

DIRECTOR'S RECOMMENDATION:

Docket #211100213

St. Croix Operating Inc (St. Croix), Operator Number 81490

Horseshoe OGDP (OGDP ID #481919)

***Form 2C #402817684; Form 2As #402817594, #402817621, and #402817644;
Form 2B #402814070***

Pursuant to Rule 306, the Director submits to the Commission this recommendation for the St. Croix Horseshoe OGDP located in Washington County. As detailed below, the Director recommends Commission approval of the Horseshoe OGDP.

BACKGROUND

On December 27, 2021, St. Croix Operating (St. Croix) submitted an application for an Oil and Gas Development Plan (OGDP) with the Colorado Oil and Gas Conservation Commission (COGCC). Staff returned the three Form 2As to DRAFT twice for the applicant to make corrections prior to the Director determining the application was complete on April 7th, 2022. Revisions were coordinated between Staff and the applicant throughout the technical review process. This Recommendation is based on information finalized in the three Form 2As, the Form 2B, and the hearing application as of July 29, 2022. No additional revisions will be made to the application prior to the Commission Hearing scheduled for August 10, 2022.

Horseshoe Proposed Development:

The proposed OGDP includes application lands in Washington County of approximately 320 acres in Township 3 South, Range 49 West, portions of Sections 22 and 27. The setting is in a sparsely populated rangeland and agricultural area. The three proposed surface locations (two well pads and one production facility) are within the OGDP's mineral lands, and are approximately 24 miles southwest of the town of Yuma.

St. Croix plans to develop liquid hydrocarbons (oil) at the proposed Horseshoe 1 and Horseshoe 2 well pad locations; each location will have one (1) vertical well only, with no other production equipment on site. Both wells will be perforated and the formation will be swab tested. Neither well will be hydraulically fractured so flowback fluids will be minimal. A steel multiphase flowline will pipe all oil, produced water, and any entrained gas from each wellhead to the Horseshoe Production Facility. The proposed Horseshoe Production Facility will have two oil tanks, two produced water tanks, and one heater treater (separator). St. Croix indicated that no gas is anticipated to be encountered during the drilling or production of either of these wells. Due to the anticipated lack of gas produced at these locations, St. Croix has not committed to a gas gathering line; they have submitted a Gas Capture Plan explaining how they will comply with

Rule 903. In the unlikely event gas is encountered, St. Croix intends to beneficially use the gas onsite to power equipment such as a generator. The Horseshoe Production Facility will also have one (1) produced water disposal (injection) well. The operator has drafted the Form 31 (Doc #403014888), Form 33 (Doc #403014913), and Form 2 (Doc #402852280) for the proposed saltwater injection well.

St. Croix estimates that operations for these locations will commence in the fall of 2022, with the Horseshoe 1 estimated to be drilled in October, and put into production in November. If the Horseshoe 1 produces successfully, the Horseshoe 2 and the UIC well will be drilled in November or December, and put into production early 2023.

Surface Lands:

The three proposed Locations lie on FEE surface, and are within the mineral development area. The Operator's right to construct is granted through an Oil and Gas Lease, signed on February 1, 2021. The OGD requires approximately 20.74 acres of total new disturbance as follows:

- Oil and Gas Location disturbance
 - Horseshoe 1: 5.83 acres (approximately 3.67 acres for the Working Pad Surface (WPS)); interim reclamation will reduce the operational pad down to 0.002 acres
 - Horseshoe 2: 6.19 acres (approximately 3.67 acres for the WPS); interim reclamation will reduce the operational pad down to 0.002 acres
 - Horseshoe Production Facility: 5.5 acres (approximately 3.38 acres for the WPS); interim reclamation will reduce the operational pad down to 1.77 acres
- Combined Access Road disturbance of 1.466 acres; and
- Combined Flowline corridor disturbance of 1.75 acres.

Staff notes that after Interim Reclamation, the Horseshoe 1 & 2 well pads will be sized down to 0.002 acres each, which is approximately 9.5 x 9.5 feet.

Mineral Lands and Development:

St Croix is requesting the development of FEE minerals covering approximately 320 total acres from the J-Sandstone formation as follows:

- Establish a new Drilling and Spacing Unit (DSU)
 - The proposed DSU would establish 320 acres for oil and gas development and approve up to two (2) vertical oil and gas wells and one (1) saltwater disposal (SWD) injection well;
 - The oil and gas wells are proposed to be located on the Horseshoe 1 Pad and the Horseshoe 2 Pad, respectively, and the injection well is proposed to be located on the Horseshoe Production Facility;
 - St Croix is requesting setbacks for the oil and gas wells of 600 feet from the unit boundary and an interwell distance of 1,200 feet. These proposed DSU setbacks duplicate the mineral setback requirements of Rule 401.a; Staff has no concerns with this duplication.

There are no proposed or existing wells within the application lands. This spacing, as outlined in St Croix's amended Hearing Application, complies with applicable COGCC rules.

Financial Assurance:

Staff confirmed that St. Croix has a valid blanket plugging bond on record consistent with Rule 702.

LOCAL GOVERNMENT PERMITTING AND PRE-APPLICATION CONSULTATIONS

Relevant Local and Proximate Governments:

Washington County is the relevant local government for the OGD. There are no proximate local governments to the proposed OGD.

Local Permit with Washington County:

Washington County does not regulate the siting of Oil and Gas Locations with respect to this location. No local permit is required.

Consultations with CPW:

All three proposed Locations are within two High Priority Habitats (HPH) as defined by Rule 1202.d ("density habitats"), the Pronghorn Winter Concentration Area and the Greater Prairie Chicken Production Area, and required consultation with Colorado Parks and Wildlife (CPW) per Rule 309.e.(2).A. St. Croix met with representatives from CPW regarding the Horseshoe OGD to discuss any potential operational or resource-related concerns that CPW may have with the three proposed locations. The CPW consultation process resulted in the following:

1. CPW representatives visited the OGD application area in July of 2021 to assess the area;
2. CPW staff requested wildlife Best Management Practices (BMPs) for all three locations, including timing stipulations and daylight-only hours for construction;
3. CPW determined that potential impacts to greater prairie chickens and pronghorn will be minimal due to proximity to County Road YY and ongoing agricultural activity on nearby crop lands. Because of this low risk of impacts, CPW provided a waiver for Rule 304.b.(2).B.viii (Alternative Location Analysis (ALA) criteria);
4. Direct and indirect mitigation fees were reviewed for all three Locations (see Wildlife Resources section below for details).

ADMINISTRATIVE CONSIDERATIONS

Lesser Impact Area Exemption Request Summary:

St. Croix requested from the Director a Lesser Impact Area Exemption pursuant to Rule 304.d for the "Noise Mitigation Plan" (Rule 304.c.(2)) and the "Light Mitigation Plan" (Rule 304.c.(3)) based on evidence showing these plans are not necessary because the impacts of potential noise and light will pose no concern to nearby receptors. The nearest Residential Building Unit (RBU) is greater than 5,280 feet from each of the proposed Horseshoe locations. The proposed wells in this OGD will not be hydraulically fractured, thus eliminating a source of noise common

to many typical oil and gas wells. As these are single vertical wells, the anticipated time to drill each well is seven days with seven days for completions. Completions will consist of the wellbore being cleaned out and perforated, the formation being swab tested, and plumbing the wellhead to connect to the off-location flowline. Location pad construction will take place during daylight hours only, while drilling will be a 24-hour per day operation. All three of the proposed locations are within two High Priority Habitats (HPH), and CPW determined that the operations proposed at these Locations will likely not impact wildlife (see Wildlife Resources section below). St. Croix has committed to timing limitations, which includes no construction or drilling operations from January 1 through April 30 for Pronghorn Winter Concentration Areas, as well as March 1 through June 30 for Greater Prairie Chicken Areas.

COGCC staff reviewed the information provided in the “Lesser Impact Area Exemption Request” attachments during the Form 2A ‘Completeness Review. Staff recommended that the potential noise and light impacts can be sufficiently addressed with the operational timing and BMPs and that impacts to the public and wildlife will be so minimal as to cause no concern. Therefore, the Director granted the Exemption for the Light and Noise Mitigation Plans on April 5, 2022.

PUBLIC COMMENTS

Pursuant to Rule 303.d.(1).A.ii, the public comment period was open for 30 days from April 7, 2022 through May 7, 2022. No public comments were received on any of the three Form 2As during the Public Comment Period.

COGCC STAFF’S TECHNICAL REVIEW HIGHLIGHTS

This section addresses issues related to public health, safety, welfare, the environment, and wildlife resources, within the context of SB 19-181 for the St. Croix Horseshoe OGD.

Alternative Location Analysis (ALA) Considerations

The proposed locations are all within two HPH, which would potentially prompt the requirement of an ALA. St. Croix’s pre-application (and ongoing) consultation with CPW, however, resulted in CPW providing a waiver for the ALA requirement (waiver attached to each Form 2A). Staff agrees that the waiver is reasonable and that an ALA is not required for any of the three proposed Locations.

Public Health, Safety, and Welfare Considerations

During the initial completeness review of the OGD no RBUs were identified within 2,000 feet of any of the three proposed Locations; further technical review concluded no RBUs exist within one mile of any of the three proposed Locations. In addition, there are no High Occupancy Building Units, School Facilities, or Child Care Centers within one mile of any of the three proposed WPS. The OGD is not within a Disproportionately Impacted Community.

Staff does not anticipate any significant potential direct adverse impacts to public health, safety, and welfare.

Environmental Resource Considerations

Water Resources:

St. Croix has indicated on the Form 2As that none of the proposed Locations are within a Sensitive Area for water resources. For Horseshoe 1: the nearest constructed water well is 3,070 feet to the southwest, and the nearest downgradient Waters of the State is 1,858 ft. to the northwest. Estimated depth to shallowest groundwater is 130 ft. For Horseshoe 2: the nearest constructed water well is 2,535 ft. to the north, and the nearest downgradient Waters of the State is 970 ft. to the west. Estimated depth to shallowest groundwater is 130 ft. For the Horseshoe Production Facility: the nearest constructed water well is 2,631 ft. to the northeast, and the nearest downgradient Waters of the State is 2,040 ft. to the west. Estimated depth to shallowest groundwater is 133 ft.

St. Croix has provided stormwater mitigation measures that include berming and inspecting the location every 7 days from commencement of construction until initial stabilization/production phase. Additionally, St. Croix will not use oil-based drilling fluids, and will have lined secondary containment for the tanks proposed on the Production Facility location. Based on this information, Staff concludes the risk of impacts from this location to groundwater and surface water features will be minimized by the successful implementation of the proposed BMPs.

Wildlife Resource Considerations

The three proposed Horseshoe Locations, access roads, and pipeline corridors lie within two Rule 1202.d HPHs, which are the Pronghorn Winter Concentration Area and the Greater Prairie Chicken Production Area. During the CPW consultation, it was determined that the close proximity of County Road YY and the agricultural fields being irrigated with a cow urine and water mixture lessens the chance of the area supporting Prairie Chickens.

St. Croix has committed to avoiding new oil and gas operations within CPW-identified Pronghorn Winter Concentration Areas from January 1 through April 30, as well as Greater Prairie Chicken Areas from March 1 through June 30, for a combined January 1 through June 30 limitation. The proposed wells will not be hydraulically fractured, thus eliminating a source of noise common to many typical oil and gas wells. As these are vertical wells, the anticipated time to drill is seven days with seven days for completions. Completions will consist of the wellbore being cleaned out and perforated, the formation being swab tested, and plumbing the wellhead to connect to the off-location flowline. Pad construction will take place during daylight hours only while drilling will be a 24-hour per day operation.

DIRECTOR'S RECOMMENDATION:

The Director has obtained and fully reviewed all required and supplemental information

necessary to evaluate the OGD's proposed operation and its potential impacts on public health, safety, welfare, the environment and wildlife resources. Through this review, the Director has determined that this OGD complies with all applicable requirements of the Commission's Rules and recommends approval by the Commission.

FORM
2A

Rev
01/21

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

402817594

Date Received:

12/21/2021

Oil and Gas Location Assessment

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <https://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

OGDP ID:

Expiration Date:

New Location Refile Amend Existing Location # _____

If this Location assessment is a component of an Oil and Gas Development Plan (OGDP) application, enter the OGDP docket number(s).

Docket Number	OGDP ID	OGDP Name
211100213		

If this Location assessment is part of an approved Oil and Gas Development Plan, enter the OGDP ID number(s).

<No existing OGDP number provided>

CONSULTATION

- This location is included in a Comprehensive Area Plan (CAP). CAP ID # _____
- This Location or its associated new access road, utility, or Pipeline corridor meets Rule 309.e.(2).A, B, or C.
- This Location is within 2,640 feet of a GUDI or Type III Well per Rule 411.b.(4).
- This Location includes a Rule 309.e.(2).E variance request.
- This location includes a Rule 309.f.(1).A.ii. variance request.

Operator

Operator Number: 81490

Name: ST CROIX OPERATING INC

Address: P O BOX 13799

City: DENVER State: CO Zip: 80201

Contact Information

Name: Paul Melnychenko

Phone: (303) 489-9298

Fax: ()

email: paul@stcroixexp.com

FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID (Rule 706): 20000108 Gas Facility Surety ID (Rule 711): _____
- Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: Horseshoe Number: 1

Provide the location description and the latitude and longitude of a single point near the center of the Working Pad Surface as a reference for this Location.

Quarter: NENE Section: 27 Township: 3S Range: 49W Meridian: 6 Ground Elevation: 4410

Latitude: 39.768700 Longitude: -102.843070

GPS Quality Value: 1.1 Type of GPS Quality Value: PDOP Date of Measurement: 04/29/2021

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is: LOCATION ID # FORM 2A DOC #

Well Site is served by Production Facilities _____ 402817644

RELEVANT LOCAL GOVERNMENT SITING INFORMATION

County: WASHINGTON Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "Relevant Local Government approval of the siting of the proposed oil and gas location."

This proposed Oil and Gas Location is in an area designated as one of State interest and subject to the requirements of § 24-65.1-108, C.R.S. No

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this location? No

A siting permit application has been submitted to the Relevant Local Government for this proposed Oil and Gas Location: No

Date Relevant Local Government permit application submitted: _____

Current status or disposition of the Relevant Local Government permit application for this proposed Oil and Gas Location: _____

Status/disposition date: _____

If Relevant Local Government permit has been approved or denied, attach final decision document(s).

Provide the contact information for the Relevant Local Government point of contact for the local permit associated with this proposed Oil and Gas Location:

Contact Name: Larry Griese Contact Phone: 970-345-6662

Contact Email: lgriese@co.washington.co.us

PROXIMATE LOCAL GOVERNMENT INFORMATION

For every Proximate Local Government (PLG) associated with this proposed Oil and Gas Location, provide the PLG's point of contact and their contact information.

< No row provided >

FEDERAL PERMIT INFORMATION

A Federal drilling permit (or related siting application) has been submitted for this proposed Oil and Gas Location: No

Date submitted: _____

Current status or disposition of the Federal drilling permit (or related siting application) for this proposed Oil and Gas Location: _____

Status/disposition Date: _____

If Federal agency permit has been approved or denied, attach the final decision document(s).

Provide the contact information of the Federal point of contact for the Federal permit associated with this proposed Oil and Gas Location.

Contact Name: _____ Contact Phone: _____

Contact Email: _____ Field Office: _____

Additional explanation of local and/or federal process:

RELEVANT LOCAL GOVERNMENT OR FEDERAL PRE-APPLICATION CONSULTATION

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Did a pre-application Formal Consultation Process occur with the Relevant Local Government per Rule 301.f.(3)? No

Date of local government consultation:

Did a pre-application Formal Consultation Process occur with the Federal land manager per Rule 301.f.(3)? No

Date of federal consultation: _____

Was an ALA that satisfies Rule 304.b.(2).C (or substantially equivalent information per Rule 304.e) developed during a federal or local government permit application process? If yes, attach the ALA to the Form 2A. No

ALA APPLICABILITY AND CRITERIA

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Does the proposed Oil and Gas Location meet any of the criteria listed in Rule 304.b.(2)B? No

If YES, indicate by checking the box for every Rule 304.b.(2).B criterion met by this proposed Location, and attach an ALA. See Rule 304.b.(2).B.i-x for full text of criteria.

- i. WPS < 2,000 feet from RBU/HOBU
- ii. WPS < 2,000 feet from School/Child Care Center
- iii. WPS < 1,500 feet from DOAA
- iv. WPS < 2,000 feet from jurisdictional boundary and PLG objects/requests ALA
- v. WPS within a Floodplain
- vi.aa. WPS within a surface water supply area
- vi.bb. WPS < 2,640 feet from Type III or GUDI well
- vii. WPS within/immediately upgradient of wetland/riparian corridor
- viii. WPS within HPH and CPW did not waive
- ix. Operator using Surface bond
- x. WPS < 2,000 feet from RBU/HOBU/School within a DIC

Is the proposed Oil and Gas Location within the exterior boundaries of the Southern Ute Indian Reservation, and the Tribe objects to the Location or requests an ALA? If YES, attach an ALA to the Form 2A. No

Operator requests the Director waive the ALA requirement per Rule 304.b.(2).A.i:

Provide an explanation for the waiver request, and attach supporting information (if necessary).

ALTERNATIVE LOCATIONS DASHBOARD

List every alternative location reviewed and included in the ALA. Provide a latitude and longitude for the approximate center of the alternative location, all Rule 304.b.(2).B Criteria met, if a variance would be required to permit the location, and a brief comment on the key points of the alternative location.

304.b.(2).B.i-x Criteria Met:

< No row provided >

SURFACE & MINERAL OWNERSHIP

Surface Owner Info:

Name: Daisy Lane Farm, LLC Phone: 970-630-9032
 Address: 44500 County Road 13 Fax: _____
 Address: _____ Email: daisylanedairy@skybeam.com
 City: Cope State: CO Zip: 80812

Surface Owner at this Oil and Gas Location: Fee State Federal Indian

- Check only one:
- The Operator/Applicant is the surface owner.
 - The Operator has a signed Surface Use Agreement for this Location – attach SUA.
 - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the surface owner owns the minerals beneath this Location and is committed to an oil and gas lease – attach lease map or provide lease description.
 - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the Operator intends to use a surface bond per Rule 703 to secure access to this Location – attach lease map or provide lease description.

Surface Owner protection Financial Assurance type: N/A _____ Surety ID Number: _____

Mineral Owner beneath this Oil and Gas Location: Fee State Federal Indian

Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

Lease description if necessary: T3S R49W: SE/4 Section 22; NE/4 Section 27

SITE EQUIPMENT LIST

Indicate the number and type of major equipment components planned for use on this Oil and Gas Location:

Wells	<u>1</u>	Oil Tanks	<u>0</u>	Condensate Tanks	<u>0</u>	Water Tanks	<u>0</u>	Buried Produced Water Vaults	<u>0</u>
Drilling Pits	<u>0</u>	Production Pits	<u>0</u>	Special Purpose Pits	<u>0</u>	Multi-Well Pits	<u>0</u>	Modular Large Volume Tank	<u>0</u>
Pump Jacks	<u>1</u>	Separators	<u>0</u>	Injection Pumps	<u>0</u>	Heater-Treaters	<u>0</u>	Gas Compressors	<u>0</u>
Gas or Diesel Motors	<u>0</u>	Electric Motors	<u>0</u>	Electric Generators	<u>0</u>	Fuel Tanks	<u>0</u>	LACT Unit	<u>0</u>
Dehydrator Units	<u>0</u>	Vapor Recovery Unit	<u>0</u>	VOC Combustor	<u>0</u>	Flare	<u>0</u>	Enclosed Combustion Devices	<u>0</u>
Meter/Sales Building	<u>0</u>	Pigging Station	<u>0</u>			Vapor Recovery Towers	<u>0</u>		

OTHER PERMANENT EQUIPMENT

< No Row Provided >

OTHER TEMPORARY EQUIPMENT

< No Row Provided >

GAS GATHERING COMMITMENT

Operator commits to connecting to a gathering system by the Commencement of Production Operations? No

If the answer is NO, a Gas Capture Plan consistent with the requirements of Rule 903.e MUST be attached on the Plans tab.

FLOWLINE DESCRIPTION

Per Rule 304.b.(6), provide a description of all onsite and off-location oil, gas, and/or water flowlines.

This wellhead will tie into production facilities proposed on the Horseshoe Production Facility location. St. Croix will install one multiphase, steel off-location flowline to connect the wellhead to the production facilities.

CULTURAL DISTANCE AND DIRECTION

Provide the distance and direction to the nearest cultural feature as measured from the edge of the Working Pad Surface.

	Distance	Direction	Rule 604.b Conditions Satisfied (check all that apply):				Details of Condition(s)	604.b. (4)
			604.b. (1)	604.b. (2)	604.b. (3)			
Building:	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Residential Building Unit (RBU):	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
High Occupancy Building Unit(HOBU)	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	

Designated Outside Activity Area:	<u>5280</u> Feet	<u>S</u>				
Public Road:	<u>885</u> Feet	<u>E</u>				
Above Ground Utility:	<u>865</u> Feet	<u>E</u>				
Railroad:	<u>5280</u> Feet	<u>S</u>				
Property Line:	<u>899</u> Feet	<u>E</u>				
School Facility:	<u>5280</u> Feet	<u>SE</u>				
Child Care Center:	<u>5280</u> Feet	<u>SE</u>				
Disproportionately Impacted (DI) Community:	<u>5280</u> Feet	<u>SE</u>				
RBU, HOBU, or School Facility within a DI Community:	<u>5280</u> Feet	<u>SE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RULE 604.a.(2). EXCEPTION LOCATION REQUEST

Operator requests an Exception Location Request from Rule 604.a.(2) [well is less than 150 feet from a property line]. Exception Location Request Letter and Waiver signed by offset Surface Owner(s) must be attached.

CULTURAL FEATURE INFORMATION REQUIRED BY RULE 304.b.(3).B.

Provide the number of each Cultural feature identified within the following distances, as measured from the Working Pad Surface:

	0-500 feet	501-1,000 feet	1,001-2,000 feet
Building Units	<u>0</u>	<u>0</u>	<u>0</u>
Residential Building Units	<u>0</u>	<u>0</u>	<u>0</u>
High Occupancy Building Units	<u>0</u>	<u>0</u>	<u>0</u>
School Properties	<u>0</u>	<u>0</u>	<u>0</u>
School Facilities	<u>0</u>	<u>0</u>	<u>0</u>
Designated Outside Activity Areas	<u>0</u>	<u>0</u>	<u>0</u>

CONSTRUCTION

Size of disturbed area during construction in acres: 5.83

Size of location after interim reclamation in acres: 0.01

Estimated post-construction ground elevation: 4412

DRILLING PROGRAM

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If YES, attach H2S Drilling Operations Plan.

Will salt sections be encountered during drilling: No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: UIC Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

Centralized E&P Waste Management Facility ID, if applicable: _____

CURRENT LAND USE

Current Land Use: check all that apply per Rule 304.b.(9).

Crop Land: Irrigated Non-Irrigated Conservation Reserve Program (CRP)

Non-Crop Land: Rangeland Forestry Recreation Other

Subdivided: Industrial Commercial Residential

Describe the current land use:

The well will be located within irrigated cropland. The production equipment will be situated off-site on a proposed oil and gas location.

Describe the Relevant Local Government's land use or zoning designation:

Agricultural

Describe any applicable Federal land use designation:

N/A

FINAL LAND USE

Final Land Use: check all that apply per Rule 304.b.(9).

Crop Land: Irrigated Non-Irrigated Conservation Reserve Program (CRP)

Non-Crop Land: Rangeland Forestry Recreation Other

Subdivided: Industrial Commercial Residential

REFERENCE AREA INFORMATION

If Final Land Use includes Non-Crop Land (as checked above), the following information is required:

Describe landowner's designated final land use(s):

Reference Area Latitude: _____ Reference Area Latitude: _____

Provide a list of plant communities and dominant vegetation found in the Reference Area.

< No row provided >

Noxious weeds present: _____

SOILS

List all soil map units that occur within the maximum extent of the proposed Oil and Gas Location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" listing the typical vertical soil profile(s). This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS website at <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/> or from the COGCC website GIS Online map page. Instructions are provided within the COGCC website help section.

NRCS Map Unit Name: 70 - Valent Sand, 3-9 Percent Slopes

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

GROUNDWATER AND WATER WELL INFORMATION

Provide the distance and direction, as measured from the Working Pad Surface, to the nearest:

water well: 3070 Feet SW

Spring or Seep: 5280 Feet SE

Estimated depth to shallowest groundwater that can be encountered at this Oil and Gas Location: 130 Feet

Basis for estimated depth to and description of shallowest groundwater occurrence:

Shallowest water well depth in the area, Water Well Permit 19155-FP Receipt # 0522143B located in NESE Section 22 T3S R49W.

SURFACE WATER AND WETLANDS

Provide the distance and direction to the nearest downgradient surface Waters of the State, as defined 1858 Feet NW

in the 100-Series Rules, measured from the Working Pad Surface:

If less than 2,640 feet, is the Waters of the State identified above within 15 stream miles upstream of a Public Water

System intake? No

Provide the distance and direction to the nearest downgradient wetland, measured from the Working

Pad Surface: 1858 Feet NW

Provide a description of the nearest downgradient surface Waters of the State:

NWI-mapped freshwater emergent wetland at 1858 ft.

If the proposed Oil and Gas Location is within a Rule 411.a Surface Water Supply Area buffer zone, select the buffer zone type: _____

Public Water System Administrator - Contact Name _____ Email _____

If the proposed Oil and Gas Location is within a Rule 411.b GUDI/Type III buffer zone, select the buffer zone type: _____

Public Water System Administrator - Contact Name _____ Email _____

Is a U.S. Army Corps of Engineers Section 404 permit required for the proposed Oil and Gas Location, access road, or associated pipeline corridor? No

If a U.S. Army Corps of Engineers Section 404 permit is required, provide the permit status, and permit number if available:

Is the Location within a Floodplain? No Floodplain Data Sources Reviewed (check all that apply):

Federal (FEMA) State County Local

Other _____

Does this proposed Oil and Gas Location lie within a Sensitive Area for water resources, as defined in the 100-Series Rules? No

CONSULTATION, WAIVERS, AND EXCEPTIONS

When Rule 309.e.(2) Consultation must occur, check all that apply:

- This location is included in a Wildlife Mitigation Plan
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within federally designated critical habitat or an area with a known occurrence for a federal or Colorado threatened or endangered species. Provide description in Comments section of Submit tab.
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within an existing conservation easement established wholly or partly for wildlife habitat. Provide description in Comments section of Submit tab.

When Rule 309.e.(3) Consultation is not required, check all that apply:

- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Protection Plan.
- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Mitigation Plan.
- This Oil and Gas Location has been included in a previously approved, applicable conservation plan.

Pre-application Consultation:

- A pre-application consultation with CPW, regarding this Oil and Gas Location, occurred 10/22/2021 on:

CPW Waivers and Exceptions (check all that apply and attach all CPW waivers to this Form 2A):

- The applicant has obtained a Rule 304.b.(2).B.viii CPW waiver for the requirement to complete an ALA.
- The applicant has obtained a Rule 309.e.(2).G CPW waiver and consultation is not required.
- The applicant has obtained a Rule 309.e.(5).D.i CPW waiver and is requesting an exception from Rule 1202.c.(1).R.
- The applicant has obtained a Rule 309.e.(5).D.ii CPW waiver and is requesting an exception from Rule 1202.c.(1).S.
- The applicant has obtained a Rule 309.e.(5).D.iii CPW waiver of Rule 1202.c.(1).T.
- The applicant has obtained a Rule 309.e.(5).D.iv CPW waiver and is requesting an exception from Rule 1202.c.(1) in accordance with an approved CAP.
- The applicant has obtained a Rule 1202.a CPW waiver.
- The applicant has obtained a Rule 1202.b CPW waiver.
- In accordance with Rule 1203.a.(3), the applicant requests an exception from compensatory mitigation Rule(s): _____

HIGH PRIORITY HABITAT AND COMPENSATORY MITIGATION

This Oil and Gas Location, associated access roads, utility, or Pipeline corridor falls wholly or partially within the following High Priority Habitats (Note: dropdown options are abbreviated - see Rule 1202 for full rule text):

High Priority Habitat (list all that apply)	Oil and Gas Location	Access Road	Utility or Pipeline Corridor
1202.c.(1).B - Greater prairie chicken	x	x	x
1202.d.(4) - Pronghorn migration & winter	x	x	x

The following questions are for Oil and Gas Locations that cause the density to exceed one Oil and Gas Location per square mile in Rule 1202.d High Priority Habitat:

Direct Impacts:

Is Compensatory Mitigation required per Rule 1203.a for this Oil and Gas Location? Yes

Is a Compensatory Mitigation Plan proposed to address direct impacts for this Oil and Gas Location? Yes

Have all Compensatory Mitigation Plans been approved for this Location? Yes

If not, what is the current status of each Plan?

[Empty text box]

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? Yes

Direct impact habitat mitigation fee amount: \$ 13750

Indirect Impacts:

Is Compensatory Mitigation required per Rule 1203.d for this Oil and Gas Location? No

Is a Compensatory Mitigation Plan proposed to address indirect impacts for this Oil and Gas Location? No

Have all Compensatory Mitigation Plans been approved for this Location? No

If not, what is the current status of each Plan?

During consultation, CPW informed St. Croix they would not be requiring an Indirect Impact Compensatory Mitigation fee.

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? No

Indirect impact habitat mitigation fee amount: \$ _____

Operator Proposed Wildlife BMPs

No	Target Species	BMP Type	Description
1	GREATER PRAIRIE CHICKEN	Wildlife - Minimization	The operator agrees to install raptor perch deterrents on equipment, fences, cross arms and pole tops in greater prairie chicken production areas.
2	PRONGHORN	Wildlife - Avoidance	The operator agrees to preclude new oil and gas operations within CPW-mapped pronghorn winter concentration areas from January 1 through April 30.
3	PRONGHORN	Wildlife - Minimization	The operator agrees to preclude new fence construction in pronghorn habitat, unless the operator agrees to use CPW-recommended pronghorn fence designs. The designs are found on CPW's website: http://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf
4	GREATER PRAIRIE CHICKEN	Wildlife - Minimization	If oil and gas operations must occur within greater prairie chicken production areas, the operator agrees to conduct oil and gas operations outside the period between March 1 and June 30.

CPW Proposed Wildlife BMPs

No BMP

AIR QUALITY MONITORING PROGRAM

Will the Operator install and administer an air quality monitoring program at this Location? Yes

Operator Proposed BMPs

No BMP

CDPHE Proposed COAs OR BMPs

No BMP

PLANS

Total Plans Uploaded: 12

- (1) Emergency Spill Response Program consistent with the requirements of Rules 411.a.(4).B, 411.b.(5).B, & 602.j
- (2) Noise Mitigation Plan consistent with the requirements of Rule 423.a
- (3) Light Mitigation Plan consistent with the requirements of Rule 424.a
- (4) Odor Mitigation Plan consistent with the requirements of Rule 426.a
- (5) Dust Mitigation Plan consistent with the requirements of Rule 427.a
- (6) Transportation Plan
- (7) Operations Safety Management Program consistent with the requirements of Rule 602.d
- (8) Emergency Response Plan consistent with the requirements of Rule 602.j
- (9) Flood Shut-In Plan consistent with the requirements of Rule 421.b.(1)
- (10) Hydrogen Sulfide Drilling Operations Plan consistent with the requirements of Rule 612.d
- (11) Waste Management Plan consistent with the requirements of Rule 905.a.(4)
- (12) Gas Capture Plan consistent with the requirements of Rule 903.e
- (13) Fluid Leak Detection Plan
- (14) Topsoil Protection Plan consistent with the requirements of Rule 1002.c
- (15) Stormwater Management Plan consistent with the requirements of Rule 1002.f
- (16) Interim Reclamation Plan consistent with the requirements of Rule 1003
- (17) Wildlife Plan consistent with the requirements of Rule 1201
- (18) Water Plan
- (19) Cumulative Impacts Plan
- (20) Community Outreach Plan
- (21) Geologic Hazard Plan

VARIANCE REQUESTS

Check all that apply:

- This proposed Oil and Gas Location requires the approval of a Rule 502.a variance from COGCC Rule or Commission
Order number: _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

RULE 304.d LESSER IMPACT AREA EXEMPTION REQUESTS

Check the boxes below for all Exemptions being requested. Lesser Impact Area Exemption Request must be attached, and will include all requested exemptions.

- | | |
|--|--|
| <input type="checkbox"/> 304.b.(1). Local Government Siting Information | <input type="checkbox"/> 304.c.(1). Emergency Spill Response Program |
| <input type="checkbox"/> 304.b.(2). Alternative Location Analysis | <input checked="" type="checkbox"/> 304.c.(2). Noise Mitigation Plan |
| <input type="checkbox"/> 304.b.(3). Cultural Distances | <input checked="" type="checkbox"/> 304.c.(3). Light Mitigation Plan |
| <input type="checkbox"/> 304.b.(4). Location Pictures | <input type="checkbox"/> 304.c.(4). Odor Mitigation Plan |
| <input type="checkbox"/> 304.b.(5). Site Equipment List | <input type="checkbox"/> 304.c.(5). Dust Mitigation Plan |
| <input type="checkbox"/> 304.b.(6). Flowline Descriptions | <input type="checkbox"/> 304.c.(6). Transportation Plan |
| <input type="checkbox"/> 304.b.(7). Drawings | <input type="checkbox"/> 304.c.(7). Operations Safety Management Program |
| <input type="checkbox"/> 304.b.(8). Geographic Information System (GIS) Data | <input type="checkbox"/> 304.c.(8). Emergency Response Plan |
| <input type="checkbox"/> 304.b.(9). Land Use Description | <input type="checkbox"/> 304.c.(9). Flood Shut-In Plan |
| <input type="checkbox"/> 304.b.(10). NRCS Map Unit Description | <input type="checkbox"/> 304.c.(10). Hydrogen Sulfide Drilling Operations Plan |
| <input type="checkbox"/> 304.b.(11). Best Management Practices | <input type="checkbox"/> 304.c.(11). Waste Management Plan |
| <input type="checkbox"/> 304.b.(12). Surface Owner Information | <input type="checkbox"/> 304.c.(12). Gas Capture Plan |
| <input type="checkbox"/> 304.b.(13). Proximate Local Government | <input type="checkbox"/> 304.c.(13). Fluid Leak Detection Plan |
| <input type="checkbox"/> 304.b.(14). Wetlands | <input type="checkbox"/> 304.c.(14). Topsoil Protection Plan |
| <input type="checkbox"/> 304.b.(15). Schools and Child Care Centers | <input type="checkbox"/> 304.c.(15). Stormwater Management Plan |
| | <input type="checkbox"/> 304.c.(16). Interim Reclamation Plan |
| | <input type="checkbox"/> 304.c.(17). Wildlife Plan |
| | <input type="checkbox"/> 304.c.(18). Water Plan |
| | <input type="checkbox"/> 304.c.(19). Cumulative Impacts Plan |
| | <input type="checkbox"/> 304.c.(20). Community Outreach Plan |
| | <input type="checkbox"/> 304.c.(21). Geologic Hazard Plan |

OPERATOR COMMENTS AND SUBMITTAL

Comments This location will have one vertical oil well. This well will not be hydraulically fractured and will not have a flowback phase, therefore no Completion or Flowback diagrams are included.

The Surface Owner is also the Mineral Owner; the right to construct is in the mineral lease. The attachment labeled OTHER is the Mineral Lease.

This form has 4 shapefiles attached - one is for the Oil and Gas Location, one for the Working Pad Surface. The two files labeled Location and Working Pad Surface are the Access Road and the Off-Location Flowline disturbance corridors.

Size of location after interim reclamation is 0.002 acres. Character limit on Construction, Drilling & Waste Tab did not allow for more than 2 decimals.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 12/21/2021 Email: jdonahue@ardorenvironmental.com

Print Name: Jessica Donahue Title: Compliance Specialist

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: _____ Director of COGCC Date: _____

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

Condition of Approval

COA Type

Description

Emissions mitigation	Due to the possibility of gas being present during drilling and completions operations, if gas is encountered, St. Croix will provide verbal notification to the Director within 12 hours of the discovery of gas, and submit a Form 4 Sundry Notice within 7 days describing how the gas will be captured or combusted, or vented pursuant to Rule 903.b and 903.c. If gas is encountered during production, St. Croix will submit via Form 4 Sundry Notice an updated Gas Capture Plan describing the beneficial use of the gas pursuant to Rule 903.d.
----------------------	---

1 COA

Best Management Practices

No BMP/COA Type

Description

1 General Housekeeping	<ul style="list-style-type: none">• Operator will use appropriate haul routes for all waste transportation.• Onsite E&P Waste Storage will be stored in compatible containers or engineered containment devices. The containers will be regularly inspected to ensure they are in good condition and free of excessive wear, structural issues, or other defects that may impact their effectiveness.• Operator will not bury or burn trash or other waste materials at this location.• Trash receptacles will be designed, maintained, and operated to protect public safety and the environment from exposure to overflowing, leak prone, or insecure trash receptacles.
2 General Housekeeping	No permanent lighting will be installed on this location.
3 Wildlife	Pronghorn: The operator agrees to preclude new oil and gas operations within CPW identified pronghorn winter concentration areas from January 1 through April 30. Greater Prairie Chicken: Will avoid Greater Prairie Chicken Timing Limitations (March 1-June 30) St. Croix has committed to not drilling during either timing limitations of Pronghorn or Greater Prairie Chicken (January 1 through June 30).

4	Storm Water/Erosion Control	<ul style="list-style-type: none"> • Protection from Contamination: topsoil will be segregated and stockpiled separately from other soils; stockpiles of different soil types may be separated by compacted earthen berms, sediment control logs, straw bale barriers, etc.; and stabilizing stockpile surfaces to control for erosion and sedimentation. • Stockpiles will be placed in areas away from vehicle and equipment traffic; and when stockpiling, compaction will be minimized by limiting the number of equipment passes, limiting stockpile height, and using vegetation. • Protection from Wind Erosion: surface roughening, applying hydro-seed/mulch, using soil tackifier, covering stockpiles with rolled erosion control products, etc. • Protection from Water Erosion: surface roughening, applying hydro-seed/mulch, using soil tackifier, covering stockpiles with rolled erosion control products, etc. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. • Interim reclamation: when drilling and completion operations and recontouring of the site (as described in the Interim Reclamation Plan) are complete, all topsoil will be moved from the stockpile area and placed over the facility's cut and fill slopes to ensure long term topsoil health including protection from erosion, prevention of weed establishment, and maintaining soil microbial activity until final reclamation. • The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion. • Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location. • Protection from Wind and Water Erosion: topsoiled areas may be covered with certified weed free mulch at an application rate specified by the product's manufacturer, or a specification sheet that follows good engineering practices. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. • Final reclamation: during final reclamation, the topsoil will be stripped from the cut and fill slopes and stockpiled during the final recontouring of the location. During these construction activities, the BMP practices listed in the short-term stabilization will be used. • Once recontouring is complete, all topsoil will be moved from the stockpile area and placed over the final contours of the disturbance. • The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion. • Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location. • Protection from Wind and Water Erosion: topsoiled areas may be covered with certified weed free mulches at an application rate specified by the product's manufacturer, or a specification sheet that follows good engineering practices. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. 	
5	Storm Water/Erosion Control	<p>St. Croix will comply with COGCC Rule 1002.f.(2). by utilizing BMPs at the oil and gas location to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, site degradation and protects surface waters. Examples of engineering controls that could be used when needed are: surface roughening during reseeding; sediment traps; straw wattles.</p> <p>Good housekeeping practices will be used to reduce the risk of spills or other accidental exposure of materials and substances to Stormwater runoff. The following housekeeping practices will be followed onsite during the construction project: No solid materials, including building materials, shall be discharged to State waters; vehicular traffic will be minimized as much as possible to reduce nuisance dust and prevent further soil erosion; any trash generated during the project will be disposed of properly; Any chemicals used will be kept to a minimum; any chemical or oil spills will be cleaned up immediately in accordance with established company procedures; all materials will be stored in a neat and orderly manner in their appropriate containers; follow manufacturers' recommendations and company policies for proper use and disposal of products.</p> <p>Inspections will occur every 7 days from commencement of construction until initial stabilization/production phase. Thereafter inspections will occur monthly until final stabilization.</p> <p>All spills will be immediately assessed and if there is potential for the spill leaving the site, temporary measures will be used to prevent transport off site.</p> <p>If petroleum hydrocarbons or other chemicals impact stormwater as a result of</p>	

		activities onsite, the impacted stormwater will be addressed by following the St. Croix Spill Plan, and Waste Management Plan if applicable waste is generated.
6	Material Handling and Spill Prevention	<p>Prior to beginning drilling operations, flowlines will be pressure tested to identify any potential leaks. Once integrity has been confirmed, flowlines will be utilized for drilling operations.</p> <p>Daily – visual inspections of all fluid containers for integrity. Visual inspection of flowlines.</p> <p>Weekly – visual inspections of the manifolded piping. Prior to being placed into production, manifold connections will be tested with freshwater to identify potential leaks. Once integrity is confirmed, the tanks will be turned over to production operations.</p> <p>Audio-Visual-Olfactory inspections will be conducted monthly.</p>
7	Dust control	<ul style="list-style-type: none"> • St. Croix will utilize freshwater for dust suppression practices. • Speed restrictions on the access roads will be utilized to minimize dust. An average of 25 mph is currently anticipated to be used for most vehicles. • Construction activities may be limited or deferred on high-wind days to restrict potential fugitive dust, specifically activities that involve moving dirt will be deferred on high wind days to prevent fugitive dust and soil loss. • Topsoil and stockpiled soils will be stabilized through either wheel packing, tackifiers, seeding practices, or erosion control blankets.
8	Emissions mitigation	<p>This proposed location will consist of the wellhead and a possible pump jack only. All products will be piped to the proposed Horseshoe Production Facility location, where the production equipment mentioned below (potential combustor, heater treater) will be installed.</p> <p>St. Croix does not intend to hydraulically fracture this well. Completions for this well will be consist of cleaning out the wellbore and perforating the wellbore. There will be no flowback.</p> <p>If gas is found during production, it will be utilized on the proposed Horseshoe Production Facility location for beneficial uses such as powering onsite equipment. During maintenance activities, St. Croix will have appropriate gas control equipment on location to minimize all Venting.</p>
9	Interim Reclamation	<p>All surface disturbance would be reclaimed to a condition consistent with COGCC and surface owner requirements. Topsoil will be segregated during construction to be redistributed during interim reclamation. Disturbed areas would be reseeded in accordance with the specific requirements of the landowner. Reseeding would occur as soon as possible after drilling and completion activities have been completed for the well proposed on this location. The objective of interim reclamation is to achieve stability objectives to insure erosion control and continued viability of the soils for the future of the land use. The long-term objective of final reclamation is to return the land to approximately pre-project conditions.</p> <p>Erosion control would be deemed sufficient when adequate vegetation cover is reestablished, water naturally infiltrates into the soil, the site complies with the approved Stormwater Management Plan (SWMP) and when gullying, headcutting, slumping, and deep or excessive rilling is not observed. Proper site preparation would be ensured by spreading of stored and salvaged topsoil or topsoil replacement to an adequate depth and by ripping, tilling, disking, harrowing, and dozer track imprinting where appropriate.</p> <p>Once the pad has been drilled with the proposed well, interim reclamation would occur. This would consist of minimizing the footprint of disturbance through recontouring and revegetation of all disturbed areas not needed for production operations (including cut/fill slopes). After the topsoil has been returned to these areas and prepared for seeding, a landowner-approved, weed-free seed mix would be installed to prevent erosion, preserve soil integrity, and resist weeds. Prior to interim reclamation, St. Croix would meet with the private landowner to inspect the disturbed area, review the reclamation plan, and agree on any revisions.</p>

Total: 9 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
2473566	CPW CONSULTATION
2473577	HYDROLOGY MAP
2473580	LOCATION PICTURES
402817594	FORM 2A SUBMITTED
402882491	NRCS MAP UNIT DESC
402890584	GEOLOGIC HAZARD MAP
402890593	RELATED LOCATION AND FLOWLINE MAP
402890598	NRCS MAP UNIT DESC
402890599	OTHER
402895772	LOCATION AND WORKING PAD GIS SHP
402895778	LOCATION AND WORKING PAD GIS SHP
402895780	OIL AND GAS LOCATION GIS SHP
402895781	WORKING PAD SURFACE GIS SHP
402916339	LAYOUT DRAWING
402916344	CPW CONSULTATION
402916345	CPW WAIVER
402917857	WILDLIFE HABITAT DRAWING
402948668	PRELIMINARY PROCESS FLOW DIAGRAMS
402948669	ACCESS ROAD MAP
402948671	LOCATION DRAWING
402998990	CULTURAL FEATURES MAP
402998995	LESSER IMPACT AREA EXEMPTION REQUEST

Total Attach: 22 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	The Director has determined that the OGD application that this Form is a component of meets all requirements of Rule 306.a. The Director's Recommendation has been attached to the Form 2A.	07/29/2022
OGLA	With operator concurrence, the following was corrected: 1 Pump jack was added to the Site Equipment List. Location Pictures with aerial photo uploaded. Updated Hydrology Map was uploaded. Updated Location Pictures uploaded. Corrected Gas Capture Plan uploaded.	07/25/2022
OGLA	An Indirect Mitigation Fee will be applied to the Horseshoe Production Facility Location.	07/13/2022
Final Review	Revised interim reclamation acreage datafield on Construction tab from 0.00 to 0.01 to clarify that the interim reclamation area will be more than zero acres. The comment on the Submit tab explains what the actual anticipated acreage will be and why the data field is inaccurate.	07/12/2022
OGLA	With operator concurrence, the following was corrected: Distance to Public Road, Above Ground Utility, and Property Line. Distance to nearest Water Well was corrected to 3070 ft. to the SW. Distance to nearest downgradient surface Waters of the State corrected to 1858 ft. Updated Hydrology Map was attached to the Form 2A. Corrected distance and direction to the nearest downgradient wetland to 1858 ft. to the NW. Added comment to submit tab clarifying size of location after interim reclamation. Corrected Indirect Impact for HPH.	06/28/2022
OGLA	The box was checked under Consultations regarding whether this Location or its associated new access road, utility, or Pipeline corridor meets Rule 309.e.(2).A, B, or C.. CPW Task has been unpassed, a CPW liaison has been assigned, and the due date has been corrected to 5/7/2022.	04/19/2022
OGLA	The Director has determined this OGD application is complete. Form pushed to IN PROCESS.	04/07/2022
OGLA	Rule 304.d Lesser Impact Area exemption from Rule 304.c.(2) Noise Mitigation Plan - The Director approved the request based on the newly provided information including CPW correspondence that indicated wildlife concerns regarding noise are addressed with the proposed timing of operations and other concerns can be sufficiently addressed with BMPs described in the correspondence.	04/05/2022
OGLA	Rule 304.d Lesser Impact Area exemption from Rule 304.c.(3) Light Mitigation Plan - The Director approved the request based on the newly provided information including CPW correspondence that indicated wildlife concerns regarding lighting are addressed with the proposed timing of operations and other concerns can be sufficiently addressed with the BMPs described in the correspondence.	04/05/2022
OGLA	Returned to DRAFT for the following reasons: Plan and Attachments corrections	03/09/2022
OGLA	Operator requested a Rule 304.d. Lesser Impact Area exemption from Rule 304.c.(3) Light Mitigation Plan - The Director denied the request because the proposed location is in a High Priority Habitat for Pronghorn Winter Concentration Area and Greater Prairie Chicken Production Area. Evidence was not provided that impacts to the resource will be so minimal as to cause no concern.	03/07/2022
OGLA	Operator requested a Rule 304.d. Lesser Impact Area exemption from Rule 304.c.(2) Noise Mitigation Plan - The Director denied the request because the proposed location is in a High Priority Habitat for Pronghorn Winter Concentration Area and Greater Prairie Chicken Production Area. Evidence was not provided that impacts to the resource will be so minimal as to cause no concern.	03/07/2022
OGLA	Returned to DRAFT for the following reasons: Plan and Attachments corrections Data Field corrections	01/26/2022

Total: 13 comment(s)

Public Comments

No public comments were received on this application during the comment period.

FORM
2A

Rev
01/21

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

402817621

Date Received:

12/21/2021

Oil and Gas Location Assessment

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <https://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

OGDP ID:

Expiration Date:

New Location Refile Amend Existing Location # _____

If this Location assessment is a component of an Oil and Gas Development Plan (OGDP) application, enter the OGDP docket number(s).

Docket Number	OGDP ID	OGDP Name
211100213		

If this Location assessment is part of an approved Oil and Gas Development Plan, enter the OGDP ID number(s).

<No existing OGDP number provided>

CONSULTATION

- This location is included in a Comprehensive Area Plan (CAP). CAP ID # _____
- This Location or its associated new access road, utility, or Pipeline corridor meets Rule 309.e.(2).A, B, or C.
- This Location is within 2,640 feet of a GUDI or Type III Well per Rule 411.b.(4).
- This Location includes a Rule 309.e.(2).E variance request.
- This location includes a Rule 309.f.(1).A.ii. variance request.

Operator

Operator Number: 81490

Name: ST CROIX OPERATING INC

Address: P O BOX 13799

City: DENVER State: CO Zip: 80201

Contact Information

Name: Paul Melnychenko

Phone: (303) 489-9298

Fax: ()

email: paul@stcroixexp.com

FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID (Rule 706): 20000108 Gas Facility Surety ID (Rule 711): _____
- Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: Horseshoe Number: 2

Provide the location description and the latitude and longitude of a single point near the center of the Working Pad Surface as a reference for this Location.

Quarter: SWSE Section: 22 Township: 3S Range: 49W Meridian: 6 Ground Elevation: 4414

Latitude: 39.774027 Longitude: -102.844276

GPS Quality Value: 1.1 Type of GPS Quality Value: PDOP Date of Measurement: 04/29/2021

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is: LOCATION ID # FORM 2A DOC #

Well Site is served by Production Facilities _____ 402817644

RELEVANT LOCAL GOVERNMENT SITING INFORMATION

County: WASHINGTON Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "Relevant Local Government approval of the siting of the proposed oil and gas location."

This proposed Oil and Gas Location is in an area designated as one of State interest and subject to the requirements of § 24-65.1-108, C.R.S. No

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this location? No

A siting permit application has been submitted to the Relevant Local Government for this proposed Oil and Gas Location: No

Date Relevant Local Government permit application submitted: _____

Current status or disposition of the Relevant Local Government permit application for this proposed Oil and Gas Location: _____

Status/disposition date: _____

If Relevant Local Government permit has been approved or denied, attach final decision document(s).

Provide the contact information for the Relevant Local Government point of contact for the local permit associated with this proposed Oil and Gas Location:

Contact Name: Larry Griese Contact Phone: 970-345-6662

Contact Email: lgriese@co.washington.co.us

PROXIMATE LOCAL GOVERNMENT INFORMATION

For every Proximate Local Government (PLG) associated with this proposed Oil and Gas Location, provide the PLG's point of contact and their contact information.

< No row provided >

FEDERAL PERMIT INFORMATION

A Federal drilling permit (or related siting application) has been submitted for this proposed Oil and Gas Location: No

Date submitted: _____

Current status or disposition of the Federal drilling permit (or related siting application) for this proposed Oil and Gas Location: _____

Status/disposition Date: _____

If Federal agency permit has been approved or denied, attach the final decision document(s).

Provide the contact information of the Federal point of contact for the Federal permit associated with this proposed Oil and Gas Location.

Contact Name: _____ Contact Phone: _____

Contact Email: _____ Field Office: _____

Additional explanation of local and/or federal process:

RELEVANT LOCAL GOVERNMENT OR FEDERAL PRE-APPLICATION CONSULTATION

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Did a pre-application Formal Consultation Process occur with the Relevant Local Government per Rule 301.f.(3)? No

Date of local government consultation:

Did a pre-application Formal Consultation Process occur with the Federal land manager per Rule 301.f.(3)? No

Date of federal consultation: _____

Was an ALA that satisfies Rule 304.b.(2).C (or substantially equivalent information per Rule 304.e) developed during a federal or local government permit application process? If yes, attach the ALA to the Form 2A. No

ALA APPLICABILITY AND CRITERIA

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Does the proposed Oil and Gas Location meet any of the criteria listed in Rule 304.b.(2)B? No

If YES, indicate by checking the box for every Rule 304.b.(2).B criterion met by this proposed Location, and attach an ALA. See Rule 304.b.(2).B.i-x for full text of criteria.

- i. WPS < 2,000 feet from RBU/HOBU
- ii. WPS < 2,000 feet from School/Child Care Center
- iii. WPS < 1,500 feet from DOAA
- iv. WPS < 2,000 feet from jurisdictional boundary and PLG objects/requests ALA
- v. WPS within a Floodplain
- vi.aa. WPS within a surface water supply area
- vi.bb. WPS < 2,640 feet from Type III or GUDI well
- vii. WPS within/immediately upgradient of wetland/riparian corridor
- viii. WPS within HPH and CPW did not waive
- ix. Operator using Surface bond
- x. WPS < 2,000 feet from RBU/HOBU/School within a DIC

Is the proposed Oil and Gas Location within the exterior boundaries of the Southern Ute Indian Reservation, and the Tribe objects to the Location or requests an ALA? If YES, attach an ALA to the Form 2A. No

Operator requests the Director waive the ALA requirement per Rule 304.b.(2).A.i:

Provide an explanation for the waiver request, and attach supporting information (if necessary).

ALTERNATIVE LOCATIONS DASHBOARD

List every alternative location reviewed and included in the ALA. Provide a latitude and longitude for the approximate center of the alternative location, all Rule 304.b.(2).B Criteria met, if a variance would be required to permit the location, and a brief comment on the key points of the alternative location.

304.b.(2).B.i-x Criteria Met:

< No row provided >

SURFACE & MINERAL OWNERSHIP

Surface Owner Info:

Name: Daisy Lane Farm

Phone: 970-630-9032

Address: 44500 County Road 13

Fax: _____

Address: _____

Email: daisylanedairy@skybeam.com

City: Cope State: CO Zip: 80812

Surface Owner at this Oil and Gas Location: Fee State Federal Indian

- Check only one:
- The Operator/Applicant is the surface owner.
 - The Operator has a signed Surface Use Agreement for this Location – attach SUA.
 - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the surface owner owns the minerals beneath this Location and is committed to an oil and gas lease – attach lease map or provide lease description.
 - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the Operator intends to use a surface bond per Rule 703 to secure access to this Location – attach lease map or provide lease description.

Surface Owner protection Financial Assurance type: N/A Surety ID Number: _____

Mineral Owner beneath this Oil and Gas Location: Fee State Federal Indian

Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

Lease description if necessary: T3S R49W: SE/4 Section 22; NE/4 Section 27

SITE EQUIPMENT LIST

Indicate the number and type of major equipment components planned for use on this Oil and Gas Location:

Wells	<u>1</u>	Oil Tanks	<u>0</u>	Condensate Tanks	<u>0</u>	Water Tanks	<u>0</u>	Buried Produced Water Vaults	<u>0</u>
Drilling Pits	<u>0</u>	Production Pits	<u>0</u>	Special Purpose Pits	<u>0</u>	Multi-Well Pits	<u>0</u>	Modular Large Volume Tank	<u>0</u>
Pump Jacks	<u>1</u>	Separators	<u>0</u>	Injection Pumps	<u>0</u>	Heater-Treaters	<u>0</u>	Gas Compressors	<u>0</u>
Gas or Diesel Motors	<u>0</u>	Electric Motors	<u>0</u>	Electric Generators	<u>0</u>	Fuel Tanks	<u>0</u>	LACT Unit	<u>0</u>
Dehydrator Units	<u>0</u>	Vapor Recovery Unit	<u>0</u>	VOC Combustor	<u>0</u>	Flare	<u>0</u>	Enclosed Combustion Devices	<u>0</u>
Meter/Sales Building	<u>0</u>	Pigging Station	<u>0</u>			Vapor Recovery Towers	<u>0</u>		

OTHER PERMANENT EQUIPMENT

< No Row Provided >

OTHER TEMPORARY EQUIPMENT

< No Row Provided >

GAS GATHERING COMMITMENT

Operator commits to connecting to a gathering system by the Commencement of Production Operations? No

If the answer is NO, a Gas Capture Plan consistent with the requirements of Rule 903.e MUST be attached on the Plans tab.

FLOWLINE DESCRIPTION

Per Rule 304.b.(6), provide a description of all onsite and off-location oil, gas, and/or water flowlines.

This wellhead will tie into production facilities located on the proposed Horseshoe Production Facility location. St. Croix will install one multiphase steel off-location flowline to connect the wellhead to the proposed production facilities.

CULTURAL DISTANCE AND DIRECTION

Provide the distance and direction to the nearest cultural feature as measured from the edge of the Working Pad Surface.

	Distance	Direction	Rule 604.b Conditions Satisfied (check all that apply):			Details of Condition(s)	604.b. (4)
			604.b. (1)	604.b. (2)	604.b. (3)		
Building:	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Residential Building Unit (RBU):	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
High Occupancy Building Unit(HOBU)	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

Designated Outside Activity Area:	<u>5280</u> Feet	<u>S</u>				
Public Road:	<u>1188</u> Feet	<u>E</u>				
Above Ground Utility:	<u>1166</u> Feet	<u>E</u>				
Railroad:	<u>5280</u> Feet	<u>S</u>				
Property Line:	<u>1200</u> Feet	<u>E</u>				
School Facility:	<u>5280</u> Feet	<u>SE</u>				
Child Care Center:	<u>5280</u> Feet	<u>SE</u>				
Disproportionately Impacted (DI) Community:	<u>5280</u> Feet	<u>S</u>				
RBU, HOBU, or School Facility within a DI Community:	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RULE 604.a.(2). EXCEPTION LOCATION REQUEST

Operator requests an Exception Location Request from Rule 604.a.(2) [well is less than 150 feet from a property line]. Exception Location Request Letter and Waiver signed by offset Surface Owner(s) must be attached.

CULTURAL FEATURE INFORMATION REQUIRED BY RULE 304.b.(3).B.

Provide the number of each Cultural feature identified within the following distances, as measured from the Working Pad Surface:

	0-500 feet	501-1,000 feet	1,001-2,000 feet
Building Units	<u>0</u>	<u>0</u>	<u>0</u>
Residential Building Units	<u>0</u>	<u>0</u>	<u>0</u>
High Occupancy Building Units	<u>0</u>	<u>0</u>	<u>0</u>
School Properties	<u>0</u>	<u>0</u>	<u>0</u>
School Facilities	<u>0</u>	<u>0</u>	<u>0</u>
Designated Outside Activity Areas	<u>0</u>	<u>0</u>	<u>0</u>

CONSTRUCTION

Size of disturbed area during construction in acres: 6.19

Size of location after interim reclamation in acres: 0.01

Estimated post-construction ground elevation: 4414

DRILLING PROGRAM

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If YES, attach H2S Drilling Operations Plan.

Will salt sections be encountered during drilling: No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: UIC Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

Centralized E&P Waste Management Facility ID, if applicable: _____

CURRENT LAND USE

Current Land Use: check all that apply per Rule 304.b.(9).

Crop Land: Irrigated Non-Irrigated Conservation Reserve Program (CRP)

Non-Crop Land: Rangeland Forestry Recreation Other

Subdivided: Industrial Commercial Residential

Describe the current land use:

Describe the Relevant Local Government's land use or zoning designation:

Describe any applicable Federal land use designation:

FINAL LAND USE

Final Land Use: check all that apply per Rule 304.b.(9).

Crop Land: Irrigated Non-Irrigated Conservation Reserve Program (CRP)

Non-Crop Land: Rangeland Forestry Recreation Other

Subdivided: Industrial Commercial Residential

REFERENCE AREA INFORMATION

If Final Land Use includes Non-Crop Land (as checked above), the following information is required:

Describe landowner's designated final land use(s):

Reference Area Latitude: _____ Reference Area Latitude: _____

Provide a list of plant communities and dominant vegetation found in the Reference Area.

< No row provided >

Noxious weeds present: _____

SOILS

List all soil map units that occur within the maximum extent of the proposed Oil and Gas Location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" listing the typical vertical soil profile(s). This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS website at <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/> or from the COGCC website GIS Online map page. Instructions are provided within the COGCC website help section.

NRCS Map Unit Name: 70 - Valent Sand, 3-9 Percent Slopes

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

GROUNDWATER AND WATER WELL INFORMATION

Provide the distance and direction, as measured from the Working Pad Surface, to the nearest:

water well: 2535 Feet N

Spring or Seep: 5280 Feet SE

Estimated depth to shallowest groundwater that can be encountered at this Oil and Gas Location: 130 Feet

Basis for estimated depth to and description of shallowest groundwater occurrence:

Shallowest water well depth in the area, Water Well Permit 19155-FP Receipt # 0522143B located in NESE Section 22 T3S R49W.

SURFACE WATER AND WETLANDS

Provide the distance and direction to the nearest downgradient surface Waters of the State, as defined 970 Feet W

in the 100-Series Rules, measured from the Working Pad Surface:

If less than 2,640 feet, is the Waters of the State identified above within 15 stream miles upstream of a Public Water System intake? No

Provide the distance and direction to the nearest downgradient wetland, measured from the Working Pad Surface: 970 Feet W

Provide a description of the nearest downgradient surface Waters of the State:

NWI-mapped freshwater emergent wetland at 970 ft.

If the proposed Oil and Gas Location is within a Rule 411.a Surface Water Supply Area buffer zone, select the buffer zone type: _____

Public Water System Administrator - Contact Name _____ Email _____

If the proposed Oil and Gas Location is within a Rule 411.b GUDI/Type III buffer zone, select the buffer zone type: _____

Public Water System Administrator - Contact Name _____ Email _____

Is a U.S. Army Corps of Engineers Section 404 permit required for the proposed Oil and Gas Location, access road, or associated pipeline corridor? No

If a U.S. Army Corps of Engineers Section 404 permit is required, provide the permit status, and permit number if available:

Is the Location within a Floodplain? No Floodplain Data Sources Reviewed (check all that apply):

Federal (FEMA) State County Local

Other _____

Does this proposed Oil and Gas Location lie within a Sensitive Area for water resources, as defined in the 100-Series Rules? No

CONSULTATION, WAIVERS, AND EXCEPTIONS

When Rule 309.e.(2) Consultation must occur, check all that apply:

- This location is included in a Wildlife Mitigation Plan
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within federally designated critical habitat or an area with a known occurrence for a federal or Colorado threatened or endangered species. Provide description in Comments section of Submit tab.
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within an existing conservation easement established wholly or partly for wildlife habitat. Provide description in Comments section of Submit tab.

When Rule 309.e.(3) Consultation is not required, check all that apply:

- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Protection Plan.
- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Mitigation Plan.
- This Oil and Gas Location has been included in a previously approved, applicable conservation plan.

Pre-application Consultation:

- A pre-application consultation with CPW, regarding this Oil and Gas Location, occurred 10/22/2021 on:

CPW Waivers and Exceptions (check all that apply and attach all CPW waivers to this Form 2A):

- The applicant has obtained a Rule 304.b.(2).B.viii CPW waiver for the requirement to complete an ALA.
- The applicant has obtained a Rule 309.e.(2).G CPW waiver and consultation is not required.
- The applicant has obtained a Rule 309.e.(5).D.i CPW waiver and is requesting an exception from Rule 1202.c.(1).R.
- The applicant has obtained a Rule 309.e.(5).D.ii CPW waiver and is requesting an exception from Rule 1202.c.(1).S.
- The applicant has obtained a Rule 309.e.(5).D.iii CPW waiver of Rule 1202.c.(1).T.
- The applicant has obtained a Rule 309.e.(5).D.iv CPW waiver and is requesting an exception from Rule 1202.c.(1) in accordance with an approved CAP.
- The applicant has obtained a Rule 1202.a CPW waiver.
- The applicant has obtained a Rule 1202.b CPW waiver.
- In accordance with Rule 1203.a.(3), the applicant requests an exception from compensatory mitigation Rule(s): _____

HIGH PRIORITY HABITAT AND COMPENSATORY MITIGATION

This Oil and Gas Location, associated access roads, utility, or Pipeline corridor falls wholly or partially within the following High Priority Habitats (Note: dropdown options are abbreviated - see Rule 1202 for full rule text):

High Priority Habitat (list all that apply)	Oil and Gas Location	Access Road	Utility or Pipeline Corridor
1202.c.(1).B - Greater prairie chicken	x	x	x
1202.d.(4) - Pronghorn migration & winter	x	x	x

The following questions are for Oil and Gas Locations that cause the density to exceed one Oil and Gas Location per square mile in Rule 1202.d High Priority Habitat:

Direct Impacts:

Is Compensatory Mitigation required per Rule 1203.a for this Oil and Gas Location? Yes

Is a Compensatory Mitigation Plan proposed to address direct impacts for this Oil and Gas Location? Yes

Have all Compensatory Mitigation Plans been approved for this Location? Yes

If not, what is the current status of each Plan?

[Empty text box]

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? Yes

Direct impact habitat mitigation fee amount: \$ 13750

Indirect Impacts:

Is Compensatory Mitigation required per Rule 1203.d for this Oil and Gas Location? No

Is a Compensatory Mitigation Plan proposed to address indirect impacts for this Oil and Gas Location? No

Have all Compensatory Mitigation Plans been approved for this Location? No

If not, what is the current status of each Plan?

During consultation, CPW informed St. Croix they would not be requiring an Indirect Impact Compensatory Mitigation fee.

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? No

Indirect impact habitat mitigation fee amount: \$ _____

Operator Proposed Wildlife BMPs

No	Target Species	BMP Type	Description
1	GREATER PRAIRIE CHICKEN	Wildlife - Minimization	The operator agrees to install raptor perch deterrents on equipment, fences, cross arms and pole tops in greater prairie chicken production areas.
2	PRONGHORN	Wildlife - Avoidance	The operator agrees to preclude new oil and gas operations within CPW-mapped pronghorn winter concentration areas from January 1 through April 30.
3	PRONGHORN	Wildlife - Minimization	The operator agrees to preclude new fence construction in pronghorn habitat, unless the operator agrees to use CPW-recommended pronghorn fence designs. The designs are found on CPW's website: http://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf

CPW Proposed Wildlife BMPs

No BMP

AIR QUALITY MONITORING PROGRAM

Will the Operator install and administer an air quality monitoring program at this Location? Yes

Operator Proposed BMPs

No BMP

CDPHE Proposed COAs OR BMPs

No BMP

PLANS

Total Plans Uploaded: 12

- (1) Emergency Spill Response Program consistent with the requirements of Rules 411.a.(4).B, 411.b.(5).B, & 602.j
- (2) Noise Mitigation Plan consistent with the requirements of Rule 423.a
- (3) Light Mitigation Plan consistent with the requirements of Rule 424.a
- (4) Odor Mitigation Plan consistent with the requirements of Rule 426.a
- (5) Dust Mitigation Plan consistent with the requirements of Rule 427.a
- (6) Transportation Plan
- (7) Operations Safety Management Program consistent with the requirements of Rule 602.d
- (8) Emergency Response Plan consistent with the requirements of Rule 602.j
- (9) Flood Shut-In Plan consistent with the requirements of Rule 421.b.(1)
- (10) Hydrogen Sulfide Drilling Operations Plan consistent with the requirements of Rule 612.d
- (11) Waste Management Plan consistent with the requirements of Rule 905.a.(4)
- (12) Gas Capture Plan consistent with the requirements of Rule 903.e
- (13) Fluid Leak Detection Plan
- (14) Topsoil Protection Plan consistent with the requirements of Rule 1002.c
- (15) Stormwater Management Plan consistent with the requirements of Rule 1002.f
- (16) Interim Reclamation Plan consistent with the requirements of Rule 1003
- (17) Wildlife Plan consistent with the requirements of Rule 1201
- (18) Water Plan
- (19) Cumulative Impacts Plan
- (20) Community Outreach Plan
- (21) Geologic Hazard Plan

VARIANCE REQUESTS

Check all that apply:

- This proposed Oil and Gas Location requires the approval of a Rule 502.a variance from COGCC Rule or Commission

Order number: _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

RULE 304.d LESSER IMPACT AREA EXEMPTION REQUESTS

Check the boxes below for all Exemptions being requested. Lesser Impact Area Exemption Request must be attached, and will include all requested exemptions.

- | | |
|--|--|
| <input type="checkbox"/> 304.b.(1). Local Government Siting Information | <input type="checkbox"/> 304.c.(1). Emergency Spill Response Program |
| <input type="checkbox"/> 304.b.(2). Alternative Location Analysis | <input checked="" type="checkbox"/> 304.c.(2). Noise Mitigation Plan |
| <input type="checkbox"/> 304.b.(3). Cultural Distances | <input checked="" type="checkbox"/> 304.c.(3). Light Mitigation Plan |
| <input type="checkbox"/> 304.b.(4). Location Pictures | <input type="checkbox"/> 304.c.(4). Odor Mitigation Plan |
| <input type="checkbox"/> 304.b.(5). Site Equipment List | <input type="checkbox"/> 304.c.(5). Dust Mitigation Plan |
| <input type="checkbox"/> 304.b.(6). Flowline Descriptions | <input type="checkbox"/> 304.c.(6). Transportation Plan |
| <input type="checkbox"/> 304.b.(7). Drawings | <input type="checkbox"/> 304.c.(7). Operations Safety Management Program |
| <input type="checkbox"/> 304.b.(8). Geographic Information System (GIS) Data | <input type="checkbox"/> 304.c.(8). Emergency Response Plan |
| <input type="checkbox"/> 304.b.(9). Land Use Description | <input type="checkbox"/> 304.c.(9). Flood Shut-In Plan |
| <input type="checkbox"/> 304.b.(10). NRCS Map Unit Description | <input type="checkbox"/> 304.c.(10). Hydrogen Sulfide Drilling Operations Plan |
| <input type="checkbox"/> 304.b.(11). Best Management Practices | <input type="checkbox"/> 304.c.(11). Waste Management Plan |
| <input type="checkbox"/> 304.b.(12). Surface Owner Information | <input type="checkbox"/> 304.c.(12). Gas Capture Plan |
| <input type="checkbox"/> 304.b.(13). Proximate Local Government | <input type="checkbox"/> 304.c.(13). Fluid Leak Detection Plan |
| <input type="checkbox"/> 304.b.(14). Wetlands | <input type="checkbox"/> 304.c.(14). Topsoil Protection Plan |
| <input type="checkbox"/> 304.b.(15). Schools and Child Care Centers | <input type="checkbox"/> 304.c.(15). Stormwater Management Plan |
| | <input type="checkbox"/> 304.c.(16). Interim Reclamation Plan |
| | <input type="checkbox"/> 304.c.(17). Wildlife Plan |
| | <input type="checkbox"/> 304.c.(18). Water Plan |
| | <input type="checkbox"/> 304.c.(19). Cumulative Impacts Plan |
| | <input type="checkbox"/> 304.c.(20). Community Outreach Plan |
| | <input type="checkbox"/> 304.c.(21). Geologic Hazard Plan |

OPERATOR COMMENTS AND SUBMITTAL

Comments | This location will have one vertical oil well. This well will not be hydraulically fractured and will not have a flowback phase, therefore no Completions or Flowback Layout drawings included.

The Surface Owner is also the Mineral Owner; the right to construct is in the mineral lease. The attachment labeled OTHER is the Mineral Lease.

The shapefile labeled LOCATION AND WORKING PAD GIS SHP is the access road and off-location flowline disturbance corridor.

Size of location after interim reclamation is 0.002 acres. Character limit on Construction, Drilling & Waste Tab did not allow for more than 2 decimals.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 12/21/2021 Email: jdonahue@ardorenvironmental.com

Print Name: Jessica Donahue Title: Compliance Specialist

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: _____ Director of COGCC Date: _____

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

Condition of Approval

COA Type

Description

Emissions mitigation	Due to the possibility of gas being present during drilling and completions operations, if gas is encountered, St. Croix will provide verbal notification to the Director within 12 hours of the discovery of gas, and submit a Form 4 Sundry Notice within 7 days describing how the gas will be captured or combusted, or vented pursuant to Rule 903.b and 903.c. If gas is encountered during production, St. Croix will submit via Form 4 Sundry Notice an updated Gas Capture Plan describing the beneficial use of the gas pursuant to Rule 903.d.
1 COA	

Best Management Practices

No BMP/COA Type

Description

1 General Housekeeping	<ul style="list-style-type: none">• Operator will use appropriate haul routes for all waste transportation.• Onsite E&P Waste Storage will be stored in compatible containers or engineered containment devices. The containers will be regularly inspected to ensure they are in good condition and free of excessive wear, structural issues, or other defects that may impact their effectiveness.• Operator will not bury or burn trash or other waste materials at this location.• Trash receptacles will be designed, maintained, and operated to protect public safety and the environment from exposure to overflowing, leak prone, or insecure trash receptacles.
2 General Housekeeping	No permanent lighting will be installed on this location.
3 Wildlife	Pronghorn: The operator agrees to preclude new oil and gas operations within CPW identified pronghorn winter concentration areas from January 1 through April 30. Greater Prairie Chicken: Will avoid Greater Prairie Chicken Timing Limitations (March 1-June 30) St. Croix has committed to not drilling during either timing limitations of Pronghorn or Greater Prairie Chicken (January 1 through June 30).

4	Storm Water/Erosion Control	<ul style="list-style-type: none"> • Protection from Contamination: topsoil will be segregated and stockpiled separately from other soils; stockpiles of different soil types may be separated by compacted earthen berms, sediment control logs, straw bale barriers, etc.; and stabilizing stockpile surfaces to control for erosion and sedimentation. • Stockpiles will be placed in areas away from vehicle and equipment traffic; and when stockpiling, compaction will be minimized by limiting the number of equipment passes, limiting stockpile height, and using vegetation. • Protection from Wind Erosion: surface roughening, applying hydro-seed/mulch, using soil tackifier, covering stockpiles with rolled erosion control products, etc. • Protection from Water Erosion: surface roughening, applying hydro-seed/mulch, using soil tackifier, covering stockpiles with rolled erosion control products, etc. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. • Interim reclamation: when drilling and completion operations and recontouring of the site (as described in the Interim Reclamation Plan) are complete, all topsoil will be moved from the stockpile area and placed over the facility's cut and fill slopes to ensure long term topsoil health including protection from erosion, prevention of weed establishment, and maintaining soil microbial activity until final reclamation. • The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion. • Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location. • Protection from Wind and Water Erosion: topsoiled areas may be covered with certified weed free mulch at an application rate specified by the product's manufacturer, or a specification sheet that follows good engineering practices. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. • Final reclamation: during final reclamation, the topsoil will be stripped from the cut and fill slopes and stockpiled during the final recontouring of the location. During these construction activities, the BMP practices listed in the short-term stabilization will be used. • Once recontouring is complete, all topsoil will be moved from the stockpile area and placed over the final contours of the disturbance. • The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion. • Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location. • Protection from Wind and Water Erosion: topsoiled areas may be covered with certified weed free mulches at an application rate specified by the product's manufacturer, or a specification sheet that follows good engineering practices. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. 	
5	Storm Water/Erosion Control	<p>St. Croix will comply with COGCC Rule 1002.f.(2). by utilizing BMPs at the oil and gas location to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, site degradation and protects surface waters. Examples of engineering controls that could be used when needed are: surface roughening during reseeding; sediment traps; straw wattles.</p> <p>Good housekeeping practices will be used to reduce the risk of spills or other accidental exposure of materials and substances to Stormwater runoff. The following housekeeping practices will be followed onsite during the construction project: No solid materials, including building materials, shall be discharged to State waters; vehicular traffic will be minimized as much as possible to reduce nuisance dust and prevent further soil erosion; any trash generated during the project will be disposed of properly; Any chemicals used will be kept to a minimum; any chemical or oil spills will be cleaned up immediately in accordance with established company procedures; all materials will be stored in a neat and orderly manner in their appropriate containers; follow manufacturers' recommendations and company policies for proper use and disposal of products.</p> <p>Inspections will occur every 7 days from commencement of construction until initial stabilization/production phase. Thereafter inspections will occur monthly until final stabilization.</p> <p>All spills will be immediately assessed and if there is potential for the spill leaving the site, temporary measures will be used to prevent transport off site.</p> <p>If petroleum hydrocarbons or other chemicals impact stormwater as a result of</p>	

		activities onsite, the impacted stormwater will be addressed by following the St. Croix Spill Plan, and Waste Management Plan if applicable waste is generated.
6	Material Handling and Spill Prevention	<p>Prior to beginning drilling operations, flowlines will be pressure tested to identify any potential leaks. Once integrity has been confirmed, flowlines will be utilized for drilling operations.</p> <p>Daily – visual inspections of all fluid containers for integrity. Visual inspection of flowlines.</p> <p>Weekly – visual inspections of the manifolded piping. Prior to being placed into production, manifold connections will be tested with freshwater to identify potential leaks. Once integrity is confirmed, the tanks will be turned over to production operations.</p> <p>Audio-Visual-Olfactory inspections will be conducted monthly.</p>
7	Dust control	<ul style="list-style-type: none"> • St. Croix will utilize freshwater for dust suppression practices. • Speed restrictions on the access roads will be utilized to minimize dust. An average of 25 mph is currently anticipated to be used for most vehicles. • Construction activities may be limited or deferred on high-wind days to restrict potential fugitive dust, specifically activities that involve moving dirt will be deferred on high wind days to prevent fugitive dust and soil loss. • Topsoil and stockpiled soils will be stabilized through either wheel packing, tackifiers, seeding practices, or erosion control blankets.
8	Emissions mitigation	<p>This proposed location will consist of the wellhead and a possible pump jack only. All products will be piped to the proposed Horseshoe Production Facility location, where the production equipment mentioned below (potential combustor, heater treater) will be installed.</p> <p>St. Croix does not intend to hydraulically fracture this well. Completions for this well will be consist of cleaning out the wellbore and perforating the wellbore. There will be no flowback.</p> <p>If gas is found during production, it will be utilized on the proposed Horseshoe Production Facility location for beneficial uses such as powering onsite equipment. During maintenance activities, St. Croix will have appropriate gas control equipment on location to minimize all Venting.</p>
9	Interim Reclamation	<p>All surface disturbance would be reclaimed to a condition consistent with COGCC and surface owner requirements. Topsoil will be segregated during construction to be redistributed during interim reclamation. Disturbed areas would be reseeded in accordance with the specific requirements of the landowner. Reseeding would occur as soon as possible after drilling and completion activities have been completed for the well proposed on this location. The objective of interim reclamation is to achieve stability objectives to insure erosion control and continued viability of the soils for the future of the land use. The long-term objective of final reclamation is to return the land to approximately pre-project conditions.</p> <p>Erosion control would be deemed sufficient when adequate vegetation cover is reestablished, water naturally infiltrates into the soil, the site complies with the approved Stormwater Management Plan (SWMP) and when gullying, headcutting, slumping, and deep or excessive rilling is not observed. Proper site preparation would be ensured by spreading of stored and salvaged topsoil or topsoil replacement to an adequate depth and by ripping, tilling, disking, harrowing, and dozer track imprinting where appropriate.</p> <p>Once the pad has been drilled with the proposed well, interim reclamation would occur. This would consist of minimizing the footprint of disturbance through recontouring and revegetation of all disturbed areas not needed for production operations (including cut/fill slopes). After the topsoil has been returned to these areas and prepared for seeding, a landowner-approved, weed-free seed mix would be installed to prevent erosion, preserve soil integrity, and resist weeds. Prior to interim reclamation, St. Croix would meet with the private landowner to inspect the disturbed area, review the reclamation plan, and agree on any revisions.</p>

Total: 9 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
2473566	CPW CONSULTATION
2473573	LOCATION PICTURES
2473578	HYDROLOGY MAP
402817621	FORM 2A SUBMITTED
402903851	NRCS MAP UNIT DESC
402903852	OTHER
402903858	GEOLOGIC HAZARD MAP
402903863	PRELIMINARY PROCESS FLOW DIAGRAMS
402903864	RELATED LOCATION AND FLOWLINE MAP
402903865	NRCS MAP UNIT DESC
402903866	LOCATION AND WORKING PAD GIS SHP
402903867	OIL AND GAS LOCATION GIS SHP
402903868	WORKING PAD SURFACE GIS SHP
402916316	LAYOUT DRAWING
402916324	CPW CONSULTATION
402916325	CPW WAIVER
402917893	WILDLIFE HABITAT DRAWING
402948681	ACCESS ROAD MAP
402948683	LOCATION DRAWING
402999019	CULTURAL FEATURES MAP
402999024	LESSER IMPACT AREA EXEMPTION REQUEST

Total Attach: 21 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	The Director has determined that the OGD application that this Form is a component of meets all requirements of Rule 306.a. The Director's Recommendation has been attached to the Form 2A.	07/29/2022
OGLA	With operator concurrence, the following was corrected: 1 Pump jack was added to the Site Equipment List. Updated Location Pictures attachment uploaded. Updated Gas Capture Plan uploaded. Updated Hydrology Map was uploaded. Corrected Wildlife Resources tab for Direct Impact compensatory mitigation.	07/25/2022
OGDP Approval	An Indirect Mitigation Fee will be applied to the Horseshoe Production Facility Location.	07/13/2022
OGLA	Revised interim reclamation acreage datafield on Construction tab from 0.00 to 0.01 to clarify that the interim reclamation area will be more than zero acres. The comment on the Submit tab explains what the actual anticipated acreage will be and why the data field is inaccurate.	07/13/2022
OGLA	With operator concurrence, the following was corrected: Distance to nearest Water Well was corrected to 2535 ft. Corrected distance and direction to the nearest downgradient wetland to 970 ft. to the West. Distance to nearest downgradient surface Waters of the State corrected to 970 ft. Added comment to submit tab clarifying size of location after interim reclamation.	06/30/2022
OGLA	Corrected Direct impact habitat mitigation fee amount to \$13750 per CPW request.	05/03/2022
OGLA	The box was checked under Consultations regarding whether this Location or its associated new access road, utility, or Pipeline corridor meets Rule 309.e.(2).A, B, or C.. CPW Task has been unpassed, a CPW liaison has been assigned, and the due date has been corrected to 5/7/2022.	04/19/2022
OGLA	The Director has determined this OGD application is complete. Form pushed to IN PROCESS.	04/07/2022
OGLA	Rule 304.d Lesser Impact Area exemption from Rule 304.c.(2) Noise Mitigation Plan - The Director approved the request based on the newly provided information including CPW correspondence that indicated wildlife concerns regarding noise are addressed with the proposed timing of operations and other concerns can be sufficiently addressed with BMPs described in the correspondence.	04/06/2022
OGLA	Rule 304.d Lesser Impact Area exemption from Rule 304.c.(3) Light Mitigation Plan - The Director approved the request based on the newly provided information including CPW correspondence that indicated wildlife concerns regarding lighting are addressed with the proposed timing of operations and other concerns can be sufficiently addressed with the BMPs described in the correspondence.	04/06/2022
OGLA	Returned to DRAFT for the following reasons: Plan and Attachments corrections	03/09/2022
OGLA	Operator requested a Rule 304.d. Lesser Impact Area exemption from Rule 304.c.(2) Noise Mitigation Plan - The Director denied the request because the proposed location is in a High Priority Habitat for Pronghorn Winter Concentration Area and Greater Prairie Chicken Production Area. Evidence was not provided that impacts to the resource will be so minimal as to cause no concern.	03/07/2022
OGLA	Operator requested a Rule 304.d. Lesser Impact Area exemption from Rule 304.c.(3) Light Mitigation Plan - The Director denied the request because the proposed location is in a High Priority Habitat for Pronghorn Winter Concentration Area and Greater Prairie Chicken Production Area. Evidence was not provided that impacts to the resource will be so minimal as to cause no concern.	03/07/2022
OGLA	Returned to DRAFT for the following reasons: Plan and Attachments corrections Data Field corrections	01/26/2022

Total: 14 comment(s)

Public Comments

No public comments were received on this application during the comment period.

FORM
2A

Rev
01/21

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

402817644

Date Received:

12/21/2021

Oil and Gas Location Assessment

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <https://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

OGDP ID:

Expiration Date:

New Location Refile Amend Existing Location # _____

If this Location assessment is a component of an Oil and Gas Development Plan (OGDP) application, enter the OGDP docket number(s).

Docket Number	OGDP ID	OGDP Name
211100213		

If this Location assessment is part of an approved Oil and Gas Development Plan, enter the OGDP ID number(s).

<No existing OGDP number provided>

CONSULTATION

- This location is included in a Comprehensive Area Plan (CAP). CAP ID # _____
- This Location or its associated new access road, utility, or Pipeline corridor meets Rule 309.e.(2).A, B, or C.
- This Location is within 2,640 feet of a GUDI or Type III Well per Rule 411.b.(4).
- This Location includes a Rule 309.e.(2).E variance request.
- This location includes a Rule 309.f.(1).A.ii. variance request.

Operator

Operator Number: 81490
 Name: ST CROIX OPERATING INC
 Address: P O BOX 13799
 City: DENVER State: CO Zip: 80201

Contact Information

Name: Paul Melnychenko
 Phone: (303) 489-9298
 Fax: ()
 email: paul@stcroixexp.com

FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID (Rule 706): 20000108 Gas Facility Surety ID (Rule 711): _____
- Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: Horseshoe Production Facility Number: _____

Provide the location description and the latitude and longitude of a single point near the center of the Working Pad Surface as a reference for this Location.

Quarter: SESE Section: 22 Township: 3S Range: 49W Meridian: 6 Ground Elevation: 4423

Latitude: 39.772689 Longitude: -102.840136

GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP Date of Measurement: 07/12/2021

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:	LOCATION ID #	FORM 2A DOC #
Production Facilities Location serves Well(s)	_____	402817621
Production Facilities Location serves Well(s)	_____	402817594

RELEVANT LOCAL GOVERNMENT SITING INFORMATION

County: WASHINGTON Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "Relevant Local Government approval of the siting of the proposed oil and gas location."

This proposed Oil and Gas Location is in an area designated as one of State interest and subject to the requirements of § 24-65.1-108, C.R.S. No

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this location? No

A siting permit application has been submitted to the Relevant Local Government for this proposed Oil and Gas Location: No

Date Relevant Local Government permit application submitted: _____

Current status or disposition of the Relevant Local Government permit application for this proposed Oil and Gas Location: _____

Status/disposition date: _____

If Relevant Local Government permit has been approved or denied, attach final decision document(s).

Provide the contact information for the Relevant Local Government point of contact for the local permit associated with this proposed Oil and Gas Location:

Contact Name: Larry Griese Contact Phone: 970-345-6662

Contact Email: lgriese@co.washington.co.us

PROXIMATE LOCAL GOVERNMENT INFORMATION

For every Proximate Local Government (PLG) associated with this proposed Oil and Gas Location, provide the PLG's point of contact and their contact information.

< No row provided >

FEDERAL PERMIT INFORMATION

A Federal drilling permit (or related siting application) has been submitted for this proposed Oil and Gas Location: No

Date submitted: _____

Current status or disposition of the Federal drilling permit (or related siting application) for this proposed Oil and Gas Location: _____

Status/disposition Date: _____

If Federal agency permit has been approved or denied, attach the final decision document(s).

Provide the contact information of the Federal point of contact for the Federal permit associated with this proposed Oil and Gas Location.

Contact Name: _____ Contact Phone: _____

Contact Email: _____ Field Office: _____

Additional explanation of local and/or federal process:

RELEVANT LOCAL GOVERNMENT OR FEDERAL PRE-APPLICATION CONSULTATION

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Did a pre-application Formal Consultation Process occur with the Relevant Local Government per Rule 301.f.(3)? No

Date of local government consultation: _____

Did a pre-application Formal Consultation Process occur with the Federal land manager per Rule 301.f.(3)? No

Date of federal consultation: _____

Was an ALA that satisfies Rule 304.b.(2).C (or substantially equivalent information per Rule 304.e) developed during a federal or local government permit application process? If yes, attach the ALA to the Form 2A. No

ALA APPLICABILITY AND CRITERIA

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Does the proposed Oil and Gas Location meet any of the criteria listed in Rule 304.b.(2)B? No

If YES, indicate by checking the box for every Rule 304.b.(2).B criterion met by this proposed Location, and attach an ALA. See Rule 304.b.(2).B.i-x for full text of criteria.

- | | |
|---|--|
| <input type="checkbox"/> i. WPS < 2,000 feet from RBU/HOBU | <input type="checkbox"/> vi.aa. WPS within a surface water supply area |
| <input type="checkbox"/> ii. WPS < 2,000 feet from School/Child Care Center | <input type="checkbox"/> vi.bb. WPS < 2,640 feet from Type III or GUDI well |
| <input type="checkbox"/> iii. WPS < 1,500 feet from DOAA | <input type="checkbox"/> vii. WPS within/immediately upgradient of wetland/riparian corridor |
| <input type="checkbox"/> iv. WPS < 2,000 feet from jurisdictional boundary and PLG objects/requests ALA | <input type="checkbox"/> viii. WPS within HPH and CPW did not waive |
| <input type="checkbox"/> v. WPS within a Floodplain | <input type="checkbox"/> ix. Operator using Surface bond |
| | <input type="checkbox"/> x. WPS < 2,000 feet from RBU/HOBU/School within a DIC |

Is the proposed Oil and Gas Location within the exterior boundaries of the Southern Ute Indian Reservation, and the Tribe objects to the Location or requests an ALA? If YES, attach an ALA to the Form 2A. No

Operator requests the Director waive the ALA requirement per Rule 304.b.(2).A.i:

Provide an explanation for the waiver request, and attach supporting information (if necessary).

ALTERNATIVE LOCATIONS DASHBOARD

List every alternative location reviewed and included in the ALA. Provide a latitude and longitude for the approximate center of the alternative location, all Rule 304.b.(2).B Criteria met, if a variance would be required to permit the location, and a brief comment on the key points of the alternative location.

304.b.(2).B.i-x Criteria Met:

< No row provided >

SURFACE & MINERAL OWNERSHIP

Surface Owner Info:

Name: <u>Daisy Lane Farm, LLC</u>	Phone: <u>970-630-9032</u>
Address: <u>44500 County Road 13</u>	Fax: _____
Address: _____	Email: <u>daisylanedairy@skybeam.com</u>
City: <u>Cope</u> State: <u>CO</u> Zip: <u>80812</u>	

Surface Owner at this Oil and Gas Location: Fee State Federal Indian

- Check only one:
- The Operator/Applicant is the surface owner.
 - The Operator has a signed Surface Use Agreement for this Location – attach SUA.
 - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the surface owner owns the minerals beneath this Location and is committed to an oil and gas lease – attach lease map or provide lease description.
 - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the Operator intends to use a surface bond per Rule 703 to secure access to this Location – attach lease map or provide lease description.

Surface Owner protection Financial Assurance type: N/A _____ Surety ID Number: _____

Mineral Owner beneath this Oil and Gas Location: Fee State Federal Indian

Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

Lease description if necessary: T3S R49W: SE/4 Section 22; NE/4 Section 27

SITE EQUIPMENT LIST

Indicate the number and type of major equipment components planned for use on this Oil and Gas Location:

Wells	<u>1</u>	Oil Tanks	<u>2</u>	Condensate Tanks	<u>0</u>	Water Tanks	<u>2</u>	Buried Produced Water Vaults	<u>0</u>
Drilling Pits	<u>0</u>	Production Pits	<u>0</u>	Special Purpose Pits	<u>0</u>	Multi-Well Pits	<u>0</u>	Modular Large Volume Tank	<u>0</u>
Pump Jacks	<u>0</u>	Separators	<u>0</u>	Injection Pumps	<u>1</u>	Heater-Treaters	<u>1</u>	Gas Compressors	<u>0</u>
Gas or Diesel Motors	<u>0</u>	Electric Motors	<u>0</u>	Electric Generators	<u>0</u>	Fuel Tanks	<u>0</u>	LACT Unit	<u>0</u>
Dehydrator Units	<u>0</u>	Vapor Recovery Unit	<u>0</u>	VOC Combustor	<u>0</u>	Flare	<u>0</u>	Enclosed Combustion Devices	<u>1</u>
Meter/Sales Building	<u>0</u>	Pigging Station	<u>0</u>			Vapor Recovery Towers	<u>0</u>		

OTHER PERMANENT EQUIPMENT

Permanent Equipment Type	Number
Skim Tank	1
Pump House	1

OTHER TEMPORARY EQUIPMENT

< No Row Provided >

GAS GATHERING COMMITMENT

Operator commits to connecting to a gathering system by the Commencement of Production Operations? No

If the answer is NO, a Gas Capture Plan consistent with the requirements of Rule 903.e MUST be attached on the Plans tab.

FLOWLINE DESCRIPTION

Per Rule 304.b.(6), provide a description of all onsite and off-location oil, gas, and/or water flowlines.

This location will be the termination point for two steel multiphase off-location flowlines that will connect the proposed Horseshoe #1 and Horseshoe #2 wellheads to the production equipment on this location.

CULTURAL DISTANCE AND DIRECTION

Provide the distance and direction to the nearest cultural feature as measured from the edge of the Working Pad Surface.

			Rule 604.b Conditions Satisfied (check all that apply):	
	Distance	Direction	604.b. (1) 604.b. (2) 604.b. (3) Details of Condition(s)	604.b. (4)
Building:	<u>5280</u> Feet	<u>S</u>		

Residential Building Unit (RBU):	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>
High Occupancy Building Unit(HOBU)	<u>5280</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>
Designated Outside Activity Area:	<u>5280</u> Feet	<u>S</u>					
Public Road:	<u>85</u> Feet	<u>E</u>					
Above Ground Utility:	<u>66</u> Feet	<u>E</u>					
Railroad:	<u>5280</u> Feet	<u>S</u>					
Property Line:	<u>100</u> Feet	<u>E</u>					
School Facility:	<u>5280</u> Feet	<u>SE</u>					
Child Care Center:	<u>5280</u> Feet	<u>SE</u>					
Disproportionately Impacted (DI) Community:	<u>5280</u> Feet	<u>SE</u>					
RBU, HOBU, or School Facility within a DI Community:	<u>5280</u> Feet	<u>SE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>

RULE 604.a.(2). EXCEPTION LOCATION REQUEST

Operator requests an Exception Location Request from Rule 604.a.(2) [well is less than 150 feet from a property line]. Exception Location Request Letter and Waiver signed by offset Surface Owner(s) must be attached.

CULTURAL FEATURE INFORMATION REQUIRED BY RULE 304.b.(3).B.

Provide the number of each Cultural feature identified within the following distances, as measured from the Working Pad Surface:

	<u>0-500 feet</u>	<u>501-1,000 feet</u>	<u>1,001-2,000 feet</u>
Building Units	<u>0</u>	<u>0</u>	<u>0</u>
Residential Building Units	<u>0</u>	<u>0</u>	<u>0</u>
High Occupancy Building Units	<u>0</u>	<u>0</u>	<u>0</u>
School Properties	<u>0</u>	<u>0</u>	<u>0</u>
School Facilities	<u>0</u>	<u>0</u>	<u>0</u>
Designated Outside Activity Areas	<u>0</u>	<u>0</u>	<u>0</u>

CONSTRUCTION

Size of disturbed area during construction in acres: 5.55

Size of location after interim reclamation in acres: 1.77

Estimated post-construction ground elevation: 4423

DRILLING PROGRAM

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If YES, attach H2S Drilling Operations Plan.

Will salt sections be encountered during drilling: No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: UIC Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

Centralized E&P Waste Management Facility ID, if applicable: _____

CURRENT LAND USE

Current Land Use: check all that apply per Rule 304.b.(9).

Crop Land: Irrigated Non-Irrigated Conservation Reserve Program (CRP)

Non-Crop Land: Rangeland Forestry Recreation Other

Subdivided: Industrial Commercial Residential

Describe the current land use:

The rangeland is adjacent to irrigated cropland. Quality of the rangeland is less than pristine habitat.

Describe the Relevant Local Government's land use or zoning designation:

Agricultural

Describe any applicable Federal land use designation:

FINAL LAND USE

Final Land Use: check all that apply per Rule 304.b.(9).

Crop Land: Irrigated Non-Irrigated Conservation Reserve Program (CRP)

Non-Crop Land: Rangeland Forestry Recreation Other

Subdivided: Industrial Commercial Residential

REFERENCE AREA INFORMATION

If Final Land Use includes Non-Crop Land (as checked above), the following information is required:

Describe landowner's designated final land use(s):

Agricultural

Reference Area Latitude: 39.772803

Reference Area Latitude: -102.836958

Provide a list of plant communities and dominant vegetation found in the Reference Area.

Plant Community	Dominant vegetation
Disturbed Grassland	Leadplant, Sage

Noxious weeds present: _____

SOILS

List all soil map units that occur within the maximum extent of the proposed Oil and Gas Location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" listing the typical vertical soil profile(s). This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS website at <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/> or from the COGCC website GIS Online map page. Instructions are provided within the COGCC website help section.

NRCS Map Unit Name: 70 - Valent Sand, 3-9 Percent Slopes

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

GROUNDWATER AND WATER WELL INFORMATION

Provide the distance and direction, as measured from the Working Pad Surface, to the nearest:

water well: 2631 Feet NE

Spring or Seep: 5280 Feet SE

Estimated depth to shallowest groundwater that can be encountered at this Oil and Gas Location: 133 Feet

Basis for estimated depth to and description of shallowest groundwater occurrence:

Nearest constructed water well is 133 ft in depth, Permit Number 44135. Depth to groundwater is based on top perforation in the constructed water well.

SURFACE WATER AND WETLANDS

Provide the distance and direction to the nearest downgradient surface Waters of the State, as defined 2040 Feet W

in the 100-Series Rules, measured from the Working Pad Surface:

If less than 2,640 feet, is the Waters of the State identified above within 15 stream miles upstream of a Public Water System intake? No

Provide the distance and direction to the nearest downgradient wetland, measured from the Working Pad Surface: 2040 Feet W

Provide a description of the nearest downgradient surface Waters of the State:

NWI-mapped freshwater emergent wetland at 2040 ft.

If the proposed Oil and Gas Location is within a Rule 411.a Surface Water Supply Area buffer zone, select the buffer zone type: _____

Public Water System Administrator - Contact Name _____ Email _____

If the proposed Oil and Gas Location is within a Rule 411.b GUDI/Type III buffer zone, select the buffer zone type: _____

Public Water System Administrator - Contact Name _____ Email _____

Is a U.S. Army Corps of Engineers Section 404 permit required for the proposed Oil and Gas Location, access road, or associated pipeline corridor? No

If a U.S. Army Corps of Engineers Section 404 permit is required, provide the permit status, and permit number if available:

Is the Location within a Floodplain? No Floodplain Data Sources Reviewed (check all that apply):

Federal (FEMA) State County Local

Other _____

Does this proposed Oil and Gas Location lie within a Sensitive Area for water resources, as defined in the 100-Series Rules? No

CONSULTATION, WAIVERS, AND EXCEPTIONS

When Rule 309.e.(2) Consultation must occur, check all that apply:

- This location is included in a Wildlife Mitigation Plan
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within federally designated critical habitat or an area with a known occurrence for a federal or Colorado threatened or endangered species. Provide description in Comments section of Submit tab.
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within an existing conservation easement established wholly or partly for wildlife habitat. Provide description in Comments section of Submit tab.

When Rule 309.e.(3) Consultation is not required, check all that apply:

- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Protection Plan.
- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Mitigation Plan.
- This Oil and Gas Location has been included in a previously approved, applicable conservation plan.

Pre-application Consultation:

- A pre-application consultation with CPW, regarding this Oil and Gas Location, occurred 10/22/2021 on:

CPW Waivers and Exceptions (check all that apply and attach all CPW waivers to this Form 2A):

- The applicant has obtained a Rule 304.b.(2).B.viii CPW waiver for the requirement to complete an ALA.
- The applicant has obtained a Rule 309.e.(2).G CPW waiver and consultation is not required.
- The applicant has obtained a Rule 309.e.(5).D.i CPW waiver and is requesting an exception from Rule 1202.c.(1).R.
- The applicant has obtained a Rule 309.e.(5).D.ii CPW waiver and is requesting an exception from Rule 1202.c.(1).S.
- The applicant has obtained a Rule 309.e.(5).D.iii CPW waiver of Rule 1202.c.(1).T.
- The applicant has obtained a Rule 309.e.(5).D.iv CPW waiver and is requesting an exception from Rule 1202.c.(1) in accordance with an approved CAP.
- The applicant has obtained a Rule 1202.a CPW waiver.
- The applicant has obtained a Rule 1202.b CPW waiver.
- In accordance with Rule 1203.a.(3), the applicant requests an exception from compensatory mitigation Rule(s): _____

HIGH PRIORITY HABITAT AND COMPENSATORY MITIGATION

This Oil and Gas Location, associated access roads, utility, or Pipeline corridor falls wholly or partially within the following High Priority Habitats (Note: dropdown options are abbreviated - see Rule 1202 for full rule text):

High Priority Habitat (list all that apply)	Oil and Gas Location	Access Road	Utility or Pipeline Corridor
1202.c.(1).B - Greater prairie chicken	x	x	
1202.d.(4) - Pronghorn migration & winter	x	x	

The following questions are for Oil and Gas Locations that cause the density to exceed one Oil and Gas Location per square mile in Rule 1202.d High Priority Habitat:

Direct Impacts:

Is Compensatory Mitigation required per Rule 1203.a for this Oil and Gas Location? Yes

Is a Compensatory Mitigation Plan proposed to address direct impacts for this Oil and Gas Location? Yes

Have all Compensatory Mitigation Plans been approved for this Location? Yes

If not, what is the current status of each Plan?

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? Yes

Direct impact habitat mitigation fee amount: \$ 13750

Indirect Impacts:

Is Compensatory Mitigation required per Rule 1203.d for this Oil and Gas Location? Yes

Is a Compensatory Mitigation Plan proposed to address indirect impacts for this Oil and Gas Location? Yes

Have all Compensatory Mitigation Plans been approved for this Location? Yes

If not, what is the current status of each Plan?

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? Yes

Indirect impact habitat mitigation fee amount: \$ 45570

Operator Proposed Wildlife BMPs

No	Target Species	BMP Type	Description
1	GREATER PRAIRIE CHICKEN	Wildlife - Minimization	The operator agrees to install raptor perch deterrents on equipment, fences, cross arms and pole tops in greater prairie chicken production areas.
2	PRONGHORN	Wildlife - Avoidance	The operator agrees to preclude new oil and gas operations within CPW-mapped pronghorn winter concentration areas from January 1 through April 30.
3	PRONGHORN	Wildlife - Minimization	The operator agrees to preclude new fence construction in pronghorn habitat, unless the operator agrees to use CPW-recommended pronghorn fence designs. The designs are found on CPW's website: http://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf

CPW Proposed Wildlife BMPs

No BMP

AIR QUALITY MONITORING PROGRAM

Will the Operator install and administer an air quality monitoring program at this Location? Yes

Operator Proposed BMPs

No BMP

CDPHE Proposed COAs OR BMPs

No BMP

PLANS

Total Plans Uploaded: 12

- (1) Emergency Spill Response Program consistent with the requirements of Rules 411.a.(4).B, 411.b.(5).B, & 602.j
- (2) Noise Mitigation Plan consistent with the requirements of Rule 423.a
- (3) Light Mitigation Plan consistent with the requirements of Rule 424.a
- (4) Odor Mitigation Plan consistent with the requirements of Rule 426.a
- (5) Dust Mitigation Plan consistent with the requirements of Rule 427.a
- (6) Transportation Plan
- (7) Operations Safety Management Program consistent with the requirements of Rule 602.d
- (8) Emergency Response Plan consistent with the requirements of Rule 602.j
- (9) Flood Shut-In Plan consistent with the requirements of Rule 421.b.(1)
- (10) Hydrogen Sulfide Drilling Operations Plan consistent with the requirements of Rule 612.d
- (11) Waste Management Plan consistent with the requirements of Rule 905.a.(4)
- (12) Gas Capture Plan consistent with the requirements of Rule 903.e
- (13) Fluid Leak Detection Plan
- (14) Topsoil Protection Plan consistent with the requirements of Rule 1002.c
- (15) Stormwater Management Plan consistent with the requirements of Rule 1002.f
- (16) Interim Reclamation Plan consistent with the requirements of Rule 1003
- (17) Wildlife Plan consistent with the requirements of Rule 1201
- (18) Water Plan
- (19) Cumulative Impacts Plan
- (20) Community Outreach Plan
- (21) Geologic Hazard Plan

VARIANCE REQUESTS

Check all that apply:

- This proposed Oil and Gas Location requires the approval of a Rule 502.a variance from COGCC Rule or Commission

Order number: _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

RULE 304.d LESSER IMPACT AREA EXEMPTION REQUESTS

Check the boxes below for all Exemptions being requested. Lesser Impact Area Exemption Request must be attached, and will include all requested exemptions.

- | | |
|--|--|
| <input type="checkbox"/> 304.b.(1). Local Government Siting Information | <input type="checkbox"/> 304.c.(1). Emergency Spill Response Program |
| <input type="checkbox"/> 304.b.(2). Alternative Location Analysis | <input checked="" type="checkbox"/> 304.c.(2). Noise Mitigation Plan |
| <input type="checkbox"/> 304.b.(3). Cultural Distances | <input checked="" type="checkbox"/> 304.c.(3). Light Mitigation Plan |
| <input type="checkbox"/> 304.b.(4). Location Pictures | <input type="checkbox"/> 304.c.(4). Odor Mitigation Plan |
| <input type="checkbox"/> 304.b.(5). Site Equipment List | <input type="checkbox"/> 304.c.(5). Dust Mitigation Plan |
| <input type="checkbox"/> 304.b.(6). Flowline Descriptions | <input type="checkbox"/> 304.c.(6). Transportation Plan |
| <input type="checkbox"/> 304.b.(7). Drawings | <input type="checkbox"/> 304.c.(7). Operations Safety Management Program |
| <input type="checkbox"/> 304.b.(8). Geographic Information System (GIS) Data | <input type="checkbox"/> 304.c.(8). Emergency Response Plan |
| <input type="checkbox"/> 304.b.(9). Land Use Description | <input type="checkbox"/> 304.c.(9). Flood Shut-In Plan |
| <input type="checkbox"/> 304.b.(10). NRCS Map Unit Description | <input type="checkbox"/> 304.c.(10). Hydrogen Sulfide Drilling Operations Plan |
| <input type="checkbox"/> 304.b.(11). Best Management Practices | <input type="checkbox"/> 304.c.(11). Waste Management Plan |
| <input type="checkbox"/> 304.b.(12). Surface Owner Information | <input type="checkbox"/> 304.c.(12). Gas Capture Plan |
| <input type="checkbox"/> 304.b.(13). Proximate Local Government | <input type="checkbox"/> 304.c.(13). Fluid Leak Detection Plan |
| <input type="checkbox"/> 304.b.(14). Wetlands | <input type="checkbox"/> 304.c.(14). Topsoil Protection Plan |
| <input type="checkbox"/> 304.b.(15). Schools and Child Care Centers | <input type="checkbox"/> 304.c.(15). Stormwater Management Plan |
| | <input type="checkbox"/> 304.c.(16). Interim Reclamation Plan |
| | <input type="checkbox"/> 304.c.(17). Wildlife Plan |
| | <input type="checkbox"/> 304.c.(18). Water Plan |
| | <input type="checkbox"/> 304.c.(19). Cumulative Impacts Plan |
| | <input type="checkbox"/> 304.c.(20). Community Outreach Plan |
| | <input type="checkbox"/> 304.c.(21). Geologic Hazard Plan |

OPERATOR COMMENTS AND SUBMITTAL

Comments This location will have one vertical injection well. This well will not be hydraulically fractured and will not have a flowback phase. Therefore, no Completion or Flowback diagrams are included.

The Surface Owner is also the Mineral Owner; the right to construct is in the mineral lease. The attachment labeled Other is the Mineral Lease.

This form has only 2 shapefiles attached - one is for the Oil and Gas Location, one for the Working Pad Surface. The access road will have been constructed in connection with the proposed Horseshoe #1, Document # 402817594. Therefore no additional access road disturbance is included with this submittal.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 12/21/2021 Email: jdonahue@ardorenvironmental.com

Print Name: Jessica Donahue Title: Compliance Specialist

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: _____ Director of COGCC Date: _____

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

Condition of Approval

COA Type

Description

Emissions mitigation	Due to the possibility of gas being present during drilling and completions operations, if gas is encountered, St. Croix will provide verbal notification to the Director within 12 hours of the discovery of gas, and submit a Form 4 Sundry Notice within 7 days describing how the gas will be captured or combusted, or vented pursuant to Rule 903.b and 903.c. If gas is encountered during production, St. Croix will submit via Form 4 Sundry Notice an updated Gas Capture Plan describing the beneficial use of the gas pursuant to Rule 903.d.
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Planning	Operator will submit updated Location Pictures that comply with Rule 304.b.(9).B.ii within 12 months of Form 2A approval.
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2 COAs

Best Management Practices

No BMP/COA Type

Description

1 General Housekeeping	<ul style="list-style-type: none"> • Operator will use appropriate haul routes for all waste transportation. • Onsite E&P Waste Storage will be stored in compatible containers or engineered containment devices. The containers will be regularly inspected to ensure they are in good condition and free of excessive wear, structural issues, or other defects that may impact their effectiveness. • Operator will not bury or burn trash or other waste materials at this location. • Trash receptacles will be designed, maintained, and operated to protect public safety and the environment from exposure to overflowing, leak prone, or insecure trash receptacles.
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2	General Housekeeping	<ul style="list-style-type: none"> • Protection from Contamination: topsoil will be segregated and stockpiled separately from other soils; stockpiles of different soil types may be separated by compacted earthen berms, sediment control logs, straw bale barriers, etc.; and stabilizing stockpile surfaces to control for erosion and sedimentation. • Stockpiles will be placed in areas away from vehicle and equipment traffic; and when stockpiling, compaction will be minimized by limiting the number of equipment passes, limiting stockpile height, and using vegetation. • Protection from Wind Erosion: surface roughening, applying hydro-seed/mulch, using soil tackifier, covering stockpiles with rolled erosion control products, etc. • Protection from Water Erosion: surface roughening, applying hydro-seed/mulch, using soil tackifier, covering stockpiles with rolled erosion control products, etc. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. • Interim reclamation: when drilling and completion operations and recontouring of the site (as described in the Interim Reclamation Plan) are complete, all topsoil will be moved from the stockpile area and placed over the facility's cut and fill slopes to ensure long term topsoil health including protection from erosion, prevention of weed establishment, and maintaining soil microbial activity until final reclamation. • The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion. • Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location. • Protection from Wind and Water Erosion: topsoiled areas may be covered with certified weed free mulch at an application rate specified by the product's manufacturer, or a specification sheet that follows good engineering practices. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. • Final reclamation: during final reclamation, the topsoil will be stripped from the cut and fill slopes and stockpiled during the final recontouring of the location. During these construction activities, the BMP practices listed in the short-term stabilization will be used. • Once recontouring is complete, all topsoil will be moved from the stockpile area and placed over the final contours of the disturbance. • The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion. • Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location. • Protection from Wind and Water Erosion: topsoiled areas may be covered with certified weed free mulches at an application rate specified by the product's manufacturer, or a specification sheet that follows good engineering practices. • Weed Establishment Prevention: St. Croix will use Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds. 	
3	General Housekeeping	During drilling activities, lights will be onsite for safety and 24-hour operations. These temporary lights will be downward facing as much as possible to minimize the distance that it will be visible.	
4	General Housekeeping	No permanent lighting will be installed on this location.	
5	Wildlife	<p>Pronghorn: The operator agrees to preclude new oil and gas operations within CPW identified pronghorn winter concentration areas from January 1 through April 30.</p> <p>Greater Prairie Chicken: Will avoid Greater Prairie Chicken Timing Limitations (March 1-June 30)</p> <p>St. Croix has committed to not drilling during either timing limitations of Pronghorn or Greater Prairie Chicken (January 1 through June 30).</p>	
6	Storm Water/Erosion Control	<p>St. Croix will comply with COGCC Rule 1002.f.(2). by utilizing BMPs at the oil and gas location to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, site degradation and protects surface waters. Examples of engineering controls that could be used when needed are: surface roughening during reseeding; sediment traps; straw wattles.</p> <p>Good housekeeping practices will be used to reduce the risk of spills or other accidental exposure of materials and substances to Stormwater runoff. The following housekeeping practices will be followed onsite during the construction project: No solid materials, including building materials, shall be discharged to State waters; vehicular traffic will be minimized as much as possible to reduce nuisance dust and prevent further soil erosion; any trash generated during the project will be disposed of properly;</p>	

		<p>Any chemicals used will be kept to a minimum; any chemical or oil spills will be cleaned up immediately in accordance with established company procedures; all materials will be stored in a neat and orderly manner in their appropriate containers; follow manufacturers' recommendations and company policies for proper use and disposal of products.</p> <p>Inspections will occur every 7 days from commencement of construction until initial stabilization/production phase. Thereafter inspections will occur monthly until final stabilization.</p> <p>All spills will be immediately assessed and if there is potential for the spill leaving the site, temporary measures will be used to prevent transport off site.</p> <p>If petroleum hydrocarbons or other chemicals impact stormwater as a result of activities onsite, the impacted stormwater will be addressed by following the St. Croix Spill Plan, and Waste Management Plan if applicable waste is generated.</p>
7	Material Handling and Spill Prevention	<p>Prior to beginning drilling operations, flowlines will be pressure tested to identify any potential leaks. Once integrity has been confirmed, flowlines will be utilized for drilling operations.</p> <p>Daily – visual inspections of all fluid containers for integrity. Visual inspection of flowlines.</p> <p>Weekly – visual inspections of the manifolded piping. Prior to being placed into production, manifold connections will be tested with freshwater to identify potential leaks. Once integrity is confirmed, the tanks will be turned over to production operations.</p> <p>Audio-Visual-Olfactory inspections will be conducted monthly.</p> <p>Steel secondary containment will be placed around produced fluid tanks. The tanks will be set on an impervious liner within the containment.</p>
8	Dust control	<ul style="list-style-type: none"> • St. Croix will utilize freshwater for dust suppression practices. • Speed restrictions on the access roads will be utilized to minimize dust. An average of 25 mph is currently anticipated to be used for most vehicles. • Construction activities may be limited or deferred on high-wind days to restrict potential fugitive dust, specifically activities that involve moving dirt will be deferred on high wind days to prevent fugitive dust and soil loss. • Topsoil and stockpiled soils will be stabilized through either wheel packing, tackifiers, seeding practices, or erosion control blankets.
9	Emissions mitigation	<p>This proposed location will consist of the proposed injection well, a pump house, a combustor, 2 produced water tanks, 2 oil tanks, one heater treater, and a skim tank. If gas is found during production of the related wells, it will be utilized on this proposed location for beneficial uses such as powering onsite equipment.</p> <p>St. Croix does not intend to hydraulically fracture this well. Completions for this well will be consist of cleaning out the wellbore and perforating the wellbore. There will be no flowback.</p> <p>St. Croix does not currently anticipate natural gas production at this location or at the adjacent related locations. Historically, JSand wells in this area do not produce gas. Regardless, a combustor is proposed to be installed at this location, where all products from the related wells will be piped, to allow for flexibility in case gas is encountered during production. This combustor will be located in the process stream after separation has occurred and will comply with relevant regulations under Colorado Department of Public Health and Environment – Air Quality Control Division.</p> <p>During maintenance activities, St. Croix will have appropriate gas control equipment on location to minimize all Venting.</p>

10	Interim Reclamation	<p>All surface disturbance would be reclaimed to a condition consistent with COGCC and surface owner requirements. Topsoil will be segregated during construction to be redistributed during interim reclamation. Disturbed areas would be reseeded in accordance with the specific requirements of the landowner. Reseeding would occur as soon as possible after drilling and completion activities have been completed for the well proposed on this location. The objective of interim reclamation is to achieve stability objectives to insure erosion control and continued viability of the soils for the future of the land use. The long-term objective of final reclamation is to return the land to approximately pre-project conditions.</p> <p>Erosion control would be deemed sufficient when adequate vegetation cover is reestablished, water naturally infiltrates into the soil, the site complies with the approved Stormwater Management Plan (SWMP) and when gullying, headcutting, slumping, and deep or excessive rilling is not observed. Proper site preparation would be ensured by spreading of stored and salvaged topsoil or topsoil replacement to an adequate depth and by ripping, tilling, disking, harrowing, and dozer track imprinting where appropriate.</p> <p>Once the pad has been drilled with the proposed well, interim reclamation would occur. This would consist of minimizing the footprint of disturbance through recontouring and revegetation of all disturbed areas not needed for production operations (including cut/fill slopes). After the topsoil has been returned to these areas and prepared for seeding, a landowner-approved, weed-free seed mix would be installed to prevent erosion, preserve soil integrity, and resist weeds. Prior to interim reclamation, St. Croix would meet with the private landowner to inspect the disturbed area, review the reclamation plan, and agree on any revisions.</p>
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Total: 10 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
2473561	REFERENCE AREA MAP
2473564	LOCATION DRAWING
2473565	RELATED LOCATION AND FLOWLINE MAP
2473566	CPW CONSULTATION
2473574	LOCATION PICTURES
2473575	PRELIMINARY PROCESS FLOW DIAGRAMS
2473576	LAYOUT DRAWING
2473579	HYDROLOGY MAP
402817644	FORM 2A SUBMITTED
402905646	OTHER
402905657	GEOLOGIC HAZARD MAP
402905697	REFERENCE AREA PICTURES
402905704	NRCS MAP UNIT DESC
402905710	NRCS MAP UNIT DESC
402905780	OIL AND GAS LOCATION GIS SHP
402907113	WORKING PAD SURFACE GIS SHP
402916311	CPW CONSULTATION
402916312	CPW WAIVER
402917898	WILDLIFE HABITAT DRAWING
402948687	ACCESS ROAD MAP
402999037	LESSER IMPACT AREA EXEMPTION REQUEST
402999038	CULTURAL FEATURES MAP

Total Attach: 22 Files

General Comments

User Group	Comment	Comment Date
OGLA	The Director has determined that the OGD application that this Form is a component of meets all requirements of Rule 306.a. The Director's Recommendation has been attached to the Form 2A.	07/29/2022
OGLA	With operator concurrence, the following was corrected: Updated Location Pictures attachment uploaded. Updated Gas Capture Plan was uploaded. Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location was corrected to Yes. Updated Preliminary Process Flow Diagrams attachment was uploaded. Added Pump House to list of Permanent Equipment.	07/25/2022
OGLA	CPW negotiated a direct impact HPH mitigation fee and based on a density calculation, CPW determined that an indirect impact fee applies. The indirect fee amount is based on the timing of the operations.	07/13/2022
OGLA	The Form 31 (Doc #403014888), Form 33 (Doc #403014913), and Form 2 (Doc #402852280) for the proposed saltwater injection well are currently IN DRAFT. Staff will conduct a technical review of these forms when they have been submitted.	07/13/2022
OGLA	With operator concurrence, the following was corrected: Mineral Owner beneath this Oil and Gas Location was corrected to FEE. Distance to nearest Water Well was corrected to 2631 ft. to the NE. Estimated depth to shallowest groundwater was corrected to 133 ft. Comment regarding groundwater was corrected. Distance to nearest downgradient wetland was corrected to 2040 ft. to the W. Distance to nearest downgradient surface Waters of the State corrected to 2040 ft. Hydrology Map was corrected and re-uploaded. Reference Area Map with Lat/Long was uploaded. Distance to nearest public road was corrected to 85 ft. Distance to nearest above ground utility was corrected to 66 ft. Distance to nearest property line was corrected to 100 ft. Layout Drawing was corrected and uploaded. Skim Tank was added to permanent facilities list. Wildlife Plan with the correct direct compensatory mitigation fee was uploaded. Location Drawing attachment uploaded with correct interim reclamation acreage. Related Location and Flowline map attachment uploaded with the correct section listed.	07/01/2022
OGLA	Corrected Direct impact habitat mitigation fee amount per CPW request.	05/03/2022
OGLA	The box was checked under Consultations regarding whether this Location or its associated new access road, utility, or Pipeline corridor meets Rule 309.e.(2).A, B, or C.. CPW Task has been unpassed, a CPW liaison has been assigned, and the due date has been corrected to 5/7/2022.	04/19/2022
OGLA	The Director has determined this OGD application is complete. Form pushed to IN PROCESS.	04/07/2022
OGLA	Rule 304.d Lesser Impact Area exemption from Rule 304.c.(2) Noise Mitigation Plan - The Director approved the request based on the newly provided information including CPW correspondence that indicated wildlife concerns regarding noise are addressed with the proposed timing of operations and other concerns can be sufficiently addressed with BMPs described in the correspondence.	04/06/2022
OGLA	Rule 304.d Lesser Impact Area exemption from Rule 304.c.(3) Light Mitigation Plan - The Director approved the request based on the newly provided information including CPW correspondence that indicated wildlife concerns regarding lighting are addressed with the proposed timing of operations and other concerns can be sufficiently addressed with the BMPs described in the correspondence.	04/06/2022
OGLA	Returned to DRAFT for the following reasons: Plan and Attachments corrections	03/09/2022
OGLA	Operator requested a Rule 304.d. Lesser Impact Area exemption from Rule 304.c.(3) Light Mitigation Plan - The Director denied the request because the proposed location is in a High Priority Habitat for Pronghorn Winter Concentration Area and Greater Prairie Chicken Production Area. Evidence was not provided that impacts to the resource will be so minimal as to cause no concern.	03/07/2022
OGLA	Operator requested a Rule 304.d. Lesser Impact Area exemption from Rule 304.c.(2)	03/07/2022

	Noise Mitigation Plan - The Director denied the request because the proposed location is in a High Priority Habitat for Pronghorn Winter Concentration Area and Greater Prairie Chicken Production Area. Evidence was not provided that impacts to the resource will be so minimal as to cause no concern.	
OGLA	Returned to DRAFT for the following reasons: Plan and Attachments corrections Data Field corrections	01/26/2022

Total: 14 comment(s)

Public Comments

No public comments were received on this application during the comment period.