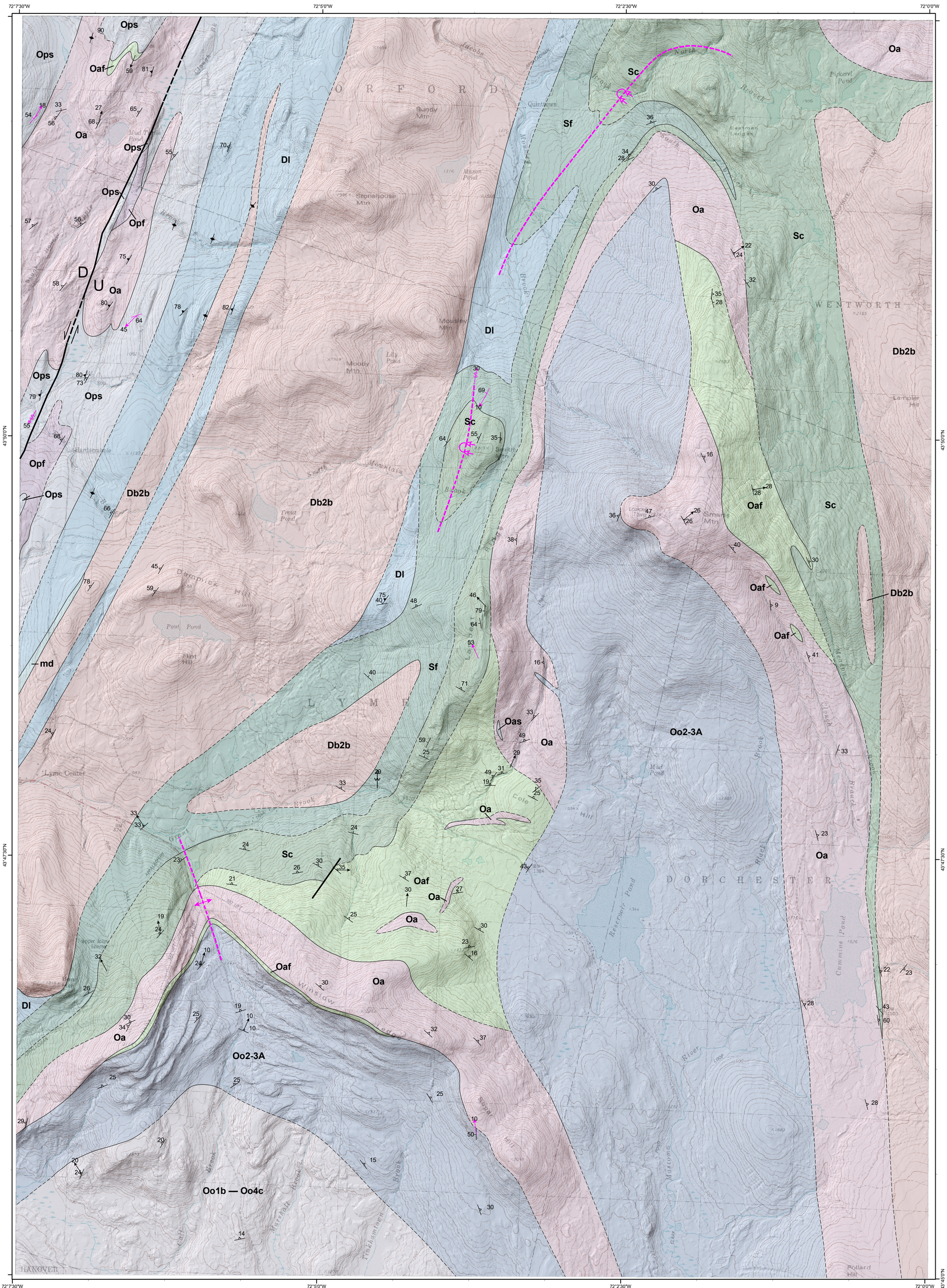
Bedrock Geologic Map of the Smarts Mountain 7.5' Quadrangle, New Hampshire



DESCRIPTION OF MAP UNITS

INTRUSIVE ROCKS

Oo2-3A — **Granodiorite to tonalite of the Oliverian Plutonic Suite (Late Ordovician)**— Includes the Smarts Mountain Granodiorite (Light gray, weakly foliated, megnetite-bearing biotite granodiorite to tonalite) and the Holts Ledge Gneiss (gray, foliated quartz diorite, tonalite, and granodiorite, with sparse amphibolite layers)

Oo1b - Oo4c — **Mascoma Granite of the Oliverian Plutonic Suite (Ordovician)**— Weakly foliated biotite granite

Db2b — **Bethelehen Gneiss (Devonian)** — Gray to pink, moderately foliated quartz-plagioclase-orthoclase-biotite-muscovite granodiorite, slightly porphyritic (orthoclase up to 2 cm)

METAMORPHIC ROCKS

Dl — **Littleton Formation (Devonian)—** Gray, fine-grained muscovite-rich schist

Sf — **Fitch Formation (Silurian)**—Biotite granofels, sandy marble and calc-silicates

Sc — **Clough Quartzite (Silutian)**— White to gray quartzite and metaconglomerate

Ops — **Partridge Formation (Ordovician)**— Dark gray phyllite and schist

Opf — **Felsic Metavolcanics of the Ordovician Partridge Formation** — brown- to white-weathering felsic metavolcanics, interpreted as rhyolitic tuff

Oa — **Ammonoosuc Volcanics (Ordovician)** — Black to dark green,fine- to coarse-grained, hornblende +/- epidote +/- garnet amphibolite.

Oas — **Dark Gray Schist of the Ordovician Ammonoosuc Volcanics**

Oaf — **Felsic Metavolcanics of the Ordovician Ammonoosuc Volcanics** — Similar to felsic metavolcanics of the Partridge Formation, brown- to white-weathering felsic gneiss interpreted as rhyolitic tuff.

Md — **Metadiabase dike** — Light gray, massive, biotite felsite

EXPLANATION OF MAP SYMBOLS

Geologic contact
- Certain
- Approximate

Fault
- Certain
- Approximate

Axial trace of fold (approximate)
- Overturned syncline
- Anticline

Strike and dip of So bedding
- Inclined
- Overturned

Strike and dip of S_1 foliation
- Inclined
- Inclined (multiple measurements present)

Strike and dip of S_2 foliation
- Inclined
- Vertical

Minor folds
- Axial Plane

Linear features
- Axis of F1 fold
- Axis of F1 fold with sinistral rotation
- Axis of F2 Fold
- Crenulation
- Mineral lineation

Topographic basemap from the USGS 1998 Smarts Mountain 7.5' quadrangle
Projection: North American Datum 1983 New Hampshire State Plane Feet.
1000 meter grid in UTM zone 19 North, Contour Interval 20 ft

Hillshade produced from high resolution (1 meter) LiDAR data acquired from 2015 Connecticut River Joint Project

Scale 1:24,000

0 1,450 2,900 5,800 Feet

0 0.5 1 2 Miles

0 1 2 4 Kilometers

UTM GRID AND 2014 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

FAIRLEE	PIERMONT	WARREN
LYME		WENTWORTH
ENFIELD	CANAAN	MT. CARDIGAN

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