UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH
THE COMMONWEALTH OF PUERTO RICO
ECONOMIC DEVELOPMENT ADMINISTRATION,
INDUSTRIAL RESEARCH DEPARTMENT

PROFESSIONAL PAPER 636
PLATE 2

Base from U.S. Geological Survey; 1:20,000;
Cayey, Central Aguirre, Coamo, Rio
Descalabrado, Salinas, and Santa Isabel, 1960

Geology compiled by Lynn Glover III (1967)

GEOLOGIC MAP OF THE COAMO AREA, PUERTO RICO

SCALE 1:40 000

CONTOUR INTERVAL 10 METERS
DASHED LINES REPRESENT 5-METER CONTOURS
DOTTED LINES REPRESENT 1-METER CONTOURS
DATUM IS MEAN SEA LEVEL

EXPLANATION

UNCONSOLIDATED SURFICIAL DEPOSITS

QUATERNARY

- Qco — Coral reefs
- Qb — Beach deposits
- Qs — Swamp deposits
- Qap, Alluvial plain deposits; Qaps, Saline alluvial plain deposits
- Qf — Alluvial fans
- Ql — Landslides
- Qc — Colluvium
- Qa — Alluvium
- Qat — Alluvial terraces

UNCONFORMITY

TERTIARY

- Middle Oligocene to lower Miocene: Tp — Ponce Limestone
- Lower and middle Oligocene: Tjd — Juana Diaz Formation

ANGULAR UNCONFORMITY

Middle Eocene:

- Tgb — Guayo Formation
- Tj, Tl — Jacaguas Group, in part; Tl, *limestone*
- Tds, Tdl, Tdc — Río Descalabrado Formation; Tds, *bedded volcaniclastics*; Tdl, *limestone*; Tdc, *conglomerate*
- Tc — Cuevas Limestone
- Ti — Dacite and quartz-microdiorite dikes. *Some dikes may be of latest Cretaceous age*

Paleocene and lower Eocene (Jacaguas Group):

- Tr, Trs, Trl — Raspaldo Formation; Tr, *Raspaldo undivided*; Trs, *bedded volcaniclastics*; Trl, *limestone*
- Tlpt, Tlps, Tlpl — Los Puertos Formation; Tlpt, *massive volcaniclastics*; Tlps, *bedded volcaniclastics*; Tlpl, *limestone*

CRETACEOUS

Upper Cretaceous

Maestrichtian:

- Kmi, Kmil — Miramar Formation; Kmi, *massive and thick-bedded volcaniclastics*; Kmil, *limestone*
- TKqd — Cuyón Stock quartz diorite
- TKd — Andesite dikes near Cuyón Stock

UNCONFORMITY?

Campanian or Maestrichtian:

- Kcul, Kcu — Cuyón Formation; Kcul, *limestone*; Kcu, *bedded volcaniclastics*
- Kcot, Kcof — Coamo Formation; Kcot, *massive volcaniclastics*; Kcof, *lava*
- Kca — Zanja Blanca diorite stock
- Kcd — Pyroxene andesite dikes
- Kl — Limestone in Esmeralda fault breccia

Campanian, Maestrichtian(?):

- Maravillas Formation; Kma, *Maravillas undivided*; Kmab, *massive volcaniclastic breccia*; Kmal, *limestone*; Kmas, *bedded volcaniclastics*; Kmac, *conglomerate*; Kmaa, *Santa Ana Limestone Member*; Kmau, *limestone and bedded volcaniclastic sandstone*; Kmad, *San Diego Member*; Kmah, *Sabana Hoyos Limestone Member*
- Kmb — Intrusive breccia
- Kmd₂, Kmd₁ — Hornblende microdiorite; Kmd₂, *Los Panes intrusive*; Kmd₁, *dikes*

Santonian:

- Cariblanco Formation. *Subscript letters and numbers x, y, z, 2, 3, 4, 5, and 6 respectively indicate decreasing age of map units*; Kc, *Cariblanco Formation, undivided*; Kcs, *thin-medium bedded volcaniclastic rocks*; Kcl, *limestone*; Kcc, *conglomerate*; Kcp, *Pío Juan Limestone Member*; Kcj, *Jobo Dulce Limestone Member*; Kch, *Hacienda Larga Tuff Member*; Kcg, *La Guaba Lava Member*
- Ka — Achiote Conglomerate

DISCONFORMITY OR PARACONFORMITY

Upper Cretaceous / Lower Cretaceous — Albian to Santonian:

- Robles Formation; Krs, *bedded volcaniclastics*; Krc, *conglomerate*; Krt, *Las Tetas Lava Member*; Krb, *lapilli tuff*; Krl, *Lapa Lava Member*; Krr, *Río Matón Limestone Member*
- Kra — Pyroxene andesite and microdiorite

DISCONFORMITY

- Kpr — Pre-Robles rocks

Lower Cretaceous and younger:

- B, mB₂, mB₁ — Megabreccia formed by recurrent movement along fault; B, *undifferentiated*; mB₂, *upper unit*; mB₁, *lower unit*

AGE UNKNOWN

- hd — Hornblende diorite

Contact
Dashed where approximately located; short dashed where indefinite; dotted where concealed; queried where doubtful

Unconformity
Shown in section only

Fault, showing dip
Dashed where approximately located; short dashed where indefinite; dotted where concealed; queried where doubtful. U, upthrown side; D, downthrown side. Arrows show relative horizontal movements. Small (D) and (U), in parentheses, indicate minor earlier or later movement directions

Vertical fault
Position of 90 on vertical bed indicates top

Thrust fault
Sawteeth on upper plate; dashed where approximately located; queried where doubtful

Fault plane in section
T, *toward observer*; A, *away from observer*

PLANAR FEATURES

Inclined Approximate Overturned Horizontal Vertical
Strike and dip of beds
Position of 90 on vertical bed indicates top

Inclined Vertical
Strike and dip of joints

Anticline
Showing crestline and direction of plunge. Dotted where concealed

Syncline
Showing troughline and direction of plunge. Dotted where concealed

Plunging Horizontal
Bearing and plunge of minor fold axis

Paleoslope direction inferred from sedimentary feature

Thermal spring

Quarry

Portal of adit

CPR-2
Dry hole oil test

Veins
b, *barite, west of Coamo;* h, *specular hematite, in northeastern part of quadrangle on Cerro Verdun;* c, *calcite;* q, *quartz;* Cu, *copper minerals in southeastern Río Descalabrado quadrangle;* Mn, *manganese minerals, west of Juana Díaz*

Oil-bearing concretion locality northeast of Coamo

SOURCES OF DATA

1. Lynn Glover III and P. H. Mattson, unpublished data, 1970
2. Glover (1961a)
3. Berryhill and Glover (1960)
4. Berryhill (1960)
5. Glover (1961b)