

Southwestern Branch
345 Middlefield Road
Menlo Park, California

December 13, 1962

AIR MAIL

Mr. M. H. Staats
Conservation Division
U.S. Geological Survey
Federal Center, Bldg. 25
Denver 25, Colorado

Dear Mort:

Do you by chance have a copy of your report on the Stalin's Present uranium property in the Humboldt Range that I might have or borrow? I can make a Xerox copy and return the paper to you promptly.

How have things developed as far as a project in Geologic Division are concerned? Things still seem bleak for the Southwestern Branch.

Best regards,

Sincerely,

Robert E. Wallace
Chief, Southwestern Branch

cc:
Director's reading file
Division
Subject
Chron file-MP

REWallace:bls



RECEIVED

JAN - 3 1963

SOUTHWESTERN BRANCH
U.S. GEOLOGICAL SURVEY
MENLO PARK, CALIF.

Mr. Robert E. Wallace
Chief, Southwestern Branch
U.S. Geological Survey
345 Middlefield Road
Menlo Park, California

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER 25, COLORADO
December 31, 1962

IN REPLY REFER TO:

Geologic Division

Dear Bob:

Enclosed is a copy of my report on the Stalin's Present uranium property that you requested. This report, as noted, is a preliminary report and is the result of only about a half a day's field work. I unfortunately do not possess a copy of the two maps. I do not have any other copies of this report, but as I have little immediate use for it, you need not be in a hurry about returning it. A summary of this report is printed on pages 95 - 96 of U.S. Geol. Survey Bull. 1009-C.

All I have gotten out of Andy about a possible project in the Geologic Division is "to have patience". I am not quite sure how this statement is to be translated.

Hope you and your family had an excellent Christmas season.

Sincerely,

Mortimer H. Staatz

SECTIONS BY LEGS TO BE INCLUDED IN INTERIM REPORT BY UERM

DMEA 2470, Idm-7-466, (Uranium), Nevada Uranium Mine

Pershing County, Nevada

GEOLOGY

The winze has been sunk vertically in granite in the footwall of the "vein", which flattens and dips west out of the winze 20 feet below the collar. The bottom is now 70 feet below the collar, ^{and} ~~which is~~ 53 feet below the altitude of the last known ore.

Mr. H. C. Davis, U. S. Atomic Energy Commission, visited the property June 10, 1953 when the winze was reported to be 68 feet deep. At that time the winze was accessible to about 50 feet - the bottom 18 feet being full of water - but no one was working. No vein or ore minerals were seen below the 20 foot point.

RECOMMENDATIONS

Because the vein may be "a narrow zone of highly metamorphosed rock enclosed in granite" / it should be tested at close intervals

/ Anderson, T. P. and Waddell, G. G., 1952, Examination of the Stalins Present mine, Pershing County, Nevada, U.S.A.E.C. RMD 927, p. 7.

until its extent and continuity are sufficiently well known to allow projection for greater distances. For this reason and also because a larger flow of water will probably be found at greater depth we recommend that the crosscutting provided in the contract be done 70 feet, instead of 100 feet, below the collar of the winze.



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

March 31, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. H. Lamm, U.S.G.S.

Subject: Exploration application \$50,000 DMEA 1943 - Tungsten
Gerry W. Eden
401 Bridge St.
Winnemucca, Nevada

Property: Relief Mine
4 miles south of Rochester
Humboldt Range
Pershing County, Nevada

Proposal: In the application, Eden gives no information about what exploration he intends to do. In response to questions from DMEA, he replied with similarly vague statements.

derived
Mineralization: The deposit was examined August 25-27, 1951 by P. J. Mielbitt and L. F. Muller of the Bureau of Mines in connection with an application for an access road (AM-74).

The examining engineers determined that the property contains no appreciable amount of tungsten. Eleven samples of old mill tailings from silver operations assayed from 0.01 to 0.14 percent WO_3 . Of four vein samples taken in the best scheelite mineralization exposed in workings, only one contained more than 0.08 percent, and this one, assaying 1.02 percent, represented only a few tons in a lens one foot wide. The accessible workings were examined in ultraviolet light before samples were taken.

The tailings, of which about 300 tons appear to contain 0.10 percent of WO_3 , presumably contain most of the scheelite originally present in ore that was milled for silver.

The applicant cited several high-grade assays from veins and tailings, but did not provide certificates. Presumably he was guessing from fluorescence, or his assayer was unreliable.

Recommendation.

The Field Team recommended that the application for an access road be denied because the mine does not contain any appreciable amount of tungsten ore.

The information contained in the field report shows that there is little chance of making a significant discovery of tungsten ore in the mine. Therefore I recommend that the exploration application be denied.

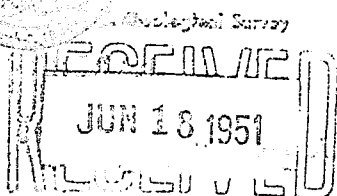
D.M. Lemmon

DMLemmon:gt



UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Box 7618- Lakewood Branch
Denver 15, Colorado



Geological Survey
San Francisco, Calif.

June 14, 1951

*Elmer had
carbon
on*

DM A-345

Mr. Ward C. Smith
102 Old Mint Building
San Francisco 3, California.

Dear Ward:

Linc Page has asked me to answer your inquiries on the Stalin's Present property, Pershing County, Nevada.

During the past summer I investigated some of the uranium deposits in Nevada. On September 11 of last year, together with Charles C. Towle of the Atomic Energy Commission, we accompanied Mr. Bottomley, the owner, to the property. At that time the road ended two- and one-half miles from the property.

Stalin's Present prospect is underlain by granite near its contact with metamorphic rock. Uranium bearing materials are chiefly confined to a layer of dark green rock dike-like in form. This rock appears to be metamorphosed by the granite with later introduction of vein material. The Trace Elements Laboratory in Washington has identified the following minerals in this layer. Diopside, epidote, chlorite, calcite and quartz, and traces of garnet, corundum, and zircon. In addition I identified biotite and hornblende in some specimens.

The workings at the time of my visit consisted of a pit, 6 feet long by 3 feet wide, and an adit 63 feet long. The pit is approximately 29 feet above the adit. A mine map was made of the adit.

A small fault cross-cuts the adit near its face. The dark green band is exposed along the east side of the tunnel to the tunnel's face where it is cut by a fault. Near the face, on the west side of the tunnel, a small patch of this rock is exposed in the wall. It is believed that this layer is a part of the same layer offset by the fault in the tunnel. The workings did not go far enough at the time to show whether this was so, or whether it was actually a second layer.

The uranium minerals that have been identified from this layer by the Geological Survey's Radiometric laboratory are pitchblende and a yellowish-green alteration product, which resembles gummite.

Three samples were taken by us along the layer in the adit and three were previously taken by Charles Towle from the pit. The samples ranged from .042 to 0.22 percent uranium. From these few samples an average grade of 0.11 percent uranium was calculated. Where Mr. Thomas obtained the 2 percent U_3O_8 assay is difficult to say. The highest assay that had been reported to us was .7 percent U_3O_8 which was a selected sample by Mr. Bottomley.

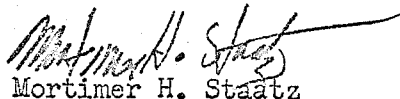
Stalin's Present prospect is an unusual type of uranium deposit. We have not encountered this type of deposit before. The extent of the band into the hill and the depth is difficult to predict. As the Atomic Energy Commission is buying ore almost as low as .05 percent, the grade is high enough to be of interest. In my report I recommended that explorations be carried out by the Atomic Energy Commission. I recommended 150 feet of hand trenching at 50¢ per foot, 100 feet of adit at \$20.00 per foot, 50 feet of shaft or winze sinking at \$50.00 per foot, 500 feet of diamond drilling at \$7.00 per foot - this added up to \$6250.00. My estimate may be a little low but I believe that the \$25,000.00 requested by Mr. Thomas is too high by at least twice. Another modest proposal was considered by the AEC a few months ago. The 50-foot tunnel that has been reported driven under the surface by Mr. Thomas may mean an additional 10 feet of tunnel, as the first 20-feet of the tunnel which we mapped was actually open-cut with no roof. No winze had been started when we were on the property. The erratic distribution of all values makes the assays of 0.16, 0.46, and 0.40 percent U_3O_8 well within the range of what might be expected on this property.

At the time of our visit Mr. Bottomley told me the property had been leased to the Canadian Radium & Uranium Company. I notice that in the past year Mr. Thomas has had a tie-up with this Company.

I have more fully reported this property to the Atomic Energy Commission in Trace Elements Memorandum Report 223. I am enclosing a rough draft of this report with map. We would appreciate having the report back when you are through with it.

I hope this information will be of some use to you.

Sincerely yours,


Mortimer H. Staatz
Geologist.

Enclosure 1

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STALIN'S PRESENT PROSPECT,
PERSHING COUNTY,
NEVADA

- A PRELIMINARY REPORT -

By

M. H. Staatz

March 1951

Unclassified distribution sheet.

CONTENTS

Page

Part I - Geology

Part II - Recommendations

CONTENTS

	Page
Abstract	
Introduction	
Geology	
Uranium deposit	
Suggestions for prospecting	

ILLUSTRATIONS

	Following page
Figure 1.--Index map, Stalin's Present prospect, Pershing County, Nevada	
2.--Geologic map of adit, Stalin's Present prospect, Pershing County, Nevada	

TABLES

	Page
Table 1.--Analyses of samples of Stalin's Present prospect	

STALIN'S PRESENT PROSPECT,

PERSHING COUNTY,

NEVADA

By

M. H. Staatz

ABSTRACT

The Stalin's Present prospect, owned by L. C. Bottomley and Felix Turillas of Lovelock, Nevada, contains radioactive minerals in a diopside-rich layer in granite. It is in Rocky Canyon, in the Humboldt Range, Pershing County, Nevada. The workings consist of a pit 6 feet long and 3 feet wide, and an adit 63 feet long. The property was examined on September 11, 1950 by M. H. Staatz of the U. S. Geological Survey and Charles Towle of the U. S. Atomic Energy Commission.

The uraniferous deposit is in a ^{layer} ~~band~~ of dark green metamorphic rock enclosed in granite. The metamorphic rock is composed chiefly of diopside, chlorite, biotite, and epidote. It is 0.5 to 0.8 ~~of a~~ foot thick and strikes N. 8° W. and dips from 85°SW to 80°NE. This ^{layer} ~~band~~ is partly replaced and veined with smoky quartz, calcite, subsidiary pyrite, and uranium minerals. The uranium occurs as pitchblende and a yellowish-green alteration product, probably gummite. The pitchblende is in erratically distributed pockets. Samples from the pit contained from 0.060 to 0.22 percent uranium; samples from the adit contained from 0.042 to 0.18 percent uranium.

INTRODUCTION

The Stalin's Present prospect (fig. 1) contains uranium minerals in a diopside-rich layer in granite. The prospect is in the Humboldt Range, Pershing County, Nevada, in sec. 6, T. 29 N., R. 34 E., Mt. Diablo principal meridian. It is on the south side of Rocky Canyon, about five miles above the mouth of the canyon, and just south of the Echo mining district. The prospect is 25 miles northeast of Lovelock and 11 miles northeast of Oreana, the nearest railroad loading point. Secondary roads lead from Oreana to the mouth of Rocky Canyon, and a road passable only by four-wheel-drive vehicles leads up the canyon for 2.5 miles to within about 2.5 miles of the prospect. A road log from the northeastern edge of Lovelock to the end of the road is given below.

Road log from Lovelock, Nevada to end of road

<u>Mileage</u>	<u>Location</u>
0.0	Log Cabin Court, northeast edge of Lovelock; take U. S. highway 40 to north.
13.9	Junction at Oreana, turn right off U. S. highway 40.
14.1	Junction, turn left.
18.2	Junction, road joins on right, continue straight.
18.8	Junction, small secondary road cuts off main road to right at 45 degrees, go right.
20.1	Deserted cabin at mouth of Rocky Canyon.
20.3	Parking space and beginning of road for vehicles with four-wheel drive.
22.8	End of road.

The prospect was discovered by E. J. Bottomley and A. V. Smith of Lovelock, Nevada, and four claims were located on December 29, 1948. The claims are Stalin's Present, Stalin's Present No. 1, Stalin's Present No. 2, and Stalin's Present No. 3. The present owners are L. C. Bottomley and Felix Turillas of Lovelock. The property is managed by E. J. Bottomley, whose mailing address is Box 653, Lovelock, Nevada, and who recently leased the property to the Canadian Radium and Uranium Corporation.

The Stalin's Present prospect was examined on September 11, 1950, at the request of the U. S. Atomic Energy Commission, by M. H. Staatz, of the Geological Survey and Charles Towle of the Atomic Energy Commission. A previous examination had been made on April 21, 1950 by Charles Towle and Thomas Anderson of the Atomic Energy Commission. The workings consist of a pit 6 feet long and 3 feet wide, and an adit 63 feet long. The adit was mapped with tape and Brunton compass at a scale of 20 feet equals one inch (fig. 2), and the adit and pit were tested radiometrically with a Geiger-Mueller counter (Victoreen, Model 263-B). Three samples were taken from the adit.

Charles Towle of the Atomic Energy Commission furnished data on the original inspection, including analyses of three samples taken from the pit at that time, and of one 20 pound sample sent by E. J. Bottomley to the Atomic Energy Commission's New York office. E. J. Bottomley guided the party to the property. The Geological Survey's Trace Elements laboratory in Washington studied specimens of the ore.

GEOLOGY

The Stalin's Present prospect is underlain by granite that is

part of a body about 10 miles long and several miles wide, lying along the west-central front of the Humboldt Range. The prospect is near the contact of the granite with metamorphic rocks. The granite is a light grey rock with a uniform grain size of 0.1 inch. It contains about 5 percent mafic minerals, chiefly biotite, about 25 percent quartz, and about 70 percent feldspar.

The pit and adit expose a ^{layer} ~~band~~ of dark green rock (fig. 2) 0.5 to 0.8 ~~of a~~ foot thick, that strikes about N. 8° W. and dips from 85° W. to 80° NE. This ^{layer} ~~band~~ is exposed in the adit for 41 feet; its exposure in the pit is about 29 feet vertically below the adit level. The dark green ^{layer} ~~band~~ appears to be a dike rock metamorphosed by the granite with later faulting along this zone of weakness, and the introduction of vein material into the dark green ^{layer} ~~band~~. This is suggested by: 1) its dike-like form, 2) its mineralogy, 3) the mineral relations, 4) severe crushing and sericitizing of the granite adjacent to the green band, and 5) the position of the ^{layer} ~~band~~ near the edge of the granite body.

Personnel of the U. S. Geological Survey's Trace Elements laboratory in Washington identified minerals in a specimen from this ^{layer} ~~band~~ as: diopside, epidote, chlorite, calcite, and quartz, and traces of garnet, corundum, and zircon. In addition, biotite, and hornblende are present in some specimens. Diopside is the chief mineral, forming crystals about 0.15 inch across, and alters to masses of fibrous hornblende and occasionally chlorite. Biotite and chlorite form fresh shiny books up to three-quarters of an inch across. Much of the calcite is smoky with well-developed twinning. The quartz is also smoky. The quartz and calcite are, at least in part, late as they form small veinlets cutting

the other minerals, and are believed to have been introduced later, with the uranium minerals.

A small fault strikes N. 15° E. and dips 60° NW. across the south end of the adit. There are three inches of sheared material along the fault and the dark green ^{layer} ~~band~~ is probably offset horizontally about 15 feet at the face of the drift. Slickensides on the fault surface plunge 55° S. 72° W. which would make the total slip 48 feet. Because of incomplete exposures it is possible that there are two ^{layers} ~~bands~~ of the metamorphic rock and that the fault offset is only apparent.

URANIUM DEPOSIT

The uranium occurs chiefly in the dark green ^{layer,} ~~band,~~ though the adjoining granite contains lesser amounts. The vein material, including the gangue minerals quartz and calcite, has partly replaced and veined the dark green rock. The uranium minerals have been identified by the U. S. Geological Survey's radiometric laboratory in Washington, using X-ray methods, as pitchblende and a yellowish green alteration mineral which resembles gummite. The pitchblende occurs sporadically in irregular pockets. No uranium minerals are visible to the naked eye in the dark green metamorphic rock. In the small pit, however, thin films of greenish yellow gummite may be seen on some of the fracture surfaces in the granite. Altered pyrite cubes were noted in one specimen.

The deposit was tested with a Geiger-Mueller counter (Victoreen, Model 263-B) by holding the probe against the surface with the beta shield open. Background readings taken on the granite several hundred

feet from the deposit were about 3 divisions on the 0.2 scale. The abnormal radioactivity is largely confined to the dark green ^{layer} band. The dark ^{layer} band in the upper pit gave readings of from $1\frac{1}{2}$ to $4\frac{1}{2}$ divisions on the 2.0 scale, and the adjoining granite for a foot on each side gave readings of 10 divisions on the 0.2 scale. Three samples previously collected in the pit by the Atomic Energy Commission contained from 0.060 to 0.22 percent uranium (table 1).

The lower adit gave counter readings on the dark ^{layer} band of from 10 divisions on the 0.2 scale to 7 on the 2.0 scale. Granite gave about 5 divisions on the 0.2 scale. Three samples were taken. Two channel samples taken across the main dark green ^{layer} band contained 0.042 to 0.58 percent uranium. A chip sample from the small patch of dark green rock on the east wall of the drift east of the fault contained 0.18 percent uranium. The samples were assayed by both radiometric and chemical methods (table 1).

SUGGESTIONS FOR PROSPECTING

Prospecting in this district should be two-fold: 1) exploration of the overall size and shape of the known uranium deposit, and 2) search for new deposits. The Stalin's Present deposit is poorly exposed by the present workings, and surface trenching is needed to determine the extent of the known uraniferous band. An extension of the present adit for an additional 10 feet would prove whether the main ^{layer} band is faulted to the east or whether there are two parallel uraniferous deposits.

Prospecting of the Stalin's Present property has not been thorough and the entire area should be checked with a Geiger-Mueller counter. Especial attention should be paid to the contact between the metamorphic rocks and the granite and to any metamorphic rocks enclosed by granite.

Part II

Unclassified distribution sheet.

Part II

Page

CONTENTS

Abstract	
Reserves	
Recommendations	

Part II

ABSTRACT

The reserves at the Stalin's Present prospect are estimated to be 35 tons of indicated and 135 tons of inferred uraniferous rock containing an average grade of 0.11 percent uranium. The grade of this ore can not be improved by hand sorting.

Surface trenching, underground exploration, and/or drilling should be undertaken to outline this unique pitchblende deposit.

RESERVES

The calculated uranium reserves at the Stalin's Present prospect are 35 tons of indicated and 135 tons of inferred uraniferous rock containing 0.11 percent uranium. This includes material from the adit now on the dump.

The indicated reserves are in a triangular shaped block between the adit and the surface. The width of the ore ^{layer} band or "vein" is from 0.5 to 0.8 of a foot thick; the average is about 0.6 of a foot. The ^{layer} band is exposed for 41 feet along the adit and has a known maximum vertical extent of 29 feet. There are 355 cubic feet of rock or 35 tons in this block of ground. A tonnage factor of 10 cubic feet per ton was used. The average grade of 0.11 percent uranium was obtained by weighting, according to the length, the three samples from the adit and the channel sample across the dark ^{layer} band in the pit and averaging the results. Results of the sampling by the Geological Survey and the Atomic Energy Commission are given in table 1. In addition, a 20

Table 1.--Analyses of samples, Stalin's Present prospect.

Sample description	Equivalent uranium (percent)	Uranium (percent)
An 18 inch channel cut of vein across face of pit <u>1/</u> .	0.076	0.060
Selected specimens taken from vein in bottom of pit <u>1/</u> .	0.16	0.13
Selected material from section of vein 5 inches wide exhibiting highest radioactivity ^{1/}	0.28	0.22
Channel sample (0.8 feet long) across dark band, 19 feet from portal of adit.	0.067	0.052
Channel sample (0.6 feet long) across dark band 30 feet from portal of adit.	0.038	0.042
Chip sample across dark green band, 0.6 feet thick, on east side of adit, 38 feet from portal.	0.18	0.18

1/ Samples taken by Charles Towle and Thomas Anderson of the Atomic Energy Commission.

pound sample, sent to the Atomic Energy Commission in New York by E. J. Bottomley, was reported to contain 0.7 percent equivalent U_3O_8 .

The inferred reserves are in two blocks: 1) a block including an inferred 25-foot extension south along the strike of the ^{layer}vein and to the surface, and 2) a block 25 feet below the adit level and below block (1). These two blocks of the ore body have an average width of 0.6 feet and contain 1345 cubic feet or 135 tons of rock, averaging 0.11 percent uranium.

Only insignificant quantities of higher grade material could not be concentrated from the dark green ^{layer}band by hand sorting with a Geiger counter.

RECOMMENDATIONS

The known reserves at the Stalin's Present property are small, but the deposit is poorly exposed. Because it is the only known pitchblende deposit with this mineralogy and structure, it is impossible to accurately predict its length or width beyond the present exposures without further exploration. ~~In addition,~~ The average grade, 0.11 percent uranium, is sufficiently high to warrant a limited amount of additional exploration both on surface and underground.

The first step in exploration should be surface trenching across the trend of the ore body 50 feet south of the pit. If these trenches expose the ore body it should be traced throughout its length by trenching at 50-foot intervals. If surface trenching to the south is favorable an extension of the adit would be justified, and either sinking or drilling should prospect the ore body in depth. On the basis of

present exposures and lack of knowledge of the geology of this deposit, it is recommended that the Atomic Energy Commission consider an exploration program at this property to include as much as 150 feet of trenching, 100 feet of drifting beyond the present heading, and either 50 feet of sinking from the adit or 500 feet of diamond drilling to about 100 feet below present pit level. Probably drilling of three holes to depths of about 100 feet would yield more information about the length and thickness of the ore body than sinking, but the small quantity of drilling that can be anticipated now would be difficult to contract. The cost of this exploration is estimated to be \$5,250 to \$6,250 as shown below.

	Plan A	Plan B
150 feet of hand trench @ \$0.50 per foot	\$750.00	\$750.00
100 feet of adit @ \$20 per foot	2000.00	2000.00
50 feet of shaft or winze @ \$50 per foot	2500.00	
500 feet of diamond drilling @ \$7 per foot	---	3500.00
	<hr/>	<hr/>
Total	\$5,250.00	\$6,250.00

Southwestern Branch
345 Middlefield Road
Menlo Park, California

December 13, 1962

AIR MAIL

Mr. M. H. Staats
Conservation Division
U.S. Geological Survey
Federal Center, Bldg. 25
Denver 25, Colorado

Dear Mort:

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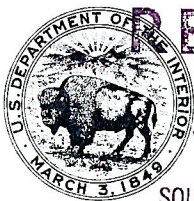
Best regards,

Sincerely,

Robert E. Wallace
Chief, Southwestern Branch

cc:
Director's reading file
Division
Subject ✓
Chron file-MP

REWallace:bls



RECEIVED

JAN - 3 1963

SOUTHWESTERN BRANCH
U.S. GEOLOGICAL SURVEY
MENLO PARK, CALIF.

Mr. Robert E. Wallace
Chief, Southwestern Branch
U.S. Geological Survey
345 Middlefield Road
Menlo Park, California

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER 25, COLORADO

December 31, 1962

IN REPLY REFER TO:

Geologic Division

Dear Bob:

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Hope you and your family had an excellent Christmas season.

Sincerely,

Mortimer H. Staatz

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

DISTRICT MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD STAGE
REGION III

DEEA 2470, Stalin's Present Claims

Perkins County, Nevada

(Uranium)

George W. Walker
Geologist

U. S. Geological Survey

September 5, 1952

Introduction

DMEA docket 2470, Stalin's Present claims (Nevada Uranium Company), Pershing County, Nevada, proposes to explore uranium-bearing replacement veins in a quartz porphyry sill which intrudes meta-sedimentary rocks of Permian or Triassic age. Uranium minerals identified by x-ray methods in the U. S. Geological Survey's radiometric laboratory are pitchblende and a yellowish-green alteration mineral, probably gummite.

In response to a request from Mr. H. C. Miller, Executive Officer, Field Team, Region III, a field examination of the property was made by George W. Walker of the U. S. Geological Survey on July 23, 1952. Mr. Walker was accompanied during the examination by Mr. Ralph Roberts and Mr. Allen Taylor of the U. S. Geological Survey and Mr. E. J. Bottomley, Treasurer and Director of the Nevada Uranium Company. The results of a DMEA investigation of the property in July 1951, by Robert F. Johnson and George W. Walker, both of the Federal Survey, are contained in DMEA docket 345x, Stalin's Present prospect, dated July 18, 1951. This early DMEA report covers in some detail the location of the property, the geology, description of the ore deposits, and an estimate of the ore reserves. Therefore, the present report is directed entirely toward a re-evaluation of the property, based on exploration and development that has been done by the owners since July 1951. A section is also included which describes the claims and the relationship of the workings to claim boundaries, as this information was requested by Mr. Frank E. Johnson, Chairman, Operating Committee, DMEA.

Exploration as proposed in docket 2470 is not recommended. A limited amount of underground exploration at a cost of approximately \$6,000.00 is recommended to determine whether the known mineralized zones increase in width or grade at depth and whether other parallel mineralized zones are present.

Description of claims and locations of workings

The property consists of 4 claims which are named Stalin's Present and Stalin's Present Nos. 1, 2, and 3. According to Mr. Bottomley, the 4 claims were located so as to form a rectangle the longest dimension of which is in a north-south direction. The Stalin's Present claim is located in the northeast one quarter of the rectangle and Stalin's Present Nos. 1, 2, and 3 are located, respectively, in the southeast, southwest, and northwest quarters. A 100 foot overlap is present on all adjoining boundaries of the 4 claims; the overall length of the rectangle formed by the 4 claims is 2,900 feet and the width is 1,100 feet. The location (discovery) monument for the claims is located 100 feet north of the common corner of the 4 claims on the north-south boundary between Stalin's Present and Stalin's Present No. 3.

claims. The underground workings are located in the southwest corner of the Stalin's Present claim and the surface trenching is in the southeast corner of Stalin's Present No. 3 claim.

Recent Exploration and Development

Since the examination by Johnson and Walker on July 4, 1951, some surface trenching and bulldozing has been completed in areas west and southwest of the adit (see fig. 1). This work is located within a hundred feet of the portal of the adit and lies entirely in a quartz porphyry sill or possibly a porphyritic rhyolite flow included in the Kaipato formation of Permian age. Two mineralized zones are exposed in the surface trenches, but the mineralization is weak and erratic and the tonnage of uranium-bearing material is small, totaling less than 1 ton. In July 1952, the adit had been widened adjacent to the winze, and the winze, which was 8 feet ^{deep}, on July 4, 1951, had been extended to a depth of 47.4 feet. Unfortunately, the walls of the winze were almost completely plastered with mud; the only geologic information that could be obtained was (1) that the entire winze is in quartz porphyry and (2) that there are two or three zones of fault gouge which trend north and dip steeply west. The walls of the winze ^{were} tested with a geiger-mueller counter (Beckman, Model MX-5), and the only "highly" abnormal radioactivity that was noted was located on the west wall of the winze in the 13- to 15-foot below the collar. In one localized spot on the west wall a count approximately 5 times background count was obtained; counts elsewhere in the winze were appreciably below this figure and near the bottom of the winze the count was approximately the same as background for the entire area.

Evaluation of the Deposit

The evaluation of the deposit as described in BMA docket 345x, by R. F. Johnson and George W. Walker is as follows:

Uranium minerals identified by X-ray methods in the U. S. Geological Survey's radiometric laboratory are pitchblende and a yellowish-green alteration mineral, probably gummite. The minerals together with pyrite are found in 6-8 inch replacement veins, and in lesser amounts disseminated in the adjoining quartz porphyry. Only the replacement veins contain material of commercial grade. Samples taken across the veins range from 0.06 to 0.22 percent uranium; the 0.06 assay includes 1 foot of wall rock and 6 inches of vein material. Assays obtained by Mr. Thomas (former lessee) and Mr. Bottomley range up to 0.60 percent uranium, but were probably from picked specimens.

The property has no mineable ore reserves. In a block of ground between the bottom of the winze and the prospect pit, partially explored by the adit, there are an indicated 54 tons of replacement vein material with a grade of about 0.15 percent uranium. An additional 160 tons of vein material

of similar grade can be inferred by extending the known vein 25 feet to the south and 25 feet down. This indicated and inferred material contains about 640 pounds of uranium.

The average grade of the replacement veins is 0.15 percent uranium over a width of 6 inches. Dilution of the material, assuming a 3-foot mining width, would lower the grade to such an extent that economic recovery would not be possible".

The examination on July 23, 1952, uncovered little new or additional evidence that would warrant a change in the evaluation made in DMA docket 345x. Surface trenching and underground exploration that has been completed since the earlier DMA examination has uncovered less than 5 tons of additional uranium-bearing material. This additional material was so weakly radioactive, as compared to material from this property that has been assayed by various Government agencies, that sampling and assaying are not considered justified. The owners have hand sorted about 15 tons of vein material; an average sample of this stockpile assayed 0.040 percent uranium. Assays of material collected by the owners since the earlier DMA report range up to 1.66 percent U_3O_8 $\frac{1}{2}$, but were probably from carefully selected specimens.

Conclusions and Recommendations

Pitchblende and gummite occur in small amounts distributed erratically in replacement veins in a north-trending quartz porphyry sill. Though no mineable ore reserves are exposed on the Stalin's. Present claims, a limited amount of underground exploration seems warranted. Justification for this exploration is (1) that the deposit constitutes one of the few known properties in Nevada which contains primary pitchblende and (2) that underground exploration would determine whether the replacement veins increase in size or grade at depth.

Exploration should consist of extending the winze to a total depth of 80 feet beneath the adit floor and crosscutting in an east-west direction through the quartz porphyry sill at this depth. A total of 33 feet of sinking would be necessary to reach a depth of 80 feet in the winze. Exposures on the surface are not sufficient to accurately determine the total width of the sill in this area; exposures do indicate, however, that the sill is less than 100 feet wide. Crosscutting should be extended approximately 10 feet beyond the east and west contacts of the sill and the enclosing meta-sedimentary rocks. Therefore, 100 feet of crosscutting --about 30 to 40 feet east and 60 to 70 feet west of the winze -- should adequately explore for parallel, north-trending veins

¹/ Letter dated April 9, 1952, to Mr. E. J. Hottenley from Mr. A. R. Reiser, Photostat of letter attached to Form MF-103.

in the sill or mineralized areas in the contact zones. The areas of proposed exploration are in the southwest corner of Stalin's Present claim and the southeast corner of Stalin's Present No. 3 claim.

Cost estimates based on a time element of three months to complete the exploration are tabulated below. The cost figures have been obtained from Form MF-103, docket No. 2470, and from oral discussion with Mr. E. J. Bottomley.

Total Cost

Underground exploration

Sinking winze - 33 feet	@ \$ 85.00	\$ 2805.00
Cross cutting - 100 feet	25.00	2500.00

Rental of Equipment

Equipment owned by Company.

Total valuation placed at

\$5,798.00

@ \$ 96.64/mo. 889.92

Rental of other Equipment

@ \$ 250.00/mo. 750.00

Engineering, supervision and assaying

300.00

Total

\$ 6844.92

Other funds requested in the application are not considered necessary for this limited exploration project.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NATIONAL MINERAL INVESTIGATION

REPORT OF INVESTIGATION NO. 1112
PART II

Uranium, Thorium, and Radium

Parish County, Louisiana

(Uranium)

Robert P. Johnson, Geologist
U. S. Geological Survey

George E. Walker, Geologist
U. S. Geological Survey

July 10, 1911

DMA-345x, Stalin's Present Prospect
Pershing County, Nevada

(Uranium)

Summary

In December 1950 the Stalin's Present prospect, in Pershing County, Nevada, was held under lease by Mr. A. D. Thomas who applied for a \$25,000 government loan (DMA-345x) to be used in exploring uranium-bearing veins on the property. Subsequently the lease was terminated and the property reverted to the owners, Mr. E. J. Rottonley and Mr. Gus Rogers of Lovelock, Nevada. Mr. Rottonley intends to submit a new application for an exploration loan. Although the writers have not seen his application, he has stated it would be for the same amount to be used in underground development and purchasing mining equipment.

The docket was referred to the field team on May 25, 1951, and the property was examined by G. W. Walker and R. F. Johnson of the U. S. Geological Survey on July 4, 1951.

The uranium minerals pitchblende and guminite (?) occur at the Stalin's Present prospect in several replacement veins in a quartz porphyry dike or sill intruding Mesozoic metasediments. Faults of small displacement are common in the mineralized area and some of the exposed veins, which are narrow and discontinuous, may be faulted segments of a single vein.

The work proposed in oral discussion by Mr. Rottonley will explore extensions of the known mineralized zone. Unless it increases either in width or grade it will be uneconomic under present economic conditions. Underground development is proposed, with diamond drilling as an alternative.

It is recommended that a loan be granted for a limited amount of exploration by surface trenching across the quartz porphyry, and by underground development along the mineralized zone. The object of the first exploration is to determine whether parallel mineralized zones are present, and the underground exploration will determine if the known zone increases in width or grade at depth. The proposal is a risk venture dependant on the need for uranium.

Introduction

An application is made in DMA docket 345x for a \$25,000 loan to explore the lateral and vertical extension of a uranium-bearing zone on the Stalin's Present prospect, Pershing County, Nevada. In response to a request from the Chairman of the Coordinating Committee of DMA to Mr. H. O. Miller, executive officer of Region VII, dated May 25, 1951, a field examination was made of the property by George W. Walker and Robert F. Johnson of the U. S. Geological Survey on July 4, 1951.

The property had previously been sampled by Charles Towle and Thomas Anderson of the Atomic Energy Commission, and at a later date was reexamined and sampled by H. H. Staats of the Geological Survey and Charles Towle. Mr. Staats / prepared a map and memorandum report,

/ Staats, H. H., Stalin's Present property, Pershing County, Nevada, a preliminary report: Trace Elements memorandum report 223.

which has been used in the preparation of this report.

The cooperation of Mr. Ebbowley who furnished transportation to the property is greatly appreciated.

Location and Accessibility

The Stalin's Present prospect is near the head of Rocky Canyon in the Humboldt Range, Pershing County, Nevada, 25 miles northeast of Lovelock (see index map). The property is in sec. 6, T. 29 N., R. 34 E., Mount Diablo base and meridian, and is included on the Lovelock quadrangle topographic map.

Good roads lead to within 5 miles of the property, and a poor road passable only for vehicles with 4-wheel drive extends the rest of the way. Oreana, 12 miles distant, is the nearest railroad station.

The following road log is taken from the report by H. H. Staats:

Mileage

0.0	Log Cabin Court, northeast edge of Lovelock. Go north on U. S. 40.
13.9	Road junction at Oreana, turn right off U. S. 40.
14.1	Crossroads, turn left.
18.2	Road joins on right, continue straight.
18.8	Road turns off 45° to right, turn right.
20.1	Deserted cabin at mouth of Rocky Canyon. Road from here to mine passable for 4-wheel drive vehicles only.
25.0	(Approx.) End of road at property.

Ownership and Description of Workings

The property which consists of 4 claims, Stalin's Present and Stalin's Present Nos. 1, 2, and 3, is owned by F. J. Bottomley and Gus Rogers of Lovelock, Nevada. Mr. Bottomley's address is P. O. Box 653, Lovelock. In December 1950 Mr. A. B. Thomas of Salt Lake City, Utah held a lease on the property, and he submitted the original loan application at that time (DMA-345x). Subsequently the lease was terminated, and Mr. Bottomley is submitting another loan application.

The mine workings, as shown on the accompanying plan, consist of an open cut 25 feet long connecting with an adit 37 feet in length. A winze 8 feet deep is located 12 feet from the portal of the adit. A 3- by 6-foot pit 28.5 feet above the floor of the adit marks the original discovery.

Geology

(Rocks exposed in the vicinity of the workings are metasediments intruded by a sheared dike or tongue of quartz porphyry. The metasediments which according to Jenney / are probably Triassic in age,

/ Jenney, C. P., Geology of the central Humboldt Range, Nevada: Univ. Nevada Bull., vol. 29, no. 6, pp. 17-18, 1935.

consist of silicified grit beds and shales. Alteration along north striking shear zones locally has caused the development of white mica in both the metasediments and the quartz porphyry. The quartz porphyry dike is about 75 feet wide and strikes nearly north. It was not exposed north or south of the workings so it may be related either to a granite porphyry mass to the southeast, or to a granitic intrusive exposed about 600 feet southwest of the workings and reported by Jenney to intrude both the metasediments and the granite porphyry.

(Narrow, discontinuous, northerly trending veins of diopside-rich rock transgress the quartz porphyry.) The owner believes there are 3 such veins on the property, but exposures are not good enough to rule out the possibility of some repetition by faulting. (Staatz / describes

/ Staatz, M. H., op. cit., p. 4.

the mineralogy of the vein material, and reports that it contains diopside, epidote, biotite, chlorite, calcite, and quartz, with minor garnet, corundum, zircon, and sulphides.

Faults of small displacement, most of which strike roughly parallel to the strike of the quartz porphyry are common in the area. All observed offsets of the replacement veins are small, so the operators should have no difficulty in following the veins in underground exploration. In the event diamond drilling is undertaken, the quartz porphyry and replacement veins will be easily recognizable.

Ore Deposits and Reserves

Uranium minerals identified by X-ray methods in the U. S. Geological Survey's radiometric laboratory are pitchblende and a yellowish-green alteration mineral, probably gummite. These minerals together with pyrite are found in 6-8 inch replacement veins, and in lesser amounts disseminated in the adjoining quartz porphyry. Only the replacement veins contain material of commercial grade. Samples taken across the veins range from 0.06 to 0.22 percent uranium; the 0.06 assay (includes 1 foot of wall rock and 8 inches of vein material.) Assays obtained by Mr. Thomas and Mr. Bottomley range up to 0.60 percent uranium, but were probably from picked specimens.

(The property has no mineable ore reserves.) In a block of ground between the bottom of the winze and the prospect pit, partially explored by the adit, there are an indicated 51 tons of replacement vein material with a grade of about 0.15 percent uranium. An additional 160 tons of vein material of similar grade can be inferred by extending the known vein 25 feet to the south and 25 feet down. This indicated and inferred material contains about 640 pounds of uranium.

The average grade of the replacement veins is 0.15 percent uranium over a width of 8 inches. Dilution of this material, assuming a 3-foot mining width, would lower the grade to such an extent that economic recovery would not be possible.

Exploration Proposal

During the field examination Mr. Bottomley stated that in his application he would request a loan to explore the possible extension of the replacement veins at depth to see if they increase either in size or grade. He favors exploration by means of a shaft and drifts but would be agreeable to diamond drilling.

No equipment is on the property at present. Mr. Wottonley has 2 air drills, one a light drifter and the other a airer, but all other equipment would have to be purchased. Major items would be a compressor, hoist, pipe and track, ore car, and a skip or bucket.

Mr. Wottonley estimates mining costs at \$60 per foot for shaft sinking, and \$20 per foot for drifting and crosscutting. Diamond drilling costs are not known, but would be high because of the limited footage involved and the difficulty of getting equipment to the property. Even though diamond drilling would probably be the cheapest way to explore the ground, due to the necessity of purchasing mining equipment for underground work, underground exploration would be more satisfactory as the veins can be followed and changes in size or grade will be apparent.

Surface trenching across the quartz porphyry is not proposed, but it should be considered as it would show the surface extent of the known mineralized zone and it might reveal the presence of parallel zones.

Conclusions and Recommendations

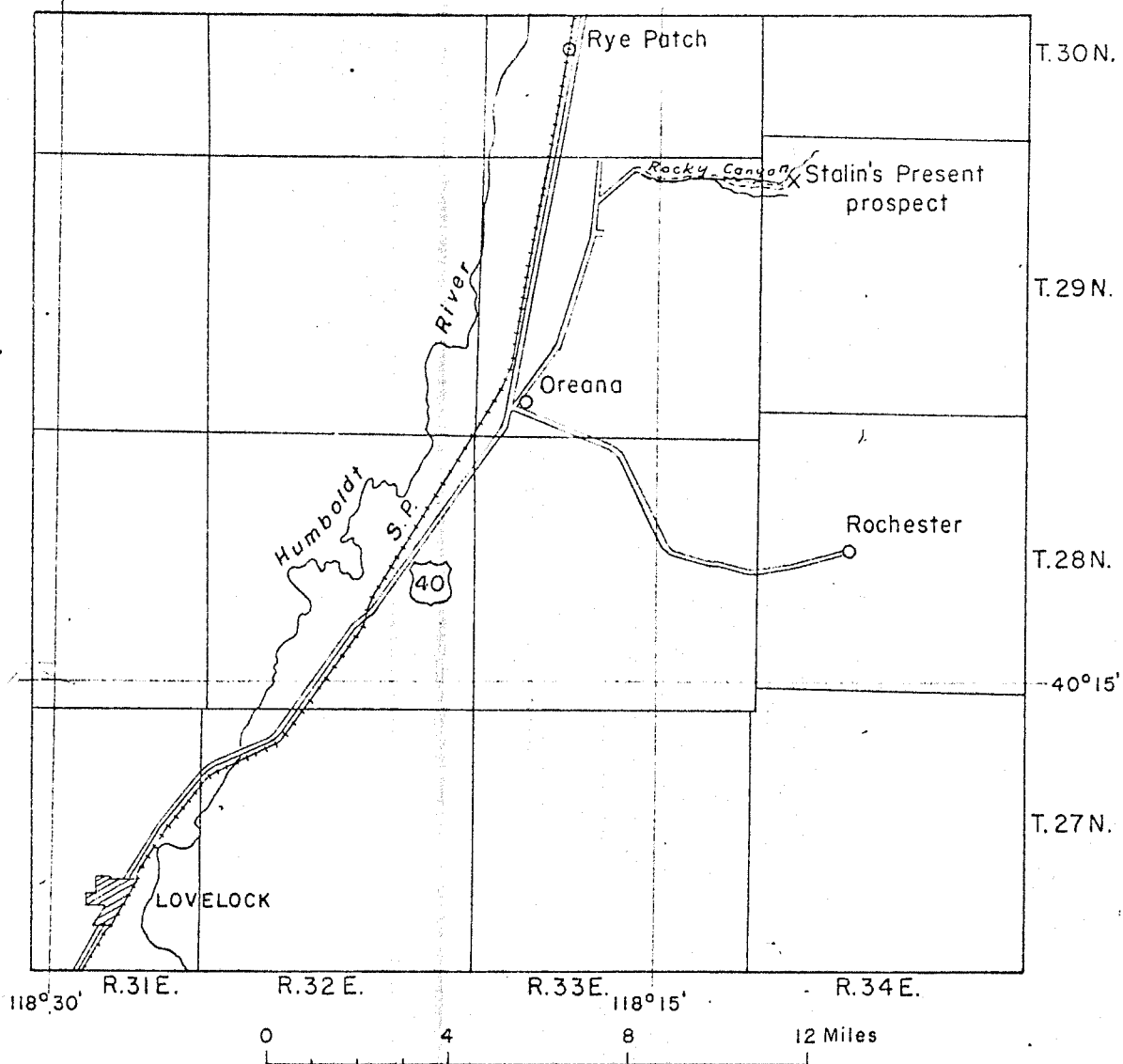
Small amounts of primary uranium are found to occur in replacement veins in a quartz porphyry dike.

Present exposures are not sufficient to indicate the presence of commercial ore.

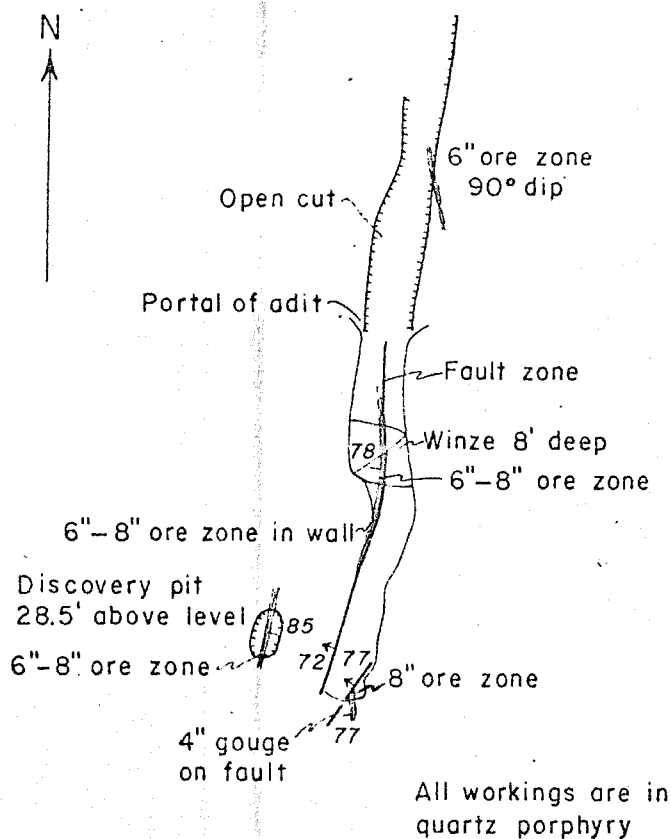
A limited amount of exploration work seems warranted at this property to determine whether the replacement veins increase in size or grade at depth. A surface cut across the quartz porphyry north of the workings and 2 or 3 cuts to the south would show the lateral extent of the mineralized zone on the surface. In addition the winze should be deepened to about 60 feet, and the mineralized zone followed at that depth for about 100 feet. Exploration for parallel mineralized zones at the 60 foot depth could be accomplished by a crosscut driven across the quartz porphyry dike.

Diamond drilling would be an alternate method of exploration and should be satisfactory. The rock near the surface is considerably broken up but should not be too difficult to drill.

It should be emphasized that this is a risk venture based largely on the need for uranium. No ore is in sight, and, while there is no evidence that the mineralized zone will pinch out, neither is there any indication, in the 29 feet of known vein, that it will increase either in size or grade.



Index map showing location of the Stalin's Present prospect,
Pershing County, Nevada

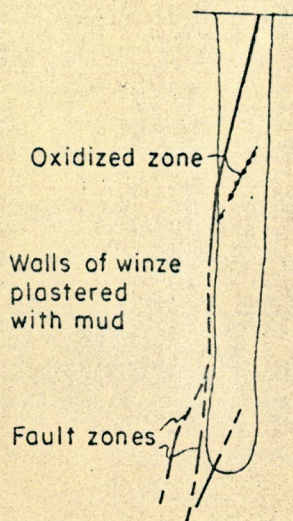


All workings are in
quartz porphyry

Brunton and tape survey and geology
by G. W. Walker and R. F. Johnson
July 1951

0 20 40 FEET

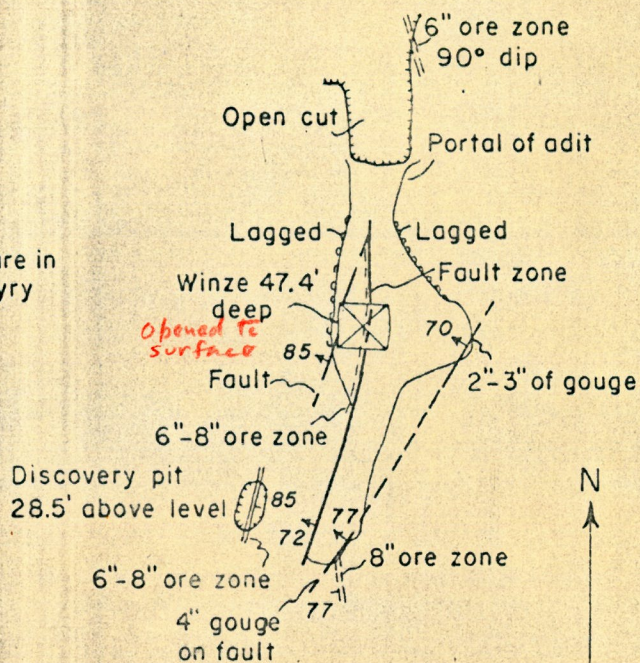
Plan of workings, Stalin's Present prospect, Pershing County, Nevada



W-E SECTION THROUGH WINZE

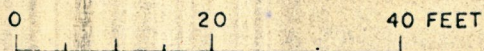
Brunton and tape survey
by G. W. Walker and A. Taylor

All workings are in
quartz porphyry



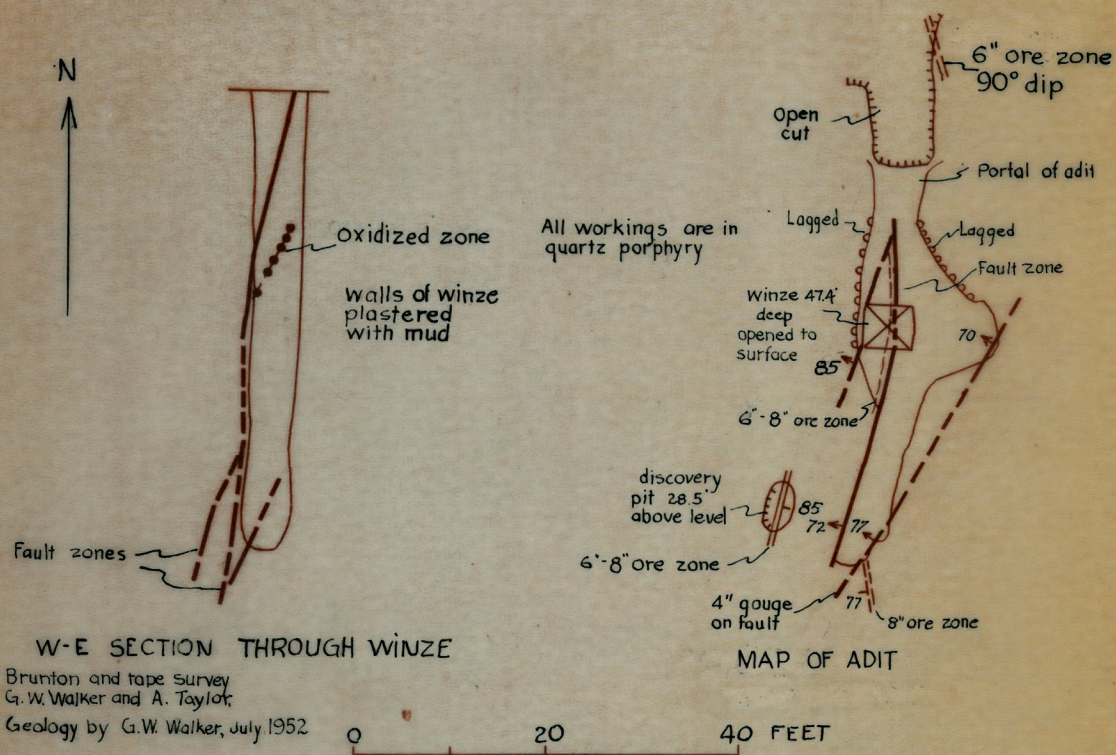
MAP OF ADIT

Geology by G. W. Walker, July 1952



Adit and winze, Stalin's Present prospect, Pershing County, Nevada

Draft for reduction to 1" = 50'. ~~40'~~



Adit and winze, Stalin's Present prospect, Pershing County, Nevada