PROJECT FILE PROPERTY FILE

GEOCHEMICAL REPORT

on the

T.E.L. 1-4 CLAIMS

Nanaimo Mining Division

N.T.S. 92F/IE

49º06.3' N 124º04' W

OWNER: T.E.Lisle

OPERATOR: Chevron Canada Resources Limited

AUTHOR: S. G. McAllister

March 6, 1987



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT

TYPE OF REPORT/SURVEY(S)	TOTAL COST
GEOCHEMICAL	\$829.39
AUTHOR(S) S. G. McAllister sign	NATURE(S) S. M. Welliste
• • • • • • • • • • • • • • • • • • • •	
DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILE	D YEAR OF WORK 1986
PROPERTY NAME(S) T.E.L. 1-4.	
COMMODITIES PRESENT Copper, Silver	
B.C. MINERAL INVENTORY NUMBER(S) IF KNOWN 164	
	NTS92F/1E
ATITUDE 49°06'18" LON	IGITUDE 124°04!
NAMES and NUMBERS of all mineral tenures in good standing (when world) (12 units); PHOENIX (Lot 1706); Mineral Lease M 123, Mining or Certified	k was done) that form the property (Examples TAX 1-4, FISE 2. Minipp Lease MI 12 (claims rosolived).
	T.E.L. 4 1348 (1 unit)
T.E.L. 3 1347 (1 unit)	
OWNER(S)	
(1) . T. E. Lisle	
MAILING ADDRESS	
145 West Rockland Rd.,	
North Vancouver, B. C. V7N 2V8	
OPERATOR(S) (that is, Company paying for the work)	
(1) Chevron Canada Resources Limited (2)	
••••••	
MAILING ADDRESS	
1900 - 1055 W. Hastings St.,	
Vancouver, B. C. V6E 2E9	•
SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization	
A silicified and highly carbonatized as well	•
in Triassic Karmutsen basalts near the unconf	
Cretaceous Nanaimo Group clastic sediments.	••
102 m. x. 18 m. in size and the following minera	•
bornite, tetrahedrite and chalcocite.	
REFERENCES TO PREVIOUS WORK Carson, D. J CI	M. Bulletin, May, 1969 sessment Reports, 1984 and 1985

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INTRODUCTION

The author spent October 22, 1986 on the property collecting soil samples across the unconformable contact between the Triassic Karmutsen basalts and the overlying Cretaceous Nanaimo Group clastic sediments. The purpose of this traverse was to determine if there is a significance difference in the geochemistry between the soils derived from the two rock types. To date no alteration or mineralization has been observed within the sediments.

LOCATION, ACCESS AND TOPOGRAPHY

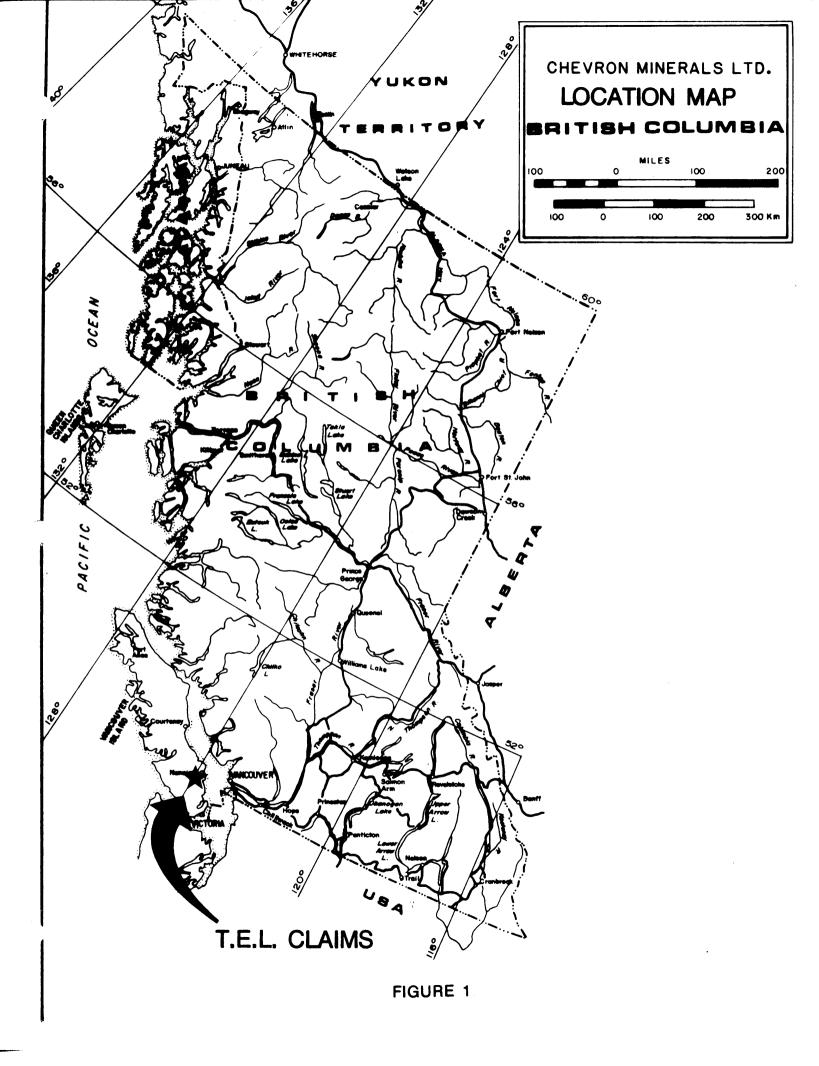
The T.E.L. 1-4 mineral claims are located approximately 13 kilometers southwest of Nanaimo on Vancouver Island (Figure 1) and are easily accessed via logging roads which continue onto the center of the claim block. Under dry conditions a 2-wheel drive vehicle is adequate for access.

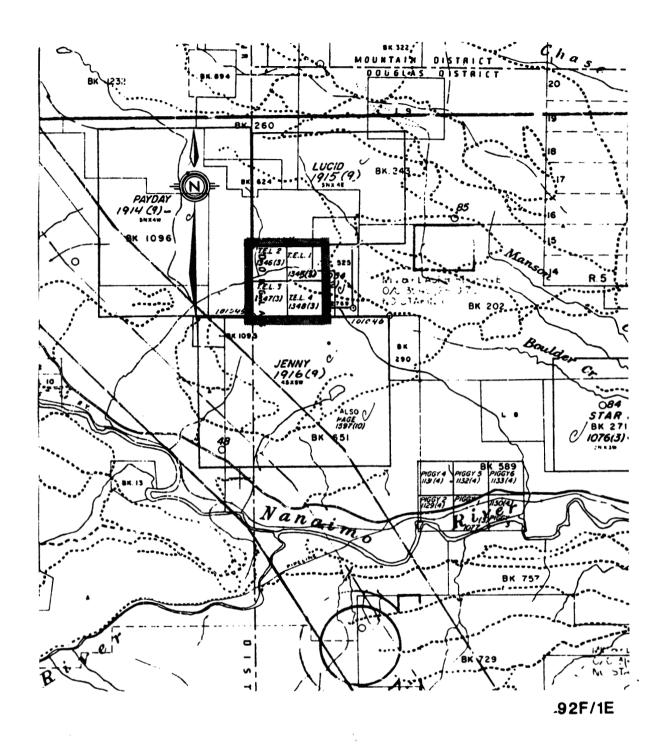
The claims are approximated 460 m above sea level in an area of low to moderate relief that has been logged, replanted and recently thinned.

CLAIM STATUS

The work outlined in this report was conducted by Chevron Canada Resources Limited on the following claims (Figure 2) owned by T.E. Lisle of North Vancouver;

Claim	Record Number	<u>Units</u>	Record Date	Expiry Date (before submission of this report)
T.E.L. I	1345	I	March 15,1983	March 15,1987
T.E.L. 2	1346	ı		March 15,1988
T.E.L. 3	1347	1	March 15,1983	March 15,1987
T.E.L. 4	1348	1	March 15,1983	March 15,1987





T.E.L. 1-4 CLAIM MAP

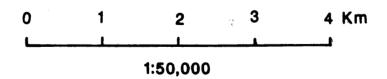


FIGURE 2

HISTORY

The property was originally staked in 1962 by MacMillan and Godfrey. An area of approximately 30.5 m x 61 m was exposed by trenching.

The claims subsequently expired and were restaked as the Bear claims by Gunnex in 1963. Preliminary geological, geochemical and magnetic surveys were carried out as well as additional trenching before the claims were allowed to expire.

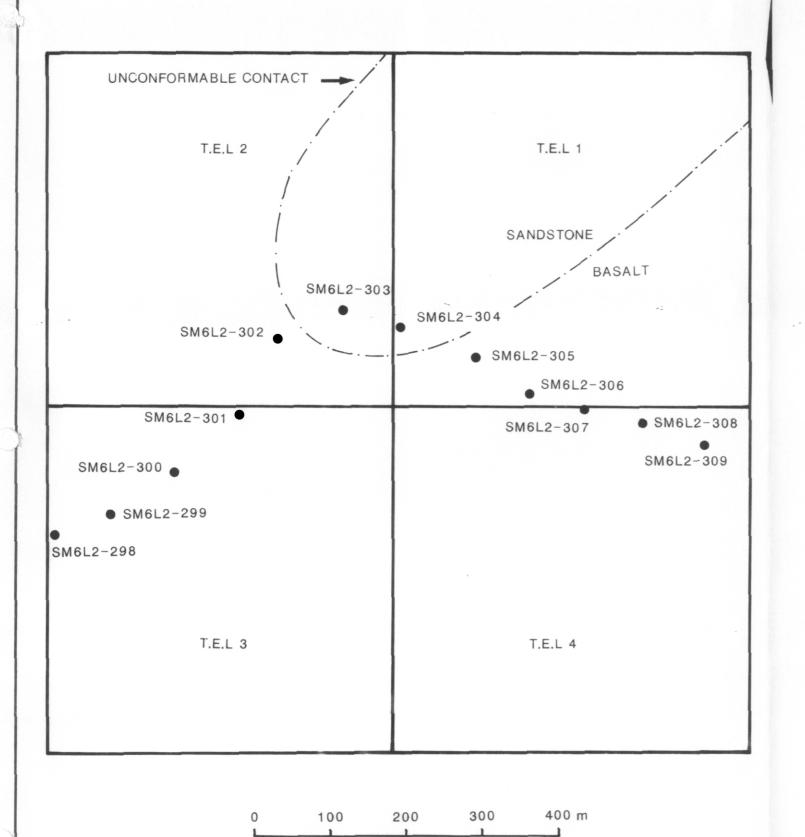
In 1979 Gary Mines staked the Bull 1-10 claims and conducted 23.9 kilometers of geochemical surveys and approximately 28 square m of trenching.

The property was staked and allowed to lapse by Mr C. Kowall in 1979 and by Specogna Minerals Limited in 1982. Mr. T.E. Lisle has held the property since March 15, 1983.

SOIL GEOCHEMISTRY RESULTS

A total of 12 soil samples (Figure 3) were collected from the B horizon at an approximate depth of 15 cm and stored in gusseted Kraft sample bags. The samples were sent to Chemex Labs in North Vancouver and analysed for the following elements; Au, Sb, As, Bi, Cd, Cu, Ga, Pb, Mo, Ag, Tl and Zn. Soils were analysed for gold using fire assay and atomic absorption. ICP-AES (Inductively coupled plasma-atomic emission spectroscopy) analysis was used for the remaining 11 elements. These techniques are outlined in Appendix 4.

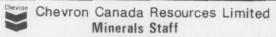
Samples SM6L2-301 and 303 had gold values that were higher than background. These soils are underlain by basalt and sandstone, respectively. The geochemical response for antimony, bismuth, cadmium, gallium, molybdenum, silver and thallium was almost



TEL GEOCHEMISTRY
SOIL SAMPLES

SAMPLE #	Au ppb	Sb ppm	As ppm	Bi ppm	Cd ppm	Cu ppm	Ga ppm	Pb ppm	Mo ppm	Ag ppm	TI ppm	Zn ppm	
SM6L2-298	-5	0.1	- 1	0.2	0.1	100	14	5	1	0.4	0.1	51	
SM6L2-299	-5	0.1	3	0.1	0.1	83	14	2	- 1	0.3	0.1	37	
SM6L2-300	-5	0.1	1	0.1	0.1	46	14	2	1	0.1	0.2	30	
SM6L2-301	20	0.1	2	0.1	0.1	96	14	- 1	- 1	0.1	0.1	36	
SM6L2-302	-5	0.1	1	0.1	0.1	68	12	- 1	1	0.1	0.1	36	
SM6L2-303	80	0.1	2	0.2	0.1	48	13	9	- 1	0.3	0.1	66	
SM6L2-304	-5	0.2	1	0.1	0.1	76	15	4	2	0.3	0.1	95	
SM6L2-305	-5	0.3	9	0.2	0.2	47	14	30	1	0.1	0.1	133	
SM6L2-306	-5	0.1	1	0.1	0.1	52	15	-1	1	0.1	0.1	81	
SM6L2-307	-5	0.2	1	0.1	0.1	123	14	6	- 1	0.2	0.1	49	
SM6L2-308	5	0.2	2	0.1	0.1	83	15	5	2	0.3	0.1	149	
SM6L2-309	-5	0.2	3	0.1	0.1	51	14	12	1	0.3	0.1	68	

Note: "-" means "<"



TEL SAMPLE LOCATION & SOIL GEOCHEMISTRY

FIGURE No. 3		PROJECT No. M578			
DATEMAR.1987	REVISIONS		SCALE 1:5,000		
NTS No. 92F/1E			FILE No.		
COMPILED BY SM			C-1		

uniform with little variation throughout the traverse. The arsenic response was similarly flat with one peak from a sample taken near the unconformable contact.

Copper values varied considerably and were moderate to low from soils overlying the sandstone. Both zinc and lead values also fluctuated with the highest values occurring in soils underlain by basalt.

CONCLUSIONS

The geochemical responses of the soils overlying both the basalt and clastic sediments are not clearly distinct. In areas of limited outcrop the soil geochemistry can not be used as a good indication of the underlying bedrock.

Although no soils were sampled in areas of known mineralization a few anomalous values of gold, copper, lead and zinc were reported.

APPENDIX I

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Sandy G. McAllister, hereby certifiy that:

- I am presently employed as a geologist by Chevron Canada Resources Limited at 1900 - 1055 West Hastings St., Vancouver, B. C.
- 2. I graduated from Queen's University in Kingston, Ontario with a B.Sc. (Honours, Geological Sciences) in May 1981.
- 3. I have practiced geology for the past 6 years in B.C.
- 4. I am a member in good standing of the Geological Association of Canada, Society of Economic Geologists and a Licensee of the Association of Professional Engineers, Geologists and Geophysists of Alberta.
- 5. I conducted the work outlined in this report.

Dated the 6th day of March, 1987

Signed

SANDY G. MCALLISTER

APPENDIX 2

Cost Statement

T.E.L. 1-4

COST STATEMENT

	Field/Travel	<u>Office</u>		
SALARY - S. McAllister	1.5 Oct.21-22/86	l Mar . 2/87		
2.5 days x \$150/day	OC1.21-22/00	Mui •2/0/	\$	375.00
GEOCHEMISTRY - 12 soil s	samples analysed	for Au and 11 eler	nent ICP-AES	
12 @\$19.35				232.20
OTHER				
Food - Oct.21-22/86				45.90
Accommodation - Oc	t . 21/86			50.29
Ferry Fees - Oct.21-2	22/86			36.00
Drafting – 0.6 days x	\$150/day		_	90.00
		TOTAL	<u>\$</u>	829.39

APPENDIX 3

Geochemistry Data

TEL GEOCHEMISTRY
SOIL SAMPLES

SAMPLE #	Au ppb	Sb ppm	As ppm	Bi <u>ppm</u>	Cd ppm	Cu ppm	Ga ppm	Pb ppm	Mo ppm	Ag ppm	Ti ppm	Zn ppm
SM6L2-298	-5	0.1	I	0.2	0.1	100	14	5	1	0.4	0.1	51
SM6L2-299	-5	0.1	3	0.1	0.1	83	14	2	I	0.3	0.1	37
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SM6L2-302	-5	0.1	1	0.1	0.1	68	12	1	1	0.1	0.1	36
SM6L2-303	80	0.1	2	0.2	0.1	48	13	9	1	0.3	0.1	66
SM6L2-304	- 5	0.2	1	1.0	0.1	76	15	4	2	0.3	0.1	95
SM6L2-305	-5	0.3	9	0.2	0.2	47	14	30	I	0.1	0.1	133
SM6L2-306	-5	0.1	I	0.1	1.0	52	15	1	1	0.1	0.1	81
SM6L2-307	-5	0.2	1	0.1	0.1	123	14	6	1	0.2	0.1	49
SM6L2-308	5	0.2	2	0.1	0.1	83	15	5	2	0.3	0.1	149
SM6L2-309	-5	0.2	3	0.1	0.1	51	14	12	1	0.3	0.1	68

APPENDIX 4

Analytical Techniques



Analytical Chemists

Geochemists

Registered Assayers

212 Brooksbank Ave. North Vancouver, B.C. Canada V7J 2C1

Phone: (604) 984-0221

Telex: 043-52597

Gold F.A.-A.A. Combo Method ppb:

For low grade samples and geochemical materials, 10 gram samples are fused in litharge, carbonate and siliceous flux with the addition of 10 mg of Au-free Ag metal and cupelled. The silver bead is parted with dilute HNO3 and then treated with aqua regia. The salts are dissolved in dilute HCl and analyzed for Au on an atomic absorption spectrophotometer.

Detection limit: 5 ppb



Geochemists

Registered Assayers

212 Brooksbank Ave. North Vancouver, B.C. Canada V7J 2C1

ada

Phone:

(604) 984-0221

Telex: 043-52597

Antimony ppm:

A 2.0 gm sample is digested with conc. HCl-KClO3 at low heat. The iron is reduced to Fe+2 state and the Sb extracted with TOPO-MIBK and analyzed via A.A. Correcting for background absorption.

Detection Limit: 0.2 + - 0.2

Analytical Chemists

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Analytical Chemists

Geochemists

Registered Assayers

212 Brooksbank Ave. North Vancouver, B.C. Canada V7J 2C1

Phone: (604) 984-0221

Telex: 043-52597

2 gms sample - HC104, HN03, and HF digestionorganic extraction of iodide complex and atomic absorption finish correcting for non-atomic background absorption.



Analytical Chemists

Geochemists

Registered Assayers

212 Brooksbank Ave. North Vancouver, B.C. V7J 2C1 Canada

(604) 984-0221 Phone:

Telex: 043-52597

Copper, Lead, Zinc, Silver ppm:

1.0 gm sample is digested with perchloric-nitric acid (HCl04-HN03) for approximately 2 hours. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Copper, lead, zinc and silver are determined by atomic absorption techniques. Silver and lead are corrected for background absorption.

Detection limit: Copper, Zinc - 1 ppm

Silver - 0.2 ppm Lead - 2 ppm



Analytical Chemists

Geochemists

Registered Assayers

212 Brooksbank Ave. North Vancouver, B.C. Canada V7J 2C1

Phone: (604) 984-0221

Telex: 043-52597

Lead, Molybdenum, Copper:

An aliquot from an acid-preserved filtered sample is taken and digested to dryness with concentrated nitric acid. The residue is dissolved in warm perchloric acid and sufficient water is added to restore the sample to proper dilution. The concentration of each element is then determined by its atomic absorption with Varian AA-5 spectrophotometer calibrated with blanks and standard metal solutions prepared similarly. Background absorption corrections was applied to the measurement of lead. The detection limit for all elements by this method is 0.01 g/ml.

CHEMEX LABS LTD. -



Analytical Chemists

Geochemists

Registered Assayers

212 Brooksbank Ave. North Vancouver, B.C. Canada V7J 2C1

Phone: (604) 984-0221 Telex: 043-52597

Bismuth ppm:

A 2.0 gram sample is digested with concentrated HCl and potassium chlorate. The solution is then cooled. After the addition of KL and the reduction of iron, the solution is extracted with MIBK aliquot 336 and analyzed via standard AA procedure, correcting for background absorption.

Detection limit: 0.2 ppm



Analytical Chemists

Geochemists

Registered Assayers

212 Brooksbank Ave. North Vancouver, B.C. Canada V7J 2C1

Phone:

(604) 984-0221

Telex: 043-52597

Arsenic ppm:

A 1.0 gm sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with and mixed. A portion of the reduced solution is converted to arsine with NaBH4 and the arsenic content determined using flameless atomic absorption.

Detection limit: 1 ppm

APPENDIX 5

Statement of Exploration and Development



Province of British Columbia Ministry of Energy, Mines and Petroleum Resources MINERAL RESOURCES DIVISION — TITLES BRANCH

MINERAL ACT

STATEMENT OF EXPLORATION AND DEVELOPMENT

I,	Sandy G. McA	llister		Agent for Tom E. Lisle Name 145 West Rockland Road (Address)				
	201 - 1286 V	West 14th Ave.,						
		3.C.			Vancouver, B.C.			
	V6H 1P9 (Postal Code)		736-2149 (Telephone Number)	V7N 2V8 (Postal Code)	668-5491 (Telephone Number)			
	Valid subsisting F.M.C.	No. McALS 218642		Valid subsisting F.M.C. No.	LISLTE 296007			
STA	TE THAT							
	1. I have done, or cause	ed to be done, work on the			3, and T.E.L. 4			
	Record No(s). 13	45, 1346, 1347 an						
	Situate at 13	km SW of Nanaimo	in the	Nanaimo	Mining Division,			
	to the value of at leas	st 800		dollars. Work was do	ne from the 22nd day			
	of Octobe	r19	86 , to the 2	2nd _{day of} 0c	tober 1986			
	2. The following work w	as done in the 12 months in	which such work is re	quired to be done:				
				ON(S) A, B, C, D, FOLLO	DWING1			
Α.	PHYSICAL	• • •		ition, and construction of roads	•			
					COST			
		(Give details as required by s	section 13 of regulation	ons.)				

			,					

				TOTAL PHYSICAL				
				TOTAL PRISICAL				
	I wish to apply \$	of pt	nysical work to the cla	ims listed below.				
	(State number of	of years to be applied to each	claim, its month of re	ecord, and identify each claim t	by name and record number.)			
		ı	***************************************					
								
В.	PROSPECTING	(Details in report submitted (The itemized cost statement			COST			
		(1716 NGFIII260 COST SIBIOTII	one muse be part or an	o toporti,	COST			
	I wish to apply \$	of th	nis prospecting work t	o the claims listed below.				
			-	ecord, and identify each claim I	by name and record number.)			
	ſ							

						~
С.	DRILLING	(Details in report sub (The iternized cost s				cost
		•				
).	GEOLOGICAL	, GEOPHYSICAL,	GEOCHEMICA	L		Parameter Market Control Space
		(Details in report sut (The Itemized cost s (State type of work i	tatement must be p	on 5, 6, or 7 of regulations.) part of the report.)		
Ge	ochemical S	ampling				\$800.00
				TOTAL OF	C AND D	\$800.00
	shall com			as per section C of the Minera PORT TITLE PAGE AND SUM		
۷ħ	was the operator (provided	Name C	hevron Canada Resc	ources Limit	ed,
	ne financing)?		Address 1	900 - 1055 West Ha	stings St.,)
			νν	ancouver, B. C.		
			٧	6E 2E9		
Po	rtable Assessm	ent Credits (PAC) V	/ithdrawal Requ	est		AMOUNT
Am	ount to be withdraw	n from owner(s) or opera	itor(s) account(s):	•		
			Name of 0	Owner/Operator		
0	y be no more than 3 I value of the appr	oved work				•
	ubmitted as assess C and (or) D.]	mon work -				
		3				
_			····	TOTAL WITH	HDRAWAL	
			TOTAL OF C AN	D (OR) D PLUS PAC WITHDR	RAWAL	
		300 00				
	I wish to apply \$			ork to the claims listed below.	sh alaim bu sam	and accord womb \
_		·		onth of record, and identify each	th claim by name a	
	laim Name .E.L. 1	Record # 1345	Units 1	Work Applied \$200.00	10013 L	u i ii Gu
	.E.L. 2	1345	1	200.00	1	
******	.E.L. 3	1347	1	200.00	1	
	.E.L. 4	1348	<u>-</u>	200.00	1	
	Value of work to be	credited to portable as:	sessment credit (PA	AC) account(s).		
	(May only be o	credited from the approve	ed value of C and (or D) not applied to claims.]		
				Name		AMOUNT
	me of	1. Chevro	on Canada Re	sources Limited		\$29.39
UWI	ner/operator	2				
		3				

I, the undersigned Free Miner, hereby acknowledge and understand that it is an offence to knowingly make a false statement or provide false information under the *Mineral Act*. I further acknowledge and understand that if the statements made, or information given, in this Statement of Exploration and Development are found to be false and the exploration and development has not been performed, as alleged in this Statement of Exploration and Development, then the work reported on this statement will be cancelled and the subject mineral claim(s) may, as a result, forfeit to and vest back to the Province.

S. M. Welleter