

**Legend:**

- Quaternary**
- Unstructured
  - Rock Fall
- Cretaceous**
- 500->2000 m Sannine (C4)
  - 100-400 m Hammana (C3)
  - 50 m Mdairej (C2b)
  - 80-170 m Abieh (C2a)
  - <10-300 m Chouf Sandstone (C1)
- Jurassic**
- 80-180 m Salima (J7)
  - 60-80 m Bikfaya (J6)
  - 50-150 m Bhannes (J5)
  - 1000-1500 m Kesrouane (J4)
- Thrust Fault
- Syncline
- Anticline
- Basaltic Intrusion

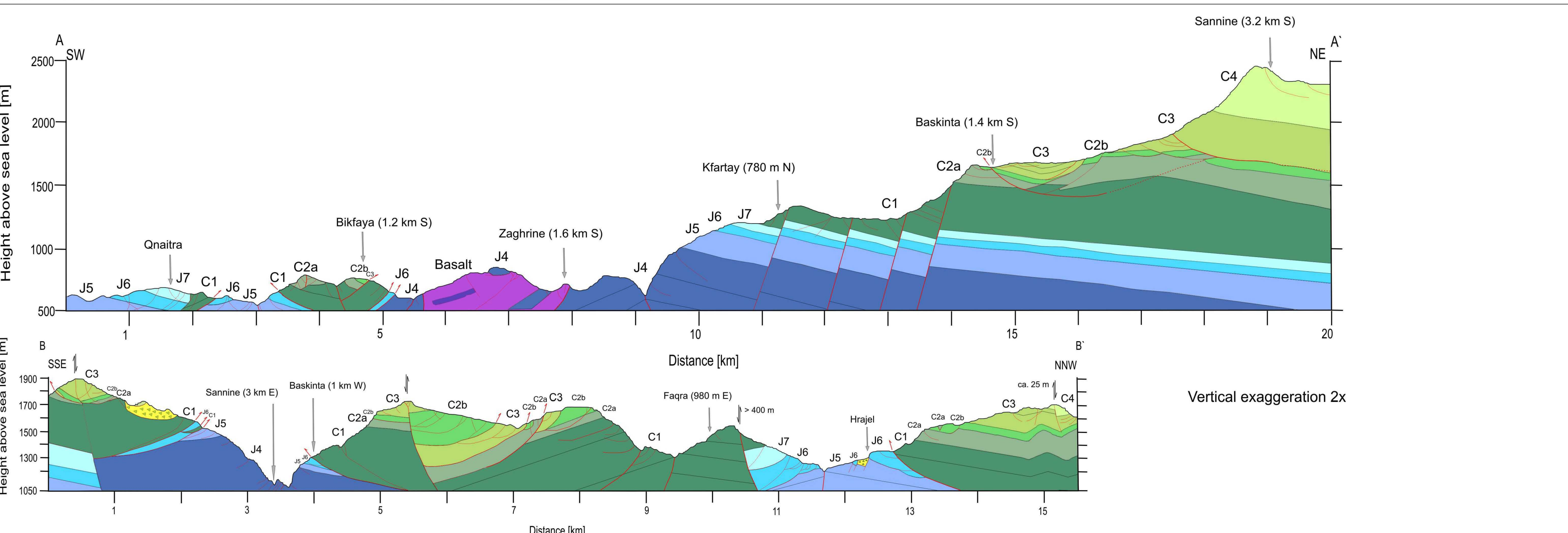
Scale 1: 50.000



**Geology  
in the Groundwater Contribution Zone  
of Jeita Spring**



Supplement to  
TECHNICAL COOPERATION  
PROJECT NO.: 2008.2162.9  
**Protection of Jeita Spring**  
TECHNICAL REPORT NO. 4



**Geometry**

WGS 1984 UTM Zone 36 N  
Projection: Transverse Mercator  
False Easting: 500000  
False Northing: 0  
Central Meridian: 33  
Scale Factor: 0.999600  
Latitude of Origin: 0  
Linear Unit: Meter

**Data**

The following data were used within Arc View GIS (version 3.2) for geological / tectonical analysis and fault vectorization:

Enhanced and geocoded satellite images:  
- Quick Bird, panchromatic and multispectral images with a ground resolution of 0.6 m and 2.5 m respectively. Acquisition dates: 01/12/2007, 12/08/2008, 07/09/2009 and 18/09/2009.  
- Landsat ETM with ground resolution of 30 m (panchromatic 15 m). Acquisition date: 22/06/2000.

Topographic maps 1 : 20,000 (UTM):  
- Map Sheets M-7, M-6, L-7, L-6, L-5, K-7, K-6, K-5,  
- Land Mine Map 1 : 20,000, IMSMA, Mine Action Center Beirut, Lebanon, 19/04/2010

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