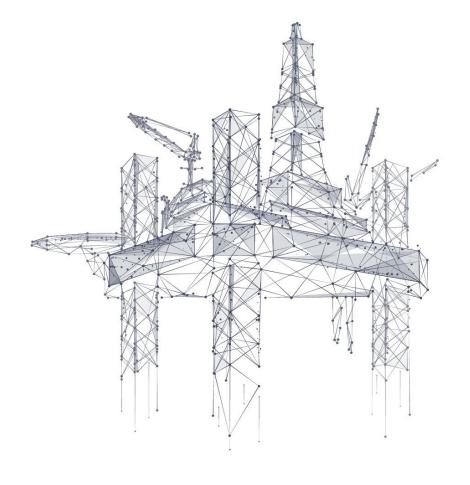
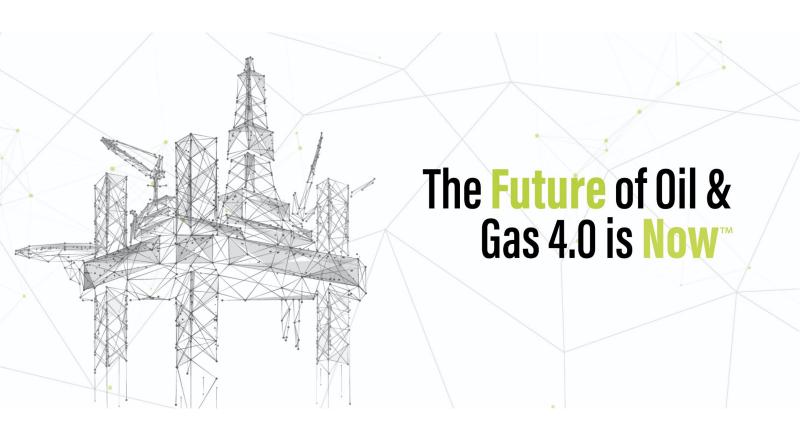
## **PURE WELL SOLUTIONS**

PRODUCTS & SERVICE OVERVIEW







#### **OUR PURPOSE**

Pure Well Solutions (PWS) is an impact investment company providing sustainable oil and gas products and services by managing available resources, technologies, and investments to optimize efficiency and reliability. Guided by the tenets of a "Circular Economy" and committed to sustainability, PWS aims to redefine the current take-make-waste industrial model of the oil & gas sector by delivering the triple bottom line: People, Planet, Profit.



#### **OUR VISION**

People, Planet, Profit

#### **Corporate Responsibility**

In continuation of our commitment to **Sustainable Development**, PWS has adopted a commitment to a yearly audit review of our sustainability efforts. By doing so, we are also able to aide our customers with audit services to ensure organizations are equipped with today's UN sustainability targets.

#### **Impact Investment**

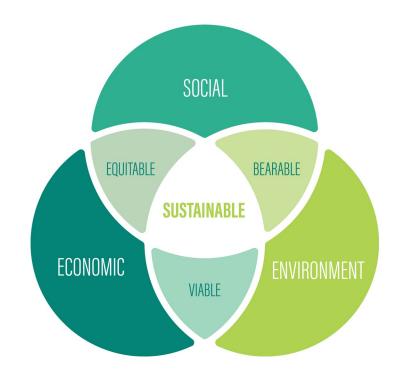
As an "Impact Investment Company," PWS is committed to donating a minimum 1% of profits to charitable organizations within our sphere of influence. As a partner of PWS, your organization will have a direct and positive impact on the world.

#### **Committed to Sustainability**

To meet the intensifying urgency for the oil & gas sector to address environmental concerns, PWS offers **100% Measurable Sustainable oilfield products** that optimize efficiency and save energy with their waste-eliminated patent-pending technology.

#### **Sustainable Development Goals**

PWS has adopted a **Sustainability Plan** in alignment with the UN 2030 Agenda for Sustainable Development. PWS has identified Goals **#9** (Industry, Innovation & Infrastructure), **#12** (Responsible Consumption & Production) and **#17** (Partnerships) as most relevant to our organization's activities, priorities and impacts.





#### **OUR MANUFACTURING & OPERATIONS FOOTPRINT**

People, Planet, Profit



North America

Australia

Southeast Asia

United Arab Emirates

**United Kingdom** 

Saudi Arabia

## Strategically positioned to where you need us

PWS has a global manufacturing and operations footprint—providing rapid deployment of engineering and manufacturing operations around the world for in-country value.



#### **OUR TEAM**

People, Planet, Profit



MICHAEL BLAKELY
GROUP MANAGING
DIRECTOR

in

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GEORGE CHRISTIE
BUSINESS DEVELOPMENT
DIRECTOR







ARIANA CARRUTH
MANAGING DIRECTOR,
AMERICAS







#### **OUR CORE VALUES**

People, Planet, Profit

#### **STEADFAST**

We are relentless in our pursuit of excellence and dedicated to our core mission to make sustainability a commercially viable reality by bringing forth solutions that save energy and optimize efficiency.

#### **ACCOUNTABLE**

We hold ourselves, colleagues, partners and customers accountable. We do what we say we will do.

#### **EVER EVOLVING**

We think big, we take risks, we question the norm, and we welcome the challenge and opportunity to innovate.

#### **TRANSPARENT**

We promote open and honest communication with a commitment to proactively share important information with our colleagues, partners, and customers. We do not withhold bad news.

#### **OPTIMISTIC**

We are committed to maintaining a positive, can-do attitude in everything that we do and in our interactions with our colleagues, partners and customers. We believe in having fun and in maintaining a healthy balance to our workday.

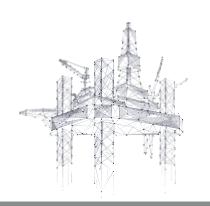
#### **COLLABORATIVE**

We are dedicated to being a collaborative business partner and teammate. We promote conversations that solve problems and build consensus.



#### **OUR SUSTAINABLE WELL PRODUCTS & SERVICES**

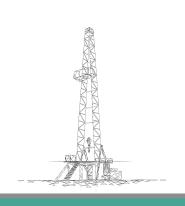
People, Planet, Profit







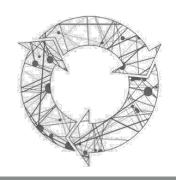
**WELL FUNDAMENTALS** 



FISHING & INTERVENTION



RESERVOIR MANAGEMENT



SUSTAINABILITY AUDITS & ENGINEERING



#### **PRODUCT OVERVIEW**

SUSTAINABLE WELL PRODUCTS

Pure Well Solutions offers a portfolio of sustainable well products & services with a commitment to innovation and sustainability.



#### Sustainability Audits & Engineering

Sustainability Audit Services
100% Measurable Sustainable Well Products



#### Sustainable Drilling

Patent Pending Technology ZOOM DX Torsional Oscillation Control Tool Next-generation reaming tool solutions Hydraulic disconnect Drilling jars



#### Well Fundamentals

SwivelEXy – Hydraulic Drill Pipe Swivel
Patent Pending
CasingEX – Weight Transfer System
CasingEC - Downhole Cementing Solutions
Auto Indexing Shoe
Stage Tool (15K pressure rated)
High load compression set packer
SOS (Selective Orientation Shoe)



#### Fishing & Intervention

Patent Pending Technology

#### Fishing

- ♦ ZOOM FX Torsional Oscillation Control
- **♦** ZOOM EF Torsional Oscillation Control
- ♦ Single or Double Acting Fishing jars

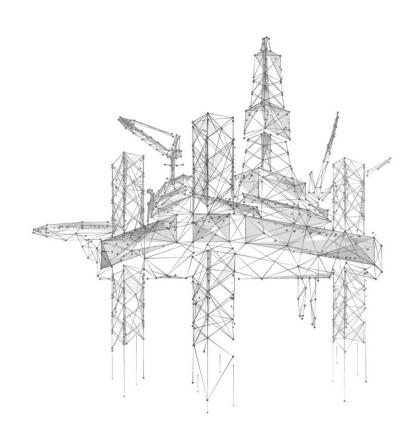
#### **Coiled Tubing**

- **♦** ZOOM CF Torsional Oscillation Control (Fishing)

#### Wellbore Cleanup

- Packers
- Scrapers
- Liner top tester HP
- ♠ Riser cleanout
- **♦** ZOOM CS Torsional Oscillation Control (Barium Sulfate Milling)





#### SUSTAINABLE DRILLING

In today's O&G sector, drilling technology has increased performance to new highs in drilling time frames. **PWS drives these results even further** with a new approach to measuring performance based on the belief that **reducing the energy** required to match or beat today's record-breaking time frames is **the true sustainable KPI for the future of the industry.** 



## The ZOOM

#### The World's Most Versatile Sustainable Oilfield Tool

The ZOOM Torsional Oscillation Control Tool is the most versatile sustainable tool in the industry. Driving performance in all operations from drilling to fishing to coiled tubing and well intervention--saving energy and increasing efficiency in new wells and breathing life back into old wells.

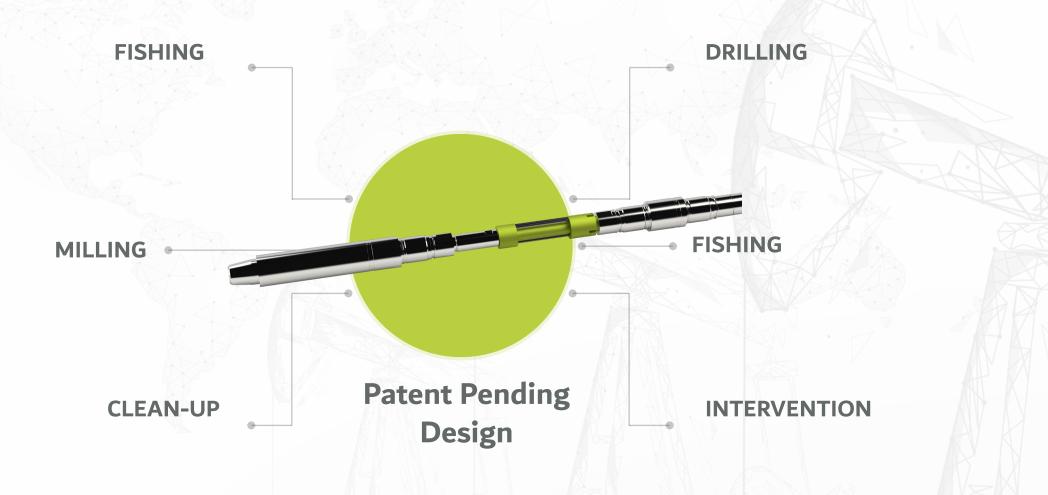


#### **ZOOM APPLICATIONS**

TORSIONAL OSCILLATION CONTROL TOOL

#### The World's Most Versatile Sustainable Oilfield Tool

Driving performance from scale and wellbore clean up, to frac plug drill out, sleeve manipulation for well shut off, to breathing new life into old wells.





#### SUSTAINABLE DRILLING

## **ZOOMDX**™

The World's Most Versatile Sustainable Oilfield Tool

#### Overview

The ZOOM DX<sup>TM</sup> generates vibration on the X-Y axis, thereby eliminating the need for a shock sub since no Z-axis impact vibration is created. Amplitude and frequency of energy propagation is controlled by changing the flow configuration within the tool according to planned flow rates, and the ZOOM DX operates with all conventional fluids or two-phase flow and is compatible with all standard drill pipe. The ZOOM DX is MWD and LWD friendly, which means that the ZOOM DX can be run in close proximity to them on the bottom hole assembly or multiple ZOOM DX can be adopted across the string.

#### **Drilling**

The Zoom DX is a robust, user-friendly tool that is added to the drillpipe to enhance rotary drilling performance under the most challenging of wellbore conditions when drilling horizontal wells. The Zoom DX uses a specially designed positive displacement motor (PDM) power section to rotate our bespoke mass oscillation system that enables the drill string, to break friction and maintain the string in forward momentum. In turn, this ensures smooth torque and RPM transfer through the string, mitigating the effects of string elasticity and the resultant stick slip and vibrations on the BHA. Through the adoption of the ZOOM DX, clients require less energy to reach further, reducing the need for other complex solutions while maintaining pinnacle performance.

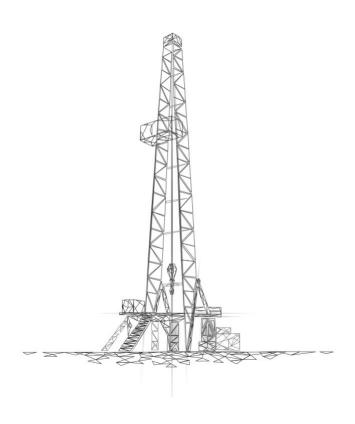
#### **Benefits**

- ▲ Minimal pressure drop (<180 psi) with no impact to MWD signals
- ▲ Weight transfer solution giving way to longer horizontal sections
- ▲ Removes string-generated stick/slip
- ▲ Increasing rates of penetration
- ▲ Reduced BHA wear and downhole tool failure rates
- ▲ Reduced possibility of differential sticking
- ▲ Reduced wellbore fatigue
- ▲ Cross-fluid compatibility
- ▲ Inhouse-designed placement program



Parameters	5" ZOOM	6-3/4" ZOOM
Flowrate	100-450 gpm	300-650 gpm
Pressure Drop	70-130 psi	70-140psi
Temp Range	HT 450° F	HT 450° F
Max Overpull	135,000 lbs	340,000 lbs
ZOOM Attenuation frequency	On request	On request
ZOOM Amplitude Range	On request	On request
Design		
Connection	As per client	As per client
Length	31 ft	31 ft
Weight	1,195 lbs	2,170 lbs
ID	1.8"	2"





#### FISHING & INTERVENTION

At PWS we have taken a fresh approach to fishing and intervention, bringing the tenents of sustainability into the mix. As with any fishing job, the primary objective is to retrieve items from the wellbore in an efficient and timely manner. To facilitate this end, PWS has developed bespoke fishing equipment to aid in this challenge. These tools range from our Patented ZOOM FX to that of a new range of fishing jars. In the intervention space, we bring technology that breathes new life into existing wells, allowing our customers to capitalize on existing assets.



#### FISHING AND INTERVENTION

## **ZOOMFX**<sup>TM</sup>

The World's Most Versatile Sustainable Oilfield Tool

#### **Overview**

The Z00M FX<sup>™</sup> tool is our most robust, user-friendly tool that is added to the fishing assembly to enable fish excitation in the lateral component of movement—driving performance from scale and wellbore clean up to frac plug drill out, from sleeve manipulation for well shut off to breathing new life into old wells. Wherein today's conventional tools only operate on the internal excitation to external, the Z00M FX incorporates our external lateral boost system. By doing so, the Z00M FX can induce much higher lateral resonance g-forces to the fish. This ensures that no matter the fishing challenge, the Z00M FX can address the job.

#### **Operating Principles**

The ZOOM FS/FX generates vibration on the X-Y axis, thereby eliminating the need for a shock sub since no Z-axis impact vibration is created. Amplitude and frequency of energy propagation are controlled by changing the flow configuration within the tool according to planned flow rates, and the ZOOM operates with all conventional fluids or two-phase flow and is compatible with all standard drill pipe. Both fishing ZOOM FS and FX can be coupled with our bespoke multi-activation circulating sub and high-tension rotating sub. This ensures the ZOOM FS/FX is fully compatible with today's and tomorrow's fishing equipment.

#### **Benefits**

- ▲ Minimal pressure drop (<150 psi)
- ▲ Weight transfer solution giving way to longer horizontal sections
- ▲ Variable impact lateral loads can be stacked
- ▲ No limitation from internal valves
- ▲ LCM friendly
- ▲ Cross-fluid compatibility
- ▲ Inhouse-designed placement program







#### FISHING AND INTERVENTION

## **ZOOMCS/CX™**

The World's Most Versatile Sustainable Oilfield Tool

#### **Overview**

The ZOOM CS/CX<sup>™</sup> tool is a custom downhole vibration device for use in applications requiring slimhole concentric pipe or coiled tubing downhole tool deployment in extended reach/high angle wells.

The PWS Z00M CS/CX tool allows the frictional drag between non-rotating downhole tool components and the wellbore wall to be negated, resulting in superior weight control and optimized energy transfer allowing clients to reach pinnacle performance.

#### **Features**

▲ Wellbore cleanup

▲ Specialized Z00M CS utilized with our patented rotary scrubber—barium sulphate

▲ ZOOM CX, advanced scale removal. Pairing vibratory high amplitude on tubing with advanced scrapers

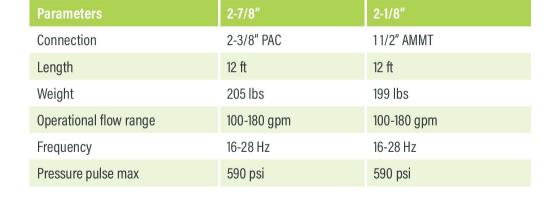
▲ Drilling out to new virgin well areas in high angle wells

▲ Milling operations

#### **Benefits**

The ZOOM CS/CX tool completes the through tubing market requirement for a reliable, effective energy saving system.

- ▲ Increased rates of penetration
- ▲ Reduced downhole tool damage
- ▲ Allows for greater downhole weight control
- ▲ Improves cleanup times as the ZOOM works to remove material
- ▲ Can be adopted to manipulate ICD sleeve shutoff control, which is a real challenge today









#### **WELL FUNDAMENTALS**

Whether you are operating onshore, offshore, or subsea, PWS will help you construct your well **safely** and in the most **sustainable** manner. Our solutions range from gas-tight equipment to advanced cementing solutions. **Our approach is rooted in the circular economy principles wherein our equipment is designed to meet our clients' well lifecycle requirements from raw material to <b>application.** To meet full circular economy principles, PWS also sources raw material from steel mills that are processing todays P&A'd material.





## **PWS PRODUCT PORTFOLIO**

WELL FUNDAMENTALS | SELECTIVE ORTIENTATIO SHOE (SOS)

## SOS SELECTIVE ORIENTATION SHOE

PRODUCT OVERVIEW



#### **WELL FUNDAMENTALS**

**SELECTIVE ORIENTATION SHOE (SOS)** 

OUR SUSTAINABILITY

#### **Overview**

Our casing accessory, the Selective Orientation Shoe (SOS), has been designed not only to overcome the most complex of hole conditions and challenges but to do so with optimum efficiency and total reliability as part of your bottom hole float shoe assembly. Our breakthrough technology ensures that no matter the obstacle, the SOS allows you to reach total depth. A key advantage to the SOS is its stroke length of 3.5-foot (min) which can also be increased at client request. With this key feature, space-out concerns are now a thing of the past.

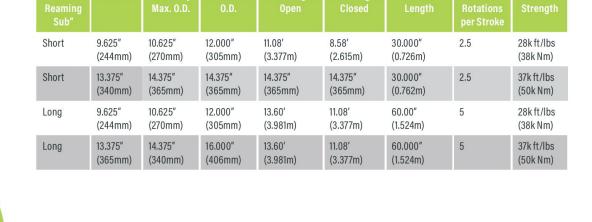
#### Design

The SOS is truly a one-of-a-kind reamer shoe casing accessory. The SOS technology aims to provide a simple but effective solution using industrial-grade aluminum alloy mandrel with either three or four machined spiral grooves running up and down three or four fixed bronze guide pins, depending on tool size. When an obstruction is encountered, the lower part of the tool rotates as weight is applied and the spiraled mandrel strokes through the fixed guide pins.

Customers can select between the standard SOS or SOS XL, depending on application and anticipated hole conditions. The SOS rotates five times per cycle of the tool up and down, and the SOS XL rotates ten times. Customers can choose either an aluminum alloy eccentric or a bronze tungsten carbide dressed nose, depending on what is most appropriate for the application. In addition to the conventional nose, our in-house engineers can work closely with our customers to provide custom designs which can be engineered and manufactured at short notice.

#### **Features**

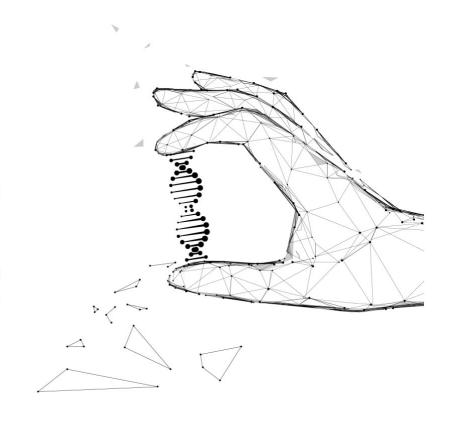
- ▲ Allows long casing strings to be safely deployed in long horizontal sections
- ▲ Space-out concerns removed
- ▲ Independent rotation on tools
- ▲ Variants of reaming structures available
- ▲ Choice of nose
- ▲ HP, HF, and gas-tight float options available
- ▲ Available in long- or short-stroke operations





## **Reservoir Management**

The PWS reservoir management division is focused on delivering high value solutions, allowing our customers to manage their reservoirs in near real time. We achieve this through our one-of-a-kind HPCE system. The HPCE allows customers to rapidly profile crude oil samples to determine composition and from which reservoir they are producing. We are also able to determine production water components from heavy metals to brines. A further benefit to the HPCE unit is water analysis in real time! This allows our customers to determine the components contained within frac water pre- and post-activity. By doing so, we meet the sustainable window of effective fluid management.





# The Future of Oil & Gas Is Now

Faster
Real Time
Data Return with
No Impact on Production Rates

#### **HPCE ANALYTICS**

Overview



#### Water

- Production water
- ♦ Pre/Post ground water testing
- Heavy metals
- Polymers (de-waxer)



#### Oil

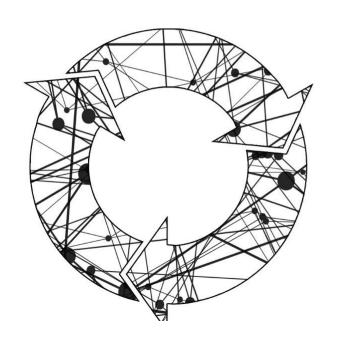
- **♦** Fingerprinting
- **♦** Composition
- Asphaltenes
- Polar & non polar molecule



#### **Benefits**

- ♦ Time saved
- ♦ Production rates maintained
- ♦ HSSE risk reduced
- Real time decisions
- ♦ World leading expert support
- ♠ Environmental issues addressed
- Artificial lift optimized
- Costs lowered





## **Sustainability Audits & Engineering**

#### **Sustainability Audits**

Offering **Sustainability Audit Services**, PWS will work with your organization to demonstrate a Sustainability Plan—ensuring your investors and customers that your business is operating with a mission to **reduce**, **reuse**, **recycle**.

#### **Sustainability Engineering Services**

PWS offers rapid-to-manufacturing prototype engineering services that address energy- and efficiency-saving challenges to meet sustainable development with the ability to manufacture around the world for in-country value.

