January 30, 1952

Memorandum

To: J. Bruce Clemmer, Salt Lake City, Utah

From: Regional Director, Region IV

Subject: Flotation beneficiation of Stanley Sulfur sample, Wyoming.

I am forwarding you the metallurgical report "Flotation beneficiation of Stanley sulfur sample, Wyoming". I believe you have a copy in your files and if you do have, please return this to us.

J. H. East, Jr.

J. H. East, Jr.

Enclosure

JHEjfm

Sub
Chron

January 30, 1952

Memorandum

To: Stephen M. Shelton, Albany, Oregon

From: Regional Director, Region IV

Subject: Flotation beneficiation of Stanley Sulfur sample, Wyoming.

This will acknowledge receipt of your memorandum dated December 11, 1951, and the attached metallurgical report, flotation beneficiation of Stanley sulfur sample, Wyoming. Many thanks for this report.

J. H. East, Jr.

ftm/

Sub
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REGIONAL DIRECTOR'S
OFFICE
REGION IV
DEC 17 1951
BUREAU OF MINES
DENVER, COLORADO

Albany, Oregon
December 11, 1951

MEMORANDUM

To: T.A. Christensen, Region IV, Denver, Colorado

From: Stephen M. Shelton, Regional Director, Region II

Subject: Tests on Wyoming Sulfur

Attached is another copy of the report on the above subject, requested by you in your memorandum of December 5th. The previous report sent you on November 28th must have gone astray in the mailing room.

Mark L. Wright
for Stephen M. Shelton
Regional Director
Region II

ADMINISTRATIVE
OFFICE
REGION IV
DEC 18 1951
BUREAU OF MINES
DENVER, COLORADO

Pending Dec 28

December 5, 1951

Memorandum

To: Mark L. Wright, Region II, Albany, Oregon

From: T. A. Christensen, Region IV, Denver, Colorado

Subject: Tests on Wyoming Sulfur

You failed to attach the report on Tests on Wyoming Sulfur to your memorandum of November 28, 1951, to Mr. East, or else the report has gone astray in the mail.

We would appreciate receiving a copy of the report.

T. A. Christensen

Actg. Special Asst. to
Regional Director,
Region IV

TAC:hm

JHE

cc JH East

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1951

Albany, Oregon
November 28, 1951

MEMORANDUM

To: John H. East, Jr., Regional Director, Region IV

From: Stephen M. Shelton, Regional Director, Region II

Subject: Tests on Wyoming sulfur

In accordance with our correspondence on the above subject, the contemplated tests have been performed with the results stated in the attached report. The material tested is from a spring deposit.

no report
[illegible]

Mark L. Wright
for Stephen M. Shelton

September 25, 1951

Memorandum

To: Stephen M. Shelton

From: Regional Director, Region IV

Subject: Sulfur near Cody, Wyoming

Referring to your memorandum dated September 17, 1951, regarding the beneficiation of impure sulfur sludge by Dr. J. B. Stanley of Portland, Oregon:

There is no objection to your making any laboratory tests that you wish on the dry sludge that Dr. Stanley has on hand in Portland. We would like to have, of course, a copy of the results. Best regards.

J. H. East, Jr.

JHE:fbm

DMA File

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DMA

REGIONAL DIRECTOR'S OFFICE
REGION IV
SEP 20 1951
BUREAU OF MINES
DENVER, COLORADO

Albany, Oregon
September 17, 1951

MEMORANDUM

To: Mr. J.H. East, Jr., Regional Director, Region III

From: Stephen M. Shelton, Regional Director, Region II

Subject: Sulfur near Cody, Wyoming

Dr. J.B. Stanley, of Portland, Oregon, visited the station to inquire if we could help him in the beneficiation of impure sulfur sludge which he proposes to recover from a spring deposit in the vicinity of Cody, Wyoming.

He has applied for a D.M.A. loan through your office. The application was sent direct to Washington, he said, after a conversation with you.

The reason for bringing the problem here is that there is a quantity of the dried sludge on hand in Portland. Shall we refer him to you, or are you willing for us to investigate and forward a copy of results?

Stephen M. Shelton
Regional Director
Region II

JHE

6-303
(March 1947)

cc: Wm. H. King
S. R. Wilson

cc: H.R.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Date Rec'd.
JUN 25 1952
BUREAU OF MINES
Denver, Colorado

No. 2

Report to Mr. J. H. Hild

DMEA files

Chemical Laboratory Report

Date received June 18, 1952

Date reported June 24, 1952

Serial No.	DESCRIPTION	Lot No.	S
	Stanco Sulphur, DMEA 2055 Afton, Wyoming		
5876	Replacement Sulphur	7	65.9

U. S. GOVERNMENT PRINTING OFFICE 16—33553-3

Signed A. E. Peterson

224 New Customhouse
Denver 2, Colorado

March 18, 1952

Memorandum

To: Chairman, Operating Committee, DMPA, Washington, D.C.

From: Field Team, Region IV

Subject: Final Report, DMA-2035, Stanco Sulphur Products, Auburn Hot Springs Sulphur Deposit, Lincoln County, Wyoming

Enclosed are the original and three copies of the final report on the application of Stanco Sulphur Products.

The above application is for a production loan of $55,500 of which $10,000 is to provide for working capital. The applicant proposes to pump the sludge from the pool to a settling basin where the sulphur is thickened and partially dewatered. The thickened sludge is then removed to a drying yard where due to the action of sun and wind, the sulphur bearing material is further dried for shipping.

No definite estimate of the quantity of sulphur-bearing sludge is available.

It is recommended that the Stanco Sulphur Products application for a production loan be denied.

The possibility of his making application for exploration has not been discussed with the applicant, but assets as listed in this application indicate inability to provide funds on a matching basis. The information shown on form [illegible]-101 also states the owner of the property will not subordinate his interest to that of the Government.

HMC:oc

cc: DMA Docket, Chron.
AHKoschmann (2)

cc: SRWilson w/copy of final report
R Roberts " " " "
AHKoschmann " " " "
DMA Final Report

W. H. King
W. H. King for
J. H. Fant, Jr.

A. H. Koschmann
A. H. Koschmann

Enclosures

Mining Division
Region IV

March 18, 1952

Memorandum

To: Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMA-2035, Stanco Sulphur Products, Auburn Hot Springs Sulphur Deposit, Lincoln County, Wyo.

Inclosed are the original and seven copies of the final report on the application of the Stanco Sulphur Products by F. L. Wideman and J. H. Hild of the Bureau of Mines.

We concur with the findings of the examining engineers and recommend that the above application for a production loan of $55,500 be denied.

Assets of the Stanco Sulphur Products, as listed in the application, indicate inability to provide their share of funds for an exploration project.

W. H. King

W. H. King

Enclosure

AHM:kdc

cc: DMA Docket, Chron.
Koschmann (2)

Form MF-101
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1027.

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.

(This Form Should Be Filed With General Technical Data Form MF-100)

SEP 10 AM '51

APPLICATION FOR GOVERNMENT LOAN

In Excess of $50,000

Under the Defense Production Act of 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMA 2095

Date received 9-3-51

Name and address of applicant

Stanco Sulphur Products
Box 603
Portland, 7, Oregon

Date of application

Amount of loan requested

Terms of loan requested

If you have already filed MF-100, give dates filed Submitted with M.F.101, type of assistance requested ....., DMA docket number (if available) 2095

INSTRUCTIONS

Application should be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. Submit four copies of this application with four copies of General Technical Data Form MF-100. If the latter form has been filed previously with an application for Government assistance, it is not necessary to file it again. However, the applicant should indicate in space provided above the type of assistance previously applied for (loans, procurement contract, etc.) and DMA docket number, if available.

Name and address of applicant should be stamped or typed on each sheet of the application and all accompanying papers. *When a question is inapplicable, it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE. If a question is answered elsewhere in the application, indicate where answered. It is not necessary to answer it again.

1. PURPOSE OF LOAN:

Give a brief general statement of the purpose of the loan requested, including in the table below estimated amounts for such major purposes as land acquisition, building construction, purchase of plant, purchase of equipment, working capital, repayment of debt, etc. Statement should make clear whether funds will be used for expansion of capacity, development of technological processes, or production of essential materials.

General Statement. For development and production of surface deposits of Sulphur. To make possible building construction - repair of existing buildings. Purchase of critical equipment, and working capital until production of this essential material is achieved.

NATURE OF EXPENDITURE	AMOUNT
For critical equipment necessary for development of the project. Also production costs for eight (8) months or until full production can be obtained	$ 55,500.00
TOTAL AMOUNT APPLIED FOR	

2. PROPOSED METHOD FOR REPAYMENT OF LOAN:

Not less than 10% Royalty on gross receipts of invoices on materials as shipped.

16—64203-1

3. ALTERNATIVE METHODS OR FACILITIES:

Are there available alternative methods or facilities to accomplish the same purpose as that for which these funds are intended? (For instance, unused capacity, possibility of multiple-shift operations, idle facilities, readily convertible equipment, subcontracting.) If answer is yes, explain why alternatives are not used.

---

4. OWNERSHIP OF PROPERTY:

(*a*) Attach copy of the deeds, leases, or other documents conveying to applicant the present interest of the applicant in the mining property.

(*b*) If applicant has assignment of a lease or other document, attach also a copy of such lease or other document. If any such documents are executed under a power of attorney or a trust agreement, attach copy of such power of agreement.

(*c*) Include all recording data if available, giving page, book number, and where recorded.

(*d*) If property is held under lease, state whether lessor will subordinate royalties to Government interest under terms of assistance now applied for.

(*e*) Outline briefly any agreement or close affiliation of applicant with other individuals or concerns (whether through stock ownership, partnership, interlocking directorates, mutuality of management, or otherwise) that may have a bearing on this project.

(*f*) Give names and addresses, so far as known, of former owners and lessees of property.

(*g*) State in detail all expenditures made on property by applicant; also state amount expended by owner (if other than the applicant) or by any other person who has a remaining interest in the property.

(*h*) State nature and amount of existing liens against property or against future production (e. g., unliquidated RFC development loans, etc.).

---

5. LEGAL DESCRIPTION OF PROPERTY:

(*a*) Give name and mineral survey number of patented claims, if any, and a map.

(*b*) Give names, dates of location, and place, date book, and page record of all unpatented locations, and a map.

(*c*) If property is other than mining claims, give description by lot numbers, metes and bounds, or according to accepted legal practice.

(*d*) If mineral rights are separated from surface rights, or if any conflicting or overlapping rights exist in the property give full explanation.

---

6. SAMPLING AND ASSAYING:

Describe how and by whom sampling was done, whether by grab, channel, drill, or otherwise, and state by whom analyses were made. Furnish assay certificates or copies thereof and assay maps, if available.

---

7. CLIMATE:

Describe climate insofar as it affects project (rainfall, snowfall, temperature range).

---

8. NEEDED FACILITIES AND LABOR:

(*a*) Describe in detail and give estimated cost (power, housing, etc.). List equipment needed and give estimated cost.

(*b*) State total number and classes (miners, muckers, milling, etc.) of men that will be employed during a representative payroll period when maximum production is reached.

(*c*) State number of shifts now being operated and number to be operated under maximum production.

---

9. EXPLORATION AND/OR DEVELOPMENT (answer only if applicable):

(*a*) Destribe in detil what work is to be done, using maps to show location and extent and explain purposes thereof. Include description of any necessary rehabilitation work, clean-up, unwatering, etc.

(*b*) Give detailed costs (per foot, and total for each phase of project) of the foregoing.

(*c*) State time required to complete.

(*d*) State expected tonnage and grade of ore that will be developed.

(*e*) Describe probable mining method briefly and estimate cost per ton to mine and mill. State grade of ore mined and mining costs (if known), in operations on this property and in neighboring operations, past or current.

---

10. MINING (answer only if applicable):

(*a*) Describe mining methods briefly, whether proposed or already in use.

(*b*) Itemize rehabilitation and other initial expenses, including equipment, buildings, roads, etc.

(*c*) Give actual (current) or estimated mining costs, suitably detailed, per ton of ore. Include all operating expenses.

(*d*) State time required to reach given rate of production.

16—64203-1

3. ALTERNATIVE METHODS OR FACILITIES:

Methods proposed have been tried and proven at our Clackamas, Oregon Plant. Alternate methods supply artificially heated air for drying purposes in enclosed structures, which bring not only increase in amount of capital outlay, but added cost per ton of finished product. This additional operating cost is estimated to be approximately $2.00 per Ton, based on production of 50 Tons per day. Estimated additional capital outlay on equipment and structures of $50,000.00, would be necessary.

4. OWNERSHIP OF PROPERTY:

(a) 4 copies of Photostatic Lease included.
(b) none
(c) Book 5 of Leases, page 63, County Court House, Kemmerer, Wyo.
(d) no
(e) none
(f) Keith Hyde and family
(g) Detail of Expenses made on property by Applicant:

Option Agreement.....	$ 1,000.00
Lease Agreement, 1 year.....	5,000.00
Legal Expense.....	635.00
7 months - actual overhead.....	3,757.60
Geological & Analytical Expense..	350.00
	$ 10,742.60

(h) No existing liens

5. LEGAL DESCRIPTION OF PROPERTY:

(a) To be sent under separate cover.
(b)
(c) See Lease for legal description
(d) none

6. SAMPLING AND ASSAYING:

Analysis have been made of materials from this Property by -
Smith-Emery Los Angeles, California
Guthberlet Laboratory, Seattle, Washington
Charlton Laboratories, Portland, Oregon
Oregon Pulp & Paper Co. Portland, Oregon

7. CLIMATE:

There generally is very little rainfall during our projected operating season of April 1st to October 1st. Day temperatures vary 60 to 80o F - generally clear weather.

8. [illegible]

PLEASE REPLY TO
BOX 603
PORTLAND 7, OREGON
Uranco Uranium Products

8. NEEDED FACILITIES AND LABOR:

(a) Repair of existing building - including new roof-floor-windows-doors for storage under lock and key of tools, supplies, and equipment, also finished goods before shipment.

Grade and line with asphaltum two settling basins, 25x250 feet.

Grade and surface with asphaltum two dry Yards, 50x250 feet.

Install Injector Dredge Pump, pipe, fittings, etc., for pumping sluage to settling tank.

Install storage bin and car loader for loading crude material.

Install bin-pellet machine, and bagger and sewing machine for sacking products.

List of equipment needed:

1 -	Injector Dredge Pump with Motor, pipe fittings	$ 5,000.00
1 -	Case Tractor - shovel - blade	3,500.00
1 -	Pellet Machine	3,500.00
1 -	Sewing Machine	1,500.00
1 -	Storage Bin and Conveyor	1,000.00
1 -	Pick-up Truck	1,750.00
1 -	Lift Truck	2,650.00
1 -	Car loading equipment with bin	1,500.00
2 -	Settling Basins 25'x250'	4,500.00
2 -	Dry Yards 50'x250'	5,000.00
	Repair existing building (40'x60')	8,600.00
	Mechanical-electrical installations-freight on equipment	1,500.00
	Laboratory and equipment for analysis of materials shipped	1,500.00
	Operating capital and miscelaneous expense for 8 months (until full production reached)	10,000.00
40M -	Bags @ .10¢	4,000.00
		$ 55,500.00

(b) List of Employees:

1 -	Superintendent of Operations (includes management of Operations-Sales-Company business)	$1,000.00 per mo.
1 -	Shovel Operator	2.50 per hr.
1 -	Maintenance Mechanic	2.00 per hr.
1 -	Warehouse and Scale Man	1.80 per hr

(c) Under full production 2 - 8 hour shifts per day.

Stanco Sulfur Products
PLEASE REPLY TO
BOX 603
PORTLAND 7, OREGON

9. EXPLORATION AND/OR DEVELOPMENT:

(a) Grading and building 2 settling basins 25'x250' which will receive sulphur sludge pumped from Pool #2. Grading and surfacing 2 Dry Yards 50'x250' which will receive precipitated sludge from settling basin, where it will be dried under normal sun and wind action.

(b) Estimated cost of grading and construction of above, together with necessary control gates.....$ 9,500.00

(c) Necessary to complete above by October 1st, 1951, on account inclement weather.

(d) Expected tonnage - 50 Tons dry sulphur, 90% purity test.

(e) Sludge pumped from pool to settling basin, where it precipitates and water is released through control gates. Settled sludge then transported by Case Tractor with Shovel to Dry Yard where it is stirred occasionally while being subject to air and solar drying. Estimated cost of these two operations together with power hauling to Railroad and loading are as follows - 50 Ton Basis:

Labor:

1 -	Shovel Operator	@ 2.50 hour - 8 hours...	$ 20.00
1 -	Maintenance	@ 2.00 hour - 8 hours...	16.00
1 -	Warehouse & Scale	@ 1.80 hour - 8 hours...	14.40
	Oil - Gas - Electric Power	- 8 hours...	16.00
1M -	Bags	@ .10 each	100.00
	Misc. Repairs, etc.		
	Haul & Load at Railroad (Contract)	@8.00.	400.00
	Superintendent of Operation Salary (on basis 1000 Tons per month $1.00 per Ton..		50.00
	Insurance, Taxes & Interest, etc.....		100.00

Estimated per Ton Cost $ 14.33

10. MINING:

This project is not an actual mining operation, in that the Sulphur is brought to the surface in a sluage form. Geologists tell us that water, heated by late lava flows, falling over deposits of Sulphur, melt the material and carry it along until some fault forces it upward.

Our program is to pump the sulphur sluage into settling basins, where it precipitates, or settles out and the free water is withdrawn. The resultant solids are then air dried on dry yards covered by asphaltum. If sold in bulk the material is loaded on trucks - transported to Railhead, loaded mechanically in box cars and shipped. If sold bagged, the material is first pelleted, then bagged and shipped.

The contents of Pool #2 have been estimated at approximately 35,000 Tons of Sulphur material, analyzing 90-93% elemental Sulphur.

PLEASE REPLY TO
BOX 603
PORTLAND 7, OREGON
Stanco Sulfur Products

11. MILLING (not applicable):

Described under No.9

12. SMELTING:

Not applicable

13. TIMING:

(a) Not later than September 15th, 1951, to pay for necessary work started aboug August 15th, 1951.

(b) Funds will be used at various periods from day of receipt until construction work is completed, and all needed equipment is secured and installed. Spring operating season starts April 1st - 15th, depending on weather.

14. CERTIFICATE OF NECESSITY:

Yes we intend to file.

PLEASE REPLY TO
BOX 603
PORTLAND 7, OREG.

Otsuco Sulfur Products

TESTING • CONSULTATION • RESEARCH • INSPECTION
CL INC

LABORATORY CERTIFICATE

Charlton Laboratories

CHEMISTS — BACTERIOLOGISTS — ENGINEERS

2340 S. W. JEFFERSON ST. ATWATER 9663

P. O. BOX 1048

PORTLAND 7, OREGON

MEMBERSHIPS IN
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY FOR METALS
AMERICAN WATER WORKS ASSN.
AMERICAN PUBLIC HEALTH ASSN.
CERTIFIED MARINE CHEMISTS
AMERICAN OIL CHEMISTS SOCIETY
PACIFIC N. W. SECTION OF AMERICAN ASSN. OF CEREAL CHEMISTS
AMERICAN COUNCIL OF COMMERCIAL LABORATORIES
AMERICAN CONCRETE INSTITUTE

TO: J. B. Stanley,
P. O.Box 373,
Clackamas, Oregon.

LABORATORY NO. 28813

SUBJECT: Crude Sulfur

DATE February 12, 1951

We have analyzed the sample of crude sulfur submitted by you February 9th for mositure and free sulfur and report the following:

Moisture	39.6 %
Sulfur (S)	
As received	55.0 %
Dry Basis	91.09 %

CHARLTON LABORATORIES, INC.

By: J. M. Hogl

jmh/em
2c

Atlantic Sulfur Products
Box 603
Portland Ore

AMERICAN COUNCIL OF COMMERCIAL LABORATORIES

AS A MUTUAL PROTECTION TO THE CLIENT, THE PUBLIC AND OURSELVES ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF THE CLIENT. NEITHER REPORTS NOR THE NAME OF THIS LABORATORY NOR ANY MEMBER OF ITS STAFF MAY BE USED IN CONNECTION WITH THE ADVERTISEMENT OR SALE OF ANY PRODUCT WITHOUT WRITTEN AUTHORIZATION.

REPORT AUBURN HOT SPRINGS SULPHUR DEPOSIT, AFTON, WYOMING

This report is written for Mr. J.B.Stanley, Stanco Sulphur Products, P.O. Box 603, Portland, 7, Oregon, and is a re-examination of the Auburn Hot Springs Sulphur Deposits that are located in the S.E.$\frac{1}{4}$ Sec.23, T.33N., R.119W., Afton Quadrangle, Wyoming. This is approximately 9 miles north and 1.5 miles west of the City of Afton, Wyoming or 2.2 miles north of the Village of Auburn, Wyoming. The first examination of this property was made on October 3, 1946.

The property belongs to Mr. Keith Hyde, and was formerly operated as a bathing resort. Since 1946 a limited sulphur mining operation has been under way and the bathing and resort facilities have been abandoned. However, there is on the property a 40' by 70' cinder block bath house and a story and a half cinder block and stucco dwelling house. Mr. Hyde and family reside on the premises.

The sulphur bearing pools are located along a north-south fault that continues for some distance north and south of the sulphur ponds. This is evidenced by the occurance of other travertine and spring deposits along the fault line, some of which are still mildly active.

There are three ponds on the property that contain sulphur. They will be referred to as the Upper or northern most, the Middle pond, and the Lower or southern most. Hot water and sulphur gases are continuously escaping so that the water standing in the ponds is constantly bubbling. Sulphur in colloidal size range is continuously depositing. This is shown by the turbid nature of the water, floating sulphur scum on the water's surface, and incrustations of sulphur around the numerous vents, all in addition to the very obvious hydrogen sulphide odors prevelant in the general region.

Upper or Northern Pool (No.1)

This pool has an approximate dimension of 160' northwesterly by 150' northeasterly. Thus, there are approximately 24,000 sq. ft. of surface area. The sulphur cake weighs about 20 cu. ft. to the short ton, or per foot of depth this represents about 1200 tons. There may be possibly 10 feet of sulphur sludge on the bottom of the pond. Considering 60 per cent solids, there would be 6 feet of sulphur, and if multiplied times 1200 represents 7200 tons.

Middle or Pool No.2

This pool has a dimension of 100' by 170' or approximately 17,000 sq. ft. of surface area. At 20 cu. ft. per ton, this represents 850 tons of sulphur per foot of depth. The thickness of the sulphur sludge in the pool is unknown, but soundings have gone as depp as 100 feet. There is about 15 feet of clear water at the top. It seems reasonable to assume 40 feet average depth of material. At

60 per cent solids, this represents 24 feet thickness of sulphur, which if multiplied time 850 tons per foot of depth, represents about 20,400 tons of sulphur.

Lower Pool or No. 3

The lower pool is circular, with a diameter of 85 feet. Thus we have 2672 sq. ft. of surface area divided by 20 cu. ft. to the ton or 133 tons of sulphur per foot of depth. It appears there is very little sulphur present in this pool, but certainly there is some as evidenced by sounding and samples taken of this sludge. If we arbitrarily use 6 feet of material at 60 per cent solids, this represents about 4 feet of sulphur. Multiplying this times 133 tons per feet of depth gives about 500 tons of sulphur.

Recapitulation

Pool No. 1.....	7,200	tons
Pool No. 2.....	20,400	tons
Pool No. 3.....	500	tons
	28,100	total possible tons of Sulphur

Recommendations

On a basis of what can be seen and measured, plus reasonable inference regarding the depth of pools and thickness of sulphur sludge, there is a possible 28,000 tons of recoverable sulphur from the various pools. To recover this tonnage it may be necessary, due to the presence of organic matter and calcium carbonate (travertine), to beneficiate the material by means of floatation. Without question considerable amounts of the sulphur can be recovered by pumping the sludge into vats, decanting off the clear water after settling, and air drying the remaining slurry in a dry yard utilizing the effect of both sun and wind during the summer months.

These details of recovery of the sulphur are secondary. Of most importance at this time would be a better evaluation of the tons of sulphur present in the deposits.

Respectfully submitted:

(Signed) Charles A. Lee
Consulting Geologist

Pocatello, Idaho
125 South Twelfth Avenue
August 16, 1951.

(note) Mr. Lee was formerly Head of the Geology Department, Idaho State College, Pocatello, Idaho, and was also consultant to the J.P. Simplot Company. Mr. Lee is now the head of the Geology Department of the Union Pacific Railroad, with headquarters in Los Angeles.

11. MILLING (answer only if applicable):

(*a*) If ore is to be treated in applicant's mill or in a leased mill:

(1) State capacity, percentage of extraction, ratio of concentration, and submit flow sheet of mill.
(2) Describe mill building, condition of same, etc.
(3) Give inventory of equipment in mill building. State whether in good working condition.
(4) State rental cost if leased mill.
(5) State whether there is ample room for disposal of tailings.
(6) State whether tailings pollute any streams, lakes, or other sources of water supply.
(7) Submit tables showing complete total tonnage treated, tonnage of concentrates made, and analyses of heads, concentrates, and tailings, for the last year of operation.
(8) State itemized cost of remodeling, additional equipment, repairs, and other initial expenses to start milling. State time required to start operation.
(9) Give detailed milling cost, actual (current) or estimated, per ton of ore treated and ton of concentrates produced.

(*b*) If ore is to be treated in (sold to) a custom mill:

(1) State name, address, and owner of custom mill.
(2) Submit complete records of past shipments, if any, including latest year's settlement sheets.
(3) If no past history of custom milling, submit open schedule or special agreement with proposed custom mill.
(4) Give distances and current rail freight rates and trucking rates involved in shipment of ore to custom mill.
(5) Estimate net mill returns per ton of ore, and per day, month, or year.

(*c*) If applicant proposes to build a mill:

(1) Describe proposed milling operation.
(2) Submit a flow sheet of the proposed mill, and state capacity.
(3) Submit copies of all metallurgical or other tests.
(4) Describe mill site, showing location of mill with respect to mine.
(5) State whether there is ample room for disposal of tailings.
(6) State whether tailings may pollute any streams, lakes, or other sources of water supply.
(7) Submit detailed cost of proposed mill.
(8) Submit, if available, plans and specifications of proposed mill.
(9) Submit estimated milling cost per ton of ore, percentage recovery, ratio of concentration, grade of concentrate, and cost per ton of concentration. Include all operating costs.
(10) Estimate time required to complete construction.

---

12. SMELTING (answer only if applicable):

(*a*) If ore or concentrates are to be sold to a custom smelter:

(1) Give name and location of smelter.
(2) Submit complete record of past shipments and returns, so far as available, including settlement sheets for latest year of operation.
(3) If no current smelting contract is in effect, submit open schedule of smelter or special agreement from smelting company.
(4) Give distances and current rail freight and trucking rates involved in shipment of ore or concentrates to smelter.
(5) Estimate smelter returns of the project, per ton of ore or concentrates and per day, month, or year.

---

13. TIMING:

(*a*) On what date(s) are the requested funds needed? _____

_____

(*b*) On what expected date(s) will applicant begin to use such funds and obtain output from the use of such funds? Wherever possible, give planned schedule of output. _____

_____

---

14. CERTIFICATE OF NECESSITY:

Have you filed or do you intend to file applications for necessity certificates for tax amortization (under section 124A of the Internal Revenue Code)? If so, indicate below:

Date of Application (a)	Government File No. (b)	(Estimated) Total of Facilities in Dollars on Each Application (c)	If Final Action Has Been Taken, Give Date of— (d)	
			Issuance	Denial

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15. RECENT EFFORTS TO OBTAIN CREDIT:

(*a*) Banks—List names and addresses of all banks of deposit of applicant within the last 5 years: (*Mark with an asterisk* (*) *bank or banks in which deposits are now kept*).

(*) U.S. National Bank (Stadium Branch) Portland, Oregon

(*b*) State efforts to obtain credit, within 60 days preceding date of application, from banks, the Reconstruction Finance Corporation, or other sources, results and reasons if refused. (NOTE.—Section 302 of the Defense Production Act of 1950 states that a loan may be extended "only to the extent that it is not otherwise available on reasonable terms." Accordingly, applicant should show that it has applied to each bank named in (*a*) above, or explain the reason for not doing so. The fact that a loan of the particular maturity and terms applied for is refused by a bank or banks is not sufficient to comply with the statute, if credit on reasonable terms is available. State whether a bank will participate in the loan, and if so, state name of bank and amount of participation. Full particulars must be given.) List the names and addresses of banks and other lending institutions to which applications for credit have been made, and in each case state date of application, amount of credit available, if any, maximum term for which credit is available, what consideration, if any, was given to possible guarantee of loan under Federal Reserve Regulation V, and reason for refusal or reason loan was not obtained. Indicate whether or not application was definitely refused for further credit on any basis:

Experience of applicant has been that banks do not loan money on new enterprises, regardless of the critical nature of the product, but will loan only upon operating statement showing three to six months period.

Large private Investors loan capital for enterprises such as this, however demand such exhorbitant rates of interest, and also such control of operations that it is detrimental to the best interests of those who have developed the project.

16. FEDERAL AID:

What other forms of Government financial assistance, if any, have been received or requested by the applicant in connection with the purposes of the loan herein applied for? If applicant plans to request such assistance in the future, give details:

None.

17. MANAGEMENT, INSURANCE, ETC.:

These subjects should be fully covered in statements attached hereto. Outline past management experience or other basis for showing competence of the applicant to perform in accordance with expressed purpose of the application. If it is proposed to construct or acquire new facilities (including equipment), state estimated cost and basis of such estimate, form and terms of payment, and from whom purchases of facilities will be made. State whether applicant, or the business or plant, has been in receivership, bankruptcy, in hands of creditors, committee, or whether applicant has effected a compromise with creditors, and if so, discuss fully. List type and amount of insurance carried on plant property. Describe briefly any pending or threatened litigation affecting applicant.

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17. MANAGEMENT, INSURANCE, ETC.:

The operation of this project will be under the direction and management of J.B. Stanley, one of the Co-partners of Stanco Sulphur Products.

His experience as follows:

1935-1943 - Owner and Manager J.B. Stanley Company, manufacturers of Insecticides-Fertilizers (Wholesale)

1943-1948 - Sold J.B. Stanley Company, to Pacific Supply Coop, Walla Walla, Washington. Retained to form and operate for Coop a Chemical Division. Built chemical plant 200'x260' and equipped same, designing and installing all equipment for above plant. Total Cost 1945 - $148,000.00 Total Gross Sales 1948 - $991,842.00.

1948-1951 - Engaged in various Dehydration problems, together with salvage projects - odor control, etc., for Organic Products Company, Clackamas, Oregon.

PLEASE REPLY TO
BOX 603
PORTLAND 7, OREGON
Stanco Sulfur Products

18. NAMES AND ADDRESSES OF OFFICERS, DIRECTORS, OR PARTNERS, AND IN ADDITION THERETO, THE FIVE LARGEST STOCKHOLDERS IF A CORPORATION:

Name and Address (a)	Official Title (If Officer Is Also Director, Indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Applicant (d)	Number of Shares Held in Applicant: Common (e)	Number of Shares Held in Applicant: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net cash surrender value after loans (h)
J.B. Stanley	Partner	none	32,000			12,000	no loan
Wm. A. Tindula	Partner	none	110,000			37,000	no loan
C.J. Ritchey	Partner	none	25,000			10,000	no loan
M.J. Reneau	Partner	none	15,000			10,000	no loan
Address of all of the above listed P.O. Box 603, Portland, 7, Ore.							
	Total		x x x x x			x x x x x	x x x x x

19. CAPITAL STOCK ISSUES:

FOR CORPORATE APPLICANTS

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

20. PURCHASE AND SALES RELATIONS WITH OTHERS:

Does applicant buy from, sell to, or use the services of, any concern or partnership in which an officer, director, large stockholder, or partner of the applicant has a substantial interest? If not, so state. If so, give names of such officers, directors, stockholders, and partners, and names of such concerns or partnerships.

No

Does any officer, director, large stockholder, or partner of applicant receive any commission, bonus, or other payment in cash or services from any concern or partnership with which applicant has business dealings? If not, so state. If so, give names of such offices, directors, stockholders, or partners and amounts of such commissions, bonuses, or payments.

No

21. COMPENSATION SCHEDULE:

Instructions: The schedule shall show the amount of compensation being paid to all employees of applicant receiving compensation at a rate in excess of $10,000 per annum, including employees paid on a part-time basis where the rate of compensation exceeds $10,000 per annum computed on a full-time basis. If applicant is a corporation, the schedule should show the compensation, regardless of amount, being paid to all officers, directors, and such stockholders as have an interest in applicant's business of 10 percent or more. If applicant is a partnership, the schedule should show the compensation being paid to, or being withdrawn by, all partners for their personal use. If applicant is an individual, the schedule should show the amount being withdrawn by applicant for his personal use. In each case the listed person's connection with the business should be indicated (i. e., whether an officer, director, stockholder, partner, owner, etc.). The calendar basis for the compensation should likewise be shown. Attorneys or firms of attorneys on a regular retainer or salary basis should be included. The schedule should include a separate notation indicating the source and amount of any compensation being paid by a company or firm directly or indirectly controlling, affiliated with or controlled by, applicant. If the space provided herein is insufficient, the schedule should be continued on the reverse side or appropriate continuation sheets should be attached.

Compensation for those listed under No.18, based on the amount invested in development of the project. In addition any Partner to be allowed full compensation in the form of a drawing account for expense involved in the transaction of the Company's Business.

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21. COMPENSATION SCHEDULE—Continued:

The term "compensation," as used herein and such schedule, shall include all salaries, fees, bonuses, commissions, retainers, regular drawing accounts, and other payments, direct or indirect, in money or otherwise, for personal services.

Name (a)	Position (b)	Compensation Paid During Previous Fiscal Year (c)	Present Compensation (d)
Joint Venture 4-Partners			

22. COLLATERAL:

(*a*) The applicant offers the following-described collateral as security for repayment of the loan applied for:

Description (a)	Date Acquired (b)	Cost (c)	Book Value (Net) (d)	Appraised* Value (e)
Property now held:				
Lease	July 13,1951	$10,742.60	$10,742.60	$320,000.00
To be acquired:				

Future Production Description	Date Expected To Reach Full Production	Gross Value	Net Value
Refer to Par.9E & Par. 10	Approximately June 1, 1952		

*This column need be filled in only if a recent appraisal has been made. If so, identify appraiser below.

Name (a)	Title (b)	Date (c)

(*b*) Describe existing liens, if any, on property listed above.

None

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23. CURRENT FINANCIAL STATEMENT, As of _____
(Date not more than 30 days prior to date of application)

ASSETS

Current Assets			
1. Cash			$ 297.00
2. Notes receivable		$	
Less reserve for doubtful notes			
3. Accounts receivable:			
Current	$		
Past due not over 4 months			
Past due over 4 months		$	
Less reserve for doubtful accounts			
4. Inventories:			
Raw materials 5000 Tons @8.00	$ 40,000.00		
Work in process			
Finished goods		$ 40,000.00	
Less reserve for inventory losses			
5. Other current assets (describe)			
TOTAL CURRENT ASSETS			$ 40,000.00
Fixed and Other Assets			
6. Plant used in business:			
Land	$		
Buildings			
7. Machinery			
8. Equipment, furniture, and fixtures		$	
Less reserve for depreciation			
9. Investments—stocks and bonds			
10. Investments in affiliated companies			
11. Receivables due from affiliated companies			
12. Real estate not used in business			
13. Due from officers, directors, employees, stockholders			
14. Deferred charges			
15. Other assets Lease		50,000.00	50,000.00
TOTAL ASSETS			$ 90,297.00

LIABILITIES

Current Liabilities			
16. Notes payable (see schedule 1, page 8):			
Banks		$	
Trade creditors			
Officers, stockholders, relatives			
Insurance companies			$ none
17. Accounts payable			
18. Other current liabilities:			
Delinquent taxes — Real estate		$	
Delinquent taxes — Federal			
Wages and salaries			
Due officers			
Accrued interest, rent, taxes, wages, etc			
TOTAL CURRENT LIABILITIES			$
Fixed and Other Liabilities			
19. Machinery liens			
20. Mortgage debts (see schedule 2, page 8)			
21. Bonds or debentures (see schedule 2, page 8)			
22. Other liabilities			
Net Worth			
23. Common stock (if applicant is incorporated)		$	
24. Preferred stock (if applicant is incorporated)			
25. Surplus (if applicant is incorporated)			
26. Capital and surplus account (if applicant is partnership or individual)			
TOTAL LIABILITIES			$ none
27. Contingent liabilities (explain)			$

NOTE.—Submit copy of last available audit or of financial statement at close of last fiscal period (if such date differs from date of above statement).

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23. CURRENT FINANCIAL STATEMENT—Continued

SCHEDULE 1—NOTES PAYABLE (in detail)

NAME AND ADDRESS	MATURITY	AMOUNT	STATE AMOUNT AND CHARACTER OF COLLATERAL	NAME OF GUARANTOR(S) AND/OR ENDORSER(S)
None				

SCHEDULE 2—MORTGAGE DEBT (real estate and/or chattels) OR BOND ISSUE

NAMES AND ADDRESSES OF HOLDERS	DATE OF MATURITY	INTEREST RATE	UNPAID PRINCIPAL AMOUNT	DATE TO WHICH INTEREST IS PAID
None				
TOTAL	x x x x x x	x x x x x x	$	x x x x x x x x x x x x x x x x x x

If mortgage secures a bond issue, state whether bonds are principally held by management and/or stockholders or by others, and attach copy of mortgage indenture.

24. CONDENSED COMPARATIVE STATEMENT OF INCOME AND EXPENSES

For years ended NEW VENTURE
(Insert date of end of fiscal year)

(000.00 omitted)

	(FIGURES FOR 3 PRECEDING YEARS)			CURRENT YEAR AS OF DATE OF EXHIBIT A
	19	19	19	
1. Net sales				
2. Cost of goods sold				
3. Gross profit on sales (line 1 minus line 2)				
4. Other income (itemize)				
5. Total (line 3 plus line 4)				
6. Salaries (officers or partners)*				
7. Selling and all other expenses				
8. Total of lines 6 and 7				
9. Profit or loss before depreciation and Federal taxes (line 5 minus line 8)				
10. Depreciation				
11. Federal income and excess profits taxes				
12. Net profit or loss (line 9 minus lines 10 and 11)				
ANALYSIS OF SURPLUS				
13. Total surplus at beginning of period				
14. Net profit or loss for period				
15. Line 13 plus line 14 if profit; line 13 minus line 14 if loss				
Add:				
16. Surplus paid in during period				
17. Surplus resulting from revaluation of assets				
18. Other additions to surplus (itemize)				
19. Total of lines 15 to 18, inclusive				
Deduct:				
20. Dividends				
21. Other charges to surplus (itemize)				
22. Total of lines 20 and 21				
23. Surplus at end of period (line 19 less line 22), MUST AGREE WITH SURPLUS AS SHOWN IN BALANCE SHEETS				

*To include all payments of any kind (commissions, bonuses, withdrawals) to officers or partners.

NOTE.—If years included in the above tables are not adequately representative of applicant's financial experience, information may be submitted for additional years.

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25. CONDENSED COMPARATIVE STATEMENT OF CONDITION, For years ended _____
(Insert date of end of fiscal year)

(000.00 omitted. Use figures to nearest thousand. For instance, the figure $3,489.36 should be written as 3; the figure $3,689.36 should be written as 4)

ASSETS	(Figures for 3 Preceding Years)			Current Year as of Date of Exhibit A
	19	19	19	
Current Assets:				
1. Cash				
2. Receivables (after deducting reserves)				
3. Inventories				
4. Other current assets:				
Total Current Assets				
Fixed and Other Assets:				
5. Plant accounts (before depreciation):				
Machinery, equipment, etc.				
Delivery equipment				
Real estate and buildings used in business				
6. Other assets (as investments, real estate not used in business, etc.):				
Total Assets				
LIABILITIES				
Current Liabilities:				
8. Notes payable				
9. Accounts payable				
10. Accrued liabilities				
11. Other current liabilities:				
Total Current Liabilities				
Fixed and Other Liabilities:				
12. Mortgage debts				
13. Debentures				
14. Other fixed liabilities:				
Reserves:				
15. Reserve for depreciation				
16. Other reserves:				
Net Worth:				
17. Common stock (issued) (if applicant is incorporated)				
18. Preferred stock (issued) (if applicant is incorporated)				
19. Surplus (if applicant is incorporated)				
20. Capital and surplus account (if applicant is partnership or individual)				
Total Liabilities				

Note.—If years included in the above table are not adequately representative of applicant's financial experience, condition statements may be submitted additional years.

16—64203-1

COMPENSATION AGREEMENT

AGREEMENT AS TO COMPENSATION FOR SERVICES RENDERED OR TO BE RENDERED TO APPLICANT IN CONNECTION WITH APPLICATION AND/OR LOAN

To induce the United States Government and its agencies to make a loan under Sec. 302 of the Defense Production Act of 1950 to ..... (hereinafter called "Applicant") and in consideration of the making of a loan to applicant, the undersigned, having been retained by applicant for the purpose of rendering professional or other services in connection with its application for a loan or loans, hereby represents, warrants, and agrees that the undersigned has not been paid, has not made any agreement with the applicant to be paid, and has not procured any person to pay or agree to pay, and will not, directly or indirectly, charge or receive any bonus, fee, or commission in any form in connection with the said application for, or the obtaining of, the loan applied for by the applicant, or any compensation in any form for services rendered or to be rendered in connection therewith except for the services and in the amounts stated below:

NAME	DESCRIPTION OF SERVICES	AMOUNT PAID	AMOUNT TO BE PAID
	No Commitment	$	$

To induce the making of the loan and the employment of the undersigned by applicant, the undersigned hereby further warrants, covenants, and agrees, upon the consideration herein specified, and in consideration of the employment of the undersigned by applicant, as above recited, that if the amount of compensation stated above for any such services shall not be deemed reasonable by any agency of the United States Government, the undersigned will reduce the charge for such services to such amount as shall be deemed reasonable by such agency, and will not, directly or indirectly, charge or collect from the applicant or any other person, any sum in excess of the amount so deemed reasonable; and that if the undersigned has heretofore collected, from the applicant or any other person, as compensation for any such services, any amount deemed by such agency to be unreasonable, the undersigned will refund to applicant or such other person such sums as are in excess of the amount deemed reasonable. The undersigned further warrants, covenants, and agrees that if the amount of the compensation for any such services is not determinable at the date of application, or is not stated above, it will not collect or charge any sum as compensation for such services without the prior written approval of the Government agency with which this application is officially filed as to the nature of the services for which such compensation is to be paid and the amount of such compensation.

Witness: .....

Address of witness:

.....

Dated ....., 19....

NOTE.—Corporations must execute foregoing certificate in corporate name, by duly authorized officer, and seal must be affixed and duly attested; partnerships must execute in firm name, together with signature of a general partner. If no compensation is paid or to be paid for services rendered in connection with application or loan, this should be so stated and the applicant should sign this exhibit.

CERTIFICATION

The applicant hereby certifies that the statements made in the foregoing application, and all exhibits and documents submitted in connection therewith, are true and correct statements to the best of applicant's information and belief and are submitted as a basis for credit.

Dated August 11, 1951

Witness:

(For individual applicants)

.....

(Signature)

Witness: Wm A Trudula

(For partnership applicants)

STANCO SULPHUR PRODUCTS

(Full name of firm)

By J B Stanley, a general partner.

(Signature)

(For corporate applicants)

(CORPORATE SEAL)

.....

(Full corporate name of applicant)

Attest:

By .....

(Signature) (Title)

.....

(Signature) (Title)

The United States Criminal Code, U. S. C., Sec. 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.

16—64203-1 U. S. GOVERNMENT PRINTING OFFICE

THIS LEASE, Made and entered into this 13 day of July, 1951, between Keith Hyde and Ruth Hyde, husband and wife, hereinafter called Lessors, and J. B.Stanley of Clackamas County, Oregon, hereinafter called Lessee,

W I T N E S S E T H:

That the Lessors, for and in consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed by the Lessee to be kept and performed, hereby grant, demise and let to the Lessee all of the following described property situate in Lincoln County, Wyoming, to-wit:

> The Southwest Quarter of the Northeast Quarter ($SW\frac{1}{4}NE\frac{1}{4}$) and the North Half of the Northwest Quarter of the Southeast Quarter ($N\frac{1}{2}NW\frac{1}{4}SE\frac{1}{4}$) of Section 23, Township 33 North, Range 119 West of the Sixth Principal Meridian,

together with the appurtenances, for the purpose of mining and marketing of sulphur products.

TO HAVE AND TO HOLD unto the Lessee for the term of ten (10) years from the first day of July, 1951, unless sooner forfeited or determined through the violation of any covenant herein hereinafter against the Lessee reserved.

In consideration of such demise, the Lessee covenants and agrees with Lessors as follows:

(1) To pay as rental for said premises Two Dollars ($2.00) per ton of sulhpur materials shipped from said premises, Lessee agreeing to pay for not less than 2500 tons per year from said premises. Lessee has paid hereon the sum of Five Thousand Dollars ($5000.00) being the royalties on the first 2500 tons produced from said premises during the first year of said lease. Lessee further agrees to pay Five Thousand Dollars ($5000.00) on the first day of July of each succeeding year, said Five Thousand Dollars ($5000.00) to be the royalty payment on the first 2500 tons of materials shipped from said premises during said year.

(2) Lessee agrees to keep accurate records of all materials shipped from said premises, and when said tonnage has exceeded 2500 tons, to pay for all excess at the rate of Two Dollars ($2.00) per ton not later than the 20th day of each month following the shipping of said material. All materials to be weighed upon the premises on scales approved by the parties.

PLEASE REPLY TO Stauco Sulphur Products
BOX 603
PORTLAND 7, OREGON

(3) To enter upon said premises and work the same in a good and economical manner so as to take out the greatest amount of sulphur with due regard to the development and preservation of the same as sulphur or other ore producing premises.

(4) To pay all bills and expenses incurred by the Lessee, or those in privity with him, promptly, and to save the Lessors harmless from any and all liens of miners, mechanics or materialmen against the above described premises.

(5) To permit the Lessors to live in the house now constructed on said premises, and to the right to pasture and any and all property not in actual use by the Lessee.

(6) To pay for all industrial insurance, and hold Lessors free and harmless from all claims, demands or liabilities arising out of the operation of said premises.

(7) Lessee to pay the taxes on the improvements and machinery installed by said Lessee.

Lessors agree as follows:

(1) That the Lessee shall have the right at any time during the period of this lease, when the same is not in default, to remove from said premises all improvements, machinery and equipment installed by him or his successors or assigns.

(2) That this lease may be assigned to an organization or a corporation to be formed by the Lessee for the purpose of operating said premises.

(3) To pay all taxes on the land in order that the same may not become in default, and to maintain the same free and clear of incumbrances.

It is understood and agreed that the Lessee may install upon the premises a plant for the manufacture of sulphuric acid, or other manufactured commercial products, and the materials used in such process shall be accounted for as materials shipped under the provisions of this lease.

The Lessee, his successors or assigns, shall have the right, at the termination of this lease, to a renewal thereof for a period of ten (10) years therefrom. Said Lessee to notify the Lessors in writing at least thirty (30) days

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BOX 603
PORTLAND 7, OREGON

prior to the termination of said lease, and the terms and conditions of this lease shall cover the new period except that there shall be no renewal period in said extension.

It is further understood and agreed that the Lessee shall have the optionof purchasing the said premises at any time during the period of this lease, or extension thereof, ~~for the sum of seventy-five thousand dollars ($75000.00) to be paid in cash at the exercise of said option.~~ Said Lessors , upon said payment, to convey said premises by warranty deed, free and clear of all incumbrance.

Upon the violation by the Lessee of any covwnant herein contained, the term of this lease shall, at the option of the Lessors, expire and the lease and the premises, with the appurtenances shall become forfeited to the Lessors, and the Lessors may thereupon demand possession and re-enter said premises and dispossessall persons occupying the same with or without force, and with or without process of law. It being understood and agreed that before and forfeiture may may be declared under said lease, that the Lessors shall notify the Lessee in writing, by registered mail, of the pretended violation and said lessee shall have thirty (30) days after receipt of said notice in which to comply before declaration of any forfeiture.

Lessors reserve the right to use enough of the warm water from the springs on above tract to maintain a bath house to be constructed by Lessors, and also to remove any and all buildings now on said property.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first herein written.

Keith Hyde

Ruth Hyde
Lessors

J B Stanley
Lessees.

Subscribed in my presence and sworn to before me, L. L. Baldwin a Notary Public in and for the County of Lincoln and State of Wyoming, this 13th day of July, 1951.

L. L. Baldwin
Notary Public.

My Commission expires Oct. 5th. 1952.

PLEASE REPLY TO Stanco Sulphur Products
BOX 603
PORTLAND 7, OREGON

IN REPLY REFER TO:
G-MD-GHE

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

September 27, 1951

Memorandum

To: James A. Barr, Sr., Chairman
Nonmetallics Commodity Committee

From: G. H. Espenshade
U. S. Geological Survey

Subject: Stanco Sulphur Products - DMA-2035

Mr. Stanley's letter really doesn't give much additional information on the tonnage and grade of these sulfur deposits. I think they will probably have to be sampled, perhaps by some sort of drive-pipe method, in order to make any reliable estimate of grade and tonnage. I recommend a field examination; the 4,000 or 5,000 tons of material awaiting shipment could be sampled then.

G. H. Espenshade

copy to: DMA files ✓

IN REPLY REFER TO:

G-D-GIE

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

September 10, 1951

Memorandum

To: James A. Barr, Sr., Chairman
Nonmetallics Commodity Committee
Defense Minerals Administration

From: G. H. Espenshade
U. S. Geological Survey

Subject: Comments on sulfur reserves of Auburn Hot Springs deposit, Afton, Wyoming.

Sulfur occurs in these deposits as a fine sludge in the bottoms of three hot spring pools. The deposits have not been explored or sampled, so there appears to be no factual basis for the applicant's claim of 35,000 tons of indicated or probable ore containing 90 percent sulfur (see MF-100, item 12). C. A. Lee, the examining geologist, estimated 28,100 tons of possible sulfur, and concluded that it was important to get a better evaluation of the tons of sulfur (MF-101, attachment).

Applicant assumes that the tonnage estimated contains no important amounts of contaminating solids that would require more complicated treatment methods, but there is no information to support this view.

Deposits should be explored to determine tonnage and grade before application is considered.

G. H. Espenshade

DMA files

Stanco Sulphur Products
Box 603
Portland 7, Oregon

Subject: DMA-2035 - Sulphur

Gentlemen:

Regarding your application for a Government loan for development and production of sulphur from deposits near Afton, Wyoming, docketed as DMA-2035, additional information is necessary to enable processing.

Reserves are estimated in subject application as 35,000 tons indicated (probable) ore containing 90% sulphur. To qualify for a production loan it is necessary to demonstrate proven reserves adequate to assure the economic feasibility of the project with respect to repayment. If you have accomplished detailed sampling of he deposits which prove a measurable reserve, please submit factual data demonstrating the reserves proven.

In certain cases where reserves are not proven, Government assistance is available for purposes of exploration under MD-5. If you are unable to conclusively demonstrate an adequate proven reserve to qualify for a production loan and wish to apply for exploration assistance, we would be glad to consider such an application. Appropriate forms are enclosed.

Sincerely yours,

James A. Barr, Sr., Chief
Industrial Minerals Branch

Enclosures

EWASKEY:mp
9-11-51
cc: Field Team, Region IV (2)
DMA Docket File
Mr. Barr

OFFICIAL FILE COPY

40	Init.	Date
270	A.E.C.	9-24
210		

SEP 24 10 39 AM '51
DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.

STANCO
SULPHUR PRODUCTS

Phone BEacon 5200

P. O. BOX 603, PORTLAND 7, OREGON

Sept. 20, 1951 AIRMAIL

Mr. James A. Barr, Sr., Chief
Industrial Minerals Branch
Defense Minerals Administration
Washington 25, D. C.

Subject: DMA;2035 - Sulphur

Dear Sir:

This will acknowledge your letter of Sept. 13th together with enclosures.

Before I discuss the matter of an exploration loan. I believe it will assist you in a better understanding of our particular problem if I give you some of the history and facts pertaining to our project.

The property, owned by Keith Hyde of Auburn, Wyo. was originally a U.S. Patented claim and developed by Mr. Hyde and his father as a health resort. In 1947 a lease was given to the Star Valley Mines, Inc. to produce sulfur. Under their operation, some 8-10,000 tons of sulfur sludge material was taken from one pool (#2) and piled on the bank preparatory to processing. They installed in the bathing pavilion, a ball mill, a R aymond ring mill, one 45' x 7' revolving tube and other equipment. Due to the extreme fineness of the material, it burst into flame when expose to the direct flame of the revolving tube. The same thing happened in the Raymond mill, because it was not equipped with CO_2 protection. After several fires and explosions, the operation ceased.

When the writer obtained an option to lease the property, he first interviewed Mr. Chas. Lee, who had examined the property several times. I wanted to secure Mr. Lee's opinion on the source and supply of sulfur. Mr. Lee at that time was head of the Geology Department of the Idaho State College at Pocatello and also consultant to J. R. Simplot Co. He has since been appointed head of the Geology and Mining Dept. , Union Pacific Railway Co.

Mr. Lee told us that late lava flows mearby heated water to high temperatures which flowed over sulfur deposits. These streams are deflected upwards by faults in the rock strata and surface in our property. He also stated that removal of the deposits in the three pools would in no way finish the operation, but that the flow would be continuous, and this is borne out by the fact that when the operators in 1947 took out 8-10,000 tons out of the one pool that it refilled at once.

We have given the problem of drying the sulfur material much serious planning and personal research, and shipped a large quantity to our Clackamas plant where we worked out our procedure. First, the material will be pumped from the pools by an injector type dredge pump. This pump will be built of special bronze alloy to withstand the mild acid in the heated water of the pools. The sludge will be pumped into a settling basin, where it will ~~xxxx~~ precipitate and the water drained off. The sludge will then be transported by a tractor shovel to the dry yard which has been surfaced with asphaltum. Here the sludge will be turned and stirred until it is dry. In our experiments here, this took one day's time. The material is now ready to package and sell. We expect to process in excess of 50 tons daily.

Mr. James A. Barr

When dry, the extreme fineness of the particle size is apparent. It is micron size and as such, readily lends itself for use in insecticidal dusts as a base material where sulfur is needednin the formula. Such dusts are in great demand by growers of cotton, grapes, citrus etc. Market prices togay for 325 mesh dusting sulfur, carlot, fob, Portland is $88.00 per ton to wholesale dealers. As our product has not been processed and bagged, perhaps a price of $50.00 to $60.00 is about right. Bagging would add $10.00 per ton.

A critic might point out that Texas crude sulfur is $22.00 per ton at gulf points, delivered to the Pacific Coast at $30.00 per ton. It costs approximately $20.00 per ton to grind and $5.00 for bags, making the costs of 325 mesh approximately $55.00. Our material is micronized (approximately 6-700 mesh) and as such demands a premium, and in view particularly of the extreme shortage of sulfur materials, generally will find a ready market. We already have many very interested inquiries from California insecticide manufacturers, who are urging us to get into production.

The above facts we feel will assist in a discussion of your letter and its suggestion for an exploratory loan under MO-5.

First, we feel Mr. Lee was quite conservative in his estimate of 28,000 tons. His word "possible" in describing the deposit was expressed, I believe, to indicate if it were possible to pump out the slurry, dry and ship it, rather than any probability of there not being that amount there. Also, he did not take into consideration the material already on the surface which is estimated at 4,5000 tons ready to be dried and shipped.

As to the matter of "proven reserve", Mr. Lee has stated a possible 28,000 tons. The writer and Mr. Tindula, in the presence of Mr. Lee, actually sounded the pool known as #2, using a rubber boat from which werwere able to sound the depth of deposit in a regular pattern of locations. These figures werethen taken by Mr. Lee who used them in determining his total of 28,000 tons. Considering the large area of the No. 2 pool (100' x 170'), Mr. Lee's calculations were based on a minimum average depth which we, in our soundings, found to be very conservative.

Now we agree that the main interest of both the Government and courselves is to return any loan which may be made. Here are our estimates on this feature:

28,000 tons at $50.00 per ton will return	$1,400,000.00
10% gross royalty to ~~pre~~ repay Gov't. loan	140,000.00
Our request for loan only totals	55,000.00
At this rate 11,100 tons @ $50.00 is	555,000.00
10% gross royalty of this repays Gov't. loan	55,500.00

This project differs with a hard rock mining operation in that the material is contained in pools, inaccessible to core drilling and other methods used in hard rock operations. We do not believe a loan for exploratory purposes willbbe of advantage as we already know we have certain tonnages, which only await ~~paper~~ proper installation of equipment to enable us to ship to market.

During our conference at one of your regional offices, we were advised that before a loan was approved, a qualified government engineer would check our estimates of reserve material and we believe that this is the logical approach to this problem.

We feel that there is an ample supply of sulfur material in sight to justify a production loan on some basis that will permit its repayment, whether it be the total figure of $55,500.00 with repayment of 10% of gross invoice royalty or some compromise figure that will not handicap us in our operation.

We await your favorable reply, and if in the meantime, you wish a sample of the sulfur material, we will be glad to forward it.

Yours very truly,

STANCO SULFUR PRODUCTS

J B Stanley

J. B. Stanley

jbs:ws

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

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

OCT 12 1951

Mr. J. H. East, Jr., Executive Officer
DMA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Subject: DMA-2035 - Sulfur

Dear Mr. East:

File on Stanco Sulphur Products application for a Government loan in the amount of $55,500, is attached. Please review this file, arrange suitable field examination and report thereon, particularly with regards to the following:

1. Adequacy of reserves.

2. Method of sampling if additional sampling is needed.

3. If additional sampling is indicated, should it be done as an Exploration Aid Project under MO-5? This should be discussed with applicant.

4. Adequacy of applicant's cost estimates both as to capital requirements and operating cost.

5. Technical feasibility of applicant's proposal.

6. Competence of applicant.

7. Comments and recommendations.

Sincerely yours,

For Tom Lyon, Chairman
Coordinating Committee

Approved:

U.S. Geological Survey

U. S. Bureau of Mines

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

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

Mr. J. H. East, Jr., Executive Officer
DMA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Subject: DMA-2035 - Sulfur

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Sincerely yours,

Tom Lyon, Chairman
Coordinating Committee

Approved:

U.S. Geological Survey

U. S. Bureau of Mines

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

224 New Customhouse
Denver 2, Colorado

October 19, 1951

Memorandum

To: S. R. Wilson (with brochure)

(Through Chief, Mining Division, Region IV)

A. H. Koschmann

From: DMA Field Team, Region IV

Subject: DMA Docket 2035, Stanco Sulphur Products; applicant, Auburn Hot Springs Sulphur Deposit, Lincoln County, Wyoming.

Enclosed herewith is the subject docket with application for a government loan, Form MF-101, of $55,000, with a letter to the Executive Officer, Region IV, from the Coordinating Committee, and a letter from the Executive Officer of Region II.

The application requires field investigation as outlined in the letter from the Coordinating Committee, particularly as to the adequacy of the reserves, methods of sampling and the probability that additional exploration will be required.

Paul T. Allsman, Alternate

A. H. Koschmann

REGIONAL DIRECTOR'S
OFFICE
REGION IV
AUG 13 1951
BUREAU OF MINES
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 4, Washington

August 8, 1951

Mr. Jack East
Executive Officer, Region IV
224 Customhouse Building
Denver 2, Colorado

Dear Mr. East:

On August 6 this office was visited by Mr. J. B. Stanley and Mr. W. A. Tindula, representatives of Stanco Sulphur Products, an Oregon concern. These men were seeking information concerning DMA assistance to sulphur producers. They stated that their concern had a twenty year lease, with option to buy, on a sulphur property two miles northwest of ~~Aubon~~ Auburn; or six miles northwest of Afton, Wyoming.

Sounds interesting but not commercial

This property contains an estimated 35,000 tons of sulphur which reportedly assays 95 percent S; the rest being largely silica. In addition, the property contains an unknown probable tonnage of sulphur in contiguous deposits. The deposit is described as a series of hot springs which are continuously depositing sulphur in three lake-like deposits.

After being advised of current DMA programs for assistance, Stanco representatives decided against applying for an exploration loan stating that they believed their 35,000 estimated tons should qualify them for a production loan. They pointed out that their primary interest was funds with which they intended to construct and equip a pumping plant, settling basins and dry yards; all facilities preparatory to actual mining operations. They presented evidence showing that they had a ready market for their product should they get into operation.

Following the discussion, we presented them with necessary copies of an application for a production loan in excess of $50,000, and instructions on filling out the application. We also advised them that inasmuch as the deposit was out of the Pacific Northwest area, they should contact your office for further information. They advised that they would personally deliver the completed application to your office at the earliest possible date in an effort to expedite processing of the application.

Mr. J. B. Stanley, chief spokesman for the concern, is a chemist who appears to be very well informed on sulphur and sulphur products in general.

Harvey
Henshaw
K

He presented strong evidence that the deposit in question has merit and that it warrants further investigation.

Very truly yours,

Thor H. Kiilsgaard

Thor H. Kiilsgaard
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

224 New Customhouse
Denver 2, Colorado

February 19, 1952

Mr. Tom Lyon
Director
Domestic Expansion Division
Defense Materials Procurement Agency
General Services Administration Building
Washington 25, D.C.

Dear Mr. Lyon:

In Mr. East's absence, this will acknowledge your letter of February 15 requesting information on DMA Docket 2035, Stanco Sulphur Products.

The examination of the sulphur deposit of the Stanco Sulphur Products has been made and the report is in preparation. We believe that the report can be sent to you in about two weeks.

Very truly yours,

W. H. King

W. H. King
Acting Chief, Mining Division

cc: S. R. Wilson
Koschmann
Sub
Chron

J. F. S.

WHK:bh

Form 6-95

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REFERENCE SLIP

DATE 2/18/32

REFERRED TO:

1. King
2.
3.
4.

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	..... Referring to .....
..... Conference	..... Reply for signature of .....
..... Consideration	..... Rewriting
..... Filing	..... Signature
..... Instructions	..... Suggestions
..... Investigation	..... Your information
..... Initials	
..... Mailing	
..... Previous correspondence	

REMARKS: Letter from Tom Lyon, Director, Domestic Expansion Div., requesting estimate as to time required for investigation, DMA 2035, Stanco sulphur Products.

Check (X) before the items needing attention.

Initials of sender.

GPO 16—51162-1

DEFENSE MATERIALS PROCUREMENT AGENCY
WASHINGTON 25, D. C.

FEB 15 1952
OFFICE
DECLASSIFY
FEB 18 1952
DENVER, COLO.

Mr. J. H. East, Jr.
Executive Officer
DMEA-DMPA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Dear Mr. East:

We have an inquiry regarding DMA Docket 2035 (Stanco Sulphur Products).

If it is convenient to do so, can you give us any estimate as to the time it will take to investigate this proposition and make a report on the same?

Very truly yours,

Tom Lyon

Tom Lyon, Director
Domestic Expansion Division

6-303
(March 1947)

W.H.K. King

cc: P. T. Allsman
S. R. Wilson

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

No. 3

Report to Mr. F. L. Wideman

Chemical Laboratory Report

Date received December 10, 1951

Date reported December 13, 1951

Serial No.	DESCRIPTION	Lot No.		S									
99348	Auburn Hot Springs 2035	Stanco	1	1.95									
99349	"	"	2	41.2									
99350	"	"	3	1.68									
99351	"	"	4	41.3									
99352	"	"	5	2.87									
99354	"	"	7	31.5									
99353	"	"	6	3.10									

Mining Division
Date Rec'd.
DEC 17 1951
BUREAU OF MINES
Denver, Colorado

U. S. GOVERNMENT PRINTING OFFICE 16—33553-3

Signed H. L. Peterson

224 New Customhouse
Denver 2, Colorado

November 14, 1951

Mr. J. B. Stanley
Stanco Sulphur Products
P. O. Box 603
Portland 7, Oregon

Re: DMA Docket 2035

Dear Mr. Stanley:

This will acknowledge your letter of November 9, 1951 requesting information in regard to your application for DMA assistance, Docket No. 2035.

The information concerning Docket No. 2035 has been forwarded to Mr. S. R. Wilson, Chief, Utah-Wyoming Branch, Mining Division, 1600 East 1st South Street, Salt Lake City 1, Utah.

Mr. Wilson has charge of the Bureau's field activities and he will assign an engineer to make the examination as soon as he has personnel available.

Very truly yours,

W. H. K.

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

WHK:oj
cc: DMA Subject, Chron.
SRWilson
AHKoschmann

STANCO
SULPHUR PRODUCTS

Phone BEacon 5200
P. O. BOX 603, PORTLAND 7, OREGON

Mining Division
Date Rec'd.
NOV 13 1951
BUREAU OF MINES
Denver, Colorado

Nov. 9, 1951

Mr. P. T. Allsman
Defense Minerals Administration
Rm 224 - New Customhouse
Denver, Colo.

Dear Sir:

Early in August the writer discussed our problem of securing DMA assistance to operate our sulfur deposit near Afton, Wyoming.

Our application is known as DMA 2035, and we are advised that it has been forwarded to your office in Denver. I would appreciate it greatly if you could advise us as to the present status of our application.

Thanking you for your courtesy in this matter, I am

Yours very truly,

STANCO SULFUR PRODUCTS

J. B. Stanley

J. B. Stanley

jbs:ws

224 New Customhouse
Denver 2, Colorado

October 19, 1951

Memorandum

To: S. R. Wilson (with brochure)

(Through Chief, Mining Division, Region IV)

A. H. Koschmann

From: DMA Field Team, Region IV

Subject: DMA Docket 2035, Stanco Sulphur Products; applicant, Auburn Hot Springs Sulphur Deposit, Lincoln County, Wyoming.

Enclosed herewith is the subject docket with application for a government loan, Form MF-161, of $55,000, with a letter to the Executive Officer, Region IV, from the Coordinating Committee, and a letter from the Executive Officer of Region II.

The application requires field investigation as outlined in the letter from the Coordinating Committee, particularly as to the adequacy of the reserves, methods of sampling and the probability that additional exploration will be required.

Paul T. Allmann, Alternate

A. H. Koschmann

WDM:oj
cc: DMA subject and chron
AHkoschmann

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

370

REGIONAL OFFICE
REGION IV
SEP 17 1951
BUREAU OF MINES
DENVER, COLORADO

SEP 13 1951

Stanco Sulphur Products
Box 603
Portland 7, Oregon

Subject: DMA-2035 - Sulphur

Gentlemen:

Regarding your application for a Government loan for development and production of sulphur from deposits near Afton, Wyoming, docketed as DMA-2035, additional information is necessary to enable processing.

Reserves are estimated in subject application as 35,000 tons indicated (probable) ore containing 90% sulphur. To qualify for a production loan it is necessary to demonstrate proven reserves adequate to assure the economic feasibility of the project with respect to repayment. If you have accomplished detailed sampling of the deposits which prove a measurable reserve, please submit factual data demonstrating the reserves proven.

In certain cases where reserves are not proven, Government assistance is available for purposes of exploration under PO-5. If you are unable to conclusively demonstrate an adequate proven reserve to qualify for a production loan and wish to apply for exploration assistance, we would be glad to consider such an application. Appropriate forms are enclosed.

Sincerely yours,

SIGNED

James A. Barr, Sr., Chief
Industrial Minerals Branch

Enclosures

RWASKEY:mp
9-11-51
cc: Field Team, Region IV (2)
DMA Docket File
Mr. Barr

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

370

OFFICE
REGION IV
OCT 22 1951
BUREAU OF MINES
DENVER, COLORADO

Stanco Sulphur Products
Box 603
Portland 7, Oregon

Subject: DMA-2035 - Sulfur

Gentlemen:

Your application is being referred to Mr. J. H. East, Jr. Executive Officer, DMA Field Team, Region IV, 224 New Customhouse Building, Denver 2, Colorado, for further information.

Sincerely yours,

signed

Tom Lyon, Director
Supply Division

RWASKEY:mp
10-9-51
cc: Field Team, Region IV (2)
DMA Docket File
Mr. Barr

J71

Acted