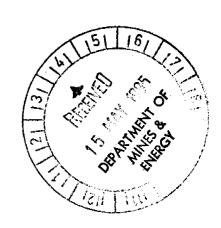


### **Dominion Mining Limited**

# EL 7364 - WESTERN HOWLEY ANNUAL REPORT FOURTH YEAR OF TENURE

16.4.94 - 15.4.95 Tipperary 1:100,000 Map Sheet



**∞** 

Distribution:

A. Elliston May 1995

NTDME
Dominion Mining Limited, Perth
Dominion Mining Limited, Darwin

**OPEN FILE** 

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#### 1.0 SUMMARY

This report details the exploration activities conducted on EL7364 during the 1994/95 field season or the first year of renewed tenure ending 15 May 1995.

The licence which originally comprised of two graticular blocks was granted to Dominion Gold Operations Pty Ltd on 16 April 1991 for a period of three years. Currently the tenement consists of one graticular block due to compulsory relinquishment.

Exploration activities consisted of systematic gridding, soil sampling, vacuum drilling and RAB drilling in areas of Cambrian/alluvial cover. Results of this program were sporadic with a peak gold response of 95ppb. This result however was considered non representative due to the vacuum drill hole sampling of the Cambrian Jindare Formation, which by its lateritic nature tends to scavenge elements to give higher assay results. A vertical RAB hole at the same site recorded a below detection gold response, underneath the Cambrian cover in targeted South Alligator group sediments.

#### 2.0 LOCATION AND TENURE

EL7364 is located 170km south of Darwin, approximately 3km south and southeast of the Cosmo Howley Gold Mine and is located on the Fenton 1:50,000 (14/5-1), map sheet. See Figure 1 for tenement location.

Access is via the Stuart Highway, sealed Dorat and Oolloo roads and Douglas Station tracks.

The Licence was granted to Dominion Gold Operations Pty Ltd on 16 April 1991 for an initial period of three years, with a renewal granted in May of 1994 for a period of two years. Covenant for year 4 was \$12,000.

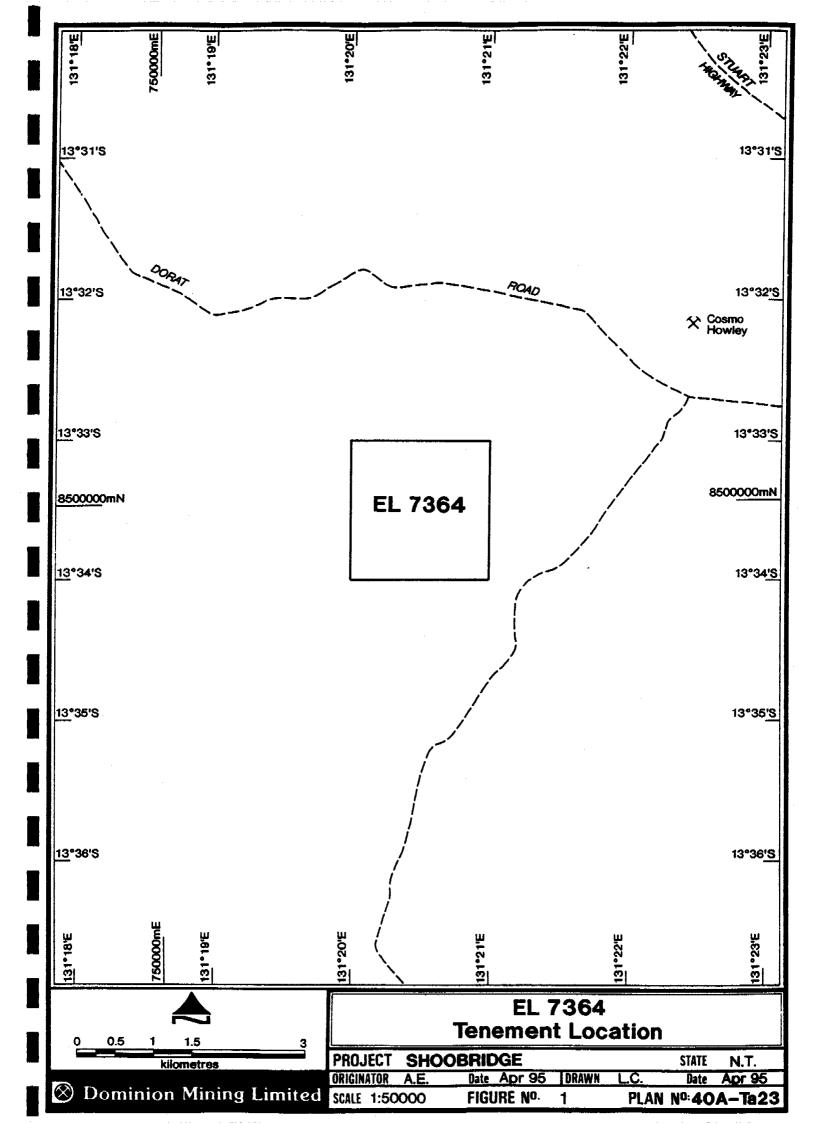
#### 3.0 GEOLOGY

#### 3.1 Regional Geology

The geology of the Pine Creek Inlier is well documented by Needham et al 1990 and Wallace et al 1985.

The Inlier consists of Early Proterozoic pelitic to Psammitic and tuffaceous metasediments derived from alternating deposition of shallow marine and continental sediments. In turn these sediments have been intruded by pre-orogenic dolerite sills and syn-post orogenic granatoids.

Greenschist facies metamorphism prevails throughout the central portions of the Inlier with an increase in grade to amphibolite facies at granitic contacts.



#### 3.2 Local Geology

Previous mapping has identified a major anticlinal structure west of Cosmo Howley within Early Proterozoic South Alligator group sediments. This anticline has been faulted off by a N-W trending fault zone with the original antiform being offset northwards or bifurcating into a second anticline which trends south easterly beneath Cambrian or lateritic cover.

Rocktypes in the area consist of Lower Proterozoic metasediments of the Gewowie Tuff and Flysch type deposits of the younger Burrell Creek Formation. See Figure 2 for local geology.

#### 4.0 PREVIOUS EXPLORATION

Previous exploration in the area was conducted by a number of different companies which are summarised below:

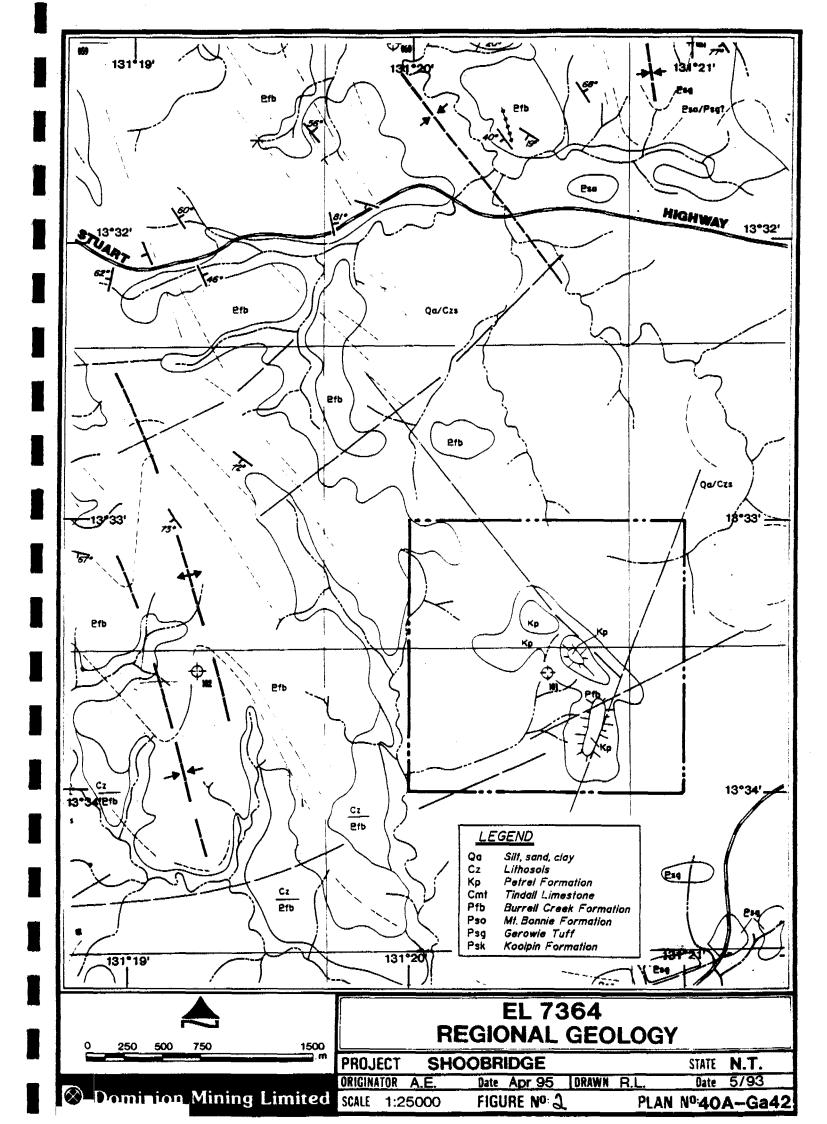
- 1978 Nord Resources Exploration for uranium, gold and base metals incorporating exploration techniques such as, aerial photograph interpretation, geological mapping, ground magnetics and rock chip sampling.
- 1980 Urangasellshaft Exploration for uranium, gold and basemetals utilising geochemical sampling techniques.
- 1982 Mines Administration Pty Ltd Exploration for uranium and base metals, utilising geochemical sampling techniques.
- 1982 Greenex Exploration for tin/tantalum and wolfram utilising heavy mineral sampling of selected streams.
- 1988 Northern Gold NL exploration for gold using BLEG stream sediment sampling procedures, soil sampling and aerial geophysics.

#### 5.0 PREVIOUS DOMINION EXPLORATION

Exploration by Dominion has consisted of aerial photographic interpretation, Airborne and ground geophysics, regional stream sediment sampling and geochemical soil sampling.

Results for this phase of exploration, with the exception of geophysical interpretation, were disappointing with peak stream sediment sample results of 5ppb Au and 18ppm As.

Rock chip and soil sampling returned no encouraging results.



#### 6.0 DOMINION EXPLORATION (Fourth Year of Tenure)

Dominion exploration for year four of tenure involved systematic gridding to control geochemical soil sampling, vacuum drilling and RAB drilling on an 1000m x 50m sample array.

#### 6.1 Gridding

A total of 4.0 line kilometres of gridding was installed throughout the tenement to control geochemical sampling.

#### 6.2 Soil Sampling

Soil sampling, as with all the geochemical sampling, was conducted on an 1000m x 50m sampling array and confined to areas of subcrop and outcrop within the EL. In total 17 samples were collected and sieved to -2mm for approximately 2kg of soil.

Samples were analysed for low level gold, arsenic, copper, lead and bismuth by Amdel Laboratories in Darwin by AAS techniques.

Detection limits were set as follows:

Au	1ppb
As	5ppm
Cu	1ppm
Pb	1ppm
Bi	1ppm

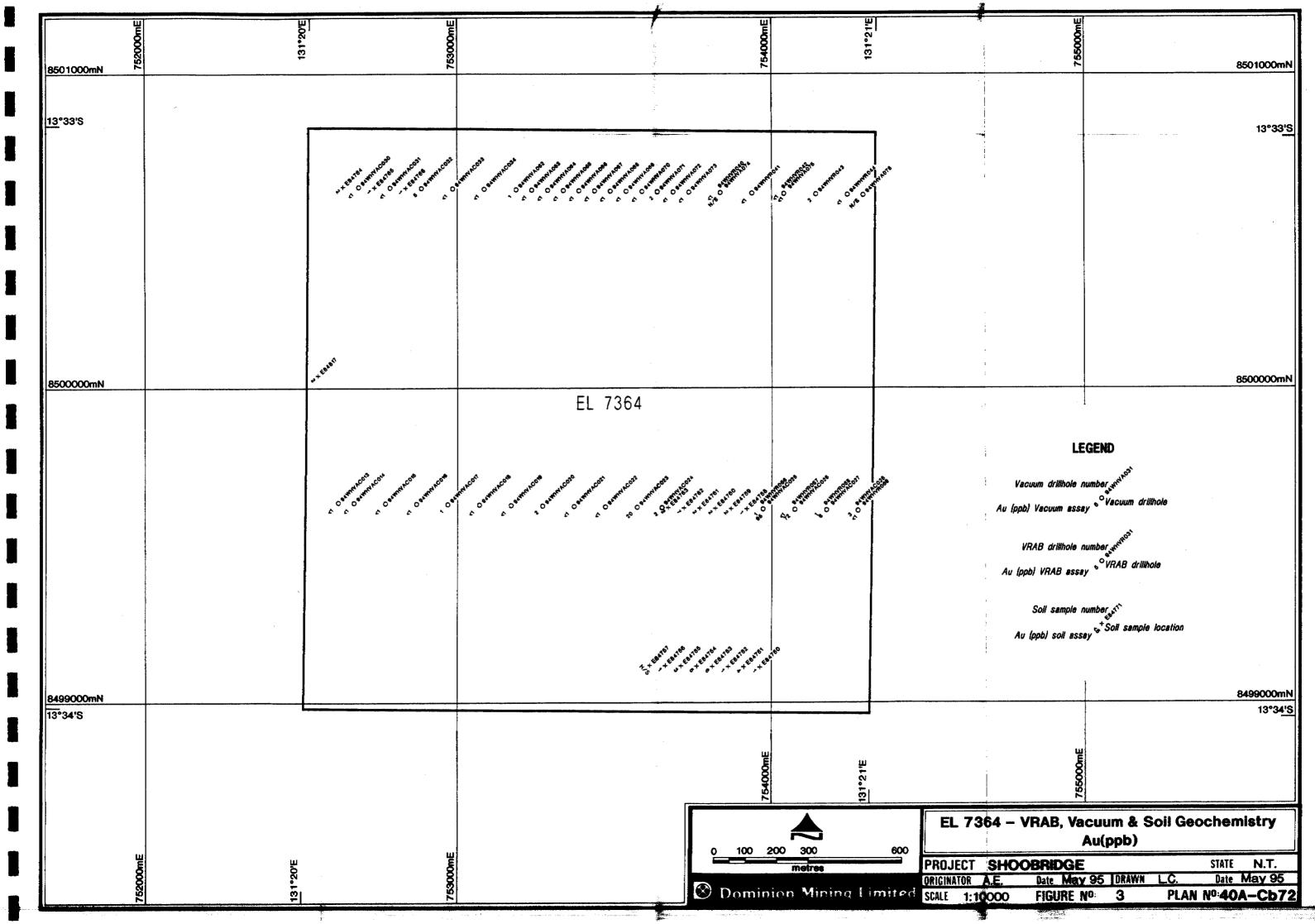
Soil sample location and assay results can be seen in Figures 3 and 4 with logs and analytical results included as Appendix 1.

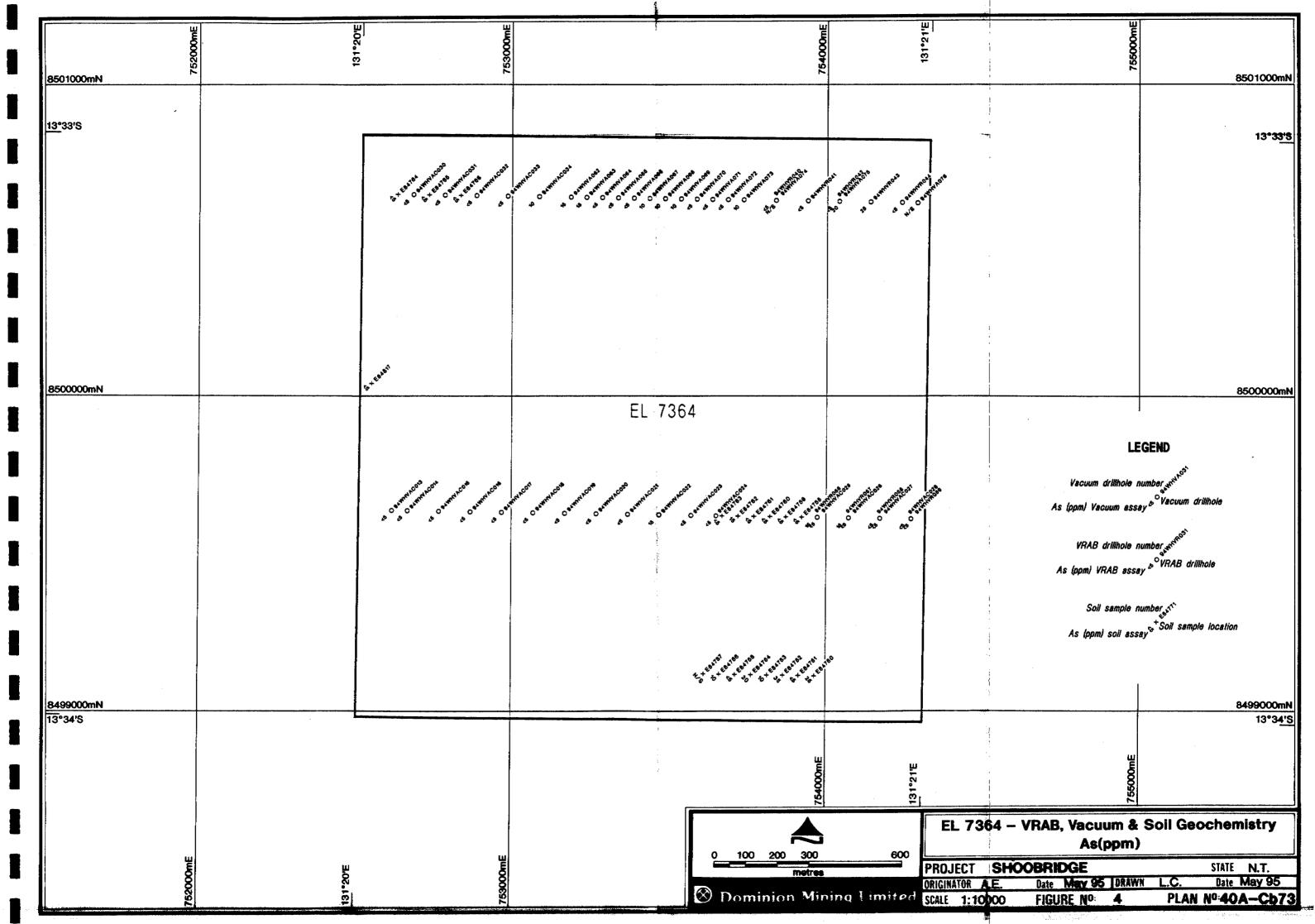
#### 6.3 Vacuum Drilling

Vacuum drilling was carried out in an effort to drill under superficial transported soils and alluvium. A total of 36 holes for 149.5m were drilled within the tenement.

The drilling was contracted to Vacuum Drilling of Dongara WA using a tractor mounted drill rig. At each site a 6cm hole was drilled to weathered bedrock. Samples were collected every metre and laid out on the ground in piles. A single sample representative of bedrock and the base of the hole was collected for analysis. On the completion of each hole it was capped and filled in level with the ground surface.

Drilling was hampered by difficulties penetrating damp clays and gravels which combined with some difficult access resulted in the drilling contractor operating on a daily rate rather than a meterage rate.





Drill hole locations and assay results can be seen in Figures 3 and 4 while drill logs and analytical results are attached as Appendix 2.

#### 6.4 Vertical RAB Drilling

In order to drill under the non representative Cambrian Jindare Formation, a RAB rig from Stadcote Drilling in Tennant Creek was employed. Drilling procedures and analytical assays were identical to that of the abovementioned geochemical drilling with the only difference being that of a larger diameter drill hole (3.0").

Again problems with drilling through damp clays and gravels necessitated the contractor operating on a daily rate rather than a meterage rate. A total of nine holes for 230m were drilled. Drill hole locations and assay results can be seen in Figures 3 and 4 while drill logs and analytical advice is included as Appendix 3.

#### 6.5 Regolith Mapping

As part of a regional photogeological regolith mapping program currently being undertaken by Dominion, the area underlain by EL7364 is being surveyed. Results of this survey will be presented in the next progress report when data is available.

#### 7.0 RESULTS

Results were generally poor in the targeted South Alligator group with spot highs of 10ppb Au in RAB hole # 45 and a 6ppb Au result for soil sample # E84753.

#### 8.0 EXPENDITURE

Expenditure for the 1994/5 field season follows:

Surveys/Gridding		723
Assays		1392
Earthworks		132
Drilling		8571
Salaries/Wages		3008
Field Supplies		285
Consultants		423
Vehicle Costs		313
Drafting/Computing		534
		15381
Overhead(15%)		2307
	Total	
		\$17688
		======

#### 9.0 FUTURE EXPLORATION

Future exploration will concentrate on further infill geochemical testing of the licence utilising soil and/or bedrock drilling techniques. A budget of \$4000 has been set aside for this work.

#### 10.0 REHABILITATION

The only rehabilitation required during the course of exploration was the capping of drill holes. This was conducted during the course of the program.

#### 11.0 REFERENCES

Bredhaeur H. 1994 EL7364 - Western Howley Renewal Report 16 April 1991 to 15 April 1994

Burn, N.R. April 1992 Annual Report for EL's 7355, 7364 "Western Howley" Year One of Tenure

Burn, N. May 1993 EL7364 - Western Howley Annual Report to 15 April 1993 Year Two of Tenure

Needham, R.S., Crick, I.H. and Stuart-Smith, P.G. 1980
Regional Geology of the Pine Creek Geosyncline. In Ferguson, J. and Goleby, A.B., (Editors) - Uranium in the Pine Creek Geosyncline.
International Atomic Energy Agency, Vienna, pp1-22.

Needham, R.S. and Stuart-Smith, P.G. 1984 Geology of the Pine Creek Geosyncline, 1:50,000 Geological map. Bureau of Mineral Resource, Australia.

Page, R.W., Compston, W. and Needham, R.S. 1980

### **APPENDIX 1**

**SOIL SAMPLE LOGS** 

**AND** 

**ANALYTICAL RESULTS** 

# MINING LIMITED

GEOCHEMICAL SAMPLING

Co-ordinate/	Description	Sample No.	AG STRIY San gon
Laboratory: AMDEL	Analytical Metho	ods:	
Sample Type: <u>Joic</u>	Sampler: A	·E	Date: 6-6-94
Project:	Prospect: West	hern Howley	

	/ \_ \_ \_	i				4	-
7000 N	9950€	Hinor Scree or Gase	84750	1	25	105	28
	9900	next to track	84751	4	<b>45</b>	43	14
	9 850	rest to track  Agreent to Hill minor  Sere	84752	1	Ľ	160	1
	9800	551 scre 100 Stope	84753	6	10	73	13
	9750	"Is mts E of asterno"	84754	5	20	32	16
	9 100	15 mts E of osterop 551/5gm Serve 40° Slope	84755	3	<5	59	10
	9 650	" no gti lo slape	84756	1	10	62	12
	9600	" gentle 2"50 Slose"	84757	LNIC	Lron	LNR	LNR
7500 N	9900	" gentle 250 Stope" Set Some base of Skep 4411	84758		45	51	17
	9850	Sol + Q+2 Scree	84759	2	45	1]	5
	9800	581 Serce 220° Stope	84760	1.5	<5	4	5
	9750	55/+ 9+2 Scre ~ 20° Stope	84761	2	<b>&lt;</b> 5	9	7
	9700	SSI Scree 11	84762	٦	15	80	23
	9650	Box of 4,4 501 Size.	84763	ನ	<b>4</b> 5	20	10
8500N	8600€	Base of Hill Otz Deprotek flood + SSI SSI Serve + Micaccous	84764	2	45		6
	8700E	SSI SOME & MICECEOUS	84765		45	3	4

Remarks



### DOMINION MINING LIMITED

### GEOCHEMICAL SAMPLING

Project:  Sample Type:  Laboratory:  AMA	Sampler:		Page Date	1 1 0
Co-ordinate/	Description	Sample No.	PPB As	PAROLYSIS OFM
F - C	Sol some (ADMOINT)	0-16	177	1/3 1/3 /

Remarks



Final

Job: 4DN0661 O/N: 20948

O/N: 20948

SAMPLE AuDp1 AuDp2 Cu	Pb	As	Bi
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ANALYTICAL REPORT

E84750	1		105	28	25	<1
E84751	4		43	14	<5	<1
E84752	1		160	24	35	<1
E84753	6		73	13	10	<1
E84754	5		82	16	20	<1
E84755	3		59	10	<5	<1
E84756	1		62	12	10	<1
E84757	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
E84758	1		51	17	<5	<1
E84759	2	2	11	5	<5	<1
E84760	2	1	4	5	<5	<1
E84761	2		9	7	<5	<1
E84762	7		80	23	15	<1
E84763	2		20	10	<5	<1
E84764	2		4	6	<5	<1
E84765	1		3	4	<5	<1
E84766	1		14	6	<5	<1

UNITS	ppb	dqq	ppm	ppm	ppm	mqq
DET.LIM	1.0	1	1	1	5	1
SCHEME	AA9	AA9	AA9	AA9	AA9	AA9

### **APPENDIX 2**

**VACUUM DRILL LOGS** 

**AND** 

**ANALYTICAL RESULTS** 



<b>VACUUM DRILL LO</b>	G
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Project:\_\_\_\_

Prospect: West Houley
Sampled: A.E.

Contractor: Reg. TRALEY

Logged: A.E

Aleja Ne	Constitution	Sloped	Driman: Deportator		8e	condary	Descrip	olor		Remarks	Sample No.	Interval	Au	As	Depth	€m	€m	I
Hole No.	Co-ordinates	Vector	Primary Descriptor	Altn	Comp	Movo	Rock	Text	Weth	Hollialka	Campie ito.		pps	ppm		Blade	Hammer	

" 13 7500N 8600E	Oal Squ A3	E 83039 1-1.5 21.0 25 1.5
" 14 8650E	Oal San A3	83040 1-2 <1.0 <5 2
115 87506	Bat-Sqw A3	83041 2-3 <1.0 <5 3
1. 16 88506	Oal-SqN A3	83042 2-4 41.0 45 4
" 17 89506	Oal-San A3	83045 2-4 1 <5 4
" 18 9050E	Oa1-132-951 A3	85044 2-3 <1.0 <5 3
" 19 9150E	001 M3J 051 A3 + V 92 301.	83045 4-5 41.0 < 5
4 20. 92506	0a1 5g~ 84 9=E	83046 4-5 2 <5 5

Remarks:

### **ODMINION MINING LIMITED**

VAC	UU	M	DR	IL	L	LO	G

Project: Prospect: Western Howley Page Zot Z

Logged: A.E Sampled: A.E Date: 1-2/6/94

Hole No.	Co-ordinates	Sloped	Primary Descriptor		Se	condary	Descrip	tor		<b>D</b>						Em	€ m
12.01.0.		Vector		Alla	Comp	Mava	Rock	Text	Weth	Remarks	Sample No.	interval	Λυ <i>ρ</i> 46	As Asmi	Depth	Blade	Hammer
94 WHYAC-21	7500N/9350E		Osa-Sgw SA6							Siliceous	€ 85047	2-4	-0</td <td>حح</td> <td>4</td> <td></td> <td></td>	حح	4		
12	9450€	 	059-5gw 133								83048						
23	9550E		Osp-Set-B72							Gerwouse?	83049	'	1	'	1		
24	9630€		Osa-Sny Sal RB6							Bescof Hill m gully	830 <b>5</b> 0			45	10		
25	9750€		Osg-Sny 531 86							Bescot Hill in gully Other side of Lill	83051	9-10			10		
26	100502		Osp-Sct-5=1 B5								83052						
27	10150€		Osp. Ss1 - B7								83053	1		حح	1 1	· — · · · · · · · · · · · · · · · · · ·	
28	10250€		Osp Sny-531-B7							10350-550 E TOO UCY	83.54	L	ł	25	1		
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31	8750E	<u></u>	Osa-Sqw-A2					,			83056	1		1			
32	8850€	<u> </u>	Osa-Sgw-AZ									1-2					
33	8950€		Osa-Sny 5:1- B4									3-4	3				
34	9050€		Osa-Sny Sil-B4 Osa-Sgm- B6									1 2 2		1	9		
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Remarks:

# DOMINION MINING LIMITED

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# DOMINION MINING LIMITED

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Propod: Western Howley
Loggod: QH,

Prospect:\_\_\_\_\_

Page 3 of 3 Date: 7/9

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Job: 4DN0585 O/N: 20939

Final ANALYTICAL REPORT

SAMPLE	AuDp1	AuDp2	Cu	Pb	Bi	As

E83039	<1.0		9	6	<1	<5
E83040	<1.0		28	11	1	<5
E83041	<1.0		26	8	<1	<5
E83042	<1.0		14	5	<1	<5
E83043	1		16	6	<1	<5
E83044	<1.0		15	7	<1	<5
E83045	<1.0	<1	67	7	<1	<5
E83046	2		43	8	<1	<5
E83047	<1.0	<1	35	11	1	<5
E83048	<1.0		46	21	<1	15
E83049	20		105	12	<1	<5
E83050	2		12	6	<1	<5
E83051	100	90	270	34	<1	15
E83052	75	70	230	26	<1	15
E83053	6		31	7	<1	<5
E83054	3		41	11	<1	<5
E83055	<1.0		11	4	<1	<5
E83056	<1.0		25	23	<1	<5
E83057	5		9	8	1	<5
E83058	<1.0		13	8	1	<5
E83059	<1.0		41	8	1	10

UNITS	ppb	ppb	ppm	ppm	ppm	mqq
DET.LIM	1.0	1	1	1	1	5 .
SCHEME	AA9	AA9	AA9	AA9	AA9	AA9



Job: 4DN1215 O/N: 20719

Final

ANALYTICAL REPORT

SAMPLE AuDp1 AuDp2 Cu Pb As Bi

F91362	<1		10	1	10	<1
F91363	<1		21	4	10	<1
F91364	<1		9	<1	<5	<1
F91365	2	3	8	1	<5	<1
F91366	<1		15	<1	<5	<1
F91367	<1		31	2	10	<1
F91368	<1	<u></u>	23	1	20	<1

UNITS ppb ppb ppm ppm ppm ppm ppm 5 1 1 1 1 5 1 SCHEME AA9 AA9 AA9 AA9 AA9 AA9 AA9

### **APPENDIX 3**

**VERTICAL RAB LOGS** 

**AND** 

**ANALYTICAL RESULTS** 



<b>VER</b>	TICA	L RAE	LOG

Contractor: STADCOTE DAILLING

Howley Project: WESTERN QH Logged:

Prospect:

Date: 5//0

Sampled:

11010 110 944448-

Co-ordinates

Primary Descriptor

Secondary Descriptor

**Nemarks** 

Sample No.

Interval

As Depth pab pan

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042 041	10100E	]	Syl + mar Rig	light	Miss		51-19	U 7	<u>mi)</u> Ssn2l	5c(21 <u>-26m. Ruy 24-25a</u> m	1	<u>25-26</u> 21-22	$\frac{\times}{2}$	X 25	<u>26</u> 22	<u>45</u> 67	
044 943	1020UE		bi Ms <b>c</b>			T	ss]-19.	J	Syn 20			21-22	x	×	22	89	

# DOMINION MINING LIMITED

VERTICAL RAB LOG Contractor: Stateste			Project: 6 Jacob 1100 Jeg. Logged: AE	Prospect: Sampled:AE	Page <u>6</u> of <u>7</u> Date: 7/10 19/10
Hola Ho.	Co-ordinatas	Primary Descriptor	Secondary Descriptor  Allo Comp Move Hock Text Wath	inniks Sampla No. Interval Au	As Depth Em Em Hammer

	09.054	1500N 9150E	LB7 Ssice (B	93)   Eg	6km	الرس	15c/	<u> Se0/</u>	1 - 1a	10 ses of	479	36-37	<u> </u>	X	37	37	Suz	
		START 11/10/4	Wednesday														-	
i	057055	7,500N 10050E		vy 40 /	$\epsilon$	32m				Qz veined	480	33-34	入	*	34		W	
	058 056	10/508	187 mi 551/581	1 mar sct,	21	less,	relamo	ploscul	than p	revious	481	20-21	1	<u>X</u>	시	55	_\	
  -	059 057	102501	PB7 fire missl				u	, t C	. "	u	482	31-32	<u>x</u> _	<u>_</u> X_	32	87	_ _	



Job: 4DN1447 O/N: 20731

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#### ANALYTICAL REPORT

SAMPLE	AuDp1	AuDp2	As	Cu	Bi	Pb
F96464 F96465 F96466 F96467 F96468	<1 <1 <1 2 <1	 2 	<5 <5 <5 25 <5	3 9 5 4 5	<1 <1 <1 <1 <1	4 4 2 5 6
 F96479 F96480 F96481 F96482	1 <1 1 <1	 <1 	<5 <5 <5 <5	22 11 17 11	<1 <1 <1 <1	7 5 7 4

UNITS	ppb	ppb	mqq	mqq	mqq	mag
DET.LIM	1	1	5	1	1	1
SCHEME	AA9	AA9	AA9	AA9	AA9	AA9