

**EXPLANATION**  
GEOLOGIC SECTIONS

Qb	BASALT (QUATERNARY)
OTs	BASIN FILL (QUATERNARY AND TERTIARY)-Clay, silt, sand, and gravel; lower part more compact, dense
Tib	BOUSE FORMATION (TERTIARY)-Clay, silt, sand, and limestone along Colorado River
Tt	TUFF (TERTIARY)-Tuff, andesite, rhyolite lava flows, agglomerate, and lesser amounts of basalt
Tv	UNDIFFERENTIATED VOLCANIC ROCKS (TERTIARY)-Andesite, andesite flow-breccia, minor basalt flows, welded ash-flow tuffs, and rhyolite flows and domes
Tvs	SILICIC ASH-FLOW TUFF (TERTIARY)
Tb	BASALT (TERTIARY)
MPm	LOW-GRADE METAMORPHIC ROCKS (MESOZOIC AND PALEOZOIC)-Regionally metamorphosed sediments and volcanics
pCm	HIGH-GRADE METAMORPHIC ROCKS (PRECAMBRIAN)-Gneiss, schist, and small plutons

INTRUSIVE ROCKS

TI	INTRUSIVE ROCKS (TERTIARY)-Sills, plugs, and dikes
TKi	INTRUSIVE ROCKS (PALEOCENE AND LATE CRETACEOUS)-Predominantly granite and quartz monzonite and minor diorite and dike swarms
TKg	GRANITIC ROCKS (TERTIARY OR CRETACEOUS)
Mg	GRANITIC ROCKS (MESOZOIC)-Mostly quartz monzonite
pCg	GRANITIC ROCKS (PRECAMBRIAN)-Granite, quartz monzonite, and granodiorite

— GEOLOGIC CONTACT  
- - - FAULT  
A'-A'—A LINE OF SECTION

HYDROGEOLOGIC SECTIONS

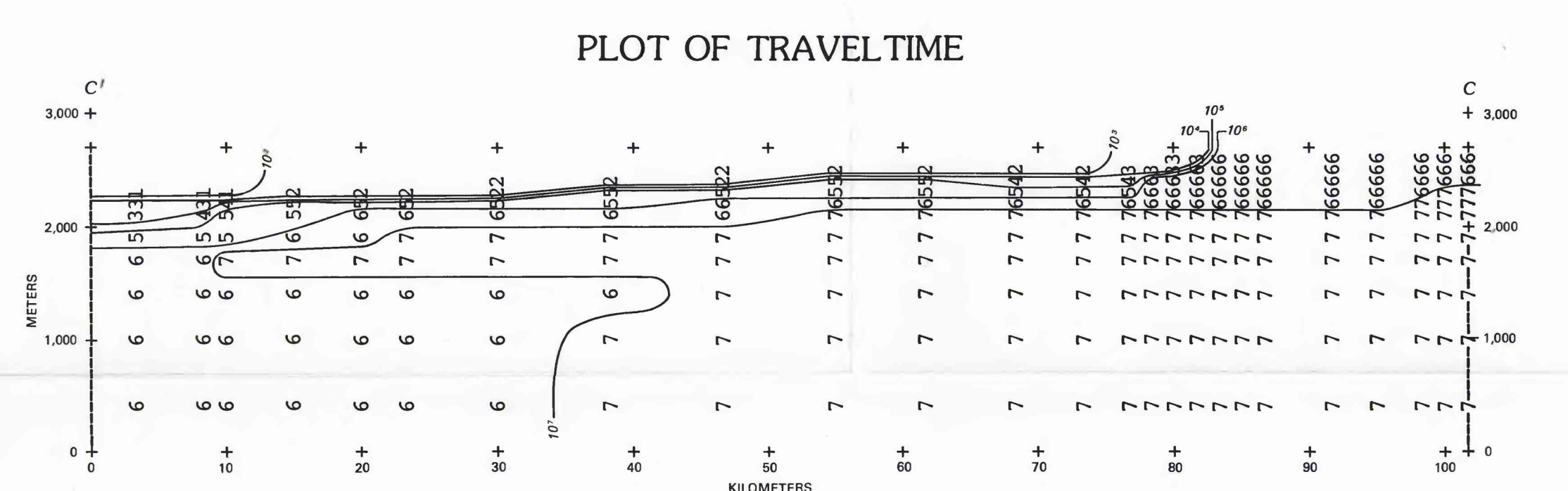
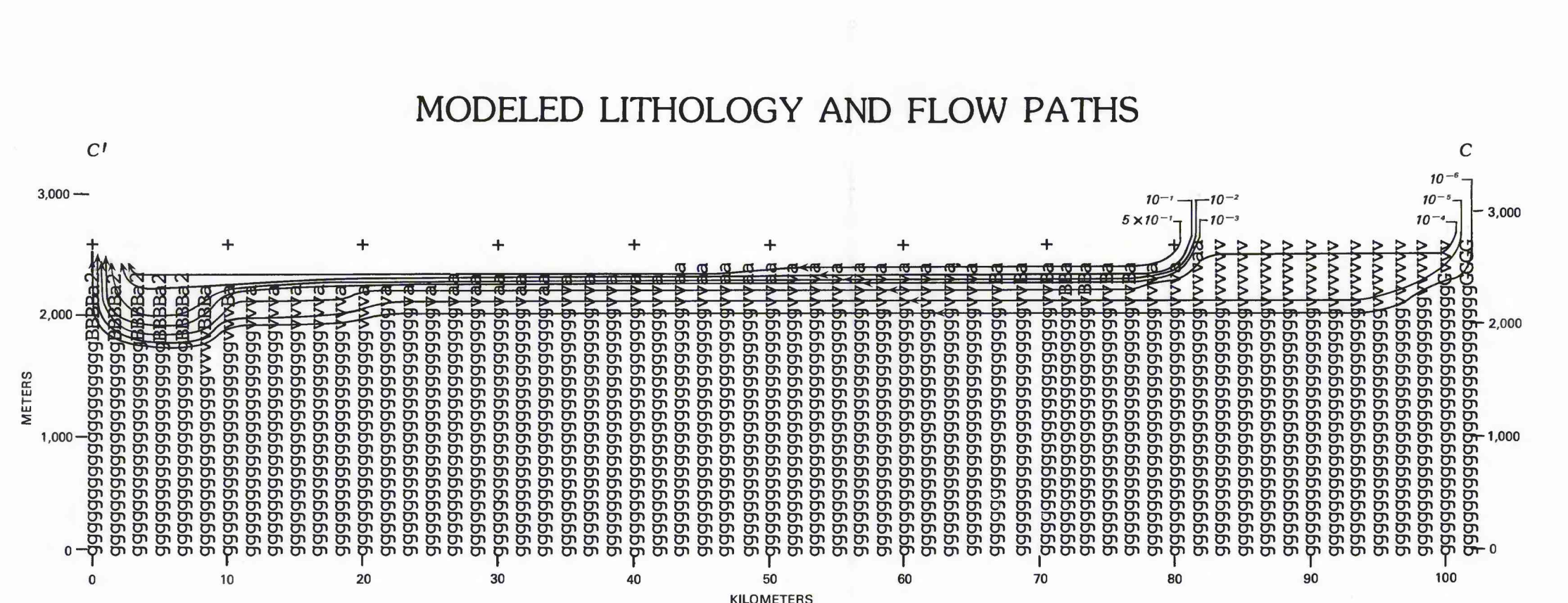
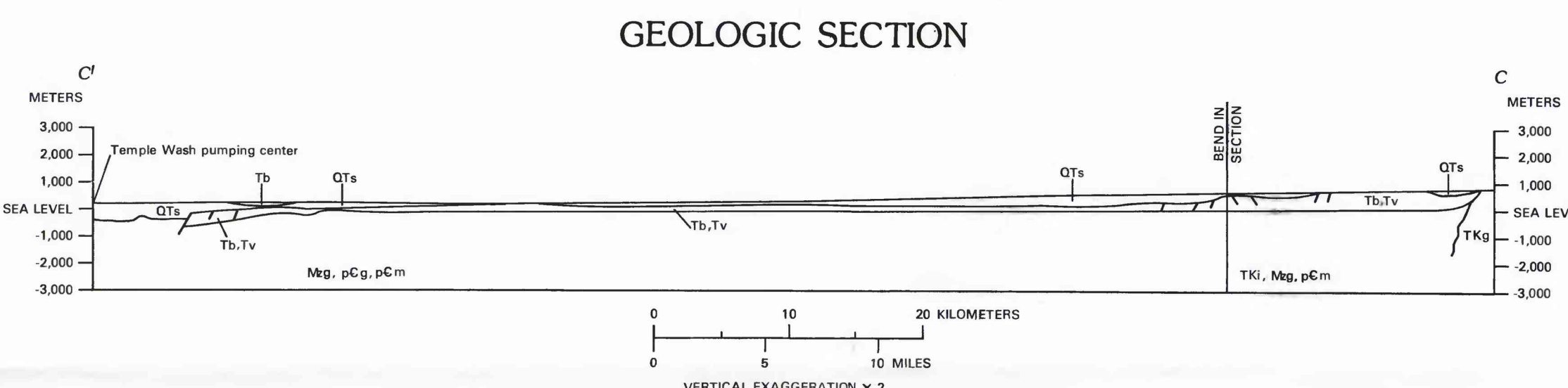
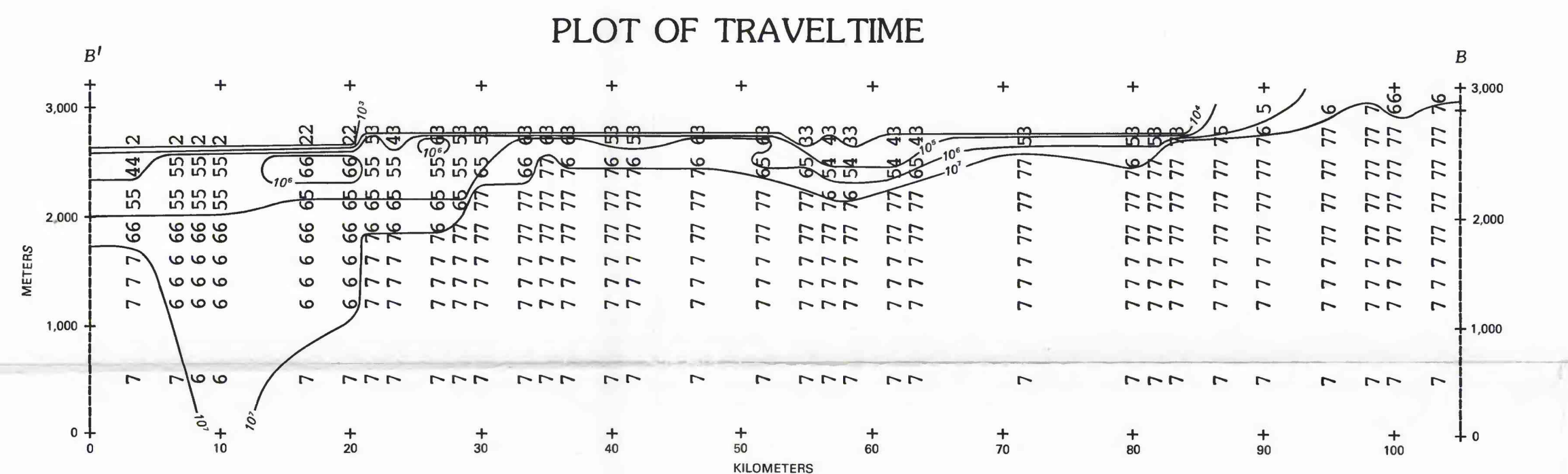
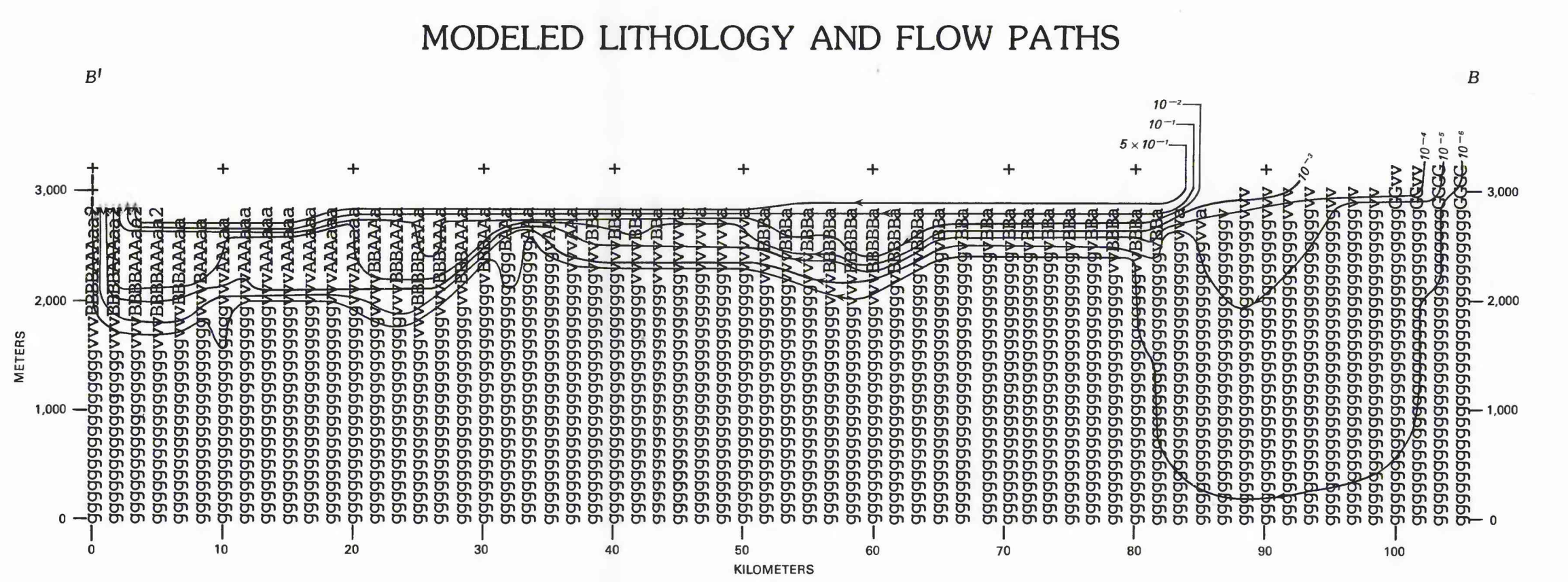
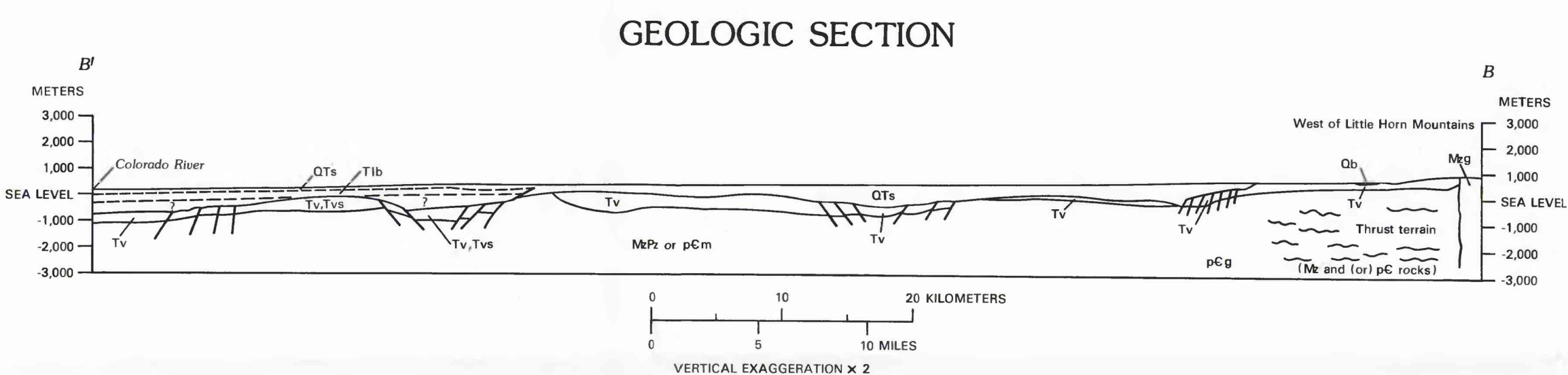
a	COARSE-GRAINED UPPER BASIN FILL	OTs
B	COARSE-GRAINED LOWER BASIN FILL	OTs
A	FINE-GRAINED BASIN FILL	Tib
t	ASH-FLOW TUFF	Tt
v	UNDIFFERENTIATED VOLCANIC ROCKS	Tv, Tvs, Tb
g	CRYSTALLINE ROCKS, LOWER PART OF SECTION	MPm, pCm, TI, TKi, TKg, Mg, pCg
G	CRYSTALLINE ROCKS, UPPER PART OF SECTION	pCm, TI, TKg, Mg, pCg
2	DISCHARGE AREA	Not used

— 10<sup>-1</sup>— DIRECTION OF GROUND-WATER FLOW-Number indicates relative volume of flow in section below flow line

**PLOT OF TRAVELTIME**

5 EXPONENT OF TIME-A display of "5" indicates that the time is greater or equal to 100,000 years and less than 1,000,000 years. Time is from the point to discharge area. Traveltime is computed for each active node but, depending on scale and block dimensions, may not be displayed everytime

10<sup>-1</sup>— RELATIVE TRAVELTIME FROM POINTS ON LINE TO DISCHARGE AREA--Areas of longest traveltimes originate in the recharge area. No isolated areas of long traveltime are surrounded by areas of shorter traveltime. Some areas of longest traveltime are too small to portray at scale shown



**HYDROGEOLOGIC SECTIONS A-A', B-B', AND C-C', SHOWING GROUND-WATER FLOW PATHS AND RELATIVE TRAVELTIME, SONORAN REGION, ARIZONA**