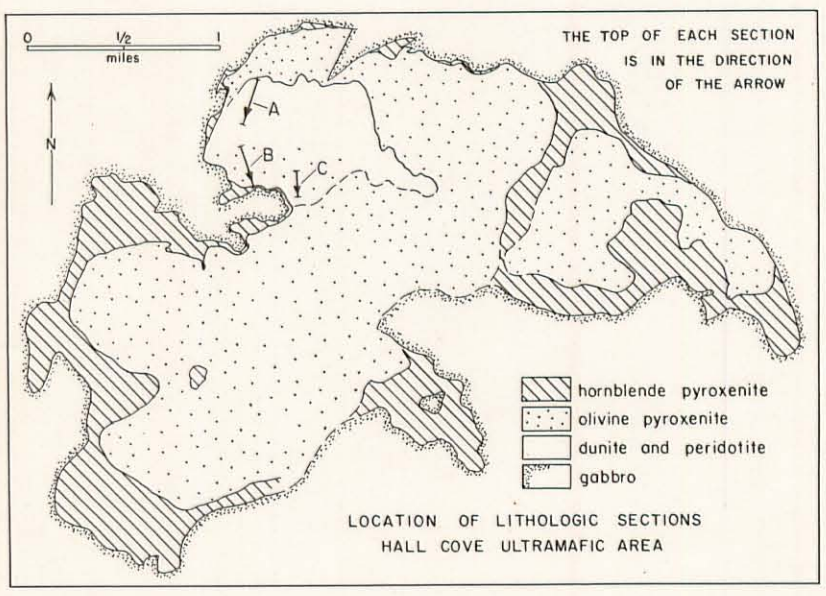
Olivine pyroxenite: massive; 75-80% pyroxene, 20-25% olivine. Forms large blocks separated by septa or dikes of peridotite.

Peridotite: 60-65% olivine, 35-40% pyroxene; well-developed 1"-1' graded layers; local cross-layering apparently related to a nearby block of olivine pyroxenite. In the upper 6' of the unit occur fragmental layers consisting of 50% olivine pyroxenite fragments in a matrix of 50-55% olivine and 45-50% pyroxene.

Olivine pyroxenite: massive; 75-80% pyroxene, 20-25% olivine.

Peridotite: well-developed 6"-9" graded layers. Unit is composed of approximately 70-75% olivine, 25-30% pyroxene. One 2' fragmental layer.
Fragmental layer: composed of approximately 60% olivine pyroxenite fragments 2"-10" in diameter in a peridotitic matrix of about 50% olivine. A quartz inclusion occurs just above the layer.

Olivine pyroxenite: massive; 20-25% olivine, 75-80% pyroxene. The rock occurs in large blocks separated by septa or dikes of peridotite.



LOCATION OF LITHOLOGIC SECTIONS
HALL COVE ULTRAMAFIC AREA