UK Patent Application (19) GB (11) 2615244

02.08.2023

2306137.7 (21) Application No:

(22) Date of Filing: 18.12.2020

Date Lodged: 26.04.2023

(30) Priority Data:

(31) 17123908 (32) 16.12.2020 (33) **US**

(86) International Application Data: PCT/US2020/066143 En 18.12.2020

(87) International Publication Data: WO2022/132176 En 23.06.2022

(71) Applicant(s):

Landmark Graphics Corporation 3000 North Sam Houston Parkway E, Houston, Texas 77032, United States of America

(72) Inventor(s):

Andrew Davies Mike Derek Simmons **Michael Charles Quintrell Treloar** James Jain Scotchman

(74) Agent and/or Address for Service:

AA Thornton IP LLP Octagon Point, 5 Cheapside, London, EC2V 6AA, **United Kingdom**

(51) INT CL:

G01V 1/46 (2006.01) G01V 1/50 (2006.01)

(56) Documents Cited:

US 20200183044 A1 US 20200165913 A1 US 20180156934 A1 US 20120001916 A1 US 20100030527 A1

(58) Field of Search:

INT CL E21B, G01V, G06F, G06G, G06T Other: eKOMPASS (KIPO internal)

- (54) Title of the Invention: Geological database management using signatures for hydrocarbon exploration Abstract Title: Geological database management using signatures for hydrocarbon exploration
- (57) A system can determine an analogue geological feature. The system may generate, by extracting parameter signatures for geological features, a database including parameters about geological features associated with parameter signatures. The system may receive data including parameters and a feature-type about a geological feature of interest. The system may generate a signature including values for a subset of the feature-of-interest parameters selected based on the geological feature of interest for the feature-of-interest using the data. The system may execute a comparison of the feature signature to the parameter signatures included in the database for identifying an analogue geological feature for the feature of interest. The system may output a subset of parameters for the analogue for use in subterranean exploration.

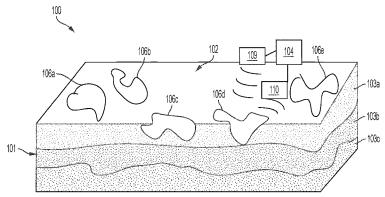


FIG. 1