

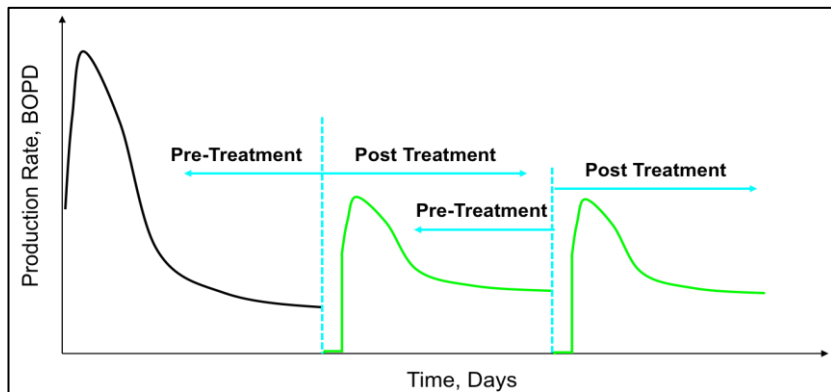
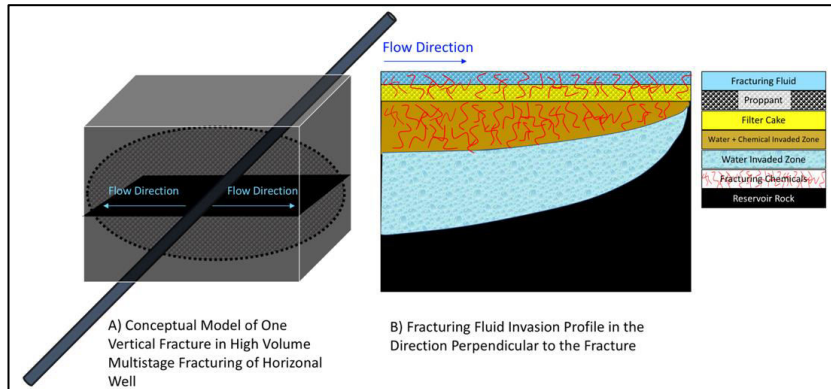


Microbial Solutions for Unconventional Shale EOR

Unlock Reservoir Value with Advanced Subsurface Microbiology Technology

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- Enhance Unconventional Oil Recovery by **unblocking the otherwise blocked fracture network** and **mobilize the trapped oil** with advanced biotechnology.
- **Stimulate the indigenous beneficial microbes** to degrade the **residual fracturing fluid chemicals** by injecting tailored bio-formula to the producer.
- **Revitalize** the depleted fractured horizontal wells
- **Uplift production** decline curve and reduce the decline rate
- Patented and proprietary technologies

- Introduce a **novel microbial solution** for unconventional shale EOR and the results of field pilots in the Permian Basin
- Setup **strategic relationships** with unconventional shale oil players or service companies
- Raise **growth capital** to accelerate business development and maintain the momentum in unconventional EOR
- To be raised: **\$10-20MM**



Jacob Jin, PhD
Co-Founder & CEO



Mike Pavia, PhD
CTO



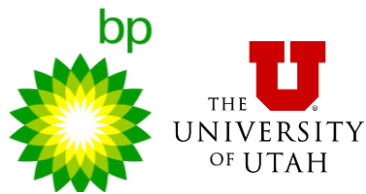
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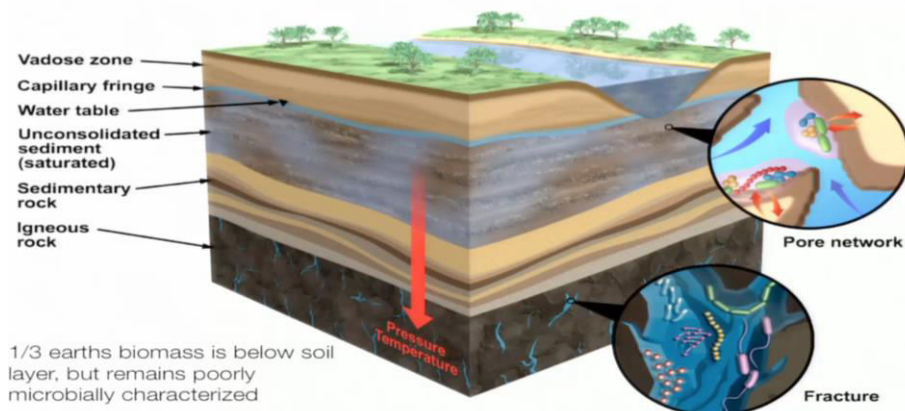


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Mission: Unlock Reservoir Value with Advanced Subsurface Microbiology Technology

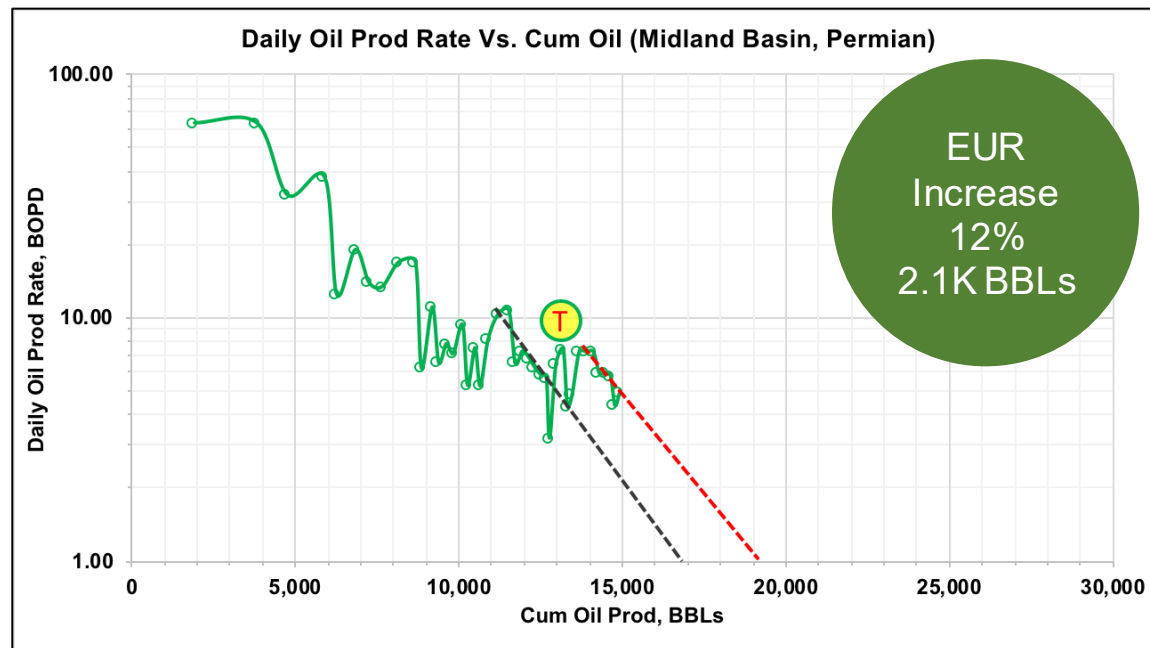
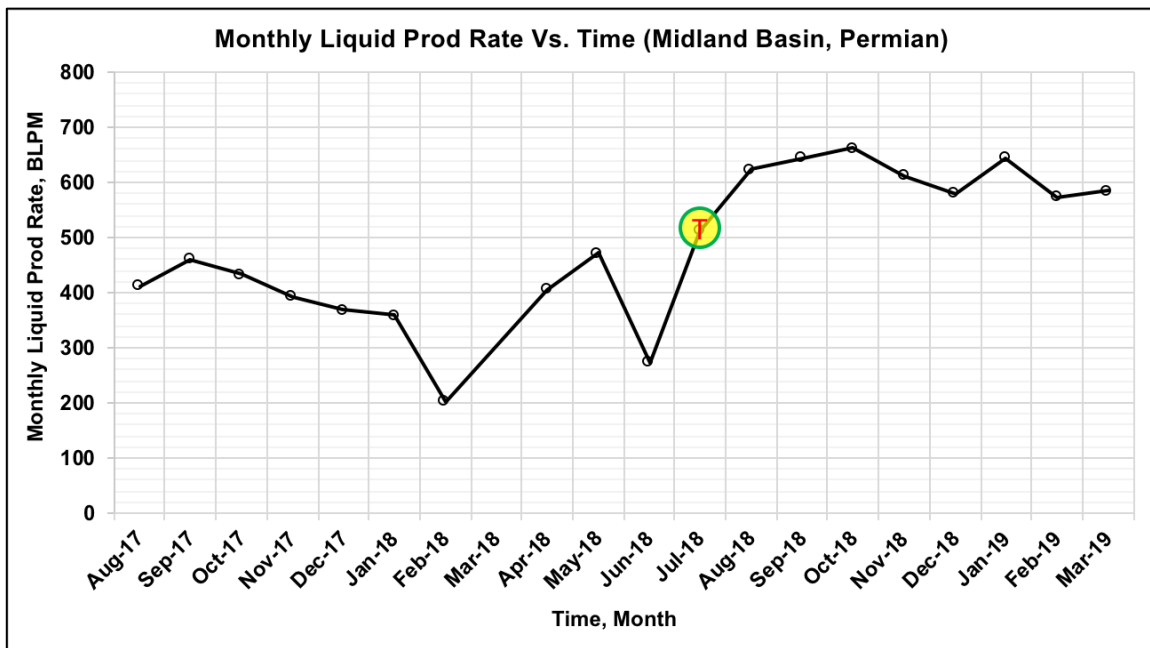


Vision: Tomorrow's Oil from Yesterday's Wells



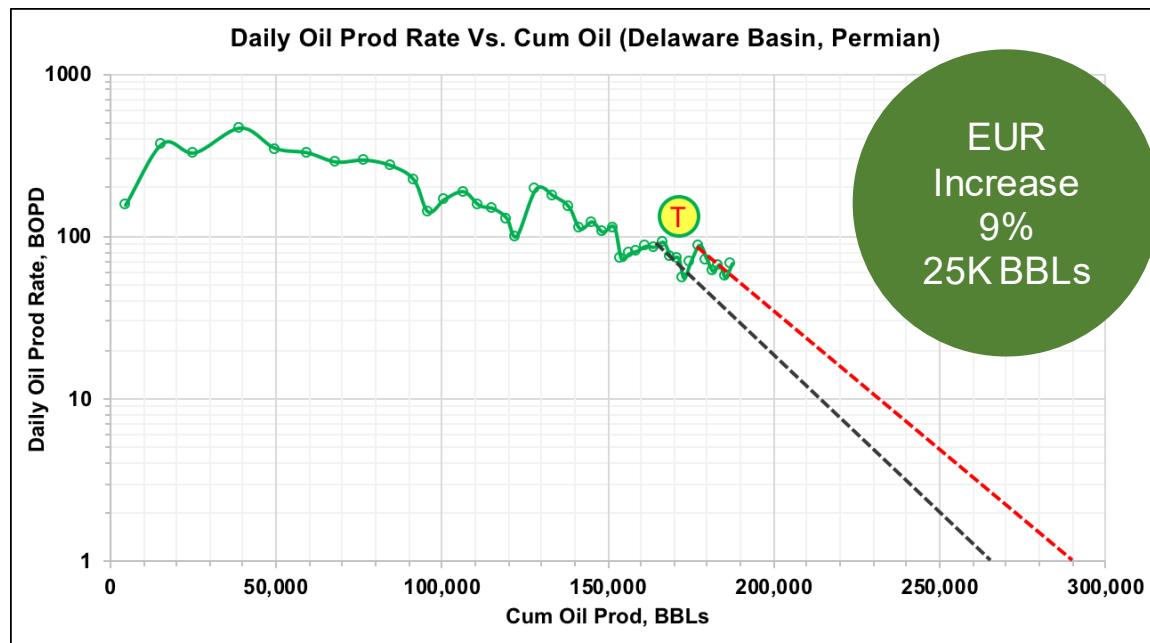
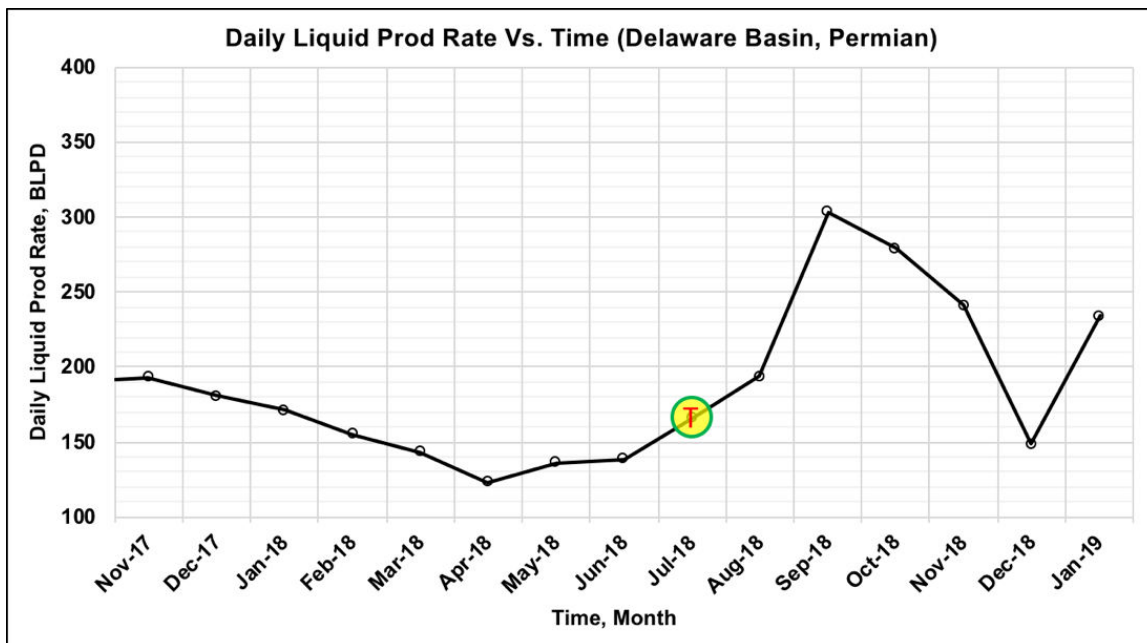


Successful Field Case in Midland Basin



Vertical Well	180 Days Before	90 Days Before	60 Days Before	30 Days Before	July 2018	30 Days After	60 Days After	90 Days After	180 Days After
Ave Liquid Prod (BLPM)	347	383	373	274	512	623	634	643	627
Ave Liquid Prod Uplift %						127%	70%	68%	81%

Successful Field Case in Delaware Basin



Horizontal Well	180 Days Before	90 Days Before	60 Days Before	30 Days Before	July 2018	30 Days After	60 Days After	90 Days After	180 Days After
Ave Liquid Prod (BLPD)	145.0	133.0	137.0	138.5	166	194	249	259	233
Ave Liquid Prod Uplift %						40%	82%	95%	61%

Our Market: Current Unconventional EOR

Play Name	Vertical Wells	Horizontal Wells	EOR Potential (MM bbls)
Permian	30,378	6,039	176
Eagle Ford	0	14,973	159
DJ	8,046	7,815	103
Bakken	0	11,358	91
SCOOP/STACK	0	2,535	20
Total	38,424	42,720	549

\$30 Billion Market



- **To raise \$20MM, the Use of Proceeds is as follows:**
 - Upgrade laboratory facilities - \$2MM
 - Accelerate commercialization of the technology -\$15MM
 - Laboratory and field experiments to develop a novel green biological hydraulic fracturing fluid system - \$3 MM
- **Deliverables**
 - Leading player in unconventional EOR and green biological fracturing fluid system, with optimized proprietary technology
 - Self-sustained free cash flow
 - >\$25MM annual revenue
 - >20% market share of cost effective unconventional EOR
- **Expandable upside with proven technology**
 - Proven conventional EOR – domestic and international market
 - Flow assurance – onshore & offshore
 - Microbiologically induced corrosion treatment & H₂S mitigation

- Increase EUR by 9-12%
- Payouts: 2-4 months
- Incremental cost: < \$10/bbl
- Easy to deploy
- Clean & environmentally friendly

- Limited to temperature lower than 90 °C (195°F), Salinity lower than 100,000 PPM (10%)

- Field pilots at cost basis
- Domestic/international business collaborations

- Commodity Volatility

1. Team establishment: strengthen marketing and collaborations in Permian Basin, Eagle Ford, DJ, Bakken, Scoop/Stack, etc.
2. Set up strategic relationship with one operator.
3. Conduct more field pilots in the Permian Basin with advanced post-production surveillance.
4. Advance the existing products, optimize the field operations, and invent new products of production enhancement.
5. Strengthen business development in the US, Canada, India, China, and Oman, etc.
6. Strengthen public relation