May 2, 2025

Greetings,

We are writing to notify you that Kerr McGee Oil & Gas Onshore, LP, an Oxy USA Inc. subsidiary, is working through the permitting process to obtain approval to develop an oil and natural gas project in your community. In our commitment to being a good neighbor, we provide frequent and transparent information, seek community feedback, safeguard the environment, and protect the health and safety of employees and communities.

Enclosed is information about us, the permitting process, general and site-specific project details, proposed location maps, and an estimated development schedule. Additionally, you will find resources with more information about the permitting process, including how to provide public comment on the permit, which can also be found on the Energy & Carbon Management Commission (ECMC) website at ecmc.state.co.us. The ECMC was known as the Colorado Oil and Gas Conservation Commission (COGCC) prior to July 2023.

The public comment period for this project is from May 1, 2025, to May 30, 2025. If you would like to discuss the details of this application, the public comment process, or request a meeting to discuss the proposed oil and gas project, please contact us at any time.

We are committed to conducting our business in a manner that safeguards our employees and neighbors, protects the environment, benefits neighboring communities, and strengthens local economies.

You can find updates on this project and other useful information about oil and gas development on our website, OxyColoradoStakeholder.com. We welcome all questions, appreciate feedback, and look forward to hearing from you.

Oxy Stakeholder Relations
1099 18th Street, Suite 700 Denver, CO 80202
866.248.9577
ColoradoStakeholder@oxy.com
www.OxyColoradoStakeholder.com

New Energy Development

Permitting Process

This proposed project is required to undergo a comprehensive permitting process at both the state and local level. The State of Colorado permitting process is known as an Oil and Gas Development Plan or OGDP. We have submitted an OGDP application to develop 12 wells on the Indigo location. The Energy & Carbon Management Commission (ECMC) will determine if the application contains all the required information and is therefore complete. The completeness determination will begin the public comment period at the ECMC. Instructions on how to provide public comment are included in this packet.

Proposed Location Information

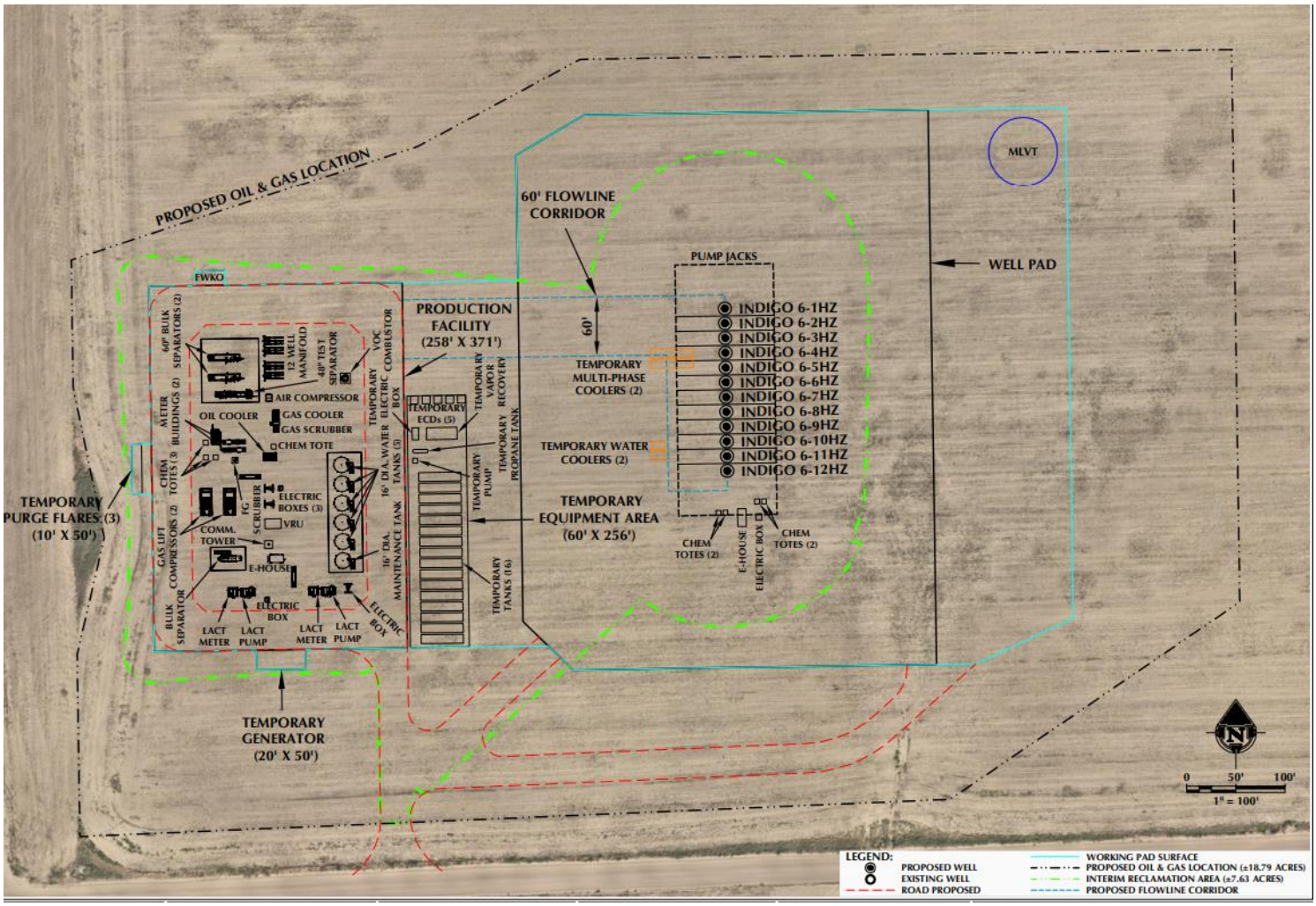
Pad Name	Parcel #	Location	Approximate Pad Dimensions	Acres during development	Acres after reclamation	ECMC Permit 2A Doc #
Indigo HZ	120706000007	SW ¼ SE ¼ SECTION 6, TOWNSHIP 3N, RANGE 68W, 6TH P.M.	560’ x 940’	18.79 acres	7.63 acres	403965056

We will develop these wells as efficiently as possible and will work with you throughout the process to provide up to date information. For project updates, please see OxyColoradoStakeholder.com/Project-Updates

Indigo Site Layout

Site Planning and Visual Mitigation

We know that the location and potential visual impacts are important to you. We placed the equipment location as far from homes as feasible, while minimizing impacts to views.



This proposed site layout is shown above. All 12 of the wells drilled from the surface location and running west.

An independent third-party company is responsible for the pipeline planning and facilitation for this project. The third-party pipeline operator is still in the planning phase of identifying and locating the proposed pipeline.

Visit https://bit.ly/OxyProductionFacilities to learn about our production facilities and oil-tankless design. The video will show you what our typical facility looks like. If you have any questions about the site layout or what equipment will be on-site, please reach out to us.

Our Commitment To You

Our Best Practices and Mitigation Measures

Traffic Management Plan: Traffic

We reduce traffic as much as possible through oil transfer and Water-On-Demand systems.. The oil produced from our horizontal locations is transported off-site through a pipeline, eliminating the need for trucks. Since its inception in 2012, these technologies have enabled us to eliminate 60 million miles of truck traffic from the roads in Weld County, reducing emissions, dust, road wear, and inconvenience to our neighbors. This system also mitigates our surface footprint by significantly reducing the tanks needed for water storage onsite during well completion. At this location, we estimate that our Water-On-Demand system will eliminate 81,200 truck trips.

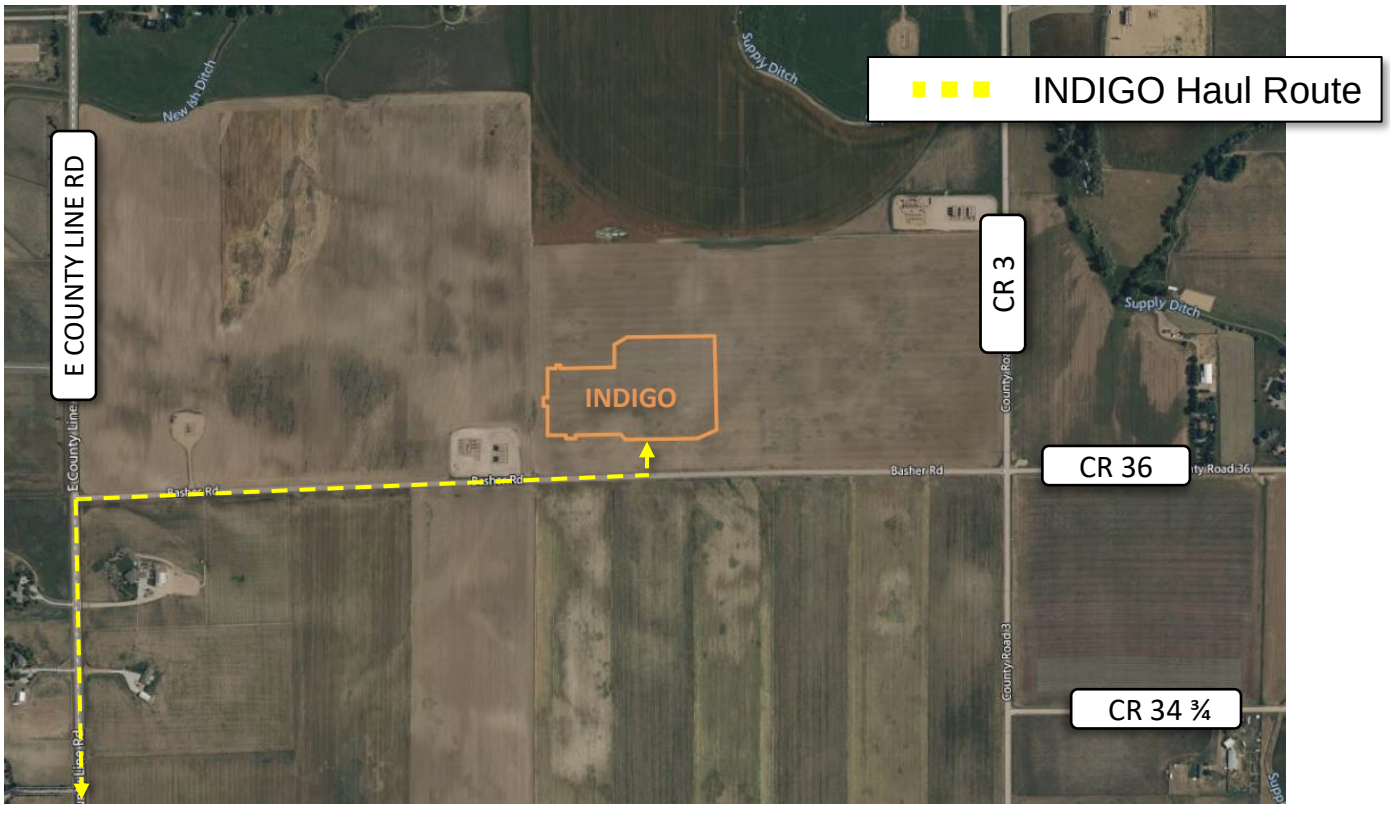
Estimated Project Timeline

We will develop these wells as efficiently as possible and will work with you throughout the process to provide up-to-date information. Projected dates below are subject to change. For project updates, please see OxyColoradoStakeholder.com/project-updates

Phase	Work Activity	Estimated Start	Estimated End	Estimated Traffic Total / Per Day
1	Pad Construction	September 2025	October 2025	3,025 / 101
2	Surface Casing	November 2025	November 2025	387 / 24
3	Horizontal Drilling	December 2025	February 2026	4,061 / 61
4	Well Completions	May 2026	July 2026	15,032 / 275
5	Production Facility Construction	March 2026	June 2026	1,293 / 26
6	Interim Reclamation*	March 2027	June 2027	3,405 / 113
The interim reclamation traffic per day count represents an estimated 60-day noncontinuous period.*				

Traffic Management Plan

One part of the comprehensive permitting process is developing a traffic management plan. This includes specific routes for all traffic coming to and leaving the proposed project location. To access the location, drivers will utilize the roads as shown below. Speed limits will be reduced to 20 mph on the access road and 5 mph once vehicles reach the well pad/facility.



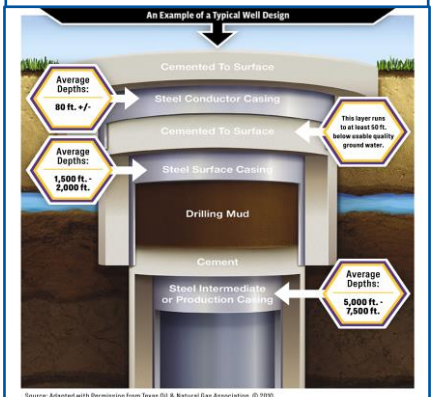
Phases of Energy Development

For more information, please visit www.OxyColoradoStakeholder.com/Oil-and-Gas-101

Pad Construction
(30-45 days per pad) 1

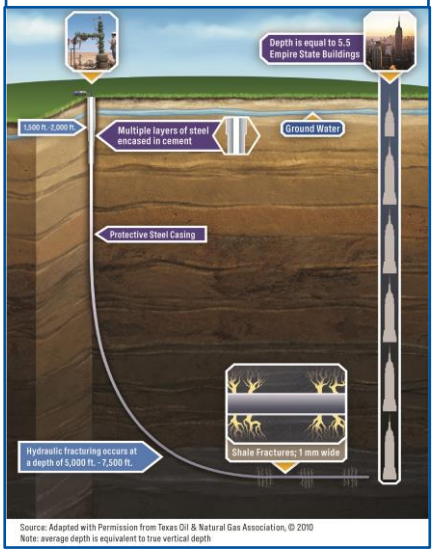
Standard construction equipment prepares the well site. A wall may be installed to reduce or minimize noise and light during development.

Surface Casing Set
(1-2 days per well) 2



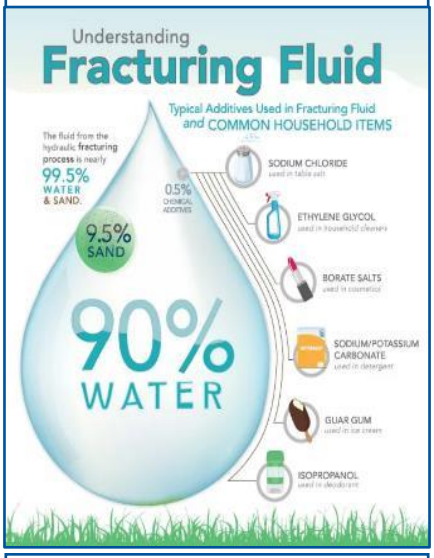
A drilling rig begins the underground construction process by installing steel pipe and cement (surface casing) to protect groundwater. Surface casing is set at least 50’ below the aquifer, typically about 1,5000’+ below the surface.

Horizontal Drilling
(4-6 days per well) 3



A production rig arrives and drills to a depth of 7,000 to 8,000 feet. The horizontal portion of the wellbore can extend more than two miles. Additional layers of protective steel casing and cement are installed.

Well Completions
(6-9 days per well) 4



Hydraulic Fracturing: A safe, highly engineered technology developed in the 1940s. Fluid is pumped over a mile below the earth’s surface under pressure to create hairline fractures in the rocks.

Flowback: After fracturing, the wells are opened, and oil and gas flow into the mobile production facility.

Well clean-out and Tubing: The wells are cleaned out to remove excess sand and install the production tubing.

Production Facility Construction
(30-45 days per facility) 5

Production facilities are constructed adjacent to the wells to collect and separate the oil, natural gas, and water that are produced. Facility production is 30-45 days of work, completed in stages over about four months.

Reclaim Well Site
(60 days per pad) 6

Once development phases are complete, the pad is reclaimed to the largest extent possible to match the existing landscape. Each well will produce energy vital to the health and welfare of our communities for decades to come.

Our Commitment To You

We strive to make our activities compatible with the surrounding community and use various mitigation techniques to reduce the temporary impacts associated with development. Our team designs each location after careful consideration of the area's specific attributes. Although some of our operations are conducted 24/7, we aim to minimize non-essential work during the night. For each well pad, we deploy the following strategies to mitigate possible impacts including:

Our Best Practices and Mitigation Measures

Noise

We use upgraded drilling rigs with noise reducing features and quiet hydraulic fracturing technology. These features reduce the noise from our operations.

Light

We use light-emitting diode (LED) lights strategically oriented away from homes, making our operations less visible to our neighbors.

Odor

To counteract any potential hydrocarbon odor during our drilling operations, we use low-aromatic, synthetic drilling fluid.

Dust

We work to mitigate dust by applying dust suppression to the roads as needed. Various techniques include installing tracking pads and sediment traps, hydro mulching and/or hydroseeding topsoil piles, seeding disturbed soils, and placing and compacting a gravel layer on the working pad surfaces and access roads.

Our Commitment To You

Our Best Practices and Mitigation Measures

Air Quality

To ensure the wellbeing of you and your family and those living and working near our operations, we take action to reduce emissions and monitor air quality.

Reducing Emissions

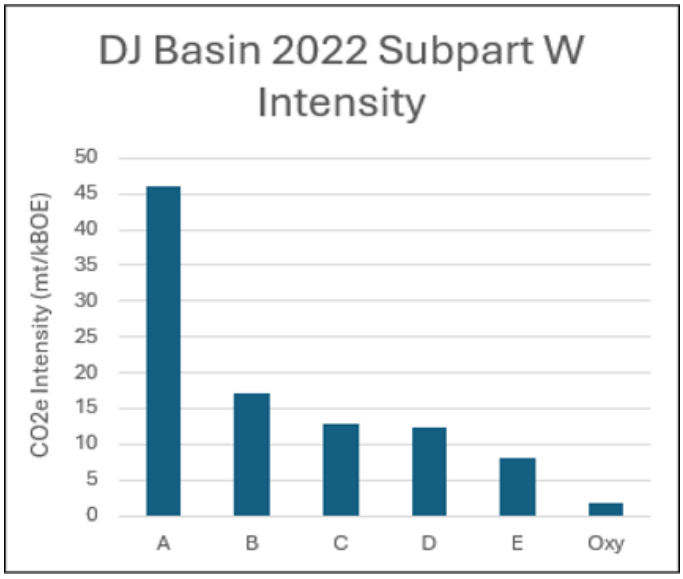
To reduce greenhouse gas emissions and utilize the valuable energy resources we produce, we select equipment and design our locations and procedures to minimize emissions. As you can see in the graph, we have been successful in our efforts.

1.Oxy is the first U.S. oil and gas company to endorse The World Bank's Zero Routine Flaring by 2030 initiative. In Colorado, we have already achieved zero routine flaring.

2.To keep emissions low by adhering to CDPHE and AQCC rules, our drilling and completions engines will follow one of the use practices in Regulation 7 Part B. VI.E.1. These ozone season use practices will be applied to year-round operations.

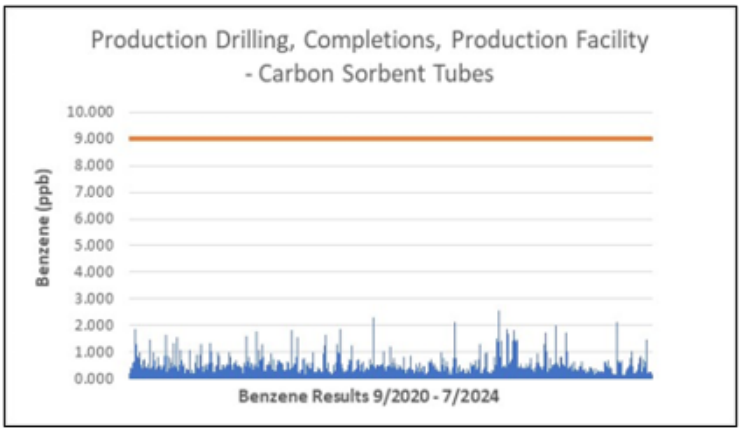
3. Our innovative production facilities reduces air emissions in several ways. By eliminating oil tanks, we significantly lower facility emissions. Transporting oil off-site through a pipeline further reduces emissions associated with truck traffic. The facility design also uses compressed air to operate pneumatic controllers, which regulate pressure, flow, temperature, and liquid levels in over 90% of our production. Using compressed air eliminates emissions that typically come from natural gas-driven pneumatic controllers.

As shown in the graph below, we have the lowest emissions inventory intensity of any oil and gas operator in the DJ Basin and have already met the 2030 Colorado Department Public Health and Environment (CDPHE) Regulation 22 target.



Monitoring Emissions

During drilling and completions, independent third-party environmental air quality experts perform continuous air quality monitoring. The Colorado Department of Public Health and Environment (CDPHE) and the Energy & Carbon Management Commission (ECMC) approve our air monitoring program and receive monthly reports. You can find the monthly monitoring reports created by the third-party consultant on our webpage under Project Updates. As seen in the chart below, since 2020, we've collected over 11,500 samples and all are well below the CDPHE Health Guidance Values of 9 Parts Per Billion.



Independent third-party air quality experts use traditional and innovative technologies to add context to and validate the data collected. Air monitoring stations include a weather station, a hydrocarbon analyzer, and carbon sorbent tubes. In addition, strategically placed air canisters may supplement data from the air monitoring stations. Air samples are collected and analyzed according to EPA standards. The results are compared to health guideline values set by the CDPHE.

Air monitoring data is collected continuously and is monitored 24/7 by our Integrated Operations Center (IOC). Our monitoring program establishes response and investigation levels designed to protect the health, safety, and welfare of communities, our employees, and the environment. Additionally, our 24/7 IOC ensures responses are both timely and effective.

To monitor emissions near our production facilities, we have an in-house emissions team that conducts leak detection and repair inspections. During the production phase, every facility is inspected periodically by trained individuals using a handheld infrared camera. We also use infrared camera-equipped drones and conduct frequent audio/visual/olfactory inspections to detect and control emissions.

Groundwater Protection

We conduct baseline water-quality sampling and construct double-walled produced water sumps and secondary containment for operations. Sensors between the walls of the water sumps and additional automation allow us to remotely monitor fluid levels and remotely shut in the wells if we detect an issue.

Contacts

Margaret Rowley
Stakeholder Relations Advisor
1099 18th Street, Suite 700, Denver, CO 80202 Office 720.929.4573
Coloradostakeholder@oxy.com
www.OxyColoradoStakeholder.com

Oxy Integrated Operations Center (IOC)
970.515.1500
Real-time monitoring of wells, water tanks, and production facilities
24 hours a day, 365 days a year

Weld County Oil and Gas Energy Department
970.400.3580 | oged@Weld.gov
www.weldgov.com/Government/Departments/Oil-and-Gas-Energy
For information about the permit, ask about Indigo OGDP

COLORADO
Energy & Carbon Management Commission
Department of Natural Resources

Energy & Carbon Management Commission (ECMC)
303.894.2100
ecmc.state.co.us

COLORADO
Energy & Carbon Management Commission
Department of Natural Resources

INFORMATION SHEET: OGDP STATUS INFORMATION

(As required by ECMC Rule 303.e.(2).G)

Why am I receiving this information sheet?

The Colorado Energy & Carbon Management Commission ("ECMC") prepared this information sheet to inform the public in the vicinity of a proposed Oil and Gas Development Plan ("OGDP") how to access documents and view the status of proposed OGDPs through the ECMC's website, webforms, and eFiling system. A review of public property records indicates that you may have an interest in lands that an oil and gas operator wishes to develop as part of an OGDP. Pursuant to Commission Rule 303.e.(2).G, operators are required to provide this information sheet to certain recipients near their development plans.

What is an Oil and Gas Development Plan?

An OGDP is an operator's plan to develop subsurface oil and gas resources ("minerals") from one or more surface locations. An OGDP consists of a hearing application and associated permit materials that provide technical information. The Director (i.e. ECMC Staff) reviews the technical information and makes a recommendation to the Commission for the hearings application; the Commission has the ultimate authority on approval or denial of the OGDP.

How do I view the status of the pending OGDP hearing application?

Members of the public may view the status of proposed OGDP applications through the ECMC eFiling System by creating an account in the Applications and Docket Portal, available on the "Hearings Page."

1. Go to www. ECMC.state.co.us and click on the green "Commission Hearings" button:

2. On the right-hand side of the Hearings page, in the Operator Tools box header, click on "Application and Docket Portal":

3. Create a user account by clicking "Request Access to Site," and completing the required registration information. There may be a delay for processing following your request before you are granted access. Check your email for access approval.
4. Once registration is complete, access the Application and Docket Portal by entering your user name and password.
5. At the bottom left of the page, find the panel labeled "Find Hearing Application by Docket Number" and enter the 9-digit docket number provided by the operator in their cover letter in the field named "Docket Number":

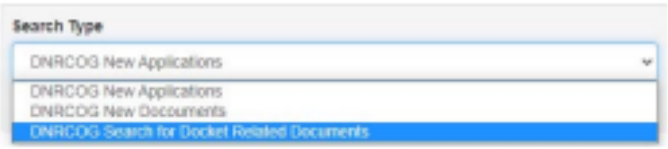
6. The general status of the docket is listed in the first column on the left, titled "Docket Status."
7. Double click the docket search result to load the docket's main page, which will show additional information, including the application type, status, assigned Hearing Officer, and applicant information.

Do I have to create an account to view documents?

No. You may view documents through the "Document Search" described below without creating an eFiling System account, but you will not be able to view the "status" of the docket through this method.

1. On the right-hand side of the Hearings page, in the Public Tools box, click on the "Document Search" link:

2. From the "Search Type" dropdown menu, select "DNRCOG Search for Docket Related Documents":



3. Input the docket number provided by the operator.

4. If you don't have a docket number, or to view any OGDP, scroll down to the "DNRCOG Application Type" dropdown menu and select "OIL & GAS DEVELOPMENT PLAN":

5. Scroll down and click the "Search" button.
6. A table of all related documents will appear. Click on any item to view its contents or download to your computer.

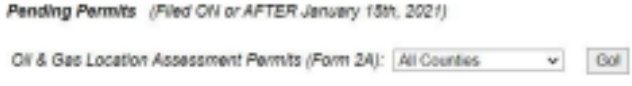
How do I view general forms, permits, and data regarding permits and OGDPs?

Use the Daily Activity Dashboard (DAD) to access frequently requested oil and gas data at the county and state levels. The DAD link is located in the right-hand corner of the ECMC homepage:

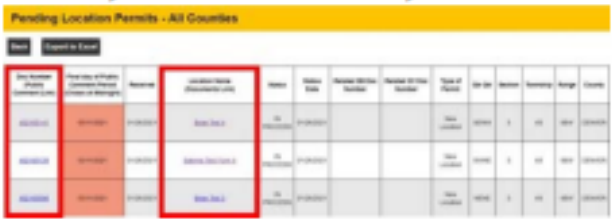
It allows you to generate statistical charts, graphs, tables, and maps for information including pending permits, well status, production, well inspections, Notices of Alleged Violation, active notifications, and spills. The ECMC also provides access to pending and approved permits through its "Permits Search" and interactive map on the ECMC website.

To view the status of pending Form 2As (Oil and Gas Location Assessment Permits) through the "Permit Search" function, follow the steps outlined below:

1. Click "Permits" in the green menu bar on the ECMC homepage. This will take you to the "Drilling and Location Permits Search" page.
2. Under Pending Permits, find "*Oil & Gas Location Assessment Permits (Form 2A)*". Select "All Counties" or a specific county using the drop down menu and click "Go!":



3. A table will show all pending Form 2As currently under review by the ECMC.



   a. Clicking a "Doc Number" link will take you to the Public Comments portal for that pending permit.
   b. Clicking a "Location Name" link will take you to a list of documents related to that permit, including the Form 2A (as submitted by the operator) and supporting documents that are attached to the pending permit application.

Can I view pending applications on the ECMC Map?

Yes. You may access the ECMC GIS Online Interactive Map by clicking "Maps" in the green banner on the ECMC homepage, then click "Click HERE to access interactive map". You may use the "address search" option to zoom to your address to see oil and gas activity near you. With the map zoomed to your area of interest, you may specify pending permits by checking the appropriate boxes on the left-hand menu:

To select and view a pending application, use the arrow tool to double-click on the pending icons to display the Application.

Where can I get additional information?

ECMC Homepage:

https://ecmc.state.co.us/#/home

Hearings Page:

https://ecmc.state.co.us/reg.html#/hearings

eFiling system help:

http://ecmc/documents/reg/Hearings/External_Efiling_System_Users_Guidebook_20201109.pdf

ECMC GIS Online Interactive Map help:

http://ecmc/documents/about/Help/Search%20pending%20permits%20on%20the%20COGCC%20map.pdf

COLORADO
Energy & Carbon Management Commission
Department of Natural Resources

INFORMATION SHEET: PUBLIC COMMENTS

(As required by ECMC Rule 303.e.(2).D)

Purpose

This information sheet provides details on how to make public comments on an Oil and Gas Development Plan submitted to the Colorado Energy & Carbon Management Commission via the Form 2A, Oil and Gas Location Assessment permit application.

Why am I receiving this Information Sheet?

You have received this Colorado Energy & Carbon Management Commission ("ECMC") information sheet because an oil and gas operator ("the Operator") has submitted an application for an Oil and Gas Development Plan ("OGDP"), and that application is under review by the ECMC. Per ECMC Rule 303.e.(1), the Operator is required to provide this information to you within seven days of the application materials being posted on the ECMC website.

ECMC Rule 303.d requires the ECMC to open a formal "public comment period" upon posting the OGDP application to our website. This public comment period allows the public to review OGDP applications and their components (i.e., proposed Oil and Gas Locations), and provide comments on those pending permit applications.

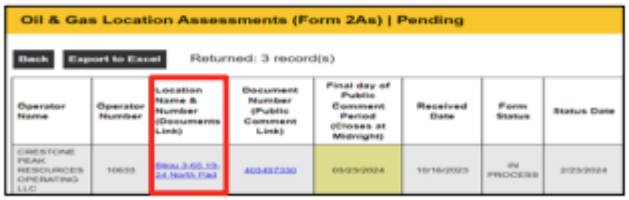
How can I provide comments on pending permits in an OGDP?

Members of the public can access OGDP applications through the ECMC website to review permit information and provide comments. Public comments may be made directly on Form 2A, Oil and Gas Location Assessment permit applications ("Form 2A") through the COGCC website.

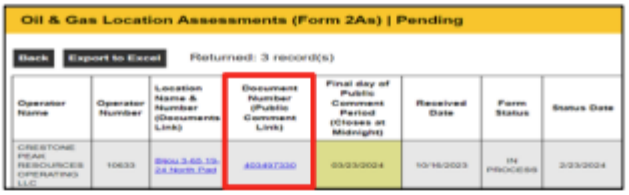
1. Go to the ECMC website https://ecmc.state.co.us
2. On the green menu bar, click on the "Permits" page. This will take you to the "OGDP and Location Applications" tool for Applications for Oil & Gas Development Plans (OGDPs) and Oil & Gas Locations (Form 2As).

3. Under "Applications for Oil & Gas Development Plans (OGDPs) and Oil & Gas Locations (Form 2As)", find "Oil and Gas Location Assessment Permits (Form 2A)" section. Select the county of interest from the dropdown menu of the "Pending Oil & Gas Location Assessments (Form 2As)" and click "Go!"

4. This will generate a table of pending applications and will indicate the status of the public comment period for each permit within the ECMC review process.
5. Scroll through the list of pending permits to find the one you would like to review. You may wish to use "crtl + f" to search for a specific document number, operator name, or location name.
6. To view the submitted Form 2A and its associated attached documents, click the "Location Name & Number" link for the permit application you wish to view.



7. To make a public comment on a specific permit application, click the "Doc Number" link of the permit on which you wish to comment. This will take you to the Public Comment portal.



8. In the Public Comment portal, you may navigate to the Form 2A application including the PDF and all attachments by clicking on "Related Documents".

9. To make a public comment, click the "Make Comment" button. A Form will open for you to provide your name, contact information, and your comment. Only the text in the Comment box will be made public; your contact information will be kept confidential by ECMC.

10. Click the "Submit Comment" button when you are ready to submit your comment.
11. You may also view other public comments and read yours after it is posted by scrolling down on this page (see below about a delay in displaying comments).

How long do I have to submit a comment on a permit?

The Public Comment Period begins once the ECMC Director determines the OGDP application is complete and has been successfully submitted by the operator. The Director will approve the Form 2C, OGDP Certification form, and post the OGDP application on the website for public review.

In order to be considered by the Director and Commission during the review of the OGDP, public comments must be received as follows:

1. Within 30 days from the date that the Director posts the OGDP on the website, OR
2. Within 45 days if the OGDP includes any proposed Oil and Gas Locations within 2,000 feet of a Residential Building Unit, High Occupancy Building Unit, or School Facility within a Disproportionately Impacted Community.

The final day for public comments can be found in the list of all pending permits:

Oil & Gas Location Assessments (Form 2As) | Pending

Back | Export to Excel | Returned: 3 record(s)

Operator Name	Operator Number	Location Name & Number (Documents Link)	Document Number (Public Comment Link)	Final day of Public Comment Period (Closes at Midnight)	Received Date	Form Status	Status Date
CRESTONE PEAK RESOURCES OPERATING LLC	10633	Bloss 3-65 19-24 North Pad	403497320	03/23/2024	10/16/2023	IN PROCESS	2/23/2024

When the Public Comment Period closes, the date will revert to read "Comments Closed". The link to the public comment portal will remain active, but comments will no longer be accepted. You will still be able to view any public comments submitted for pending permits.

The Director may extend or reopen the public comment period per Rule 303.g, for up to an additional 30 days for a proposed OGDP if the Director determines an extension or reopening is reasonable in order to obtain public input.

What happens to my comment?

Your comment will become part of the public record of the application and will be reviewed by the applicant, ECMC staff, Director, and the Commission. ECMC staff may recommend permit conditions in response to comments. But, Staff does not routinely respond individually to comments; instead, ECMC staff will work directly with the applicant to address the site-specific concerns expressed.

Submitted comments may not be immediately visible; it may be a few days before you see your comments posted. This delay allows ECMC supervisory staff to screen for offensive language prior to publication.

What if I want to make my comment to the Commission?

ECMC Staff and the Director review every comment received on a Form 2A permit application. They review the site specific concerns against the totality of the application materials, including the alternative location analysis, cumulative impacts evaluation, and best management practices proposed by the applicant. When the Director makes a recommendation to the Commission to either approve or deny an OGDP, that recommendation will include the consideration of the public comments received.

In their review of an OGDP for a final determination at the administrative hearing, the Commission will have access to the entire record, including your public comment.

Can I remain anonymous?

Yes. Only the "Comment" portion of your submitted comment will be made publicly viewable. Your name and contact information will be kept confidential, and will only be used by ECMC staff to contact you if necessary in the course of permit application review. If you choose to include your name and contact information in the body of your comment text, it will be part of the public record.

Where can I get additional information?

The following links provide guidance and additional information on providing Public Comments.

ECMC Permits Page:
https://ecmc.state.co.us/permits.html#/permits

Numerous helpful guidance documents can be found at the link on the ECMC Permits Page:
https://ecmc.state.co.us/permits2.html#/permitshelp

Daily Activity Dashboard (DAD) is another useful tool and can be used to access the public comment portal as well: https://ecmc.state.co.us/dashboard.html

STATE OF COLORADO
OIL & GAS
CONSERVATION COMMISSION

Colorado Department of Natural Resources

Information on Hydraulic Fracturing

What is hydraulic fracturing?

Hydraulic fracturing is the process of creating small cracks, or fractures, in deep, underground geological formations to liberate oil or natural gas and allow it to flow up the well for capture and use in heating our homes, fueling our cars and providing the electricity we all use for our televisions, computers and other devices.

To fracture the formation, fracturing fluids – mostly water and sand, with a small percentage of chemical additives – are injected down the well bore into the formation. The fluid, injected under pressure, causes the rock to fracture along weak areas.

The fluids that create the initial fractures are then mixed with thicker fluids that include sand and gelatin. These thicker fluids lengthen the openings in the rock. When the fractures are complete, and pressure is relieved, the fluids flow back up the well where they are captured and stored for later treatment or disposal.

As the fluids flow back up, sand remains in the fractures and props the rock open, maintaining an open pathway to the well. This allows the oil and gas to seep from the rock into the pathway, up the well and to the surface for collection. In Colorado, the targeted formations for hydraulic fracturing are often more than 7,000 feet underground, and some 5,000 feet below any drinking water aquifers.

The process of hydraulic fracturing has been used for decades in Colorado, dating to the 1970s. Hydraulic fracturing continues to be refined and improved and is now standard for virtually all oil and gas wells in our state, and across much of the country. Hydraulic fracturing has made it possible to get the oil and gas out of rocks that were not previously considered as likely sources for fossil fuels.

Common questions and answers about hydraulic fracturing.

Q: *Can hydraulic fracturing open up pathways for oil and gas to reach ground water zones where water wells are producing?*

A: The distance between the oil and gas formation and the water formations is substantial. In the case of the Niobrara and the Fox Hills Aquifer in northeast Colorado, for example, the separation is about 5,000 feet – or roughly a mile – of bedrock.

Q: *How do you ensure the fracturing fluid, including the chemical additives, don't escape the oil and gas wellbore and impact nearby water wells?*

A: The COGCC requires all wells to be cased with multiple layers of steel and cement to isolate fresh water aquifers from the hydrocarbon zone. The steel casing and surrounding layers of cement protect the drinking water aquifers that the wellbore penetrates. Surface casing is required to extend 50 feet below the base of the deepest freshwater aquifer to seal it off from any possible migration of fluids associated with oil and gas development. After it is determined that the well is capable of producing oil or natural gas, a production casing is set to provide an added layer of separation between the oil or natural gas stream and freshwater aquifer. A well survey called a cement bond log is performed to ensure the cement is properly sealed around the casing. Additionally, the COGCC requires that prior to hydraulic fracturing, the casing be pressure tested with fluid to the maximum pressure that will ever be applied to the casing. The well's construction design is reviewed by the professional engineering staff at the COGCC. Any flaw in the design will be corrected prior to issuing the required drilling permit.

Q: *What kinds of fluids do operators use to hydraulically fracture wells?*

A: Approximately 99.5% of the fracturing fluid volume is water and sand. The remaining portion is made up of a variety of chemicals. There are chemical additives used to reduce friction during pumping and prevent corrosion of the steel, biocide to kill bacteria in the water and surfactant to promote water flowback. The exact formulation may vary depending on the well and the objectives of the specific fracturing treatment. Fracturing chemicals are similar to other industrial chemicals which must be handled properly. For certain chemicals, safe work practices, proper site preparation, and attentive handling are required to ensure that employees, the public, and the environment are protected.

COGCC rules require that operators publicly disclose the ingredients and concentrations of fracturing chemicals for each well within 60 days of completion. That information is required to be posted on the website www.fracfocus.org, which is searchable by county, operator and well. The website also provides information on chemicals used and their purpose.

Q: *How are these fluids managed on the surface?*

A: Large volumes of fluids are maintained on the drill site during the drilling and hydraulic fracturing process. Operators must take great care to prevent spills; operators are charged with protecting environmental resources and spills violate state law. The fluids are blended on site in equipment that adjusts the mix of sand, water and chemicals at different stages of the operation. The blended mix is sent to pumping units to raise the pressure and send the fluid down the well. Like spills, operators must prevent leaks. In addition to complying with state regulations, leaks and spills would create costly delays, providing additional incentive for operators to ensure all fittings and connections are pressure tested with clean water before any operations begin.

After the fracturing is completed, fluids return to the surface as "flowback." These fluids are now considered exploration and production waste and must be treated accordingly in compliance with state regulations. Production fluids, including oil and related substances, also rise to the surface. All of these fluids must be separated and contained in impervious vessels and waste fluids must either be recycled or properly disposed of under regulatory oversight.

Q: *What can neighbors expect to experience during the fracture stimulation work?*

A: After the drilling rig is moved off site, water tanks are brought to the site and water-hauling trucks arrive. The day the operation is to begin, the sand haulers, pump truck, blender and the control van arrive. The equipment will all be connected together and then connected to the well head with high pressure hoses. After testing the equipment, the actual fracture stimulation will begin. The operation may take several hours to several days depending on the number of fracture zones. You will not feel the fracture of the rock because of its very low energy and depth of the formation. The equipment noise is the most noticeable occurrence during the operations.

The COGCC has rules that are specific to hydraulic fracturing. For more information on these rules, visit: http://cogcc.state.co.us

- Rule 205 Inventory chemicals
- Rule 205A Chemical disclosure
- Rule 317 Well casing and cementing; Cement bond logs
- Rule 317B Setbacks and precautions near surface waters and tributaries that are sources of public drinking water
- Rule 341 Monitoring pressures during stimulation
- Rule 608 Special requirements for coal-bed methane wells
- Rules 903 & 904 Pit permitting, lining, monitoring, & secondary containment
- Rule 906 Requires COGCC notify CDPHE and the landowner of any spill that threatens to impact any water of the state

Where can I get further information?

The FracFocus website – www.fracfocus.org – contains detailed explanations on how hydraulic fracturing works, how groundwater is protected, what chemicals are used, and how to find a well near you. The COGCC has additional information on its hydraulic fracturing information page at its website: http://cogcc.state.co.us

What is the purpose of baseline water sampling?

The purpose of baseline water sampling is to collect data before any drilling operations at individual well sites to demonstrate the pre-drilling conditions of a water well. This provides a reference point for future evaluations of any suspected impacts by the drilling or hydraulic fracturing of oil and gas wells.

How do I obtain baseline water samples?

The COGCC provides baseline sampling on a case-by-case basis based on proximity to new or existing drilling activity. Please contact the COGCC at 303-894-2100.

The Colorado Oil & Gas Association (COGA), an industry trade group, has a voluntary baseline ground water quality sampling program http://www.coga.org/index.php/BaselineWaterSampling.

Under the COGA program, samples are collected from two existing groundwater features, such as wells or springs, within one-half mile of the surface location of new oil and gas well pads, or new wells on existing pads. These samples require landowner consent and will be collected before drilling begins. A second round of sampling will be collected from each feature within one to three years after drilling is completed. Results of all samples will be provided to landowners within three months of collecting the sample. The laboratory results will also be submitted to the COGCC for inclusion in a water quality database that will be available to the public through the COGCC website.

Water well owners can also either sample their own water wells or contract a qualified individual to collect samples for baseline testing. Most analytical laboratories can provide sampling along with analytical services. A list of laboratories offering these services can be found under Laboratories-Analytical or Laboratories-Testing in the phone directory.

The Colorado Department of Public Health and Environment also offers analytical laboratory services. Call 303-692-3090 for additional information.
http://www.cdphe.state.co.us/lr/water.htm