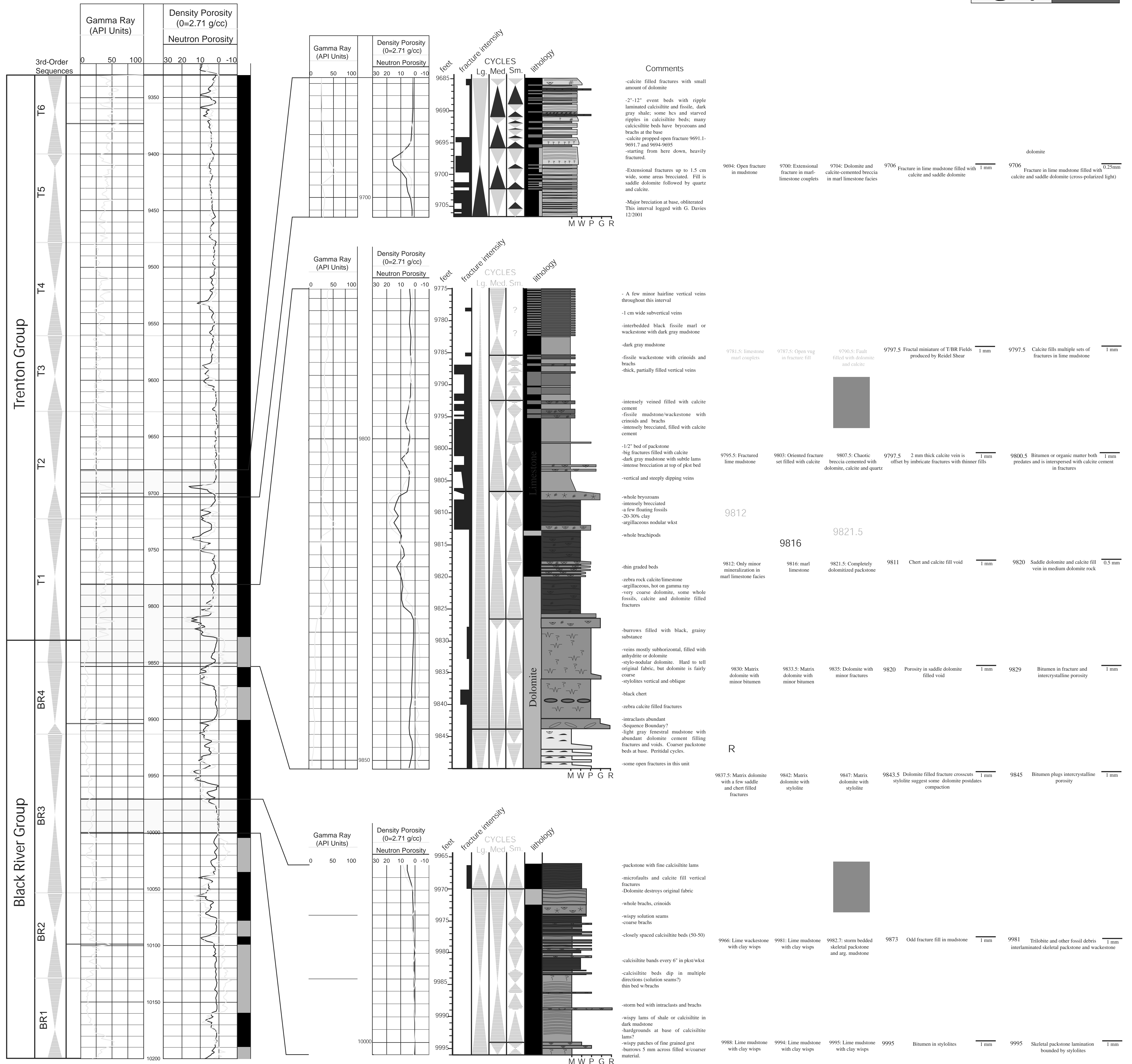


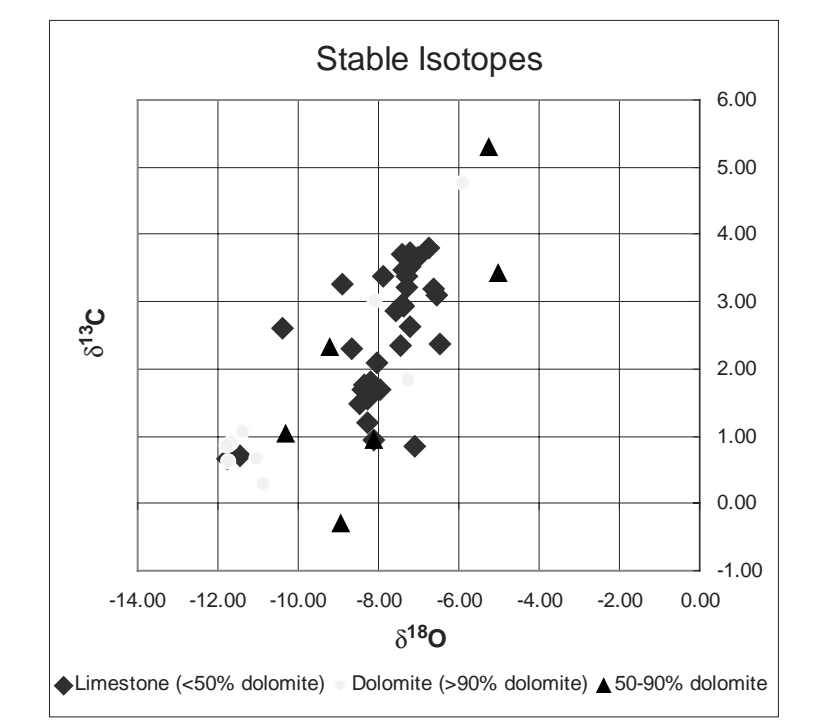
Trenton and Black River Cores - Matejka #1, Chemung Co., New York



Sequence and cycle picks are tentative, based only on one core. Further work is necessary before fully establishing a sequence stratigraphic hierarchy. Sequences boundary just below Trenton/Black River boundary occurs at base of transgressive lag conglomerate. Progressive deepening occurs and host rock changes from dolomitized grainstone to packstone, to wackestone to interbedded shale and dark mudstone in maximum flooding interval. Based on this one core, dolomitized zones occur where the neutron porosity log reads more porosity than the density log. Zones where the density porosity = the neutron porosity are dominantly limestone. The biggest porosity kicks are in brecciated zones that have some open fracture and vuggy porosity in limestone hosts with calcite and less commonly saddle dolomite and quartz cement filling voids.

- Fenestral lime mudstone (tidal flat)
- Grainstone/packstone (high-energy marine)
- Skeletal packstone/wackestone (foreshoal)
- Calcisiltite (tempestite deposits)
- Dark lime mudstone (anaerobic deep shelf)
- Fissile fossiliferous black shale (deep shelf)
- Bryozoans
- Brachiopods
- Intraclasts
- Chert
- Styloites
- Burrows
- Wavy Lams
- Fenestrae
- Boundary
- Decreasing Accommodation
- MFS
- Increasing Accommodation
- Boundary

Producing Well Discovery Well Modified from Sanford, 2001



Most dolomite is lighter with respect to carbon and oxygen than limestone. This supports a hydrothermal origin for the dolomite.