

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	GCC Three Forks Exploration Holes
Proposed Implementation Date:	Fall 2019
Proponent:	GCC Three Forks, LLC., 4070 Trident Road Three Forks, MT 59752 Ph: 285-4561
Location:	N2NE4, Section 10 – T16N-R10E (Common School Trust) N2NW4, Section 11 – T16N-R10E (Common School Trust) Judith Basin

I. TYPE AND PURPOSE OF ACTION

The proponent, GCC Three Forks, LLC, has applied to the DNRC for a Land Use License to conduct exploratory drilling for gypsum of 6 drill holes on Section 11 (N2NW4) and for approval to conduct exploratory drilling of 6 additional drill holes in Section 10 (N2NE4) on their existing gypsum lease, NM-2011-18. GCC proposes to drill to depths of up to approximately 25-100', to seal the drill holes with cement when finished drilling, and to complete geologic mapping, and surveying. Drilling is estimated to proceed at a rate of 5 holes per day. Motorized vehicles required for drilling operations would be allowed to access the drilling sites off the existing roads provided the most direct route is utilized. Three vehicles would be necessary at each drill site: a pick-up truck, a water tender, and a rubber-track drilling vehicle. Motorized vehicles required for additional work, such as mapping and surveying, would be restricted to existing roads.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

MMB Petroleum Engineer, Trevor Taylor, and Mineral Resource Specialist, Bryan Allison, conducted a field review in August 2019. Scoping was performed by contacting Lessees, the Montana Natural Heritage Program, DNRC Land Use Specialist, Dustin Lenz, and Patrick Rennie, Montana DNRC Archaeologist.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

An Exploration License is required by the Montana DEQ's Hard Rock Section.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: The proposed Land Use License would not be granted. Current non-motorized recreational use and grazing leasing would continue. The life of the existing gypsum lease, NM-2011-18, could be shortened.

Action Alternative: An approval letter would be granted to allow further exploratory drilling on GCC's existing mining lease in the N2NE4 of Section 10 and a Land Use License would be granted to GCC, Inc. to allow surveying, mapping, exploratory drilling for gypsum, and sealing drill holes in the N2NW4 of Section 11, T16N-R10E. Current non-motorized recreational use and grazing leasing would continue.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The proposed project area geology consists entirely of the Heath Formation outcrop composed of light and dark grey limestone beds and a light grey gypsum bed. The overlying soils at and near the Geyser mine and proposed exploration locations include stony and clay loams with a north-northeast aspect. Motorized vehicle use would occur on existing roads and cross country by the most direct route between an existing road and the proposed drill sites. Motorized vehicles would be limited to the existing roads for the mapping and surveying and only foot travel would be utilized to access areas off of the existing roads. All motorized vehicle use would occur only during dry or frozen soil conditions. All proposed drill sites are located on elevated, gradual sloping topography. Soils at this location would experience severe erosion if disturbed and have low resistance to compaction; although, with the exception of the gypsum outcrop, have a moderate to high resilience, enabling good restoration potential.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

An intermittent stream is located over 1/3 mile down-gradient from the proposed drill locations on this section. The intermittent drainage flows directly into Lone Tree Creek which is located over a mile west of the nearest drill hole. Lone Tree creek is an intermittent stream, and only flows in the early spring with snowmelt water. Waterways in the affected area are seasonal and there is little likelihood of contaminating significant water resources as a result of the proposed activity.

GCC proposes to use a portable catch basin to collect and re-circulate water used in drilling. All drill holes will be filled with cement to prevent any potential ground water contamination. No significant impacts are anticipated.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

A short duration increase in pollutants and particulates may occur from machinery during proposed drilling activities. Minimal impacts to air quality are expected during the exploration drilling as the native soils indicate a moderate resistance to fugitive dust becoming suspended in the air.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Some vegetative disturbance is expected. Each of the 12 proposed drill holes are located away from existing roads or two-track trails. A rubber track drilling machine is proposed to minimize surface disturbance. The estimated ground disturbance resulting from drilling the 12 sites would amount to a little over 1/2 of an acre of affected vegetation that would be exposed to three rubber-tired vehicles for ingress and egress to the drill sites. Motorized vehicles would be limited to the existing roads for the mapping, and surveying and foot travel only to access areas off the existing roads. All motorized vehicle use during drilling activities would occur only during dry or frozen soil conditions. Mitigation of any impacts on vegetation are as follows: The proponent will repair any soil damage and seed any disturbed areas with native grass seed, the composition of the mix shall be approved by the Northeastern Land Office prior to application. Proponent will monitor sites and control weeds for one year after drilling.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

A variety of big game, small mammals, raptors, and songbirds use this area. Proposed project activities could temporarily disrupt wildlife movement and patterns. Due to the limited area (approximately 1/2 of an acre) exposed to proposed project activities off existing roads, most nesting and calving activities should not be affected; minimal impacts are anticipated.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

A search was conducted using the Montana Natural Heritage Program database to identify point observations of species of concern within one mile of the proposed activities and no results were found.

Golden Eagles have historically existed just over 1.5 miles to the east of the nearest drill sites. Due to the short-term, temporary nature (7 days to complete all drill holes) and the minimal amount of vegetative disturbance that would occur as a result of the proposed project, no significant impacts are anticipated.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

There is no record of historical and archaeological sites existing near the sites of the proposed core holes. DNRC Archaeologist, Patrick Rennie, was consulted regarding this site and determined from historic records regarding this tract of land, that there should be no disturbance to historical and archaeological sites.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The proposed drill locations are located off major highways and roads and are not easily visible. Due to the short-term nature of the activity at each site, minimal impacts are expected.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

None.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

All risks to human health and safety are taken on by the proponent who is responsible to mitigate to potential for accident and injury. There will be no safety risk to the general public.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

No impacts are anticipated.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

None.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

None.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

None.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

No known zoning or management plans for this area.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

Legal access does not exist to the proposed drill hole locations; although, the Croff family has granted access into the locations through their ranch. No wilderness areas exist on or near any of the drill sites. Recreational activities are possible due to State lands being accessible for recreationists and hunters traveling by foot. Given the short-term nature and the little amount of disturbance anticipated by the proposed activities, minimal impacts on recreational activities are anticipated.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

None.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

None.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

None.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The proposed action has provided \$25 for Land Use License application fees and would provide one-time rental fee revenue of \$600 (\$100/hole located off existing lease) to the Trust. The existing grazing leases in the Sections listed above would continue to provide \$1,200 annual revenue to the Trust (Average of historic rates). The non-metalliferous lease, NM-2011-18 will continue to provide \$240/year in rentals and an average of \$6,600/month in royalties.

EA Checklist Prepared By:	Name: Trevor E. Taylor	Date: Sept. 3 rd , 2019
	Title: MMB Petroleum Engineer	

V. FINDING

25. ALTERNATIVE SELECTED:

After reviewing the Environmental Assessment, I have selected the Action Alternative, to issue a Land Use License for exploration drilling in the N2NW4 of Section 11. In addition, I approve the proposed exploration drilling of 6 drill holes in the N2NE4 of Section 10. I believe this alternative can be implemented in a manner that is consistent with the long-term sustainable natural resource management of the area and generate revenue for the common school trust.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:


I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur as a result of implementing the selected alternative.

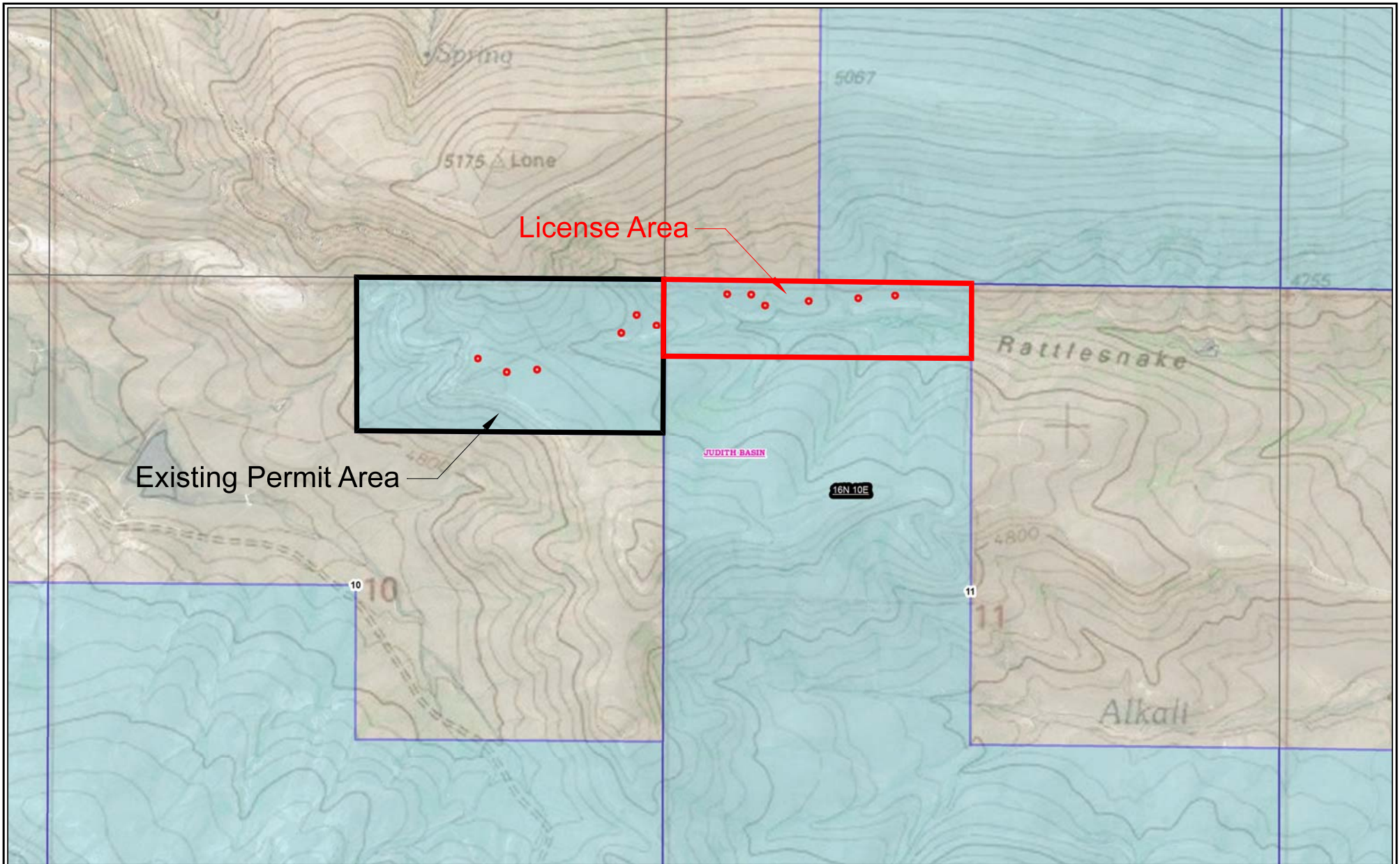
Stipulations:

- (1) Proponent will repair any soil damage and seed any disturbed areas with native grass seed. Grass seed specifications will be provided by the Department's Area Field Office.
- (2) Proponent will monitor sites and control weeds for one year after drilling.
- (3) All necessary permits will be secured.
- (4) All vehicle traffic must stay on established roads except when using most direct route to drill sites and will be limited to time periods/conditions when use of the road will not create ruts, i.e. periods when the soil moisture content is below 20 percent.
- (5) All vehicles must be washed, particularly the undercarriage, to assure removal of dirt and plant material and seeds prior to entering the tract.
- (6) All exploration holes are to be cemented from the bottom to the surface before the drill rig leaves the drill hole site.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐ EIS
 ☐ More Detailed EA
 ☒ No Further Analysis

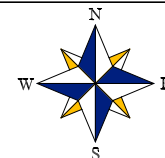
EA Checklist Approved By:	Name: Monte Mason
	Title: MMB Bureau Chief
Signature:	Date: 9/27/19 



Site Map



GCC Three Forks, LLC Gypsum Exploration Map



Map Description: Gypsum Exploration
 Location: Judith Basin County
 T-R-S: 16N-10E-10 & 11
 Date: 9/27/19