WESTERN MINING CORPORATION LIMITED
EXPLORATION DIVISION

TERMINAL REPORT and ANNUAL REPORT
on
E.L. 2361
SEPTEMBER, 1980 to SEPTEMBER, 1986

PASADENA, S.A.
JANUARY, 1987.

S.L. HANCOCK
DARWIN, N.T.

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PERIOD	:	SEPTEMBER 10, 1980 to SEPTEMBER 9, 1986.
TENEMENT	:	EXPLORATION LICENCE 2361.
MINERAL	:	GOLD AND OTHER MINERALS
LOCATION	:	1:250 000 SHEET - PINE CREEK SD52-8 1:100 000 SHEET - BATCHELOR 5171
AUTHOR	:	S.L. HANCOCK
DATE	:	JANUARY, 1987

SUMMARY

A brief review of the geology of E.L. 2361 on Batchelor north 1:50 000 sheet (5171N) is given together with an overview of exploration completed during the period of the licence. Exploration was completed in two phases. Exploration in the period 1982 - 1984 by W.J. and E.E. Fisher focussed on helicopter assisted rock chip sampling and assay of samples for gold, arsenic and lead. Results of 66 samples are presented.

Second stage exploration during 1985 and 1986 was managed by Western Mining Corporation Limited and included assessment of rock chip anomalies (reported 1985) and relatively detailed traverse soil sampling over the licence area. This programme aggregated 36.4 line km of 2 x 20 m x -80# composite soil samples (28.4 line km on 2361 West and 18 line km on 2361 East).

Exploration expenditure for the period 10th September, 1985 to 9th September, 1986 was $29,567.

CONTENTS

FIGURES

1. INTRODUCTION

E.L. 2361 was granted to Mesdames Mainelis and Cooke on 10th September, 1980. W.R. Grace Australia Limited subsequently negotiated an option to purchase the title to the area and this was exercised on 21st April, 1983. In January, 1985 the exploration licence became part of the Mt. Ringwood Joint Venture between W.R. Grace Australia Ltd. and Western Mining Corporation Limited. Western Mining Corporation assumed effective management of the tenement on 1st January, 1985.

This report has been compiled to report exploration work programmes completed by Western Mining Corporation Limited on E.L. 2361 over the period 10th September, 1985 to 9th September, 1986 and to briefly review exploration on the licence prior to this.

The exploration licence was located on the Batchelor North 1:50 000 sheet area (5171N) and, at relinquishment, comprised two portions (Figure 1) totalling three graticular blocks. Access to both areas is good via station tracks during the dry season.

Old gold workings held under mineral claims by other parties are present within the confines of both portions of E.L. 2361 (Figure 2) and the aim of exploration within the area was to attempt to locate additional mineralization outside the areas held under claims.

2. GEOLOGY

Published B.M.R. mapping assigns the wacke and phyllite sequence exposed within E.L. 2361 to the Burrell Creek Formation of the lower Proterozoic Pine Creek Geosyncline system. Our own observations in the licence and on adjoining areas explored by the Mt. Ringwood Joint Venture suggests the sequence exposed in E.L. 2361 comprises units of the middle Burrell Creek Formation as exposed in this area.

The rock sequence within the licence comprises dominant quartz-feldspar-lithic, part tuffaceous, medium grained wackes with lesser quartz-chlorite-muscovite phyllites after metasiltstones generally as thin units but occasionally aggregating to significant thicknesses (>10 m). Wackes are dominantly near framework supported types although units of high matrix wacke are prominent in portions of E.L. 2361 West block. Grading is generally only weakly developed in most units but rare good exposures confirm most elements of typical Bouma turbidite cycles are present over most of the licence area.

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The sequence has been folded by regionally developed, upright D2 age structures of typically flat north plunge. A well developed, upright S2 surface is almost ubiquitously developed and trends from 0^{o} to 060^{o} magnetic within the licence area. Limb dips on F2 folds are generally steep ($\geq 60^{o}$) and hinge areas are tight and occasionally faulted away. Subsequent to D2, the sequence was affected by fault-like movements associated with overworking of the F2 fold envelope, slip along bedding planes and the emplacement of generally thin (1 to 3 m) veins of bucky quite quartz which are commonly conformable and tend to a saddle-and-leg geometry. Past gold workings within E.L. 2361 have exploited relatively thin zones of conformable auriferous quartz vein material in saddle and near-hinge leg positions.

A prominent, linear, north-west trending regional aeromagnetic feature passes just to the northeast of the licence area and is thought to indicate a regional Proterozoic mafic dyke.

3. REVIEW OF EXPLORATION ON E.L. 2361

Exploration within the licence area was completed in two phases over the duration of the licence. The first phase was completed by staff of W.J. and E.E. Fisher as consultants to W.R. Grace Australia Limited over the period 1982 - 1984 and utilized a regional, helicopter assisted, selective rock chip sampling and gold assay appraisal technique used with success in regional evaluation elsewhere within this area. Results of this programme have been reported previously and assay data are indicated on Figure 2 together with a compilation of licence geology compiled from both published mapping and photogeological interpretation completed by L.G. Smith as a consultant to W.J. and E.E. Fisher.

Work completed by Western Mining Corporation Limited subsequent to 1st January, 1985 involved appraisal of areas of rock-chip gold response defined by W.J. and E.E. Fisher Pty. Ltd. and completion of reconnaissance traverse soil sampling and geological mapping over the licence area. The appraisal of previous data and field inspection results were reported in our Annual Report on E.L. 2361 for the period September, 1984 to September, 1985. The regional soil sampling programme was completed in the last year of the licence in two phases. The extent of coverage of this programme is indicated on Table 1.

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Table 1 : Exploration Activities : 1985/86 - E.L. 2361

Licence Block	Line Spacing	Line Km	Samples
E.L. 2361 West	Reconnaissance lines at 800 m north south and infill over areas of interest at 200 m north-south spacing.	28.4	2 x 20 m x -80#
E.L. 2361 East	Lines spaced 200 m north-south over whole licence block.	18	2 x 20 m x -80#

Soil samples were collected at 20 m intervals along the line and a composite of two samples was sieved in the field to -80# and analysed for gold using graphite furnace, solvent extraction techniques at Western Mining Laboratories. Data will be reported elsewhere.

4. EXPLORATION EXPENDITURE

Exploration expenditure for the period 10th September, 1985 to 9th September, 1986 have been summarized on Table 2.

Table 2 : Summary of Exploration Expenditure 1985/86 - E.L. 2361

Item	Amount
Geological	$ 9,711
Geochemical	6,500
Analytical	12,472
Drafting	241
Leasing	318
Administration	325
Total:	$29,567

Past expenditures on the E.L. 2361 licence area have been reported in relevant annual reports.

AREA of this REPORT

E.L. 2347 EXPLORATION LICENCE BOUNDARY.

BOUNDARY OF JOINT VENTURE AREA.

LOCATION DIAGRAM

WESTERN MINING CORPORATION LIMITED
EXPLORATION DIVISION

LEASING PLAN

MT. RINGWOOD JOINT VENTURE

PINE CREEK AREA N.T.

CR 87/8

Compiled by: D.A. Bruse.	Map Reference: SD52-8
Date: 5.2.85.	Plan No. 7034/2
Scale: 1:250 000	

Revised. D.A. Bruse 30.10.86. FIG 1 ~~FIG 2~~

Note :- x 1981/1982 Sample locations

• 1982/1983 Sample locations

AA893239. 1985. Rock Chip Sample Locations

GEOLOGICAL REFERENCE

	Qa	Silt, Clay, sand, black soil, alluvium
	Qs	Alluvial sand, outwash & colluvial deposits
	Cz	Undifferentiated Cainozoic sediments
Burrell Ck. Formation	Pfb	Siltstone, shale, slate, greywacke, quartz pebble conglomerate, massive feldspathic lithic greywacke

ASSAY RESULTS (ppm)

X = Element concentration is below detection limit

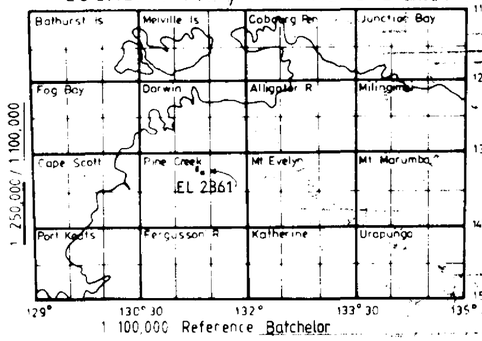
No.	Au	As	Pb	No.	Au	As	Pb
D 1	0.01	x	11	D 69	x	50	37
2	x	x	7	71	x	x	x
3	x	567	58	82	0.66	130	22
4	x	265	78				
5	0.05	682	18				
6	0.04	1389	76				
7	1.07	4214	287	C 7035	3.60	1.45%	86
8	3.55	4148	206	7036	0.005	x	4
9	0.44	4855	75				
10	0.28	702	38	7047	0.005	x	3
11	0.05	1729	79	7048	x	x	1
12	11.28	964	120				
13	0.59	134	48				
14	0.36	3392	263				
15	2.35	4712	590				
16	0.04	342	382				
17	0.52	3820	267				
18	0.07	159	133				
19	0.05	367	68				
20	0.15	832	170				
21	0.21	2018	123				
22	8.80	4478	122				
23	0.83	2830	209				
24	0.21	625	119				
25	0.21	366	52				
26	2.45	3393	272				
27	3.10	7304	572				
28	0.15	2503	1360				
29	0.39	1880	372				
30	0.97	4384	239				
31	0.19	200	8				
32	70.80	1.37%	22				
33	3.20	1330	582				
34	0.48	380	79				
35	0.08	90	9				
36	2.08	2400	82				
37	0.01	80	63				
38	x	x	2				
39	0.05	987	255				
40	0.67	951	273				
41	0.03	408	363				
42	0.09	113	486				
43	x	x	1				
44	0.36	790	20				
46	0.04	790	14				
47	2.38	4.20%	134				
49	2.50	1340	113				
50	0.06	900	174				
51	x	x	2				
52	3.56	950	326				
53	0.04	3100	96				
54	x	710	66				
55	x	x	4				
56	0.02	780	12				
58	5.51	1170	83				
59	x	60	3				
64	x	140	17				
65	0.04	600	178				
66	x	x	8				

Area retained for 4th year of licence

REVISIONS

Revised by	Date	Revised by	Date
Mineral Leases and 1985 Rock Chip Samples	D.A.B. 8.10.85		

LOCALITY MAP / MAP REFERENCE



1:100,000 Reference Batchelor

Acknowledgement

This map was prepared from the 1:100,000 Topographic map the 1:25,000 Geological map and aerial photography with additional features supplied from chain and compass survey

FIG:2

LEGEND

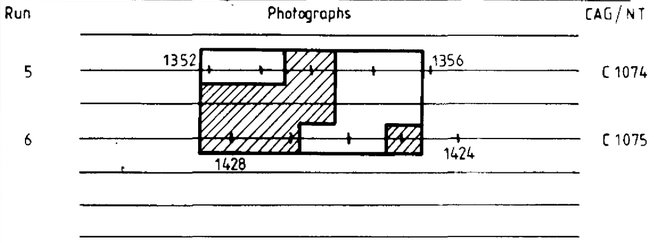
	Road with bridge		Anticline
	Vehicular track with gate & grid		Syncline
	Railway line		Overturned anticline
	Landing ground		Fault
	Fence line		Shear zone
	Power / telephone line		Minor anticline
	Creek or river with waterhole		Minor syncline
	Swamp		Drag fold
	Escarpment or cliff	45	Strike & dip of strata
	Building (used or disused)		Vertical strata
	Stock yard		Trend line showing dip
50	Survey Stn., Spot height		Plunge symbol on trend line
20	Contour line (in metres)		Lineament
	Mine or substantial workings	q	Dyke or vein, q., peg.g
	Costean or pit	45	Strike & dip of foliation
X/●	Sample location		Vertical foliation
		45	Strike & dip of cleavage
	Geological boundary		Vertical cleavage
	Unconformity		Trend of plunge of lineation

NOTE :- For additional symbols refer to the relevant Geological Map Series applicable to the area enlarged on this sheet.

Aerial Photography covering the area of this map

AREA Batchelor YEAR 1973 COLOUR /

Run Photographs CAG/NT



SCALE 1:25,000 HEIGHT ASL 13,000 FOCAL LENGTH

0 1 2 3 Km

Scale :- 1 25,000

TN MN

Magnetic deviation 3°45 easterly

CR 87/8

7033 B/1(A)

W.J & E.E FISHER
Mining & Exploration Consultants

Client Cook Mainelis J.V./ W. R. Grace
EL 2361, Lost Hill
Retained Area - 4th Year of Licence
1983-1984 Exploration Program
GEOLOGICAL MAP
SHOWING SAMPLE LOCATIONS

1:250,000 Reference Pine Ck

Geologist I McDonald	Scale 1:25,000	Report No.
Drawn NTE & MS	Date Sept 1985	F/5171/455 A