OME 6074

See also DMEA 4996

(Same property)

Denver Federal Center
Denver 25, Colorado

March 29, 1960

Memorandum

To: Chairman, Operating Committee, OME

From: Field Team, Region III

Subject: Summary of Recommended Exploration and Preliminary Costs on OME Docket 6074, United Park City Mines Company, Salt Lake, Summit, and Wasatch Counties, Utah (Lead and zinc)

An official of the United Park City Mines Company, possibly Mr. Marvin Barnes, Chief Geologist, intends to meet with members of the Operating Committee to discuss problems concerning a new OME application in the very near future. The applicant is also desirous of discussing the current pending application for exploration work in the Daly West area on the Daly West 2100 level.

We are submitting a summary of the recommended exploration program with preliminary estimated costs to facilitate your discussions with Mr. Barnes. The modified program suggested by the examining team has met with the approval of the United Park City Mines Company.

A detailed report will follow.

J. W. Townsend

J. W. Townsend

J. W. Hasler

J. W. Hasler

Attachment

Copy to: Chairman, Op. Com. (2 w/orig.)
Director's Reading File
Hasler
Docket file

JWHasler:arh

SUMMARY OF RECOMMENDED EXPLORATION WITH PRELIMINARY COSTS

OME Docket 6074, United Park City Mines Co.
Salt Lake, Summit, and Wasatch
Counties, Utah

The applicant proposes to explore for ore in the basal Weber or upper Morgan limestones adjacent to the Middle vein, and Back vein fissure on the Daly West 2100 level, and to get into position to drill the underlying formations on the strongly mineralized fissures.

The amount of crosscutting and drifting required to explore the target area is estimated by the applicant to total 4,100 feet in addition to the preparation of six diamond drill stations and 5,000 feet of diamond drilling estimated to cost $262,272.21.

The application was referred to the field with a suggested program by Mr. H. Kirkemo, and a field examination was made on March 17, 1960.

Detailed study, conferences between OME personnel, and discussions with the applicant have resulted in the suggestion of a still somewhat different program from those originating with the applicant or Mr. Kirkemo. The applicant is continuing to drive the 213¼ crosscut southwest (attached figure) and was 690 feet from the 213¼ crosscut south toward the area of intersecting the Middle vein dike system, at the time of the examination. Since the applicant is continuing to drive the 213¼ crosscut southwest the examining team feels that the applicant will be in a much more favorable position, geologically, to proceed with the 213¼ crosscut southwest until the Middle vein dike system is intersected, then drive a crosscut southward across the Back vein

fissure. The south crosscut in this area will more effectively explore the 2136 limestone near its contact with the Weber quartzite as well as being below the eastern extremity of the stoped area and nearer to the bottom of the synclinal structure, that is postulated by the applicant to be the most promising area for the occurrence of ore bodies.

Considerable development work has been done on the Back ledge fissure at the contact of the Weber quartzite and 2136 limestone from the 2100 Daly West level and some 20,000 tons of ore averaging 8.0 percent Pb, 10.0 percent Zn, 5.5 oz. Ag has been produced. The applicant is currently drilling a diamond drill hole due south at an angle of -73 degrees from the south end of the 2136 crosscut (see attached map) to test for the presence of the Humbug formation at depth, as well as to intersect the Back Ledge vein below the 2100 level. The hole has been drilled to a depth of 680 feet as of March 24, 1960, and according to the applicant's geologist had penetrated approximately 200 feet of the Doughnut formation which is about 340 feet thick and the Humbug may be intersected within the next few hundred feet.

Diorite sills may appreciably thicken the section and consequently would require deeper holes, which is the justification for the allowance of the 1,000 feet of diamond drilling in Stage I.

A major objective of the exploration program is to test for the presence of the Humbug formations and to find ore within the Humbug formation in association with fissures, contact zones, or in bedded

replacement deposits. Sufficient diamond drilling has been proposed by the applicant in order to test for the Humbug below the 2100 Daly West level in the vicinity of the Daly West shaft where there may not be too thick a section of sedimentary beds; however, the Humbug may be deeper than is supposed.

The following program with approximate costs has been recommended by the examining team to effectively reach the objectives proposed by the applicant. The program has been discussed in detail with the applicant and it meets with his approval (see attached figure).

During discussions with the applicant relative to his approval of the recommended exploration program, the applicant suggested that the Government participate with him in finishing the 2136-E diamond drill hole (see attached figure) and explore the first 200 feet of the Humbug formation, which may be as deep as 1,200 feet below the collar but should be in the range from 800-1,200 feet. This participation meets with the concurrence of the examining team and footage for completing this hole is provided under Stage I of the recommended program. Should the Humbug formation be only 800-900 feet below the 2100 level, additional drilling could be done to further test the Humbug formation nearer the stoped area to the west at a later date, possibly in relation to intersecting veins, fissures and contacts, during Stage II work. Participation in diamond drill hole 2136-E should be as justifiable as participation in continuation of the 2134 crosscut southwest in taking over the work at the time a contract is prepared.

## United Park City Mines Company Recommended Program

### Stage I

| Item | Footage | Estimated cost | |
|---|---|---|---|
| Crosscutting in 21¾ crosscut southwest | 900' | | |
| Crosscutting south to cut Middle & Back veins | 600' | | |
| Drifting on veins or mineralized structures | 500' | | |
| | 20,000' | | |
| Drifting & XC $43.00/ft. plus 400' timbering @ $9.00/ft. | | $ 89,600.00 | |
| Diamond drilling @ $8.00/ft. | 1,000' | 8,000.00 | |
| Long hole percussion drilling @ 1.00/ft. | 1,000' | 1,000.00 | |
| 1,000 chemical analyses @ $1.00 each | | 1,000.00 | |
| Total estimated cost Stage I | | | $ 99,600.00 |

### Stage II

| | | | |
|---|---|---|---|
| Drifting on Middle vein } or on other mineralized | 500' | | |
| Drifting on Back vein } structures | 500' | | |
| Drifting, raising, winzing, XC | 500' | | |
| 1,500 ft @ $43.00 per ft. including 750 ft. timbering @$9.00 per foot | | 71,250.00 | |
| Diamond drilling @ $8.00 per foot | 2,000' | 16,000.00 | |
| 1,000 chemical analyses @ $1.00 each | | 1,000.00 | |
| Total estimated cost for Stage II | | | 88,250.00 |
| Total estimated cost of recommended program | | | $187,850.00 |

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

February 24, 1960

Re: OME 6074; Lead-Zinc;
$262,272.31
United Park City Mines
Co.
Salt Lake, Wasatch and
Summit Counties, Utah

Memorandum

To: W. R. Griswold, Office of Mineral Exploration

From: Commodity Specialist, Branch of Base Metals

Subject: Review of OME application 6074 received in Washington February 4, 1960.

The applicant proposes an exploration project to explore for ore in limestone formations adjacent to pre-mineral fissures extending downward from a productive zone in limestone at horizons about 1,400 feet higher. The project consists of 4,100 feet of crosscutting and drifting, cutting six drilling stations, and 5,000 feet of diamond drilling.

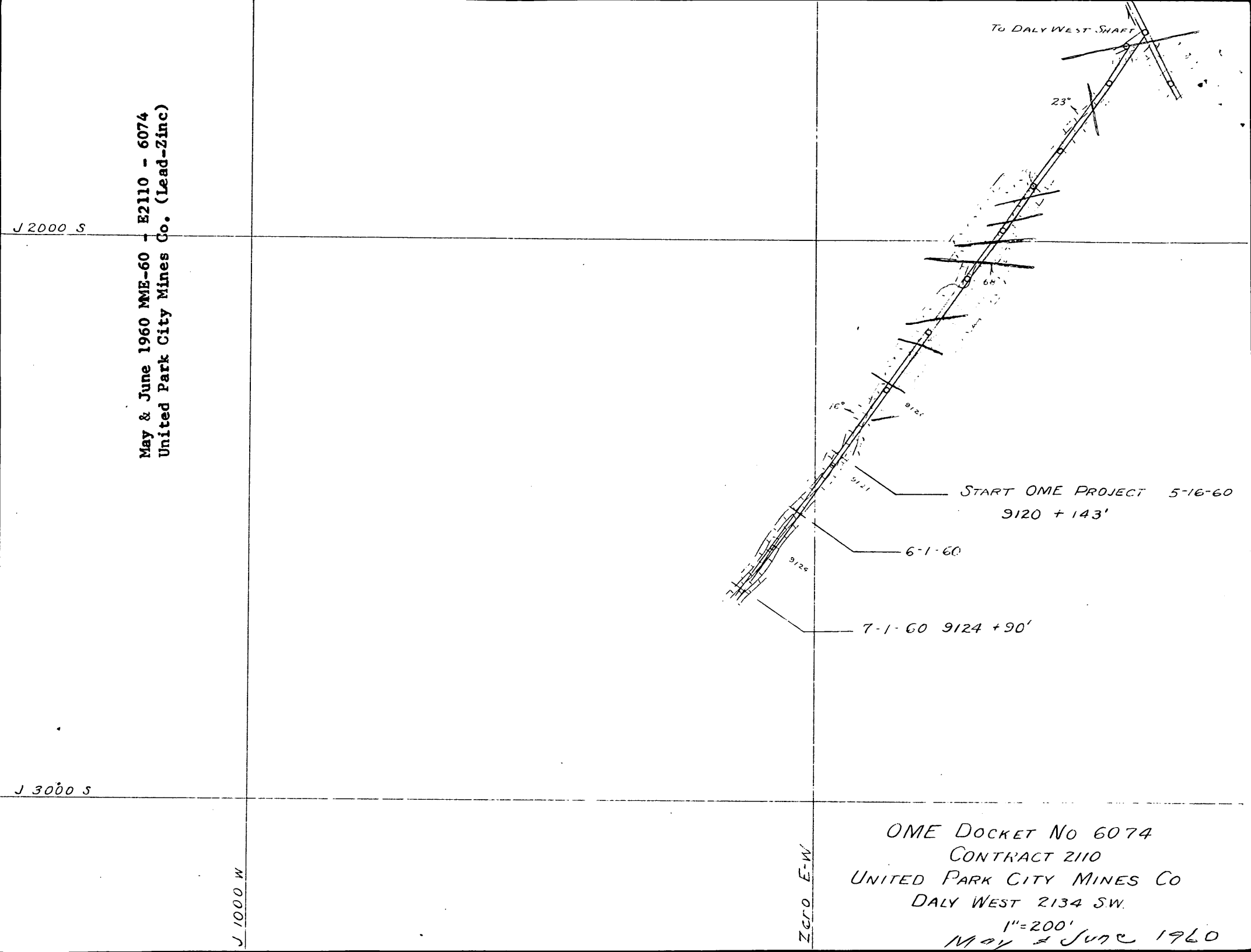
The present application is a revised proposal to the one submitted April 25, 1958, (DMEA Docket No. 4996) on which a loan was denied. Principal reasons for the denial were the excessive amount of "dead" drifting and crosscutting necessary to reach the target area and the long projections of the stratigraphy from known occurrences. Basis for the recommendation is completion by the company of about 650 feet of crosscutting and their reference to added information on lower limestone beds by virtue of development and mining with the Daly West shaft.

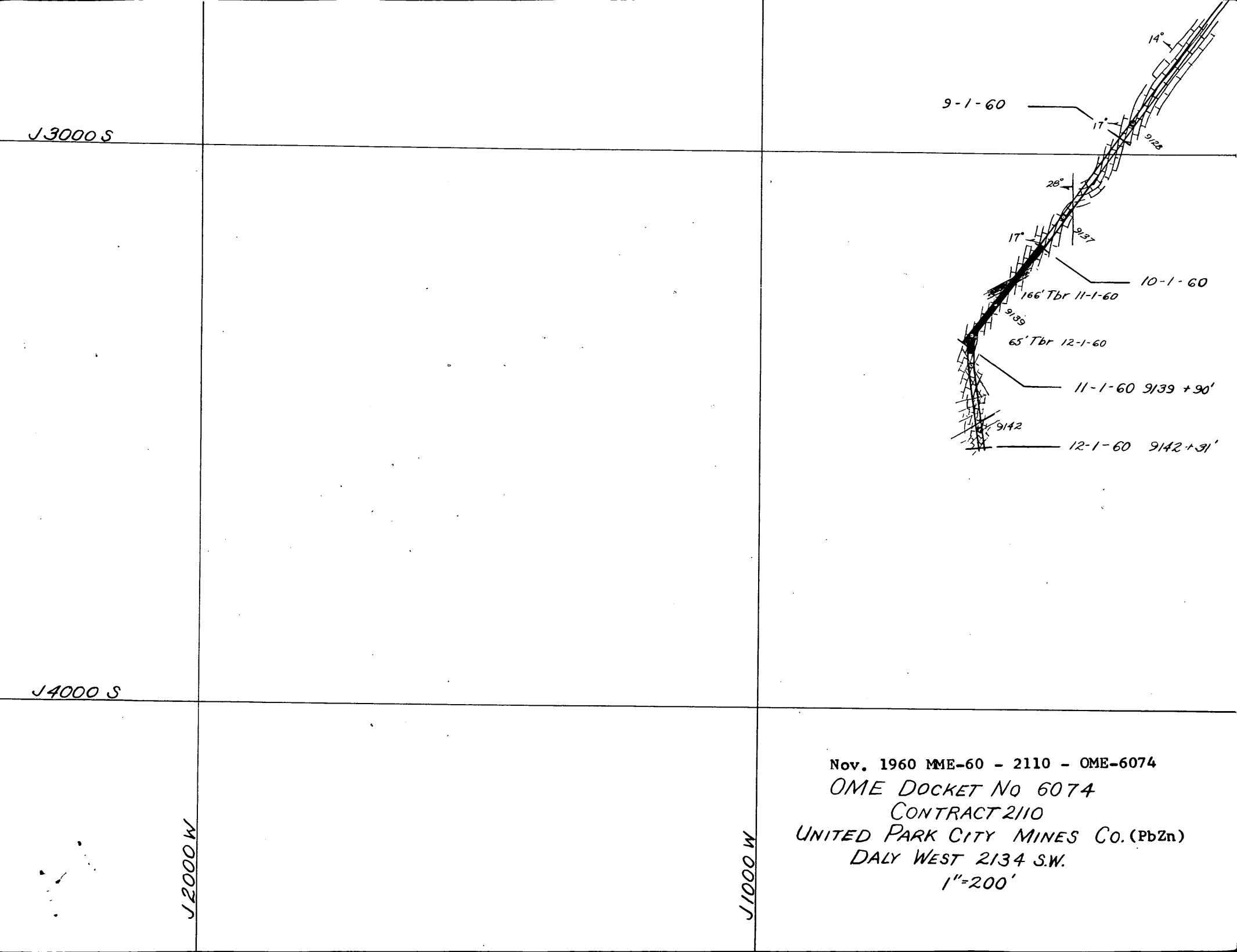
I recommend an appraisal by the Field Team with particular emphasis toward evaluating new data on the reliability of stratigraphic projections to the target area.

HJSchroeder:js H. J. Schroeder

Copy to: Division of Minerals (2)
Mr. Killagnard
Mr. Schroeder
Files

May & June 1960 ME-60 - E2110 - 6074
United Park City Mines Co. (Lead-Zinc)




J3000 S
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J1000 W
14°
9-1-60
17°
9128
28°
17°
9137
10-1-60
166' Tbr 11-1-60
9139
65' Tbr 12-1-60
11-1-60 9139 +90'
9142
12-1-60 9142+31'
Nov. 1960 MME-60 - 2110 - OME-6074
OME DOCKET NO 6074
CONTRACT 2110
UNITED PARK CITY MINES CO. (PbZn)
DALY WEST 2134 S.W.
1"=200'

Room ~~5227~~
5222
Int.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

April 7, 1960

Docket No. OME 6074 (Lead and Zinc)
$262,272.21
United Park City Mines Co.
Salt Lake, Summit and Wasatch
Counties, Utah

Memorandum

To: W. R. Griswold, Office of Mineral Exploration

From: G. Richards Gwinn, Bureau of Mines

Subject: Review of Field Examination Report

The Field Examiners and the Field Team recommend an exploration project at the Daly West Project of the United Park City Mines Co., costing about $262,272.21. Plans include crosscutting and drifting for a total of 3,500 feet and diamond drilling a total of 2,000 feet.

A review of this report suggests that the request for assistance is warranted and I concur, therefore, with the OME Field Recommendation.

G. Richards Gwinn

G. Richards Gwinn

Copy to Division of Minerals
Branch of Base Metals (2)
Mr. Kirkham - Room ~~5227~~ 5222
F I L E S

GRGwinn/mec

February 23, 1960
Re: OME 007% (Lead-Zinc)
Daly West Mine-Southwest Project
United Park City Mines Co.
Salt Lake, Summit, and
Wasatch Counties, Utah

Memorandum

To: W. R. Griswold, Office of Minerals Exploration

From: Harold Kirkham, U. S. Geological Survey

Subject: Review of application for exploration assistance

The Applicant proposes spending $8,8,272 to test the ore possibilities in the Southwest Project area on and below the 2100 level of the Daly West mine.

The Applicant applied for DMEA (Docket No. 4556) assistance on this same project in 1958. The application was denied. Since then, a crosscut has been extended by the Applicant to a point about 500 feet from the primary target area. This completes about 40 percent of the "dead work" needed to reach the target.

Instead of continuing this crosscut on a bearing of S.35°W as proposed, I suggest an alternate plan in order to decrease the amount of "dead work" remaining, to test the ore possibilities of a vein from a point 300 - 400 feet east of the Applicant's target area, and to be in position to drill a down hole for information on the underlying formations. The principal goal of the drill hole would be the Ensign Formation which is the host rock for important ore bodies in the vicinity of the Ontario No. 5 shaft about 6,000 feet to the northeast. The alternate plan would consist of three units of work shown on attached Figure 1 and explained as follows:

1. Turn the present southwest crosscut due south and drive about 550 feet to intersect strands of the Middle Vein fissure system.

The first 100 feet or so of the crosscut will be in diorite porphyry and the remaining distance should be in the Ellis limestone member of the Weber formation.

2. Diamond drill to intersect the underlying Hanna formation from a point in the vicinity of the intersection of the crosscut with the Middle Vein fissure. A hole 900 to 1,000 feet in length, directed S.60°E, minus 65° (normal to the strike and dip of the Weber formation) is suggested. This should intersect the base of the Weber formation, the underlying Morgan formation, Doughnut formation, and enter the Hanna formation about 900 to 1,000 feet from the primary target area. The applicant's cross sections showing formations below the 3180 level are based on information from a drill hole at the Daly West shaft which is about 2,000 feet from the target area.

3. Drift westward following the Middle Vein fissure into the primary target area. This would test the ore possibilities along nearly 600 feet of the fissure which would not be tested under the plan proposed by the Applicant.

A fourth item of work that might be considered would be the extension of the crosscut proposed in item No. 1 to the Back Vein fissure and drifting westward on that structure to the Applicant's primary target area.

Work in the Applicant's primary target area would depend on results of the drilling proposed in item No. 2 above and results of drifting under item No. 3 and possibly item No. 4.

I recommend that the application and this alternate proposal be referred to the Field Team for consideration.

Harold Kirkham

Attachment

cc: CMK (3)
M. M. Callaway, Room 3321
Director's reading
Branch reading
Chron. file
Docket file

HKirkham/ms
0-MD-2-23-60

FORM 1006

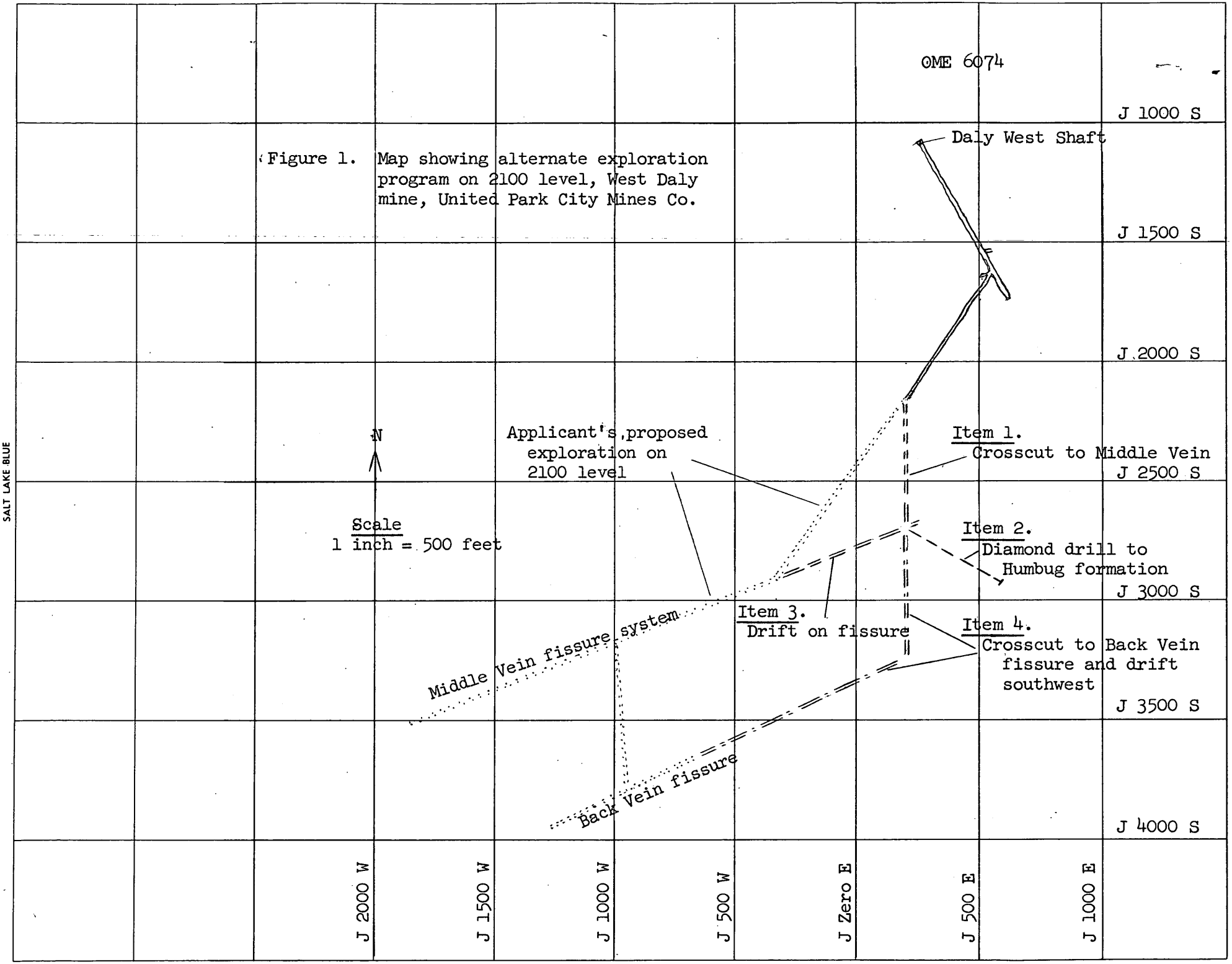



Figure 1. Map showing alternate exploration program on 2100 level, West Daly mine, United Park City Mines Co.

SALT LAKE BLUE

UNITED
PARK CITY MINES
COMPANY

HEBER, UTAH

GENERAL OFFICE

January 28, 1960

Walker Bank & Trust Company
Box 1169
Salt Lake City 10, Utah

Regarding: Exploration Loan

Gentlemen:

We of United Park City Mines Company are interested in finding means of financing supplementary exploration work in connection with our current mining program.

Since you people are very close to the mining industry of the west, you realize that man power shortages and ceiling prices on metals, during World War II and the Korean Emergency, left most Western States lead-zinc mines exhausted of long term ore reserves. The government had called on them to supply metal for the war effort even though there was no means of carrying on sufficient exploration work to justify such liquidation of ore reserves.

Our company has been operating at an annual loss of approximately one hundred thousand dollars per year for four straight years because of the depressed prices of lead and zinc, due to low cost foreign imports. Losses would have been greater except that progressively less long range development and exploration work has been carried on from year to year to meet the problem of declining income, due to lower metal prices and the effects of the necessity of high-grading ore reserves. Shut down expenses would have been much greater.

We now find it necessary to explore for new ore if we are to survive as a mining company. This we must do in the face of present low metal prices because our ability to find new ore and keep producing in the Ontario section of the mine may weaken within a year or two.

Competent geologists have recognized the possibility of finding new ore bodies in what has been called our South-West Project. This project has been started and then stopped several times due to

economic reasons. If ore choots can be located on the downward extensions of the fissure zones that fed the great ore reservoirs in the upper levels of the Daly West and Daly Judge mine, then the favorable horizons of the lower levels should prove productive along these same fissures.

In order that we may be able to carry on this exploration project, and not jeopardize our position as a solvent corporation, (our ability to operate at a profit for the next year or two depends on metal prices) we would like to borrow a sum equal to one half of the estimated cost of the project. The amount would be $131,136.12.

We would like to make the terms and repayment of the loan dependent on the success of the development project. First of all the interest rate should not be over 3%. It will take approximately two years to complete the exploration, therefore, repayment should not begin for two years or before ore is shipped from the project area, whichever comes first. We would be willing to set aside a reasonable percentage of the net-smelter returns from ore mined from the project area for a period of 12 years to repay the loan.

Kindly let us know your reaction as to the willingness of Walker Bank & Trust Company to make such a loan, and if something on the order of the above suggestions could be worked out. If the suggested terms are not suitable, kindly outline briefly the terms on which you would make such a loan.

Maps, cost estimates, records of all kinds are available at our office in Salt Lake City for your inspection and use.

Very truly yours,

S. K. DROUBAY
Vice President-General Manager

SKD/bl

# WALKER BANK & TRUST COMPANY

ESTABLISHED 1859 MEMBER FEDERAL RESERVE SYSTEM

SALT LAKE CITY, UTAH

February 1, 1960

Mr. S. K. Droubay
Vice President and General Manager
United Park City Mines Company
Heber, Utah

Dear Mr. Droubay:

Thank you very much for your letter of January 28, 1960 in which you request the Walker Bank & Trust Company to lend $131,136.12 for a term of years at a stipulated rate of three percent.

We feel at this time we would not be able to make the loan requested as outlined in your letter, nor would we be willing to participate in such a loan with any other bank or agency of Government.

We do appreciate your kindness in bringing this request to us.

Yours very truly,

A. B. Kesler, Jr.
Vice President

ABK:eo

WALKER BANK 100 YEARS SERVING INDIVIDUAL BUSINESS INDUSTRY 1859-1959 THE NEW COMMUNITY

MME Form 40
Dec. 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Budget Bureau No. 42-R1368
Approval expires Dec. 31, 1963

FEB 4 1960 O.M.E.

Phone Republic 71820

# APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

Pursuant to Public Law 85-701 (72 Stat. 700; 30 U.S.C. 641)

| NAME OF APPLICANT *(Full legal name and mailing address as they should appear on contract if one is executed.)* | APPLICANT DO NOT USE THIS BLOCK |
|---|---|
| United Park City Mines Company<br>Star Route<br>Heber, Utah | DOCKET NUMBER: 6074<br>DATE RECEIVED: 2-4-60<br>REGION: III<br>DIVISION CODE: 500 |

**BUSINESS ORGANIZATION** *(Check one)*

- INDIVIDUAL [ ]
- CORPORATION [X]
- PARTNERSHIP [ ]
- OTHER *(Specify)* [ ]

STATE IN WHICH FIRM IS ORGANIZED

**LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE**

| NAME | ADDRESS | TITLE |
|---|---|---|
| John M. Wallace | Salt Lake City, Utah | President |
| S. K. Drouhey | Salt Lake City, Utah | Vice President and General Manager |
| S. L. Detka | Salt Lake City, Utah | Secretary-Treasurer |

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE: Lead and Zinc

ESTIMATED COST OF PROJECT: $ 252,272.31

| PROPERTY NAME | LOCATION COUNTY | STATE |
|---|---|---|
| United Park City Mines Company | Salt Lake, Summit & Wasatch | Utah |

## GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior, Washington 25, D. C., or with the nearest OME Field Office.*

## CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief, and that he would not ordinarily undertake the proposed exploration under current conditions and circumstances at his sole expense.

DATED

BY S. K. Drouhey *(Signature)*
Vice President-General Manager
TITLE

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

# INFORMATION REQUIRED WITH THIS APPLICATION

## 1. Financial Eligibility:

(a) Submit evidence of efforts made within 90 days preceding the filing of this application to obtain credit from your bank of account and at least one other banking institution or other private source of credit. Such evidence shall include true copies of correspondence which show: (1) date of loan request, (2) amount and terms requested, (3) proposed use of loan funds, and (4) the replies from credit sources. If the loan was offered under terms which you consider unreasonable, state why you consider them so.

(b) List names and addresses of affiliated, parent, or controlling companies or organizations and state extent and nature of their interest.

(c) State how you propose to furnish your share of the cost of the exploration work.

## 2. Applicant's Rights in Land:

(a) State your interest in the land and mineral rights, whether owner, lessee, purchaser under contract, or other. If you are not the owner, submit one true copy of the lease, contract, or other document (with address of owner) under which you control the property. Describe all liens, mortgages, or other encumbrances on the land and state book and page number and official place where recorded.

(b) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all adjacent land which you own or control. Describe any part of the land or workings which should not be subject to Government royalty and liens. If the land consists of unpatented claims, state book and page number for each recorded location notice, including amended locations, and official place where recorded. State all the names by which you know the property.

(c) For all land or mineral rights encumbered or not owned, submit five copies of Lien and Subordination Agreements on MME Form 52. If the agreements cannot be obtained, state reasons and provide copies of letters of refusal.

## 3. Physical Description:

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the land. Include existing mine workings and all production facilities.

(b) State your interest, if any, in operations described in (a).

(c) State, if you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves, giving quantities and grades and sampling methods used. Support your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you have, indicating whether you require their return.

## 4. Accessibility of Property:

(a) To aid the OME representative who may examine the property, state name and address of person who will meet him; give directions for reaching the property; and describe accessibility of property and of any mine workings.

(b) Name the shipping and supply points and state the distances to the property.

## 5. Exploration Work:

(a) Describe fully the proposed exploration work giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and sections as necessary. Show location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *land boundaries* or to the closest identifiable corner.

(b) If an access road must be built, show the proposed location on the property map and state the length, type and construction methods proposed.

(c) If an OME contract is executed, state how soon thereafter work would be started and finished. State your anticipated average daily or monthly rate of progress for each type of work.

## 6. Experience:

State your operating experience and background to conduct this exploration work and also that of the person who will supervise the work.

## 7. Estimate of Costs:

Furnish detailed estimates of the necessary costs *for each item of the work proposed in 5(a)* under the headings listed below with a total for each heading and the estimated total cost of the work. Costs for any work to be performed by an independent contractor should be listed separately under category (a) below. Costs for any work that is not to be performed by an independent contractor should be listed under categories (b) through (g).

(a) Independent contracts. State the total cost of any proposed independent contract for all or any part of the work, and the number of units and the unit cost for each type of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, or per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. (*Note*—If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. The cost of supervision, engineering and geological services, outside consultants, and labor should be itemized by numbers and classes of employees; rates of wages, salaries or fees; and periods of employment. State whether these services are available.

(c) Operating materials and supplies. List items of material and supplies giving quantity and cost of each. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of equipment and tools costing $50 or more per unit. Give specifications and indicate how each item is to be acquired—i.e., rented, purchased or provided by the applicant. If rented or purchased, state the estimated rental or purchase price. If furnished by the applicant, state condition and present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant which will be used in the exploration work.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration work, stating specifications and cost including labor, materials, and supervision.

(g) Miscellaneous. Describe the type and estimate the cost of repairs and maintenance of the operating equipment listed in 7(d). Do not repeat initial repairs listed in 7(e). Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories. [*Note*—The Government will not contribute to costs incurred before the date of the contract, or to costs of or incident to: (1) acquiring, using, or possessing land and any existing improvements, facilities, buildings, installations, and appurtenances, or the depreciation and depletion thereof; (2) general overhead, corporate management, interest and taxes (other than payroll and sales taxes); (3) insurance (other than employees' liability insurance); and (4) damages to persons or property (other than authorized repair to or replacement of equipment or other property used in the work).]

INT.-DUP. SEC., WASH., D.C. 50399

UNITED PARK CITY MINES COMPANY

APPLICATION FOR ORE AID

1. Financial Eligibility:

(a) The attached correspondence outlines refusals of loans by two financial institutions for the purpose of carrying on an exploration program in deeper horizons of the old Daly West and Daly Judge stopes of the Back Vein and Middle Vein ore structures.

(b) United Park City Mines Company is owned by at least 7000 individual stock holders. There are no controlling or parent companies. Companies owning the largest interest in United Park City Mines Company are:

| | | |
|---|---|---|
| The Anaconda Company, 25 Broadway, N. Y. | 13.53% | outstanding stock |
| American Smelting & Refining Company, N. Y. | 9.76% | " " |
| J. A. Hogle Company, Salt Lake City, Utah | Less than 5% | |

(c) We will pay for it currently from the income of ore sales from month to month. In case of deficit operations, the money will be paid from our treasury.

2. Applicants rights to land:

(a) All mineral rights together with surface rights and water rights are owned by the company.

(b) Applicant owns approximately 8,516 acres of patented mining claims located as a contiguous group in Salt Lake, Wasatch and Summit Counties, Utah. This group includes the majority of mines that have been identified with the Park City, Utah mining district during the past 75 years. The property is outlined on the index map submitted with this report.

UNITED PARK CITY MINES COMPANY

APPLICATION FOR GOV AID

2a. Legal Description of Block Subject to Government Lien:

Beginning at Cor. No. 1, from which the corner common to Sections 29, 30, 31 and 32, T. 2 S., R. 4E., Salt Lake Meridian, a granite stone 6x10 ins., 14 ins. above ground, marked 5 notches on E edge and 1 notch on S edge, bears S. 21° 43' W 2052.0 ft.; running thence South 3937.0 ft. to Cor. No. 2, thence S. 55° 21' E., 1111.8 ft. to Cor. No. 3, thence S. 41° 19' W., 75.3 ft. to Cor. No. 4, thence S. 55° 55' E., 293.9 ft. to Cor. No. 5, thence S. 49° 45' E., 285.4 ft. to Cor. No. 6, thence S. 51° 32' E 586.8 ft. to Cor. No. 7, thence S 36° 47' E., 612.2 ft. to Cor. No. 8, thence N. 51° 10' E., 1493.5 ft. to Cor. No. 9, thence N. 51° 49' E., 612.1 ft. to Cor. No. 10, thence N. 67° 09' E., 451.0 ft. to Cor. No. 11, thence N. 36° 30' W., 605.1 ft. to Cor. No. 12, thence N. 45° 00' W., 1147.8 ft. to Cor. No. 13, thence N. 50° 22' E.,767.5 ft. to Cor. No. 14, thence N. 67° 41' E., 20.2 ft. to Cor. No. 15, thence N. 50° 00' W., 190.1 ft. to Cor. No. 16, thence N. 47° 05' E., 798.5 ft. to Cor. No. 17, thence S. 86° 30' E., 267.4 ft. to Cor. No. 18, thence S. 47° 30' W., 100.0 ft. to Cor. No. 19, thence S 86° 45' E., 278.0 ft. to Cor. No. 20, thence N. 47° 05' E., 488.7 ft. to Cor. No. 21, thence N. 37° 15' W., 199.0 ft. to Cor. No. 22, thence N. 00° 23' E., 1331.4 ft. to Cor. No. 23, thence West 4007.0 ft. to Cor. No. 1, and place of beginning; including an area of 364.739 acres. (Cors. Nos. 2 to 22 inclusive are on the southerly boundary of the United Park City Mines Company property.)

3. Physical Description:

(a) Production and workings of the Park City District have been the subject of publications for many years. The property has produced many millions of tons of ore and contains hundreds of miles of underground workings.

(b) Applicant owns and operates the property.

(c) A crew of approximately 220 men produce some nine thousand tons of ore per month from the property, mainly from the Ontario section. The following production from 1875 through 1958 is recorded as:

| | |
|---|---|
| Tons of Ore Mined | 11,821,748 |
| Ounces of Gold Produced | 457,938 |
| Ounces of Silver Produced | 196,632,511 |
| Pounds of Lead Produced | 2,887,481,576 |
| Pounds of Zinc Produced | 931,214,939 |
| Pounds of Copper Produced | 60,570,005 |

(d) Ore reserves on January 1, 1959, is recorded as 160,750 tons at 6.6% lead, 9.0% zinc, 6.0 ounces silver and .03 ounces gold. Calculations are based on standard modern mining company procedure and copies of this report, together with the maps used as supporting evidence, are on file at the Company offices.

(e) Ore bodies are found as veins and bedded replacements in a thick series of limestones, quartzites and shales. The District is fully described in many publications, the most noted of which is Boutwell's professional paper #77 published in 1912. Extensive geological work since 1912 has resulted in a comprehensive set of geological and engineer-

ing maps on scales from one thousand feet to the inch, to twenty feet to the inch. These are all available for study and inspection at mining headquarters in Park City.

(f) The results of years of mining and the recording of geological data has developed patterns along which ore bodies are generally formed. The plan under consideration is to explore a series of fissures along lower horizons and below large ore bodies that these same fissures made above. This same pattern was followed in the case of the Ontario mine and resulted in locating many thousands of tons of commercial ore.

(g) Geological and engineering reports and maps are available at Company offices in Park City and Keetley, Utah. See maps under 5:a of this application.

4. Accessibility of Property:

(a) Project accessible from geological office in Park City. Phone, Park City 19M, Mr. Marvin Barnes, geologist. Phone Park City 19M for Mr. W. J. Dezell, general mine superintendent; phone Park City 19M for Mr. S. K. Droubay, general manager.

(b) Park City, Utah and Keetley, Utah. Both have truck and rail stations.

5. The Exploration Project:

(a) The project includes four thousand one hundred feet of crosscutting and drifting, together with five thousand feet of diamond drilling from six drilling stations. This work is outlined in the attached report and was explained to Government officials in Washington on April 22, 1958.

(b) None.

(c) Will be able to start immediately after contract is signed. Will take approximately twenty months to complete. Advance should average nine feet per day and two hundred twenty-five feet per month.

6. Experience:

S. K. Droubay, Vice President-General Manager. A graduate mining engineer with thirty years practical experience: miner seven years; engineer-geologist five years; chief engineer-geologist three years; mine superintendent three years; mine manager nine years; general manager of mining operations three years.

W. J. Dezell, general mine superintendent. A graduate mining engineer with many years practical experience as miner; mine engineer; underground boss; assistant mine superintendent and general mine superintendent.

A staff of experienced geologists and engineers will direct and supervise the project.

UNITED PARK CITY MINES COMPANY

GRAND SUMMARY

SCHEDULES I, II, III, and IV

| | | | |
|---|---|---|---|
| 7. | (a) | Independent Contracts | $ 37,500.00 |
| 7. | (b) | Personal Services | 117,766.08 |
| 7. | (c) | Operating Materials and Supplies | 89,645.54 |
| 7. | (d) | Operating Equipment | 2,565.20 |
| 7. | (e) | None | |
| 7. | (f) | None | |
| 7. | (g) | Miscellaneous | 14,795.49 |
| | | | $262,272.31 |

UNITED PARK CITY MINES COMPANY

SCHEDULE I - UNTIMBERED DRIFTING AND CROSSCUTTING

Exploration Project on Daly West 2100 Level South of the Daly West Shaft

| | |
|---|---|
| 6' x 8' heading with 12" x 24" ditch stub | 1,850 feet (Untimbered) |
| crosscuts | 200 feet (Untimbered) |
| Total | 2,050 |

| | |
|---|---|
| Advance: | 5 Feet per Shift<br>10 Feet per Day |
| Time needed to Complete Project | 205 Working Days<br>8 Calendar Months |

Summary

| | | | Total Cost | Cost per Foot |
|---|---|---|---|---|
| 7. | (a) | No independent contracts | | |
| 7. | (b) | Personal services | 50,907.65 | 24.833 |
| 7. | (c) | Operating materials and supplies | 36,145.60 | 17.632 |
| 7. | (d) | Operating equipment | 1,211.55 | 0.591 |
| 7. | (e) | None | | |
| 7. | (f) | None | | |
| 7. | (g) | Miscellaneous | 6,441.10 | 3.142 |
| | | Total | $94,705.90 | |
| | | Cost per foot of advance for 2,050 feet | | 46.198 |

UNITED PUBLIC SERVICE COMPANY

SCHEDULE I

NOTE: Refer to Schedule I pages 1, 2, 3 and 4 of D.M.E.A. Docket 4996 submitted April 24, 1958, for details. All figures reduced in proportion to reducing footage from 2,750 feet to 2,050 feet. There has been no change in our wage rates.

UNITED [illegible] COMPANY

CONTRACT I

NOTE: Refer to Schedule I pages 1, 2, 3 and 4 of D.P.U. [illegible]A. Docket [illegible]4996 submitted April 24, 1958, for details. All figures reduced in proportion to reducing footage from 2,750 feet to 2,050 feet. There has been no change in our wage rates.

UNITED PARK CITY MINES COMPANY

SCHEDULE II - TIMBERED DRIFTING AND CROSSCUTTING

Exploration project on Daly West 2100 Level South of Daly West Shaft

| | |
|---|---|
| 8' x 9' headings with 12" x 24" ditch | 1,850 feet (Timbered) |
| Stub crosscuts | 200 feet (Timbered) |
| Total | 2,050 feet (Timbered) |

| | |
|---|---|
| Advance: | 4 foot per shift<br>8 feet per day |
| Time needed to complete project | 256 Working days<br>10 calendar months |

Summary

| | | Total Cost | Cost per Foot |
|---|---|---|---|
| 7. (a) | None | | |
| 7. (b) | Personal service | 61,643.50 | 30.07 |
| 7. (c) | Operating materials and supplies | 48,134.00 | 23.48 |
| 7. (d) | Operating equipment | 1,250.50 | 0.61 |
| 7. (e) | None | | |
| 7. (f) | None | | |
| 7. (g) | Miscellaneous | 7,708.00 | 3.76 |
| | Total | $118,736.00 | |
| | Cost per foot for 2,050 feet advance | | 57.92 |

NOTE: It is assumed that approximately one half the total footage will be in unstable ground or along one of the fissures where timber will be needed.

UNITED PARK CITY MINES COMPANY

SCHEDULE - II

NOTE: Refer to Schedule II pages 1, 2 and 3 of D.M.G.A. Project Docket #4996 submitted April 24, 1958, for details. All figures reduced in proportion to reducing footage from 2,750 feet to 2,050 feet. There has been no change in our wage scale.

UNITED PARK CITY MINES COMPANY

SCHEDULE III - DIAMOND DRILLING

Exploration Project on Daly West 2100 Level South of Daly West Shaft

5,000 feet of diamond drilling to be placed on bid to an independent contractor. It is assumed that 1,000 feet of the hole will have to be cemented or reamed and cased.

| | | | Total Cost | Cost per Foot |
|---|---|---|---|---|
| 7. | (a) | Independent contract drilling | 35,000.00 | 7.00 |
| | | Independent contract reaming or cementing | 2,500.00 | 0.50 |
| 7. | (c) | Operating materials and supplies: | | |
| | | Electric power for compressors | 2,575.00 | 0.515 |
| | | Total cost of Diamond Drilling | $40,075.00 | |
| | | Cost per foot | | $8.015 |

NOTE: Copies of bids from 3 companies were sent to Mr. Wilson (Salt Lake City, Utah) for D.M.G.A. Docket #4996 in May of 1958. Company drill would be available for holes under 500 feet in depth.

UNITED PARK CITY MINES COMPANY

SCHEDULE IV - DIAMOND DRILL STATIONS

Six Diamond Drill Stations size 6' x 8' x 10' with 25 feet of 6 x 6 Raise

Advance: 1 Station 7 shifts
1 Station 3½ Days

Time Needed to Complete Stations 21 Days
0.84 Calendar Months

Summary

| | | Total Cost | Cost per Station |
|---|---|---|---|
| 7. (a) | None | | |
| 7. (b) | Personal Services | 5,214.93 | 869.16 |
| 7. (c) | Operating Materials & Supplies | 2,790.94 | 465.16 |
| 7. (d) | Operating Equipment | 103.15 | 17.18 |
| 7. (e) | None | | |
| 7. (f) | None | | |
| 7. (g) | Miscellaneous | 646.39 | 107.73 |
| Total | | $8,755.41 | |
| Cost per Station | | | $1,459.23 |

NOTE: Cost of stations for flat holes or for short down holes would be reduced by approximately one half.

UNITED PARK CITY MINES COMPANY

SCHEDULE IV

NOTE: Refer to Schedule IV pages 1, 2 and 3 of D.M.R.A. Project Docket #4996 submitted April 24, 1958, for details.

UNITED PARK CITY MINES COMPANY

APPLICATION FOR GRANT AID

## PLATE INDEX

| Plate No. | | Scale |
|---|---|---|
| 1. | Index and property map, showing principal ore bodies of the Park City District and location of Daly West-Juno Southwest exploration project | 1" - 1000' |
| 2. | Plan map of the Daly West 2100 level, showing geological projections and proposed exploration headings relative to overlying stopes | 1" - 100' |
| 3. | Geology Cross Section XVI | 1" - 100' |
| 4. | Geology Cross Section XV | 1" - 100' |
| 5. | Geology Cross Section XIV | 1" - 100' |
| 6. | Geology Cross Section XIII | 1" - 100' |
| 7. | Geology Cross Section XII | 1" - 100' |
| 8. | Geology Cross Section XI | 1" - 100' |
| 9. | Longitudinal Section on Middle Vein | 1" - 200' |
| 10. | Longitudinal Section on Back Vein | 1" - 200' |

NOTE: The maps herein are intended as a more detailed supplement to the maps enclosed with D.M.E.A. Docket No. 4996 submitted April 25, 1958.

[illegible]

APPLICATION FOR ORE AID

MEMORANDUM ON THE DALY WEST-JUDGE SOUTHWEST PROJECT

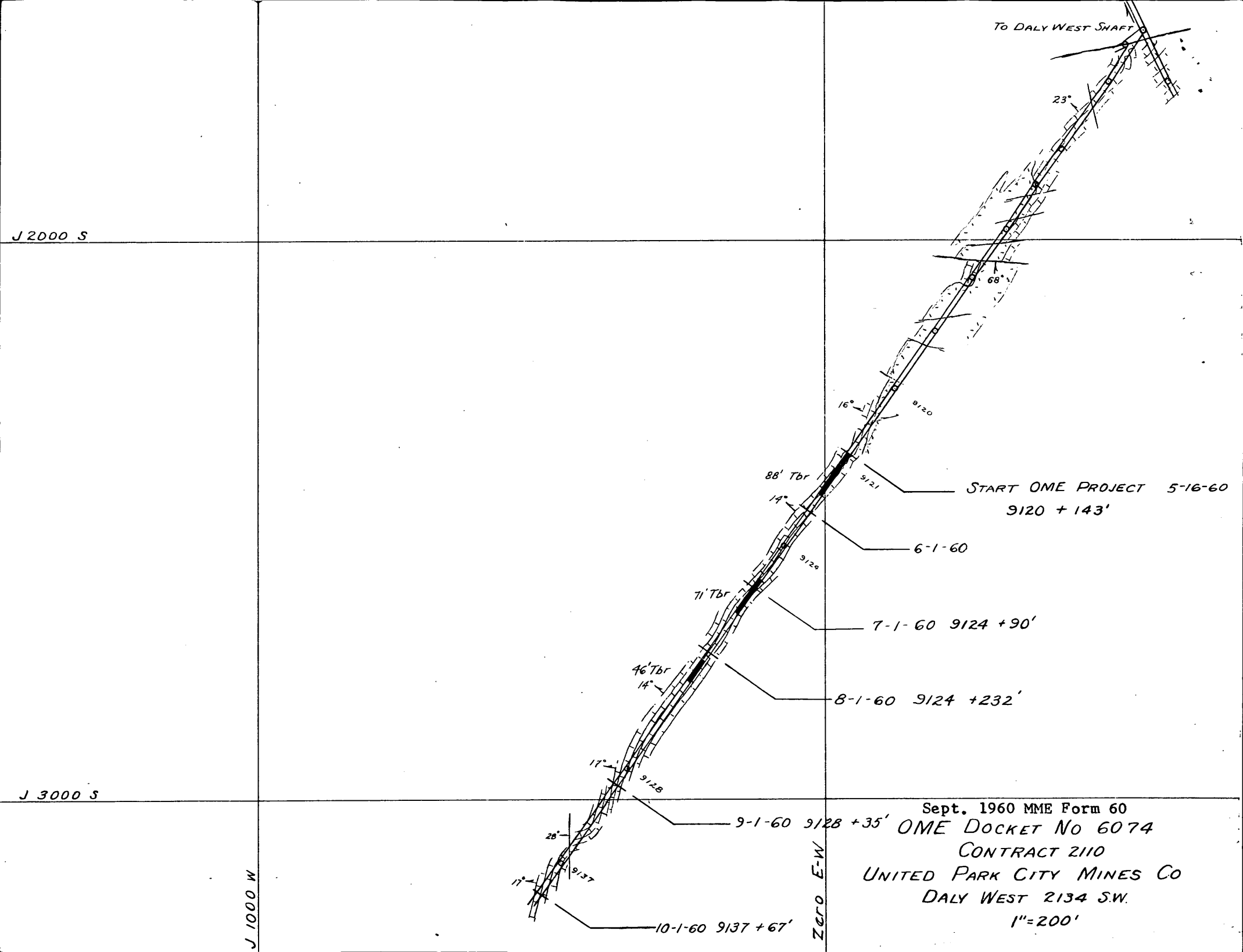
In the memorandum dated April 11, 1953, submitted with R.F.C.A. Docket No. 4996, entitled "Geology and Ore Possibilities in Formations Underlying the Weber Quartzite", the general geology for the southwest project was out lined. The objective of this project is to prospect for ore in the basal Weber or upper Morgan limestones adjacent to the Middle Vein and Back Vein fissures on the Daly West 2100 level (Drain Tunnel level), and to get in position to drill the underlying formations down dip on these same strongly mineralized fissures.

Continued development and mining on the Back Ledge Vein just south of the Daly West shaft has brought much information to light relative to the limestone beds near the base of the Weber formation. These limestone have proven to be good host rock to ore replacement in the zone of deformation adjacent to the fissure. The upper contact of this limestone unit, hereafter referred to as the 2136 limestone, lies between 1350 and 1400 feet below the Park City-Weber contact. As shown on Plate 2 herein, this limestone unit will be exposed on the drain tunnel level for a considerable distance both on the Back and Middle Veins, and will be only a few feet below the level in the deepest part of the syncline as illustrated on Plate 8. On the 2100 level at the Daly West Shaft a prominent diorite porphyry sill about 90 feet thick takes the place of the upper part of the 2136 limestone unit. (See plate 3) A porphyry sill of similar

nature, possibly the same, has been encountered in the crosscut near the present face. That the diorite porphyry is definitely sill like in nature has been proven by drill holes as shown on Plates 2 and 3. The good ore found along the small 2135 ore shoot on the Back Ledge fissure has in places replaced the limestone up to 16 feet in the hanging wall of the main fissure, although it should be emphasized that the Back Ledge Vein continued to make ore on the fissure above the limestone with quartzite both in the hanging and footwall.

Two well defined ore shoots are indicated along the Back Vein in the Park City formation, but there is no indication of a specific shoot or shoots that may have fed the very extensive ore runs on the Middle Vein system. Therefore, the downward projection of the most easterly ore shoot on the Back Vein has been tentatively set up as a major objective. In the process of crosscutting toward this point it is almost certain that some expression of the Middle Vein system or dikes will be intersected and can be followed westerly in the hopes of finding the roots of the big ore bodies above. It will be noted on Plate 2 that the Middle Vein ore run occupies the beds in the trough of the syncline and extends upward on both flanks. Therefore, it is conceivable that this ore could have originated anywhere beneath the trough of the syncline or possibly fed along the entire strike length of the dikes, making this entire zone an excellent target for exploration along favorable bedding.

The proposed crosscut is tentatively laid out on Plate 2. It will


To Daly West Shaft
23°
68°
16°
9120
88' Tbr
9121
14°
9129
71' Tbr
46' Tbr
14°
17°
9128
28°
9137
17°
J 2000 S
J 3000 S
J 1000 W
Zero E-W
Start OME Project 5-16-60
9120 + 143'
6-1-60
7-1-60 9124 +90'
8-1-60 9124 +232'
9-1-60 9128 +35'
10-1-60 9137 + 67'
Sept. 1960 MME Form 60
OME Docket No 6074
Contract 2110
United Park City Mines Co
Daly West 2134 S.W.
1"=200'

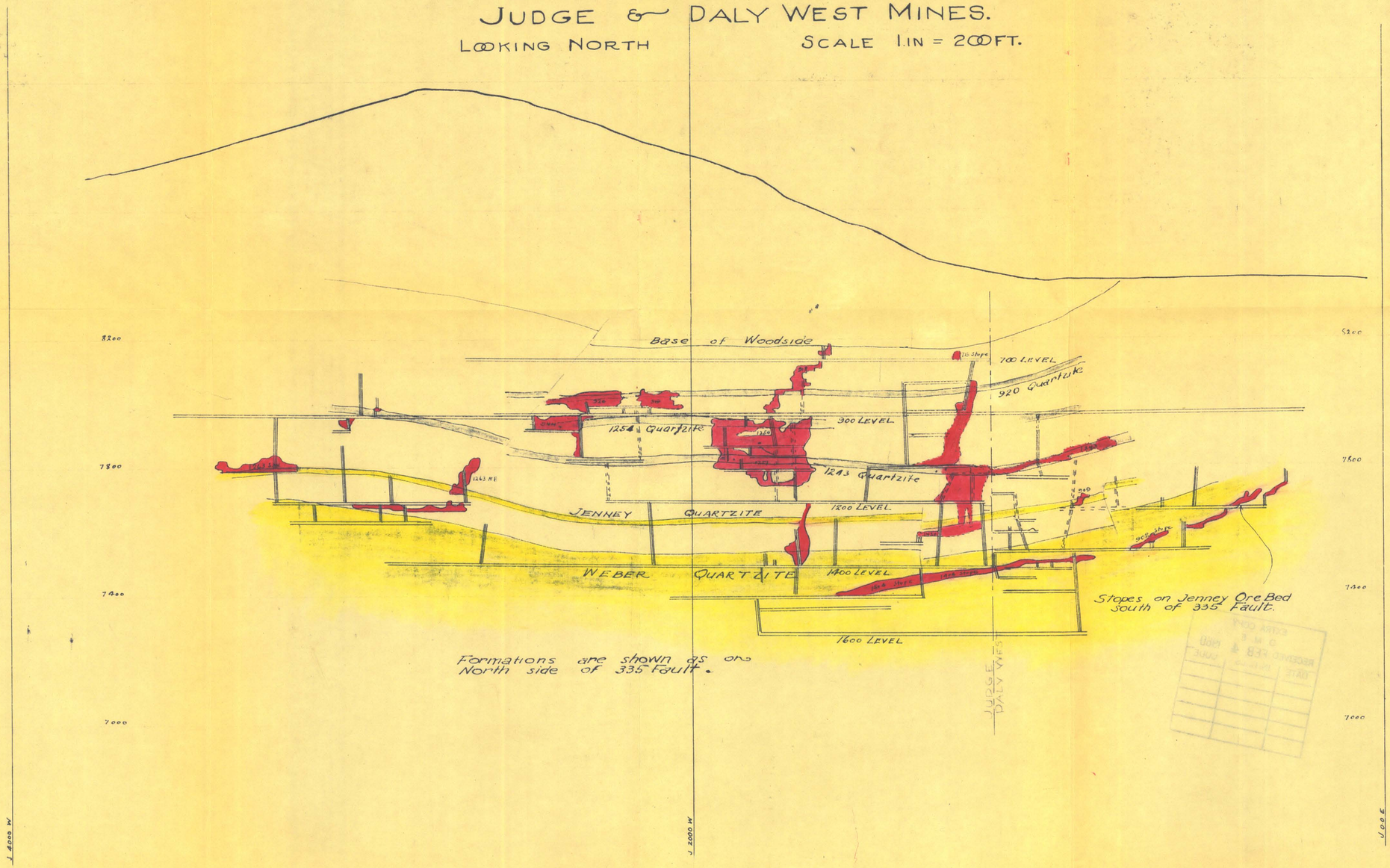
be noted that the company has already completed upwards of 650 feet of the project originally submitted in D.M.E.A Docket No. 4996. The crosscut will be continued 937 until intersecting the Middle Vein system and then turned to drift westerly on the vein for a total of 1,550 feet. A crosscut would then be driven almost due south for 600 feet to intersect the Back Vein down dip of the pace ore shoot and a total of 650 feet of drifting done along that fissure zone. A total of 400 feet has been allowed for driving short stub drifts and crosscuts to check both wall of the fissures according to the best geological data obtainable as the work proceeds. The exact location of the diamond drill stations will also depend upon subsequent geological information.

The total estimated footage thus includes (1) 1,500 feet for main crosscuts, (2) 2,200 feet of drifting on the two fissures, (3) 400 feet of stub crosscuts or drifts, (4) six diamond drill stations, and (5) 5,000 feet of diamond drilling.

# LONGITUDINAL SECTION
OF THE
# BACK VEIN
## JUDGE & DALY WEST MINES.

LOOKING NORTH

SCALE 1 IN = 200 FT.




By Billingsley

Pos. 4.

# LONGITUDINAL SECTION

OF

# MIDDLE VEIN STOPES

Showing

## RELATION TO QUARTZITE BEDS

March 1, 1944 200 Scale

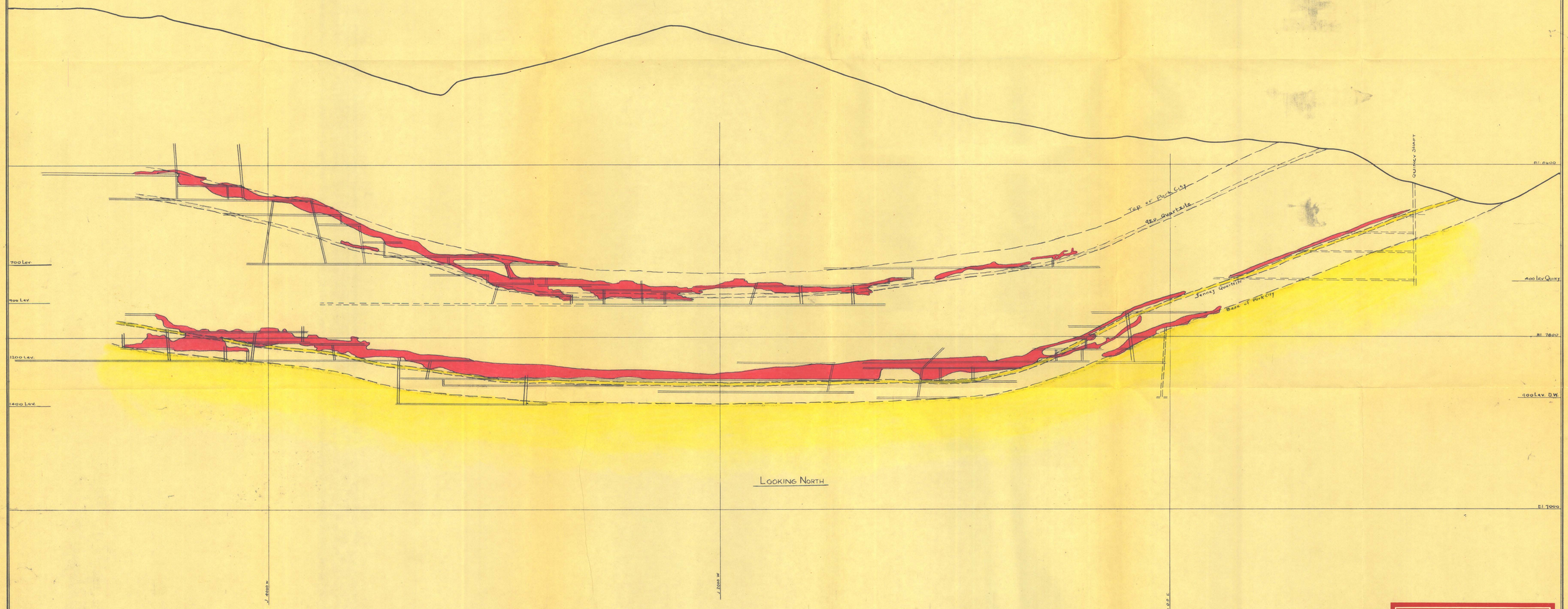
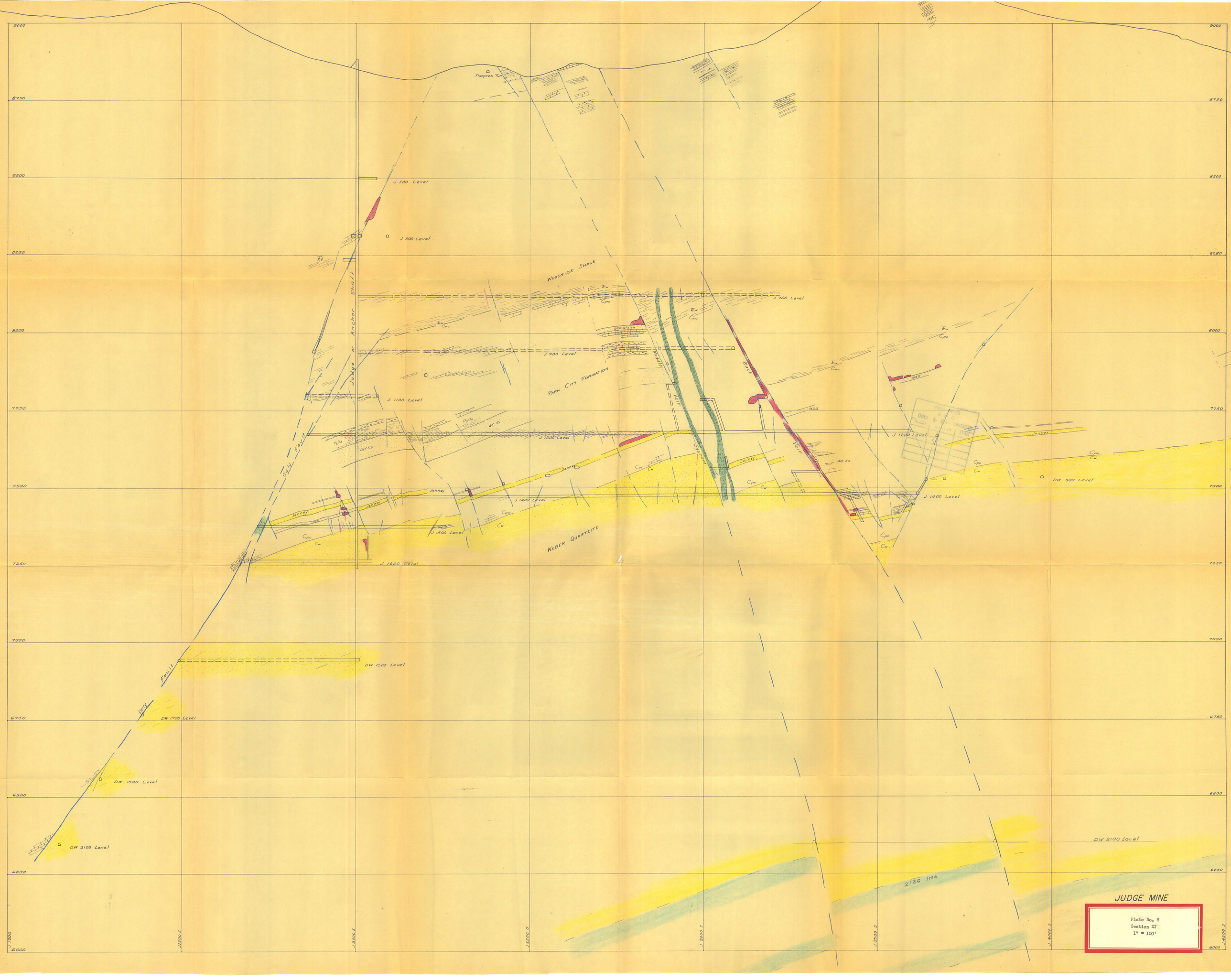


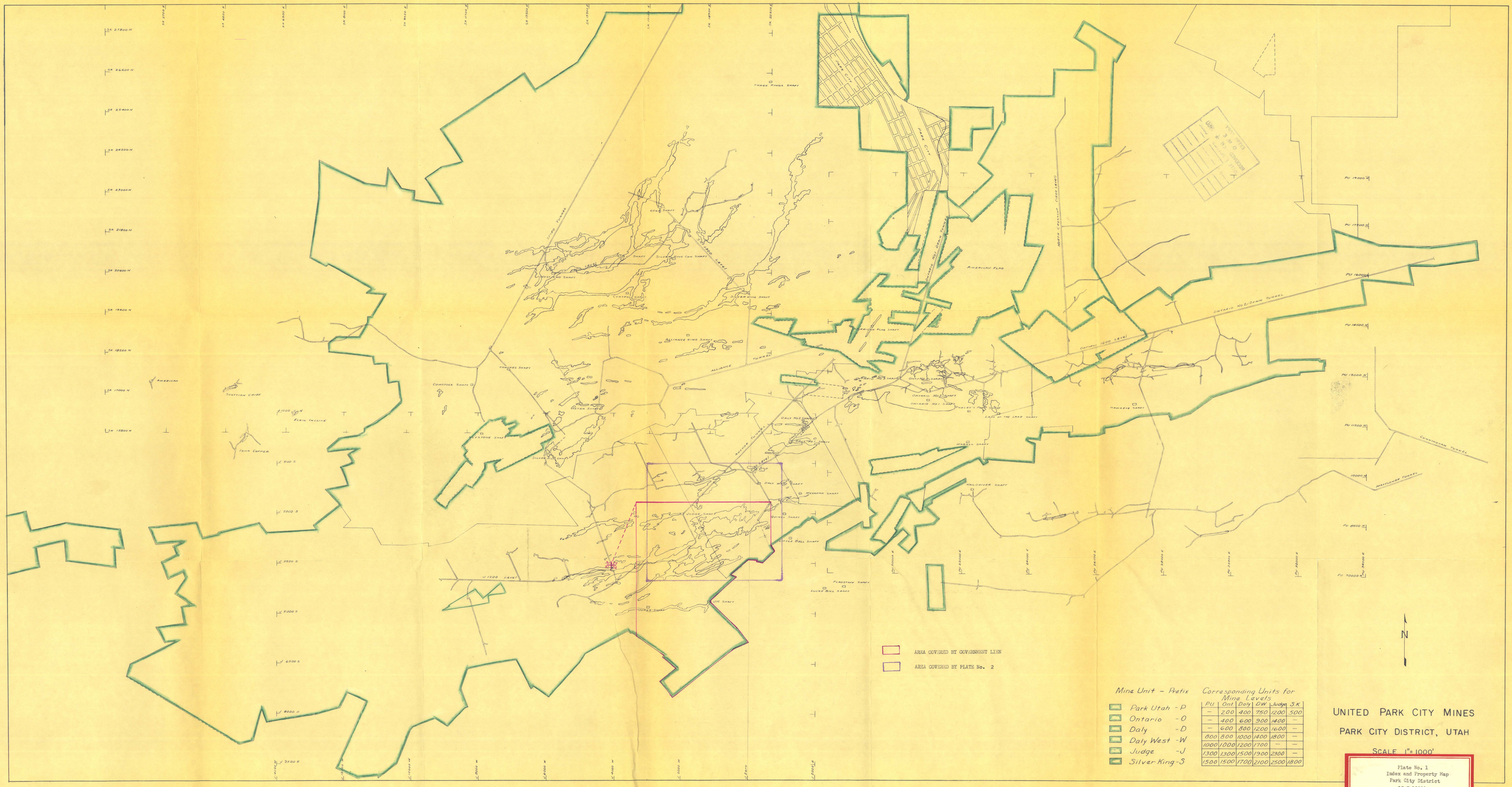

Plate No. 9
Longitudinal Section on Middle Vein
1" = 200'

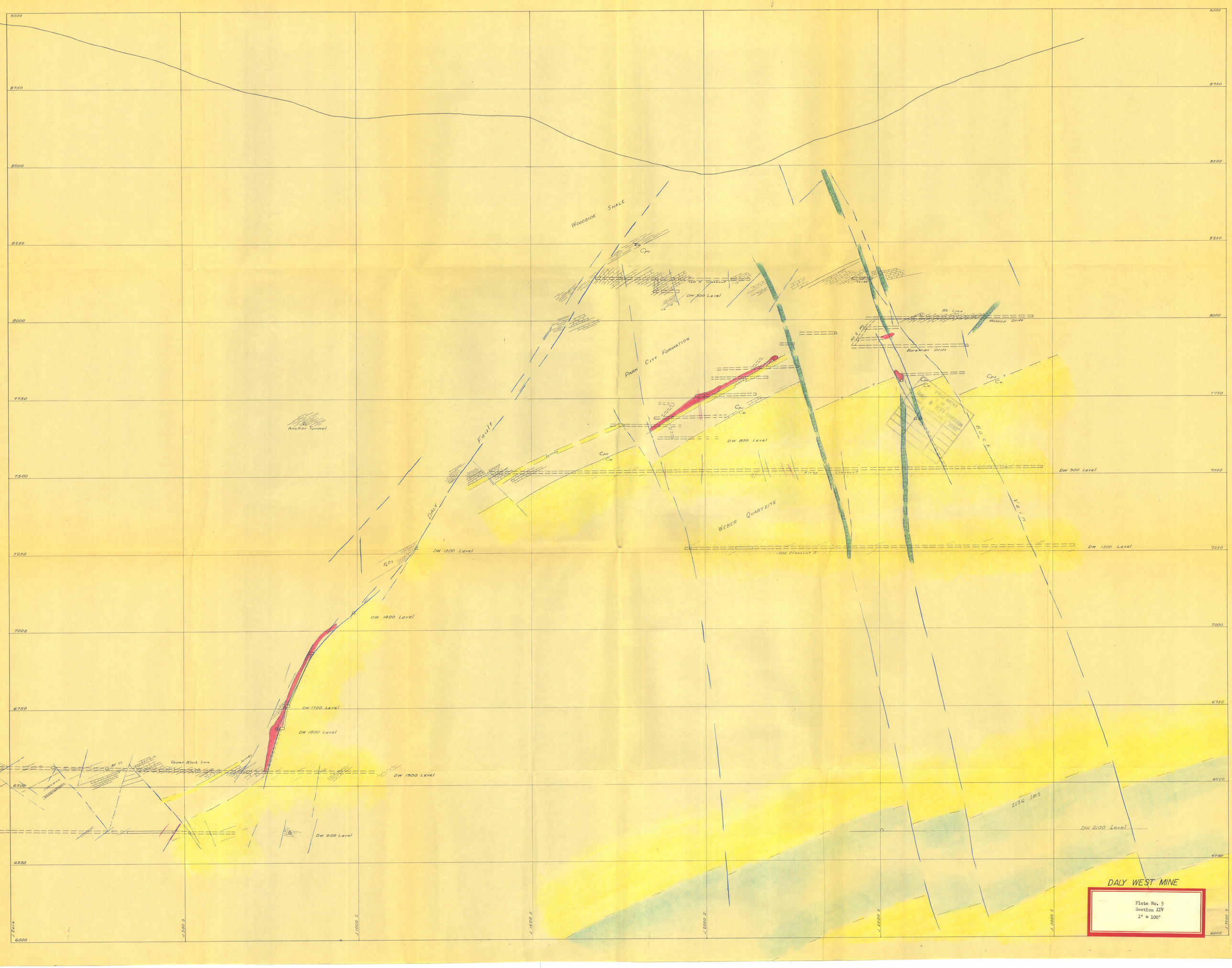


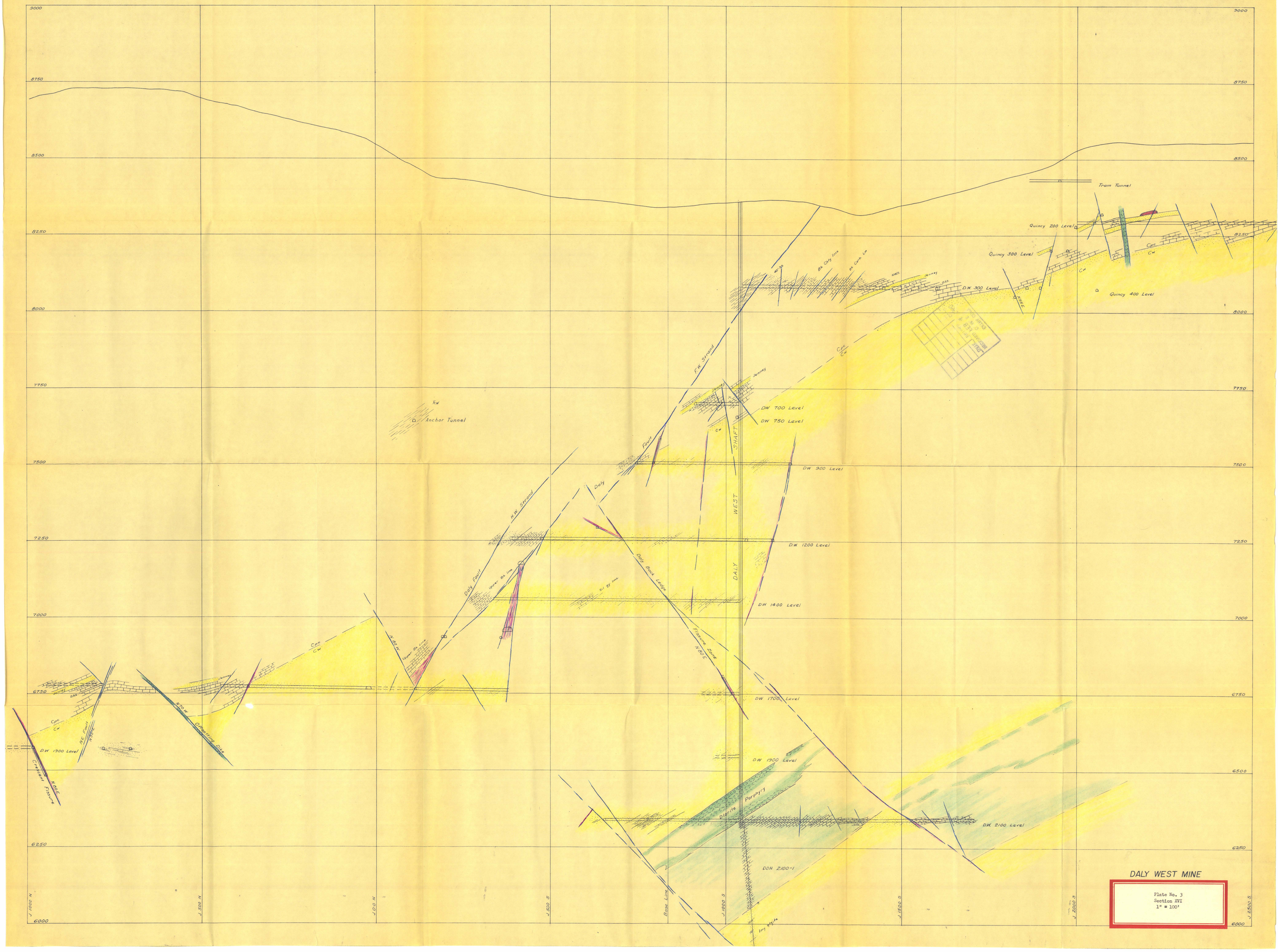

# JUDGE MINE

Plate No. 8
Section XI
1" = 100'

9000
8750
8500
8250
8000
7750
7500
7250
7000
6750
6500
6250
6000
J 800 S
J 1000 S
J 1200 S
J 2000 S
J 2500 S
J 3000 S
J 3500 S
J 4000 S
THAYNES FORMATION
WOODSIDE SHALE
Daly Fault
F.W.
Daly Fault
PARK CITY FORMATION
WEBER QUARTZITE
J 700 Level
J 300 Level
J 900 Level
J 1100 Level
J 1400 Level
J 1500 Level
J 900 Level (proj)
DW 900 Lev
DW 1200 Level
DW 1500 Level
DW 1700 Level
DW 1900 Level
DW 2100 Level
Anchor Tunnel
Little Bell Stope
Middle Vein
Back Vein
Tunnel
2136 lms
DALY WEST MINE
Plate No. 7
Section XII
1" = 100'

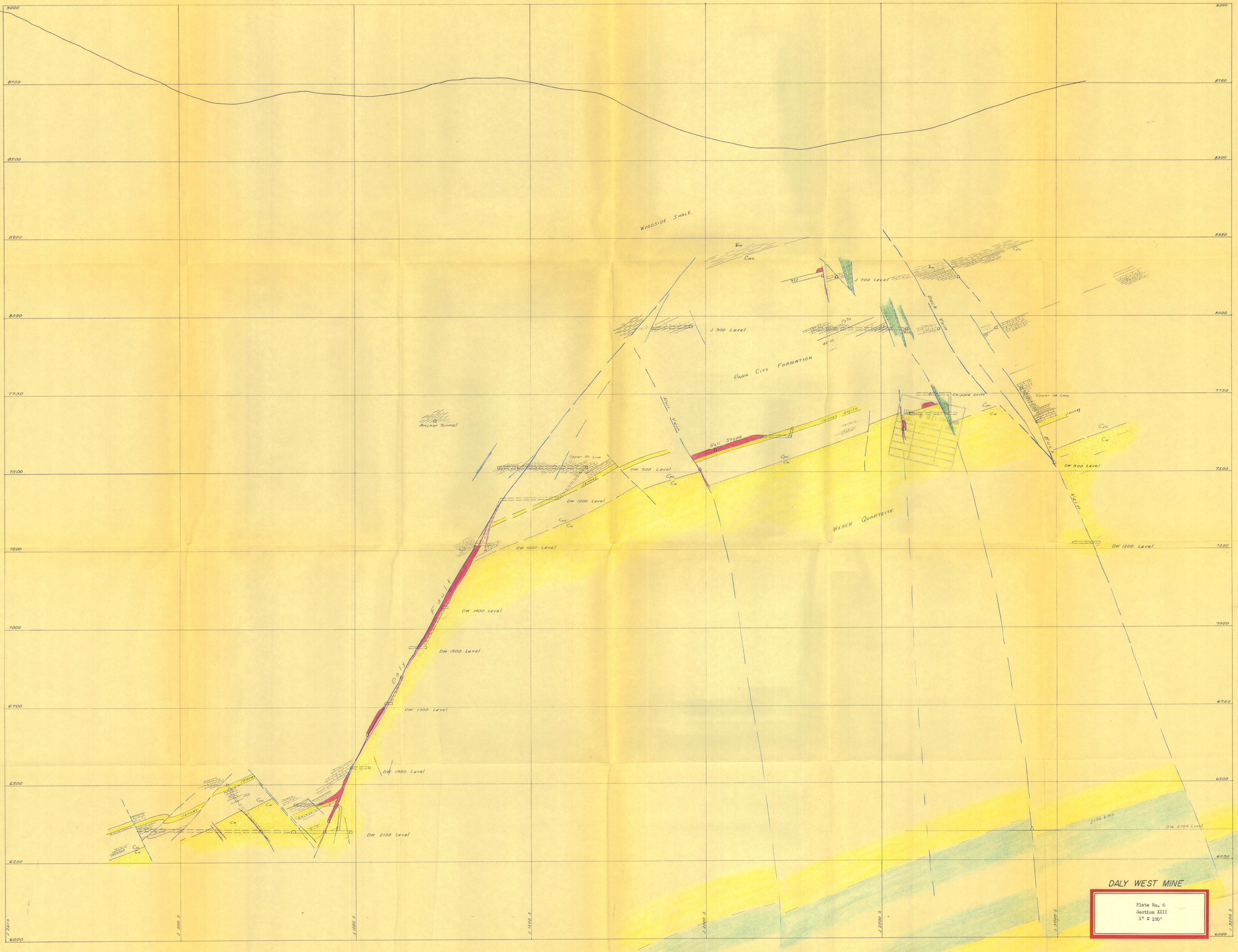

AREA COVERED BY GOVERNMENT LIEN
AREA COVERED BY PLATE No. 2
N
Mine Unit - Prefix
Park Utah - P
Ontario - O
Daly - D
Daly West - W
Judge - J
Silver King - S
Corresponding Units for Mine Levels
PU | Ont | Daly | DW | Judge | SK
— | 200 | 400 | 750 | 1200 | 500
— | 400 | 600 | 900 | 1400 | —
— | 600 | 800 | 1200 | 1600 | —
800 | 800 | 1000 | 1400 | 1800 | —
1000 | 1000 | 1200 | 1700 | — | —
1300 | 1300 | 1500 | 1900 | 2300 | —
1500 | 1500 | 1700 | 2100 | 2500 | 1800
UNITED PARK CITY MINES
PARK CITY DISTRICT, UTAH
SCALE 1" = 1000'
Plate No. 1
Index and Property Map
Park City District
1" = 1000'


9000
8750
8500
8250
8000
7750
7500
7250
7000
6750
6500
6250
6000
J Zero
J 500 S
J 1000 S
J 1500 S
J 2000 S
J 2500 S
J 3000 S
J 3500 S
Woodside Shale
Cpc
720 N Crosscut
DW 300 Level
721 NE
Bx Lms
Mossop Drift
Bowman Drift
Park City Formation
Cpc
Cw
Anchor Tunnel
Fault
Daly
DW 800 Level
Kirby Crosscut
DW 900 Level
Weber Quartzite
West
1200 Crosscut S
DW 1200 Level
DW 1400 Level
DW 1700 Level
DW 1800 Level
Upper Black Lms
DW 1900 Level
DW 2100 Level
2136 lms
DW 2100 Level
DALY WEST MINE
Plate No. 5
Section XIV
1" = 100'



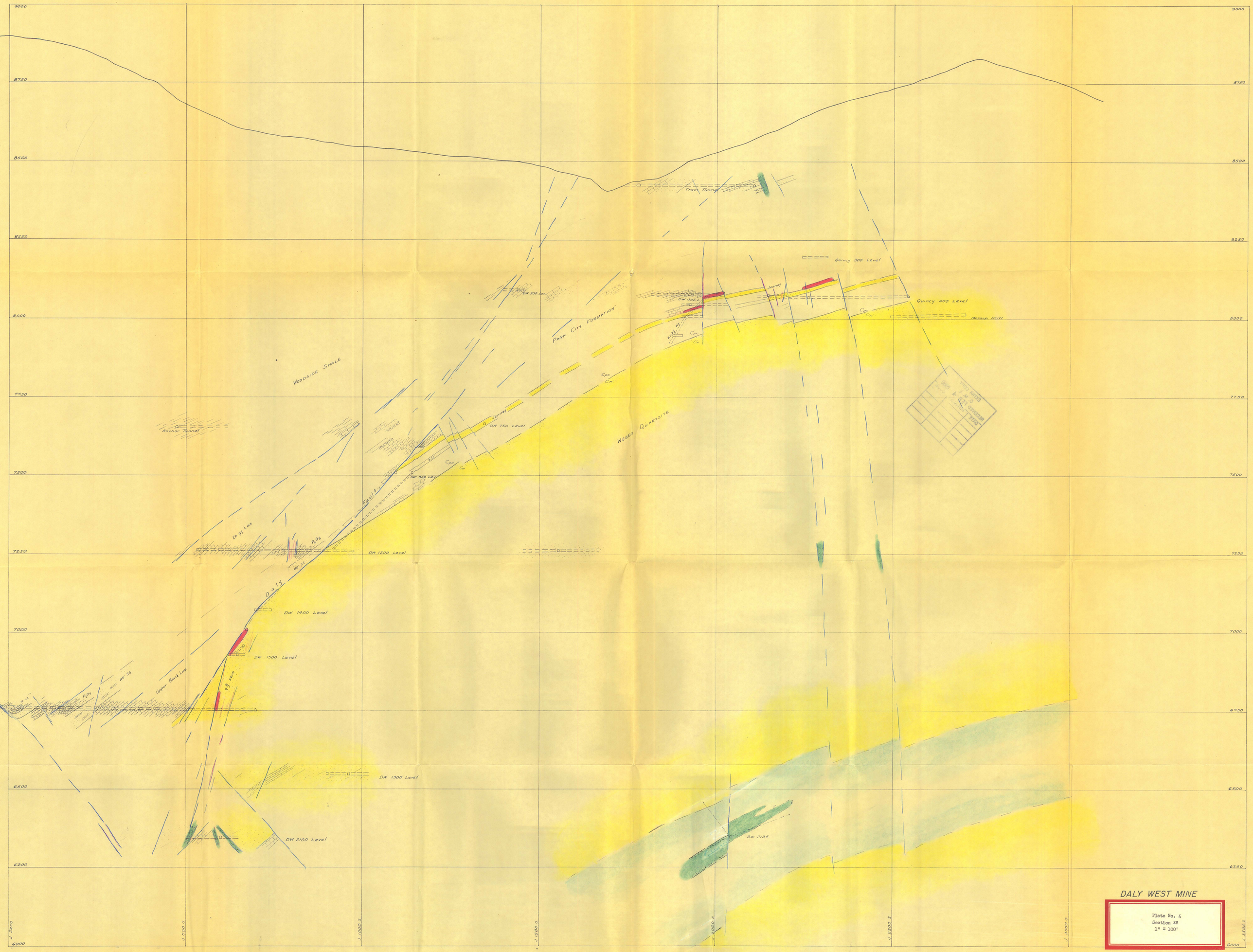

DALY WEST MINE

Plate No. 3
Section XVI
1" = 100'



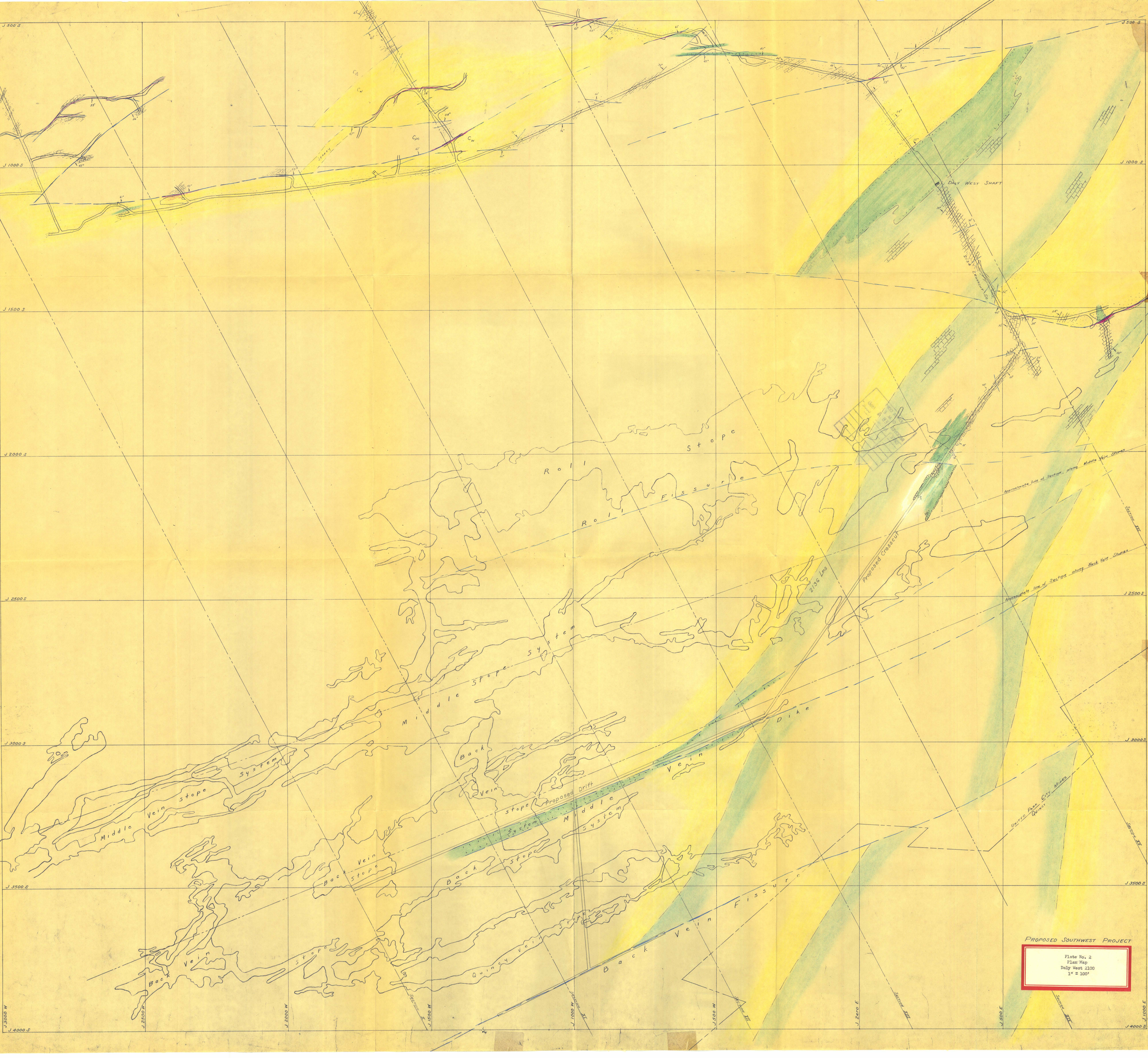

DALY WEST MINE

Plate No. 6
Section XIII
1" = 100'



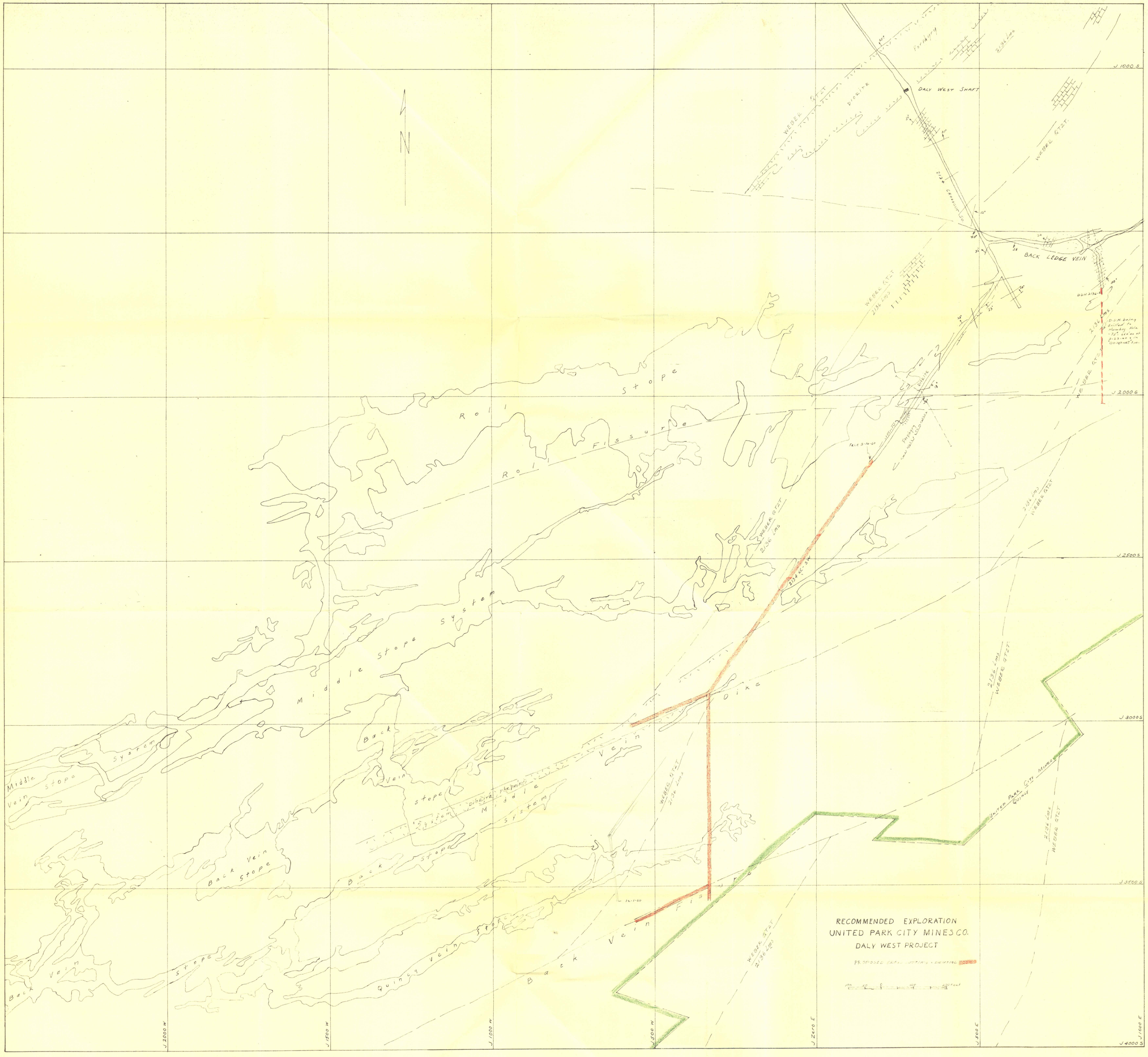

# DALY WEST MINE

Plate No. 4
Section XV
1" = 100'




PROPOSED SOUTHWEST PROJECT

Plate No. 2
Plan Map
Daly West 2100
1" = 100'

DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
DOCKET 6074 MARCH 1960