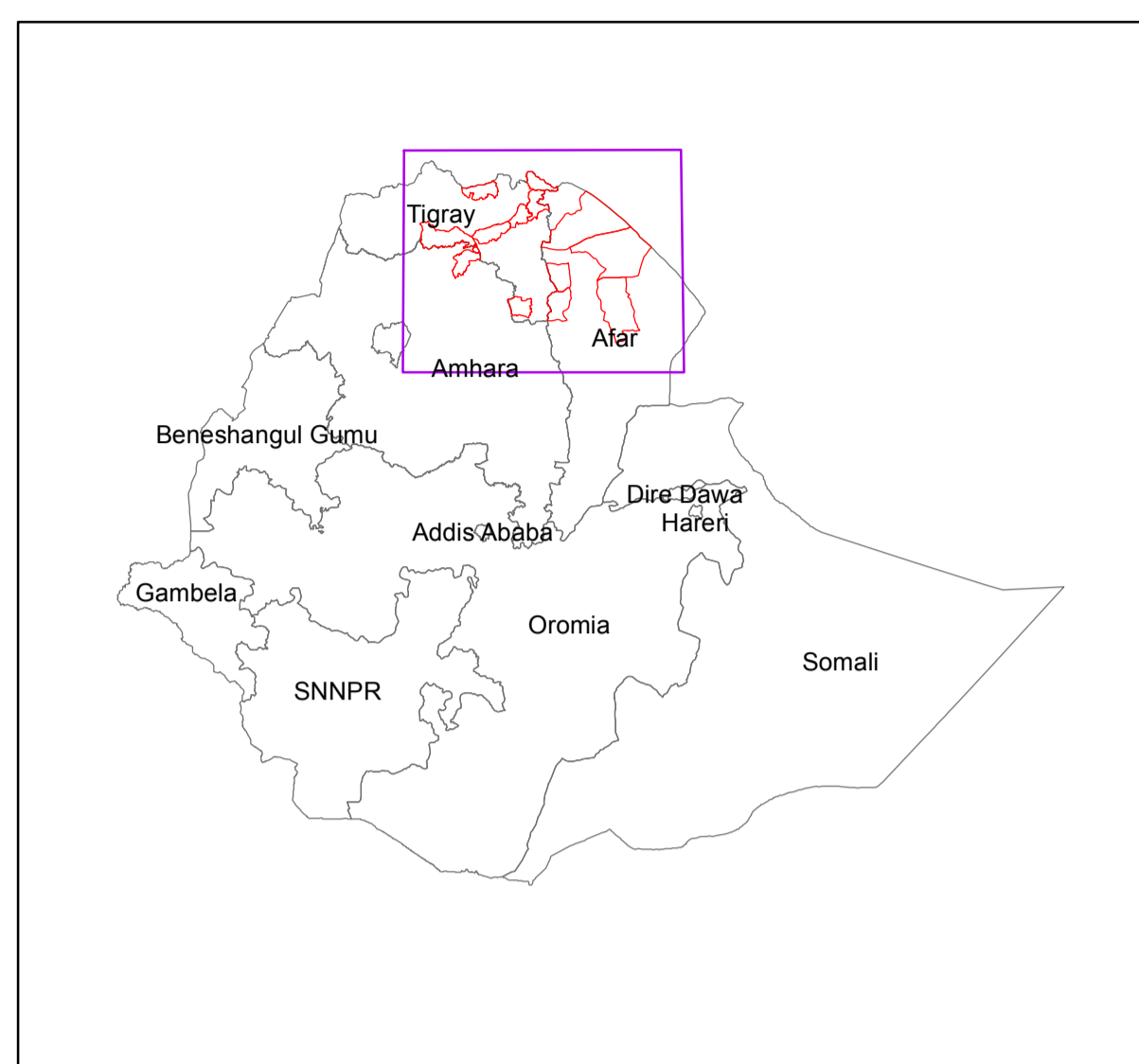
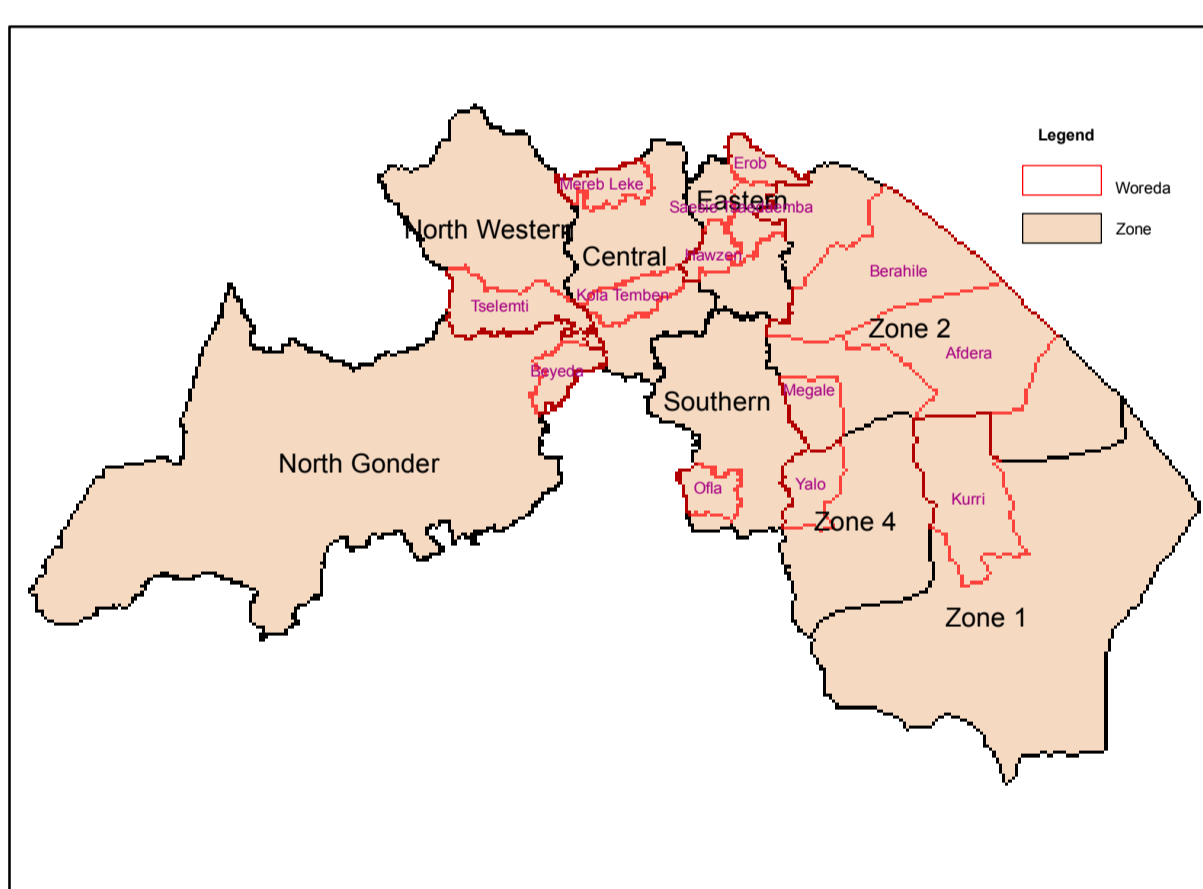


HYDROGEOLOGICAL MAP OF LOT 1

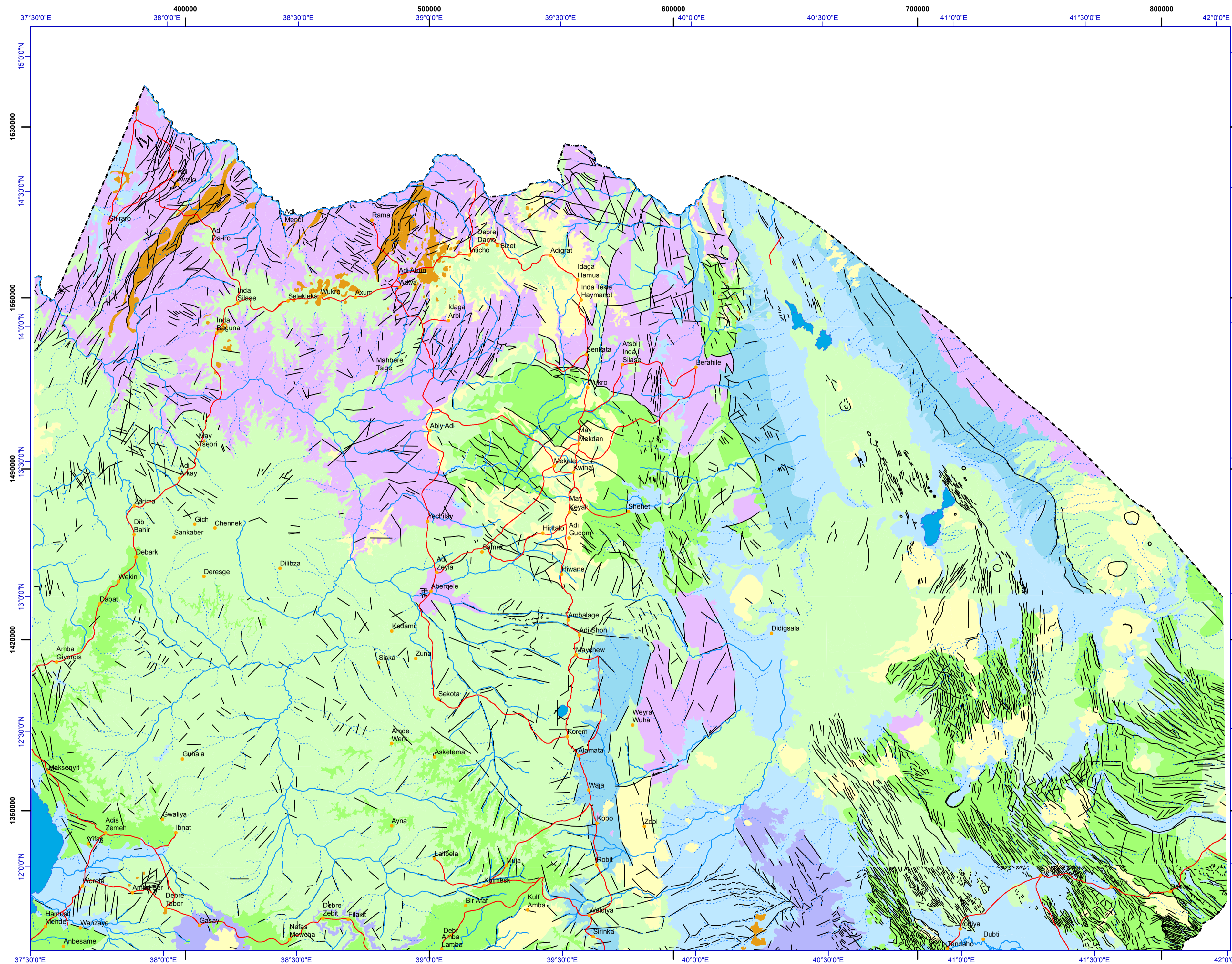
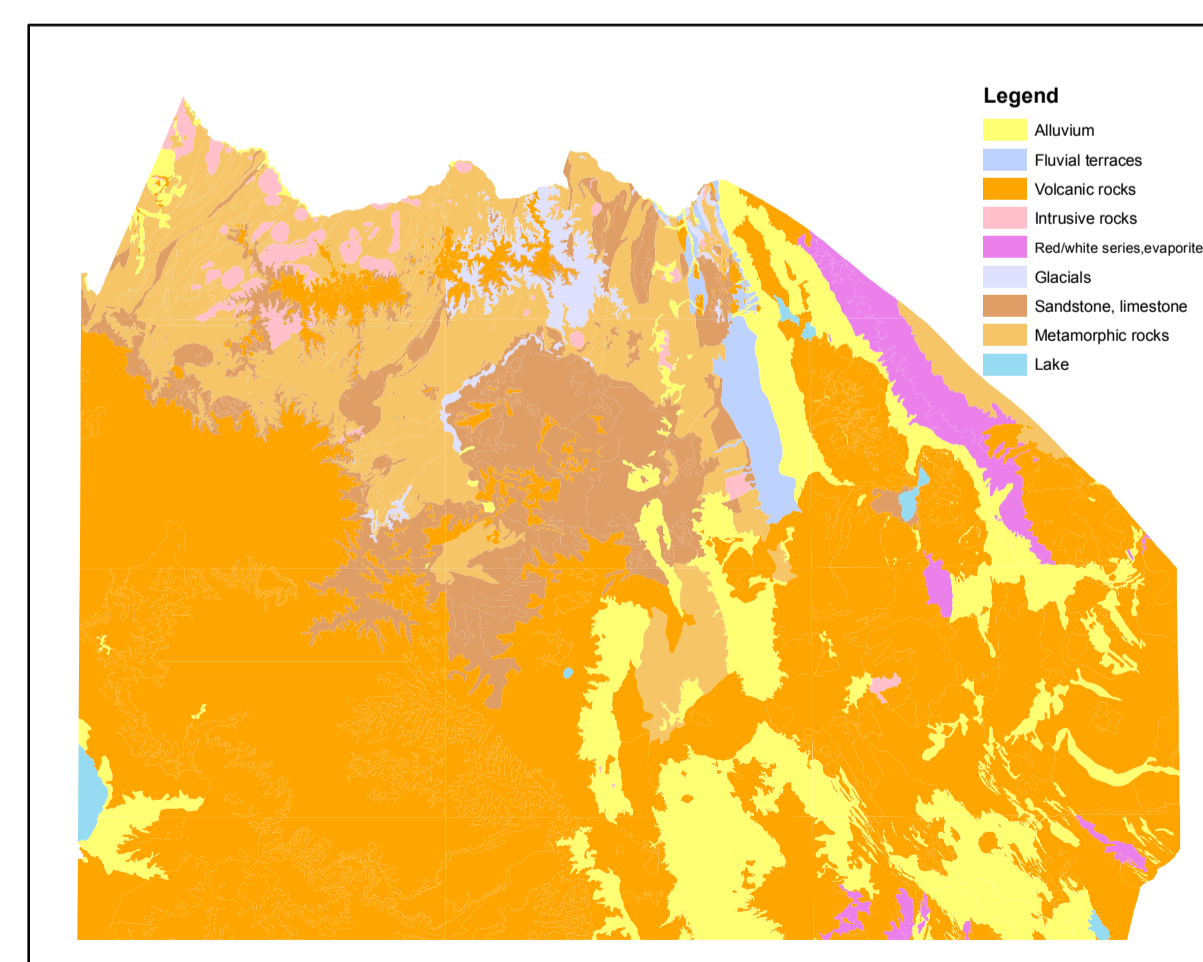
PROJECT AREA



ADMINISTRATIVE BOUNDARY MAP



GEOLOGICAL MAP



LEGEND

Aquifer Classification

- Highly productive porous aquifers ($T = 10 - 100 \text{ m}^2/\text{d}$, $q = 1 - 10 \text{ l/s.m}$, $Q = 5 - 25 \text{ l/s}$ for wells and/or springs) or locally extremely productive aquifers
- Moderately productive porous aquifers ($T = 1 - 10 \text{ m}^2/\text{d}$, $q = 0.01 - 1 \text{ l/s.m}$, $Q = 0.5 - 5 \text{ l/s}$ for wells and/or springs) or local or discontinuous but highly productive aquifers
- Highly productive fissured / karst aquifers ($T = 10 - 100 \text{ m}^2/\text{d}$, $q = 1 - 10 \text{ l/s.m}$, $Q = 5 - 25 \text{ l/s}$ for wells and/or springs) or locally extremely productive aquifers consisting of sedimentary and volcanic rocks
- Moderately productive fissured aquifers ($T = 1 - 10 \text{ m}^2/\text{d}$, $q = 0.01 - 1 \text{ l/s.m}$, $Q = 0.5 - 5 \text{ l/s}$ for wells and/or springs) or local or discontinuous but highly productive aquifers consisting of sedimentary and volcanic rocks
- Low productive fissured aquifers ($T = 0.1 - 1 \text{ m}^2/\text{d}$, $q = 0.001 - 0.01 \text{ l/s.m}$, $Q = 0.05 - 0.5 \text{ l/s}$ for wells and/or springs) in which flow is mainly developed in irregular system of fissures & weathered mantle of a crystalline rock
- Aquitards minor aquifers with local & limited groundwater resources consisting of sedimentary and volcanic rocks
- Aquiclude - formation with essentially no groundwater resources consisting of dome forming phonolite / trachyte & gabbro and metagabbro (aquifuge - solid rocks / blind rocks)
- Moderately productive aquifers with alternating layers of fissured and porous permeability ($T = 1 - 10 \text{ m}^2/\text{d}$, $q = 0.01 - 1 \text{ l/s.m}$, $Q = 0.5 - 5 \text{ l/s}$ for wells and/or springs) consisting of Dalha Formation of basalt flows and layers of lacustrine sediments

- Perennial river
- Intermittent river
- Water body
- Fault
- International border
- Road

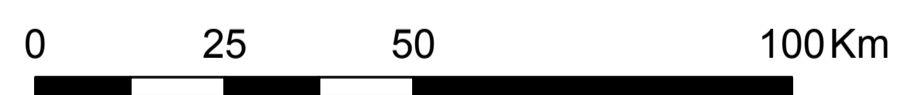


PROJECT:
HYDROGEOLOGICAL MAPPING FOR CLIMATE RESILIENT WASH IN ETHIOPIA - LOT 1

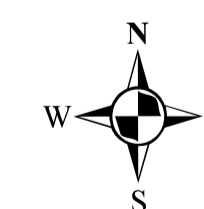
Disclaimer:

This document was produced with the financial assistance of The Department for International Development, UK. The boundaries in this map are not authoritative or political.

Geology compiled by Geological Survey of Ethiopia from 1971 to 2015
Hydrogeology compiled by: Jiri Sima, 2021
Digital Cartography: Shiferaw Ayele Mamo, 2021



1:1,000,000



Horizontal Datum: WGS 1984
Vertical Datum: Mean sea level
Projection: Universal Transverse Mercator, Zone 37N