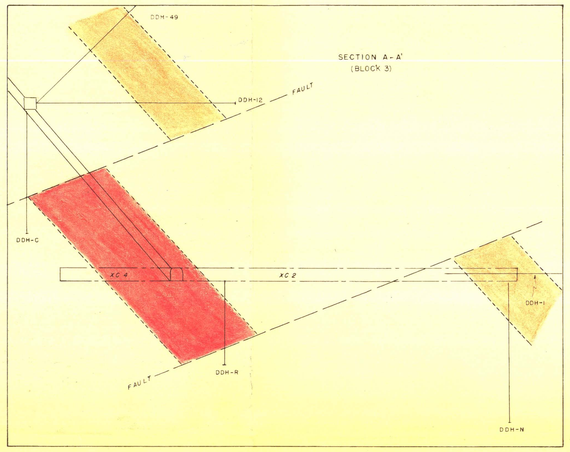
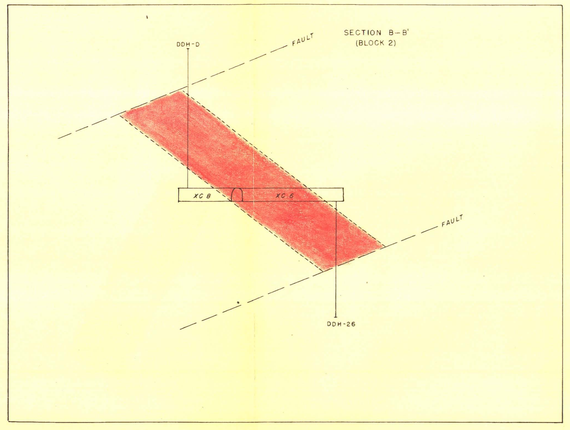
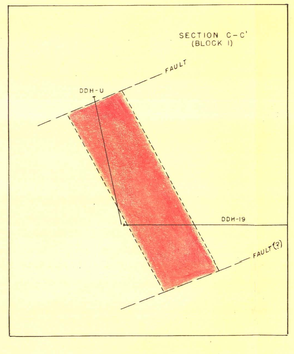
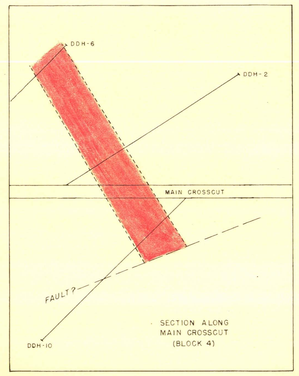
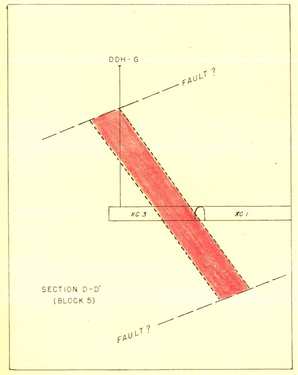
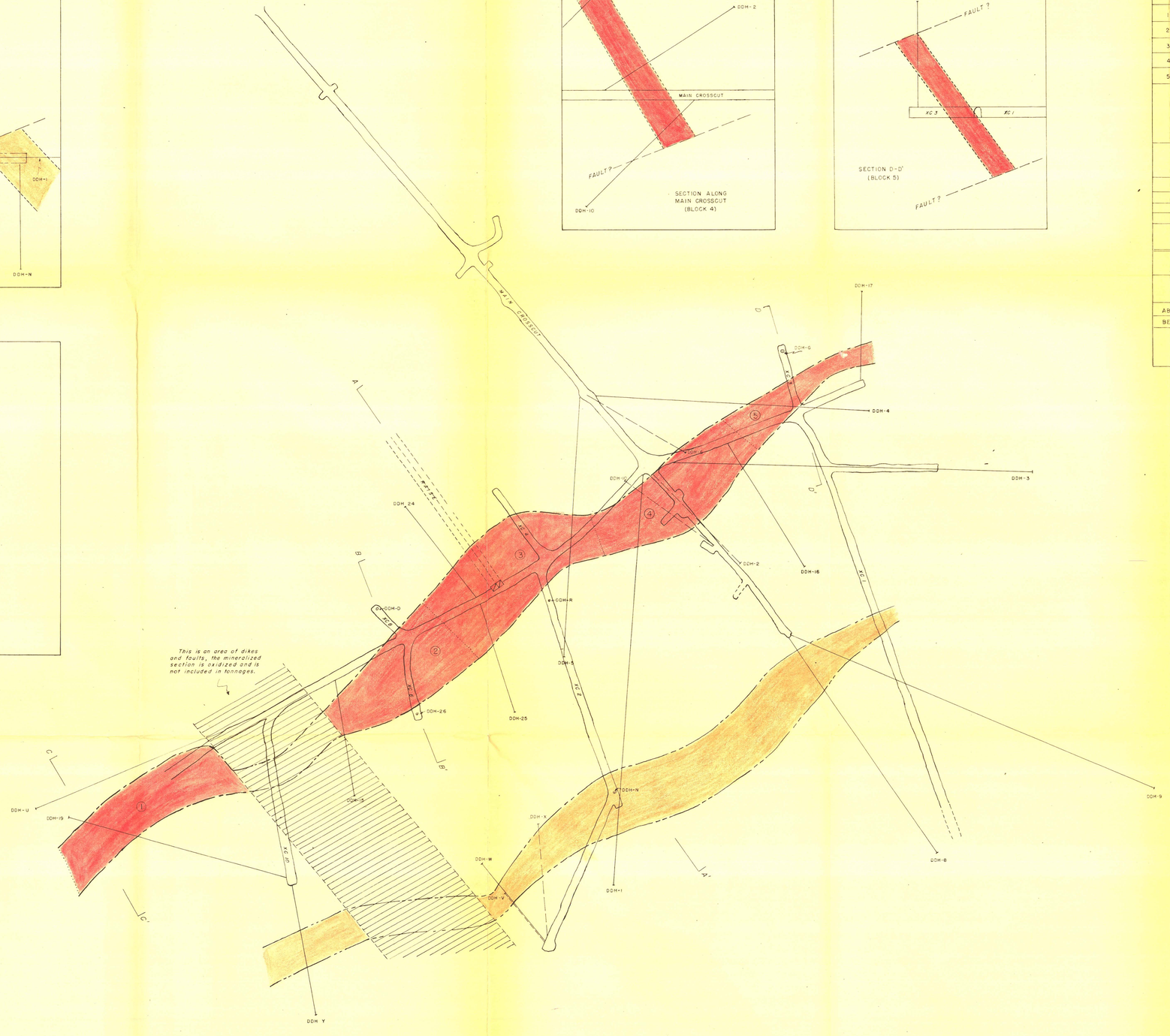












"INDICATED ORE"

TONNAGE & GRADE BY BLOCK METHOD

ORE BLOCK	CROSS SECTIONAL AREA SQUARE FEET	HORIZONTAL LENGTH FEET	VOLUME CUBIC FEET	WT. AVER. ASSAY COMBINED Pb & Zn
1	6174	180	1,111,320	4.12
2	7854	144	1,130,976	3.86
3	9075	170	1,542,750	4.93
4	7130	170	1,212,100	2.72
5	3520	150	528,000	3.03

TOTAL 5,525,146 cu. ft.

11 Cu. Ft. = 1 Ton TONS = 502,286

Wt. Aver. Assay = 3.88% Pb & Zn.

TONNAGE & GRADE PLANIMETER METHOD

TOTAL Sq. Ft. = 43,520

AVER. HEIGHT = 125'

VOLUME = 5,440,000 cu. ft.

TONS = 494,540

AVER. GRADE BASED ON WT. AVER. OF ALL SAMPLES = 3.76% Pb. & Zn.

"INFERRED ORE"

BLOCK	AREA SQUARE FEET	HEIGHT FEET	VOLUME CUBIC FEET
ABOVE INDICATED ORE	43,520	80	3,481,600
BELOW INDICATED ORE	25,280	60	1,516,800

TOTAL 4,998,400 cu. ft.

TONS = 454,400

Wt. Aver. Assays = 4.52% Pb & Zn

INDICATED ORE

INFERRED ORE

ORE BLOCKS (4)

DRILL HOLES DDH- Z

CROSSCUTS XC 3

TONNAGE ESTIMATE MAP

IROQUOIS MINE

STEVENS COUNTY, WASHINGTON

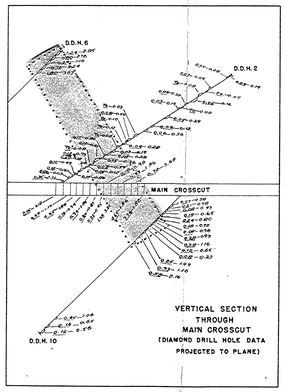
FEET

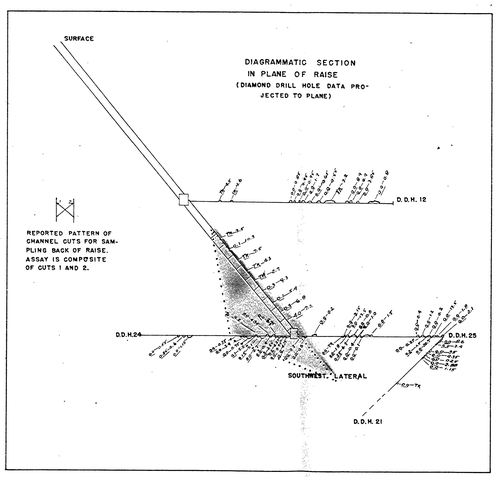
0 20 40 80

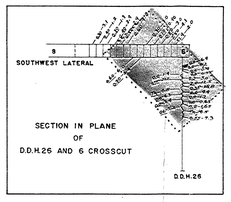
U. S. GEOLOGICAL SURVEY
W. D. ST. Everett St.
Spokane 8, Wash.

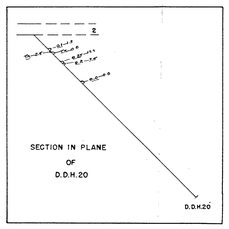
FIGURE-2

Docket - DMA 432









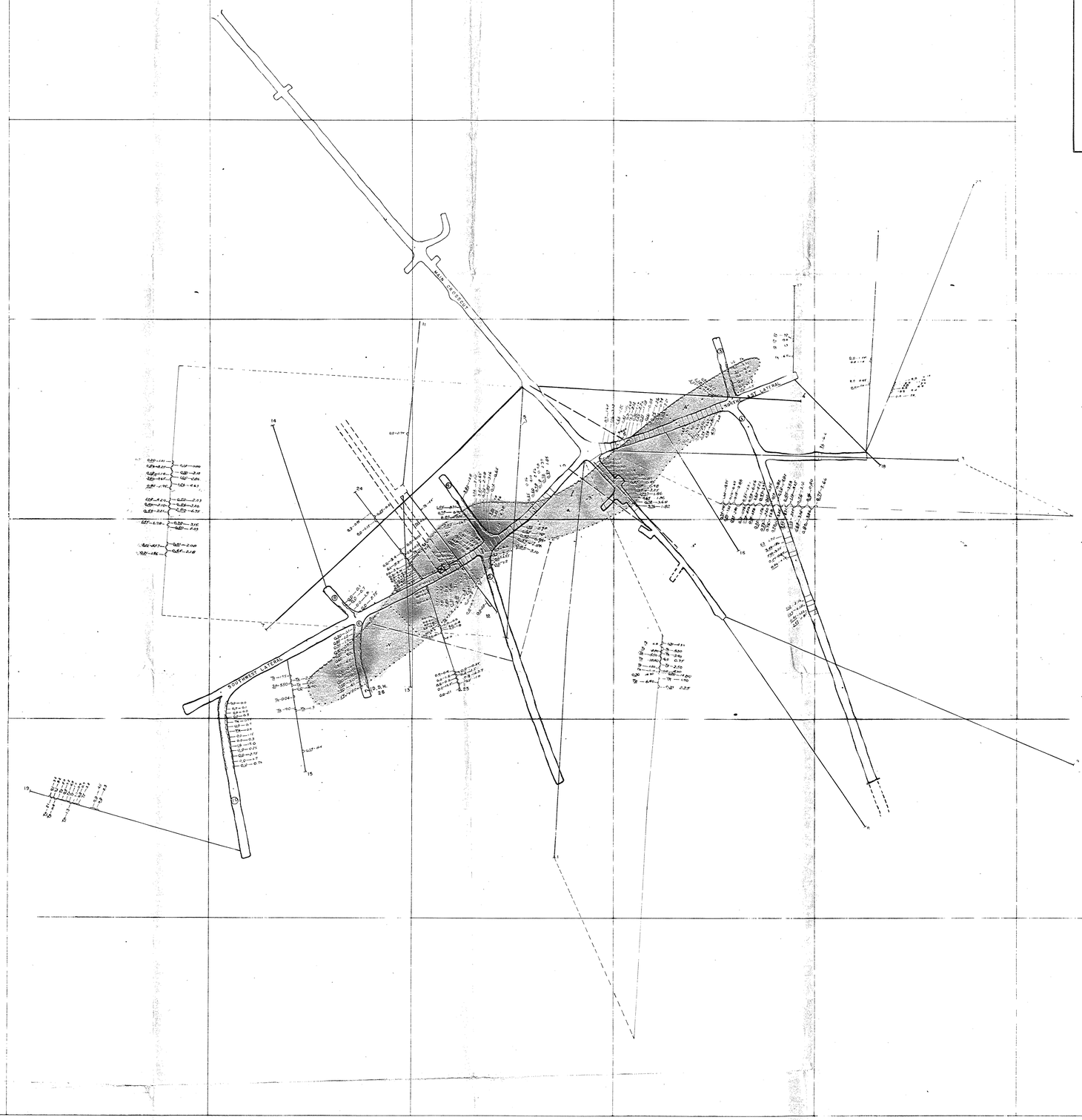


TABLE I

TABULATED SUMMARY OF INDICATED ORE RESERVES

Ore Block	Cross-Sectional Area (Vertical) (square feet)	Length (Horizontal) (feet)	Volume (cubic feet)	Weighted Average Assay (combined percent of lead and zinc)
1	3680	120	431,000	4.54
2	6750	170	1,148,000	3.99
3	4300	170	746,000	3.72
4	2000	104	208,000	3.87
		Total	2,535,000	
		Tonnage	230,000 (11 cubic feet per ton)	
		Weighted Average Assay		3.71 percent.

EXPLANATION

Outline of ore block used in Table I

0.17—2.14

Assay data, indicates respective percent of lead and zinc.

TYPE OF SAMPLING

Crosscuts and Laterals

Both walls sampled.

One wall sampled, brackets indicate the sampled wall.

Ring sampling

Diamond Drill Holes

Brackets indicate part of drill hole sampled

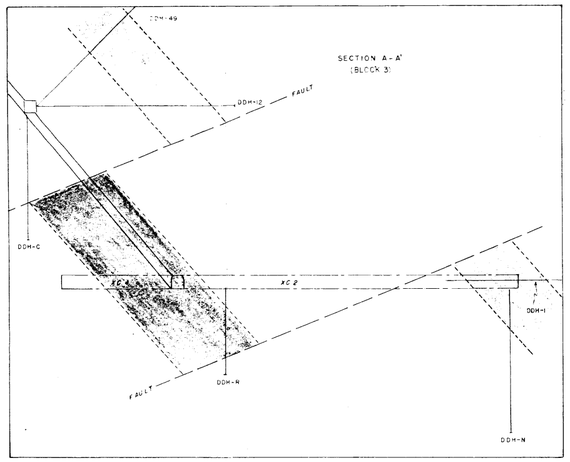
D.D.H. 6
Diamond drill hole

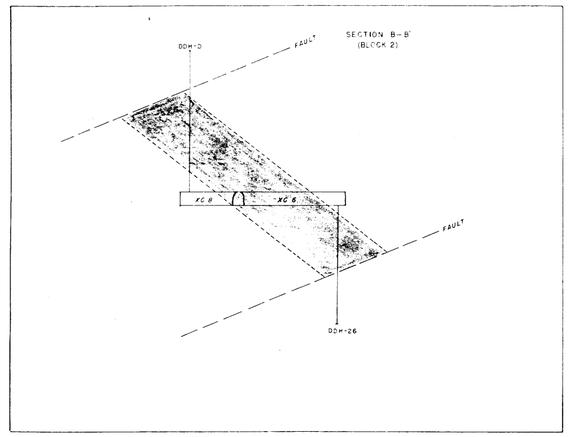
Crosscut number

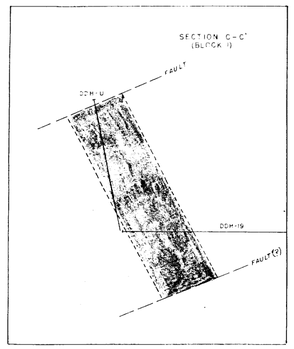
BASE MAP FROM COMPANY MAP
ASSAY DATA FROM COMPANY RECORDS

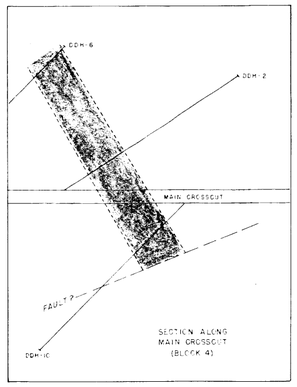
ASSAY MAP OF
IROQUOIS MINE
SEC. 30, T. 40 N., R. 42 E., STEVENS COUNTY, WASHINGTON

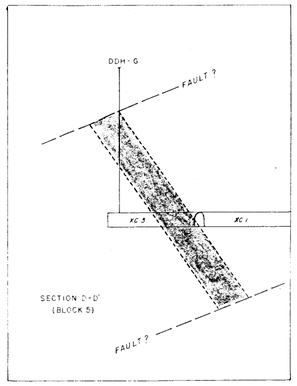
SCALE 50 0 50 100 150 200 FEET

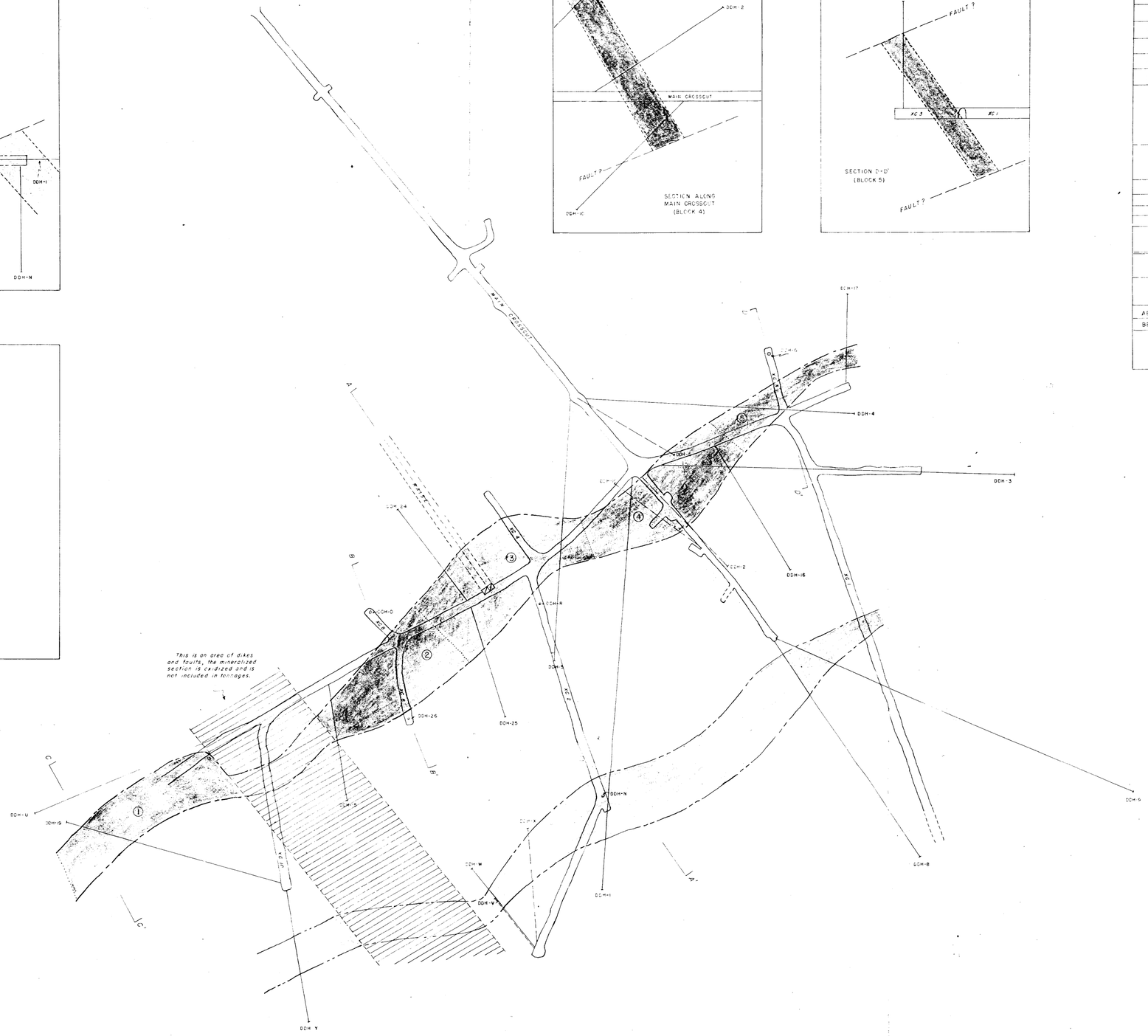












"INDICATED ORE"

TONNAGE & GRADE BY BLOCK METHOD

ORE BLOCK	CROSS SECTIONAL AREA SQUARE FEET	HORIZONTAL LENGTH FEET	VOLUME CUBIC FEET	WT. AVER. ASSAY COMBINED Pb & Zn
1	6174	180	1,111,320	4.12
2	7854	144	1,130,976	3.86
3	9075	170	1,542,750	4.93
4	7130	170	1,212,100	2.72
5	3720	150	528,000	3.03

TOTAL 5,525,146 cu. ft

11 Cu Ft = 1 Ton TONS = 502,286

Wt Aver Assay = 3.88% Pb & Zn

TONNAGE & GRADE PLANIMETER METHOD

TOTAL Sq Ft = 42,520

AVER HEIGHT = 125'

VOLUME = 5,440,000 cu ft

TONS = 494,540

AVER GRADE BASED ON WT AVER OF ALL SAMPLES = 3.76% Pb & Zn

"INFERRED ORE"

BLOCK	AREA SQUARE FEET	HEIGHT FEET	VOLUME CUBIC FEET
ABOVE INDICATED ORE	43,520	80	3,481,600
BELOW INDICATED ORE	25,240	60	1,516,800

TOTAL 4,998,400 cu ft

TONS = 454,400

Wt Aver Assays = 4.52% Pb & Zn

INDICATED ORE

INFERRED ORE

ORE BLOCKS ④

DRILL HOLES DDH- Z

CROSSCUTS XC 3

TONNAGE ESTIMATE MAP

IROQUOIS MINE

STEVENS COUNTY, WASHINGTON

FEET

0 20 40 80

EXPLANATION

- Lamprophyre and other dike rocks
- Limestone
- Strike and dip of beds
- Fault or fracture, showing dip
- Vertical fault or fracture
- Crushed and crackled zone
- Joint
- Breccia (tectonic or collapse?)
- Light gray to white dolomite occurring as replacement or fracture filling
- Sphalerite, galena, pyrite, and limonite, concentration of dots indicates approximate grade of ore
- Limit of significant disseminated sphalerite and galena on basis of visual inspection

ABBREVIATIONS

DOL.	Dolomite
GAL.	Galena
LIMON.	Limonite
LS.	Limestone
PY.	Pyrite
QTZ.	Quartz
REPL.	Replacement
XLLINE.	Crystalline

23° 30'
TRUE NORTH
MAGNETIC NORTH

BASE MAP FROM COMPANY MAP
GEOLOGY BY A. E. WEISSENBORN AND W. R. KLEPPER, 1951
WILLARD P. PUFFETT, 1951-52

GEOLOGIC MAP OF MAIN UNDERGROUND WORKINGS

IROQUOIS MINE

SEC.30, T40N, R42E, STEVENS COUNTY, WASHINGTON

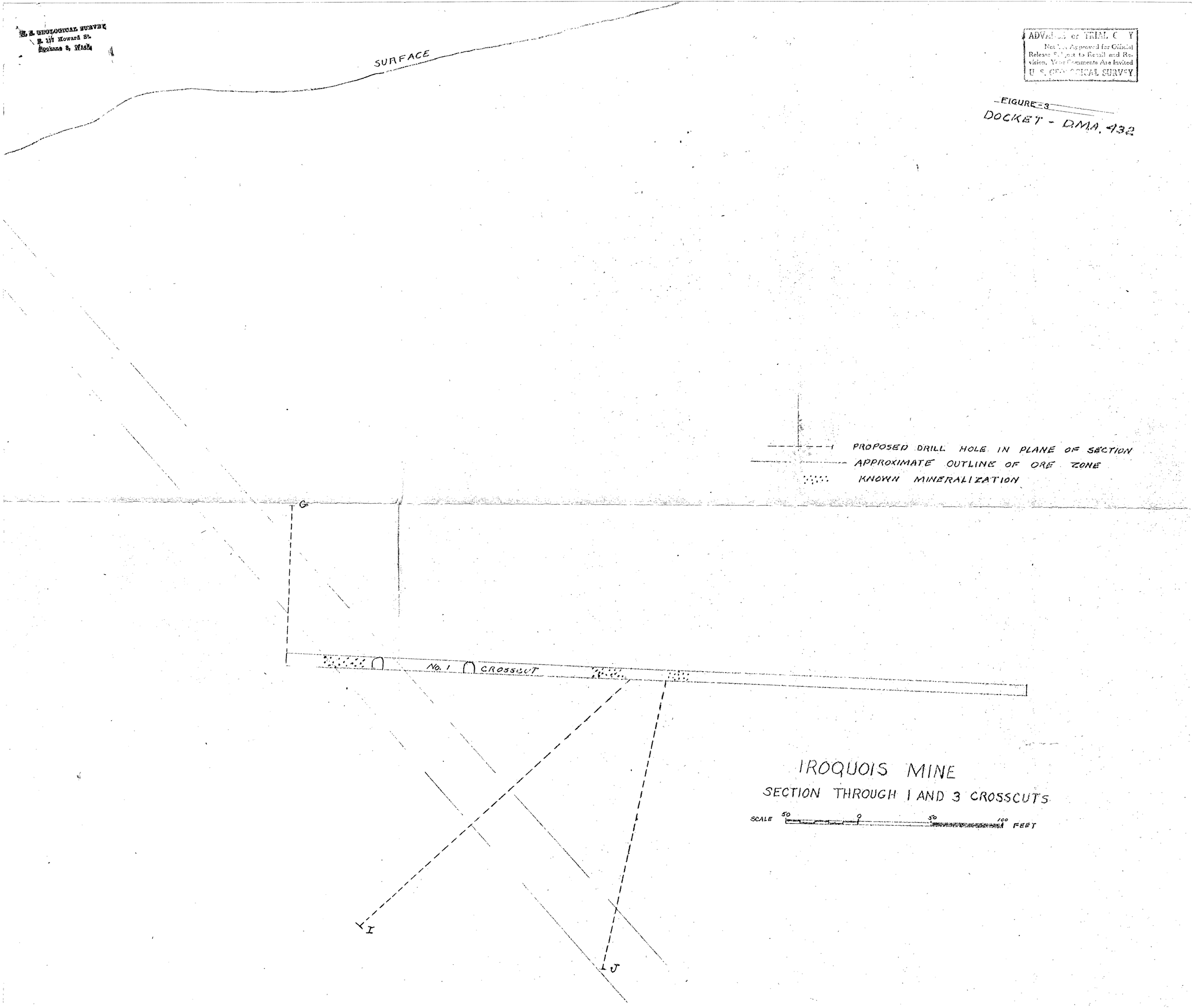
SCALE 50 0 50 100 150 200 FEET

U. S. GEOLOGICAL SURVEY
E. 157 Howard St.
Spokane 8, Wash.

ADVANCE OR TRIAL COPY
Not Yet Approved for Official Release. Subject to Recall and Revision. Your Comments Are Invited
U. S. GEOLOGICAL SURVEY

FIGURE 3

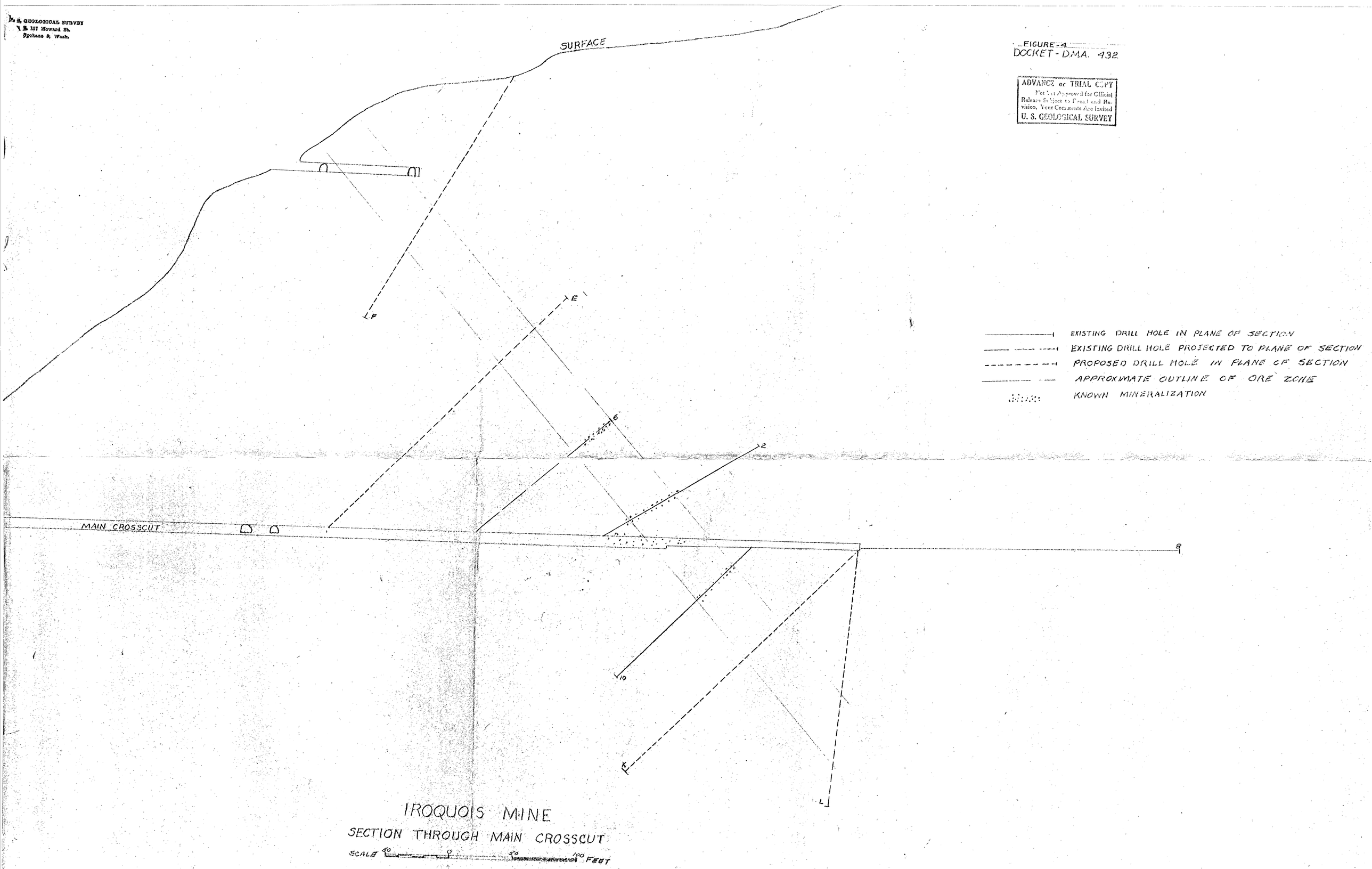
DOCKET - DMA. 432



U. S. GEOLOGICAL SURVEY
W. 157 Howard St.
Spokane 8, Wash.

FIGURE-4
DOCKET-DMA. 432

ADVANCE or TRIAL COPY
Not Yet Approved for Official Release Subject to Recast and Revision. Your Comments Are Invited
U. S. GEOLOGICAL SURVEY

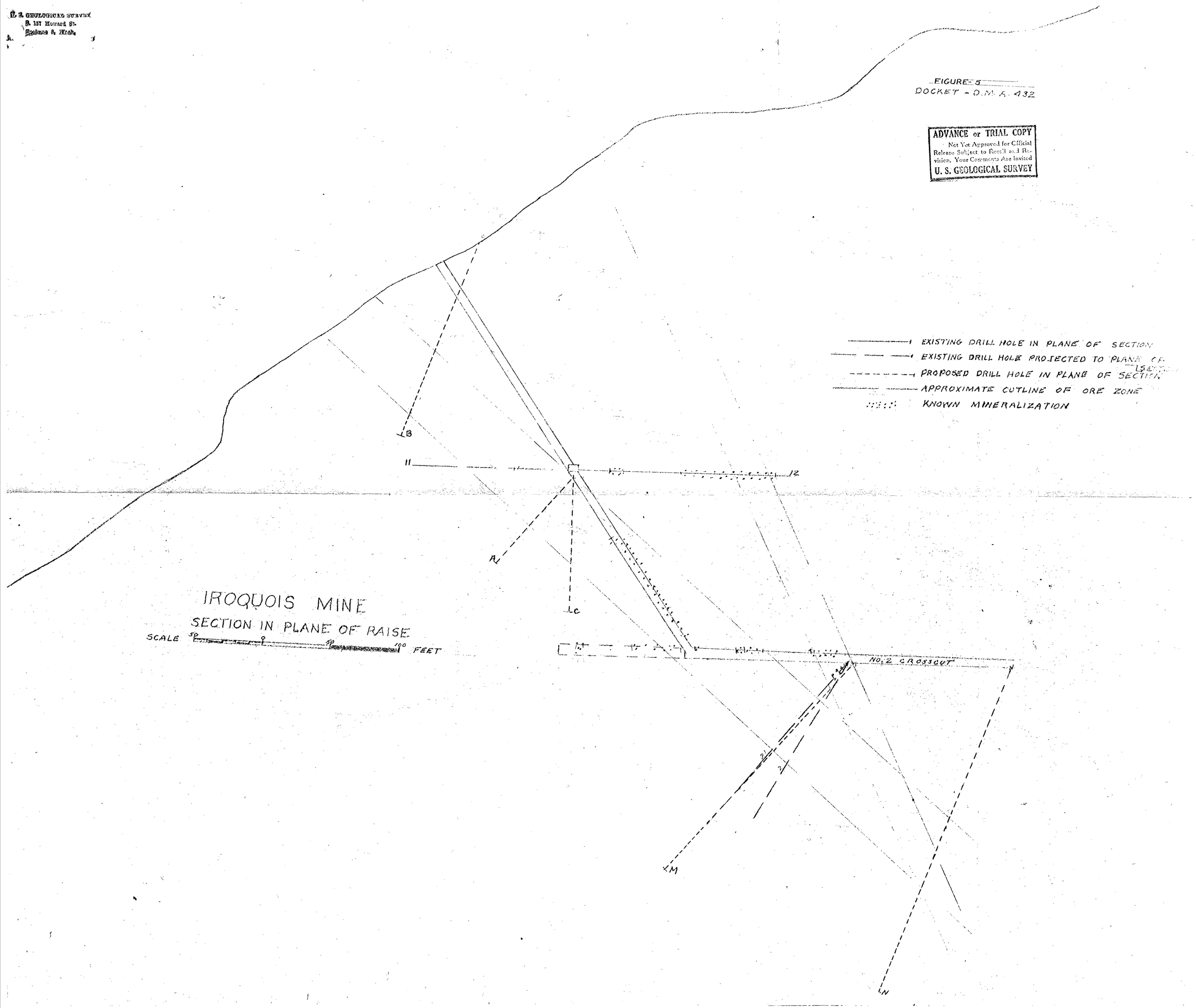


IROQUOIS MINE
SECTION THROUGH MAIN CROSSCUT

U. S. GEOLOGICAL SURVEY
S. 157 Howard St.
Spokane 8, Wash.

FIGURE 5
DOCKET - D.M.A. 432

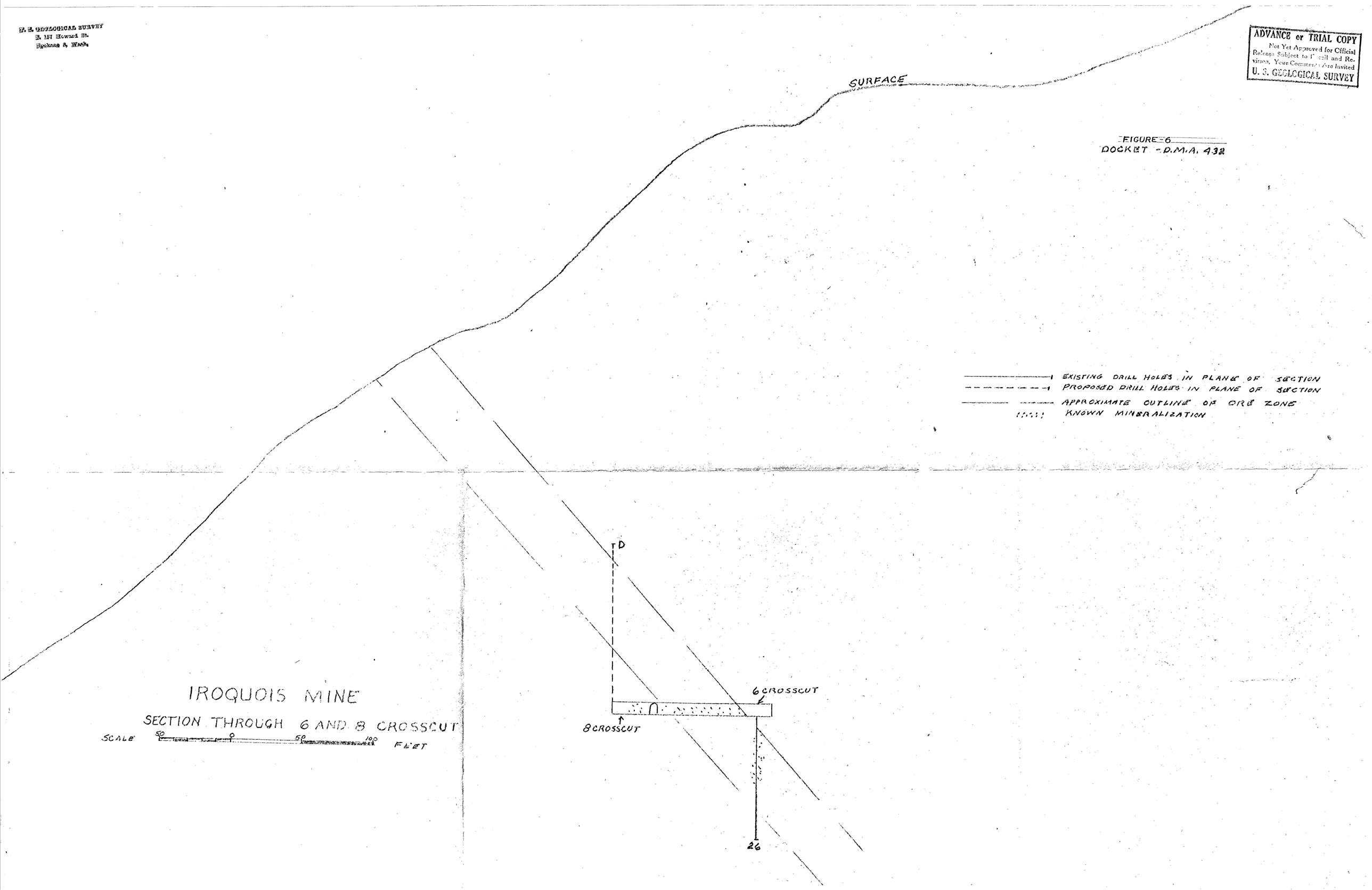
ADVANCE or TRIAL COPY
Not Yet Approved for Official Release Subject to Recall and Revision. Your Comments Are Invited
U. S. GEOLOGICAL SURVEY



U. S. GEOLOGICAL SURVEY
E. 157 Howard St.
Spokane 8, WASH.

ADVANCE or TRIAL COPY
Not Yet Approved for Official Release Subject to Recall and Revision. Your Comments Are Invited
U. S. GEOLOGICAL SURVEY

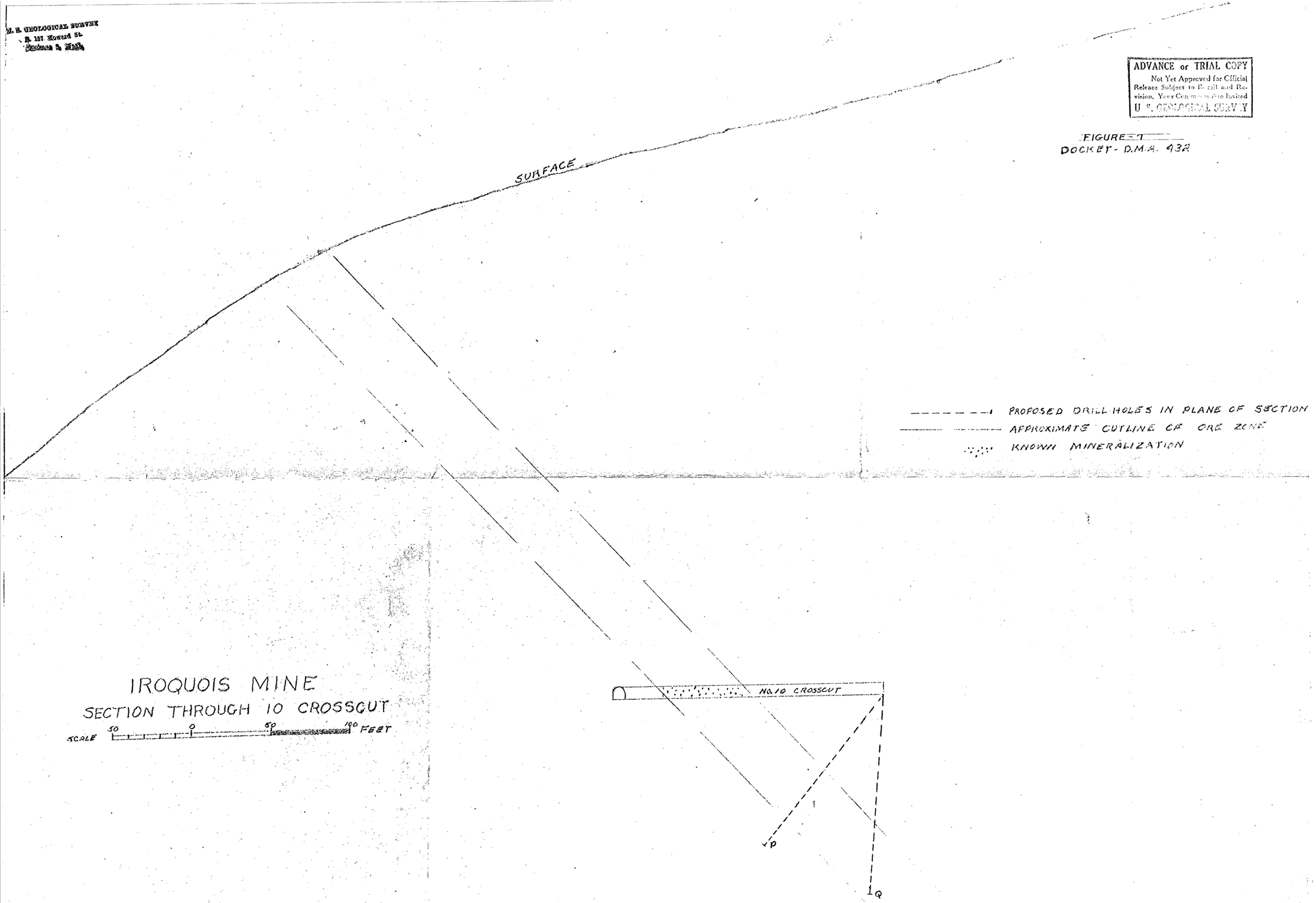
FIGURE 6
DOCKET - D.M.A. 432



U. S. GEOLOGICAL SURVEY
B. 137 Howard St.
Boston 9, Mass.

ADVANCE or TRIAL COPY
Not Yet Approved for Official Release Subject to Recall and Revision. Your Comments Are Invited
U. S. GEOLOGICAL SURVEY

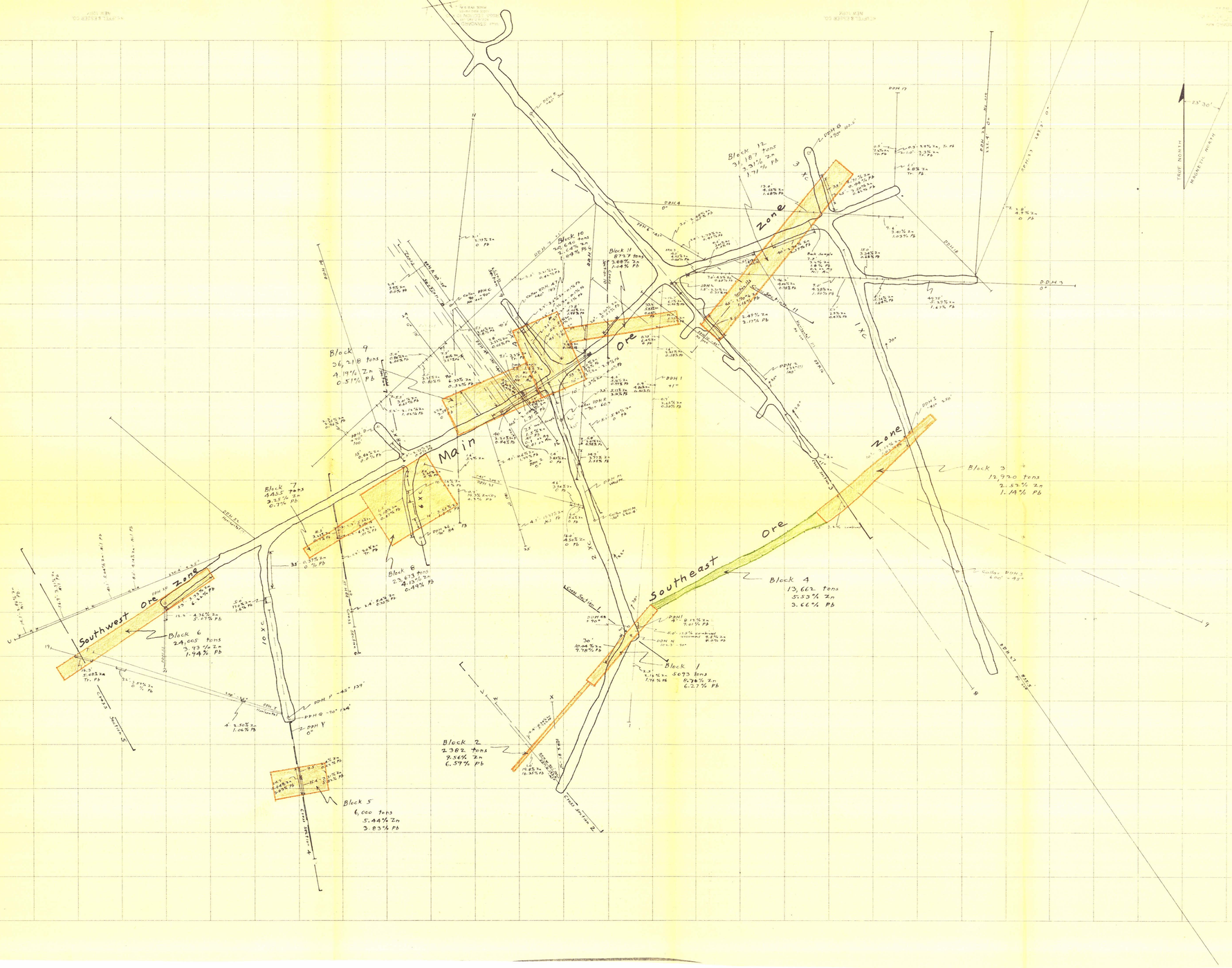
FIGURE 7
DOCKET - D.M.A. 43R



IROQUOIS MINE
SECTION THROUGH 10 CROSSCUT

SCALE 50 0 50 100 FEET

DMEA Docket 432



PLAN MAP

IROQUOIS MINE

STEVENS COUNTY, WASHINGTON

SHOWING

Diamond Drill Holes, Portion of Adit Level,

Assays, and Ore Reserve Blocks

Scale = 1" = 40'

H. Kirkemo

December, 1952