

PRELIMINARY SURFICIAL GEOLOGIC MAP ALONG THE NORTHWEST LONE MOUNTAIN AND WEEPDAH HILLS PIEDMONTS, ESMERALDA COUNTY, NEVADA

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2012

- Q4** Active stream channel and most recently abandoned channel, undifferentiated. No pavement development or soil development. Deposits are up to 1 m above active channel. Youngest surface in field area.
- Q3c** Undissected, bouldery bar-and-swale pavements 0 to 1.5 m above stream channels. Small patches of moderate to immature desert pavement developed, with immature to moderate rubification on clasts.
- Q3b** Moderate to intermediate desert pavement, with subdued bar and swale relief of 0.25 to 0.75 m. Deposits are 1 to 2 m above the active channel, and surface clasts are generally interlocking with moderate rubification and varnish, varying in size from pebbles to moderately sized cobbles.
- Q3a** Undissected, bouldery bar-and-swale pavements 1.5 to 3 m above stream channels.
- Qb** Beach deposits. Well-developed desert pavement, with rounded morphology, and little to no bar and swale relief. Deposits follow an elevation contour, and are discontinuous.
- Q2c** Well-developed mature desert pavement, with negligible bar and swale and slight dissection. Surfaces are 1.5 to 4 m above the active channel, and clasts are interlocking, dominated by pebbles with occasional cobbles. The tops of surface clasts have distinctive well-developed varnish, while clast undersides are highly rubified.
- Q2b** The Q2b deposit is >3 m above the active channel and characterized by smooth pavements, rounded hillslopes, moderate dissection, and subdued bar and swale morphology of <0.25 m. Clasts are interlocking, with pebbles to cobbles, and occasional boulders are exposed at the surface. Varnish and rubification development are generally moderate to high, and is underlain by a well-developed soil.
- Q2a** Dissected remnants of pavements 4 to 10 m above stream channels.
- Bedrock** In-place bedrock.

Adjoining 7.5' quadrangle names

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

Map location

GN MN
0° 25' 15" 30"
UTM GRID AND 1980 MAGNETIC NORTH

Sample locations for ¹⁰Be geochronology from Hoefft and Frankel, 2010:

- LM-0509-01
- Surface sample
- Test pit
- Depth profile from test pit

1 Coaldale NE	9 Rhyolite Ridge NE
2 Gilbert	10 North of Silver Peak
3 Crow Springs	11 Weepah
4 Millers	12 Paymaster Canyon
5 Blair Junction	13 Rhyolite Ridge
6 Devils Gate	14 Silver Peak
7 Gilbert SE	15 Goat Island
8 Lone Mountain	16 Paymaster Ridge

Scale 1:24,000

0 0.5 1 kilometer
0 0.5 1 mile
0 1000 2000 3000 4000 5000 feet

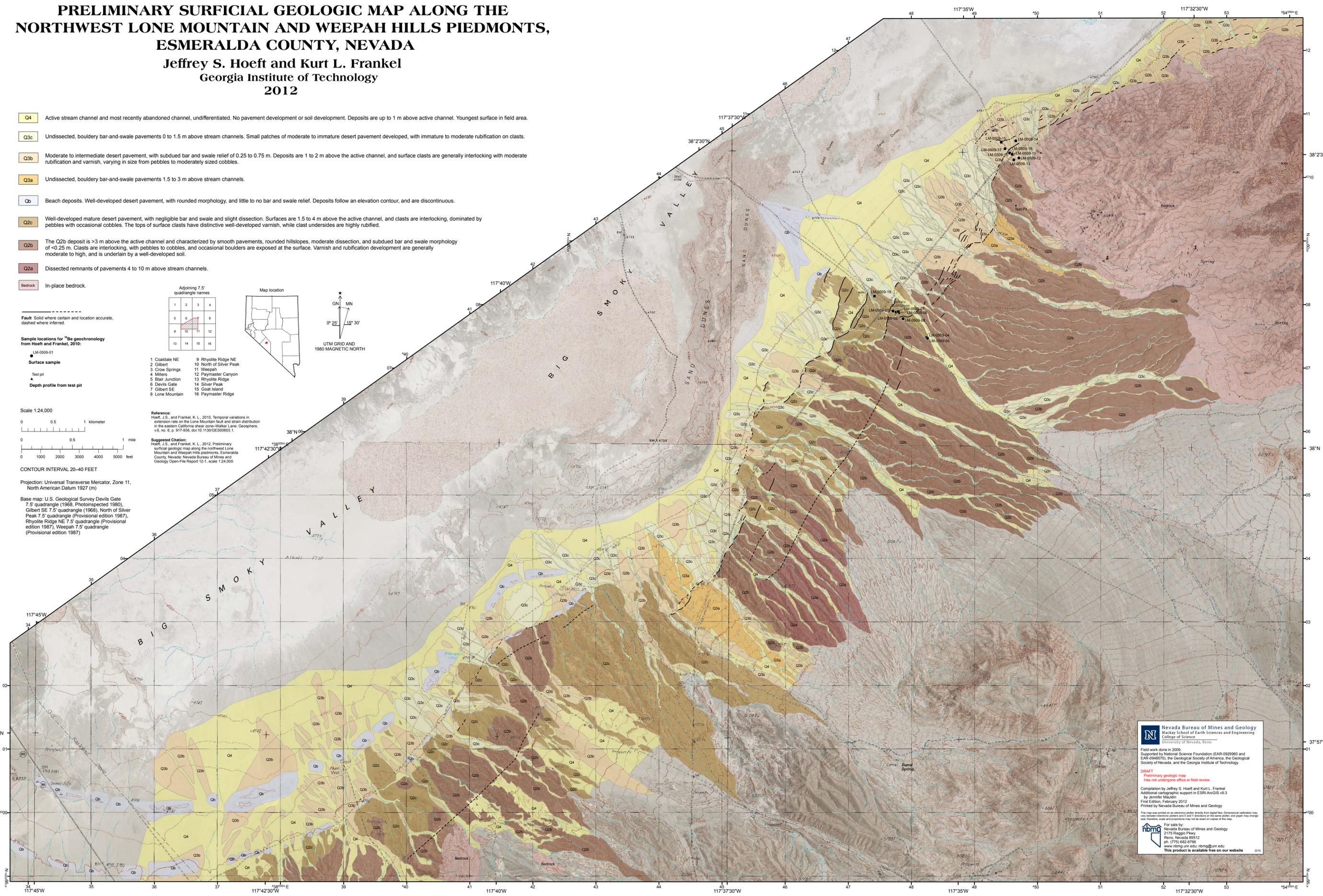
Reference:
Hoefft, J.S., and Frankel, K.L., 2010. Temporal variations in extension rate on the Lone Mountain fault and strain distribution in the eastern California shear zone-Walker Lane. *Geosphere*, v.6, no. 6, p. 917-936, doi:10.1130/G300603.1.

Suggested Citation:
Hoefft, J.S., and Frankel, K.L., 2012. Preliminary surficial geologic map along the northwest Lone Mountain and Weepah Hills piedmonts, Esmeralda County, Nevada. Nevada Bureau of Mines and Geology Open-File Report 12-1, scale 1:24,000.

CONTOUR INTERVAL 20-40 FEET

Projection: Universal Transverse Mercator, Zone 11, North American Datum 1927 (m)

Base map: U.S. Geological Survey Devils Gate 7.5' quadrangle (1968, Photosinspected 1980), Gilbert SE 7.5' quadrangle (1968), North of Silver Peak 7.5' quadrangle (Provisional edition 1987), Rhyolite Ridge NE 7.5' quadrangle (Provisional edition 1987), Weepah 7.5' quadrangle (Provisional edition 1987)



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Field work done in 2009.
Supported by National Science Foundation (EAR-0929960 and EAR-0948570), the Geological Society of America, the Geological Society of Nevada, and the Georgia Institute of Technology.

DRAFT
Preliminary geologic map
has not undergone office or field review

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Additional cartographic support in ESRI ArcGIS v9.3
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First Edition, February 2012
Printed by Nevada Bureau of Mines and Geology

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