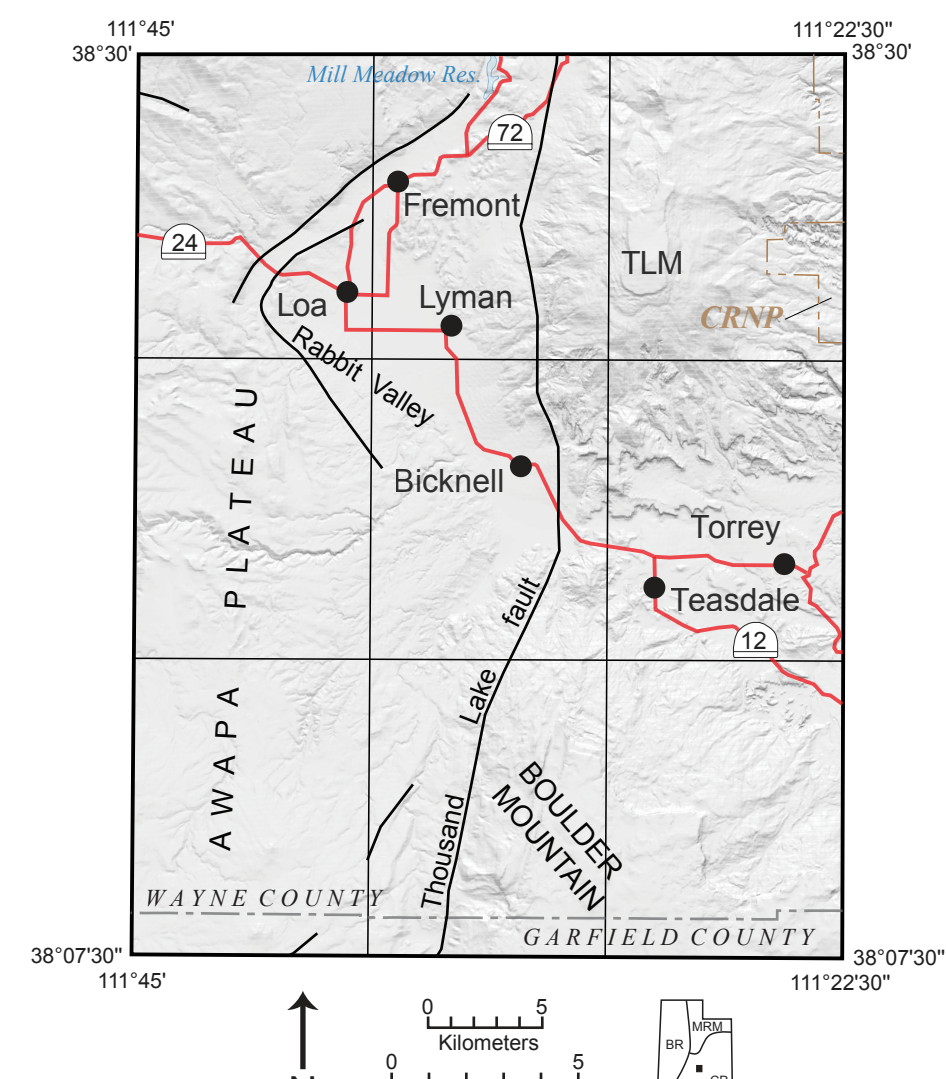


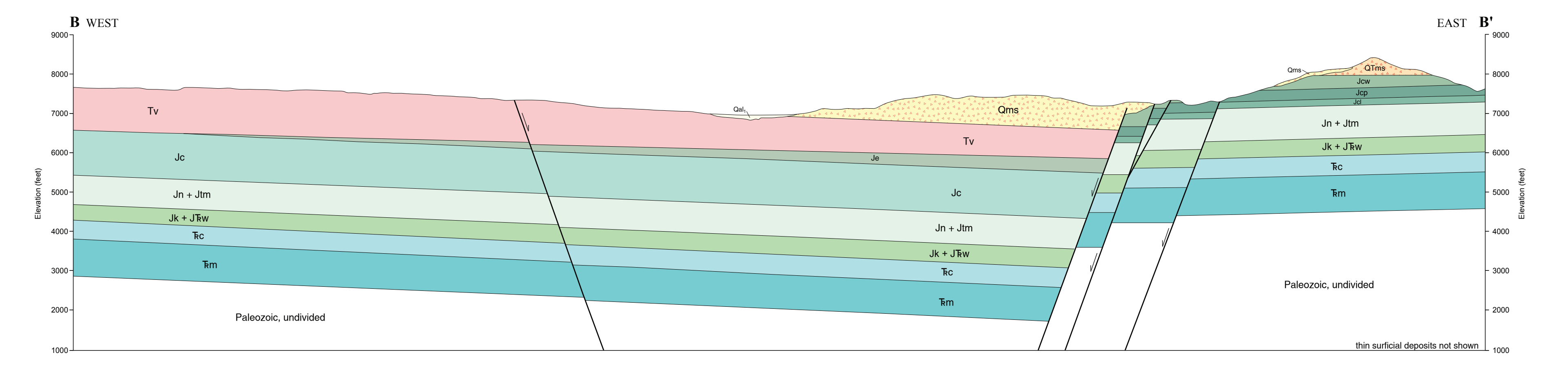
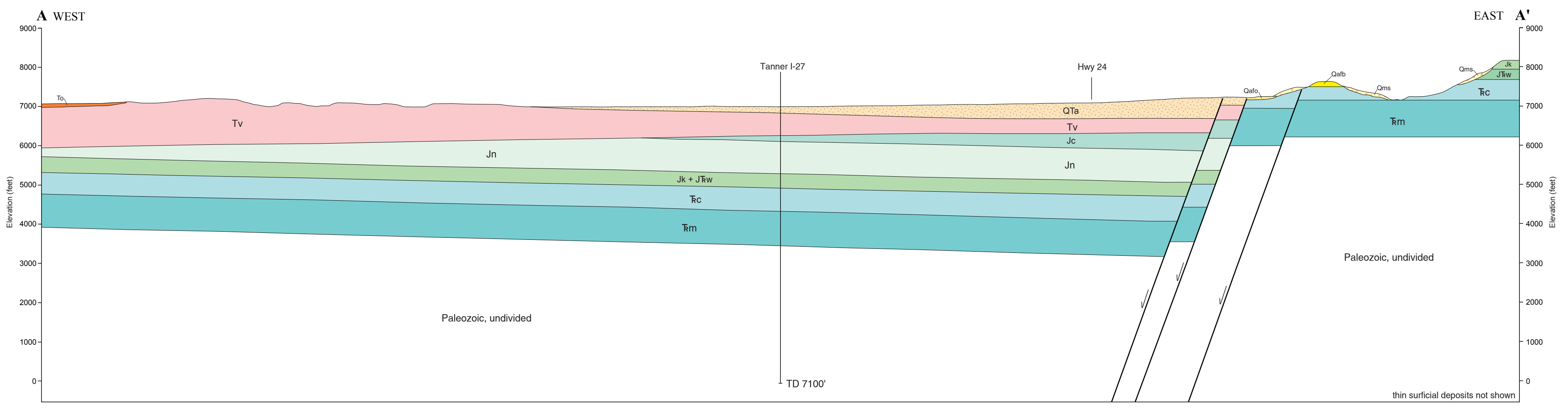
U.S. Geological Survey 7.5' quadrangles and principal sources of previous geologic mapping.
 CRNP = Capitol Reef National Park



Shaded-relief image of the Loa 30x60 quadrangle; TLM = Thousand Lake Mountain, CRNP = Capitol Reef National Park. Face shows physiographic provinces: BR, Basin and Range; MRM, Middle Rocky Mountains; CP, Colorado Plateau.

MAP SYMBOLS

- Contact, dashed where approximately located
- - - Normal fault, dashed where approximately located, dotted where concealed, queried where uncertain; bar and ball on down-dropped side
- - - Reverse fault, dotted where concealed, teeth on upper plate
- Lincament
- - - Monocline fold axis, dashed where approximately located, dotted where concealed, arrows point to steeper limb
- Mafic dike
- Landslide scarp
- Strike and dip of bedding
- Approximate strike and dip of bedding
- Horizontal bedding
- Strike of vertical joint
- Sand and gravel pit
- Quarry
- Spring
- △ 8109919-8 Sample location and number



STRATIGRAPHIC COLUMN									
AGE		MAP UNIT	MAP SYMBOL	THICKNESS feet (meters)	PLATE TECTONIC SETTING	DEPOSITIONAL ENVIRONMENT	DOMINANT ROCK TYPE AND WEATHERING PROFILE	NOTES	
CONCRETIONARY	Holocene	various surficial deposits		variable	Basin-range extension and normal faulting; modern drainage basins beginning about 17 Ma	alluvium and mass-wasting deposits in modern drainages and basins	unconsolidated sand, gravel, clay and silt	Typically maximum thickness reported and not all units present in any given area.	
	Pleistocene	see Correlation of Map Units				alluvium and mass-wasting deposits in modern drainages and basins	lava flow	4.87±0.02 Ma	
NEOGENE	Pliocene	basaltic lava flows	Tbn	20 (6)	Basin-range extension and normal faulting; modern drainage basins beginning about 17 Ma	fluvial basin fill with volumetrically minor lava flows and air-fall tuff beds	sandstone, conglomerate, lava flows		
	Miocene	Sevier River Formation	Tsr	150 (45)		basaltic lava flows			
TERTIARY	Oligocene	Oasis Tuff	To	30 (9)	Basin-range extension and normal faulting; modern drainage basins beginning about 30-14 Ma	ash-flow tuff from Morroque Peak caldera	densely welded myodactyl ash-flow tuffs	23.0 Ma	
		sandstone associated with Oasis Tuff	Tos	50 (15)		fluvial	sandstone and conglomerate		
	trachyte of Lake Creek	Tlc	300+ (90+)	ash-flow tuffs from unknown vents		densely welded crystal-poor trachyte ash-flow tuff	25.13±0.02 Ma		
	table of Johnston Valley	Tjv	250-300+ (75-90+)			densely welded porphyritic latite ash-flow tuff	25-26 Ma		
	Bullion Canyon Volcanics, undivided	Tbu	150 (45)	volcanic mudflow		lahar			
Eocene	Dipping Vat Formation	Tdv	150 (45)	local volcanic sediments deposited in low-relief river and lake basins	volcanoclastic sandstone, siltstone, mudstone, and conglomerate	forms large landslides mostly covered			
Paleocene	Tertiary sedimentary strata	Ts	30 (9)	coastal plain	conglomerate, mudstone, limestone	unconformity			
JURASSIC	Middle	Entrada Sandstone	Je	245+ (75+)	Basin-range extension and normal faulting; modern drainage basins beginning about 30-14 Ma	tidal flat, sabkha, coastal dune	sandstone and silty sandstone		
		Wingate Sandstone	Jfw	250 (75)		sandy mud flat	sandstone, siltstone, gypsum		
		Wingate Mbr.	Jwb	669+ (193+)		restricted shallow marine	micritic limestone, gypsum, shale	166 Ma	
		gypsiferous subunit	Jcg	1029+ (302+)		coastal sabkha and tidal flat	mudstone, siltstone	167 Ma	
		Paria River Mbr.	Jrp	211 (64)		shallow marine	micritic limestone, sandstone, shale	169-170 Ma	
		Crystal Creek Mbr.	Jcx	30 (9)		tidal flat, fluvial	sandstone and siltstone	J-1 unconformity	
	Co-op Creek Limestone Mbr.	Jcc	119 (36)						
	Temple Cap Formation	Jtm	43 (13)	vest eolian dune field of and west coast subtropical desert	sandstone	large cross-beds			
	Lower	Navajo Sandstone	Jn	800 (245)					
	Upper	Wingate Sandstone	Jfw	250 (75)					
upper slope former		Jcu	130 (40)	fluvial, minor lake, eolian dune field	sandstone, siltstone, minor mudstone, limestone	large cross-beds			
lower slope former		Jcl	210 (65)	eolian dune field	sandstone				
Monitor Butte Member		Jcm	110 (33)	fluvial, floodplain, wetland, and lake	sandstone, siltstone, mudstone	forms landslides			
Middle to Lower	Moody Canyon Member	Jmm	230+ (70+)	low-relief continental shelf	sandstone, conglomerate	T-3 unconformity			

CORRELATION OF MAP UNITS

