

FORM  
2A

Rev  
02/20

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:

402376823

Date Received:

07/16/2020

Oil and Gas Location Assessment

☒ New Location ☐ Refile ☐ Amend Existing Location Location#: \_\_\_\_\_

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:

**479198**

Expiration Date:

**01/12/2024**

☐ This location assessment is included as part of a permit application.

CONSULTATION

- ☐ This location is included in a Comprehensive Drilling Plan. CDP # \_\_\_\_\_
- ☐ This location is in a sensitive wildlife habitat area.
- ☐ This location is in a wildlife restricted surface occupancy area.
- ☐ This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 47120

Name: KERR MCGEE OIL & GAS ONSHORE LP

Address: P O BOX 173779

City: DENVER State: CO Zip: 80217-3779

Contact Information

Name: TRACY COLLING

Phone: (720) 9296160

Fax: ( )

email: Tracy\_Colling@OXY.com

FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20010124 ☐ Gas Facility Surety ID (Rule 711): \_\_\_\_\_

☐ Waste Management Surety ID (Rule 704): \_\_\_\_\_

LOCATION IDENTIFICATION

Name: SBJ Number: 22-13HZ PAD

County: WELD

QuarterQuarter: SWNW Section: 13 Township: 4N Range: 68W Meridian: 6 Ground Elevation: 4861

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 2144 feet FNL from North or South section line

1065 feet FWL from East or West section line

Latitude: 40.315167 Longitude: -104.956905

GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 02/25/2020

Instrument Operator's Name: Travis Holland

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below. ☒ Yes ☐ No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location. ☒

The local government siting permit type is: 1041 WOGLA

The local government siting permit was filed on: 07/16/2020

The disposition of the application filed with the local government is: In Process

Additional explanation of local process:

1041 WOGLA has been submitted to Weld County and is in process.  
1041WOGLA20-0010.

## 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 #



## FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	<u>13</u>	Oil Tanks*	<u>0</u>	Condensate Tanks*	<u>1</u>	Water Tanks*	<u>4</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 Tanks	<u>0</u>
Pump Jacks	<u>13</u>	Separators*	<u>13</u>	Injection Pumps*	<u>0</u>	Cavity Pumps*		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>2</u>
Dehydrator Units*	<u>0</u>	Vapor Recovery Unit*		VOC Combustor*	<u>1</u>	Flare*	<u>0</u>	Pigging Station*	<u>0</u>

## OTHER FACILITIES\*

<u>Other Facility Type</u>	<u>Number</u>
AIR COMPRESSOR	<u>2</u>
TEMPORARY ECD	<u>9</u>
METER BUILDING	<u>2</u>
TEMPORARY PROPANE TANK	<u>1</u>
TEMPORARY GENERATOR	<u>1</u>
TEMPORARY 500 BBL TANKS	<u>24</u>
TEMPORARY PURGE FLARES	<u>3</u>

\*Those facilities indicated by an asterisk (\*) shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Please see comments for pipeline description.

## CONSTRUCTION

Date planned to commence construction: 02/01/2021 Size of disturbed area during construction in acres: 14.41  
Estimated date that interim reclamation will begin: 08/01/2021 Size of location after interim reclamation in acres: 3.86  
Estimated post-construction ground elevation: 4861

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H<sub>2</sub>S anticipated? No

Will salt sections be encountered during drilling: No

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

Will oil based drilling fluids be used? Yes

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

PLEASE SEE ATTACHED WASTE MANAGEMENT PLAN.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

Centralized E&P Waste Management Facility ID, if applicable: 149021

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: ANADARKO E&P ONSHORE LLC

Phone: \_\_\_\_\_

Address: PO BOX 173779

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: DENVER State: CO Zip: 80217

Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian

Check all that apply. The Surface Owner: ☐ is the mineral owner

☐ is committed to an oil and Gas Lease

☐ has signed the Oil and Gas Lease

☒ is the applicant

The Mineral Owner beneath this Oil and Gas Location is: ☒ Fee ☐ State ☐ Federal ☐ Indian

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

The right to construct this Oil and Gas Location is granted by: applicant is owner

Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_

Date of Rule 306 surface owner consultation \_\_\_\_\_

If this Form 2A is associated with Drilling and Spacing Unit applications, list docket number(s): \_\_\_\_\_

## CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: ☒ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☐ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): \_\_\_\_\_

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

**Future Land Use (Check all that apply):**

Crop Land: ☒ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☐ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): \_\_\_\_\_

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

## CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	648 Feet	906 Feet
Building Unit:	648 Feet	906 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	2133 Feet	2193 Feet
Above Ground Utility:	2122 Feet	2231 Feet
Railroad:	4797 Feet	5280 Feet
Property Line:	315 Feet	137 Feet
School Facility::	5280 Feet	5280 Feet
School Property Line:	5280 Feet	5280 Feet
Child Care Center:	5280 Feet	5280 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.  
- Enter 5280 for distance greater than 1 mile.  
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.  
- Building Unit, High Occupancy Building Unit, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.  
- For measurement purposes only, Production Facilities should only include those items with an asterisk(\*) on the Facilities Tab.

## SCHOOL SETBACK INFORMATION

Was Notice required under Rule 305.a.(4)? ☐ Yes ☒ No

## DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a:

- ☒ Buffer Zone  
☐ Exception Zone  
☐ Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.  
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.  
- Urban Mitigation Area - as defined in 100-Series Rules.  
- Large UMA Facility – as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 04/28/2020

## FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

☒ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on- or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*

☒ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

See attachment "OTHER" for siting rationale.

## SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 15 - COLBY LOAM, 1 TO 3 PERCENT SLOPES

NRCS Map Unit Name: 17 - COLBY LOAM, 5 TO 9 PERCENT SLOPES

NRCS Map Unit Name: 53 - OTERO SANDY LOAM, 5 TO 9 PERCENT SLOPES

### PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☐

Plant species from: ☐ NRCS or, ☐ field observation Date of observation: \_\_\_\_\_

List individual species:

#### Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- ☐ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- ☐ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- ☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- ☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- ☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- ☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- ☐ Alpine (above timberline)
- ☐ Other (describe): \_\_\_\_\_

## WATER RESOURCES

Is this a sensitive area: ☐ No ☒ Yes

Distance to nearest

downgradient surface water feature: 0 Feet

water well: 441 Feet

Estimated depth to ground water at Oil and Gas Location 13 Feet

Basis for depth to groundwater and sensitive area determination:

Ditch: 0' E Elev: 4860'

\*Little Thompson River: 286' S Elev: 4818'

Wetland: 294' WSW Elev: 4830'

Ditch: 379' NNW Elev: 4875'

Ditch: 401' N Elev: 4874'

Ditch: 502' ENE Elev: 4872'

\*Hillsboro Ditch: 515' SE Elev: 4829'

\*Current alignment of river and ditch

Loc Elev: 4861'

Nearest water wells:

441' WSW, Permit 33093-MH, depth unknown, Static Water Level unknown, Elev 4823'

899' E, Permit 213560-, depth 300', Static Water Level 20', Elev 4868'

Sensitive Area Determination: SENSITIVE AREA, downgradient surface water feature within 1,000' AND depth to groundwater less than 20'.

Location is NOT in floodplain according to Weld County and FEMA

(SWL calc:  $(4861 - 4868) + 20 = 13$ )

Is the location in a riparian area: ☒ No ☐ Yes

Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: \_\_\_\_\_

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

☒ Federal (FEMA)

☐ State

☒ County

☐ Local

☐ Other

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

## WILDLIFE

☐ This location is included in a Wildlife Mitigation Plan

☐ This location was subject to a pre-consultation meeting with CPW held on \_\_\_\_\_

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area
- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

## RULE 502.b VARIANCE REQUEST

- ☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

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

## OPERATOR COMMENTS AND SUBMITTAL

Comments	<p>PLEASE ENSURE ALL CORRESPONDENCE ASSOCIATED WITH THIS PERMIT GOES TO ANALYST AND DJREGULATORY EMAIL ADDRESSES, AS LISTED ON THIS PERMIT.</p> <p>Construction and interim reclamation start dates contained in this Form 2A are preliminary and subject to change based off future operational schedules.</p> <p>Temporary Equipment: Two 500-barrel skid-mounted frac tanks will be temporary placed onsite for use of pre-spud rig only. One tank will store water and the other will store water-based mud. A temporary ECD may be utilized during drilling. Twenty two (22) temporary 500-barrel skid-mounted frac tanks will be utilized during flowback and initially for produced water. It is estimated the eight temporary ECDs and the temporary tanks will be on location for 9 - 12 months and will be removed as water production declines. A temporary generator may be placed on location if needed and would be in place until electric power is available. Three temporary purge flares may be placed on location for up to 60 days. The temporary 250-gallon propane tank will be used on location to provide fuel during facility equipment start up.</p> <p>Comment 1: The existing ditch that runs through the proposed SBJ 22-13HZ well and facility pad will be eliminated . This ditch will not require an Army Corp of Engineering Section 404 permit, and is not jurisdictional. No permitting is required with USACE.</p> <p>Comment 2: Buried pipelines will be utilized to gather the gas and oil product from the location (3 gas pipelines, 1 oil pipeline). Both gas and oil pipelines will be constructed from steel of suitable wall thickness and material grade to meet the respective gathering systems design pressure. Gas pipelines will range in diameter from 4" to 20"; oil pipelines from 4" to 12". Capacity of pipelines will vary based on diameter. Pipelines will begin at the location and terminate at larger trunk lines in the area.</p> <p>Comment 3: Temporary above ground polyethylene water pipelines (diameter 10" - 12" with a 60 BPM capacity) will deliver water to location operations from larger trunk lines.</p> <p>Comment 4: 13 flow lines will flow to the production facility location. During production, flow direction in the flow lines is from the wellhead to the production facility. The size of flow lines is typically 2". Flow lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the production facility.</p> <p>Comment 5: 13 compressed air supply lines will also be installed from the well head to the production facility. During operation flow direction in the supply lines will be from the production facility to the well head. The size of the supply lines is typically 1 ". Supply lines will be constructed from steel pipe, buried, and will equal the distance between the well head and the production facility.</p> <p>Comment 6: Gas lift lines are also occasionally installed (one per well) from the well head to the production facility. During operation flow direction in the gas lift lines will be from the production facility to the well head. The size of the gas lift lines is typically 2". Gas lift lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the tank battery.</p> <p>Comment 7: Gas custody transfer occurs at the custody transfer meter located on the proposed production facility location. Oil custody transfer occurs at the LACT Unit on the proposed production facility location into a pipeline owned by a third party.</p> <p>See attachment "OTHER" for details of cultural distances from permanent and temporary equipment.</p>
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I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: \_\_\_\_\_ Date: 07/16/2020 Email: DJREGULATORY@ANADARKO.COM

Print Name: TRACY COLLING Title: SR REGULATORY ANALYST

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: 1/13/2021

### **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.**

<b><u>COA Type</u></b>	<b><u>Description</u></b>
Construction	This Form 2A has been approved prior to commission approval of the Drilling and Spacing Unit and the Wellbore Spacing Units (WSU). If the final agency action is denial of the DSU and WSU then the operator shall abandon this Oil and Gas Location by submitting a Form 4 Sundry within 45 days of the agency denial; however, if Location construction has commenced, then the Location will be immediately subject to final reclamation.
Noise mitigation	Noise: Prior to commencement of construction operations, Operator will submit via Form 4, Sundry Notice for Director approval of a noise mitigation plan. The plan will describe how the Operator will achieve compliance with Rule 423, as adopted by the Commission on November 23, 2020.
General Housekeeping	Lighting: Prior to commencement of construction operations, Operator will submit via Form 4, Sundry Notice for Director approval of a lighting mitigation plan. The plan will describe how the Operator will achieve compliance with Rule 424, as adopted by the Commission on November 23, 2020.
Odor mitigation	Odor: Prior to commencement of construction operations, Operator will submit via Form 4, Sundry Notice for Director approval of an odor mitigation plan. The plan will describe how the Operator will achieve compliance with Rule 426, as adopted by the Commission on November 23, 2020.
Dust control	Dust: Prior to commencement of construction operations, Operator will submit via Form 4, Sundry Notice for Director approval of a dust mitigation plan. The plan will describe how the Operator will achieve compliance with Rule 427, as adopted by the Commission on November 23, 2020.
Construction	Operator shall post a copy of the approved Form 2A on Location during construction, drilling, and completions operations.
Planning	Air Monitoring: Operator will not begin well drilling operations on the location until an Air Monitoring Plan has been submitted to the COGCC via Form 4, Sundry notice and approved by the Director. The plan will address background air monitoring, air monitoring during drilling, completion, and 1 full year of production operations. The plan will include provisions for meteorological monitoring, notification, and reporting. The plan will describe monitoring methods, monitoring locations, and quality assurance/quality control.

### **Best Management Practices**

<b><u>No</u></b>	<b><u>BMP/COA Type</u></b>	<b><u>Description</u></b>
1	Planning	Access Roads: KMG will utilize a new access road off of CR 46 for construction development and production operations, including maintenance operations. KMG has submitted a Weld County access permit application with the WOGLA application. The access road will be properly maintained to accommodate for local emergency vehicle access.

2	Planning	KMG holds Surface Impact Planning (SIP) meetings for each planned location. These meetings are attended by KMG internal teams. This is a multi-disciplinary team including construction, operations, facilities, EHS, stakeholder relations, regulatory, surface land and mitigation. The team reviews potential impacts to surrounding residents, identifies and plans for necessary mitigations, and identifies BMPs that should be included in the pad development moving forward. The team reviews noise, odor, lights, traffic, haul routes, rig orientation and visual mitigation and any input we have received from surrounding communities either from response line calls or community meetings, relative to our operations. The purpose of the meeting is to proactively identify potential concerns, exhaust possible options and provide best in class solutions in order to have compatible operations.
3	Community Outreach and Notification	Courtesy Notifications will be sent to stakeholders within one mile of the proposed location prior to construction, drilling / completions operations, providing contact information for the Occidental's Colorado Response Line and online resources. A COGCC health study fact sheet was mailed to the residential building units within 2000 feet of the location during COGCC review of the Form 2A.
4	Traffic control	Traffic Plan: Prior to the commencement of operations, the operator will obtain access permits per Weld County regulations and use haul routes approved in the WOGLA permit.
5	General Housekeeping	Loadlines: All loadlines shall be bullplugged or capped.
6	General Housekeeping	Removal of Surface Trash: A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation. Upon completion of operations, the commercial trash bin will be removed from the location and disposed of in an appropriate manner.
7	General Housekeeping	Lighting: Site lighting shall be shielded and directed downward and inward toward operations to avoid glare on public roads and nearby Building Units. A 32-foot tall wall will also be erected along the north, east and partially along the west and south sides of the drilling pad to minimize the impact of light glare.
8	Storm Water/Erosion Control	KMG will create tertiary containment around the well pad and facility by constructing a berm/ditch around the oil & gas location with sediment traps to further protect adjacent water features. A culvert is proposed at the access road for ditch 0' to the northwest. The natural grade at this proposed location slopes gently from north to south. Once graded the well pad will be sloped 0.5% to the southwest and northeast from approximately the center of the well pad. The ditch/berm will be engineered to contain and divert runoff around the pad. The ditch/berm will direct flow from north to south through two sediment catch basins.
9	Storm Water/Erosion Control	Site-Specific Measures: During active construction, drilling, and completions, with personnel on location, daily inspections will occur. During non-active, but while under construction, site inspections will occur every 14 days or after major rain events. When construction is completed and the location is on production, site inspections will occur every 28 days with additional inspections after major rain events. During construction, stormwater features will be checked more frequently (up to daily, depending on the intensity of construction activity). These construction checks will not be formally documented, since they occur as part of construction oversight, and minor issues will be corrected with no further documentation. If and when larger issues are noted in these construction checks, the associated corrective actions would be documented.
10	Material Handling and Spill Prevention	Berm Construction: A geosynthetic liner will be laid under the long-term tanks on this location and a metal containment will be constructed. Secondary containment devices will be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for 150% of the largest single tank. Secondary containment devices shall be inspected at the same time as stormwater inspections, with personnel on location, daily inspections will occur. During non-active, but while under construction, site inspections will occur every 14 days. When construction is completed and the Location is on production, site inspections will occur every 28 days.

11	Material Handling and Spill Prevention	<p>Temporary produced water storage tanks shall be designed, constructed, and maintained in accordance with the following portions of the National Fire Protection Association (NFPA) Code 30 (2008 version):</p> <p>1) Tanks are built to engineering standards using noncombustible materials, with relief device sizing based on API 2000 standards.</p> <p>2) Tanks are inspected and maintained while in use.</p> <p>3) The only pipes within the containment are related to the temporary tanks (i.e. no external piping is colocated within the containment), and firefighting equipment is likewise not stored within the containment area.</p> <p>4) Drill cuttings will not remain in storage at the oil and gas location for more than a 24 hours period. Disposal will occur before the end of the 24 hours period.</p>
12	Material Handling and Spill Prevention	<p>Leak Detection Plan: Automation technology will be utilized at this facility. This technology includes the use of fluid level monitoring for the tanks and produced water sumps, high-level shut offs, and electronic sensors to monitor the interstitial space of double-walled produced water sumps. All automation is monitored by KMG's Integrated Operations Center (IOC), which is manned 24 hours per day, 7 days per week.</p>
13	Material Handling and Spill Prevention	<p>Berm Construction: The temporary produced water storage tanks will be staged on a geosynthetic liner and surrounded by an earthen berm. The berms shall enclose an area sufficient to provide secondary containment for 150% of the volume of the largest single tank and shall be sufficiently impervious to contain spilled or released material. Berms and the liner shall be inspected at the same time as stormwater inspections, with personnel on location, daily inspections will occur. During non-active, but while under construction, site inspections will occur every 14 days. When construction is completed and the location is on production, site inspections will occur every 28 days.</p>
14	Material Handling and Spill Prevention	<p>Pit Level Indicators: All storage tanks used for active drilling operations (used in lieu of pits) contain pit level monitors with Electronic Drilling Recorders (EDR). KMG uses EDRs with pit level monitor(s) and alarm(s) for production rigs. Basic level gauges are used on tanks utilized for the surface rig</p>
15	Material Handling and Spill Prevention	<p>Berm Construction - Separators: All separators will have secondary containment in the form of a 22-inch steel berm will be constructed and buried 13-inches with the remaining 9-inches exposed above grade. The seams and penetrations of the berm are sealed. This shall be inspected at the same time as stormwater inspections, with personnel on location, daily inspections will occur. During non-active, but while under construction, site inspections will occur every 14 days. When construction is completed and the Location is on production, site inspections will occur every 28 days.</p>
16	Material Handling and Spill Prevention	<p>All piping is pressure tested and inspected for leaks prior beginning flowback. During the entirety of flowback piping is visually inspected for fluid leaks throughout the 24 hour operation. Once the wells have been turned over to production (oil, gas and water through the facility) produced water will be diverted to the temporary tanks south of the production facility until the tanks are no longer needed. The pipelines connecting to the temporary 500 bbl tanks will be buried. Prior to produced water being transported through the pipe pressure tests will confirm pipe integrity.</p>
17	Dust control	<p>Dust: Water will be placed on unpaved roads to mitigate dust.</p>
18	Construction	<p>Fencing Requirements: The completed wellsites will be surrounded with a fence and gate with adequate lock to restrict access to authorized personnel only. KMG personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or KMG personnel shall be on-site during drilling and completion operations.</p> <p>At the request of the Front Range Fire Rescue the gate and fence surrounding the completed wellsite and production facility will be secured with a Knox Padlock that is keyed to the Front Range Fire Rescue system.</p>
19	Noise mitigation	<p>Noise: Sound walls will be placed along the north, east and partially along the west and south sides of the drilling pad prior to drilling and completions operations to dampen noise and minimize impact to the nearby residences during drilling and completions.</p> <p>Quiet completions fleet will be used for completions operations.</p>

20	Emissions mitigation	Temporary ECD(s) will be utilized to mitigate releases of emissions from temporary produced water storage tanks for the duration which the tanks are on location and being used.
21	Emissions mitigation	Kerr-McGee will conduct air monitoring consisting of continuous VOC analyzers, carbon sorbent tubes and Summa canisters at the subject location. Monitoring will be conducted during pre-production operations. Kerr-McGee will provide air monitoring results to COGCC upon request.
22	Emissions mitigation	Operator will provide air emissions monitoring to detect fugitive emissions at the production facility based upon a plan approved by the Director which will contain, at a minimum, the following conditions. A two-week baseline test will be conducted prior to the start of drilling. The monitors will be placed in proximity of the production facility and will remain in place from the beginning of drilling through production. One month following the initial thirty-day period after drilling commenced, a data summary report will be provided to the COGCC, which will include the first 30 days from the start of drilling, as well as the two-weeks of baseline data. Thereafter, monthly reports will be provided and submitted to the COGCC on a monthly basis for a duration of no less than one year, at which point, Operator may suspend further monitoring, upon approval of the Director and a finding by the Director that such monitoring is no longer necessary to protect public health, safety, welfare, the environment and wildlife resources. The air emissions monitoring will be performed by a third party.
23	Odor mitigation	805.b. Odor Mitigation. Additional BMPs for this location are: 1) Storage of excess drilling fluid (e.g., fluid not being used in the active mud system) in closed, upright tanks. 2) Drill cutting will be run through a centrifugal dryer to minimize odor during temporary time on location and during transport to disposal. 3) Odor neutralizer will be used in the active mud system for management of odors within 24 hours of receipt of a stakeholder grievance. 4) Drill cuttings will not remain in storage at the oil and gas location for more than a 24 hours period. Disposal will occur before the end of the 24 hour period.
24	Drilling/Completion Operations	KMG currently plans to use the water-on-demand system on this location which is a network of over 180 miles of underground pipeline that stretches the length of the 20-mile by 30-mile field to source and transport water to completions crews. This system eliminates more than 2,000 truck trips per day field-wide, while also reducing associated concerns of traffic, noise, emissions and dust.
25	Drilling/Completion Operations	Green Completions: Test separators and associated equipment shall be installed on-site to accommodate green completion techniques. When commercial quantities of salable gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, KMG shall not produce the wells without an approved variance per Rule 805.b.(3)C.
26	Final Reclamation	Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned.

Total: 26 comment(s)

## Attachment List

<u>Att Doc Num</u>	<u>Name</u>
2316655	RULE 306.E. CERTIFICATION
2316656	CORRESPONDENCE
2316657	OBJECTIVE CRITERIA REVIEW MEMO
2316661	CORRESPONDENCE
2316679	OTHER
2316680	WAIVERS
2316683	OTHER
402376823	FORM 2A SUBMITTED
402396250	FACILITY LAYOUT DRAWING
402396252	WELL LOCATION PLAT
402396285	NRCS MAP UNIT DESC
402396289	LOCATION DRAWING
402396291	MULTI-WELL PLAN
402396294	LOCATION PICTURES
402397740	PRE-APPLICATION NOTIFICATION CERTIFICATION
402436177	HYDROLOGY MAP
402439248	WASTE MANAGEMENT PLAN
402443594	ACCESS ROAD MAP
402445067	OTHER

Total Attach: 19 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	final review completed	01/11/2021
OGLA	Final review identified the document "OTHER" with the cultural setbacks from equipment did not match the form 2A. Operator provided a revised document and replaced with doc no 2316683 "OTHER"	01/11/2021
OGLA	COGCC staff reviewed and considered all public comments received for this Form 2A.	01/07/2021
OGLA	Under the surface&minerals section, applicant is mineral owner was not checked, Operator requested Oil and Gas lease boxes be unchecked per permitting review.	01/04/2021
OGLA	The Objective Criteria Review Memo (Doc#2316657) is attached to this Form 2A. Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	12/30/2020
OGLA	Added COAs for nuisance mitigation and air monitoring BMP as agreed to by the Operator.	12/30/2020
OGLA	Operator responded on 11/12/2020 with waiver from nearest Building Unit owner (attached doc no 2316680) and additional ALA information (attached as OTHER doc no 2316679). Move to In Process and COGCC review will be conducted within 60 days (01/11/2021)	12/21/2020
OGLA	Director review - Request additional Alternative Location Analysis and request signed waivers from Building Unit owners - place Form 2A On Hold.	11/09/2020
OGLA	Spoke with Operator on 10/21 regarding neighboring Building Unit. Location will go before Weld County commission with a signed waiver from the Building Unit owner. On 10/22/2020, Operator received approval by Weld County for Location regarding the distance to neighboring Building Unit. Operator provided updated updated BMP for internal meeting process and air monitoring BMP - added to 2A.	11/06/2020

OGLA	<p>Operator had a hearing in Weld County regarding the location and provided the following information on 10/22/2020: "KMG received local disposition of approval from Weld County Oil &amp; Gas Energy Department (OGED) for the SBJ WOGLA (WOGLA20-0010). KMG provided an executed Setback Waiver and Informed Consent to the county as part of the WOGLA approval."</p> <p>Updated BMPs for multi-disciplinary meeting and added air monitoring BMP per Operator request.</p>	11/06/2020
OGLA	<p>Operator provided revised 306.e. letter - attached - with information regarding meeting with resident to the east of the proposed location. IN PROCESS – received requested information from Operator on 9/4/20; COGCC review will resume and be conducted within 60 days (by 11/3/2020). The document labeled "Other" (402440504) with the cultural distances has the High Occupancy Building Unit at an incorrect distance. Correspondence doc no 2316656 explains the discrepancy.</p>	09/04/2020
OGLA	<p>COGCC staff conducted its technical review of this Form 2A Oil and Gas Location Assessment within the context of SB 19-181 and the required Objective Criteria. This Form 2A met Objective Criteria # 1 - within 1,500 feet of building units, #3 - with 1,500 feet of a municipality, and #5.c. for sensitive water environment. Comment in the 306.e. letter was unclear - request more information. Leave On Hold.</p>	09/03/2020
OGLA	<p>Operator responded on 8/26 (correspondence attached). Operator reached out to the town of Berthoud and sent health notices to all residence within 2,000 feet of the Location. A Building Unit was mis-identified as a high occupancy building unit - changed distance to 5,280 feet.</p>	09/03/2020
OGLA	<p>ON HOLD: This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is placing this form ON HOLD until additional information is received from the applicant.</p>	08/25/2020
OGLA	<p>In compliance with § 24-65.1-108(1), C.R.S., the COGCC is providing this written request for all additional information necessary for the COGCC to respond to this application. The applicant may provide all requested additional information to COGCC via email. Upon receipt of all requested information, the COGCC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review. If the applicant no longer requires this application be approved, the applicant may request to withdraw the application. In addition to all standard required information and attachments, the COGCC hereby confirms the following information is necessary for review: 1. Confirmation on the distance to the High Occupancy Building Unit and School Facility 2. Request information on where the location is at in the WOGLA process. 3. The Location is near the Town of Berthoud, request information on communication with the municipality 4. The public comment period has ended, request 306.e. certification.</p>	08/25/2020
LGD	<p>This proposed oil and gas location is situated in the Agricultural Zone District of unincorporated Weld County. A 1041 Weld Oil and Gas Location Assessment (WOGLA) is required prior to constructing any improvements related to oil and gas exploration and production.</p> <p>The operator has applied for a WOGLA, and their application is under review. This application has been assigned the file number 1041WOGLA20-0010. All application files are viewable online through Weld County's E-Permit Center. A hearing will be scheduled for 1041WOGLA20-0010 before the Weld County Oil Gas Hearing Officer when the application has been deemed complete.</p> <p>A building permit is required for the production facilities (tank battery, separators, pump jacks, compressors, generators, etc.) from the Department of Planning Services. Access points from County roads require an Access Permit from the Department of Public Works, which includes any necessary traffic control plans and Improvement Agreements. The use of County right-of-way requires a permit from the Department of Public Works.</p> <p>Jason Maxey Director, Oil Gas Energy Department and LGD</p>	07/28/2020

Total: 16 comment(s)