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Realm™ Industries, LLC

Overview

July 16, 2008

Realm™ Industries
Proprietary Fuel System and Gas
"RGas™"

Introduction
For more than 30 years, a small team of scientists and engineers in Simi Valley, CA, have been researching technologies capable of generating clean energy from water. This exhaustive research and development effort, initiated around the time of the 1973/74 Arab oil embargo, was originally undertaken to develop an affordable alternative fuel capable of powering vehicles, generating electricity and heating or cooling buildings. Advanced by a small but growing team of technicians, the fuel research has recently yielded significant breakthroughs, including a better understanding of the fuel itself and a more compact power plant. The timing of these advances is opportune as rapidly accelerating demand for energy from growing economies in Asia, declining worldwide crude oil reserves, and growing global climate concerns tied to man's use of fossil fuels underscore the importance of alternative fuels with a minimal carbon footprint.

Technology Description

Realm's proprietary fuel system uses a patented electromagnetic process to transform water (H_20) into a clean burning gas. The electromagnetic forces cause a reaction that modifies the bonds within water molecules. Realm's process does not require modifications to the water (as is the case with electrolysis or Brown's gas) to break molecular bonds and release energy. Instead, Realm's technology uses water's natural electromagnetic properties to modify the angles of the molecular bonds. Furthermore, the Realm proprietary fuel system uses a relatively small amount of energy to manufacture the gas. Preliminary tests show production at a three-to-one ratio, making Realm's proprietary gas an efficient, effective clean fuel.

The characteristics of Realm's proprietary gas are also somewhat unique. The flame is clean and precise, lending itself to potential welding applications without the need for an electrical power source or acetylene. The flame has the capability to cut quickly through a wide variety of metals, and to heat an exposed surface to several thousand degrees. Its radiant heat, however, is limited to a matter of inches, making it relatively safe to work with. From an emissions standpoint, when you apply the flame to a metal surface, the only residue is water.

Comparison to Similar Technologies
Production of fuel using either electrolysis or the Brown's gas process requires special electrolytic solutions. These solutions generally consist of alkaline salts to raise the electrical conductivity of the water. This allows electricity to flow through the water, breaking the bonds of the molecules and releasing a gas. However, both Brown's gas and electrolysis require large amounts of energy to manufacture fuel, making those processes uneconomic for commercial production purposes.

Environmental Benefits
Realm's proprietary gas has been tested extensively on a six cylinder, internal combustion engine utilizing a carburetor. As the test vehicle (a Toyota Land Cruiser) is transitioned from standard unleaded gasoline to Realm's gas, tailpipe emissions of carbon monoxide, carbon dioxide and hydrocarbons drop to levels near zero. The remaining emissions are water vapor and oxygen, yielding a nearly pollution-free vehicle.

Technology Applications
Two options exist for application of the technology as a transportation fuel. As Realm's proprietary technology is now compact enough to fit within the standard configuration of a modern automobile, the preferred application is to place the power plant onboard. This would require a minimal redesign of the fuel injection system and the internal combustion engine. Redesign of the fuel injectors is necessary because an internal combustion engine requires much less Realm proprietary gas than conventional gasoline to run efficiently. Some additional engine modifications would also be necessary as Realm's proprietary gas is water based and lacks the natural lubrication found in today's petroleum-based fuels.

The second option for Realm's proprietary gas technology is to replace a vehicle's conventional gasoline or diesel tank with a pressurized cylinder to store Realm's proprietary gas onboard the vehicle. As opposed to generating its own energy, the car or truck would periodically refuel as today's gasoline and diesel powered vehicles do, making use of the existing fueling infrastructure. This option would still require a minimal modification to the vehicle's engine and fuel injection systems.

Realm's proprietary gas has also been successfully tested on a 7 kilowatt generator. Such a generator could be used to power an electric vehicle similar to General Motors' EV1. As opposed to the EV1, vehicles using a Realm powered generator would have significantly greater range. Tests indicate that a Realm gas-fueled generator could power a vehicle similar to the EV1 for up to 16 hours on four gallons of water. Furthermore, the Realm onboard fuel system would be considerably lighter than the batteries used to power the EV1.

Demonstrations
Interested parties are invited to make an appointment for demonstrations of the Realm proprietary fuel system. Demonstrations will include two specific applications: automobiles and power generation. Technical staff will be on hand to answer questions and discuss other potential applications. To arrange an appointment, please contact Realm president and CEO Timothy A. Larson (call 805-587-5767 - message or email tblarson@realmindustries.com).

Business Opportunities
Realm Industries is a limited liability partnership created in 2006 to further develop, patent and market Realm's proprietary fuel system technology. Realm has patented both the technology to produce the fuel, applications of the fuel, as well as the fuel itself. Realm Catalyst was incorporated in 2008 to be the licensing division for Realm Industries. Accordingly, Realm will entertain offers to license its technology for a wide variety of applications, including – but not limited to – vehicle fuel systems and power generation. Realm will also consider third-party proposals to license production, and subsequent marketing, of the fuel itself.

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"Brown's Gas" comparison with Realm™ Gas

Brown's Gas, named after Yull Brown, a Bulgarian born Australian inventor, is a mixture of diatomic molecular gases derived from the classical electrolysis of water. Brown's Gas technology is in the public domain. The original Brown's Gas patents were for welding and cutting equipment meant to replace conventional oxy-acetylene torches in areas where gas supplies in bottles were unavailable or expensive. The patents have expired.

Realm™ gas is derived from virtually any liquid that is predominantly water. It is unlike Brown's Gas in its composition and structure in ways being covered by our patenting process.

While Brown's Gas is often shown being derived from distilled water, it, in fact, requires a strong electrolyte for generation. The normal electrolyte is either sodium or potassium hydroxide, in a solution 25% or greater by weight. It requires a considerable amount of electrical energy in the generation process. The amount of electricity involved, the nature of the electrolyte and the method of generation and distribution give rise to safety considerations not encountered in Realm™ gas technology.

Realm™ gas can be derived from saltwater, Brown's Gas generators cannot operate on salt water. Realm™ gas can, in fact, be derived from virtually any predominantly water bearing liquid, including brackish water, alkaline water, gray water, naturally occurring fresh water, waste water and most other water bearing liquids.

Brown's Gas generator technology does not function over this broad spectrum of raw materials.

Realm™ gas can be used as a single gas, in the absence of air, in the operation of internal combustion engines, not true of Brown's Gas.

There are a host of fundamental differences in the methods of application of Realm™ gas and Brown's Gas that are in the patenting process. Once this process has been completed, these differences can be more specifically disclosed.

Realm™ gas is derived using a process that consumes much less electrical power than the Brown's Gas process, and is not limited by the conventional electrolysis operational parameters. This information can also be more specifically disclosed as the patenting process continues.

RGas Compared to HHO (Aquygen) Gas

One of the main differences is the source water used to produce the gases. HHO (Aquygen) requires the addition of an additive or electrolyte to distilled water. The normal electrolyte is either sodium or potassium hydroxide, in a solution 25% or greater by weight. Sometimes sodium bicarbonate is used, but that destroys the green nature of the emissions.

This is the unit used by Denny Klein were he states that he uses an electrolyte solution: **Electrolyzer** utilized to create the Hydrogen/Oxygen mixed gas, measuring 12" high by 8" wide by 24" long and weighing approximately 30-35 lbs when completely filled with water/electrolyte solution (3 gallons). On the prototype vehicle (1994 Ford Escort Wagon) the Electrolyzer is mounted in the front passenger compartment. (http://www.hytechapps.com/aquygen/hhos_test_20031021.pdf)

RGas can use any water source that has been filtered of large chunks and solids. This includes but is not limited to tap water, gray water, agricultural water, salt water, alkaline water, etc. We have even used substances that are predominately water such as coffee, tea, and orange juice.

Secondly, HHO gas can only be created in a small capacity using large amounts of power. This is typical of HHO and another similar gas, Brown's Gas, which uses electrolytic solutions. The specific power requirements to generate a specific amount of gas in a given time are not displayed for his machine. Also the rate at which he can make gas is not given, however he says that ¾ of a gallon of water will make gas for 8 hours continuously. (http://www.hytechapps.com/aquygen/generator) From chemistry, using standard chemical equations such as moles and Avogadro's number. It can be calculated that one gallon of water can produce 250 cubic feet of gas if that gas only contains the hydrogen and oxygen of the water. This means that 187.5 cubic feet of gas are produced in 8 hours of run time which is 0.4 cubic feet per minute.

RGas can be varied to produce gas at different rates and power requirements. However, on average, without producing large quantities of excess heat, one of our machines can produce 1 cubic foot per minute at 1 kilowatt of power. Our machines have the ability to be adjusted to make the amount of gas needed or to make gas at optimal times and then store it under pressure.

Another main difference between RGas and HHO is that HHO cannot be compressed safely and is made at pressures less than 60 psi. RGas is not restricted by pressure constraints. We have compressed the RGas to 3000 psi, stored and used the gas from tanks at 1000 psi. Also we can generate the gas from atmosphere to pressures above 275 psi. This allows for wider versatility of storage and production capabilities.

These are just the three main differences that can be seen between RGas and HHO (Aquygen) from what we are able to discern from their website and videos. There are other significant differences that we suspect, but without more information we cannot confirm them.

Realm Technologies, LLC

Applications Overview

July 16, 2008

Introduction

The purpose of this profile is the introduction to the reader of the various technologies currently ready for commercial deployment and others under development. Currently, the technology related to the following applications is ready for commercialization;

- Water Treatment and Purification Systems
- Waste Disposal and Recycling Systems
- Residential and Commercial Heating and Cooling Applications
- Emissions Abatement Systems (Greenhouse Gas Control)
- Enhanced Fuel Efficiency Systems

Essential elements concerning these applications are described in this document. In addition, descriptions are provided for more advanced applications that are in development and are expected to reach commercial applicability in the near future.

Specific technical details are limited for reasons of intellectual property protection. The reader is provided with an overview of each project in order that he might gain a perspective for its place in the technical, economic and sociological arena.

Research and development activities on these and other projects have been ongoing for many years. The projects and technologies profiled in this document are those, which have reached a stage of development that allows their implementation in several families of products across various industry and applications boundaries. The basic research has been completed. Preliminary development has also been accomplished. Realm is now positioned to have these projects/applications available for commercial and humanitarian implementation in a timely and cost effective manner.

Table of Contents

Humanitarian Considerations

The various projects and products profiled in this document have the potential for substantial economic significance. They also, however, have an equal or greater potential for humanitarian and sociological significance. These projects and products are capable of contributing to the solutions of several major problems, which exist on a global scale. These include;

- Contaminated Water Remediation
- Protection of Existing Water Distribution Systems
- Energy Generation and Distribution
- Waste Management
- Food Production and Distribution
- Environmental Management.

It is a sad fact that the areas of the world where solutions to these problems are most needed are the same areas where such solutions can be least afforded. It is necessary, therefore, that efforts at marketing and implementing these solutions in more affluent areas include allowances for contributory implementation in less affluent areas. These problems know no political boundaries, and if left unresolved will, eventually, become a global burden from which there is no escape.

Recent events of terrorism perpetrated in the United States, the United Kingdom, Spain and elsewhere demonstrate increased need for application of this technology on a global scale. It can help cut the economic throat of terrorism by helping to reduce the dependence of the United States and other friendly nations on foreign supplies of oil. Profits from the sale of such oil are, in part, diverted to finance regimes and organizations that support and carry out terrorist activities.

In addition, components of this technology can be deployed to protect important portions of the infrastructure in friendly nations from terrorist activities. This includes, but is not limited to, the protection of water supplies and distribution systems so that they cannot be used as weapons against the civilian or military population.

If one searches out the roots of terrorism and other types of extremism, common threads involve a catastrophic combination of need and desperation. Political leaders and those who strive for political power, who would benefit from extremist behavior, take advantage of that segment of the population that is without sufficient food, clothing and other necessities in order to live a stable life. These people are taught, in

their desperation, to hate, despise and strike out at those who have the things they lack. Materialism is seen as the enemy of those who have no hope, so they strike out in any way they can to demonstrate their hopelessness. In doing so, they seal their own fate, for they become the enemy of a secure and stable world, and are condemned to an even more hopeless future.

The technology described here can change much of this. It is possible to implement and apply this technology at a very small scale, suitable for use by individuals and families in impoverished and repressed areas of the world. It can be used to provide clean water, fertilize the soil, generate electric power and eliminate dangerous waste products. A man or woman, whose family is healthy, well fed and secure is not likely to fall prey to those who preach extremism and hatred. This technology cannot be sold in these circumstances, however, as it may itself become a cause for jealousy and hatred. Ways must be found to insure that appropriate implementations of this technology be deployed to all who need it, without cost or political obligation.

It is the determination, therefore, by the owners and creators of the technology profiled in this document, that substantial percentages of all profits derived from the implementation of the products and projects described will be set aside in a charitable foundation for use in humanitarian not for profit projects. This foundation will be empowered to utilize the technologies presented in this document, together with whatever other resources might be available, in contributing to the solution of these global problems for the benefit of all. This is not an entirely altruistic goal, for if stability and security cannot be established on a global scale, the stage upon which the benefits of prosperity can be enjoyed will cease to exist.

Any ideas or suggestions, which might arise from the reading of this document pertaining to the humanitarian use of the projects and products profiled within, will be gratefully received.

RGas™ Nomenclature – What Is It?

What is RGas™? As procedures are in progress to protect the name and intellectual property rights for the product, a complete and accurate technical description of the product and how it is produced are not appropriate to this document.

The commonly stated definition or description of pGas™ as per the pending trademark and patent applications is as follows;

"… a substance, comprised of a preponderance of water molecules is exposed, whether continuously or in batches, by one or more of various means, to one or more contiguous or non-contiguous portions of the electro-magnetic spectrum at one or more power levels, resulting in the change of state of all or a portion of the water molecules to a gas which shall be referred to as "RGas" which can be subsequently used for a variety of purposes, leaving behind that portion of the original substance which was not comprised of water molecules."

RGas is, therefore, a gaseous product created by the interaction of electromagnetic energies on molecular water thereby creating a fuel gas comprised of its' constituents and combinations of its constituents in an electrically charged or ionic state and / or molecular state.

RGas™ nomenclature is utilized in this document in anticipation of a trademark being granted. Should a trademark not be granted, the term RGas will be copyrighted and become RGas©.

RGas™ Conceptual Overview

A cursory scan of this document would easily lead the reader to the conclusion that the continued implementation of RGas™ technology is an overwhelming task. This is certainly not the case. The following points need to be understood in order for the reader to approach this information from the correct perspective.

- The bulk of all of the research necessary to complete the implementation of the various RGas™ applications described has already been completed. The basic principles involved are clearly understood, as are the mechanisms necessary for the application of the technology.

- Many of the parts and mechanisms and components needed to implement RGas™ applications are available on an "off the shelf" basis. There are, of course, lead times and other logistical factors to be considered.

- Production techniques are in development for the manufacture of custom components which reflect the proprietary technology of the product.

- Most importantly, the RGas™ technology is all about simplicity and environmental responsibility. There are no toxic materials involved. There are no hazardous waste streams produced. There is no detrimental effect on the atmosphere. No "greenhouse gasses" are produced.

This technology has been brought to the point where it can be applied in a wide variety of applications in an environmentally responsible manner and is now ready for implementation.

RGas™ Enhanced Efficiency Generator

The new RGas™ generation equipment takes advantage of advances in electronics, computers and control mechanisms in order to produce a much larger volume of gas from virtually any water source, without regard to alkalinity, salinity or dissolved solids content. There is no need for an electrolyte mixture in this system.

The RGas™ System is centered around an enhanced efficiency generating cell, which utilizes a proprietary concept to produce the gas. This method, continually monitored by computerized control systems, produces larger volumes of gas in a smaller, lighter and less expensive assembly. In addition, electrical power consumption has been dramatically reduced.

These new units can be configured in large numbers in order to produce a virtually unlimited supply of RGas™. This opens the door to its use in the several applications areas discussed in this document, applications areas which were not practical utilizing previous methods of RGas™ generation.

The RGas™ units can be monitored remotely and can operate unattended. Periodic maintenance can be scheduled as required once the initial set-up has been completed. This lessens the cost and logistics requirements significantly and makes the use of the RGas™ technology commercially feasible in many applications areas.

RGas™ Food Product Quality Maintenance Systems

The speed and security with which many food products are brought from source to processing plant or market are important factors in determining its safety of use, freshness, appearance, nutrient value and marketability. In many cases the condition of food delivered to the consumer is also an important health consideration. The economic health of some food producing industries, fishing being prime among them, is highly dependent upon the rapid delivery of good quality product to market.

Current delivery technology relies largely upon refrigeration and/or transported ice to preserve the quality of the food product from source to delivery. The use of RGas™ technology allows the addition of vacuum packaging to existing systems. In many cases, the RGas™ based systems can also provide for refrigeration needs, combining preservation processing into a vacuum freezing system, which can be highly effective.

Vacuum based food preservation systems allow for much longer transportation times without the loss of food quality than do conventional systems. They can eliminate the dependence upon transported ice supplies in maintaining food freshness. This allows, in the case of the fishing industry, for longer times at sea, with the accompanying larger catches, and lower product losses. This can provide significant economic advantages over the use of conventional systems, and can assure the consumer of a higher quality product, with no accompanying health or environmental considerations such as those associated with radiation preservation techniques.

In addition to its application in the fishing industry, it is likely that RGas™ technology can provide significant benefits in the shipping and handling of dairy, fruit, vegetable and meat products. This is especially true when delivery is made to more remote locations where conventional freezing equipment and storage facilities may be over-utilized, or not accessible.

RGas™ based systems are capable of delivering a superior product to market at a reduced cost of preservation and handling with diminished opportunity for accidental or intentional contamination. In these times of concern for the safety and security of the nation's food supply, these are prime considerations.

RGas™ Medical Waste Disposal System

The environmental, social and economic problems associated with the disposal of various types of medical waste have been the source of considerable public and private concern in recent years. The discoveries of illegal dumpsites, with the accompanying public health fears have been widely publicized. The impact of water-born medical waste reaching public bathing areas, and contaminating water supplies has also been a matter of deep concern.

The governmental response to this problem has been largely regulatory in nature. Many levels of regulations have been implemented aimed at controlling the flow of this "red bag" type of waste material. Regulations have been put in place, which require the on-site disposal of this material. In many cases, however, such regulations have been ineffective due to the lack of appropriate technology, which would make the on-site destruction of such waste material practical.

RGas™ technology offers an effective solution to this problem. Utilizing this technology, small, low power systems can be allocated to various areas in a facility where medical waste is generated. These systems can then be used to process the waste stream as it is produced, eliminating all risks associated with its storage and transportation. It is destroyed as it is produced, in its entirety. This includes all types of material such as linens, dressings, needles, food items, medications, blood and tissue samples, instruments and laboratory and surgical waste.

Such units reduce the medical waste to its elemental, non-hazardous components, which, when emptied regularly, are suitable for conventional waste disposal facilities. The use of this system eliminates the high cost associated with the transportation and disposal of medical waste, as well as the risk to the public when it is disposed of improperly.

The extremely high temperatures at which the RGas™ system operates; together with its ability to function in a system isolated completely from the atmosphere are the key components to this technology. The RGas™ medical waste disposal units will operate silently, with no offensive waste stream produced. They will be completely safe and easily operated by unskilled personnel. They will be easily serviced and can be strategically placed within a medical facility on a very cost-effective basis.

These units can be constructed in a variety of shapes and sizes. A standard, small, unit for deployment at various locations in a hospital, for example, would be approximately three feet square by four feet high.

Waste would be deposited through an opening in the top. A control panel and indicators would be on the front of the unit. Residue from the destruction of the waste would accumulate in a heavy wall plastic bag in the base, which would be removed as necessary. Such units would be powered from standard wall plugs.

Larger units will be constructed for use in facilities where the waste stream is concentrated in one place. They will operate in an identical manner, but at a larger capacity.

Such, larger, units could also be used in facilities where quantities of animal wastes are generated, such as slaughterhouses and packing plants. The deployment of such waste control systems would ease public fears concerning the spread of animal born disease, and would make the elimination of such waste products more economical. In extreme cases, such units could be used to dispose of entire animal remains, again, reducing the risk of further contamination in both the animal and human population.

It would also be possible to implement a waste disposal unit directly on a truck. This would allow the operator to pick up small quantities of waste at a variety of locations and process it into a harmless ash while in transit. This would make the pickup and disposal of this type of waste material safer for the public and the collection company as well as improve the economics involved.

It should be remembered that RGas™ Medical Waste Processing Units produce absolutely no harmful effluent of any kind. They operate under a vacuum, so no atmospheric contamination is produced. They operate at extremely high temperatures, making the survival of any harmful organisms impossible. They use no hydrocarbon fuel; therefore no carbon dioxide is produced. Even the water vapor produced when the contaminated waste material is destroyed is captured, condensed, and recycled within the processor.

RGas™ based medical waste disposal systems provide for the clean, safe and cost effective handling of medical waste products in a responsible manner consistent with the public interest.

RGas™ Human Waste Management Systems

The management of human waste products has become a matter of increasing concern. As human mobility increases, resulting in human incursion into many previously inaccessible locations, and as recreational, construction, entertainment, sports and special events activities grow; there is an ever-increasing need for solutions to this sensitive problem.

Increased passenger traffic at the larger airports requires greater capacity to collect and dispose of human waste. Traffic at sea, whether commercial or private, is no longer encouraged to dump its waste as it travels, and private yachts must continually face such problems while at anchor or docked.

From the RGas™ perspective, there is little difference between the disposal of medical waste and the disposal of human waste. Human waste disposal systems can be constructed in a simpler manner as the risk of transmitted toxicity is smaller, but they must be more rugged in order to withstand the rigors of outdoor or mobile use.

The use of RGas™ technology can revolutionize the business of collecting accumulated human waste from portable toilets. It would no longer be necessary to use large tank trucks to haul such waste to disposal facilities. Instead, RGas™ systems could be built into trucks, which would remove the waste from the portable toilet and process it immediately into a harmless, dry product that could be disposed of in a regular landfill. A single truck could service a great many more toilets before it reached capacity and needed to be dumped. This would save on time, fuel, wear and tear on equipment, and make the entire operation much less objectionable.

With some additional engineering, waste-processing units could be built directly into the portable toilet itself. This would result in a more pleasant toilet unit for the user, far fewer waste material pick-ups and eliminate the need to service the units during longer duration events.

Similar waste processing units could be adapted for use in recreational vehicles, resulting in reduced loads involved in the carrying of both clean and wastewater.

Such units could also be installed in recreational and commercial sea-going vessels. This would eliminate both the need and the temptation to

dump such waste products overboard, resulting in less pollution of the world's waterways.

This technology could also be applied to the collection of waste at airports. It could be installed in trains, buses and long haul trucks as well.

Homes, resorts and other facilities are currently being constructed and / or planned in environmentally sensitive areas where water table and drainage considerations make sewage disposal by conventional methods impractical or even illegal. The use of RGas™ technology in the elimination of waste in such areas would provide a low cost and environmentally sound alternative to conventional methods.

The use of RGas™ technology would open up new areas of opportunity for the environmentally correct development of locations, which are not conducive to such development utilizing currently available products and methods.

Wherever there are human activities, human waste is generated. RGas™ technology can substantially reduce the difficulties and costs involved in the collection and disposal of that waste.

RGas™ Toxic Waste Disposal Systems

Toxic waste responds to the same RGas™ treatment, as does medical waste. It is necessary to expand the volume of operation in order to make the systems cost-effective. Such expansion is accomplished using larger, second-generation RGas™ generation systems, as well as larger automated material handling systems for feeding the waste materials into the disposal facility. In addition, larger systems must be implemented in order to remove the process residue from the disposal facility for transportation to a conventional landfill.

The possibility of recycling recoverable materials from toxic waste streams using RGas™ technology gives rise to improved economics in the disposal industry. Some products, such as heavy metals, plastics and others, lend themselves to efficient recovery under the conditions prevalent in a RGas™ based system. This is, of course, determined on a case-by-case basis, but should not be overlooked, as the economics can be quite significant.

The safe and cost effective handling and disposal of this particularly daunting type of waste material is a serious problem. Great risk lies in the transportation of such waste from the source to the disposal site. RGas™ technology provides a smaller, cheaper solution to the disposal problem, which has little if any environmental impact. These factors allow the establishment of larger numbers of facilities, at closer proximity to the sources of the waste. This improves the economics of transportation and provides a greater degree of safety for the protection of the environment and the public. In many cases, it is possible to locate the processing system directly at the waste generation site, eliminating the problem of transportation completely.

Relocatable RGas™ based systems can be implemented which would eliminate many of the problems associated with the clean up of existing waste sites. They would allow contaminated soils and other material to be processed at the site, with only safe, treated waste being transported from the site to a landfill.

RGas™ Large Scale Waste Disposal System

Large-scale disposal systems would generally be deployed at existing landfill sites or central waste processing facilities whose product is sent directly to large landfills.

RGas™ based disposal systems of this magnitude would be capable of processing large volumes of raw waste into significantly smaller volumes of processed, largely inert, and non-hazardous material. It would be possible, in the process, to recover economically significant amounts of recyclable products, including glass, heavy metals, carbon black, and others.

RGas™ based systems could be engineered as "appendages" to existing systems, but it would be more effective to build systems from the ground up, as this method of processing differs greatly from that found in conventional facilities.

Such systems can be constructed in a very cost-effective manner, especially when the reduced volume of final product, and the values associated with the recovered recyclable materials is taken into consideration.

RGas™ technology provides new and effective solutions in the processing and handling of large amounts of waste material.

RGas™ Water Treatment Systems

Human kind is generally considered to be oxygen breathing, carbon based life form. While this is definitely the case, water is arguably the most critical compound in our environment. Our bodies are composed mostly of water, and virtually every component of our lifestyle depends upon its availability. Nearly every human population center is or was located in proximity to a source of water. Unfortunately, in spite of this overt dependence upon water, humanity has depleted and polluted this resource to such a degree that its abundance or lack thereof, is now a primary factor in man's continued survival and prosperity. Clean and constant sources of water are needed for human consumption, agricultural and industrial purposes. In addition, in recent years, water has become a key factor in many decorative and recreational applications.

Recent events involving global terrorism have raised legitimate fears concerning the vulnerability of potable water distribution infrastructures to attack. Such attacks, likely to occur in the industrialized nations of the world, could take the form of organic or inorganic toxins, or live bio-toxins being introduced into existing potable water storage and distribution systems.

The vulnerability of potable water distribution in most industrialized nations requires the deployment of secure systems which can remove dangerous substances from the water, either at the point of distribution, or at the point of use.

Ironically, many of the areas of the world where water supply is most critical lie directly upon, or very near to, a supply of saline, brackish or polluted water. If this water could be purified for human and agricultural use in an efficient and cost-effective manner, a great many food shortages and health problems could be averted.

In applications such as these, RGas™ technology, coupled with advanced pollutant detection and monitoring systems, electro-precipitation and reverse osmosis processing systems, is capable of providing cost effective solutions to water purification problems. Systems can be constructed which are easily maintained in remote areas, and have little if any negative environmental impact. Such systems can provide culinary water, stock water, irrigation water and water for industrial applications. Volumetric limitations preclude this technology from providing relief for problems facing the recreation industry, with the exception of

applications such as golf course watering, playing field irrigation and other such limited use requirements.

These RGas™ technology based systems utilize low temperature distillation techniques, under near vacuum conditions to effect the primary purification process. The water purified by this process is generally satisfactory for agricultural and industrial purposes. This process produces feed water, which is further purified by advanced electro-precipitation, reverse osmosis and filtration systems and conditioned to a potable grade for culinary purposes.

The cost and rate at which water can be processed by these systems depends upon its original content of salt, and other dissolved materials. The degree of bacterial contamination is also a factor, as is original temperature. In general, warmer water that is low in dissolved solids can be brought to potable levels most efficiently. Bacterial contamination is often eliminated by the primary process, but can also be removed by secondary processes if necessary. Brackish water can be brought to acceptable quality for agricultural purposes with a very high degree of efficiency. Hybrid systems, where a portion of the water produced for agricultural purposes is further processed for culinary applications can be very effective, as the over-all cost is distributed over a wider economic base. Such systems can also be balanced to meet changing needs by adjustment of operational processing parameters, minimizing the need for additional equipment and expense.

New advances in the generation of RGas™ provide for the availability of even greater amounts of processed water at reduced costs. Further development of this technology will allow the deployment of RGas™ water processing systems at a lower cost and higher efficiency than has previously been possible. Such systems can be engineered to meet virtually any volume of processed water requirements. Utilizing on-line instrumentation and control systems, they can be operated on an un-attended basis, with complete confidence in the quality of the product, and upgraded and maintained on an as-required basis. This reduction in supervisory and maintenance manpower requirements further contributes to the lowering of the over-all cost of operation of such systems.

RGas™ based water processing systems can also be engineered on a smaller basis. Such systems find use in processing water for marine use on ships, for emergency water supplies for hospitals, schools and shelters, and for remote military, tourism and civilian sites which are located well away from conventional water delivery sources and infra-structure and where wells prove impractical.

More advanced, secure RGas™ technology based systems can be deployed in existing potable water distribution infrastructures to insure the safety of the drinking water currently being distributed by those systems in industrialized nations. Such systems, using the full potential of RGas™ to process the water using extreme physical conditions, would entirely eliminate the risk of any dangerous substance, bacteria or virus from reaching the consumer. Such systems operate at an advantage over those designed to process saline or brackish water in that the water is essentially clean at the outset, and that the contamination represents a relatively small percentage of the total volume of the water being processed.

Such protective systems could be deployed on a large scale to protect entire water systems, and / or on a small scale to protect users at the point of use. Given the current risk assessments and the likely duration of the risk, it is important to implement secure systems to protect the citizenry as quickly as possible.

Fortunately, the current state of RGas™ technology now allows the development and implementation of such secure protective systems rapidly, subject to regulatory cooperation and resource availability.

RGas™ Fuel Efficiency and Emissions Abatement System

Most of the hydrocarbon-based fuel used by modern society is burned in fuel injected internal combustion engines. Such engine types include the complete range of gasoline and diesel automobile engines, truck and bus engines, agricultural power sources, electrical generators, marine engines and many more. The common threads among all such engines are poor efficiency and unacceptable exhaust emissions. A properly engineered and installed RGas™ based supplemental fuel system has a very beneficial impact on both of these problems. Such a system can be installed at a minimal cost to the consumer and provide greatly improved fuel efficiency and dramatically reduced emissions.

RGas™ is injected into the combustion chamber in parallel with the engine's conventional fuel. This technology works with carbureted internal combustion engines but an engine, which is equipped with a fuel injector, however, is an ideal candidate for a RGas™ performance upgrade. This includes engines currently powered by natural gas and liquid propane products.

The RGas™ fuel creates a more efficient combustion reaction in the engine. This decreases the amount of fuel consumption, and reduces emissions. In certain types of internal combustion engines, RGas™ can completely eliminate the need for carbon based fuels which correspondingly eliminates virtually all carbon emissions. In addition to the obvious environmental benefit of the cleaner burning engine, other economic benefits can be very significant. Many businesses, including agricultural, marine and surface transportation, fishing and power generation, find a major portion of their operating expenses devoted to fuel needs. In addition, the logistics associated with the frequent need for fuel, as well as the distribution of fuel, often increase the cost of operations. RGas™ technology can have a significant impact on all of these important business factors.

RGas™ Electrical Power Generation Systems

Electrical energy is rapidly becoming the denominator separating the "haves" from the "have-nots" in our global society. In addition, we are seeing electrical energy shortages in America and other industrial nations. Many avenues are being investigated in an effort to provide additional electrical energy without creating many of the accompanying social and environmental problems associated with conventional generation facilities.

RGas™ technology represents solutions to energy problems in several applications areas.

A great deal of electrical energy is consumed in the generation of heat, air conditioning and refrigeration. Such systems are generally highly inefficient. The capacity of RGas™ to produce instantaneous and nearly perfect vacuums can provide a more efficient, less expensive non-polluting substitute for much of the electricity in many such circumstances.

Much of the cost of generating electricity, especially in remote areas, lies in the fuel burned in order to power the electrical generator. The use of RGas™ as a fuel additive or replacement in the engines powering conventional generators would dramatically lower the cost of generation, the associated pollution and would reduce the cost of bringing additional generating capacity on-line.

There are several methods by which RGas™ can be used in the direct generation of electrical energy. Prototype units demonstrating these capabilities have been developed by Realm Industries. These include units in a wide variety of capacities, applicable to individual homeowners as well as to large-scale electrical producers. The proprietary nature of these techniques precludes discussing them in detail in this document. Needless to say, Realm Industries is now ready to introduce this technology to the world.

RGas™ Inorganic / Organic Synthesis Capabilities

RGas™ has several unusual characteristics. These characteristics, when carefully controlled, make it an ideal process gas for certain types of inorganic and organic synthesis.

RGas™ can be created at very high energy levels, and those levels can be sustained for a sufficient time to allow certain high-energy chemical reactions to take place. The resulting products from such reactions find a wide variety of uses.

Catalysis, the action of a catalyst, especially to enable or promote an increase in the rate of a chemical reaction, is an area particularly suited to the use of RGas™.

By mixing RGas™ as a process gas, together with other component substances, in the presence of various catalysts, a wide variety of synthesis reactions is possible.

This capability, together with the low operating cost of RGas™ generation systems, can make a significant difference in the economics of implementing currently marginal synthesis operations. It can also reduce the cost of existing synthesis process, resulting in considerable savings to both producer and consumer.

A good example lies in the current production of synthetic alcohol from certain types of waste material. Significant quantities of carbon dioxide are produced as a waste stream. Utilizing RGas™ technology, that carbon dioxide, combined with RGas™ can be used in producing additional quantities of alcohol, resulting in the elimination of the waste stream entirely.

RGas™ technology can provide a powerful tool in many synthesis applications.

Conclusion

The various applications, concepts and philosophies discussed in this document cover an extremely wide range of subject matter. The reader is encouraged to return to the "Conceptual Overview" section to be reminded of the basic similarity that binds these seemingly different applications and concepts together.

This document reflects goals and philosophies that can be achieved with the knowledge and technology currently in hand and understood. There is nothing here that has not or cannot be proven. It remains our clear responsibility to establish the priorities involved in the implementation and deployment of these applications in a socially and environmentally conscious manner.

As these goals are reached, and as these applications are deployed, other equally important opportunities will come to light.

It is Realm Industries commitment to control its technology for the common good, to be mindful of the humanitarian responsibility the stewardship of this technology carries and to be ever mindful of the need and obligation we carry in the responsible management and improvement of our environment.

What volume of our gas can be usefully derived from a given volume of water?
And what can be done with it?

Atomic Weight of Hydrogen = 1.00794
Atomic Weight of Oxygen = 15.9994

Molecular Weight of Water = 18.01528 (2 H plus 1 O)

Moles of Water in One Liter = 55.508435 (1000 / Molecular Weight)

The Ideal Gas Equation: PV = nRT

Where P is the Pressure in Atmospheres
V is the Volume in Liters
n is the quantity of gas in moles
R is the gas constant (0.08206 L atm / mol K)
T is the Temperature in Kelvin

Standard Temperature and Pressure (STP) are considered to be 1 atmosphere of pressure at 0 degrees C or 273.15 K

Calculating: V = nRT/P to determine the volume of one mole of ideal gas at STP

V = (1.0 * 0.08206 * 273.15) / 1.0 = 22.41469 Liters

It is generally stated that the Molar Volume of any ideal gas is 22.4 liters at STP.

One mole of water contains one mole of hydrogen and one half mole of oxygen, at STP each mole of gas occupies 22.4 liters.

Therefore one liter of water contains: 55.50844 moles of hydrogen and
27.75422 moles of oxygen for a total of
83.26265 moles of total gas each of which occupies 22.4 liters at STP

For a total volume of: 1865.0834 liters

One cubic foot = 28.32 liters

Therefore 1 liter of water will produce : 65.85747 cubic feet of gas
or: 15.18431 ml water per cubic foot of gas

One gallon = 3.79 liters

Therefore 1 gallon of water will produce: 249.5998 cubic feet of gas

One cubic foot = 7.48 gallons

Therefore 1 cubic foot of water will produce: 1867.006 cubic feet of gas (Note the effect of rounding errors)

Assuming a 90% recovery and recycling factor:

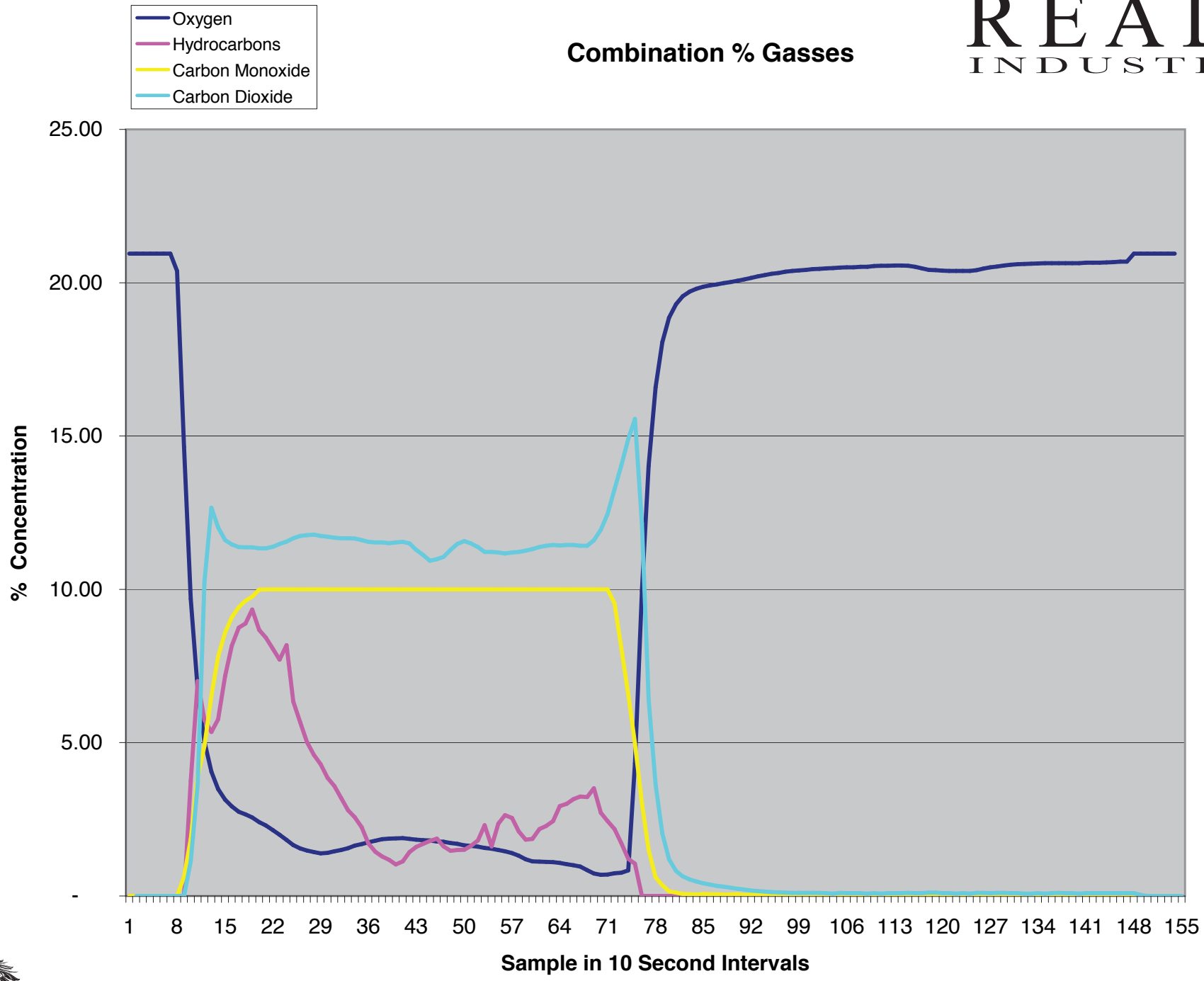
Water Gallons	Cubic Feet	Recovered Gallons
1.000	249.600	0.900
0.900	224.640	0.810
0.810	202.176	0.729
0.729	181.958	0.656
0.656	163.762	0.590
0.590	147.386	0.531
0.531	132.648	0.478
0.478	119.383	0.430
0.430	107.445	0.387
0.387	96.700	0.349
0.349	87.030	0.314
0.314	78.327	0.282
0.282	70.494	0.254
0.254	63.445	0.229
0.229	57.100	0.206
0.206	51.390	0.185
0.185	46.251	0.167

0.167	41.626	0.150
0.150	37.464	0.135
0.135	33.717	0.122
0.122	30.346	0.109
0.109	27.311	0.098
0.098	24.580	0.089
0.089	22.122	0.080
0.080	19.910	0.072
0.072	17.919	0.065
0.065	16.127	0.058
0.058	14.514	0.052
0.052	13.063	0.047
0.047	11.756	0.042

	2,390.19	Useable cubic feet of gas per gallon of water
At 150 CFH this represents :	15.93	hours of running time
At 70 MPH this represents:	1,115.42	miles per gallon of water
At 124 Kw this represents:	1,975.89	KwH per gallon of water
Valued at $ 0.0545 per KwH	$ 107.69	per gallon of water

REALM™ INDUSTRIES

Combination % Gasses



Automotive Engine Fuel Test

6 Cylinder Carbureted Gasoline Engine

Toyota Model 2-F

Conducted August 12, 2006

IMR 2800A Exhaust Gas Analyzer

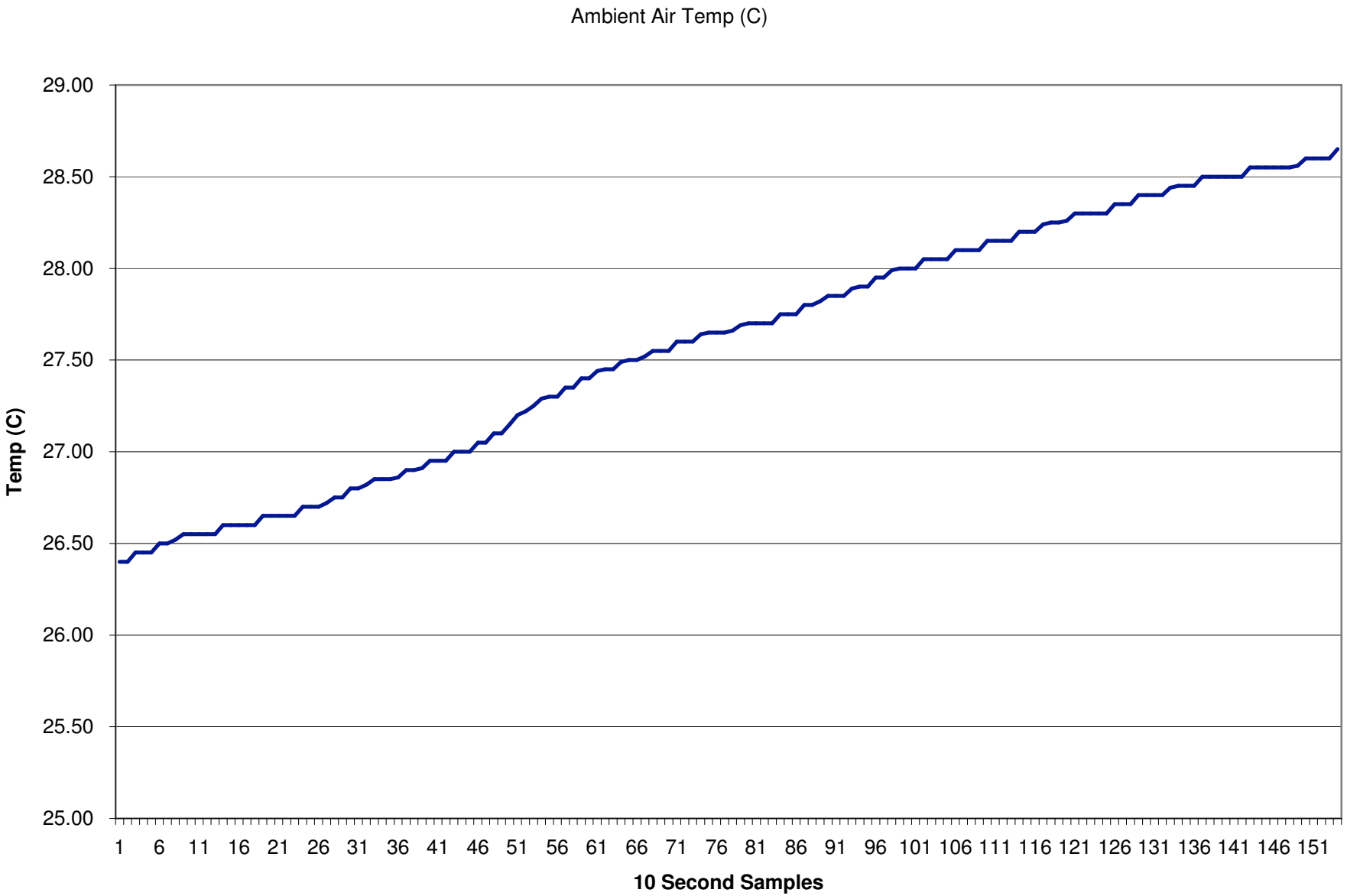
This test demonstrates the difference in emissions when an unmodified gasoline engine is run using proprietary "Pgas." Actual engine power levels were higher when the "Pgas" was in use. Readings were taken over ten second intervals. Data points 1 through 71 indicate conditions when regular unleaded gasoline is used, 72 through 78 indicate the transition from gasoline to "Pgas" and 79 through 147 indicate conditions when the engine was running on pure "Pgas." Readings 148 through 154 were taken after the engine was turned off. The engine remained running at all times until turned off. There are no discontinuities in the data stream. Expert witnesses were present at all times.

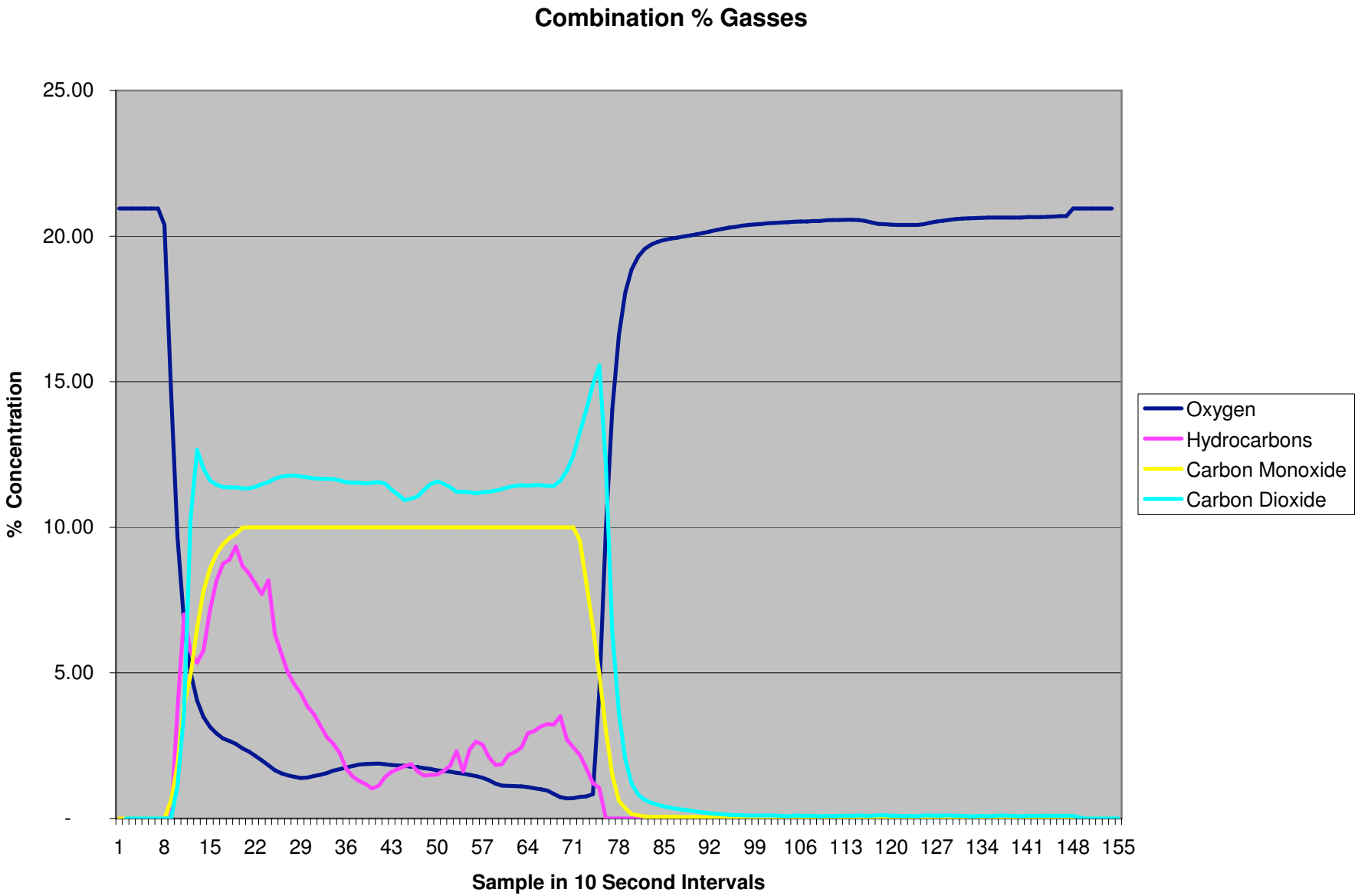
Reading Number	Device Number	Fuel	Engineering Unit	Date	Time	Number of Samples	Sample Time	Ambient Air Temperature ℃	Oxygen O2 %	Hydrocarbons HC %	Carbon Monoxide CO %	Carbon Dioxide CO2 %	Sulfur Dioxide SO2 PPM	Nitric Oxide NOx PPM	Exhaust Temperature ℃	
1	2800	Gasoline	ppm	12-Aug-06	11:29:01 AM	1	10	26.40	20.95	-	-	-	31.56	-	24.60	Gasoline
2	2800	Gasoline	ppm	12-Aug-06	11:29:11 AM	1	10	26.40	20.95	-	-	-	37.57	-	24.57	
3	2800	Gasoline	ppm	12-Aug-06	11:29:21 AM	1	10	26.45	20.95	-	-	-	38.64	-	24.62	
4	2800	Gasoline	ppm	12-Aug-06	11:29:31 AM	1	10	26.45	20.95	-	-	-	39.38	-	24.61	
5	2800	Gasoline	ppm	12-Aug-06	11:29:41 AM	1	10	26.45	20.95	-	-	-	37.31	-	24.57	
6	2800	Gasoline	ppm	12-Aug-06	11:29:51 AM	1	10	26.50	20.95	-	-	-	38.72	-	23.77	
7	2800	Gasoline	ppm	12-Aug-06	11:30:01 AM	1	10	26.50	20.95	-	-	-	47.08	-	23.70	
8	2800	Gasoline	ppm	12-Aug-06	11:30:11 AM	1	10	26.52	20.38	-	-	-	95.47	12.55	25.87	
9	2800	Gasoline	ppm	12-Aug-06	11:30:21 AM	1	10	26.55	14.65	-	0.62	1.13	158.09	56.14	29.10	
10	2800	Gasoline	ppm	12-Aug-06	11:30:31 AM	1	10	26.55	9.69	3.75	1.85	3.65	-	59.46	34.53	
11	2800	Gasoline	ppm	12-Aug-06	11:30:41 AM	1	10	26.55	6.72	7.01	3.90	10.24	-	57.60	39.99	
12	2800	Gasoline	ppm	12-Aug-06	11:30:51 AM	1	10	26.55	5.04	5.74	4.89	12.66	-	54.22	43.95	
13	2800	Gasoline	ppm	12-Aug-06	11:31:01 AM	1	10	26.55	4.05	5.35	6.53	12.02	-	54.73	46.98	
14	2800	Gasoline	ppm	12-Aug-06	11:31:11 AM	1	10	26.60	3.49	5.76	7.81	11.61	-	56.02	49.26	
15	2800	Gasoline	ppm	12-Aug-06	11:31:21 AM	1	10	26.60	3.14	7.17	8.59	11.46	-	59.12	50.82	
16	2800	Gasoline	ppm	12-Aug-06	11:31:31 AM	1	10	26.60	2.92	8.16	9.09	11.38	-	61.33	51.87	
17	2800	Gasoline	ppm	12-Aug-06	11:31:41 AM	1	10	26.60	2.75	8.75	9.42	11.37	-	61.98	53.70	
18	2800	Gasoline	ppm	12-Aug-06	11:31:51 AM	1	10	26.60	2.66	8.89	9.63	11.37	-	62.83	56.82	
19	2800	Gasoline	ppm	12-Aug-06	11:32:01 AM	1	10	26.65	2.56	9.34	9.76	11.34	-	63.20	58.52	
20	2800	Gasoline	ppm	12-Aug-06	11:32:11 AM	1	10	26.65	2.41	8.68	9.99	11.34	-	63.70	59.84	
21	2800	Gasoline	ppm	12-Aug-06	11:32:21 AM	1	10	26.65	2.30	8.42	10.00	11.39	-	64.02	61.30	
22	2800	Gasoline	ppm	12-Aug-06	11:32:31 AM	1	10	26.65	2.15	8.06	10.00	11.48	-	67.35	63.02	
23	2800	Gasoline	ppm	12-Aug-06	11:32:41 AM	1	10	26.65	2.00	7.71	10.00	11.56	-	67.60	64.58	
24	2800	Gasoline	ppm	12-Aug-06	11:32:51 AM	1	10	26.70	1.83	8.18	10.00	11.67	-	67.95	66.00	
25	2800	Gasoline	ppm	12-Aug-06	11:33:01 AM	1	10	26.70	1.66	6.34	10.00	11.74	-	68.22	67.21	
26	2800	Gasoline	ppm	12-Aug-06	11:33:11 AM	1	10	26.70	1.55	5.66	10.00	11.77	-	71.14	68.45	
27	2800	Gasoline	ppm	12-Aug-06	11:33:21 AM	1	10	26.72	1.48	5.02	10.00	11.78	-	71.78	69.67	
28	2800	Gasoline	ppm	12-Aug-06	11:33:31 AM	1	10	26.75	1.43	4.60	10.00	11.74	-	71.89	70.78	
29	2800	Gasoline	ppm	12-Aug-06	11:33:41 AM	1	10	26.75	1.39	4.30	10.00	11.72	-	71.97	71.76	
30	2800	Gasoline	ppm	12-Aug-06	11:33:51 AM	1	10	26.80	1.41	3.85	10.00	11.68	-	74.69	72.64	
31	2800	Gasoline	ppm	12-Aug-06	11:34:01 AM	1	10	26.80	1.46	3.59	10.00	11.67	-	75.75	73.66	
32	2800	Gasoline	ppm	12-Aug-06	11:34:11 AM	1	10	26.82	1.50	3.20	10.00	11.67	-	75.57	74.89	
33	2800	Gasoline	ppm	12-Aug-06	11:34:21 AM	1	10	26.85	1.56	2.80	10.00	11.66	-	76.79	76.04	
34	2800	Gasoline	ppm	12-Aug-06	11:34:31 AM	1	10	26.85	1.64	2.57	10.00	11.61	-	78.83	77.39	
35	2800	Gasoline	ppm	12-Aug-06	11:34:41 AM	1	10	26.85	1.69	2.24	10.00	11.55	-	78.72	78.80	
36	2800	Gasoline	ppm	12-Aug-06	11:34:51 AM	1	10	26.86	1.75	1.71	10.00	11.53	-	78.69	80.24	
37	2800	Gasoline	ppm	12-Aug-06	11:35:01 AM	1	10	26.90	1.80	1.44	10.00	11.53	-	79.10	81.89	
38	2800	Gasoline	ppm	12-Aug-06	11:35:11 AM	1	10	26.90	1.85	1.29	10.00	11.51	-	81.89	83.45	

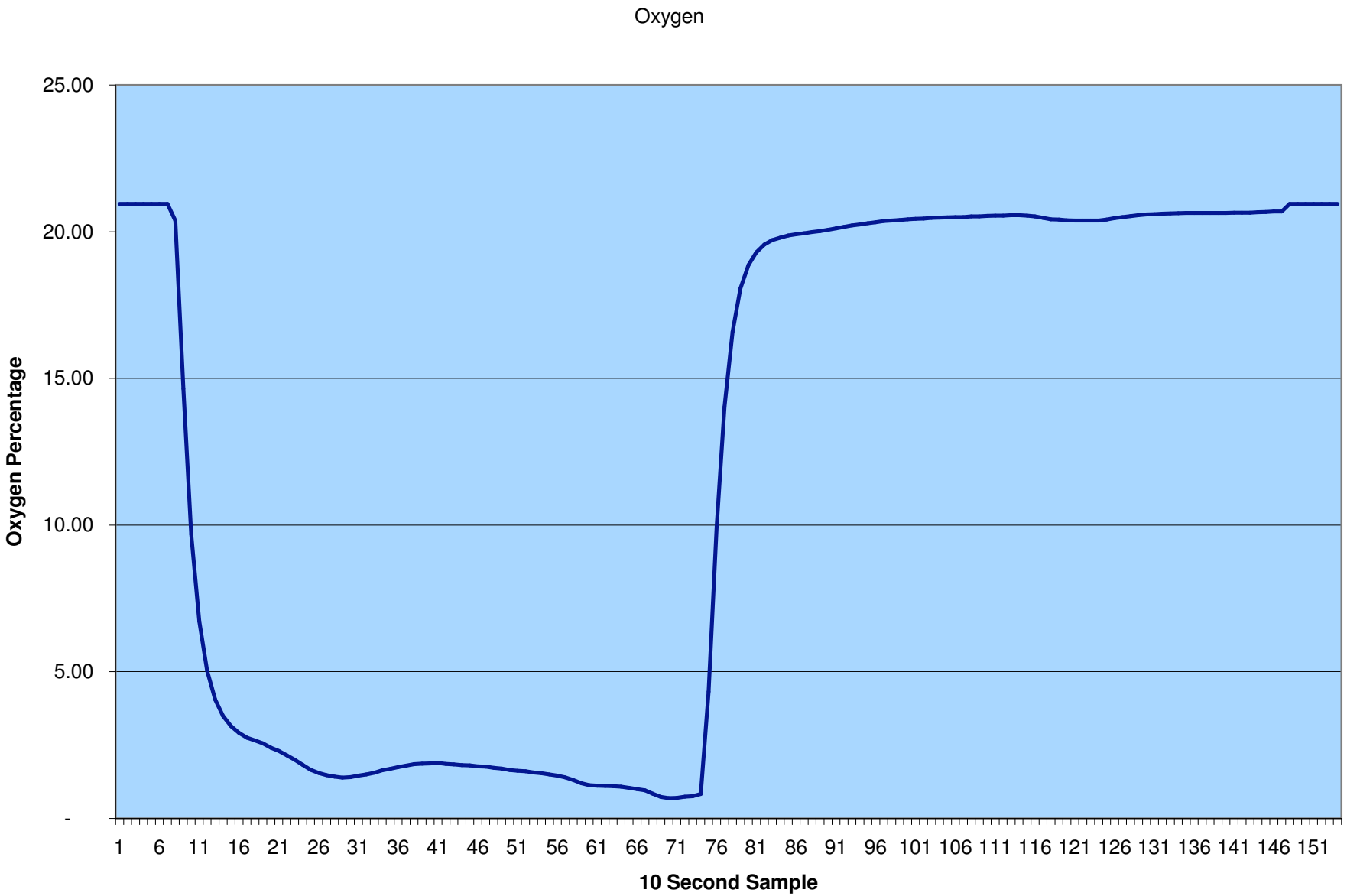
39	2800	Gasoline	ppm	12-Aug-06	11:35:21 AM	1	10	26.91	1.87	1.18	10.00	11.53	-	81.81	84.97		
40	2800	Gasoline	ppm	12-Aug-06	11:35:31 AM	1	10	26.95	1.88	1.03	10.00	11.55	-	81.81	86.78		
41	2800	Gasoline	ppm	12-Aug-06	11:35:41 AM	1	10	26.95	1.89	1.13	10.00	11.50	-	81.83	88.27		
42	2800	Gasoline	ppm	12-Aug-06	11:35:51 AM	1	10	26.95	1.86	1.43	10.00	11.29	-	80.09	90.09		
43	2800	Gasoline	ppm	12-Aug-06	11:36:01 AM	1	10	27.00	1.84	1.60	10.00	11.12	-	82.10	91.79		
44	2800	Gasoline	ppm	12-Aug-06	11:36:11 AM	1	10	27.00	1.82	1.70	10.00	10.93	-	81.39	93.41		
45	2800	Gasoline	ppm	12-Aug-06	11:36:21 AM	1	10	27.00	1.81	1.79	10.00	10.98	-	83.22	95.12		
46	2800	Gasoline	ppm	12-Aug-06	11:36:31 AM	1	10	27.05	1.78	1.87	10.00	11.06	-	83.42	96.70		
47	2800	Gasoline	ppm	12-Aug-06	11:36:41 AM	1	10	27.05	1.77	1.62	10.00	11.29	-	86.21	98.50		
48	2800	Gasoline	ppm	12-Aug-06	11:36:51 AM	1	10	27.10	1.73	1.47	10.00	11.48	-	86.28	100.11		
49	2800	Gasoline	ppm	12-Aug-06	11:37:01 AM	1	10	27.10	1.70	1.50	10.00	11.57	-	85.86	101.81		
50	2800	Gasoline	ppm	12-Aug-06	11:37:11 AM	1	10	27.15	1.65	1.51	10.00	11.50	-	85.82	103.49		
51	2800	Gasoline	ppm	12-Aug-06	11:37:21 AM	1	10	27.20	1.63	1.63	10.00	11.38	-	83.47	105.15		
52	2800	Gasoline	ppm	12-Aug-06	11:37:31 AM	1	10	27.22	1.61	1.81	10.00	11.22	-	86.52	106.83		
53	2800	Gasoline	ppm	12-Aug-06	11:37:41 AM	1	10	27.25	1.57	2.31	10.00	11.22	-	85.42	108.27		
54	2800	Gasoline	ppm	12-Aug-06	11:37:51 AM	1	10	27.29	1.54	1.62	10.00	11.20	-	86.27	110.15		
55	2800	Gasoline	ppm	12-Aug-06	11:38:01 AM	1	10	27.30	1.50	2.36	10.00	11.17	-	85.72	111.86		
56	2800	Gasoline	ppm	12-Aug-06	11:38:11 AM	1	10	27.30	1.46	2.64	10.00	11.20	-	86.30	113.31		
57	2800	Gasoline	ppm	12-Aug-06	11:38:21 AM	1	10	27.35	1.40	2.54	10.00	11.22	-	87.41	115.44		
58	2800	Gasoline	ppm	12-Aug-06	11:38:31 AM	1	10	27.35	1.31	2.11	10.00	11.26	-	87.36	117.74		
59	2800	Gasoline	ppm	12-Aug-06	11:38:41 AM	1	10	27.40	1.20	1.84	10.00	11.31	-	87.67	119.08		
60	2800	Gasoline	ppm	12-Aug-06	11:38:51 AM	1	10	27.40	1.13	1.86	10.00	11.38	-	87.91	120.27		
61	2800	Gasoline	ppm	12-Aug-06	11:39:01 AM	1	10	27.44	1.12	2.18	10.00	11.42	-	85.49	121.72		
62	2800	Gasoline	ppm	12-Aug-06	11:39:11 AM	1	10	27.45	1.11	2.28	10.00	11.45	-	85.49	123.41		
63	2800	Gasoline	ppm	12-Aug-06	11:39:21 AM	1	10	27.45	1.10	2.44	10.00	11.43	-	86.35	124.59		
64	2800	Gasoline	ppm	12-Aug-06	11:39:31 AM	1	10	27.49	1.08	2.93	10.00	11.45	-	86.26	126.07		
65	2800	Gasoline	ppm	12-Aug-06	11:39:41 AM	1	10	27.50	1.04	3.01	10.00	11.45	-	86.96	127.70		
66	2800	Gasoline	ppm	12-Aug-06	11:39:51 AM	1	10	27.50	1.00	3.16	10.00	11.42	-	84.98	129.29		
67	2800	Gasoline	ppm	12-Aug-06	11:40:01 AM	1	10	27.52	0.96	3.24	10.00	11.42	-	85.19	132.21		
68	2800	Gasoline	ppm	12-Aug-06	11:40:11 AM	1	10	27.55	0.84	3.23	10.00	11.60	-	93.78	134.19		
69	2800	Gasoline	ppm	12-Aug-06	11:40:21 AM	1	10	27.55	0.73	3.51	10.00	11.94	-	101.22	135.19		
70	2800	Gasoline	ppm	12-Aug-06	11:40:31 AM	1	10	27.55	0.69	2.71	10.00	12.46	-	107.73	136.57		
71	2800	Gasoline	ppm	12-Aug-06	11:40:41 AM	1	10	27.60	0.70	2.44	10.00	13.27	-	118.65	137.60	▼	
72	2800	Transition	ppm	12-Aug-06	11:40:51 AM	1	10	27.60	0.74	2.18	9.54	14.03	-	130.34	139.01	Transition	
73	2800	Transition	ppm	12-Aug-06	11:41:01 AM	1	10	27.60	0.76	1.73	8.10	14.90	-	135.50	141.20		
74	2800	Transition	ppm	12-Aug-06	11:41:11 AM	1	10	27.64	0.83	1.21	6.58	15.56	-	146.42	140.47		
75	2800	Transition	ppm	12-Aug-06	11:41:21 AM	1	10	27.65	4.32	1.05	4.97	12.15	-	120.07	142.76		
76	2800	Transition	ppm	12-Aug-06	11:41:31 AM	1	10	27.65	9.95	-	3.03	6.41	-	63.06	143.73		
77	2800	Transition	ppm	12-Aug-06	11:41:41 AM	1	10	27.65	14.03	-	1.50	3.63	-	34.89	144.54		
78	2800	Transition	ppm	12-Aug-06	11:41:51 AM	1	10	27.66	16.59	-	0.61	2.04	-	21.20	144.90	▼	
79	2800	Pgas	ppm	12-Aug-06	11:42:01 AM	1	10	27.69	18.06	-	0.35	1.20	-	13.96	145.72	Pgas	
80	2800	Pgas	ppm	12-Aug-06	11:42:11 AM	1	10	27.70	18.86	-	0.15	0.82	9.18	9.98	145.96		
81	2800	Pgas	ppm	12-Aug-06	11:42:21 AM	1	10	27.70	19.30	-	0.11	0.64	15.13	8.02	146.48		
82	2800	Pgas	ppm	12-Aug-06	11:42:31 AM	1	10	27.70	19.56	-	0.07	0.54	19.53	7.55	146.96		
83	2800	Pgas	ppm	12-Aug-06	11:42:41 AM	1	10	27.70	19.71	-	0.06	0.47	21.67	5.84	147.46		
84	2800	Pgas	ppm	12-Aug-06	11:42:51 AM	1	10	27.75	19.80	-	0.05	0.41	22.73	3.51	147.78		
85	2800	Pgas	ppm	12-Aug-06	11:43:01 AM	1	10	27.75	19.87	-	0.07	0.37	18.36	3.40	148.00		
86	2800	Pgas	ppm	12-Aug-06	11:43:11 AM	1	10	27.75	19.91	-	0.06	0.33	19.16	3.60	148.53		
87	2800	Pgas	ppm	12-Aug-06	11:43:21 AM	1	10	27.80	19.95	-	0.06	0.30	19.17	2.96	148.53		
88	2800	Pgas	ppm	12-Aug-06	11:43:31 AM	1	10	27.80	19.99	-	0.04	0.27	22.33	2.92	148.55		
89	2800	Pgas	ppm	12-Aug-06	11:43:41 AM	1	10	27.82	20.02	-	0.05	0.24	20.41	3.78	147.20		

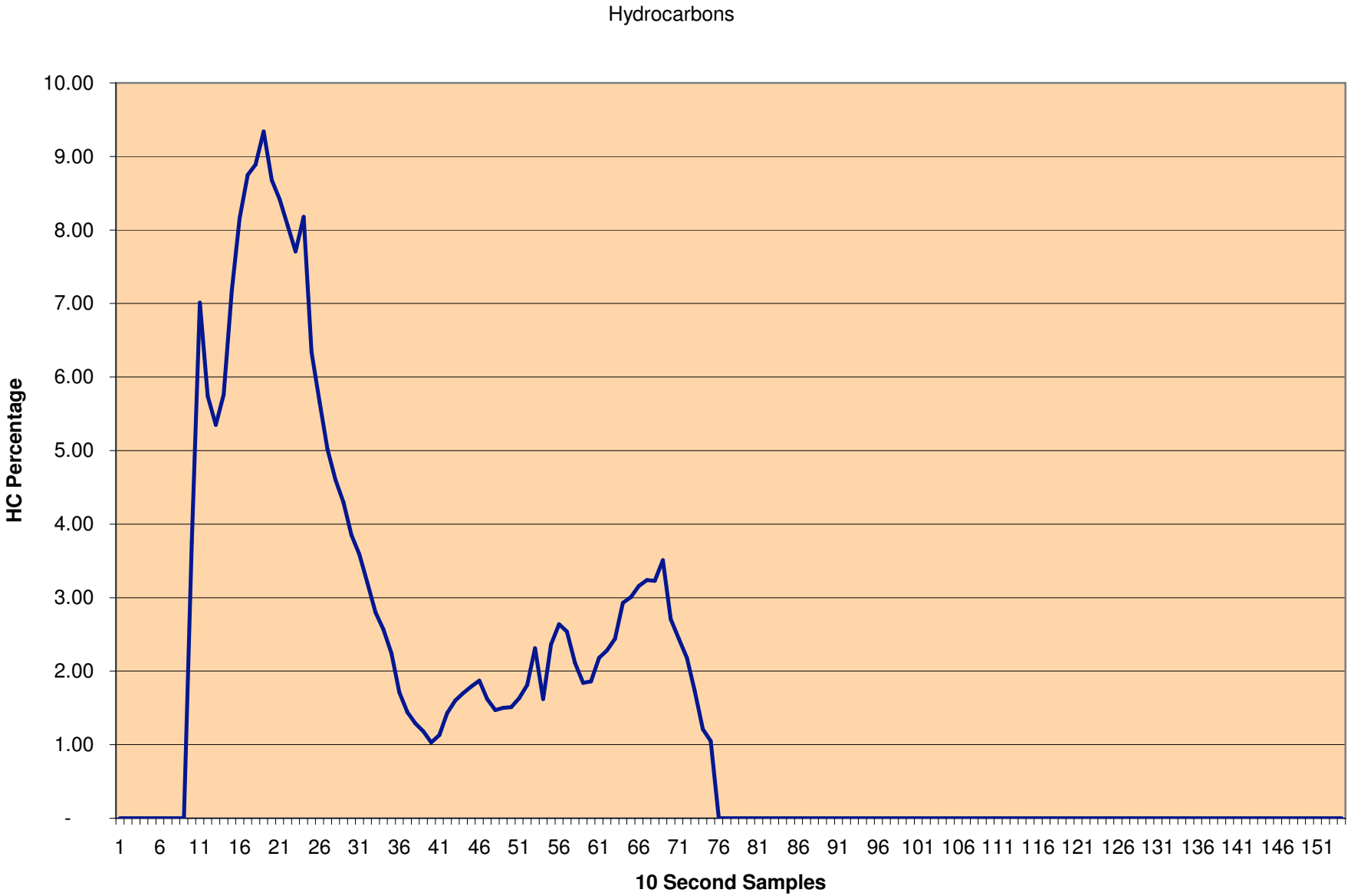
90	2800	Pgas	ppm	12-Aug-06	11:43:51 AM	1	10	27.85	20.06	-	0.06	0.21	39.25	2.62	146.65
91	2800	Pgas	ppm	12-Aug-06	11:44:01 AM	1	10	27.85	20.11	-	0.03	0.18	65.63	2.18	146.06
92	2800	Pgas	ppm	12-Aug-06	11:44:11 AM	1	10	27.85	20.16	-	0.04	0.16	71.83	-	145.71
93	2800	Pgas	ppm	12-Aug-06	11:44:21 AM	1	10	27.89	20.21	-	0.03	0.14	77.56	-	145.00
94	2800	Pgas	ppm	12-Aug-06	11:44:31 AM	1	10	27.90	20.25	-	0.03	0.13	82.04	-	144.76
95	2800	Pgas	ppm	12-Aug-06	11:44:41 AM	1	10	27.90	20.29	-	0.03	0.12	82.28	-	143.85
96	2800	Pgas	ppm	12-Aug-06	11:44:51 AM	1	10	27.95	20.32	-	0.05	0.11	87.16	1.35	143.37
97	2800	Pgas	ppm	12-Aug-06	11:45:01 AM	1	10	27.95	20.36	-	0.05	0.10	87.81	-	142.47
98	2800	Pgas	ppm	12-Aug-06	11:45:11 AM	1	10	27.99	20.38	-	0.05	0.10	89.76	-	141.99
99	2800	Pgas	ppm	12-Aug-06	11:45:21 AM	1	10	28.00	20.40	-	0.03	0.10	96.34	-	141.09
100	2800	Pgas	ppm	12-Aug-06	11:45:31 AM	1	10	28.00	20.42	-	0.04	0.10	98.47	-	140.11
101	2800	Pgas	ppm	12-Aug-06	11:45:41 AM	1	10	28.00	20.44	-	0.05	0.10	102.79	-	139.63
102	2800	Pgas	ppm	12-Aug-06	11:45:51 AM	1	10	28.05	20.45	-	0.02	0.09	106.28	1.49	138.72
103	2800	Pgas	ppm	12-Aug-06	11:46:01 AM	1	10	28.05	20.47	-	0.02	0.08	113.38	-	137.86
104	2800	Pgas	ppm	12-Aug-06	11:46:11 AM	1	10	28.05	20.48	-	0.01	0.10	119.58	-	137.31
105	2800	Pgas	ppm	12-Aug-06	11:46:21 AM	1	10	28.05	20.49	-	0.01	0.09	115.04	-	136.37
106	2800	Pgas	ppm	12-Aug-06	11:46:31 AM	1	10	28.10	20.50	-	0.02	0.09	113.86	-	135.46
107	2800	Pgas	ppm	12-Aug-06	11:46:41 AM	1	10	28.10	20.50	-	-	0.09	122.55	-	134.68
108	2800	Pgas	ppm	12-Aug-06	11:46:51 AM	1	10	28.10	20.52	-	0.04	0.08	121.18	1.18	134.02
109	2800	Pgas	ppm	12-Aug-06	11:47:01 AM	1	10	28.10	20.52	-	0.03	0.09	127.16	-	133.09
110	2800	Pgas	ppm	12-Aug-06	11:47:11 AM	1	10	28.15	20.54	-	0.04	0.08	125.74	-	132.16
111	2800	Pgas	ppm	12-Aug-06	11:47:21 AM	1	10	28.15	20.55	-	0.04	0.09	128.76	-	131.68
112	2800	Pgas	ppm	12-Aug-06	11:47:31 AM	1	10	28.15	20.55	-	0.04	0.09	127.32	1.01	130.75
113	2800	Pgas	ppm	12-Aug-06	11:47:41 AM	1	10	28.15	20.56	-	0.01	0.09	131.27	-	129.88
114	2800	Pgas	ppm	12-Aug-06	11:47:51 AM	1	10	28.20	20.56	-	0.01	0.10	136.65	-	131.91
115	2800	Pgas	ppm	12-Aug-06	11:48:01 AM	1	10	28.20	20.55	-	0.01	0.09	84.28	1.82	132.66
116	2800	Pgas	ppm	12-Aug-06	11:48:11 AM	1	10	28.20	20.52	-	0.01	0.09	46.26	-	132.68
117	2800	Pgas	ppm	12-Aug-06	11:48:21 AM	1	10	28.24	20.47	-	-	0.11	42.87	2.58	132.68
118	2800	Pgas	ppm	12-Aug-06	11:48:31 AM	1	10	28.25	20.42	-	0.01	0.11	44.52	-	132.68
119	2800	Pgas	ppm	12-Aug-06	11:48:41 AM	1	10	28.25	20.41	-	0.03	0.09	40.01	2.59	132.25
120	2800	Pgas	ppm	12-Aug-06	11:48:51 AM	1	10	28.26	20.39	-	0.03	0.09	41.79	2.59	132.23
121	2800	Pgas	ppm	12-Aug-06	11:49:01 AM	1	10	28.30	20.38	-	0.04	0.08	43.07	-	131.98
122	2800	Pgas	ppm	12-Aug-06	11:49:11 AM	1	10	28.30	20.38	-	0.03	0.09	46.20	2.51	131.81
123	2800	Pgas	ppm	12-Aug-06	11:49:21 AM	1	10	28.30	20.38	-	0.04	0.08	49.69	2.45	127.80
124	2800	Pgas	ppm	12-Aug-06	11:49:31 AM	1	10	28.30	20.38	-	0.01	0.10	116.10	1.33	126.63
125	2800	Pgas	ppm	12-Aug-06	11:49:41 AM	1	10	28.30	20.41	-	-	0.10	145.08	-	125.66
126	2800	Pgas	ppm	12-Aug-06	11:49:51 AM	1	10	28.35	20.46	-	0.02	0.09	150.70	-	124.74
127	2800	Pgas	ppm	12-Aug-06	11:50:01 AM	1	10	28.35	20.50	-	0.01	0.10	151.01	-	123.79
128	2800	Pgas	ppm	12-Aug-06	11:50:11 AM	1	10	28.35	20.53	-	0.02	0.10	152.69	-	123.06
129	2800	Pgas	ppm	12-Aug-06	11:50:20 AM	1	10	28.40	20.56	-	0.04	0.09	151.22	-	122.36
130	2800	Pgas	ppm	12-Aug-06	11:50:30 AM	1	10	28.40	20.59	-	0.05	0.09	150.48	-	121.46
131	2800	Pgas	ppm	12-Aug-06	11:50:40 AM	1	10	28.40	20.60	-	0.05	0.08	148.76	-	120.93
132	2800	Pgas	ppm	12-Aug-06	11:50:50 AM	1	10	28.40	20.61	-	0.04	0.08	153.26	-	120.04
133	2800	Pgas	ppm	12-Aug-06	11:51:00 AM	1	10	28.44	20.62	-	0.06	0.09	149.33	-	119.44
134	2800	Pgas	ppm	12-Aug-06	11:51:10 AM	1	10	28.45	20.63	-	0.05	0.08	148.44	-	118.66
135	2800	Pgas	ppm	12-Aug-06	11:51:20 AM	1	10	28.45	20.64	-	0.04	0.09	151.73	-	118.13
136	2800	Pgas	ppm	12-Aug-06	11:51:30 AM	1	10	28.45	20.64	-	0.03	0.10	149.96	-	117.21
137	2800	Pgas	ppm	12-Aug-06	11:51:40 AM	1	10	28.50	20.64	-	0.03	0.09	156.43	-	116.71
138	2800	Pgas	ppm	12-Aug-06	11:51:50 AM	1	10	28.50	20.64	-	0.02	0.09	154.90	-	115.92
139	2800	Pgas	ppm	12-Aug-06	11:52:00 AM	1	10	28.50	20.64	-	0.03	0.08	151.76	-	115.39
140	2800	Pgas	ppm	12-Aug-06	11:52:10 AM	1	10	28.50	20.64	-	0.04	0.09	151.50	-	114.91

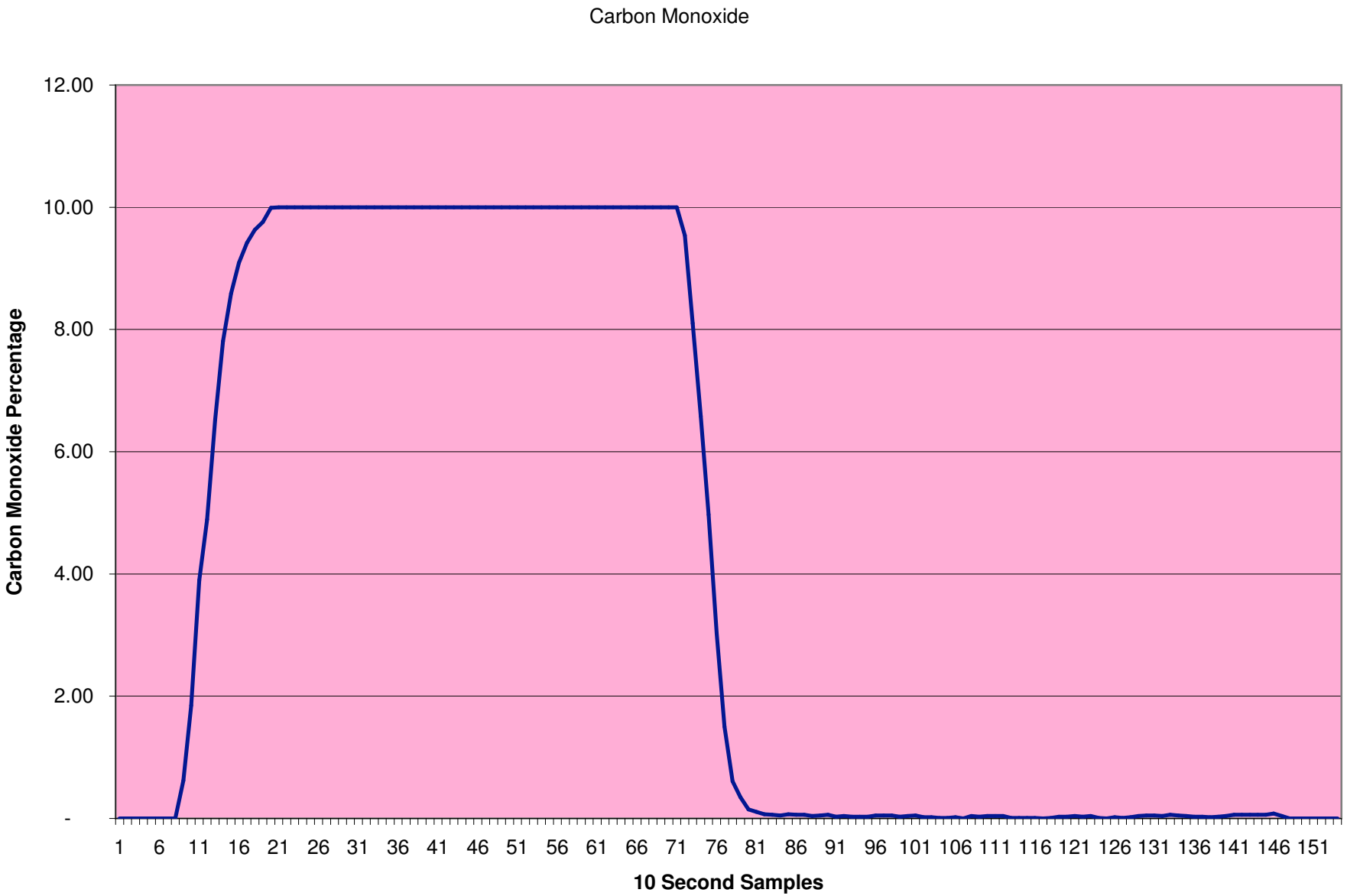
141	2800	Pgas	ppm	12-Aug-06	**11:52:20 AM**	1	10	28.50	20.65	-	0.06	0.09	148.17	-	114.14		
142	2800	Pgas	ppm	12-Aug-06	**11:52:30 AM**	1	10	28.50	20.65	-	0.06	0.09	153.21	-	113.56		
143	2800	Pgas	ppm	12-Aug-06	**11:52:40 AM**	1	10	28.55	20.65	-	0.06	0.09	154.28	-	113.02		
144	2800	Pgas	ppm	12-Aug-06	**11:52:50 AM**	1	10	28.55	20.66	-	0.06	0.09	154.49	-	112.53		
145	2800	Pgas	ppm	12-Aug-06	**11:53:00 AM**	1	10	28.55	20.67	-	0.06	0.09	152.11	-	112.05		
146	2800	Pgas	ppm	12-Aug-06	**11:53:10 AM**	1	10	28.55	20.69	-	0.08	0.09	145.18	-	109.32		
147	2800	Pgas	ppm	12-Aug-06	**11:53:20 AM**	1	10	28.55	20.69	-	0.04	0.09	143.12	-	107.99		
148	2800	Off	ppm	12-Aug-06	**11:53:30 AM**	1	10	28.55	20.95	-	-	0.03	83.43	-	96.18	Off	
149	2800	Off	ppm	12-Aug-06	11:53:40 AM	1	10	28.56	20.95	-	-	-	50.27	-	64.21		
150	2800	Off	ppm	12-Aug-06	11:53:50 AM	1	10	28.60	20.95	-	-	-	35.66	-	59.03		
151	2800	Off	ppm	12-Aug-06	11:54:00 AM	1	10	28.60	20.95	-	-	-	36.80	-	54.35		
152	2800	Off	ppm	12-Aug-06	11:54:10 AM	1	10	28.60	20.95	-	-	-	33.27	-	50.82		
153	2800	Off	ppm	12-Aug-06	11:54:20 AM	1	10	28.60	20.95	-	-	-	32.93	-	46.93		
154	2800	Off	ppm	12-Aug-06	11:54:30 AM	1	10	28.65	20.95	-	-	-	31.95	-	44.66		

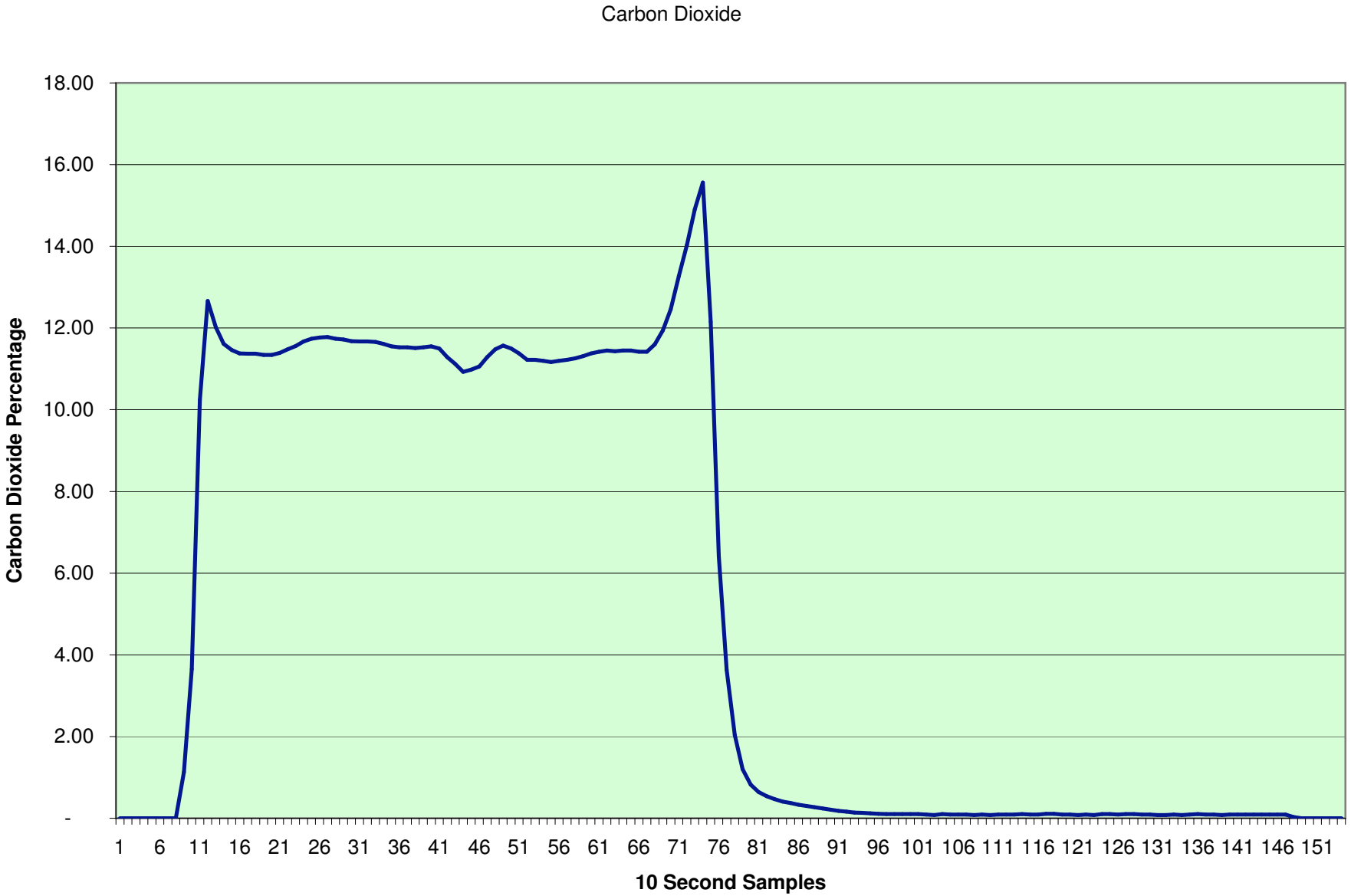

Ambient Air Temp (C)
29.00
28.50
28.00
27.50
27.00
26.50
26.00
25.50
25.00
Temp (C)
1 6 11 16 21 26 31 36 41 46 51 56 61 66 71 76 81 86 91 96 101 106 111 116 121 126 131 136 141 146 151
10 Second Samples

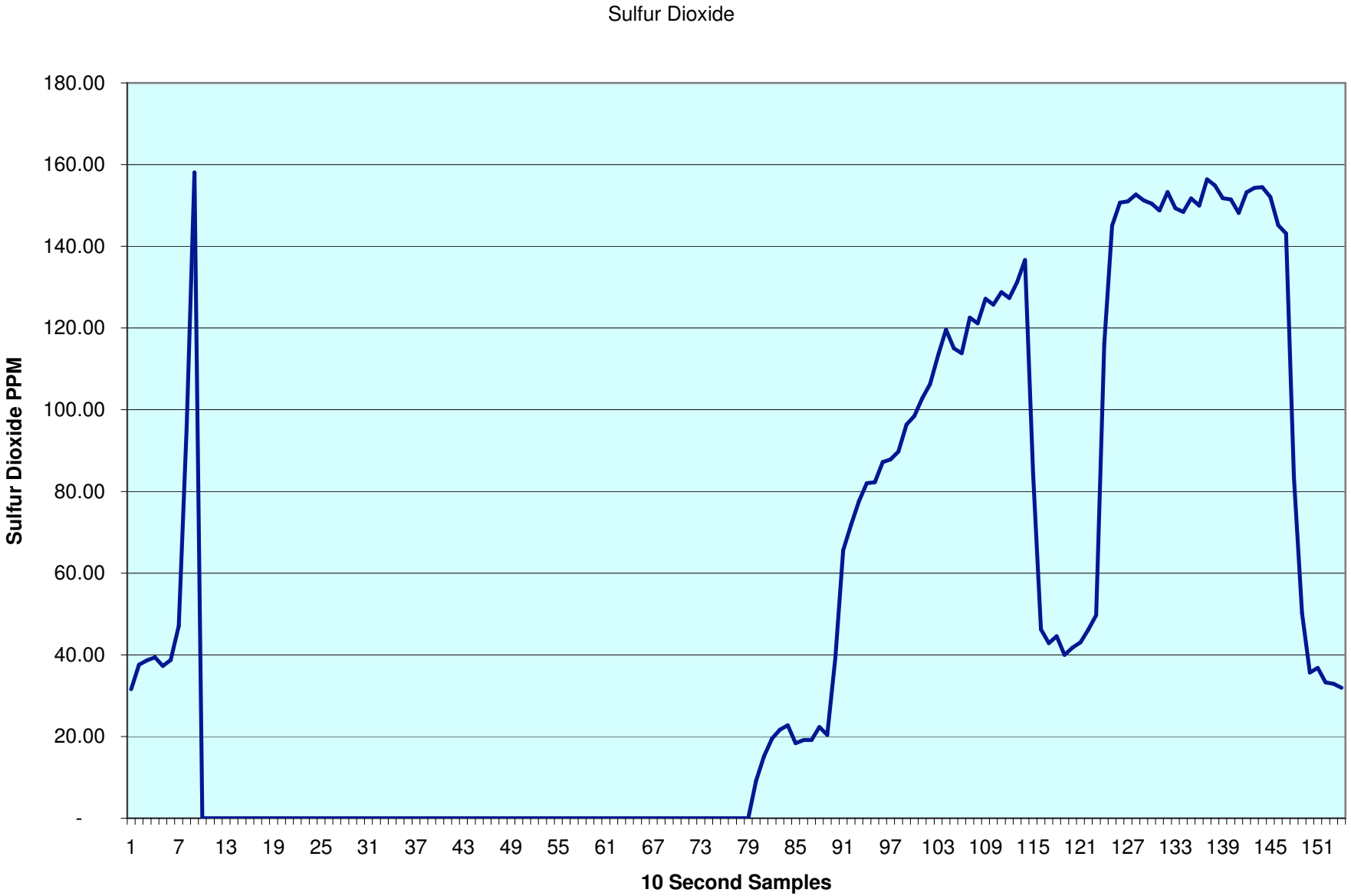

Combination % Gasses
25.00
20.00
15.00
10.00
5.00
-
% Concentration
1
8
15
22
29
36
43
50
57
64
71
78
85
92
99
106
113
120
127
134
141
148
155
Sample in 10 Second Intervals
Oxygen
Hydrocarbons
Carbon Monoxide
Carbon Dioxide

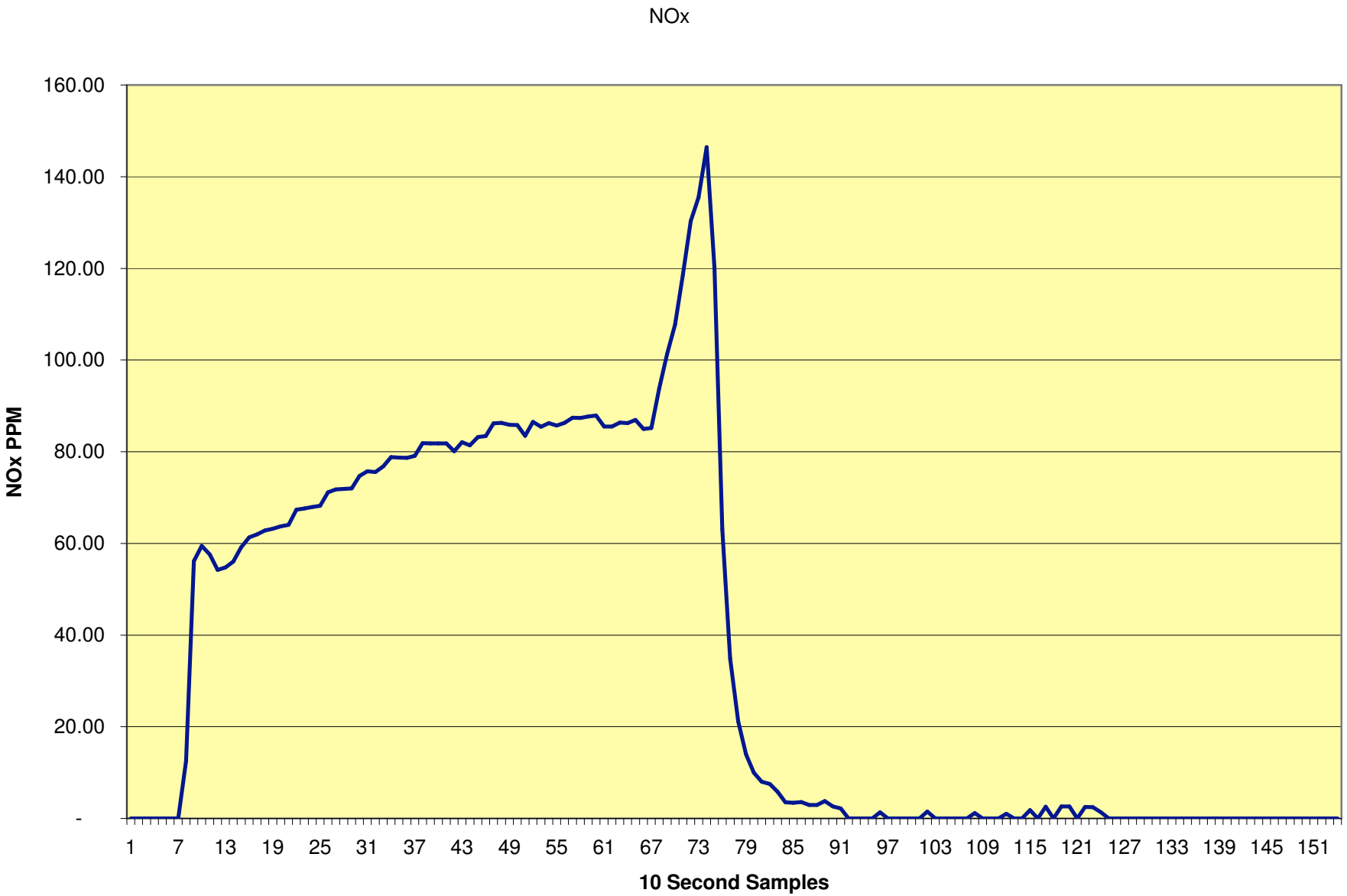

Oxygen
25.00
20.00
15.00
10.00
5.00
-
Oxygen Percentage
1 6 11 16 21 26 31 36 41 46 51 56 61 66 71 76 81 86 91 96 101 106 111 116 121 126 131 136 141 146 151
10 Second Sample

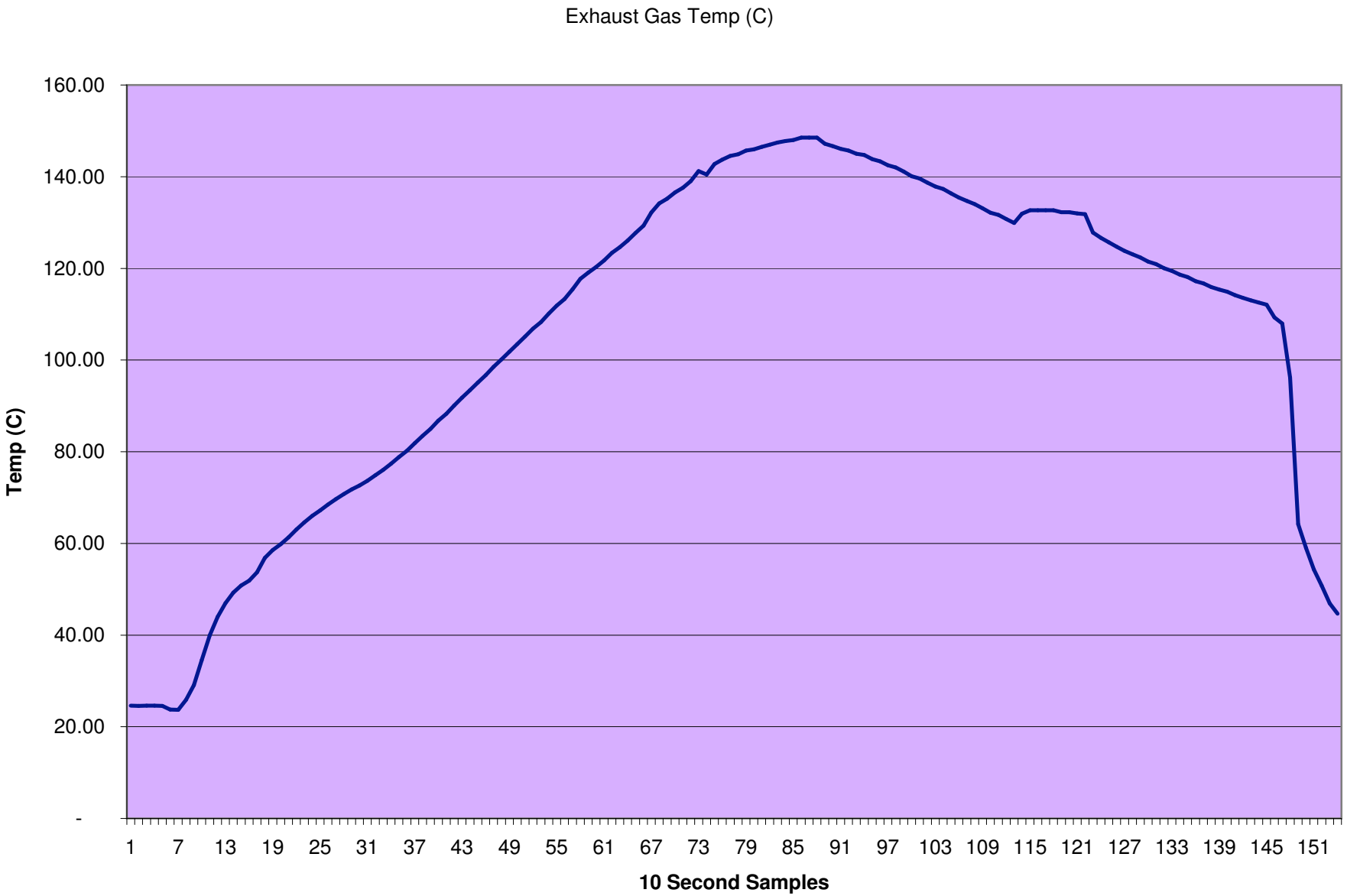

Hydrocarbons
HC Percentage
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
-
1 6 11 16 21 26 31 36 41 46 51 56 61 66 71 76 81 86 91 96 101 106 111 116 121 126 131 136 141 146 151
10 Second Samples


Carbon Monoxide
12.00
10.00
8.00
6.00
4.00
2.00
-
Carbon Monoxide Percentage
1 6 11 16 21 26 31 36 41 46 51 56 61 66 71 76 81 86 91 96 101 106 111 116 121 126 131 136 141 146 151
10 Second Samples


Carbon Dioxide
Carbon Dioxide Percentage
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
-
1 6 11 16 21 26 31 36 41 46 51 56 61 66 71 76 81 86 91 96 101 106 111 116 121 126 131 136 141 146 151
10 Second Samples


Sulfur Dioxide
Sulfur Dioxide PPM
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
-
1
7
13
19
25
31
37
43
49
55
61
67
73
79
85
91
97
103
109
115
121
127
133
139
145
151
10 Second Samples


NOx
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
-
NOx PPM
1
7
13
19
25
31
37
43
49
55
61
67
73
79
85
91
97
103
109
115
121
127
133
139
145
151
10 Second Samples


Exhaust Gas Temp (C)
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
-
Temp (C)
1
7
13
19
25
31
37
43
49
55
61
67
73
79
85
91
97
103
109
115
121
127
133
139
145
151
10 Second Samples

REALM™
INDUSTRIES

VISITOR CONFIDENTIALITY AGREEMENT

In consideration of being admitted to the facilities of Realm Industries, I agree to maintain in confidence any proprietary information disclosed to me. "Proprietary Information" is technical and business information describing or related to the development of manufacturing activities of Realm Industries and which Realm Industries has generated at private expense and holds in confidence. Proprietary information includes but is not limited to product formulas, designs, methodology of energy production, material, machinery utilized, applications of product, compositions of matter, useful processes, articles of manufacture, method of doing business product formulas, designs, methodology of energy production, machinery utilized, applications of product, compositions of matter, useful processes, articles of manufacture, method of doing business, etc. I further agree not to remove any document, equipment, or other materials from the premises, and I will not record by photograph, tape recording, or any other means any information disclosed during my visit.

Date:_____ _____

Signature of Visitor

_____

Printed Name

™

REALM™
INDUSTRIES

CONFIDENTIALITY AND NONDISCLOSURE AGREEMENT

This Confidentiality and Nondisclosure Agreement ("Agreement") is entered into effective _____, 2008, by and between Realm Industries ("Disclosing Party") and _____ ("Receiving Party') for the purpose of preventing the unauthorized disclosure of Confidential Information (as defined below) of the Disclosing Party which may be disclosed to the Receiving Party for the purpose of pursuing the establishment of a business relationship or negotiating any contract or agreement between the Disclosing Party and the Receiving Party.

For purposes of this Agreement, Confidential Information shall include: product formulas, designs, methodology of energy production, machinery utilized, applications of product, compositions of matter, useful processes, articles of manufacture, method of doing business.

In consideration of the Disclosure Party's disclosure of Confidential Information to the Receiving Party, the Receiving Party hereby agrees as follows:

1. Confidential Information shall at all times remain the property of the Disclosing Party or be assigned to the Disclosing Party.

2. The Receiving Party shall hold and maintain the Confidential Information in strictest confidence and in trust for the sole and exclusive benefit of the Disclosing Party.

3. The Receiving Party shall not, without the prior written approval of the Disclosing Party, use for its own benefit, publish or otherwise disclose to others, or permit the use by others for their benefit or to the detriment of the Disclosing Party, any of the Confidential Information.

4. For a period of three (3) years after the termination of this agreement, the Receiving Party shall not use, evaluate, test, experiment, investigate, or otherwise get involved with the subject matter of the Confidential Information.

5. The Receiving Party shall carefully restrict access to the Confidential Information to those of its officers, directors, and employees who clearly need such access in order to participate on behalf of the Receiving Party in the analysis and negotiation of a business relationship or any contract or agreement or the advisability thereof with the Disclosing Party. The Receiving Party further warrants and represents that it will advise each of those persons that they are strictly prohibited from making any use, publishing or otherwise disclosing to others, or permitting others to use for their benefit or to the detriment of the Disclosing Party, any of the Confidential Information.

6. The Receiving Party shall take all necessary action to protect the confidentiality of the Disclosing Party, except for its disclosure under preceding paragraph 5, and agrees to indemnify the Disclosing Party against any and all losses, damages, claims, or expenses incurred or suffered by the Disclosing Party as a result of the Receiving Party's breach of the Agreement.

7. The Receiving Party agrees that any improvements, modifications, enhancements, or new discoveries, whether subject to intellectual property protection or not, that may be discovered, developed, invented, or acquired by the Receiving Party arising out of use of the Confidential Information shall be owned by or assigned to the Disclosing Party.

8. This Agreement shall continue from the date first written above for the purpose of disclosure of Confidential Information until terminated. Either Party may terminate this Agreement upon written notice. The non-disclosure obligations set forth in Paragraphs 2 through 6 shall survive the expiration or termination of this Agreement.

9. The Receiving Party's described obligations shall not extend to any of the Confidential Information that the Receiving Party can demonstrate was in the public domain on the date of this Agreement.

10. The Receiving Party understands and acknowledges that any disclosure or misappropriation of any of the Confidentiality Information in violation of this Agreement may cause the Disclosing Party irreparable harm, the amount of which may be difficult to ascertain, and therefore agrees that the Disclosing Party shall have the right to apply to a court of competent jurisdiction for an order restraining any such further disclosure or misappropriation and for such other relief as the Disclosing Party shall deem appropriate. Such right of the Disclosing Party is to be in addition to the remedies otherwise available to the Disclosing Party at law or in equity.

11. The Receiving Party shall return to the Disclosing Party any and all records, notes, and other written, printed, or tangible materials pertaining to the Confidential Information immediately on the written request of the Disclosing Party or upon termination of this Agreement.

12. This Agreement and the Receiving Party's described obligations shall be binding on the representatives, assigns, and successors of the Receiving Party and shall inure to the benefit of the assigns and successors of the Disclosing Party and shall inure to the benefit of the assigns and successors of the Disclosing Party.

13. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

14. If any action at law or in equity is brought to enforce or interpret the provisions of this Agreement, the prevailing party in such action shall be entitled to reasonable attorney fees.

15. This Agreement constitutes the sole understanding of the parties about this subject matter and may not be amended or modified except in writing signed by each of the parties to this agreement.

Disclosing Party:

Realm Industries
By: _____
Timothy A. Larson
President

Receiving Party:

_____
By: _____
Printed Name:
Title: