

## Public Comments

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

### No. Comment

### Comment Date

1	<p>TO:John Noto, COGCC Oil and Gas Location Assessment Supervisor</p> <p>Email: john.noto@state.co.us</p> <p>Melissa Housey, COGCC OGLA Assessment Specialist</p> <p>Email:melissa.housey@state.co.us</p> <p>FR:Matt Sura, Attorney at Law</p> <p>DT:4/07/2017</p> <p>RE:Comment on Form 2A # 401219263, PetroShare Corporation Brighton Lakes Pad 20-17, located in the SWSW Sec 20, Twp 1S Rng 66W</p> <p>Dear COGCC,</p> <p>These comments are submitted on behalf of the City of Brighton regarding the PetroShare Corporation Brighton Lakes Pad and its 8 associated wells.The proposed location is within the city limits of Brighton.Brighton respectfully requests that all COGCC permitting decisions on this location be delayed until PetroShare has completed the City of Brighton's permitting process.That permitting process can be accomplished in 36 days if the operator chooses Brighton's administrative decision-making track.As of today, the operator has not applied to the City of Brighton.</p> <p>Brighton appreciates that PetroShare met with Brighton to discuss this location prior to submitting its application to the COGCC.Brighton supports PetroShare's commitment to connect to an oil pipeline, to pipe in its frac water, and to share its access road with Ward Petroleum – thereby further minimizing surface impacts. Brighton also appreciates that the proposed location is outside of its public water supply protection area and its wells and production facilities will be more than 1,000 feet from the closest home.</p> <p>Brighton's application process requires PetroShare to submit the following information:</p> <ul style="list-style-type: none"> <li>a.A site plan for site preparation, mobilization and demobilization; and</li> <li>b.A plan for interim reclamation and revegetation of the well pad and final reclamation of the well pad; and</li> <li>c.A Stormwater Management Plan;</li> <li>d.A Utilities Report if applicable;</li> <li>e.Copies of all permits requested, including any exceptions; and</li> <li>f.A final Air Emissions Mitigation Plan; and</li> <li>g.A final Emergency Response Plan; and</li> <li>h.A final plan for noise, light and dust mitigation; and</li> <li>i.A final Traffic Management Plan and a reasonable bond to cover any damage to public infrastructure during active drilling and completion; and</li> <li>j.A final Visual Mitigation Plan; and</li> <li>k.A final Weed Control Plan; and</li> <li>l.A Water Quality Monitoring Plan if required by an MOU.</li> </ul>	04/08/2017
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Brighton requests the following conditions of approval to be placed on the COGCC Form 2A permit.

1.Pits. Operator's Pit Practices within the City.

a.Operator shall use closed-loop or modified closed loop systems, as defined below, for drilling and completions; however, emergency or freshwater pits may be allowed if approved by the Colorado Oil and Gas Conservation Commission ("COGCC") in accordance with COGCC's Rules and applicable orders.

b.Modified closed-loop systems include oil and gas wells where air or fresh water is used to drill through the surface casing interval, defined as fifty (50) feet below the depth of the deepest aquifer, and a closed loop system is used for the remainder of the drilling and/or completion or recompletion procedures.

2.Containment berms.Operator shall utilize steel-rim berms as secondary containment around tanks and separators at well sites with sufficient capacity to contain 1.5 times the volume of the largest tank enclosed by the berm plus sufficient freeboard to prevent overflow.All berms and containment devices shall be inspected by Operator at regular intervals 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.For purposes of this paragraph, "regular intervals" shall mean at least as frequently as every pumper/lease operator site visit unless remote sensing equipment is utilized.

a.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.

b.For locations within five hundred (500) feet and upgradient of a surface water body, tertiary containment, such as an earthen berm, is required around production facilities.Such tertiary containment berm shall have a capacity of two (2) times the largest individual tank.

3.Water Supply and Quality.Water for use in drilling operations will be secured from local vendors. The exact source will be selected based on price and availability at the time of operations. PetroShare will commit to using pipelines and irrigation ditches for transportation of hydraulic fracturing water to the Brighton Lakes location. The Operator shall assure that the water supplier has acquired all the necessary permitting, easement, etc. for this transportation. The transportation route and source will depend on which water supplier is chosen for the project; once confirmed, the Operator will provide the route and source to the City.

A closed loop drilling fluid system will be used during the drilling process to recycle fluids and no pits will be constructed to store waste drilling fluid. Drill cuttings and drilling fluid used to drill the well will be hauled offsite to a COGCC approved land farm location.If a spill occurs, Operator will report it in accordance with COGCC spill reporting requirements.If a Form 19 Spill/Release Report is submitted to COGCC it will also be provided to the City.

4.Noise.The location of wellhead and production facilities shall be selected to minimize any noise impacts to surrounding residents.In addition, Operator's noise mitigation plan is contained in Section 3.5 of the Development Application and also includes the provisions listed in Section 11 of the MOU and applicable COGCC rules.Operator will include the terms of Section 3.5 of the Development Application and Section 11 of the MOU as conditions for COGCC permits.Operator shall comply with applicable provisions of its noise mitigation plan.

5.Discharge Valves.The oil and gas facilities proposed by Operator are not located in an Urban Mitigation Area or a Useable Open Space.In the event that the Brighton Lakes location becomes an Urban Mitigation Area or within 1,000 feet of Useable Open Space, open-ended discharge valves on all storage tanks, pipelines and other containers shall be secured where the operation site is unattended or is accessible to the general public.Open-ended discharge valves shall be placed within the interior of the tank secondary containment.As used in this paragraph, the term "secured" means locked or otherwise secured such that the public cannot operate the valve.If reasonably practicable, such valves shall contain remote alarms to alert Operator that a valve has been opened.

6.Burning.No open burning, other than flaring of natural gas, shall occur on the site of any oil and gas operation.Open flaring of natural gas shall be limited to well completion/flowback activities or as required in an emergency, pipeline pressure adjustment or upset condition unless permission is given by the City.

7.Chemical Storage.Operator shall remove hydraulic fracturing chemicals and flowback from hydraulic

	<p>fracturing, from the Well Sites within 30 days of completion of fracturing operations, except that hydraulic fracturing chemicals and flowback from hydraulic fracturing on multi-well pads may remain on location or at proximate location as allowed by COGCC so long as drilling operations are ongoing location or if written approval is granted by the City.</p> <p>8. Water Quality Monitoring Plan. Operator shall comply with COGCC Rules 609 at this location and the steps identified in the City's MOU that go beyond that rule.</p> <p>9. Floodplain. The oil and gas facilities proposed by Operator are not located in a 100-year floodplain. In the event that Operator must change the location of the oil and gas facilities within a 100-year floodplain, disturbance within a 100-year floodplain will be allowed if Operator has complied with all the City's legally adopted floodplain and engineering regulations. Unless approved by the Director of the COGCC, pits, except emergency pits, will not be allowed in 100-year floodplain, as defined in the City's Stormwater Management Manual. A "100-year floodplain" shall be, for purposes of this provision, a "Special Flood Hazard Area" as identified and mapped by the Federal Emergency Management Agency's National Flood Insurance Program</p>	
2	<p>10. Visual Impacts and Aesthetics. The location of wellhead and production facilities has been selected to minimize any visual impacts to surrounding residents. In addition, Operator's visual mitigation plan is contained in Sections 3.2 and 3.5 of the Development Application and also includes applicable COGCC rules. Operator will include the terms of Sections 3.2 and 3.5 of the Development Application as conditions for COGCC permits. Operator shall comply with applicable provisions of its visual mitigation plan. To the maximum extent reasonably practicable, Operator shall comply with the following aesthetic provisions:</p> <ul style="list-style-type: none"> <li>a. Operator shall use fencing and the existing berm to mitigate visual impacts.</li> <li>b. Structures shall be of minimal size to satisfy present and future functional requirements;</li> <li>c. Operator shall consult with the City Director of Parks and Recreation when clearing trees and vegetation for construction of oil and gas facilities and feathering and thinning;</li> <li>d. Align access roads to follow existing grades and minimize cuts and fills.</li> <li>e. Landscaping shall be coordinated with the surface estate developer and staged to accommodate surface development. Initial landscaping will be installed within 6 months of finishing drilling and completion operations</li> <li>f. The oil and gas facilities proposed by Operator are not located in an Urban Mitigation Area or a Useable Open Space. In the event that Operator must change the location of the oil and gas facilities to a location within an Urban Mitigation Area or Useable Open Space, one or more of the following landscaping practices may be required by the City where reasonably practicable, on a site-specific basis: <ul style="list-style-type: none"> <li>i. Landscaping requirements found in Sec. 17-48-170 of the Brighton Municipal Code;</li> <li>ii. Establishment and proper maintenance of ground covers, shrubs, trees;</li> <li>iii. Shaping cuts and fills to appear as natural forms;</li> <li>iv. Cutting rock areas to create irregular forms;</li> <li>v. Designing the facility to utilize natural screens; or</li> <li>vi. Construction of fences for use with or instead of landscaping.</li> </ul> </li> </ul> <p>11. Electric Equipment. Operator shall use electric-powered engines for motors, compressors, and drilling and production equipment and for pumping systems in order to mitigate noise and to reduce emissions, unless use of such equipment in a particular situation is not reasonably practicable or available to Operator within Operator's drilling schedule. If electricity from the grid is not available, Operator shall use propane or natural gas to power pumps and motors, if reasonably practicable and available to Operator within Operator's drilling schedule.</p> <p>12. Air Quality Mitigations.</p>	04/08/2017

a. In addition to the requirements under Colorado Air Quality Control Program, Title 25, Section 7, C.R.S., oil and gas production facilities located within 1,320 feet of a building unit shall be:

i. Subjected to an instrument-based leak detection and repair (LDAR) inspection at least once a year unless the well is shut in or otherwise not in production;

ii. VOCs destruction or control technologies with at least 95% efficiency must be employed on all tanks capable of emitting over 2 tons of VOCs annually;

iii. If a gas leak of over 10,000 ppm hydrocarbons is discovered the first attempt to repair the leak shall begin no later than 24 hours after discovery. If a repair is not possible within 24 hours, the well should be shut down until a repair can be made. If shutting down the well will not stop the leak, efforts should be made to minimize the leak within the first 24 hours and it shall be reported to the City Local Government Designee; and

iv. Tank unloading without opening thief hatch using technologies available to Operator within Operator's drilling schedule, such as Automatic Custody Transfer (LACT) meters to limit emissions during tank unloading.

b. To the extent practicable, exhaust from all engines, motors, coolers, and other mechanized equipment shall be vented in a direction away from occupied buildings.

c. Operator must maintain the following records on file for inspection by the City: (a) certification of compliance with these City and state air quality requirements and documenting any periods of non-compliance, including the date and duration of each deviation and a compliance plan and schedule to achieve compliance; and (b) that the equipment at the well site continues to operate within its design parameters, and if not, what steps will be taken to modify the equipment to enable the equipment to operate within its design parameters. Operator may satisfy this obligation in whole or in part by making its AQCC Regulation No. 7 semi-annual reports and annual self-inspection reports available to the City for the prior calendar year.

13. Fugitive Dust Suppression. Silica dust must be contained to the maximum extent reasonably 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 site to the extent reasonably practicable. No untreated or unrecycled produced water or other process fluids shall be used for dust suppression. Operator will avoid dust suppression activities within three hundred (300) feet of the high water mark of any waterbody as defined in Section 17-12-20. Definitions, Brighton Municipal Code, as the same may be amended from time to time, unless the dust suppressant is water. Safety Data Sheets (MSDS) for any chemical based dust suppressant shall be submitted to the City Manager for approval prior to use.

14. 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.

15. Flow Lines. Any newly constructed or substantially modified flow lines on site shall be constructed and operated under the provisions of the COGCC 1100 Series Flow line Regulations and any applicable surface use agreements with the surface owners. To the maximum extent reasonably practicable, any newly constructed or substantially modified flow lines on site shall meet the following requirements:

a. All flow lines, shall be sited a minimum of fifty (50) feet away from existing general residential, commercial, and industrial buildings, as well as the high-water mark of any surface water body. This distance shall be measured from the nearest edge of the pipeline.

b. Pipelines shall be aligned with established roads in order to minimize surface impacts and reduce disturbance.

c. Operators shall share existing pipeline rights-of-way and consolidate new corridors for pipeline rights-of-way to minimize surface impacts.

d. When crossing streams, rivers, or irrigation ditches with a pipeline, Operator shall use boring technology, or other technologies approved by the City, to minimize negative impacts to the channel, bank, and riparian areas.

16. Removal of Debris and Excess Materials and Equipment. When each oil and gas operation is completed, all construction-related waste debris related to that operation shall be removed from the site for proper disposal. The site shall be maintained free of debris at all times during operation. Materials and/or waste shall not be buried or burned on-site.

All excess equipment and materials used for drilling, completion, or re-completion and maintenance of the facility shall be removed from the site within thirty (30) days of completion of those activities, weather conditions permitting, unless otherwise agreed to by the City and surface owner. Excess equipment and materials include, but are not limited to casing pipe, sand (proppant), water containers, and unused tanks. Permanent storage of excess equipment and materials on Well Pad sites shall not be allowed. It is understood that drilling and completion equipment and materials necessary for multi-well pads may remain on location, so long as drilling or completion operations are ongoing on that location or at proximate locations as allowed by COGCC or if written approval is granted by the City and the surface owner.

#### SUMMARY

This PetroShare proposal is before the COGCC at the same time two other locations (HRM Resources and Ward Petroleum) are being proposed in the same area. Brighton will be working over the coming month to meet with the operators separately and together in an effort to ensure the development of the three locations is coordinated and results in as limited impact as possible. The City of Brighton welcomes and appreciates any assistance the COGCC staff can offer in this effort.

Sincerely,

Matt Sura

Total: 2 comment(s)