



## CHALLENGES

Use Alpha Suite of Technologies to exceed the operator's 58-day target for a 5-well Montney pad-drilling program

## SOLUTIONS

Focused analysis to optimize key execution processes and determine the AlphaApps best suited to deliver the desired results

## RESULTS

Executed the 5-well program in 55 days saving the operator 3 days and \$210K

Delivered area pacesetter well with record daily meterage of 1399 m/day in the lateral section

## *AlphaAnalytics™ Reduces Overall Well Times for an Operator in the Montney*

### **Montney Kaybob Case Study**

#### **MONTNEY-KAYBOB CASE STUDY**

Our operator in the Montney drilling in the Kaybob area planned a 58-day program to drill 5 horizontal wells. The wells measured depth averaged between 4700m and 4200m and were designed to drill 2500m laterals. The well plans called for a batch drill sequence and the operator selected our high spec - 1200 Super Triple to drill the program. The operator's objective was to drill the wells under the programmed 58 days availing of the fully-automated AC walking rig with Alpha suite of technologies.

Prior to commencement of the five well program, Precision Drilling focused on the offset analytics leading to optimization of key execution processes for flat times and drilling times. Special focus pointed to KPIs like rig walking times, BOP nipple up times, slip to slip connection times and drilling times in order to reduce overall time. Analytics provided by our optimization team predicted time savings of 1.3 days over the 58 day well program.

The predicted time savings required close coordination between the customer, our optimization, operations, automation, and remote operations monitoring centers. A project readiness assessment was conducted to align all the required functions to deliver the predicted time savings and more. As a result of the assessment and prior to the start of the program, our teams installed and tested the AlphaAutomation and AlphaApps systems and qualified these for flawless execution.

#### **PROGRAM RESULTS**

Precision delivered the program exceeding expectations in a total of 55 days from spud to rig release including non-productive time (see Fig 1). This amounted in savings for the operator of \$210K over the 5-well program.

The rig used AlphaAutomation and AlphaApps with outstanding results. In all, a total of 14 apps were used to reduce the well construction time through automation. As the rig zeroed into the planned objectives, time savings were also realized in walking the rig from slot to slot after each batch drill sequence saving the operator greater than 100% in time savings when compared to offsets.

The drilling on-bottom performance in all three sections indicated above average performance with particular improvement in the intermediate and lateral sections. These sections were drilled with the ExxonMobil-Pason DAS app and set a record penetration rate of 84 m/hr in the lateral section with daily meterage of 1399 m/day resulting in a pacesetter well for the operator (see Fig 2).

## AFE RESULTS

3

Days AFE Savings

## METERAGE PER DAY

1399

Daily record for operator  
in the lateral section

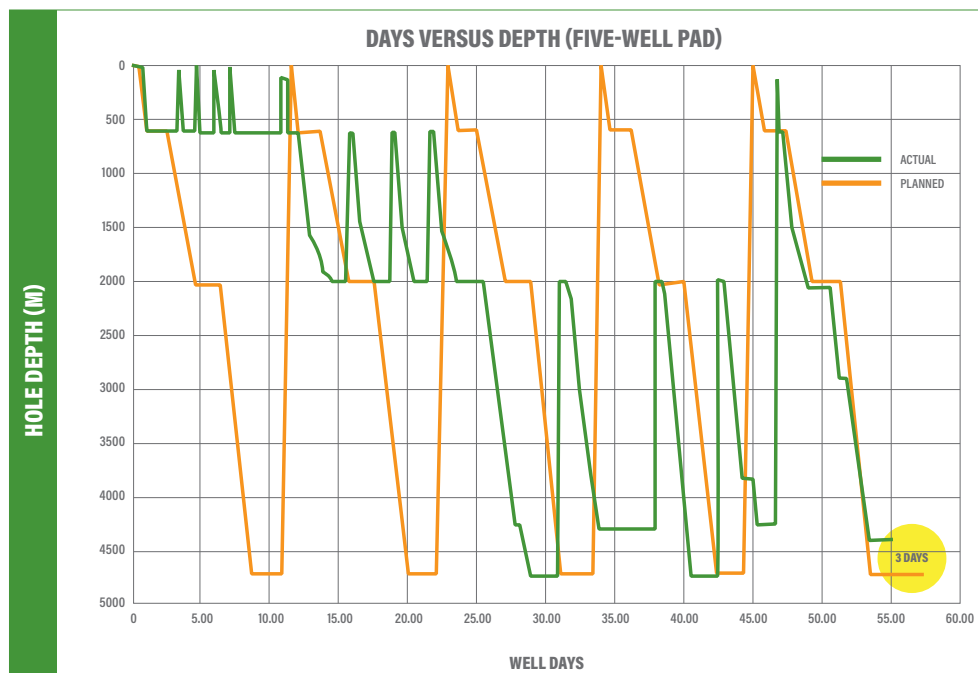
## OPERATOR SAVINGS

210K

Over 5-well program

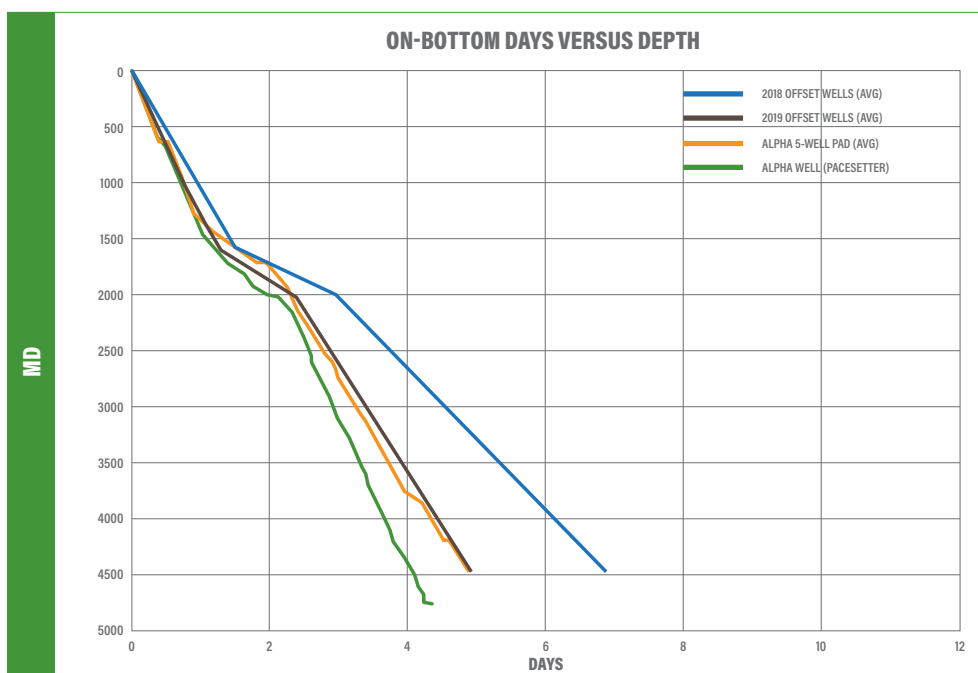
## FIGURE 1

Figure 1 shows the Actual versus Planned operation time for the 5-well pad. The 3-day savings using AlphaAutomation represents an improvement over the initial prediction of 1.3-day savings and resulted in cost-savings to the operator of \$210K.



## FIGURE 2

Figure 2 compares the average performance of the Alpha 5-well pad to average offset well performance from previous years. The Alpha wells readily matched the 2019 offset well performance that had demonstrated significant gains over the 2018 offset well performance. Furthermore, AlphaAutomation and AlphaApps was able to deliver a pacesetter well for the operator with an ROP of 84 m/hr in the lateral section.



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