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THE SHELL COMPANY OF AUSTRALIA LIMITED

METALS DIVISION

E.L. 55/80 - ADAMSFIELD

Progress Report on Exploration During the Period

18/5/81 - 1/7/82

21 SEP 1982

OPEN FILE

Author: P.A. Ruxton

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AMG REFERENCE POINTS ADDED

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SUMMARY

The Adamsfield E.L.55/80 granted by the Department of Mines in May 1981, forms a portion of a larger exploration licence application most of which lies within the South West Conservation Area.

Denison Range E.L.A.40/80 and Adamsfield E.L.55/80 are considered prospective for:

1. Stratabound Cu/Pb/Zn - sediment or volcanic hosted.
2. Sn/W skarn deposits.
3. Cr/Ni/Au and platinoids (especially Osmoridium).
4. Diamonds

A stream sediment sampling survey across the Ordovician limestones of the Florentine Valley (E.L.55/80) has been commenced to test for Sn/W skarns and stratiform Pb/Zn deposits. About a third of the licence has been covered so far but with no significant geochemical results. Slightly anomalous Sn/W values occur in Cashions Creek and traces of tourmaline have been recognised from petrographical analysis. These localities should be followed up on the completion of the stream sediment survey.

006

1.0 INTRODUCTION

1.1 The Exploration Licence

On the 4th of September, 1980, the Shell Company of Australia Limited applied for an Exploration Licence over the Florentine Valley, Denison Ranges and the Vale of Rasselas, a region of 806 sq. km., west of Maydena in South West Tasmania. (Refer Fig. 1). A large portion of this land lies within the South West Conservation Area on which a moratorium on development is currently in force. The portion of the original licence application which lies outside the conservation area was granted by the Department of Mines on 18/5/81 as the Adamsfield E.L. 55/80. The adjoining Denison Range E.L.A. 40/80 has been held as a pending application and will not be granted until the moratorium is lifted by the Government. (Refer Fig. 2).

1.2 Topography & Access

The Adamsfield licence comprises 192 sq. km. of forested country centred over the Florentine Valley and is covered by the Tyenna, Wedge and Nive 1:100 000 scale topographic sheets. This licence forms part of a Consession Area held by the Australian Paper Print Mills Ltd. and the only access is through the A.P.P.M. gate 2.5 km west of Maydena on the Strathgordon Road. Numerous logging tracks provide good access to most parts of the licence for 4 WD vehicles. (Refer Plan D/PW 27/007).

Access to the Denison Range E.L.A. is severely limited by extremely rugged country and dense forest.

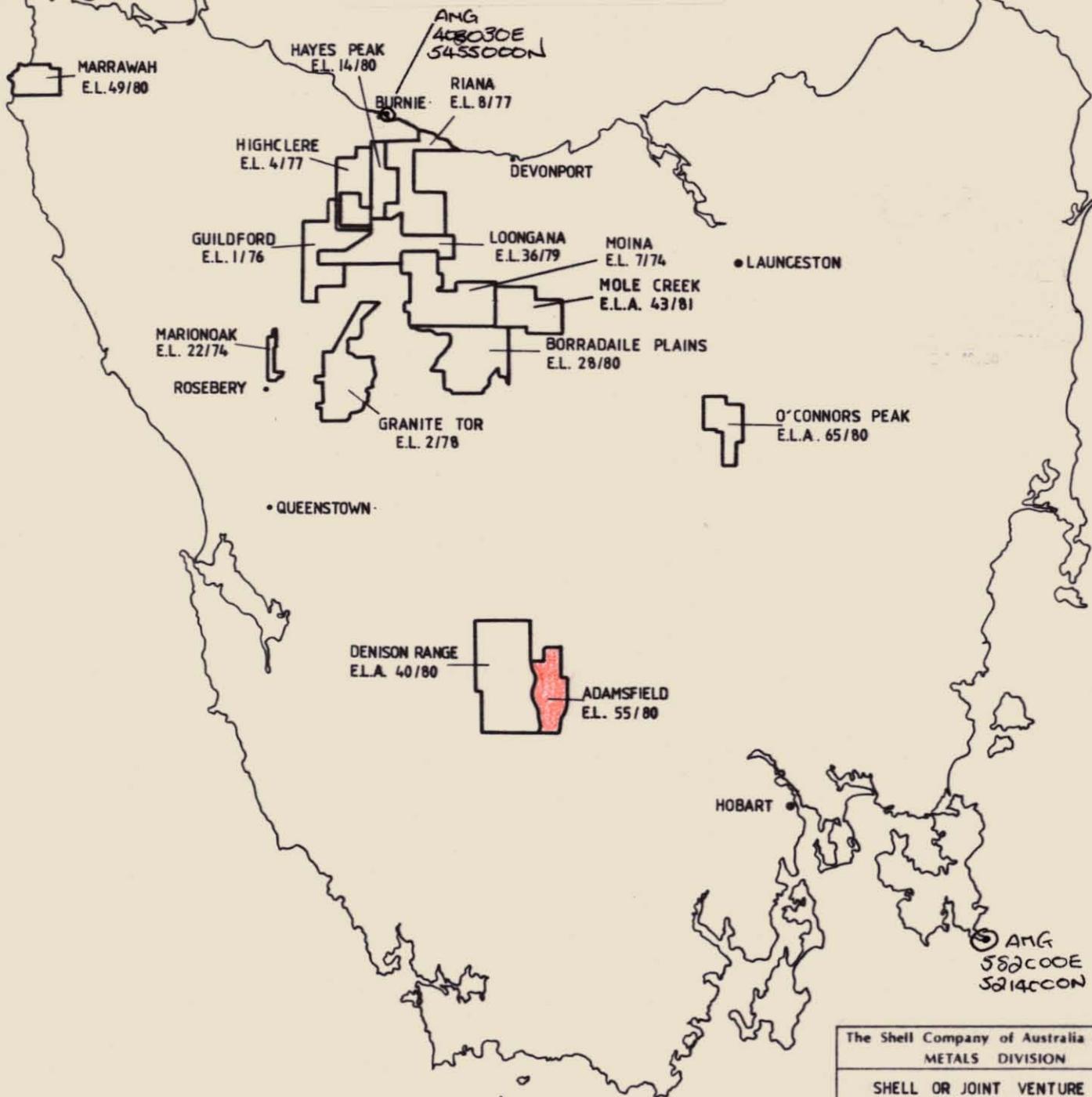
007

720008

TASMANIA

0 60km

5 cm



AMG REFERENCE POINTS ADDED E.L. 55/80 - ADAMSFIELD

LOCATION PLAN

The Shell Company of Australia Limited METALS DIVISION	
SHELL OR JOINT VENTURE EXPLORATION LICENCES CURRENT AT 30-6-82	
Scale	
FIG. No.	REPORT No.
ENCL. No.	DRG. No. D/MT 24/021
DATE 5-5-81	AUTHOR Q.HEDDITCH
DRAWN Q.HEDDITCH	OFFICE DEVONPORT

008

145° 30'

720009

SOUTH

WEST

T.N.



5 300000 N

42° 30'

5 290000 N

DENISON RANGE
E.L.A. 40/80

5 280000 N

CONSERVATION

ADAMSFIELD
E.L. 55/80

Mt Field
National Park

5 270000 N

AREA

BOUNDARY

5 cm

43000 E

44000 E

45000 E

46000 E

The Shell Company of Australia Limited METALS DIVISION	
E.L.A. 40/80 DENISON RANGE E.L. 55/80 ADAMSFIELD S.W. CONSERVATION AREA	
SCALE 1:500 000	DATE 9-6-82
AUTHOR P.R.	DRAWN H.L.H.
OFFICE DEVONPORT	REP.No.
DRG No D/PW27000 FIG No 2	

009

1.3 Previous Investigations

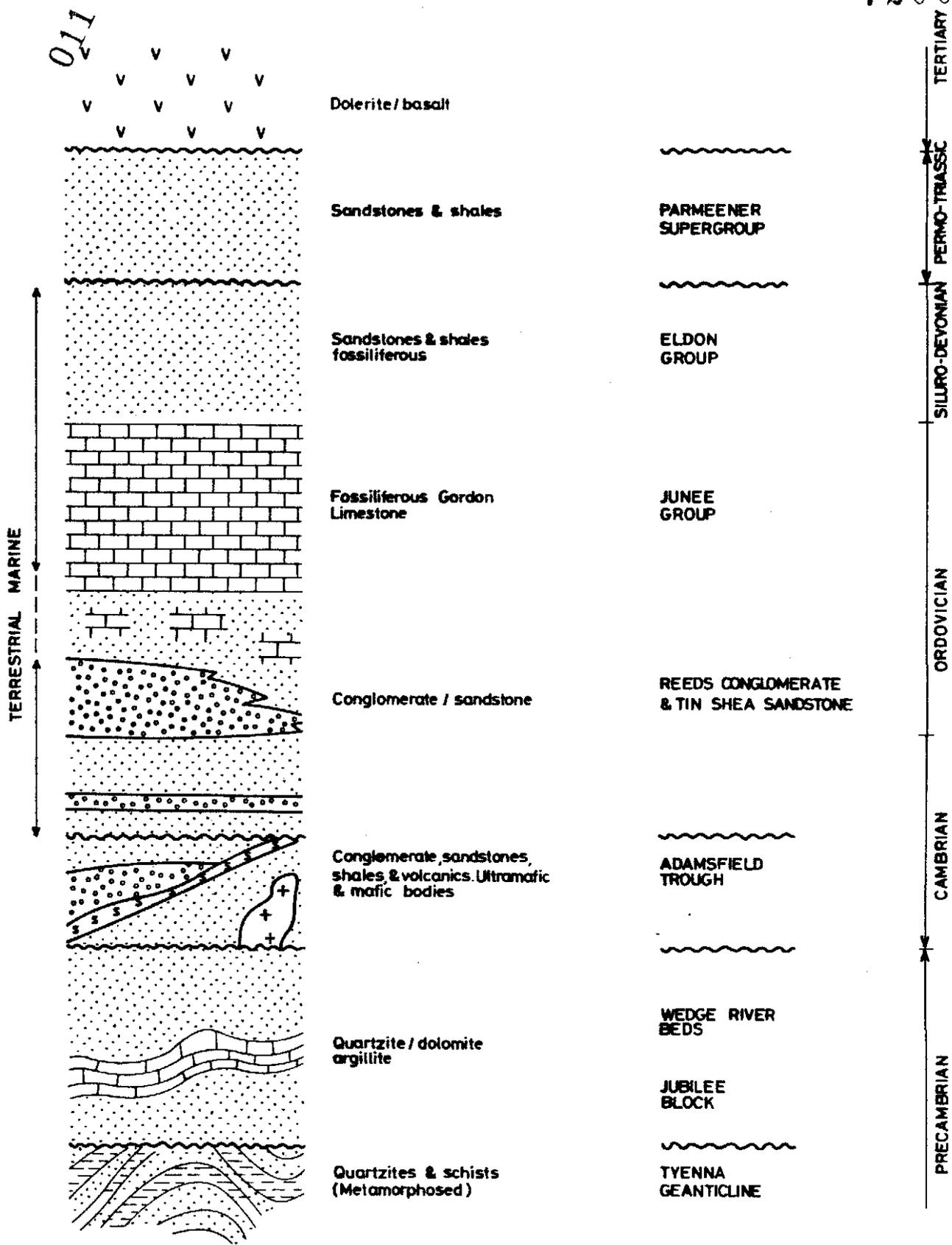
Several authors have briefly described the geology around Adamsfield, Nye (1929), Lewis (1939), Bradley (1954) and Jennings (1955). Corbett mapped the area between 1962 and 1963 as part of an Honours Thesis and in 1966-69 for a Ph.D., publishing his findings with Banks in 1973. Four 1:250 000 scale geological maps from the Department of Mines, the Queenstown, Port Davey, Oatlands and Hobart sheets illustrate the local and regional geology.

Since the discovery of osmiridium within ultrabasic rocks at Adamsfield by Reid in 1925, the area has attracted numerous prospectors and mining companies. B.H.P. and Lyell E.Z. companies flew magnetic and EM surveys over the Adamsfield ultramafic body (south of the Denison Range and Adamsfield licences, Refer Fig. 3) between 1966 and 1968 with little success.

Investigations into the economic viability of the Florentine Limestone for CaCO_3 by Dickson proved negative.

1.4 Regional Geology & Economic Potential

Cambrian and Ordovician rocks are preserved in a large Precambrian downwarp in the Adamsfield area of SW Tasmania. Cambrian clastic sediments with minor acid and basic volcanics plus associated tectonically emplaced ultramafic and mafic bodies, lie unconformably on metamorphosed sandstones and shales of the Tyenna geanticline and unmetamorphosed quartzites, shales and dolomites of the Jubilee Block and Wedge River Beds (Refer Figs. 3 & 4). This Cambrian sequence lies in the Adamsfield Trough to the west of Adamsfield itself. Cambrian deposits pass conformably into the Reed's conglomerate and laterally equivalent Tim Shea Sandstone of Lower Ordovician age. These conglomerates and sandstones are terrestrial in origin derived from the erosion of Precambrian and Lower Cambrian sediments, volcanics and ultramafics to the west (Corbett & Banks, 1973). These red bed terrestrial rocks



The Shell Company of Australia Limited METALS DIVISION	
E.L.55/80 ADAMSFIELD GEOLOGICAL SUCCESSION IN THE ADAMSFIELD AREA (after Corbett & Banks 1970)	
SCALE	DATE 9-6-82
AUTHOR P.R.	DRAWN H.L.H.
OFFICE DEVONPORT	REP.No.
DRG No. D/PWZ7010	FIG No 4

rocks pass upwards into a massive sequence of limestones, shales and latterly sandstones of the Ordovician Junee Group and Siluro-Devonian Eldon Group.

This sequence is typical of deposition on passive continental margins. These sediments form the Florentine Synclitorium which is bounded to the east by unconformably overlain Permo-Triassic sediments (Parmeener Supergroup), Carboniferous sediments and Tertiary dolerite.

Folding and faulting associated with the Tabberaberran Orogeny affected all pre-Devonian rocks leading to North-West trending structures.

There are several areas of possible economic potential in the region:

1. Cr, Ni, Au and platinoids (particularly Osmiridium) associated with ultramafic and mafic bodies.
2. Volcanogenic Cu/Pb/Zn in Cambrian volcanics - disseminated pyrite recognized in volcanics 8 km west of Maydena on the Strathgordon Road.
3. Stratiform Cu/Pb/Zn in continental red beds and marine limestones of Ordovician age (similar to Zambian Copperbelt, Mt. Isa etc.).
4. The possibility of Kimberlitic intrusives in the Precambrian basement.
5. A gravity low under the Cambro-Ordovician downwarp may indicate granite at depth and the possibility of fault-related skarn mineralization in the limestones of the Florentine Valley - Sn/W (Mo?).

013

Prospectors in the past have panned gold in the creeks south of Maydena and extracted copper from tectonic-related quartz veins in the Precambrian Tyenna Geanticline on The Needles mountain (Hamboldt Mine). This occurrence of copper is however localized.

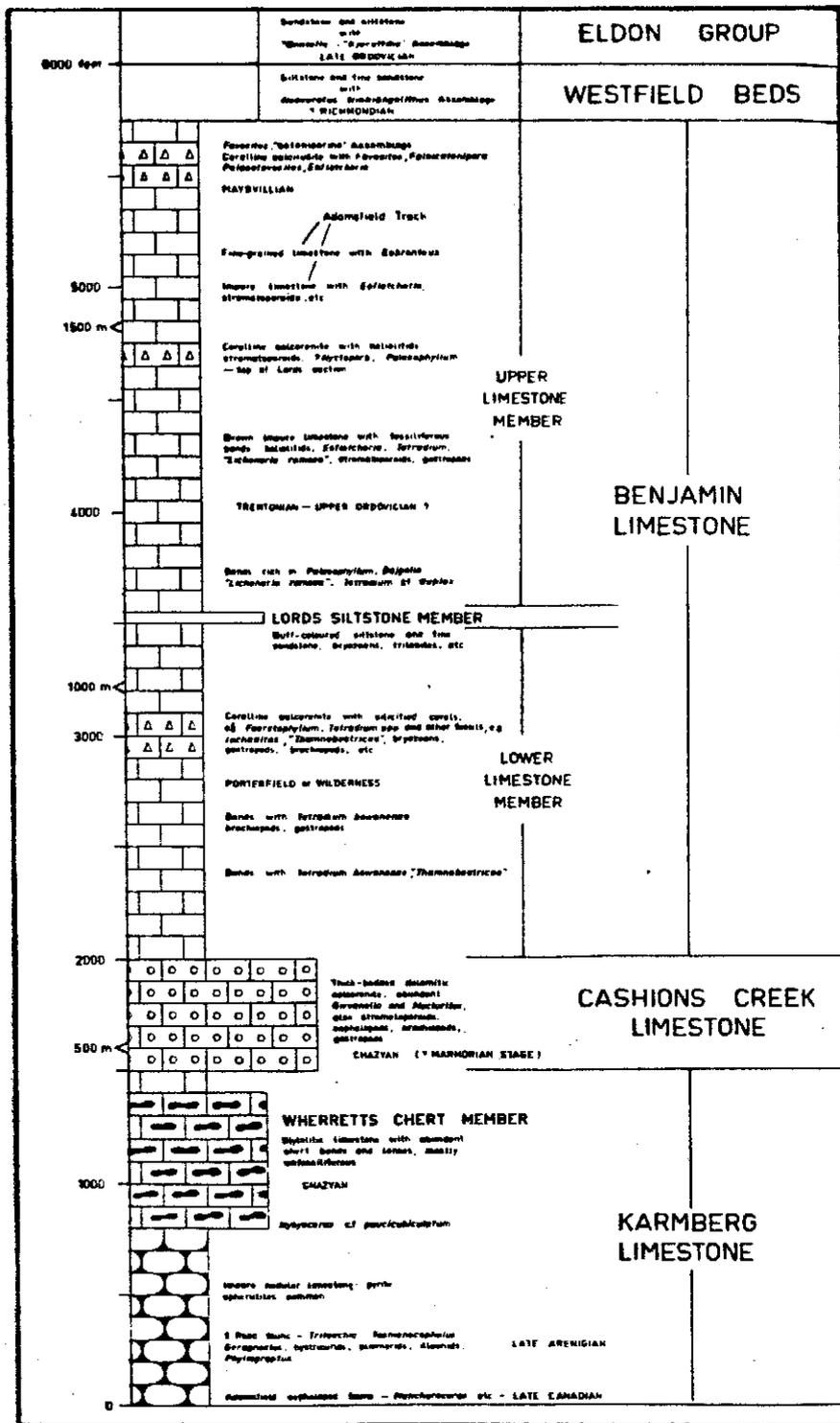
The Adamsfield E.L. 55/80 predominantly covers Gordon Limestone and is possibly prospective for:

- 1. Stratiform Cu/Pb/Zn - Cu in the Reeds conglomerate and Tim Shea Sandstones and Mississippi - type Pb/Zn in limestones.
- 2. Sn/W skarns in limestone.

2.0 CURRENT EXPLORATION (ADAMSFIELD E.L. 55/80)

2.1 Geological Setting & Environments

Ordovician limestones in the Florentine Valley have been subdivided by Corbett and Banks (1973) into units easily recognizable in the field (Refer Fig. 5 and Plan No. D/PW 27/006). Rock units are laterally continuous over several kilometres and facies changes are confined to minor fauna additions or subtractions. The presence of corals and algal oncolites suggests formation in shallow waters under quiet conditions on a carbonate platform. No evidence of reef knolls, synsedimentary faults or palaeoslopes recognizable in the English limestone-related Pb/Zn deposits were discovered. Minor brecciation related to Devonian faulting and folding was recognized in the SW of the licence. Corbett recognized pyrite sperulites in the lower Karmberg Limestone (Refer Fig. 5) however no rocks from this unit were found. However, base metal values in stream samples from Angie Creek which crosses the Karmberg Limestone are uniformly low. No indication of base metal or fault related Sn/W mineralization was recognized in the field.



The Shell Company of Australia Limited
METALS DIVISION

E.L. 55/60 ADAMSFIELD
ORDOVICIAN STRATIGRAPHY
OF THE FLORENTINE
SYNDINORIUM

SCALE	DATE 9-6-62
AUTHOR P.R.	DRAWN
OFFICE DEVONPORT	REP.No.
DRG No. 01A/220	FIG. No.

015

2.2 Stream Sediment Survey

A regional stream sediment survey designed to cover the Ordovician limestone in E.L. 55/80 began in November, 1981. To date, 76 samples covering approximately 1/3 of the licence have been collected and assayed. Panned concentrate, -80# and organic sludge samples were taken at 300m intervals along stream and in swamp areas.

Several problems have arisen. Streams frequently disappear into limestone caves and sink holes particularly around the Wherrets Chert Member. Also creeks often flow into large swamp areas where there is no water flow and consequently little sediment and organic sludge. In recently logged areas on the western side of the valley stream flow has been seriously affected by bulldozing and winching activities. As a result half the E.L. contains no streams and a wide-spaced soil sampling program is planned to fill-in the uncovered areas.

Stream sediment results are generally low order (Refer Appendix 1). Values of Cu/Cr/Ni/Zn particularly, are slightly higher on the eastern side of the Florentine River reflecting the drainage of weathered Tertiary Dolerite into this area (Refer Plan D/PW 27/006). Sn/W values are slightly elevated (3 x background) in Cashions Creek for an unknown reason.

Petrological analysis of two panned concentrate samples nos. 20 and 62 (Refer Appendix 2) revealed no economic minerals although the presence of tourmaline in sample 20 from Cashions Creek added to the slightly elevated Sn/W values may be of significance.

016

3.0 CONCLUSIONS & RECOMMENDATIONS

Stream sediment sample results indicate uniformly low values for Cu/Pb/Zn/Sn/W. However the presence of tourmaline and slightly elevated Sn/W values in Cashions Creek warrant investigation.

Completion of the stream survey plus a supplementary soil geochemistry program is recommended to ensure total coverage of the licence.

Follow up of any anomalous areas will involve resampling at a closer spacing, soil sampling and detailed geological mapping.

P.A. RUXTON
Exploration Geologist

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APPENDIX 1.

Stream Sediment Sampling procedure and results.

APPENDIX 1

STREAM SEDIMENT SAMPLING RESULTS

	<u>Highest value</u>	<u>Background (by inspection)</u>
<u>Sn/W.</u> (Panned concentrates)		
Sn	32 ppm	4 to 10 ppm
W	30 ppm	< 10 to 10 ppm
<u>Cu/Pb/Zn.</u> (-80# fraction)		
Cu	80 ppm	20 ppm to 40 ppm
Pb	48 ppm	20 ppm
Zn	270 ppm	130 ppm
<u>As/Ni/Cr</u> (-80# fraction)		
As	9 ppm	5 ppm
Ni	55 ppm	20 ppm to 40 ppm
Cr	290 ppm	50 ppm

Values on the eastern side of the Florentine valley are generally higher than the western side.

Cashions Creek has slightly elevated Sn/W.

020

ANALYTICAL RESULTSSample Code

A samples -80# Fraction of stream sediment
B samples Panned concentrates
C samples Organic sludge
E samples Bulk sample of sediment

Samples submitted for Atomic Absorption Spectrophotometry

AAS 1 Cu, Pb, Zn, Ni
AAS 2 Cr, Mn, Fe diluted 10x to read up to 10% for Fe & Mn

X-ray Fluorescence spectrometry

XRF 1 Sn, W, As

Organic C Sludge samples are treated with Wet Ash Techniques prior to dissolution in acid.

021



720022

ANALYTICAL REPORT

JOB COM812116

O/N : 4260/PW27/LDF/27

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21801 A	10	8	40	10	0.98	260	180
21802 A	22	6	48	10	1.05	320	120
21803 A	20	8	55	14	1.30	500	290
21806 A	12	6	32	8	1.10	210	125
21807 A	8	8	26	10	1.10	360	220
21808 A	10	6	36	10	1.30	240	120
21809 A	8	6	36	14	1.05	280	190
21810 A	6	<4	4	6	0.65	40	130
21811 A	8	6	6	8	0.50	22	210
21815 A	18	48	135	14	15.0	1.50%	125
21816 A	22	20	105	18	3.00	640	150
21817 A	28	20	65	14	2.80	390	100
21818 A	18	12	60	14	2.10	550	135
21819 A	18	20	70	16	2.80	520	80
21820 A	16	16	85	16	2.10	290	125
21821 A	22	16	105	18	3.00	410	135
21822 A	14	12	60	14	1.60	220	150
21823 A	16	12	60	14	1.90	220	135
21824 A	24	14	85	16	2.15	330	95
21825 A	18	16	60	14	2.70	670	80
21826 A	22	20	80	18	3.10	630	90
21827 A	14	12	90	14	2.10	200	95
21828 A	18	12	75	14	1.95	340	115
21829 A	20	14	80	16	2.40	430	130
21830 A	16	10	95	14	1.95	570	115

Method of Analysis : Cu Pb Zn Ni : AAS1
Fe Mn Cr : AAS2/2A

022



ANALYTICAL REPORT

720023

JOB COM812265

O/N : 4265/PW27/PAR/32

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21831 A	65	10	130	36	1.95	920	180
21832 A	42	12	110	40	2.30	1050	60
21833 A	28	8	70	32	1.50	270	50
21834 A	40	16	80	28	1.40	380	40
21835 A	30	6	70	28	1.35	260	105
21836 A	40	16	70	36	2.40	560	55
21837 A	30	8	70	36	1.95	460	80
21838 A	46	16	80	44	2.50	850	65
21839 A	30	16	80	32	1.95	570	65
21840 A	38	4	90	50	2.05	450	60
21841 A	46	8	110	55	3.00	900	90
21842 A	36	4	90	44	2.20	660	44
21843 A	32	8	48	28	2.20	280	44
21844 A	48	26	120	50	3.10	900	80
21845 A	55	22	150	75	3.50	1900	110
21846 A	10	<4	14	14	0.11	14	24
21847 A	12	<4	28	16	0.58	115	12
21848 A	14	<4	20	12	0.62	28	20
21849 A	12	<4	16	20	0.67	60	12
21850 A	14	<4	8	16	0.51	18	36
21851 A	60	4	60	44	2.10	430	65

Method of Analysis : Cu Pb Zn Ni : AAS1
 Fe Mn Cr : AAS2/2A

023



ANALYTICAL REPORT

720024

JOB COM820111

O/N : 4273/PW27/PAR/39

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21853A	14	14	50	24	1.90	180	38
21854A	16	12	120	24	1.95	610	26
21855A	18	8	110	24	1.85	1200	40
21856A	20	10	125	28	1.75	440	22
21857A	18	14	130	28	2.20	890	42
21858A	18	14	115	20	1.95	1050	20
21859A	20	14	95	24	2.40	700	70
21860A	22	10	70	24	2.00	440	30
21861A	24	14	110	28	2.50	970	55
21862A	18	6	65	24	1.70	510	30
21863A	28	10	125	40	3.10	840	75
21864A	28	16	135	36	2.95	730	32
21865A	28	18	100	32	2.80	630	46
21866A	18	6	65	28	1.90	620	26
21867A	16	8	75	28	1.85	460	55
21868A	24	18	60	36	3.00	400	50
21869A	26	10	70	40	2.70	670	46
21870A	26	10	100	44	2.80	1000	44
21871A	22	8	130	36	2.30	420	32
21873A	24	8	105	44	2.50	1000	70
21874A	20	16	140	36	2.55	900	28
21875A	12	6	125	20	1.20	330	30
21876A	16	16	38	24	2.60	640	42

Method of Analysis : Cu Pb Zn Ni : AAS1
Fe Mn Cr : AAS2/2A

024



ANALYTICAL REPORT

720025

JOB COM812116

O/N : 4260/PW27/LDE/27

Results in ppm

SAMPLE	As	Sn	W
21801 A	<2	4	10
21802 A	<2	<4	<10
21803 A	<2	4	<10
21806 A	<2	4	10
21807 A	2	4	<10
21808 A	<2	10	10
21809 A	<2	6	<10
21810 A	<2	4	<10
21811 A	<2	6	<10
21815 A	9	<4	15
21816 A	<2	10	10
21817 A	2	<4	10
21818 A	2	4	10
21819 A	2	6	15
21820 A	4	10	15
21821 A	3	6	15
21822 A	<2	10	<10
21823 A	3	<4	10
21824 A	2	<4	<10
21825 A	5	10	10
21826 A	3	4	15
21827 A	4	4	10
21828 A	2	4	20
21829 A	2	<4	<10
21830 A	3	4	<10

Method of Analysis : As Sn W : XRF1

025



720026

ANALYTICAL REPORT

JOB COM812265

O/N : 4265/PW27/PAR/32

Results in ppm

SAMPLE	As	Sn	W
21831 A	5	<4	10
21832 A	4	6	10
21833 A	3	4	<10
21834 A	2	<4	<10
21835 A	4	<4	<10
21836 A	5	4	<10
21837 A	3	<4	<10
21838 A	6	<4	<10
21839 A	7	6	<10
21840 A	5	4	<10
21841 A	4	8	<10
21842 A	5	8	<10
21843 A	8	<4	<10
21844 A	4	<4	<10
21845 A	6	6	<10
21846 A	<2	<4	<10
21847 A	<2	4	<10
21848 A	3	<4	<10
21849 A	4	<4	<10
21850 A	7	<4	<10
21851 A	5	6	<10

Method of Analysis : As Sn W : XRF1

026



ANALYTICAL REPORT

720027

JOB COM820111

O/N : 4273/PW27/PAR/39

Results in ppm

SAMPLE	As	Sn	W
21853A	4	8	<10
21854A	4	4	10
21855A	2	8	<10
21856A	3	4	<10
21857A	4	4	<10
21858A	6	4	<10
21859A	4	<4	<10
21860A	3	6	<10
21861A	4	4	<10
21862A	<2	<4	<10
21863A	3	<4	<10
21864A	4	<4	<10
21865A	6	10	10
21866A	6	4	<10
21867A	2	4	<10
21868A	6	4	<10
21869A	7	<4	10
21870A	5	6	<10
21871A	4	4	10
21873A	5	6	<10
21874A	10	<4	10
21875A	3	<4	<10
21876A	3	<4	<10

Method of Analysis : As Sn W : XRF1



ANALYTICAL REPORT

JOB COM812117

O/N : 4261/PW27/LDB/28

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21801 B	12	25	75	16	4.70	670	530
21802 B	10	22	70	16	4.40	670	620
21803 B	14	40	110	18	5.60	820	550
21806 B	12	40	75	20	5.30	750	670
21807 B	14	32	80	20	5.70	820	520
21808 E	12	26	95	18	3.70	540	620
21809 E	16	28	85	22	5.70	790	520
21815 B	12	8	50	14	2.20	410	490
21817 B	16	26	70	22	5.50	720	700
21819 B	12	22	55	16	4.40	570	1050
21820 B	14	30	80	20	5.70	730	1000
21821 B	14	22	70	18	4.70	630	1200
21822 B	16	20	50	16	3.90	540	690
21823 B	14	20	60	16	4.60	610	890
21824 B	16	12	46	18	3.60	500	550
21825 E	16	22	85	24	7.00	790	740
21826 E	18	50	130	30	9.90	1150	1500
21827 B	18	26	70	18	5.10	690	870
21828 B	16	14	55	18	3.90	530	490
21829 B	16	12	95	16	3.20	440	560
21830 B	14	24	55	20	4.10	590	760
L1	14	6	22	14	1.40	230	580
L2	32	8	60	12	1.40	200	330
L3	16	6	24	14	1.30	210	540

Method of Analysis : Cu Pb Zn Ni : AAS1
Fe Mn Cr : AAS2/2A

028



ANALYTICAL REPORT

720029

JOB COM812266

O/N : 4266/PW27/PAR/33

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21831 B	12	40	65	24	4.00	510	790
21832 B	6	8	34	8	1.40	210	70
21833 B	14	12	50	12	2.20	280	165
21834 B	6	18	46	16	3.60	510	160
21835 B	12	12	50	20	3.80	450	240
21836 B	20	12	85	36	8.10	870	135
21837 B	14	18	75	20	4.30	570	210
21838 B	14	12	100	20	5.20	890	105
21839 B	12	14	70	20	4.40	540	145
21840 B	18	<4	60	16	2.40	370	44
21841 B	16	8	60	20	2.20	380	60
21842 B	14	8	55	16	2.30	400	75
21843 B	18	12	46	16	2.60	200	24
21847 B	12	6	24	4	1.00	65	120
21850 B	4	6	10	<4	0.40	20	65
21851 B	44	16	100	50	8.30	880	90

Method of Analysis : Cu Pb Zn Ni : AAS1
Fe Mn Cr : AAS2/2A

029



ANALYTICAL REPORT

720030

JOB COM820112

O/N : 4274/PW27/PAR/40

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21853B	12	24	42	16	3.70	330	190
21854B	10	10	55	16	1.45	280	90
21855B	12	10	50	12	1.05	340	135
21856B	16	10	60	12	1.20	300	50
21857B	14	16	60	20	1.75	440	75
21858B	12	16	55	20	1.45	410	44
21859B	12	14	44	16	2.10	280	210
21860B	16	16	75	16	3.20	300	65
21861B	18	18	110	16	3.70	460	140
21862B	14	12	36	12	1.55	280	50
21863B	18	16	165	20	5.10	560	95
21864B	22	18	165	20	4.60	470	36
21865B	28	16	140	28	5.00	510	90
21866B	12	12	40	16	1.95	270	55
21867B	12	14	40	12	1.35	250	95
21868B	14	14	60	16	3.80	370	100
21869B	20	14	44	20	2.60	340	125
21870B	20	12	60	28	2.60	470	50
21871B	14	8	50	12	1.15	260	115
21873B	18	14	46	20	1.85	450	105
21875B	12	12	60	20	1.10	100	260
21876B	14	12	16	12	1.25	145	240

Method of Analysis : Cu Pb Zn Ni : AAS1
Fe Mn Cr : AAS2/2A



ANALYTICAL REPORT

720031

JOB COM812117

O/N : 4261/PW27/LDE/28

Results in ppm

SAMPLE	As	Sn	W
21801 B	12	44	35
21802 B	10	65	20
21803 B	14	55	45
21806 B	20	30	50
21807 B	14	38	40
21808 B	8	50	25
21809 B	14	30	60
21815 B	9	85	15
21817 B	8	34	20
21819 B	6	42	25
21820 B	9	44	30
21821 B	7	75	30
21822 B	9	55	25
21823 B	7	36	45
21824 B	5	26	30
21825 B	10	32	25
21826 B	16	44	55
21827 B	8	20	40
21828 B	5	30	15
21829 B	5	38	10
21830 B	8	50	40
L1	4	40	<10
L2	4	20	10
L3	4	30	10

Method of Analysis : As Sn W : XRF1

031



ANALYTICAL REPORT

720032

JOB COM812266

O/N : 4266/PW27/PAR/33

Results in ppm

SAMPLE	As	Sn	W
21831 B	34	32	30
21832 B	3	<4	10
21833 B	7	12	<10
21834 B	10	6	15
21835 B	12	4	<10
21836 B	9	22	<10
21837 B	7	12	<10
21838 B	6	10	<10
21839 B	7	6	10
21840 B	5	4	10
21841 B	3	<4	<10
21842 B	3	<4	<10
21843 B	6	4	<10
21847 B	4	4	<10
21850 B	4	4	<10
21851 B	6	6	15

Method of Analysis : As Sn W : XRF1

032



720033

ANALYTICAL REPORT

JOB COM820112

O/N : 4274/PW27/PAR/40

Results in ppm

SAMPLE	As	Sn	W
21853B	3	6	<10
21854B	4	6	<10
21855B	4	4	<10
21856B	3	6	<10
21857B	5	4	<10
21858B	3	<4	10
21859B	4	<4	<10
21860B	2	4	15
21861B	<2	4	<10
21862B	2	<4	<10
21863B	<2	<4	<10
21864B	<2	<4	10
21865B	10	4	<10
21866B	<2	4	<10
21867B	2	<4	<10
21868B	<2	8	<10
21869B	4	<4	<10
21870B	<2	6	10
21871B	<2	<4	<10
21873B	<2	4	<10
21875B	<2	<4	<10
21876B	2	6	<10

Method of Analysis : As Sn W : XRF1



ANALYTICAL REPORT

720034

JOB COM812118

O/N : 4262/PW27/LDB/29

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21801 C	38	<4	60	16	1.10	1050	50
21802 C	26	8	50	16	0.95	1500	130
21803 C	55	<4	38	12	1.50	850	180
21806 C	22	4	30	16	0.95	380	170
21807 C	24	8	60	32	1.20	910	100
21808 C	32	<4	40	20	1.20	100	230
21809 C	30	12	55	28	1.30	1300	130
21810 C	10	<4	12	8	1.00	24	60
21811 C	20	<4	14	8	1.15	24	100
21814 C	34	20	110	50	9.70	5.40%	90
21815 C	36	24	105	44	8.20	4.30%	50
21816 C	26	8	80	40	2.50	470	130
21817 C	26	12	70	40	2.90	420	130
21818 C	22	<4	65	36	2.30	440	130
21819 C	44	8	80	40	3.70	1400	130
21820 C	22	<4	65	32	1.60	145	170
21821 C	28	4	65	32	1.60	400	140
21822 C	32	<4	75	40	2.00	410	150
21823 C	24	<4	60	28	1.60	125	130
21824 C	34	<4	60	32	1.65	330	120
21825 C	26	20	55	28	2.80	910	80
21827 C	32	8	70	36	1.75	360	160
21828 C	24	4	75	40	2.10	860	160
21829 C	28	12	90	36	1.85	185	200
21830 C	24	<4	75	32	1.80	1100	200

Method of Analysis : Cu Pb Zn Ni : AAS1
Fe Mn Cr : AAS2/2A

033

4

Q

034



720035

ANALYTICAL REPORT

JOB COM812267

O/N : 4267/PW27/PAR/34

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21831 C	28	4	100	24	3.00	1050	75
21832 C	38	<4	80	24	1.75	570	115
21833 C	30	10	70	32	1.55	220	40
21834 C	24	<4	60	20	1.30	520	32
21835 C	32	<4	80	32	1.10	185	48
21836 C	38	6	60	28	2.30	410	36
21837 C	42	8	90	40	3.80	980	60
21838 C	46	16	120	44	3.00	1200	55
21839 C	34	10	90	32	2.50	650	50
21840 C	38	<4	90	24	3.00	630	48
21841 C	55	<4	110	50	2.10	650	60
21842 C	55	8	80	28	2.80	1400	44
21843 C	40	12	80	28	3.60	560	32
21844 C	50	4	110	36	3.00	300	48
21845 C	50	4	120	50	3.60	540	48
21847 C	28	<4	42	8	1.15	240	36
21848 C	28	<4	40	4	1.25	60	55
21849 C	28	<4	50	12	2.00	180	36
21850 C	26	<4	24	4	2.20	145	90

Method of Analysis : Cu Pb Zn Ni Fe Mn Cr : Special Digest then AAS

035



ANALYTICAL REPORT

720036

Job COM820113

O/N : 4275/PW27/PAR/41

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21852C	32	20	65	24	2.40	280	36
21853C	20	32	46	24	1.35	580	48
21854C	44	22	110	32	1.65	1050	50
21855C	50	16	115	40	1.80	1550	32
21856C	50	14	115	32	1.70	780	75
21857C	38	12	110	32	1.45	690	44
21858C	32	20	95	28	1.30	690	28
21859C	30	36	105	24	1.70	820	40
21860C	50	22	95	28	2.00	670	40
21861C	32	18	100	32	1.60	910	36
21862C	48	18	75	40	1.30	530	90
21863C	48	28	150	48	2.10	1350	36
21864C	36	16	120	40	1.60	510	36
21865C	70	36	125	48	2.00	490	20
21866C	48	16	80	40	1.30	640	65
21867C	70	18	105	32	1.20	780	44
21868C	60	12	90	36	2.20	520	120
21869C	70	16	90	32	1.65	990	65
21870C	60	12	110	40	1.65	1300	55
21871C	80	12	125	40	1.40	1000	65
21872C	80	22	105	32	0.86	370	48
21873C	42	14	85	60	2.00	950	48
21875C	20	32	85	16	0.68	105	60
21876C	50	26	48	16	1.50	430	40

Method of Analysis : Cu Pb Zn Ni : AAS1
Fe Mn Cr : AAS2/2A



036

ANALYTICAL REPORT

JOB COM812118

O/N : 4262/PW27/LDE/29

Results in ppm

SAMPLE	As	Sn	W
21801 C	3	<4	<10
21802 C	<2	10	<10
21803 C	4	<4	10
21806 C	<2	6	<10
21807 C	2	6	<10
21808 C	<2	4	<10
21809 C	3	4	<10
21810 C	9	4	10
21811 C	3	12	<10
21814 C	7	<4	<10
21815 C	5	<4	10
21816 C	4	4	15
21817 C	8	4	<10
21818 C	4	6	<10
21819 C	6	4	10
21820 C	5	6	10
21821 C	6	6	<10
21822 C	3	4	<10
21823 C	5	4	<10
21824 C	4	4	<10
21825 C	6	<4	<10
21827 C	3	4	<10
21828 C	5	4	<10
21829 C	3	4	<10
21830 C	4	6	<10

Method of Analysis : As Sn W : XRF1

037



ANALYTICAL REPORT

720038

JOB COM812267

O/N : 4267/PW27/PAR/34

Results in ppm

SAMPLE	As	Sn	W
21831 C	5	4	<10
21832 C	3	4	<10
21833 C	2	6	<10
21834 C	5	<4	10
21835 C	2	4	<10
21836 C	3	4	<10
21837 C	6	4	<10
21838 C	6	4	<10
21839 C	5	4	10
21840 C	4	4	10
21841 C	5	4	10
21842 C	5	4	<10
21843 C	10	6	10
21844 C	4	4	<10
21845 C	3	8	10
21847 C	4	4	<10
21848 C	5	4	10
21849 C	5	4	<10
21850 C	7	6	<10

Method of Analysis : As Sn W : XRF1

038



720039

ANALYTICAL REPORT

JOB COM820113

O/N : 4275/PW27/PAR/41

Results in ppm

SAMPLE	As	W	Sn
21852C	4	10	4
21853C	<2	<10	4
21854C	5	<10	4
21855C	5	<10	4
21856C	5	<10	6
21857C	4	<10	4
21858C	5	<10	<4
21859C	4	<10	<4
21860C	4	<10	10
21861C	2	<10	6
21862C	3	<10	4
21863C	4	<10	6
21864C	3	<10	6
21865C	9	<10	6
21866C	4	<10	6
21867C	<2	<10	<4
21868C	2	10	<4
21869C	4	10	4
21870C	5	<10	4
21871C	5	<10	4
21872C	2	10	10
21873C	4	10	<4
21875C	3	10	8
21876C	8	10	4

Method of Analysis : As W Sn : XRF1

039



720040

ANALYTICAL REPORT

JOB COM812119

O/N : 4263/PW27/LDB/30

Results in ppm

SAMPLE	Cu	Pb	Zn	Ni	%Fe	Mn	Cr
21801 E	10	6	36	8	0.80	200	50
21802 E	6	6	34	10	0.75	250	85
21803 E	14	6	48	12	1.45	610	175
21804 E	22	36	115	20	2.75	4100	70
21805 E	60	28	270	32	2.50	1.60%	80
21812 E	6	6	8	8	0.60	44	95
21813 E	6	<4	6	8	0.75	75	125

Method of Analysis : Cu Pb Zn Ni : AAS1
Fe Mn Cr : AAS2/2A

040



ANALYTICAL REPORT

JOB COM812119

O/N : 4263/PW27/LDB/30

Results in ppm

SAMPLE	As	Sn	W
21801 E	<2	<4	15
21802 E	<2	6	10
21803 E	<2	<4	<10
21804 E	5	4	<10
21805 E	<2	12	10
21812 E	2	<4	<10
21813 E	<2	<4	10

Method of Analysis : As Sn W : XRF1

APPENDIX 2.

Petrological results from two panned concentrate samples.

APPENDIX 2.PETROLOGICAL RESULTS.

Two panned concentrates were sent for petrological description. A 20 and A 62.

A 20. (Cashions Creek)

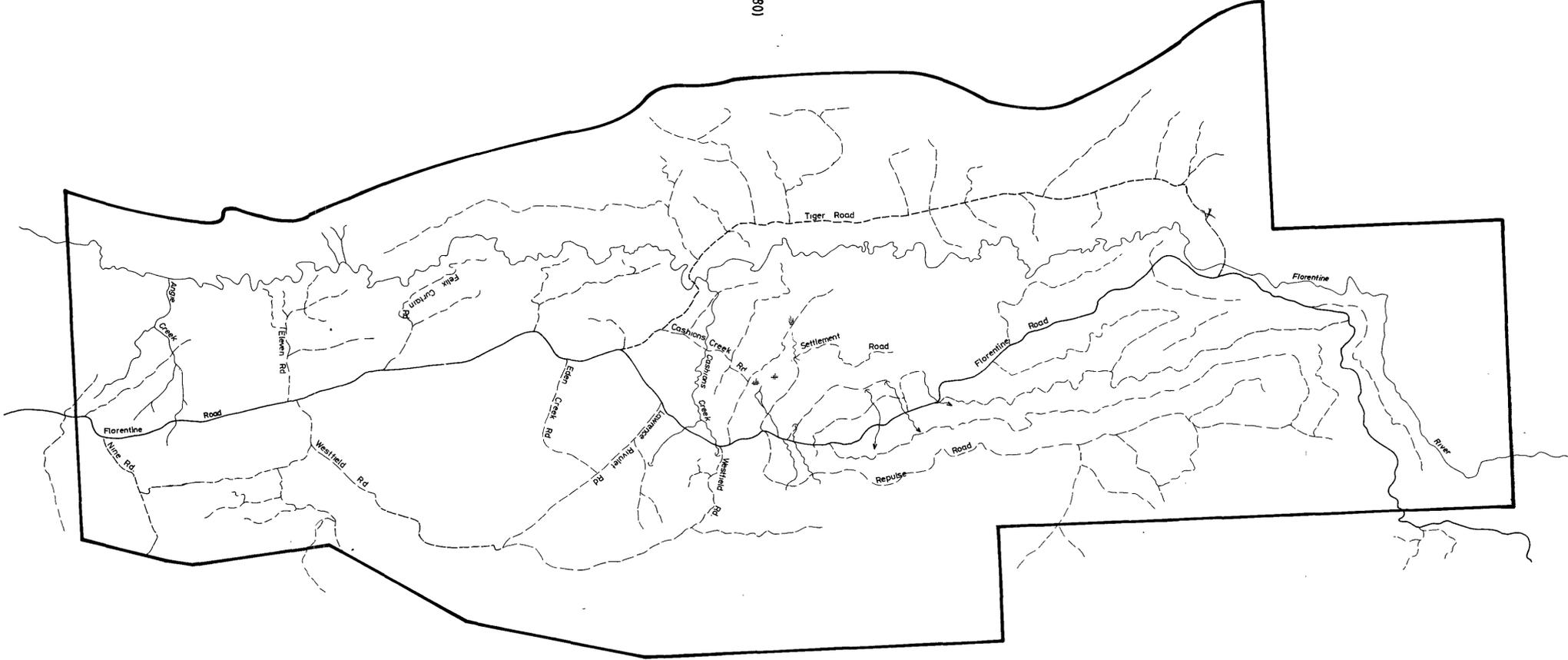
Major	(30-60%)	Ilmenite Quartz.
Minor	(10-30%)	Zircon
Accessory	(1-10%)	Garnet Pyroxenes (mainly hypersthene) Monazite
Trace	(< 1%)	Tourmaline.

A 62

Dominant	(>60)	Quartz
Minor	(10-30%)	Pyroxenes (mainly hypersthene)
Accessory	(1-10%)	Ilmenite
Trace	(< 1%)	Zircon Amphiboles Monazite

SOUTH WEST
 CONSERVATION AREA
 (DENISON RANGE E.L.A. 40/80)

E.L. 8/79
 B.H.P.



MT. FIELD
 NATIONAL PARK



- Rivers & creeks
- Logging tracks
- Roads
- Swamp
- Cave

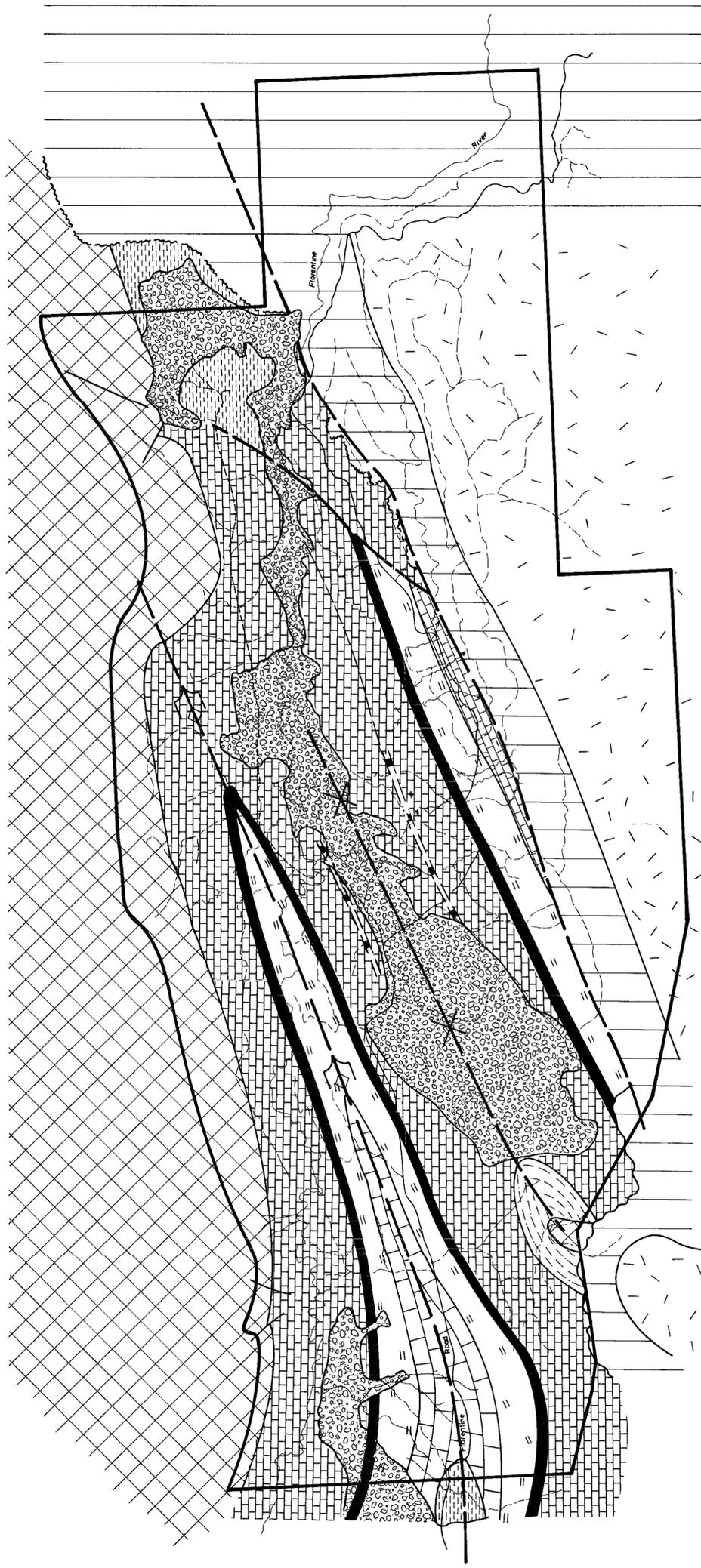
5 cm



720044 3004

The Shell Company of Australia Limited METALS DIVISION	
E.L. 55/80 ADAMSFIELD Redrawn from aerial photographs Topographic Map	
Scale 1:50 000	
FIG No	REPORT No
ENCL No	DRG No D/PW27/0073
DATE 18-2-82	AUTHOR P. RUXTON
DRAWN H. L. H.	OFFICE DEVONPORT

82-1821



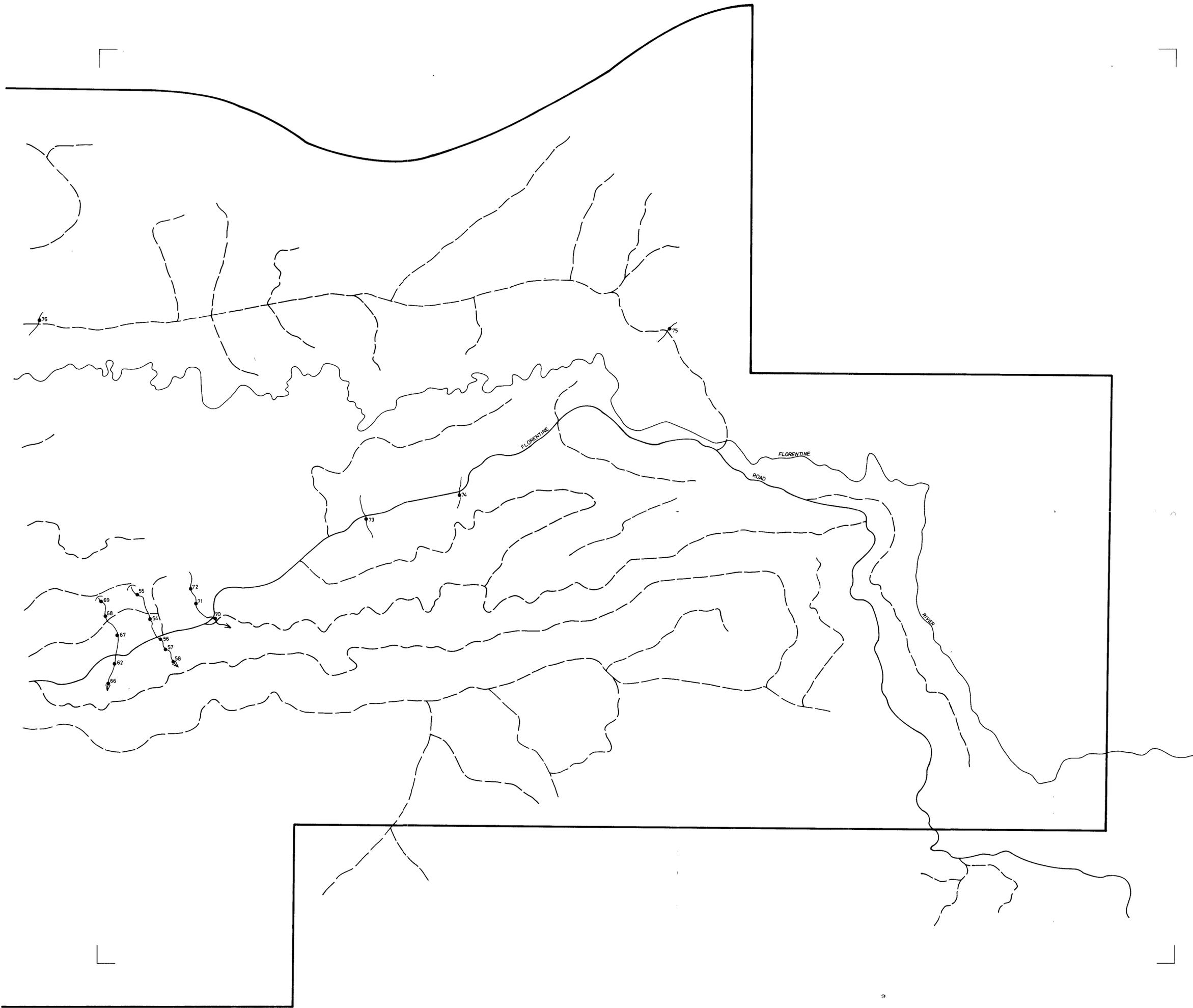
Rivers & creeks
 Logging tracks
 Roads
 Swamp
 Cave



720045 3005
 The Shell Company of Australia Limited
 METALS DIVISION
 E.L. 55/80 ADAMSFIELD
 GEOLOGICAL MAP

LEGEND

- CAINOZOIC
 Alluvium
- CARBONIFEROUS - JURASSIC
 Jurassic Dolerite
 Carboniferous Sediments
- SILURIAN - DEVONIAN
 Eldon Group
- ORDOVICIAN
 Junee Super Group
 Benjamin Limestone
 Westfield Siltstone
 Lord's Siltstone
 Cashions Creek Limestone
 Wherret's Chert Member
 Karmberg Limestone
- FLORENTINE GROUP
 Undifferentiated
- Geological Boundary
 Fault
 Anticline & Plunge
 Syncline



LEGEND

- Rivers + creeks
- Roads
- Logging tracks
- Swamp
- Cave
- Sample location

5 cm

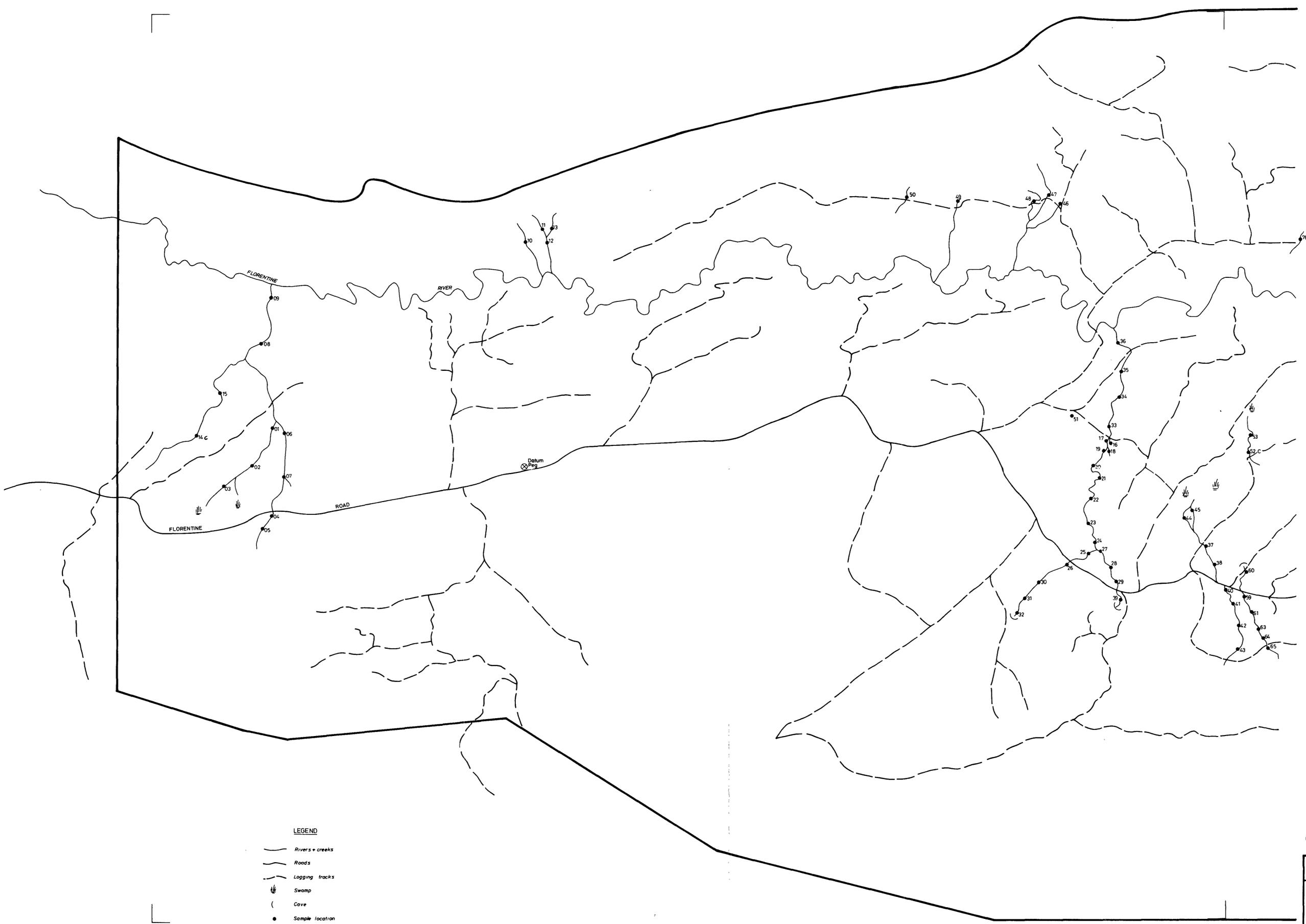
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720046 3006

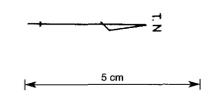
The Shell Company of Australia Limited METALS DIVISION	
E.L. 55/80 ADAMSFIELD SAMPLE LOCATIONS	
SCALE 1:20000	DATE 25-5-82
AUTHOR P. RUXTON	DRAWN H. L. H.
OFFICE DEVONPORT	REVISION
ENCL. No.	DRG. No. D/PW27/002 A

82-1821



LEGEND

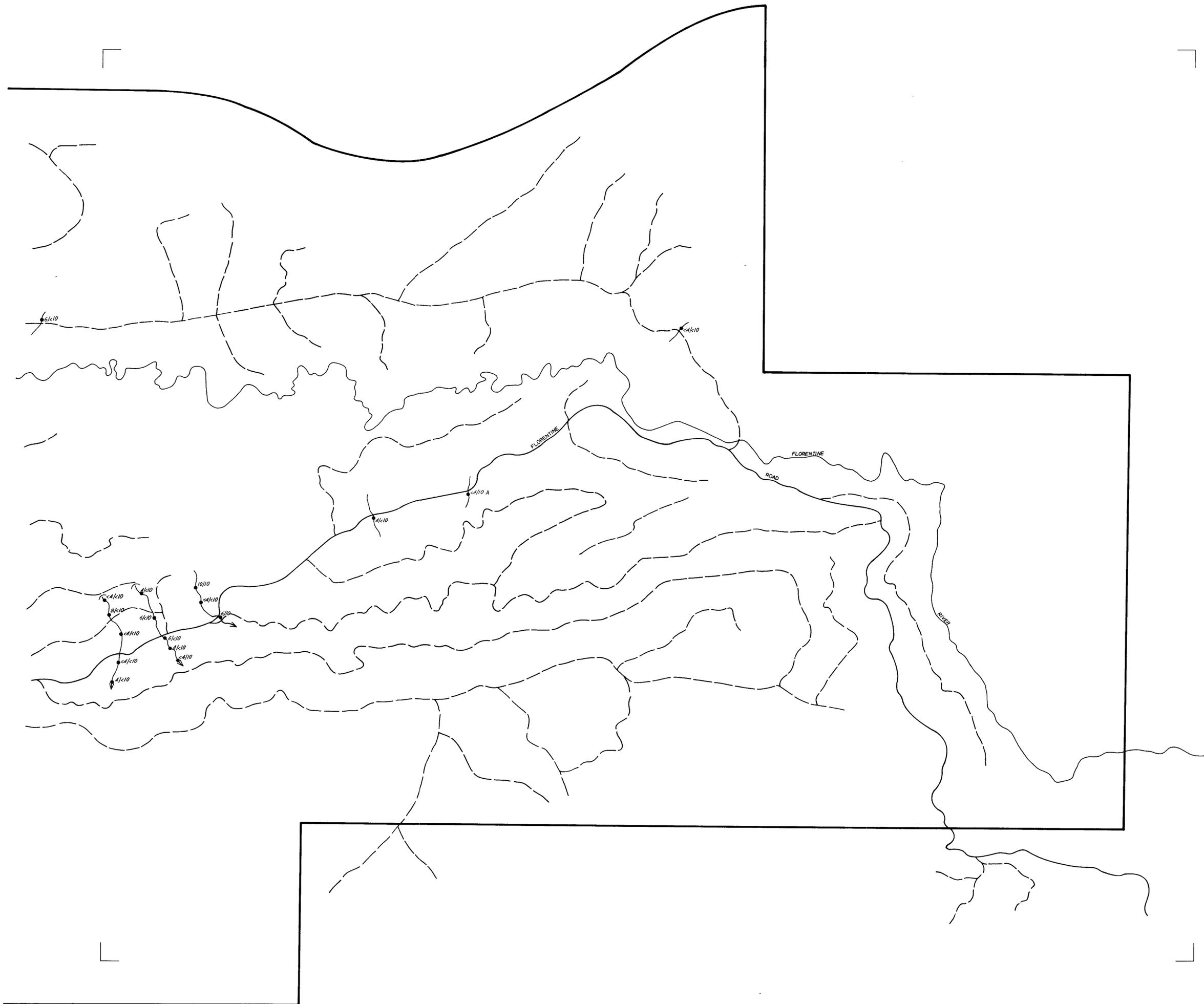
- Rivers + creeks
- Roads
- Logging tracks
- Swamp
- Cave
- Sample location
- Organic sample only



720047 3007

The Shell Company of Australia Limited METALS DIVISION	
E.L. 55/80 ADAMSFIELD SAMPLE LOCATIONS	
SCALE 1:20 000	DATE 25-5-82
AUTHOR P. RUXTON	DRAWN H.L.H.
OFFICE DEVONPORT	REP No.
ENCL No.	DRG No. D/PW27/002 B

82-1821



LEGEND

- Rivers + creeks
- Roads
- Logging tracks
- Swamp
- Cave
- Sample location
- 80ft fraction

5 cm

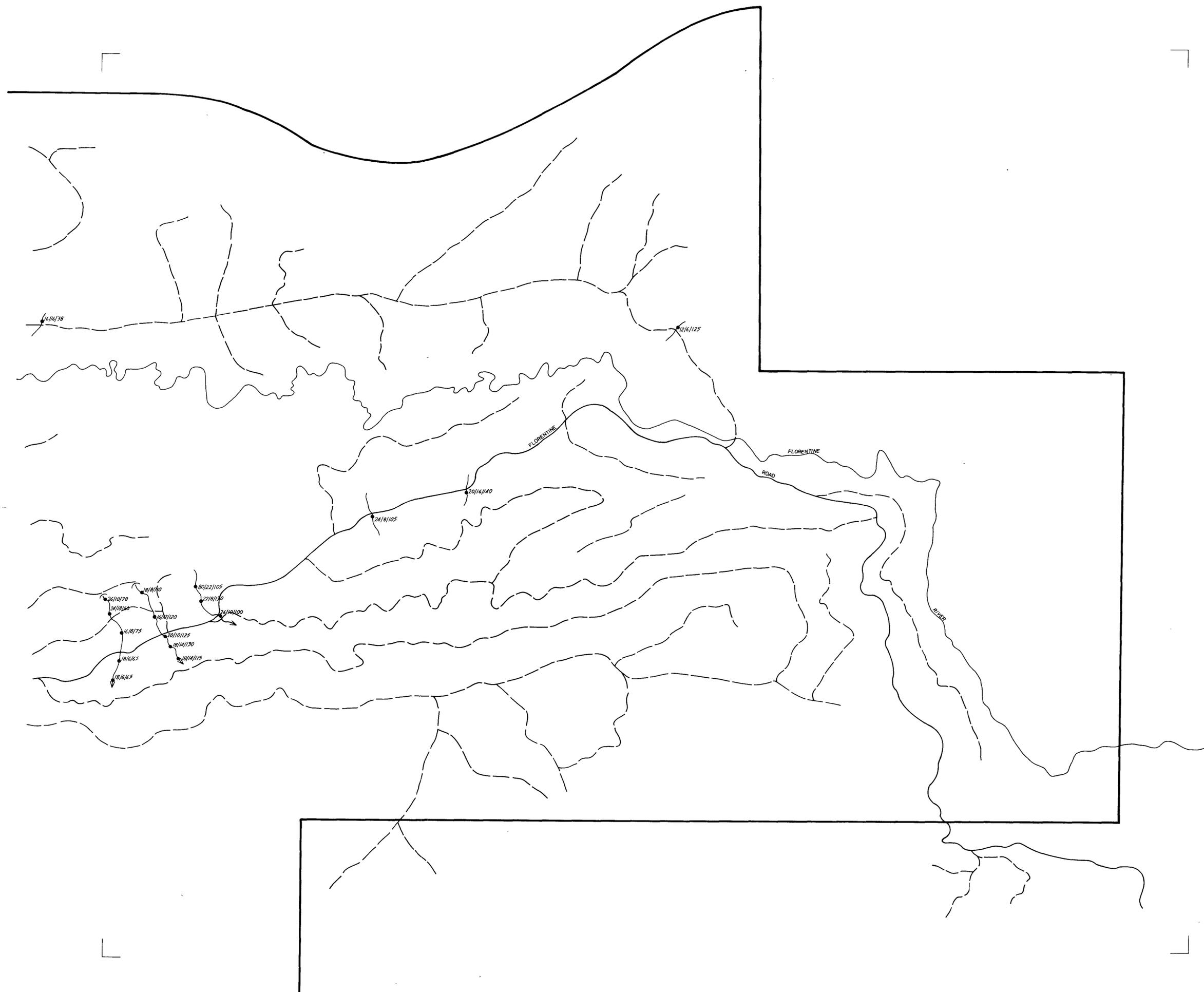
N



720048 3008

The Shell Company of Australia Limited METALS DIVISION	
E.L. 55/80 ADAMSFIELD SAMPLE RESULTS Sn/W PANDED CONCENTRATE	
SCALE 1:20000	DATE 25-5-82
AUTHOR P. RUXTON	DRAWN H. L. H.
OFFICE DEVONPORT	REP. No.
ENCL. No.	DRG. No. D/PW277004 A

82-1321



LEGEND

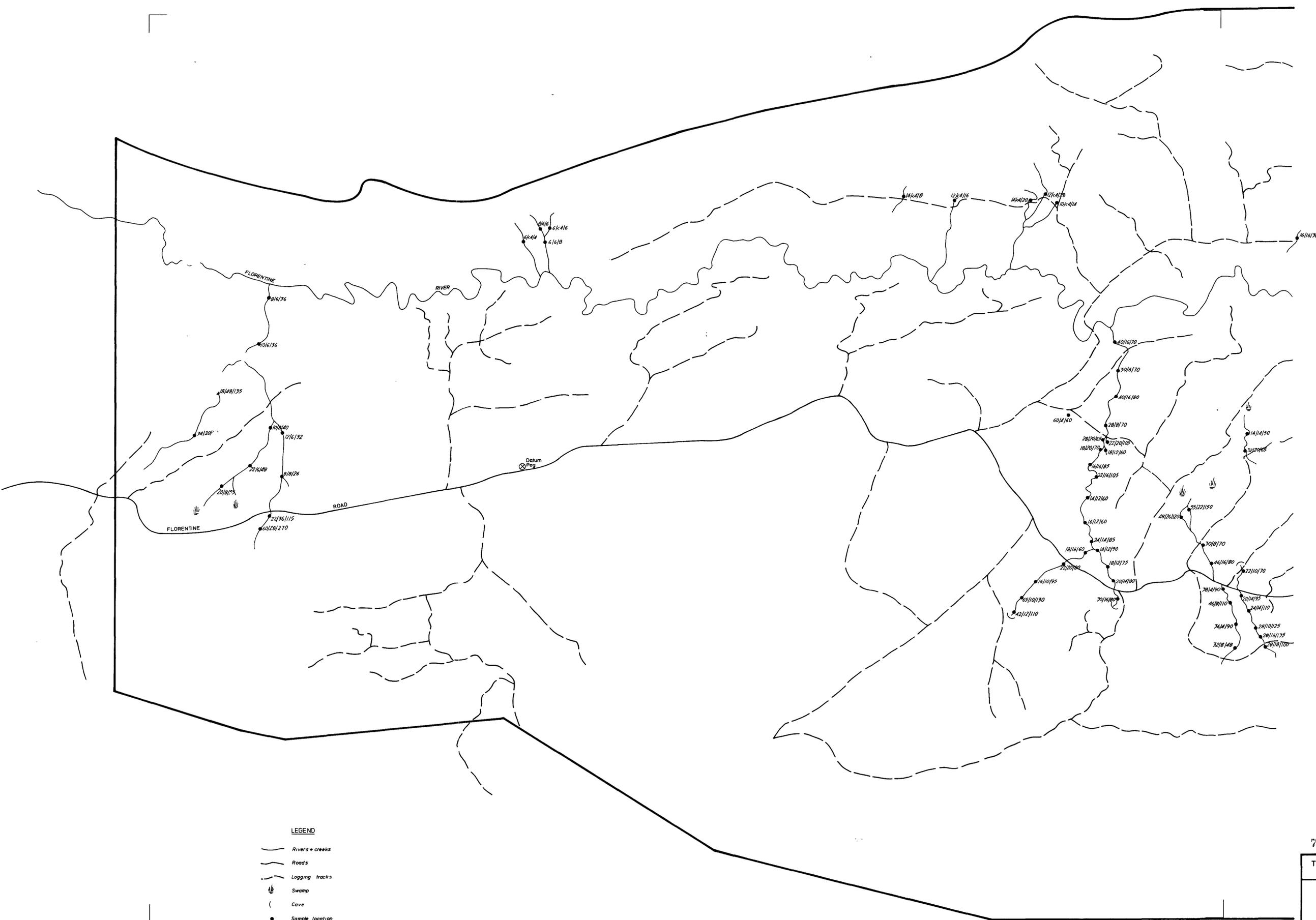
- Rivers & creeks
 - Roads
 - Logging tracks
 - Swamp
 - Cave
 - Sample location
- 5 cm
- N



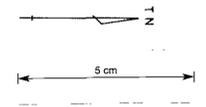
720050 3010

The Shell Company of Australia Limited METALS DIVISION			
E.L. 55/80 ADAMSFIELD SAMPLE RESULTS Cu/Pb/Zn -80# FRACTION			
SCALE	1 20000	DATE	25-5-82
AUTHOR	P RUXTON	DRAWN	H L H
OFFICE	DEVONPORT	REP No	
ENCL No		DRG No	D/PW277003 A

82-1321



- LEGEND**
- Rivers + creeks
 - Roads
 - - - Logging tracks
 - ⊥ Swamp
 - (Cave
 - Sample location

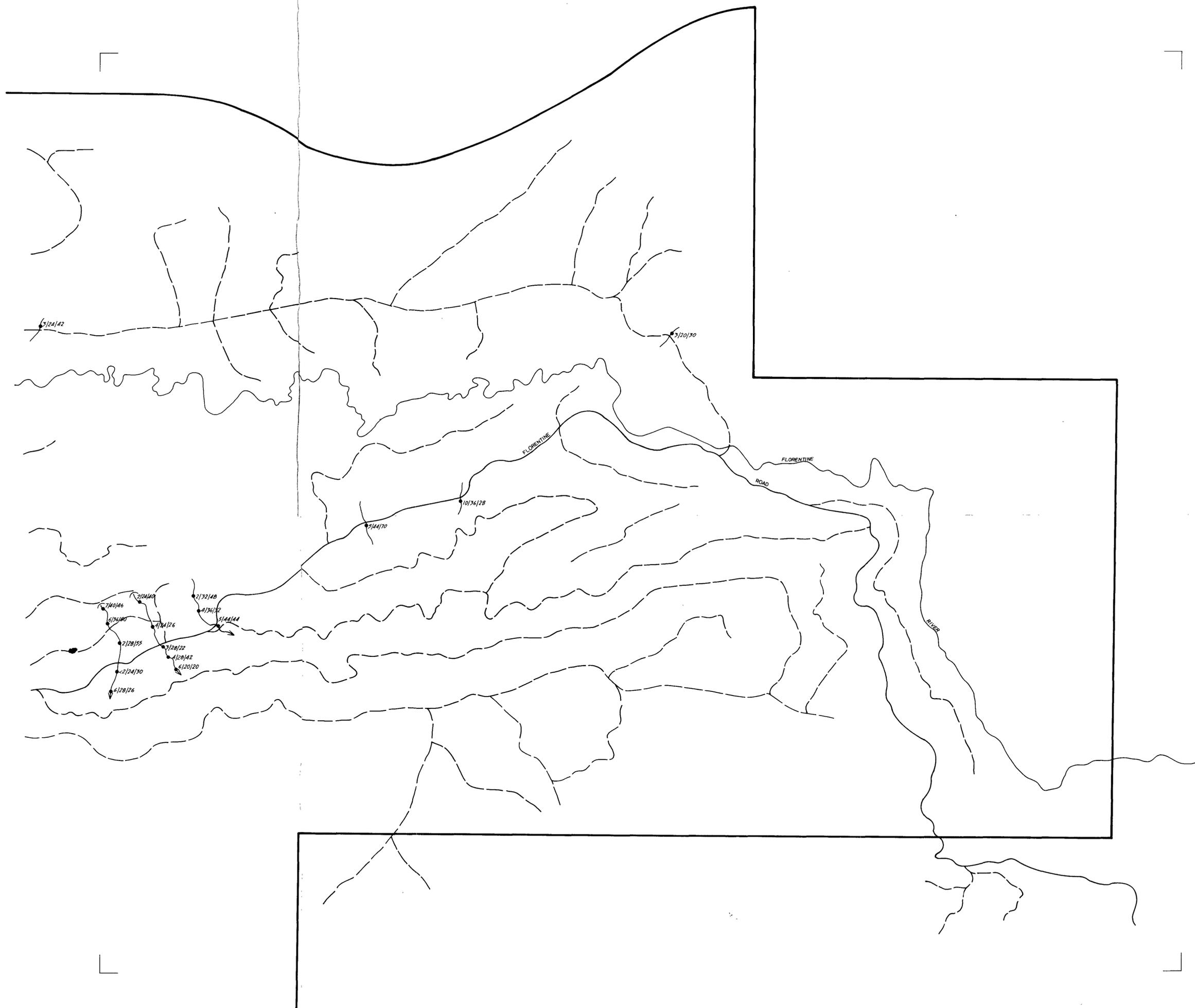


720051 3011

The Shell Company of Australia Limited
METALS DIVISION

E.L. 55/80 ADAMSFIELD
SAMPLE RESULTS
Cu/Pb/Zn
-80# FRACTION

SCALE	1 20000	DATE	25-5-82
AUTHOR	P RUXTON	DRAWN	H.L.H
OFFICE	DEVONPORT	REP No	
ENCL No		DRG No	D/PW277003 B



LEGEND

- Rivers + creeks
- Roads
- Logging tracks
- Swamp
- Cave
- Sample location

5 cm

N



720052 3012

The Shell Company of Australia Limited
METALS DIVISION

E.L. 55/80 ADAMSFIELD
SAMPLE RESULTS
As/Ni/Cr
- 80# FRACTION

SCALE	1:20,000	DATE	25-5-82
AUTHOR	P. RUXTON	DRAWN	H. L. H.
OFFICE	DEVONPORT	REP. No.	
ENCL. No.		DRG. No.	D/PW277005 A

82-1821

