

The Hanna Mining Company
Riddle, Oregon 97469

June 5, 1964

Mr. Hollis M. Dole, Director
Dept. of Geology & Mineral Industries
State of Oregon
1069 State Office Building
Portland 1, Oregon

Dear Hollis:

Some time ago, we leased some additional land from Douglas County and one of the provisions of the lease was that a determination be made as to whether or not any valuable minerals existed on these lands.

We have had John Cumberlandidge check the lands carefully and two copies of his report are enclosed. Also Len Ramp spent two days with John on the property examining it and has stated that he agrees with John's findings. It is my understanding that Len will write you to confirm these conclusions. I am also enclosing a copy of the lease so you may confirm the provisions that I have referred to as set forth under item 4.

After you have examined this material, if you agree with our conclusions, I would very much appreciate your writing a letter to the Douglas County Court confirming that no valuable mineral exists on the land in question. You may wish to mail them one copy of the Cumberlandidge report for their use.

Very truly yours,

THE HANNA MINING COMPANY

E. E. Coleman

E. E. Coleman
General Manager-Oregon

EEC/il
Encls.

RECEIVED
JUN 9 1964

STATE DEPT. OF GEOLOGY
& MINERAL IND.

The Hanna Mining Company
Biddle, Oregon

TO: E. J. Maney

DATE: 30 April, 1964

FROM: J. T. Cumberlidge

SUBJECT: Mineral Deposits in New Douglas County Mineral Leases.

This report covers a geological survey of certain Douglas County lands under mineral lease to The Hanna Mining Company. Description of the survey area follows.

T 30S, R 6W W. M., Douglas County, Oregon

Sec 18 -- NW 1/4 SE 1/4; SW 1/4 SE 1/4

Sec 19 -- NE 1/4 NE 1/4 ~~NE 1/4~~

Sec 20 -- NW 1/4 NW 1/4; SW 1/4 NW 1/4; NW 1/4 SW 1/4

Survey Methods

Both pace and compass, and stadia traverses were used to cover the area. Stadia locations are correct to within a few feet; while pace and compass locations are probably correct to within a few tens of feet. Traverses were tied to corner posts, bench marks, and triangulated hubs where available.

Geology

The general geology in the area can be summarized as follows:

Younger Sediments. Umpqua Fm. (Eocene) and/or Knoxville Fm. (L. Cret). Chiefly siliceous pebble conglomerate with hard siliceous cement.

----- Unconformity -----

Peridotite and Dunite, serpentized, at contacts

----- Intrusive (?) Contact -----

Basalt and greenstone, locally andesitic

----- Intrusive Contact -----

Older Sediments. Dothan Fm. (Jur). Chiefly thinly bedded shales; indurated mudstones and sandstones, locally gritty. Usually steeply dipping. Brachiopods abundant along some bedding planes.

The relative age of the greenstone is in some doubt; and the distinction between Umpqua Fm and Knoxville Fm is not clear.

Older sediments can be seen at the centre and at the SE corner of Sec. 18. Almost the whole of the NW 1/4 of the SW 1/4 Sec. 20 is underlain by older sediments. Basalt and greenstone underlie most of NE 1/4 NE 1/4 Sec. 19 and NW 1/4 NW 1/4 Sec. 20. Peridotite and serpentinite cover most of the remaining area.

Potential Ore Deposits

The main reason for making this survey was to examine known mineralized areas and to check for potential ore deposits. The basalts and greenstones were checked primarily for traces of sulfides, the peridotite for Ni-laterite, chromite and magnetite. The sediments might generally be considered as unfavorable prospecting ground, however the outcrops were checked for mineral content with negative results.

A small area of Red Soil was located in the SE 1/4 Sec. 18 (see 1" = 400 ft. map). Surface exposures suggest that this is thin and probably contains low Ni values. This was the only area of potential Ni ore located by the survey, and only part of it is in the new mineral lease area.

An abandoned chromite pit in the NW 1/4 Sec. 20 was located. A thorough examination of the walls of the pit showed that all the available chromite ore has been mined out. Chromite can be seen on the waste dump but was not located in situ. Most of the chromite deposits in Southern Oregon occur as small pods or lenses, and this one seems to follow the rule. No other chromite veins were found.

Magnetite occurs in trace amounts throughout the peridotite, but no veins or pods of magnetite were found. The possibility of finding an iron deposit of commercial size is fairly well ruled out.

One basalt outcrop contained trace amounts of pyrite, but generally the basalts and greenstones are barren of sulfide mineralization. Quartz veins are few in number, and tend to be thin and discontinuous. No commercial gold deposit is indicated.

Summary

One small area of potential Ni ore was located. Peridotites, basalts and sediments covering the remaining area appear to be barren, and the chances of covering an ore deposit with mining waste appear to be vanishingly small.

J. T. Cumberlandge.
J. T. Cumberlandge

JTC/jr

cc: E. E. Coleman
F. M. Chace
File (3)

3 copies

INTER-OFFICE MEMORANDUM

The Hanna Mining Company
Riddle, Oregon

TO: E. J. Maney

DATE 21 May, 1964

FROM: J. T. Cumberlidge

SUBJECT: Auger Samples SE 1/4 Sec. 18.

Four hand auger samples were taken in the area of red soil shown on the 1 inch=400 ft geologic map previously submitted. Samples were augered or dug, and coned and quartered to about five pounds in the field. Colorimetric assay for Ni was made on a dried pulverized split. Sample descriptions follow.

<u>Description</u>	<u>% Ni</u>
<u>Sample No. 1</u> Red soil and boulders. Depth approximately 2'6". Hit packed perid. boulders at 2 1/2 ft.	1.00
<u>Sample No. 2</u> Thin Red soil over tightly packed perid. boulders. Depth 1 ft. Several holes in this area gave some result.	0.98
<u>Sample No. 3</u> Old test pit. 4 ft channel down wall. Red soil and very large perid. boulders, hence sample is biased <u>low</u> on perid, <u>high</u> on grade.	0.97
<u>Sample No. 4</u> Red soil and perid. boulders. Depth 12". Tightly packed boulders at 12", possibly similar to sample 3.	0.71

These holes do not indicate any appreciable depth of red soil in this area. Furthermore, spot auger tests have caused me to redraw the red soil boundary so as to reduce almost to zero the area of red soil in the new Douglas County mineral lease lands.

Nickel assays are average for red soil. However, because a hand auger will not penetrate large peridotite boulders, and tends to push the smaller ones aside, the assays are probably biased on the high side. A reduction in grade of from 0.1% to 0.2% Ni would probably be realistic.

The way in which the peridotite boulders are packed suggests that this area of red soil may have been washed or slid from the main orebody. In any case, the tonnage of mineable ore is very small, and the grade marginal.

J. T. Cumberlidge
J. T. Cumberlidge

JTC/jr
cc: EEC, FMC - Cv.

December 7, 1942

702 Woodlark Building
Portland, Oregon

Mr. W. T. Lundy
Freeport Sulphur Company
122 East 42nd Street
New York City, New York

Dear Mr. Lundy:

Subject: Riddle access road

Believe I suggested that you write St. Clair about having an estimate made on the cost of gravelling and maintaining the road you are using at Nickel Mountain. I think I can give you some assistance in getting some road work done under the same procedure that is used to obtain Federal aid for access roads to other strategic mineral deposits.

If you or St. Clair will send me an estimate of the cost of the road work, the description by section, township, and range of where the work is to be done, the length of the road to be improved, difference in the elevation of termini, and preferably a note from Freeport expressing your intention to continue work of development for some months, I shall be pleased to start the ball rolling. It should not take more than a couple of weeks to get action under present circumstances if equipment and materials are available to do the work in question.

Cordially yours,

Earl K. Nixon
Tech. Cons. Matls. Div.

EKN:jr
cc Mr. St. Clair

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

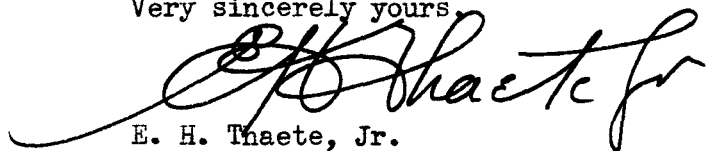
NEW YORK 17, N.Y. July 17, 1950

Mr. Fay W. Libbey, Director
State Department of Geology
and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Libbey:

Under our lease with the Oregon Nickel Mining Company we were required to furnish them with the results of our exploration work; accordingly, we have assumed that the Hanna Company has access to this information. Incidentally, since writing you before, I have remembered that at one time we gave the Bureau of Mines a complete report of our drilling there in connection with a program for the investigation of electric furnace treatment of the ore which they undertook for us under Zimmerley at Salt Lake City. I delivered the Riddle data personally to Mr. R. S. Dean in Washington. You may wish to pass this information along to your friends in the Bureau who are now interested in the property.

Very sincerely yours,


E. H. Thaete, Jr.

EHT:ffs

RECEIVED
JUL 21 1950

STATE DEPT. OF GEOLOGY
& MINERAL INDS.

July 7, 1950

Mr. E. H. Thaete, Jr.
Freeport Sulphur Company
122 East 42nd Street
New York 17, New York

Dear Mr. Thaete:

I do not want to draw out too long this subject of obtaining your company's permission to take records of your drilling of the Nickel Mountain deposit out of our confidential file, but it occurs to me that since you state in your letter of July 5 that M.A. Hanna Company now has the lease, they would certainly want to obtain records of your drilling if they have not already done so. I would assume from your letter that this would be agreeable to you but wish you would verify it.

Thanking you and with very kind regards,

Sincerely yours,

Director

FWL:jr

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK 17, N.Y.

July 5, 1950

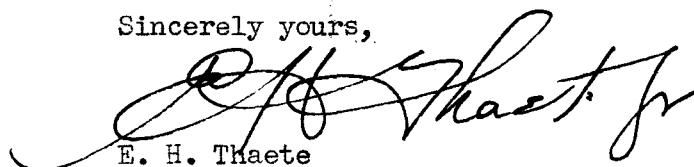
Mr. F. W. Libbey, Director
State Department of Geology and
Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Libbey:

I do not think that my company would have any objections to your releasing to the Bureau of Mines the data on the Riddle, Oregon, nickel deposit which I sent you. However, we have long since relinquished our lease on the property and no longer have any interest in it and I am wondering if you should not request permission from the owners, the Oregon Nickel Mining Company of Oakland, California, and also from the present lessees, the M. A. Hanna Co. I understand that Mr. John K. Gustafson of Hibbing, Minnesota, is now looking after the Riddle work for Hanna and Mr. Vedensky, consulting metallurgical engineer of San Francisco, is doing some work for them on it.

It has been a good many years since I have had the opportunity of visiting with you in Portland and I should like to take this opportunity of renewing our acquaintance and extending my very best wishes.

Sincerely yours,



E. H. Thaele

EHT:MM

RECEIVED
JUL 7 1950
STATE DEPT. OF GEOLOGY
& MINERAL INDS.

June 19, 1950

Mr. E. H. Thaste, Jr.
Freeport Sulphur Company
122 East 42nd Street
New York 17, New York

Dear Mr. Thaste:

Please refer to some correspondence we had in February of 1947 referring to a map of the Nickel Mountain area, Oregon, drilled by your company together with assay records. You gave us these records on a confidential basis and we have held them under this condition ever since.

It now appears that the U. S. Bureau of Mines is planning some extensive field studies in the peridotite areas of Oregon which will be related to metallurgical research on nickel ores carried out at their Albany, Oregon laboratory. A copy of your records of drilling done on Nickel Mountain would undoubtedly be of great assistance to the Bureau and I am wondering if you would be willing to allow them to have a copy of the map which you sent to us.

Considering the quite critical nature of nickel in relation to national defense, it would seem to me that any assistance we can render in strengthening our domestic position in nickel would be of real service to the country.

Sincerely yours,

Director

FWL: jr

February 13, 1947

Mr. E. H. Thaste, Jr.
Freeport Sulphur Company
122 East 42nd Street
New York 17, New York

Dear Mr. Thaste:

Thank you for your letter of February 10.

I am today writing the Oregon Nickel Mining Company to inform them of our wish to do some testing work in the Riddle area this summer and I am also requesting their permission to have you furnish the geological map on a confidential basis, as mentioned in your letter.

We shall publish some preliminary information on Curry County laterite very soon and I shall be glad to send you the report.

A few days ago in looking through some of our records which are kept locked, I found a sealed map tube labelled "Property of Freeport Sulphur Company", which I think must have been left here by Mr. Nixon. Would you like to have us forward this to New York or Salt Lake City?

Kind regards,

Sincerely yours,

Director

FWL:jr

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK 17, N.Y.

February 10, 1947

Mr. F. W. Libbey, Director
State Department of Geology
and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Libbey:

Mr. Williams has asked me to reply to your letter of February 1st.

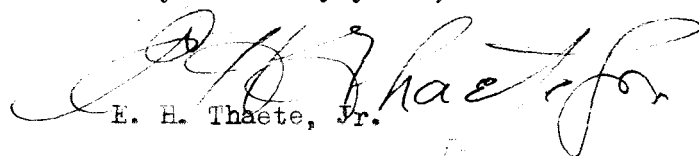
A short time ago, we were obliged to relinquish our lease on the Riddle orebody owing to the fact that we had been unable to develop a means for working the deposit commercially. Accordingly, I would suggest that you write to the Oregon Nickel Mining Company, Farmers and Merchants Savings Bank, 13th & Franklin Streets, Oakland, California, and request from them permission to do the work there that you have in mind.

We would, of course, be glad to furnish the geological map that you request, on a confidential basis, provided Oregon Nickel Mining Company would be willing that we should do so. Accordingly, when you write them, you might request this permission also. If you will write me as soon as you obtain approval from the Oregon Nickel Mining Company, I shall be glad to send you a copy of the map.

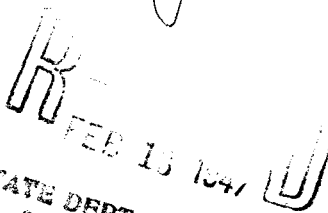
Incidentally, I should be very much interested in the occurrences of laterite in Curry County and would appreciate your sending me any published information which you may have available.

With very best wishes.

Very sincerely yours,


E. H. Thaele, Jr.

EHT:mh


FEB 15 1947
STATE DEPT OF GEOLOGY
& MINERAL IND.

Estate of
EDSON F. ADAMS
~~FARMERS AND MERCHANTS~~
~~SAVINGS BANK~~
OAKLAND
CALIF.

Room 401
1706 Broadway

September 5, 1947

F. W. LIBBEY, Director
State Department of Geology and
Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Libbey:

Thanks for your letter of September 2nd
regarding Nickel Mountain.

We have made no firm commitment but have
given the M. A. Hanna Company permission to
examine our property at their request.

As I explained to you when in Portland,
my responsibility as Executor of the Estate of
Edson F. Adams is to liquidate its affairs
promptly and should the Hanna people call upon
you for any information it will be appreciated
if you can help them.

I do not know how far their investigation
will go but I did tell them that you had done
some work on the property.

Very truly yours,


F. J. EARLY

RECEIVED
SEP 8 1947
STATE DEPT OF GEOLOGY
& MINERAL INDS.

September 2, 1947

Mr. F. J. Early
Room 401, 1706 Broadway
Oakland, California

Dear Mr. Early:

When you called at this office, I told you that we were planning to continue this summer our studies of nickel occurrences in southwestern Oregon and that I would write you when we obtained some results of the study which might bear on the Nickel Mountain deposit.

Although we do not have any definite results as yet, I have just returned from a field trip in which we did some sampling on several of these deposits including a few samples on Nickel Mountain. The Freeport Sulphur Company has done so much work on Nickel Mountain that the little we could do would hardly add very much to our present knowledge. I wish to state, however, that I was very favorably impressed with possibilities on Nickel Mountain after studying the area using records and maps furnished me by Freeport Sulphur Company. I should be very much interested to know if you have made any deal with a company for further investigation of the Nickel Mountain deposit.

Very truly yours,

Director

FWL:jr

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK 17, N. Y.

April 3, 1947

Mr. F. W. Libbey, Director
State Department of Geology and
Mineral Industries
702 Woodlark Building
Portland 5, Oregon

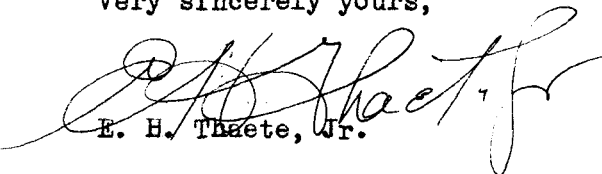
Dear Mr. Libbey:

Thank you very much for sending me a copy of your report on the nickel-bearing laterite at Red Flat, Oregon.

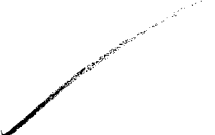
I think that a detailed search of the areas of basic igneous rocks in southwestern Oregon may reveal a number of lateritic deposits similar to Riddle or the Red Flat deposit. As I wrote you before, we made some investigation of the area south of Riddle to the California line and found small unimportant deposits on Eight Dollar Mountain and Woodcock Mountain. We were guided in our search by recognizing the terrace remnants of the old erosional surface described by Hobbs and Pecora.

You might be interested in having your department continue the investigation of this general area, and it is possible that other deposits as large or even larger than Riddle might be discovered.

Very sincerely yours,


E. H. Thaele, Jr.

EHT:mb


APR 5 1947
STATE DEPT OF GEOLOGY
& MINERAL IND.

March 8, 1947

Mr. E. H. Thaste, Jr.
Freeport Sulphur Company
122 East 42nd Street
New York 17, New York

Dear Mr. Thaste:

Thank you very much for your interesting letter of March 3 enclosing the maps showing the geology and records of drilling by Freeport Sulphur Company. These will be of very great assistance to us. As stated before, we shall hold this information as confidential.

Referring to the last paragraph of your letter, I would appreciate it greatly if you would comment at such length as you wish on the ideas you have on the subject of the occurrence of nickel in the peridotite areas. I am sure that your comments would be of great help to us.

Sincerely yours,

Director

FWL:jr

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK 17, N. Y.

RECORDED
MAR 10 1947
U.S. DEPT. OF THE INTERIOR
BUREAU OF MINES

March 3, 1947

Mr. F. W. Libbey, Director
State Department of Geology and
Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Libbey:

I am enclosing herewith for your confidential use a geological map of the Riddle deposit and a map showing the location of our prospect holes on which a summary of the sampling results has been printed. By using these data, one of your engineers can give you a very clear picture of this nickel occurrence.

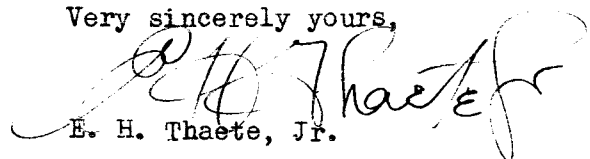
The geological picture is, of course, relatively simple. The fresh peridotite contains small amounts of nickel usually in the range of .2% to .3% which when subjected to lateritic weathering becomes concentrated into higher percentages that give indications of being of economic interest. Accordingly, at Riddle the higher nickel values are confined to the altered peridotite.

We have added practically nothing to the geological picture presented by Hobbs and Pecora in the USGS bulletin on Riddle which you no doubt have already read. As you can see from our drilling, Pecora's "root pockets" occasionally extend much deeper into the peridotite mass than he had visualized.

I should also emphasize the importance of topography in connection with the Riddle deposit. This has been discussed in some detail by Hobbs and Pecora, and by following their conclusions, we were able to discover two other deposits, one on Eight Dollar Mountain and the other on Woodcock Mountain, several miles to the south of Riddle. Being small and low-grade, they are, of course, of only academic interest. However, it is possible that other areas of basic rock in western Oregon might contain deposits similar to Riddle.

If a general reconnaissance of the area would be of interest to your department, I would be glad to hear from you as I have some ideas about it that I think would be worth considering.

Very sincerely yours,


E. H. Thaele, Jr.

EHT:mh
encls.

February 24, 1947

Mr. F. J. Early
Room 401, 1706 Broadway
Oakland, California

Dear Mr. Early:

Thank you very much for your letter of February 21. I have forwarded a copy to the Freeport Sulphur Company.

I am very glad to have the information concerning the testing work by the U. S. Bureau of Mines Albany station. I shall get in touch with Mr. Shelton so that there will be a minimum of duplication of work on Nickel Mountain.

Yours very truly,

Director

FWL:jr

Estate of
EDSON F. ADAMS
FARMERS AND MERCHANTS
SAVINGS BANK
OAKLAND
CALIF.

Room 401
1706 Broadway

February 21, 1947

Mr. F. W. Libbey, Director
State Department of Geology &
Mineral Industries
702 Woodlark Building
Portland 5, Oregon

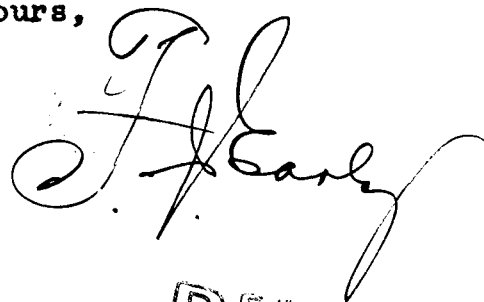
Dear Sir:

Your letter of February 13, addressed to the Oregon Nickel Mining Company, has been referred to me as one of the Executors of the Estate of Edson F. Adams, principal owner in the Oregon Nickel mining property.

We have no objection to you doing some exploration work on the property and we have no objection to the Freeport Sulphur Company furnishing you with any information they wish to give you.

It may interest you to know that we have received a letter from Stephen M. Shelton, Chief of the Metallurgical Branch of the Bureau of Mines, Albany, Oregon, requesting permission to pick up as much as 50 tons of ore in connection with their investigation of the property. We are enclosing a duplicate of this letter, should you desire to forward it to the Freeport Sulphur Company as authority from us for you to accept any information they are willing to furnish you.

Very truly yours,



RECEIVED
FEB 24 1947

STATE DEPT OF GEOLOGY &
MINERAL INDUSTRIES

February 13, 1947

Oregon Nickel Mining Company
Farmers and Merchants Savings Bank
13th & Franklin Streets
Oakland, California

Gentlemen:

Last summer this Department did some exploration work in testing certain characteristics of nickel-bearing laterites in Curry County, Oregon. During the coming summer we wish to carry on the same type of testing work in the Riddle area and this letter is a request for permission for us to put down a few shallow auger drill holes on your property.

I requested some information on a confidential basis from the Freeport Sulphur Company and was informed that this company would be glad to furnish us with a geological map of your property provided you would be willing. The map would, of course, be kept confidential and would be used only to assist us in our work and would not be for publication. The results of our work on Oregon nickel-bearing laterites will be published sometime. We are planning to get out a preliminary report on our work in Curry County in the near future.

Yours sincerely,

Director

FNL:jr

February 24, 1947

Mr. E. H. Thaele, Jr.
Freeport Sulphur Company
122 East 42nd Street
New York 17, New York

Dear Mr. Thaele:

Thank you for your letter of February 20. We are forwarding you today by express the map tube which was left in this office by Mr. Nixon.

I am enclosing copy of letter received from Mr. F. J. Early, an executor of the estate of Edson F. Adams. This letter is self-explanatory. If you have any records other than the geologic map which you would be willing to release to us on a confidential basis, of course we should be very glad to have such information and it might shortcut some of our field work.

With best regards.

Yours sincerely,

Director

FWL:jr
Encl.

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK 17, N. Y.

February 20, 1947

Mr. F. W. Libbey, Director
State Department of Geology
and Mineral Industries
702 Woodlark Building
Portland 5, Oregon


Dear Mr. Libbey:

I have no idea of what might be in the sealed map tube which was undoubtedly left in your office some time ago by Mr. Nixon. However, would you be good enough to forward it to me, express collect. Should there be anything belonging to Mr. Nixon in it, I will, of course, send it along to him.

I note from a recent news item that he has accepted a position with the Kansas State Geological Survey, but I regret to say that I have not heard from him personally since he resigned from the company.

Best wishes.

Very sincerely yours,


E. H. Thusto, Jr.

EHT:mh

RECEIVED
FEB 24 1947

STATE DEPT OF GEOLOGY
& MINERAL INDS.

April 29th 1946

Mr. LaMont West,
Freeport Sulphur Company,
PO Box 1556, Salt Lake City, Utah

Dear Mr. West:

Please refer to your letter of the 22nd regarding the box of stationery and office supplies left with us by Mr. MacAfree for Mr. Nixon.

This box was forwarded April 27th by prepaid express. If you do not receive it in due season, please advise us.

Yours very truly,

for F. W. Libbey, Director

fas/

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK 17, N.Y.

P. O. Box 1556
Salt Lake City, Utah

April 22, 1946

Mr. F. W. Libbey
Director
State Dept. of Geology & Mineral Industries
702 Woodlark Building
Portland 5, Oregon

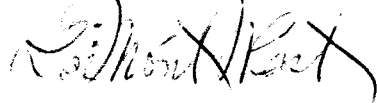
Dear Mr. Libbey:

Your letter of April 17, addressed to Dr. Ralph E. Taylor, has been brought to my attention.

We will appreciate it if you will send to this office the cardboard box containing stationery, office supplies and other items left at your office last year by Mr. Mac Afee.

We appreciate your kindness in bringing this matter to our attention.

Very truly yours



LaMont West

LMW:mnw

RECEIVED
APR 26 1946
STATE DEPT OF GEOLOGY
& MINERAL INDS

April 17, 1946

Mr. R. E. Taylor
Freeport Sulphur Company
810 Walker Bank Building
Salt Lake City, Utah

Dear Mr. Taylor:

Early last year Mr. MacAfee left a small cardboard box containing stationery and office supplies, together with a roll containing a few maps, at this office for Mr. Nixon. These packages were never taken away by Mr. Nixon and it seems to me that you would wish to have them sent to you.

If you will so advise us, we will be glad to ship them.

Yours very truly,

Director

PWL:jr

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK

810 Walker Bank Building
Salt Lake City, Utah
January 15, 1946

State Department of Geology & Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Sirs:

I am writing to advise that the Freeport Sulphur Company has changed its mailing address from 55 New Montgomery Street, San Francisco to P. O. Box 1556, Salt Lake City 11, Utah. I shall appreciate it very much if you will continue us on your mailing list, using this new address.

Yours very sincerely


R. E. Taylor

RET:jb

RECEIVED
JAN 18 1946
STATE DEPT OF GEOLOGY
& MINERAL INDS.

CLASS OF SERVICE

This is a separate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

DEPT OF GEOLOGY
MINERAL INDS.
PRESIDENT

WESTERN UNION (50)

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

SYMBOLS

DL = Day Letter
NT = Overnight Telegram
LC = Deferred Cable
NLT = Cable Night Letter
Ship Radiogram

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BG323 59 DLC=TDBG RIDDLE ORG 21 1224P

STATE DEPT OF GEOLOGY=

702 WOODLARK BLDG PORTLAND ORG=

WOULD APPRECIATE YOUR CONTACTING R N KELLOGG SENIOR ENGINEER
PRA PORTLAND AND ADVISING HIM AS FOLLOWS ROADS SERIOUSLY
DAMAGED BY HEAVY SLIDE CAN HE SHIP SMALL SHOVEL IMMEDIATELY
TO BEGIN REPAIR WORK ALSO AS MANY TRUCKS AS POSSIBLE SUGGEST
HE PHONE ME COLLECT SOON AS POSSIBLE. I HAVE NOTHING BUT
HIS POST OFFICE NUMBER AND CANNOT REACH HIM DIRECT=

FREEPORT SULPHUR CO DAVID STCLAIR.

JAN 21 1943

PRA

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

January 11, 1943

702 Woodlark Building
Portland, Oregon

Mr. David St. Clair, Geologist
Freeport Sulphur Company
Riddle, Oregon

Dear Dave:

Please tell Mr. Wilson that the property about a mile south of Glendale, the name of which I was trying to remember, is the Willis Mine and the owner is, or was, one Adeline Willis. The "mine" consists of a tunnel about 200 feet long, carrying as I recall disseminated pyrite for its entire length. I looked at it in 1938, but am advised by our Grants Pass laboratory that they do not have pulps of samples sent in that long ago. The mineralization carried no precious metals worth the name and probably little if any copper.

Ray Treasher reminds me that the Benton Mine, a gold operation closed down a few months ago, carried a lot of sulphides that he believes are copper free. I will check on that here in Portland and advise if it looks any good.

Public Roads Administration advised me that their forms and recommendations went in to Washington on your access road project on December 30. I have this morning wired Mr. Hughey B. Hudson, Chief of Access Roads Section, W.P.B., asking that he expedite this project all possible.

Sincerely yours,

Earl K. Nixon
Tech. Cons. Mats. Div.

EKN:jr

Charge to the account of

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
OVERNIGHT TELEGRAM	NIGHT LETTER
SPECIAL SERVICE	SHIP RADIOGRAM
Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.	

WESTERN UNION

1206

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

CHECK
ACCOUNTING INFORMATION
TIME FILED

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

JANUARY 12, 1943

WANT A REPLY?

"Answer by WESTERN UNION"
or similar phrases may be
included without charge.

MR. DAVID ST. CLAIR
FREEPORT SULPHUR COMPANY, RIDDLE, OREGON
(TELEPHONE RIDDLE 125)

HUDSON ACCESS ROADS CHIEF WPB WIRES QUOTE ACCESS ROAD NICKEL MOUNTAIN MINE OF FREEPORT SULPHUR WAS RECOMMENDED ON JANUARY 7 UNQUOTE. THIS MEANS PROJECT CLEARED BY ACCESS ROAD SECTION WPB AND PRESUMABLY BUT NOT NECESSARILY BY REQUIREMENTS COMMITTEE. PROBABLY NOW IN HANDS OF PUBLIC ROADS ADMINISTRATION. SUGGEST YOUR EASTERN CORRESPONDANT CONTACT MACDONALD COMMISSIONER PUBLIC ROADS PRA WASHINGTON EXPRESSING WPB DESIRE FOR SPEED.

EARL K. NIXON
TECH. CONS. MATLS. DIV.

Send Day letter - government rate
Charge to: State Dept. of Geology
702 Woodlark Building

*See Nixon
telegram to Stow
in Gen. Acc. Road
file*

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

SYMBOLS

DL = Day Letter
NT = Overnight Telegram
LC = Deferred Cable
NLT = Cable Night Letter
Ship Radiogram

A. N. WILLIAMS
PRESIDENTNEWCOMB CARLTON
CHAIRMAN OF THE BOARDJ. C. WILLEVER
FIRST VICE-PRESIDENT

A. A.

The filing time shown in the first line of a telegram is the time of filing at the point of origin. Time of receipt is STANDARD TIME at point of destination.

BG323 26=TDBG RIDDLE ORG 9 633P

1943 JAN 9 PM 6 39

EARL K NIXON=

702 Woodlark Bldg

2527 SOUTHEAST MARKET PORTLAND ORG=

PLEASE PHONE ME COLLECT RIDDLE 125 YOUR CONVENIENCE REGARDING
POSSIBILITY OUR EXPEDITING PRA ACTION THROUGH EASTERN
CONTACTS. WE HAVE LOCATED CONTRACTOR WHO CAN BEGIN WORK
IMMEDIATELY=

DAVID STCLAIR=

125 PRA=

RECEIVED
JAN 11 1943

THE UNITED STATES DEPARTMENT OF GEOLOGY
& MINERAL INDUSTRY

W6-10288 me
note sent

E-95218

TO: E. K. NIXON
FROM: W6-1040 P
DATE: 1/10/43
COTE: EC

RECEIVED
DEC 31 1942
STATE DEPT OF GEOLOGY
& MINERAL INDS.

December 30, 1942

AIR MAIL

Commissioner of Public Roads
Public Roads Administration
Washington, D. C.

Dear Sir:

Further reference is made to the PR-DA-1 proposing access construction to the Nickel Mountain Mine in Douglas County, Oregon, forwarded you with our letter of December 16. The endorsement of the Bureau of Mines has now been received, and the following documents necessary for certification are forwarded, in duplicate, accordingly:

1. Project statement
2. Preliminary Report
3. Sketch map
4. PR-DA-1 prepared by the Bureau of Mines
5. PR-DA-1 prepared by Earl E. Nixon

The number Oregon DA-EM-27 has been assigned to this project.

Since the purpose of this proposal is to provide for winter hauling and since the road is at present practically impassable, these papers are being forwarded directly to you, rather than through the Regional office, so that no delay in the start of construction will result if the project is certified.

The work is considered to be essential to the war effort and its postponement would be detrimental to the war effort. The scope of the work is considered to be the simplest consistent with providing reasonably adequate temporary service. Equipment and personnel should be available to carry on the work, either as a day labor job or as a negotiated contract, particularly during the coming winter months.

Very truly yours,

W. H. LYNCH
District Engineer

By

L. J. Caulfield
Sr. Highway Engineer

Attach.

CC - Fed. Aid
Regional office
F. H.
E. K. Nixon ✓

(COPY)

Form PR-DA-1

Place Portland, Oregon
Date December 15, 1942

District Engineer
Public Roads Administration

W. H. Lynch, District Engineer, Public Roads Administration,
Box 3900, Portland, Oregon.

Dear Sir:

The provision of access road to a source of raw materials in Douglas County, Oregon is considered to be of importance to the war effort. The raw materials source is known as Nickel Mountain Mine and is situated Sec. 17, T. 30 S., R. 6 W. Information can be obtained locally from Mr. A. A. Gustafson, Engineer of the Freeport Sulphur Co., Riddle, Oregon.

Investigation by Forest Service shows - it is believed there is over million tons of better than 1% nickel ore.

Study By Forest Service shows that 8.0 miles of betterment type road between the existing county road and summit vicinity of Nickel Mountain will be required, estimated to cost \$12,000.00.

Upon completion of the access road the property will be developed by Freemont Sulphur Company, Riddle, Oregon.

Request is made for cooperative construction, improvement by the Forest Service.

By _____	Name
_____	Title
_____	Address

The Bureau of Mines considers the proposed work to be justified by the potential production from this source of raw material.

By /s/ PAUL T. ALLSMAN, PRINCIPAL MINING ENGR.
PAUL T. ALLSMAN
FOR S. R. ZIMMERLEY, REGIONAL ENGINEER
WESTERN REGION

1600 E. 1st So. St., Salt Lake City, Utah.

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

1201

(40)

B

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

SYMBOLS

DL=Day Letter

NT=Overnight Telegram

LC=Deferred Cable

NLT=Cable Night Letter

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BG329 10=TDBG RIDDLE ORG 28 132P

1942 DEC 28 PM 1 41

EARL K NIXON, DEPT OF MINERAL INDUSTRY=

WOODLARK BLDG PORTLAND ORG=

PLEASE PHONE ME COLLECT REGARDING PROGRESS OF ROAD PROGRAM

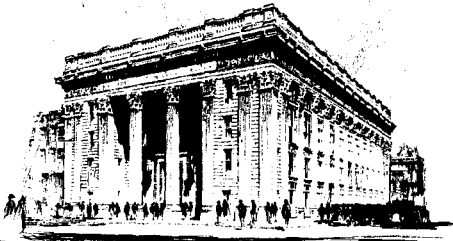
REGARDS

=DAVID STCLAIR.

RECEIVED
DEC 28 1942

STATE DEPT OF GEOLOGY
& MINERAL INDS.

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



HEAD OFFICE

ESTABLISHED 1891

THE UNITED STATES NATIONAL BANK OF PORTLAND, OREGON

CABLE ADDRESS:
"UNITBANK"

December 24, 1942.

PAUL S. DICK
PRESIDENT

Mr. E. K. Nixon, Director
State Department of Geology
and Mineral Industries,
Woodlark Building,
Portland, Oregon.

Dear Mr. Nixon:

Thanks for your thoughtfulness
in supplying me with a copy of your letter of December
23, 1942, to Mr. E. S. McClain, Manager of our Roseburg
Branch.

It is the policy of the Head
Office to encourage Branch Managers to cooperate with
the business leaders of their respective communities,
and to assist in attracting new business whenever possi-
ble. Mr. McClain is a capable, aggressive
type, and is decidedly interested in the up-building
of Douglas County.

With cordial best wishes and
the Compliments of the Season, I am,

Sincerely,

D H

President.

*Noted Mt
Access Rd.*

RECEIVED
DEC 26 1942
STATE DEPT OF GEOLOGY
& MINERAL INDS.

7

December 23, 1942

Mr. E. S. McClain, Manager
The U. S. National Bank
Roseburg, Oregon

Dear Mr. McClain:

Thank you for your letter of December 17. I am pleased to note that you are interested in furthering the program of the Freeport Sulphur Company in their exploration of the Riddle nickel property.

Might advise you that I discussed the predicament from the road angle of the Freeport people with their president in New York on November 25 and promised at that time to see what I could do about Federal aid toward road repairs. On returning here I sponsored, as a representative of the War Production Board, a road maintenance project estimated to cost about \$12,000 and got the project on its way east about a week ago.

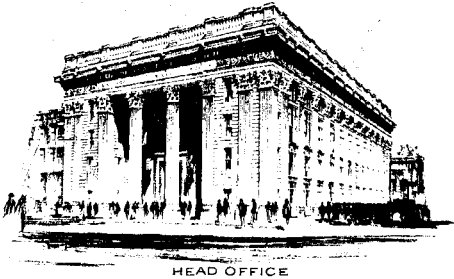
Under the circumstances then, the matter you bring to my attention has been taken care of in as satisfactory a way as I know how, although I am sure you will find it will be some little time on account of fed tape before the project is approved. I should say it will be some time in January, 1943.

Your interest in calling this road matter to our attention nevertheless warrants favorable comment on our part, and we want you to know that this Department is ready at all times to give ear to responsible parties interested in furthering mining development of the State.

Cordially yours,

Director

EKN:jr
cc Mr. Paul Dick



HEAD OFFICE

ESTABLISHED 1891

THE UNITED STATES NATIONAL BANK OF PORTLAND, OREGON

CABLE ADDRESS:
"UNITBANK"

ROSEBURG BRANCH
ROSEBURG, OREGON

December 17, 1942

RECEIVED
DEC 21 1942
STATE DEPT OF GEOLOGY
& MINERAL IND.

Mr. Earl Nixon
State Department of Mines
Salem, Oregon

Dear Sir:

You are doubtless aware that the Freeport Sulphur Company has been expending considerable money in the southern part of Douglas county in preliminary work looking toward the possible establishment of a nickel mine.

It is understood that they now have three diamond drills operating on the property but that they have had some difficulty getting material and supplies in because of the condition of something in the neighborhood of five miles of road which leads to the property from Riddle. The road has been abandoned by the county, and efforts to have the county assist either through the lending of equipment or direct maintenance have been unsuccessful. The company has, therefore, had to spend considerable of its own funds in order to keep the road in condition for use.

Having in mind the expensive work being done by the Public Roads Administration in the Coquille area in connection with chrome, it has occurred to me to inquire upon what basis the company might be able to secure assistance on this small stretch of road. If you care to write to me in a general way along these lines I can refer the company to you if there appears to be any opportunity for working out something which would be practical. It seems that this is something in which the government might be interested as every bit of time which the company must give to maintaining the road detracts from its prospecting efforts, and if the prospect should develop satisfactorily the subsequent necessity for constructing roads would delay the actual operation of a mine.

Yours very truly,


H. S. McClain
Manager

ESM:EB

WAR PRODUCTION BOARD

WASHINGTON, D. C.

December 23, 1942.

IN REPLY REFER TO:

Mr. Earl K. Nixon,
702 Woodlark Building,
Portland, Oregon.

My dear Mr. Nixon:

With reference to your telegram of December 12 concerning Freeport Sulphur Company's Oregon nickel exploration, this is to advise that we have submitted this matter to the proper authorities, but they are unable to give us the necessary information at this time but will advise us just as soon as they can secure this information.

Sincerely yours,



H. B. Hudson, Chief,
Access Roads Section.

RECEIVED
DEC 30 1942

STATE DEPT OF GEOLOGY
& MINERAL INDS.



Charge to the account of

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
OVERNIGHT TELEGRAM	NIGHT LETTER
SPECIAL SERVICE	SHIP RADIOGRAM

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WESTERN UNION

1206

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

CHECK
ACCOUNTING INFORMATION
TIME FILED

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

DECEMBER 12, 1942

WANT A REPLY?

"Answer by WESTERN UNION"
or similar phrases may be
included without charge.

DR. WILBUR A. NELSON, ADMINISTRATOR
MINING BRANCH, WAR PRODUCTION BOARD
TEMPORARY R BUILDING, WASHINGTON, D.C.

PLEASE CONSIDER THEN CONVEY FOLLOWING TO NICKEL CHIEF FOR IMMEDIATE ACTION IF JUSTIFIED. FREEPORT SULPHUR HAVE SPENT PROBABLY THIRTY FORTY THOUSAND OREGON NICKEL EXPLORATION. NOW USING THREE DRILLS AND ADDING ANOTHER. COMMITTED TO SPEND ADDITIONAL FIFTY THOUSAND APPROXIMATELY IN LIGHT PRESENT RESULTS. GEOLOGICAL SURVEY ESTIMATES SIX MILLION TONS ONE TO TWO PERCENT NICKEL. FREEPORT ENDEAVORING INCREASE TONNAGE: WEATHER CONDITIONS SNOW RAIN RENDERING EIGHT MILE ROAD IMPASSABLE. PRA ESTIMATES TWELVE THOUSAND DOLLARS GRAVEL AND MAINTAIN. PERSONALLY RECOMMEND IMMEDIATE EXPENDITURE BUT DESIRE REACTION NICKEL SECTION RETURN WIRE. IF FAVORABLE WILL START ROAD PROJECT DETAILS. HAVE NO WORD ON ANYTHING FROM ACCESS ROAD SECTION SINCE I LEFT WASHINGTON.

EARL K. NIXON
TECH. CONS. MATLS. DIV., W.P.B.

Nickel Mt.

Send Night Letter - government rate
Send COLLECT

Portland, Oregon
December 15, 1942

Mr. W. H. Lynch, District Engineer
Public Roads Administration
Box 3900
Portland, Oregon

E. K. N. Copy

Dear Sir:

The provision of an access road to a source of raw materials in Douglas County, Oregon, is considered of importance to the war effort. The raw materials source is known as the Nickel Mountain Mine and is situated in Sec. 17, T. 30 S., R. 6 W., W. M. Information can be obtained locally from Mr. A. A. Gustafson, engineer of the Freeport Sulphur Company, Riddle, Oregon.

Investigation by _____
(U.S. Bureau of Mines-Geo. Survey)
showed _____

(Information as to ore, content, extent, etc.)

Study by the Public Roads Administration shows that 8.0 miles of betterment construction between the existing county road and summit vicinity of Nickel Mountain will be required, estimated to cost \$12,000.00.

Request is made for construction by the Public Roads Administration.

/s/ E. K. NIXON

Tech. Cons. Mtls. Div.
War Production Board

The _____ considers
(Bureau of Mines-Geo. Survey)
the proposed work to be justified by the potential production from this source of raw material.

(Name)

(Title)

C
O
P
Y

WAR PRODUCTION BOARD

Washington, D.C.

December 5, 1942

702 Woodlark Building
Portland, Oregon

Mr. W. H. Lynch, District Engineer
Public Roads Administration
Postal Building
Portland, Oregon

Dear Mr. Lynch:

Subject: Riddle nickel access road

I wish to request that you take whatever action is necessary to initiate an access road project for maintenance or improvement of a road near Riddle, Oregon, southwest of Roseburg, that leads to what is known as the Riddle nickel deposit. I am not concerned with who officially sponsors the road, whether it is I or Freeport Sulphur Company or who. I am merely anxious to get some action on it.

The situation is as follows: There is no production of virgin nickel in the United States. The Oregon deposit near Riddle is described to me by Dr. D. F. Hewitt of the U. S. Geological Survey as one of only two or three known deposits in the United States that may have a chance for commercial production. The Freeport Sulphur Company became interested in this deposit a year ago this month and started active development as soon as a contract or lease was completed which was early this season. They have been developing with one drill and I recently learned, while visiting their New York office last week, they are adding one or two drills in order to expedite the work. If you are not familiar with the Freeport Company, I might say that they are one of the two largest producers of sulphur in the United States and a very large producer of manganese from their Cuban operations, and they are now engaged in building a very large nickel plant in Cuba with U. S. Government funds. I should say that assistance on a road to their exploration is indeed justified.

I have just received a letter from Mr. A. A. Gustafson, engineer with the Freeport Company and whose address is Box 160, Riddle, Oregon, indicating that the company is carrying on some road work with two teams and two trucks as the road has been quite impassable. I have agreed to look into the question of obtaining some assistance through the access road arrangement and that is my reason for writing you. I hope you will be able to have an engineer make an estimate of the amount of gravel or work that is necessary to permit the nickel exploration to carry on satisfactorily. Your engineer should contact Mr. Gustafson at Riddle.

The exploration is located on what is known as Nickel Mountain, seven or eight miles of Riddle and is not in the U. S. Forest Service area so far as I know. Gustafson states that the County authorities have been unable to give them any assistance for lack of funds. I had suggested that they obtain the estimate of a County road engineer but apparently that cannot be done.

The maintenance or betterment in question at the present stage of development of the nickel deposit should be merely enough to permit the Freeport people to get out and in in connection with their drilling. Later if it should happen that conditions justify the building of a plant, a thorough job of the road building can be considered.

Thanking you, I am,

Very truly yours,

/s/ Earl K. Nixon
Tech. Cons. Matls. Div.

EKN:jr
cc H. G. Iverson
cc Forest Service

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK

Box 160
Riddle, Oregon
December 11, 1942

Mr. Earl K. Nixon
702 Woodlark Building
Portland, Oregon

Subject: Riddle access road

Dear Mr. Nixon:

In accordance with the request contained in your letter of December 7 to Mr. Lundy, we are submitting herewith our estimate of the cost of graveling and repairing the road to the upper workings on Nickel Mountain. The estimate also includes the cost of building and surfacing about one additional mile of road to the summit of the mountain. This additional mile is required in order that we may reach all favorable ground with our drills and trucks. During the past five months we have maintained a crew of men on the mine road during a large part of the time and, for the past month, we have had a gravel truck and two teams of horses at work in an attempt to keep the road in passable condition. From the point at which the road branches off the county road to the upper workings, the distance is about seven and one-half miles and, of this distance, we have now graveled approximately one and one-half miles. Our estimate for putting the remainder of the road in condition is attached.

Mr. McMullen of the Public Roads Administration visited us on Wednesday in company with Mr. Harpham of the Forest Service, and he assured me that the P.R.A. was going to take some immediate action with regard to our problem.

We appreciate the steps you have taken to get this matter under way and wish to take this opportunity to thank you for the cooperation you have continued to give us during our prospecting at Riddle.

With kindest personal regards, I am

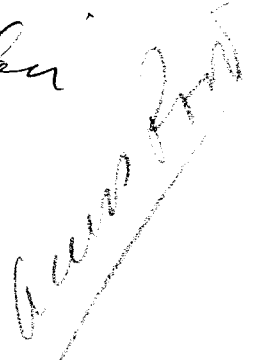
Yours very truly,



David St. Clair

DS:ptl

cc: Mr. Lundy
Mr. Gustafson



ROAD ESTIMATE

Graveling:

6 miles, 6000 yards gravel, \$1.25 \$ 7500

Ditching, widening and cleaning landslides: 1000

Culverts:

25 - Material, \$15.00; Labor, \$30.00 1125

Turnouts:

25 at \$25.00 625

New Road:

1 mile
Graveling 1250
Bulldozing 750

\$12250

Moving in, Supervision: 1000

Contingencies - 10%: 1325
\$14575

Cost of gravel if charged for by County:

7000 yards at \$.35 2450

Total: \$17025

December 5, 1942

702 Woodlark Building
Portland, Oregon

Mr. W. H. Lynch, District Engineer
Public Roads Administration
Postal Building
Portland, Oregon

Dear Mr. Lynch:

Subject: Riddle nickel access road

I wish to request that you take whatever action is necessary to initiate an access road project for maintenance or improvement of a road near Riddle, Oregon, southwest of Roseburg, that leads to what is known as the Riddle nickel deposit. I am not concerned with who officially sponsors the road, whether it is I or Freeport Sulphur Company or who. I am merely anxious to get some action on it.

The situation is as follows: There is no production of virgin nickel in the United States. The Oregon deposit near Riddle is described to me by Dr. D. F. Hewitt of the U. S. Geological Survey as one of only two or three known deposits in the United States that may have a chance for commercial production. The Freeport Sulphur Company became interested in this deposit a year ago this month and started active development as soon as a contract or lease was completed which was early this season. They have been developing with one drill and I recently learned, while visiting their New York office last week, they are adding one or two drills in order to expedite the work. If you are not familiar with the Freeport Company, I might say that they are one of the two largest producers of sulphur in the United States and a very large producer of manganese from their Cuban operations, and they are now engaged in building a very large nickel plant in Cuba with U. S. Government funds. I should say that assistance on a road to their exploration is indeed justified.

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(over)

authorities have been unable to give them any assistance for lack of funds. I had suggested that they obtain the estimate of a County road engineer but apparently that cannot be done.

The maintenance or betterment in question at the present stage of development of the nickel deposit should be merely enough to permit the Freeport people to get out and not in connection with their drilling. Later if it should happen that conditions justify the building of a plant, a thorough job of the road building can be considered.

Thanking you, I am,

Very truly yours,

Earl K. Nixon
Tech. Cons. Matls. Div.

EKN:jr
cc H.G. Iversen
cc Forest Service

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK

RECEIVED
DEC 5 1942

STATE DEPT OF GEOLOGY
& MINERAL INDS.

Box 160
Riddle, Oregon
December 4, 1942

Mr. Earl K. Nixon
702 Woodlark Building
Portland, Oregon

Dear Mr. Nixon:

I have just had a letter from our Mr. Thaete in regard to your visit to our New York office in which he refers to the possibility of obtaining aid on the eight miles of road to Nickel Mountain which we are now endeavoring to keep in good enough shape so that we will not have to discontinue prospecting before the winter is over. Most of the time we have spent on road work to date has been on the section of road leading up to the property. Besides a number of men, we now have two teams and two trucks working on this road.

I note in Mr. Thaete's letter that you would have to have a formal estimate for the county engineers of the cost of road work and maintenance. Since the county's response to date has been entirely negative and since we have been informed that they abandoned this road in 1927, I believe it would be best if you could request the estimate from the county engineers instead of us. If it would be sufficient to take our estimate, I believe we could furnish as accurate an estimate as the county engineers might give you and much more quickly. If there is a possibility of obtaining this aid, it would be desirable to have same as soon as possible as it would not be practical for us to stop our road work while waiting for another crew to move in. Please advise us if you have taken any action on this road work and, if not, advise the steps necessary by us to initiate same.

I also understand it may be possible to have the Bureau do some geophysical work.

Yours very truly,

A. A. Gustafson

A. A. Gustafson

AAG:ptl

June 18, 1943

Mining Division
Serial No. Section
Room 1419
Tempo. B

REGISTERED

Freeport Sulphur Company
122 E. 42nd Street
New York, New York

Gentlemen:

On recommendation of Mr. A. M. Dixon, Regional Technical Advisor for the state of Oregon, we are cancelling serial number 33-65 assigned your prospecting operations at Nickel Mountain, Riddel, Oregon. Please return to this office the certificate showing the above mentioned number.

If you have received an authorisation for a quota assignment, please return this also to the Mining Division, Washington, D. C.

Yours very truly,

A. S. Knoisen
Director
Mining Division

RFI:AN:ej

cc: Mr. A. M. Dixon
Mr. Earl K. Nixon

October 16, 1942

Mr. David St. Clair
Freeport Sulphur Company
Box 190
Grants Pass, Oregon

Dear Mr. St. Clair:

Receipt is acknowledged of your letter dated October 15 and concerned with priority matters.

It has been very difficult for this office to keep abreast of the various amendments and revisions relating to the original Order P-56 under which mine serial numbers are in force. The object of having a State Emergency Coordinator of Mines originally was to certify mining operations to the Mining Branch of the War Production Board in order that these mining operations could receive mine serial numbers and be allowed to operate under Order P-56. It was never clearly outlined that this office was to give advice on priority matters but we have endeavored to do this to the best of our ability. You can readily see that in order to do this efficiently, it would be necessary for us to receive copies of orders and amendments together with interpretations promptly and completely from the Mining Branch of the War Production Board. We have not always received these orders, but I will try to explain the questions raised in your letter, although I am not entirely sure that I am up-to-date.

Supposedly when you obtain the rating of A-1-c and A-1-a in order to purchase special equipment, the Mining Branch of the War Production Board grants an authorization number to cover the particular purchase. I rather feel, however, that in some cases I have known about recently, the authorization number was not issued and yet the Mining Branch granted the preference rating to the miner.

As far as making reports on PD-119 is concerned, you should report all rated purchases made under their various ratings such as A-1-a, A-1-c, et cetera. If an authorization number was obtained for a special purchase, the number should be reported. If you made a purchase under a priority rating but without obtaining an authorization number, the blank covering authorization number could be left open or the words "no number received" inserted.

Referring to the material sent you by Mr. Bergesch of the Divisional Office in Portland, I think that there are other amendments which you should have. I suggest that you write to Dr. Wilbur A. Nelson, Chief, Mining Branch, War Production Board, Washington, D.C., stating that you have received copy

(over)

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK

Box 190
Grants Pass, Oregon
October 15, 1942

Mr. Earl K. Nixon
702 Woodlark Building
Portland, Oregon

Dear Mr. Nixon:

I am sorry that we overlooked the clause in Preference Rating Order P-56 requiring us to make out a monthly report on Form PD-119. You will find enclosed our reports for the months of August and September.

As I advised you in a wire on October 12, we apparently have not received an authorization number from the War Production Board. As I understand it, this number is given by the Board for specific purchases only on orders covered by Preference Ratings A-1-a and, in certain instances, A-1-c. However, I note that Form PD-119 requires an authorization number even for orders covered by Preference Rating A-8. It appears, therefore, that I do not know all I should about the matter. The material sent us by Mr. Bergesch of the War Production Board consisted only of a copy of Preference Rating Order P-56, together with Interpretation No. 1 and Amendment No. 2. This literature does not contain a reference to authorization numbers.

I note that certain purchases under A-1-c may only be obtained under a quota which apparently must be authorized by the Director of Industry Operations. We have no information on hand as to the precise steps which must be taken in order to obtain this authorization. In view of the fact that we are not now actually producing at Riddle but are simply engaged in prospecting, it would appear that we have no basis for obtaining a quota rating unless the company's production of sulphur and manganese will apply to our present prospecting campaign on Nickel Mountain. I hope that the latter is the case, because we shall undoubtedly require an occasional A-1-c rating from time to time.

If you could supply me with some specific literature and information on the question of authorization numbers and on whatever else would appear to you to be relative, the favor would be appreciated.

Yours very truly,

RECEIVED
OCT 16 1942

STATE DEPT OF GEOLOGY
& MINERAL INDS.

David St. Clair

David St. Clair

DS:ptl
Encs:-2

October 13, 1942

Mr. David St. Clair
Fraserport Sulphur Company
Kiddie, Oregon

Dear Mr. St. Clair:

Receipt is acknowledged of your telegram reading as follows: "Re form PD-119 do not believe we received authorization number from WPB. Please advise necessary steps obtain this number. Regards."

It is not clear to me just what you mean by an authorization number in relation to Form PD-119. The latter is a form for making monthly reports of rated purchases made to the office of the State Coordinator of Mines. Under the last regulations that we have seen, an authorization number was the number given to a producer to cover a special request for a high priority rating. For instance, if a producer required a piece of equipment at once and telegraphed his request to the Mining Branch, an authorization number for that piece of equipment was granted the producer. This number could be used only for that particular order.

It is possible that you mean mine serial number. We have been informed by the Mining Branch of the War Production Board that your operation was given mine serial number 33-65 allowing you to operate under Order P-56. You should have been so notified and should have received copies of the various orders and amendments necessary to enlighten you how to proceed in using priorities allowed you. If such is not the case, please let us know.

Very truly yours,

Earl K. Nixon
Oregon Emergency Coordinator
of Mines

FWL:KKN:jr



PACIFIC TELEGRAM



CLASS OF SERVICE

Full Rate

Day Letter

SYMBOL
DAY L

Night Letter

SYMBOL
N L

IF NEITHER OF THE TWO SYMBOLS SHOWN ABOVE APPEARS AFTER THE CHECK (NUMBER OF WORDS) THIS IS A FULL RATE TELEGRAM. OTHERWISE ITS CHARACTER IS INDICATED BY THE SYMBOL APPEARING AFTER THE CHECK.

RIDDLE 6 20 RIDDLE OREGON OCT 12 1942 355P

EARL K NIXON

702 WOODLARK BLDG PORTLAND ORE

REFORM PD 119 DO NOT BELIEVE WE RECEIVED AUTHORIZATION NUMBER FROM
WPB. PLEASE ADVISE NECESSARY STEPS OBTAIN THIS NUMBER. REGARDS.

FREEPORT SULPHUR CO DAVID STCLAIR

RECEIVED
OCT 13 1942
STATE DEPT OF GEOLOGY
& MINERAL INDS.

READ TO: EARL K NIXON
AT TELEPHONE NO. BRY 2276
BY OPERATOR 241 TIME 425P

Earl K. Nixon
Oregon Emergency Coordinator
of Mines

FRL: EKH: jr

August 3, 1942

Mr. David St. Clair
Freeport Sulphur Company
Box 190
Grants Pass, Oregon

Dear Mr. St. Clair:

We are just in receipt of a telegram from the
Administrator, Mining Branch, War Production Board
stating that mine serial number 33-65 has been issued
to the Freeport Sulphur Company for nickel operations
in Oregon. Certificate was mailed to 122 East 42nd St.,
New York City.

Sincerely yours,

Earl K. Nixon
Oregon Emergency Coordinator
of Mines

FWL:EKN:jr

OF SERVICE

This is a full-rate telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

1201

SYMBOLS

DL=Day Letter

NT=Overnight Telegram

LC=Deferred Cable

NLT=Cable Night Letter

Ship Radiogram

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

CA558 GOVT TWS PAID 3=TDC WASHINGTON DC 3 6158 042 AUG 3 PM 16

EARL K NIXON, EMERGENCY COORDINATOR OF MINES:

=702 WOODLARK BLDG PORTLAND ORG:

=RETEL SERIAL NUMBER THREE THREE DASH SIX FIVE UNDER
MINE PREFERENCE RATING ORDER P-56 HAS BEEN ISSUED
FREEPORT SULPHUR COMPANY FOR NICKEL OPERATIONS IN OREGON
AND CERTIFICATE MAILED TO 122 EAST 42ND STREET NEWYORKCITY=
WILBUR A NELSON ADMINISTRATOR OF MINING BRANCH
WAR PRODUCTION BOARD.

P-56 122 42.

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
OVERNIGHT TELEGRAM	NIGHT LETTER
SPECIAL SERVICE	SHIP RADIOGRAM

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

WESTERN UNION

1206

CHECK
ACCOUNTING INFORMATION
TIME FILED

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

WANT A REPLY?
"Answer by WESTERN UNION"
or similar phrases may be
included without charge.

702 Woodlark Bldg.
Portland, Oregon
August 1, 1942

DAVID ST CLARE
FREEPORT SULPHUR CO
RIDDLE OREGON

APPLIED MINES SERIAL NUMBER JUNE NINTH. FIRING ADMINISTRATOR MINING BRANCH
TODAY ASKING SERIAL NUMBER BE ISSUED WITHOUT DELAY.

EARL K. NIXON

EKN:ac
Send Collect

TELEGRAM		CABLE	
DAY	LETTER	ORDINARY	URGENT
SERIAL		DEFERRED	RATE
OVERNIGHT	TELEGRAM	NIGHT	LETTER
SPECIAL	SERVICE	SHIP	RADIOGRAM

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

WESTERN UNION

1206

CHECK
ACCOUNTING INFORMATION
TIME FILED

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

WANT A REPLY?

"Answer by WESTERN UNION"
or similar phrases may be
included without charge.

702 Woodlark Bldg., Portland, Oregon
August 1, 1942

DR. WILBUR A. NELSON, ADMINISTRATOR
MINING BRANCH, PRIORITIES DIVISION
WAR PRODUCTION BOARD
WASHINGTON, D. C.

REFER MY LETTER JUNE NINTH REQUESTING SERIAL NUMBER FREEPORT SULPHUR CO. BOX 190 GRANTS PASS ORE. MY LETTER STATES THIS COMPANY EXPLORING NICKEL DEPOSIT RIDDLE ORE REQUIRES PRIORITY ASSISTANCE. THIS OPERATION VERY IMPORTANT WAR PROGRAM. BELIEVE YOU SHOULD ISSUE SERIAL NUMBER WITHOUT DELAY. ADVISE.

EARL K. NIXON

EKN:FWL:ac
Send Dayletter
Federal Gov't rate Collect

full-rate
gram or Cable-
gram unless its de-
ferred character is in-
dicated by a suitable
symbol above or pre-
ceding the address.

WESTERN UNION

1201

SYMBOLS

DL=Day Letter

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NLT=Cable Night Letter

Ship Radiogram

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

BG331 31/30=TD BG RIDDLE ORG 31 454P

EARL K NIXON=

DIRECTOR STATE DEPT OF MINERALS INDUSTRY WOODLARK 67
BLDG PORTLAND ORG=

URGENTLY NEED PRIORITY RATING. JAMES DOUGLAS CHIEF METAL
SECTION WPB WASHINGTON ADVISES OUR APPLICATION FOR RATING
UNDER P-56 NOT RECEIVED CAN YOU CLARIFY PLEASE WIRE OR
PHONE COLLECT 125 RIDDLE=

FREEPORT SULPHUR CO DAVID STCLAIR.

WPB P-56. 125.

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

is a full-rate telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

(24)

1942 JUN 30 PM 4 47

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE PRESIDENT

SYMBOLS

DL = Day Letter

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NLT = Cable Night Letter

Ship Radiogram

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

SKA374 23 GOVT DLC 4 EXTRA=TDC WASHINGTON DC 30 6 07P

EARL K NIXON=

EMERGENCY COORDINATOR OF MINES PORTLAND ORG=

RETEL SERIAL NUMBER THREE THREE DASH SIX FIVE HAS BEEN
ASSIGNED FREEPORT SULPHUR COMPANY AND CERTIFICATE MAILED JUNE
SEVENTEENTH=

WILBUR A NELSON ADMINISTRATOR OF MINING BRANCH WAR
PRODUCTION BOARD.

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

	OTHERWISE FULL RATE	
	FOREIGN	
	FULL RATE	
DAY LETTER	CDE RATE	
NIGHT LETTER	URGENT	
SERIAL	DEFERRED	
RESERVATION	NIGHT LETTER	
YOUR-RATE	SHIP RADIO	

Postal Telegraph

Mackay Radio
Commercial Cables



All America Cables
Canadian Pacific Telegraphs

CHARGE ACCOUNT NUMBER	
CASH NO.	TOLLS
CHECK	
TIME FILED	(STANDARD TIME)

Form 2

Send the following message, subject to the Company's rules, regulations and rates set forth in its tariffs and on file with regulatory authorities

JUNE 29, 1942

DR. WILBUR A. NELSON, ADMINISTRATOR
MINING BRANCH, PRIORITIES DIVISION
WAR PRODUCTION BOARD
ROOM 1035, TEMPORARY R BUILDING
WASHINGTON, D.C.

REFER OUR LETTER JUNE NINE GIVING INFORMATION CONCERNING FREEPORT SULPHUR COMPANY'S OREGON EXPLORATION TO DEVELOP NICKEL ORE. HAVE WORD COMPANY HAS NOT RECEIVED SERIAL NUMBER AND NEED ONE IN ORDER TO EXPEDITE DRILLING CAMPAIGN. CONSIDER THIS COMPANY'S PROGRAM ONE OF THE MOST IMPORTANT IN THIS STATE. BELIEVE YOU SHOULD GRANT SERIAL NUMBER PROMPTLY.

Send Night Letter
Send Government Rate
Send COLLECT

EARL K. NIXON
OREGON EMERGENCY COORDINATOR OF MINES

is a full-rate telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

1201

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILKINSON
FIRST VICE PRESIDENT

SYMBOLS
DL = Day Letter
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Ship Radiogram

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination.

PZ43 20/19 XC=GRANTSPASS ORG 29 201P

1942 JUN 29 PM 2 22

EARL K NIXON=

702 WOODLARK BLDG PORTLAND ORG=

HAVE NOT YET RECEIVED P-56 PRIORITY RATING. WILL APPRECIATE ANY ASSISTANCE YOU CAN GIVE US IN EXPEDITING MATTER. REGARDS=

DAVID STCLAIR.



RECEIVED
JUN 29 1942

STATE DEPT OF GEOLOGY
& MINERAL INDS.

Letter to W.A.N June 9 -
Giving info re Frequent

Frederick S. Sullivan

WESTERN UNION

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

806 Bedell Building
Portland, Oregon

June 6, 1942

Mr. David St. Clair
Freeport Sulphur Company
Box 190
Grants Pass, Oregon

Dear Mr. St. Clair:

At the request of Mr. Earl K. Nixon, Coordinator of Mines for the State of Oregon, we enclose herewith PD-1A form which we suggest you complete and mail as directed under the general instructions.

Will you kindly read it carefully and follow the instructions so that your application will not be delayed.

When listing material for which a rating is requested, do not use the words, "immediately", or any such relative term, but be definite and state when the material is required.

Very truly yours,

J. Fred Bergesch
PRIORITIES DISTRICT MANAGER
Bureau of Field Operations

Enclosure
PD-1A
cc Mr. Nixon

JFM:Indoesal

June 5, 1942

Mr. J. Fred Bergesch
Divisional Priorities Office
Bedell Building
Portland, Oregon

Dear Mr. Bergesch:

Will you please forward copies of form PD-1-a direct to Mr.
David St. Clair, Freeport Sulphur Co., Box 190, Grants Pass,
Oregon.

Thanking you, I am,

Yours very truly,

Earl K. Nixon, Oregon Emergency
Coordinator of Mines

FWL:EKN:ac

June 5, 1942

Mr. David St. Clair
Freeport Sulphur Co.
Box 190
Grants Pass, Oregon.

Dear Mr. St. Clair:

Your letter dated June 3rd and concerned with priority matters has been received. This office has nothing to do with assigning priority ratings for various equipment and supplies. Our work is in supplying certain required information concerning a mining operation to the Administrator, Mining Branch, War Production Board, Washington, D. C., who then decides from the information supplied whether or not such operation shall receive a serial number which allows referred priority ratings under order P-56.

I am inclosing a form specified by the Administration, which please fill out and return to this office. It would be to your advantage to supply any additional information you can bearing on your proposed exploration for strategic minerals.

Referring to your immediate need for the sheet iron, the proper procedure would be (assuming that an A-10 rating would not be sufficient) to fill out form PD-1-a and submit it to Dr. Wilbur A. Nelson, Administrator, Mining Branch, W.P.B., Washington, D. C. I am requesting Mr. Bergesch of the divisional office of W.P.B. to forward the PD-1-a forms to you today.

As to the A-10 rating, this is allowed you under order P-100 designed for those operators who cannot qualify under order P-56. You will note that in order to apply the A-10 rating, it is necessary only to use the formal endorsement on your purchase orders as given on Page 2. Copy of P-100 is enclosed.

Yours very truly,

Earl K. Nixon, Oregon Emergency
Coordinator of Mines

PWL:EKN:ac

FREEPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK

Box 190
Grants Pass, Oregon
June 3, 1942

Mr. Earl K. Nixon
702 Woodlark Building
Portland, Oregon

Dear Mr. Nixon:

Mr. Bergesch of the War Production Board has advised us that you are in charge of assigning priority ratings for mining operations in Oregon. We shortly expect to receive word to go ahead with our proposed drilling campaign in this area, and we are therefore interested in learning the procedure necessary for obtaining a priority rating.

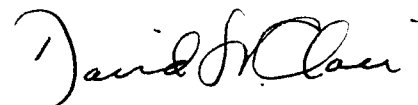
An item which we wish to obtain an immediate rating on is as follows:

5 sheets of 16 gauge black iron, 48" x 96".

This metal will be used for making drying pans for drill samples.

Any information you can supply us on general procedure will be appreciated.

Kindest personal regards,



David St. Clair

DS:ptl

14 JUN 5 1942
STATE DEPT OF COMMERCE
& MINERAL INDUSTRY

DS:ptl
Enc:-1

David St. Clair

FREEMPORT SULPHUR COMPANY

122 EAST 42ND STREET

NEW YORK 17, N.Y. June 26, 1950

Mr. F. W. Libbey, Director
State Department of Geology and
Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Libbey:

In Mr. Thaete's absence I am acknowledging receipt of your letter of the 19th.

Mr. Thaete will return to the office next week and your letter will then be brought to his attention.

Sincerely, yours,

Frances Swanton
Frances Swanton
Secretary to Mr. Thaete

RECEIVED
JUN 27 1950

STATE DEPT. OF GEOLOGY
& MINERAL INDS.

February 1, 1947

Mr. Langbourne M. Williams, Jr., President
Freeport Sulphur Company
122 East 42nd Street
New York City, New York

Dear Mr. Williams:

Last summer our Department did some work on nickel-bearing laterites in Curry County, Oregon, and we are planning to continue the investigation during the coming summer. We should like to do some work in the general area of Nickel Mountain, Douglas County, and I am wondering if your company would be willing to give us a print of a geologic map of your holdings on Nickel Mountain. We would, of course, consider the map confidential and it would be used solely for the purpose of assisting us in field work.

We should also like to have your permission to obtain some auger hole samples of the laterite which occurs on your property. We would not be able to do extensive sampling but we have in mind comparing samples of the laterite in your area with those obtained in Curry County.

Yours sincerely,

Director

FWL:jr

The Hanna Mining Company
Riddle, Oregon 97469

June 6, 1968

Mr. Len Ramp
Dept. of Geology
521 NE "E" Street
Grants Pass, Oregon 97526

Dear Len:

Enclosed find property map of Mine area.
The area controlled by Hanna is outlined in red
and the proposed area for acquisition has been
colored blue.

Please keep this map in confidence.

Very truly yours,

THE HANNA MINING COMPANY

C. A. Dowd

C. A. Dowd
Mineral Properties

CAD:clb

cc EJM

Len: We are mailing under separate cover

The blown up Topo maps of Sec. 17, 19, 20 & 21.

C. A. Dowd

Len Rump



HATCH ASSOCIATES CONSULTANTS, INC. CONSULTING ENGINEERS

**HATCH
ASSOCIATES**

8th Floor, Rand Bldg., 14 Lafayette Square
Buffalo, New York 14203
Telephone (716) 853-7800
Telex 91-593

May 19, 1987

Mr. G. Anthony Kuhn
Executive Director
C.C.D. Business Development Corporation
744 S.E. Rose Street
Roseburg, Oregon 97470

Dear Mr. Kuhn:

This is in response to your request for a formal proposal covering an "Alternative Use Study" for the smelter located at Nickel Mountain owned by the M.A. Hanna Company of Cleveland, Ohio. The objective of this study will be to identify ways by which the assets of the smelter plant can be used to create jobs.

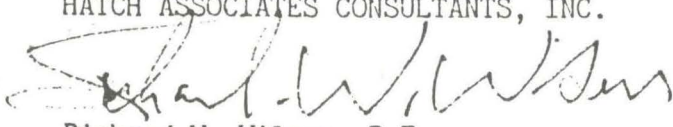
The alternative use concepts included in the scope of work of this proposal have not been prioritized. Some of these concepts could require a very long time to implement. For example, the concept of producing ferrochrome from black sands will require a full scale feasibility study aside from whether or not the subject smelter is utilized in the eventual process. It is apparent from your letter to Mr. Welsh of M.A. Hanna Company that we have a serious time constraint and therefore we should give first priority to those concepts that can be implemented in the shortest possible time.

Members of our study team will be available to meet with you and other interested parties during the course of the project. It may be that we will be able to identify prospective investors for certain concepts and they can be contacted even before the study is completed.

We are very optimistic that the proposed project will yield positive results. It was obvious during our visit that we will be working with a highly motivated group of people and we look forward to seeing the project to a successful conclusion.

Yours very truly,

HATCH ASSOCIATES CONSULTANTS, INC.


Richard W. Wilson, P.E.
President

RWW/ml
Enclosure



STATE OF OREGON

INTEROFFICE MEMO

TO: **LEN RAMP**, 312 S.E. "H" St.
P.O. Box 417
Grants Pass, OR 975226

DATE: **AUGUST 11, 1988**

FROM: **DON HULL**

SUBJECT: **HANNAH NICKEL SMELTER SLAG AT RIDDLE, OREGON**

I am attempting to locate analytical information on the chemistry of the slag piles at the Hannah nickel smelter near Riddle. Could you please send any file information that you may have directly to Barry Harrington, Division Manager, Cojon Corporation, 11917 N.E. 95th Street, Vancouver, WA 98685 (206-892-8988). Please treat his interest in this matter as confidential.

cc: Barry Harrington

hull11/ramp8-11
81188/ch

bcc: Ron Geitgey
Jerry Gray

*Copy of Info Sent
8/18/88*

CONFIDENTIAL

The Hanna Mining Company
Riddle, Oregon 97469

November 22, 1966

Mr. Hollis Dole
Department of Geology & Mineral Industries
1069 State Office Building
Portland 1, Oregon

Dear Hollis:

Having read with interest your temporary draft of a mining lease between the State of Oregon and Harlow Wright, Inc., here are some suggestions for what they are worth.

Referring to paragraph (7) I'm wondering how gross value of the ore will be established? Probably this will be established between an ore buyer and a mining company.

Below is a tabulation of an escalated rate scale used in one case to determine gross value of shipped ore.

TABLE

<u>Ore Grade</u> <u>% Ni</u>	<u>Price Per</u> <u>Pound</u>	<u>Lbs. Ni</u> <u>Per Ton</u>	<u>Value</u> <u>Per Ton</u>	<u>5% Royalty</u> <u>Per Ton</u>	<u>4% Royalty</u> <u>Per Ton</u>
1.00	\$.1375	20.0	\$ 2.75	\$.1375	.1100
1.10	.1500	22.0	3.30	.1650	.1320
1.20	.1625	24.0	3.90	.1950	.1560
1.30	.1750	26.0	4.55	.2275	.1920
1.40	.1875	28.0	5.25	.2625	.2100
1.50	.2000	30.0	6.00	.3000	.2400
1.60	.2125	32.0	6.80	.3400	.2720
1.70	.2250	34.0	7.65	.3825	.3060
1.80	.2375	36.0	8.55	.4275	.3420
1.90	.2500	38.0	9.50	.4750	.3800
2.00	.2625	40.0	10.50	.5250	.4200

From paragraph (5) of your proposed lease you have suggested 5% of gross value. In the tabulation I have shown what this would amount to - also what it would be at 4%.

Hanna's Agreement -- An agreement with Wright would probably be written with royalty on a straight cents/ton basis with no escalation by grade.

We are not prepared to pay royalty totaling above .25/ton as this figure is a maximum figure in any of our nickel agreements. Due to the economics of some areas this figure is often reduced.

The parcel of land in question, from our present knowledge, has very little potential. Any potential there, would probably be under 1.00% nickel crude. (Natural ore in the ground) This potential ore could possibly be upgraded through screening, 1.30 or 1.40% nickel if the pattern is similar to our Riddle Ore. These upgraded shipped grades would then be the grades used in establishing gross value.

My suggestion would be for a 4% gross value figure, as this would make our negotiation with Mr. Wright somewhat easier. On the other hand we would rather see the State of Oregon receive the monies than Wright, Inc.

The alternative in this case is to go to a straight cents per ton figure as this simplifies sampling analytical and handling procedures and is a more normal method of calculating nickel royalties.

Thank you again for sending the temporary drafts. I would be most interested in hearing from you on the outcome.

Very truly yours,

THE HANNA MINING COMPANY

C. A. Dowd

C. A. Dowd
Mineral Properties

CAD:clb

RECEIVED

NOV 25 1966

STATE DEPT. OF ~~GEOL~~
& MINERAL ~~IND~~

The Hanna Mining Company
Riddle, Oregon 97469

March 6, 1978

Copies to
Len, Stan, Job

Mr. Donald A. Hull
State Geologist
Department of Geology & Mineral Industries
1069 State Office Building
Portland, Oregon 97201

Dear Mr. Hull:

Attached is a news release from our corporate offices in Cleveland announcing the transfer of E. J. Maney, Nickel Division General Manager, to Hanna's Domestic Iron Ore Division, and, subsequently, the transfer of R. P. Matson, Iron Ore Division General Manager, to the Nickel division effective January 15, 1978. We look forward to continued good relationships with all of our business associates under the leadership of Mr. Matson and hope you will have an opportunity to get acquainted soon.

Please adjust your mailing lists accordingly.

Very truly yours,

R. M. Hughes, Jr.
R. M. Hughes, Jr.
General Superintendent

pb
Enclosure

RECEIVED-PTLD
MAR 16 1978

DEPT OF GEOLOGY
& MINERAL INDUS.

ROBERT A. BARNES, Inc.
FOUNDRY & INDUSTRIAL SUPPLIES & EQUIPMENT

New Address *EEC/ETM*
5611 - 1st AVENUE SOUTH
SEATTLE, WASHINGTON 98108
RO. 2-0920

AREA CODE 206-622-0637

2450 SIXTH AVENUE SOUTH
SEATTLE, WASHINGTON, 98134

December 12, 1966

Hanna Nickel Smelting Company
Riddle, Oregon 97469
Attention: Mr. H. D. Wedge

SUBJECT: NICKEL SLAG

Gentlemen:

In September 1965, you gave us a quotation of \$ 1.25 per yard for your slag material. Would you please inform us if this price is still applicable and what the approximate chemical analysis of the slag would run.

Thank you for your consideration. We look forward to your reply.

Sincerely,

ROBERT A. BARNES, INC.

Doug Pritchard

Doug Pritchard

DP:nlm

*Copy Sent to Gov
Hentox 4/26/88*

Slag 7 EEC/ETM

Hanna Nickel Smelting Company
Riddle, Oregon 97469

December 16, 1966

Mr. Doug Pritchard
Robert A. Barnes, Inc.
5611 First Avenue South
Seattle, Washington 98108

Dear Mr. Pritchard:

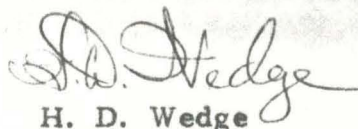
The price which we quoted to you of \$1.25 per yard for slag as is in our pile still applies. I think perhaps the best analytical description I could give you is to show the results of our assay of monthly composite analyses for the last three months. These are as follows:

	<u>September</u>	<u>October</u>	<u>November</u>
SiO ₂	53.7	54.3	54.1
FeO	13.1	12.9	12.6
Al ₂ O ₃	1.3	1.4	1.4
Cr ₂ O ₃	0.87	0.95	0.87
MnO	0.24	0.23	0.23
TiO ₂	0.03	0.03	0.03
CaO	0.45	0.45	0.48
MgO	30.0	29.5	30.0

We are aware that the assays range outside the values shown at times. SiO₂ is one of the more variable constituents and may range from 53 to 56%. The increase in SiO₂ is usually attended by the equivalent decrease in MgO which ranges commonly from 26 to 30%.

I hope that this information is of service to you and that you will be able to make some use of this waste product material.

Very truly yours,



H. D. Wedge
Smelter Superintendent

HDW:pb

cc: E. E. Coleman ✓
E. J. Maney
M. A. Eitzen



COUNTY OF DOUGLAS

COURTHOUSE

ROSEBURG, OREGON

December 3, 1963

Department of Geology & Minerals Ind.
State of Oregon
1069 State Office Building
Portland 1, Oregon

Attn: Mr. H.M. Dole, State Geologist

Dear Sir:

Thank you for your letter of November 29th,
clarifying the position of your Department regarding
the furnishing of geological study.

I had hoped to discuss the terms of the Countys
new lease with Hanna with you, but the time was not
available.

In order that you can better determine just
how this lease does affect your department, I am
enclosing a copy of same for your use and keeping.
No doubt the Hanna people shall be contacting you
soon.

Sincerely yours,

A handwritten signature in cursive script that reads "Robert E. Kischel".

Robert E. Kischel
Land Agent

REK:rh
encl.

RECEIVED
DEC 4 1963
STATE DEPT. OF GEOLOGY
& MINERAL INDS.

COPY

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

1069 STATE OFFICE BUILDING
PORTLAND 1, OREGON

November 29, 1963

Mr. Robert E. Kischel, Land Agent
Douglas County Land Department
Courthouse
Roseburg, Oregon

Dear Mr. Kischel:

This is further in regard to my letter of October 4 in reply to your letter of October 2 concerned with the Department's availability for a geological study in the Riddle area.

Firm action has been taken by the Legislature, the Governor, and our Governing Board in regard to our budget. Although we will not lose any of our permanent staff members, our clerical staff has been severely cut as well as our field funds and other accounts. This makes it impossible for us to make a geological study for you at no cost. However if you would care to pay for the field expenses, which would include meals, lodging and cost of transportation, we can make Mr. Len Ramp, geologist in charge of our Grants Pass field office, available to you for evaluation of the area Douglas County is concerned about.

Sincerely yours,



Hollis M. Dole
State Geologist

HMD:jr
cc Len Ramp

COPY

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

1069 STATE OFFICE BUILDING
PORTLAND 1, OREGON

June 10, 1964

Douglas County Court
Court House
Roseburg, Oregon

Gentlemen:

I am in receipt of correspondence from Mr. E. E. Coleman, General Manager - Oregon, The Hanna Mining Company, Riddle, Oregon, in which he notes that Hanna leased land from Douglas County and that one of the provisions of the lease was that a determination be made as to whether or not any valuable mineral existed on these lands.

To this end Mr. J. T. Camberlidge, geologist for Hanna Mining Company, prepared a map and a report of the geology and possible mineral potential of said land, a copy of which is attached. Also attached is a letter from our field geologist in charge of our Grants Pass office who accompanied Mr. Camberlidge in the field in reviewing his work. You will note that it is his considered opinion that under present conditions there is nothing of economic interest in the area under consideration. I concur with our field geologist in this determination.

A copy of the lease form has been sent to me by Mr. Coleman and I would agree with the statement on the first page where it says that the leasing of this land would be in the public interest.

If this Department can be of any further assistance to you in this matter, please feel free to call upon us.

Sincerely yours,

Hollis M. Dole
State Geologist

HMD:jr
Encl.
cc E.E. Coleman

bc Len Ramp

COPY

January 6, 1977

Mr. David Lindsey
U. S. Bureau of Mines
Western Field Operation Center
East 315 Montgomery
Spokane, Washington 99207

Dear Dave:

Here is the Nickel Mountain file as requested. The M. A. S. coded forms are not complete. I am not very good at filling them out; haven't time, and don't like it very well either. I spent a couple of hours on them and got frustrated. Some information that I obtained from E.J. Maney, General Manager in 1975 may be helpful in completing or improving your files.

1. Average grade of ore mined was 1.14 percent Ni.
2. They were mining at a rate of 9,000 tons per day (5 days a week).
3. Total rock mined is slightly more than twice the amount put through the smelter. The remainder goes on reject piles.

Also enclosed is a copy of a confidential letter from Jack Maney dated December 9, 1975 with information on their calculated reserves as of January 1, 1975.

I intend to prepare a cross section for my geologic map showing the probable structure of the peridotite thrust plate over serpentinite and the Dothan Formation. I also intend to write up a revised report to go with the map; but haven't had time to do so as yet.

I'll get back on the Nickel Project as soon as I finish my work on Curry County.

Sincerely,

Len Ramp
Resident Geologist

LR:rep
Encls: As stated

Hanna Nickel Smelting Company

P.O. Box 85

Riddle, Oregon 97469

March 2, 1978


Mr. Len Ramp
State Geology Office
Box 417
Grants Pass, Oregon 97526

Dear Mr. Ramp:

Attached please find a copy of the New Review clipping, as
per our discussion.

Very truly yours,

HANNA NICKEL SMELTING COMPANY


Steven T. Maher
Personnel Director

ar
Enclosure

HANNA DEVELOPMENT COMPANY

RIDDLE, OREGON

April 20, 1953

Mr. David White
State Dept. Geology & Mineral Industry
239 Southeast H. Street
P. O. Box 417
Grants Pass, Oregon

Dear Dave:

Enclosed please find 50' contour map of Mickel Mountain area. Scale 800' to inch.

Sorry that I couldn't spend some time with you when you were here last week.

Sincerely,

A handwritten signature in blue ink, appearing to read "Walt".

W. A. Foster
Geologist

Len's Copy

COPY

January 6, 1977

Mr. David Lindsey
U. S. Bureau of Mines
Western Field Operation Center
East 315 Montgomery
Spokane, Washington 99207

Dear Dave:

Here is the Nickel Mountain file as requested. The M. A. S. coded forms are not complete. I am not very good at filling them out; haven't time, and don't like it very well either. I spent a couple of hours on them and got frustrated. Some information that I obtained from E.J. Maney, General Manager in 1975 may be helpful in completing or improving your files.

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I'll get back on the Nickel Project as soon as I finish my work on Curry County.

Sincerely,

Len Ramp
Resident Geologist

LR:rep
Encls: As stated

LR

COPY

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

1069 STATE OFFICE BUILDING
PORTLAND 1, OREGON

October 4, 1963

Mr. Robert E. Kischel, Land Agent
Douglas County Land Department
Courthouse
Roseburg, Oregon

Dear Mr. Kischel:

The State of Oregon Department of Geology and Mineral Industries would be most happy to assist the County of Douglas in the evaluation of land near the Hanna Mining Company's operation at Riddle.

We could prepare a geologic map of the area in question and give our opinion on the possible mineral potential underlying the land. Inasmuch as we are prevented by law from evaluating a property, we could give you no recommendations on what you should do or conclusions as to the value of the property. However we would be glad to discuss this with you.

Ordinarily there would be no charge for this service but in view of the impending defeat of the Oregon tax law it appears quite likely that our budget will be reduced anywhere from 10-25 percent. The minimum reduction of 10 percent would deprive us of all field funds and operating accounts. Any cut larger than this will result in the elimination of personnel within the Department. Therefore any decision to aid you in this respect must await the outcome of the October 15 election. Following that we will be in a position to let you know whether manpower will be available and if it will be necessary to charge you for this work. We would expect this work to be done out of the Grants Pass office by Mr. Len Ramp, District Geologist in charge of the Grants Pass field office.

Sincerely yours,

Hollis M. Dole
State Geologist

HMD:jr
cc Len Ramp

Len: Dave White and I prepared a green sheet report and geologic map for Douglas County on the original 80 acres noted in the letter. I suggest that you refer to this report. If you do not have it in the Grants Pass office, we will send one from here.

LM



VICTOR ATIYEH,
GOVERNOR

Department of Geology and Mineral Industries
ADMINISTRATIVE OFFICE

1005 STATE OFFICE BLDG., PORTLAND, OREGON 97201 PHONE (503) 229-5580

April 2, 1985

Mr. Herbert D. Wedge
General Manager
Hanna Nickel Smelting Company
P.O. Box 85
Riddle, Oregon 97469

Dear Herb:

Enclosed is copy of a letter I received recently from the U.S. Forest Service regarding road use fees in the Umpqua National Forest.

Our discussions with the USFS do not suggest any obvious ways to reduce road fees. However, I am wondering if the recreational and other public use of portions of your haulage roads might encourage the county to assume a greater share of the maintenance cost.

Sincerely,

Donald A. Hull
State Geologist

DAH:jr

cc Len Ramp

cc John Beaulieu



United States
Department of
Agriculture

Forest
Service

Umpqua National Forest
P.O. Box 1008
Roseburg, OR 97470

REPLY TO: 2730

DATE: March 26, 1985

Donald A. Hull, State Geologist
State of Oregon
Department of Geology & Mineral Industries
1069 State Office Building
Portland, OR 97201

Dear Mr. Hull:

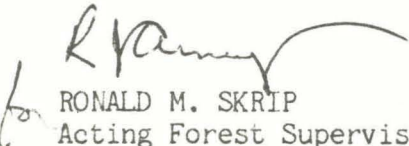
Carlin Jackson asked me to drop you a line explaining how we compute the Road Use Fees for Hanna-Nickel Company. The Umpqua NF road use rates for commercial hauling activities which are required as the result of traffic on the road. The cost of this work is equitably distributed to all users, with the Forest Service assuming the financial responsibility for all noncommercial use and with each commercial user assuming their commensurate financial responsibility for their use. In addition, each commercial user is assessed a capital recovery rate commensurate to their use of forest improvement roads. These rates are based on capital improvement records maintained on the Forest.

The unit costs for required work are based on R-6, Zone Six Cost Guide Book. This book was developed and is maintained specifically for the Southwest Oregon area and displays local experienced costs for performing restoration work.

The Forest is sensitive to the local economy and has always pursued a policy of cooperation with industries which are forest road users and provide jobs to the community.

In the case of Hanna Nickel Company, we are unaware of any specific problem that might affect the local economy resulting from our policies or from the use rates which are charged them, commensurate to their use. If they have a concern with our policies and/or use rates, which are imposed on all users on our road system, it is important that they communicate their concerns to us. We cannot provide adequate answers to problems or to questions which are not clear to us. Thus in the spirit of cooperation, we invite Hanna Nickel Company to present their concerns to us.

Sincerely,


RONALD M. SKRIP
Acting Forest Supervisor

RECEIVED-PTLD
APR 1 1985



December 7, 1984

To: Don Hull
From: Len Ramp
Subject: Quartz Mountain Silica Deposit

Please refer to the November 1960 issue of the Ore Bin article on the Quartz Mountain Silica deposit. Although I have no access to drilling information on the deposit, I would estimate that there is more than adequate tonnage to outlive the Riddle Smelter's needs. Reserves are probably in the neighborhood of 75 to 100 million short tons.

The nearest other possible supplier of silica is the Bristol Silica and Limestone Company in Rogue River. It appears, however, that they now have quite limited reserves of high-purity silica rock. I am unsure where the next nearest possible supplier is; but perhaps somewhere in Northeastern Washington or Idaho.

It may be of interest also to refer to the article by Ralph entitled "The Miner and the Troll" published in the December 1959 Ore Bin, p. 121.

Perhaps Herb Wedge will be able to supply some additional information pertinent to the subject.

Len Ramp
Resident Geologist

LR:rep
CC: Herb Wedge

*Call Gordon Lyda re Rules
429-5301*

November 9, 1984

To: Don Hull

From: Len Ramp

Subject: U.S.F.S. road maintenance fees on Quartz Mountain Silica Deposit, Eastern Douglas County.

I talked with Herb Wedge, General Manager, Hanna Nickel operation in Riddle this morning to get an up-date on mining activity of both the Nickel mine and Quartz Mountain Silica mine. In the course of our conversation the matter of road-use charges for hauling the silica rock over U.S.F.S. roads came up. It seems they are paying about \$4.50 per ton road-use fees. This is about pricing the operation out of the market and they are looking at other possible sources.

I suggested that perhaps you would be willing to discuss this matter with Forest Service officials to see if there is any possibility of re-negotiating these charges to achieve a more reasonable rate. Hope I didn't speak out of turn. I also asked Herb to send us a summary of the situation in writing. I'll forward the information when it arrives.

Sincerely,

Len Ramp
Resident Geologist

LR:rep

cc: Herb Wedge, General Manager
Hanna Nickel Smelter
P.O. Box 85
Riddle, Oregon 97469

X Copy



STATE OF OREGON

INTEROFFICE MEMO

TO: Don Hull & John Beaulieu

DATE: May 15, 1987

FROM: Len Ramp

SUBJECT: Hanna Nickel Smelter facility

There have been two meetings since my last written report to you on this project. The first meeting, which I reported to you verbally and which I arranged, was held Friday morning, April 24th at the CCD office in Roseburg. In attendance were Tony Kuhn and Peter Graff of CCD Business Development Corp., Herb Wedge and Don Meyer of Hanna Nickel and myself. The topic of discussion was to determine the feasibility of a feasibility study.

Herb Wedge proposed getting Richard W. Wilson, president of Hatch Associates, Metals Industry Engineering Consultants from Buffalo, New York, and Walter D. Atchison, former Hanna Metals Sales Representative and industry consultant from Hudson, Ohio, to attend a pre-feasibility meeting along with the present group and include also Dennis Goodman of PP&L, Ralph Nafziger of BuMines, and perhaps Don Hull.

CCD was to arrange travel expenses for Wilson and Atchison through the Douglas County Industrial Development Board. This all was accomplished through the efforts of CCD and Herb Wedge.

The second meeting was in two parts. Dick Wilson and Walt Atchison arrived in Roseburg Monday, about noon, May 11th and toured the smelter facility Monday afternoon. A sit-down meeting was held Tuesday morning at CCD in Roseburg. The participants were: Dick Wilson, Walt Atchison, Herb Wedge, Don Meyers, Tony Kuhn, Peter Graff, Dick Seamons (U.S. BuMines for Ralph Nafziger who had a conflict), Wynn Walker from Canyonville, Joe Hannon, Administrator and Bob Cotterell, Mayor of Myrtle Creek were also in attendance, and myself. No one representing PP&L was in attendance.

Dick Wilson of Hatch Associates outlined the kind of research work they were involved in and made a few suggestions regarding suitable use for the furnaces such as master alloy production from scrap, black sand utilization, baghouse dust processing, waste disposal plant, etc.

It was suggested that a 90-day moratorium be requested from Hanna for scraping the furnaces and kilns and related equipment; also that Hanna be requested to aid in funding a study.

The proposal to come from Hatch Associates is for an alternative use study (Phase 1 study) to answer the question: How can we use the assets we have? Such a study would probably cost no more than \$50,000.

Interoffice Memo
Don Hull & John Beaulieu
May 15, 1987
Page 2

The results of this study would be presented to industry to help fund a final feasibility study which may cost in the neighborhood of \$100,000 if so indicated.

The proposed Coos Bay ferro chromium plant was discussed briefly but no one seemed to know much about it. Its affect on our proposals will also be researched.

The meeting ended at about 10 A.M. as Wilson and Atchison had to catch a plane. CCD was to prepare a letter to Bill Welsh of Hanna outlining our request to them and Herb was to transmit that request the same day (copy enclosed).

I will keep you informed of further developments.


Len

LR:rep
cc: Bill Rice (BuMines, Spokane)

Hanna File



STATE OF OREGON

INTEROFFICE MEMO

TO: Don Hull and John Beaulieu

DATE: April 8, 1987

FROM: Len Ramp

SUBJECT: Hanna Nickel Smelter

Following our meeting Wednesday afternoon, April 1, in Portland; on Thursday morning, April 2, I met briefly with Lynn Youngbar in Salem at the EDD office. I learned from her that feasibility studies can be funded up to 75% by EDD and the limit is \$50,000 total. I also learned that Mark Huston of CCD was involved in the reopening of the Dalles Aluminum plant. She indicated the involvement was minimal, however. She also suggested that Northwest Natural Gas may be willing to sponsor Herb Wedge's proposed G.R.I. Conference trip to Chicago. She promised to contact Craig Honeyman on that subject. (Later Honeyman called me to get more information and has determined that Hanna is a customer of C.P. National and that I should contact them. I have recently (4-7-87) contacted Tom Bean of C.P. National in Medford. He wasn't encouraging; but promised to look into the possibility of funding Herb's trip to Chicago and get back to me.)

On my return to Grants Pass later the same day (4-2-87), I stopped to see Herb Wedge at the Smelter. He informed me that CCD has weekly presentation on Fridays and he would probably be scheduled in a couple of weeks as soon as he was able to gather enough preliminary information on supply and markets of scrap and stainless steel. While I was there Herb called Walter Atchison, a former Hanna Sales Manager and now a metals industry consultant, on the subject of producing stainless steel, stainless scrap availability, etc. Atchison promised to send Herb a letter with some preliminary information that he could use in his presentation to CCD. Herb also took me on a tour of the smelter facility. We looked mainly at the two refining furnaces. He explained how they worked and the general smelting procedure. It was a worthwhile tour for me. Herb suggested that if a feasibility study is approved a monitoring committee made up of himself, Ralph Nafziger, Lynn Youngbar, someone from CCD, and myself should probably be formed to keep things moving in the proper direction.

Herb said that two nickel-producing companies interested in the Riddle facility have recently visited to look it over. A third company is scheduled to look it over later this month. At least part of the interest is apparently in the new wet-screening plant. I have the company names; but they may wish confidentiality.

I will keep you informed of any further developments.

Len

LR:rep

cc: Herb Wedge

Ralph Nafziger

Lynn Youngbar

Bill Rice

Don & John

March 31, 1987

Len Ramp

Hanna Nickel Smelter

You have a copy of Herb Wedge's letter report of 3-16-87 to me on possible use of the Hanna Nickel Smelter for production of stainless steel, and discussion of charge chrome (high carbon ferrochrome) and high carbon ferronickel. I'm pretty sure that "charge chrome" is a high carbon ferrochrome used to charge a blast furnace in the steel-making process.

Attached is a copy of Herb's 3-18-87 letter to Tony Kuhn, CCD Business Development Corp., Roseburg on the subject of melting unclassified stainless steel scrap. I have not talked with Kuhn; but have talked with his assistant Peter Graff on March 20th. Tony was to call back; but hasn't.

I called Bill Welch of Hanna in Cleveland instead of Richard Hahn on the advice of Herb. Mr. Welch is Director in Charge of Lands and Leases and is directly involved with disposition of the Riddle facility. Copies of all of Herb's correspondence on the subject have gone to Mr. Welch. Bill Welch's message to me is they intend to continue pursuing a buyer for the facility and will not postpone doing this. He is happy that the State and others are interested in finding a possible future use for the smelter; but he says it has to be a simultaneous endeavor. He is reasonably certain their disposal program will take at least a year. He believes the smelter facility should be considered an important regional asset because within a 3 to 5 year period it may find a place in the economic development of the area. He indicated that the smelter will probably be the last item to be sold and if no buyers are found it will be available at scrap prices. He assured me they are not turning their back on us; but that they have to explore their possibilities and continue looking for buyers at the same time we are searching for alternate uses.

I talked again with Herb Wedge, both before and after he talked with Peter Graff (Tony Kuhn's assistant). Herb has agreed to make a presentation to CCD on melting of stainless scrap. Herb was going to contact Dick Box and others for preliminary information on availability of stainless scrap and markets. I asked Herb if he would be interested in going to the conference: "Natural Gas use in the production of virgin iron units" in Chicago April 23, if funding could be obtained for his travel, and he said "yes". He said the plane fare is about \$480 and two nights hotel would be about 150 for a total of probably about \$700. My next question is: is there any place we can find the money to send him? I think sending him would be a good investment as he is very interested in the possibility of reactivating the smelter and is willing to devote his talents toward that end. I think he is an important and valuable key in this process. He has a consulting agreement with Hanna; but they will encourage his

Interoffice Memo 3-31-87

To Don & John

From Len

Page 2

participation so long as it is parallel to their interests. If it becomes otherwise, he can and may terminate his agreement with them and continue to aid the cause. Herb says it would be personally satisfying to him to be able to help put people back to work and his only caution was becoming overly involved in a high-pressure job due to his health. (He had a heart attack and open-heart surgery last year). I have invited Lynn Youngbar to attend our meeting April 1st in response to Don's suggestion. I have also invited Ralph Nafziger, U.S. BuMines, Albany to attend. He is a very qualified pyrometallurgist and can help us with advice and council on that subject. I would have written them both; but Ruthie is taking a short vacation. Bill Rice, U.S. BuMines, Spokane, called back and reiterated their interest and willingness to help in any way they can. Bill suggested we work with Ralph Nafziger from Albany. He wants to be kept informed and will help fo facilitate the BuMines cooperation.

On the subject of possible chromite resources that may be made available to the smelter, see pages copied from U.S. BuMines IC 9087. The offshore black sand resource should also be considered as chromite is a major mineral constituent and the potential tonnage is very large (See GMS-37, Mineral Resources Map, Offshore Oregon by J.J. Gray and L.D. Kulm, 1985).

LR:rep

cc: Herb Wedge

Bill Rice

Encl: copy of Herb Wedge's letter of 3-16-87

Ron Geitgey

March 20, 1987

Len Ramp

Olivine at Nickel Mountain

Enclosed are copies of correspondence with Herb Wedge of Hanna Nickel Smelting Company along with an article from World Mining Equipment February '86 on olivine mining in Norway for your files. This was sent to Herb by their geologist, Vic Mejia. Herb wants to know if any tests were done on the samples I collected and sent to you. The L.O.I. is apparently an important factor as is the MgO content.

Len

Encl: 7 pages

DEPT. OF GEOLOGY

hdw:pb
Enclosure

NEWS from HANNA

For Immediate Release

August 8, 1986

MARKET CONDITIONS FORCE
INDEFINITE SHUTDOWN
OF HANNA NICKEL

CLEVELAND, Ohio -- M. A. Hanna Company announced today that Hanna Nickel Smelting Company in Riddle, Oregon, will be indefinitely shut down approximately August 15, primarily due to slumping nickel sales prices.

Prices have dropped more than 20 percent since last summer when Hanna Nickel began construction of an innovative wet screening system that was hoped to make ferronickel produced at the nation's only integrated nickel mining and smelting operation competitive worldwide. In July, nickel prices on the London Metal Exchange averaged only \$1.77 per pound, with little hope for significant improvement in the near future.

"Although depressed nickel prices have indefinitely shut down Hanna Nickel, company management continues to evaluate results of the wet screening tests conducted over the past few months," General Manager Herbert D. Wedge said in the employee letter. "We expect our studies to be concluded this fall, at which time we hope to have better information for employees concerning the outlook for the operation.

"We are extremely disappointed that nickel market conditions have deteriorated to this point, particularly after the exceptional efforts displayed by employees as we have worked to implement the wet screening process over the past year," Wedge added.

M. A. Hanna Company is an international natural resources concern engaged in five principal business areas: iron ore, oil and gas, nickel and silicon, coal, and management services.

#

Company Contact: Mary Jackson
216/589-4018

GR - 6

Ler

MEMO TO FILE

To: Don, John, Gary & Frank

Date: December 1, 1987

From: Allen *duo*

Subject: Hanna Nickel Smelting Co

As of today, Hanna Nickel Smelting Company no longer owns the Nickel Mountain site. The operation is now in the control of Universal Consolidated Companies which is owned by the Niggemyers of Ohio. They have purchased other abandoned mining facilities such as an iron ore pellet plant in Wyoming. They will sell off the major pieces of equipment and try to find other uses for the plant itself. Operating the smelter as a ferrosilicate plant is be one option here. Another would be selling the smelter slag as sand blasting sand.

For the present, Hanna remains responsible for the reclamation. However, we have had inquiries from an unidentified source in Ohio asking about taking over the Reclamation Permit. Herb Wedge will be maintaining an office in his house for the foreseeable future. It was not certain if there will be a Hanna number available but I do have his home number.

Herb Wedge pointed out to me that when Hanna made the decision to sell, nickel was selling at about \$1.60 a pound; Hanna needed \$2.25 to operate profitably. As of today the price is over \$3.00. Herb attributes some of the rise, at least, to the cessation of Russian sales of Cuban nickel into Europe. However, he points out that the reserves at Nickel Mountain are only five or six years. To reopen the site as a nickel mine at this time with the limited reserves, and no guarantee that the price of nickel will stay high, is questionable. New owners are negotiating with the BPA for off-peak rates. It is, of course, possible that a new company could approach things differently than the Hanna folks did and restart the operation. There is no promise of this; selling of equipment is continuing. The conveyor system and slurry piping installed shortly before the shutdown have been removed.

*Herb wedge - 672-8919
354 W. Casey St.
Roseburg 97470*

Hanna Ni File



STATE OF OREGON

INTEROFFICE MEMO

TO: Don Hull

DATE: August 3, 1987

FROM: Len Ramp

SUBJECT: Hanna Smelter Facility Study
Douglas County Industrial Development Board Meeting, 7-30-87, 3:00 p.m.

The Group, including two representatives of Hatch Associates (the Spokesman's name - Paul O'Shaughnessy), Peter Graff, Secretary of the Douglas County Industrial Development Board, three members of the board, Herb Wedge, Lynn Youngbar of EDD, a TV reporter with his camera and recorder and me.

The meeting went into "executive session" excluding the media so the TV cameraman folded his camera and left.

Paul O'Shaughnessy summarized the preliminary investigations they have done (see enclosed summary sheets) and handed out a few copies of the "background data" consisting of about 400 pages of everything from some of my inter office memos to you (that I sent copies of to Herb Wedge), newspaper clippings and numerous calculation sheets with hand written figures related to production costs and various other costs and values to products, as well as numerous telephone memorandum from various contacts in industry on numerous subjects related to processes of interest.

At the end of the presentation, Herb Wedge and I were asked to comment. Herb wanted time to digest the data. He was concerned that possibly some things were being overlooked. We agreed and a second meeting is to be held August 4th at 3 P.M. in Roseburg.

Following the meeting I inquired as to the status of the proposed Coos Bay Ferro-Chrome plant. Peter Graff indicated that it was shelved temporarily for lack of funding but that the latest information he had was that funding would soon be, or was now available; but didn't relate the source.

I also asked Lynn Youngbar about EDD funding for the Hanna feasibility study and she indicated that there was a good possibility that they would be funding 75 percent of the cost.

I'll attend the meeting August 4th and report to you on it.

Len

LR:rep

Encl: Preliminary investigations of Hatch Associates



STATE OF OREGON

INTEROFFICE MEMO

TO: JOHN B. & TOM

DATE: NOVEMBER 12, 1989

FROM: DON

SUBJECT: NICKEL MOUNTAIN MINE AND SMELTER - DOUGLAS COUNTY, OREGON

The attached memo summarizes information provided in my recent visits to Riddle. This information should be treated as confidential.

DAH:dej
H2NickN7.mem



STATE OF OREGON

INTEROFFICE MEMO

Wiley
TO: **FILE**DATE: **NOVEMBER 12, 1989**FROM: **DON**SUBJECT: **GLENNBROOK NICKEL - DOUGLAS COUNTY, OREGON**

On November 1, 1989, I visited the refurbished nickel smelter at Riddle now being operated by Glennbrook Nickel, a partnership with Cominco American, as the operator. This smelter operated from 1954 until 1985 and intermittently thereafter. At the present time, the mine is inactive and smelter feed is obtained from crushing and screening of former reject oversized material.

Economic Factors

The plant currently employs 234 individuals and will likely reach a maximum employment of 250 in the near future. The company is debating on the merits of operating the adjacent mine, which would require an additional 150 employees, or possibly importing nickel ore from New Caledonia. It is noteworthy that a number of the current employees are veteran smelter employees who formerly worked with Hanna Mining Company. Only 5% of the current employees were hired from outside of the local area.

Technology

The current smelter operation is much like the former Hanna operation. Silica is being produced at Quartz Mountain in Douglas County by Jerry Rannels, and sold to Glennbrook. The silica is used to produce ferrosilicon, which is used, in turn, as a reductant for the nickel ore.

Economic Impact

Approximately \$10 million have been spent by Glennbrook to refurbish the plant, which will likely produce 14 million pounds of ferronickel product in 1990. An additional \$2.5 million is now being expended to update the skull plant. It is likely that a further \$1 million will be spent on new crushing and screening facilities, which will allow Glennbrook to perform the functions rather than hire outside contractors. Thus a total of \$13.5 million has been committed to date by the new operator for repairs and

MEMO - GLENNBROOK NICKEL
NOVEMBER 12, 1989
PAGE TWO

upgrading of facilities. It is likely that a further \$30 million will be required to recapitalize the Nickel Mountain mine, or \$20 million would be needed to provide facilities for importation of foreign ore. It is conceivable, but unlikely, that ore would be trucked or rail-hauled from other nickel laterite deposits in southwestern Oregon and northern California. The Nickel Mountain mine has approximately 10-15 years of "reserves", totalling 26 million tons with a mine grade of 0.8% nickel, which could be upgraded for smelter feed to approximately 1% nickel. In contrast, the New Caledonian ore would likely grade 2.4% nickel and could be imported at a transportation of \$5-7 per ton on the water into Portland and an additional \$19 per ton rail rate on Southern Pacific from Portland. A more likely option for transportation of ores would be via Coos Bay as a backhaul on chip and lumber trucks, at a rate of perhaps \$5-7 per ton, plus the cost of modifying the chip trucks.

Future Possibilities

In the future, it is conceivable that ferronickel and ferrochromium could both be produced at Riddle in the existing furnaces. Consultants indicate that the present furnaces could handle sand-sized chromium ores. By combining ferronickel and ferrochromium at the Riddle location, stainless steel could be produced with a significant value added component. A stainless steel end-product operation would enhance the value of chromite-bearing black sand placer resources offshore of Oregon. Alternatively, a ferrochromium operation at Riddle could operate on chromite resources contained in the Stillwater ultramafic complex in Montana, where an Australian group, Boulder Gold, is currently discussing with Kennacott the possibilities of operating a new chromium mine and/or new ferrochromium smelter. The decision on the future utility of the Nickel smelter at Riddle will likely be made in the next several months. The remaining reserves of "ore" at the smelter will last approximately 3-1/2 to 4 years at the current rate of production.

DAH:dej
HGlennN7.cnf

Oregon

DEPARTMENT
OF GEOLOGY
AND MINERAL
INDUSTRIES

ADMINISTRATIVE
OFFICE

November 10, 1992

Dr. Sooi P. Chong
Vice President
Total Quality Planning & Technical Services
M A Hanna Company
1301 E 9th Street
Cleveland, OH 44114

Dear Dr. Chong:

The Oregon Department of Geology and Mineral Industries has been communicating with Richard W. Ruhanen of the Minnesota Department of Natural Resources regarding the data holdings belonging to M.A. Hanna Mining Company. Specifically, in response to October 29, 1992 correspondence to our State Geologist Donald A. Hull (Oregon), we have been discussing the disposition of data files pertinent to the state of Oregon.


Mr. Ruhanen has indicated that the data files focus primarily on beneficiation and geology of a site specific nature of the Riddle site here in Oregon. We understand the desire of Hanna Company personnel for the data to remain in confidential status under the trade secret clauses of the various states involved. On behalf of the state of Oregon, we would like to take possession of the files of data relating to the Riddle facility. We would honor the trade secret wishes of M.A. Hanna Mining Company.

If a letter is provided with the data indicating that the data is to remain confidential according to the Minnesota DNR-Hanna Mining Company Minerals agreement, then we can keep the data confidential in accordance with the trade secret laws applicable in Oregon. A copy of pertinent language is provided.

We contemplate that memos and letters may be of a more confidential nature than technical reports. If it is possible for our agency to use the technical reports in assisting in further development of the Riddle site, then we would appreciate receiving language to that effect.

In any case, however, we would like to receive the documents and would honor any trade secret request that would accompany them to the extent provided in Oregon law. Please advise us as to the next steps we should be taking in acquiring the files. Thank you very much.

Sincerely,


John D. Beaulieu
Deputy State Geologist

Attachment

JDB:ch/chong.let/3



Suite 965
800 NE Oregon Street # 28
Portland, OR 97232
(503) 731-4100
FAX (503) 731-4066



STATE OF OREGON

INTEROFFICE MEMO

TO: Don Hull

FROM: Len Ramp

SUBJECT: Hanna Nickel Smelter

DATE: February 25, 1987

I met with Herb Wedge and Marv Johnson at Riddle last Thursday (Feb. 19). We discussed their time frame for disposing of the mine and smelter facility. They are starting to dispose of a few items now such as office furniture and are in the process of inventorying all the property for evaluation and sale. They said that time is short and much could be sold within 6 months. They do, however, have 2 to 3 years to complete the salvage sale of the facility and real property. Herb is retired and is retained as a consultant during this period.

We also discussed the mineral resources on the property, i.e., the slag, the mill tailings (fines), and the olivine in reject piles. I sampled the - 100 mesh mill tailings as a possible suggested use for foundry sand. They have been selling the dunite and peridotite reject rock for road ballast and are receiving \$3.00 a ton at the pile.

Our main discussion was the feasibility of converting the facility to produce stainless steel using charge chrome, ferro nickel and/or scrap steel. Herb seemed to think this could have some potential and promised to put together a letter summarizing the major requirements and potential problems. He thought that a feasibility study may be in order. He also suggested research on the use of natural gas as a smelting reductant could perhaps be done by the U.S. BuMines in Albany.

We also discussed scrap melting and the need to know how much unsorted scrap may be available in the area.

Interoffice Memo
February 25, 1987
to Don Hull from Len Ramp
Subject: Hanna Nickel Smelter

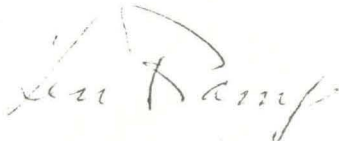
The cost of re-starting the smelter within one year was estimated at about \$1,000,000. A two year delay would undoubtedly cost more; but the proportionate cost is unknown.

A few other items such as the ferro silicon market, the slag products market, and the employment potential of these were also discussed briefly.

I contacted Lynn Youngbar, EDD, by phone following the meeting to let her know of it, and she promised to follow up with a call to Herb Wedge and perhaps set up another meeting.

Will keep you informed.

Len



LR:rep

cc: Herb Wedge, Hanna Ni Smelter
Lynn Youngbar, EDD

Hanna Nickel Smelting Company

P.O. Box 85

Riddle, Oregon 97469

March 18, 1987

(Peter Graft ast tel con 3-20-87)

Mr. Tony Kuhn
CCD Business Development Corporation
744 S. E. Rose
Roseburg, OR 97470

Dear Tony:

During our meeting in your office on March 5, the feasibility of melting unclassified stainless scrap metal, adjusting and standardizing the grade and casting the product for sale to stainless melters was discussed. Perhaps the two 10-ton steel furnaces previously used for refining ferronickel at Riddle could be utilized for the purpose. In the past, W. D. Atchison, formerly manager of metal sales for the M. A. Hanna Company, has told me that there are small companies in the Pittsburgh area who do this profitably. During a business trip to Treibach, Austria in March 1983, I observed an operation in which nickel catalyst containing over 20% nickel, purchased worldwide, was being reduced to metallic form, the grade standardized and cast in shotted form. A single 7.5 megawatt steel furnace with a 10-foot diameter shell was used to process the catalyst. Perhaps a combination of scrap melting and nickel catalyst might be worthy of an examination of feasibility in connection with the Riddle facility.

The following information would be necessary to develop a feasibility:

1. Quantity of raw material (stainless scrap and nickel catalyst) available within an economic transportation zone probably in the western U.S. but also perhaps including sources in the Pacific Rim.
2. Price at which the raw material could most likely be purchased.
3. Number and location of domestic companies engaged in a similar activity.
4. Survey of the potential market to estimate probable quantity of product which could be sold and at what price. This survey should perhaps include potential buyers in the Pacific Rim countries to take advantage of possible freight advantage.

5. Subsequent to the estimation of the limitation of and subject to either supply of raw material or sale of product, the cost of modification of existing equipment should be engineered and estimated.
6. Based on the agreed equipment configuration, as modified, the operating costs including power, labor, process material and maintenance material would be determined.

Obviously, the feasibility would then be based on sale of a realistic quantity of product at an agreed upon price less operating costs, depreciation of capital over an agreed fixed period and debt service on the capital, all in accordance with estimates based on the surveys enumerated.

The question of who should be commissioned to accomplish the work has no obvious answer. I would prefer to select an Oregon based engineering firm but perhaps an organization like Stanford Research or Battelle has more of the needed international capability. I suggest that a small group be established to interview prospects and to make a selection. I think Ralph Nafziger would function well as one of the members and I will have a continuing interest in the work.

A number of men might prove a source of additional preliminary information. They are:

W. D. Atchison - Former Hanna Sales Manager - Cleveland
216/653-9416
Dick Box - Luria Brothers Salesman - Seattle 206/228-5100
Ross Hogan - UCC National Carbon Salesman - Boring, Oregon
503/658-6142
Bill Ferris - V.P. Oregon Steel - Portland 503/240-5222
Vince Vellella - President Inmetco - Pittsburgh 412/771-2654

Following the preliminary investigations and discussions and as significant information is obtained, a series of "trial feasibilities" should be attempted by a management-type group to evaluate whether or not additional phases of the project should be pursued. Careful and constant evaluation of the work should be an effective tool in making the best use of money spent.

Very truly yours,



H. D. Wedge

pb

cc: W. E. Welsh
D. D. Morgan
D. G. Meyers
Lynn Youngbar (Econ.Dev.-Salem)
Len Ramp (Dept. of Geol.-Grants Pass)
W. L. Rice (Interior Dept.-Spokane)
Ralph Nafziger (Bur.Mines-Albany)

Hanna Nickel Smelting Company

*P.O. Box 85
Riddle, Oregon 97469*

March 16, 1987

Mr. Len Ramp
Resident Geologist
Oregon Dept. of Geology & Mineral Ind.
P. O. Box 417
Grants Pass, Oregon 97526

Dear Len:

As I promised you, I am forwarding my discussion regarding a method of producing stainless steel in the existing nickel smelter at Riddle, Oregon. The economic feasibility of producing either ferronickel or charge chrome individually is difficult for several reasons:

1. The Riddle smelter is designed to produce low carbon ferronickel (L.C. FeNi). Pilot testing would be needed to establish viability of a more economic gas reduction.
2. Only one of the existing furnaces is a submerged arc type capable of production of charge chrome and is not equipped for slag production. There is no single, large consistent chromite deposit available locally to my knowledge.
3. The Nickel Mountain orebody has been depleted to conservatively 40 million crude tons of remanent ore types averaging about 0.76 to 0.78% nickel. Reasonable economics depend on production of a concentrate which represents only 8 to 10% of the natural crude tons mined. Stripping quantities can vary based on the geological concept utilized but clearly include red soils which can not be upgraded. Dilution of 5% to 10% should also be included in tonnages to be moved.

During visits some years ago to Pacific Metals, a competitor located in Hachinohe, Japan, I have observed that their approach to maintaining economic viability of nickel smelting has been through vertical integration of the process. Pamco traditionally produced high carbon ferronickel from high grade ores (2.5% Ni) imported from New Caledonia and sold pigged product to producers of stainless steel. Their development was to install submerged arc furnace capacity for charge chrome production from imported ores. The two products, HCF₂Cr and HCF₂Ni, were then charged into a new argon-oxygen vessel (AOD) along with scrap steel and blown with gaseous oxygen to lower carbon levels. The stainless

steel produced was then cast into billet form through a modern but small continuous caster. As billet, the product is ready for rolling or drawing by sheet and shape fabricators with only a single reheating.

The feasibility of converting the Riddle nickel smelter to a process configuration similar to that of Pamco could give attractive operating costs but substantial capital funds would be required for modification of existing equipment, testing and addition of the decarburization and casting equipment.

Modification and additions needed are:

1. Testing in pilot scale the kinetics of reduction of ferric iron and nickel oxide with natural gas. Tests should provide parameters needed to estimate ladle freeboard at various levels of gas injection. You might wish to attend a seminar on the subject in Chicago on April 23.
2. If local chromites were used to produce charge chrome, the existing ferrosilicon furnace is a submerged arc type but would have to be equipped with casting and hoisting equipment to handle slag in ratio of up to twice the metal volume.
3. Rearrangement of the pit area and provision to introduce the natural gas into molten laterite would be needed.
4. Acquisition of an argon-oxygen vessel of sufficient capacity (perhaps 25 tons) to decarburize proportionate mixtures of HCF_eNi and HCF_eCr would be required.
5. A continuous casting machine is needed capable of supplying the desired shape. (Demag of Germany supplied Pamco and obviously has design parameters for stainless steel.)

I'll be happy to respond to any further questions or comments you may have in the future.

Very truly yours,



H. D. Wedge

hdwll130:pb
Attachments

cc: W. E. Welsh
D. D. Morgan
D. G. Meyers
Lynn Youngbar (Salem)
Dr. Donald A. Hull

W. L. Rice (Spokane)
Tony Kuhn (Roseburg)

(all w/attach.)

ROUGH DRAFT

MEMO

DATE: February 23, 1987

TO: File

FROM: Don H.

SUBJECT: Conversion of Riddle Smelter

In various conversations in recent weeks we have discussed the possibility of conversion of the existing ferro-nickel smelter at Riddle, Oregon to alternative uses including the production of ferrochromium and/or stainless steel by remelting scrap metal. On February 17, 1987 I talked to Jim Haight at Woodburn about these possibilities to follow further conversations involving the Economic Development, Hanna personnel, perspective chrome miners including Haight. Jim loaned several reports which will need to be xeroxed with originals returned to him. I indicated that we would pursue these possibilities and report back to him on or before March 9, 1987 in order to indicate progress.

At the present time the Economic Development Department appears to have no funding available to pursue a feasibility and marketing study which would ascertain the technical factors involved in converting the Hanna Nickel Smelter to production of alternative alloys or evaluate markets for potential products from a converted facility.

It appears that domestic sources of chromite in west coast states will be unavailable near term. For this reason alternative sources of chromite might be (1) by-product chromite from the Still Water complex in Montana produced (unlike) during forthcoming palladium-platinum mining and recovery or (2) imported chromite from foreign sources including Philippines, Turkey and southern Africa.

The availability of scrap stainless steel is unknown at the present time.

Haight indicates that Hanna views the conversion to ferrochromium production as technically feasible whereas Len Ramp indicated earlier that this conversion would be ^{economically} unfeasible at the present time. His point will need to be clarified.

Len will meet with Hanna personnel on February 19, 1987 or February 20, 1987

File
February 23, 1987
Page 2

to pursue the feasibility of converting the ferronickel smelter to production of alternative alloy. I indicated to Len on February 18, 1987 that we would need to understand Hanna's interest at Riddle in order to ascertain the time available to undertake feasibility studies for the purposes described above. We need to understand the alternative being considered by Hanna. If the property tax burden is an issue, perhaps some relief could be sought at the county level. If the cash salvage value of the existing plant and related facilities is of concern to Hanna, then we need to establish a price at which sale to another operator would be considered. It is not clear at this time why Hanna is considering salvage of the facility.

I also indicated to Len and Ron Geitgey on February 18 that production of olivine and/or slag from the Riddle waste is of lesser interest at the present time neither possibility offers significant employment potential. The availability and application of the slag are well established in the market place. Olivine producers are established in Washington State and elsewhere and it is difficult to foresee large employment possibilities related to olivine production at Riddle.

If near term conversations with Hanna indicate a willingness to delay scrapping the Riddle plant, we should pursue the availability of monies to investigate the technical feasibility in markets for ferrochrome and/or stainless steel scrap products. Likely participants in the study would be the U.S. Bureau of Mines and possibly the Economic Development Department. We should move quickly to answer the questions posed above so that I can discuss the possibility of a joint study with the director of the Bureau of Mines during his visit to Portland in April, 1987.

DAH:ab

CC: John Beaulieu
Len Ramp
Ron Geitgey

C. C. D. BUSINESS DEVELOPMENT CORPORATION

744 Southeast Rose Street - Roseburg, Oregon 97470

Telephone (503) 672-6728

Toll Free in Oregon: 1-800-452-6010

May 12, 1987

W. E. Welsh
Director, Lands and Leases
M.A. Hanna Company
100 Erieview Plaza
Cleveland OH 44114

Re: Facilities at Riddle, Oregon

Dear Mr. Welsh:

We are writing to you on behalf of an informal group comprising ourselves, the Douglas County Commissioners and Industrial Development Board, and the cities of Riddle, Canyonville and Myrtle Creek, Oregon.

Following meetings with Messrs. Herb Wedge, Don Myers and Walter Atchison, and representatives of Hatch Associates, the U. S. Bureau of Mines and the Oregon Department of Geology, we are reasonably encouraged at the prospects for employment-generating new enterprise at the Hanna site in Riddle.

To take the next step toward identification and delineation of possible feasible opportunities, we would like to request Hanna's permission for a study team, headed by Hatch Associates of Buffalo, NY, to conduct an Alternative Use Study of the Riddle site and facilities.

For this purpose, we would request a moratorium for the months of June, July and August on the dismantling and salvage of smelter processing equipment, including dewatering, drying, calcination, furnacing, refining and associated water systems.

We hope that this Alternative Use study, to be conducted by Hatch on a not-to-exceed \$50,000 basis, will point the way to one or more specific opportunities for the site, toward further development of which interested parties can participate in subsequent detailed feasibility analyses. Since the "first-phase" Alternative Use study might also provide information useful to Hanna, we would invite Hanna to participate in this first-phase study as well.

If Hanna is interested, we would like to have your thoughts on the form such participation might take. To initiate discussion, we might suggest that for a commitment of up to 25% of the final cost of the first-phase Alternative Use study we would 1) send you next week a copy of Hatch's proposed work program, 2) invite your comments and suggestions for inclusion in the work to be performed, and 3) provide you, on completion, with a copy of Hatch's work.

DRAFT

John B.

April 17, 1989

Don

Nickel Smelter at Riddle, Oregon

1-----0

Contact with ^CDomino limited on April 7, 1989 indicates that a subsidiary is engaged in reactivation of the Ferronickel Smelter Act at Riddle, Oregon. A majority owned subsidiary ^CDomino Resources International, through a 50-50 joint venture with U.S.A. ^IInvestments has reach agreement with Universal Equipment Co., which had purchased the plant and properties from Hanna Nickel. The joint venture operates, ^{as} Glenbrook Nickel. The agreement between Glenbrook and U.S.A. involve^s a smelter, smelter property and remaining equipment but not the mine at this time. The smelter will be reactivated as rapidly as possible so as to produce ~~f~~erronickel this calendar year using a low-grade stock pile of oversized material. The anticipated rate of ~~f~~erronickel production is approximately one half the prior rate under Hanna. A responsible individual at ^CDomino in Spokane is Terry Gilbregh(?). It is possible that the successful reactivation of the smelter might lead longer to the resumption of mining. I have indicated to ^CDomino that it would be important to us to anticipate any plans to reactive the mines.

^C
A copy of Dominco's press release is attach. Please treat
the above ownership information as confidential.

DAH:dg
hull/bea41789

Attachment



STATE OF OREGON

INTEROFFICE MEMO

TO:

John B., Jerry G., Ron G.

DATE: August 10, 1987

FROM:

Don Hull

SUBJECT:

Hanna smelter alternate use study

The attached information has some interesting insights regarding industrial minerals.

DAH:rm
attachment



STATE OF OREGON

INTEROFFICE MEMO

TO: Don Hull

FROM: Len Ramp

SUBJECT: Hanna Smelter Facility Study
Douglas County Industrial Development Board Meeting, 7-30-87, 3:00 p.m.

RECEIVED
AUG 07 1987
EPT. OF GEOLOG
MINERAL INDUSTRY

DATE: August 3, 1987

The Group, including two representatives of Hatch Associates (the Spokesman's name - Paul O'Shaughnessy), Peter Graff, Secretary of the Douglas County Industrial Development Board, three members of the board, Herb Wedge, Lynn Youngbar of EDD, a TV reporter with his camera and recorder and me.

The meeting went into "executive session" excluding the media so the TV cameraman folded his camera and left.

Paul O'Shaughnessy summarized the preliminary investigations they have done (see enclosed summary sheets) and handed out a few copies of the "background data" consisting of about 400 pages of everything from some of my inter office memos to you (that I sent copies of to Herb Wedge), newspaper clippings and numerous calculation sheets with hand written figures related to production costs and various other costs and values to products, as well as numerous telephone memorandum from various contacts in industry on numerous subjects related to processes of interest.

At the end of the presentation, Herb Wedge and I were asked to comment. Herb wanted time to digest the data. He was concerned that possibly some things were being overlooked. We agreed and a second meeting is to be held August 4th at 3 P.M. in Roseburg.

Following the meeting I inquired as to the status of the proposed Coos Bay Ferro-Chrome plant. Peter Graff indicated that it was shelved temporarily for lack of funding but that the latest information he had was that funding would soon be, or was now available; but didn't relate the source.

I also asked Lynn Youngbar about EDD funding for the Hanna feasibility study and she indicated that there was a good possibility that they would be funding 75 percent of the cost.

I'll attend the meeting August 4th and report to you on it.

Len



LR:rep

Encl: Preliminary investigations of Hatch Associates



STATE OF OREGON

INTEROFFICE MEMO

TO: Don Hull

DATE: June 9, 1987

FROM: Len Ramp

SUBJECT: Hanna Nickel Smelter facility

The enclosed copies of correspondence, proposals, etc., were sent to me by CCD in Roseburg. They will help keep you informed on progress of the project.

LR:rep

A handwritten signature in cursive script, appearing to read "Len Ramp".

RECEIVED-PTLD
JUN 11 1987
DEPT. OF GEOLOGY
MINERAL INDUS.

C. C. D. BUSINESS DEVELOPMENT CORPORATION

744 Southeast Rose Street — Roseburg, Oregon 97470

Telephone (503) 672-6728

Toll Free in Oregon: 1-800-452-6010

June 4, 1987

Mr. Richard W. Wilson, P.E., President
Hatch Associates Consultants, Inc.
8th Floor Rand Bldg., 14 Lafayette Square
Buffalo, NY 14203

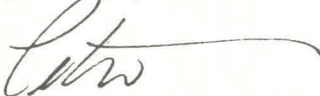
Dear Dick:

As discussed with your secretary today, enclosed are a copy of the application submitted to the Oregon "Stabilization and Conversion" Fund, and a second letter to Hanna. As of last week, we had some verbal information from Herb Wedge as to which way Hanna seemed to be leaning, but we still have nothing from Hanna itself.

Please note items 14 and 17 in the proposal. Give me a call if you would like to discuss them. When your response is ready, call and we'll decide (depending on length, I suppose) whether you should fax the material to us or use some other method. We'll convene another meeting of the Douglas County Industrial Development Board as soon as we can get the material to the members, and as soon as we have some response from Hanna.

Look forward to hearing from you soon.

Very truly yours,



Peter L. Graff
Assistant Director

Enclosures

cc: Walter D. Atchison
Len Ramp ✓
W. D. Smiley
Ralph Nafziger/Dick Siemens
W. L. Rice
Douglas County Bd. of Commissioners
Douglas County Industrial Development Board
Lynn Youngbar
H.D. Wedge
D. G. Meyers

C. C. D. BUSINESS DEVELOPMENT CORPORATION

744 Southeast Rose Street — Roseburg, Oregon 97470

Telephone (503) 672-6728

Toll Free in Oregon: 1-800-452-6010

June 1, 1987

Mr. W. E. Welch
Director, Lands and Leases
M.A. Hanna Company
100 Erieview Plaza
Cleveland, OH 44114

Re: Facilities at Riddle, Oregon

Dear Mr. Welch:

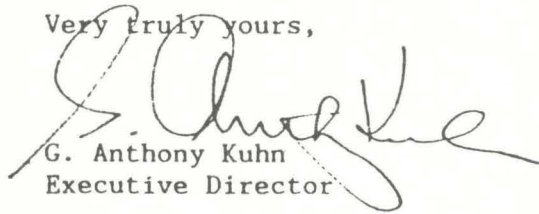
In reference to our letter of May 12, 1987, we would like to advise that the Douglas County Industrial Development Board (potential sponsor of the proposed Alternative Use Study of the Nickel Mountain site) has met with us and Mr. H.D. Wedge and discussed developments to date.

The DCIDB's position may be summarized in principle as follows:

1. They are most anxious to proceed generally as outlined in our letter of May 12, and in the Hatch Consultants proposal. As you will appreciate, confirmation from Hanna of a 90-day moratorium on dismantling and sale of smelter equipment is a prerequisite to approval by the DCIDB and other funding sources (The Oregon Department of Economic Development) of the Hatch proposal.
2. The DCIDB agrees that the requested moratorium will not apply to the dewatering equipment such as centrifuges, 50' thickener, etc.
3. The DCIDB would in addition like to have in-principle assurance that, in the event the Hatch Alternative Use Study suggests one or more potentially profitable uses, Hanna would be willing to extend the moratorium on such equipment and for such time(s) as may be appropriate to allow completion of subsequent site-specific feasibility studies on the part of interested sponsoring investors/operators.
4. The DCIDB would very much like to have Hanna's participation in the Alternative Use Study under any reasonable terms acceptable to Hanna. The DCIDB has discussed potential funding alternatives for the \$50,000 with the state, and would like to propose the following specific arrangement for funding (all up front): Hanna 15% or \$7,500; State and DCIDB to fund the balance of \$42,500 on a 75/25 basis, with the state paying \$31,875 and DCIDB \$10,625. This would supersede the suggestion in our letter of May 12. Again, however, we would emphasize that, if this for any reason is not acceptable to Hanna, the DCIDB would be happy to consider alternative suggestions.

We hope that the matters discussed herein and in our letter of May 12 are reasonably clear and acceptable to Hanna, and look forward to your response.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'G. Anthony Kuhn', is written over the typed name and title. The signature is fluid and cursive, with a large initial 'G' and a long, sweeping horizontal stroke at the end.

G. Anthony Kuhn
Executive Director

PLG:as



DOUGLAS COUNTY INDUSTRIAL DEVELOPMENT BOARD

744 S.E. Rose Street — Roseburg, Oregon 97470
Telephone (503) 672-6728

OREGON STABILIZATION & CONVERSION FUND FEASIBILITY STUDY APPLICATION: NICKEL MOUNTAIN SMELTER--ALTERNATIVE USE STUDY

II. Project Information

6. Describe the facility (including type of construction and construction sector, pertinent features, current value, building sq. ft., land area and ownership)

The mine and smelting facility are described in some detail in an attached brochure. Since the brochure was written, rapidly increasing supply and especially power costs in the face of declining selling prices of FeNi during 1981 and 1982 resulted in a 19-month closure of the facility in April 1982. Events preceding closure are described in a copy of Hanna's pre-filed testimony at the Bonneville Power Administration rate case hearing. Subsequently, relying on an amendment in the Northwest Regional Power Bill which provided that the Bill should not adversely affect industries using materials indigenous to the region, Hanna worked out the techniques necessary to operate on an "off peak" form of power which was sold to them at \$0.007 per KWH. Off-peak operations reduced costs by more than 30% but sales prices by 1984 were 10% less than production costs.

In a further attempt to regain economic operations, a modification costing approximately \$12 million was made. The modification provided for recovery of an ore concentrate by a process of wet screening and separating the high grade fine fractions of ore at approximately 100 mesh size. Only economic ore was processed, melted and reduced to FeNi while the lower grade size fractions were rejected from the process as soon after mining as possible.

After construction in 1985 the new facility was tested during the end of that year and during early 1986. Approximately 70,000 tons of ore concentrate was produced, dewatered, agglomerated and stock piled. Smelting tests during June through August 1986 indicated that many unestimated advantages would be realized but that costs could not be reduced to a level roughly half of 1980 levels. The tests to produce the concentrate revealed that the \$3 million wet screening and classification system required additional equipment to increase its capacity by about 60% to the 650,000 to 675,000 tons per year of concentrate needed to supply the smelter on the 104 hour per week "off peak" operating basis.

After completion of testing in August 1986, an indefinite shutdown of facility was declared. This was converted to a permanent shutdown in January 6, 1987 and plans were made to dismantle and salvage the equipment. Estimates of salvage value range from \$7 to \$10 million.

The land area involved includes approximately 5,200 acres of which nearly 4,000 acres is owned by M.A. Hanna Co. The balance is mostly BLM land on which Oregon Nickel and Wright leases have unpatented mining claims. Hanna has surface rights to their land but, although unmineralized, Douglas County has mineral rights. Nearly 2000 acres of the Hanna land is probably tillable.

7. Describe the most recent activity employed at the facility.

The most recent activity at this facility was the production of low carbon ferronickel and testing of the new equipment.

8. Based on available information, describe the prospects for a re-start and/or conversion of the facility.

The prospects for restarting are very remote. The equipment will be dismantled and the land sold unless an economic alternative use can be found. Even then, the equipment would most likely be sold to prospective users since, as a result of a major policy change, mining and metals are outside Hanna's corporate objective for use of new funds.

9. Please attach the facility's past three years financial statements (if available).

Financial statements are not available, but it is public knowledge that losses from Nickel Mountain operations were as follows:

<u>FYE Sept. 30</u>	<u>Pre-Tax Operating Loss (000)</u>
1982	(\$8,101)
1983	(\$5,321)
1984	(\$4,435)
1985	(\$2,228)
1986	(\$9,866)

The 1986 jump in the loss was due to the combination of new facility costs and a precipitate decline in nickel prices. A table showing sales prices and a graph of nickel prices for 1986 are attached.

10. Describe the facility's existing or last markets and customers for its product(s). Describe these products.

See the next to last page of the enclosed Hanna brochure for a brief description of product and markets. It is to be emphasized that an evaluation of uses of the facility other than the production of nickel are the subject of the current grant application.

11. Identify the level of employment during the last twelve months, and over the past three years.

Employment history

1987 Jan.- April	4 employees
1986 Dec.	9 "
1985 Dec.	59 "
1984 Dec.	277 "
1981	550-600 "

12. Describe the potential product mix for the facility.

See enclosed proposal from Hatch Associates

13. Describe any impediments to successful operation of the facility.

The equipment design is early 1950 vintage. It has been well-maintained and modernized where possible but modern equipment is larger by a factor of 3 to 4 and takes advantage of economy of scale.

It is somewhat difficult to speculate about other impediments prior to selecting an alternate use. For many (but not all) possible uses, the site's relative isolation and distance from major markets could be a significant impediment.

14. Describe the elements and an estimate of the cost of the feasibility study. Include specific costs for such study components as market research, asset appraisal and production cost analysis.

The Alternative Use Study will be generally as delineated in the enclosed proposal from Hatch Associates.

Hatch has been asked to provide additional information regarding:

- Definition of end-product, and likely scenario of next steps following submission of a positive report.
 - Rough outline and schedule of work, with proposed review-and-reconfirm points.
 - Breakdown by study component of probable type and level of effort for the not-to-exceed-\$50,000 total.
15. List all individuals and/or organizations you believe are qualified to perform the feasibility study.

We are informed by former Hanna personnel that this study is sufficiently technical in nature that very few firms are qualified to undertake it. Hatch Associates is perhaps the only firm among them (others would be Bechtel Corporation, Ralph M. Parsons, Davey-McKee) who could be described as "medium" sized and who would be, in all likelihood, interested in bidding on this comparatively small project.

Hatch, whose brochure is enclosed, is perhaps uniquely qualified to perform this "Phase I" study because a) they are experts in both the iron and steel and the non-ferrous metals industries, b) they have done similar studies, currently performing a study for the State of Pennsylvania to determine alternative uses for closed steel mills in and around Pittsburgh, c) they offer an excellent potential for bringing potential investor/operators to the table in the event one or more of the alternative uses appears profitable, and d) they are available to do the study immediately, a significant factor in view of Hanna's plan to sell off the facilities (see enclosed letter from CCD Business Development Corporation to Hanna dated June 1, 1987).

16. List those individuals and community organizations supporting this application and re-starting the facility. Attach any letters of support.

Re-establishing some form of meaningful manufacturing activity at the Nickel Mountain site has virtually universal support throughout south and central Douglas County. A news article is enclosed, describing the effect of the loss of local property taxes on the local community.

The loss of the Hanna payroll, and of the trade and service jobs that the Hanna payroll supported, are if anything more dramatic. Metals industry jobs are family wage jobs--historically slightly outstripping even lumber and wood products.

In response to testimony from the neighboring communities of Canyonville and Myrtle Creek, the Douglas County Economic Strategy Committee named the \$50,000 Nickel Mountain Alternative Use Study a priority project even though the primary focus of their (draft) strategy is tourism.

17. Attach a commitment letter for the 25 percent matching funds source for the feasibility study.

The Douglas County Industrial Development Board were handed the Hatch proposal on May 22. The results of their discussion are summarized in CCD's letter to Hanna of June 1. As soon as Hatch has responded to the questions listed in item 14 above, the DCIDB will reconvene and formalize its commitment. This is expected in the next two weeks.



STATE OF OREGON

INTEROFFICE MEMO

RECEIVED-PTLE

TO: Don Hull

DATE: April 24, 1987

APR 27 1987

FROM: Len Ramp

DEPT. OF GEOLOGY
& MINERAL INDUSTRY

SUBJECT: Low carbon ferro chromium smelter for Coos Bay

A newly formed company - Sherwood Pacific Limited was initiated to construct and operate a chromium smelter in Coos Bay, Oregon. Announced on the 11th of April, 1987 to the Vancouver, B.C. Stock Exchange by parent company, P.S.M. Technologies, Inc., a subsidiary of U.S. Chrome, Inc. and U.S. Nickel Corp. (See copy of announcement by Bill Wood, President & clippings enclosed).

Pacific Power and Light is reportedly funding the project in the amount of \$2,000,000 as well as offering an incentive power rate agreement and installation of a \$4,000,000 transmission and substation facility.

The Governor through EDD is also expected to contribute to the project. P.S.M. (Precious Strategic Metals) will provide \$10,000,000 to the project and have exclusive right to supply raw material to the smelter.

The Port of Coos Bay is providing a fully-serviced site including deep water dock on very attractive terms for the first six years. Frank G. Martin, Jr. Port General Manager is credited with arrangements.

Primary suppliers of Domestic Chromite are reported to be Del Norte Chrome and Asamera Metals from mines in N. California.

I have been told that minimum grade ore acceptable at the smelter will be 46% Cr_2O_3 with a Cr:Fe ratio of 205 to 1.

The U.S. BuMines estimates California has 1.6 million metric tons of Cr_2O_3 contained in 14.6 million mt with a Cr:Fe ratio of greater than 2.0. How much of this is greater than 2.5 Cr:Fe ratio isn't reported but it may be about 1 million mt. One million mt of Cr_2O_3 contains 684,250 mt of Cr. If the plant is to produce only 30,000 mt of LCFC which contains about 50% Cr, the 1 million mt of Cr_2O_3 would last more than 40 years. LCFC (March market quotes E & MJ effective 9-25-86) sells for about 83¢ a pound (.82 to .84) of contained Cr. Better check my figures. They sound too good.

Interoffice Memo
To Don Hull
April 24, 1987
page 2

Lloyd Frizzell indicated to me that the plant would probably be using imported foreign ore also.

I seem to recall that Jim Haight said the John Day ore could be upgraded to only about 43% Cr_2O_3 with a less than 2 to 1 Cr:Fe ratio so it wouldn't be considered a source.

I'll have more details regarding this subject following my meeting with Tony Kuhn of CCD business development and Herb Wedge and Don Meyers of Hanna Nickel this Friday A.M.

See you in Portland.



Len

LR:rep
Encl: 4 pages photo copies

MEMO

DATE: April 15, 1987

TO: John B.

FROM: Don H.

SUBJECT: Hanna Nickel Smelter

On April 13, 1987 I talked to Len about the status of our work on the Hanna facility with respect to conversion of the smelter for alternative uses. We agreed that Len would keep in touch with the local Economic Development group (CCD) and Herb Wedge to get the results of Herb's preliminary analysis on the production of ferrochrome and/or stainless from scrap materials. I indicated that we could review the status of this subject during the Pacific Northwest metals and Minerals Conference on April 27-28, 1987.

The key question at this point is the desirability of undertaking a preliminary feasibility study to evaluate economic parameters of the production of alternative products by the Hanna plant.

DAH:ab

CC: Len Ramp



STATE OF OREGON

INTEROFFICE MEMO

DRAFT

TO: Hanna File

DATE: March 17, 1987

FROM: John B.

SUBJECT: Status of Activities

In recent weeks, Len has been researching options for use of the Hanna smelter. His contacts have included individuals at EDD, USBM, and Hanna. Various pieces of information promised by various individuals have not been received.

In an attempt to accelerate the process, we met with Don Hull and Jim Haight to discuss future activities.

It appears that Hanna Nickel, in their haste to leave town is the prime mover. Any strategic plan must mesh well with their plans. Our plan for the present is as follows:

- 1) Receive from Herb Wedge a feasibility statement regarding use of the smelter for ferrochrome or ferronickel manufacturing.
- 2) Advise Hanna Nickel that they may be able to get tax breaks from the county. Included is a reduction in assessment owing to inactivity or some other loophole. In the future, conceivably lottery money could be used to upgrade the facility for a new use (this is pure speculation at this point).
- 3) Discuss with higher level people in Economic Development, the possibility of strategizing towards a secondary use for the smelter given the international metals situation and the presence of the plant and work force. The Hanna facility and local infrastructure is analogous to that for reopened aluminum plants along the Columbia River.
- 4) It is possible that the plant could be factored into the regional economic comeback plan being solicited by the new administration. Specifically how this could be accomplished is best defined for us by appropriate staff at EDD.

A strategic plan then for the Hanna facility, would recognize its capabilities, would define with some measure of confidence possible future uses such as ferrochrome, would slow down the Hanna pullout by soliciting favorable tax breaks, and would factor the second use into the regional economic plan now being developed.

Conversations needed to make this happen probably must be conducted concurrently and should include discussions with Hanna Nickel, EDD, and perhaps the Governor's office.

DRAFT

Hanna File
March 17, 1987
Page 2

For Hanna Nickel, a key legal spokesperson is Richard Hahn (216/589-4040). Mr. Hahn's address is 100 Erie View Plaza, Cleveland, Ohio 44114.

As an afterthought, it is possible that ferrochrome manufacture at Hanna could include use of black sands from the Oregon Coast and load chromite from the John Day area, where 200,000 tons plus have been drilled out with a refractory grade of .22% Cr_2O_3 .

JDB:ab



STATE OF OREGON

INTEROFFICE MEMO

TO: Len

DATE: March 20, 1987

FROM: ✓ John Beaulieu

SUBJECT: Hanna Meeting

We have scheduled a Hanna Meeting for 1:00 p.m. Wednesday, April 1, here in Portland,

At that time we will discuss your findings and attachments as requested in my earlier memo of March 17.

We will also outline a specific course of action for future agency involvement.

Note: As Don requested, please also prepare a general statement outlining sources of chrome ore (with volumes) that might feed a regional ferrochrome smelter at Riddle.

JDB:rm
cc: Don Hull



STATE OF OREGON

INTEROFFICE MEMO

TO: Len Ramp

DATE: March 17, 1987

FROM: John B.

SUBJECT: Hanna Nickel

By April 1, 1987, please complete the following task and submit written material on each:

- 1) Receive from Mr. Rice of the BLM, his opinion about the feasibility of converting Hanna Nickel to a ferrochrome facility.
- 2) Receive from Herb Wedge his opinion about the feasibility of converting Hanna Nickel to a ferrochrome facility.
- 3) Discuss with Richard Hahn of Hanna Nickel in Cleveland, Ohio, the major concepts we discussed on March 16 here in Portland. Some of these are summarized in a separate memo. Richard Hahn's phone number is (216) 589-4040.
- 4) Discuss in person with Ms. Youngbar of EDD, the following two items:
 - a) Bring her up-to-date on all of our discussions regarding options for the future at Hanna Nickel;
 - b) Identify through her the individual EDD who facilitated the reopening of the aluminum plant at The Dalles.
- 5) Receive from Mr. Hahn, their strategic plan for dismantling or walking away from the Hanna operation.
- 6) Receive from Mr. Hahn a set of deadlines related to the disengagement from Hanna.
- 7) Communicate specifically to Mr. Hahn, our ideas that it is possible to get tax breaks either through reductions in assessment or loopholes and communicate that it might be beneficial to receive these tax breaks, to decelerate the disengagement schedule, and to pursue creative second uses through a willing buyer.

In a later discussion with EDD we will want to examine the manner in which the Hanna facility can be placed on the regional economic comeback strategy sheet. We don't want to do that now however, since we have not fully scoped out the feasibility of this concept. It would be best then not to mention it to Ms. Youngbar in your next conversation.

Len Ramp
March 17, 1987
Page 2

In committing the above conclusions to writing, please attach copies of documents submitted to you from other individuals such as Rice and Wedge. Thank you.

JDB:ab



OFFICE OF THE DIRECTOR

United States Department of the Interior

BUREAU OF MINES
2401 E STREET, NW.
WASHINGTON, D.C. 20241

Manna file
MAR 20 1987

U.S. DEPT. OF GEOLOGY
MINERAL INDUSTRIES

March 16, 1987

Dr. Donald A. Hull
State Geologist
Department of Geology
and Mineral Industries
910 State Office Building
1400 SW 5th Avenue
Portland, Oregon 97201-5528

Dear Don:

Unfortunately, I will not be able to attend the Portland conference on May 27. On May 28 I must attend a hearing before the Senate Appropriations Committee.

As regards the possibility for a joint effort to investigate the conversion of the Riddle nickel smelter, I fear that we could contribute little in the way of funds. However, I believe we could assist you with technical advice, if you desired, as to the possibility of achieving a conversion. A proper first step might be to evaluate the probable economics of such an operation were conversion possible. Have you identified sources of chromite or of stainless steel scrap? Are their costs such as to allow competition with domestic or foreign suppliers?

If we can be of assistance in determining the economics of operation we will be pleased to do so if you can supply the base data regarding the raw materials.

Sincerely,

Robert C. Horton
Director



STATE OF OREGON

INTEROFFICE MEMO

TO: Don & John

DATE: March 31, 1987

FROM: Len Ramp

SUBJECT: Hanna Nickel Smelter

You have a copy of Herb Wedge's letter report of 3-16-87 to me on possible use of the Hanna Nickel Smelter for production of stainless steel, and discussion of charge chrome (high carbon ferrochrome) and high carbon ferronickel. I'm pretty sure that "charge chrome" is a high carbon ferrochrome used to charge a blast furnace in the steel-making process.

Attached is a copy of Herb's 3-18-87 letter to Tony Kuhn, CCD Business Development Corp., Roseburg on the subject of melting unclassified stainless steel scrap. I have not talked with Kuhn; but have talked with his assistant Peter Graff on March 20th. Tony was to call back; but hasn't.

I called Bill Welch of Hanna in Cleveland instead of Richard Hahn on the advice of Herb. Mr. Welch is Director in Charge of Lands and Leases and is directly involved with disposition of the Riddle facility. Copies of all of Herb's correspondence on the subject have gone to Mr. Welch. Bill Welch's message to me is they intend to continue pursuing a buyer for the facility and will not postpone doing this. He is happy that the State and others are interested in finding a possible future use for the smelter; but he says it has to be a simultaneous endeavor. He is reasonably certain their disposal program will take at least a year. He believes the smelter facility should be considered an important regional asset because within a 3 to 5 year period it may find a place in the economic development of the area. He indicated that the smelter will probably be the last item to be sold and if no buyers are found it will be available at scrap prices. He assured me they are not turning their back on us; but that they have to explore their possibilities and continue looking for buyers at the same time we are searching for alternate uses.

I talked again with Herb Wedge, both before and after he talked with Peter Graff (Tony Kuhn's assistant). Herb has agreed to make a presentation to CCD on melting of stainless scrap. Herb was going to contact Dick Box and others for preliminary information on availability of stainless scrap and markets. I asked Herb if he would be interested in going to the conference: "Natural Gas use in the production of virgin iron units" in Chicago April 23, if funding could be obtained for his travel, and he said "yes". He said the plane fare is about \$480 and two nights hotel would be about 150 for a total of probably about \$700. My next question is: is there any place we can find the money to send him? I think sending him would be a good investment as he is very interested in the possibility of reactivating the smelter and is willing to devote his talents toward that end. I think he is an important and valuable key in this process. He has a consulting agreement with Hanna; but they will encourage his

Interoffice Memo 3-31-87

To Don & John

From Len

Page 2

participation so long as it is parallel to their interests. If it becomes otherwise, he can and may terminate his agreement with them and continue to aid the cause. Herb says it would be personally satisfying to him to be able to help put people back to work and his only caution was becoming overly involved in a high-pressure job due to his health. (He had a heart attack and open-heart surgery last year). I have invited Lynn Youngbar to attend our meeting April 1st in response to Don's suggestion. I have also invited Ralph Nafziger, U.S. BuMines, Albany to attend. He is a very qualified pyrometallurgist and can help us with advice and council on that subject. I would have written them both; but Ruthie is taking a short vacation. Bill Rice, U.S. BuMines, Spokane, called back and reiterated their interest and willingness to help in any way they can. Bill suggested we work with Ralph Nafziger from Albany. He wants to be kept informed and will help to facilitate the BuMines cooperation.

On the subject of possible chromite resources that may be made available to the smelter, see pages copied from U.S. BuMines IC 9087. The offshore black sand resource should also be considered as chromite is a major mineral constituent and the potential tonnage is very large (See GMS-37, Mineral Resources Map, Offshore Oregon by J.J. Gray and L.D. Kulm, 1985).



LR:rep

cc: Herb Wedge

Bill Rice

Encl: copy of Herb Wedge's letter of 3-16-87

Hanna Nickel Smelting Company

P.O. Box 85

Riddle, Oregon 97469

March 18, 1987

Mr. Tony Kuhn
CCD Business Development Corporation
744 S. E. Rose
Roseburg, OR 97470

Dear Tony:

During our meeting in your office on March 5, the feasibility of melting unclassified stainless scrap metal, adjusting and standardizing the grade and casting the product for sale to stainless melters was discussed. Perhaps the two 10-ton steel furnaces previously used for refining ferronickel at Riddle could be utilized for the purpose. In the past, W. D. Atchison, formerly manager of metal sales for the M. A. Hanna Company, has told me that there are small companies in the Pittsburgh area who do this profitably. During a business trip to Treibach, Austria in March 1983, I observed an operation in which nickel catalyst containing over 20% nickel, purchased worldwide, was being reduced to metallic form, the grade standardized and cast in shotted form. A single 7.5 megawatt steel furnace with a 10-foot diameter shell was used to process the catalyst. Perhaps a combination of scrap melting and nickel catalyst might be worthy of an examination of feasibility in connection with the Riddle facility.

The following information would be necessary to develop a feasibility:

1. Quantity of raw material (stainless scrap and nickel catalyst) available within an economic transportation zone probably in the western U.S. but also perhaps including sources in the Pacific Rim.
2. Price at which the raw material could most likely be purchased.
3. Number and location of domestic companies engaged in a similar activity.
4. Survey of the potential market to estimate probable quantity of product which could be sold and at what price. This survey should perhaps include potential buyers in the Pacific Rim countries to take advantage of possible freight advantage.

5. Subsequent to the estimation of the limitation of and subject to either supply of raw material or sale of product, the cost of modification of existing equipment should be engineered and estimated.
6. Based on the agreed equipment configuration, as modified, the operating costs including power, labor, process material and maintenance material would be determined.

Obviously, the feasibility would then be based on sale of a realistic quantity of product at an agreed upon price less operating costs, depreciation of capital over an agreed fixed period and debt service on the capital, all in accordance with estimates based on the surveys enumerated.

The question of who should be commissioned to accomplish the work has no obvious answer. I would prefer to select an Oregon based engineering firm but perhaps an organization like Stanford Research or Battelle has more of the needed international capability. I suggest that a small group be established to interview prospects and to make a selection. I think Ralph Nafziger would function well as one of the members and I will have a continuing interest in the work.

A number of men might prove a source of additional preliminary information. They are:

W. D. Atchison - Former Hanna Sales Manager - Cleveland
216/653-9416
Dick Box - Luria Brothers Salesman - Seattle 206/228-5100
Ross Hogan - UCC National Carbon Salesman - Boring, Oregon
503/658-6142
Bill Ferris - V.P. Oregon Steel - Portland 503/240-5222
Vince Vellella - President Inmetco - Pittsburgh 412/771-2654

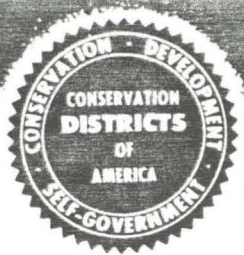
Following the preliminary investigations and discussions and as significant information is obtained, a series of "trial feasibilities" should be attempted by a management-type group to evaluate whether or not additional phases of the project should be pursued. Careful and constant evaluation of the work should be an effective tool in making the best use of money spent.

Very truly yours,


H. D. Wedge

pb

cc: W. E. Welsh
D. D. Morgan
D. G. Meyers
Lynn Youngbar (Econ.Dev.-Salem)
Len Ramp (Dept. of Geol.-Grants Pass)
W. L. Rice (Interior Dept.-Spokane)
Ralph Nafziger (Bur.Mines-Albany)



South Douglas Soil and Water Conservation District

~~2621 NE Stephens~~ - Roseburg, Oregon 97470 - (503) 673-8316

MAR 11 1987

DEPT OF GEOLOGY

March 10, 1987

Mr. Allen Throop
Department of Geology
1534 Queen Street SE
Albany, Oregon 97321

Dear Mr. Throop,

As we agreed on the phone this morning, I am enclosing copies of the letters from the Board of Directors of South Douglas Soil and Water Conservation District concerning reclamation concerns at the Hanna Nickel Mine site in this County.

I will be reporting our discussion to the Board at their April meeting and passing on your suggestion that we contact Hanna to arrange an on-site tour. I hope that the copies you promised to send will have arrived by that time so that I may also share that information.

As we discussed, I believe much of this confusion could have been avoided if more information had been provided to the local District Board. I appreciate your offer to answer the Board's questions after the inspection and look forward to working with you in the future.

Sincerely,

Karla Jane Palmer
Karla Jane Palmer
District Office Manager



South Douglas Soil and Water Conservation District

2621 NE Stephens - Roseburg, Oregon 97470 - (503) 673-8316

RECEIVED

MAR 11 1987

DEPT OF GEOLOGY

February 17, 1987

Senator Robert Packwood
259 Russell Senate Office Building
Washington D.C. 20510

Dear Senator,

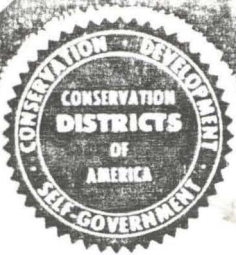
Enclosed is a copy of a recent letter to Oregon's Director of Natural Resources, Gail Achterman, concerning reclamation of the Douglas County lands which were surface mined by Hanna Nickel Company until recently.

As a locally elected Board, our Directors are very concerned about the reclamation of this land and its potential effect on water quality in southern Douglas County. We are requesting your assistance to assure that this problem is investigated. The effects of ignoring this problem will be disastrous. Please help us.

We have proposed an on-site inspection of the 600+ acres involved. We would appreciate your support of this inspection and would invite you to join us when it is scheduled. It is very important for us to speak up now before it is too late. Your assistance in this matter is greatly appreciated.

Sincerely,

Jeffery Kruse
Board Chairman



South Douglas
Soil and Water Conservation District

1376 NE Walnut Suite L, Roseburg, OR 97470

RECEIVED

MAR 11 1987

DEPT OF GEOLOGY

February 10, 1987

Ms Gail Achterman
Director of Natural Resources
State Capitol Building Room 160
Salem, Oregon 97310

Dear Ms Achterman,

I am writing to express the concern of the South Douglas Soil and Water Conservation District's Board of Directors with the reclamation of the area in South Douglas County which was, until recently, the site of the Hanna Nickel Mine. Mr. Paul Lawson, Supervisor, Reclamation of Surface Mined Land, Department of Geology and Mineral Industries in Albany, has said that all but 34 acres of the 600 acre site are exempt from legal requirements for reclamation because they were being mined prior to the legislation. Our Board is concerned that the unreclaimed land may have a detrimental impact on water quality, will increase the potential for erosion problems, and at the very least will be a permanent eyesore.

The Board would like to invite you to accompany them to inspect the site and determine whether these concerns are valid, and, if so, what options exist for solving the problems. Please contact Karla Palmer, District Office, 673-8316, or myself at 673-7201, if you would be interested in making an on-site inspection, or if you have other questions concerning this problem.

Our Board looks forward to working with you in the near future to help preserve our area's resources. Thank you for your attention to this matter.

Sincerely,

Jeffery Kruse
Board Chairman



ECONOMIC
DEVELOPMENT
DEPARTMENT

595 Cottage Street, NE
Salem, Oregon 97310, U.S.A.
Telephone: (503) 373-1200

Telex: 821481
Cable: ORECONDEV
FAX: (503) 581-5115

August 21, 1987

RECEIVED

SEP 08 1988

DEPT. OF GEOLOG
'MINERAL IND'

Norm Gershon
Douglas County Industrial Development Board
744 S.E. Rose Street
Roseburg, Oregon 97470

Dear Mr. Gershon:

Thank you for your letter of August 11, 1987 regarding the application to the Stabilization and Conversion Fund for feasibility study assistance on the Nickel Mountain facility.

While the Economic Development Commission (Commission) denied funding for the feasibility study, they did not close the option of providing assistance to you in finding alternatives for the site. We are happy to have you reapply for assistance on the study.

We would like you to send a letter to the Economic Development Department which includes the following information:

1. What are the results of phase one of the study which warrant continuing with phase two?
2. What are the expected results of phase two? The work plan states what the consultant will do, but I would like an explanation of the goals and end product of the study (other than a report).
3. What is the role of the M.A. Hanna Company in phase two? What are they doing to facilitate the sale?
4. How much money are you requesting from the state for phase two? How is this amount derived?



Neil Goldschmidt
Governor

Norm Gershon
August 21, 1987
Page 2

When we receive your letter, Lynn Youngbar will work with you on the details of the application. The Stabilization and Conversion Fund functions directly as a result of new legislation, Senate Bill 950. Until we adopt administrative rules, the application must go before the Commission. The Economic Development Department will make a recommendation to the Commission which they will consider at their next meeting, September 22, 1987.

We look forward to receiving your letter and to putting together a workable project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rick Reiten".

Richard G. Reiten
Director

RGR:sb



DOUGLAS COUNTY INDUSTRIAL DEVELOPMENT BOARD

744 S.E. Rose Street — Roseburg, Oregon 97470
Telephone (503) 672-6728

August 31, 1987

Mr. Richard G. Reiten, Director
Oregon Department of Economic Development
595 Cottage Street, N.E.
Salem, Oregon 97310

Re: Nickel Mountain Smelter Facility
Alternative Use Study

Dear Mr. Reiten:

I am taking the liberty of responding to your letter of August 21 addressed to Norm Gershon, DCIDB President, because he is on vacation out-of-state and will not return until September 8.

We are pleased that you and the Commission will reconsider our request for Stabilization and Conversion Fund participation in the cost of our efforts to put at least part of the Nickel Mountain facilities back into productive use. We would respond to your specific questions as follows:

1. What are the results of phase one of the study which warrant continuing with phase two?

On July 30, Hatch Associates presented their Interim Status Report. A summary sheet showing the alternative uses thus far identified is enclosed as Attachment 1. Based on the existence of one solid prospect (EAF dust development by Horsehead Resources), and reasonable prospects for two or three other possibilities, it was decided to have Hatch continue with phase two.

It should be stated that it is difficult to separate the progress of this study into distinct "phases". Alternative use identification, market testing, costing, and identification of potential investor/operators is a fluid process. Hatch's revised work program for the rest of the study is enclosed as Attachment 2, and modifications suggested by DCIDB's Technical/Financial Review Committee are enclosed as Attachment 3.

2. What are the expected results of phase two?

It is not yet possible to state with any degree of precision what the results of phase two will be. Note that phase two ends, if you will, on September 30th, which is the date after which the M.A. Hanna Company is free to do as they wish with their facilities. Development work is continuing at full speed with four distinct alternative uses, at least some of which would be compatible with each other and could co-exist at the site.

In addition to the metallurgical process possibilities being developed by Hatch, negotiations are going on for at least two other industrial uses of the site which do not involve metallurgical processing. The existence of the Hatch study, and the potential uses and investors/operators resulting therefrom, are being coordinated with (and are, in fact, a prime motivation for) some of these other negotiations.

The point is that the Hatch study has generated in many circles a great deal of interest about the site and possibilities for productive uses of its assets. Development of the many possibilities will continue concurrently, with efforts during the month of September increasing on the strongest ones and diminishing on the weaker ones. We have every confidence (though obviously we cannot guarantee) that by September 30th at least one investor/operator will be seriously negotiating with Hanna for the acquisition of facilities at Riddle. Hatch's future role will depend on the desires of the investor/operator(s) identified at that point. In any case, both the DCIDB and the CCD Business Development Corporation are firmly committed to continue working with whatever possibilities and investors/operators have been identified at that time. Hatch's final report will in any case be a critical part of that ongoing work.

3. What is the role of the M.A. Hanna Company in phase two? What are they doing to facilitate the sale?

It is to be emphasized that Hanna is now totally out of the mining and metals business. This fact notwithstanding, Hanna has stated on a number of occasions their desire to do everything possible to facilitate the employment of the maximum number of people in alternative uses of these facilities. To this end, they agreed to a moratorium until September 30th on the dismantling or sale of all of their facilities. Throughout, they have made available, as requested by either Hatch or the DCIDB, the paid services of H.D. Wedge and D.G. Meyers. It also should be noted that for the duration of this study Hanna has continued to pay property taxes and has, in addition, actively solicited investor/operators in its own right, negotiations resulting from which are being coordinated with the DCIDB/Hatch work discussed above.

4. How much money are you requesting from the state for phase two? How is this amount derived?

We respectfully request that the state again entertain our original application for participation in the cost of the entire Alternative Use Study, to the extent of 75% of the total cost which has been agreed with Hatch Associates as not more than \$50,000. We feel that Douglas County took the risk of fronting a potentially non-productive phase one. All are now generally agreed that completion of the study will greatly enhance the probability of significant long term job creation at the Nickel Mountain site. Under the circumstances, we would again state our feeling that this

is precisely the sort of project that the legislature had in mind when it created the Stabilization and Conversion Fund. In fact, Hatch Associates' costs through July 31, which is an approximation of the end of the phase one, were \$20,750. We would hope, however, that the state will agree now to participate in the entire effort, not just a somewhat arbitrarily defined "phase two."

We hope that the foregoing is responsive to your questions. Please do not hesitate to contact us if any further information is required.

Sincerely,

DOUGLAS COUNTY INDUSTRIAL DEVELOPMENT BOARD

By: Ronald K. Culbertson
Ronald K. Culbertson
Vice President

RKC:sb

cc: Douglas County Board of Commissioners

C. C. D. BUSINESS DEVELOPMENT CORPORATION

744 Southeast Rose Street - Roseburg, Oregon 97470

Telephone (503) 672-6728

Toll Free in Oregon: 1-800-452-6010

August 28, 1987

Dick Wilson and
Paul O'Shaughnessy
Hatch Associates Consultants, Inc.
8th Floor, Rand Bldg.; 14 Lafayette Square
Buffalo, New York 14203

Re: Nickel Mountain Smelter Facility
Alternative Use Study

Dear Dick and Paul:

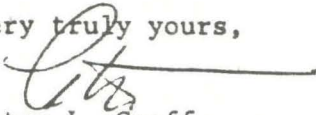
This confirms my conversation with Paul today. Enclosed are notes of Tuesday's meeting with the Technical/Financial Review Committee on this project.

Other points are as follows:

1. We (including the T/FRC) have as yet heard nothing further from Walter Atchison.
2. We have as yet not received the signed contract from you.
3. Notwithstanding the reduction in priority on fly ash processing, please send such technical and other information as you feel appropriate on the possible production of gypsum to Mr. Lee Simpson, Vice President for Operations, Louisiana-Pacific Corporation, 111 SW Fifth, Portland, OR 97204. Their potential interest would be as a buyer of the gypsum, not as an investor in any pilot plant operation.
4. With regard to your invoice for July, in anticipation of receiving the contract so that we can process for payment, please provide an itemized breakdown of the \$1,499.13 claimed for travel expenses.

Please call if you have any questions.

Very truly yours,


Peter L. Graff
Assistant Director

PLG:sb

cc: T/FRC
DCIDB
Bill Welsh (Hanna)



DOUGLAS COUNTY INDUSTRIAL DEVELOPMENT BOARD

744 S.E. Rose Street — Roseburg, Oregon 97470
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Meeting Notes

Douglas County Industrial Development Board
Nickel Mountain Technical/Financial Review Committee
Willis House Conference Room
Roseburg, Oregon
August 25, 1987

Committee Members Present

Herb Wedge
Ralph Nafziger
Len Ramp
Ron Culbertson
Lynn Youngbar

Peter Graff (Staff)

The committee met at 1:45 p.m. Principal review item was Hatch Associates' letter and attachments of August 14, 1987. Peter Graff informed the committee, section by section, as to the current status of Hatch's activity as related by Paul O'Shaughnessy in a telephone conversation on August 24.

After 2+ hours of review and discussion, the committee's principal recommendations were as follows:

1. Place high priority on the new possibility regarding smelting of platinum group metals mined in Montana.
2. Reduce priority on fly ash processing.
3. Recheck preliminary investment and return projections for EAF dust processing.
4. With regard to scrap catalyst processing:
 - a. What kind of market exists for Ni/Sn or Ni/W? (It is now understood that these metals would not be left in combined form but would be separated.)
 - b. Why restrict investigations to petroleum industry catalysts? Edible oil catalysts from the USA are being processed profitably in Austria.
 - c. Within the petroleum industry, why restrict investigations to Chevron? Texaco, for example, has a major refinery at Anacortes, WA, near Seattle.

Other than the foregoing, and a new possibility (to be dealt with by others) that has arisen regarding repair and refurbishing of railroad cars, the consensus was that Hatch should proceed as proposed.

Respectfully submitted,

A handwritten signature in dark ink, appearing to be 'Peter L. Graff', written over the typed name.

Peter L. Graff
Acting Secretary

PLG:sb

Len

OCT 05 198


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SERIAL IN

(5) to John

9/24

John B,

Could we get an update from
Len Ramp on the Hanna
situation prior to Oct. 1.
I'll be meeting w/ Gail
on that date.



Len - please call Don
with an update.

John B

9/29

Don:

I have copies of these two segments of the
alternative use study. I've looked through
them quickly and will loan them to you if
you wish. They are quite thick documents.
We should be having another meeting soon,
but haven't received notices as yet.

Len

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September 18, 1987

Mr. H.D. Wedge
c/o Thomas J. Wedge
73897 Pleasant Grove
Adena, OH 43901

Dear Herb:

As discussed, I am enclosing copies of Hatch Reports Nos. 1 and 2,
Metals from Fly Ash and Zinc Recovery From EAF Steelmaking Dust.

I will talk with you next week about other possibilities, as well as
your schedule and prospects for a meeting on September 30, October 1
or October 2.

Very truly yours,



Peter L. Graff
Assistant Director

PLG:shb

cc: Lynn Youngbar w/Same Enclosures
Ralph Nafziger w/Same Enclosures
Len Ramp w/Same Enclosures
Ron Culbertson w/Summaries
Bill Vian, Douglas County Commissioner
Hatch Associates

C. C. D. BUSINESS DEVELOPMENT CORPORATION

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September 18, 1987

Mr. H.D. Wedge
c/o Thomas J. Wedge
73897 Pleasant Grove
Adena, OH 43901

Dear Herb:

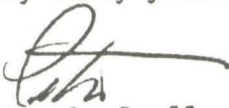
This is in reference to our conversations regarding possible production at the Nickel Mountain Smelter Facilities of 75% ferrosilicon utilizing Douglas County quartzite.

As I indicated to you, we have been apprised in general terms of the history and present status of potential charges by the U.S. Forest Service attributable to road maintenance resulting from transportation of the quartzite. We understand that the feasibility of the overall operation may hinge on the delivered cost of this quartzite, and that the level of these USFS charges puts us at a serious disadvantage relative to other producers.

We are not certain whether we (CCD, the Douglas County Industrial Development Board and Board of Commissioners, other local industry leaders) can help convince the Forest Service of the wisdom of lowering these rates, but we are certainly willing to try. If Walter Atchison and his associates are able to provide us with some facts and figures on the history and present impact of these charges, together with comparative figures from elsewhere, we will pick up the spear and see what we can accomplish. What we need are some facts and figures.

It would also be helpful, of course, if we could have some relative idea of the probability of actually establishing this 75% FeSi production operation in relation to a range of possible reductions in USFS road maintenance charges.

Very truly yours,



Peter L. Graff
Assistant Director

PLG:shb

cc: Douglas County Board of Commissioners
Douglas County Industrial Development Board