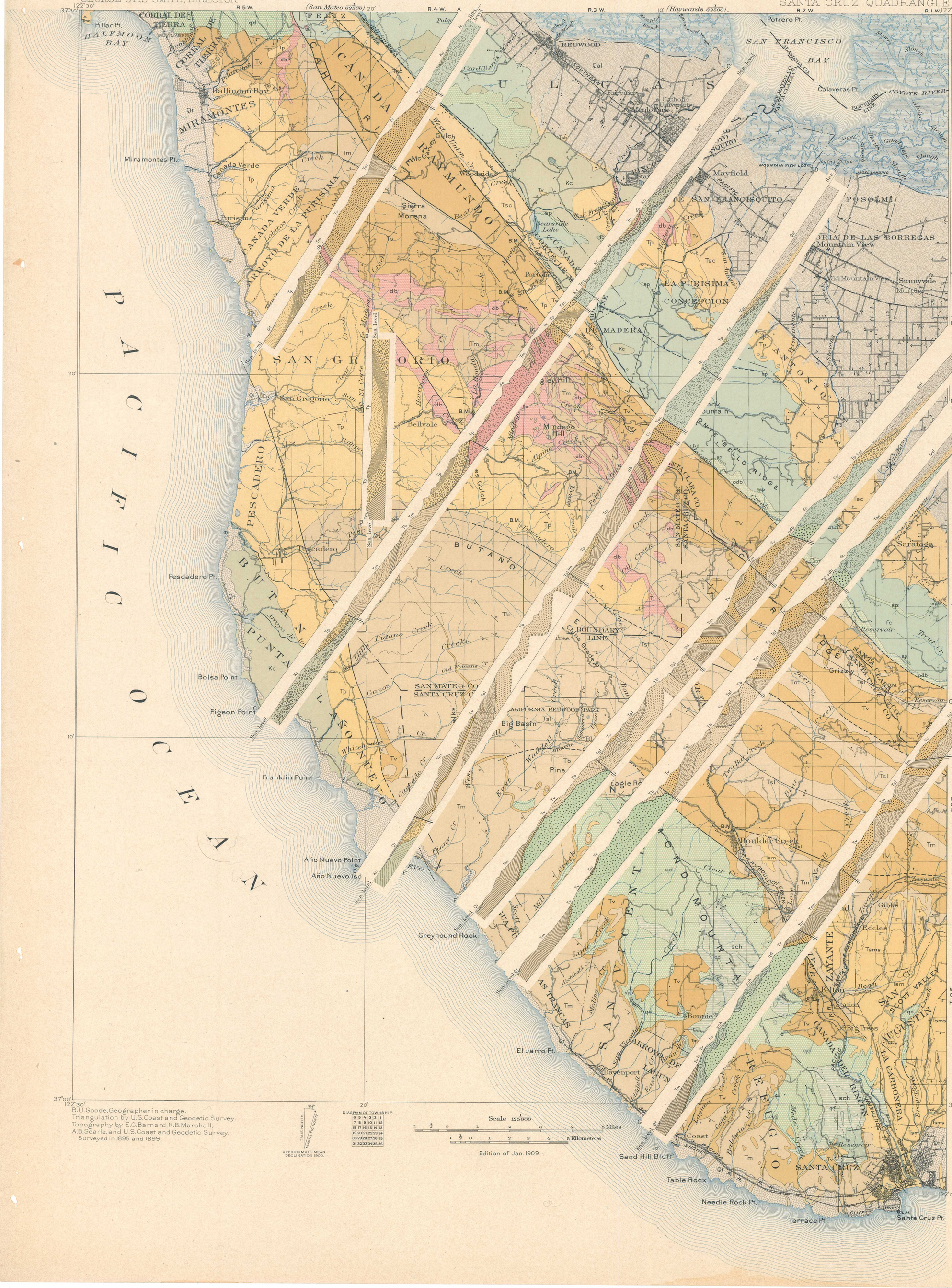
U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

STRUCTURE SECTIONS

CALIFORNIA
SANTA CRUZ QUADRANGLE



LEGEND

SEDIMENTARY ROCKS

SHEET SYMBOL	SECTION SYMBOL		SHEET SYMBOL	SECTION SYMBOL	
Qt	Qt	Terrace deposits (marine and dune sand and detrital deposits)	Qal	Qal	Alluvium (on flats bordering San Francisco Bay; merges with Santa Clara formation)
UNCONFORMITY			UNCONFORMITY		
Tmc	Tmc	Merced formation (marine sandstone and shale, with occasional hard fossiliferous layers)	Tsc	Tsc	Santa Clara formation (gravel, sand, and clay; chiefly of fresh-water origin; merges with recent alluvium and boundary is indefinite)
Tp	Tp	Purisima formation (conglomerate, sandstone, and shale, in part diatomaceous; includes some older strata east of Cahill–Castle Rock divide)			
Tsms / Tsm	Tsm	Santa Margarita formation (clean white sand, largely unconsolidated; with shale, Tsms, at the top; includes some Purisima near coast)			
UNCONFORMITY					
Tm	Tm	Monterey shale (soft to flinty shale, largely diatomaceous, and massive sandstone locally bituminous near the base)			
UNCONFORMITY					
Tv	Tv	Vaqueros sandstone (heavy-bedded sandstone and conglomerate, interbedded, especially toward the top, with minor dark shale)			
UNCONFORMITY					
Tsl	Tsl	San Lorenzo formation (clayey shale with intercalated fine-grained sandstone)			
Tb	Tb	Butano sandstone (massive, brown and buff sandstone)			
UNCONFORMITY					
Tl		Limestone inclusions in diabase			
UNCONFORMITY					
Kc	Kc	Chico formation (heavy-bedded sandstone and conglomerate, with small amount of shale)			
UNCONFORMITY					
Kk		Knoxville formation (hard, dark-colored shale, sandstone, and conglomerate)			
UNCONFORMITY					
fc	fc	Franciscan formation (sandstone, shale, and some conglomerate with lenticular masses of limestone, jasper, chert, schist, and greenstone)			
UNCONFORMITY					
ls	ls	Limestone (white to light-gray crystalline limestone)			
sch	sch	Schist (dark-colored micaceous schist; includes minor quantities of crystalline limestone and thin-bedded quartzite)			

Pliocene; Miocene; Oligocene; Eocene — QUATERNARY; TERTIARY; CRETACEOUS; PRE-CRETACEOUS; Jurassic?; Pre-Franciscan?

IGNEOUS ROCKS

db	db	Diabase and basalt (intrusive diabase, basalt flows and intrusions, and tuffs)	Post-Franciscan (Pre-Santa Margarita) — TERTIARY
odb	odb	Older diabase (somewhat altered diabase dike)	PRE-TERTIARY
sp		Serpentine (altered intrusive masses and dikes of basic rocks)	PRE-TERTIARY
qd	qd	Quartz diorite (fine to medium grained)	(Pre-Franciscan?) — PRE-CRETACEOUS

Faults

Concealed faults (covered by younger deposits)

Strike and dip of stratified rocks
Anticlinal axes