

ARIS SUMMARY SHEET

District Geologist, Smithers

Off Confidential: 91.10.02

ASSESSMENT REPORT 20382

MINING DIVISION: Omineca

PROPERTY: Dambo

LOCATION: LAT 53 51 00 LONG 126 33 00
UTM 09 5969399 661163
NTS 093E15E

CLAIM(S): Dambo 1-4

OPERATOR(S): Exeter Min.

AUTHOR(S): Millar, R.

REPORT YEAR: 1990, 38 Pages

COMMODITIES

SEARCHED FOR: Silver, Gold

KEYWORDS: Rhyolites, Rhyolite breccias

WORK

DONE: Geochemical, Geological

GEOL 5.0 ha
Map(s) - 1; Scale(s) - 1:1000

ROCK 22 sample(s) ;ME
Map(s) - 1; Scale(s) - 1:1000

SOIL 567 sample(s) ;ME
Map(s) - 5; Scale(s) - 1:5000

RELATED

REPORTS: 09788, 18137, 19098

GEOLOGICAL AND GEOCHEMICAL

R E P O R T

on the

DAMBO PROPERTY

OMENICA MINING DIVISION
BRITISH COLUMBIA

LOG NO: 10-10

RD.

ACTION:

FILE NO:

NTS 93E/15E
Lat. 53°51'N, Long. 126°33'W

Prepared for:

EXETER MINING INC.
312-744 W. Hastings Street
Vancouver, B.C.

Written by:

Rob Millar, Geologist
Norlund Engineering Ltd.

Dated:

August 28, 1990

G E O L O G I C A L B R A N C H
A S S E S S M E N T R E P O R T

20,382

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1. SUMMARY

Mineral exploration activity was undertaken on the Dambo 1-4 mineral claims near Ootsa Lake B.C. between June 7 and June 21, 1990. Geological mapping and rock chip sampling was carried out by the author. Soil sampling and gridding was mostly done by field assistants, Jeremy Black and Darryl Wilson, under the direction of the author. Figure 3-7 shows the assay values for five metals and gold.

Geological mapping was undertaken on the anomalous outcrops on Picket Hill. The results of this work are shown in Figure 1. A total of 22 rock chip samples were collected from Picket Hill and from scattered outcrops discovered during soil sampling. Descriptions and locations of the rock chip samples are given in Appendix I.

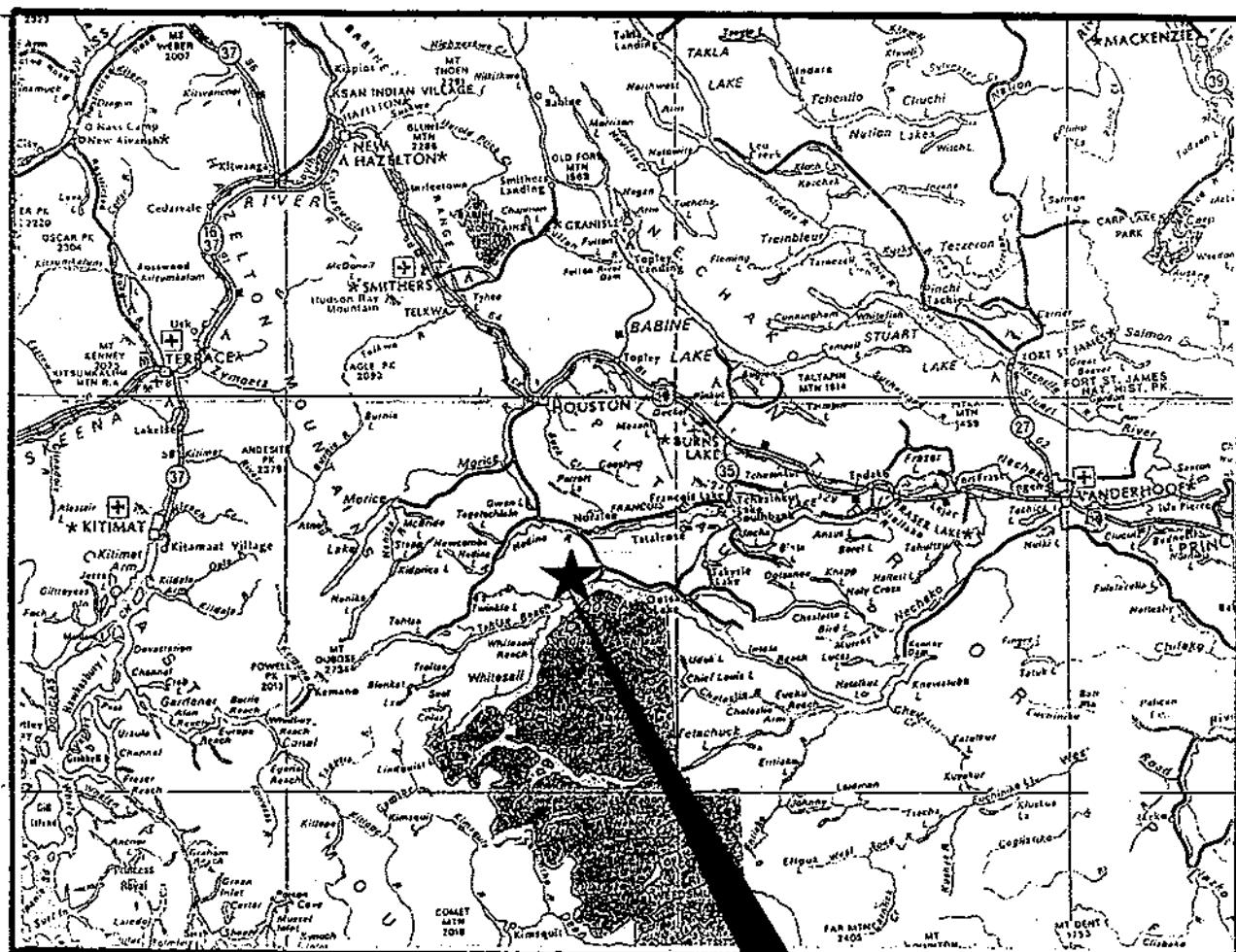
2. PROPERTY LOCATION AND ACCESS

The Dambo mineral claim group is situated 3.0 km north of Ootsa Lake, about 60.0 km south of Houston, B.C. Picket Lake lies in the northeast quarter of the claims. Elevation ranges from approximately 880 to 1075 metres.

The Dambo claim group consists of 40 units within four claims as listed below and shown on the following claim map.

<u>Claim Name</u>	<u>Record No.</u>	<u>Number of Units</u>	<u>Record Date</u>	<u>Expiry Date</u>
Dambo 1	3271(10)	12	Oct. 6/80	Oct. 6/92
Dambo 2	3272(10)	8	Oct. 6/80	Oct. 6/91
Dambo 3	3273(10)	12	Oct. 6/80	Oct. 6/90
Dambo 4	3274(10)	8	Oct. 6/80	Oct. 6/90

The claims cover an area of 1000 hectares. Access to the property is by good gravel road. Numerous logging roads provide ready access to many parts of the claims.



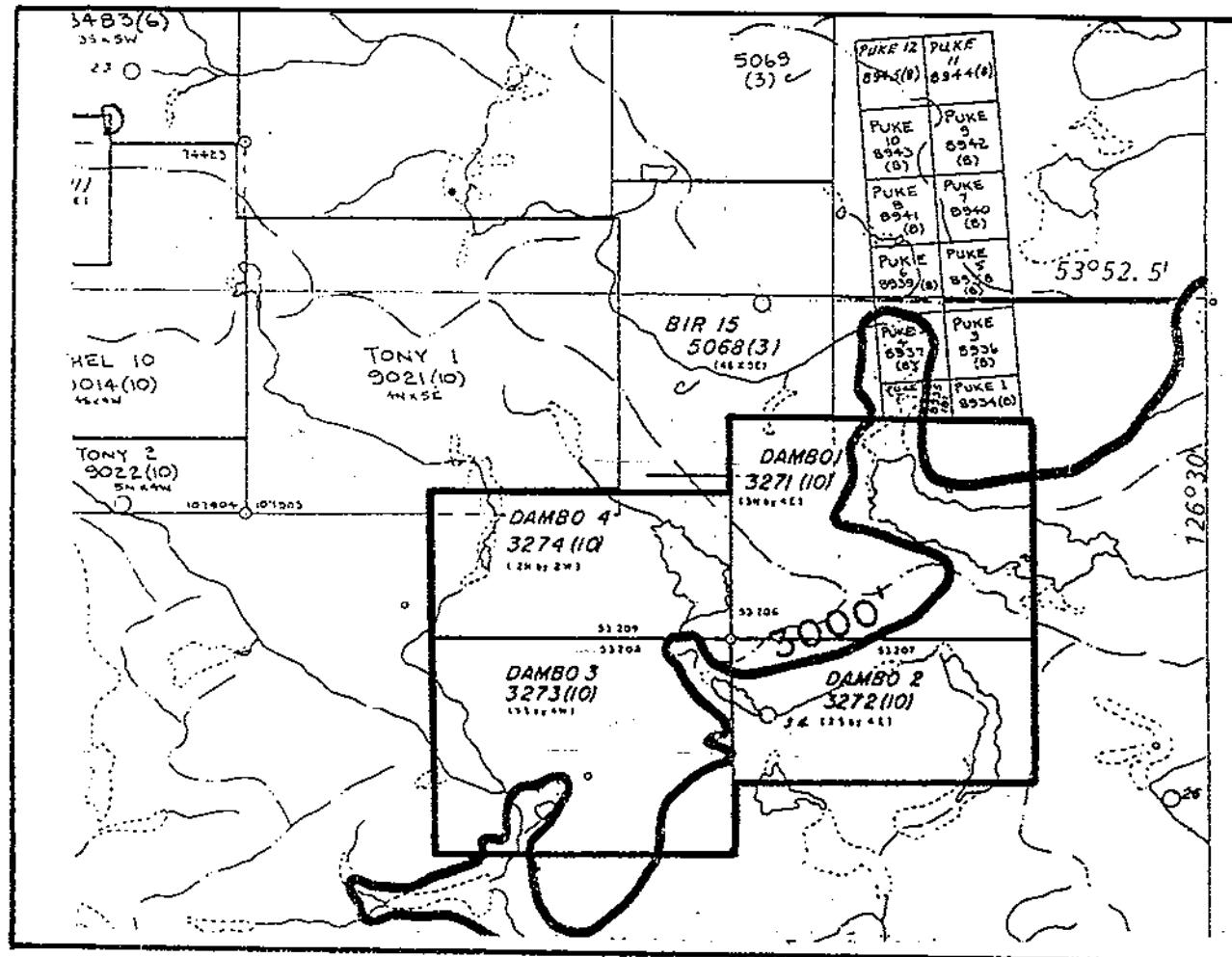
SCALE 1: 2,500,000

0 20 40 60 80 100 120 140 160 180 200 Kilometres

PROPERTY LOCATION



EXETER MINING INC.	
DAMBO CLAIM GROUP OMENICA M.O. — NTS 93E/15E	
LOCATION MAP	
To accompany a report by: Rob Millar, B.Sc.	
Drawn by : M.N./G.T.	Date : July 1990



0 1 2

Kilometres



EXETER MINING INC.	
DAMBO CLAIM GROUP ·	
OMENICA M.D. — NTS 93E/15E	
CLAIM MAP	
To accompany a report by:	
Rob Millar, B.Sc.	
Drawn by:	Date:
M.N./G.T.	July 1990

It is worth noting here that Dambo 3 and Dambo 4 claims are going to expire in October 1990. Notice of work has to be submitted in order to keep the claims in good standing

3. HISTORY

The Dambo claims were first staked in October, 1980, by BP Minerals Ltd., to cover a target defined by prospective geology and interesting rock chip sample results discovered during a reconnaissance exploration program (Findlay et al., 1981).

Geological, geochemical, and geophysical surveys were carried out the following year. The property has more recently been optioned by B.P. Minerals to Exeter Mining Inc. In 1988, J.G. Ager Consultants Ltd. undertook soil geochemical and magnetometer surveys. In addition, backhoe trenching tested the geochemical anomalies in the Picket Hill area.

In 1989, a Horizontal Loop Electromagnetic survey was completed by Geotronics Surveys Ltd.

4. REGIONAL GEOLOGY

The Dambo claims lie within the Intermontane Tectonic Belt approximately 70 km east of the Coast Crystalline Belt. Eugeosynclinal rocks of Early to Middle Mesozoic are common in the Intermontane Belt. In west-central British Columbia, late Mesozoic and Early Cenozoic continental sedimentary, volcanic and plutonic rock occur in successor basin deposits. Between Ootsa and Francois Lakes these younger deposits constitute the Tiptop Hill and Ootsa Lake volcanic rocks. A younger, Eocene sequence of rocks known as the Endako and Goosly Lake Groups also occur in the area (MacIntyre, 1985).

5. PICKET HILL GEOLOGY

Details of previous work on Dambo claims Picket (Jap Hat) Hill are given by Findlay et al. (1981), and Goldsmith and Kallock (1988).

5.1 Lithology

The outcrops near the summit of Picket Hill are rhyolite breccia which have been subjected to silicification and clay alteration (see 5.2). On the lower northern slope, flow banded rhyolite is exposed in road cuttings.

5.2 Alteration

The rhyolite breccia exposed on Picket Hill has been subjected to two phases of hydrothermal alteration.

A₁ - silicification. Strong, pervasive silicification has affected the rhyolite breccia along an east-west trending zone up to 50 metres wide and 200 metres long on the north side of Picket Hill.

Typically the groundmass has been replaced by dark grey silica. Occasional drusey cavities were seen. The rhyolite clasts are often only weakly silicified. Fine grained euhedral pyrite cubed (0.1 mm) are present in concentrations of 1/2 - 3 %. The pyrite is often oxidized to red brown limonite which coats the fractures within the rhyolite. Towards the periphery of the silicified zone hematite may replace pyrite as the accessory iron mineral.

Thin quartz veinlets may be found within the fracture zones.

A₂ - clay alteration. On Picket Hill and in the quarry at L14+40W 0+50S, unsilicified rhyolite breccia has been subjected to strong argillic alteration. Rhyolite clasts and groundmass have been largely altered to a white clay mineral, probably

kaolinite. The margins of the silicified rhyolite has been affected in places. In addition, to the alteration of the unsilicified rhyolite clasts, pyrite has been leached out leaving voids.

Findlay et al. (1981) suggested that the clay alteration may have resulted from pre Tertiary palaeoweathering. It seems that this is unlikely as the glaciated clay altered outcrops exposed around 14+50W 0+50S are some 150 metres lower in elevation than the clay altered outcrops on the summit of Picket Hill which would indicate an extremely thick weathering profile.

Both the silicification and the clay alteration appear to have resulted from hydrothermal fluids associated with volcanism.

Small pods (< 0.30 m) of intense pyrite-clay alteration are common in the rhyolite breccia exposed around L14+40W 0+00S. These pods are comprised of soft green-grey "saponitic" clay with up to 20 % pyrite.

5.3 Structure

Two predominant structural attitudes are recognized in the vicinity of Picket Hill.

- 1) North-east set. Strike 045-055°. Dip steep (to north?). Evidence for these includes the north-east trend of the anomalous silicified zone on Picket Hill and the trend of the E.M. conductors west of Picket Hill (see Cruikshank, 1989, Map 9). Structures with this attitude were not observed in the field.
- 2) North-south set. Strike 350-010°. Dip 65-85° to west. Evidence for this structural set includes the attitude of fracture zones and quartz veinlets on Picket Hill and elsewhere, the trend of the silicified zone at approximately

4+30W 4+60S, and the interpreted attitude of conductor A along the baseline at 100E (see Cruikshank, 1989, Map 9).

Field relations suggest that these structures may be reverse faults (west block up). Quartz veins within the faults appear mineralized.

6. SOIL GEOCHEMISTRY AND ROCK SAMPLING SURVEY

A total of 28.0 line km of grid lines were located by compass and hip chain. Slope corrections were necessary around the summit of Picket Hill. Line spacing was reduced to 50 metres across the Picket Hill anomaly between 1+33W to 7+40W. Elsewhere, soil sample coverage was extended with 200 metre line spacing. Soil samples were taken at 50 metre intervals from the B soil horizon at depths of 5-30 cm. A total of 567 soil samples were collected.

Anomalous soil geochemical values (105 ppm Cu, 109 ppm Pb, 934 ppm Zn, 7.0 ppm Ag) have been collected in the past from Picket Hill. The boundary of the anomaly coincides with the limit of residual or talus derived soils along the lower slopes of Picket Hill. Elsewhere on the property colluvial, soils mantle the bedrock.

In addition to soil sampling a total 22 rock drip samples were collected from Picket Hill and from scattered out crops. Assay values for gold and silver are shown in Figure 2 (Picket Hill area) and in Figure 7.

In order to compare the results of soil sampling with the geochemical survey from 1988 anomalous and threshold levels of metals in soils were assumed to be like given by Goldsmith (1988).

	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>Ag</u>	<u>As</u>
No. of Values, n	341	341	341	341	341
Threshold	49	20	264	1.2	17
Anomalous	53	21	500	2.3	34

Only definite anomalous values are underlined in Figure 3-7.

ARSENIC

The only anomalous value in soil which is not directly related to the high values south of Picket Hill (as given by Goldsmith, 1988) is shown on L2+85W 1+00E. No new area of interest is indicated by the assays. On the contrary, it appears from the 1990 survey that even in the anomalous area the values are quite spotty.

ZINC

Strongly anomalous assays to 2000 ppm are found North of Picket Hill close to the Base Line. Trenching of this anomaly in 1988 failed to reach bedrock. The source of those highly elevated values is yet to be determined. Certainly, they are not correlated with higher lead assays. As for other three metals, the positive correlation exists for the 2088 ppm found at L2+85W 1+00S (Figure 4).

LEAD

A very strong lead anomaly located at Picket Hill is supported by the 1990 survey and extended.

Spotty high values can be also found along L13+40W and L14+40W. At this stage, it would be hard to prove the significance of these assays for further exploration (Figure 5).

COPPER

High copper values prove to be associated, as indicated by Goldsmith, with the Base Line. The Base Line follows an old road

situated on the clearing. It seems that in view of this, the contamination of soils might be considered. Other areas are devoid of anomalies (Figure 6).

SILVER

Anomalous silver assays were returned from soil and rock chip samples collected from Picket Hill. This agrees with earlier work on the property. The highest silver assay returned (19.9 ppm) was from a quartz-veined, siliceous rhyolite breccia sample (A 555551) collected from the talus slope north of Picket Hill (Figure 2).

Only low values were returned from rock-chip and soil samples collected from the grid away from Picket Hill (Figure 7).

GOLD

Soil samples from Picket Hill, and all rock-chip samples were assayed for gold. Very low gold values were returned with only a few samples greater than 10 ppb.

One sample of gossanous float (A 55560) collected from near the summit of Picket Hill returned the highest gold assay of 36 ppb. This sample was not collected from outcrop (see Appendix 7) and, therefore, cannot be considered representative of the mineralization in this area. The low Au assays from the soils collected on Picket Hill (generally < 5 ppb) indicated a low potential for gold mineralization.

A sample of pyritic rhyolite collected from around 0+00N 14+50W returned 33 ppb Au. This sample was collected from small, intensely altered, pyritic pods within the rhyolite.

7. CONCLUSIONS

Spotty low grade silver mineralization is associated with the silicified and quartz-veined outcrops at the summit of Picket Hill. The distribution of silver in these rocks appears very

irregular with no obvious lode structure evident. The highest silver assay returned was 19.9 ppm which is well below economic grades.

Gold correlates poorly with silver or any of the base metals. The very low gold assays indicate a low potential for significant gold mineralization on the property.

The property away from Picket Hill is underlain by extensive deposits of transported glacial till. Geochemical anomalies in this material tend to be very spotty with little correlation between the different base and precious metals. Trenching of anomalies adjacent to the base line in 1988 failed to reach bedrock. It appears, therefore, that the geochemical anomalies located within the till are spurious and do not reflect bedrock mineralization.

Extensions to the soil grid in 1990 did not detect any significant anomalous zones.

Picket Hill remains the best target for economic mineralization on the property. Potential exists for silver mineralization at depth beneath the summit of Picket Hill. This could be tested by two holes drilled south from existing road on the north side of Picket Hill. Total drill footage would be approximately 500 - 550 metres.

Considering the relatively low silver and gold values which were returned from surface sampling, together with the absence of a strong subsurface geophysical target it is questionable whether drill testing of the Picket Hill anomaly is justified.

As the property was staked around the anomalous outcrops on Picket Hill, if the decision was made not to continue to the drill stage on Picket Hill, it would seem that further exploration activity on the claim group is not warranted.

STATEMENT OF EXPENSES

Geological mapping and rock sampling:

Proj. Geologist 14 days @ \$275.00/day \$ 3,850.00

Line cutting and soil sampling:

Two field assistants 28 days @ \$200.00/day \$ 5,600.00

Supervision: 40 hours @ \$40.00/hour \$ 1,600.00

Reporting: \$ 1,800.00

Room and Board: 46 days @ \$60.00/day \$ 2,760.00

Transportation:

- Rental (incl. fuel, insurance) \$ 885.00

- 4 WD Truck 14 days @ \$110.00/day \$ 1,540.00

Field supplies \$ 1,218.00

Assaying (Rocks and soils geochem ICP+AU) \$ 2,683.00TOTAL \$21,936.00

8. REFERENCES

1. Cruickshank, P., Geophysical Report on a Horizontal Loop Electromagnetic Survey Over the Dambo Claims Picket Lake, Francois Lake Area, Omenica Mining Division, British Columbia. Prepared for Exeter Mining Inc., April 19, 1989.
2. Findlay, A.R., Hoffman, S.J., and Mitchell, G., Geological, Geochemical, and Geophysical Report on the Dambo Property. Prepared for B.P. Minerals Ltd., November 20, 1981.
3. Goldsmith, L., and Kallock, P., Soil Geochemistry, Geophysics, and Backhoe Trenching, Dambo 1-4 Mineral Claims, Ootsa Lake Area, B.C. Prepared for Exeter Mining Inc., October 25, 1988.
4. MacIntyre, D.G., 1985 Geology and Mineral Deposits of the Tahtsa Lake District West Central British Columbia, Bull. 75 B.C. M of EM + PR

9. CERTIFICATE

I, Rob Millar, hereby certify:

1. THAT I am a graduate of the University of Queensland (1984) and hold a B.Sc.(Hons) degree in Geology and Mineralogy.
2. THAT I have been employed as a Mine and Mineral Exploration Geologist in Australia and in British Columbia by major and junior mining companies since graduation.
3. THAT this report was written following approximately two weeks work on the Dambo Claims which I personally supervised.
4. THAT I have no direct nor indirect interest in Exeter Mines Inc., nor in the Dambo Claims, nor do I expect to receive any as a result of writing this report.

Signed in the City of Vancouver, Province of British Columbia,
this 28th day of August, 1990.



ROB MILLAR
Geologist

A P P E N D I X I

Rock Chip Sample Locations and Descriptions

A55551 4+50W 3+35S

Talus sample. Hard, strongly silicified rhyolite breccia. Sub rounded rhyolite clasts 2-10 mm in a fine grained, siliceous groundmass. Scattered oxidized pyrite cubes ca 0.1 mm. Limonite staining along fractures. Occasional drusey vug. Late crosscutting quartz vein <1 mm.

A55552 4+45W 3+40S

Talus sample. Silicified flow rhyolite. Grey. Fine grained. Strong medium brown limonite/goethite alteration. Sharp front between altered and unaltered rhyolite.

A55553 ?4+05W 4+50S

8 cm wide shear/fault zone. Strike 010° Dip 68°W. Strong siliceous/clay alteration within shearzone. Rhyolite breccia host. Moderate to strong clay alteration outside of fault zone. 1-2 mm dilatational qtz vein with abundant fine grained black ? hematite or sulphide.

A55554 3+90W 4+40S

30 cm fault/fracture zone. Strike 015° Dip 82°. Strong siliceous alteration. Rhyolite fragments strongly kaolinized. Scattered vugs and pyrite cubes. Abundant fine disseminated hematite.

A55555 3+90W 4+30S?

Rhyolite breccia. Strong clay-hematite alteration. Fractured and porous. Goethite lined vugs.

A55556 14+80W 0+25N

Small pod of intense pyrite-clay alteration. 15% pyrite.

A55557 14+65W 0+25N

As above.

APPENDIX I - cont.

A55558 4+36W 3+80S

Fracture zone in massive silicified rhyolite breccia outcrops. 20 cm wide. Moderate to strong orange-pink alteration. Strike 096°. Dip 78°.

A55559 4+34W 3+83S

Small limonitic pod in rhyolite breccia. Oxidized to yellow/brown.

A55560 4+46W 4+30S

Gossamorous float in talus. Dark brown goethite masses. Not outcrop.

A55561 Near trig station on top of hill.

4 mm vuggy quartz vein. Rhyolite breccia host. No sulphide seen. Similar to A55553. Strike 008° Dip 74°W

A55562 Near trig station on top of hill

40 cm fracture zone in silicified rhyolite breccia. Strike 010°. Dip 82° W

A55563 3+90W 3+60S

Broken and fractured silicified rhyolite breccia. Limonite staining.

A55564 14+65W 0+20N

1 cm wide carbonate vein. Strike ca 050° Dip vertical. Associated with a 25 cm wide pod of intense clay/pyrite alteration.

A55565 3+60W 2+40S

Weakly silicified and clay altered flow banded rhyolite. Very minor pyrite.

A55566 3+60W 2+40S

Silicified rhyolite. Very common quartz veinlets and infilling along fractures. Fine disseminated specular hematite. Rare pyrite. Possible speck of galena.

PENDIX I - cont.

- A55567 3+65W 2+40S
Silicified rhyolite flows. Few % hematite alteration associated with qtz veins and siliceous alteration. Dominant strike of veins ca 70°. Dip variable 45-80°.
- A55568 11+90N 8+20W
Heavily silicified rhyolite flow?. Thinly bedded 'cherty' rock. No iron minerals. Weak limonite staining on fractures.
- A55569 12+25W 8+50N
Gossamous Cr-Ni cumulate??. Green CrO₂? mineralization. Glacial debris?
- A55570 14+90W 8+25N
Clay/carbonate altered feldspar porphyry dyke? 1% fine grained disseminated pyrite and possible arsenopyrite. Green skorodite mineralization along fractures. Possible fine grained hematite.
- A55571 13+40W 8+50S
Silicified, clay altered rhyolite flows. Pervasive clay alteration. Irregular silica flooding. Minor limonite and skorodite staining along fractures. Attitude of flow banding. Strike 350°. Dip 80° S.
- A55572 13+40W 8+45S
Mineralized siliceous zone with qtz vein. 3 cm wide hosted by clay altered/siliceous rhyolite flows. 20 % pyrite and possible arsenopyrite. Secondary skorodite?.

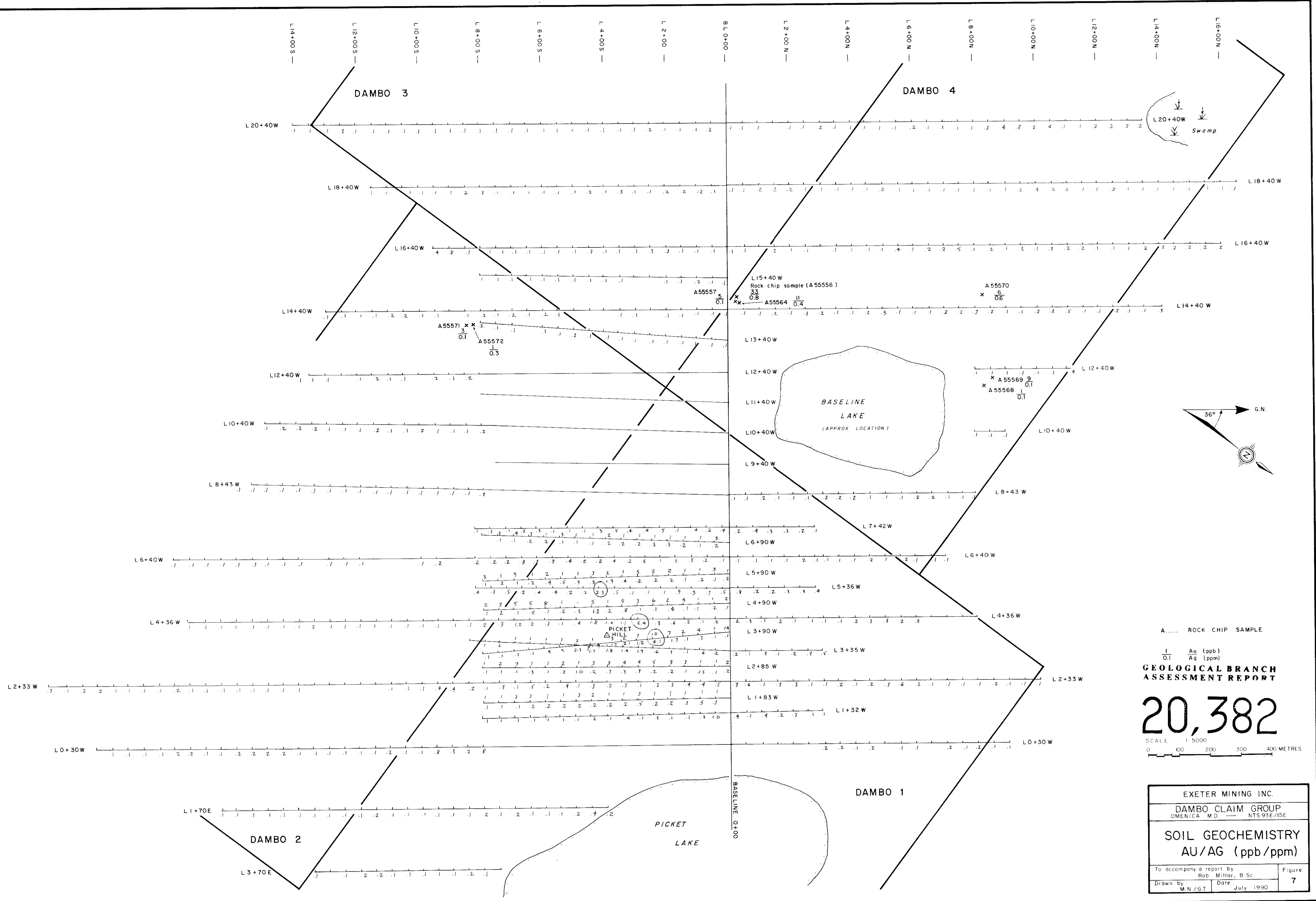
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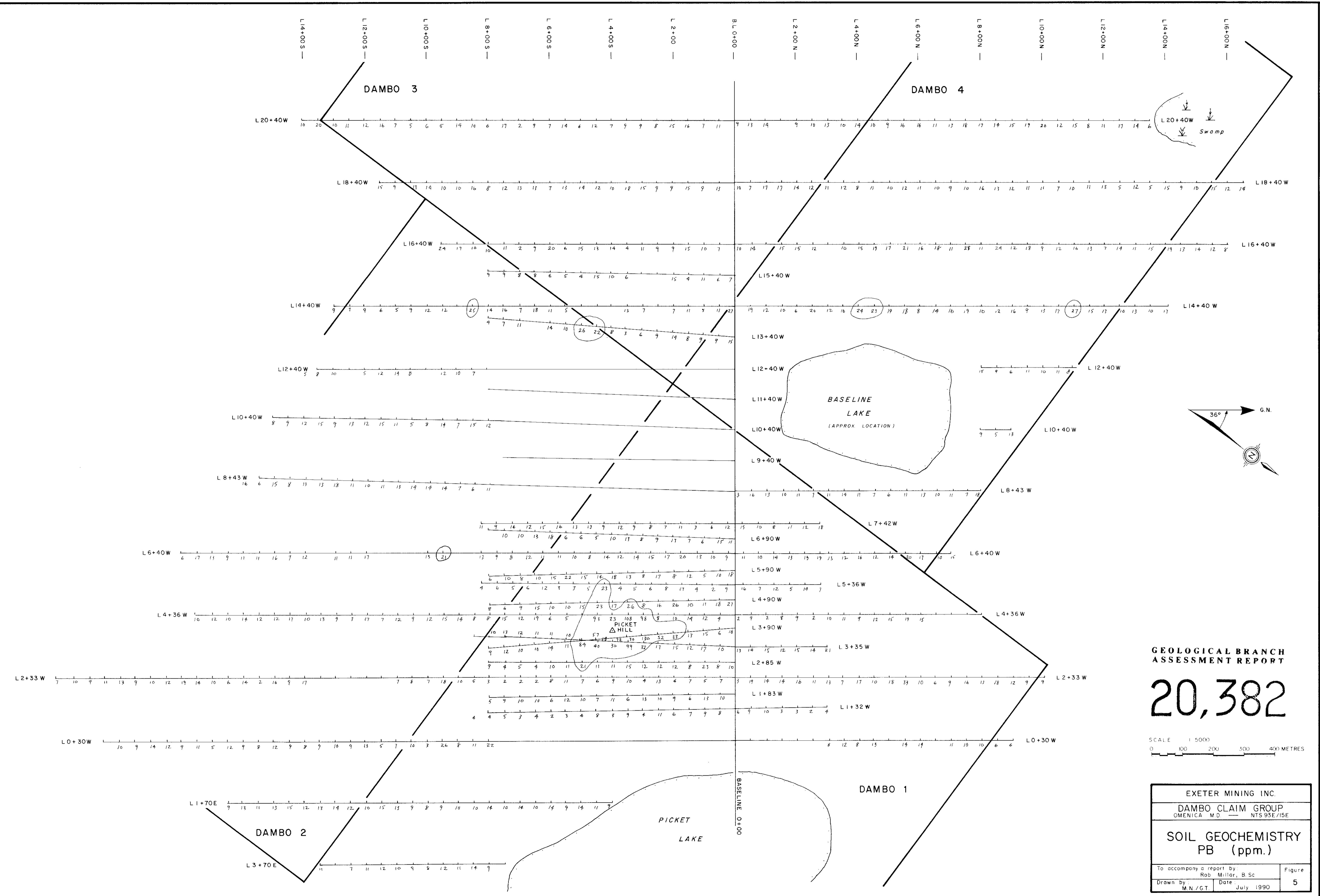
GEOCHEMICAL SOIL AND ROCK ASSAYS

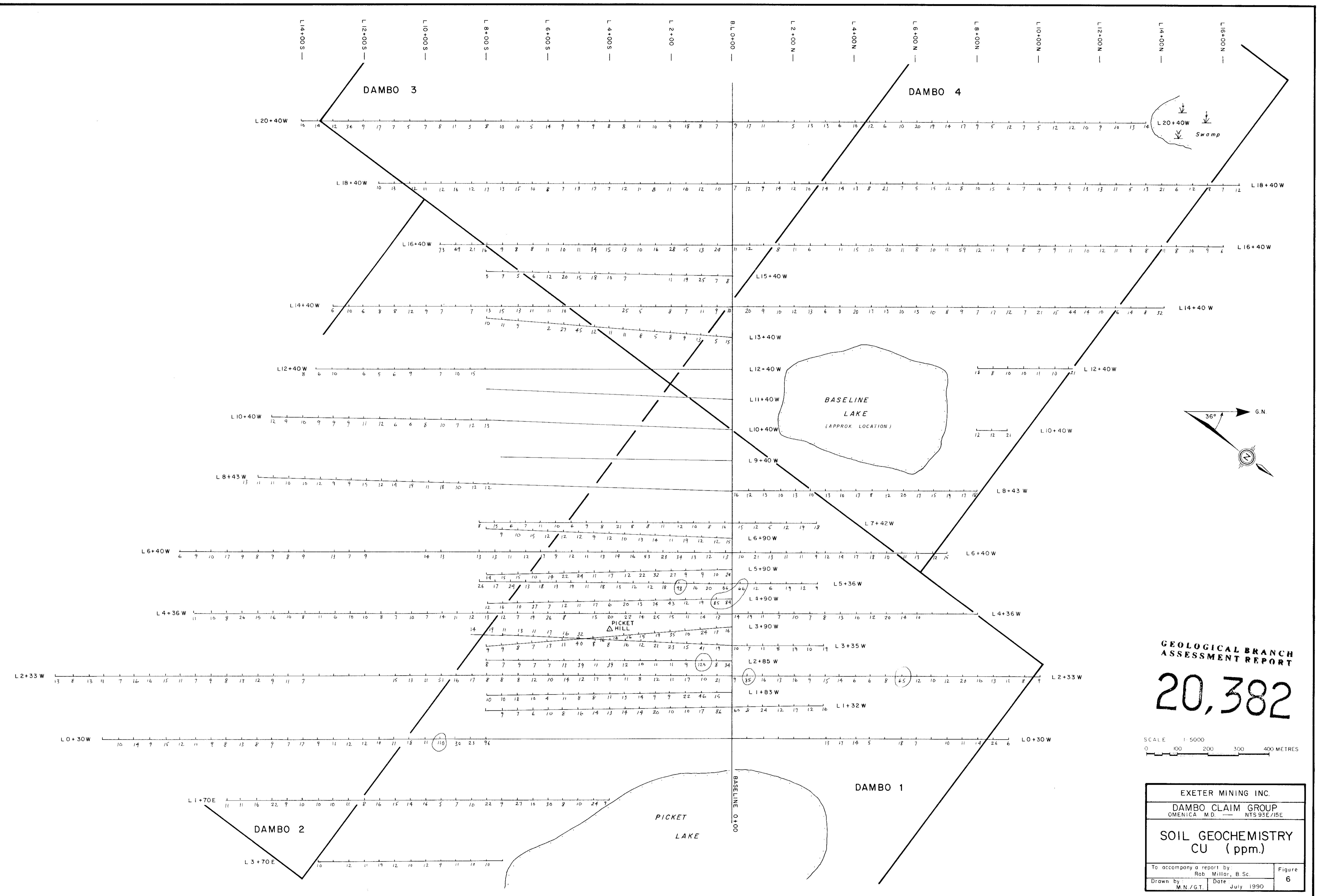
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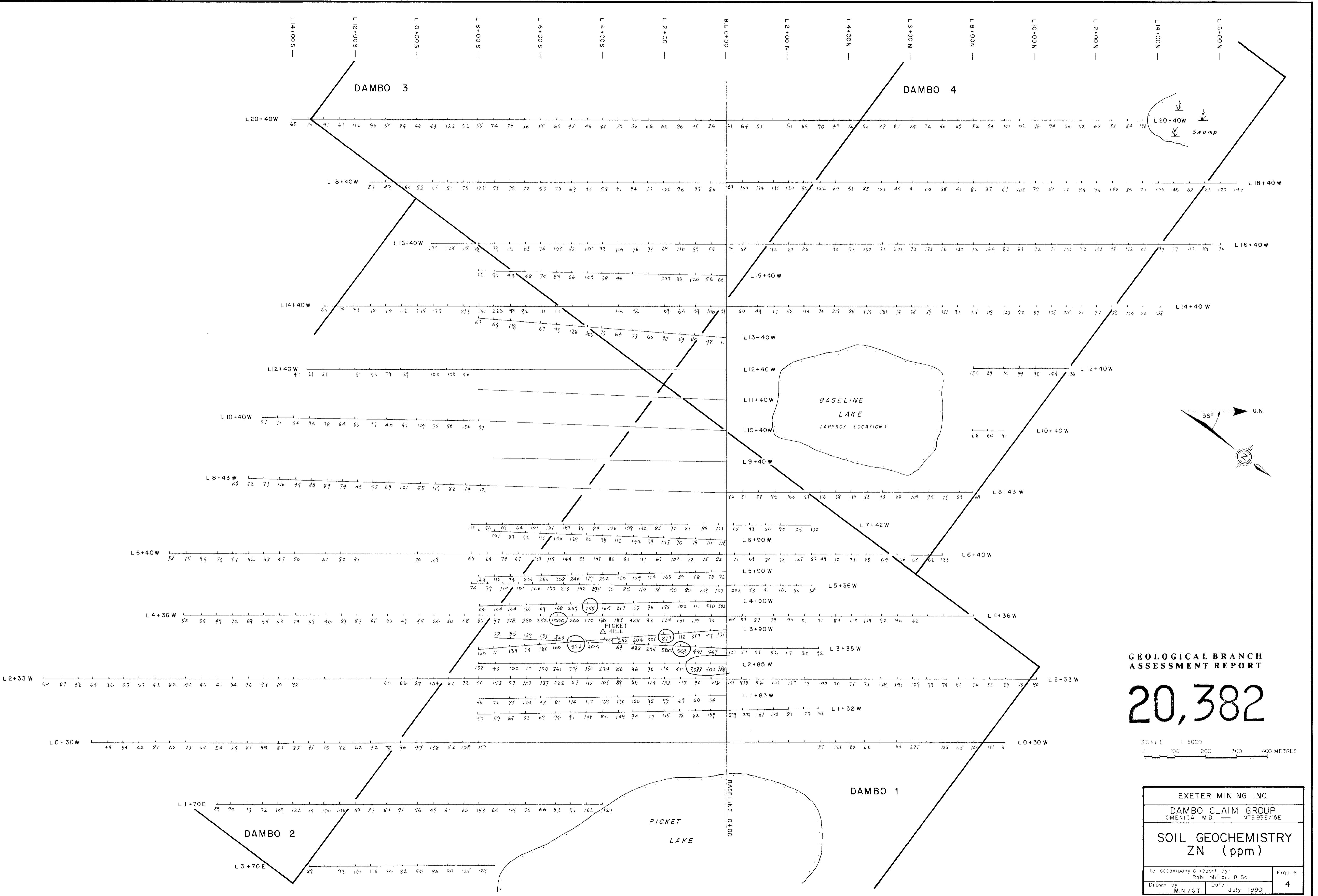
Page 14

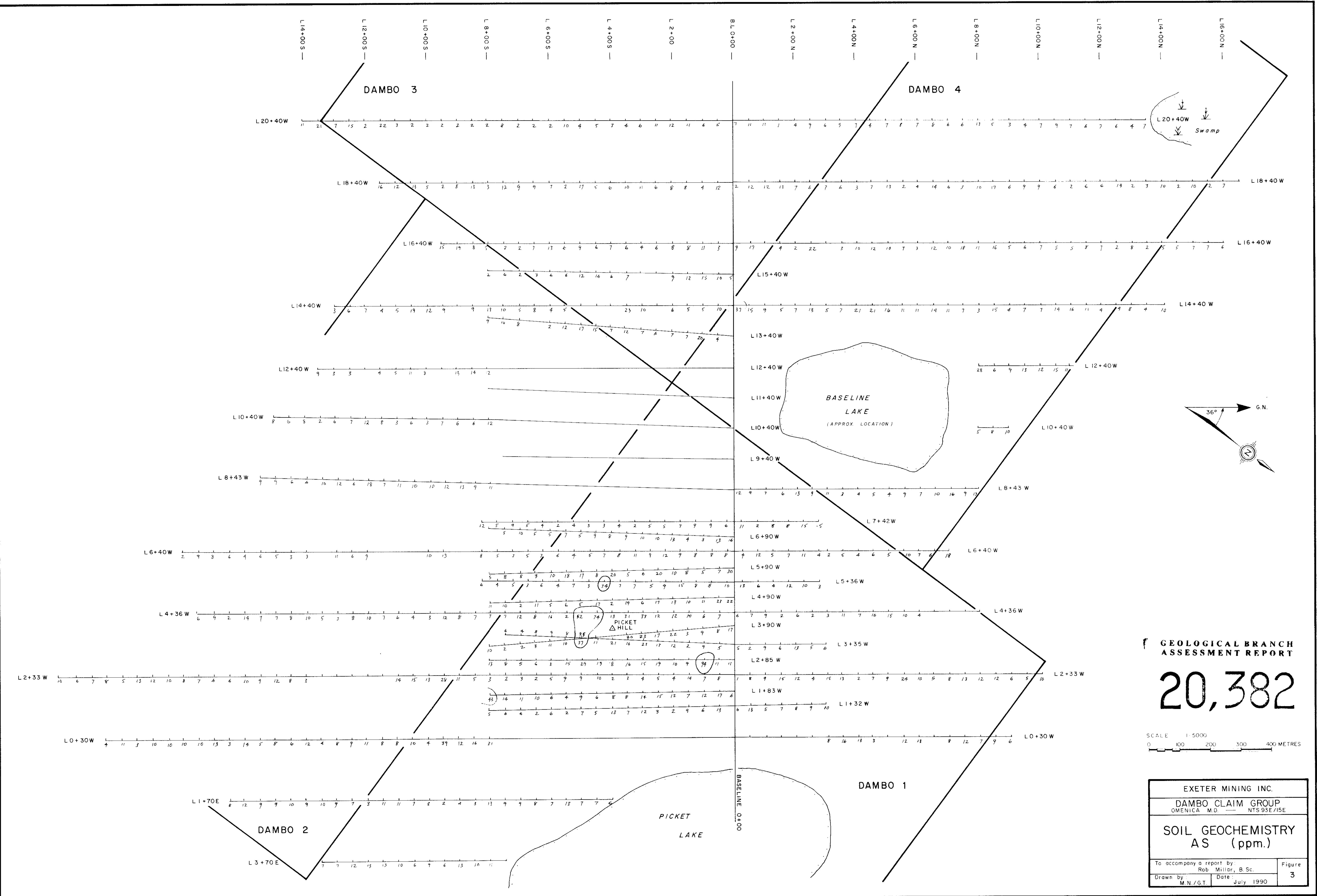
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L3+70E 11+00S	1	12	10	74	.1	13	7	269	2.54	10	5	ND	1	17	.2	3	2	49	.18	.051	7	19	.34	78	.07	5	1.77	.01	.04	1
L3+70E 11+50S	1	19	12	116	.2	19	9	423	2.92	13	5	ND	2	19	.2	5	2	52	.24	.066	9	23	.46	115	.07	7	2.45	.02	.05	1
L3+70E 12+00S	1	11	11	161	.2	14	8	361	3.05	13	5	ND	1	24	.2	3	2	56	.26	.082	6	21	.37	103	.07	7	1.94	.01	.07	1
L3+70E 12+50S	1	12	7	93	.1	15	9	312	2.70	12	5	ND	1	25	.2	3	2	49	.30	.068	7	20	.37	102	.07	6	1.88	.01	.04	1
L3+70E 13+50S	1	10	11	89	.1	9	7	613	2.11	7	5	ND	1	26	.2	2	2	42	.30	.086	6	16	.23	96	.05	4	1.30	.01	.04	1

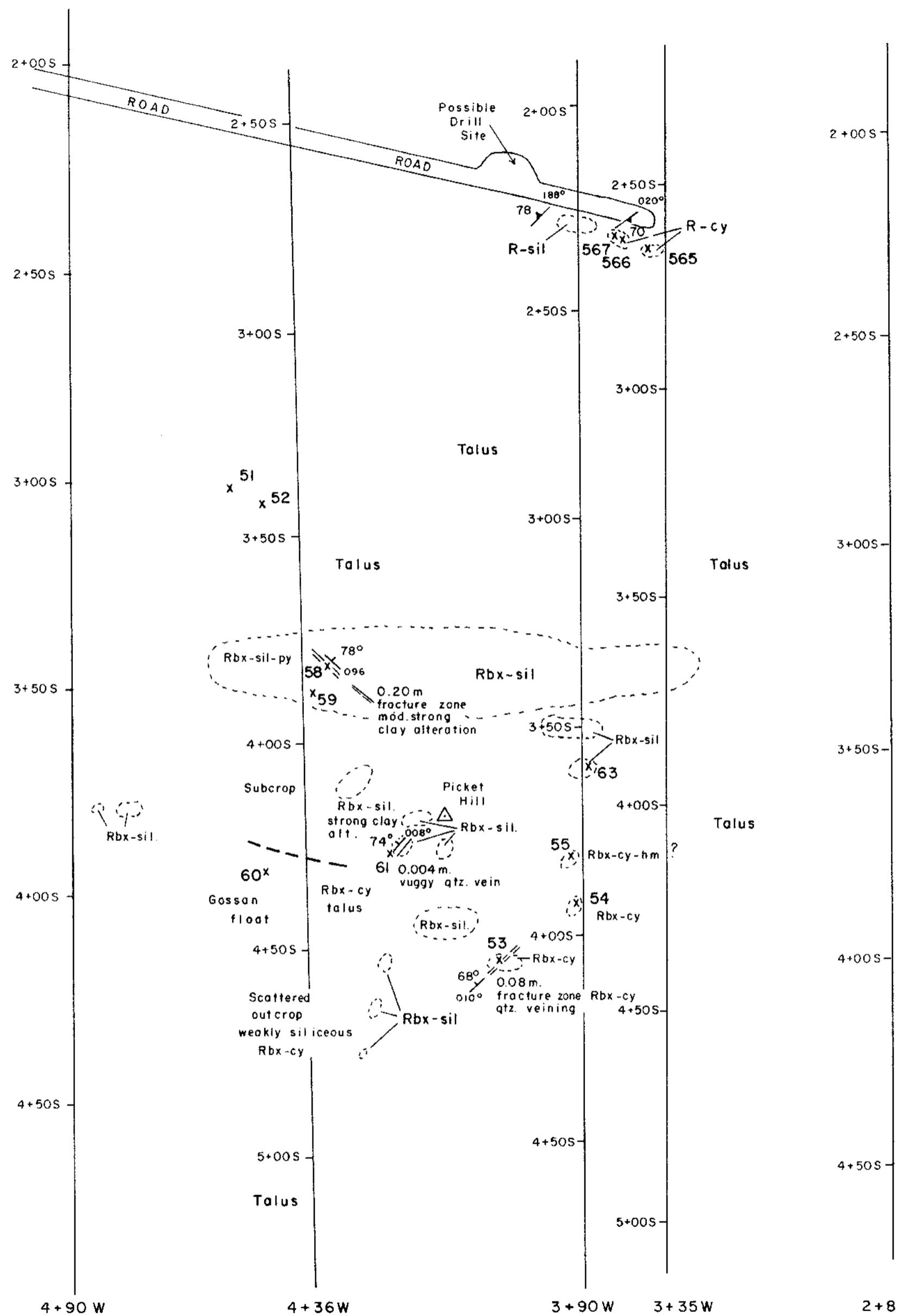












**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,382

Legend

R	Rhyolite flows
Rbx.	Rhyolite breccia
sil.	silicified
cy	clay altered
py.	pyrite
hm.	specular hematite
3+50S	GRID LINE PLUS STATION
(○)	OUTCROP
60X	ROCK CHIP SAMPLE PREFIXED BY A555
△	TRIG. STATION
020° 75°	STRIKE & DIP OF QUARTZ VEINING, SHEAR ZONE
355° 29°	STRIKE & DIP OF FLOW BANDING

SCALE 1: 1000
0 20 40 60 80 100 metres

EXETER MINING INC.

DAMBO CLAIM GROUP
OMENICA M.D. — NTS 93E/15E

GEOLOGICAL MAP

To accompany a report by:
Rob Miller, B.Sc.

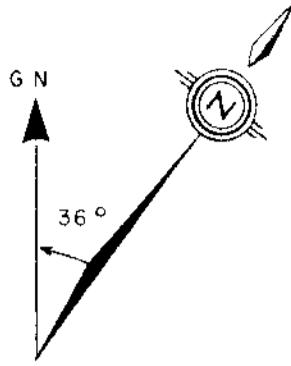
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Date:

July 1990

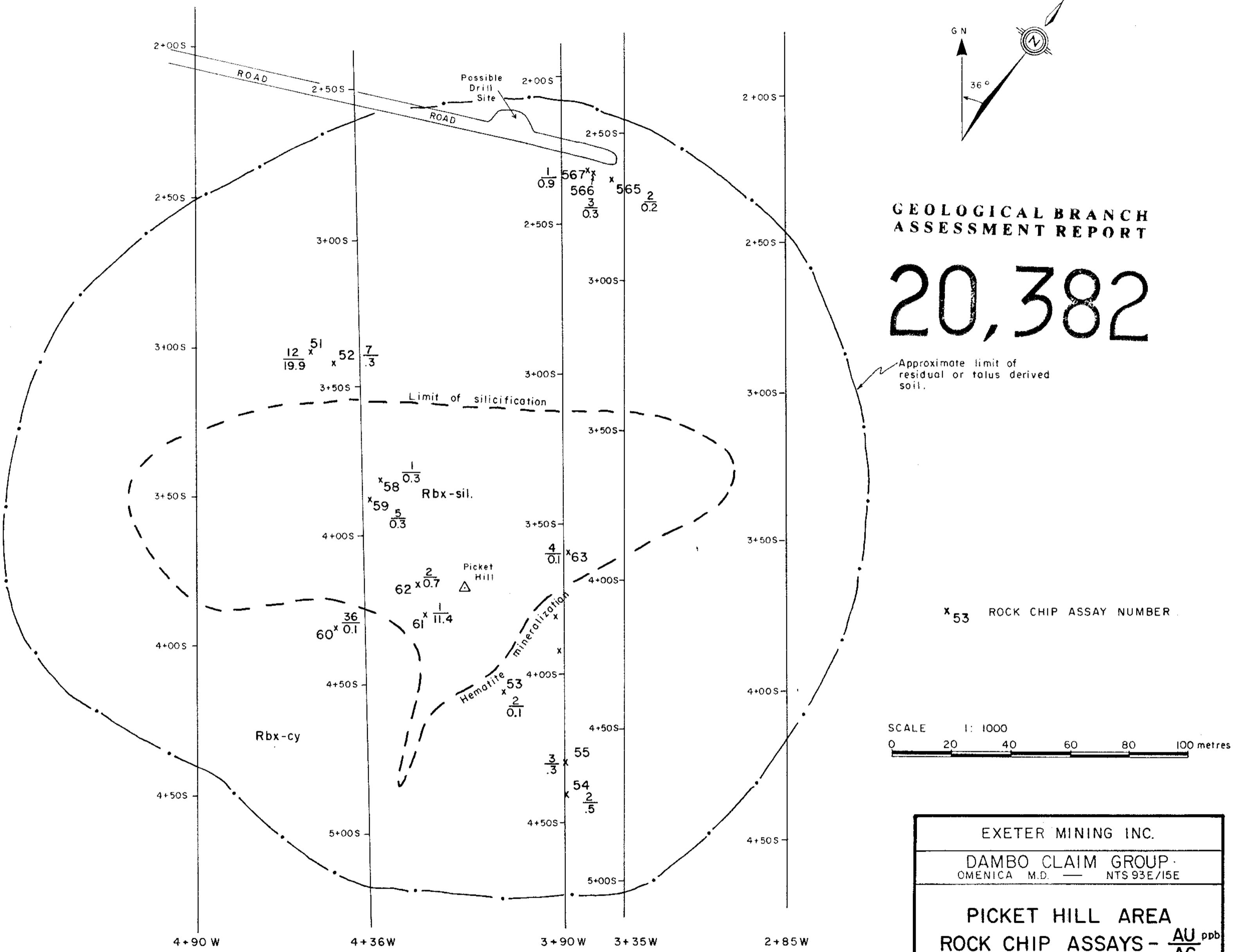
Figure

1



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,382



To accompany a report by:
Rob Millar, B.Sc.
Drawn by: M.N./G.T.

Figure
2
Date: July 1990