

OIL AND GAS REGIONAL OPERATOR AGREEMENT

THIS OIL AND GAS REGIONAL OPERATOR AGREEMENT (“Agreement”) is made and entered into this 18th day of September, 2019, (“Effective Date”) by and through Extraction Oil & Gas, Inc., with an address of 370 17th Street, Suite 5300, Denver, CO 80202 “Operator”, and the City of Commerce City, Colorado (the “City”), a Colorado municipal corporation with an address of 7887 E. 60th Avenue, Commerce City, Colorado 80022, which may be collectively referred to herein as the “Parties,” or individually as a “Party.”

RECITALS

WHEREAS, Operator engages in the exploration, development, production and marketing of natural gas, oil and natural gas liquids, and plans to develop hydrocarbons in Commerce City, Colorado;

WHEREAS, by entering into this Agreement, Operator will be expending significant amounts of capital in order to implement the best management practices (“BMPs”) set forth herein to develop the oil, gas and other hydrocarbon resources and associated infrastructure within the City;

WHEREAS, the BMPs to be implemented are intended to be protective of health, welfare, safety and the environment;

WHEREAS, the City and Operator value an approach to oil and gas development that is protective of public health, safety, and welfare, including the environment and wildlife resources. To that end, in order to achieve those goals in a cooperative manner, the City and the Operator enter into this Agreement pursuant to, *inter alia*, Sec. 21-5266 and Sec. 21-3216 of the City of Commerce City’s Revised Municipal Code (“Code”) allowing for this Agreement to adopt the best management practices (“BMPs”) set forth in Exhibit “B” for Operator’s Oil and Gas Well Operations (“Operations”) at the Well Sites set forth on Exhibit A;

WHEREAS, Operator identifies the Well Sites listed in Exhibit A as the Oil & Gas Locations it intends to develop under this Agreement within the City without impairing Operator’s ability, but not requirement, to add additional future Well Sites within the City at a later date under this Agreement implementing all terms and conditions of this Agreement including BMPs and the Commerce City Land Development Code;

WHEREAS, Operator agrees to limit the New Well count at the Well Sites as designated in Exhibit A for those Well Sites;

WHEREAS, in accordance with state law and this Agreement, Operator commits to plug and abandon certain older wells in the City that are described in Exhibit D;

WHEREAS, the Colorado Oil and Gas Conservation Act, C.R.S. § 34-60-101 *et. seq.* (the “Act”), authorizes the Colorado Oil and Gas Conservation Commission (“COGCC” or “Commission”) to adopt statewide rules and regulations and amend existing rules and regulations or promulgate new rules and regulations;

WHEREAS, the Act C.R.S § 34-60-131, authorizes local governments to enact local land use regulations which may be more restrictive than COGCC rules; and

WHEREAS, the Colorado Air Pollution Prevention and Control Act (“APPCA”), C.R.S. § 25-7-128, authorizes the Colorado Department of Public Health and the Environment (the “CDPHE”) to adopt emission control regulations for significant sources of air pollutants. CDPHE has promulgated specific emission control requirements for Oil and Gas Facilities (“Facilities”) and it is anticipated that CDPHE will propose and adopt revisions to these requirements over time;

WHEREAS, the APPCA, C.R.S. § 25-7-128, authorizes local governments to enact local air pollution resolutions or ordinances which may be the same as, or more restrictive than, state emission control regulations; and

WHEREAS, this Agreement is entered into pursuant to Sec. 21-3216(11) of the Code, which allows the City to enter into a Regional Operator Agreement to establish terms and conditions for the protection of the public health, safety, and welfare.

In consideration of the mutual obligations and benefits set forth in this Agreement, including the recitals, the City and Operator agree as follows:

AGREEMENT

ARTICLE I – INCORPORATION OF RECITALS

The Recitals to this Agreement and Exhibits A-H are incorporated herein and adopted as terms of this Agreement.

ARTICLE II - TERM OF AGREEMENT

The term of this Agreement shall commence on the Effective Date noted above and shall remain in effect for a period of four years and for so long thereafter as any of Operator’s Oil and Gas Wells or Facilities permitted under this Agreement have not been permanently plugged, abandoned and removed from the lands in accordance with the Rules and Regulations of the COGCC or any Oil and Gas Permit (“OGP”) application submitted to the City is in process (the “Term”). During the Term, the Agreement may be terminated by either party with six-months’ notice.

After the Term, this Agreement will continue automatically but either party may immediately terminate the Agreement by written notice.

In the event this Agreement expires or is otherwise terminated, except as set forth in Section 6.2, the requirements stated in this Agreement, including all incorporated exhibits, shall survive and remain enforceable against the City or Operator with respect to any Facilities that were permitted by the City under the provisions of this Agreement or for which an OGP application was received and deemed complete by the City prior to termination.

Additionally, in the event this Agreement expires or is otherwise terminated, no re-permitting of approved wells shall be required solely as a result of the termination of this Agreement.

ARTICLE III - DEFINED TERMS

- 3.1 The meaning of the terms used in this Agreement shall be the same as those in the Code, except where otherwise noted. Where terms are not defined, they shall have the meaning commonly attributed to them as defined by the Colorado Oil and Gas Conservation Commission (“COGCC” or “Commission”) and if not therein defined then as commonly used in the oil and gas industry.
- 3.2 Oil and Gas Facility (“Facility”) means equipment or improvements used or installed at an oil and gas location for exploration, production, withdrawal, treatment or processing of crude oil, condensate, E&P waste, or gas.
- 3.3 For the purposes of this Agreement, "Operator" shall also include any successors, agents, assigns, or receivers of the Operator.
- 3.4 “Applicable Code” for this Agreement shall be defined as the Commerce City Land Development Code – Chapter 21 (“LDC”), in effect on the date that such specific OGP application was deemed complete pursuant to Section 5.2 of this Agreement.
- 3.5 The “Code” for this Agreement shall be defined as the Commerce City Revised Municipal Code, including the LDC, as amended from time to time.
- 3.6 “Well Site” shall mean those Well Sites identified in Exhibit A, as may be amended. A Well Site includes the definable area where an Operator has disturbed or intends to disturb the land surface during the construction phase and exploration and production of crude oil, condensate, E&P waste, or gas. Treatment and processing will not occur at a Well Site. A Well Site includes the area of disturbance that may be subject to interim reclamation but only until such interim reclamation occurs. Well Site, as defined, excludes access roads and any improvements outside of the Well Site by the surface owners.
- 3.7 “New Well” shall mean any Operator-operated individual well on a Well Site for which an OGP has been applied for during the Term of this Agreement listed in Exhibit A as may be amended, including any production facilities directly associated with such well. New Well does not include wells in existence at the time the Agreement is executed.
- 3.8 “Phases of Operations” at a Well Site for purposes of this Agreement, shall be defined as follows:

“Construction Phase” shall mean the conducting of civil and earth work in connection with the construction and installation of drilling well pads, visual mitigation measures, and access routes.

“Drilling Phase” shall mean the period in which a drilling rig is utilized to penetrate the surface of the earth with a drill bit and the installation of well casing and cement at one or more wells.

“Completion Phase” shall mean the period of hydraulic fracturing, coiling, workover, installation of tubing and flowback of one or more wells.

“Production Phase” shall mean the period in which one or more wells is capable of producing hydrocarbons that flow through permanent separator facilities and into the pipeline gathering system. Interim reclamation is expected at the beginning of this phase.

ARTICLE IV - APPLICATION

- 4.1 This Agreement shall apply to lands within the boundaries of the City, as they exist as of the date of this Agreement. Moreover, in the event an Operator-owned or operated well pad site for which construction or dirt work has not been commenced is annexed into the City in the growth area west of Piccadilly Road, Operator agrees that it shall bring the annexed site into compliance with this Agreement and all aspects of the BMP's attached hereto that do not require material modifications to the physical infrastructure of the well site, as well as Articles VII, XII, and XIII in this Agreement in their entirety, within six (6) months of the effective date of the annexation and will operate that particular well site in conformity with this Agreement thereafter. This Agreement shall not be construed to limit the negotiation, imposition, or enforcement of any terms or conditions of the annexation, including any annexation agreement. Furthermore, Operator shall not affirmatively protest, request a hearing, oppose or object to any annexation into Commerce City. If a Well Site is added to this Agreement pursuant to this section or otherwise, the Parties agree to amend Exhibit A.
- 4.2 Nothing in this Agreement shall be construed to modify, waive, or except any provision of the Charter of the City of Commerce City or the Code or any other applicable law or regulation, except where such variance is specifically authorized by a law, regulation, or standard at issue. This Agreement is meant to provide protections and requirements where an OGP meets or exceeds the requirements in the Applicable Code and in COGCC regulations. In no case should any provision of this Agreement, BMP or OGP, provide fewer protections than those provided for in the Applicable Code or COGCC regulations. If there is a difference in the protections provided in the Agreement, the Applicable Code, or COGCC regulation, the standard more protective of public health, safety and welfare and the environment shall be applied. The Operator shall obtain all necessary permits and approvals and shall comply with all regularly applicable laws and policies.
- 4.3 Nothing in this Agreement shall be construed to be a waiver by the City of its police power or its legislative authority. Nothing herein shall bind the City to exercise its police power or legislative authority or in any way preclude the City from making any legislative determination in accordance with the powers granted to the City

pursuant to the Constitution of the State of Colorado, the Charter of the City of Commerce City, and the Colorado Revised Statutes.

ARTICLE V - PERMIT REQUIREMENTS

- 5.1 OGPs Required for Operations within the City. An Operator shall obtain an OGP for each Oil and Gas Location. Each OGP requires a site-specific Extraction Agreement as part of the OGP to allow the OGP holder to undertake Operations. Review of such an OGP application is intended to ensure compliance with the Applicable Code, this Agreement and any other applicable local, state or federal laws, rules or regulations.
- 5.2 Approval Process for an OGP. Permit applications will be reviewed in accordance with the Applicable Code and this Agreement.

The Parties agree that Operator will enter into a site-specific Extraction Agreement as required by the Applicable Code which will be approved concurrently with the OGP. No site-specific conditions of approval shall be required that are more restrictive than the BMPs set forth in this Agreement without written approval by both parties unless required by Section 4.2 herein. Additional detail provided in an OGP or site-specific Extraction Agreement shall not be considered more restrictive based solely on the additional detail alone.

OGPs, similar to any other permits for development, will be first subject to a seven (7) business day completion review. If a permit application is deemed complete, and consistent with standard and established practices of the City, it will be forwarded for interagency and referral-agency review.

The current timeframe for development review is six weeks for initial review, five weeks for a secondary review, and four weeks for any additional review that may be necessary. All review times identified herein are intended as estimates and may vary depending on timely completion and accuracy of applicant submittals, staffing levels, the competing demands on City staff, and the timing of referral agencies. The City will make reasonable efforts to process an OGP application, including rendering a final disposition, within six months from submission, which will include the Operator working diligently to respond to the City's comments and requests. The City will not unreasonably withhold or delay the permitting process, including approval of an OGP or a site-specific Extraction Agreement.

- 5.3 Permit Term. The term of the OGP and any revocation, lapse, termination, or extension thereof shall be as provided in the Applicable Code. The OGP shall lapse if a building permit is not obtained and the spudding of a well is not commenced within two years of the issuance of the OGP, excepting the period of time during which Operator's applications to the COGCC and applications to the CDPHE (with regard to air quality control) are pending ("Toll Period"). In no event shall the Toll Period exceed eighteen (18) months with respect to a particular pending permit, approval or order. Operator will notify City of a Toll Period and include in the notice the copies of the pending COGCC and CDPHE applications. Extensions of

the OGP and associated Commerce City local permits will not be unreasonably withheld, delayed or conditioned. This provision does not impair the ability of Operator to apply for other OGPs or COGCC permits and work through the City and the COGCC approval process concurrently.

5.4 Building Permits Required within the City. A building permit may be required in connection with an OGP pursuant to the requirements of the Code. So long as the requirements of this Agreement, the OGP, and the Code are met, the City will issue this permit without unreasonable delay. The term of a building permit and any revocation, lapse, termination, or extension thereof shall be as provided in the Code.

5.5 Permit Requirements. All subsequent plans listed below shall comply with the requirements set forth in the BMPs included on Exhibit B and the Applicable Code. The Parties agree that Operator has had substantial engagement with the City with respect to its development plans and the Operator will not be required to submit a comprehensive drilling plan. The Operator will submit the following items with each OGP application as part of the OGP process as required in the Applicable Code, unless the City determines that certain information has previously been provided by the Operator to the City and made a part of the public record or, during the City's processing of an OGP application or the City determines that an update of any of the plans below are reasonably required due to a change in circumstance since the initial submittal:

a. **Schedule of Operations.** Operator shall provide estimated project schedules that may vary for all phases, including "construction phase" (including pipeline construction), "drilling phase," "completion phase" (broken down into activity-based components including flowback), and "production phase" (including estimated timelines for interim reclamation and landscaping).

b. **List of all Permits.** List of all permits or approvals obtained or to be obtained from local, state, or federal agencies, including any exceptions or variances that are required.

c. **Electrification Plan.** Operator shall identify all sources of electricity that will be brought to or used at the Well Site during all phases, including drilling, completion and production.

d. **Noise Management Plan.** Operator shall prepare a plan to manage noise at or below the levels indicated in Exhibit B. The plan must include a baseline noise study as well as noise modeling of equipment proposed for the site for drilling and completions.

e. **Lighting Plan.** Operator shall prepare a lighting plan with the purpose of demonstrating how Operator will mitigate lighting impacts beyond the Well Site. The plan will include provisions for installation of down cast lighting or some other form of lighting that mitigates light pollution and reduces spill-over onto adjacent properties; provided, however, that the Operator may still use lighting that is

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necessary for public and occupational safety and lighting as necessary for drilling and completion operations.

f. **Traffic Control Plan.** Operator shall prepare a plan showing public and private roads that traverse and/or provide access to the proposed operation and a plan showing the estimated number of vehicle trips per day for each type of vehicle, proposed haul routes to and from the site, and measures to mitigate adverse impacts to traffic patterns and safety caused by the proposed operation.

g. **Traffic Impact Study.** A vendor selected by Operator from a list of vendors that is pre-approved by the City shall prepare a Traffic Impact Study (not to be confused with a Traffic Impact Fee Study) which shall clearly identify and distinguish impacts to City roads and bridges related to Facility construction, operations and ongoing new traffic generation. Traffic impact studies shall be prepared in accordance with City standards and requirements and other guidelines found in the Applicable Code. The study shall include a traffic mitigation plan addressing transportation impacts that will typically include, but not be limited to, a plan for traffic control, the receipt of all necessary permits, ongoing roadway maintenance and improving or reconstructing City roads, including providing financial assurance.

h. **Air Quality Mitigation Plan.** Operator shall prepare an Air Quality Mitigation Plan and a modeling assessment of air quality impacts of a related project per BMP 1C(iii) and a plan and schedule to maintain air quality, including a plan to minimize VOC emissions in compliance with the BMPs.

i. **Emergency Response Plan.** Operator shall prepare an Emergency Response Plan. In preparation of the Emergency Response Plan, Operator shall engage with emergency responders and prepare a plan that includes, without limitation, documentation of the communications and coordination with the City and nearby schools related to evacuation of the nearby schools and all persons residing within a one-half (1/2) mile radius from the edge of disturbance. The Emergency Response Plan must detail all criteria for persons to be notified in the event of an emergency and training for first responders.

j. **Waste Management Plan.** Operator shall prepare a Waste Management Plan that identifies the projected waste from the site and plans for disposal of such waste.

k. **Hazardous Materials Management Plan.** Operator shall prepare a Hazardous Materials Management Plan that identifies all hazardous materials that will be brought on site, how they will be transported and used, and measures to prevent any release of those materials.

l. **Temporary Sanitary Facilities Plan.** Operator shall prepare a plan describing the sanitary facilities that will be provided for employees that comply with the Applicable Code and COGCC regulations.

- m. **Water Quality Monitoring Plan.** Operator shall prepare a plan that describes the steps it will take to comply with the water quality monitoring described in Exhibit B.
- n. **Spill Prevention, Control, and Countermeasure Plan (SPCC).** Operator shall prepare a plan which describes spill prevention and mitigation practices as provided in Exhibit B.
- o. **Stormwater Pollution Prevention and Erosion Control Plan.** Operator shall prepare a plan to minimize impacts to surface waters from erosion, sediment, and other sources of non-point pollution. The stormwater control plan required by COGCC Rule 1002(f) may be provided to establish compliance with this provision.
- p. **Interim Reclamation Plan** (also called a “Revegetation Plan” in the Code). Operator shall prepare a plan, including a written description of the species, character and density of existing vegetation on the Well Site, a Revegetation Analysis as defined in the Applicable Code, a summary of the potential impacts to vegetation as a result of the proposed oil and gas operations, and proposed replanting and mitigation to address these impacts. The plan shall include any COGCC required interim reclamation procedures and shall include the means by which vegetation will be watered and maintained.
- q. **Weed Control Plan.** Operator shall prepare a plan which must comply with City standards, requirements, and other guidelines found in the Applicable Code.
- r. **Dust Mitigation Plan.** Operator shall prepare a plan to control dust in an effort to minimize visible dust emissions from roadways or from completion operations.
- s. **Wetlands Protection Plan.** Operator shall prepare a plan, if applicable, demonstrating the oil and gas operations shall not cause degradation to wetlands within the City.
- t. **Floodplains and Floodways.** Oil and Gas Facilities are prohibited in the floodway. A **Floodplain Permit** is required if any Operations are within the floodplain.
- u. **Visual Mitigation Plan.** Operator shall prepare a plan that will consider fencing materials, berming, and use of existing vegetation and natural contours to the maximum extent practicable. The visual mitigation plan shall require photographic simulations.
- v. **Landscaping Plan.** Operator shall prepare a plan that shall be coordinated with the City and the surface owner and, depending on access to water, may be staged to accommodate surface development. Landscaping plans should use drought tolerant species that are native and less desirable to wildlife and suitable

for the climate and soil conditions of the area. An irrigation plan may be required where buffering is accomplished with vegetation.

w. **Site Security Plan.** Operator shall prepare a plan for each Well Site. Each plan for a Well Site shall be reviewed by Operator on a yearly basis and will be updated, as necessary. Commerce City may request a review and update of the plan, at its sole discretion.

x. **Risk Management Plan.** Operator shall prepare a plan consistent with Exhibit B.

y. **Wildlife Mitigation Plan.** Operator shall prepare a Wildlife Mitigation Plan for surface operations that will be located within or "adjacent" (as defined in the Applicable Code) to a Wildlife Mitigation Area or Park Property.

z. **Alternative Location Analysis.** Operator shall prepare an Alternative Location Analysis for any proposed site not within an Agricultural or Industrial zone district or Planned Unit Development zone district where Oil and Gas Wells are specifically listed as an allowed or permitted use, to demonstrate the absence of any other reasonable alternative to access oil and gas mineral interests, consistent with the Applicable Code.

aa. **Resource Mobilization/Cache Plan.** Operator shall provide a plan to ensure emergency responders have available the equipment necessary to respond to any emergency identified in the emergency response plan and such plan shall provide that the equipment be stationed in locations as to be readily available for any oil and gas emergency within Commerce City.

ARTICLE VI – New Wells, Well Sites and Facilities.

6.1 Operations on Well Sites. The Parties agree that the New Wells and the Well Sites will be subject to the terms of this Agreement.

Operator may perform all surface and downhole well maintenance on the New Wells and Well Sites that the Operator deems prudent and necessary so long as Operator is in compliance with this Agreement and all relevant state permits and regulations. Notwithstanding the foregoing, Operator may perform all maintenance reasonably necessary to prevent a significant risk to public health, safety, and the environment. For purposes of this Agreement, a New Well shall not include the re-completion of an existing well but would include any re-entry that would require a new COGCC drilling permit. Operator has provided a list of all well locations currently planned within the City, attached hereto as Exhibit A and incorporated herein by reference, setting forth location name, legal location description, and maximum well counts. The Operator will not drill more oil and gas wells at each location than is listed in the Exhibit A.

6.2 Well Site Approval. Operator agrees and acknowledges that the Well Sites proposed by Applicant and listed in Exhibit A have not been approved by the City

and are subject to the approval criteria as set forth in the Applicable Code. City agrees and acknowledges that the proposed Well Sites listed in Exhibit A are not final and are subject to change or modification as Operator may deem proper for its operations at Operator's sole discretion. Notwithstanding the foregoing, in the event that the City does not approve an OGP for each of the Well Sites and New Wells listed on Exhibit A, Operator shall be permitted to immediately terminate this Agreement with respect to any of the Well Sites for which construction has not commenced as of the date of termination and any OGPs that have been approved for other Well Sites may be canceled by the Operator at its election. Pending OGP applications will be deemed immediately withdrawn.

- 6.3 Plugging and Abandonment of Existing Wells. In accordance with state law and this Agreement, Operator shall plug and abandon all of the wells shown on Exhibit D ("P&A Wells"), attached hereto and incorporated herein by reference. The Operator shall properly drain, plug and decommission in accordance with City and COGCC rules and regulations all flowlines and pipelines associated with the P&A Well(s) and shall remove all facilities related to the P&A Wells taking into consideration the terms of the governing surface use agreement. If a waiver or variance is required by the COGCC for Operator's planned reclamation, Operator will also obtain a waiver or variance from the City. The plugging and abandoning of a particular P&A Well shall commence within one hundred and twenty (120) days following the commencement of production from a New Well located in each of the COGCC drilling and spacing units encompassing the leasehold originally drilled by such P&A Well. Operator agrees that any well that Operator plugs and abandons, either before or after the Effective Date, may not be re-entered by Operator.
- 6.4 GWA Drilling Windows. The Operator agrees that it will not utilize COGCC 318A.a "GWA Windows" for New Wells without a Surface Use Agreement or ownership of the surface acreage.
- 6.5 Schedule of Operations. Phasing of the Operations Plan and schedule for Well Site development are attached as Exhibit F. The Well Sites will not be expanded for additional wells. The Operator shall provide the City with an updated Schedule of Operations when there are any material changes or in any event at least bi-annually.

For the avoidance of doubt, it is possible for multiple phases of operation to be occurring at the same time with respect to a single Well Site. Notwithstanding the foregoing, when a Well Site is less than 1,320 feet from the nearest residential building unit, Operator agrees that it will not conduct hydraulic fracturing and drilling operations simultaneously at a single Well Site.

ARTICLE VII - PERFORMANCE STANDARDS AND BEST MANAGEMENT PRACTICES

- 7.1 Best Management Practices. The Operator shall comply with the performance standards and BMPs set forth in Exhibit B of this Agreement.
- 7.2 New Technologies. Notwithstanding the conditions outlined in Exhibit B, the City may propose to Operator, in writing, new technologies reasonably believed to have a material benefit for public health, safety, welfare, and the environment within the City limits. Such proposal will describe in sufficient detail: (i) the technology to be considered; (ii) the performance objective(s) in the BMP(s) that are addressed by the technology; and (iii) support for why the technology will be materially beneficial.

Operator will consider the proposal in good faith and provide the City with a written response within 30 days stating whether and where Operator will employ the proposed technology within the City limits or provide a brief explanation for why Operator will or will not employ the proposed technology. If the City has proposed the use of new technology and Operator agrees to the modification or change in the plan, the City will not require hearing for approval.

Operator will notify the City in writing of any new technology that it seeks to implement that would have a material benefit to public health, safety, welfare, and the environment and will seek written approval from the City to modify one or more of the conditions set forth in the applicable OGP as necessary to employ the proposed technology at a particular identified Well Site.

Any dispute arising as to the use of a proposed new technology will be resolved by a third-party expert mutually agreed upon by the Parties. If available for this purpose, parties agree to utilize the COGCC Technical Review Board. If unavailable, the parties shall equally share the costs and fees of any third-party expert retained for this purpose. The Parties agree to review the BMPs for the potential of implementing new technologies at least every five (5) years. The application of new technology shall be considered a Minor Change pursuant to Section 15.4.

ARTICLE VIII - OPERATIONAL CONFLICTS

- 8.1 Provided the City is not adjudged by a court of competent jurisdiction in a final unappealable order to not be in compliance with this Agreement, Operator agrees that (a) it will not exert jurisdictional or preemption arguments as to any obligations, terms, and provisions in the Agreement, the Code, or the Applicable Code or cause any group or trade association to do the same; and (b) it will not protest, oppose, or object to changes and amendments the City may make to its Code in the future or cause any group or trade association to do the same. Notwithstanding the foregoing, the City acknowledges that Operator is a member of various trade associations and may not be able to prevent such trade associations

from protesting, opposing or objecting to proposed changes to the City's Code. If the COGCC does not include the BMPs attached hereto as Exhibit B to an approval, Operator agrees that the BMPs will continue to apply to Operator's Well Sites.

ARTICLE IX - REQUIRED REGULATORY PERMITS, COGCC ORDERS, APPROVALS OR APDs

- 9.1 There has been substantial engagement between the Parties in entering this Agreement. Therefore, provided the Operator complies with the terms of this Agreement, and provided the application complies with federal, state, and local law and regulations: (a) the City agrees that it shall not protest, request a hearing, oppose or object to COGCC or CDPHE permits, orders, and approvals that Operator is required by law to seek from these regulatory agencies; and (b) the City also agrees to not protest, request a hearing, oppose or object to the approval process for any gathering facility or pipelines outside the City's jurisdiction, that are not inconsistent with the City's alignment of approved pipeline, as necessary to implement the BMPs listed in Exhibit B. Nothing in this provision is intended to limit or impair the City's ability to defend an action against it related to this Agreement or Operator's Project. The City may provide official comment on any permit for which the City has jurisdiction or a right to comment through a referral process.
- 9.2 The Operator agrees, unless otherwise instructed by the COGCC in writing, to include the BMPs, in the form attached hereto as Exhibit E, as conditions of approval on all Applications for Permit-to-Drill, Form 2 ("Form 2"), and all Oil and Gas Location Assessments, Form 2A ("Form 2A"), submitted to the COGCC for any New Wells or Well Sites. Operator, unless instructed otherwise by the COGCC, agrees to ensure (through the filing of a Sundry Notice or otherwise) the BMPs contained on Exhibit E are submitted as proposed conditions of approval on any New Wells for which Operator has already filed COGCC Forms 2 with the COGCC.

If there are any BMPs that exceed COGCC rules and regulations which the COGCC declines to add to a Form 2 or Form 2A as conditions of approval, Operator will not be required to list such provisions in the Form 2 or Form 2A but will still be required to comply with the provision pursuant to this Agreement.

ARTICLE X - DEVELOPMENT SCHEDULE

- 10.1 The Operator agrees to provide 48 hours' notice, excluding weekends and holidays, of any planned move-in or rig up and will comply with the COGCC notice requirements regarding the same.
- 10.2 The Operator and City agree that Operator shall not be permitted to commence drilling operations at any Well Site later than December 31, 2024. If drilling operations have commenced by December 31, 2024, Operator will drill and complete all remaining wells on that Well Site within eight (8) months and proceed

to the production phase immediately thereafter. This provision can be amended under mutual agreement if necessary and reasonable, in accordance with the Code.

ARTICLE XI – CITY PROPERTY USE

- 11.1 At this time, other than with respect to crossings, use of City property is not contemplated by Operator. Any use of City property, including but not limited to use of City property for pipelines or seismic surveys, will be subject to a separate approval process as set forth in the Code or applicable policy. Notwithstanding the foregoing, the City resolves to provide Operator with reasonable assistance when Operator seeks to obtain any easement, license, or similar right, to access City-owned land, rights-of-way or cross such land or rights-of-way as may be necessary to implement the BMPs on land owned by the City or within City right of way. Such assistance shall include providing GIS data to Operator as may be reasonably necessary to identify such lands.

ARTICLE XII – FINANCIAL ASSURANCES

- 12.1 Insurance. The Operator agrees to provide liability insurance under the conditions, and in the amounts, set forth on Exhibit C.
- 12.2 Cost Reimbursement Agreement. The Parties agree that there may be a cost reimbursement agreement entered for any reasonable emergency response costs. Those terms will be handled in a separate agreement with the participation of the applicable emergency service providers.
- 12.3 Financial Assurance. Prior to the commencement of any work, including well pad construction at any permitted Well Site, Operator shall provide the City with a single surety applicable for all Well Sites in the form of a letter of credit or bond in the amount of three-million dollars (\$3,000,000.00) to insure the immediate availability of finances for any costs incurred by the City following a Financial Setback of the Operator. Financial Setback shall be defined as the Operator filing for protection under the bankruptcy laws, making an assignment for the benefit of creditors, appointing or suffering appointment of a receiver or trustee over its property, filing a petition under any bankruptcy or insolvency act or having any such petition filed against it which is not discharged within ninety (90) days of the filing thereof. Operator shall notify the City of the existence of a Financial Setback within five (5) business days of the Financial Setback. The letter of credit or bond shall remain in effect until all drilling operations at all New Wells have been completed, and all Well Sites for which work has commenced are in the production phase, without exception. Upon the occurrence of a Financial Setback, the City may call upon the surety effective immediately upon written notice to the Operator for purposes associated with the need to secure Well Sites, associated Well Site lands and infrastructure or as a demonstrated need to protect the public welfare and safety. This financial assurance provision is not a substitute for any bonding required by the state regulatory agencies for plugging

and abandoning wells. The Operator shall comply with all state regulatory agencies bonding requirements. The City shall not be liable to the Operator or any surety, guarantor, or financial institution for consequential damages arising from the City's exercise of its rights under this section, including without limitation a claim for impairment of bonding capacity.

The bond or letter of credit shall be released within ten (10) business days of Operator's written request following completion of the last Well Site and the wells have been turned to production.

- 12.4 The Operator's provision of insurance and financial assurances shall not limit the Operator's liability, or the City's right to any recovery.

ARTICLE XIII – INSPECTION AND OPERATOR CONTRIBUTION

- 13.1 Right to Enter. All Operations may be inspected by a City-approved inspector at any time to ensure compliance with the requirements of the OGP. The City reserves the right in its discretion to make spot inspections or to inspect without notice in the event of any issue potentially involving an immediate risk to public health, safety, welfare, the environment, or wildlife, or damage to the property of another. For routine inspections, the City will utilize best efforts to provide reasonable advance notice to the Operator before entering onto the Well Site. Operator may escort inspectors onto the Well Site if Operator Staff is available. The City will provide Operator with a list of all certified inspectors it may use. Inspectors will provide identification at the time of inspection, if requested. Inspectors shall follow recognized safety procedures while on location. Certified inspectors shall not be required to be escorted and their inspection efforts shall not be delayed for lack of escort availability.
- 13.2 Operator Contact for Inspections. The Operator shall provide the telephone number (which may be different than the telephone numbers in case of emergency) of a contact person who may be reached 24 hours a day/7 days a week for purposes of being notified of providing reasonable advance notice of any proposed City inspection under this Section or in case of emergency. Operator will be responsible for updating the City of a change to this advance notice telephone number and updating the contact information which will be included as part of the OGP application.
- 13.3 Inspection Fees. Operator will reimburse the City for all inspection costs reasonably incurred to inspect the Well Sites to determine compliance with this Agreement and any OGP. Such fees shall include actual costs incurred by the City, including employee time, employee supervision, necessary equipment rental, and overhead. The Parties agree that this fee shall be \$500 annually per individual New Well drilled. This per New Well fee shall initially be paid at the time of spudding of each well and then on January 1st of each year thereafter. This amount will be

adjusted each year by the increase or decrease in the Consumer Price Index issued by the United States Bureau of Labor Statistics for the Denver metropolitan area. The fee will be reduced to \$250 annually 10 years after any individual New Well has been drilled. This amount will be adjusted each year by the increase or decrease in the Consumer Price Index issued by the United States Bureau of Labor Statistics for the Denver metropolitan area. Where a well is plugged and abandoned, no fees will be imposed thereafter. For the avoidance of doubt, this fee is based on the individual wells and not on the Well Site.

- 13.4 Operator Ambient Air Sampling Payment. Operator will provide the City with fees as provided in Exhibit H. The City may use these funds for air sampling within its discretion. Such amount shall be adjusted each year by the increase or decrease in the Consumer Price Index issued by the United States Bureau of Labor Statistics for the Denver — Boulder metropolitan area. In addition, the City may require the Operator to conduct additional air monitoring as needed to respond to events such as spills, process upsets, or accidental releases.
- 13.5 Operator Transportation Impact Fee Payment. Operator agrees to pay transportation impact fees in accordance with the Applicable Code.
- 13.6 Purchase of Essential Emergency Response Equipment and Training. The Parties have agreed to the terms and conditions as set forth in Exhibit H, incorporated by reference herein, with regard to Operator's obligation to provide equipment and training.

ARTICLE XIV – FRAMEWORK FOR ENFORCEMENT OF BEST MANAGEMENT PRACTICES

- 14.1 The Parties to this Agreement acknowledge and agree that Operator's compliance with the BMPs is integral and essential to this Agreement; enforcement of the BMPs through traditional contractual remedies can be costly, slow, and inefficient; presently, the City's Code contemplates enforcement of contract provisions such as the BMPs attached to this Agreement as permit conditions; however, the Parties desire to establish a non-exclusive administrative enforcement mechanism with respect to the BMPs in addition to any other remedy available at law or equity. Therefore, the Parties agree to the provisions of this Section with respect to the City's enforcement of the Operator's adherence to the BMPs set forth in Exhibit B.
 - a. **Accountability.** Operator shall be legally accountable as principal for a violation of any BMP contained in this Agreement.
 - b. **Enforcement.** Operator shall be subject to a civil penalty in the form of a fine for the violation of any BMP. All fines shall be consistent with the fines and penalties schedule utilized by the Neighborhood Services Division of the City, as

may be amended from time to time, but subject to the limits set forth in C.R.S. § 13-10-113. Additionally, Operator shall be responsible for all costs, direct and indirect, which the City incurred in connection with the enforcement action, including, without limitation, the costs of any hearing and the cost of abating any BMP violation, exclusive of City attorney fees.

c. Enforcement Procedure.

i. **Notice of Violation.** Upon the discovery of a violation of a BMP, the city-approved inspector may issue a notice of violation (NOV) to the Operator at the site of the violation by providing a copy to an on-site manager, foreman, or supervisor. The NOV must identify the alleged violation, the date, time and place that the alleged violation occurred, and options with regard to payment or the opportunity to request a hearing to contest the violation. If no manager, foreman, or supervisor is present, the City shall serve the NOV consistent with Article 15.7.

ii. **Payment.**

A. Operator may accept responsibility for the violation by abatement of the violation and payment of the required fine within ten (10) business days of receipt of the NOV, excluding the day of issuance. Such payment and abatement will be deemed to be an admission of the violation.

B. If the NOV is sustained after a hearing, Operator fails to appear at a requested hearing, or Operator fails to accept responsibility for a violation but does not request a hearing, Operator will pay all fines, costs, and fees within thirty (30) days unless otherwise directed by the adjudicator, which time will be suspended while a hearing or decision is pending.

Any fine, cost, or fee not timely paid will be subject to late fees and collection as provided in the Code for civil violations, including without limitation the recordation of such fine, cost, or fee as a lien against the subject property.

Operator's failure to pay any amounts owed pursuant to this Article, or failure to abate any violation, when Operator agrees to do so or is ordered to do so after a hearing, shall be deemed a breach of this Agreement. The City may decline to issue any OGP or any other permit related to any operation during the period where a violation is not abated or any amounts owed under this Article remain unpaid.

iii. **Hearing.** If Operator wishes to contest the NOV, Operator may request a hearing by submitting a written request for a hearing on the form provided

with the NOV and paying the required docket fee within ten (10) business days of receipt of the NOV, excluding the day of issuance. In such event, the Director of Community Development, or their designee, shall act as an independent and impartial adjudicator of the NOV. An advisement of the hearing date, time, and location shall be issued to the Operator at least 48 hours prior to the hearing. A continuance for the hearing will be permitted upon a finding of good cause. The NOV shall serve as prima facie evidence of the alleged violation. The burden shall be on the City to prove the existence of the violation by a preponderance of the evidence. The Director of Community Development, or their designee, may issue rules for procedure and the handling of evidence prior to any hearing and may impose fines and costs and require abatement in accordance with this Article.

- iv. **Assessment.** If the Operator fails to request a hearing, fails to voluntarily pay any fine before a hearing, fails to pay any required docket fee, or fails to appear at a requested hearing, a default judgment will be entered against the Operator and the City will assess the Operator the applicable fine and all costs of abatement plus an administrative fee equal to 15% of the cost of abatement.

14.2 **Each Day of Violation Constitutes a New Violation.** Each day on which a violation is in existence shall constitute a separate violation for the purpose of enforcement and fines. Any subsequent NOV issued prior to a contested hearing for the same alleged violation on a different day, shall merge with the originally contested violation at the hearing but will be treated as a separate incident for the purposes of a finding as to the existence of the violation and any associated fine.

14.3 **Accumulation of Violations.** The accumulation of a total of fifteen (15) NOVs wherein Operator failed to appear, did not contest the violation, or contested the violation but was found liable, within any six (6) month period at one Well Site shall be deemed a public nuisance and a stop work order shall be issued to the Operator for that Well Site. The Operator will then be required to cease without exception, regardless of the phase of operation or the cost to the Operator, pending the submittal of a remediation plan (Remediation Plan) to the City identifying the corrective actions the Operator will take to prevent future violations from occurring. If a stop work order is issued, the Operator may be excused from the immediate cessation of operations upon reasonable showing that stoppage of work at that time would present a significant risk to public health, safety or welfare, and provided that Operator shall stop work as soon as it is safe to do so. In determining whether it is safe to stop operations during drilling, Operator will be allowed to finish drilling, run casing, cement the current hole section of the current well and verify the safety and integrity of the wellbore before ceasing operations but would not be allowed to commence drilling a new hole section in the current well or to initiate drilling of a new well at the same location. In determining whether it is safe

to stop operations during the completions phase, Operator will be allowed to finish completion operations on wells actively being completed on the well site and to verify the safety and integrity of the wellbore before ceasing operations, but would not be allowed to start completion operations on a New Well on the Well Site. Upon City approval of Remediation Plan, the Operator will be permitted to immediately resume all Operations.

- 14.4 **Enforcement Mechanism Not Exclusive.** Notwithstanding the foregoing, the City retains the authority to issue citations, summonses, and notices of violation for other violations of the Code as set forth in the Code and to seek to enforce this Agreement and any BMP or to seek any remedy through a civil action at law or equity. This enforcement mechanism shall not be considered to be a precondition to, or limitation on, any other action, rights, or remedy available at law or equity or pursuant to this Agreement. Any NOV, or any decision issued under this section, may be used as evidence in any litigation but shall not be deemed to be conclusive. The resolution of any BMP violation under this section shall not preclude the City from seeking any other remedy or instituting any other action with respect to such violation.
- 14.5 **Violation of a BMP Not a Criminal Violation.** A violation of a BMP cannot, by itself, be pursued by the City as a criminal violation because the BMPs are a contractual obligation of the Operator. Notwithstanding the foregoing, nothing in this provision shall limit the City from enforcing separate criminal violations arising under any applicable law or regulation.
- 14.6 **Self-Audits.** "Self-Audit" means an Operator initiated review of its operations and practices performed pursuant to systematic, documented, and objective criteria designed to assess compliance with this Agreement, COGCC rules and regulations, and any federal, state, or local law. To promote self-audits, the City shall waive all enforcement or civil infraction fines and fees on the Operator if the Operator conducts a self-audit process and through that process identifies a potential violation of a BMP that it self-reports to the City as soon as practicable (but not to exceed five business days) after identifying the potential violation and also before the City issues an NOV. For the purposes of this agreement, a waiver of fees following a self-audit shall only apply if the Operator discloses the existence of a violation to the City as soon as practicable after discovery and only if the Operator discovered the violation during a routine self-inspection and not as a result of a government request, inspection, or inquiry, or a complaint, accident or any other governmental action. The waiver of fines associated with a self-audit shall not apply if there is a continuing violation or if Operator delayed the report to the City.
- 14.7 **Determining "Maximum Extent Practicable" or "Practicable."** Certain BMP requirements and other conditions, as set forth in this document, are required "to the maximum extent practicable" or if "practicable." In the event of a dispute as to practicability, the Operator agrees that the Director of Planning has the right to

obtain an independent third party expert's opinion as to practicability and Operator shall reimburse the City any reasonable costs associated with such third party's opinion.

The non-exhaustive list of factors that the Director of Planning and third party expert may use to make a practicability determination includes the following:

- a. There is no technology reasonably available (including cost considerations) to conduct the proposed oil and gas operations in compliance with the provision and waiver of the provision will not have a significant adverse effect on the public health, safety or welfare, or on the environment;
- b. An alternative approach not contemplated by the provision is demonstrated to provide a level of protection of the public health, safety and welfare and of the environment that would be at least equivalent to the applicable provision; or
- c. Application of the provision would create an undue operational or economic hardship because of unique physical circumstances or conditions existing on or near the site of the oil and gas facility, which may include, without limitation, topographical conditions, shape or dimension of the operation site, or inadequate public infrastructure to the site.

Parties agree to be bound by third party expert's determination as to the practicability of an Operator's action or inaction.

ARTICLE XV - GENERAL PROVISIONS

- 15.1 **Integration Clause.** Except as otherwise expressly set forth herein, this Agreement embodies the complete agreement and understanding between the Parties hereto with respect to the subject matter hereof and supersedes and preempts any prior understandings, agreements or representations by or between the Parties, written or oral, which may have related to the subject matter specifically addressed in this Agreement.
- 15.2 **Assignment.** This Agreement may be assigned to another Operator only with the written consent of the City, not to be unreasonably withheld, and upon a showing that the new Operator can and will comply with all requirements, terms and conditions of the Applicable Code, this Agreement, and if approved, the Oil and Gas Permit and the Extraction Agreement as well as all applicable state, local and federal laws, rules and regulations. Such new Operator shall execute a written consent to assignment of the Agreement on a form approved by the City.
- 15.3 **Successors and Assigns.** The terms and conditions of this Agreement shall bind and extend to the City and the Operator, and the Operator's successors and

assigns, and the Operator shall require any successor and assign, by written agreement, to adhere to all terms and conditions of this Agreement. Such assignment shall not relieve the assignor of any obligations that accrue during the period of operation of the assignor or otherwise arising out of the actions or inactions of the assignor during its period of operation.

Subject to the provisions of the Agreement, Operator shall have the right to transfer or sell any or part of its interest in its Facilities and operations through an assignment; provided, however, that in the event of any such transfer, the transferees, sublessees, successors and assigns shall agree in writing to be bound by and shall comply with all terms of this Agreement, the Applicable Code(s), the Operator's applicable OGP(s), any applicable Extraction Agreement, and all other federal, state and local laws. It shall be the obligation of any transferee or assignee to demonstrate to the City's reasonable satisfaction, that its operations will be protective of public health, safety, and welfare and it can and will comply with all the requirements, terms, and conditions contained in the OGP and this Agreement and the Applicable Code.

- 15.4 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which when taken together shall constitute a single agreement.
- 15.5 Amendments to Agreement. All covenants, representations and warranties contained herein and all other obligations, responsibilities and terms hereof shall continue to be fully binding and enforceable on the Parties until expressly superseded by written agreement of the Parties. No amendment to this Agreement shall be effective unless in writing, signed by all Parties who are then subject to this Agreement.

The Applicable Code provides procedures for the amendment of any permit, including an OGP.

Minor Changes:

Operator shall not be required to submit any Minor Changes to the OGP so long as the Operator provides written notice to the City and such Minor Changes comply with the requirements of this Agreement, the LDC, and COGCC rules and regulations. Any such change shall be effective three business days after it is received by the City in writing. In order to constitute a "Minor Change," the change must:

- (i) have no significant negative impacts on transportation, services and facilities of the City;
- (ii) have a minimal effect on the Operator's proposed plan;

(iii) not impact the public, health, safety and general welfare of the people of the City; and

(iv) the City has not opposed the proposed Minor Change.

For the avoidance of doubt, without limitation, any change that (i) increases the well counts at a Well Site, (ii) moves wells and equipment within Well Sites creating a setback distance of less than 1,320 ft. from the nearest Residential Building Unit at the time of the change, or (iii) removes or reduces the requirements of a particular BMP shall not qualify as a "Minor Change." Any change that does not satisfy the requirements for a Minor Change shall be treated as a new application or amendment subject to the applicable administrative approval procedures and approval criteria set forth in this Agreement. The Parties agree that no hearing will be required for a "Minor Change" unless required by the Applicable Code.

15.6 Waiver. No failure on the part of any Party hereto to exercise and no delay in exercising any right hereunder shall operate as a waiver of such right. The remedies provided herein are cumulative and not exclusive of any remedies provided by law. No waiver of or failure to exercise any right hereunder shall operate to prevent future enforcement of such right.

15.7 Notices. Notices required by this Agreement shall be given by (i) certified mail with return receipt requested or (ii) hand delivery with signature or delivery receipt provided by a third-party courier service (such as FedEx, UPS, etc.) to the designated representative of the Party as indicated below. A Party may change its designated representative for notice purposes at any time by written notice to the other Party.

Notices shall be effective on receipt, provided, however, that confirmation of receipt shall be required in all instances. Notice to the respective Parties shall be given to:

To the City: Director of Community Development
 City of Commerce City
 7887 E. 60th Ave., Commerce City, CO 80022
 Telephone: 303-289-3600

 Office of the City Attorney
 City of Commerce City
 7887 E. 60th Ave., Commerce City, CO 80022
 Telephone: 303-289-6300

To the Operator: Extraction Oil & Gas, Inc.
 370 17th Street, Suite 5300
 Denver, CO 80202
 Attn: Legal Department

EC

Telephone: 720-557-8300

Email: legalnotices@extractionog.com

or to any other addresses as either Party hereto may, from time to time, designate in writing and deliver in a like manner.

Such terms and conditions shall have no impact on any notice required under the Code.

- 15.8 Headings. The descriptive headings of the sections of this Agreement are inserted for convenience only and shall not control or affect the meaning or construction of any provisions hereof.
- 15.9 Further Acts. Each of the Parties shall promptly and expeditiously execute and deliver any and all documents and perform any and all acts as reasonably necessary, from time to time, to carry out the matters contemplated by this Agreement.
- 15.10 No Partnership or Third Party Beneficiaries. It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any partnership, joint venture or other arrangement between Operator and the City. With the exception of the local fire districts, no term or provision of this Agreement is intended to or shall be for the benefit of any person, firm, organization or corporation not a Party hereto and no other person, firm, organization or corporation shall have any right or cause of action hereunder.
- 15.11 Severability. If a Court of competent jurisdiction determines or declares any provision of this Agreement to be illegal, invalid, or unenforceable under present or future laws effective during the term of this Agreement, and said provision is a material term to a party to this Agreement, then that party may terminate this Agreement immediately. However, that party shall first negotiate in good faith for an equivalent or substitute provision to account for the excised provision and if a substitute provision is agreed to by the Parties, the remainder of the Agreement shall be in full force and effect.
- 15.12 Enforcement, Default, Remedies, and Dispute Resolution. Except for violations for which the enforcement mechanism developed pursuant to Art. XIV may apply, if either Party notifies the other Party that it is in breach of the terms of this Agreement, including the attached Exhibits, such Party in alleged breach shall have a period of thirty (30) days from the date of such notice in which to remedy the alleged breach, to the extent such breach can be remedied. A material breach by Operator that cannot be remedied, or which the Operator chooses not to remedy, may be cause for the City to immediately terminate this agreement and any other remedies available at law or equity. If the alleged breach is of a nature that can be remedied but cannot be remedied within that 30-day period, such Party in alleged breach shall have commenced to remedy the breach and shall work diligently to complete the remedy. If (i) the Party in alleged breach fails to acknowledge that a breach has occurred or is occurring, (ii) following the process set forth in the previous two sentences the Party alleging breach believes that the

other Party continues to be in breach of this Agreement, including the attached Exhibits, or (iii) any other kind of dispute arises under any provision of this Agreement that cannot be resolved by good faith negotiation between the Parties, the Party claiming that a breach of this Agreement has occurred or seeking resolution of any other dispute under this Agreement shall send written notice to the other Party, specifying its position in the matter and invoking the dispute resolution process in this section. Within fifteen (15) days of the date of delivery of such notice, the Parties shall meet to resolve the matter described in the notice.

If either Party at any time believes that mediation would be advantageous in connection with such meeting, or if a resolution of the matter cannot be achieved at the meeting, both Parties agree to make a reasonable effort to work through and with a mutually acceptable mediator to attempt to resolve the dispute.

Notwithstanding the foregoing, if either Party believes that the dispute will not otherwise be resolved in a sufficiently prompt and effective manner or if either Party determines that action is necessary for the protection of health, safety, welfare or the environment, such Party may, at its discretion, take such legal action and seek such legal or equitable remedies as it determines to be appropriate or necessary to protect and enforce its rights under this Agreement. Such remedies may include, without limitation, an injunction to stop an alleged violation or an order requiring the performance by the other Party, or other remedies permitted under law or this Agreement.

- 15.13 **Governing Law.** This Agreement and all related documents including all exhibits attached hereto, and all matters arising out of or relating to this Agreement, whether sounding in contract, tort, or statute are governed by, and construed in accordance with, the laws of the State of Colorado, United States of America including its statutes of limitations, without giving effect to the conflict of laws provisions thereof to the extent such principles or rules would require or permit the application of the laws of any jurisdiction other than those of the State of Colorado.
- 15.14 **Jurisdiction and Venue.** For all claims arising out of or related to this Agreement, Operator consents to the exclusive jurisdiction of and venue in the state courts in the County of Adams, Colorado or federal courts in Colorado.
- 15.15 **Governmental Immunity.** No term or condition of this Agreement will be construed or interpreted as an express or implied waiver of any of the immunities, rights, benefits, protections, or other provisions of the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101, *et seq.*
- 15.16 **Acknowledgement of Open Records Act.** Operator acknowledges that the City is a public entity subject to the Colorado Open Records Act, C.R.S. § 24-72-201, *et seq.*, and this Agreement and any related documents are subject to public disclosure.

- 15.17 Conflicts. In the event that conflicts exist within the terms and conditions of this Agreement and the attached Exhibits, or reference to prior agreements, this Agreement shall control.
- 15.18 No Presumption. The Parties and their attorneys have had a full opportunity to review and participate in the drafting of the final form of this Agreement. Accordingly, this Agreement shall be construed without regard to any presumption or other rule of construction against the Party causing the Agreement to be drafted.
- 15.19 Force Majeure. Neither Party shall be liable or responsible to the other party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement (except for any obligations to make payments to the other Party hereunder), when and to the extent such failure or delay is caused by or results from a "Force Majeure." "Force Majeure" shall mean causes or conditions beyond a Party's reasonable control, including war, invasion, civil unrest including protests, terrorist threats or acts, riot, act of God, flood, fire, earthquake, severe weather, unavailability of equipment or materials (unavailability of equipment and materials shall not excuse performance unless such equipment and materials remained unavailable after reasonable, diligent, and timely efforts by Operator to obtain such equipment and materials or reasonable alternates), shortage of electrical power or transportation facilities, bans, moratoriums, strikes or other stoppage (whether partial or total) of labor, or any law, decree, regulation or order of any government or governmental body (including any court or tribunal). Acts or omissions of Operator and its agents shall not be deemed a Force Majeure event. Without limitation, the Parties agree that no government action, order, or law of the City of Commerce City (including any official, employee, board, commission, or related authority), or court order involving the City of Commerce City, shall be a Force Majeure event.

If the Operator claims a Force Majeure for the inability to complete a BMP, the Operator will not be relieved of the obligation to provide the BMP protection, rather the Operator must present a reasonable alternative or solution to provide the same or similar protection as the BMP within 180 days from the notice of Force Majeure. The Parties will discuss the alternatives and an alternative will be subject to administrative review and approval by the City.

The Parties further agree that a City ban or moratorium on oil and gas development that directly affects Operator or on any activity that would directly impact such development will not be a Force Majeure event but will extend this Agreement at the election of the Operator and upon Operator's written notice for the length of the ban or moratorium if the ban or moratorium is found applicable to the activities contemplated in this Agreement. However, if a City ban or moratorium enacted materially impedes this Agreement, Operator will be allowed to terminate immediately.

If either Party is rendered unable, wholly or in part, by Force Majeure event or a ban or moratorium to carry out its obligations under this Agreement, that Party shall give the other Party prompt written notice of the Force Majeure with reasonably full particulars concerning it; thereupon, the obligations of the Party giving the notice, so far as they are affected by the Force Majeure, ban or moratorium, shall be suspended during, but no longer than, the continuance of the Force Majeure, ban or moratorium. Both Parties shall use all reasonable diligence to remove the Force Majeure situation as quickly as practicable. Any such extension shall also apply to any and all time periods ancillary to this Agreement, including but not limited to the expiration of any OGP, the expiration of any Conditional Use Permits, the expiration of any building, grading, access or other permit issued to the Operator or its affiliates by the City related to the Well Sites and the date set forth in Section 10.2 hereof.

15.19 Authority to Execute Agreement. Each Party represents that the undersigned individuals have the full right and authority to enter into this Agreement and bind the Parties to the terms and conditions contained herein. This Agreement may be amended only by an instrument executed by both Parties.

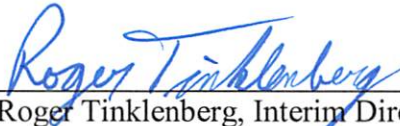
IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by a duly authorized representative on the day and year first written above.

[Signature Pages Follow]

OIL AND GAS REGIONAL OPERATOR AGREEMENT

CITY OF COMMERCE CITY
SIGNATURE PAGE

CITY OF COMMERCE CITY



Roger Tinklenberg, Interim Director
Department of Community Development



ATTEST:



~~Laura J. Bauer, CMC, City Clerk~~
Dylan A. Gibson, Deputy City Clerk

Approved as to form:




City Attorney

OIL AND GAS REGIONAL OPERATOR AGREEMENT

OPERATOR
SIGNATURE PAGE


EXTRACTION OIL & GAS, INC.

By: 
Name: Eric J. Christ
Title: Vice President & General Counsel

STATE OF COLORADO)
) ss.
COUNTY OF DENVER)

The foregoing instrument was acknowledged before me this 18th day of September 2019, by Eric J. Christ, as Vice President & General Counsel of Extraction Oil & Gas, Inc., a Delaware corporation.

Witness my hand and official seal.


Notary Public
My Commission Expires: 01/25/22

HALEY ZEPESKI
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20184004172
MY COMMISSION EXPIRES JAN 25, 2022

List of Exhibits

- Exhibit A – List of Well Sites
- Exhibit B – Best Management Practices
- Exhibit C – Insurance Requirements
- Exhibit D – P&A Wells
- Exhibit E – BMP Document for COGCC
- Exhibit F – Draft Schedule of Operations
- Exhibit G – Purchase of Essential Emergency Response Equipment and Training.
- Exhibit H – Air Quality Monitoring Fees

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Exhibit A – Well Sites

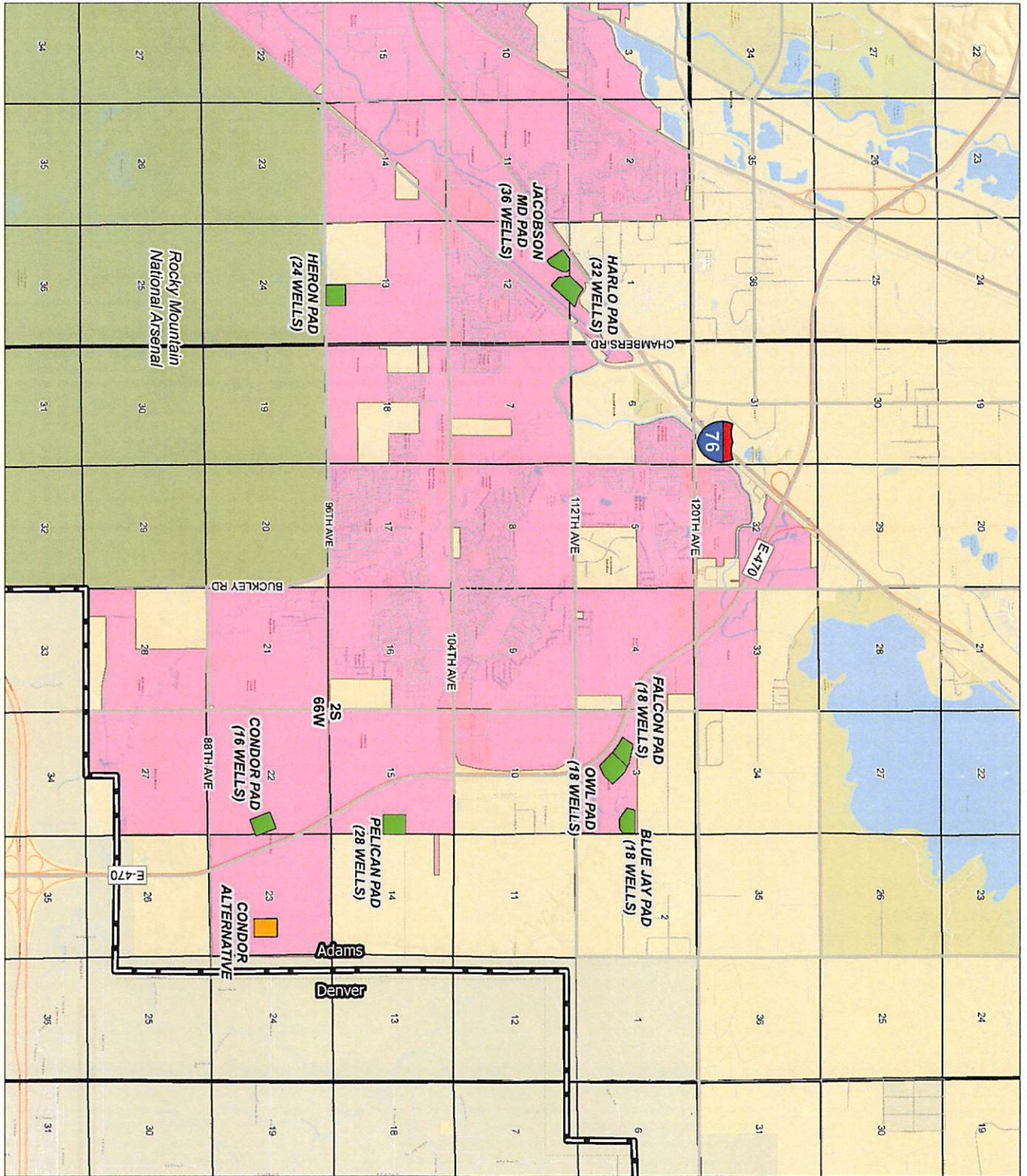
	<u>COGCC 2A Name</u>	<u>Location</u>	<u>Max Well Count</u>
1a	Harlo	2S 67W 12 NWNE	36
1b	Jacobson MD	2S 67W 12 NENW	
2	Falcon	2S 67W 3 NESE	18
3	Blue Jay	2S 67W 3 NESW	18
4	Owl	2S 67W 3 NESW	18
5a	Condor	2S 67W 22 NESE	16
5b	Condor Alternative	2S 67W 23	
6	Pelican	2S 67W 15 NESE	28
7	Heron	2S 67W 13 SWSE	24

Operator may permit either Harlo (1a) or Jacobson (1b), but not both.

Operator may permit either the current Condor location (5a) or the Condor Alternative location (5b), but not both.

Map also attached for reference.

Exhibit A (continued)



- Legend**
- Major Road
 - Local Road
 - Commerces City Boundary
 - County Boundary



Adams County Development
 Commerce City
 XOC
 Adams County, CO

Scale: 1/2" = 400'
 Date: 08/11/2015
 Author: CHB
 Project: 150203



EC

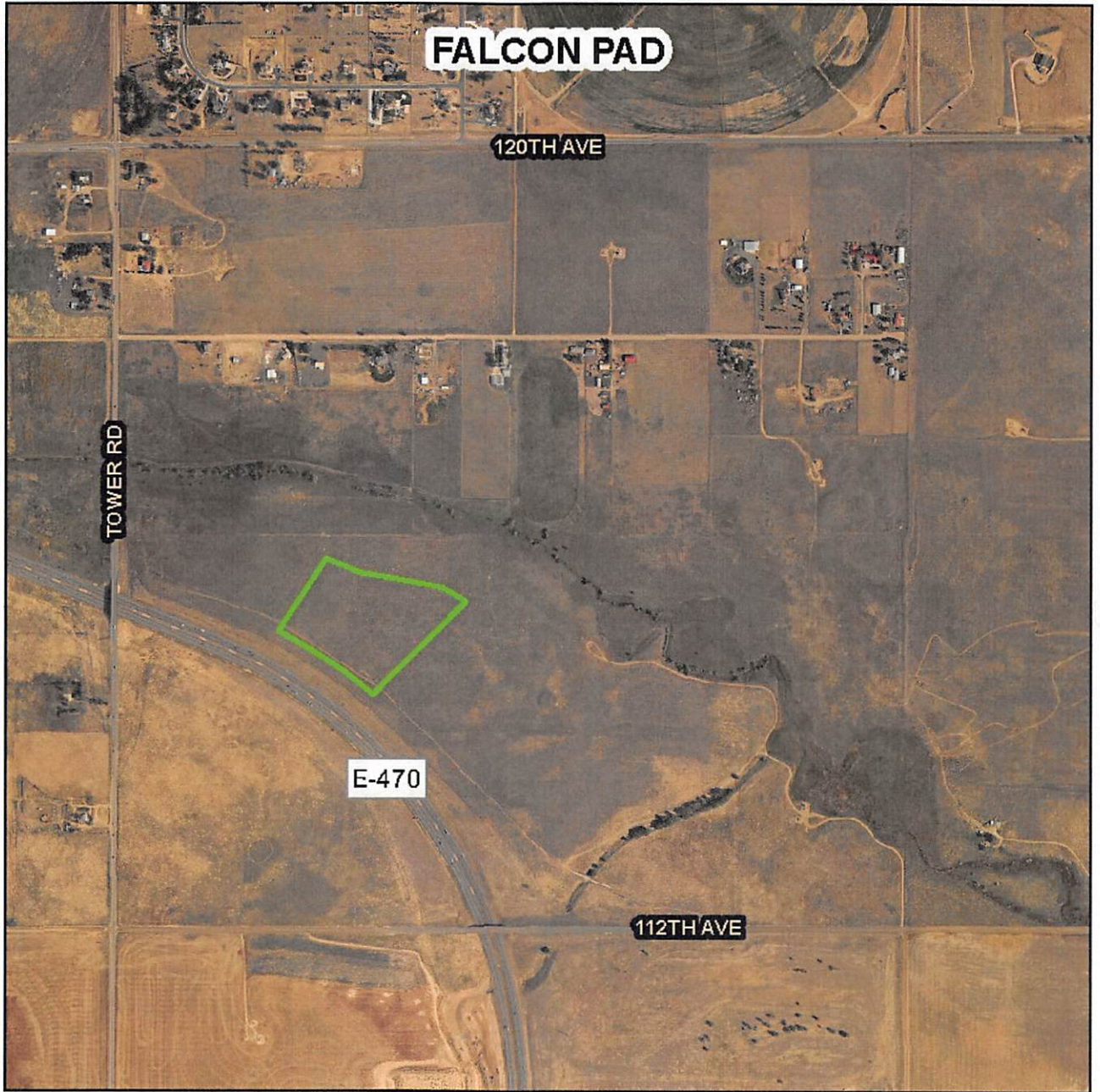
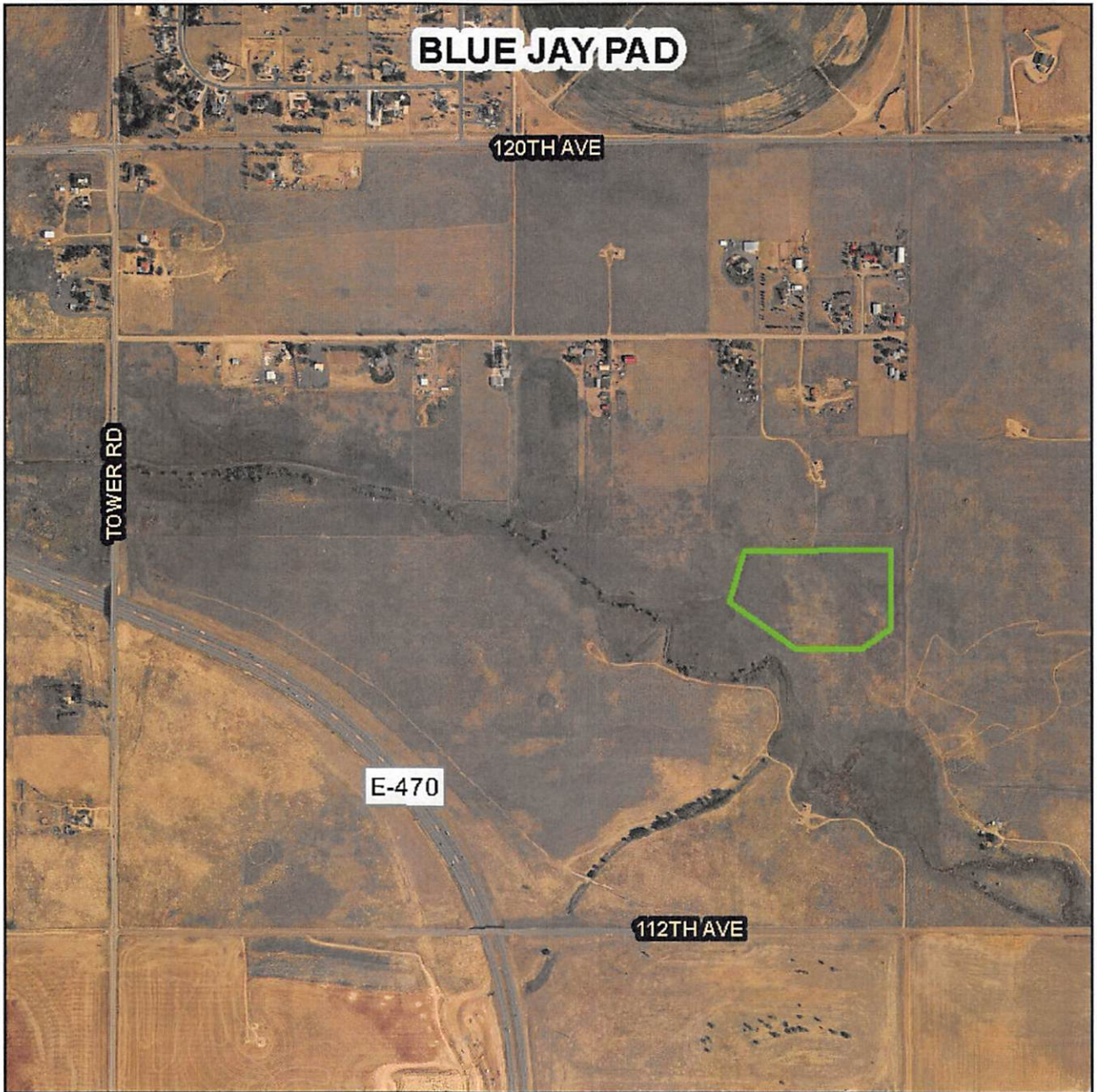
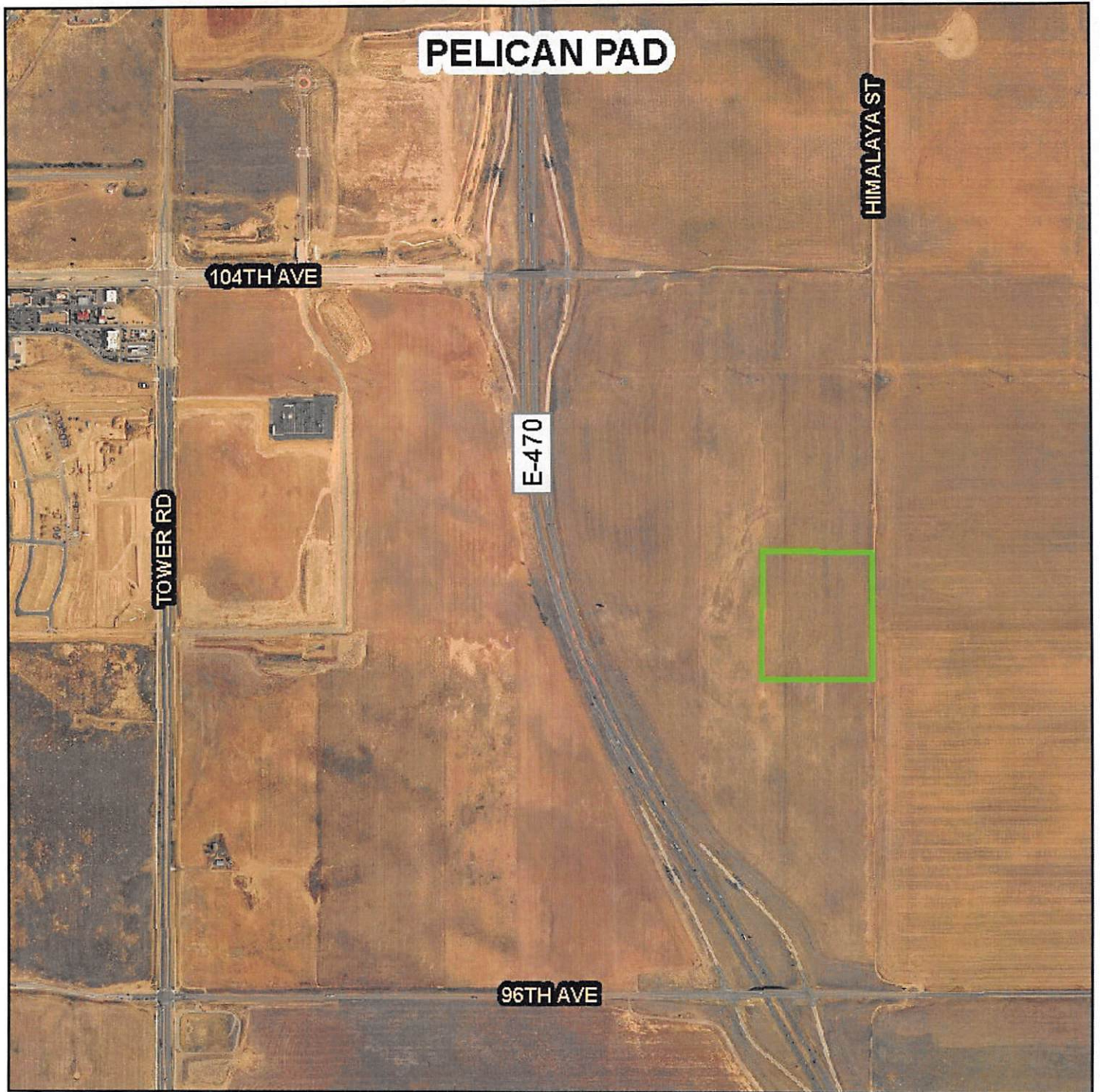




Exhibit A (continued)









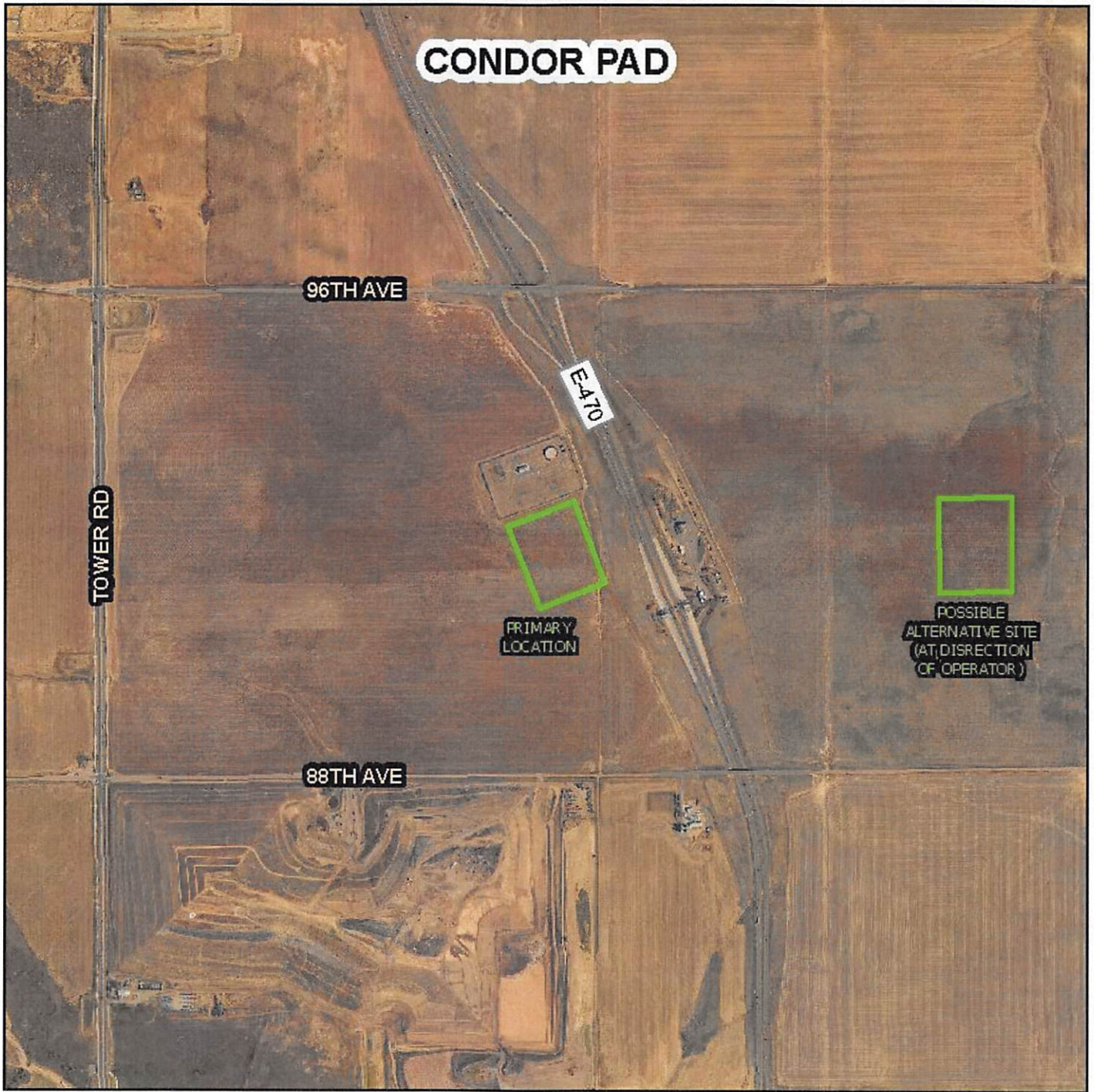




EXHIBIT B

BEST MANAGEMENT PRACTICES FOR NEW WELL SITES IN COMMERCE CITY

1. ***Air Quality.*** Operator must eliminate, capture, or minimize all potentially harmful emissions and minimize dust associated with onsite activities and traffic on access roads pursuant to the terms herein. Operator shall comply with all applicable state and federal regulations including regulations promulgated by CDPHE, COGCC and US EPA.
 - A. **Minimization of Emissions.** To protect air quality, the following is required of the operator:
 - i. The use of electric equipment for permanent equipment, such as electric drilling rigs, electric compressors and use of line power as detailed in BMP Section 1E.
 - ii. Air emissions from the Operations shall be, at a minimum, in compliance with the permit and control provisions of the Colorado Air Quality Control Program, C.R.S. § 25-7-101 et seq. as may be amended.
 - iii. All fossil-fuel powered engines used for drilling, completions and production operations on Well Sites shall employ the latest emission-reduction technologies that are economically practicable and Best Management Practices such as drilling rigs powered by electricity, electric compressors and green completions.
 - iv. Comply with the transportation and circulation section addressing traffic provisions set forth in Section 15.
 - v. The utilization of pipelines pursuant to Section 11.
 - vi. Manufacture test or other data demonstrating hydrocarbon destruction or control efficiency that complies with a design destruction efficiency of 98% or better.
 - vii. The use of no-bleed continuous and intermittent pneumatic devices. This requirement can be met by replacing natural gas with electricity or instrument air, or routing the discharge emissions to a closed loop-system or process.
 - viii. Any flare, auto ignition system, recorder, vapor recovery device or other equipment used to meet the hydrocarbon destruction or control efficiency requirement shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
 - ix. No use of glycol dehydrators or desiccant gas processing dehydrators.
 - x. Compressor engines are prohibited within the City limits except for wellhead, sales, and gas lift compressors, air and/or gas gathering compressors which shall be located on the Well Sites. Operator agrees to use enclosures of compressor engines where necessary to provide visual and/or noise mitigation. Any compressors that are used as part of the vapor recovery units (air pollution controls) will be limited to 6-8 small engine drive units. VRU compressors will be installed with sound walls to buffer noise.
 - xi. Year-round application of odor requirements pursuant to COGCC and CDPHE regulations.

- xii. To the maximum extent practicable, Operator's Well Site and equipment design will reduce emissions of associated gas from hybrid gas-oil wells (i.e. gas that is co-produced from a well that primarily produces oil).
- xiii. Best management practices during liquids unloading (i.e. maintenance activities to remove liquids from existing wells that are inhibiting production), and the installation of artificial lift or unloading through the separator where practicable.
- xiv. To the maximum extent practicable, Operator will reduce emissions from oil and gas pipeline maintenance activities such as pigging or blowdowns. If any maintenance activity will involve the intentional venting of gas from a well tank, compressor or pipeline, beyond routine pipeline maintenance activity and pigging, the operator shall provide forty eight (48) hour advance written notice to the City of such proposed venting. Such notice shall identify the duration and nature of the venting event, a description as to why venting is necessary, a description of what vapors will likely be vented, what steps will be taken to limit the duration of venting, and what steps the operator proposes to undertake to minimize similar events in the future. If venting is required, or if accidental venting occurs, the operator shall provide such notice to the City of such event as soon as possible, but in no event longer than 24 hours from the time of the event, with the information listed above and with an explanation as to the cause and how the event will be avoided in the future.
- xv. Flaring shall be eliminated or minimized to the maximum extent practicable
- xvi. Compliance with dust suppression techniques set forth in BMP Section 1H.
- xvii. Compliance with odor requirements set forth in BMP Section 1I.
- xviii. Consolidation of product treatment and storage facilities within a Well Site.
- xix. Centralization of compression facilities within a Well Site.
- xx. Telemetric control and monitoring systems, including surveillance monitors to detect when pilot lights on control devices are extinguished.
- xxi. Compliance with all CDPHE air permits, if any, and all OSHA work practice requirements with respect to benzene.
- xxii. Participation in Natural Gas STAR program or other equivalent voluntary programs to encourage innovation in pollution control at Well Sites.
- xxiii. Use of a pressure-suitable separator and vapor recovery unit (VRU) where applicable.
- xxiv. Pipeline infrastructure will be constructed prior to the Production Phase.
- xxv. For hydraulic fracturing pumps, Operator agrees to use any of the following:
 - (a) Tier 4 or better diesel engines, or
 - (b) combined diesel and natural gas co-fired Tier 2 engines, or
 - (c) natural gas fired spark ignition engines

- B. *Leak Detection and Repair.* Operator shall develop and maintain an acceptable leak detection and repair (“LDAR”) program as required by CDPHE using modern leak detection technologies such as infra-red cameras for equipment used on the Well Sites. For the five (5) year period beginning with the start of the Production Phase per well location at the first Well Site, Operator shall conduct quarterly IR camera monitoring of all equipment at the Well Sites. After the first five-year period, Operator will conduct at least semi-annual IR camera monitoring until all the wells on the Well Site are plugged and abandoned. Except when a circumstance would necessitate an immediate repair, Operator must repair leaks as quickly as practicable. If more than 48-hours repair time is needed after a leak is discovered, an explanation of why more time is required must be submitted to the City. Operator shall conduct continuous pressure monitoring to detect leaks. At least once per year, the Operator shall notify the City five (5) business days prior to an LDAR inspection of its facilities to provide the City the opportunity to observe the inspection.
- C. *Ambient Air Modeling.* Operator shall provide access to the Well Sites to the City’s designated personnel or agent to allow air sampling to occur. Operator will provide a regionally based air modeling and emissions inventory based upon a similar project. The air modeling emission inventory that will be provided is taken from the City and County of Broomfield in the 3rd quarter of 2017 which was completed by a third-party consultant.
- D. *Ozone Air Quality Action Days.* On Air Quality Action Day advisories posted by the CDPHE for the Front Range Area, the Operator shall implement CDPHE-suggested air emission reduction measures as practicable. Emission reduction measures shall be implemented for the duration of an Air Quality Action Day advisory and may include measures such as:
- i. Minimize vehicle and engine idling;
 - ii. Reduce truck traffic and worker traffic;
 - iii. Delay vehicle refueling;
 - iv. Suspend or delay use of fossil fuel powered ancillary equipment; and
 - v. Postpone construction activities, if practicable.
 - vi. Within 30 days following the conclusion of each annual Air Quality Action Day season, Operator must submit a report to the City that details which measures it implemented during any Action Day advisories.
- E. *Electric Equipment.* All permanent production equipment, such as compressors, motors and artificial lift equipment, shall utilize electric line power in order to mitigate noise and to reduce emissions.
- i. All drilling rigs capable of drilling to Total Depth (TD) on a well shall be required to utilize electric line power unless Commerce City waives this provision in writing for a specific location or for any well not located within 1,320 ft of a Residential Building Unit or not within 1,500 ft of a High Occupancy Structure. At any location where Operator is not required by this provision to utilize line power for drilling, Operator will utilize line power if available in sufficient quantity from the utility provider. Operator shall minimize use of diesel generators for temporary power, including the use of liquified or compressed natural gas for power generation to further reduce emissions and noise. At any location

- where line power is not used for drilling, Operator shall provide to City at City's request the source(s) used for power.
- ii. If necessary, Operator shall provide an Electrification Plan to describe how electricity will be brought to the location for all phases of development.
- F. *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.
- G. *Flares and Combustion Devices.* To the extent flares, thermal oxidizers, or combustion devices are utilized, all such flares shall be designed and operated as follows:
- i. Flares shall be fired with natural gas and designed to operate with a 98% of higher hydrocarbon destruction efficiency.
 - ii. Flares shall be designed and operated in a manner that will ensure no visible emissions during normal operation. Visible emissions means observations of smoke for any period or periods of duration greater than or equal to one (1) minute in any fifteen (15) minute period during normal operation, pursuant to EPA Method 22. Visible emissions do not include radiant energy or water vapor.
 - iii. Flare shall be operated with a flame present at all times when emissions may be vented to it, or shall utilize another mechanism that does not allow uncontrolled emissions.
 - iv. All combustion devices must be equipped with an operating auto-igniter.
- H. *Fugitive Dust.* Operator must submit to the City a dust mitigation plan. Silica dust must be contained to the maximum extent practicable during the hydraulic fracturing process. Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction, drilling and operational activities such that there are no visible dust emissions from access roads or the Well Sites to the extent practical given wind conditions. No untreated produced water or other process fluids shall be used for dust suppression. The Operator will avoid creating dust or dust suppression activities within three hundred (300) feet of the ordinary high water mark of any waterbody, unless the dust suppressant is water. Material Safety Data Sheets (MSDS) for any chemical-based dust suppressant, other than magnesium chloride, shall be submitted to the City prior to use.
- I. *Odor/Dust Containment.* Operations shall be conducted in such a manner that odors and dust do not constitute a nuisance or hazard to public health, safety, welfare and the environment. All Operations shall use best available technologies that are reasonably available to control odor and dust. If deemed necessary and reasonable, the City may require additional mitigation efforts at any point during Operations. Odor emitting from Well Sites must be controlled. Operator to prevent odors from oil and gas operations by proactively addressing and, to the extent possible, resolving complaints filed by impacted members of the community. If a person living in a Residential Building Unit within 1,320 feet of a Well Site complains of odor, Operator shall determine whether the odor is caused by Operator's Operations. If the odor is caused by Operator's Operations, Operator shall resolve the odor concern to the maximum extent practical within 24 hours. Operator must use a filtration system or additives to the drilling and fracturing fluids to minimize odors. Use of fragrance to mask odors is prohibited. In order to meet the provisions of this section, Operator shall implement one or more of the following measures as necessary:

- i. Running mud through a cooler to reduce odor.
 - ii. Wiping down the drill pipe each time that the drilling operation “trips” out of the hole.
 - iii. Increase additive concentration,
 - iv. Operator will employ the use of drilling fluid with low to negligible aromatic content during drilling operations after surface casing is set for the protection of fresh water aquifers;
 - v. Operator will haul drill cuttings off on a daily basis.
 - vi. Per BMP 1.E. certain locations will utilize an electric drilling rig, which will further reduce odors associated with drilling.
- J. *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. The Operator has a general duty to safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery/operation. In addition, Operator shall comply with the following:
- i. 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.
 - ii. Operator shall comply with 40 CFR 60 (Subpart OOOO), as may be amended, for green completions.
 - iii. Uncontrolled venting is prohibited other than where necessary for safety.
 - iv. Temporary flowback flaring and oxidizing equipment where allowed shall include the following:
 - a) 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;
 - b) Valves and porting available to divert gas to flaring and oxidizing equipment; pursuant to the above Rules 40 CFR 60 (Subpart OOOO) for green completions & COGCC Rule 805 or as may be amended.
 - c) 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
- K. *Compliance.* The Operator must submit annual reports to the City certifying (a) compliance with these air quality requirements unless demonstrated to be inapplicable and documenting any periods of material non-compliance, including the date and duration of each such deviation and a compliance plan and schedule to achieve compliance, (b) that the equipment at the Well Sites continues to operate within its design parameters, and if not, what steps will be taken to modify

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the equipment to enable the equipment to operate within its design parameters. The annual report must contain a certification of accuracy and completeness of the reports, signed by a responsible corporate official. The Operator may satisfy this reporting obligation in whole or in part by submitting its AQCC Regulations No. 7 annual reports for the prior calendar year to the City, and supplementing them as needed to meet these reporting requirements for covered facilities within the City. The Operator will also provide the City will a copy of any self-reporting submissions that Operator provides to the CDPHE due to any incidence of non-compliance with any CDPHE air quality rules or regulations at the Well Sites.

2. Water Quality Protection

- A. *Chemical Disclosure and Storage.* All fracturing chemicals shall be disclosed to the City pursuant to the process set forth below before chemicals are transported to the Well Site. Prior to the transportation of such chemicals onto the property, the Operator shall make available to the City, in table format, the name, Chemical Abstracts Service (CAS) number, storage, containment and disposal method for such chemicals to be used on the Well Sites, which the City may make available to the public as public records. Fracturing chemicals shall be uploaded onto the Frac Focus website within sixty days of the completion of fracturing operations. The Operator shall not permanently store fracturing chemicals, flowback from hydraulic fracturing, or produced water in the City limits. Operator shall remove all hydraulic fracturing chemicals from a Well Site within thirty (30) days following the completing of hydraulic fracturing at that Well Site.

In addition to any substances that are not permitted to be used in accordance with state or federal rules or regulations in place from time to time, the following chemicals shall not be utilized in hydraulic fracturing fluid at the Well Sites:

Ingredient Name	CAS #
Benzene	71-43-2
Lead	7439-92-1
Mercury	7439-97-6
Arsenic	740-38-2
Cadmium	7440-43-9
Chromium	7440-47-3
Ethylbenzene	100-41-4
Xylene-F	1330-20-7
1,3,5-trimethylbenzene	108-67-8
1,4-dioxane	123-91-1
1-butanol	71-36-3

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Ingredient Name	CAS #
2-butoxyethanol	111-76-2
N,N-dimethylformamide	68-12-2
2-ethylhexanol	104-76-7
2-mercaptoethanol	60-24-2
benzene, 1,1'-oxybis-, tetrapropylene derivatives, sulfonated, sodium salts (BOTS)	119345-04-9
butyl glycidyl ether	8/6/2426
polysorbate 80	9005-65-6
quaternary ammonium compounds, dicoco alkyldimethyl, chlorides (QAC)	61789-77-3
hexamethylene triamine penta methylene phosphonic acid (BMPA)	35657-77-3
diethylenetriamine penta (methylene-phosphonic acid)(DMPA)	15827-60-8
FD&C blue no. 1	3844-45-9
Tetrakis(triethanolamino) zirconium(IV) (TTZ)	101033-44-7

- B. *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, with the understanding that Operator is limited in its ability to recycle all fluids, as doing so would necessitate the use of permanent tanks, which is otherwise prohibited by the terms of the Agreement, and result in the potential for additional emissions. Operator shall not store waste onsite for periods longer than 30 days.
- C. *Containment Berms.* The Operator shall utilize steel-rim berms (or similar material of comparable durability) around all permanent separation and storage equipment at the Well Sites with sufficient capacity to contain 1.5 times the maximum volume of liquids that such equipment will contain 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.

- i. Permanent containment berms shall be constructed of steel rings or similar material, designed and installed to prevent leakage and resist degradation from erosion or routine operation.
 - ii. Secondary containment for permanent tanks 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.
- D. For locations within five hundred (500) feet and up-gradient of a surface water body, tertiary containment, such as an earthen berm, is required around respective production facilities.
- E. *Spill Response Kits.* Spill Response Kits will be available at either Well Sites or carried by field staff or contractors. These Spill Response Kits will be capable of mitigating small to mid-size spills (e.g., 5 to 50 gallons).
- F. *Injection Wells.* The Operator is prohibited from drilling or using injection wells in Commerce City or the Rocky Mountain Arsenal Wildlife Reserve.
- G. *Maintenance of Machinery.* Maintenance of vehicles shall not occur on site. Routine field maintenance of mobile machinery shall not be performed within three hundred (300) feet of any water body as defined by Commerce City Land Development Code. All fueling must occur over impervious material.
- H. *Spills.* Operator must notify the City and “SACWSD” (South Adams County Water and Sanitation District) of spills on the Well Sites that has a reportable spill quantity under any law. The Operator will also provide the City with a copy of any self-reporting submissions that Operator provides to the COGCC due to any spills at the Well Sites.
- I. *Stormwater Pollution Prevention and Erosion Control Plan.* All oil and gas operations at the Well Sites shall comply and conform with the City’s stormwater control regulations.
- J. *Water Quality Monitoring Plan.* Oil and gas operations shall avoid causing degradation to surface or ground water within the City and to wetlands within the City. The following standards set forth by the City are consistent with the COGCC rules and regulations. If Operator needs to seek a variance from a COGCC provision then an approved COGCC variance will apply upon notice of such variance from Operator to the City.
 - i. Using records of the Colorado Division of Water Resources, Operator must implement a water quality monitoring plan that includes the following:
 - a) Operator must obtain initial baseline samples and subsequent monitoring samples from all available potable water sources within a one-half (1/2) mile radius of the Well Sites. Potable water sources include registered water wells or permitted or adjudicated springs.
 - b) Operator must collect initial testing of baseline samples from all available water sources prior to the commencement of drilling a well, or prior to the re-stimulation of an existing well for which no samples were collected and tested during the previous 6-12 months.

- c) Post-stimulation samples of all available water sources shall be collected and tested pursuant to the following time frame:
1. One sample approximately one (1) year after commencement of the Production Phase;
 2. One sample approximately five (5) years after commencement of the Production Phase; and
- d) Operator shall collect a sample from at least one upgradient and two down-gradient water sources within a one-half (1/2) mile radius of a Well Site. If no such water sources are available, Operator shall collect samples from additional water sources within a radius of up to one (1) mile from the Well Site until samples from a total of at least one upgradient and two down-gradient water sources are collected. Operator should give priority to the selection of water sources closest to the Well Site.
- e) Operator may rely on existing groundwater sampling data from any water source within the radii described above that was collected in accordance with accepted standards, provided the data was collected within the 12 months preceding the commencement of Drilling Phase for such Well Site, the data includes measurement of all of the constituents measured in Table 1 below and there has been no significant oil and gas activity within a one-mile radius in the time period between the original sampling and the commencement of the Drilling Phase for such Well Site.
- f) Operator shall make reasonable efforts to obtain the consent of the owner of the water source. If the Operator is unable to locate and obtain permission of the water source, the Operator must advise the City that Operator could not obtain access to the water source from the surface owner.
- g) Testing for the analytes listed in Table 1 below, and subsequent testing as necessary or appropriate.
- h) Operator must follow standard industry procedures in collecting samples, consistent with the COGCC model Sampling and Analysis Plan.
- i) Operator must report the location of the water source using a GPS with submeter resolution.
- j) Operator must report results of field observations including reporting on damaged or unsanitary well conditions, adjacent potential pollution sources, odor, water color, sediment, bubbles, and effervescence.
- k) Operator must provide copies of all test results to the City, the COGCC, and the water source owners within 30 days after receiving the samples.
- l) Subsequent sampling. If sampling shows water contamination, additional measures shall be required including:

1. If free gas or a dissolved methane concentration level greater than one (1) milligram per liter (mg/l) is detected in a water source, determination of the gas type using gas compositional analysis and stable isotope analysis of the methane (carbon and hydrogen).
2. If the test results indicate thermogenic or a mixture of thermogenic and biogenic gas, an action plan to determine the source of the gas.
3. Immediate notification to the City, the COGCC, and the owner of the water well if the methane concentration increases by more than five (5) mg/l between sampling periods, or increases to more than ten (10) mg/l.
4. Immediate notification to the City, the COGCC and the owner of the water well if BTEX and/or TPH are detected as a result of testing. Such detections may result in required subsequent sampling for additional analytes.
5. Further water well sampling in response to complaints from water source owners.
6. Timely production and distribution of test results in electronic deliverable format to the City, the COGCC and the water source owners.
7. Qualified Independent Professional Consultant. All subsequent water source testing must be conducted by a qualified independent professional consultant.

TABLE 1

GENERAL WATER QUALITY

Alkalinity, Conductivity & TDS, pH, Dissolved Organic Carbon (or Total Organic Carbon), Bacteria, Perfluorinated Compounds (PFCs), and Hydrogen Sulphide

MAJOR IONS

Bromide, Chloride, Fluoride, Magnesium, Potassium, Sodium, Sulfate, and Nitrate + Nitrite as N

METALS

Arsenic, Barium, Boron, Chromium, Copper, Iron, Lead, Manganese, Selenium, Strontium, Mercury, Uranium, and Radium

DISSOLVED GASES and VOLATILE ORGANIC COMPOUNDS

Methane, Ethane, Propane, BTEX as Benzene, Toluene, Ethylbenzene and Xylenes, Total Petroleum, and Hydrocarbons (TPH)

OTHER

Water Level, Stable isotopes of water {Oxygen, Hydrogen, Carbon), Phosphorus.

- K. *Wastewater and Waste Management.* Operator must submit a Waste Management Plan to the City that complies with the following: All fluids shall be contained and there shall be no discharge of fluids. Waste shall be stored in tanks, transported by tanker trucks and/or pipelines, and disposed of at licensed disposal or recycling sites. The plan shall incorporate secondary containment and stormwater measures consistent with Sections 8 and 37. No land treatment of oil impacted or contaminated drill cuttings are permitted. If required, a copy of the Operator's Spill Prevention, Control, and Countermeasure Plan (SPCC) will be given to the City, which describes spill prevention and mitigation practices. The Operator shall not dispose of any wastewater within the City. All other waste shall be disposed of in accordance with state regulations.

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- L. *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.
 - M. *Wetlands Protection Plan.* If applicable, Operator must supply a Wetlands Protection Plan demonstrating the oil and gas operations shall, to the maximum extent practicable, avoid causing degradation to wetlands with Commerce City. Among other methods to achieve compliance with this standard, the proposed oil and gas operation shall not alter historic drainage patterns and/or flow rates or shall include acceptable mitigation measures to compensate for anticipated drainage impacts.
3. *Water Supply.* The Operator shall comply with applicable State of Colorado, Department of Natural Resources and other applicable State regulations concerning the source(s) of water used in the Drilling Phase and Completions Phase. The Operator shall notify the City, upon its request, of the source(s) of water to be used at Well Sites during the Drilling Phase and Completion Phase and will provide the City with an estimate of the volumes of water to be utilized, with such estimates subject to change. All water volumes actually used by Operator shall be reported by the Operator to the State of Colorado in accordance with its regulations. All fresh water for hydraulic fracturing shall be transported to the Well Sites by means other than by truck, unless the Operator provides notice after demonstration of extenuating circumstances which will short amount of time seven days or less. If the transportation of water by means other than truck exceeds seven (7) days the operator will seek any necessary amendments to the OGP.
4. *Safety*
- A. *Bradenhead Monitoring.* Operator will conduct bradenhead monitoring on the New Wells in accordance with COGCC Rules.
 - B. *Burning.* No open burning shall occur on the site of any oil and gas operation except flaring as allowed in Section 1G.
 - C. *Discharge Valves.* Open-ended discharge valves on all storage tanks, pipelines and other containers within the Well Site shall be secured and shall not be accessible to the general public. Open-ended discharge valves within the Well Site shall be placed within the interior of the secondary containment area.
 - D. *Flammable Material.* All ground within twenty-five (25) ft. 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. As such, no landscaping will be required within 25'± ft. of any tank or other structure containing flammable or combustible materials.
 - E. *Flowlines.* Any newly constructed or substantially modified flowlines on the Well Sites shall be constructed and operated under the provisions of the COGCC 1100 Series Flowline Regulations, any future COGCC Flowline Regulations, and any applicable surface use agreements with the surface owners. Operator shall pressure test all flowlines following their construction, including those rated at less than 15 PSI. Operator will provide to the City all records required to be submitted to State agencies related to inspections, pressure testing, accidents and other safety incidents related to flowlines at the Well Sites and, upon specific request by the City, Operator

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will provide to the City any other records submitted to State agencies related to flowlines at the Well Sites.

- i. **Recordation of Flowlines.** All new flowlines and pipelines shall have the legal description of the location recorded with the Adams County Clerk and Recorder within thirty (30) days of completion of construction. Abandonment of any recorded flowlines shall be recorded with the Adams County Clerk and Recorder within thirty (30) days after abandonment.
 - ii. Operator will provide GIS files for the location of Flowlines.
 - iii. Flowlines will be removed when last well utilizing lines are plugged and abandoned unless this requirement is waived in writing by Commerce City.
- F. **General Maintenance.** Operator shall operate and maintain all equipment pursuant to manufacturer specifications consistent with technological limitations and reasonable and customary maintenance practices.
- G. **Plugged and Decommissioned Well Testing.** Prior to and following the hydraulic fracturing of any New Well, Operator shall assess the integrity of all oil and gas and disposal wells (Active, Dry & Abandoned, Injecting, Plugged & Abandoned, Producing, Shut-In, and Temporarily Abandoned) where the surface location is within Commerce City Limits and within 1,500 ft. of the completion interval of the projected track of the borehole of the proposed New Well. Evaluation of these wells, including the additional testing and disclosure that exceeds COGCC requirements, will promote public health and safety by identifying and reporting findings at these Previously Abandoned wells and ensuring that the completion of New Wells has no impact to them.

This shall include:

- i. Compliance with all COGCC rules in relation to abandonment and plugging.
- ii. Notification to the City and applicable Fire District not less than fourteen (14) days prior to commencing plugging operations.
- iii. Based upon examination of COGCC and other publicly available records, identification of all Previously Abandoned Wells located within one-quarter mile of the projected track of the borehole of a proposed well.
- iv. Assessment of leaking gas, oil, or water to the ground surface or into subsurface water resources, taking into account plugging and cementing procedures described in any recompletion or plugged and abandoned report filed with the COGCC.
- v. Notification of the City and COGCC of the results of the assessment of the plugging and cementing procedures.
- vi. Permission from each surface owner with a Previously Abandoned Well on their property to access the property to test the soil within a 10 ft. radius of the Previously Abandoned Well. If a surface owner has not provided permission to access and test after thirty (30) days from receiving notice, the Operator shall not be required to test the Previously Abandoned Well. Notice to the surface owner will be sent by Certified Mail through the US Postal Service, return receipt requested, to assure that the surface owner receives

proper notice. The City will be notified for purposes of testing is denied within the City limits.

- vii. For each Previously Abandoned Well or other wells abandoned by the Operator within the City for which access and permission to test is granted, a soil gas survey to test the soil within a 10' radius of the Previously Abandoned Well shall be completed prior to production from the proposed New Well and again one (1) year after production has commenced on the New Well. Every Well abandoned by the Operator per this Agreement shall also be subject to the testing one (1) year after production has commenced on the New Wells.
- viii. Notification of the results of the soil gas survey to the City and the COGCC within one (1) month of conducting the survey or advise the City that access to the Previously Abandoned Wells could not be obtained from the surface owner.

H. *Site Security.* Operator will provide a Site Security Plan for each location. Each plan will need to be updated every ten years or more frequently if required by Commerce City at its sole discretion based upon growth and development in the immediate vicinity.

I. *Surface Safety Valve and Automatic Safety Protective Systems.* 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 shall provide the ability to remotely shut-in wells on demand through operator remote intervention. The SSV will have documented quarterly testing to ensure functionality.

5. *Visual Mitigation Plan.* Operator shall implement the Visual Mitigation Plan for a Well Site approved during the application process for such Well Site. The Visual Mitigation Plan shall include photographic simulations of the Well Site that include proposed impact mitigation measures as indicated below. The Community Development Director will determine if the proposed Well Site requires a photographic simulation based upon topography, existing vegetative and/or structural screening and the linear distance from the proposed Operations to residential and/or commercial land use(s).

A. *Visual Mitigation Methods.* One or more of the following visual mitigation methods may be required on a site-specific basis:

- i. Use of low-profile tanks less than 16 ft. in height. Operator will also consider equipment height and profile when designing and selecting other permanent equipment such as emission control devices, and other production equipment.
- ii. Facility painting, vegetative or structural screening, land berming and landscaping.
- iii. Earthen berm located around the perimeter of the fence and planted with turf grass or ground cover generally recognized by landscape architects and horticulturalists for local area use for the purpose of general screening

- iv. Establishment and proper maintenance of ground cover, trees and shrubs for screening and aesthetic purposes; and
 - v. Designing the Oil and Gas Facility to utilize natural screens where possible.
 - vi. Construction of fences for use with or instead of landscaping or berming.
- B. **Landscaping.** A Landscaping Plan shall be required for every Oil and Gas Location. The Landscaping Plan shall be coordinated with the City, depending on access to water, may be staged to accommodate surface development.

- i. If water for irrigation use is unavailable at the location, the initial phase will utilize natural topography and fencing surrounding the location, as well as any trees already established near the property. Initial landscaping will be installed within 6 months of finishing drilling and completion operations. At that time Operator will fence and landscape the location.
- ii. Once water for irrigation use is available to the area, the Operator must implement the final Landscaping as described in the Landscaping Plan. The Operator must consult with the City as well as meet Land Development Code requirements at the time the final landscaping is installed.
- iii. All plant materials shall be maintained in a healthy growing condition at all times. The Operator is responsible for the regular weeding, mowing, fertilizing, pruning and other maintenance of all plant materials as needed. Proper irrigation of plant materials is required, except that automatic irrigation systems are not required if no direct water connection is available within 500 ft.
- iv. **Significant Trees.** Existing significant trees (greater than eight inches in caliper) shall be preserved to the maximum extent practicable and may help satisfy the landscaping requirements set forth above. All required landscape plans shall accurately identify the locations, species, size, and condition of all significant trees, each labeled showing the applicant's intent to either remove, transplant, or protect.

Trees that meet one or more of the following removal criteria shall be exempt from the requirements contained in this subsection:

- a) Dead, diseased, or naturally fallen trees, or trees found to be a threat to public health, safety or welfare;
 - b) Trees that are determined by the city to substantially obstruct clear visibility at driveways and intersections; or
 - c) Tree species that constitute a nuisance to the public such as cotton-bearing cottonwood, Siberian or Chinese elm, Russian olive and female box-elder. Native cotton-bearing cottonwood trees and female box-elder trees, when located in a natural area buffer zone, are not nuisance tree species.
- C. **Lighting.** Exterior lighting shall be directed away from residential and other sensitive areas or shielded from said areas to eliminate glare. All permanent lighting fixtures installed at the Operations shall comply with the lighting standards of this Code. The intent of this provision is to minimize light spillage beyond the perimeter of the Well Sites and for the Operator to take

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appropriate steps in order to achieve this. All permanent lighting or lighting higher than a perimeter wall must be downward facing. All bulbs must be fully shielded to prevent light emissions above a horizontal plane drawn from the bottom of the fixture. Prior to installation of permanent lighting on any facility, the Operator agrees to submit to the City a Lighting Plan and the City shall communicate with Operator any modifications to the plan that it deems appropriate. Operator shall make such modifications as reasonably required by the City and as required by law. The lighting plan shall indicate the location of all outdoor lighting on the site and any structures, and include cut sheets (manufacturer's specifications with picture or diagram) of all proposed fixtures. During the Drilling and Completion Phases, consistent with applicable law, Operator will construct a minimum 32 ft.in height wall around as much of the perimeter of the well pads as operations allow to reduce light escaping from the site, unless taller, shorter, or no walls are mutually agreed to by City and Operator on a site-specific basis.

- D. *Artificial Lift.* Artificial lift will not be accomplished through the use of traditional pump jacks. Alternatives such as gas lift, linear rod pumps, or hydraulic pumping unit may be used, and are to be as low profile as practicable with a maximum height of 30 ft. An alternative artificial lift system may be used if it is less visible or auditory impacts and is agreed to by both parties.
- E. *Fencing.* As part of the Extraction Agreement, the City will evaluate the Well Site location and require fencing for the purposes of both visual mitigation and security. Permanent perimeter fencing shall be installed around production equipment unless such fencing is not required by the Visual Mitigation Plan for a Well Site, and shall be secured. The Operator must consult with the City as well as meet Land Development Code requirements at the time the final landscaping is installed.
- F. *Trailers.* A construction trailer(s) is permitted as an accessory use during active construction, drilling and well completion or workover operations only. No permanent residential trailers shall be permitted at the Well Sites; provided, however, that until ninety (90) days following the end of the Completion Phase on a Well Site, temporary residential and/or security trailers are permitted, as needed for on-site operations, for exclusive use by the Operator's personnel and the personnel of its subcontractors on a temporary basis.

6. *Noise Management Plan*

- A. Operators may be required to provide for additional noise mitigation based on the following site specific characteristics considering the distance from the nearest residential structure:
 - i. Nature and proximity of adjacent development (design, location, use);
 - ii. Prevailing weather patterns, including wind directions;
 - iii. Type and intensity of the noise emitted; and
 - iv. Vegetative cover on or adjacent to the site or topography.
- B. Based on the foregoing, if there is a Residential Building Unit or developed Public Park, as defined by City Code, within 1,320 ft. of the Well Location, the City may require one or more of the following additional noise abatement measures or BMPs depending on the site including:

- i. A Noise Management Plan specifying the hours of maximum noise and the type, frequency and level of noise emitted, and the mitigation methods to be employed to control both A and C scale noise consistent and no greater than those noise specifications delineated in ii-vii below.
- ii. The Operator shall comply with all provisions of COGCC Rule 802 on Noise Abatement with respect to the Well Sites; provided, however, that the Operator and City agree that the maximum permissible noise levels to be applied under Rule 802 shall be, other than during pad construction at the Well Sites, the greater of (i) the levels set forth for the land use type of “Residential/Agricultural/Rural” under Rule 802 if measurements are taken at 1,000 ft. from the sound walls at the Well Site and (ii) 4 dB(A) higher than baseline ambient sound measured at 1,000 ft. from the sound walls at the Well Site. During pad construction at the Well Sites, the Operator agrees that noise levels shall not exceed those produced by the construction of a typical residential or commercial development. All measurements considered for compliance with this section shall be taken by a third-party contractor using industry standard equipment and practices.
- iii. A Baseline Noise Mitigation Study will be conducted to ascertain baseline noise levels at each Well Site to demonstrate that noise is expected to be mitigated to the extent practicable and a copy will be provided to the City.
- iv. If a Well Location is ever within 1,320 ft. of five or more Residential Building Units, a third party contractor, at expense of Operator, shall continuously monitor noise and continuously collect and store noise readings during drilling and completions, with instruments placed between the Oil and Gas Location and Residential Building Units. Third party contractor 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.
- v. The Operator shall address C scale noise/vibration through berming, capable sound walls, and other associated BMPs. During the Drilling and Completion Phases, the operator shall construct a perimeter wall and/or comparable measures to mitigate noise as appropriate on a case-by-case or modeled basis. Additional mitigations must be taken by the Operator if C-scale noise levels are increased the larger of either 5db over ambient or above 65db at 25’ from the nearest occupied building unit.
- vi. Use of electric-powered motors and pumping systems; and
- vii. Construction of buildings or other enclosures where Operations create noise and visual impacts that cannot otherwise be mitigated due to proximity, density or intensity of adjacent land use.

C. *Quiet Technology.* The Operator agrees to use quiet completions technology for any well located within 1,320 ft. of a Residential Building Unit or within 1,500 ft. of a High Occupancy Structure unless Operator obtains waivers from all affected property owners within that distance.

7. Community Outreach and Notification – Operator will comply with the following community outreach efforts:

A. *Outreach to Affected Residents:* Operator will maintain a list, updated annually, of the residents and business owners within ¼ mile (1,320 ft.) of a location (“affected residents”). Operator will

use the list to (1) Provide at least 7-14 days advanced notice and community awareness to affected residents of mobilization in, rig up (MIRU), (2) Notify affected residents within 7 days of any reportable events that could have off-site impacts including fires, explosions, blow-outs, venting, or large spills (over 100 barrels). Operator may satisfy these public notification requirements through direct correspondence or through direct mail. These affected resident notices shall also go to local Operations Emergency Management (OEM) (Fire/Police).

- B. *Bi-Annual Updates to City:* The Operator shall provide a formal written update to the City Council on a Bi-Annual basis as to the progress of the project, including but not limited to, (1) any reportable spills or reportable accidents at locations, (2) any notice of alleged violations from the City or COGCC, and (3) summary of complaints to the Operator and COGCC. This update shall be coordinated through the Community Development Department specifically including the LGD. Updates shall begin at the beginning of construction and continue throughout drilling and completion operations and cease once the final well approved has been drilled and has been in production for one full year.
- C. *Complaint Response:* Operator has a dedicated phone line to address complaints that is open 24 hours per day, 7 days a week. All substantive and actionable complaints received by Operator are documented, investigated, with an initial response within 24 hours communicated to the complainant, landowner, City LGD and appropriate state agency officials. Once appropriate corrective actions have been taken, those actions will be communicated to the complainant, landowner, City LGD and appropriate state agency officials. Coordination with City LGD will be ongoing to ensure the effectiveness of the complaint management process.

The following phone numbers and websites will be available to the community members to report complaints and will be provided in the materials sent to affected residents:

- i. Operator complaint/ 24 hr. hotline
- ii. Emergency / 24 hotline
- iii. Commerce City LGD
- iv. COGCC: <http://cogcc.state.co.us/complaints.html#/complaints>

8. **Reclamation**

- A. *Interim Reclamation Plan.* An interim reclamation plan, taking into account the interests of the Surface Owner, must be approved by the City. The interim reclamation plan must include, at minimum:
- i. *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.
 - ii. *Removal of Equipment.* All equipment used for drilling, re-completion and maintenance of the facility shall be removed from the site within thirty (30) days of completion of the work, weather condition permitting, unless otherwise agreed to by the surface owner. Permanent storage of removable equipment on Well Sites shall not be allowed.

- iii. *Weed Control.* The Operator shall be responsible for ongoing weed control at the Well Sites and along access roads per City or other applicable agency regulations.
- B. *Final Reclamation Plan.* Operator must submit an oil and gas Well Site Final 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.
- i. *Removal of Pipelines.* Pipelines, gathering lines and flowlines shall be removed after one year of non-use when last well utilizing lines are plugged and abandoned unless this requirement is waived in writing by Commerce City.
 - ii. *Temporary Access Roads.* Temporary access roads associated with oil and gas operations at the Well Sites shall be reclaimed and revegetated to the original state within a reasonable amount of time, taking into account planting seasons, or as directed by the landowner in a Surface Use Agreement and subject to applicable COGCC variances. Operator must control erosion while access roads are in use.
9. ***Risk Management.*** Operator shall submit a project wide Risk Management Plan for oil and gas Well Sites and Facilities that includes but is not limited to risk identification, responsibilities, assessment, response, planning mitigation and, methods of risk avoidance and control that implement techniques to prevent the accident/loss and reduce the impact after it occurs. The Risk Management Plan that will be provided is taken from a similar project in the City and County of Broomfield which was completed by a third-party consultant. Operator shall also provide an addendum to the Risk Management Plan that identifies any site-specific concerns unique to the Well Site or not identified in the general plan. A Risk Management Plan is an evolving document subject to regular updates.
- A. **Identification**
Operator will evaluate the project and develop a list of items which are identified as a risk by those on the project planning team. The operator shall develop the risk identification in a risk table which will identify the particular site by name, describe the risk, provide a description of the risk area and associated factors and whether it is an unmitigated or mitigated risk.
- B. **Responsibilities**
The Risk Management Plan will provide information as to who is responsible for the managing risk and what plans support the risk mitigation. The RMP shall provide for employees, plans and procedures to oversee implementation and periodic revision of plan.
- C. **Assessment**
The Risk Management Plan will note whether there is a health, safety, and/or environmental impact, and whether there will be an impact to the development schedule or to the overall performance and quality assurance.
- D. **Response, Planning and Mitigation**
The Risk Management Plan may note a planned mitigation response for certain identified risks. The mitigation strategy should note a BMP for the varied risks. The mitigation strategies should include emergency response, tactical response plans and notifications.
- E. **Compliance Audit, Tracking and Reporting**
Operator will implement a compliance and audit program. The Operator shall determine and document an appropriate response to each of the findings of the compliance audit, and document

that deficiencies have been corrected. If operator utilizes a self-reporting mechanism to any respective agency, that self-reporting mechanism will be described in the Risk Management Plan. If operator self-reports, any findings included in the self-reporting to any other respective agency will be provided to the City.

F. Incident and accident reporting.

- i. Incidents. Within a week of any reportable safety event as defined by the COGCC in Rule 602(c), Operator shall submit a report to the City that includes the following, to the extent available:
 1. Fuel source, location, proximity to residences and other occupied buildings, cause, duration, intensity, volume, specifics and degree of damage to properties, if any beyond the Well Site, injuries to persons, emergency response, and remedial and preventative measures to be taken within a specified amount of time.
- ii. City may require Operator to conduct a root cause analysis of any reportable safety events or Grade 1 gas leaks, each as defined by the COGCC.
- iii. Any spill or release that is reportable to the COGCC shall be simultaneously reported to the City's LGD and applicable fire district.

G. Update of Risk Management Plan

Risk Management Plan is subject to review by the City Manager and City Council periodically, but at least every three years and after any incident. City may retain outside consultants to review Risk Management Plan and may require modifications to Risk Management Plan based on its review.

H. Automatic safety protective systems and surface safety valves. Operator is required to install automated safety system prior to commencement of production. Automated safety system shall include the installation, monitoring and remote control of a surface safety valve or a wellhead master control valve and shall be able to remotely shut-in wells on demand. Surface safety valve or a wellhead master control valve shall be equipped to operate remotely via the automated safety protective system. Operator shall test automated safety system to ensure functionality per manufacturer's specifications.

I. Operator shall maintain safety management plans for oil and gas operations including: hazard review, operating procedures, safety training program, maintenance procedures, compliance audits, and design measures.

10. Signs and Markers. The Operator shall mark each and every Oil and Gas Well in a conspicuous place, from the time of initial drilling until final abandonment, as follows:

- A. **General Sign Requirements.** No sign required under this Section shall be installed at a height exceeding six (6) ft. Operator shall maintain signs in a legible condition and shall replace damaged or vandalized signs within six (60) days. New or successor Operators shall update signs within sixty (60) days after change of Operator approval is received from the COGCC.
- B. **Drilling and Recompletion Operations.** The Operator shall provide directional signs, no less than three (3) and no more than six (6) sq. ft. in size, during all drilling and recompletion Operations. Such signs shall be at locations sufficient to advise emergency crews where drilling or recompletion is taking place. At a minimum, such sign locations shall include the first point of

intersection of a public road and the rig access road and thereafter at each intersection of the rig access route, except where the route to the well is clearly obvious to uninformed third parties. Signs not necessary to meet other obligations under these rules shall be removed as soon as practical after the Operation is complete.

C. Permanent Designations.

- i. Oil and Gas Wells. Within sixty (60) days after the Completion Phase of an Oil and Gas Well, a permanent sign shall be located at both the wellhead and surface equipment (if not at the wellhead), which shall identify the Oil and Gas Well, the name and contact information of the Operator and the legal location, including the quarter section.
- ii. Surface Equipment. Within sixty (60) days after the installation of a tank battery, a permanent sign shall be located at the tank battery. At the option of the Operator, or at the request of the City, the sign may be placed at the intersection of the lease access road with a public road nearest the tank battery, if the tank battery is readily apparent from such location. Such sign, which shall be no less than three (3) sq. ft. and no more than six (6) sq. ft., shall provide: the name of the Operator; a phone number at which the Operator may be reached at all times; a phone number for local emergency services; the lease name or Oil and Gas Well name(s) associated with the tank battery; the public road used to access the site; and the legal location, including the quarter section. In lieu of
- iii. Tanks and Containers.
 - a) All tanks with a capacity of ten (10) barrels or greater shall be labeled or posted with the following information:
 1. Name of Operator;
 2. Operator's emergency contact telephone number;
 3. Tank capacity;
 4. Tank contents; and
 5. National Fire Protection Association (NFPA) Label.

11. **Use of Pipelines.** The Operator agrees to build pipelines for the transport of oil and gas from the Well Sites in Exhibit A and shall utilize such pipelines at the Well Sites before the Production Phase commences. Operator shall pipe all produced water from all Well Sites west of Tower Road. All fresh water for hydraulic fracturing shall be transported to the Well Sites by means other than by truck. The Operator's obligation to build and utilize such pipelines is subject to the City granting Operator all necessary right-of-way and the City issuing Operator the necessary City approvals (including but not limited to right-of-way, grading, conditional use permit). Operator shall be permitted to utilize temporary tanks during drilling, flowback, workover, completion, hydraulic fracturing and maintenance operations. This is contingent on the approval of the Conditional Use Permit for the Pipelines.

12. **Emergency Response Plan.** The Operator is required to complete a detailed Emergency Response Plan. The City Office of Emergency Management (OEM) and the South Adams County or Brighton Fire Rescue District must approve of the Emergency Response Plan ("Plan") before the Drilling Phase commences.

As long as all requirements of this Section are met, the City shall not unreasonably withhold approval and shall approve the Plan within thirty (30) days of submittal and the City will assist Operator in obtaining an expeditious approval from the South Adams County and Brighton Fire Department.

The Plan shall be reviewed by the Operator on an annual basis and any updates filed with the City and the South Adams County or Brighton Fire Rescue District including changes (responsible field personnel change, ownership changes, etc.). If no updates to the Plan are made then Operator shall provide notice of "No Change." The Plan shall include a notification system for potentially affected citizens and occupied buildings.

The Plan shall consist of at least the following information:

- A. Name, address and phone number, including twenty-four-hour numbers for at least two persons responsible for field operations as well as the contact information for any subcontractor of Operator engaged for well-control emergencies.
- B. An as-built facilities map in a format suitable for input into the City's GIS system depicting the locations and type of above and below ground facilities, including sizes and depths below grade of all oil and gas flow lines and associated equipment, isolation valves, surface operations and their functions, as well as transportation routes to and from exploration and development sites, for response and management purposes. The information concerning flowlines and isolation valves shall be held confidentially by the City and shall only be disclosed in the event of an or to responders or for the training of responders. The City shall deny the right of inspection of the as-built facilities maps to the public pursuant to C.R.S. § 24-72-204.
- C. Detailed information addressing each reasonable potential emergency that may be associated with the operation. This may include any or all of the following: explosions, fires, gas, oil or water pipeline leaks or ruptures, hydrogen sulfide or other toxic gas emissions, hazardous material vehicle accidents or spills, or natural disasters. A provision that any spill outside of the containment area, that has the potential to leave the facility or to threaten waters of the state, or as required by the City-approved Plan shall be reported to the local dispatch and the COGCC Director in accordance with COGCC regulations.
- D. Detailed information identifying access, and health care facilities anticipated to be used.
- E. A project-specific plan for any project that involves drilling or penetrating through known zones of hydrogen sulfide gas.
- F. A statement and detailed information indicating that the Operator has adequate personnel, supplies, and training to implement the Plan immediately at all times during construction and operations.
- G. The Operator shall have current Material Safety Data Sheets (MSDS) for all chemicals used or stored on a Well Site. The MSDS sheets shall be provided immediately upon request to City officials, a public safety officer, or a health professional as required by COGCC Rule 205.
- H. *Public Notification.* The Plan shall include a provision establishing a process by which the Operator notifies surrounding neighbors to inform them about the on-site operations and provide sufficient contact information for surrounding neighbors to communicate with the Operator.

- I. All training associated with the Plan shall be coordinated with the City and the South Adams County Fire District and Brighton Protection District.
 - J. A provision obligating the Operator to reimburse the appropriate agencies for their expenses resulting from the Operator's operations, to the extent required by Colorado Revised State Statutes.
 - K. Operator shall provide the City with its shutdown protocols and promptly notify the City of any shut downs that would have an impact to any area beyond the confines of the Well Site.
 - L. *Emergency Evacuation Plan.* Operator shall provide a copy of an emergency evacuation plan for the Well Site. Any evacuation plan detailing all persons to be notified in the event of an evacuation, including but not limited to, all persons residing within one-half (1/2) mile of the edge of construction or surface disturbance will be handled by the OEM.
 - M. *Fires and Explosions Reporting.* Any accident or natural event involving a fire, explosion or detonation requiring emergency services or completion of a COGCC Form 22 shall be reported to the City LGD within 24 hours of the conclusion of an incident. This report shall include such specifics, to the extent available:
 - i. Fuel source
 - ii. Location
 - iii. Proximity to residences and other occupied buildings
 - iv. Cause
 - v. Duration
 - vi. Intensity
 - vii. Volume
 - viii. Specifics and degree of damage to properties, if any beyond the Well Site
 - ix. Injuries to person(s)
 - x. management response; and
 - xi. Remedial and preventive measures to be taken within a specified amount of time The Operator shall provide the City with an additional report containing the information above after the conclusion of the accident or natural event if lasting more than 24 hours.
13. **Insurance.** The Operator agrees to provide liability and insurance under the conditions, and in the amounts, set forth in Exhibit C
14. **Transportation and Circulation.** The Operator will comply with all Transportation and Circulation requirements as contained in the City Land Use Code as may be reasonably required by the City's Traffic Engineer and will comply with all applicable hazardous material regulations. The Operator will submit a traffic control plan to the City that includes detailed descriptions of all proposed access routes for equipment, water, sand, waste fluids, waste solids, mixed waste, and all other material to be hauled on the

public streets and roads of the City. The Operator will obtain necessary access permits, which the City will not unreasonably withhold.

- A. *Traffic Control Plan.* The traffic plan shall include the following:
- i. Estimated weights of vehicles when loaded, a description of the vehicles, including the number of wheels and axles of such vehicles and trips per day.
 - ii. Detail of access locations for each well site including sight distance, turning radius of vehicles and a template indicating this is feasible, sight distance, turning volumes in and out of each site for an average day and what to expect during the peak hour.
 - iii. Truck routing map and truck turning radius templates with a listing of required and determined that certain improvements are necessary at intersections along the route.
 - iv. Restriction of non-essential traffic to and from Well Sites to periods outside of peak am and pm traffic periods and during school hours (generally 7-8am and 3-6pm) if Well Site or access road are within 1,000 ft. of a school property. Identification of need for any additional traffic lanes, which would be subject to the final approval of the City's engineer.
 - v. *Public Improvements.* In the event public road improvements are necessary to accommodate an Operation, and before work will be permitted within any City right-of-way, the Operator shall draft engineered drawings to be prepared by a Colorado licensed civil engineer, in conformance with City standards, for review and approval by the City.
 - vi. *Oil and Gas Well Site Access.* Access to any property from a City street requires a City-issued access permit. Access Permits are revocable upon issuance of a stop work order or if other Oil and Gas Permit violations occur. The permitting and construction of accesses shall comply with the City's Engineering Construction Standards and Specifications and design standards.
 - vii. *Private Access Roads.* Access points to public roads must be located, improved and maintained to assure adequate capacity for efficient movement of existing and projected traffic volumes and to minimize traffic hazards. Permanent access roads must be improved a minimum distance of 200 feet on the access road from the point of connection to a public road. All access roads must be in conformance with the City's standards and specifications. The access road must be improved as a hard surface (concrete or asphalt) for the first 100 feet from the public road, unless public road is not already a hard surface, in which case, Operator shall meet the current standards of the public road. The access road must be improved with a crushed surface (rock, concrete, or asphalt) for the next 100 feet in the appropriate depth to support the weight load requirements of the vehicles accessing the Well Site. A geotechnical report and pavement design will be submitted to the City for approval. If an access road intersects with a pedestrian trail or walk, the Operator shall pave the access road as a hard surface (concrete or asphalt) a distance of 100 feet either side of the trail or walk, unless the trail or walk is not already a hard surface, in which case, Operator shall meet the current standards of the trail or walk. If necessary, Operator shall replace the trail or walk to address the weight load requirements of the vehicles accessing the well and production facilities. Temporary access roads associated with the Operations will be reclaimed and reseeded to the original state within 60 days after discontinued use of the temporary access roads. An exception to temporary access road

construction standards and specifications may be made upon agreement of the Parties where circumstances warrant a departure given future development needs.

viii. *State Highway Access.* Where a Site's access is directly to a state highway, the Operator must procure and maintain an approved State Highway Access Permit.

ix. *Haul Routes.* Operators shall only use roadways for haul routes that are identified on a City-approved traffic control plan.

B. *Oversize/Overweight Vehicles.* Any oversize or overweight vehicle making use of any City street shall obtain an Oversized, Overweight and Longer Vehicle Combination Permit from the City.

C. *Mud Tracking.* The Operator shall take all practicable measures to ensure that vehicles do not track mud or debris onto City streets. If mud or debris is nonetheless deposited on City streets, in excess of *de minimus* levels, the streets shall be cleaned immediately by the Operator. If for some reason this cannot be done, or needs to be postponed, the City shall be notified of the Operator's plan for mud removal.

D. *Chains.* Traction chains from heavy equipment shall be removed before entering a City street.

15. *Flowback Best Management Practices*

A. Before flowback, Operator will notify appropriate local fire district at least 24-hours before production flowback is scheduled to begin for the first time on a well pad. Operator will conduct a pre-startup safety review (PSSR), which will review facility and equipment spacing requirements and safety procedures.

B. During flowback, Operator will utilize gas monitors that are capable of detecting Lower Explosive Level and H₂S, which emit an audible tone linked to cell phones to notify people on and off location. Operator will also send flowback gas to sales pipeline when possible. The production facility will be built before flowback and flowback equipment will be tied into Combustors. Operator will utilize automatic tank gauging to measure tank levels and have 24-hr manned operations. The production facilities will be capable of remote ESD (emergency shut down).

EXHIBIT C

Insurance Requirements

During the term of the Agreement with the City of Commerce City ("City"), Operator shall comply with the following requirements:

1. Operator shall maintain or cause to be maintained, with insurers authorized by the state of Colorado and carrying a financial strength rating from A.M. Best of no less than A- VII (or a similar rating from an equivalent recognized ratings agency), at a minimum, the following types of insurance with limits no less than the amounts indicated:
 - A. Commercial General Liability insurance on an occurrence based form including coverage for bodily injury or property damage for operations and products and completed operations with limits of not less than \$1,000,000 each and every occurrence.
 - B. Automobile Liability insurance with limits of not less than \$1,000,000 each and every occurrence.
 - C. Workers' Compensation insurance- Statutory Workers' Compensation Coverage for the employee's normal State of employment/hire. Including Employer's Liability insurance - with limits of not less than \$1,000,000 Each Accident, Disease - Each Employee, Disease - Policy Limit.
 - D. Control of Well/Operators Extra Expense insurance - with limits of not less than 10,000,000 covering the cost of controlling a well that is out of control or experiences a blowout, re-drilling or restoration expenses, seepage and pollution damage resulting from an out of control well or blowout as first party recovery for the operator and related expenses, including, but not limited to, loss of equipment and evacuation of residents.
 - E. Umbrella/Excess Liability - in excess of General Liability, Employer's Liability, and Automobile Liability with limits no less than \$25,000,000 per occurrence; provided, however, that for so long as the Construction Phase, Drilling Phase or Completions Phase is ongoing at any of the Well Sites, Operator will maintain such insurance with limits no less than \$100,000,000 per occurrence.
 - F. Environmental Liability/Pollution Legal Liability insurance- with limits of not less than \$5,000,000 per pollution incident, with coverage being required beginning with the date that is eight (8) years from the date of first production from the first New Well (the "Required Date"). Coverage must include gradual pollution events. This insurance may be on a claims-made basis, however the retroactive date must precede the Required Date in order to cover all New Wells and Well Sites.
2. Operator shall waive and cause its insurers under the above policies to waive for the benefit of the City any right of recovery or subrogation which the insurer may have or acquire against the City or any of its affiliates, or its or their employees, officers or directors for payments made or to be made under such policies.
3. As it pertains to the risks and liabilities assumed by Operator under this Agreement, Operator agrees to add the City and its elected and appointed officials and employees as Additional Insureds under general liability (including operations and completed operations), auto liability and umbrella liability.
4. Operator shall ensure that each of the policies are endorsed to provide that they are primary without right of contribution from the City or any insurance or self-insurance otherwise maintained by the City, and not in excess of any insurance issued to the City.
5. Operator shall ensure that each of the policies above (excluding workers' compensation and OCC/COW) are endorsed to state that the inclusion of more than one insured under such insurance policy shall not operate to impair the rights of one insured against another insured and that the coverage afforded by each insurance policy shall apply as though a separate policy had been issued to each insured.

6. All policies shall be endorsed such that they cannot be canceled or non-renewed without at least 30 days' advanced written notice to the Operator and the City, evidenced by return receipt via United States mail, except when such policy is being canceled for nonpayment of premium, in which case 10 days advance written notice is required. Language relating to cancellation requirements stating that the insurer's notice obligation is limited to "endeavor to" is not acceptable.
7. Operator shall, prior to permit issuance, deliver Certificates of Insurance reasonably acceptable to the City confirming all required minimum insurance is in full force and effect.
8. Deductibles or retentions shall be the responsibility of Operator. Deductibles or retentions must be listed on the Certificate of Insurance required herein and are subject to the reasonable approval of the City.
9. Operator shall require any of its subcontractors to carry the types of coverage and in the minimum amounts in accordance with the requirements set out in Section 1.A, 1.B. and 1.C. Operator agrees that it shall be responsible for any damage or loss suffered by the City as a result of non-compliance by Operator or any subcontractor with this section.
10. In the event that Operator's coverage lapses, is cancelled or otherwise not in force, the City reserves the right to obtain insurance required herein and charge all costs and associated expenses to Operator, which shall become due and payable immediately.
11. In the event that the coverage required by Section 1.F is not widely available to operators in the Denver-Julesburg Basin, in lieu of the coverage required by Section 1.F, Operator and the City shall establish a joint escrow account that shall be used to satisfy any obligations of Operator that would have otherwise have been covered by the coverage required by Section 1.F. Operator shall fund such account with an amount equal to \$5,000.00 per New Well then-producing (the "Per Well Amount"). The aggregate amount to be placed into the account shall be re-visited on an annual basis based on the then-number of producing New Wells. The Per Well Amount shall be adjusted each year by the increase or decrease in the Consumer Price Index issued by the United States Bureau of Labor Statistics for the Denver – Boulder metropolitan area. Any interest accrued in the account shall be credited towards the Operator's required contributions to the account and any excess amounts in the account above and beyond the amount required by this provision shall be promptly returned and released to Operator.

Exhibit D: P&A Wells

The following existing vertical wells are within the current Commerce City Limits, and are planned to be permanently Plugged & Abandoned within 120 days of horizontal well production being established across their individual spacing unit.

<u>AREA</u>	<u>API</u>	<u>Operator</u>	<u>Well Name</u>
COMMERCE CITY	05-001-06750	EXTRACTION OIL & GAS INC	1 BOX ELDER FARMS 41-21
COMMERCE CITY	05-001-09307	EXTRACTION OIL & GAS INC	10-3 HSR-TR RANCH
COMMERCE CITY	05-001-09237	EXTRACTION OIL & GAS INC	16-3 HSR-TR RANCH
COMMERCE CITY	05-001-07399	EXTRACTION OIL & GAS INC	2 BOX ELDER FARMS 31-21
COMMERCE CITY	05-001-07856	EXTRACTION OIL & GAS INC	3 PARD, INC.

The following existing vertical wells are NOT within the current Commerce City Limits, but are in the City's Growth Area and will be included in the P&A program if the surface locations are annexed into the city per Article 4.1.








<u>AREA</u>	<u>API</u>	<u>Operator</u>	<u>Well Name</u>
Adams County	05-001-06684	EXTRACTION OIL & GAS INC	1 BOX ELDER H
Adams County	05-001-07125	EXTRACTION OIL & GAS INC	1 BOX ELDER M
Adams County	05-001-06881	EXTRACTION OIL & GAS INC	1 BOXELDER A
Adams County	05-001-06792	EXTRACTION OIL & GAS INC	1 CARLSON
Adams County	05-001-06527	EXTRACTION OIL & GAS INC	1 CHAMPLIN 78 AMOCO A
Adams County	05-001-06735	EXTRACTION OIL & GAS INC	1 ROSENBROCK
Adams County	05-001-06703	EXTRACTION OIL & GAS INC	1 WENZEL
Adams County	05-001-09301	EXTRACTION OIL & GAS INC	10-10 HSR-VAN SCHAACK
Adams County	05-001-06947	EXTRACTION OIL & GAS INC	11-25 MARTIN
Adams County	05-001-09312	EXTRACTION OIL & GAS INC	12-11 HSR-VAN SCHAACK
Adams County	05-001-09661	EXTRACTION OIL & GAS INC	13-30 WENZEL
Adams County	05-001-06718	EXTRACTION OIL & GAS INC	2 BOX ELDER H
Adams County	05-001-09408	EXTRACTION OIL & GAS INC	2 ROSENBROCK
Adams County	05-001-09284	EXTRACTION OIL & GAS INC	2-11 HSR-VAN SCHAACK
Adams County	05-001-09615	EXTRACTION OIL & GAS INC	21-31 BOX ELDER H
Adams County	05-001-09617	EXTRACTION OIL & GAS INC	22-31 BOX ELDER H
Adams County	05-001-09314	EXTRACTION OIL & GAS INC	2-3 HSR-LUNNON
Adams County	05-001-07042	EXTRACTION OIL & GAS INC	23-25 MARTIN
Adams County	05-001-09616	EXTRACTION OIL & GAS INC	24-31 BOX ELDER H
Adams County	05-001-09622	EXTRACTION OIL & GAS INC	24-36 CO STATE A
Adams County	05-001-06805	EXTRACTION OIL & GAS INC	3 STATE A
Adams County	05-001-09646	EXTRACTION OIL & GAS INC	31-30 ROSENBROCK
Adams County	05-001-09648	EXTRACTION OIL & GAS INC	33-30 ROSENBROCK
Adams County	05-001-09569	EXTRACTION OIL & GAS INC	33-36 CO STATE A
Adams County	05-001-06998	EXTRACTION OIL & GAS INC	34-25 MARTIN
Adams County	05-001-06810	EXTRACTION OIL & GAS INC	4 STATE A
Adams County	05-001-09551	EXTRACTION OIL & GAS INC	41-3 DIBC
Adams County	05-001-09579	EXTRACTION OIL & GAS INC	42-30 ROSENBROCK
Adams County	05-001-09647	EXTRACTION OIL & GAS INC	43-30 ROSENBROCK
Adams County	05-001-09602	EXTRACTION OIL & GAS INC	44-36 CO State A
Adams County	05-001-09254	EXTRACTION OIL & GAS INC	5-2 HSR ACKARD
Adams County	05-001-06834	EXTRACTION OIL & GAS INC	6 STATE A

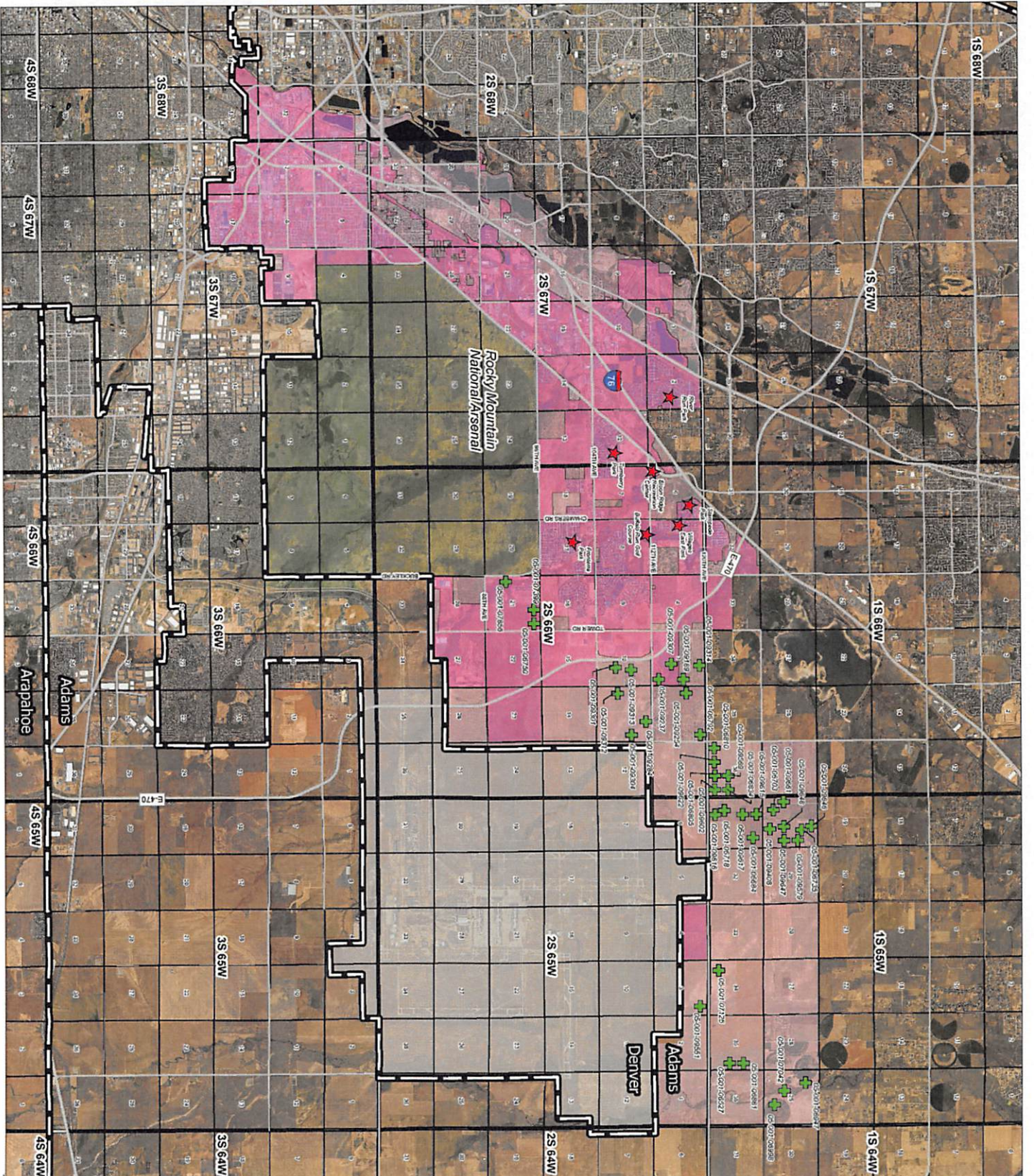
Adams County	05-001-09313	EXTRACTION OIL & GAS INC	7-10 HSR-CUNNINGHAM
Adams County	05-001-09304	EXTRACTION OIL & GAS INC	8-11 HSR-VAN SCHAACK
Adams County	05-001-09189	EXTRACTION OIL & GAS INC	8-3 HSR LAWSON

Map also attached for reference.

EXHIBIT D

Legend

-  Commerce City Landmark
-  Well to be plugged and abandoned
-  County Boundary
-  Commerce City, ISA
-  Commerce City Boundary
-  Rocky Mountain National Arsenal
-  Denver International Airport



Scale: 1" = 1 Mile
0 1/2 1 1 1/2 2 Miles

Adams County Development Commerce City, CO Adams County, CO	
Scale: 1:24,000	PROJECT NUMBER: 20130013
DRAWN BY: JTB	AUTHOR: CHM



Exhibit E: BMPs for COGCC submissions

Proposed COGCC BMPs for Surface Locations within Commerce City	
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. As such, no landscaping will be required within 25' of any tank or other structure containing flammable or combustible materials.
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 exterior sound wall surrounding the well pads and operations area to reduce light escaping from the site.
Planning	This location is subject to a Commerce City Oil and Gas Permit (OGP), as set forth in Article V of the Operator Agreement between Extraction Oil a& Gas, Inc. and the City of Commerce City, dated September 18, 2019.
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.
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 City of Commerce City, South Adams County Fire District and Brighton Protection District.
Planning	Extraction will establish a live, 24-hour telephone hotline to receive feedback on our drilling and completion activities with the goal of having a tool to allow for immediate investigation and address any complaints that arise. Prior to the initiation of 24-hour operations (drilling) Extraction will mail a post card prior to drilling (include the email address and 24-hour manned phone number) to residents within 1,320' of the location.
Planning	Oil and gas will be transported through a pipeline. For locations west of Tower Road, produced water will be transported by means other than truck. Flaring will be minimized to the maximum extent practicable. Uncontrolled venting is prohibited other than where necessary for safety. Pipeline will be constructed prior to production phase.
Traffic Control	Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction, drilling and operational activities such that there are no visible dust emissions from access roads or the Well Sites to the extent practical given wind conditions. No untreated produced water or other process fluids shall be used for dust suppression.
Traffic Control	A traffic plan is required by the Commerce City and shall be coordinated with the local jurisdiction prior to commencement of move in and rig up.

General Housekeeping	<p>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.</p> <p>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 as soon as practicable.</p>
General Housekeeping	Site security will be maintained at all times. Location will be adequately fenced where necessary restrict access by unauthorized persons. The site will have fencing or landscaping where required.
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.
Material Handling and Spill Prevention	Leak Detection Plan: Extraction will monitor production facilities as per industry standards 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.
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.
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.
Dust Control	805.c. Operator shall employ practices for control of fugitive dust caused by the operations. Such practices shall include but are not limited to the use of 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.
Construction	<p>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.</p> <p>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.</p>

	<p>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.</p> <p>Secondary containment for tanks 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 of Commerce City, Extraction agrees to pressure test flowlines according to the COGCC flowline rules.</p>
Noise Mitigation	<p>Quiet Technology. The Operator agrees to use quiet completions technology for any well located within 1,320 feet of a Residential Building Unit or within 1,500 of a High Occupancy Structure unless Operator obtains waivers from all affected property owners within that distance.</p>
Noise Mitigation	<p>Electric Equipment. All permanent production equipment, such as compressors, motors and artificial lift equipment, shall utilize electric line power in order to mitigate noise and to reduce emissions.</p> <p>i. Where power is available and there is a residential building unit within 1,320' of a well, drilling rig(s) capable of drilling to Total Depth (TD) shall be required to utilize electric line power unless Commerce City waives this provision in writing for a specific location.</p> <p>ii. If necessary, Operator shall provide an Electrification Plan to describe how electricity will be brought to the location for all phases of development.</p>
Noise Mitigation	<p>Thirty-two foot high exterior sound walls will be used during drilling and completion operations.</p>
Noise Mitigation	<p>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.</p> <p>If well location is within 1,320' of five or more residential building units, 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.</p> <p>The Operator shall conduct the monitoring and data collection during construction, drilling, and completions operations.</p>
Emissions Mitigation	<p>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:</p> <p>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.</p> <p>B. Operator shall comply with 40 CFR 60.5375(a)(1), (2) for green completions.</p> <p>C. Uncontrolled venting is prohibited other than where necessary for safety.</p> <p>D. Temporary flowback flaring and oxidizing equipment where allowed shall include the following:</p> <ol style="list-style-type: none"> 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;

	<p>3. Auxiliary fueled with sufficient supply and heat to combust or oxidize noncombustible 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</p> <p>4. The Operator has a general duty to safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery/operation.</p>
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.
Emissions Mitigation	Leak Detection Plan: Operator will monitor production facilities to identify fluid leaks, including, but not limited to, visually inspecting all wellheads and equipment. Operator shall develop and maintain an acceptable leak detection and repair ("LDAR") program as required by CDPHE using modern leak detection technologies such as infra-red cameras for equipment used on the Well Sites.
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. Odor emitting from Well Sites must be controlled. Operator will work to prevent odors from oil and gas operations by proactively addressing and, to the extent possible, resolving complaints filed by impacted members of the community. Operator must use a filtration system or additives to the drilling and fracturing fluids to minimize odors. Use of fragrance to mask odors is prohibited.
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.
Drilling/Completion Operations	Bradenhead Monitoring. Operator will conduct bradenhead monitoring on the New Wells as required on the relevant Applications for Permit to Drill - Form 2.
Drilling/Completion Operations	All fresh water for hydraulic fracturing shall be transported to the well by means other than truck.
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.
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.
Drilling/Completion Operations	Flowback Monitoring System: Autonomous gas monitors will be placed around the location during the flowback phase.
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.
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.
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.

EXHIBIT F: Expected Schedule of Operations

This schedule will be updated as material changes are made or at least bi-annually.

COMMERCE CITY OPERATIONS SCHEDULE		2020			2021			2022			2023			2024			2025																										
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Falcon Pad 28 Wells	Construction	[Green bar]																																									
	Drilling	[Green bar]																																									
	Completion	[Green bar]																																									
	Interim Reclamation	[Green bar]																																									
	Final Reclamation	[Green bar]																																									
Cooder Pad 18 Wells	Construction	[Green bar]																																									
	Drilling	[Green bar]																																									
	Completion	[Green bar]																																									
	Interim Reclamation	[Green bar]																																									
	Final Reclamation	[Green bar]																																									
Oval Pad 18 Wells	Construction	[Green bar]																																									
	Drilling	[Green bar]																																									
	Completion	[Green bar]																																									
	Interim Reclamation	[Green bar]																																									
	Final Reclamation	[Green bar]																																									
Blue Jay Pad 18 Wells	Construction	[Green bar]																																									
	Drilling	[Green bar]																																									
	Completion	[Green bar]																																									
	Interim Reclamation	[Green bar]																																									
	Final Reclamation	[Green bar]																																									
Falcon Pad 18 Wells	Construction	[Green bar]																																									
	Drilling	[Green bar]																																									
	Completion	[Green bar]																																									
	Interim Reclamation	[Green bar]																																									
	Final Reclamation	[Green bar]																																									
Halo or Jacobson Pad 32 wells	Construction	[Green bar]																																									
	Drilling	[Green bar]																																									
	Completion	[Green bar]																																									
	Interim Reclamation	[Green bar]																																									
	Final Reclamation	[Green bar]																																									
Heron Pad 24 Wells	Construction	[Green bar]																																									
	Drilling	[Green bar]																																									
	Completion	[Green bar]																																									
	Interim Reclamation	[Green bar]																																									
	Final Reclamation	[Green bar]																																									

Exhibit G: Purchase of Essential Emergency Response Equipment and Training.

Operator and Brighton Fire Rescue District and South Adams County Fire Department (collectively "Fire Districts") have agreed to the following list of training and equipment necessary to respond to an oil and gas emergency within Commerce City.

Operator has agreed that its proposed oil and gas activity could burden the Fire Districts' existing capabilities and resources and therefore has agreed to supply the Fire Districts with the following training, equipment, and water supply:

Training

Operator will provide the following training to the Fire Districts prior to the spudding of the first well within Commerce City and ongoing training as described below.

1. Operator will provide training courses to all Fire Districts' shifts prior to spudding of first well. The training courses will include those such as TEEEX's Industrial Emergencies for Municipal-Based Responders, Wild Well's Well Site Incident Management Strategies Tactics for Municipal Responders, Operator's 101 course and other associated training courses.
 - a. Local training is preferred
 - b. Off-site training for Training Chiefs, Battalion Chiefs, Captains, Lieutenants, and Training Officers as necessary.
2. Operator will provide the courses listed above as the Fire Districts deem reasonably necessary for as long as Operator is operating well sites under this agreement.
3. Operator and the Fire Districts will conduct an initial Table Top exercise six months prior to the spudding of the first well and battalion shift exercises prior to the spudding of the first well.
4. After initial Table Top exercise, Operator and Fire Districts will conduct annual Table Top exercises. These will be accompanied by shift/full scale exercises as the Fire Districts deem necessary from the annual Table Top exercise.

Equipment

Operator will supply the following equipment to the Fire Districts prior to the spudding of the first well or as described below.

1. Operator will pay for the Brighton Fire Rescue District ("Brighton Fire") to purchase, through Brighton Fire's purchasing procedures, a 3,000 gallon water tender with a 500 gpm pump to compliment regional use. Water tender will have specifications required by Brighton Fire. Estimated cost \$375,000.00.

Operator will pay Brighton Fire for the water tender once it has received approval of four (4) oil and gas permits at Well Sites. The intent is that Brighton Fire will work quickly to purchase the water tender to have it available prior to the spudding of the first well. In

the event the new water tender has not arrived prior to the spudding of the first well, Brighton Fire agrees to temporarily station at least one water tender at Station 53 so as to make it readily available to respond to an oil and gas emergency within Commerce City.

2. Operator will pay for the South Adams County Fire Department ("SACFD") to purchase, through SACFD's purchasing procedures, a foam trailer and a pickup truck to compliment regional use. The foam trailer and pickup truck will have specifications according to SACFD. Estimated cost \$153,050.

Operator is required to provide the foam trailer to SACFD prior to the spudding of the first well within Commerce City.

3. Operator will supply both Brighton Fire and SACFD one Area Rea Pro air monitors - one for each Fire District. Air monitors will be utilized for regional resource response. Estimated cost \$32,000.

Operator is required to provide the Area Rea Pro Monitors to the Fire Districts prior to the spudding of the first well within Commerce City.

Water Supply

Operator will pay for water lines and fire hydrants to supply water access to Well Sites as described below.

1. When municipal water supplies are within or extended with future development to 1,000 feet of a Well Site, Operator will pay no more than \$10,000 for a fire hydrant to be tied into the municipal water supply at a practicable location agreed upon by Fire Districts, the Operator, and the City.

Exhibit H – Air Quality Monitoring Fees

Operator agrees to pay the following fees for air quality monitoring and related costs. In the event that CDPHE or COGCC rules are implemented that require Operator, at its expense, to perform substantially equivalent testing to that being performed by the City, then once the CDPHE or COGCC-mandated testing commences, Operator shall be relieved of the requirement to pay further fees where such CDPHE or COGCC-mandated testing is duplicative.

Baseline Sampling.....\$36,316 per Well Site
Payable 90 days prior to construction of each Well Site

Sampling During Drilling and Completion..... \$145,266
Payable 90 days prior to construction of first Well Site

Follow Up Sampling Years 1-3

Year 1 \$145,266
Year 2 \$145,266
Year 3 \$145,266
Payable 90 days prior to construction of first Well Site for Year 1 then by January 31 for each year thereafter.

Incident Sampling: Operator agrees to pay the costs for all air quality sampling or monitoring as reasonably required in response to a reportable safety event, as defined by COGCC Rule 602(c), or a reported and substantiated nuisance that occurs outside of drilling and completion operations. Such costs will be payable within one month of invoicing.

Continuous Monitoring – Life of Wells.....\$10,000 per Well Site per year**
Payable 90 days prior to construction of each Well Site then by January 31 each year thereafter until all wells at each Well Site are plugged and abandoned.

** Such amount shall be adjusted each year by the increase or decrease in the Consumer Price Index issued by the United States Bureau of Labor Statistics for the Denver – Boulder metropolitan area.

EC