



**COMMUNITY AND ECONOMIC DEVELOPMENT
DEPARTMENT
STAFF REPORT**

Administrative Review Memo

November 13, 2018

CASE No.: USR2018-00003	CASE NAME: PetroShare – Wakeman
--------------------------------	--

Owner's Name:	PetroShare Corporation
Applicant's Name:	PetroShare Corporation
Applicant's Address:	9635 Maroon Circle, Suite 400
Location of Request:	Section 20, Township 1S, Range 65W Parcel number 0156720400003
Nature of Request:	A Use by Special Review Permit to allow up to sixteen (16) horizontal wells and one (1) production facility on one (1) well pad for the production of oil and gas
Zone District:	Agriculture - 3 (A-3)
Site Size:	Approximately 6.1 acres (43.2-acre parcel)
Proposed Uses:	Multi-well pad for the production of oil and gas
Existing Use:	Agriculture with a single-family residential structure
Report Date:	November 13, 2018
Case Manager:	Christine Dougherty
Director Options:	Approval with 4 Findings of Fact, 4 Conditions Precedent, and 19 Conditions; Denial; or Referral to the Board of County Commissioners
Staff Recommendation:	Approval with 4 Findings of Fact, 4 Conditions Precedent, and 19 Conditions

SUMMARY OF APPLICATION

Background:

PetroShare Corporation (PetroShare), the applicant, engages in exploration and development of oil and natural gas, primarily in the Denver-Julesburg Basin. The applicant has proposed an oil and gas well pad location in unincorporated Adams County to develop minerals located within the COGCC approved Drilling and Spacing Unit, Order Number 407-2516. The Drilling and Spacing Unit encompasses approximately 1280 acres located in Township 1 South, Range 65 West, Sections 17 & 20. The proposed project, Wakeman 20-17 (Wakeman), consists of the

construction of one well pad with up to sixteen (16) horizontal wells, equipment, production facility, and one access road.

The proposed pad location is on a 43-acre parcel, northwest of the intersection of East 136th Avenue & Powhaton Road. Access to the site is proposed to be from Powhaton Road located on the eastern boundary of the property. The parcel is zoned Agriculture-3 and is currently occupied by a single residential dwelling located in the northeast corner of the parcel. The remainder of the parcel is undeveloped and is used for grazing.

Summary of Application:

The project proposed by PetroShare consists of sixteen (16) wells and one (1) production facility on a single well pad, with one (1) access road to accommodate all traffic during construction, production, and long-term maintenance. The project has three primary phases: construction, drilling/completions, and production. Construction of the pad may take up to five (5) weeks to complete. The drilling period is expected to last up to twelve (12) days per well, and up to an additional ten (10) days for completions totaling up to twenty-two (22) days per well.

The pad size during the drilling and completion phases will be approximately six and one-tenth (6.1) acres. After the completions phase, the site will undergo interim restoration, during which the area of the facility will be reduced to 1.3 acres. During interim restoration, landscaping will be installed to reduce the overall visual impacts of the facility. Final reclamation will occur when the wells are plugged and abandoned. This typically occurs 20-30 years after the start of production.

The equipment which will remain on site during the production phase includes two (2) oil tanks, two (2) produced water tanks, four (4) separators, one (1) Lease Automatic Custody Transfer (LACT) units, one (1) Volatile Organic Compound Combustor, one (1) Vapor Recovery Unit.

The mitigation measures that have been proposed by PetroShare include the following:

- **Planning:** PetroShare is pursuing an Oil and Gas Location Assessment permit (Form 2A) for a multi well pad through the Colorado Oil and Gas Conservation Commission (COGCC). A multi well pad will eliminate the need for multiple pads for single well facilities, which would spread out the impacts over more surface area and increase the overall footprint of the project.
- **Pipelines:** PetroShare intends to construct and utilize pipelines to transfer water, oil, and gas. This will greatly reduce truck traffic in and out of the location for the lifetime of the well. The utilization of pipelines also ensures a safer operation as it greatly reduces the number of tanks that are required on location.
- **Noise:** PetroShare will abide by COGCC rule 604.c.(2)A noise standards for all activities, and they will post 24-hour, 7 days a week, contact information to address all noise complaints arising from the oil and gas facility. To assist with mitigating noise impacts, a sixteen (16) foot tall temporary sound wall will be constructed along the edge of the site.

- **Odor Mitigation:** During drilling operations, a closed loop system will be used, reducing odor emissions. PetroShare will also utilize a Volatile Organic Combustor to reduce odor emissions.
- **Visual Mitigation:** When implemented, sound walls will reduce visual impacts during the drilling and completion phases and landscaping will reduce visual impacts during the production phase. In addition, pursuant to COGCC Rule 804, the tank battery will be painted in uniform, non-contrasting, non-reflective color tones with the colors matched to but slightly darker than the surrounding landscape.
- **Landscaping:** PetroShare will adhere to all Adams County requirements and/or surface owner requests, including minimizing impacts to native vegetation. Based on adjacent industrial uses, distance from residential uses, and the site not having direct access or visibility from Powhaton Road, the landscape will consist of native grass species and matte black chain link fence for securing the facility. Final reclamation will consist of removing all equipment and returning the area to pre-disturbed conditions.

Development Standards and Regulations Requirements:

In order to obtain an Administrative Use by Special Review approval, an Oil and Gas Facility must satisfy certain criteria.

1. Memorandum of Understanding (MOU)

PetroShare signed the standard County MOU, which was executed by Adams County Board of County Commissioners on March 22, 2016.

2. Satisfy Submittal Requirements

The applicant has satisfied all required submittal items as outlined in the Development Standards and Regulations. These include:

- Conceptual Review Meeting – PetroShare attended a Conceptual Review Meeting with the Adams County Development Review Team to discuss their proposed site on April 2, 2018.
- Neighborhood Meeting – PetroShare notified property owners within one-half mile of the parcel boundary of the proposed oil and gas facility and invited them to an open house neighborhood meeting where residents could ask the applicant questions directly. The Neighborhood Meeting was held on May 17, 2018, at the Flatrock Regional Training Center, located at 23600 E 128th Ave, Commerce City, CO 80022. At the meeting, PetroShare provided an overview of the project, operation timeline, and the proposed mitigation measures outlined in this report.

- Application Form and Fees – PetroShare submitted the required applications and paid the applicable permit fees. A traffic impact fee will be assessed consistent with the application, and the Oil and Gas Traffic Impact Fee Schedule. The operator may also be required to obtain a Right of Way permit, Access Permit, and/or an Oversize Load Permit before starting construction activities.
- Oil and Gas Operations Plan – PetroShare submitted an Oil and Gas Operations Plan, an Impact Area Map showing all oil and gas wells and water wells within one half mile, a Drilling Operation Plan, a Production Plan, and a Sign Plan.
- Emergency Preparedness Plan – The applicant submitted a site-specific Emergency Preparedness Plan that has been reviewed and approved by the Adams County Office of Emergency Management.
- Engineering Documents – PetroShare provided a Grading, Erosion, and Sediment Control Plan, and Traffic Study, in accordance with the Development Standards and Regulations.
- Surface Owner Documentation – PetroShare provided a Memorandum of Surface Use Agreement to show the proposed oil and gas facility is authorized by the surface owner.

3. Compatibility / Land Use Impacts

The subject site is approximately forty-three (43) acres, of which six and one tenth (6.1) acres is proposed to be used for the development of a sixteen (16) well oil and gas well pad, associated production facility, and access road. Currently, a single residential building is located on the eastern perimeter of the parcel, with the remainder being used agriculturally. Located to the southeast, and protruding into the proposed parcel, is a power transmission station owned by the Public Service Co. of Colorado. Located to the south is a sixty-two (62) acre parcel on which the Tri-State Power LLC natural gas energy production facility is located (RCU2001-00004). Multi-well pads have noise and light impacts akin to industrial facilities and similar to the other energy production uses in proximity to the proposed oil and gas facility location.

The remaining surrounding parcels are predominately zoned Agriculture 3 (A-3), with several parcels zoned Agriculture 2 (A-2) in proximity to the proposed site: one to the north, and several to the south. The purpose of the A-3 zone district is to provide land primarily in holdings of at least thirty-five (35) acres for dryland or irrigated farming, pasturage, or other related food production uses. The purpose of the A-2 zone district is to provide land for rural subdivisions of at least ten (10) acres in size where farming uses are permitted, including the cultivation of land and the keeping of a limited number of animals. Within a one-half mile radius of the proposed facility, there are approximately eight (8) residential dwellings.

According to the Adams County Comprehensive Plan, the future land use designation for this parcel is Agricultural. The Agricultural designation is intended for areas that are not expected to develop, except for limited areas of very low residential density of one (1) dwelling per thirty-five (35) acres. Secondary uses for this zoning may include open space, and other non-urban uses incidental to agriculture. Multi-well oil and gas facilities can provide alternative means of income for landowners while preserving the agricultural uses of the land, which contributes the compatibility of this use.

Industrial impacts inherent to large-scale oil and gas development require mitigation from residential and commercial development. Taking into consideration the compatibility requirements of the Adams County Development Standards and Regulations, PetroShare has agreed to connect the facility to the Boardwalk Pipeline (RCU2016-00016), located on the east side of Powhatan Road for the transportation of oil and gas products from the facility. Connection to this pipeline will allow for a reduction of onsite storage tanks and it will reduce the overall truck volume accessing the site during the production phase. Additional mitigation measures include the use of a sound wall to reduce noise and visual impacts during the drilling and completions phase as well as the implementation of landscaping, which will reduce long-term visual impacts.

The Boardwalk Pipeline was presented to the Adams County Planning Commission on November 10, 2016. A recommendation of approval was forwarded to the Board of County Commissioners for a hearing on December 8, 2016. After approval, the pipeline was constructed and is currently in operation. Connection to the Boardwalk Pipeline will reduce truck traffic, reduce on-site storage, and reduce the facilities surface area, all of which supports compatibility with the current and planned future land uses in the area.

Existing land uses in the area include several large energy production facilities and dispersed residential dwellings on agricultural land in holdings of at least 35 acres. Through a combination of site planning decisions, traffic and access management, and sound mitigation measures, with long-term compatibility being addressed, it is staff's recommendation that this criterion has been satisfied by the applicant's proposal and through the recommended conditions of approval within this staff report.

4. Emergency Service Providers

The applicant provided the required 'will serve' letter from the Brighton Fire District, the emergency service provider for that area.

Staff Recommendation:

Based upon the application, the criteria for an Administrative Use by Special Review permit, and a recent site visit, staff recommends approval of this request with 4 findings-of-fact, 4 conditions precedent, and 19 conditions.

Findings of Fact:

1. The applicant and the County have executed a Memorandum of Understanding (MOU) that is currently in full force and effect, and the oil and gas facility complies with the provisions of the MOU.
2. The applicant has satisfied the submittal requirements for an Administrative Use by Special Review application, as outlined in the Development Standards and Regulations.
3. Based upon compliance with the recommended conditions of approval, the oil and gas facility is compatible with the surrounding area and does not create any site specific or material impacts to nearby land uses.
4. The applicant has provided a commitment to serve the facility from the authority having jurisdiction for providing emergency services.

Recommended Conditions of Approval:

Conditions Precedent:

1. Pad construction and/or drilling shall not commence until combined State approval of Colorado Oil and Gas Conservation Commission (COGCC) Form 2 and 2A and County approval of AUSR permit. Drilling shall only occur during the COGCC Form 2 permit validity timeframe.
 - a. Per section 4-10-02-03-03-07-10 of the Adams County Development Standards and Regulations, proposed changes to the plans, including but not limited to, any changes in the source or location of water to be used by the Oil and Gas Facility, shall be submitted as amendments to the Administrative Use by Special Review application, reviewed by staff, and approved by the Director or BOCC (if the BOCC approved the original application).
2. The applicant or the applicant's subcontractors may be required to obtain Oversize Load Permits, and/or Access Permits, and/or a Right-of-Way Construction Permit. These permits may be obtained through the Adams County One-Stop permit center.
3. A traffic impact fee in the amount of \$314,721 for the construction and production of 16 oil and gas wells using fresh water and product pipelines is due prior to ground disturbing activities.
4. The applicant shall receive a "Notice to Proceed" from the Department of Community and Economic Development. Written proof that all of the conditions precedents have been satisfied shall be required prior to receiving this notice.

Conditions:

1. The approved traffic route for travelling to and from the site will depend on the intended direction of travel on US-85.
 - a. Traffic intending to travel north on US-85:
North on Powhatan Road from the access road;
West on East 152nd Avenue to US 85
 - b. Traffic intending to travel south on US-85:
South on Powhatan Road from the access road;
West on East 120th Avenue to US-85
2. The applicant shall implement the best management practices as identified in the Ambient Sound Study provided as part of the application and provided in Exhibit 2.3 (Ambient Sound Study). These mitigation measures include 16-foot high sound walls around the equipment within the site during drilling and hydraulic fracturing (completion) operations. Noise levels during the construction, drilling, completions, and production life cycles shall not exceed those outlined in COGCC Section 802.
3. The applicant shall submit written certification that the facility is connected to a pipeline for the transfer of product off-site prior to the initiation of production.
4. Once the wells are producing, the on-site storage shall be limited to two oil tanks and two water tanks. The tank battery shall be painted in uniform, non-contrasting, non-reflective color tones with the colors matched to but slightly darker than the surrounding landscape.
5. The applicant has submitted a landscaping and screening plan for the site, which has been reviewed and approved by the Community & Economic Development Department staff. Screening of the site shall be provided through a combination of fencing and landscape materials. This plan shall serve as the interim restoration plan and it shall be implemented by the applicant within 90 days of completion of the final well, if all sixteen (16) approved wells are drilled and completed at the same time. If the applicant develops the facility in phases (i.e., completes a lesser number of wells initially with plans to drill and complete additional wells at a future date), then the interim restoration plan shall be implemented within 90 days of completion of the initial set of wells.
6. If requested by the surface owner, or practicable for site security, the fence shall contain a gate and the gate shall remain closed and locked when the well pad and associated facilities are not in use.
 - a. The local fire district shall have access to ALL gate key(s)/combination(s) at all times for use in case of emergency.
 - b. Adams County oil & gas inspector shall have access to ALL gate key(s)/combination(s) at all times for use in case of emergency.
7. Maintenance of required landscaping and fencing shall comply with the Adams County Development Standards and Regulations at all times.

8. Applicant is required to receive an approved waiver of responsibility/completion of reclamation from Adams County upon abandonment and reclamation of well pad and associated facilities.
9. Well pad, associated facilities, and access road shall be free of any county and state identified noxious weeds throughout the drilling, completion and production portions of operations.
10. As referenced in 8(c.) of the PetroShare/Adams County MOU, the applicant agrees to conduct a baseline test of any registered water well requested by the owner, on a one-time basis, if such well is within a ½ mile radius of the new oil and gas facility.
11. PetroShare is required to provide notice to parcel owners and occupants located within a one-half mile radius of the parcel boundary on which the well pad is located at least 14 days prior to the commencement of any drilling or completions operations.
12. Per Section 14 of the executed MOU, fresh water as referenced in the COGCC's rules and Regulations, or another source as approved by the County on a case-by-case basis, may be applied to roads and land surfaces for purpose of dust mitigation. Absolutely no other liquid or substance generated by the production of the operator's facility, including, but not limited to, exploration and production waste (as defined by the COGCC) or any other application of liquids that would have negative impact to natural resources, shall be permitted to be applied to roads and land surfaces.
13. Per COGCC Section 604.c (4) B. IV. Zero Flaring or venting of gas upon completion of flowback, excepting upset or emergency, or with prior written approval from the COGCC Director for necessary maintenance operations.
 - a. The applicant shall provide a copy of written COGCC Director approval to the CEDD Director within 24 hours of flaring operations and/or approval, whichever occurs first.
14. Upon request by the County's Local Government Designee, Emergency Manager, Local Emergency Planning Commission, Sherriff's Office, site-specific Fire District, or Transportation Department, a tabletop exercise pertaining to the Emergency Response Plan will be required.
15. All permanent lighting shall be directed downward and internally. Temporary lighting shall conform to COGCC Rule 803 and not adversely affect adjacent residential properties. Any complaints regarding lighting shall be communicated to the Adams County Oil & Gas Inspector in order to ensure resolution.
16. Per Section 12 of the executed MOU, PetroShare will construct the lease/access road to be capable of supporting a 75,000-pound emergency response vehicle.
17. The applicant shall be responsible for the cleanliness and safety of all roadways adjacent to this site. If at any time, Adams County staff determines these roadways to be

dangerous or not passable due to debris or mud, the applicant will cease use of the roadways until the roadway conditions have improved and are deemed acceptable by the County. If the contractor/applicant fails to keep the adjacent roadways clean and free from debris, Adams County has the option to complete the required clean up and bill the charges directly to the applicant, Great Western.

18. Per Section 5 of the executed MOU, in an effort to reduce truck traffic, where feasible, the Operator will identify a water source lawfully available for industrial use, including oil and gas development, close to the facility location, to be utilized by operator and its suppliers. Operator will comply with the Colorado Department of Public Health and Environment requirements and Tri-County Health Department (TCHD) regulations concerning water quality. With respect to wastewater treatment, Operator agrees to comply with TCHD’s Regulations NO O-14, On-site Wastewater Treatment Systems, as adopted or modified. The Operator agrees to contact TCHD in a timely manner to arrange for the processing of appropriate application matters and required inspections.
19. All representations and commitments of the applicant made during the AUSR process are incorporated herein as conditions of approval.

CITIZEN COMMENTS

Of the thirty-one (31) referral notices sent to property owners and occupants located within one-half mile of the subject parcel boundary, one comment was received. The application and Request for Comments were also posted on the Adams County website for review by the public. The concerns presented by the resident include traffic impacts, noise impacts, and general compatibility with the area. These concerns have been addressed by the applicant, the COGCC Rules, the Adams County Development Standards and Regulations, and the Conditions of Approval attached to this application.

Referral Notifications Sent	Referral Comments Received
31	1

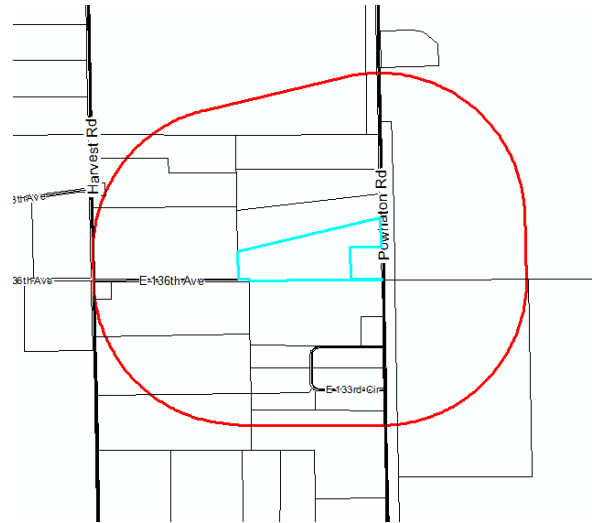


Figure 1. Map showing the ½ mile mailed referral radius from the parcel boundary.

COUNTY REFERRAL COMMENTS

Referral Comments:

Adams County Development Services stated that the landscape plan does not conform to the requirements of Section 4-16 of the Adams County Development Standards and Regulations. A revised plan was submitted and approved.

Adams County Development Services requested the identification of the water wells that will be used to meet the water well test requirements set forth in COGCC Rule 609. The applicant responded identifying four (4) water wells they are pursuing owner permission for testing.

Adams County Development Services requested additional information about the number of pipes, the size of pipes, and the proposed product that will occupy the pipes for transporting product off site. The applicant has provided the requested information.

REFERRAL AGENCY COMMENTS

Responding with Concerns:

Brighton Fire and Rescue requested that the Fire Department’s emergency phone number be updated. The applicant has submitted an updated contact sheet for the Emergency Response Plan.

Colorado Department of Public Health and Environment provided comments on the following topics:

- 1) Electrical equipment and devices
- 2) Odor from drilling and completion activities
- 3) Management of exploration and production waste
- 4) Installation of pipelines

5) Plugging and abandonment

Tri-State Generation and Transmission Association submitted a request that the applicant consult with Tri-State during the construction of the access road. The applicant has agreed to this request.

Responding without Concerns:

The Federal Aviation Administration (FAA)
Colorado Parks and Wildlife

Notified but not Responding / Considered a Favorable Response:

Adams County Office of Emergency Management
Adams County Sheriff's Office
Brighton School District 27J
Tri-County Health Department

Exhibits Table of Contents

Exhibit 1- Maps

- 1.1 Zoning Map
- 1.2 Aerial Map
- 1.3 Simple Map
- 1.4 Comprehensive Plan Map

Exhibit 2- Applicant Information

- 2.1 Applicant Written Explanation
- 2.2 Applicant Site Plan
- 2.3 Ambient Sound Study
- 2.4 Traffic Impact Fee Schedule

Exhibit 3- Referral Comments

- 3.1 Requests for Comments
- 3.2 Comments Received
- 3.3 Applicant Response to Comments

Exhibit 4- Associated Case Materials

- 4.1 Notification Map
- 4.2 Notification Mailing Labels