

FORM
2B
Rev
03/21

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:

403099677

Date Received:

CUMULATIVE IMPACTS DATA IDENTIFICATION

Per Rule 303, this form and all required components and attachments will be submitted for any Oil and Gas Development Plan.

Form Type: OGD Partial 2B - Rule 803.b.(2).A UIC Conversion

OPERATOR INFORMATION

OGCC Operator Number: 10792 Contact Name and Telephone:
Name of Operator: MRG LP Name: Bill Irwin
Address: 2725 ROCKY MOUNTAIN AVE Phone: (303) 356-6052
City: LOVELAND State: CO Zip: 80538 Email: b.irwin001@gmail.com

OIL & GAS DEVELOPMENT PLAN INFORMATION

Oil & Gas Development Plan Name: CE
Oil & Gas Development Plan Docket #: 220700198 Oil & Gas Development Plan ID #: Data not required
 This OGD is included in a Comprehensive Area Plan. CAP ID #: _____

OIL & GAS LOCATION DATA

1 Oil & Gas Location Name: CE Number: Pad Status: Proposed

OIL & GAS LOCATION INFORMATION

Form 2A Doc#: 403096386
Loc ID#: _____
Oil & Gas Location: QTRQTR: SENE Sec: 11 Twp: 5N Rng: 68W Meridian: 6
Total number of wells planned: 15

Operations Duration

Estimated total number of weeks to construct this Oil & Gas Location: 3
Estimated total number of weeks to drill all planned wells for this Oil & Gas Location: 14
Number of planned drilling occupations to drill all planned wells for this Oil & Gas Location: 1
Estimated total number of weeks to complete all planned wells for this Oil & Gas Location: 8
Number of planned completions occupations to complete all planned wells for this Oil & Gas Location: 1
Will there be simultaneous drilling and completions operations occurring at this Oil & Gas Location? No
Estimated total number of months the Oil & Gas Location will be active, prior to abandonment and reclamation: 228

Noise Impacts

Provide a qualitative evaluation of the incremental adverse noise impacts to the surrounding receptors during the pre-production activities at this Oil & Gas Location.

Ambient noise levels are expected to rise minimally for potential sensitive receptors during pre-production activities. MRG will utilize acoustical perimeter sound walls to mitigate any potential noises that would rise above allowable thresholds.

Provide a qualitative evaluation of the incremental adverse noise impacts to the surrounding receptors during the production stage of this Oil & Gas Location.

Ambient noise levels are expected to rise minimally for potential sensitive receptors during production activities. MRG will utilize acoustical perimeter sound walls to mitigate any potential noises that would rise above allowable thresholds.

Light Impacts

Provide a qualitative evaluation of the incremental adverse light impacts to the surrounding receptors during the pre-production activities at this Oil & Gas Location.

There will be lighting on location during pre-production activities for safe operations. All lights will be downward directed and warm colored to minimize impacts across the landscape.

Provide a qualitative evaluation of the incremental adverse light impacts to the surrounding receptors during the production stage of this Oil & Gas Location.

There will be lighting on location during production activities for safe operations. All lights will be downward directed and warm colored to minimize impacts across the landscape.

Odor Impacts

Provide a qualitative evaluation of the incremental adverse odor impacts to the surrounding receptors during the pre-production activities at this Oil & Gas Location.

MRG will utilize Group II oil-based mud during drilling to minimize potential adverse odor impacts to surrounding receptors.

Provide a qualitative evaluation of the incremental adverse odor impacts to the surrounding receptors during the production stage of this Oil & Gas Location.

No incremental adverse odor impacts are anticipated to surrounding receptors during the production stage. Crude oil and natural gas will be transported offsite via third-party gathering lines. Produced water will be stored on location in enclosed tanks.

WATER RESOURCES

This Oil & Gas Location is listed as a sensitive area for water resources.

This Oil & Gas Location is within 2,640 feet of a surface Water of the State.

Estimated depth to groundwater: 260

Estimated total planned on-location storage capacity of the Oil & Gas Location for:

	Number of Tanks	Total Volume (bbls)
Oil	<u>0</u>	<u>0</u>
Condensate	<u>0</u>	<u>0</u>
Produced Water	<u>2</u>	<u>800</u>
Other volumes of stored fluids, hydrocarbons, chemicals, or E&P Waste Fluids	<u>0</u>	<u>0</u>

List, with volumes, the "Other" fluids planned to be stored on the Oil & Gas Location, including, but not limited to: hydrocarbons, chemicals, or E&P Waste fluids.

Potential Impacted Surface Water Resources

Provide the distance and direction of the contaminant migration pathway from the Oil & Gas Location to the nearest downstream riparian corridors, wetlands, and surface Waters of the State. Also provide an evaluation of the baseline condition of the nearest downstream riparian corridors, wetlands, and surface Waters of the State.

Enter 2,640 for distances greater than 1/2-mile. Distances are measured along the migration pathway, not a straight line from the edge of the Oil & Gas Location.

	Distance	Direction	Evaluation of Baseline Condition
Riparian Corridor	<u>2640</u>	<u>S</u>	No riparian corridors are within 2,640 of the location.
Wetland	<u>1811</u>	<u>S</u>	Freshwater emergent wetlands are adjacent to the Loveland-Greeley Canal. The potential contaminant pathway would be mitigated by the open fields between the proposed location and the wetlands. There is no direct pathway that could funnel fluids from the location to reach the wetlands.

Surface Waters of the State 1811 S The Loveland-Greeley Canal is overseen and maintained by the Greeley-Loveland Irrigation Company. The potential contaminant pathway would be mitigated by the open fields between the proposed location and the canal. There is no direct pathway that could funnel fluids from the location to reach the canal.

Potential Impacts to Public Water Resources

Provide the distance, direction, and evaluation of potential impacts to the nearest Public Water System Intake. Enter 5,280 for distances greater than 1-mile.

Distance Direction Evaluation of Baseline Condition

Public Water System Intake 5280 W No impacts are anticipated; the public water system intake is over 3 miles to the west. Water in the area flow west to east.

Estimated Water Usage

Provide the estimated total volumes of the following that are anticipated to be used during the drilling and completions stage of the Oil & Gas Location activity.

Water Source	Volume (bbls)		Volume (bbls)		Volume (bbls)		Percentage	%
Surface Water	<u>2775000</u>	Recycled Water (Produced Water)	<u>0</u>	Unspecified Source	<u>0</u>	Recycled Water	<u>0</u>	
Ground Water	<u>0</u>	Recycled Water (non-Produced Water)	<u>0</u>	Total Water Usage	<u>2775000</u>			
					<u>0</u>			

If an unspecified water source is planned to be used, provide a description of the source.

Evaluate the measures being taken to reduce freshwater use, including reusing and recycling produced water.

ECOSYSTEM & WILDLIFE RESOURCES

List High Priority Habitats (HPH) that occur within one mile of the Oil & Gas Location and list the distance from working pad surface. If the location is partially or entirely within a HPH list the distance as '0' and provide the estimated acreage disturbance of that HPH by the location construction.

Data not required

List total size of disturbed acreage and disturbed High Priority Habitat (HPH) area (in acres) during the Oil & Gas Location construction and after interim reclamation.

	Total Acreage (acres)	Total HPH Acreage (acres)	Provide any further information regarding the location's HPH disturbance.
Construction	<u>13.4</u>	<u>0</u>	<input type="text" value="This location is not within High Priority Habitat."/>
Post-interim Reclamation	<u>7.2</u>	<u>0</u>	

Provide the acreage of the existing land use types that occur within one mile of the Oil & Gas Location. Note: a circle with a one mile radius is approximately 2010 acres.

	Existing Acreage	Existing Acreage	Existing Acreage	Existing Acreage
Crop Land: Irrigated	<u>0</u>	Non-Irrigated	<u>1409</u>	Conservation Reserve Program(CRP)
Non-Crop Land: Rangeland	<u>0</u>	Forestry	<u>0</u>	Recreation
Subdivided: Industrial	<u>0</u>	Commercial	<u>315</u>	Residential
				<u>286</u>
				Other
				<u>0</u>

If any land use is industrial, provide a description of the use or operation of the industrial facilities.

If any land use is "Other", provide a description of the land use.

If any portion of the land use for the proposed oil and gas location includes Rangeland, Forestry, or Recreation, provide a list of the plant community or communities and estimated acreage disturbed for each:

Estimated Disturbed Acreage	Estimated Disturbed Acreage	Estimated Disturbed Acreage	Estimated Disturbed Acreage
<u> </u>	<u> </u>	<u> </u>	<u> </u>

Disturbed Grassland

Shrub Land

Mountain Riparian

Wetland Aquatic

Native Grassland

Plains Riparian

Forest Land

Alpine

Provide a qualitative evaluation of incremental adverse impacts to ecosystems, including any plant communities, as a result of Oil and Gas Operations associated with the proposed Oil & Gas Location.

The current land surface is utilized as non-irrigated agricultural land. Future land usage will be potentially residential. The interim reclamation is designed to meet the future purposes with a seed mix approved by the residential development group, the Centerra Design Review Committee.

Soil Resources

List all soil map units that occur within the Oil & Gas Location and list the estimated total area (in acres) disturbance of each soil map unit.

NRCS Map Unit Name:	Estimated Disturbed Acreage
115 - Weld silt loam, 0 to 3 percent slopes	13.4

PUBLIC WELFARE

This Oil & Gas Location lies within a Disproportionately Impacted Community as defined in the 100-series rules.

Building Units within 1-mile

0'-2,000' 2,001'-5,280'

Total number of Residential Building Units:	1	28
Total Number of non-school AND non child care center High Occupancy Building Units:	0	19
Total number of School Facilities:	0	0
Total number of Child Care Centers:	0	0

Recreation and Scenic Value

List all State Parks, State Trust Lands, or State Wildlife Area within 1-mile of the Oil & Gas Location.

N/A

List all Designated Outdoor Activity Areas within 1-mile of the Oil & Gas Location.

N/A

List all mapped trails that support any of the following recreational activities within 1-mile of the Oil & Gas Location: Hiking, Biking, Horseback Riding, Motorcycle Riding, ATV Riding, OHV, Nordic Skiing, Snowmobiling, or Snowshoeing.

N/A

AIR RESOURCES

Pre-Production Emissions

Complete the following chart based on the estimated total equipment emissions (in tons) for the Oil & Gas Location during the pre-production (construction, drilling, completions) stage for Criteria Pollutants by equipment type.

	NOx	CO	VOCs	Methane	Ethane	CO2	N2O
Process Heaters or Boilers	0.03	0.02	0.002	0	0	34.5	1.3
Storage Tanks	0.01	0.05	0.1	0.06	0.03	36.6	0
Venting or Blowdowns	0	0	0	0	0	0	0
Combustion Control Devices	0.01	0.05	0.1	0.05	0.03	21.4	0
Non-Road Internal Combustion Engines	5.8	1.25	0.47	0.04	0	882.31	0.01
Drill Mud	0	0	0.6	2.1	0	2964.3	0.02
Flowback or Completions	0.07	0.3	0.99	0.3	0.2	159.2	0
Loadout	0.03	0.14	1.76	0	0	0	0

Production Emissions

Complete the following chart based on the estimated full facility equipment emissions (in tons) for the Oil & Gas Location once the Oil & Gas Location has entered the production stage, for Criteria Pollutants. The table should be filled out based on ONE year of operation.

	NOx	CO	VOCs	Methane	Ethane	CO2	N2O
Stationary Engines or Turbines	0	0	0	0	0	0	0

Process Heaters or Boilers	0	0	0	0	0	0	0
Storage Tanks	0.58	2.66	4.53	0.36	0	3.67	0
Dehydration Units	0	0	0	0	0	0	0
Pneumatic Pumps	0	0	0	0	0	0	0
Pneumatic Controllers	0	0	0	0	0	0	0
Separators	1.61	1.35	0.09	0.03	0.05	1394.42	0
Fugitives			0	0	0	0	
Venting or Blowdowns	0	0	0	0	0	0	0
Combustion Control Devices	0	0	0	0	0	0	0
Loadout	0.01	0.05	0.3	0	0.04	25.99	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0
Well Bradenhead	0	0	0	0	0	0	0
Well Maintenance	0	0	0	0	0	0	0

Diesel Vehicle Road Miles

Complete the following chart for diesel vehicle road miles during each stage of oil and gas location operations.

During Construction: 7560 During Completions: 181800
 During Drilling: 38800 During Interim Reclamation: 7560
 During Production: 325785

PUBLIC HEALTH RESOURCES

Pre-Production Emissions

Complete the following chart based on the estimated total equipment emissions (in lbs) for the Oil & Gas Location during the pre-production (construction, drilling, completions) stage for Hazardous Air Pollutants (HAP).

	BEN	TOL	ETH	XYL	NHE	TMP	H2S	FDE	MET	HAP
Process Heaters or Boilers	0.001	0.002	0	0	0	0	0	0	0	0.003
Storage Tanks	5.2	2.3	0	0	0	0	0	0	0	11.2
Venting or Blowdowns	0	0	0	0	0	0	0	0	0	0
Combustion Control Devices	0.8	0.7	0.095	0.2	6.8	0.03	0	0	0	8.625
Non-Road Internal Combustion Engines	0.0142	0.005	0	0.004	0	0	0	0.003	0	0.0262
Drill Mud	0	0	0	0	0	0	0	0	0	0
Flowback or Completions	6.1	5.2	0.7	1.3	50.8	0.2	0	0	0	64.3
Loadout	0	0	0	0	0	0	0	0	0	0

Production Emissions

Complete the following chart based on the estimated total equipment emissions (in lbs) for the Oil & Gas Location once the Oil & Gas Location has entered the production stage, for Hazardous Air Pollutants (HAP). The table should be filled out based on ONE year of operation.

	BEN	TOL	ETH	XYL	NHE	TMP	H2S	FDE	MET	HAP
Stationary Engines or Turbines	0	0	0	0	0	0	0	0	0	0
Process Heaters or Boilers	0	0	0	0	0	0	0	0	0	0
Storage Tanks	20.1	12.9	1.4	2.7	133.9	0.5	0	0	0	171.5
Dehydration Units	0	0	0	0	0	0	0	0	0	0
Pneumatic Pumps	0	0	0	0	0	0	0	0	0	0
Pneumatic Controllers	0	0	0	0	0	0	0	0	0	0
Separators	0	0	0	0	0	0	0	0	0	0
Fugitives	0.8	1.9	0.4	2.3	1.4	1.5	0	0	0	8.3
Venting or Blowdowns	0	0	0	0	0	0	0	0	0	0
Combustion Control Devices	0	0	0	0	0	0	0	0	0	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0	0	0	0
Loadout	1	0	0	0	9.1	0	0	0	0	10.1

Well Bradenhead	0	0	0	0	0	0	0	0	0	0
Well Maintenance	0	0	0	0	0	0	0	0	0	0

Provide a qualitative evaluation of any potential acute or chronic, short- or long-term incremental impacts to public health as a result of the estimated total pre-production hazardous air pollutant emissions.

Emission levels are expected to pose minimal potential short- or long-term incremental impacts to public health during pre-production activities due to the limited sensitive receptors in the area.

Provide a qualitative evaluation of any potential acute or chronic, short- or long-term incremental impacts to public health as a result of the estimated annual production hazardous air pollutant emissions.

Emission levels are expected to pose minimal potential short- or long-term incremental impacts to public health during production activities. MRG will utilize enclosed tanks and pipelines to transport crude oil and natural gas offsite to minimize vehicle emissions and truck loadouts.

Dust Impacts

The following are the estimated number of truck trips traveling on or off the Oil & Gas Location.

Total	During Construction	During Drilling	During Completions	During Interim Reclamation	During Production
Monthly	546	3600	6720	546	180
Annual	546	6360	13440	546	2160

Estimated total pounds (lbs) of proppant to be used during completions activities. 1312500
00

Provide the type of proppant(s) that are planned to be used during completions activities.

100 mesh and 40/70

Provide an evaluation of the proposed proppant management system that will be used to minimize dust during completions activities, including the estimated amount of silica dust that will leave the Oil & Gas Location.

A dustless sandbox system with gravity fed operation will be utilized.

EXISTING OIL & GAS

Total number of oil & gas locations within 1-mile of the Oil & Gas Location:

	Total Number of Locations	Total Number of Wells
Active, built	5	14
Permitted by COGCC, unbuilt	0	0
Permitted by Relevant Local Government & not COGCC, unbuilt	0	0
Proposed	0	16

Total acreage disturbance during construction of the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location: 5.2

Source for acreage total:

- Field Observation/Measurement
- COGCC Location Files
- Aerial Photos/Other
- Other

If "Other" is selected, please describe the source use to determine the acreage total for construction disturbance of the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location.

Total permitted capacity of on-location storage (in number of pits and tanks) of the active and proposed oil & gas locations within 1-mile of the Oil & Gas Location :
NOTE: providing the existing number of pits and tanks on surrounding existing locations is optional.

Source for storage totals:

- Field Observation/Measurement
- COGCC Location Files
- Aerial Photos/Other
- Other

	Permitted Onsite Storage Capacity	Existing Onsite Storage Capacity
Oil	1500	1500
Condensate	0	0
Produced Water	210	210
Pits	0	0

If "Other" is selected, please describe the source use to determine the tank totals for the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location.

OIL & GAS DEVELOPMENT PLAN-SCALE DATA

List High Priority Habitats (HPH) that are estimated be disturbed by the construction of new roads, including access roads, pipelines, and utilities for this OGDG, along with the estimated disturbed acreage of each HPH.

No HPH Identified

List the total estimated of disturbed acreage and the total disturbed High Priority Habitat (HPH) area (in acres) during construction and the acreage that will remain disturbed after interim reclamation of the following for the entire OGDG:

	Construction		Post-interim Reclamation	
	Total Acreage (acres)	Total HPH Acreage (acres)	Total Acreage (acres)	Total HPH Acreage (acres)
New roads, including access roads	0.32	0	New roads, including access roads	0.32
Pipelines	0	0	Pipelines	0
Utilities	0	0	Utilities	0

Provide any further information regarding the HPH disturbance from the construction of new roads, including access roads, pipelines, and utilities for this OGDG.

No HPH will be disturbed with this project.

Number of miles of the existing lease road that are planned to be used to access these location(s): 0

BENEFICIAL IMPACT INFORMATION

Equipment and Facility Removal

Total number of existing wells that are planned to be plugged and abandoned as part of this OGDG: 0

Total number of existing locations that are planned to be closed and undergo final reclamation as part of this OGDG: 0

Total number of acres that are planned to be reclaimed through the closing of existing locations: 0

Total number of existing pits that are planned to be closed and undergo final reclamation as part of this OGDG: 0

Estimated number of vehicle trips that are planned to be prevented from the above mentioned facility closures and equipment upgrades (on an annual basis): 0

Total number of tanks planned to be removed from existing locations through the approval of this OGDG:

Oil Tanks: 0
 Condensate Tanks: 0
 Produced Water Tanks: 0

Provide a qualitative evaluation of any incremental beneficial impacts to the surrounding community directly and indirectly from this OGDG.

The proposed location falls within the boundaries of the City of Loveland. Loveland will benefit from the economic prosperity to contractors to perform work at the proposed location; provide a reliable domestic energy source; employ Colorado residents during all phases of operations; generate tax revenue and the payment of fees to local and state agencies; and provide royalty income to mineral interest owners.

Provide a qualitative evaluation of any incremental beneficial impacts to the surrounding wildlife and ecosystems directly and indirectly from this OGDG.

This project will utilize buried pipelines to transport crude oil and natural gas production from the Oil & Gas Location to the local markets. The use of pipeline in lieu of trucking oil will significantly reduce the truck traffic typically needed to support production operations. The massive reduction in truck traffic will markedly reduce the likelihood of interactions between wildlife and vehicular traffic associated with the proposed development. Further, adverse impacts to ecosystems are not anticipated.

MITIGATION INFORMATION

No Mitigation Measures Listed

OPERATOR COMMENTS AND SUBMITTAL

Print Name: Jessica Donahue

Title: Compliance Specialist

Email: jdonahue@ardorenvironmental.com

Date:

Based on the information provided herein, this Cumulative Impacts Data Identification Form 2B complies with COGCC Rules and is hereby accepted into the Cumulative Impacts Data Evaluation Repository (CIDER database).
Contact OGLA Staff for consultation.

COGCC Approved:

Director of COGCC

Date:

Attachment Check List

Att Doc Num **Name**

--	--

Total Attach: 0 Files

General Comments

User Group **Comment**

Comment Date

		Stamp Upon Approval
--	--	------------------------

Total: 0 comment(s)