DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 5023

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [ ] Project summary (final)
- [ ] Work Completed analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No._____: Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICE FILE COPY
DMEA
RECEIVED MAY 19 1958
DATE

Air Mail

May 15, 1958

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: New Application (Cobalt-Nickel)
Gramlich Minerals, Inc.
Ulysses Claims
Lemhi County, Idaho

Dear Mr. Selfridge:

Enclosed are three copies of an application for DMEA aid to explore for cobalt-nickel ore in the Indian Creek district, Lemhi County, Idaho.

The geologic environment of the area in which it is proposed to explore is favorable for the formation of cobalt ore bodies and is quite similar to that of the Blackbird district. With a few exceptions the assays accompanying the application show very little cobalt but this also was the case in the Blackbird district before extensive exploration was started. 132,000 tons. 0.809 Co 2.83 Cu.

In contrast to the recent applications from Capital Seaboard Corporation and the Calera Mining Company, which we were able to evaluate from data in our files, we have very little information on the Indian Creek district. It will not be possible for us to evaluate this application without a field examination.

To make a thorough examination of the area would require at least three days on the property and possibly more, as the area to be examined is one of considerable size. The applicant is vague in presenting his program in that he states Stage I work is expected to uncover five favorable areas but does not indicate very clearly even where Stage I work will be done. Most of the preliminary prospecting has apparently been done in the area of the East Fork 1 and 2 claims. From the data submitted with the application, it is probable that any project will first require considerable geochemical work, which the applicant has not proposed, in order to locate to best advantage the surface trenching and drilling. Geochemical work has proved its value under similar conditions in the Blackbird area.

Calera { DMEA-4133 certified and repaid Govt. participation

As soon as practicable we will send examiners to look at this property and possibly we can recommend some work on the East Fork claims. However, although we will do our best, it is very doubtful that we can submit our report in time for a contract to be prepared before June 30.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
Alvord

GRAMLICH MINERALS, INC.
BOX 435
MOAB, UTAH

DMEA

May 13, 1958

U. S. Department of the Interior
Defense Minerals Exploration Administration
South 157 Howard Street
Spokane 4, Washington

Gentlemen:

Enclosed herewith is an original and three copies of an Application for Aid in an Exploration Project for cobalt and nickel. The properties are situated in Lemhi County, Idaho.

Very truly yours,
GRAMLICH MINERALS, INC.

J. W. Gramlich Sr

J. W. Gramlich, Sr.

JWGvw
encls. 4

RECEIVED
MAY 15 1958
U. S. G. S.
SPOKANE, WASH.

Form MF–103
Revised Oct. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR

Budget Bureau No. 42–R1035.3
Approval expires June 30, 1958

DEFENSE MINERALS EXPLORATION ADMINISTRATION

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

NAME OF APPLICANT (Full legal name and mailing address as it should appear on contract if one is executed)

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

RECEIVED
MAY 15 1958
U. S. G. S.
SPOKANE, WASH.

RECEIVED MAY 19 D.M.E.A.

APPLICANT NOT TO USE THIS BLOCK

Docket Number	DMEA-5023
Date Received	5-19-58
Government Participation %	
Region	I
Division Code	400

BUSINESS ORGANIZATION (Check one)

- Individual [ ]
- Corporation [X]
- Partnership [ ]
- Other (Specify) [ ]

State in which firm is organized: Colorado

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
John W. Gramlich, Sr.	Box 435, Moab, Utah	President
John W. Gramlich, Jr.	Box 435, Moab, Utah	Vice President
Phil F. Gramlich	Box 435, Moab, Utah	Secy.-Treas.

Mineral(s) for which you wish to explore: Cobalt and Nickel

Estimated Cost of Project: $ 438,100.00 Adds to 437,100

LOCATION OF PROPERTY

Name	County	State
Ulysses Ming. Dist.	Lemhi	Idaho

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order–I, Revised, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals,* of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

May 13, 1958
Dated

J. W. Gramlich Sr.
BY *(Signature)*

Pres.
Title

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the lands, including existing mine workings. Describe all production facilities.

(b) State your interest, if any, in operations stated in 2*(a)*.

(c) State, as far as you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves on the property giving quantities and grades and sampling methods used, supporting your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you may have, indicating on each whether you require its return to you.

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

(a) Describe fully the proposed exploration project giving individual footages and sizes of openings *for each item of work*. Use narrative, maps, plans, and longitudinal and cross sections as necessary. Show the location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *property boundaries* or to the closest identifiable corner.

(b) If an access road to the project must be built, show the location on the property map and state the length, type, and construction methods proposed.

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

(a) Independent contracts. State the cost of any proposed independent contract for the performance of all or any part of the work, expressed in units of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. *(Note* – If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

(c) Operating materials and supplies. List items of material and supplies with their cost. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of necessary *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant, which will be used on the exploration project.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration project stating specifications and cost including labor, materials and supervision.

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

Note – No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. *(a)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Revised.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 25960

Form MF-103
Revised Oct. 1957

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

APPLICATION FOR AID IN AN EXPLORATION PROJECT

1. Applicant's Property Rights:

(a) The properties of the applicant which are included in this application are located in sections 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 33, 34, 35, and 36, Township 4 South, Range 20 West, Principal Meridian Montana.

The index map shows the general location of the lands involved. The claim map shows the relative position of the various claim groups and the claims controlled and included in this application.

All of the lands are unpatented lode mining claims and have been recorded in the office of the Recorder of the Dahlanega Mining District, Gibbonsville, Lemhi County, Idaho. Some of the claims are also recorded in the courthouse in Salmon, Idaho. The claim groups, individual claims, and the book and page of recording are listed in Appendix I, attached.

(b) The properties have been referred to as the North Fork claims, Ulysses claims, and East Fork claims. The name Ulysses is herewith used because of the proximity of the area to the old mining district or camp known as Ulysses. The attached claim map gives the individual claim group names and identification of the

individual claims. Local geographic names are North Fork Post Office, North Fork River, Salmon River, Indian Creek, East Fork Creek, Hull Creek, Dry Gulch, and Copper Gulch.

(c) Michelle, Glance, Monette, Bobcat, Gap, Bug, and Mt. Zither groups are under lease from Phil F. Gramlich and Rhea Gramlich to Gramlich Minerals, Inc., a copy of this lease is attached.

The Copper Hill group of claims and the Silver Lead claim are under lease from Leslie O. Smith and Harriet E. Smith to John W. Gramlich, Sr., and are subleased by John W. Gramlich, Sr., to Gramlich Minerals, Inc., copies of each are attached.

The Cabin claim and the East Fork Group of Claims Nos. 1-27 inclusive are under lease from Leslie O. Smith, Harriet E. Smith, Arthur May and Virginia May to John W. Gramlich, Sr. and subleased by John W. Gramlich, Sr. to Gramlich Minerals, Inc., copies are attached.

The 1A, 2A and 3A claims of the East Fork Group are subleased by Gramlich Minerals, Inc., from John W. Gramlich, Sr., copy attached.

(d) A guaranteed minimum royalty on the East Fork Group of claims is owned by Leslie O. Smith, Harriet E. Smith, Arthur

May and Virginia May in the amount of $1,000.00 per annum until a balance of $23,000.00 has been paid. Gramlich Minerals, Inc. is liable for this payment under the terms of a sublease from John W. Gramlich, Sr.

As rental and royalty there is a guaranteed annual payment on the lease from Leslie O. Smith and Harriet E. Smith Covering the Copper Hill Group and the Silver Lead claim.

2. Physical Description:

(a) The accompanying map shows the locations where samples were taken that showed assays of trace or more of cobalt. The map also shows the location of the tunnel on the East Fork No. 2 claim and the various bulldozer trenches made to date by the applicant. An attempt was made to drill the area in the vicinity of the East Fork No. 1 and No. 2 claims with rotary equipment. Three holes were started but none reached a depth greater than fifty feet and the attempt was abandoned. An assay was made of the cuttings from one of these holes.

The cobaltite appears as the upper extremity of a sulfide rich lense rather than a true vein. This occurrence is in the floor on the left side of the tunnel approximately fifteen feet in from the adit. Copper sulfide and cobalt blossom are common throughout the

adit tunnel.

Assays from shear zones containing copper and manganese mineralization and altered zones have shown the presence of cobalt throughout the area (see attached assay certificates, Appendix II, and the accompanying map).

There are no production facilities on the property. There is an abundance of water and timber. The tunnel is ready for extension drifting, and with little effort the cobaltite lense can be tested with a winze.

(b) Applicant has not conducted mining operations in the tunnel since acquiring the property. Applicant has made or caused to be made all of the exploratory bulldozer pits and trenches on the property, and therefore has made the discovery of shear zones and alteration areas.

(c) There has been no sale of ore from the property. A stockpile of approximately five tons of cobalt rich ore is on the property; however, most of the cobaltite has been carried away as specimens and the material remaining is mostly the cobalt blossom ore.

(d) There are no proven or inferred ore reserves.

(e) The following generalized statement concerning the

geologic conditions is applicable to the project area as a whole rather than a specific location:

The area under consideration was not studied in detail; instead, generalizations were noted to get the regional setting and to verify the occurrence of cobalt mineralization in the district rather than at a specific location. The geologic investigation was sufficient to determine the justification for further exploration.

As to geological setting and general environment, the Ulysses district is quite similar to the Blackbird district in the relation of the Belt Series to the Idaho batholith. This batholith is exposed along the Salmon River Canyon southwest of the North Fork Post Office and along the lower reaches of Indian Creek. Contact relations of the emplacement of this quartz monzonite mass in the Belt Series are well exposed in a number of places.

The bedrock that crops out on the properties involved is a part of the Belt Series. The predominant rock is quartzite varying in color from light gray to dark gray and black and green. The bedding is thin with some strata reaching a thickness of 10 to 12 inches. Intensive alteration has produced phyllites, mica (muscovite and biotite) schists, and slates. Pre-existing conglomeratic zones may be considered as grits. Irregularly rounded quartz

blebs and masses up to one and one-half inches in diameter are common and may be either the alteration product of original gravel deposited in the Belt sediments or introduced quartz which has replaced parts of the original sediments. Apophyses of quartz stringers extending from such blebs suggest replacement as the more likely origin.

The Belt Series in this area is comparable and quite similar to the rocks in the Blackbird District and near Salmon. In some respects the strata are more highly altered in the Ulysses District than they are at Blackbird. Intensive alteration to clay minerals is common. Epidote and chlorite are not uncommon. Silicification with a box-work structure is prevalent in areas of sulfide mineralization. Foliation and schistosity are developed to such a degree that mica schists and phyllites are common.

Copper and manganese mineralization are widespread in the tributaries of East Fork, along Indian Creek, Dry Creek and Copper Gulch. They are also exposed on the divide between East Fork and West Fork, and on the south slope of the divide between Hull Creek and Hughes Creek. At the surface the carbonates and silicate of copper are prevalent, but at shallow depths, usually less than five feet, chalcopyrite is present. The manganese occurs as

psilomelane. Cobalt blossom may be present with either the copper or the manganese, but this relation may be more apparent than real because areas of copper and manganese were examined in more detail than were the shear zones and clay alteration areas. Cobaltite is present in a prospect tunnel on a tributary of East Fork. Specularite and pyrite are common associates with the copper and cobalt. Quartz is a common gangue mineral. Calcite, dolomite, and barite were observed but they are not common associated minerals.

True veins were not observed except in the vicinity of Ulysses. Shear and fracture zones contain mineralization in a number of locations. The lateral continuity of such shear zones was not determined, but the impression prevailed that belts of shearing are present in the area. Small veinlets extending from lenticular masses of mineralization are common. Where appreciable mineralization was observed, it appeared to be emplacement by replacement rather than true vein filling.

In reconnaissance it was not possible to divide the Belt Series into stratigraphic units which can be used for structure mapping. It is possible that such units exist. The bedding is indistinct due to intensive development of foliation and schistosity. Joint and fracture cleavage give a false concept of bedding. The presence of

a thick mantle of talus obscures outcrops in much of the area. The presence or absence of major faulting was not observed but such could have been overlooked due to the fracturing and schistosity of the rocks and the paucity of extensive outcrops.

(f) The widespread copper mineralization, the presence of cobaltite in a mine tunnel, the presence of small amounts of cobalt at many locations, the alteration of the Belt Series, and the general geologic environment of the area as a whole, indicate a potential worthy of detail examination and selective exploration. In some respects the area under consideration appears to be more highly mineralized and altered than is evident on the surface in the Blackbird District. The operator by limited stripping and trenching normal to the apparent strike of the beds has revealed shear and alteration zones which contained small amounts of cobalt. The trenching proposed in this application is expected to reveal numerous zones worthy of exploratory drilling.

Copies of assay certificates from mineralized areas are herewith attached and made a part of this application.

(g) No geological or engineering reports have been made on the properties. Excerpts from a brief geological summary prepared by Edward L. Clark, Grand Junction, Colorado have been incorpor-

ated under items 2 e) and 2 f) above.

3. Accessibility of project:

(a) Mr. Phil Gramlich, 460 Seventy South, Moab, Utah can guide the DMEA representative to and through the property. Mr. John W. Gramlich, Sr. can direct the representative to the property. The directions for reaching the properties are as follow: To enter the western area one drives down the Salmon River from the postoffice of North Fork, Idaho to the mouth of Indian Creek, a distance of approximately eleven miles where there is a U.S. Forest Camp known as Indianola; from this camp one follows up the valley of Indian Creek a distance of approximately five miles to the old mining camp of Ulysses; continue on up Indian Creek beyond Ulysses a distance of less than one mile to where East Fork joins Indian Creek from the east; thence take mine road across Indian Creek along the north side of East Fork and follow trail to its end which is across gulch from the tunnel containing the lense of cobaltite. To reach the eastern portion of the properties one goes north from North Fork Postoffice to Hull Creek, a distance of approximately five miles, to a gravel road leading west (which is the first main gravel road leading west after leaving North Fork); thence west beyond a private fishing lake, then bearing southwesterly on the main trails until the divide between Indian Creek and North

Fork River is reached. The Gap claims are southeast of the location where the trail tops the divide. It is advisable to have a guide into the eastern properties because of the great number of logging roads that have been cut on the North Fork River side of the divide.

(b) The nearest supply center is the town of Salmon, a distance of 30 miles from the properties. For the exploration work conducted to date, the employees have driven from the properties to their respective homes at night. If this application is approved the exploration employees will live in North Fork, Idaho or have headquarters on the properties. If mining should result, the employees will live on the property.

Shipping of concentrates will be by trucks to the railhead at Darby, Montana, Mackay, Idaho or Idaho Falls, Idaho. The concentrates may also be trucked directly into Salt Lake City, Utah, if sold at the refinery at that location. If sufficient ore is discovered an effort will be made to interest capital in the construction of a refinery.

4. The Exploration Project:

(a) The exploration work contemplated in this application consists of three stages. The actual work consists of the digging of trenches or side hill cuts with the bulldozer, core drilling, road

work, and drifting with the necessary engineering work, analytical work, etcetera.

Stage I consists of trenching in the amount of 1,200 hours of bulldozer work. The trenches will vary in length and are expected to be as deep as twenty-five feet on the side toward the hill and as much as thirty feet in width, dependent upon the amount of overburden encountered. Drilling in the amount of 3,600 feet is included to test three areas of favorable conditions encountered in previous work by the applicant. To accomplish the drilling road work in the amount of 200 hours of bulldozer operation will be required.

Stage II is in part contingent upon the work accomplished in Stage I trenching. It is anticipated that five favorable areas will be uncovered in Stage I. These areas will be drilled, utilizing 4,500 feet of core hole. To perform this drilling there will be the necessary amount of road work to an extent of 500 hours of bulldozer operation. In addition to the drilling and roadwork, there is contemplated that the trenching will be continued and this will require 1,500 hours of bulldozer work. The results of drilling in Stage I are expected to justify a minimum of 500 feet of drifting to open up and examine at least one area indicated as favorable. This drifting will be six feet by six feet.

Stage III is contingent upon the results of Stage II. It will consist of further trenching to the extent of 1,500 hours of bulldozer work, 9,500 feet of core drilling, 750 hours of road construction, and the driving of an additional 500 feet of six by six drift. This drift may be a continuation of the drift in Stage II, but at this time is contemplated that a second and separate drift will reveal more information concerning the potential of the properties.

All coring will be BX in size. A smaller core is not feasible due to the shattered condition of the ground. A D-6 bulldozer will be used on road work but a larger size will be used on the trenching.

(b) Access roads now extend into the following groups of claims, but such roads give very limited access to the groups: Michelle, Glance, Gap, Bug, and East Fork. The following groups of claims need access roads before they can be entered except by a bulldozer for the trenching proposed: Michelle in part, Monette, Bobcat, Zither, Copper Hill and Silver Lead. Before completion of Stage III as proposed, there will be constructed more than 25,000 feet of access drill road. These roads cannot be delineated or designated until after the completion of the trenching in each of the various stages of the program. To reach the three drill sites in

Stage I, namely the East Fork claims numbers 1 and 2, East Fork claims numbers 1 and 17, and the Gap number 3 claim, road work will be required.

(c) The exploration season in this area is restricted to the period of April 15 to October 15. If mining follows exploration and development, conditions are not too adverse to conduct a year around operation. Work in the exploration program requested in this application will begin within sixty days after the execution of the contract, provided the contract is executed sixty days prior to October 15. It will not be feasible to move equipment into the area for less than a sixty day operation.

Three years will be required to complete the contract because of the limited field season without provision for wintertime operation. It is contemplated to work each of three stages by separage field seasons or years. One bulldozer is expected to cut 25 to 35 feet of trench per day. Coring is expected to average 40 feet per day.

5. Experience:

Gramlich Minerals, Inc. has been engaged in mining and exploration for the past twelve years. Mr. John W. Gramlich, Sr., has more than twenty-five years of experience in active mining. Mr.

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

John W. Gramlich, Jr. has twelve years experience and Mr. Phil F. Gramlich has nine years of experience. Gramlich Minerals, Inc. has operated a D. M. E. A. contract for uranium in San Juan County, Utah. The necessary engineering and geological assistance will be obtained through consultants or employees yet to be selected. Mr. Phil Gramlich will supervise the program.

6. Estimate of Costs:

(a) Independent contracts.

STAGE I

Item	Units	Cost per Unit	Cost	
Bulldozer:				
Trenching	1,200 hours	$15.00	$ 18,000.00	
Roads	200 hours	15.00	3,000.00	
Drilling	3,600 feet	15.00	54,000.00	
	Total Stage I		$ 75,000.00	$ 75,000.00

STAGE II

Bulldozer:				
Trenching	1,500 hours	$15.00	$ 22,500.00	
Roads	500 hours	15.00	7,500.00	
Drilling	4,500 feet	15.00	67,500.00	
Drifting	500 feet	40.00	20,000.00	
	Total Stage II		$117,500.00	$117,500.00

192,500

STAGE III

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

Item	Units	Cost per Unit	Cost	
Bulldozer:				
Trenching	1,500 hours	$15.00	$ 22,500.00	
Roads	750 hours	15.00	11,250.00	
Drilling	9,500 feet	15.00	142,500.00	
Drifting	500 feet	40.00	20,000.00	
	Total Stage III		$196,250.00	192,500 $196,250.00

Cost of Independent contracts in Stages I, II, III, combined ------- $388,750.00
32,900.00
1,000.00
14,450.00
437,100.00

Recapitulation of Independent contract, entire program:

Bulldozer work --	5,650 hours	@ $15.00 per hour	$ 84,750.00
Drilling --------	17,600 feet	@ 15.00 per foot	264,000.00
Drifting --------	1,000 feet	@ 40.00 per foot	40,000.00
			$388,750.00

(b) Personal Services.

No. Persons	Classification	Wages per Month	No. of Months	Subtotal Cost
		Stage I - First Year		
1	Engineer	$750.00	3	$ 2,250.00
1	Geologist	750.00	4	3,000.00
1	Project Supervisor	700.00	6	4,200.00
				9,450.00

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

No. Persons	Classification	Wages per Month	No. of Months	Subtotal Cost
		Stage II - Second Year		
1	Engineer	$750.00	3	$ 2,250.00
1	Geologist	750.00	4	3,000.00
1	Project Supervisor	700.00	6	4,200.00
				$ 9,450.00
		Stage III - Third Year		
1	Engineer	$750.00	4	$ 3,000.00
1	Geologist	750.00	6	4,500.00
1	Project Engineer	750.00	6	4,500.00
1	Junior Engineer	500.00	4	2,000.00
				$14,000.00

Recapitulation of Personal Services, entire program:

Stage I - First Year ----------	$ 9,450.00
Stage II- Second Year ----------	9,450.00
Stage III - Third Year ----------	14,000.00
Total Personal services ----------	$33,900.00 X
	$ 32,900

(c) Operating materials and supplies. Not applicable.

(d) Operating equipment. Not applicable.

(e) Initial rehabilitation and repairs. Not applicable

(f) New buildings, fixtures, installations.

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

1 frame shed for core and equipment storage, breakdown type, 16' X 12' ----------$ 1,000.00 (f)

(g) Miscellaneous: For Stages I, II, and III combined:

core boxes - 1,400 boxes holding 12.5' @ $1.50 each----------	$ 2,100.00
sample sacks - 1,000 sacks @ $0.25 each-----	$ 250.00
Express charges on shipping samples for assay	$ 350.00
Assays for cobalt and nickel - 1,000 @ $6.00 each assay----------	$ 6,000.00
Accounting and secretarial services----------	$ 3,000.00
Travel for employees and consultants---------	$ 2,000.00
Workmen's compensation, Employer's Liability Insurance, and payroll taxes--------	$ 750.00
Total Miscellaneous-----	$14,450.00 (g)
	15,450.00 (f)+(g)

7. (a) The applicant is prepared to furnish its share of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of D.M.E.A. Order -1, Revised, Oct. 1957, as applied to cobalt and nickel.

(b) The applicant will furnish his share of the costs jointly from money provided by the applicant and the capacity of the work performed by the applicant's D-6 bulldozer. The applicant owns the necessary equipment to drive the proposed drifts, and with permission will utilize this equipment and contract the driving of the drifts.

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

APPENDIX I

Item 1 (a)

Certain information is lacking from the following tabulation. This will be supplied as a supplement as soon as the information can be received from the field.

G A P GROUP	LOCATED	RECORDED	BOOK	PAGE
No. 1	5/14/57	8/13/57	1	16
No. 2	5/16/57	8/13/57	1	15
No. 3	5/16/57	8/13/57	1	14
No. 4	5/16/57	8/13/57	1	13
No. 5	5/16/57	8/13/57	1	12
No. 6	5/16/57	8/13/57	1	11
No. 7	5/28/57	8/13/57	1	10
II BOBCAT GROUP				
No. 1	7/6/57	9/25/57	1	26
No. 2	7/6/57	9/25/57	1	27
No. 3	7/6/57	9/25/57	1	28
No. 4	7/6/57	9/25/57	1	29
No. 5	7/6/57	9/25/57	1	30
No. 6	7/6/57	9/25/57	1	31
No. 7	7/6/57	9/25/57	1	32

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

BOBCAT GROUP	LOCATED	RECORDED	BOOK	PAGE
No. 8	7/6/57	9/25/57	1	33
No. 9	7/6/57	9/25/57	1	34
No. 10	7/6/57	9/25/57	1	35
No. 11	7/6/57	9/25/57	1	36
No. 12	7/6/57	9/25/57	1	37
No. 13	7/6/57	9/25/57	1	38
No. 14	7/6/57	9/25/57	1	39
No. 15	7/6/57	9/25/57	1	40
No. 16	7/6/57	9/25/57	1	41
No. 17	7/6/57	9/25/57	1	42
No. 18	7/6/57	9/25/57	1	43
No. 19	7/7/57	9/25/57	1	44
No. 20	7/7/57	9/25/57	1	45
No. 21	7/7/57	9/25/57	1	46
No. 22	7/7/57	9/25/57	1	47
No. 23	7/7/57	9/25/57	1	48
No. 24	7/7/57	9/25/57	1	49
No. 25	7/7/57	9/25/57	1	50
No. 26	7/7/57	9/25/57	1	51
No. 27	7/7/57	9/25/57	1	52
No. 28	7/7/57	9/25/57	1	53

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

BOBCAT CONTINUED	LOCATED	RECORDED	BOOK	PAGE
No. 29	7/7/57	9/25/57	1	54
No. 30	7/7/57	9/25/57	1	55
No. 31	7/7/57	9/25/57	1	56
No. 32	7/7/57	9/25/57	1	57
No. 33	7/7/57	9/25/57	1	58
No. 34	7/7/57	9/25/57	1	59
No. 35	7/7/57	9/25/57	1	60
No. 36	7/7/57	9/25/57	1	61
No. 37	7/7/57	9/25/57	1	62
No. 38	7/7/57	9/25/57	1	63
No. 39	8/21/57	9/25/57	1	64
III MICHELLE GROUP				
No. 1	7/3/57	9/25/57	1	65
No. 2	7/3/57	9/25/57	1	66
No. 3	7/3/57	9/25/57	1	67
No. 4	7/3/57	9/25/57	1	68
No. 5	7/3/57	9/25/57	1	69
No. 6	7/3/57	9/25/57	1	70
No. 7	7/3/57	9/25/57	1	71
No. 8	7/3/57	9/25/57	1	72
No. 9	7/3/57	9/25/57	1	73

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

MICHELLE CON'T	LOCATED	RECORDED	BOOK	PAGE
No. 10	7/3/57	9/25/57	1	74
No. 11	7/3/57	9/25/57	1	75
No. 12	7/3/57	9/25/57	1	76
No. 13	7/3/57	9/25/57	1	77
No. 14	7/3/57	9/25/57	1	78
No. 15	7/3/57	9/25/57	1	79
No. 16	7/3/57	9/25/57	1	80
No. 17	7/3/57	9/25/57	1	81
No. 18	7/3/57	9/25/57	1	82
No. 19	7/3/57	9/25/57	1	83
No. 20	7/3/57	9/25/57	1	84
No. 21	7/4/57	9/25/57	1	85
No. 22	7/4/57	9/25/57	1	86
No. 23	7/4/57	9/25/57	1	87
No. 24	7/4/57	9/25/57	1	88
No. 25	7/4/57	9/25/57	1	89
No. 26	7/4/57	9/25/57	1	90
No. 27	7/4/57	9/25/57	1	91
No. 28	7/4/57	9/25/57	1	92
No. 29	7/4/57	9/25/57	1	93
No. 30	7/4/57	9/25/57	1	94

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

MICHELLE con't	LOCATED	RECORDED	BOOK	PAGE
No. 31	7/4/57	9/25/57	1	95
No. 32	7/4/57	9/25/57	1	96
No. 33	7/4/57	9/25/57	1	97
No. 34	7/4/57	9/25/57	1	98
No. 35	7/4/57	9/25/57	1	99
No. 36	7/4/57	9/25/57	1	100
No. 37	7/4/57	9/25/57	1	101
No. 38	7/4/57	9/25/57	1	102
No. 39	7/14/57	9/25/57	1	103
No. 40	7/14/57	9/25/57	1	104
No. 41	7/14/57	9/25/57	1	105
No. 42	7/14/57	9/25/57	1	106
IV MONETTE GROUP				
No. 1	7/2/57	8/13/57	1	23
No. 2	7/2/57	8/13/57	1	22
No. 3	7/2/57	8/13/57	1	21
No. 4	7/2/57	8/13/57	1	20
No. 5	7/2/57	8/13/57	1	19
No. 6	7/5/57	9/25/57	1	107
No. 7	7/5/57	9/25/57	1	108
No. 8	7/5/57	9/25/57	1	109

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

MONETTE con't	LOCATED	RECORDED	BOOK	PAGE
No. 9	7/5/57	9/25/57	1	110
No. 10	7/5/57	9/25/57	1	111
No. 11	7/5/57	9/25/57	1	112
No. 12	7/5/57	9/25/57	1	113
No. 13	7/5/57	9/25/57	1	114
No. 14	7/5/57	9/25/57	1	115
No. 15	7/5/57	9/25/57	1	116
No. 16	7/5/57	9/25/57	1	117
No. 17	7/5/57	9/25/57	1	118
No. 18	7/5/57	9/25/57	1	119
No. 19	7/5/57	9/25/57	1	120
No. 20	7/5/57	9/25/57	1	121
No. 21	7/5/57	9/25/57	1	122
No. 22	7/5/57	9/25/57	1	123
No. 23	7/5/57	9/25/57	1	124
No. 24	7/5/57	9/25/57	1	125
No. 25	7/5/57	9/25/57	1	126
No. 26	7/5/57	9/25/57	1	127
No. 27	7/5/57	9/25/57	1	128
No. 28	7/5/57	9/25/57	1	129
No. 29	7/5/57	9/25/57	1	130

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

MONETTE con't	LOCATED	RECORDED	BOOK	PAGE
No. 30				
No. 31				
No. 32				
GLANCE GROUP V				
No 1	7/1/57	8/13/57	1	9
No. 2	7/1/57	8/13/57	1	8
No. 3	7/1/57	8/13/57	1	7
No. 4	7/1/57	8/13/57	1	6
No. 5	7/1/57	8/13/57	1	5
No. 6	7/1/57	8/13/57	1	4
No. 7	7/1/57	8/13/57	1	3
No. 8	7/1/57	8/13/57	1	2
BUG GROUP VI				
No. 1	7/2/57	8/13/57	1	18
No. 2	7/2/57	8/13/57	1	17
MT. ZITHER GROUP VII				
MT. ZITHER			8	110
No. 1 ?				
No. 2			8	111
No. 3	8/7/57	9/25/57	1	131
No. 4	8/7/57	9/25/57	1	132

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

MT. ZITHER con't	LOCATED	RECORDED	BOOK	PAGE
No. 5	8/7/57	9/25/57	1	133
No. 6	8/7/57	9/25/57	1	134
EAST FORK GROUP				
1 A			8	279-280
2 A			8	280
3 A			8	281
1	6/4/56	8/13/56	7	621
2	6/15/56	8/13/56	7	622
3	6/17/56	8/13/56	7	622
4			8	334
5	9/19/56	11/8/56	7	155
6	9/19/56	11/8/56	7	155
7	10/21/56	11/8/56	7	156
8	10/21/56	11/8/56	7	156
9	10/21/56	11/8/56	7	157
10	9/20/56	11/8/56	7	157
11	9/20/56	11/8/56	7	158
12	10/25/56	11/8/56	7	158
13	10/25/56	11/8/56	7	159
14	10/25/56	11/8/56	7	159
15	10/23/56	11/8/56	7	160

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

EAST FORK con't	LOCATED	RECORDED	BOOK	PAGE
16	10/21/56	11/8/56	7	160
17	10/24/56	11/8/56	7	161
18	11/3/56	11/8/56	7	161
19	11/4/56	11/8/56	7	162
20	11/5/56	11/8/56	7	162
21	10/23/56	11/8/56	7	163
22	10/21/56	11/8/56	7	163
23	10/22/56	11/8/56	7	164
24	10/22/56	11/8/56	7	164
25	11/3/56	11/8/56	7	165
26			8	335
27			8	335
28			8	336
CABIN	6/25/56	8/13/56	7	620
COPPER HILL GROUP				
1	9/25/55	10/22/55	7	267
2	11/1/56	11/14/56	8	206
3	11/5/56	11/14/56	8	207
4	11/3/56	11/14/56	8	207
5	11/12/56	11/14/56	8	208
SILVER LEAD	11/6/56	11/14/56	8	208

GENERAL FILE COPY
DMEA
RECEIVED NOV 19 1958

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

APPENDIX II

Re: Items 2 (a) and 2 (f)

ASSAYS ATTACHED -

September 20, 1956 - Smith Laboratories

#1 Chief Claim - near Copper Hill Claim #2

#2 Chief Claim - near Copper Hill Claim #2

#3 Chief Claim - near Copper Hill Claim #2

#4 Gap Claim #1 Surface material

#5 Leslie O. Smith Tunnel - grab sample

EAST FORK CLAIM #2

October 15, 1956 - Smith Laboratories

#1 Ore from Dry Gulch - east of Michelle Group

#2 Sample end of drift in Dry Gulch - east of Michelle Group

#3 Sample end of drift in Dry Gulch - east of Michelle Group

#4 Michelle #25 Claim

#5 Michelle #25 Claim

#6 Copper Gulch east of Michelle Group

#7 Hull Creek - northeast of Monette Group

#8 Hull Creek - northeast of Monette Group

November 14, 1956 - Smith Laboratories

#1 On Indian Creek near Silver Lead Claim

#2 On Indian Creek near Silver Lead Claim

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

#3 Drift on East Fork #2 Claim

#4 East drift on East Fork #1 Claim

#5 East drift on East Fork #1 Claim

November 15, 1956 - Brown Laboratory

#8136-1 East Fork #2 Claim - composite from adit

#8136-2 East Fork #2 Claim - Composite from adit

#8136-3 West side of Indian Creek, Copper Hill #1 Claim

#8136-4 Copper Hill #1 Claim

#8136-5 Copper Hill #1 Claim

#8136-6 Copper Hill #1 Claim

July 16, 1957 - Brown Laboratory

#9369-1 East Fork Claim #1 - Bulldozer cut - Composite of shear zone

#9369-2 East Fork Claim #1 - Bulldozer cut - Composite of Manganese material in shear zone

August 3, 1957 - Smith Laboratories

#1 Composite of drill cuttings from rotary hole near adit on East Fork #2 Claim

#2 Bulldozer cut - shear zone on East Fork #1 Claim

#3 Bulldozer cut - through 15 foot wide shear zone

September 21, 1957 - Smith Laboratories

#1 - #9 inclusive From discovery pits on the indicated Monette Claims

#10-#18 inclusive - From discovery pits on the indicated Big Tom Claims west of Bobcat Group of Claims

GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

#19-#29 inclusive — From discovery pits on the indicated Michelle Claims

#30 — Top of Indian Peak

#31 — Cuttings from drill hole on East Fork Claim #2

October 2, 1957 - Smith Laboratories

#1 - #3 ~~inclusive~~ — Discovery pits on indicated Monette Claims

#4 - #5 ~~inclusive~~ — Discovery pits on Big Tom Claims #'s 9 and 10, west of Bobcat #27 Claims

#6 - #10 — From vein exposed by bulldozer on GAP #3 Claim

#11-#17 — From discovery cuts on indicated Bobcat Claims

March 13, 1958 - Utex Exploration Company, Inc.

Spectrographic analysis of material from 75 foot vein on GAP #3 Claim

Smith's Laboratory

CHEMIST AND ASSAYER

MOAB, UTAH

Walter Gramlich

Cobalt
Idaho
Sept. 20, 1956

Sample Description	% U_3O_8	% V_2O_5	% Co	%	%	%			
#1 ½" spread roll			0.03		Chief Claims near Copperhill #2				
#2 6" spread roll			0.04		"	"	"	"	"
#3 3' spread vertical			Trace		"	"	"	"	"
#4 1½ by 3 mill Prints			0.02		Gap #1 claim				
#5 fines @ 35' depth			0.93		Leslie Smith Tunnel - grab sample East Fork claim #2				

TOTAL CHARGES $ 15.00

J. Earl Smith
CHEMIST

FOR APPLICATION: ORES AND METALS
GERMICH CHEMICALS, Inc.
BOX [illegible], [illegible], [illegible]

Smith's Laboratory

CHEMIST AND ASSAYER

MOAB, UTAH

Gramlich Exploration
Moab
Utah

Oct. 15, 1964

Sample Description	% U_3O_8	% V_2O_5	% Co	% Cu	%	%			
Sample #1			Tr.	5.47	East of Michelle Group				
#2			Tr.	2.86	"	"	"	"	
#3			Tr.	1.02	"	"	"	"	
#4			0.06		Michelle #25 claim				
#5			Tr.	0.07	Michelle #25 claim				
#6			0.07	0.07	East of Michelle group				
#7				6.10	Northeast of Monette Group				
#8			0.03		"		"		"

TOTAL CHARGES $ 27.00

J. Earl Smith
CHEMIST

DMEA APPLICATION - COBALT AND NICKEL
Gr[illegible]ich Minerals, Inc.
Box 435, Moab, Utah

Smith's Laboratory

CHEMIST AND ASSAYER

MOAB, UTAH

Gramlich Exploration Co

Nov. 14, 1953

Sample Description	% U_3O_8	% V_2O_5	% Co	% Cu	%	%			
#1 West Fork Indian			None	None	#1	Near	Silver	Lead	Claim
#1A West Fork			Trace	Trace	#2	"	"	"	"
#1A East Fork			0.07	4.02	#3	East	Fork	#2	Claim
#1A Channel sample			None	Trace	#4	East	Fork	#1	Claim
#1B Channel "			Trace	Trace	#5	East	Fork	#1	Claim

TOTAL CHARGES $ 20.00

J. Earl Smith
CHEMIST

THE BROWN LABORATORY
2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE [redacted]
CH2-4589

CERTIFICATE OF ANALYSIS

TO

Gramlich Exploration Company
P.O. Box 435
Moab, Utah

Date 11-15-56
Order No. 8136-S

Material: Ore Samples 6
Received: 11-14-56
For: Analysis

Lab. No.	Your No.	Description	Ounces Au	Per Ton Ag	% Cu	% Co_3O_4	% Ni
8136-1	1 B Over All		Trace	0.2	0.65	0.30	Trace
8136-2	1 B 12" West		0.01	1.4	6.70	0.34	Trace
8136-3	1 X		Nil	Trace	Trace	0.04	Nil
8136-4	# 2		Nil	Nil	Nil	0.02	Nil
8136-5	# 3		0.02	1.2	6.00	1.26	
8136-6	# 4		0.04	4.4	8.15		

Analyst.

7

THE BROWN LABORATORY

2263 Broadway

GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

CHapel 2-4589

CERTIFICATE OF ANALYSIS

TO

Edward L. Clark
Four Corners Uranium Corporation
P.O. Box 1749
Grand Junction, Colorado

Date 7-16-57

Order No. 9369-S

Material: Ore Samples
Received: 7-15-57
For: Analysis

Lab. No.	Your No	Description	% Co_3O_4
9369-1	No. - 1	altered zone	0.01
9369-2	No. - 2	Manganese material	Trace

Analyst

DMEA APPLICATION - COBALT AND NICKEL
Gr[illegible]ich Minerals, Inc.
Box 435, Moab, Utah

Smith's Laboratory

CHEMIST AND ASSAYER

MOAB, UTAH

Gramlich Exploration

Aug. 3, 1957

Sample Description	% U_3O_8	% V_2O_5	% $CaCO_3$	% Co	% Cu	%			
20' East Tunnel									
L-20' Drill cuttings				None	Trace				
From new claim				Trace	0.22				
15' Mineralized zone				0.06	1.91				

TOTAL CHARGES $ 12.00

J. Earl Smith
CHEMIST

DMEA APPLICATION - COBALT AND NICKEL
Chemical Minerals, Inc.
Box 625, Moab, Utah

Smith's Laboratory

CHEMIST AND ASSAYER

MOAB, UTAH

Gramlich Exploration

Sept. 21, 1954

SAMPLE DESCRIPTION		% U_3O_8	% Co	%	%
1	6 & 7		Trace		
2	10 & 11		Trace		
3	14 & 15		None		
4 Monette	16 & 17		Trace		
5	20 & 21		None		
6	24 & 25		None		
7	28 & 29		Trace		
8	30-31-32		0.01		
9	Picked 32		0.04		
10	1 & 2		None		
11	5 & 6		None		
12 Tom	9 & 10 Best		0.02		
Big 13	9 & 10 low		Trace		
14	13 & 14		None		
15	17 & 18		None		
16	21 & 22		None		
17	25 & 26		None		
18	29 & 30		None		

TOTAL CHARGES $ 34.00

J. Earl Smith
Chemist

Smith's Laboratory

CHEMIST AND ASSAYER

MOAB, UTAH

Tramlich Exploration

Sept. 21, 1957

SAMPLE DESCRIPTION		% U_3O_8	% Co	%	%
19	3 & 4		Trace		
20	7 & 8		None		
21	13 & 14		Trace		
22	15 & 16		None		
23 Michelle	17 & 18		None		
24	21 & 22		None		
25	25 & 26		Trace		
26	29 & 30		None		
27	33 & 34		None		
28	35 & 36		Trace		
29	39 & 40		Trace		
30 Top of Indian Peak			None		
31 Average Hole 1 - East Fork			Trace		

TOTAL CHARGES $ 25.00

J. Earl Smith
Chemist

Smith's Laboratory

CHEMIST AND ASSAYER
MOAB, UTAH

Idaho

Gramlich Exploration

Oct. 2, 1957

SAMPLE DESCRIPTION		% U_3O_8	% Co	% Cu	% Ag
1					
2 Monette	6 & 7			None	
3	32			None	
4 Big Tom	30-31-32			None	
5	9 & 10 Best			0.02	
6	9 & 10 Low			Trace	
7	Main part of vein	—	0.17	5.55	
8	Close to foot wall	—	0.14	1.51	
9	Close to hanging wall	—	Trace	0.44	
10	Inside of drift		0.08	8.04	
11	Middle of vein	—	0.21	4.72	
12	25 & 26		None		
13	27 & 28		Trace		
14 Bob Cat	29 & 30		0.02		
15	31-32		0.03		
16	33 & 34		Trace		
17	35 & 36		None		
	37 & 38		None		

From 75' level of Monette

TOTAL CHARGES $ 40.00

J. Earl Smith
Chemist

DMEA APPLICATION - COBALT AND NICKEL
Granlich Minerals, Inc.
Box 435, Moab, Utah

P-5563
Lab. No.

W. Granlich
Submitted by

Marked

Utex Exploration Company, Inc.
MINERALS EXPLORATION & DEVELOPMENT
BOX 487
MOAB, UTAH

Spectograph

No.

3-13-58
Date

SPECTROGRAPHIC ANALYSIS

Sample from John & Phil from 75' Ver on Gap.

Aluminum	I	Lithium		Thorium	
Antimony		Magnesium	0.1-1.0	Tin	
Arsenic		Manganese	0.01-0.1	Titanium	0.01-0.1
Barium	0.001-0.01	Mercury		Tungsten	
Beryllium		Molybdenum		Uranium	
Bismuth		Nickel	0.004	Vanadium	
Boron		Osmium		Zinc	
Cadmium		Palladium		Zirconium	0.001-0.0
Calcium	L	Phosphorus		Rare Earths	
Chromium	0.001-0.01	Platinum			
Cobalt	0.011	Potassium	0.1-1.0		
Columbium		Rhenium			
Copper	I - 9.2	Rhodium			
Gallium		Rubidium			
Germanium		Silicon	M		
Gold		Silver	0.002		
Hafnium		Sodium			
Indium		Strontium			
Iridium		Tantalum			
Iron	0.1-1.0	Tellurium			
Lead		Thalium			

(M) Refers to concentration greater than 10%, (I) 1-10%, (ND), not detected.
If figures are reported, Semiquantitative methods were used in analysis.

By

GRAMLICH MINERALS, INC.
Box 455, Moab, Utah

19 1956
CODE

LEASE AGREEMENT

THIS LEASE, made and entered into this 1st day of April, 1957, by and between JOHN W. GRAMLICH, SR., a single person of Moab, Utah, Party of the First Part, hereinafter referred to as Lessor, and GRAMLICH MINERALS, INC., a Colorado corporation, of Grand Junction, Colorado, Party of the Second Part, hereinafter referred to as Lessee;

WITNESSETH:

WHEREAS, on December 11, 1956, John W. Gramlich, who is one and the same person as John W. Gramlich, Sr., the Lessor herein, entered into a lease agreement with Leslie O. Smith and Harriet E. Smith to lease from them certain unpatented lode mining claims located in Lemhi County, Idaho, described as Copper Hill Nos. 1 through 5 inclusive, and Silver Lead, and on November 9, 1956 entered intoa lease agreement with Leslie O. Smith, Harriet E. Smith, Arthur May and Virginia Arid May, involving the following described unpatented lode mining claims located in Lemhi County, Idaho, described as East Fork Nos. 1 through 27 inclusive, and Cabin Claim, and,

WHEREAS, the Lessor is the owner of unpatented lode mining claims located in Lemhi County, Idaho, described as 1A, 2A and 3A; and,

WHEREAS, Lessor desires to sub-lease to Lessee all his right title and interest in and to said two Mining Leases and to lease said three mining claims owned by him, all on the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the rents and royalties hereinafter reserved, and the covenants and agreements hereinafter contained on the partof the Lessee, the Lessor hereby leases to the Lessee his interest in said claims, for a term of ten years from and after the date hereof, subject to termination and surrender as hereinafter set forth.

1. The Lessee shall have the exclusive right to enter into immediate possession, and to prospect and explore the same and to sell and remove all minerals and/ores which may be lawfully removed therefrom, and maintain buildings and such other improvements thereon as may be necessary in the conduct of its mining operations hereunder.

2. The Lessee agrees to pay Lessor a royalty of five percent of the gross value of all the amenable ore recoverable, and saleable ores mined and sold from the said three claims owned by Lessor, and to pay Lessor a total overriding royalty of five percent of the gross proceeds of all ores mined and sold from the claims described in said two leases; and in addition thereto, the Lessee agrees to pay the Lessors in said two leases the royalties and cash payments due them, and to otherwise assume and comply with all of the terms and conditions of the two leases.

3. It is further agreed that Lessee shall comply with all federal and state laws in conducting its operation under this lease, and will post and keep posted such notices as Lessor may demand, and agrees to indemnify, protect and hold Lessor harmless from any and all claims or damages of whatso-

ever kind or nature arising from the activities of the Lessee upon the leased premises. Lessee agrees to keep the leased premises free and clear of all liens and encumbrances made or suffered by the Lessee, and agrees to pay the claims of all mechanics and material men with respect to improvements on the mining claims, and to pay taxes and assessments on any improvements placed on the leased premises, and to pay any tax which may be levied by reason of the extraction of ore from theleased premises, including the Mines License Tax of the State of Idaho, before the same becomes delinquent, except any thereof that it may, in good faith, dispute.

4. Lessee agrees to permit the Lessor, or his agent, at reasonable times, to examine its smelter returns and sales records, insofar as they relate to the operation of said mining claims and the sale of mine products therefrom, to the extent required for the determination of royalties hereunder, and to examine said property and mining operations conducted thereon and therein.

5. Lessee agrees to do and perform all assessment work and annual labor which shall be necessary to hold the mining claims under the laws of the United States of America, and under the laws of the State of Idaho, each year, within the time required by law, and record timely and proper proof of said annual labor in the name of the Lessor.

6. Lessee agrees to provide Lessor, upon request, with information as to the results of its drilling and prospecting from time to time. Lessee shall have a right to erect, construct and maintain such mills, plants and other structures

as it may determine necessary in connection with its operation. Lessee shall have the full right of ingress and egress upon and across all the mining claims for all purposes. Title to all improvements and fixtures, except permanent buildings, shall remain in the Lessee at all times, and in the event of a forfeiture, cancellation, or surrender of this agreement, the Lessee shall have a period of 60 days in which to remove the same.

7. If the Lessee shall fail to make any payment, or perform any of its obligations hereunder, the Lessor may terminate this lease, provided Lessor shall have first given Lessee written notice, by registered mail, specifying the particulars wherein Lessee is then in default, and Lessee shall have failed, within the ensuing period of 30 days, to rectify the same, there being excluded from said period of 30 days any period during which Lessee shall be unable, because of any law, regulation or restriction, or any accident, force, requirement or circumstance beyond its reasonable control, to rectify any such default and any period during which Lessee, having in good faith, within the aforementioned period of 30 days, commenced to rectify any such default, and is in good faith and with reasonable diligence proceeding to complete the rectification of such default. In the event of any such termination, all payments received by Lessor shall be retained by the Lessor.

8. Notwithstanding any other provision hereof, Lessee shall have the right and option, at any time, or from time to time, by giving at least 10 days notice of its election so

to do, to surrender its rights under this lease with respect to any one or more of the mining claims or properties, and in such event such claims or properties so surrendered shall no longer be deemed or considered to be subject to or within the terms or provisions of this lease agreement, and in the event Lessee shall surrender its rights under this lease with respect to all of the mining claims, such surrender shall fully terminate this lease agreement and relieve Lessee of all further obligations hereunder, excepting only any obligation which might exist to pay royalty as herein reserved for any time during which Lessee shall occupy said premises under this lease, and prior to the ~~actual~~ surrender thereof.

9. Lessor consents that the Lessee may apply for a DMEA loan for such amount as it may deem advisable, and agrees to co-operate with Lessee in respect thereto, and to execute any papers or instruments required by the DMEA loan, and further agrees that his rights may be subordinated to such loan.

10. All notices herein referred to shall be in writing and shall be sent by registered mail, postage prepaid, and shall be addressed as follows:

If to Lessor: John W. Gramlich, Sr.
Box 435
Moab, Utah

If to Lessee: Gramlich Minerals, Inc.
Moab
Utah

GRAMLICH MINERALS, INC.
Box 435, Moab, Utah

THIS AGREEMENT shall be binding upon and inure to the benefit of the heirs, personal representatives, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year first above written.

John W. Gramlich Sr.
LESSOR

ATTEST: GRAMLICH MINERALS, INC.

Philip F. Gramlich, Secretary By John W. Gramlich Sr., President

LESSEE

STATE OF)
)ss.
COUNTY OF)

On this 13th day of May, 1958, before me, the undersigned, a Notary Public in and for said State, personally appeared John W. Gramlich, Sr., known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written in this certificate.

My Commission Expires July 20, 1960

Anthony W. Williams
Notary Public
Residing at Grand Junction, Colo.

STATE OF)
)ss.
COUNTY OF)

On this 13th day of May, 1958, before me, a Notary Public in and for said State, personally appeared John W. Gramlich, Sr., known to me to be the person whose name is subscribed to the within instrument as President of Gramlich Minerals, Inc., and acknowledged to me that he executed the same as such President of Gramlich Minerals, Inc.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written in this certificate.

My Commission Expires July 20, 1960

Anthony W. Williams
Notary Public
Residing at Grand Junction, Colo

GRAMLICH MINERALS, INC.
Box 435, Moab, Utah

OFFICIAL FILE COPY
DUNEA
FEBRUARY 19

LEASE AGREEMENT

THIS LEASE, made and entered into this 1st day of Oct., 1957, by and between PHILIP F. GRAMLICH of Moab, Utah, party of the first part, hereinafter referred to as Lessor, and GRAMLICH MINERALS, INC., a Colorado corporation, of Grand Junction, Colorado, party of the second part, hereinafter referred to as Lessee,

WITNESSETH:

WHEREAS, the parties hereto desire to enter into a lease on the unpatented mining claims owned by the Lessor in Lemhi County, Idaho, more particularly described in Exhibit "A" hereto attached and by reference made a part hereof, on the conditions and terms hereinafter set forth,

NOW, THEREFORE, in consideration of the rents and royalties hereinafter reserved, and the covenants and agreements hereinafter contained on the part of the Lessee, the Lessor hereby leases to the Lessee his interest in said claims, for a term of ten years from and after the date hereof, subject to termination and surrender as hereinafter set forth.

1. The Lessee shall have the exclusive right to enter into immediate possession, and to prospect and explore the same and to sell and remove all minerals and ores which may be lawfully removed therefrom, and maintain buildings and such other improvements thereon as may be necessary in the conduct of its mining operations hereunder.

2. The Lessee agrees to pay the Lessor, in proportion to his interest and on the claims owned by the Lessor, a royalty of 5% of the gross value of all amenable ore recoverable and

salable ores mined and sold from the leased premises, such royalty to be paid directly by the ore buyer to the Lessor.

3. It is further agreed that the Lessor may sell all or such part of the claims and leases involved herein, for such price as may be mutually agreeable to Lessor and Lessee, and in the event of such sale the Lessee herein agrees to surrender this lease upon reimbursement to it of all expenses incurred by the Lessee in the exploration, development and mining of the leased premises, less ore returns, plus a 2½% continuing overriding royalty on all ores mined and sold from the leased premises, or in lieu of 2½% royalty, at the option of the Lessor, 2½% of the total sales price.

4. It is further agreed that Lessee shall comply with all federal and state laws in conducting its operation under this lease, and will post and keep posted such notices as Lessor may demand, and agrees to indemnify, protect and hold Lessor harmless from any and all claims or damages of whatsoever kind or nature arising from the activities of the Lessee upon the leased premises. Lessee agrees to keep the leased premises free and clear of all liens and encumbrances made or suffered by the Lessee, and agrees to pay the claims of all mechanics and material men with respect to improvements on the mining claims, and to pay taxes and assessments on any improvements placed on the leased premises, and to pay any tax which may be levied by reason of the extraction of ore from the leased premises, including the Mines License Tax of the State of Idaho, before the same becomes delinquent, except any thereof that it may, in good faith, dispute.

5. Lessee agrees to permit the Lessor, or his agent, at reasonable times, to examine its smelter returns and sales records, insofar as they relate to the operation of said mining claims and the sale of mine products therefrom, to the extent

required for the determination of royalties hereunder, and to examine said property and mining operations conducted thereon and therein.

6. Lessee agrees to do and perform all assessment work and annual labor which shall be necessary to hold the mining claims under the laws of the United States of America, and under the laws of the State of Idaho, each year, within the time required by law, and record timely and proper proof of said annual labor in the name of the Lessor.

7. Lessee agrees to provide Lessor, upon request, with information as to the results of its drilling and prospecting from time to time. Lessee shall have a right to erect, construct and maintain such mills, plants and other structures as it may determine necessary in connection with its operation. Lessee shall have the full right of ingress and egress upon and across all the mining claims for all purposes. Title to all improvements and fixtures, except permanent buildings, shall remain in the Lessee at all times, and in the event of a forfeiture, cancellation, or surrender of this agreement, the Lessee shall have a period of 60-days in which to remove the same.

8. If the Lessee shall fail to make any payment, or perform any of its obligations hereunder, the Lessor, may terminate this lease, provided Lessor shall have first given Lessee written notice, by registered mail, specifying the particulars wherein Lessee is then in default, and Lessee shall have failed, within the ensuing period of 30 days, to rectify the same, there being excluded from said period of 30 days any period during which Lessee shall be unable, because of any law, regulation or restriction, or any accident, force, requirement or circumstance beyond its reasonable control, to rectify any such default and any period during which Lessee, having in good faith, within

the aforementioned period of 30 days, commenced to rectify any such default, and is in good faith and with reasonable diligence proceeding to complete the rectification of such default. In the event of any such termination, all payments received by Lessor shall be retained by the Lessor.

9. Notwithstanding any other provision hereof, Lessee shall have the right and option, at any time, or from time to time, by giving at least 10 days notice of its election so to do, to surrender its rights under this lease with respect to any one or more of the mining claims or properties, and in such event such claims or properties so surrendered shall no longer be deemed or considered to be subject to or within the terms or provisions of this lease agreement, and in the event Lessee shall surrender its rights under this lease with respect to all of the mining claims, such surrender shall fully terminate this lease agreement and relieve Lessee of all further obligations hereunder, excepting only any obligation which might exist to pay royalty as herein reserved for any time during which Lessee shall occupy said premises under this lease, and prior to the actual surrender thereof.

10. Lessor consents that the Lessee may apply for a DMEA loan for such amount as it may deem advisable, and agrees to cooperate with Lessee in respect thereto, and to execute any papers or instruments required by the DMEA loan, and further agree that their rights may be subordinated to such loan.

11. All notices herein referred to shall be in writing and shall be sent by registered mail, postage prepaid, and shall be addressed as follows:

If to Lessor: Philip Gramlich
460 - 70 South St.
Moab, Utah

GRAMLICH MINERALS, INC.
Box 435, Moab, Utah

If to Lessee: Gramlich Minerals, Inc.
Box 435
Moab, Utah

THIS AGREEMENT shall be binding upon and inure to the benefit of the heirs, personal representatives, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year first above written.

Philip F. Gramlich
Philip F. Gramlich

LESSOR

ATTEST

GRAMLICH MINERALS, INC.

Philip F. Gramlich
Secretary

By John W. Gramlich Sr.
President

LESSEE

State of Colorado)
) ss.
County of Mesa)

On this 13th day of May, 1958, before me, the undersigned, a Notary Public in and for said State, personally appeared Philip F. Gramlich, known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written in this certificate.

My Commission Expires July 20, 1960

Anthony W. Williams
Notary Public
Residing at Grand Junction, Colo.

State of Colorado)
) ss.
County of Mesa)

On this 13th day of May, 1958, before me, a Notary Public in and for said State, personally appeared John W. Gramlich, Sr., known to me to be the person whose name is subscribed to the within instrument as President of Gramlich Minerals, Inc., and acknowledged to me that he executed the same as such President of Gramlich Minerals, Inc.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written in this certificate.

My Commission Expires July 20, 1960

Anthony W. Williams
Notary Public
Residing at Grand Junction, Col.

GRAMLICH MINERALS, INC.
Box 435, Moab, Utah

EXHIBIT "A"

Lemhi County, Idaho

Claims Controlled or
Claims Staked by Phil Gramlich

Michelle Group:

Michelle Numbers 1 through 38 inclusive.

Glance Group:

Glance Numbers 1 through 8 inclusive.

Monette Group:

Monette Numbers 1 through 32 inclusive.

Bobcat Group:

Bobcat Numbers 1 through 38 inclusive. J.W.G.

Bug Group: J.W.G.

Bug Numbers 1 and 2. J.W.G.

Gap Group:

Gap Numbers 1 through 7 inclusive.

Mt. Zither Group:

Mt. Zither Numbers 3 through 6 inclusive.
Zither
Zither 1
Zither 2

~~West Fork Group:~~ Belong To J.W. Gramlich & Jess Thom
~~West Fork Numbers 1 through 9 inclusive.~~ J.W.G.

GRAMLICH MINERALS, INC.
Box 435, Moab, Utah

LEASE AGREEMENT

This Lease Agreement, made and entered into this 11th day of December, 1956, by and between LESLIE C. SMITH and HARRIET E. SMITH, husband and wife, of Lemhi County, Idaho, parties of the first part hereinafter referred to as Lessors, and JOHN W. GRAMLICH of Box 435, Moab, Utah, party of the second part, hereinafter referred to as Lessee,-

RECITALS

1. Lessors represent that they are the sole owners of those certain unpatented lode mining claims, situate, located and being on ~~on the West Fork of~~ Indian Creek in Lemhi County, State of Idaho, identified as the COPPER HILL GROUP, names and location notices of which are recorded in the office of the County Recorder of Lemhi County, State of Idaho, as follows:

NAME OF CLAIM	DATE OF LOCATION	FILED	BOOK	PAGE
COPPER HILL NO. 1	9/25/55	10/22/55	7	267
COPPER HILL NO. 2	11/ 1/56	11/14/56	8	206
COPPER HILL NO. 3	11/ 5/56	11/14/56	8	207
COPPER HILL NO. 4	11/ 3/56	11/14/56	8	207
COPPER HILL NO. 5	11/12/56	11/14/56	8	208
SILVER LEAD	11/ 6/56	11/14/56	8	208

and all appurtenances, tenements, hereditaments, water rights, ditch rights, easements and rights of way appurtenant, belonging or in any wise appertaining to said claims or any thereof, which said claims are in good standing and free from adverse claims, liens and encumbrances and all adits and stakes complete and in place.

2. Lessee desires to lease with the option to purchase the above named claims and any and all appurtenances, tenements, hereditaments, water rights, ditch rights, easements or rights of way thereto belonging or in anywise appertaining, which are [illegible] after collectively referred to as the mining claims, and lessee desire to lease, with option to purchase the same unto the lessee upon the terms and conditions hereinafter set forth.

FRED H. SNOOK
LAWYER
SALMON, IDAHO

GRAMLICH MINERALS INC
Box 435, Moab, Utah

AGREEMENT

NOW, THEREFORE, In consideration of the rents and royalties hereinafter reserved and the covenants and agreements hereinafter contained on the part of the lessee and the lessors to be done and performed, the parties hereto agree as follows:

FIRST: Lessors hereby lease the mining claims above described to the lessee for the term of SIX YEARS from and after the date hereof, subject to the provisions of this Lease and Option Agreement, with respect to prior termination of the lease provisions. Lessors further grant unto the lessee the exclusive right to enter into immediate possession and use of said mining claims and to prospect and explore the same and to sell and remove all minerals, ores, timber or other resources which may lawfully be removed therefrom and without limitation; to work, mine, construct and maintain buildings thereon and enjoy complete possession thereof.

SECOND: As rental and royalty lessee agrees to pay unto the lessors minimum rent as follows:

$ 750.00 down on the signing of this Agreement as rent to the 1st day of January, 1958;
$ 500.00 on or before the 1st day of January, 1959;
$ 500.00 on or before the 1st day of January of each succeeding calendar year thereafter until the fully amount of $6,000.00 has been paid.

Lessee further agrees that if the mine shall be operated as a mine by him and shipments of valuable ore or other metals be made therefrom, the lessors shall receive a 5% over-ride royalty upon all such shipments; which said royalty shall be in addition to the rental above set forth. It is the intent of the undersigned that the 5% over-ride royalty shall be paid until the [illegible] thereof at which time 5% of the purchase price of this agreement shall be in lieu of continued royalty and shall terminate [illegible] said over-ride royalty.

Lessee further agrees that if the above described [illegible] shall be sold either alone or in conjunction with other [illegible] he will pay or cause to be paid to the lessors [illegible] purchase price for such mining claims [illegible]

[illegible] or royalty under the terms of this lease. [illegible] development costs properly attributive to the above described claims;

Lessors agree that all rent paid under the terms hereof shall be credited against the purchase price herein set forth in the Option attached hereto; PROVIDED, HOWEVER, that the 5% over-ride royalty and the 5% sales price shall not in any event be continued for the life of the ground.

THIRD: Lessors warrant that the mining claims are good, valid and subsisting claims, subject only to the paramount title of the United States, and that Lessors are the sole owners of said claims and all appurtenances, tenements, hereditaments, water rights, ditch rights, easements and rights of way appurtenant, belonging or in any wise appertaining to the mining claims or any thereof, free and clear of all adverse claims, liens and encumbrances, and lessors agree to warrant and defend the title thereto and right of possession thereof against all persons whomsover and will clear the same from all adverse claims, liens and encumbrances. It is understood that lessee has not made or completed an examination respecting the validity of or the title to the above named claims or respecting the existence or value of any minerals therein and it is agreed that neither the execution of this lease nor lessee's operations thereunder shall prejudice or impair the right of lessee to assert in good faith the invalidity of any of said claims or of the title thereto or the right of lessee to determine whether he shall at any time or from time to time mine any of said claims.

FOURTH: Lessee agrees to record and post all statutory notices with respect to keeping the mining claims covered by this lease free and clear from claims for labor or mateirals which may be required by the laws of the State of Idaho, or the United States of America, nor or hereafter in effect; to post and keep posted

FRED H. SNOOK
LAWYER
SALMON, IDAHO

proper notices informing all persons that the above described premises are being operated by lessee; to comply with all laws of the United States and of the State of Idaho respecting unemployment compensation insurance and social security, and to hold the lessors harmless from any and all claims or damages of whatsoever kind or nature arising from the activities of the lessee upon said premises.

FIFTH: Lessee agrees to keep the mining claims free and clear of all liens and encumbrances made or suffered by the lessee, except mechanics', materialmen's and similar liens and the liens of taxes and assessments, and lessee agrees to pay the claims of mechanics and materialmen with respect to improvements on the mining claims and taxes and assessments on the mining claims, the improvements situate thereon and mine products which may be extracted therefrom, including the Mines License Tax of the State of Idaho, before the delinquency, except any thereof that it may in good faith dispute.

SIXTH: Lessee agrees to permit the lessors, or their agents, at reasonable times, to examine its smelter returns and sales records insofar as they relate to the operations of said mining claims and the sale of the mine products therefrom, to the extent required for the determination of royalties hereunder, and to examine said property and the mining operations conducted thereon and therein; provided, however, that nothing herein shall preclude lessee from restricting access to his milling operations or to other locations that it deems secret and confidential.

SEVENTH: Lessee agrees to do and perform all assessment work and annual labor which shall be necessary to hold the mining claims under the laws of the United States of America and under the laws of the State of Idaho each year before the expiration of the statutory period for the performance of such work and labor, including the assessment work and annual labor necessary to be done to hold the mining claims for the year ending July 1, [illegible] at [illegible] o'clock noon, and be posted in the office of [illegible]

FRED H. SNOW
LAWYER
[illegible]

Recorder of Lemhi County, Idaho, timely and proper proof of said annual labor in the names of the lessors. It is mutually agreed by and between the parties hereto that in the event there should be enacted in any year during the term of this lease, legislation of the United States of America providing moratorium in, or suspension of, the requirement that assessment work and annual labor be done and performed upon mining claims within the United States for such year, that the benefit of each such moratorium or suspension shall accrue to all of the parties hereto and the requirement of this lease agreement that the lessee perform the annual labor and assessment work in each such year wherein moratorium or suspension shall be granted shall be waived or suspended, as the case may be, so long as the lessee shall comply with all of the requirements of such moratorium or suspension legislation, all to the end that such mining claims shall be maintained in good standing under the laws of the United States of America and of the State of Idaho.

EIGHTH: Lessee agrees to provide lessors with the information respecting the results of its drilling and prospecting on the mining claims during the period ending July 1, 1957, and lessors agree to keep such information secret and confidential.

NINTH: The lessors covenant that the discovery and location work is complete on all of the above described mining claims; the lessee agrees to do all assessment work when due on the other mining claims described and to see that proper location notices are filed in the office of the County Recorder of Lemhi County, Idaho, in the name of the lessors. The lessee further covenants and agrees to suffer nor permit any liens or encumbrances to be filed upon any of the premises herein described during the life of this agreement and further agrees that any violation of this covenant will constitute a substantial breach of this lease agreement;

Lessee further agrees that the lease and option herein granted are entirely experimental and a termination of [illegible] terminate the other.

[redacted] Minerals Inc.
Box 435, Moab, Utah

TENTH: It is further mutually agreed that the lessee at his sole discretion and expense, shall have the right to erect, construct and maintain upon and at and in the mining claims such mills, plants, buildings, structures, tanks, machinery, equipment, roads, pipe and pole lines and other improvements and fixtures as it may desire. The lessee shall also have full rights of ingress and egress upon and across all the mining claims for all purposes. Title to all improvements and fixtures, except permanent buildings built into such mining claims, shall remain in the lessees at all times, and in the event of a forfeiture, cancellation or termination of this agreement, any and all improvements and fixtures, excepting only permanent buildings built into such mining claims, may be removed from the said mining claims by the lessee within the period of ONE YEAR from the time of such termination. All permanent buildings which shall be placed upon said mining claims shall become a part thereof and shall not be removed, but the lessee shall have the right to demolish the same or to make such alteration or change in the location thereof as it may deem advisable from time to time during the term of this lease.

ELEVENTH: If lessee shall fail to make any payment or perform any of its obligations hereunder, lessors may terminate this lease, provided lessors shall have first given lessee written notice by registered mail specifying the particulars wherein lessee is then in default and lessee shall have failed with the ensuring period of THIRTY DAYS to rectify the same, there being excluded from said period of THIRTY DAYS any period during which lessee shall be unable because of any law, regulation or restriction or any accident, force, requirement or circumstance beyond his reasonable control to rectify any such default and any period during which lessee, acting in good faith within the aforementioned period, may have sought to rectify any such default, in the process of which diligence proceeding to complete the rectification

Gramlich Minerals Inc.
Box 435, Moab, Utah

of such default. In the event of any such termination all payments which shall have been made by lessee to lessors hereunder shall be considered as rents and royalties and shall be retained by lessors free and clear of any right or claim of lessee, and in this connection time is of the essence of this agreement. Failure of lessors to give notice of termination upon default in a payment or payments, or in the performance of any other provision hereof, shall not be construed a waiver of lessors' right to give such notice in the event of any succeeding default.

TWELFTH: All of the terms and conditions hereof shall bind and inure to the heirs, devisees, executors, administrators and assigns of the respective parties hereto.

THIRTEENTH: Notwithstanding any other provision hereof, lessee shall have the right and option, at any time or from time to time, by at least THIRTY DAYS' notice of its election so to do (which notice of election may specify the effective date thereof), to surrender his rights under this lease with respect to any one or more of the mining claims, and in such event such claims so surrendered shall no longer be deemed or considered to be subject to or within the terms or provisions of this lease agreement, and in the event lessee shall surrender his rights under this lease with respect to all of the mining claims, such surrender shall fully terminate this lease agreement and relieve lessee of all further obligations hereunder, excepting only any obligation which might exist to pay rental or royalty as herein reserved for any time during which the lessee shall occupy said premises under this lease and prior to the actual surrender thereof, upon any such surrender by lessee, all payments which shall have been made to lessors shall be retained by lessors and shall be considered as rent and royalty hereunder.

The lessors may from time to time direct that payment be made at other places than that herein specified; but if any change be made, lessee shall be notified thereof in writing.

FRED H. SNOOK
LAWYER
SALMON, IDAHO

Gramlich Minerals, Inc.
Box 35, Moab, Utah

All notices herein referred to shall be in writing and shall be delivered to the party at the address given herein, unless otherwise specified by written notice sent by registered mail.

FOURTEENTH: The provisions of this lease shall be interpreted according to the laws of the State of Idaho and the mining laws of the United States.

FIFTEENTH: In the event of a termination of this lease according to the provisions herein contained, the lessee shall forthwith vacate said premises, and shall convey and quitclaim to the lessors all interest in the property herein demised with the appurtenances, and said lessors or their agents may thereupon demand possession, without further notice, and with or without process of law, enter upon said premises and dispossess all persons occupying the same, using such force as shall be necessary to accomplish this purpose. At their option, the lessors may elect to proceed at law to recover such possession in such event lessee shall pay all court costs and a reasonable attorney fee; this section shall be subject to, and shall not modify or amend, the provision of Section Tenth hereof.

OPTION

In consideration of the sum of ONE DOLLAR, receipt whereof is hereby acknowledged, the lessors hereby give and grant unto the lessee an Option to purchase the above described premises for the sum of $6,000.00 during any and all of the time that the aforesaid lease is in full force and effect, all rentals shall be applied upon said purchase price; PROVIDED, HOWEVER, and nothing in this lease or option agreement to the contrary notwithstanding, if the lessee shall operate the said premises as a mine he shall pay to the lessors a [illegible]% over-ride royalty for the life of the ground; PROVIDED, HOWEVER, further, and nothing herein notwithstanding, that if the lessee shall sell the above described premises, either alone or in con- [illegible] shall be so [illegible] pay unto the lessors a [illegible] [illegible] of the sales price, less any amount paid, upon the [illegible]

Gramlich Minerals Co.
Box 435, Moab, Utah

development costs expended by the lessee upon any of the above described property which is included in the premises so sold.

When lessees shall exercise the option herein conferred the lessors will execute and deliver unto the lessee a good and sufficient mining deed to the above described premises, free and clear of any lien or encumbrance whatsoever excepting those made or suffered by the lessee and subject, always, to the paramount title in the United States of America.

It is the intent of undersigned that the 5% over-ride royalty be paid until event of sale at which time 5% of purchase price (this agreement) shall be in lieu of continued royalty and to act to terminate said royalty.

All the terms and conditions hereof shall bind and inure to the heirs, devisees, executors, administrators and assigns of the respective parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals and executed this agreement in quintuplicate the day and year first above written.

The parties of the first part agree not to stake or cause to have staked any claims on the East side of Indian Creek within one mile in a Northerly direction from Grizzly Springs and none at all in an easterly direction.

Leslie O. Smith (SEAL)

Harriet E. Smith (SEAL)

Lessors

John W. Gramlich Jr. (SEAL)

Lessee

STATE OF IDAHO
County of Lemhi--SS

On this 11th day of December, 1956, before me, the undersigned, a Notary Public in and for said state, personally appeared Leslie O. Smith and Harriet E. Smith, husband and wife, and John W. Gramlich, known to me to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Patricia Hughes Scott

Notary Public for Idaho, Residing at Salmon, Idaho

FIELD & KINNER
LAW
SALMON, IDAHO

LEASE AGREEMENT

THIS LEASE AGREEMENT, made and entered into as of the 7th day of November, 1956, by and between LESLIE G. SMITH and MARGARET E. SMITH, husband and wife, and ARTHUR MAY and VIRGINIA [illegible] MAY, husband and wife, all of Salmon County of Lemhi, State of Idaho, parties of the first part, hereinafter referred to as Lessors, and JOHN W. GRAMLICH, of Box 435, Moab, State of Utah, party of the second part, hereinafter referred to as Lessee,-

RECITALS

1. Lessors represent that they are the sole owners of those certain unpatented lode mining claims, situate, located and being on the East Fork of Indian Creek in Lemhi County, State of Idaho, identified as the EAST FORK GROUP, names and location notices of which are recorded in the office of the County Recorder of Lemhi County, State of Idaho, as follows:

NAME OF CLAIM	DATE OF LOCATION	FILED	BOOK	PAGE
CABIN	6/25/56	8/13/56	7	620
EAST FORK #1	6/4/56	8/13/56	7	621
EAST FORK #2	6/15/56	8/13/56	7	622
EAST FORK #3	6/17/56	8/13/56	7	622
EAST FORK #4				
EAST FORK #5	9/19/56	11/8/56	7	155
EAST FORK #6	9/19/56	11/8/56	7	153
EAST FORK #7	10/21/56	11/8/56	7	156
EAST FORK #8	10/21/56	11/8/56	7	156
EAST FORK #9	10/21/56	11/8/56	7	157
EAST FORK #10	9/20/56	11/8/56	7	157
EAST FORK #11	9/20/56	11/8/56	7	158
EAST FORK #12	10/25/56	11/8/56	7	158
EAST FORK #13	10/25/56	11/8/56	7	159
EAST FORK #14	10/25/56	11/8/56	7	159
EAST FORK #15	[illegible]	[illegible]	[illegible]	160
EAST FORK #16	10/21/56	11/8/56	7	160
EAST FORK #17	10/24/56	11/8/56	7	[illegible]
EAST FORK #18	11/2/56	11/8/56	7	161
EAST FORK #19	11/1/56	11/8/56	7	162
EAST FORK #20	[illegible]	[illegible]	[illegible]	[illegible]
EAST FORK #21	[illegible]	[illegible]	[illegible]	[illegible]
EAST FORK #22	[illegible]	[illegible]	[illegible]	[illegible]
EAST FORK #23	[illegible]	[illegible]	[illegible]	[illegible]
EAST FORK #24	[illegible]	[illegible]	[illegible]	[illegible]

2. The Lessors represent that the Lessors Leslie G. Smith and Harriet E. Smith are entitled to an undivided 40% of all rents from said claims and that the Lessors Arthur May and Virginia Arid May are entitled to an undivided 40% of all rents from said claims.

3. Lessee desires to lease with the option to purchase the above named claims and any and all appurtenances, tenements, hereditaments, water rights, ditch rights, easements or rights of way thereto belonging or in anywise appertaining, which are hereinafter collectively referred to as the mining claims, and Lessors desire to lease, with option to purchase the same unto the Lessee upon the terms and conditions hereinafeter set forth.

A G R E E M E N T

NOW, THEREFORE, In consideration of the rents and royalties hereinafter reserved and the covenants and agreements hereinafter contained on the part of the Lessee and the Lessors to be done and performed, the parties hereto agree as follows:

FIRST: Lessors hereby lease the mining claims above described to the Lessee for the term of TEN YEARS from and after the date hereof, subject to the provisions of this Lease and Option Agreement, with respect to prior termination of the lease provisions. Lessors further grant unto the Lessee the exclusive right to enter into immediate possession and use of said mining claims and to prospect and explore the same and to mill and remove all minerals, ores, timber or other resources which may lawfully be removed therefrom and without limitation ; to work, mine, construct and maintain buildings thereon and enjoy complete possession thereof.

SECOND: As rental and royalty Lessee agrees to pay unto the Lessors minimum rent as follows:

$[illegible],000.00 down on the signing of this Agreement as rent to [illegible] 1st day of November, 1957;
$1,000.00 on or before the 1st day of November, 1958;
$1,000.00 on or before the 1st day of November of each [illegible]ing calendar year thereafter for nine consecutive calendar years or until the 1st day of Novem[illegible]
$[illegible],000.00 on or before the 1st day of November, 1[illegible]

[illegible]

Gramlich Minerals Inc
Box 435 Moab, Utah

Lessee further agrees that if the above described claims shall be sold either alone or in conjunction with other claims that he will pay or cause to be paid to the Lessors 5% of the pro rata purchase price for the claims sold, less the amount heretofore paid the Lessors as rent or royalty under the terms of this lease, and less the development costs properly attributive to the above described claims;

Lessors agree that all rent paid under the terms hereof shall be credited against the purchase price herein set forth in the Option attached hereto; PROVIDED, HOWEVER, that the 5% over-ride royalty and the 5% sales price shall not in any event be continued for the life of the ground.

THIRD: Lessors warrant that the mining claims are good, valid and subsisting claims, subject only to the paramount title of the United States, and that Lessors are the sole owners of said claims and all appurtenances, tenements, hereditaments, water rights, ditch rights, easements and rights of way appurtenant, belonging or in any wise appertaining to the mining claims or any thereof, free and clear of all adverse claims, liens and encumbrances, and Lessors agree to warrant and defend the title thereto and right of possession thereof against all persons whomsoever and will clear the same from all adverse claims, liens and encumbrances. It is understood that Lessee has not made or completed an examination respecting the validity of or the title to the above-named claims or respecting the existence or value of any minerals therein and it is agreed that neither the execution of this lease nor Lessee's operations thereunder shall prejudice or impair the right of Lessee to assert in good faith the invalidity of any of said claims or of the title thereto or the right of Lessee to determine whether he shall at any time or from time to time mine any of said claims.

FOURTH: Lessee agrees to record and post all statutory notices with respect to keeping the mining claims covered by this lease free and clear from claims for labor or materials which may be required by the laws of the State of Idaho, or the United States of America, now or hereafter in effect; to post and keep posted proper notices informing all persons that the above described premises are being operated by Lessee; to comply with all laws of the United States and of the State of Idaho respecting unemployment compensation insurance.

and social security, and to hold the Lessors harmless from any and all claims or damages of whatsoever kind or nature arising from the activities of the Lessee upon said premises.

FIFTH: Lessee agrees to keep the mining claims free and clear of all liens and encumbrances made or suffered by the Lessee, except mechanics', materialmen's and similar liens and the liens of taxes and assessments, and Lessee agrees to pay the claims of mechanics and materialmen with respect to improvements on the mining claims and taxes and assessments on the mining claims, the improvements situate thereon and mine products which may be extracted therefrom, including the Mines License Tax of the State of Idaho, before the delinquency, except any thereof that it may in good faith dispute.

SIXTH: Lessee agrees to permit the Lessors, or their agents, at reasonable times, to examine its smelter returns and sales records insofar as they relate to the operations of said mining claims and the sale of the mine products therefrom, to the extent required for the determination of royalties hereunder, and to examine said property and the mining operations conducted thereon or therein; provided, however, that nothing herein shall preclude Lessee from restricting access to his milling operations or to other locations that it deems secret and confidential.

SEVENTH: Lessee agrees to do and perform all assessment work and annual labor which shall be necessary to hold the mining claims under the laws of the United States of America and under the laws of the State of Idaho each year before the expiration of the statutory period for the performance of such work and labor, including the assessment work and annual labor necessary to be done to hold the mining claims for the year ending July 1, 1957, at 12:00 o'clock Noon; and to record in the Office of the County Recorder of Lemhi County, Idaho, timely and proper proof of said annual labor in the names of the Lessors. It is mutually agreed by and between the parties hereto that in the event there should be enacted in any year during the term of this lease, legislation of the United States of America providing moratorium in, or suspension of, the requirement that assessment work and annual labor be done and performed upon mining claims within the United States for such year, that the benefit of each such moratorium or suspension shall accrue to all of the parties hereto and the requirement of this lease agreement that the Lessee

Greenback Minerals, Inc.
Box 435, Moab Utah

perform the annual labor and assessment work in each such year wherein moratorium or suspension shall be granted shall be waived or suspended, as the case may be, so long as the Lessee shall comply with all of the requirements of such moratorium or suspension legislation, all to the end that such mining claims shall be maintained in good standing under the laws of the United States of America and of the State of Idaho.

EIGHTH: Lessee agrees to provide Lessors with the information respecting the results of its drilling and prospecting on the mining claims during the period ending July 1, 1957, and Lessors agree to keep such information secret and confidential.

NINTH: The Lessors covenant that the discovery and location work is complete on seven of the above described mining claims; the Lessee agrees to do all discovery work upon all of the other claims above described and to see that proper location notices are filed in the office of the County Recorder of Lemhi County, Idaho, in the name of the Lessors. The Lessee further covenants and agrees to suffer nor permit any liens or encumbrances to be filed upon any of the premises herein described during the life of this agreement and further agrees that any violation of this covenant will constitute a substantial breach of this lease agreement;

Lessee further agrees that the Lease and Option hereinafter granted are mutually dependent and a termination of one will terminate the other.

TENTH: It is further mutually agreed that the Lessee at his sole discretion and expense, shall have the right to erect, construct and maintain upon and at and in the mining claims such mills, plants, buildings, structures, tanks, machinery, equipment, roads, pipe and pole lines and other improvements and fixtures as it may desire. The Lessee shall also have full rights of ingress and egress upon and across all the mining claims for all purposes. Title to all improvements and fixtures, except permanent buildings built into such mining claims, shall remain in the Lessee at all times, and at the end of a forfeiture, cause lapse or termination of this agreement, any and all improvements and fixtures, including all permanent buildings built into such mining claims, may be removed from the mining claims or at Lessee's option and notice to the Lessors, the permanent buildings built into such mining claims may be placed upon such

mining claims shall become a part thereof and shall not be removed, but the Lessee shall have the right to demolish the same or to make such alteration or change in the location thereof as it may deem advisable from time to time during the term of this Lease.

ELEVENTH: If Lessee shall fail to make any payment or perform any of its obligations hereunder, Lessors may terminate this lease, provided Lessors shall have first given Lessee written notice by registered mail specifying the particulars wherein Lessee is then in default and Lessee shall have failed within the ensuing period of thirty (30) days to rectify the same, there being excluded from said period of thirty (30) days any period during which Lessee shall be unable because of any law, regulation or restriction or any accident, force, requirement or circumstance beyond his reasonable control to rectify any such default and any period during which Lessee, having in good faith within the aforementioned period of thirty (30) days commenced to rectify any such default, is in good faith and with diligence proceeding to complete the rectification of such default. In the event of any such termination, all payments which shall have been made by Lessee to Lessors hereunder shall be considered as rents and royalties and shall be retained by Lessors free and clear of any right or claim of Lessee, and in this connection time is of the essence of this agreement. Failure of Lessors to give notice of termination upon default in a payment or payments, or in the performance of any other provision hereof, shall not be construed a waiver of Lessors' right to give such notice in the event of any succeeding default.

TWELFTH: All of the terms and conditions hereof shall bind and inure to the heirs, devisees, executors, administrators and assigns of the respective parties hereto.

THIRTEENTH: [illegible]

to all of the mining claims, such surrender shall fully terminate this lease agreement and relieve Lessee of all further obligations hereunder, excepting only any obligation which might exist to pay rental or royalty as herein reserved for any time during which the Lessee shall occupy said premises under this lease and prior to the actual surrender thereof, upon any such surrender by Lessee, all payments which shall have been made to Lessors shall be retained by Lessors and shall be considered as rent and royalty hereunder.

FOURTEENTH: All sums herein payable to the Lessor shall be paid as follows: Thirty (30%) per cent to Leslie O. Smith, Salmon, Idaho; thirty (30%) per cent to Harriet E. Smith, Salmon, Idaho, Forty (40%) per cent to Arthur May and Virginia Arid May, Salmon, Idaho.

The Lessors may from time to time direct that payment be made at other places than that herein specified but if any change be made, Lessee shall be notified thereof in writing.

All notices herein referred to shall be in writing and shall be delivered to the party at the Address given herein, unless otherwise specified by written notice sent by registered mail.

FIFTEENTH: The provisions of this Lease shall be interpreted according to the laws of the State of Idaho and the mining laws of the United States.

SIXTEENTH: In the event of a termination of this lease according to the provisions herein contained, the Lessee shall forthwith vacate said premises, and shall convey and quitclaim to the Lessors all interest in the property herein demised [illegible] with the appurtenances, and said Lessors or their agents may thereupon demand possession, without further notice, and with or without process of law, enter upon said premises and dispossess all persons occupying the same, using such force as shall be necessary to accomplish this purpose, [illegible]

Uranium Minerals, Inc.
Box 435, Moab, Utah

OPTION

In consideration of the sum of ONE DOLLAR, receipt whereof is hereby acknowledged, the Lessors hereby give and grant unto the Lessee an Option to purchase the above described premises for the sum of $25,000.00 during any and all of the time that the aforesaid lease is in full force and effect, all rentals shall be applied upon said purchase price; PROVIDED, HOWEVER, and nothing in this Lease or Option Agreement to the contrary notwithstanding, if the Lessee shall operate the said premises as a mine he shall pay to the Lessors a 5% over-ride royalty for the life of the ground; PROVIDED, FURTHER, and nothing herein notwithstanding, that if the Lessee shall sell the above described premises, either alone or in conjunction with other claims, he shall pay unto the Lessors a 5% pro rata amount of the sales price, less any amount paid, upon the $25,000.00 purchase price herein mentioned, and less the reasonable development costs expended by the Lessee upon any of the above described property which is included in the premises so sold.

When lessee shall exercise the option herein conferred the Lessors will execute and deliver unto the Lessee a good and sufficient mining deed to the above described premises, free and clear of any lien or encumbrance whatsoever excepting those made or suffered by the Lessee and subject, always, to the Paramount title in the United States of America.

All the terms and conditions hereof shall bind and inure to the heirs, devisees, executors, administrators and assigns of the respective parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals and executed this Agreement in quintuplicate the day and year first above written. It is intent of undersigned that the 5% override royalty be paid until of sale, at which time 5% of purchase price(this agreement)shall be in lieu of continued royalty and act to terminate said royalty.

Leslie O. Smith

Harriet E. Smith

Arthur May

LESSORS

Virginia Arid May

LESSEE

John W. Gramlich Sr.

[illegible] Nickel
[illegible]

STATE OF IDAHO :
: ss.
County of Lemhi :

On this 9th day of November, 1956, before me, the undersigned, a Notary Public in and for said State, personally appeared LESLIE G. SMITH and MARGIRET E. SMITH, husband and wife, and ARTHUR MAY and VERONICA [illegible] MAY, husband and wife, known to me to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Charles Herndon
Notary Public for the State of Idaho
Residing at Salmon, Idaho.

STATE OF Idaho :
: ss.
County of Lemhi :

On this 9th day of November, 1956, before me, the undersigned, a Notary Public in and for said State, personally appeared JOHN W. GRAMLICH, known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Charles Herndon
Notary Public for State of Idaho
Residing at Salmon, Idaho.

U. S. Government Messenger Envelope

Standard Form No. 65 (Rev. 1/46)

1. Use blocks consecutively, one at
2. Void previous block.
3. Write clearly.

NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROOM		NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROO	
Mr. Merkland Rm. 6020	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP

Send surplus envelopes to supply room for reissue.

Use other side

16

Use RUN and STOP only when messenger service between Government buildings in Washington is required.
Your mail room has RUN and STOP information.

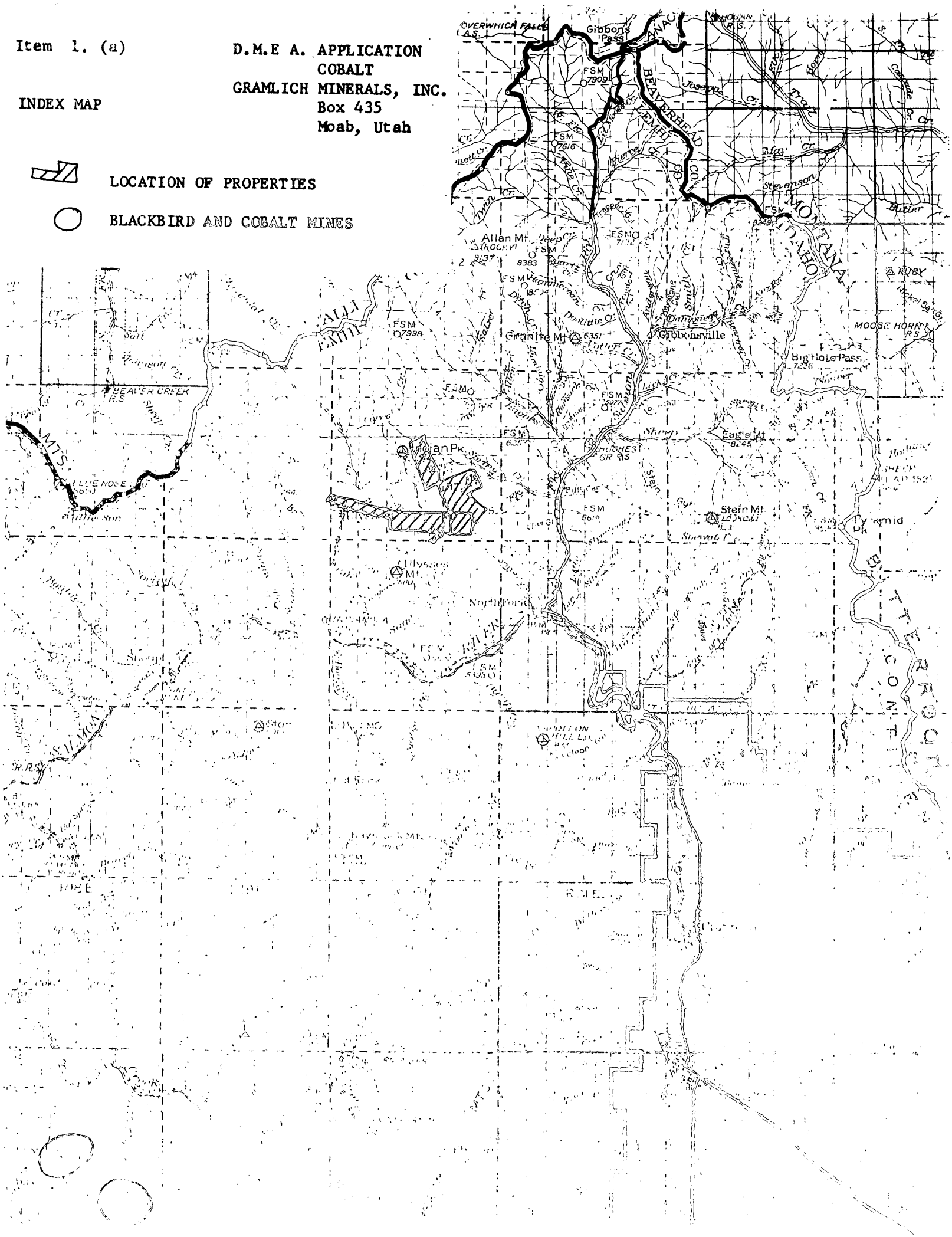
Item 1. (a)

INDEX MAP

D.M.E A. APPLICATION
COBALT
GRAMLICH MINERALS, INC.
Box 435
Moab, Utah

LOCATION OF PROPERTIES

BLACKBIRD AND COBALT MINES



DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-24	Martin	400
9/24	Selby	120
"	Johnson	110
	[illegible]	400
		220

SEP 24 1958

Mr. J. W. Graulich, Sr.
North Fork, Idaho

Re: Docket No. DMEA 5023, Cobalt-Nickel
Graulich Minerals, Inc.
Ulysses, North Fork and East Fork
Claims
Lemhi County, Idaho

Dear Mr. Graulich:

The new OME program that you asked about in your letter of September 17, 1958, is described in the enclosed press release and the copy of the proposed regulations as published in the Federal Register September 17.

Interested persons are invited to comment on these regulations during the thirty days following publication, and the Secretary of the Interior may make changes which he considers are warranted by the comments received.

The final regulations become effective after October 17, and after that date application blanks and additional information will be available in each of the OME field offices.

As you will appreciate, until we have had an opportunity to consider an application from you on one of the new blanks, we cannot state specifically what further information would be required.

Sincerely yours,

R. C. Hildebrand

ACTING Director

WSMartin:foc
9-24-58
cc to: Director's Read. File
FT. REG. I
Code 400

Enclosure

8623

OFFICIAL FILE COPY DMEA RECEIVED SEP 22 1958		
DATE	INITIALS	CODE
9/22	C	220
9/23	WSM	480
		225

Marble Fork, Idaho
Sept. 17, 1958

Attention Mr. Mittendorf
U.S. Dept Interior
D M E A Washington D.C.

Re Docket No DMEA 5023

Dear Mr Mittendorf:

Replying to yours of 8/6/58.

second paragraph, would you please state what information you might need - If it is at all possible I will get it to you in case there is a chance of resuming the program? Do you have any inf on a new program to date?

Thanking you I am,

Very Truly yours.

J. W. Gramlich Sr.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-3	Martin	400
9-3	Chapman	400
		120
	KJ	110
9/4	[illegible]	100
		220

September 3, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Denial of the subject application for exploration assistance for the estimated cost of $438,100.00
Docket No. DMEA 5023 - Cobalt and Nickel
Gramlich Minerals, Inc.
Ulysses, North Fork and East Fork claims
Lemhi County, Idaho

The processing of this application was not completed prior to June 30, 1958. However, had the processing been completed, we would have been unable to recommend a project based on the information available to us in Washington concerning the property.

The above-noted property was the subject of a request dated May 13, 1958, for exploration assistance, at an estimated cost of $438,100 for bulldozing access roads and trenches, core drilling and drifting.

The property was examined on June 6 and 7, 1958, by William C. Prinz, Geological Survey, accompanied by John W. Gramlich, Sr., and Phil F. Gramlich, president and secretary-treasurer, respectively, Gramlich Minerals, Inc.

Applicant: Gramlich Minerals, Inc.
John F. Gramlich, President
Box 435
Moab, Utah

Property Ownership: The property consists of 175 unpatented lode mining claims as follows:

Gap Nos. 1-7, Bobcat Nos. 1-39, Michelle Nos. 1-42, Monette Nos. 1-32, Glance Nos. 1-8, Bug Nos. 1 and 2, Mt. Zither and Mt. Zither Nos. 1-6, East Fork Nos. 1A-3A, and 1-28, Copper Hill Nos. 1-5, Cabin and Silver Lead, all recorded at Gibbonsville or Salmon, Lemhi County, Idaho. Book and page numbers are in Appendix I of the application, except the following:

Claim Name	Book No.	Page No.
Mt. Zither	8	110
Mt. Zither No. 2	8	111
East Fork No. 4	8	334
East Fork No. 26	8	335
East Fork No. 27	8	335
East Fork No. 28	8	336

This information for the Monette Nos. 39-42 and Mt. Zither No. 1 was not available.

The Gap, Bobcat (except No. 39), Michelle (except Nos. 39-42) Glance, Bug and Mt. Zither claims were leased to Gramlich Minerals, Inc., by Philip F. Gramlich on October 1, 1957. The East Fork Nos. 1-27 were leased with an option to buy to John W. Gramlich, Sr., by Leslie O. Smith, Harriet E. Smith, Arthur May, and Virginia Arid May, on November 9, 1956. Gramlich, Sr., also obtained a lease with an option to buy on the Copper Hill and Silver Lead claims from Leslie O. Smith and Harriet E. Smith, on December 11, 1956. Gramlich's interest in these claims were subleased to Gramlich Minerals, Inc., in an instrument dated April 1, 1957. By this same document Gramlich, Sr. leased the East Fork Nos. 1A-3A claims to the corporation. By the documents the corporation appears to control all of the claims listed in the application except the Bobcat No. 39, Michelle Nos. 39-42, and East Park No. 28.

The claims are located in the south half of T. 25 W., R. 20 E, Boise Meridian, Lemhi County, Idaho.

Geology: This area is underlain by folded Precambrian Belt sedimentaries, mainly fine grained quartzite, argillite and phyllite. Older Precambrian rocks, feldspathic-gneiss and amphibolite are found in surrounding areas.

Mineralization is found in quartz veins, generally parallel to the beddings and from a few inches up to 32 feet wide. The mining in the area has been for gold ores, with pyrite and some chalcopyrite. The veins cut by the applicant's trenches show malachite and cobalt-bloom and at places azurite, limonite and manganese stain. Mineralization is irregular and erratic.

Ore Values and Tonnage: Assays of 11 samples taken during the examination gave the following results:

Sample No.	Width Ft.	% Copper	% Cobalt
865	0.4	0.34	0.60
866	0.9	0.38	0.82
857	Grab	1.72	0.03
858	4.0	0.14	0.03
869	Grab	1.74	0.02
870	Grab	2.03	Tr.
871	65.0	Tr.	Tr.
872	4.0	0.63	0.02
873	0.25	0.38	0.02
874	0.25	0.80	Tr.
875	Grab	0.06	Tr.

Numerous samples were taken by the applicant, but only a few showed any possible pay mineralization and none indicated any significant tonnage or indicated any possibilities of economic ores. The low grade copper and cobalt mineralization is widespread.

Development: Mine workings consist of numerous pits, one 50 foot adit on the East Fork No. 2 claim, and a number of trenches, generally sloughed. While a number of veins show in the cuts and in the tunnel, none indicate any possibilities of a substantial tonnage of possible ore.

Past History and Production: This property is just north of the old gold camp of Ulysses in the Mineral Hill Mining District. No production has been made from the property.

Applicant's Proposal: The Applicant proposes to explore the property in three stages at an estimated cost of $438,100.00.

Stage I - 1,400 hours of bulldozing for trenches and access roads, and 3,600 feet of diamond drilling.

Stage II - 2,000 hours of bulldozing for trenches and access roads, 4,500 feet of diamond drilling and 500 feet of drifting.

Stage III - 2,250 feet of bulldozing for trenches and access roads, 9,500 feet of diamond drilling and 500 feet of drifting.

The Field Team believes the property warrants more prospecting which should consist of geological mapping and geochemical traverses to locate structure and area of mineralization. This should be followed by a carefully planned program of trenching, diamond drilling and possibly drifting. All this work should be on the East Fork No. 1 and No. 2 and the Gap No. 3 claims.

Conclusions and Recommendations:

Wide spread, low grade copper and cobalt mineralization is found on the property. The mineralized structures are weak and there is no evidence of continuity. At the present there are no targets worthy of Government participation in exploration.

The examining team concludes that the property warrants further prospecting and recommends that the application be denied without prejudice. The Field Team concurs in the conclusion and recommendation of the examining team. This Division concurs in the above conclusions and recommendations.

The Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the conclusions and recommendations of the Field Team.

W S Martin

W. S. Martin, Director
Division of Iron and
Ferro-Alloys

TLCHAPMAN:foc
9-3-58
cc to: Docket
Code 400
Oper. Comm.
Admr. R. File

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

August 29, 1958
Re: DMEA 5023
Gramlich Minerals, Inc.
East Fork, etc. Claims
Lemhi County, Idaho
$438,100 - Copper-Cobalt

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Report

The applicant requested assistance in exploring by bulldozing, core drilling, and drifting, 9 groups and 2 individual claims. Some work, consisting of trenching and drifting has been done and a large number of samples have been taken.

In general, the samples appear to be of the character variety as no dimensions are ascribed to them, but in certain cases the values reported are good and in at least some spots, centers of mineralization could be inferred.

The examiner's samples taken at those places indicate specimens were selected by the applicant's samplers, although 2 samples taken by the examiner across a narrow vein show worthwhile values in cobalt.

As no target of consequence is now presented, the examiner recommends that the application be denied without prejudice.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

COPY
DMEA
RECEIVED 29 1958
DATE
8/29 C 220
8/29 wsay 400

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

August 28, 1958

Re: DMEA - 5023 (Cobalt-Copper)
Gramlick Minerals, Inc.
East Fork et al Claims
Lemhi County, Idaho

Memorandum

To: W. S. Martin, Director, Division of Iron and Ferro-Alloys, Defense Minerals Exploration Administration

From: H. W. Davis, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Application Examination Report

The subject property was examined by William C. Prinz, U. S. Geological Survey, who concludes that although low grade copper and cobalt mineralization is wide spread over the claims, there is no evidence of any strong or continuous structure or other specific target worthy of exploration with DMEA funds. However, as there are areas in which targets might be found by limited additional prospecting, Prinz recommends that the application be denied without prejudice.

I concur with the conclusions and recommendation of Prinz.

H. W. Davis

H. W. Davis

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 29 1958
DATE | INITIALS | CODE
8/29 | C | 220
8/29 | WSM | 400

Attachment
Copy to: Ferrous Metals (2)
Div. of Minerals
Thor H. Kiilsgaard, U. S. Geol. Survey
Frank D. Lamb
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington
August 20, 1958

DMEA
RECEIVED AUG 25 1958

DATE	INITIALS	CODE
8/25	C	220
8/29	HB	130
8/29	C	220
9/2	WSM	400

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-5023 (Cobalt-Copper)
Gramlich Minerals, Inc.
East Fork, et al., Claims
Lemhi County, Idaho

Dear Mr. Selfridge:

Enclosed are three copies of a memorandum examination report on this property by William C. Prinz, Geologist, U. S. Geological Survey.

Prinz concludes that copper and cobalt mineralization is wide spread but very low grade and that there is no evidence of any strong or continuous structure or other specific target worthy of exploration with DMEA funds. However, there are areas in which targets might be found by limited additional prospecting. He therefore recommends that the application be denied without prejudice.

The Field Team concurs with these conclusions and recommendations.

By Field Team, Region I

D. R. MacLaren, Alternate Acting
Executive Officer
U. S. Geological Survey

Stephen W. Zoldok, Acting Member
U. S. Bureau of Mines

Enclosures
cc: USBM(2)
USGS(SRO)
Prinz

Reviewed by
DMEA OPERATING COMMITTEE
8-29-58
(date)

DMEA

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 25 1958

DATE	INITIALS	CODE
8/29	HB	130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington
August 19, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: William C. Prinz, Geologist, U. S. Geological Survey

Subject: Application examination report, Docket No. DMEA-5023 (Cobalt-Copper), Gramlich Minerals, Inc., East Fork, et al., Claims, Lemhi County, Idaho

INTRODUCTION

An application for DMEA assistance to explore the East Fork, Gap, Copper Hill, Zither, Bug, Michelle, Glance, Monette, and Bobcat claim groups for cobalt and nickel was recieved May 27, 1958, from Gramlich Minerals, Inc., Moab, Utah. These claims are in the Mineral Hill or Indian Creek Mining District, Lemhi County, Idaho. They are referred to as the "Ulysses claims" in the application; however, this is incorrect as the original Ulysses group of claims lie southwest of those considered in the present application and at one time produced a considerable amount of gold. The applicant proposes to explore the East Fork, et al., claims by an extensive program of bulldozing, core drilling, road building, and drifting. Their proposed program would cost an estimated $438,100; Government participation at 75 percent would be $328,575.

The property was examined on June 6 and 7, 1958, accompanied by John W. Gramlich, Sr., and Phil F. Gramlich, President, and Secretary-Treasurer, respectively, of Gramlich Minerals, Inc. The more accessible parts of the property including portions of the East Fork No. 1, 2, 9, and 17, Gap No. 3, Bobcat No. 39, and Mt. Zither claims were examined.

SUMMARY AND RECOMMENDATIONS

Widespread, low-grade copper and cobalt mineralization in argillite, fine-grained quartzite, and phyllite of the Precambrian Belt series is found on the East Fork, et al., claims. Where the mineralization is associated with structural features, these structures are weak and there is no evidence that they are continuous. Exploratory work at the property to date has not been

Reviewed by
DMEA OPERATING COMMITTEE
8-29-58
(date)

sufficient to show whether or not the property has merit, and at the present there are no specific targets worthy of exploration with DMEA participation. However, there are areas of interesting mineralization which possibly warrant some geologic mapping and geochemical traversing to delimit favorable targets. Because of the limited exposures at the property and the lack of evidence for favorable targets, it is recommended that this application be denied. This denial should be without prejudice because even a limited amount of additional work could possibly reveal highly favorable targets.

LOCATION AND ACCESSIBILITY

The East Fork, et al., claims are about 6 miles northwest of North Fork in the south half of T. 25 N., R. 20 E., Boise Meridian, Lemhi County, Idaho. The property is just north of the old gold camp of Ulysses in the Indian Creek of Mineral Hill Mining District. The northern and east-central portions of the East Fork claim group and the southwestern portion of the Cap group are accessible by Jeep trail from the old town of Ulysses. Beginning at North Fork, Idaho (on U. S. Highway 93, 17 miles north of Salmon), go west on the Forest Service road to Shoup (fig. 1) as far as the Indianola Ranger Station (9 miles from highway). Turn right (north) at the Ranger Station, follow the road up Indian Creek through the old town of Ulysses (4 miles north of the Ranger Station), and continue on the Jeep trail northerly along Indian Creek, then easterly along the East Fork of Indian Creek into the East Fork claims. The main adit is about 3 miles from Ulysses. The claim groups in the northeastern part of the property can be reached through a maze of logging roads. Go north on U. S. Highway 93 from North Fork for about 4 miles, then turn left (west) on the gravel road leading up Hull (Spring) Creek to the property. A guide is necessary in this area. The remainder of the claim groups are inaccessible except on foot. Winter in the area is severe so that most of the exploration work would have to be done in the late spring, summer, and early fall.

APPLICANT

The applicant, Gramlich Minerals, Inc., Box 435, Moab, Utah, is a Colorado corporation that has been active in uranium operations in the southwestern United States. It is reported that they have had a DMEA contract for uranium exploration in San Juan County, Utah, but records of this work are, of course, not in the files of the DMEA Field Team, Region I. The Operating Committee would, therefore, be in a better position to judge the capabilities of the applicant.

The applicant has a D-6 cat at the property now and stated that they have mining equipment in Utah which could be moved to Idaho and used on the East Fork, et al., claims should exploration

work be continued. Included in this equipment are two Failing "1500" truck-mounted core drills capable of drilling NX size vertical holes to a depth of 1,500 feet.

PROPERTY RIGHTS

The property considered in this application consists of 175 unpatented quartz lode mining claims as follows: Gap Nos. 1 - 7, Bobcat Nos. 1 - 39, Michelle Nos. 1 - 42, Monette Nos. 1 - 32, Glance Nos. 1 - 8, Bug Nos. 1 and 2, Mt. Zither and Mt. Zither Nos. 1 - 6, East Fork Nos. 1A - 3A and 1 - 28, Copper Hill Nos. 1 - 5, Cabin, and Silver Lead. According to the applicant, these claims are recorded in the Recorder's Office of the Dahlanega Mining District, Gibbonsville, Idaho, and/or the Lemhi County Recorder's Office, Salmon, Idaho, as shown in Appendix I of the application. The applicant was able to furnish the following book and page numbers which are missing in Appendix I:

Claim	Book	Page
Mt. Zither	8	110
Mt. Zither No. 2	8	111
East Fork No. 4	8	334
East Fork No. 26	8	335
East Fork No. 27	8	335
East Fork No. 28	8	336

He was unable to locate this information for the Monette No. 30 - 32 and Mt. Zither No. 1 claims.

?

The Gap, Bobcat (except No. 39), Michelle (except Nos. 39 - 42), Monette, Glance, Bug, and Mt. Zither claims were leased to Granlich Minerals, Inc., by Philip F. Granlich on October 1, 1957. The East Fork No. 1 - 27 and Cabin claims were leased with an option to buy to John W. Granlich, Sr., by Leslie O. Smith, Harriet E. Smith, Arthur May, and Virginia Arid May on November 9, 1956. Granlich, Sr., also obtained a lease with an option to buy on the Copper Hill and Silver Lead claims from Leslie O. Smith and Harriet E. Smith on December 11, 1956. Granlich's interest in these claims was subleased to Granlich Minerals, Inc. in an instrument dated April 1, 1957. By this same document, Granlich, Sr., leased the East Fork No. 1A - 3A claims to the corporation. By these various documents, the corporation appears to control all of the claims listed in the application except the Bobcat No. 39, Michelle Nos. 39 - 42, and East Fork No. 28.

All of the listed claims are shown on plate 1 except the Cabin claim. According to the applicant, this claim has been re-staked as part of the East Fork group and will be allowed to lapse.

DESCRIPTION OF PROPERTY

The East Fork, et al., claims are in the Salmon National Forest in the mountains north of the main Salmon River and west of the North Fork of the Salmon. Altitudes at the property range from 4,000 to about 7,500 feet. Slopes are steep and rugged. Most of the area is heavily wooded.

Mine workings at the property are few. They consist of (1) a 50-foot adit (Leslie O. Smith tunnel) on the East Fork No. 2 claim (fig. 2) and of several, generally sloughed, dozer trenches, and side-hill cuts in the vicinity of the adit; (2) a long dozer cut on the Gap No. 3 claim (fig. 3); and (3) a small dozer cut on the Mt. Zither No. 2 claim (pl. 1). The "trench" location on the Bobcat No. 39 claim (pl. 1) is actually a cut along a logging road. The exploratory work reported on the Monette No. 30 claim was not visited.

There are no buildings or mine facilities at the property and no ore has been produced.

GEOLOGY

The geology of the area including the East Fork, et al., claims has been described by:

Umpleby, J. B., 1913, Geology and ore deposits of Lemhi County, Idaho: U. S. Geol. Survey Bull. 528

and the southwestern part of the claim group by:

Kaiser, E. P., 1956, Preliminary report on the geology and deposits of monazite, thorite, and niobium-bearing rutile of the Mineral Hill district, Lemhi County, Idaho: U. S. Geol. Survey Open File Report.

The East Fork, et al., claims are underlain by folded Precambrian Belt sediments; primarily gray fine-grained quartzite, argillite, and phyllite. Older Precambrian rocks, quartzo-feldspathic gneiss, porphyroblastic gneiss, amphibolite, etc., are present 1 mile south of the Mt. Zither claim group, and rocks of the quartz monzonitic Idaho batholith (Late Cretaceous) are found about 14 miles to the north, 6 miles to the south, and 20 miles to the west of the property.

Previous mining activity in the immediate vicinity of the property has been confined primarily to the Ulysses and Little Burton mines, two gold mines, now idle, a short distance west and southwest of the Mt. Zither claims. The veins at these two properties are generally flat and are roughly parallel with the bedding in the enclosing Belt sediments. The veins are gold bearing and consist of 3 to 12, or rarely 30, feet of quartz, silicified wall rock, pyrite, and some chalcopyrite.

At the property considered in this application, the strongest mineralization examined is in the Leslie O. Smith adit on the East Fork No. 2 claim (fig. 2). The vein here usually consists of 5 to 11 inches of quartz, malachite, and erythrite, but in places it pinches to a thin seam of gouge. DMEA Samples 865 and 866 of the better parts of the vein assayed 0.60 and 0.82 percent cobalt and 0.34 and 0.38 percent copper, respectively. The applicant reports cobalt assays as high as 0.93 percent and copper as high as 6.70 percent from this adit. He also reported finding cobaltite, but I could find none.

The applicant has bulldozed numerous trenches and sidehill cuts in the vicinity of the Leslie O. Smith adit; however, most of them are now badly sloughed and little information can be gained from them. The least sloughed trench is in the western part of the East Fork No. 1 claim about 250 feet northeast of the Leslie O. Smith tunnel. The vein here consists of about 4 feet of malachite-stained wall rock bordered on the south by manganese and iron-stained gouge and on the north by white gouge. The strike of the vein is about east-west; the dip is steeply south. DMEA Sample 868 cut across this vein assayed 0.03 percent cobalt and 0.14 percent copper. A grab sample (No. 867) of some high-grade material in a sloughed trench on the same vein 15 feet to the east, showed the same amount of cobalt but 1.72 percent copper. The vein in these trenches is not continuous with the one found in the Leslie O. Smith adit.

A dozer cut in the western part of the Gap No. 3 claim exposes a 3-inch gray quartz vein bordered by 3 to 4 feet of malachite, azurite, limonite, and manganese-stained wall rock (fig. 3). The strike and dip of the vein cannot be determined exactly, but it appears to strike westerly and dip nearly vertical. DMEA Samples 871 - 873 were cut across this vein and adjacent wall rock. They show as much as 0.02 percent cobalt and 0.80 percent copper.

A thin, malachite-bearing fracture has been exposed by a dozer cut on the Mt. Zither No. 2 claim. This fracture is only an inch or two thick. It strikes northeast and dips gently to the southeast and contains 0.02 percent cobalt and 1.74 percent copper (DMEA Sample 869).

The highest cobalt assay from the property, 1.26 percent, is reported from the Copper Hill No. 1 claim. The applicant stated that this assay was from a sample taken from outcrop on the west side of the valley of Indian Creek, 1,000 to 1,250 feet above the valley floor. It is accessible only on foot and since the applicant stated that no exploration work had been done there, and that none was contemplated, I did not visit this exposure.

According to the applicant, the above-described localities are the only places at the property showing significant structure or mineralization. The remainder of the claims were staked simply to cover the ground. The applicant's assayed samples (pl. 1) from these outlying portions of the area were collected from "discovery" pits dug haphazardly to satisfy claim location requirements. I visited a logging road cut on the Bobcat No. 39 claim which showed some malachite staining in the wall rock adjacent to a thin gouge zone. A grab sample (DMEA 870) of the high-grade material from this cut assayed 2.03 percent copper.

Assays of 11 samples cut during the examination are posted on plate 1, figure 2, or figure 3, and are tabulated below.

Sample No.	Width	% Cu	% Co
865	5"	0.34	0.60
866	11"	0.38	0.82
867	Grab	1.72	0.03
868	4'	0.14	0.03
869	Grab	1.74	0.02
870	Grab	2.03	Tr
871	65'	Tr	Tr
872	4'	0.63	0.02
873	3"	0.38	0.02
874	3'	0.80	Tr
875	Grab	0.06	Tr

Assays submitted with the application that could be located are posted on plate 1. Nickel assays were not obtain because no evidence of nickel mineralization was seen in the field.

Widespread, low-grade copper and cobalt mineralization is found at the property considered in this application, but its distribution is erratic and it is not found along structures that are strong or that can be shown to be continuous. Exploration at the property to date has not uncovered evidence which would indicate that the property has merit; on the other hand, it has not been sufficient to prove that the property is worthless.

APPLICANT'S PROPOSAL

The applicant proposes to explore the property by a three-stage program of bulldozing, diamond drilling, and drifting. The three stages are as follows: Stage I, 1,400 hours of bulldozing, of which 1,200 hours would be trenching and 200 hours for preparation of access roads to drill sites, and 3,600 feet of diamond drilling; Stage II, 4,500 feet of diamond drilling necessitating 500 hours of bulldozing, trenching requiring 1,500 hours of dozer work, and 500 feet of drifting; and Stage III, 1,500 hours of dozer work for trenching, 9,500 feet of core drilling requiring 750 feet of dozer work for access roads, and 500 feet of drifting. The location of this work is not specified in the application, but during the examination, the applicant stated that work would be done first in the East Fork No. 1 and 2 claims and the Gap No. 3 claim. If this work were successful, then other areas would be tested. The applicant estimates that the program would cost $438,100.

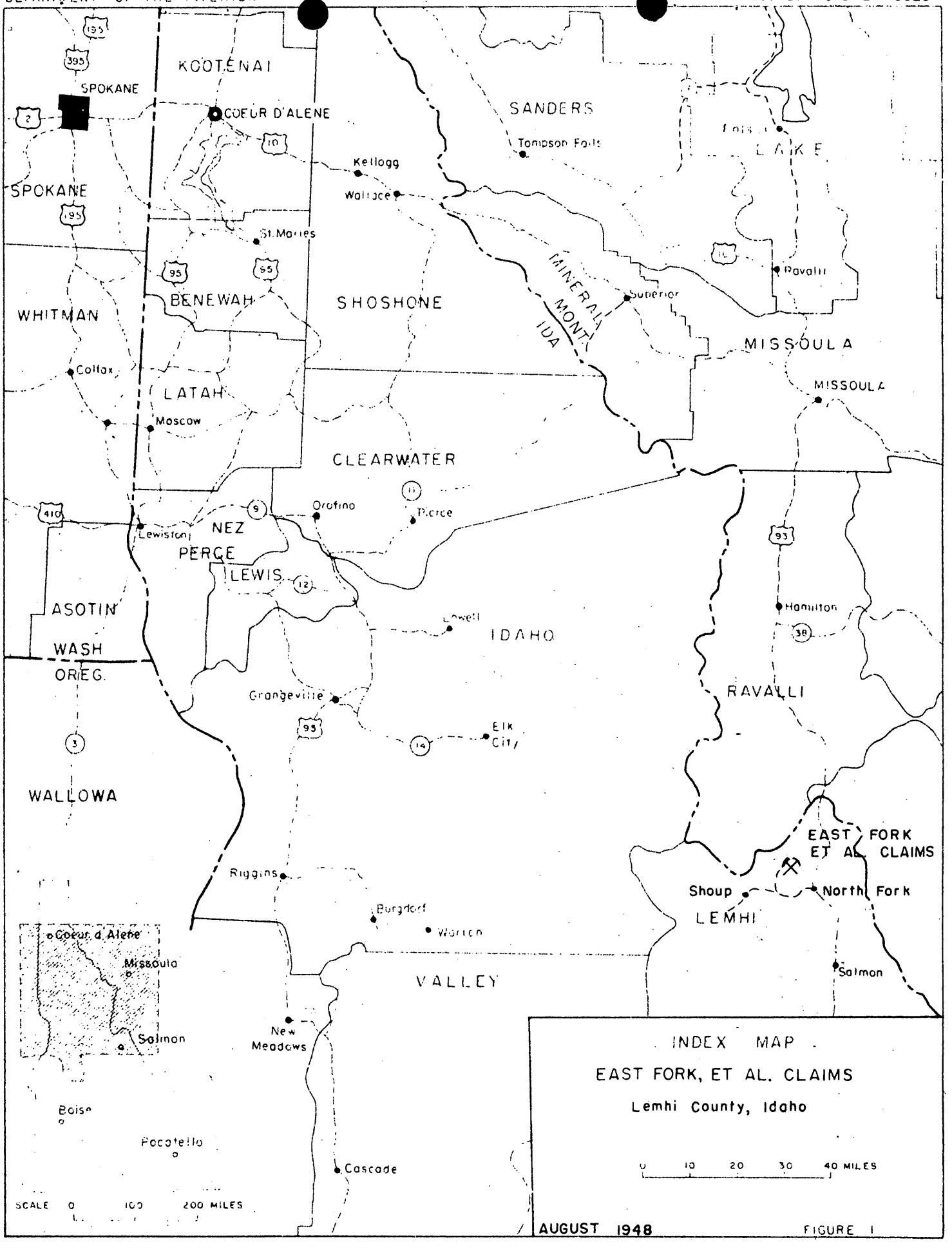
Should more work be warranted at the property, the program should be limited, at first, to the showings on the East Fork No. 1 and 2 and Gap No. 3 claims. First, this area should be mapped by a geologist and geochemical traverses run to locate structures and areas of mineralization. This could then be followed by a carefully planned program of trenching, diamond drilling, and possibly drifting. The outlying areas should not be tested until after more information has been gained from the more promising and more accessible areas.

Enclosures
Distribution:
DMEA(3)
USBM(2)
USGS(SRO)
Docket
Prinz

UNITED STATES
DEPARTMENT OF THE INTERIOR

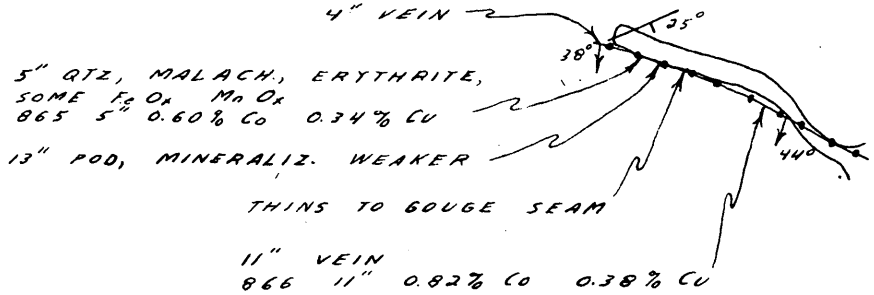
PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
APPLICATION REPORT

DOCKET NO DMEA 5023



AUGUST 1948

FIGURE 1



N

GEOLOGIC MAP

LESLIE O. SMITH TUNNEL
EAST FORK NO. 2 CLAIM

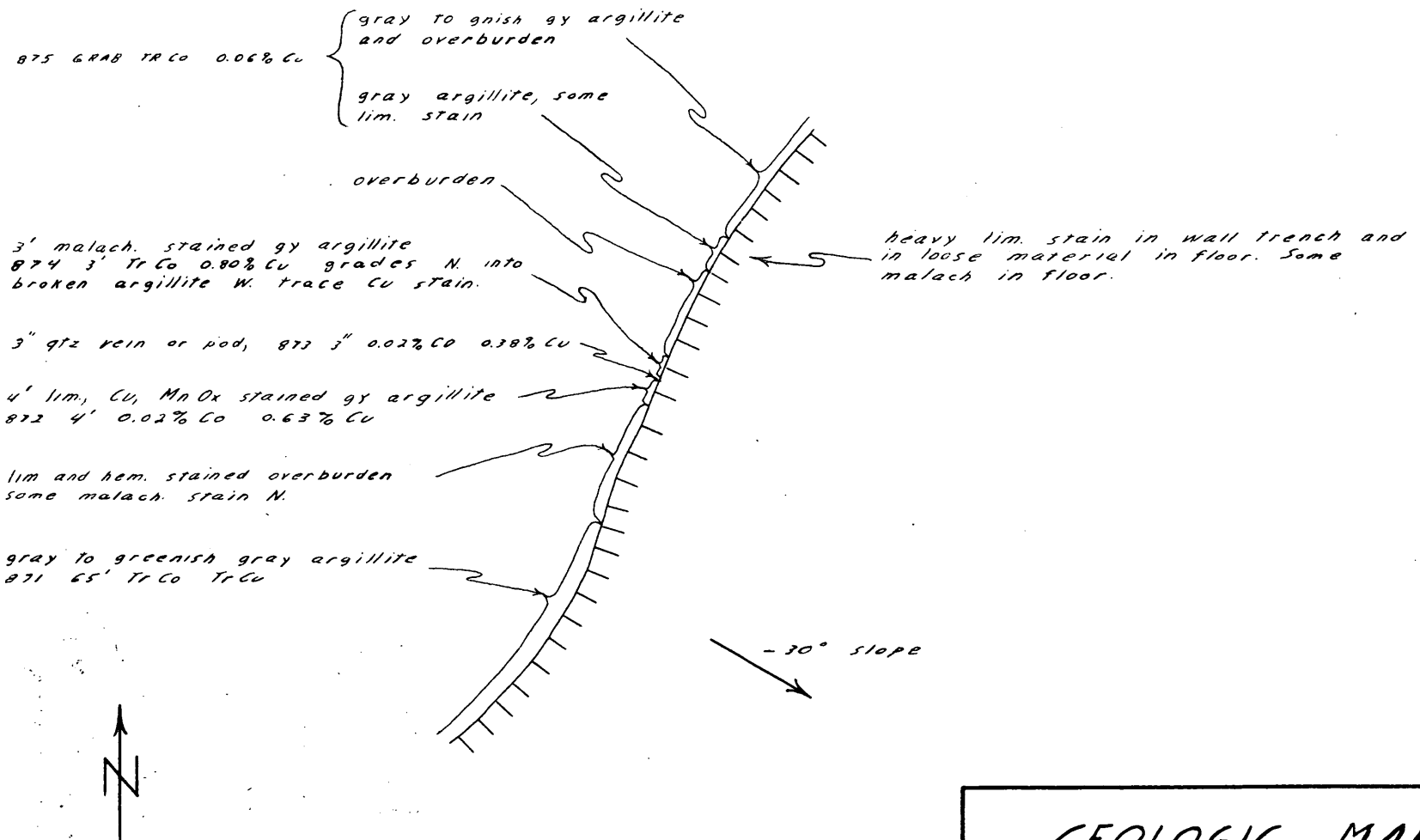
LEMHI COUNTY, IDAHO

0 20 40 80 FEET

BRUNTON AND TAPE SURVEY BY
W.C. PRINZ, USGS, JUNE, 1958

August, 1958

Fig. 2



BRUNTON AND TAPE SURVEY BY
W.C. PRINZ, USGS, JUNE, 1958

GEOLOGIC MAP

DOZER CUT
GAP NO. 3 CLAIM
LEMHI COUNTY, IDAHO

0 20 40 80 FEET

AUGUST 1958

FIG. 3

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8-5	Chapman	400
8-5	Margin	400
8/5	Jeffrey	130
"	Johnson	~~130~~
		130
		110
6	Anthony	100
		~~220~~ 220
		225

8/5 Kilsgaard (130
8/5 Lamb (130

AUG 6 1958

Gramlich Minerals, Inc.
Box 435
Moab, Utah

Re: Docket No. DMEA-5023, Cobalt-Nickel
Ulysses, North Fork and East Fork Claims
Lemhi County, Idaho

Gentlemen:

We regret that we were unable to completely process your application for exploration aid prior to June 30, 1958, the termination date for approving new contracts, as announced by the enclosed copy of a news release of June 6, 1958.

However, had the processing been completed, we would have been unable to approve a project based on the information available to us in Washington concerning your property.

We wish to thank you for your interest in the DMEA program and for bringing the exploration plan to our attention.

See wire of 8/1 from FT

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosure

TLChapman/izm 8-5-58
cc: Code 400
Admr.'s Reading File
Operating Committee
DMEA FT Reg. I (2)
Messrs. H. W. Davis, USBM
T. H. Kiilsgaard, USGS

8623

RECEIVED
AUG 1 5 49 PM '58
GENERAL SERVICES ADMIN.
PUBLIC BLDGS. SERVICE
BMD - COMMUNICATIONS

XDXXXXXX-125K

YWB147 WAF SP 25 I-GS-G

SPOKANE WASH 8-1-58 1420U

W. S. MARTIN

ACTING CHAIRMAN OPERATING COMMITTEE

DMEA DEPT. OF INTERIOR WASHN., DC

REURTT AUGUST 1. REPORT RECOMMENDING DENIAL PRINDLE APPLICATION DMEA 5006 BEING MAILED TODAY. DENIAL WILL BE RECOMMENDED FOR BOTH GRAMLICH MINERALS INC; DMEA 5023 AND CLARENCE R. OLIPHANT DMEA 5046. ESTIMATE THESE REPORTS CAN BE MAILED BY AUGUST 14.

A E WEISSENBORN EXECUTIVE OFFICER REGION 1

1 5006 5023 5046

VA 1422U

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 4 1958

DATE	INITIALS	CODE
8/4	H. g.	225
	WSM	400

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

AUG 4 8 44 AM '58

BUREAU OF MI

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8-1	Martin	400
		130
		110
1	Hathaway	100
8/1	C	220
		400

AUG 1 [illegible]

DEPARTMENT OF THE INTERIOR

DMEA
14X1401(01) Revolving Fund
Defense Production Act,
Interior (Transfer to Office of Secretary)

T E L E T Y P E

A. E. WEISSENBORN
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION I
SOUTH 157 HOWARD STREET
SPOKANE, WASHINGTON

REDOCKETS DMEA 5006 FRIEDIE MINING COMPANY, DMEA 5023 GRAMLICH MINERALS, INC., AND DMEA 5046 CLARENCE R. OLIPHANT. PLEASE TELETYPE YOUR RECOMMENDATIONS AND ADVISE WHEN WE MAY EXPECT EXAMINATION REPORTS.

W. S. Martin
(sgd)
ACTING CHAIRMAN, OPERATING COMMITTEE

WSMartin/izm 8-1-58
cc: Mr. Martin
Docket 5006
" 5023
" 5046
Admr.'s Reading File
Operating Committee
Hubert W. Davis, USBM
Gilbert DeHuff, USBM
WNKiilsgaard, USGS
WPWilliams, USGS

8623

Sa. 157 Howard Street
Spokane 4, Washington

July 29, 1958

DMEA
8/4
C
WSM
220
400

Mr. J. W. Gramlich, Sr.
Gramlich Minerals, Inc.
Box 435
Moab, Utah

Re: Docket No. DMEA-5023 (Cobalt-Nickel)
Ulysses Claims
Lemhi County, Idaho

Dear Mr. Gramlich:

This will acknowledge receipt of your letter of July 20 and the enclosed copies of three drilling bids. We will file these with your application pending possible resumption of Government aid for exploration projects.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team Region I

cc: DMEA (2)
USBM (2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/26	Chapman	400
5/26	Martin	400
5/26	Jeffrey	130
5/26	Lewis	130
5/26	Nelson	130
5/26	Johnson	110
5/27	Mittendorf	100
5/27	J.G.	220
5/28	TLM	400

MAY 27 1958

Gremlich Minerals, Inc.
Box 435
Moab, Utah

Re: Docket No. DMEA 5023, Cobalt-Nickel
Ulysses, North Fork and East Fork claims
Lemhi County, Idaho

Gentlemen:

The application for assistance in exploring the subject property under the captioned docket number has been reviewed by the Division of Iron and Ferro-Alloys, of the Defense Minerals Exploration Administration, and has been referred to Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, South 157 Howard Street, Spokane 4, Washington, for further consideration.

The Regional Office will notify you in case additional information concerning your application is needed. Any assistance you may give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

TLCHAPMAN/foc
5-26-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. I
Messrs. H. W. Davis, USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/26	Chapman	400
5/26	Martin	400
5/26	[illegible]	130
"	Johnson	110
27	[illegible]	100
5/27	N.G.	220
		~~200~~
		400

MAY 27 1958

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 5023, Cobalt-Nickel
Gramlich Minerals, Inc.
Ulysses, North Fork and East Fork claims
Lemhi County, Idaho

Dear Mr. Weissenborn:

Reference is made to your letter of May 15, 1958, which advised that an examination of the property would be necessary and would be made as soon as the area was clear of snow. We will, therefore, hold this application in abeyance until the report and recommendations of the Field Team are received.

Copies of memoranda, dated May 21 and 23, 1958, by Hubert W. Davis, Bureau of Mines, and N. E. Nelson, Geological Survey, respectively, relating to the project are enclosed. Also enclosed is an extra copy of the application for the use of the Field Team.

Sincerely yours,

George C. Selfridge
(es)
Chairman, Operating Committee

APPROVED:

Frank D. Lamb (es)
Member, Bureau of Mines

N. E. Nelson (es)
Member, Geological Survey

Enclosure

TLCHAPMAN:foc 5-26-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. I
Messrs. Hubert W. Davis, USBM
Thor H. Kiilsgaard, USGS

8623

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 27 1958
DATE | INITIALS | CODE
5/27 | H.G. | 125
400

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

May 23, 1958
Re: DMEA 5023
Gramlich Minerals, Inc.
Ulysses Claims
Lemhi County, Idaho
$438,100 - Cobalt-Nickel

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in exploring 9 groups and 2 individual claims by bulldozing, core drilling and drifting. One claim listed, the Cabin, is not shown on the claim map.

Considerable trenching and a small amount of drifting have been done. The work has shown 3 centers of cobalt and/or copper mineralization and a number of spots from which cobalt-bearing samples have been taken. The results of the spot sampling are not impressive, but do suggest widespread mineralization.

Of the 70 determinations for cobalt, there are:-

Grade	Nil	Tr - 0.05%	0.05 - 1.0%	Plus 1%
No Samples	23	13	10	1

Of the 30 determinations for copper, there are:-

Grade	Nil	Tr - 1%	1 - 5%	Plus 5%
No Samples	6	6	6	7

Analysis of the sampling shows:-

Cobalt
1 grab sample from Leslie Smith Tunnel at 0.93% Co.
East Fork #2 Claim
1 sample from Copper Hill #1 Claim at 1.26% Co.
2 samples from East Fork #2 Claim at 0.34% " $_3O_4$

Copper

		Co%	Cu%
1	sample East Fork #2 Claim at 4.02% Cu		
1	sample East Fork #2 Claim 12" at 6.70% Cu 0.34% Co_3O_4		
1	Sample East Fork #1 Claim across 15 feet 1.91% Cu		
2	samples Copper Hill #1 Claim at 6.00 and 8.15% Cu		
5	samples from Gap-vein	0.17	5.55
		0.14	1.51
		Tr	0.46
		0.08	8.04
		0.21	4.72

Three good copper samples were collected from places off the property. Only 2 samples are given a dimension. In summary, there are at least 3 known centers of interesting mineralization, two of which might be called 'old' showings, as:- Copper Hill #1 Claim, East Fork No. 1 and No. 2 claims and Gap #3 claim perhaps a new showing. A large part of the proposed trenching by bulldozer will be used to prospect the remainder of the large, probably newly staked acreage.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

22

May 21, 1958

5/22 C 220
WSM 400

Re: DMEA-5023
Gramlich Minerals, Inc.
Ulysses, North Fork, and
East Fork Claims
Lemhi County, Idaho
Cobalt-Nickel
$438,100

Memorandum

To: W. S. Martin, Director, Division of Iron and Ferro-Alloys, Defense Minerals Exploration Administration

From: Hubert W. Davis, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Application

The applicant's proposal pertains to a loan of $438,100 to explore for cobalt and nickel on several claims in the Indian Creek district, Lemhi County, Idaho.

According to A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, the geologic environment of the area in which the applicant proposes to explore is favorable for the formation of cobalt ore bodies and is similar to that of the Blackbird district. However, only two of the assays submitted with the application showed cobalt of commercial value.

Mr. Weissenborn has advised that it is doubtful the property can be examined and a report submitted in time for a contract to be prepared before June 30. He also states that, in contrast to the recent applications from Capital Seaboard Corp. and Calera Mining Co., not enough information is available to make an office evaluation of the property. Mr. Weissenborn further stated that as soon as practicable examiners will look at the property and possibly recommend some work on the East Fork claims.

Copy to: Ferrous Metals
Div. of Minerals
Frank D. Lamb
Thor H. Kiilsgaard, U.S.Geol.Survey
Files

Inasmuch as applicant has furnished insufficient information on which to base an opinion concerning the loan, it is recommended that action on the application be delayed until further advice is received from the Field Team.

Hubert W. Davis

Hubert W. Davis

Attachments 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

May 20, 1958

Gramlich Minerals, Inc.
Box 435
Moab, Utah

Subject: DMEA-5023

Gentlemen:

Your application for exploration assistance, dated May 13, 1958 submitted to our office at Spokane, Washington has been assigned Docket Number DMEA-5023 and referred to the Iron and Ferro-Alloys Division in the Washington office.

Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

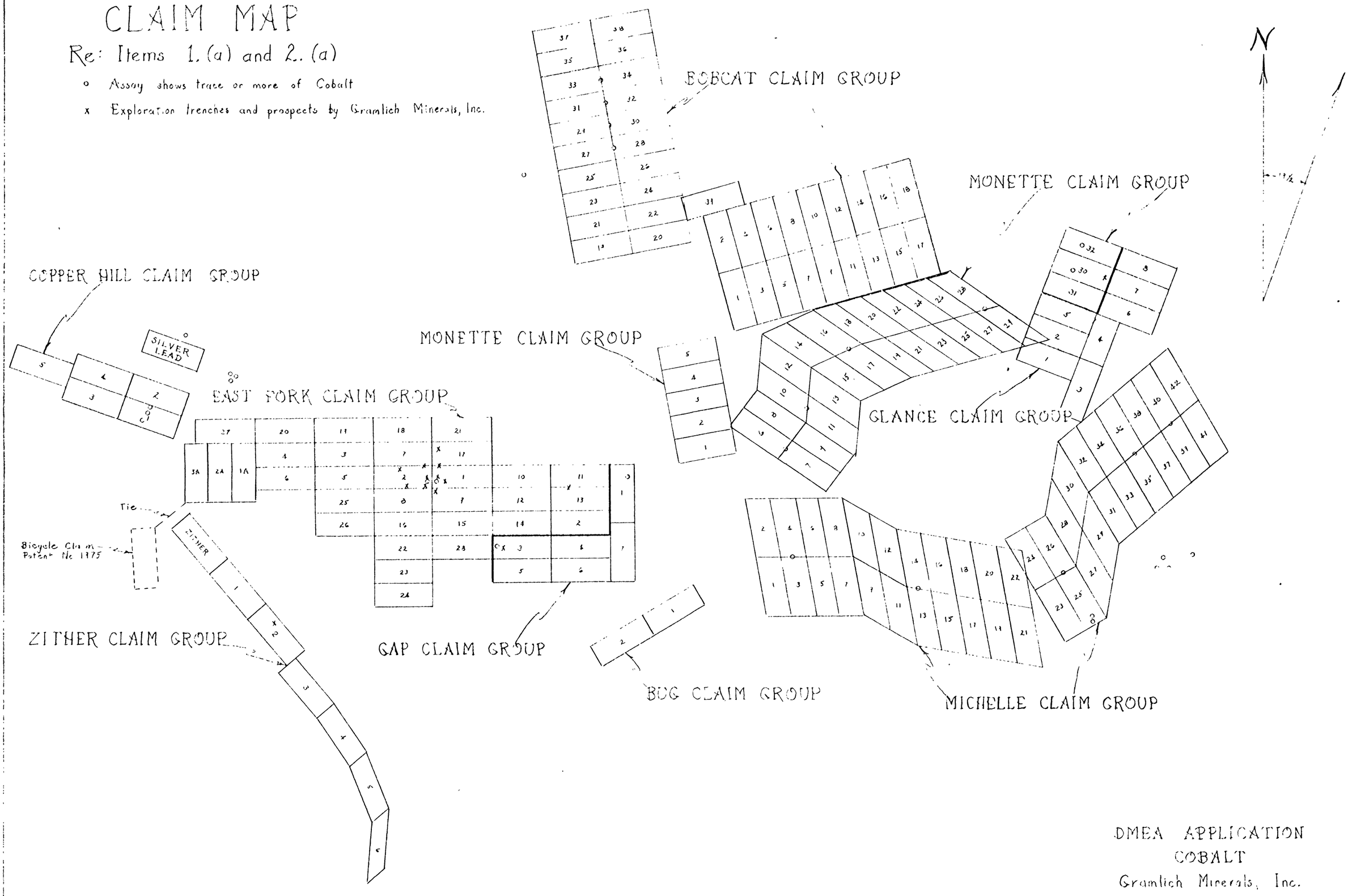
Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region I.

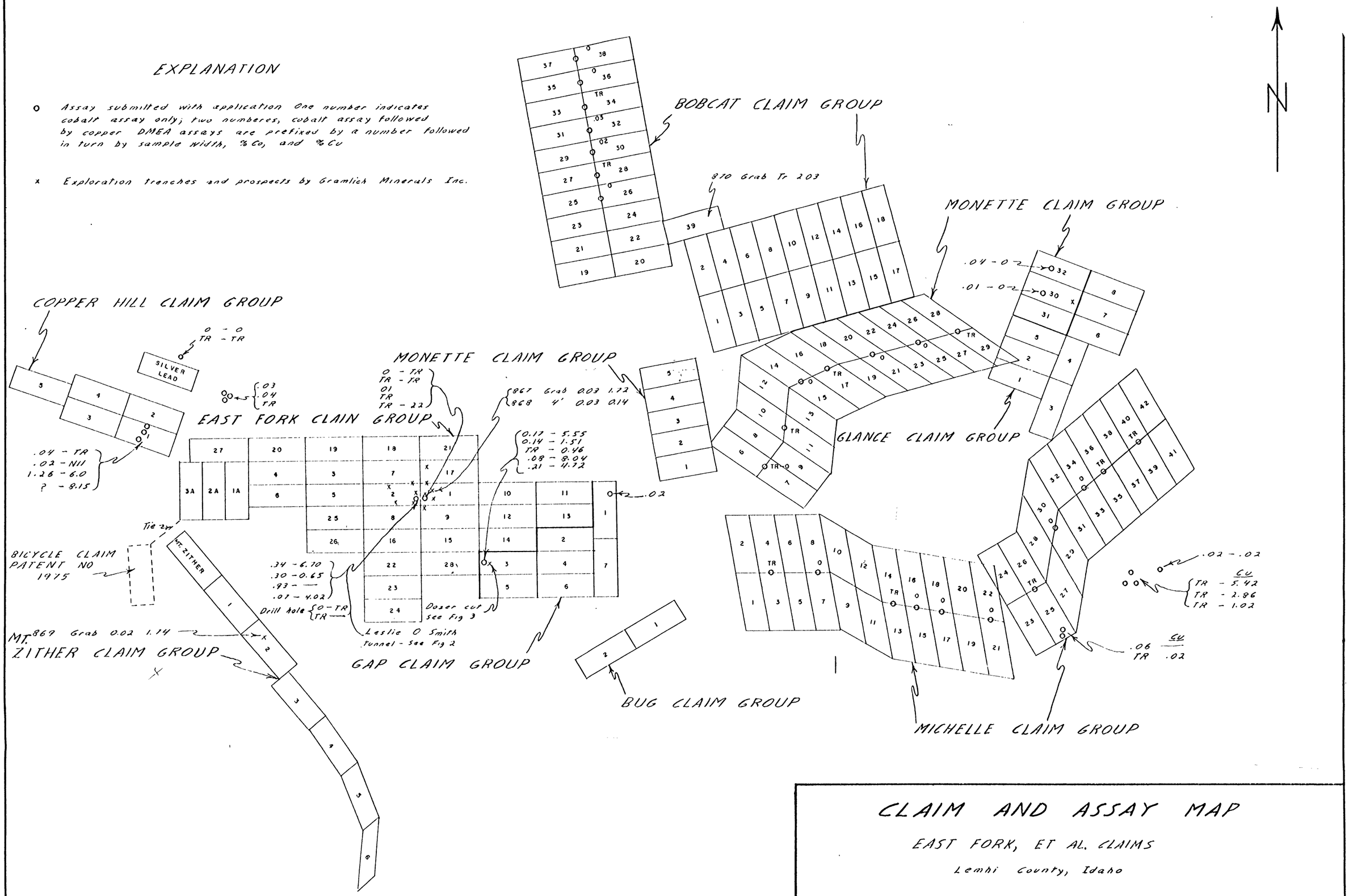
CLAIM MAP

Re: Items 1. (a) and 2. (a)

- o Assay shows trace or more of Cobalt
- x Exploration trenches and prospects by Gramlich Minerals, Inc.



DMEA APPLICATION
COBALT
Gramlich Minerals, Inc.
Box 435; Moab, Utah
Scale: 1" = 2000' May, 1958



CLAIM AND ASSAY MAP

EAST FORK, ET AL. CLAIMS

Lemhi County, Idaho

0 1,000 2,000 4,000 6,000 FEET

Traced with modifications from map submitted by applicant.

August 1958

Plate 1