



Eileen Albrecht <ealbrecht@broomfield.org>

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## Fwd: As requested

1 message

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**Tami Yellico** <tyellico@broomfield.org>  
To: Council <council@broomfieldcitycouncil.org>

Fri, Jun 1, 2018 at 4:39 PM

Council,

I just had a call from Greg Deranleau of the Colorado Oil and Gas Conservation Commission (COGCC). Today, the COGCC intends to administratively approve 16 Form 2 Permits for wells and the Form 2A Location Assessment Permit, all for the Livingston Pad. COGCC staff noted that they have considered all of Broomfield's comments and the estimated 200 comments from citizens. Mr. Deranleau indicated that the COGCC has made its decision on the final form of these permits and the best management practices (BMPs) that will be a part of the Form 2A Permit for the Livingston Pad, which BMPs will be enforceable by the COGCC.

Attached is copy of the final draft of the Form 2A Permit, including the best management practices, to be approved by the COGCC later this afternoon. Additional changes to this document may be made by COGCC staff during a final review, before it is approved today. Also attached is a response document prepared by the COGCC, which provides COGCC's explanatory statements regarding certain of the comments submitted by Broomfield and citizens. All of this information will be posted on Broomfield's website today.

As you know, even though the COGCC will be approving these permits today, Extraction is still required to meet the terms of the Operator Agreement before drilling on this pad can begin.

Tami

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Tami Yellico  
Director of Strategic Initiatives  
City & County of Broomfield  
(303) 464-5153

----- Forwarded message -----

From: **Deranleau - DNR, Greg** <greg.deranleau@state.co.us>  
Date: Fri, Jun 1, 2018 at 4:14 PM  
Subject: As requested  
To: Tami Yellico <TYellico@broomfield.org>

Here is the Form 2A with finalized BMPs and ALL public comments plus COGCC's response document. There will be additional staff comments on the Form 2A documenting the final review process and also noting your LGD comments.

Thanks,  
Greg

--

Greg Deranleau

Environmental Manager



P 303.894.2100 x5153

1120 Lincoln Street, Suite 801, Denver, CO 80203

[greg.deranleau@state.co.us](mailto:greg.deranleau@state.co.us) | [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)

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Tami Yellico  
Director of Strategic Initiatives  
City & County of Broomfield  
(303) 464-5153

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## 2 attachments



**Extraction Interchange Pad Public Comment Response\_20180601.pdf**

157K



**LivingstonForm2A.pdf**

435K

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## Fwd: As requested

1 message

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**Tami Yellico** <tyellico@broomfield.org>  
To: Council <council@broomfieldcitycouncil.org>

Fri, Jun 1, 2018 at 4:42 PM

Please see additional information below on the number of Form 2 Well Permits that the COGCC is approving today.

----- Forwarded message -----

From: **Deranleau - DNR, Greg** <[greg.deranleau@state.co.us](mailto:greg.deranleau@state.co.us)>  
Date: Fri, Jun 1, 2018 at 4:33 PM  
Subject: Re: As requested  
To: Tami Yellico <[tyellico@broomfield.org](mailto:tyellico@broomfield.org)>

Regarding Well count.

19 wells included on the Form 2A. According to the COGCC Permit Specialist, 3 APDs are "Boundary Wells" which have not yet been submitted, and three APDs are still being reviewed by COGCC Engineering. So 13 have been sent to Final Approval with the Form 2A.

Thanks and have a good weekend.

Greg

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On Fri, Jun 1, 2018 at 4:14 PM, Deranleau - DNR, Greg <[greg.deranleau@state.co.us](mailto:greg.deranleau@state.co.us)> wrote:  
Here is the Form 2A with finalized BMPs and ALL public comments plus COGCC's response document. There will be additional staff comments on the Form 2A documenting the final review process and also noting your LGD comments.

Thanks,  
Greg

--

Greg Deranleau

Environmental Manager



**COLORADO**  
Oil & Gas Conservation  
Commission  
Department of Natural Resources

1120 Lincoln Street, Suite 801, Denver, CO 80203

[greg.deranleau@state.co.us](mailto:greg.deranleau@state.co.us) | [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)

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## Extraction Interchange Pad Public Comments

### Introduction

As part of the technical review of the Extraction Oil and Gas LLC's (Extraction) Livingston Facility Form 2A Oil and Gas Location Assessment (Document #401477008) and related Form 2 Applications for Permit to Drill, Colorado Oil and Gas Conservation Commission (COGCC) staff reviewed and considered the Public Comments received. The COGCC is providing this memo with a summary of the received comments and how the issues raised in comments are addressed on the permits through COGCC Rules and operator proposed Best Management Practices (BMPs).

### Background

Extraction submitted the Livingston Pad Form 2A in compliance with Rule 303.b.(1)A. The proposed location is in the City and County of Broomfield (Broomfield) and the right to construct is granted by a Surface Use Agreement with Broomfield. There are 19 horizontal wells planned with no oil or water storage tanks planned. The nearest Building Unit from a proposed well is a home 1308 feet to the north, across the Northwest Parkway; the closest planned production facility to a home is 1486 feet. There are neighborhoods one-quarter mile to the north (across the highway) and one-half mile to the south and southeast. The proposed Oil and Gas Location is not within a COGCC defined Exception Zone or Buffer Zone and is not in an Urban Mitigation Area.

Extraction and Broomfield entered into an Operator Agreement approved by the Broomfield City Council on October 24, 2017. As part of the Operator Agreement, Extraction submitted to Broomfield a "Comprehensive Drilling Plan" (Broomfield CDP) which consisted of the information required in the local government's Use by Special Review Permit and associated mitigation plans. The Broomfield CDP was not intended to meet the requirements of COGCC Rule 216., which provides operators may propose Comprehensive Development Plans – also referred to as CDPs- to the COGCC. Extraction did not, and was not required to submit a COGCC Rule 216. Comprehensive Development Plan to the COGCC. The COGCC was not involved in the Broomfield CDP process. The Broomfield CDP was not approved prior to submittal, review, or (contemplated) approval of the Livingston Pad Form 2A; ~~the Broomfield CDP was not intended to meet the requirements of COGCC Rule 216, and COGCC was not involved in the Broomfield CDP process.~~ Oil and gas development at this site has been part of the development plan for Broomfield for several years, since Noble Energy, Extraction's predecessor in interest, negotiated an agreement (for the Lowell Pad) for this site with Broomfield in 2012 after obtaining a Use by Special Review (USR) in 2011.

Extraction's Form 2A and associated Form 2s for the Livingston Pad passed COGCC's completeness review and were uploaded for COGCC staff technical review on January 25, 2018, at which time the public comment period commenced. With extensions granted, the public comment period was open until March 2, 2018. Since the applications have been in process, COGCC staff has had numerous discussions with the operator and has met with the operator and with Broomfield to discuss various aspects of this and other Oil and Gas Locations proposed in Broomfield. Among the topics discussed

were the specific BMPs proposed on the Form 2A and how they relate to certain provisions of the Operator Agreement.

At COGCC's request, Extraction prepared a document responding to the public comments submitted to COGCC. Extraction's response document addresses the following public concerns: the operator agreement between Extraction and Broomfield; site-specific nuisances, including, traffic, noise, lights, odors, dust and emissions/leak detection; coordination with local emergency responders regarding safety, fire and explosion risks, and proximity to schools; and risk to drinking water and potential spills. The document is attached to the Form 2A as document #2316335.

### **Public Comment Process**

COGCC received 312 public comments for the Livingston Pad Form 2A and Form 2s. There were 152 comments on the Form 2s and 170 comments on the Form 2A. There were 166 unique comments, from approximately 130 commenters.

COGCC Rule 305.d. describes the process for receiving comment on each permit application submitted. In the case of the Livingston permits, the normal 20 day comment period was extended first by 10 days by the Director based on the request of the Local Governmental Designee (LGD) and a second time at the Director's discretion since some members of the public expressed difficulty engaging with and using COGCC's public comment system. The comment period was open for a total of 36 days during which COGCC developed and released a new public comment portal that did not rely on the Silverlight™ software platform to use. COGCC Staff reviewed and considered all each public comments received on the Form 2A and Form 2 permit applications, ~~but however as contemplated when the public comment process was included in the Form 2A and Form 2 permit review,~~ COGCC does will not respond to each individual comment or commenter. This longstanding public comment review and response policy was explained by the Commission in the Statement of Basis and Purpose to the 2008 Rulemaking, addressing COGCC Rule 305. (2008 Statement of Basis and Purpose at p.18)

COGCC rules allow the Director to place technically feasible and economically practicable Conditions of Approval (COAs) on permits when necessary and appropriate. For the Livingston Pad Form 2A, COGCC worked with Extraction to develop site-specific BMPs for the Location and did not rely on prescriptive COAs. The BMPs were developed and applied to eliminate, minimize, or mitigate potential adverse impacts to public health, safety and welfare, including the environment ~~that were not otherwise addressed by COGCC Rules;~~ BMPs also provide specificity as to how Extraction plans to comply with certain provisions of COGCC rules.

The COGCC Oil and Gas Location Assessment (OGLA) group, Engineering group, and Permitting group reviewed the permits for compliance with COGCC rules. COGCC Staff found the Form 2 and Form 2A applications to be in compliance with COGCC's rules and with COGCC's mission to foster the responsible development of the state's oil and gas resource in a manner that will avoid or minimize adverse impacts, and protect public health, safety and welfare and the environment. The following section includes a discussion of some of the concerns and issues addressed in the public comments.

## Public Comment Summary

The dominant sentiment expressed in public comments received by COGCC was the request for COGCC to deny the permit applications based on a variety of reasons. However, it is not within COGCC's statutory mandate to deny a permit for a well that the operator has a demonstrable right to construct and mineral interest to develop unless the application fails to comply with COGCC Rules or the Colorado Oil and Gas Conservation Act on the grounds of public sentiment.

Of the site-specific comments, most commenters expressed concerns about:

- The Operator Agreement between the City of Broomfield and Extraction;
- Submittal of permits to COGCC prior to finalizing the Broomfield CDP;
- Incorporating the BMPs as stated in the Operator Agreement into the Form 2A;
- Health and safety concerns regarding potential explosions, fires, and toxic releases;
- The siting of the Livingston Pad near the planned drinking water reservoir;
- The proximity of pads (including other Oil and Gas Locations proposed by Extraction) to a school;
- The proximity of pads (including other Oil and Gas Locations proposed by Extraction) to residential development;
- Traffic on Lowell Boulevard and Sheridan Parkway;
- Environmental concerns, including contamination from spills; or
- The Martinez lawsuit.

These concerns are discussed specifically in the sections that follow.

### Operator Agreement with Extraction and Broomfield

Many comments expressed concerns that COGCC's permit process was not taking into account the Operator Agreement between Extraction and Broomfield. Aside from attending public meetings, presenting information to the City Council and Broomfield's Oil and Gas Task Force, and engaging in numerous meetings with Broomfield staff, COGCC was not party to the terms of the Operator Agreement and COGCC is not a signatory to the agreement. In its October meeting, COGCC Commissioners instructed staff to ensure that Extraction's Form 2A applications in Broomfield "comport with" the Operator Agreement. Consistent with the Commission's direction, Staff reviewed the Operator Agreement. COGCC finds that the proposed Oil and Gas Locations are those that were included in the executed Operator Agreement, including the Livingston Pad and that the negotiated BMPs and COAs are sufficiently protective of public health, safety, welfare and the environment, including wildlife resources. It is important to note that tThe exact terms and conditions of the Operator Agreement remain a private party agreement between two outside parties, and those terms and conditions are enforceable as civil matters by either party not the COGCC.

### Form 2A processing and approval prior to finalizing the Broomfield CDP

A dominant concern was that Extraction did not finalize the Broomfield CDP prior to submitting permits to COGCC.

COGCC is aware that Broomfield and Extraction had not finalized the Broomfield CDP prior to Extraction's submittal of the Form 2A and Form 2 permits to COGCC. However, COGCC's permitting process is independent from ~~all~~ local permitting processes and operators commonly submit permit applications to COGCC prior to finalizing their agreements with local governments or obtaining their local permits. The timing of Broomfield's permitting process is also independent of COGCC's permitting process. COGCC's Rules include a provision for an operator to elect to develop a Comprehensive Development~~trilling~~ Plan, however, the process engaged by Extraction and Broomfield was not intended to satisfy Rule 216 and COGCC was not involved in the development of the Broomfield CDP.

#### Incorporation of BMPs on the Operator Agreement into the Form 2A and Form 2

Public commenters also expressed concern that COGCC did not incorporate all BMPs in Exhibit B of the Operator Agreement onto the Form 2A or Form 2. The BMPs in Exhibit B related to surface equipment or operations, not downhole work and are discussed below as they relate to the Livingston Pad Form 2A.

Extraction submitted the Livingston Pad Form 2A with the BMPs from Exhibit B. COGCC evaluated these BMPs during the technical review and determined that many were not appropriate for inclusion on a Form 2A (COGCC's evaluation criteria is explained below). COGCC and Extraction worked to develop an alternative set of BMPs for the Form 2A and COGCC included Broomfield in this revision process. The BMPs incorporated into the Livingston Pad Form 2A are enforceable by COGCC and address human health, safety, welfare and the environment.

The terms and conditions in the Operator Agreement, including the BMPs in Exhibit B were negotiated and agreed to ~~determined~~ by Broomfield and Extraction; COGCC did not have a role in their development. Not including the Exhibit B BMPs on the Form 2A, does not diminish Broomfield's ability to enforce the BMPs and the other terms and conditions of the Operator Agreement.

BMPs on COGCC permits ~~are enforceable permit conditions~~ enforceable by COGCC ~~that~~ carry the same weight as Rules, the Colorado Oil and Gas Conservation Act, and as other permits entries and information, including Conditions of Approval. COGCC does not include BMPs if (1) COGCC does not have to ability to respond to and resolve potential complaints regarding the BMP (not within COGCC's statutory authority), or (2) COGCC does not have the ability to inspect for compliance with the BMP (not within COGCC's jurisdictional authority or expertise).

COGCC used the following guidelines to determine if the Exhibit B BMP was appropriate for inclusion on the Livingston Pad Form 2A:

- Exhibit B BMPs that require compliance with local codes or local regulations cannot be regulated or enforced by COGCC and were not included on the Form 2A.
- Exhibit B BMPs that have subjective language where compliance determinations are made by Broomfield or a third party were not included on the Form 2A.



- Exhibit B BMPs that pertain solely to interactions between Broomfield and the operator (e.g. requirements for Extraction to meet with or provide notice or records to the local government) cannot regulated or enforced by COGCC and were not included on the Form 2A.
- Exhibit B BMPs that restated a COGCC Rule or Rules were not included on the Form 2A because the operator is already required to comply with the COGCC Rules.
- Exhibit B BMPs that conflicted with or weakened a COGCC Rule or Rules or introduced language that would make it more difficult for COGCC to enforce a current Rule were not included on the Form 2A.
- Exhibit B BMPs that address issues that COGCC does not have authority to regulate and enforce (i.e. CDPHE or Federal jurisdiction) were not included on the Form 2A.

By using the above criteria, COGCC ~~staff were able to remove~~ numerous Exhibit B BMPs, revised others, and replaced some with ~~more standardized additional~~ language appropriate for COGCC enforcement. This level of review results in a permit that COGCC's Field Inspection Unit has the authority to inspect and enforce, without sacrificing public health, ~~or~~ safety or welfare and ensures that oil and gas operations are regulated in a consistent, ~~by~~ effective manner throughout the state.

#### Health and Safety – concerns regarding Explosions, Fire and Toxic Releases

The majority of public comments expressed concerns about health and safety, with specific concerns about fires, explosions, and poisonous or toxic releases.

The Form 2A for the Livingston Pad contains information regarding the planned number of wells, number and type of facilities and distances from nearby homes and other building units. As mentioned above the proposed Location is not considered a Designated Setback Location.

~~The Comments raising~~ concerns regarding fires, explosions, and poisonous or toxic releases referenced were somewhat fueled by an incident that occurred on an Oil and Gas Location operated by Extraction in December 2017, in which an explosion and fire occurred during flowback operations. The explosion and fire were confined to the Oil and Gas Location and although one contract worker was injured, no injuries to the public were reported. Extraction has reported to COGCC and Broomfield that it has examined its procedures and has taken numerous measures in response to the incident that they are implementing at all their Oil and Gas Operations, including at the Livingston location in Broomfield. These are detailed in Extraction's April 18, 2018 letter to Broomfield, which has been attached to the Livingston Form 2A as document # 2316327.

#### Planned reservoir and drinking water concerns

COGCC has been aware of Broomfield's plans to construct a drinking water reservoir west of Sheridan Boulevard and south of the Northwest Parkway since meetings with the LGD and other staff in 2011. The proximity of this proposed drinking water resource has factored into COGCC's review of the Livingston Pad Form 2A. The reservoir plans have changed somewhat over time, including the reduction in size and the resultant movement farther west from the proposed Livingston Pad. Several measures have been incorporated into Extraction's plans to ensure the safety of the drinking water supply, once the reservoir is constructed.

A pipeline network will be in place to transport oil, gas, and produced water from the location. The pipeline will eliminate the need for large capacity liquids storage (tanks) and loading and transport via trucks. The reduced quantities of liquids stored on site and reduced handling will decrease the likelihood of a spill and further decreases the potential for a large spill.

Although oil and water storage tanks are not listed on the Form 2A, COGCC recognizes that there will be vessels on location for retention time and liquids separation, and flashing off volatile gasses to stabilize the oil or condensate before transport and to store liquids during maintenance. The production facilities will be remotely monitored through Extraction's SCADA system for upset conditions, loss of pressure, and other alarms which would indicate a spill. The monitoring system will allow for remote shut in, if necessary, and will have automatic shut in capabilities for certain situations.

Leak detection and flowline integrity - Extraction provided a best management practice for a leak detection plan following COGCC rules 604.c.(2).F. The leak detection plan BMP includes monitoring production facilities on daily to weekly basis by visually inspecting wellheads, vessels/tanks, and fittings. An infrared camera will be used to inspect above ground flowlines and piping on a quarterly basis for the first five years. Extraction has committed to bi-annual flow line testing per COGCC regulations. Testing flowlines twice as often as required by COGCC allows for earlier detection of potential leaks. Although the results of the individual inspections and pressure tests will not be provided to COGCC (for efficiency purposes), Extraction must maintain records of their inspections and COGCC can inspect them at any time, if necessary.

Secondary Containment - The separators and transfer tanks will have lined secondary containment. The location will also have perimeter (tertiary) containment.

Extraction has committed to meet COGCC Rule 604.c.(2).G for process vessel or containers to be in a lined area with a steel-ring berm that is sized to hold 150 percent of the largest single vessel or container. The secondary containment for the production on location includes a synthetic or engineered liner that is tied back to the steel ring, preventing spill from leaving the contained area. Tertiary containment, consisting of an earthen berm, will surround the production facilities. All new equipment will be anchored to avoid movement during flooding conditions.

Extraction will install a system for the automated and remote (manual) monitoring and shutdown of production facilities. The system will automatically notify Extraction in the event of abnormal operations and Extraction will have the capability to remotely shut down production. If necessary, the system will automatically shut down production in emergencies. As part of the system, Extraction has designed the site with safety valves controlled by a programmable logic computer at each wellhead.

#### Proximity to schools

The planned Livingston location is greater than a mile from any existing school or other COGCC defined High Occupancy Building Unit. The planned siting of the Oil and Gas Location is in compliance with COGCC Rules which allow administrative permit approval if a proposed well or production facility is greater than 1,000 feet from a High Occupancy Building Unit.

## Martinez Lawsuit

The COGCC received several comments regarding whether the Court of Appeals holding in the “Martinez” case (*Martinez v. Colo. Oil & Gas Conservation Comm’n*, 2017 COA 37) is applicable to staff’s review of the Livingston Pad Form 2A. The Court of Appeals’ decision in *Martinez* is currently under review by the Colorado Supreme Court. Staff conducted its review of the Livingston Pad Form 2A in accordance with its Rules and the Colorado Oil and Gas Conservation Act (~~Act~~). The COGCC’s Rules provide for the protection of public health, safety, and welfare in connection with oil and gas development.

## Volatile Organic Compound and Odor Concerns

Several public comments expressed concern with the health effects of potential air emissions and the odors associated with oil and gas operations. Extraction has provided BMPs on the Form 2A to address odors during the drilling, completions and flowback, and production phases of operation:

- **Drilling Phase:**  
Extraction has committed to using a synthetic and diesel mix drilling mud with less aromatic properties than full diesel mud. A mud cooling system will be used to minimize the volatilization of hydrocarbons in the drilling mud. Extraction committed to using additives to prevent odors, but will not mask odors with the use of fragrances.

Extraction has committed to using an electric rig for drilling, minimizing diesel exhaust. The distance to nearby Building Units will dissipate exhaust from vehicles and other equipment.

- **Completions/Flowback Phase:**  
During completions and flowback, Extraction has provided information in compliance with COGCC Rule 805 and 912 for green completions. Flaring will only occur during upset conditions. Emissions control devices will be used during completions and flowback that meet CDPHE regulations. Extraction has committed that saleable gas will not be flared but either directed to a pipeline or the wells will be shut-in until the gas line is available.

Extraction has committed to ambient air monitoring for Volatile Organic Compounds (VOCs) and explosive gases during flowback with “4-gas” monitors placed throughout the Oil and Gas Location. The monitors will have high level alarms for worker safety and personnel will be trained to respond to alarm conditions.

- **Production Phase:**  
Extraction has committed to a tankless location with piping of liquids and gas to an offsite centralized processing facility in Weld County. Eliminating production tanks eliminates the opening of thief hatches on tanks during truck load-out and thereby eliminating that source of hydrocarbon emissions to the atmosphere. There will be an emissions control device on location for controlling by-product from the separation process. Saleable gas will not be flared, unless in emergency or upset condition as allowed by COGCC Rules.

Production equipment on location will be powered by electricity, minimizing the need for diesel or natural gas generators, therefore minimizing exhaust sources from the location. The gas generator planned on the location a backup if there is an interruption in electricity.

The leak detection plan includes daily, weekly, and quarterly monitoring (both visually and with an infrared camera) of wellheads, production vessels, and fittings which will minimize the release of hydrocarbon vapors to the atmosphere. Additionally, Extraction has committed to conducting flowline integrity tests twice annually to identify subsurface leaks in a timely manner.

### Traffic Concerns

Extraction has committed to coordinating a traffic plan with Broomfield prior to commencement of drilling operations. Extraction has committed to transporting fresh water to the Livingston Pad via pipeline for completions operations. The planned liquids pipeline will eliminate the truck transport of oil and produced water from the location. The use of pipelines will result in a major reduction of truck traffic during the completion and production phases of operations.

FORM  
2A

Rev  
08/13

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

401477008

Date Received:

01/16/2018

Oil and Gas Location Assessment

New Location     Refile     Amend Existing Location    Location#: \_\_\_\_\_

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

Expiration Date:

This location assessment is included as part of a permit application.

CONSULTATION

- This location is included in a Comprehensive Drilling Plan. CDP # \_\_\_\_\_
- This location is in a sensitive wildlife habitat area.
- This location is in a wildlife restricted surface occupancy area.
- This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 10459  
Name: EXTRACTION OIL & GAS INC  
Address: 370 17TH STREET SUITE 5300  
City: DENVER    State: CO    Zip: 80202

Contact Information

Name: Alyssa Andrews  
Phone: (720) 481-2379  
Fax: ( )  
email: aandrews@extractionog.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20130028     Gas Facility Surety ID: \_\_\_\_\_
- Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Livingston Pad    Number: \_\_\_\_\_  
County: BROOMFIELD  
Quarter: NWSE    Section: 7    Township: 1S    Range: 68W    Meridian: 6    Ground Elevation: 5315

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 2332 feet FSL from North or South section line  
1528 feet FEL from East or West section line  
Latitude: 39.978564    Longitude: -105.040122  
PDOP Reading: 1.2    Date of Measurement: 11/10/2017  
Instrument Operator's Name: T. WINNICKI

## RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

**This proposed Oil and Gas Location is:**

**LOCATION ID #    FORM 2A DOC #**

Well Site is served by Production Facilities

401606738

401606721

## FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	19	Oil Tanks*	_____	Condensate Tanks*	_____	Water Tanks*	_____	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	_____	Separators*	19	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	4
Gas or Diesel Motors*	_____	Electric Motors	_____	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	_____	Vapor Recovery Unit*	_____	VOC Combustor*	_____	Flare*	_____	Pigging Station*	_____

## OTHER FACILITIES\*

### Other Facility Type

### Number

Other Facility Type	Number
Transformer	1
Maintenance Vessel	1
Emission Control Device	1
Produced Water Surge Drum	1
Gas Lift Metering Building	2
Piperack Modules	9
Compressor Drain Tank	1
Oil Surge Drum	1
Air Compressor	1
Fuel Gas Scrubber	1
Sales Gas Meter	1
Gas Lift Suction Scrubber	1
Electrical Switchrack	2

\*Those facilities indicated by an asterisk (\*) shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Extraction will trench flowlines in one piping corridor that runs between the drill pad and the separator pad and be placed at 12" centers. These lines will most likely be 2" or 3" fusion bonded SCH160 steel pipe and have proper cathodic protection throughout the run. Extraction will then sweep up with a long radius that will tie off each line to the appropriate separator. All welds on these are 100% x-ray and hydro tested to the API and Manufactures specs for a class 1500 series flange. Also meets ASME code B31.4.

## CONSTRUCTION

Date planned to commence construction: 06/01/2018 Size of disturbed area during construction in acres: 19.77  
Estimated date that interim reclamation will begin: 09/01/2018 Size of location after interim reclamation in acres: 19.77  
Estimated post-construction ground elevation: 5315

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H<sub>2</sub>S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? Yes

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? \_\_\_\_\_

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

Centralized E&P Waste Management Facility ID, if applicable: \_\_\_\_\_

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: CITY&COUNTY OF BROOMFIELD Phone: \_\_\_\_\_

Address: ONE DESCOMBES DR Fax: \_\_\_\_\_

Address: \_\_\_\_\_ Email: \_\_\_\_\_

City: BROOMFIELD State: CO Zip: 80020

Surface Owner:  Fee  State  Federal  Indian

Check all that apply. The Surface Owner:  is the mineral owner  
 is committed to an oil and Gas Lease  
 has signed the Oil and Gas Lease  
 is the applicant

The Mineral Owner beneath this Oil and Gas Location is:  Fee  State  Federal  Indian

The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

The right to construct this Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_

Date of Rule 306 surface owner consultation \_\_\_\_\_

## CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP

Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_

Subdivided:  Industrial  Commercial  Residential

**Future Land Use (Check all that apply):**

- Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP
- Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_
- Subdivided:  Industrial  Commercial  Residential

**CULTURAL DISTANCE INFORMATION**

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	<b>From WELL</b>	<b>From PRODUCTION FACILITY</b>
Building:	824 Feet	1004 Feet
Building Unit:	1308 Feet	1486 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	447 Feet	205 Feet
Above Ground Utility:	1237 Feet	1426 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	282 Feet	172 Feet

**INSTRUCTIONS:**

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(\*) on the Facilities Tab.

**DESIGNATED SETBACK LOCATION INFORMATION**

Check all that apply. This location is within a:

- Buffer Zone
- Exception Zone
- Urban Mitigation Area

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: \_\_\_\_\_

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.
- Large UMA Facility - as defined in 100-Series Rules.

**FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:**

- Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

**SOIL**

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.



NRCS Map Unit Name: ShF—Samsil-Shingle complex, 3 to 35 percent slopes

NRCS Map Unit Name: ReD—Renohill loam, 3 to 9 percent slopes

NRCS Map Unit Name: UIC—Ulm loam, 3 to 5 percent slopes

**PLANT COMMUNITY:**

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes  No

Plant species from:  NRCS or,  field observation Date of observation: \_\_\_\_\_

List individual species:

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- Alpine (above timberline)
- Other (describe): \_\_\_\_\_

## WATER RESOURCES

Is this a sensitive area:  No  Yes

Distance to nearest

downgradient surface water feature: 0 Feet

water well: 3450 Feet

Estimated depth to ground water at Oil and Gas Location 30 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest surface water feature: Ditch 0' SW  
Nearest water well: Permit 169501- -, 3450' NW, no depth to ground water provided  
The depth to ground water is 30' as per water well permit 128950.

Is the location in a riparian area:  No  Yes

Was an Army Corps of Engineers Section 404 permit filed  No  Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: \_\_\_\_\_

Is the Location within a Floodplain?  No  Yes Floodplain Data Sources Reviewed (check all that apply)

Federal (FEMA)

State

County

Local

Other \_\_\_\_\_

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

## WILDLIFE

This location is included in a Wildlife Mitigation Plan

This location was subject to a pre-consultation meeting with CPW held on \_\_\_\_\_

### Operator Proposed Wildlife BMPs

No BMP

### CPW Proposed Wildlife BMPs

No BMP

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area

Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)

Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)

- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

**RULE 502.b VARIANCE REQUEST**

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

**OPERATOR COMMENTS AND SUBMITTAL**

Comments Single point location reference in the Location Identification section is the proposed Livingston S19-25-1N well.  
 Notification Zone Drawing and UMA Check Exhibit both attached as "OTHER". This location is not in a buffer zone or UMA.  
 The interim reclamation plan is not as extensive due in part to the large amount of grading and topography in this area. The objective was to minimize the removal of Broomfield Open Space material from this area and make it a balanced location.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: \_\_\_\_\_ Date: 01/16/2018 Email: aandrews@extractionog.com

Print Name: Alyssa Andrews Title: Regulatory Analyst

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: \_\_\_\_\_ Director of COGCC Date: \_\_\_\_\_

**Conditions Of Approval**

**All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.**

<b>COA Type</b>	<b>Description</b>

**Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Planning	Flammable Material. All ground within twenty-five (25) feet of any tank, or other structure containing flammable or combustible materials, shall be kept free of dry weeds, grass or rubbish, and shall conform to COGCC 600 Series Safety Regulations and the applicable Fire Code.
2	Planning	803. Permanent lighting will be installed around the facility to allow both the operator and haulers to conduct safe operations at night. All lights will be directed downward, inward and shielded so light pollution is minimized.  During the Drilling and Completion Phases, consistent with applicable law, Operator will construct a 32 foot perimeter wall surrounding the well pads and operations area, as permitted, to reduce light escaping from the site.
3	Planning	This location is subject to a Comprehensive Development Plan (CDP), as set forth in the Operator Agreement between Extraction Oil and Gas, Inc. and the City and County of Broomfield, dated October 24, 2017. Operator is currently working through the CDP with the City and County of Broomfield staff.
4	Planning	Blowout Prevention Equipment ("BOPE"): A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.

5	Planning	Extraction maintains a Tactical Response Plan (TRP), also at times referred to as the Emergency Response Plan, which is designed to provide Extraction employees and designated Emergency Response Team (ERT) members with the information necessary to respond to incidents in a safe, rapid, effective, and efficient manner. The TRP is kept at Extraction's office and a copy is provided to the North Metro Fire Rescue District and the City of Broomfield. Extraction will place the TRP summary card in strategic places on the facilities during specific operations and copies of the summary card is provided to the North Metro Fire Rescue District to be kept in the responding fire engines.
6	Planning	Extraction will establish a live, 24-hour telephone hotline, as well as an email address, to receive feedback on our drilling and completion activities with the goal of having a tool for us to immediately investigate and address any complaints that arise.  Prior to the initiation of 24-hour operations (drilling) Extraction will mail a post card (to include the email address and 24 hour manned phone number) to residents within 1/2 mile of the location.
7	Planning	This location is designed without permanent tanks. Oil, Gas, and produced water will be transported through a pipeline gathering to a Central Gathering Facility. Saleable gas will not be flared, it will be sent downline. For maintenance or upset conditions the use of a maintenance vessel and emission control devices will be utilized. Uncontrolled venting is prohibited other than where necessary for safety. Production will be piped to the Central Gathering System. If the CGF is not ready at the time of production, the wells will be temporarily shut in.
8	Planning	All loadlines shall be bull plugged or capped.
9	Traffic control	Access Roads: The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times. Traffic will be routed to minimize local interruption. During construction and through the life of this location, Operator will utilize watering, via water trucks, to control fugitive dust. Additionally, the access road will be constructed with aggregate road base material and recycled asphalt and vehicle speeds will be limited to twenty five miles per hour to reduce dust. No untreated produced water or other process fluids shall be used for dust suppression.
10	Traffic control	A traffic plan is required by the City and County of Broomfield and shall be coordinated with the local jurisdiction prior to commencement of move in and rig up. Any subsequent modification to the traffic plan must be coordinated with the local jurisdiction.
11	General Housekeeping	Removal of Debris. All construction-related debris shall be removed from the site for proper disposal in a timely manner. The site shall be maintained free of debris and excess materials at all times during operation. Operator shall not burn or bury debris at any time on the Well Sites. Maintain appearance with garbage clean-up; a trash bin will be located on site to accumulate waste by the personnel drilling the wells. Site will have unused equipment, trash and junk removed immediately and legally disposed of as applicable.
12	General Housekeeping	Site security will be maintained at all times. Location will be adequately fenced to restrict access by unauthorized persons. The site will have gated access to keep unauthorized vehicles out and fencing will be placed around all production equipment.
13	Storm Water/Erosion Control	Implement and maintain BMPs to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation. Co-locate flowlines and/or gathering lines whenever feasible, and mitigate any erosion problems that arise due to the construction of any gathering lines. Location will be covered under Extraction Oil & Gas's field wide permit, permit number COR03M013. Typical stormwater BMPs installed include a diversion ditch and berm with sediment traps and installation of wattles where necessary. Please see the attached Stormwater BMP drawings.

14	Material Handling and Spill Prevention	Leak Detention Plan: Extraction will monitor production facilities weekly at a minimum to a maximum of daily to identify fluid leaks, including, but not limited to, visually inspecting all wellheads, tanks and fittings. Additionally annual SPCC inspections will be conducted and documented. Annual flowline testing will also occur according to COGCC rules 1101 and 1102. Inspection and record retention of flowline testing will be in accordance per COGCC regulation. All records will be made available to the COGCC upon request.
15	Material Handling and Spill Prevention	The location will be completely automated to monitor all production operations remotely. In the event that the facility is not operating under normal conditions, the automation system will immediately notify the operator. The automation system also has the ability to remotely perform an emergency shut down if necessary.
16	Material Handling and Spill Prevention	Automatic Safety Protective Systems and Surface Safety Valve. An automated safety system, governed by safety devices and a programmable logic computer, will be installed at the Well Sites. The automated safety system shall include the installation, monitoring and remote control of a Surface Safety Valve ("SSV") among many other engineered measures and devices that are implemented to greatly reduce or eliminate the potential for a well event. All New Wells will have a SSV installed prior to the commencement of the Production Phase connected to the production tubing at the surface. The SSV will be equipped to operate remotely via the automated safety protective system, which monitors multiple flowing pressures and rates which have predetermined maximum and/or minimum threshold values programmed and will remotely shut the well in should certain upset conditions be detected. Additionally, the automated safety system provides the ability to remotely shut-in wells on demand through operator remote intervention. The SSV will have documented quarterly testing to ensure functionality.
17	Dust control	805.c. Operator shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high-wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. Additional management practices such as road surfacing, wind breaks and barriers may be used. No untreated produced water or other process fluids shall be used for dust suppression.
18	Construction	Containment Berms. The Operator shall utilize steel-rim berms around all separators at the Well Site with sufficient capacity to contain 1.5 times the maximum volume of all liquids that will be contained at a facility at any given time plus sufficient freeboard to prevent overflow. All berms and containment devices shall be inspected quarterly by the Operator and maintained in good condition. No potential ignition sources shall be installed inside the secondary containment area unless the containment area encloses a fired vessel or such sources are rated in accordance with industry codes and standards. Secondary containment such as duck ponds or lined earthen berms for temporary tanks shall also be used in addition to tankless and secondary containment around surface vessels. Permanent containment berms shall be constructed of steel rings, designed and installed to prevent leakage and resist degradation from erosion or routine operation. Secondary containment for separators shall be constructed with a synthetic or engineered liner that contains all primary containment vessels and is mechanically connected to the steel ring to prevent leakage. By request of the City and County of Broomfield, Extraction agrees to test pressure test flowlines according to the COGCC flowline rules bi-annually.
19	Construction	All new well equipment will be secured to the extent necessary to resist flotation collapse, lateral movement, or subsidence.
20	Construction	Base beams will be used and not guy line anchors.
21	Noise mitigation	Quiet Technology. The Operator agrees to use the Liberty Quiet Fleet or comparable technology from an alternative vendor on all Well Sites for completion activities.
22	Noise mitigation	To provide long term noise mitigation at this location, all production equipment will be powered by electricity. If needed, sound mitigation panels will be installed around the compressors during production operations to shield sensitive areas.

23	Noise mitigation	Thirty-two foot sound walls will be used during drilling and completion operations. Sound walls will be installed on the edges impacting nearest neighbors. Sound walls will wrap the pad except for the southwest corner.
24	Noise mitigation	Baseline noise monitoring will be conducted prior to commencement of pad construction. Additional sound mitigation measures will be considered and implemented pursuant to third party recommendations. All noise survey data will be made available to the COGCC inspector upon request. The Operator shall continuously monitor noise and continuously collect and store noise readings with instruments placed between the Oil and Gas Location and residential Building Units. The Operator shall conduct the monitoring and data collection during construction, drilling, and completions operations. This data shall be available to COGCC on tables or graphs within 48 hours of being requested by COGCC. The Operator shall conduct a 72 hour baseline noise survey from a minimum of three points prior to the commencement of construction.
25	Noise mitigation	Electrified Drilling Rig - Extraction is working with United Power to supply sufficient electrical power for the drilling rig to drill the wells. Easements are being procured from the Landowners and the existing infrastructure is being upgraded in order to handle the larger electrical loads. While Extraction plans on drilling these wells on electrical power only, the rig will have diesel-powered generators in the event of an upset condition with the electrical supply from United Power. At that point, Extraction would use the diesel generators to power the rig until service from United Power was restored.
26	Emissions mitigation	Reduced Emission Completions (Commonly known as Green Completions). At Well Sites Operator shall employ reduced emission completions, also commonly known as green completions, which comply with federal and state requirements. In addition, Operator shall comply with the following: A. Gas gathering lines, separators, and sand traps capable of supporting green completions as described in COGCC Rule 805 shall be installed per the provisions of COGCC Rule 805. B. Operator shall comply with 40 CFR 60.5375(a)(1), (2) for green completions. C. Uncontrolled venting is prohibited other than where necessary for safety. D. Temporary flowback flaring and oxidizing equipment where allowed shall include the following: 1. Adequately sized equipment to handle 1.5 times the largest flowback volume of gas from a vertical/directional and/or horizontally completed well respectively as reported to the COGCC in a ten mile radius; 2. Valves and porting available to divert gas to flaring and oxidizing equipment; pursuant to the above Rules 40 CFR 60.5375 & COGCC Rule 805; 3. Auxiliary fueled with sufficient supply and heat to combust or oxidize non-combustible gases in order to control odors and hazardous gases. The flowback combustion device shall be equipped with a reliable continuous ignition source over the duration of flowback, except in conditions that may result in a fire hazard or explosion; and 4. The Operator has a general duty to safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery/operation.
27	Emissions mitigation	Exhaust. The exhaust from all engines, motors, coolers and other mechanized equipment shall be vented up or in a direction away from the nearest occupied building.
28	Emissions mitigation	Leak Detention Plan: Operator will monitor production facilities weekly at a minimum to a maximum of daily to identify fluid leaks, including, but not limited to, visually inspecting all wellheads and equipment. As part of Extraction's Leak Detection and Repair (LDAR) program, all equipment including above ground flowlines and piping will be inspected quarterly with an infra-red camera for the first 5 years of production.
29	Emissions mitigation	Operator will bring a new oil, gas, and water pipelines, to send produced volumes immediately down the pipeline. No production will be flown to tanks on this location. Production will be piped to the Central Gathering System. If the CGF is not ready at the time of production, the wells will be temporarily shut in.

30	Odor mitigation	805. Oil & gas facilities and equipment shall be operated in such a manner that odors do not constitute a nuisance or hazard to public welfare. Extraction will use a mud cooling system to control the release of odors within the drilling and fracturing fluids. Odor preventing additives will be on site for use if and when needed. Extraction will use a base fluid that will decrease the measurable BTEX and aromatic properties by more than 50% of regular diesel. Operator is prohibited from masking odors from any oil and gas facility site by using masking fragrances.
31	Drilling/Completion Operations	Well Integrity. Operator must equip the bradenhead access to the annulus between the production and the surface casing, as well as any intermediate casing, with a fitting to allow safe and convenient determinations of pressure and fluid flow. Valves used for annular pressure monitoring shall remain exposed and not buried to allow for visual inspection. The Operator shall take bradenhead pressure readings as required by the COGCC.
32	Drilling/Completion Operations	Bradenhead Monitoring. Operator will conduct bradenhead monitoring on the New Wells in accordance with COGCC Rules.
33	Drilling/Completion Operations	Backup stabbing valves will be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.
34	Drilling/Completion Operations	All fresh water for completions shall be transported to the well site via temporary water lines.
35	Drilling/Completion Operations	BOPE testing for drilling operations. Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.
36	Drilling/Completion Operations	Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director. None planned for this well.
37	Drilling/Completion Operations	Closed-Loop Pitless Systems for the Containment and/or Recycling of Drilling Fluids. Wells shall be drilled, completed and operated using closed-loop pitless systems for containment and/or recycling of all drilling, completion, flowback and produced fluids. Operator shall recycle fluids to the maximum extent practicable.
38	Drilling/Completion Operations	Flowback Monitoring System: Autonomous 4 gas monitors will be placed around the location during the flowback phase.
39	Interim Reclamation	Operator shall be responsible for segregating the topsoil, backfilling, re-compacting, reseeding, and re-contouring the surface of any disturbed area so as not to interfere with Owner's operations and shall reclaim such area to be returned to pre-existing conditions as best as possible with control of all noxious weeds.
40	Final Reclamation	Within 90 days subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site. Identification of plugged and abandoned wells will be identified pursuant to 319.a.(5)The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument.
41	Final Reclamation	Reclamation. Operator must submit an oil and gas site reclamation plan and reclaim a Well Site not later than six (6) months after plugging and abandoning the last New Well at such Well Site, weather and planting season permitting.

Total: 41 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1009842	CORRESPONDENCE
1642219	CORRESPONDENCE
2316305	REFERENCE AREA PICTURES
2316326	EXHIBIT B
2316327	OTHER
2316329	CONST. LAYOUT DRAWINGS
2316334	OTHER
2478646	OPERATOR RESPONSE TO PUBLIC COMMENTS
401477008	FORM 2A SUBMITTED
401484674	ACCESS ROAD MAP
401484682	FACILITY LAYOUT DRAWING
401484685	HYDROLOGY MAP
401484699	LOCATION DRAWING
401484701	LOCATION PICTURES
401484702	MULTI-WELL PLAN
401484719	OTHER
401484728	REFERENCE AREA MAP
401484733	OTHER
401484738	WASTE MANAGEMENT PLAN
401484752	SURFACE AGRMT/SURETY
401484778	NRCS MAP UNIT DESC
401484780	NRCS MAP UNIT DESC
401484781	NRCS MAP UNIT DESC

Total Attach: 23 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Attached April 18, 2018 letter from Extraction to Broomfield LGD regarding the fire that occurred at an Extraction wellsite on December 22, 2017. Document ID#2316327	06/01/2018
OGLA	Operator provided an updated Response to Broomfield's Public Comments attachment.	06/01/2018
OGLA	COGCC staff met with Extraction personnel on 5/25/18. Discussed revision or addition of the following BMPs: fencing, anchoring equipment, flowline testing, air monitoring during flowback, and stormwater. Operator provided the BMP updates in a 5/31/18 email. Staff updated BMPs on 5/31/18	05/31/2018
OGLA	Original Reference area photo to the west was not the reference area photo for this location. Operator corrected and sent revised photos. Date on photos for submission is 12/2017 and revised of 3/2018. Operator confirmed pictures were taken in October 2017. Plants are not dormant and can identify vegetation to meet reference area photo requirements.	05/24/2018
OGLA	Added stormwater drawing as other (doc no 2316334) and Operators response to public comments on the 2A as other (doc no 2316335). Email correspondence with Operator regarding clarification of changes on the 2A.	05/23/2018



OGLA	OGLA review: No production for product, cultural distances to nearest above ground utility might be different, land use does not appear to be rangeland, water resources should be yes for sensitive area with surface water on the location and depth to water listed is nearest water well, not the most shallow groundwater. Most of the BMPs reference the City of Broomfield which is not enforceable by COGCC. First email sent to Operator on 2/26/18 – Operator responded on 3/6/18 and 3/21/18. Had a meeting with City of Broomfield 3/13/18 and 4/18 for BMPs. Met or spoke with Operator on 3/15/18 (in person), 4/9 (phone conversation), 4/11 (in person). Multiple email correspondence with Operator and City of Broomfield regarding BMPs.	05/22/2018
Permit	Permitting review complete.	04/26/2018
Permit	Permitting review complete pending review of 19 associated APDs.	04/20/2018
Agency	<p>Comment submitted by Tami Yellico, Broomfield LGD</p> <p>Extraction shall implement the following actions to its Emergency Plan for all Broomfield wellsites:</p> <ol style="list-style-type: none"> <li>a. Develop enhanced hotwork planning and setback procedures</li> <li>b. Expand training and enforcement of hotwork permit implementation and management, re-issued STEPS alert to employees and vendors for hazard recognition and proper PPE.</li> <li>c. Add additional field management levels for specific flowback activities</li> <li>d. Implement stationary LEL monitoring grid with alarms on all flowback operations</li> <li>e. Evaluate and retrofitting sound wall placements or technologies to enhance ventilation</li> <li>f. Develop and implementing automated tank gauging on flowback operations</li> <li>g. Revise prestart-up safety review (PSSR) of Green Completion flowback setups, including, but not limited to: <ol style="list-style-type: none"> <li>i. Site layout</li> <li>ii. Grounding requirements</li> <li>iii. Vessel depressurizing procedures</li> </ol> </li> <li>h. Hold meetings with vendors regarding all corrective actions listed above and have scheduled ongoing meetings to continually discuss the process.</li> <li>i. Extraction shall provide a third party report of any incident as requested by Broomfield</li> </ol>	03/02/2018
LGD	<p>By way of an update to the COGCC, on October 24, 2017, Extraction and Broomfield entered into an Amended and Restated Operator Agreement (Agreement). Section 9 of the Agreement provides that Extraction must submit a “Comprehensive Drilling Plan and Application” to Broomfield for such new wells or well sites (Plan). Per the Agreement, that Plan is subject to the review and approval by the City.</p> <p>Broomfield has not approved the Plan as required by the Agreement. Broomfield has been working diligently with Extraction on the Plan, through weekly meetings and timely and reasonable communications with Extraction. The COGCC spacing orders for these spacing units, dated as of October 31, 2017, indicate that any Permits for the wells within these spacing units must “comport with” the Agreement.</p> <p>As stated above, Section 9 of the Agreement provides that Extraction must submit a Comprehensive Drilling Plan for all of the well sites that is subject to Broomfield’s approval. On December 15, 2017, Extraction submitted a draft Plan for the</p>	02/28/2018

Livingston and Interchange B well pads. On January 22, 2018, Broomfield submitted 220 comments on that draft Plan, which included the comment that the Agreement requires the Plan to be for all of the well sites (Comments). On January 26, 2018, Extraction submitted a draft Plan for the Northwest A & B, United, and Interchange A & B Pads. On February 15, 2018, Extraction responded to Broomfield's comments, which relate to the Livingston and Interchange B portion of the Plan. Broomfield is in the process of reviewing Extraction's February 15th comments and providing comments on the second Plan submitted by Extraction on January 26, 2018.

In both citizens' and staff comments we have identified areas where Broomfield is requesting additional information and where we believe the Plan is not complete. Broomfield believes that Extraction has an obligation to correct or update any deficient statements in the Plan. The issues that remain outstanding in the Plan include the following:

[Liquid XAML Object]At meetings with Extraction on February 7, 2018, and February 14, 2018, Broomfield identified engineering issues that need to be resolved before permitting of the pipeline for all the well sites could go forward.

[Liquid XAML Object]At a meeting on February 16, 2018, Broomfield outlined deficiencies in Extraction's proposed Traffic Plan that need to be corrected.

[Liquid XAML Object]As of the date of these comments, Broomfield is still working with Extraction on required updates to its Emergency Response Plan and Risk Analysis Plan before those can be approved. Extraction has only provided a broad Risk Analysis Plan despite the requirement that risks and responses be identified.

[Liquid XAML Object]Extraction has not identified each type of hazard for each location and specific responses by phases, including referencing Broomfield's Emergency Response Plan and the COGCC Emergency Response Plan.

[Liquid XAML Object]It is Broomfield's understanding that Extraction has yet to talk with all Broomfield and Adams County residents to determine their desired mitigation measures for the well sites and truck roads to the north, even though Extraction committed to such individual communications.

[Liquid XAML Object]Extraction has not committed in writing to any necessary specific mitigation measures between residents and well sites to the north and east of residents in Adams County and Broomfield.

[Liquid XAML Object]Extraction has not yet committed in writing to necessary road improvements, stemming from increased truck traffic related to the Extraction operations.

[Liquid XAML Object]Extraction has yet to identify all traffic signage or committed to install such signage on its traffic plans.

[Liquid XAML Object]Extraction has yet to agree in the Plan that all class 7 and above vehicles are not allowed to operate on Public Roadways during the peak hours of 7-9 a.m. and 3-6 p.m. for Extraction activities

[Liquid XAML Object]Extraction has not submitted a final pavement design report for approval by the City and County Engineer.

[Liquid XAML Object]Extraction has yet to agree in the Plan to ensure the safety of emergency response teams, construction workers and the general public. Extraction has yet to agree in the Plan that Buffers shall be created as required on site to shield dust, noise, and light from residents

[Liquid XAML Object]Extraction has yet to provide a complete stormwater management plan.

[Liquid XAML Object]Extraction has failed to provide a more detailed GANTT chart on timing for all well sites.

[Liquid XAML Object]Extraction has not provided a long term reclamation plan.

[Liquid XAML Object]Extraction has not included practices it will use to address weeds at the sites.

[Liquid XAML Object]Extraction has not provided a complete explanation of its noise modeling approach.

[Liquid XAML Object]Extraction has not detailed the noise reduction levels it can achieve.

[Liquid XAML Object]Extraction has not provided written detail on the process of "Conduct Recovery Operations" including involvement of Broomfield's Public Health Division.

[Liquid XAML Object]Despite the fact that many Broomfield and Adams County residents to the south of the well sites are on well water, Extraction has not included 12 additional requested requirements in its Water Quality Plan.

[Liquid XAML Object]Extraction has not complied with 2 requirements for the Wetlands Plan.

[Liquid XAML Object]Extraction has given only general responses to specific environmental site review requests.

[Liquid XAML Object]Extraction has not provided details of planning and installation of electrical infrastructure at the well sites as required for the Electrification Plan and Extraction has indicated that they will be updating the plan.

[Liquid XAML Object]Extraction has not provided a detailed visual mitigation plan for the well sites, service road, or pig launcher station.

[Liquid XAML Object]Broomfield is requesting that the phrase "The meteorological data that was used are "regional" and could be applied to a range of sites in the area. If the proposed development is similar and has the same or fewer wells, then the results could be extended to further characterizations" be added to the Plan concerning air modeling.

[Liquid XAML Object]Broomfield is requesting that the tank be removed from Figure 3 of the Plan since this tank will NOT be present. The diagram should correctly reflect what will be on site.

[Liquid XAML Object]Extraction has not provided a list of the hazardous materials that will be used on-site.

Other Comments concerning Form 2 and 2A include:

Livingston Form 2A Comments and Questions

[Liquid XAML Object]The FACILITIES section indicates there are 2 gas compressors planned for the location. Extraction should provide information associated with the purpose of the compressors and how will they be fueled.

[Liquid XAML Object]The CONSTRUCTION section indicates that the size of the location after interim reclamation will be the same as the disturbed area during construction. Why will the location size remain the same after interim reclamation?

[Liquid XAML Object]In the BEST MANAGEMENT PRACTICES section, Item 46 - Emissions mitigation 20. D. #4, #5 and #6 are not included

[Liquid XAML Object]The waste management plan only addresses E&P Waste. It does not discuss secondary containment and stormwater measures as required by Item 41 in the Best Management Practices of the Operator Agreement.

	<p>Livingston Form 2 Comments</p> <p>[Liquid XAML Object]Broomfield requests that the COGCC take a close look at the offset well evaluations provided by Extraction Oil and Gas to verify the estimates of offset distances of existing wells (including plugged and abandoned wells) from the new proposed horizontal wells. Broomfield was unable to confirm many of the distances indicated in the OPERATOR COMMENTS AND SUBMITTAL section of the Form 2s based on the OFFSET WELL EVALUATIONS spreadsheet or from the ANTI-COLLISION reports provided.</p> <p>[Liquid XAML Object]According to the OFFSET WELL EVALUATIONS spreadsheet provided in the Form 2s, there are many plugged and abandoned wells and several producing wells that have horizontal offsets of less than 150 feet from the proposed new horizontal wells and it is indicated that No Remediation Is Required for these wells. Broomfield is very concerned about the short offset distance for some of these wells, for example new well Livingston S19-25-4N has an offset distance of only 19 feet from plugged and abandoned well McClintock MA 19-3J (API# 05-014-09137). Therefore, Broomfield requests that the COGCC take a close look to verify the proposed mitigation measures indicated by Extraction Oil and Gas are appropriate as defined by the DJ Basin Horizontal Offset Policy.</p> <p>[Liquid XAML Object]For the Livingston S19-25-10N Form 2: In the SPACING AND UNIT INFORMATION section, the Distance from Completed Portion of Wellbore to Nearest Unit Boundary is blank.</p> <p>Interchange Form 2 A Comments</p> <p>[Liquid XAML Object]The FACILITIES section indicates there are 2 gas compressors planned for the location. Extraction should provide information associated with the purpose of the compressors and how will they be fueled.</p> <p>[Liquid XAML Object]Do CDOT and the Northwest Parkway Authority need to be notified since portions of I-25 and the Northwest Parkway are within the notification zone?</p> <p>[Liquid XAML Object]The waste management plan only addresses E&amp;P Waste. It does not discuss secondary containment and stormwater measures as required by Item 41 in the Best Management Practices of the Operator Agreement.</p> <p>Interchange Form 2 Comments</p> <p>[Liquid XAML Object]Broomfield requests that COGCC take a close look at the offset well evaluations provided by Extraction Oil and Gas to verify the estimates of offset distances of existing wells (including plugged and abandoned wells) from the new proposed horizontal wells. Broomfield was unable to confirm many of the distances indicated in the OPERATOR COMMENTS AND SUBMITTAL section of the Form 2s based on the OFFSET WELL EVALUATIONS spreadsheet or from the ANTI-COLLISION reports provided.</p> <p>[Liquid XAML Object]According to the OFFSET WELL EVALUATIONS spreadsheet provided in the Form 2s, there are many plugged and abandoned wells and several producing wells that have horizontal offsets of less than 150 feet from the proposed new horizontal wells and it is indicated that No Remediation Is Required for these wells. Broomfield is very concerned about the short offset distance for some of these wells; therefore, Broomfield requests that COGCC take a close look to verify the proposed mitigation measures indicated by Extraction Oil and Gas are appropriate as defined by the DJ Basin Horizontal Offset Policy.</p> <p>Broomfield asks that COGCC leave the comment period on the Permits open until all issues are resolved regarding the Plan. Broomfield will continue to work diligently with Extraction on the Plan.</p>		
<p>OGLA</p>	<p>In accordance with Rule 305.d.(3), the Director has extended the comment period by five days; therefore, the new deadline for public comment on this Oil and Gas Location Assessment Permit is THURSDAY, MARCH 1, 11:00am.</p>	<p>02/23/2018</p>	

OGLA	OGLA review: need more description on piping, interim reclamation is the same size as the construction area. Water resources sensitive with surface water within the disturbed area - distance to water well and depth to water needs to be corrected. BMPs from agreement with City of Broomfield being reviewed. Reference area photos are not during growing season.	02/21/2018
Permit	Per Rule 305.d.(1)A. , the comment period has been extended from 20 days to 30 days at the request of the Broomfield County LGD; the comment period will end February 24, 2018.	01/26/2018
Permit	Passed Completeness.	01/25/2018

Total: 14 comment(s)

## Public Comments

The following comments were provided by members of the public and were considered during the technical review of this application.

<b>No.</b>	<b>Comment</b>	<b>Comment Date</b>
1	It is outrageous that the COGCC has accepted Extractions permits when the city rejected the comprehensive drilling plan. Moreover, 301 passed, and it is essential that this be taken into consideration. The comprehensive drilling plan is a testament to Extractions sloppy nature, and gives us no faith that our health and safety will be protected.	02/14/2018
2	Put our safety first! Let's be sure that Extraction's plan address our safety and security, is complete and comprehensive before any permits are issued.	02/18/2018
3	<p>The COGCC needs to support Broomfield in its efforts to protect it residents from any adverse impacts from oil and gas development. Do not approve Extraction's Forms 2 and 2A.</p> <p>The Comprehensive Drilling Plan submitted by Extraction was incorrect and incomplete. We citizens submitted many concerns to the City regarding the CDP.</p> <p>Part of your mission is to protect our health and safety. How can we trust an operator to do business in a fashion that will not adversely impact us when they can't even handle the paperwork correctly?</p>	02/18/2018
4	<p>As taken from the Boulder Daily Camera on Monday 2/19/18:</p> <p>““working together to regulate oil and gas operations” is unlikely to appease a growing number of citizens who have called for the full activation of the “Climate Bill of Rights and Protections”— an effective ban on all oil and gas development — and who see any attempts at regulation as doing business with the industry.”</p> <p>I totally agree with this assessment of fracking in populated areas. Once we’re down to discussing the number of birds killed, the number of decibels in noise calculations, the amount of odor created, the number of trucks blocking traffic, etc., we’ve already “bailed out” to the Big Oil &amp; fracking industry. Opposition needs to happen at the top level, i.e., total bans.</p> <p>Fracking in housing and associated areas really flys in the face of fundamental fairness and Risks and Rewards. The fracking industry has few risks with a lengthy list of rewards – huge investor dollar returns and million dollar salaries. Risks are just dropping everything, filing bankruptcy and leaving behind eyesores, miles of piping under housing areas with the risk of explosions, water contamination, ground movement, etc. within the cities and housing areas.</p> <p>Developed and developing housing projects have been allowed within surrounding counties such as Boulder, Broomfield, Weld, etc. Those allowing such developments need to share in the responsibility of ensuring the quality of life within these areas without the smells, noise, traffic, eyesores, pollution, etc. associated with fracking. Please help me make a list of the rewards for homeowners, schools, shopping areas, etc. that come with fracking?</p>	02/19/2018
5	The City of Broomfield has concluded that Extraction should be prohibited from submitting its Form 2 and 2A (drilling) permits to the State (COGCC), until Extraction submits to the City a complete Comprehensive Drilling Plan for all of the proposed wells in compliance with the Operator Agreement. The CDP submitted to the city is not approved by the city.	02/19/2018

6	<p>Over the Martin Luther King holiday weekend, I was one of the numerous Broomfield residents who reviewed thoroughly the 700-page "Comprehensive Drilling Plan" submitted by EXTRACTION Oil&amp;Gas (XOG). We found the document to be non-compliant with the requirements as agreed to by XOG and the city of Broomfield. Furthermore, there are numerous unresolved issues that have been ignored by XOG. I know the city has its list of unresolved issues that will be forwarded to COGCC. I also know that other residents have given you the list of non-compliant details and unresolved issues.</p> <p>On this President's Day weekend, it will be appropriate for the COGCC to let the Oil &amp; Gas Industry know that if it insists on drilling in highly populated residential areas, then the old way of doing things will not be accepted. With homes, schools and churches in close proximity, the cost is simply too high to be shoddy. If the Industry can't even take the time to submit proper documentation, it is also a harbinger of the kind of field work they will embark on. The COGCC cannot overlook this. It is time for the COGCC to take a tough stand.</p>	02/19/2018
7	<p>This proposed operation is too large and dangerous for a residential neighborhood. It will expose thousands of residents to potentially deadly levels of gas and chemicals.</p>	02/20/2018
8	<p>The published opinion in the recent Court of Appeals decision of Martinez v. COGCC states that "The plain meaning of the statutory language [of section 34-60-102(1)(a)(I)] indicates that fostering balanced, nonwasteful development is in the public interest when that development is completed subject to the protection of public health, safety, and welfare." This is contrary to the COGCC's stated interpretation, whereby oil and gas development would be "balanced" against public health, safety, welfare, and the environment. Per Rule 35e of the Colorado Appellate Rules (CAR), the published opinion MUST be upheld. The COGCC must NOT approve Extraction's drilling permits as they are NOT protective of public health, safety, and welfare based on the proximity, scale, and intensity of these proposed operations. The current setback of 500 feet was NOT based on health and safety data, as the COGCC has noted.</p> <p>The investigation of the Well Pad Fire and Explosion on Extraction's Stromberger Pad has NOT been Completed. This site is a new 19 well site under development using Extraction's best management practices (BMPs). If a similar industrial accident were to occur next to our residential communities, the results would be much more severe including not only human harm, but also contamination of the Broomfield Drinking Water Reservoir. In 2012, Broomfield paid Noble \$550,000 to remove 11 drilling locations from the Hoopes Property to allow for construction of the Broomfield Drinking Water Reservoir. The current Livingston Pad sits atop a removed drilling location.</p>	02/20/2018
9	<p>Fracking is not safe. COGCC is not making it safe. Fracking and oil/gas production have no place in urban environments like this. It is your duty to abide by Broomfield's 301 and the Martinez decision. You are ignoring these just so that oil/gas companies can make a quick buck. This is shameful and wrong and you know it.</p> <p><a href="http://kdvr.com/2018/02/19/oil-and-gas-spills-happen-nearly-12-times-a-week-in-colorado/">http://kdvr.com/2018/02/19/oil-and-gas-spills-happen-nearly-12-times-a-week-in-colorado/</a></p>	02/20/2018
10	<p>Responsibility of COGCC to Protect Public Health, Safety, and Welfare The published opinion in the recent Court of Appeals decision of Martinez v. COGCC states that "The plain meaning of the statutory language [of section 34-60-102(1)(a)(I)] indicates that fostering balanced, nonwasteful development is in the public interest when that development is completed subject to the protection of public health, safety, and welfare." This is contrary to the COGCC's stated interpretation, whereby oil and gas development would be "balanced" against public health, safety, welfare, and the environment. Per Rule 35e of the Colorado Appellate Rules (CAR), the published opinion MUST be upheld. The COGCC must NOT approve Extraction's drilling permits as they are NOT protective of public health, safety, and welfare based on the proximity, scale, and intensity of these proposed operations. The current setback of 500 feet was NOT based on health and safety data, as the COGCC has noted. Broomfield Charter Language Requires No Adverse Impacts The residents of Broomfield have been actively engaged at the local and state level requesting their health, safety, and welfare are protected. As such, the residents of Broomfield successfully amended the Charter of the</p>	02/20/2018

	<p>City and County of Broomfield to include language stating that oil and gas development shall “only occur in a manner that does not adversely impact the health, safety, and welfare of Broomfield’s residents in their workplaces, their homes, their schools, and public parks in order to protect the public’s health, safety, and welfare and to safeguard the environment and wildlife resources”. Despite the clear language of the Broomfield Charter, the City of Broomfield states that they are unable to uphold 301 because the COGCC Regulations are less stringent. Lack of Local Control The City and County of Broomfield repeatedly told the concerned residents of Broomfield that the wish they had more “tools” in their “toolbox”, but the City claimed that they lacked local control and they had to defer protection of health, safety, and welfare to the State. Our City made numerous concessions to the detriment of the protection of the health, safety, and welfare of the community stating that those decisions were up to the state and for the residents of Broomfield to take it to the state. Since the COGCC has not allowed our local governments to protect the communities, the COGCC must protect our health and safety and deny Extraction’s permits.</p> <p>Root Cause Analysis of Extraction’s Recent Well Pad Fire and Explosion The investigation of the Well Pad Fire and Explosion on Extraction’s Stromberger Pad has NOT been Completed. This site is a new 19 well site under development using Extraction’s best management practices (BMPs). If a similar industrial accident were to occur next to our residential communities, the results would be much more severe including not only human harm, but also contamination of the Broomfield Drinking Water Reservoir. In 2012, Broomfield paid Noble \$550,000 to remove 11 drilling locations from the Hoopes Property to allow for construction of the Broomfield Drinking Water Reservoir. The current Livingston Pad sits atop a removed drilling location. Proximity to Future Drinking Water Reservoir Extraction is proposing 19 wells UPHILL from Broomfield’s Future Drinking Water Reservoir. Despite Best Management Practices and Secondary containment measures, contamination of the drinking water reservoir still can occur through component failures, explosions, well blowouts, human error, and other unfortunate events. The location of the Livingston Pad is NOT acceptable. Extraction has NOT Been Acting Ethically Extraction has been continuously dismissing the concerns of Broomfield residents. The letter sent from Chandler Newhall to the City of Broomfield thanking Broomfield for Approving their Drilling Plan on Feb XX, when the City has in Fact NOT Approved their Plan was deceptive at best. Submitting for Form 2/2A Permits WITHOUT Having an Approved (or Even Approvable) Comprehensive Drilling Plan (CDP) was disingenuous. The original information posted on Front Range News by Extraction stated that they would be drilling from miles away – not 750 feet from homes. Water Wells in Adams County The Interchange A &amp; B Pads and wellbores are near the water wells of residents in Unincorporated Adams County. These residents rely on their water wells for personal use as well as watering livestock. The plan for monitoring the water wells for contamination is inadequate. The 2015 Governor’s Blue-Ribbon Task Force The minority report from the task force left the door open for future rulemakings to address the scale, proximity, and intensity of operations. However, these rulemakings have not yet happened and communities are now facing the very situation of which they referring with large-scale operations encroaching on established neighborhoods as the technology has advanced.</p>	
11	Please do not allow this pad to go in so close to homes or our source of water. This puts all residents and any who rely on the water in danger. We moved our family to Colorado to find a better quality of life and were hopeful we found it. We don't want to have to move again, but our health comes first!	02/20/2018
12	So many have worked tirelessly to bring awareness that the proximity to densely populated neighborhoods is not worth the risk of going forward with the installation of these wells. Please listen! Please, please do not allow these wells to be placed in these neighborhoods!	02/20/2018
13	Please, please don't allow this to happen in our back yard, next to our kids sports field, which is next to our kids school. How with good conscious could you allow this to happen next to such a densly populated area AND our drinking water (a reservoir just across the street!).	02/21/2018
14	<p>Please reconsider the approval of a permit to Extraction Oil &amp; Gas to drill near our homes and neighborhood.</p> <p>Being safe and not worrying about a oil and gas mishap in our neighborhood is important to the residents, and the many children who live in the area.</p> <p>Do we really need this drilling in the area?</p> <p>Thanks you.</p>	02/21/2018



15	<p>I live in Wildgrass/Broomfield and i can't way for you to APPROVE these permits.</p> <p>Fracking IS SAFE and it saddens me to read some of the comments below. Please do what is right and aprove these permits.</p>	02/21/2018
16	<p>Fracking and oil/gas production have no place in urban environments like this. This is an established family home, school and recreational area with city drinking water reservoirs nearby. It is the duty of COGCC to abide by Broomfield's 301 and the Martinez decision. Refusing to do so will be a dereliction of duty to the public and to the taxpayers that pay your salaries. You do not work for the Oil and Gas companies and their lobbyists.</p> <p>From your own mission statement: "The Colorado Oil and Gas Conservation Commission (COGCC) is charged with fostering the responsible development of Colorado's oil and gas natural resources in a manner consistent with the protection of public health, safety, and welfare, including the environment and wildlife resources. Our agency seeks to serve, solicit participation from, and maintain working relationships with all those having an interest in Colorado's oil and gas natural resources."</p> <p>You have a responsibility first to ensure the public health and SAFETY of the public.  <a href="http://kdvr.com/2018/02/19/oil-and-gas-spills-happen-nearly-12-times-a-week-in-colorado/">http://kdvr.com/2018/02/19/oil-and-gas-spills-happen-nearly-12-times-a-week-in-colorado/</a></p>	02/21/2018
17	<p>I do not support any drilling on the Livingston and Interchange Pads. These pads are too close to homes and schools</p>	02/22/2018
18	<p>I. Request to disapprove Extraction Forms 2 and 2A</p> <p>Presently, there are unresolved issues, problems with the Extraction's plan to drill for oil and gas - detailed in their latest "Comprehensive Drilling Plan", dated January 26, 2018 within densely-populated neighborhoods in Broomfield, Colorado. This latest document does not address the concerns, questions, problems identified by Broomfield citizens, city/county staffs per the "Broomfield City and County Manager" letter, dated January 22, 2018 to Mr. Chandler Newhall of Extraction Oil and Gas.</p> <p>Additionally, there have been several serious accidents including that of the Windsor explosion in December 2017. We urge you, the COGCC to delay the approval of Extraction's Forms 2 and 2A for all well sites in Broomfield until these issues are resolved.</p> <p>II. High Isoprene levels measured by CDPHE</p> <p>The report from the Colorado Department of Public Health and Environment (CDPHE), dated May 26, 2017 titled "Health Risk Evaluations of VOCs in Ambient Air was in response to Health Concerns at Triple Creek Oil and Gas Site". The report was done in response to numerous and continuous odor complaints of citizens living near the wells. The report measurements and the current setback requirements at both the State and local Broomfield levels are cause for concern and are inadequate to protect the health and safety of the citizens.</p>	02/23/2018

The Triple Creek Oil and Gas VOC data from the above report were measured at 4900 feet from the well site. The measured level of isoprene exceeds many times the ambient air. Isoprene is an isotropic gas and extremely flammable. It is suspected to cause generic defects and cancer. It does have long lasting negative effects.

The annual average of isoprene in ambient air along the Front Range is 0.1ppb.

The reported air concentration of isoprene at the Triple Creek Oil and Gas well site was 2.8ppb or equal to 28 times the annual average.

a. At 1320', the distance ratio is  $(4900/1320) = 3.71$ . The exposure (to humans) at 1320' is  $= (3.71)(3.71) * 28 = 385.6$  times the annual average exposure.

2. At 500', the distance ratio is  $(4900/500) = 9.8$ . The exposure (to humans) at 500' is  $= (9.8)(9.8) * 28 = 2,689.1$  times the annual average exposure.

### III. Review of Extraction "Comprehensive Drilling Plan"

#### 1.0 Summary:

The "Comprehensive Drilling Plan" for the Broomfield Project" (CDP) submitted to the City and County of Broomfield, dated January 26, 2018 is 942 pages long and is nearly identical to that of the December 15, 2017, 734 pages. It has the addition of the Forms 2 and 2A pages by Extraction Oil & Gas company.

#### 2.0 Review comments of the original Dec 15, 2017 CDP.

##### a. Uneven detailed data reporting for different sections:

The Traffic reports are from page 151 to page 394 (243 pages) and contain many superfluous data spreadsheets. The report fails to recommend a traffic control light or stop sign at the corner of 160th and Sheridan.

b. The Noise reports have data sheets of the sound power meter used to measure ambient noise level but do not have explanations regarding the mathematical modeling of drilling engine noises (pp 96-98 of CDP).

c. The important air monitoring section is from page 398 to 410 (only 12 pages).

d. Incorrect or missing data: A number of data values in the Extraction CDP do not dovetail with requirements set out in the Broomfield Resolution 2017-186.

e. Page 15 of the CDP asserts that "...Extraction's operations shall remain under the COGCC Rule 802 ... which is 55dBA from 7:00am to 7:00pm, and 50dBA from 7:00pm to

7:00am.” Data shown by Extraction in section “Background Ambient Survey Mitigated Sound Impact Report”, page 99 of the CDP exceed these limits.

f. CDP refers to “EPA Natural Gas Star Program”, page 400. Page 409 has a typo “... Start Program” instead of “... Star Program.”

g. CDP page 401, 2.1.3 Completions: “Extraction will provide safety data sheets for all chemicals that are brought on site...” It is necessary to require the disclosure the quantity of these chemicals brought in and out of the site on each date.

h. CDP page 401, 2.1.3 Completions: “All gas encountered will be ... combusted with 98% destruction efficiency.” CDP page 497 refers to >99%.

i. CDP page 402, 2.1.4 Production: “Oil not meeting pipeline specifications, may be stored on site in pressure vessels...” How long will they be stored there?

j. CDP page 403, 3.2 Air Pollution Emission Notices: “Extraction predicts fugitive emissions to be below permitting thresholds...” How will Extraction know that?

k. CDP page 405, 4.4.2 LDAR Program: “In addition to the quarterly FLIR inspection ... leaks will be monitored using equipment automation...” What is the accuracy and responsiveness of the detection system? Is the FLIR an “Infrared open-path gas detectors” used in petrochemical industries? Could a small but continuous leak escape detection?

l. CDP page 441, Table 3-1: The entire Livingston data is missing.

m. CDP pages 488-538, Emissions Inventory and Impact Analysis: The mathematical model was for the original two well pads, Sheridan and Lowell. The results of the Livingston well pad with 19 wells ought to be different. A new analysis is necessary.

n. The air quality section (pp 398-410) does not have information regarding the following:

. What are the VOCs monitored? It should be noted that the CDPHE report “Screening Level Health Risk Evaluation from Inhalation of VOCs in Ambient Air...”, dated May 26, 2017 lists 60 different VOCs being monitored. The isoprene level, a carcinogenic VOC exceeded EPA safe level. In addition, will the Hydrogen Sulfide (H<sub>2</sub>S) emission be monitored continuously?

. How the VOCs are monitored?

. What instruments and/or sensors are used? See CDP page 405.

. Are the VOCs monitored continuously or sampled? How often?

<p>. What are the quantities of hazardous materials to be brought on site and removed?</p> <p>. How are instruments and/or sensors calibrated? How often?</p> <p>. Page 402. 2.1.4 Production: Last paragraph states the "... well pad monitoring will be conducted continuously... to monitor pressures, temperature, flow, and production information." Does it not monitor leaks? Why is this monitoring system not available during the other 2 phases (Drilling and Completions) of the energy development?</p>	
<p>19 The COGCC can not approve any further drilling or pads in any location for applications submitted by Extraction for many reasons including but not limited to the following:</p> <p>-The public or city does not have information explaining the reasons or cause of the fire and explosion in Windsor on an Extraction owned and operated gas well drilling site on December 22nd, 2017.</p> <p>-It was shown that cities do not have sufficient or adequate response measures to fires and explosions. The fire in Windsor required a response from multiple cities and revealed that each city does not have any or an adequate supply of foam retardant that is necessary in these responses due to costs and the short expiration date of this material. Had this fire or explosion been in an area with surrounding homes in a similar distance that homes will be from the proposed drilling at the Livingston Pad to the hundreds/thousands of homes near this proposed site -what would happen?</p> <p>-The Livingston pad is too close to the proposed water drinking reservoir for Broomfield. This reservoir has been planned for development for many years, prior to the proposed development of drilling in this area. Broomfield citizens have a right to clean air and water and installing a large scale fracking pad in this location, within measured feet of a reservoir is stripping us of our rights to basic living of clean water. Publications have shown time and time again, that there is never a confirmation of safety or protection of clean air, water, public health safety to citizens or to the workers of the oil and gas companies when fracking is involved.</p> <p>-Large scale industrial fracking in suburban neighborhoods is not safe. Given the small set back laws in place in this state, that the Director of the COGCC has time and time again stated was an arbitrary number, is proof that there are not sufficient space safeguards in place to protect the people of this neighborhood in Wildgrass, Anthem, Anthem Ranch and frankly, all neighborhoods within a 4 miles radius of this location.</p> <p>-This location is just a few short blocks from Sienna Park, where designated sports practice occurs for children not only in Broomfield, but all of the teams that are playing in this location, from ages as young as preschool through high school. Children's sports including flag football, soccer, high school cross country meets, lacrosse and other sports, not to mention the local jogging paths and biking trails that members of these communities use daily for exercise and enjoyment of the outdoors.</p> <p>-Extraction submitted comprehensive drilling plans that are filled with errors, do not designate the correct drilling information or surrounding area information and are vague and not complying with the guidelines set in place by the Citizen Broomfield Task Force. The citizens of this task force, spent thousands of hours of their own free time to examine peer reviewed journal articles, oil and gas responses from other states and countries and contributed to safer guidelines for our city to utilize. All of the recommendations have not been met by Extraction in their plan for this location.</p> <p>-There is not ONE peer reviewed journal article outlining and proving that fracking is safe, let alone, residential fracking. There is not one article, even self published by oil and gas showing that residential fracking is safe. NOT ONE! Please take this information and utilize it to make your decisions regarding this application.</p> <p>-The citizens of Broomfield do not pay taxes on our designated open space areas to allow private corporations to drill surrounding our parks and trails or near our future water source. This can not be done safely.</p> <p>-Broomfield citizens legally voted for and passed the 301 ordinance. The public health and safety must come before the profits of oil and gas corporations. We have the right to protect our water, air, environment and health and safety of our children, adults and the large neighborhood of 55+ aged</p>	<p>02/23/2018</p>

	<p>citizens living in the Anthem Ranch neighborhood.</p> <p>-This proposed site is within a short distance from the new K-8th grade school opening in the Fall of 2018. Should an explosion occur (likely not if but when), what evacuation plan and safety measures and money allotted will Extraction prove to have in place before drilling to ensure no people, no children, no animals will be harmed? It is impossible to ensure safety of children this close to not only the Livingston pad, but the other Broomfield proposed sites as well.</p> <p>-Extraction has proven that they are deceptive, do not keep their word on promises made. Extraction proved their deception by changing the number of proposed pads and drilling operations, admittedly by a project manager under their employment during the paper work and presentations made to the Broomfield City Council. Extraction has made promises to agree to the task force recommendations, but not all of the recommended proposals were accepted and put into the comprehensive plan. Extraction has shown over the past two years, constant errors in the pad location and drilling notice process, notifying incorrect people, incorrect addresses, leaving others out of notices and not returns emails to citizens. I live in the proposed spacing application and have never received any notices from Extraction.</p> <p>-The Martinez court case is the acting law currently in place. The COGCC must follow this law. The protection of the health and safety of residents must come before the rights of the oil and gas companies.</p> <p>-Due to the enormous amount of gaps of accurate information missing in the Extraction plan, this can not possibly be approved.</p> <p>There are many other reasons why this pad location should not approved, as both a pad location as well as a drilling location. But the bottom line is that there is no way to guarantee our safety or health with a drilling operation this close to our future drinking reservoir and this close to homes, schools and parks. Please make a decision of not approving the 2 and 2A applications for reasons of the health and safety for the citizen of Broomfield and for the future of our children.</p> <p>Thank you,</p> <p>Kristi Covalciuc</p>	
20	<p>The proposed project does not meet the standards of the Martinez Appeal Ruling, stating that safety is a condition that needs to be met before permitting. This project doesn't even meet the interpretation prior to the Martinez case, where safety was balanced with development. The CDHPE posted in their address to the state legislature that there was limited evidence that negative health effects are happening to people living near oil and gas activity and that future study is needed. This project presents risks of spills, leaks, and like we saw at the Extraction Site in Windsor, explosions. Should an accident occur at this site, so close to a large density of homes, schools, and parks, hundreds if not thousands of people could be adversely impacted. If you approve these permits, ignoring the noted health and safety risks are noted on public record, it is an irresponsible action. We know our rights and approving these permits is a direct violation of these rights. We fully expect for the COGCC deny these permits based on the fact that Extraction has failed to meet the requirements of meeting the standards of mitigating risks for health and safety.</p>	02/23/2018
21	<p>The COGCC's job is to ensure public health and safety are upheld over oil and gas drilling permit approval. This application for the Livingston and Interchange pads submitted by Extraction are wholly deficient in ensuring safety when drilling. Extraction has had catastrophic industrial accidents associated with other well pads, most recently the explosion in Windsor. The public and COGCC has NOT RECEIVED the results of the investigation into that accident, which in turn, does not allow extraction to address those deficiencies on the Livingston or Interchange pads proposed in Broomfield. If the COGCC approves these permits, Extraction drills those wells, and an accident occurs, the COGCC will be directly liable to the citizens of Colorado for approving these permits to drill. Do Not approve these permits until the COGCC can ensure the public is safe from industrial accidents, that Extraction has the proper and necessary equipment and insurance to sufficiently address all these health and safety issues that plague this company, and that you can ensure the citizens of Broomfield that there will be absolutely NO accidents/incidents or otherwise, negative impact to our health and safety-You owe this to the citizens of Colorado.</p>	02/23/2018
22	<p>Extraction's Operator Agreement with the City and County of Broomfield, as referenced in the Spacing Applications approved by COGCC, requires Extraction to complete a Comprehensive Drilling Plan at least 30 days prior to submitting the 2 and 2A permit applications. This Drilling Plan is to</p>	02/23/2018

	<p>include several items including a Risk Management section. Overall Extraction's Drilling Plan is woefully inadequate. A Risk Management Plan that barely addresses safety at all is completely unacceptable. This is in clear conflict with COGCC's mandate to regulate oil and gas development in a manner that is balanced and consistent with protection of Health, Safety, Welfare and the Environment.</p> <p>Extraction's plan should not be considered a serious or complete Comprehensive Drilling Plan. Since submittal of the 2 and 2A permit applications can only be done after the Drilling Plan process with the City, all of Extraction's current applications should be rejected.</p> <p>This comment refers to the "Risk Management" section in their drilling plan and the references are to the Drilling Plan sections.</p> <p>Proper Risk Management starts with company management instilling a culture of safety throughout their organization. The fact that Health and Safety are not mentioned at all in Extraction's Executive Summary, Risk Identification (2.1), Risk Response (2.4) or Risk Mitigation (2.5) Sections concerns us that there is no effort by Extraction management to develop such a culture of safety.</p> <p>Extraction is well aware of the risks inherent in their operations as they detail in their required SEC filings: "Our exploration and production activities are subject to all of the operating risks associated with drilling for and producing oil and natural gas, including the risk of fire, explosions, blowouts, surface cratering, uncontrollable flows of natural gas, oil and formation water, pipe or pipeline failures, abnormally pressured formations, casing collapses and environmental hazards such as oil spills, natural gas leaks, ruptures or discharges of toxic gases." Our concern is that Extraction doesn't list or address any of the above risks in their Risk Management Plan. The plan is stated in general policy terms, not specifics for neighborhood drilling. While potential shareholders are warned of the risks in exploration and drilling, residents are not.</p> <p>In Section 2.1 Extraction states- "Some (risks) may be obvious and will be identified prior to project kickoff." Where have these risks been identified? What about risks that are not obvious? The residents must be informed of the possible risks; they have the right to make informed decisions based on the identified risks.</p> <p>For residents who live near the proposed projects, the risk responses "transference", "acceptance" and "deferred" have absolutely no positive effect on their safety and comfort level living close to a large scale industrial project. Only "avoidance" and "mitigation" can protect our residents' health and safety. Moving these projects farther away from homes is the best solution.</p> <p>The Risk Management Plan is inadequate; it does not properly address Health, Safety, and Welfare and potential Environment impacts in Broomfield. This section needs to be redone in a way that thoughtfully addresses any risks associated with this project. How do multiple wells on a pad compound risk? How are risks managed over the lifetime of wells? Extraction must provide a thorough Qualitative Risk Analysis before the Permits can be approved.</p>	
23	<p>Please deny the permits for this site until the following have been completed.</p> <ol style="list-style-type: none"> <li>1. Until the investigation of the Windsor explosion has been completed and the necessary steps have been taken by Extraction to keep this from happening again. My house would have been in the evacuation zone along with countless neighbors homes. How many people would have been hurt or killed had this happened at this site? There is no report as to why this happened and what steps are being taken to prevent this from happening again.</li> <li>2. I'm not sure how a permit can be given when the ownership of the minerals is in question. You cant give a permit to a company who does not own the minerals.</li> <li>3. Extraction Oil and Gas drilling plan has not been approved by Bloomfield. As per its MOU with the city this needs to be in place before drilling can begin.</li> </ol> <p>Please do your job and protect the citizens of Colorado. Its the law.</p>	02/23/2018

24	<p>Please deny the permits for this site until the following have been completed.</p> <ol style="list-style-type: none"> <li>1. Until the investigation of the Windsor explosion has been completed and the necessary steps have been taken by Extraction to keep this from happening again. My house would have been in the evacuation zone along with countless neighbors homes. How many people would have been hurt or killed had this happened at this site? There is no report as to why this happened and what steps are being taken to prevent this from happening again.</li> <li>2. I'm not sure how a permit can be given when the ownership of the minerals is in question. You cant give a permit to a company who does not own the minerals.</li> <li>3. Extraction Oil and Gas drilling plan has not been approved by Bloomfield. As per its MOU with the city this needs to be in place before drilling can begin.</li> </ol> <p>Please do your job and protect the citizens of Colorado. Its the law.</p>	02/23/2018
25	<p>Per the MOU between the parties, the City of Broomfield rejected the Comprehensive Drilling Plan submitted by Extraction. The COGCC should uphold the agreement between the city and Extraction. Literally hundreds of mineral rights owners and thousands of area home owners are being forced to sacrifice their home values and and the health and safety of their families as a result of these proposed projects. There has been absolutely no consideration of the health and safety of the people in Broomfield and neighboring cities in the process. Please consider the Martinez decision and request more information before permitting.</p>	02/23/2018
26	<p>We residents, who reviewed the CDP submitted by Extraction, found it to be seriously lacking detail, especially in the Risk Management section.</p> <p>Proper Risk Management starts with company management instilling a culture of safety throughout their organization. The fact that Health and Safety are not mentioned at all in Extraction's Executive Summary, Risk Identification (2.1), Risk Response (2.4) or Risk Mitigation (2.5) Sections concerns us that there is no effort by Extraction management to develop such a culture of safety.</p> <p>Extraction is well aware of the risks inherent in their operations as they detail in their required SEC filings: "Our exploration and production activities are subject to all of the operating risks associated with drilling for and producing oil and natural gas, including the risk of fire, explosions, blowouts, surface cratering, uncontrollable flows of natural gas, oil and formation water, pipe or pipeline failures, abnormally pressured formations, casing collapses and environmental hazards such as oil spills, natural gas leaks, ruptures or discharges of toxic gases." Our concern is that Extraction doesn't list any of the above risks in their Risk Management Plan. The plan is stated in general policy terms, not specifics for neighborhood drilling. While potential shareholders are warned of the risks in exploration and drilling, residents are not.</p> <p>In Section 2.1 Extraction states- "Some (risks) may be obvious and will be identified prior to project kickoff." Where have these risks been identified? What about risks that are not obvious? The residents must be informed of the possible risks; they have the right to make informed decisions based on the identified risks.</p> <p>For residents who live near the proposed projects, the risk responses "transference", "acceptance" and "deferred" have absolutely no positive effect on their safety and comfort level living close to a large scale industrial project. Only "avoidance" and "mitigation" can protect our residents' health and safety. Moving these projects farther away from homes is the best solution.</p> <p>The Risk Management Plan is inadequate; it does not properly address Health, Safety, and Welfare and potential environment impacts in Broomfield. This section needs to be redone in a way that thoughtfully addresses any risks associated with this project. How do multiple wells on a pad compound risk? How are risks managed over the lifetime of wells? Extraction must provide a thorough Qualitative Risk Analysis before the CDP can be approved.</p>	02/23/2018
27	<p>Per the recent Court of Appeals decision of Martinez v. COGCC states that "The plain meaning of the statutory language [of section 34-60-102(1)(a)(I)] indicates that fostering balanced, nonwasteful development is in the public interest when that development is completed subject to the protection of public health, safety, and welfare." The COGCC must NOT approve Extraction's drilling permits as they are NOT determined that they can be protective of public health, safety, and welfare based on the proximity, scale, and intensity of these proposed operations. The current setback of 500 feet was not based on health and safety data, as the COGCC has noted. The residents of Broomfield successfully amended the Charter of the City and County of Broomfield to include language stating that oil and gas development shall "only occur in a manner that does not adversely impact the health,</p>	02/23/2018

	<p>safety, and welfare of Broomfield's residents in their workplaces, their homes, their schools, and public parks in order to protect the public's health, safety, and welfare and to safeguard the environment and wildlife resources". Despite this our City has made numerous concessions to the detriment of the protection of the health, safety, and welfare of the community stating that those decisions were up to the state and for the residents of Broomfield to take it to the state. Since the COGCC has not allowed our local governments to protect the communities, the COGCC must protect our health and safety and deny Extraction's permits. Extensive research needs to be completed on the Livingston pad due to its proximity to houses AND the Broomfield Drinking Water Reservoir. In 2012, Broomfield paid Noble \$550,000 to remove 11 drilling locations from the Hoopes Property to allow for construction of the Broomfield Drinking Water Reservoir. The current Livingston Pad sits atop a removed drilling location. Proximity to Future Drinking Water Reservoir Extraction is proposing 19 wells UPHILL from Broomfield's Future Drinking Water Reservoir. The location of the Livingston Pad is NOT acceptable. Extraction has NOT Been Acting Ethically Extraction has been continuously dismissing the concerns of Broomfield residents and changing their statements at every City Council meeting which leave Broomfield residents unable to hold them to any agreement on number of wells, proximity, testing, etc. The letter sent from Chandler Newhall to the City of Broomfield thanking Broomfield for Approving their Drilling Plan, when the City has in Fact NOT Approved their Plan was deceptive at best. Submitting for Form 2/2A Permits WITHOUT Having an Approved (or Even Approvable) Comprehensive Drilling Plan (CDP) was disingenuous. The original information posted on Front Range News by Extraction stated that they would be drilling from miles away – not 750 feet from homes. Extraction cannot keep track of their own lies. I am under no illusions that COGCC actual cares about anything but the interests of oil &amp; gas, however, you have stated yourselves that you are under a microscope and must act better going forward. This is no longer about placating the masses. Oil &amp; Gas operations have been killing Coloradans (and oil &amp; gas workers) at a rather alarming rate the past 2 years. When will COGCC stop being a rubber stamp on drilling and bad practices? Time to become a body that actually governs this industry. If you do not, you will be replaced. Your days of letting any project go through are over. Coloradans are watching and acting to defend ourselves.</p>	
28	<p>We are residents of Broomfield and would like our opinion heard regarding the future of oil and gas development in and near Broomfield county. As parents of two children, we are strongly against Extraction's plan for oil and gas development in our neighborhood. We moved to Broomfield four years ago and chose this wonderful city and community for its open spaces, excellent schools, residential feel, and beautiful views. It was a community that had a ban on fracking. We are concerned about the health and safety of the residents here in Broomfield, especially the children. We do not believe that the COGCC has rules in place which address large scale residential oil and gas development. Residential drilling should not occur until it is proven safe. It is too large and too close to residential areas. Not only has the city not approved the permits, the citizens of Broomfield have voted for issue 301 to protect the health and safety of their community. We do so much as parents to protect our children. It is not right that these industrial sites could be forced upon us without us having a say. We are parents who love our children and our community. Please consider our requests and deny the permits.</p>	02/23/2018
29	<p>I am opposed to any fracking activity close to residential area. Why risk public health and safety? There has been studies conducted and issue reported on this fracking impacting the community. Check this out:</p> <ul style="list-style-type: none"> <li>• <a href="https://www.theguardian.com/environment/2014/jul/03/oklahoma-earthquakes-fracking-waste-water-wells">https://www.theguardian.com/environment/2014/jul/03/oklahoma-earthquakes-fracking-waste-water-wells</a></li> <li>• <a href="https://www.forbes.com/sites/jamesconca/2016/09/07/the-connection-between-earthquakes-and-fracking/#d53a1046d68e">https://www.forbes.com/sites/jamesconca/2016/09/07/the-connection-between-earthquakes-and-fracking/#d53a1046d68e</a></li> </ul> <p>The evidence is everywhere. STOP FRACKING practices especially in residential area.</p>	02/23/2018
30	<p>As a concerned citizen of Broomfield County, I respectfully request that the comment period remain open past the date of February 24th and until the date of the April COGCC meeting for all Extraction permits currently in process or those considered to be complete. Section 9 of the Amended and Restated Operator Agreement between Extraction and Broomfield states that the Comprehensive Drilling Plan and Application is subject to the review and approval of the city. An extension is required to satisfy this requirement.</p>	02/23/2018



31	<p>Fracking is not safe and the recent explosions and oil spills prove this fact. It is your duty to abide by Broomfield's 301 and the Martinez decision. There is no reason to have fracking within neighborhoods particularly in cities where we have twice voted to either ban fracking or create a law were we can all but eliminate fracking. The oil companies do not take safety seriously and only respond to problems after the fact.</p> <p>Money has also because the ultimate factor rather than public safety and that is a position than needs to change.</p>	02/23/2018
32	<p>I live on the Adam county side of this debate, and my children go to school on the Broomfield side. This is my community that will be poisoned and I feel powerless and angry. These wells are too close to the urban core of Denver / Boulder and densely populated areas along the front range. I think the Martinez agreement is too lenient. I think the pollution in Denver recently from oil and gas is out of hand. I have never seen it so bad in my 20 yrs of being a resident here. It's a big fog you enter when you come down from the mountains and you can see landing in a plane. I can smell it on bad days from Erie. I don't want this closer to my home. I don't want the drills shaking free radon and other gases below my feet in my home. Our communities cry for your assistance for regulation but yet nothing is done. Our children's blood will be on your hands in the form of premature / and low-birth rates, cancer clusters, asthma and more that scientists have proven come directly from these types of developments near homes and schools. Shame on you for not standing up for the people you say you protect.</p>	02/23/2018
33	<p>I work in the oil and gas industry. I am not opposed to drilling/fracking in general. However, there must be more common sense applied in special circumstances. Extraction's plan for this well pad is woefully inadequate knowing that the planned Broomfield public water supply reservoir is so close. The city of Broomfield has pointed this out to Extraction, but Extraction must prove they will take adequate precautionary measures to ensure the safety of the community. We all obviously hope that none of the 20 wells on the pad have any accidents or spills during the life of the wells. But, for an industry that insists they are good stewards of the environment and value health and safety for their workers and the community, they should be more than willing to put a better mitigation system in place in addition to accident prevention. As much as we try to prevent accidents, we know they happen. Extraction has records of spills and accidents. In a dense suburban community the stakes are significantly higher than they are in a less populated rural area. Extraction must not be allowed to move forward with their plan as it stands. Their current plan makes it seem as if they've forgotten about the reservoir. A company that forgets something as necessary to a community as water is not a company that should be allowed to drill in a suburban area - particularly this location.</p> <p>Extraction should work to correct all issues (including the water/reservoir issue) in the CDP as outlined by the city of Broomfield before submitting for permits to the COGCC.</p>	02/23/2018
34	<p>I concur with the position of Broomfield Council.</p> <p>Please extend the COGCC comment period beyond the current Feb. 24 deadline for the Form 2 and 2A permits for the Livingston and Interchange Pads.</p> <p>Also please postpone any COGCC hearings on these pads until the April COGCC hearings. Based on Extraction's submission date of the permits, any hearings could occur at the March public meetings.</p>	02/23/2018
35	<p>Responsibility of COGCC to Protect Public Health, Safety, and Welfare</p> <p>The published opinion in the recent Court of Appeals decision of Martinez v. COGCC states that "The plain meaning of the statutory language [of section 34-60-102(1)(a)(I)] indicates that fostering balanced, nonwasteful development is in the public interest when that development is completed subject to the protection of public health, safety, and welfare." This is contrary to the COGCC's stated interpretation, whereby oil and gas development would be "balanced" against public health, safety, welfare, and the environment. Per Rule 35e of the Colorado Appellate Rules (CAR), the published opinion MUST be upheld. The COGCC must NOT approve Extraction's drilling permits as they are NOT protective of public</p>	02/23/2018

	<p>health, safety, and welfare based on the proximity, scale, and intensity of these proposed operations.</p> <p>The current setback of 500 feet was NOT based on health and safety data, as the COGCC has noted.</p>	
36	<p>Broomfield Charter Language Requires No Adverse Impacts</p> <p>The residents of Broomfield have been actively engaged at the local and state level requesting their health, safety, and welfare are protected. As such, the residents of Broomfield successfully amended the Charter of the City and County of Broomfield to include language stating that oil and gas development shall “only occur in a manner that does not adversely impact the health, safety, and welfare of Broomfield’s residents in their workplaces, their homes, their schools, and public parks in order to protect the public’s health, safety, and welfare and to safeguard the environment and wildlife resources”.</p> <p>Despite the clear language of the Broomfield Charter, the City of Broomfield states that they are unable to uphold 301 because the COGCC Regulations are less stringent.</p>	02/23/2018
37	<p>Proximity to Future Drinking Water Reservoir</p> <p>Extraction is proposing 19 wells UPHILL from Broomfield’s Future Drinking Water Reservoir. Despite Best Management Practices and Secondary containment measures, contamination of the drinking water reservoir still can occur through component failures, explosions, well blowouts, human error, and other unfortunate events. The location of the Livingston Pad is NOT acceptable.</p>	02/23/2018
38	<p>Extraction has NOT Been Acting Ethically</p> <p>Extraction has been continuously dismissing the concerns of Broomfield residents. The letter sent from Chandler Newhall to the City of Broomfield thanking Broomfield for Approving their Drilling Plan on Feb XX, when the City has in Fact NOT Approved their Plan was deceptive at best. Submitting for Form 2/2A Permits WITHOUT Having an Approved (or Even Approvable) Comprehensive Drilling Plan (CDP) was disingenuous. The original information posted on Front Range News by Extraction stated that they would be drilling from miles away – not 750 feet from homes.</p>	02/23/2018

39	<p>Please slow Extraction down. Their drilling plan is poorly put together and inaccurate. This is surprising and alarming given all their "so-called" cooperation with the city and oil and gas task force. You would think that they would present a thoughtful and thorough plan for state review based on their agreements with the city. Their rush may signify that they believe that you will approve anything that they submit, even over the city's objections and expressed concerns. We need more state and local oversight and control of these operations to assure performance-based standards that will indeed protect health and safety adequately. Operators' record of death, injuries, spills, and evacuations this past year highlight that not enough safety measures are being implemented. They also indicate that operators are not to be trusted--profit probably is their bottom line as they tend to fight anything that could cut into their profit margin. We don't trust Extraction given their dealings with us.</p> <p>The Livingston pad itself is too close to residences to be truly safe given some of the major accidents this past year.</p>	02/23/2018
40	<p>A large scale fracking site just a stones throw from our new drinking water reservoir is ridiculous. Please use your heads when deciding if this is even remotely legal or ethical to do. Do not allow this to happen in our neighborhood.</p>	02/23/2018
41	<p>A large scale fracking site just a stones throw from our new drinking water reservoir is ridiculous. Please use your heads when deciding if this is even remotely legal or ethical to do. Do not allow this to happen in our neighborhood.</p>	02/23/2018
42	<p>How does the COGCC think this acceptable in any capacity? The unmitigated risk to the public's health and safety present in this plan is completely</p> <p>Unacceptable on any level. Significantly more research needs be done before anything like this is even considered. Please stop propagating the shale myth and trying to pass off completely wasteful and economically tragic businesses as being good for the State of CO. Dangerous to the public and economically unviable, double NO!</p>	02/23/2018
43	<p>The COGCC is without lawful right to approve the drilling permits on the Livingston Pad. The city has not approved the CDP from Extraction because it isn't woefully incomplete and we are well within our rights as a city to halt any drilling due to our city law. No adverse effects is written in our law and the COGCC cannot approve any drilling from Extraction because they haven't proven that their drilling hasn't caused any adverse effects.</p>	02/23/2018
44	<p>Putting a huge industrial operation right next to the future Broomfield Drinking Water Reservoir is terrible. This needs to be examined in much greater detail in order to make a decision. Delay the vote, there is plenty of time to get it right.</p>	02/23/2018
45	<p>Please deny the drilling permits by Extraction Oil and Gas. The numerous wells are way to close to houses and parks. Cogcc is granting way too many unsafe permits and jeopardizing the health and well being of Colorado residents. Thank you.</p>	02/23/2018
46	<p>The number of proposed wells is too high and the location is too close to people's homes. Please, do not allow this and protect people's lives and health. There is plenty of oil in alternative locations that will not have the same negative impact.</p> <p>Ignoring all the danger to the public in order to cut costs and use residential infrastructure (roads) shows that Extraction is a company that conducts a business in unethical manner. It is responsibility of COGCC to stop this - please do!</p>	02/23/2018
47	<p>Please take the time to properly investigate the safety and necessity of these wells. Moreover, please ensure the proper plans are in place for accidents which are all too common in this field. There is large downsides to these wells and very little public support.</p>	02/23/2018
48	<p>Please take the time to properly investigate the safety and necessity of these wells. Moreover, please ensure the proper plans are in place for accidents which are all too common in this field. There is large downsides to these wells and very little public support. Please don't allow them to short circuit the proper checks along the way and ensure they follow all proposed safety mechanisms.</p>	02/23/2018
49	<p>Please do NOT approve the applications to permit fracking in Broomfield. These pads are located far too close to residential neighborhoods for comfort. There is significant evidence that at the very least suggests, if not completely proves, that fracking can cause earthquakes with occurrences in Texas and Oklahoma. Additionally, the risk of accidents and disasters such as the explosion in Firestone, CO cannot be ignored. The oil and gas companies treat spills / leaks as a normal part of their operations, but the city of Broomfield cannot afford a spill when these these fracking pads are close to water reservoirs and to neighborhoods. The safety of Broomfield's citizens is at stake here, and the Council must honor their duty to protect and preserve this safety. The potential impacts to human life and the damage to the ecosystem in Broomfield MUST be prioritized over the need for Extraction Oil</p>	02/23/2018

	<p>and Gas to undertake fracking operations for monetary benefit. The citizens of multiple neighborhoods in and around Broomfield have voiced their concerns in unison for months now, and these concerns must be addressed.</p>	
50	<p>Dear Commissioners, There are so many reasons for me to ask you to delay approval of Extraction's permits, I don't know where to begin, but I'll try: 1. It is the responsibility of the COGCC to protect the public's health, safety and welfare, not equal to oil and gas, but above it, per the Martinez ruling. 2. The Broomfield Charter language shows that Broomfield should see no adverse impacts from the oil and gas industry. We have not yet heard how Extraction plans to keep Broomfield safe, free from explosions, fires, leaks, blowouts etc. 3. Broomfield's Council has repeatedly told concerned residents that they needed more "tools" in their "toolbox", but the City claimed they lacked local control and they had to defer protection of health, safety, and welfare to the State. Our City made numerous concessions</p> <p>which have failed to protect resident's health, safety, and welfare. Broomfield said these decisions are up to the state. Since the</p> <p>COGCC has not allowed our local governments to protect communities, the COGCC must step up since others have not, to protect our health and safety. Therefore: Extraction's permits should be denied. 4. Broomfield has not yet learned the cause of Extraction's explosion and fire near Windsor. Broomfield needs to know the cause so we can try to prevent similar events. 5. As Director Lapore has stated, the proposed drinking water reservoir will be just a few hundred feet from the proposed Livingston pad. Extraction's other locations are close to parks, an existing reservoir and homes. 7. Extraction has not been acting ethically. Their first CDP was a cut and past job with many errors, typos, incorrect statements. When asked to make changes, the request was ignored, and the second attempt was too minimal to address Broomfield's concerns. One of Extraction's employees wrote a letter to Broomfield thanking the City for approving the CDP, when in fact this had not been done. Submitting for forms 2/2A prior to approval from Broomfield ignored Broomfield's position that the CDP was not approved. 8. Extraction plans to drill 750' from homes with water wells in unincorporated Adams County. 9. Broomfield is still trying to implement a ballot measure to protect citizen's health and safety. It was known this was coming but Extraction is also ignoring this and forging ahead as if there are no issues to resolve. In fact, there are many. Please do not approve Extraction's forms 2 and 2A. Broomfield needs more time to sort out a wide variety of citizen and internal concerns.</p>	02/23/2018
51	<p>Extraction has applied for State Permits despite NOT having an approved Comprehensive Drilling Plan (CDP) with the City per their amended operator agreement. I have found the tactics by extraction to be deceptive and disingenuous. This includes extraction holding public hearings meetings on the Western Slope 4 hours away from the residents of Broomfield and well as filing for the application without a CDP. Our safety and security needs must be addressed before any permits are issued. The residents of Broomfield need plans from extraction detailing our concerns over noise, spills, and potential water quality concerns.</p>	02/23/2018

52	<p>It has now been two full months since Extraction's large explosion in Windsor, and there has still been no public explanation as to why this happened and what can be done to prevent something similar in the future. Is the explosion so mystifying that the COGCC and Extraction still don't know what happened, or is the reason known but hasn't been explained to the public because it's very likely to happen again?</p> <p>It's lucky that this site wasn't particularly close to homes, or the outcome could have been a lot worse. That said, Extraction is hoping to drill similar-sized or larger well pads only 1000 feet from homes in Broomfield. I'm sure you've seen video of the Windsor explosion, can you imagine how much damage would have been done if that were 1000 feet from a neighborhood? It would seem incredibly irresponsible to approve any such plans now, until Extraction has made 100% sure something like this won't happen again at one of their sites. Extraction has claimed ad nauseum in the past year at meetings in Broomfield that it's safer than other operators, but that myth is gone now – it's likely they had fewer accidents than other companies just because they haven't been operating very long.</p> <p>Many O&amp;G companies have used older technology as an excuse for explosions or large leaks in the past, but the site in Windsor appears to be a large, newer well pad using Extraction's "best in class" practices. If "best in class" means humongous fireballs that shake houses and can be seen for miles away, then Extraction needs to be kicked out of class and sent to detention.</p> <p>I noticed in the values section of the COGCC web page: "We are as committed to protecting public health and the environment as we are to fostering the responsible development of Colorado's oil and gas resources". I hope that this value can be upheld in dealing with Extraction and their plans to bring large well pads within unprecedented range of neighborhoods.</p>	02/23/2018
53	<p>Laws, regulations and rules are designed for specific reasons and our system are designed to be altered as times and needs change. Extraction hasn't followed many of the required rules since the beginning of this process. Times have changed in Colorado with gas exploration and drilling butt simply put, it's not appropriate to drill in areas that jeopardize health and safety.</p>	02/23/2018
54	<p>The Livingstone pad site location has come about as a result of a series of errors of judgment over the years. Do not make the last in that series of errors by approving this as a satisfactory or "safe" drill site. It is not, for a number of reasons. It is dangerously close to the new Broomfield drinking water reservoir. If drought conditions in the future require additional water storage capacity for this growing community, it will be impossible to expand the reservoir to meet the needs of the public. There are alternative drill sites that could be utilized to access the resources in this spacing unit that would not impair the Broomfield reservoir. Some of these alternative sites are current, active well locations operated by Extraction. Why approve the least logical pad site when better alternatives exist? There is no need to rush to extract oil and gas from that location. The Lowell pad site was further from the Broomfield reservoir, but Extraction moved to this Livingstone pad site, even closer to the reservoir. Better yet, a location operated by Extraction north of NW Parkway would present much less exposure to the reservoir, and give Broomfield the potential to expand the reservoir in the future if drought conditions demand.</p> <p>There is a large community of senior citizens who live just north of and in a valley a short distance from the Livingstone pad site. During weather inversions that are common in the Front Range, contaminated air from this pad site will be trapped over the homes of these residents. Do not allow this health risk to move forward. We are not aware of any location in Colorado so near to this many wells and this many senior citizens.</p>	02/23/2018
55	<p>I respectfully request the COGCC not administratively approve Extraction O&amp;G's Form 2 and 2A permits for drilling at the Livingston Pad in Broomfield and/or delay any approval of them until after scheduled COGCC meetings in April 2018. This request is based on the reasoning below (among several other issues which resulted in Broomfield's City Council not approving these same permits):</p> <p>Extraction's permits include horizontal wellbores that extend southward under Broomfield's Wildgrass subdivision. However, Extraction does not currently own or lease the mineral rights of most homesteads there. I question the legality of COGCC approving these permits, which imply drilling under property not yet owned or leased by Extraction.</p> <p>The Fifth Amendment of the U.S. Constitution states that no person shall be deprived of property without due process of law; nor shall private property be taken for public use without just compensation. This Amendment overrides Colorado statutes. Residents of Wildgrass (in good faith) have retained legal counsel to negotiate fair compensation with Extraction; however, repeated attempts by our legal counsel in contacting Extraction have gone unanswered. I understand under</p>	02/23/2018

	<p>Colorado Law that Extraction can later petition the courts to "force pool" residents and therefore take their property rights without fair compensation.</p> <p>I remind the COGCC that Extraction's efforts to bypass negotiation with residents' legal counsel is a clear violation of our Fifth Amendment rights to due process. Therefore, I deem any COGCC approval of the Livingston Pad permits (that include horizontal wellbores under Wildgrass) as an action with no firm legal footing (until such time that "fair and just compensation" negotiations have taken place between Extraction and Wildgrass counsel, or after such a time that Extraction obtains the right to these mineral rights). The COGCC should not assume the outcome of any Forced Pooling action/appeal.</p> <p>Respectfully Submitted,</p> <p>Ron</p> <p>Ronald P. Lowther, PhD, Col (USAF Retired)</p> <p>14813 Snowcrest Drive</p> <p>Broomfield, CO 80023 USA</p> <p>Email: rplowther@gmail.com</p>	
56	<p>Concerning the Extraction Oil &amp; Gas, Inc (Extraction) request for an exception to rules rules 318A.a and 318A.c, I respectfully request the COGCC deny this request. Extraction's stated reason for the exception is "This is the best location for the wells since the wells are outside of the buffer zone". The buffer zone, the setback proposed, is 1000 feet.</p> <p>The proposed system is Extraction's new closed-loop system. An identical system was installed in Windsor, CO. On 22 December, 2017, the Windsor facility exploded and burned out of control for 16 hours. 2,500 feet away, over twice the proposed setback, Colorado 392 had to be closed.</p> <p>Here is video footage of this explosion from 3,500 feet away (three times the setback):</p> <p><a href="http://www.coloradoan.com/videos/news/2017/12/23/footage-explosion-near-windsor/108867614/">http://www.coloradoan.com/videos/news/2017/12/23/footage-explosion-near-windsor/108867614/</a></p> <p>Video and photos of the disaster and emergency response:</p> <p><a href="https://www.denverpost.com/2017/12/22/weld-county-oil-site-fire/">https://www.denverpost.com/2017/12/22/weld-county-oil-site-fire/</a></p> <p><a href="http://www.ibtimes.com/weld-county-oil-explosion-fire-shown-pictures-videos-2632482">http://www.ibtimes.com/weld-county-oil-explosion-fire-shown-pictures-videos-2632482</a></p> <p>Extraction has demonstrated that, even employing best practices, there exists failure modes for this equipment that will result in an explosion and uncontrolled fire.</p> <p>They have not determined the cause of the explosion. They have not determined if the nature of the failure is systemic to such closed-loop systems. They have not submitted their conclusions for independent review. Without independent review, we cannot conclude that the alleged cause demonstrates proper fail-safe or is merely a band-aid over an inherent and repeatable problem.</p> <p>Equipment fails. This equipment in particular has been demonstrated to fail, catastrophically so.</p> <p>There is an existing, fifty year old community exactly 1001 feet from the edge of this development. Considering the demonstrated danger of catastrophic failure of this equipment, no development of this nature should be permitted so close to residential neighborhoods.</p> <p>If COGCC is committed to a goal of sustainable oil and gas development while respecting the health and safety of citizens, it cannot allow this development to proceed. In particular, it should not grant an exception to Extraction that would permit it to put known faulty equipment so close to human lives.</p>	02/23/2018

57	<p>The proposed facility by Extraction is unsafe. We know this. An identical facility, operated by Extraction, allegedly following Extraction's best practices, exploded on 22 December 2017 and burned out of control for 16 hours.</p> <p>We do not know why it exploded.</p> <p>We do not know how the fallout affected the nearby residents.</p> <p>We do not know what the long term impact of such a disaster is.</p> <p>We know that "best practices" are not sufficient to prevent a catastrophic explosion.</p> <p>We know that this facility design can fail and cause a catastrophic explosion.</p> <p>We know that such an explosion will affect people far, far beyond the one thousand foot buffer.</p> <p>Given this, it is unconscionable to allow another such facility to be installed a mere thousand feet from another longstanding community. We must know what failed and why. And we must have independent, third party verification of the asserted reasons. It is insufficient to trust Extraction to provide a justification. They have amply demonstrated that their "best practices" are insufficient to prevent an explosion and fire. They no longer have credibility on this issue.</p> <p>Until such time as a third party can verify that the proposed design will not again explode, burn out of control and shower the nearby neighborhoods with benzene, petrochemicals and carcinogens, this permit should be denied. Anything less is a violation of the COGCC's mandate of "protecting public health, safety, and welfare"</p>	02/23/2018
58	<p>This seems very rushed to me- especially considering some of the problems they have had in Erie and Lafayette.</p> <p>I am especially concerned about impact on local water and general unsightly appearance. It's unfortunate that the</p> <p>state politicians have sold us out on this issue for campaign contributions.</p>	02/23/2018
59	<p>Extraction's drilling plan is fraught with errors and omissions! There should be no oil and gas activities at the proposed Livingston site, because it is too close to Anthem Ranch homes and immediately upstream from Broomfield's proposed drinking water reservoir.</p> <p>We don't want Windsor-style explosions in our neighborhood!</p>	02/23/2018
60	<p>Please add my name to the growing list of citizens against residential drilling and fracking. From your own mission statement: "The Colorado Oil and Gas Conservation Commission (COGCC) is charged with fostering the responsible development of Colorado's oil and gas natural resources in a manner consistent with the protection of public health, safety, and welfare, including the environment and wildlife resources. Please do not permit drilling that could endanger the health and welfare of the citizens you are charged to protect.</p>	02/23/2018
61	<p>Please consider the safety of residences first. There is not enough evidence that it is safe to to frack in highly populated residential neighborhoods, not to mention the many oil and gas accidents have happened near us in the past year. We moved to this community to enjoy the beautiful views and open space, turning our area into an industrial zone hurts all of our home values. Nothing about doing this so close to homes and schools make sense beyond lining the pockets of oil and gas executives.</p>	02/23/2018
62	<p>Do not grant permission to drill or frack in our neighborhood! This is where we are raising our children!!!</p>	02/23/2018
63	<p>Over the past year or so, we have watched human error result in explosions, leaking of carcinogens in to the air next to a school, innocent family homes going up in fireballs, to name a few. All of these human errors related to the development of oil and gas resources. If you're paying attention, you have figured out that human error in oil and gas development is the biggest risk, and it can have catastrophic consequences. As a resident of Broomfield, I find it insane to ask the residents of this community to shoulder the risk of this industry and welcome this industrial operation into our residential areas. There WILL be an accident (will be be poisoned, will our groundwater be contaminated, or will we just all explode in another human-error fueled fireball? It's anyone's guess.), and these proposed well pads will be closer to homes than ever. I recently purchased a home in Anthem-- my family's dream home. I should be excited about my daughter's upcoming Kindergarten</p>	02/23/2018

	graduation or my son's acceptance into the national honor society, but instead I spend my days imagining how the oil and gas industry will commit another human error, now only mere feet from my new home. Broomfield has spoken loudly by passing proposition 301, and the COGCC should heed that as a warning. These wells are not welcome, and the COGCC should take that into consideration as you deliberate on the risk you expect us to take. Where is the reward? In the pocket of the Oil and gas developers who ask residents to shoulder the risk of industrial developments where they DO NOT BELONG. Keep these dangerous operations out of neighborhoods. They are not welcome.	
64	Please protect our community. The Livingston Pad is too close to our community and future reservoir. We do not want to see our neighborhood lose value and are concerned about the residents safety.	02/23/2018
65	The COGCC should not approve form 2 and 2A drilling permits submitted by Extraction since the city of Broomfield has rejected Extraction's CDP for various reasons. Allowing Edtraction to drill in this urban environment is a mockery of the COGCC's stated purpose to protect the health, safety and welfare of the citizens of Colorado. Extraction is not complying, and has indicated they have no intentions of complying with their agreement with the City to uphold the tenets of the Comprehensive Oil and Gas Plan approved by the city.	02/23/2018
66	Please do not give extraction permits on the Livingston pads. We live in Wildgrass and are afraid of the repercussions of doing extraction so closely to neighborhoods. My friend and colleague is Erin Martinez and what happened to her and to the many other people in our state and surrounding states is not acceptable. Please do not move forward with these permits!!	02/23/2018
67	<p>I understand that fracking is going to happen - We are simply asking for you to be the independent regulatory agency of oil &amp; gas and protect the health and safety of Broomfield residents. the question is will you allow the time for the permits to be reviewed properly. It is interesting when we bring up the health and safety with Extraction, they want to bully us, and threaten lawsuits if we dare interfere - yet to the public they say that health and safety is a priority - well which is it - you cannot have it both ways - why then the rush to get these permits approved? if safety is a priority then give us some time to review the permits. We hear the commercials that Colorado is one of more regulated states in the US for oil &amp; gas - again simply asking you to be independent and not afraid to regulate oil and gas. How many people have died in other counties as the result of extraction? The pad is going to be almost on top of the drinking reservoir for Broomfield. Again, I know that fracking is going to happen but again why is extraction trying to force these permits onto Broomfield. I guess this is the test if I can truly trust the COGCC, but if you approve them without the proper review, then you are just an extension of the extraction company and we have no hope for health and safety of Broomfield. Please enforce the ruling of Martinez, and also help us govern locally and take the amended charter for Broomfield seriously. Why not let these permits go through the regular process - or is it that extraction knows it is unsafe and trying to push them through you - again are you a regulatory body or just an extension of extraction - and doing business the way are?</p> <p>Per the recent Court of Appeals decision of Martinez v. COGCC states that "The plain meaning of the statutory language [of section 34-60-102(1)(a)(I)] indicates that fostering balanced, nonwasteful development is in the public interest when that development is completed subject to the protection of public health, safety, and welfare."</p> <p>The residents of Broomfield successfully amended the Charter of the City and County of Broomfield to include language stating that oil and gas development shall "only occur in a manner that does not adversely impact the health, safety, and welfare of Broomfield's residents in their workplaces, their homes, their schools, and public parks in order to protect the public's health, safety, and welfare and to safeguard the environment and wildlife resources".</p>	02/23/2018
68	We understand fracking is important to Colorado, however the health and well being of the citizens of Colorado should be the highest priority. Fracking should never be allowed within residential zones. Fracking is a huge industrial operation that is prone to accidents. That may not impact anything out in the rural areas of Colorado, but when you try to squeeze fracking sites so close to homes and schools, those accidents can have serious if not deadly effects. Our home values will decrease and large companies like Amazon will not want to move to an area where their employees are at risk. We all love living here and anyone who says fracking in our backyard is ok, they either don't live close to the fracking operation or they have vested monetary interests.	02/23/2018



69	<p>We understand fracking is important to Colorado, however the health and well being of the citizens of Colorado should be the highest priority. Fracking should never be allowed within residential zones. Fracking is a huge industrial operation that is prone to accidents. That may not impact anything out in the rural areas of Colorado, but when you try to squeeze fracking sites so close to homes and schools, those accidents can have serious if not deadly effects. Our home values will decrease and large companies like Amazon will not want to move to an area where their employees are at risk. We all love living here and anyone who says fracking in our backyard is ok, they either don't live close to the fracking operation or they have vested monetary interests.</p>	02/23/2018
70	<p>I am appalled by the unconscionable acts of drilling and fracking in highly populated communities. Never in a million years did I expect anything like this to ever occur. The greed of oil and gas industry is astounding! How much money is enough for them? How many wells do we need. How much is enough! These companies have absolutely no regard for the people whose lives and livelihoods they put at risk. I can safely say that none of these energy tycoons have oil wells near THEIR HOMES! They have no cause for worry about their health, environment, property values. The oil and gas corporations, land developers, construction development companies have destroyed the once pristine beauty of Colorado. They have clogged our highways with their trucks and construction equipment; increased our population dramatically; priced out most home buying to exclude all but the affluent buyer; crowded our mountains and parks. Something needs to be done to stop the destruction. The public is not being told the truth. There were recent oil spills in Erie that the public was not told about. It is sickening.</p>	02/23/2018
71	<p>I am appalled by the unconscionable acts of drilling and fracking in highly populated communities. Never in a million years did I expect anything like this to ever occur. The greed of oil and gas industry is astounding! How much money is enough for them? How many wells do we need. How much is enough! These companies have absolutely no regard for the people whose lives and livelihoods they put at risk. I can safely say that none of these energy tycoons have oil wells near THEIR HOMES! They have no cause for worry about their health, environment, property values. The oil and gas corporations, land developers, construction development companies have destroyed the once pristine beauty of Colorado. They have clogged our highways with their trucks and construction equipment; increased our population dramatically; priced out most home buying to exclude all but the affluent buyer; crowded our mountains and parks. Something needs to be done to stop the destruction. The public is not being told the truth. There were recent oil spills in Erie that the public was not told about. It is sickening.</p>	02/23/2018
72	<p>I am appalled by the unconscionable acts of drilling and fracking in highly populated communities. Never in a million years did I expect anything like this to ever occur. The greed of oil and gas industry is astounding! How much money is enough for them? How many wells do we need. How much is enough! These companies have absolutely no regard for the people whose lives and livelihoods they put at risk. I can safely say that none of these energy tycoons have oil wells near THEIR HOMES! They have no cause for worry about their health, environment, property values. The oil and gas corporations, land developers, construction development companies have destroyed the once pristine beauty of Colorado. They have clogged our highways with their trucks and construction equipment; increased our population dramatically; priced out most home buying to exclude all but the affluent buyer; crowded our mountains and parks. Something needs to be done to stop the destruction. The public is not being told the truth. There were recent oil spills in Erie that the public was not told about. It is sickening.</p>	02/23/2018
73	<p>I am appalled by the unconscionable acts of drilling and fracking in highly populated communities. Never in a million years did I expect anything like this to ever occur. The greed of oil and gas industry is astounding! How much money is enough for them? How many wells do we need. How much is enough! These companies have absolutely no regard for the people whose lives and livelihoods they put at risk. I can safely say that none of these energy tycoons have oil wells near THEIR HOMES! They have no cause for worry about their health, environment, property values. The oil and gas corporations, land developers, construction development companies have destroyed the once pristine beauty of Colorado. They have clogged our highways with their trucks and construction equipment; increased our population dramatically; priced out most home buying to exclude all but the affluent buyer; crowded our mountains and parks. Something needs to be done to stop the destruction. The public is not being told the truth. There were recent oil spills in Erie that the public was not told about. It is sickening.</p>	02/23/2018
74	<p>Comments on Extraction's Amended and Restated Contract dated Oct 24, 2017</p> <p>Exhibit E (Pipeline map page 48).</p> <p>Why is there a pipeline west of Livingston pad?</p> <p>The Gathering pipe distance from structures is dependent on the pressure and size of the pipe.</p>	02/23/2018

	<p>If additional gas is coming from the West and combining with Livingston.</p> <p>This will affect the size and pipe pressure and thus the hazard distance from the pipeline.</p> <p>What will be the pipe size, and pressure of the pipeline leaving Livingston?</p> <p>Broomfield's Oil and Gas Comprehensive Plan states</p> <p>Operator shall mail ... to property owners within 500 feet from all pipelines leaving the well site or oil and gas facility and within the City. Operator shall certify to the City a list of persons or entities to whom written notice was provided.</p> <p>Have they done this ?</p> <p>W152nd Ave &amp; Lowell Boulevard homes 200 feet</p> <p>Mountain View Circle and Hillside Court homes 100 to 200 feet</p> <p>Extraction states Pdf page 46-47 Operation and Maintenance</p> <p>5. all lines 150 feet from buildings</p> <p>What risk assessment are they using to declare 150 feet?</p> <p>I recommend GRI-00/0189 formula: <a href="http://pstrust.org/docs/C-FerCircle.pdf">http://pstrust.org/docs/C-FerCircle.pdf</a> Figure 2.8 at a minimum.</p> <p>And that can be expected to exceed 150 feet.</p> <p>The Mountain View Circle and Hillside Court homes are already less than 150 feet from the proposed pipeline.</p> <p>The Open Space Trail Easement Agreement is not signed. -- Pdf page 110-114</p> <p>The location of the Trail Easement is missing in Exhibit B discussed on pdf page 110 B.</p> <p>Extraction needs to declare where they are heading with this Gathering Pipe.</p> <p>Are they transferring toward Dacono? (I believe it is the nearest processing plant.)</p> <p>And they should clearly state all pads connected and any other Gathering pipes connected between Livingston pad and Dacono.</p> <p>With open ended design, Extraction could add more pads, add a processing plant in our back yard, and/or affect the pipe pressure and flows downstream.</p> <p>When there were individual wells the gathering pipelines meandered through the neighborhood.</p> <p>Now with horizontal drilling, and multiple wells per pad, gathering pipelines are high pressure and volume.</p> <p>They don't belong in the neighborhood.</p> <p>Extraction's Gathering pipe should start at Livingston pad follow I-270 and then I-25 and maintain GRI-00/0189 hazard distance.</p> <p>Thank you for accepting comments.</p>	
75	<p>Extraction has agreed to enter into an MOU to drill in BROOMFIELD and which the city has numerous issues amounting to pages and pages of concerns Extraction has been unwilling to address. They are not acting in good faith as it relates to the MOU. You are the only organization that can hold this</p>	02/23/2018

	producer in check as it relates to its obligations to the community. Please postpone the issuance of drilling until MOU issues are resolved.	
76	Please . . . no residential fracking in Broomfield!!!! There are too many unknowns . . . and too close to homes, schools, and parks.	02/23/2018
77	<p>Broomfield residents have mandated our elected officials and staff to require oil and gas development to only occur in a manner that does not adversely impact the health, safety and welfare of Broomfield's residents and to safeguard the environment and wildlife resources. This requirement resembles the recent Court of Appeals decision of Martinez v. COGCC that states "The plain meaning of the statutory language [of section 34-60-102(1)(a)(I)] indicates that fostering balanced, non-wasteful development is in the public interest when that development is completed subject to the protection of public health, safety, and welfare." The people of Broomfield and the people of Colorado have indicated in the past and now, that we have rights to a safe and healthy community. Numerous studies indicate the risk of Oil and Gas Development, especially unconventional oil and gas development in close proximity to homes, workplaces, parks, schools, not to mention to risks to the environment. The current setback of 500 feet is not based on health and safety data, as Director Lepore stated at a February 2017 community event at the 1st Bank Center in Broomfield. COGCC and the operators bare the burden of proof for a safe operation and no adverse impact on the health, safety, and welfare of residents and to safeguard the environment and wildlife resources. The people of Broomfield and even Colorado are demanding this of OUR elected officials and the staff that reports to those elected officials. The residents won't accept anything less.</p> <p>There are many specific reasons for denial of Extraction Oil and Gas' permit. The investigation and understanding of the well pad explosion and fire on the Stromberger Pad in Windsor has not been completed. This relatively new site was developed using best management practices. There were reports of increased toxic air pollutants following this incident recorded as far as Boulder Reservoir. With an unresolved incident and lacking information on the resulting effects to health of residents and effects on the environment, the permit should not be approved. Broomfield completed a chapter on Oil and Gas Development to our 2016 Comprehensive Plan. The committee representing environmentalist, health care workers, oil and gas industry, and participation by Extraction Oil and Gas representatives, agreed to compromised positions that under a perfectly executed development process, would allow for the development of minerals in Broomfield. Because the Oil and Gas Industry in Colorado and around the nation have proven time and time again there is not such thing as a perfectly executed development process, and because these positions were agreed to as consensus/compromise without the regard to ensuring no adverse impact of health, safety, and welfare of residents and to safeguard the environment and wildlife resources, the standards set in this Oil and Gas Chapter should be seen as minimum standards needing further study. Given this information, the standards set forth by Broomfield residents far surpass the standards by COGCC. Lastly, Extraction Oil and Gas has acted unethically toward the residents and leaders of Broomfield from the very beginning of this process for at least 2 years. Extraction representatives were not forthcoming with well numbers when a contract was signed in January 2017, even though they stated during a study session with the City Council the number of wells to be drilled would be 26, not the later stated count of 141. Most recently, a letter sent from Chandler Newhall to the City of Broomfield thanked the staff of Broomfield for approving their Drilling Plan, when the City did not approve a drilling plan that was found to be incomplete and inaccurate containing nearly 220 commented errors and needed correction.</p> <p>If these specific examples aren't enough, numerous scientists in various studies caution the development of new wells seeking more fossil fuels as to not exacerbate the threats of climate change. The residents of Broomfield cannot risk a less than perfect execution of the extraction of oil and gas. The environment cannot be subjected to the future burning of these extracted fuel sources. The people of Broomfield will not allow an operator to cause adverse effects on the health, safety, and welfare of Broomfield residents and to not safeguard the environment and wildlife resources. The burden of proof is on COGCC and the operator.</p>	02/23/2018
78	We need protection. Since our city officials have given up their rights or more accurately our rights, we need protection from our state. Please protect our home values, our health, and the safety of this community.	02/23/2018
79	Please do not approve the permits for any gas and oil pads!!! We live in wildgrass and are 100% not in favor of this at all!!!	02/23/2018
80	No more permits please. Including the Livingston pad. There are enough of these risky eyesores in our community	02/23/2018
81	As recent local and national event have shown, and independent research confirms, hydraulic	02/23/2018

	fracturing this close to occupied dwellings is unsafe. There are known short and long term health risks associated with catastrophic failure of well equipment, human error resulting in blowout, as well as non-catastrophic failure of various equipment. Evacuations may be required for more than a mile from the well if a blowout occurs, as has been shown recently and in the past. Extraction (XOG) had a recent failure of a well, a well which will be using the same technology as the Livingston pad wells. I ask you to consider all the available evidence and to confirm your duty to protect the safety of the residents of Colorado. The image of the COGCC as the O&G Industry lap dog can be turned around to one that reflects integrity, even handedness and a commitment to Colorado citizens.	
82	Regarding the drilling permits, form 2 and 2A, for the Livingston Pad in Broomfield, I urge you to not approve them. The City of Broomfield negotiated an MOU with Extraction in October 2017. Part of that MOU is that the city must approve Extraction's drilling plan prior to them submitting permit applications to the COGCC. The city has not approved the drilling plan due to many errors and omissions in the plan. Extraction submitted their permit applications anyway, in violation of the MOU. The COGCC spacing orders for this spacing unit indicated that any wells permitted for this spacing unit must comply with the MOU. Since Extraction is not complying with the MOU the COGCC must not approve any related drilling permits if you are following the direction of your own spacing orders.  In addition, the COGCC will have no money in their budget very soon. How can a regulator with no funds to pay their costs effectively do their job? If you have no funding regulate current oil and gas developments, then you certainly should not be approving any new permits for drilling until you have the funding.	02/23/2018
83	Regarding the drilling permits, form 2A, for the Livingston Pad in Broomfield, I urge you to not approve them. The City of Broomfield negotiated an MOU with Extraction in October 2017. Part of that MOU is that the city must approve Extraction's drilling plan prior to them submitting permit applications to the COGCC. The city has not approved the drilling plan due to many errors and omissions in the plan. Extraction submitted their permit applications anyway, in violation of the MOU. The COGCC spacing orders for this spacing unit indicated that any wells permitted for this spacing unit must comply with the MOU. Since Extraction is not complying with the MOU the COGCC must not approve any related drilling permits if you are following the direction of your own spacing orders.  In addition, the COGCC is currently operating outside of the law based on the Martinez court decision. That decision states you must ensure health and safety first, before approving permits for drilling. Since you have taken no actions to determine if these drilling activities are safe in close proximity to homes, then no permits should be approved until they are proven safe.	02/23/2018
84	This is invading our neighborhoods and it is NOT doing it safely. I worry about the quality of our drinking water and the impacts on our lives and our health. PLEASE do not put us in danger.	02/23/2018
85	Regarding the drilling permits, form 2A, for the Livingston Pad in Broomfield, I urge you to not approve them. The City of Broomfield negotiated an MOU with Extraction in October 2017. Part of that MOU is that the city must approve Extraction's drilling plan prior to them submitting permit applications to the COGCC. The city has not approved the drilling plan due to many errors and omissions in the plan. Extraction submitted their permit applications anyway, in violation of the MOU. The COGCC spacing orders for this spacing unit indicated that any wells permitted for this spacing unit must comply with the MOU. Since Extraction is not complying with the MOU the COGCC must not approve any related drilling permits if you are following the direction of your own spacing orders.  In addition, the COGCC is currently operating outside of the law based on the Martinez court decision. That decision states you must ensure health and safety first, before approving permits for drilling. Since you have taken no actions to determine if these drilling activities are safe in close proximity to homes, then no permits should be approved until they are proven safe.	02/23/2018
86	Regarding the drilling permits, form 2, for the Livingston Pad in Broomfield, I urge you to not approve them. The City of Broomfield negotiated an MOU with Extraction in October 2017. Part of that MOU is that the city must approve Extraction's drilling plan prior to them submitting permit applications to the COGCC. The city has not approved the drilling plan due to many errors and omissions in the plan. Extraction submitted their permit applications anyway, in violation of the MOU. The COGCC spacing orders for this spacing unit indicated that any wells permitted for this spacing unit must comply with the MOU. Since Extraction is not complying with the MOU the COGCC must not approve any related drilling permits if you are following the direction of your own spacing orders.	02/23/2018

	<p>In addition, the COGCC will have no money in their budget very soon. How can a regulator with no funds to pay their costs effectively do their job? If you have no funding regulate current oil and gas developments, then you certainly should not be approving any new permits for drilling until you have the funding.</p> <p>Finally, the COGCC is currently operating outside of the law based on the Martinez court decision. That decision states you must ensure health and safety first, before approving permits for drilling. Since you have taken no actions to determine if these drilling activities are safe in close proximity to homes, then no permits should be approved until they are proven safe.</p>		
87	<p>The COGCC must not approve Extraction's Form 2/2A permits for the Livingston Pad until the environmental water issues raised by the City of Broomfield are satisfactory addressed and approved by the City. If Extraction won't provide Broomfield with satisfactory information now, how can the COGCC approve these permits and assume Extraction will do so in the future?</p> <p>The Livingston Pad is adjacent to and uphill from Broomfield's planned drinking water reservoir. This future reservoir is critical to the future needs of the entire City, especially since Broomfield no longer draws drinking water from its Great Western Reservoir due to contamination from Rocky Flats. The future Broomfield reservoir site should be protected against any possible contamination source; therefore, the COGCC should not put itself in a position to approve these permits and thus overrule the City's current objections.</p> <p>As an example of just one issue: In their permit request, Extraction states drainage from the Livingston Pad flows into a topographical depression that the pad sits on with direct flows around the site to a retention pond they will build. A portion of this depression was previously planned as a part of Broomfield's reservoir, but the City graciously agreed to reduce the reservoir's size to accommodate Extraction's needs. Extraction claims the Livingston pad is in an area of minimal flood hazard; therefore, they chose a 5-year storm event to determine the storage volume needed for the retention pond. What they fail to consider is that statistically a 1 in 5-year event is real and does indeed occur; just like 1 in 10, 1 in 100, ... year events. Extraction then implies an emergency overflow spillway cannot be utilized at the site due to topographical issues.</p> <p>The bottom line is: Broomfield cannot afford to sacrifice the security of its drinking water supplies and the COGCC should not force the City to do so by approving these permits at this time.</p>	02/23/2018	
88	<p>I live in Broomfield, Colorado. I am requesting that permits for all wells being drilled at the Livingston Pad (and all of Broomfield for that matter) not be heard until the COGCC meeting in April, at the earliest. Broomfield residents deserve a formal hearing for Extraction's drilling permits.</p> <p>In addition, Extraction has not fully complied with the agreement it signed with the City of Broomfield in October 2017. The COGCC spacing orders for these spacing units indicate that any permits for the wells within these spacing units must comply with the agreement. Specifically, while Extraction has submitted a drilling plan to the City, the plan has a lot of errors and gaps. Moreover, the City of Broomfield has not approved it, which is a requirement of the October 2017 agreement between Extraction and the City of Broomfield. These issues should be addressed before the COGCC approves permits in Broomfield.</p>	02/23/2018	
89	<p>2/23/18</p> <p>To: State COGCC</p> <p>As a registered voter in Colorado, I am extremely concerned with the Extraction Gas and Oil Drilling Plan and the impact this could have on Broomfield's health, environment, emotional well being, and quality of life.</p> <p>After meeting with Josh Olhava, AICP, Senior Planner with the City and County of Broomfield, today, I have significant concerns regarding the amount of seismographic data he has available for the above proposed project. He is now in the process of gathering this information for us. Have you reviewed this material?</p> <p>I feel that more time is necessary to properly review the documents that the city of Broomfield has on file for its applicability.</p>	02/23/2018	

	<p>Please address my concerns as soon as possible.</p> <p>Sincerely,</p> <p>Joanna M. Juras</p> <p>5129 Pasadena Way</p> <p>Broomfield, CO 80023</p> <p>303-437-1001</p>		
90	<p>Extraction needs to abide by the agreement it signed with the City of Broomfield. The COGCC should not approve drilling permits in Broomfield until the City approves the drilling plan Extraction has submitted. As it stands now, the drilling plan contains a lot of errors and gaps. Extraction needs to fix these items. Please hold Extraction accountable. The City of Broomfield and its residents worked for months to get an agreement in place with Extraction. Extraction should not be allowed to just ignore it. Do not approve these permits until Extraction abides by the agreement. Further, hold a public hearing on the Broomfield permits.</p>	02/23/2018	
91	<p>With all the land in Colorado why pick a residential area with a new school being built extremely close to the site.</p> <p>It doubtless will have a tremendous impact on me and my neighbors. They are still having earthquakes in Texas five years after they stopped fracking according to NPR. The environment will suffer. The Water table will doubtless suffer to say nothing of getting ride of the polluted water. Having retired here three years ago, this surely will not help housing values. It is a bad idea period. Sally W. Kaplan</p>	02/24/2018	
92	<p>The pictures included are very deceiving. There are house within 750 feet of these pads. The pictures make it look like the houses are much farther away.</p> <p>Plus, these pads were split into two pads so they could be closer to homes, but all of the negative affects will still be there for those residents.</p>	02/24/2018	
93	<p>The pictures included are very deceiving. There are house within 1,320 feet of these pads. The pictures make it look like the houses are much farther away.</p> <p>The Wildgrass neighborhood is directly to the south of this pad and Anthem Ranch is directly to the north, bordering the Northwest Parkway.</p> <p>Extraction tries to make everything seem ok with these projects when they have done an insufficient and inaccurate job when completing their Comprehensive Drilling Plans. The residents have much to be afraid of while living near large industrial drilling pads.</p>	02/24/2018	
94	<p>In light of recently reported hazards (spills), it is painfully obvious that strict safeguards must be put in place before any such drilling is permitted this close to residential neighborhoods. Safety of our environment, our citizens/taxpayers must be prioritized over profits that will go elsewhere with little to no benefit to the community. All risk and no reward, that's a bad deal all around and it's inconceivable that, as a community, we would be so naïve as to allow ourselves to be pacified and silenced by a paltry bribe of \$100-\$200 for most of us who live on relatively standard-sized lots. The shock and awe certified mail campaign with carefully crafted scare tactic language put together by an army of lawyers, followed up by a second wave of follow up "sign here and then shut up" mail serves as stark proof that there's an overwhelming amount of money behind this campaign. It's worth a lot to them. Our safety is not their primary concern if it's a concern at all.</p>	02/24/2018	

95	Extraction Oil and Gas is attempting to proceed with the Livingston Pad without adhering to the terms expressed in the Operator Agreement with the City and County of Broomfield (CCOB). Recently, Extraction Oil and Gas stated, "As discussed in our February 7, 2018 meeting, we agree with Broomfield's assertion that the Comprehensive Drill Plan (CDP) submittal was complete and satisfactorily prepared in accordance with the provisions laid out in or Operator Agreement". This is patently false. In correspondence with me on February 23, 2018, Council member, Kim Groom, stated, "We are very far away from CDP approvals. Prior to drilling all sections of the CDP will be reviewed and approved by experts, then reviewed by the Council". The CCOB, in good faith, entered into an Agreement with Extraction Oil and Gas. This Company is summarily flaunting the terms of that Agreement. Please, do not allow Extraction to move forward on the Livingston Pad.	02/24/2018
96	I do not support the approval of the current plan of The Livingston Pad. Any approval for this plan to move forward does not abide by current law of The Martinez Ruling. Health and safety is not considered in this plan. I hereby publicly state that I object to the sacrifice of the citizens health and safety and the violation of current Colorado law.	02/24/2018
97	Broomfield has the obligation to protect the health and safety of its residents and by allowing Extraction to drill in this area is a blatant disregard for human lives. Not only is this pad too close to homes it is also dangerously located next to the Broomfield drinking water reservoir. Extraction does not have a good reputation for instituting quality and safety controls and with a pad this close to homes and drinking water it's only a matter of when NOT IF there will be a catastrophic event. Don't we look at the most recent explosion from an Extraction pad? Has there ever been a study analyzing the impact of fracking under homes like Extraction is planning? Has there been any studies analyzing the impact on wells this close to a reservoir providing drinking water? Maybe the governor should stop accepting oil and gas money and let the individual municipalities finally make their own decisions on whether they want oil and gas in their neighborhoods. Also there are several schools and parks in the area of the Livingston pad. The City and county of Broomfield should do what is right to protect its children and not allow this drilling pad to be permitted.  Thanks	02/24/2018
98	I am a Broomfield resident. I'm extremely concerned about fracking in our residential neighborhoods, the lack of openly shared planning on the part of Extraction, and the fact that the Broomfield City Council seems to have signed away our/their rights to protest.	02/25/2018
99	This area is too close to residential development, schools, playgrounds, etc. to drill for gas and oil - especially a project of this scale located THIS close to a large residential development. It feels like we here in Wildgrass: a) are being invaded and b) are serving as guinea pigs for Extraction's plan to drill right under our homes. And, there are over 100 more wells planned within a few miles. There are many documented health and safety risks associated with fracking known to especially affect seniors (like my wife and me) and very young children. But, these studies have only been based on circumstances involving a small number wells close to homes. Now you are considering allowing 40 at the Livingston pad?  Extraction allegedly supported Broomfield's efforts to draft a long-term plan for oil & gas development. They said they wanted to "collaborate" with us. But, they went right ahead and submitted forms 02 and 02A to the COGCC without first submitting a complete Comprehensive Drilling Plan as required by the Operator Agreement for all of the proposed wells. This is not the first time they have failed to keep their "word." Initially, they said they wanted to drill 12 wells on the Livingston pad. Then, without discussion or acknowledgment of any change, they started speaking as if their plan all along was to drill more than three times that number. I don't trust them and neither should the COGCC.	02/25/2018
100	Please do not approve these permits! We do not need the minerals. We are using minerals to ship them out of the country, perpetuating the padding of the pockets and I am disgusted with ALL politicians from local to state to federal government who have put dollars before citizens. Before children. Before health and safety. This is unacceptable. My vote will show my feelings about who is protecting and who is sacrificing its constituents. And I will get in front of as many people as possible to make sure their votes reflect the same. Please make a decision based on duty to the community. Not the dollar.	02/25/2018
101	Please do not approve this permit to drill next to our homes, schools, and planned drinking water site. Large-scale commercial drilling in such close proximity to neighborhoods is an experiment with the health and safety of real people. As residents of Broomfield, this is our backyard, not an industrial	02/26/2018

	<p>area.</p> <p>"Fossil fuels production has emerged as the main source of volatile organic compounds, VOCs, and nitrogen oxides pollution that bakes in sunlight to form ozone smog, which causes respiratory problems. Ozone levels in Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer and Weld counties exceed the 2008 federal limit of 75 parts per billion, let alone the current 70 ppb limit." <a href="https://www.denverpost.com/2017/10/20/colorado-air-quality-control-tougher-rule-for-oil-gas-facilities-to-cut-smog/">https://www.denverpost.com/2017/10/20/colorado-air-quality-control-tougher-rule-for-oil-gas-facilities-to-cut-smog/</a></p> <p>Furthermore, Extraction does not have a proven safety record to be operating this close to residential neighborhoods as evidenced by multiple problems and mistakes including the recent Windsor explosion and fire. <a href="http://kdvr.com/2017/12/23/photos-fighting-the-oil-site-fire-near-windsor/">http://kdvr.com/2017/12/23/photos-fighting-the-oil-site-fire-near-windsor/</a></p> <p>There are many reasons to believe that this industrial activity should not be located in/near residential neighborhoods.</p>	
10 2	<p>The following letter was submitted to the City and County of Broomfield by concerned residents of Broomfield on Feb 15, 2018 regarding the fact that Extraction submitted form 2/2A Applications despite not having an Approved Comprehensive Drilling Plan (CDP) with Broomfield which is a requirement per the Amended Operator Agreement. Also, we do not believe that Extraction's form 2/2A Applications meet the requirement of "protection of public health, safety, and welfare, including the environment and wildlife resources". The residents of Broomfield respectfully submit the following plain text version of the same petition to you including hundreds of individual resident comments followed by the 810 signatures: 02/15/2018 City and County of Broomfield 1 Descombes Drive Broomfield, CO 80020 To the City and County of Broomfield, We, the residents of Broomfield, are actively engaged and have expressed significant health and safety concerns regarding oil and gas development in our community. As such, we have been actively pursuing measures that would better protect Broomfield residents including: 1. Engagement with the Broomfield City Council through hundreds (if not thousands) of email communications, attending Council Meetings (with hundreds showing up), and speaking about health and safety concerns during Citizens' Comments. 2. Active participation in the Comprehensive Planning Process while requesting the fulfillment of Resolution 2017-29 before any oil and gas development is approved. 3. Passing Ballot Measure 301 by a large majority which amended the Broomfield City Charter to require Broomfield to "condition oil and gas development permits to require oil and gas development to only occur in a manner that does not adversely impact the health, safety, and welfare of Broomfield's residents." Residents of Broomfield and the 301 Committee submitted comments to the City about the Drilling Plan (DP) submitted by Extraction Oil &amp; Gas (Extraction). We appreciate that the City attached these comments to their letter submitted 01/22/2018 in reply to Extraction's DP. The 301 committee also requested a full investigation into the 12/22/2017 explosion that occurred at Extraction's site in Windsor prior to moving ahead with approving this drilling plan. Based on Extraction's response to the City in the letter from Eric Jacobsen dated 01/23/2018, it appears that Extraction is moving forward despite credible concerns. We find the CDP lacking detail, and it should be amended to fully address the community's concerns, including changes which will likely be needed after the investigation of the Extraction site explosion in Windsor is complete. We, the undersigned, request that the City of Broomfield uphold Charter Amendment 301 and only permit oil and gas development that does not adversely impact the health, safety, and welfare of Broomfield's residents. As such, we request that Broomfield take the following actions immediately: 1. We request that the City notify Extraction that the concerns included in the City's 140-page attachment need to be addressed, and a full investigation regarding Extraction's explosion in Windsor must be completed, before moving forward. It is important to note, the residents of Broomfield are NOT "third parties", but rather the very constituents the City of Broomfield is REQUIRED to protect. 2. In the letter from Extraction, Eric Jacobsen states that they submitted their Form 2s and 2As to the COGCC on January 16, 2018. We request that the City reply to Extraction, reiterating that the DP submitted by Extraction on Dec 15, 2017 is not approved by the City. Extraction should abide by the contract and voluntarily withdraw their 2 and 2A permit applications until they have an approved plan by the City. 3. We also request that the City of Broomfield remind the Colorado Oil and Gas Conservation Commission (COGCC) that it is "charged with fostering the responsible development of Colorado's oil and gas natural resources in a manner consistent with the protection of public health, safety, and welfare, including the environment and wildlife resources." Should Extraction not withdraw these applications, the City should ask that the COGCC deny issuing permits based on Extraction's submission of an unapproved Drilling Plan that does not meet the above standards of protecting public health, safety, and welfare, including the environment and wildlife resources. As your constituents, we appreciate your efforts to ensure that the health and safety of the residents of Broomfield are the City's highest priority. We respectfully request that all of the above conditions are met, as it is the duty of the City to uphold the City Charter that</p>	02/26/2018



requires that oil and gas development only be allowed to occur "in a manner that does not adversely impact the health, safety, and welfare of Broomfield's residents and to safeguard the environment and wildlife resources." Sincerely, [See 810 signatures following the individualized comments below] The following comments were submitted by individuals at the time of signing: "a full investigation regarding Extraction's explosion in Windsor must be completed, before moving forward." - WILBURN BICE "Air, water and soil effect all parties." - Lance Colclasure "All we're asking is for you to put the health and safety of the local citizenry before profits." - Anyhony Keogh "Although oil and gas ads claim to include local citizens in their processes, all input appears to be ignored especially health, safety and the welfare of those living close." - Catherine Curtis "As we look north and east of Broomfield there are many open spaces ripe for exploration. Any kind of drilling close to the Anthem Ranch area adds uncertainty and to a large number of voters. Most residents of this area as an interim home. This is our retirement location. I think we have become an asset to the community. Creating a buffer around our area would reduce alot of uncertainty." - Bill McGovern "At the very least let us protect children in their schools." - Helene Snyder "Before you, council member, cast any votes affecting the location or other details of a fracking company's planned drilling site, ask yourself how you would vote if your brother, sister, son, or daughter would be working at the site in the future in a drilling or maintenance capacity, or if your own family lived in close proximity to the site. Are you so SURE that they would be safe?" - Dottie Rawsky "Broomfield citizen's health and safety must come first. No matter what and definitely over oil profits. These are residential neighborhoods, not industrial sites." - Gina Nocera "Broomfield city council must make a strong case to COGCC that extraction is out of compliance of the MOU they signed with Broomfield. COGCC approving permits for extraction without a n approved plan makes the whole process worthless and Broomfield will bring this matter to next step legally." - Linda Kraut "Citizens first please" - Tom Caputo "COGCC's rights and responsibilities are not balanced. Our citizens have spoken and need to be heard." - Heidi Henkel "Concerned" - Kjersti Drott "Courts upheld that citizens safety must come first, before any mineral can be extracted" - Jack Fudge "Dismissing over 100 pages of detailed feedback so quickly?? Was feedback even read? hummmm..." - Curt Anderson "Do not to allow our health and safety to be steamrolled by Extraction and the State (COGCC)!" - Heidi Wederquist "Drilling is like any other manufacturing operation and should not be allowed in or near any residential areas in Broomfield or even within the boundaries of the City and County of Broomfield." - Alan Kobza "Enough already, don't we have enough fracking in Broomfield already?" - Adam Schatz "Enough already. Haven't there been enough leaks, fires and human lives to go on with this fracking? Big oil only cares about one thing- profits, not people." - Anthony Burg "Enough is enough." - Richard Flynn "Even though the City will face seemingly unsurmountable O&G opposition to 301 at the State level, I urge our City leaders to never compromise on their responsibilities and integrity." - Ronald Lowther "Extraction has shown their true colors by ignoring Broomfield's request to submit a CDP which is acceptable." - Becky McLeod "Extraction is extremely arrogant and out of line. We need to fight this!!!" - John Burnett "Extraction is not abiding by their agreement to comply with the tenets of the Comprehensive Plan on oil and gas update." - Eugene Klenk "Extraction must be held accountable to ensure the appropriate safeguards are in place to keep the citizens of Broomfield safe during their drilling activities, especially due to the close proximity to homes and schools. Given their recent Windsor incident, they should be required to provide preventative measures/lessons learned from the accident BEFORE being approved for the next site." - Kristil Krug "Extraction should not be allowed to move forward with any drilling. The health and safet if Broomfield residents must come first." - Kristi Covalciuc "Extraction should uphold the Charter statement regarding the health and safety and welfare of Broomfield residents. That is not asking too much and is consistent with rational and progressive development of Extraction's holdings." - Joseph Marr "Extraction's high handed attitude does not bode well for a cooperative relationship with the City or its residents." - JOSEPH CHICCO "For the health and safety of citizens, please rconsider land on the plains not near residential areas." - Theresa Tuttle "Fracking has no place in our city. Public health and safety is the highest priority" - Tonia Mosley "Fracking is the worst. This will endanger me and my kids. STOP THIS NOW." - Sara Bensman "Fracking should never happen near homes and schools! There is plenty of wide open land out east." - Ken Bunch "Have safety concerns and feel these companies need to pay more because of the disruption and possible contamination to our land and water supplies" - Joanne ONeill "Health and safety need to be our number one concern. If we don't have that, what do we have?" - Anne Marie Pewterbaugh "Health must always come first!!!!" - Martha Desrosiers "Health, safety and wellness should always come first!!!!" - Nichole Barnett "Help us protect ourselves." - Allen Marin "Hope we can meet to discuss a strategy that is not so beuarcraticly focused on complaints and nebulous arguement. I have bee working in land management across five states for 16 years. epa tip calls, civil claims, and settlement enforcement are far more aggressive a tactic to slow development. Support agencies need to be developed to absorb the risk of these measures, this would've made more inpac" - Sean Ball "How does the state disregard what a community wants and votes for. And disregards the health hazards." - Karyn Schad "I am concerned about the proposed drilling in Broomfield." - Deborah Dryjanski "I am deeply concerned that COGCC approved the Extraction plan after CCOB denied the plan with well over 100 pages of valid reasons/amendments." - Jim Grady "I am I am asthmatic. Anything that

detracts from clean air like the exhaust from trucks and machinery as dust, can bring on an attack of asthma. I moved here to be able to breath better than when I lived in Florida. STOP THE DRILLING!!!" - Jerry Moskowitz "I am in agreement with the above information regarding Extraction drilling in Broomfield" - Suzanna Hall "I am NOT against oil and gas drilling. I AM against drilling in close proximity to dense population areas, and close to schools, water supplies, etc." - James Sorce "I am signing for my children and our precious environment. " - Camia Lowman "I am strongly opposed to new drilling so close to residential developments!" - Roger Caruana "I am very concerned about the latest explosion in Windsor. A person 5 miles away felt the explosion. If this happens here how would we be affected with homes 750 feet to 1 mile away?" - Diane Madigan "I am very disappointed in our elected officials! We need to take care of our citizens not big oil!" - Kathy Cecil "I continue to surprised by our local Gov't. I don't believe Gov Hickenlooper has our best interest, even though he states that. His actions are shown clearly. There should be more inspectors for the well sites, which the oil & gas companies can accommodate/afford. " - Heather McNicholas "I do not want any oil and gas drilling anywhere near my family or house. There is no proof of safety and if anything have proven the opposite with the events in Erie." - Mark Mraz "I do not want Extraction to adversely affect the health of my three young daughters." - Russell Gleason "I have asthma and am very concerned by the chemicals released into the air during the fracking process. I am equally concerned about chemicals that leech into the water supply." - Jeanne Mardis "I left new york because their appeared to be little regard for health and safety." - Christine Thomas "I live in the potential drilling area, even though it is technically a Westminster address. " - Michael McCord "I object to the approval for drilling without full research and sue process. Safety and wellbeing of citizens must be the priority" - Geraldine Jacob "I saw that some farmers are asking for more distance from fracking operations to their animals than we residents can get to our homes. Very disturbing." - Joan Stern-Murahata "I vote for health and safety over oil and gas." - Philip Kuramoto "I want Extraction Oil and Gas to withdraw their application. Stop fracking close to homes and schools now." - Erin Myrent "I would like to not die in an oil rig explosion thank you" - George Schmitz "If this is how our relationship begins, we are in for a rocky road. Please remember we are protecting our homes and our lives. " - Lynne Goldsmith "I'm joining the fight for the health and safety of our community!!" - Kristen Rossi "In the end, we will conserve only what we love, love only what we understand, understand only what we are taught"...please help us teach our children to love our community by conservation."" - Marc Snyder "It does not seem to me that the companies are interested in the valid concerns of the citizens of Broomfield." - CLare Nordstrom "It doesn't make sense to allow industrial sites in the middle of residential neighborhoods and next to schools." - James Hussey "It is imperative that the City ensure no operator nor regulatory body is moving ahead with plans that are in violation of 301. The city has not approved the Extraction CDP and we need to ensure operators understand they need city approval." - Jennifer Dulles "It's clear to me that COGCC is holding hands with Big Oil and has forgotten the residents and our environment. Does COGCC believe they are in place by divine intervention? We need to deflate that bubble." - Susan Decker "It's important that Extraction live up to their agreement with Broomfield" - Charles Martin "It's insane for the COGCC to even consider approving large well pads in Broomfield, which would be 1000 feet from houses, given the recent Extraction explosion in Windsor. If that site had been 1000 feet from homes, the outcome would have been far worse." - Nicholas Rosic "I've never feared Broomfield being sued by an extractive profiteer. I have feared, though, that it would be Broomfield who wouldn't aggressively confront O&G developers in a court of law in an effort to leave no stone unturned with respect to its premier obligation to protect the health, safety and welfare of its residents to the very highest degree." - Walter Szymanski "Keep up the good work" - Charles Cory "Keep up the good work!" - Christopher Stewart "Let's get this right and protect our citizens." - Stacy Baum "Make it right, Oil!!! Think of our children!" - Laura Peinado "Many, many issues were raised in the comments on the DP, and they are certainly worthy of resolution prior to rushing ahead. We have come this far, let's continue to address these important matters on the front end rather than giving a pass to a later date." - John Weaver "My son has asthma and I am gravely concerned for his health and that we will have to look at relocating." - Carol Neustadter "Need to be stopped Is all about money" - Ken Knudsen "New this petition " - Suzann Glenn "No drills, no well, no compromise!" - Monica Korber "No exploding houses please. Take time to figure this problem out. " - David Winkler "No fracking " - Debra Carter "No fracking near residential areas!" - Brad Burleson "no oil extraction at resident area" - Qianbin He "No permits to be issued to Extinction " - Teresa Foster "Please - no fracking in Broomfield!" - Judith Engelstad "Please bow to the wishes of your constituents." - George Currie "PLEASE COME TO YOUR SENSES AND NOT FRACK NEAR RESIDENTIAL NEIGHBORHOODS. This is not rocket science, but only human common courtesy!" - Sheryl Somrak "Please deny issuing drilling permits that do not meet our standards to protect the health, safety and welfare." - Amy Thomas "Please do not put the perceived benefits of industry above the safety of my family. It is not clear what the impacts of drilling in/under residential areas are, especially with respect to fracking fluids. Until the industry discloses what they are pumping into the ground (and ultimately our water) and these chemicals are deemed safe, there should be no drilling under residential areas." - Gregory Murray "Please do not risk our safety and health to line the pockets of Extraction Oil." - Sarah Brockway "Please do not take this lightly." - Mark

Phillips "Please do the job you were elected to do. Thank you!" - Cherie Keller "Please hear the people in our concerns for our health, safety, and future well-being." - Aisha Paravano "Please hear us" - Robert Gill "Please help keep Broomfield the best place to raise and educate our children by making the health and safety of its residents your first priority." - Cynthia Whitmer-Eccles "Please help keep our community safe." - Angela Pagenkopp "Please hold Extraction accountable." - Jaime Schuler "Please listen to our concerns about our health and safety. This will effect our families." - Grace Hangartner "Please listen to our concerns and take actions that represent us, the citizens that live in Broomfield, and not from outside business interests." - Brian Hassman "Please listen to the citizens!" - Donna Brynteson "Please listen to the residents of our community. We appreciate your hard work to do right by our health and safety." - Megan Kreitzberg "Please listen to your citizens" - Ellen Pollack "Please make responsible decisions that protect our local wildlife, our environment and our families." - Mercy Manresa "Please make/keep the safety of the residents and the environment as your number one concern!" - Katherine Erstad "Please protect the community" - Mark Sohasky "Please stop Fracking in our community!!!!" - Natalie Zandonella "Please take a stand for us. We are VERY worried!" - Michael Mullin "Please take action to support measure 301 with these 3 specific requests!" - Cheryl Tadlock "Please uphold 301. Do not be fooled by Extraction anymore. Watch our for your residents." - Reva Kopel "Please uphold the intent of Broomfield residents with the passage of Ballot Measure 301. Put the health and safety of our residents first and ensure Broomfield continues to be a beautiful place to raise a family." - Laura Mitchell "Please! Protect our families' health and welfare." - Darrell Bruckert "Protect our health" - Christy Clark Weese "Quit it!!! The health and safety of our children comes first." - Brent Owen "Request that the concerns in the 140 page attachment are addressed. Thank you" - Carol Kennedy "Risk is all on the residents side; Reward is all on the Extraction side. Fundamentally unfair!" - John Bultena "Safety & health concerns need to be addressed beofre this goes any further." - Kathleen Martinez "safety above profits to non residents" - sheldon birkhold "Safety for our families must be a priority!" - Tracy Billings "Stand up for your citizens" - Bob Logan "Stop providing Ectraction preferential treatment when our health, lives property values are at stake." - Monica Hillier "Stop the antiquated fracking in our neighborhoods before you create the next Love Canal!" - Eric Bard "STOP THIS!! Until the evidence is conclusive that this industry's practices will not negatively impact our health and environment they cannot be allowed to pursue their aggressive, bullying methods to make money at our expense!!" - Daniel Shook "Strong comment: NO< NO!!" - gerald gershten "Support 100 percent!" - Yimin Zhang "Support the city by ensuring that XOG lives up to the commitments they made to us." - Janet Beaver "Thank you to the city council for listening to its constituents and standing up for the health and safety of our Community of Broomfield." - James L Gulley "The Fracking Industry only cares about their profits! They continue to lie and cheat for personal gain! The state of Colorado has a long term obligation to protect our health and the priceless environment!" - Bill Vining "The health of those living in our state needs to always be at the forefront of decisions that are made." - Jennifer Gelston "The health, safety and well being of our citizens is paramount." - Margaret Sorce "The Livingston pad and others in the area of Anthem will include a shocking number of fracking wells, and change the beautiful, natural setting we bought into to a busy, potentially dangerous industrial region. If drilling had to be done, mineral rights owners should have had their wells instead of selling the land for large scale residential use. Greed!!!" - Deborah Eidenshink "The proposed horizontal fracking by Extraction Oil and Gas in the Broadlands is a unparalleled assault to our families. The antiquated laws of Colorado must be changed!" - Larry Kahn "The quality and value of living in Broomfield would be significantly diminished with oil and gas operations in our community." - Michael Colby "There are too many accidents in rural locations to let a large scale industrial project to move forward in a densely populated area." - Tim Hughes "There is a long history of damage done to US citizens by large corporations. We must not let big oil and gas damage our health and well being." - Paul Brynteson "There should be no drilling of anywhere close (within miles) to a residential neighborhood." - robert pfrogner "These large scale industrial fracking wells should be not be experimented with in residential areas and after the recent explosion should be banned altogether." - Pam Klein "This is unacceptable! How can the State allow drilling in our community when the citizens and city do not approve!" - Lanae Davis "This is very important! Please support the residents of Broomfield!" - Kristen Forrest "This isn't farm land anymore." - Loretta O'Dell "This measure by Extraction is being FORCED to the residents of Broadlands." - Tejal Nain "This will affect my son, his wife and their three sons. so it is important to me." - Jalal Quinn "Too many concerns to move forward" - Melvena Taylor "We appreciate all you do to protect residents. I am a supporter of petroleum exploration and extraction, but acknowledge that safety is of utmost priority, both for the residents, as well as our community's reputation as a safe place to invest commercially and raise a family." - Samuel Pfanstiel "We deserve our health and safety!" - Noah Myrent "We do not violate your rights to use your land, but in turn you cannot imperil us as we enjoy our rights to use our land." - Ruth Fowler "We do not want similar situation as a Dutch province is experieninin in manmade quakes and be known at the the Broomfield Disase." Let's find a better way."" - Suzanne Wiederrich "We don't trust Extraction to follow through with the task force recommendations, which were given after much study and discussion." - Lois Vanderkooi "We don't want that environmentally toxic and health endangering operation in our community- get out!" - Robert Stout "We moved out of

	Erie because of the safety of our family with all the fracking! We thought we would be safe in Broomfield! It would be a shame to see fracking so close to home!" - Melissa Kozub "We need to stop drilling near any community for safety, air pollution, noise and unsightly reasons." - Ronald Peterson "We only have one chance to get this right!" - Brad Gibson "We use continue to pressure COGCC to protect our health and safety. Plans should not be approved until extraction is able to explain the fire in dec. 2017 in weld co" - Gerald Kraut "We want to stay safe and stay healthy" - sidney sisk "We've suffered enough, already with fracking in very close proximity to our home. Please, no more stringent odors, loud noise 24/7, housing prices dropping, proven health and safety issues. Stay farther away from our homes!!!!!!!!!" - Sharon Blackmon "You should listen to your constituents over Extraction. It has been proven over and over again that O&G do not follow their proposals. We have a weak COGCC with antiquated laws that they refuse to update, so are being held hostage. Instead of INDUSTRIAL level O&G exploration, wouldn't it be nice if Broomfield could become a beacon for renewable energy. Honor 301!" - Wynell Popovich "Your first duty is to the citizens of Boulder County, not to the oil drillers, no matter the possible profits. Please uphold measure 301 and protect us, our health, and our land as if you lived here yourself and we were your family! Thank you" - Lisa Iguchi	
10 3	We decided to put our daughter to the new elementary school in anthem next year, but this school is located within 1 mile distance to the oil site. That is incredibly closed and bring risk to all the kids who will go to the new school!!	02/26/2018
10 4	I am a citizen of Broomfield. I work in the oil and gas industry. My first comment is nowhere to be found, thus I must submit again.  Please use common sense and do not approve of this particular location. Extraction's CDP does not show nearly enough concern for the future Broomfield reservoir located downhill from the proposed pad site. This pad size is on the large size for the industry and Extraction has not shown they can adequately manage or respond to the risk associated with the close proximity to the water we drink.  During the life of a well, there can be spills or other incidents. While I applaud the industry as a whole at taking a strong stance in safety, we all know that accidents still happen. When accidents occur in sensitive areas like the proposed Livingston Pad, this is actually bad for the oil and gas industry as it will create more bad will in the community. Extraction doesn't seem to care about the big picture. But COGCC should.  Please use common sense. Please protect the people who live and work here.	02/26/2018
10 5	Please do not approve the permits for any gas and oil pads in such a proximity to out home and children. The health risks from fracking are not limited to our drinking water — the oil and gas operations are also poisoning the air we breathe.	02/26/2018
10 6	Please act responsibly in consideration of the health, safety, and welfare of your constituents and fellow citizens. Do not allow these permits to proceed without an approved comprehensive drilling plan.	02/26/2018
10 7	Please act responsibly in consideration of the health, safety, and welfare of your constituents and fellow citizens. Do not allow these permits to proceed without an approved comprehensive drilling plan.	02/26/2018
10 8	Please do not grant permits in highly populated area for gas and oil wells.	02/26/2018
10 9	Please do not approve the permits for any gas and oil pads.	02/26/2018
11 0	Please keep oil and gas activities away from our water, our homes and our community! Do not approve!	02/26/2018
11 1	Extraction has applied for a drilling permit despite not having an approved Comprehensive Drilling Plan (CDP) with the City of Broomfield. The City of Broomfield has worked with the community and stakeholders to reduce the impact of Extraction's drilling plans in a dense residential setting. Extraction has disregarded this work and is attempting to bypass the MOU they negotiated with Broomfield and its residents. I urge you to not approve Extraction's drilling permit for the Livingston Pad. I also urge you to place the highest premium on homeowner safety and well being when considering any permit applications.	02/26/2018
11 2	The fracking that is proposed under the homes in The Broadlands from the Livingston Pad is a serious health and well-fare problem that needs to be stopped. Safety can't be guaranteed and property values will decrease and for what- more profits for Extraction Oil and Gas. Please stop this from happening!	02/26/2018

11 3	I've submitted comments twice--first on the 18th and then again on the 23rd--neither comment was posted on the PDF so I'm unsure if they were received and are being considered. This speaks to how COGCC is not equipped to deal with issues very well. It doesn't increase our trust in you as a regulatory body that will indeed carry out your mandate to protect public health, safety, environment, and wildlife resources. We also don't trust Extraction given the lack of care and thought that they put into their drilling plan and how they were grumbling behind the scenes when our task force came up with recommendations that could cost them more. They also have not been honest brokers in communicating with us and our neighbors.	02/26/2018
11 4	Please deny the Livingston Pad Location permit (Form 2A) in Broomfield County, Colorado. Residential developments should not be targeted for oil and gas development. Since the Firestone oil and gas explosion in April took two lives, there have been more than a dozen additional fires and explosions at oil and gas locations throughout Colorado. Colorado should require greater setbacks than 500 feet – especially when there are multiple wells – especially when the wells are proposed near a neighborhood.  Public health and safety should not be sacrificed for the oil and gas industry.	02/26/2018
11 5	I am extremely concerned about the personal health and environmental quality issues still concerning the Livingston pad (as well as other Extraction Oil Pads). They say publicly that they agree with the Comprehensive Plan, but their actions indicate that they are not serious about satisfying the requirements set forth in the plan. They will need an enormous amount of oversight. I hope COGCC will apply the manpower necessary to oversee the details of this project in order to ensure that human health and safety is treated as the primary responsibility. THANK YOU for any help you can provide here.	02/26/2018
11 6	Extraction agreed to negotiate with Broomfield. Broomfield has worked hard and many citizens have participated and supported their effort. Extraction is ignoring everything and moving forward like this was not a community. Broomfield City Council is being ignored. This needs to be stopped. COGCC needs to stop rubber stamping Extraction filings and hold them to their commitment to work in good faith or not let them drill anywhere.	02/26/2018
11 7	"Extraction applied for State permits for large scale oil and gas development in Broomfield despite NOT having an approved Comprehensive Drilling Plan (CDP) with the City." Why not follow the required process and obtain approval of your PDP from Broomfield? Is this another example of a corporation skirting the required and proper procedure?	02/26/2018
11 8	PLEASE DO NOT APPROVE THE PERMITS FOR ANY GAS AND OIL PADS! WE LINE IN WILDGRASS AND ARE 100% NOT IN FAVOR OF THIS	02/27/2018
11 9	As a resident of Broomfield, I am surprised that this gas and oil activity is still going on. 301 passed in Broomfield and is now law. That law is to put the health and safety of Broomfield residence first! I am expecting the Broomfield city council and state representatives to do their jobs and decline any applications for residential drilling.  It has been proven time and time again with spills, blowouts, health related instances, etc. that drilling is not in the best interest of our community. This is our home. We expect our leaders to protect us from outside interests who are coming here to ruin our area so they can make more money. This is unacceptable! Have you learned nothing from Flint, MI, Earie or Windsor, CO?  Common sense also tells you not to put wells up stream from a reservoir. Does this seriously need to be pointed out? And... no... the topography explanation does not fly.  I ask you do decline any residential fracking / drilling activity until it can be done safely without harm to residents.	02/27/2018
12 0	This comment is to raise my concern as a Broomfield, CO resident regarding the operator application for vertical drilling permit in what is called the Livingston Pad in Broomfield. There is no current reason that the state of Colorado should allow this type of drilling under a densely populated residential neighborhood. 114 wells creates an absurd risk to citizens of the state and should simply not be allowed. I understand the commission has NEVER denied an drilling permit in Colorado, this particular pad is to be located directly adjacent to Broomfield's planned new reservoir. Approving this application may be in direct violation of provisions of the federal Clean Air and Water act. Thus exposing the state to potential fines and penalties. Please consider this application with all due diligence and compliance with local and federal law.	02/27/2018
12 1	NOTE: I submitted this comment on February 24, but received a message from Yahoo Mail that it may not have been received. This is my second attempt to successfully submit a comment on the	02/27/2018

	<p>Livingston Pad.</p> <p>Extraction Oil and Gas is attempting to proceed with the Livingston Pad without adhering to the terms expressed in the Operator Agreement with the City and County of Broomfield (CCOB). Please, do not allow Extraction Oil and Gas to go forward with their plans until they are in full compliance with the Agreement. Recently, Extraction Oil and Gas stated, "As discussed in our February 7, 2018 meeting, we agree with Broomfield's assertion that the Comprehensive Drill Plan (CDP) submittal was complete and satisfactorily prepared in accordance with the provisions laid out in or Operator Agreement". This is patently false.</p> <p>In correspondence with me on February 23, 2018, Council member, Kim Groom, stated, "We are very far away from CDP approvals. Prior to drilling all sections of the CDP will be reviewed and approved by experts, then reviewed by the Council". The CCOB, in good faith, entered into an Agreement with Extraction Oil and Gas. This Company is summarily flaunting the terms of that Agreement. Please, do not allow Extraction Oil and Gas to proceed with their CDP until they have worked truthfully and cooperatively with the CCOB.</p>	
12 2	<p>I urge you to delay or deny Extraction's Form 2A Drilling permit for the Livingston Pad. The COGCC has stated that it will enforce MOU provisions that are not in violation of COGCC law. Extraction is not in compliance with the MOU, nor has their CDP been accepted by the City of Broomfield. All we are asking is that Extraction adheres to the legal document that they signed and that the COGCC, as the regulatory agency, enforces this. One of the biggest concerns is that of emergency preparedness. Extraction has given no answer as to the cause of the explosion at their Windsor site. We have no idea that they have mitigated the issue that caused the explosion. If an incident similar to Windsor happened at the Livingston Pad, we would be evacuating over 3,000 people, yet nothing is in place to oversee any kind of evacuation. The emergency preparedness section of the CDP is inadequate for what they agreed to and in this high density residential area, in the middle of six neighborhoods, two schools, several parks, and less than 1,000 feet from a future drinking reservoir. Thank you for your time.</p>	02/27/2018
12 3	<p>We have been told it is unknown if there be a hearing for the Livingston Pad. I ask that you please grant a hearing on this pad. This is a 19 well pad in the middle of six neighborhoods, two schools, several parks, and less than 1,000 feet from a future drinking reservoir. Thank you</p>	02/27/2018
12 4	<p>I am resubmitting this comment as the website did not indicate that the comment was successfully submitted last time.</p> <p>I urge you to delay or deny Extraction's Form 2A Drilling permit for the Livingston Pad. The COGCC has stated that it will enforce MOU provisions that are not in violation of COGCC law. Extraction is not in compliance with the MOU, nor has their CDP been accepted by the City of Broomfield. All we are asking is that Extraction adheres to the legal document that they signed and that the COGCC, as the regulatory agency, enforces this. One of the biggest concerns is that of emergency preparedness. Extraction has given no answer as to the cause of the explosion at their Windsor site. We have no idea that they have mitigated the issue that caused the explosion. If an incident similar to Windsor happened at the Livingston Pad, we would be evacuating over 3,000 people, yet nothing is in place to oversee any kind of evacuation. The emergency preparedness section of the CDP is inadequate for what they agreed to and in this high density residential area, in the middle of six neighborhoods, two schools, several parks, and less than 1,000 feet from a future drinking reservoir. Thank you for your time.</p>	02/27/2018

12 5	I urge you to delay or deny Extraction's Form 2A Drilling permit for the Livingston Pad. The COGCC has stated that it will enforce MOU provisions that are not in violation of COGCC law. Extraction is not in compliance with the MOU, nor has their CDP been accepted by the City of Broomfield. All we are asking is that Extraction adheres to the legal document that they signed and that the COGCC, as the regulatory agency, enforces this. One of the biggest concerns is that of emergency preparedness. Extraction has given no answer as to the cause of the explosion at their Windsor site. We have no idea that they have mitigated the issue that caused the explosion. If an incident similar to Windsor happened at the Livingston Pad, we would be evacuating over 3,000 people, yet nothing is in place to oversee any kind of evacuation. The emergency preparedness section of the CDP is inadequate for what they agreed to and in this high density residential area, in the middle of six neighborhoods, two schools, several parks, and less than 1,000 feet from a future drinking reservoir. Thank you for your time.	02/27/2018
12 6	I am continually amazed that the COGCC continues to consider, much less approve any further fracking, drilling and other associated activities without first adjusting its behavior and rules to coincide with its Mission Statement. Examples? How responsible is it to have no idea where hundreds of orphaned and otherwise unregulated pipe lines are located? How responsible is it to wave a 500 foot set-back from residents as being representative of the COGCC's "technical excellence", protecting public health etc. when the Windsor, Colorado had detrimental consequences miles away? Too many embarrassing examples to list, but no need - people read newspapers and watch the news. Just stop and think, please?	02/27/2018
12 7	I am writing to ask you not to approve permits for the Livingston Pad. The community has been fighting gas wells in their neighborhoods for far too long. It is your job to protect communities and the people living in them from gas and oil dangers. This well pad will present a dangerous atmosphere for all. It is too close to communities, and our future reservoir. We are worried about explosions, toxic chemicals, loss in property value, and the complete eye sore that this will be. People over profit!!	02/28/2018
12 8	Dear Mr. Lepore and Members of the COGCC,  I live approximately 1/2 mile from the proposed Livingston Pad in Broomfield. I am very concerned about the unknown impacts to our health and safety regarding this project. I feel a large scale operation such as this does not belong so close to homes and subdivisions. I am most definitely not opposed to oil and gas drilling and development because it does serve a useful and viable purpose in our modern day lives. I repeatedly asked our City Council members why negotiations with Extraction did not locate the pad further away. I know other alternative sites were explored, but no one from the City could ever give me a straight answer about this. Is locating the pad further away from homes something the COGCC could discuss with Extraction? I attended the Town Hall that Mr. Lepore spoke at and I remember him saying he had concerns about the well pad being located so close to our new Broomfield Reservoir. I hope this concern will also be taken into consideration. I ask that the permits do not get approved at this point until a more viable solution can be found. Thank you for your time.	02/28/2018
12 9	As a new Broomfield resident, I feel concerned about the proximity and extent of oil and gas development within sight and walking distance of my home. I learned that extensive, detailed, and SCIENTIFICALLY based recommendations became foundational to the current contract with Extraction Oil and Gas.  I strongly urge the COGCC to monitor and enforce these provisions in order to preserve and enhance the SAFETY of our larger community, the physical and emotional HEALTH of individual residents, and the WELFARE of all. I further urge COGCC to incorporate and extend effective provisions to all citizens of Colorado who live near sites of fossil fuel mining.  Thank you.	02/28/2018
13 0	For anyone making decisions regarding drilling operations near residences, I would remind them of the Golden Rule. Would you make the same decision if you and your family lived about 500 feet from a drilling operation? Consider the health threat to your children, the constant noise and obnoxious odors. Please remember the people you're supposed to be representing.  I can't understand how anyone could place a higher priority of drilling for oil or gas over the threat to human life.	02/28/2018
13 1	Please do not support the Livingston pad. Where I understand the need for drilling, this is getting out of hand when the sites are being placed in the middle of neighborhoods and surrounding schools. I ask you consider your role as you determine the health and safety concerns of those with in the community that will be greatly impacted by these pads. As a father with three children, this simply should not be going on so close to my home and within my community. Please do the right thing.	02/28/2018
13	I urge the COGCC not administratively approve the pending drilling permits for this Pad that	02/28/2018

2	Extraction O&G has submitted. The COGCC should not override the Broomfield City Council's objection that they are incomplete and inadequate.	
13 3	My fellow Wildgrass neighbors worked long and hard with Extraction to come up with a comprehensive plan that would protect us and our environment. However Extraction has not provided a CDP with the City.  I request that COGCC not approve any drilling permits until a extraction lives up to its promises.	02/28/2018
13 4	As a mineral owner in Wildgrass, please do not approve the Livingston Pad at the point in time until the previous Extraction Oil fire has been determined and this site has been deemed safe. The location in the middle of residential neighborhoods, and the close proximity to the proposed Broomfield Reservoir makes this proposed site location suspect at best. Greater attention to detail in this matter is needed. Thank you.	02/28/2018
13 5	Please do not approve the livingstone pad...it's location, operation and effect on the environment is in opposition to the healthy living we are trying to promote in Broomfield and Colorado as a whole. As a Broadlands community member, with our neighbors in Wildgrass are 100% against this development. Please consider this decision carefully.	02/28/2018
13 6	Please do not approve the Livingston pad or any pads in this area. We are very concerned about the proximity to our homes, schools and future reservoir.	02/28/2018
13 7	Extraction Oil & Gas is currently unable to explain the cause of the recent explosion at another of their fracking operations in Weld County. <a href="https://www.thedenverchannel.com/news/local-news/explosion-reported-on-highway-392-in-windsor">https://www.thedenverchannel.com/news/local-news/explosion-reported-on-highway-392-in-windsor</a>  This means they are unable to guarantee it cannot happen again at any of their other sites.  Additionally, they are under expanding investigation for leaking VOCs at multiple sites.  <a href="http://www.timescall.com/business/ci_31358502/extraction-oil-and-gas-under-investigation-by-state">http://www.timescall.com/business/ci_31358502/extraction-oil-and-gas-under-investigation-by-state</a>  Additionally, I don't need to highlight to the COGCC the multiple other leak and spill incidents that have occurred under Extraction's operations within the state, that are documented in the COGCC's own oversight. To date, these have had minimal impact because they have been located far and away from population centers. This will not be the case with the Livingston pad.  The Livingston pad is smack dab in the middle of 3 major subdivisions of housing with thousands of single/multi family units, not to mention uphill from Broomfield's major plans for a drinking water reservoir. If any of the above mistakes should occur at the Livingston pad, the public health effects and damages to thousands of citizens will be catastrophic, not to mention literally millions of dollars of damages to property values locally (an effect already observable in real estate with just the potential placement of these pads).  The COGCC is charged with responsible exploitation of minerals. The Livingston pad is irresponsible, reckless endangerment of human life and environment. It is absurd to even consider the placement of heavy industrial activity in dense suburban residential and commercial zones, as evidenced by the overwhelming and unanimous public comments against it. The COGCC needs a sensible policy update that prioritizes public health before extraction. The reserves being targeted can be largely exploited outside of population centers; there is no need to allow these activities in the heart of them.  Please deny this application.	02/28/2018
13 8	Despite Extraction submitting a report to the COGCC, no complete explanation has been provided as to the cause of the explosion and subsequent fire at Extraction's Stromberger site in Windsor that seriously injured a worker. Until we can thoroughly understand the cause of this explosion and work with Extraction to mitigate the cause, no further permitting should move forward on the Livingston Pad. This pad is in the middle of six neighborhoods, two schools, and several parks and trails. An explosion such as what happened in Windsor could be devastating. Please consider this, and consider waiting for the third party investigation and OSHA report before any further permitting, as well as call for a hearing on the Livingston Pad. This is too large of a pad in too dense of an area to ignore.	02/28/2018
13 9	Despite Extraction submitting a report to the COGCC, no complete explanation has been provided as to the cause of the explosion and subsequent fire at Extraction's Stromberger site in Windsor that seriously injured a worker. Until we can thoroughly understand the cause of this explosion and work with Extraction to mitigate the cause, no further permitting should move forward on the Livingston Pad. This pad is in the middle of six neighborhoods, two schools, and several parks and trails. An	02/28/2018



	explosion such as what happened in Windsor could be devastating. Please consider this, and consider waiting for the third party investigation and OSHA report before any further permitting, as well as call for a hearing on the Livingston Pad. This is too large of a pad in too dense of an area to ignore.	
140	I can not believe that we are even discussing the drilling and fracking in our community. The oil and gas industry is out of control. The majority of oil bring produced is being shipped overseas. The industry is all about making money and no care is given to the health of Broomfield residents and environment that we as a community cherish. As someone who has personally been affected by fracking explosion due to negligence I am sick at the thought of the industry continuing to frack.	02/28/2018
141	To Whom It May Concern -  I strongly urge you to reject Extraction's permits for the Livingston pad in Broomfield. If Extraction cannot submit a proper Drilling Plan to the city of Broomfield, and refuses to correct and update that plan with information as requested by the city, how can we expect them to properly and safely run this operation? Given Extraction's refusal to do even this, the size of this operation and its proximity to residents and schools, I adamantly feel that this operation should not be allowed to go forward.  Thank you for your consideration.	02/28/2018
142	The Comprehensive Drilling Plan (CDP)for the permits submitted by Extraction on Dec . 15, 2017 is not approved by the City of Broomfield, as required by the Oct. 24 MOU (Operator Agreement) between Extraction and the City. I was involved with citizen groups, along with the City, who submitted 140 pages of deficiencies to Extraction. On January 22, the City requested that Extraction voluntarily withdraw their 2 and 2A permit applications until the City approved the Extraction plan. Extraction responded with a letter that ignored the City's request, and Extraction subsequently submitted to the City a second 900 page drilling plan on Jan 26 that contained no corrections of the original errors that the City pointed out. On February 15, Extraction finally submitted a document that it claims addresses the Dec. 15 CDP deficiencies. Both the City and citizens need more than 14 days until the March 1 comment deadline to review the Feb. 15 Extraction document to see if it corrects the Dec. 15 CDP deficiencies.  On Feb. 23, Extraction just submitted their accident report on the Stromberger Well Pad in the Weld County Windsor area to the COGCC. The Extraction report acknowledges that there is still "an active ongoing investigation" and that "the gas and ignition sources are still being investigated." The report then lists potential contributing factors but comes to no conclusion. The Livingston Pad should not be given permit approval by the COGCC until the cause of the fire is known and Extraction can correct the problems in its Broomfield CDP. Otherwise, the COGCC is allowing an operator to put a huge number of nearby Broomfield residents at risk of death and major destruction of property, due to the density of the neighborhoods surrounding the Livingston Pad.	02/28/2018
143	I am asking the COGCC, in its capacity as an oversight and regulatory body, to deny Extraction's application to drill 19 wells next to and uphill from the future Broomfield drinking water reservoir. Recent events make clear that neither the COGCC nor Extraction can adequately protect the drinking water reservoir from contamination due to adverse events. Specifically, neither the COGCC nor Extraction can protect the reservoir from an event similar to: (1) the as-yet unexplained well pad fire and explosion at Extraction's Stormberger Pad on 12/22/17, (2) Anadarko's 1/23/17 release of over 11,600 gallons of oil and 69,200 gallons of produced water in Weld County that reached 2,000 ft from the well pad.  Further, the COGCC must fulfill its mandate via the Martinez decision to protect the health and safety of the public - thus protecting an entire city's water source must be one of the most basic obligations of the Commission. The COGCC cannot approve this project as it has every other application in the past. We know that the status-quo processes failed to prevent, deter, or adequately punish after the fact multiple catastrophic and completely unacceptable events, including (1) the Firestone explosion, (2) the uncontrolled venting of VOCs onto a school playground at Crestone's Vessels Minerals site in the fall of 2017, or (3) Anadarko's contamination of 200 barrels of ground water with 900 times the allowable levels of benzene in Dacono in December 2017 .  In this case, the COGCC must acknowledge the undeniable risks that exist at the Livingston pad, and then deny Extraction the use of this site. Failure to do so is an abdication of the Commission's basic responsibilities, at the expense of all 65,000 Broomfield residents.	02/28/2018

14 4	I have a five year old daughter, and we live close to the proposed pad. I worry that daily exposure poses a health and safety risk to her. I have read conducted fracking studies and the long term effects aren't fully understood yet. There is evidence that it is both safe and harmful and compelling arguments can be made for both sides. Cheaper oil and gas, more jobs, and more money in the economy are all benefits of fracking in lucrative and populated areas, but at an unknown price. As a parent, the risk to my daughter's developing body is not worth it, and an intelligent and caring society should first protect the health and safety of its children.	02/28/2018
14 5	<p>Regarding Extraction's Explosion and Fire on the Stromberger 22-E Site near Windsor: Extraction has submitted their Form 22 Accident Report - Subsequent Notice of Accident. As noted in the report, "At the time of this report, the gas and ignition source are still being investigated." As they cause is still unknown, the report then lists some possible causes including:</p> <ul style="list-style-type: none"> <li>a. Potential Fuel Sources at the temporary tanks <ul style="list-style-type: none"> <li>i. Vessels temporarily depressurized to open top tanks (knockout)</li> <li>ii. Green completion tank strapping (manual gauging)</li> <li>iii. Open line or valve, or leak on flash gas management system</li> </ul> </li> <li>b. Potential Ignition Sources (spark potential) <ul style="list-style-type: none"> <li>i. Mobile equipment</li> <li>ii. Static Electricity</li> <li>iii. Unknown worker activities</li> </ul> </li> </ul> <p>4. Other Potential Contributing Factors</p> <ul style="list-style-type: none"> <li>i. Hazard recognition (hotwork permit failure)</li> <li>ii. Temporary equipment spacing</li> <li>iii. Sound wall (ventilation)</li> <li>iv. Cold inversion, trapping gasses on location</li> <li>v. Short Service Employees</li> </ul> <p>That is an impressive list of possible causes - each of which must be eliminated from the proposal to drill on these new sites. Also, they still need to determine the actual cause so that they can eliminate that source as well.</p> <p>Whether Extraction has realized it or not, they have proposed to drill wells next to our communities in close proximity to our homes - no longer out in the country. With that comes incredible responsibility. This explosion and fire that occurred would have a much more drastic affect when done in the midst of a community.</p> <p>On December 22, 2017, the night of this explosion and fire on the Stromberger 22-E site, two chemicals (ethane and propane) were measured as record highs at a research facility that is set up at the Boulder Reservoir. Apparently, these two chemicals were traced back to this site. If measurements were that high 40 miles away, what was the level of these chemicals in Windsor? Unfortunately, the public does not have this information. Perhaps Extraction has already provided chemical measurements from the Stromberger 22-E site and surrounding areas just prior to the explosion.</p> <p>Regardless, until Extraction has proven their technology and has established a track record proving that they can safely drill and complete wells which pose no adverse impacts to the health, safety, and welfare of the residents of Broomfield, this permit applation must be denied.</p>	03/01/2018
14 6	The published opinion in the recent Court of Appeals decision of Martinez v. COGCC states that "The plain meaning of the statutory language [of section 34-60-102(1)(a)(I)] indicates that fostering balanced, nonwasteful development is in the public interest when that development is completed subject to the protection of public health, safety, and welfare." This is contrary to the COGCC's	03/01/2018

<p>previously stated interpretation, whereby oil and gas development would be “balanced” against public health, safety, welfare, and the environment. Per Rule 35e of the Colorado Appellate Rules (CAR), the published opinion MUST be upheld. The COGCC must NOT approve Extraction’s drilling permits as they are NOT protective of public health, safety, and welfare based on the proximity, scale, and intensity of these proposed operations. The current setback distances are NOT based on health and safety data, as the COGCC has noted.</p> <p>The 2015 Governor’s Blue-Ribbon Task Force Minority Report left the door open for future rulemakings to address the scale, proximity, and intensity of operations. However, these rulemakings have not yet happened and communities are now facing the very situation of which these reports were referring to with large-scale operations encroaching on established neighborhoods as the technology has advanced. It is unfortunate that the oil and gas operators who had planned to access the shale deposits at a later date failed to acquire adequate surface lands such that they could provide a sufficient protective border around their proposed operations. This lack of foresight does not provide that thousands of people living in these established communities should therefore be subject to health, safety, and welfare risks to allow for such a corporation to financially benefit at their expense. (Broomfield does not need the financial benefits of oil and gas - they actually gave up all of their royalties to Extraction to reduce well count thereby placing the financial burden of monitoring and enforcement upon the tax payers of Broomfield.)</p> <p>Furthermore, the Broomfield Charter Language requires no adverse impacts. The residents of Broomfield have been actively engaged at the local and state level requesting their health, safety, and welfare be protected. As such, the residents of Broomfield successfully amended the Charter of the City and County of Broomfield to include language stating that oil and gas development shall “only occur in a manner that does not adversely impact the health, safety, and welfare of Broomfield’s residents in their workplaces, their homes, their schools, and public parks in order to protect the public’s health, safety, and welfare and to safeguard the environment and wildlife resources”.</p> <p>Despite the clear language of the Broomfield Charter, the City of Broomfield is apparently unable to uphold 301 because the COGCC Regulations are less stringent.</p> <p>The City and County of Broomfield repeatedly told the concerned residents of Broomfield that they wish they had more “tools” in their “toolbox”, but the City claimed that they lacked local control and they had to defer protection of health, safety, and welfare to the State. Our City made numerous concessions to the detriment of the protection of the health, safety, and welfare of the community stating that those decisions were up to the state and for the residents of Broomfield to take it to the state. Since the COGCC has not allowed our local governments to protect the communities, the COGCC must protect our health and safety and deny Extraction’s permits.</p> <p>The City and County of Broomfield signed an operator agreement with Extraction to provide the best possible protections for the community given the constraints by the state. This agreement falls short of upholding the current state law which states "subject to the protection of public health, safety, and welfare."</p> <p>Therefore, this permit application must be denied.</p>	
<p>14 The residents of Broomfield have submitted a petition to the City of Broomfield regarding Extraction 7 not having an approved CDP with Broomfield 30 days prior to submitting their forms 2/2A applications, the need to understand the root cause analysis of Extraction's Stromberger Explosion/Fire such that an incident will not occur in Broomfield as these pads are located next to high density neighborhoods and future public water source, that we are not "third parties" but rather we are the residents of Broomfield, and also requests to our City asking them to contact the COGCC regarding a request to deny issuing permits including the Livingston and Interchange A&amp;B Pads based on these concerns. As such, this petition is relevant to this docket.</p> <p>This document also includes hundreds of individual resident comments regarding the above concerns.</p> <p>As there is not an option to attach the PDF document with this comment, I have sent a PDF version to Mark Morton, the Local Government Liaison. This PDF document is the same as the plain text version I tried to submit online on Feb 25th for which it appears the formatting did transfer properly. Thank you!!!</p>	03/01/2018

14 8	Please reconsider on the location of this well site. We live in beautiful Mustang Acres and there isn't much country living in the city of Colorado anymore. Well sites are coming up left and right. Poisoned drinking water, polluted air, mysterious animal deaths, industrial disasters and explosions is what I have read/researched on what has occurred with these fracking sites.	03/01/2018
14 9	Extraction proposes to horizontally drill and hydraulically fracture 19 wells on Broomfield property. They propose this large scale industrial activity (including "hazardous, risky drilling operations") would be conducted on approximately 20 acres of surface property owned by the City and County of Broomfield. This 335 acre property, known as the "Hoopes Property - Parcel 1" was purchased by Broomfield for the primary purpose of constructing "a reservoir on the Property as a public water source with associated educational and recreational facilities". In November 2012, Broomfield paid \$550,000 as part of a settlement to Extraction's predecessor Noble to removed several drilling pockets and hard rock mineral claims. The allowed area for drilling on this 335 acre parcel was thereby limited to two small parcels of land - neither of which is the current proposed location. (Although the allowed locations are no more suitable for this type of development.) The Livingston site as proposed would be adjacent to the east side of, and UPHILL from, the future Broomfield drinking water reservoir. The 19 wells and associated facilities are proposed just south of the Anthem Ranch subdivision (1000+ home retirement community) and Southwest of the Anthem Highlands subdivision (1000+ home subdivision). Facilities would be just 205 feet from Sheridan Blvd. Despite credible concerns about this location (and its former location which had been called the Lowell Pad), this process just keeps moving forward. Please deny the application for the Livingston permit.	03/01/2018
15 0	<p>I am asking the COGCC, in its capacity as an oversight and regulatory body, to deny Extraction's application to drill 19 wells next to and uphill from the future Broomfield drinking water reservoir. Recent events make clear that neither the COGCC nor Extraction can adequately protect the drinking water reservoir from contamination due to adverse events. Specifically, neither the COGCC nor Extraction can protect the reservoir from an event similar to: (1) the as-yet unexplained well pad fire and explosion at Extraction's Stormberger Pad on 12/22/17, (2) Anadarko's 1/23/17 release of over 11,600 gallons of oil and 69,200 gallons of produced water in Weld County that reached 2,000 ft from the well pad.</p> <p>Further, the COGCC must fulfill its mandate via the Martinez decision to protect the health and safety of the public - thus protecting an entire city's water source must be one of the most basic obligations of the Commission. The COGCC cannot approve this project as it has every other application in the past. We know that the status-quo processes failed to prevent, deter, or adequately punish after the fact multiple catastrophic and completely unacceptable events, including (1) the Firestone explosion, (2) the uncontrolled venting of VOCs onto a school playground at Crestone's Vessels Minerals site in the fall of 2017, or (3) Anadarko's contamination of 200 barrels of ground water with 900 times the allowable levels of benzene in Dacono in December 2017 .</p> <p>In this case, the COGCC must acknowledge the undeniable risks that exist at the Livingston pad, and then deny Extraction the use of this site. Failure to do so is an abdication of the Commission's basic responsibilities, at the expense of all 65,000 Broomfield residents.</p>	03/01/2018
15 1	<p>Dear Mr. Lepore and Members of the COGCC,</p> <p>I live approximately 1/2 mile from the proposed Livingston Pad in Broomfield. I am very concerned about the unknown impacts to our health and safety regarding this project. I feel a large scale operation such as this does not belong so close to homes and subdivisions. I am most definitely not opposed to oil and gas drilling and development because it does serve a useful and viable purpose in our modern day lives. I repeatedly asked our City Council members why negotiations with Extraction did not the locate the pad further away. I know other alternative sites were explored, but no one from the City could ever give me a straight answer about this. Is locating the pad further away from homes something the COGCC could discuss with Extraction? I attended the Town Hall that Mr. Lepore spoke at and I remember him saying he had concerns about the well pad being located so close to our new Broomfield Reservoir. I also hope this concern will also be taken into consideration. I ask that the permits do not get approved at this point until a more viable solution can be found. Thank you for your time.</p>	03/01/2018
15 2	The recent report on the Windsor explosion, which list several possible reasons for the explosion, goes to show how radically unsafe Extraction's operations currently are. Until all of these factors can	03/01/2018

	be eliminated, drilling permits should not be approved. Add to this other problems like methane leaks and the potential to pollute our reservoir, and there should be no way that these permits should be approved.	
15 3	The recent report on the Windsor explosion, which list several possible reasons for the explosion, goes to show how radically unsafe Extraction's operations currently are. Until all of these factors can be eliminated, drilling permits should not be approved. Add to this other problems like methane leaks and the potential to pollute our reservoir, and there should be no way that these permits should be approved.	03/01/2018
15 4	The Livingston Pad is too close to neighborhoods and water sources. There have been 14 explosions and fires at oil and gas facilities since the one in Firestone that killed Mark Martinez in Joey Irwin in April 2017. There are multiple leaks of oil and gas facilities in Colorado each week. This is unacceptable. Oil and gas extraction is dangerous and deadly and should not be near residential areas.	03/01/2018

Total: 154 comment(s)