

REPORT ON SAMPLED CORE FROM EL 130, 2/3/83

NOTE/ (1) Report is related to CR 77/110 (Canadian Superior Mining)
 (2) 10 Thin-section slides relating to this report found in petrology lab & marked as "Company Thin Sections"

INTRODUCTION

Mobil Energy Minerals Australia Inc. was given permission to sample drill core from EL 130 stored in the NTGS core library at Winnellie. Sampling took place on March 2nd, 1983.

Half-core samples were collected from DDH1, Aramunda and DDH2, CS3. These holes were drilled within EL 130, towards the end of 1974, by the ORMAC Joint Venture (see attached location figure).

A total of nine half-core samples 5-10 cms. in length were selected to represent various lithologies and submitted to H. W. Fander of Central Mineralogical Services for petrological description and comment.

A further eight rock chip composite samples were collected over approximately 10 metre intervals and submitted to Analabs Pty. Ltd. for gold analysis.

Sample details are set out below:

Sample Interval (metres)	Type	DDH1 ARAMUNDA Lithology in Hand Specimen	MEMA Sample No
32.41-32.55)	Half core	micaceous quartz schist	2301
34.73-34.83)		haematitic quartz mica schist	2302
42.79-42.88)		micaceous quartz schist	2303
56.38-56.45)		quartz	2304
14.93-25.0)	Composite chip	quartz mica schist	2310
25.0 -35.25)		micaceous quartz schist	2311
35.25-42.05)		argillaceous ferruginous schist	2312
42.05-51.0)		quartz	2313
DDH2 CS3 HILL			
27.38-27.47)	Half core	quartz muscovite schist	2305
35.54-35.58)		micaceous quartz schist	2306
41.62-41.67)		chlorite schist	2307
43.30-43.39)		chloritic quartz mica schist	2308
49.04-49.12)		porphyritic dolerite	2309
19.0 -28.5)	Composite chip	quartz mica schist	2314
29.62-39.05)		micaceous quartz schist	2315
39.05-49.45)		chlorite sericite rock	2316
49.45-54.0)		porphyritic dolerite	2317

DME LIBRARY
 - 7 NOV 1995
 SCANNED

RESULTS

Petrology Thin sections were prepared from the half-core samples and briefly described by Fander with additional details and comments as set out in the attached table.

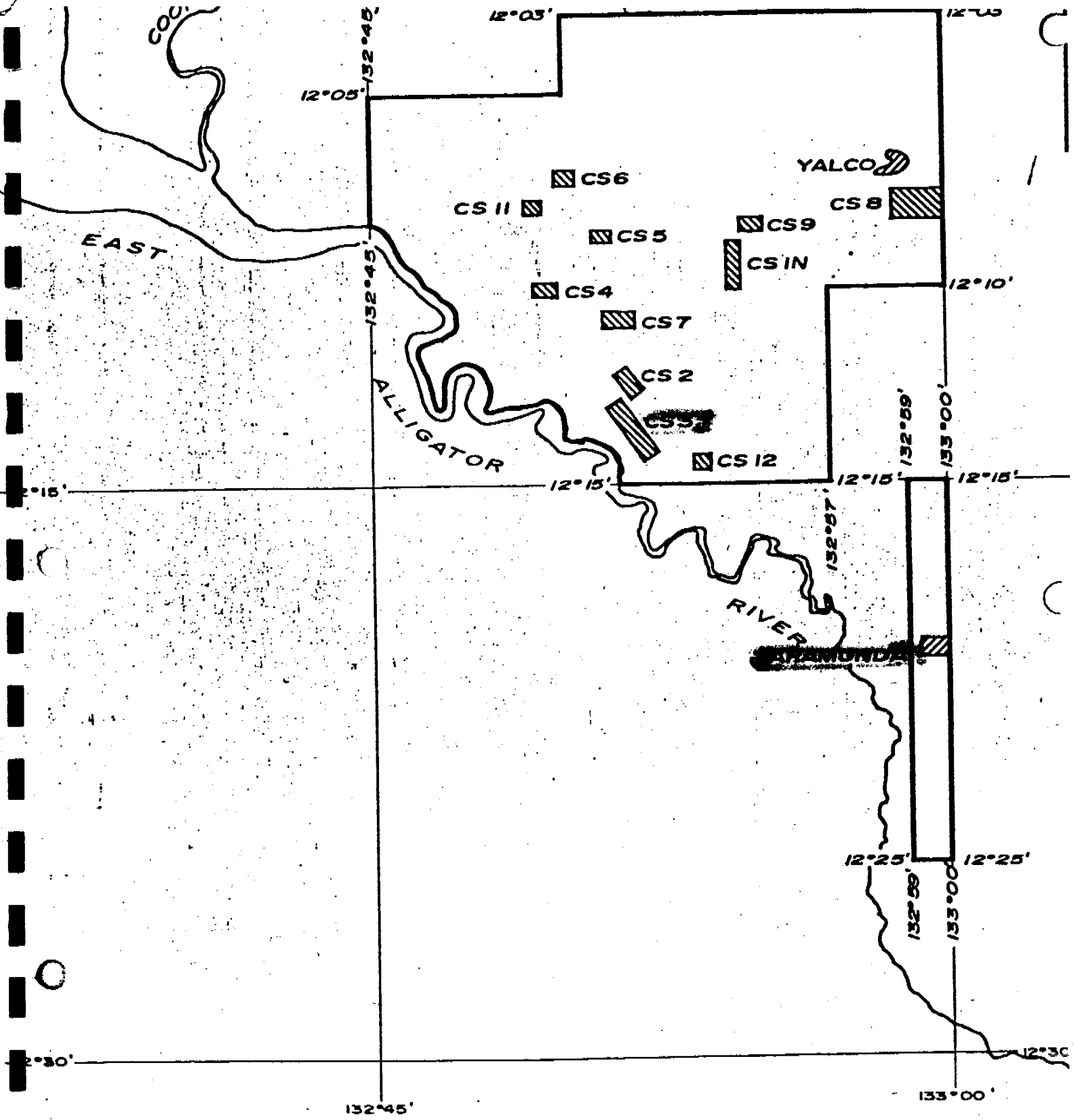
The lithologies described comprise mostly low-grade metasediments and are thought to represent the Lower Cahill Formation.

Geochemistry The composite rock chip samples were crushed, pulverised and subjected to a fire assay fusion using a 50 gm sample weight and AAS determination. Detection limit was stated as 0.005 ppm.

The attached analytical report indicates that all samples contained less than 1.0 ppm gold.

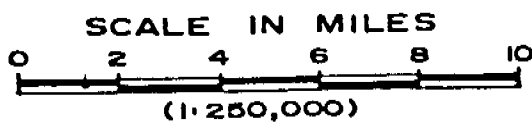



A. P. Bravo,
DISTRICT GEOLOGIST



**ORMAC JOINT VENTURE
EL 130**

PROSPECTS AND LOCATIONS UNDER INVESTIGATION



 CS9 PROSPECT OR LOCATION UNDER INVESTIGATION, 1974.
Note - These numbers are to be replaced by Aboriginal names when possible


 ARAMUNDA, ABORIGINAL NAMES OF PROSPECTS
YALCO

FIG. 3

No.	Rock Type - Composition	Fabric	Minor Minerals	Comments
2301 (T.S) 5835	<u>Argillised Gneiss</u> . Granular, lensoid and semi-continuous bands of quartz; shapeless aggregates of fine sericite; subparallel muscovite flakes.	Generally coarse-grained with preferred orientation, gneissic fabric.	Isolated detrital zircon. Radiating-fibrous ?tourmaline patches. ?Pyrite.	Rock believed to have been a meta-arkose. Sericitisation of feldspars was a hydrothermal event which also introduced ?tourmaline.
2302	<u>Altered ?Amphibolite</u> . Fine streaks, small patches of goethite (?amphibole), intergrown with fine quartz and clays (?feldspars), all ferruginised.	Fine preferred orientation, uniform fabric; no banding/foliation.	Relatively conspicuous leucoxene, evenly scattered through rock.	Presence and distribution of leucoxene regarded as significant, indicating basic igneous origin.
2303	<u>Argillised Gneiss</u> . Granular and platy quartz, larger lenses and coarse masses, with abundant interstitial and pervasive fine sericite.	Crudely banded and gneissic, with minor brecciation of quartz bands.	Scattered muscovite flakes. Microgranular ?tourmaline. Detrital zircon.	Interpreted as a quartz-feldspar-muscovite gneiss, which was brecciated and thoroughly sericitised.
2304	<u>Micaceous Metaquartzite</u> . Dominantly platy and polygonal quartz, with embedded small parallel muscovite flakes; penetrated by sericite veins.	Tabular habit of quartz gives rock preferred fabric. Medium-grained with coarse lenses.	Detrital zircon. Fine cloudy rutile crystals in sericite; also pyrite, chalcopyrite.	Introduction of sericite a hydrothermal, postmetamorphic event, with associated sulphides.
2305	<u>Sericitised Microgneiss</u> . Mainly finely granular quartz with a few coarser mosaics; small sericite aggregates after feldspar, subrandom flakes of chloritised biotite.	Semi-schistose fabric due to partial alignment of micas. Uniform, fine-grained.	Detrital zircon. Many small crystals of semi-opaque leucoxenic rutile.	Original rock was a typical Cahill Formation microgneiss composed of quartz, feldspar, biotite, pervasively sericitised.
2306	<u>Sericitised Microgneiss</u> . Finely granular quartz with scattered coarser patches; fine sericite aggregates and a few larger patches; minor chlorite (after biotite).	Coarser quartz represents larger clastic grains. Preferred fabric, porphyroblastic textures.	Detrital zircon. Fine leucoxenic rutile in chlorite.	Very similar to 2305, though fabric is coarser, almost gneissic. Same origin and history.
2307	<u>Chlorite-Sericite Rock</u> . Matted mass of fine-grained chlorite and small sericite aggregates, with minor cloudy, poorly-defined quartz.	No diagnostic relict features. Fine-grained, fairly uniform.	Fine semi-opaque rutile throughout, as single grains and clusters.	Origin of rock not known, because of thorough alteration, but present assemblage suggests a fine-grained ?amphibolite.
2308	<u>Altered ?Amphibolite</u> . Random clusters of dark chlorite flakes, poorly defined sericite aggregates after ?feldspar; scattered small quartz patches.	Structureless, uniform medium/fine-grained. Relict ?doleritic textures.	Crosscutting veins of mosaic quartz. Semi-opaque rutile.	Poorly preserved features, but may have been an orthoamphibolite, derived from dolerite.

Sample No.	Rock Type - Composition	Fabric	Minor Minerals	CENTRAL MINERALOGICAL SERVICES Comments
2309	Argillised Dolerite. Random phenocrysts of sericitised plagioclase in a mass of sericitised feldspar laths, interstitial chloritised pyroxene and glass.	Medium-grained, with random orientation, typical doleritic fabric.	Small aggregates of leucoxenic rutile after primary opaques.	Relict features well-preserved and diagnostic. Closely resembles other dolerites in Pine Creek geosyncline.

ANALABS

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

999.0 14 345

14.3.83

0275

1 OF 1

TUBE No.	SAMPLE No.	RU								
1	2310	0.042								
2	2311	0.046								
3	2312	0.025								
4	2313	0.012								
5	2314	0.012								
6	2315	0.012								
7	2316	0.012								
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Results in ppm unless otherwise specified

- T = element present; but concentration too low to measure
- X = element concentration is below detection limit
- = element not determined

AUTHORISED OFFICER

