



Oil & Gas Update - September 28, 2018

AIR QUALITY TESTING PROGRAM

On August 28, 2018, City Council approved an air quality testing agreement with Ajax Analytics for air quality testing near the Extraction well sites and in nearby neighborhoods, as well as for the development of a webpage to report air quality monitoring results. The air quality testing program is a combined proposal of Colorado State University and Ajax Analytics. Through Colorado State University’s canister testing and analysis, and Ajax Analytics moveable and hand held sensors, the data generated will be able to identify trends and monitor operations at well sites, to determine percent change in volatile organic compounds and identify source emissions and age of emissions. Ajax and CSU will validate data and interpret the source. The total cost of the proposal for three years is \$1,762,768 for an annual average cost of \$587,589 per year.

AIR QUALITY TESTING PROGRAM OPEN HOUSE

Citizens are invited to an Air Quality Monitoring Study Open House on Wednesday, October 24 from 5-6:30 p.m. at the City and County Building in Broomfield to learn more the air quality study and testing starting near the Extraction well sites and nearby neighborhoods this Fall.

Air quality is a main focus of the Oil and Gas Chapter of Broomfield’s Comprehensive Plan as well as the Extraction Operators Agreement. These documents address specific action steps and Best Management Practices (BMPs) related to oil and gas development, operations, and concerns expressed by the public related to potential negative air quality impacts. Contracting for air quality monitoring will support several of the stated policies and associated action steps, as well as inform long-term strategies that may be adopted by Broomfield to address concerns expressed by the public.

Attendees can learn more about how the air quality testing will be conducted, what tools and sensors will be used and how results will be accessible to the public. Representatives from the partnership between Colorado State University’s Department of Atmospheric Science and Ajax Analytics will also be available to discuss the monitoring network and data analysis platform for Broomfield.

Additionally, learn about the various ways Broomfield will use this air quality data including the following:

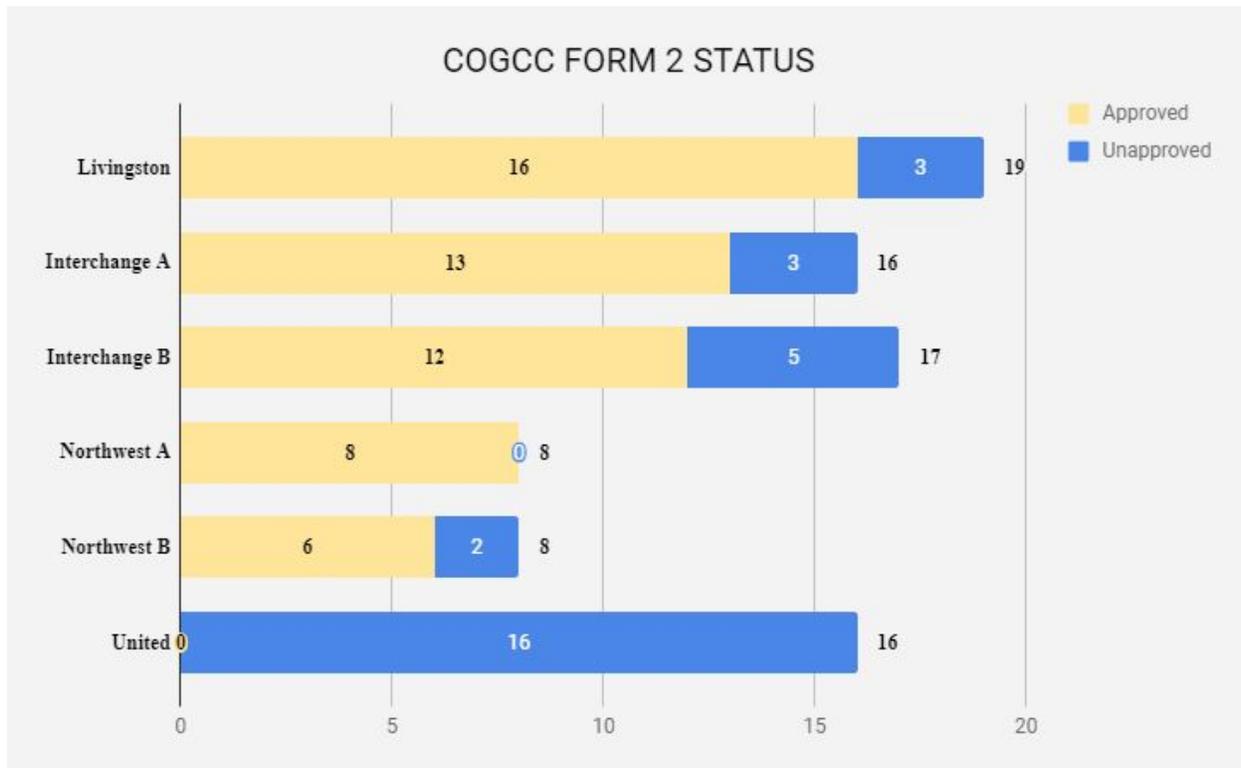
- Information supporting emergency response actions
- Follow-up information to respond to citizen complaints and concerns
- Information supporting follow-up inspections
- Data and trend analysis to support health decision and possible regulatory and statutory changes

EXTRACTION COMPREHENSIVE DRILLING PLAN (CDP) UPDATE

- Broomfield’s Operator Agreement with Extraction requires a Comprehensive Drilling Plan (CDP), which contains 23 plans on topics ranging from air quality, to noise control, and emergency and risk analysis. The CDP will control activities on the 6 well pads and 84 wells that are allowed under the Operator Agreement. The CDP is subject to Broomfield’s approval.
- The City and County Manager approved the final CDP {INSERT LINK HERE} on August , 2018, by this letter {INSERT LINK HERE}

EXTRACTION’S STATE FORM 2A LOCATION ASSESSMENT PERMITS

- Of the 84 wells that Extraction intends to drill, the Colorado Oil and Gas Conservation Commission (COGCC) has approved the following Form 2A locations assessment permit applications for the six well sites in Broomfield:



EXTRACTION APPLICATIONS FOR PUBLIC and PRIVATE IMPROVEMENT PERMITS FOR PIPELINES

Broomfield negotiated with Extraction to have all gas, oil, and produced water piped off of the proposed Extraction well sites. Pipelines are safer and result in less emissions because it avoids the retention of oil, gas, and produced water on the well sites. Pipelines also greatly reduce the amount of truck traffic to and from a well site. Broomfield insisted that pipelines

be in place to Extraction well sites prior to completion of the drilling and removal of oil, gas, and produced water from the sites. A map of the pipeline route can be viewed [here](#).

The estimated schedule for the installation of the pipelines is set forth below, with the section referenced those indicated on the map.

An updated Tentative Schedule Forecast will be provided as soon as it is available.

Section 13 of the Operator Agreement with Extraction requires pipelines to be built in accordance with specific protections like the highest class of pipeline for safety and durability and continuous monitoring systems. In exchange, Broomfield agreed to grant easements over City owned property for the pipelines. The pipelines, as contemplated by the Operator Agreement, are subject only to the issuance of a PPIP by the City Engineer. (A link to Broomfield’s permit form can be found [here](#).) The primary purpose of the permit is so that any pipelines or utilities crossing public or private lands are built to engineering specifications, do not interfere with public utilities, and address associated environmental issues.

As can be seen from the map of the pipeline linked above and the schedule set forth above, the next sections of the pipeline that will be reviewed and are subject to approval through the PPIP process are the pipelines serving the Livingston Pad and then moving east through the Northwest A&B Pads and the Interchange A&B Pads.

CRESTONE PEAK OIL AND GAS UPDATE

Staff met with Crestone on May 7th to discuss its pending application for two well pads in northeastern Broomfield, the Gottl well pads. Staff provided Crestone with a first round of [comments on these applications](#). Crestone has begun working with the North Metro Fire & Rescue District and the Emergency Manager within the Police Department on the details of its Emergency Management Plan. Staff sent a letter to Crestone on July 13, 2018 that included Broomfield’s new oil and gas regulations and indicated that Crestone would have to comply with these regulations. A link to that letter is [here](#). On July 31, 2018, COGCC approved Crestone’s spacing applications for the Gottl well pads. (Click [here to read the COGCC Report](#)) Crestone’s Form 2A permit for these pads is currently pending at the COGCC. Broomfield’s comments on the Form 2A permit are linked [here](#).

NEW DRAFT OIL AND GAS REGULATIONS

- City Council adopted final oil and gas regulations on second reading on July 10, 2018. A link to the July 10th Council packet and the adopted regulations is [here](#).
- City Council directed staff to bring proposed amendments to these regulations concerning hearing requests on State Form 2 and 2A permits, a citizen grievance process, and setbacks for new surface developments to existing well sites to Council for consideration

- City Council, on [August 14, 2018](#), and [September 25, 2018](#), considered proposed ordinances for a citizen grievance process, and setbacks for new surface developments to existing well sites
- Council will consider these amendments to the oil and gas regulations on first reading later this year.

PROPOSED STATE RULEMAKING ON FINANCIAL ASSURANCES

Staff and outside counsel have worked with member of the Oil and Gas Comprehensive Plan Committee to prepare proposed changes to the COGCC’s 700 series rules on financial assurances for oil and gas operators. (A letter to the COGCC regarding the proposed changes can be viewed [here](#).) Outside legal counsel, staff, and the member of the Oil and Gas Comprehensive Plan Committee met with the Director of the COGCC to discuss this proposal.

The Governor has directed the COGCC to review its current financial assurance requirements. Pursuant to that direction, the Director has convened a technical working group to discuss potential rule revisions. A Broomfield citizen and former member of Broomfield's Comprehensive Plan Task Force will be participating in this working group and will propose a suite of revisions to the COGCC rules related to bonding and general and environmental liability. The Governor has directed the COGCC to report back on its findings at the end of this year. We anticipate a rulemaking next year.

PROPOSED STATE RULEMAKING ON COGCC PROCEDURAL RULES AND FORCED POOLING

COGCC has initiated a revision to its procedural rules governing hearings before the Commission, as well as to implement a recent statutory change to pooling rules. The rules revise a number of procedural requirements and implement changes that limit the liability of non-consenting mineral owners who are force pooled. Broomfield is participating in this rulemaking along with a number of other local governments from the Front Range. The hearing is scheduled for October 3.

PROPOSED STATE RULEMAKING ON SCHOOL SETBACKS

COGCC has scheduled a hearing to consider proposed changes to its setback requirements for schools, pursuant to a citizen petition. Specifically, COGCC will consider whether to change the point at which the current setback from schools to a new well site is measured. The proposal would use the boundary of the school property rather than the location of the school itself to measure the setback distance to an oil and gas facility. Broomfield will receive direction from Council on its participation in this hearing, scheduled for December.

COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT MOBILE AIR QUALITY UNIT

A location for the placement of CDPHE's mobile air monitoring unit in Broomfield to measure air quality in proximity to the Extraction well pads has been selected. That location is northwest of the Livingston Pad and south of the Northwest Parkway. Staff has finalized access, pad, and electrification issues for the site. At this time, CDPHE anticipates doing baseline testing at the selected location and then follow-up testing during hydraulic fracturing and flowback.

SOIL GAS TESTING AT PLUGGED AND ABANDONED WELL SITES

Soil gas testing of a plugged and abandoned well helps to identify any leakage in plugging or cement. If leaks are identified those would be reported to the appropriate State agency for follow-up. There are 72 plugged and abandoned wells in Broomfield. ([Click here](#) to view the map of plugged and abandoned wells.) Forty-three of these plugged and abandoned well at 500 feet or less from residences.

ERO is a consulting firm that Broomfield has worked with on this type of testing and water testing in the past. ERO made a presentation to the Planning Subcommittee of the Oil and Gas Comprehensive Plan Committee on soil gas testing around plugged and abandoned wells and the subcommittee recommended the use of this consultant for this purpose and for water testing. The cost per plugged and abandoned well for soil and gas testing is \$1,500 for a total cost of testing all plugged and abandoned wells of \$ 108,000 and for testing the 43 plugged and abandoned wells that are within 500 feet or less from residences is \$ 64,500.

In addition, Extraction will pay for plugged and abandoned well testing for those plugged and abandoned wells within one quarter mile of the projected track of the borehole of any new well that it drills.

RECENT MEETINGS

- Council adopted new oil and gas regulations on July 10, 2018. A link to the new oil and gas regulations is [here](#).
- Council discussed draft amendments to its oil and gas regulations on August 14, 2018 and September 25, 2018. A link to the September 25, 2018 draft of the amendments and associated Council memo is [here](#).
- On [August 14, 2018](#), City Council approved a process for requesting COGCC hearings on Forms 2 and 2A and Spacing Unit Applications.

- Council approved an agreement with Ajax Analytics for an Air Quality Testing Program on August 28, 2018.

FUTURE MEETINGS

- Citizens are invited to an Air Quality Monitoring Study Open House on Wednesday, October 24th from 5-6:30 p.m. at the George DiCiero City and County Building in Broomfield (One DesCombes Drive) to learn more the air quality study and testing starting near the Extraction well sites and nearby neighborhoods this Fall.
- Council will consider amendments to Broomfield’s oil and gas regulations concerning citizen hearing process and setbacks for new construction from existing wells later this year.
