

# Dr Roger HIGGS

Consultant Geologist, Sedimentologist, Sequence Stratigrapher

3-page CV updated to 7th Feb 2023

## PERSONAL

**Age** 69

**Date of birth** 12-12-53

**Place of birth** Chalfont St Giles, England, UK

**Nationality** British & Canadian

**Languages** Fluent English & Spanish; rusty French

**Marital status** Married

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## PROFESSIONAL

**Profession** Clastic Sedimentologist & Sequence Stratigrapher; independent consultant since 1987; incorporated as “Geoclastica Ltd” in 1998 (see below)

**Education**

BSc Hons	Petroleum Geology	London, UK	1975
MSc	Sedimentology	Calgary, Canada	1977
DPhil	Sedimentology	Oxford, UK	1986

**Memberships** American Association of Petroleum Geologists; European Geosciences Union; Geological Society of America (active )

### **Career summary:**

1977-1982 **Petroleum Explorationist**, Canada:  
(5 years) 1977-78, Imperial Oil Ltd (Exxon), Calgary. Exploration Geologist. 1 year of diverse training, incl. a 6-month seismic interpretation project (Labrador Sea).

1978-82, Aquitaine Co. of Canada Ltd & successor Canterra Energy Ltd, Calgary. Exploration Geologist, rising to Exploration Supervisor, Peace River Arch District, supervising 2 geologists, 2 geophysicists, 1 technician.

1982-1986 **Doctoral research**, Department of Geology, University of Oxford, UK.  
(4 years) Thesis: 'A Facies Analysis of the Bude Formation (Lower Westphalian), SW England'. Supervisor: Dr Harold G. Reading.

1987-present **Consultant** in clastic sedimentology & sequence stratigraphy. Founder, (35 years) managing director & sole employee of consultancy **Geoclastica Ltd**, UK, registered 1998 <http://www.geoclastica.com/>

**Clients:** Beicip-Franlab; BHP; British Columbia Ministry of Energy; Canadian Petroleum; Chevron; Ecopetrol; Elf; Emerald; Finavera; Geoquest; Geological Survey of Canada (2 yrs); IFP; Intera; Jordan NPC; Mobil; Noble; Petróleos de Venezuela (PDVSA, incl. 3 yrs in Caracas 1990-93 & twelve 5-week visits to Puerto La Cruz 2010-12); PetroSA; Poland Oil & Gas Institute; Preussag; Repsol; Schlumberger; Talisman; Tectonic Analysis Inc.

**Basins:** 26 basins in 15 countries on 6 continents

**Projects:** Exploration & development projects, mainly involving ...  
-sequence stratigraphic correlation of well logs\*  
-facies analysis of outcrops, cores & image logs\*  
-sandstone thin-section diagenetic analysis (porosity prediction)  
-synthesis of tectono-sedimentary evolution of basins (e.g. Higgs 2009 below)

\* = including sedimentological & sequence-stratigraphic interpretation of Orinoco Heavy Oil Belt and other areas of Venezuela, for PDVSA

**Course** (5 days) given on Clastic Facies Analysis & Sequence Stratigraphy, in Venezuela (annually 2003-07, 2011), Colombia, France, Malaysia.

**Major non-exclusive reports** on Venezuela & Trinidad tectono-stratigraphic evolution, sold to BP and BHP (2005).

**Field trips** led in Venezuela & Trinidad, including an annual 6-day excursion for PDVSA (2006-09); also Bude Formation (flysch turbidites) UK.

**Bude Geological Walks** for the general public (2009-present)  
[http://www.tripadvisor.co.uk/Attraction\\_Review-g190804-d1573061-Reviews-Geoclastica-Bude\\_Cornwall\\_England.html](http://www.tripadvisor.co.uk/Attraction_Review-g190804-d1573061-Reviews-Geoclastica-Bude_Cornwall_England.html)

**Climate- & sea-level change literature research & synthesis** (self-funded), 2016-2023, near full-time  
<https://www.researchgate.net/project/Sun-controlled-climate-sea-level-change>

#### **SELECTED PUBLICATIONS** (all sole-authored)

- 1979 Quartz-grain surface features, Mesozoic-Cenozoic sands, Labrador and western Greenland continental margins. *Journal of Sedimentary Petrology*, 49, 599-610.
- 1988 Fish trails, Upper Carboniferous, south-west England. *Palaeontology*, 31, 255-272.
- 1990 Sedimentology and tectonic implications of Cretaceous fan-delta conglomerates, Queen Charlotte Islands, Canada. *Sedimentology*, 37, 83-103.

- 1991 The Bude Formation (Lower Westphalian), SW England: siliciclastic shelf sedimentation in a large equatorial lake. *Sedimentology*, 38, 445-469.
- 1996 A new facies model for the Misoa Formation (Eocene), Venezuela's main oil reservoir. *Journal of Petroleum Geology*, 19, 249-269.
- 2004 Ross and Bude Formations (Carboniferous, Ireland and England): reinterpreted as lake-shelf turbidites. *Journal of Petroleum Geology*, 27, 47-66.
- 2009a Caribbean-South America oblique collision model revised. *Geological Society of London, Special Publication 328*, 613-657.
- 2009b The vanishing Carib Halite Formation (Neocomian), Colombia-Venezuela-Trinidad petroleum province. *Geological Society of London, Special Publication 328*, 659-686.
- 2010a Why do siliciclastic shelves exist? How do they differ from "ramp margins"? New sequence stratigraphic aspects vital for petroleum exploration. *AAPG Search and Discovery Article #40527*, 12 p.
- 2010b Discussion of 'Hybrid sediment gravity flows - classification, origin and significance'. *Marine and Petroleum Geology*, 27, 2062-2065.
- 2010c Discussion of 'Hummocky cross-stratification-like structures in deep-sea turbidites: Upper Cretaceous Basque basins (Western Pyrenees ...)'. *Sedimentology*, 58, 566-570.
- 2014 Shelf model for "deep-sea" flysch turbidites and implications for outcrop analogs. *AAPG Search and Discovery Article #70157*, 16 p & poster (3 sheets).
- 2016a Overlooked geological and historical evidence that sea-level rise will approach or exceed IPCC worst-case scenario, regardless of human action. *35th International Geological Congress, Cape Town, abstract & slideshow*.
- 2016b Neglected British historic evidence for 5m medieval sea-level rise: portent of Modern Rise. *Geological Society of America, Annual Meeting, Denver, abstract & slideshow*.
- 2017 If the Dark Ages solar peak c.525CE caused c.5m sea-level rise 50-100y later ("ocean memory"), the stronger 1958 solar "Grand maximum" presages >5m rise by 2058: literature review by an impartial geologist. *European Geosciences Union, General Assembly, Vienna, abstract & poster*.
- 2021 Global warming and cooling for last 2,000 years mimic Sun's magnetic activity, not CO<sub>2</sub>: scientific literature synthesis. 'Climate Change in the Geological Record' conference, *Geological Society, London, abstract, lightning talk & poster*.
- 2022a Pacific atolls: sedimentological discoveries in enigmatic 'conglomerate platform' support Holocene rapid meter-scale sea-level oscillation and tsunami deposition. *Geological Society of America, Annual Meeting, Denver, abstract & slideshow*.
- 2022b Solar control of global temperature outweighed since 1940 by man-made warming (by waste heat and black carbon, not CO<sub>2</sub>?). *Geological Society of America, Annual Meeting, Denver, abstract & poster*.
- 2023 Global warming much faster on land than at sea, and Northern Hemisphere faster than Southern: incriminates soot from burning oil and coal, exonerates CO<sub>2</sub>. *European Geosciences Union, General Assembly, Vienna, abstract & slidewshow*.