



IMPERIAL OIL LIMITED

6343

Minerals Section
C. A. Aird
Division Geologist

314 - 1281 West Georgia St.
Vancouver, B.C.
V6E 3J7
Area Code 604 - 664-4023

MV-3420

July 22, 1977

File: 6053

The Mining Recorder
Liard Mining Division
Department of Mines and Petroleum Resources
Victoria, B.C.

Dear Sir:

I am enclosing the following documents as part of a Diamond Drilling Report.

1. A completed Affidavit on Application to Record Work.
2. A copy of the logs for the five drill holes signed by myself and under my seal.
3. A statement of costs incurred in performing the assessment work.
4. A copy of the drilling contract.
5. A 1:250,000 map showing the location of the property.
6. A claim map showing the grouping of the claims.
7. A drill hole location map showing the relation of the drill holes to claim boundaries.

I trust you will find everything in order.

Yours very truly,

C.A. Aird, P. Eng.

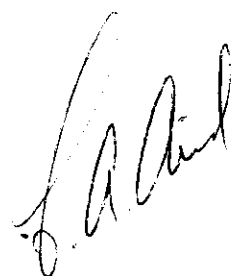
<p>MINERAL RESOURCES BRANCH</p> <p>ASSESSMENT REPORT</p> <p>NO. _____</p>

DIAMOND DRILL CORE LOG

DRILL HOLE NO: 56 LOCATION: 30W; 1S
PROPERTY: KUTCHO CLAIM: JEFF 5
AZIMUTH: 180° RECORD NO: 70305
INCLINATION: -50° CONTRACTOR: ARCTIC DIAMOND DRILLING LTD.
ELEVATION: 5393' CORE STORAGE: IMPERIAL OIL CAMP
CORE SIZE: BQ

DESCRIPTION

FROM	TO	DESCRIPTION
0.0	19.0	Overburden
19.0	137.0	Sericite - quartz - chlorite and sericite - quartz schists
137.0	214.5	Chlorite - quartz schist with rhombic dolomite porphyroblasts
214.5	217.0	Coarse fragmental textured sericite - quartz schist with minor disseminated pyrite, sphalerite and chalcopryrite
217.0	261.0	Sericite - quartz schist
261.0	270.0	Fragmental textured chlorite - sericite - quartz schists
270.0	327.0	Sericite - quartz schist

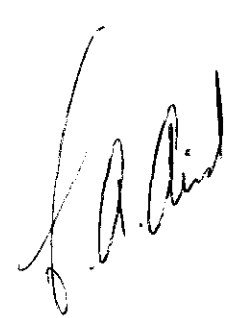


DIAMOND DRILL CORE LOG

DRILL HOLE NO: 57 LOCATION: 31 & 65W; 1 & 20N
PROPERTY: KUTCHO CLAIM: JEFF 6
AZIMUTH: 180° RECORD NO: 70306
INCLINATION: -60° CONTRACTOR: ARCTIC DIAMOND DRILLING LTD.
ELEVATION: 5376' CORE STORAGE: IMPERIAL OIL CAMP
CORE SIZE: BQ

DESCRIPTION

FROM	TO	
0.0	26.0	Overburden
26.0	314.0	Sericite - quartz and sericite - quartz - chlorite schists
314.0	369.1	Pyritic chlorite - quartz schist with rhombic dolomite porphyroblasts and irregular silicified patches
369.1	374.0	Coarse fragmental textured sericite schist with disseminated pyrite, disseminated to massive sphalerite and coarse patches of chalcopyrite
374.0	497.0	Sericite - quartz schists

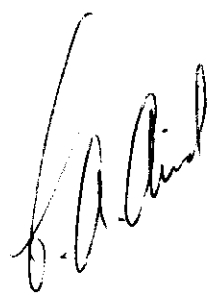


DIAMOND DRILL CORE LOG

DRILL HOLE NO: 60 LOCATION: L34W; 1N
PROPERTY: KUTCHO CLAIM: JEFF 6
AZIMUTH: 180° RECORD NO: 70306
INCLINATION: -60° CONTRACTOR: ARCTIC DIAMOND DRILLING LTD.
ELEVATION: 5397' CORE STORAGE: IMPERIAL OIL CAMP
CORE SIZE: BQ

DESCRIPTION

FROM	TO	DESCRIPTION
0.0	40.0	Overburden
40.0	87.0	Sericite - quartz schist
87.0	265.3	Sericite - chlorite - quartz schist
265.3	296.4	Sericite - quartz schist
296.4	352.4	Chlorite - quartz schist with dolomite porphyroblasts and minor pyrite
352.4	359.3	Rhyolite breccia with a sphalerite, chalcopyrite and pyrite, matrix
359.3	418.0	Sericite - quartz schist
418.0	428.0	Lost core

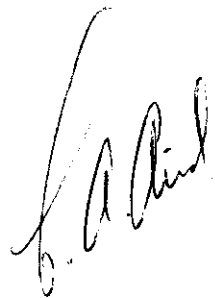


DIAMOND DRILL CORE LOG

DRILL HOLE NO: 61 LOCATION: L36W; 1N
PROPERTY: KUTCHO CLAIM: JEFF 6
AZIMUTH: 180° RECORD NO: 70306
INCLINATION: -60° CONTRACTOR: ARCTIC DIAMOND DRILLING LTD.
ELEVATION: 5411' CORE STORAGE: IMPERIAL OIL CAMP
CORE SIZE: BQ

DESCRIPTION

FROM	TO	DESCRIPTION
0.0	53.0	Overburden
53.0	80.5	Sericite - chlorite schist
80.5	97.0	Sericite - quartz schist
97.0	259.4	Sericite - chlorite schist
259.4	302.2	Sericite - quartz schist
302.2	360.1	Chlorite - quartz schist with quartz veining, minor rhyolite fragments, and minor pyrite
360.1	362.2	Rhyolite breccia with a sphalerite, chalcopyrite and pyrite matrix
362.2	369.1	Sericite - quartz schist
369.1	374.6	Rhyolite breccia with a sphalerite, chalcopyrite and pyrite matrix
374.6	425.6	Sericite - quartz schist
425.6	428.0	Sericite - chlorite - quartz schist



COST STATEMENT

Dates Drilled: June 5 - 19
and
July 8 - 13

Direct Drilling Costs

1,987 ft. at \$11.30/ft. \$ 22,453.10

Helicopter Support

26.4 hours at \$250/hour 6,600.00

Helicopter Fuel

580 gals. at \$2/gal.* 1,160.00

Drill Supervisor - Dane Bridge, Geologist

21 days at \$70/day 1,470.00

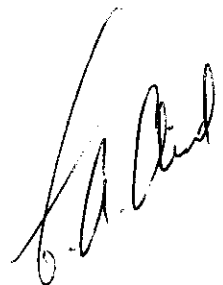
Camp Costs

90 man-days at \$20/day 1,800.00

\$ 33,483.10

* Fuel cost delivered to Kutcho Creek

July 1977



SCHEDULE A

BID SHEET AND JOB SPECIFICATIONS

1. DESCRIPTION OF WORK:

The work is to consist of a series of drill holes, drilled at locations specified by Imperial. A total minimum footage of 7,000 feet shall be drilled, but total footage may be extended by mutual consent. Maximum depth of any hole shall not exceed 1,500 feet and minimum depth shall be 150 feet. The Contractor will not be called upon to drill any hole at a flatter angle than - 45 degrees. Measurement of all holes shall be taken from the top of the casing pipe. If holes of a greater depth than 1,500 feet are desired, such drilling shall be performed only upon such conditions and at such rates as may be agreed upon before commencement of such drilling.

2. SCHEDULE OF RATES:

Imperial agrees to pay the Contractor for footage drilled and other services performed as follows:

(a) Coring at Bedrock

Depth Intervals	Size	Size
0 - 500 Ft.	\$ 11.30 /Ft.	\$ /Ft.
500 - 1000 Ft.	\$ 11.80 /Ft.	\$ /Ft.
1000 - 1500 Ft.	\$ 12.30 /Ft.	\$ /Ft.
_____ - _____ Ft.	\$ /Ft.	\$ /Ft.

(b) Casing of Overburden

Depth Interval	
0 - 50 Ft.	\$ 11.30 /Ft.
50 - 100 Ft.	\$ /Ft.
_____ - _____ Ft.	\$ /Ft.

(c) -The following services will be provided on an operating Field Cost basis:

1. Casing of overburden over 50 ft.
2. Reaming and setting casing for borehold reduction, borehole stabilization, and control of return water.
3. Drilling caved or broken ground.
4. All cementing operations, excluding setting time but including drilling of set cement.
5. Supplying water to the drill when water supply over 2,500 ft. lateral and/or 250 ft. vertical lift

Non-Operating Field Costs

Labour (including supervision)	<u>\$14.50</u>	per man hour.
Drill, pumps and service vehicle	<u>--</u>	per drill hour.
Tractor - operating	<u>--</u>	per hour.
Tractor - non-operating	<u>--</u>	per hour.

(e) Travelling Time

Imperial agrees to pay for travelling time from camp site
to drill site and return per shift on the
following basis:

Labour \$12.75 per ~~day~~ man-hour, after the first 1/2 hour.
Vehicle per day.

(f) Mobilization and Between Hole Moves

Labour - \$14.50 per man hour

(g) Room and board for Contractor's personnel will be provided by Company.

Contractor will provide meals and accommodation for up to N/A of Imperial's representatives at a price of N/A per day.

Room and board will be provided by Imperial to Contractor at -- per man day.

(h) Core boxes, including lids, will be provided by Company. Contractor's rates for core boxes on site shall be \$ --.


(i) Core splitter to be supplied by Company. Contractor to supply core splitter at per .

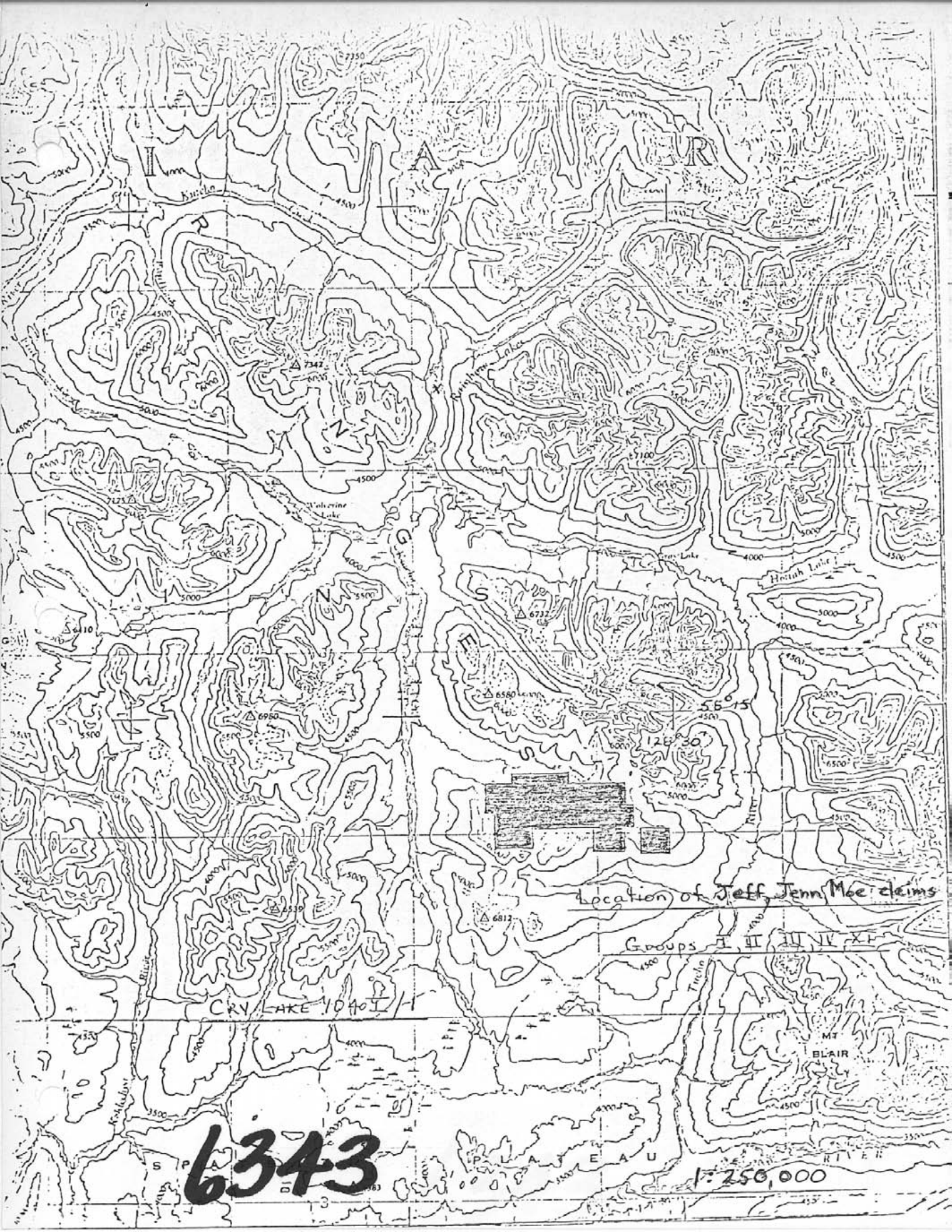
(j) Standby Rental

It is agreed that, at the completion of the present active drilling program, Imperial may retain the Contractor's drilling equipment at the drill area for a rental rate of per per drilling unit. The standby rental charge will cease to apply upon commencement of continuous drilling program, or on the giving of a written notice to the Contractor by Imperial that the drilling equipment is no longer required.

(k) Special Agreements

- (1) The Contractor will mobilize and demobilize his drill and supplies to and from Dease Lake, and his crew to and from Rainbow Lake and will charge \$2,900.00 for same. This charge will be divided equally between the Company and Sumac Mines Ltd.
- (2) Delays caused by lack of transportation will be charged at Non-operating Field Cost.
- (3) Fuel, gas, oil and propane for drills, pumps, heaters and camp will be supplied by the Company at no cost to the Contractor.

A handwritten signature in black ink, appearing to be 'J. P. ...', is located on the right side of the page, overlapping the right margin of the text.

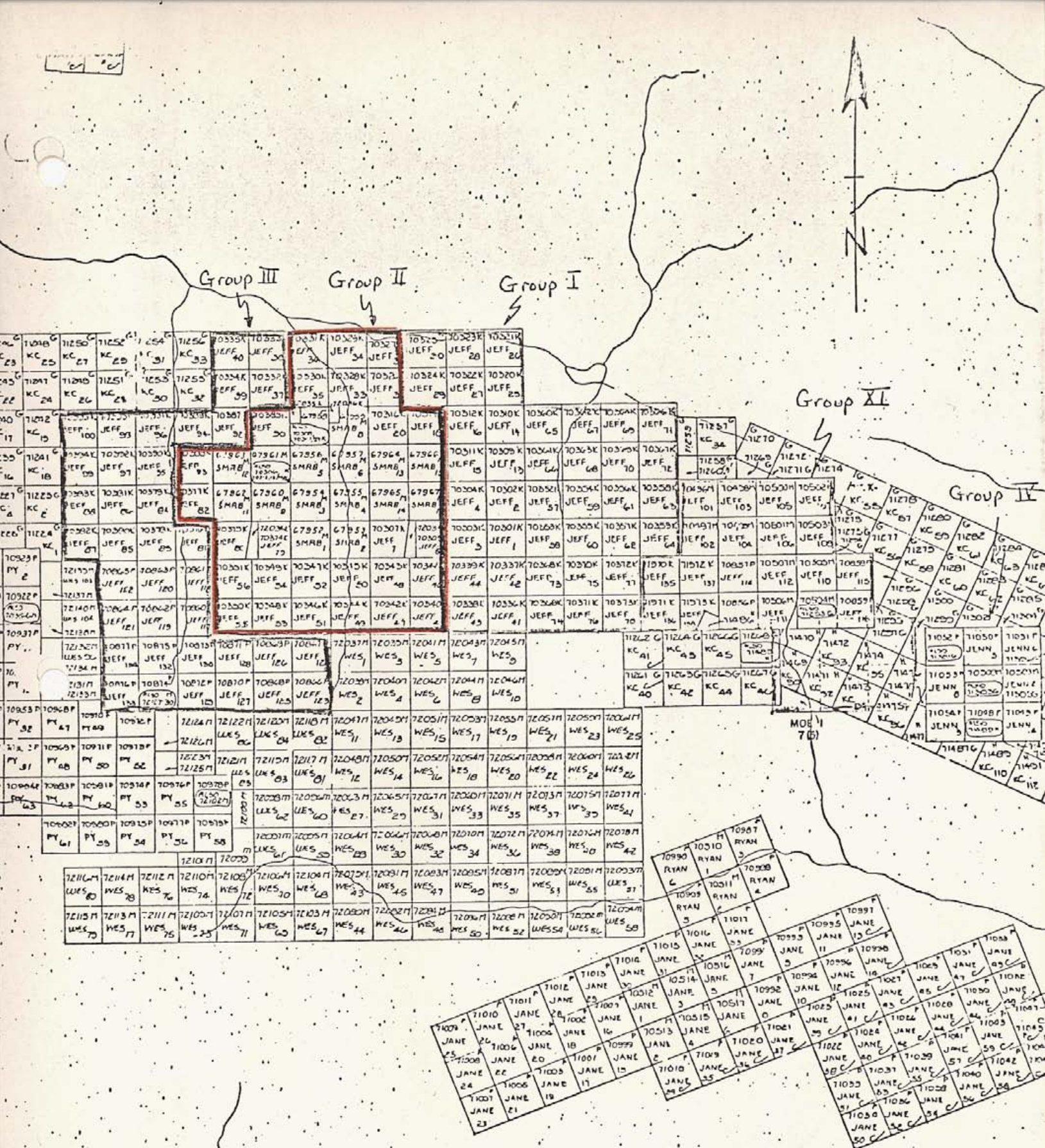


Location of Jeff, Jenn, Moe claims

Groups I, II, III, IV, V, VI

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1:250,000



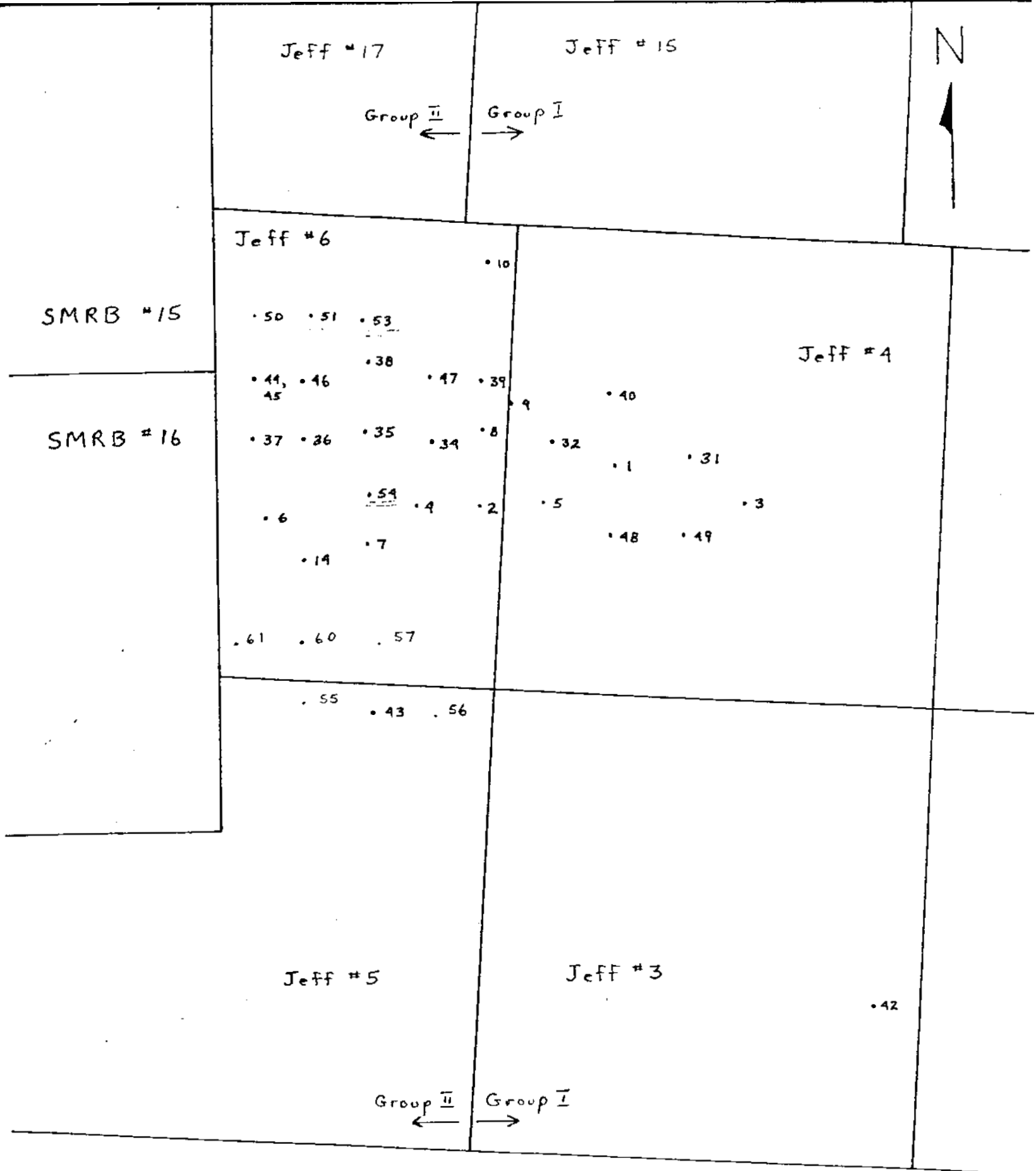
Claim Index Map

- Jenn, Jeff, Moe claims

Scale in Miles

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104 I/1W



Diamond Drill Hole Locations
 Jeff Claims, Groups I and II

1" = 400'

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