



January 30, 2020

To: CURRENT RESIDENT
151 GRANT AVE
PO BOX 100
FIRESTONE CO 80504

From: Crestone Peak Resources
Re: Notice to Nearby Residents -- Johnson 12H-C268

Dear Neighbor,

This letter is to notify you that the Colorado Oil and Gas Conservation Commission (COGCC) has re-engaged in the state review and approval process for our proposed Johnson well pad location (Johnson 12H-C268) in Firestone near the intersection of Firestone Boulevard and Center Street. The proposed location is within approximately 2,000 feet of your residence. Please find a map of the site enclosed with this letter.

Crestone shared details on the planned location with the local community at a meeting on July 24, 2019. We then received approval of the permit (Permit Resolution 19-78) from the Town of Firestone Board of Trustees, per the town's Special Use Permit Process, on Aug. 28, 2019. In order to proceed with our plans for the site, we need approval of our Form 2A from the COGCC.

As we re-engage in this process, we'd like to share new information made available by the state. Please find information sheets from the COGCC and Colorado Department of Public Health and Environment (CDPHE), as requested by the COGCC. The data included in these information sheets is not reflective of our proposed location nor was it taken from a Crestone location or our operations.

We closely review all studies released by state agencies and, when necessary, conduct our own air monitoring analyses, as part of our efforts to go above and beyond. Our current air quality monitoring practices mirror and exceed those conducted by the state and ensure all sites are in compliance with existing regulations, and enable us to demonstrate that we're producing energy safely and responsibly without adverse impacts on air quality. To date, we have found no indication of an increase in air quality levels beyond the limits set forth by the state.

Additionally, we recently launched a pilot program that will provide real-time, continuous air quality monitoring at our horizontal well sites, representing about 80 percent of our total production, in partnership with Project Canary. Additional detail on the pilot program can be found in the 'news' section of our website, www.crestonepeakresources.com.



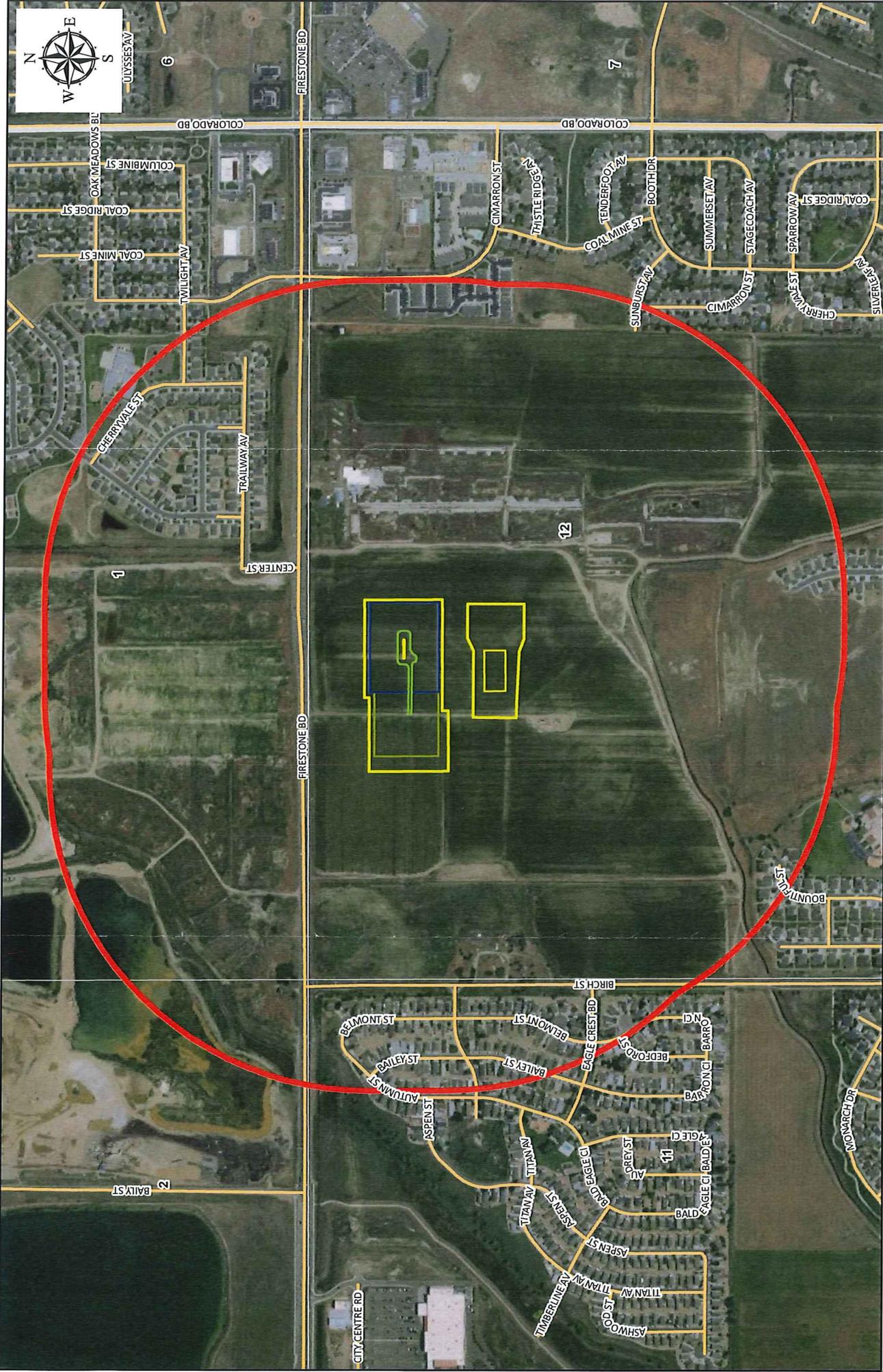
Crestone looks for opportunities to utilize industry-leading technologies and practices as part of our commitment to operating safely, responsibly and with minimal impacts on the communities where we work. Some of the technologies and practices we anticipate using at the proposed Johnson site include:

- A new synthetic drilling fluid (IOGP Group III) that is virtually odor-free, non-toxic, and readily biodegradable
- Vent-free flowback operations which prevent emissions and capture gas and takeaway via pipeline
- Drilling rig derrick screen to minimize light and visual impacts on neighbors
- Electric drilling rig powered by the utility grid to reduce emissions and noise from generators
- Quiet hydraulic completions fleet

The planned oil and gas location include plans to drill 12 oil and gas wells and install the associated production facility, which includes 16 oil/condensate tanks and four (4) water tanks. Plans for drilling and completions operations are scheduled for the second quarter of 2020. Further detail on the permit can be found in our Form 2A on the COGCC website: <https://cogcc.state.co.us>.

If you have questions or would like to share feedback, we encourage you to reach out to our community relations team directly by email (communityrelations@crestonepr.com) or phone (720-410-8537).

Thank you,
Crestone Peak Resources Community Relations Team



CRESTONE PEAK
RESOURCES

1/24/2020
©Crestone Peak Resources, GIS

JOHNSON 12H-C268

- Johnson Pad
- Johnson 2000' Setback



Coordinate System: NAD 1983 2011 StatePlane Colorado North FIPS 0501 FLUS

Disclaimer:
Information depicted on these maps is the sole property of Crestone Peak Resources, LLC (CPR). Electronic reproductions of any portion of this map is strictly prohibited absent the written consent of CPR. This information is to be used for reference purposes only. CPR does not guarantee the accuracy of this material and is not responsible for any misuse or misrepresentation of this information.



At-A-Glance

Human Health Risk Assessment for Oil & Gas Operations in Colorado

What the study does	What the study does not do
<p>The study uses actual emissions data from oil and gas operations in Colorado, to estimate or “model” hypothetical exposures and risks of health impacts. Modeling is used to predict how pollutants move through the air, accounting for weather conditions and emissions from a source, to estimate exposures at multiple distances from a well pad. These estimated exposures are then used to understand the potential risk to public health.</p>	<p>The study is not based on actual health impacts people have reported from oil and gas operations or on measured concentrations in the air surrounding the well pad.</p>
<p>The study says that there may be a risk of negative health impacts (e.g., headaches; dizziness; respiratory, eye, and skin irritation) from short-term exposures to chemicals such as benzene during worst-case conditions. Worst-case conditions represent the highest of what could reasonably be expected from a single well pad during various phases of oil and gas development.</p>	<p>The study does not examine risk of short-term health impacts from average or everyday conditions, nor does it estimate the frequency of worst-case conditions. The state has collected approximately 5,000 samples near well pads with its mobile monitoring lab in recent years, but has not measured concentrations above what we expect would cause short- or long-term health impacts.</p>
<p>The study found that the risk of negative short-term health impacts could occur at all distances modeled in the study (from 300 feet to 2,000 feet).</p>	<p>The study does not show the risk of negative short-term health impacts at distances greater than 2,000 feet, but does not rule out the possibility of health impacts at greater distances.</p>
<p>The study looks at potential exposure to chemicals directly attributable to oil and gas operations. It estimates exposure to 47 volatile organic compounds during the different phases of oil and gas development and production. The study found the risk of short-term health impacts were largely from exposure to benzene, toluene, and ethyltoluenes.</p>	<p>The study does not consider exposure to other chemicals potentially released from oil and gas operations and/or other activities. It also does not account for natural exposure or “background exposure” to these chemicals-- nor does it account for other factors that might influence public health like particulate matter (e.g., exhaust, dust, pollen, etc.), indoor air pollution, occupational exposures, or noise.</p>
<p>The study does not determine any elevated risk of chronic health impacts from any single substance at 500 feet or greater. The study shows slightly elevated risk of blood and nervous system effects from multiple chemicals at 500 ft but not at 2000 ft. Cancer risk under all exposures was within the Environmental Protection Agency’s acceptable risk range.</p>	<p>The study does not rule out the possibility of chronic health impacts, because it does not comprehensively measure chronic exposures representative of what happens in areas with multiple well pads. It does not consider other potential impacts on human health.</p>
<p>The study largely uses data that was released to the public by CSU in 2016. It is mostly based on data collected after 2014, when stricter state methane and VOC regulations went into effect. Some of the data collected from Garfield County is from before 2014, when less strict policies were in effect.</p>	<p>The study does not contain new data and may not reflect the most current controls and technology used at pre-production sites today.</p>
<p>The study only speaks to the risk of health impacts from being near one well pad.</p>	<p>The study does not speak to the health impacts of being near multiple well pads.</p>
<p>This study adds to the body of knowledge we have on oil and gas development and its potential health impacts.</p>	<p>The study does not definitively dictate a setback that is protective of public health, but it can help inform policy decisions.</p>



COLORADO

Oil & Gas Conservation
Commission

Department of Natural Resources

COGCC FACT SHEET: OIL AND GAS WITHIN 2,000 FEET

This fact sheet is being provided because an operator has submitted, or is planning to submit, drilling permits to the COGCC for an oil & gas location within 2,000 feet of your residence. COGCC wishes to inform individuals that live near planned oil and gas operations that the Colorado Department of Public Health and the Environment (CDPHE) recently published a study that addresses potential health risks from oil and gas development.

On October 17, 2019, a study titled "[Final Report: Human Health Risk Assessment for Oil & Gas Operations in Colorado](#)" was released by CDPHE. The health risk modeling study used actual emission data that was collected in previous studies of oil and gas operations to mathematically estimate (model) hypothetical chemical concentrations at distances between 300 and 2,000 feet in different meteorological conditions and other controlling factors to estimate potential for exposures.

The individual chemical concentrations modeled from hypothetical well pads in the study were below health based guidelines for chronic (long-term) health impacts and were within acceptable risk ranges for cancer, as established by the United States Environmental Protection Agency. The study did not determine any elevated risk of chronic health impacts from any single substance at 500 feet or greater although the study showed slightly elevated risk of blood and nervous system effects from multiple chemicals at 500 feet but not at 2,000 feet. Further, the study did find that there may be potential risks of acute (short term) impacts at all modeled distances, particularly during the drilling, hydraulic fracturing and flowback phases of oil and gas development. The acute risks are primarily associated with benzene, which under worst-case conditions may be temporarily at high enough concentrations to cause short-lived symptoms such as headaches, dizziness, and respiratory, skin, and eye irritation. The modeled concentrations that were high enough to cause these symptoms are from the modeling parameters that represent potential worst-case conditions (i.e. certain meteorological conditions, peak emissions, continuous exposures, etc.).

The study is not based on actual reports of symptoms, nor is it based on actual measurements up to 2,000 feet, rather, it only reports that there are potential impacts under worst-case conditions. It should also be noted that the study relied on data collected in 2013 to 2016, and since then, there have been upgrades in operational practices and controls, including improved emission controls which are now in common use; additionally, both the COGCC and the CDPHE Air Pollution Control Division have enacted more stringent regulations that apply to current oil and gas operations.

Please contact the COGCC or visit the [COGCC website](#) for additional information regarding permits for planned oil and gas operations. All permits have a 20-day comment period that is available to all members of the public. All permit information can be viewed on the website, including the best management practices (BMPs) and conditions of approval (COAs) that are applied for the protection of public health, safety and welfare or the environment.

The COGCC and CDPHE will be conducting further studies to better understand potential health impacts from oil and gas operations. Please visit the COGCC website and the [CDPHE website](#) for additional information regarding these studies and any updates.

20191120

URLs for embedded links:

1. https://drive.google.com/open?id=1pO41DJMXw9sD1NjR_OKyBJP5NCb-AO0I
2. <http://cogcc.state.co.us/>
3. <https://www.colorado.gov/pacific/cdphe/oghealth>