



Plan of Development for the Broomfield Project

Executive Summary

Extraction Oil & Gas, LLC (“Extraction”) proposes supplementing and updating the existing OIL AND GAS OPERATOR AGREEMENT (“Agreement”) between The City and County of Broomfield (“City”) and Extraction’s predecessor-in-interest, Sovereign Operating, LLC (“Sovereign”) to allow Extraction to consolidate its existing approved Well Sites from ten (10) sites to a total of three (3) sites and to change the name of the consolidated sites. Approving Extraction’s Supplement and Update to the Agreement will allow Extraction to reduce the aerial extent of its operations; reduce surface disturbance; generally minimize potential impacts to adjacent landowners; and be more consistent with the surface owner’s, McWhinney’s, proposed real estate development plans. This document herein shall be known as the “Extraction’s Proposed Development Plan.”

Background

Extraction acquired several oil and gas leases located in the City from Sovereign and Noble. Extraction is the successor-in-interest to two (2) separate agreements. One agreement is the Sovereign’s Agreement which included the City’s approval to drill from ten (10) Well Sites in the City that was entered into on August 27, 2013. The other agreement is Noble Energy’s (“Noble”) Surface Use Agreement/Use by Special Review (“SUA/USR”) entered into on November 13, 2012.

Contract rights were adjudicated as vested by Court Order 9-25-14, in *Sovereign Operating Co. LLC v. City and County of Broomfield*, Case No. 14 CV 30092. The ten (10) Well Sites were defined in the Section 2(g) of the Agreement, and Extraction asserts that its contract rights enumerated in the Agreement are vested and it does not waive its rights. The ten (10) Well Sites in the Agreement are the following:

- Brozovich MA 8-11 well pad;
- Brozovich MA 8-13 well pad;
- Brozovich MA 8-14J well pad;
- Webber H Unit 1 Pad as approved by the City per Resolution No. 2013-22;
- Hulstrom G Unit 1 Pad as approved by the City per Resolution No. 2013-23;
- Brozovich 8-8J well pad;
- Nordstrom 5-4 well pad (use by special review applications before City Council);
- Nordstrom 2-4 well pad (use by special review applications before City Council);
- Brozovich 8-8J well pad (use by special review applications before City Council); and
- Memorial 22-3 well pad.

Project

Extraction is implementing its Agreement with the City and has engaged the City in the Conceptual Review Process (“Review”) pursuant to Section 3 of Appendix A on two occasions. Based on its Review, Extraction proposes to consolidate the above listed ten (10) approved Well Sites to three (3) Well Sites. This proposal is consistent with the intent of the Agreement because it will reduce the aerial extent of its operations, reduce surface impacts and generally improve public health, safety and welfare.

Extraction has also determined that there is a need to change the names of the sites for ease of identification by field workers and the public. The new names used to rename the consolidated Well Sites are consistent with the names of existing roads.

Furthermore, the consolidation of these Well Sites will benefit the community by allowing Extraction to better implement the best management practices required by the Agreement. Extraction intends to consolidate the Well Sites in the following manner and supplement Section 2(g) of the Agreement as follows:

- Sheridan well pad (proximate to existing Brozovich 8-2 Well Site) will consolidate:
 - Brozovich 8-2J well pad
 - Brozovich 8-8J well pad
 - Brozovich MA 8-11 well pad
 - Brozovich MA 8-13 well pad
 - Brozovich MA 8-14J well pad

- Huron well pad (approximately 800 feet from the previously approved Webber H Unit 1 Pad):
 - Webber H Unit 1 Pad as approved by the City per Resolution No. 2013-22
 - Some wells from Hulstrom G Unit 1 Pad as approved by the City per Resolution No. 2013-23
 - Memorial 22-3 well pad

- United well pad (proximate to existing Nordstrom 5-4 well pad):
 - Nordstrom 5-4 well pad (use by special review applications before City Council)
 - Nordstrom 2-4 well pad (use by special review applications before City Council)
 - Some wells from Hulstrom G Unit 1 Pad as approved by the City per Resolution No. 2013-23

Extraction plans to construct new facilities at the three (3) Well Sites defined in the Supplement that use best engineering practices to eliminate or reduce air emissions, improve safety, and reduce other potential impacts to the surrounding community. Extraction's development will consist of three (3) phases: a drilling and completion phase, production phase, and reclamation phase. Extraction will maintain "Best Management Practices" as required by the Agreement. Additionally, Extraction emphasizes that it will use multiple Best Management Practices during the drilling and completion phase to reduce potential impacts to the surrounding community.

Allowing Extraction to consolidate the Well Sites and move forward with its Proposed Development Plan will benefit the City and community. Extraction intends to plug and reclaim all of its vertical and directional wells located in the City and its residential neighborhoods concurrently and replace these wells by drilling and completing horizontal wells from the consolidated well pads. Extraction also intends to remove from service certain gas gathering pipelines currently located throughout Broomfield's residential neighborhoods.

Extraction's Proposed Development Plan is consistent with the intent of the Agreement and the goals enumerated in Section 6 of the Agreement. Extraction's Development Plan will increase setbacks from building units, and reduce potential impacts of the planned operations. The affected area that is subject to

consideration includes both Well Sites and other locations within the City where Extraction may conduct exploration or production activities and install supporting infrastructure. As per the Agreement, Extraction is not required to develop all of the Well Sites. By entering this Agreement, Extraction agreed to discuss concerns with its development the City. Extraction is utilizing the following planning principles in this proposal enumerated in Section 6:

- a) Use multi-well, clustered drilling pads to minimize surface disturbance;
- b) Comply with location restrictions, setbacks and other environmental requirements of State and local law and regulations and this Agreement;
- c) Avoid, minimize and mitigate impacts on sensitive resources;
- d) Preferentially locate operations on disturbed, open lands or lands zoned for industrial activity;
- e) Co-locate liner infrastructure with existing roads, pipelines and power lines;
- f) Consider impacts from other gas development projects and land use conversion activities and plans to minimize cumulative surface impacts; and
- g) Minimize fragmentation of intact open space.

Best Management Practices

Appendix A of the Agreement sets forth certain Best Management Practices to be used for oil and gas development at the Well Sites. Extraction agrees to employ all the best management practices that it uses in an Urban Mitigation Area (“UMA”) to the extent technically and economically feasible. Pending approval of the Supplement to Oil and Gas Agreement, Extraction will evaluate the technical and economic feasibility of using grid power to power its drilling activities at the Well Sites as a means of reducing noise from its operations. Extraction will make reasonable efforts to implement BMPs set forth in Appendix A of the Agreement, to the extent technically and economically feasible, including but not limited to:

- focusing lighting down during the drilling, completion and production phases of its operations, as part of its lighting plan in compliance with Appendix A paragraph 29;
- preparing a landscape plan for the City’s review, in cooperation and consultation with the surface owner consistent with current and future planned development;
- evaluate the feasibility of employing oil pipelines to transport oil from the Well Sites, or in the alternative, using closed loop truck loading facilities to reduce emissions;
- preparing a site security plan for the Well Sites, to include twenty-four (24) hour monitoring during the drilling and completion phases;
- developing Well Sites as soon as practicable, such as the Sheridan Well Pad, to attempt to avoid conflicting uses between the Well Sites and future urban and commercial development;
- plug and reclaim vertical wells operated by Extraction within twelve (12) months after drilling replacement well(s) from the consolidated Well Sites or as soon as necessary permits and permissions can be acquired and the work scheduled.

Extraction plans to submit a further detailed Plan of Development addressing these concerns after the City approves the Consolidated Well Sites and Extraction can gather the necessary information and data to prepare a comprehensive plan of development.

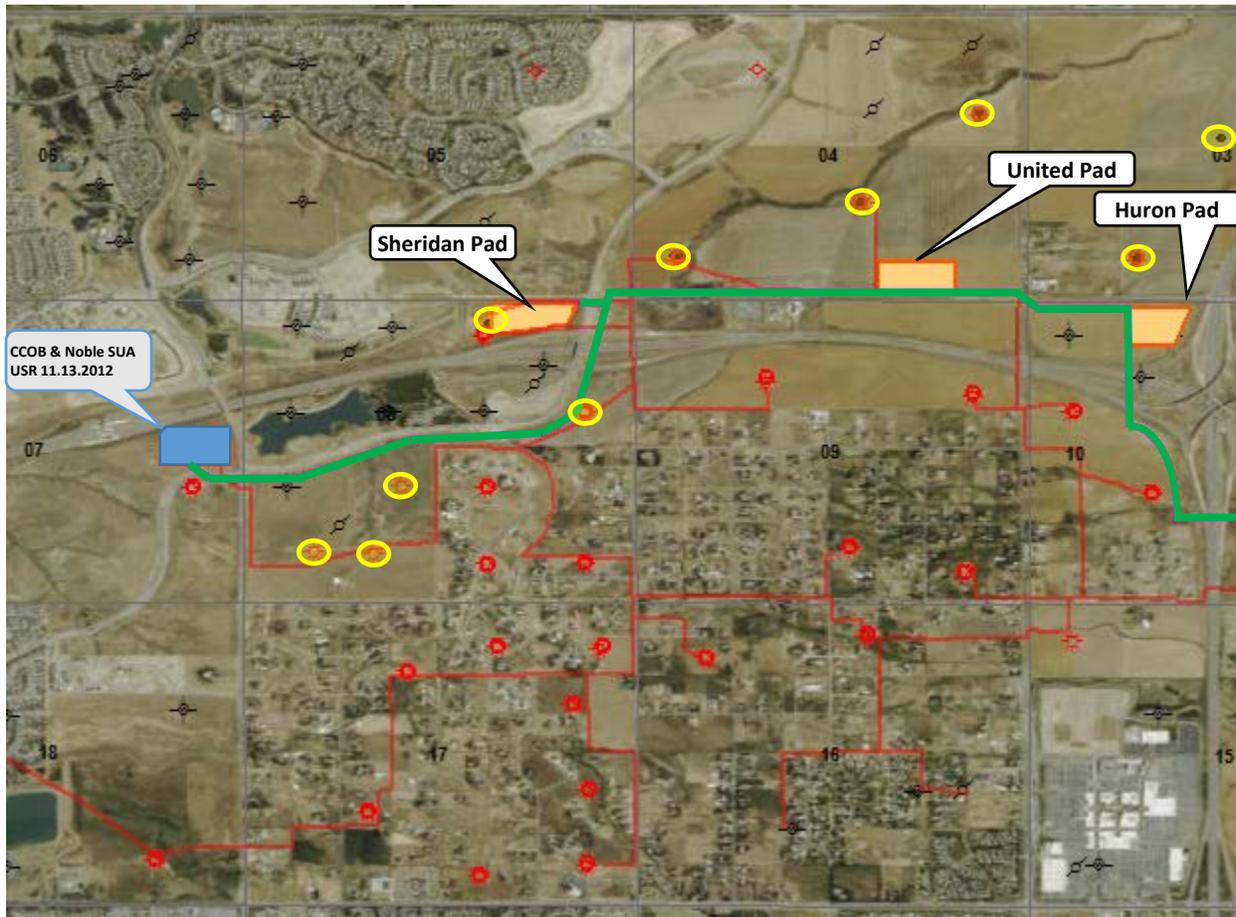
Benefits of the Project

Extraction’s Proposed Development Plan will further reduce the impacts of oil and gas development in the City. These additional benefits include, but are not limited to:

- a reduction of zoning conflicts,
- an allowance of greater available residential and commercial property in the City,
- mitigation of potential impacts with surrounding communities including noise,
- a reduction of emissions and traffic,
- increased setbacks,
- consolidation of oil and gas infrastructure, and
- improved opportunities for surrounding lands to be developed.

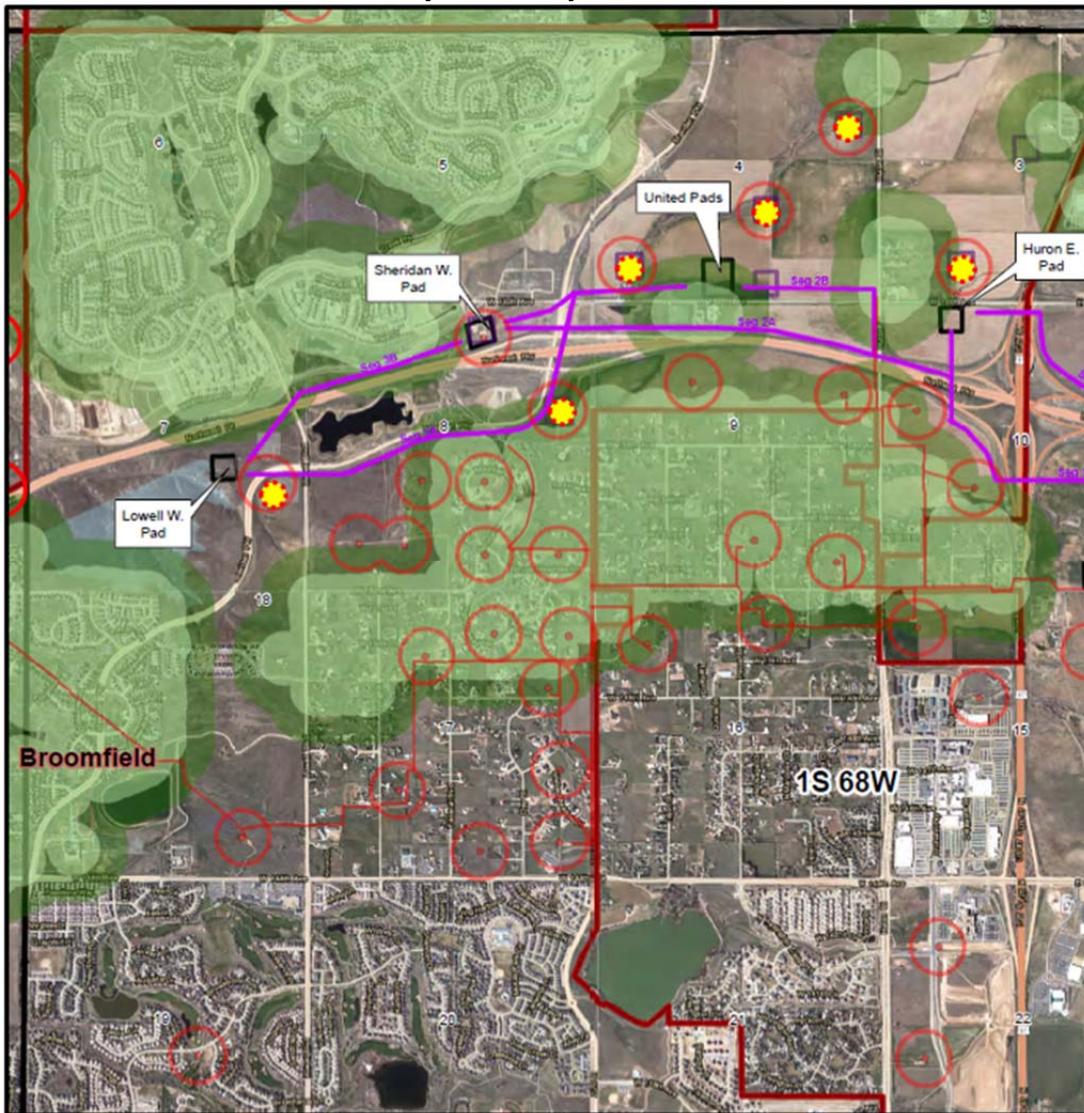
Extraction's Proposed Development Plan is consistent with the McWhinney's future development plans, and has been reviewed, and approved by them.

Revised Exhibit "A"
To
Supplement to Oil and Gas Operator Agreement



- Approved "Well Site"
- Consolidated "Well Site"
- Noble SUA/USR Not Subject to Agreement
- Pipeline to be Decommissioned
- Planned Pipeline Corridor
- Vertical Well to be Plugged and Site Reclaimed

Exhibit “B” to
Preliminary Proposed Development Plan
For City and County of Broomfield



Explanation of Symbols (Legend)

- The  symbols represent CCOB approved locations, which would be eliminated if CCOB approves Extraction Proposal to consolidate those locations into the four (4) pads depicted on Exhibit B
- The  symbols represent both existing and new alternative locations requested.
- The  symbols represent a 500 feet buffer around existing well sites that will be plugged and reclaimed after Extraction has completed drilling wells from the consolidated well sites.
- The  lines represent gas gathering lines that will be removed from service upon the plugging and reclaiming of the existing wells they service (The heavier red lines represent CCOB’s boundary.)
- The  lines represent the potential location of future gas, oil and water lines to service consolidate well pads.

[PROPOSED] SUPPLEMENT TO OIL AND GAS OPERATOR AGREEMENT

Extraction Oil & Gas, LLC (“Extraction”) and The City and County of Broomfield (“City”) enter into this “Supplement” to the OIL AND GAS OPERATOR AGREEMENT (“Agreement”) between Extraction’s predecessor-in-interest, Sovereign Operating Company, LLC (“Sovereign”) and the City. Extraction and the City may be collectively referred to herein as the “Parties.” This Supplement is made and entered into this ____ day of _____, 20__ (“Execution Date”) with an Effective Date of August 27, 2013.

1. Extraction represents and warrants that as of ____ day of _____ 20 ____, it is the successor-in-interest to Sovereign with respect to those oil and gas operations subject to the Agreement.
2. As required by Section 13 of the Agreement, Extraction agrees in this writing to adhere to all terms and conditions of the Agreement as Sovereign’s successor-in interest.
3. Pursuant to the Agreement, the Parties have conducted a Conceptual Review pursuant to Section 3 of Appendix A of the Agreement in an effort to explore field design and infrastructure alternatives which might further minimize the impact of oil and gas operations from New Wells.
4. To further minimize the impact of New Wells, the Parties have agreed to consolidate the approved ten (10) well sites to three (3) well sites. Instead of utilizing the ten (10) Well Sites listed in Section 2(g) of the Agreement, the development of all New Wells shall be limited to three (3) consolidated Well Sites named the United well pad, Sheridan well pad, and the Huron well pad.
5. After the Parties execute this Supplement, the definition of “Well Sites” in Section 2(g) of the Agreement shall be the following:

g. “Well Sites” shall mean those well pads depicted on Revised Exhibit A and further described as the Huron well pad, the Sheridan well pad, the United well pad, with those three (3) well pads herein after referred to collectively as the “Well Sites.”

6. After the Parties execute this Supplement, the Well Sites described in paragraph 2 on page 1 shall be the Well Sites described in paragraph 5 of this Supplement; therefore, paragraph 2 on page 1 shall state “three (3) well sites,” instead of “ten well sites.”

7. The Parties further agree to substitute Revised Exhibit “A” in place of the Exhibit “A” in the Agreement.

8. The Revised Exhibit “A” serves as a clarification and confirmation that the United well pad will be located one-thousand feet (1000 ft.) from the North Metro Fire Rescue District, located at 1750 West 1060th Ave., Broomfield, CO 80020. .

9. Consolidating operation of New Wells to three (3) Well Sites from the approved ten (10) Well Sites, will allow Extraction, among other factors, to further increase well setbacks from neighborhoods; a proposed medical facility, and to locate future infrastructure closer to the Northwest Parkway, thereby further reducing potential impacts of oil and gas operations to nearby neighborhoods.

10. Other than the substitutions in Section 2(g) and in paragraph 2 on page 1, the remainder of the terms and conditions of the Agreement remain unchanged.

11. Extraction agrees to comply with all of the provisions in Appendix A titled Best Management Practices for Well Sites and New Wells at Well Sites and Appendix B titled Submittal Requirements for the Operator for New Well Locations within the City Limits of the Oil and Gas Operator Agreement. In addition, Extraction further agrees to employ all the best

management practices at the New Well Sites that it uses in an Urban Mitigation Area (“UMA”) to the extent technically and economically feasible including those referenced in Extraction’s plan of development for the Broomfield project.

12. The Parties agree that Extraction’s contract rights set out in the Agreement are vested as determined by Court Order, Sovereign Operating Co. LLC v. City and County of Broomfield, Case No. 2014CV30092, and the Agreement remains in full force and effect.

13. If, for any reason, any of the terms and conditions set out in this Supplement are deemed by a court or any other authority to be unlawful or unenforceable, the terms of the Agreement shall continue to bind the Parties and New Wells may be developed pursuant to the Agreement.

14. This Supplement shall be recorded by the Parties.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by a duly authorized representative on the Execution Date.

THE CITY:

THE CITY AND COUNTY OF BROOMFIELD,
COLORADO,
A Colorado Municipal Corporation and County

Mayor

ATTEST:

City & County Clerk

APPROVED AS TO FORM:

City & County Attorney

THE OPERATOR:

EXTRACTION OIL & GAS, LLC

Matthew Owens, President

State of Colorado)
)ss.
County of _____)

The foregoing instrument was acknowledged before me this _____ day of _____ 20__
by Matthew Owens, President of Extraction Oil & Gas, LLC.

Notary Public

My Commission expires: _____ (Seal)