DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4585

Application (Denied
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
✓Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order) Interim Summary Reports by W. O. Engineers

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

MUSCATINE GP
PRIMARY FERMENTATION PRODUCTS
GRAIN PROCESSING CORPORATION
MUSCATINE, IOWA • AMherst 3-1321 • TWX 495

RECEIVED
DEC 20 1956
D.M.E.A.

December 19, 1956

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Gentlemen:

We forward herewith in quadruplicate your Form MF-103 filled out for aid in exploration work we would like to do in Socorro County, New Mexico. If there is any additional information regarding this application, we would be very happy to provide it upon request.

I should probably call your attention to the fact that only one copy of the report of Mr. Malcolm H. Carpenter on these properties is included. If more are required, they can be provided.

We look forward to hearing from you at your earliest convenience.

Very truly yours,

GRAIN PROCESSING CORPORATION

Elmer E. Bloom

Elmer E. Bloom
Assistant Secretary

EEB:amf

Encls.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED DEC 26 1956 D.M.E.A.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 4585
Metal or Mineral Manganese
Date Received 12-26-56
Estimated Cost $25,000
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: See attached sheets.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See attached sheets.

(*b*) State any mine name by which the property is known. None as yet.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Holder of unpatented mining claims under assignment from G. A. Kent.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. See attached claim assignment from G. A. Kent

(*e*) If you own the land, describe any liens or encumbrances on it not applicable

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See (a) above.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore manganese, primarily.

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 10 days and be completed within 6 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

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

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes.

(*b*) How do you propose to furnish your share of the costs?

[X] Money [X] Use of equipment owned by you [X] Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated December 19, 1956

GRAIN PROCESSING CORPORATION
(Applicant)

By [signature]
President

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—66551-1

RECEIVED
DEC 26 1956
D.M.E.A.

ATTACHMENT TO FORM MF-103

Grain Processing Corporation
Muscatine, Iowa

1. Grain Processing Corporation, 1600 Oregon Street, Muscatine, Iowa, an Iowa corporation with principal offices at Muscatine, Iowa.

President - - - - - - - - - - - - - G. A. Kent, Muscatine, Iowa
Chairman of the Board - - - - - - S. G. Stein, Muscatine, Iowa
Vice President & Secretary- - - R. C. Kautz, Muscatine, Iowa
Vice President- - - - - - - - - - Frank J. Prochaska, Muscatine, Iowa
Assistant Secretary - - - - - - - Elmer E. Bloom, Muscatine, Iowa

RECEIVED
DEC 1956
D.M.E.A.

ATTACHMENT TO FORM MF-103

Grain Processing Corporation
Muscatine, Iowa

3. (a) It is proposed that exploratory work under an exploration project contract would be done on the following claims owned by applicant:

(1) South 3,000 ft. of the East Half (E½) and the South 3,000 ft. of the East 960 ft. of the West Half (W½) Section 8, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Jennie B. 101 through 108 are recorded in Volume 188 of Min. & Loc., Pages 193 through 200, in office of County Clerk of Socorro County, New Mexico.

Claims Jennie B. 117 through 120 are recorded in Volume 188 of Min. & Loc., Pages 369 through 372, in office of County Clerk of Socorro County, New Mexico.

(2) North 3,000 ft. of the East 2,400 ft. of the East Half (E½) and the North 1,500 ft. of the West 240 ft. of the East Half (E½) and the East 960 ft. of the West Half (W½) Section 17, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Nancy C. 1 through 8 are recorded in Volume 188 of Min. & Loc., Pages 71 through 78, in office of County Clerk of Socorro County, New Mexico.

Claims Nancy C. 49 and 50 are recorded in Volume 188 of Min. & Loc., Pages 359 and 360, in office of County Clerk of Socorro County, New Mexico.

The following claims are also held by applicant and might be affected by the work:

(1) Section 3, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Nancy C. 9 through 48 cover entire section. Claims are recorded in Volume 188 of Min. & Loc., Pages 85 through 124, in office of County Clerk of Socorro County, New Mexico.

(2) Section 4, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Jessie S. 1 through 40 cover entire section. Claims are recorded in Volume 188 of Min. & Loc., Pages 201 through 240, in office of County Clerk of Socorro County, New Mexico.

Attachment to Form MF-103

Grain Processing Corporation
Muscatine, Iowa

3. (a) (continued)

(3) Section 9, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Nancy K. 1 through 28 and Jennie B. 109 through 116 cover entire section.

Claims Nancy K. 1 through 28 are recorded in Volume 188 of Min. & Loc., Pages 165 through 192, in office of County Clerk of Socorro County, New Mexico.

Claims Jennie B. 109 through 116 are recorded in Volume 188 of Min. & Loc., Pages 361 through 368, in office of County Clerk of Socorro County, New Mexico.

(4) Beginning at the intersection of the Rejected South Boundary Socorro Grant and the west line of Section 14, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District, thence north 1200 ft., thence east 1500 ft., thence south 1200 ft., thence west 1500 ft. to point of beginning.

Claims Ann 3 and 4 are recorded in Volume 188 of Min. & Loc., Pages 260 and 261, in office of County Clerk of Socorro County, New Mexico.

(5) Beginning at the intersection of the Rejected South Boundary Socorro Grant and the east line of Section 15, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District, thence north 1200 ft., thence west 1500 ft., thence south 1200 ft., thence east 1500 ft. to point of beginning.

Claims Ann 1 and 2 are recorded in Volume 188 of Min. & Loc., Pages 258 and 259, in office of County Clerk of Socorro County, New Mexico.

(6) Section 32, Township 4 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Jessie W. 1 through 40 cover entire section. Claims are recorded in Volume 188 of Min. & Loc., Pages 125 through 164, in office of County Clerk of Socorro County, New Mexico.

ATTACHMENT TO FORM MF-103

Grain Processing Corporation
Muscatine, Iowa

4. (a) General exploration and discovery work has been conducted. Claims indicated have been located and monumented. Location notices have been placed and recorded. Overburden has been removed by bulldozing on claims believed to offer greatest possibilities. Some access roads have been constructed. Surveys and reports by three mining engineers have been obtained. (Copies of reports are enclosed.) There are no mine workings or production facilities of importance. Cost of all work thus far has been borne by Grain Processing Corporation. All work done thus far is accessible for examination purposes.

(b) There has been no past production to our knowledge. There is no current production other than for assay purposes.

(c) (1) Geologic features of the property. The Magdalena Mountains, upon the upper slopes of the southeast flanks of which the claims are located, are made up of massive granite, rhyolite, and diabase intrusives, rhyolite flows, and uptilted sedimentaries. In the immediate area of the claims the rock is predominately rhyolite. Much minor faulting and some rock alteration is evident. The amount of fracturing and cross fracturing would indicate a major disturbance in the area, which probably was responsible for the influx of the mineralizing solutions that resulted in the ore deposits.

(2) Mineralization. Zones of strong mineralization are observable on many of the claims. The predominant minerals are manganese oxide, psilomelane and pyrolusite, psilomelane being by far the more abundant. The deposits observed varied from two feet to as much as 100 feet. The wider deposits had zones of what appears to be excellent quality ore. The entire width was not fully exposed, and could not be sampled. This major showing was observed on the Nancy C claims -- good float is evident for at least a thousand feet along the strike of this deposit.

Ore of apparently very good grade was observed and sampled on the Jennie B. 101 to 108 group of claims. These exposures are more nearly true vein type deposits. They have been opened by pit or crosscut. The strike of the fractures is evident and the mineralization was observed for several hundred feet.

This ore appears to be of excellent grade and in this type deposit it should be uniform, or probably improve, in quality to considerable depth. The width of the fractures will, of course, vary, and the possibilities for very sizeable ore bodies in this area appear excellent.

The reports of Peter S. Ely, Mining Engineer, 524 First National Bank Building, Albuquerque, New Mexico, E. C. Anderson, Mining Engineer, Box 642, Socorro, New Mexico, and of Malcolm A. Carpenter, Professional Registered Engineer, 1600 - 16th Street, N.W., Washington 9, D. C., are submitted herewith. Mr. Carpenter recently stated to a representative of Grain Processing Corporation that, on the basis of information presently available to him, it was his opinion that the claims contained the largest and

Attachment to Form MF-103

Grain Processing Corporation
Muscatine, Iowa

4. (c) (2) Continued

most valuable manganese deposit in the United States. A more detailed discussion of geologic features and mineralization on the claims may be obtained by reference to these reports. These reports should be returned to the applicant.

(d) The properties occupy an area of some 480 acres, located along the upper slopes of the southeast flank of the Magdalena Mountain Range in southcentral Socorro County, New Mexico. The topography would be called moderately rough to rugged. The altitude ranges from about 8,000 feet to well over 9,000 feet above sea level.

The holdings can be reached from Socorro, the county seat, by traveling south over U.S. N.M. Highway 85, twenty-eight miles to a junction with a well marked dirt-gravel ranch road. Thence, travel northwesterly and westerly twelve miles to the Burris Ranch headquarters - thence by jeep road northwesterly approximately four miles to the claims.

The nearest railhead is Tiffany, a cattle loading siding on the A.T. & S.F. Railway - 28 miles south of Socorro and 16 miles from the Burris Ranch headquarters. It is reached by traveling over 12 miles of good dirt-gravel road, 2 miles of paved road (U.S. N.M. 85) and 2 miles of good gravel road. Loading facilities at present are for cattle and sheep only. The nearest supply and residence point is probably Socorro.

(e) Manpower is believed to be obtainable at Socorro or San Antonio. Materials and supplies can also be obtained in either Socorro or San Antonio. At the mill site near Sawmill Canyon, there is a possible source of water and also a fairly large drainage area. This would seem to indicate that water can be made available for the future operations of the mill. Also it is believed that water could be obtained from the Rio Grande. A two phase power line runs into the Burris Ranch and could be extended to the possible mill site.

ATTACHMENT TO FORM MF-103

Grain Processing Corporation
Muscatine, Iowa

5. It is proposed to accomplish the following work for validating the claims that make up the properties and for exploring the deposits to determine their extent and economic importance:

(1) Do the discovery work, as required by law, on all claims within the specified time in order to validate the holdings. The greater portion of this work has already been done.

(2) Make an immediate effort to locate the deposits from which the float came that is evident on the Jennie B. 9 to 16 group of claims.

(3) Start work at as early a date as possible to prove the extent and quality of the ore occurrences that are evident on the surface on many of the claims. This would be done by drilling the deposits or by trenching and drilling. The drilling pattern would be designed to cut the ore bearing zone at vertical intervals of 100 feet and horizontal intervals of 200 to 300 feet. Drill cuttings would be recovered and assayed.

(d) The applicant has had very little experience in mining exploration. However, it intends to hire competent and experienced personnel to handle the technical phases of the work. The operations will be supervised by Frank J. Prochaska, Vice President and Production Manager of Grain Processing Corporation who has extensive chemical, engineering and administrative education and experience.

ATTACHMENT TO FORM MF-103

Grain Processing Corporation
Muscatine, Iowa

6. It is planned to determine ore bodies by drilling. These costs will, of course, vary with the amount of drilling necessary and the type of drilling done. We estimate total costs to range between $10,000 and $50,000.

(a) It is probable, although not definite, that the work will be accomplished through independent contractors. A bulldozer and operator can be contracted for at the rate of $12.00 to $15.00 per hour. Drilling will cost from $1.75 to $5.50 per foot depending on the kind of drilling done. It is planned to drill approximately 10 to 20 holes, each 100 to 200 feet deep. Estimates of the cost of other subcontracted work may be obtained by a reference to the Appendix attached to the survey of Mr. Malcolm Carpenter.

(b) Supervision - one man at $500 per month.
Labor - 4 men at $2.00 per hour.
Consultants fees - $1,000.00

(c) Jackhammer supplies - $1,000.

(d) Compressor rental - $500 per month.
Transportation from base camp to and from claims - $1,500.00
Jackhammer rental - $200 per month.

(e) Nothing.

(f) Shack for tools and supplies - $500.00
Explosives shack - $500.00

(g) We believe that a burden of 50% of other costs listed above (a through f) to cover analytical work, accounting, workmen's compensation, employer's liability insurance, and payroll taxes should be allowed.

(h) An additional 10% of costs listed in (a) through (f) above should be allowed for contingencies.

ATTACHMENT TO FORM MF-103

Grain Processing Corporation
Muscatine, Iowa

7. (b) We would plan to use our regular personnel wherever possible for analytical, accounting, supervision, and even engineering work.

RECEIVED
DEC 26 1956
D.M.E.A.

1600 16th Street, N. W.
Washington 9, D. C.

September 4, 1956

Messrs. S. G. Stein
and
G. A. Kent
c/o Grain Processing Corporation
Muscatine, Iowa

Gentlemen:

Under date of August 19, 1956, I left Washington, D.C., on the TWA Flight 9, and arrived at Albuquerque, New Mexico, at 5:40 P.M., registering at the Hotel Hilton, all as arranged by phone.

Mr. Frank Prechuaska contacted me at the Hotel and we discussed the work that was to be done at your property in Socorro County, New Mexico. We left Albuquerque at 8:00 A.M., Monday, the 20th, for Socorro, New Mexico, stopping enroute to register at the El Rio Motel, Socorro. We drove to Burris Ranch, about 9 miles to the west of Highway No. 60 from a point 12 miles below San Antonio, New Mexico.

We met Messrs. S. G. Stein and G. A. Kent, of Muscatine, Iowa, and Mr. B. O. Burris, Mrs. Burris and Mrs. Kent. We left shortly for the mine via truck and jeep, a distance of about 7 miles by a mountainous road. This road had been made for the purpose of letting the cattle on Mr. Burris' ranch reach the higher hills for feeding. There was a dozier continuing the road to the outcrops of manganese ore. These outcrops were the main objective of my preliminary examination at this time.

The preliminary report is attached to this letter and should in part be verified later. However, the purpose of the examination was to prove the possibility of ore bodies containing manganese in sufficient quantity and quality to make a commercial operation. The decisions rendered are based on careful deductions as to the vein and indicate the existence of a large persistant vein.

It has been a pleasure to meet all of your people and the great courtesies extended to me are appreciated. It is my thought that I want the opportunity to revisit this property when the work outlined herewith of the preliminary nature has been completed so that I can check the findings and carry out a certain definite program, which is also outlined in this report.

Very truly yours,

Malcolm H. Carpenter
Professional Registered Engineer

RECEIVED
DEC 10 1963
D. M. E. A.

A REPORT COVERING THE MANGANESE PROPERTY LOCATED ON CLAIM 2, SECTION 14, R 3 W TWP 5-S SOCORRO COUNTY, NEW MEXICO

NAME

The property is located on the Burris Ranch and is owned by G. A. Kent, of Muscatine, Iowa.

CLAIMS AND AREA

Our immediate concern is eight (8) claims, from 1 to 8, inclusive, situated in the northeast corner of the above Section ~~14~~, R 3 W. This ground is government-owned ground and the claims are held by location. I believe this group is a part of the ultimate group that will be incorporated within this property.

These claims are about 35 miles distant from Socorro, New Mexico, a town on the Santa Fe Railroad, which is 75 miles south from Albuquerque, New Mexico.

The area of these 8 claims would be approximately 160 acres. Each claim is a standard lode claim of 20 acres. Each is located on Government land and is to be surveyed for patent as each is only held now by location.

MILL SITES

There are several locations that can be investigated but the most likely one from what I learned while at the property is located 12,000 feet in a southeasterly direction near Sawmill Canyon in Section 15, R 3 W. I checked this location with Burris and Kent. It would appear that sufficient water could be developed, a good tailings disposal area is available and there is a two-phase power line that serves Burris' ranch a short ways from this location. There is a good mill site that would permit a gravity flow in the mill. The elevation was reported at 6200 feet, while the elevation at the top of the outcrops is about 8400 feet. From this 8400 feet, my suggestion is that a tunnel be run into the hill and thus lower this elevation to, say, 7600 feet.

HISTORY

This mine location is on the Burris Cattle Ranch, approximately 7 miles from the Ranch House by the road that is now in existence. Mr. Burris spent a lot of time trying to trace down the float that he found in the lower canyon and just a few months ago he located two good outcrops at an elevation of about 8400 feet. He cut a sample and had it assayed. He reported that it carried from 21% to 30% manganese. It is reported that he sold these claims to Mr. G. A. Kent, of Muscatine, Iowa. There had been very little work done on this showing of manganese. My examination was to show, if possible, a continuation of a vein in this badly broken country and to lay out a method whereby the existence of the vein could be proven to exist for a considerable length on its strike and a depth.

ADJOINING AND OTHER NEARBY PROPERTIES

There are in the nearby area two other groups of manganese mines.

The Ranchers Exploration and Development Corporation. Exploration work has been made on these claims to show that the ore exists. Nine tons were sold to the GSA at Deming, New Mexico, and the content was reported at 21.65% manganese. This property was reported on by the writer a short time ago.

The Buena Vista Mining and Development Company property, consisting of 110 acres, located about 12 miles from the property under discussion, has had some development work done. They have shipped 531 tons of ore to the Tower Mill at Socorro and sold the concentrate to the GSA under the terms of the carload program on a trial run. It was accepted by the Government and paid for. I reported on this property a short time ago.

The Tower Mining and Refining Company, near Socorro, New Mexico, has been operating and shipped in excess of $1,200,000 worth of ore to the GSA stockpile at Deming, New Mexico. They have a lead problem. I reported on this property a short time ago for some investors in Houston, Texas.

The district has other prospects, such as the MGA, which property shipped their full year's quota to the carload program to the Government in 6 months of material accepted under the specifications. There is a possibility of carrying out a program at Socorro that will not be dependent upon the Government purchases and should continue for many years to come.

FACILITIES

At the property under discussion, there are no facilities.

(a) Transportation: This will be by trucks from Socorro or San Antonio, New Mexico. There is a good highway from 12 miles below San Antonio to Socorro, and from this point on Highway No. 60 there is a good gravel road into the Burris Ranch.

(b) Power: There is a two-phase power line into the Burris Ranch. However, this must be checked as the source of power for development in the future.

(c) Water: At the mill site near Sawmill Canyon, there is a possible source of water and also a fairly large drainage area, which would indicate that water can be made available for the future operations at the mill.

(d) Timber: All the timber, lumber, etc., will be obtained at Socorro, New Mexico, at $60 M. This seems to be a flat price f.o.b. Mills for dimension and other type of timber.

(e) Labor Conditions: See the attached Schedule of Labor Costs. Labor can be obtained from Socorro or San Antonio. (See attached outline)

(f) Climate: From the records published in 1942 covering 20 years, the following table is cited:

Temperature (°F)

Average	51.2°
Average Maximum	65.6°
Average Minimum	36.9°
Highest	102. °
Lowest	-21°

Precipitation

Average yearly snowfall	21.1	heaviest in December, 6.2 in. no month would stop operation
Average yearly rainfall	12.84	July, August and September, heaviest months

TOPOGRAPHY

Socorro County lies in an area of desert basins out of which a number of peaks and ranges rise abruptly. The highest point in the County is Big Baldy in the Magdalena Mountains, which has an elevation of over 10,830 feet; the lowest elevation is about 4,400 feet where the Rio Grande leaves the County.

There has been a great deal written about this County and its principal mining districts.

All the sedimentary rock systems from the Cambrian to the present, with the possible exception of the Jurassic, are represented in Socorro County. The valleys and bases of Socorro County are largely floored with Quaternary deposits. Sedimentary rocks occupy very large areas on both sides of the Rio Grande. East of the Rio Grande, the older rocks are largely sedimentary and of Pennsylvanian, Permian, Triassic and Cretaceous ages. In the San Adreas Mountains, older Paleozoic sedimentary rocks are deposited, pre-Cambrian rocks outcrop in a number of places, and there are small areas of Tertiary volcanic rocks.

West of the Rio Grande, Tertiary volcanic rocks are predominant. Tertiary sedimentary rocks are important in the northwest portion of the County, and in relatively small areas in the Ladrones, Lamitar, Socorro, and Magdalena Mountains. The underlying pre-Cambrian rocks are exposed in all of these mountains.

Manganese outcrops are plentiful in some of the deposits and a massive manganese ore was discovered but not prospected, occurring along the limestone breakshift contact, and this type of deposit rather describes a deep-seated mineralization in many places and this type of deposit may describe partially the deposit now under consideration.

The history of mining in Socorro County dates back to the early Spaniards. Since it was reported that ancient workings were found in the Socorro peak districts when it was first prospected, there have been found zinc deposits in the Magdalena districts. A smelter was built at Socorro in 1881 to handle copper and lead sulfides. Slag from this old smelter was later shipped to El Paso Smelter.

Since 1876, prospectors and mining men have been in and out of this district and there have been many mines and many different types of metals found - gold, silver, copper, lead and zinc - but very little interest was shown until more recent years in regard to manganese. It can be seen from the early days that this district has been well prospected for metals. The ore deposition should go to moderately deep horizons.

OUTCROPS

There are several manganese outcrops and indication of veins in the property under discussion. The principal outcrops that we examined are:

1. The outcrop at 8400 feet elevation showing manganese and vein structure. This is to the left as you face the hill going up the road. The outcrop is in two parts, but is one body. The road was made below this. This outcrop shows manganese greatly weathered, containing calcite, manganese, quartz, and iron. It indicates a deep-seated origin.

2. A larger outcrop, approximately 120 feet westerly, at north 58 degrees west of No. 1 outcrop. The dozier cut into this at the road level at about 12 feet below the surface base. This cut shows a red gauge of clay-like material which indicates slippage and grinding effect of the vein against perhaps a lime shale or other material not easily identified. There is a blue clay and this is probably the hanging wall of the vein as it plunges into the hill. There was some movement of cross fracture type to the east side of the outcrop where it was cut by the dozier. I believe that this is more or less of a local condition because we later cut the distance between the two outcrops and showed the indication of a continuity of vein in this area.

   By use of the dozier we extended the road and cut back on the higher level into the No. 2 outcrop. This cut showed the existence of the gauge and also of the vein for a distance of approximately 40 feet. This, therefore, indicated the definite existence of the continuation of this vein on the same strike as mentioned above. The dozier was then put to work to cut the area between the No. 1 and No. 2 outcrop and revealed the same condition existing as did exist to the west of the No. 2 outcrop. The dozier was then brought down to the road level and cut back in to the No. 1 outcrop and revealed the same existing condition.

   A reading was taken on this strike and it was noticed that across the gulch to the west and

up the hill there was another outcrop exactly on line on this strike. Mr. Stein and Mr. Kent and Frank went up to this and found float in this gulch and the outcrop that had been cited was of exactly the same material as the No. 1 and No. 2. This indicates a continuation of this vein. They brought samples down to me which I have examined and had one of them assayed. Remember that these samples which I had assayed are of the weathered material.

This work indicates and I think finalizes the existence of a long ore body containing manganese. It must be understood that my examination was preliminary and was concerned with the establishment of the possibility of a continuous ore body of vein structure containing manganese. There are definite indications that there is a strong quartz-like vein containing manganese and that it will extend for 800 to 1,000 feet in length and it is estimated that it will be from 8 to 10 feet thick. The depth by what could be observed should be to the lower floor in the gulch and perhaps to a depth of 700 to 800 feet. The dip will vary from 75 to 82 degrees to the northerly direction. This is based upon meager information as the country is badly broken up by different actions and perhaps the vein is of later origin. However, it appears that the dike or the vein cut through these fractures and was of such intensity that it was not deflected to any degree and therefore leads to the possibility that it is of deep origin.

More work and definite identification should be done in regards to the character or form in which some of the manganese is deposited. I was greatly interested and tried to identify this mineral. I suspected that it might be a form of Chalcophanite or Hodenbergite. The first one contains zinc combined with manganese. The second one contains iron combined with manganese. It might not be either of them but some material as altered Hondenbergite in structure and apparently contains manganese; it is intimately mixed with iron oxides and silicate minerals and cannot be positively identified. The only reason for mentioning this is that it may be necessary to grind the fines that will be produced in the mill so that a portion of the tonnages will be handled by selective flotation and sintered.

SUGGESTIONS FOR DEVELOPMENT AND OPERATION

(a) Development: In order to prove at the least expense of money and in the shortest time, it is suggested that a drilling program be inaugurated. It is suggested that reverse circulation method be used; that a drill be set up on the road below these outcrops using the second road below, if possible; that a section be laid out that would be 200 feet in length and that at each station four holes be drilled: one at an up angle, one at a horizontal angle, one at an incline, and one at a deeper incline. This will cut the vein at four elevations and with the reverse circulation after the gauge has been cut, the vein should be cut and it is suggested that a sample be taken of each 4 feet of the vein, probably 3 samples at each cutting. With this method the particles will be caught in a container as they come out of the hole by the use of air and a vacuum.

This will produce 4 samples at each station, each containing 3 parts, and the stations are to be spaced 25 feet apart so that there will be 8 groups of samples, or a total of 32, or 96 in all. Each cutting in the container is to be dried and weighed and assayed for manganese, copper, lead, zinc, silver, phospherous, and gold. Only one sample of each of the four is to have this complete analysis. The other three will take care of our requirements if it is assayed for manganese unless it is found that copper and lead do exist. Then the ones that are at the greatest depth to be analyzed.

The rechecks after the samples are cut out are to be returned to their original container and will be useful in making a preliminary mill test in a pilot plant such as is located at the Bureau of Mines station in Salt Lake City, and at the Denver Equipment Company at Denver. Perhaps the samples should be split between these two outfits. In this way we can obtain authentic information upon which to estimate and to design the flow-sheet, thereby getting our percentage of recoveries, our costs, and with all this information it can be readily determined as to the tonnages in the vein and the profits that can be obtained.

It is suggested predicated upon this work that the mine could be developed by a two-track haulage tunnel at the lower elevation and when the vein is cut that a tunnel be run under the foot wall and the vein stoped and a cheap mining will result.

(b) Operation: In this haulage tunnel, there should be provided electric locomotives and cars which will take the ore out and deposit it in an ore bunker. On this ore bunker will be arranged a gate with a trip mechanism. From this ore bunker it is suggested that a switch back type of aerial tramway be installed to the ore bins at the mill site. This would be a distance of approximately 12,000 feet. I believe the cost of this aerial tramway would be in the neighborhood of $25,000 to $35,000 installed. In a country of this kind it would be difficult to use trucks for transporting the ore. There is danger of the roads washing out and there is a constant maintenance on the truck that amounts to a considerable amount of money, let alone the labor of handling such equipment.

REDUCTION PLANT

It is not believed that the recovery of manganese from these ore bodies will be too difficult, but work must be done to determine the highest percentage of recovery and the lowest cost per ton. I have commented upon the mill site and the location and these remarks of the transportation by aerial tramway are predicated on the use of this mill site.

VALUES

I had six assays made.

	Mn
#1 Gauge, at the foot wall of the big outcrop	0.67
#2 Grab sample from the large outcrop	8.7
#3 Outcrop on the road, 40 feet west of the big outcrop	10.45
#4 Across the gulch to the west, float	2.68
#5 Gauge material from the road below the big outcrop	1.34
#6 Outcrop across the gulch, 400 or 500 feet up the hill, in exact line with the strike, about 600 feet distant	5.36

It must be emphasized that these samples were taken purely as indicative that manganese existed in these weathered surfaces and it will probably develop that the ore with

the sampling above recommended will be higher in manganese and can be benefiziated to a commercial grade without great difficulty or expense.

GENERAL

These claims should be surveyed at an early date and it is suggested that a Deputy Mineral Surveyor be engaged to make the survey, to set the cornerposts, the centerposts, and tie this all in so that there are no open spaces, and also make a plane table survey; and when the amount of work has been done, application for patent can be made and there will be no additional expense other than paying taxes. This is important in order to have the right and title to what may be termed or may be shown to be a valuable property. I have only treated one apparent manganese deposit. There are others, I am convinced. But the apparent magnitude of this vein calls for cheap operation and efficient operation. If other veins exist at lower altitudes or at higher altitudes in this same area, then the haulage tunnel can be extended to cut those above and perhaps the one that I suspect is below so that the whole program as far as this hill is concerned will utilize the one aerial tramway system.

THE FUTURE

With the activities that are showing up in regards to manganese, there is a possibility that an acid cycle treatment plant will be situated at Socorro. This will provide an outlet for this property beyond the date now announced for the carload program of the Government, and will not be subject to any Government subsidy, either direct or indirect, but will be an industry established by private capital.

ESTIMATE OF COSTS

I checked the costs of drilling and it runs from $3.00 to $5.00 per foot, the contractor furnishing the equipment and labor.

I checked the costs of the aerial tramway and it was estimated to be $25,000 to $30,000 installed.

I do not know exactly what it will cost to run the tunnel, but this can be done by contract and would not be excessive. As above mentioned, the attached sheet covering labor costs is shown and I think they are reasonable.

It is therefore recommended that the program be inaugurated for the drilling campaign and then predicated upon this, this other work will be estimated and a program laid out for your consideration.

Very truly yours,

Malcolm H. Carpenter
Professional Registered Engineer

RECEIVED
DEC 1 1
DALLAS

COSTS OF LABOR AND SUPERVISION

	Hr.	Mo.
Superintendent		$500 - $700
Foreman	$1.75	
Machine man and prowler, each shift	1.90	
Mucker	1.25	
Mechanic and truck man		$225.00
Assayer		175.00
Dozier mechanic	2.00	
Shovel man	2.00	
Truck driver		Contract
Haulage per ton mile, contract - $.075		
Bookkeeper, time		150.00
Timber man and helper	1.90	
Mill superintendent		$400 - $600
Mill foremen (3)		200.00 ea.
Helpers	1.65	
Mechanic		200.00
Sampler		135.00

Timber -- $60 M, f.o.b. saw mill
Rail splicer, spikes, etc. -- quotation asked for
Powder caps, fuse, $12.50 for 50#
Machine drill @ $485.00 ea., steel @ $1.50 ft., carbide insert detachable bits $12.00 ea.
Power (Diesel) elev. 6500' - 8000'
Oil $0.16 per gal., lub. $0.40 contract price (?)
High speed sharpener $230.00
Air compressor - 110#, 706' - 7 machines
Drifting $15 - $18 per foot
Sinking $50.00 per ft., plus timbering labor

GOVERNMENT SPECIFICATION OF CARLOAD PROGRAM

Under the present General Services Administration (G.S.A.) car lot buying program, each mining property which has qualified for a certificate of authorization, will be allowed to ship up to 10,000 long dry tons per year under the following price and grade schedule as listed below.

1. The base price shall be $2.30 per long dry ton unit (22.40 lbs.) for material of the following analysis:

Manganese	48.0	percent
Iron	6.0	"
Phosphorus	0.12	"
Silica plus alumina	11.0	"

2. Premiums - Manganese content above 48% (dry basis); 1/2 cent per unit for each 1 percent. Iron content below 6.0 percent (dry basis); 1/2 cent per unit for each 1 percent.

3. Penalties - Manganese content below 48% down to 44 percent; 1 cent per unit for each one percent. Below 44%, 4 cents per unit plus 1-1/2 cents per unit for each one percent down to 40%. (Total 10 cents). Ores and concentrates containing more than one (1) percent copper plus lead plus zinc (of which not more than 0.25 percent shall be copper) will not be accepted under this program. For further penalties see Federal register of Feb. 26, 1953 (18 F.R. 1112).

4. Chemical analysis - All shipments must meet the following specifications:

Manganese	40.0	minimum
Iron	16.0	maximum
Phosphorus	0.30	maximum
Copper, lead, zinc	1.0	maximum
Silica plus alumina	15.0	maximum

IDENTIFICATION OF PHOTOGRAPHS

No. 1 -- Dozier on the road below the large outcrop.

No. 2 -- Small outcrop.

No. 3 -- Showing the road up to the outcrops.

No. 4 -- Cooking.

No 1

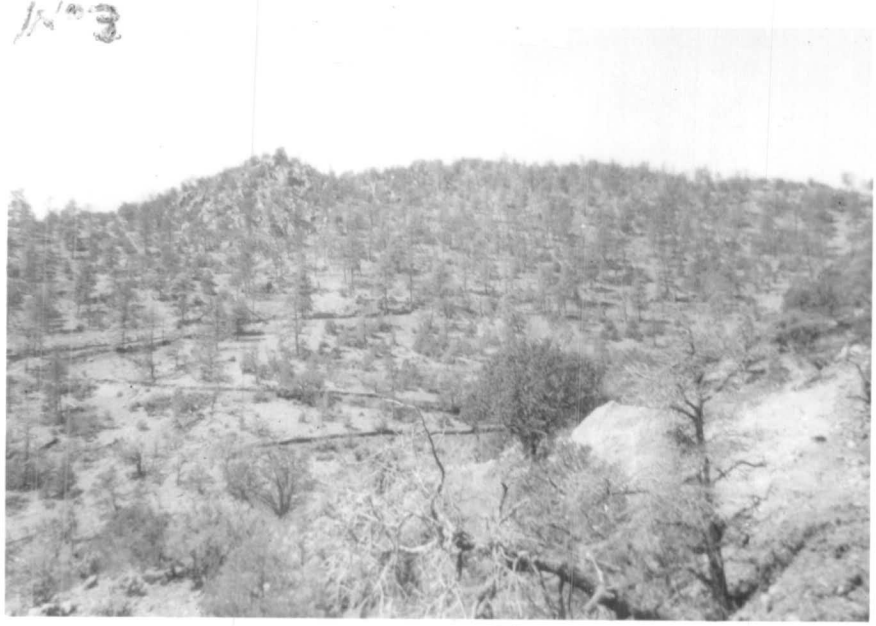
AUG · 56 ·

No 2

AUG · 56

RECEIVED
DEC 1996
DOE/HEA

No 3



AUG • 56 •

No 4

AUG • 56

RECEIVED
DEC 26 1956
D.M.E.A.

REPORT OF EXAMINATION

of

A. G. Kent and B. O. Burris

MINING PROPERTIES

SOCORRO COUNTY, NEW MEXICO

by

E. C. Anderson

Mining Engineer

September, 1956

September 6, 1956

REPORT OF EXAMINATION

The A. G. Kent Mining Properties

Socorro County, New Mexico

by E. C. Anderson, Mining Engineer

P.O. Box 642

Socorro, New Mexico

SUMMARY OF OBSERVATIONS AND CONCLUSIONS:

1. A careful field examination showed these properties as being in the early stages of prospecting and development.

2. The principal minerals observed were the manganese oxides - psilomelane and pyrolusite. These occur in open fractures and breccia zones in a hard, very slightly altered rhyolite. The degree of mineralization appears very strong as compared with some of the ore bodies presently being mined in the Socorro-Luis Lopez district, about ten miles to the northeast.

3. Samples were cut from outcrops, varying in width from 3 to 8 feet. These samples appear to be good to excellent quality ore. They are being analysed and the laboratory results will be included in the main body of this report, together with a description of the ore exposures from which they were taken.

4. Mineral in place has not yet been found on some of the claims, but large blocks of mineralized float and many small fragments of manganese oxide were observed on these claims. The size and condition of the large blocks would indicate sizeable bodies of mineral in place nearby.

5. From evidence observed it is reasonable to believe that ore bodies of economic size and quality occur on these properties, and a program of intensive prospecting and exploration is definitely justified.

6. The types of deposits observed differ somewhat from those of the Socorro-Luis Lopez district in that they occupy zones of less brecciation and alteration. The ore zones are more narrow, and apparently are of much higher grade. Some of the outcrops appear to be almost true fissure vein deposits. This would lead one to expect a greater continuity in depth, and a more uniform quality of ore, probably improving in grade at depth.

The host rock for the mineral, in both districts is rhyolite dikes and flows of fairly recent geologic age.

7. The claims appear to be well located to cover evident outcrops and areas of heavy float occurrences. The claim corners observed are well marked and the posted claim notices are in order. No attempt has been made to check the recording of the claim notices in the office of the county clerk.

It is the writer's opinion that this property has excellent possibilities for becoming a large producer of manganese ores.

RECOMMENDATIONS:

The following recommendations are made for validating the claims that make up the properties and for exploring the deposits to determine their extent and economic importance.

1. Discovery work, as required by law, should be done on all claims within the specified time (90 days after date of location) in order to validate the holdings.

2. An immediate effort should be made to locate the deposits from which the float came that was observed on the Jennie B. 9 to 16 group of claims.

3. Work should be started, at an early date to prove the extent and quality of the ore occurrences that are evident on the surface on many of the claims. This can be accomplished by core drilling the deposits or by trenching and core drilling. I would suggest that trenching and core drilling would be the more realistic approach. This would be affected by cutting trenches across the outcrops at intervals to determine the true dip and strike of the ore zone before drill hole patterns are laid out and drill stations designated.

The drilling pattern should be designed to have holes cut the ore bearing zone at vertical intervals of 100 feet and horizontal intervals of 200 to 300 feet. Drill cuttings should be recovered and assayed if core recovery from the ore zone is poor.

4. If available on reasonable terms a lease should be obtained covering Section 16, T. 5 S., R. 3 W. It is quite possible the large block of mineral float observed on the Jennie B - 9 to 16 group of claims came from this section.

5. In order to take full advantage of present market conditions it is suggested the investigations recommended above be activated and, if findings justify, the property be brought into production at the earliest possible date.

6. Plans for a mill to process ores from these properties should not be considered before sufficient ore reserves to justify such a venture have been developed.

GENERAL REPORT

INTRODUCTION:

At the request of Mr. B. O. Burris of Socorro, New Mexico, an associate of Mr. A. G. Kent of Muscatine, Iowa, in certain mining ventures, an examination of mining properties located within the area of the Burris Ranch, Socorro County, New Mexico, was made on September 1st and 3rd, 1956. The properties examined, known as

the "Kent Mining Properties," are more definitely identified as being:

1. The Nancy C, claims Nos. 1 to 8, located in the NE¼, Sec. 17, T. 5 S., R. 3 W. N.M.P.M.

2. The Jennie B, group claims Nos. 101 to 108, located in the SE¼, Sec. 8, T. 5 S., R. 3 W., and

3. The Jennie B group (#2) claims Nos. 9 to 16, located in the SW¼, Sec. 9, T. 5 S., R. 3 W.

These groups of claims are contiguous, as are the claims that make up the groups. However, in this report the three groups will be discussed separately rather than as a block.

The purpose of the examination was to identify and, where possible, determine the extent of the mineralization on which the claims are located; and to make recommendations for prospecting and developing the deposits, if such a project appeared logical and feasible. No detailed geologic study of the area was planned at the time.

Mr. B. O. Burris accompanied the writer in the examination of the properties and was of tremendous help; in fact, without his assistance the job would have been most difficult and would have required several days to accomplish.

LOCATION AND ACCESSIBILITY:

The properties occupy an area of some 480 acres located along the upper slopes at the southeast flank of the Magdalena Mountain Range in southcentral Socorro County, New Mexico. The topography would be called moderately rough to rugged. The altitude ranges from about 8,000 feet to well over 9,000 feet above sea level.

The holdings can be reached from Socorro; the county seat, by traveling south over U. S. N. M. Highway 85, twenty-eight miles to a junction with a well marked dirt-gravel ranch road. Thence, travel northwesterly and westerly twelve miles to the Burris Ranch headquarters - thence by jeep road northwesterly approximately 4 miles to the claims.

The nearest railhead is Tiffany, a cattle loading siding on the A. T. & S. F. Ry. - 28 miles south of Socorro and 16 miles from the Burris Ranch headquarters. It is reached by traveling over 12 miles of good dirt-gravel road, two miles of paved road (U. S. N. M. 85) and two miles of good gravel road. Loading facilities at present are for cattle and sheep only.

CLIMATE, VEGETATION, WATER:

The climate is moderate. Temperature extremes would probably not exceed a high of 98 degrees Fahrenheit and a low of zero. These extremes will be recorded on very few days during the year.

The warmest days may be expected during June, before the rainy season begins, and the lows would probably come in January. This section of New Mexico is a land of little rain or snow. Normal annual precipitation in the area is about 15 inches at the higher altitudes and 9 inches on the plain to the east and south.

Vegetation is typical of that found in semi-desert mountain country of the southwest. Cedar, juniper and pinon occur at the lower levels; ponderosa pine and spruce are found at the higher elevations. Sufficient timber for a moderately large mining operation can be had in the immediate area of the claims and from the higher country to the north.

Water is scarce and it is doubtful if sufficient supply can be developed in the claims to sustain a mining operation. However, it is quite possible water can be found in the nearby canyons or in the foothills to the east.

GENERAL REGIONAL GEOLOGY:

The Magdalena Mountains are made up of massive granite, rhyolite, and diabase intrusives, rhyolite flows, and uptilted sedimentaries. In the immediate area of the claims the rock is predominately rhyolite. Much minor faulting and some rock alteration is evident. The amount of fracturing and cross fracturing would indicate a major disturbance in the area, which probably was responsible for the influx of the mineralizing solutions that resulted in the ore deposits.

MINERALIZATION:

Zones of strong mineralization were observed on many of the claims. The predominant minerals are the manganese oxide, psilomelane and pyrolusite, psilomelane being by far the more abundant. The deposits occupy strong fracture zones in the rhyolite. The width of the deposits observed varied from two feet to as much as 100 feet. The wider deposits had zones of what appears to be excellent quality ore. The entire width was not fully exposed, and could not be sampled. This major showing was observed on the Nancy C claims -- good float is evident for at least a thousand feet along the strike of this deposit.

Ore of apparently very good grade was observed and sampled on the Jennie B - 101 to 108 group of claims. These exposures are more nearly true vein type deposits. They have not been opened by pit or crosscut, and the true width could not be determined. The strike of the fractures is evident and the mineralization was observed for several hundred feet.

This ore appears to be of excellent grade and in this type deposit it should be uniform, or probably improve, in quality to considerable depth. The width of the fractures will, of course, vary, and the possibilities for very sizeable ore bodies in this area appear excellent.

The showings of mineral in place on the Jennie B (2) group - #9 to #16 - were not as impressive as those observed on the other two groups. However, large block of mineralized float, apparently of very good grade, and an abundance of small fragments of manganese oxide float were evident in several places. The size and condition of these mineralized blocks would indicate sizeable ore zones should be found nearby. Also, a large showing of what appears to be low grade copper mineralization was observed on the No. 9 claim of this group.

Samples were taken from the major outcrop on the Nancy C claims, and from the outcrops on the Jennie B (#1) group. Also a sample was taken from the larger block of float found on the Jennie B (#2) group, and from the copper (?) showing that is evident on this group of claims.

These samples are being analyzed at the Ira Wright laboratory at Silver City, New Mexico and the results, with comments, will be attached to this report as an appendix.

CONCLUSIONS AND RECOMMENDATIONS

The writer's conclusions and recommendations have been summarized at the beginning of the report. However, there are some comments that should be made, that do not appear in that summary.

It is not possible to evaluate the economic possibilities of these properties at this time. As stated before, the claims are in the early stages of prospecting, no development work has been done, and an estimate of ore reserves and probable grade can not be made.

It is the opinion of the writer, the properties have possibilities for becoming large producers of manganese, but a comprehensive program of prospecting should be developed to prove ore reserves before large expenditures of money are justified for production equipment or for a concentrating plant.

The prospecting program should be so arranged and developed that it will give a maximum of information at a reasonable cost. Information thus obtained will be the basis for evaluating the economic possibilities of the deposits, and it should be so developed that it can be used with confidence.

Respectfully submitted -

September 10, 19[illegible]

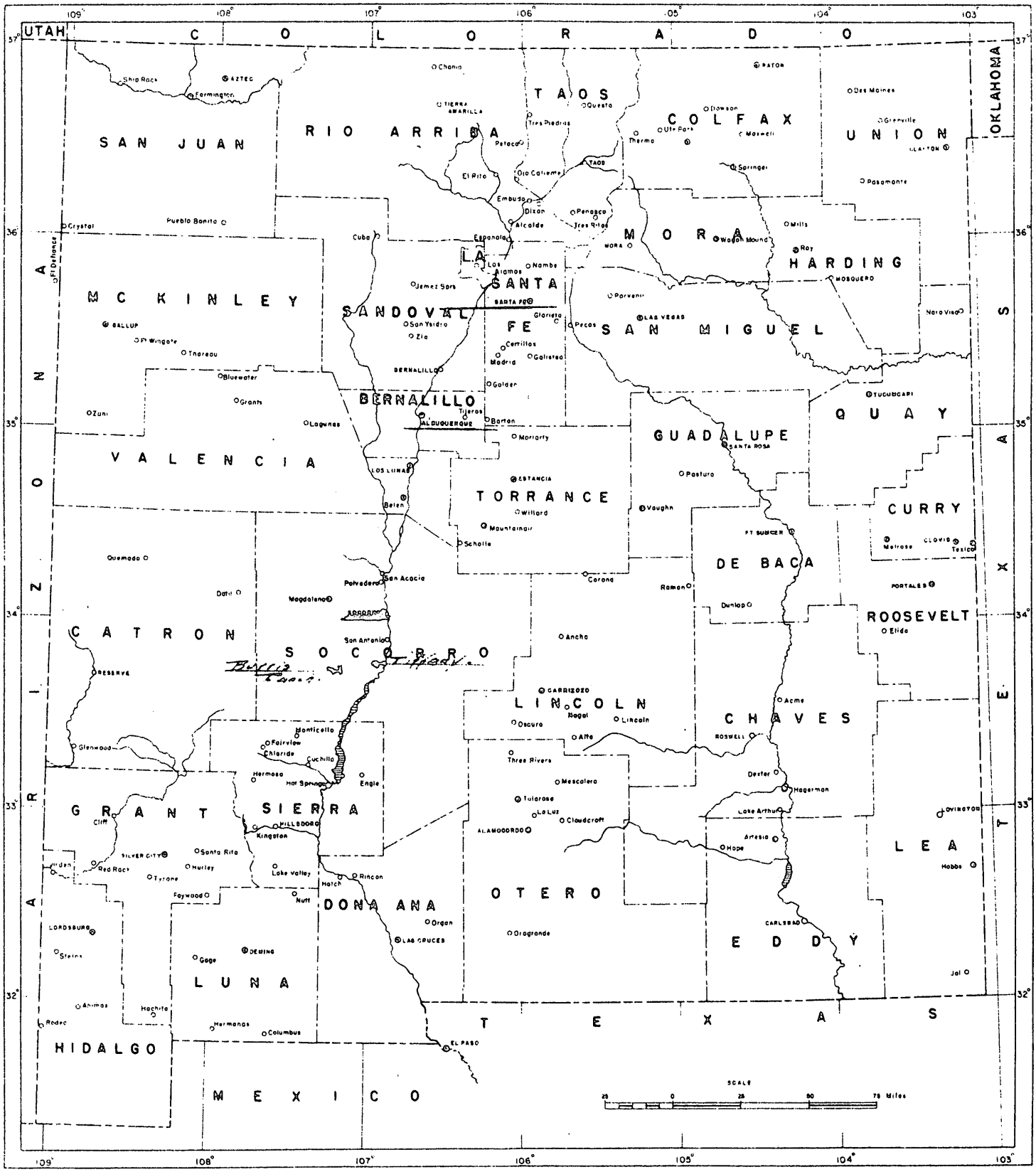
E. C. Anderson, Mining Engineer

(New Mexico License 135)

P. O. Box 642

Socorro, New Mexico

RECEIVED
DEC 1956
D.M.E.A.


UTAH
COLORADO
OKLAHOMA
TEXAS
ARIZONA
MEXICO
SAN JUAN
RIO ARRIBA
TAOS
COLFAX
UNION
MORA
HARDING
MC KINLEY
SANDOVAL
LA SANTA FE
SAN MIGUEL
QUAY
BERNALILLO
VALENCIA
GUADALUPE
TORRANCE
CURRY
DE BACA
ROOSEVELT
CATRON
SOCORRO
LINCOLN
CHAVES
GRANT
SIERRA
OTERO
EDDY
LEA
DONA ANA
LUNA
HIDALGO
Aztec
Farmington
Raton
Santa Fe
Las Vegas
Albuquerque
Gallup
Grants
Tucumcari
Clovis
Portales
Roswell
Alamogordo
Las Cruces
Deming
El Paso
Silver City
Carlsbad
Hobbs
Socorro
Tucumcari
Tucumcari
SCALE
25 0 25 50 75 Miles

NEW MEXICO

RECEIVED
DEC 7 1956
C.M.E.R.

Mr Pete Elg phone Mes
gave by Barnes 9/4/56

RECEIVED
DEC 1956
D.M.E.A.

August 6, 1956

Mr. G. A. Kent
Box 308
Muscatine, Iowa

Dear Sir:

As requested by persons affiliated with you and your organization, I am submitting a report of a preliminary examination on the below described claim groups.

The scope of this examination included an inspection of mineralized material on each of these groups, observation of the regional geology, and endeavoring to determine evidence of conflicting claims or ownerships.

The following information was gathered on the described properties August 4, 1956 and in general these claims will be considered as a unit. Geologic conditions vary to an extent, mineralization is similar, and taken as a whole, present a sizeable economic potential.

LOCATION AND ACCESSIBILITY

The Nancy C. 1-8, NE¼ Sec. 17, T5S, R3W, the Jennie B. 1-8, SE¼ Sec. 8, T5S, R3W, the Black Rock 1-4, Sec. 11-12, T5S, R3W, and the Buena Vista, Sec. 2, T5S, R3W, are of primary consideration, and all in the Magdalena Mining District.

The above holdings are included in a township and range on the south-eastern flank of the Magdalena Mountain Range in central New Mexico, and at the present time, with the exception of the Nancy C, all may be reached by jeep on secondary dirt roads.

The properties may be located by traveling south on U.S. Highway #85 thirty (30) miles from Socorro, New Mexico, thence north Twelve and one-half (12½) miles on a County-maintained dirt road terminating at Haunted Springs. Travel may be accomplished on these roads twelve (12) months of the year.

The topography in the vicinity of all holdings, with the exception of the Black Rock Group, is extremely rugged, with mineralized exposures and workings being in relief as much as two thousand (2,000) feet above the plains to the South, and valley or canyon floors in their immediate proximity.

Vegetation varies from scrub cedar and piñon in the lower altitudes, to Ponderosa pine in the elevations exceeding six thousand (6,000') feet.

Water, in quantities capable of sustaining a concentration plant have not been developed, but are highly conceivable from records of water table elevations in this area.

Millsite determinations should not be anticipated until such time as reserve calculations have been completed and test wells made in the areas of possible millsites.

GENERAL AND REGIONAL GEOLOGY

The southeastern flank of the Magdalena Mountain Range is composed of a vast series of rhyolitic dykes, and in this immediate area trending generally north and south. These dykes make up the host rock for a series of fracture zones which have given access to hydrothermal manganese deposition.

In the case of each of the above described claims, this has proven to be the mode of occurrence.

Detailed geological reports are available from both the New Mexico Bureau of Mines and the U.S.G.S., and unless requested, a detailed geological breakdown will not be submitted at this time.

MINERALIZATION

Manganese mineralization is in evidence on each of the claim groups, primarily in the form of psylomelane. This varies in texture from thin scabs on the country rock to massive Botrioidal inclusions. Mineralized zones on the Black Rock group approach two feet to three feet in thickness and may be traced in a north-south direction for as much as forty feet (40'). Assessment work done by Ranchers Exploration Company has made this inspection possible. True thicknesses are impossible to determine, as mineralization was not cut at right angles to the strike.

The Buena Vista workings show deposition of essentially the same description, with the exception of inclusions of pyrolucite visible in their holdings now in operation.

It will probably develop that this form of mineralization will increase progressively with depth.

The Nancy C. Claim group, as was previously mentioned, has not had any development work performed upon it. However, larger outcroppings are visible on it than on any of the previous groups mentioned.

Mineralization in the form of psylomelane is obvious over an area approaching 1000' x 100'. Much of this is float, but in several instances is visible in place.

Samples of the material in place have been taken and subsequently assayed by Martin & Carlisle Laboratories in Albuquerque. Sample No. A-3492 shows 35.82 Silica and 30.28 Manganese content. This sample was not taken by the writer, but visual inspection shows no reason to believe that this is not representative.

HISTORY AND PAST PRODUCTION

The Black Rock group 1-4, Sections 11 and 12, T5S, R3W, have had some exploratory work performed on them. From observation, it is believed that this was done in the form of assessment work, rather than an exploratory program delineating the extent of reserves. Several open cuts are in evidence, but no information is available upon which to base an ore estimation.

The Buena Vista Group, located centrally in Section 2, T5S, R3W, have been operated recently by Mr. J. E. Miera of San Antonio, N. M. The grade and tonnages of this operation were not made available.

The Nancy C. and the Jennie B. claims have had no production history, and to date remain untouched.

TITLE AND LEGAL OPINIONS

During this preliminary examination, claim notices were observed on each of the described locations. The Nancy C. group 1 through 8 was initially filed on by Mr. B. O. Burris and Richard H. Robinson, currently Attorney General for the State of New Mexico.

Subsequent filings are in evidence by Mr. G. A. Kent, and location notices show a filing date of July 27, 1956.

It would appear that the April 1, 1956 filing made by Burris and Robinson were refiled for lack of discovery or assessment work. No visible signs of development were observed, and it appears that no attempt has been made to develop the property in any manner. The same may be said for the Jennie B. group adjoining the Nancy C. immediately to the north.

The Black Rock 1 through 4 is currently owned and maintained by the Ranchers Exploration Company of Albuquerque, N. M., and although proof of labor forms were not seen, it is believed that adequate excavation has been done on the property to warrant this years assessment.

The Buena Vista, as previously mentioned, is in a partial stage of production. Royalties for a future operation of this property are currently prohibitive in that a total of 32% now stands against it -- 2% going to the State of New Mexico, 5% to J. E. Miera, 5% to Thomas Blair and Red Orum, and 20% to George McKinsey and Clarence Burbridge.

None of the properties discussed have shown conflicts of any description from the examination undertaken, but no abstracts have been studied or made available to the writer.

CONCLUSIONS AND RECOMMENDATIONS

It is the writer's opinion that the entire area, including the claim groups mentioned, have a very large potential as a manganese producing area.

The following facts would lend feasibility to this:

1. Obvious heavy manganese mineralization in each of the groups.

2. A moderately high tonnage (at the present time impossible to estimate) if these groups were considered jointly.

3. The availability of millsites in the immediate area, and known water horizons.

The Nancy C. group, altho void of development, might well develop into a producing horizon. Mineralization observed is of a nature amenable to milling both by gravity methods or sink float. Mills of both descriptions are present in the Mining District and may be studied with regard to the future installation of a processing plant on the property.

The work necessary to discover whether ore in the Nancy C. or the Jennie B. contain a potential ore body, will entail relatively little expense and may be conducted with dozing equipment and subsequent drilling.

Due to the nature and attitude of the exposure, it would seem advisable to offset the outcrop some 200' to 300' and incline drill with the expectation of intersecting mineralization at 300' to 400'. This would, at relatively little expense, determine the presence of mineralization at depth, and permit a quantity estimation to be made.

Of the properties described, the Jenny B. contains a potential which should not be overlooked, and a period of two to three weeks with a D-7 or D-8 tractor-dozer and subsequent drilling, should verify or disprove the presence of an ore body, from surface examination, extremely likely to exist.

A detailed cost breakdown on the development and exploration stage on this property will be presented upon request.

Respectfully submitted.

Peter S. Ely

Peter S. Ely
Mining Engineer
524 First National Bank Bldg.
Albuquerque, New Mexico

PSE/ms

CONFORMED COPY

ASSIGNMENT OF MINING CLAIMS

I, G. A. Kent, for One Dollar ($1.00) and other valuable consideration hereby assign to Grain Processing Corporation, an Iowa corporation with principal offices at Muscatine, Iowa, all my right, title, and interest in and to the following mining claims located in Socorro County, New Mexico:

(1) South 3,000 ft. of the East Half (E½) and the South 3,000 ft. of the East 960 ft. of the West Half (W½) Section 8, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Jennie B. 101 through 108 are recorded in Volume 188 of Min. & Loc., Pages 193 through 200, in office of County Clerk of Socorro County, New Mexico.

Claims Jennie B. 117 through 120 are recorded in Volume 188 of Min. & Loc., Pages 369 through 372, in office of County Clerk of Socorro County, New Mexico.

(2) North 3,000 ft. of the East 2,400 ft. of the East Half (E½) and the North 1,500 ft. of the West 240 ft. of the East Half (E½) and the East 960 ft. of the West Half (W½) Section 17, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Nancy C. 1 through 8 are recorded in Volume 188 of Min. & Loc., Pages 71 through 78, in the office of County Clerk of Socorro County, New Mexico.

Claims Nancy C. 49 and 50 are recorded in Volume 188 of Min. & Loc., Pages 359 and 360, in the office of County Clerk of Socorro County, New Mexico.

(3) Section 3, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Nancy C. 9 through 48 cover entire section. Claims are recorded in Volume 188 of Min. & Loc., Pages 85 through 124, in office of County Clerk of Socorro County, New Mexico.

(4) Section 4, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Jessie S. 1 through 40 cover entire section. Claims are recorded in Volume 188 of Min. & Loc., Pages 201 through 240, in office of County Clerk of Socorro County, New Mexico.

(5) Section 9, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Nancy K. 1 through 28 and Jennie B. 109 through 116 cover entire section.

Claims Nancy K. 1 through 28 are recorded in Volume 188 of Min. & Loc., Pages 165 through 192, in office of County Clerk of Socorro County, New Mexico.

Claims Jennie B. 109 through 116 are recorded in Volume 188 of Min. & Loc., Pages 361 through 368, in office of County Clerk of Socorro County, New Mexico.

(6) Beginning at the intersection of the Rejected South Boundary Socorro Grant and the west line of Section 14, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District, thence north 1200 ft., thence east 1500 ft., thence south 1200 ft., thence west 1500 ft. to point of beginning.

Claims Ann 3 and 4 are recorded in Volume 188 of Min. & Loc., Pages 260 and 261, in office of County Clerk of Socorro County, New Mexico.

(7) Beginning at the intersection of the Rejected South Boundary Socorro Grant and the east line of Section 15, Township 5 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District, thence north 1200 ft., thence west 1500 ft., thence south 1200 ft., thence east 1500 ft. to point of beginning.

Claims Ann 1 and 2 are recorded in Volume 188 of Min. & Loc., Pages 258 and 259, in office of County Clerk of Socorro County, New Mexico.

(8) Section 32, Township 4 South, Range 3 West, New Mexico Principal Meridian, Socorro County, New Mexico, Magdalena Mining District.

Claims Jessie W. 1 through 40 cover entire section. Claims are recorded in Volume 188 of Min. & Loc., Pages 125 through 164, in office of County Clerk of Socorro County, New Mexico.

I, Nancy Kent, wife of G. A. Kent, hereby release and relinquish all my contingent interest, known as RIGHT OF DOWER, or other right of any description, had owned, or in expectancy, in and to the mining claims above described.

SIGNED at Muscatine County, Iowa, this 18th day of December, 1956.

/s/ Nancy Kent

/s/ G. A. Kent

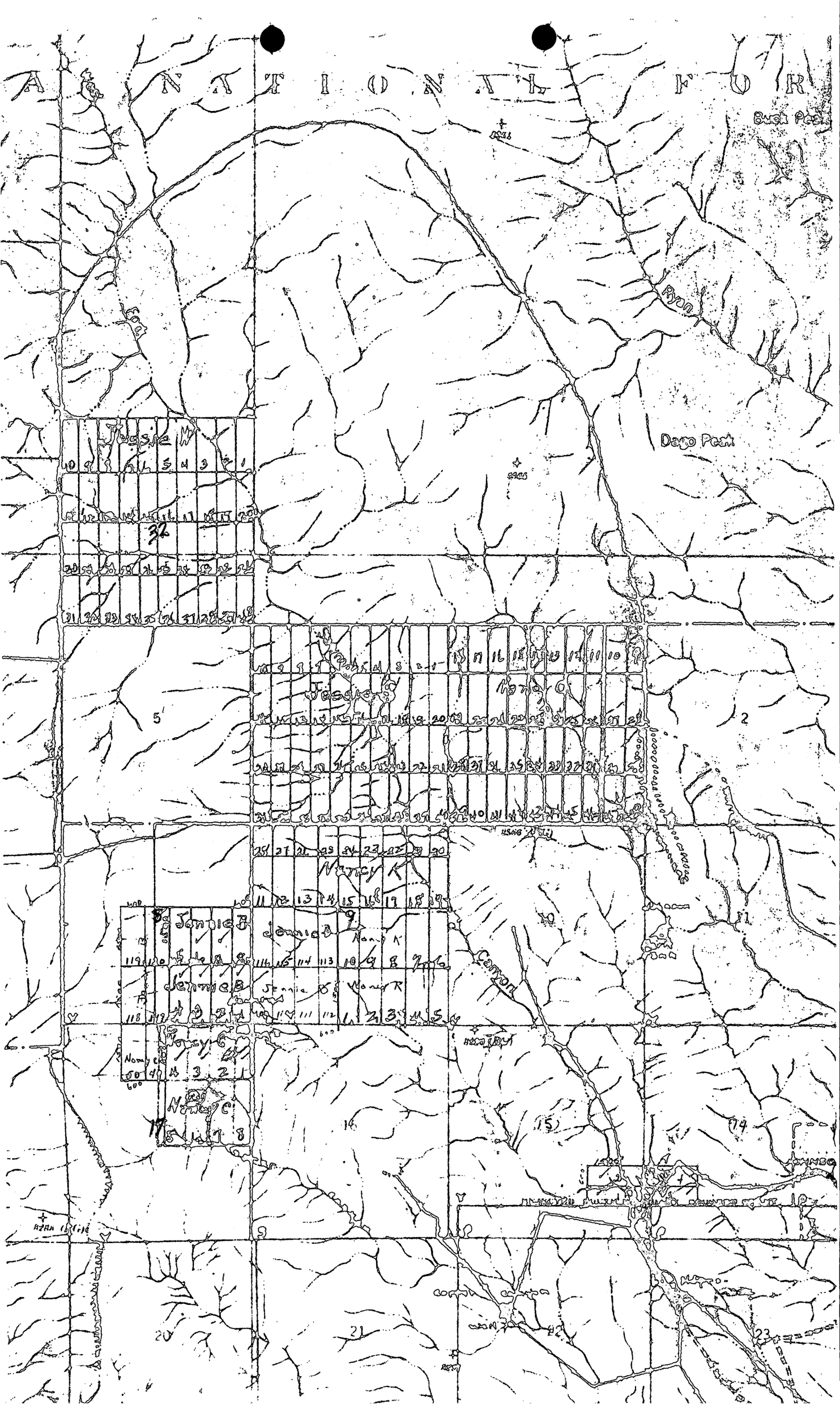
STATE OF IOWA)
) SS:
MUSCATINE COUNTY)

On this 18th day of December, 1956, before me, a Notary Public, personally appeared G. A. Kent and Nancy Kent, to me known to be the persons named in and who executed the foregoing instrument, and acknowledged that they executed the same as their voluntary act and deed.

/s/ R. G. Taylor
Notary Public in and for said County.

My commission expires July 4, 1957.

NOTARY SEAL


A NATIONAL FOR
Buck Peak
Run
Dago Peak
Jessie W
Jessie
Nancy
Nancy K
Jennie B
Jennie
Nancy
Canyon
Nancy C
32
5
2
9
10
11
14
15
17
23

RECEIVED
DEC 26 1956
D.M.E.A.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4-29	Chapman	400
4-29	Martin	400
5/1	Selfridge	2130
"	Johnson	110
"	Mittendorf	100
5/2	C	220
		225

MAY - 1 1957

Grain Processing Corporation
1600 Oregon Street
Muscatine, Iowa

Re: Docket No. DMEA 4585 - Manganese
Jennie B et al. claims
Socorro County, New Mexico

Land
Kilsgaard

Gentlemen:

Your application for exploration assistance and other data available to us in Washington concerning the referenced property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting the occurrence of manganese mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. Under these conditions we regret to advise you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Administration program and for bringing this property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman:am 4-29-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG III
Messrs. G. DeHuff, Jr., USBM
T. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4-29	Chapman	400
4-29	Martin	400
		130
		110
		100

April 29, 1957

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of the Subject Application for Exploration Assistance in the amount of $25,000.00
Docket No. DMEA 4585 - Manganese
Grain Processing Corporation
Jennie B et al. claims
Socorro County, New Mexico

Denial of the subject application is recommended by this Division based on the following information:

The applicant, Grain Processing Corporation, requested exploration assistance in the amount of $25,000.00 on December 19, 1956, for bulldozing access roads and drill sites and drilling (type of drilling not specified). A field examination of the property was made on February 26, 1957, by W. L. Emerick, Geological Survey, and T. M. Romalo, Bureau of Mines, accompanied by Mr. G. A. Kent, president of the corporation, and B. O. Burris, owner of the property.

Applicant: Grain Processing Corporation
G. A. Kent, President
1600 Oregon Street
Muscatine, Iowa

Property Ownership: The property of the applicant consists of 178 unpatented lode mining claims located in sections 3, 4, 8, 9 and 15, T. 5 S., R. 3 W., and section 32, T. 4 S., R. 3 W., Socorro County, New Mexico. The property reportedly is owned by Mr. B. O. Burris, but held by Mr. G. A. Kent, by a working agreement with the Owner. In turn Mr. Kent assigned his interest to the Grain Processing Corporation, by a document dated December 18, 1956.

The claims are recorded as follows:

Names	Book No.	Pages
Jennie B 101 thru 108	188	193 thru 200
Jennie B 117 thru 120	188	369 thru 372
Nancy C 1 thru 8	188	71 thru 78
Nancy C 9 thru 48	188	85 thru 124
Nancy C 49 and 50	188	359 and 360

8623

Property Ownership: Cont'd

Names	Book No.	Pages
Jessie S 1 thru 40	188	201 thru 240
Nancy K 1 thru 28	188	165 thru 192
Jennie B 109 thru 116	188	361 thru 368
Ann 3 and 4	188	260 and 261
Ann 1 and 2	188	258 and 259
Jessie W 1 thru 40	188	125 thru 164

The Black Rock group of four claims is located in sections 11 and 12, T. 5 S., R. 3 W., and owned by the Ranchers Exploration and Development Corporation. This group is reported as part of the holdings of the Grain Processing Corporation, but no data are available as to how it is held.

Adjoining Property: The Buena Vista group of claims located in section 2, T. 5 S., R. 3 W., was examined in October 1952, by the DMEA engineers (Docket No. DMEA 2651) and assistance was denied. A small tonnage of ore has been shipped from the property.

Geology: The rocks of the Magdalena mountains underlaying the above noted claims are predominantly rhyolite and rhyolite porphyry flows. Exposed on higher slopes are intrusions of diabase. Northwest and northeast trending fractures and brecciated shears are present over the area of the claims. Manganese oxides, probably of supergene origin are present in variable amounts as films, crusts, veinlets and rounded masses in the fractured and brecciated zones. Although manganese mineralization can be found over the entire area the local concentrations of good ore are small.

The manganese minerals are psilomelane, pyrolusite and wad. These minerals appear as cementing materials of the fractured rhyolites and sometimes in powdery and dust-like form.

Development:

Exploration work has been carried out by pits and bulldozer trenches, but no significant showing of ore has been found. Generally most of this work was carried out as location and assessment work. Most of the work showed scattered manganese mineralization, but any such ore would have to be selectively mined. The cuts and pits indicated that mineralized zones only persisted to a shallow depth.

Assay results from the better showings returned 5.25 and 8.35 percent manganese.

Proposed Work: The applicant's proposals were not definite, but the work was mainly for access roads and sites for drilling. No specific proposal was made for the type of drilling.

Comments and Conclusions: The Field Team believes that sufficient exploration has been carried out by the owner and applicant; that further work will not add substantially to the results already obtained; and recommends denial of the application.

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

W. S. Martin

W. S. Martin, Chief
Iron and Ferro-Alloys Division

TLChapman:am
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.

IN REPLY REFER TO:

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

OFFICIAL FILE COPY
DMEA
RECEIVED APR 12 1957

DATE	INITIALS	CODE
4/12	C	220
4/12	WSM	400

April 11, 1957

Re: DMEA 4585
Grain Processing Co.
Black Rock, Jennie, etc. claims
Socorro County, New Mexico
$25,000 - Manganese

Memorandum

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

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

Subject: Review of application.

The applicant requested assistance in exploring a breccia vein type manganese deposit.

Little information concerning the deposit was given.

The examiners inspected the best showings which have been opened up by bulldozer cuts. The work reveals manganese-bearing fractured and brecciated zones in rhyolite and rhyolite porphyry flows. In the opinion of the examiners the manganese is probably of supergene origin and the deposits as developed, appear to be shallow. The manganese minerals occur as films crusts, veinlets and rounded masses. The mineralization is widespread, but the concentrations of manganese minerals are small and the overall grade is low.

At the Nancy C No. 2 claim in open cuts, two 2-foot breccia zones are uncovered. Samples of the 2 zones assay 8.35 and 5.25% manganese. Two truckloads of ore probably from a cut on the Black Rock No. 2 claim assayed about 23% Mn. Selective mining is indicated.

In the opinion of the examiners the total tonnage of ore grade material is small and assistance is not warranted.

I concur with the recommendation of the examiners and the Field Team that the application be denied.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY
DMEA
RECEIVED APR 12 1957

DATE	INITIALS	CODE
4/12	C	220
4/12	WSM	400

April 11, 1957

DMEA Project No. 4585
DMEA Contract No.
Commodity Mn
Name of Applicant Grain Processing Corp.
Name of Property Nancy C, Jennie B, Black Rock
Location of Property Socorro Co., N. M.
Estimated cost of project $25,000

W. S. Martin, DMEA

G. L. DeHuff, Jr., Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Field team report
(Application, Field Team Report, etc.)

Date of report 4/1/57 Date received by DMEA 4/8/57

Is a copy of the report being sent to applicant: Yes [ ] No [x]

Is a copy of the report being sent to applicant: Yes [x] No [ ]

Information available for export protection: Yes [ ] No [x]

Is other pertinent information being sent to applicant: Yes [ ] No [ ]

If Reports, item numbers, yes above: See my 1/7/57 memo.

Factors requiring special consideration:
a. Location [ ]
b. Ownership [ ]
c. Evidence of mineralization
d. Geology [ ]
e. Proposed exploration method [ ]
f. Alternate exploration method [ ]
g. Costs [ ]
h. _____ [ ]

Action checked:
a. Obtain information from applicant [ ]
b. Refer to Field Team [ ]
c. Denial [x]
d. Agree with Field Team [x]
e. Disagree with Field Team [ ]
f. Support alternate plan [ ]
g. Request another conclusion [ ]
h. Approval [ ]
i. Consult with Mr. _____ of _____ MEC office.

10. Remarks: (Use back of page if necessary)

G L DeHuff Jr

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

April 1, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED APR 3 1957

DATE	INITIALS	CODE
4/3	C	220
		130
4/9	C	220
4/10	WSM	400

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA-4585
(Manganese) Grain Processing Corporation
(Jennie B et al claims)
Socorro County, New Mexico

Enclosed are the original and three copies of the subject report by T. M. Romslo, Mining Engineer, USBM, and W. L. Emerick, Geologist, USGS.

The examining team report that minor amounts of manganese ore occur along fractures in rhyolite and rhyolite porphryry flows. They conclude that the exploration work will not result in the discovery of sufficient amounts of manganese ore and, accordingly, recommend that the application for exploration assistance be denied.

The Field Team concurs in the conclusions and recommendations of the examining team.

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
4-8-57
(date)

MINERAL DEPOSITS
DMEA
RECEIVED
MAR 27 1957
U.S.
GEOLOGICAL SURVEY
DENVER, COLORADO

TRANSMITTED
APR 1 1957

Box 4126 University Station
Tucson, Arizona

March 22, 1957

Memorandum

To: Acting Executive Officer, DMEA Field Team, Region III

From: W. L. Emerick
T. M. Romslo

Through: E. N. Harshman
W. R. Storms

Subject: Docket DMEA-4585, (Manganese) Grain Processing Corporation, Jenny B et al Claims, Socorro County, New Mexico

Enclosed are the original and 8 copies of a joint field report on the above docket, recommending denial of the application.

Also enclosed are the Bureau and Survey copies of the docket.

ON-SITE EXAM

W L Emerick
W. L. Emerick
Geologist, U. S. Geological Survey

T M Romslo
T. M. Romslo,
Mining Engineer, U. S. Bureau of Mines

WLE-TMR:ms

cc: Acting Executive Officer (8)
Harshman
King
Storms
Emerick

OFFICIAL FILE COPY
DMEA
RECEIVED APR 3 1957

DATE	INITIALS	CODE
		130
		220
4/10	WSM	400

DMEA
DEPARTMENT OF THE INTERIOR
MAR 29 1957
REGION III
DENVER, COLORADO

Reviewed by
DMEA OPERATING COMMITTEE
4-8-57
(Date)

DMEA
DEPARTMENT OF THE INTERIOR
MAR 29 1957
REGION III
DENVER, COLORADO

FOR UNITED STATES GOVERNMENT USE ONLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

TRANSMITTED
APR 1 1957

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-4585, (Manganese) Grain Processing Corporation

Jenny B et al Claims

Socorro County, New Mexico

OFFICIAL FILE COPY
DMEA
RECEIVED APR 3 1957

DATE	INITIALS	CODE
		130 ~~246~~
		220
4/10	WJM	400

W. L. Emerick, Geologist
U. S. Geological Survey

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
4-8-57
(Date)

March 22, 1957

SUMMARY, CONCLUSIONS AND RECOMMENDATION

The Grain Processing Corporation applied for Governmental aid in exploration of its manganese property in Socorro County, New Mexico. The application, docketed as DMEA-4585, was incomplete, lacking assay reports, maps and a specific exploratory program.

The field investigations were confined to the areas of 2 manganese outcrops which the applicant recently explored mainly by trenches and side-hill opencuts. One of the deposits was mined by the applicant during 1956 for a total production of 22 tons of ore containing 23 percent manganese. The 2 deposits, in the applicant's opinion, contained the best showings of manganese oxides on the property. At the present time, the property is inactive and contains no mining equipment. Buildings on the property are confined to ranch headquarters of the owner who reportedly has a working agreement with the applicant.

The rocks exposed in the report area consist of rhyolite and rhyolite porphyry flows with local exposures of diabase intrusive on the higher slopes. Northwest and northeast trending parallel fractures and brecciated shear zones contain manganese oxides, probably of supergene origin, as films, crusts, veinlets, and rounded masses. Although manganese mineralization can be found over the emtire area, local concentrations of good ore appear to be small, and the presence overall of a high percentage of unmineralized rock admixed with the manganese oxides in the fractures and brecciated zones generally makes the deposits low grade.

The Black Rock and Nancy C groups of claims were selected by the applicant as his two best deposits. Both groups of claims are underlain by rhyolite and rhyolite porphyry flows cut by either northwest or northeast trending fracture and brecciated zones in which the manganese minerals occur as incrustations, veinlets, and rounded masses in cavities of the rock or between the rock fragments. The deposit on the Black Rock group of claims contains small, local and shallow concentrations of high grade ore, but overall can be considered low grade. Development of significant tonnages of ore from the deposit does not appear probable.

Considerable bulldozer work has been done by the applicant on two mineralized zones on the Nancy C No. 2 claim. One vein or zone of mineralization possibly terminates laterally within a few feet, and the second mineralized zone appears extremely low grade. Assay results of samples from these two zones show 8.35 percent Mn for the first vein or zone, and 5.25 percent Mn for the second zone. Applicant has done sufficient exploration work on this claim and additional work does not appear warranted.

The Black Rock and Nancy C groups of claims contain low grade manganese mineralization, with occasional higher grade concentrations, along fractures and brecciated zones in rhyolite rocks. The manganese mineralization appears to be shallow in depth and discontinuous along the strike of the fractures and brecciated zones. Minable reserves of acceptable grade are insignificant, and geologic conditions do not indicate that the reserves will be greatly increased by additional exploration work. It is recommended that the application for government assistance in exploration be denied.

DMEA-4585, (MANGANESE) GRAIN PROCESSING CORPORATION
JENNY B ET AL CLAIMS
SOCORRO COUNTY, NEW MEXICO

CONTENTS

	Page
Introduction	1
Location and accessibility	2
Topography, physical features and climate	2
History and production	3
Extent and ownership of the property	4
Geology	4
Description of the deposits	5
Conclusions and recommendation	9

ILLUSTRATIONS

Figure No.		Following page
1	Location map	2
2	Claim map	4
3	Sketch of geology and exploration on the Black Rock group of claims	6
4	Sketch of geology and exploration on the Nancy C No. 2 claim	8

INTRODUCTION

The Defense Minerals Exploration Administration received an application from the Grain Processing Corporation for aid in exploration for manganese on its property in Socorro County, New Mexico. The application, received December 26, 1956, was given docket number DMEA-4585. It was reviewed by the Operating Committee and forwarded to the Field Team, Region III for a field examination of the property. The letter of transmittal by the chairman of the committee stated:

"It would be desirable to have assay reports and a specific exploration program with map showing the proposed work, but apparently the applicant has already made an appreciable payment for reports without obtaining definite information of the sort we usually require. Probably the easiest and quickest way to obtain the necessary information is to examine the property."

The field investigation was made February 26, 1957 by W. L. Emerick, geologist, U. S. Geological Survey, and T. M. Romslo, mining engineer, U. S. Bureau of Mines. They were accompanied by G. A. Kent, president of the corporation and B. O. Burris, owner of the property. The investigations were confined to the 2 zones of manganese oxides which have been partially explored by trenches and side hill open cuts.

LOCATION AND ACCESSIBILITY

The property of the applicant is about 20 airmiles southwest of the town of Socorro, New Mexico in sections 3, 4, 8, 9, and 15, T. 5 S., R. 3 W. and section 32, T. 4 S., R. 3 W., Socorro County, New Mexico (fig. 1). It is accessible from Socorro, the county seat, by traveling south on U. S. Highway for 27 miles and thence westerly 12 miles on a dirt road to the Burris Ranch headquarters. Old dirt ranch roads from the headquarters were recently extended to the manganese oxide deposits.

TOPOGRAPHY, PHYSICAL FEATURES AND CLIMATE

The applicant's properties are at altitudes ranging from about 5,000 to 9,000 feet above sea level on the southeast flank of the Magdalena Mountain Range. The topography of the properties ranges from rolling hills with gentle slopes at the lower altitude to moderately rugged mountains of steep slopes near the crest of the range.

Vegetation is characteristic of that found in the semi-arid regions of the southwest. At the lower altitudes it is largely confined to a light growth of forage grasses and desert type shrubs. Light to heavy growths of trees are found at both the intermediate and higher altitudes. Trees of the intermediate zone mainly are juniper, cedar and pinon pine. Those higher up are ponderosa pine and spruce.

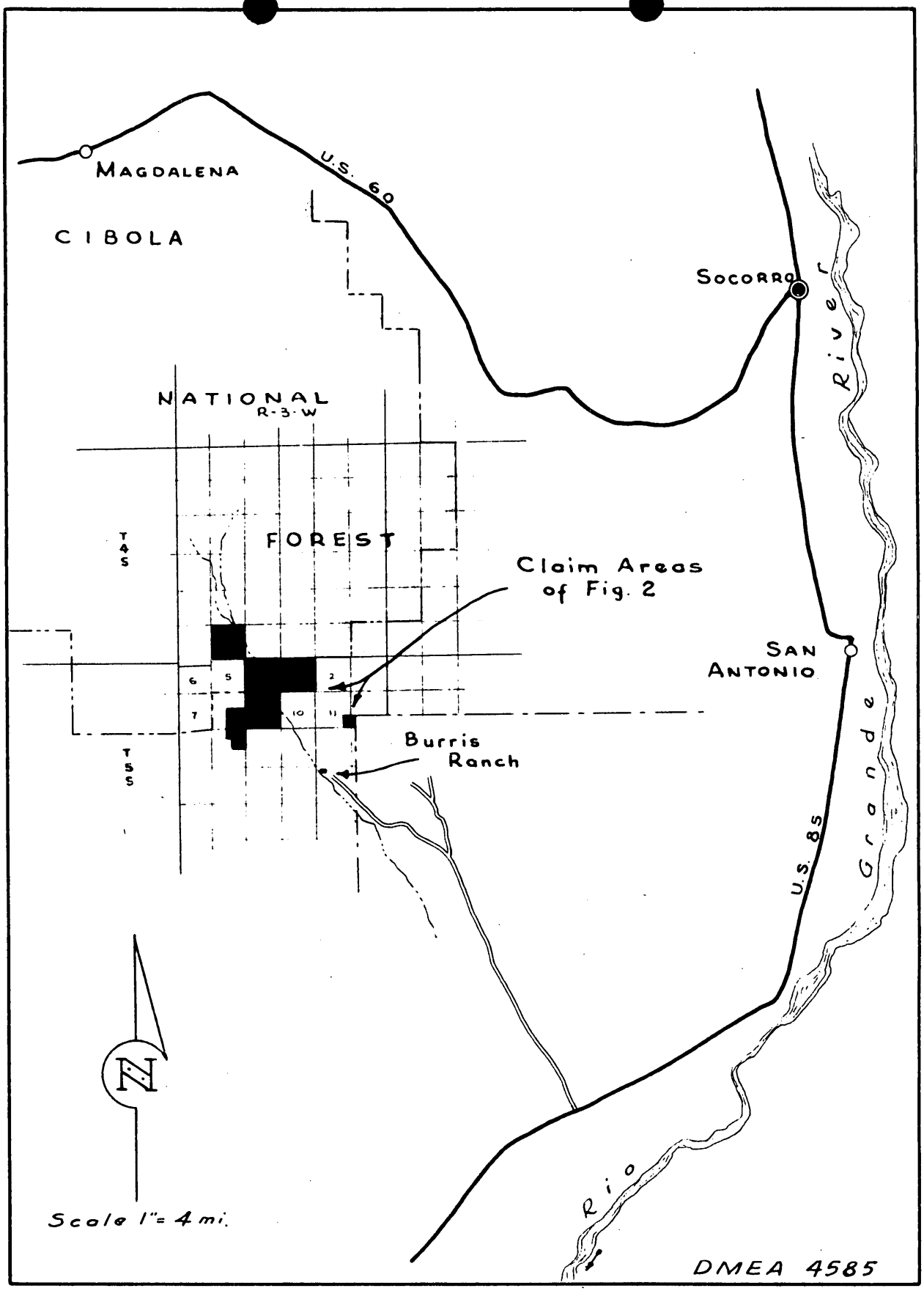


FIG-1-LOCATION MAP, GRAIN PROCESSING CORP.
JENNIE B et al CLAIMS, SOCORRO COUNTY, NEW MEXICO

Summers are warm and winters are moderately cold. Temperatures range from a low of near zero for winters at the higher altitudes to about 100 degrees above Fahrenheit for summers of the lower regions. Precipitation occurs mainly as heavy summer thunderstorms and light rain and snowfalls during the winter. Normal annual precipitation is about 15 inches at the higher altitudes and about 9 inches in the lower country.

The Rio Grande river, about 20 miles east of the Magdalena Mountain Range, is the only permanent stream in the region.

HISTORY AND PRODUCTION

During July 1956, B. O. Burris first noted outcrops of manganese oxides on his property that he believed indicated the presence of minable deposits. Shortly thereafter he trenched one of the outcrops from which he mined and shipped 22 tons of ore averaging 23 percent manganese to the Government's Depot, Deming, New Mexico. Cost of this and other exploratory work was borne by the Grain Processing Corporation which was interested in acquiring all of the potentially mineralized ground. The other work performed comprised about 3,000 feet of access roads and trenching of a second outcrop.

At the present time there is no mining activity, buildings or mining equipment on the property.

EXTENT AND OWNERSHIP OF THE PROPERTY

The property of the application comprises a group of 178 unpatented lode mining claims (fig. 2). One of the 2 prospects investigated by the examining team is situated in the Nancy C claims of the group. The other prospect is situated in the adjacent group of 4 Black ~~Colt~~ Rock unpatented lode mining claims.

The property of both groups of claims and an extensive tract of adjoining land reportedly is owned by Mr. B. O. Burris. The 2 groups of mining claims are held by the Grain Processing Corporation under assignment from G. H. Kent, President of the corporation. Mr. Kent reportedly controlled the claims under a working agreement with the owner.

GEOLOGY

The rocks on the southeast slope of the Magdalena Mountains underlying the claims of the Grain Processing Corporation are predominantly rhyolite and rhyolite porphyry flows, probably of Tertiary age. Exposed locally on the higher slopes are intrusions of diabase. Northwest and northeast trending fractures and brecciated shear zones are present over the area covered by the applicant's claims. Manganese oxides, probably of supergene origin, are found in variable amounts as films, crusts, veinlets, and rounded masses in the fractures and brecciated zones. Where larger voids were formed in the fracture and brecciated zones a better grade manganese deposit was formed locally.

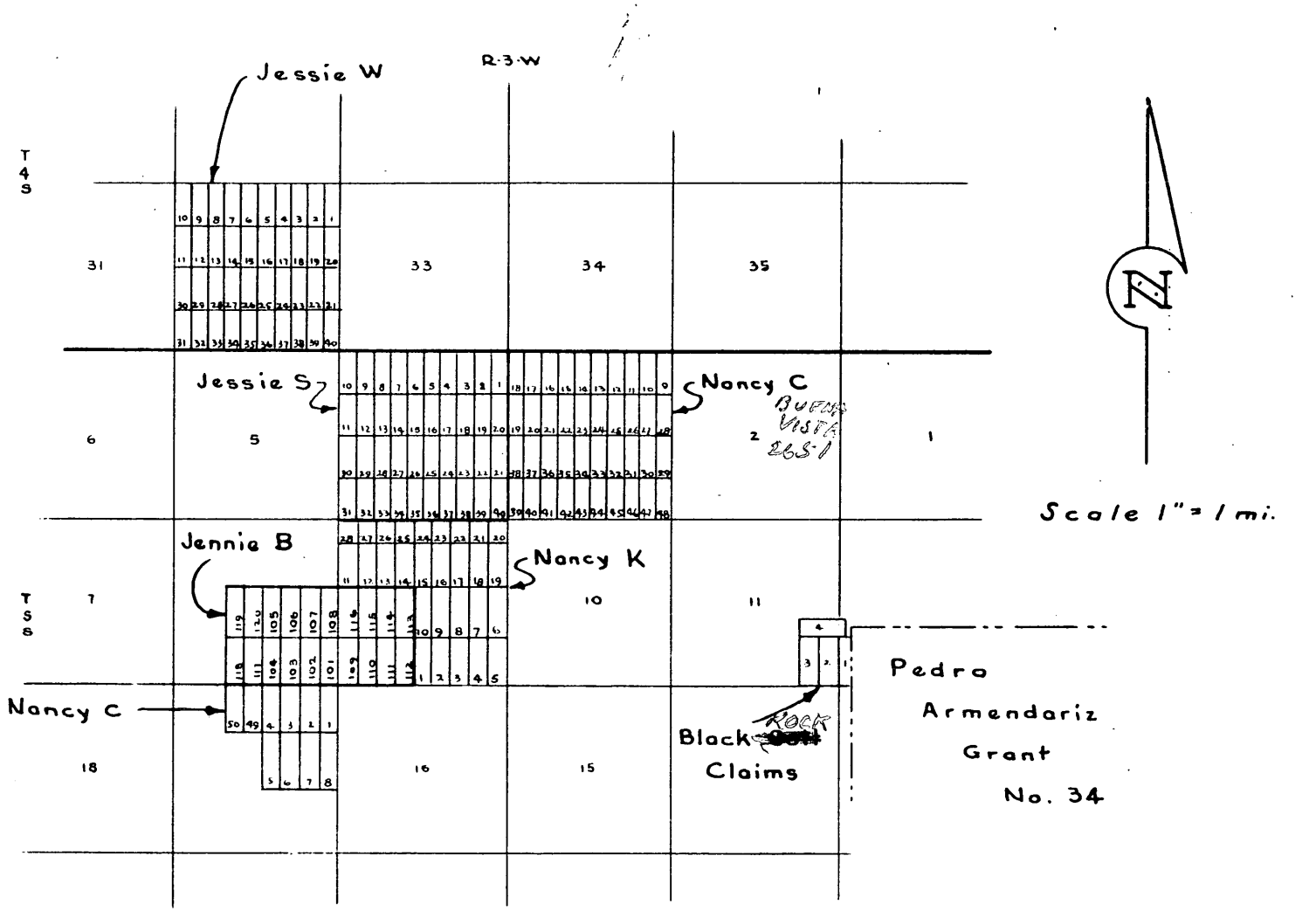


FIG - 2 - CLAIM MAP, GRAIN PROCESSING CORP.
JENNIE B et al CLAIMS, SOCORRO COUNTY, NEW MEXICO

Although manganese mineralization can be found over the entire area, local concentrations of good ore appear to be small, and the presence overall of a high percentage of barren rock admixed with the manganese oxides in the fractures and brecciated zones generally makes the deposits low grade.

The manganese minerals are psilomelane with pyrolusite, or wad, in minor amounts. Calcite, occurring as incrustations on the psilomelane, is the predominant gangue mineral. The psilomelane occurs as incrustations, fillings, veinlets, lumps, and rounded masses in the cavities of the fracture zones or in the irregular spaces between the rock fragments in the brecciated zones. In the latter case, the manganese minerals sometimes appear more as a cementing material of the rhyolite fragments. The pyrolusite, or wad, is powdery and dust-like and is intimately associated with the psilomelane.

DESCRIPTION OF THE DEPOSITS

Two areas selected by the applicant as containing the best manganese mineralization were shown the examining team. These two areas were the Black Rock and Nancy C groups of claims (Fig. 2).

The Black Rock group of claims lies on the lower slopes of the Magdalena Range, probably at an elevation of about 5,000 feet, and they are underlain by rhyolite and rhyolite porphyry flows. Northwest trending parallel fracture and brecciated fracture zones cut across the rhyolites and these zones have been explored by the applicant

with bulldozer cuts, either along or adjacent to a vein, or by crosscutting veins or breccia zones. In cut "A" (Fig. 3) a brecciated shear zone composed of many parallel fractures striking about N.60° W. and dipping steeply to the southwest was exposed. Many of the fracture surfaces in this cut showed gouge and slickensides. Manganese oxides occurred as crusts, veinlets, and masses in the cavities of the rock and in the irregular spaces between the rock fragments. Presence of a large percentage of rock fragments intermingled with the psilomelane and pyrolusite make the deposit low grade and minable only by careful selective methods. In cut "B" (Fig. 3) a narrow brecciated zone of mixed manganese minerals and rhyolite fragments striking about N.45°W. and dipping about 85° southwest was exposed. The mineralized zone ranged from a thickness of about 2 inches on the west face to about 2 feet on the east face. Psilomelane and pyrolusite filled cavities between rock fragments and ranged from a film to rounded masses about 1/2 inch thick. At a depth of about 7 feet in the bottom of the cut mineralization was obscure and had probably reached a vertical limit at that point. Extension of the zone along the strike did not appear any more favorable than the part exposed in the cut.

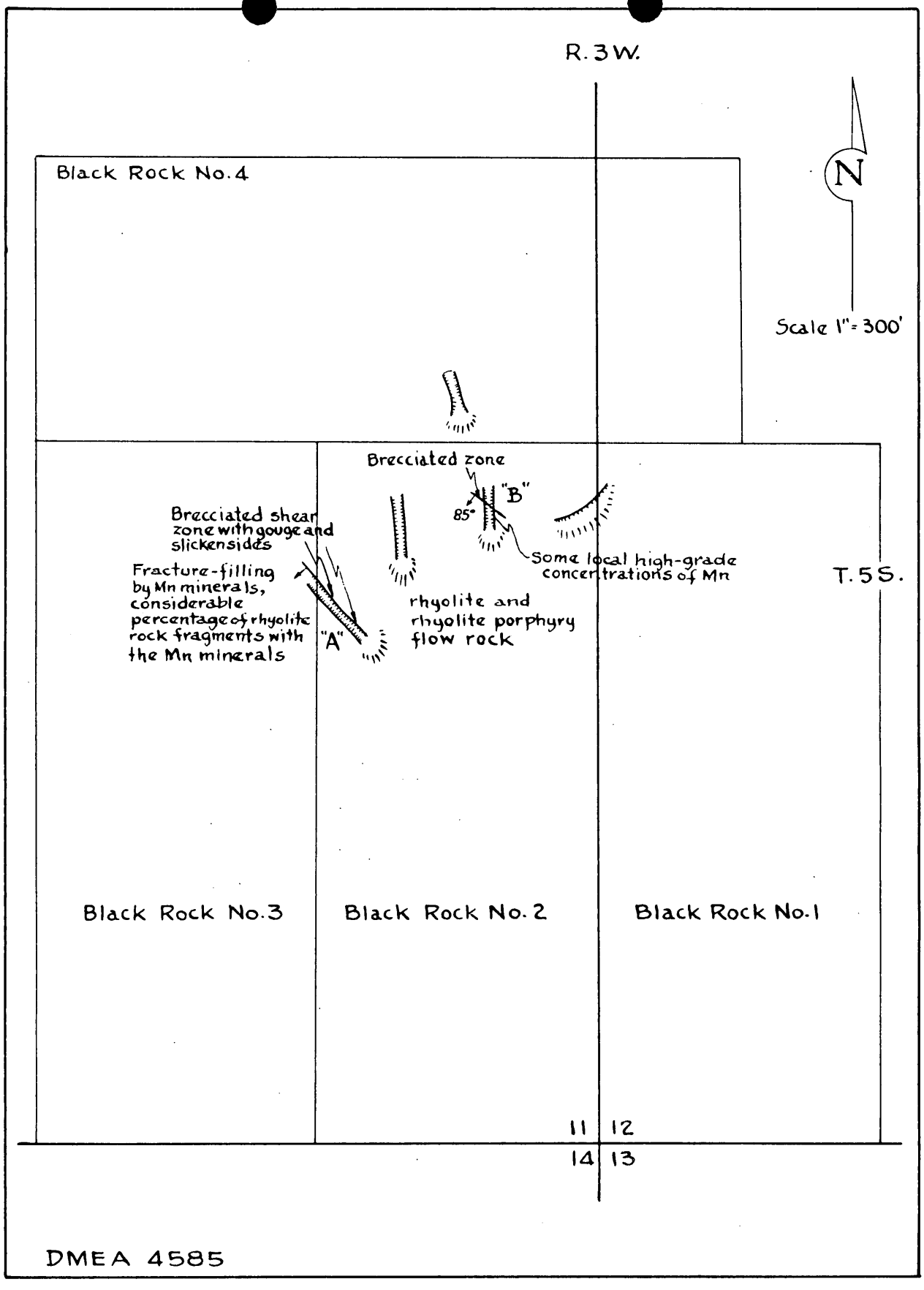


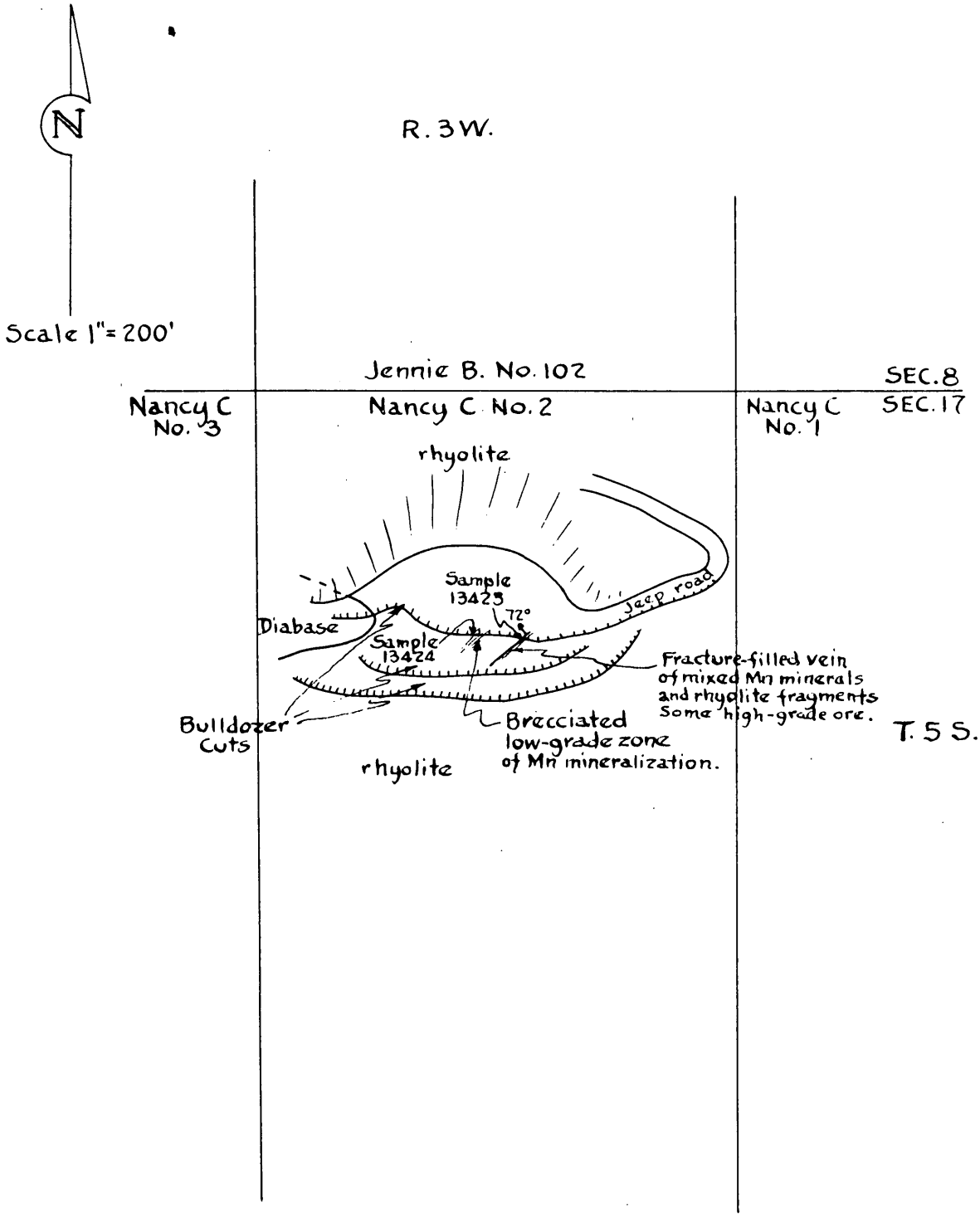
FIGURE 3. SKETCH OF GEOLOGY AND EXPLORATION ON BLACK ROCK GROUP OF CLAIMS, GRAIN PROCESSING CORP., SOCORRO CO., N. MEXICO.

Two truckloads of ore, averaging about 23 percent Mn, were shipped from this area, presumably from Cut "B". It does not appear possible that this much ore could be obtained from these deposits without careful selective mining. The deposit on the Black Rock group of claims contains small, local, and shallow concentrations of high grade ore but overall can be considered low grade. Development of significant tonnages of ore from the deposit does not appear probable. The Black Rock group of claims is about one mile south of the Buena Vista claims that were examined in October 1952 under DMEA docket 2651.

The Nancy C group of claims (Fig. 2) are on the upper slopes of the Magdalena Mountains at an elevation between 8,000 and 9,000 feet. The slopes are underlain by rhyolite and rhyolite porphyry flows that show, in places, dips between 30 and 40 degrees. A diabase intrusive has been exposed by exploration cuts and by erosion in the valleys between slopes. A northeast trend of parallel fracturing and brecciated zones was found on the Nancy C group of claims. Psilomelane and pyrolusite occur in this deposit as incrustations, veinlets, and rounded masses in the fracture cavities and in the spaces around rock fragments.

Applicant intimated that the manganese mineralization on the Nancy C claims was considered his best deposit but in the opinion of the field examiners the showings of ore on these claims were less

significant than found on the lower Black Rock claims. Considerable bulldozer work has been done by the applicant in exploration of the fracture and brecciated zones on the Nancy C No. 2 claim, where the strike of the northwest trending structures is approximately normal to the slope. A sketch (Fig. 4) indicates roughly the 200 to 300 foot long area where a series of cuts were made by the applicant across the mineralized zones on the Nancy C No. 2 claim. A 2-foot-wide fracture-filled vein of mixed manganese oxides and rhyolite fragments, striking about N.50°E. and dipping about 72° northwest to vertical, was sampled by the examining team (Sample No. 13423, Fig. 4). The sample assayed 8.35 percent Mn. This vein apparently terminates within a few feet to the southwest for it could not be found in the upper part of the cut. A more brecciated zone about 2 feet wide and about 50 feet west of the first vein was also exposed in the cut. Owing to the high proportion of barren rock to manganese oxides this second zone appeared extremely low grade. Sample No. 13424 (Fig. 4) representing a 2-foot channel cut across the brecciated zone assayed 5.25 percent Mn. The remaining parts of the cut, to the east and to the west, were essentially all in unmineralized rhyolitic rock. A small segment of a diabase intrusive was exposed in the west end of the cut. Based on the exploration work done by the applicant, the deposit on the Nancy C No. 2 claim appears to be shallow in depth, and low grade, except for small local concentrations of higher grade material in places along the fracture zone. Additional exploration work does not appear warranted.



DMEA 4585

FIGURE 4. SKETCH OF GEOLOGY AND EXPLORATION ON NANCY C No. 2 CLAIM, GRAIN PROCESSING CORPORATION, SOCORRO CO., NEW MEXICO.

CONCLUSIONS AND RECOMMENDATIONS

The Black Rock and Nancy C groups of claims contain low grade manganese mineralization, with occasional higher grade concentrations, along fractures and brecciated zones in rhyolitic rocks. The manganese mineralization appears to be shallow in depth and discontinuous along the strike of the fractures and brecciated zones. Minable reserves of acceptable grade are insignificant, and geologic conditions do not indicate that the reserves will be greatly increased by additional exploration work. We therefore recommend that the application for government assistance in exploration be denied.

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

224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 25 1957

DATE	INITIALS	CODE
1-25	C	220
1/25	WSM	400

January 22, 1957

Memorandum

To: W. R. Storms

From: DMEA Field Team, Region III

Subject: Docket DMEA 4585 (Manganese) Grain Processing Corporation (Jennie B et al claims) Socorro County, New Mexico.

Mr. Frank J. Prochaska, Vice President of the subject Applicant company telephoned this office and requested that he be notified, several days in advance, of the date set for the field examination.

The President of the company, Mr. G. A. Kent, is the only officer of the company familiar with the project, and he is presently vacationing in Florida. They request notice at the Muscatine, Iowa office, 1600 Oregon Street, in sufficient time for them to contact Mr. Kent and have him arrange to accompany the field examiners.

DMEA Field Team, Region III

Original signed by
W. M. TRAVER

By W. M. Traver
Executive Officer

WMC:ytl
cc
Sec. Op. Comm. (2)
W. L. Emerick
Harshman
Docket 4585
Chron.

Docket

DMEA
DEPARTMENT OF THE INTERIOR
JAN 22 1957
REGION III
DENVER, COLORADO

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 25 1957

DATE	INITIALS	CODE
1-25	C	
January 21, 1957		220
1/25	WSM	400

Memorandum

To: W. R. Storms

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4585 (Manganese) Grain Processing Corporation (Jennie B et al claims), Socorro County, New Mexico

Enclosed is the application for Grain Processing Corporation, Docket DMEA 4585, in the amount of $25,000.00.

A field examination and suitable report are required. We believe the Bureau of Mines should examine the deposit even though the Survey may not recommend assistance. The completed report should be forwarded directly to the Executive Officer with a copy of the memorandum of transmittal to this office.

W. H. KING

W. H. King

Enclosure

cc: E. N. Harshman
W. L. Emerick
W. M. Traver (3)
Sec. Op. Com (2)

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

OFFICIAL FILE COPY DMEA RECEIVED JAN 22 1957		
DATE	INITIALS	CODE
1-22	CW	220
1/22	WSay	400

224 New Customhouse
Denver 2, Colorado

January 17, 1957

Memorandum

To: W. H. King (2) (w/brochure)
W. L. Emerick (w/brochure)

From: DMEA Field Team, Region III

Subject: Docket DMEA 4585 (Manganese) Grain Processing Corporation (Jennie B et al claims) Socorro County, New Mexico.

Enclosed is the subject application in the amount of $25,000.00. A field examination and suitable report are requested.

As pointed out in the Chairman's letter, copy of which is attached, it would be desirable to have more definite information before making a field examination; but he concludes, and we concur, that the easiest and quickest way to obtain the necessary information is to examine the property. Also enclosed are copies of memoranda of review of the subject application, by N. E. Nelson and G. L. DeHuff, Jr.

Please return the Bureau of Mines copy of the brochure to this office, with the report of examination.

DMEA Field Team, Region III

Original signed by
W. M. TRAVER

W. M. Traver
By
Executive Officer

Enclosures

HMC:ytl
cc
Sec. Op. Comm. (2)
Harshman
Docket 4585
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/11	Chapman	400
1/11	Martin	400
1/11	Selfridge	130
1/11	Johnson	110
		~~100~~ 13
1/14	cw	~~220~~
	Land	400

JAN 14 1957

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. 4585 - Manganese
Grain Processing Corporation
Jennie B et al. claims
Socorro County, New Mexico

Dear Mr. Traver:

The above docketed application for exploration assistance is being referred to your office for a field examination of the property.

Copies of memoranda dated January 3 and 7, 1957, by N. E. Nelson, Geological Survey, and G. L. DeHuff, Jr., Bureau of Mines, respectively, relating to the project are enclosed. Also enclosed are extra copies of the application for use of the Field Team.

It would be desirable to have assay reports and a specific exploration program with map showing the proposed work, but apparently the applicant has already made an appreciable payment for reports without obtaining definite information of the sort we usually require. Probably the easiest and quickest way to obtain the necessary information is to examine the property.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

APPROVED:

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

Thor H. Kiilsgaard (THK)
Member, Geological Survey

TLChapman:foc 1/11/57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. III
Messrs. G. L. DeHuff, Jr., USBM
T. H. Kiilsgaard, USGS

Enclosures

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/11	Chapman	400
1/11	Martin	400
1/11	Selfridge	130
1/11	Johnson	110
		~~100~~
		220

Kamb
Kiilsgaard

JAN 14 1957

Grain Processing Corporation
1600 Oregon Street
Muscatine, Iowa

Re: Docket No. DMEA 4585 - Manganese
Jennie B et al. claims
Socorro County, New Mexico

Gentlemen:

The above docketed application for exploration assistance for manganese ore has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, 224 New Customhouse, Denver 2, Colorado, for a field examination of the property.

Any assistance you can give the members of the Field Team will be appreciated.

Sincerely yours,

Frank E. Johnson (for)

ACTING Administrator

TLChapman:foc
1/11/57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. III
Messrs. G. L. DeHuff, Jr., USBM
T. H. Kiilsgaard, USGS

RCS

8623

OFFICIAL FILE COPY DMEA RECEIVED JAN 8 1957		
DATE	INITIALS	CODE
1/11	Chapman	400

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

Date January 7, 1957

DMEA Docket No. 4585
DMEA Contract No.
Commodity Manganese
Name of applicant Grain Processing Corp.
Name of property Nancy C & Jennie B claims
Location of property Socorro County, New Mexico
Estimated cost of project $25,000

Memorandum

To: W. S. Martin, DMEA

From: G. L. DeHuff, Jr., Commodity Specialist
Branch of Ferrous Metals and Ferroalloys

Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: 12/19/56. 2. Date received by reviewer: 12/28/56.

3. Prior reports on this property known to reviewer: Yes [ ], No [X].

4. Prior reports on nearby properties known to reviewer: Yes [X], No [ ].

5. Information available on past production: Yes [ ], No [X].

6. Other pertinent factors known to reviewer: Yes [ ], No [ ].

7. Explain items marked yes above: #4 - Black Goose was examined by Bureau of Mines engineer in July 1950; Cuba Mining Co. later did some trenching & test pitting, said to have been disappointing. Black Goose is apparently 2 or 3 miles NE of Jennie B (sec. 34, T4S, R3W). Present operations of Manganese Corp. of Ariz. are roughly 10 or 15 miles NE of Jennie B.

8. Factors needing special consideration:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration method [X]
   f. Alternate exploration method [ ]
   g. Costs [X]
   h. _____ [ ]

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [X]
   c. Denial [ ]
   d. Agree with Field Team [ ]
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [ ]
   i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary) It appears that some of the work proposed would be classified as prospecting rather than exploration. It is possible that all might be so classified. (See last page of E. C. Anderson report).

Suggest Field Team obtain assay reports and a more specific exploration program with maps showing proposed work, before any examination is made of the property.

Copy retained 400

G L DeHuff Jr

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

OFFICIAL FILE COPY
D IN REPLY REFER TO:
RECEIVED JAN 4 1957

DATE	INITIALS	CODE
1/9/57	WSM	400

January 3, 1957
Re: DMEA 4585
Grain Processing Corporation
Jennie, etc. claims
Socorro County, New Mexico
$25,000.00 - Manganese

Memorandum

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

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

Subject: Review of application.

The applicant requests assistance in exploring vein type manganese bearing veins.

The information concerning the manganese mineralization of the veins is very indefinite and general. Widths up to 100 feet and lengths of at least a 1,000 feet are mentioned. The material looks to be of good grade, but only one assay is reported by the 2 engineers whose reports accompany the application. E. C. Anderson took two samples but details concerning them are not given, and they may not have been assayed.

Both consultants recommend surface work and drilling, but no maps or diagrams showing where the work would be done are given. Probably work of a prospective nature is intended, in order to determine the drill sites.

If, as stated, the claims contain the largest and most valuable deposit in the United States, an examination is warranted, but data justifying the statement should have been given.

Referral of the application to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

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

December 27, 1956

Grain Processing Corp.
1600 Oregon St.
Muscatine, Iowa

Subject: DMEA-4585

Gentlemen

Your application for exploration assistance, dated December 19, 1956 submitted to our office at Denver, has been assigned Docket Number DMEA-4585 and referred to the Iron and Ferro-Alloys Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

(Sgd) Allen S. Dakan

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Code 400

6816