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AQUITAINE AUSTRALIA MINERALS PTY. LTD.

E.L. 893 'LEGUNE'

ANNUAL REPORT

FOR THE PERIOD ENDING 30TH APRIL 1976

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By: P.B. d'Auvergne

July 1976,

MG: 695

#### ABSTRACT.

During the year an extensive rotary drilling programme to bedrock was undertaken on the black soil plains west of Legune Homestead. This programme which covered both E.L. 675 and E.L. 893 examined bedrock geology and geochemistry.

On E.L. 893 one significant lead anomaly was investigated by deep rotary drilling but the nature of the anomaly was not adequately explained.

During the year, 13 holes were drilled for a total of 480 metres.

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#### 1.0 INTRODUCTION.

E.L. 893, consisting of 24 square minutes lies in the north-east corner of the Bonaparte Gulf Basin. The E.L. lies within National Map Series Sheet 4767 (Edition 1) of the Australia 1:100,000 topographical series. See Location Diagram - Figure 1.

The surface of the E.L. is covered mostly by black soil with occasional sandy patches and rare outcrops.

Mapping of the largest of the sandstone outcrops, known as Buffalo Hill, approximately 10 km. north of Legune Station, revealed a large fault bisecting the outcrop. Pebble horizons on the east of the fault and thin calcareous interbeds on the west were used to tentatively map the sandstones as Cockatoo and Burt Range Formations respectively. Drilling during 1975 failed to resolve whether both sandstone formations exist or not.

Rotary drilling in the area of Buffalo Hill prior to 1975 had encountered a grey-blue carbonaceous calcareous siltstone overlying the outcropping sandstone but the stratigraphic position of the two Formations was not able to be defined.

#### 2.0 EXPLORATION ACTIVITY 1975.

Exploration on E.L. 893 during 1975 was limited to a short rotary drilling programme in the south of the E.L., extending from the border with adjacent E.L. 675 north-eastwards to Sweetwater Bore, 1.5 km. south of Buffalo Hill. Drill hole locations and numbers are shown on Figure 2.

The programme was undertaken in conjunction with a shallow rotary drilling/geochemistry programme on E.L. 675.

One strong geochemical lead anomaly was obtained and a deep stratigraphical rotary hole was drilled to examine the source of this anomaly. This hole was stopped at 105 metres.

#### 3.0 SHALLOW ROTARY DRILLING.

Of the twelve shallow holes drilled, four failed to reach bedrock due to collapse of overburden into the hole.

The holes were drilled on 200 metre centres on lines spaced 1,000 m. apart. When bedrock was intersected the hole penetrated 2 - 5 metres into the bedrock and then stopped. The last 6 - 8 metres of the hole were sampled and assayed for lead and zinc. The twelve hole programme totalled 375 metres.

#### 3.1 GEOCHEMISTRY.

Figures 3 and 4 show the bedrock lead and zinc geochemistry respectively.

Over much of E.L. 893 (and extending onto E.L. 675) lead and zinc values are seldom in excess of 50 ppm.

Elevated lead and zinc values (up to 76 ppm. and 210 ppm. respectively) occur over the Antrim Plateau gabbros and are not considered of interest.

Elevated zinc values of 72 ppm. and 94 ppm. in holes close to Buffalo Hill probably reflect mineral concentration in the fault zone as manganiferous rock chip samples collected from the brecciated material assayed up to 820 ppm. zinc.

In hole NBL 4004 lead assays exceeding 1.0% and corresponding zinc assays of up to 620 ppm. were found. No known stratigraphical or structural source exists to explain these.

#### 4.0 DEEP STRATIGRAPHICAL DRILLING

NBL 4013 was drilled 300 m north-west, i.e. down-dip, of NBL 4004 to examine possible stratigraphic control on the geochemical anomaly found in NBL 4004.

The hole intersected a series of shales, siltstones and sandstones. As samples from this hole were analysed by a different technique from the geochemical samples, results cannot be directly compared. Assays from NBL 4013 are all low and do not sufficiently explain the values found in NBL 4004.

#### 5.0 GEOLOGY.

On E.L. 675 shallow drilling encountered seven formations ranging from Precambrian in age through to lower Carboniferous (see d'Auvergne 1976 a).

These units dip north-westwards and are intersected by a series of faults trending north-eastwards. Movement on these faults has produced a series of unconformities within the Paleozoic sequence.

This stratigraphy continues onto E.L. 893 but the effect of faulting on stratigraphy does not appear as pronounced.

Only three of the formations recognised on E.L. 675 have been identified on E.L. 893 (see Figure 2). In the south-western corner of E.L. 893 suboutcropping Cambrian Volcanics were intersected but this unit was not encountered northwards due to the eastwards swing of the contact away from the drilling grid.

The Volcanics are overlain by a quartz sandstone containing thin calcareous layers and a blue-grey carbonaceous calcareous shale. Towards the north only the latter two formations were encountered.

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS.

The source of the geochemical anomaly in NBL 4004 has not been adequately explained. It does not appear that NBL 4013 intersected any downdip extension of this anomaly and NBL 4005 probably did not penetrate deep enough to intersect any possible downdip extension. Although NBL 4011 did not reach bedrock, zinc assays of up to 150 ppm. were encountered and may represent a lateral extension of the anomaly.

NBL 4013 may have been drilled too far west as a regular dip of approximately  $15^{\circ}$  along line 21 would place a unit at 24 metres in NBL 4004, at 105 metres in NBL 4013. Dips measured on outcrops in the Buffalo Hill area suggest a  $15^{\circ}$  west dip would be a minimum.

It is recommended that further investigation of the NBL 4004 anomaly be made by holes not more than 100 metres from the collar of NBL 4004.

For three kilometres south from line 19, the Antrim Plateau Volcanics and Precambrian form a lateral projection into the Paleozoic sediments. To the north of this projection only the upper-most of the formations found on E.L. 675 have been identified.

North of line 19 the base of the Paleozoic has not been encountered. It is possible that the lower formations could reoccur to the north of line 19.

The unit outcropping east of the Buffalo Hill fault may not be Cockatoo Formation but part of the Burt Range sandstone unit. If so, potential lower Burt Range units may lie concealed to the east of Buffalo Hill.

It is recommended that a profile of shallow holes be drilled eastwards from Buffalo Hill until the base of the Paleozoic sediments is encountered.

#### 7.0 BIBLIOGRAPHY

- D'AUVERGNE, P. (1975) E.L. 893, Legune, Progress Report, December 1974. (MG: 512), unpublished.
- D'AUVERGNE, P. (1976 a) E.L. 675, Flapper Hill, Annual Report for the Year Ending 1st November, 1975. (MG: 643), unpublished.
- D'AUVERGNE, P. (1976 b) E.L. 893, Legune, Progress Report, December 1975. (MG: 657), unpublished.
- RAMDOHR, R. and D'AUVERGNE, P. (1973) Exploration Licence 893, Progress Report, November 1973. (MG: 357) unpublished.

#### E.L. 893, LEGUNE

#### Expenditure for the Year Ending 30th April 1976

Printing & Drafting Supplies	\$	103.70
Salaries - Residents		162.56
Temporary Personnel		539.46
Permit Fees, Rentals		32.00
Aircraft Rental		151.18
Repairs & Maintenance Vehicles		48.50
Electricity & Gas		154.14
Accommodation, Meals & Misc. Expenses		82.55
Air Travel		227.88
Transport - Freight		6.50
Maps, Photos, Mosaics		29.43
Drilling	4	,862.00
Mobilization - Demobilization		368.58
Consulting - SNPA		434.12
Drafting & Printing		109.00
Analyses		72.56
Minerals - Salaries		783.00
Mineral Dept General Expenses		202.00
Legai Dept Expenses		24.00
Administration Costs	1	,131.00
	\$9	<b>,</b> 524.16

#### APPENDIX.

ROTARY DRILL LOGS NBL 4001 - 4013.

		AQUITAINE AUSTRALIA MINERAL	_		D.			
		DRILLING LO	00	3		•		
PERM	ШТ	P.D.H. NBL 4001	н	ole drille	d by	DAVIE	S DRILL	ING
E.L	. 893	Location LINE 20/300N	Н	ole start	ed	7.7.7	5 ·	ů.
STATE	Ε	Azimuth	Н	ole, comb	leted	7.7.7	5	
N.A	١.	Depression	Н	ole logge	ed by			
		VERTICAL				J.S. 1	loakes	
DEPTH	SAMPLE					<del></del>	ASSAY	
metres)	NUMBER	DESCRIPTION		Pb (%)	Zn (%)		·	
0- 2		Dlock soils						
2- 4		Black soils		·				•
4- 6 6- 8								
8-10								
0-12		Puggy clays and shales.Sandy at to	p.					
2-14			-			·		
4-16		Pale sandy clays						
5-18			٠					
8 <b>-</b> 20 0-22		Chocolate clays and sands.						
2-24 4-26								
								•
6-28 8-30		Mauve and grey sands and grey clayers sand. Some calcareous matrix in the	ey		-61			
0-32 2-34		clayey sand sequence, sand very fine	е	.0016	.0016			
2-34 4-35		grained and subangular.		.0018 .0016	.0020			
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PERM E.L			P.D.H. NBL Location LINE		1		.		le drille le start		DAVI	ES DRILL	ING	
STATI		. ]	Azimuth	21/000					je comt		7.7.			٠.
			Depression	_	•		- 1	-	le logge					
N.A	۹.	1		V	ERTICAL						J.S.	Noakes		
	( )							<del></del>						
DEPTH metres)	SAMPLE NUMBER		DE	SCRIP	TION			-	Pb (%)	Zn (%)		ASSA	Y S	
0- 2 2- 4		·	Black soil											
4- 6			Pad andu	slave										
6-8			Red sandy o	. iays										
8-10					·									
10-12 12-14			Yellow and subrounded	white wartz	well some sandsto	rted one.	Minor	r						
14-16 16-18			red clays			<del></del>			.0046	บบจบ				•
18-20 20-22								١.	.0010	.0012				
-0-66		·							.0008	.0010				
					•		٠							
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		<u> </u>							-					
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	•	AQUITAINE AUSTRALIA MINERALS		
	·	DRILLING LO	) G	· .
PERM		P.D.H. NBL 4003	Hole drilled by	DAVIES DRILLING
E.L		Location LINE 21/700N	Hole started	7.7.75
STATI	E	Azimuth	Hole completed	7.7.75
N.A	١.	Depression	Hole logged by	
		VERTICAL		J.S. Noakes
DEPTH	SAMPLE	DESCRIPTION	<u> </u>	ASSAYS
metres)	NUMBER	DESCRIPTION	Pb (%) Zn (%	
0- 2		Black soils		
2- 4		Didek 30113		·
4- 6		Red sandy clays		
6- 8 8-10				
0-12 2-14		Clear subrounded quartz grains in silica cement with rare green		
4-16		basic volcanic fragments.Sand is		
6-18 8-20		mature	.0008 .0008	
0-22 2-24			.0010 .0010 .0014 .0010	
L-64			1.0014 1.0010	
		•		·
•		•		
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	AQUITAINE AUSTRALIA MINERAL	S PTY. LTD.	· · · · · · · · · · · · · · · · · · ·
		og	
PERMIT E.L. 893 STATE	P.D.H. NBL 4004 Location LINE 21/900N Azimuth	Hole drilled by Hole started Hole completed	DAVIES DRILLING 8.7.75 8.7.75
N.A.	Depression VERTICAL	Hole logged by	J.S. Noakes
DEPTH SAMPLE (metres) NUMBER	DESCRIPTION	Pb (%) Zn (9	ASSAYS
0- 2 2- 4 4- 6	Black soils		
6- 8	Slightly sandy puggy clays		
8-10 10-12 12-14 14-16	Red clays with white translucent, well sorted, rounded quartz sand.		
16-18 18-20	White well packed fine grained mature quartz sands - rare pressure cement		
20-22 22-24 24-26	Very fine grained quartz sands as above. White-yellow, some yellow clay	1.0 0370	1
26-28	Chocolate muds - shales ?	1.15 0640	)  -
28-30	Sands as above	1340 0120	)

		AQUITAINE AUSTRALIA MINERAL		Y. LT	D.		
·		DRILLING LO	<i>J</i> G		· · · · · · · · · · · · · · · · · · ·		
PERM		P.D.H. NBL 4005		drille	-	DAVIES D	RILLING
	L. 893	Location LINE 21/1100N		star		8.7.75	
STATI		Azimuth Depression			pleted ed by	8.7.75	
N.	Α.	VERTICAL	noie	ioyy	eu by	J.S. Noa	kes
		VERTICAL					
DEPTH	SAMPLE NUMBER	DESCRIPTION			7. (2)	A S	SAYS
, men 62)	NOMBER		-	0 (%)	Zn (%)		
0- 2		Black soils becoming sandier					
2- 4 4- 6		with depth.					
6- 8 8-10							
10-12							
12-14		Brown clays and sands.					
14-16		Sim Grays and Sands					
16-18		Sands. Pale brown well sorted					
18-20 20-22		subangular quartz sandstone.				· 	
22-24					.0012		
24-26			.¢	022	.0018		
26-27		Very fine grained quartz sandstone with siliceous cement. Numerous purplespots possibly after oxidised pyrite.	e  .0	070	.0022	-	
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	AQUITAINE AUSTRALIA MINERALS  DRILLING LO		LTD.					
PERMIT E.L. 893 STATE N.A.	P.D.H. NBL 4006		Hale drilled by Hale started Hale completed Hale lagged by			DAVIES DRILLING 8.7.75 8.7.75 J.S. Noakes		
DEPTH SAMPLE metres) NUMBER	DESCRIPTION	Pb	(%) Zr	(%)	Α	SSAYS		
0- 2 2- 4 4- 6 6- 8	Surface black soils and brown sandy clays.			·				
8-10 10-12 12-14 14-16 16-18	Brown-black laminated dense puggy clays							
18-20 20-22	Red brown sandy clays							
22-24 24-26 26-28	Light yellow-brown dense puggy clays	.00	20 .0					
28-30 30-31	Sandy clays  Pale yellow/translucent subrounded well sorted medium grained quartz sand	j	36 .0 16 .0 32 .0				٠	
						•		

		AQUITAINE AUSTRALIA MINERAL  DRILLING L	LS P		D.			
PERM E.L STATE	. 893 E	P.D.H. NBL 4007 Location LINE 21/1470N Azimuth Depression	Ho Ho	le driller le starte le comp le logge	ed leted	DAVIES 8.7.75 8.7.75		IG
N.A	<b>\.</b>	VERTICAL				J.S. N	oakes	
DEPTH metres)	SAMPLE NUMBER	DESCRIPTION	<u> </u>	Pb (%)	Zn (%)	T	ASSAYS	
0- 2 2- 4 4- 6		Brown-grey sandy soils and clay.				-		
6- 8 8-10 10-12		Black soils and clay Brown muds, clays and sands						
12-14 14-16 16-18 18-20 20-22 22-24 24-26		Dense puggy clays becoming sandier and less puggy with depth.						
26-28 28-30 30-32 32-34 34-35		Pale yellow/translucent subrounded well sorted medium grained quartz sa	1	.0010 .0010 .0006	.0044 .0056 .0035			
	·							,
			İ	· ·				

PERMIT E.L. 893 STATE  N.A.  Depression  Depression  Description  Description  Dense puggy grey-brown clays  8-10 10-12 12-14 14-16 16-18 18-20 16-22 12-24 24-26 16-28 18-30 10-32 10-32 10-32 10-32 10-32 10-32 10-32 10-32 10-32 10-32 10-32 10-32 10-32 10-34 14-35  P.D.H. NBL 4008  Location LINE 20/550N  Hole drilled by DAVIES DR. Hole started 8.7.75 Hole completed 8.7.75 Hole logged by J.S. Noake  P.D. (%) Zn (%)  Dense puggy grey-brown clays  AS  P.D. (%) Zn (%)  Dense puggy grey-brown clays  AS  P.D. (%) Zn (%)  Dense puggy grey-brown clays  AS  P.D. (%) Zn (%)  Dense puggy grey-brown clays  AS  P.D. (%) Zn (%)  Dense puggy grey-brown clays  Dense puggy gr	•
STATE N.A.  Depression  VERTICAL  Hole completed 8.7.75 Hole logged by  J.S. Noake  DEPTH SAMPLE DESCRIPTION  DESCRIPTION  Black soils  O- 2 2-4 4-6 6-8 8-10 0-12 2-14 4-16 6-18 8-20  Dense puggy grey-brown clays  Pale yellow/translucent subrounded well sorted medium grained quartz sand  Pale yellow/translucent grained quartz sand  O-32  Double 170	
N.A.  Depression  VERTICAL  Depression  VERTICAL  J.S. Noake  J.S. Noake  J.S. Noake  Depression  J.S. Noake  J.S. Noake  Depression  J.S. Noake  J.S. Noake  Depression  J.S. Noake  J.S. Noake  J.S. Noake  As  Pb (%) Zn (%)  Depression  As  Pb (%) Zn (%)  As  Pb (%) Zn (%)  Depression  As  Pb (%) Zn (%)  Pb (%) Zn (%)  As  Pb (%) Zn (%)  A	
N.A.  DEPTH SAMPLE DESCRIPTION  O- 2 2- 4 4- 6 6- 8 8-10 0-12 2-14 4-16 6-18 8-20 0-22 2-24 4-26 6-28 8-30 0-32 Pale yellow/translucent subrounded well sorted medium grained quartz sand  DESCRIPTION  DESCRIPTION  AS  Pb (%) Zn (%)  Pb (%) Zn (%)  Dense puggy grey-brown clays  Pb (%) Zn (%)  Pc (%) Zn (%)	
DEPTH SAMPLE DESCRIPTION AS  O- 2 Pb (%) Zn (%)  O- 2 Pb (%) Zn (%)  Black soils  O- 2 Pb (%) Zn (%)  Dense puggy grey-brown clays  O-12 Pale yellow/translucent subrounded well sorted medium grained quartz sand  O-32  O-32  O-32  O-10 O-170	
Dense puggy grey-brown clays  Dense puggy grey-brown clays  Belous and clays.  Red sandy clays.  Pale yellow/translucent subrounded well sorted medium grained quartz sand  Dense puggy grey-brown clays  Red sandy clays.  Pale yellow/translucent subrounded well sorted medium grained quartz sand  Dense puggy grey-brown clays  Red sandy clays.  Dense puggy grey-brown clays  Red sandy clays.	BAYS
Dense puggy grey-brown clays  Dense puggy grey-brown clays  Belous and clays.  Red sandy clays.  Pale yellow/translucent subrounded well sorted medium grained quartz sand  Dense puggy grey-brown clays  Red sandy clays.  Pale yellow/translucent subrounded well sorted medium grained quartz sand  Dense puggy grey-brown clays  Red sandy clays.  Dense puggy grey-brown clays  Red sandy clays.	, 415
2- 4 4- 6 6- 8  8-10 0-12 2-14 4-16  6-18 8-20  0-22 Pale yellow/translucent subrounded well sorted medium grained quartz sand 6-28 8-30 0-32  .0016  .0070	
2- 4 4- 6 6- 8 8-10 0-12 2-14 4-16 6-18 8-20 0-22 0-22 2-24 4-26 6-28 8-30 0-32 Dense puggy grey-brown clays  Pale yellow/translucent subrounded well sorted medium grained quartz sand  .0016 0170	
Dense puggy grey-brown clays  Dense puggy grey-brown clays  Dense puggy grey-brown clays  Red sandy clays.  Pale yellow/translucent subrounded well sorted medium grained quartz sand  and  .0016 0170	
8-10 0-12 2-14 4-16 6-18 8-20 0-22 0-22 2-24 4-26 6-28 8-30 0-32 Dense puggy grey-brown clays  Red sandy clays.  Pale yellow/translucent subrounded well sorted medium grained quartz sand  .0016 0170	
0-12 2-14 4-16 6-18 8-20 Pale yellow/translucent subrounded well sorted medium grained quartz sand 6-28 8-30 0-32 .0016 .0170	
2-14 4-16  6-18 8-20  Pale yellow/translucent subrounded well sorted medium grained quartz sand 6-28 8-30 0-32  .0016  .0016	
Red sandy clays.  Pale yellow/translucent subrounded well sorted medium grained quartz sand  sand  -28 8-30 0-32  Red sandy clays.  Pale yellow/translucent subrounded quartz well sorted medium grained quartz sand  .0016  0170	
Pale yellow/translucent subrounded well sorted medium grained quartz sand sand -28 8-30 0-32 0-32 0-0016 0170	
Pale yellow/translucent subrounded well sorted medium grained quartz sand s-28 8-30 0-32 0-32 0-0016 0170	
2-24   well sorted medium grained quartz   sand   s	
well sorted medium grained quartz sand s-28 3-30 D-32 well sorted medium grained quartz sand .0016 0170	
6-28 8-30 0-32 .0016 .0170	
0-32 .0016 .0170	
Brown-grey clays and sands-shales(?) .0028 .00600034 .0080	
.0034 0060	
	•
	•

		AQUITAINE AUSTRALIA MINERAL DRILLING LO	.s r		D			
PERMIT E.L. 893 STATE N.A.		P.D.H. NBL 4009  Location Line 20/700N  Azimuth  Depression  VERTICAL		ole drille ole start ole comp	ed oleted	DAVIES DRILLING 9.7.75 9.7.75 J.S. Noakes		
DEPTH metres)	SAMPLE NUMBER	DESCRIPTION		Pb (%)	'Zn (%)	A S	SAYS	
0- 2 2- 4 4- 6 6- 8 8-10 10-12 12-14 14-16 16-18 18-20 20-22 22-23		Dense puggy clays Brown dense slightly sandy puggy clay Yellow clays with translucent subangular to subrounded quartz gray Hole abandoned because of closing in of clays, jamming drill rods.	ins.	.0014 .0002 .0002	.0010	·		

E.L. 893 STATE N.A.	Location LINE 20/900N Azimuth	Hole drille Hole start Hole comp Hole logge	ed oleted	DAVIES DRILLING 9.7.75 9.7.75 J.S. Noakes
DEPTH SAMPLE (metres) NUMBER	DESCRIPTION	Pb (%)	Zn (%)	ASSAYS
0- 2 2- 4 4- 6 6- 8	Black soils			
8-10 10-12 12-14 14-16 16-18	Dense brown puggy clays.			
18-20 20-22	At 19 m, clays becoming sandy.			
22-24 24-26 26-28 28-30 30-32 32-34 34-36	Yellow/translucent subangular to subrounded quartz sand			
36-38	Unconsolidated recent sands containing many small shells and sponge spicules	g .0004	.0014	
38-40	White and mauve/translucent fine grained subangular to subrounded pyritic quartz sandstone.	.0012	.0032	-
		-		

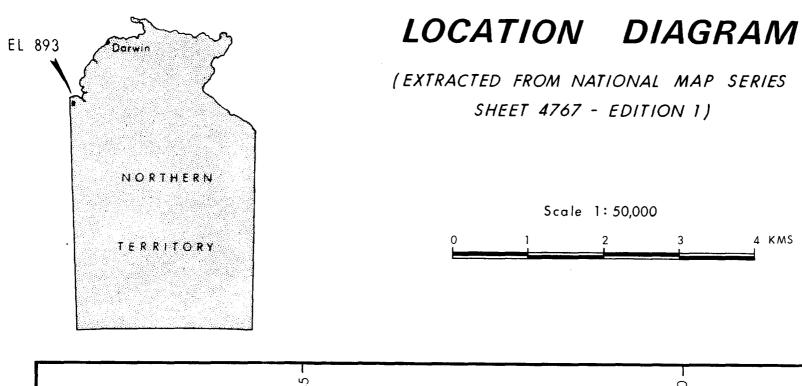
	AQUITAINE AUSTRALIA MINERAL		
	DRILLING LO	OG	
E.L. 893 STATE N.A.	P.D.H. NBL 4011 Location LINE 20/1100N Azimuth Depression VERTICAL	Hole drilled by Hole started Hole completed Hole logged b	9.7.75 4 9.7.75 y
			J.S. Noakes
DEPTH SAMPLE (metres) NUMBER	DESCRIPTION	Pb (%) Zn	ASSAYS
0- 2 2- 4 4- 6- 6- 8	Black soil		
8-10 10-12 12-14	Dense puggy clays		
14-16 16-18	Red sandy clays		
18-20 20-22 22-24	Yellow sandy clays		
24-26 26-28 28-30 30-32 32-34	Chocolate brown mud		
34-36 36-38 38-40		.0050 .01 .0032 .01 .0026 .01	00
	Bedrock not reached		

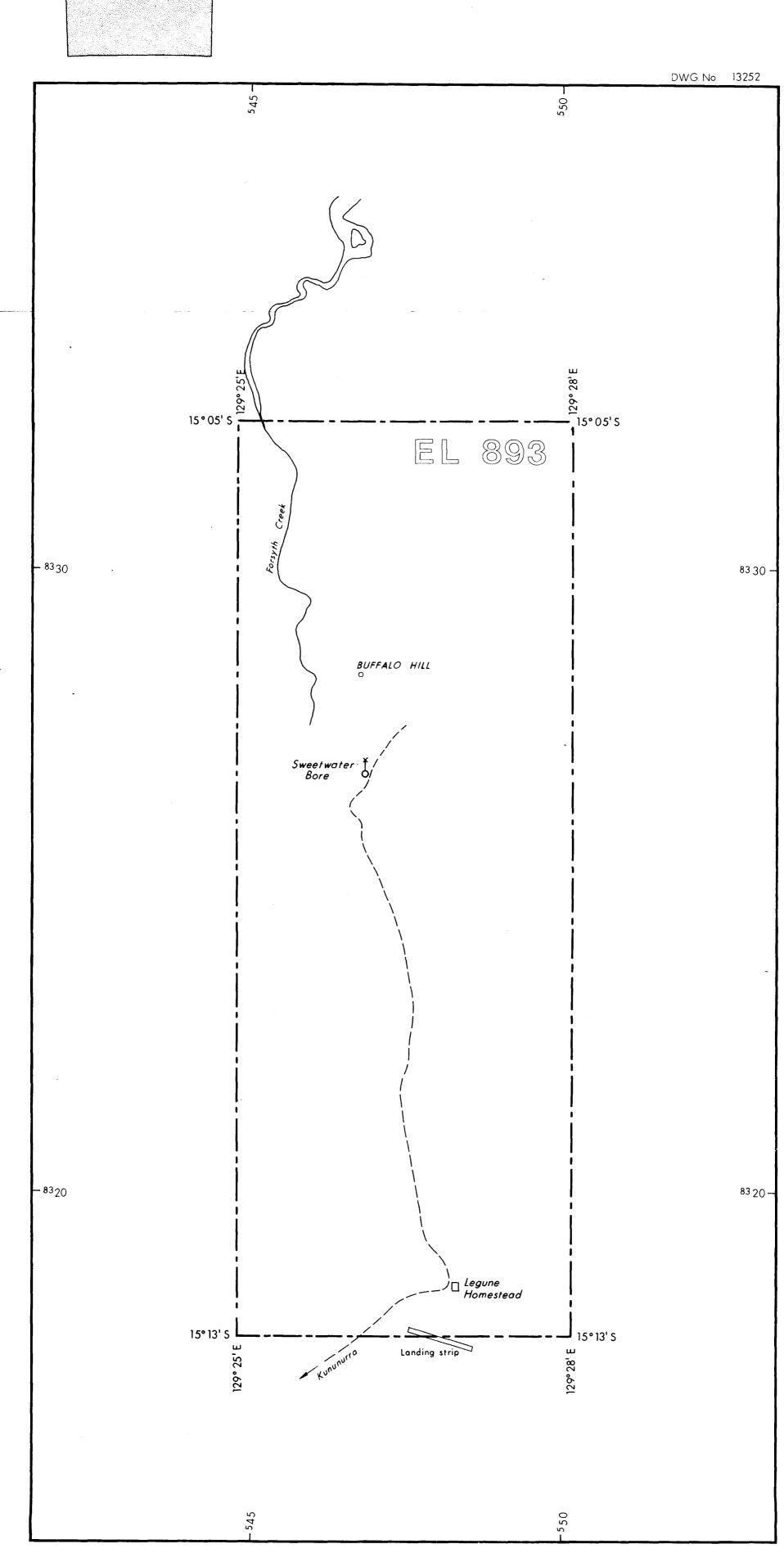
	AQUITAINE AUSTRALIA MINERALS  DRILLING LO	
PERMIT E.L. 893 STATE N.A.	P.D.H. NBL 4012 Location LINE 19/300N	Hole drilled by DAVIES DRILLING Hole started 9.7.75 Hole completed 9.7.75 Hole logged by  J.S. Noakes
DEPTH SAMPLE metres) NUMBER	DESCRIPTION	A S S A Y S Pb (%) Zn (%)
0- 2 2- 4 4- 6 6- 8	Black soils	
8-10 10-12 12-14 14-16 16-18 18-20 20-22 22-24	Dense puggy clays	
24-26 26-28	Calcrete	
28-30 30-32 32-34	At 29 m. weathered pyroxene gabbros.	.0050 .0210

	~ -·=							
			AQUITAINE AUSTRALIA MINERA	ALS:	PTY. LT	D.		7
			DRILLING L	-00	3	Page	1 of 2.	
	PERM		P.D.H. NBL 4013	+	tole drille	d by	DAVIES DRILLING	
	E.L LEG	. 893	Location L21 - 1200N	+	Hole start	ed	4.9.75	
	STATE		Azimuth	,	Hole comp	oleted	5.9.75	
<b>-</b>	N.A	ı	Depression VERTICAL		Hole logge	ed by		
							W.G. Morris	
<b>-</b>	EPTH	SAMPLE			T	<del></del>	ASSAYS	_
		NUMBER	DESCRIPTION		Pb (%)	Zn (%)		1
	0- 2		Fine grey silt overburden.					1
	2- 4							Į.
	4- 6 6- 7							
	7- 8		Grey brown clods of clay - probably	,				
	8-10		weathered shale.					l
	l0-12 l2-14							١
					AQUI	TANIX		
	14-16 16-18		Weathered interbedded shale and sar stone (clay and sand) - some FeO induration.	1 <b>a -</b>				
	18-20		Very hard silicified qtz sandstone	wit	h			
	20-22 22-24		<pre>some shaly bands and minor Fe0 indu tion.</pre>	ıra-				
_ 2	24-26							l
2	26-27	·						
	27 <i>-</i> 28 28-30		Brown-grey clay and silt (weathered	i				
] 3	30-32		shales and siltstone.)		.15	.45		
	32-34 34-36							
3	3 <mark>6-3</mark> 8		·		`			1
	38-40 10-42				.25	.65		1
			As above but some handen alay alode					
	12-44 14-46		As above but some harder clay clods	•				
Δ	16-48		Weathered porous dolomite cemented	atz	.20	.45		
-   4	18-50		sandstone and clays and some ironst					
	50-52 52-54		_					
	54-56 56-57				.15	.30		
					1.20	. 90		ĺ
	57-58 58-60		Dark brown clay and ironstone.		•			Table 1
	50-62		Yellow sandy clay					1984 A. 1984
7		1						
	52-64	7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	Friable qtz sandstone -subround grains.					A
	4-66		Yellow sands with increasing clay		.15	.20		
6	6-68		content.					j

		AQUITAINE AUSTRALIA MINERALS  DRILLING LO			ge 2 of 2.	
PERMIT E.L. 893 LEGUNE STATE N.A.		P.D.H. NBL 4013 Location L21 - 1200N Azimuth Depression VERTICAL	Hole drille Hole start Hole comp Hole logg	ted pleted	DAVIES DRILLING 4.9.75 5.9.75 W.G. Morris	
DEPTH (metres)	SAMPLE NUMBER	DESCRIPTION	Pb (%)	Zn (%)	ASSAYS	
58-70 70-72		Yellow to yellow brown clays with minor ox. sandstone -partly FeO indurated.		.45		
72-74 74-76	ŀ		.15	.25		
76-78 78-80			.15	.25		
80-82 82-84 84-86 86-88			.10	.30		
88-90 90-92			.15	.40		
92-94 94-96		Limit of oxidation	.25	.25	·	
96-98		Fresh pale grey quartzite with about 1-2% disseminated pyrite.				
98-100		White qtz sandstone - poorly sorted	.20	<.10		
100-10	2	As above but with 1-2% disseminated pyrite also grey clay (fresh shale)				
102-10 104-10		As above but some FeO induration	.20	<b>&lt;.10</b>		
		End of the hole 105 m				
·			·			

## EL 893 - Legune

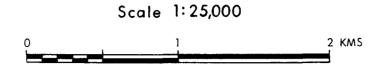


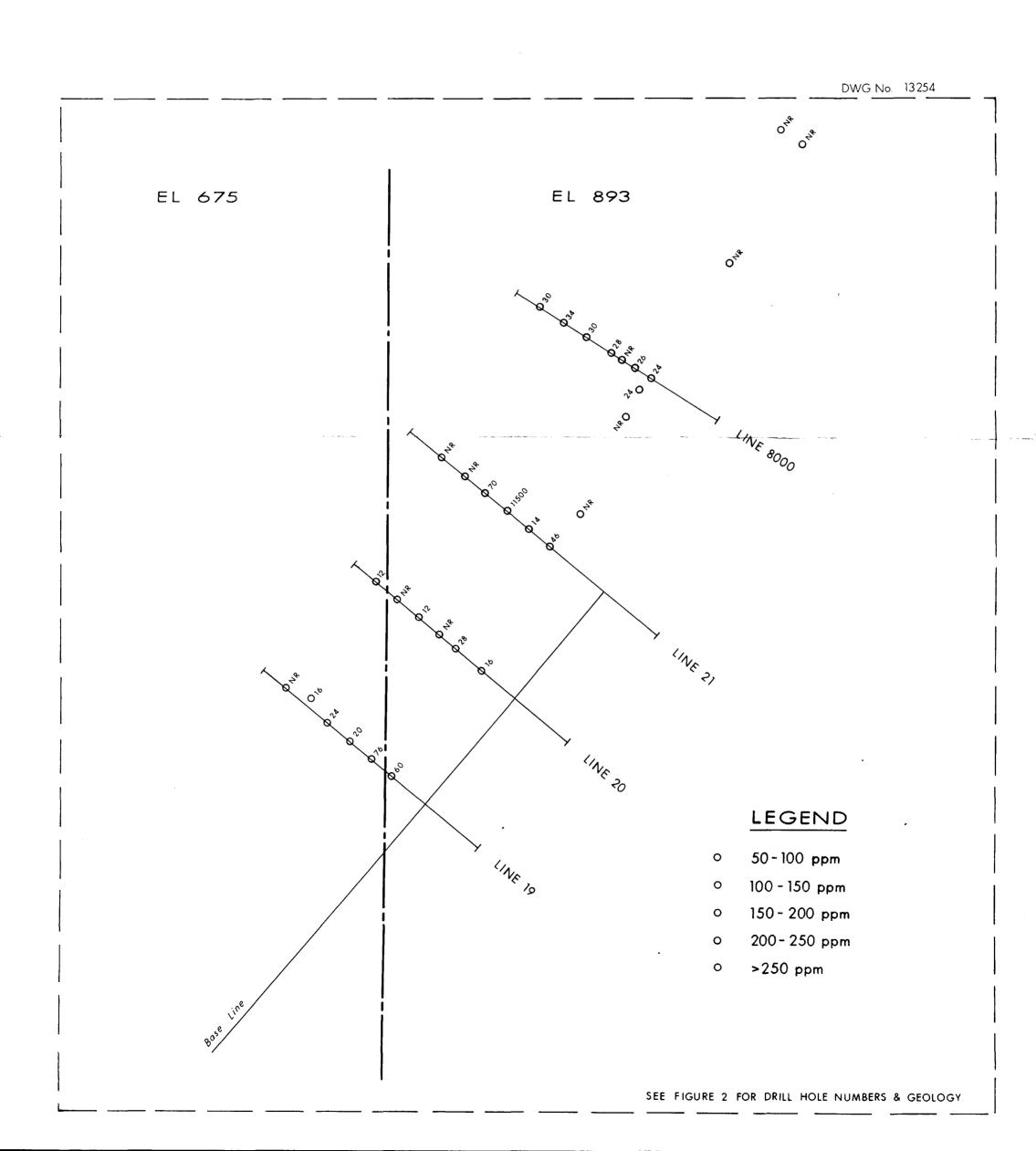


Bose Plan 11627 M.G. 695 FIGURE 2 AQUITAINE AUSTRALIA MINERALS PTY. LTD. EL 893 - Legune BEDROCK GEOLOGICAL MAP EL 1031 EL 893 Scale 1:25,000 "BUFFALO HILL" Sweetwater X | Bore Czs LEGEND UNDIFFERENTIATED Cainozoic POINT SPRINGS SANDSTONE Ferruginous quartz sandstone BURT RANGE FORMATION Carbonaceous calcaréous shale L. Carboniferous (CIb) Quartz sandstone Rare thin carponare lavers BURT RANGE FORMATION Limestane, dolomite, chicarecu**s s**andstor e KELLY'S KNOB SANDSTONE (Duk) Pebbly quartz sandstone U Devonian Ferruginous sandstones & conglomerate RAGGED RANGE CONGLOMERATE III Intermediate to basic volcanic extrusives Combrian ANTRIM PLATEAU VOLCANICS Pink & grey laminated mudstönes & siltstones Precambrian UNDIFFERENTIATED TROMAN NUMERALS USED FOR COLOUR HIDEXING CHILY! ROTARY DRILL HOLE LOCATION & NUMBER (prefixed NBF unless shown) CONTACT KNOWN ROTARY HOLE DRILLED PRIOR TO 1975 CONTACT PROBABLE ---- CONTACT CONJECTURAL --- FAULT EL BOUNDARY AS AT \$1st OCTOBER 1975 AREA COVERED BY FIGURES 3 & 4 OF THIS REPORT Legune Homestead CR76/71

### EL 893 - Legune

### BEDROCK LEAD GEOCHEMISTRY





### EL 893 - Legune

### BEDROCK ZINC GEOCHEMISTRY

