

THE LAYERED CASTILE PROBABLY ORIGINATED FROM SALT MAGMA

Stef J. Heerema, The Netherlands, stefheerema@ziggo.nl

Gert-Jan van Heugten, The Netherlands, info@gjvheugten.nl

Timothy Clarey, Institute for Creation Research, 1806 Royal Lane, Dallas, Texas 75229 tclarey@ICR.org

ABSTRACT

The uniformitarian explanation for massive salt deposits has always been evaporation of seawater. But this requires many millions of cubic kilometers of seawater to produce the volumes of salt we observe globally. In the past, creation scientists have struggled to develop an acceptable origin for these extensive salt deposits within a Flood model. Thus, the stratification of the Castile Formation is considered a showpiece for evolutionism and a Geologic Challenge to a Young Earth, as presented by Morton at the ICC in 1986. From a literature review, we conclude that no aspect of the Castile Formation has been adequately explained. And we present a Flood model involving molten igneous salt that turns it into a showpiece for young earth creationism.

We suggest that the mineralogy of the Permian Castile Formation may be the consequence of a salt-rich igneous intrusion during the Flood year. This injection of molten salt into newly-deposited Flood sediments may have created a “reef-like” semicircular shape, displacing the sediments as it rose. The molten igneous salt appears to have followed faults in the sedimentary layers, spreading and displacing the sediments and building a “reef-like” atoll and shaping the Capitan Limestone.

The complex laminae of alternating anhydrite (CaSO_4) and calcite (CaCO_3) in the Castile Formation might have resulted from *in situ* crystallization from the melt. The crystallization into 210,000 couplets is prescribed and controlled by forces at the molecular level similar to traditional layered igneous intrusions. The overlying Salado and Rustler Formation may have crystallized from the residual molten salt mixture that filled the Greater Permian Basin. In these layers, mainly salts of lower density like halite (NaCl) and sylvite (KCl) are found.

Oil maturation is possibly assisted by the residual heat from the injected molten igneous salt. Afterwards, the oil likely migrated upward to the reservoirs in the Permian Basin and provided dark organic material in the calcite layers in the Castile Formation.

KEYWORDS

Ionic liquid, calcite, anhydrite, varves, laminae, layers, evaporite, igneous

THE AUTHORS

Stef J. Heerema is a former board member of Logos Instituut in the Netherlands. He holds a Bachelor's degree in aircraft engineering. He was involved with heat treatment processes in molten salt and sold steam installations. He also was posted to the UK for the engineering of a uranium enrichment plant. As a self-employed consultant, he investigated the feasibility of a salt mine in the Netherlands. He lectures on the topic of flood geology and publishes in several YEC-journals.

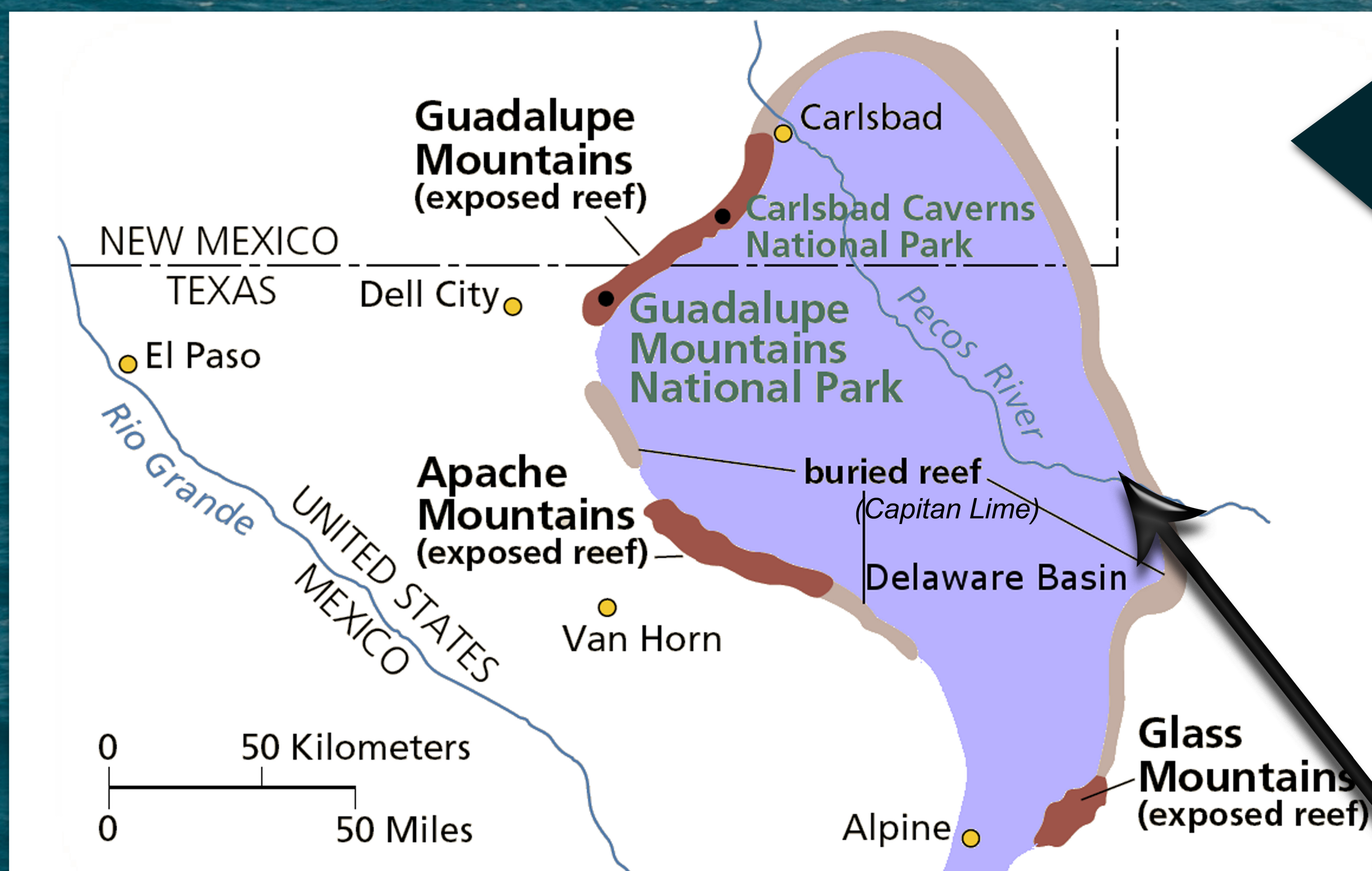
Gert-Jan H. A. van Heugten holds a Master's degree in chemical engineering. He is a writer and editor for the Dutch creationist magazine Weet Magazine and public speaker on all kinds of creationist topics.

Tim Clarey holds a Master's degree in geology from the University of Wyoming and a PhD in geology from Western Michigan University. He spent nearly nine years as an exploration geologist with Chevron USA, 17 years in academia, and has been staff geologist at the Institute for Creation Research since 2013. He researches the Flood sediments across the world's continents and has published extensively in the YEC-journals. He has published two books: *Dinosaurs: Marvels of God's Design* and *Carved in Stone: Geological Evidence of the Worldwide Flood*.

LAYERED CASTILE FORMATION NEW MEXICO AND WEST TEXAS EXPLAINED BY A FLOOD MODEL

INVOLVING MOLTEN IGNEOUS SALT

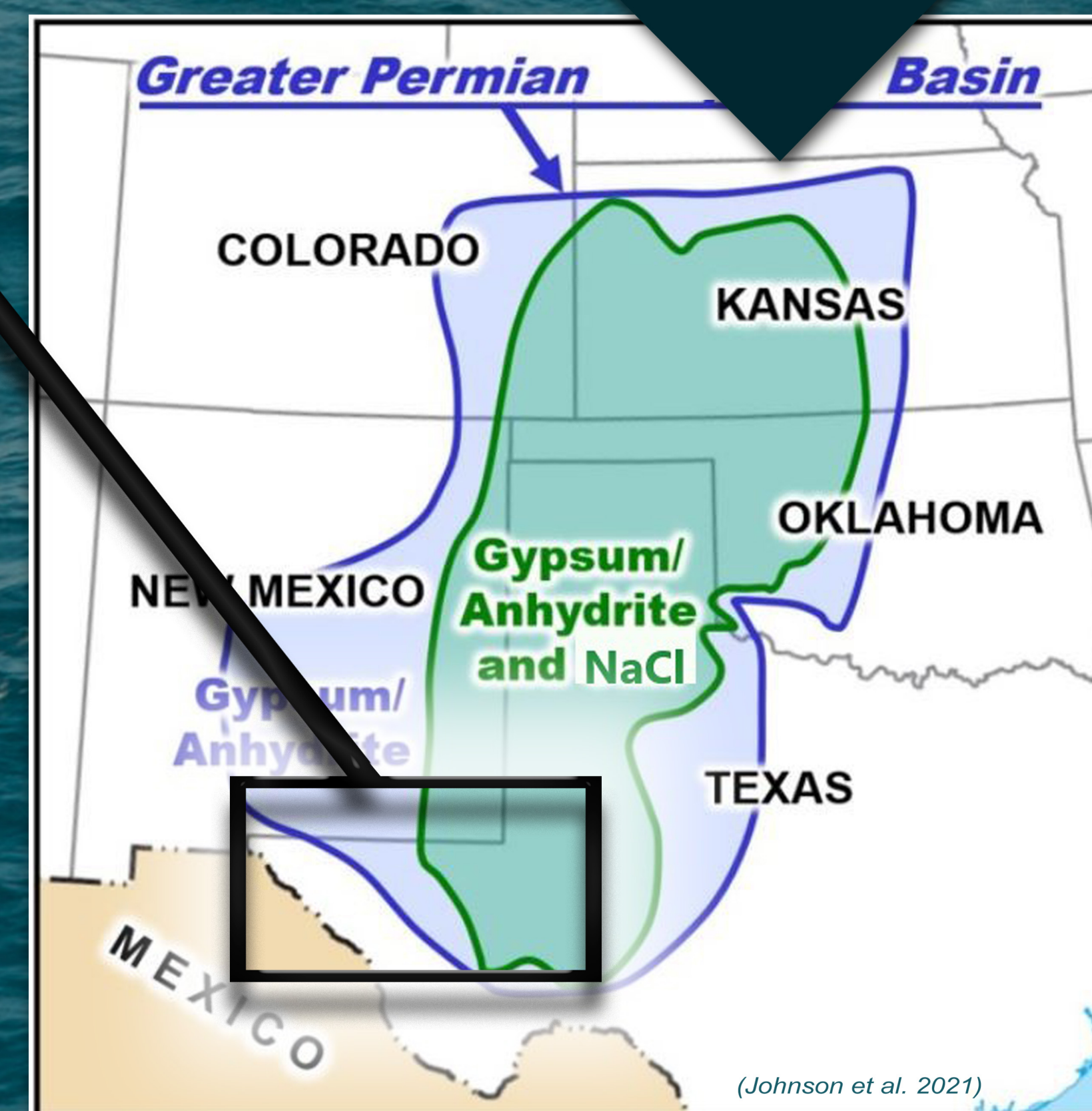
The stratification of the Castile Formation within the Delaware Basin is considered a showpiece for evolutionism. But no aspect of it has been adequately explained. Our model explains it well and makes a showpiece for young earth creationism.



The eruption of molten salt bulldozed newly-deposited Flood sediments into the 'reef-like' semicircular Capitan Limestone.

The 210,000 couplets of dense anhydrite and calcite have resulted from *in situ* crystallization from the melt.

The residual molten salt mixture filled the Greater Permian Basin from which salts of lower density like halite and sylvite crystallized.



Secondary, penetrating oil provided dark organic material in the calcite layers in the Castile Formation

Readables:
Heerema and van Heugten. 2018. Salt magma and sediments interfingered. J. Creation 32(2)
Heerema and van Heugten. 2022. The igneous origin of salt deposits and structures; countering critics. J. Creation 36(2)

