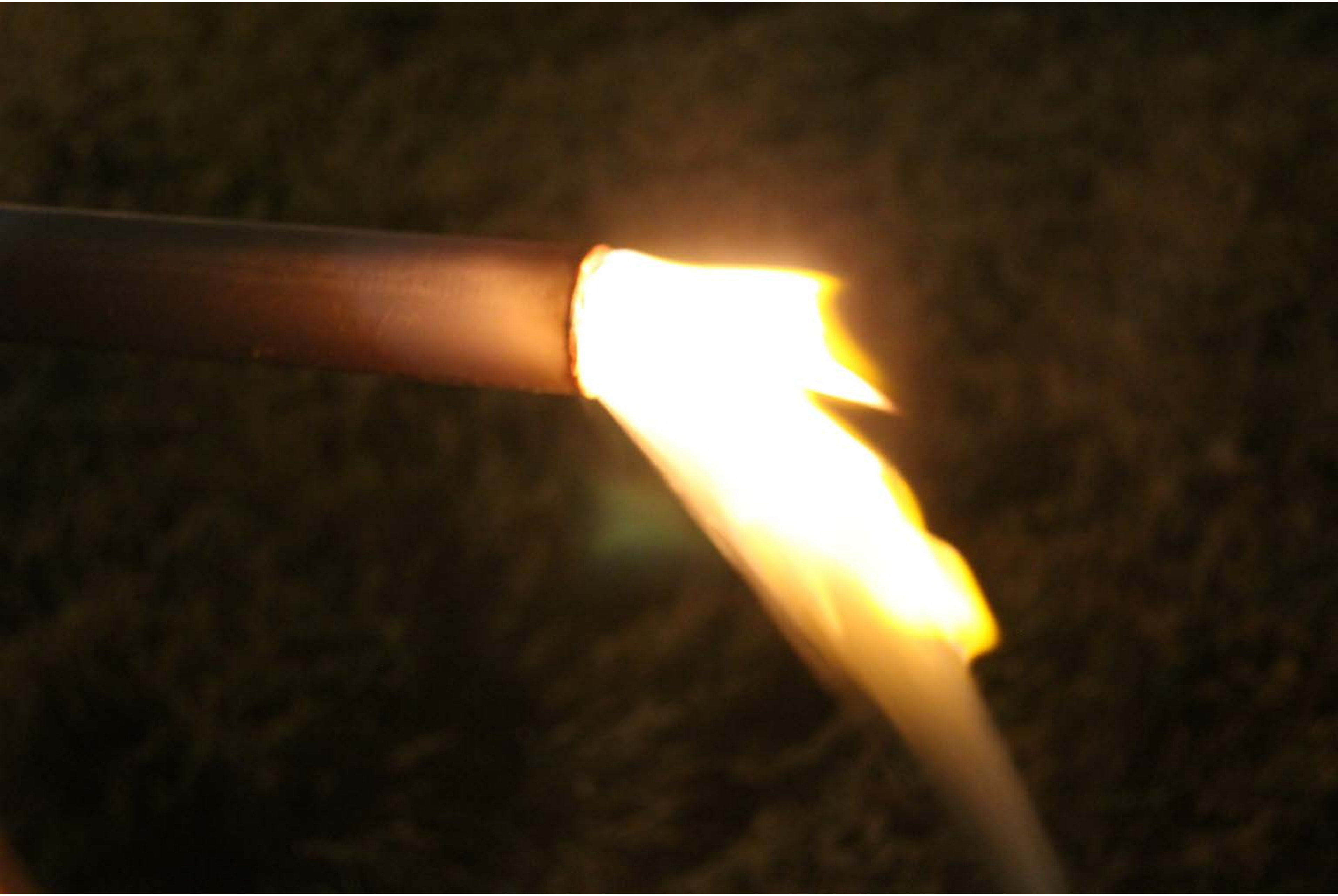
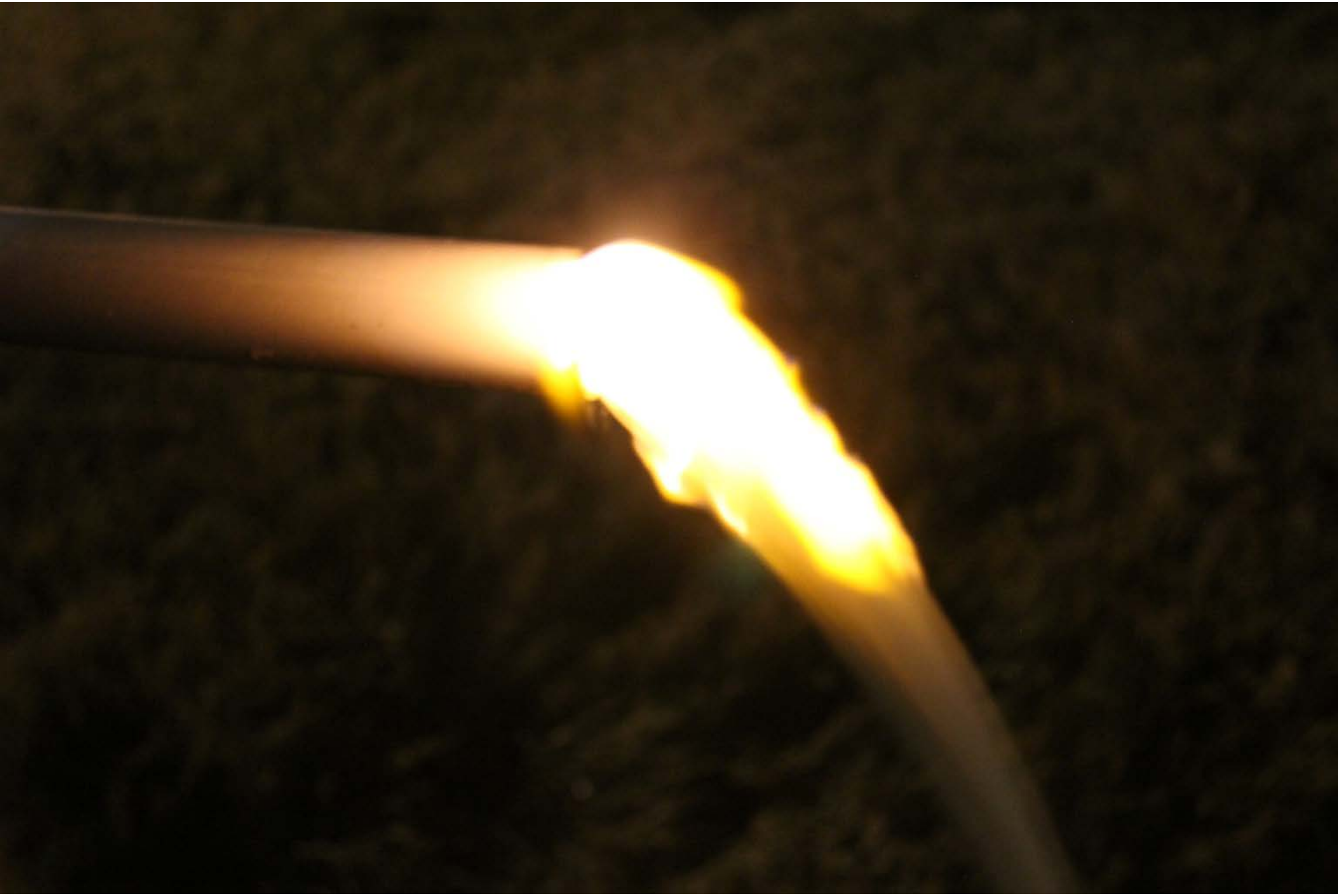
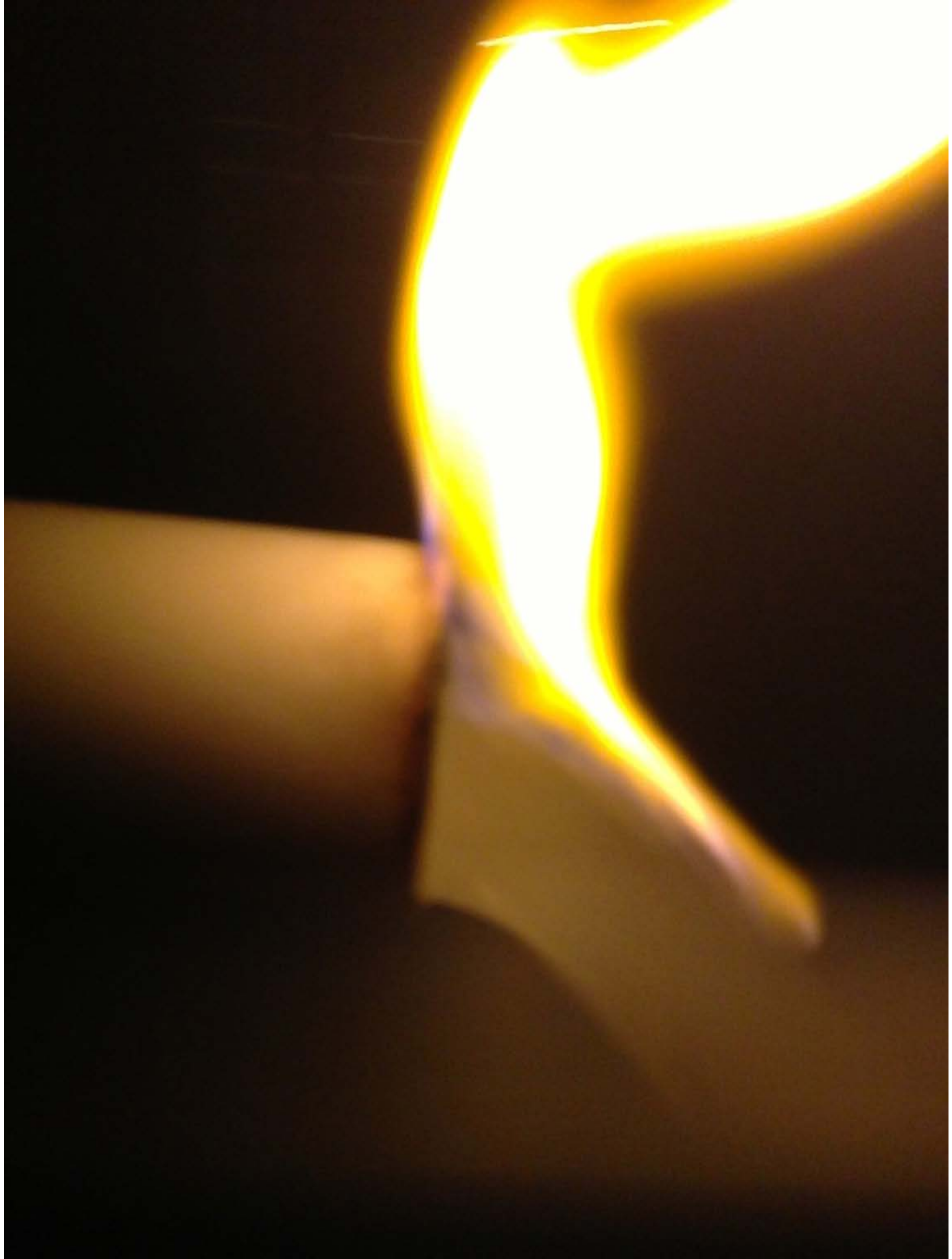
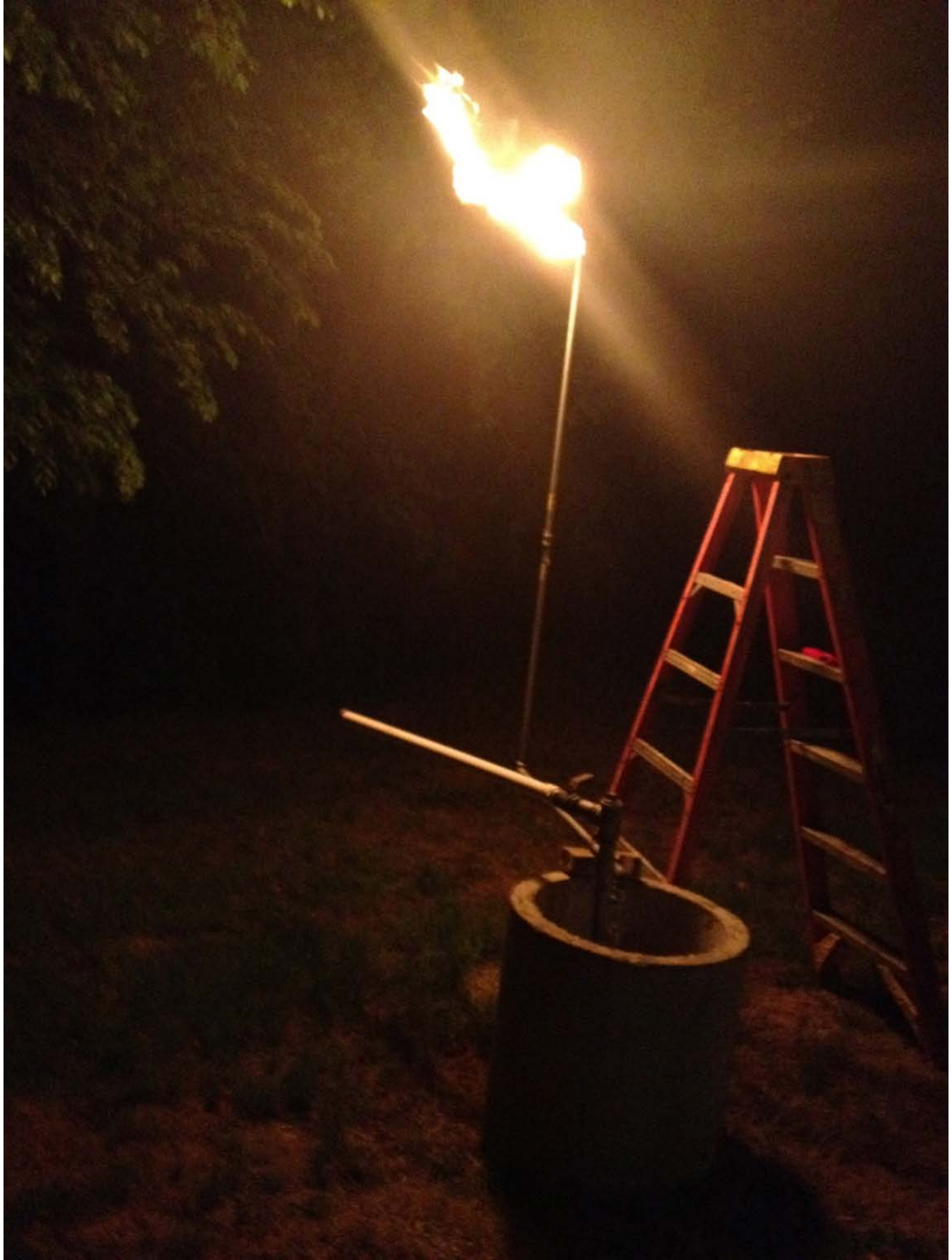
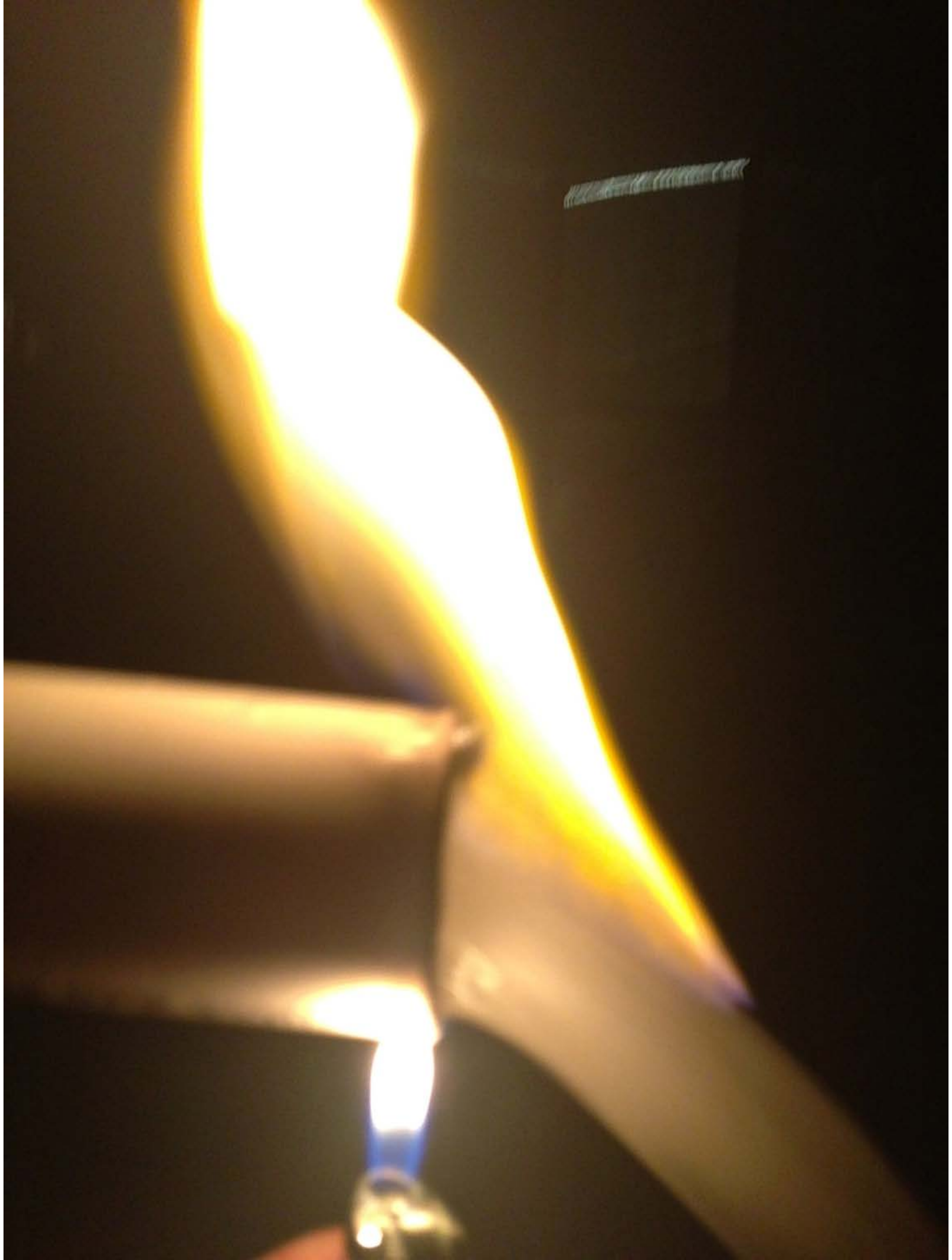
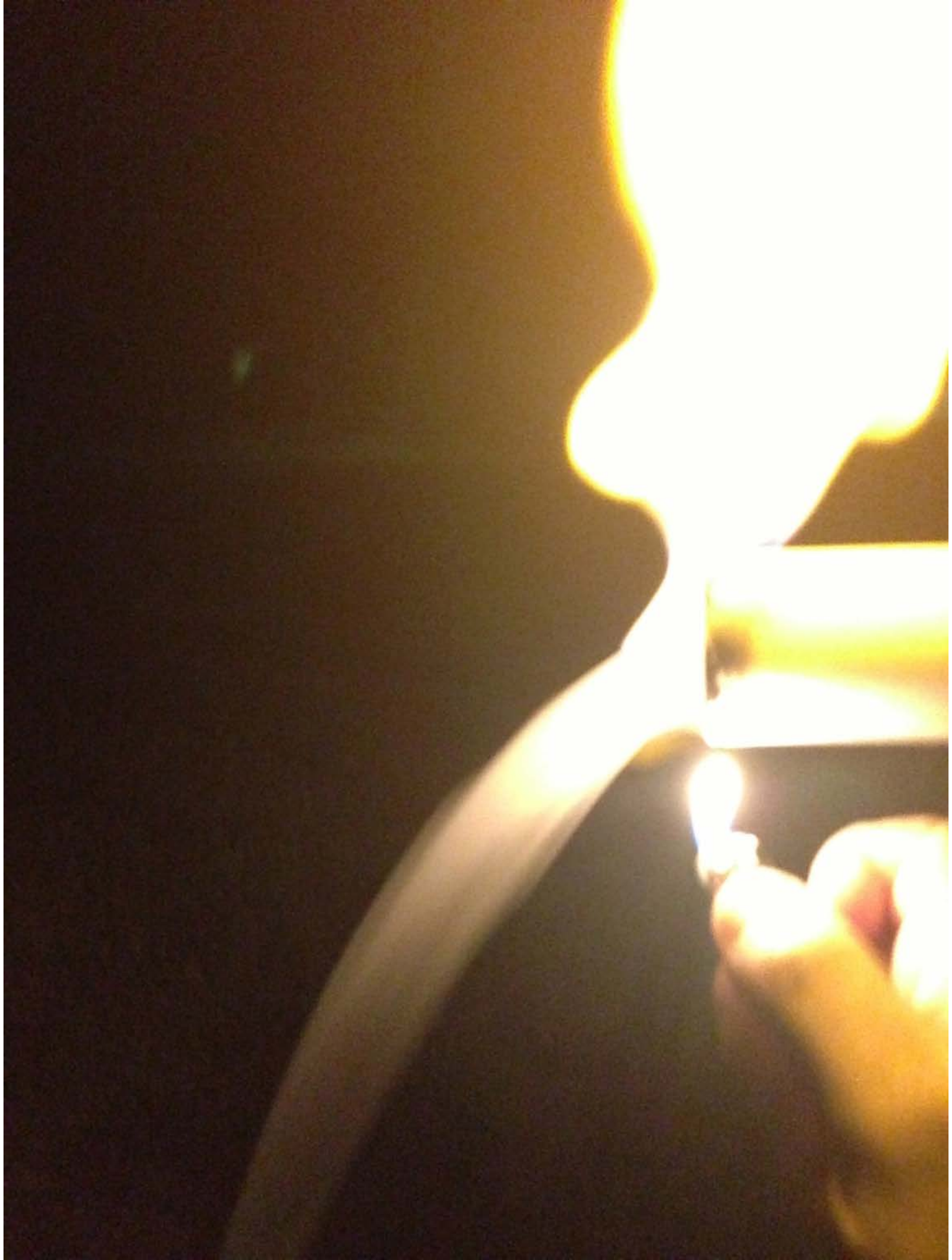


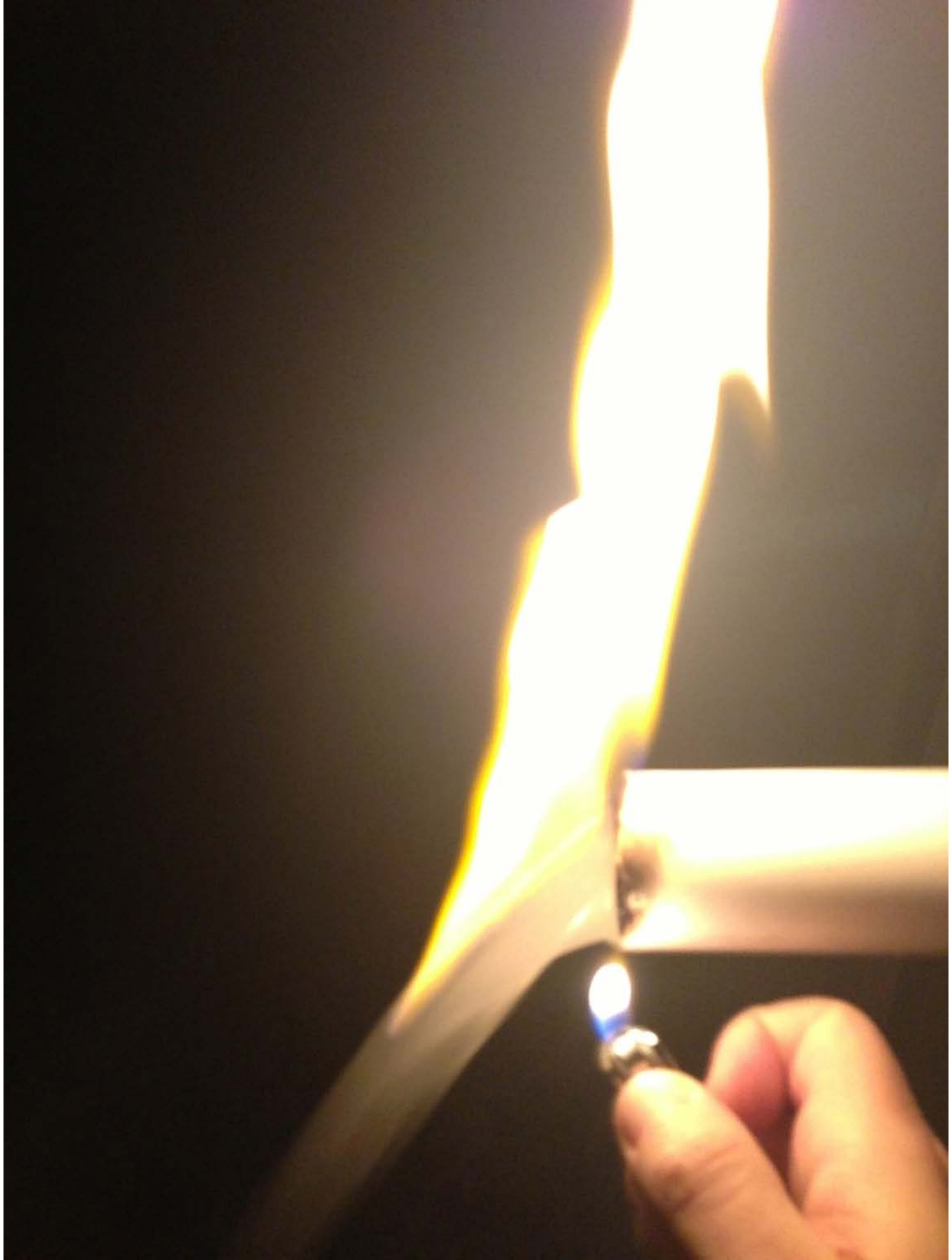


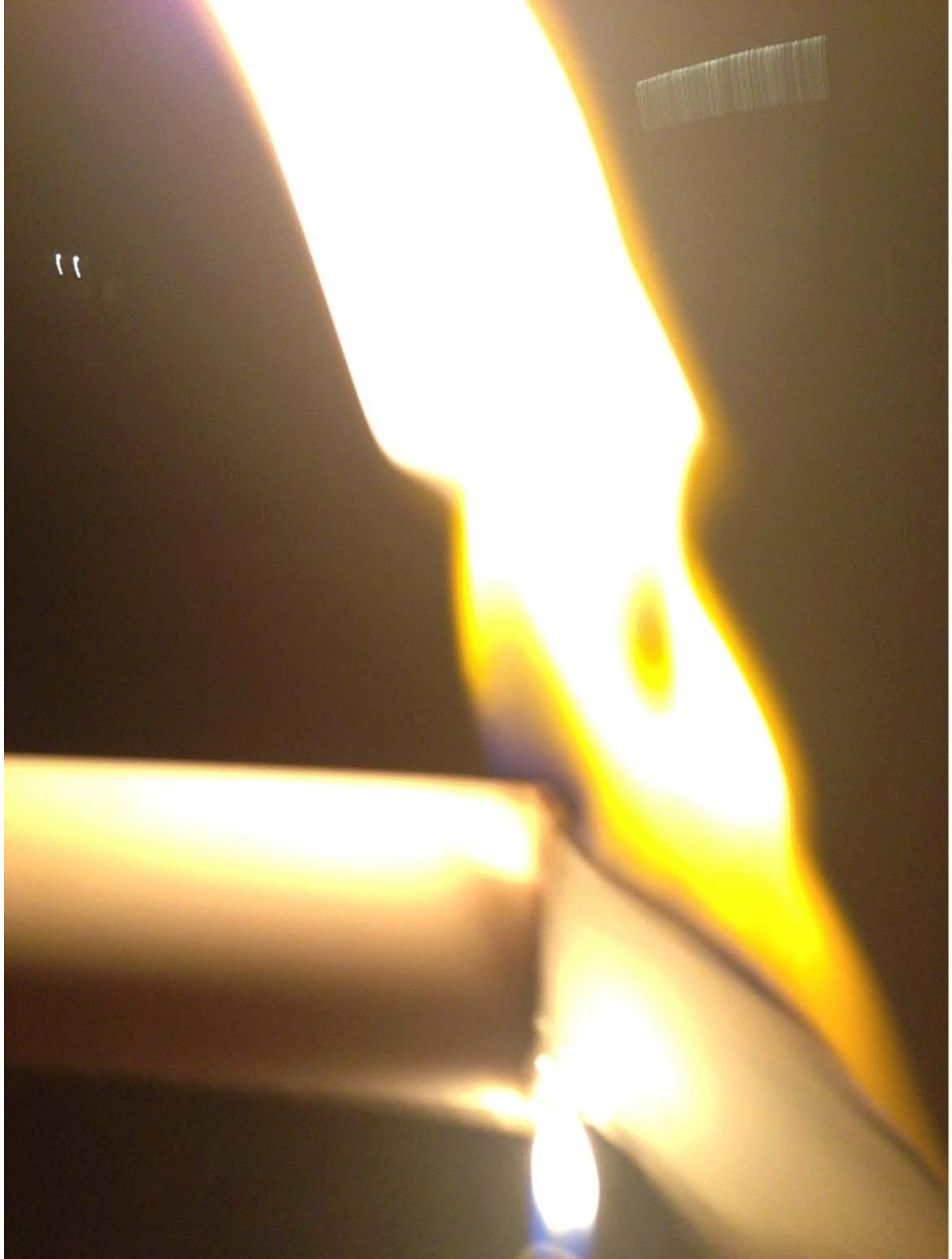


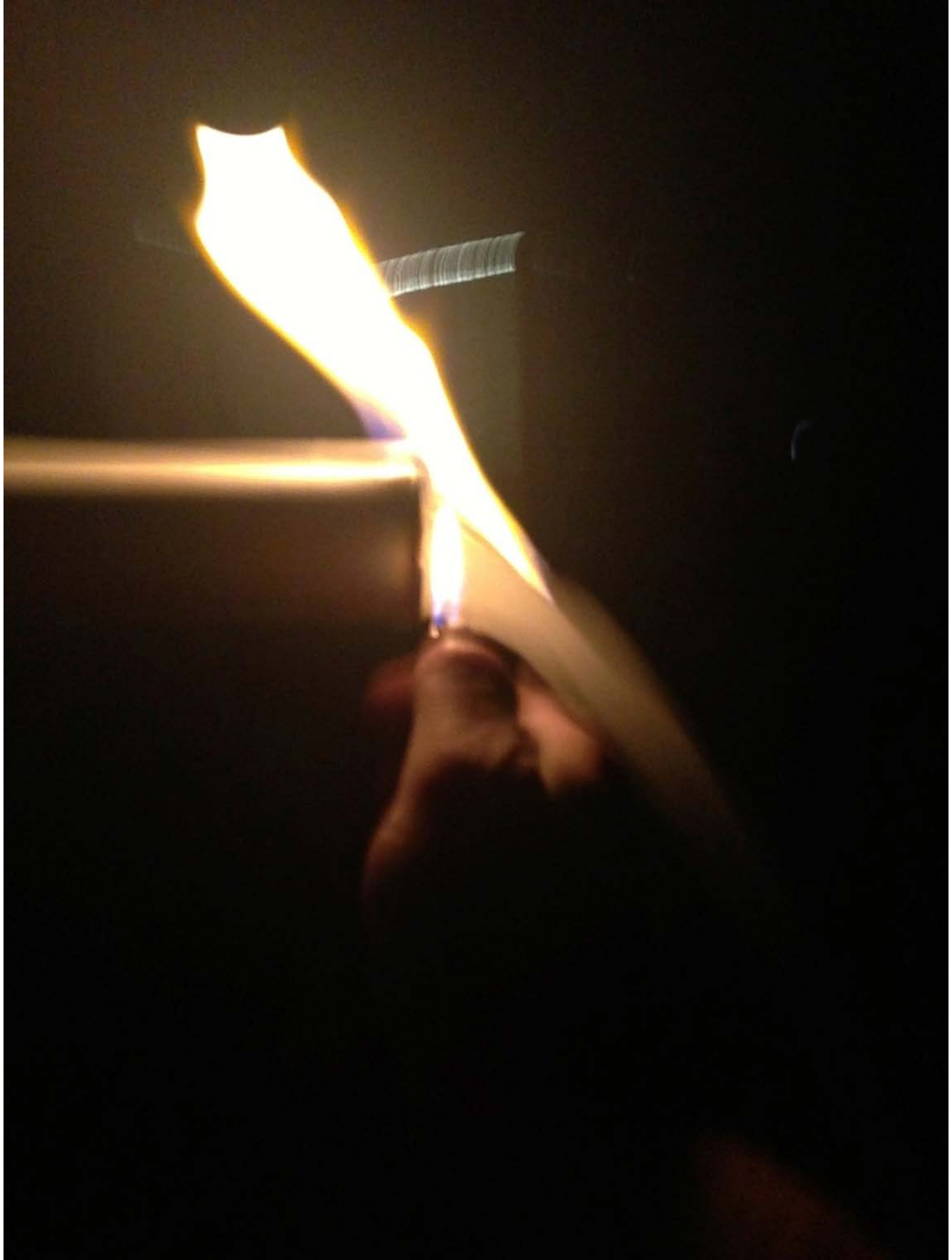


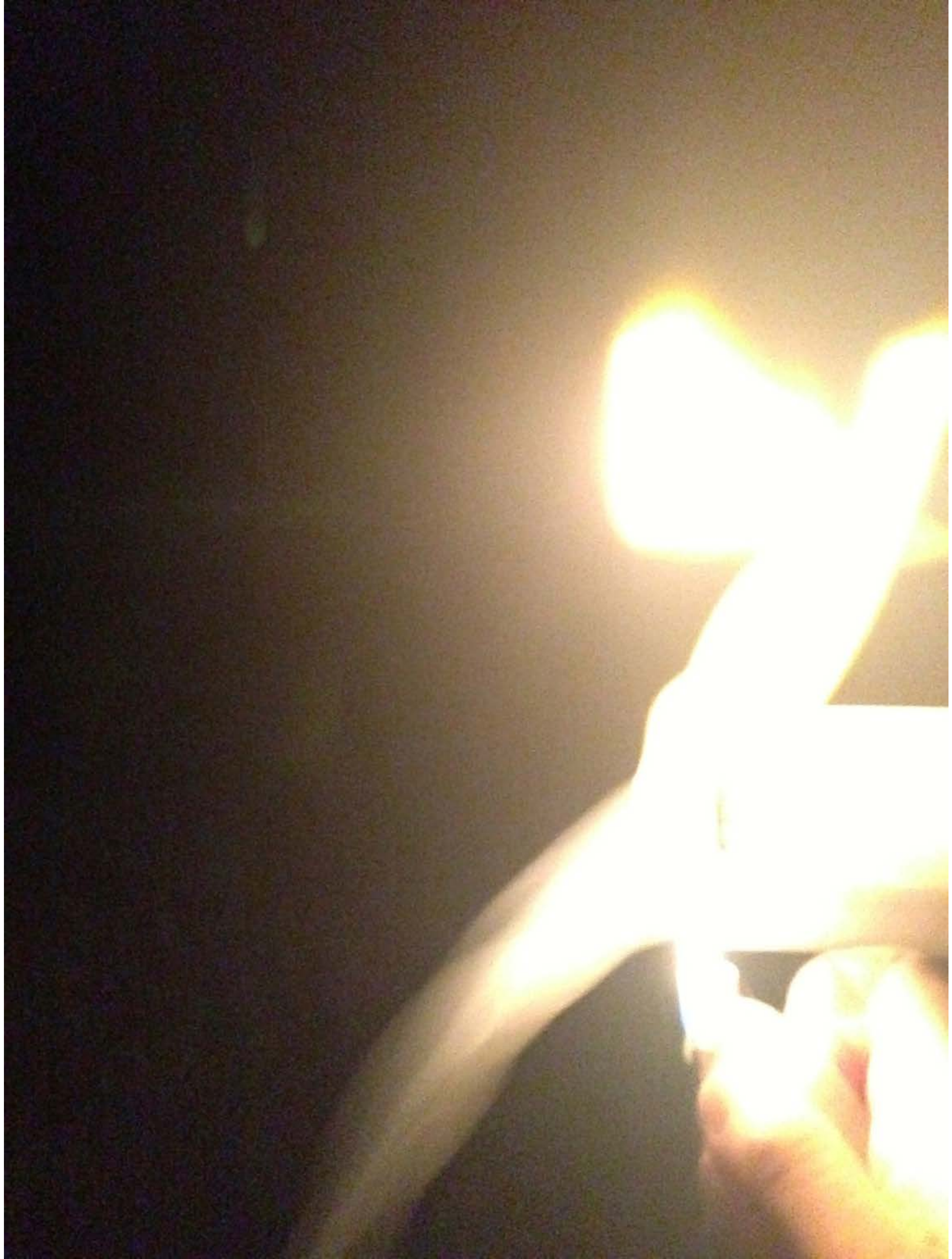


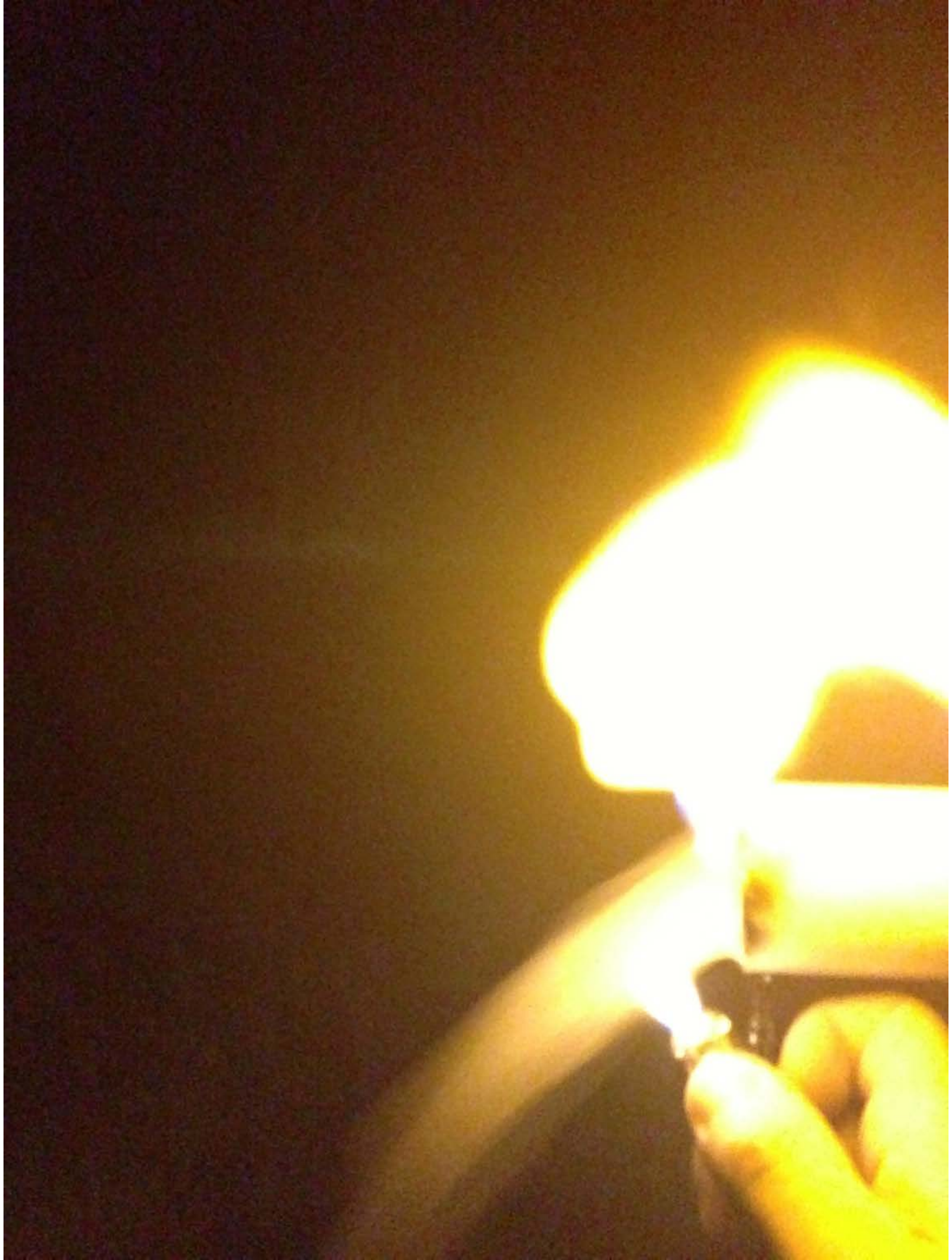


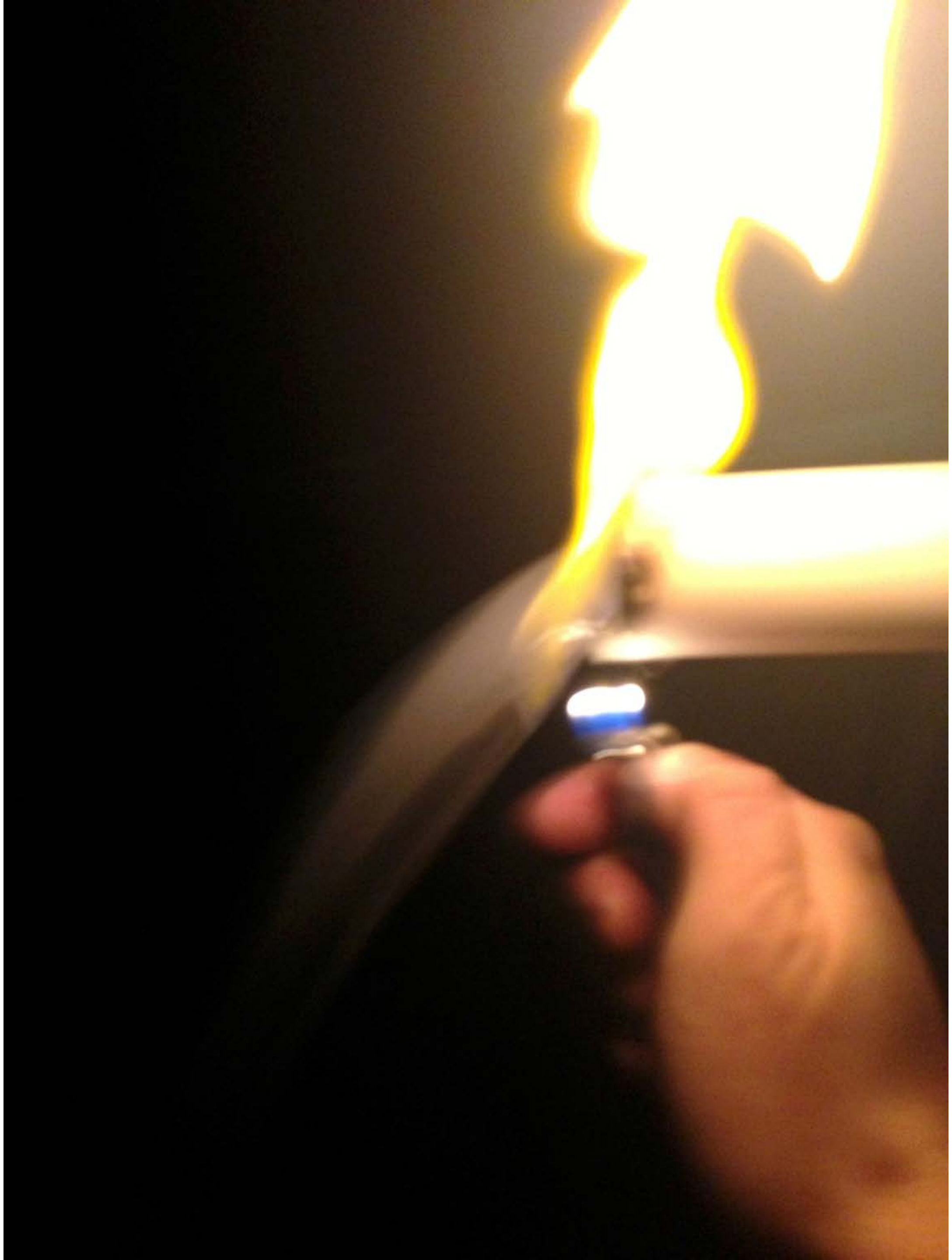


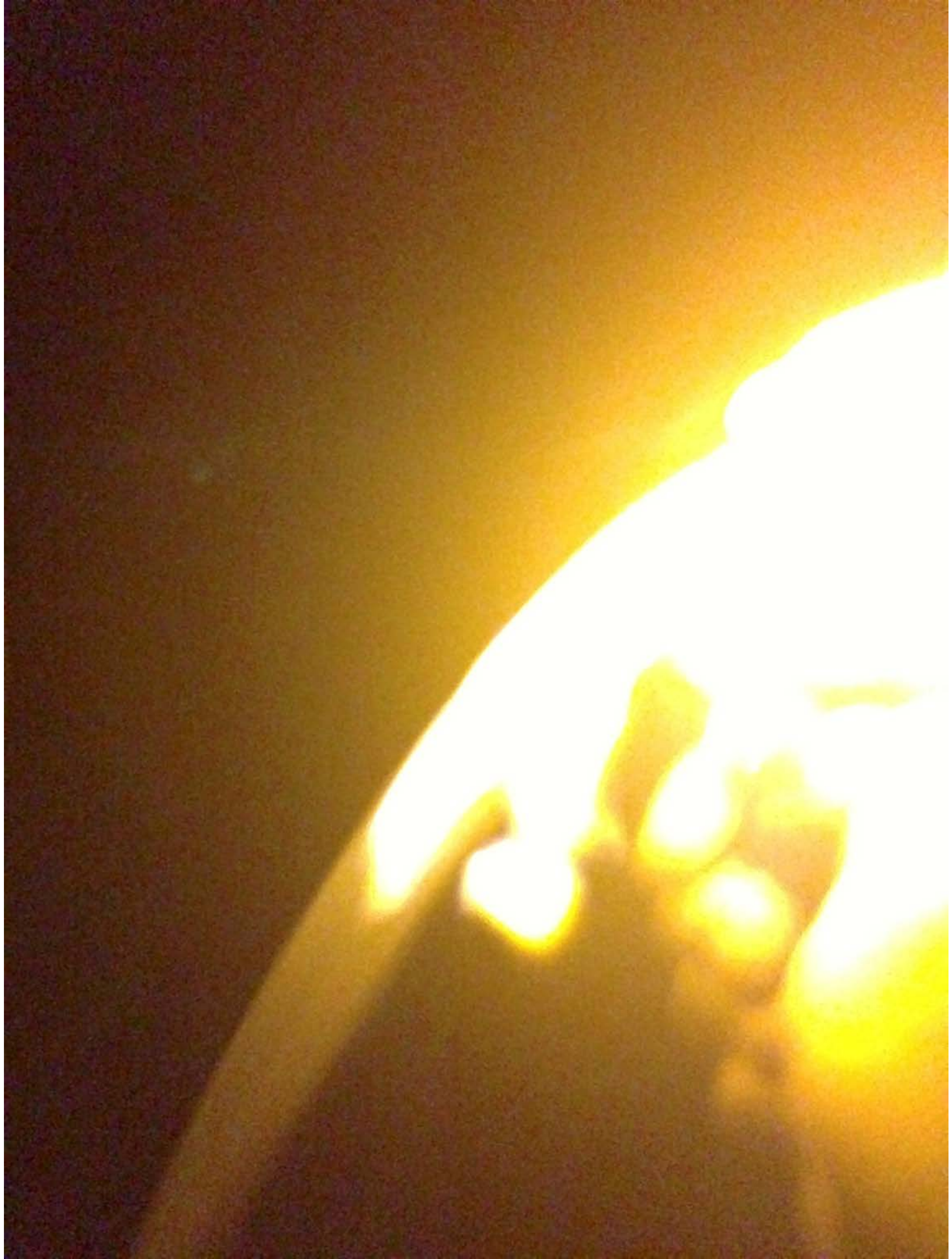


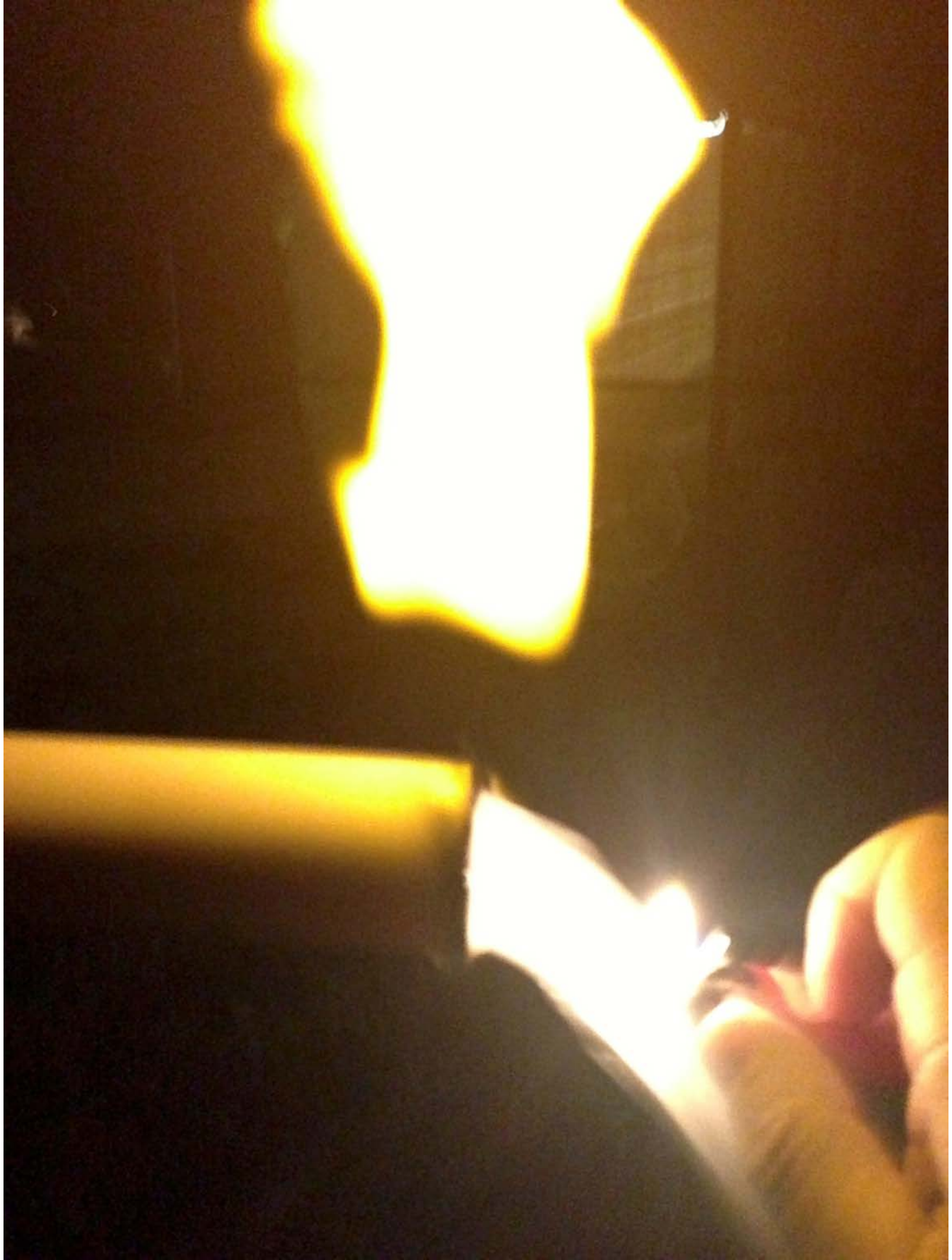


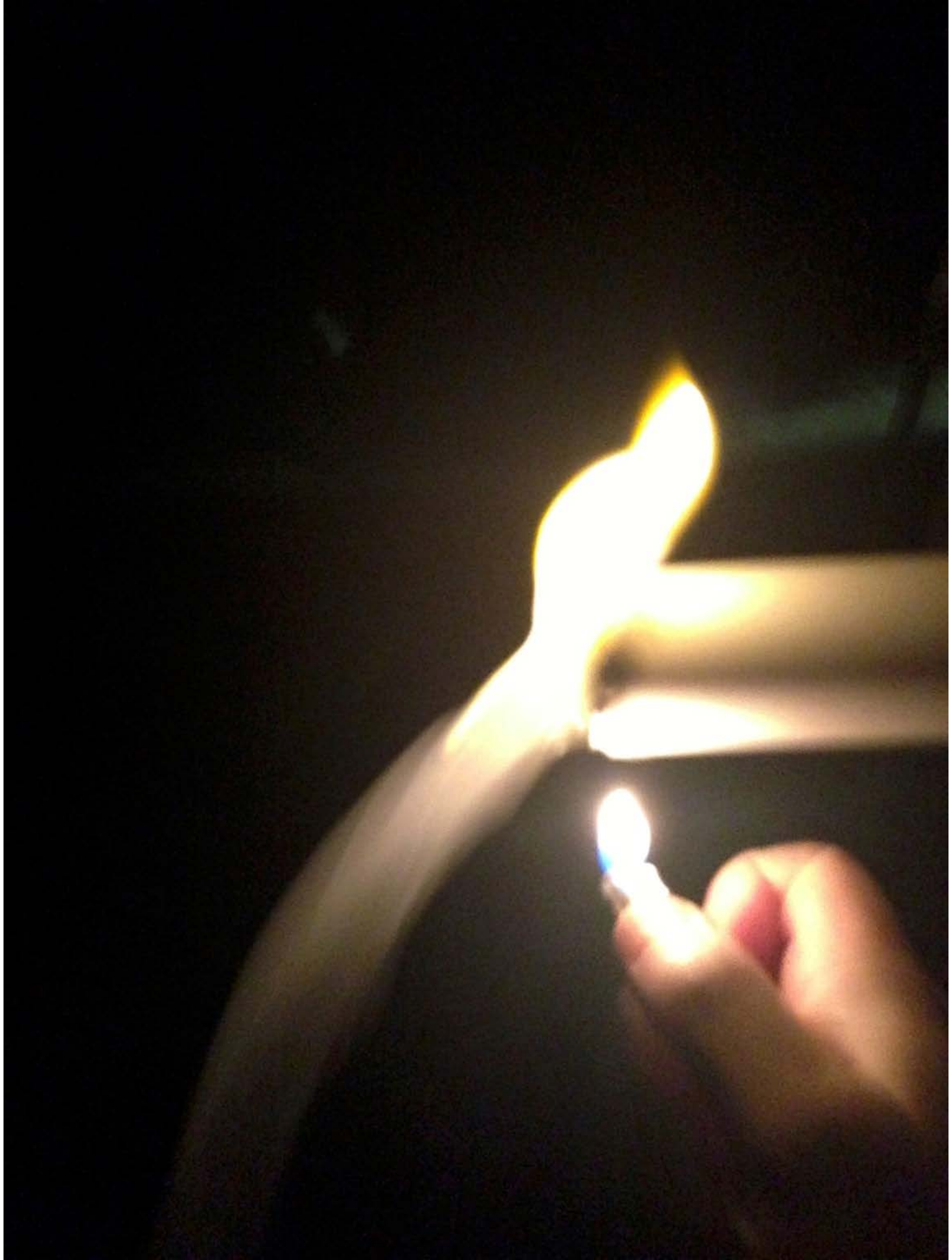


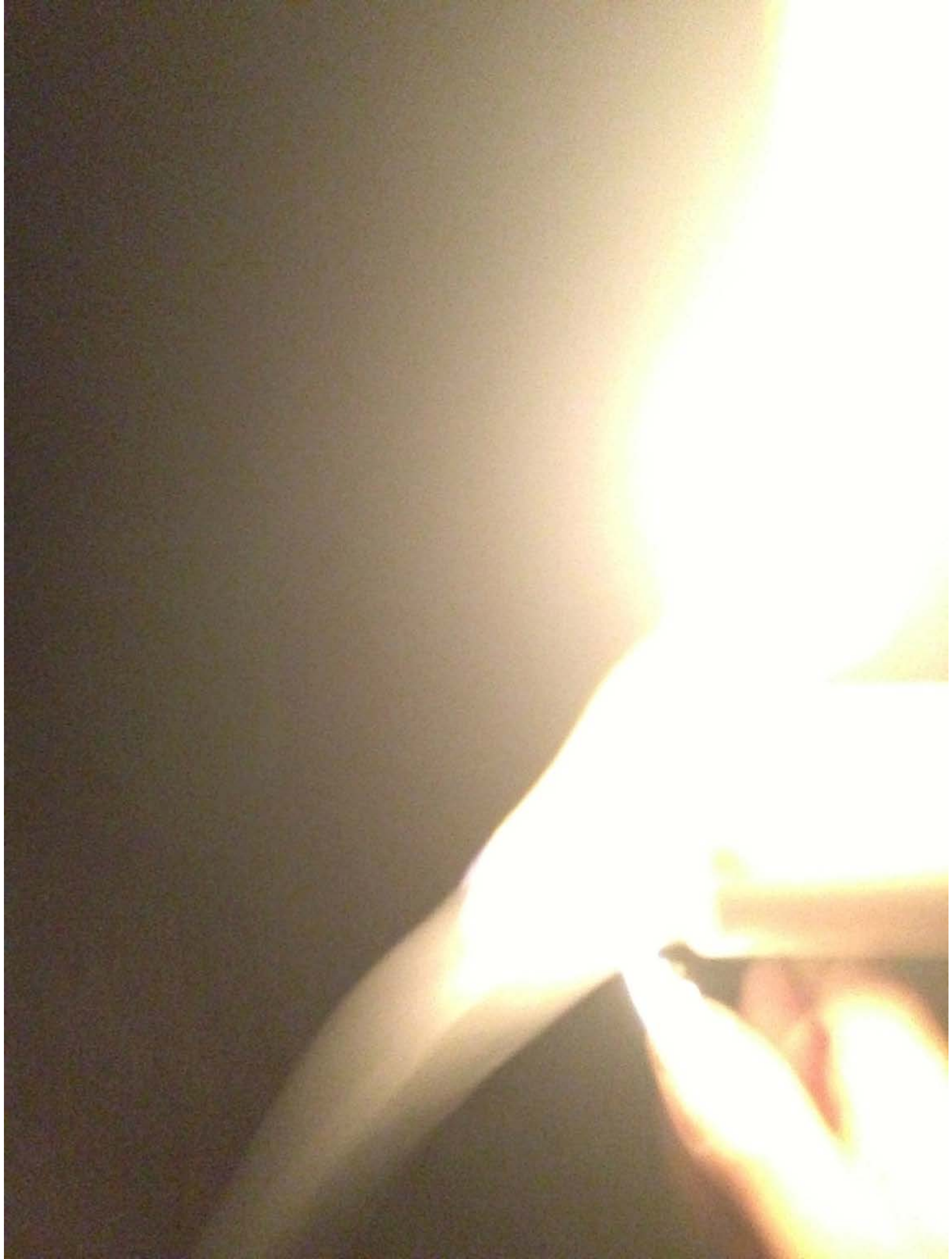


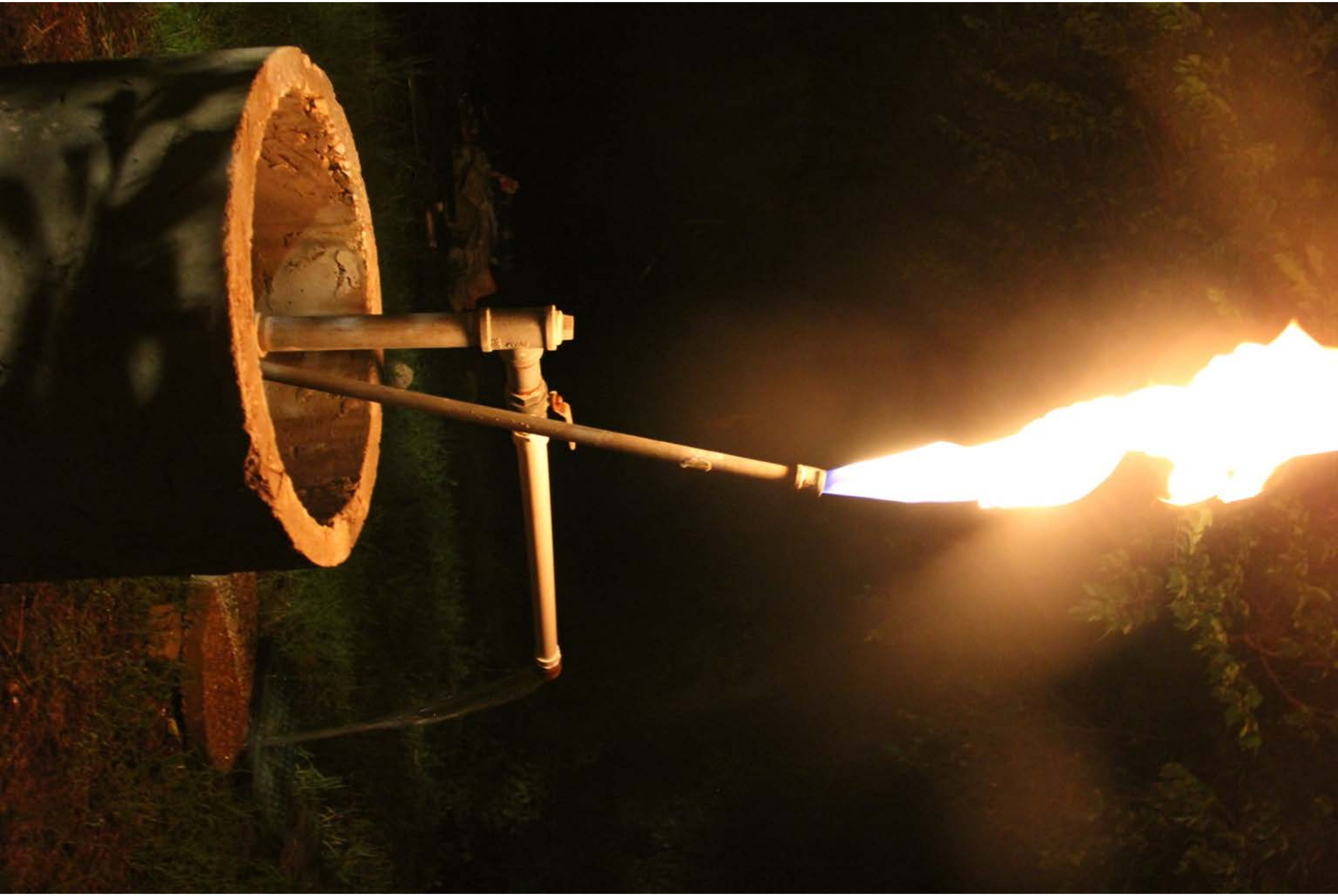












RANGE RESOURCES

February 2, 2011

Steven & Shyla Lipsky
c/o David Ritter
Taylor, Olson, Adkins, Sralla & Elam, L.L.P.
6000 Western Place, Suite 200
Fort Worth, Texas 76107

RE: Water, Air and Soil Test Results

Dear Mr. and Mrs. Lipsky:

I am writing to update you on the results of the environmental testing that was recently conducted on your property. **The results show that your water is safe to drink and there is no danger in using the water in your home**. Attached to this letter you will find the following:

Tab 1	Summary of Field Screening Readings;
Tab 2	Summary of Validated Groundwater Analytical Data and Comparison to Evaluation Standards for your well;
Tab 3	Groundwater Analytical Data (detailed report from your well);
Tab 4	Summary of Soil Gas Sampling Results; and
Tab 5	Aerial Map of Soil Gas Survey Samples.

Please note that these results are from independent environmental consulting firms that used reputable, independent, and industry-accepted laboratories to analyze the samples collected from your property.

At Range's expense, a team of experienced and independent experts in groundwater investigations sampled and analyzed the groundwater from 25 properties in your area (including yours) to determine if the water is safe to drink. The field crew was comprised of engineers and technicians from Premier Environmental Services, Inc. Further, Talon/LPE, an independent environmental consulting firm, collected gas samples from the soil of 117 locations. Keith Wheeler, a hydrogeologist with 23 years of experience in subsurface investigations, assisted in preparing the plan and protocol that were eventually implemented by Premier and Talon. Mr. Wheeler was also on the ground observing and overseeing Premier's and Talon's work, including the following: (1) Premier's collection of samples from (a) the ambient (outside) air, (b) the headspace of your water well (that's the space between the casing and the pipe from the pump), and (c) your well water; and (2) Talon's collection of soil gas samples.

Ambient Air Testing (Tab 1)

Upon arrival at your property, Premier tested the air in various locations to identify whether there were levels of natural gas components (*i.e.*, methane, ethane, and propane) that might present a safety concern. These gases are not toxic, but may be flammable if the concentration level reaches the Lower Explosive Limit (LEL). The LEL is the lowest concentration of a gas in the air that can explode given an ignition source (*i.e.*, a spark or flame). As you will see from the test reports, **the level of these gases found in the air was not even remotely close to the applicable LELs.** For example, the LEL for methane is 50,000 parts per million (ppm) and the highest reading of methane in any of the air samples collected from the 25 properties was only 13.9 ppm. In other words, the highest reading of methane in the air sample collected was only .03% of the LEL. The air readings for the highest concentrations of ethane and propane for any of the 25 properties were also less than .05% of the applicable LELs. **Thus, the air was safe to breathe and the tests showed that there was no concern for explosion around your well.**

Water Well Headspace Gas Sampling

Premier also sampled gas from the headspace of your water well to determine if methane, ethane, propane, or butane were present at concentrations above the applicable LELs. The following table shows the results for your property and the corresponding LEL:

Date	Methane LEL= 50,000 ppm	Ethane LEL = 30,000 ppm	Propane LEL = 21,000 ppm	Butane LEL = 19,000 ppm
1/6/2011	473,200 ppm	38,100 ppm	13,500 ppm	5,050 ppm

It is strongly suggested that the vent on your water well remain open to avoid accumulation of gas in the headspace. This recommendation is made from a safety perspective and for the efficient operation of your pump equipment. The United States Department of the Interior has advised that methane will not accumulate if a well is properly vented to the air.[1]

Well Water Sampling (Tabs 2 & 3)

Premier tested for the potential presence of over 135 different chemicals, elements, minerals, and other constituents in your water to determine whether there was any concentration that could make your water unsafe to drink or use. The test results were evaluated using the Texas Risk Reduction Program Protective Concentration Level (TRRP PCL), which is a very conservative standard established by the Texas Commission on Environmental Quality (TCEQ)

[1] *See* U.S. Department of the Interior, U.S. Geological Survey Fact Sheet 2006-3011, METHANE IN WEST VIRGINIA GROUND WATER (January 2006).

HARRIS · FINLEY · BOGLE

ANDREW D. SIMS
BOARD CERTIFIED · CIVIL APPELLATE LAW · CIVIL TRIAL LAW
TEXAS BOARD OF LEGAL SPECIALIZATION
DIRECT 817.870.8704
DIRECT FAX 817.333.1186
ASIMS@HFBLAW.COM

March 9, 2011

<u>**VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED # 7160 3901 9845 9393 7893**</u>
David T. Ritter
TAYLOR OLSON ADKINS SRALLA ELAM
6000 Western Place, Suite 200
Fort Worth, TX 76107-4654

Re: Steven Lipsky Complaint

Dear David:

Enclosed are copies of the following documents that were submitted to the Railroad Commission of Texas by Range Production Company ("<u>Range</u>") on March 7, 2011:

1. letter from Mike Middlebrook to Peter G. Pope regarding Range's formal written response to the Railroad Commission's letter dated December 16, 2010 (the voluminous attachments are not included, but will be available if you want to review them);

2. letter from Mike Middlebrook to Peter Pope regarding the status of the gas monitors and potable water for Mr. Lipsky and Mr. Hayley; and

3. e-mail from David Jackson to Peter Pope in response to Mr. Pope's February 25, 2011 e-mail, along with the following attachments:

    a. February 22, 2011 e-mail from Chris Lister to Peter Pope (with attachments);

    b. March 2, 2011 letter from Dr. Mark McCaffrey, Ph.D.; and

    c. March 3, 2011 from Keith Wheeler, P.G., C.P.G.

As more fully explained in the above documents and their attachments, all sampling to date demonstrates that Mr. Lipsky's water is safe to drink and there is no gas migrating into Mr. Lipsky's home. The sampling also demonstrates that ambient outdoor air and soils are safe and

As more fully explained in the above documents and their attachments, all sampling to date demonstrates that Mr. Lipsky's water is safe to drink and there is no gas migrating into Mr. Lipsky's home. The sampling also demonstrates that ambient outdoor air and soils are safe and pose absolutely no hazard, and that the water wells are safe and pose absolutely no hazard if properly vented. Moreover, Range, independent experts, and the Railroad Commission Examiners who presided over the January 19-20, 2011 hearing have all concluded that the Range wells and the Barnett Shale formation are not the source for any natural gas found in area water wells, and that the source is a naturally occurring hydrogeologic connection between the shallow water aquifer and the shallow gas-bearing Strawn formation.

Andy Simms
March 9, 2011

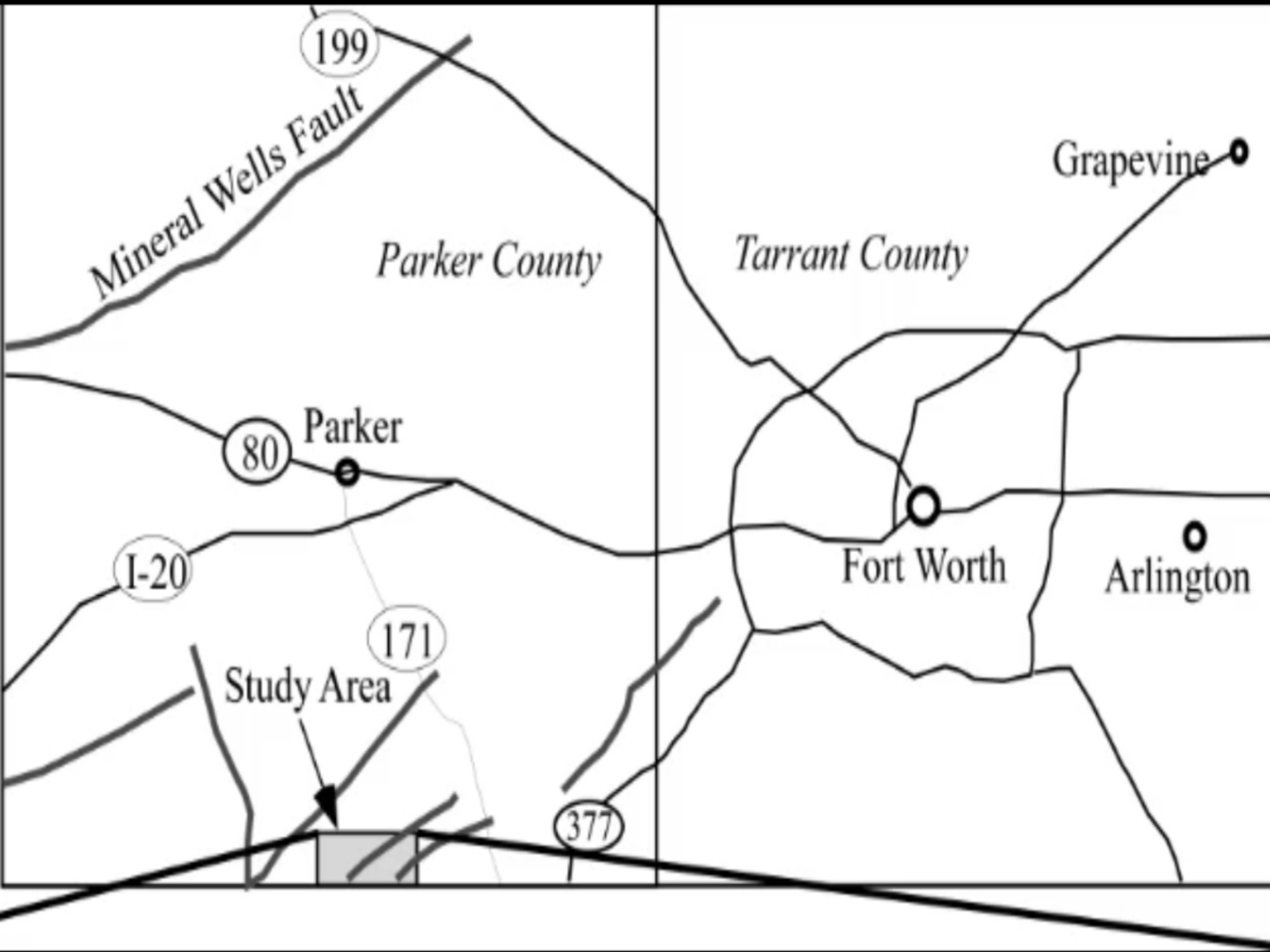

199
Mineral Wells Fault
Parker County
Tarrant County
Grapevine
Parker
80
I-20
171
Study Area
377
Fort Worth
Arlington

Figure 10 shows large regional faults (blue lines), the aerial extent of possible Ellenburger Karsting and the A-A' line of cross section for Figure 9.

March 17, 2014

Railroad Commission of Texas
Oil and Gas Division
P.O. Box 12967
Austin, Texas 78711-2967

Attn: Mr. Peter Pope

Telephone: 512-463-8202
Email: peter.pope@rrc.state.tx.us

Re: Water Well Sampling
Lipsky Property
127 River Oak Court
Granbury, Parker County, Texas
Terracon Project No. 94137559

Dear Mr. Pope;

On behalf of the Railroad Commission of Texas (RRC), Terracon Consultants, Inc. (Terracon) collected well head gas and dissolved gas in water samples from two water wells at the Lipsky Property located at 127 River Oak Court in Granbury, Parker County, Texas. The scope of work was based on Terracon's Work Order with the RRC dated September 19, 2013 which was authorized by the RRC on September 19, 2013.

For purposes of this work, the two water wells are referred to as the "Old Well" and "New Well", both located at the Lipsky Property. According to the Texas Department of Licensing and Regulation (TDLR) State of Texas Well Report (Tracking No. 108518), the "Old Well" (N 32° 33' 47.8", W -97° 47' 29.5") was installed on April 11, 2005 to a depth of 200 feet below ground surface. This 4-inch diameter well was indicated to be screened from a depth of 180 to 200 feet and gravel-packed from a depth of 60 to 200 feet. According to the TDLR State of Texas Well Report (Tracking No. 255478), the "New Well" (N 32° 33' 47.2", W -97° 47' 28.9") was installed on June 2, 2011 to a depth of 120 feet below ground surface. This 4-inch diameter well was indicated to be screened from a depth of 100 to 120 feet and gravel-packed from a depth of 60 to 120 feet.

Field Sampling

Field sampling activities were conducted on September 27, 2013 by Max Majesko and Kyle Lindquist, Terracon environmental professionals. Individuals present during the field activities included Trish Hudson and Chris Moore with the RRC, Stephen Lipsky, Property Owner and Buddy Alexander with Stacy Systems Medical Gas Testing. Mr. Alexander performed air monitoring on behalf of Mr. Lipsky. Mr. Alexander's monitoring results were not documented by Terracon.

Both the Old Well and New Well were purged prior to sampling. Mr. Lipsky began purging both wells prior to Terracon's arrival on-site. The Old Well was reportedly purged for approximately 45 minutes prior to Terracon's arrival at an estimated flow rate of 20 gallons per minute (gpm) for a total of approximately 900 gallons. Subsequent to Terracon's arrival onsite, the Old Well was purged for an additional approximately 35 minutes at an estimated flow rate of 20 gpm for a total of approximately 700 gallons. While Terracon was sampling the Old Well, the New Well was purged periodically for approximately 2 hours at an estimated flow rate of 3.5 gpm for a maximum total of approximately 420 gallons. Prior to sampling, the New Well was purged for an additional approximately 30 minutes at an estimated flow rate of 3.5 gpm for a total of approximately 105 gallons.

Well head gas samples for compositional and isotopic analysis (Isotech) were collected during the well purging activities for the Old Well (WWG-08A-LIP-092713) and New Well (WWG-08B-LIP-092713) using the gas bag method as described in Attachment 1. Cali-5-Bond Bags® were used for the collection of the well head gas samples. The well head gas sample for the Old Well was collected from a vent pipe associated with the well. The well head gas sample for the New Well was collected from the well spigot which was partially disassembled to facilitate sample collection. Details regarding the specific analyses performed are provided below.

Following the well purging activities and prior to collection of the dissolved gas in water samples, Terracon reduced the flow rates from the respective spigots to approximately 1,000 milliliters/minute (mL/min) for the Old Well and 800 mL/min for the New Well. A YSI 556 multiparameter water quality meter in conjunction with a flow through cell was subsequently utilized to monitor pH (standard units), conductivity/specific conductance (microSiemens/centimeter or uS/cm), temperature (^{o}C), dissolved oxygen (DO) (milligrams/liter or mg/L), oxidation reduction potential (ORP) (millivolts or mV) and total dissolved solids (TDS) (grams/liter or g/L). Additionally, a Hach 2100P Turbidimeter was utilized to measure turbidity in nephelometric turbidity units (NTUs).

Field measurements were collected at five-minute intervals for a 30-minute timeframe to verify stabilization of water quality parameters which demonstrates that the wells had been sufficiently purged prior to collection of the dissolved gas in water samples. Well stabilization is typically demonstrated after all parameters have stabilized (+/- 10%) for three successive readings. Two parameters (DO and turbidity) did fluctuate at a higher percent difference during well purging. However, due to the estimated gallons purged from each of the wells, as detailed above, and the stabilization of pH, conductivity, temperature, ORP and TDS within the specified criteria, the wells were considered sufficiently stabilized for sampling. Water quality stabilization parameters are included in the attached Table 1.

Following well stabilization, water samples were collected for dissolved gas analyses (TestAmerica) utilizing low flow sampling techniques. These samples were collected into 40ml VOA vials. Details regarding the specific analyses performed are provided below.

Water samples for compositional and isotopic dissolved gas analysis (Isotech) were subsequently collected utilizing the bucket method with gas bottles as described in Attachment 2. Details regarding the specific analyses performed are provided below. The bucket method allows for two variations in sampling protocol. For water that is not effervescent, the 1 liter gas sample bottle is placed into the filled bucket upright, filled utilizing tubing connected to the well and capped with no air in the bottle. For water that is effervescent, the 1 liter gas sample bottle is placed into the filled bucket in an inverted position with the well tubing until the bubbling gases have displaced 1/4 to 1/2 of the water in the bottle and then capped. The water sample for the Old Well was collected with the sampling bottle in the inverted position as the well was sufficiently effervescent to use this method. Terracon attempted to collect the water sample for the New Well in a similar manner. However, the New Well was not sufficiently effervescent and therefore the water sample was collected with the sample bottle in the upright position. Water samples for the Old Well were collected at a flow rate of approximately 2 gpm and water samples for the New Well were effervescent, the 1 liter gas sample bottle is placed into the filled bucket in an inverted position with the well tubing until the bubbling gases have displaced 1/4 to 1/2 of the water in the bottle and then capped. The water sample for the Old Well was collected with the sampling bottle in the inverted position as the well was sufficiently effervescent to use this method. Terracon attempted to collect the water sample for the New Well in a similar manner. However, the New Well was not sufficiently effervescent and therefore the water sample was collected with the sample bottle in the upright position. Water samples for the Old Well were collected at a flow rate of approximately 2 gpm and water samples for the New Well were collected at a flow rate of approximately 3 gpm.

Dissolved Methane in New York Groundwater

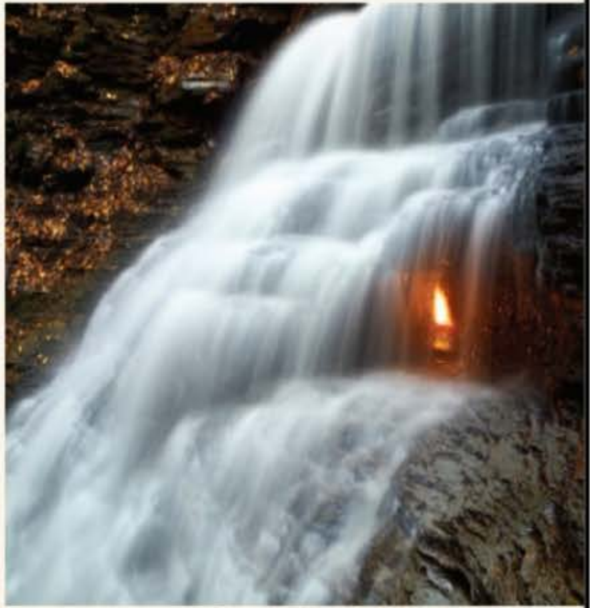
New York State is underlain by numerous bedrock formations of Cambrian to Devonian age that produce natural gas and to a lesser extent oil. The first commercial gas well in the United States was dug in the early 1820s in Fredonia, south of Buffalo, New York, and produced methane from Devonian-age black shale. Methane naturally discharges to the land surface at some locations in New York. At Chestnut Ridge County Park in Erie County, just south of Buffalo, N.Y., several surface seeps of natural gas occur from Devonian black shale, including one behind a waterfall (fig. 1). Methane occurs locally in the groundwater of New York; as a result, it may be present in drinking-water wells, in the water produced from those wells, and in the associated water-supply systems (Eltschlager and others, 2001).

The natural gas in low-permeability bedrock formations has not been accessible by traditional extraction techniques, which have been used to tap more permeable sandstone and carbonate bedrock reservoirs. However, newly developed techniques involving horizontal drilling and high-volume hydraulic fracturing have made it possible to extract previously inaccessible natural gas from low-permeability bedrock such as the Marcellus and Utica Shales. The use of hydraulic fracturing to release natural gas from these shale formations has raised concerns with water-well owners and water-resource managers across the Marcellus and Utica Shale region (West Virginia, Pennsylvania, New York and parts of several other adjoining States). Molofsky and others (2011) documented the widespread natural occurrence of methane in drinking-water wells in Susquehanna County, Pennsylvania. In the same county, Osborn and others (2011) identified elevated methane concentrations in selected drinking-water wells in the vicinity of Marcellus gas-development activities, although pre-development samples were not available for comparison. In order to manage water resources in areas of gas-well drilling and hydraulic fracturing in New York, the natural occurrence of methane in the State's aquifers needs to be documented. This brief report presents a compilation of data on dissolved methane concentrations in the groundwater of New York available from the U.S. Geological Survey (USGS) National Water Information System (NWIS) (http://waterdata.usgs.gov/nwis).

Methane

Methane originates from several different sources. Biogenic methane is produced through biologic decomposition of organic matter at shallow depths and low temperatures in places such as swamps or landfills, or within glacial deposits that have decomposing organic matter—often termed "drift gas." Thermogenic methane is produced from organic matter buried millions of years ago, which has undergone physical and chemical changes at great temperature and pressure; other hydrocarbons such as ethane, propane, and butane, or oil also can be produced thermogenically.

Methane is a colorless, odorless, tasteless gas that can be flammable or explosive. It can trigger an explosion in enclosed/confined spaces containing oxygen, coupled with an ignition source (an open flame or an electrical spark). Methane can act as an asphyxiate by displacing air in structures and replacing oxygen in animal circulatory systems; burning methane also can produce other toxic gases such as carbon monoxide (Eltschlager and others, 2001).



Photograph by Matthew Conheady (www.nyfalls.com)

Figure 1. Gas flame from natural gas seep at Chestnut Ridge County Park, Eternal Flame Falls, Erie County, New York.

Oak Orchard Acid Springs—Northern Genesee County, N.Y.

From S.E. North, 1899, "History of Alabama, New York—from our county and its people a descriptive and biographical record of Genesee County New York" accessed August 2009 at: http://history.raysplace.com/ny/alabama-ny.htm.

"Alabama Sour Springs" also called "Oak Orchard Acid Springs," celebrated for their medicinal purposes, are located on road 7, in the southern part of the town, in the "swamp" on a little elevation two and a half to four feet above the surrounding surface, within a circle of 50 rods, and no two alike: eight in all have been discovered and analyzed, three of which are of an acid nature, one sulphur, one magnesia, one iron and one of a gaseous nature, affording gas enough to light 50 ordinary gas burners."

In groundwater, methane can be dissolved or in a gaseous state. When methane is dissolved, it acts like the carbon dioxide gas used in carbonated beverages, where the gas is held within the fluid under the confining pressure of the sealed container. When the container is opened, pressure is reduced and some of the gas comes out of solution, which causes bubbling and fizzing in the beverage. In aquifers, methane may be confined by overlying fine-grained deposits or unfractured bedrock. Dissolved methane concentrations in confined aquifers can be much greater than the saturation concentration at atmospheric pressure. As groundwater enters a well at atmospheric pressure, the natural gas can be released from the water, which can cause a column of gas to form above the water surface in the well or be released within a pressure tank, at faucets inside a home, or in structures enclosing the well, where it can become flammable or explosive as a result (Eltschlager and others, 2001).

Methane reaches saturation in water at 28 milligrams per liter (mg/L) at atmospheric pressure and becomes flammable in air at about 5 percent by volume (Eltschlager and others, 2001). The Office of Surface Mining recommends that methane concentrations greater than 28 mg/L in well water

New York Bedrock and Natural Gas and Oil Stratigraphy

The stratigraphic column from Hill and others (2003) (fig. 2) shows that at least some natural gas has been developed from almost all the bedrock formations in New York State, indicating that bedrock units yielding some volume of methane are widespread. Therefore, any open borehole such as a water well, potentially could contain methane gas. Even though there are many gas-producing formations, relatively little data exist citing the occurrence, distribution, and concentration of methane in groundwater.

Dissolved Methane Concentration Data in New York

The collection of dissolved methane concentrations in groundwater by the USGS in New York coincided with groundwater age-dating applications for aquifer studies in the late 1990s. Various tracers can be used to date groundwater including tritium (Solomon and others, 1993), chlorofluorocarbons (CFC) (Plummer and others, 2006), and sulfur hexafluoride (SF6) (Busenberg and Plummer, 2000). As part of the age-dating method, dissolved gas samples (nitrogen, argon, carbon dioxide, oxygen, and methane) are collected and analyzed to help determine the time when groundwater recharge occurred. When the age-dating results are reported, the supporting dissolved gas data (including methane) are sometimes included. Methane data from such previous age-dating studies (Komor, 2002; Yager and others, 2007) have been compiled for this report.

Since 2002, the USGS, in cooperation with New York State Department of Environmental Conservation (NYSDEC), has conducted groundwater-quality monitoring assessments in major river basins in New York (http://ny.water.usgs.gov/projects/305b/). Since 2009, these assessments have included sampling for dissolved gases, including methane (Nystrom, 2011, 2012, and Reddy and Risen, 2011). By 2011, methane had been sampled in 8 of the 14 major river basins in the State. These data, combined with those from groundwater age-dating analyses, yielded dissolved methane concentrations from water wells at 239 locations in New York from 1999 to 2011 (fig. 3).

Methane reaches saturation in water at 28 milligrams p liter (mg/L) at atmospheric pressure and becomes flammabl in air at about 5 percent by volume (Eltschlager and others, 2001). The Office of Surface Mining recommends that methane concentrations greater than 28 mg/L in well water should be addressed immediately by removing any potential ignition source and venting the gas away from confined spaces (Eltschlager and others, 2001). The Office of Surface Mining also recommends that methane concentrations ranging from 10 to 28 mg/L in water (or 3 to 5 percent by volume in air) signify an action level where the situation should be closely monitored, and if the concentration increases, the area should be vented to prevent methane gas buildup. Concentrations of methane less than 10 mg/L in water (or 1 to 3 percent by volume in air) are not as great a concern, but the gas should be monitored to observe if the concentrations increase over time (Eltschlager and others, 2001). Homeowners should contact their local or New York State Health Department for further information about measuring and mitigating "action level" methane concentrations (as previously defined) in their water wells or in their homes.

Equally troubling was well owner Steve Lipsky's attempt to extort $6.5 million from Range Resources during this process. On January 27, 2012, District Court Judge Trey Loftin threw out Mr. Lipsky's lawsuit against the company, ruling that Lipsky lacked legal jurisdiction because the Commission had already determined that Range Resources' gas wells were not responsible for contaminating the water well. On February 16, 2012, Judge Loftin subsequently issued another Order against Mr. Lipsky, expressing concern that Lipsky, under the advice or direction of Alisa Rich, an environmental consultant, attached a hose to the water well's gas vent, not to a water line, and then lit the gas from the hose's nozzle. Judge Loftin stated "[the] demonstration was not done for scientific study but to provide local and national news media a deceptive video, calculated to alarm the public into believing the water was burning." Judge Loftin also cited evidence that Ms. Rich had sought to mislead the EPA.

Barry Smitherman
Railroad Commissioner
Congressional testimony
June 6, 2012

Not only were these original accusations later proven in court to be completely fraudulent stunts, which I will discuss in detail later, Mr. Lipsky had given the Railroad Commission little or no time to fully "resolve" this issue. In fact, by the time EPA notified the Commission of its receipt of Mr. Lipsky's complaint, the Railroad Commission had already been to Mr. Lipsky's property twice to conduct inspections on and collect water samples from the water well in question.

David Porter
Railroad Commisioner
Congressional Testimony
February 5, 2014

Finally, I would like to call attention to the initial claims Mr. Lipsky made to the EPA, specifically his claim that "indicated that he could set his drinking water on fire to illustrate high levels of natural gas in the water at the wellhead."

David Porter
Railroad Commisioner
Congressional Testimony
February 5, 2014

U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

Response to Congressional Inquiry Regarding the EPA's Emergency Order to the Range Resources Gas Drilling Company

Report No. 14-P-0044

December 20, 2013

Region 6 and OECA staff and officials cited several reasons for withdrawing the order. First, the EPA wanted to reduce the costs and legal risks associated with the ongoing court cases. In addition, an EPA official indicated that the EPA believed that the risk faced by the residents at the well where contamination had first been found was reduced because the residents had obtained water from a separate source and were no longer using the well. Finally, the EPA was able to obtain Range Resources' agreement to participate in a national agency study of the relationship between hydraulic fracturing and drinking water contamination. Range Resources also agreed to sample 20 water wells in Parker County every 3 months for a year if the EPA withdrew the order.

The EPA Perceived High Litigation Risk and Cost