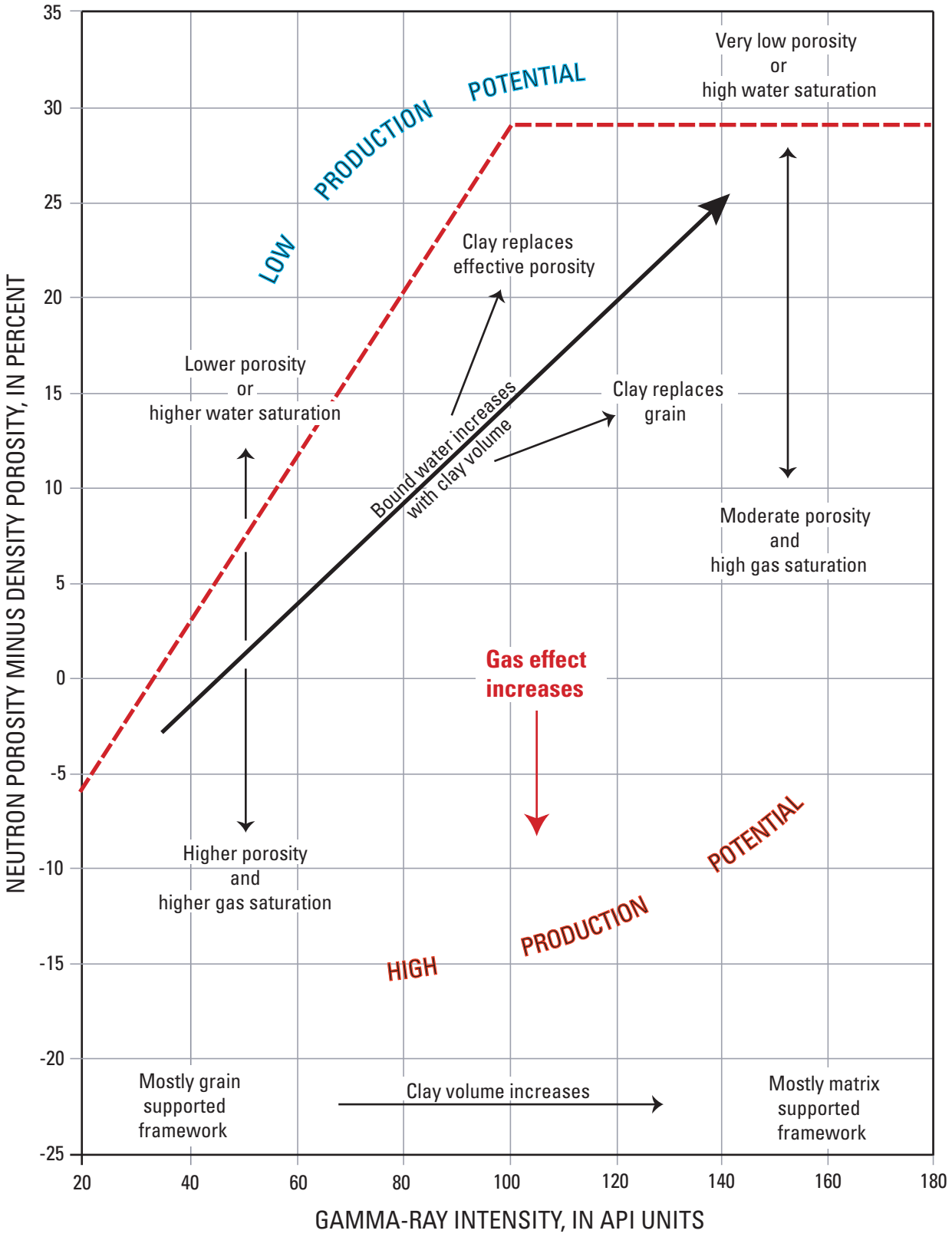
NEUTRON POROSITY MINUS DENSITY POROSITY, IN PERCENT
GAMMA-RAY INTENSITY, IN API UNITS
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
20
40
60
80
100
120
140
160
180
LOW PRODUCTION POTENTIAL
Very low porosity
or
high water saturation
Clay replaces
effective porosity
Lower porosity
or
higher water saturation
Bound water increases
with clay volume
Clay replaces
grain
Moderate porosity
and
high gas saturation
Gas effect
increases
Higher porosity
and
higher gas saturation
POTENTIAL
PRODUCTION
HIGH
Mostly grain
supported
framework
Clay volume increases
Mostly matrix
supported
framework