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06/06/97

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: DEMOCRAT MINE

ALTERNATE NAMES:

SHERMAN
DRAGON ZINC
HUBBARD

COCHISE COUNTY MILS NUMBER: 92

LOCATION: TOWNSHIP 17 S RANGE 23 E SECTION 17 QUARTER SW
LATITUDE: N 31DEG 56MIN 56SEC LONGITUDE: W 110DEG 01MIN 55SEC
TOPO MAP NAME: KNOB HILL - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

ZINC
LEAD
COPPER
SILVER
GOLD LODE
CALCIUM LIMESTONE

BIBLIOGRAPHY:

ADMMR DEMOCRAT MINE FILE
KREIDLER, TERRY J., "MINERAL-RESOURCE POTENTIAL OF THE DRAGON MOUNTAINS RARE II FURTHER PLANNING AREA, COCHISE CO, AZ" U S BUR OF MINES MLA 35-82, 1981 ADMMR GEO FILE
KEITH, S.B., 1973, INDX MINING PROPS IN COCHISE CNTY; AZ GEOL SUR BULL. 187, P. 64
WILSON, E.D., 1951, DRAGON MTNS IN ARIZ LEAD & ZINC DEPOSITS, AZ GEOL SUR BULL 158, P 29

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Democrat Mine

Date Feb. 15, 1956

District Dragoon District, Cochise Co.

Engineer AXEL L. JOHNSON

Subject: Present Status.

Location 6 miles south of Dragoon.

Number of Claims 2 patented claims.

Owners ✓ Mrs. Flora C. Hubbard, 1201 St. Mary's Road, Tucson, Ariz.
✓ Mrs. Clara Swart estate.

Operators Not in operation

Principal Minerals ✓ Zinc.

Past History ✓ This mine was last worked in 1951 and 1952 by Chester Higgins and Peter Lehr, who were leasing the mine from the owners. See my report of Dec. 14, 1951.

References Report of this property under date of Dec. 14, 1951.

SEE: ABM # 158 p. 29 (Hubbard Mine)

HIGGINS, CHESTER et al Leasers 12-14-51 COCHISE CO.
Box 156, Benson, Ariz.

MINE - DRAGON MINE - RAINBOW MINE -

OWNER - MRS. FLORA HUBBARD, 1201 St. Mary's Road, Tucson, Ariz.

See - Democrat Mine 12-14-51

HUBBARD, MRS. FLORA, owner 12-14-51 COCHISE CO.
121 St. Mary's Road,
Tucson, Arizona

MINE - RAINBOW MINE Dragoon Mining Dist., Cochise Co.

See-Democrat Mine 12-14-51

SWART, MRS. CLARA, and 1712 High St., Alameda, Calif. 12-14-51
HUBBARD, MRS. FLORA, 1201 St. Mary's Rd. Tucson, Ariz.
(Owners)

DEMOCRAT MINE - Dragoon Mining District - Cochise Co.

Operators - Chester Higgins, Box 156, Benson, Ariz. 1/2 interest
& Peter Lehr, 13542 E. Cerritos Ave.
Leasers Rt. #4, Anaheim, Calif. 1/2 interest

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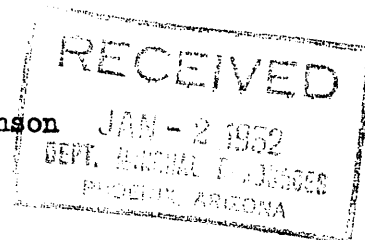
References Report of this property under date of Dec. 14, 1951.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

~~FIELD ENGINEERS REPORT~~NEWS ITEMMine Democrat Mine

Date Dec. 14, 1951

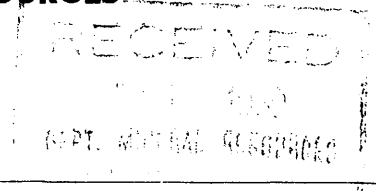
District Dragoon Mining District -- Cochise Co.Engineer Axel L. JohnsonSubject: News Item-- Source of Information--- Personal visitLocation 6 miles south of DragoonNumber of Claims 2 patented claimsOwners Mrs. Flora Hubbard, 1201 St. Mary's Road, Tucson, Arizona.
 Mrs. Clara Swart, 1712 High St., Alameda, Calif.Operators Chester Higgins, Box 156, Benson, Arizona----- 1/2 interest
 Peter Lehr, 13542 E. Cerritos Ave., Rte. #4, Anaheim, Calif.----1/2 interest.
Operators are leasing from owners listed above. They have a 5 year lease with option to buy at \$20,000. 10 per cent royalty, with royalties to apply on purchase price.Metals Mined Zinc.Men Employed 3Production Rate Stopping ore and stockpiling same until there is enough for a car load. Rate of stopping varies, depending on conditions.Milling facilities Operators plan on shipping the ore to the A. S. & R. mill at Deming, N.Mex. Ore will be trucked to Dragoon for shipment.Geology The ore is all sphalerite, and occurs as replacements in limestone, right next and near a quartzite contact. The ore occurs as irregular bodies, and do not continue, either in length or depth. Operators have now practically mined out the old stope, and are running out of ore.Ore Values Operators have a stockpile of about 30 tons, which they expect will run from 20 to 25 % Zinc.Past Production (1) Maurice Hederman, previous leaser, shipped 8 or 9 cars of ore from this stope in 1943, running 20 % Zinc and 2 oz. of Silver. This was shipped to the Shattuck Denn mill at Bisbee, Ariz.

(2) Chester Higgins and Dan Lewis, Leasers, shipped one carload of ore in 1949, running 18.5 % Zinc and 2 oz. of Silver. This was shipped to the Shattuck Denn mill at Bisbee, Ariz.

Present Operations Doing a little stopping, but the ore is getting scarce, and hard to get at. The large stope they were working in, is getting very narrow. They are looking for another place on the property to start mining operations.Proposed Plans Operators are considering having a Geophysical Examination made on the property to determine the proper place to put in diamond drill holes. This Geophysical work would then be followed by diamond drilling in order to find the location of some more ore bodies to stope out. Operators wish to work this property themselves, but may consider an Exploration Loan from the Government.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

Mineral Building, Fairgrounds
Phoenix, Arizona



- 1. Information from: Engineers visit.
Address: _____
- 2. Mine: Democrat & Sherman Claims. 3. No. of Claims - Patented 2
Unpatented _____
- 4. Location: Dragoon Mts.
- 5. Sec 17,19,20 T_p 17S Range 23E 6. Mining District Dragoon or (Golden Rule)
- 7. Owner: In 1956 to the Clara Swort estate & Flora Hubbard.
- 8. Address: Tucson Arizona
- 9. Operating Co.: None
- 10. Address: _____
- 11. President: _____ 12. Gen. Mgr.: _____
- 13. Principal Metals: Lead, Zinc, Silver 14. No. Employed: _____
- 15. Mill, Type & Capacity: _____
- 16. Present Operations: (a) Down (b) Assessment work (c) Exploration
(d) Production (e) Rate _____tpd.
- 17. New Work Planned: None

- 18. Misc. Notes: See report on the Democrat & Sherman Claims Cochise Co.
By Wm Arndt. (Copy in Phoenix Office)

Date: 4-8-69

Wm Arndt
(Signature)

(Field Engineer)

July 18, 1943

MEMORANDUM



Hubbard-Dragoon
Maurice Hedderman

To: Dept. Mineral Resources
From: George A. Ballam

Hedderman has submitted samples of ore to Shattuck-Denn. It is one of those high-grades which first must be 'diluted' to facilitate good mill recovery. In the absence of any other market for 35% zinc sulfide, this is his best bet if he wants to remain in operation.

The access road project is a short one of about 1200', mainly an approach to his ore bin - widening present trail a few feet to permit passage of trucks. It is being favorably considered.

He has a couple of hundred tons of good ore at loading dock and is going ahead with mining. I told him about letter from Ozark Smelter-schedule at Coffeyville; but can't offer much encouragement on account of excessive freight rate. However, if he can get the additional zinc premiums, he can afford to take the necessary deductions at Denn. Quota committee disapproved his application for additional premiums at this time - until he actually starts marketing ore. Said that until he ships, (even though he is stockpiling), he must be considered as developing.

Attached is correspondence with local board regarding further deferment.

George A. Ballam

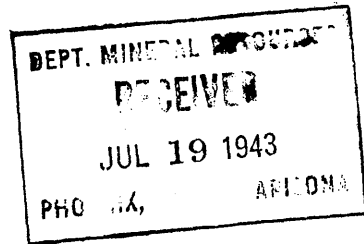
Reference: ABM Bull. 158, p. 29 (Hubbard Mine)

SELECTIVE SERVICE SYSTEM

PIMA COUNTY #2 LOCAL BOARD

FEDERAL BUILDING
TUCSON, ARIZONA
(STAMP OF LOCAL BOARD)

July 9, 1943.



Order No. 605

Mr. George Ballam, Field Engineer
Arizona State Division of Mineral Resources
University of Arizona
Tucson, Arizona

Dear Sir:

Maurice Thomas Hedderman, our order number 605, has submitted to this Board a request for a reconsideration of his classification or further consideration of his case on account of the fact that he has been developing a worthwhile mineral deposit of high grade zinc sulphide ore and feels the case justifies his being allowed to continue to work on same.

You will recall that you spoke to the Board about this case when the original postponement of sixty days was granted. Mr. Hedderman refers us to you and this Board would appreciate your opinion as to this man and as to Mr. Hedderman's connection with same as an essential mine employee or operator, etc.

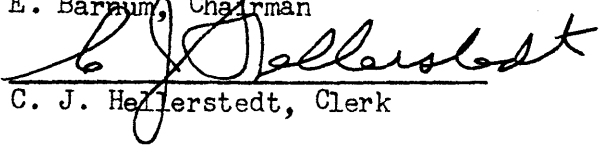
This Board will meet Monday afternoon, July 12th at 4:30 P. M. and would be glad to have you call and give any information you have and also would like a written statement from you as to your ideas concerning this property and concerning the advisability of any further deferment of Mr. Hedderman or his connection therewith.

Yours truly,

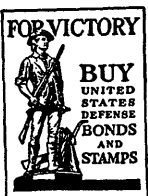
FOR PIMA COUNTY LOCAL BOARD NO. 2

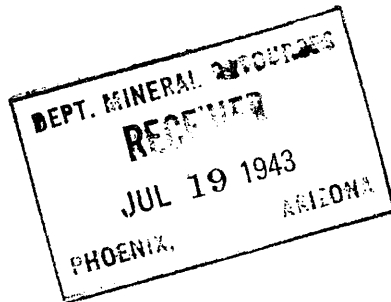
W. E. Barnum, Chairman

By


C. J. Hellerstedt, Clerk

CJH/rmb





Box 495
Tucson, Arizona
July 18, 1943

Order # 605

Mr. W. E. Barnum, Chairman,
Pima Co., Local Board #2,
Federal Bldg., Tucson.

Dear Sir:

Answering your request for information of July 9 in reference to case of Maurice Hedderman, and for which my reply was delayed due to absence from city, I wish to submit the following facts:

First, in regard to the property itself, it has been submitted in a list of Arizona zinc mines which should be under production, as recently as last week. This was part of a survey requested by this department, by Mr. James Douglas, Chief of the Zinc Branch, War Production Board. Due to the fact that Arizona zinc production is not meeting anticipated figures, we have been urged to make every effort to find out what is holding back production, making specific reports on each factor. In this particular instance, production is being retarded by transportation. Some three weeks ago, I aided Mr. Hedderman in initiating application for a Federal Access Mine road project with the U. S. Forest Service. I am informed that the local forest supervisor will make this examination this week. Upon completion of 1200 feet of approach, Mr. Hedderman will proceed to ship ore already mined, although he has plans to pack ore out in the event the road is further delayed.

In regard to Mr. Hedderman himself, the interest of the WPB and my own department is largely that of who can most expeditiously get this ore into processing channels. He, owner and operator of the property, is a first-rate miner. He has several cars of ore mined, ready to go. Whether he could be replaced, having some one else operate the property, is a matter of conjecture. Our experience has demonstrated that once these rather isolated properties are abandoned during this emergency, the extreme difficulties confronting the operator in the way of getting into production, militate against reopening the operation. Only the owner himself has interest enough to undertake it. For this reason, I would heartily recommend that the status quo be maintained, at least until production from this property, which is now increasing, shows a decline.

Yours very truly,

c-Dept. Min. Res.

George A. Ballam
Field Engineer

Washington, D.C.
Oct. 1, 1942

DEPT. MINERAL RESOURCES
RECEIVED
OCT 3 1942
PHOENIX, ARIZONA

SUBJECT: Mine Loans
Class B
\ Dragoon Zinc Mine
\ Maurice Hedderman
B-ND-4158

This mine was not found satisfactory for a loan after having a field examination ~~at~~ and the application was rejected on Sept. 28th.

Bill Broadgate

Maurice Hedderman, Box 201, Tucson, Arizona, has made application for a Class B, RFC loan of \$5,000 to be used in opening up his Hedderman zinc property five miles south of Dragoon, Arizona.

MINING JOURNAL - 7-30-42

NAME OF MINE: HUBBARD

COUNTY: COCHISE
DISTRICT:
METALS: ZN

OPERATOR AND ADDRESS:

MINE STATUS

DATE:

DATE:

5/1/44

Maurice Hedderman, Box 201,
Tucson, Arizona

5/1/44

Shipping

9/44

Idle

September 29, 1942

MEMORANDUM

"B" LOAN APPLICATION
HEDDERMAN MINE
(DRAGON ZINC MINE)

TO: W. C. Broadgate

FROM: J.S. Coupal

Maurice Hedderman, North Columbus Blvd., Tucson, applied for a \$5,000 "B" development loan on the Dragoon zinc property June 7, 1942. It was given a docket No. B-ND-4158 and examined about July 15.

Hedderman is chairman of our Tucson Council and is rather cynical along with a few others in that district as to the action they get on R.F.C. matters.

Can you follow this up and advise?

Sept. 23, 1942

W

MEMORANDUM

Hedderman mine
(Dragoon Zinc Mine)

To: Director, Dept. Mineral Resources
From: George A. Ballam

Maurice Hedderman, N. Columbus Blvd., Tucson, applied for \$5000 B development loan on Dragoon Zinc property June 7, 1942.

Docket No. B-ND- 4158. Examined about July 15. Re-sampled some time later across 22 ft. Has heard nothing since and is afraid war will be over before he gets action. Thinks he should have applied for more etc.

Hedderman is chairman of the local council, Democratic Co. Chairman, and active all around. He is very cynical about the RFC and several other things and is wondering what this department intends to do about it, or how long it is going to condone the RFC, etc, etc. Other active members of the ASMOA including Keith Knight, Pat Jenks, and others who have had applications already rejected are talking loudly, and occasionally get together.

Wish there could be a follow-up on Hedderman.

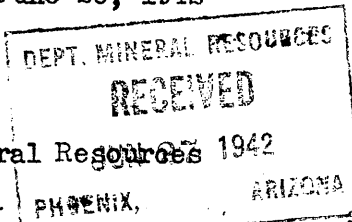
George A. Ballam



June 26, 1942

mp

MEMORANDUM



HEDDERMAN MINE

To: Director, Dept. Mineral Resources 1942
From: George A. Ballam

Maurice Hedderman, No. Columbus Rd., Tucson, applied for a "B" loan of \$5000 on June 9, 1942. The mine is located in the Dragoon Mts. about 5 miles south of the Dragoon station. It is a zinc property. He requests that our Washington representative be informed for the purpose of follow-up. By mistake he mailed all three copies of his application to the RFC.

George A. Ballam

7/9/56

INTRODUCTION:

The Democrat and Sherman claims are two adjacent patented claims in the Dragoon Mountains. Primarily the ore here is zinc although there are minor amounts of lead, copper, and silver.

A considerable amount of work has been done on the property with smelter shipments totalling less than 600 tons. The latest of these shipments was in January, 1952 and consisted of 41 tons which assayed 19.95% Zn, 0.20% Pb, 0.28% Cu, and $\frac{1}{2}$ oz/T Ag.

Development on the property consists of an incline on the Sherman and two drifts on the Democrat which are shown on the accompanying maps.

LOCATION:

The claims are in the northwestern margin of the Dragoon Mountains approximately five miles southwest of Dragoon, Arizona. Although the northwest corner of the Democrat lies in section 17 and the southwest corner of the Sherman lies in section 19, the claims lie largely in section 20, Township 17 South, Range 23 East, in Cochise County.

Roads lead directly to the claims although portions of them are in need of repair. The first two miles is by an all-weather unsurfaced road; the next two miles is by travelled trails through range country; and the last mile is by a road cut to the workings along the mountain side. Although it is possible to drive up to the workings, portions of the last three miles are in bad condition.

CLAIM OWNERSHIP:

The Democrat and Sherman claims are in co-ownership by Mrs. Flora Hubbard and the Clara Swort Estate. Both claims are patented and are on federal land.

As far as is known, the surrounding land is unclaimed.

POSSIBLE TRANSACTION:

Mr. Irvin estimates the cost of the claims, as one unit, to be possibly \$50,000. In case that purchase of the claims is not desirable, they could be retained for exploration purposes for a small sum. If development then seemed warranted, either 10% of the smelter returns or \$100. a month would be in order.

These prices are not quoted figures but only Mr. Irvin's estimates.

Mr. J. W. Chandler.
PAGE # 2.
SUBJECT: DEMOCRAT & SHERMAN CLAIMS.

DEVELOPMENT:

Development on the property consists of an incline on the Sherman and two levels of workings and some trenching on the Democrat.

The inclined shaft on the Sherman claims is about 35 feet deep and dips 35 degrees northeast. It was driven entirely in a white limestone and apparently followed a vein of ore, part of which was left in the northwest wall. This vein pinches and swells and is about one foot thick at its widest point. The average width of the vein is about four inches. Although there is some staining in the bottom of the incline, none of the vein material is present.

A sample from an ore pile near the entrance runs 1.0 oz/T Ag, 0.3% Pb, tr Cu, and 22.9% Zn.

On the Democrat claim, there are two levels of workings. The lower level is merely a tunnel into the side of the hill for about 200 feet. It starts in quartzite which continues for about 40 feet; then limestone for 35 feet; quartzite for 25 feet; limestone for 38 feet; and quartzite for the last 62 feet. No mineralization is present here except for a trace of copper stain on one fault and some epidotization in a one-foot vein between two faults. Much fracturing is visible in the tunnel but only what appears to be the major trends are shown on the accompanying map.

The upper level, which is about 75 feet above the lower level, consists of an entry to a drift which runs both northwest and southeast from the entry. Except for five feet of quartzite at the entrance, these workings are entirely in limestone.

A fault trending N. 58 W. and dipping 85 degrees southwest forms the north wall of the workings except at the west end. Here a highly mineralized fault has been cut and the workings enlarged. A sample from this face assayed 0.10% Pb, tr Cu, and 49.9% Zn. The assay for silver has not been completed but will be forwarded as soon as it is received.

Opposite the entrance, a 20-foot drift was driven at a slight angle down. The drift followed a vein or ore, part of which is left on the west wall. A thin stringer one to two inches thick shows in the face.

Some stoping was done on the east end. The floor drops down here but the stope does not exceed 15 feet in height.

No mineralization shows in the walls of the stope although the major fault does show some mineralization.

Mr. J. W. Chandler.
PAGE # 3.
SUBJECT: DEMOCRAT & SHERMAN CLAIMS.

A sample from an ore pile near the entrance assayed 1.0 oz/T Ag, 0.1% Pb, 0.05% Cu, and 17.6% Zn.

The trenching was done east of the entrance to the upper works in limestone. It may have been a form of exploration for the continuance of the major fault in the workings. However, only little mineralization can be seen in the limestone although it is heavily fractured.

Two diamond drill holes were located and are shown on one of the accompanying maps. Core for both of these holes is scattered on the ground. Only slight pyritization can be seen in these but some of the core may be missing. Evidently both holes were drilled entirely in limestone.

More than these two holes are reported to have been drilled but could not be located.

Since 1926, less than 600 tons have been shipped from the property. The most recent shipment was in January, 1952 which consisted of 41 tons and was sent to American Smelting & Refining Company's smelter in Deming, New Mexico. This ore averaged 19.95% Zn, 0.20% Pb, 0.23% Cu, and 0.50 oz/T Ag. According to the American Smelting & Refining Company's records, previously an estimated 500 tons were shipped by a Mr. Headerman that averaged 25.00% Zn, 1.00% Cu, and 2.00 oz/T Ag.

Mrs. Hubbard has records of shipments to Shattuck-Denn Mining Company's mill consisting of a total of 237 tons which averaged 1.33 oz/T Ag, 0.29% Pb, 0.68% Cu, and 19.53% Zn.

AREAL GEOLOGY:

James Gilluly, United States Geological Survey, and D.J. Cederstrom agree that the Dragon Mountains resulted from thrust faulting from the southwest. The thrusting was followed by vertical faulting which shows a northwesterly trend with southwest dip. Some igneous intrusion accompanied these vertical movements.

Cederstrom feels that a series of northeast cross faults displace both the earlier structures.

Mr. J. W. Chandler.

PAGE # 4.

SUBJECT: DEMOCRAT & SHERMAN CLAIMS.

A normal stratigraphic section for the area shows:

Tertiary or Cretaceous?	Volcanics
Post Cretaceous	Stronghold granite (intrusive)
Lower Cretaceous	Undifferentiated sediments
Permian	Snyder Hill limestone
Pennsylvanian	Naco limestone
Mississippian	Escabrosa limestone
Devonian	Martin limestone
Cambrian	Abrigo limestone
	Bolsa quartzite
	Green porphyritic granite
Pre-Cambrian	Schist

LOCAL GEOLOGY:

Little geologic information can be obtained from the inclined shaft on the Sherman claim. The incline was driven entirely in white limestone which shows northwest-southeast faulting, although none of it seems to be of major significance.

On the northwest wall, a portion of the vein material was left. It is a replacement deposit in the limestone and appears to have been a more or less horizontal sheet-like vein averaging about four inches in thickness. Eldred D. Wilson (Arizona Zinc & Lead Deposits, Hubbard Mine, University of Arizona Bulletin, Series #19, Bulletin #158, July, 1951) states that the ore forms as tabular replacements in complexly faulted limestone.

Northeast of this incline an outcrop of the same limestone shows some zinc mineralization. Shearing in this outcrop aligns with the fracturing in the incline and dips 60 degrees northeast.

The distance between the inclined shaft and the workings on the Democrat is covered by float and vegetation but a few outcrops do appear. Near the incline the outcrops are limestone but as we approach the Democrat works they are quartzite. Extensive geologic mapping could probably denote the contact which, from indications in the area, is probably a fault zone.

The lower tunnel is driven through a series of three quartzites separated by two blue limestones as shown on the accompanying map. No mineralization was seen in the tunnel except some slight copper staining on one fault and some epidote in a one-foot section of altered rock between two faults.

Heavy shearing with a northwesterly trend is evident all through the tunnel. This shearing exhibits varying dips and is in places complex.

Mr. J.W. Chandler.

PAGE # 5.

SUBJECT: DEMOCRAT & SHERMAN CLAIMS.

Approximately 75 feet vertically and 145 feet horizontally from the entry to the lower tunnel, the upper works was started. The first five feet of this was driven in quartzite and the remainder is in a blue limestone.

Ore occurrence on this level is associated with two major faults. One of these strikes N. 57 W., and dips 85 degrees southwest. It runs the entire length of the main workings and for the most part forms the north wall of this level. The other fault occurs in the west end of the works and is terminated by the first fault. This fault strikes N. 32 W., and dips 60 degrees to the southwest.

Another fault which may be of major significance occurs in the east end of the works. It is a very flat fault which can be seen near the roof. The dip of this fault appears to be to the northwest although the strike is not apparent.

All three of these faults as seen in the workings are entirely in limestone.

The ore occurs as replacement bodies and especially in the west end is associated with the intersection of the two faults. In the east end, the ore may be associated with the intersection of the flat fault with the vertical one but this cannot be determined now. However, no ore was noted along the fault which extends through the workings except in proximity to the other two faults.

Although the lower tunnel extends beyond the projected position of this long fault, as noted on the accompanying composite plan, the tunnel has apparently not cut this fault. Neither can the counterpart of the quartzite-limestone contact near the entrance to the upper works be found in the tunnel by projection. This indicates, then, that some amount of horizontal displacement has occurred between the two levels.

A simplified section of the works by Walter Sim, a former lessee, indicates this fault and the quartzite-limestone contact to continue beneath the lower tunnel. This section was evidently made previous to the completion of the tunnel and not revised.

CONCLUSIONS:

Although the Democrat and Sherman claims exhibit some advantages for ore deposition, information from the present workings would seem to indicate that the property does not lend itself to a large scale operation.

The claims are accessible by road although portions of the road do need repairs. Ore samples from the workings and a small ore pile and smelter returns from previous shipments of ore show that the ore is very high grade zinc with small amounts of silver, copper

Mr. J. W. Chandler.

PAGE # 6.

SUBJECT: DEMOCRAT & SHERMAN CLAIMS.

and lead. Outcrops in the surrounding area indicate that limestones favorable for replacement deposition are present. These factors all make the property seem to be a favorable prospect. However, some indications in the workings do not appear so favorable.

The stope in the east end of the main workings on the Democrat is of no consequential size, yet it definitely seems to be worked out. In the down-sloping drift to the north, a small portion of the vein is still visible in the west wall and the face. This vein gives no evidence of continuing for any distance as it decreases in both width and grade toward the face of the drift and is not apparent in an inset in the north wall of the main passage only 20 feet to the west. The workings in the west end does show high grade ore remaining in the face, but this is associated immediately with the intersection of two faults and has not been worked enough to determine its extent. The fact that only a very minor indication of mineralization is present in the lower tunnel, although it extends past the projected position of these bodies, seems to indicate that faulting may complicate the possibility of any large continuous orebodies. The vein in the incline on the Sherman does not exhibit much extent either. It pinches out within 20 feet of its first occurrence and although it is still visible in the north-west wall of the workings, no indications of it are seen where a not too great an extent would cause it to outcrop.

These indications would seem to associate the property with small replacement orebodies in the vicinity of fault intersections which would require a great deal of exploratory and geologic work for exploitation.

Respectfully submitted.

WEA/tp.

William E. Arndt.

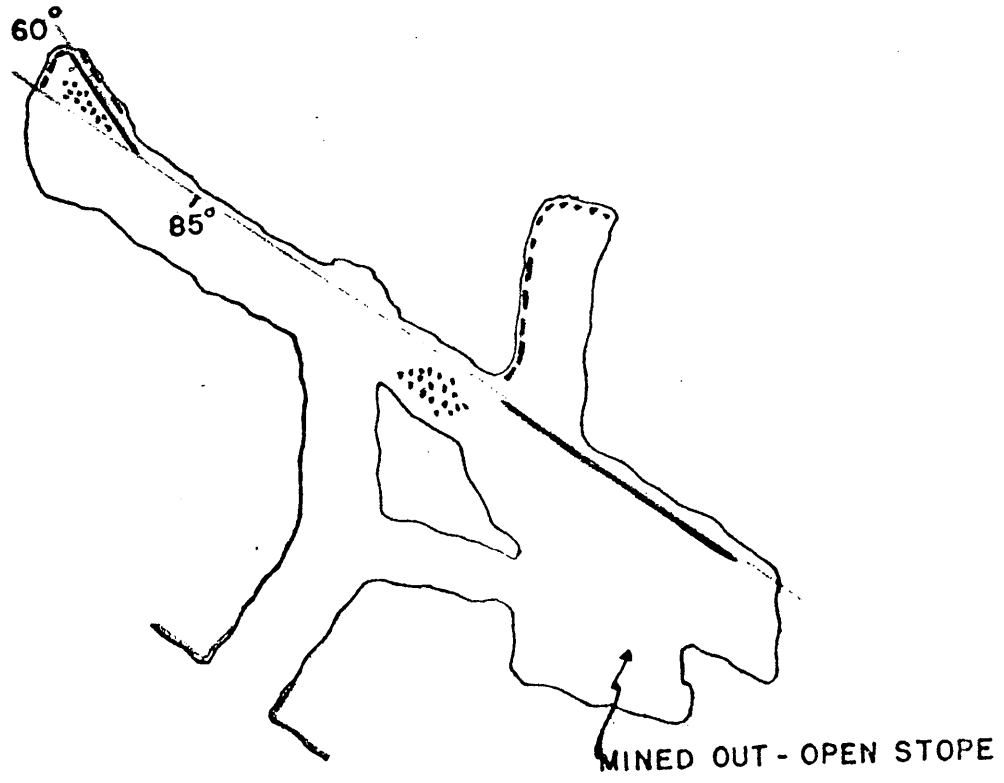
DEMOCRAT & SHERMAN CLAIMS

UPPER WORKS

SCALE 1" = 20'

7-9-56

WEA & GWI



- LIMESTONE
- ▨ QUARTZITE

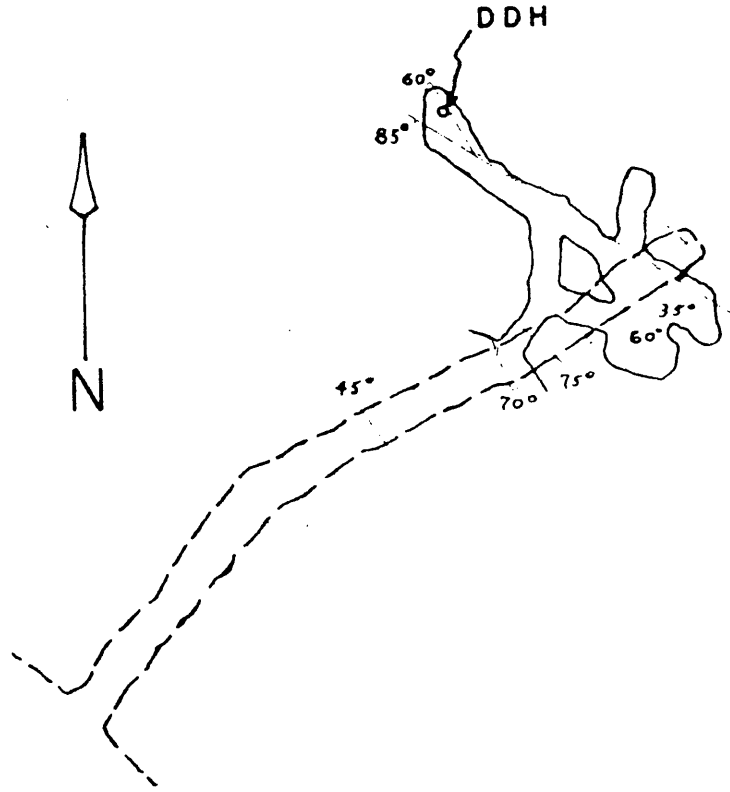
75' BETWEEN LEVELS

SCALE 1" = 50'

7-9-56

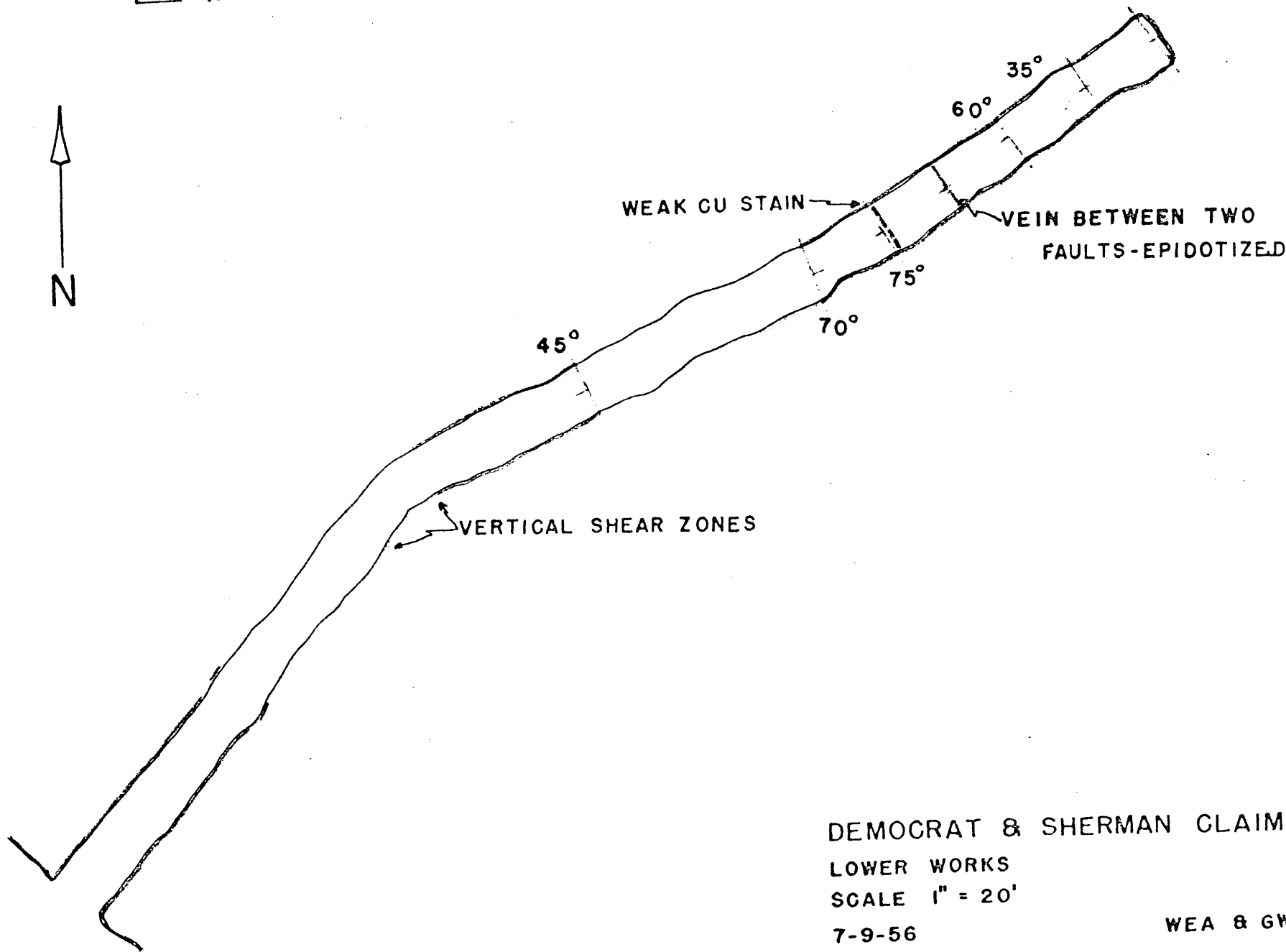
WEA & GWI

o DDH



— UPPER LEVEL
- - - LOWER LEVEL

□ LIMESTONE
▨ QUARTZITE



DEMOCRAT & SHERMAN CLAIMS
LOWER WORKS
SCALE 1" = 20'
7-9-56

WEA & GWI