Applied Minerals, Inc.
Form 10-K
March 18, 2013

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIESEXCHANGE ACT OF 1934

For the year ended December 31, 2012

Commission file number: 000-31380

APPLIED MINERALS, INC.
(Exact name of registrant as specified in its charter)

Delaware	82-0096527
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
110 Greene Street – Suite 1101, New York, NY	10012
(Address of principal executive offices)	(Zip Code)

(800) 356-6463
Issuer's telephone number, including area code

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
YESo NOx

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act:
YESo NOx

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
YESx NOo

Indicate by check mark whether the registrant submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
YESx NOo

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulations S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.
o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller-reporting company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer o Accelerated Filer x Non-accelerated Filer o Smaller Reporting Company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
YES o NOx

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant on June 30, 2012, based on the last sales price on the OTC Bulletin Board on that date, was approximately $73,334,851.

The number of outstanding shares of the registrant's common stock as of March 13, 2013 was 94,400,247 shares.

APPLIED MINERALS, INC.

YEAR 2012 ANNUAL REPORT ON FORM 10-K
TABLE OF CONTENTS

NOTE REGARDING FORWARD LOOKING STATEMENTS

Forward-looking statements in this report, including without limitation, statements relating to our plans, strategies, objectives, expectations, intentions, and adequacy of resources, are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The words "may," "expect," "believe," "anticipate," "estimate," "plan" and similar expressions are intended to identify forward-looking statements. These statements are no guarantee of future performance and involve certain risks, assumptions, and uncertainties that are difficult to predict. Therefore, actual outcome and results may differ materially from what is expressed or forecasted in such forward-looking statements.

We make forward-looking statements of our expectations which include but are not limited to the following examples:

- statements regarding the plans and possibilities for testing and commercialization of our products ;
- statements regarding sales and marketing and market penetration of our products;
- statements regarding the changes in demand for products and regulation of products;

There may be other factors not mentioned above or included in our SEC filings that may cause our actual results to differ materially from those in any forward-looking statement. You should not place undue reliance on these forward-looking statements. We assume no obligation to update any forward-looking statements as a result of new information, future events or developments, except as required by federal securities laws.

PART I

ITEM 1. BUSINESS

Applied Minerals, Inc. (the “Company”) is a leading global producer of halloysite clay. We are focused primarily on developing technologies based on our halloysite clay that significantly enhance the performance of products across a number of industries. The Company is the owner of the Dragon Mine, the only known measured resource of halloysite clay in the western hemisphere large scale enough for commercial scale production. The property’s halloysite resource is located both underground and in above-ground tailing piles. The Dragon Mine also contains an iron ore resource, which, in addition to our halloysite clay resource, is in the process of being commercializing. The Company’s products are marketed under the Dragonite™ name.

Halloysite is a non-toxic aluminosilicate clay exhibiting a rare, naturally occurring hollow tubular structure with a length in the range of 0.5 - 3.0 microns, an exterior diameter in the range of 50 - 70 nanometers and an internal diameter (lumen) in the range of 15 - 30 nanometers. We believe halloysite’s unique chemical and morphological properties significantly improve the performance of a wide array of commercial applications, such as polymer composites flame retardant fillers, controlled-release carriers, paints and coatings, agriculture formulations, and cosmetics, and also reduce the cost of manufacturing certain polymer composites.

We have sampled our Dragonite products to over 300 companies, operating in a range of industries. A number of these companies have commercialized products utilizing our Dragonite additive and intend to expand their use of it. A large number of companies are performing early stage product development work, some are conducting a range

of pilot trials, and a number of others are in the latter stages of the product commercialization process utilizing Dragonite.

The Dragon Mine is located on approximately 230 acres in the Tintic District of Utah. Applied Minerals retained the world's leading geological experts in halloysite clay to assist us in the characterization and the quantification of the resource, and commercialization of this unique mineral. As a result of these efforts, the Company is able to deliver commercially consistent product grades of some of the highest quality halloysite in the world.

Applied Minerals is a publicly traded company incorporated in the state of Delaware. The common stock trades on the OTC Bulletin Board under the symbol AMNL.

We were originally formed in 1924 for the purpose of exploring and developing the Atlas Mine, a silver property located in the Coeur d'Alene Mining District near Mullan, Idaho. The resource was mined periodically until 1980 when the Company suspended operations as a result of a decline in silver prices. In September 1997, the Company entered the contract mining business, which was its sole source of revenue until the contract mining business was discontinued in December 2008 due to adverse economic changes in the mining industry. Operations at the Atlas Mine have not been resumed and the Company is currently exploring ways to monetize the property.

Since January 1, 2009 our operations have been focused solely on the exploration and commercialization of the Dragon Mine property. In 2001 we entered a lease/purchase agreement for the mine and in 2005 acquired a 100% ownership interest in the property for $500,000 in cash. The Company has never had any underlying royalty agreements with any third-party with respect to the Dragon Mine. Mining and product development activity at the property was minimal through January 2009 as the Company dealt with a lack of operating capital, management turnover, an inadequate resource survey, the need to restate certain of its financial statements, and the resolution of an SEC investigation and a securities law class action.

Between January 2008 and December 2008 the Company appointed a new board and hired its current management team to both resolve a number of the above-mentioned legacy issues and develop and implement an effective strategy to commercialize the Dragon Mine property. The strategies implemented by Company's former management team were deemed ineffective.

DRAGONITE PRODUCTS

There are three types of clay that can be extracted from the Dragon Mine, halloysite, kaolinite, and illite-smectite. Halloysite is a high performance clay while kaolinite and illite-smectite are lower performance clays, which the Company will use in products not requiring high concentrations of halloysite. The concentrations of the minerals vary at the Dragon Mine, with some areas containing relatively high concentrations of halloysite. The Dragon Mine also contains an iron our resource from which the Company has developed a product.

Halloysite-based products include:

- Dragonite–XR: An advanced reinforcing filler formulated for polymers used at loadings of 20%-50% by weight and offering improved modulus, yield strength and HDT. This product grade offers advantages compared to other reinforcing fillers for polymers such as glass fiber, mica, wollastonite or talc. These include rentention of impact resistance, elongation to break, control over CTE and warpage, and lack of abrasiveness. Flame retardance up to V0 level is also possible when Dragonite-XR is used alone or as a synergist.

- Dragonite–HP: A high performance additive for engineered thermoplastics, used at loadings of just 1-3 weight %, offering improvements in mechanical performance and cycle time reduction. This product grade offers a drop-in solution for polymer applications needing mechanical improvements without the density penalty associated with traditional fillers. By using Dragonite-HP, customers can reduce their overall manufacturing and materials costs through cycle time improvements and thinwalling.

- Dragonite–Pure White: Highest purity Dragonite product - meeting the strict specifications of the cosmetics industry.

Iron-based product:

Dragonite–IO: High-grade iron oxide product line from the Dragon Mine. Products include Goethite and Hematite grades for use in pigments and technical applications such as smoke suppression and remediation of arsenic and metal contamination.

STRATEGY

Our primary mission is to develop the highest value uses for our unique halloysite resource by delivering eco-friendly solutions to industries looking to enhance the functionality of their products and/or reduce their manufacturing costs. We are focusing our development activities on applications where we believe our Dragonite product is, or has the potential to be, the best available solution based on performance and pricing.. We are exploring, among other things, the formation of joint ventures with companies that would benefit strategically from an exclusive license to our product offering for a specific application and be able to contribute resources to ongoing new product development. A joint venture, if we choose to enter into one, could be structured in a number of ways.

APPLICATION MARKETS

The following is a description of the application markets on which we’re focusing our product development and marketing efforts:

Flame Retardant Additives for Plastics

Flame retardant (“FR”) additives are found in products such as furniture, home appliances, office building materials, automotive components, electronic parts, and textiles. The use of fire retardants has been shown to saves lives and, in

many instances, is mandated by government regulation. The current flame retardant additives market is approximately $5.4 billion (1.96 million mt). According to World Flame Retardants, a publication of Fredonia Group, global demand for flame retardant additives is expected to grow 5.4% annually, reaching 2.6 million mt by 2016.

The growth in flame retardant demand is being driven by a trend toward more stringent safety and flammability standards. In spite of this increasing demand, widely used brominated flame retardants have come under increasing regulatory scrutiny due to the presence of the chemical decabromodiphenyl ether (deca-BDE) and its associated health risks. In response to these health concerns and the desire to maintain an eco-friendly image, product manufacturers have been phasing out the use of brominated flame retardants and replacing them with mineral-based alternatives, which are expected to realize above-average demand as they replace brominated products.

Mineral-based flame retardants, such as Alumina Trihydrate (ATH), phosphorus-based additives and Magnesium Hydroxide (MDH), represent approximately 65% of the total volume of flame retardant additives consumed. The required loading level of these additives needed to achieve acceptable flame retardancy in a polymer is very high (as high as 70% for ATH and MDH in some instances), which can meaningfully impair the mechanical performance of the polymer. As a result, the use of these additives is limited to certain polymers and applications.

The limitations of ATH, phosphorus-based additives and MDH present a significant opportunity for our Dragonit-XR additive for the following reasons:

- Dragonite can be used as a complete replacement for MDH, ATH or phosphorous-based additives in specific applications requiring a combination of flame retardancy and mechanical strength.
    - Dragonite is also an effective synergist, meaning it can be used in conjunction with traditional flame retardants as a partial replacement to enhance the overall flame retardancy and mechanical performance of a final product.

- Dragonite reduces the overall amount of additive needed to achieve flame retardancy with no effect on the cost to the manufacturer.
    - Dragonite is one of the only mineral-based flame retardant materials that can be used in transparent and engineering polymers, an area where the need is great.

- Dragonite has superior reinforcement to any other FR additive on the market, which makes it ideal for high performance plastics requiring high strength.

Our R&D activity in the FR space has also resulted in the realization that halloysite acts as an effective synergist for halogenated flame retardant systems. While certain halogenated additives are being phased out, they are still being used in large volumes. Antimony trioxide (“ATO”) is a widely used synergist. The price of ATO has risen approximately five-fold during the last decade and, given this significant increase in cost, users of halogenated flame retardants are looking for an effective replacement for ATO.

- ATO is a necessary synergist for halogenated flame retardants.
    - China controls approximately 90% of the 140,000 tpa global production of ATO used for flame retardant plastics.

- Pricing of ATO has risen approximately 100% over the last 3 years to $11,000.00/mt today.

We have determined that Dragonite can replace 50% - 75% of ATO in a plastic while retaining the required Flame Retardancy Rating. We believe the cost differential between Dragonite and ATO would induce a manufacture to replace a portion of its ATO with Dragonite. The global market for ATO is approximately 140,000 mt. We were invited to present our findings at two major FR industry conferences this year. This exposure resulted in significant interest from both end users as well as potential strategic partners. Many samples were sent for immediate evaluation by interested parties. Our findings have been validated by two major users of ATO, have led to expanded commercial development activity, and, we believe, will result in the commercialization of a product utilizing Dragonite sometime in 2013. We have been approved as a supplier by the two companies that have validated our product as an ATO replacement.

A modest 2% penetration of the global FR additives market, which, if successful, would correlate to approximately 40,000 mt of annual demand for Dragonite products. The Company's product grades for this application range from $3000 to $5500 per ton, which competes very favorably from a cost performance standpoint.

Cycle Time Reduction of Molded Plastic Parts

Injection molding is the process used to make most of the plastic parts we use every day. It is a huge industry where the drivers are reduced cost, improved quality, and a reduction in weight. Dragonite is able to address all three of these market needs. As an example, Dragonite can nucleate crystallization of polyethylene, the world’s largest volume plastic. By nucleating crystallization, a plastic part solidifies faster when cooled in the mold, resulting in an increase in the number of parts that can be produced per hour. This decrease in the manufacturing cycle time translates into a significant cost reduction for a manufacturer.

In addition to a decrease in manufacturing costs, loading a composite part with Dragonite-HP at 1% wt increases the parts strength and modulus by 20% while also improving surface appearance. This means higher quality parts can be produced at a reduced price. This improvement in strength and modulus offers the potential for additional cost savings as it enables a manufacturer to take the process one step further and “thin wall” its parts, resulting in the use of less resin, which, in turn, results in even further reductions in cost.

One of our current injection molding customers is one of the largest manufacturers of lawn and garden tools in the US. There have been several additional customer validations of this technology during 2012 with a number of injection molding companies, which have conducted, or are planning to conduct, manufacturing scale-up trials. Lastly, our product has recently been validated by a major polyethylene resin producer who is in the planning process of a commercial scale trial with our product.

The polyethylene market is 50 million tons per year. A 5% market penetration, which, at a 1% usage rate, would result in 25,000 tons per year of demand for our product.

Nucleation of Foamed Plastics

The foaming of plastics is conducted to produce lighter parts, resulting in the use of less plastic, which saves money for the manufacturer. The automobile industry foams many of its plastic parts to reduce the weight of its vehicles to meet certain fuel efficiency standards. The consequence of foaming a plastic is often a loss in strength and stiffness. This is the trade-off manufacturers must manage. At some point a plastic part cannot be further lightened without impairing its mechanical integrity.

Dragonite-HP eliminates this trade-off. Adding just 1% Dragonite to a foamed plastic raises its strength and modulus by 20%, allowing the part to be lightened considerably. This translates into a cost reduction through both lower resin use (resulting from the lightweighting) and a decrease in manufacturing cycle time resulting from the Dragonite

additive.

We are collaborating with Kibbechem, a leader in the plastics foaming field, to commercialize a product combing our Dragonite additive with its foaming agent. The resulting product significantly outperforms competitive products. During 2012 the company recorded its first commercial sale of Dragonite to Kibbechem to manufacture its enhanced foaming agent. The Dragonite-enhanced foaming agent product has been sampled by Kibbechem to a number of customers who are at different stages of testing. The testing results, to-date, have been favorable. We were invited to present our findings at the PolymerFoam 2012 conference, which, we believe, has also led to great exposure of the benefits of our product to our target market. We expect KibbeChem to begin commercially marketing the product sometime in 2013. While we are in the process of quantifying the potential market opportunity for this products but we expect the opportunity to be meaningful as the light weighting of plastic parts gains more traction.

Functional Filler and Additives

High-performance functional fillers and additives for polymers are generally defined as particulates, which are introduced into a polymer matrix to enhance or create specific properties in an end product. Traditionally, fillers, such as talc, kaolin, silica and glass fibers have been loaded into polymer matrices to reduce costs by partially replacing more expensive resin. Functional fillers and additives are now used to improve mechanical properties such as impact resistance, tensile strength, modulus, elongation at break and toughness, improve electrical properties, improve rheology, melt flow and viscosity, reduce weight and decrease permeability within plastics.

The factors driving the increased utilization of functional fillers and additives in plastics include, but are not limited to, the need for greater mechanical properties in high performance applications, the adoption of increasingly stringent environmental and safety legislation, the demand for lighter engineered plastic components, and the development of surface modifiers, allowing for the utilization of a wider array of materials as fillers and additives. The global market for functional fillers is expected to grow to close to $20 billion by 2015.

The four primary mechanical properties polymer manufacturers frequently look to enhance are strength, modulus, impact resistance and elongation to break. Traditional reinforcing fillers are unable to improve all four mechanical properties simultaneously. Historically, a manufacturer looking to realize an increase in strength and modulus would have to sacrifice impact resistance and elongation to break and vice versa. Our Dragonite-XR and Dragonite-HP, for certain polymer types, can actually reinforce strength and modulus without impairing (and sometimes improving) impact resistance and elongation to break. It is the unique morphology, high surface area, and easy dispersibility of our halloysite clay that allows Dragonite to eliminate the trade-off problem associated with the improvement of mechanical properties in polymer composites. Application areas where we have experienced accelerated product development utilizing our Dragonite products as a functional filler include acrylic and epoxy adhesives.

Cosmetics

Dragonite’s tubular morphology is uniquely suited for an array of cosmetic applications. Dragonite has been shown to be capable of functioning as a non-irritating carrier and release mechanism of cosmetic ingredients for a long lasting application. Additionally, the adsorptive nature of the Dragonite clay serves as an effective hypoallergenic skin cleanser capable of removing unwanted toxins and oils from the skin without the need for harsh chemicals. Dragonite is also capable of exfoliating the skin. We are exploring the development of a brand of cosmetics in partnership with an established cosmetics products company. Negotiations with respect to this brand development partnership are in the early stages and may not result in the execution of a commercial agreement.

Hydraulic Fracturing Proppants

A proppant is a material that keeps an induced hydraulic fracture open, during or following a fracturing treatment, while the fracking fluid itself varies in composition depending on the type of fracturing used, and can be gel, foam or slickwater-based. Drillers seeking to pull more oil and gas from hard rock deposits have been fracking since the 1950s, but in the last decade advancements in horizontal drilling techniques have resulted in a significant increase in fracking activity worldwide. The unique chemical and morphological characteristics of our underground and tailing pile clay resources have led us to explore the development of a ceramic-based hydraulic fracturing proppant utilizing this material. The size of the ceramic proppant market in 2011 was approximately $1.4 billion and is expected to grow aggressively as fracking, particularly for shale oil & gas, increases. Utah, alone, hosts four of the U.S.'s 100 largest oil fields and two of the nations 100 largest gas fields. In May of 2012 the U.S. approved the drilling of more than 3,600 natural gas wells in Southeast Utah. The U.S. represents approximately 80% of the ceramic proppant market. To enter the ceramic proppant market we would either have to develop our own manufacturing facility or supply our material to an existing proppant manufacturer. We are assessing each strategy.

Controlled Release Carriers

Dragonite clay can act as an effective carrier of active ingredients, enabling an agent to be released from the carrier over an extended time frame. This controlled release capability can be utilized in a wide array of applications including, but not limited to, anti-corrosive and anti-mold paint applications, agricultural applications, cosmetics, and certain pharmaceutical products, which would require the prevention of overdosing.

Environmental Remediation

Dragonite, due to its high selectivity of toxic compounds, high porosity, high surface area, fine particle size, fast adsorption rate and high absorption capacity, acts as an effective sorbent in environmental remediation and emissions capture. Dragonite can be utilized to facilitate the remediation of environments polluted with oil, PCB's, toluene, phenols, methylene blue, chromium-6, ammonium, heavy and alkali metals, and uranium. In a deepwater environment, Dragonite performs as an effective sieve to sequester pollutants released from a variety of sources such as oil spills, power plant and mine site run-off. Dragonite also works as a hydrocarbon remediation material through its ability to adsorb, de-emulsify and disperse micro-droplets of oil.

Agriculture

Dragonite provides a natural, environmentally friendly solution for a more direct and efficient delivery method of often-toxic agricultural agents. Utilizing the inner lumen of the clay as a natural reservoir, Dragonite is able to load, store, and control the release of a range of agents in a uniform manner, which, in turn, allows a lower loading of a substance, such as pesticide or herbicide, to be as effective as a higher loading delivered in a more traditional manner. Dragonite release rates can be controlled to match the duration of a growth or reproductive cycle, resulting in a reduction of the frequency of applications of an agent. Potential uses include the following: pesticides, fertilizers, insecticides, fungicides, herbicides, nutrients, and growth stimulants.

Catalysts and Molecular Sieves

Dragonite works as an excellent binder to zeolite crystals to enhance a molecular sieve's productivity in critical functions such as drying of natural gas and air, separation of liquid from product streams, and separation of impurities from a gas stream. Dragonite possesses a superb dispersion ability that allows it to combine with the zeolite crystals without attracting to them or reducing the rate of diffusion of liquids and gases. Dragonite's fine particle size, porosity, and thermal stability also ensure that adsorbates diffuse rapidly through the sieve without affecting the adsorbent blend's physical properties.

Dragonite is proven to be an effective catalyst and catalyst support for the hydrotreatment and hydrodemetalation of hydrocarbonaceous feedstocks. The clay's unique tubular morphology, pore size, thermal stability, and high surface area have been shown to be effective for removing impurities such as metals, sulfur, nitrogen, and asphaltenes. Halloysite from the Dragon Mine was previously dedicated strictly to this application, successfully supplying the market over 1.1 million tons of material. Certain results of our drilling program demonstrate that we can produce commercial-scale quantities of clay from the Dragon Mine that meet the purity requirements of catalyst applications.

Natural Iron Oxide Pigments

Natural iron oxide pigments are formed from one or more ferrous oxides (magnetite, hematite, goethite, and lepidocrocite) and certain impurities such as clay, manganese or other organics. Natural iron oxides have unique properties that are used for the pigmentation of paints, wood and paper stains, linoleum, oilcloth, mortar, plaster, rubber, and brick. In 2011 about 57% of natural and synthetic iron oxide pigments were used in concrete and other construction materials, 29% in coatings and paints, 6% in foundry uses, and about 2% each in industrial chemicals, animal food, magnetic tape and ink, and other uses. The majority of the mining and processing of natural iron oxide pigments is done in the United States. Iron oxide pigments can be synthesized through a series of chemical reactions.

According to a 2012 from United States Geological Surveys Group (USGS), the United States consumed 200,000 metric tons of Iron Oxide Pigments in 2011. Of the 200,000 metric tons consumed, the US was a net importer of 160,000 metric tons with an average price of $1,470.00 per metric ton. Applied Minerals believes the characteristics of its iron oxide resource positions the Company as a low-cost producer of high quality natural pigments capable of competing effectively in the domestic market. We are currently having our iron oxide evaluated as a pigment by a couple of large building product manufacturers. Additionally, we are marketing our iron oxide to the PVC industry as a smoke suppressant additive and to the environmental remediation industry as a water purification treatment.

PRODUCTION FACILITIES

Currently, the Company has a dry-process facility at its Dragon Mine property with which it is able to process the material from the underground areas of the Dragon Mine. Additionally, the Company has a tolling agreement with KaMin Performance Minerals, LLC, utilizing a wet process technology, to process both underground material and the material from the waste piles. The dry-process facility at the Dragon Mine includes, but is not limited to, a KDS Micronex, an air-powered jet mill, a dust capture system and a bagging system.

In December, 2011 we announced that we would be investing in a plant expansion to both increase our production capacity and enhance our ability to optimize our products for a wider range of end markets. In 2012 we commissioned Hosokawa Alpine ("Hosokawa"), a leading developer and manufacturer of turnkey industrial minerals processing systems, to assist with the engineering and development of our new plant. The complete cost of the plant expansion will cost approximately $3.0 million and will provide us approximately 45,000 tons of annual production capacity. The new plant will significantly assist us in meeting our commercialization objectives. Ground was broken for the facility in June, 2012 and the facility is expected to be completed by April, 2013. Once construction of the new facility is complete, the facility originally used to process our halloysite clay will be used to process our iron ore resource. We expect our iron ore processing capacity to approximately 10,000 annually.

COMPETITION

Currently there are no entities competing with us with respect to the sale of halloysite-based products to our target markets. To penetrate some of our target markets we face significant competition as we compete against non-halloysite solutions sold by larger, more established companies. If we are successful in penetrating our target markets, we may face competition from operators of halloysite clay deposits in other locations around the world. We believe that our Dragon Mine property is one of only two commercial-sized halloysite deposits in the world. The other deposit is owned by Imerys, a global provider of mineral-based solutions. The Imerys property is located in Matauri Bay, New Zealand and supplies its halloysite production to the tableware and technical ceramic markets. It is our understanding that, at the current time, Imerys is not intending to compete with us in our target markets. Given the level of purity of the Imerys of halloysite property, we believe the costs needed to beneficiate its halloysite resource may limit the economic viability of pursuing the markets we are. There are other smaller deposits of halloysite in the U.S and other parts of the world, including one adjacent to the Dragon Mine property. Whether halloysite from any of these deposits will compete with our halloysite-based products, or the extent to which they can compete, is not known to us.

There is significant competition within the iron oxide pigment market. We expect to compete with companies that are much larger and better capitalized than we are. There is very little product differentiation within the iron oxide pigment market with competition focused primarily on price. We do believe, given the relatively high purity and low cost of production of our resource, we will be able to compete within this market.

THE DRAGON MINE

Background

The Dragon Mine, to our knowledge, is the only source of halloysite clay in the Western Hemisphere large enough, and of high enough purity, to supply commercial-sized application demand.

The property is located in the Tintic District of Utah, covering approximately 230 acres with a large mining permit covering 40 acres allowing for the extraction of minerals. The property consists of 38 patented and six unpatented mining claims located in the following sections: T10S, R2W, sections 29, 30, 31, and T10S, R3W, Section 36, all relative to the Salt Lake Base Meridian. The Company pays approximately $800 in annual maintenance fees to the U.S. Department of Interior Bureau of Land Management to maintain rights to its unpatented claims. The BLM Claim Numbers are: UMC385543, UMC 385544, UMC394659, UMC394660, UMC408539, and UMC408540. The Company has no underlying royalty agreements with any third-party with respect to the Dragon Mine.

Formation of the Dragon Mine property is attributed to the alteration of fine clay sediments that accumulated on what was then a shallow sea floor over 600 million years ago. From 1949 through 1976, Filtrol Corporation operated the Dragon Mine on a contracted basis for the property's owner, a subsidiary of Anaconda Mining Company. The clay mined and processed from the property during that time was used primarily as a carrier for catalysts used in the petroleum cracking process.

According to certain mining-related records, Filtrol mined approximately 1.35 million tons of clay from the Dragon Mine. The mine was idle from 1977 until it was leased by the Company beginning in 2001. The Company eventually purchased a 100% interest in the property in 2005 for $500,000 in cash. Currently, the Company has no underlying royalty agreements with any third-party with respect to the Dragon Mine. The current management of the Company engaged consulting geologist, Ian Wilson, Ph.D., to supervise an extensive drilling program at the property. Dr. Wilson has explored underground areas of the Dragon Mine including, but not limited to, workings developed by prior operators along with an area of the property that had previously remained unexplored. Dr. Wilson continues to supervise our drilling program and classify the mineralization of the Dragon Mine property, which is essential to the

successful commercialization of the mine's deposit. Dr. Wilson is a member of iom3 (Institute of Materials, Minerals and Mining of the UK).

As of the date of this report, an above-ground area covering approximately 11.5 of the Dragon Mine's approximate 230 acres have been explored and is being mined. The extraction of material from certain targeted areas of this resource is in progress. Additional areas may be explored in the future.

The Company applied for and was granted a large mining permit in early 2011 for which it posted a required surety bond in May 2011. The Company explores underground and mines its clay mineral utilizing traditional methods and equipment and expends the necessary resources to maintain Mining Heath and Safety Act (MSHA) compliance. From our drilling activity we have sampled certain cores by engaging a leading UK-based geological consulting organization to identify the chemical composition of our mineral and classify its purity levels, the results of which are used, in part, to map our property. All quality control and quality assurance protocols utilized as part of our exploration program have been developed by this third-party organization. Analytical equipment used to classify the mineral mined at the mine includes, but is not limited to, a Scanning Electron Microscope (SEM), and XRD and XRF machines.

The Dragon Mine property also contains five tailing piles comprised of material, which, in our opinion, can be processed to create a saleable product. The piles are the result of prior mining operations that took place between 1949 and 1976. The clay mined during that period was used in a petroleum-cracking catalyst application. For that application the clay mined had to contain no more than 2% of an iron oxide impurity. Any clay, which exceeded such limit, and some non-clay material was discarded into the piles. To date, Applied Minerals has preliminarily characterized the chemistry and mineralogy of the surface piles and has developed a processing system to separate the clay from the non-clay material. The Company has identified a number of application areas including, but not limited to, ceramic proppants on which it is focusing the development of its waste pile material.

The Company has spent significant resources on the exploration of its Dragon Mine property. The results of an extensive drilling program supervised by the Company's consulting geologist has identified what is believed to be a sufficient amount of clay material, both underground and on the surface of the property, to support a commercial operation. The clay mineral identified at the Dragon Mine has been classified by level of purity. The Company will not be able to refer to the mineral found in its Dragon Mine property as a "reserve" until it can demonstrate the deposit is economically viable. As the Company continues to sell its halloysite clay products into existing and developing markets, it will revisit the possibility of classifying its clay deposit as a reserve.

Currently, the property is without known reserves and our drilling program has been exploratory in nature. The halloysite clay held in inventory has been used to supply certain customers and provide samples to potential customers at different stages of product development utilizing our material. We are in the process of mining and storing iron ore present on our property while we determine the best way to monetize the mineral.

Initial Drilling Program

We completed our initial exploration program in 2010. A description of the program is as follows:

- Cores from 80 boreholes drilled in 2003, 2005, 2006, 2009 and 2010, totaling 15,362 ft, were tested. The average depth of the 80 boreholes drilled was 192 ft with a range of depths drilled from 50ft to 360 ft;

- The Western area of the property, drilled from 2003 to 2006, includes 44 boreholes totaling 9,448 ft covering an area of 6.33 acres. These boreholes were drilled in mainly altered quartz monzonite, which is an intrusive igneous rock with approximately equal parts of orthoclase and plagioclase feldspar. Quartz monzonite porphyry is often associated with copper mineralization in porphyry copper deposits;

- The Dragon Pit area of the property, drilled in 2009 and 2010, includes 36 boreholes totaling 5,914 ft and covering an area of 4.95 acres. The area is mainly iron ore and some altered monzanite on the periphery. Occurrences of halloysite are adjacent to the iron ore;

- Over 500 samples of borehole material were tested to determine mineralogy, particularly for halloysite, kaolinite, illite smectite levels and other properties;
    - Five tailing piles, the product of previous clay mining activity, were drilled. The waste piles cover 34.2 acres. Following a detailed trenching campaign on the waste piles, fifty-two boreholes were drilled totaling 1,986 ft. The whole rock evaluation included chemical testing by XRF of 216 samples with 69 of these samples tested for their mineralogy by XRD. To determine clay content, samples were processed to <45 μm and <5μm fractions and 185 samples were tested for their mineralogy by XRD and 133 samples for their chemistry by XRF;

- An analysis of 34 borehole samples in the Western Mine contained, on average, 94.8% iron oxide with the balance being predominantly halloysite. This iron oxide from this part of the mine is predominantly hematite, which is typically used to produce red- and black-colored pigments, and goethite, which is typically used to produce brown-, yellow-, orange- and ocher- colored pigments.

- An analysis of 23 bore hole samples in the Dragon Mine contained on average 94.4% iron oxide. This ore is predominantly goethite and amorphous oxide (and a lower amount of hematite with the balance in predominantly halloysite). We have determined that the quality of our in-situ iron oxide resource, as well as finished products, meets ASTM D3722. This globally accepted specification covers dry and wet ground naturally occurring iron oxide; dry and wet ground calcined naturally occurring iron oxide: and mixtures of th