How did this get to us?
St Regis thru. Broadgate?
Was it referred by DMPA?

Paragon – Did DMPA formally transmit saying same was not eligible under 302
How did we get it

Map on St Regis
Where is proposed work

Mr. Frank Johnson.

W. C. BROADGATE 11/26

Dear Frank,

Felix and I worked up this plan with Billings, who has left since the conversations. Billings agree that the turndown by USGS was based on a misunderstanding of the situation and he felt that the revised application would present a workable scheme which will pass muster.

Sincerely,

Bill Broadgate

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

WASHINGTON 25, D. C.

DRAFT

Mr. Howard I. Young
Deputy Administrator
Defense Materials Procurement Agency
General Services Administration Building
Washington 25, D. C.

Re: DMEA Docket No. 1909X (Zinc)
St. Regis Mining Company
Lincoln Mines

Dear Mr. Young:

Enclosed is our docket pertaining to the application of the St. Regis Mining Company for aid for an exploration project. There is also enclosed copy of our letter of this date to applicant advising that the proposed project does not qualify for assistance under Mineral Order 5; but that we are forwarding the application to DMPA for review and consideration with respect to the possibility of obtaining a loan or procurement contract.

It is our opinion that the proposed project is in the nature of preparation for mining and, therefore, is not exploration as defined in Mineral Order 5. In such cases, it is our understanding that they should be forwarded to DMPA, to determine if any assistance could be given under its rules and regulations.

If our interpretation is not in accord~~ance~~ with your thinking and you believe assistance in such cases should be extended as exploration projects, we would be pleased to have your comments thereon and a statement as to the policy established by DMPA, and copy of the Directive issued, or to be issued, by DMPA

Suggested substance for letter to DMEA

February 4, 1952.

Mitt:

Frank Johnson left this file on DMEA Docket 1909, St. Regis Mining Co., with me. In view of our conference this morning with Secy. Rose, no doubt you will not want to send the proposed letter to Mr. Young, but will present the case to Mr. Rose for discussion with Mr. Young.

J. A. H.
Hoffland.

relating to such cases.

Sincerely yours,

Acting Administrator
Defense Minerals Exploration
Administration

FEJOHNSON/bih

cc to: Docket
Admr's. Reading File

FEJohnson

Enclosures (2)

DMA Fo[redacted]1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 1909

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

An Exploration

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

To:	Mr. Billings	Date	8/3/51
To:	Supply Div.	Date	8-28-51
To:	Reports & Records	Date	8/29/51
To:		Date	
To:		Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

Dma 1909

Memorandum February 18, 1952

To: Mr. Howard Young
Deputy Administrator
Defense Materials Procurement Agency

From: C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration

During the past few days we have found it necessary to deny three applications for exploration assistance. In each case the decision was based on the opinion that the work proposed was essentially for preparation to mine known ore reserves. Copies of our letters to the applicants are attached hereto for your information.

You will note that in only one of the three cases did we suggest that the applicant contact your agency. In that case we felt that the project had merit and that you might be willing to consider it should the applicant make an application for a production loan or a procurement contract.

In the other two cases the work proposed was not only preparation for mining reported orebodies, but the properties themselves were essentially gold and silver mines with very minor amounts of base metals. I did not consider that any useful purpose would be served by suggesting that the applicants contact your agency.

It will be my purpose to keep you fully informed of our denials in this manner.

C. O. Mittendorf

Attachments

COMittendorf/fw
cc: Operating Committee
Mr. Hedges
Mr. Thayer
Mr. F.E.Johnson
Admr. Reading File
Docket file

BL

Memorandum February 14, 1952

To: Operating Committee

From: C. O. Mittendorf
Acting Administrator

Subject: St. Regis Mining Co. - DMPA-1909
Baltic Bay Mines, Inc. - DMPA-2287
Paragon Mines, Inc. - DMPA-512

In accordance with previous arrangements, I discussed these three cases with Assistant Secretary Ross on Tuesday afternoon. Mr. Ross concurred in the recommendations of the Committee.

It had been my impression, as well as that of Mr. Ross, that these three cases were denied by DMPA and formally transmitted to DMEA for consideration as an exploration project. Our assumptions were erroneous, for the dockets contained no evidence that the cases were formally transmitted to us by Larson, but, on the contrary, were ordinary requests for reconsideration of previous denials. In the circumstances, Mr. Ross felt it would be unnecessary to discuss the cases in the presence of Howard Young. It was his opinion that we should not transmit the dockets to DMPA and inform the applicant accordingly, but that we should mention to the applicant that his case might be a suitable subject for a production loan and that, if he so desired, he could make application to DMPA. It was agreed that copies of our letters of denial in these cases should be furnished to DMPA.

Since your previous minutes state that these cases are being held in abeyance pending the outcome of the stated meeting, and that therefore the final action is suspended, it would probably be in order to make some notation in the next minutes to the effect that formal denials have been made.

C. O. Mittendorf

COMittendorf/fw
cc: Mr. Hedges
Mr. Thayer
Admr. Reading File
Mr. F. E. Johnson
Docket file
Mr. Howard Young, DMPA

FILE COPY
SURNAME:

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

FEB 15 1952

Mr. G. J. Fenix
St. Regis Mining Company
202 Joplin National Bank Building
Joplin, Missouri

Re: Docket DMEA-1909X (Zinc)
Lincoln Mines

Dear Mr. Fenix:

We have carefully considered your modified application proposing the unwatering of the Lincoln Mine, rehabilitating of the shaft and installation of derrick, hoist and compressor preparatory to examination and long-hole drilling of pillars remaining in the Lincoln Mine.

In our opinion the work proposed by your amended application is essentially preparation necessary to mine the ore reserves estimated by an independent engineer to be available in your property and, also, the engineering and geological examination will not materially add to the data presently available.

Mineral Order 5, which sets forth the regulations governing Government participation in exploration projects, provides that the funds shall not be used to prosecute work primarily for mining or preparation for mining. Under these regulations, therefore, we are unable to approve your modified application for exploration project assistance and, accordingly, concur in the previous denial of the Defense Minerals Administration, dated August 29, 1951.

In view of this decision, it would appear that your proposed project might be a suitable subject for an application for a production loan or a procurement contract. Should you decide to make such an application, it is suggested that you contact the Defense Materials Procurement Agency, General Services Building, Washington 25, D.C.

Sincerely yours,

C. O. Mittendorf
2/15/52

C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration
Administration

DMMoulds/WWJohnson/COMittendorf/
meh/hmj/oih/fw
2/15/52
cc: Docket
Admr. Reading File
Mr. Bishop
Mr. McKnight
Region VI
Mr. Moulds

FILE COPY
SURNAME:

Moulds
Thayer

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

January 28, 1952

Memorandum

To: Mr. C. O. Mittendorf, Acting Administrator

From: Mr. D. E. Moulds, Acting Chief, Base Metals Division

Subject: Denial of application for exploration project assistance
Docket No. DMFA 1909X, St. Regis Mining Co., Lincoln Mine

The original application by the St. Regis Mining Company proposed a program estimated to cost $69,270.00 and consisting of unwatering the Lincoln Mine to examine pillars, backs, floor and headings with the object of stripping any remaining ore consistent with present mining practice. In addition to unwatering, approximately 400 feet of drifting, 600 feet of raising and a winze were proposed to check ore trends and churn drill data. This application was denied in August, 1951 on the premise that the work appeared to be development rather than exploration. A churn drilling program was suggested as the most feasible and least expensive method for exploring the block of ground concerned in the project.

During November, 1951, the St. Regis Mining Company presented a modified program and requested reconsideration. The modified program, estimated to cost $66,670, consists of the following steps and unit cost:

1.	Recollar and rehabilitate shaft	$ 1,110.00
2.	Churn drill two 12" holes for pumping	6,100.00
3.	Install pumps	18,840.00
4.	Dewater mine	10,670.00
5.	Install compressor	4,180.00
6.	Rehabilitate existing shaft	2,300.00
7.	Install derrick and hoist	10,770.00
8.	Engineering and geological examination	4,700.00
9.	Drill hole sampling of pillars	8,000.00
		$ 66,670.00

A review of the modified application brings out several points for consideration.

(1) The company states: "This area has been churn drilled to prove the area mineralized. However, the drilling was done before any dewatering was accomplished, therefore, a true quantitative analysis cannot be made".

In view of the recognized application of churn drilling to prospecting, exploration and delineation of ore bodies in the Tri-State Area, preliminary to mining, this statement appears erroneous. It is recognized, however, that a quantitative analysis of rock tons remaining in the pillars in the abandoned workings comprising a part of the property could not be made by churn drilling.

(2) The production previously achieved from the St. Regis area was from the sheet ground ore horizon which consisted of rather uniform sulphide mineralization over comparatively large areas. The pillars were left for roof support and spaced according to the operator's desire for back safe mining requirements. It is believed that a reasonably accurate evaluation of ore reserves and grade can be made by use of previous production reports, pillar areas and knowledge of prior mining practice in the area. The independent evaluation in this instance by Mr. William M. Stewart estimating a reserve of 2,240,000 rock tons averaging 2.85% combined recovery, is therefore believed to present an estimate of ore reserves and recoverable grade of PbS and ZnS normally used as a basis for mine operation.

(3) The initial application states that the net value per rock ton on 2.52 Zn - .15 Pb is $0.59.

The value according to Stewart's report, and revised to present concentrated price, on 2.85% combined recovery and after 6% royalty is $4.05 per rock ton. Using the applicant's cost of $2.61 per rock ton for mining and milling the indicated net value is $1.44.

The average estimated recoverable grade of ore therefore appears to be commercial. This, of course, is based on data derived from the application and engineering report.

(4) The expense of equipment and installations for unwatering, shaft rehabilitation, air compressing and hoisting comprises approximately 80% of the estimated $66,670. cost of the project.

(5) The drifting and raising proposed in the initial application has been withdrawn from the modified proposal. Thus the modified project excludes all of the work which could be interpreted as exploring new ground.

In general, the project appears to be work prosecuted primarily for mining or preparation for mining. While the expense of unwatering, shaft rehabilitation and equipment is necessary prior to the

geological and sampling work, this expense is also recognized to be entirely preparatory work and benefical to the actual mining of the reserves of ore. The information to be derived from the sampling and examination will be confined to areas previously mined and essentially is checking previous evaluation of the ore.

The project presents a possible means of development and production of a worthwhile tonnage of lead and zinc rapidly and at a comparatively low cost for development and mining. Before, however, consideration can be given to participation by the Government in projects prosecuted primarily for development or mining, such as this project, it is believed that criteria should be formulated to define points of dissimilarity between projects prosecuted for exploration and for development.

The previous letter of denial of August 29, 1951 suggested churn drilling to further explore the area surrounding the old workings. The applicant indicates that this work is not feasible, and apparently is interested mainly in unwatering and equipping the shaft.

It is recommended, therefore, that the modified project be again denied on the basis that the work proposed cannot be accepted under the definition of exploration as now construed.

D. E. Moulds

D. E. Moulds

DEMoulds/ meh/hmj
1-28-52
cc to: Mails and Files
Docket
Mr. Moulds

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

January 28, 1952

Memorandum

To: Mr. C. O. Mittendorf, Acting Administrator

From: Mr. D. E. Moulds, Acting Chief, Base Metals Division

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D E Moulds

D. E. Moulds

IN REPLY REFER TO:

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

January 10, 1952

Memorandum

To: Mr. D. Moulds

From: Mr. Erwin J. Lyons, U.S.G.S.

Subject: Docket DMA-1909X, Application of St. Regis Mining Company, Joplin, Missouri.

The St. Regis Mining Company, through G. J. Fenix, Partner, applied for an exploration loan in the amount of $69,270 on a participating basis to investigate their property in Jasper County, Missouri. The proposed project included dewatering the Lincoln mine to examine the floor, back, headings, and pillars, driving about 400 ft. of drifts and 60 ft. of raises, and sinking a winze to check a drill hole. The application was denied on the basis that the work appeared to be development for mining rather than exploration.

The St. Regis Mining Company has amended their application and has asked for reconsideration. The amended application requests a loan of $62,700 on a participating basis to carry out a part of the first proposal, namely, dewatering the Lincoln mine for examination and inspection. This will involve rehabilitation of the shaft, drilling two 12 inch holes for pumping, and installation of the pumps. It is estimated that 60 days will be required to dewater the area.

According to the applicant, 24,631 tons of zinc and 3,941 tons of lead were produced from a 160 acre tract, which included the Lincoln, San Gabriel, and Wolfhart mines, during the period from 1909 to 1919. There has been no production since 1919.

The Wolfhart mine is very small and the applicant states that the operations were above the main ore run. Therefore, assuming that the above production came only from the Lincoln and San Gabriel mines and that the grade was the same in both mines, on the basis of the relative areas of the two mines, the Lincoln mine perhaps produced about 21,300 tons of zinc and 3,400 tons of lead from approximately 1,170,000 rock tons. This gives a recoverable grade of 1.80% zinc and 0.29% lead.

On the basis of data presented by the applicant and assuming that: (1) 10% of the total area mined has been left as pillars,

(2) 65% of the pillars are recoverable, and (3) the recoverable metal from the pillars will be the same as that from the ore previously mined, it is estimated that about 1525 tons of zinc and 250 tons of lead are available from the pillars. In addition, the applicant claims that approximately 1340 tons of zinc and 325 tons of lead can be obtained from the sludge on the floor. This would give a total of 2865 tons of zinc and 570 tons of lead believed to be recoverable from both pillars and floor. This ore is inferred. Whether a project to pump out the mine to make it available for inspection would come under the exploration program will require a policy decision. Earlier similar projects of this type have been denied.

Erwin J. Lyons

Erwin J. Lyons
Geologist

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

January 10, 1952

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Erwin J. Lyons
Geologist

FILE COPY
SURNAME:

410

F E Johnson
Mittendorf

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

NOV 30 1951

Mr. G. J. Fenix
St. Regis Mining Company
203 Joplin National Bank Building
Joplin, Missouri

Re: Docket No. DMA - 1909
Application for an Exploration
Project

Dear Mr. Fenix:

This will acknowledge receipt of your undated letter and attached amendment to your application for an Exploration Project which were forwarded to my office by Mr. W. C. Broadgate.

Pursuant to your request we are re-opening your case, and as soon as we have had an opportunity to review your amended proposal we will advise you accordingly.

Sincerely yours,

C. O. Mittendorf (for) S.H. 11-30

ACTING Administrator
Defense Minerals Exploration
Administration

FEJohnson/meb
11/27/51
cc to: Adm. Reading Files
Reports & Records
Mr. Mittendorf
Mr. Broadgate
FEJohnson
Docket

BL

G. J. FENIX, Partner

RUSSELL H. PRIGG, Partner

ST. REGIS MINING COMPANY . . . . . .

TELEPHONE 7840

JOPLIN, MISSOURI

OFFICE: 203 JOPLIN NATIONAL BANK BUILDING

MINE: DUENWEG, MISSOURI

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

Dear Sirs: Reference DMA-1909X

With respect to the letter of Aug 29, 1951 from Mr. Tom Lyon, Director, Supply Division, rejecting the above mentioned application on the grounds that the application covered more development than exploration work. The conclusion that churn drilling would be the proper method of exploring this ground is not correct due to the nature of the property, as is shown by the maps accompanying the appliaation and made part of the docket.

Upon discussing the matter with Mr. Howard T. Young and working out a plan with your Mr. Billings, it was decided to file this letter as a request to reopen and review the case, amending the origional application as noted below. Six copies of this letter are enclosed to be made a part of the docket DMA-1909X.

The amended portions of the application are attached.

Sincerely,

G. J. Fenix.
St. Regis Mines.

AMENDED PORTIONS OF APPLICATION COVERING QUESTIONS

14 - 17 - 19 - 21 - 22 - 23 and 24.

14. Q. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

A. None

17. Q. Production:

A. None.

19. Q. State any conditions or curcumstances regarding the property not sufficiently brought out by the foregoing questions.

A. Exploration Proposed on the fifty perdent Participation Plan offered by the Defense Mineral Administration.

This area has been churn drilled to prove the area mineralized. However, the drilling was done before any dewatering was accomplished, therefore a true quantitative analysis cannot be made.

We propose to dewater the Lincoln workings to sample pillars, headings, roof and floor.

The pillars or supports can be drilled and tested for trimming to approximately 60 to 70% of their present size. The trimming of pillars is now a common practice and has been accomplished in every area in the field. It is now recognized by Mining Engineers the size and number of pillars can be reduced by comparison to previous practices, and still have an adequate safety factor margin.

The cost involved in dewatering this mine can be partially borne by the recovery of sludge from the mine floor.

Sludge is a term used in the Tri-State Field meaning the fine fly ore rock which accumulates on the mine floor after blasting. Like wise, the fine ore which has settled through the rock when hand shovelled.

In the early day operations it was impossible to maintain floor levels sufficiently even to permit shoveling, therefore, it was common practice for the shovelers to fill the uneven areas with fine ore rock to facilitate shoveling.

It has been reliably reported by former employees of this mine that the floor was never (sludged) cleaned up prior to shutting down.

The total dewatering of the Lincoln will likewise permit inspection of the Wolfheart located in Zone 3 (see map) to the Southeast toward the St. Regis north heading. This operation was shut down due to low market price of ore and was never reopened because of the abandoment of the Duenweg field.

It will be noted (see elevation Steward Engineering Report) the Wolfheart mine never properly opened, specifically the operators upon reaching the upper portion of the ore bearing strata (mineralized sheet ground formation characteristic of this area) drifting was started without seeking the floor of the ore body, the result was low headings and minimum recovery.

We can only presume the water level was too high to permit sinking the shaft to the lower level or inexperience in mining this type formation since the drill logs (see map Exhibit "H") definitely indicates the same formation exists in this area as is characteristic in the Lincoln and St. Regis. We, therefore, firmly believe the ore body was not fully explored.

The entire project as proposed can be completed within and estimated 90 day period and would be accomplished in the following steps.

1. Recollar and rehabilitate shaft.
2. To drill two 12" holes for pump installation.
3. Set pumps and make electrical connections preparatory to dewater.
4. Commence dewatering areas No. 1V (see map).
5. Derrick erection and compressor installation preparatory to exploration, sampling, inspection, etc.
6. To rehabilitate and clean existing shaft.
7. Complete dewatering - estimated 60-day period to pump total area.
8. Mine inspection - Engineering and Geological survey - Sampling of roof, floor, headings and pillars.
9. Complete evaluation of total project with objective to mine. See Exhibit "D" Stewart Engineering Report on estimated value of possible recoverable ores.

Conclusion.

The past history of the area which the St. Regis lease encompasses indicates operating mines which had high tonnage records and ore recovery percentages comparable with typical sheet ground formations. (See Stewart Report "Exhibit O").

These mines were not abandoned because of any lack of ore reserves, but rather for reasons of low market values during this period immediately following the World War 1. Also because of the mass exodus from the Duenweg, Mo. field to areas around Picher, Okla. which had much higher percentage of ore recovery per ton of rock than the lower recovery sheet ground formation.

The mines which would have continued to operate despite low market prices were compelled to shut down because as each operation was abandoned to move to Picher, the water flow had to be picket up by the remaining pumps, and soon this became an impossibility and forced a complete shut down of the Duenweg field.

The Federal Mining Company was the first operator to reopen in the Duenweg field, specifically, in the immediate area adjacent to the St. Regis property. (See map Area No. 6).

This Federal Company acquired this property and commenced operation andhas, with only temporaty stoppages, continued to mine and are currently expanding their present operations.

The St. Refis Mining Co. was the second operator to reenter this field and has been able through complete mechanization to mine profitably on the present day ore market prices.

We sincerely believe the project as outlined in the foregoing paragraphs and hereafter explained in more detailed fashion offers a possibility for exploring a known mineralized area in a sheet ground formation which renders itself adva advantageously to present day improved mining techniques. Likewise, present day milling efficiency adds promise to better recovery than the established percentages from the previous operations.

The present acute shortages of zinc and lead ores has stimulated activity in mining known and proven ore bodies, however, little exploration to develop new ore reserves have been made because of fear that market prices would not be stable and because of increasing costs.

With the advent of the participation plan developed by the Defense Minerals Admininstration wherein the applicant and the goverment share equally in the exploration expenses, we immediately made a preliminary investigation with the local D.M.A. office, and were advised our project appeared to have merit and that we should make formal application for participation in this program.

THE EXPLORATION

21. Q. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.
NOTE: The Goverment will not participate in a project that will require more than two years to complete.

A. Propose to recrib and collar existing shafts to set pumps to dewater cut ground. This dewatering will permit visual inspection of the headings, pillars or supports with respect to possible trimming and the floors with the possibitity of sludge recovery.

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	Lumber & Supplies	450100	
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2.	To drill two twelve (12) inch drill holes for pump installation		
	500 ft. @ $11.00		$5,770.00
	60 ft. 12" casing @ $5.50		330.00
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3.	Pumps, motors, starters, installation in the above shaft on lease rental agreement.		
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5.	Compressor setting installation for air to drill for sampling and general mine exploration.		
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			$2,180.00
	Rental compressor & appertinents $1000.00 per month		2,000.00
			$4,180.00
6.	To rehabilitate and clean existing shaft which is filled with sand		
	½ yd clamshell rental @ $10.00 per hr (with operator) approx 150 hrs.		1,500.00
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Labor for erection	$3,5
Lumber & Materials	4,40
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G. J. FENIX, Partner

RUSSELL H. PRIGG, Partner

ST. REGIS MINING COMPANY . . . . . .

TELEPHONE 7840

JOPLIN, MISSOURI

OFFICE: 203 JOPLIN NATIONAL BANK BUILDING

MINE: DUENWEG, MISSOURI

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

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G. J. Fenix.
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TELEPHONE 7840

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OFFICE: 203 JOPLIN NATIONAL BANK BUILDING

MINE: DUENWEG, MISSOURI

[illegible]

[illegible]

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AMENDED POSITIONS OF MINING CLAIM SOVERING QUESTIONS

14 - 17 - 19 - 21 - 22 - 23 and 24.

14. a. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

A. None

17. a. Production:

A. None.

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

A. <u>Exploration Proposed on the fifty percent Participation Plan offered by the Defense Mineral Administration.</u>

This area has been churn drilled to prove the area mineralized. However, the drilling was done before any dewatering was accomplished, therefore a true quantitative analysis cannot be made.

We propose to dewater the Lincoln workings to sample pillars, heading, roof and floor.

The pillars or supports can be drilled and tested for trimming to approximately 60 to 70% of their present size. The trimming of pillars is now a common practice and has been accomplished in every area in the field. It is now recognized by Mining Engineers the size and number of pillars can be reduced by comparison to previous practices, and still have an adequate safety factor margin.

The cost involved in dewatering this mine can be partially borne by the recovery of sludge from the mine floor.

Sludge is a term used in the Tri-State Field meaning the fine fly ore rock which accumulates on the mine floor after blasting. Like wise, the fine ore which has settled through the rock when hand shovelled.

In the early day operations it was impossible to maintain floor levels sufficiently even to permit shoveling, therefore, it was common practice for the shovelers to fill the uneven areas with fine ore rock to facilitate shoveling.

It has been reliably reported by former employees of this mine that the floor was never (sludged) cleaned up prior to shutting down.

The total dewatering of the Lincoln will likewise permit inspection of the Wolfhart located in Zone 3 (see map) to the Southeast toward the St. Regis north heading. This operation was shut down due to low market price of ore and was never reopened because of the abandonment of the Quenveg field.

It will be noted (see elevation Stewart Engineering Report) the Oliheart mine never properly opened, specifically the operators upon reaching the upper portion of the ore bearing strata (mineralized sheet ground formation characteristic of this area) drifting was started without sinking the floor of the ore body, the result was low headings and minimum recovery.

We can only presume the water level was too high to permit sinking the shaft to the lower level or inexperience in mining this type formation since the drill logs (see map Exhibit "H") definitely indicates the same formation exists in this area as is characteristic in the Lincoln and St. Regis. We, therefore, firmly believe the ore body was not fully explored.

The entire project as proposed can be completed within and estimated 90 day period and would be accomplished in the following steps.

1. Recollar and rehabilitate shaft.
2. To drill two 12" holes for pump installation.
3. Set pumps and make electrical connections preparatory to dewater.
4. Commence dewatering areas No. 1V (see map).
5. Derrick erection and compressor installation preparatory to exploration, sampling, inspection, etc.
6. To rehabilitate and clean existing shaft.
7. Complete dewatering - estimated 60-day period to pump total area.
8. Mine inspection - Engineering and Geological survey - sampling of roof, floor, headings and pillars.
9. Complete evaluation of total project with objective to mine. See Exhibit "D" Stewart Engineering Report on estimated value of possible recoverable ores.

Conclusion.

The past history of the area which the St. Regis lease encompasses indicates operating mines which had high tonnage records and ore recovery percentages comparable with typical sheet ground formations. (See Stewart Report "Exhibit D").

Those mines were not abandoned because of any lack of ore reserves, but rather for reasons of low market values during this period immediately following the World War 1. Also because of the mass exodus from the Duenweg, Mo. field to areas around Picher, Okla. which had much higher percentage of ore recovery per ton of rock than the lower recovery sheet ground formation.

The mines which would have continued to operate despite low market prices were compelled to shut down because as each operation was abandoned to move to Picher, the water flow had to be picket up by the remaining pumps, and soon this became an impossibility and forced a complete shut down of the Duenweg tie field.

The Federal Mining Company was the first operator to reopen in the Duenweg field, specifically, in the immediate area adjacent to the St. Regis property. (See map Area No. 6).

This Federal Company acquired this property and commenced operation andhas, with only temporaty stoppages, continued to mine and are currently expanding their present operations.

The St. Regis Mining Co. was the second operator to reenter this field and has been able through complete mechanization to mine profitably on the present day ore market prices.

We sincerely believe the project as outlined in the fore-going paragraphs and hereafter explained in more detailed fashion offers a possibility for exploring a known mineralized area in a sheet ground formation which renders itself adva advantageously to present day improved mining techniques. Likewise, present day milling efficiency adds promise to better recovery than the established percentages from the previous operations.

The present acute shortages of zinc and lead ores has stimulated activity in mining known and proven ore bodies, however, little exploration to develop new ore reserves have been made because of fear that mark t prices would not be stable and because of increasing costs.

With the advent of the participation plan developed by the Defense Minerals admininstration wherein the applicant and the goverment share equally in the exploration expenses, we immediately made a preliminary investigation with the local D.M.A. office, and were advised our project appeared to have merit and that we should make formal application for participation in this program.

THE EXPLORATION

21. Q. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.
NOTE: The Goverment will not participate in a project that will require more than two years to complete.

A. Propose to recrib and collar existing shafts to set pumps to dewater cut ground. This dewatering will permit visual inspection of the headings, pillars or supports with respect to possible trimming and the floors with the possibility of sludge recovery.

This exploration will permit long hole horizontal drilling, sampling and accurate estimations of the existing tonnages, and also the possibility of connecting the Lincoln Wolfhart and St. Regis mines together which have an estimated tonnage of 2,240,000 tons of ore rock with a calculated recoverable grade of 2.85% combined zinc and lead sulphides; or a total of 64,000 tons of concentrates.

Estimated cost of project:

1. To recrib and collar shaft $1,110.00

Labor	$660.00
Lumber & Supplies	450100
	$1110.00

2. To drill two twelve (12) inch drill holes for pump installation

500 ft. @ $11.00	$5,770.00
60 ft. 12" casing @ $5.50	330.00
	$6,100.00

3. Pumps, motors, starters, installation in the above shaft on lease rental agreement.

Two pumps complete, rental $5000. cash first month, 10% month thereafter or $2000.00 or $1000.00 per month per pump	$12,000.00
Electrical connection with power company	2,700.00
Labor and installing pumps	2,640.00
Building to house pumps	500.00
Electrical controls	1,000.00
	$18,840.00

4. Power and pumping labor - power 300 KW or 400 HP.

Labor	1,980.00
Supplies & Repairs	1,950.00
Miscellaneous Labor	2,420.00
Power	4,320.00
	$10,670.00

5. Compressor setting installation for air to drill for sampling and general mine exploration.

Labor installing	880.00
Supplies, piping & operational expense	300.00
	750.00
	250.00
	$2,180.00
Rental compressor & appertinents $1000.00 per month	2,000.00
	$4,180.00

6. To rehabilitate and clean existing shaft which is filled with sand

½ yd clamshell rental @ $10.00 per hr (with operator) approx 150 hrs.	1,500.00
Bulldozer rental to move sand away from clamshell 80 hrs. @ $10.00 per hr. (with operator)	800.00
	$2,300.00

7. Derrick and hoister installation

Labor for erection	$3,520.00
Lumber & Materials	4,400.00
Hoister rental $500.00 per month est. total rental 3 months	1,500.00
Motor and controls $200.00 per month est total rental 3 months	600.00
Installation of hoister and controls	750.00
	$10,770.00

8. Labor to inspect and sample headings, face, pillars, floor, etc.

Supervisors, geological and engineering survey	2,500.00
Labor	2,200.00
	$4,700.00

9. Horizontal drilling of pillars for sampling with long steel $8,000.00

Grand Total $62,270.00

22. Q. Furnish statement of the geological basis of the project with particular emphasis on factors leading theoperator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinint data.

A. See Stewart Engineering report with maps and drill logs.

23. Q. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the goverment will participate, as follows:

(A) Labor, by numbers and classes (miners, muchers, millman, etc.), with wages of each.

A.

4 - Machine men (miners)	$14,00 per day
4 - Machine helpers (Dummies)	13.00 per day
3 - Carpenters and riggers	21.00 per day
1 - Helper	17.00 per day
Hoisterman	14.00 per day
Compressor operator	11.00 per day
Mucker	14.00 per day

Q. (b) Supervisors, by numbers and positions, with salaries of each.

A. Supervisors (Mining ground boss)
(Carpenter & Rigging foreman) part time $18.43 per day.

Q. (c) Cost of necessary repairs to existing facilities, structures, and buildings.

A. None.

Q. (d) Cost of necessary installation of construction of additional facilities, structures, and buildings.

A. Derrick and pump house $10,850.00
Pump and compressor installation.

Q. (e) Cost of items of equipment not now owned by the applicant which must be purhased for operation at a cost of $50 or more each.

A. None to be purchased, rental contemplated.

Q. (f) Cost of rental for equipment which the operator proposes to rent. $17,400.00

Q. (G) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

A. $35,000.00.

Q. (H) Cost of material and supplies, including items of equipment costing less the $50.00 each.

A. $4,500.00

Q. (I) Cost of power, water, utilities and any other items not provided above.

A. $5,500.00.

NOTE: Although the Goverment may pay part of the cost of new or additional facilities, structures, buildings and equipment, and such costs may be included in the statement, only the depreciation thereon will be charged as a cost of the project.

24. Q. Furnish a time schedule of the project, stated in terms of months after the project is approved, showing progress expected to be accomplished and the money expected to be spent.

A. The project as proposed can be started immediately upon receipt of approval and will be followed to completion within approximately 90 days. Total money to be expended $62,870.00.

G. J. FENIX, Partner

RUSSELL H. PRIGG, Partner

ST. REGIS MINING COMPANY . . . . . .

TELEPHONE 7840

JOPLIN, MISSOURI

OFFICE: 203 JOPLIN NATIONAL BANK BUILDING

MINE: DUENWEG, MISSOURI

[illegible]

[illegible]

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[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

AMENDED PORTIONS OF APPLICATION COVERING QUESTIONS

14 - 17 - 19 - 21 - 22 - 23 and 24.

14. Q. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

A. None

17. Q. Production:

A. None.

19. Q. State any conditions or curcumstances regarding the property not sufficiently brought out by the foregoing questions.

A. <u>Exploration Proposed on the fifty percent Participation Plan offered by the Defense Mineral Administration.</u>

This area has been churn drilled to prove the area mineralized. However, the drilling was done before any dewatering was accomplished, therefore a true quantitative analysis cannot be made.

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It will be noted (see elevation Steward Engineering Report) the Wolfheart mine never properly opened, specifically the operators upon reaching the upper portion of the ore bearing strata (mineralized sheet ground formation characteristic of this area) drifting was started without seeking the floor of the ore body, the result was low headings and minimum recovery.

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The entire project as proposed can be completed within and estimated 90 day period and would be accomplished in the following steps.

1. Recollar and rehabilitate shaft.
2. To drill two 12" holes for pump installation.
3. Set pumps and make electrical connections preparatory to dewater.
4. Commence dewatering areas No. 1V (see map).
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7. Complete dewatering - estimated 60-day period to pump total area.
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9. Complete evaluation of total project with objective to mine. See Exhibit "D" Stewart Engineering Report on estimated value of possible recoverable ores.

Conclusion.

The past history of the area which the St. Regis lease encompasses indicates operating mines which had high tonnage records and ore recovery percentages comparable with typical sheet ground formations. (See Stewart Report "Exhibit O").

These mines were not abandoned because of any lack of ore reserves, but rather for reasons of low market values during this period immediately following the World War 1. Also because of the mass exodus from the Duenweg, Mo. field to areas around Picher, Okla. which had much higher percentage of ore recovery per ton of rock than the lower recovery sheet ground formation.

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THE EXPLORATION

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4. Power and pumping labor - power 300 KW or 400 HP.

Labor	$1,980.00
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9. Horizontal drilling of pillars for sampling with long steel $8,000.00

Grand Total $62,270.00

22. Q. Furnish statement of the geological basis of the project with particular emphasis on factors leading theoperator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinint data.

A. See Stewart Engineering report with maps and drill logs.

23. Q. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the goverment will participate, as follows:

(A) Labor, by numbers and classes (miners, muchers, millman, etc.), with wages of each.

A.

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1 - Helper	17.00 per day
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A. Supervisors (Mining ground boss)
(Carpenter & Rigging foreman) part time $18.43 per day.

Q. (c) Cost of necessary repairs to existing facilities, structures, and buildings.

A. None.

Q. (d) Cost of necessary installation of construction of additional facilities, structures, and buildings.

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Pump and compressor installation.

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A. None to be purchased, rental contemplated.

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NOTE: Although the Goverment may pay part of the cost of new or additional facilities, structures, buildings and equipment, and such costs may be included in the statement, only the depreciation thereon will be charged as a cost of the project.

24. Q. Furnish a time schedule of the project, stated in terms of months after the project is approved, showing progress expected to be accomplished and the money expected to be spent.

A. The project as proposed can be started immediately upon receipt of approval and ill be followed to completion within approximately 90 days. Total money to be expended $62,870.00.

350

FILE COPY
SURNAME:
350

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

a, E.C.

Lyons (E.T.)
McKnight
Mentch
Jeffmote
Johnson

AUG 29 1951

Re: Docket DMA-1909 X
G. J. Fenix
202 Joplin Bank Bldg.
Joplin, Missouri
St. Regis mine
Jasper County, Missouri
$69,270
Zinc, lead

Memorandum

To: Reports and Records Unit

From: The Lead-Zinc Branch

Subject: Recommendation for denial of application for an exploration loan submitted by G. J. Fenix, Manager, St. Regis Mining Company, Joplin, Missouri

Attached is the application with supporting exhibits submitted by G. J. Fenix of Joplin, Missouri on behalf of the St. Regis Mining Company to explore their property in Jasper County, Missouri. The total estimated cost of the project is $69,270.

The applicant proposes to investigate an area of mineralized ground which lies between the St. Regis mine and the Lincoln mine, about 1700 ft. to the northwest. About midway between the two mines is the relatively small Wolfheart mine. The following work is proposed:

1. Dewatering of the Lincoln mine in order to examine the floor, back, headings, and pillars. It will be necessary to recrib and collar existing shafts to set the pumps. Dewatering of this mine also will permit examination of the Wolfheart mine.

2. Driving two drifts, 150 to 200 ft. in length, northwest from the St. Regis mine to determine "if the present ore body, which is now turning downward, will make up on the level of the known ore horizon characteristic of the area immediately to the north."

3. Sink a winze to check drill hole No. 5 which is stated to be a good lead hole. The log or assays of the hole were not submitted.

4. Drive four 15 ft. raises to check drill hole No. 3, a log of which was submitted, but no assays.

Although a map was submitted, none of the work to be done nor the locations of the two drill holes referred to were shown.

A report by William M. Stewart, mining engineer, Joplin, Missouri estimates that the block of ground involved contains 27,200 tons of zinc concentrates and 4,080 tons of lead concentrates. Complete data on which these estimates are based is not presented.

In view of the fact that the work proposed by the applicant appears to be development in preparation for mining, it is recommended that the application be denied and the attached letter sent to the applicant.

The attached docket includes four copies of each of the following:

Form MF-103
Exhibit A - mining lease
" B - financial statement
" C - description of property
" D - report by William M. Stewart
" E - report by Karl L. Keelker, Jr.
" F - news clippings
" G - drill logs of 6 holes
" H - maps

B 8/29

T. P. Billings by B.J.
T. P. Billings

Approved

Director, Supply Division

TPBillings:gt
G 8/27/51
Copies to: David Gallagher, Region VI
Chief, Lead-Zinc Br.
E. T. McKnight, 4204 GSA
R. H. Mote
Reports and Records Unit
Director's r. file, 4214 GSA
Br. r. file, 4214 GSA
Files

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

Q. E. C. -

AUG 29 1951

Re: Docket DMA-1909 X
G. J. Fenix
202 Joplin Bank Bldg.
Joplin, Missouri
St. Regis mine
Jasper County, Missouri
$69,270
Zinc, lead

Memorandum

To: Reports and Records Unit

From: The Lead-Zinc Branch

Subject: Recommendation for denial of application for an exploration loan submitted by G. J. Fenix, Manager, St. Regis Mining Company, Joplin, Missouri

Attached is the application with supporting exhibits submitted by G. J. Fenix of Joplin, Missouri on behalf of the St. Regis Mining Company to explore their property in Jasper County, Missouri. The total estimated cost of the project is $69,270.

The applicant proposes to investigate an area of mineralized ground which lies between the St. Regis mine and the Lincoln mine, about 1700 ft. to the northwest. About midway between the two mines is the relatively small Wolfheart mine. The following work is proposed:

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" G - drill logs of 6 holes
" H - maps

T. P. Billings by [illegible]
T. P. Billings

Approved
Tom Lyon
Director, Supply Division

350

FILE COPY
SURNAME:

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

Mr. Lyons (ETM)
McKnight
Mentzer
(for Mote)

AUG 29 1951

Q. E. C.

Mr. G. J. Fenix
St. Regis Mining Company
202 Joplin National Bank Building
Joplin, Missouri

In reply please refer to:
Docket DMA-1909 X

Dear Mr. Fenix:

Your application for a loan to explore your property in Sec. 3, T. 27 N., R. 32 W., Jasper County, Missouri has been reviewed by the Defense Minerals Administration.

The work you are planning to do, namely dewatering the Lincoln mine, driving two 150-200 ft. drifts north from the St. Regis mine, and sinking a winze and driving several raises to check old drill holes, appears to us to be development rather than exploration work. Because the regulations governing the Government's exploration program state that development work prosecuted primarily for mining or preparation for mining cannot be considered under this program, I regret that we are not able to approve expenditure of exploration funds for the work you propose.

We believe that churn drilling would be the most feasible and least expensive method for exploring the block of ground concerned in your project.

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

Very truly yours,

Tom Lyon B 8-29

Tom Lyon, Director
Supply Division

EJLyons:gt
G 8/24/51
Copies to: David Gallagher, Region VI
Chief, Lead-Zinc Br.
E. T. McKnight, 4204 GSA
R. H. Mote
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Director's r. file, 4214 GSA
Files
Br. r. file, 4214 GSA

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

AUG 8 1951

DMA-1909X

Mr. G. J. Fenix
St. Regis Mining Company
202 Joplin National Bank Building
Joplin, Missouri

Dear Mr. Fenix:

On receipt of your application DMA-1909 with mining lease, exhibits and other information I failed to find Form MF-103.

Therefore, I am sending you five copies of Form MF 103 which I wish you would fill out as required. Since you have submitted the questions and answers as provided on this form, we would like you to fill in the block marked X and also on the reverse side fill in the lines marked X under certification, and return the forms to the Defense Minerals Administration in order that your application may be properly processed.

Yours very truly,

T. P. Billings, Chief
Lead-Zinc Branch

Enclosures

Forms have been competed and are enclosed

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 1 4 1951

AUG 14 1951

August 6, 1951

Mr. G. J. Fenix
202 Joplin National Bank Building
Joplin, Missouri

Subject: DMA-1909
Re: Exploration Loan -
St. Regis Mining Company

My dear Mr. Fenix:

Receipt is acknowledged of your application and attachments of June 30, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1909 and referred to Mr. Thomas Billings, Chief, Lead-Zinc Branch on August 3, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1909.

Sincerely yours,

SIGNED JJ 8/6

Robert E. Adams
Chief, Reports & Records Unit

R. E. Adams:jc
cc: Billings
Lyon
✓Reports & Records File

AUG 7 1951

Form MF-103
(April 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma 1909

Date received

Participation

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application [illegible] 1951

Estimated cost [illegible]

Mineral or metal [illegible]

Percentage of Government participation [illegible]

Location of mine [illegible]

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

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

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

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

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons. State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

    (*b*) State briefly the known history and production of adjoining and neighboring properties.

    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

    (*a*) Describe the ore or mineral deposits briefly.

    (*b*) Submit available maps and assay data.

    (*c*) Give estimated tonnage and grade of each class of ore reserves.

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

    (*b*) Supervisors, by numbers and positions, with salaries of each.

    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

    (*f*) Cost of rental for equipment which the operator proposes to rent.

    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

St. Regis Mining Company
(Name of company)

By [signature]
(Signature of authorized official)

August 11, 1951
(Date)

Manager and Partner
(Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Dma-1909

THE APPLICANT

1. Q. Is applicant an individual, partnership, or corporation?
   A. Applicant is partnership.

2. Q. If a partnership, state names and addresses of partners.
   A. G. J. Fenix, 202 Joplin National Bank Bldg., Joplin, Missouri
   R. H. Prigg, 923 Wall Street, Joplin, Missouri

3. Q. If a corporation, state names and addresses of officers, directors and five largest stockholders.
   A. See above.

4. Q. Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who will manage the project.
   A. G. J. Fenix is the applicant and also manager of the mining company. I have had twenty years experience in the Tri-State Mining field. For six years I worked underground at the various classifications applicable to a miner. Then I was employed as Superintendent for a period of three years. The past eleven years I have mined either as an individual or a partnership, holding the position of Superintendent, Treasurer and Manager. At the present time and for several years, I have held the undisputed record for mining more tonnage per man day than any other underground mine in the Tri-State area. At the present time we are mining twenty-one tons per day per man. No property, either owned or managed by me, has as yet closed at a financial loss.

5. Q. Are you the owner or the lessee of the property?
   A. Lessee and owner.

6. Q. If owner, state what claims, liens, or encumbrances, if any, are against the property.
   A. None.

7. Q. If lessee, attach a copy of the lease and state if it is in good standing.
   A. Lease is in good standing, see attached Exhibit "A".

8. Q. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
   A. See attached Exhibit "B".

9. Q. Do you have or will you have the money necessary to pay your part of the costs of the project which you will detail under "The Requirements and Costs" section of this application.
   A. Yes.

THE PROPERTY

10. Q. State the legal description of the property, including the County and State in which it is located.
    A. See "Exhibit "C".

11. Q. State the present and former names of the property, if any.
    A. St. Regis Mining Company, Athletic Mine and Transvania Mining Company.

AUG 7 1951

2

12. Q. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

A. Property is located at Duenweg, Missouri, on highway 166 and approximately four miles east of Joplin, Jasper County, Missouri. Roads are all pavement or hard surface chat. Railroad facilties - branch line Missouri Pacific bisects property. Shipping point Webb City, Missouri.

13. Q. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

A. Dewatering and continuous pumping is one of the major costs of property operations. Power for approximately 250 horsepower will be purchased from the Empire District Electric Company at a cost of $1.87 per hour. See Q 21-3.

14. Q. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

A. One derrick with 200 ton hopper.
One blacksmith shop fully equipped.
One change house.
Three small warehouses.
One pump building.

15. Q. State in detail how the ore could be shipped and how and where milled.

A. Ore is hauled to Federal Mill, a distance of one-half mile. Ore is hauled by company truck and milled by Federal Mining and Smelting Company, Duenweg, Missouri.

16. Q. History:
(a) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations

A. See attached Steward Engineering Report, Exhibit "D".

Q. (b) State briefly the known history and production of adjoining and neighboring properties.

A. See attached Koelker Engineering Report, second paragraph, and Joplin Globe clippings. Exhibits " E and F".

Q. (c) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

A. See attached Stewart Engineering Report and maps. Exhibits "c" and "F".

17. Q. Production:
(a) If mine is in production, furnish the following information:

		Tons per Day	Grade or Analysis	Cost per ton	Net Value per Ton
A.	(1) Mining	450	2.52 Zn - .15 Pb 60 & 81.5 grade respectively	$1.36	$ .59
	(2) Milling	450		1.25	
	(3) Shipped or sold		651.61 tons Zn	25.38 tons Pb	

18. Q. Ore or mineral reserves: (If property is or has been operating).
(a) Describe the ore or mineral deposits briefly.
(b) Submit available maps and assay data.
(c) Give estimated tonnage and grade of each class of ore reserves.
A. A-B-C- See attached Stewart Engineering Report "Exhibit C".

19. Q. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.
A. Exploration Proposed by the St. Regis Mining Co. on the fifty percent Participation Plan offered by the Defense Mineral Administration
The project for the main part consists of exploring the mineralized zone between the St. Regis mine proper and the old workings of the Lincoln mine. Area shown in Exhibit "C" in map Zone III.

This area has been churn drilled to prove the area mineralized. However, the drilling was done before any dewatering was accomplished, therefore, a true quantitative analysis cannot be made.

We propose to dewater the Lincoln workings to sample headings, roof and floor, extending in a southeasterly direction into Zone III on the map.

The cost involved in dewatering this mine can be partially borne by the recovery of sludge from the mine floor.

Sludge is a term used in the Tri-State Field meaning the fine fly ore rock which accumulates on the mine floor after blasting. Likewise, the fine ore which has settled through the rock when hand shovelled.

In the early day operations it was impossible to maintain floor levels sufficiently even to permit shovelling, therefore, it was common practice for the shovellers to fill the uneven areas with fine ore rock to facillitate shovelling.

It has been reliably reported by former employees of this mine that the floor was never (sludged) cleaned up prior to shutting down.

In addition to the sludge recovery, the pillars or supports can be trimmed to approximately 60 to 70% of their present size which in itself represents a sizable tonnage of ore bearing rock. (See Stewart Report on pillar area).

The trimming of pillars is now a common practice and has been accomplished in every area in the field. It is now recognized by Mining Engineers the size and number of pillars can be reduced by comparison to previous practices, and still have an adequate safety factor margin.

We point to the above possibilities as being significant in their own extent as well as being important as a means of defraying a portion of the expense of exploration.

19. continued
The total dewatering of the Lincoln will likewise permit inspection of the Wolfheart located in Zone 3 (see map) to the Southeast toward the St. Regis north heading. This operation was shutdown due to low market price of ore and was never reopened because of the abandonment of the Duenweg field.

It will be noted(see elevation Stewart Engineering Report) the Wolfheart mine was never properly opened, specifically the operators upon reaching the upper portion of the ore bearing strata (mineralized sheet ground formation characteristic of this area) drifting was started without seeking the floor of the ore body, the result was low headings and minimum recovery.

We can only presume the water level was too high to permit sinking the shaft to the lower level or inexperience in mining this type formation since the drill logs(see map exhibit "G")definitely indicates the same formation exists in this area as is characteristic in the Lincoln and St.Regis. We, therefore, firmly believe the ore body was not fully explored.

During the period of time necessary to dewater the north portion of the St.Regis lease, known as the Lincoln workings as explained in the foregoing paragraphs, we propose driving two 200 ft.exploratory drifts in a northwesterly direction from the south end of Zone III (see map) to determine if the present ore body, which is now turning downward, will make up on the level of the known ore horizon characteristic of the area immediately to the north. (see drill records for south end Zone III).

In addition, an exploratory winze is to be driven to check drill hole No. 5(see map and records), likewise, an exploratory upraise to test roof area (see hold No. 3).

The purpose of the latter projects is to prove the extent of the mineralized area north from the present already dewatered St. Regis Mine as to whether or not the total area north to south in Zone 3 is an interconnecting ore body as indicated in the Stewart Engineering Company report.

The entire project as proposed can be completed within an estimated 90 days period and would be accomplished in the following steps.

1. Recollar and rehabilitate shaft to north end of St.Regis Lease.
2. Set pumps & make electrical connections preparatory to dewater.
3. Commence dewatering areas No. IV (see map).
4. Derrick erection & compressor installation preparatory to exploration, sampling, inspection, etc.
5. Drive exploratory drifts, (see map) Area No.V toward Area No. III Itm. A&B.
6. Cut winze and upraise (see map items No.C and D, Area V.
7. Complete dewatering - estimated 60 day period to pump total area.
8. Mine inspection-Engineering & Geological survey-Sampling of roof, floor headings.
9. Complete evaluation of total project with objective to mine. See Exhibit "D" Stewart Engineering Report on estimated value of possible recoverable ores.

19. continued.

Conclusion.
The past history of the area which the St. Regis lease encompasses indicates operating mines which had high tonnage records and one recovery percentages comparable with typical sheet ground formations. (see Stewart Report "Exhibit G".

These mines were not abandoned because of any lack of ore reserves, but rather for reasons of low market values during this period immediately following the World War I. Also because of the mass oxodus from the Duneweg, Mo. field to areas around Picher, Okla. which had much higher percentage of ore recovery per ton of rock than the lower recovery sheet ground formation.

The mines which would have continued to operate despite low market prices were compalled to shut down because as each operation was abandoned to move to Picher, the water flow had to be picked up by the remaining pumps, and soon this became an impossibility and forced a complete shutdown of the Duenweg field.

The Federal Mining Company was the first operator the reopen in the Duenweg field, specifically, in the immediate area adjacent to the St. Regis property. (See map Area No. 6)

This Federal Company acquired this property and commenced operation and has, with only temporary stoppages, continued to mine and are durrently expanding their present operations.

The St. Regis Mining Co. was the second operator to reenter this field and has been able through complete mechanization to mine profitably on the present day ore market prices.

We sincerely believe the project as outlined in the foregoing paragraphs and hereafter explained in more detailed fashion offers a possibility for exploring a known mineralizied area in a sheet ground formation which renders itself advantageously to present day improved mining techniques. Likewise, present day milling efficiency adds promise of better recovery than the established percentages from the previous operations.

The present acute shortages of zinc and lead ores has stimulated activity in mining known and proven ore bodies, however, little exploration to develop new ore reserves have been made because of fear that market prices would not be stable.

With the advent of the participation plan developed by the Defense Minerals Administration wherein the applicant and the government share equally in the exploration expenses, we immediately made a preliminary investigation with the local D.M.A. office, and were advised our project appeared to have merit and that we should make formal application for participation in this program.

THE EXPLORATION

20. Q. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted.
    A. Lead and zinc sulphide in sheet ground formation.

21. Q. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.
    NOTE: The Government will not participate in a project that will require more than two years to complete.

    A. South end of mine - St. Regis Proper
    Cut wing drift to good lead hole #5 to check accuracy of drill cuttings - see attached drill log, exhibit "G".

    Estimated length of cut - 60 ft.
    Estimated cost $48.00 per ft.

Labor ----------	$26.00
Powder & Air ---------	4.00
Supplies & Machine rental--	18.00
	$48.00

60 x 48 = $2,880.00

Northeast side of Mine - St. Regis Proper

Cut upraise in existing roof to check drill hole #3 - see drill log attached, "Exhibit G".

Estimated length of upraise 15 ft. in 4 locations surrounding the existing drill hole.

Total footage 60 ft.
Estimated cost $57.00 per ft.

Labor ----------	$ 33.00
Power & Air ----------	6.00
Supplies & Rental ------	18.00
	$ 57.00

60 x 57 = $3,420.00

North end of mine - St. Regis Proper

Because of the downward roll of ore vein at the north end of St. Regis mine, we plan to drive two exploratory drifts northward, 150 ft. each, to determine if exisiting faces of ore are turning downward to meet the level of known ore bodies in Block III. (See map Exhibit "G". Also see Stewart Report).

21. continued.

Estimated cost of the two drifts

Labor ----------	$30.00
Powder & Air ----------	4.00
Additional pumping & ditching to pump sump--	2.00
Supplies & rental ------	18.00
	$54.00

300 feet of drift

300 x 54 = $16,200.00

North end of Lease from Athletic Mining Co., Lincoln mine

Propose to recrib and collar existing shafts to set pumps to dewater cut ground. This dewatering will permit visual inspection of the headings, pillars or supports with respect to possible trimming and the floors with the possibility of sludge recovery.

This exploration will permit sampling and accurate estimations of the existing faces and also the possibility of connecting the Lincoln Wolfheart and St. Regis mines together which have an estimated tonnage of 2,240,000 tons of ore rock with a calculated recoverable grade of 2.85% combined zinc and lead sulphides; or a total of 64,000 tons of concentrates.

Estimated cost of project:

1. To recrib and collar shaft in preparation to set pump $1,050.00

Labor	$ 600.00
Lumber & Supplies	$ 450.00
Total	$1,050.00

2. Pumps, motors, starters, installation in the above shaft on lease rental agreement.

Two pumps complete, rental $5000.00 each first month, 10%/month thereafter or $2000.00 or $1000.00 per month per pump	$ 12,000.00
Electrical connection with power company	2,700.00
Labor installing pump	1,200.00
Building to house pumps	500.00
Electrical controls	1,000.00
	$ 17,400.00

3. Power and pumping labor - power 300 KW or 400 HP

Labor	$ 1,800.00
Supplies & Repair	1,950.00
Miscellaneous Labor	2,200.00
Power	4,320.00
	$10,270.00

Miscellaneous Labor covers the labor expense necessary to lower pumps and to clean lower ground shaft level of debris and caved rock for pumping to the mine floor level.

4. Compressor setting installation for air to drill for sampling and general mine exploration.

Labor installing	$ 800.00
Supplies, piping & operational expense	$ 300.00 750.00 250.00
	$2,100.00
Rental compressor & appertinents $1000 / mo.	2,000.00
	$4,100.00

5. Derrick and hoister installation

Labor of erection	$ 3,200.00
Lumber & Materials	4,400.00
Hoister rental $500/mo. est. total rental 3 mos.	1,500.00
Motor & controls $200/mo. est. total rental 3 mos.	600.00
Installation of hoister and controls	750.00
	$ 10,450.00

6. Labor to inspect and sample headings, face, pillars, floor, etc.

Supervisors, geological and engineering survey	$ 1,500.00
Labor	2,000.00
	$ 3,500.00

GRAND TOTAL $ 69,270.00

22. Q. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial orebodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

A. See Stewart Engineering report with maps and drill logs, exhibits "C", "F" and "G".

23. Q. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(a) Labor, by numbers and classes (miners, muchers, millmen, etc.), with wages of each.

A.

4 - Machine men (miners)	$ 13.00 per day
4 - Machine helpers (Dummies)	12.00 per day
3 - Carpenters & riggers	20.00 per day
1 - Helper	16.00 per day
Hoisterman	13.00 per day
Compressor operator	10.00 per day
Mucker	13.00 per day

Q. (b) Supervisors, by numbers and positions, with salaries of each.
A. Supervisors (Mining ground boss)
(Carpenter & Rigging foreman) part time $18.43 per day

Q. (c) Cost of necessary repairs to existing facilities, structures, and buildings.
A. None

Q. (d) Cost of necessary installation or construction of additional facilities, structures, and buildings.
A. Derrick and pump house $10,850.00
Pump and compressor installation.

Q. (e) Cost of items of equipment not now owned by the applicant which must be purchased for operation at a cost of $50 or more each.
A. None to be purchased, rental contemplated.

Q. (F) Cost of rental for equipment which the operator proposed to rent.
A. $22,500.00

Q. (G) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
A. $ 35,000.00

Q. (H) Cost of materials and supplies, including items of equipment costing less than $50.00 each.
A. $ 4,500.00.

Q. (I) Cost of power, water, utilities, and any other items not provided for above.
A. $ 5,500.00.

NOTE; Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, and such costs may be included in the statement, only the depreciation thereon will be charged as a cost of the project.

24. Q. Furnish a time schedule of the project, stated in terms of months after the project is approved, showing progress expected to be accomplished and the money expected to be spent.

A. The project as proposed can be started immediately upon receipt of approval and will be followed to completion within approximately 90 days. Total money to be expended $69,270.00.

tract of land described as beginning at the Northeast Corner of [illegible]heast Quarter (NE¼) of the Southwest Quarter (SW¼) of Sec[illegible], Township 27, Range 32; thence South 1647.7 feet; thence [illegible]est 241.2 feet; thence North 1647.7 feet to North line of said quarter quarter Section; thence East 241.2 feet to place of beginning, Jasper County, Mo.

A tract of land commencing 241.2 feet West of Northeast corner of Northeast Quarter (NE¼), Southwest Quarter (SW¼), Section 3, Township 27, Range 32, thence South 1647.7 feet, thence West 241.2 feet, thence North 1647.7 feet to North line said Quarter Section, thence East 241.2 feet to beginning, containing 10 acres, Jasper County, Mo.

All of a tract of land described as Nine and twelve hundredths (9.12) Acres, West Two hundred forty-one and two tenths (241.2) feet, East Seven hundred twenty-three and six-tenths (723.6) feet, North Five Eighths (5/8), East one-half (1/2) Southwest Quarter of Section three (3), Township Twenty-seven (27), Range Thirty-two (32), Jasper County, Mo.

A tract of land described as beginning at a point 723.6 feet West of Northeast Corner of Northeast Quarter (NE¼) of Southwest Quarter (SW¼) of Section Three (3), Township Twenty-seven (27), Range Thirty-two (32), thence South 1,647.7 feet, thence West 241.2 feet, thence North 1,647.7 feet to North line to said quarter Section, thence East 241.2 feet to place of beginning, containing 9.12 acres, more or less.

MINING LEASE

Exhibit A

THIS INDENTURE, Made this 29th day of April, 19 49, by and between

Kit Vickrey and Snow Vickrey, his wife,

hereinafter (whether one or more) referred to as Lessor, and Gilbert Fenix hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

he

of Section, Township, Range, and containing acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at Citizens State Bank, at Joplin, State of Missouri, on or before the tenth (10th) day of each month, a royalty of Six per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereat. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within thirty (30) days from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $ 10.00, in the manner hereinafter provided, such payment or tender shall operate as a rental for ~~three (3) months~~ one (1) year from and after the period of time last above stated, and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said ~~three (3) months~~ one (1) year period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of ten years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at Joplin, Missouri or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

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

(s) Gilbert Fenix

Lessee

(s) Kit Vickrey

(s) Snow Vickrey

Lessor

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF Missouri
COUNTY OF Jasper } SS.

BE IT REMEMBERED, That on this 29th day of April 19 49, before me personally appeared Kit Vickrey and Snow Vickrey, his wife to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said county the day and year last above written.

My term expires March 12, 1951 (s) Juanita Copeland
Notary Public.

KANSAS FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } SS.

BE IT REMEMBERED, That on this day of, 19, before me a Notary Public in and for the County and State aforesaid, came and who are personally known to me to be the same persons who executed the foregoing instrument of writing, and who duly acknowledged the execution of the same.

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

My commission expires
Notary Public.

OKLAHOMA FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } SS.

Before me, Notary Public, in and for said County and State, on this day of, 19, personally appeared and his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged that executed the same as free and voluntary act and deed, for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal upon the date last above written.

My commission expires
Notary Public.

NO.

MINING LEASE

FROM

TO

Dated, 19

Section Township Range

County

No. Acres

STATE OF
COUNTY OF } SS.

This instrument was filed on record on the day of, 19 at o'clock M., and duly recorded in Book Page of the records of this office.

By, Deputy.

When recorded

Return to

THE JOPLIN PRINTING CO., JOPLIN, MO. 2M 4-48 15885

Exhibit "B"

St. Louis Mining Company
Profit and Loss Statement
June 30, 1951

	Month	Yr. to Date	Month	Yr. to Date
Ore Sales, Lead			nil	23,926.12
Ore Sales, Zinc			24,919.35	204,909.91
Less Royalty Paid			-8,803.21	-13,686.41
Assay Expense	10.50	21.00		
Mine Supply & Repair	2,150.12	16,805.32		
Mine Power Bill	984.39	10,680.18		
Mine Explosive Expense	1,703.76	11,150.47		
Truck Rental Expense	nil	332.27		
Dirt Hauling Expense	nil	91.00		
Donations	50.00	62.00		
Contract Labor	nil	703.93		
Payroll Expense	8,564.72	54,735.31		
Payroll Insurance	680.98	4,269.97		
General Insurance Expense	370.44	529.31		
Quarterly Fee Expense	nil	24.08		
Social Security Tax Expense	128.80	827.07		
Mo. Unemployment Comp. Tax	231.25	1,117.90		
Milling Expense	11,156.75	90,284.19		
G.J.Fenix Salary	750.00	4,650.00		
Office Rent Expense	42.00	[illegible]		
Miscellaneous Expense	81.83	[illegible]		
	26,905.54	197,467.39	22,116.14	215,149.62

Loss for month: $4,789.40
Profit, Yr. to Date: $ 17,682.23

Balance Sheet as of June 30, 1951

	Dr.	Cr.
Bank Account	13,086.81	
Equipment Account	9,802.04	
Deposit on Ins. (Comp)	1,500.00	
Accounts Receivable	3,528.20	
Accrued Royalty		781.95
Accounts Payable		6,611.83
Accrued Social Security Tax		256.94
Accrued Withholding Tax		604.60
Accrued Mo. Unemp. Comp. Tax		584.13
Rea Johnston, Loan a/c		35.38
G. J. Fenix, Investment a/c		7,500.00
G. J. Fenix, Drawing a/c	6,480.01	
R. H. Prigg, Investment a/c		2,500.00
R. H. Prigg, Drawing a/c	2,160.00	
Profit, Yr. to Date		17,682.23
Totals	$ 36,557.06	$ 36,557.06

EXHIBIT "C"

TRANSYLVANIA - Southwest Quarter (SW¼) of the Southwest Quarter (SW¼) of Section 34, Township 28, Range 32, Jasper County, Missouri, containing 40 acres more or less.

JASPER COUNTY ROYALTY COMPANY LAND - Lots one (1) and Two (2) of the Northwest Quarter (NW¼) of Section 3, Township 27, Range 32, containing 160 acres, more or less, subject to power line and tailings leases.

Southwest Quarter (SW¼) of the Northeast Quarter (NE¼) of Section 3, Township 27, Range 32.

A tract of land described as beginning at the Northeast corner of the Northeast Quarter (NE¼) of the Southwest Quarter (SW¼) of Section 3, Township 27, Range 32; thence South 1647.7 feet; thence West 241.2 feet; thence North 1647.7 feet to North line of said Quarter Section; thence East 241.2 feet to place of beginning, Jasper County, Mo.

A tract of land commencing 241.2 feet West of Northeast corner of Northeast Quarter (NE¼), Southwest Quarter (SW¼), Section 3, Township 27, Range 32, thence South 1647.7 feet, thence West 241.2 feet, thence North 1647.7 feet to North line said Quarter Section, thence East 241.2 feet to beginning, containing 10 acres, Jasper County, Mo.

All of a tract of land described as Nine and twelve hundredths (9.12) Acres, West Two hundred forty-one and two tenths (241.2) feet, East Seven hundred twenty-three and six-tenths (723.6) feet, North Five Eights (5/8), East one-half (1/2) Southwest Quarter (SW¼) of Section 3, Township 27, Range 32, Jasper County, Mo.

D

ST. REGIS MINING COMPANY

JOPLIN, MISSOURI

By
William H. Stewart
Mining Engineer
Joplin, Missouri

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

REGISTERED PROFESSIONAL ENGINEER
MISSOURI No. E-831 OKLAHOMA No. 448
MEMBER A. I. M. & M. E.

PHOTO-COPIES
BLACK LINE PRINTS
BLUE PRINTS
DISTRICT MAPS

WILLIAM M. STEWART ENGINEERING CO.
MINING AND CIVIL ENGINEERS
40 YEARS EXPERIENCE IN TRI-STATE DISTRICT
216 WEST THIRD STREET
PHONE 11
JOPLIN, MISSOURI

April 4, 1951

St. Regis Mining Company
203 Joplin Bank Bldg.
Joplin, Missouri Attention: Mr. G. J. Fenix

Gentlemen:

In the early part of 1943 in collaboration with Otto Ruhl, Engineer of the U. S. Bureau of Mines and as Engineer of many years experience in this district, I made a detailed study and analysis of all available data and evidence covering the sheet ground ore horizon from Oronogo to Duneweg including approximately 1000 drill holes records, maps of underground workings and production figures, compiled by the Statistical Division of the U. S. Bureau of Mines, covering an eleven year period from 1909 to 1919 and the production of 53,933,640 rock tons, 1,092,630 tons of Zinc Sulphide and 224,443 tons of Lead Sulphide, a recovery of 2.026% ZnS and 0.41% PbS.

During the above period I was underground in the mines of the Webb City-Duneweg district a great many times and had knowledge of the milling practice and efficiency of that period.

Having in mind the present mining and milling efficiency I estimate the recovery of the ore reserves in the St. Regis area at 2.46% Zinc Sulphide and 0.39% Lead Sulphide, a total of 2.85% from an average height of face of 12.0 feet.

Available production figures of the 31.14 acres overall area (includes pillars, ribs and lean areas) mined by the Lincoln-Athletic Mining Companies from 1909 to 1919 gives an average production including sludge ore remaining on mine floors, of 800 tons of Zinc Sulphide and 130 tons of Lead Sulphide per acre. A concentrate tonnage of 230 tons from 32,550 rock tons at a recovery of 2.85%.

The Athletic 31.14 acres produced 24,631 tons of Zinc and 3,941 tons of Lead Concentrates, a total of 28,512 tons at a ratio of 86.4% ZnS to 13.6% PbS, at a 2.85% Recovery this gives 2.46% ZnS and 0.39% PbS.

It is reliably reported that the floors of this mine have not been sludged. This would increase the production some 2,000

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

REGISTERED PROFESSIONAL ENGINEER
MISSOURI No. E-831 OKLAHOMA No. 448
MEMBER A. I. M. & M. E.

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WILLIAM M. STEWART ENGINEERING CO.
MINING AND CIVIL ENGINEERS
40 YEARS EXPERIENCE IN TRI-STATE DISTRICT
216 WEST THIRD STREET
PHONE 11
JOPLIN, MISSOURI

tons of ZnS and some 300 tons of PbS.

From available data, evidence and concentrate prices as of April 1st, 1951, on your 265 acres (more or less) of mineral leaseholds I estimate the Ore Reserves in the sheet ground horizon as follows:

In 69 acres
2,240,000 rock tons
@ 2.46% Rec. 55,000 tons Zinc Sulphide
@ 0.39% " 9,000 tons Lead Sulphide
@ 2.85% " 64,000 tons of Concentrate

$115.00 per ton ZnS less 6% Royalty = $108.10
218.40 " " PbS " 6% " = 205.30
Value per rock ton @ 2.46% ZnS = $2.66
" " " " @ 0.39%PbS = 0.80
Gross " to St. Regis Co. --------- $3.46 per ton

The accompanying map shows the mined out area on your leases and adjoining properties from available maps, and also the sea level elevations of the ore horizons as shown by drilling to date.

The 98 acres covering the present Reserves are outlingd by Blocks I to V and are discounted from 20 to 35% depending on the evidence relative to each block.

Undeveloped areas are marked insufficient data but are potential mineralized zones. The dewatering of this area will allow visual examination of all existing faces adjacent to these and the Blocked areas and in the light of expediting production is essential to the developement of the property.

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

REGISTERED PROFESSIONAL ENGINEER
MISSOURI No. E-831 OKLAHOMA No. 448
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AREA ANALYSIS

Block I	9.0	acres	less 30%	- 6.3	acres
Block II	16.0	"	" 25%	- 12.0	"
Block III	52.0	"	" 35%	-34.0	"
Block IV	12.0	"	" 20%	- 9.5	"
Block V	9.0	"	" 20%	- 7.2	"
Total	98.0	acres		69.0	acres

69. acres x 800 tons - 55,000 tons of ZnS
69. acres x 130 tons - 9,000 tons of PbS
Total 64,000 tons of Zinc & Lead Concentrates
@ 2.85% Rec. - 1 ton of Concentrates to 35 Rock tons
64,000 tons x 35 - 2,240,000 Rock tons.

The mined area on your 265 acre lease as outlined on the map figures 53 acres.

Respectfully submitted

William M. Stewart

William M. Stewart

WS:pt

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma 1909

Date received

Participation

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application June 30, 1951

Estimated cost $69,270.00

Mineral or metal Zinc

Percentage of Government participation 1/2 (one-half)

Location of mine Duenweg, Missouri

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description [illegible] real property that will be in any way involved in the e[illegible]ration project, including any existing mine or operating p[illegible]y.
    (*b*) Give the legal descripti[illegible] of the exact parcel, plot, or area upon which the exploration is to be conducted.

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

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

[illegible] (Name of company)

By [illegible] (Signature of authorized official)

[illegible] (Date)

[illegible] (Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 1909

Date received

Participation

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application June 30, 1951

Estimated cost $69,270.00

Mineral or metal Zinc

Percentage of Government participation 1/2 (one-half

Location of mine Duenweg, Missouri

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DMA Docket Number, if available

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*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

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*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

St. Regis Mining Co. (Name of company) — By [signature] (Signature of authorized official)

August 11, 1951 (Date) — Manager and Partner (Title)

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

*Same as footnote on page 1.

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THE APPLICANT

1. Q. Is applicant an individual, partnership, or corporation?
   A. Applicant is partnership.

2. Q. If a partnership, state names and addresses of partners.
   A. G. J. Fenix, 202 Joplin National Bank Bldg., Joplin, Missouri
   R. H. Prigg, 923 Wall Street, Joplin, Missouri

3. Q. If a corporation, state names and addresses of officers, directors and five largest stockholders.
   A. See above.

4. Q. Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who will manage the project.
   A. G. J. Fenix is the applicant and also manager of the mining company. I have had twenty years experience in the Tri-State Mining field. For six years I worked underground at the various classifications applicable to a miner. Then I was employed as Superintendent for a period of three years. The past eleven years I have mined either as an individual or a partnership, holding the position of Superintendent, Treasurer and Manager. At the present time and for several years, I have held the undisputed record for mining more tonnage per man day than any other underground mine in the Tri-State area. At the present time we are mining twenty-one tons per day per man. No property, either owned or managed by me, has as yet closed at a financial loss.

5. Q. Are you the owner or the lessee of the property?
   A. Lessee and owner.

6. Q. If owner, state what claims, liens, or encumbrances, if any, are against the property.
   A. None.

7. Q. If lessee, attach a copy of the lease and state if it is in good standing.
   A. Lease is in good standing, see attached Exhibit "A".

8. Q. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
   A. See attached Exhibit "B".

9. Q. Do you have or will you have the money necessary to pay your part of the costs of the project which you will detail under "The Requirements and Costs" section of this application.
   A. Yes.

THE PROPERTY

10. Q. State the legal description of the property, including the County and State in which it is located.
    A. See "Exhibit "C".

11. Q. State the present and former names of the property, if any.
    A. St. Regis Mining Company, Athletic Mine and Transvania Mining Company.

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12. Q. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

A. Property is located at Duenweg, Missouri, on highway 166 and approximately four miles east of Joplin, Jasper County, Missouri. Roads are all pavement or hard surface chat. Railroad facilties - branch line Missouri Pacific bisects property. Shipping point Webb City, Missouri.

13. Q. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

A. Dewatering and continuous pumping is one of the major costs of property operations. Power for approximately 250 horsepower will be purchased from the Empire District Electric Company at a cost of $1.87 per hour. See Q 21-3.

14. Q. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

A. One derrick with 200 ton hopper.
One blacksmith shop fully equipped.
One change house.
Three small warehouses.
One pump building.

15. Q. State in detail how the ore could be shipped and how and where milled.

A. Ore is hauled to Federal Mill, a distance of one-half mile. Ore is hauled by company truck and milled by Federal Mining and Smelting Company, Duenweg, Missouri.

16. Q. History:
(a) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations

A. See attached Steward Engineering Report, Exhibit "D".

Q. (b) State briefly the known history and production of adjoining and neighboring properties.

A. See attached Koelker Engineering Report, second paragraph, and Joplin Globe clippings. Exhibits " E and F".

Q. (c) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

A. See attached Stewart Engineering Report and maps. Exhibits "c" and "F".

17. Q. Production:
(a) If mine is in production, furnish the following information:

	Tons per Day	Grade or Analysis	Cost per ton	Net Value per Ton
A. (1) Mining	450	2.52 Zn - .15 Pb 60 & 81.5 grade respectively	$1.36	$ .59
(2) Milling	450		1.25	
(3) Shipped or sold		651.61 tons Zn	25.38 tons Pb	

18. Q. Ore or mineral reserves: (If property is or has been operating).
(a) Describe the ore or mineral deposits briefly.
(b) Submit available maps and assay data.
(c) Give estimated tonnage and grade of each class of ore reserves.
A. A-B-C- See attached Stewart Engineering Report "Exhibit C".

19. Q. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.
A. Exploration Proposed by the St. Regis Mining Co. on the fifty percent Participation Plan offered by the Defense Mineral Administration
The project for the main part consists of exploring the mineralized zone between the St. Regis mine proper and the old workings of the Lincoln mine. Area shown in Exhibit "C" in map Zone III.

This area has been churn drilled to prove the area mineralized. However, the drilling was done before any dewatering was accomplished, therefore, a true quantitative analysis cannot be made.

We propose to dewater the Lincoln workings to sample headings, roof and floor, extending in a southeasterly direction into Zone III on the map.

The cost involved in dewatering this mine can be partially borne by the recovery of sludge from the mine floor.

Sludge is a term used in the Tri-State Field meaning the fine fly ore rock which accumulates on the mine floor after blasting. Likewise, the fine ore which has settled through the rock when hand shovelled.

In the early day operations it was impossible to maintain floor levels sufficiently even to permit shovelling, therefore, it was common practice for the shovellers to fill the uneven areas with fine ore rock to facillitate shovelling.

It has been reliably reported by former employees of this mine that the floor was never (sludged) cleaned up prior to shutting down.

In addition to the sludge recovery, the pillars or supports can be trimmed to approximately 60 to 70% of their present size which in itself represents a sizable tonnage of ore bearing rock. (See Stewart Report on pillar area).

The trimming of pillars is now a common practice and has been accomplished in every area in the field. It is now recognized by Mining Engineers the size and number of pillars can be reduced by comparison to previous practices, and still have an adequate safety factor margin.

We point to the above possibilities as being significant in their own extent as well as being important as a means of defraying a portion of the expense of exploration.

19. continued
The total dewatering of the Lincoln will likewise premit inspection of the Wolfheart located in Zone 3 (see map) to the Southeast toward the St. Regis north heading. This operation was shutdown due to low market price of ore and was never reopened because of the abandonment of the Duenweg field.

It will be noted(see elevation Stewart Engineering Report) the Wolfheart mine was never properly opened, specifically the operators upon reaching the upper portion of the ore bearing strats (mineralized sheet ground formation characteristic of this area) drifting was started without seeking the floor of the ore body, the result was low headings and minimum recovery.

We can only presume the water level was too high to permit sinking the shaft to the lower level or inexperience in mining this type formation since the drill logs(see map exhibit "G")definitely indicates the same formation exists in this area as is characteristic in the Lincoln and St.Regis. We, therefore, firmly believe the ore body was not fully explored.

During the period of time necessary to dewater the north portion of the St.Regis lease, known as the Lincoln workings as explained in the foregoing paragraphs, we propose driving two 200 ft.exploratory drifts in a northwesterly direction from the south end of Zone III (see map) to determine if the present ore body, which is now turning downward, will make up on the level of the known ore horizon characteristic of the area immediately to the north. (see drill records for south end Zone III).

In addition, an exploratory winze is to be driven to check drill hole No. 5(see map and records), likewise, an exploratory upraise to test roof area (see hold No. 3).

The purpose of the latter projects is to prove the extent of the mineralized area north from the present already dewatered St. Regis Mine as to whether or not the total area north to south in Zone 3 is an interconnecting ore body as indicated in the Stewart Engineering Company report.

The entire project as proposed can be completed within an estimated 90 days period and would be accomplished in the following steps.

1. Recollar and rehabilitate shaft to north end of St.Regis Lease
2. Set pumps & make electrical connections preparatory to dewater.
3. Commence dewatering areas No. IV (see map).
4. Derrick erection & compressor installation preparatory to exploration, sampling, inspection, etc.
5. Drive exploratory drifts, (see map) Area No.V toward Area No. III Itm. A&B.
6. Cut winze and upraise (see map items No.C and D, Area V.
7. Complete dewatering - estimated 60 day period to pump total area.
8. Mine inspection-Engineering & Geological survey-Sampling of roof, floor headings.
9. Complete evaluation of total project with objective to mine. See Exhibit "D" Stewart Engineering Report on estimated value of possible recoverable ores.

19. continued.

Conclusion.
The past history of the area which the St. Regis lease encompasses indicates operating mines which had high tonnage records and ore recovery percentages comparable with typical sheet ground formations. (see Stewart Report "Exhibit G".

These mines were not abandoned because of any lack of ore reserves, but rather for reasons of low market values during this period immediately following the World War I. Also because of the mass exodus from the Duenweg, Mo. field to areas around Picher, Okla. which had much higher percentage of ore recovery per ton of rock than the lower recovery sheet ground formation.

The mines which would have continued to operate despite low market prices were compelled to shut down because as each operation was abandoned to move to Picher, the water flow had to be picked up by the remaining pumps, and soon this became an impossibility and forced a complete shutdown of the Duenweg field.

The Federal Mining Company was the first operator to reopen in the Duenweg field, specifically, in the immediate area adjacent to the St. Regis property. (See map Area No. 6).

This Federal Company acquired this property and commenced operation and has, with only temporary stoppages, continued to mine and are currently expanding their present operations.

The St. Regis Mining Co. was the second operator to reenter this field and has been able through complete mechanisation to mine profitably on the present day ore market prices.

We sincerely believe the project as outlined in the foregoing paragraphs and hereafter explained in more detailed fashion offers a possibility for exploring a known mineralized area in a sheet ground formation which renders itself advantageously to present day improved mining techniques. Likewise, present day milling efficiency adds promise of better recovery than the established percentages from the previous operations.

The present acute shortages of zinc and lead ores has stimulated activity in mining known and proven ore bodies, however, little exploration to develop new ore reserves have been made because of fear that market prices would not be stable.

With the advent of the participation plan developed by the Defense Minerals Administration wherein the applicant and the government share equally in the exploration expenses, we immediately made a preliminary investigation with the local D.M.A. office, and were advised our project appeared to have merit and that we should make formal application for participation in this program.

THE EXPLORATION

20. Q. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted.
A. Lead and zinc sulphide in sheet ground formation.

21. Q. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.
NOTE: The Government will not participate in a project that will require more than two years to complete.

A. South end of mine - St. Regis Proper
Cut wing drift to good lead hole #5 to check accuracy of drill cuttings - see attached drill log, exhibit "G"

Estimated length of cut - 60 ft.
Estimated cost $48.00 per ft.

Labor	$26.00
Powder & Air	4.00
Supplies & Machine rental	18.00
	$48.00

60 x 48 = $2,880.00

Northeast side of Mine - St. Regis Proper

Cut upraise in existing roof to check drill hole #3 - see drill log attached, "Exhibit G".

Estimated length of upraise 15 ft. in 4 locations surrounding the existing drill hole.

Total footage 60 ft.
Estimated cost $57.00 per ft.

Labor	$ 33.00
Power & Air	6.00
Supplies & Rental	18.00
	$ 57.00

60 x 57 = $3,420.00

North end of mine - St. Regis Proper

Because of the downward roll of ore vein at the north end of St. Regis mine, we plan to drive two exploratory drifts northward, 150 ft. each, to determine if exisiting faces of ore are turning downward to meet the level of known ore bodies in Block III. (See map Exhibit "G". Also see Stewart Report).

21. continued.

Estimated cost of the two drifts

Labor	$30.00
Powder & Air	4.00
Additional pumping & ditching to pump sump	2.00
Supplies & rental	18.00
	$54.00

300 feet of drift

300 x 54 = $16,200.00

North end of Lease from Athletic Mining Co., Lincoln mine

Propose to recrib and collar existing shafts to set pumps to dewater cut ground. This dewatering will permit visual inspection of the headings, pillars or supports with respect to possible trimming and the floors with the possibility of sludge recovery.

This exploration will permit sampling and accurate estimations of the existing faces and also the possibility of connecting the Lincoln Wolfheart and St. Regis mines together which have an estimated tonnage of 2,240,000 tons of ore rock with a calculated recoverable grade of 2.85% combined zinc and lead sulphides; or a total of 64,000 tons of concentrates.

Estimated cost of project:

1. To recrib and collar shaft in preparation to set pump $1,050.00

Labor	$ 600.00
Lumber & Supplies	$ 450.00
Total	$1,050.00

2. Pumps, motors, starters, installation in the above shaft on lease rental agreement.

Two pumps complete, rental $5000.00 each first month, 10%/month thereafter or $2000.00 or $1000.00 per month per pump	$ 12,000.00
Electrical connection with power company	2,700.00
Labor installing pump	1,200.00
Building to house pumps	500.00
Electrical controls	1,000.00
	$ 17,400.00

3. Power and pumping labor - power 300 KW or 400 HP

Labor	$ 1,800.00
Supplies & Repair	1,950.00
Miscellaneous Labor	2,200.00
Power	4,320.00
	$10,270.00

Miscellaneous Labor covers the labor expense necessary to lower pumps and to clean lower ground shaft level of debris and caved rock for pumping to the mine floor level.

4. Compressor setting installation for air to drill for sampling and general mine exploration.

Labor installing	$ 800.00
Supplies, piping & operational expense	$ 300.00 750.00 850.00
	$2,100.00
Rental compressor & appertinents $1000 / mo.	2,000.00
	$4,100.00

5. Derrick and hoister installation

Labor of erection	$ 3,200.00
Lumber & Materials	4,400.00
Hoister rental $500/mo. est. total rental 3 mos.	1,500.00
Motor & controls $200/mo. est. total rental 3 mos.	600.00
Installation of hoister and controls	750.00
	$ 10,450.00

6. Labor to inspect and sample headings, face, pillars, floor, etc.

Supervisors, geological and engineering survey	$ 1,500.00
Labor	2,000.00
	$ 3,500.00

GRAND TOTAL $ 69,270.00

22. Q. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial orebodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

A. See Stewart Engineering report with maps and drill logs, exhibits "C", "F" and "G".

23. Q. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(a) Labor, by numbers and classes (miners, muchers, millmen, etc.), with wages of each.

A.

4 - Machine men (miners)	$ 13.00 per day
4 - Machine helpers (Dummies)	12.00 per day
3 - Carpenters & riggers	20.00 per day
1 - Helper	16.00 per day
Hoisterman	13.00 per day
Compressor operator	10.00 per day
Mucker	13.00 per day

Q. (b) Supervisors, by numbers and positions, with salaries of each.
A. Supervisors (Mining ground boss)
(Carpenter & Rigging foreman) part time $18.43 per day

Q. (c) Cost of necessary repairs to existing facilities, structures, and buildings.
A. None

Q. (d) Cost of necessary installation or construction of additional facilities, structures, and buildings.
A. Derrick and pump house $10,850.00
Pump and compressor installation.

Q. (e) Cost of items of equipment not now owned by the applicant which must be purchased for operation at a cost of $50 or more each.
A. None to be purchased, rental contemplated.

Q. (F) Cost of rental for equipment which the operator proposed to rent.
A. $22,500.00

Q. (G) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
A. $ 35,000.00

Q. (H) Cost of materials and supplies, including items of equipment costing less than $50.00 each.
A. $ 4,500.00.

Q. (I) Cost of power, water, utilities, and any other items not provided for above.
A. $ 5,500.00.

NOTE; Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, and such costs may be included in the statement, only the depreciation thereon will be charged as a cost of the project.

24. Q. Furnish a time schedule of the project, stated in terms of months after the project is approved, showing progress expected to be accomplished and the money expected to be spent.

A. The project as proposed can be started immediately upon receipt of approval and will be followed to completion within approximately 90 days. Total money to be expended $69,270.00.

A tract of land described as beginning at the [illegible] corner of the Northwest Quarter (NW) of the Southwest Quarter (SW) of Section 3, Township 27, Range 32; thence South [illegible] feet; thence West 241.8 feet; thence North 1047.7 feet to North line of said [illegible] quarter section; thence East 241.8 feet to place of beginning, Jasper County, Mo.

A tract of land commencing 241.8 feet West of Northeast corner of Northeast Quarter (NE), Southwest Quarter (SW), Section 3, Township 27, Range 32, thence South 1047.7 feet, thence West 241.8 feet, thence North 1047.7 feet to North line said quarter section, thence East 241.8 feet to beginning, containing 10 acres, Jasper County, Mo.

All of a tract of land described as nine and twelve hundredths (0.12) Acres, West two hundred forty-one and two tenths (241.2) feet, East seven hundred twenty-three and six-tenths (723.6) feet, North five Eighths (5/8), East one-half (1/2) Southwest Quarter of Section three (3), Township Twenty-seven (27), Range thirty-two (32), Jasper County, Mo.

A tract of land described as beginning at a point 723.6 feet West of Northeast Corner of Northeast Quarter (NE) of Southwest Quarter (SW) of Section Three (3), Township Twenty-seven (27), Range Thirty-two (32), thence South 1,047.7 feet, thence West 241.8 feet, thence North 1,047.7 feet to North line to said quarter section, thence East 241.8 feet to place of beginning, containing 5.12 acres, more or less.

MINING LEASE

Exhibit A

THIS INDENTURE, Made this 29th day of April, 1940 by and between Kit Vickrey and Snow Vickrey, his wife,

hereinafter (whether one or more) referred to as Lessor, and Gilbert Fenix
hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

of Section ...., Township ...., Range ...., and containing .... acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at Citizens State Bank, at Joplin, State of Missouri, on or before the tenth (10th) day of each month, a royalty of Six per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereat. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within thirty (30) days from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $10.00, in the manner hereinafter provided, such payment or tender shall operate as a rental for ~~three (3) months~~ one (1) year from and after the period of time last above stated, and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said ~~three (3) months~~ one (1) year period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of ten years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at Joplin, Missouri or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

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

(s) Gilbert Fenix
Lessee

(s) Kit Vickrey
(s) Snow Vickrey
Lessor

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF Missouri
COUNTY OF Jasper } ss.

BE IT REMEMBERED, That on this 29th day of April 19 49, before me personally appeared Pat Vickroy and Judy Vickroy, his wife to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said county the day and year last above written.

My term expires March 12, 1951 (m) Juanita Copeland
Notary Public.

KANSAS FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } ss.

BE IT REMEMBERED, That on this day of , 19 , before me a Notary Public in and for the County and State aforesaid, came and who are personally known to me to be the same persons who executed the foregoing instrument of writing, and who duly acknowledged the execution of the same.

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

My commission expires
Notary Public.

OKLAHOMA FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } ss.

Before me, Notary Public, in and for said County and State, on this day of , 19 , personally appeared and his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged that executed the same as free and voluntary act and deed, for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal upon the date last above written.

My commission expires
Notary Public.

NO.

MINING LEASE

FROM

TO

Dated , 19

Section Township Range

County

No. Acres

STATE OF } ss.
COUNTY OF

This instrument was filed on record on the day of , 19 at o'clock M., and duly recorded in Book Page of the records of this office.

By , Deputy.

When recorded

Return to

THE JOPLIN PRINTING CO., JOPLIN, MO. 2M 4-48 15885

Exhibit "B"

St. Regis Mining Company
Profit and Loss Statement
June 30, 1951

	Month	Yr. To. Date	Month	Yr. to Date
Ore Sales, Lead			nil	23,926.12
Ore Sales, Zinc			24,919.35	204,909.91
Less Royalty Paid			-2,803.21	-13,686.41
Assay Expense	10.50	21.00		
Mine Supply & Repair	2,150.12	16,805.32		
Mine Power Bill	984.39	10,680.18		
Mine Explosive Expense	1,703.76	11,150.47		
Truck Rental Expense	nil	332.27		
Dirt Hauling Expense	nil	91.00		
Donations	50.00	62.00		
Contract Labor	nil	703.93		
Payroll Expense	8,564.72	54,735.81		
Payroll Insurance	680.98	4,269.97		
General Insurance Expense	370.44	529.31		
Quarterly Fee Expense	nil	24.08		
Social Security Tax Expense	128.80	827.07		
Mo. Unemployment Comp.Tax	231.25	1,117.90		
Milling Expense	11,156.75	90,284.19		
G.J.Fenix Salary	750.00	4,650.00		
Office Rent Expense	42.00	168.00		
Miscellaneous Expense	81.83	1,014.89		
	26,905.54	197,467.39	22,116.14	215,149.62

Loss for month: $4,789.40
Profit, Yr. to Date: $ 17,682.23

Balance Sheet as of June 30, 1951

	Dr.	Cr.
Bank Account	13,086.81	
Equipment Account	9,802.04	
Deposit on Ins. (Comp)	1,500.00	
Accounts Receivable	3,528.20	
Accrued Royalty		781.95
Accounts Payable		6,611.83
Accrued Social Security Tax		256.94
Accrued Withholding Tax		604.60
Accrued Mo. Unemp. Comp. Tax		584.13
Rea Johnston, Loan a/c		35.38
G. J. Fenix, Investment a/c		7,500.00
G. J. Fenix, Drawing a/c	6,480.01	
R. H. Prigg, Investment a/c		2,500.00
R. H. Prigg, Drawing a/c	2,160.00	
Profit, Yr. to Date		17,682.23
Totals	$ 36,557.06	$ 36,557.06

EXHIBIT "C"

TRANSYLVANIA - Southwest Quarter (SW¼) of the Southwest Quarter (SW¼) of Section 34, Township 28, Range 32, Jasper County, Missouri, containing 40 acres more or less.

JASPER COUNTY ROYALTY COMPANY LAND - Lots one (1) and Two (2) of the Northwest Quarter (NW¼) of Section 3, Township 27, Range 32, containing 160 acres, more or less, subject to power line and tailings leases.

Southwest Quarter (SW¼) of the Northeast Quarter (NE¼) of Section 3, Township 27, Range 32.

A tract of land described as beginning at the Northeast corner of the Northeast Quarter (NE¼) of the Southwest Quarter (SW¼) of Section 3, Township 27, Range 32; thence South 1647.7 feet; thence West 241.2 feet; thence North 1647.7 feet to North line of said Quarter Section; thence East 241.2 feet to place of beginning, Jasper County, Mo.

A tract of land commencing 241.2 feet West of Northeast corner of Northeast Quarter (NE¼), Southwest Quarter (SW¼), Section 3, Township 27, Range 32, thence South 1647.7 feet, thence West 241.2 feet, thence North 1647.7 feet to North line said Quarter Section, thence East 241.2 feet to beginning, containing 10 acres, Jasper County, Mo.

All of a tract of land described as Nine and twelve hundredths (9.12) Acres, West Two hundred forty-one and two tenths (241.2) feet, East Seven hundred twenty-three and six-tenths (723.6) feet, North Five Eights (5/8), East one-half (1/2) Southwest Quarter (SW¼) of Section 3, Township 27, Range 32, Jasper County, Mo.

Exhibit "O"

ST. REGIS MINING COMPANY

JOPLIN, MISSOURI

By
William H. Stewart
Mining Engineer
Joplin, Missouri

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

REGISTERED PROFESSIONAL ENGINEER
MISSOURI No. E-831 OKLAHOMA No. 448
MEMBER A. I. M. & M. E.

PHOTO-COPIES
BLACK LINE PRINTS
BLUE PRINTS
DISTRICT MAPS

WILLIAM M. STEWART ENGINEERING CO.
MINING AND CIVIL ENGINEERS
40 YEARS EXPERIENCE IN TRI-STATE DISTRICT
216 WEST THIRD STREET
PHONE 11
JOPLIN, MISSOURI

April 4, 1951

St. Regis Mining Company
203 Joplin Bank Bldg.
Joplin, Missouri

Attention: Mr. G. J. Fenix

Gentlemen:

In the early part of 1943 in collaboration with Otto Ruhl, Engineer of the U. S. Bureau of Mines and as Engineer of many years experience in this district, I made a detailed study and analysis of all available data and evidence covering the sheet ground ore horizon from Oronogo to Duneweg including approximately 1000 drill holes records, maps of underground workings and production figures, compiled by the Statistical Division of the U. S. Bureau of Mines, covering an eleven year period from 1909 to 1919 and the production of 53,933,640 rock tons, 1,092,630 tons of Zinc Sulphide and 224,443 tons of Lead Sulphide, a recovery of 2.026% ZnS and 0.41% PbS.

During the above period I was underground in the mines of the Webb City-Duneweg district a great many times and had knowledge of the milling practice and efficiency of that period.

Having in mind the present mining and milling efficiency I estimate the recovery of the ore reserves in the St. Regis area at 2.46% Zinc Sulphide and 0.39% Lead Sulphide, a total of 2.85% from an average height of face of 12.0 feet.

Available production figures of the 31.14 acres overall area (included pillars, ribs and lean areas) mined by the Lincoln-Athletic Mining Companies from 1909 to 1919 gives an average production including sludge ore remaining on mine floors, of 800 tons of Zinc Sulphide and 130 tons of Lead Sulphide per acre. A concentrate tonnage of 930 tons from 32,550 rock tons at a recovery of 2.85%. per acre?

The Athletic 31.14 acres produced 24,631 tons of Zinc and 3,941 tons of Lead Concentrates, a total of 28,512 tons at a ratio of 86.4% ZnS to 13.6% PbS, at a 2.85% Recovery this gives 2.46% ZnS and 0.39% PbS.

It is reliably reported that the floors of this mine have not been sludged. This would increase the production some 2,000

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

REGISTERED PROFESSIONAL ENGINEER
MISSOURI No. E-831 OKLAHOMA No. 448
MEMBER A. I. M. & M. E.

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MINING AND CIVIL ENGINEERS
40 YEARS EXPERIENCE IN TRI-STATE DISTRICT
216 WEST THIRD STREET
PHONE 11
JOPLIN, MISSOURI

tons of ZnS and some 300 tons of PbS.

From available data, evidence and concentrate prices as of April 1st, 1951, on your 265 acres (more or less) of mineral leaseholds I estimate the Ore Reserves in the sheet ground horizons as follows:

In 69 acres
2,240,000 rock tons

@ 2.46%	Rec.	55,000	tons Zinc Sulphide
@ 0.39%	"	9,000	tons Lead Sulphide
@ 2.85%	"	64,000	tons of Concentrate

135	$115.00	per	ton	ZnS	less	6%	Royalty	--	$108.10
246.50	218.40	"	"	PbS	"	6%	"	--	205.30

137.50

Value per rock ton @ 2.46% ZnS	--	2.66
" " " " @ 0.39% PbS	--	0.80
Gross Value to St. Regis Mining Co.	--	$ 3.46 per ton

2.61
.85
3.50

The accompanying map shows the mined out area on your leases and adjoining properties from available maps, and also the sea level elevations of the ore horizons as shown by drilling to date.

The 98 acres covering the present Reserves are outlined by Blocks I to V and are discounted from 20 to 35% depending on the evidence relative to each block.

Undeveloped areas are marked insufficient data but are potential mineralized zones. The dewatering of this area will allow visual examination of all existing faces adjacent to these and the Blocked areas and in the light of expediting production is essential to the developement of the property.

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

REGISTERED PROFESSIONAL ENGINEER
MISSOURI No. E-831 OKLAHOMA No. 448
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MINING AND CIVIL ENGINEERS
40 YEARS EXPERIENCE IN TRI-STATE DISTRICT
216 WEST THIRD STREET
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AREA ANALYSIS

Block I	9.0	acres	less	30%	--	6.3 acres
Block II	16.0	"	"	25%	--	12.0 "
Block III	52.0	"	"	35%	--	34.0 "
Block IV	12.0	"	"	20%	--	9.5 "
Block V	9.0	"	"	20%	--	7.2 "
Total	98.0	acres				69.0 acres

69. acres x 800 tons - 55,000 tons of ZnS
69. acres x 130 tons - 9,000 tons of PbS
Total 64,000 tons of Zinc & Lead Concentrates

@ 2.85% Rec. - 1 ton of Concentrates to 35 Rock tons
64,000 tons x 35 - 2,240,000 Rock tons.

The mined area on your 265 acre lease as outlined on the map figures 53 acres.

Respectfully submitted

William M. Stewart

WS:pt

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Exhibit E

29 March 1951

Mr. Gilbert Fenix
Joplin, Mo.

Pursuant to your request I have compiled the following information and production records of all lead and zinc ores mined from the 160 acre tract that you now own. This tract is described as the NW¼- Sec. 3 T27- R32, Jasper County, Mo. and is located about one mile north of Duenweg, Mo. All information was obtained from the Sunday mining pages of the Joplin Glebe and News Herold from the years 1909 to 1919.

History

In 1907 the Lincoln Mining Co. was organized and this property was drilled out and ore was discovered in commercial quanties. In the year 1908, two shafts were sunk to 250 foot level. Due to the low price of ore work was then stopped until April 1909, at which time a mill was built and the first ore was produced on June 6, 1909. The Lincoln Mining operated the property until July 30, 1910, and then abandoned the property. In August of 1912, the Gopher Mining Co was organized and produced the first ore in August of the same year. The Gopher Mining Co operated the property until August 15, 1915 at which time the property was taken over by the Athletic Mining Co. This company operated the property until March 16, 1919 at which time the mine was abandoned. To the best of my knowledge this property has never been mined since that date.

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Lincoln M. Co. 1909

		Zinc	Lead
June	6	24,750	
Aug	15	103,000	
Sept	12	42,270	
Oct	3	63,590	
	10	53,230	
	17	54,440	
	24		29,550
Nov	7	64,760	
	28	62,870	
Dec	5	127,300	
	12	84,990	
	19	125,870	58,160
		807,070 lbs.	87,710 lbs

Total production 1909 403.53 tons Zn.
43.85 " Pb.

Production** Lincoln M. Co. 1910

Jan	2	131,990	
	16	128,270	
	30	62,180	
Feb	13	113,650	78,410
	27	132,620	
Mar	20	78,300	
	27	78,170	
	6	70,000	
Apr	3		47,520
	10	129,120	
	17		13,780
	24	78,340	8,020
May	1		13,170
	8	162,760	9,810
	15	62,140	6,500
	22	62,030	5,560
July	5	61,780	14,290
	12		11,150
	19	61,930	
	26		12,030
Aug	3	78,950	
		1,492,230 lbs	220,240 lbs

Total production 1910 746.12 tons Zn
110.12 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Lincoln M Co. (Maple Leaf Shaft) 1910

		Zn	Pb
June	12	122,370	
	19		13,630
July	3	58,570	
	17	61,970	
	24	63,290	30,020
Aug	7	53,200	
	14	64,440	
		423,840 lbs	43,650 lbs

Total production 1910 211.92 tons Zn
21.82 " Pb.

Production-- Gopher Mining Co. 1912

Aug	11	60,910	
Sept	8	191,850	
	15		34,280
	22	127,270	
	29	64,080	21,790
Oct	6	143,340	
	13	125,680	31,420
	20	122,330	
	27	96,940	
Nov	3	26,160	
	10		13,080
	17		11,990
	24		41,180
Dec	1	83,580	
	15		41,200
		1,042,140 lbs	194,940 lbs

Total production 1912 521.05tons Zn
97.47 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Gopher Mining Co. 1913

Jan	5		63,900
	19	140,000	
	26	79,500	61,110
Feb	9		13,040
	23		88,310
Mar	2	60,000	
	16		63,960
	30	85,970	
Apr	6	252,890	65,630
	13	123,910	62,219
	20	120,000	
	27	127,110	
May	4	160,000	70,000
	11	215,180	
	18	128,390	51,730
	25	61,690	
June	8		49,580
	29		19,830
July	13		64,448
Aug	10	75,410	
Sept	28		183,900
Oct	12		63,800
Nov	2		67,120
	30		114,610
Dec	21		64,370
	28	63,850	
		1,693,900 lbs	1,167,557 lbs

Total production 1913 846.95 tons Zn
583.77 " Pb

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318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Gopher Mining Co 1914

Jan	4		62,610
	18		74,490
	25	123,880	
Feb	1	64,020	
	8	59,430	63,050
	15	303,290	
	22	195,430	62,690
Mar	15	248,650	
Apr	5	63,000	
	12	144,620	
	19	219,230	
May	3	285,890	71,650
	10	106,270	
	31		82,610
June	7	124,400	
	14	206,950	
	21	57,400	
	28	124,390	
July	5	121,220	
	12	249,310	
	19	182,900	
	26	60,900	108,700
Aug	2	134,780	
	9	120,050	
	16	185,400	
	23	124,710	
	30	180,820	
Sept	6	120,440	
	13	182,240	
	20	117,010	
	27	55,830	
Oct	4	123,430	
	18	185,450	
	25	240,800	182,070
Nov	1	233,770	
	15	240,480	
	22	60,890	
Dec	6	122,750	
	13	60,210	
	20	117,100	
	27	181,460	
		5,728,800 lbs	707,870 lbs

Total production 1914 2,864.40 tons Zn
353.93 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production Gopher Mining Co 1915

Jan	10	298,080	
	17	60,000	
	24	119,140	62,490
	31	121,000	62,340
Feb	7	59,140	
	14	177,230	
	21	120,000	
	28	119,450	
Mar	21	56,880	
Apr	4		126,370
	11	83,010	
May	2	185,230	62,090
	9	320,490	
	16	191,480	
	23	123,930	
	30	325,910	
June	6	119,280	
	20	115,390	61,140
	27	60,940	
July	4	130,140	53,180
	11	59,440	
Aug	15		10,970
		2,846,160 lbs	438,580 lbs

Total production 1915 1,423.08 tons Zn
219.29 " Pb

Production Athletic Mining Co 1915

Aug 29		77,190	43,290
Sept	5	52,570	
	12	123,440	
	18	79,210	
	26	60,850	
Oct	3	145,390	
	17	81,360	
	24	71,190	
	31	84,830	63,450
Nov	7	175,430	
	21	152,970	
	28		67,040
Dec	5	244,740	
	12	79,930	
	19	205,960	
	26	348,420	85,230
		1,983,480 lbs	259,010 lbs

Total production 1915 991.74 tons Zn
129.50 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production Athletic Mining Co 1916

Jan	2	223,260	
	16	198,710	
	23	181,000	
	30	179,640	
Feb	6	61,580	63,460
	13	171,170	
	20	238,860	
	27	151,650	
Mar	5	138,090	126,360
	12	245,910	
	19		59,960
	26	294,780	
Apr	2	116,060	
	9	168,930	126,830
	16	224,970	
	23	240,040	
May	7	297,880	63,340
	14	259.780	
	21	179,620	62,930
	28		63,540
June	18	623,120	
July	16	115,860	91,660
	23	80,910	
	30	206,120	62,870
Aug	6	286,120	
	13	272,390	
	20	140,450	60,430
	27	142,860	
Sept	3	187,590	78,250
	10	271,720	
	17	127,060	
	24	295,650	
		224,880	
Oct	1	575,850	
	8		64,290
	13	201,610	
	22	273,030	62,480
	29	209,080	
Nov	12	413,432	61,740
	26	69,860	
Dec	3	447,500	
	10	291,130	125,630
	17	103,500	
	31	105,130	54,760
		9,236,782 lbs	1,280,320 lbs

Total production 1916 4,618.39 tons Zn
640.16 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Athletic Mining Co 1917

Jan	7	129,450	
	14	355,920	54,760
	21	179,320	60,280
	28	250,270	
Feb	4	462,610	
	18	356.170	61,580
Mar	4	580,960	64,570
	18	798,340	60,800
	25	188,410	61,090
Apr	1	123,280	
	22	353,860	78,680
May	13	413,660	56,940
	20	290,890	62,230
	27	357,060	
June	3	876,220	
	17	658,750	82,320
July	15	612,990	57,300
	29	341,660	
Aug	5	423,830	58,920
	19	198,970	
Sept	9	815,710	174,690
	16	385,780	54,550
Oct	7	252,110	
	21	803,790	
Nov	4	219,180	
	11	810,970	64,840
	18	317,590	
	25	376,680	
Dec	2	119,070	277,990
	16	447,530	
	23	407,640	108,960
	30	340,420	63,300
		13,250,090 lbs	1,503,800 lbs

Total production 1917 6,625.04 tons Zn.
751.90 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production--- Athletic Mining Co. 1918

Jan	6	162,630	38,560
	13	165,830	64,330
	20	84,210	
	27	86,100	64,310
Feb	3	83,670	
	10	342,660	
	24	306,040	129,040
Mar	3	191,900	82,790
	17		79,670
	31	1,665,910	71,960
April	21	571,580	135,030
May	5	572,980	71,400
	12	297,800	
	19	108,850	100,060
	26	189,750	
June	2	186,700	78,340
	9	202,430	
	23	449,720	87,930
	30	242,290	
July	6	213,370	85,510
	21	236,260	
Aug	4	171,140	
	11	261,880	177,810
	18	62,140	
	25	59,100	
Sept	1	87,740	88,280
	8	482,600	
	15	310,220	
	22	283,130	
	29	235,990	150,810
Oct	6	149,880	
	27	118,090	88,200
Nov	3	62,610	
	17	469,360	83,450
	24	235,980	
Dec	1	126,710	91,470
	8	125,500	
	22	244,530	
		9,847,280 lbs	1,768,950 lbs

Total production 1918 4,923.64 tons Zn
884.47 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Athletic Mining Co 1919

Jan	5	63,450	
	12	127,600	124,460
	26	111,060	
Feb	2	173,120	
	9	64,140	
	16	124,830	85,690
	23	62,970	
Mar	2	61,620	
	16	122,250	
		911,040 lbs	210,150 lbs

Total production 1919 455.52 tons Zn
105.07 " Pb.

Production total 1909 to 1919

	Zn	Pb
1909--	403.53	43.85
1910	1,746.12	110.12
	211.92	21.82
1912	521.07	97.47
1913	1,846.95	583.77
1914	2,864.40	353.93
1915	1,423.08	219.29
	991.74	129.50
1916	4,618.39	640.16
1917	6,625.04	751.90
1918	4,923.64	884.47
1919	455.52	105.07
	24,631.40 tons	3,941.35 tons

s, Reaching $39

ME

ices

n

BUILDING MANY PLANTS IN THE EAST END CAMPS

DUENWEG AND PROSPERITY REGION SCENE OF ACTIVITY.

New Plants Will Largely Increase Ore Output in These Camps—Early Production Seems Assured.

There are few camps in the district that are doing the amount of mill building that is being done at the present time at Prosperity and Duenweg. No less than six plants have been put up either new throughout or representing a removal of a mill to the mine or an addition to the machinery on the ground which would make the plant a complete mill, within the present year.

Such a movement of mill building means a large increase in the productive capacity of these camps and this increase in production is scheduled to begin at a very early date. In compensation there are a few mills that have been moved from mines in that same vicinity, but not enough to equal the number of new ones.

Among the new plants is the Highland mill of the United Zinc Company, which has been rebuilt on the same site where the former big mill had been burned down. The plant is now completed and ready for operation. This mill is capable of handling from 400 to 600 tons of ore per day.

Just east of this mill the Lincoln Mining and Milling Company is completing the erection of a new concentrating plant, which in some respects is quite different from the general run of mills built throughout the district. The plant will have as part of its equipment the Richards Pulsator jigs which are largely an experiment in this field. No mill in this field has yet tried the new jig, and many operators are watching with interest the starting of the plant and its success as a cleaning agent for Joplin ores.

In addition to the jigs the plant has several novel hydraulic classifiers which will be used in the classification of the pulps for the concentrating tables. This feature, while in use in other mills, is novel in being slightly different from anything else in the field. The plant should be completed within another fortnight and operations on a moderate scale will begin.

In addition to the main shaft at the milling plant the company has a second shaft about 75 feet away which is being utilized for an additional ore supply. The derrick and connecting tramway is now under construction. The mill buildings are covered throughout with galvanized iron.

On an adjoining lease the Wolfsheart Mining Company is also erecting a new mill. This plant is covered with galvanized iron and is rapidly nearing completion. The company in the first place installed permanent machinery, and the mill building now under construction is only forming a part of the present plant. This mill, as also its neighbors, are going to treat a sheet ground proposition which was developed by drilling in the fall and winter of 1907 and developed by shafts only last year. Owing to the very low prices of ores throughout the past year the development operations on all the sheet ground mining camps were allowed to hang fire and only with a better outlook did the owners start to work.

In addition to these mills there has been a mill moved upon a lease just west of the Highland mill. Over west of the Gibson mill a new plant is well under way on the very crest of the divide. At Duenweg in the very heart of the old diggings, a plant is now under construction and should be completed soon.

Out on the old Criterion lease the American Zinc, Lead and Smelting Company has remodeled one of the old Alabama mills and placed it in readiness for operation. With the new additions and adaptations of machinery the plant is equal to a 350 to 400 ton plant.

In addition to these new plants now building, there were completed during the past year a number of other mills in that same field which are just beginning operation or are still waiting for a resumption of better ore prices. The Coahuilla mill is one of the largest mills built and is now in operation. On the Cosgrove land there were a number of plants either built or planned for erection during the coming year. All of this activity means that when prices of ore reach a $40 level, and have any assurances of staying there, the ore tonnage that will be produced from that camp will be surprising.

STARTS FIRST SHAFT IN THE FAIRLAND FIELD

Frankenberger & Varner of Webb City Inaugurate New Work in New Field.

Fairland, Okla., is abuzz with excitement over the prospects of actual

few good strikes of lead ore have been reported.

EIGHTY WORK AT BOYD MINE

Reopening of the Sarcoxie Property Gives Employment to Many.

The Boyd mine at Sarcoxie has been thoroughly drained and operations have began full blast, after a shut-down of many months. The reopening of the mine has given employment to about eighty men and means more to the eastern part of the district than any other recent mining movement.

After the mine was closed it filled with water and it has required a large amount of pumping to thoroughly drain it. Turning from the Boyd mine again will place Sarcoxie in the production list and should materially increase the output of the eastern district.

LINCOLN TO HAVE TWO PUMPS

With New Equipment Mine May Be Drained Within Ten Days.

Another pump is being installed at the Lincoln mine at Duenweg, the one installed several weeks ago not having made sufficient headway against the water. With both pumps running full blast, it is believed that the mine may be drained within ten days, at the latest. It is possible that the mine may be free of water within a week after the two pumps are placed in steady operation.

There was 45 feet of water in the mine when the pumps were first started and the water level has been lowered 20 feet. As soon as the workings are drained, a force of men will be placed at work. Then the property will be kept in steady operation.

A NEW DERRICK AND HOIST

Huggins & Barker Mine Soon Will Be Producing Ore.

A new derrick is being built at the Huggins & Barker mine near Bellefville and a steam hoist is being installed. The operators of the mine have been developing their property for some time. They now have arrangements in shape to begin the production of ore.

The Dorothy Marie mine at Bellefville has been drained and the operators expect to be producing ore soon.

NEW MILL WEST OF JOPLIN

Skendenning & Cook Building Plant on Minor-Graham Lease.

A concentrating plant is being erected on the Minor-Graham Lead and Zinc Company's lease, west of Joplin. Skendenning & Cook are building the plant. Work on the mill is progressing very rapidly. It is believed it will be ready

Jerry C. [illegible]	[illegible]
Four, [illegible] lbs. 1, High Tariff, [illegible] lbs. [illegible]	[illegible]
Pocahontas M. Co	[illegible]
Granby [illegible] M. Co	[illegible]
Matter [illegible]	[illegible]
Rex M. [illegible] Co	[illegible]
Falls City L. & Z. Co	[illegible]
W. O. Crack	[illegible]
Muskingum M. Co	[illegible]
Cherokee M. Co	[illegible]
Edward Hamilton	[illegible]
Shafer M. Co	[illegible]
Sitting Bull M. Co	[illegible]
Grand Haven M. Co	[illegible]
Hollando-American M. Co	[illegible]
New Dividend M. Co	[illegible]
Belleville L. & M. Co	[illegible]
Samson M. Co	[illegible]
C. C. Playter	[illegible]
C. M. Sheldon, Pres	[illegible]
Leonard Realty Co	[illegible]
McRae land	[illegible]
Parker M. Co.	[illegible]
D. & W. M. Co.	[illegible]
P. L. Swartz	[illegible]
St. Patrick M. Co	[illegible]
Black Jack M. Co	[illegible]
Gordon Hollow M. Co	[illegible]
Roaring Springs land	[illegible]
Jackson M. Co.	[illegible]
A. Z. M. Co	[illegible]
Continental Zinc Co	[illegible]
Reid & Phillips	[illegible]
Ten Per Cent M. Co	[illegible]
Liberty M. Co	[illegible]
Homer Seals	[illegible]
No Name M. Co	[illegible]
Paragon M. Co	[illegible]
D. & A. M. Co	[illegible]
Sundries	[illegible]
Total sales	[illegible]

	Calam
Shoal Creek M. Co	31
Baker Estate	9
Granby land	7
Sundries	4
Total sales	101

Values: Blende [illegible] land, [illegible] total [illegible]

WEBB CITY CARTERV

	Ble
S. V. Ramage	31
Mercantile M. Co	4
Center Creek M. Co	4
Ithes I. & Z. Co	1
Edmund Lyon M. Co	1
Spotted Dog M. Co	1
Golden Glow M. Co	3
Aylor M. Co	1
C. S. Lang	1
Minor Hill Producing Co	1
Continental Zinc Co	1
Providence M. & M. Co	1
Underwriters Land Co	1
Bertha A. M. Co	1
Dixie M. Co	1
Dodge M. Co	1
American-Canadian M. Co	1
[illegible] & H. M. Co	1
[illegible] M. Co	1
[illegible]	1

Nov. 5, 1915

JOPLIN

Largest Slime Plant For Athletic Company

Three Dorr Thickeners, One Classifier and 21 Tables to Be Installed at C. T. Orr's Property.

The Athletic Mining Company, which is operating the old Gopher mine at Duenweg, is planning to install the most complete slime plant in the entire district.

According to present plans, which it is understood are well matured and finally decided upon, twenty-one James tables will be installed, and these will be supplemented by two 44-foot Dorr thickeners, one 17-foot thickener and one Dorr classifier.

Charles T. Orr, who is at the head of the Athletic company, is perhaps more competent to pass upon the value of the Dorr scheme of slime recovery than any other man in the district for the reason that he has had the only large plant in operation. It is at the Winfield-Bertha A. property north of West City, of which he is manager, and it is understood that the plant of late has been showing a good profit on the small investment. At this Winfield-Bertha A. plant only half-tings from the tables and overflow from the settling tanks is being treated with the Dorr thickener and classifier. This is material that certainly is lost in concentration work in practically all other districts and that in past years has been taken from the pressure a [illegible] the Dorr or other [illegible]

[illegible] STRIKE

[illegible]

ARTMENT

igurin Tire Cost

Firestone
Most Mileage
Least Repair
Expense
Riding Quality
Satisfaction
Econom

Most Miles per Dollar

A. [illegible] mining [illegible] ore [illegible] the southeast 40 as [illegible] 40 [illegible] line. There are some good [illegible] 40, of which I have [illegible] the same [illegible] the northeast 40. I have never been [illegible] Boy nor the Scott mine, but I do know [illegible] Our that is, the Athletic Mining & Smelting Company I [illegible] cut a good face of ore going west onto the northeast 40 which you now own. I have seen the records of three drill holes showing a face of ore running from northwest to southeast over an area of about 600 feet and showing a face of ore, of zinc and lead [illegible] about 225 or 226 to 240 feet averaging about 9%. There are other holes east of those holes, that is, between those holes and the face of ore which was cut by the Athletic west, which are [illegible] good. I would estimate that the mill recovery on the ore which we mined at the Athletic ran about 5%.

Q. Now, Tom, I wish you would tell me about your best recollection of what ore, if any is left to mine on the faces left in the northwest 40 of the Athletic mine, other than the face that you have already referred to going west and which has been cut to my line.

A. I would say that the ore going south was the best that we had in the mine.

Q. How wide from east to west would you say that face of ore was when you quit mining there?

A. By george, I couldn't hardly guess at that. My best recollection is that we were mining the best of the ore over an east and west face of about 150 feet wide and between 12 and 14 feet high. That ore would run, in my estimation, between 5% and 6%

[illegible] 900 [illegible] covering [illegible] 150 [illegible] was then [illegible] was ore along all four sides north [illegible] of the Athletic mine when we quit mining there on $18 ore, but in places it didn't run over 3% or 4% and that didn't pay to mine at $18, but at other places it would run as high as 6% mill recovery, and would average probably between 5% and 6% at the places other than where it ran 3% and 4%.

Q. Now, with reference to the northeast 40, where the San Gabriel was located on this 160 acres of the Athletic, what do you say about that mine there?

A. I think I was only in that mine about three times. Rice was there all the time I was out there.

Q. How near to the time you quit mining there was about the last time you were in there, Tom?

A. I don't know, I guess it was about two or three weeks, not enough to make any great change in ground, unless it would change from poor to richer.

Q. What do you say as your best recollection of how good were the ore faces in the northeast 40 of the San Gabriel?

A. I would say from my memory that they were just about the same as at the mill faces. When I say the mill faces I mean on the northwest 40.

Q. Did the Athletic Mining & Smelting Company, while you were its superintendent, do any mining on the southeast 40?

A. No. I was never in the ground of the mine on the southeast 40. There was a small mine down there, but I don't remember at what level it was worked.

We had no flotation plant at the Athletic. All we had besides the jigs were sludge tables and few of them. I can't remember how many, but we didn't have but a few.

Q. [illegible] good was the [illegible] ore which the Athletic cut west into what is now the Scott lease?

A. That was cut before I became general superintendent for the Athletic Mining and Smelting Company and I do not remember ever having gone over to that part of the mine. Everywhere else that I have seen it, all the way around the four sides of the ore faces on the northwest 40, the mill recovery ran all the way from 3% to 6% and the ore faces averaged from 10 to 12 feet in height.

I was general superintendent for Mr. Charles T. Orr and I had a number of mines at one time under my general supervision.

The Lincoln Mining Co., the Maple Leaf Mining Co., and the Wolfheart Mining Co. made a fair production from the Jasper County Royalty Co.'s land. The principal producers on the Knol land were the New York & Western Zinc Co., the Durby Lead & Zinc Co., the Nowata Mines Co. (No. 2), and the Delker Mining Co. The first and the last named companies erected mills during 1910.

The zinc carbonate and silicate concentrates produced in the district nearly all came from the R. L. McGee lease, on the Hall land, and the Emma C. Mining Co.'s lease, on the Sadtler land.

Smaller producers included Becker & Relling, Cadwell-Allen Mining Co., Boston & Duenweg Mining Co. land (on which the White Rat Mining Co. erected a 200-ton mill), the Marvel-Carnation and Henrietta leases on the Cosgrove land, Crown Crest Zinc & Lead Co., Old Colony Zinc Co., Grace Ping Mining Co., Hyde Park Lead & Zinc Co., Bonnie Pattie Mining Co., Sayers Mining Co., and Henry Weymann land.

Granby district.—The total production of this district in 1910 showed little variation from that of 1909. The production of silicate of zinc from shallow workings was less than in 1909, but the increased shipments of sphalerite concentrates more than counterbalanced the loss. Most of the producing territory belongs to the Granby Mining & Smelting Co., and the total tonnage from it was large, the relative quantity of zinc silicate, zinc blende, galena, and lead carbonate being in the order named. Much of the mining by individual operators and by small companies is in shallow workings and yields lead ore and silicate of zinc ore. The large lessees on Granby land, which contributed nearly all of the blende concentrates in 1910, were the Mascot Mining Co., Katy Mining & Milling Co., Golden Rule Mining Co., Little Boss Mining Co., Fortune Teller Mining Co., the Billiken Mining Co., and the Granby Sludge Co. The Mascot Mining Co. has a 100-ton mill on the Granby land and one of 150 tons on the adjoining Homestake mine. Other district producers were the Illinois Zinc Co., the St. Paul Mining Co., and the Little Four Mining Co.

Joplin district.—The number of producers reporting from this district is larger, the [illegible] of the land or mining leases is more diffused, and the area of operations more extended than in any other district in Missouri. The production is second to that of the Webb City-Prosperity district. The 1910 sales of concentrates were as follows: Galena [illegible]2 tons, lead carbonate 51 tons, zinc blende 47,200 tons, carbonate and silicate of zinc 1,403 tons. The total value of the concentrates was $2,243,273. As compared with 1909, the sales of galena and carbonate of lead declined 362 tons, zinc blende increased 1,237 tons, and carbonate and silicate of zinc increased 183 tons, and the total value was $37,084 less.

The largest production of lead ore and also of zinc ore was turned in by lessees of the Granby Mining & Smelting Co. This company reports that two new ore bodies have been discovered by drilling on the south half of the NE. ¼ sec. 33, T. 28, R. 33, and that shafts were being sunk to develop the ore body.

The second largest production of blende concentrates was produced by the Mandarin and Culpepper leases on the Cunningham land. Four shafts, ranging from 160 to 200 feet in depth, were in operation.

elter Markets Weaker

IS $62.50; :R FOR LEAD ORE

:s Operators—$35 to $38 Strikes at Several Mines Curtailed.

—

e last week was $62.50. Prices k previous. The greater part ade between $60 and $62.50. e sold for less than $60. t of the week, and many oper- s to prevail this week. Some refused them were surprised probable that they will lose ling it.

$60.

Last week was $60. On the he high mark.

mine. For a few choice lots sales were consummated on a s ranged down to $50 for less

ut to a certain extent. Several h are among the largest in the unt of labor trouble. A num- r a time on account of strikes output.

ville field are in need of labor- a great extent by an inability th men to carry on operations of the problem may be the or- ureau at Webb City. The ob- mines who are in need of men n.

of the Pittsburg Zinc Company firm from the ore market last

s of lead and zinc ores from klahoma district for the week

Brothers	[illegible]	.....
Hen M. Co	[illegible]	.....
w Branch M. Co	[illegible]	.....
City M. Co	[illegible]	.....
on L. & Z. Co	[illegible]	127,220
al sales	[illegible]	[illegible]

ies: Blende, $6,432; lead, $5,940, total, [illegible]

CAVE SPRINGS.

	Blende.	Lead.
Kramer Mines	159,960	458,540
Spring L. & Z. Co	85,770	.....
al sales	211,730	458,540

ies: Blende, $6,062; lead, $13,994; to- $19,946

BARCOXIE.

	Blende.	Lead.
dean Z., L. & S. Co	64,000	.....

ies: Blende, $1,792.

ORONOGO.

	Blende.	Lead.
ogo Circle M. Co	212,360	.....
acle M. Co	275,730	.....
al sales	479,090	.....

ies: Blende, $13,900

WENTWORTH

	Blende.	Lead.
twoth L. & M. Co	82,510	.....

ies: Blende, $2,571.

LAWTON.

	Blende.	Lead.
ern L. & Z. Co	61,000	.....

ies: Blende, $1,824.

CARL JUNCTION.

	Blende	Lead.
r-Smith M. Co	62,840	.....
ed Lehigh M. Co	52,640	.....
Junction M. Co	11,160	.....
Kitty M. Co	.....	3,020
tal sales	126,680	3,020

ies: Blende, $3,776; lead, $90, total, [illegible]

SPRINGFIELD.

	Blende	Lead
M. Co	88,000	.....

ies: Blende, $2,640.

SPRING CITY-SURGEON

	Blende	Lead
ley Valley M. Co.	26,160	19,140
r Heir-Sunrise	11,850	10,850
croft Land	.....	5,450
tal sales	37,950	35,440

	Calamine.	
r Heir sunrise	20,250	

ies: Blende, $1,044; calamine, $540; $1,102; total, $2,676

GRANBY.

	Blende.	Lead.
e Boss M. Co	157,640	.....
ot M. Co	27,750	.....

IMPROVEMENTS AT GALENA MINES TO INCREASE OUTPUT

TO ENLARGE AND REMODEL HARTFORD MILLING PLANT.

Electrical Machinery to Be Installed —Drilling Has shown Rich Deposits on Lease.

Improvements that will mean a great increase in output are planned for the Hartford mines, south of Galena. The concentrating plant is to be remodeled and its capacity increased. Mine workings recently have been enlarged in the rich mineralized area [illegible]

Electrical machinery will be installed in the plant. [illegible] has been opened [illegible] It is believed that [illegible] a greater amount of ore [illegible] new arrangement.

Pumps Water from Shoal Creek.

Some difficulty has been encountered by the operators of the mine in obtaining enough water to operate the mill steadily. A pump is to be installed in Shoal creek, one entrance from the mine and water pumped to the property from the stream.

Drilling done at the mine recently has revealed an extension of the ore deposits. A number of holes have been put down in advance of drifts and these have resulted in rich strikes. The Hartford mine has been for some time one of the steadiest producers in the Galena district.

The property is owned by men who live at Hartford, Conn. Harlan H. White is manager of the mine.

STEEL MEASURE IS PASSED

Senate Recedes Amendments and Congress Enacts Bill.

The steel bill carrying the ore schedule, was passed by congress yesterday after some amendments were recinded, according to a telegram received here by Judge D. D. Hoag. Zinc ore is placed on the free list by the act.

It is reasonably certain however that President Taft will veto the bill, and it is not probable that a two-thirds majority may be obtained for passing the measure over his veto.

Following is a copy of the telegram received by Judge Hoag yesterday:

"Congress passed the steel bill today. The senate recding from its Canadian reciprocity amendment by a vote of 33 to 28. The progressives and La Follette framed the measure and all of the democrats, together with all progressives, except United States Senators Cummins, Borah, Crouna and Bourne. The regular republicans opposed the bill. The measure will reach the president early in the week. He will veto it."

GOPHER COMPANY MAKES ORE

Firm Operating Lincoln Mine Begins Producing Blende.

The Gopher Mining and Manufacturing Company has cleared the Lincoln mine of water and it now is producing ore. Considerable time was consumed in heating the water but from now it will be a steady producer.

O. Plunkett has been engaged as superintendent of mining operations. A. W. Van Hoffton has been here for the last ten days looking after the interests of the company, and will remain until the success of the mine has been thoroughly demonstrated. He is much encouraged at the showing the mine is making.

W. A. Van Hoffton, the secretary, will remain here for some time.

INITIAL TURN-IN FROM MINE

Carload of Ore Is Shipped From Geronimo Property.

The initial turn in from the Geronimo mine, on the Connor land west of Joplin, was made last week. The property has been opened up by Jesse Short and others, development work having been in progress for many months.

PUMP OF WOOD AND LEAD TO BE USED AT MINE

WILL BE MANUFACTURED AT OPERATORS' INSTRUCTIONS.

Expected to Be Solution of Acid Water Problem at Carterville—Drainage Work in Progress.

After several months of attempts to solve the water proposition on the land near Carterville, T. T. Lecombe has decided to install a pump made of wood and lead to combat acids that have eated up other machinery placed in the ground.

The pump will be manufactured on a special order. It will be a lineal reciprocating centrifugal. The pump will contain entirely of wood and lead with the exception of the shaft, which will be of steel.

To Drain Lower Levels.

Frank Wallower has been asked to come to the one Mr. Lecombe is to install. These are the only machines of their kind in the district. Mr. Wallower is using them to drain ground near the Lecombe property.

Lower levels on the Lecombe mines are to be drained with the new pump. The water contains a large amount of strong acid, which has destroyed other machinery placed in the ground. On the wood and lead pump the acids can have no effect. Column pipes probably will be coated with an acid-proof paint.

A great amount of drainage work is in progress in the field just south of Carterville. A number of companies have resumed operations there. Ground which is previously has been impossible to operate may be worked when plans now being formed are carried out.

RICH ORE ON CARTHAGE LAND

Four Holes in Ore on Land Owned by Mrs. Glenn.

The fourth drill hole in the new ground of Mrs. Henrietta Glenn on the old Carthage tract has gone into ore. The first three holes sunk were in rich ore. W. H. Grandstaff of the S. V. Ramage office is in charge of the work.

In the last hole ore was struck at 65 feet. A solid face of stuff was found up. Mathew Lane, a drill man of long experience, says some of the cuttings will assay more than 5 per cent. The hole is the best he has seen in any part of the Joplin district, he says.

The drill is not yet through the depth, and it is hoped to get to what will be found down to a depth of 90 feet. In other words the ore has been encountered at 65 feet.

Work is being done on the old Grier tract just west of the Kilduck lease. The tract will be thoroughly drained and then a shaft will be sunk to the deposits if development work warrants it, a mill will be erected.

Mrs. Glenn intends to drill the Kilduck tract as soon as a rig may be obtained.

WILL DRAIN AURORA SHAFT

Old "Double Bob" Workings to Be Dewatered by New Firm.

Plans have been completed for the beginning of drainage work on Aurora land by the Clear Creek Drainage and Leasing Company, and [illegible] The shaft [illegible] of the Lowell Zinc Company, a land lease, and it will be cleared, and [illegible] and will be drained.

The draining of the shaft will be watched with great [illegible] Many people will be [illegible] Aurora [illegible] water removed.

A large central plant will be installed for the drainage of the ground. The company [illegible] equipment that is [illegible] used at Webb City.

Officers of the new firm have been elected. They are John L. McNeil, president; C. C. Frank, J. J. Cleveland, George Hutchinson and C. H. Kessler, directors.

STRIKE ORE AT SPRINGFIELD

IN GLOBE'S MINING DE[PARTMENT]

for Blende; ge Basis Is $100

Brought About Another $10 Boost Prices—Some Ore Sold as Low as oor Quality—Lead Also Up With $60 to $64—Calamine Higher, $65 her for Production.

he price of blende was recorded during the grades in carload lots brought $110, basis n to $90, the average base price being $100. ow-grade ore at $85.
omewhat, $64 basis being paid in some ine holding down to as low as $50 a week ago past. Pig lead has advanced to $5.15 on

er market has been persistent during the price. The Globe's special correspondent at at $16.25 to $16.37½ for the week's close, he New York metal exchange place the top resumed quotations during the week after

ce of blende and was quoted at from $65 to it is in good demand and there is scarcely

e favored with excellent weather and the tely bought up this week.
nts, in pounds, with their values, of zinc first leases in the various cities, towns and Oklahoma district for the week ending No-

	Lead.
	....
	15,400
	....
	19,450
	9,800
	....
	....
	....
	....
	....
	....
	20,830
	36,000
	36,060
	10,900
	6,000
	6,280
	4,530
	301,000
	494,700
	...; to-
	Lead.
	79,070
	....
	....
	....
	....
	27,240
	12,880
	....
	....
	....
	36,460
	....
	....
	47,180
	79,120
	....
	....
	....
	....
	....
	....
	....

	Blende.	Lead.
Fidelity M. Co.	61,170	....
Scott M. Co.	61,500	....
What Cheer M. Co.	60,610	65,090
Sundries	129,500	....
Total sales	1,315,900	82,070

Values: Blende, $65,900; lead, $2,460; total, $68,360.

ALBA-NECK CITY-PURCELL.

	Blende.	Lead
Davidson-Joplin M. Co.	186,830	13,880
Purcell M. Co.	130,450	....
Reliable M. Co.	72,000	....
Lucky Tiger M. Co.	86,870	....
Cockelburr M. Co.	63,330	....
Black Hawk M. Co.	43,890	....
Sundries	62,000	....
Total sales	644,030	13,880

Values: Blende, $32,200; lead, $380; total, $32,580.

MIAMI.

	Blende.	Lead.
Turkey Fat M. Co.	171,860	....
Vantage M. Co.	120,960	....
Cactus M. Co.	125,440	....
Never Sweat M. Co.	115,740	....
Amalgamated M. Co.	123,060	....
Miami Z. & L. Co.	85,340	....
Quapaw M. Co.	78,780	57,740
Midas L. & Z. Co.	69,240	....
Lennan L. & Z. Co.	62,720	14,400
Gartung M. Co.	44,850	....
Mizpah M. Co.	19,860	....
Concentrating Co.	17,200	....
Blue Goose M. Co.	....	110,850
Standifer Bros.	....	81,720
High Five M. Co.	....	7,220
Total sales	1,046,060	279,980

Values: Blende, $44,455; lead, $8,100; total, $52,575.

GALENA.

	Blende.	Lead.
North Empire M. Co.	140,740	....
McCullough M. Co.	140,000	....

GRANBY

	Blende.	Lead
Granby M. & S. Co.	[illegible]	[illegible]
Mascot M. Co.	[illegible]	
Total sales	[illegible]	[illegible]

Calamine

Granby M. & S. Co.	[illegible]
Perkins M. Co.	[illegible]
Total sales	[illegible]

Values: Blende, $7,860; calamine, $10,000; lead, $550; total, $18,410.

SPRING CITY-SPURGEON-SAGINAW.

	Blende.	Lead
Inca M. Co.	60,740	
Craycroft M. Co.		[illegible]
Wills-Bucklin M. Co.		[illegible]
Onadoga M. Co.		6,900
Total sales	60,740	[illegible]

WENTWORTH

	Blende.	Lead
D. & L. M. Co.	74,000	....
Jack Possum M. Co.	71,500	....
Total sales	145,500	....

Calamine

D. & L. M. Co.	72,200

Values: Blende, $4,912; calamine, $2,340; total, $7,252.

REEDS

	Blende.	Lead.
U. S. Smelting Co.	250,160	....

Value: Blende, $13,050.

ORONOGO.

	Blende.	Lead.
Oronogo Circle M. Co.	551,800	114,860
Oronogo Mutual M. Co.	295,980	58,610
Total sales	847,780	173,470

Values: Blende, $41,454; lead, $5,160; total, $46,614.

SARCOXIE.

	Blende.	Lead
Flannery M. Co.	62,060	....

Value: Blende, $2,976.

QUAPAW-BAXTER.

	Blende.	Lead.
Bash M. Co.	59,470	....

Value: Blende, $2,850.

CAVE SPRINGS.

	Blende.	Lead.
Hartford No. 2	80,710	....
Cave Springs L. & Z. Co.	65,250	....
Total sales	145,960	....

Value: Blende, $6,984.

BELLVILLE-KLONDIKE.

	Blende.	Lead
New Geronimo M. Co.	74,800	....
Minor-Graham M. Co.	49,750	....
Lindeman M. Co.	17,920	....
Total sales	142,470	....

Value: Blende, $6,968.

DISTRICT.

This week: Blende, 11,615,850 pounds; calamine, 516,900 pounds; lead, 1,731,700 pounds.

Values: Blende, $560,211; calamine, $12,340; lead, $51,495; total, $624,046.

Average value per ton: Blende, $96.47; calamine, $47.83; lead, $59.63.

46 weeks: Blende, 490,226,368 pounds; calamine, 34,380,057 pounds; lead, 77,622,495 pounds.

Values: Blende, $18,429,934; calamine, $801,885; lead, $2,016,033; total, $21,247,852.

"Can you keep a secret, uncle?"

"Yes."

"Well, auntie has eloped with the chauffeur and they've borrowed your motor."

Old Names and New For District Mines

Hard to Keep Track of Constant Changes in Official Names of Various Mining Properties.

[illegible] name [illegible] Zinc and Lead [illegible] [illegible] properties [illegible] change a new name [illegible] the property. [illegible] ness [illegible] steadily have hard [illegible] keeping track of the properties [illegible] can recognize [illegible] the new names.

Here are some of the changes that have been recorded in recent months:

Joplin Camp.

Old Name	New Name.
Hero	A. W. C.
Martha Ball	Bradley L. & Z.
Pinchler	Hanford
Pocahontas	Olive Cherokee
Kitty Mack	Bangor No. 8
Tomcat	Sparkler
Baltimore	Little Myrtle
Hackett	Once More and Gleason
Hoo Hoo	Liberty Bell
I-no	Stellino

Duenweg.

O. F. & L.	Baltic
Gopher	Athletic
Porto Rico	Barnett
Thanksgiving	Fidelity

Oklahoma.

Century	Admiralty
Day-Cooter	Croesus and Bethel
Mission	Ruby No. 1
Katy	Ruby No. 2
Sweeney	Gladstone
Big Jack	Mineral King
Miller	Monarch
Hannibal & St. Joe	Al Jones
White Eagle	Homer Seals
Myrtle	Anchor
Wichita	Anna Lee
Hoo Hoo	Wilcox

Sarcoxie.

Boyd	Flannery

Carthage.

Hermosa	Coahulla No. 2

Oronogo.

Judge	Mutual

Cave Springs.

Kramer	Cave Springs L. & Z.
Big Brownie	Hartford No. 2

Belville-Klondike.

Missouri Standard	Nineteen-Fifteen

HAVE WATER OUT AT LAST

After Seven Weeks' Wait Raymond A. Company Resumes Work.

After a seven weeks' tussle with the water, the Raymond A. Mining Company got back into the production lists during the past week.

The Raymond A. is located on a forty-acre lease of the Dixon land, and their shaft is directly southwest of the Napoleon mine. They were drowned out by the heavy rains of almost two months ago and have had a pump going steadily ever since, but have not been able to get into the ground. However, it was quite impossible for them to beat the water until the Nopoleon had drained its drifts, which also were flooded, and no great effort aside from the four-inch pump was made.

It was an exasperating wait, however, as the last week the Raymond

LEAD AND ZINC PRICES

Fluctuations in Both Metals in Past Few Months Have Been Great.

[illegible]

[illegible]	[illegible]	[illegible]
May 20	[illegible]	[illegible]
May 28	[illegible]	[illegible]
May 29	24 [illegible]	[illegible]
June 1	[illegible]	[illegible]
June 3	[illegible]	[illegible]
June 9	[illegible]	[illegible]
June 14	[illegible]	[illegible]
June [illegible]	[illegible]	[illegible]
June [illegible]	24 [illegible]	[illegible]
August 6	21.00	[illegible]
August [illegible]	17.00	[illegible]
August [illegible]	15.00	[illegible]
August 24	16.[illegible]	[illegible]
November 4	[illegible]	[illegible]
November 9	[illegible]	[illegible]

Fluctuations in lead prices have been little less notable than changes in zinc prices. Following are the changes recorded in pig lead since the latter part of July at New York:

	Reduced
July [illegible]	[illegible] to $[illegible]
August 2	[illegible] to [illegible]
August 7	25c to 5.00
August 9	25c to 4.75
August 10	25c to 4.50
	Advanced
August 25	10c to $4.60
August 26	10c to 4.70
August [illegible]	20c to 4.90
	Reduced
September 9	20c to $4.70
September 14	20c to 4.50
	Advanced
October 21	25c to $4.75
October 29	15c to 4.90
November 4	10c to 5.00
November 10	15c to 5.15

Nothing New.

The 8x8 geared steam hoister used so much in this district originated in the shop of Orr & Sembower, Reading, Pa., more than fourteen years ago. It was the original Samson. Many imitations have been made, but the original still remains the favorite of the district, due to its own reputation. They are sold by the McNeal Machinery Company, opposite postoffice.—Adv.

TAKE OVER A GOLD MINE

Joplin Men to Operate Golconda Mine Out in Nevada.

Winnemucca, Nev. Nov. 13.—News has been received in Winnemucca from an authentic source that a deal has been closed in Kansas City, Mo., by which the Kramer mine at Golconda has been bonded to wealthy mining men of Joplin, Mo.

It was discovered in 1907 by I. K. Kramer and since that time a large amount of development work has been

"EXHIBIT C"

HAROLD FENIX

9.12 Acres, West 241.2 ft., E 482.4 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Cora Stubbs)

39.25 Acres, SW NE ex. RR R/W, Sec. 3, Twp. 27, Rge. 32
(Herbert A. Turner)

9.12 Acres, E 241.2 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Sarah Adams)

9.12 Acres, W 241.2 ft. E 723.6 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(D. Colclasure paid by Cora Stubbs)

4.53 Acres, W 120 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(C. A. Colclasure)

5.31 Acres, Com. at SE cor. NW SW W 175½ ft. N to N line said
40 acres E 175½ ft. S to Beg., Sec. 3, Twp. 27, Rge. 32
(C. A. Colclasure)

9.12 Acres, W 241.2 ft. E 964.8 Ft. n 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Mrs. Henry J. Adams - undivided 3/10 paid by Carl Carmean)

9.90 Acres, Com. 175½ ft. W of SE Corn. NW SW N to N line said 40 acres
W 326½ ft. Sto S line said 40 acres E 326½ ft. to beg. Sec. 3,
Twp. 27, Rge. 32
(A. W. Van Hafften)

50 Acres, Beg 120 rods W of SE cor Sec. N 120 rods E 40 rods N 40 rods,
W 80 rds. S 160 rds. E 40 rds to beg. part SE¼, Sec. 3, Twp. 27,
Rge. 32
(J. A. Barker)

14 Acres, Beg. at SE Cor. Sec. N 40 rds. W 56 rds. S 40 rds. E 56 rds.
to beg. part SE¼

14 Acres Beg. 56 rds. W of SE Cor. Sec. N 40 rds. E 8 rds. N 40 rds.
W 32 rds. S 80 rds. E 24 rds. to beg. part SE¼, Sec. 3, Twp. 27,
Rge. 32
(J. A. Barker)

30 Acres, Beg. 80 rods W of SE Cor Sec. N 120 rds. W 40 rds. S 120 rds.
E 40 Rds. to beg. part SE¼ Sec. 3, Twp. 27, Rge. 32
(Alice Kibler)

24 Acres, 48 x 80 rds. beg. 112 rds. N of SE Cor. SE¼ N 48 rds. W 80 rds.
S 48 rds. E 80 rds. to beg. Sec. 3, Twp. 27, Rge. 32.
(Ben L. Jones)

28 Acres, Beg. 40 rds. N of SE Cor SE N 72 rds. W 80 rds. S 32 rds.
E 32 rds. S 40 rds. E 48 rds. to beg. Sec. 3, Twp. 27, Rge. 32
(Ben L. Jones)

37.83 Acres, W½ Lot 2 NE, Sec. 3, Twp. 27, Rge. 32
(Stevison Rogers Land and Mining Company)

Drill Log

Hole No. 1

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Struck water: 18' and 180'

Set 6¼" casing @ 18'

Started: 6/23/45

Finished: 6/30/45

0	5	Surface
5	16	Red clay and flint boulders
16	45	Gray lime and blue flint
45	50	Gray lime and white flint
50	60	Brown lime, little blue and white flint
60	70	Gray lime and white flint
70	100	Gray lime and little gray flint
100-105		Drak gray lime and light gray lime and little gray flint
105-165		Brown lime and little white flint
165-178		Brown lime and white and gray flint
178-186		Blue, Gray, white and blue flint (zinc shines)
181-186		5.7% blend
186-200		Open
200-202		Fair zinc could be out of roof

J. T. & Boyd Patrick Contractors

Signed: Boyd Patrick

Drill Record

Hole No. 2

Property Name:

Drill Owner:

Begun: 6/5/45

Finished: 6/13/45

Struck Water: 100' Water stands top

Drill runner: W. H. Meekins

0	5	Soil and clay
5	15	Gray lime and white flint
15	35	Gray lime, blue and white flint
35	70	Dark gray lime and white flint
70	95	Dark gray lime and blue flint
95	105	White and blue flint, gray lime
105	120	White and blue flint, gray lime
120	130	White flint and brown lime
130	140	White and blue flint
140	160	Dark blue flint and dark gray lime
160	170	White and blue flint, trace of Zinc
170	175	Blue and white flint and gray lime, trace of zinc
175	195	Gray, white and blue flint, extra good zinc
195	213	Dark gray lime and blue flint

175 to 180 Good zinc 5½%
180 to 190 Fair zinc 4.2%
190 to 195 no good 1.3%

Signed C. R. Jenkins

Drill Log

Hole. No. 3

Lease Owner: Harold Fenix

Lease Name: Stubbs

Started: 7/2/45 Completed: 7/10/45

Set 16' of 6¼" Casing, Struck water at 15' and 180', Stands @ 130'.

0	15	Red Clay and flint gravel
15	55	Gray lime and blue and gray flint
55	95	Gray lime and grey flint
95	125	Gray lime and very little gray flint
125	160	Brown lime and little white flint
160	175	Gray and brown lime and gray flint
175	180	Gray and white flint and little lime (thin trace of zinc)
180	188	Gray and white flint (few zinc shines)
188	194	Gray brown and white flint (trace zinc)
194	198	White and gray flint
198	202	Gray, blue, white and brown flint (trace zinc)
202	206	Gray, white and blue flint and brown lime
206	210	Gray and brown lime and gray flint

Total depth: 210 ft.

Contractors: J. T. and Boyd Patrick

Signed: Boyd Patrick

Drill Record

Hole No. 4

Property Name:

Drill Owner: Bennett and Jenkins

Begun: July 16, 1945

Finished: July 21, 1945

Struck Water: 175 ft.

Water stands: 175 ft.

Drill runner: W. H. Meekins

0	5	Soil
5	24	Red clay and river gravel
24	25	White flint
25	45	Gray lime and white flint
45	100	Gray lime
100	120	Dark gray lime and white flint
120	160	Gray lime blue and white flint
160	175	White flint and gray lime (trace zinc)
175	185	Blue and white flint, extra good zinc
185	200	Blue and white flint, trace of zinc
200	210	Blue and white flint, zinc shines
210	225	Dark gray lime andblue flint

175 to 180 — 2.5%
180 to 185 3.7%
185 to 190 3.9%

This hole is high casing closest to Federal ground, SW of Shaft #2

South of Shaft #2

Drill Log

Hole No. 6

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Started: 7-20-45

Finished: 8-2-45

Set 25' of 6½" Casing

Struck water at 180 ft.

0	22	Red clay and gravel
22	45	Gray lime and gray and white flint
45	120	Gray lime and little white flint
120	135	Brown lime and gray flint
135	155	Brown lime
155	180	Gray lime and white flint
180	185	Gray and brown flint (trace lead - no good)
185	190	Gray and brown flint
190	200	Gray blue and brown flint (lead shines) Fair—2.1%
200	205	Gray blue and brown flint
205	212½	Gray and brown flint (lead shines)—only 1½%
212½	215—2 %	
215	220—3.2% good	
212½	220	Gray lime, gray blue and brown flint (lead shines)
220	222½	Gray lime, gray and brown flint (fair lead & zinc) 2.12%
		222½ to 225—1.70 lead—Black Jack 12½%—good
222½	235	Gray lime, gray blue and brown flint (fair lead)
235	260	Gray lime and blue flint
260	280	Gray lime

Contractors: J.T. & Boyd Patrick

Signed: J. T. Patrick (title Partner)

Drill Log

Hole No. 8

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Started: 8-2-45

Finished: 8-13-45

Set 30' of 6¼" Casing

Struck water at 20' & 135'

0	25	Surface, red clay and boulders
25	60	Gray lime and gray flint
60	65	Gray lime and gray and little blue flint
65	120	Gray lime and gray flint
120	145	Gray lime, white flint and selvage
145	155	Gray lime, little white flint and selvage (trace of zinc)
155	165	Gray lime and gray flint
165	190	Gray and brown flint
190	200	Gray, brown and blue flint
200	210	Gray, borwn and blue flint, brown lime and mundic
210	225	Gray lime and blue flint
225	235	Gray lime and gray and blue flint

Contractors: J.T. and Boyd Patrick

Signed: Boyd Patrick

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma 1909

Date received

Participation

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application June 30, 1951

Estimated cost $69,270.00

Mineral or metal Zinc

Percentage of Government participation 1/2 (one-half)

Location of mine Bucoma, Missouri

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

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

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

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

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

St. Regis Mining Company
(Name of company)

By [signature]
(Signature of authorized official)

August 11, 1951
(Date)

Manager and Partner
(Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Dma-1909

THE APPLICANT

1. Q. Is applicant an individual, partnership, or corporation?
   A. Applicant is partnership.

2. Q. If a partnership, state names and addresses of partners.
   A. G. J. Fenix, 202 Joplin National Bank Bldg., Joplin, Missouri
   R. H. Prigg, 923 Wall Street, Joplin, Missouri

3. Q. If a corporation, state names and addresses of officers, directors and five largest stockholders.
   A. See above.

4. Q. Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who will manage the project.
   A. G. J. Fenix is the applicant and also manager of the mining company. I have had twenty years experience in the Tri-State Mining field. For six years I worked underground at the various classifications applicable to a miner. Then I was employed as Superintendent for a period of three years. The past eleven years I have mined either as an individual or a partnership, holding the position of Superintendent, Treasurer and Manager. At the present time and for several years, I have held the undisputed record for mining more tonnage per man day than any other underground mine in the Tri-State area. At the present time we are mining twenty-one tons per day per man. No property, either owned or managed by me, has as yet closed at a financial loss.

5. Q. Are you the owner or the lessee of the property?
   A. Lessee and owner.

6. Q. If owner, state what claims, liens, or encumbrances, if any, are against the property.
   A. None.

7. Q. If lessee, attach a copy of the lease and state if it is in good standing.
   A. Lease is in good standing, see attached Exhibit "A".

8. Q. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
   A. See attached Exhibit "B".

9. Q. Do you have or will you have the money necessary to pay your part of the costs of the project which you will detail under "The Requirements and Costs" section of this application.
   A. Yes.

THE PROPERTY

10. Q. State the legal description of the property, including the County and State in which it is located.
    A. See "Exhibit "C".

11. Q. State the present and former names of the property, if any.
    A. St. Regis Mining Company, Athletic Mine and Transvania Mining Company.

12. Q. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

A. Property is located at Duenweg, Missouri, on highway 166 and approximately four miles east of Joplin, Jasper County, Missouri. Roads are all pavement or hard surface chat. Railroad facilties - branch line Missouri Pacific bisects property. Shipping point Webb City, Missouri.

13. Q. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

A. Dewatering and continuous pumping is one of the major costs of property operations. Power for approximately 250 horsepower will be purchased from the Empire District Electric Company at a cost of $1.87 per hour. See Q 21-3.

14. Q. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

A. One derrick with 200 ton hopper.
One blacksmith shop fully equipped.
One change house.
Three small warehouses.
One pump building.

15. Q. State in detail how the ore could be shipped and how and where milled.

A. Ore is hauled to Federal Mill, a distance of one-half mile. Ore is hauled by company truck and milled by Federal Mining and Smelting Company, Duenweg, Missouri.

16. Q. History:
(a) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations

A. See attached Steward Engineering Report, Exhibit "D".

Q. (b) State briefly the known history and production of adjoining and neighboring properties.

A. See attached Koelker Engineering Report, second paragraph, and Joplin Globe clippings. Exhibits " E and F".

Q. (c) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

A. See attached Stewart Engineering Report and maps. Exhibits "c" and "F".

17. Q. Production:
(a) If mine is in production, furnish the following information:

	Tons per Day	Grade or Analysis	Cost per ton	Net Value per Ton
A. (1) Mining	450	2.52 Zn - .15 Pb 60 & 81.5 grade respectively	$1.36	$ .59
(2) Milling	450		1.25	
(3) Shipped or sold		651.61 tons Zn	25.38 tons Pb	

18. Q. Ore or mineral reserves: (If property is or has been operating).
(a) Describe the ore or mineral deposits briefly.
(b) Submit available maps and assay data.
(c) Give estimated tonnage and grade of each class of ore reserves.
A. A-B-C- See attached Stewart Engineering Report "Exhibit C".

19. Q. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.
A. Exploration Proposed by the St. Regis Mining Co. on the fifty percent Participation Plan offered by the Defense Mineral Administration
The project for the main part consists of exploring the mineralized zone between the St. Regis mine proper and the old workings of the Lincoln mine. Area shown in Exhibit "C" in map Zone III.

This area has been churn drilled to prove the area mineralized. However, the drilling was done before any dewatering was accomplished, therefore, a true quantitative analysis cannot be made.

We propose to dewater the Lincoln workings to sample headings, roof and floor, extending in a southeasterly direction into Zone III on the map.

The cost involved in dewatering this mine can be partially borne by the recovery of sludge from the mine floor.

Sludge is a term used in the Tri-State Field meaning the fine fly ore rock which accumulates on the mine floor after blasting. Likewise, the fine ore which has settled through the rock when hand shovelled.

In the early day operations it was impossible to maintain floor levels sufficiently even to permit shovelling, therefore, it was common practice for the shovellers to fill the uneven areas with fine ore rock to facillitate shovelling.

It has been reliably reported by former employees of this mine that the floor was never (sludged) cleaned up prior to shutting down.

In addition to the sludge recovery, the pillars or supports can be trimmed to approximately 60 to 70% of their present size which in itself represents a sizable tonnage of ore bearing rock. (See Stewart Report on pillar area).

The trimming of pillars is now a common practice and has been accomplished in every area in the field. It is now recognized by Mining Engineers the size and number of pillars can be reduced by comparison to previous practices, and still have an adequate safety factor margin.

We point to the above possibilities as being significant in their own extent as well as being important as a means of defraying a portion of the expense of exploration.

19. continued
The total dewatering of the Lincoln will likewise premit inspection of the Wolfheart located in Zone 3 (see map) to the Southeast toward the St. Regis north heading. This operation was shutdown due to low market price of ore and was never reopened because of the abandonment of the Duenweg field.

It will be noted(see elevation Stewart Engineering Report) the Wolfheart mine was never properly opened, specifically the operators upon reaching the upper portion of the ore bearing strats (mineralized sheet ground formation characteristic of this area) drifting was started without seeking the floor of the ore body, the result was low headings and minimum recovery.

We can only presume the water level was too high to permit sinking the shaft to the lower level or inexperience in mining this type formation since the drill logs(see map exhibit "G")definitely indicates the same formation exists in this area as is characteristic in the Lincoln and St.Regis. We, therefore, firmly believe the ore body was not fully explored.

During the period of time necessary to dewater the north portion of the St.Regis lease, known as the Lincoln workings as explained in the foregoing paragraphs, we propose driving two 200 ft.exploratory drifts in a northwesterly direction from the south end of Zone III (see map) to determine if the present ore body, which is now turning downward, will make up on the level of the known ore horizon characteristic of the area immediately to the north. (see drill records for south end Zone III).

In addition, an exploratory winze is to be driven to check drill hole No. 5(see map and records), likewise, an exploratory upraise to test roof area (see hold No. 3).

The purpose of the latter projects is to prove the extent of the mineralized area north from the present already dewatered St. Regis Mine as to whether or not the total area north to south in Zone 3 is an interconnecting ore body as indicated in the Stewart Engineering Company report.

The entire project as proposed can be completed within an estimated 90 days period and would be accomplished in the following steps.

1. Recollar and rehabilitate shaft to north end of St.Regis Lease.
2. Set pumps & make electrical connections preparatory to dewater.
3. Commence dewatering areas No. IV (see map).
4. Derrick erection & compressor installation preparatory to exploration, sampling, inspection, etc.
5. Drive exploratory drifts, (see map) Area No.V toward Area No. III ltm. A&B.
6. Cut winze and upraise (see map items No.C and D, Area V.
7. Complete dewatering - estimated 60 day period to pump total area.
8. Mine inspection-Engineering & Geological survey-Sampling of roof, floor headings.
9. Complete evaluation of total project with objective to mine. See Exhibit "D" Stewart Engineering Report on estimated value of possible recoverable ores.

19. continued.

Conclusion.
The past history of the area which the St. Regis lease encompasses indicates operating mines which had high tonnage records and one recovery percentages comparable with typical sheet ground formations. (see Stewart Report "Exhibit G".

These mines were not abandoned because of any lack of ore reserves, but rather for reasons of low market values during this period immediately following the World War I. Also because of the mass oxodus from the Dunsweg, Mo. field to areas around Picher, Okla. which had much higher percentage of ore recovery per ton of rock than the lower recovery sheet ground formation.

The mines which would have continued to operate despite low market prices were compelled to shut down because as each operation was abandoned to move to Picher, the water flow had to be picked up by the remaining pumps, and soon this became an impossibility and forced a complete shutdown of the Duenweg field.

The Federal Mining Company was the first operator the reopen in the Duenweg field, specifically, in the immediate area adjacent to the St. Regis property. (See map Area No. 6)

This Federal Company acquired this property and commenced operation and has, with only temporary stoppages, continued to mine and are currently expanding their present operations.

The St. Regis Mining Co. was the second operator to reenter this field and has been able through complete mechanisation to mine profitably on the present day ore market prices.

We sincerely believe the project as outlined in the foregoing paragraphs and hereafter explained in more detailed fashion offers a possibility for exploring a known mineralized area in a sheet ground formation which renders itself advantageously to present day improved mining techniques. Likewise, present day milling efficiency adds promise of better recovery than the established percentages from the previous operations.

The present acute shortages of zinc and lead ores has stimulated activity in mining known and proven ore bodies, however, little exploration to develop new ore reserves have been made because of fear that market prices would not be stable.

With the advent of the participation plan developed by the Defense Minerals Administration wherein the applicant and the government share equally in the exploration expenses, we immediately made a preliminary investigation with the local D.M.A. office, and were advised our project appeared to have merit and that we should make formal application for participation in this program.

THE EXPLORATION

20. Q. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted.
A. Lead and zinc sulphide in sheet ground formation.

21. Q. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.
NOTE: The Government will not participate in a project that will require more than two years to complete.

A. South end of mine - St. Regis Proper
Cut wing drift to good lead hole #5 to check accuracy of drill cuttings - see attached drill log, exhibit "G"

Estimated length of cut - 60 ft.
Estimated cost $48.00 per ft.

Labor	$26.00
Powder & Air	4.00
Supplies & Machine rental	18.00
	$48.00

60 x 48 = $2,880.00

Northeast side of Mine - St. Regis Proper

Cut upraise in existing roof to check drill hole #3 - see drill log attached, "Exhibit G".

Estimated length of upraise 15 ft. in 4 locations surrounding the existing drill hole.

Total footage 60 ft.
Estimated cost $57.00 per ft.

Labor	$ 33.00
Power & Air	6.00
Supplies & Rental	18.00
	$ 57.00

60 x 57 = $3,420.00

North end of mine - St. Regis Proper

Because of the downward roll of ore vein at the north end of St. Regis mine, we plan to drive two exploratory drifts northward, 150 ft. each, to determine if exisiting faces of ore are turning downward to meet the level of known ore bodies in Block III. (See map Exhibit "G". Also see Stewart Report).

21. continued.

Estimated cost of the two drifts

Labor	$30.00
Powder & Air	4.00
Additional pumping & ditching to pump sump	2.00
Supplies & rental	18.00
	$54.00

300 feet of drift

300 x 54 = $16,200.00

North end of Lease from Athletic Mining Co., Lincoln mine

Propose to recrib and collar existing shafts to set pumps to dewater cut ground. This dewatering will permit visual inspection of the headings, pillars or supports with respect to possible trimming and the floors with the possibility of sludge recovery.

This exploration will permit sampling and accurate estimations of the existing faces and also the possibility of connecting the Lincoln Wolfheart and St. Regis mines together which have an estimated tonnage of 2,240,000 tons of ore rock with a calculated recoverable grade of 2.85% combined zinc and lead sulphides; or a total of 64,000 tons of concentrates.

Estimated cost of project:

1. To recrib and collar shaft in preparation to set pump $1,050.00

Labor	$ 600.00
Lumber & Supplies	$ 450.00
Total	$1,050.00

2. Pumps, motors, starters, installation in the above shaft on lease rental agreement.

Two pumps complete, rental $5000.00 each first month, 10%/month thereafter or $2000.00 or $1000.00 per month per pump	$ 12,000.00
Electrical connection with power company	2,700.00
Labor installing pump	1,200.00
Building to house pumps	500.00
Electrical controls	1,000.00
	$ 17,400.00

3. Power and pumping labor - power 300 KW or 400 HP

Labor	$ 1,800.00
Supplies & Repair	1,950.00
Miscellaneous Labor	2,200.00
Power	4,320.00
	$10,270.00

Miscellaneous Labor covers the labor expense necessary to lower pumps and to clean lower ground shaft level of debris and caved rock for pumping to the mine floor level.

4. Compressor setting installation for air to drill for sampling and general mine exploration.

Labor installing	$ 800.00
Supplies, piping & operational expense	$ 300.00 750.00 250.00
	$2,100.00
Rental compressor & appertinents $1000 / mo.	2,000.00
	$4,100.00

5. Derrick and hoister installation

Labor of erection	$ 3,200.00
Lumber & Materials	4,400.00
Hoister rental $500/mo. est. total rental 3 mos.	1,500.00
Motor & controls $200/mo. est. total rental 3 mos.	600.00
Installation of hoister and controls	750.00
	$ 10,450.00

6. Labor to inspect and sample headings, face, pillars, floor, etc.

Supervisors, geological and engineering survey	$ 1,500.00
Labor	2,000.00
	$ 3,500.00

GRAND TOTAL $ 69,270.00

22. Q. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial orebodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

A. See Stewart Engineering report with maps and drill logs, exhibits "C", "F" and "G".

23. Q. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(a) Labor, by numbers and classes (miners, muchers, millmen, etc.), with wages of each.

A.

4 - Machine men (miners)	$ 13.00 per day
4 - Machine helpers (Dummies)	12.00 per day
3 - Carpenters & riggers	20.00 per day
1 - Helper	16.00 per day
Hoisterman	13.00 per day
Compressor operator	10.00 per day
Mucker	13.00 per day

Q. (b) Supervisors, by numbers and positions, with salaries of each.
A. Supervisors (Mining ground boss)
(Carpenter & Rigging foreman) part time $18.43 per day

Q. (c) Cost of necessary repairs to existing facilities, structures, and buildings.
A. None

Q. (d) Cost of necessary installation or construction of additional facilities, structures, and buildings.
A. Derrick and pump house $10,850.00
Pump and compressor installation.

Q. (e) Cost of items of equipment not now owned by the applicant which must be purchased for operation at a cost of $50 or more each.
A. None to be purchased, rental contemplated.

Q. (F) Cost of rental for equipment which the operator proposed to rent.
A. $22,500.00

Q. (G) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
A. $ 35,000.00

Q. (H) Cost of materials and supplies, including items of equipment costing less than $50.00 each.
A. $ 4,500.00.

Q. (I) Cost of power, water, utilities, and any other items not provided for above.
A. $ 5,500.00.

NOTE; Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, and such costs may be included in the statement, only the depreciation thereon will be charged as a cost of the project.

24. Q. Furnish a time schedule of the project, stated in terms of months after the project is approved, showing progress expected to be accomplished and the money expected to be spent.

A. The project as proposed can be started immediately upon receipt of approval and will be followed to completion within approximately 90 days. Total money to be expended $69,270.00.

[illegible]ract of [illegible] described as beg[illegible] [illegible]theast Corner of the Northeast [illegible]arter (NE¼) of t[illegible] [illegible]quarter (SW¼) of Section 3, Town[illegible]p 27, Range 32; the[illegible] [illegible]uth 1647.7 feet; thence West 241.2 feet; thence North 1647.7 feet to North line of said quarter quarter Section; thence East 241.2 feet to place of beginning, Jasper County, Mo.

A tract of land commencing 241.2 feet West of Northeast corner of Northeast Quarter (NE¼), Southwest Quarter (SW¼), Section 3, Township 27, Range 32, thence South 1647.7 feet, thence West 241.2 feet, thence North 1647.7 feet to North line said Quarter Section, thence East 241.2 feet to beginning, containing 10 acres, Jasper County, Mo.

All of a tract of land described as Nine and twelve hundredths (9.12) Acres, West Two hundred forty-one and two tenths (241.2) feet, East Seven hundred twenty-three and six-tenths (723.6) feet, North Five Eighths (5/8), East one-half (1/2) Southwest Quarter of Section three (3), Township Twenty-seven (27), Range Thirty-two (32), Jasper County, Mo.

A tract of land described as beginning at a point 723.6 feet West of Northeast Corner of Northeast Quarter (NE¼) of Southwest Quarter (SW¼) of Section Three (3), Township Twenty-seven (27), Range Thirty-two (32), thence South 1,647.7 feet, thence West 241.2 feet, thence North 1,647.7 feet to North line to said quarter Section, thence East 241.2 feet to place of beginning, containing 9.12 acres, more or less.

Exhibit A -

MINING LEASE

THIS INDENTURE, Made this 29th day of April, 1949, by and between

Kit Vickrey and Snow Vickrey, his wife,

hereinafter (whether one or more) referred to as Lessor, and Gilbert Fenix hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

[redacted]

A t ... land ... inning at the Nor
... Qua ... he Southwest
... j

of Section ......, Township ......, Range ......, and containing ...... acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at Citizens State Bank, at Joplin, State of Missouri, on or before the tenth (10th) day of each month, a royalty of Six per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereat. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within thirty (30) days from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $10.00, in the manner hereinafter provided, such payment or tender shall operate as a rental ~~for three (3) months~~ one (1) year from and after the period of time last above stated, and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said ~~three (3) months~~ one (1) year period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of ten years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at Joplin, Missouri or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

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

(s) Gilbert Fenix

Lessee

(s) Kit Vickrey

(s) Snow Vickrey

Lessor

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF Missouri
COUNTY OF Jasper } SS.

BE IT REMEMBERED, That on this 29th day of April 19 49, before me personally appeared Kit Vickrey and Snow Vickrey, his wife to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that ~~he~~ they executed the same as ~~his~~ their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said county the day and year last above written.

My term expires March 12, 1951 (s) Juanita Copeland
Notary Public.

KANSAS FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } SS.

BE IT REMEMBERED, That on this day of, 19, before me a Notary Public in and for the County and State aforesaid, came and who are personally known to me to be the same persons who executed the foregoing instrument of writing, and who duly acknowledged the execution of the same.

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

My commission expires
Notary Public.

OKLAHOMA FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } SS.

Before me, Notary Public, in and for said County and State, on this day of, 19, personally appeared and his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged that executed the same as free and voluntary act and deed, for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal upon the date last above written.

My commission expires
Notary Public.

NO.

MINING LEASE

FROM

TO

Dated, 19

Section Township Range

County

No. Acres

STATE OF
COUNTY OF } SS.

This instrument was filed on record on the day of, 19 at o'clock M., and duly recorded in Book Page of the records of this office.

By, Deputy.

When recorded

Return to

THE JOPLIN PRINTING CO., JOPLIN, MO. 2M 4-48 15885

Exhibit "B"

St. Regis Mining Company
Profit and Loss Statement
June 30, 1951

	Month	Yr. To. Date	Month	Yr. to Date
Ore Sales, Lead			nil	23,926.12
Ore Sales, Zinc			24,919.35	204,909.91
Less Royalty Paid			-2,803.21	-13,686.41
Assay Expense	10.50	21.00		
Mine Supply & Repair	2,150.12	16,805.32		
Mine Power Bill	984.39	10,680.18		
Mine Explosive Expense	1,703.76	11,150.47		
Truck Rental Expense	nil	332.27		
Dirt Hauling Expense	nil	91.00		
Donations	50.00	62.00		
Contract Labor	nil	703.93		
Payroll Expense	8,564.72	54,735.81		
Payroll Insurance	680.98	4,269.97		
General Insurance Expense	370.44	529.31		
Quarterly Fee Expense	nil	24.08		
Social Security Tax Expense	128.80	827.07		
Mo. Unemployment Comp.Tax	231.25	1,117.90		
Milling Expense	11,156.75	90,284.19		
G.J.Fenix Salary	750.00	4,650.00		
Office Rent Expense	42.00	168.00		
Miscellaneous Expense	81.83	1,014.89		
	26,905.54	197,467.39	22,116.14	215,149.62

Loss for month: $4,789.40
Profit, Yr. to Date: $ 17,682.23

Balance Sheet as of June 30, 1951

	Dr.	Cr.
Bank Account	13,086.81	
Equipment Account	9,802.04	
Deposit on Ins. (Comp)	1,500.00	
Accounts Receivable	3,528.20	
Accrued Royalty		781.95
Accounts Payable		6,611.83
Accrued Social Security Tax		256.94
Accrued Withholding Tax		604.60
Accrued Mo. Unemp. Comp. Tax		584.13
Rea Johnston, Loan a/c		35.38
G. J. Fenix, Investment a/c		7,500.00
G. J. Fenix, Drawing a/c	6,480.01	
R. H. Prigg, Investment a/c		2,500.00
R. H. Prigg, Drawing a/c	2,160.00	
Profit, Yr. to Date		17,682.23
Totals	$ 36,557.06	$ 36,557.06

EXHIBIT "C"

TRANSYLVANIA - Southwest Quarter (SW¼) of the Southwest Quarter (SW¼) of Section 34, Township 28, Range 32, Jasper County, Missouri, containing 40 acres more or less.

JASPER COUNTY ROYALTY COMPANY LAND - Lots one (1) and Two (2) of the Northwest Quarter (NW¼) of Section 3, Township 27, Range 32, containing 160 acres, more or less, subject to power line and tailings leases.

Southwest Quarter (SW¼) of the Northeast Quarter (NE¼) of Section 3, Township 27, Range 32.

A tract of land described as beginning at the Northeast corner of the Northeast Quarter (NE¼) of the Southwest Quarter (SW¼) of Section 3, Township 27, Range 32; thence South 1647.7 feet; thence West 241.2 feet; thence North 1647.7 feet to North line of said Quarter Section; thence East 241.2 feet to place of beginning, Jasper County, Mo.

A tract of land commencing 241.2 feet West of Northeast corner of Northeast Quarter (NE¼), Southwest Quarter (SW¼), Section 3, Township 27, Range 32, thence South 1647.7 feet, thence West 241.2 feet, thence North 1647.7 feet to North line said Quarter Section, thence East 241.2 feet to beginning, containing 10 acres, Jasper County, Mo.

All of a tract of land described as Nine and twelve hundredths (9.12) Acres, West Two hundred forty-one and two tenths (241.2) feet, East Seven hundred twenty-three and six-tenths (723.6) feet, North Five Eights (5/8), East one-half (1/2) Southwest Quarter (SW¼) of Section 3, Township 27, Range 32, Jasper County, Mo.

D

ST. REGIS MINING COMPANY
JOPLIN, MISSOURI

By
William M. Stewart
Mining Engineer
Joplin, Missouri

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

REGISTERED PROFESSIONAL ENGINEER
MISSOURI No. E-831 OKLAHOMA No. 448
MEMBER A. I. M. & M. E.

PHOTO-COPIES
BLACK LINE PRINTS
BLUE PRINTS
DISTRICT MAPS

WILLIAM M. STEWART ENGINEERING CO.
MINING AND CIVIL ENGINEERS
40 YEARS EXPERIENCE IN TRI-STATE DISTRICT
216 WEST THIRD STREET
PHONE 11
JOPLIN, MISSOURI

April 4, 1951

St. Regis Mining Company
203 Joplin Bank Bldg.
Joplin, Missouri

Attention: Mr. G. J. Fenix

Gentlemen:

In the early part of 1943 in collaboration with Otto Ruhl, Engineer of the U. S. Bureau of Mines and as Engineer of many years experience in this district, I made a detailed study and analysis of all available data and evidence covering the sheet ground ore horizon from Oronogo to Duneweg including approximately 1000 drill holes records, maps of underground workings and production figures, compiled by the Statistical Division of the U. S. Bureau of Mines, covering an eleven year period from 1909 to 1919 and the production of 53,933,640 rock tons, 1,092,630 tons of Zinc Sulphide and 224,443 tons of Lead Sulphide, a recovery of 2.026% ZnS and 0.41% PbS.

During the above period I was underground in the mines of the Webb City-Duneweg district a great many times and had knowledge of the milling practice and efficiency of that period.

Having in mind the present mining and milling efficiency I estimate the recovery of the ore reserves in the St. Regis area at 2.46% Zinc Sulphide and 0.39% Lead Sulphide, a total of 2.85% from an average height of face of 12.0 feet.

Available production figures of the 31.14 acres overall area (included pillars, ribs and lean areas) mined by the Lincoln-Athletic Mining Companies from 1909 to 1919 gives an average production including sludge ore remaining on mine floors, of 800 tons of Zinc Sulphide and 130 tons of Lead Sulphide per acre. A concentrate tonnage of 930 tons from 32,550 rock tons at a recovery of 2.85%.

The Athletic 31.14 acres produced 24,631 tons of Zinc and 3,941 tons of Lead Concentrates, a total of 28,512 tons at a ratio of 86.4% ZnS to 13.6% PbS, at a 2.85% Recovery this gives 2.46% ZnS and 0.39% PbS.

It is reliably reported that the floors of this mine have not been sludged. This would increase the production some 2,000

MINE VALUATIONS
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216 WEST THIRD STREET
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JOPLIN, MISSOURI

tons of ZnS and some 300 tons of PbS.

From available data, evidence and concentrate prices as of April 1st, 1951, on your 265 acres (more or less) of mineral leaseholds I estimate the Ore Reserves in the sheet ground horizon as follows:

In 69 acres
2,240,000 rock tons
@ 2.46% Rec. 55,000 tons Zinc Sulphide
@ 0.39% " 9,000 tons Lead Sulphide
@ 2.85% " 64,000 tons of Concentrate

$115.00 per ton ZnS less 6% Royalty - $108.10
218.40 " " PbS " 6% " - 205.30
Value per rock ton @ 2.46% ZnS - $2.66
" " " " @ 0.39%PbS - 0.80
Gross " to St. Regis Co. --------- $3.46 per ton

The accompanying map shows the mined out area on your leases and adjoining properties from available maps, and also the sea level elevations of the ore horizons as shown by drilling to date.

The 98 acres covering the present Reserves are outlinged by Blocks I to V and are discounted from 20 to 35% depending on the evidence relative to each block.

Undeveloped areas are marked insufficient data but are potential mineralized zones. The dewatering of this area will allow visual examination of all existing faces adjacent to these and the Blocked areas and in the light of expediting production is essential to the developement of the property.

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

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MISSOURI No. E-831 OKLAHOMA No. 448
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40 YEARS EXPERIENCE IN TRI-STATE DISTRICT
216 WEST THIRD STREET
PHONE 11
JOPLIN, MISSOURI

AREA ANALYSIS

Block I	9.0	acres	less	30% - 6.3	acres
Block II	16.0	"	"	25%- 12.0	"
Block III	52.0	"	"	35%-34.0	"
Block IV	12.0	"	"	20% - 9.5	"
Block V	9.0	"	"	20% - 7.2	"
Total	98.0	acres		69.0	acres

69. acres x 800 tons - 55,000 tons of ZnS
69. acres x 130 tons - 9,000 tons of PbS
Total 64,000 tons of Zinc & Lead Concentrates
@ 2.85% Rec. - 1 ton of Concentrates to 35 Rock tons
64,000 tons x 35 - 2,240,000 Rock tons.

The mined area on your 265 acre lease as outlined on the map figures 53 acres.

Respectfully submitted

William M. Stewart

William M. Stewart

WS:pt

KARL L. KOELKER, JR.
318 JOPLIN ST
JOPLIN, MISSOURI

Exhibit F

[illegible]

[illegible]

[illegible]

[illegible]

July 3, [illegible]

[illegible] time

[illegible]

KARL L. KOELKER, JR.
318 JOPLIN ST
JOPLIN MISSOURI

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Lincoln [illegible] Co. ([illegible]) 1910

		Zn	Pb
June	12	[illegible]	
	19		[illegible]
July	8	[illegible]	
	17	[illegible]	
	24	[illegible]	[illegible]
Aug	7	[illegible]	
	14	[illegible]	
		492,240 lbs	[illegible] lbs

Total production 1910 [illegible].92 tons Zn
[illegible].92 " Pb.

Production-- Gopher Mining Co. 1912

Aug.	11	[illegible]	
Sept.	5	[illegible]	
	19		[illegible]
	22	[illegible]	
	29	[illegible]	[illegible]
Oct	3	[illegible]	
	10	[illegible]	[illegible]
	[illegible]	[illegible]	
	27	[illegible]	
Nov	2	[illegible]	
	10		[illegible]
	17		11,980
	24		41,180
Dec	1	[illegible]	
	15		[illegible]
		1,042,140 lbs	194,940 lbs

Total production 1912 821.05tons Zn
97.47 Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production - Joplin Mining Co. 1918

Jan	5		[illegible]
	12	[illegible]	
	19	[illegible]	[illegible]
Feb	9		[illegible]
	16		[illegible]
Mar	9	[illegible]	
	16		[illegible]
	23	[illegible]	
Apr	6	[illegible]	[illegible]
	13	[illegible]	[illegible]
	20	[illegible]	
	27	[illegible]	
May	4	[illegible]	[illegible]
	11	[illegible]	
	18	[illegible]	[illegible]
	25	[illegible]	
June	[illegible]		[illegible]
	29		[illegible]
July	13		[illegible]
Aug	10	[illegible]	
Sept	[illegible]		[illegible]
Oct	12		[illegible]
Nov	9		[illegible]
	23		[illegible]
Dec	21		[illegible]
	28	[illegible]	
		1,[illegible],000 lbs	1,[illegible] lbs

Total production 1918 [illegible] tons Zn
[illegible] " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST
JOPLIN, MISSOURI

Production-- [illegible] 1914

Jan.	4		[illegible]
	10		[illegible]
	26	[illegible]	
Feb	1	[illegible]	
	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]
Mar	17	[illegible]	
Apr	[illegible]	[illegible]	
	12	[illegible]	
	24	[illegible]	
May	[illegible]	[illegible]	[illegible]
	19	[illegible]	
	[illegible]		[illegible]
June	7	[illegible]	
	14	[illegible]	
	21	[illegible]	
	28	[illegible]	
July	5	[illegible]	
	12	[illegible]	
	19	[illegible]	
	[illegible]	[illegible]	[illegible]
Aug.	2	[illegible]	
	[illegible]	[illegible]	
	16	[illegible]	
	23	[illegible]	
	30	[illegible]	
Sept	6	[illegible]	
	13	[illegible]	
	[illegible]	[illegible]	
	27	[illegible]	
Oct	[illegible]	[illegible]	
	[illegible]	[illegible]	
	25	[illegible]	[illegible]
Nov	1	[illegible]	
	15	[illegible]	
	29	[illegible]	
Dec	6	[illegible]	
	13	[illegible]	
	20	[illegible]	
	27	[illegible]	
		[illegible] Lbs	707,070 Lbs

Total production 1914 2,[illegible]4.40 tons [illegible]
355.93 " lb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production Gopher Mining Co 1915

Jan	10	292,080	
	17	60,000	
	24	119,140	62,490
	31	121,000	62,140
Feb	7	59,140	
	14	177,230	
	21	120,000	
	28	119,450	
Mar	21	56,880	
Apr	4		126,370
	11	83,010	
May	2	185,230	62,090
	9	320,490	
	16	191,480	
	23	123,930	
	30	325,910	
June	6	119,280	
	20	115,390	71,140
	27	60,940	
July	4	130,140	53,180
	11	59,440	
Aug	15		10,970
		2,346,160 lbs	458,580 lbs

Total production 1915 1,423.08 tons Zn
219.29 " Pb

Production Athletic Mining Co 1915

Aug	29	77,190	43,990
Sept	5	52,570	
	12	123,440	
	18	79,210	
	26	60,850	
Oct	3	145,390	
	17	81,360	
	24	71,190	
	31	64,830	33,450
Nov	7	175,430	
	21	159,270	
	28		67,040
Dec	5	244,740	
	12	79,930	
	19	205,960	
	26	343,420	95,280
		1,993,480 lbs	239,010 lbs

Total production 1915 991.74 tons Zn
129.50 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production Athletic Mining Co 1916

Jan	2	223,260	
	16	198,710	
	23	181,000	
	30	175,640	
Feb	6	91,580	63,460
	13	171,170	
	20	238,860	
	27	151,650	
Mar	5	188,090	126,[illegible]
	12	245,910	
	19		59,960
	26	294,780	
Apr	2	116,030	
	9	168,930	126,830
	16	224,970	
	23	240,040	
May	7	297,230	65,340
	14	259.780	
	21	179,620	62,930
	28		63,540
June	18	628,120	
July	16	115,[illegible]60	91,660
	23	80,910	
	30	206,120	62,870
Aug	6	286,120	
	13	272,390	
	20	140,450	60,450
	27	142,860	
Sept	3	187,590	78,250
	10	271,720	
	17	127,080	
	24	295,650	
		224,880	
Oct	1	575,350	
	9		64,290
	18	201,610	
	22	272,030	62,480
	29	209,080	
Nov	12	413,482	61,740
	26	69,[illegible]	
Dec	3	447,500	
	10	291,130	125,630
	17	103,500	
	31	105,130	54,760
		9,236,782 lbs	1,280,320 lbs

Total production 1916 4,618.39 tons Zn
[illegible],640.16 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Athletic Mining Co 1917

Jan	7	129,410	
	14	355,920	24,770
	21	179,820	30,280
	28	250,270	
Feb	4	472,010	
	18	386,170	31,580
Mar	4	180,960	44,170
	18	798,340	30,800
	25	120,410	61,090
Apr	1	125,210	
	22	358,960	73,080
May	13	416,860	57,940
	20	290,990	62,230
	27	387,030	
June	3	176,220	
	17	328,710	92,320
July	15	612,900	57,300
	29	341,860	
Aug	5	425,380	50,920
	19	198,370	
Sept	9	215,710	174,690
	16	285,730	34,450
Oct	7	251,110	
	21	205,700	
Nov	4	219,180	
	11	110,370	64,140
	18	317,180	
	25	376,480	
Dec	2	119,070	277,100
	16	447,100	
	23	407,040	100,860
	30	240,420	21,300
		13,250,090 lbs	1,703,800 lbs

Total production 1917 6,625.04 tons Zn.
751.90 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production--- Athletic Mining Co. 1918

Jan	6	162,630	38,560
	13	165,830	64,330
	20	84,210	
	27	86,100	64,310
Feb	3	83,670	
	10	342,660	
	24	306,040	129,040
Mar	3	191,900	82,790
	17		79,670
	31	1,665,910	71,960
April	21	571,580	135,030
May	5	572,980	71,400
	12	297,800	
	19	108,850	100,060
	26	189,750	
June	2	186,700	78,340
	9	202,430	
	23	449,720	87,930
	30	242,290	
July	6	213,370	85,510
	21	236,260	
Aug	4	171,140	
	11	261,880	177,810
	18	62,140	
	25	59,100	
Sept	1	87,740	88,280
	8	482,600	
	15	310,220	
	22	283,130	
	29	235,990	150,810
Oct	6	149,880	
	27	118,090	88,200
Nov	3	62,610	
	17	469,360	83,450
	24	235,980	
Dec	1	126,710	91,470
	8	125,500	
	22	244,530	
		9,847,280 lbs	1,768,950 lbs

Total production 1918 4,923.64 tons Zn
884.47 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Athletic Mining Co 1919

Jan	5	63,450	
	12	127,600	124,460
	26	111,060	
Feb	2	179,120	
	9	64,140	
	16	124,830	85,690
	23	62,970	
Mar	2	61,620	
	16	122,250	
		911,040 lbs	210,150 lbs

Total production 1919 455.52 tons Zn
105.07 " Pb.

Production total 1909 to 1919

	Zn	Pb
1909--	403.53	43.35
1910	746.12	110.12
	211.92	21.82
1912	521.07	97.47
1913	846.95	583.77
1914	2,864.40	353.93
1915	1,423.08	219.29
	991.74	129.50
1916	4,618.39	640.16
1917	6,625.04	751.30
1918	4,923.64	384.47
1919	455.52	105.07
	24,631.40 tons	3,941.35 tons

ys, Reaching $39

BUILDING MANY PLANTS IN THE EAST END CAMPS

DUENWEG AND PROSPERITY REGION SCENE OF ACTIVITY.

New Plants Will Largely Increase Ore Output in These Camps—Early Production Seems Assured.

There are few camps in the district that are doing the amount of mill building that is being done at the present time at Prosperity and Duenweg. No less than six plants have been put up either new throughout or representing a removal of a mill to the mine, or an addition to the machinery on the ground which would make the plant a complete mill, within the present year.

Such a movement of mill building means a large increase in the productive capacity of these camps, and this increase in production is scheduled to begin at a very early date. In compensation there are a few mills that have been moved from mines in that same vicinity, but not enough to equal the number of new ones.

Among the new plants is the Highland mill of the United Zinc Company, which has been rebuilt on the same site where the former big mill had been burned down. The plant is now completed and ready for operation. This mill is capable of handling from 400 to 600 tons of ore per day.

Just east of this mill the Lincoln Mining and Milling Company is completing the erection of a new concentrating plant, which in some respects is quite different from the general run of mills built throughout the district. The plant will have as part of its equipment the Richards Pulsator jigs, which are largely an experiment in this field. No mill in this field has yet tried the new jig, and many operators are watching with interest the starting of the plant and its success as a cleaning agent for Joplin ores.

In addition to the jigs the plant has several novel hydraulic classifiers which will be used in the classification of the pulps for the concentrating tables. This feature, while in use in other mills, is novel in being slightly different from anything else in the field. The plant should be completed within another fortnight and operations on a moderate scale will begin.

In addition to the main shaft at the milling plant the company has a second shaft about 75 feet away which is being utilized for an additional ore supply. The derrick and connecting tramway is now under construction. The mill buildings are covered throughout with galvanized iron.

On an adjoining lease the Wolfsheart Mining Company is also erecting a new mill. This plant is covered with galvanized iron and is rapidly nearing completion. The company in the first place installed permanent machinery, and the mill building now under construction is only forming a part of the present plant. This mill, as also its neighbors, are going to treat a sheet ground proposition which was developed by drilling in the fall and winter of 1907 and developed by shafts only last year. Owing to the very low prices of ores throughout the past year the development operations on all the sheet ground mining camps were allowed to hang fire and only with a better outlook did the owners start to work.

In addition to these mills there has been a mill moved upon a lease just west of the Highland mill. Over west of the Gibson mill a new plant is well under way on the very crest of the divide. At Duenweg, in the very heart of the old diggings, a plant is now under construction and should be completed soon.

Out on the old Criterion lease the American Zinc, Lead and Smelting Company has remodeled one of the old Alabama mills and placed it in readiness for operation. With the new additions and adaptations of machinery the plant is equal to a 350 to 400 ton plant.

In addition to these new plants now building, there were completed during the past year a number of other mills in that same field which are just beginning operation or are still waiting for a resumption of better ore prices. The Coahuila mill is one of the largest mills built and is now in operation. On the Cosgrove land there were a number of plants either built or planned for erection during the coming year. All of this activity means that when prices of ore reach a $40 level, and have any assurances of staying there, the ore tonnage that will be produced from that camp will be surprising.

STARTS FIRST SHAFT IN THE FAIRLAND FIELD

good strikes of lead ore have been reported.

EIGHTY WORK AT BOYD MINE

Reopening of the Sarcoxie Property Gives Employment to Many.

The Boyd mine at Sarcoxie has been thoroughly drained and operations have begun full blast, after a shut-down of many months. The reopening of the mine has given employment to about eighty men and means more to the eastern part of the district than any other recent mining movement.

After the mine was closed it filled with water and it has required a large amount of pumping to thoroughly drain it. Turning from the Boyd mine again will place Sarcoxie in the production list and should materially increase the output of the eastern district.

LINCOLN TO HAVE TWO PUMPS

With New Equipment Mine May Be Drained Within Ten Days.

Another pump is being installed at the Lincoln mine at Duenweg, the one installed several weeks ago not having made sufficient headway against the water. With both pumps running full blast, it is believed that the mine may be drained within ten days, at the latest. It is possible that the mine may be free of water within a week after the two pumps are placed in steady operation.

There was 15 feet of water in the mine when the pumps were first started and the water level has been lowered 20 feet. As soon as the workings are drained, a force of men will be placed at work. Then the property will be kept in steady operation.

A NEW DERRICK AND HOIST

Huggins & Barker Mine Soon Will Be Producing Ore.

A new derrick is being built at the Huggins & Barker mine near Belleville and a steam hoist is being installed. The operators of the mine have been developing their property for some time. They now have arrangements in shape to begin the production of ore.

The Dorothy Marie mine at Belleville has been drained and the operators expect to be producing ore soon.

NEW MILL WEST OF JOPLIN

Glendenning & Cook Building Plant on Minor-Graham Lease.

A concentrating plant is being erected on the Minor-Graham Lead and Zinc Company's lease, west of Joplin. Glendenning & Cook are building the plant. Work on the mill is progressing very

Mary Co. Zinc Co. 1; 818
Four, 10,000 lbs. 1; High
Tariff, 9,870 lbs. 0.
[illegible] Montana M. Co.
[illegible]y M. & S. Co.
[illegible] Brothers
Rex M. & S. Co.
Falls City L. & Z. Co.
W. O. Gregg
Muskingum M. Co.
Cherokee M. Co.
Edward Hamilton
Blafer M. Co.
Sitting Bull M. Co.
Grand Haven M. Co.
Hollando-American M. Co.
New Dividend M. Co.
Belleville L. & M. Co.
Samson M. Co.
C. C. Playter
C. M. Sheldon, Pres.
Leonard Realty Co.
McRee land
Parker M. Co.
D. & W. M. Co.
P. L. Swartz
St. Patrick M. Co.
Black Jack M. Co.
Gordon Hollow M. Co.
Roaring Springs land
Jackson M. Co.
A. Z. M. Co.
Continental Zinc Co.
Reid & Phillips
Ten Per Cent M. Co.
Liberty M. Co.
Homer Beals
No Name M. Co.
Paragon M. Co.
D. & A. M. Co.
Sundries

Total: sales

Shout Creek M. Co.
Baker Estate
Granby land
Sundries

Total sales
Values: Blende, [illegible]; calamine, [illegible]; lead, [illegible]; total, [illegible].

WEBB CITY-CARTERVILLE

S. Y. Ramage
Mercantile M. Co.
Center Creek M. Co.
Rhea L. & Z. Co.
Edmund Lyon M. Co.
Spotted Dog M. Co.
Golden Glow M. Co.
Aylor M. Co.
C. S. Lang
Minor Heir Producing Co.
Continental Zinc Co.
Providence M. & M. Co.
Underwriters Land Co.
Bertha A. M. Co.
Dixie M. Co.
Incline M. Co.
American-Canadian M. Co.
C. C. & H. M. Co.
Ice Plant M. Co.

Nov 1915

JOPLIN

Largest Slime Plant For Athletic Company

Three Dorr Thickeners, One Classifier and 81 Tables to Be Installed at C. T. Orr's Property.

The Athletic Mining Company, which is operating the old Gopher mine at Duenweg, is planning to install the most complete slime plant in the entire district.

According to present plans, which it is understood are well matured and finally decided upon, twenty-one James tables will be installed, and these will be supplemented by two 40-foot Dorr thickeners, one 17-foot thickener and one Dorr classifier.

Charles T. Orr, who is at the head of the Athletic company, is perhaps more competent to pass upon the value of the Dorr scheme of slime recovery than any other man in the district for the reason that he has had the only large plant in operation. It is at the Wingfield-Berthe A. property south of Webb City, of which he is manager, and it is understood that the plant of late has been showing a good profit on the original investment.

At the Wingfield-Berthe A. plant only tailings from the tables and overflow from the settling tanks is being treated with the Dorr thickener and classifier. This is material that ordinarily is lost in concentration work as practiced in this district, and that good profits are now being taken from this prospect a short distance south of the Dorr or other process in Minnesota.

M. SHORT MAKES STRIKE

[illegible] Lead Ward [illegible] Ore [illegible]

A special drill hole has just been [illegible] by Short and Flynn, who

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Symmes M.
Grasby M.
Mattoe Bro
A. W. C. M
Ber. M. &

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Firestone
Most Mileage
Least Repair Expense
Riding Quality
Satisfaction
Economy

Most Miles per Dollar

STATEMENT OF [illegible] THOMAS

Questions by Mr. [illegible]

Q. Tom, I did you would tell us what [illegible] mining, if any, was done by the Athletic Mining & Smelting Company on the southwest 40 of that mining lease consisting of 160 acres east of the Scott and Evans-Hall-Coy mine at Dunnegan?

A. I don't know of any, unless we were slightly over the line going south from the northwest 40. I have seen a map which shows that in places we cut as far south into the southwest 40 as 200 feet from the northwest 40's south line. There are some good drill holes on the southwest 40, of which I have seen the records showing the ore face at about the same level and about the same height that we mined on the northwest 40. I have never been in either the Evans-Hall-Coy nor the Scott mine, but I do know that Mr. Orr, that is, the Athletic Mining & Smelting Company I mean, cut a good face of ore going west onto the northeast 40 which you now own. I have seen the records of three drill holes showing a face of ore running from northwest to southeast over an area of about 600 feet and showing a face of ore, of zinc and lead, from about 225 or 226 to 240 feet averaging about 9%. There are other holes east of those holes, that is, between those holes and the face of ore which was cut by the Athletic west, which are not so good. I would estimate that the mill recovery on the ore which we mined at the Athletic ran about 5%.

Q. Now, Tom, I wish you would tell me about your best recollection of what ore, if any is left to mine on the faces left in the northwest 40 of the Athletic mine, other than the face that you have already referred to going west and which has been cut to my line.

A. I would say that the ore going south was the best that we had in the mine.

Q. How wide from east to west would you say that face of ore was when you quit mining there?

A. By george, I couldn't hardly guess at that. My best recollection is that we were mining the best of the ore over an east and west face of about 150 feet wide and between 12 and 14 feet high. That ore would run, in my estimation, between 5% and 6%

also saw lead. There was little lead in it. Now there was ore all along the south face for a distance of lead west of about 900 feet, but we were only mining the richest ores, as I said, covering about 150 feet, because we were only getting $18 a ton then for jack and our production was largely jack. There was ore along all four sides north, east, south and west of the Athletic mine when we quit mining there on $18 ore, but in places it didn't run over 3% or 4% and that didn't pay to mine at $18, but at other places it would run as high as 6% mill recovery, and would average probably between 5% and 6% at the places other than where it ran 3% and 4%.

Q. Now, with reference to the northeast 40, where the San Gabriel was located on this 160 acres of the Athletic, what do you say about that mine there?

A. I think I was only in that mine about three times. Rice was there all the time I was out there.

Q. How near to the time you quit mining there was about the last time you were in there, Tom?

A. I don't know, I guess it was about two or three weeks, not enough to make any great change in ground, unless it would change from poor to richer.

Q. What do you say as your best recollection of how good were the ore faces in the northeast 40 of the San Gabriel?

A. I would say from my memory that they were just about the same as at the mill faces. When I say the mill faces I mean on the northwest 40.

Q. Did the Athletic Mining & Smelting Company, while you were its superintendent, do any mining on the southeast 40?

A. No. I was never in the ground of the mine on the southeast 40. There was a small mine down there, but I don't remember at what level it was worked.

We had no flotation plant at the Athletic. All we had besides the jigs were sludge tables and few of them. I can't remember how many, but we didn't have but a few.

Q. Now, do you remember how good was the face of ore which the Athletic cut west onto what is now the Scott lease?

A. That was cut before I became general superintendent for the Athletic Mining and Smelting Company and I do not remember ever having gone over to that part of the mine. Everywhere else that I have seen it, all the way around the four sides of the ore faces on the northwest 40, the mill recovery ran all the way from 3% to 6% and the ore faces averaged from 10 to 12 feet in height.

I was general superintendent for Mr. Charles T. Orr and I had a number of mines at one time under my general supervision.

The Lincoln Mining Co., the Maple Leaf Mining Co., and the Wolfheart Mining Co. made a fair production from the Jasper County Royalty Co.'s land. The principal producers on the Knol land were the New York & Western Zinc Co., the Durby Lead & Zinc Co., the Nowata Mines Co. (No. 2), and the Delker Mining Co. The first and the last named companies erected mills during 1910.

The zinc carbonate and silicate concentrates produced in the district nearly all came from the R. L. McGee lease, on the Hall land, and the Emma C. Mining Co.'s lease, on the Sadtler land.

Smaller producers included Becker & Relling, Cadwell-Allen Mining Co., Boston & Duenweg Mining Co. land (on which the White Rat Mining Co. erected a 200-ton mill), the Marvel-Carnation and Henrietta leases on the Cosgrove land, Crown Crest Zinc & Lead Co., Old Colony Zinc Co., Grace Ping Mining Co., Hyde Park Lead & Zinc Co., Bonnie Pattie Mining Co., Sayers Mining Co., and Henry Weymann land.

Granby district.—The total production of this district in 1910 showed little variation from that of 1909. The production of silicate of zinc from shallow workings was less than in 1909, but the increased shipments of sphalerite concentrates more than counterbalanced the loss. Most of the producing territory belongs to the Granby Mining & Smelting Co., and the total tonnage from it was large, the relative quantity of zinc silicate, zinc blende, galena, and lead carbonate being in the order named. Much of the mining by individual operators and by small companies is in shallow workings and yields lead ore and silicate of zinc ore. The large lessees on Granby land, which contributed nearly all of the blende concentrates in 1910, were the Mascot Mining Co., Katy Mining & Milling Co., Golden Rule Mining Co., Little Boss Mining Co., Fortune Teller Mining Co., the Billiken Mining Co., and the Granby Sludge Co. The Mascot Mining Co. has a 100-ton mill on the Granby land and one of 150 tons on the adjoining Homestake mine. Other district producers were the Illinois Zinc Co., the St. Paul Mining Co., and the Little Four Mining Co.

Joplin district.—The number of producers reporting from this district is larger, the [illegible] of the land or mining leases is more diffused, and the area of operations more extended than in any other district in Missouri. The production is second to that of the Webb City-Prosperity district. The 1910 sales of concentrates were as follows: Galena [illegible]2 tons, lead carbonate 51 tons, zinc blende 47,200 tons, carbonate and silicate of zinc 1,403 tons. The total value of the concentrates was $2,243,273. As compared with 1909, the sales of galena and carbonate of lead declined 362 tons, zinc blende increased 1,237 tons, and carbonate and silicate of zinc increased 183 tons, and the total value was $837,084 less.

The largest production of lead ore and also of zinc ore was turned in by lessees of the Granby Mining & Smelting Co. This company reports that two new ore bodies have been discovered by drilling on the south half of the NE. ¼ sec. 33, T. 28, R. 33, and that shafts were being sunk to develop the ore body.

The second largest production of blende concentrates was produced by the Mandarin and Culpepper leases on the Cunningham land. Four shafts, ranging from 160 to 200 feet in depth, were in operation.

elter Markets Weaker

IS $62.50; R FOR LEAD ORE

—

s Operators—$35 to $38 Strikes at Several Mines Curtailed.

—

e last week was $62.50. Prices k previous. The greater part nde between $60 and $62.50. e sold for less than $60.

t of the week, and many oper- s to prevail this week. Some refused them were surprised probable that they will lose ling it.

$60.

last week was $60. On the he high mark.

mine. For a few choice lots sales were consummated on a s ranged down to $50 for less

nt to a certain extent. Several h are among the largest in the unt of labor troubles. A num- r a time on account of strikes. output.

ville field are in need of labor- a great extent by an inability ch men to carry on operations of the problem may be the or- ureau at Webb City. The ob- mines who are in need of them n.

of the Pittsburg Zinc Company firm from the ore market last

s of lead and zinc ores from klahoma district for the week

Brothers	2,100	.....
n Hen M. Co.	41,370	.....
w Branch M. Co.	42,120	.....
n City M. Co.	15,000	....
John L. & Z. Co.	.....	131,220
al sales	268,590	131,220

ues: Blende, $6,432; lead, $2,630; total, $.

CAVE SPRINGS.

	Blende.	Lead.
Kramer Mines	159,000	458,540
Spring L. & Z. Co.	52,720	.....
al sales	211,720	458,540

ues: Blende, $6,042; lead, $13,994; to- $19,946.

SARCOXIE.

	Blende.	Lead.
dean Z. L. & S. Co.	64,000	.....

lue: Blende, $1,792.

ORONOGO.

	Blende.	Lead.
ogo Circle M. Co.	212,560	.....
acle M. Co.	275,780	.....
al sales	488,000	.....

ue: Blende, $13,800

WENTWORTH

	Blende.	Lead.
twerth L. & M. Co.	52,510	.....

lue: Blende, $2,571.

LAWTON.

	Blende.	Lead.
ern L. & Z. Co.	61,000	.....

lue: Blende, $1,524.

CARL JUNCTION.

	Blende.	Lead.
r-Smith M. Co.	63,840	.....
ed Lehigh M. Co.	52,620	.....
Junction M. Co.	11,600	.....
y Kitty M. Co.	.....	2,020
tal sales	128,060	2,020

lues: Blende, $2,776; lead, $50; total,

SPRINGFIELD.

	Blende.	Lead.
M. Co.	88,000	.....

lue: Blende, $2,640.

SPRING CITY-SPURGEON

	Blende	Lead
ckey Valley M. Co.	28,100	15,110
r Heir-Sunrise	11,850	10,850
croft Land	.....	5,450
tal sales	39,950	29,470
	Calamine.	
r Heir-Sunrise	39,210	

lues: Blende, $1,084, calamine, $589; $1,102; total, $2,676.

GRANBY.

	Blende.	Lead.
e Boss M. Co.	157,640	.....
cot M. Co.	37,730	.....

IMPROVEMENTS AT GALENA MINES TO INCREASE OUTPUT

TO ENLARGE AND REMODEL HARTFORD MILLING PLANT.

Electrical Machinery to Be Installed —Drilling Has Shown Rich Deposits on Lease.

Improvements that will mean a great increase in output are planned for the Hartford mines, south of Galena. The concentrating plant is to be remodeled and its capacity increased. Mine workings recently have been enlarged and the known mineralized area increased.

Electrical machinery will be installed in the plant. It is expected has been operated by steam power. It is believed to meet [illegible] handle a greater amount of dirt under the new arrangement.

Pumps Water from Shoal Creek.

Some difficulty has been encountered by the operators of the mine in obtaining enough water to operate the mill steadily. A pump is to be installed in Shoal Creek one instance from the mine and water pumped to the property from the stream.

Drilling done at the mine recently has revealed an extension of the ore deposits. A number of holes have been put down in advance of drifts and these have resulted in rich strikes. The Hartford mine has been for some time one of the steadiest producers in the Galena district.

The property is owned by men who live at Hartford, Conn. Harlan H. White is manager of the mine.

STEEL MEASURE IS PASSED

Senate Recedes Amendments and Congress Enacts Bill.

The steel bill, carrying the zinc ore schedule, was passed by congress yesterday after some amendments were receded, according to a telegram received here by Judge D. D. Hong. Zinc ore is placed on the free list by the act.

It is reasonably certain, however, that President Taft will veto the bill, and it is not probable that a two-thirds majority may be obtained for passing the measure over his veto.

Following is a copy of the telegram received by Judge Hong yesterday:

"Congress passed the steel bill today, the senate receding from its Canadian reciprocity amendment by a vote of 32 to 28. The democrats and La-Follette framed the measure and all of the democrats, together with all progressives, except United States Senators Cummins, Borah, Gronna and Bourne. The regular republicans opposed the bill. The measure will reach the president early in the week. He will veto it."

GOPHER COMPANY MAKES ORE

Firm Operating Lincoln Mine Begins Producing Blende.

The Gopher Mining and Manufacturing Company has cleared the Lincoln mine of water and it now is producing ore. Considerable time was consumed in bailing the water, but from now it will be a steady producer.

O. Plunkett has been engaged as superintendent of mining operations. A. W. Van Hafften has been here for the last ten days looking after the interests of the company, and will remain until the success of the mine has been thoroughly demonstrated. He is much encouraged at the showing the mine is making.

W. A. Van Hafften, the secretary, will remain here for some time.

INITIAL TURN-IN FROM MINE

Carload of Ore Is Shipped From Geronimo Property.

The initial turn-in from the Geronimo mine, on the Connor land west of Joplin, was made last week. The property has been opened up by Jesse Short and others, development work having been

PUMP OF WOOD AND LEAD TO BE USED AT MINE

WILL BE MANUFACTURED AT OPERATORS' INSTRUCTIONS.

Expected to Be Solution of Acid Water Problem at Carterville—Drainage Work in Progress.

After several ineffectual attempts to solve the water proposition on his land near Carterville, T. T. Luscombe has decided to install a pump made of wood and lead to combat acids that have eaten up other machinery placed in the ground.

The pump will be manufactured on a special order. It will be a lineal [illegible] centrifugal. The pump will be made entirely of wood and lead with the exception of the shaft, which will be of brass.

To Drain Lower Levels.

Franz Wallower has two pumps similar to the one Mr. Luscombe goes to install. These are the only machines of their kind in the district. Mr. Wallower is using them to drain ground near the Luscombe property.

Lower levels on the Luscombe tract are to be drained with the new pump. The water contains a large amount of strong acid, which has destroyed other machinery placed in the ground. On the wood and lead pump the acids can have no effect. Column pipes probably will be coated with an acid-proof paint.

A great amount of drainage work is in progress in the field just south of Carterville. A number of companies have resumed operations there. Ground which is previously has been impossible to operate may be worked when plans now being formed are carried out.

RICH ORE ON CARTHAGE LAND

Four Holes in Ore on Land Owned by Mrs. Glenn.

The fourth drill hole to be put down on land of Mrs. Henrietta Glenn in the old Carthage tract has gone into ore. The first three holes sunk went into rich deposits. W. B. Stacy, of the S. V. Ramage interests is in charge of the work.

In the last hole ore was struck at 65 feet. A solid face of stuff was proved up. Mathew Lane, a drill man of long experience, says some of the cuttings will assay more than 5 per cent. The hole is the best he has sunk in any part of the Joplin district, he says.

The drill is not yet through the deposit, but it is believed that ore will be found down to a depth of 95 feet. In other holes the ore has been encountered at 100 feet.

Work is being done on the old Grier tract just west of the Kiheka lease. The tract will be thoroughly drilled and then a shaft will be sunk to the deposits. If development work warrants it, a mill will be erected.

Mrs. Glenn intends to drill the Kiheka tract as soon as a rig may be obtained.

WILL DRAIN AURORA SHAFT

Old "Double Bob" Workings to Be Dewatered by New Firm.

Plans have been completed for the beginning of drainage work on Aurora land by the Chat River Drainage and Leasing Company. The old "Double Bob" shaft will be the first drained. The shaft is one of the lowest on the United Zinc Company's land there and if water is lowered in it a larger area of land will be drained.

The draining of the shaft will be watched with great interest. The water problem which has resulted so long in Aurora will be long worth solved if the water is removed.

A large centrifugal pump will be installed for the draining of the ground. The company intends to have better equipment than ever has been used at Aurora.

Officers of the new firm have been elected. They are: John L. McNatt, president; O. O. Plunk, J. J. Cullright, George Hutchison and C. H. Kennedy, directors.

STRIKE ORE AT SPRINGFIELD

IN GLOBE'S MINING DE[PARTMENT]

for Blende; ge Basis Is $100

Brought About Another $10 Boost Prices—Some Ore Sold as Low as 'oor Quality—Lead Also Up With $60 to $64—Calamine Higher, $65 her for Production.

he price of blende was recorded during the grades in carload lots brought $110, basis n to $90, the average base price being $100. ow-grade ore at $85.

omewhat, $64 basis being paid in some in- e holding down to as low as $50 a week ago past. Pig lead has advanced to $5.15 on

er market has been persistent during the price. The Globe's special correspondent at at $16.25 to $16.37½ for the week's close, he New York metal exchange place the top resumed quotations during the week after

ce of blende and was quoted at from $65 to it is in good demand and there is scarcely

e favored with excellent weather and the tely bought up this week.

nts, in pounds, with their values, of zinc first leases in the various cities, towns and Oklahoma district for the week ending No-

	Lead.
	....
	15,400
	....
	19,480
	9,800
	....
	....
	....
	....
	....
	39,830
	36,690
	36,060
	10,960
	6,000
	6,280
	4,520
	301,000
	434,700
	,530; to-

	Lead.
	79,070
	....
	....
	....
	....
	37,240
	13,880
	....
	....
	....
	35,480
	....
	....
	47,150
	79,120

	Blende.	Lead.
Fidelity M. Co.	61,170	....
Scott M. Co.	61,500	....
What Cheer M. Co.	60,610	65,080
Sundries	129,500	....
Total sales	1,318,900	82,070

Values: Blende, $65,900; lead, $2,480; total, $68,380.

ALBA-NECK CITY-PURCELL.

	Blende.	Lead
Davidson-Joplin M. Co.	186,830	13,880
Purcell M. Co.	130,060	....
Reliable M. Co.	72,000	....
Lucky Tiger M. Co.	86,570	....
Cockelburr M. Co.	63,390	....
Black Hawk M. Co.	43,890	....
Sundries	62,000	....
Total sales	644,030	13,880

Values: Blende, $33,200; lead, $360; total, $33,560.

MIAMI.

	Blende.	Lead.
Turkey Fat M. Co.	171,860	....
Vantage M. Co.	130,980	....
Cactus M. Co.	125,440	....
Never Sweat M. Co.	115,740	....
Amalgamated M. Co.	123,060	....
Miami Z. & L. Co.	85,340	....
Quapaw M. Co.	78,780	57,740
Midas L. & Z. Co.	69,240	....
Lennan L. & Z. Co.	62,720	14,400
Gartung M. Co.	44,850	....
Mizpah M. Co.	19,850	....
Concentrating Co.	17,200	....
Blue Goose M. Co.	....	110,850
Standifer Bros.	....	81,720
High Five M. Co.	....	7,220
Total sales	1,046,060	270,930

Values: Blende, $44,455; lead, $8,100; total, $52,555.

GALENA.

	Blende.	Lead.
North Empire M. Co.	140,740	....
McCullough M. Co.	140,000	....

GRANBY.

	Blende.	Lead.
Granby M. & S. Co.	1[illegible]	2[illegible],470
Mascot M. Co.	60,3[illegible]	....
Total sales	219,700	22,470
	Calamine.	
Granby M. & S. Co.	173,700	
Perkins M. Co.	271,000	
Total sales	444,700	

Values: Blende, $7,9[illegible]; calamine, $10,[illegible]; lead, $550; total, $18,[illegible].

SPRING CITY-SPURGEON-SAGINAW.

	Blende.	Lead.
Inca M. Co.	60,740	....
Craycroft M. Co.	....	28,9[illegible]
Willis-Bucklin M. Co.	....	10,2[illegible]
Onadoga M. Co.	....	6,0[illegible]
Total sales	60,740	[illegible]

WENTWORTH.

	Blende.	Lead.
D. & L. M. Co.	74,0[illegible]	....
Jack Possum M. Co.	71,5[illegible]	....
Total sales	145,5[illegible]	....
	Calamine.	
D. & L. M. Co.	72,200	

Values: Blende, $4,912; calamine, $2,340; total, $7,252.

REEDS.

	Blende.	Lead.
U. S. Smelting Co.	250,150	....

Value: Blende, $13,060.

ORONOGO.

	Blende.	Lead.
Oronogo Circle M. Co.	581,800	114,860
Oronogo Mutual M. Co.	265,980	58,610
Total sales	847,780	173,470

Values: Blende, $41,454; lead, $5,160; total, $46,614.

SARCOXIE.

	Blende.	Lead
Flannery M. Co.	62,660	....

Value: Blende, $2,976.

QUAPAW-BAXTER.

	Blende.	Lead.
Bash M. Co.	59,470	....

Value: Blende, $2,850.

CAVE SPRINGS.

	Blende.	Lead.
Hartford No. 2	80,710	....
Cave Springs L. & Z. Co.	65,250	....
Total sales	145,960	....

Value: Blende, $6,984.

BELLVILLE-KLONDIKE.

	Blende.	Lead.
New Geronimo M. Co.	74,800	....
Minor-Graham M. Co.	49,750	....
Lindeman M. Co.	17,920	....
Total sales	142,470	....

Value: Blende, $6,968.

DISTRICT.

This week: Blende, 11,615,850 pounds; calamine, 516,900 pounds; lead, 1,731,700 pounds.

Values: Blende, $560,211; calamine, $12,840; lead, $51,495; total, $624,046.

Average value per ton: Blende, $96.47; calamine, $47.83; lead, $59.63.

46 weeks: Blende, 490,226,368 pounds; calamine, 34,380,067 pounds; lead, 77,622,495 pounds.

Values: Blende, $18,429,934; calamine, $801,885; lead, $2,016,033; total, $21,247,852.

"Can you keep a secret, uncle?"

"Yes."

"Well, auntie has eloped with the chauffeur and they've borrowed your motor."

Old Names and New For District Mines

Hard to Keep Track of Constant Changes in Official Names of Various Mining Properties.

It is a hard thing to keep track of a mine by its name. Zinc and lead properties naturally change hands with comparative frequency and at almost every change a new name is announced for the property. Even people whose business sends them over the district pretty steadily have hard work keeping track of the properties sufficiently so they can recognize them under the new names.

Here are some of the changes that have been recorded in recent months.

Old Name.	New Name.
Joplin Camp.	
Hero	A. W. C.
Martha Ball	Bradley L. & Z.
Purcifier	Hanford
Pocahontas	Olive-Cherokee
Kitty Mack	Ramage No. 6
Tomcat	Sparkler
Baltimore	Little Martha
Hackett	Once More and Gibson
Hoo Hoo	Liberty Bell
I-no	Shellino
Duenweg.	
O. F. & L.	Baltic
Gopher	Athletic
Porto Rico	Barnett
Thanksgiving	Fidelity
Oklahoma.	
Century	Admiralty
Day-Cooter	Croesus and Bethel
Mission	Ruby No. 1
Katy	Ruby No. 2
Sweeney	Gladstone
Big Jack	Mineral King
Miller	Monarch
Hannibal & St. Joe	Al Jones
White Eagle	Homer Seals
Myrtle	Anchor
Wichita	Anna Lee
Hoo Hoo	Wilcox
Sarcoxie.	
Boyd	Flannery
Carthage.	
Hermosa	Coahuila No. 2
Oronogo.	
Judge	Mutual
Cave Springs.	
Kramer	Cave Springs L. & Z.
Big Brownie	Hartford No. 2
Belville-Klondike.	
Missouri Standard	Nineteen-Fifteen

HAVE WATER OUT AT LAST

After Seven Weeks' Wait Raymond A. Company Resumes Work.

After a seven weeks' tussle with the water, the Raymond A. Mining Company got back into the production lists during the past week.

The Raymond A. is located on a forty-acre lease of the Dixon land, and their shaft is directly southwest of the Napoleon mine. They were drowned out by the heavy rains of almost two months ago and have had a pump going steadily ever since, but have not been able to get into the ground. However, it was quite impossible for them to beat the water until the Napoleon had drained its drifts, which also were flooded, and no great effort aside from the four-inch pump was made.

It was an exasperating wait, however, as the last week the Raymond

LEAD AND ZINC PRICES

Fluctuations in Both Metals in Past Few Months Have Been Great.

Following are the changes in the sheet zinc market since the first of the year together with the price of spelter for the days on which the changes were recorded.

1915	Sheet Zinc	Spelter, St. Louis
January 12	$ [illegible]	$ [illegible]
January 19	[illegible]	[illegible]
January 21	[illegible]	[illegible]
January 26	[illegible]	[illegible]
February 2	[illegible]	[illegible]
February 4	[illegible]	[illegible]
February 5	[illegible]	8.00
February 12	12.00	[illegible]
February 19	12.50	9.25
March 1	13.00	10.25
March 5	13.50	11.00
April 22	13.75	12.12½
April 23	14.50	12.37½
April 27	15.50	13.75
April 28	18.00	14.00
April 30	17.50	13.75
May 18	18.50	15.12½
May 20	19.50	16.00
May 25	20.00	18.75
May 26	22.00	19.25
May 29	24.50	20.75
June 1	26.00	22.50
June 3	30.00	26.00
June 9	33.00	25.75
June 14	30.00	22.75
June 23	27.00	18.25
July 27	24.00	18.37½
August 6	21.00	16.12½
August 18	17.00	12.12½
August 22	15.00	12.00
August 24	16.00	12.75
November 4	16.50	15.12½
November 9	17.00	15.87½

Fluctuations in lead prices have been little less notable than changes in zinc prices. Following are the changes recorded in pig lead since the latter part of July at New York.

	Reduced.
July 30	25c to $5.50
August 2	25c to 5.25
August 7	25c to 5.00
August 9	25c to 4.75
August 10	25c to 4.50
	Advanced.
August 25	10c to $4.60
August 26	10c to 4.70
August 27	20c to 4.90
	Reduced.
September 9	20c to $4.70
September 14	20c to 4.50
	Advanced.
October 21	25c to $4.75
October 29	15c to 4.90
November 4	10c to 5.00
November 10	15c to 5.15

Nothing New.

The 8x8 geared steam hoister used so much in this district originated in the shop of Orr & Sembower, Reading, Pa., more than fourteen years ago. It was the original Samson. Many imitations have been made, but the original still remains the favorite of the district, due to its own reputation. They are sold by the McNeal Machinery Company, opposite postoffice.—Adv.

TAKE OVER A GOLD MINE

Joplin Men to Operate Golconda Mine Out in Nevada.

Winnemucca, Nev. Nov. 13.—News has been received in Winnemucca from an authentic source that a deal has been closed in Kansas City, Mo., by which the Kramer mine at Golconda has been bonded to wealthy mining men of Joplin, Mo.

It was discovered in 1907 by I. K. Kramer and since that time a large amount of development work has been

"EXHIBIT G"

HAROLD FENIX

9.12 Acres, West 241.2 ft., E 482.4 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Cora Stubbs)

39.25 Acres, SW NE ex. RR R/W, Sec. 3, Twp. 27, Rge. 32
(Herbert A. Turner)

9.12 Acres, E 241.2 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Sarah Adams)

9.12 Acres, W 241.2 ft. E 723.6 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(D. Colclasure paid by Cora Stubbs)

4.53 Acres, W 120 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(C. A. Colclasure)

5.31 Acres, Com. at SE cor. NW SW W 175½ ft. N to N line said 40 acres E 175½ ft. S to Beg., Sec. 3, Twp. 27, Rge. 32
(C. A. Colclasure)

9.12 Acres, W 241.2 ft. E 964.8 Ft. n 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Mrs. Henry J. Adams - undivided 3/10 paid by Carl Carmean)

9.90 Acres, Com. 175½ ft. W of SE Corn. NW SW N to N line said 40 acres W 326½ ft. Sto S line said 40 acres E 326½ ft. to beg. Sec. 3, Twp. 27, Rge. 32
(A. W. Van Hafften)

50 Acres, Beg 120 rods W of SE cor Sec. N 120 rods E 40 rods N 40 rods, W 80 rds. S 160 rds. E 40 rds to beg. part SE¼, Sec. 3, Twp. 27, Rge. 32
(J. A. Barker)

14 Acres, Beg. at SE Cor. Sec. N 40 rds. W 56 rds. S 40 rds. E 56 rds. to beg. part SE¼

14 Acres Beg. 56 rds. W of SE Cor. Sec. N 40 rds. E 8 rds. N 40 rds. W 32 rds. S 80 rds. E 24 rds. to beg. part SE¼, Sec. 3, Twp. 27, Rge. 32
(J. A. Barker)

30 Acres, Beg. 80 rods W of SE Cor Sec. N 120 rds. W 40 rds. S 120 rds. E 40 Rds. to beg. part SE¼ Sec. 3, Twp. 27, Rge. 32
(Alice Kibler)

24 Acres, 48 x 80 rds. beg. 112 rds. N of SE Cor. SE¼ N 48 rds. W 80 rds. S 48 rds. E 80 rds. to beg. Sec. 3, Twp. 27, Rge. 32.
(Ben L. Jones)

28 Acres, Beg. 40 rds. N of SE Cor SE N 72 rds. W 80 rds. S 32 rds. E 32 rds. S 40 rds. E 48 rds. to beg. Sec. 3, Twp. 27, Rge. 32
(Ben L. Jones)

37.83 Acres, W½ Lot 2 NE, Sec. 3, Twp. 27, Rge. 32
(Stevison Rogers Land and Mining Company)

Drill Log

Hole No. 1

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Struck water: 18' and 180'

Set $6\frac{1}{4}$" casing @ 18'

Started: 6/23/45

Finished: 6/30/45

0	5	Surface
5	16	Red clay and flint boulders
16	45	Gray lime and blue flint
45	50	Gray lime and white flint
50	60	Brown lime, little blue and white flint
60	70	Gray lime and white flint
70	100	Gray lime and little gray flint
100-105		Drak gray lime and light gray lime and little gray flint
105-165		Brown lime and little white flint
165-178		Brown lime and white and gray flint
178-186		Blue, Gray, white and blue flint (zinc shines)
181-186		5.7% blend
186-200		Open
200-202		Fair zinc could be out of roof

J. T. & Boyd Patrick Contractors

Signed: Boyd Patrick

Drill Record

Hole No. 2

Property Name:

Drill Owner:

Begun: 6/5/45

Finished: 6/13/45

Struck Water: 100' Water stands top

Drill runner: W. H. Meekins

0	5	Soil and clay
5	15	Gray lime and white flint
15	35	Gray lime, blue and white flint
35	70	Dark gray lime and white flint
70	95	Dark gray lime and blue flint
95	105	White and blue flint, gray lime
105	120	White and blue flint, gray lime
120	130	White flint and brown lime
130	140	White and blue flint
140	160	Dark blue flint and dark gray lime
160	170	White and blue flint, trace of Zinc
170	175	Blue and white flint and gray lime, trace of zinc
175	195	Gray, white and blue flint, extra good zinc
195	213	Dark gray lime and blue flint

175 to 180 Good zinc 5½%
180 to 190 Fair zinc 4.2%
190 to 195 no good 1.3%

Signed C. R. Jenkins

Drill Log

Hole. No. 3

Lease Owner: Harold Fenix

Lease Name: Stubbs

Started: 7/2/45 Completed: 7/10/45

Set 16' of 6¼" Casing, Struck water at 15' and 180', Stands @ 130'.

0	15	Red Clay and flint gravel
15	55	Gray lime and blue and gray flint
55	95	Gray lime and gray flint
95	125	Gray lime and very little gray flint
125	160	Brown lime and little white flint
160	175	Gray and brown lime and gray flint
175	180	Gray and white flint and little lime (thin trace of zinc)
180	188	Gray and white flint (few zinc shines)
188	194	Gray brown and white flint (trace zinc)
194	198	White and gray flint
198	202	Gray, blue, white and brown flint (trace zinc)
202	206	Gray, white and blue flint and brown lime
206	210	Gray and brown lime and gray flint

Total depth: 210 ft.

Contractors: J. T. and Boyd Patrick

Signed: Boyd Patrick

Drill Record

Hole No. 4

Property Name:

Drill Owner: Bennett and Jenkins

Begun: July 10, 1945

Finished: July 21, 1945

Struck Water: 175 ft.

Water stands: 175 ft.

Drill runner: W. H. Meekins

0	5	Soil
5	24	Red clay and river gravel
24	25	White flint
25	45	Gray lime and white flint
45	100	Gray lime
100	120	Dark gray lime and white flint
120	160	Gray lime blue and white flint
160	175	White flint and gray lime (trace zinc)
175	185	Blue and white flint, extra good zinc
185	200	Blue and white flint, trace of zinc
200	210	Blue and white flint, zinc shines
210	225	Dark gray lime andblue flint

175 to 180 — 2.5%
180 to 185 3.7%
185 to 190 3.9%

This hole is high casing closest to Federal ground, SW of Shaft #2

South of Shaft #2

Drill Log

Hole No. 6

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Started: 7-20-45

Finished: 8-2-45

Set 25' of 6¼" Casing

Struck water at 180 ft.

0	22	Red clay and gravel
22	45	Gray lime and gray and white flint
45	120	Gray lime and little white flint
120	135	Brown lime and gray flint
135	155	Brown lime
155	180	Gray lime and white flint
180	185	Gray and brown flint (trace lead - no good)
185	190	Gray and brown flint
190	200	Gray blue and brown flint (lead shines) Fair--2.1%
200	205	Gray blue and brown flint
205	212½	Gray and brown flint (lead shines)--only 1½%
212½	215--2 %	
215	220--3.2% good	
212½	220	Gray lime, gray blue and brown flint (lead shines)
220	222½	Gray lime, gray and brown flint (fair lead & zinc) 2.12% 222½ to 225--1.70 lead--Black Jack 12½%--good
222½	235	Gray lime, gray blue and brown flint (fair lead)
235	260	Gray lime and blue flint
260	280	Gray lime

Contractors: J.T. & Boyd Patrick

Signed: J. T. Patrick (title Partner)

Drill Log

Hole No. 8

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Started: 8-2-45

Finished: 8-13-45

Set 30' of 6¼" Casing

Struck water at 20' & 135'

0	25	Surface, red clay and boulders
25	60	Gray lime and gray flint
60	65	Gray lime and gray and little blue flint
65	120	Gray lime and gray flint
120	145	Gray lime, white flint and selvage
145	155	Gray lime, little white flint and selvage (trace of zinc)
155	165	Gray lime and gray flint
165	190	Gray and brown flint
190	200	Gray, brown and blue flint
200	210	Gray, borwn and blue flint, brown lime and mundic
210	225	Gray lime and blue flint
225	235	Gray lime and gray and blue flint

Contractors: J.T. and Boyd Patrick

Signed: Boyd Patrick

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Exhibit E

20 April 1981

Mr. Gilbert Penix
Joplin, Mo.

Pursuant to your request I have compiled the following information and production records of all lead and zinc ores mined from the 160 acre tract that you now own. This tract is described as the NW¼- Sec. 3 T27- R32, Jasper County, Mo. and is located about one mile north of Duenweg, Mo. All information was obtained from the Sunday mining pages of the Joplin Globe & News Herald from the years 1908 to 1919.

History

In 1907 the Lincoln Mining Co. was organized and this property was drilled out and ore was discovered in commercial quantities. In the year 1908, two shafts were sunk to 250 foot level. Due to the low price of ore work was then stopped until April 1909, at which time a mill was built and the first ore was produced on June 6, 1909. The Lincoln Mining operated the property until July 3,, 1910, and then abandoned the property. In August of 1912, the Gopher Mining Co was organized and produced the first ore in August of the same year. The Gopher Mining Co operated the property until August 15, 1915 at which time the property was taken over by the Athletic Mining Co. This company operated the property until March 13, 1919 at which time the mine was abandoned. To the best of my knowledge this property has never been mined since that date.

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Lincoln M. Co. 1909

		Zinc	Lead
June	6	[illegible]	
Aug	[illegible]	[illegible]	
Sept	[illegible]	[illegible]	
Oct	3	[illegible]	
	10	[illegible]	
	17	[illegible]	
	[illegible]		[illegible]
Nov	7	[illegible]	
	[illegible]	[illegible]	
Dec	5	127,300	
	[illegible]	[illegible]	
	19	127,370	[illegible]
		207,070 lbs.	[illegible] lbs

Total production 1909 403.53 tons Zn.
43.[illegible]5 " Pb.

Production** Lincoln M. Co. 1910

Jan	2	151,990	
	16	128,270	
	30	62,180	
Feb	13	115,650	78,410
	27	132,620	
Mar	20	79,300	
	27	78,170	
	6	70,000	
Apr	3		47,920
	10	129,120	
	17		13,780
	24	78,340	[illegible]
May	1		13,170
	8	132,760	9,910
	15	62,140	[illegible]
	22	62,080	[illegible]
July	5	81,780	14,290
	12		11,150
	19	81,080	
	26		12,080
Aug	5	[illegible]	
		1,[illegible]92,250 lbs	[illegible]20,240 lbs

Total production 1910 746.12 tons Zn
110.12 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Lincoln M. Co. (Eagle Lead Mine) 1910

		Zn	Pb
June	12	122,070	
	19		11,080
July	3	59,570	
	17	61,970	
	24	10,290	10,080
Aug	7	65,200	
	14	64,440	
		423,840 lbs	43,650 lbs

Total production 1910 211.92 tons Zn
21.82 " Pb.

Production-- Gopher Mining Co. 1912

Aug	11	60,910	
Sept	8	191,850	
	15		34,280
	22	127,270	
	29	64,080	21,790
Oct	6	143,340	
	13	125,680	31,420
	20	122,330	
	27	96,940	
Nov	3	26,160	
	10		13,080
	17		11,990
	24		41,180
Dec	1	83,580	
	15		41,200
		1,042,140 lbs	194,940 lbs

Total production 1912 521.05tons Zn
97.47 Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Gopher Mining Co. 1913

Jan	5		63,900
	19	140,000	
	26	79,500	61,110
Feb	9		13,040
	23		88,310
Mar	2	60,000	
	16		63,960
	30	85,970	
Apr	6	252,890	65,630
	13	123,910	62,219
	20	120,000	
	27	127,110	
May	4	160,000	70,000
	11	215,180	
	18	128,590	51,730
	25	61,690	
June	8		49,580
	29		19,830
July	13		64,448
Aug	10	75,410	
Sept	28		183,900
Oct	12		63,800
Nov	2		67,120
	30		114,610
Dec	21		64,370
	28	63,850	
		1,693,900 lbs	1,167,557 lbs

Total production 1913 846.95 tons Zn
583.77 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST
JOPLIN, MISSOURI

PRODUCTION -- [illegible] 1914

[illegible]	4		[illegible]
	[illegible]		[illegible]
	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	
	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	
	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]	
	14	[illegible]	
	[illegible]	17,400	
	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	
	13	[illegible]	
	[illegible]	30,000	[illegible]
[illegible]	2	154,700	
	[illegible]	[illegible]	
	16	188,400	
	[illegible]	[illegible]	
	[illegible]	[illegible]	
[illegible]	6	120,440	
	[illegible]	[illegible]	
	[illegible]	[illegible]	
	[illegible]	[illegible]	
[illegible]	4	[illegible]	
	[illegible]	[illegible]	
	[illegible]	240,000	[illegible]
ov	[illegible]	[illegible]	
	15	[illegible]	
	[illegible]	[illegible]	
[illegible]	6	[illegible]	
	16	[illegible]	
	20	117,100	
	[illegible]	[illegible]	
		[illegible] Lbs	707,270 Lbs

Total production 1914 2,[illegible]4.40 tons Zn
353.93 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production Gopher Mining Co 1915

Jan	10	298,080	
	17	60,000	
	24	119,140	62,490
	31	121,000	62,040
Feb	7	59,140	
	14	177,830	
	21	120,060	
	28	119,450	
Mar	21	56,980	
Apr	4		126,370
	11	63,010	
May	2	185,230	62,090
	9	320,490	
	16	191,400	
	23	123,930	
	30	325,910	
June	6	119,280	
	20	115,390	1,140
	27	60,940	
July	4	130,140	55,180
	11	59,440	
Aug	15		10,970
		2,346,160 lbs	438,580 lbs

Total production 1915 1,423.08 tons Zn
219.29 " Pb

Production Athletic Mining Co 1915

Aug	29	77,190	4[illegible]
Sept	5	52,570	
	12	123,440	
	19	79,210	
	26	60,850	
Oct	5	145,390	
	17	91,360	
	24	71,190	
	31	84,880	3[illegible],150
Nov	7	175,430	
	21	152,170	
	28		67,[illegible]
Dec	5	242,740	
	12	79,980	
	19	208,980	
	26	342,420	57,200
		1,[illegible],480 lbs	[illegible] lbs

Total production 1915 991.74 tons Zn
129.80 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production Athletic Mining Co 1916

Jan	2	223,260	
	16	198,710	
	23	181,000	
	30	179,640	
Feb	6	61,580	63,460
	13	171,170	
	20	238,860	
	27	151,650	
Mar	5	138,090	126,530
	12	245,910	
	19		59,060
	26	294,780	
Apr	2	116,030	
	9	168,930	126,930
	16	224,970	
	23	240,040	
May	7	297,330	62,340
	14	259.780	
	21	179,620	62,950
	28		63,340
June	13	625,120	
July	16	115,860	91,360
	23	80,910	
	30	206,120	62,870
Aug	6	286,120	
	13	272,390	
	20	140,450	60,430
	27	142,860	
Sept	3	187,590	78,250
	10	271,720	
	17	127,060	
	24	295,650	
		224,880	
Oct	1	575,850	
	8		64,290
	13	201,610	
	22	273,030	62,480
	29	209,080	
Nov	12	413,432	61,740
	26	69,960	
Dec	3	447,500	
	10	291,130	125,630
	17	103,500	
	31	105,130	54,760
		9,236,782 lbs	1,280,320 lbs

Total production 1916 4,618.39 tons Zn
[illegible],640.16 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Athletic Mining Co 1917

Jan	7	129,450	
	14	355,920	54,770
	21	179,320	30,280
	28	250,270	
Feb	4	492,610	
	18	356.170	61,580
Mar	4	580,960	64,170
	18	798,340	60,100
	25	188,410	61,090
Apr	1	123,290	
	22	353,860	73,680
May	13	413,660	53,340
	20	290,890	62,230
	27	357,020	
June	3	376,220	
	17	633,750	92,320
July	15	612,990	57,300
	29	341,660	
Aug	5	423,850	50,920
	19	198,970	
Sept	9	315,710	174,390
	16	385,780	54,150
Oct	7	253,110	
	21	803,790	
Nov	4	219,180	
	11	210,970	64,140
	18	317,590	
	25	376,820	
Dec	2	119,070	277,960
	16	447,530	
	23	407,640	103,960
	30	340,420	63,300
		13,250,090 lbs	1,503,800 lbs

Total production 1917 6,625.04 tons Zn.
751.90 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production--- Athletic Mining Co. 1918

Jan	6	162,630	88,160
	13	165,830	64,330
	20	84,210	
	27	86,100	64,310
Feb	3	83,670	
	10	342,690	
	24	306,040	129,040
Mar	3	191,900	82,790
	17		76,070
	31	1,665,910	71,960
April	21	571,580	135,030
May	5	572,960	71,400
	12	297,800	
	19	108,850	100,060
	26	189,750	
June	2	186,700	78,340
	9	202,430	
	23	449,720	87,930
	30	242,290	
July	6	213,370	85,510
	21	236,260	
Aug	4	171,140	
	11	261,880	177,910
	18	62,140	
	25	59,100	
Sept	1	87,740	88,280
	8	482,600	
	15	310,220	
	22	293,130	
	29	235,990	150,610
Oct	6	149,300	
	27	118,090	82,200
Nov	3	62,610	
	17	439,300	85,450
	24	235,920	
Dec	1	136,710	91,470
	8	125,300	
	22	244,870	
		9,847,280 lbs	1,768,950 lbs

Total production 1918 4,923.64 tons Zn
884.47 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Athletic Mining Co 1919

[illegible]	[illegible]	63,450	
	[illegible]	127,600	124,460
	[illegible]	111,060	
[illegible]	[illegible]	270,120	
	[illegible]	[illegible],140	
	[illegible]	124,850	88,090
	[illegible]	62,570	
[illegible]	[illegible]	71,020	
	[illegible]	[illegible],[illegible]0	
		1[illegible],[illegible]40 lbs	210,150 lbs

Total production 1919 455.52 tons Zn
105.07 " Pb.

Production total 1903 to 1919

	Zn	Pb
1903--	[illegible]	[illegible]
[illegible]	746.12	110.12
	211.22	[illegible]
1911	[illegible]	[illegible]
[illegible]	348.95	53.77
1914	2,334.40	[illegible]
1915	1,[illegible].09	[illegible]
	871.74	[illegible]
1918	4,[illegible].99	[illegible].18
1917	6,826.04	[illegible]
1918	4,[illegible].84	[illegible].47
1919	[illegible].22	[illegible]
	24,[illegible] tons	3,141.35 tons

vs, Reaching $39

BUILDING MANY PLANTS IN THE EAST END CAMPS

DUENWEG AND PROSPERITY REGION SCENE OF ACTIVITY.

New Plants Will Largely Increase Ore Output in These Camps—Early Production Seems Assured.

There are few camps in the district that are doing the amount of mill building that is being done at the present time at Prosperity and Duenweg. No less than six plants have been put up either new throughout or representing a removal of a mill to the mine, or an addition to the machinery on the ground which would make the plant a complete mill, within the present year.

Such a movement of mill building means a large increase in the productive capacity of these camps, and this increase in production is scheduled to begin at a very early date. In compensation there are a few mills that have been moved from mines in that same vicinity, but not enough to equal the number of new ones.

Among the new plants is the Highland mill of the United Zinc Company, which has been rebuilt on the same site where the former big mill had been burned down. The plant is now completed and ready for operation. This mill is capable of handling from 400 to 600 tons of ore per day.

Just east of this mill the Lincoln Mining and Milling Company is completing the erection of a new concentrating plant, which in some respects is quite different from the general run of mills built throughout the district. The plant will have as part of its equipment the Richards Pulsator jigs, which are largely an experiment in this field. No mill in this field has yet tried the new jig, and many operators are watching with interest the starting of the plant and its success as a cleaning agent for Joplin ores.

In addition to the jigs the plant has several novel hydraulic classifiers which will be used in the classification of the pulps for the concentrating tables. This feature, while in use in other mills, is novel in being slightly different from anything else in the field. The plant should be completed within another fortnight and operations on a moderate scale will begin.

In addition to the main shaft at the milling plant the company has a second shaft about 75 feet away which is being utilized for an additional ore supply. The derrick and connecting tramway is now under construction. The mill buildings are covered throughout with galvanized iron.

On an adjoining lease the Wolfsheart Mining Company is also erecting a new mill. This plant is covered with galvanized iron and is rapidly nearing completion. The company in the first place installed permanent machinery, and the mill building now under construction is only forming a part of the present plant. This mill, as also its neighbors, are going to treat a sheet ground proposition which was developed by drilling in the fall and winter of 1907 and developed by shafts only last year. Owing to the very low prices of ores throughout the past year the development operations on all the sheet ground mining camps were allowed to hang fire and only with a better outlook did the owners start to work.

In addition to these mills there has been a mill moved upon a lease just west of the Highland mill. Over west of the Gibson mill a new plant is well under way on the very crest of the divide. At Duenweg, in the very heart of the old diggings, a plant is now under construction and should be completed soon.

Out on the old Criterion lease the American Zinc, Lead and Smelting Company has remodeled one of the old Alabama mills and placed it in readiness for operation. With the new additions and adaptations of machinery the plant is equal to a 250 to 400 ton plant.

In addition to these new plants now building, there were completed during the past year a number of other mills in that same field which are just beginning operation or are still waiting for a resumption of better ore prices. The Coabulla mill is one of the largest mills built and is now in operation. On the Cosgrove land there were a number of plants either built or planned for erection during the coming year. All of this activity means that when prices of ore reach a $40 level, and have any assurances of staying there, the ore tonnage that will be produced from that camp will be surprising.

STARTS FIRST SHAFT IN THE FAIRLAND FIELD

Frankenberger & Varner of Webb City Inaugurate New Work in New Field.

Fairland, Okla., is ablaze with excitement over the prospects of actual

good strikes of lead ore have been reported.

EIGHTY WORK AT BOYD MINE

Reopening of the Sarcoxie Property Gives Employment to Many.

The Boyd mine at Sarcoxie has been thoroughly drained and operations have begun full blast, after a shut-down of many months. The reopening of the mine has given employment to about eighty men and means more to the eastern part of the district than any other recent mining movement.

After the mine was closed it filled with water and it has required a large amount of pumping to thoroughly drain it. Turning from the Boyd mine again will place Sarcoxie in the production list and should materially increase the output of the eastern district.

LINCOLN TO HAVE TWO PUMPS

With New Equipment Mine May Be Drained Within Ten Days.

Another pump is being installed at the Lincoln mine at Duenweg, the one installed several weeks ago not having made sufficient headway against the water. With both pumps running full blast, it is believed that the mine may be drained within ten days, at the latest. It is possible that the mine may be free of water within a week after the two pumps are placed in steady operation.

There was 45 feet of water in the mine when the pumps were first started and the water level has been lowered 20 feet. As soon as the workings are drained, a force of men will be placed at work. Then the property will be kept in steady operation.

A NEW DERRICK AND HOIST

Huggins & Barker Mine Soon Will Be Producing Ore.

A new derrick is being built at the Huggins & Barker mine near Belleville and a steam hoist is being installed. The operators of the mine have been developing their property for some time. They now have arrangements in shape to begin the production of ore.

The Dorothy Marie mine at Belleville has been drained and the operators expect to be producing ore soon.

NEW MILL WEST OF JOPLIN

Glendenning & Cook Building Plant on Minor-Graham Lease.

A concentrating plant is being erected on the Minor-Graham Lead and Zinc Company's lease, west of Joplin. Glendenning & Cook are building the plant. Work on the mill is progressing very rapidly. It is believed it may be fin-

Mary C., layer lbs. 3; Big Four, 10,820 lbs. 3; High Tariff, 9,070 lbs. 10.

Pocahontas M. Co.	11
Granby M. & S. Co.	28
Mattes Brothers	51
Rex M. & S. Co.	10
Falls City L. & Z. Co.	12
W. O. Crego	12
Muskingum M. Co.	11
Cherokee M. Co.	10
Edward Hamilton	6
Blisfer M. Co.	4
Sitting Bull M. Co.	5
Grand Haven M. Co.	6
Hollando-American M. Co.	7
New Dividend M. Co.	8
Belleville L. & M. Co.	3
Samson M. Co.	3
C. C. Playter	4
C. M. Sheldon, Pres.	3
Leonard Realty Co.	3
McRee land	1
Parker M. Co.	2
D. & W. M. Co.	1
P. L. Swarts	1
St. Patrick M. Co.	1
Black Jack M. Co.	1
Gordon Hollow M. Co.	8
Roaring Springs land	1
Jackson M. Co.	1
A. Z. M. Co.	1
Continental Zinc Co.	3
Weiel & Phillips	4
Ten Per Cent M. Co.	...
Liberty M. Co.	...
Homer Seals	...
No Name M. Co.	...
Paragon M. Co.	...
D. & A. M. Co.	...
Sundries	18
Total sales	267

Calam

Shoal Creek M. Co.	31
Baker Estate	9
Granby land	7
Sundries	4
Total sales	141

Values: Blende, $89,552; calamine, $3,978; total, $93,531.

WEBB CITY-CARTERV

	Ble
S. Y. Ramage	318
Mercantile M. Co.	20
Center Creek M. Co.	242
Rhea L. & Z. Co.	171
Edmund Lyon M. Co.	14
Spotted Dog M. Co.	14
Golden Glow M. Co.	14
Aylor M. Co.	14
C. S. Lang	34
Minor Heir Producing Co.	12
Continental Zinc Co.	12
Providence M. & M. Co.	12
Underwriters Land Co.	11
Bertha A. M. Co.	11
Dixie M. Co.	11
Incline M. Co.	11
American-Canadian M. Co.	9
C. C. & H. M. Co.	9
Ice Plant M. Co.	8
Rochester L. & L. Co.	8

Nov 6, 1915

JOPLIN

Largest Slime Plant For Athletic Company

Three Dorr Thickeners, One Classifier and 21 Tables to Be Installed at C. T. Orr's Property.

The Athletic Mining Company, which is operating the old Gopher mine at Duenweg, is planning to install the most complete slime plant in the entire district.

According to present plans, which it is understood are well matured and finally decided upon, twenty-one James tables will be installed, and these will be supplemented by two 40-foot Dorr thickeners, one 17-foot thickener and one Dorr classifier.

C. Charles T. Orr, who is at the head of the Athletic company, is perhaps more competent to pass upon the value of the Dorr scheme of slime recovery than any other man in the district for the reason that he has had the only large plant in operation. It is at the Wingfield-Bertha A. property north of Webb City, of which he is manager, and it is understood that the plant of late has been showing a good profit on the original investment.

At the Wingfield-Bertha A. plant only tailings from the tables and overflow from the settling tanks is being treated with the Dorr thickener and classifier. This is material that ordinarily is lost in concentration work as practiced in this district, and that good profits are now being taken from them presages a more common usage of the Dorr or other process in slime recovery.

S. M. SHORT MAKES STRIKE

Gets Hole on Bradley's Land With Exceptionally Rich Cuttings.

A splendid drill hole has just been brought in by Short and Phipps, who

$85

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Stea
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smelting
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it down.
to $13.50
Loca
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price of
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Cala
to $70 fo
Lead
than over
Folk
and lead
camps of
vember 6

Bradley L.
Symmes M.
Granby M.
Mattes Bro
A. W. C. M
Rex M. &

ARTMENT
iguring Tire Cost
Firestone
Most Mileage
Least Repair Expense
Riding Quality
Satisfaction
Econom
Most Miles per Dollar

[illegible]

Questions by Mr. Haywood Scott:

Q. Tom, I wish you would state, as near as you can remember, how much mining, if any, was done by the Athletic Mining & Smelting Company on the southwest 40 of their mining lease consisting of 160 acres east of the Scott and Evans-Hall-Coy mine at Dunnweg?

A. I don't know of any, unless we were slightly over the line going south from the northwest 40. I have seen a map which shows that in places we cut as far south onto the southwest 40 as 200 feet from the northwest 40's south line. There are some good drill holes on the southwest 40, of which I have seen the records, showing the ore face at about the same level and about the same height that we mined on the northwest 40. I have never been in either the Evans-Hall-Coy nor the Scott mine, but I do know that Mr. Orr, that is, the Athletic Mining & Smelting Company I mean, cut a good face of ore going west onto the northeast 40 which you now own. I have seen the records of three drill holes showing a face of ore running from northwest to southeast over an area of about 600 feet and showing a face of ore, of zinc and lead, from about 225 or 226 to 240 feet averaging about 9%. There are other holes east of those holes, that is, between those holes and the face of ore which was cut by the Athletic west, which are not so good. I would estimate that the mill recovery on the ore which we mined at the Athletic ran about 5%.

Q. Now, Tom, I wish you would tell me about your best recollection of what ore, if any is left to mine on the faces left in the northwest 40 of the Athletic mine, other than the face that you have already referred to going west and which has been cut to my line.

A. I would say that the ore going south was the best that we had in the mine.

Q. How wide from east to west would you say that face of ore was when you quit mining there?

A. By george, I couldn't hardly guess at that. My best recollection is that we were mining the best of the ore over an east and west face of about 150 feet wide and between 12 and 14 feet high. That ore would run, in my estimation, between 5% and 6%

time was lead. There was little lead in it. Now there was ore all along the south face for a little west and east of about 900 feet, but we were only mining the richest ores, as I said, covering about 150 feet, because we were only getting $10 a ton then for jack and our production was largely jack. There was ore along all four sides north, east, south and west of the Athletic mine when we quit mining there on $18 ore, but in places it didn't run over 3% or 4% and that didn't pay to mine at $18, but at other places it would run as high as 6% mill recovery, and would average probably between 5% and 6% at the places other than where it ran 3% and 4%.

Q. Now, with reference to the northeast 40, where the San Gabriel was located on this 160 acres of the Athletic, what do you say about that mine there?

A. I think I was only in that mine about three times. Rice was there all the time I was out there.

Q. How near to the time you quit mining there was about the last time you were in there, Tom?

A. I don't know, I guess it was about two or three weeks, not enough to make any great change in ground, unless it would change from poor to richer.

Q. What do you say as your best recollection of how good were the ore faces in the northeast 40 of the San Gabriel?

A. I would say from my memory that they were just about the same as at the mill faces. When I say the mill faces I mean on the northwest 40.

Q. Did the Athletic Mining & Smelting Company, while you were its superintendent, do any mining on the southeast 40?

A. No. I was never in the ground of the mine on the southeast 40. There was a small mine down there, but I don't remember at what level it was worked.

We had no flotation plant at the Athletic. All we had besides the jigs were sludge tables and few of them. I can't remember how many, but we didn't have but a few.

Q. Yes, do you remember how good was the face of ore which the Athletic cut west onto what is now the Scott lease?

A. That was cut before I became general superintendent for the Athletic Mining and Smelting Company and I do not remember ever having gone over to that part of the mine. Everywhere else that I have seen it, all the way around the four sides of the ore faces on the northwest 40, the mill recovery ran all the way from 3% to 6% and the ore faces averaged from 10 to 12 feet in height.

I was general superintendent for Mr. Charles T. Orr and I had a number of mines at one time under my general supervision.

The Lincoln Mining Co., the Maple Leaf Mining Co., and the Wolfheart Mining Co. made a fair production from the Jasper County Royalty Co.'s land. The principal producers on the Knol land were the New York & Western Zinc Co., the Durby Lead & Zinc Co., the Nowata Mines Co. (No. 2), and the Delker Mining Co. The first and the last named companies erected mills during 1910.

The zinc carbonate and silicate concentrates produced in the district nearly all came from the R. L. McGee lease, on the Hall land, and the Emma C. Mining Co.'s lease, on the Sadtler land.

Smaller producers included Becker & Relling, Cadwell-Allen Mining Co., Boston & Duenweg Mining Co. land (on which the White Rat Mining Co. erected a 200-ton mill), the Marvel-Carnation and Henrietta leases on the Cosgrove land, Crown Crest Zinc & Lead Co., Old Colony Zinc Co., Grace Ping Mining Co., Hyde Park Lead & Zinc Co., Bonnie Pattie Mining Co., Sayers Mining Co., and Henry Weymann land.

Granby district.—The total production of this district in 1910 showed little variation from that of 1909. The production of silicate of zinc from shallow workings was less than in 1909, but the increased shipments of sphalerite concentrates more than counterbalanced the loss. Most of the producing territory belongs to the Granby Mining & Smelting Co., and the total tonnage from it was large, the relative quantity of zinc silicate, zinc blende, galena, and lead carbonate being in the order named. Much of the mining by individual operators and by small companies is in shallow workings and yields lead ore and silicate of zinc ore. The large lessees on Granby land, which contributed nearly all of the blende concentrates in 1910, were the Mascot Mining Co., Katy Mining & Milling Co., Golden Rule Mining Co., Little Boss Mining Co., Fortune Teller Mining Co., the Billiken Mining Co., and the Granby Sludge Co. The Mascot Mining Co. has a 100-ton mill on the Granby land and one of 150 tons on the adjoining Homestake mine. Other district producers were the Illinois Zinc Co., the St. Paul Mining Co., and the Little Four Mining Co.

Joplin district.—The number of producers reporting from this district is larger, the [illegible] of the land or mining leases is more diffused, and the area of operations more extended than in any other district in Missouri. The production is second to that of the Webb City-Prosperity district. The 1910 sales of concentrates were as follows: Galena [illegible]2 tons, lead carbonate 51 tons, zinc blende 47,200 tons, carbonate and silicate of zinc 1,403 tons. The total value of the concentrates was $2,243,273. As compared with 1909, the sales of galena and carbonate of lead declined 362 tons, zinc blende increased 1,237 tons, and carbonate and silicate of zinc increased 183 tons, and the total value was $837,084 less.

The largest production of lead ore and also of zinc ore was turned in by lessees of the Granby Mining & Smelting Co. This company reports that two new ore bodies have been discovered by drilling on the south half of the NE. ¼ sec. 33, T. 28, R. 33, and that shafts were being sunk to develop the ore body.

The second largest production of blende concentrates was produced by the Mandarin and Culpepper leases on the Cunningham land. Four shafts, ranging from 160 to 200 feet in depth, were in operation.

elter Markets Weaker

IS $62.50; :R FOR LEAD ORE

:s Operators—$35 to $38 Strikes at Several Mines Curtailed.

e last week was $62.50. Prices k previous. The greater part ade between $60 and $62.50. e sold for less than $60. t of the week, and many oper- s to prevail this week. Some refused them were surprised probable that they will lose ting it.

$60.

last week was $60. On this he high mark.

mine. For a few choice lots sales were consummated on a s ranged down to $50 for less

ut to a certain extent. Several h are among the largest in the unt of labor troubles. A num- r a time on account of strikes. utput.

ville field are in need of labor- a great extent by an inability th men to carry on operations of the problem may be the or- ureau at Webb City. The ob- mines who are in need of them n.

of the Pittsburg Zinc Company firm from the ore market last

s of lead and zinc ores from klahoma district for the week

Brothers	20,[illegible]	.....
n Hen M. Co	41,[illegible]	.....
w Branch M. Co	25,[illegible]	.....
n City M. Co	15,[illegible]	.....
ouse L. & Z. Co	[illegible]	121,[illegible]
al sales	265,560	121,[illegible]

ues: Blende, $6,632; lead, $2,640; total, 5.

CAVE SPRINGS.

	Blende.	Lead.
Kramer Mines	159,[illegible]	476,540
Spurgeon L. & Z. Co	52,[illegible]	.....
al sales	211,730	476,540

ues: Blende, $6,042; lead, $13,904; to- 19,946.

SARCOXIE.

	Blende.	Lead.
rican Z., L. & S. Co	64,000	.....

lue: Blende, $1,792.

ORONOGO.

	Blende.	Lead.
ogo Circle M. Co	212,560	.....
acle M. Co	276,730	.....
al sales	489,090	.....

ue: Blende, $13,692.

WENTWORTH.

	Blende.	Lead.
tworth L. & M. Co	52,510	.....

lue: Blende, $2,571.

LAWTON.

	Blende.	Lead.
ern L. & Z. Co	61,000	.....

lue: Blende, $1,524.

CARL JUNCTION.

	Blende.	Lead.
r-Smith M. Co	62,540	.....
ed Lehigh M. Co	52,620	.....
Junction M. Co	11,500	.....
Kitty M. Co	.....	2,920
al sales	126,660	2,920

lues: Blende, $3,776; lead, $50; total,

SPRINGFIELD.

	Blende.	Lead.
M. Co	85,000	.....

lue: Blende, $2,550.

SPRING CITY-SPURGEON

	Blende	Lead
ckey Valley M. Co	26,100	18,140
r Heir-Sunrise	11,850	10,850
croft Land	.....	5,490
al sales	37,950	34,470

Calamine.

r Heir-Sunrise	30,210	

lues: Blende, $1,064, calamine, $580; $1,102; total, $2,676.

GRANBY.

	Blende.	Lead.
Boss M. Co	137,640	.....
ot M. Co	35,730	.....

IMPROVEMENTS AT GALENA MINES TO INCREASE OUTPUT

TO ENLARGE AND REMODEL HARTFORD MILLING PLANT.

Electrical Machinery to Be Installed —Drilling Has shown Rich Deposits on Lease.

Improvements that will mean a great increase in output are planned for the Hartford mines, south of Galena. The concentrating plant is to be remodeled and its capacity increased. Mine workings recently have been enlarged and the known mineralized area increased.

Electrical machinery will be installed in the plant. It previously has been operated by steam power. It is believed the plant will handle a greater amount of dirt under the new arrangement.

Pumps Water from Shoal Creek.

Some difficulty has been encountered by the operators of the mine in obtaining enough water to operate the mill steadily. A pump is to be installed in Shoal creek one distance from the mine and water pumped to the property from the stream.

Drilling done at the mine recently has revealed an extension of the ore deposits. A number of holes have been put down in advance of drifts and these have resulted in rich strikes. The Hartford mine has been for some time one of the steadiest producers in the Galena district.

The property is owned by men who live at Hartford, Conn. Harlan H. White is manager of the mine.

STEEL MEASURE IS PASSED

Senate Recedes Amendments and Congress Enacts Bill.

The steel bill, carrying the zinc ore schedule, was passed by congress yesterday after some amendments were receded, according to a telegram received here by Judge D. D. Hoag. Zinc ore is placed on the free list by the act.

It is reasonably certain, however, that President Taft will veto the bill, and it is not probable that a two-thirds majority may be obtained for passing the measure over his veto.

Following is a copy of the telegram received by Judge Hoag yesterday:

"Congress passed the steel bill today. The senate recording from its Canadian reciprocity amendment by a vote of 32 to 28. The democrats and La-Follette framed the measure and all of the democrats, together with all progressives, except United States Senators Cummins, Borah, Gronna and Bourne. The regular republicans opposed the bill. The measure will reach the president early in the week. He will veto it."

GOPHER COMPANY MAKES ORE

Firm Operating Lincoln Mine Begins Producing Blende.

The Gopher Mining and Manufacturing Company has cleared the Lincoln mine of water and it now is producing ore. Considerable time was consumed in heating the water, but from now it will be a steady producer.

O. Plunkett has been engaged as superintendent of mining operations. A. W. Van Hafften has been here for the last ten days looking after the interests of the company, and will remain until the success of the mine has been thoroughly demonstrated. He is much encouraged at the showing the mine is making.

W. A. Van Hafften, the secretary, will remain here for some time.

INITIAL TURN-IN FROM MINE

Carload of Ore Is Shipped From Geronimo Property.

The initial turn-in from the Geronimo mine, on the Conner land west of Joplin, was made last week. The property has been opened up by Jesse Short and others, development work having been in progress for some months.

PUMP OF WOOD AND LEAD TO BE USED AT MINE

WILL BE MANUFACTURED AT OPERATORS' INSTRUCTIONS.

Expected to Be Solution of Acid Water Problem at Carterville—Drainage Work in Progress.

After several ineffectual attempts to solve the water proposition on his land near Carterville, T. T. Luscombe has decided to install a pump made of wood and lead to combat acids that have eaten up other machinery placed in the ground.

The pump will be manufactured on a special order. It will be a 4-inch two-stage centrifugal. The pump will be made entirely of wood and lead with the exception of the shaft, which will be of brass.

To Drain Lower Levels.

Frank Wallower has two pumps similar to the one Mr. Luscombe plans to install. These are the only machines of their kind in the district. Mr. Wallower is using them to drain ground near the Luscombe property.

Lower levels on the Luscombe mines are to be drained with the new pump. The water contains a large amount of strong acid, which has destroyed other machinery placed in the ground. On the wood and lead pump the acids can have no effect. Column pipes probably will be coated with an acid-proof paint.

A great amount of drainage work is in progress in the field just south of Carterville. A number of companies have resumed operations there. Ground which is previously has been impossible to operate may be worked when plans now being formed are carried out.

RICH ORE ON CARTHAGE LAND

Four Holes in Ore on Land Owned by Mrs. Glenn.

The fourth drill hole to be put down on land of Mrs. Henrietta Glenn in the old Carthage tract has gone into ore. The first three holes sunk went into rich deposits. W. H. Stackford of the S. Y. Ramage interests is in charge of the work.

In the last hole ore was struck at 65 feet. A 25-foot face of stuff was proved up. Mathew Lane, a drill man of long experience, says some of the cuttings will assay more than 25 per cent. The hole is the best he has sunk in any part of the Joplin district, he says.

The drill is not yet through the deposit, and it is believed that one will be found down to a depth of 85 feet. In other holes the ore has been encountered at 100 feet.

Work is being done on the old Grier tract just west of the Kilcka lease. The tract will be thoroughly drilled and then a shaft will be sunk to the deposits. If development work warrants it, a mill will be erected.

Mrs. Glenn intends to drill the Kilcka tract as soon as a rig may be obtained.

WILL DRAIN AURORA SHAFT

Old "Double Bob" Workings to Be Dewatered by New Firm.

Plans have been completed for the beginning of drainage work on Aurora lands by the Chat River Drainage and Leasing Company. The old "Double Bob" shaft will be the first drained. The shaft is one of the lowest on the United Zinc Company's land there and if water is lowered in it a larger area of land will be drained.

The draining of the shaft will be watched with great interest for the water problem which has prevented mining in Aurora for so long will be solved if the water is removed.

A large centrifugal pump will be installed for the draining of the ground. The company intends to have better equipment than ever has been used at Aurora.

Officers of the new firm have been elected. They are: John L. McNatt, president; C. C. Plank, J. J. Cribbet, George Hutchinson and C. H. Kennedy, directors.

STRIKE ORE AT SPRINGFIELD

IN GLOBE'S MINING DE[P]

for Blende; ge Basis Is $100

Brought About Another $10 Boost Prices—Some Ore Sold as Low as 'oor Quality—Lead Also Up With $60 to $64—Calamine Higher, $65 her for Production.

he price of blende was recorded during the grades in carload lots brought $110, basis n to $90, the average base price being $100. ow-grade ore at $85.

iomewhat, $64 basis being paid in some in- e holding down to as low as $50 a week ago past. Pig lead has advanced to $5.15 on

er market has been persistent during the price. The Globe's special correspondent at at $16.25 to $16.37½ for the week's close, he New York metal exchange place the top resumed quotations during the week after

ce of blende and was quoted at from $65 to it is in good demand and there is scarcely

e favored with excellent weather and the tely bought up this week.

nts, in pounds, with their values, of zinc first leases in the various cities, towns and -Oklahoma district for the week ending No-

Lead.
....
15,400
....
19,480
9,800
....
....
....
....
....
....
....
39,830
98,690
86,060
10,960
6,000
6,380
4,520
301,000
484,700

,530; to-

Lead.
79,070
....
....
....
....
27,340
12,880
....
....
....
85,460
....
....
47,160
79,120
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....
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....
....
....
....

	Blende.	Lead.
Fidelity M. Co.	61,170	....
Scott M. Co.	61,300	....
What Cheer M. Co.	60,610	65,080
Sundries	129,500	....
Total sales	1,318,900	82,070

Values: Blende, $65,900; lead, $2,460; total, $68,360.

ALBA-NECK CITY-PURCELL.

	Blende.	Lead
Davidson-Joplin M. Co.	156,830	13,890
Purcell M. Co.	130,060	....
Reliable M. Co.	72,000	....
Lucky Tiger M. Co.	86,570	....
Cockelburr M. Co.	63,290	....
Black Hawk M. Co.	43,890	....
Sundries	62,000	....
Total sales	644,030	13,890

Values: Blende, $32,200; lead, $360; total, $32,560.

MIAMI.

	Blende.	Lead.
Turkey Fat M. Co.	171,860	....
Vantage M. Co.	120,890	....
Cactus M. Co.	125,440	....
Never Sweat M. Co.	115,740	....
Amalgamated M. Co.	123,090	....
Miami Z. & L. Co.	85,340	....
Quapaw M. Co.	79,780	57,740
Midas L. & Z. Co.	69,240	....
Lennan L. & Z. Co.	62,720	14,400
Gartung M. Co.	44,850	....
Mispah M. Co.	19,860	....
Concentrating Co.	17,200	....
Blue Goose M. Co.	....	110,850
Standifer Bros.	....	81,720
High Five M. Co.	....	7,220
Total sales	1,046,080	279,930

Values: Blende, $44,455; lead, $8,100; total, $52,555.

GALENA.

	Blende.	Lead.
North Empire M. Co.	140,740	....
McCullough M. Co.	140,000	....

GRANBY.

	Blende.	Lead
Granby M. & S. Co.	15[illegible]	[illegible]
Mascot M. Co.	[illegible]	....
Total sales	[illegible]	[illegible]
	Calamine.	
Granby M. & S. Co.	[illegible]	
Perkins M. Co.	[illegible]	
Total sales	[illegible]	

Values: Blende, $7,[illegible]; calamine, $10,[illegible]; lead, $550; total, $19,[illegible].

SPRING CITY-SPURGEON-SAGINAW.

	Blende.	Lead
Inca M. Co.	60,740	....
Craycroft M. Co.	....	29,[illegible]
Wills-Bucklin M. Co.	....	30,2[illegible]
Onadoga M. Co.	....	6,000
Total sales	60,740	6[illegible]

WENTWORTH.

	Blende.	Lead
D. & L. M. Co.	74,0[illegible]	....
Jack Possum M. Co.	71,500	....
Total sales	145,520	....
	Calamine.	
D. & L. M. Co.	72,200	

Values: Blende, $4,912; calamine, $2,340; total, $7,252.

REEDS

	Blende.	Lead.
U. S. Smelting Co.	250,150	....

Value: Blende, $13,060.

ORONOGO.

	Blende.	Lead.
Oronogo Circle M. Co.	581,800	114,860
Oronogo Mutual M. Co.	265,950	58,610
Total sales	847,750	173,470

Values: Blende, $41,454; lead, $5,160; total, $46,614.

SARCOXIE.

	Blende.	Lead
Flannery M. Co.	62,000	....

Value: Blende, $2,976.

QUAPAW-BAXTER.

	Blende.	Lead.
Bash M. Co.	59,470	....

Value: Blende, $2,850.

CAVE SPRINGS.

	Blende.	Lead.
Hartford No. 2	80,710	....
Cave Springs L. & Z. Co.	65,250	....
Total sales	145,960	....

Value: Blende, $6,984.

BELLVILLE-KLONDIKE.

	Blende.	Lead.
New Geronimo M. Co.	74,800	....
Minor-Graham M. Co.	49,750	....
Lindeman M. Co.	17,920	....
Total sales	142,470	....

Value: Blende, $6,958.

DISTRICT.

This week: Blende, 11,615,850 pounds; calamine, 516,900 pounds; lead, 1,731,700 pounds.

Values: Blende, $560,211; calamine, $12,340; lead, $51,495; total, $624,046.

Average value per ton: Blende, $96.47; calamine, $47.83; lead, $59.63.

46 weeks: Blende, 490,226,358 pounds; calamine, 34,390,067 pounds; lead, 77,622,495 pounds.

Values: Blende, $18,429,934; calamine, $801,885; lead, $2,016,033; total, $21,247,852.

"Can you keep a secret, uncle?"

"Yes."

"Well, auntie has eloped with the chauffeur and they've borrowed your motor."

Old Names and New For District Mines

Hard to Keep Track of Constant Changes in Official Names of Various Mining Properties.

It is a [illegible] thing to keep track of a mine by its name. Zinc and lead properties naturally change hands with comparative frequency and at almost every change a new name is announced for the property. Even people whose business sends them over the district pretty steadily have hard work keeping track of the properties sufficiently so they can recognize them under the new names.

Here are some of the changes that have been recorded in recent months:

Joplin Camp.

Old Name	New Name.
Hero	A. W. C.
Martha Ball	Bradley L. & Z.
Purcille	Hanford
Pocahontas	Olive Cherokee
Kitty Mack	Ramage No. 8
Tomcat	Sparkler
Baltimore	Little Marion
Hackett	Once More and Gibson
Hoo Hoo	Liberty Bell
I-no	Stellino
Duenweg.	
O. F. & L.	Baltic
Gopher	Athletic
Porto Rico	Barnett
Thanksgiving	Fidelity
Oklahoma.	
Century	Admiralty
Day-Cooter	Croesus and Bethel
Mission	Ruby No. 1
Katy	Ruby No. 2
Sweeney	Gladstone
Big Jack	Mineral King
Miller	Monarch
Hannibal & St. Joe	Al Jones
White Eagle	Homer Seals
Myrtle	Anchor
Wichita	Anna Lee
Hoo Hoo	Wilcox
Sarcoxie.	
Boyd	Flannery
Carthage.	
Hermosa	Coahuila No. 2
Oronogo.	
Judge	Mutual
Cave Springs.	
Kramer	Cave Springs L. & Z.
Big Brownie	Hartford No. 2
Belville-Klondike.	
Missouri Standard	Nineteen-Fifteen

HAVE WATER OUT AT LAST

After Seven Weeks' Wait Raymond A. Company Resumes Work.

After a seven weeks' tussle with the water, the Raymond A. Mining Company got back into the production lists during the past week.

The Raymond A. is located on a forty-acre lease of the Dixon land, and their shaft is directly southwest of the Napoleon mine. They were drowned out by the heavy rains of almost two months ago and have had a pump going steadily ever since, but have not been able to get into the ground. However, it was quite impossible for them to beat the water until the Nopoleon had drained its drifts, which also were flooded, and no great effort aside from the four-inch pump was made.

It was an exasperating wait, however, as the last week the Raymond

LEAD AND ZINC PRICES

Fluctuations in Both Metals in Past Few Months Have Been Great.

[illegible]

	Zinc	Lead
[illegible]	$[illegible]	$[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
January 26	[illegible]	[illegible]
February 2	[illegible]	[illegible]
February 4	[illegible]	[illegible]
February 5	[illegible]	[illegible]
February 12	[illegible]	[illegible]
February 19	[illegible]	[illegible]
March [illegible]	[illegible]	1[illegible].25
March [illegible]	13.[illegible]	[illegible]1.00
April [illegible]	1[illegible]	1[illegible]
April [illegible]	[illegible]	12.[illegible]
April [illegible]	1[illegible]	13.75
April [illegible]	18.[illegible]	[illegible]
April [illegible]	[illegible]	13.[illegible]
May [illegible]	[illegible]	1[illegible]
May 20	19.[illegible]	16.00
May 25	[illegible]	[illegible]
May 28	[illegible].00	[illegible]
May 29	24.50	20.[illegible]
June 1	26.[illegible]	22.[illegible]
June 3	30.00	26.[illegible]
June 9	33.00	[illegible].75
June 14	30.00	[illegible].75
June [illegible]	27.00	[illegible].25
July 27	24.00	18.37½
August 6	21.00	16.12½
August 16	17.00	12.12½
August 22	15.00	12.00
August 24	16.00	12.7[illegible]
November 4	16.50	15.12½
November 9	17.[illegible]	15.87½

Fluctuations in lead prices have been little less notable than changes in zinc prices. Following are the changes recorded in pig lead since the latter part of July at New York:

	Reduced	
July 26	25c to	$5.50
August 2	25c to	5.25
August 7	25c to	5.00
August 9	25c to	4.75
August 10	25c to	4.50
	Advanced	
August 25	10c to	$4.60
August 26	10c to	4.70
August 2[illegible]	20c to	4.90
	Reduced	
September 9	20c to	$4.70
September 14	20c to	4.50
	Advanced	
October 21	25c to	$4.75
October 29	15c to	4.90
November 4	10c to	5.00
November 10	15c to	5.15

Nothing New.

The 8x8 geared steam hoister used so much in this district originated in the shop of Orr & Sembower, Reading, Pa., more than fourteen years ago. It was the original Samson. Many imitations have been made, but the original still remains the favorite of the district, due to its own reputation. They are sold by the McNeal Machinery Company, opposite postoffice.—Adv.

TAKE OVER A GOLD MINE

Joplin Men to Operate Golconda Mine Out in Nevada.

Winnemucca, Nev. Nov. 13.—News has been received in Winnemucca from an authentic source that a deal has been closed in Kansas City, Mo., by which the Kramer mine at Golconda has been bonded to wealthy mining men of Joplin, Mo.

It was discovered in 1907 by I. K. Kramer and since that time a large amount of development work has been

"EXHIBIT G"

HAROLD FENIX

9.12 Acres, West 241.2 ft., E 482.4 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Cora Stubbs)

39.25 Acres, SW NE ex. RR R/W, Sec. 3, Twp. 27, Rge. 32
(Herbert A. Turner)

9.12 Acres, E 241.2 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Sarah Adams)

9.12 Acres, W 241.2 ft. E 723.6 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(D. Colclasure paid by Cora Stubbs)

4.53 Acres, W 120 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(C. A. Colclasure)

5.31 Acres, Com. at SE cor. NW SW W 175½ ft. N to N line said
40 acres E 175½ ft. S to Beg., Sec. 3, Twp. 27, Rge. 32
(C. A. Colclasure)

9.12 Acres, W 241.2 ft. E 964.8 Ft. n 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Mrs. Henry J. Adams - undivided 3/10 paid by Carl Carmean)

9.90 Acres, Com. 175½ ft. W of SE Corn. NW SW N to N line said 40 acres
W 326½ ft. Sto S line said 40 acres E 326½ ft. to beg. Sec. 3,
Twp. 27, Rge. 32
(A. W. Van Hafften)

50 Acres, Beg 120 rods W of SE cor Sec. N 120 rods E 40 rods N 40 rods,
W 80 rds. S 160 rds. E 40 rds to beg. part SE¼, Sec. 3, Twp. 27,
Rge. 32
(J. A. Barker)

14 Acres, Beg. at SE Cor. Sec. N 40 rds. W 56 rds. S 40 rds. E 56 rds.
to beg. part SE¼

14 Acres Beg. 56 rds. W of SE Cor. Sec. N 40 rds. E 8 rds. N 40 rds.
W 32 rds. S 80 rds. E 24 rds. to beg. part SE¼, Sec. 3, Twp. 27,
Rge. 32
(J. A. Barker)

30 Acres, Beg. 80 rods W of SE Cor Sec. N 120 rds. W 40 rds. S 120 rds.
E 40 Rds. to beg. part SE¼ Sec. 3, Twp. 27, Rge. 32
(Alice Kibler)

24 Acres, 48 x 80 rds. beg. 112 rds. N of SE Cor. SE¼ N 48 rds. W 80 rds.
S 48 rds. E 80 rds. to beg. Sec. 3, Twp. 27, Rge. 32.
(Ben L. Jones)

28 Acres, Beg. 40 rds. N of SE Cor SE N 72 rds. W 80 rds. S 32 rds.
E 32 rds. S 40 rds. E 48 rds. to beg. Sec. 3, Twp. 27, Rge. 32
(Ben L. Jones)

37.83 Acres, W½ Lot 2 NE, Sec. 3, Twp. 27, Rge. 32
(Stevison Rogers Land and Mining Company)

Drill Log

Hole No. 1

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Struck water: 18' and 180'

Set 6¼" casing @ 18'

Started: 6/23/45

Finished: 6/30/45

0	5	Surface
5	16	Red clay and flint boulders
16	45	Gray lime and blue flint
45	50	Gray lime and white flint
50	60	Brown lime, little blue and white flint
60	70	Gray lime and white flint
70	100	Gray lime and little gray flint
100	105	Drak gray lime and light gray lime and little gray flint
105	165	Brown lime and little white flint
165	178	Brown lime and white and gray flint
178	186	Blue, Gray, white and blue flint (zinc shines)
181	186	5.7% blend
186	200	Open
200	202	Fair zinc could be out of roof

J. T. & Boyd Patrick Contractors

Signed: Boyd Patrick

Drill Record

Hole No. 2

Property Name:

Drill Owner:

Begun: 6/5/45

Finished: 6/13/45

Struck Water: 100' Water stands top

Drill runner: W. H. Meekins

0	5	Soil and clay
5	15	Gray lime and white flint
15	35	Gray lime, blue and white flint
35	70	Dark gray lime and white flint
70	95	Dark gray lime and blue flint
95	105	White and blue flint, gray lime
105	120	White and blue flint, gray lime
120	130	White flint and brown lime
130	140	White and blue flint
140	160	Dark blue flint and dark gray lime
160	170	White and blue flint, trace of Zinc
170	175	Blue and white flint and gray lime, trace of zinc
175	195	Gray, white and blue flint, extra good zinc
195	213	Dark gray lime and blue flint

175 to 180 Good zinc 5½%
180 to 190 Fair zinc 4.2%
190 to 195 no good 1.3%

Signed C. R. Jenkins

Drill Log Hole. No. 3

Lease Owner: Harold Fenix Lease Name: Stubbs

Started: 7/2/45 Completed: 7/10/45

Set 16' of 6¼" Casing, Struck water at 15' and 180', Stands @ 130'.

0	15	Red Clay and flint gravel
15	55	Gray lime and blue and gray flint
55	95	Gray lime and gray flint
95	125	Gray lime and very little gray flint
125	160	Brown lime and little white flint
160	175	Gray and brown lime and gray flint
175	180	Gray and white flint and little lime (thin trace of zinc)
180	188	Gray and white flint (few zinc shines)
188	194	Gray brown and white flint (trace zinc)
194	198	White and gray flint
198	202	Gray, blue, white and brown flint (trace zinc)
202	206	Gray, white and blue flint and brown lime
206	210	Gray and brown lime and gray flint

Total depth: 210 ft.

Contractors: J. T. and Boyd Patrick

Signed: Boyd Patrick

Drill Record

Hole No. 4

Property Name:

Drill Owner: Bennett and Jenkins

Begun: July 10, 1945

Finished: July 21, 1945

Struck Water: 175 ft.

Water stands: 175 ft.

Drill runner: W. H. Meeking

0	5	Soil
5	24	Red clay and river gravel
24	25	White flint
25	45	Gray lime and white flint
45	100	Gray lime
100	120	Dark gray lime and white flint
120	160	Gray lime blue and white flint
160	175	White flint and gray lime (trace zinc)
175	185	Blue and white flint, extra good zinc
185	200	Blue and white flint, trace of zinc
200	210	Blue and white flint, zinc shines
210	225	Dark gray lime andblue flint

175 to 180 — 2.5%
180 to 185 3.7%
185 to 190 3.9%

This hole is high casing closest to Federal ground, SW of Shaft #2

South of Shaft #2

Drill Log

Hole No. 6

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Started: 7-20-45

Finished: 8-2-45

Set 25' of 6¼" Casing

Struck water at 180 ft.

0	22	Red clay and gravel
22	45	Gray lime and gray and white flint
45	120	Gray lime and little white flint
120	135	Brown lime and gray flint
135	155	Brown lime
155	180	Gray lime and white flint
180	185	Gray and brown flint (trace lead - no good)
185	190	Gray and brown flint
190	200	Gray blue and brown flint (lead shines) Fair--2.1%
200	205	Gray blue and brown flint
205	212½	Gray and brown flint (lead shines)--only 1½%
212½	215--2 %	
215	220--3.2% good	
212½	220	Gray lime, gray blue and brown flint (lead shines)
220	222½	Gray lime, gray and brown flint (fair lead & zinc) 2.12% 222½ to 225--1.70 lead--Black Jack 12½%--good
222½	235	Gray lime, gray blue and brown flint (fair lead)
235	260	Gray lime and blue flint
260	280	Gray lime

Contractors: J.T. & Boyd Patrick

Signed: J. T. Patrick (title Partner)

Drill Log

Hole No. 8

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Started: 8-2-45

Finished: 8-13-45

Set 30' of 6½" Casing

Struck water at 20' & 135'

0	25	Surface, red clay and boulders
25	60	Gray lime and gray flint
60	65	Gray lime and gray and little blue flint
65	120	Gray lime and gray flint
120	145	Gray lime, white flint and selvage
145	155	Gray lime, little white flint and selvage (trace of zinc)
155	165	Gray lime and gray flint
165	190	Gray and brown flint
190	200	Gray, brown and blue flint
200	210	Gray, borwn and blue flint, brown lime and mundic
210	225	Gray lime and blue flint
225	235	Gray lime and gray and blue flint

Contractors: J.T. and Boyd Patrick

Signed: Boyd Patrick

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 1909

Date received

Participation

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application June 22, 1951

Estimated cost [illegible]

Mineral or metal Zinc

Percentage of Government participation 1/2 (one-half)

Location of mine Bucyrus, Missouri

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the [redacted]n project, including any existing mine or operating property.

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

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

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

St. Regis Mining Company (Name of company) By [signature] (Signature of authorized official)

August 11, 1951 (Date) Manager and Partner (Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Dma - 1909

THE APPLICANT

1. Q. Is applicant an individual, partnership, or corporation?
   A. Applicant is partnership.

2. Q. If a partnership, state names and addresses of partners.
   A. G. J. Fenix, 202 Joplin National Bank Bldg., Joplin, Missouri
   R. H. Prigg, 923 Wall Street, Joplin, Missouri

3. Q. If a corporation, state names and addresses of officers, directors and five largest stockholders.
   A. See above.

4. Q. Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who will manage the project.
   A. G. J. Fenix is the applicant and also manager of the mining company. I have had twenty years experience in the Tri-State Mining field. For six years I worked underground at the various classifications applicable to a miner. Then I was employed as Superintendent for a period of three years. The past eleven years I have mined either as an individual or a partnership, holding the position of Superintendent, Treasurer and Manager. At the present time and for several years, I have held the undisputed record for mining more tonnage per man day than any other underground mine in the Tri-State area. At the present time we are mining twenty-one tons per day per man. No property, either owned or managed by me, has as yet closed at a financial loss.

5. Q. Are you the owner or the lessee of the property?
   A. Lessee and owner.

6. Q. If owner, state what claims, liens, or encumbrances, if any, are against the property.
   A. None.

7. Q. If lessee, attach a copy of the lease and state if it is in good standing.
   A. Lease is in good standing, see attached Exhibit "A".

8. Q. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
   A. See attached Exhibit "B".

9. Q. Do you have or will you have the money necessary to pay your part of the costs of the project which you will detail under "The Requirements and Costs" section of this application.
   A. Yes.

THE PROPERTY

10. Q. State the legal description of the property, including the County and State in which it is located.
    A. See "Exhibit "C".

11. Q. State the present and former names of the property, if any.
    A. St. Regis Mining Company, Athletic Mine and Transvania Mining Company.

12. Q. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

A. Property is located at Duenweg, Missouri, on highway 166 and approximately four miles east of Joplin, Jasper County, Missouri. Roads are all pavement or hard surface chat. Railroad facilities - branch line Missouri Pacific bisects property. Shipping point Webb City, Missouri.

13. Q. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

A. Dewatering and continuous pumping is one of the major costs of property operations. Power for approximately 250 horsepower will be purchased from the Empire District Electric Company at a cost of $1.87 per hour. See Q 21-3.

14. Q. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

A. One derrick with 200 ton hopper.
One blacksmith shop fully equipped.
One change house.
Three small warehouses.
One pump building.

15. Q. State in detail how the ore could be shipped and how and where milled.

A. Ore is hauled to Federal Mill, a distance of one-half mile. Ore is hauled by company truck and milled by Federal Mining and Smelting Company, Duenweg, Missouri.

16. Q. History:
(a) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations

A. See attached Steward Engineering Report, Exhibit "D".

Q. (b) State briefly the known history and production of adjoining and neighboring properties.

A. See attached Koelker Engineering Report, second paragraph, and Joplin Globe clippings. Exhibits " E and F".

Q. (c) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

A. See attached Stewart Engineering Report and maps. Exhibits "c" and "F".

17. Q. Production:
(a) If mine is in production, furnish the following information:

		Tons per Day	Grade or Analysis	Cost per ton	Net Value per Ton
A.	(1) Mining	450	2.52 Zn - .15 Pb 60 & 81.5 grade respectively	$1.36	$ .59
	(2) Milling	450		1.25	
	(3) Shipped or sold		651.61 tons Zn	25.38 tons Pb	

18. Q. Ore or mineral reserves: (If property is or has been operating).
(a) Describe the ore or mineral deposits briefly.
(b) Submit available maps and assay data.
(c) Give estimated tonnage and grade of each class of ore reserves.
A. A-B-C- See attached Stewart Engineering Report "Exhibit C".

19. Q. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.
A. Exploration Proposed by the St. Regis Mining Co. on the fifty percent Participation Plan offered by the Defense Mineral Administration
The project for the main part consists of exploring the mineralized zone between the St. Regis mine proper and the old workings of the Lincoln mine. Area shown in Exhibit "C" in map Zone III.

This area has been churn drilled to prove the area mineralized. However, the drilling was done before any dewatering was accomplished, therefore, a true quantitative analysis cannot be made.

We propose to dewater the Lincoln workings to sample headings, roof and floor, extending in a southeasterly direction into Zone III on the map.

The cost involved in dewatering this mine can be partially borne by the recovery of sludge from the mine floor.

Sludge is a term used in the Tri-State Field meaning the fine fly ore rock which accumulates on the mine floor after blasting. Likewise, the fine ore which has settled through the rock when hand shovelled.

In the early day operations it was impossible to maintain floor levels sufficiently even to permit shovelling, therefore, it was common practice for the shovellers to fill the uneven areas with fine ore rock to facillitate shovelling.

It has been reliably reported by former employees of this mine that the floor was never (sludged) cleaned up prior to shutting down.

In addition to the sludge recovery, the pillars or supports can be trimmed to approximately 60 to 70% of their present size which in itself represents a sizable tonnage of ore bearing rock. (See Stewart Report on pillar area).

The trimming of pillars is now a common practice and has been accomplished in every area in the field. It is now recognized by Mining Engineers the size and number of pillars can be reduced by comparison to previous practices, and still have an adequate safety factor margin.

We point to the above possibilities as being significant in their own extent as well as being important as a means of defraying a portion of the expense of exploration.

19. continued
The total dewatering of the Lincoln will likewise premit inspection of the Wolfheart located in Zone 3 (see map) to the Southeast toward the St. Regis north heading. This operation was shutdown due to low market price of ore and was never reopened because of the abandonment of the Duenweg field.

It will be noted(see elevation Stewart Engineering Report) the Wolfheart mine was never properly opened, specifically the operators upon reaching the upper portion of the ore bearing strats (mineralized sheet ground formation characteristic of this area) drifting was started without seeking the floor of the ore body, the result was low headings and minimum recovery.

We can only presume the water level was too high to permit sinking the shaft to the lower level or inexperience in mining this type formation since the drill logs(see map exhibit "G")definitely indicates the same formation exists in this area as is characteristic in the Lincoln and St.Regis. We, therefore, firmly believe the ore body was not fully explored.

During the period of time necessary to dewater the north portion of the St.Regis lease, known as the Lincoln workings as explained in the foregoing paragraphs, we propose driving two 200 ft.exploratory drifts in a northwesterly direction from the south end of Zone III (see map) to determine if the present ore body, which is now turning downward, will make up on the level of the known ore horizon characteristic of the area immediately to the north. (see drill records for south end Zone III).

In addition, an exploratory winze is to be driven to check drill hole No. 5(see map and records), likewise, an exploratory upraise to test roof area (see hold No. 3).

The purpose of the latter projects is to prove the extent of the mineralized area north from the present already dewatered St. Regis Mine as to whether or not the total area north to south in Zone 3 is an interconnecting ore body as indicated in the Stewart Engineering Company report.

The entire project as proposed can be completed within an estimated 90 days period and would be accomplished in the following steps.

1. Recollar and rehabilitate shaft to north end of St.Regis Lease.
2. Set pumps & make electrical connections preparatory to dewater.
3. Commence dewatering areas No. IV (see map).
4. Derrick erection & compressor installation preparatory to exploration, sampling, inspection, etc.
5. Drive exploratory drifts, (see map) Area No.V toward Area No. III Itm. A&B.
6. Cut winze and upraise (see map items No.C and D, Area V.
7. Complete dewatering - estimated 60 day period to pump total area.
8. Mine inspection-Engineering & Geological survey-Sampling of roof, floor headings.
9. Complete evaluation of total project with objective to mine. See Exhibit "D" Stewart Engineering Report on estimated value of possible recoverable ores.

19. continued.

Conclusion.
The past history of the area which the St. Regis lease encompasses indicates operating mines which had high tonnage records and one recovery percentages comparable with typical sheet ground formations. (see Stewart Report "Exhibit G".

These mines were not abandoned because of any lack of ore reserves, but rather for reasons of low market values during this period immediately following the World War I. Also because of the mass exodus from the Duneweg, Mo. field to areas around Picher, Okla. which had much higher percentage of ore recovery per ton of rock than the lower recovery sheet ground formation.

The mines which would have continued to operate despite low market prices were compelled to shut down because as each operation was abandoned to move to Picher, the water flow had to be picked up by the remaining pumps, and soon this became an impossibility and forced a complete shutdown of the Duenweg field.

The Federal Mining Company was the first operator the reopen in the Duenweg field, specifically, in the immediate area adjacent to the St. Regis property. (See map Area No. 6).

This Federal Company acquired this property and commenced operation and has, with only temporary stoppages, continued to mine and are currently expanding their present operations.

The St. Regis Mining Co. was the second operator to reenter this field and has been able through complete mechanisation to mine profitably on the present day ore market prices.

We sincerely believe the project as outlined in the foregoing paragraphs and hereafter explained in more detailed fashion offers a possibility for exploring a known mineralisied area in a sheet ground formation which renders itself advantageously to present day improved mining techniques. Likewise, present day milling efficiency adds promise of better recovery than the established percentages from the previous operations.

The present acute shortages of zinc and lead ores has stimulated activity in mining known and proven ore bodies, however, little exploration to develop new ore reserves have been made because of fear that market prices would not be stable.

With the advent of the participation plan developed by the Defense Minerals Administration wherein the applicant and the government share equally in the exploration expenses, we immediately made a preliminary investigation with the local D.M.A. office, and were advised our project appeared to have merit and that we should make formal application for participation in this program.

THE EXPLORATION

20. Q. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted.
A. Lead and zinc sulphide in sheet ground formation.

21. Q. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.
NOTE: The Government will not participate in a project that will require more than two years to complete.

A. South end of mine - St. Regis Proper
Cut wing drift to good lead hole #5 to check accuracy of drill cuttings - see attached drill log, exhibit "G"

Estimated length of cut - 60 ft.
Estimated cost $48.00 per ft.

Labor	$26.00
Powder & Air	4.00
Supplies & Machine rental	18.00
	$48.00

60 x 48 = $2,880.00

Northeast side of Mine - St. Regis Proper

Cut upraise in existing roof to check drill hole #3 - see drill log attached, "Exhibit G".

Estimated length of upraise 15 ft. in 4 locations surrounding the existing drill hole.

Total footage 60 ft.
Estimated cost $57.00 per ft.

Labor	$ 33.00
Power & Air	6.00
Supplies & Rental	18.00
	$ 57.00

60 x 57 = $3,420.00

North end of mine - St. Regis Proper

Because of the downward roll of ore vein at the north end of St. Regis mine, we plan to drive two exploratory drifts northward, 150 ft. each, to determine if exisiting faces of ore are turning downward to meet the level of known ore bodies in Block III. (See map Exhibit "G". Also see Stewart Report).

21. continued.

Estimated cost of the two drifts

Labor	$30.00
Powder & Air	4.00
Additional pumping & ditching to pump sump	2.00
Supplies & rental	18.00
	$54.00

300 feet of drift

300 x 54 = $16,200.00

North end of Lease from Athletic Mining Co., Lincoln mine

Propose to recrib and collar existing shafts to set pumps to dewater cut ground. This dewatering will permit visual inspection of the headings, pillars or supports with respect to possible trimming and the floors with the possibility of sludge recovery.

This exploration will permit sampling and accurate estimations of the existing faces and also the possibility of connecting the Lincoln Wolfheart and St. Regis mines together which have an estimated tonnage of 2,240,000 tons of ore rock with a calculated recoverable grade of 2.85% combined zinc and lead sulphides; or a total of 64,000 tons of concentrates.

Estimated cost of project:

1. To recrib and collar shaft in preparation to set pump $1,050.00

Labor	$ 600.00
Lumber & Supplies	$ 450.00
Total	$1,050.00

2. Pumps, motors, starters, installation in the above shaft on lease rental agreement.

Two pumps complete, rental $5000.00 each first month, 10%/month thereafter or $2000.00 or $1000.00 per month per pump	$ 12,000.00
Electrical connection with power company	2,700.00
Labor installing pump	1,200.00
Building to house pumps	500.00
Electrical controls	1,000.00
	$ 17,400.00

3. Power and pumping labor - power 300 KW or 400 HP

Labor	$ 1,800.00
Supplies & Repair	1,950.00
Miscellaneous Labor	2,200.00
Power	4,320.00
	$10,270.00

Miscellaneous Labor covers the labor expense necessary to lower pumps and to clean lower ground shaft level of debris and caved rock for pumping to the mine floor level.

4. Compressor setting installation for air to drill for sampling and general mine exploration.

Labor installing	$ 800.00
Supplies, piping & operational expense	$ 300.00 750.00 250.00
	$2,100.00
Rental compressor & appertinents $1000 / mo.	2,000.00
	$4,100.00

5. Derrick and hoister installation

Labor of erection	$ 3,200.00
Lumber & Materials	4,400.00
Hoister rental $500/mo. est. total rental 3 mos.	1,500.00
Motor & controls $200/mo. est. total rental 3 mos.	600.00
Installation of hoister and controls	750.00
	$ 10,450.00

6. Labor to inspect and sample headings, face, pillars, floor, etc.

Supervisors, geological and engineering survey	$ 1,500.00
Labor	2,000.00
	$ 3,500.00

GRAND TOTAL $ 69,270.00

22. Q. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial orebodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

A. See Stewart Engineering report with maps and drill logs, exhibits "C", "F" and "G".

23. Q. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(a) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

A.

4 - Machine men (miners)	$ 13.00 per day
4 - Machine helpers (Dummies)	12.00 per day
3 - Carpenters & riggers	20.00 per day
1 - Helper	16.00 per day
Hoisterman	13.00 per day
Compressor operator	10.00 per day
Mucker	13.00 per day

Q. (b) Supervisors, by numbers and positions, with salaries of each.
A. Supervisors (Mining ground boss)
(Carpenter & Rigging foreman) part time $18.43 per day

Q. (c) Cost of necessary repairs to existing facilities, structures, and buildings.
A. None

Q. (d) Cost of necessary installation or construction of additional facilities, structures, and buildings.
A. Derrick and pump house $10,850.00
Pump and compressor installation.

Q. (e) Cost of items of equipment not now owned by the applicant which must be purchased for operation at a cost of $50 or more each.
A. None to be purchased, rental contemplated.

Q. (F) Cost of rental for equipment which the operator proposed to rent.
A. $22,500.00

Q. (G) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
A. $ 35,000.00

Q. (H) Cost of materials and supplies, including items of equipment costing less than $50.00 each.
A. $ 4,500.00.

Q. (I) Cost of power, water, utilities, and any other items not provided for above.
A. $ 5,500.00.

NOTE; Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, and such costs may be included in the statement, only the depreciation thereon will be charged as a cost of the project.

24. Q. Furnish a time schedule of the project, stated in terms of months after the project is approved, showing progress expected to be accomplished and the money expected to be spent.

A. The project as proposed can be started immediately upon receipt of approval and will be followed to completion within approximately 90 days. Total money to be expended $69,270.00.

beginning at [illegible]
[illegible] of the southwest [illegible]
tion 3, Town[illegible] 27, [illegible] 32; thence South 1647.[illegible] feet; thence
West 241.2 feet; thence North 1647.7 feet to North line of said quarter
quarter Section; thence East 241.2 feet to place of beginning, Jasper
County, Mo.

A tract of land commencing 241.2 feet West of Northeast corner of Northeast Quarter (NE), Southwest Quarter (SW), Section 3, Township 27, Range 32, thence South 1647.7 feet, thence West 241.2 feet, thence North 1647.7 feet to North line said Quarter Section, thence East 241.2 feet to beginning, containing 10 acres, Jasper County, Mo.

All of a tract of land described as Nine and twelve hundredths (9.12) Acres, West two hundred forty-one and two tenths (241.2) feet, East Seven hundred twenty-three and six-tenths (723.6) feet, North Five Eighths (5/8), East one-half (1/2) Southwest Quarter of Section three (3), Township Twenty-seven (27), Range Thirty-two (32), Jasper County, Mo.

A tract of land described as beginning at a point 723.6 feet West of Northeast Corner of Northeast Quarter (NE) of Southwest Quarter (SW) of Section Three (3), Township Twenty-seven (27), Range Thirty-two (32), thence South 1,647.7 feet, thence West 241.2 feet, thence North 1,647.7 feet to North line to said quarter Section, thence East 241.2 feet to place of beginning, containing 9.12 acres, more or less.

Exhibit a

MINING LEASE

THIS INDENTURE, Made this 29th day of April, 19 49, by and between

Kit Vickrey and Snow Vickrey, his wife,

hereinafter (whether one or more) referred to as Lessor, and Gilbert Fenix hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

[illegible] land described as [illegible] (illegible) [illegible] Northeast Corner of [illegible] rter (illegible) [illegible]

of Section ____, Township ____, Range ____, and containing ____ acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at Citizens State Bank, at Joplin, State of Missouri, on or before the tenth (10th) day of each month, a royalty of Six per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereat. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within thirty (30) days from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $ 10.00, in the manner hereinafter provided, such payment or tender shall operate as a rental for ~~three (3) months~~ one (1) year from and after the period of time last above stated, and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said ~~three (3) months~~ one (1) year period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of ten years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at Joplin, Missouri or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

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

(s) Gilbert Fenix

Lessee

(s) Kit Vickrey

(s) Snow Vickrey

Lessor

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF Missouri
COUNTY OF Jasper } ss.

BE IT REMEMBERED, That on this 29th day of April 19 49, before me personally appeared Kit Vickroy and Snow Vickrey, his wife to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said county the day and year last above written.

My term expires March 12, 1951 (s) Juanita Copeland
Notary Public.

KANSAS FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } ss.

BE IT REMEMBERED, That on this ..... day of ....., 19....., before me a Notary Public in and for the County and State aforesaid, came ..... and ..... who are personally known to me to be the same persons who executed the foregoing instrument of writing, and who duly acknowledged the execution of the same.

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

My commission expires .....
Notary Public.

OKLAHOMA FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } ss.

Before me, Notary Public, in and for said County and State, on this ..... day of ....., 19....., personally appeared ..... and ..... his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged that ..... executed the same as ..... free and voluntary act and deed, for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal upon the date last above written.

My commission expires .....
Notary Public.

NO. .....

MINING LEASE

FROM

TO

Dated ....., 19.....
Section ..... Township ..... Range .....
County .....
No. Acres .....

STATE OF .....
COUNTY OF ..... } ss.

This instrument was filed on record on the ..... day of ....., 19..... at ..... o'clock ..... M., and duly recorded in Book ..... Page ..... of the records of this office.

By ....., Deputy.

When recorded

Return to .....

THE JOPLIN PRINTING CO., JOPLIN, MO. 2M 4-48 15885

Exhibit "B"

St. Regis Mining Company
Profit and Loss Statement
June 30, 1951

	Month	Yr. To. Date	Month	Yr. to Date
Ore Sales, Lead			nil	23,926.12
Ore Sales, Zinc			24,919.35	204,909.91
Less Royalty Paid			-2,803.21	-13,686.41
Assay Expense	10.50	21.00		
Mine Supply & Repair	2,150.12	16,805.32		
Mine Power Bill	984.39	10,680.18		
Mine Explosive Expense	1,703.76	11,150.47		
Truck Rental Expense	nil	332.27		
Dirt Hauling Expense	nil	91.00		
Donations	50.00	62.00		
Contract Labor	nil	703.93		
Payroll Expense	8,564.72	54,735.81		
Payroll Insurance	680.98	4,269.97		
General Insurance Expense	370.44	529.31		
Quarterly Fee Expense	nil	24.08		
Social Security Tax Expense	128.80	827.07		
Mo. Unemployment Comp.Tax	231.25	1,117.90		
Milling Expense	11,156.75	90,284.19		
C.J.Fenix Salary	750.00	4,650.00		
Office Rent Expense	42.00	[illegible]		
Miscellaneous Expense	81.83	1,014.59		
	26,905.54	197,467.39	22,116.14	215,149.62

Loss for month: $4,789.40
Profit, Yr. to Date: $ 17,682.23

Balance Sheet as of June 30, 1951

	Dr.	Cr.
Bank Account	13,086.81	
Equipment Account	9,802.04	
Deposit on Ins. (Comp)	1,500.00	
Accounts Receivable	3,528.20	
Accrued Royalty		781.95
Accounts Payable		6,611.83
Accrued Social Security Tax		256.94
Accrued Withholding Tax		604.60
Accrued Mo. Unemp. Comp. Tax		584.13
Rea Johnston, Loan a/c		35.38
G. J. Fenix, Investment a/c		7,500.00
G. J. Fenix, Drawing a/c	6,480.01	
R. H. Prigg, Investment a/c		2,500.00
R. H. Prigg, Drawing a/c	2,160.00	
Profit, Yr. to Date		17,682.23
Totals	$ 36,557.06	$ 36,557.06

EXHIBIT "C"

TRANSYLVANIA - Southwest Quarter (SW¼) of the Southwest Quarter (SW¼) of Section 34, Township 28, Range 32, Jasper County, Missouri, containing 40 acres more or less.

JASPER COUNTY ROYALTY COMPANY LAND - Lots one (1) and Two (2) of the Northwest Quarter (NW¼) of Section 3, Township 27, Range 32, containing 160 acres, more or less, subject to power line and tailings leases.

Southwest Quarter (SW¼) of the Northeast Quarter (NE¼) of Section 3, Township 27, Range 32.

A tract of land described as beginning at the Northeast corner of the Northeast Quarter (NE¼) of the Southwest Quarter (SW¼) of Section 3, Township 27, Range 32; thence South 1647.7 feet; thence West 241.2 feet; thence North 1647.7 feet to North line of said Quarter Section; thence East 241.2 feet to place of beginning, Jasper County, Mo.

A tract of land commencing 241.2 feet West of Northeast corner of Northeast Quarter (NE¼), Southwest Quarter (SW¼), Section 3, Township 27, Range 32, thence South 1647.7 feet, thence West 241.2 feet, thence North 1647.7 feet to North line said Quarter Section, thence East 241.2 feet to beginning, containing 10 acres, Jasper County, Mo.

All of a tract of land described as Nine and twelve hundredths (9.12) Acres, West Two hundred forty-one and two tenths (241.2) feet, East Seven hundred twenty-three and six tenths (723.6) feet, North Five Eights (5/8), East one-half (1/2) Southwest Quarter (SW¼) of Section 3, Township 27, Range 32, Jasper County, Mo.

EXHIBIT D

ST. REGIS MINING COMPANY

JOPLIN, MISSOURI

By
William M. Stewart
Mining Engineer
Joplin, Missouri

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

REGISTERED PROFESSIONAL ENGINEER
MISSOURI No. E-831 OKLAHOMA No. 448
MEMBER A. I. M. & M. E.

PHOTO-COPIES
BLACK LINE PRINTS
BLUE PRINTS
DISTRICT MAPS

WILLIAM M. STEWART ENGINEERING CO.
MINING AND CIVIL ENGINEERS
40 YEARS EXPERIENCE IN TRI-STATE DISTRICT
216 WEST THIRD STREET
PHONE 11
JOPLIN, MISSOURI

April 4, 1951

St. Regis Mining Company
203 Joplin Bank Bldg.
Joplin, Missouri Attention: Mr. O. J. Fenix

Gentlemen:

In the early part of 1943 in collaboration with Otto Ruhl, Engineer of the U. S. Bureau of Mines and as Engineer of many years experience in this district, I made a detailed study and analysis of all available data and evidence covering the sheet ground ore horizon from Oronogo to Duneweg including approximately 1000 drill holes records, maps of underground workings and production figures, compiled by the Statistical Division of the U. S. Bureau of Mines, covering an eleven year period from 1909 to 1919 and the production of 53,933,640 rock tons, 1,092,630 tons of Zinc Sulphide and 224,443 tons of Lead Sulphide, a recovery of 2.026% ZnS and 0.41% PbS.

During the above period I was underground in the mines of the Webb City-Duneweg district a great many times and had knowledge of the milling practice and efficiency of that period.

Having in mind the present mining and milling efficiency I estimate the recovery of the ore reserves in the St. Regis area at 2.46% Zinc Sulphide and 0.39% Lead Sulphide, a total of 2.85% from an average height of face of 12.0 feet.

Available production figures of the 31.14 acres overall area (includes pillars, ribs and lean areas) mined by the Lincoln-Athletic Mining Companies from 1909 to 1919 gives an average production including sludge ore remaining on mine floors, of 800 tons of Zinc Sulphide and 130 tons of Lead Sulphide per acre. A concentrate tonnage of 930 tons from 32,550 rock tons at a recovery of 2.85%.

The Athletic 31.14 acres produced 24,631 tons of Zinc and 3,941 tons of Lead Concentrates, a total of 28,512 tons at a ratio of 86.4% ZnS to 13.6% PbS, at a 2.85% Recovery this gives 2.46% ZnS and 0.39% PbS.

It is reliably reported that the floors of this mine have not been sludged. This would increase the production some 2,000

MINE VALUATIONS
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216 WEST THIRD STREET
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JOPLIN, MISSOURI

tons of ZnS and some 500 tons of PbS.

From available data, evidence and concentrate prices as of April 1st, 1951, on your 265 acres (more or less) of mineral leaseholds I estimate the Ore Reserves in the sheet ground horizon as follows:

In 69 acres
2,240,000 rock tons
@ 2.46% Rec. 55,000 tons Zinc Sulphide
@ 0.39% " 9,000 tons Lead Sulphide
@ 2.85% " 64,000 tons of Concentrate

$115.00 per ton ZnS less 6% Royalty = $108.10
216.40 " " PbS " 6% " = 203.39
Value per rock ton @ 2.46% ZnS = $2.66
" " " " @ 0.39% PbS = 0.80
Gross " to St. Regis Co. --------- $3.46 per ton

The accompanying map shows the mined out area on your leases and adjoining properties from available maps, and also the sea level elevations of the ore horizons as shown by drilling to date.

The 98 acres covering the present Reserves are outlined by Blocks I to V and are discounted from 20 to 35% depending on the evidence relative to each block.

Undeveloped areas are marked insufficient data but are potential mineralized zones. The dewatering of this area will allow visual examination of all existing faces adjacent to these and the Blocked areas and in the light of expediting production is essential to the developement of the property.

MINE VALUATIONS
MINE AND LAND SURVEYS
DRAFTING

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216 WEST THIRD STREET
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AREA ANALYSIS

Block I	9.0	acres	less 30%	- 6.3	acres
Block II	16.0	"	" 25%	- 12.0	"
Block III	92.0	"	" 35%	-34.0	"
Block IV	12.0	"	" 20%	- 9.5	"
Block V	9.0	"	" 20%	- 7.2	"
Total	98.0	acres		69.0	acres

69. acres x 800 tons - 55,000 tons of ZnS
69. acres x 130 tons - 9,000 tons of PbS
Total 64,000 tons of Zinc & Lead Concentrates
@ 2.65% Rec. - 1 ton of Concentrates to 35 Rock tons
64,000 tons x 35 - 2,240,000 Rock tons.

The mined area on your 265 acre lease as outlined on the map figures 55 acres.

Respectfully submitted

William M. Stewart

William M. Stewart

WMS:pt

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Exhibit E

29 March 1951

Mr. Gilbert Fenix
Joplin, Mo.

Pursuant to your request I have compiled the following information and production records of all lead and zinc ores mined from the 160 acre tract that you now own. This tract is described as the NW$_4$- Sec. 3 T27- R32, Jasper County, Mo. and is located about one mile north of Duenweg, Mo. All information was obtained from the Sunday mining pages of the Joplin Globe and News Herold from the years 1909 to 1919.

History

In 1907 the Lincoln Mining Co. was organized and this property was drilled out and ore was discovered in commercial quanties. In the year 1908, two shafts were sunk to 250 foot level. Due to the low price of ore work was then stopped until April 1909, at which time a mill was built and the first ore was produced on June 6, 1909. The Lincoln Mining operated the property until July 3, 1910, and then abandoned the property. In August of 1912, the Gopher Mining Co was organized and produced the first ore in August of the same year. The Gopher Mining Co operated the property until August 15, 1915 at which time the property was taken over by the Athletic Mining Co. This company operated the property until March 16, 1919 at which time the mine was abandoned. To the best of my knowledge this property has never been mined since that date.

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Lincoln M. Co. 1909

		Zinc	Lead
June	6	24,750	
Aug	15	103,000	
Sept	12	42,270	
Oct	3	63,590	
	10	53,230	
	17	54,440	
	24		29,550
Nov	7	64,760	
	28	62,870	
Dec	5	127,300	
	12	24,990	
	19	125,870	58,160
		807,070 lbs.	87,710 lbs

Total production 1909 403.53 tons Zn.
43.85 " Pb.

Production** Lincoln M. Co. 1910

Jan	2	131,990	
	16	128,270	
	30	62,180	
Feb	13	113,650	78,410
	27	132,620	
Mar	20	78,300	
	27	78,170	
	6	70,000	
Apr	3		47,520
	10	129,120	
	17		13,780
	24	78,340	8,020
May	1		13,170
	8	162,760	9,810
	15	62,140	6,500
	22	62,030	5,560
July	5	61,780	14,290
	12		11,150
	19	61,930	
	26		12,030
Aug	3	78,950	
		1,492,230 lbs	220,240 lbs

Total production 1910 746.12 tons Zn
110.12 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Lincoln M Co. (Maple Leaf Shaft) 1910

		Zn	Pb
June	12	122,370	
	19		13,630
July	3	59,570	
	17	61,970	
	24	65,290	30,020
Aug	7	53,200	
	14	64,440	
		423,840 lbs	43,650 lbs

Total production 1910 211.92 tons Zn
21.82 " Pb.

Production-- Gopher Mining Co. 1912

Aug	11	60,910	
Sept	8	191,850	
	15		34,280
	22	127,270	
	29	64,080	21,790
Oct	6	143,340	
	13	125,680	31,420
	20	122,330	
	27	96,940	
Nov	3	26,160	
	10		13,080
	17		11,990
	24		41,180
Dec	1	83,580	
	15		41,200
		1,042,140 lbs	194,940 lbs

Total production 1912 521.05tons Zn
97.47 Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Kopper Mining Co. 1913

Jan	5		65,900
	19	140,000	
	26	70,000	71,110
Feb	9		15,040
	23		88,310
Mar	2	70,000	
	16		65,960
	30	85,970	
Apr	6	252,790	65,680
	13	123,910	62,219
	20	120,000	
	27	127,110	
May	4	160,000	70,000
	11	215,190	
	18	123,890	11,730
	25	61,690	
June	8		49,980
	29		19,830
July	13		64,443
Aug	10	74,410	
Sept	23		135,900
Oct	12		77,900
Nov	2		37,120
	30		114,610
Dec	21		64,570
	28	63,850	
		1,695,900 lbs	1,167,557 lbs

Total production 1913 846.95 tons Zn
583.77 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST
JOPLIN, MISSOURI

Production -- [illegible] 1914

[illegible]	4		[illegible]
	18		[illegible]
	24	[illegible]	
[illegible]	1	[illegible]	
	[illegible]	[illegible]	[illegible]
	17	[illegible]	
	[illegible]	[illegible]	[illegible]
[illegible]	17	[illegible]	
[illegible]	[illegible]	[illegible]	
	12	[illegible]	
	24	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]
	19	[illegible]	
	[illegible]		[illegible]
[illegible]	7	[illegible]	
	14	[illegible]	
	21	[illegible]	
	[illegible]	[illegible]	
[illegible]	5	[illegible]	
	12	[illegible]	
	18	[illegible]	
	[illegible]	[illegible]	[illegible]
[illegible]	2	164,700	
	[illegible]	[illegible]	
	16	[illegible]	
	23	[illegible]	
	30	[illegible]	
[illegible]	6	120,440	
	13	[illegible]	
	[illegible]	[illegible]	
	27	[illegible]	
[illegible]	4	[illegible]	
	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]
[illegible]	1	[illegible]	
	15	[illegible]	
	22	[illegible]	
[illegible]	6	[illegible]	
	13	[illegible]	
	20	[illegible]	
	27	[illegible]	
		[illegible] lbs	797,270 lbs

Total production 1914 2,[illegible]4.40 tons in
[illegible].93 " lb

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318 JOPLIN ST.
JOPLIN, MISSOURI

Production Gopher Mining Co 1915

Jan	10	298,080	
	17	80,000	
	24	119,140	62,490
	31	121,000	62,340
Feb	7	59,140	
	14	177,230	
	21	120,000	
	28	119,450	
Mar	21	56,880	
Apr	4		126,370
	11	83,010	
May	2	185,230	62,090
	9	320,490	
	16	191,480	
	23	123,930	
	30	325,910	
June	6	119,280	
	20	115,390	71,140
	27	60,940	
July	4	130,140	55,180
	11	59,440	
Aug	15		10,970
		2,346,160 lbs	438,580 lbs

Total production 1915 1,423.08 tons Zn
219.29 " Pb

Production Athletic Mining Co 1915

Aug	29	77,190	45,390
Sept	5	52,570	
	12	123,440	
	19	76,210	
	26	60,850	
Oct	3	145,390	
	17	81,560	
	24	71,190	
	31	84,830	65,450
Nov	7	175,430	
	21	152,070	
	28		67,640
Dec	5	244,740	
	12	79,930	
	19	205,960	
	26	346,430	95,230
		1,983,480 lbs	259,010 lbs

Total production 1915 991.74 tons Zn
129.50 " Pb

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318 JOPLIN ST.
JOPLIN, MISSOURI

Production		Athletic Mining Co	1916
Jan	2	223,260	
	12	198,710	
	23	161,000	
	30	175,640	
Feb	3	93,880	68,460
	13	171,170	
	20	238,860	
	27	151,650	
Mar	5	188,090	120,570
	12	245,910	
	19		59,060
	26	294,780	
Apr	2	116,080	
	9	168,930	126,030
	16	224,970	
	23	240,040	
May	7	297,230	65,340
	14	259.780	
	21	179,020	62,950
	28		65,340
June	18	621,120	
July	16	115,160	91,660
	23	80,910	
	30	206,120	62,870
Aug	6	286,120	
	13	272,890	
	20	140,450	60,450
	27	142,860	
Sept	3	187,590	78,250
	10	271,720	
	17	127,060	
	24	295,650	
		224,880	
Oct	1	575,850	
	9		64,290
	13	201,610	
	22	273,030	62,480
	29	209,080	
Nov	12	413,432	61,740
	26	69,860	
Dec	3	447,500	
	10	291,130	125,630
	17	103,500	
	31	105,130	54,760
		9,236,782 lbs	1,280,320 lbs

Total production 1916 4,618.39 tons Zn
[illegible],640.16 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production--		Athletic Mining Co	1917
Jan	7	129,450	
	14	535,920	54,770
	21	179,320	30,300
	28	210,270	
Feb	4	472,710	
	18	386,170	61,580
Mar	4	380,900	64,570
	18	798,140	30,000
	25	103,410	61,090
Apr	1	128,290	
	22	355,960	73,080
May	13	413,680	[illegible],940
	20	290,990	62,250
	27	317,000	
June	3	176,220	
	17	358,750	92,320
July	15	612,090	57,300
	29	341,660	
Aug	5	423,830	50,920
	19	198,370	
Sept	9	315,710	174,380
	16	385,730	54,550
Oct	7	252,110	
	21	303,790	
Nov	4	219,180	
	11	310,470	64,140
	18	317,590	
	25	376,480	
Dec	2	119,070	277,900
	16	447,350	
	23	407,640	108,900
	30	340,420	63,300
		13,250,090 lbs	1,503,800 lbs

Total production 1917 6,625.04 tons Zn.
751.90 " Pb

KARL L. KOELKER, JR.
318 JOPLIN ST.
JOPLIN, MISSOURI

Production--- Athletic Mining Co. 1918

Jan	6	162,630	58,160
	13	165,830	64,330
	20	84,210	
	27	86,100	64,310
Feb	3	83,670	
	10	342,960	
	24	306,040	129,040
Mar	3	191,900	82,790
	17		72,870
	31	1,665,910	71,960
April	21	571,580	135,030
May	5	572,960	71,400
	12	297,800	
	19	108,850	100,060
	26	189,750	
June	2	186,700	79,340
	9	202,430	
	23	449,720	87,930
	30	242,290	
July	6	213,370	95,510
	21	236,260	
Aug	4	171,140	
	11	261,880	177,910
	18	62,140	
	25	59,100	
Sept	1	87,740	88,280
	8	482,600	
	15	310,220	
	22	293,130	
	29	235,990	150,810
Oct	6	149,980	
	27	118,090	92,200
Nov	3	62,610	
	17	469,360	85,450
	24	235,980	
Dec	1	126,710	91,470
	8	125,500	
	22	244,530	
		9,847,280 lbs	1,768,950 lbs

Total production 1918 4,923.64 tons Zn
884.47 " Pb

KARL L. KOELKER, JR.
316 JOPLIN ST.
JOPLIN, MISSOURI

Production-- Athletic Mining Co 1919

[illegible]	[illegible]	68,[illegible]0	
	[illegible]	127,[illegible]00	124,[illegible]0
	[illegible]	111,060	
[illegible]	[illegible]	176,120	
	[illegible]	[illegible],1[illegible]0	
	[illegible]	124,[illegible]80	0[illegible],[illegible]0
	[illegible]	0[illegible],070	
[illegible]	[illegible]	[illegible]1,020	
	[illegible]	1[illegible],[illegible]0	
		[illegible]11,[illegible]40 lbs	[illegible]10,150 lbs

Total production 1919 455.52 tons Zn
105.07 " Pb.

Production total 1908 to 1919

	Zn	Pb
1908--	[illegible].83	[illegible]
1910	746.12	110.12
	[illegible]11.02	[illegible]1.02
1911	[illegible].07	[illegible].97
1912	848.95	5[illegible].77
1913	2,[illegible]4.40	[illegible]
1914	1,[illegible].0[illegible]	[illegible]
	[illegible]1.74	[illegible]
1916	4,[illegible].[illegible]	[illegible].16
1917	3,[illegible].[illegible]	[illegible]
1918	4,[illegible].84	[illegible].47
1919	[illegible]5.52	[illegible]
	4,[illegible]1.[illegible] tons	[illegible],[illegible]41.35 tons

ys, Reaching $39

BUILDING MANY PLANTS IN THE EAST END CAMPS

DUENWEG AND PROSPERITY REGION SCENE OF ACTIVITY.

New Plants Will Largely Increase Ore Output in These Camps—Early Production Seems Assured.

There are few camps in the district that are doing the amount of mill building that is being done at the present time at Prosperity and Duenweg. No less than six plants have been put up either new throughout or representing a removal of a mill to the mine, or an addition to the machinery on the ground which would make the plant a complete mill, within the present year.

Such a movement of mill building means a large increase in the productive capacity of these camps, and this increase in production is scheduled to begin at a very early date. In compensation there are a few mills that have been moved from mines in that same vicinity, but not enough to equal the number of new ones.

Among the new plants is the Highland mill of the United Zinc Company, which has been rebuilt on the same site where the former big mill had been burned down. The plant is now completed and ready for operation. This mill is capable of handling from 400 to 600 tons of ore per day.

Just east of this mill the Lincoln Mining and Milling Company is completing the erection of a new concentrating plant, which in some respects is quite different from the general run of mills built throughout the district. The plant will have as part of its equipment the Richards Pulsator jigs, which are largely an experiment in this field. No mill in this field has yet tried the new jig, and many operators are watching with interest the starting of the plant and its success as a cleaning agent for Joplin ores.

In addition to the jigs the plant has several novel hydraulic classifiers which will be used in the classification of the pulps for the concentrating tables. This feature, while in use in other mills, is novel in being slightly different from anything else in the field. The plant should be completed within another fortnight and operations on a moderate scale will begin.

In addition to the main shaft at the milling plant the company has a second shaft about 75 feet away which is being utilized for an additional ore supply. The derrick and connecting tramway is now under construction. The mill buildings are covered throughout with galvanized iron.

On an adjoining lease the Wolfsheart Mining Company is also erecting a new mill. This plant is covered with galvanized iron and is rapidly nearing completion. The company in the first place installed permanent machinery, and the mill building now under construction is only forming a part of the present plant. This mill, as also its neighbors, are going to treat a sheet ground proposition which was developed by drilling in the fall and winter of 1907 and developed by shafts only last year. Owing to the very low prices of ores throughout the past year the development operations on all the sheet ground mining camps were allowed to hang fire and only with a better outlook did the owners start to work.

In addition to these mills there has been a mill moved upon a lease just west of the Highland mill. Over west of the Gibson mill a new plant is well under way on the very crest of the divide. At Duenweg, in the very heart of the old diggings, a plant is now under construction and should be completed soon.

Out on the old Criterion lease the American Zinc, Lead and Smelting Company has remodeled one of the old Alabama mills and placed it in readiness for operation. With the new additions and adaptations of machinery the plant is equal to a 350 to 400 ton plant.

In addition to these new plants now building, there were completed during the past year a number of other mills in that same field which are just beginning operation or are still waiting for a resumption of better ore prices. The Coabulila mill is one of the largest mills built and is now in operation. On the Cosgrove land there were a number of plants either built or planned for erection during the coming year. All of this activity means that when prices of ore reach a $40 level, and have any assurances of staying there, the ore tonnage that will be produced from that camp will be surprising.

STARTS FIRST SHAFT IN THE FAIRLAND FIELD

Frankenberger & Varner of Webb City Inaugurate New Work in New Field.

Fairland, Okla., is ablaze with excitement over the prospects of actual

few good strikes of lead ore have been reported.

EIGHTY WORK AT BOYD MINE

Reopening of the Sarcoxie Property Gives Employment to Many.

The Boyd mine at Sarcoxie has been thoroughly drained and operations have begun, full blast, after a shut-down of many months. The reopening of the mine has given employment to about eighty men and means more to the eastern part of the district than any other recent mining movement.

After the mine was closed it filled with water and it has required a large amount of pumping to thoroughly drain it. Turning from the Boyd mine again will place Sarcoxie in the production list and should materially increase the output of the eastern district.

LINCOLN TO HAVE TWO PUMPS

With New Equipment Mine May Be Drained Within Ten Days.

Another pump is being installed at the Lincoln mine at Duenweg, the one installed several weeks ago not having made sufficient headway against the water. With both pumps running full blast, it is believed that the mine may be drained within ten days, at the latest. It is possible that the mine may be free of water within a week after the two pumps are placed in steady operation.

There was 45 feet of water in the mine when the pumps were first started and the water level has been lowered 20 feet. As soon as the workings are drained, a force of men will be placed at work. Then the property will be kept in steady operation.

A NEW DERRICK AND HOIST

Huggins & Barker Mine Soon Will Be Producing Ore.

A new derrick is being built at the Huggins & Barker mine near Belleville and a steam hoist is being installed. The operators of the mine have been developing their property for some time. They now have arrangements in shape to begin the production of ore.

The Dorothy Marie mine at Belleville has been drained and the operators expect to be producing ore soon.

NEW MILL WEST OF JOPLIN

Hendenning & Cook Building Plant on Minor-Graham Lease.

A concentrating plant is being erected on the Minor-Graham Lead and Zinc Company's lease, west of Joplin. Hendenning & Cook are building the plant. Work on the mill is progressing very rapidly. It is believed it will be finished

Your. 10,000 lbs. 4, 11[illegible]
Tariff, 2,670 lbs. 4).
Pocah[illegible] M. Co.....
Grant[illegible] & B. Co.....
Matte[illegible] others.....
Rex M. & S. Co.....
Falls City L. & Z. Co.....
W. O. Cragg.....
Muskingum M. Co.....
Cherokee M. Co.....
Edward Hamilton.....
Blaser M. Co.....
Sitting Bull M. Co.....
Grand Haven M. Co.....
Hollando-American M. Co.
New Dividend M. Co.....
Belleville L. & M. Co.....
Hanson M. Co.....
C. C. Playter.....
C. M. Sheldon, Pres.....
Leonard Realty Co.....
McRee land.....
Parker M. Co.....
D. & W. M. Co.....
P. L. Swarts.....
St. Patrick M. Co.....
Black Jack M. Co.....
Gordon Hollow M. Co.....
Roaring Springs land.....
Jackson M. Co.....
A. Z. M. Co.....
Continental Zinc Co.....
Reid & Phillips.....
Ten Per Cent M. Co.....
Liberty M. Co.....
Horner Bents.....
No Name M. Co.....
Paragon M. Co.....
D. & A. M. Co.....
Sundries.....

Total sales.....2,67[illegible]

Calar
Shoal Creek M. Co.....
Baker Estate.....
Granby land.....
Sundries.....

Total sales.....
Values: Blende, [illegible]; calamine land, [illegible]; total [illegible]

WEBB CITY-CARTERV

Ble
S. Y. Hainage.....
Mercantile M. Co.....
Center Creek M. Co.....
Rhea L. & Z. Co.....
Edmund Lyon M. Co.....
Spotted Dog M. Co.....
Golden Glow M. Co.....
Aylor M. Co.....
C. S. Lang.....
Minor Heir Producing Co.
Continental Zinc Co.....
Providence M. & M. Co.....
Underwriters Land Co.....
Bertha A. M. Co.....
Dixie M. Co.....
Indian M. Co.....
American-Canadian M. Co.
[illegible] & H. M. Co.....
[illegible] Plant M. Co.....

Nov. 7, 1915

JOPLIN

Largest Slime Plant For Athletic Company

Three Dorr Thickeners, One Classifier and 21 Tables to Be Installed at C. T. Orr's Property.

The Athletic Mining Company, which is operating the old Gopher mine at Doerweg, is planning to install the most complete slime plant in the entire district.

According to present plans, which it is understood are well matured and finally decided upon, twenty-one James tables will be installed, and these will be supplemented by two 40-foot Dorr thickeners, one 17-foot thickener and one Dorr classifier.

Charles T. Orr, who is at the head of the Athletic company, is perhaps more competent to pass upon the value of the Dorr scheme of slime recovery than any other man in the district for the reason that he has had the only large plant in operation. It is at the Wingfield-Berthe A. property north of Webb City, of which he is manager, and it is understood that the plant of late has been showing a good profit on the original investment.

As the Wingfield-Berthe A. plant only tailings from the tables and overflow from the settling tanks is being treated with the Dorr thickener and classifier. This is material that ordinarily is lost in concentration work practiced in this district, and that good results are now being taken from what formerly was a waste common usage of the Dorr or other process in other

M. SHORT MAKES STRIKE

Made on Duncan's Land With Prospects Good.

[illegible] Duncan's land in Oronogo, [illegible] has just been staked by Short and Flapps, who [illegible]

$85

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and lead
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Bradley L.
Symmes M.
Grady M.
Mattie Br
A. W. C.
Jos. M.

ARTMENT

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Firestone
Most Mileage
Least Repair
Expense
Riding Quality
Satisfaction
Econo

Most Miles per Dollar

Questions by Mr. Howard Scott

Q. Now, I find in your [illegible] that you have made mining, if any, was done by the Athletic Mining & Smelting Company on the southwest 40 of their mining leases consisting of 160 acres east of the Scott and Evans-Hall-Coy mine, at Bunker?

A. I don't know of any, unless we were slightly over the line going south from the northwest 40. I have seen a map which shows that in places we cut as far south onto the southwest 40 as 200 feet from the northwest 40's south line. There are some good drill holes on the southwest 40, of which I have seen the records showing the ore face at about the same level and about the same height that we mined on the northwest 40. I have never been in either the Evans-Hall-Coy nor the Scott mine, but I do know that Mr. Ore, that is, the Athletic Mining & Smelting Company I mean, cut a good face of ore going west onto the northeast 40 which you now own. I have seen the records of three drill holes showing a face of ore running from northwest to southeast over an area of about 600 feet and showing a face of ore, of zinc and lead, from about 225 or 226 to 240 feet averaging about 9%. There are other holes east of those holes, that is, between those holes and the face of ore which was cut by the Athletic west, which are not so good. I would estimate that the mill recovery on the ore which we mined at the Athletic ran about 5%.

Q. Now, Tom, I wish you would tell me about your best recollection of what ore, if any is left to mine on the faces left in the northwest 40 of the Athletic mine, other than the face that you have already referred to going west and which has been cut to my line.

A. I would say that the ore going south was the best that we had in the mine.

Q. How wide from east to west would you say that face of ore was when you quit mining there?

A. By george, I couldn't hardly guess at that. My best recollection is that we were mining the best of the ore over an east and west face of about 150 feet wide and between 12 and 14 feet high. That ore would run, in my estimation, between 5% and 6%

zinc and lead. There was a little lead in it. Now there was ore all along the south face for a distance east and west of about 900 feet, but we were only mining the richest ores, as I said, covering about 150 feet, because we were only getting $18 a ton then for jack and our production was largely jack. There was ore along all four sides north, east, south and west of the Athletic mine when we quit mining there on $18 ore, but in places it didn't run over 3% or 4% and that didn't pay to mine at $18, but at other places it would run as high as 6% mill recovery, and would average probably between 5% and 6% at the places other than where it ran 3% and 4%.

Q. Now, with reference to the northeast 40, where the San Gabriel was located on this 160 acres of the Athletic, what do you say about that mine there?

A. I think I was only in that mine about three times. Rice was there all the time I was out there.

Q. How near to the time you quit mining there was about the last time you were in there, Tom?

A. I don't know, I guess it was about two or three weeks, not enough to make any great change in ground, unless it would change from poor to richer.

Q. What do you say as your best recollection of how good were the ore faces in the northeast 40 of the San Gabriel?

A. I would say from my memory that they were just about the same as at the mill faces. When I say the mill faces I mean on the northwest 40.

Q. Did the Athletic Mining & Smelting Company, while you were its superintendent, do any mining on the southeast 40?

A. No. I was never in the ground of the mine on the southeast 40. There was a small mine down there, but I don't remember at what level it was worked.

We had no flotation plant at the Athletic. All we had besides the jigs were sludge tables and few of them. I can't remember how many, but we didn't have but a few.

Q. Do you remember how good was the feeder ore which the Athletic cut west onto what is now the Scott lease?

A. That was cut before I became general superintendent for the Athletic Mining and Smelting Company and I do not remember ever having gone over to that part of the mine. Everywhere else that I have seen it, all the way around the four sides of the ore faces on the northwest 40, the mill recovery ran all the way from 3% to 6% and the ore faces averaged from 10 to 12 feet in height.

I was general superintendent for Mr. Charles T. Orr and I had a number of mines at one time under my general supervision.

The Lincoln Mining Co., the Maple Leaf Mining Co., and the Wolfheart Mining Co. made a fair production from the Jasper County Royalty Co.'s land. The principal producers on the Knol land were the New York & Western Zinc Co., the Durby Lead & Zinc Co., the Nowata Mines Co. (No. 2), and the Delker Mining Co. The first and the last named companies erected mills during 1910.

The zinc carbonate and silicate concentrates produced in the district nearly all came from the R. L. McGee lease, on the Hall land, and the Emma C. Mining Co.'s lease, on the Sadtler land.

Smaller producers included Becker & Relling, Cadwell-Allen Mining Co., Boston & Duenweg Mining Co. land (on which the White Rat Mining Co. erected a 200-ton mill), the Marvel-Carnation and Henrietta leases on the Cosgrove land, Crown Crest Zinc & Lead Co., Old Colony Zinc Co., Grace Ping Mining Co., Hyde Park Lead & Zinc Co., Bonnie Pattie Mining Co., Sayers Mining Co., and Henry Weymann land.

Granby district.—The total production of this district in 1910 showed little variation from that of 1909. The production of silicate of zinc from shallow workings was less than in 1909, but the increased shipments of sphalerite concentrates more than counterbalanced the loss. Most of the producing territory belongs to the Granby Mining & Smelting Co., and the total tonnage from it was large, the relative quantity of zinc silicate, zinc blende, galena, and lead carbonate being in the order named. Much of the mining by individual operators and by small companies is in shallow workings and yields lead ore and silicate of zinc ore. The large lessees on Granby land, which contributed nearly all of the blende concentrates in 1910, were the Mascot Mining Co., Katy Mining & Milling Co., Golden Rule Mining Co., Little Boss Mining Co., Fortune Teller Mining Co., the Billiken Mining Co., and the Granby Sludge Co. The Mascot Mining Co. has a 100-ton mill on the Granby land and one of 150 tons on the adjoining Homestake mine. Other district producers were the Illinois Zinc Co., the St. Paul Mining Co., and the Little Four Mining Co.

Joplin district.—The number of producers reporting from this district is larger, the [illegible] of the land or mining leases is more diffused, and the area of operations more extended than in any other district in Missouri. The production is second to that of the Webb City-Prosperity district. The 1910 sales of concentrates were as follows: Galena [illegible] 2 tons, lead carbonate 51 tons, zinc blende 47,200 tons, carbonate and silicate of zinc 1,403 tons. The total value of the concentrates was $2,243,273. As compared with 1909, the sales of galena and carbonate of lead declined 362 tons, zinc blende increased 1,237 tons, and carbonate and silicate of zinc increased 183 tons, and the total value was $37,084 less.

The largest production of lead ore and also of zinc ore was turned in by lessees of the Granby Mining & Smelting Co. This company reports that two new ore bodies have been discovered by drilling on the south half of the NE. ¼ sec. 33, T. 28, R. 33, and that shafts were being sunk to develop the ore body.

The second largest production of blende concentrates was produced by the Mandarin and Culpepper leases on the Cunningham land. Four shafts, ranging from 160 to 200 feet in depth, were in operation.

elter Markets Weaker

IS $62.50; R FOR LEAD ORE

—

s Operators—$35 to $38 Strikes at Several Mines Curtailed.

—

e last week was $62.50. Prices k previous. The greater part ade between $60 and $62.50. e sold for less than $60. t of the week, and many offers s to prevail this week. Some refused them were surprised probable that they will lose ling it.
$60.
last week was $60. On this he high mark.
mine. For a few choice lots sales were consummated on a s ranged down to $50 for less

ut to a certain extent. Several h are among the largest in the unt of labor troubles. A number at a time on account of strikes.
output.
ville field are in need of labor a great extent by an inability gh men to carry on operations of the problem may be the ureau at Webb City. The ob mines who are in need of them n.
of the Pittsburg Zinc Company firm from the ore market last

s of lead and zinc ores from klahoma district for the week

Brothers	22,240	.....
n Hen M. Co.	41,320	.....
w Branch M. Co.	23,120	.....
n City M. Co.	15,990	.....
oma L. & Z. Co.	.....	121,220
al sales	265,360	121,220

nes: Blende, $6,422; lead, $3,690; total, 6.

CAVE SPRINGS.

	Blende.	Lead.
Kramer Mines	158,640	476,540
Spring L. & Z. Co.	53,090	.....
al sales	211,730	476,540

ues: Blende, $6,042; lead, $13,904; total, $19,946.

SARCOXIE.

	Blende.	Lead.
dgan Z., L. & S. Co.	64,000	.....

lue: Blende, $1,792.

ORONOGO.

	Blende.	Lead.
ogo Circle M. Co.	212,360	.....
acle M. Co.	275,730	.....
al sales	488,090	.....

lue: Blende, $13,800.

WENTWORTH.

	Blende.	Lead.
twortb L. & M. Co.	32,810	.....

lue: Blende, $2,571.

LAWTON.

	Blende.	Lead.
ern L. & Z. Co.	61,000	.....

lue: Blende, $1,464.

CARL JUNCTION.

	Blende.	Lead.
r-Smith M. Co.	62,840	.....
ed Lehigh M. Co.	52,620	.....
Junction M. Co.	11,600	.....
Kitty M. Co.	.....	3,020
tal sales	129,060	3,020

lues: Blende, $2,776; lead, $90; total, 6.

SPRINGFIELD.

	Blende.	Lead.
M. Co.	88,000	.....

lue: Blende, $2,640.

SPRING CITY-SPURGEON

	Blende	Lead.
ley Valley M. Co.	26,100	19,140
r Heir-Sunrise	11,850	10,850
croft Land	.....	8,480
tal sales	37,950	38,470

	Calamine.
r Heir-Sunrise	32,210

lues: Blende, $1,094; calamine, $580; $1,102; total, $2,676.

GRANBY.

	Blende.	Lead.
e Boss M. Co.	127,640	.....
ol M. Co.	35,730	.....

IMPROVEMENTS AT GALENA MINES TO INCREASE OUTPUT

TO ENLARGE AND REMODEL HARTFORD MILLING PLANT.

Electrical Machinery to Be Installed —Drilling Has Shown Rich Deposits on Lease.

Improvements that will mean a great increase in output are planned for the Hartford mines, south of Galena. The concentrating plant is to be remodeled and its capacity increased. Mine workings recently have been enlarged and the known mineralized area increased.

Electrical machinery will be installed in the plant. It previously has been operated by steam power. It is believed the plant will handle a greater amount of dirt under the new arrangement.

Pumps Water from Shoal Creek.

Some difficulty has been encountered by the operators of the mine in obtaining enough water to operate the mill steadily. A pump is to be installed in Shoal creek one mile distance from the mine and water pumped to the property from the stream.

Drilling done at the mine recently has revealed an extension of the ore deposits. A number of holes have been put down in advance of drifts and these have resulted in rich strikes. The Hartford mine has been for some time one of the steadiest producers in the Galena district.

The property is owned by men who live at Hartford, Conn. Harlan H. White is manager of the mine.

STEEL MEASURE IS PASSED

Senate Recedes Amendments and Congress Enacts Bill.

The steel bill, carrying the zinc ore schedule, was passed by congress yesterday after some amendments were receded, according to a telegram received here by Judge D. D. Hoag. Zinc ore is placed on the free list by the act.

It is reasonably certain, however, that President Taft will veto the bill, and it is not probable that a two-thirds majority may be obtained for passing the measure over his veto.

Following is a copy of the telegram received by Judge Hoag yesterday:

"Congress passed the steel bill today, the senate receding from its Canadian reciprocity amendment by a vote of 33 to 28. The democrats and La-Follette framed the measure and all of the democrats, together with all progressives, except United States Senators Cummins, Borah, Cronna and Bourne. The regular republicans opposed the bill. The measure will reach the president early in the week. He will veto it."

GOPHER COMPANY MAKES ORE

Firm Operating Lincoln Mine Begins Producing Blende.

The Gopher Mining and Manufacturing Company has cleared the Lincoln mine of water and it now is producing ore. Considerable time was consumed in bailing the water, but from now it will be a steady producer.

O. Plunkett has been engaged as superintendent of mining operations. A. W. Van Hafften has been here for the last ten days looking after the interests of the company, and will remain until the success of the mine has been thoroughly demonstrated. He is much encouraged at the showing the mine is making.

W. A. Van Hafften, the secretary, will remain here for some time.

INITIAL TURN-IN FROM MINE

Carload of Ore Is Shipped From Geronimo Property.

The initial turn-in from the Geronimo mine, on the Connor land west of Joplin, was made last week. The property has been opened up by Jesse Short and others, development work having been

PUMP OF WOOD AND LEAD TO BE USED AT MINE

WILL BE MANUFACTURED AT OPERATORS' INSTRUCTIONS.

Expected to Be Solution of Acid Water Problem at Carterville—Drainage Work in Progress.

After several ineffectual attempts to solve the water proposition on his land near Carterville, T. T. Luscombe has decided to install a pump made of wood and lead to combat acids that have eaten up other machinery placed in the ground.

The pump will be manufactured on a special order. It will be a 4-inch two-tage centrifugal. The pump will be made entirely of wood and lead with the exception of the shaft, which will be of brass.

To Drain Lower Levels.

Frank Wallower has two pumps similar to the one Mr. Luscombe plans to install. These are the only machines of their kind in the district. Mr. Wallower is using them to drain ground near the Luscombe property.

Lower levels on the Luscombe tract are to be drained with the new pump. The water contains a large amount of strong acid, which has destroyed other machinery placed in the ground. On the wood and lead pump the acids can have no effect. Column pipes probably will be coated with an acid-proof paint.

A great amount of drainage work is in progress in the field just south of Carterville. A number of companies have resumed operations there. Ground which it previously has been impossible to operate may be worked when plans now being formed are carried out.

RICH ORE ON CARTHAGE LAND

Four Holes in Ore on Land Owned by Mrs. Glenn.

The fourth drill hole to be put down on land of Mrs. Henrietta Glenn on the old Carthage tract has gone into ore. The first three holes sunk went into rich deposits. W. H. Speckhard of the S. Y. Ramage interests is in charge of the work.

In the last hole ore was struck at 65 feet. A 25-foot face of stuff was proved up. Mathew Lane, a drill man of long experience, says some of the cuttings will assay more than 25 per cent. The hole is the best he has sunk in any part of the Joplin district, he says.

The drill is not yet through the deposit, and it is believed that ore will be found down to a depth of 95 feet. In other holes the ore has been encountered at 100 feet.

Work is being done on the old Grier tract just west of the Kiheka lease. The tract will be thoroughly drilled and then a shaft will be sunk to the deposits. If development work warrants it, a mill will be erected.

Mrs. Glenn intends to drill the Kiheka tract as soon as a rig may be obtained.

WILL DRAIN AURORA SHAFT

Old "Double Bob" Workings to Be Dewatered by New Firm.

Plans have been completed for the beginning of drainage work on Aurora lands by the Clay River Drainage and Leasing Company. The old "Double Bob" shaft will be the first drained. The shaft is one of the lowest on the United Zinc Company's land there and if water is lowered in it a larger area of land will be drained.

The draining of the shaft will be watched with great interest, for the water problem will be considered in doing so. Aurora for so long will be solved if the water is removed.

A large centrifugal pump will be installed for the draining of the ground. The company intends to have better equipment than ever has been used at Aurora.

Officers of the new firm have been elected. They are: John L. McNatt, president; C. C. Plank, J. J. Cutright, George Hutchison and C. H. Kennedy, directors.

STRIKE ORE AT SPRINGFIELD

IN GLOBE'S MINING DE[PARTMENT]

for Blende; ge Basis Is $100

Brought About Another $10 Boost ... Prices—Some Ore Sold as Low as ... Poor Quality—Lead Also Up With $60 to $64—Calamine Higher, $65 ... her for Production.

he price of blende was recorded during the
grades in carload lots brought $110, basis
n to $90, the average base price being $100.
ow-grade ore at $85.
somewhat, $64 basis being paid in some in-
e holding down to as low as $50 a week ago
past. Pig lead has advanced to $5.15 on

er market has been persistent during the
price. The Globe's special correspondent at
at $16.25 to $16.37½ for the week's close,
he New York metal exchange place the top
resumed quotations during the week after

ce of blende and was quoted at from $65 to
it is in good demand and there is scarcely

e favored with excellent weather and the
tely bought up this week.
nts, in pounds, with their values, of zinc
first leases in the various cities, towns and
-Oklahoma district for the week ending No-

Lead.
....
15,400
....
19,480
9,800
....
....
....
....
....
....
39,830
36,630
36,060
10,460
6,000
5,280
4,520
301,000
434,700

,530; to-

	Lead.
	79,070
	....
	....
	....
	....
	37,240
	12,880
	....
	....
	....
	36,460
	....
	....
	47,150
	79,120
	....
	....
	....
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	....
	....
	....

	Blende.	Lead.
Fidelity M. Co.	61,170	....
Scott M. Co.	61,500	....
What Cheer M. Co.	60,610	65,080
Sundries	129,500	....
Total sales	1,318,900	82,070

Values: Blende, $65,900; lead, $2,460; total, $68,360.

ALBA-NECK CITY-PURCELL.

	Blende.	Lead
Davidson-Joplin M. Co.	186,830	13,880
Purcell M. Co.	130,050	....
Reliable M. Co.	72,000	....
Lucky Tiger M. Co.	86,570	....
Cockelburr M. Co.	63,390	....
Black Hawk M. Co.	43,890	....
Sundries	62,000	....
Total sales	644,030	13,880

Values: Blende, $32,200; lead, $860; total, $33,560.

MIAMI.

	Blende.	Lead.
Turkey Fat M. Co.	171,860	....
Vantage M. Co.	130,880	....
Cactus M. Co.	125,440	....
Never Sweat M. Co.	115,740	....
Amalgamated M. Co.	123,080	....
Miami Z. & L. Co.	85,340	....
Quapaw M. Co.	79,780	57,740
Midas L. & Z. Co.	69,340	....
Lennan L. & Z. Co.	62,720	14,400
Gartung M. Co.	44,850	....
Mizpah M. Co.	19,850	....
Concentrating Co.	17,300	....
Blue Goose M. Co.	....	110,850
Standifer Bros.	....	81,720
High Five M. Co.	....	7,220
Total sales	1,046,080	279,930

Values: Blende, $44,455; lead, $8,100; total, $52,555.

GALENA.

	Blende.	Lead.
North Empire M. Co.	140,740	....
McCullough M. Co.	140,000	....

GRANBY.

	Blende.	Lead.
Granby M. & S. Co.	159,380	22,470
Mascot M. Co.	60,380	....
Total sales	219,760	22,470
	Calamine.	
Granby M. & S. Co.	173,700	
Perkins M. Co.	271,000	
Total sales	444,700	

Values: Blende, $7,880; calamine, $10,680; lead, $550; total, $18,850.

SPRING CITY-SPURGEON-SAGINAW.

	Blende.	Lead.
Inca M. Co.	60,740	....
Craycroft M. Co.	....	39,800
Wills-Bucklin M. Co.	....	10,280
Onadoga M. Co.	....	6,090
Total sales	60,740	55,960

WENTWORTH.

	Blende.	Lead.
D. & L. M. Co.	74,000	....
Jack Possum M. Co.	71,500	....
Total sales	145,320	....
	Calamine.	
D. & L. M. Co.	72,200	

Values: Blende, $4,912; calamine, $2,340; total, $7,252.

REEDS.

	Blende.	Lead.
U. S. Smelting Co.	250,150	....

Value: Blende, $13,060.

ORONOGO.

	Blende.	Lead.
Oronogo Circle M. Co.	551,800	114,860
Oronogo Mutual M. Co.	265,980	58,610
Total sales	817,780	173,470

Values: Blende, $41,454; lead, $5,160; total, $46,614.

SARCOXIE.

	Blende.	Lead
Flannery M. Co.	62,060	....

Value: Blende, $2,976.

QUAPAW-BAXTER.

	Blende.	Lead.
Bash M. Co.	59,470	....

Value: Blende, $2,850.

CAVE SPRINGS.

	Blende.	Lead.
Hartford No. 2	80,710	....
Cave Springs L. & Z. Co.	65,250	....
Total sales	145,960	....

Value: Blende, $6,984.

BELLVILLE-KLONDIKE.

	Blende.	Lead.
New Geronimo M. Co.	74,800	....
Minor-Graham M. Co.	49,750	....
Lindeman M. Co.	17,920	....
Total sales	142,470	....

Value: Blende, $6,968.

DISTRICT.

This week: Blende, 11,615,850 pounds; calamine, 516,900 pounds; lead, 1,731,700 pounds.

Values: Blende, $560,211; calamine, $12,840; lead, $51,495; total, $624,046.

Average value per ton: Blende, $96.47; calamine, $47.83; lead, $59.63.

46 weeks: Blende, 490,226,368 pounds; calamine, 34,330,067 pounds; lead, 77,622,495 pounds.

Values: Blende, $18,429,934; calamine, $801,855; lead, $2,016,033; total, $21,247,552.

"Can you keep a secret, uncle?"
"Yes."
"Well, auntie has eloped with the chauffeur and they've borrowed your motor."

Old Names and New For District Mines

Hard to Keep Track of Constant Changes in Official Names of Various Mining Properties.

It is a hard thing to keep track of a mine by its name. Zinc and lead properties naturally change hands with comparative frequency and at almost every change a new name is announced for the property. Even people whose business sends them over the district pretty steadily have hard work keeping track of the properties sufficiently so they can recognize them under the new names.

Here are some of the changes that have been recorded in recent months.

Joplin Camp.

Old Name.	New Name.
Hero	A. W. C.
Martha Ball	Bradley L. & Z.
Purcliler	Hanford
Pocahontas	Olive-Cherokee
Kitty Mack	Ramage No. 6
Tomcat	Sparkler
Baltimore	Little Martha
Hackett	Once More and Gibson
Hoo Hoo	Liberty Bell
I-no	Shellino
Duenweg.	
O. F. & L.	Baltic
Gopher	Athletic
Porto Rico	Barnett
Thanksgiving	Fidelity
Oklahoma.	
Century	Admiralty
Day-Cooter	Croesus and Bethel
Mission	Ruby No. 1
Katy	Ruby No. 2
Sweeney	Gladstone
Big Jack	Mineral King
Miller	Monarch
Hannibal & St. Joe	Al Jones
White Eagle	Homer Seals
Myrtle	Anchor
Wichita	Anna Lee
Hoo HNo	Wilcox
Sarcoxie.	
Boyd	Flannery
Carthage.	
Hermosa	Coahulla No. 2
Oronogo.	
Judge	Mutual
Cave Springs.	
Kramer	Cave Springs L. & Z.
Big Brownie	Hartford No. 2
Belville-Klondike.	
Missouri Standard	Nineteen-Fifteen

HAVE WATER OUT AT LAST

After Seven Weeks' Wait Raymond A. Company Resumes Work.

After a seven weeks' tussle with the water, the Raymond A. Mining Company got back into the production lists during the past week.

The Raymond A. is located on a forty-acre lease of the Dixon land, and their shaft is directly southwest of the Napoleon mine. They were drowned out by the heavy rains of almost two months ago and have had a pump going steadily ever since, but have not been able to get into the ground. However, it was quite impossible for them to beat the water until the Nopoleon had drained its drifts, which also were flooded, and no great effort aside from the four-inch pump was made.

It was an exasperating wait, however, as the last week the Raymond

LEAD AND ZINC PRICES

Fluctuations in Both Metals in Past Few Months Have Been Great.

Following are the changes in the sheet zinc market since the first of the year, together with the price of spelter for the dates on which the changes were recorded.

1915	Sheet Zinc	Spelter St. Louis
January 12	$[illegible]	$7.[illegible]
January 19	9.25	[illegible]
January 21	[illegible]	[illegible]
January 26	[illegible]	[illegible]
February 2	[illegible]	7.87½
February 4	[illegible]	[illegible]
February 5	[illegible]	8.00
February 12	12.00	8.25
February 19	12.50	9.25
March [illegible]	13.00	10.25
March [illegible]	13.50	11.00
April 2[illegible]	13.75	12.12½
April 2[illegible]	14.50	12.87½
April 7	15.50	13.75
April 28	18.00	14.00
April 30	17.50	13.75
May [illegible]	18.50	15.12½
May 20	19.50	16.00
May 25	20.00	18.75
May 26	22.00	19.25
May 29	24.50	20.75
June 1	26.00	22.50
June 3	30.00	26.00
June 9	33.00	25.75
June 14	30.60	22.75
June 23	27.00	18.25
July 27	24.00	18.37½
August 5	21.00	16.12½
August 15	17.00	12.12½
August 22	15.00	12.00
August 24	16.00	12.75
November 4	16.50	15.12½
November 9	17.00	15.87½

Fluctuations in lead prices have been little less notable than changes in zinc prices. Following are the changes recorded in pig lead since the latter part of July at New York.

	Reduced.
July 30	25c to $5.50
August 2	25c to 5.25
August 7	25c to 5.00
August 9	25c to 4.75
August 10	25c to 4.50
	Advanced.
August 25	10c to $4.60
August 26	10c to 4.70
August 27	20c to 4.90
	Reduced.
September 9	20c to $4.70
September 14	20c to 4.50
	Advanced.
October 21	25c to $4.75
October 29	15c to 4.90
November 4	10c to 5.00
November 10	15c to 5.15

Nothing New.

The 8x8 geared steam hoister used so much in this district originated in the shop of Orr & Sembower, Reading, Pa., more than fourteen years ago. It was the original Samson. Many imitations have been made, but the original still remains the favorite of the district, due to its own reputation. They are sold by the McNeal Machinery Company, opposite postoffice.—Adv.

TAKE OVER A GOLD MINE

Joplin Men to Operate Golconda Mine Out in Nevada.

Winnemucca, Nev. Nov. 13.—News has been received in Winnemucca from an authentic source that a deal has been closed in Kansas City, Mo., by which the Kramer mine at Golconda has been bonded to wealthy mining men of Joplin, Mo.

It was discovered in 1907 by I. K. Kramer and since that time a large amount of development work has been

"EXHIBIT C"

HAROLD FENIX

9.12 Acres, West 241.2 ft., E 482.4 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Cora Stubbs)

39.25 Acres, SW NE ex. RR R/W, Sec. 3, Twp. 27, Rge. 32
(Herbert A. Turner)

9.12 Acres, E 241.2 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Sarah Adams)

9.12 Acres, W 241.2 ft. E 723.6 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(D. Colclasure paid by Cora Stubbs)

4.53 Acres, W 120 ft. N 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(C. A. Colclasure)

5.31 Acres, Com. at SE cor. NW SW W 175½ ft. N to N line said
40 acres E 175½ ft. S to Beg., Sec. 3, Twp. 27, Rge. 32
(C. A. Colclasure)

9.12 Acres, W 241.2 ft. E 964.8 Ft. n 5/8 E½ SW, Sec. 3, Twp. 27, Rge. 32
(Mrs. Henry J. Adams - undivided 3/10 paid by Carl Carmean)

9.90 Acres, Com. 175½ ft. W of SE Corn. NW SW N to N line said 40 acres
W 326½ ft. Sto S line said 40 acres E 326½ ft. to beg. Sec. 3,
Twp. 27, Rge. 32
(A. W. Van Hafften)

50 Acres, Beg 120 rods W of SE cor Sec. N 120 rods E 40 rods N 40 rods,
W 80 rds. S 160 rds. E 40 rds to beg. part SE¼, Sec. 3, Twp. 27,
Rge. 32
(J. A. Barker)

14 Acres, Beg. at SE Cor. Sec. N 40 rds. W 56 rds. S 40 rds. E 56 rds.
to beg. part SE¼

14 Acres Beg. 56 rds. W of SE Cor. Sec. N 40 rds. E 8 rds. N 40 rds.
W 32 rds. S 80 rds. E 24 rds. to beg. part SE¼, Sec. 3, Twp. 27,
Rge. 32
(J. A. Barker)

30 Acres, Beg. 80 rods W of SE Cor Sec. N 120 rds. W 40 rds. S 120 rds.
E 40 Rds. to beg. part SE¼ Sec. 3, Twp. 27, Rge. 32
(Alice Kibler)

24 Acres, 48 x 80 rds. beg. 112 rds. N of SE Cor. SE¼ N 48 rds. W 80 rds.
S 48 rds. E 80 rds. to beg. Sec. 3, Twp. 27, Rge. 32.
(Ben L. Jones)

28 Acres, Beg. 40 rds. N of SE Cor SE N 72 rds. W 80 rds. S 32 rds.
E 32 rds. S 40 rds. E 48 rds. to beg. Sec. 3, Twp. 27, Rge. 32
(Ben L. Jones)

37.83 Acres, W½ Lot 2 NE, Sec. 3, Twp. 27, Rge. 32
(Stevison Rogers Land and Mining Company)

Drill Log

Hole No. 1

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Struck water: 18' and 180'

Set 6¼" casing @ 18'

Started: 6/23/45

Finished: 6/30/45

0	5	Surface
5	16	Red clay and flint boulders
16	45	Gray lime and blue flint
45	50	Gray lime and white flint
50	60	Brown lime, little blue and white flint
60	70	Gray lime and white flint
70	100	Gray lime and little gray flint
100	105	Drak gray lime and light gray lime and little gray flint
105	165	Brown lime and little white flint
165	178	Brown lime and white and gray flint
178	186	Blue, Gray, white and blue flint (zinc shines)
181	186	5.7% blend
186	200	Open
200	202	Fair zinc could be out of roof

J. T. & Boyd Patrick Contractors

Signed: Boyd Patrick

Drill Record Hole No. 2

Property Name: Drill Owner:

Begun: 6/5/45 Finished: 6/13/45

Struck Water: 100' Water stands top Drill runner: W. H. Meekins

0	5	Soil and clay
5	15	Gray lime and white flint
15	35	Gray lime, blue and white flint
35	70	Dark gray lime and white flint
70	95	Dark gray lime and blue flint
95	105	White and blue flint, gray lime
105	120	White and blue flint, gray lime
120	130	White flint and brown lime
130	140	White and blue flint
140	160	Dark blue flint and dark gray lime
160	170	White and blue flint, trace of Zinc
170	175	Blue and white flint and gray lime, trace of zinc
175	195	Gray, white and blue flint, extra good zinc
195	213	Dark gray lime and blue flint

175 to 180 Good zinc 5½%
180 to 190 Fair zinc 4.2%
190 to 195 no good 1.3%

Signed C. R. Jenkins

Drill Log Hole. No. 3

Lease Owner: Harold Fenix Lease Name: Stubbs

Started: 7/2/45 Completed: 7/10/45

Set 16' of 6¼" Casing, Struck water at 15' and 180', Stands @ 130'.

0	15	Red Clay and flint gravel
15	55	Gray lime and blue and gray flint
55	95	Gray lime and gray flint
95	125	Gray lime and very little gray flint
125	160	Brown lime and little white flint
160	175	Gray and brown lime and gray flint
175	180	Gray and white flint and little lime (thin trace of zinc)
180	188	Gray and white flint (few zinc shines)
188	194	Gray brown and white flint (trace zinc)
194	198	White and gray flint
198	202	Gray, blue, white and brown flint (trace zinc)
202	206	Gray, white and blue flint and brown lime
206	210	Gray and brown lime and gray flint

Total depth: 210 ft.

Contractors: J. T. and Boyd Patrick

Signed: Boyd Patrick

Drill Record

Hole No. 4

Property Name:

Drill Owner: Bennett and Jenkins

Began: July 10, 1945

Finished: July 21, 1945

Struck Water: 175 ft.

Water stands: 175 ft.

Drill runner: W. H. Meekins

0	5	Soil
5	24	Red clay and river gravel
24	25	White flint
25	45	Gray lime and white flint
45	100	Gray lime
100	120	Dark gray lime and white flint
120	160	Gray lime blue and white flint
160	175	White flint and gray lime (trace zinc)
175	185	Blue and white flint, extra good zinc
185	200	Blue and white flint, trace of zinc
200	210	Blue and white flint, zinc shines
210	225	Dark gray lime andblue flint

175 to 180 — 2.5%
180 to 185 3.7%
185 to 190 3.9%

This hole is high casing closest to Federal ground, SW of Shaft #2

South of Shaft #2

Drill Log

Hole No. 6

Lease Owner: Harold Fenix

Lease Name: C. Stubbs

Started: 7-20-45

Finished: 8-2-45

Set 25' of 6¼" Casing

Struck water at 180 ft.

0	22	Red clay and gravel
22	45	Gray lime and gray and white flint
45	120	Gray lime and little white flint
120	135	Brown lime and gray flint
135	155	Brown lime
155	180	Gray lime and white flint
180	185	Gray and brown flint (trace lead - no good)
185	190	Gray and brown flint
190	200	Gray blue and brown flint (lead shines) Fair--2.1%
200	205	Gray blue and brown flint
205	212½	Gray and brown flint (lead shines)--only 1½%
212½	215--2 %	
215	220--3.2% good	
212½	220	Gray lime, gray blue and brown flint (lead shines)
220	222½	Gray lime, gray and brown flint (fair lead & zinc) 2.12%
		222½ to 225--1.70 lead--Black Jack 12½%--good
222½	235	Gray lime, gray blue and brown flint (fair lead)
235	260	Gray lime and blue flint
260	280	Gray lime

Contractors: J.T. & Boyd Patrick

Signed: J. T. Patrick (title Partner)

Drill Log

Hole No. 8

Lease Owner: Harold Fendix

Lease Name: C. Stubbs

Started: 8-2-45

Finished: 8-13-45

Set 30' of 6½" Casing

Struck water at 20' & 135'

0	25	Surface, red clay and boulders
25	60	Gray lime and gray flint
60	65	Gray lime and gray and little blue flint
65	120	Gray lime and gray flint
120	145	Gray lime, white flint and selvage
145	155	Gray lime, little white flint and selvage (trace of zinc)
155	165	Gray lime and gray flint
165	190	Gray and brown flint
190	200	Gray, brown and blue flint
200	210	Gray, borwn and blue flint, brown lime and mundic
210	225	Gray lime and blue flint
225	235	Gray lime and gray and blue flint

Contractors: J.T. and Boyd Patrick

Signed: Boyd Patrick