

**BMP****Notes**

Operator will implement ambient air quality monitoring on site  
Operator will appropriately time activities associated with high emissions to reduce the potential for exposure (e.g. if development is occurring near a high occupancy building unit, such as a school, then hydraulic fracturing, flowback or hydrocarbon liquids loadout will only occur when school is not in session)

Commit

Commit, when operationally feasible

Operator will properly maintain vehicles and equipment

Commit

Operator will use non-emitting pneumatic controllers

Commit

Does not Commit, due to limitations on Xcel's substation in the Eaton and Ault area, we are running into issues finding available capacity on Xcel territory pads. Drilling requires 3 mW or more and the most we have been able to get is 1.2 mW. They have a planned transmission line upgrade, as well as new substations, but that project is now delayed until 2024.

Electrification: Operator will use electric drilling rigs

Does not commit due to the extremely limited supply of electric pumps on the market. Additionally, if secured, the electric pumps would likely need to be powered by grid power which the operator has previously stated is in limited supply.

Electrification: Operator will use electric pumps for hydraulic fracturing

Electrification: Operator will use electric equipment and devices (e.g. vapor recovery units or VRUs, fans, etc.) to minimize combustion sources on site (if yes, operator will provide a list outlining which equipment and devices will be electrified)

Commit, when operationally feasible due to power availability

Tankless design: Operator will not store produced water or hydrocarbon liquids in storage tanks on site (other than a maintenance tank possibly used for well unloading or other maintenance activities)

Commit

Operator will implement a "hybrid production flowback method" or "modern production flowback method" (unlike the conventional or legacy flowback method, which uses temporary equipment to separate the oil, natural gas and water, the "hybrid-production flowback method" or "modern production flowback method" eliminates tanks by routing the oil, natural gas and water directly to permanent production equipment)

Does not commit. While Operator was able to eliminate the need for a temporary separator, the wells are still routed to flowback tanks for the first 24-48 hours and then we take them to the permanent facility.

Venting/Flaring: Operator will not flare or vent gas during completion or flowback, except in upset or emergency conditions, or with prior written approval from the Director for necessary maintenance operations	Commit
Venting/Flaring: Operator will control emergency flaring with an enclosed combustor with a destruction efficiency of 98% or better	Commit
Venting/Flaring: Operator will control bradenhead/casinghead venting	Commit
Pipelines: Operator will use pipelines to transport water for hydraulic fracturing to and from location	Commit, but only to location. Water will be trucked from location.
Pipelines: Operator will have adequate and committed pipeline take away capacity for all produced gas and oil	Commit
Pipelines: Operator will shut in the facility to reduce the need for flaring if the pipeline is unavailable	Commit
Pipelines: Operator will incorporate options for recycling produced gas onsite during pipeline downtime, such as: using the gas for gas lift systems, routing it to the facility fuel system, or installing a natural gas liquid (NGL) skid to process the gas onsite	Commit
Engines: Operator will use tier IV or better engines for drilling	Does not commit, the availability of drilling rigs with tier IV engines is extremely limited
Engines: Operator will use tier IV or better engines for hydraulic fracturing	Commit, Operator will use tier IV pumps for high pressure frac pumps and pump down equipment. However, can not commit to using tier IV pumps for generators, water transfer, personal vehicles, or fueling automation because these do not typically exist.
Engines: Operator will use tier IV or better engines for nonroad construction equipment	Commit Does not commit, tier IV engines are not typically used in these types of fleets. All of Operator's service vehicles are gasoline powered and meet current emission requirements. Any produced water trucks coming to location meet current diesel emission requirements.
Engines: Operator will use tier IV or better engines for fleets accessing site (service vehicles, sand delivery, haul, produced water, etc.)	
Operator will use vapor recovery units (VRUs) to capture and route storage vessel gas to pipeline	Commit
Operator will use zero-emission desiccant dehydrators or 98% control of hydrocarbon emissions from glycol dehydrators	Does not commit

Operator will use compressors equipped with dry seals	Does not commit, dry seals do not apply to the type of compressors that the Operator utilizes on location (reciprocating or screw compressors), these only apply to centrifugal compressors, which Operator does not use.
Operator will collect emissions from rod packing on reciprocating compressors and rout them through a closed vent system to a process or emissions control device	Commit
Operator will use lease automated custody transfer (LACT) system to remove/reduce the need for truck loadout	Commit
Odor mitigation: operator will use group III drilling mud	Does not commit. Operator will utilize a minimum quality of D822 drilling mud, a non-Group II or Group III fluid. Whenever possible the operator will use Group III drilling mud but cannot commit to Group III drilling mud at all times due to supply chain interruptions.
Odor mitigation: operator will use a chiller to cool drilling fluid as it is piped through the recirculation system before routing to the suction tanks	Does not commit. This practice is not common in the DJ Basin, and the Operator has not been able to find documentation that is a successful in mitigating odor.
Odor mitigation: operator will cover trucks transporting drill cuttings	Commit
Odor mitigation: operator will use a squeegee or other device to remove drilling fluids from pipes as they exit the wellbore	Commit
Odor mitigation: Operator will ensure that all drilling fluid is removed from pipes before storage	Commit
Ozone mitigation on forecasted high ozone days: operator will eliminate use of VOC paints and solvents	Commit, when operationally feasible
Ozone mitigation on forecasted high ozone days: operator will minimize vehicle and engine idling	Commit, when operationally feasible
Ozone mitigation on forecasted high ozone days: operator will reduce truck traffic and worker traffic	Commit, when operationally feasible
Ozone mitigation on forecasted high ozone days: operator will postpone the refueling of vehicles	Commit, when operationally feasible
Ozone mitigation on forecasted high ozone days: operator will suspend or delay the use of fossil fuel powered ancillary equipment	Commit, when operationally feasible
Ozone mitigation on forecasted high ozone days: operator will postpone construction activities	Commit, when operationally feasible

Ozone mitigation on forecasted high ozone days: operator will reschedule non-essential operational activities such as pigging, well unloading and tank cleaning

Commit, when operationally feasible

Ozone mitigation on forecasted high ozone days: Operator will postpone flowback if emissions cannot be adequately captured with a vapor recovery unit (VRU)

Commit, when operationally feasible