

## **WAVEFRONT ENERGY AND ENVIRONMENTAL SERVICES INC.**

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### **NEWS RELEASE**

#### **SUCCESSFUL APPLICATION OF PRESSURE PULSING IN A HEAVY OIL RESERVOIR**

Wavefront Energy and Environmental Services Inc. (the "Company") develops and implements innovative technologies for fluid flow optimization and process monitoring to meet the unique challenges of our global clients.

In keeping with this goal, the Company is pleased to announce that it successfully applied its *pressure pulse technology* with a Royal Dutch Shell subsidiary in Germany. The project, which was completed last year and subsequent to disclosures in its Information Circular, dated September 17, 2002, involved continuous pressure pulsing during waterflooding in an aging heavy oil reservoir. The primary objectives of the project were:

- i. to determine if the *pressure pulse technology* could increase waterflood injectivity rates;
- ii. if the pulsing tool could be continuously operated and remotely monitored for three (3) months without intervention; and
- iii. to determine if oil production rates increased.

The pulsing equipment outperformed the project scope and at the request of Shell the equipment operated for an additional two (2) months.

An analysis of the data by PE-TECH and Shell's personnel revealed that *pressure pulse technology* **increased injectivity rates by an average of 30%** during the project with peak injectivity enhancements of 40%. The maximum injectivity corresponded with injection pressure at 40% of historical values, and injectivity remained low after the project was completed at about 70% of the historical steady-state injection pressure. Management believes that *pressure pulse technology* stimulation not only increased injectivity but also the efficacy with which the water was distributed in the reservoir. It is believed that the increased efficiency gained using *pressure pulse* technology during waterflooding will dramatically improve injection conformance and reservoir sweep and ultimately increase the recovery of reserves.

Further, based on the data analyzed five out of six wells in the monitoring pattern appeared to have changed in fluid production trend, oil production trend, or both oil and fluid production trend. However, the accuracy and repeatability of the production measurements have not assisted in definitively identifying the potential effect *pressure pulse technology* had over the term of the project.

Based on these results the representative of Shell together with Prism personnel wrote and will present a paper on the result to the *Society of Petroleum Engineers* on "Improved Oil Recovery" in Kuala Lumpur, Malaysia in later this month.

Management of PE-TECH is confident that the ability of *pressure pulse technology* to improve injection conformance and increase injectivity will translate into future increases in production and ultimate oil production for a continuous *pressure pulse technology* application.

Wavefront is a service contractor that provides sound technical and environmentally responsible solutions to the challenges facing the environmental and petroleum sectors. Through implementation of innovative technologies Wavefront provides a focused, bottom-line approach that enhances human health, the environment and protects our clients' investments.

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ON BEHALF OF THE BOARD OF DIRECTORS

***WAVEFRONT ENERGY AND ENVIRONMENTAL SERVICES INC.***

*"D. Brad Paterson" (signed)*

D. Brad Paterson,  
Director & CFO