

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Friday, December 22, 2017 1:59 PM
To: Dave Kubeczko - DNR
Subject: Resend of: URSA Operating Company LLC, BMC F Pad, SWWW Sec 16 T7S R95W, Garfield County, Form 2A#401235025 OGLA Review

Importance: High

Scan No. 2108307 CORRESPONDENCE 2A #401235025

From: Cari Mascioli [mailto:CMascioli@ursaresources.com]
Sent: Friday, December 22, 2017 1:08 PM
To: Dave Kubeczko - DNR
Subject: RE: Resend of: URSA Operating Company LLC, BMC F Pad, SWWW Sec 16 T7S R95W, Garfield County, Form 2A#401235025 OGLA Review
Importance: High

Good afternoon Dave,

COGCC has Ursa's concurrence to attaching the thirty-three (33) COAs, as well as concurrence with the revisions listed below, to the Form 2A.

Thank you,
Cari

Cari Mascioli

Regulatory Analyst
Office: (970) 284-3244
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CMascioli@ursaresources.com

From: Dave Kubeczko - DNR [mailto:dave.kubeczko@state.co.us]
Sent: Thursday, December 21, 2017 12:14 PM
To: Cari Mascioli <CMascioli@ursaresources.com>
Subject: Resend of: URSA Operating Company LLC, BMC F Pad, SWWW Sec 16 T7S R95W, Garfield County, Form 2A#401235025 OGLA Review
Importance: High

Cari,

Below are additional comments regarding information provided in the Form 2A. Please review the proposed revisions and additions; and indicate concurrence or provide any revisions.

- Tank count should be entered as 100 and not 1 (total of 100). **Can only put 2 digits (maximum of 99) into ;Number' box for the 'Other Facilities' section. Have indicated "100 water tanks" in 'Facilities' section and added 'Other Facility Type' – "Bermed areas w/600 bbl frac tanks" 'Number' – "4" in 'Other Facilities' section.**
- Operator should provide a comment regarding types of fluids to be stored (fresh water, flowback water, produced water, separated condensate ?). **Added to 'Operator Comments and Submittal' box on the Submit Tab the following: "Depending on water needs, the tanks will primarily store produced water and frac flowback fluids; however, freshwater may also be stored if there is not enough produced water available for hydraulic stimulation operations at nearby wells. No condensate is anticipated in the influent as separation**

will be conducted at the individual well pads.” In addition, the following BMP was provided by Ursa and has been placed on the ‘Operator BMP / COA’ section of the Form 2A: • Condensate and Produce Water Management: Gas and fluids come up from the wellhead and go to the large primary separator, where gas, fluids and condensate are separated. Any condensate recovered goes to the condensate production tank on the well pad. The produced water to the P-tank (separator) then to the working tanks (temp frac tanks) onsite. From there, the fluids will be transferred to the BMC F water storage facility for reuse/recycling purposes. When transferring fluids from these tanks the draw valve is approximately 12” above the bottom of the tanks to ensure that no sludges are transferred. The transfer draw stops around 24” from the bottom to ensure nothing is drawn from the top layer of the fluids (potential condensate).

The Battlement Mesa wells are located in a very dry portion of the field, without a lot of condensate produced compared to other portions of the Piceance Basin field and other nearby fields. Build up of condensate in the working flowback tanks or frac tanks has not been a historical issue for Ursa in this field. If any condensate is observed, it is immediately skimmed off. In addition, we have recently performed water sampling for the BMC F water storage facility air permitting needs; and have determined that the fluids expected to go to the BMC F facility have very little condensate or oil, below any permitting thresholds. Ursa is currently working with the CDPHE on evaluating this information.

- Operator should comply with Rule 210.d tank labeling requirements. This is for permanent tanks. The following BMP was provided by Ursa and has been placed on the ‘Operator BMP / COA’ section of the Form 2A: • Signs with the information required in Rule 210.d. will be placed at each tank battery / bermed tank area; including A) Name of operator, B) Operator’s emergency contact telephone number; C) Tank capacity; D) Tank contents; and E) National Fire Protection Association (NFPA) Label. Individual tanks will have magnetic signs indicating either “Produced Water” or “Not in Service”.
- BMP #8 and #9 are redundant with COAs (not sure if any others are). They may be, but COGCC inspectors will generally only look at COAs on the Form 2A. Some COAs are also GarCo COAs that COGCC has incorporated before (many of the COAs are the same or similar to COAs placed on the BMC B Pad and BMC D Pad in 2016).

This is a resend of the original email that has minor changes, slight revisions (both Ursa and COGCC), or additional references to GarCo COAs.

Cari,

I have been reviewing the URSA Operating Company LLC (URSA), BMC “F” Pad ‘Water Storage Facility’ site **Form 2A #401235025**. COGCC discussed additional Form 2A information and/or revised attachments with the operator on 11-29-17 and sent an email to operator requesting that information and attachments. COGCC received the additional Form 2A information and/or new or revised attachments from URSA on 12-18-17, which included the following:

- *1) revised Location Drawing showing the 500-foot buffer from the edge of disturbance;
- *2) revised Hydrology Map showing the 1000-foot buffer from the edge of disturbance indicating the distance and bearing to all surface water features and waters wells;
- *3) additional Location Pictures - a minimum of four (4) color photographs, one (1) of the staked location (reference point or center of location) from each cardinal direction (each photograph shall be identified by: date taken, well or location name, and direction of view);
- *4) an updated inventory of equipment on location (pumps, secondary containment for pumps, etc.);
- *5) a description (type, diameter) of the temporary surface pipeline leading from the tanks on this location to the existing permanent subgrade water pipeline; and
- *6) a map attachment showing the proposed temporary surface pipeline route from this location to the existing permanent subgrade water pipeline.

In addition, based on COGCC’s review, the following revisions have been made to the **#401235025**:

COGCC has revised: Date planned to commence construction: from 11/15/2017 to 01/01/2018;

COGCC has revised the Distance to the nearest cultural feature: Production Facility to Public Road from 625' to 1768;' based on review of COGCC's Online GIS Map Aerial Photo for 2015, Roads and Railroads layer, and discussion with URSA on 11-29-17;

Based on the revised Hydrology Map, revised Distance to nearest downgradient surface water feature from 133' to 115' and Distance to nearest water well from 1000' to 958';

Based on proximity of the well pad to downgradient surface water (intermittent stream located 115' to the south-southwest based on COGCC's review of COGCC's 2015 Aerial Photo Layer, Topo Map layer, and Hydrology Map attachment), COGCC has designated this location "sensitive area"; and

COGCC has revised the 'Floodplain Data Sources Reviewed (check all that apply): to include 'Federal (FEMA)'.

Based on discussions between COGCC and the operator, and COGCC's review of the final conditions of approval (COAs) placed on the Garfield County Special Use Permit (SUP) for the BMC F Water Storage Facility site (finalized and adoption of a Resolution for a Special Use Permit on 12-18-17), COGCC has developed a set of **thirty-three (33) COAs** to address potential issues and concerns related to this Oil and Gas Location. This list of COGCC COAs were finalized on 12-18-17 and 12-21-17 incorporating URSA's comments (revised COAs are **highlighted blue** or **highlighted green**, with deletions **highlighted black**). COGCC would like to attach the following COAs (added 3-year time limit for water storage facility use, * **OPS 11 [GarCo 20]** – **highlighted yellow**) based on the information and data URSA has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA) review.

Planning: The following conditions of approval (COAs) will apply to the Form 2A for general planning, notification, and coordination of activities:

- * **PLN 1** - Operator must notify the COGCC 48 hours prior to temporary surface pipeline installation and pipeline testing (all temporary surface lines used for hydraulic stimulation and/or flowback operations) using the Form 42 (as described in **COGCC Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions**).
- * **PLN 2 (GarCo 27)** - Prior to any oil and gas activities, including site construction, operator must update their site-specific Emergency Response Plan with current information; the plan must describe employee spill response and safety training, organizational structure, site specific response plan for spills and other emergency situations at this Oil and Gas Location, and preventative maintenance provisions. Operator must update the site-specific plan annually and submit to COGCC an attestation (signed by a Vice President of Operations or higher corporate signatory's) that the plan has been updated within 30 days of completing the annual update. The following procedures shall be included in the plan: 1) 24 hour personnel on site to observe, monitor, and record all water movements; 2) staffing of at least one person on the outgoing and one person on the incoming points of the temporary surface pipelines during water transfer activities; 3) all water that is sent shall be accounted for at both ends of the pipeline; and 4) constant pressure monitoring with pressure changes resulting in immediate action to troubleshoot the cause. The plan must be available to COGCC for review upon request.
- * **PLN 3 - (GarCo 22)** - Traffic Control Plan - In consultation with Garfield County, Town of Parachute, Battlement Mesa Service Association, and emergency responders, Operator must develop a traffic control plan which addresses all phases of activity at the site. The traffic control plan must include provisions describing limiting site access, signage on local roads warning of increased truck traffic, oil and gas related traffic restrictions (speed and routes), coordination of heavy equipment movement and intense traffic periods to avoid peak times and school bus routes, and flaggers and pilot vehicles.
- * **PLN 4** - The approved **Form 2A #401235025** for this location will be posted onsite during construction and **facility** operations.
- * **PLN 5 (GarCo 17)** - In accordance with referral comments from the CDPHE the URSA BMC F Water Storage Facility site may require an APEN Air Quality Permit. The Applicant shall provide information to the CDPHE on the estimated produced water volumes to be handled/processed and documentation of sampling to be used in the determination regarding APEN Air Quality Permitting requirements.
- * **PLN 6** - A Contingency Plan for any tank leak and/or catastrophic failure of the tank integrity, resulting in loss of fluid must be prepared and submitted to COGCC via a Form 4 Sundry Notice prior to tank use. The plan should included a notification process to the COGCC and local Emergency authority (municipality, county or both) for

any failure and resulting loss of fluid. BMPs shall be employed to prevent injuries, property damage or environmental impacts.

* **PLN 7** - In the case of any conflict between Ursa's compliance plans, Best Management Practices, or other documents associated with this permit and The Oil and Gas Act (The Act), COGCC Rules, or Conditions of Approval (COA), COGCC will enforce compliance with The Act, Rules, and COAs.

Construction: The following conditions of approval (COAs) will apply to the Form 2A for access road, water storage facility site, and onsite equipment construction and installation activities:

* **CON 1 (GarCo 9)** - Construction of the BMC "F" Water Storage Facility site shall be limited to the hours of 7:00 a.m. to 7:00 p.m. with the exception of emergencies and episodic events beyond the operator's control.

* **CON 2** - Due to the proposed water storage facility site's close proximity to nearby intermittent drainages to the south and southeast, operator must implement adequate stormwater control measures to prevent ponding upstream, erosion, and off site sedimentation. All stormwater BMPs utilized at the Oil and Gas Location must be stabilized and must be inspected weekly [every 7 days] and within 24 hours after any significant precipitation event during construction activities.

* **CON 3** - The design/build of any perimeter berm or fluid management structures around the 600 bbl frac tanks shall be sized, constructed, and compacted sufficiently to contain and/or manage potential fluid releases during operations in a manner that prevents or controls potential sedimentation and scouring on adjacent lands and drainages. Such design/build of perimeter berms or fluid management structures may include, but are not limited to the following: on location berms; diversion ditches; enhanced vegetation; or other design features necessary to achieve the goal of protecting adjacent lands and drainages from potential sedimentation and scouring.

* **CON 4 (GarCo 14)** - Operator shall use recycled asphalt, also referred to as black base, for surfacing of the area beneath the 600 bbl water storage tanks and access roadways.

* **CON 5 (GarCo 7)** - Due to the proposed access road's close proximity to nearby intermittent drainages to the south and southeast, the access road will be constructed and maintained to prevent sediment migration from the access road to nearby surface water or any drainages or ditches leading to surface water.

* **CON 6 (GarCo 7)** - The access road to the Oil and Gas Location must be graveled (or equivalent surfacing material) to reduce fugitive dust. Operator will take active measures to prevent fugitive dust emissions from the graveled access road to the water storage facility site access entrance during construction and **facility** operations. Dust reducing access road surfaces must be maintained during water storage facility operations.

* **CON 7** - Operator will provide temporary engineering or administrative controls to prevent uncontrolled public access during construction and **facility** operations.

* **CON 8** - Cut slopes, fill slopes, soil stockpiles, and berms must be stabilized immediately following construction of the water storage facility site and placement of stockpiles.

* **CON 9 (GarCo 13)** - Operator will implement measures (covers, misting, etc.) to reduce dust and PM emissions during transport of solids materials to and from the water storage facility site.

* **CON 10** - Within 30 calendar days of construction of the **temporary produced water and frac flowback fluid storage tanks** on this Oil and Gas Location, operator shall submit a scaled as-built drawing (plan view and cross section view) of the BMC "F" water storage facility site and access road; showing site construction details including water storage tanks and their secondary containment, stormwater/erosion controls, and onsite temporary surface pipelines. The as-built drawing shall be certified by a professional engineer or a professional land surveyor.

Facility Operations: The following conditions of approval (COAs) will apply to the Form 2A for all facility activities during associated completion operations at nearby well pads:

* **OPS 1** - Open top tanks are not permitted for storage of any fluids other than freshwater.

* **OPS 2** - All operator and contractor personnel working at the location during operations must be trained on COGCC requirements for spill response and reporting (documentation of this training will be maintained in the operator's office/onsite trailer). Operator will hold and document weekly meetings during **facility** operations to refresh all personnel onsite regarding response and reporting requirements and staff responsibilities during spill events.

* **OPS 3 (GarCo 7)** - Operator will conduct daily inspections of equipment for leaks and equipment problems. All equipment deficiencies must be corrected immediately or as soon as practical (all identified problems and

corrections/repairs will be documented and records will be maintained in the operator's office/onsite trailer).

Daily monitoring can end 14 days after first date of production; however, timely inspections should continue during the production phase.

* **OPS 4** - A spill response trailer or spill response container will be on location 24 hours a day, 7 days a week during construction and **facility** operations to facilitate a timely response to any spills that may occur. **If the spill response trailer is not onsite, it must be available within 15 minutes.**

* **OPS 5** - Appropriate heavy equipment (e.g., a backhoe, front end loader) will be staged at the location during **facility** operations so that any emergency diversions or pits to contain spills can be built immediately upon discovery; or to quickly build additional earthen berms in the event of a spill outside of containment.

* **OPS 6** - Operator must monitor wildfire potential daily during all construction and **facility** operations at this Oil and Gas Location, and coordinate as necessary with the local fire department on Red Flag Days to ensure appropriate response to any fire emergencies.

* **OPS 7 (GarCo 8)** - All lighting, except as demonstrated for safety reasons, shall be directed inward and downward and be shaded in order to prevent direct reflection on adjacent property or nearby residences. LED lights will be used when possible and practical. Workers will be advised when moving light plants to ensure that the light is focused directly on the work being done.

* **OPS 8 (GarCo 11)** - Air quality and odor controls will be implemented and will include the following: 1) using carbon blankets, or equivalent or better technology, over thief hatches on storage tanks; 2) frac fluids/flowback storage tank hatches must be closed and latched; 3) daily odor monitoring should be conducted during **facility** operations, documentation of such monitoring must be maintained and made available to COGCC or CDPHE upon request; 4) maintain a portable meteorological weather station during **facility** operations, that includes a data logger to archive wind speed/direction, temperature, and humidity; and 5) Data must be kept on file by the Operator and provided to COGCC or CDPHE upon request.

* **OPS 9 (GarCo 7)** - Operator will implement measures to ensure that adequate separation of hydrocarbons from the influent occurs at the well pads to prevent accumulation of oil on the surface of stored fluids. Operator shall also employ a method for monitoring buildup of phase-separated hydrocarbons on the surface of stored fluids.

* **OPS 10 (GarCo 7)** - Potential odors associated with the **facility operations** must be controlled/mitigated.

* **OPS 11 (GarCo 20)** - The temporary water storage facility shall be used for a period of no more than three (3) years for storage, recycling, reuse, treatment, or disposal of E&P waste or fresh water, as applicable. The three year time clock will start from the date of first use after construction and be based on submittal of the Form 42 providing that date.

Material Handling and Spill Prevention: The following conditions of approval (COAs) will apply to the Form 2A for all temporary surface pipelines (poly or steel) used during operations at the water storage facility site and/or nearby well pad locations:

* **MH 1** - Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network.

* **MH 2** - Operator must implement best management practices (secondary containment) to contain any unintentional release of fluids along all portions of the surface pipeline route where temporary pumps and other necessary equipment are located.

* **MH 3** - Operator must routinely inspect the entire length of the temporary surface pipeline to ensure integrity. Operator shall conduct daily inspections of surface poly pipeline routes for leaks during active transfer of fluids. Inspections shall be conducted by viewing the length of the pipeline; operator will endeavor to minimize surface disturbance during pipeline monitoring.

* **MH 4 (GarCo 7)** - Prior to operation, pipelines will be tested for integrity. When in operation, pump stations will be manned continuously to ensure immediate response to pressure changes or pump issues. Qualified personnel, interconnected via 2-way radio, manning each booster pump will carefully synchronize pump turn-on and shut-down according to written and practiced procedure. The entire line will be monitored, where feasible, during pumping and flowback operations. For stream or intermittent stream crossings, operator will ensure appropriate containment by installing over-sized pipe "sleeves" which extend the length of the crossing and

beyond to a distance deemed adequate to capture and/or divert any possible release of fluids and prevent infusion into the stream water.

* **MH 5** - Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the temporary surface pipelines. This will reduce surface disturbance and fragmentation of wildlife habitat in the area.

CPW Wildlife Consultation/Comment: The following comment was placed on the Form 2A by CPW on 06-30-17:

“This pad location was provided to CPW and analyzed as part of the Battlement Mesa Wildlife Mitigation Plan (WMP). The terms and conditions agreed upon within the WMP document are still adequate to avoid, minimize, and mitigate any impacts to wildlife from the proposed activity. BMPs from the WMP document have been provided to COGCC OGLA specialist to be included with the Form 2A permit.

BY: Taylor Elm, June 30, 2017, 9:23 a.m.”

The following Best Management Practices (BMPs), which were developed by the operator and CPW to avoid and minimize impacts to wildlife from the proposed development, are contained within the approved Battlement Mesa Wildlife Mitigation Plan (WMP), and apply to this location:

****1) Closed loop (pitless) drilling systems.***

****2) Annual raptor and other bird surveys will be conducted in accordance with protocols provided by CPW.***

****3) Rig shift changes will take place when practical at 6am and 6pm and will utilize one (1) vehicle to minimize impacts to wildlife.***

****4) Development program is planned to include four phases as a means for mitigating wildlife impacts. These phases will be based on infrastructure construction schedules and will be coordinated with affected land owners, the Battlement Mesa Services Association (BMSA), local municipalities, Garfield County, COGCC, and CDPHE during the Comprehensive Drilling Plan and the Major Land Use Impact Review process.***

****5) Well pad location visits during the production phase of operations (post drilling and completion for all wells on a well pad location) will be restricted when/where possible to between the hours of 10am and 3pm to minimize impacts to wildlife unless operational concerns warrant pad visits outside this timeframe.***

****6) Buried water and gas pipelines will be utilized as means to reduce truck traffic and impacts to wildlife.***

****7) Restrict rig operation to no more than 2 rigs per section (or equivalent acreage) within the big-game seclusion areas during the winter.***

****8) Maintaining a ¼ mile no surface occupancy buffer around active bald eagle nests.***

****9) New pad construction not to exceed 3 acres of working surface.***

****10) Pad density not to exceed 1 pad per 160 acres.***

****11) Bury all gas and water pipelines adjacent to roads whenever possible.***

****12) A weed management plan will be developed and implemented to monitor and control noxious and invasive weeds.***

****13) Noxious weed control includes three treatments per year.***

****14) Existing weed infestations will be mapped prior to the development of each pad, access road and pipeline when practicable.***

****15) Antero (now Ursa) has completed all habitat restoration contributions contained within the WMP.***

These wildlife BMPs have been added to the ‘Operator BMP/COA’ tab of the Form 2A (GarCo 24).

COGCC would appreciate your concurrence to attaching the **thirty-three (33) COAs**, as well as concurrence with the revisions listed above, to the Form 2A, prior to passing the OGLA review. If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email. Thanks.

Dave

David A. Kubeczko, PG
Oil and Gas Location Assessment Specialist
Western Colorado



Colorado Oil & Gas Conservation Commission
Northwest Area Office
796 Megan Avenue, Suite 201
Rifle, CO 81650
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Please consider the environment before printing this e-mail

From: Cari Mascioli [mailto:CMascioli@ursaresources.com]
Sent: Thursday, December 21, 2017 10:00 AM
To: Dave Kubeczko (dave.kubeczko@state.co.us)
Subject: RE: URSA Operating Company LLC, BMC F Pad, SWWW Sec 16 T7S R95W, Garfield County, Form 2A#401235025 OGLA Review

Good morning Dave,

Here are few more modifications for the BMC F Pad. My apologies for not catching them during my initial review. Please call if you have questions.

* **CON 6 (GarCo 7)** - The access road to the Oil and Gas Location must be graveled (or equivalent surfacing material) to reduce fugitive dust. Operator will take active measures to prevent fugitive dust emissions from the graveled access road to the water storage facility site access entrance during construction and ~~completion~~ **facility** operations. Dust reducing access road surfaces must be maintained during water storage facility operations.

Ursa is requesting modifying this COA as shown above.

* **CON 7** - Operator will provide temporary engineering or administrative controls to prevent uncontrolled public access during construction and ~~completion activities~~ **facility operations**.

Ursa is requesting modifying this COA as shown above.

* **CON 10** - Within 30 calendar days of construction of the ~~temporary tanks production equipment~~ **temporary tanks** on this Oil and Gas Location, operator shall submit a scaled as-built drawing (plan view and cross section view) of the BMC "F" water storage facility site and access road; showing site construction details including water storage tanks and their secondary containment, stormwater/erosion controls, and onsite temporary surface pipelines. The as-built drawing shall be certified by a professional engineer or a professional land surveyor.

Ursa is requesting modifying this COA as shown above, since no production equipment will be installed.

* **OPS 3 (GarCo 7)** - Operator will conduct daily inspections of equipment for leaks and equipment problems. All equipment deficiencies must be corrected immediately or as soon as practical (all identified problems and corrections/repairs will be documented and records will be maintained in the operator's office/onsite trailer). ~~Daily monitoring can end 14 days after first date of production; however, timely inspections should continue during the production phase.~~

Ursa is requesting modifying this COA as shown above, since the proposed location is for water storage only.

***OPS 4** - A spill response trailer or spill response container will be on location 24 hours a day, 7 days a week during construction and **facility** operations to facilitate a timely response to any spills that may occur. ~~If the spill response trailer is not onsite, it must be available within 15 minutes during production operations.~~

Ursa is requesting modifying this COA as shown above, since the proposed location is for water storage only.

Thank you,
Cari

Cari Mascioli

Regulatory Analyst
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Cell: (970) 319-8236
CMascioli@ursaresources.com

From: Cari Mascioli [mailto:CMascioli@ursaresources.com]

Sent: Monday, December 18, 2017 12:34 PM

To: Dave Kubeczko (dave.kubeczko@state.co.us)

Subject: RE: URSA Operating Company LLC, BMC F Pad, SWWW Sec 16 T7S R95W, Garfield County, Form 2A#401235025 OGLA Review

Good morning Dave,

Please find attached the additional location pictures, revised location drawing, revised hydrology map, pump layout and temporary water pipeline exhibit.

Ursa agrees to comply with all of the preliminary COAs with the exception of the following:

- PLN 4 - The approved Form 2A #401235025 for this location will be posted onsite during construction and ~~completions~~ **facility** operations.
 - Ursa is requesting modifying this COA as shown above since the proposed location is for water storage only.
- CMPL 2 - All operator and contractor personnel working at the location during ~~drilling and completion~~ operations must be trained on COGCC requirements for spill response and reporting (documentation of this training will be maintained in the operator's office/onsite trailer). Operator will hold and document weekly meetings during ~~drilling and completion~~ **facility** operations to refresh all personnel onsite regarding response and reporting requirements and staff responsibilities during spill events.
 - Ursa is requesting modifying this COA as shown above since the proposed location is for water storage only.
- CMPL 4 - A spill response trailer or spill response container will be on location 24 hours a day, 7 days a week during construction and ~~completion~~ **facility** operations to facilitate a timely response to any spills that may occur. ~~If the spill response trailer is not onsite, it must be available within 15 minutes during production operations.~~
 - Ursa is requesting modifying this COA as shown above since the proposed location is for water storage only.
- CMPL 5 - Appropriate heavy equipment (e.g., a backhoe, front end loader) will be staged at the location during ~~all completion~~ **facility** operations so that any emergency diversions or pits to contain spills can be built immediately upon discovery; or to quickly build additional earthen berms in the event of a spill outside of containment.
 - Ursa is requesting modifying this COA as shown above since the proposed location is for water storage only.
- CMPL 6 - Operator must monitor wildfire potential daily during all construction and ~~completion~~ **facility** operations at this Oil and Gas Location, and coordinate as necessary with the local fire department on Red Flag Days to ensure appropriate response to any fire emergencies.
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- CMPL 8 - Air quality and odor controls will be implemented and will include the following: 1) using carbon blankets, or equivalent or better technology, over thief hatches on storage tanks; 2) frac fluids/flowback storage tank hatches must be closed and latched; 3) daily odor monitoring should be conducted during completion facility operations, documentation of such monitoring must be maintained and made available to COGCC or CDPHE upon request; 4) maintain a portable meteorological weather station during completion facility operations, that includes a data logger to archive wind speed/direction, temperature, and humidity; and 5) Data must be kept on file by the Operator and provided to COGCC or CDPHE upon request.
 - Ursa is requesting modifying this COA as shown above since the proposed location is for water storage only.

- CMPL 10 - Potential odors associated with the completions process and/or with long term operations facility operations must be controlled/mitigated.
 - Ursa is requesting modifying this COA as shown above since the proposed location is for water storage only.

Please call me with any questions you may have.

Thank you,
Cari

Cari Mascioli

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From: Dave Kubeczko - DNR [<mailto:dave.kubeczko@state.co.us>]
Sent: Wednesday, November 29, 2017 12:35 PM
To: Cari Mascioli <CMascioli@ursaresources.com>
Subject: URSA Operating Company LLC, BMC F Pad, SWWW Sec 16 T7S R95W, Garfield County, Form 2A#401235025 OGLA Review
Importance: High

Cari,

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- *1) revised Location Drawing showing the 500-foot buffer from the edge of disturbance;
- *2) revised Hydrology Map showing the 1000-foot buffer from the edge of disturbance indicating the distance and bearing to all surface water features and waters wells;
- *3) additional Location Pictures - a minimum of four (4) color photographs, one (1) of the staked location (reference point or center of location) from each cardinal direction (each photograph shall be identified by: date taken, well or location name, and direction of view);
- *4) an updated inventory of equipment on location (pumps, secondary containment for pumps, etc.);
- *5) a description (type, diameter) of the temporary surface pipeline leading from the tanks on this location to the existing permanent subgrade water pipeline; and
- *6) a map attachment showing the proposed temporary surface pipeline route from this location to the existing permanent subgrade water pipeline.

In addition, based on COGCC's review, the following revisions have been made to the **#401235025**:

COGCC has revised: Date planned to commence construction: from 11/15/2017 to 01/01/2018;

COGCC has revised the Distance to the nearest cultural features: from Production Facility to High Occupancy Building Unit from 5055' to 5280'; Production Facility to Public Road from 625' to 1768;' based on review of COGCC's Online GIS Map Aerial Photo for 2015, Roads and Railroads layer, and discussion with URSA on 11-29-17; and

Based on proximity of the well pad to downgradient surface water (intermittent stream located 133' to the south-southwest based on COGCC's review of COGCC's 2015 Aerial Photo Layer, Topo Map layer, and Hydrology Map attachment), COGCC has designated this location "sensitive area"; and

COGCC has revised the 'Floodplain Data Sources Reviewed (check all that apply): to include 'Federal (FEMA)'.

COGCC has made these changes, made comments, and placed preliminary COAs on the **Form 2A #401235025** in eForms for your review and comment. These are not final and additional COAs may be added after COGCC's internal review. If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email. Thanks.

Dave

David A. Kubeczko, PG
Oil and Gas Location Assessment Specialist
Western Colorado



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