

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:

402245599

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:

**479191**

Expiration Date:

**01/11/2024**

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: ( )

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: Crystal-Ruby    Number: Pad

County: ELBERT

Quarter: NESE    Section: 22    Township: 6S    Range: 65W    Meridian: 6    Ground Elevation: 6178

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: 1932 feet FSL from North or South section line

838 feet FEL from East or West section line

Latitude: 39.512209    Longitude: -104.645752

GPS Quality Value: 1.7    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: 11.70  
Estimated date that interim reclamation will begin: 12/01/2021 Size of location after interim reclamation in acres: 8.00  
Estimated post-construction ground elevation: 6178

## 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:

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:	883 Feet	825 Feet
Building Unit:	2084 Feet	1662 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	2564 Feet	2142 Feet
Above Ground Utility:	936 Feet	895 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	719 Feet	790 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: 32 - Nunn clay loam, 0 to 4 percent slopes

NRCS Map Unit Name: 6 - Bresser sandy loam, cool, 5 to 9 percent slopes

NRCS Map Unit Name: \_\_\_\_\_

**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: 37 Feet

water well: 799 Feet

Estimated depth to ground water at Oil and Gas Location 70 Feet

Basis for depth to groundwater and sensitive area determination:

Location is sensitive due to proximity to intermittent stream.  
Depth to groundwater taken from water well permit #230548-A

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

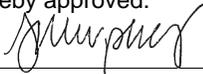
Location is not in buffer zone, but BMP's contain 604.(c) citations for standards that will still be met.

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: 1/12/2021

**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.**

**COA Type****Description**

Dust control	Prior to commencement of construction operations, Operator will submit a dust mitigation plan via Form 4, Sundry Notice, for Director approval. The plan will describe how the Operator will achieve compliance with Rule 427, as adopted by the Commission on November 23, 2020.
Odor mitigation	Prior to commencement of construction operations, Operator will submit an odor mitigation plan via Form 4, Sundry Notice, for Director approval. The plan will describe how the Operator will achieve compliance with Rule 426, as adopted by the Commission on November 23, 2020.
Planning	Visual: Prior to commencement of construction operations, Operator will submit a visual mitigation plan, via Form 4, Sundry Notice, for Director approval. The plan will describe how the Operator will achieve compliance with Rule 425, as adopted by the Commission on November 23, 2020.
Planning	Lighting: Prior to commencement of construction operations, Operator will submit a lighting mitigation plan via Form 4, Sundry Notice, for Director approval. The plan will describe how the Operator will achieve compliance with Rule 424, as adopted by the Commission on November 23, 2020.
Noise mitigation	Prior to commencement of construction operations, Operator will submit a noise mitigation plan via Form 4, Sundry Notice, for Director approval. The plan will describe how the Operator will achieve compliance with Rule 423, as adopted by the Commission on November 23, 2020.
Material Handling and Spill Prevention	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**

No BMP/COA Type	Description
1 Traffic control	Access Roads: Operator will comply with COGCC Rules 604 c (2) E, and 604 c (2) S. 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	General Housekeeping: Trash Removal: All trash, debris, and material not intrinsic to the operation of the oil and gas facility will be removed and legally disposed of as applicable.
4 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. The site will be graded such that it drains to the proposed drainage pond in the NE corner of the location.
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 &amp; Gas Conservation Commission Policy on the Use of Modular Large Volume Tanks in Colorado dated June 13, 2014.</p>

8	Construction	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.
9	Construction	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.
10	Noise mitigation	Temporary operations – Baseline sound/noise surveys will be completed at the pad. Sound walls or hay bales may be used to shield sensitive areas during drilling operations will be considered and implemented according to third-party recommendations.
11	Emissions mitigation	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.
12	Odor mitigation	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.  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.
13	Interim Reclamation	The operator shall be responsible for segregating the topsoil, backfilling, re-compacting, reseeding, and re-contouring the surface of any disturbed area so as not to interfere with the Owner's operations and shall reclaim such area to be returned to pre-existing conditions as best as possible with control of all noxious weeds.

Total: 13 comment(s)

### Attachment List

<b>Att Doc Num</b>	<b>Name</b>
1347841	OBJECTIVE CRITERIA REVIEW MEMO
402245599	FORM 2A SUBMITTED
402245749	SURFACE AGRMT/SURETY
402245750	CONST. LAYOUT DRAWINGS
402245751	MULTI-WELL PLAN
402245752	ACCESS ROAD MAP
402245753	HYDROLOGY MAP
402245754	LOCATION DRAWING
402245755	LOCATION PICTURES
402245756	REFERENCE AREA MAP
402245758	REFERENCE AREA PICTURES
402245760	NRCS MAP UNIT DESC
402245762	NRCS MAP UNIT DESC

Total Attach: 13 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	DSUs have been approved via spacing orders 535-1186 and 535-1184.	01/12/2021
OGLA	OCRM distance confirmed and Operator confirmed communication with residents within 2,000 feet of the Location. Updated construction dates and interim reclamation dates to 2021 vs. 2020 based on previous conversations with the Operator.  Final Review Complete and task passed.	01/12/2021
OGLA	Received confirmation that Operator sent Health Study Notices to residents within 2,000 ft of Location.	01/11/2021
OGLA	Final review - question on Objective Criteria review memo and communication with building unit residents within 2,000 feet of the location.	01/11/2021
OGLA	Duplicate BMPs removed with Operator concurrence.	01/08/2021
OGLA	The Objective Criteria Review Memo (Doc#1347841) 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.	01/05/2021
OGLA	Based on correspondence with operator, updated multiple BMPs.	11/19/2020
OGLA	This Form has passed completeness.	11/26/2019

Total: 8 comment(s)