

Case Study

VICTUS™ Light Spiral for Drag Reduction in Unconventional Well

APPLICATION

RIH 5-1/2" Production String in a long horizontal well

TECHNOLOGY

VICTUS™ Light Spiral

LOCATION

UAE, Unconventional Well

CUSTOMER CHALLENGE

Deploy 5-1/2" production string in a long horizontal HPHT gas well. Overcome the challenges of helical buckling and high drag forces, all without the ability to circulate or rotate during RIH. Gain high standoff for good quality cement enabling efficient production.

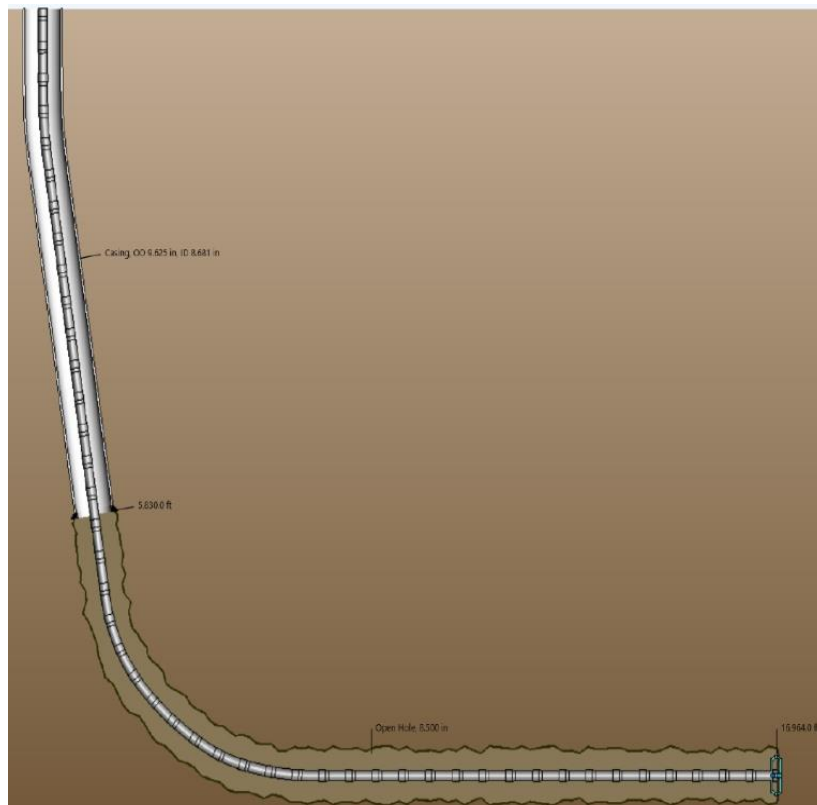
CUSTOMER VALUE

Successful deployment of the 5-1/2" production string to 16964ft (~9464ft deviated to horizontal section) with solid composite centralizers - VICTUS™ Light Spiral (1/joint) in open hole (11,134ft).

VICTUS™ Light Spiral



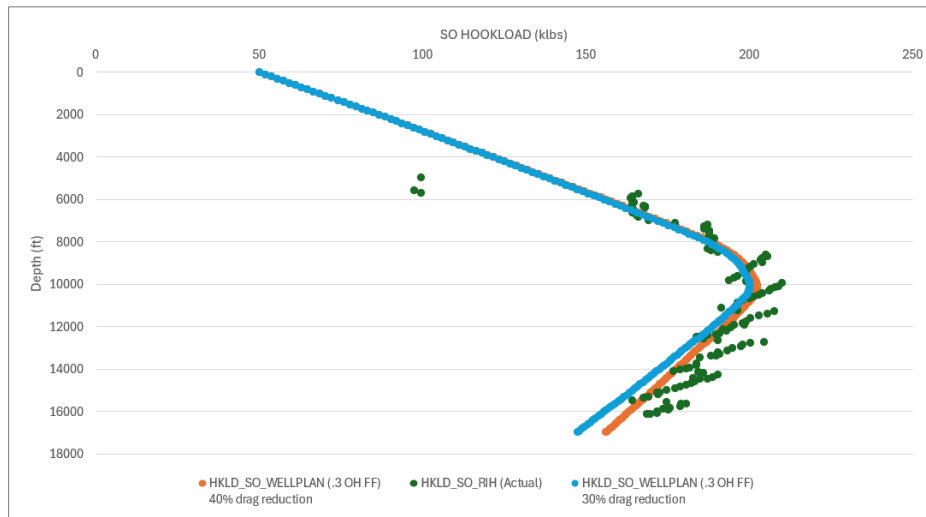
Unconventional Well



CASE STUDY OBJECTIVE

To validate the drag reduction capability of the Varel VICTUS Light Spiral composite centralizers being RIH with the 5.5” production string in a highly deviated well (UC well application); while taking into accounting for the actual rig data.

SIMULATION VS ACTUAL RIG DATA



Comparing the hookloads in 2 different scenarios – (1) 30% drag reduction & (2) 40% drag reduction, the simulated data shows that VICTUS Light Spiral composite centralizers shows reduced drag of more than 40%; yielding higher hook loads of 168.69klbs at TD (green plot), compared to the predicted hook load/slack-off weight of 147.5klbs at total depth; making it easier for the casing string to reach TD.

CONCLUSION

In conclusion, the simulation results closely aligned with the actual rig data for the RIH of 5-1/2” production string. This strong correlation demonstrates the accuracy of the simulation model and validates its reliability. Furthermore, the findings confirm that the use of centralizers contributed to reducing friction and drag, as evidenced by the higher hookload values observed during the operation. These results highlight the importance of centralizers in optimizing wellbore operations and improving efficiency in RIH operation.

Document Owner:	Keziah Gen Asilom	Title:	Application Engineer
Approver:	Douglas Farley	Title:	Director of Well Construction
Doc#	Rev #	Document Title	Description
UAE-EN-CS-014	1	Case Study: VICTUS™ Light Spiral for Drag Reduction in Unconventional Well	To do a comparative analysis between the simulation and actual rig hookload data to evaluate the drag reduction contribution of Varel composite centralizers.