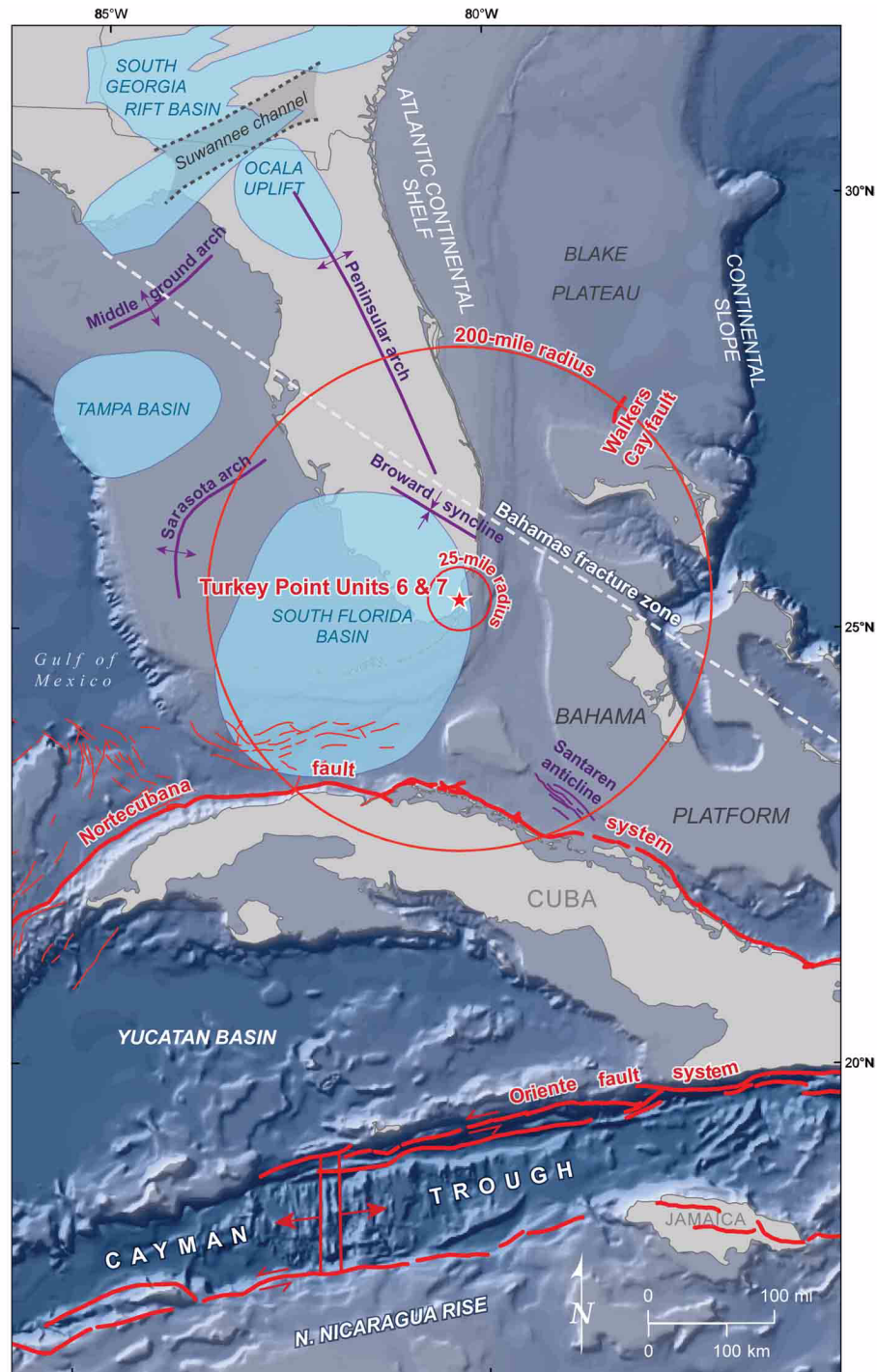


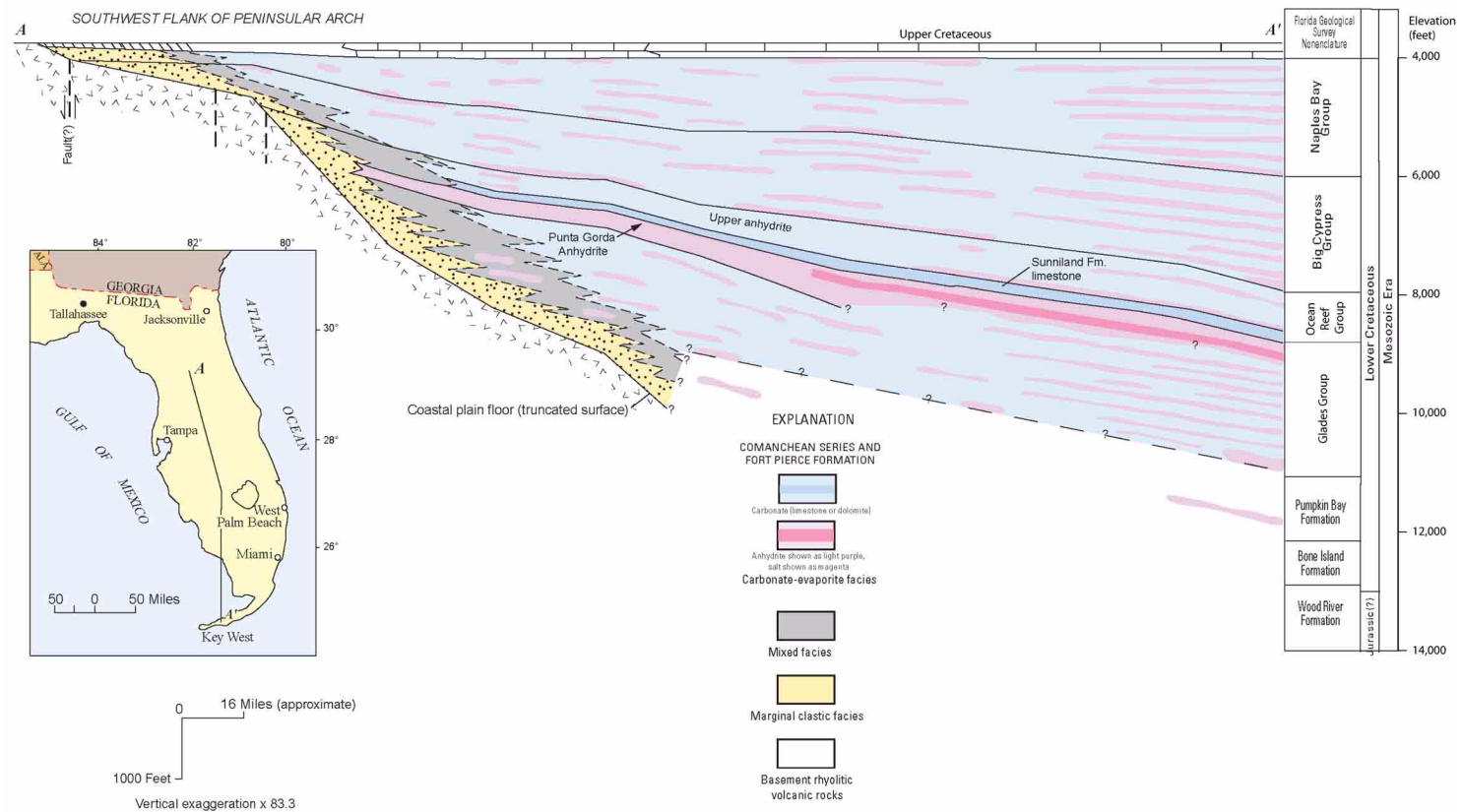
Figure 2.5.1-229 Regional Tectonic Features



Sources: References 822, 482, 823, 457, 212, and 421

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Figure 2.5.1-230 Simplified North-South Profile of Mesozoic-Age Rocks in Florida



Modified from: [Reference 366](#)

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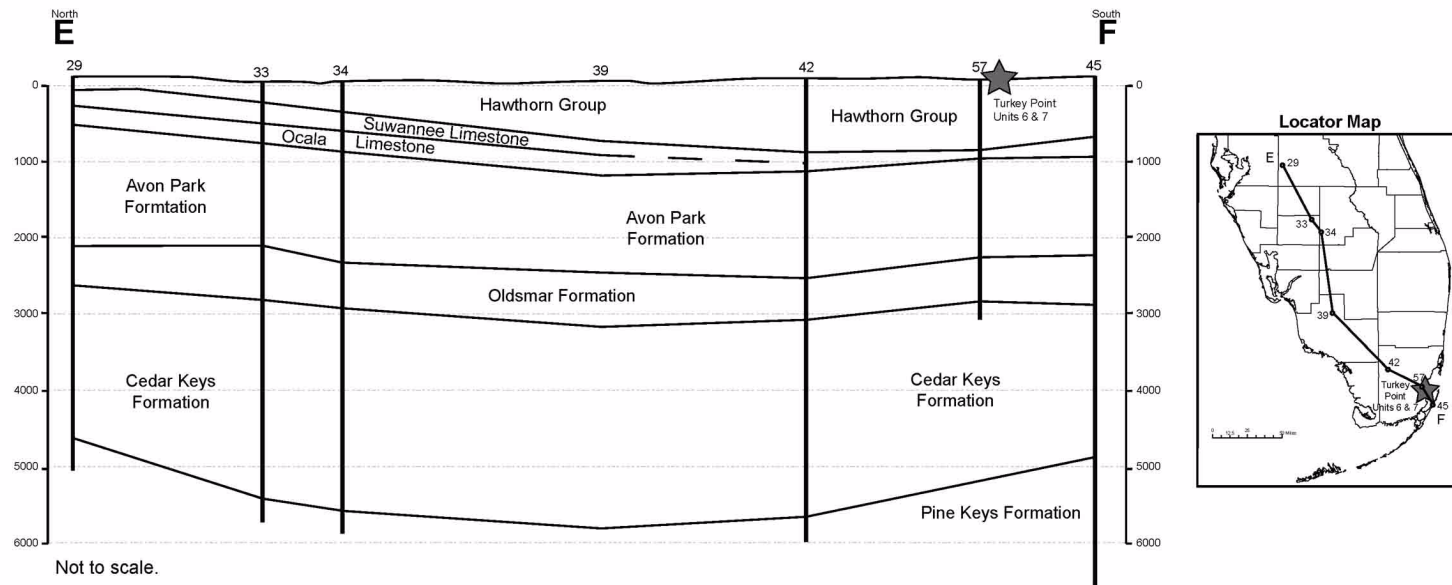
Figure 2.5.1-231 Cenozoic Stratigraphy of Southern Florida

| ERA | SYSTEM | SERIES | STRATIGRAPHIC UNIT | | LITHOLOGY | APPROXIMATE THICKNESS (ft) | |
|-----------------|---------------------|-------------|--|---|--|---|---------|
| CENOZOIC | QUATERNARY | PLEISTOCENE | Miami Limestone / Key Largo Limestone/ Anastasia Formation | | sandy, oolitic, coralline, shelly limestone | 10-180 | |
| | | | Caloosahatchee Formation/ Fort Thompson Formation | | poor/well indurated sandy, fossiliferous limestone | 50-100 | |
| | TERTIARY | NEOGENE | PLIOCENE | Tamiami Formation/ Cypresshead Formation (Long Key Formation) | | fossiliferous sand & silt with limestone | 25-220 |
| | | | MIOCENE | Hawthorn Group | Peace River Formation | sands, clays, & phosphatic carbonates | 100-650 |
| | | | | | Arcadia Formation | fine crystalline limestone with sand/clay, phosphatic fossiliferous limestone, & dolomite | 100-700 |
| | | PALEOGENE | OLIGOCENE | Suwannee Limestone | | poor/well indurated fossiliferous vuggy to moldic limestone | 200-600 |
| | | | EOCENE | Ocala Limestone | | poor/well indurated fossiliferous limestone | 200-400 |
| | Avon Park Formation | | | poor/well indurated fossiliferous limestone & vuggy dolostone | 400-1200 | | |
| | Oldsmar Formation | | | vuggy limestone & dolomite | 500-1500 | | |
| | | PALEOCENE | Cedar Keys Formation | | dolomite, gypsum, & anhydrite | 500-2000 | |
| TOTAL THICKNESS | | | | | | 5000-6000 | |

Sources: [References 357, 373, 375, 376, 394, 397, 398, 399, 403, and 406](#)

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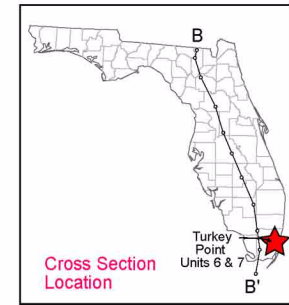
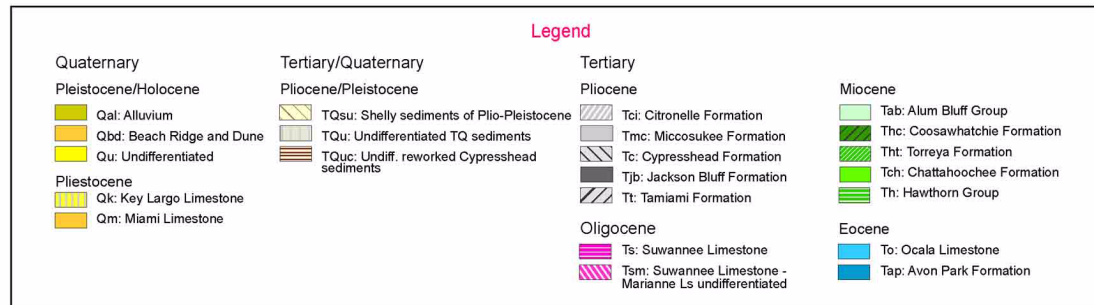
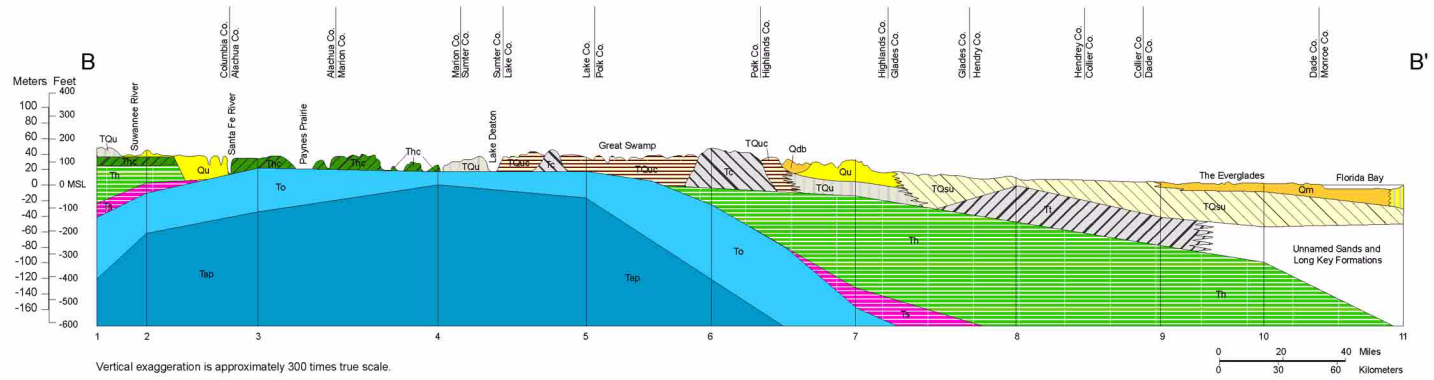
Figure 2.5.1-232 North-South Geologic Cross Section of Upper Mesozoic and Lower Cenozoic Rocks in Southern Florida



Modified from: [Reference 397](#)

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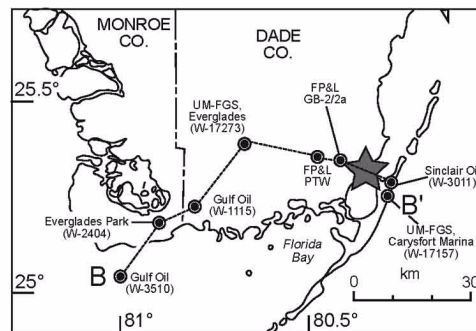
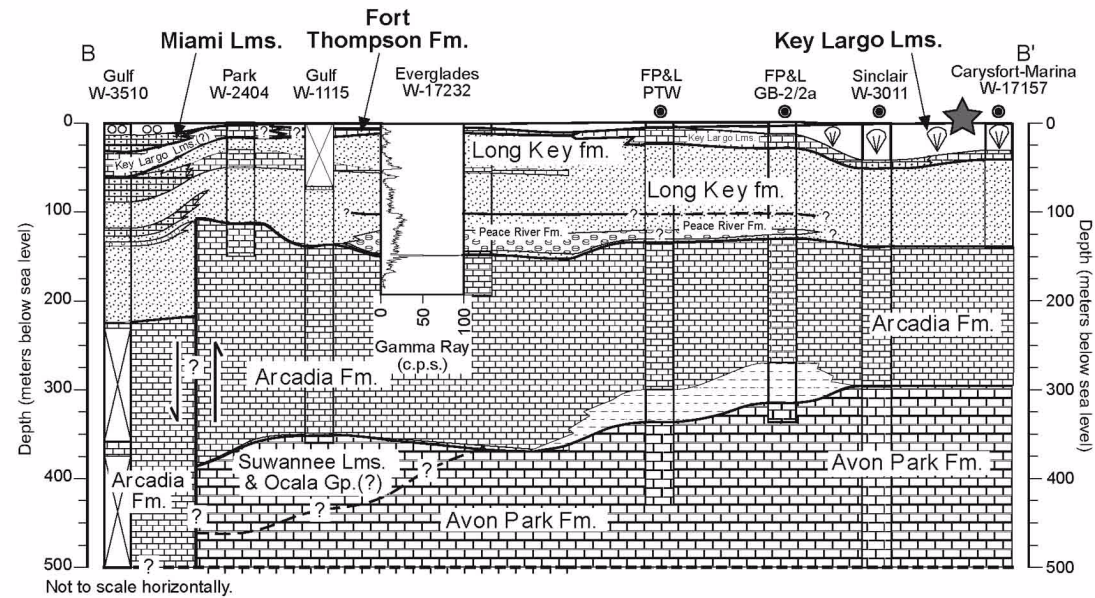
Figure 2.5.1-233 Cenozoic North-South Cross Section of Florida



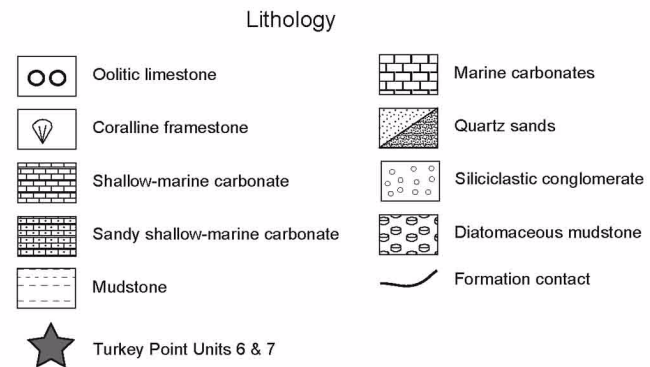
Modified from: [Reference 377](#)

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Figure 2.5.1-234 East-West Geologic Cross Section of Upper Cenozoic Age Rocks in Southern Florida



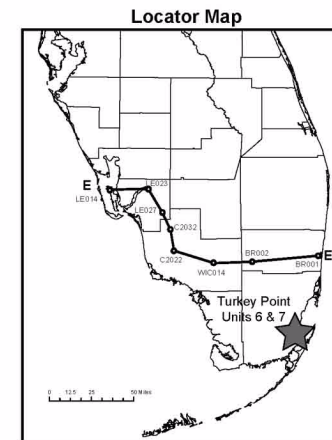
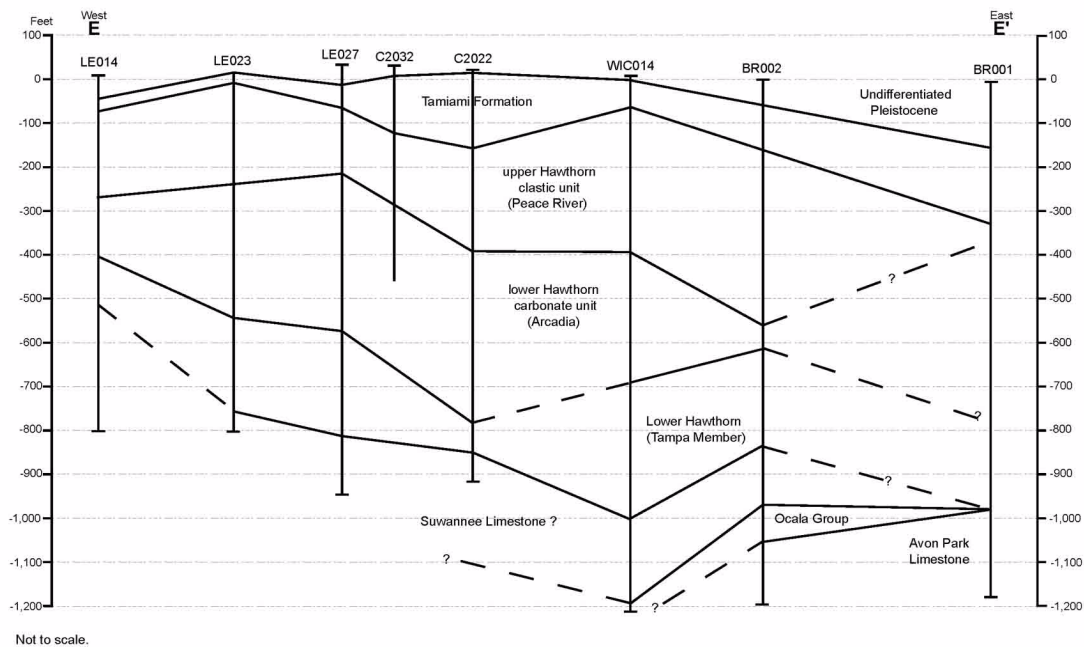
Location of cross section (B-B') in southern Florida.



Modified from: [Reference 373](#)
Note: Primary siliclastic source - Appalachians

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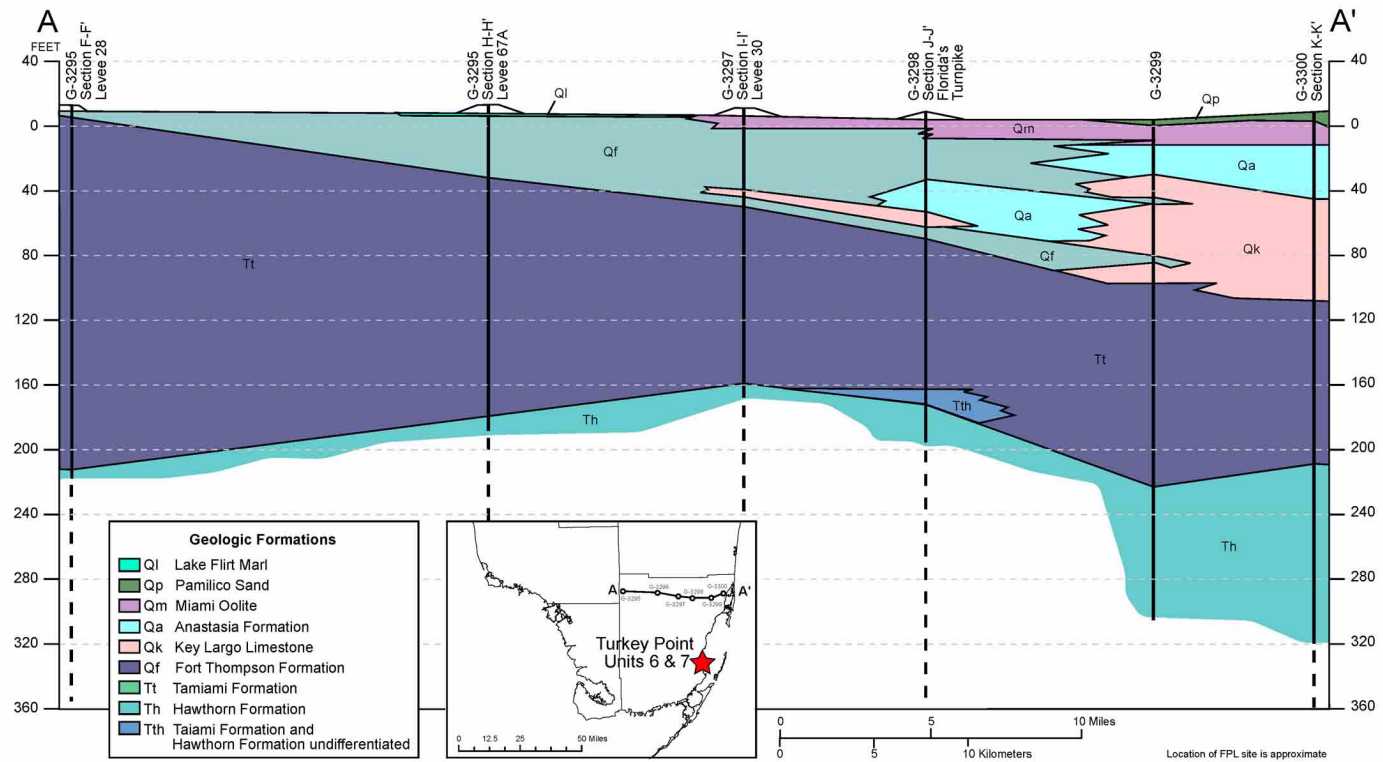
Figure 2.5.1-235 East-West Geologic Cross Section of Eocene through Pliocene-age Rocks in Southern Florida



Modified from: [Reference 378](#)

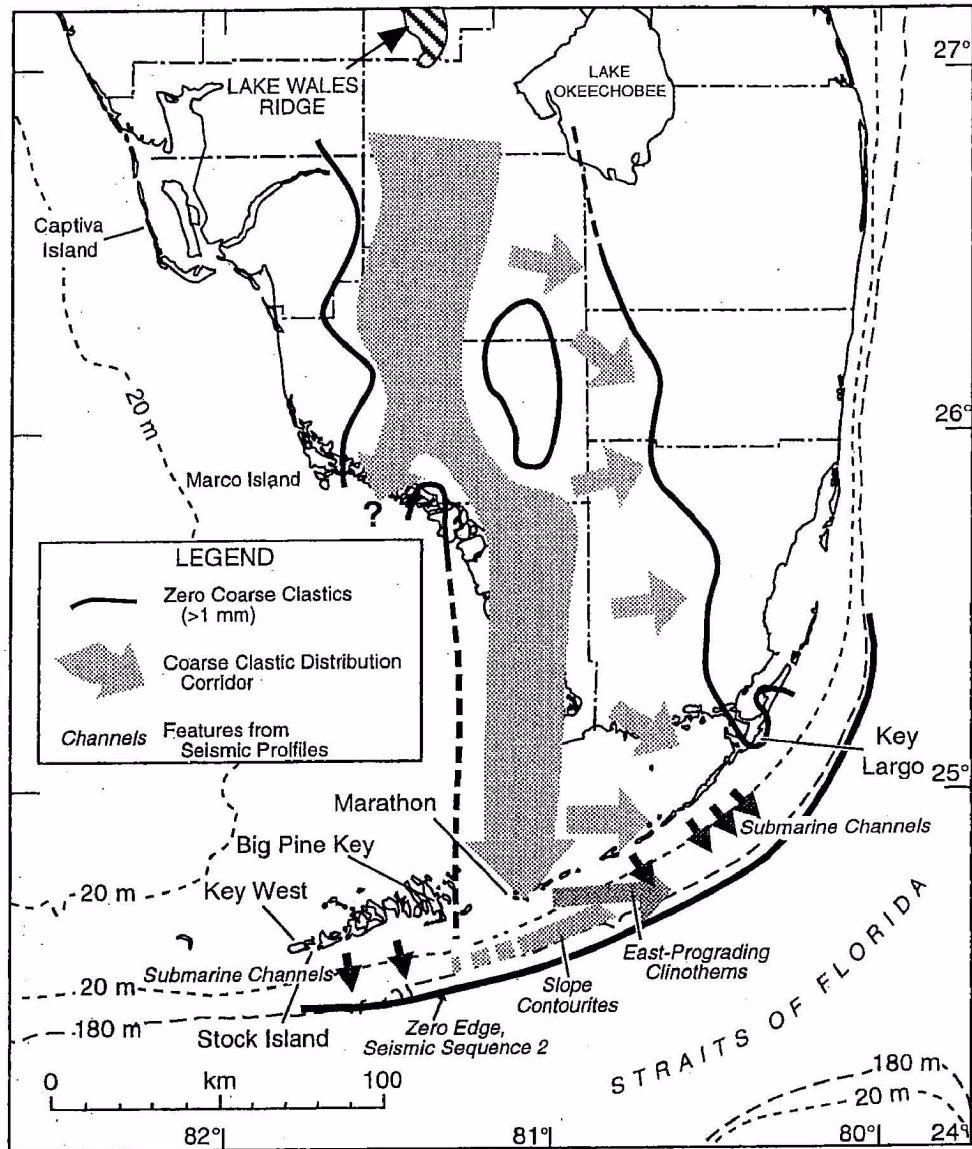
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Figure 2.5.1-236 East-West Geologic Cross Section of Miocene through Pleistocene-age Rocks in Dade County, Florida



Modified from: [Reference 374](#)

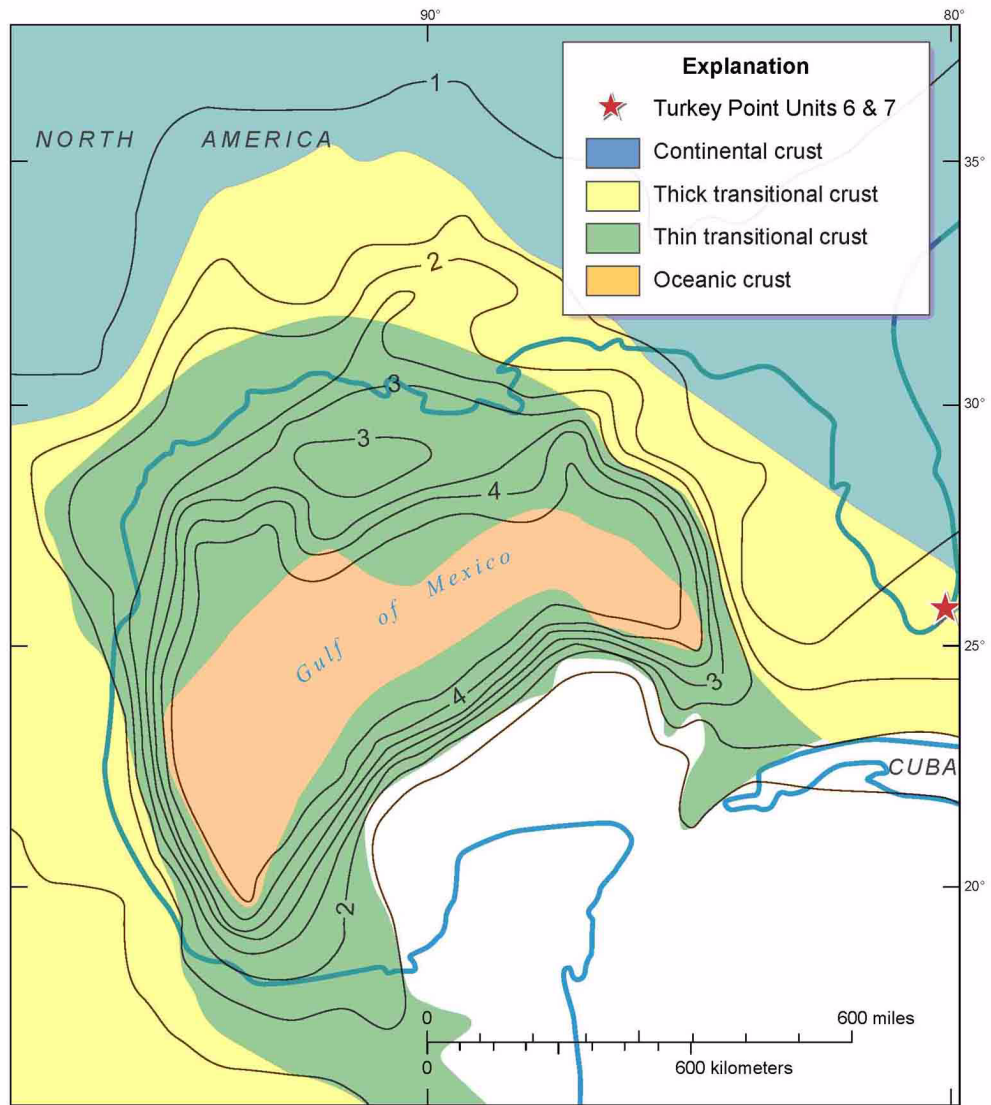
Figure 2.5.1-237 Miocene-Pliocene Siliciclastic Transport Pathways in Southern Florida



Source: [Reference 393](#)

Note: primary siliciclastics source – Appalachians

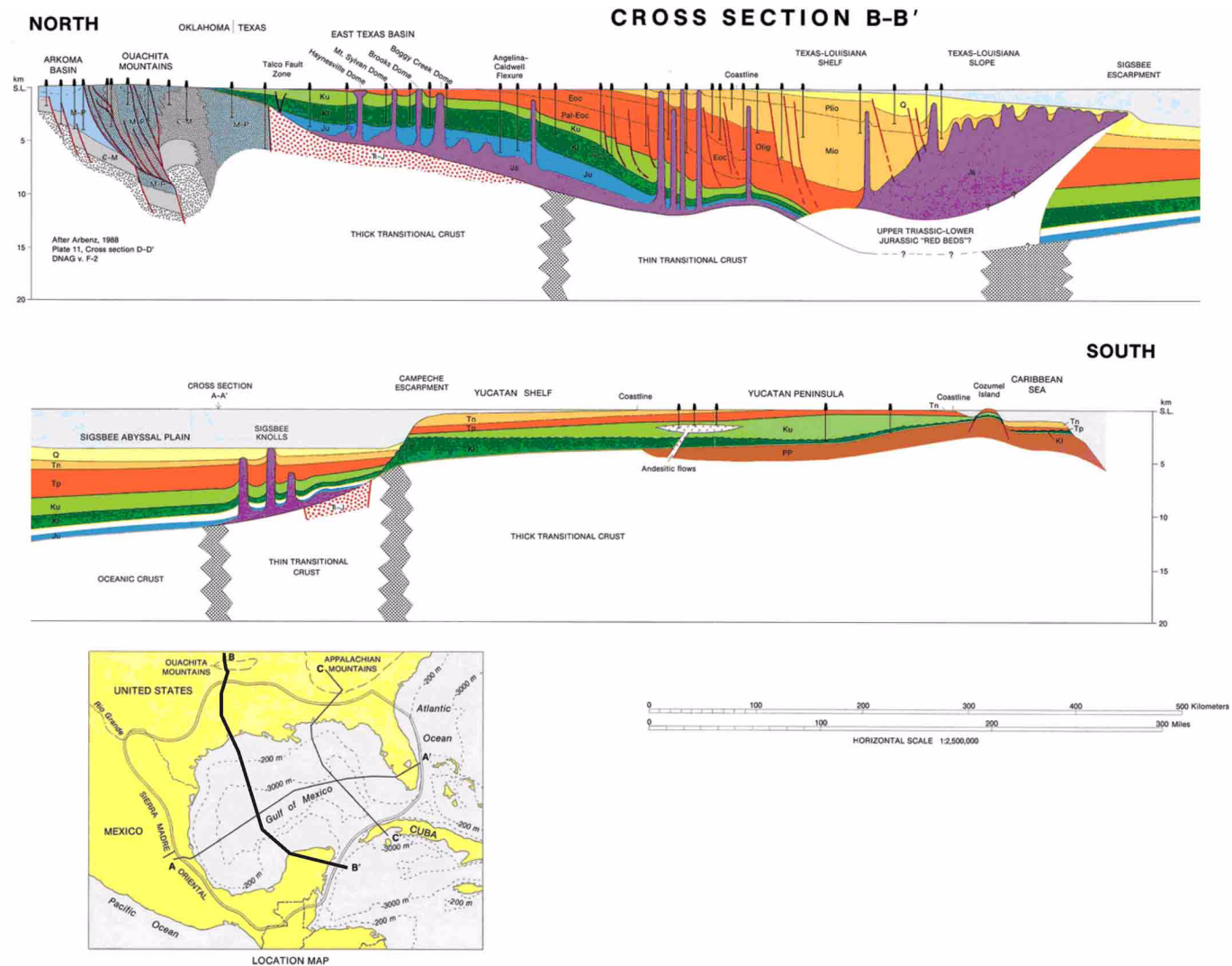
Figure 2.5.1-238 Map of Crust Types in Gulf of Mexico Region



Modified from: [Reference 410](#)

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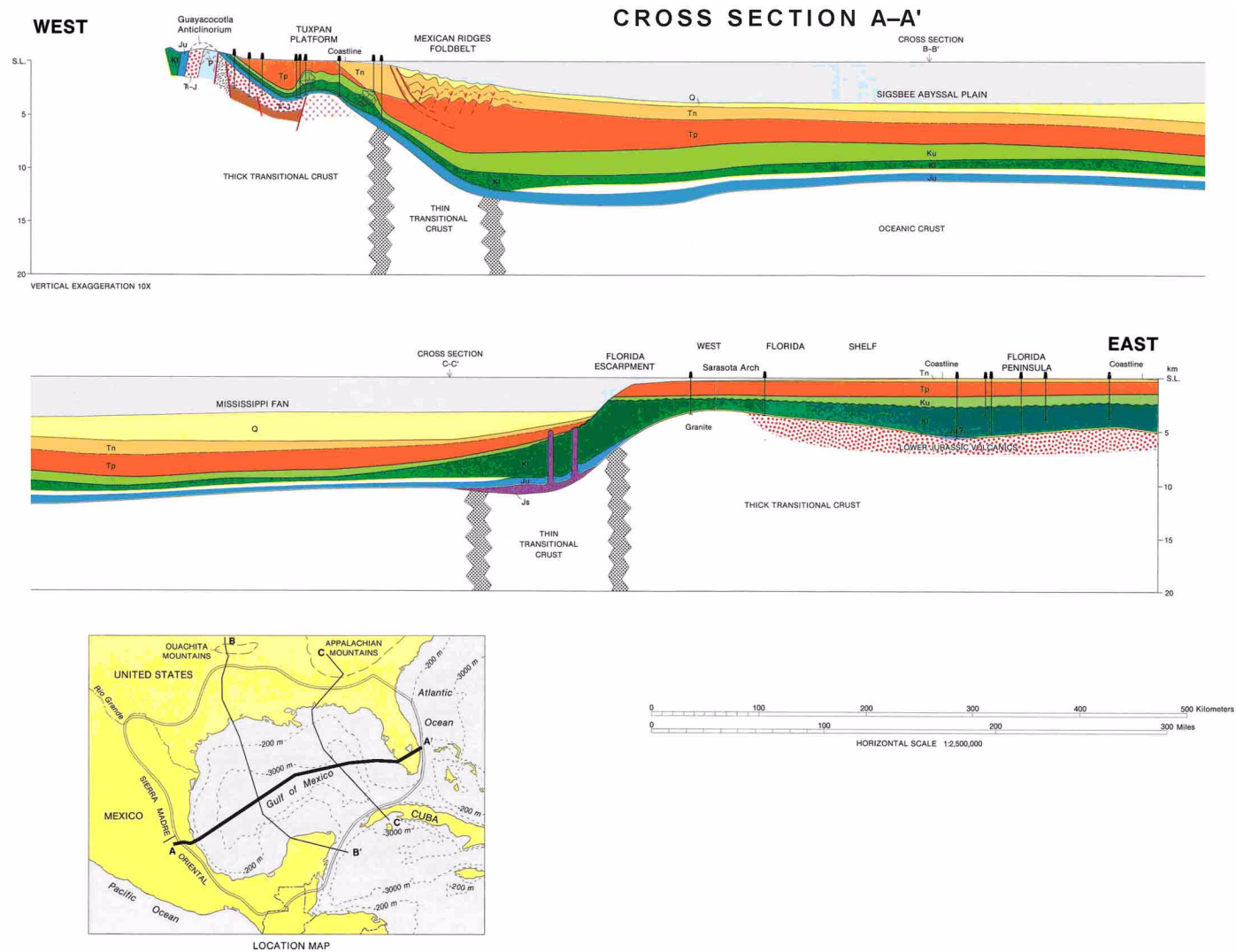
Figure 2.5.1-239 Gulf of Mexico Cross Section B-B'



Note: Explanation in Figure 2.5.1-242
Source: Reference 839

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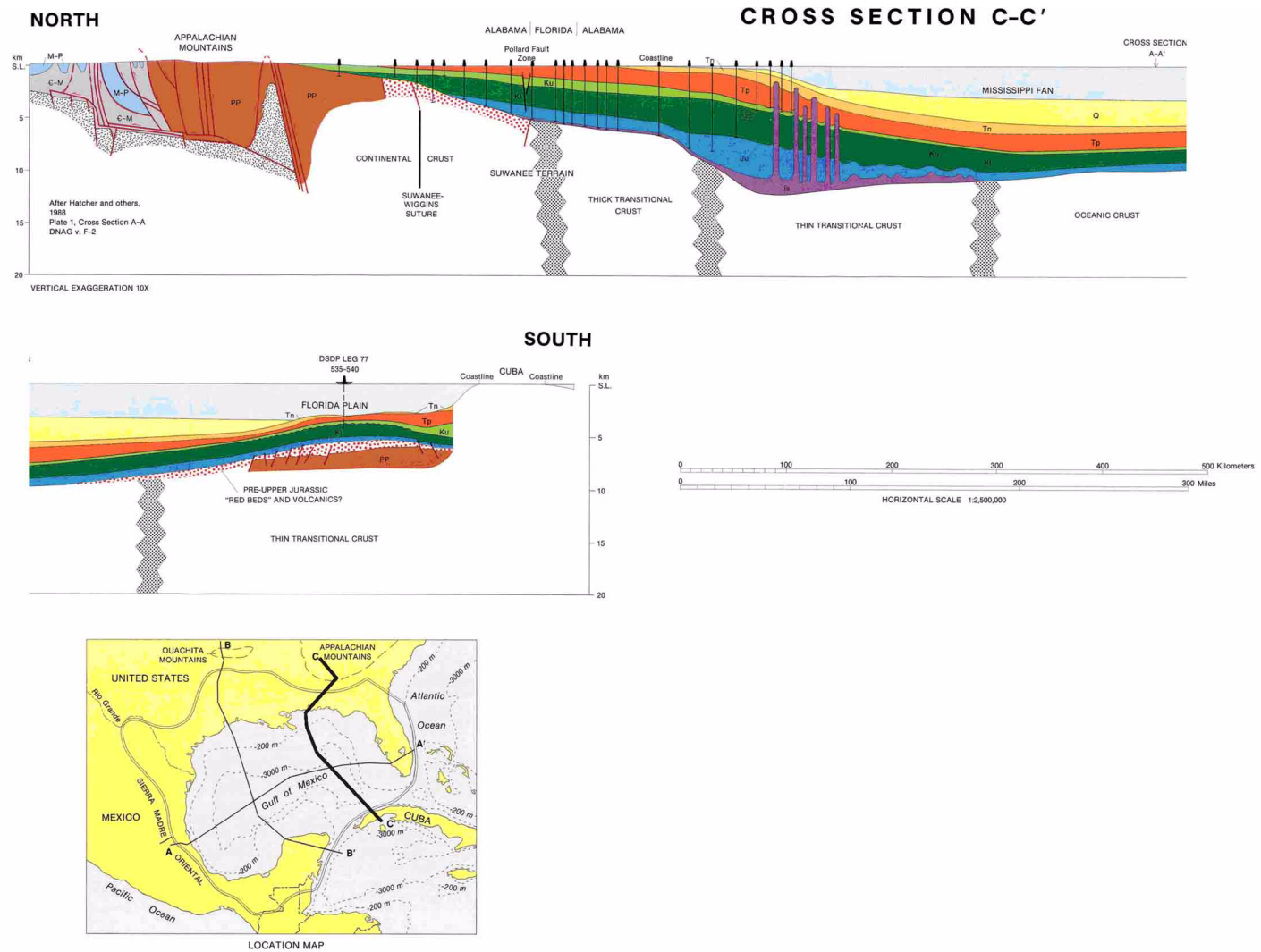
Figure 2.5.1-240 Gulf of Mexico Cross Section A-A'



Note: Explanation in Figure 2.5.1-242
Source: Reference 839

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














Figure 2.5.1-241 Gulf of Mexico Cross Section C-C'



Note: Explanation in Figure 2.5.1-242
Source: Reference 839

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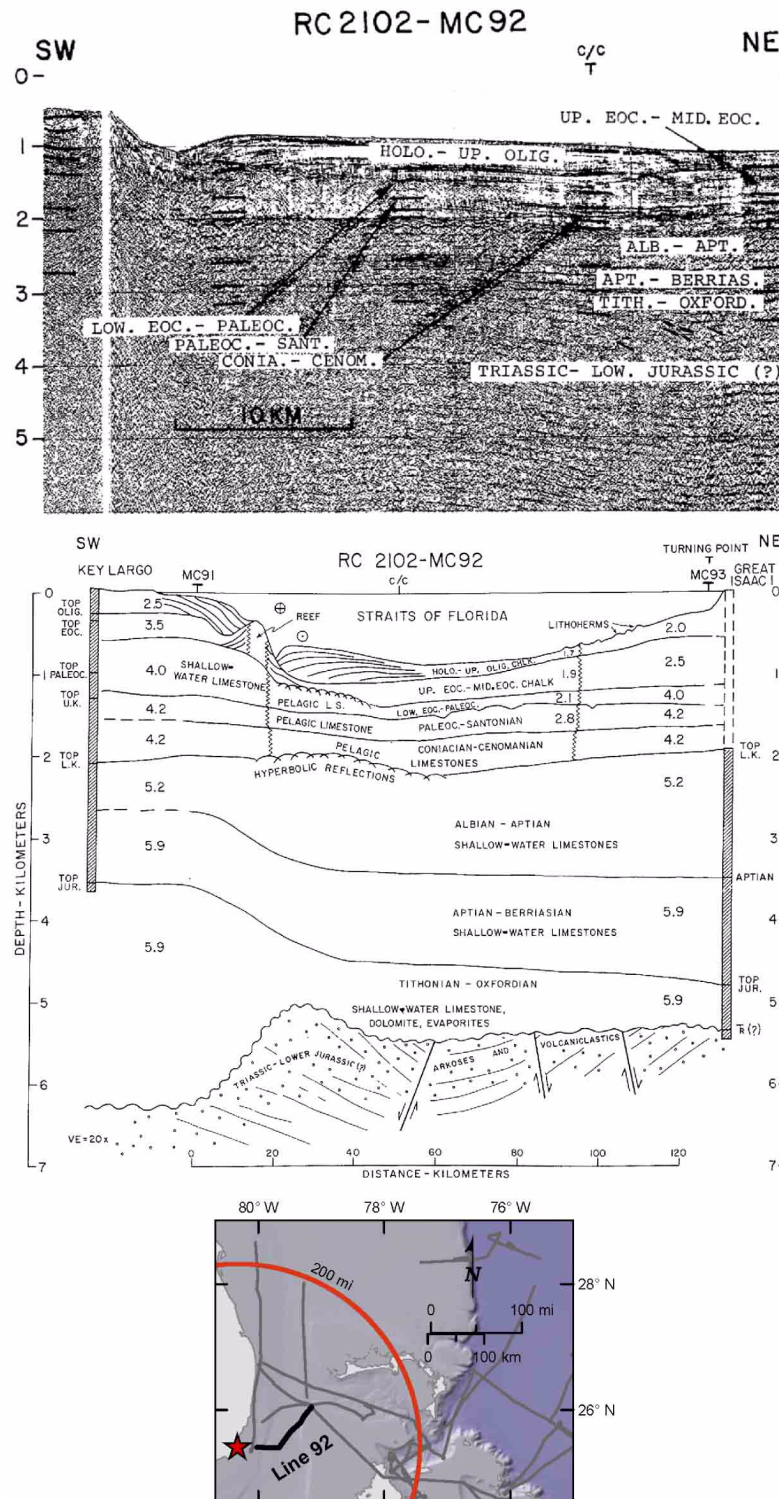
Figure 2.5.1-242 Explanation for Gulf of Mexico Cross Sections A–A', B–B', and C–C'

| | |
|---|--|
|  | Quaternary |
|  | Tertiary–Neogene (Mio = Miocene; Plio = Pliocene) |
|  | Tertiary–Paleogene (Pal = Paleocene; Eoc = Eocene; Olig = Oligocene) |
|  | Upper Cretaceous |
|  | Lower Cretaceous |
|  | Upper Jurassic |
|  | Middle Jurassic salt |
|  | Upper Triassic–Lower Jurassic "red beds" and volcanics (includes Lower Jurassic marine rocks and Middle Jurassic "red beds" and marine rocks in Mexico.) |
|  | Permian–Triassic intrusive granitic rocks |
|  | Permian |
|  | Upper Mississippian–Pennsylvanian (Platform) |
|  | Upper Mississippian–Pennsylvanian (Flysch) |
|  | Cambrian–Lower Mississippian (Platform) |
|  | Cambrian–Lower Mississippian (Off-shelf) |
|  | Upper Proterozoic–Lower Paleozoic metamorphic rocks |
|  | Precambrian crystalline rocks |

Source: [Reference 839](#)

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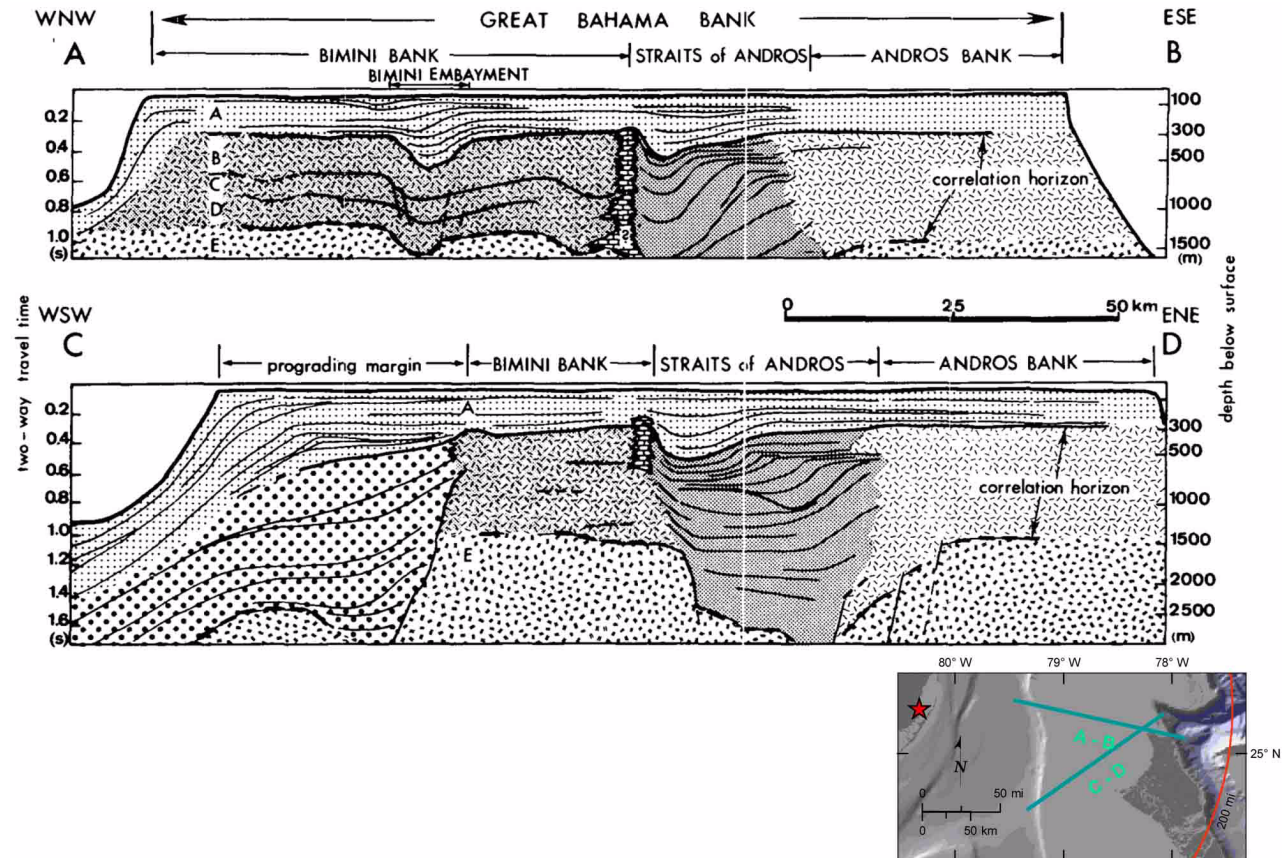
Figure 2.5.1-243 Seismic Line and Well Correlation, Florida, and Bahama Platform



Modified from: [Reference 307](#)

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Figure 2.5.1-244 Seismic Line Interpretation across Bahama Plateau



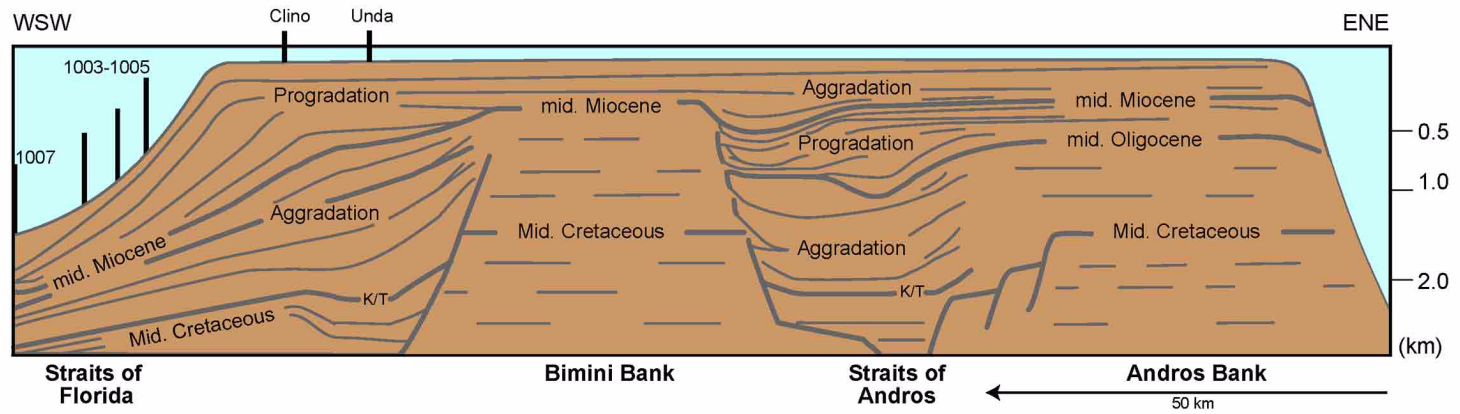
Notes:

Top: Cross section displaying two buried banks (Andros, Bimini) and two completely infilled troughs (Straits of Andros, Bimini embayment). A-E = depositional megasequences. Correlation is given by two horizons (E, B). Note difference in size and age of two troughs.
Bottom: Cross section along WESTERN documenting lateral progradation of Bimini western margin and complex filling of Straits of Andros. Compare volume of prograded part with oroducina platform.

Modified from: [Reference 475](#)

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Figure 2.5.1-245 Great Bahama Bank Geologic Environment



Modified from: [Reference 768](#)

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Figure 2.5.1-246 Lithostratigraphic Column for the Bahama Islands

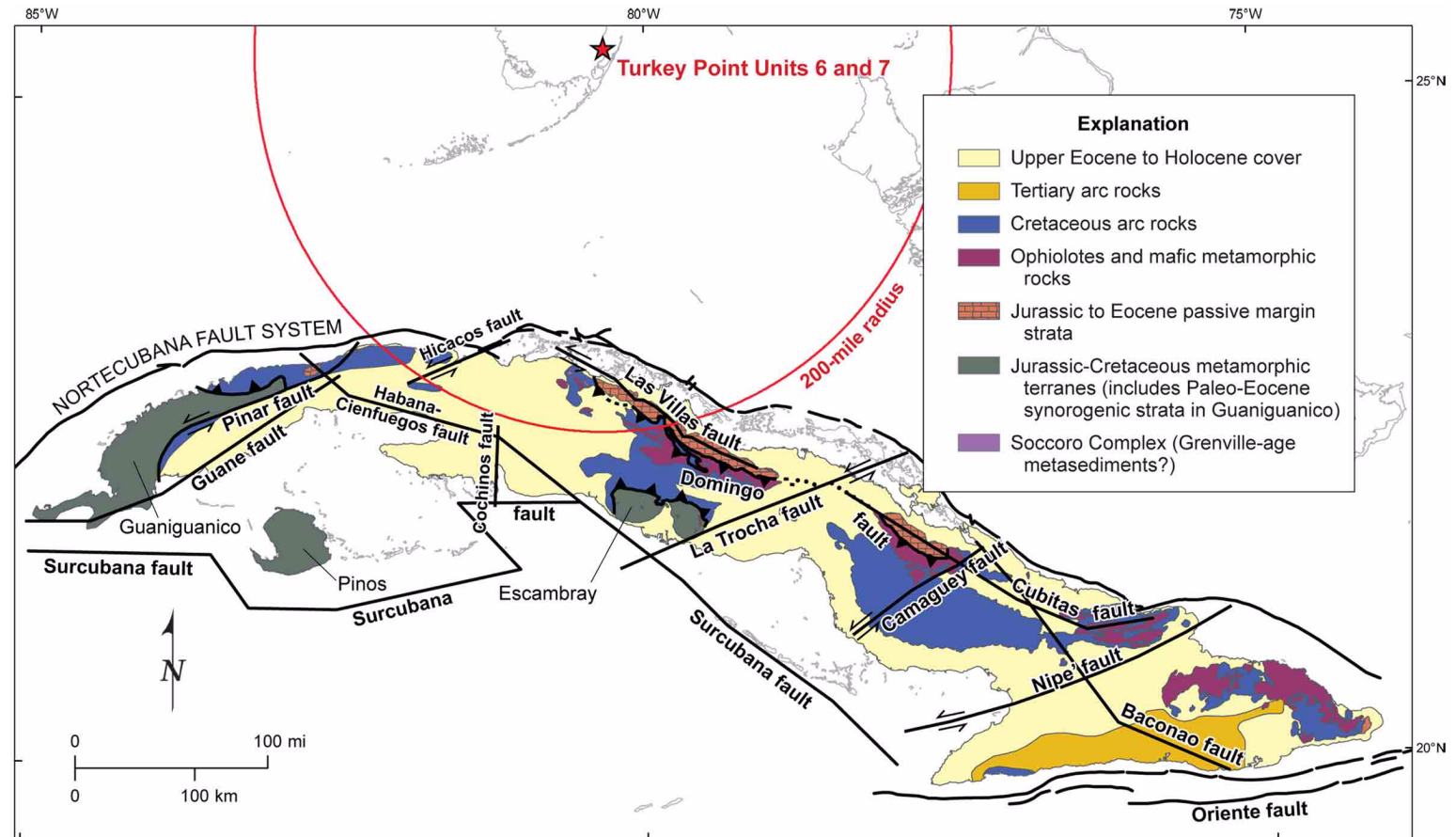
| ERA | SYSTEM | SERIES | FORMATION | |
|----------|------------|-------------|------------------------|----------------------|
| CENOZOIC | QUATERNARY | HOLOCENE | Rice Bay Formation | Hana Bay Member |
| | | | | North Point Member |
| | | PLEISTOCENE | Grotto Beach Formation | Cockburn Town Member |
| | | | | French Bay Member |
| | | | Owl's Hole Formation | |

Not drawn to scale

Modified from: [Reference 438](#)

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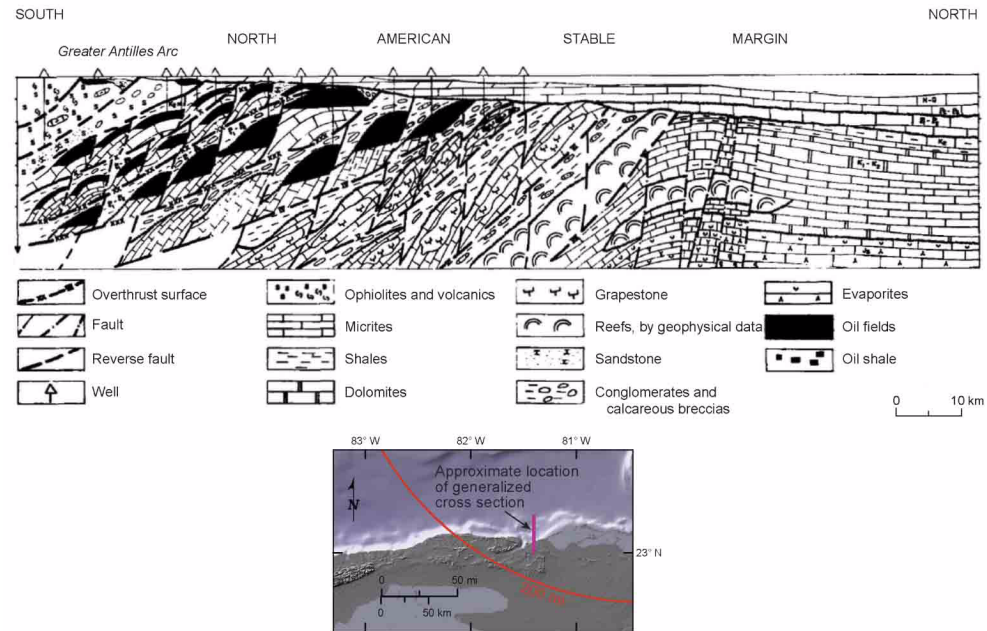
Figure 2.5.1-247 Tectonic Map of Cuba



Multiple sources were used to compile this map, including [References 443, 448, 439, 770, 492, and 494](#)

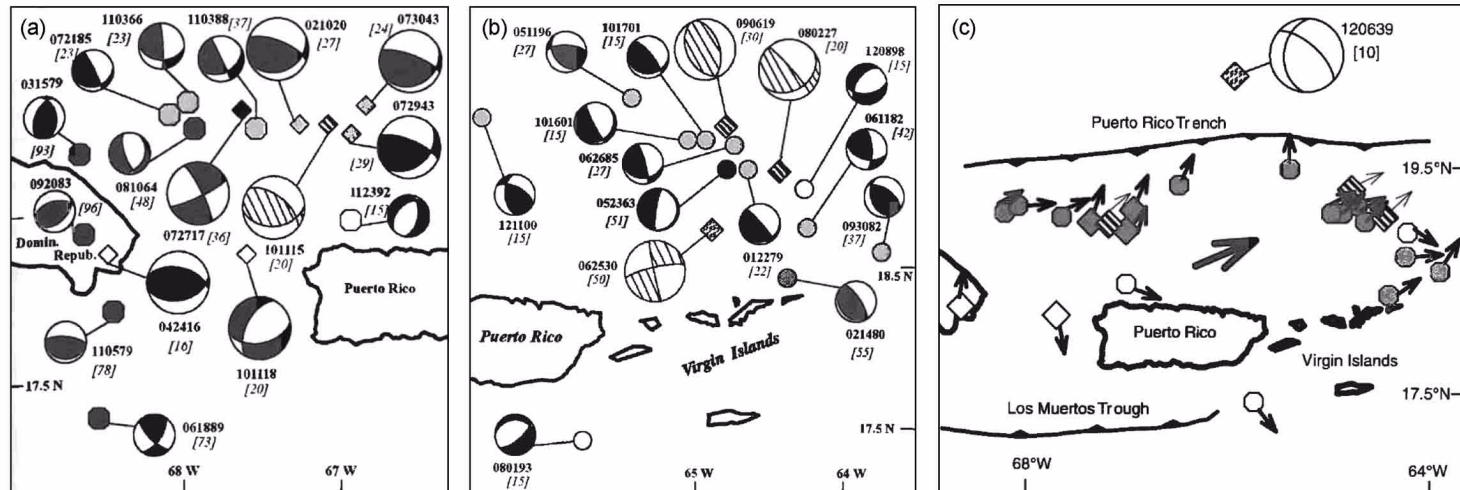
Turkey Point Units 6 & 7
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Figure 2.5.1-248 Generalized Cross Section of Northern Cuba



Source: [Reference 497](#)

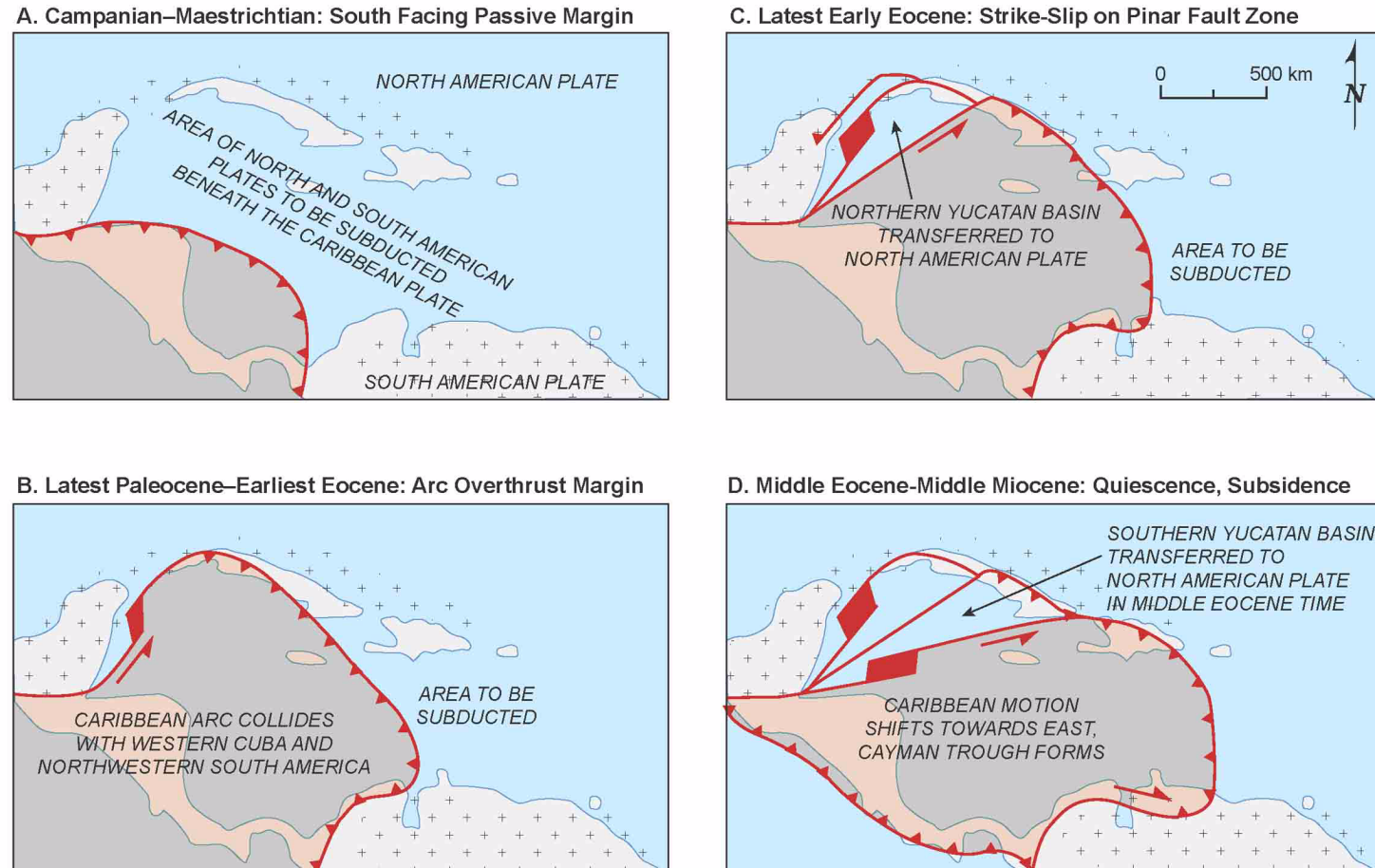
Figure 2.5.1-249 Focal Mechanisms and Slip Vectors of Northeast Caribbean Earthquakes



- (a) Focal mechanisms of northwestern offshore Puerto Rico earthquakes. Dates are in mm/dd/yy format. Striped mechanisms are from forward modeling, and are less well constrained.
- (b) Historic and recent earthquakes of the Virgin Islands Region
- (c) Slip vectors of earthquakes occurring in Greater Antilles crust (open symbols) and along plate interface (closed symbols). Focal mechanism for 1939 normal faulting outer rise event shown at top."

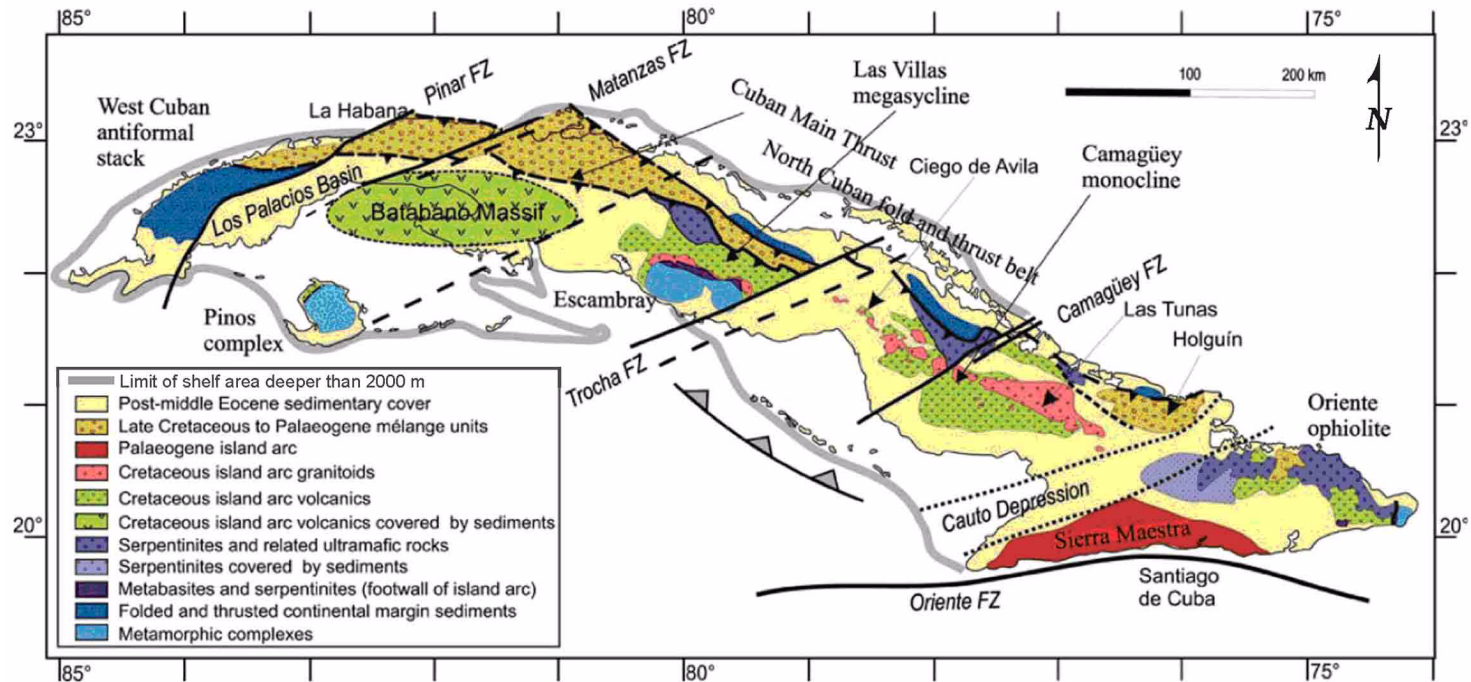
Modified from: [Reference 681](#)

Figure 2.5.1-250 Tectonic Evolution of the Greater Antilles Arc Collision



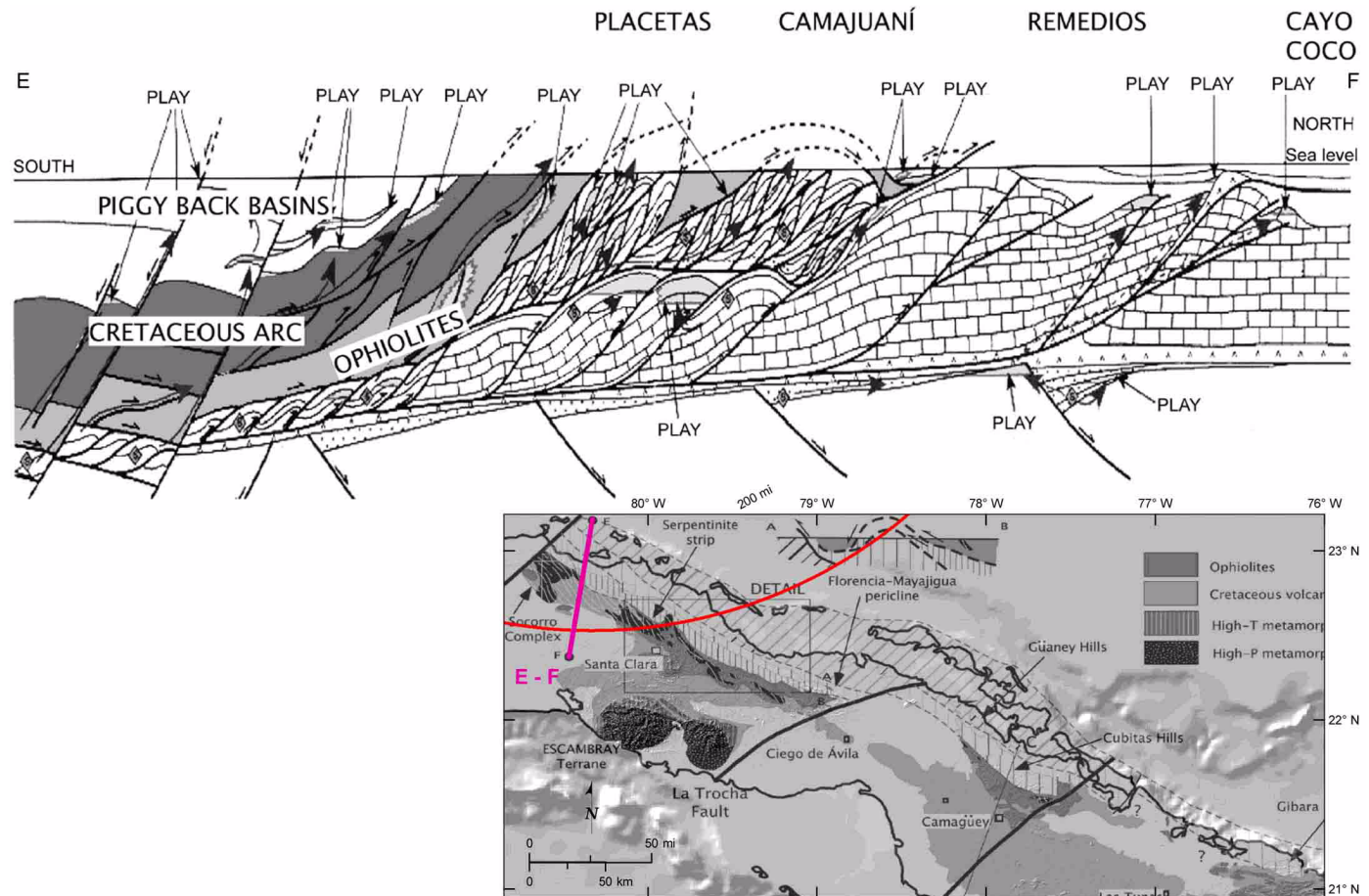
Modified from: [Reference 697](#)

Figure 2.5.1-251 Lithostratigraphic Map of Cuba



The Matanzas fault shown here is the same structure as the Hicacos fault shown on [Figure 2.5.1-247](#).
Modified from: [Reference 769](#)

Figure 2.5.1-252 Structural Cross Section across Central Cuba, Line E-F



Note: Structural cross section of the Cuban fold-and-thrust belt. This cross section illustrates the deep detachment surface and the amalgamated thrust nappes between the Bahamas platform and the allochthonous Caribbean plate (serpentinite mélange, ophiolites, and Cretaceous volcanic arc suites). The foredeep basin deposits crown the Mesozoic stratigraphic sections, and represent the seal of the petroleum systems.

Modified from: [Reference 786](#)