

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:

402069851

Date Received:

11/21/2019

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:

479197

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: 10243

Name: GMT EXPLORATION COMPANY LLC

Address: 1560 BROADWAY STE 2000

City: DENVER State: CO Zip: 80202

Contact Information

Name: Whitney Lancaster

Phone: (303) 586 9289

Fax: (720) 946 3034

email: w.eberhardt@gmtexploration.com

FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID (Rule 706): 20070102 Gas Facility Surety ID (Rule 711): _____

Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: Marble-Redstone Number: Pad

County: ELBERT

Quarter: NESW Section: 24 Township: 6S Range: 65W Meridian: 6 Ground Elevation: 6277

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: 1527 feet FSL from North or South section line

1888 feet FWL from East or West section line

Latitude: 39.510864 Longitude: -104.617644

GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 04/25/2019

Instrument Operator's Name: Dominick Davis

LOCAL GOVERNMENT INFORMATION

County: ELBERT Municipality: N/A

CONSTRUCTION

Date planned to commence construction: 06/01/2021 Size of disturbed area during construction in acres: 14.30
Estimated date that interim reclamation will begin: 11/29/2021 Size of location after interim reclamation in acres: 10.80
Estimated post-construction ground elevation: 6277

DRILLING PROGRAM

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

Is H₂S 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:

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Bill and Elaine Gabriel Phone: Family Trust

Address: 44980 County Road 1 Fax:

Address: Email:

City: Parker State: CO Zip: 80138

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: Surface Use Agreement

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:	3342 Feet	2957 Feet
Building Unit:	3530 Feet	3126 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	4064 Feet	3602 Feet
Above Ground Utility:	3647 Feet	3255 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	1436 Feet	793 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: _____

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.

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: 6 - Bresser_sandy_loam_cool_5_to_9_percent_slopes

NRCS Map Unit Name: 9 - Bresser-Truckton_sandy_loams_8_to_25_percent_slopes

NRCS Map Unit Name: 43 - Weld_loam_0_to_4_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: 04/25/2019

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: 904 Feet

water well: 275 Feet

Estimated depth to ground water at Oil and Gas Location 130 Feet

Basis for depth to groundwater and sensitive area determination:

Location is not sensitive due to adequate distance to surface water and depth to groundwater.
Depth to groundwater taken from water well Permit #158187.

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 609

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 No Facility Layout required since no building units within 1000' buffer zone.
 No Waste Management Plan required since no building units within 1000' buffer zone and not in GWA.
 Grading Plan submitted as Construction Layout Drawing since pad location has sloped >10%.

MLVT Information:
 Manufacturer: Hydrologistics
 Count: One (1)
 Size: 180' Diameter
 Volume: 54,039 bbls
 Estimated Time on Location: 5 Weeks

Location is not in buffer zone, but BMP's contain 604.(c) citations for standards that will still be met.

Between the compressors on the location and the closest houses to the south and southwest, there is fifteen to twenty feet of elevation gain. This will block the direct line between the compressors and the houses, reducing potential sound impacts.

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

Signed: _____ Date: 11/21/2019 Email: regulatory@ascentgeomatics.com

Print Name: Justin Garrett Title: 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.

<u>COA Type</u>	<u>Description</u>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Traffic control	Access roads will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times.
2	General Housekeeping	General Housekeeping: 804. Visual Impacts: All long term facility structures will be painted a color that enables the facilities to blend in with the natural background color of the landscape, as seen from a viewing distance and location typically used by the public. Maintain appearance with garbage clean-up; a trash bin will be located on site to accumulate waste by the personnel drilling the wells. The Pad Site will have unused equipment, trash, and junk removed immediately. The operator will maintain the surface area and access roads free of trash, debris, and noxious weeds.
3	General Housekeeping	Trash Removal: All trash, debris, and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as applicable.
4	Storm Water/Erosion Control	Storm Water/Erosion Control: Operator will implement and maintain Best Management Practices, including diversion ditches, sediment basins, and ponds as indicated on the construction layout drawings, to control stormwater runoff in a manner that minimizes erosion, transport of sediment off-site, and site degradation. The operator will co-locate gas and water gathering pipelines whenever feasible and will mitigate any erosion problems that arise due to the construction of any pipelines.
5	Material Handling and Spill Prevention	Pumper will visit the location daily and visually inspect all wellheads, tanks and fittings to identify leaks. Additionally, recorded inspections will be conducted once a month.
6	Material Handling and Spill Prevention	The production facility will have remote monitoring capability. In the event of an emergency, an immediate emergency shutdown of the entire facility can be done locally or remotely, in addition to the automatic emergency shutdowns incorporated into the continuous monitoring system

7	Construction	<p>Operator will have an MLVT Design Package, certified and sealed by a licensed professional engineer, which is on file in their office and available upon request. The site shall be prepared in accordance with the specifications of the design package prior to tank installation; including ensuring that proper compaction requirements have been met.</p> <p>The MLVT will be at least 75 feet from a wellhead, fired vessel, heater-treater, or a compressor with a rating of 200 horsepower or more. It will be placed at least 50 feet from a separator, well test unit, or other non-fired equipment.</p> <p>All liner seams will be welded and tested in accordance with applicable ASTM international standards.</p> <p>Operator will be present during initial filling of the MLVT and the contractor will supervise and inspect the MLVT for leaks during filling.</p> <p>Operator will comply with the testing and re-inspection requirements and associated written standard operating procedures (SOP) listed on the design package. Signs will be posted on the MLVT indicating that the contents are freshwater. The MLVT will be operated with a minimum of 1 foot of freeboard at all times. Access to the MLVT will be limited to operational personnel and authorized regulatory agency personnel.</p> <p>Operator or contractor will conduct daily visual inspections of the exterior wall and surrounding area for integrity deficiencies.</p> <p>Operator will have a contingency plan/emergency response plan associated with the MLVT and it is on file at their office.</p> <p>A fabric reinforced liner will be utilized. In the event that a tank breach were to occur, the fabric reinforced liner will prevent a “zippering” failure from occurring. The liner will meet the specifications per the design package.</p> <p>Operator acknowledges and will comply with the Colorado Oil & Gas Conservation Commission Policy on the Use of Modular Large Volume Tanks in Colorado dated June 13, 2014.</p>
8	Construction	<p>Berm Construction. Tank berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition. Secondary containment devices shall be sufficiently impervious to contain any spilled or released material. Secondary containment will be installed around separators consisting of metal berm walls. The separators will be set on top of compacted road base.</p>
9	Construction	<p>Light sources during all phases of operations will be directed downwards and away from occupied structures where possible. Once the drilling and completion rigs leave the site, lighting usually exists on the entrance/exit doors to the LACT units and Instrument Air skids, all for safety. The light fixtures will be “shine down” with appropriate shields.</p>
10	Construction	<p>Unauthorized access into location will be restricted by the use of a lockable gate, fencing, or a combination of the two dependant on the requirements of the surface owner.</p>
11	Emissions mitigation	<p>Green Completions - Flow lines, separators, sand traps, and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality 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, the operator shall not produce the wells without an approved variance per Rule 805.b. (3)C.</p>

12	Odor mitigation	<p>GMT will use Group II drilling fluids, consisting of low-toxicity mineral oil and distillate products with an aromatic content of 0.5%-5%. If odor complaints are received and it is determined that they are caused by the drilling fluids, then an odor neutralizing agent or similar product will be added to the system to eliminate the odor.</p> <p>Hydrocarbon odors from production facilities are minimized and eliminated by keeping produced fluid hydrocarbons and natural gas contained within pipes, separators, tanks, and combustors. All tanks will be sealed with thief hatches and gaskets. Tank vapors are captured with properly sized piping and combustors.</p>
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Total: 12 comment(s)

Attachment List

Att Doc Num	Name
1347840	OBJECTIVE CRITERIA REVIEW MEMO
2479230	CORRESPONDENCE
402069851	FORM 2A SUBMITTED
402244661	ACCESS ROAD MAP
402244662	HYDROLOGY MAP
402244663	LOCATION DRAWING
402244664	LOCATION PICTURES
402244665	REFERENCE AREA MAP
402244666	REFERENCE AREA PICTURES
402244667	NRCS MAP UNIT DESC
402244668	NRCS MAP UNIT DESC
402244669	NRCS MAP UNIT DESC
402244673	MULTI-WELL PLAN
402244679	SURFACE AGRMT/SURETY
402245560	CONST. LAYOUT DRAWINGS

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	DSUs approved via spacing orders 535-1131 and 535-1187. Updated interim reclamation date typo from 11/29/2020 to 11/29/2121.	01/13/2021
OGLA	Final Review - OGLA added clarifying comment for cultural distances and BMPs. Final review complete and task passed.	01/13/2021
OGLA	Several Cultural Distances appear to be taken from the edge of the proposed Location and as such are overconservative. Removed Noise BMP due to distance to Building Units and topography.	01/13/2021
OGLA	Final Review - question on cultural distances and BMPs from correspondence. Contact OGLA who conducted the technical review.	01/12/2021
OGLA	The Objective Criteria Review Memo (Doc#1347840) 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.	12/22/2020
OGLA	Access road questions answered and remote monitoring and shutoff added to Form.	05/04/2020
OGLA	Inspection BMP revised. Superfluous BMPs removed. Awaiting language on a remote monitoring/shutoff BMP and access road questions.	03/20/2020
OGLA	Requested revision to inspection BMP and information about access road routing related to a potential wetland. Requested elimination of superfluous BMPs.	03/19/2020
OGLA	Response received from operator that the road in question is private, so no update to the cultural distances is needed.	03/06/2020
OGLA	Operator provided concurrence by phone to move portion of sound mitigation involving topography to submittal comments and to revise the noise mitigation BMP. Operator provide concurrence to revise multiple BMPs. Updated correspondence attached.	03/05/2020
OGLA	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 #8.	03/02/2020
OGLA	Per email correspondence and phone conversations with operator, tank sizes received, cut slope and hill side are 15-20 feet between location and closest houses, GPS coordinate received, secondary containment BMP expanded, downgradient surface water changed, 604 reference in submittal comment removed, requested BMP updates received. Awaiting cultural distance to nearest public road.	02/25/2020
OGLA	Request sent to operator for updates on: tank sizes, cut slope for sound mitigation, pipeline takeaway, drilling mud/odor, GPS coordinate of corner of pad, construction in Section 25, additional secondary containment BMP, updated downgradient surface water, submittal comment update, multiple BMPs: Stormwater, SPCC, Noise, Green Completions, Inspections, Odor Mitigation, Interim Reclamation.	02/10/2020
OGLA	This Form has passed completeness. Contacted operator by email regarding operator contact last name change.	11/25/2019

Total: 14 comment(s)