



YOUNG PROFESSIONALS TALK

Meteorite Impact Craters – Astroblemes

Speaker: Phil Esslinger | Melange Geoscience Inc.

August 20, 2020 | 11:00 am- 12:00 am

1 CPD (Continuing Professional Development) credit will be awarded for this event

ABSTRACT

The talk will begin with a discussion the worldwide amount and known distribution of meteorite impact craters and followed by a short discussion of the known occurrences of meteorite impact craters in Alberta versus the theoretical amounts based on a statistical basis. Recent research in understanding the impact crater frequency will be discussed along with a several examples of recent meteorites. This will be followed by an explanation of the formation of Meteorite Impact Crater and its physiographic features, along with a discussion of the types of Meteors and why some form craters while others do not. The remainder of the talk will discuss the known impact craters in the subsurface of the Western Canadian Sedimentary basin and the oil and natural gas traps associated with these structures.



BIOGRAPHY

Phil Esslinger operates Melange Geoscience Inc. an international petroleum consulting practice in Calgary, Canada. He specializes in Hydrodynamic studies and Drill Stem Pressure Test interpretation, as well as Subsurface Fluid Chemistry interpretations and Hydrocarbon Exploration. He has broad experience in interpreting and evaluating DSTs, Pressure vs. Depth Plots & Hydrodynamics for the petroleum industry.

Phil received a B.Sc. (Geol.) from the University of Calgary, Canada in 1988. He has over 28 years' experience in DST analysis and hydrodynamics, 14 years with Rakhit Petroleum Consulting Ltd. performing local area and basin scale hydrodynamic and hydrochemistry evaluations of Canadian and American sedimentary Basins and over 12 years of Petroleum Exploration experience with EnCana & Cenovus applying hydrodynamics and geological interpretations for hydrocarbon exploration purposes in both Conventional and Unconventional traps. He has a proven track record of finding hydrocarbons, having drilled more than 500 oil and gas wells which have produced more than 1.5 MMBbl of Oil and more than 50 Bcf of gas, including 38 Horizontal Multi-staged Frac'd tight oil wells.

Phil is an active member of the AAPG, CSPG & APEGA. He was a member of the CSPG's Hydrogeology Division executive for 9 years and Chaired the division for 3 of those years. He was Co-Chair of the CSPG's inaugural Gussow Conference, the CSPG's equivalent to the AAPG Hedberg specialized topic conferences. He was the General Co-Chair of the 2014 CSPG/CSEG/CWLS GeoConvention and was a Director on the Board for the GeoConvention Limited Partnership as one of the CSPG representatives. He has received several awards from the CSPG for his volunteer and professional services to the society. He has chaired sessions and given several presentations at conferences and published on Hydrodynamics/Hydrogeology. He was retained by multiple corporations as an expert witness on Hydrogeology and Hydrodynamics at several Regulatory Hearings conducted by the Alberta Government. Recently he has semi-retired to Fort Steele, BC. He continues to be interested in mentoring and training new geoscientists and has given several guest lectures at the College of the Rockies in Cranbrook.