

80 - #190 - #7995

PRELIMINARY REPORT  
AND  
VLF-EM SURVEY OF THE EL ALAMEIN MINERAL CLAIMS

SIMILKAMEEN MINING DIVISION

49° 32' N 121° 50' E

N.T.S. 92 H/10 TULAMEEN

OWNER: NORMAN W. STACEY

VLF OPERATOR: P.D. BURT, DIP. TECH. (B.C.I.T.) B.Sc. (UBC)

AUTHOR: NORMAN W. STACEY

MARCH 5, 1980

MINERAL RESOURCES BRANCH ASSESSMENT REPORT
7995
NO.

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## INTRODUCTION

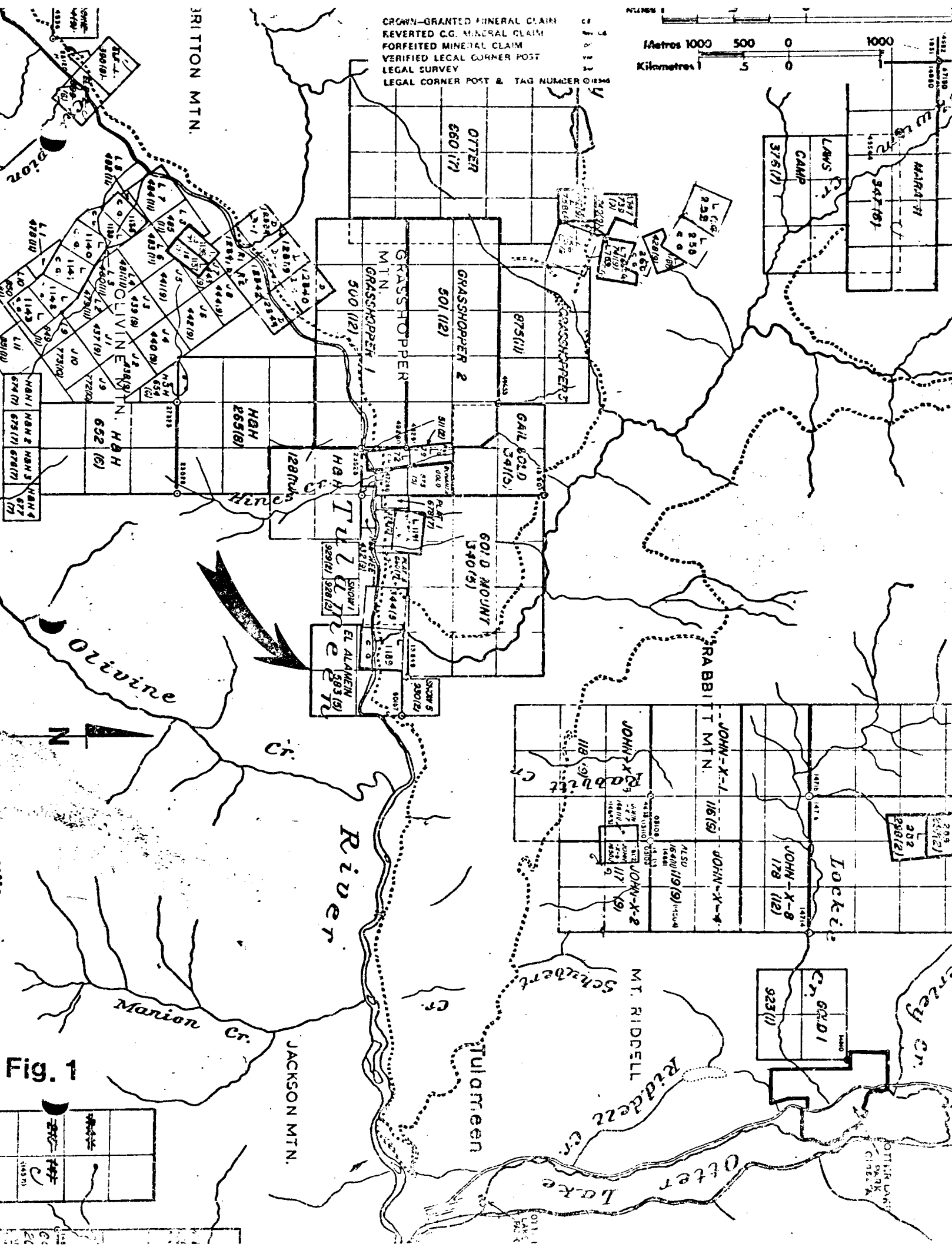
The El Alamein Mineral Claim, comprised of four units, bounds the east and south of the Wildcat Crown Grant (L 1189). The claim straddles the Tulameen River, approximately 3.5 miles upstream from the town of Tulameen, between Olivine and Hines creeks. Access is via the Tulameen River Road, a formed all-weather gravel road. Access to the southern portion of the property may be afforded by an abandoned cable car, situated on the Wildcat Grant, which overlies most of the northwest unit.

Topography is rugged wooded slopes from approximately 3,900 feet up the north facing flank of Olivine Mountain, across reworked gravels in the valley floor at approximately 2,750 feet, to approximately 3,100 feet on the south facing valley wall.

During the fall of 1979 a VLF-EM survey was undertaken with the intention of detecting a continuation of a southeast trending structure which hosted recorded mineralization. Four lines totalling 1,570 meters were run on the steep flank of Olivine Mountain. Results, which are appended, are complicated by severe topography.

## PREVIOUS WORK

Gold mineralization and limited production by El Alamein Mines Ltd., were reported from the Wildcat Crown Grant (L 1189),



CROWN-GRANTED MINERAL CLAIM  
 REVERTED C.G. MINERAL CLAIM  
 FORFEITED MINERAL CLAIM  
 VERIFIED LEGAL CORNER POST  
 LEGAL SURVEY  
 LEGAL CORNER POST & TAG NUMBER

Meters 1000 500 0 1000  
 Kilometres 5 0 1000

BRITTON MTN.

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660 (17)

GRASSHOPPER 2  
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GOLD MOUNT  
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in the Report of the Minister of Mines 1949. This included an assay of 2.82 oz. per ton gold, and 0.6 oz. per ton silver, across four feet of a south-east trending adit near the south-east corner of The Grant. An unpublished U.B.C. report records visible free gold, and several "specimen ore" samples were rumoured to have come from the workings. An unconfirmed rumour reports possible visible gold in the face when workings were abandoned in 1952.

#### LOCAL GEOLOGY

Immediately following staking in the spring of 1979, brief reconnaissance geology confirmed the following which is excerpted from Report of the Minister of Mines 1949. Cited Figure 11 is appended as Figure 3.

The principal showings consist of a shear zone containing narrow stringers of calcite and quartz erratically mineralized with free gold. The shear zone strikes north 60 degrees west, dips 60 to 65 degrees southwestward, and is 30 feet wide. The gold-bearing stringers have been found only in a section of the shear zone that extends for about 75 feet southeasterly from the edge of the river. The shear zone continues southeasterly up the face of the rock bluffs. A shear in an open-cut 450 feet southeast of the river (Fig. 11) is well aligned with the shear in the rock bluffs. It also appears to be on the strike of a zone of shearing exposed in the open-cuts on the mountainside 2,800 feet southeasterly of the adits. The shear zone approximately follows the contact between northwesterly trending rhyolite porphyry on the southwest and similarly trending argillites on the northeast. Near the workings it intersects a northwesterly trending diorite dyke about 20 feet wide. The distribution of the several rock types is shown in Figure 11.

#### FIELD WORK

Ground magnetic surveys on nearby property, reported in publicity available assessment reports, had proved inconclusive.

Following confirmation of the published geology, an electromagnetic survey was undertaken in the fall of 1979, utilizing a RONKA E.M.-16 Deep Penetrating Electromagnetic Detector.

Grid origin was established above the old adits, on the south side of the Tulameen River, at  $348^{\circ}$  from the derelect mill. Baseline was extended 1,200 m east on a bearing of  $120^{\circ}$ . Cross-lines at 400 m intervals trending  $030^{\circ}$  -  $210^{\circ}$  were extended to 260 m southwest (Grid South) and to 240 m, or to the river northeast (Grid North) VLF transmission from Annapolis, Maryland (21.4 KHZ) was utilized as source. Operator faced southwest for readings at 20 m intervals, and one experimental 10 m interval run. Each site was flagged, and coordinates, tilt-angle, quadrature, topographic slope and any salient features were recorded.

#### RESULTS

Full results are presented as Table One. The severe topography should be noted in consideration of results.

Table 1.

Line	Northing or Southing	Tilt Angle (Degrees)	Quadrature %	Slope (Degrees)	Remarks
0+00E	0+00 B.L.	0	10	0	
	20 S	0	4	30	
	40	7	2	20	
	60	8	6	0	
	80	10	8	10	
	1+00	20	0	0	
	1+20	26	1	15	
	1+40	30	- 1	0	
	1+60	30	- 1	60	by strm.
	1+80	35	- 1	40	
	2+00	42	4	45	
	2+20	38	- 2	30	
	2+40	30	0	0	
	2+60	30	- 2	10	
4 +00E	80N	38	4	0	Riveredge Cliff
	60	39	0	0	
	40	22	4	0	
	20	30	8	30	
	0+00	45	5	50	
	20 S	45	8	40	
	40	31	4	20	
	60	18	- 2	0	
	80	10	0	0	
	1+00	14	0	10	
	1+20	20	0	10	
	1+40	28	8	0	NR CLAIM POST
	1+60	34	8	25	(Placer Lease Post)
	1+80	34	5	60	(Hazel F.P. Rob Carr)
	2+00	32	5	45	
	2+20	35	8	45	
	2+40	33	8	45	On blazed boundary
	2+60	45	12	40	N-S & newer E-W with red flagging.
8+00E	2+40 N	32	1	30	
	2+20	35	3	30	
	2+00	40	- 5	30	
	1+80	45	- 2	30	
	1+60	48	- 1	35	
	1+40	53	- 4	45	
	1+20	47	- 8	25	
	1+00	42	- 8	20	
	0+80	40	-16	10	
	0+60	45	-17	10	
	0+40	50	- 8	15	
	0+20	53	- 6	15	

Table 1. (continued)

<u>Line</u>	<u>Northing or Southing</u>	<u>Tilt Angle (Degrees)</u>	<u>Quadrature %</u>	<u>Slope (Degrees)</u>	<u>Remarks</u>
8+00E	0+00 N	39	2	20	
	0+20 S	30	12	15	
	0+40	22	12	40	
	0+60	24	12	50	
	0+80	29	12	35	
	1+00	31	9	35	
	1+20	37	11	35	
	1+40	42	16	50	
	1+60	52	9	40	
	1+80	50	10	40	
	2+00	50	14	55	
	2+20	47	9	50	
	2+40	47	10	50	
12+00E	2+50 N	21	- 3	30	
	40	25	0	50	
	30	19	- 1	50	
	20	18	- 3	40	
	10	17	- 6	40	
	2+00 N	14	- 10	10	
	90	12	- 8	5	
	80	10	- 18	0	
	70	11	- 13	10	
	60	13	- 13	10	
	50	9	- 20	- 15	
	40	5	- 17	- 10	
	30	4	- 24	- 15	
	1+20 N	5	- 24	- 25	
	1+10	9	- 21	15	
	1+00	10	- 13	30	
	90	10	- 11	10	
	80	11	- 7	10	
	70	8	- 4	15	
	60	4	- 3	25	
	50	2	- 2	30	
	40	2	- 5	10	
	30	5	- 4	10	
	20	9	- 1	0	
	10	9	4	10	
	0+00	5	4	20	
	20 S	10	8	10	
	40	8	9	15	
	60	13	5	15	



Table 1. (continued)

<u>Line</u>	<u>Northing or Southing</u>	<u>Tilt Angle (Degrees)</u>	<u>Quadrature %</u>	<u>Slope (Degrees)</u>	<u>Remarks</u>
12+00E	80 S	17	7	10	
	1+00	17	7	10	
	20	17	0	10	
	40	16	5	15	
	60	18	0	15	
	80	20	9	30	
	2+00	18	4	20	
	20	17	2	15	
	2+40	17	0	20	

INTERPRETATION

Results of tilt angle, quadrature and slope angle are presented in four profiles as Figure 2.

The shear zone as reported (see excerpt) "strikes north  $60^{\circ}$  west, dips 60 to 65 degrees southwestward and is 30 feet wide," i.e.  $150^{\circ}/60^{\circ}$  W at the workings. Profiles are therefore, approximately perpendicular to the trend.

LINE 0+00E

This line exists only grid south of the anticipated anomaly. Noteworthy is: i) opposing downward trend of quadrature and increasing trend of tilt angle between 0+00 and 0+20S, and ii) the sharp topographic slope immediately south of origin is not reflected in tilt angle, and thus may be masking an inverse influence.

LINE 4+00E

i) A distinct peak centered at 0+10 S may be partially explained by the corresponding topographic expression. However this relationship is rarely this direct, and the peak is probably still significant.

ii) The sharp increase in both tilt angle and quadrature at the southernmost extent is both unexplained and in conflict with topography. A small extension, or possibly just a site visit, may elucidate.

LINE 8+00E

i) A distinct peak centered on 0+20N may be a continuation of the trend expressed in the previous line. There is no corresponding topographic expression.

ii) A change from negative to positive quadrature values in the same vicinity may reflect the differing attenuation properties of argillite to the north and volcanics to the south.

LINE 12+00E

i) A less pronounced peak near 0+20 N continues the previously mentioned possible trend. The sharply inverse topographic expression would be expected to exert an inverse, and hence dampening effect.

ii) A similar trend from negative to positive quadrature values is evident.

Line 12+00E (continued)

iii) The profile exhibits generally lower tilt angles, and more moderate extremities. This is in contrast to topographic slopes, negating a strong association.

CONCLUSION

Peaks near 0+10S, 4+00E; 0+20N, 8+00E and 0+15N, 12+00E are reinforced by corresponding quadrature behavior on the latter two profiles. These may reflect the continuation of the shear zone, the lithologic contact between argillite to the north and volcanics to the south, or both.

SUGGESTIONS REGARDING THE SURVEY

1. Winter work enabling crossing the river would enable completion of lines 4+00E and 0+00. The latter would establish the expression over known geology.

2. Line 4+00E should be extended grid south to clarify the pronounced upward trend of tilt angle and quadrature at 2+60S.

RECOMMENDATIONS

1. The property should be visited with a view to:  
a) examining geology to better establish the argillite/volcanic contact. b) relocate the southeast outcrops cited in REF 1 and hence confirm or deny the trend indicated by the

Recommendations (continued)

survey with concurrent mapping and prospecting for possible recurrences of parallel zones. This would entail acquisition of detailed, large scale aerial photographs or establishment of a more extensive grid.

2. An agreement should be established with the owner(s) of the Wildcat Crown Grant, and access to mine drawings and assay data obtained.

3. Depending on the extent of existing information, the workings should be re-examined, and channel sampled to establish a) grades, b) more information on mode of gold mineralization and c) most amenable or potential ore bearing lithologies.

4. Conditional on encouraging results from Step 3 and better target definition from Step 1, a drill program to test for possible southeast extension of the mineralized zone should be undertaken.

5. Sulphide bearing coarse float in the Tulameen River bed south of the old workings, but within the claim boundary should be assayed, potentially traced to suspected nearby source and possibly developed as a secondary target. Abundant pyrite and pyrrhotite bearing cobbles (to 10") of undetermined economic significance occur in a boulder field near the east intermediate post, with a possible source in the nearby large bluff at the river bend.

BIBLIOGRAPHY

1. Report of the Minister of Mines  
B.C. Dept. of Mines  
1949 Pp A124-A129, 1950 PA 112, 1951 Pp A128-A129
2. J.E. Reesor 1949  
A Microscopic Study of Ores from the Rabbit and  
El Alamein Properties - Unpublished.  
U.B.C. Report.

STATEMENT OF QUALIFICATIONS

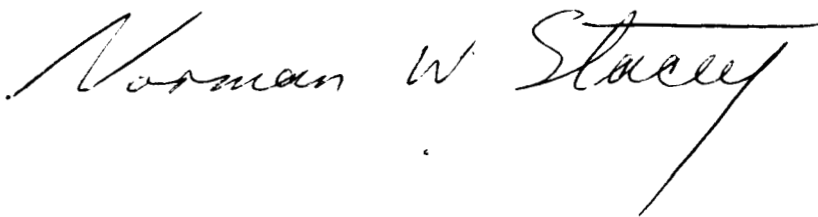
I, Norman W. Stacey, of 2960 West 41st Avenue, Vancouver, British Columbia, state that:

I am a graduate of the University of Auckland, New Zealand, with a B.Sc. degree in Geology and Applied Geophysics.

Since graduation in 1974 I have pursued my profession in Geology. I have been employed as a Geologist in Western Australia and Northern and Western Canada, and as a Research Assistant at the University of British Columbia.

I am currently employed by Arctex Engineering Services.

I have examined the property described in this report and believe its contents to be fair and accurate statement from field observations.

A handwritten signature in cursive script that reads "Norman W. Stacey". The signature is written in dark ink and is positioned above the printed name.

Norman W. Stacey

ITEMIZED COST STATEMENT.

May 6th - 7th, 1979

Prospecting, fossicking, orientation  
and unsuccessful attempt to establish  
grid due to excessive snow.  
David Falkins - Geological Asst.  
2 man days @ \$80/day \$160.00  
Norman Stacey - Geologist  
2 man days - self (uncharged)  
Meal expenses and return Vancouver 40.00  
Total - \$200.00

November 8th - 10th, 1979

Grid preparation and 1570 m of  
VLF-EM surveying  
P.D. Burt, (DIP, Tech. B.Sc.) -  
Geophysical operator.  
3 man days @ \$120/day \$360.00  
Meal and travel expenses 40.00  
Ronka - EM 16 VLF Receiver  
3 days @ \$12/day 36.00  
Total - \$436.00

May 4th

Report preparation, draughting,  
typing, binding and reproduction \$100.00  
Total 1979 cash outlay - \$736.00

Above is an accurate account of expenses incurred by me exclus-  
ive of staking costs and personal time, all of which I have  
receipts or returned cheques of.

NORMAN W. STACEY

May 4, 1980

*Technical 536<sup>00</sup> TEK*

*NWS*

FIG 2 TO ACCOMPANY REPORT ON EL HAMLEIN CLAIM GROUP MAY 1980

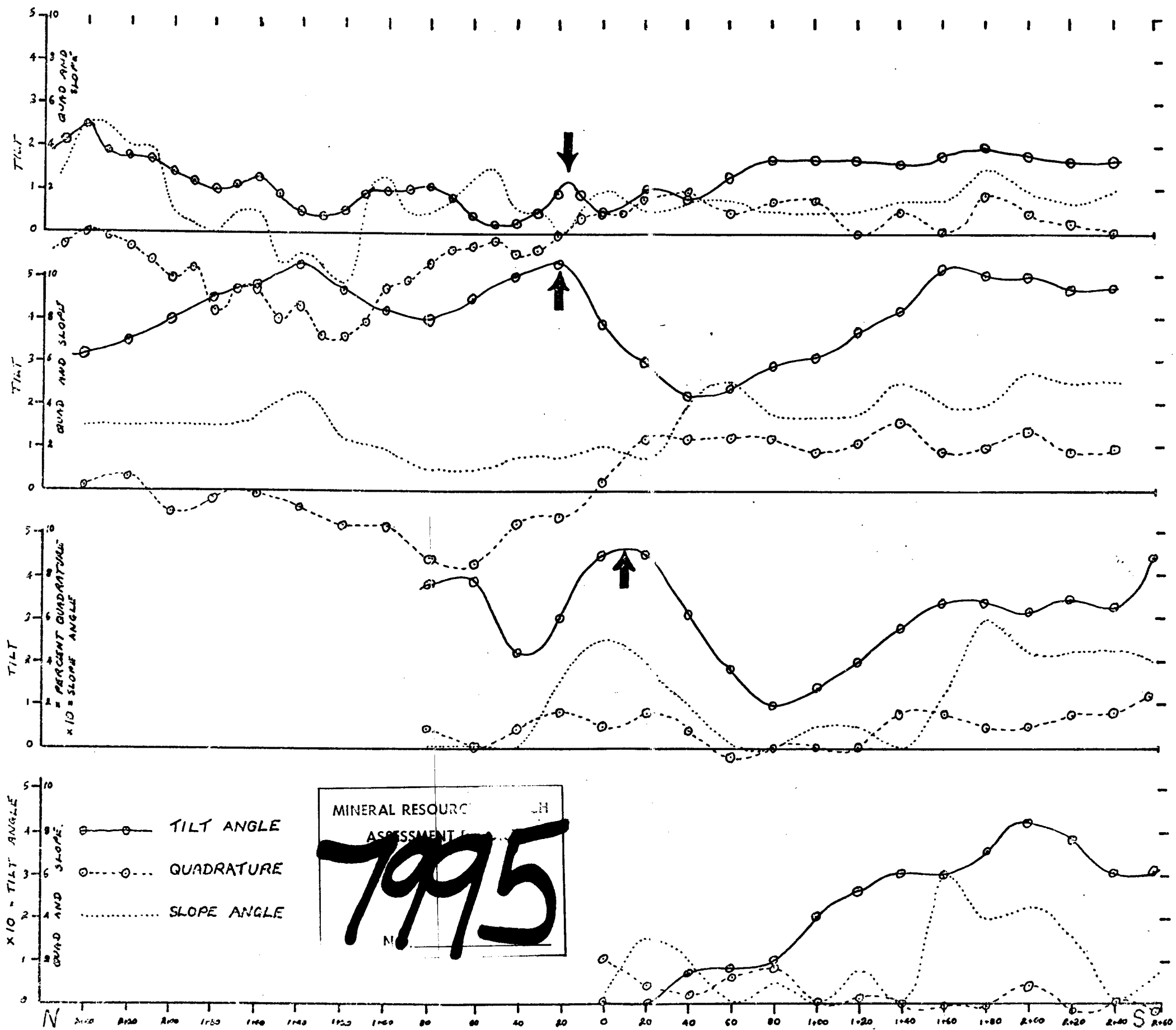
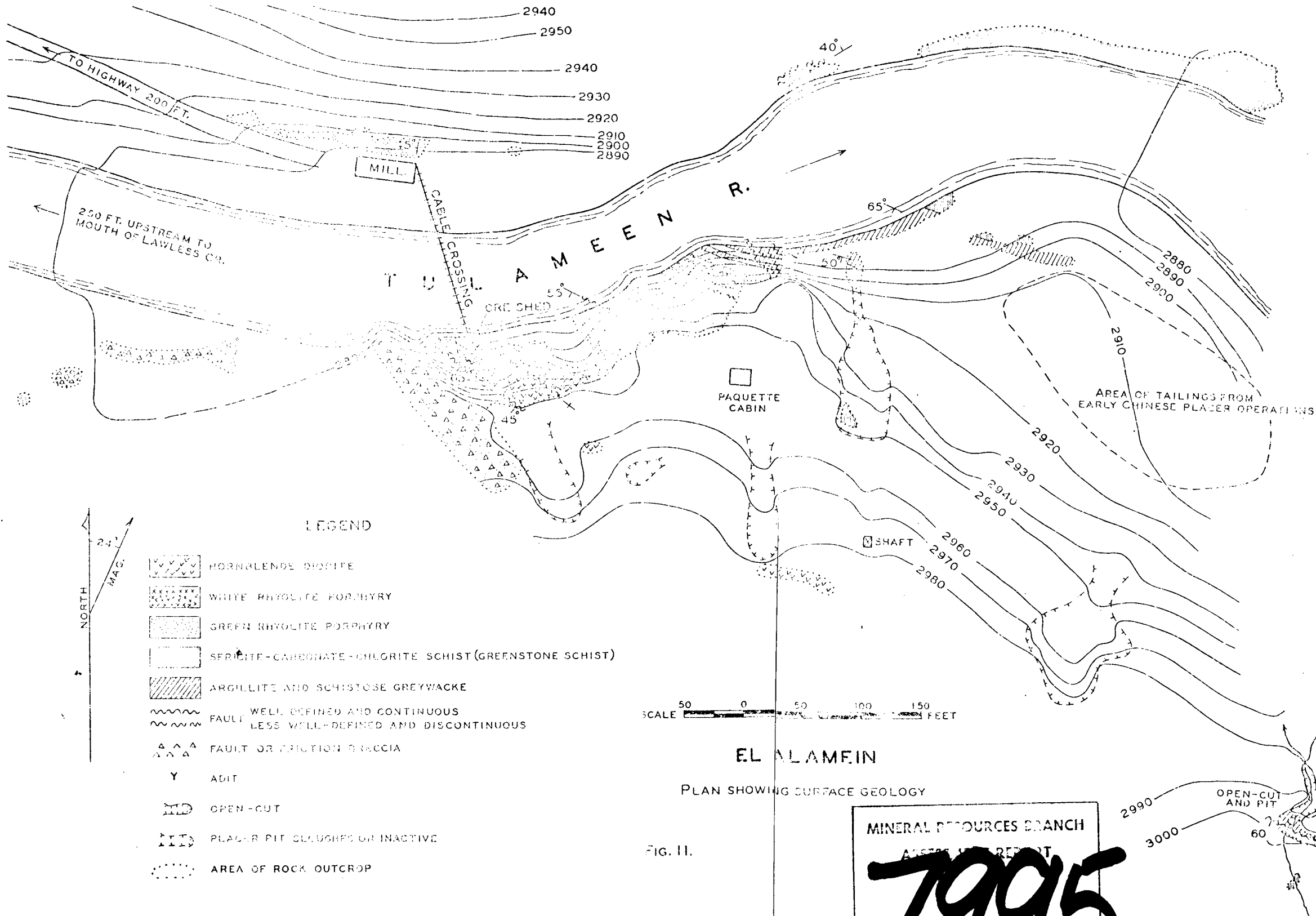




FIG 3. GEOLOGY AROUND EL ALAMEIN MINE  
 FROM: REPT OF THE MINISTER OF MINES  
 BCDOM 1949.

U. B. C.



SCALE 50 0 50 100 150 FEET

EL ALAMEIN

PLAN SHOWING SURFACE GEOLOGY

FIG. II.

MINERAL RESOURCES BRANCH  
 ASST. SUPERINT.  
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