STRATUM RESERVOIR

EasyCore

Well ID	Field ID
5010 S	5010 S
Country	Project
United States	HH 100506 Louisiana Green Fault Wtaf 001
County/Parish	Analyst
Caldwell Parish, Louisiana	Brad Shultis
Cut Date	
04 Sep 4 2021	

Lithologies: Conglomerate, Limestone, Mudstone, Sandstone, Siltstone

Admixture: Argillaceous, Calcareous

Support: Clast Supported

Contacts: Gradational, Irregular, Sharp, Straight, Undulating, Erosional

Abbreviations: Aggregate, Argillaceous Sandstone, Glauconite, Mudstone, Phosphorite, Pyrite, Quartz, Sandstone, Sandy Mudstone

Burrows: Ankersmitae, Bioturbation, Chondrites, Cruziana, Cylindrichnus, Planolites, Paravaela, Sphenothrenae, Skolithos, Teichichnus, Thalassinoides, Zoophycos

Constituents: Arkosic Nodule, Fossil Mudstone Clast, Lithoclasts, Organic Material, Pyrite Nodule

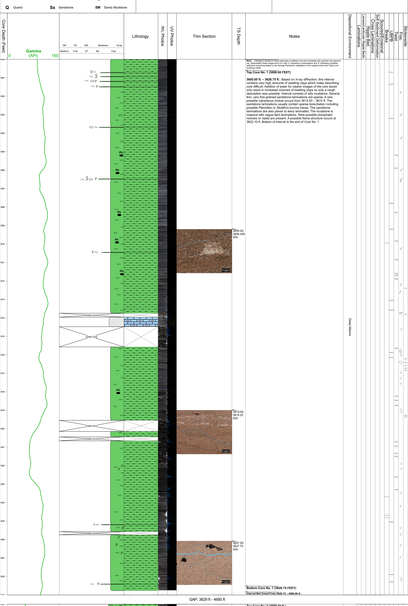
Fossils: Bivalve, Incerpoerid, Ostrea, Organic Material, Ostracode, Planiloculina Fyrenensis, Rudists, Shelter Structure Pore, Undifferentiated Gastropod

Fracture Symbols: Shear, Frac, Stylolite, Unmineralized bedding plane parting, Tool Face

Sedimentary Structures: Cross Laminations, Diagenetic Mottling, Flame Structure, Frac Ferrugen, Fracture, Microfault, Nodular Bedding, Planar Laminations, Ripples, Soft Sediment Deformation, Wavy Laminations

Depositional Environment: MFS Maximum Flooding Surface, Proximal Offshore, OM Wave Dominated Offshore, OB Offshore Bioturbated, S Storm, TSE Tide Influenced Estuary, TSC Tidal Channel, IDP Interfloral Deposits Including Peloids, TDC Tidal Channel

Core Color (wet) | Gamma (API) | Lithology | UV Photos | Thin Section | TD Depth | Notes | Depositional Environment | Sequence Stratigraphy | Systems Tract | Parasequence | Parasequence Set | Facies | Relative Sea Level



Top Core No 1 (7,000.0 to 7027)

7000.00 ft – 6020.75 ft. Based on X-ray diffraction, this interval contains very high amounts of swelling clays which make describing the rock difficult. The rock is very friable and disaggregates with only level to increased volumes of swelling clays so only a rough estimate of lithology can be made based on the cuttings and the core. Also, very few grained sandstone lamination are seen in core. Where lamination is observed, it is very difficult to see. Fine sandstone laminations usually contain coarse bioturbation including Ankersmitae and Thalassinoides. Where bioturbation is absent, laminations are also absent or very laminated. The mudstone is very fissile and breaks into very thin sheets. Fossil fragments in mudstone or clasts are present. A possible Bivalve structure occurs at 6923.10 ft. Bottom of interval is the end of Core No. 1.

Sandstone Core No. 1 (Plugs 74-PHOT)
TRACHEITIC/QUARTZ Dec 31 - 1969 00:0

GAP: 3625 ft - 4050 ft

Top Core No 2 (4000.00 ft.)

4000.00 – 4000.75 ft. Interval consists predominantly of siliciclastic sandstone. Sandstone is very fine grained sandstone laminations and beds are present throughout. The sandstones are characterized by sharp bases, sharp tops, and are predominantly soft sediment deformation. Coarse possible burrow traces and bioturbation are present throughout. Bioturbation is most common within the sandstone lamination at 4000.25 ft. The mudstones are very fissile and breaks into very thin sheets. Fossil fragments and carbonaceous fragments in mudstone clasts are present. Fossils include possible Ankersmitae, Thalassinoides, Cylindrichnus, Chondrites, Teichichnus (ISIF CBF), additional unidentified bivalves, and Planiloculina fyrenensis. Pyrite is present in small amounts throughout the sandstones and mudstones. Burrow traces present in the mudstone include possible Skolithos, Planolites, Cylindrichnus, and Rosselia. Bottom of interval is the end of Core No. 2.

Sandstone Core No. 2 (Slabs 24-PHOT)
TRACHEITIC/QUARTZ Dec 31 - 1969 00:0

GAP: 4700 ft - 4911 ft

Top Core No 3 (4911.00 ft.)

4911.00 – 4912.00 ft. Interval consists of very fine to fine grained sandstone. Sandstone is very fine grained sandstone laminations and beds are present throughout. The sandstones are characterized by sharp bases, sharp tops, and are predominantly soft sediment deformation. Coarse possible burrow traces and bioturbation are present throughout. Bioturbation is most common within the sandstone lamination at 4912.25 ft. The mudstones are very fissile and breaks into very thin sheets. Fossil fragments and carbonaceous fragments in mudstone clasts are present. Fossils include possible Ankersmitae, Thalassinoides, Cylindrichnus, Chondrites, Teichichnus (ISIF CBF), additional unidentified bivalves, and Planiloculina fyrenensis. Pyrite is present in small amounts throughout the sandstones and mudstones. Burrow traces present in the mudstone include possible Skolithos, Planolites, Cylindrichnus, and Rosselia. Bottom of interval is the end of Core No. 3.

Sandstone Core No. 3 (Slabs 24-PHOT)
TRACHEITIC/QUARTZ Dec 31 - 1969 00:0

GAP: 4937.50 ft - 5250 ft

Top Core No 4 (5250.00 ft.)

5250.00 – 5251.00 ft. Interval consists of a general coarsening upwards trend from a siliciclastic mudstone at the base of the interval to a carbonate sandstone at the top. Interval is mostly soft sediment deformation with a few siliciclastic mudstone from 5250.50 ft to 5250.75 ft. Bioturbation is present throughout. The mudstones have wavy laminations with some nodular beds. Burrow traces include possible Ankersmitae, Thalassinoides, Cylindrichnus, and Teichichnus. Some of the siliclite grains have iron oxidation. Sharp lower contact.

5251.00 – 5260.00 ft. Interval consists of a general coarsening upwards trend from a siliciclastic mudstone at the base of the interval to an argillaceous sandstone section at the top. Interval is mostly soft sediment deformation with a few siliciclastic mudstone. Bioturbation is present throughout. Burrow traces include possible Ankersmitae, Thalassinoides, Cylindrichnus, and Teichichnus. Carbonaceous clasts are moderately common. A possible ostrapiha clast is present at 5253.75 ft. Fossils include possible Ostrea, Planiloculina fyrenensis, Rudists, and Thalassinoides. Gradational lower contact.

5260.00 – 5272.00 ft. Interval consists almost entirely of argillaceous sandstone. A siliciclastic mudstone is present 5261.60 – 5261.80 ft. Sandstone is very fine grained sandstone laminations and beds are present throughout. Sharp tops and bases are present. The sandstones are characterized by soft sediment deformation. Sandstones are very well bioturbated. Burrow traces include possible Ankersmitae and rare Thalassinoides. Fossils include possible Ostrea, Planiloculina fyrenensis, Rudists, Skolithos, and Rosselia. Sharp lower contact.

5272.00 – 5279.00 ft. Interval consists primarily of argillaceous sandstone with a few siliciclastic mudstone beds. The siliciclastic mudstones range from fine to very fine grained. A conglomerate is present at the base of the interval. Sandstones are very conglomeratic include sandstone and mudstone. Wavy laminations are present in the sandstones. Sandstones are very well bioturbated. Burrows include possible Ankersmitae, Thalassinoides, Cylindrichnus, and Teichichnus. Fossils include possible Ostrea, Planiloculina fyrenensis, and rare Rudists. Burrow traces include possible Skolithos, and Planolites. Bottom of interval is the end of Core No. 4.

Sandstone Core No. 4 (Slabs 48-PHOT)
TRACHEITIC/QUARTZ Dec 31 - 1969 00:0

GAP: 5250 ft - 5900 ft

Top Core No 5 (5900.00 ft.)

5900.00 – 5900.50 ft. Interval consists primarily of argillaceous sandstone. A few siliciclastic mudstone beds are present from 5900.25 ft to 5900.50 ft. Sandstones are very fine grained and are the main sedimentary structures. Soft-sediment deformation and bioturbation are present throughout. Burrow traces include possible Teichichnus, Cylindrichnus, Chondrites, Skolithos, Rosselia, and Planolites. Fossils include possible Ostrea and Rudists. Bottom of the interval. A possible flash escape structure is present within the mudstone at 5900.25ft. Sharp lower contact.

5900.50 – 5910.00 ft. Interval consists predominantly of calcareous sandstone. Sandstone is very fine grained sandstone laminations and beds are present throughout. The bedding style tends to be more nodular than wavy or planar. Soft-sediment deformation is present. Bioturbation is very common in 5900.50 ft. A possible flash escape structure is present within the mudstone at 5900.75 ft. Burrows are most common within the mudstones from the sandstones. It rare, burrows are observed in the sandstones. Burrow traces include possible Ankersmitae, Cylindrichnus, Teichichnus, Skolithos, Planolites, Aldorfiana, Thalassinoides, and Rosselia. Glauconite fragments, Ostrea, Planiloculina, and Incerpoerid fossils are rare. Sharp lower contact.

5910.00 – 5920.00 ft. Interval consists of fine to very fine sandstone interbedded with siliciclastic mudstone. Some of the sandstones are very bioturbated. Sandstones are very fine grained sandstone laminations with minor wavy laminations, soft-sediment deformation, and bioturbation. Sandstones are very well bioturbated throughout. Throughout the rare core common from 5920-5915 ft, sandstones are very well bioturbated. Burrow traces include possible Ankersmitae, Thalassinoides, and Rosselia. Glauconite fragments, Ostrea, Planiloculina, and Incerpoerid fossils are rare. Sharp lower contact.

5920.00 – 5930.00 ft. Interval consists of fine to very fine sandstone interbedded with siliciclastic mudstone. Some of the sandstones are very bioturbated. Sandstones are very fine grained sandstone laminations with minor wavy laminations, soft-sediment deformation, and bioturbation. Sandstones are very well bioturbated throughout. Throughout the rare core common from 5920-5915 ft, sandstones are very well bioturbated. Burrow traces include possible Ankersmitae, Cylindrichnus, Chondrites, Teichichnus, Skolithos, Planolites, Aldorfiana, Thalassinoides, and Rosselia. Glauconite fragments, Ostrea, Planiloculina, and Incerpoerid fossils are rare. Sharp lower contact.

5930.00 – 5935.00 ft. Interval consists of fine to very fine sandstone interbedded with siliciclastic mudstone. Some of the sandstones are very bioturbated. Sandstones are very fine grained sandstone laminations with minor wavy laminations, soft-sediment deformation, and bioturbation. Sandstones are very well bioturbated throughout. Throughout the rare core common from 5930-5915 ft, sandstones are very well bioturbated. Burrow traces include possible Ankersmitae, and Rosselia. Glauconite fragments, Ostrea, Planiloculina, and Incerpoerid fossils are rare. Sharp lower contact.

5935.00 – 5950.00 ft. Interval consists of fine to very fine sandstone interbedded with siliciclastic mudstone. Some of the sandstones are very bioturbated. Sandstones are very fine grained sandstone laminations with minor wavy laminations, soft-sediment deformation, and bioturbation. Sandstones are very well bioturbated throughout. Throughout the rare core common from 5935-5915 ft, sandstones are very well bioturbated. Burrow traces include possible Ankersmitae, Cylindrichnus, Chondrites, Teichichnus, Skolithos, Planolites, Aldorfiana, Thalassinoides, and Rosselia. Glauconite fragments, Ostrea, Planiloculina, and Incerpoerid fossils are rare. Sharp lower contact.

Sandstone Core No. 5 (Slabs 96-PHOT)
Total of core recovered
TRACHEITIC/QUARTZ Dec 31 - 1969 00:0