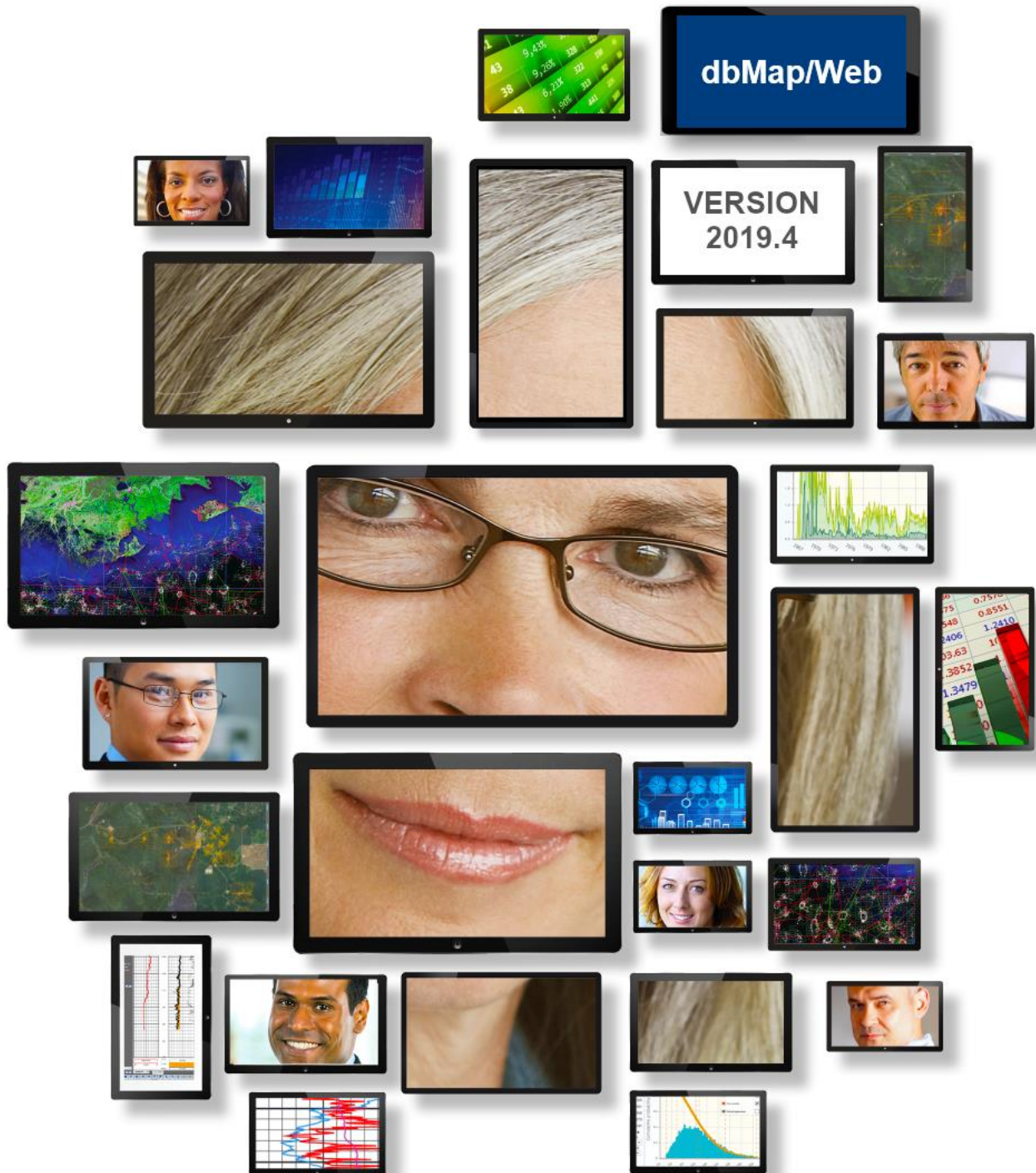# PETROSYS

SOFTWARE RELEASE NOTES

dbMap/Web Version 2019.4

Overview

dbMap/Web 2019.4 introduces two significant enhancements to PLDB to aid in the estimation of resources. The Well Failure Analysis module has also been enhanced to allow more complex data.

Risk Model

A new feature, called Risk Model, has been introduced in PLDB to refine the estimation of chance of success. This feature provides guidance to geoscientists, via a series of configurable questions, whose answers provide suggested ranges for risk 'sub-factors' that are then combined to a final risk value for each risk element (Closure, Seal, Reservoir, and Source).
 This feature can be enabled by entering the required details into the administration section of PLDB.
The process to derive a chance of success for a risk element (shown here for Closure):

- Respond to the 'Level of Knowledge' questions in the upper section of the Risk Model screen
- Enter the appropriate 'sub factor' chance of successes in the lower section. The values must be within the limits prescribed by the confidence values entered.
- The resultant chance of success is shown at the base of the panel.

Tornado plots

Tornado plots have been added to improve the resource estimation process, by giving an insight as to which of the input parameters has the greatest effect on the final resource estimate.
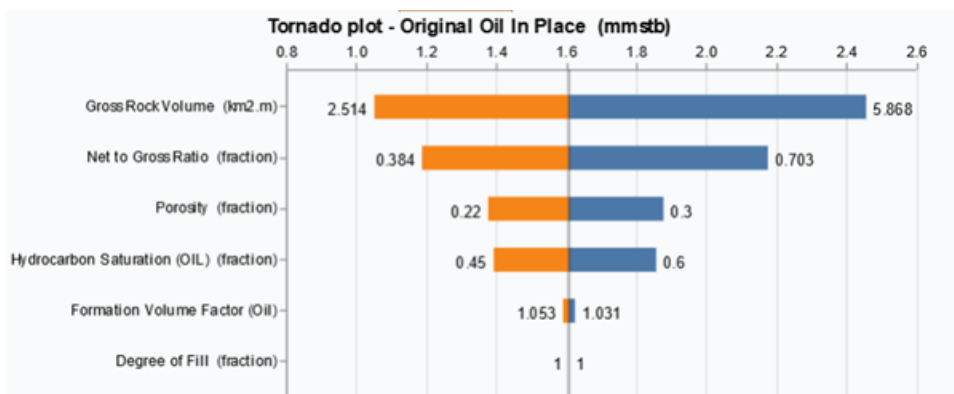
In the example above, the Tornado plot is indicating that the Gross Rock Volume has the largest effect on the calculation of Oil in place, followed by the Net-to-gross ratio.
The Tornado plot can be generated for a selection of output volumes, including OGIP/OOIP, Sales Gas, and Recoverable Oil.

Well Failure Analysis – Enhancements for importing and storing min/max values

The Well Failure Analysis module has been enhanced with several changes that improve the ability to work with complex data. Some of the key changes include:

- Some Play analysis and Source analysis attributes now support optionally storing minimum and maximum values instead of only a discrete value.
- Base depths are now supported for Pressure and Temperature data.
- When importing data, we now support more flexibility in how ranges of data are specified. For instance, '10 to 20', '<20', '>10'.
- When importing Pressure and Temperature data, we now support multiple records being specified in a single row by using a delimiter.

Import functionality, reports and data screens have all been updated to reflect the new changes.

Highlight features introduced in 2019.3

Overview

dbMap/Web 2019.3 introduces two significant enhancements to PLDB as well as enhancements and bug fixes to the wider product.
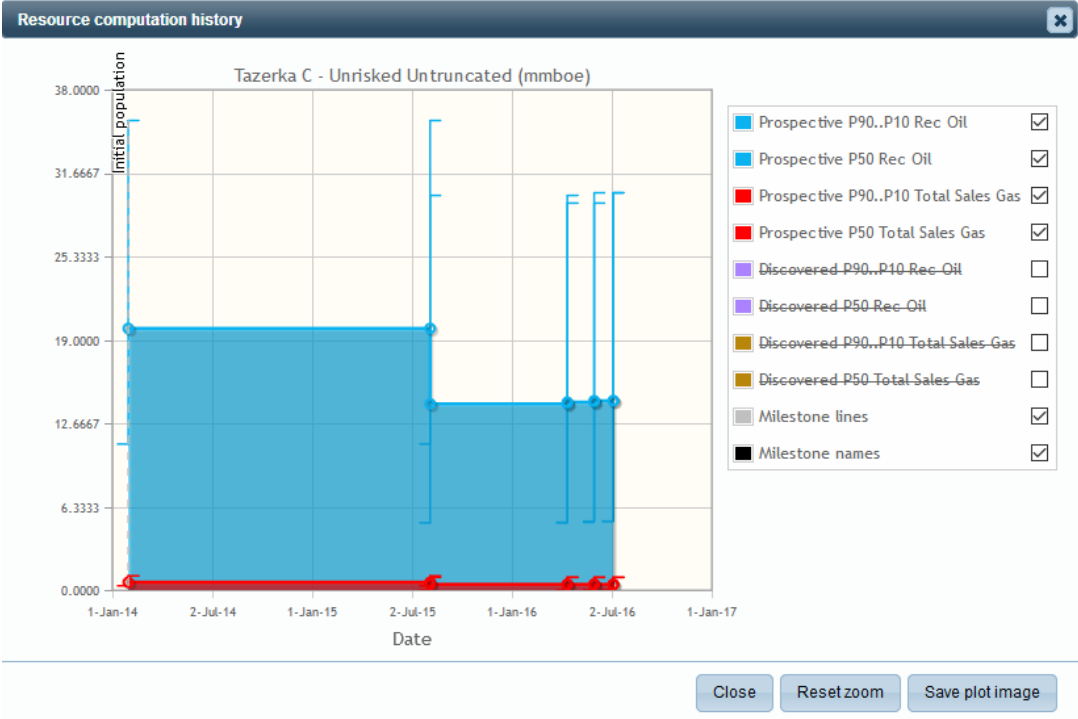
PLDB Discovered Resources

PLDB had existing support for Prospective, Contingent and Reserves resource computations. This release adds support for Discovered resources which are part of the Society of Petroleum Engineers PRMS standard. Key functionality includes:

- A new Discovered resource computation dialog for targets, which supports copying from Prospective resources.
- Separate Prospect level roll-up of Discovered resources for primary targets, which is visible in the Prospect chronology list and new Prospect Milestone list or via the Prospect summary report.
- As they are stored separately, Discovered resources are not included in aggregation/enrolment of Exploration resources performed during automated roll-up, reporting, dashboarding, or on-demand roll-up.
- Discovered resources are only able to be created once a target status has been classified as proven successful.

PLDB Chronology enhancements

The existing Prospect Chronology screen has been enhanced and the introduction of Milestones gives a clearer picture of the key changes to a Prospect's resources over time. Some of the key functionality include:

- Milestones can be defined as special types of events, and the list is customisable by clients.

- Prospect Chronology only shows key milestones by default, but full details of incremental changes and other prospect, portfolio, target and drilling opportunity events can be shown on request.

- The Prospect and dashboard tree filters have been expanded to support seamless search & find based on milestone, and the Prospect header dialog displays the current milestone.

- The Prospect Header dialog lists all key milestones to allow easy viewing without having to drill-down through the Prospect Chronology dialog.

- A Prospect level resource summary chart has been added to show how the Prospective resource estimates have changed over time, along with the milestones and Discovered resources.

Overview

dbMap/Web 2019.2 sees the introduction of new Well Core Analysis functionality as well as further enhancements to the Petrosys Well Log Viewer with the addition of templates, display of formation tops and cross-plots.

Well Core Coal Analysis

Support for storing detailed information has been added for Samples and several analysis types: Adsorption isotherm, Desorption, Gas composition, Isotope, Petrology, Proximate, Rock evaluation, Rock mechanics and Ultimate.

In addition to Data management functionality such as import, creation of new records, editing existing records and deleting, there are also many calculations automatically performed on screens including ratios and summing of values.

The functionality has been developed on top of the PPDM 3.9 Sample Analysis module and the attributes for each analysis type can be tailored by clients.

A subset of the analysis screens is shown below.

Adsorption Isotherm Analysis

Isotherm Pressure Region		Isotherm BHT temp	1.000 degC
Isotherm Reservoir Pressure Eqn:M		Isotherm BHT depth (KB MD)	1300.000 m
Isotherm Reservoir Pressure Eqn:C		Time since circulation stopped	2.000 hr

Methane (CH_4) Isotherm

Sample mass	1104.000 g	Isotherm moisture & ash type	Air Dried
Isotherm helium grain density	1.000 g/cm3	Isotherm Langmuir volume raw	6.000 cm3/g
Isotherm moisture	2.000 %	Isotherm Langmuir volume DAF	7.000 cm3/g
Isotherm ash	3.000 %	Isotherm Langmuir pressure	8.000 MPa
Isotherm volatiles	4.000 %	Isotherm experimental temperature	9.000 degC
Isotherm fixed carbon	5.000 %	Isotherm remarks	Methane results

Ethane (C_2H_6) Isotherm

Desorption Analysis

Desorption problem?	Y
Problem description	Test problem

Express lab issues	Yes	Lost gas	40.000 %
Sorption time	1.000 hr	Diffusivity	7.000 1e6/s
Q1 raw	2.000 m3/t	Q1 DAF	8.000 m3/t
Q2 raw	3.000 m3/t	Q2 DAF	9.000 m3/t
Q3 raw	4.000 m3/t	Qt DAF	10.000 m3/t
Qt raw	5.000 m3/t	Q3 DAF	11.000 m3/t
Reservoir test temperature	6.000 degC		

Remark	Place holder additional information

Gas Composition Air Free Analysis

Sample A Analysis

Sample ID	First sample	
Time sample taken	0.250	day
Desorbed gas (Q1+Q2, Raw) at time	1.000	m3/t
C1	2.000	mol%
C2	3.000	mol%
C3	4.000	mol%
iso C4	5.000	mol%
n C4	6.000	mol%
neo C5	7.000	mol%
iso C5	8.000	mol%
n C5	9.000	mol%
C6	10.000	mol%
CO2	11.000	mol%
N2	12.000	mol%
Air	13.000	mol%

Sample B Analysis

Sample ID		
Time sample taken		day
Desorbed gas (Q1+Q2, Raw) at time		m3/t
C1		mol%
C2		mol%
C3		mol%
iso C4		mol%
n C4		mol%
neo C5		mol%
iso C5		mol%
n C5		mol%
C6		mol%
CO2		mol%
N2		mol%
Air		mol%

Sample C Analysis

Sample D Analysis

Gas Isotope Analysis

Isotope Sample A Analysis

Sample ID	First sample	
Date sample taken	31-May-2019	
Time sample taken	0.250	day
Fluid type	Gas	
Fluid source	Desorption	
delta13C CH4	1.000	ppt VPDB
delta13C C2H6	2.000	ppt VPDB
delta13C C3H8	3.000	ppt VPDB
delta13C i-C4H10	4.000	ppt VPDB
delta13C n-C4H10	5.000	ppt VPDB
delta13C neo-C5H12	6.000	ppt VPDB
delta13C i-C5H12	7.000	ppt VPDB
delta13C n-C5H12	8.000	ppt VPDB
delta13C C6H14	9.000	ppt VPDB
delta13C CO2	10.000	ppt VPDB
delta DCH4	11.000	ppt VPDB

Isotope Sample B Analysis

Sample ID	Second sample	
Date sample taken	31-May-2019	
Time sample taken	0.500	day
Fluid type	Gas	
Fluid source	Desorption	
delta13C CH4	1.000	ppt VPDB
delta13C C2H6	2.000	ppt VPDB
delta13C C3H8	3.000	ppt VPDB
delta13C i-C4H10	4.000	ppt VPDB
delta13C n-C4H10	5.000	ppt VPDB
delta13C neo-C5H12	6.000	ppt VPDB
delta13C i-C5H12	7.000	ppt VPDB
delta13C n-C5H12	8.000	ppt VPDB
delta13C C6H14	9.000	ppt VPDB
delta13C CO2	10.000	ppt VPDB
delta DCH4	11.000	ppt VPDB

Isotope Sample C Analysis

Isotope Sample D Analysis

Petrographic Analysis

Vro Max		1.000 %						Vro Random			5.000 %
Alginite Reflectance		2.000 %						VRE Alginite			6.000 %
Bitumen Reflectance		3.000 %						VRE Bitumen			7.000 %
Bituminite Reflectance		4.000 %						VRE Bituminite			8.000 %

Group	%	%mmf	Sub group	%	%mmf	Maceral	%	%mmf	Sub maceral	%	%mmf
Vitrinite	1.000	2.000	Telovitrinite	10.000	12.000	Textinite	1.000	5.000			
						Texto-ulminite	2.000				
						Eu-ulminite	3.000	7.000			
						Telocollinite	4.000				
			Detrovitrinite	18.000	9.000	Attrinite	5.000				
						Densinite	6.000	9.000			
						Desmocollinite	7.000				
			Gelovitrinite	27.000	0.000	Corpogelinite	8.000				
						Porigelinite	9.000				
						Eugelinite	10.000				
Liptinite	3.000	4.000				Sporinite	11.000				
						Cutinite	12.000	20.000			
						Resinite	13.000				
						Liptodetrinite	14.000				
						Alginite	15.000		Telalginite	16.000	
									Lamalginite	17.000	8.000
									Non-fluorescing Alginite	18.000	
						Suberinite	19.000				
						Fluorinite	20.000				
						Exsudatinite	21.000				
						Bituminite	22.000				
Inertinite	5.000	6.000	Telo-inertinite	72.000	0.000	Fusinite	23.000				
						Semifusinite	24.000				
						Funginite	25.000				
			Detro-inertinite	53.000	0.000	Inertodetrinite	26.000				
						Micrinite	27.000				
			Gelo-inertinite	28.000		Macrinite	28.000				
Other / Non Plant Organic Matter						Zooclasts	29.000				
						Bitumen	30.000				
						Pyrobitumen	31.000				
						Organoclausts	32.000				
Minerals											
Mineral description											

Proximate Analysis

Relative density	1.000 g/cm3	Volatile matter		4.000 %
Moisture	2.000 %	Fixed carbon		5.000 %
Ash	3.000 %	Proximate moisture & ash type	Equilibrium	

Remark	Placeholder Proximate Analysis remark

Rock Evaluation Analysis

Preparation method	Solvent Extracted	Sample lithology	Coal
Analysis method	Rock Eval 6 (Pyrolysis) / Leco (TOC)	Weight after acid wash	1104.000 g
TOC	1.000 wt %	HI [Hydrogen index]	300.000 mg/g/wt %
S1-volatile hydrocarbon content	2.000 mg/g	OI [Oxygen index]	400.000 mg/g/wt %
S2-HC generating Potential	3.000 mg/g	P1-production index	0.400
S3-organic CO2	4.000 mg/g	S1+S2 potential yield	5.000 mg/g
PC [Pryolysized carbon]	5.000 mg/g	S2 / S3	0.750
T max	6.000 degC	S1 *100 / TOC	200.000
Carbonate as CaCO3 equivalent	7.000 wt %	Interpreted kerogen type	Type IV
Drilling fluid	Mud		

Remark	Placeholder remark

Rock Mechanics Analysis

Analysis type	As Received	Cohesion	8.000
Test condition	TBA	Plug orientation	Horizontal
Bulk density	1.000 g/cm3	Dynamic shear modulus	9.000 psi
Confining pressure	2.000 psi	Dynamic bulk modulus	10.000 psi
Compressive strength	3.000 psi	Dynamic Youngs modulus	11.000 psi
Static Youngs modulus	4.000 psi	Dynamic Poissons ratio	12.000
Static Poissons ratio	5.000	Ultrasonic wave velocity shear	13.000 ft/sec
Ultrasonic wave velocity compressional	6.000 ft/sec	Tensile strength	14.000 psi
Unconfined compressive strength (UCS)	7.000 psi	Effective mean stress (confining)	15.000 psi

Remark	Placeholder remark

Ultimate Analysis

Sample preparation	Kerosene	Total sulfur	7.000 %
Carbon	1.000 %	Organic sulfur	8.000 %
Hydrogen	2.000 %	Inorganic sulfur	9.000 %
Nitrogen	3.000 %	Atomic H/C	23.833
Sulfur	4.000 %	Atomic O/C	3.753
Oxygen	5.000 %	Atomic S/C	1.498
Iron	6.000 %	Atomic N/C	2.572
		Atomic S(organic)/C	2.997

Remark	Placeholder remark

Well Log Viewer Enhancements

The new integrated well log viewer introduced in dbMap/Web 2019.1 has been further-improved, adding several new features:

Templates

Support for user-defined well log templates which incorporate track and curve layouts and styles. Once a well log view is config-ured, it can be saved as a template. Templates can be applied to any well log and provide a quick-and-easy method of displaying log curves with a consistent layout and style. Quickly switch between different views of your log data using templates.

Formation Tops

Added support for displaying formation tops from the database in a separate track and optionally across all tracks.
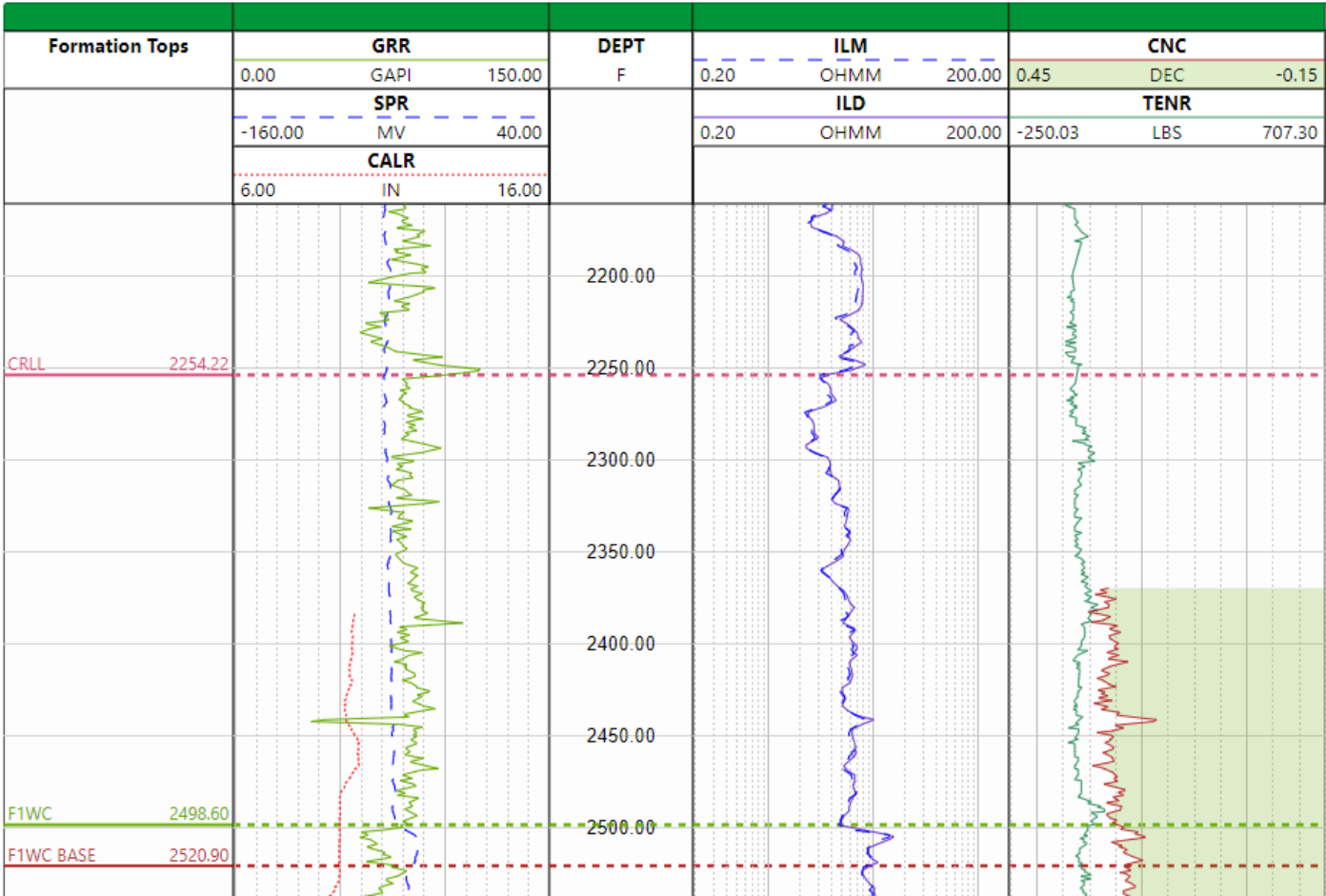
| Formation Tops	GRR			DEPT	ILM			CNC		
	0.00	GAPI	150.00	F	0.20	OHMM	200.00	0.45	DEC	-0.15
	SPR				ILD			TENR		
	-160.00	MV	40.00		0.20	OHMM	200.00	-250.03	LBS	707.30
	CALR									
	6.00	IN	16.00							

CRLL 2254.22

F1WC 2498.60

F1WC BASE 2520.90

2200.00

2250.00

2300.00

2350.00

2400.00

2450.00

2500.00

Cross-plots

A new display mode has been added to show the well log data in a cross plot. The cross-plot mode supports customizable axes and line of best fit calculations.
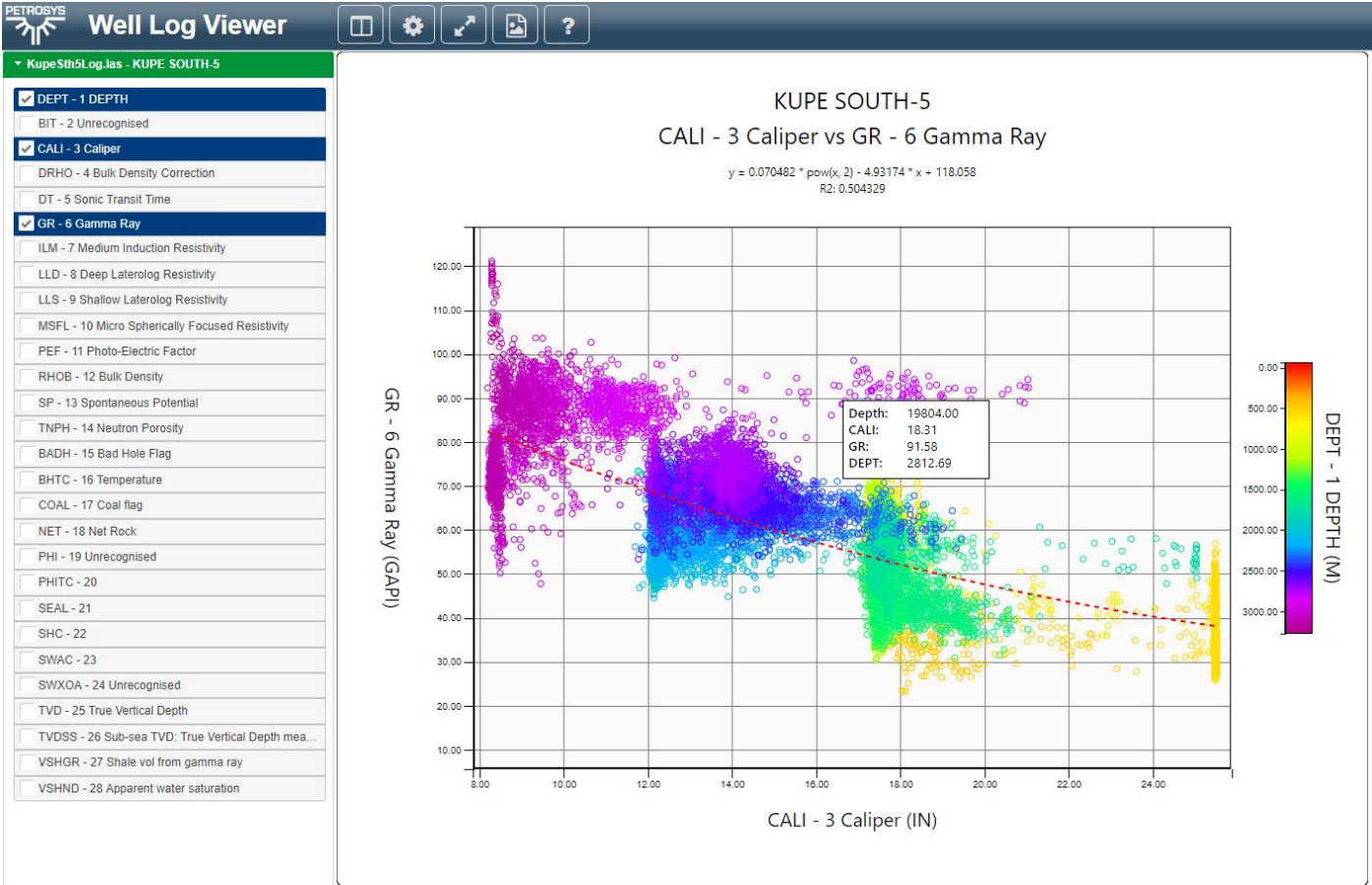
Wrapping

Well log curve data can optionally be wrapped to show the extents of data spikes. Up to two levels of wrapped data can be displayed.

Other Enhancements

• Support for selecting from multiple frames of DLIS data.
• The Well Log Viewer composite and cross-plot displays can now be exported to a PNG image file with a single click.
• Reverse a curve's display range with a single click.

Highlight features introduced in 2019.1

Overview

dbMap/Web 2019.1 sees the introduction of the Petrosys Well Log Viewer as well as a Well Failure Analysis module and Common Risk Segments polygons support for PLDB.
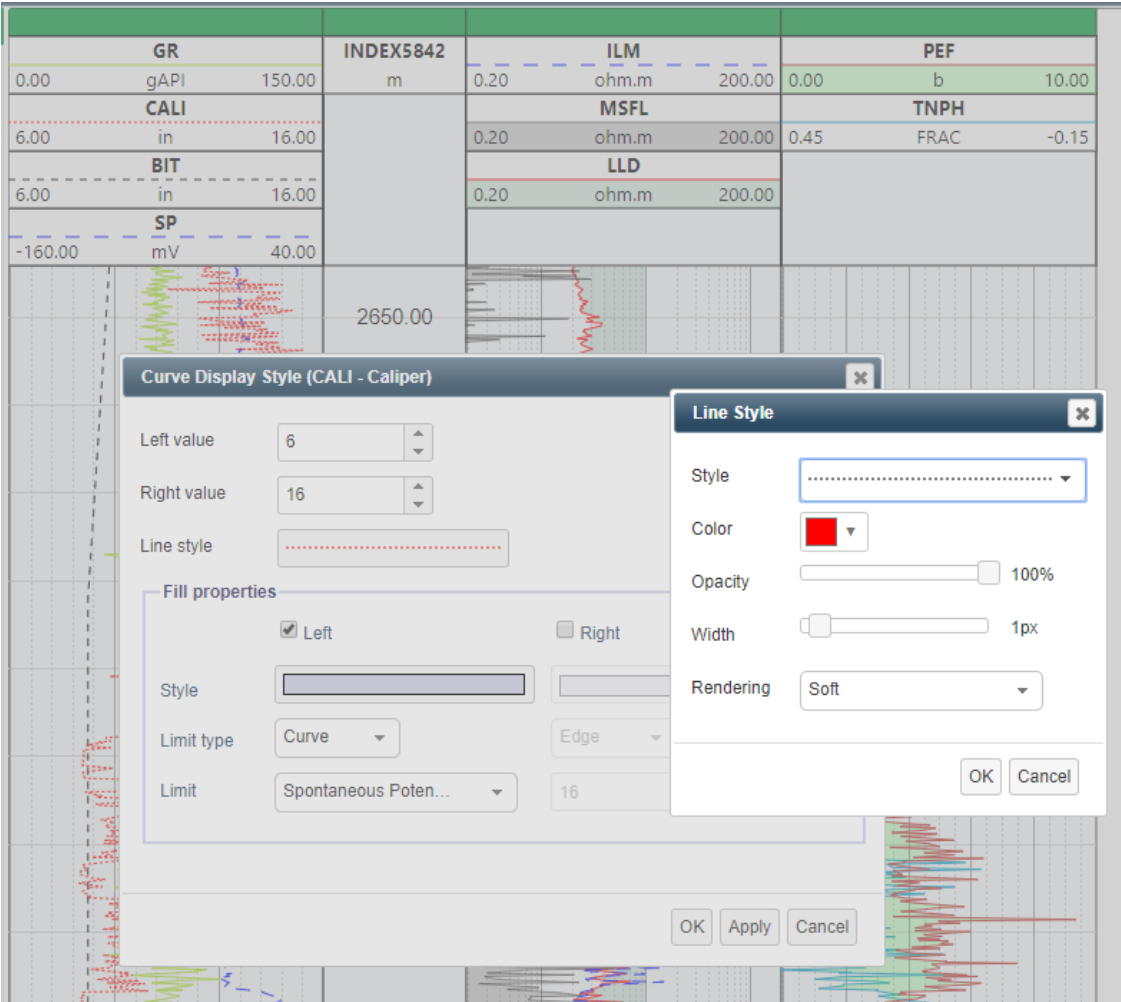
Well Log Viewer

A new integrated well log viewer has been added to dbMap/Web which provides a quick and easy method to interactively view the well log curves within catalogued LAS and DLIS files.
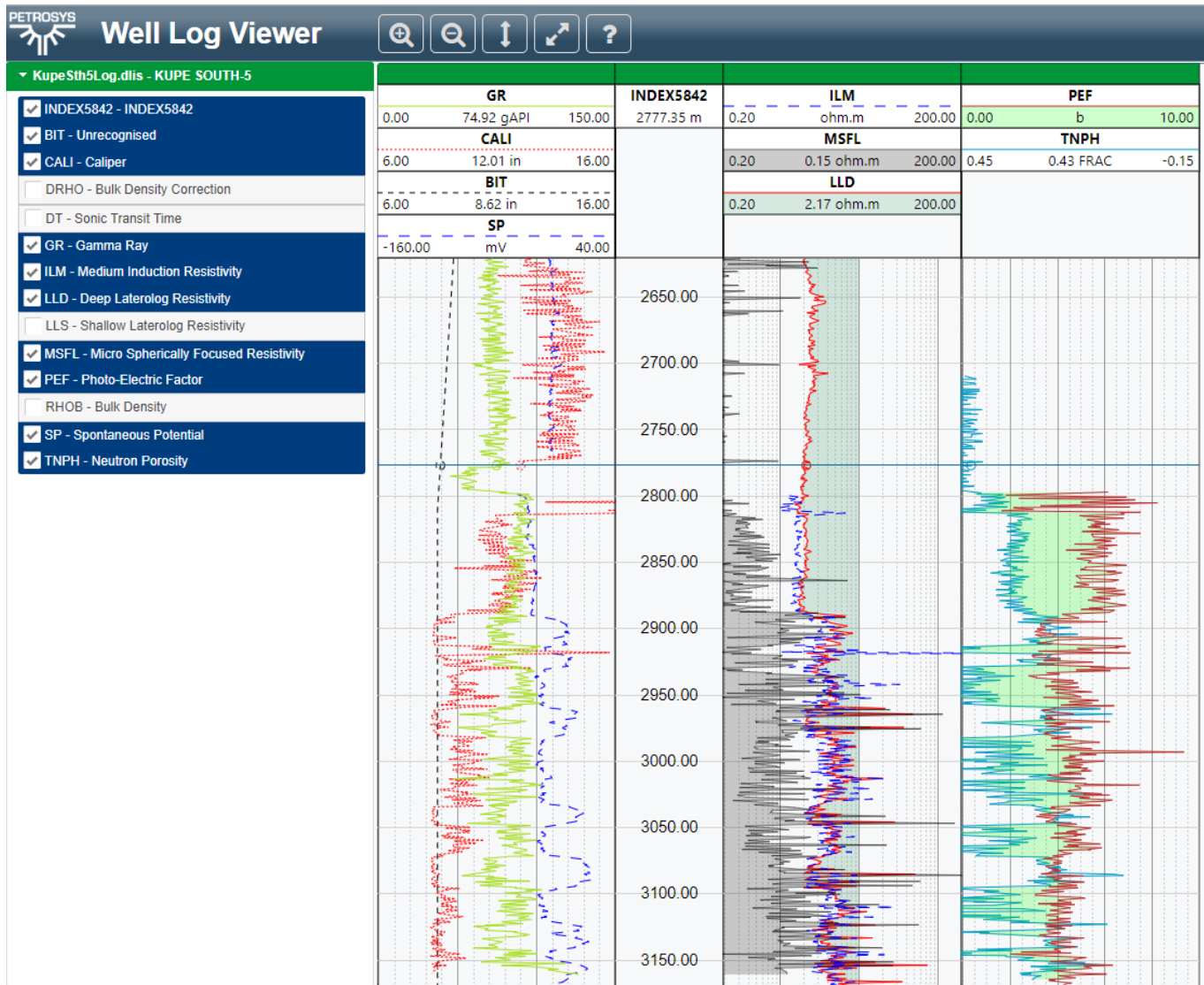
The new well log viewer provides the following features:

- Support for catalogued LAS and DLIS files.
- Interactive display of multiple tracks.
- Interactive display of multiple curves per track.
- Linear and logarithmic track value scales.
- Modify curve line style (color, style, width, opacity).
- Modify curve left and right fill styles (color, opacity, fixed limit, fill between curves).
- Modify major and minor graticule display styles (color, style, width, opacity, frequency).
- Modify curve display range (left and right values).

- Interactively re-order tracks and curves using drag and drop.
- Zoom, pan and cursor tracking.

Note: A separate license is required to access the well log viewer. Please contact Petrosys support for more details.

Well Failure Analysis

A new module to conduct 'Well Failure Analysis' is now available. This module allows companies to analyse data from existing wells to determine where plays have been successful and unsuccessful. The reasons for the failure in the unsuccessful plays can be queried and mapped, allowing better decisions or research to be conducted ahead of future wells.

Filters and Queries

Users can filter on specific play names and high level information about where success/failure exists and the reasons for this failure.
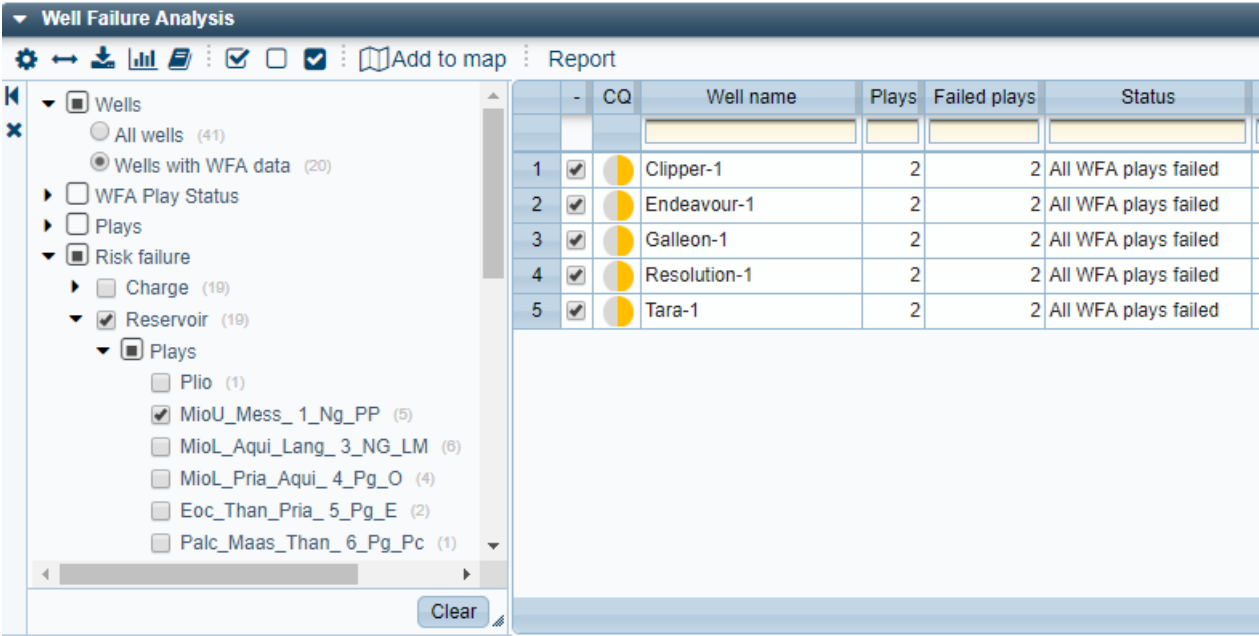
In addition, more detailed queries can be run, for example; to identify which wells within a given play(s) have failed due to a particular play element.
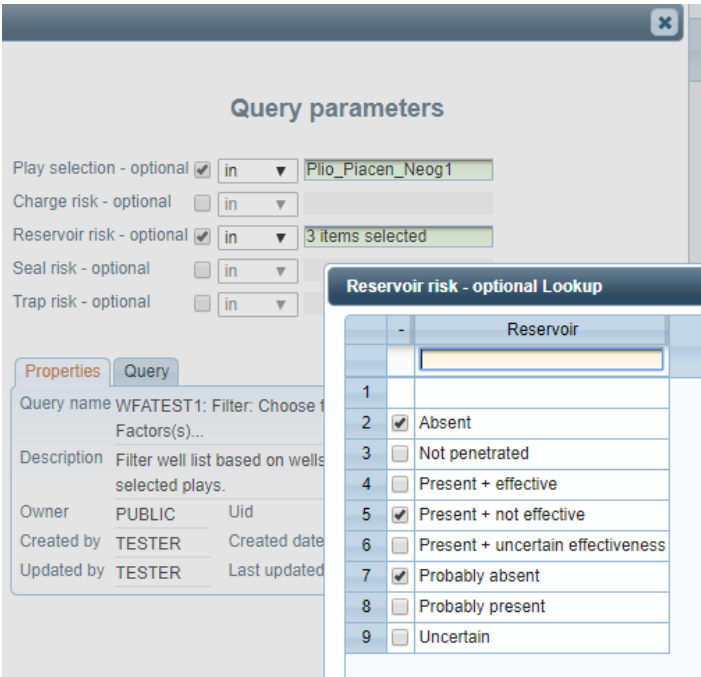
Source Analysis

If source data exist, this can be stored against the well to indicate maturity in a given area.

| Well Summary | Source Analysis 1 | Temperature 2 | Pressure 1 | Play Analysis 5 |

▼ Source analysis : Kimmeridge, 152.1 Ma, Kimmeridgian, Kimmeridge Clay Fm, 200, 113, 5.6, 400, 0.6, Restricted Shallow Marine, API

⚙ ↔ ⬇ 📊 ┊ ➕ New Source analysis

	Source rock	Formation	Top age	Gross thickness	Net thickness	Average TOC	Hydrogen index	Maturity (VR)	Facies	Source
1	Kimmeridge	Kimmeridge C	152.1 Ma, Kimmeridgian	200	113	5.6	400	0.6	Restricted Shallow Marine	API

Temperature

Temperature measurements and calculated geothermal gradients can also be stored.

| Well Summary | Source Analysis | Temperature 2 | Pressure 1 | Play Analysis 5 |

▼ Temperature : 3168, 93.1, , 42, GEOVIC

⚙ ↔ ⬇ 📊 ┊ ➕ New Temperature

	Depth	Temperature	Temperature (corrected)	Geothermal gradient	Source
1	3168	93.1		42	GEOVIC
2	4024	129.1		42	GEOVIC

Pressure

If pressure has been measured within encountered fluids, this too can be stored within the module

| Well Summary | Source Analysis | Temperature 2 | Pressure 1 | Play Analysis 5 |

▼ Pressure : 3000, 3000.00045, Oil, GEOVIC

⚙ ↔ ⬇ 📊 ┊ ➕ New Pressure

	Depth	Pressure	Fluid type	Source
1	3000	3000.00045	Oil	GEOVIC

Play Analysis

One or more of the plays the well has penetrated can be analysed. The presence and effectiveness of charge, reservoir, seal and trap are stored. More detailed information about the play, such as lithology properties, are also captured.

| Well Summary | Source Analysis 1 | Temperature 2 | Pressure 1 | Play Analysis 5 |

▼ Play analysis : Plio_Piacen_Neog1 (Success)

⚙ ↔ ⬇ 📊 ┊ ➕ New Play analysis

	Play name	Series	Top age	Base age	Charge	Reservoir	Seal	Trap
1	Plio_Piacen_Neog1	Pliocene	2.6 Ma, Piacenzian		Present	Present + effective	Present + effective	Present
2	MioL_Burd_Serr_Sst_Neog2	Lower Miocene	11.6 Ma, Serravallian	16 Ma, Burdigalian	Present	Present + effective	Present + effective	Present
3	Eoc_Pria_Carb_Palg1	Eocene	33.9 Ma, Priabonian		Absent	Present + effective	Absent	Absent
4	Eoc_Bart_Sst_Palg2	Eocene	37.8 Ma, Bartonian		Present	Uncertain	Present + effective	Absent
5	Eoc_Lut_Sst_Palg3	Eocene	41.2 Ma, Lutetian		Present	Absent	Present + effective	Uncertain

Well Failure Analysis in PRO

Stop-light style displays, incorporating success and failure analysis results for wells are now even more easily created inside Petrosys PRO. This capability makes it very easy to visualise and analyse risk spatially.
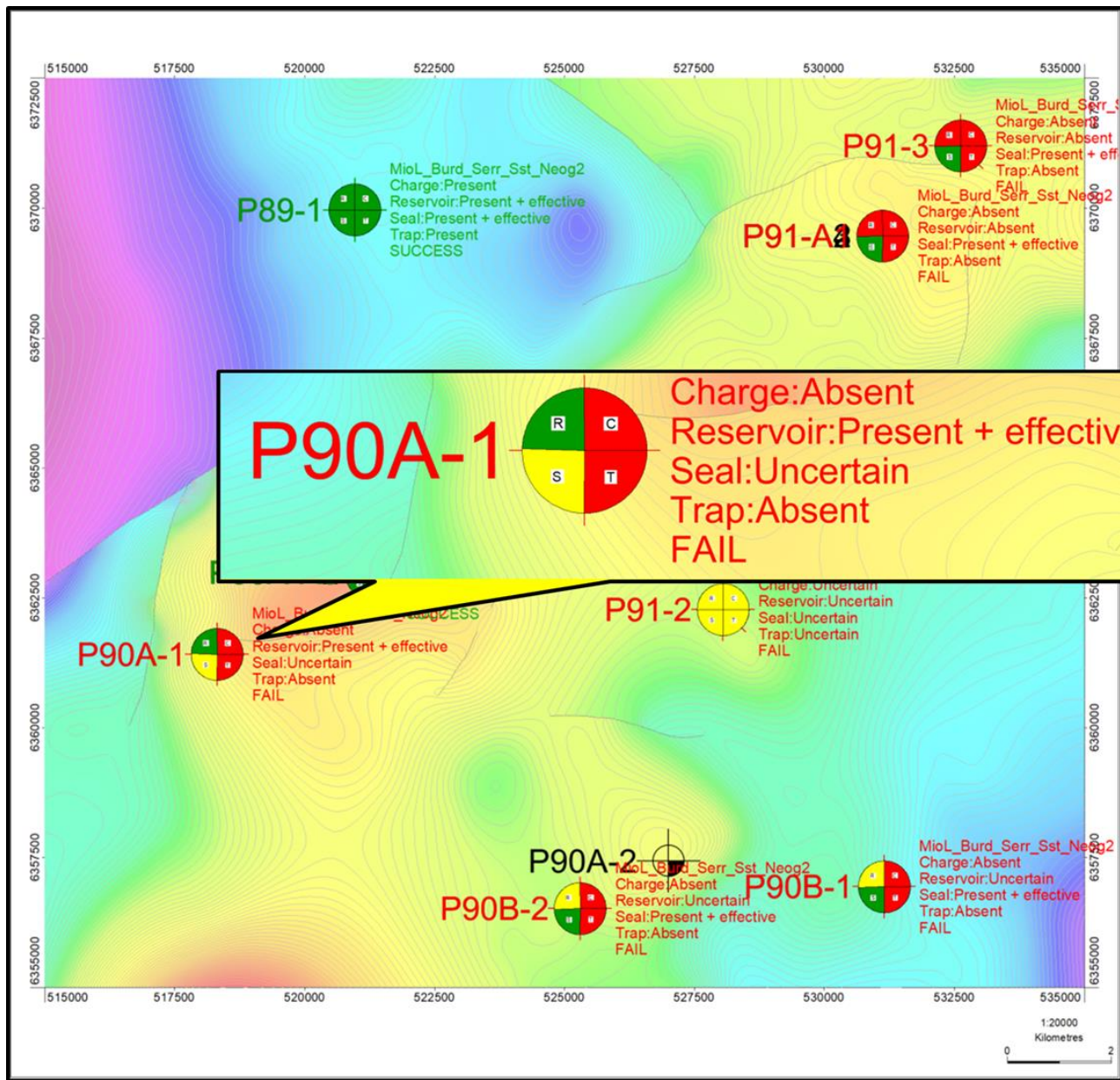
PDF Reporting

In addition to *displaying* the Well Failure data, it can also be analysed through the easy creation of PDF reports

REPORTwfa.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home   Tools   REPORTwfa.pdf   ×

2 / 2   71% ▾

PETROSYS

Well Failure Analysis   **Print Date: 28-MAR-2019**

P89-1

Play analysis 4:

System:	Eocene	Target trap type:	
Top age:	37.8 Ma, Bartonian	Depositional environment:	
Base age:		Lithology:	Sandstone
Cairn play name:	Eoc_Bart_Sst_Palg2	⛔ HC shows:	
Formation member:		API:	
Top of reservoir prone interval bmsl (m):	3780	GOR:	
Base of reservoir prone interval bmsl (m):		Net reservoir:	-3780
Gross reservoir:		Porosity range:	
Charge:	Present	✅ Average porosity:	
Reservoir:	Uncertain	⚠ Core:	No
Seal:	Present + effective	✅ Tests:	No
Trap:	Absent	⛔	

Play analysis 5:

System:	Eocene	Target trap type:	
Top age:	41.2 Ma, Lutetian	Depositional environment:	
Base age:		Lithology:	Sandstone
Cairn play name:	Eoc_Lut_Sst_Palg3	⛔ HC shows:	
Formation member:		API:	
Top of reservoir prone interval bmsl (m):	4120	GOR:	
Base of reservoir prone interval bmsl (m):		Net reservoir:	-4120
Gross reservoir:		Porosity range:	
Charge:	Present	✅ Average porosity:	
Reservoir:	Absent	⛔ Core:	No
Seal:	Present + effective	✅ Tests:	No
Trap:	Uncertain	⚠	

Source Analysis

Source:	API	Source average TOC:	5.6
Source age:	152.1 Ma, Kimmeridgian	HI:	400
Source formation:	Kimmeridge Clay Fm	Source maturity:	0.6
Source gross thickness (m):	200	Source facies:	Restricted Shallow Marine
Source net thickness (m):	113	Mud type:	

Temperature Data

Depth bmsl (m):		3168	
Uncorrected temperature:		93.1	
Corrected temperature:			
Geothermal gradient:		42	

Temperature Data

Depth bmsl (m):		4024	
Uncorrected temperature:		129.1	
Corrected temperature:			
Geothermal gradient:		42	

Pressure Data

Depth bmsl (m):		3000	
Pressure (psi):		3000.00045	
Fluid type:		Oil	
Data source:		GEOVIC	
Data links:			
Comments:			

Prospects & Leads

Common Risk Segments

Petrosys Prospects & Leads module now supports storing Common Risk Segment (CRS) polygons against play interval chance factors and using spatial comparison with the Prospect or Target polygon to determine the appropriate Play chance factors to use in the resource computation.

The CRS polygons are expected to have an attribute defining the risk for each polygon, and can be loaded into the database using the Petrosys PRO Spatial Data Translator, from data sources such as shape files exported from GIS-PAX Player software.

Common Risk Segments
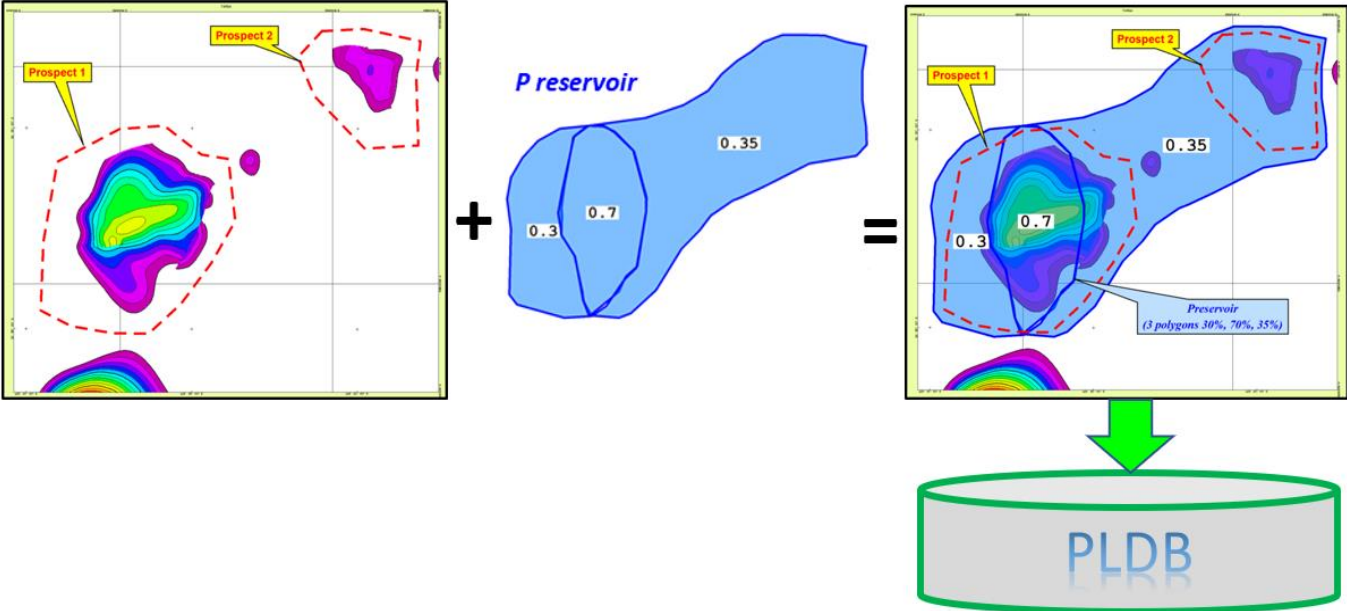
Detailed Release Notes Summary dbMap/Web 2019.4

Enhancements

dbMap/Web - Client

75765	Enabled column rules on the well header (Origin)
75645	The Wells / Coal Summary / Coals tab, now includes the Coal Name (Origin)

dbMap/Web - General

75795	Well Failure Analysis - Enhancements for importing and storing min/max values
72940	Records Management dashboard now contains a location map
72991	Support for Java 6 and 7 has been removed
75541	The Rule reference screen for CQ, now allows editing of the Use condition description
74911	Well header - Changed order of Rig release and Abandonment dates

dbMap/Web - PLDB

73615	Prospect and Target screens now show whether polygon outlines exist
74120	A new reference screen has been added for Prospect Activity
72789	Added common risk segments help documentation
75041	Added support for defining a risk model
75056	Editing prospect target / Resource calculator values now give more helpful validation messages
75517	The Captured indicator has been added to the Prospect tree filter
75736	The prospects tree filter now includes a filter for Permit / production license

Detailed Release Notes Summary dbMap/Web 2019.4
Bug Fixes

dbMap/Web - General

74833	Correct list of reports are available when running dbMap/Web via Petrosys PRO
75199	The Formation reference screen, from the lookup on the Well / Tops panel, now displays without error
74774	Regional settings on the client PC no longer result in a mix of number formats on some panels
74596	Default user credentials are retained during the login process
74986	Searching and sorting on reference table screen improved for Province/State
75170	Selecting a storage path when adding a new records management item no longer displays an error

dbMap/Web - PLDB

75466	Prospect Target Resource computation - Last re-sync date and reason are now shown correctly

Petrosys Release dbMap/Web 2019.4
Detailed Release Notes

dbMap/Web - Client   Enhancements

Enabled column rules on the well header (Origin) 75765

Enabled database column rules on the well header for Origin.

The Wells / Coal Summary / Coals tab, now includes the Coal Name (Origin)
75645

A new value has been added to the Wells / Coal Summary / Coals tab for the Coal name.

dbMap/Web - General   Enhancements

Well Failure Analysis - Enhancements for importing and storing min/max values 75795

The Well Failure Analysis module has been enhanced with several changes that improve the ability to work with complex data. Some of the key changes include:

➢ Some Play analysis and Source analysis attributes now support optionally storing minimum and maximum values instead of only a discrete value.
➢ Base depths are now supported for Pressure and Temperature data.
➢ When importing data, we now support more flexibility in how ranges of data are specified. For instance '10 to 20', '<20', '>10'.
➢ When importing Pressure and Temperature data, we now support multiple records being specified in a single row by using a delimiter.

Import functionality, reports and data screens have all been updated to reflect the new changes.

Records Management dashboard now contains a location map 72940

A location map tab has been added to the records management dashboard. This map displays wells linked to the selected records.

Support for Java 6 and 7 has been removed 72991

Java 6 and 7 are no longer supported by Petrosys dbMap/Web.

The Rule reference screen for CQ, now allows editing of the Use condition description 75541

The reference panel for editing Rules for CQ now includes Use condition description.

Well header - Changed order of Rig release and Abandonment dates 74911

On the well header screen we have changed the order of the Rig release and Abandonment dates to match the order of those activities.

dbMap/Web - General   Bug Fixes

Correct list of reports are available when running dbMap/Web via Petrosys PRO
74833

Some general SQL reports were not available for selection when dbMap/Web was running inside of Petrosys PRO. This has now been fixed so the reports are available.

The Formation reference screen, from the lookup on the Well / Tops panel, now displays without error
75199

A configuration issue has been fixed that prevented the Wells / Tops / Formation lookup from launching its reference panel.

Regional settings on the client PC no longer result in a mix of number formats on some panels
74774

A bug has been fixed that resulted in some numbers on some panels, like the PLDB Resource computation panel, from displaying in a different regional format based on the client PC's regional settings.

Default user credentials are retained during the login process 74596

A bug has been fixed that displayed an incorrect error message if a user failed to log in, which was the result of the default user credentials being cleared when a login failed.

Searching and sorting on reference table screen improved for Province/State
74986

On the Admin/Reference Tables/PPDM/General reference screen, some tables had custom names provided to make their purpose easier to identify. The custom names previously did not behave as expected during filtering and sorting but has now been resolved.

Selecting a storage path when adding a new records management item no longer displays an error
75170

In some cases, selecting a Storage path when adding a new Records Management item would display an error. This has been fixed.

dbMap/Web - PLDB   Enhancements

Prospect and Target screens now show whether polygon outlines exist
73615

The PLDB Prospect and Target screens now display a note if polygon outlines exist.

A new reference screen has been added for Prospect Activity   74120

A new reference screen has been added for Prospect Activity

Added common risk segments help documentation 72789

A new help topic has been added about managing risk segments.

Added support for defining a risk model   75041

PLDB now has the ability to define a more complex risk model, comprised of questions about level of knowledge and data quality that drive probability ranges for risk sub-factors.

The questions and sub-factors are fully customizable to clients needs, along with the rules that specify the probability ranges.

For example, the existing Source chance factor could be defined as a combination of two sub-factors for chance of source presence and effectiveness. Questions can then be defined such as whether sufficient quality of seismic data exists for the area and whether there are nearby wells of fields that have proven the existence and/or effectiveness of the source rock. The answers to the questions are in the form of a low, medium or high confidence level, which can then drive the range of probabilities supported. If the answers to seismic and well questions are high, then the ranges may be between 0.8 and 1.0, but if the answers are both low, then the supported ranges may be between 0.3 and 0.5.

Please contact Petrosys support if you would like more details and help setting up a risk model.

Editing prospect target / Resource calculator values now give more helpful validation messages 75056

The validation error messages on the Resource computation panel are now specific to the row being edited to help fix data-entry errors.

The Captured indicator has been added to the Prospect tree filter 75517

The prospect tree filter can now filter on Captured indicator. Some clients may have this configured with a different name referencing 'interest' or 'acreage' etc..

The prospects tree filter now includes a filter for Permit / production license 75736

A new filter has been added to the Prospect tree filter to filter on Permit or production license

dbMap/Web - PLDB   Bug Fixes

Prospect Target Resource computation - Last re-sync date and reason are now shown correctly 75466

In some cases, the Prospect Target Resource computation dialog would show the incorrect last re-sync date and reason for the latest version of the resource computation.

These fields are also no longer shown when an earlier revision is chosen, and the date of the selected version is shown, to avoid any confusion.

Detailed Release Notes Summary dbMap/Web 2019.3.2

Bug Fixes

dbMap/Web - Client

75674   PLDB - User access screen fixed (Santos)
75602   PLDB - Fixed validation rule when setting prospect to 'Current' (Santos)

dbMap/Web - General

75597   Mapping - Style attribute included when loading WMS base layers

Petrosys Release dbMap/Web 2019.3.2
Detailed Release Notes

dbMap/Web - Client   Bug Fixes

PLDB - User access screen fixed (Santos)   75674

Fixed an error on the "Admin / Security / Prospect & Leads / User access" screen for Santos

PLDB - Fixed validation rule when setting prospect to 'Current' (Santos)
75602

The validation rule that prevents the prospect status being set to current if a polygon does not exit has been fixed.

dbMap/Web - General   Bug Fixes

Mapping - Style attribute included when loading WMS base layers   75597

Fixed a bug preventing WMS base layers from being displayed due to the "STYLE" attribute not being included in the request for the layer.

Detailed Release Notes Summary dbMap/Web 2019.3.1

Enhancements

dbMap/Web - Client

74577	Updated LIMS database URL (Santos)
75261	Core Coal Analysis - Allow any well sample to be used as a sample group (Origin)
74634	Core Coal Analysis - Gas Composition analysis can be linked to any Adsorption Isotherm analysis for the well (Origin)
75437	Mapping - Added map extents (Santos)
75469	Mapping - Well name correctly displayed in annotations and list of selected features (Santos Data Hub)
74823	The Field, Well type and Config type are now read only on the Well Spec Card panel (Origin)
75551	Wells - Added custom fields (Santos Data Hub)
75359	Wells - Changed permit tree filter grouping (Origin)
74665	Wells - Rename Well numeric ID to GPinfo Well ID (Cooper)
75554	Wells / Completions - Added custom fields (Santos Data Hub)
74633	Wells / Core Samples - Formations and seams shown for any interpreter (Origin)

dbMap/Web - General

75468	Records Management - Allow preview of LAS files as an ASCII file
74960	Wells cross reference now supports filtering by a Records Management list
75527	Some additional well symbols have been added
74789	Well log viewer - Improved support for reading non-standard LAS files
74945	Well log viewer - Updated the browser tab title to show the log file name first
75553	Wells / Well Support Facilities - Added rig details to list

Detailed Release Notes Summary dbMap/Web 2019.3.1

Bug Fixes

dbMap/Web - Client

74746   The reference screen for Completion method now matches Petrosys PRO (Santos)

75301   Core Coal Analysis - Calculations executed when using data loaders (Origin)

dbMap/Web - General

74721   Well log viewer - Curve segments on a logarithmic scale are no longer linear

75425   Well log viewer - Fixed curve header tracking/units field obscured when using opaque fills

75389   Well log viewer - Improved DLIS reader to better handle index spacing errors

75061   Well log viewer - Templates now store formation tops tracks

75067   Wells / Core Samples - A copy of a Sample can now be created using the "Save as" button

dbMap/Web - PLDB

74988   PLDB - Basin name is shown on the prospect header even if no country is selected (Origin)

75307   PLDB - Fixed distribution plot for "Bo"

75498   PLDB - Correct gas units shown on the Prospect Milestones and Chronology screens

75087   PLDB - Employees with names longer than 15 characters can now have basins assigned

Petrosys Release dbMap/Web 2019.3.1
Detailed Release Notes

dbMap/Web - Client   Enhancements

Updated LIMS database URL (Santos)   74577

The Santos Well LIMS database URL has been updated to point to the new server.

Core Coal Analysis - Allow any well sample to be used as a sample group (Origin)   75261

Changed selection of "Isotherm sample group" on the "Wells / Core Samples" panel to allow selection of any well sample.

Core Coal Analysis - Gas Composition analysis can be linked to any Adsorption Isotherm analysis for the well (Origin) 74634

Linking from a Gas Composition analysis to an Adsorption Isotherm analysis now includes any Adsorption Isotherm analysis for the same well.

Mapping - Added map extents (Santos)   75437

Added requested map extents to the standard and data hub Santos environments.

Mapping - Well name correctly displayed in annotations and list of selected features (Santos Data Hub)   75469

Annotations and the list of selected featured only displays the well name value for a well.

The Field, Well type and Config type are now read only on the Well Spec Card panel (Origin)   74823

Since the Field, Well type and Config type are read only in the database, they are now read only on the Well Spec Card panel.

Wells - Added custom fields (Santos Data Hub)   75551

Inclusion of additional fields on the Well Header for the Santos Data Hub environment.

Wells - Changed permit tree filter grouping (Origin)75359

Changed the "Permit" filter on the "Wells" screen to allow easier selection of wells operated by Origin.

Wells - Rename Well numeric ID to GPinfo Well ID (Cooper)   74665

The Well numeric ID is now called GPinfo Well ID for Cooper.

Wells / Completions - Added custom fields (Santos Data Hub)   75554

Added fields to the "Wells / Completions" screen to show the "Average geothermal gradient" and "Surface temperature".

Wells / Core Samples - Formations and seams shown for any interpreter (Origin)   74633

The "Wells / Core Samples" screen has been updated to show related formation and seam information based on relates "Wells / Tops" from any interpreter.

The reference screen for Completion method now matches Petrosys PRO (Santos)   74746

The sort order, columns and location of inputs are now the same in dbMap/Web and Petrosys PRO

Core Coal Analysis - Calculations executed when using data loaders (Origin)   75301

Fixed a bug preventing calculations being executed when creating records using the Core Coal Analysis data loaders.

Records Management - Allow preview of LAS files as an ASCII file   75468

LAS files stored in Records Management can now be previewed as plain text (ASCII) files.

Wells cross reference now supports filtering by a Records Management list   74960

It is now possible to create a list of wells based on a list of linked records management items.

Some additional well symbols have been added   75527

Some missing well symbols have been added to match Petrosys PRO

Well log viewer - Improved support for reading non-standard LAS files   74789

The LAS reader is now tolerant of non-standard LAS files containing blank lines. These can now be viewer in the Well Log Viewer.

Well log viewer - Updated the browser tab title to show the log file name first   74945

To improve visibility when multiple Well Log Viewer tabs are open, the browser tab titles now start with the name of the well log file, followed by the path.

Wells / Well Support Facilities - Added rig details to list   75553

The "Wells / Well Support Facilities" displays a generic list of facilities for the well. Additional columns have been added to the list to provide more information, when the facility is a rig.

Well log viewer - Curve segments on a logarithmic scale are no longer linear   74721

Previously, curve segments rendered on a logarithmic track were rendered on a linear scale between points. This caused minor mismatches between the tracking cursor and curve segment at high zoom levels. Now, both the tracking cursor and the line segments use a logarithmic scale.

Well log viewer - Fixed curve header tracking/units field obscured when using opaque fills 75425

Previously, the curve units and tracking information was obscured by the fill color shown in the curve header. When using opaque fills, the field was completely covered. This has now been fixed.

Well log viewer - Improved DLIS reader to better handle index spacing errors 75389

The DLIS reader used by the Well Log Viewer has been improved to support a larger range of DLIS files. Specifically those containing mismatching index spacing and range and those with non-uniform samples depths.

Well log viewer - Templates now store formation tops tracks 75061

Previously, formation tops tracks weren't saved to the template. Now, when you save a template containing formation tops, the track location and style is maintained.

Note: The formation tops selection is not stored in the template.

Wells / Core Samples - A copy of a Sample can now be created using the "Save as" button 75067

A bug preventing a sample record from being copied using the 'Save as..' button has been fixed.

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dbMap/Web - PLDB   Bug Fixes

PLDB - Basin name is shown on the prospect header even if no country is selected (Origin) 74988

If no Country was selected for a prospect then the basin code was shown instead of the basin name. This has been fixed so the basin name shows with or without a country selected.

PLDB - Fixed distribution plot for "Bo" 75307

Fixed a bug preventing the distribution plot for variable "Bo" being displayed.

PLDB - Correct gas units shown on the Prospect Milestones and Chronology screens 75498

Fixed a bug causing incorrect units to be displayed for gas values on the "Milestones" tab on the prospect header, the "Prospect Chronology" list and the "Target Chronology" list. This was only an issue for clients that do not use BCF as the default gas unit.

PLDB - Employees with names longer than 15 characters can now have basins assigned 75087

A bug preventing users with names longer that 15 characters from being assigned basins has been fixed.

Detailed Release Notes Summary dbMap/Web 2019.3

Enhancements

dbMap/Web - General

74589   Well log viewer - Icon improvements

74235   Well log viewer - Resizeable tracks

74152   Well log viewer - Support for LAS v2.1

dbMap/Web - PLDB

73653   PLDB now supports Discovered Resources

73673   PLDB Chronology enhancements

74697   PLDB - Company interest is now included in the dashboard tree filter (Santos)

Detailed Release Notes Summary dbMap/Web 2019.3

Bug Fixes

dbMap/Web - General

74572   Core Coal Analysis - Cancelling creation of analysis records now works consistently

74560   Core Coal Analysis - New Gas compositions can now specify the linked Adsorption isotherm analysis as part of initial creation

74468   Core Coal Analysis - The counts on buttons under the Core sample panel are now updated when adding and deleting records

Petrosys Release dbMap/Web 2019.3
Detailed Release Notes

dbMap/Web - General   Enhancements

Well log viewer - Icon improvements   74589

The icons for cross-plots and composite log charts have been updated to better represent the functionality,.

Well log viewer - Resizeable tracks   74235

The width of tracks can now be resized interactively in the Petrosys Well Log Viewer.

Well log viewer - Support for LAS v2.1   74152

LAS format version 2.1 is now supported for displaying in the Petrosys Well Log Viewer.

dbMap/Web - General   Bug Fixes

Core Coal Analysis - Cancelling creation of analysis records now works consistently   74572

Pressing the Cancel button after starting to add a new sample analysis (Adsorption isotherm, Desorption etc..) would sometimes leave the panel in state where the new blank record remained on the screen. This has been fixed.

Core Coal Analysis - New Gas compositions can now specify the linked Adsorption isotherm analysis as part of initial creation   74560

You can now add a new gas composition and link it to an Analysis isotherm before clicking the Save button. Previously the gas composition had to be saved first before it could be linked to an Adsorption Isotherm.

Core Coal Analysis - The counts on buttons under the Core sample panel are now updated when adding and deleting records   74468

The count of Sample analysis records that is shown on the buttons below the Core sample panel are now correctly updated when new Sample analysis records are added or deleted.

dbMap/Web - PLDB   Enhancements

PLDB now supports Discovered Resources   73653

PLDB had existing support for Prospective, Contingent and Reserves resource computations. This release adds support for Discovered resources which are part of the Society of Petroleum Engineers PRMS standard. Key functionality includes:

- A new Discovered resource computation dialog for targets, which supports copying from Prospective resources.
- Separate Prospect level roll-up of Discovered resources for primary targets, which is visible in the Prospect chronology list and new Prospect Milestone list or via the Prospect summary report.
- As they are stored separately, Discovered resources are not included in aggregation/enrollment of Exploration resources performed during automated roll-up, reporting, dashboarding, or on-demand roll-up.
- Discovered resources are only able to be created once a target status has been classified as proven successful.

PLDB Chronology enhancements

The existing Prospect Chronology screen has been enhanced and the introduction of Milestones gives a clearer picture of the key changes to a Prospect's resources over time. Some of the key functionality include:

➢ Milestones can be defined as special types of events, and the list is customisable by clients.

➢ Prospect Chronology only shows key milestones by default, but full details of incremental changes and other prospect, portfolio, target and drilling opportunity events can be shown on request.

➢ The Prospect and dashboard tree filters have been expanded to support seamless search & find based on milestone, and the Prospect header dialog displays the current milestone.

➢ The Prospect Header dialog lists all key milestones to allow easy viewing without having to drill-down through the Prospect Chronology dialog.

➢ A Prospect level resource summary chart has been added to show how the Prospective resource estimates have changed over time, along with the milestones and Discovered resources.

PLDB - Company interest is now included in the dashboard tree filter (Santos)

Prospects can now be filtered by whether a company has an interest in a prospect. (Santos only)

Detailed Release Notes Summary dbMap/Web 2019.2

Enhancements

dbMap/Web - Client

74341   PLDB activated for Origin

dbMap/Web - General

72863   Core Coal Analysis

73476   Well Log Viewer - Enhancements

74367   Well Perforation data loader extended to support additional columns

74521   Well Failure Analysis - Enhancements to data loading in 2019.2

dbMap/Web - PLDB

69405   PLDB - Size of distribution variable values has been increased

72682   Prospect roll-up now produces more consistent results for Prospects with single targets

Detailed Release Notes Summary dbMap/Web 2019.2

Bug Fixes

dbMap/Web - PLDB

74424   Correct play probability factors are now shown for target scenario resource computations

74305   Performance of PLDB_TARGET_POLYS view improved

Petrosys Release dbMap/Web 2019.2
Detailed Release Notes

dbMap/Web - Client   Enhancements

PLDB activated for Origin   74341

PLDB functionality has been enabled.

dbMap/Web - General   Enhancements

Core Coal Analysis   72863

A new coal core analysis module has been added to our well functionality. The PPDM 3.9 Sample Analysis model is used to manage Samples as well as analysis for :

- Adsorption isotherm
- Desorption
- Gas composition
- Isotope
- Petrology
- Proximate
- Rock evaluation
- Rock mechanics
- Ultimate

Well Log Viewer - Enhancements   73476

A number of enhancements have been made to the Well Log Viewer introduced with dbMap/Web 2019.1.

Templates

Support for user-defined well log templates which incorporate track and curve layouts and styles. Once a well log view is configured, it can be saved as a template. Templates can be applied to any well log and provide a quick-and-easy method of displaying log curves with a consistent layout and style. Quickly switch between different views of your log data using templates.

Formation Tops

Added support for displaying formation tops from the database in a separate track and across all tracks.

Crossplots

A new display mode has been added to show the well log data in a cross-plot. The cross-plot mode supports customizable axes and line of best fit calculations.

Wrapping

Well log curve data can optionally be wrapped to show the extents of data spikes. Up to two levels of wrapped data can be displayed.

Other Enhancements

- Support for selecting from multiple frames of DLIS data.
- The Well Log Viewer display can now be exported to a PNG image file with a single click.
- Reverse a curve's display range with a single click.

Well Perforation data loader extended to support additional columns
74367

The well perforation data loader has been extended to support importing additional columns.

Well Failure Analysis - Enhancements to data loading in 2019.2 74521

A series of enhancements and fixes have been made to the data loading functionality for Well Failure Analysis data. Changes include:

- ➢ Reference Elevation values including 'SS' are now supported. In some cases they are automatically translated to standard values such as 'MSL'.
- ➢ The allowed length of Data source values has been increased
- ➢ More information is now provided when the data to be imported has invalid numbers
- ➢ Play analysis well test types are now automatically created if they don't already exist
- ➢ The allowed length of Well result has been increased.

dbMap/Web - PLDB   Enhancements

PLDB - Size of distribution variable values has been increased 69405

The size of PLDB resource computation distribution variable values has been increased to support analysis of larger areas.

Prospect roll-up now produces more consistent results for Prospects with single targets
72682

The Prospect rollup of target resources now produces more consistent results for prospects with a single target. Previously you could get slight differences in the Total MMBOE distribution values compared with the target's original values.

dbMap/Web - PLDB   Bug Fixes

Correct play probability factors are now shown for target scenario resource computations
74424

When creating a new Prospect target scenario resource computation, the Probability factors tab now shows the correct Play chance factors. Previously it just showed the total as 1.

Performance of PLDB_TARGET_POLYS view improved 74305

The performance of the database view PLDB_TARGET_POLYS has been significantly improved. Where previously it could take 5 minutes to select all records from the view, it now takes about 2 seconds.

Detailed Release Notes Summary dbMap/Web 2019.1

Enhancements

dbMap/Web - Client

73439	Geological Province changed to Basin in the wells tree filter (Santos)
73640	Row-based security has been added for Wells (Origin)
73537	Easting/Northing values are now shown on well header (Greymouth)
73879	Spotfire link updated to latest version of Sportfire (Santos)
73429	Three new columns have been added to the view FRAC_SPOTFIRE_VW (Santos).

dbMap/Web - General

73014	Well Failure Analysis
73193	The formation summary records are re-calculated when using the data loader
73475	Well log viewer
72845	Performance improvements have been made to the Well log curve summary report
73287	CQ batch job has been optimised and can now continue from previous run
72942	Dashboard pie charts have been changed to donut charts
72766	Performance improvements have been made to displaying panels by caching the buttons

dbMap/Web - PLDB

35852	Prospects & Leads now supports Common Risk Segment polygons
70509	New tree filter options have been added for Onshore and Offshore

Detailed Release Notes Summary dbMap/Web 2019.1

Bug Fixes

dbMap/Web - Client

73606   Catalogued items are recorded with the media type of Electronic file (Origin)

73365   Users with a full stop in their username can now use web mapping

dbMap/Web - General

73274   Lookups in the Advanced search query builder no longer cause the embedded browser in PETROSYS PRO to crash

73928   Aliases can now be created for Formations

74106   Well log browser screen - Depths now have a space comma instead of a space as the thousand separator

Petrosys Release dbMap/Web 2019.1
Detailed Release Notes

dbMap/Web - Client   Enhancements

Geological Province changed to Basin in the wells tree filter (Santos)
73439

"Geological province" replaced by "Basin" for consistency with SANTOS DATA HUB (PPDM).

Row-based security has been added for Wells (Origin)   73640

Row-based security, that uses the well's confidential_type column as been added for Origin.

Easting/Northing values are now shown on well header (Greymouth)
73537

The Well header panel how shows Easting/Northing values.

Spotfire link updated to latest version of Sportfire (Santos)   73879

The link 'Laboratory Data (LIMS)' on the Well panel was updated to match the latest configuration of Spotfire.

Three new columns have been added to the view FRAC_SPOTFIRE_VW (Santos).   73429

The three new columns added to the view FRAC_SPOTFIRE_VW are Closure Gradient, Pore Gradient and Adjusted KH.

dbMap/Web - Client   Bug Fixes

Catalogued items are recorded with the media type of Electronic file (Origin)   73606

A bug with cataloguing RM items has been fixed so they are categorised as 'Electronic file' Media type.

Users with a full stop in their username can now use web mapping   73365

Fixed a bug causing mapping to fail for users with a full stop (.) in their username.

dbMap/Web - General   Enhancements

Well Failure Analysis   73014

A new module to conduct 'Well Failure Analysis' is now available. This module allows companies to analyse data from existing wells to determine where plays have been successful and unsuccessful. The reasons for the failure in the unsuccessful plays can also be queried and mapped, allowing better decisions or research to be conducted ahead of future wells.

The formation summary records are re-calculated when using the data loader   73193

When importing records via the data loader, the formation summary records will be re-calculated.

Well log viewer

A new integrated well log viewer has been added to dbMap/Web which provides a quick and easy method to interactively view the well log curves within catalogued LAS and DLIS files.

Note: A separate license is required to access the well log viewer. Please contact Petrosys support for more details.

Performance improvements have been made to the Well log curve summary report
72845

The well log curve summary report is now faster to generate.

CQ batch job has been optimised and can now continue from previous run
73287

Confidence and Quality (CQ) batch job has been optimised to be faster with a new option added to continue from the last run.

Dashboard pie charts have been changed to donut charts 72942

All pie charts on all dashboards in dbMap/Web have been changed to donut charts that are easier to read and now have colors that are consistent with other charts.

Performance improvements have been made to displaying panels by caching the buttons
72766

By caching the panel buttons, panels are faster to load and display on the web page.

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dbMap/Web - General   Bug Fixes

Lookups in the Advanced search query builder no longer cause the embedded browser in PETROSYS PRO to crash
73274

A bug causing the embedded browser to crash when a user activated the advanced search and tried to select values from a lookup has been fixed; only the embedded (PETROSYS PRO) browser was affected.

Aliases can now be created for Formations
73928

A bug that prevented Aliases from being added to Formations has been fixed.

Well log browser screen - Depths now have a space comma instead of a space as the thousand separator
74106

Previously on the well logs browser screen, depths that were larger than 999 were displayed with a space as the thousand separator in lists. They are now displayed with a comma instead. For example depths are now formatted as 1,234.56

dbMap/Web - PLDB   Enhancements

Prospects & Leads now supports Common Risk Segment polygons   35852

Petrosys Prospects & Leads module now supports storing Common Risk Segment (CRS) polygons against play interval chance factors and using spatial comparison with the Prospect or Target polygon to determine the appropriate Play chance factors to use in the resource compuation.

The CRS polygons are expected to have an attribute defining the risk for each polygon, and can be loaded into the database using the Petrosys PRO Spatial Data Translator, from data sources such as shape files exported from Player. By default the attribute used is named "Risk2", but this can be configured by modifying the PLDB_PLAY_CHANCE_POLY_ATTR_NAME code group value on Admin/Reference Tables/General dialog.

New tree filter options have been added for Onshore and Offshore

New filter options for Onshore and Offshore have been added to the tree filter for Prospects.