Terves is a VC-backed, vertically integrated manufacturer of multifunctional materials that enable highly efficient and effective subsurface development for oil and gas. Terves is a leading manufacturer of dissolvable materials, producing self-removing tools that can reduce completion costs by eliminating coiled tubing drill-outs and/or increased production by enabling fully-completed extended laterals beyond the reach of standard coiled tubing units. Terves has a significant IP portfolio on multifunctional materials and their application in oil and gas operations, including:

TervAlloy™ Wrought Dissolvable Magnesium Alloys: Alloys that predictably dissolve in fresh water or brine ($CaBr_2$), at low (35C) or high (250C) temperature, are available today. Dissolution rates can be tailored to formation and operator pumping preferences (e.g., to account for wellbore cooling due to pumping).

- Status: TervAlloy™ wrought products are available today as balls, rod, tubes, other mill products, as well as full tools or components.

TervAlloy MMC™ High Stiffness, Erosion Resistant Dissolvables: 50 Rockwell C hardness, high stiffness dissolvables for valve seats, scrapers, grips/clamping elements, and ultra-high pressure rating frac balls and seats. These dissolvable MMC's are an alternative to cast iron components.

- Status: Transitioning from pilot-production to full commercial production

Response™ Coatings: Protective coatings to control dissolution and add other functionalities to dissolvable materials. The family of Response Coatings can enable time delay, acid resistance, and high hardness/wear resistant.

- Status: Commercially available or in advance development and testing.

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RESPONSE ELEMENTS™

Response™ Dissolvable Elements: Degradable rubber sealing elements to complement the dissolvable metal components thereby enabling 100% dissolvable tools. These Dissolvable Elements are available in a variety of forms for diverting agents and fluid loss control applications.

- Status: Commercially available today.

EXALON™

ExAlon™ Expandable Structural Polymers: These are GPa modulus swellables available in pumpable form for in-situ fracture initiation, to counteract embedment and widen fine fractures in clay-containing (softer) formations, and also for actuating tools such as self-deploying centralizers and sand control/wellbore stabilization devices.

- Status: In the final stage of development and seeking application and field test partners.

AQUALOCK

AquaLock™ Reflective Cover to Reduce Water Evaporation: 100% effective in eliminating evaporation from water storage ponds/pits for 3+ months. Reflects light, prevents aquatic growth and minimizes solar heating of lined ponds. AquaLock™ is projected to save $250K+ in replacement water costs over a 4-5 months summer season.

- Status: Commercially available today and seeking field demonstration opportunities.

DissolvAssure™

DissolvAssure™: Incorporation of tracers and RFID tags into dissolvable tools for guaranteed assurance of complete removal by flowback water testing.

- Status: Patent pending feature available for tools today.

CAPABILITIES

Casting, Extruding, Machining Capabilities: Terves has a full machine shop, foundry, and design and testing (V5) facilities. We manufacture tools with and for various partners, and will customize frac plugs, balls, and other tools for specific field and operator conditions/needs. Field support (tool hands) can be provided through established international partnerships and channels.

- Seeking additional partners and customers.

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