GEOPEKO

A DIVISION OF PEKO-WALLSEND OPERATIONS LTD.

D81/24

KIMBERLEY DIAMONDS PROJECT

ANNUAL REPORT

ON

EXPLORATION LICENCE 2514

FOR THE PERIOD

3RD DECEMBER 1980 - 2ND DECEMBER 1981

BY

R. PERRING & S. TURLEY

DISTRIBUTION:
N.T. DEPARTMENT OF MINES & ENERGY
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DARWIN

DECEMBER 1981

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INTRODUCTION

Exploration Licence 2514 covering 318.23 square miles was granted on the 3rd December, 1980 and this is the Annual Report for the 1st year of tenure.

This Licence is part of a regional exploration programme, mainly for diamonds, comprising Exploration Licences 2411, 2412, 2417, 2418, 2419, 2420, 2421, 2504, 2513, 2514, 2515, 2584 and 2585 which are the subject of a joint venture between Design and Construction Pty Limited, BP Australia Limited and Peko-Wallsend Operations Ltd, where Peko-Wallsend, through Geopeko, are the operators. The joint venture commenced on 1st May, 1981.

Because of recent successful exploration for kimberlites in Western Australia, the recognition of a potential kimberlite province in the Kimberleys, and possible influence of the Hall's Creek Fault on emplacement of the Argyle diamondiferous kimberlite, the Fitzmaurice Mobile Zone and Sturt Shelf in the vicinity of the Victoria River Fault must also be considered prospective for diamonds.

Potential for stratiform base metal deposits in the sediments of the Victoria River Basin was also recognised and samples were taken for geochemical analysis. Sample density was inadequate and was controlled by the sample density used in the diamond search.

LOCATION

Spirit Hills Station, Pastoral Lease 812; Bullo River Station, Pastoral Lease 811 on the Auvergne 1:250,000 sheet (SD52-15).

TARGET

Diamonds were the primary exploration target with stratiform base metal deposits a secondary target.

SUMMARY

Most of the rocks exposed in the area covered by the Auvergne-Port Keats 1:250,000 Geological Series sheets are Proterozoic. They form part of the Victoria River Basin and consist of sedimentary sequences of sandstone, siltstone, grit and conglomerate which developed on the stable Sturt Block and in the adjacent Fitzmaurice Mobile Zone.

Exploration work carried out included the following:-

(i) Flying the area for colour photography and selection of photo features indicative of ultrabasic intrusion for field checking.

(ii) Partial airborne magnetometer and radiometric surveys.

(iii) Collection of 40kg, +0.6mm fraction samples from trap sites in streams.

(iv) Collection of a -80 mesh sample for geochemical analysis.

(v) Collection of bulk gravel samples.

(vi) Heavy mineral separation and identification.

Results achieved to date are not encouraging.

GEOLOGY

Extracts from Auvergne and Port Keats 1:250,000 Geological Series - Explanatory Notes.

Most of the rocks exposed in the area covered by the Auvergne-Port Keats 1:250,000 sheets are Proterozoic. They form part of the Victoria River Basin and consist of sedimentary sequences which developed on the stable Sturt Block, and in the adjacent Fitzmaurice Mobile Zone.

The relative age of the Pre-Cambrian rocks on the Sturt Block and in the Fitzmaurice Mobile Zone is unknown; possibly the latter are older. The ages of the Palaeozoic sediments are accurately known from comprehensive palaeontological examinations.

The Fitzmaurice Group is a thick sequence of sandstone, siltstone, grit and minor conglomerate. The formations all contain some or all of these four rock types. The group crops out in a major north-northeast trending synclinorium (Figure 2). On the southeast limb of this structure the three lower formations total about 3000 metres. On the northwest limb, however, they are at least 12,000 metres thick. Most contacts between the constituent formations are conformable and graditional.

Sandstone, siltstone and dolomite of the Auvergne Group were laid down on stable block and are only mildly deformed. The Jasper Gorge Sandstone was laid down during a marine transgression over an erosional surface of Bullita Group rocks. Ripple marks in the Angalarri Siltstone indicates shallow water deposition. The Saddle Creek Formation is a transition between the Angalarri Siltstone and the Pinkerton Formation, which is a mature sandstone deposited in shallow water. The oolitic dolomites, infraformational conglomerates, stromatolitic growths, and holite casts in the Lloyd Creek Formation, Spencer Sandstone and Shoal Reach Formation indicate an active shallow marine environment with intermittent subaerial and lagoonal conditions.

GEOLOGY (cont.)

Three tectonic units are distinguished: the Fitzmaurice Mobile Zone, the Sturt Stable Block and the Bonaparte Gulf Basin (Figure 2).

The Fitzmaurice Mobile Zone consists of thick, moderately folded and intensely faulted sediments, the Fitzmaurice Group. Within this group, north of the Victoria River are windows of Lower Proterozoic and Archean rocks.

The Sturt Stable Block is a sequence of Adelaidean or Carpentarian sediments, the Auvergne Group, which were deposited on a stable cratonic area and are subsequently gently deformed.

The Bonaparte Gulf Basin is a deep structural and sedimentary basin containing Palaeozoic and Mesozoic sediments.

WORK DONE

Aerial Photography

The area delineated in Figure 3 was flown and photographed in colour by Quasco Pty Ltd. Prints were produced at a scale of 1:25,000. The photographs were studied in stereo with the objective of selecting photo features indicative of ultrabasic intrusions. The only features observed were of minor interest and easily explained upon field inspection. No ultrabasics were discovered.

Geological Mapping

No formal mapping programme was carried out other than brief field observations at sample sites.

Geophysical Surveys

Airborne magnetic and radiometric surveys were flown over the area delineated in Figure 3. Specifications are detailed on Table I. Analogs were produced for uranium, thorium and potassium counts along flight lines plus an analog of total counts. No significant anomalies were recorded.

Aeromagnetic data was contoured using an interval of 2 nanoTeslas at a scale of 1:50,000. Survey specifications are given in Table I, and contoured data shown on Map 1. No significant anomalies were recorded.

Stream Sediment Sampling

Gravel Samples:

1. Sample sites were selected in the office to give a sample density of one 40kg sample representing 10 km^2 and one 2,000kg sample representing 100 km^2.

2. The sample area was reached by helicopter and the streams were flown along to aid selection of the best possible trapsites for heavy minerals.

3. Gravel from the trapsites were sieved by hand to give the required fraction (0.6mm - 4mm) and weight of sample.

4. Samples were transported by helicopter to the base camp for processing.

5. Here the samples were sieved into three fractions; 0.6mm - 1.0mm, 1.0mm - 2.0mm, 2.0mm - 4.0mm.

6. Each fraction was put over a Plietz jig and the heavy mineral concentrates removed, dried and bagged.

7. These concentrates were despatched to Geopeko, Perth, for mineral identification by a trained observer.

Results:
Sample localities are given on Maps 2 to 5. The results of the heavy mineral identification are given in Appendix 1. Neither diamonds nor kimberlitic indicator minerals were observed.

Geochemical Samples:
Three hundred grams (300g) of sample were taken from each 40kg sample and despatched to Analabs, Perth, for analysis. The elements assayed for by X.R.F. were Cu, Pb, Zn, Fe, Co, Sn, W, Cr, Ni, Nb, Mg and the mineral barite. Only the -80 mesh fraction was used.

Results:
Details of all results are given in Appendix 2.

Four follow-up geochemical samples were collected from the vicinity of sample A0191. These samples were assayed for Mg, Nb, Sn and Ba and the results of these are also included in Appendix 2.

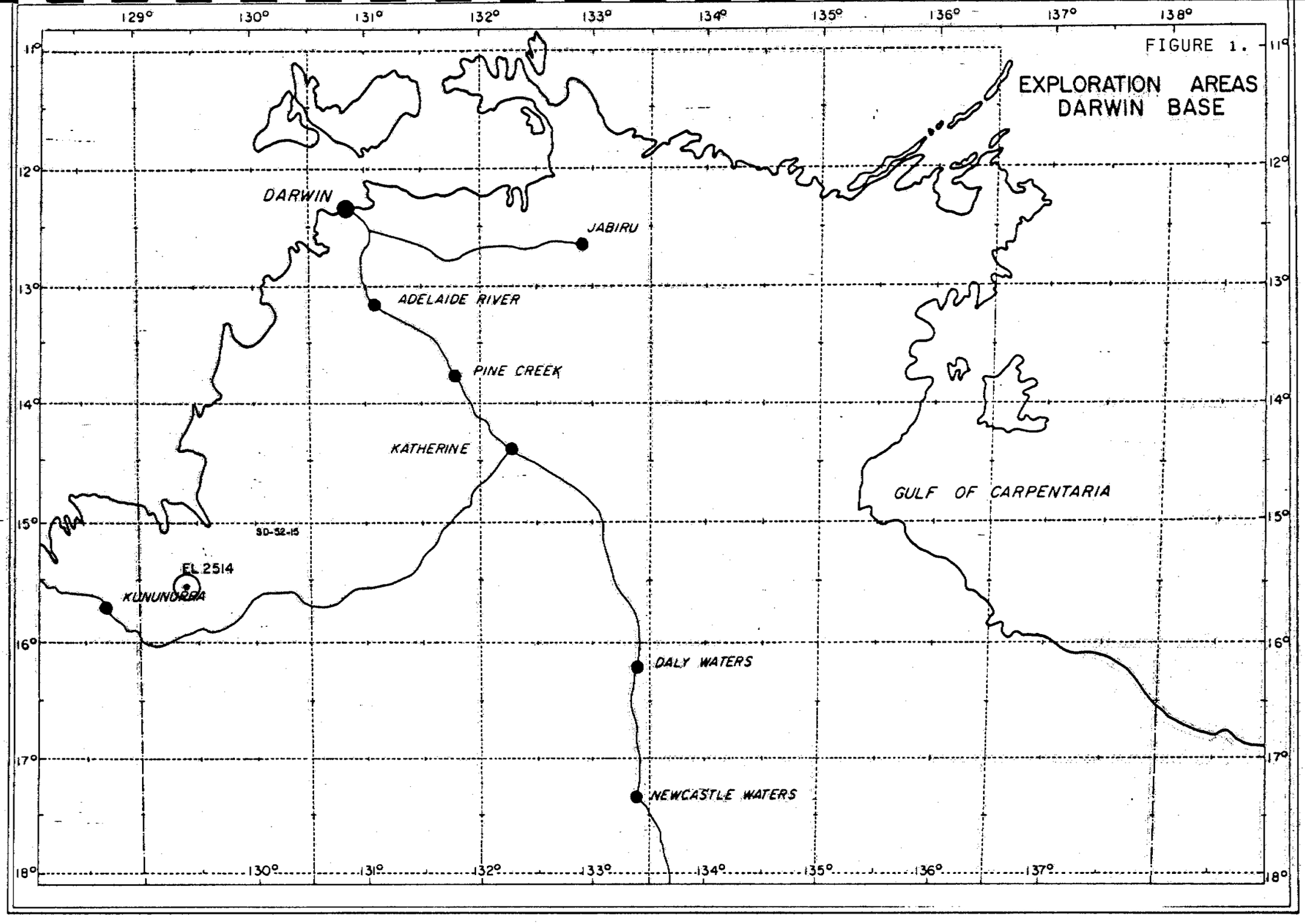
EXPENDITURE

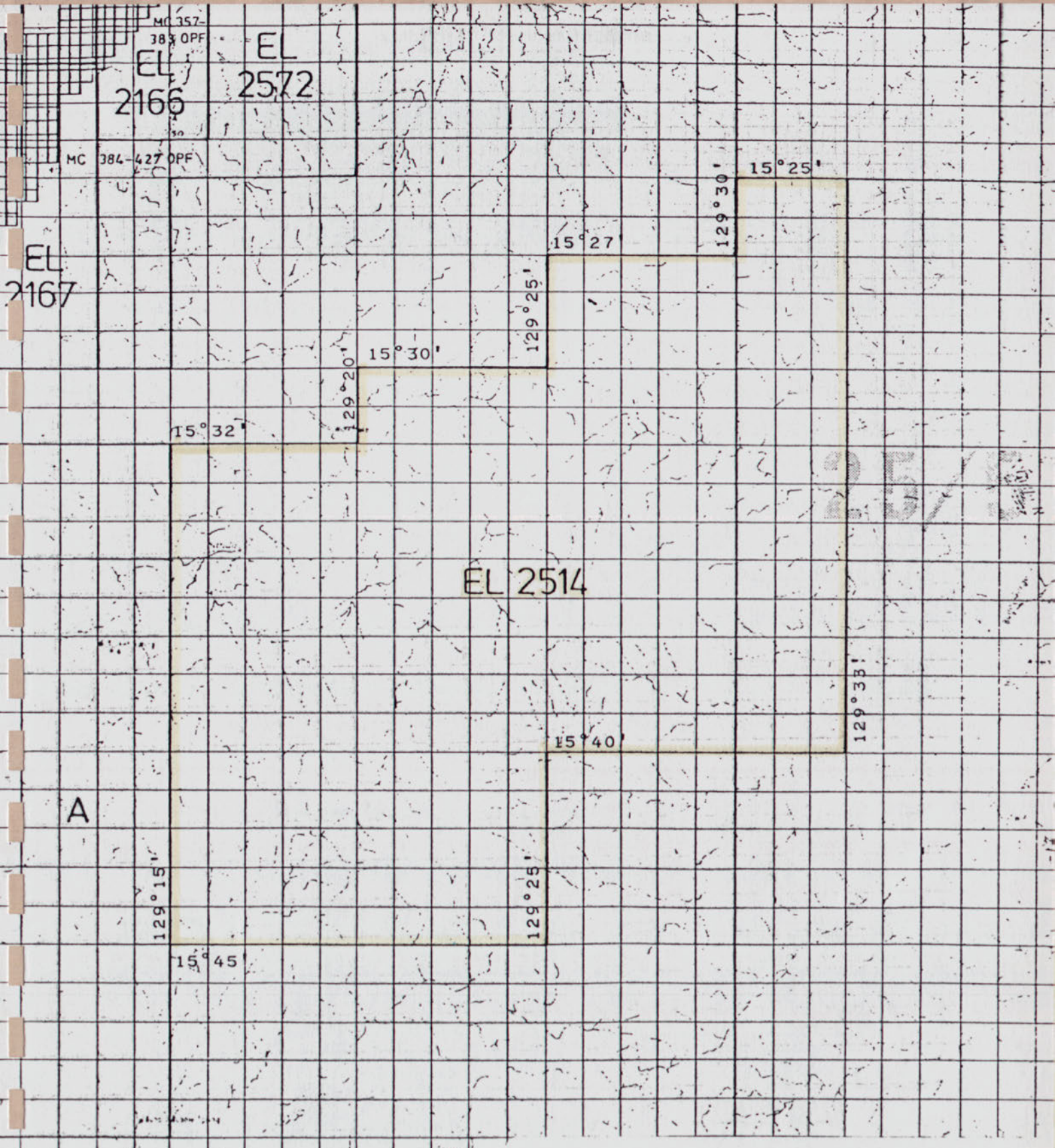
As this licence is part of a regional programme, expenditure has been allocated according to its areal percentage.

Total allocated expenditure from 3rd December, 1980 to 30th November, 1981 was $79,907.

E&R Noted

FIGURE 1.


EXPLORATION AREAS
DARWIN BASE
129°
130°
131°
132°
133°
134°
135°
136°
137°
138°
11°
12°
13°
14°
15°
16°
17°
18°
DARWIN
JABIRU
ADELAIDE RIVER
PINE CREEK
KATHERINE
GULF OF CARPENTARIA
SD-52-15
EL 2514
KUNUNURRA
DALY WATERS
NEWCASTLE WATERS



LOCATION DIAGRAM

126 133°30' 13 18

LONDONDERRY SD 52-5		CAPE SCOTT SD 52-7	PINE CREEK SD 52-8	MT EVELYN SD 53-5
DRYSDALE SD 52-9	MEDUSA BANKS SD 52-10	PORT KEATS SD 52-11	FERGUSSON RIVER SD 52-12	KATHERINE SD 53-9
ASHTON SD 52-13	CAMBRIDGE GULF SD 52-14	AUVERGNE SD 52-15	DELAMERE SD 52-16	LARRIMAH SD 53-13
MT ELIZABETH SE 52-1	LISSADELL SE 52-2	WATERLOO SE 52-3	VICTORIA RIVER DOWNS SE 52-4	DALY WATERS SE 53-1
LANSDOWNE SE 52-5	DIXON RANGE SE 52-6	LIMBUNYA SE 52-7	WAVE HILL SE 52-8	NEWCASTLE WATERS SE 53-5

ML 146
ML 150
ML 1

FIGURE 1.1

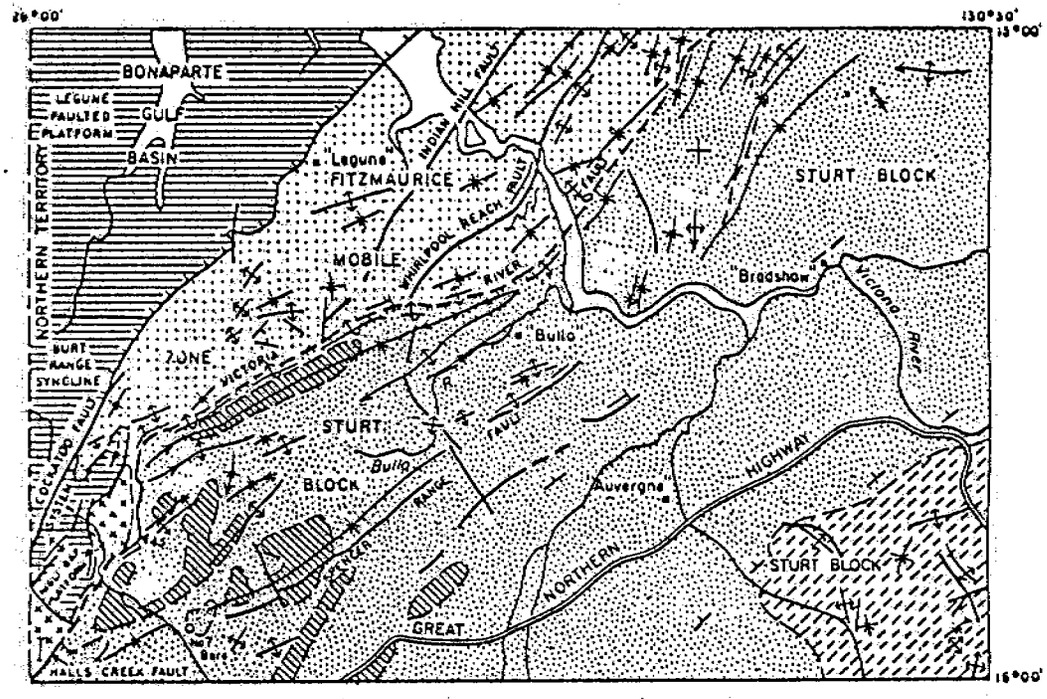
EXPLORATION LICENCE NO. 2514

TENEMENT LOCALITY PLAN

SCALE: 1:250,000

AREA: 318.23 SQUARE MILES
824.25 SQUARE KILOMETRES

AUVERGNE: Structural sketch map



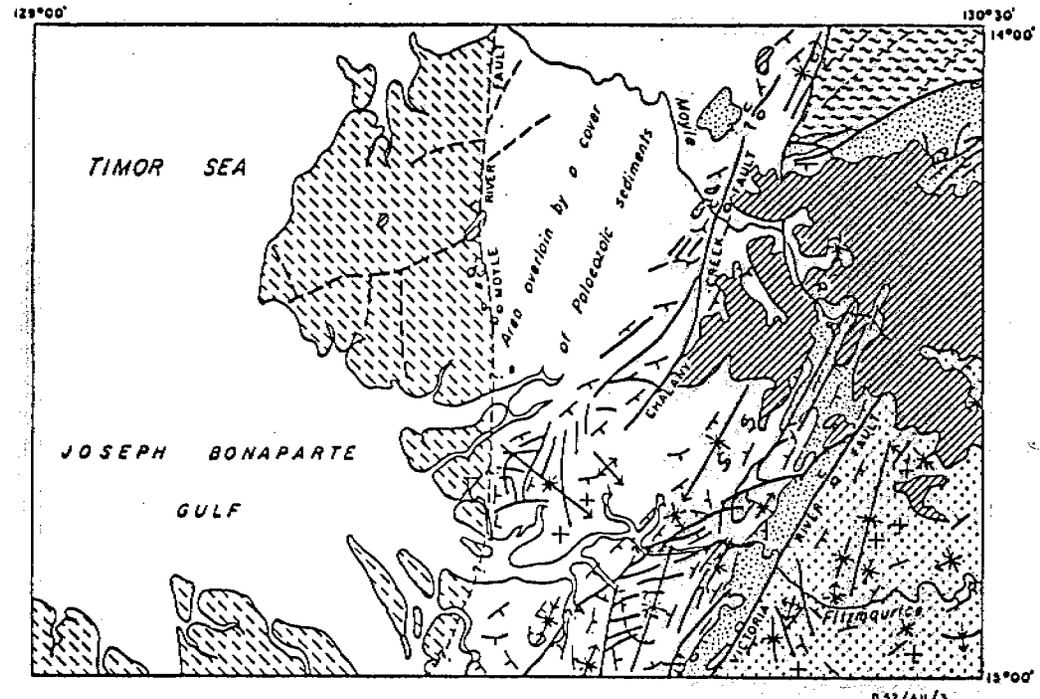
UPPER DEVONIAN TO UPPER CARBONIFEROUS	Bonaparte Gulf Basin sediments	BONAPARTE GULF BASIN
LOWER? CAMBRIAN	Antrim Plateau Volcanics	
ADELAIDEAN	Querdin Group	STURT BLOCK
ADELAIDEAN?	Auvergne Group and Bullo River Sandstone	
PROTEROZOIC	Bullito, Wattle and Limbunya Groups	
	Fitzmaurice Group	FITZMAURICE MOBILE ZONE
CARPENTARIAN AND LOWER PROTEROZOIC OR ARCHAEAN	Lamboo Complex and Halls Creek Group	

- Geological boundary
- Anticline, Syncline — showing direction of plunge
- Monocline
- Fault
- High angle reverse fault (45)
- Thrust fault
- Shear zone
- Strike and dip of strata
- Horizontal strata
- Overturned strata
- Vertical cleavage
- Margin of Bonaparte Gulf Basin

0 20 40 Kilometres
0 10 20 Miles

D52/A15/31

PORT KEATS: Structural and tectonic sketch map



D52/A11/3

0 20 40 km
0 20 M

- Monoclinal fold
- Synclinal fold axis
- Anticlinal fold axis
- Fault
- Fault, position deduced from seismic studies
- Generalised strike and dip of bedding
- Horizontal bedding
- Mullaman Beds
- Bonaparte Gulf Basin
- Sturt Steele Block
- Fitzmaurice Mobile Zone
- Pine Creek Geosynclines
- Archaean Basement

EXTRACTS FROM:
1:250,000 GEOLOGICAL SERIES-EXPLANATORY NOTES
PORT KEATS SHEET SD/52-11 INTERNATIONAL INDEX
AUVERGNE SHEET SD/52-15 INTERNATIONAL INDEX

FIGURE 2

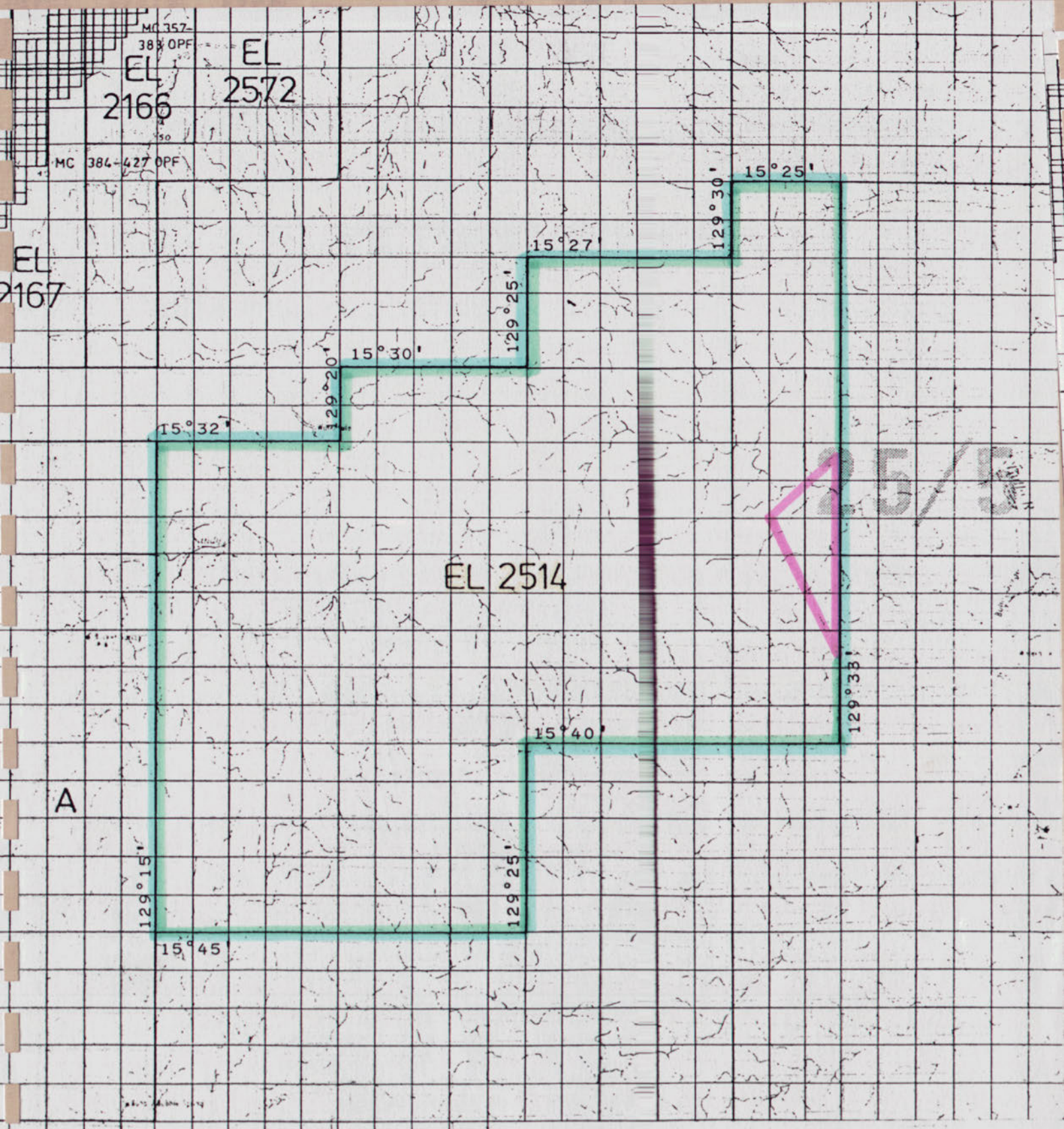


FIGURE 3
DIAGRAMATIC WORK CHART

AREA COVERED BY SAMPLING

AREA COVERED BY AERIAL PHOTOGRAPHY

AREA COVERED BY AEROMAGNETICS/RADIOMETRICS

TABLE 1

SURVEY SPECIFICATIONS

VICTORIA RIVER
AIRBORNE GEOPHYSICAL SURVEY
TOTAL MAGNETIC INTENSITY

SURVEY SYSTEM

AIRCRAFT	NOMAD 22B VH-CPX
DOPPLER	DECCA 72
COMPASS	SPERRY GM9
TRACKING CAMERA	GEOCAM 755D
NAVIGATION COMPUTER	DECCA TANS 9447D
MAGNETOMETER	VARIAN V85 Stinger Installation
ACQUISITION SYSTEM	SONOTEK IGSS1

RECORDING SPECIFICATION

FIDUCIAL	1
ACQUISITION TIME	0.0001 second
HEADING	1 minute
DOPPLER	3 cm
CLOCK TIME	1 second
ALTITUDE	0.1 metre
MAGNETOMETER	0.1 nonoTesla

FLIGHT SPECIFICATION

TRAVERSE LINE INTERVAL	300 metres
TRAVERSE LINE DIRECTION	50 degrees
TIE LINE INTERVAL	3000 metres
TIE LINE DIRECTION	140 degrees
TERRAIN CLEARANCE	100 metres
SPEED	50 metres/sec
ACQUISITION INTERVAL	0.8 second
NAVIGATION	Aerial photography Doppler assisted

DATA PROCESSING

REGIONAL FIELD	IGRF Model 1975 removed
GRID CELL SIZE	75 metres
2D LOW PASS FILTER	
Cut off wavelength	750 metres
Termination wavelength	1125 metres

TABLE 2

STREAM SEDIMENT SAMPLING

No. of Samples	Weight	Type	Fraction
99	40kg	gravel sample	0.6mm - 4mm
99	300g	geochemical sample	-80 mesh
nil	500kg	gravel sample	0.6mm - 4mm
2	1000kg	gravel sample	0.6mm - 4mm
1	1500kg	gravel sample	0.6mm - 4mm
3	2000kg	gravel sample	0.6mm - 4mm

CR82/112

AUVERGNE SD52-15

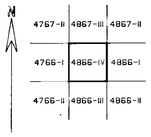
PINKERTON 4866-IV

GEOPEKO

1:50 000

1000 0 1000 2000 3000 4000 5000 Metres

AUSTRALIAN MAP GRID



VICTORIA RIVER
AIRBORNE GEOPHYSICAL SURVEY
TOTAL MAGNETIC INTENSITY

SURVEY SYSTEM

AIRCRAFT	NOMAD 22B VH-CPX
DOPPLER	DECCA 72
COMPASS	SPERRY GM9
TRACKING CAMERA	GEOCAM 755D
NAVIGATION COMPUTER	DECCA TANS 9447D
MAGNETOMETER	VARIAN V85 Stinger installation
ACQUISITION SYSTEM	SONOTEK IGSS1

RECORDING SPECIFICATION

FIDUCIAL	1
ACQUISITION TIME	0.0001 second
HEADING	1 minute
DOPPLER	3 cm
CLOCK TIME	1 second
ALTITUDE	0.1 metre
MAGNETOMETER	0.1 nanoTesla

FLIGHT SPECIFICATION

TRAVERSE LINE INTERVAL	300 metres
TRAVERSE LINE DIRECTION	50 degrees
TIE LINE INTERVAL	3000 metres
TIE LINE DIRECTION	140 degrees
TERRAIN CLEARANCE	100 metres
SPEED	50 metres/sec
ACQUISITION INTERVAL	0.8 second
NAVIGATION	Aerial photography Doppler assisted

DATA PROCESSING

REGIONAL FIELD	IGRF Model 1975 removed
GRID CELL SIZE	75 metres
2D LOW PASS FILTER	
Cut off wavelength	750 metres
Termination wavelength	1125 metres

Survey and data processing by
AUSTIREX INTERNATIONAL LTD
September 1981

Project management by
GEOPEKO GEOPHYSICAL GROUP

DRAWN	REVISION	Unit
DATE		
GEOPHYSICS		
APPROVED		
DRAWING No	REVISION No	

PLAN N° 6253 S/B

...STRALIA 1:100 000
...PHIC SURVEY

LEGUNE

...SHEET 4767 EDITION 1
NATIONAL MAP SERIES

E.L. 2504
E.L. 2412
E.L. 2411
E.L. 2513
E.L. 2418
E.L. 2514

RIVER
KEEP
Creek
Keep Yard
Knappbone
Bundeburry Bore
Steeles Bore
Sweet Water Bore
Old Homestead Bore
Legune
Alligator Springs Waterhole
Sandy

SCALE 1 : 100 000

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MAP ACCURACY. The average accuracy of this map is ± 25 metres in the horizontal position of well defined detail and ± 5 metres in elevation
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ROAD CLASSIFICATION. Roads are classified according to their intended function as part of the national road system

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Project

Drawn C.J.H
Date 1/9/81
Geologists R.P./S.T.

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BLACK NUMBERED GRID LINES ARE 1000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID ZONE 53
GRID VALUES ARE SHOWN IN FULL ONLY AT THE SOUTH WEST CORNER OF THE MAP
HORIZONTAL DATUM: AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM: AUSTRALIAN HEIGHT DATUM
TRANSVERSE MERCATOR PROJECTION
CONTOUR INTERVAL 20 METRES
ELEVATION IN METRES

GRID REFERENCE
TO GIVE A UNIQUE REFERENCE ON THIS SHEET TO NEAREST 100 METRES
IGNORE the SMALLER figures of any grid number. These are for finding minutes of co-ordinates. Use ONLY the LARGER figures of the grid number. e.g. 4767
SAMPLE POINT Keep Yard
To locate this point on 1:100 000 map sheet 4767
Locate first vertical grid line to LEFT of point and read AMBLE figures labelling the line either at the top or bottom margin or on the line itself. Estimate tenths from grid line to point 58
Locate first HORIZONTAL grid line to LOW of point and read SMALL figures labelling the line either the left or right margin or on the line itself. Estimate tenths from grid line to point 95
SAMPLE REFERENCE 4767 58 95

 R. D. Atkinson, Government Printer, ...stralia

Built up area National route marker
Principal road and highway Cutting
Secondary road Embankment
Minor road Road bridge
Vehicular track
Gate Cattle grid
Railway multiple track Station Railway bridge
Railway single track Railway tunnel
Light railway or tramway
Power transmission line
Fence Levee or Bank
Mine Windmill Tank Quarry
Building Church Pub Drive-in theatre
Spot station Bench mark Spot elevation
Cliff Contour Water course Depression Contour
Forest dense medium scattered
Scrub dense medium scattered
Orchard vineyard
Aerodrome
Lake perennial Stream perennial
Lake intermittent Stream intermittent
Lake mainly dry Stream mainly dry
Swamp perennial intermittent
Land subject to inundation Rice field
Dune or sand Spring Tank or small dam
Breakwater Pier Wharf
Area exposed Lighthouse
Rock reef awash Submarine rock Wreck
Reef Rock edge

● A0164 40KG GRAVEL SAMPLE AND 300GRAM
GEOCHEMICAL SAMPLE SITE, SAMPLE NUMBER
BULK SAMPLE SITE, SAMPLE NUMBER
SAMPLE WEIGHT
E.L. BOUNDARY

O A0020 200KG

NMP 73 061

INDEX TO ADJOINING MAPS
JOSEPH BONAPARTE GULF
KNOX PEAK TURTLE POINT
NORTHERN TERRITORY WESTERN AUSTRALIA
LEGUNE VICTORIA RIVER
KEEP RIVER

LEGUNE
SHEET 4767
NORTHERN TERRITORY
EDITION 1

CR82/112

AUSTRALIA 1 100 000
TOPOGRAPHIC SURVEY

PINKERTON

SHEET 4866 EDITION 1
NATIONAL TOPOGRAPHIC MAP SERIES

E.L. 2514

E.L. 2515

SPENCER RANGE

PINKERTON RANGE

PINKERTON

HIGHWAY

VICTORIA

RIVER

Bug King Waterhole

Menzies Pool

Marks Dam

Rayes Billabong

Kims Yard

Lily Waterhole

Douglas Holes

Saddle

Creek

No. 1 Tank

No. 2 Tank

KILDURA HS 53km

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JOINT VENTURE

Drawn C.J.H.
Date 1/9/81
Geologists R.P./S.T.

SCALE 1 : 100 000

Kilometres 2 1 0 2 4 6 8 10 12 Kilometres

BLACK NUMBERED GRID LINES ARE 1 000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID ZONE 52
GRID VALUES ARE SHOWN IN FULL ONLY AT THE SOUTH WEST CORNER OF THE MAP
HORIZONTAL DATUM AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM AUSTRALIAN HEIGHT DATUM
TRANSVERSE MERCATOR PROJECTION
CONTOUR INTERVAL 20 METRES
ELEVATIONS IN METRES

● A0164

○ A0720 40KG

LEGEND

40KG GRAVEL SAMPLE AND 300GRAM
GEOCHEMICAL SAMPLE SITE, SAMPLE NUMBER
BULK SAMPLE SITE, SAMPLE NUMBER
SAMPLE WEIGHT
E.L. BOUNDARY

GRID MAGNETIC
ANGLE 1°

THE DIRECTION OF NORTH AND MAGNETIC NORTH ARE SHOWN DIAGRAMMATICALLY AT THE CENTRE OF THE MAP MAGNETIC NORTH APPROXIMATELY COINCIDES WITH GRID NORTH IN ABOUT SIX YEARS

INDEX TO ADJOINING MAPS

NORTHERN TERRITORY — WESTERN AUSTRALIA

LEICHHARDT 4767 | ANTRIM PLATEAU 4867 | MELVILLE HUMMOCKS 4967
HELEN SPRINGS 4766 | PINKERTON 4866 | ALI CURUNG 4966
WARBURTON 4765 | BIRCHALL 4865 | HAINES 4965

NMP 71 213

GRID REFERENCE
TO GIVE A UNIQUE REFERENCE ON THIS SHEET TO NEAREST 100 METRES

IGNORE the SMALLER figures of any grid number. These are for finding the co-ordinates. Use ONLY the LARGER figures of the grid number e.g. 54

SAMPLE POINT Menzies Tank

1. Quote this "1 : 100 000 map sheet 4866
2. Locate first VERTICAL grid line to LEFT of point and read LARGE figures labelling the line either in the top or bottom margin or on the line itself. Estimate tenths from grid line to point. 93
3. Locate first HORIZONTAL grid line BELOW point and read LARGE figures labelling the line either in the left or right margin or on the line itself. 59
4. Estimate tenths from grid line to point. 5
5. SAMPLE REFERENCE 4866 93-59

Built up area National route marker
Principal road and highway Cutting
Secondary road Embankment
Minor road Road bridge
Vehicular track
Gate Cattle grid
Railway multiple track Station Railway bridge
Railway single track Railway tunnel
Light railway or tramway
Power transmission line

Fence Levee or bank
Mine Windmill Yard Quarry
Building s Church Ruin Drive in theatre
Trig station Bench mark Spot elevation BM 220
Cliff Contour with value Depression contour
Forest dense medium scattered
Scrub dense medium scattered
Tropical rainforest Pine plantation
Orchard plantation or vineyard Mangrove
Windbreak

Lake perennial Stream perennial
Lake intermittent Stream intermittent
Lake mainly dry Stream mainly dry
Swamp perennial intermittent
Land subject to inundation Rice field
Bore or well Spring Tank or small dam
Breakwater Pier Wharf
Wreck exposed Lighthouse
Rock bare or awash Foreshore flat Sand
Reef Rock ledge

PINKERTON
SHEET 4866
NORTHERN TERRITORY
EDITION 1

CR82/112

AUSTRALIA 1:100 000
TOPOGRAPHIC SURVEY

KEEP

SHEET 4766 EDITION 1
NATIONAL TOPOGRAPHIC MAP SERIES

E.L. 2418

E.L. 2514

A0729 1500KG

A0720 2000KG

A0718 2000KG

A0726 1500KG

Bucket Spring

Bubble Bubble Spring

Ethnie Lagoon

Cockatoo Lagoon

Clump Hill

Mulligan Lagoon

Thing Lot Creek

Chiasman Creek

Alligator Waterhole

Hungry Billabong Yard

Keep River

Dingo Creek

Cockatoo Creek

Old Bore

Alligator Creek

WESTERN AUSTRALIA

NEWRY HS 27 km

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GRID REFERENCE
TO GIVE A UNIQUE REFERENCE ON THIS SHEET TO NEAREST 100 METRES
IGNORE the SMALLER figures of any grid number these are for finding the full co-ordinates Use ONLY the LARGER figures of the grid number e.g. 01 xx

SAMPLE POINT ▲ *Bucket Spring*

1 Locate first VERTICAL grid line to LEFT of point and read LARGE figures labelling the line either at the top or bottom margin of the map itself 4766
2 Estimate tenths from grid line to point .3
3 Locate first HORIZONTAL grid line BELOW point and read LARGE figures labelling the line either at the left or right margin of the map itself 23
4 Estimate tenths from grid line to point .4
SAMPLE REFERENCE 4766 234734

GEOPEKO
Project:
DESIGN & CONSTRUCTION / B.P. / PEKO WALLSEND JOINT VENTURE

Drawn C J H
Date 1/3/81
Geologists R F / S T

SCALE 1 : 100 000

BLACK NUMBERED GRID LINES ARE 1000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID ZONE 5
GRID VALUES ARE SHOWN IN FULL ONLY AT THE SOUTH WEST CORNER OF THE MAP
HORIZONTAL DATUM AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM AUSTRALIAN HEIGHT DATUM
TRANSVERSE MERCATOR PROJECTION
CONTOUR INTERVAL 20 METRES
ELEVATIONS IN METRES

Built up area; National route marker
Principal road and highway; Cutting
Secondary road; Embankment
Minor road; Road bridge
Vehicular track
Gate; Cattle grid
Railway multiple track; Station; Railway Bridge
Railway single track; Railway tunnel
Light railway or tramway
Power transmission line

Fence; Levee or bank
Mine; Windmill; Tank; Quarry
Building; Church; Ruin; Drive-in theatre
Trig station; Bench mark; Spot elevation
Cliff; Contour with value; Depression contour
Forest; Dense; medium; scattered
Scrub; Dense; medium; scattered
Tropical rainforest; Palm plantation
Orchard; plantation or shelterbelt; Mangrove
Windbreak

Lake perennial; Stream perennial
Lake intermittent; Stream intermittent
Lake mainly dry; Stream mainly dry
Swamp perennial; intermittent
Land subject to inundation; Rice field
Bore or well; Spring; Tank or small dam
Breakwater; Pier; Wharf
Wreck exposed; Lighthouse
Rock bare or awash; Foreshore flat; Sand
Reef; Rock ledge

● A0164 40KG GRAVEL SAMPLE AND 300GRAM
GEOCHEMICAL SAMPLE SITE, SAMPLE NUMBER
BULK SAMPLE SITE, SAMPLE NUMBER
SAMPLE WEIGHT
E.L. BOUNDARY

INDEX TO ADJOINING MAPS

GRID MAGNETIC ANGLE 3.5

GRID NORTH 0.2° NORTH EAST OF MAGNETIC NORTH AT THE CENTRE OF THE MAP MAGNETIC NORTH IS DIRECTLY WEST AND MOVES WESTERLY BY 0.1° IN ABOUT SIX YEARS

KEEP
SHEET 4766
NORTHERN TERRITORY
EDITION 1

NMP 71 187

CR82/112

AUSTRALIA 1:100 000
TOPOGRAPHIC SURVEY

VICTORIA RIVER

REFER TO THIS MAP AS SHEET 4867 (EDITION 1)
NATIONAL TOPOGRAPHIC MAP SERIES

E.L. 2412
E.L. 2420
E.L. 2419
E.L. 2418
E.L. 2584
E.L. 2574
E.L. 2515

VICTORIA RIVER
RIVERVIEW
INDIAN HILL
TRANSFER HILL
ENDEAVOUR HILL
Entrance
Mangrove Bay
Bridge Swamp
Bullo River
BULLO
Shoal Reach
Black Point
Creek
AUVERGNE 115 km

SCALE 1 : 100 000

PRODUCED by the Division of National Mapping under the direction of the Minister for Minerals and Energy, as part of the national mapping programme
PRINTED by authority of the Minister for Minerals and Energy, 1974
DISTRIBUTED by the Department of Minerals and Energy
MAP ACCURACY. The average accuracy of this map is ± 25 metres in the horizontal position of well defined detail and ± 3 metres in elevation
MAP RELIABILITY. Topographic information shown on this map is correct to 1975
ROAD CLASSIFICATION. Roads are classified according to their intended function as part of the national road system.

GEOPEKO
Project
DESIGN & CONSTRUCTION / B.P. / PEKO WALLSEND JOINT VENTURE

Drawn C.J.H
Date 1/3/81
Geologists R.P/S.T

BLACK NUMBERED GRID LINES ARE 1 000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID ZONE 52
GRID VALUES ARE SHOWN IN FULL ONLY AT THE SOUTH WEST CORNER OF THE MAP
HORIZONTAL DATUM. AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM. AUSTRALIAN HEIGHT DATUM
TRANSVERSE MERCATOR PROJECTION
CONTOUR INTERVAL 20 METRES
ELEVATIONS IN METRES

GRID REFERENCE
TO GIVE A UNIQUE REFERENCE ON THIS SHEET TO NEAREST 100 METRES
IGNORE the SMALLER figures of any grid number. These are for finding or plotting co-ordinates. Use ONLY the LARGER figures of the grid number. e.g. 54 088

SAMPLE POINT - *ENDEAVOUR HILL*

1. Quote this 1 : 100 000 map sheet 4867
2. Locate first VERTICAL grid line to LEFT of point and read LARGE figures labelling the line either in the top or bottom margin or on the line itself 82
3. Estimate tenths from grid line to point 5
4. Locate first HORIZONTAL grid line BELOW point and read LARGE figures labelling the line in either the left or right margin or on the line itself 18
5. Estimate tenths from grid line to point 2

SAMPLE REFERENCE 4867 825182

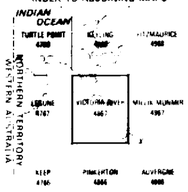
Built up area. National route marked
Principal road and highway. Cutting
Secondary road. Embankment
Minor road. Road bridge
vehicular track
Gate. Cattle grid
Railway, multiple track. Station. Railway bridge
Railway, single track. Railway tunnel
Light railway or tramway
Power transmission line
Fence. Levee or bank
Mine. Windmill. Yard. Quarry
Building s. Church. Ruin. Drive in theatre
Trig. station. Bench mark. Spot elevation
Cliff. Contour with value. Depression contour
Forest, dense, medium, scattered
Scrub, dense, medium, scattered
Tropical rainforest. Pine plantation
Orchard, plantation or vineyard. Mangrove
Windbreak
Lake, perennial. Stream, perennial
Lake, intermittent. Stream, intermittent
Lake, mainly dry. Stream, mainly dry
Swamp, perennial, intermittent
Land subject to inundation. Rice field
Bore or well. Spring. Tank or small dam
Breakwater. Pier. Wharf
Wreck, exposed. Lighthouse
Rock, bare or awash. Foreshore flat. Sand
Reef. Rock ledge

LEGEND

A0164 40KG — GRAVEL SAMPLE AND 300GRAM
GEOCHEMICAL SAMPLE SITE, SAMPLE NUMBER
BULK SAMPLE SITE, SAMPLE NUMBER
SAMPLE WEIGHT
E.L. BOUNDARY

NMP 73 118

INDEX TO ADJOINING MAPS



VICTORIA RIVER
SHEET 4867
NORTHERN TERRITORY
EDITION 1

CR82/112