

Offering Memorandum: Part II of Offering Document (Exhibit A to Form C)

PulseWave Energy, Inc.
30 N. Gould Street, Suite R
Sheridan, WY 82801
<https://www.pulsewaveenergy.com>

Up to \$250,000 in Series A Common Stock at \$0.20
Minimum Target Amount: \$5,000.00

A crowdfunding investment involves risk. You should not invest any funds in this offering unless you can afford to lose your entire investment.

In making an investment decision, investors must rely on their own examination of the issuer and the terms of the offering, including the merits and risks involved. These securities have not been recommended or approved by any federal or state securities commission or regulatory authority. Furthermore, these authorities have not passed upon the accuracy or adequacy of this document.

The U.S. Securities and Exchange Commission does not pass upon the merits of any securities offered or the terms of the offering, nor does it pass upon the accuracy or completeness of any offering document or literature.

These securities are offered under an exemption from registration; however, the U.S. Securities and Exchange Commission has not made an independent determination that these securities are exempt from registration.

Company:

Company: PulseWave Energy, Inc.

Address: 30 N. Gould Street, Suite R, Sheridan, WY 82801

State of Incorporation: WY

Date Incorporated: April 11, 2019

Terms:

Equity

Offering Minimum: \$5,000.00 / 25,000 shares of Common Stock

Offering Maximum: \$250,000.00 / 1,250,000 shares of Common Stock

Type of Security Offered: Common Stock

Purchase Price of Security Offered: \$0.20

Minimum Investment Amount (per investor): \$200.00

COVID Relief

This offering is being conducted on an expedited basis due to circumstances relating to COVID-19 and pursuant to the SEC's temporary COVID-19 regulatory relief set out in Regulation Crowdfunding §227.201(z).

Offering maximum.

In reliance on this relief, financial information certified by the Chief Executive Officer and President, setting the offering maximum of \$250,000.00.

Expedited closing sooner than 21 days.

Further, in reliance on Regulation Crowdfunding §227.303(g)(2) A funding portal that is an intermediary in a transaction involving the offer or sale of securities initiated between May 4, 2020, and August 31, 2020, in reliance on section 4(a)(6) of the Securities Act (15 U.S.C. 77d(a)(6)) by an issuer that is conducting an offering on an expedited basis due to circumstances relating to COVID-19 shall not be required to comply with the requirement in paragraph (e)(3)(i) of this section that a funding portal not direct a transmission of funds earlier than 21 days after the date on which the intermediary makes publicly available on its platform the information required to be provided by the issuer under §§227.201 and 227.203(a).

Voting Rights of Securities Sold in this Offering

Voting Proxy. Each Subscriber shall appoint the Chief Executive Officer of the Company (the "CEO"), or his or her successor, as the Subscriber's true and lawful proxy and attorney, with the power to act alone and with full power of substitution, to, consistent with this instrument and on behalf of the Subscriber, (i) vote all Securities, (ii) give and receive notices and communications, (iii) execute any instrument or document that the CEO determines is necessary or appropriate in the exercise of its authority under this instrument, and (iv) take all actions necessary or appropriate in the judgment of the CEO for the accomplishment of the foregoing.

The proxy and power granted by the Subscriber pursuant to this Section are coupled with an interest. Such proxy and power will be irrevocable. The proxy and power, so long as the Subscriber is an individual, will survive the death, incompetency and disability of the Subscriber and, so long as the Subscriber is an entity, will survive the merger or reorganization of the Subscriber or any other entity holding the Securities. However, the Proxy will terminate upon the closing of a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933 covering the offer and sale of Common Stock or the effectiveness of a registration statement under the Securities Exchange Act of 1934 covering the Common Stock.

The Company and its Business

Company Overview

Commercializing ***The PulseWave Energy Natural Resonance Disintegration Mill***, the benefits of an innovative process (the "Pulsewave" process) that allows for the clean removal of the desirable organic material, primarily kerogen, from raw oil shale ore prior to the retorting process, and does so without significantly altering the chemistry of either component. This beneficiation process would allow for kerogen to be retorted as a nearly pure phase as compared to current technologies that retort the raw oil shale ore in its entirety.

The results of research performed clearly demonstrate that kerogen can be liberated from oil shale by the PulseWave process. By producing this relatively clean stream of kerogen for processing, it was demonstrated that the oil yield was increased significantly over raw oil shale (149.1 gal/ton for highly purified kerogen concentrate vs. 32.3 gal/ton for the raw oil shale used for this study), and an analysis of the oil product determined that it is substantially the same as shale oils produced by conventional retorting. In addition to increasing the shale oil yield from the raw feedstock, the production of this relatively clean kerogen phase by the PulseWave process could significantly lower handling and processing costs and decrease the amount of pollution normally associated with conventional oil shale retorting operations.

Company Summary

The PulseWave resonance disintegration technology has undergone several test studies. The PulseWave technology is intended to process raw oil shale to produce a finely divided material and then separate this material into a kerogen concentrate and a mineral rich fraction. The produced kerogen concentrate is available for other downstream processing to produce a shale oil product. It is anticipated that the beneficiation of the kerogen offers several advantages to the oil shale industry. First, removal of the mineral fraction from the kerogen will decrease energy requirements during retorting by decreasing the amount of mineral matter heated to temperature and by removing the carbonate minerals that endothermically decompose during retorting. Second, removal of the mineral matter before retorting may also remove many metal ions that cause an environmental liability during the retorting process. Third, the mineral fraction does not have the environmental liabilities associated with disposal of the spent shale after retorting.

Western Research Institute (WRI) undertook the task of conducting material balance Fischer Assay retorting of four oil shale samples produced during the execution of the overall project. The first three oil shale samples included (1) a sample of the bulk resonance processed raw oil shale, (2) the mineral rich fraction from the initial separation (initial sink concentrate), and (3) the kerogen rich fraction from the initial separation (initial kerogen concentrate). A fourth sample was received later in the project that was a second kerogen concentrate produced using a lower density definition for the separation (highly purified kerogen concentrate). The experiments were conducted to establish a baseline for comparison of the retorting and product characteristics of the samples. The experiments were not intended to develop a commercial technology or identify optimum conditions to maximize oil yield and product quality.

The results from the material balance Fischer Assay of the four samples show that the oil yield increased from an average of 32.1 gal/ton in the processed raw oil shale to 60.3 gal/ton in the initial kerogen concentrate. The initial sink concentrate had an oil yield of 20.8 gal/ton and indicates a significant amount of kerogen is not reporting to the kerogen concentrate during the separation step of the process. The organic carbon content of the raw samples was used to estimate the kerogen content in each sample. The raw processed oil shale contained 18% kerogen and 82% mineral matter. After separation, the initial sink concentrate contained 14% kerogen and the initial kerogen concentrate contained 35% kerogen. The increase in the kerogen concentration in the kerogen concentrate represents nearly a doubling of the kerogen concentration by the process and demonstrates the potential of this process. However, the kerogen concentrate contains approximately 65% mineral matter and is comparable to a rich Green River oil shale. The high mineral content in the kerogen concentrate and the relatively high concentration of kerogen remaining in the sink concentrate indicates additional efforts are needed to optimize the separation step of the process. The group at Southern Illinois University prepared the second kerogen concentrate (highly purified kerogen concentrate) using a lower density to define the separation point. The Fischer Assay oil yield for this sample was 149 gal/ton with an estimated kerogen concentration of 77%. These results demonstrate the

technical feasibility of being able to separate the kerogen from the mineral matrix and that high Fischer Assay oil yields can be achieved from the kerogen concentrate.

There is not a clear demonstration of the separation of the metal ions evaluated during this study. The failure to identify clear separation of these ions is due in part to the fact that only the first three samples were analyzed for the metal ions. For these samples, the kerogen was not highly concentrated in the initial kerogen concentrate; therefore, the metals associated with the mineral matter were not removed. Although not analyzed, the highly purified kerogen concentrate is anticipated to contain minimal concentrations of the metal ions.

The Technology

The technology behind the Pulsewave milling machine provides for the selective differentiation and fragmentation of particles in complex multi-phase materials such as oil shale, as opposed to the simple crushing and micronizing that result from conventional milling methods. This results in materials being fragmented from within rather than being crushed by impact or grinding. Therefore, materials will tend to cleave along the internal planes of their structure that are the most susceptible to separation, and in the case of the components in oil shale, that is apparently the boundary between particles of mineral matter and particles of the more elastic kerogen. This process produces a “cleaner” component particle than conventional milling because of the elimination of the smearing that normally accompanies the physical crushing of a material. The Pulsewave procedure processes raw oil shale to produce a finely divided material and then separates this material into a kerogen concentrate and a mineral fraction. The produced kerogen concentrate is available for other downstream processing to produce a shale oil product. This kerogen beneficiation offers several benefits to the oil shale industry, including but are not limited to the following:

- The pre-retort removal of the undesirable shale matrix would substantially reduce the leachable solids and toxic water that are produced by retorting raw oil shale ore. The Pulsewave process does not significantly alter the chemistry of the shale matrix, only the particle size, and therefore does not mobilize the toxic elements or compounds that are chemically bound and relatively stable in the raw ore. Essentially, the processed shale should be basically the same material as that which was present to begin with, thereby facilitating its handling and disposal.
- If the organic and mineral matter fractions of the oil shale were separated before the retorting process, the mineral matter fraction would not undergo expansion due to high heat (“popcorn” effect). Thus, it could be returned in total to the site where it was originally mined with no need for accommodation of an increased volume of waste material.
- The source of many of the pollutants in the gaseous emissions from a retort facility would be removed from the retort process, resulting in cleaner “off gas” from these facilities.

- The micronized shale waste that would result from the Pulsewave process would be so small in particle diameter that it could easily be transported to the disposal site (i.e., underground mine) by hydraulic means and packed into place at high density. In addition, fine-grained oil shale particles such as those that have been produced by the Pulsewave process have a tendency to be self-cementing and the resulting material tends to have a very low permeability, thus reducing the potential for groundwater flow through the material in an underground disposal site (Peterson, 1978).
- By removing the organic matter from the mineral matrix prior to the retorting process, the energy necessary to retort the resulting clean kerogen phase would be considerably less than that required to retort raw oil shale. Carbonate minerals are a major component of many oil shales, including the Green River formation of the western US and these minerals decompose endothermically and react with other minerals in oil shale at approximately the same temperature required for kerogen conversion (Chappell, 1988, and Keller, 1985). The heat requirement for these reactions is large, and therefore they consume a significant amount of the energy during a conventional retorting operation.
- With the shale matrix removed, the relatively clean kerogen phase generated at or nearby to the mining site could be blended with locally produced crude oils and transported via pipeline to an off-site refinery or retorting facility, resulting in lower processing costs and environmental exposure.

The combination of any of these perceived benefits could significantly reduce the costs associated with processing oil shale into shale oil and also mitigate the negative environmental impact of extracting and processing oil shale.

Background

The PulseWave resonance disintegration technology processes raw oil shale to produce a finely divided material composed of the mineral matter and the kerogen. PulseWave is pursuing activities to refine the separation step to yield a kerogen concentrate by separating the kerogen from the mineral matter. The kerogen concentrate would then be available for other downstream processing scenarios. PulseWave and the collaborators on this project believe that this beneficiation of the kerogen offers several advantages to the oil shale industry. First, removal of the mineral fraction from the kerogen will decrease energy requirements during retorting by decreasing the amount of mineral matter heated to temperature and by removing the carbonate minerals that endothermically decompose during retorting. Second, removal of the mineral matter before retorting will also remove many metal ions that cause an environmental liability during retorting. Third, the mineral fraction does not have the environmental liabilities associated with disposal of the spent shale after retorting.

Western Research Institute (WRI) undertook the task of conducting material balance Fischer Assay retorting of four oil shale samples produced during the execution of the overall project. The first three oil shale samples included (1) a sample of the bulk resonance processed raw oil shale, (2) the mineral rich fraction from the separation step (initial sink concentrate), and (3) the kerogen rich fraction from the separation step (initial kerogen concentrate). The experiments were conducted to establish a baseline for comparison of the retorting and product characteristics of the three samples. The experiments were not intended to develop a commercial technology or identify optimum conditions to maximize oil yield and product quality. Based on the results from the initial experiments, a second, more highly purified kerogen concentrate was prepared by Southern Illinois University. This sample was also subjected to material balance Fischer Assay analysis.

Conversion of the kerogen concentrate to oil using classical thermal retorting processes, such as Fischer Assay, may not be the best technical option for processing the recovered kerogen because these technologies are designed to process materials with high mineral content. Since the kerogen concentrate is anticipated to be composed primarily of kerogen, hydro retorting may offer the opportunity to recover higher oil yields than would be expected from conventional retorting. Hydro retorting is accomplished by retorting the oil shale in the presence of excess hydrogen. This retorting approach has been shown to increase the oil yield and product quality for both eastern and western oil shales found in the United States (Feldkirchmer and Janka 1979 and Dyni et. al. 1989). As a result, WRI conducted selected hydro retorting experiments on the raw processed oil shale and the initial kerogen concentrate to evaluate the application of hydro retorting to the kerogen concentrate. These experiments were conducted in an attempt to determine if hydro retorting was a processing option. No attempt was made to optimize the hydro retorting conditions.

Methodology

The material balance Fischer Assay experiments were conducted in retorts patterned after the Lawrence Livermore material balance Fischer Assay retorts and the procedure used was that defined by Lawrence Livermore National Laboratory (Singleton et. al. 1982). The Lawrence Livermore design was selected over the Bureau of Mines Fischer Assay retort because the former design allows more efficient collection of the oil and shows a higher oil yield.

The retorting experiments were conducted by placing a known mass of the oil shale sample in the retort, sealing the retort, purging it with nitrogen and checking for leaks. The loaded retort was heated under an autogenous atmosphere from ambient temperature to 500°C at a rate of 12°C/minute and allowed to soak at 500°C for 30 minutes. The shale oil was condensed and collected in a cold finger submersed in an ice bath. The pressure rise of the system was measured and recorded and the gas production calculated. A sample of the produced gas was analyzed for permanent gases, hydrocarbon components and hydrogen sulfide using a Hewlett Packard 5840 gas chromatograph equipped with a thermal conductivity detector.

After completion of each experiment, the liquid and solid products were collected, and the recovered mass determined and used for the material balance calculation. Samples of the raw and retorted oil shale and the shale oils were submitted to Huffman Laboratories (Golden, CO) for analysis. The shale oil samples were subjected to elemental analysis to include carbon, hydrogen, nitrogen, sulfur, arsenic, iron and mercury. The raw and retorted oil shale samples were subjected to the same analysis plus analysis to determine carbonate carbon.

Samples of the raw processed oil shale and the kerogen concentrate were subjected to hydro retorting in a U-tube reactor system assembled for this study. The system is composed of the U-tube reactor formed from ¼-inch (id) stainless steel tubing, a condenser, a liquid product collection chamber and a backpressure regulator. The reactor was heated in a fluidized bed sand bath. The experiments were conducted by adding 2.5 to 5 grams of sample to the U-tube reactor, attaching the reactor to the system, and hydro retorting the sample at 475°C for 30 minutes at a hydrogen pressure of 2000 PSI using a flow rate of 100 cc/min. At the end of each experiment, the retorted shale and the liquid product were collected. The water was separated from the collected oil by centrifugation. The condenser and associated lines were washed with toluene until there was no color. The solvent was removed by rotary evaporation and the mass of shale oil in the lines was determined and added to the mass of condensate oil to obtain the total mass of liquid product. The oil yield was calculated based on the recovery of the available organic carbon in each sample.

Results and Discussion

The results include the mass of oil shale used for the experiment, the oil yield (gallons/ton), the mass of oil recovered, the mass of gas produced, the mass of retorted shale, the mass balance closure, and the density of the shale oil. The mass balance closures for the experiments range from 99.4 to 103.3%. These material balance closures are considered good except for the value of 103.3%. This value is higher than normally observed for this type of experiment and is believed to be due to experimental errors associated with the smaller mass of the kerogen concentrate used for the experiment.

The average oil yield for the raw processed oil shale is 32.1 gal/ton and compares favorably with the value of 32.3 gal/ton reported by Jerry Daub for the raw oil shale used for this study. The agreement of the oil yield values from two different laboratories provides a level of confidence in the methods used for the analyses.

The average oil yield for the initial sink concentrate and the initial kerogen concentrate are 20.8 and 60.3 gal/ton respectively. The material balance Fischer Assay of the kerogen concentrate was performed in triplicate. The first two analyses were conducted using 10 grams of the kerogen concentrate. The third experiment was conducted using 20 grams. The third experiment was performed using the larger mass of oil shale to minimize experimental errors associated with using a small mass of the kerogen concentrate, which produced one experiment with a material balance closure of 103.3%. If the experiment using 10 grams of

kerogen concentrate that has a mass balance closure of 103.3% is removed from the calculation of the average oil yield, then the average oil yield for the kerogen concentrate is 58.8 gal/ton.

As compared to the oil yield for the processed oil shale (32.1 gal/ton), the initial kerogen concentrate shows an increase in oil yield to 60.3 gal/ton and demonstrates beneficiation of the kerogen with the process. However, the oil yield of the initial sink concentrates only decrease to 20.8 gal/ton and indicates there is a significant amount of kerogen remaining in the sink concentrate that does not report to the kerogen concentrate during the separation step of the process. This represents a low yield of kerogen in the initial kerogen concentrate.

The oil yield for the two Fischer Assay experiments of the highly purified kerogen concentrate averaged 149.1 gal/ton. This is a significant increase as compared with either the processed oil shale (32.1 gal/ton) or the initial kerogen concentrate (60.3 gal/ton). The sink concentrate obtained from generation of the highly purified kerogen concentrate was not subjected to Fischer Assay analysis. Therefore, the yield of kerogen reporting to the highly purified kerogen concentrate has not been established.

A malfunction of the gas chromatograph resulted in the loss of the data for one of the raw processed oil shale experiments. The remaining gas analyses are typical of the gas composition produced from Fischer Assay retorting of oil shale. Hydrogen is the most abundant species and methane is the most abundant hydrocarbon gas. Carbon dioxide is present in significant concentration as a result of decomposition of the carbonate minerals in the oil shale. The hydrogen sulfide concentration is low. There are no strong correlations between the gas composition and the processing to produce the initial sink and kerogen samples. However, the results do show a slight increase in the methane concentration and a decrease in the carbon dioxide concentration for the experiments using the highly purified kerogen concentrate. This is assumed to be caused by the higher percentage of kerogen in this sample.

Shale oils produced from the Fischer Assay retorting of the processed raw oil shale, and the initial sink and kerogen concentrate samples. Elemental composition of the shale oil samples obtained from the Fischer Assay retorting of the highly purified kerogen concentrate were not determined at PulseWave's request. The oils from retorting each of the oil shale materials was combined to produce a composite sample for each feedstock to ensure sufficient sample for the analyses conducted by Huffman Laboratories. The carbon and hydrogen content of the oils is typical for shale oils and hence the H/C atomic ratio is also typical. There is no trend in the sulfur concentration as a function of the processing steps used to produce the oil shale feedstocks. A trend is noted in the nitrogen distribution. The nitrogen concentration is related to the oil yield of the oil shale. Samples with higher oil yield exhibit higher concentrations of nitrogen in the produced shale oil. Therefore, the shale oil produced from the kerogen concentrate has a higher concentration of nitrogen (2.11%) than the oil produced from the sink concentrate (1.69%). Previously reported studies have shown that the nitrogen in oil shale from the Mahogany zone is all organically bound (Stanfield 1951). For this reason, the correlation of increasing nitrogen content in the produced oil with increased oil shale grade is expected.

The values for arsenic and mercury are relatively constant among the three oil samples. There does not appear to be a clear trend with respect to the processing received by the different oil shale samples prior to retorting. There is a slight decrease in the arsenic concentration in the kerogen concentrate and a weak trend observed for iron. The iron concentration increases slightly with increased oil yield. The significance of this trend is not well understood. The results for arsenic, iron, and mercury do not show a significant change in distribution as a result of the processing and separation steps.

A larger suite of analyses was performed for the processed raw oil shale and the initial sink and kerogen concentrate samples. Only total and mineral carbon concentrations were determined for the highly purified kerogen concentrate. Both the total carbon and the mineral carbon (as CO₂ from carbonate decomposition) were determined experimentally. The organic carbon is the difference between the total carbon and the mineral carbon. Both the total and organic carbon contents of the raw oil shale follow the trend of increasing with respect to the shale oil yield. Therefore, the kerogen concentrate contains the highest amount of organic carbon. The hydrogen concentration follows a trend similar to the organic carbon. This is expected because the majority of the hydrogen is associated with the kerogen. The sulfur and nitrogen concentrations do not show trends with respect to the processing steps used to obtain the different oil shale feedstocks. The arsenic, iron and mercury concentrations do not show a trend with the processing steps used to generate the oil shale feedstocks or the oil yield.

The total, mineral, and organic carbon follow the same trend as noted for the raw oil shale samples with respect to oil yield. This is not surprising since all samples were retorted under the same conditions and normally the same percentage of the organic reports to char formation. Increases in organic carbon content of the oil shale will result in increased char deposition. The results for nitrogen and sulfur show a similar trend with respect to oil yield. Both species increase with increased oil yield. Since the nitrogen is organically bound, the correlation of increasing nitrogen content in the retorted oil shale with increased oil shale grade is expected since the nitrogen in the kerogen will report to the char fraction of the retorted oil shale.

Therefore, it is not possible to determine if the increased sulfur concentration is a function of its association with mineral or organic fractions of the retorted oil shale. The concentrations of arsenic in the samples of the retorted oil shale are not significantly different from those observed for the raw oil shale samples. This implies that retorting does not liberate significant quantities of arsenic to either the gas phase or the produced oil. However, there may be environmental implications regarding the arsenic when the char is burned from the retorted shale and when the spent shale is disposed. There is not an observed trend in the concentration of iron. However, the concentration of iron is higher in the retorted shale than in the raw shale samples. Since the retorting experiments were conducted in stainless steel vessels, iron from the vessels was deposited on the retorted shale during the experiment. The mercury concentrations for the retorted shale samples are significantly lower than in the raw oil shale samples. The results for the shale oil samples show concentrations of mercury comparable to the raw shale and it is assumed the majority of the mercury reports to the oil fraction. A small

amount of the mercury probably escapes with the produced gas. Based on these results, the mercury is probably associated with the kerogen.

The weight percentages of organic carbon in the three initial raw oil shale fractions were used to validate the measured oil yield of the samples and to estimate the distribution of kerogen and mineral matter in the samples prepared using the PulseWave technology. The organic carbon content of Green River oil shales correlates with the Fischer Assay oil yield. A correlation between organic carbon content and oil yield was developed using material balance Fischer Assay oil yields and organic carbon content data reported by Singleton et. al. (1982). The reported data for oil shale samples from the Mahogany zone were used to develop the correlation. The relationship is linear with a correlation coefficient of $R^2 = 0.991$.

The anticipated Fischer Assay oil yields were calculated for the processed raw oil shale and the initial sink and kerogen concentrate samples using the correlation and the results are provided in Table 5 along with the measured Fischer Assay oil yields. An oil yield was not estimated because the correlation does not extend to a high enough carbon content to be valid for this sample. The Fischer Assay oil yield calculated for the raw processed oil shale (33.5 gal/ton) is comparable to the measured value of 32.1 gal/ton. The calculated oil yields for the sink concentrate and the kerogen concentrate are 4 to 5 percent higher than the measured results. Because of this discrepancy, a Soxhlet extraction with toluene was performed on samples of the raw processed oil shale, the raw sink concentrate and the raw kerogen concentrate to determine if the samples contained appreciable toluene soluble material. Green River oil shale normally contains about 1 to 1.5% toluene extractable bitumen. The value of toluene extractable material from the raw processed oil shale is within the range of expected bitumen content for raw oil shale. However, the sink and kerogen concentrates show higher values of toluene extractable material than would be expected.

From discussions with PulseWave and Southern Illinois University personnel, it was learned that Brij was added to the separation solution at a level of 1 to 3 grams/liter prior to the separation step used to generate the sink and kerogen concentrates. Brij is a surfactant composed of polyoxyethylene fatty esters and is used as a wetting agent to aid in the separation step. Apparently, some of the Brij remains with the solid fractions from the separation and, as a result, is present in these fractions and causes an increase in the organic carbon content of the samples. Since the organic carbon content is higher because of the Brij, the calculated Fischer Assay oil yield is also higher than the measured oil yields. This accounts for the higher calculated Fischer Assay oil yields observed for the sink and kerogen concentrates.

The weight percent of organic carbon in each of the samples was used to estimate the mass of kerogen present in each sample. The total mass of organic carbon was calculated using the weight percentage of organic carbon in each of the samples and the mass of each collected fraction. The sum of the collected initial sink and kerogen concentrate fractions was assumed to represent the total mass of starting raw processed oil shale. PulseWave provided these sample mass numbers. The calculated mass of organic carbon in each sample was converted to an estimated mass of kerogen using reported values of the carbon content of kerogen (Baughman

1978). The average value of carbon in the kerogen of Green River oil shale used for this conversion is 81%. Because of the addition of Brij to the separation procedure, a mass balance cannot be performed on the calculations.

The weight percentage of kerogen in each sample was calculated based on the collected mass of each fraction. The raw processed oil shale is estimated to contain 18% kerogen. The initial sink concentrate is estimated to contain 14% kerogen, the initial kerogen concentrate is estimated to contain 35% kerogen, and the highly purified kerogen concentrate is estimated to contain 77% kerogen. The remaining material in each sample is assumed to be the oil shale minerals.

Based on these calculations, the PulseWave processing of the oil shale, which includes resonance disintegration followed by density separation, increased the kerogen concentration from 18 to 35% for the initial separation. This essentially doubles the kerogen concentration in the final product as compared to the raw oil shale and indicates the value of this concept for beneficiation of oil shale. The sink concentrate still contains an appreciable concentration of kerogen (14%) and shows there is a need for additional research to improve the process so that more kerogen will report to the kerogen concentrate fraction. The second, better-defined separation of the processed raw oil shale significantly increased the kerogen concentration in the highly purified kerogen concentrate from 18 to 77%. This is a significant increase in the kerogen beneficiation and demonstrated the technical viability of the PulseWave processing concept.

Mission

To help solve the environmental crisis by focusing on the long-term eco-friendly solutions for the energy industry.

Core Values

Think BIG. Act with Passion and Purpose. Create a culture where everyone is welcome. Be courageous, challenge the status quo and be creative in new ways to grow our company and each other. Solve present challenges in energy generation. Achieve results beyond the bottom line while limiting the environmental impact of human society.

Success Keys

Sub-Licensing of the technology:

PulseWave Energy Natural Resonance Disintegration mill technology is now available for sub-licensing for the oil shale industry. We plan on growing through sub-licenses and Joint Venture Agreements with companies currently operating in the oil shale mining industry.

Our remarkable innovation offers significant competitive advantages:

- Our standard-size NRD mill can process up to 8000 pounds per hour depending on type of material. Larger and smaller design mills can be produced for specialized needs;
- Can be operated to control heat generation to desired levels;
- Does not destroy proteins and high molecular weight polymers;
- Can process materials with moisture contents up to 20-30%, turning them into dry powder in the comminution process;
- Readily fragments very hard crystalline materials;
- Can process a wide variety of crystalline compounds and organic material into granular or powder (micronic) consistency;
- Provides a basis for dry fractionation of plant or other complex materials owing to diverse particle sizes that can be produced;
- Can quickly generate stable emulsions (water-oil etc.);
- Micronized particles can be thin film coated with various compounds as they flow through the mill;
- Can liberate various components from one another in the comminution process;
- Is very energy efficient and low maintenance compared to hammer and ball mills, grinding machines, and jet mills.

Features of the PulseWave Energy NRD Milling Systems

- Single-step material reduction of 2" – 3" material to 100-micron average size in less than one second; Versatility – The NRD Mill runs clockwise or counter-clockwise, in the same operating configuration;
- Energy savings – 4-to-5 times less cost per Kw/hr using our non-impact material separation science compared to other milling technologies;
- Micritization of wet or dry materials to micronic-sized particles with repeatably consistent output and tight product distribution curve;
- Frequency/amplitude of shockwaves are controllable, producing granular, fine and ultra-fine material;
- Particles flowing through the machine can be treated with chemicals or processed in an atmosphere of air, liquid nitrogen, CO₂, steam or other media;

PulseWave's Unique and Disruptive Technology

Pulse Wave is the only known technology that has the ability to perform very fine, "instant", single-step micronization while simultaneously liberating the different fractions of complex multiphase materials, while at the same time retaining the ability to do so without the agglomeration or "smearing" that accompanies other impact milling processes.

Furthermore, Pulse Wave performs these functions at a substantially reduced energy cost that can be as low as 1/4 to 1/5 of impact devices.

Those who have seen the Pulse Wave Natural Resonance Disintegration (NRD) mill in operation have expressed genuine amazement. “(Pulse Wave) truly has the potential to make a momentous contribution to the betterment of life on planet earth! I believe it is truly worthy of nomination for the U.S. Presidential Medal of Science award and the Nobel Prize.”

– *CEO of Quality Assured Seeds*

Ready for Commercialization

Pulse Wave technology was successfully demonstrated to some of the largest companies in the world, including; Cargill, ADM, Kelloggs, Pfizer, General Mills, Coors Brewery, Shell Oil, ConAgra, Kraft and more.

Pulse Wave technology was also the subject of extensive research by Kansas State University, Denver University, Southern Illinois University and significant grant awards from the U.S. Department of Energy, the U.S. Department of Agriculture, and the Illinois Clean Coal Institute resulting in very successful findings. Based on validated test results the Company has targeted several significant markets for aggressive commercialization including; pharmaceuticals, nutraceuticals, functional foods, beverages, wheats and grains, coal, oil shale, hemp/cannabis and specialty minerals.

“The Pulse Wave mill has the potential to cleanly, and efficiently produce oil from raw shale oil material, providing energy resource requirements for the next 100 years”!

– *U.S. Department of Energy*

PulseWave’s Material Liberation Process

While conventional mills crush or smash materials using impact pulverization such as hammer mills, ball mills, roller mills, jet mills, pin mills & other smashing and cutting devices, PulseWave actually breaks down organic and inorganic materials by pulling structures apart along natural fracture planes and liberating the various components.

When conventional milling processes smash and crush materials, agglomeration occurs which contaminates or compromises the potential uses of the material. PulseWave’s technology actually comminutes many materials without the damaging agglomeration (“smearing”).

Research & Development Completed

Pulse Wave has validated and proven its technology in many industries and is confident similar successes can be realized in the Oil Shale industry!

“There is no machine that is exactly like the Pulse Wave Resonance Disintegration Mill. It is a novel technology and moves oil shale processing beyond the current state of the art.”

– *U.S. Department of Energy*

“The Pulse Wave technology has the ability to reduce a very high percentage of clean endosperm into flour in a single pass and thus potentially uses significantly less energy than a conventional mill. This technology causes grain to break into fractions differently than a conventional mill, and thus produces flour with different, possibly superior, quality traits.”
– *U.S.D.A.*



“Pulse Wave resonance disintegration is a breakthrough technology for the efficient and cost-effective comminution of coal to fine particle sizes. 80% of the pyrite and 50% of the mercury were removed by the Pulse Wave technology process of liberation and separation. Pulse Wave technology also reduces the inherent moisture content of the coals by 60% to greater than 80%, followed by a ~ 10% increase in thermal value, without requiring additional heating of the coal or pulverizing unit.”

– *Clean Coal Research Study (U.S. Department of Energy; Western Research Institute, Southern Illinois University-research study participants)*

“The Pulse Wave mill has the potential to cleanly, and efficiently produce oil from raw shale oil material, providing energy resource requirements for the next 100 years”!

– *U.S. Department of Energy*

“Liposomes are used in the delivery of pharmaceuticals, cosmetic agents and micronutrients. It is believed that the (Pulse Wave) mill can be used to generate shearing forces sufficient to produce liposomes in high abundance.”

- *William E. Hahn, Ph.D.*

“It is clear that the Pulse Wave mill is energy efficient, environmentally sound, and economically competitive, and the production of mill equipment and its related industries could add significant capital and thousands of jobs to the State’s economy.”

– *Brian Vogt, Director, State of Colorado Office of Economic Development & International Trade*



Research projects have been completed with numerous organizations, including:

- Aberdeen (Army R&D) American Ingredients Corp Coors Brewery
- JLM Engineered Resins
- Krispy Kreme
- Rogers Foods
- Shell Oil
- Archer Daniels Midland (ADM) ConAgra
- Farmpure Inc.
- General Mills
- Cargill, Incorporated
- Kraft Foods
- Pfizer Corporation

Research and Grant partners have included:

- S. Department of Energy
- S. Department of Agriculture
- Southern Illinois University (Carbondale, IL)
- Western Research Institute (Laramie, WY)
- Kansas State University
- Denver University

Testing Categories have included:

- Botanicals
- Pharmaceuticals Nutraceuticals
- Mined Materials
- Chemicals and Elements
- Man Made Materials such as;
 - aluminum cans, inkjet pellets, hydraulic hose, char or carbon, glass flakes, PVC
 - plastic, rubber tires, titanium dioxide, wollastonite vestowax
- Animal Based Materials such as;
 - Amigo fish, antler (deer), mussels (dry). Shark cartilage
 - More than 150 Materials Tested

Competition Analysis

The industries to be served by Pulse Wave technology are highly competitive across the entire United States and globally. PulseWave will be required to compete with a variety of companies. Competitors will be seeking the same or similar clients to those targeted by our planned operations in every area in which we may seek to operate.

Many milling machine manufacturers also specialize in equipment for certain industries such as beverages, grain milling, and otherwise. Pulse Wave anticipates competing with these and others over time. Some of the larger competitors in those fields include Buhler, Huppmann, Sturtevant, Fitzpatrick, and others, although PulseWave has vet to identify any competitor using the same technology as its Natural Resonance Disintegration machines, thus providing significant barriers to entry for direct competition.

PulseWave does not believe competitors can effectively compete in its marketplace because the PulseWave Natural Resonance Disintegration Mill can, in addition to many other benefits, perform functions that other impact based mills are believed to be incapable of doing, including but not limited to: (i) simultaneously micronizing and liberating complex multi-phase materials without the problems associated with agglomeration ("smearing"); (ii) micronizing many materials at an energy cost as little as 1/4 or 1/5 of traditional impact mills; (iii) single step material reduction of many materials from 2"-3" to 100 micron average size in less than one second; (iv) processing materials with moisture contents as high as 30% in instantly yielding a micronized dry powder; (v) controlling the frequency and amplitude of the shockwaves, producing granular, fine and ultra-fine material; and, (vi) man². other unique benefits.

Additionally, Pulse Wave technology has been proven to have broad industry application in areas such as pharmaceuticals, nutraceuticals, functional foods, pet treats, coal, oil shale, carbon char, hydraulic hose, ink jet pellets, mine tailing, PVC plastic, animal-based materials and recycling of diverse materials such as glass, ceramics, aluminum cans and organic materials such as nut shells, just to name a few.

Seasonality

We do not expect to experience material seasonality in the activity level of our business. However, Pandemics and Epidemics may cause additional peaks in our growth.

The Team

Officers and Directors

Name: Douglas DiSanti

Positions and Offices currently held with the issuer:

Position: Chief Executive Officer

Dates of Service: January 1, 2020 - Present

Responsibilities: Leads the team with the purpose of maximizing the value of the company, which may include but isn't limited to maximizing the mission and impact, share price, market share, and/or revenues. Chief Executive also serves as key team member for sharing and amplifying the story and/or narratives of the organization.

Bio: Mr. DiSanti has a career history as a Venture Capitalist, raising private and public equity, managing buying and selling groups, and identifying niche opportunities in a variety of businesses and industries. He has extensive experience in origination, structuring and oversight for seed capital funding and structured finance. He has built and maintained infrastructure through the start-up phase with numerous private and public companies. Since 2015, Mr. DiSanti has served on several Boards of Directors for public companies and has managed several public company acquisitions and takeovers. He has worked in all areas of the M&A space including structuring and financing real estate and corporate acquisitions, public and private takeovers, and entrepreneurial equity-backed financing.

Name: Rob Kleifgen

Positions and Offices currently held with the issuer:

Position: Chief Financial Officer

Dates of Service: January 1, 2020 – Present

Responsibilities: Provides leadership in the development for the continuous evaluation of short and long-term strategic financial objectives. Ensure credibility of Finance group by providing timely and accurate analysis of budgets, financial trends and forecasts. Direct and oversee all aspects of the Finance & Accounting functions of the organization. Evaluates and advises on the impact of long-range planning, introduction of new programs/strategies and regulatory action. Provide executive management with advice on the financial implications of business activities. Manage processes for financial forecasting, budgets and consolidation and reporting to the Company.

Bio: Mr. Kleifgen is a seasoned Investment Banker with over 17 years of experience providing financial leadership and change management in a variety of industries. Extensive experience in all aspects of executive financial operations, including banking relationships, entities management, budgeting, accounting oversight, and senior management leadership. Continually exceeds expectations by creating valuable partnerships and works well with people at all levels of an organization, including stakeholders, senior executives, team members, outside service providers and clients.

Risk Factors

The SEC requires the company to identify risks that are specific to its business and its financial condition. The company is still subject to all the same risks that all companies in its business, and all companies in the economy, are exposed to. These include risks relating to economic downturns, political and economic events and technological developments (such as hacking and the ability to prevent hacking).

Additionally, early-stage companies are inherently riskier than more developed companies. You should consider general risks as well as specific risks when deciding whether to invest.

These are the risks that relate to the Company:

Uncertain Risk

An investment in the Company (also referred to as "we," "us," "our," or "Company") involves a high degree of risk and should only be considered by those who can afford the loss of their entire investment. Furthermore, the purchase of any of the stock should only be undertaken by persons whose financial resources are sufficient to enable them to indefinitely retain an illiquid investment. Each investor in the Company should consider all of the information provided to such potential investor regarding the Company as well as the following risk factors, in addition to the other information listed in the Company's Form C. The following risk factors are not intended, and shall not be deemed to be, a complete description of the commercial and other risks inherent in the investment in the Company.

Our business projections are only projections

There can be no assurance that the Company will meet our projections. There can be no assurance that the Company will be able to find sufficient demand for our product, that people think it's a better option than a competing product, or that we will be able to provide the service at a level that allows the Company to make a profit and still attract business.

Any valuation at this stage is difficult to assess

The valuation for the offering was established by the Company. Startups are difficult to assess, and you may risk overpaying for your investment.

The transferability of the Securities you are buying is limited

Any stock purchased through this crowdfunding campaign is subject to SEC limitations of transfer. This means that the stock/note that you purchase cannot be resold for a period of one year. The exception to this rule is if you are transferring the stock back to the Company, to an "accredited investor," as part of an offering registered with the Commission, to a member of your family, trust created for the benefit of your family, or in connection with your death or divorce.

Your investment could be illiquid for a long time

You should be prepared to hold this investment for several years or longer. For the 12 months following your investment there will be restrictions on how you can resell the securities you receive. As a result, if you decide to sell these securities in the future, you may not be able to find a buyer. The Company may be acquired by an existing player in the laboratory testing industry. However, that may never happen, or it may happen at a price that results in you losing money on this investment.

If the Company cannot raise sufficient funds it will not succeed

The Company is offering Common Stock in the amount of up to \$250,000 in this offering and may close on any investments that are made. Even if the maximum amount is raised, the Company is likely to need additional funds in the future in order to grow, and if it cannot raise those funds for whatever reason, including reasons relating to the Company itself or the broader economy, it may not survive. If the Company manages to raise only the minimum amount of funds, sought, it will have to find other sources of funding for some of the plans outlined in "Use of Proceeds."

Terms of subsequent financings may adversely impact your investment

We will likely need to engage in common equity, debt, or preferred stock financings in the future to continue operations, which may reduce the value of your investment in the Common Stock. Interest on debt securities could increase costs and negatively impact operating results. Preferred stock could be issued in series from time to time with such designation, rights, preferences, and limitations as needed to raise capital. The terms of preferred stock could be more advantageous to those investors than to the holders of Common Stock. In addition, if we need to raise more equity capital from the sale of Common Stock, institutional or other investors may negotiate terms that are likely to be more favorable than the terms of your investment, and possibly a lower purchase price per share.

Management Discretion as to Use of Proceeds

Our success will be substantially dependent upon the discretion and judgment of our management team with respect to the application and allocation of the proceeds of this Offering. The use of proceeds described below is an estimate based on our current business plan. We, however, may find it necessary or advisable to re-allocate portions of the net proceeds reserved for one category to another, and we will have broad discretion in doing so.

Projections: Forward Looking Information

Any projections or forward-looking statements regarding our anticipated financial or operational performance are hypothetical and are based on management's best estimate of the probable results of our operations and will not have been reviewed by our independent accountants. These projections will be based on assumptions which management believes are reasonable. Some assumptions invariably will not materialize due to unanticipated events and circumstances beyond management's control. Therefore, actual results of operations will vary from such projections, and such variances may be material. Any projected results cannot be guaranteed.

Speculative Nature and Hazards of Oil and Gas Development Activities.

Exploration, drilling and development of oil and gas properties is not an exact science and involves a high degree of risk. There is no assurance that our activities in the oil and gas industry will yield sufficient oil or gas production or other operating revenues that will allow us to remain profitable. We may be subject to liability for pollution and other damages and will be subject to statutes and regulations relating to environmental matters. Although we may obtain and maintain the insurance coverage and amounts, we deem appropriate, we may suffer losses due to hazards against which we cannot insure or against which we may elect not to insure.

Importance of Future Prices, Supply and Demand for Oil and Gas.

Revenues generated from our oil and gas production activities in the oil and gas industry will be highly dependent upon the future prices and demand for oil and gas. Factors which may affect prices and demand for oil and gas include, but are not limited to, the worldwide supply of oil and gas; the price of oil and gas produced in the United States or imported from foreign countries; consumer demand for oil and gas; the price and availability of alternative fuels; federal and state regulation; and general, national and worldwide economic political conditions.

In addition to the widely recognized volatility of the oil market, the gas market is also unsettled due to a number of factors. In the past, production from gas wells in many geographic areas of the United States has been curtailed for considerable periods of time due to a lack of market demand, and such curtailments may exist in the future. Further, there may be an excess supply of gas in the area of our wells. In that event, it is possible that our wells could be shut in or gas in those areas might be sold on terms less favorable than might otherwise be obtained. The combination of these factors, among others, makes it particularly difficult to estimate accurately future prices of oil and gas, and any assumptions concerning future prices may prove incorrect.

Markets for Sale of Production.

Our ability to market oil and gas found and produced, will depend on numerous factors beyond our control, the effect of which cannot be accurately predicted or anticipated. Some of these factors include, without limitation, the availability of a ready market, the effect of federal and state regulation of production, refining, transportation and sales, and general national and worldwide economic conditions. There is no assurance that we will be able to market any oil or gas we produced, or, if such oil or gas is marketed, that we can obtain favorable prices.

Price Control and Possible Energy Legislation.

There are currently no federal price controls on oil or gas production so that sales of our oil or gas can be made at uncontrolled market prices. However, there can be no assurance that Congress will not enact controls at any time. No prediction can be made as to what additional energy legislation may be proposed, if any, nor which bills may be enacted nor when any such bills, if enacted, would become effective.

Environmental Regulations.

The exploration, development and production of oil and gas is subject to various federal and state laws and regulations to protect the environment. Various states and governmental agencies are

considering, and some have adopted, laws and regulations regarding environmental control which could adversely affect our business. Compliance with such legislation and regulations, together with any penalties resulting from noncompliance therewith, will increase the cost of oil and gas development and production.

Government Regulation.

The oil and gas business are subject to extensive governmental regulation under which, among other things, rates of production from our wells may be fixed. Governmental regulation also may limit or otherwise affect the market for our wells' production and the price which may be paid for that production. Governmental regulations relating to environmental matters could also affect our operations. The nature and extent of various regulations, the nature of other political developments and their overall effect upon us are not predictable.

Strategic relationships upon which we may rely are subject to change, which may diminish our ability to conduct our operations.

Our ability to successfully acquire additional properties, to discover reserves, to participate in drilling opportunities and to identify and enter into commercial arrangements with customers will depend on developing and maintaining close working relationships with industry participants and on our ability to select and evaluate suitable properties and to consummate transactions in a highly competitive environment. These realities are subject to change and may impair our ability to grow.

To develop our business, we will endeavor to use the business relationships of our management to enter into strategic relationships, which may take the form of joint ventures with other private parties and contractual arrangements with other oil and gas companies, including those that supply equipment and other resources that we will use in our business. We may not be able to establish these strategic relationships, or if established, we may not be able to maintain them. In addition, the dynamics of our relationships with strategic partners may require us to incur expenses or undertake activities we would not otherwise be inclined to in order to fulfill our obligations to these partners or maintain our relationships. If our strategic relationships are not established or maintained, our business prospects may be limited, which could diminish our ability to conduct our operations.

Prices and markets for oil and natural gas are unpredictable and tend to fluctuate significantly, which could reduce profitability, growth and the value of our business.

Oil and natural gas are commodities whose prices are determined based on world demand, supply, and other factors, all of which are beyond our control. World prices for oil and natural gas have fluctuated widely in recent years. We expect that prices will continue to fluctuate in the future. Price fluctuations will have a significant impact on our revenue, the return from our reserves and on our financial condition generally. Price fluctuations for oil and natural gas commodities may also impact the investment market for companies engaged in the oil and gas industry. Decreases in the prices of oil and natural gas may have a material adverse effect on our consolidated financial condition, the future results of our operations and the quantities of reserves recoverable on an economic basis.

Strategic relationships upon which we may rely are subject to change, which may diminish our ability to conduct our operations.

The company relies on third party manufacturers and in some cases testing facilities. Should any of these relations dissolve, the company may have to locate new providers. This time without providers may slow the company's ability to deliver product and continue operations.

Penalties we may incur could impair our business.

Failure to comply with government regulations could subject us to civil and criminal penalties.

Minority Holder; Securities with Voting Rights

The Common Stock that an investor is buying has voting rights attached to them. However, you will be part of the minority shareholders of the Company and have agreed to appoint the Chief Executive Officer of the Company (the "CEO"), or his or her successor, as your voting proxy. You are trusting in management discretion in making good business decisions that will grow your investments. Furthermore, in the event of a liquidation of our company, you will only be paid out if there is any cash remaining after all of the creditors of our company have been paid out.

You are trusting that management will make the best decision for the company

You are trusting in management discretion. You are buying securities as a minority holder, and therefore must trust the management of the Company to make good business decisions that grow your investment.

Insufficient Funds

The Company might not sell enough securities in this offering to meet its operating needs and fulfill its plans, in which case it will cease operating and you will get nothing. Even if we sell all the common stock we are offering now, the Company will possibly need to raise more funds in the future, even if we do make a successful offering in the future, the terms of that offering might result in your investment in the company being worth less, because later investors might get better terms.

This offering involves "rolling closings, which may mean that earlier investors may not have the benefit of information that later investors have.

Once we meet our target amount for this offering, we may request that IPO Wallet instruct the escrow agent to disburse offering funds to us. At that point, investors whose subscription agreements have been accepted will become our investors. All early-stage companies are subject to a number of risks and uncertainties, and it is not uncommon for material changes to be made to the offering terms, or to companies' businesses, plans or prospects, sometimes on short notice. When such changes happen during the course of an offering, we must file an amended to our Form C with the SEC, and investors whose subscriptions have not yet been accepted will have the right to withdraw their subscriptions and get their money back. Investors whose subscriptions have already been accepted, however, will already be our investors and will have no such right.

We face significant market competition

We will compete with larger, established companies who currently have products and services in the market, and/or various respective product development programs. They may have much better financial means and marketing/sales and human resources than us. They may succeed in developing and marketing competing equivalent products earlier than us. There can be no assurance that competitors will render our technology or products obsolete or that the products developed by us will be preferred to any existing or newly developed technologies. It should further be assumed that competition will intensify.

The loss of one or more of our key personnel, or our failure to attract and retain other highly qualified personnel in the future, could harm our business

To be successful, the Company requires capable people to run its day to day operations. As the Company grows, it will need to attract and hire additional employees in sales, marketing, design, development, operations, finance, legal, human resources and other areas. Depending on the economic environment and the Company's performance, we may not be able to locate or attract qualified individuals for such positions when we need them. We may also make hiring mistakes, which can be costly in terms of resources spent in recruiting, hiring and investing in the incorrect individual and in the time delay in locating the right employee fit. If we are unable to attract, hire and retain the right talent or make too many hiring mistakes, it is likely our business will suffer from not having the right employees in the right positions at the right time. This would likely adversely impact the value of your investment.

We rely on third parties to provide services essential to the success of our business

We rely on third parties to provide a variety of essential business functions for us, including manufacturing, shipping, accounting, legal work, public relations, advertising, retailing, and distribution. It is possible that some of these third parties will fail to perform their services or will perform them in an unacceptable manner. It is possible that we will experience delays, defects, errors, or other problems with their work that will materially impact our operations and we may have little or no recourse to recover damages for these losses. A disruption in these key or other suppliers' operations could materially and adversely affect our business. As a result, your investment could be adversely impacted by our reliance on third parties and their performance.

We have a thin capitalization and little equity.

The company has few reserves and a disruption could put the company in position to call for debt financing, delay operations or cease to exist.

We are indemnifying our officers and directors.

The Board of Directors will have no personal liability.

Ownership and Capital Structure; Rights of the Securities

Ownership

The following table sets forth information regarding beneficial ownership of the company's holders of 20% or more of any class of voting securities as of the date of this Offering Statement filing.

Stockholder Name	Number of Securities Owned	Type of Security Owned	Percentage
Doug DiSanti	3,000,000	Common Stock	75%
Rob Kleifgen	1,000,000	Common Stock	25%
Doug DiSanti	50,000	Preferred A Stock	100%

The Company's Securities

The Company has authorized Common Stock and Preferred A Stock. As part of the Regulation Crowdfunding raise, the Company will be offering up to 1,250,000 of its Common Stock.

Common Stock

The amount of stock authorized is 100,000,000 with a total of 4,000,000 outstanding as of August 31, 2020.

Voting Rights

Each share of common stock receives one vote.

Material Rights

Dividends. The holders of Common Stock will not receive any dividend payments at this time.

Liquidation Rights. Upon the voluntary or involuntary liquidation, dissolution, distribution of assets or winding up of the Company, the holder of Common Stock shall be entitled to share equally, on a per share basis, in all assets of the Company of whatever kind available for distribution to the holders of Common Stock.

Preferred A Stock

The amount of stock authorized is 500,000 with a total of 50,000 outstanding as of August 31, 2020.

Voting Rights

Five hundred (500) votes for each Preferred A share (versus one vote for common shares)

Dividends. The holders of Preferred Stock will not receive any dividend payments at this time.

Liquidation Rights. Upon the voluntary or involuntary liquidation, dissolution, distribution of assets or winding up of the Company, the holder of Preferred Stock will not be entitled to share in any assets of the Company of whatever kind available for distribution to the holders of Preferred Stock.

What it means to be a minority holder

As a minority holder of Common Stock of the company, you will have limited rights in regard to the corporate actions of the company, including additional issuances of securities, company repurchases of securities, a sale of the company or its significant assets, or company transactions with related parties. Further, investors in this offering may have rights less than those of other investors and will have limited influence on the corporate actions of the company.

Dilution

Investors should understand the potential for dilution. The investor's stake in a company could be diluted due to the company issuing additional shares. In other words, when the company issues more shares, the percentage of the company that you own will go down, even though the value of the company may go up. You will own a smaller piece of a larger company. This increase in number of shares outstanding could result from a stock offering (such as an initial public offering, another crowdfunding round, a venture capital round, angel investment), employees exercising stock options, or by conversion of certain instruments (e.g. convertible bonds, preferred shares or warrants) into stock.

If the company decides to issue more shares, an investor could experience value dilution, with each share being worth less than before, and control dilution, with the total percentage an investor owns being less than before. There may also be earnings dilution, with a reduction in the amount earned per share (though this typically occurs only if the company offers dividends, and most early stage companies are unlikely to offer dividends, preferring to invest any earnings into the company).

Transferability of securities

For a year, the securities can only be resold:

- In an IPO;
- To the company;
- To an accredited investor; and
- To a member of the family of the purchaser or the equivalent, to a trust controlled by the purchaser, to a trust created for the benefit of a member of the family of the

purchaser or the equivalent, or in connection with the death or divorce of the purchaser or other similar circumstance.

Recent Offerings of Securities

We have made the following issuances of securities within the last three years:

There haven't been any securities offered prior to this offering.

Results of Operations

Circumstances which led to the performance of financial statements:

Year ended December 31, 2019 compared to year ended December 31, 2018

Revenue:

The company hasn't produced any revenue in 2019 or 2018. The company didn't begin operations until the beginning of the 4th quarter of 2019.

Cost of sales:

The company hasn't created any revenue to date.

Gross margins:

The company hasn't created any revenue to date.

Expenses:

The company has had minimal operational expenses since incorporation.

Historical results and cash flows:

The company will begin the commercialization of our unique technology upon the closing of this capital raise. The company plans to produce revenues through sub-licenses and joint venture agreements with companies operating in the mining of oil shale.

Liquidity and Capital Resources

What capital resources are currently available to the Company? (Cash on hand, existing lines of credit, shareholder loans, etc.)

We are currently dependent on additional funding to scale up operations. The funds to be raised are critical to our operation.

How do the funds of this campaign factor into your financial resources? (Are these funds critical to your company operations? Or do you have other funds or capital resources available?)

The funds are critical to the growth of operations and technological development.

Are the funds from this campaign necessary to the viability of the company? (Of the total funds that your company has, how much of that will be made up of funds raised from the crowdfunding campaign?)

The company is currently operational on a very minimal level. The funds to be raised are critical in us being able to offer our technology to operators in the oil shale industry. The capital raised will allow us to stand up our first PulseWave mill.

How long will you be able to operate the company if you raise your minimum? What expenses is this estimate based on?

With the minimum \$5,000 raise, it would not support to the Company in its plan or provide additional runway.

With \$250,000.00, we will be able to expand over the next six months post our raise. The capital will allow us to stand up our first mill.

How long will you be able to operate the company if you raise your maximum funding goal?

The maximum funding goal of \$250,000 will allow our team to streamline our process and expand our client acquisition efforts.

When we raise the full \$250K we will be fully operational for 12 months. We will focus on providing more services to patients, expanding our footprint and market the company's products to a wider range of people.

Are there any additional future sources of capital available to your company? (Required capital contributions, lines of credit, contemplated future capital raises, etc.)

We plan on a future raise after we close our targeted seed round of \$250,000 on IPO Wallet. We will have a follow-on private placement or Regulation A+.

Valuation

Pre-Money Valuation: \$800,000

Valuation Details:

PulseWave Energy \$800K pre-money valuation is calculated based several key factors.

First, we have the exclusive world-wide license for the oil shale space utilizing our transforming technology.

Second, we have several relationships in-place for the oil shale industry which we plan to leverage into sub license agreements and joint ventures.

Lastly, due to the decrease in oil prices over the past year, the need for innovative technology to increase production has never been greater. Utilizing our technology will significantly increase the production for oil shale miners.

The Company set its valuation internally, without a formal-third party independent valuation.

Use of Proceeds

If we raise the Target Maximum Offering Amount of \$250,000.00, we plan to use these proceeds as follows:

Use	Amount (\$)	Percentage (%)
IPO Wallet Fees	\$23,125	9.25%
Mill Deployment	\$116,825	46.73%
Legal & R&D	\$70,100	28.04%
Operating Capital	\$39,950	15.98%
Total	\$250,000	100.00%

This Offering is on a best effort, \$250,000 maximum basis. The minimum of \$5,000 must be sold before we can use any Offering proceeds received. All funds paid to us will be available for immediate use. There can be no assurance that any or all of the Securities offered will be sold.

The figures set forth above are estimates and cannot be precisely calculated. No portion of the proceeds will be paid to officers, directors, and their affiliates.

We feel that the Offering proceeds will be sufficient to fund our immediate plans. We will need additional funds to fully develop our business. We may attempt to get such additional funds through bank financing, additional equity financing or other means. The actual application of funds cannot be precisely determined.

The Company may change the intended use of proceeds if our officers believe it is in the best interests of the company.

Regulatory Information

Disqualification

No disqualifying event has been recorded in respect to the company or its officers or directors.

Compliance Failure

The company has not previously failed to comply with the requirements of Regulation Crowdfunding.

Ongoing Reporting

The Company will file a report electronically with the SEC annually and post the report on its website no later than April 30 (120 days after Fiscal Year End). Once posted, the annual report may be found on the Company's website at pulsewaveenergy.com (A section on pulsewaveenergy.com will be provided for its annual reports.).

The Company must continue to comply with the ongoing reporting requirements until:

- (1) it is required to file reports under Section 13(a) or Section 15(d) of the Exchange Act;
- (2) it has filed at least one (1) annual report pursuant to Regulation Crowdfunding and has fewer than three hundred (300) holders of record and has total assets that do not exceed \$10,000,000;
- (3) it has filed at least three (3) annual reports pursuant to Regulation Crowdfunding;
- (4) it or another party repurchases all of the securities issued in reliance on Section 4(a)(6) of the Securities Act, including any payment in full of debt securities or any complete redemption of redeemable securities; or
- (5) it liquidates or dissolves its business in accordance with state law.

Updates

Updates on the status of this Offering may be found at:
www.ipowallet.com/pulsewaveenergy

Investing Process

See Exhibit D to the Offering Statement of which this Offering Memorandum forms a part.

Letter from Our CEO
Doug DiSanti

Message to our Subscribers

Current and Future Partners,

PulseWave, LLC, was formed in Colorado in January 2003 to implement the research, design, development, manufacture and commercialization of a unique comminution technology. Using experienced scientists, managers, technical and support personnel who reflected long years of qualification in new product development and manufacturing, PulseWave conducted extensive research under grants from the U.S. Department of Energy, the U.S. Department of Agriculture, the Illinois Department of Commerce and Economic Opportunity Office of Coal Development, the Illinois Clean Coal Institute, and others in conjunction with such notable institutions of higher learning as Southern Illinois University (Carbondale), Western Research Institute (Laramie, WY), University of Denver, and others. The research and testing performed by these highly specialized researchers in all relevant fields included international collaborations and project involvements with some of the world's largest corporations.

In that process, over 150 different materials have been tested, processed, and documented using the PulseWave Natural Resonance Disintegration technology. Samples of all materials tested reside in secure company archives, with supporting records and Malvern Laser Particle Analyzer measurement graphs and results in a master computer database. A partial listing of items tested follows this section.

During this time, PulseWave had begun penetrating key markets, as its unique and proprietary NRD technology was made ready for full commercialization.

However, in about 2005, a lawsuit occurred as the result of an internal conflict that arose within the company, followed by another, and then an extended bankruptcy, all of which completely disrupted the company's plans to move forward.

On June 29, 2016, after PulseWave had been embroiled in the bankruptcy for over ten years, Micronizing Technologies, LLC (MTL) acquired all the assets, leases, licensing rights and intellectual property of PulseWave. Shortly thereafter, MTL began gathering all of the PulseWave assets from far and wide to its central Texas location near Dallas, began the process of reinstating its patents, began reassembling some of the original PulseWave team members, and began re-connecting with former clients and other relevant parties. PulseWave Energy was able to secure the master worldwide license earlier this year for the technology which we are excited to commercialize.

Sincerely,
Doug DiSanti
CEO

EXHIBIT B TO FORM C

FINANCIAL STATEMENTS WILL BE INITIALLY OMITTED BASED ON THE SEC TEMPORARY FINAL RULE EASING SOME RESTRICTIONS ON SMALL BUSINESSES DUE TO THE COVID-19 PANDEMIC.

EXHIBIT C TO FORM C

PITCH DECK

(See attached)

PulseWave Energy, Inc.



Nano Particle Micronizing and Separation Technology For use in the Oil Shale Industry



Forward-Looking Statement

Certain statements herein may contain certain forward-looking statements. Forward looking statements include but are not limited to those with respect to the prices of oil and natural gas, the estimation of oil and gas resources and reserves, the realization of oil and gas reserve estimates, the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of new reserves, success of exploration activities, permitting time lines, currency fluctuations, requirements for additional capital, Government regulation of oil and gas operations, environmental risks, unanticipated reclamation expenses, title disputes or claims and limitations on insurance coverage and the timing and possible outcome of pending litigation. In certain cases, forward looking statements can be identified by the use of words such as "plans", "expects", or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes" or variations of such words and phrases, or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. Forward looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward looking statements. Such risks and uncertainties include, among others, the actual results of current exploration activities, conclusions or economic evaluations, changes in project parameters as plans continue to be refined, possible variations in grade and or recovery rates, failure of plant, equipment or processes to operate as anticipated, accidents, labor disputes or other risks of the oil gas industry, delays in obtaining government approvals or financing or incompleteness of development or construction activities, risks relating to the integration of acquisitions, to international operations, and to the prices of oil natural gas. While the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward looking statements. The Company expressly disclaims any intention or obligation to update or revise any forward looking statements, whether as a result of new information, future events or otherwise except as required by law.

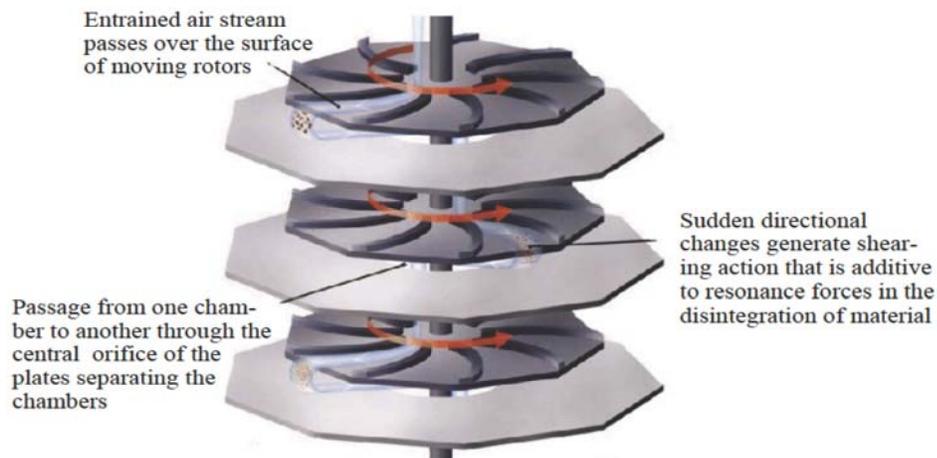


THE NATURAL RESONANCE DISINTEGRATION (NRD) MILL

- Natural Resonance Disintegration Technology generates rapid pulsatile resonance changes, which breaks down organic/inorganic materials by pulling structures apart along natural fracture planes.
- Ability to separate organic material without the use of traditional milling applications preserves trichomes and limits terpenes exposure to air.
- The mill is a continuous flow processor, taking material in at the top of the mill chamber and releasing processed (comminuted) material at the bottom. Passage time for the materials, once flow has begun, is less than one second.
- The NRD mill is very efficient in converting electrical energy into resonance and shearing forces that shatter, or “comminute” a wide variety of materials.
- Cannabis Industry opportunity for drying, medicinal oil extraction, sustainable building materials, comminution by-products, and waste material capitalization.



THE NATURAL RESONANCE DISINTEGRATION (NRD) MILL



- In PulseWave tests utilizing a standard kerogen concentrate and a highly purified concentrate, the oil yield for the two Fischer Assay experiments of the highly purified kerogen concentrate yielded an average of 149.1 gallons of kerogen per ton of oil shale, being a significant increase as compared with either the processed oil shale (at 32.1 gallons per ton) or the initial kerogen concentrate (60.3 gallons per ton)



Research & Development Completed

"There is no machine that is exactly like the Pulse Wave Resonance Disintegration Mill. It is a novel technology and moves oil shale processing beyond the current state of the art."

- U.S. Department of Energy



"The Pulse Wave technology has the ability to reduce a very high percentage of clean endosperm into flour in a single pass and thus potentially uses significantly less energy than a conventional mill. This technology causes grain to break into fractions differently than a conventional mill, and thus produces flour with different, possibly superior, quality traits."

- U.S.D.A.



"Pulse Wave resonance disintegration is a breakthrough technology for the efficient and cost-effective comminution of coal to fine particle sizes. 80% of the pyrite and 50% of the mercury were removed by the Pulse Wave technology process of liberation and separation. Pulse Wave technology also reduces the inherent moisture content of the coals by 60% to greater than 80%, followed by a ~ 10% increase in thermal value, without requiring additional heating of the coal or pulverizing unit."

- Clean Coal Research Study (U.S. Department of Energy; Western Research Institute, Southern Illinois University-research study participants)

"The Pulse Wave mill has the potential to cleanly, and efficiently produce oil from raw shale oil material, providing energy resource requirements for the next 100 years!"

- U.S. Department of Energy

"Liposomes are used in the delivery of pharmaceuticals, cosmetic agents and micronutrients. It is believed that the (Pulse Wave) mill can be used to generate shearing forces sufficient to produce liposomes in high abundance."

- William E. Hahn, Ph.D.

"It is clear that the Pulse Wave mill is energy efficient, environmentally sound, and economically competitive, and the production of mill equipment and its related industries could add significant capital and thousands of jobs to the State's economy."

- Brian Vogt, Director, State of Colorado Office of Economic Development & International Trade



Research projects have been completed with numerous organizations, including:

- Aberdeen (Army R&D) American Ingredients Corp Coors Brewery
- JLM Engineered Resins
- Krispy Kreme
- Rogers Foods
- Shell Oil
- Archer Daniels Midland (ADM) ConAgra
- Farmpure Inc.
- General Mills
- Cargill, Incorporated
- Kraft Foods
- Pfizer Corporation



Research and Grant partners have included:

- U.S. Department of Energy
- U.S. Department of Agriculture
- Southern Illinois University (Carbondale, IL)
- Western Research Institute (Laramie, WY)
- Kansas State University
- Denver University



Oil Shale NRD Mill Applications

Joint research project in cooperation with the U.S. Department of Energy, Southern Illinois University (Carbondale, Illinois) and Western Research Institute (Laramie, Wyoming) was conducted to identify and quantify the benefits of the innovative PulseWave process that allows for the clean removal of the desirable organic material, primarily kerogen, from raw oil shale ore prior to the retorting process. Dr. John Crelling, Professor of Geology and Leader of the Maceral Separation Lab at SIU indicated that nearly 100% of the kerogen was in fact liberated from the matrix by the PulseWave process. Dr. Crelling also found that the PulseWave process produces a “cleaner” component particle than conventional crushing techniques.



Features of the NRD Mill

- Single-step material reduction - One step to reduce 2"-3" material to 100 micron average size in less than 1 second.
- Energy savings - 5-to-6 times less cost per Kw/hr using our non-impact material separation science compared to other milling technologies.
- Micronization of wet or dry materials to nano-sized particles with repeatably consistent output and tight product distribution curve
- Frequency/amplitude of shockwaves are controllable, producing granular, fine and ultra fine material.
- Particles flowing through the machine can be treated with chemicals or processed in an atmosphere of air, liquid nitrogen, CO₂, steam or other media
- Ability to control heat and oxidation. The process can operate in different gaseous atmospheres such as ambient air, nitrogen, carbon dioxide, inert gas, etc.
- Mill has self-cleaning action and various scrubbing agents, detergents, and disinfectants can be passed through in addition to large amounts of water.
- Certain types of material with substantial water content (30% or less) can be directly processed. The mill will volatilize the water and produce dry powder.
- The NRD Mill is easy to use, allowing changes of rpm and changes of rotation to be done via electronic controls.



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EXHIBIT D TO FORM C

SUBSCRIPTION PROCESS

(See attached)

IPO WALLET SUBSCRIPTION PROCESS (Exhibit D)

Platform Compensation

- As compensation for the services provided by IPO Wallet, the issuer is required to pay to IPO Wallet a fee consisting of a 9.25% (nine and a quarter percent) commission based on the dollar amount of securities sold in the Offering and paid upon disbursement of funds from escrow at the time of a closing. The commission is paid in cash and/or in securities of the Issuer identical to those offered to the public in the Offering at the sole discretion of IPO Wallet. Additionally, the issuer must reimburse certain expenses related to the Offering. The securities issued to IPO Wallet, if any, will be of the same class and have the same terms, conditions and rights as the securities being offered and sold by the issuer on IPO Wallets website.

Information Regarding Length of Time of Offering

- **Investment Cancellations:** Investors will have up to 48 hours prior to the end of the offering period to change their minds and cancel their investment commitments for any reason. Once within 48 hours of ending, investors will not be able to cancel for any reason, even if they make a commitment during this period.
- **Material Changes:** Material changes to an offering include but are not limited to: A change in minimum offering amount, change in security price, change in management, material change to financial information, etc. If an issuer makes a material change to the offering terms or other information disclosed, including a change to the offering deadline, investors will be given five business days to reconfirm their investment commitment. If investors do not reconfirm, their investment will be cancelled, and the funds will be returned.

Hitting the Target Goal Early & Oversubscriptions

- IPO Wallet will notify investors by email when the target offering amount has hit 25%, 50% and 100% of the funding goal. If the issuer hits its goal early, and the minimum offering period of 21 days has been met, the issuer can create a new target deadline at least 5 business days out. Investors will be notified of the new target deadline via email and will then have the opportunity to cancel up to 48 hours before new deadline.
- **Oversubscriptions:** We require all issuers to accept oversubscriptions. This may not be possible if: 1) it vaults an issuer into a different category for financial statement requirements (and they do not have the requisite financial statements); or 2) they reach \$1.07M in investments. In the event of an oversubscription, shares will be allocated at the discretion of the issuer.

- If the sum of the investment commitments does not equal or exceed the target offering amount at the offering deadline, no securities will be sold in the offering, investment commitments will be cancelled and committed funds will be returned.
- If a IPO Wallet issuer reaches its target offering amount prior to the deadline, it may conduct an initial closing of the offering early if they provide notice of the new offering deadline at least five business days prior to the new offering deadline (absent a material change that would require an extension of the offering and reconfirmation of the investment commitment). IPO Wallet will notify investors when the issuer meets its target offering amount. Thereafter, the issuer may conduct additional closings until the offering deadline.

Minimum and Maximum Investment Amounts

- In order to invest, to commit to an investment or to communicate on our platform, users must open an account on IPO Wallet and provide certain personal and non-personal information including information related to income, net worth, and other investments.
- Investor Limitations: Investors are limited in how much they can invest on all crowdfunding offerings during any 12-month period. The limitation on how much they can invest depends on their net worth (excluding the value of their primary residence) and annual income. If either their annual income or net worth is less than \$107,000, then during any 12-month period, they can invest up to the greater of either \$2,200 or 5% of the lesser of their annual income or net worth. If both their annual income and net worth are equal to or more than \$107,000, then during any 12-month period, they can invest up to 10% of annual income or net worth, whichever is less, but their investments cannot exceed \$107,000.

EXHIBIT E TO FORM C

ADDITIONAL CORPORATE DOCUMENTS

(See attached)

PulseWave Energy, Inc.
BYLAWS
(the "Corporation")

STOCKHOLDERS

Annual Meeting

1. A meeting of the Stockholders of the Corporation (the "Stockholders") will be held annually for the purpose of electing directors (the "Directors") of the Corporation and for the purpose of doing other business as may come before the meeting. If the day fixed for the annual meeting is a legal holiday in the State of Wyoming, the annual meeting will be held on the next succeeding business day or on a date determined by the board of directors for the Corporation (the "Board") that is no later than two weeks after the date specified in the meeting notice.

The Corporation must hold its annual meeting within:

- a. 30 days after the date designated for the annual meeting or, if no date was designated;
- b. 13 months after its last annual meeting or organization.

If the annual meeting is not held within that time period, then any shareholder or director may apply to the Court to fix the time and place of the meeting.

Special Meetings

2. Unless otherwise prescribed by statute, special meetings of the Stockholders, for any purpose or purposes, may only be called in the following ways:
 - a. By a majority of the Board; or
 - b. By the president of the Corporation (the "President"); or
 - c. By the holders of stock entitled to cast in total not less than 10 percent of the votes on any issue proposed for the meeting where written requests describing the purpose or purposes for the special meeting are signed, dated and delivered to a member of the Board or other Officer of the Corporation.

The Board will determine the time, place and date of any special meeting provided that, in the case of a special meeting called by the requisite percentage of Stockholders in accordance with these Bylaws, the Board will issue notice of the

special meeting within 30 days of receipt of the written demand(s) by the relevant Officer of the Corporation.

Place of Meeting

3. The annual meetings or special meetings of the Stockholders may be held at any place in or out of the State of Wyoming at a place to be determined at the discretion of the Board. If no designation of the location is made for any annual or special meeting of the Stockholders, the place of the meeting will be the Registered Office of the Corporation in Wyoming. The Corporation must hold its annual meeting within the earlier of a) six months after the end of the Corporation's fiscal year or; b) fifteen months after its last annual meeting. If an annual meeting is not held within that time period, a Stockholder may direct a request in writing to the Chairman of the Board of the Corporation to hold the annual meeting. If a notice of meeting is not given within 60 days of that request, then any Stockholder entitled to vote at an annual meeting may apply to any court having jurisdiction for an order directing that the meeting be held and fixing the time and place of the meeting.

Notice of Meetings

4. The written notice of any meeting will be given not less than 10 days, but not more than 60 days before the date of the meeting to each Stockholder entitled to vote at that meeting. The written notice of the meeting will state the place, date and hour of the meeting, the means of remote communications, if any, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

If mailed, notice is given when the notice is deposited in the United States mail, postage prepaid, and directed to the Stockholder at the address of the Stockholder as it appears on the records of the Corporation. An affidavit of the secretary (the "Secretary") of the Corporation that the notice has been given will, in the absence of fraud, be prima facie evidence of the facts stated in the notice.

A written waiver, signed by the person entitled to a notice of meeting, or a waiver by electronic transmission by the person entitled to that notice, whether before or after the time stated in the notice, will be deemed equivalent to the person receiving the notice. Further, attendance of a person at a meeting will constitute a waiver of notice of that meeting, except when the person attends a meeting for the

express purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened.

Consent of Stockholders in Lieu of Meeting

5. Any action to be taken at any annual or special meeting of Stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action to be taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take the action at a meeting at which all stock entitled to vote on the matter were present and voted is delivered to the Corporation. Every written consent will bear the date of signature of each Stockholder who signs the consent. However, no written consent will be effective unless the consent is delivered, either by hand or by certified or registered mail, within 90 days of the earliest dated consent, to the Registered Office of the Corporation in this State, its Principal Place of Business or an Officer or agent of the Corporation having custody of the book in which proceedings of meetings of Stockholders are recorded.

Remote Communication Meetings

6. Remote communication means any electronic communication including conference telephone, video conference, the Internet, or any other method currently available or developed in the future by which Stockholders not present in the same physical location may simultaneously communicate with each other.

Where permitted under the statutes and regulations of the State of Wyoming, and in the sole and reasonable discretion of the Board of Directors, a meeting of Stockholders of the Corporation may be held at a specific location or may be held by any means of remote communication. Where a meeting will employ remote communication, one or more Stockholders may participate by means of remote communication or the meeting may be held solely by means of remote communication at the sole discretion of the Board of Directors. Where any remote communication is used in a Stockholder meeting, all persons authorized to vote or take other action at the meeting must be able to hear each other during the meeting and each person will have a reasonable opportunity to participate. This remote participation in a meeting will constitute presence in person at the meeting. All votes

or other actions taken at the meeting by means of electronic transmission must be maintained as a matter of record by the Corporation.

List of Stockholders Entitled to Vote

The Officer who has charge of the Stock Ledger of the Corporation will prepare and make, 30 to 60 days before every meeting of the Stockholders, a complete list of the Stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares of stock registered in the name of each Stockholder. The list must be available for inspection by any Stockholder beginning ten days prior to the meeting and continuing through the meeting. The list must be provided for any purpose related to the meeting:

- a. On a reasonably accessible electronic network, so long as the information required to access the list is provided with the notice of the meeting; or
- b. During ordinary business hours, at the Principal Place of Business of the Corporation.

If the Corporation decides to make the list available on an electronic network, the Corporation will ensure that this information is available only to Stockholders of the Corporation. If the meeting is to be held at a physical location, then the list will be produced and kept at the time and place of the meeting during the whole time of the meeting and may be inspected by any Stockholder who is present.

If the meeting is to be held solely by means of remote communication, then the list will also be open to the examination of any Stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access the list will be provided with the notice of the meeting.

If any Director willfully neglects or refuses to produce the list of Stockholders at any meeting for the election of Directors, or to open such a list to examination on a reasonably accessible electronic network during any meeting for the election of Directors held solely by means of remote communication, those Directors will be ineligible for election to any office at that meeting.

The Stock Ledger will be the only evidence as to who are the Stockholders

entitled by this section to examine the list required by this section or to vote in person or by proxy at any meeting of Stockholders.

Quorum and Required Vote

7. A minimum of 51 percent of the stock entitled to vote, present in person or represented by proxy, will constitute a quorum entitled to take action at a meeting of Stockholders.

In all matters other than the election of Directors, any act of the Stockholders must be passed by an affirmative vote of the majority of the stock present in person or represented by proxy at the meeting and entitled to vote on the matter.

Directors will be elected by a majority of the votes of the stock present in person or represented by proxy at the meeting and entitled to vote on the election of Directors.

Where a separate vote by a class or series or classes or series of stock ("Eligible Stock") is required, 51 percent of the outstanding Eligible Stock present in person or represented by proxy, will constitute a quorum entitled to take action with respect to that vote on that matter. Any act to be taken must be passed by an affirmative vote of the majority of the outstanding Eligible Stock present in person or represented by proxy.

Stockholders Voting Rights and Proxies

8. Subject to the Certificate of Incorporation, each Stockholder will be entitled to one vote for each share of stock held by that Stockholder.

Each Stockholder entitled to vote at a meeting of Stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for that Stockholder by proxy, but no proxy will be valid after 3 years from the date of its execution unless the proxy provides for a longer period.

Execution of a proxy may be accomplished by the Stockholder or by the authorized Officer, Director, employee or agent of the Stockholder, signing the writing or causing that person's signature to be affixed to the writing by any reasonable means

including, but not limited to, by facsimile signature.

A duly executed proxy will be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A proxy may be made irrevocable regardless of whether the interest with which it is coupled is an interest in the stock or an interest in the Corporation generally.

Voting Rights of Fiduciaries, Pledgers and Joint Owners of Stock

9. Persons holding stock in a fiduciary capacity will be entitled to vote the stock so held. Persons whose stock is pledged will be entitled to vote, unless, in the transfer by the pledger on the books of the Corporation, that person has expressly empowered the pledgee to vote the stock, in which case only the pledgee, or that pledgee's proxy, may represent and vote the stock.

Voting Trusts and Other Voting Agreements

10. Two or more Stockholders may, by agreement in writing, create a voting trust by depositing their stock with a voting trustee, who will have the authority to vote the stock in accordance with the terms and conditions of the voting trust agreement. To be valid, the voting trustee must deliver copies of the list of Stockholders and the voting trust agreement to the Registered Office of the Corporation in this state. Upon receiving the voting trust agreement, the Corporation will issue new stock certificates in the name of the trustee and cancel the old stock certificates. The new stock certificates issued will state that they are issued pursuant to a voting trust agreement.

Any amendment to a voting trust agreement will be made by a written agreement, a copy of which will be filed with the Registered Office of the Corporation in this state.

The right of inspection of any voting trust agreement or related amendment by a Stockholder of record or a holder of a voting trust certificate, in person or by agent, will be the same right of inspection that applies to the securities register of the Corporation.

An agreement between two or more Stockholders, if in writing and signed by the

parties to the agreement, may provide that in exercising any voting rights, the stock held by them will be voted as provided by the agreement, or as the parties may agree, or as determined in accordance with a procedure agreed upon by them.

The above provisions concerning voting trusts and voting agreements will not be deemed to invalidate any voting or other agreement among Stockholders or any irrevocable proxy which is not otherwise illegal.

Cumulative Voting

11. Stockholders may use cumulative voting elections when electing Directors.

BOARD OF DIRECTORS

General Powers

12. The business and affairs of the Corporation will be managed by or under the direction of the Board.

Number, Tenure and Quorum

13. The Board will consist of five members, each of whom will be a natural person. Directors need not be Stockholders. Each Director will hold office until that Director's successor is elected and qualified or until that Director's earlier resignation or removal. Any Director may resign at any time upon notice given in writing or by electronic transmission to the Corporation. In order to transact business at a meeting of the Directors, a quorum of 51 percent of the total number of Directors eligible to vote will be required. The vote of the majority of the Directors present at a meeting at which a quorum is present will be the act of the Board.

Regular Meetings

14. By resolution, the Board may provide the time and place, either within or without the State of Wyoming, for the holding of regular meetings without any notice other than that resolution.

Special Meetings

15. Special meetings of the Board may be called by or at the request of the President or by a majority of the Directors. The person or persons calling that special meeting of the Board may fix any date, time or place, either within or without the State of

Wyoming, to be the date, time and place for holding that special meeting.

Notice

16. Written notice of the date, time, and place of a special meeting of the Board will be given at least 3 days prior to the date set for that meeting. The written notice can be given personally, by mail, by private carrier, by telegraph, by telephone facsimile, or by any other manner as permitted by the General Corporation Laws of Wyoming. The notice will be given by the Secretary or one of the persons authorized to call Directors' meetings.

If written notice is mailed, correctly addressed to a Director's address as provided in the Corporation's current records, the notice will be deemed to have been given to that Director at the time of mailing. If written notice is sent by private carrier or if the written notice is sent by United States mail, postage prepaid and by registered or certified mail, return receipt requested, the notice will be deemed to have been given to a Director on the date shown on the return receipt. Otherwise notice is effective when received by a Director.

Notice of any Directors' meeting may be waived by a Director before or after the date and time of the meeting. The waiver must be in writing, must be signed by a Director, and must be delivered to the Corporation for inclusion in the minutes or filing with the corporate records. The attendance of a Director at a meeting of the Board will constitute a waiver of notice of that meeting except where a Director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully convened.

Action by Directors Without a Meeting

17. Any action to be taken at any meeting of the Board or of any committee of the Board may be taken without a meeting if all members of the Board or committee, as the case may be, consent to it in writing, or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board, or committee. This filing will be in paper form if the minutes are maintained in paper form and will be in electronic form if the minutes are maintained in electronic form.

Remote Communication Meetings

18. Remote communication means any electronic communication including conference telephone, video conference, the Internet, or any other method currently available or developed in the future by which Directors not present in the same physical location may simultaneously communicate with each other.

A meeting of the Board may be held by any means of remote communication by which all persons authorized to vote or take other action at the meeting can hear each other during the meeting and each person has a reasonable opportunity to participate. This remote participation in a meeting will constitute presence in person at the meeting.

Vacancies and Newly Created Directorships

When vacancies or newly created directorships resulting from any increase in the authorized number of Directors occur, a majority of the Directors then in office, although less than a quorum, or a sole remaining Director will have the power to appoint new Directors to fill this vacancy or vacancies. Each new Director so chosen will hold office until the next annual meeting of the Stockholders.

If at any time, by reason of death or resignation or other cause, the Corporation should have no Directors in office, then any Officer or any Stockholder or an executor, administrator, trustee or guardian of a Stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a Stockholder, may call a special meeting of Stockholders for an election to fill the vacancy.

When one or more Directors resign from the Board and the resignation is to become effective at a future date, a majority of the Directors then in office, including those who have so resigned, will have the power to appoint new Directors to fill this vacancy or vacancies. The appointments of these new Directors will take effect when the resignation or resignations are to become effective, and each new Director so chosen will hold office until the next annual meeting of the Stockholders.

Removal

19. Any Director or the entire Board may be removed, with or without cause, by the holders of a majority of the stock then entitled to vote at an election of Directors at a special meeting of the Stockholders called for that purpose. No director may be removed when the votes cast against removal would be sufficient to elect the

director if voted cumulatively at an election where the same total number of votes were cast.

Organization

20. Meetings of the Board will be presided over by the President, or in the President's absence by a Director chosen at the meeting. The Secretary will act as secretary of the meeting, but in the absence of the Secretary, the person presiding at the meeting may appoint any person to act as secretary of the meeting.

Chairman of the Board

21. The Chairman of the Board, if present, will preside at all meetings of the Board, and exercise and perform any other authorities and duties as may be from time to time delegated by the Board.

Compensation

22. The Board will, by resolution, fix the fees and other compensation for the Directors for their services as Directors, including their services as members of committees of the Board. All changes to Director compensation are subject to ratification by the Stockholders.

Presumption of Assent

23. A Director of the Corporation who is present at a meeting of the Board will be presumed to have assented to an action taken on any corporate matter at the meeting unless:
 - a. The Director objects at the beginning of the meeting, or promptly upon the Director's arrival, to holding the meeting or transacting business at the meeting;
 - b. The Director's dissent or abstention from the action taken is entered in the minutes of the meeting; or
 - c. The Director delivers written notice of the Director's dissent or abstention to the presiding officer of the meeting before the adjournment of the meeting or to the Corporation within a reasonable time after adjournment of the meeting.

Any right to dissent or abstain from the action will not apply to a Director who voted in favor of that action.

COMMITTEES

Appointment

24. The Board may designate one or more committees, each committee to consist of one or more of the Directors of the Corporation. The Board may designate one or more Directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee.

In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not that member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any absent or disqualified member.

The committee or committees, to the extent provided in the resolution of the Board will have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it. No such committee will have the power or authority in reference to the following matters:

- a. Approving or adopting, or recommending to the Stockholders, any action or matter (other than the election or removal of Directors) expressly required by the General Corporation Laws of Wyoming to be submitted to Stockholders for approval; or
- b. Adopting, amending or repealing any Bylaw of the Corporation.

Tenure

25. Each member of a committee will serve at the pleasure of the Board.

Meetings and Notice

26. The method by which Directors' meetings may be called and the notice requirements for these meetings as set out in these Bylaws will apply to any committee designated by the Board as appropriate.

Quorum

27. The requirements for a quorum for the Board as set out in these Bylaws will apply to any committee designated by the Board as appropriate.

Action Without a Meeting

28. The requirements and procedures for actions without a meeting for the Board as set out in these Bylaws will apply to any committee designated by the Board as appropriate.

Resignation and Removal

29. Any member of a committee may be removed at any time, with or without cause, by a resolution adopted by a majority of the full Board. Any member of a committee may resign from the committee at any time by giving written notice to the Chairman of the Board of the Corporation, and unless otherwise specified in the notice, the acceptance of this resignation will not be necessary to make it effective.

Vacancies

30. Any vacancy in a committee may be filled by a resolution adopted by a majority of the full Board.

Committee Rules of Procedure

31. A committee will elect a presiding officer from its members and may fix its own rules of procedure provided they are not inconsistent with these Bylaws. A committee will keep regular minutes of its proceedings and report those minutes to the Board at the first subsequent meeting of the Board.

OFFICERS

Appointment of Officers

32. The Officers of the Corporation (individually the "Officer" and collectively the "Officers") will consist of the President, a treasurer (the "Treasurer") and the Secretary.

The Officers will be appointed by the Board at the first meeting of the Directors or as soon after the first meeting of the Directors as possible, if Officers have not already been appointed. Any appointee may hold one or more offices.

Term of Office

33. Each Officer will hold office until a successor is duly appointed and qualified or until the Officer's death or until the Officer resigns or is removed as provided in these Bylaws.

Removal

34. Any Officer or agent appointed by the Board or by the Incorporators may be removed by the Board at any time with or without cause, provided, however, any contractual rights of that person, if any, will not be prejudiced by the removal.

Vacancies

35. The Board may fill a vacancy in any office because of death, resignation, removal, disqualification, or otherwise.

President

36. Subject to the control and supervisory powers of the Board and its delegate, the powers and duties of the President will be:
- a. To have the general management and supervision, direction and control of the business and affairs of the Corporation;
 - b. To preside at all meetings of the Stockholders when the Chairman of the Board is absent;
 - c. To call meetings of the Stockholders to be held at such times and at such places as the President will deem proper within the limitations prescribed by law or by these Bylaws;
 - d. To ensure that all orders and resolutions of the Board are effectively carried out;
 - e. To maintain records of and certify, whenever necessary, all proceedings of the Board and the Stockholders;
 - f. To put the signature of the Corporation to all deeds, conveyances, mortgages, guarantees, leases, obligations, bonds, certificates and other papers and instruments in writing which have been authorized by the Board or which, in the opinion of the President, should be executed on behalf of the Corporation; to sign certificates for the Corporation's stock; and, subject to the instructions of the Board, to have general charge of the property of the Corporation and to supervise and manage all Officers, agents and employees of the Corporation;

and

- g. To perform all other duties and carry out other responsibilities as determined by the Board.

Treasurer

- 37. Subject to the control and supervisory powers of the Board and its delegate, the powers and duties of the Treasurer will be:
 - a. To keep accurate financial records for the Corporation;
 - b. To deposit all money, drafts and checks in the name of and to the credit of the Corporation in the banks and depositories designated by the Board;
 - c. To endorse for deposit all notes, checks, drafts received by the Corporation as instructed by the Board, making proper vouchers for them;
 - d. To disburse corporate funds and issue checks and drafts in the name of the Corporation, as instructed by the Board;
 - e. To submit to the President and the Board, as requested, an account of all transactions by the Treasurer and the financial condition of the Corporation;
 - f. To prepare and submit to the Board annual reports detailing the financial status of the Corporation; and
 - g. To perform all other duties and carry out other responsibilities as prescribed by the Board or the President.

Secretary

- 38. The Secretary will perform the following duties:
 - a. Prepare the minutes of the meetings of the Stockholders and meetings of the Board and keep those minutes in one or more books provided for that purpose;
 - b. Authenticate the records of the Corporation as will from time to time be required;
 - c. Ensure that all notices are duly given in accordance with the provisions of these Bylaws or as required by law;
 - d. Act as custodian of the corporate records and of the corporate seal, if any, and ensure that the seal of the Corporation, if any, is affixed to all documents the

execution of which on behalf of the Corporation under its seal is duly authorized;

- e. Keep a register of the post office address of each Stockholder;
- f. Sign, along with the President, certificates for stock of the Corporation, the issuance of which will have been authorized by resolution of the Board;
- g. Have general charge of the Stock Ledger of the Corporation; and
- h. Perform all duties incidental to the office of Secretary and any other duties as from time to time may be delegated to the Secretary by the President or the Board.

Delegation of Authority

- 39. The Board reserves the authority to delegate the powers of any Officer to any other Officer or agent, notwithstanding any provision in these Bylaws.

LOANS, CHECKS, DEPOSITS, CONTRACTS

Loans

- 40. Without authorization by a resolution of the Board, the Corporation is prohibited from making or accepting loans in its name or issuing evidences of indebtedness in its name. The authorization of the Board for the Corporation to perform these acts can be general or specific.

Checks, Drafts, Notes

- 41. All checks, drafts, or other orders for the payment of money, notes, or other evidences of indebtedness issued in the name of the Corporation must be signed by a designated Officer or Officers, agent or agents of the Corporation and in a manner as will from time to time be determined by resolution of the Board.

Deposits

- 42. All funds of the Corporation not otherwise used will be deposited to the credit of the Corporation in banks, trust companies, or other depositories designated by the Board.

Voting Securities Held by the Corporation

The President, or another Officer or agent designated by the Board will, with full power and authority attend, act, and vote, on behalf of the Corporation, at any meeting of security holders or interest holders of other corporations or entities in which the Corporation may hold securities or interests. At that meeting, the President or other

delegated agent will have and execute any and all rights and powers incidental to the ownership of the securities or interests that the Corporation holds.

Contracts

43. The Board may give authority to any Officer or agent, to make any contract or execute and deliver any instrument in the name of the Corporation and on its behalf, and that authority may be general or specific.

Conflict of Interest by Directors

44. A Director or Officer of the Corporation will be disqualified from voting as a Director or Officer on a specific matter where that Director or Officer deals or contracts with the Corporation either as a vendor or purchaser.

A Director or Officer of the Corporation will not be disqualified as a Director or Officer for the sole reason that the Director or Officer deals or contracts with the Corporation either as a vendor, purchaser, or otherwise.

Loans to Employees and Officers

45. The Corporation may lend money to, or guaranty any obligation of, or otherwise assist, any Officer or employee of the Corporation or of its subsidiary, including any Officer or employee who is a Director of the Corporation or any subsidiary of the Corporation, whenever, in the opinion of the Directors, the loan, guaranty or assistance may reasonably be expected to benefit the Corporation. The loan, guaranty or other assistance may be with or without interest, and may be unsecured, or secured in such manner as the Board will approve, including, without limitation, a pledge of stock of the Corporation. Nothing contained in this section is to be construed so as to deny, limit or restrict the powers of guaranty or warranty of the Corporation at common law or under any applicable statute.

APPENDIX GLOSSARY

- **Bylaws** - the purpose of these bylaws (the "Bylaws") is to provide rules governing the internal management of the Corporation.
- **Chairman of the Board** - Once a Board of Directors has been appointed or elected by the Stockholders, the Board will then elect a chairman (the "Chairman of the Board"). The Chairman of the Board will act to moderate all meetings of the Board of Directors and any other duties and obligations as described in these Bylaws.
- **Corporate Officer** - A corporate officer (individually the "Officer" and collectively the "Officers") is any individual acting for or on behalf of the Corporation. An Officer of the Corporation will usually be appointed to a specific task such as secretary, president, treasurer or other similar position. One person may hold several offices. The Officers will manage the day-to-day operations of the Corporation and report to the Board of Directors.
- **Principal Executive Office** - The Principal Executive Office for the Corporation is where the President of the Corporation has an office.
- **Principal Office** - The Principal Office of the Corporation is the address designated in the annual report where the executive offices of the Corporation are located.
- **Principal Place of Business** - The Principal Place of Business is the address at which the Corporation conducts its primary business.
- **Registered Office** - The Registered Office is the physical street address within the state where the registered agent can be contacted during normal business hours for service of process.
- **Stock Ledger** - A Stock Ledger is the complete record of the owners of shares of stock in the Corporation.