

PetroStrat Ltd is an established Stratigraphic Consultancy that provides a comprehensive suite of integrated geological services to the Oil & Gas industry.

- Full service palaeontology (micropalaeontology, nannopalaeontology, palynology) integrated with sedimentology and reservoir geology services.
- Headquarters and dedicated laboratory, in the UK (Conwy, North Wales).



- Satellite offices in St. Albans Supported by PetroStart Ltd. and PetroStrat Inc. staff in the UK and US.
- Specialists in the provision of high resolution, quantitative data for all regional, reservoir and well scale studies.
- Provision of wellsite (real.time) biostratigraphic services.

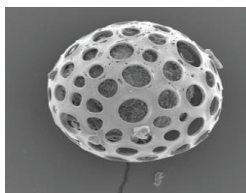
What is biostratigraphy?

The branch of stratigraphy focussing on correlating and assigning relative ages of strata by analysing the fossil assemblages.

In industry, three main groups/disciplines of fossils are used to achieve this:

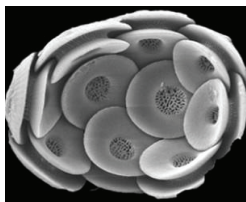
Micropalaeontology:

- Foraminifera, diatoms, radiolaria and ostracods.
- Palaeozoic to Recent.
- Used to interpret palaeoenvironments.



Nannopalaeontology:

- Calcareous nannofossils, includes coccoliths.
- Triassic to Recent marine sediments.



Palynology:

- Terrestrial plant matter, spores and pollen, dinoflagellates, Acritarchs and Chitinozoa.
- Phanerozoic marine and non-marine.



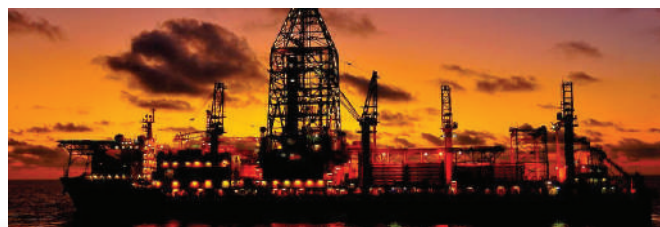
Why use Biostratigraphy?

- **Biostratigraphy calibrates the seismic:** Gives geological/stratigraphical meaning to seismic picks where seismic calibration may not be accurate.
- **Where seismic control is not always possible:** through some rock formations (e.g. salt diapirs).
- **Defines Sequence stratigraphy:** Allows first order correlation to the type 1 and 2 sequences.
- **Provides a detailed, high resolution stratigraphic framework:** Allows correlation by absolute age and/or correlation by depth. Aids appraisal/ development of discoveries.
- **Resolves and defines lithostratigraphic units.**
- **Interprets Palaeoenvironments:** Aids geological understanding of a basin and deposition.
- **Indicates sediment provenance:** Based on the assemblages and nature of any reworked microfossils. Allows differentiation between hemipelagic muds and a muddy debris flows.
- **Explains the unexpected:** Faults, stratigraphic breaks, or facies change.

Wellsite biostratigraphy

- Provides **real-time geological and stratigraphic information.**
- Allows recalibration of pre-drill seismic picks during drilling.
- Allows accurate picking of **casing, coring and TD points (safety critical** or for well engineering reasons).
- To assist with horizontal **geo-steering** or **bio-steering** a well, enables the well path to maintain a position within the reservoir to maximise H/C recovery.

Separate datasheets on wellsite services.



Why use PetroStrat?

Unrivalled global experience:

- Biostrat draws on 70 expert staff members from all
- three offices (TT, US, UK).
- Expertise of the whole geological column
- Detailed knowledge of basins throughout the world.



Wellsite certification/experience:

- Majority of staff fully certificated for offshore work.
- Experienced (many with >50 wellsite assignments).

Comprehensive purpose-built in-house laboratory facilities (Trinidad, North Wales, Houston)

- Includes thin-sectioning, sedimentology services.
- Regularly audited internally and externally for safety.



Named analysts:

- A client will know who will be carrying out the work.
- CV's are provided.

Good advice:

- Recommendations on combination of disciplines in any geological or palaeoenvironmental setting.

PetroStrat can tailor a study to maximise stratigraphic and palaeoenvironmental information, while keeping costs to a minimum.

Personnel Details:

Dr John Gregory
Director/Micropalaeontologist

Ashleigh Costelloe
Director & Stratigrapher

Dr David Rutledge
Director/Nannopalaeontologist

For further information contact us on info@biostratjv.com

Fully quantitative analyses:

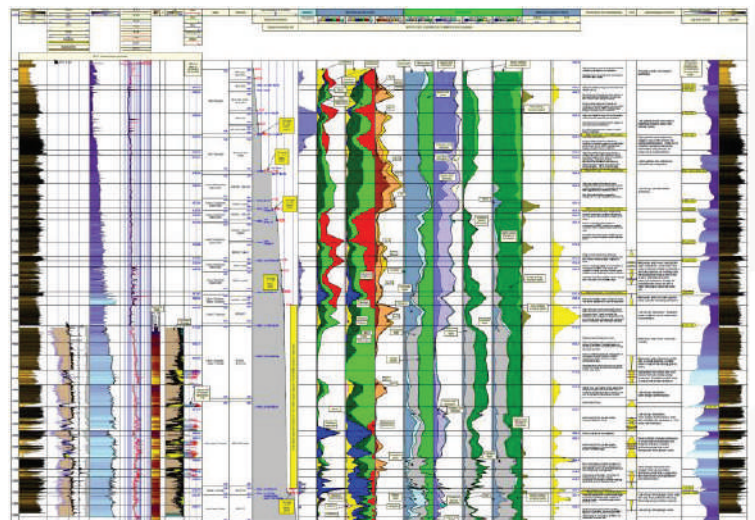
- Both in the office, or at wellsite, providing detailed datasets.
- Semi-quantitative or qualitative methods limit the quality and usability of the data.

Raw data files provided as standard:

- Presented in a variety of formats (tsv, csv, dex files).
- Can be imported into StrataBugs, Openworks, Petrel, ODM etc.

Integration of biostratigraphy with sedimentology:

- Novel integrated logs and biostrat summary tool (**LogsStrat**).
- Uses Petrophysics to interpret lithologies (but not fluids).
- Constrains depositional environments using fully quantitative fossil data.
- When integrated with breaks in sedimentation, relative rates of deposition and lithological trends, can interpret depositional setting and identify relative water depth trends (related to world sea-level changes).



Industry accepted certifications and standards:

- HSE Management - BS OHSAS 18001, ISO 14001 and Quality Management - ISO9001.



Biostrat JV Ltd – Head Office

Administration Building
113 Fredrick Settlement
Old Southern Main Road
Caroni, Trinidad W.I.

T +868-645-9443
E info@biostratjv.com