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## Operator Insights on Cost Reductions & Operational Improvements

### Our Operational Maxim

We believe in implementing simple ways of working, leveraging our digitization efforts to improve efficiency, avoiding unnecessary costs and reducing our environmental impact of our operations.

Our team has over 130+ years of E&P operational experience and combined with our 30,000+ acreage position including the rights to the Utica shale Rome Trough (350 feet pay dirt on average) we are in a prime position to leverage our experience and properties to offer significantly attractive returns for our members and investors.

### Drilling and Completion Costs

We have existing pads with road infrastructure in place and we estimate savings of approximately 20% of the cost on the first wells drilled on our properties.

Our plan is to fully develop each pad before the rig(s) are moved and we are planning up to 10 laterals per pad. This operational strategy will reduce the AFE cost specifically relate to rig transportation and to improve the efficiency of drilling with improved margins.

The sand required for hydraulic fracturing is an expensive element of the production process and we plan to leverage an existing rail siding for sand transportation. Our rail transportation strategy accomplishes several of our most important goals as an E&P operator.

- A combined rail and truck transportation strategy lowers total costs by over 50% per tonne versus an over-the-road truck transportation
- Railways consume approximately 9 times less energy per tonne kilometer versus over-the-road truck
- Railways are on average 4 times more fuel efficient versus over-the-road trucks
- Railways emit approximately 75% fewer GHG emissions versus over-the-road trucks

Rig rates, hydraulic fracturing and perforating pricing have substantially decreased due to the downturn in the industry.

We plan to use electric hydraulic fracturing, using natural gas, rather than diesel, which enables the following:

- Reduce fuel costs by approximately \$300,000 per well
- Reduce manpower resources on-site by approximately 50%

- Reduce environmental impact with regards to GHG and specifically CO2 emissions by over 1,000 tonnes per well
- Reduce noise pollution (gas turbines are much, much quieter than diesel generators)

### **About Hydraulic Fracturing and the Utica...**

The Utica formations we are exploring are both “dry” and preliminary geologic studies appear to indicate that the drilling areas are naturally fractured. Our ultimate aspiration as a company is to be able to avoid the cost and environmental impact of hydraulic fracturing in order to produce our gas. We see this as a grand opportunity to reduce our AFE costs by nearly \$4,000,000 (between 30 and 40%) per well and to reduce the GHG emissions during this phase of the well completion process.

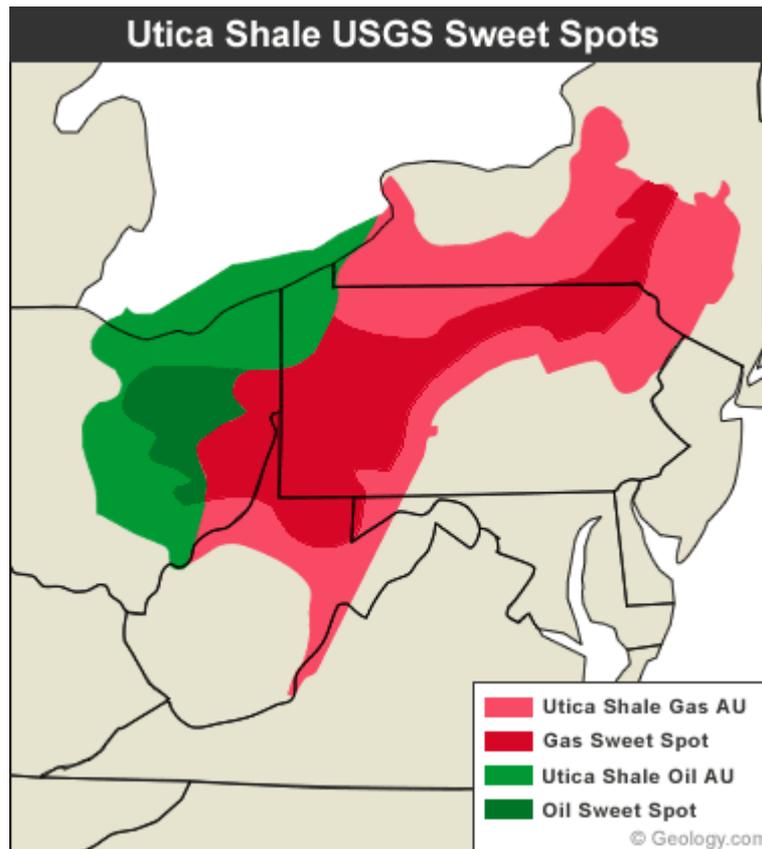
### **Lubricants and Fluids**

All lubricants and drilling fluids used on-site will be environmentally friendly and bio-degradable and pose no hazards to wildlife or water quality. We look to leverage our deep personal relationship with this manufacturer to be leaders in our industry to encourage the use of environmentally friendly and cost-effective lubricant products. No stone goes unturned.

### **General Commentary**

We will be developing the Utica formations at a depth of 13,000 to 15,000 ft. with laterals of 8,000 ft. on average. Our geologists studying these formations calculate estimated ultimate recovery (EUR) of 3.3 Tcf of dry natural gas on our controlled acreage. Our business analysts estimate our net value per acre is upwards of \$89,000.

Our leases in Clearfield County sit on the deepest section of the Rome Trough and are directly located in “sweet spot” of the trough as shown in the illustration below. Producing Utica wells that sit nearby have experienced excellent results and shallow decline curves, whereas the wells in year 3 are producing approximately 70% of year 1 production and these wells are not in the “sweet spot.”



The formation is 350" +/- in size which allows us to hit the formation at different levels while still in high production areas. As stated above there is an indication that this formation may not require hydraulic fracturing and that we will be drilling "natural" wells; and this will be proven when the first lateral is drilled.

Our natural gas will be transported by an existing FERC regulated pipeline (19 miles in length) which will be owned by a subsidiary of our company. Natural gas is currently being sold to a gas fired power plant located in Clearfield County and we have executed agreements with a national gas marketer to sell all the gas that we produce and transport.

The pipeline is only five years old and is in excellent operating condition and being FERC regulated, the reporting of incidents, spills and emissions is a priority, which we take very seriously.

### **Technology and Digitization are *Very, Very Cool*...**

As an operator we realize that to deliver great results to our members and investment partners we need to be agile, efficient and technology focused. Our leadership team has over 30 years' experience in the technology sector, which differentiates our us from, not only the *wildcatters*, but other E&P players as well. We see technology and digitization as enablers to improve our margins, improve productivity and to reduce and better manage risk.

- Improving margins from both the top and bottom lines by optimizing well productivity and by reducing costs

- Improve the productivity of our teams through better working conditions, simplifying communication channels, encouraging innovation and through enhanced data management (knowledge) improve decision-making
- Reducing our environmental footprint via the real-time monitoring of our assets and taking quick action when deviations are reported

### **The *Cloud* is our Best Friend ... and so are Out-of-the-Box, Plug & Play Technology Solutions**

William of Ockham and his pragmatic predecessors are our guiding path and light in everything we do operationally as enabled by our technology choices. Gone are the days of customized technology solutions that are often expensive, complicated and resource intensive to maintain and change. We adore the philosophical enlightenment of simplicity and all the absolute excellence that it brings to our teams and operations. All our technology choices are driven by both Capex efficiency and OPEX drag avoidance. We believe that all our systems and technology solutions must be cloud based, redundant (when required to reduce risk to our business, community and the environment), easily integrated with each other and that maintenance must be cost-efficient and effective.

- We are partnering with one of the world's top technology companies to deliver an elite cloud-based SCADA surveillance / monitoring solution that will enable our teams to be more productive and to constantly improve our environmental impact by being able to monitor our emissions in real-time and to take quick action when required.
- Our cloud-based ERP (enterprise resource planning) system is one of best for purpose in the oil and gas industry. It is incredibly cost effective, simple and effortlessly integrates with our SCADA solutions.
- Our cloud-based land system solution perfectly integrates with our ERP solution and enables our teams to effectively and efficiently manage our sometimes-complicated land records.

In conclusion, we leverage our scalable, technology solutions to enable our company to be the most agile, intelligent (data = knowledge) and resource efficient compared to all our competitors.

### **Our One and Only Earth ... Our Environment and being the Best Stewards in the Industry**

We understand that everything in our business operations impacts the planet, both positively and negatively and that externalities and incentives matter. Our goal to be a carbon neutral company by 2030 is not just a motivational and aspirational endeavour, it is our goal, our culture and everything we do takes us one step closer to achieving this important milestone. We believe in the Kaizen methodology of continuous improvement and that small improvements over time become massive improvements in the future. The following are several of the practical approaches we have identified to achieve this uber

important milestone. The best part is that we have already started our journey by leasing a portion of our Shannon property to firm that will develop the land for a renewable energy technology.

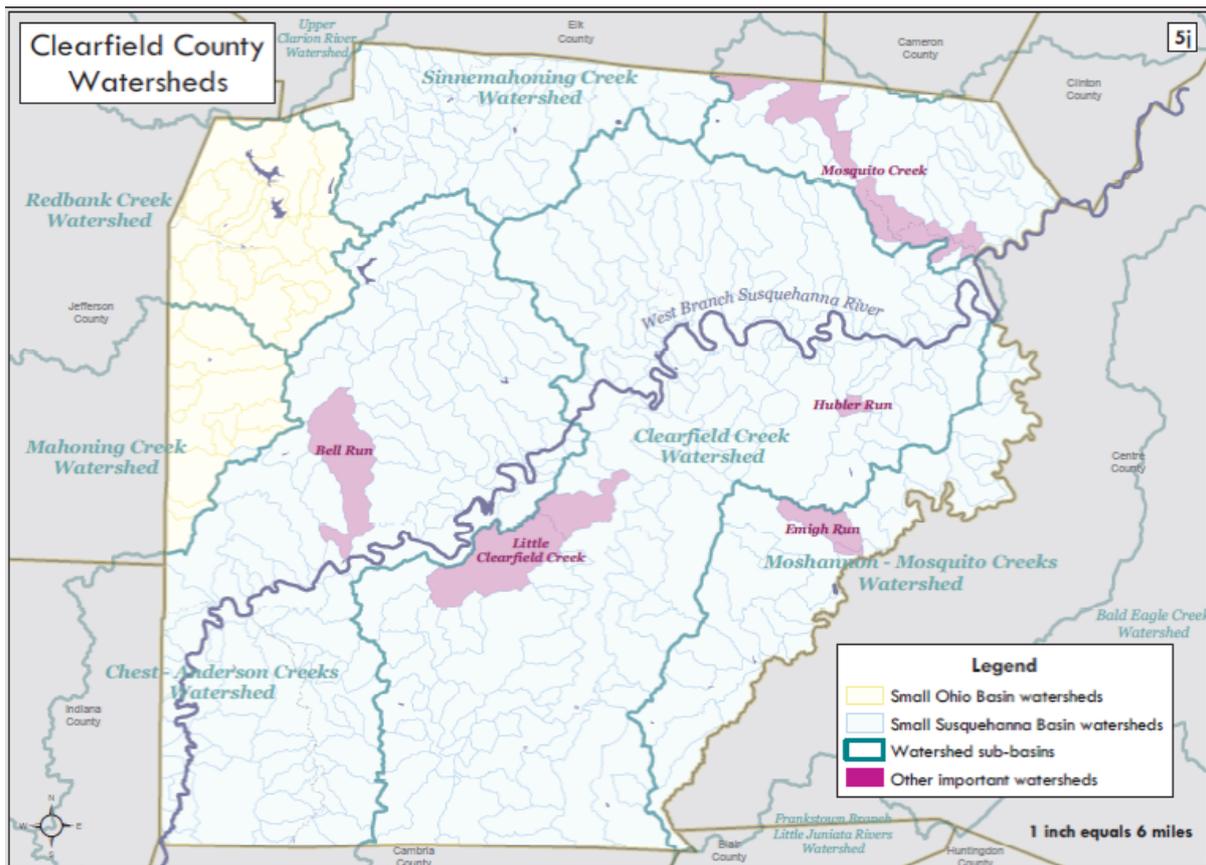
- Electrical hydraulic fracturing using natural gas rather than diesel fuel
- FLIR (Forward Looking Infrared) leak detection is run at start-up of every pad and then performed semi-annually thereafter
- Leveraging our SCADA surveillance / monitoring technology to detect gas leaks on production equipment
- Reuse / recycle produced brine which cuts down truck hauling emissions
- Utilize electric water transfer pumps in our operations (when possible)
- Zero flaring policy (not only is this bad for the environment it is bad for the top line results)
- Environmental governance, transparency and accountability led by our CFO and a companywide incentive structure to meet our environmental impact targets (incentives matter)
- Wastewater management and leveraging existing and new technologies to, not only recycle wastewater, but to improve top and bottom lines by extracting the lithium and other precious metals / rare earth elements from the wastewater.

The upstream players in oil and gas industry are frequently crucified in the media and during public discourse regarding the environmental issues it poses to our planet. Issues such as flaring, wastewater management and hydraulic fracturing being at the top of the stakeholders' list. Natural gas is the bridge fuel (however the opposition) between oil and coal and the long-term future where renewables will be the dominant players in the energy markets.

These same energy markets and utilities are fleeing the coal-fired power plant era in favour of clean burning natural gas. The coal to gas transition has already begun in Western Pennsylvania and as we continue our business and environmental journey to a zero-emissions future we welcome the opportunity to supply our production of natural gas to all downstream players.

### **Keeping Our Watersheds Clean, Protected and Sustainable**

The Ohio and Susquehanna Watersheds both share a portion of their vast basins within Clearfield County. The Susquehanna Watershed is home to some of the most famous trout fisheries in all the United States including the Yellow Breaches, Little Juniata and the world-class Penns Creek, which features 15 miles of prime, class "A" rated fishing waters. The Susquehanna Watershed encompasses nearly 50% of Pennsylvania's land area and the Upper/Middle Susquehanna contains the largest sum of headwaters to the Susquehanna River Basin. We understand the economic importance of both Watersheds to the State of Pennsylvania and to the region in general.



It is our pledge to work with the local conservation groups and the local governments to restore and protect the areas affected by abandoned mine drainage, sedimentation and excess nutrients. It is our duty to ensure these Watersheds are remain pristine and viable for all future generations to enjoy.

### **Our Special Place is Our Community ... and We Know We are One**

There is no vacuum between business and the local community and on the contrary we believe there is a symbiotic relationship between our business and the communities in Clearfield County. Our goal is to provide the members our communities with the opportunity to apply for jobs with attractive compensation packages, provide access to local businesses for supplier opportunities and to partner with the local governments to create smart policies that push the bounds of economic growth so that all members of our community can share in our growth.