UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

November 13, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMA Docket 2132, W. K. Pratt and Associates, Black Goose Manganese Prospect, Socorro County, New Mexico

The application of the subject docket was for an exploration loan of $20,000.

The proposed exploration program consisted of 30 feet of shaft or adits, and approximately 60 feet of drifting and 50 feet of cross-cutting at four localities having the best manganese exposed.

The Black Goose prospect is traversed by northwest trending fault. Mineralization occurs in shear and breccia zones of rhyolite. While this mineralization is widespread, there are only a few small deposits of mineable ore.

The geological probability of discovery of additional reserves is not favorable.

The examining engineer recommends denial of the exploration loan, with which we concur.

W. H. King

W. H. King for
Paul T. Allsman

Mining Division
Date Rec'd.

NOV 9 1951

BUREAU OF MINES
Denver, Colorado
TUCSON, ARIZONA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
MINING DIVISION
REGION IV

Arizona-New Mexico Branch
Box 4097
UNIVERSITY STATION

November 6, 1951

Memorandum

Registered

To : Paul T. Allsman, Denver, Colorado

From : Chief, Arizona-New Mexico Br., Mining Div., Region IV
Tucson, Arizona

Subject : Final Report, DMA Docket 2132, Black Goose Manganese Deposits, Socorro County, N. Mex.

Enclosed are original and 7 copies of the above report by John H. Soule' of the Bureau of Mines. No separate geological report will be submitted by the Geological Survey.

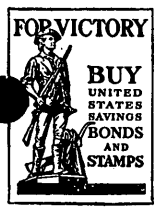
This report has my approval.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC P. T. Allsman (7)
C. A. Anderson
DMA-2132
DF



UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-2132, Black Goose Manganese Deposits

Socorro County, New Mexico

John H. Soule', Mining Engineer
U. S. Bureau of Mines

November 1951

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By John H. Soule[1]

Claims on the Black Goose manganese deposits were located in 1950. A little exploratory work was done and the property leased to W. K. Pratt of Santa Fe, N. Mex., who applied for Government assistance under the Defense Production Act of 1950 to explore the property. The application, Docket DMA-2132, was for $20,000, of which the applicant was to furnish 25 percent.

The deposits are situated in the western foothills of the Magdalena Mountains at an altitude of about 7,000 feet. The climate is generally good. No permanent streams exist in the area and information on sub-surface water is lacking. The area of the claims generally is not rugged and is wooded in patches with pinon pine and mountain cedar. Magdalena, the nearest town, lies about 21 miles by road to the north.

There are 19 unpatented lode claims in the Black Goose group, plus some placer locations to the south. The first claims were located by Duain Mangum and Leo Logan and were leased, with option to purchase, to W. K. Pratt of Santa Fe, N. Mex. Mr. Pratt and associates located additional claims. No manganese ore has been produced from the property.

1/ Mining engineer, Bureau of Mines

The manganese deposits occur in rhyolite on the northeast side of a northwest-trending fault. The mineralization is widespread in small amounts but occurrences of minable ore are few. The better grade of manganese ore is confined to shear and breccia zones that usually are spurs from the main fault. The manganese minerals are superficial and do not extend to any great depth.

Minable ore reserves are small. Geologic evidence indicates that these reserves cannot be greatly increased by additional exploratory work.

Because the reserves are small, the grade is low, and the chances of improvement of either are poor, it is recommended that the application for Government assistance in exploring the Black Goose manganese deposits be denied.

BLACK GOOSE MANGANESE DEPOSITS
SOCORRO COUNTY, NEW MEXICO
DMA-2132

Engineering Report

By John H. Soule'
Mining Engineer
U. S. Bureau of Mines

November 1951

BLACK GOOSE MANGANESE DEPOSITS
SOCORRO COUNTY, NEW MEXICO
IMA-2132

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INTRODUCTION

The Black Goose manganese deposits have been of interest since the discovery of the deposits in July 1950. The property has been visited by numerous engineers including representatives of the Bureau of Mines.

The property was acquired by lease and option to purchase from the original locators and has been expanded to include a large number of claims, both lode and placer. The placer claims were located after the reported occurrence of gold in the manganese-bearing area.

The lessees of the property applied for Government assistance under the Defense Production Act of 1950 to explore the deposits that contain manganese. The application, Docket DMA-2132, was for $20,000, of which $15,000 would be furnished by the Government. This application was sent to the field for an examination of the property and to acquire additional information.

ACKNOWLEDGMENTS

Acknowledgment is made of the assistance rendered by W. K. Pratt, lessee, and Frank Robinson, engineer, in pointing out various parts of the property and for information furnished the examining engineer. Acknowledgment also is due W. D. McMillan, mining engineer, Bureau of Mines, whose information on previous examinations of this property was useful in writing this report.

LOCATION, TOPOGRAPHY AND CLIMATE

The Black Goose manganese deposits are located 21.5 miles by road south of Magdalena, Socorro County, N. Mex., as shown in figure 1. Access to the property is by State Highway 107 southwestly from Magdalena for 7.2 miles to a sign labeled the Muleshoe and other ranches. There the left fork is taken southeasterly for 6.5 miles to another fork. There the right fork is followed southerly for 5.2 miles to an old wooden windmill tower just east of the road. That point is about one-fourth mile north of the old Rheinhart ranch headquarters. Turn east or left at the old windmill tower and follow the tracks easterly for one mile, then take the right fork and continue easterly, then northerly through a fence and onto the deposits, an additional distance of 1.6 miles. After passing through the fence gate, keep to the best marked tracks. The route is shown in figure 1.

The original Black Goose No. 1 claim was located in sec. 34, T. 4 S., R. 4 W. The property has been expanded so it now lies in secs. 27 and 35 of the same township and enters sec. 22 of the same township and sec. 2, T. 5 S., R. 4 W., as shown in figure 2. A number of placer claims have been located south of the lode claims.

The deposits lie in the western foothills of the Magdalena Mountains. The topography is not rugged in general although steep slopes are common in the northeastern part of the area. Gentle slopes characterize the southwestern part. The deposits lie at an altitude of nearly 7,000 feet (see figure 3).

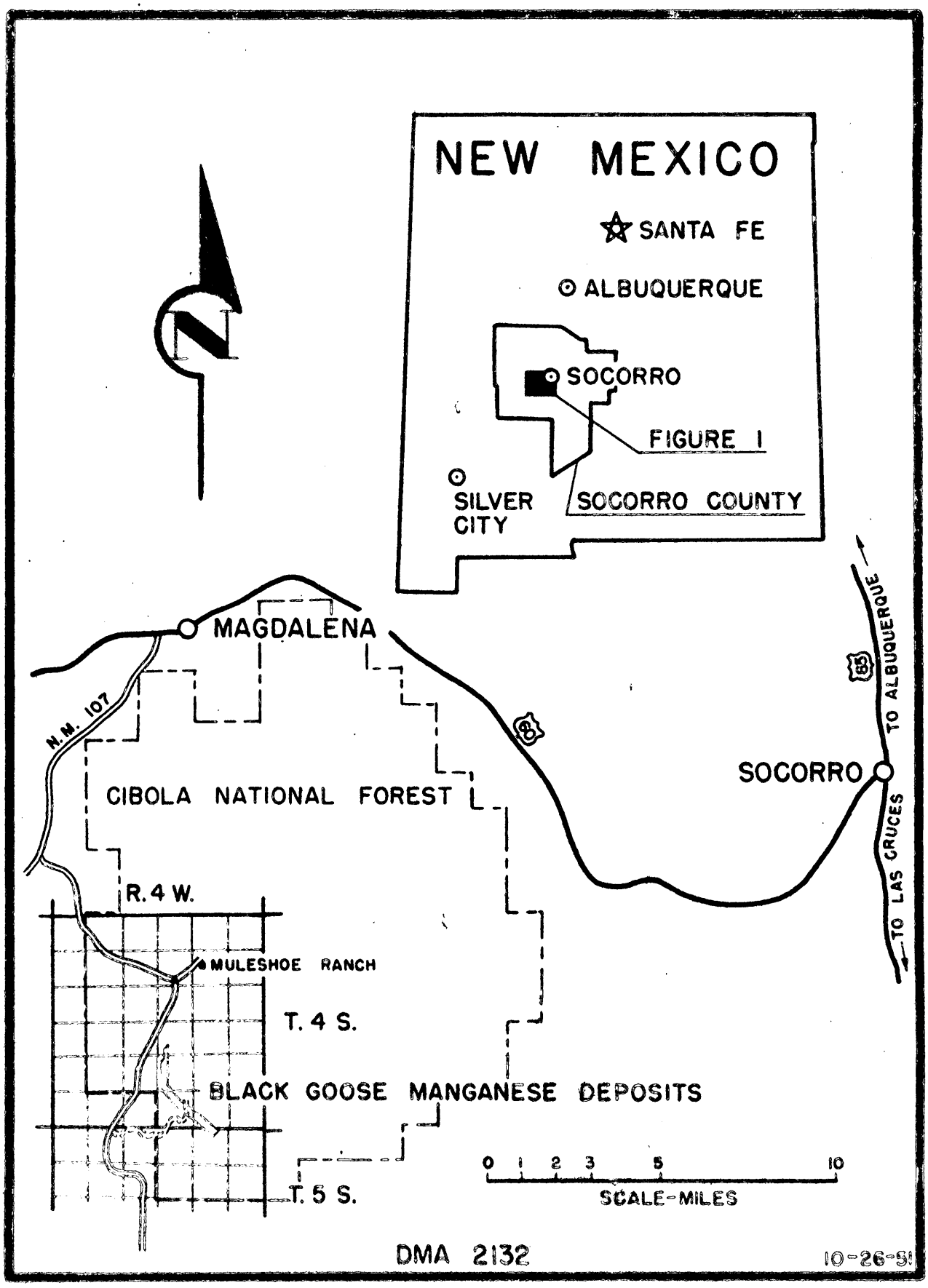


FIGURE 1-LOCATION MAP, BLACK GOOSE MANGANESE DEPOSITS, SOCORRO COUNTY, NEW MEXICO

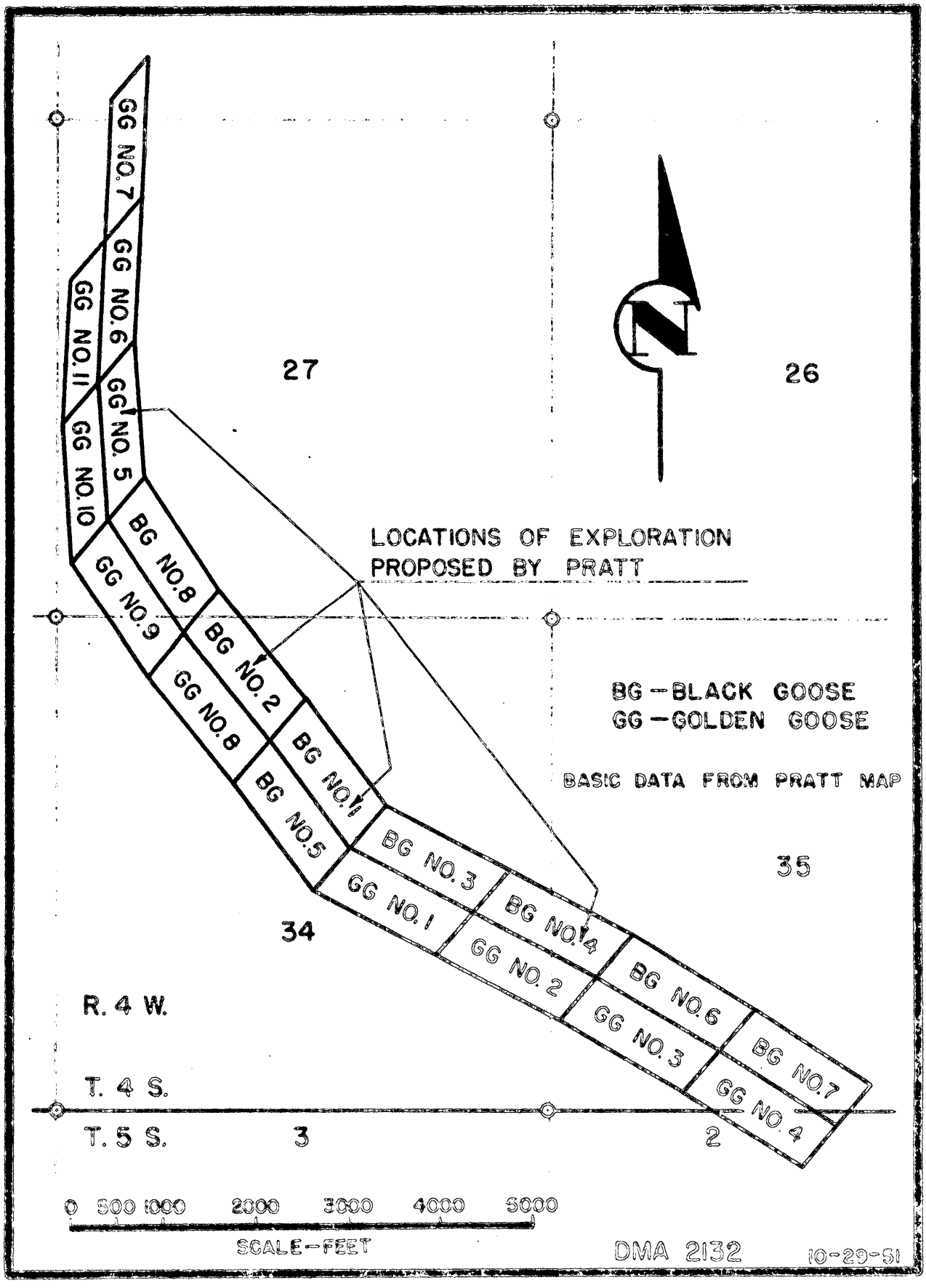


FIGURE 2.—CLAIM MAP, BLACK GOOSE MANGANESE DEPOSITS

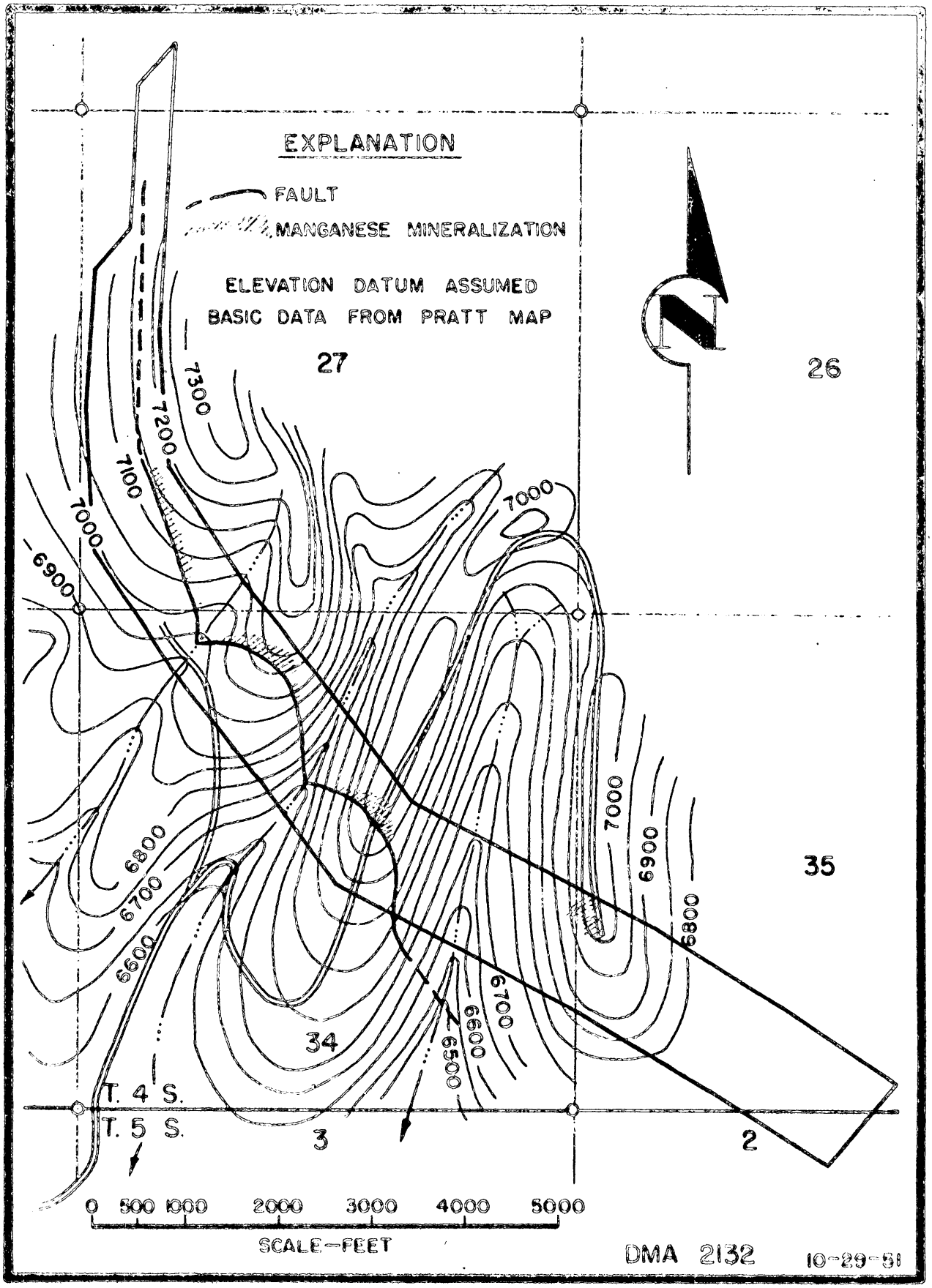


FIGURE 3—TOPOGRAPHIC & GEOLOGIC SKETCH, BLACK GOOSE MANGANESE DEPOSITS

The deposits lie within the Cibola National Forest. Considerable cedar and pinon pine abound, as well as cactus, various shrubs and range grasses. There is no timber suitable for mining use nearby but stands of Ponderosa Pine occur in the higher mountains a few miles to the east.

The mean annual precipitation is about 20 inches, largely as summer thunder showers. Winter snows usually are neither severe nor prolonged. There are no permanent streams in the area but there are a couple of springs which the ranchers have fixed for cattle watering places. Enough water may be obtainable from these springs for a limited mining operation. Nothing is known of the amount of subsurface water that might be obtained from deep wells.

The temperatures generally are pleasant in the summer with a minimum of hot weather. Winter freezing weather may be severe but usually not prolonged. High winds are common during the spring months.

There are no living accommodations at the deposits. The closest available accommodations are at Magdalena, 21 miles by road to the south. A limited amount of skilled and unskilled mining labor is available at Magdalena. Minor mining supplies, telephone and telegraph services, and express and freight services also are available at Magdalena, which is at the end of a spur line of the Atchison, Topeka and Santa Fe railroad from Socorro.

HISTORY AND PRODUCTION

The Black Goose manganese deposits were discovered in July 1950 by Duain Mangum and Lee Logan of Magdalena. Some old prospect pits give evidence of much earlier interest in manganese. There is no record of the earlier work. In the spring of 1951, the property was acquired by W. K. Pratt and associates of Santa Fe, N. Mex., who have located additional claims.

No production of manganese has resulted from this recent interest in the deposits although some small amount of exploratory work was done. Gold was reportedly found on the claims, and this caused considerable excitement. It is difficult to reconcile the enormous amounts of gold stated to be present from press releases with the sudden lack of interest in gold. No production of gold has resulted from this "strike".

OWNERSHIP AND EXTENT

Lee Logan and Duain Mangum located eight Black Goose claims, which were leased with option to purchase to W. K. Pratt and associates. Pratt located eleven Golden Goose claims. These lode locations are shown in figure 2. In addition, Pratt and associates have located a large number of Gander placer claims, which lie south of the group of lode claims. None of the claims are patented.

DESCRIPTION OF THE DEPOSITS

The country rock in the area of the manganese deposits is a rhyolite porphyry of probable Tertiary age. This rock is one of a series of volcanic rocks that are very extensive to the south and

in the San Mateo mountains to the west. The rhyolite near the manganese deposits usually consists of a very fine-grained ground mass containing phenocrysts of orthoclase feldspar and quartz with minor biotite. Many of the phenocrysts are rounded. In sections of the formations, the phenocrysts constitute a large portion of the rock mass. The bedding of the flows is very poorly exposed and in only one place was a dip of approximately 30 degrees to the northeast suggested.

The area is traversed by a fault as shown in figure 3. This fault contains a quartz vein that is irregularly exposed both laterally and vertically, This vein has been brecciated and recemented with silica wherever exposed and has been rebrecciated and not recemented in places. The dip of the fault and the vein are difficult to determine but topographic features suggest an approximate 60 degree dip to the southwest.

The rhyolite is generally unaltered and appears fresh when broken. A small amount of hydrothermal alteration was noted in small shear and brecciated zones associated with the main fault.

Known manganese mineralization is confined to the rhyolite northeast of the fault, and excepting the most southeasterly exposure, is close to the fault, rarely exceeding a couple of hundred feet. The southeastern exposure may be about 1,500 feet from the fault projection. The areas of manganese mineralization are shown on figure 3.

The manganese minerals are psilomelane and pyrolusite which occupy fractured and brecciated zones in the rhyolite. The primary minerals, rhodochrosite and rhodonite, were not observed. The zones seem to be spurs from the main fault. Their strike is difficult to determine although the strike seems to be a little east of north. Where brecciation has been intense and large voids were present, fairly good-grade manganese deposits were formed. However, throughout much of the area the brecciation was not intense and the manganese minerals merely occupy the cracks between breccia fragments and the fracture planes in fractured rock, and constitute low grade mineralization. This type of mineralization is quite extensive.

Although all of the manganese minerals probably were derived from a common source, presumably by the weathering of overlying rocks containing small amounts of manganese, subsequent erosion has detached the exposures. That the mineralization is superficial and extends to no great depths is indicated where erosion has cut valleys between the deposits. Manganese mineralization was sparse at a depth of approximately 100 feet vertically below the outcrops at the highest points. Concentrations of manganese do not exist at the bottom of the two main canyons that cut through the area. To the northwest and north along the fault, the manganese mineralization seems fairly continuous laterally where it is not dissected by erosion.

ORE RESERVES

Ore reserves are based on the sampling of the Black Goose No. 1 deposit with a general sample taken on the Black Goose No. 4 claim. The material sampled was representative of ore that would be mined by an operation producing more than just a few tons per day. The sample results are shown in an assay plan, figure 4.

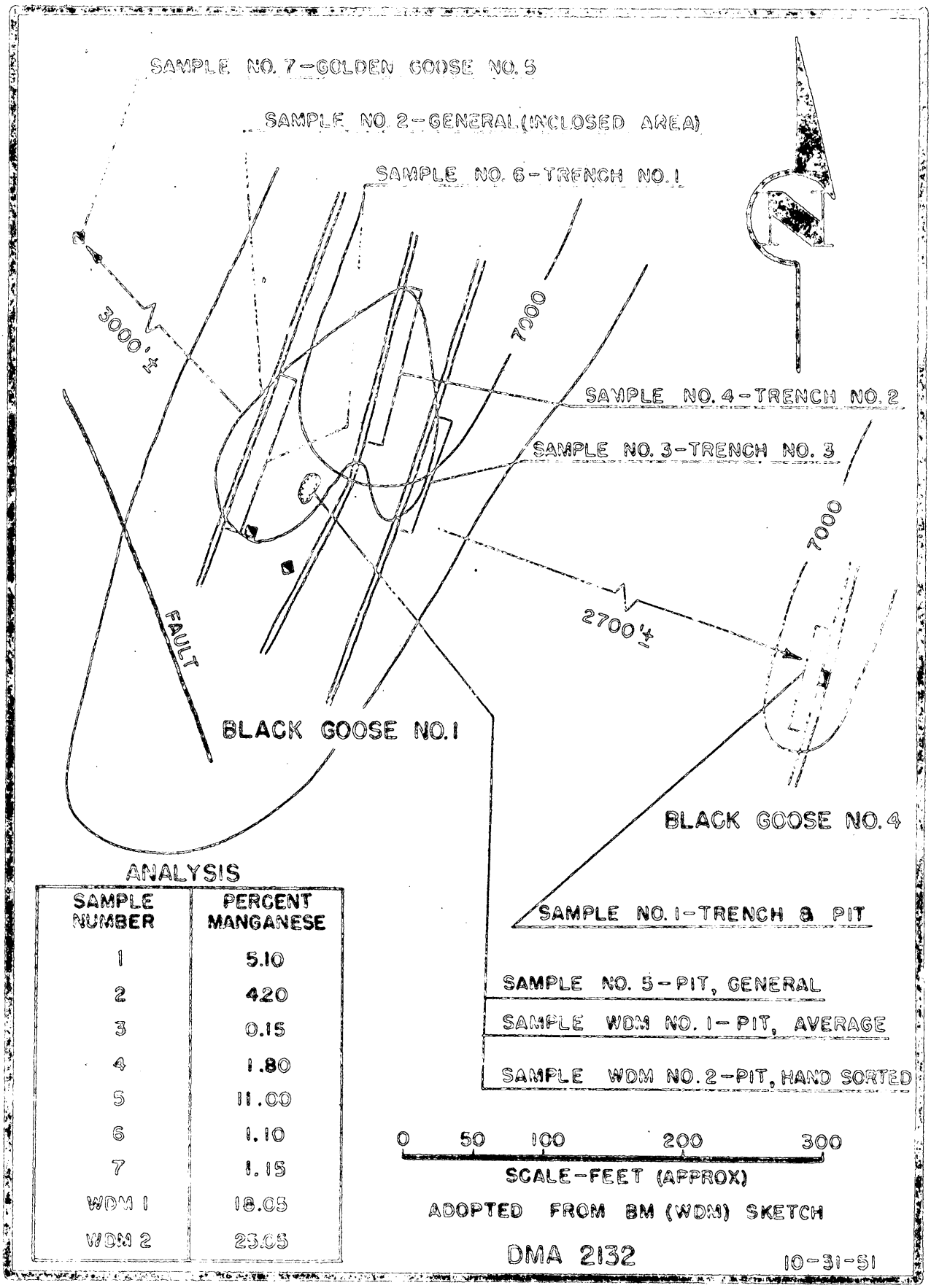
There is a negligible amount of measured ore in the Black Goose deposits. Indicated reserves are on the order of 900 long tons containing an excess of 15 percent manganese. There are 16,200 long tons of material indicated that contain 4.4 percent manganese, while the amount of rock containing one percent manganese is extensive. The better grades of ore are assumed to be 10 feet deep.

Inferred reserves of minable ore probably will not be much greater than those indicated. However, allowing for an assumed extension in depth to 50 feet of the better grade material, the inferred reserves would be about five times those indicated. Exploratory work was done on those places showing the highest grade manganese, and sample results suggest that lateral extensions of the indicated reserves of the best ore are not warranted (see figure 4).

The following table classifies the ore reserves as calculated:

TABLE 1. - Ore reserves in long tons.

Reserve type	Plus 15% Mn	2%-15% Mn	1%-2% Mn
Measured	Few	Few	Few
Indicated	900	16,200	1,320,000
Inferred	3,600	64,800	6,000,000
Total	4,500	81,000	7,320,000



ANALYSIS

SAMPLE NUMBER	PERCENT MANGANESE
1	5.10
2	420
3	0.15
4	1.80
5	11.00
6	1.10
7	1.15
WDM 1	18.05
WDM 2	23.05

FIGURE 4.-SKETCH, ASSAY PLAN, BLACK GOOSE MANGANESE DEPOSITS

PROPOSED EXPLORATION

The applicant proposed to explore the manganese deposits by mining methods. He had chosen 4 localities showing the best manganese exposures, and planned 140 feet of workings on each location. This work was broken down into 30 feet of adit or shaft, 40 to 80 feet of drifting, and 30 to 70 feet of crosscutting, aggregating 140 feet. The topography of the area is such that exploration would be cheaper and more quickly accomplished by trenching and drilling (either core or wagon), than by expensive mining methods.

The program was to cost $20,000, of which the applicant would furnish one-fourth or $5,000. The remainder would be furnished by the Government.

CONCLUSIONS

The following conclusions are based on an examination of the property and a study of available data resulting from previous examinations by an engineer of the Bureau of Mines:[1/]

1. Very low-grade manganese mineralization is extensive although discontinuous along the northeastern side of a fault traversing the Black Goose property;

2. Medium grade manganese mineralization is confined in small faults, shears and breccia zones, usually spurs from the main fault;

3. The manganese mineralization is superficial and extends to no great depths, as shown in valleys cutting the deposits, the best manganese ore occurring at the tops of ridges, the valleys being practically barren of manganese;

1/ W. D. McMillan, mining engineer

4. Minable ore reserves of manganese of acceptable grade are small, and geologic indications show that these will not be greatly increased by additional exploratory work.

RECOMMENDATIONS

Based on the above conclusions, it is recommended that the application for Governmental assistance in exploring the Black Goose manganese deposits, Docket DMA-2123, be denied.

224 New Customhouse
Denver 2, Colorado

November 16, 1951

W. E. Pratt & Associates
Box 1343
Santa Fe, New Mexico

Re: DMA Docket 2132

Dear Mr. Pratt:

Your application for a loan to explore the Black Queen Manganese Mine has been reviewed by the Defense Minerals Administration. We have a report of a field examination made on your property to help us in judging your application.

On the basis of this report, we must conclude that the chances of finding any significant tonnage of mineable manganese ore are unfavorable.

The Black Queen Mine is traversed by a northeast trending fault, southeast of which manganese mineralization occurs in shear and breccia zones of rhodolite. While this mineralization is widespread, only a few small areas of mineable ore were observed. The geological probability of discovering additional ore in depth are not favorable. Under these circumstances, an expenditure of public funds for exploration is unwarranted, and your application is hereby denied.

We wish to thank you for bringing the property to our attention.

Very truly yours,

J. H. Eastf

J. H. East, Jr.
Executive Officer
DMA Field Team, Region IV

WDM:ej
cc: John M. Smith, Acting Chief
Administrative Management Div.

cc: W.E.Storms
A.H.Koschmann
dma subject, chron.

DMA Form 3b.

DEFENSE MINERALS ADMINISTRATION

CONTROLLED DOCUMENT
Revised Abstract

DMA Docket No. 2132

Change: From		To		
I 1	☐	I 1	☐	
I 2	☐	I 2	☐	
I 3	☒	I 3	☒	
I 4	☐	I 4	☐	
I 5	☐	I 5	☐	
I 6	☐	I 6	☐	
III 1	☐	III 1	☐	
III 2	☐	III 2	☒	11/10/51
III 3	☐	III 3	☐	
III 4	☐	III 4	☐	

Add:

II 7 $ 20,000

II 8 $ ——

II 8a % _____

Initials of person preparing sheet W.D.M.

Date sheet prepared 11/15/51

DMA-2132

REGISTERED - RETURN RECEIPT REQUESTED

Memorandum

To: W. R. Storms, Tucson, Arizona October 31, 1951

From: Silver City, New Mexico Field Office

Subject: Report on Docket DMA-2132, Black Goose Manganese Deposits, Socorro County, N. Mex.

Attached is the report on the Black Goose examination. The brochure is being returned as well as the map tracings being included. We would like 3 prints of the maps returned to us.

I have been unable to determine the exact nature of the applicants' actions with respect to the property. Whether it is a promotional scheme to realize a nice profit on the property by its sale or whether the optimism is due to misguided zeal is a question. However, the property is a "dud" and denial is recommended so it really makes little difference what the applicants' actions mean.

The geologic (?) report in the brochure is a lot of "hogwash" and means exactly nothing when read by an informed person, but to the uninformed it could paint a rosy picture. The report is by one Frank Robinson, who claims to know you. He graduated from Socorro in 1926 and went to the U. V. where he spent some time. After two years of mining, he quit mining and, as I gather, spent the remaining time in civil engineering. He is registered as a Professional Engineer in Agricultural and Irrigation engineering.

The metallurgical report may be all right but something seems to me to be out of place.

John H. Soule'
Acting Supervising Engineer

cc Allsman, Denver
reader
file

P.O. Box No. 1343
Santa Fe, New Mexico
September 25, 1951

Defense Minerals Administration
224 New Custom House Building
Denver 2, Colorado

Gentlemen:

In compliance with the instructions contained in form MF-103, we submit herewith four copies of the data, forms, maps and other information requested.

We have permission from Mr. A. T. Sweet, Metallurgical Field Office, Building 2A, Denver Federal Center, Denver, Colorado, with whom we have discussed the various phases of metallurgical process and treatment pertaining to this type of Manganese ore, to refer to him for discussion, or confir--mation, of the enclosed metallurgical report prepared by Mr. W. B. Pattison, Mining Engineer.

Also, Mr. E. C. Anderson, Director of the State Bureau of Mines and Mineral Resources, Socorro, New Mexico, who has made a complete, personal field examination of the property, has assured us that he will discuss freely any phase of the geology of the deposit with any one upon request.

It will be noted that a discrepancy of eleven miles exists between the Pattison and Robinson reports as to the distance of the property from Magdalena. Mr. Pattison undoubtedly arrived at his figure from a speedometer reading along the meander of the existing road leading into the property; whereas, Robinson has located it by section, township and range, which supports his statement of 14 miles. If desireable, it is feasible to construct a road conforming to the latter mileage at nominal cost.

Very truly yours,

WM. K. PRATT & ASSOCIATES,

Wm K Pratt

per; Wm. K. Pratt,
President.

WKP/fr
Encl's:
Form MF-103
Geological Report
Metallurgical Report
Option Agreement
Lease (2)
Supplemental Agreement (2)

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. DMA-2132
Metal or Mineral
Date Received 10-8-51
Amount $
Participation (Government %)

Name and address of applicant

WM. K. PRATT
BOX 1343
SANTA FE NEW MEXICO.

Date Sept. 26 1951

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? MANGANESE

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information tained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

PRATT MINING CO.
(Name of company)

By M K Pratt
(Signature of authorized official)

(Date)

Owner
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

ANSWERS TO QUESTIONS.

1. (a) Map and detail data enclosed with forms.
   (b)
   (c)

2. See #1. Manganese & Oxide

3. We propose to tunnel, adit, shaft, cross-cut and drift at strategic locations along quartzite dike where mineralization appears at the contact in order to locate and outline the main ore body. We believe that we can accomplish this at a total cost of $20,000.00.

4. Map attached.

5. None.

6. None contemplated until after exploration operations are completed.

7. (a) Compressor and hose
   Two jack hammers with drill steel
   Two drifters with drill steel

   (b) Bits for the above steel
   (c) None

8. We propose to use two full crews on the day shift, which will involve the following personnel;
   Two miners
   Two miners' helpers
   Four muckers
   One compressor man
   One geologist-engineer, who will act as supervisor in addition to his other duties.

Prevailing union wages will be paid to all, except the geologist-engineer, who will be retained at the rate of $20,000.00 per year during exploration operations.

9. We propose to advance approximately 270 linear feet of exploration tunnels (6'x8'), etc., at a cost of $55.00* per foot of advance, which includes the cost of all materials, supplies, engineering, assaying, accounting, power, water, utilities and other items not specified.

10. (a) Twenty-five per cent.
    (b) Yes.

11. None.

* Estimated by reliable mining firms in the district.

Copied from original,
and proof-read by
D. L. Harris, Public Stenographer, Notary, &c.,
251 West San Francisco Street (Rear),
Santa Fe, New Mexico.

GEOLOGICAL REPORT

for

Wm. L. Pratt & Associates, Santa Fe, New Mexico

by

Agriculture and Irrigation by listing in directory MS

Frank Robinson, Mining Engineer and Geologist, License No. [illegible]

Re: Barite

LOCATION: This property is located 14 miles South of Magdalena, New Mexico, a town of some 1500 population, on the Santa Fe railroad and U. S. Highway No. 60 and on State Road No. 107. This is a good graded road running South from Magdalena, and passes within three miles of the claims; it connects with U. S. Hg. 66, about half-way between Socorro and Las Cruces, New Mexico.

GEOLOGY and ORE DEPOSITS: The deposition here probably took place during the last stages of the late Silurian and Devonian partial emergences, at which time the hot descending solution permeated the zone of brecciation at the contact, resulting in the mineralization and enrichment as indicated by the high concentration of galena and pyrargirite occurring chiefly as botryoidal and mammillary concretions. In addition to the parent rocks, limestone, rhyolite, latite, phonolite, etc., considerable amounts of rhodonite and rhodochrosite are present at and near the contact.

Forney!

This phenomena extends over a distance of some two miles, forming an uneven, irregular pattern at the outer fringes. However, assessment holes and other surface evidence indicate that the pattern will average some two hundred and fifty feet in width. Talus slides are numerous, and tend to completely cover the deposit at irregular intervals, only to show again where erosion has removed the talus; hence it appears certain that the dimensions of the deposit consist of 10,000 feet in length, 250 feet in width and 10 feet in depth (average of assessment holes) or a total of more than twenty-six million cubic feet of high quality Manganese Oxide. ?

I believe that the deposit as seen here, is in the lower portion of the zone of oxidation and that, since the characteristics of this type of deposit are usually many thousands of feet in thickness, and allowing for the removal of two thousand feet of cover (as indicated by a correlation with the Kelly Mining District structure to the Northeast), several thousand feet of ore remain to be uncovered.

more Forney!

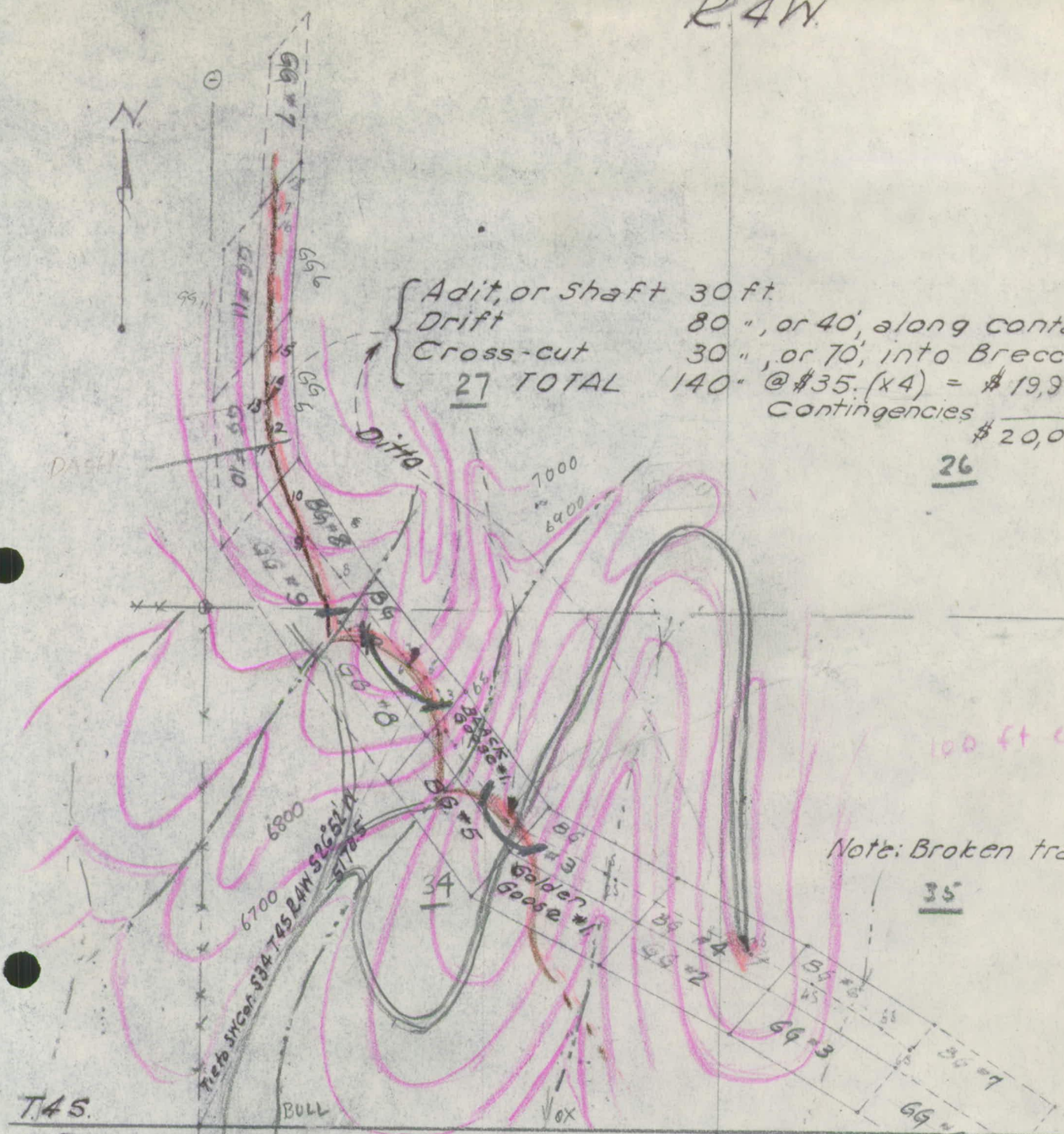
The strike and dip of the deposit averages NW - SE 40° and 60° respectively.

RECOMMENDATIONS: I recommend that metallurgical tests be ob-

tained on this ore to ascertain the type of treatment required for concentration and, if the results of such tests indicate the feasibility of a mill, one of at least 100-ton capacity should be erected. In this case, housing for living quarters and offices will be required, because of the distance from the nearest town - Magdalena.

(Signed) Frank Robinson

R 4 W.



— SURVEYOR'S CERTIFICATE —

I, Frank Robinson, certify that this plat, and the field notes shown hereon, represents a true and correct copy of a survey made under my supervision in the field, May 1951, and shows conditions existing on the ground at the time of the survey.

Frank Robinson
Reg. P.E. & L.S. Lic. 355, N.M.

SURVEY
for
Wm. K. Pratt & Associates
in
Sections 27, 34 T4S R4W &
" 4 T5S R4W.
Magdalena, N.M. 5-'51 Scale 1" = 1500'

? Dis agrm

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and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

Data on Manganese property located about 25 miles South of Magdalena, N. M.

The property in question lies along a large quartz dyke for a distance of over two miles. Several test shafts ten feet deep have been sunk on the manganese that seems to lie on the west side of the dyke. These shafts have been scattered over a length of about 5/8 of a mile and show the same type of material in all of them; a brecia of quartzite, with a matrix of manganese oxides. This makes the ore an ideal concentrating ore, as the difference in specific gravity between the quartz gangue and the manganese oxides is so great that they separate very readily on a jig and table after crushing and sixing.

?

NOTE

I have tested, concentrated and assayed the various products on a great many samples from this property. I believe that, with a little selection, the crude ore can be mined at a grade of about 15% manganese. My hand jigging tests gave me a concentrate around 40% Mn. However, this concentrate product assays so high in silica (uo to nearly 30%), that it is not marketable. Many methods have been tried to lower the silica to a point that the steel companies will accept the product; but it is just lately that we have hit upon a process that eliminates all the silica, all the phos. and when sintered, gives us a finished product close to 65% Mn.

?

This product can be sold to the Government stockpile in Deming, N. M. and the price guaranteed for five years. The sintered product of the above grade will be paid for by the Government at $130.00 per ton, not counting the bonuses.

It is assumed that it will require 3-1/2 tons of crude ore, assaying 15% Mn. to make one ton of concentrates assaying 40% Mn. 2 tons of concentrates will be required to make one ton of the high grade sinter, running about 65% Mn. Following is a rough estimate of the costs of the various operations.

7 | $130.00 = $18.57 /ton ore.
$6.19 /ton ore more accurate

	CRUDE ORE	
Mining	$3.00	per ton
Royalty to land owner	.50	
Trucking	.50	
Concentration	1.50	
total cost on crude ore	$5.50	

As it takes 3-1/2 tons of the crude ore to make one ton of concentrates, the cost of the concentrates will be $5.50 x 3-1/2 or $19.25 per ton. It is estimated that the fine grinding and preparing the ore concentrates for treatment will cost, together with

labor, reagents loss, etc., will not exceed $6.00 per ton of concentrates. Therefore, the total cost per ton of concentrates plus treatment will be $19.25 plus $6.00 or a total of $25.25. As it will take 2 tons of concentrates to make one ton of sintered product $25.25 x 2 will be $50.50 as the cost of the finished product before sintering. Sintering cost will be about $2.00 per ton of sinter.

	Finished product costs.
Sinter	$50.50
Sintering cost	2.00
Royalty on process (10%)	13.00
Trucking to R. R.	2.00
	$67.50

The above figure of $67.50 represents the total cost of the sintered finished product, as the Government pays the R. R. freight to stockpile location on high grade product like this.

The cost of a plant to treat 100 tons of crude ore per 24 hrs. will not exceed $100,000.00. This includes buildings, water supply, roads. As the property is located 25 miles from the nearest town, Magdalena, some housing may be required. The above figure, of course, includes the cost of good reshopped equipment, installed and ready to go. A great deal of this equipment has been spotted. It is estimated that it will require from 60 to 90 days to assemble the items and install and be ready to run.

Very truly yours,

(Signed) W. B. Pattison

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (Rear),
Santa Fe, New Mexico.

SUPPLEMENTAL AGREEMENT

WHEREAS, an indenture of lease was entered into March 9, 1951 between Lee E. Logan and Duain Mangum of Magdalena New Mexico as lessors and William K. Pratt, as lessee covering Black Goose Mining Claims Number one, two, three, four, five and six, for the term and under the conditions in said lease stipulated; and

WHEREAS, nothing was stated in said lease as to whether the said William K. Pratt, lessee should have the right or privilege of transferring or assigning said lease;

NOW, THEREFORE, for and in consideration of the sum of one dollar lawful money of the United States of America paid by the said William K. Pratt, lessee, to Lee E. Logan and Duain Mangum, lessors, it is hereby stipulated and agreed by the said Lee E. Logan and Duain Mangum, lessors, that the said William K. Pratt shall have the right and privilege of transferring or assigning said lease at any time he may so desire to anyone without the consent written or otherwise of the said Lee E. Logan and Duain Mangum, and without consulting them.

IN WITNESS WHEREOF, the parties hereto have signed and sealed this supplemental agreement the _____ day of May, 1951.

(Signed) Lessors	Lee E. Logan	(SEAL)
(Signed)	Duain Mangum	(SEAL)
(Signed) Lessee	William K. Pratt	(SEAL)

STATE OF NEW MEXICO)
) SS
COUNTY OF SOCORRO)

On this 19 day of May, 1951, before me personally appeared Lee E. Logan, Duain Mangum lessors and William K. Pratt, lessee, to me known to be the persons described in and who executed the foregoing supplemental agreement, and acknowledged to me that they executed the same as their free act and deed for the purposes therein expressed.

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

(Signed) Earl T. Scott
Notary Public

My Commission Expires

1 - 22 - 55 (SEAL)

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS

This instrument of writing was filed for record at 2:10 o'clock P. M. on
MAY 21 1951
and duly recorded in Vol 160 of Misc. Page 115

(Signed) Julius Fraissinet
County Clerk

(SEAL) (Signed) By Cruz Trujillo Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

L E A S E

This indenture made this 9 day of March, 1951,

WITNESSETH:

That Lee E. Logan and Duain Mangum, as Lessors, do hereby lease, demise and let unto William K. Pratt, as Lessee, the following described property situated in Socorro County, New Mexico:

> Black Goose Claim No. 1, more particularly described in Location Notice filed in Book 138, Mining Claim Records, at page 694, Socorro County; and Black Goose Claim No. 3, more particularly described in Location Notice filed in Book 156, Mining Claim Records, at page 185-186, Socorro County. These claims are located approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain.

To have and to hold for a term of ten (10) years from the date of this lease, Lessee to have the option of renewal for a further period of ten years upon like terms and conditions as contained herein.

Lessee shall pay Lessors the following rent:

(a) $50.00 down, receipt of which Lessors hereby acknowledge.

(b) $50.00 upon execution of this lease.

(c) $100.00 per month thereafter, but subject to the following:

(1) The $100.00 per month rental hereinabove set out shall be payable until such time as Lessee is able to begin actual mill production, at which time the $100.00 per month rentall shall be discontinued, and the Lessors shall receive

W.K.P.
L.E.L.
D.M.

as rental in lieu thereof 25¢ per ton for all manganese and other ores mined and removed to the mill site for processing. Once mill production has commenced, Lessors shall receive a minimum of $500.00 per month under the 25¢ per ton rental provisions.

Lessee shall have the right to mine, remove, process, sell and dispose of any and all minerals of the premises described above and to core drill, make test holes, mine, excavate and explore the premises to determine whether ore is of commercial grade or value.

Lessee agrees to do the yearly assessment work and maintain the claims and, in this respect, shall have the right to survey and re-survey and group and re-group the claims for purposes of assessment work.

Lessee agrees to spend at least $300.00 upon development of the claims, and Lessors acknowledge that $100.00 of this amount has already been paid to them for having done certain development work on the claims.

Should the Lessors desire to sell the property described herein, the Lessee shall have first option to purchase same at a purchase price of $5000.00 to each of the Lessors for their interest in the Claims described above.

The Lessee shall have the right to cancel this lease upon thirty (30) days written notice given to the Lessors, which notice shall have been completed upon depositing same in the mail addressed to the Lessors at Magdalena, New Mexico. Upon deposit of said notice and expiration of thirty days, all the rights, duties and obligations of the parties under this lease shall terminate.

If the Lessee shall be unable to perform any of his obligations under this contract by reason of fire, strike or damage by the elements, or for any unavoidable cause or by reason of war,

then the obligations on his part shall cease pending said occurrence, or at Lessee's option his obligation under the agreement shall at once terminate and cease.

If in any month the Lessors shall receive more than $500.00 in rental, the excess over the $500.00 may be credited by Lessee to any month in which the rental is not equal the minimum.

EXECUTED in triplicate the day and year first above written.

(Signed) Lee E. Logan
Lee E. Logan

(Signed) Duain Mangum
Duain Mangum
LESSORS

(Signed) William K. Pratt
William K. Pratt
LESSEE

STATE OF NEW MEXICO)
COUNTY OF SOCORRO)SS.

On this 9 day of March, 1951, before me personally appeared Lee E. Logan and Duain Mangum, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
My Commission Expires: Notary Public
Dec. 27 - 1954

STATE OF NEW MEXICO)
COUNTY OF SOCORRO.) SS.

On this 9 day of March, 1951, before me personally appeared William K. Pratt, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
My Commission Expires: Notary Public
Dec. 27th 1954

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS. This instrument of writing was filed for record at 10:30 o'clock A. M. on Mar 9 1951
and duly recorded in Vol 160 of Misc. Page 40-41
(Signed) Julius Fraissinet
County Clerk
(SEAL) (Signed) By Solomon Lopez Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (Rear),
Santa Fe, New Mexico.

L E S A E

This indenture made this 9 day of March, 1951,

WITNESSETH:

That Lee E. Logan and Duain Mangum, as Lessors, do hereby lease, demise and let unto William K. Pratt, as Lessee, the following described property situated in Socorro County, New Mexico:

> Black Goose Claim No. 2 and Black Goose Claim No. 4, more particularly described in the office of the County Clerk of Socorro County in Mining Location Notices forwarded for recording but not yet returned to Lessors. These claims are in the vicinity of and adjacent to Black Goose Claims No. 5 and 6 hereinafter described.
>
> Black Goose Claim No. 5, more particularly described in Mining Location Notice recorded in Book 156, Mining Claim Records, at page 186, Socorro County, New Mexico, and Black Goose Claim No. 6, more particularly described in Mining Location Notice recorded in Book 156, Mining Claim Records, at pages 212-213, Socorro County, New Mexico.
> All the above described Claims are situated approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain.

To have and to hold for a term of ten (10) years from the date of this lease, Lessee to have the option of renewal for a further period of ten years upon like terms and conditions as contained herein.

Lessee shall pay Lessors the following rent:

(a) $75.00 per month, but subject to the following:

(1) The $75.00 per month rental hereinabove set out shall be payable until such time as Lessee is able to begin actual mill production, at which time the $75.00 per month rental shall be discontinued, and the Lessors shall receive as rental in lieu thereof 50¢ per ton for all

W.K.P.
L.E.L.
D. M.

manganese and other ores mined and removed to the mill site for processing. Once mill production has commenced, Lessors shall receive a minimum of $600.00 per month under the 50¢ per ton rental provisions.

Lessee shall have the right to mine, remove, process, sell and dispose of any and all minerals on the premises described above and to core drill, make test holes, mine, excavate and explore the premises to determine whether ore is of commercial grade or value.

Lessee agrees to do the yearly assessment work and maintain the claims and, in this respect, shall have the right to survey and re-survey and group and re-group the claims for purposes of assessment work.

Lessee agrees to spend at least $300.00 upon development of the claims, and Lessors acknowledge that $100.00 of this amount has already been paid to them for having done certain development work on the claims.

Should the Lessors desire to sell the property described herein, the Lessee shall have first option to purchase same at a purchase price of $5000.00 to each of the Lessors for their interest in the Claims described above.

The Lessee shall have the right to cancel this lease upon thirty (30) days written notice given to the Lessors, which notice shall have been completed upon depositing same in the mail addressed to the Lessors at Magdalena, New Mexico. Upon deposit of said notice and expiration of thirty days, all the rights, duties and obligations of the parties under this lease shall terminate.

If the Lessee shall be unable to perform any of his obligations under this contract by reason of fire, strike or damage by the elements, or for any unavoidable cause or by reason of war, then the obligation on his part shall cease pending said occurrence, or at Lessee's option his obligations under the agreement shall at once terminate and cease.

If in any month the Lessors shall receive more than $500.00 in rental, the excess over the $500.00 may be credited by Lessee to any month in which the rental is not equal the minimum.

EXECUTED in triplicate the day and year first above written.

(SIGNED) Lee E. Logan
Lee E. Logan

(Signed) Duain Mangum
Duain Mangum
LESSORS

(Signed) William K. Pratt
William K. Pratt
LESSEE

STATE OF NEW MEXICO)
COUNTY OF SOCORRO) SS.

On this 9 day of March, 1951, before me personally appeared Lee E. Logan and Duain Mangum, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.
WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
Notary Public

My Commission Expires:
Dec. 27 - 1954

STATE OF NEW MEXICO)
COUNTY OF SOCORRO) SS

On this 9 day of March, 1951, before me personally appeared William K. Pratt, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) Fred H. Innerbichler
Notary Public

My Commission Expires:

Dec. 27 - 1954

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS.

This instrument of writing was filed for record at 10:30 o'clock A. M. on Mar 9 1951

and duly recorded in Vol 160
of Misc. Page 38 - 39 & 40

(SEAL) (Signed) Julius Fraissinet
County Clerk
(Signed) By Solomon Lopez Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco Street, Rear,
Santa Fe, New Mexico.

SUPPLEMENTAL AGREEMENT TO INCLUDE BLACK GOOSE NO. 7 and BLACK GOOSE NO. 8 in LEASE DATED MARCH 9, 1951

This indenture of agreement entered into this 5th day of May, 1951, between Lee E. Logan and Duain Mangum, of Magdalena, New Mexico, parties of the first part and William K. Pratt, party of the second part, WITNESSETH:

1. That the parties of the first part are the owners of Black Goose Mining Claim No. 7 and Black Goose Mining Claim No. 8.

2. That the parties of the first part also are the owners of Black Goose No. 2 Mining Claim and Black Goose No. 4 Mining Claim and Black Goose No. 5 Mining Claim and Black Goose No. 6 Mining Claim, and that they have leased to the party of the second part the four last named mining claims under the terms and conditions, rentals and options expressed in a mining lease dated March 9, 1951. That said lease was filed for record March 9, 1951 and is duly recorded in Vol 160 Miscellaneous at pages 38, 39 and 40 of the records of Socorro County, New Mexico.

3. It is hereby stipulated and agreed between Lee E. Logan and Duain Mangum, parties of the first part and William K. Pratt, party of the second part, that the Black Goose Mining Claim No. 7 and the Black Goose Mining Claim No. 8 be, and there are hereby leased by the party of the first part to the party of the second part under the same terms and conditions rentals and options expressed in the mining lease dated March 9, 1951. It being the intent of the parties herein to include in the original lease dated March 9, 1951 also the Black Goose No. 7 Mining Claim and the Black Goose No. 8 Mining Claim.

(Signed) Lee E. Logan

(Signed) Duain Mangum

(Signed) Wm. K. Pratt

STATE OF NEW MEXICO
COUNTY OF SOCORRO

On this 5th day of May 1951, before me personally appeared Lee E. Logan and Duain Mangum and William K. Pratt, to me known to be the parties described in and who executed the foregoing agreement and acknowledged that they executed the same as their free act and deed.

WITNESS my hand and seal the day and year last above written.

My Commission Expires
Dec. 27 1954 (SEAL) (Signed) Fred H. Innerbichler

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS

This instrument of writing was filed for record at 3:55 o'clock P. M. on
May 7 1951
and duly recorded in Vol 160 of Misc. R Page 96 - 97
(Signed) Julius Fraissinet
County Clerk
(SEAL) (Signed) By Solomon Lopez Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

OPTION AGREEMENT

This agreement entered into this 15 day of May, 1951, by and between Lee E. Logan and Duain Mangum, of Magdalena, New Mexico, hereinafter referred to as Sellers, and William K. Pratt, hereinafter referred to as Buyer, WITNESSETH:

In consideration of one dollar, lawful money of the United States of America, paid by the Buyer to the Sellers, the receipt whereof is hereby acknowledged, and the promises and conditions herein contained, Sellers do hereby grant unto Buyer, his heirs and assigns, the exclusive option or right to purchase within nine months from the date of this agreement, for the price of $20,000.oo, the following described mining claims, together with any structure and improvements thereon, situated in Socorro County, New Mexico:

> Black Goose Claim No. 2, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 233 - 234 of the records of Socorro County, New Mexico; and Black Goose No. 4, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 232-233, of the records of Socorro County, New Mexico; and Black Goose No. 5, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at page 186, of the records of Socorro County, New Mexico; and Black Goose No. 6 more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at page 212-213, of the records of Socorro County, New Mexico; and Black Goose No. 7, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 240-241, of the records of Socorro County, New Mexico; and Black Goose No. 8, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 241-242, of the records of Socorro County, New Mexico.
>
> All the above described Claims are situated approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain, within the Magdalena Mining District.

Sellers warrant that they have a good and merchantable title, free and clear of all liens and encumbrances; and that the claims are in good standing, and that all matters and things necessary to be done in perfecting and maintaining said claims have been complied with.

Sellers agree that if within the time specified above, the Buyer, his heirs or assigns, shall declare his or their intention to exercise the said option or right to purchase the said mining claims, they, the Sellers will furnish to Buyer an abstract of title brought down to current date showing record title to the claims above described. Buyer shall thereafter have 20 days time from the receipt of the abstract of title to examine same and make objections to the title. Sellers agree to do and perform all acts necessary to perfect the title as a good and merchantable title, and to do so within a reasonable time.

Upon receipt of letter of acceptance of title from Buyer or upon correction of defects pointed out in the letter of examination of title, Buyer agrees to pay to Sellers the total purchase price of $20,000.00 in cash and simultaneously therewith Sellers agree to execute and deliver to Buyer a good and sufficient warranty deed and such other documents as may be required to transfer to Buyer complete title to the claims described above.

If the Buyer fails to exercise said option or right to purchase within the time specified above, then the said option or right shall cease and this agreement shall be null and void.

This agreement is binding upon our heirs, executors, administrators and assigns.

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

Sellers	(Signed)	Lee E. Logan	(SEAL)
	(Signed)	Duain Mangum	(SEAL)
Buyer	(Signed)	William K. Pratt	(SEAL)

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
) SS
COUNTY OF SOCORRO)

On this 15 day of May, 1951, before me personally appeared Lee E. Logan, Duain Mangum and William K. Pratt, to me known to be the persons described in and who executed the foregoing option agreement, and each for himself acknowledged to me that he executed the same as his free act and deed and for the purpose therein expressed.

(Signed) Fred H. Innerbichler
Notary Public

(SEAL)

My Commission Expires

Dec. 27 - 1954

STATE OF NEW MEXICO)
Socorro County) SS
This instrument of writing was filed for record at 10:30 o'clock A. M. on May 18 1951
and duly recorded in Vol 160 of Misc. page 110-111
(Signed) Julius Fraissinet
County Clerk

(SEAL) (Signed) By Cruz Trujillo Deputy

Mining Division
Date Rec'd.
OCT 24 1951
BUREAU OF MINES
Denver, Colorado

New Mexico Field Office
Box 1060, Silver City, N. Mex.
October 19, 1951

Wm. K. Pratt & Associates
P. O. Box 1343
Santa Fe, New Mexico

Dear Mr. Pratt:

We are in receipt of a communication requesting an examination of your Black Goose manganese property on which you have applied for Government assistance, Docket DMA-2132.

We plan to visit this property and will meet you or your representatives at the property on Wednesday morning, October 24, 1951, at 8:00 a.m.

Sincerely yours,

pt
uoIII
J 71

John H. Soule'
Acting Supervising Engineer

cc Storms
Allsman
reader
file

Mining Division
Date Rec'd
OCT 22 1951
BUREAU OF MINES
Denver, Colorado

MINING DIVISION
REGION IV

October 18, 1951

Registered

Memorandum

To : John H. Soule', Silver City, N. Mex.

From : Chief, Arizona-New Mexico Br., Mining Div., Region IV

Subject : DMA Docket ~~2021~~ 2132, W. K. Pratt and Associates,
Black Goose No. 2 Manganese Claim,
Socorro County, N. Mex.

Enclosed is the material for the above docket. Please visit the property and write a report.

Walter R. Storms

CC P. T. Allsman
DMA-2021
DF

WRStorms:frj

224 New Customhouse
Denver 2, Colorado

REGIONAL DIRECTOR'S
OFFICE
REGION IV
OCT 18 1951
BUREAU OF MINES
DENVER, COLORADO

October 16, 1951

Memorandum

To: W. R. Storms

From: Chief, Mining Division, Region IV

Subject: DMA Docket 2132, W. K. Pratt and Associates, applicants, Black Goose No. 2 Manganese Claim, Socorro County, New Mexico

Enclosed herewith is application of the subject docket for an exploration loan of $20,000. The proposed work consists of 140 feet of shafts or adits, drifts and cross-cuts.

Examinations of this deposit by the New Mexico Field Office on August 14 and October 4, 1950 indicated that the geological probability of discovery of commercial manganese ore was unfavorable, and denial of the application is being considered.

Your advice concerning this, which probably will require a brief field investigation to observe recent work, if any, is requested.

Paul T. Allaman

WDM:oj
cc: JHEast
DMA Subject and Chron.
AHKoschmann

224 New Customhouse
Denver 2, Colorado

October 16, 1951

Memorandum

To: W. R. Sherry

From: Chief, Mining Division, Region IV

Subject: DMA Docket 2132, W. K. Pratt and Associates, applicants, Black Cross No. 2 Manganese Claim, Socorro County, New Mexico

Enclosed herewith is application of the subject docket for an exploration loan of $20,000. The proposed work consists of 140 feet of shafts or adits, drifts and cross-cuts.

Examinations of this deposit by the New Mexico Field Office on August 14 and October 4, 1950 indicated that the geological probability of discovery of commercial manganese ore was unfavorable, and denial of the application is being considered.

Your advice concerning this, which probably will require a brief field investigation to observe recent work, if any, is requested.

Paul T. Allaman

WDM:oj
cc: JHEast
DMA Subject and Chron.
AHKoschmann

23, New Customhouse
Denver 2, Colorado

October 5, 1951

Memorandum

To: Defense Minerals Administration, Attention: Code 210

From: Executive Officer, DMA Field Team, Region IV

Subject: Docketing for Exploration Assistance

Enclosed herewith in duplicate are DMA Form 3a and Form MF-103 pertaining to the following applications for exploration loans:

W. W. Sparks, Nine Mining Claims, Montezuma County, Colorado

W. K. Pratt and Associates, Black Goose #2, Socorro County, New Mexico

J. H. Eaton, Jr.

Enclosures

oj

cc: DMA Code 210
DMA Docket File
DMA Chronological
AHKoschmann

Mining Division
Region IV

November 13, 1952

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMA Docket 2132, E. K. Pruit and Associates, Black Queen Manganese Prospect, Socorro County, New Mexico

The application of the subject docket was for an exploration loan of $20,000.

The proposed exploration program consisted of 30 feet of shaft or adits, and approximately 60 feet of drifting and 30 feet of cross-cutting at four localities having the best manganese exposed.

The Black Queen prospect is traversed by northwest trending fault. Mineralization occurs in shear and breccia zones of rhyolite. While this mineralization is widespread, there are only a few small deposits of minable ore.

The geological probability of discovery of additional reserves is not favorable.

The examining engineer recommends denial of the exploration loan, with which we concur.

W. H. King for
Paul T. Allgaier

WDM:oj
cc: DMA Subject, Chronological
AHKoschmann

Mining Division
Date Rec'd.
NOV 7 1951
BUREAU OF MINES
Denver, Colorado

Memorandum

To: W. R. Storms, Tucson, Arizona November 2, 1951

From: Silver City, New Mexico Field Office

Subject: New Mexico Weekly Report - Oct. 29-Nov. 2, 1951

DMA-2132 - W. K. Pratt, applicant, Black Goose Manganese Deposits, Socorro County, New Mexico.
Examiners - J. H. Soule' & W. L. Dare, Bureau of Mines

The report and maps on the above property were completed during the period. The report, recommending a denial of the requested exploration loan, was sent to Tucson for final typing.

Time spent on 2132: J. H. Soule', 20 hrs; W. L. Dare, 22 hrs; J. E. Soule', 3 hrs.

John H. Soule'
Acting Supervising Engineer

cc Allsman, Denver
reader
092 Wkly Rpt.

Mining Division
Date Rec'd.

NOV 7 1951

BUREAU OF MINES
Denver, Colorado

REGISTERED - RETURN RECEIPT REQUESTED

Memorandum

To: W. R. Storms, Tucson, Arizona October 31, 1951

From: Silver City, New Mexico Field Office

Subject: Report on Docket DMA-2132, Black Goose Manganese Deposits, Socorro County, N. Mex.

Attached is the report on the Black Goose examination. The brochure is being returned as well as the map tracings being included. We would like 3 prints of the maps returned to us.

I have been unable to determine the exact nature of the applicants' actions with respect to the property. Whether it is a promotional scheme to realize a nice profit on the property by its sale or whether the optimism is due to misguided zeal is a question. However, the property is a "dud" and denial is recommended so it really makes little difference what the applicants' actions mean.

The geologic (?) report in the brochure is a lot of "hogwash" and means exactly nothing when read by an informed person, but to the uninformed it could paint a rosy picture. The report is by one Frank Robinson, who claims to know you. He graduated from Socorro in 1926 and went to the U. V. where he spent some time. After two years of mining, he quit mining and, as I gather, spent the remaining time in civil engineering. He is registered as a Professional Engineer in Agricultural and Irrigation engineering.

The metallurgical report may be all right but something seems to me to be out of place.

John H. Soule
Acting Supervising Engineer

cc Allsman, Denver
reader
file

DMA Form 3a

DEFENSE MINERALS ADMINISTRATION

CONTROLLED DOCUMENT
Abstract

I. Check One:

1 ☐ 2 ☐ 3 ☒ 4 ☐ 5 ☐ 6 ☐

II. Fill in each item:

1. DMA-2132 2. 10-8-51 2a

3. W. K. Pratt and Associates,
Box 1343
Santa Fe, New Mexico

(Code)

4. Black Goose, #2

5. Country U. S. A. State New Mexico County Socorro

(Code) (Code)

6. Manganese

7. $ 20,000

8. $ % 75

9. Est. Am. Increase - Unit of Measure -

10. $

11.

III. Check one:

1 ☐ 2 ☐ 3 ☐ 4 ☒ By Field Team, Region IV

Initials of person preparing sheet W. D. M.

Date sheet prepared 10/5/51

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. OCT 8 1 27 PM '51

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. dma 21321

Metal or Mineral

Date Received 10-8-51

Amount $

Participation (Government %)

RECEIVED DIRECTOR'S OFFICE REGION IV OCT 1 1951 BUREAU OF MINES DENVER, COLORADO

WM.K.PRATT
BOX 1343
SANTA FE
NEW MEXICO.

Name and address of applicant

Date SEPT. 26, 1951

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? MANGANESE

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Scott Mining Co. By Mc K Scott
(Name of company) (Signature of authorized official)

(Date) owner
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

ANSWERS TO QUESTIONS.

1. (a) Map and detail data enclosed with forms.
   (b)
   (c)

2. See #1. Manganese Exile.

3. We propose to tunnel, adit, shaft, cross-cut and drift at strategic locations along quartzite dike where mineralization appears at the contact in order to locate and outline the main ore body. We believe that we can accomplish this at a total cost of $20,000.00.

4. Map attached.

5. None.

6. None contemplated until after exploration operations are completed.

7. (a) Compressor and hose
   Two jack hammers with drill stems
   Two drifters with drill stems

   (b) Bits for the above steel
   (c) None

8. We propose to use two full crews on the day shift, which will involve the following personnel;
   Two miners
   Two miners' helpers
   Four muckers
   One compressor man
   One geologist-engineer, who will act as supervisor in addition to his other duties.

Prevailing union wages will be paid to all, except the geologist-engineer, who will be retained at the rate of $20,000.00 per year during exploration operations.

9. We propose to advance approximately 570 linear feet of exploration tunnels (6'x5'), etc., at a cost of $35.00* per foot of advance, which includes the cost of all materials, supplies, engineering, assaying, accounting, power, water, utilities and other items not specified.

10. (a) Twenty-five per cent.
    (b) Yes.

11. None.

* Estimated by reliable mining firms in the district.

Copied from original,
and proof-read by
D. L. Harris, Public Stenographer, Notary, &c.,
231 West San Francisco Street (Rear),
Santa Fe, New Mexico.

GEOLOGICAL REPORT

for

Wm. K. Pratt & Associates, Santa Fe, New Mexico

by

Frank Robinson, Mining Engineer and Geologist, License No. 355, New Mexico

LOCATION: This property is located 14 miles South of Magdalena, New Mexico, a town of some 1300 population, on the Santa Fe railroad and U. S. Highway No. 60 and on State Road No. 107. This is a good graded road running South from Magdalena, and passes within three miles of the claims; it connects with U. S. No. 85, about half-way between Socorro and Hot Springs, New Mexico.

GEOLOGY and ORE DEPOSITS: The deposition here probably took place during the last stages of the late Silurian and Devonian partial emergences, at which time the hot ascending solution permeated the zone of brecciation at the contact, resulting in the mineralization and enrichment, as indicated by the high concentration of psilomelane and pyrolusite occurring chiefly as botyroidal and mammillary concretions. In addition to the parent rock intrusives, rhyolite, latite, phonalite, etc., considerable amounts of rhodonite and rhodocrosite are present at and near the contact.

This phenomena extends over a distance of some two miles, forming an uneven, irregular pattern at the outer fringes. However, assessment holes and other surface evidence indicate that the pattern will average some two hundred and fifty feet in width. Talus slides are numerous, and tend to completely cover the deposit at irregular intervals, only to show again where erosion has removed the talus; hence it appears certain that the dimensions of the deposit consist of 10,560 feet in length, 250 feet in width and 10 feet in depth (average of assessment holes) or a total of more than twenty-six million cubic feet of high quality Manganese Oxide.

I believe that the deposit as seen here, is in the lower portion of the zone of oxidation and that, since the characteristics of this type of deposit are usually many thousands of feet in thickness, and allowing for the removal of two thousand feet of cover (as indicated by a correlation with the Kelly Mining District structure to the Northeast), several thousand feet of ore remain to be uncovered.

The strike and dip of the deposit averages NW - SE 45° and 60° respectively.

RECOMMENDATIONS: I recommend that metallurgical tests be ob-

tained on this ore to ascertain the type of treatment required for concentration and, if the results of such tests indicate the feasibility of a mill, one of at least 100-ton capacity should be erected. In this case, housing for living quarters and offices will be required, because of the distance from the nearest town - Magdalena.

(Signed) Frank Robinson

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

Data on Manganese property located about 25 miles South of Magdalena, N. M.

The property in question lies along a large quartz dyke for a distance of over two miles. Several test shafts ten feet deep have been sunk on the manganese that seems to lie on the west side of the dyke. These shafts have been scattered over a length of about 5/8 of a mile and show the same type of material in all of them; a breccia of quartzite with a matrix of manganese oxides. This makes the ore an ideal concentrating ore, as the difference in specific gravity between the quartz gangue and the manganese oxides is so great that they separate very readily on a jig and table after crushing and sizing.

I have tested, concentrated and assayed the various products on a great many samples from this property. I believe that, with a little selection, the crude ore can be mined at a grade of about 15% manganese. My hand jigging tests gave me a concentrate around 40% Mn. However, this concentrate product assays so high in silica (up to nearly 30%), that it is not marketable. Many methods have been tried to lower the silica to a point that the steel companies will accept the product; but it is just lately that we have hit upon a process that eliminates all the silica, all the phos. and when sintered, gives us a finished product close to 65% Mn.

This product can be sold to the Government stockpile in Deming, N. M. and the price guaranteed for five years. The sintered product of the above grade will be paid for by the Government at $130.00 per ton, not counting the bonuses.

It is assumed that it will require 3-1/2 tons of crude ore, assaying 15% Mn. to make one ton of concentrates assaying 40% Mn. 2 tons of concentrates will be required to make one ton of the high grade sinter, running about 65% Mn. Following is a rough estimate of the costs of the various operations.

	CRUDE ORE	
Mining	$3.00	per ton
Royalty to land owner	.50	
Trucking	.50	
Concentration	1.50	
total cost on crude ore	$5.50	

As it takes 3-1/2 tons of the crude ore to make one ton of concentrates, the cost of the concentrates will be $5.50 x 3-1/2 or $19.25 per ton. It is estimated that the fine grinding and preparing the ore concentrates for treatment will cost, together with

labor, reagents loss, etc., will not exceed $6.00 per ton of concentrates. Therefore, the total cost per ton of concentrates plus treatment will be $10.25 plus $6.00 or a total of $25.25. As it will take 2 tons of concentrates to make one ton of sintered product $25.25 x 2 will be $50.50 as the cost of the finished product before sintering. Sintering cost will be about $2.00 per ton of sinter.

	Finished product costs.
Sinter	$50.50
Sintering cost	2.00
Royalty on process (10%)	13.00
Trucking to N. R.	2.00
	$67.50

The above figure of $67.50 represents the total cost of the sintered finished product, as the Government pays the R. R. freight to stockpile location on high grade product like this.

The cost of a plant to treat 100 tons of crude ore per 24 hrs. will not exceed $100,000.00. This includes buildings, water supply, roads. As the property is located 25 miles from the nearest town, Magdalena, some housing may be required. The above figure, of course, includes the cost of good reshopped equipment, installed and ready to go. A great deal of this equipment has been spotted. It is estimated that it will require from 60 to 90 days to assemble the items and install and be ready to run.

Very truly yours,

(Signed) W. S. Pattison

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

OPTION AGREEMENT

This agreement entered into this 15 day of May, 1951, by and between Lee E. Logan and Duain Mangum, of Magdalena, New Mexico, hereinafter referred to as Sellers, and William K. Pratt, hereinafter referred to as Buyer, WITNESSETH:

In consideration of one dollar, lawful money of the United States of America, paid by the Buyer to the Sellers, the receipt whereof is hereby acknowledged, and the promises and conditions herein contained, Sellers do hereby grant unto Buyer, his heirs and assigns, the exclusive option or right to purchase within nine months from the date of this agreement, for the price of $20,000.oo, the following described mining claims, together with any structure and improvements thereon, situated in Socorro County, New Mexico:

> Black Goose Claim No. 2, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 233 - 234 of the records of Socorro County, New Mexico; and Black Goose No. 4, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 232-233, of the records of Socorro County, New Mexico; and Black Goose No. 5, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at page 186, of the records of Socorro County, New Mexico; and Black Goose No. 6 more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at page 212-213, of the records of Socorro County, New Mexico; and Black Goose No. 7, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 240-241, of the records of Socorro County, New Mexico; and Black Goose No. 8, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 241-242, of the records of Socorro County, New Mexico.
>
> All the above described Claims are situated approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain, within the Magdalena Mining District.

Sellers warrant that they have a good and merchantable title, free and clear of all liens and encumbrances; and that the claims are in good standing, and that all matters and things necessary to be done in perfecting and maintaining said claims have been complied with.

Sellers agree that if within the time specified above, the Buyer, his heirs or assigns, shall declare his or their intention to exercise the said option or right to purchase the said mining claims, they, the Sellers will furnish to Buyer an abstract of title brought down to current date showing record title to the claims above described. Buyer shall thereafter have 20 days time from the receipt of the abstract of title to examine same and make objections to the title. Sellers agree to do and perform all acts necessary to perfect the title as a good and merchantable title, and to do so within a reasonable time.

Upon receipt of letter of acceptance of title from Buyer or upon correction of defects pointed out in the letter of examination of title, Buyer agrees to pay to Sellers the total purchase price of $20,000.oo in cash and simultaneously therewith Sellers agree to execute and deliver to Buyer a good and sufficient warranty deed and such other documents as may be required to transfer to Buyer complete title to the claims described above.

If the Buyer fails to exercise said option or right to purchase within the time specified above, then the said option or right shall cease and this agreement shall be null and void.

This agreement is binding upon our heirs, executors, administrators and assigns.

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

Sellers	(Signed)	Lee E. Logan	(SEAL)
	(Signed)	Duain Mangum	(SEAL)
Buyer	(Signed)	William K. Pratt	(SEAL)

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
) SS
COUNTY OF SOCORRO)

On this 15 day of May, 1951, before me personally appeared Lee E. Logan, Duain Mangum and William K. Pratt, to me known to be the persons described in and who executed the foregoing option agreement, and each for himself acknowledged to me that he executed the same as his free act and deed and for the purpose therein expressed.

(Signed) Fred H. Innerbichler
Notary Public

(SEAL)

My Commission Expires

Dec. 27 - 1954

STATE OF NEW MEXICO)
Socorro County) SS
This instrument of writing was filed for record at 10:30 o'clock A. M. on May 18 1951
and duly recorded in Vol 160 of Misc. page 110-111
(Signed) Julius Fraissinet
County Clerk

(SEAL) (Signed) By Cruz Trujillo Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

L E A S E

This indenture made this 9 day of March, 1951,

WITNESSETH:

That Lee E. Logan and Duain Mangum, as Lessors, do hereby lease, demise and let unto William K. Pratt, as Lessee, the following described property situated in Socorro County, New Mexico:

> Black Goose Claim No. 1, more particularly described in Location Notice filed in Book 138, Mining Claim Records, at page 694, Socorro County; and Black Goose Claim No. 3, more particularly described in Location Notice filed in Book 156, Mining Claim Records, at page 185-186, Socorro County. These claims are located approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain.

To have and to hold for a term of ten (10) years from the date of this lease, Lessee to have the option of renewal for a further period of ten years upon like terms and conditions as contained herein.

Lessee shall pay Lessors the following rent:

(a) $50.00 down, receipt of which Lessors hereby acknowledge.

(b) $50.00 upon execution of this lease.

(c) $100.00 per month thereafter, but subject to the following:

(1) The $100.00 per month rental hereinabove set out shall be payable until such time as Lessee is able to begin actual mill production, at which time the $100.00 per month rentall shall be discontinued, and the Lessors shall receive

W.K.P.
L.E.L.
D.M.

as rental in lieu thereof 25¢ per ton for all manganese and other ores mined and removed to the mill site for processing. Once mill production has commenced, Lessors shall receive a minimum of $500.00 per month under the 25¢ per ton rental provisions.

Lessee shall have the right to mine, remove, process, sell and dispose of any and all minerals of the premises described above and to core drill, make test holes, mine, excavate and explore the premises to determine whether ore is of commercial grade or value.

Lessee agrees to do the yearly assessment work and maintain the claims and, in this respect, shall have the right to survey and re-survey and group and re-group the claims for purposes of assessment work.

Lessee agrees to spend at least $300.00 upon development of the claims, and Lessors acknowledge that $100.00 of this amount has already been paid to them for having done certain development work on the claims.

Should the Lessors desire to sell the property described herein, the Lessee shall have first option to purchase same at a purchase price of $5000.00 to each of the Lessors for their interest in the Claims described above.

The Lessee shall have the right to cancel this lease upon thirty (30) days written notice given to the Lessors, which notice shall have been completed upon depositing same in the mail addressed to the Lessors at Magdalena, New Mexico. Upon deposit of said notice and expiration of thirty days, all the rights, duties and obligations of the parties under this lease shall terminate.

If the Lessee shall be unable to perform any of his obligations under this contract by reason of fire, strike or damage by the elements, or for any unavoidable cause or by reason of war,

then the obligations on his part shall cease pending said occurrence, or at Lessee's option his obligation under the agreement shall at once terminate and cease.

If in any month the Lessors shall receive more than $500.00 in rental, the excess over the $500.00 may be credited by Lessee to any month in which the rental is not equal the minimum.

EXECUTED in triplicate the day and year first above written.

(Signed) Lee E. Logan
Lee E. Logan

(Signed) Duain Mangum
Duain Mangum
LESSORS

(Signed) William K. Pratt
William K. Pratt
LESSEE

STATE OF NEW MEXICO)
COUNTY OF SOCORRO)SS.

On this 9 day of March, 1951, before me personally appeared Lee E. Logan and Duain Mangum, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
My Commission Expires: Notary Public
Dec. 27 - 1954

STATE OF NEW MEXICO)
COUNTY OF SOCORRO.) SS.

On this 9 day of March, 1951, before me personally appeared William K. Pratt, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
My Commission Expires: Notary Public
Dec. 27th 1954

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS. This instrument of writing was filed for record at 10:30 o'clock A. M. on Mar 9 1951
and duly recorded in Vol 160 of Misc. Page 40-41
(Signed) Julius Fraissinet
County Clerk
(SEAL) (Signed) By Solomon Lopez Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (Rear),
Santa Fe, New Mexico.

L E S A E

This indenture made this 9 day of March, 1951,

WITNESSETH:

That Lee E. Logan and Duain Mangum, as Lessors, do hereby lease, demise and let unto William K. Pratt, as Lessee, the following described property situated in Socorro County, New Mexico:

> Black Goose Claim No. 2 and Black Goose Claim No. 4, more particularly described in the office of the County Clerk of Socorro County in Mining Location Notices forwarded for recording but not yet returned to Lessors. These claims are in the vicinity of and adjacent to Black Goose Claims No. 5 and 6 hereinafter described.
>
> Black Goose Claim No. 5, more particularly described in Mining Location Notice recorded in Book 156, Mining Claim Records, at page 186, Socorro County, New Mexico, and Black Goose Claim No. 6, more particularly described in Mining Location Notice recorded in Book 156, Mining Claim Records, at pages 212-213, Socorro County, New Mexico.
> All the above described Claims are situated approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain.

To have and to hold for a term of ten (10) years from the date of this lease, Lessee to have the option of renewal for a further period of ten years upon like terms and conditions as contained herein.

Lessee shall pay Lessors the following rent:

(a) $75.00 per month, but subject to the following:

(1) The $75.00 per month rental hereinabove set out shall be payable until such time as Lessee is able to begin actual mill production, at which time the $75.00 per month rental shall be discontinued, and the Lessors shall receive as rental in lieu thereof 50¢ per ton for all

W.K.P.
L.E.L.
D. M.

manganese and other ores mined and removed to the mill site for processing. Once mill production has commenced, Lessors shall receive a minimum of $500.00 per month under the 50¢ per ton rental provisions.

Lessee shall have the right to mine, remove, process, sell and dispose of any and all minerals on the premises described above and to core drill, make test holes, mine, excavate and explore the premises to determine whether ore is of commercial grade or value.

Lessee agrees to do the yearly assessment work and maintain the claims and, in this respect, shall have the right to survey and re-survey and group and re-group the claims for purposes of assessment work.

Lessee agrees to spend at least $300.00 upon development of the claims, and Lessors acknowledge that $100.00 of this amount has already been paid to them for having done certain development work on the claims.

Should the Lessors desire to sell the property described herein, the Lessee shall have first option to purchase same at a purchase price of $5000.00 to each of the Lessors for their interest in the Claims described above.

The Lessee shall have the right to cancel this lease upon thirty (30) days written notice given to the Lessors, which notice shall have been completed upon depositing same in the mail addressed to the Lessors at Magdalena, New Mexico. Upon deposit of said notice and expiration of thirty days, all the rights, duties and obligations of the parties under this lease shall terminate.

If the Lessee shall be unable to perform any of his obligations under this contract by reason of fire, strike or damage by the elements, or for any unavoidable cause or by reason of war, then the obligation on his part shall cease pending said occurrence, or at Lessee's option his obligations under the agreement shall at once terminate and cease.

If in any month the Lessors shall receive more than $500.00 in rental, the excess over the $500.00 may be credited by Lessee to any month in which the rental is not equal the minimum.

EXECUTED in triplicate the day and year first above written.

(SIGNED) Lee E. Logan
Lee E. Logan

(Signed) Duain Mangum
Duain Mangum
LESSORS

(Signed) William K. Pratt
William K. Pratt
LESSEE

STATE OF NEW MEXICO)
COUNTY OF SOCORRO) SS.

On this 9 day of March, 1951, before me personally appeared Lee E. Logan and Duain Mangum, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
Notary Public

My Commission Expires:
Dec. 27 - 1954

STATE OF NEW MEXICO)
COUNTY OF SOCORRO) SS

On this 9 day of March, 1951, before me personally appeared William K. Pratt, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) Fred H. Innerbichler
Notary Public

My Commission Expires:

Dec. 27 - 1954

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS.

This instrument of writing was filed for record at 10:30 o'clock A. M. on Mar 9 1951

and duly recorded in Vol 160
of Misc. Page 38 - 39 & 40

(SEAL) (Signed) Julius Fraissinet
County Clerk

(Signed) By Solomon Lopez Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (Rear),
Santa Fe, New Mexico.

SUPPLEMENTAL AGREEMENT

WHEREAS, an indenture of lease was entered into March 9, 1951 between Lee E. Logan and Duain Mangum of Magdalena New Mexico as lessors and William K. Pratt, as lessee covering Black Goose Mining Claims Number one, two, three, four, five and six, for the term and under the conditions in said lease stipulated; and

WHEREAS, nothing was stated in said lease as to whether the said William K. Pratt, lessee should have the right or privilege of transferring or assigning said lease;

NOW, THEREFORE, for and in consideration of the sum of one dollar lawful money of the United States of America paid by the said William K. Pratt, lessee, to Lee E. Logan and Duain Mangum, lessors, it is hereby stipulated and agreed by the said Lee E. Logan and Duain Mangum, lessors, that the said William K. Pratt shall have the right and privilege of transferring or assigning said lease at any time he may so desire to anyone without the consent written or otherwise of the said Lee E. Logan and Duain Mangum, and without consulting them.

IN WITNESS WHEREOF, the parties hereto have signed and sealed this supplemental agreement the _____ day of May, 1951.

(Signed) Lessors — Lee E. Logan (SEAL)

(Signed) — Duain Mangum (SEAL)

(Signed) Lessee — William K. Pratt (SEAL)

STATE OF NEW MEXICO)
) SS
COUNTY OF SOCORRO)

On this 19 day of May, 1951, before me personally appeared Lee E. Logan, Duain Mangum lessors and William K. Pratt, lessee, to me known to be the persons described in and who executed the foregoing supplemental agreement, and acknowledged to me that they executed the same as their free act and deed for the purposes therein expressed.

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

(Signed) Earl T. Scott
Notary Public

My Commission Expires

1 - 22 - 55 (SEAL)

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS

This instrument of writing was filed for record at 2:10 o'clock P. M. on
MAY 21 1951
and duly recorded in Vol 160 of Misc. Page 115

(Signed) Julius Fraissinet
County Clerk

(SEAL) (Signed) By Cruz Trujillo Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco Street, Rear,
Santa Fe, New Mexico.

SUPPLEMENTAL AGREEMENT TO INCLUDE BLACK GOOSE NO. 7 and BLACK GOOSE NO. 8 in LEASE DATED MARCH 9, 1951

This indenture of agreement entered into this 5th day of May, 1951, between Lee E. Logan and Duain Mangum, of Magdalena, New Mexico, parties of the first part and William K. Pratt, party of the second part, WITNESSETH:

1. That the parties of the first part are the owners of Black Goose Mining Claim No. 7 and Black Goose Mining Claim No. 8.

2. That the parties of the first part also are the owners of Black Goose No. 2 Mining Claim and Black Goose No. 4 Mining Claim and Black Goose No. 5 Mining Claim and Black Goose No. 6 Mining Claim, and that they have leased to the party of the second part the four last named mining claims under the terms and conditions, rentals and options expressed in a mining lease dated March 9, 1951. That said lease was filed for record March 9, 1951 and is duly recorded in Vol 160 Miscellaneous at pages 38, 39 and 40 of the records of Socorro County, New Mexico.

3. It is hereby stipulated and agreed between Lee E. Logan and Duain Mangum, parties of the first part and William K. Pratt, party of the second part, that the Black Goose Mining Claim No. 7 and the Black Goose Mining Claim No. 8 be, and there are hereby leased by the party of the first part to the party of the second part under the same terms and conditions rentals and options expressed in the mining lease dated March 9, 1951. It being the intent of the parties herein to include in the original lease dated March 9, 1951 also the Black Goose No. 7 Mining Claim and the Black Goose No. 8 Mining Claim.

(Signed) Lee E. Logan

(Signed) Duain Mangum

(Signed) Wm. K. Pratt

STATE OF NEW MEXICO
COUNTY OF SOCORRO

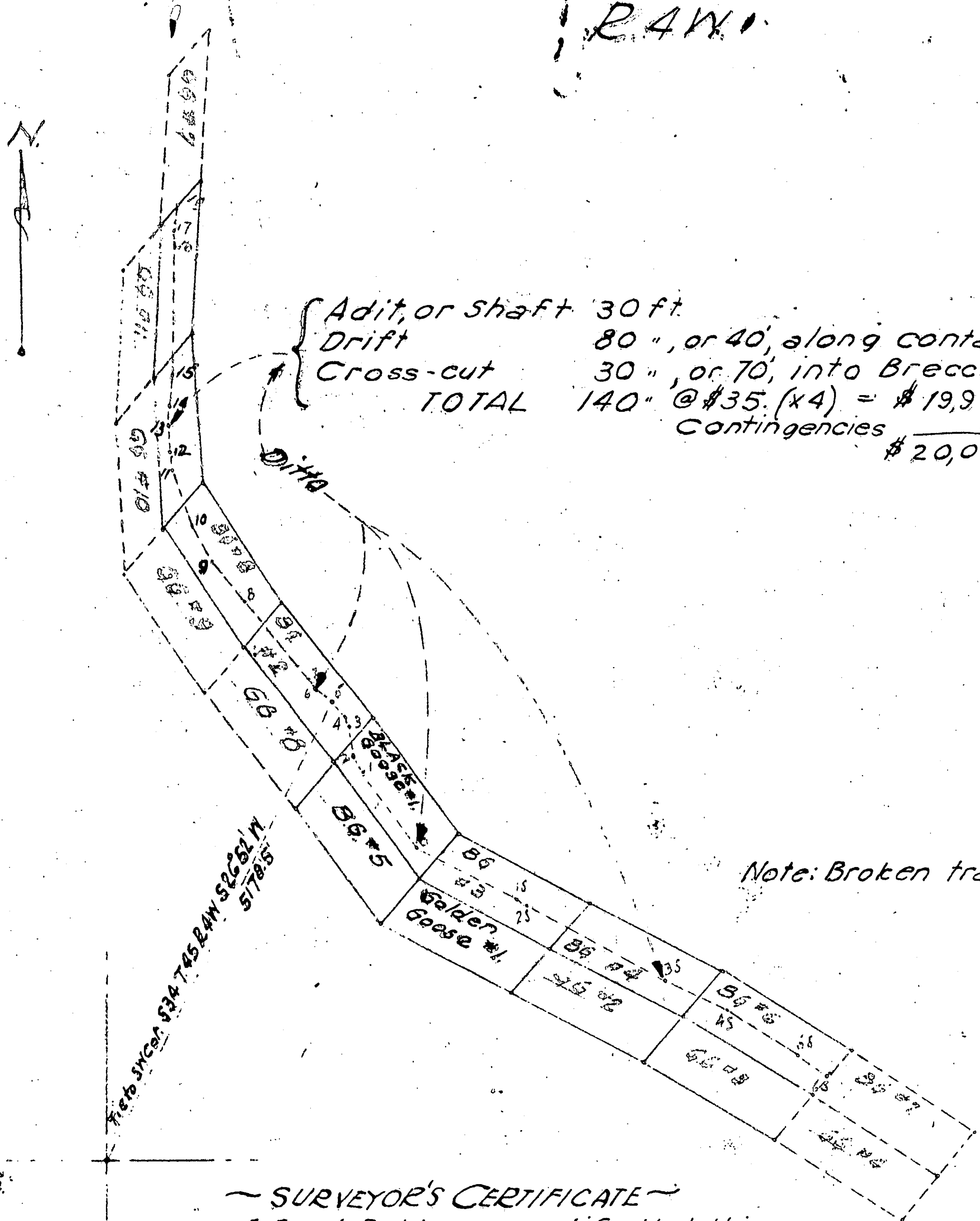
On this 5th day of May 1951, before me personally appeared Lee E. Logan and Duain Mangum and William K. Pratt, to me known to be the parties described in and who executed the foregoing agreement and acknowledged that they executed the same as their free act and deed.

WITNESS my hand and seal the day and year last above written.

My Commission Expires
Dec. 27 1954 (SEAL) (Signed) Fred H. Innerbichler

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS

This instrument of writing was filed for record at 3:55 o'clock P. M. on
May 7 1951
and duly recorded in Vol 160 of Misc. R Page 96 - 97
(Signed) Julius Fraissinet
County Clerk
(SEAL) (Signed) By Solomon Lopez Deputy



Adit, or Shaft	30 ft.	
Drift	80 ", or 40', along contact	
Cross-cut	30 ", or 70', into Breccia	
TOTAL	140 " @ $35. (x4) =	$ 19,950.
	Contingencies	50
		$ 20,000

Note: Broken traverse line = Approx. ℄ Qtz. dike.

SURVEY
for
Wm. K. Pratt & Associates
in
Sections 27, 34, T4S R4W &
" 4, T5S R4W.
Magdalena, N.M. 5-'51 Scale 1" = 1500'

~ SURVEYOR'S CERTIFICATE ~

I, Frank Robinson, certify that this plat, and the field notes shown hereon, represents a true and correct copy of a survey made under my supervision in the field, May 1951, and shows conditions existing on the ground at the time of the survey.

Frank Robinson
Reg. P.E. & L.S. Lic. 355, N.M.

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. DMA-2132
Metal or Mineral
Date Received 10-8-51
Amount $
Participation (Government %)

WM.K.PRATT
BOX 1343
SANTA FE
NEW MEXICO

Name and address of applicant

Date SEPT. 26,1951

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? MANGANESE

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Pratt Mining Co. (Name of company) By W. K. Pratt (Signature of authorized official)

(Date) Owner (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

ANSWERS TO QUESTIONS.

1. (a) Map and detail data enclosed with forms.
   (b)
   (c)

2. See #1. Manganese Oxide

3. We propose to tunnel, adit, shaft, cross-cut and drift at strategic locations along quartzite dike where mineralization appears at the contact in order to locate and outline the main ore body. We believe that we can accomplish this at a total cost of $20,000.00.

4. Map attached.

5. None.

6. None contemplated until after exploration operations are completed.

7. (a) Compressor and hose
   Two jack hammers with drill steels
   Two drifters with drill steels

   (b) Bits for the above steel
   (c) Hose

8. We propose to use two full crews on the day shift, which will involve the following personnel:
   Two miners
   Two miners' helpers
   Four muckers
   One compressor man
   One geologist-engineer, who will act as supervisor in addition to his other duties.

Prevailing union wages will be paid to all, except the geologist-engineer, who will be retained at the rate of $20,000.00 per year during exploration operations.

9. We propose to advance approximately 570 linear feet of exploration tunnels (6'x6'), etc., at a cost of $35.00* per foot of advance, which includes the cost of all materials, supplies, engineering, assaying, accounting, power, water, utilities and other items not specified.

10. (a) Twenty-five per cent.
    (b) Yes.

11. None.

* Estimated by reliable mining firms in the district.

Copied from original,
and proofread by
D. L. Harris, Public Stenographer, Notary, &c.,
521 West Aga Francisco Street (Rear),
Santa Fe, New Mexico.

GEOLOGICAL REPORT

for

Mr. E. Frill & Associates, Santa Fe, New Mexico.

by

Frank Robinson, Mining Engineer and Geologist, License No. [illegible],

Bay Mexico.

LOCATION: This property is located 14 miles South of Magdalena, New Mexico, a town of some 1500 population, on the Santa Fe railroad and U. S. Highway No. 60 and on State Road No. 107. This is a good graded road running South from Magdalena, and passes within three miles of the claims; it connects with U. S. No. 66, about halfway between Socorro and Hot Springs, New Mexico.

GENERAL AND GEL REPORTS: The deposition here probably took place during the late Triassic and Jurassic periods, at which time the hot mineral solutions permeated the zone of weakness at the contact, resulting in the mineralization and enrichment as indicated by the high concentration of polianite and pyrolusite occurring chiefly as botryoidal and nodular concretions. In addition to the present rock, limestone, rhyolite, latite, phonolite, etc., considerable amounts of rhodonite and fossiferous are present at and near the contact.

This phenomena extends over a distance of some two miles, forming an uneven, irregular pattern at the outer fringes. However, assessment holes and other surface evidence indicate that the pattern will average some two hundred and fifty feet in width. False sidies are numerous, and tend to completely cover the deposit at irregular intervals, only to show again where erosion has removed the veins. Hence it appears certain that the dimensions of the deposit consist of 10,000 feet in length, 250 feet in width and 15 feet in depth (average of assessment holes), or a total of more than twenty-six million cubic feet of high grade manganese oxide.

I believe that the deposit as seen here, is in the lower portion of the zone of oxidation and that, since the characteristics of this type of deposit are usually many thousands of feet in thickness, and allowing for the removal of two thousand feet of cover (as indicated by a comparision with the Kelly Mining District structure to the Northeast), several thousand feet of ore remain to be uncovered.

The strike and dip of the deposit averages NW - SE 45° and 90° respectively.

RECOMMENDATIONS: I recommend that metallurgical tests be ob-

tained on this ore to ascertain the type of treatment required for concentration and, if the results of such tests indicate the feasibility of a mill, one of at least 100-ton capacity should be erected. In this case, housing for living quarters and offices will be required, because of the distance from the nearest town - Magdalena.

(Signed) Frank Robinson

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

Data on Manganese property located about 25 miles South of Magdalena, N. M.

The property in question lies along a large quartz dyke for a distance of over two miles. Several test shafts ten feet deep have been sunk on the manganese that seems to lie on the west side of the dyke. These shafts have been scattered over a length of about 5/8 of a mile and show the same type of material in all of them; a brecia of quartzite with a matrix of manganese oxides. This makes the ore an ideal concentrating ore, as the difference in specific gravity between the quartz gangue and the manganese oxides is so great that they separate very readily on a jig and table after crushing and sizing.

I have tested, concentrated and assayed the various products on a great many samples from this property. I believe that, with a little selection, the crude ore can be mined at a grade of about 15% manganese. My hand jigging tests gave me a concentrate around 40% Mn. However, this concentrate product assays so high in silica (uo to nearly 30%), that it is not marketable. Many methods have been tried to lower the silica to a point that the steel companies will accept the product; but it is just lately that we have hit upon a process that eliminates all the silica, all the phos. and when sintered, gives us a finished product close to 65% Mn.

This product can be sold to the Government stockpile in Deming, N. M. and the price guaranteed for five years. The sintered product of the above grade will be paid for by the Government at $130.00 per ton, not counting the bonuses.

It is assumed that it will require 3-1/2 tons of crude ore, assaying 15% Mn. to make one ton of concentrates assaying 40% Mn. 2 tons of concentrates will be required to make one ton of the high grade sinter, running about 65% Mn. Following is a rough estimate of the costs of the various operations.

	CRUDE ORE	
Mining	$3.00	per ton
Royalty to land owner	.50	
Trucking	.50	
Concentration	1.50	
total cost on crude ore	$5.50	

As it takes 3-1/2 tons of the crude ore to make one ton of concentrates, the cost of the concentrates will be $5.50 x 3-1/2 or $19.25 per ton. It is estimated that the fine grinding and preparing the ore concentrates for treatment will cost, together with

labor, reagents loss, etc., will not exceed $6.00 per ton of concentrates. Therefore, the total cost per ton of concentrates plus treatment will be $19.25 plus $6.00 or a total of $25.25. As it will take 2 tons of concentrates to make one ton of sintered product $25.25 x 2 will be $50.50 as the cost of the finished product before sintering. Sintering cost will be about $2.00 per ton of sinter.

	Finished product costs.
Sinter	$50.50
Sintering cost	2.00
Royalty on process (10%)	13.00
Trucking to R. R.	2.00
	$67.50

The above figure of $67.50 represents the total cost of the sintered finished product, as the Government pays the R. R. freight to stockpile location on high grade product like this.

The cost of a plant to treat 100 tons of crude ore per 24 hrs. will not exceed $100,000.00. This includes buildings, water supply, roads. As the property is located 25 miles from the nearest town, Magdalena, some housing may be required. The above figure, of course, includes the cost of good reshopped equipment, installed and ready to go. A great deal of this equipment has been spotted. It is estimated that it will require from 60 to 90 days to assemble the items and install and be ready to run.

Very truly yours,

(Signed) W. B. Pattison

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

OPTION AGREEMENT

This agreement entered into this 15 day of May, 1951, by and between Lee E. Logan and Duain Mangum, of Magdalena, New Mexico, hereinafter referred to as Sellers, and William K. Pratt, hereinafter referred to as Buyer, WITNESSETH:

In consideration of one dollar, lawful money of the United States of America, paid by the Buyer to the Sellers, the receipt whereof is hereby acknowledged, and the promises and conditions herein contained, Sellers do hereby grant unto Buyer, his heirs and assigns, the exclusive option or right to purchase within nine months from the date of this agreement, for the price of $20,000.oo, the following described mining claims, together with any structure and improvements thereon, situated in Socorro County, New Mexico:

> Black Goose Claim No. 2, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 233 - 234 of the records of Socorro County, New Mexico; and Black Goose No. 4, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 232-233, of the records of Socorro County, New Mexico; and Black Goose No. 5, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at page 186, of the records of Socorro County, New Mexico; and Black Goose No. 6 more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at page 212-213, of the records of Socorro County, New Mexico; and Black Goose No. 7, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 240-241, of the records of Socorro County, New Mexico; and Black Goose No. 8, more particularly described in Location Notice recorded in Book 156, Mining Claim Records, at pages 241-242, of the records of Socorro County, New Mexico.
>
> All the above described Claims are situated approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain, within the Magdalena Mining District.

Sellers warrant that they have a good and merchantable title, free and clear of all liens and encumbrances; and that the claims are in good standing, and that all matters and things necessary to be done in perfecting and maintaining said claims have been complied with.

Sellers agree that if within the time specified above, the Buyer, his heirs or assigns, shall declare his or their intention to exercise the said option or right to purchase the said mining claims, they, the Sellers will furnish to Buyer an abstract of title brought down to current date showing record title to the claims above described. Buyer shall thereafter have 20 days time from the receipt of the abstract of title to examine same and make objections to the title. Sellers agree to do and perform all acts necessary to perfect the title as a good and merchantable title, and to do so within a reasonable time.

Upon receipt of letter of acceptance of title from Buyer or upon correction of defects pointed out in the letter of examination of title, Buyer agrees to pay to Sellers the total purchase price of $20,000.oo in cash and simultaneously therewith Sellers agree to execute and deliver to Buyer a good and sufficient warranty deed and such other documents as may be required to transfer to Buyer complete title to the claims described above.

If the Buyer fails to exercise said option or right to purchase within the time specified above, then the said option or right shall cease and this agreement shall be null and void.

This agreement is binding upon our heirs, executors, administrators and assigns.

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

Sellers	(Signed)	Lee E. Logan	(SEAL)
	(Signed)	Duain Mangum	(SEAL)
Buyer	(Signed)	William K. Pratt	(SEAL)

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
) SS
COUNTY OF SOCORRO)

On this 15 day of May, 1951, before me personally appeared Lee E. Logan, Duain Mangum and William K. Pratt, to me known to be the persons described in and who executed the foregoing option agreement, and each for himself acknowledged to me that he executed the same as his free act and deed and for the purpose therein expressed.

(Signed) Fred H. Innerbichler
Notary Public

(SEAL)

My Commission Expires

Dec. 27 - 1954

STATE OF NEW MEXICO)
Socorro County) SS
This instrument of writing was filed for record at 10:30 o'clock A. M. on May 18 1951
and duly recorded in Vol 160 of Misc. page 110-111
(Signed) Julius Fraissinet
County Clerk

(SEAL) (Signed) By Cruz Trujillo Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (Rear),
Santa Fe, New Mexico.

L E S A E

This indenture made this 9 day of March, 1951,

WITNESSETH:

That Lee E. Logan and Duain Mangum, as Lessors, do hereby lease, demise and let unto William K. Pratt, as Lessee, the following described property situated in Socorro County, New Mexico:

> Black Goose Claim No. 2 and Black Goose Claim No. 4, more particularly described in the office of the County Clerk of Socorro County in Mining Location Notices forwarded for recording but not yet returned to Lessors. These claims are in the vicinity of and adjacent to Black Goose Claims No. 5 and 6 hereinafter described.
>
> Black Goose Claim No. 5, more particularly described in Mining Location Notice recorded in Book 156, Mining Claim Records, at page 186, Socorro County, New Mexico, and Black Goose Claim No. 6, more particularly described in Mining Location Notice recorded in Book 156, Mining Claim Records, at pages 212-213, Socorro County, New Mexico.
> All the above described Claims are situated approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain.

To have and to hold for a term of ten (10) years from the date of this lease, Lessee to have the option of renewal for a further period of ten years upon like terms and conditions as contained herein.

Lessee shall pay Lessors the following rent:

(a) $75.00 per month, but subject to the following:

(1) The $75.00 per month rental hereinabove set out shall be payable until such time as Lessee is able to begin actual mill production, at which time the $75.00 per month rental shall be discontinued, and the Lessors shall receive as rental in lieu thereof 50¢ per ton for all

W.K.P.
L.E.L.
D. M.

manganese and other ores mined and removed to the mill site for processing. Once mill production has commenced, Lessors shall receive a minimum of $500.00 per month under the 50¢ per ton rental provisions.

Lessee shall have the right to mine, remove, process, sell and dispose of any and all minerals on the premises described above and to core drill, make test holes, mine, excavate and explore the premises to determine whether ore is of commercial grade or value.

Lessee agrees to do the yearly assessment work and maintain the claims and, in this respect, shall have the right to survey and re-survey and group and re-group the claims for purposes of assessment work.

Lessee agrees to spend at least $300.00 upon development of the claims, and Lessors acknowledge that $100.00 of this amount has already been paid to them for having done certain development work on the claims.

Should the Lessors desire to sell the property described herein, the Lessee shall have first option to purchase same at a purchase price of $5000.00 to each of the Lessors for their interest in the Claims described above.

The Lessee shall have the right to cancel this lease upon thirty (30) days written notice given to the Lessors, which notice shall have been completed upon depositing same in the mail addressed to the Lessors at Magdalena, New Mexico. Upon deposit of said notice and expiration of thirty days, all the rights, duties and obligations of the parties under this lease shall terminate.

If the Lessee shall be unable to perform any of his obligations under this contract by reason of fire, strike or damage by the elements, or for any unavoidable cause or by reason of war, then the obligation on his part shall cease pending said occurrence, or at Lessee's option his obligations under the agreement shall at once terminate and cease.

If in any month the Lessors shall receive more than $500.00 in rental, the excess over the $500.00 may be credited by Lessee to any month in which the rental is not equal the minimum.

EXECUTED in triplicate the day and year first above written.

(SIGNED) Lee E. Logan
Lee E. Logan

(Signed) Duain Mangum
Duain Mangum
LESSORS

(Signed) William K. Pratt
William K. Pratt
LESSEE

STATE OF NEW MEXICO)
COUNTY OF SOCORRO) SS.

On this 9 day of March, 1951, before me personally appeared Lee E. Logan and Duain Mangum, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
Notary Public

My Commission Expires:
Dec. 27 - 1954

STATE OF NEW MEXICO)
COUNTY OF SOCORRO) SS

On this 9 day of March, 1951, before me personally appeared William K. Pratt, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) Fred H. Innerbichler
Notary Public

My Commission Expires:

Dec. 27 - 1954

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS.

This instrument of writing was filed for record at 10:30 o'clock A. M. on Mar 9 1951

and duly recorded in Vol 160
of Misc. Page 38 - 39 & 40

(SEAL) (Signed) Julius Fraissinet
County Clerk
(Signed) By Solomon Lopez Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (rear),
Santa Fe, New Mexico.

L E A S E

This indenture made this 9 day of March, 1951,

WITNESSETH:

That Lee E. Logan and Duain Mangum, as Lessors, do hereby lease, demise and let unto William K. Pratt, as Lessee, the following described property situated in Socorro County, New Mexico:

> Black Goose Claim No. 1, more particularly described in Location Notice filed in Book 138, Mining Claim Records, at page 694, Socorro County; and Black Goose Claim No. 3, more particularly described in Location Notice filed in Book 156, Mining Claim Records, at page 185-186, Socorro County. These claims are located approximately 15 miles South of Magdalena, New Mexico, and 2 miles South of Baldy Mountain.

To have and to hold for a term of ten (10) years from the date of this lease, Lessee to have the option of renewal for a further period of ten years upon like terms and conditions as contained herein.

Lessee shall pay Lessors the following rent:

(a) $50.00 down, receipt of which Lessors hereby acknowledge.

(b) $50.00 upon execution of this lease.

(c) $100.00 per month thereafter, but subject to the following:

(1) The $100.00 per month rental hereinabove set out shall be payable until such time as Lessee is able to begin actual mill production, at which time the $100.00 per month rentall shall be discontinued, and the Lessors shall receive

W.K.P.
L.E.L.
D.M.

as rental in lieu thereof 25¢ per ton for all manganese and other ores mined and removed to the mill site for processing. Once mill production has commenced, Lessors shall receive a minimum of $500.00 per month under the 25¢ per ton rental provisions.

Lessee shall have the right to mine, remove, process, sell and dispose of any and all minerals of the premises described above and to core drill, make test holes, mine, excavate and explore the premises to determine whether ore is of commercial grade or value.

Lessee agrees to do the yearly assessment work and maintain the claims and, in this respect, shall have the right to survey and re-survey and group and re-group the claims for purposes of assessment work.

Lessee agrees to spend at least $300.00 upon development of the claims, and Lessors acknowledge that $100.00 of this amount has already been paid to them for having done certain development work on the claims.

Should the Lessors desire to sell the property described herein, the Lessee shall have first option to purchase same at a purchase price of $5000.00 to each of the Lessors for their interest in the Claims described above.

The Lessee shall have the right to cancel this lease upon thirty (30) days written notice given to the Lessors, which notice shall have been completed upon depositing same in the mail addressed to the Lessors at Magdalena, New Mexico. Upon deposit of said notice and expiration of thirty days, all the rights, duties and obligations of the parties under this lease shall terminate.

If the Lessee shall be unable to perform any of his obligations under this contract by reason of fire, strike or damage by the elements, or for any unavoidable cause or by reason of war,

then the obligations on his part shall cease pending said occurrence, or at Lessee's option his obligation under the agreement shall at once terminate and cease.

If in any month the Lessors shall receive more than $500.00 in rental, the excess over the $500.00 may be credited by Lessee to any month in which the rental is not equal the minimum.

EXECUTED in triplicate the day and year first above written.

(Signed) Lee E. Logan
Lee E. Logan

(Signed) Duain Mangum
Duain Mangum
LESSORS

(Signed) William K. Pratt
William K. Pratt
LESSEE

STATE OF NEW MEXICO)
COUNTY OF SOCORRO)SS.

On this 9 day of March, 1951, before me personally appeared Lee E. Logan and Duain Mangum, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
My Commission Expires: Notary Public
Dec. 27 - 1954

STATE OF NEW MEXICO)
COUNTY OF SOCORRO.) SS.

On this 9 day of March, 1951, before me personally appeared William K. Pratt, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

WITNESS my hand and seal the day and year last above written.

(SEAL) (Signed) Fred H. Innerbichler
My Commission Expires: Notary Public
Dec. 27th 1954

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS. This instrument of writing was filed for record at 10:30 o'clock A. M. on Mar 9 1951
and duly recorded in Vol 160 of Misc. Page 40-41
(Signed) Julius Fraissinet
County Clerk
(SEAL) (Signed) By Solomon Lopez Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco Street, Rear,
Santa Fe, New Mexico.

SUPPLEMENTAL AGREEMENT TO INCLUDE BLACK GOOSE NO. 7 and BLACK GOOSE NO. 8 in LEASE DATED MARCH 9, 1951

This indenture of agreement entered into this 5th day of May, 1951, between Lee E. Logan and Duain Mangum, of Magdalena, New Mexico, parties of the first part and William K. Pratt, party of the second part, WITNESSETH:

1. That the parties of the first part are the owners of Black Goose Mining Claim No. 7 and Black Goose Mining Claim No. 8.

2. That the parties of the first part also are the owners of Black Goose No. 2 Mining Claim and Black Goose No. 4 Mining Claim and Black Goose No. 5 Mining Claim and Black Goose No. 6 Mining Claim, and that they have leased to the party of the second part the four last named mining claims under the terms and conditions, rentals and options expressed in a mining lease dated March 9, 1951. That said lease was filed for record March 9, 1951 and is duly recorded in Vol 160 Miscellaneous at pages 38, 39 and 40 of the records of Socorro County, New Mexico.

3. It is hereby stipulated and agreed between Lee E. Logan and Duain Mangum, parties of the first part and William K. Pratt, party of the second part, that the Black Goose Mining Claim No. 7 and the Black Goose Mining Claim No. 8 be, and there are hereby leased by the party of the first part to the party of the second part under the same terms and conditions rentals and options expressed in the mining lease dated March 9, 1951. It being the intent of the parties herein to include in the original lease dated March 9, 1951 also the Black Goose No. 7 Mining Claim and the Black Goose No. 8 Mining Claim.

(Signed) Lee E. Logan

(Signed) Duain Mangum

(Signed) Wm. K. Pratt

STATE OF NEW MEXICO)
) SS
COUNTY OF SOCORRO)

On this 19 day of May, 1951, before me personally appeared Lee E. Logan, Duain Mangum lessors and William K. Pratt, lessee, to me known to be the persons described in and who executed the foregoing supplemental agreement, and acknowledged to me that they executed the same as their free act and deed for the purposes therein expressed.

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

(Signed) Earl T. Scott
Notary Public

My Commission Expires

1 - 22 - 55 (SEAL)

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS

This instrument of writing was filed for record at 2:10 o'clock P. M. on
MAY 21 1951
and duly recorded in Vol 160 of Misc. Page 115

(Signed) Julius Fraissinet
County Clerk

(SEAL) (Signed) By Cruz Trujillo Deputy

Copied from original,
and proof-read by
D. L. Harris,
Public Stenographer, Notary, &c.,
231 West San Francisco St. (Rear),
Santa Fe, New Mexico.

SUPPLEMENTAL AGREEMENT

WHEREAS, an indenture of lease was entered into March 9, 1951 between Lee E. Logan and Duain Mangum of Magdalena New Mexico as lessors and William K. Pratt, as lessee covering Black Goose Mining Claims Number one, two, three, four, five and six, for the term and under the conditions in said lease stipulated; and

WHEREAS, nothing was stated in said lease as to whether the said William K. Pratt, lessee should have the right or privilege of transferring or assigning said lease;

NOW, THEREFORE, for and in consideration of the sum of one dollar lawful money of the United States of America paid by the said William K. Pratt, lessee, to Lee E. Logan and Duain Mangum, lessors, it is hereby stipulated and agreed by the said Lee E. Logan and Duain Mangum, lessors, that the said William K. Pratt shall have the right and privilege of transferring or assigning said lease at any time he may so desire to anyone without the consent written or otherwise of the said Lee E. Logan and Duain Mangum, and without consulting them.

IN WITNESS WHEREOF, the parties hereto have signed and sealed this supplemental agreement the _____ day of May, 1951.

(Signed) Lessors	Lee E. Logan	(SEAL)
(Signed)	Duain Mangum	(SEAL)
(Signed) Lessee	William K. Pratt	(SEAL)

STATE OF NEW MEXICO
COUNTY OF SOCORRO

On this 5th day of May 1951, before me personally appeared Lee E. Logan and Duain Mangum and William K. Pratt, to me known to be the parties described in and who executed the foregoing agreement and acknowledged that they executed the same as their free act and deed.

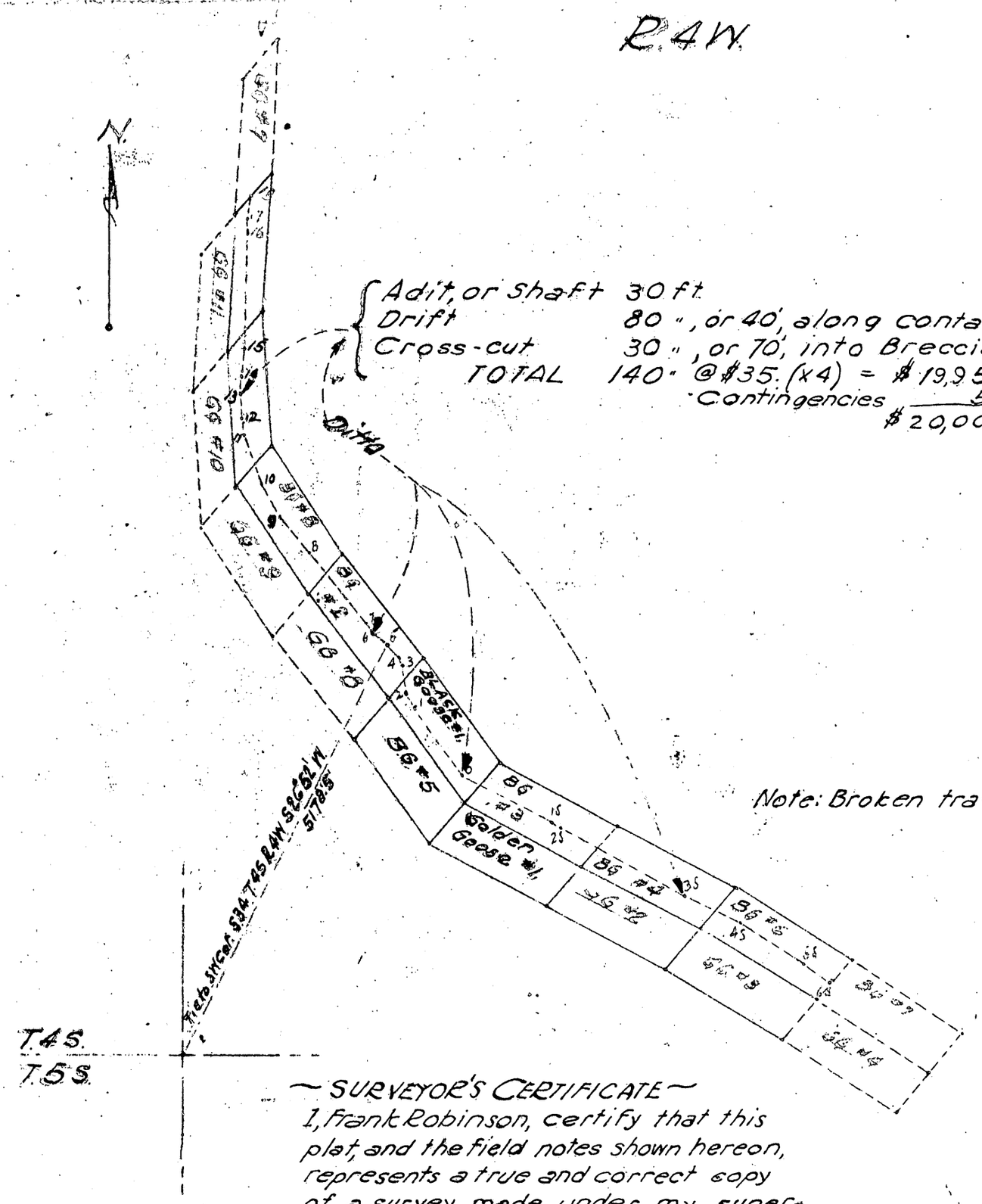
WITNESS my hand and seal the day and year last above written.

My Commission Expires
Dec. 27 1954 (SEAL) (Signed) Fred H. Innerbichler

STATE OF NEW MEXICO)
SOCORRO COUNTY) SS

This instrument of writing was filed for record at 3:55 o'clock P. M. on
May 7 1951
and duly recorded in Vol 160 of Misc. R Page 96 - 97
(Signed) Julius Fraissinet
County Clerk
(SEAL) (Signed) By Solomon Lopez Deputy

R.4W.



~ SURVEYOR'S CERTIFICATE ~

I, Frank Robinson, certify that this plat, and the field notes shown hereon, represents a true and correct copy of a survey made under my supervision in the field, May 1951, and shows conditions existing on the ground at the time of the survey.

Frank Robinson
Reg. P.E.&L.S. Lic. 355, N.M.

SURVEY
for
Wm. K. Pratt & Associates
in
Sections 27, 34 T4S R4W &
" 4, T5S R4W.
Magdalena, N.M. 5-'51 Scale 1" = 1500'