# WELLSITE OPERATIONAL INTELLIGENCE

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### CAPITALISING ON PROSPECT OPTIMISATION THROUGH INTELLIGENT DATA CAPTURE AND MANAGEMENT

**Itîs all about your data**. Before, during and after the drilling campaign, it is your data that forms the basis of strategic decisions. Disparate, disorganised, missing and corrupt data costs time, and time can rapidly equate to millions of dollars.

This is the industry need upon which R-WEB has built its suite of software tools, designed to promote a culture of operational excellence. We have built best practice data capture workflow into our intuitive software to guide users through a logical and ordered sequence.

This framework cultivates operational intelligence allowing powerful analysis, dynamic reporting and quality deliverables, seamlessly becoming the standard for daily operations.

Geologists, Exploration Managers, Reservoir Engineers and Drilling Managers work from a single data source, no matter where they are located around the world. This collaboration provides greater insight into the finer details of the drilling effort, so that decisions can be made quickly and effectively.

The usability of R-WEBEs software tools promotes adoption by all stakeholders with minimal training investment. The result is software that does not sit idle, but drives the processes upon which your company relies to optimise operations.

Leverage our tools to be an Operating Company that plans the well, drills the well and conducts its post well reporting in an efficient and quality controlled manner each and every time.

As you build your data store, you build operational intelligence. **R-WEB provides this platform.** 



# OUR SOLUTIONS

### **R-WEB Enterprise**

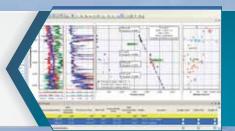
R-WEB Enterprise represents the core features essential to capturing, storing, analyising and distributing key wellsite information to stakeholders. Office and wellsite work in harmony through mirrored databases, providing a window of data for the Operations team to monitor wellsite activity.

### **R-WEB** Reporting

Offering a new standard in geological reporting, R-WEB's Reporting module offers the flexibility of Word with all R-WEB data fields, tables and graphics available for presentation. R-WEB delivers a suite of over 25 standardised templates which can be quickly customised to suit your organisation's unique requirements.

### Pressure Explorer

Pressure Explorer works either standalone or via the R-WEB database to analyse pressure points as they become available, allowing users to create sophisticated multi-well formaton pressure interpretations, identify reservoir fluid types and contacts, and quickly determine gradient quality. Centralised data ensures Reservoir Engineers and Geologists are working from the definitive source data at all times.



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### GeoMin

Mineralogy at the wellsite is now possible with GeoMin. R-WEB's GeoMin module takes samples from sources such as cuttings and coring, and delivers quantitative carbonate and clay mineralogy, organic carbons (including alkane and aromatics), thermal maturity, brittleness, and calculated lithology. The graphical outputs can be included on daily reports such as DGRs, and included in Final Well Reporting.

### WellCAD Link

R-WEB has built a wizard import function for WellCAD to swiftly pull R-WEB data into the package, reducing the time taken to produce detailed composite well logs.



### TECHNOLOGY INTEGRATIONS



### WELL FRAMEWORK & CONTEXT

### EDIT WELL, SURVEYS

Well location, well objectives and the over arching well design is defined, while the survey module positions your well in three dimensions.

### LITHOLOGY

### R-SWC, P-SWC, CORING, CUTTINGS

Build the lithological sequence penetrated throughout the drilling operation and define the sample source to characterise the lithostratigraphy.

### ADVANCED LITHOLOGY

### GEOMIN

The GeoMin module provides world first detailed quantitative mineralogy and characterisation of the geochemical profile of the well, at the wellsite.

### WELL PROGRESS & PERFORMANCE

### DGR, TIME VERSUS DEPTH, BIT DATA

Track the progress of the well and distribute critical findings to stakeholders.

# PETROPHYSICAL DATA ACQUISITION & OPERATIONAL METRICS

### LWD, WIRELINE LOGGING

Understanding the context in which the data was sourced allows a window into the quality of the data and operational efficiency.



R-WEB

**ENTERPRISE** 

STRAIGHTFORWARD OPERATIONAL DATA MANAGEMENT TOOLS, RICH IN PRACTICAL FUNCTIONALITY AND INTELLIGENTLY DESIGNED TO PRODUCE AN INTEGRATED SOFTWARE SYSTEM.

USEFUL, UNCOMPLICATED, WELL ORGANIZED AND VITAL TO ESTABLISHING AND MAINTAINING AN INTELLIGENCE BANK OF WELLSITE DATA WITH A BROAD RANGE OF PRACTICAL APPLICATIONS.

# CHARACTERISING RESERVOIR FLUIDS & PERMEABILITY

### PRESSURES

Beyond defining a fluid gradient, the Pressures module delivers interpretations on a field wide basis.

### CONTINUOUS IMPROVEMENT

### LESSONS LEARNED

Preserving and sharing the knowledge and experience gained, Lessons Learned is the enduring legacy of the well.

### **INFORMING STAKEHOLDERS**

### REPORTING, REX, DISCUSSION

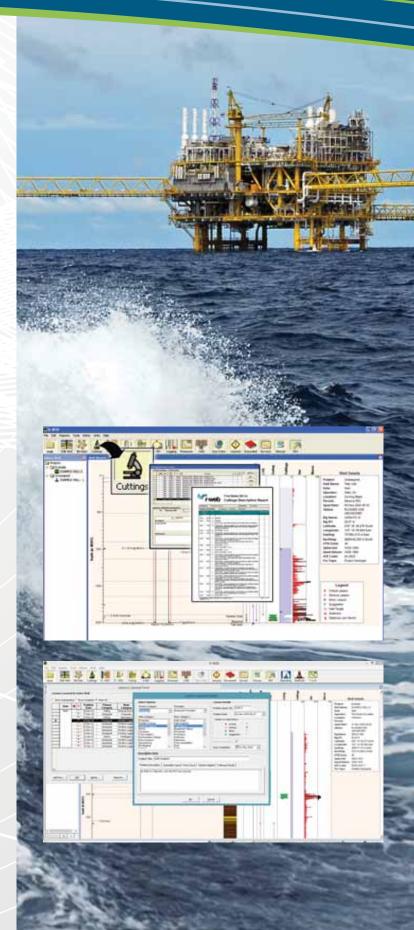
Transparent cross platform data mobility and extraction that articulates operational results.

# PORTAL TO OPERATIONAL INTELLIGENCE DOCUMENTS MODULE

Extends the application to become your reference library for sourcing all resources associated with a drilled well.

# BUILDING A PICTURE

Integrated with WellCAD log compilation, R-WEB delivers the one step data capture and visualisation model.



# REPORTING

The R-WEB Reporting module is setting the standard for high quality, comprehensive, quick and convenient reporting in the industry today. Once data is approved by the Operations Geologist, reports are generated directly from the R-WEB database.

From Daily Geological Reports to Well Completion Reports, the collaboration effort and true value of an organisation is operational data is available at the click of a button. This data is easily shared amongst stakeholders without compromising the source data.

The Reporting Module:

### TEMPLATE DRIVEN

Generate streamlined Well Completion Reports, saving time and mitigating the need for additional software investment. Template driven reports are generated directly from the R-WEB database.

### FLEXIBLE

Over 25 critical report templates are delivered as part of R-WEBIs Standard Implementation Process. These reports can be modified to suit the requirements and specifications of the Operator, JV Partners, government authorities or the individual user.

### INTUITIVE

With an intuitive Word-like interface, users can quickly generate all approved company reports with minimal training required.



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# STANDARD TEMPLATES

- Daily Geological Report
- Core Description Report
- Cuttings Description Report
- Formation Tops Report
- Final Well Report
- Gas Summary Report
- Horner Geothermal Report
- Hydrocarbon Shows Report
- Lessons Learned Report
- Linked Documents Report
- Lithostratigraphic Sequence Report
- MWD FEWD Report
- Operational Summary Report
- Rotary Core Summary Report
- Sidewall Core Description
- Survey Report
- Well Index Sheet
- Well Diary Report
- Wireline Logging Report
- Wireline Observers Report
- Wireline Sampling Record Summary



### CREATE COMPELLING FORMATION PRESSURE INTERPRETATIONS, WITH AN EASY TO UNDERSTAND INTERFACE RICH IN FUNCTIONAL FEATURES. DELIVERS READILY CONSTRUCTED PRESSURE VIEWS THAT ARE INTEGRAL TO STRATEGIC DECISION MAKING WHILE DRILLING THE WELL.

PRESSURE

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Reservoir pressure analysis is widely recognised as a key process in determining reservoir fluid characteristics and associated productivity. The more accurate the analysis and presentation of data the greater the value delivered by the formation evaluation process.

Pressure Explorer is a powerful yet simple tool that allows wellsite geologists, operations geologists, reservoir engineers and other wellsite personnel to convert wellsite derived data into very clear and concise graphical presentations.

Key values delivered by this software include:

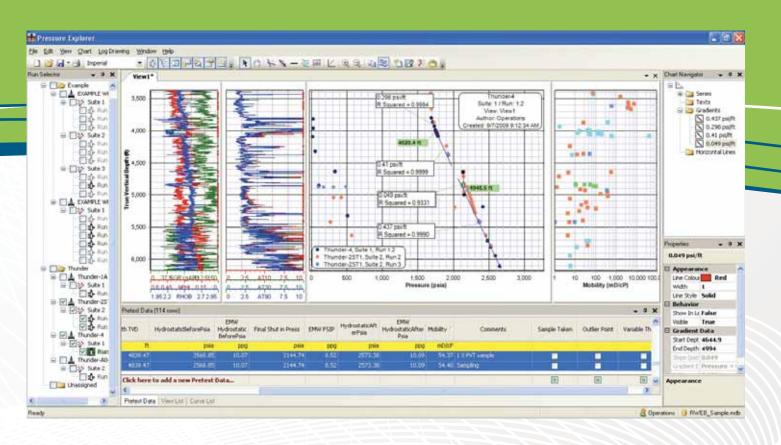
- Rapid identification of reservoir fluid types
- Interpretation of fluid contacts
- Simple and logical manipulation of data sets to exclude outliers
- Build a clear picture of pressure regimes present
- Assess data quality and reduce uncertainty in interpretations
- Establish field-wide presentations through a single multi-well graphic
- Organise your pressure data in a systematic structure

Pressure Explorer comprises an intuitive interface that looks simple, yet delivers a host of functionality that allows the user to quickly and effectively present formation pressure data from a single well or a number of wells, over an entire field of data and, if necessary, focus on particular data sets of interest defining fluid types, contacts and reservoir boundaries.

Once the user of the software has created the liviewle that best fits the interpretation of the data, it is a simple process of capturing that view through a straight forward cut and paste function for reporting purposes.

There are many additional features of R-WEB Pressure Explorer that streamline the generation of these interpretations and deliver very powerful cross well and field analysis capabilities. These include:

- True multi well database allowing for multiple data sets to be included in a single view for comparison and QC purposes.
- Capacity to analyse "excess pressure‰ with the unique and powerful ÅnormaliseÉ function within the software.
- Data can be networked allowing team members to create individual interpretations of the same data set encouraging a collaborative approach to generating the *l*bestf interpretation.
- Once a particular interpretation of the data has been created and tagged as the most suitable/ accurate, this can be tagged in the software as the AdefinitiveE view.



Pressure Explorer is a software tool that will integrate rapidly into the daily operations of pressure specialists through a logical and intuitive interface, simple and effective generation of quality outputs and robust and reliable database architecture that will scale with increased user loads.

### PRESENT DATA WITH QUALITY GRAPHICS

Graphically gifted, Pressure Explorer allows the display of sophisticated Pressure Views and data.

### EVERYONE WORKING FROM THE SAME DATA SET

Excel is fraught with danger in terms of quality control. With Pressure Explorer, everyone works from the same shared database, with no risk of data corruption.

#### BACK UP OPINIONS WITH EVIDENCE

Quantitative evaluation of gradient quality and fit validates interpretations with evidence.

### **BUILD CONSENSUS**

Numerous stakeholders within your organisation can work on the same data set, saving their own Pressure Views and building consensus by collaborating with team members.

#### SPOT THE PAY ZONE

Excess pressure plots expose hard to find pay zones, with more accurate determination of fluid contacts.

### EASILY SHARED

Data sets and plots can easily be shared with partners or external stakeholders by exporting to excel and exporting graphics.

### OFFSET WELL DATA READILY INCORPORATED

Pressure Explorer accommodates the importation and copy and paste functions for a wide range of data formats. Comprehensive data sets of entire field can be built with ease.

### MULTI WELL FOR ENTIRE FIELD ANALYSIS

Cross well analysis allows interpretation and characterization across entire fields, with functions to identify and isolate particular zones of interest and create specific views of defined sections across many wells.

#### EXPERIMENT WITH GRADIENTS

Intuitive interface allows the pressure specialist to play with different gradients and fluid types, resulting in better interpretation of data.

### SEAMLESS DATA INTEGRATION WITH R-WEB

Seamless and error free data from wellsite to office, with no data entry duplication.

SEAMLESS CONNECTIVITY TO THE R-WEB ENTERPRISE DATABASE WHICH INCORPORATES THE CONVENIENCE OF ADDITIONAL USEFUL FEATURES ACCESSIBLE TO THE EXTENDED SUBSURFACE TEAM WITH THE DIRECT ACCESS TO THE DEFINITIVE R-WEB DATABASE

# MINERALOGY & GEOCHEMISTRY

GeoMin Mineralogy Data

R-WEB has recently incorporated a new software module to its suite of analytical tools. This new technology delivers quantitative mineralogy for the full range of carbonate and clay minerals, total organic carbons (including alkanes and aromatics), brittleness, thermal maturity and calculated lithology.

R-WEB incorporates the GeoMin<sup>™</sup> technology to capture and integrate all of the outputs with its powerful reporting functionality.

An industry first, quantitative mineralogy can now be incorporated into daily geological reporting, final well reporting and any other customised report type.

A technological breakthrough in the industry, powered by R-WEB.

### COMPOSITE LOG DRAWING

### Integration with WellCAD from ALT

All the data required for the compilation of a composite well log or lithology log is captured in R-WEB Enterprise.

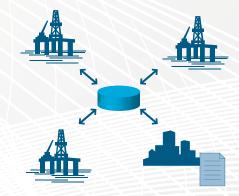
In order to streamline the process, an affiliation was formed with Advanced Logic Technology to link the powerful log drawing capabilities of WellCAD<sup>™</sup> with the comprehensive dataset captured in R-WEB Enterprise. R-WEB data is driven into customisable templates for fast, effective and streamlined production of composite well logs and daily lithology logs.

The connectivity between a quality controlled data management tool and a powerful and flexible log drawing package has delivered a simplified approach to log drawing. This "data captured once‰ model applied to multiple deliverables results in data integrity with no version control issues.



## MIRRORED DATABASES FROM RIG TO OFFICE

### Powerful data synchronisation through SQL



It is critical for the Operations Geologist and Subsurface Team to have ready access to the data collected on the rig whilst the well is being drilled.

During the implementation phase, R-WEB is configured to regularly update all instances of the software so that everyone shares and has access to the most recent information available. As a result, all of the data captured by each user is mirrored throughout the drilling program.

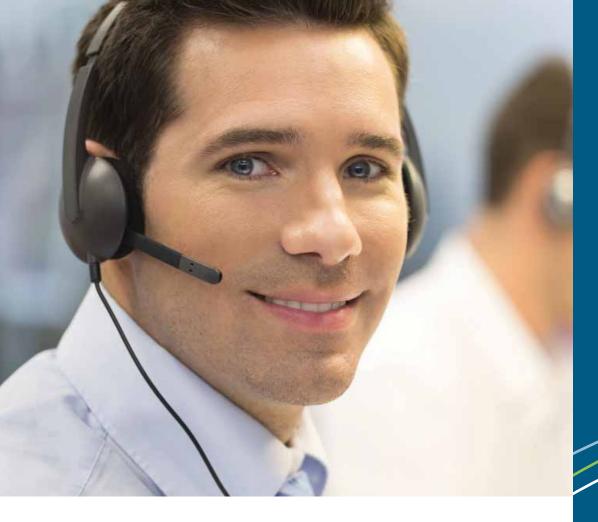
R-WEB then acts as the reference point for discussing data captured, what it means, and what decisions are to be made following review. Data is delivered seamlessly from wellsite to office and office to wellsite, allowing the Operations Team rapid access to the information they need to make important decisions throughout the drilling process.

### EXPORT R-WEB + EXport to Excel = REX

R-WEB Enterprise stores the entire geocentric well data set in one comprehensive and well-structured database. REX allows easy and comprehensive data extraction for integration with any third party software tool that accepts text, csv or excel imports (Openworks, Petrel) – another example of the "capture it once" model. There are times when the need arises to extract specific data elements in a unique, comparative format and deliver it to a spreadsheet tool such as Excel.

REX allows for a wide range of relational data sets to be configured and saved as templates for extraction when required. These formats can be saved and used regularly, providing a flexible mechanism to access and interpret the wellsite intelligence managed within R-WEB Enterprise.





# TECHNICAL SPECIFICATIONS

OFFICE PC: OS – Windows 8, Windows 7 Professional CPU – Pentium 4 or higher Memory – 512 MB or higher Screen Resolution – 1024 x 768 Microsoft Office – 2003 or higher SQL Server – SQL – MS SQL Server 2005 or later

LAPTOP: OS – Windows 8, Windows 7 Professional CPU – Platinum 4 or higher Memory – 512 MB or higher Hard disk space – 150MB SQL Server – SQL – MS SQL Server 2005 or later Screen Resolution – 1024 x 768 Wellsite Connection Speed – 64KBps Microsoft Office – 2003 or higher

### Contact Us

For more information or to organise a demonstration of our software, contact R-WEB on:

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