

SUB-REPORTER  
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VANCOUVER, B.C.

LOG NO: 1114 RD.  
ACTION:  
FILE NO:

REPORT ON

PROSPECTING ON THE  
BARNEY 1 AND BARNEY 2 CLAIMS  
LIARD MINING DIVISION

NTS: 104G/SE

LATITUDE: 57° 18'  
LONGITUDE: 132° 30'

OWNER/OPERATOR: APEX ENERGY CORP.

AUTHOR: DAVID ST. CLAIR DUNN, F.G.A.C.

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

OCTOBER 30, 1989

19,295

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## Summary

A brief prospecting program was carried out on the Barney claims from the 30/9/89 to 2/10/89 by the author and one assistant, C. Bishop, B.Sc. Three traverses were carried out. Three pan concentrate, nine silt, and nine rock samples were taken. One pan concentrate was highly anomalous (1648 ppb Au) and two silts were anomalous in Au, Cu, Pb and Zn. Approximately 40% of the claims were tested.

## Recommendations

The drainage with the highly anomalous gold value should be prospected in detail as should the smaller drainages with anomalous silt samples.

The remainder of the property should be prospected using a combination of stream sediment, soil, and lithogeochemical sampling. Particularly, the south-east corner of the Barney 2 claim should be thoroughly prospected. Mineralized float has been found on the adjoining property down-slope from this area.

The program should take a geologist and assistant eight days. Accommodation and helicopter support are available at Stikine Copper's Galore Creek camp, a 0.3 hour helicopter flight from the Barney claims. The recommended program should cost \$13,5000.

## Introduction

The Barney claims are located in north-western B.C. (See Fig. 1). The south-west corner of the claims overly the Scud River at its junction with Navo Creek (See Fig. 2). Topography is rugged with elevation ranging from 200 m on the Scud to 2400 m on the eastern margin of the claims.

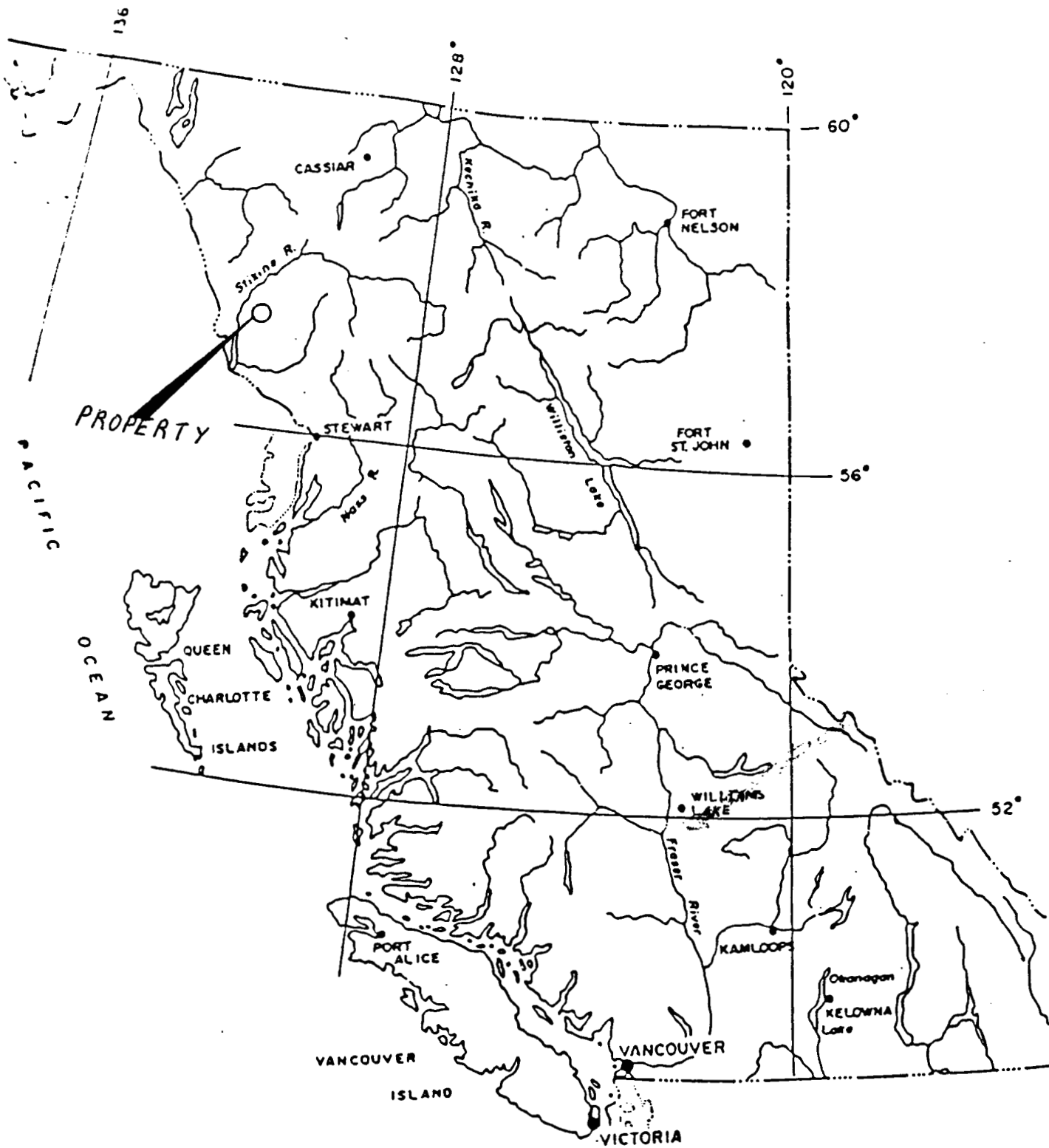
Access is by helicopter from the airstrip at Stikine Copper's Galore Cr. camp or the airstrip at the junction of the Stikine and Scud rivers. Charter fixed wing aircraft service these strips from the Bronson Creek airstrip on the Iskut River. Regular scheduled flights are available from Smithers or Stewart to the Bronson airstrip in the summer. A helicopter is generally available for charter from the Galore Cr. airstrip in the summer.

The Barney claims were staked on the 9th of December, 1988. The two claims consist of twenty units each, four south and five east and west respectively with a common L.C.P. located 3.5 km at a bearing of 113° from survey point A.D. 3833 on NTS map 104 G/5. U.T.M. co-ordinates of the LCP are 346900m E 6354350m N.

The claims are owned by Apex Energy Corp. which financed the current work. There are no records of past work on the property.

The property has no known showings. It was staked to cover proximal ground to known showings on the claims immediately to the south. These showings trend north-north easterly from showings on the north fork of Jack Wilson Cr. This trend should cross the Barney claims near the Barney 1 and 2 claim boundary.

Four square km were prospected, 3 km on the Barney 1 claim and 1 km on the Barney 2 claim.



# APEX ENERGY CORP

Report by:  
D. DUNN

Date:  
11/89

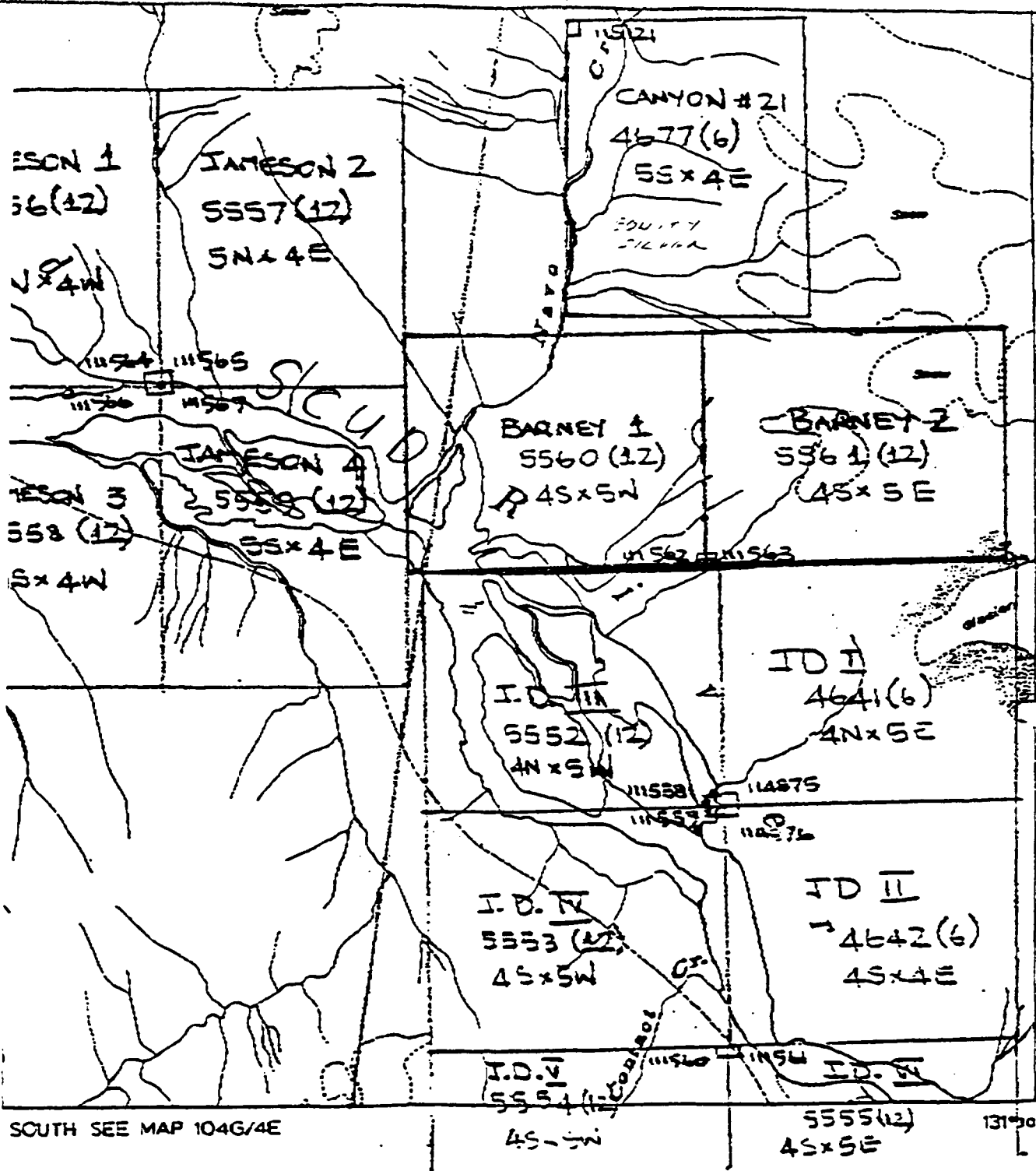
DCS directory:

DCS file name:

MIS:  
105 G/5

BARNEY CLAIMS  
LIARD MINING DIVISION

## LOCATION MAP



MINES AND PETROLEUM RESOURCES

This map is prepared to serve the needs of located mine



Scale 1:50,000

APEX ENERGY CORP.

BARNEY CLAIMS  
 Lead Mining Division

CLAIM LOCATION MAP

Part of B.C.E.M.P.R.  
 Map 105 G/5 E

## Regional Geology

The Barney claims are situated at the western margin of the Intermontane Belt about 2.0 km east of the Coast Plutonic Complex. The claims occur within a north westerly trending belt of Paleozoic sediments. There are three major lithologic units in the area, Paleozoic sediments, Upper Triassic volcanics and sediments, and intrusives, ranging in age from Triassic to Tertiary.

The oldest rocks are highly deformed Permian and older metamorphic rocks, Permian crystalline limestone, and a thin succession of Middle Triassic siltstones. This assemblage is unconformably overlain by Upper Triassic volcanics and sediments comprising augite andesites, basalt to andesite breccias, flows, and tuffs interspersed with locally derived sandstones and siltstones. Intrusives include Upper Triassic to Lower Jurassic syenite dykes and stocks, quartz diorite and granodiorite, and at least one large pluton (Hickman Batholith). Jurassic and Lower Cretaceous quartz diorite, granodiorite and a variety of other rock types comprise the Coast Plutonic Complex to the west. A number of Eocene quartz monzonite and granodiorite stocks form small intrusions in and as satellites to the Coast Plutonic Complex.

Most known mineralization of economic interest in the area is associated with Upper Triassic - Lower Jurassic syenite or Tertiary quartz monzonite and leucogranite. The claims are located 18 km north - north-east of Galore Creek, an alkalic copper-gold porphyry system, with reserves of 125,000,000 tonnes grading 1.06% copper, 0.40 ppm gold, and 7.7 ppm silver.

## Property Geology

The Barney claims are underlain by Permian and older limestone and argillite. Rugosa coral were identified in a number of locations. This sequence overlies quartz sericite schist. The package is overturned according to G.S.C. mapping (Souther, 1971). Pyrite is ubiquitous in the sericite schist up to 10% by volume but 1% overall. The Permian and older limestone and argillite are a monotonous sequence of massive limestone and interbedded thinly bedded argillite. One massive sulphide horizon up to one metre wide was traced over 1.0 km. The only sulphides observed were pyrite and pyrrotite, but hydro-zincite was present on weathered surfaces. A feldspar porphyry syenite dyke five to eight metres wide cuts the limestone - argillite package on the south-east side of the cirque in the south-west quadrant of the Barney 1 claim (1650 m elevation).

## Prospecting Program

Prospecting was carried out to evaluate the mineral potential of the Barney claims.

Stream sediment sampling was employed in an attempt to cover the maximum area possible within budget and weather constraints. In larger streams, paired pan concentrate and silt samples were taken (See Appendix A for sampling methodology). In small streams and seeps only silt samples were taken. Any mineralized or silicified float or outcrop observed were sampled.

Three traverses were completed, one down the east side of Navo Creek from 300 metres north of the claim boundary to the Scud River, the second from the

ridge on the Barney 1 and 2 claim boundary south-east into the cirque in south-western Barney 2 claim and back, and the third, along the base of the slope north of the Scud River south of the Barney 1 claim (See Map 1).

Three pan concentrates, nine silt samples and nine rock samples were taken. Insufficient samples were taken to determine anomalous levels using statistical treatment. Anomalous levels were determined from previous work in the area and discussions with other workers familiar with geochemical sampling in the region.

One pan concentrate, sample DD-89-1, was highly anomalous in gold (1648 ppb). This sample was taken at U.T.M. co-ordinates 345 600mE, 6354 750mN, approximately 300 metres north of the north boundary of the Barney 1 claim. The creek sampled drains approximately 30% of the Barney 2 claim. It also drains a portion of the claims bordering the Barney 1 and 2 to the north.

Two silt samples were anomalous. Significant values are listed below:

	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Znppm
DD-89-06	12	1.2			86
DD-89-19	10	1.2	87	33	135

These silt samples were taken from small streams which drain the Barney claims. DD-89-06 is located at UTM co-ordinates 345650 mE 635440 mN and DD-89-19 is located at UTM co-ordinates 346000 mE 6352000 mN.

Sample descriptions are included in Appendix C.

STATEMENT OF COSTS

Wages:

D. Dunn 9 days @ \$250/day 30/9/89, 1,2,3,5,27,30, 31/10/89, 1/11/89	\$ 2,250.00
C. Bishop 4 days at \$250/day 30/9/89, 1,2, 4/10/89	1,000.00

Room and Board:

8 person days at \$130/day	1,040.00
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Transportation:

Vancouver-Smithers and return	452.80
Smithers- Bronson	173.00
Helicopter 1.9 hrs at \$800/hr.	1,520.00

Assay Costs:

9 silt samples at \$14.50/sample	130.50
9 rock samples at \$21.25/sample	191.25
3 pan concentrate samples at \$14.00/sample	42.00

Expenses:

Equipment	55.10
Reproduction	63.28
Communications	63.61
Maps	23.85
<del>Filing Fees 5% of 8000</del>	<del>400.00</del>
Report Preparation	300.00
<i>5% Project Management</i>	<i>385.27</i>
<del>PROJECT TOTAL</del>	<del>\$ 7,705.39</del>

*Project Total*      ~~8090.66~~  
7690.66



BIBLIOGRAPHY

C.I.M., 1976, Special Volume 15, Porphyry Deposits of the Canadian Cordillera.  
Souther, J.G. G.S.C. Paper 71-44.

## APPENDIX A SAMPLING METHODOLOGY

### **Pan Concentrate**

Two pans (6 liters by volume) of -1.25 cm material was panned to a black sand concentrate. One pan (3 liters) of moss was washed in the pan and the material collected panned to a black sand concentrate. The samples were combined and shipped to Min-En Laboratories.

Min-En dried the samples, digested the whole sample in reverse aqua-regia, extracted gold using M.I.B.K. and analyzed by atomic absorption. Copper, lead, zinc, and silver were also analyzed from this solution using atomic absorption.

### **Silt Samples**

One-half kg to one kg samples were collected from fine over bank stream sediments, placed in Kraft bags and shipped to Min-En Laboratories.

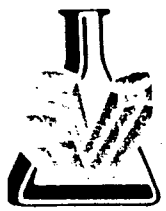
Min-En dried the samples and sieved to -80 mesh. One gram sub-samples were analyzed for Au, Ag, Zn, Pb, Cu, Zn using wet extraction and atomic absorption.

### **Rock Samples**

Samples were designated float, grab, or chip. Samples were placed in plastic bags and shipped to Min-En Laboratories.

Min-En crushed the samples to -150 mesh and analyzed a sub-sample using wet extraction and atomic absorption.

APPENDIX B  
ASSAY CERTIFICATES



**MIN  
• EN  
LABORATORIES**

**SPECIALISTS IN MINERAL ENVIRONMENTS**  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

**Geochemical Analysis Certificate**

9V-1297-PG1

Company: **APEX ENERGY**  
Project: **GALORE CR**  
Attn: **DAVID DUNN**

Date: **OCT-21-89**

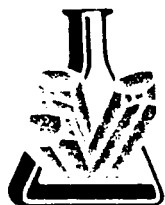
Copy 1. **APEX ENERGY, VANCOUVER, B.C.**  
2. **DAVID DUNN, WEST VANCOUVER, B.C.**

**We hereby certify the following Geochemical Analysis of 7 PAN CONCENTRATE samples submitted OCT-13-89 by DAVID DUNN.**

Sample Number	AU-WET PPB	AG PPM	CU PPM	PB PPM	ZN PPM	TOTAL WT GM
DD 89 01	1648	2.9	9	40	34	12.18
DD 89 04	4	1.2	70	29	47	9.02
DD 89 18	55	1.5	71	42	91	10.61
DD 89 22	5	2.4	21	59	135	55.61
DD 89 25	9	1.9	12	56	104	10.56
DD 89 27	8	1.6	13	45	80	8.25
DD 89 29	3	1.1	22	30	60	7.63

Certified by \_\_\_\_\_

**MIN-EN LABORATORIES**



**MIN  
• EN  
LABORATORIES**

**SPECIALISTS IN MINERAL ENVIRONMENTS**  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

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**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

***Geochemical Analysis Certificate***

9V-1297-SG1

Company: APEX ENERGY  
Project: GALORE CR  
Attn: DAVID DUNN

Date: OCT-19-89

Copy 1. APEX ENERGY, VANCOUVER, B.C.  
2. DAVID DUNN, WEST VANCOUVER, B.C.

*We hereby certify* the following Geochemical Analysis of 13 ROCK samples submitted OCT-13-89 by DAVID DUNN.

Sample Number	AU-FIRE FPB	AG PPM	CU PPM	FB PPM	ZN PPM
DD 89 02	2	1.4	13	31	30
DD 89 05	1	1.4	20	26	83
DD 89 06	12	1.2	35	18	86
DD 89 07	1	0.7	24	19	69
DD 89 08	2	0.6	66	15	74
-----					
DD 89 09	3	0.6	20	19	69
DD 89 10	2	0.6	39	7	91
DD 89 11	1	0.5	80	6	70
DD 89 19	10	1.2	87	33	135
DD 89 23	1	0.4	10	10	39
-----					
DD 89 26	2	0.6	9	16	65
DD 89 28	1	0.6	10	13	75
DD 89 30	2	0.6	24	14	83

Certified by \_\_\_\_\_

MIN-EN LABORATORIES



Geochemical Analysis Certificate

9V-1297-RG1

Company: **APEX ENERGY**  
Project: **GALORE CR**  
Attn: **DAVID DUNN**

Date: **OCT-17-89**  
Copy 1. **APEX ENERGY, VANCOUVER, B.C.**  
2. **DAVID DUNN, WEST VANCOUVER, B.C.**

*We hereby certify* the following Geochemical Analysis of 10 ROCK samples submitted OCT-13-89 by DAVID DUNN.

Sample Number	AU-FIRE PPB	AG PPM	CU PPM	PB PPM	W PPM	ZN PPM
DD 89 03	7	2.3	36	403	2	114
DD 89 12	2	0.9	25	55	2	132
DD 89 13	1	0.7	18	45	2	96
DD 89 14	1	0.5	6	33	3	85
DD 89 15	2	0.2	4	39	2	132
-----						
DD 89 16	1	0.8	6	43	2	28
DD 89 17	1	0.5	13	36	2	55
DD 89 20	2	0.8	72	27	2	53
DD 89 21	2	0.6	207	47	2	189
DD 89 24	3	0.4	5	25	7	59

Certified by \_\_\_\_\_

MIN-EN LABORATORIES

APPENDIX C  
SAMPLE DESCRIPTIONS

- DD-89-1,2 - P.C., Silt. Float is 40% marble, 20% mixed marble and argillite, 20% argillite, and 20% diorite. 1% py in sediments.  
U.T.M. 345 600 F 6354750 N
- DD-89-3 - Float Arg. w/30% py.  
U.T.M. 345650 E 6354650 N
- DD-89-4,5 P.C., Silt. Elev 1353' (410m) cf DD-89-3 I.B. Arg. + Grywcke  
S 160° D 60° E. On southern west flowing creek north of  
Barney 1 claim. Float is 50% marble 40% arg.  
10% Grdr (Erratics)
- DD-89-6 Silt. Small stream 345650 E 6354550 N
- DD-89-7 Silt 345650 E 6354450 N
- DD-89-8 Silt 345600 E 6354375 N
- DD-89-9 Silt 345575 E 6354275 N
- DD-89-10 Silt 345500 E 6353900 N
- DD-89-11 Silt 345450 E 6353700 N
- DD-89-12 Grab. Rusty mudstone 5% py. clasts 347150 E 6353500 N  
Sect. of I.B. mudstone + Lst. 80% Lst. Att. S162° D50° E
- DD-89-13 80cm chip. Sulphide rich bed, minor hydrozincite 347450E 6353050 N
- DD-89-14 Float. Vuggy, oxidized qtz. 347600 E, 6353000 N
- DD-89-15 Float - Calcite Brxx. Limonitic matrix 347650 E 6352950 N
- DD-89-16 Float. Iron carbonate alteration. Siderite? Considerable orange  
weathering float. 347600 E 6352950 N
- DD-8917 Float - Py in siliceous bed in Lst. 2% py 347450 E 6353000 N
- DD-89-18,19 P.C. Silt Float is 10% Lst. 10% arg., 80% quartz sericite schist  
with minor py. Bedrock is quartz, sericite schist.
- DD-89-20 Sheared rusty quartz, sericite schist cf DD-89-18, Minor py
- DD-89-21 Py rich quartz sericit schist - cf DD-89-18 5-10% py

APPENDIX D  
STATEMENT OF QUALIFICATIONS

I David Saint Clair Dunn, of the Municipality of West Vancouver, in the Province of British Columbia, hereby certify as follows:

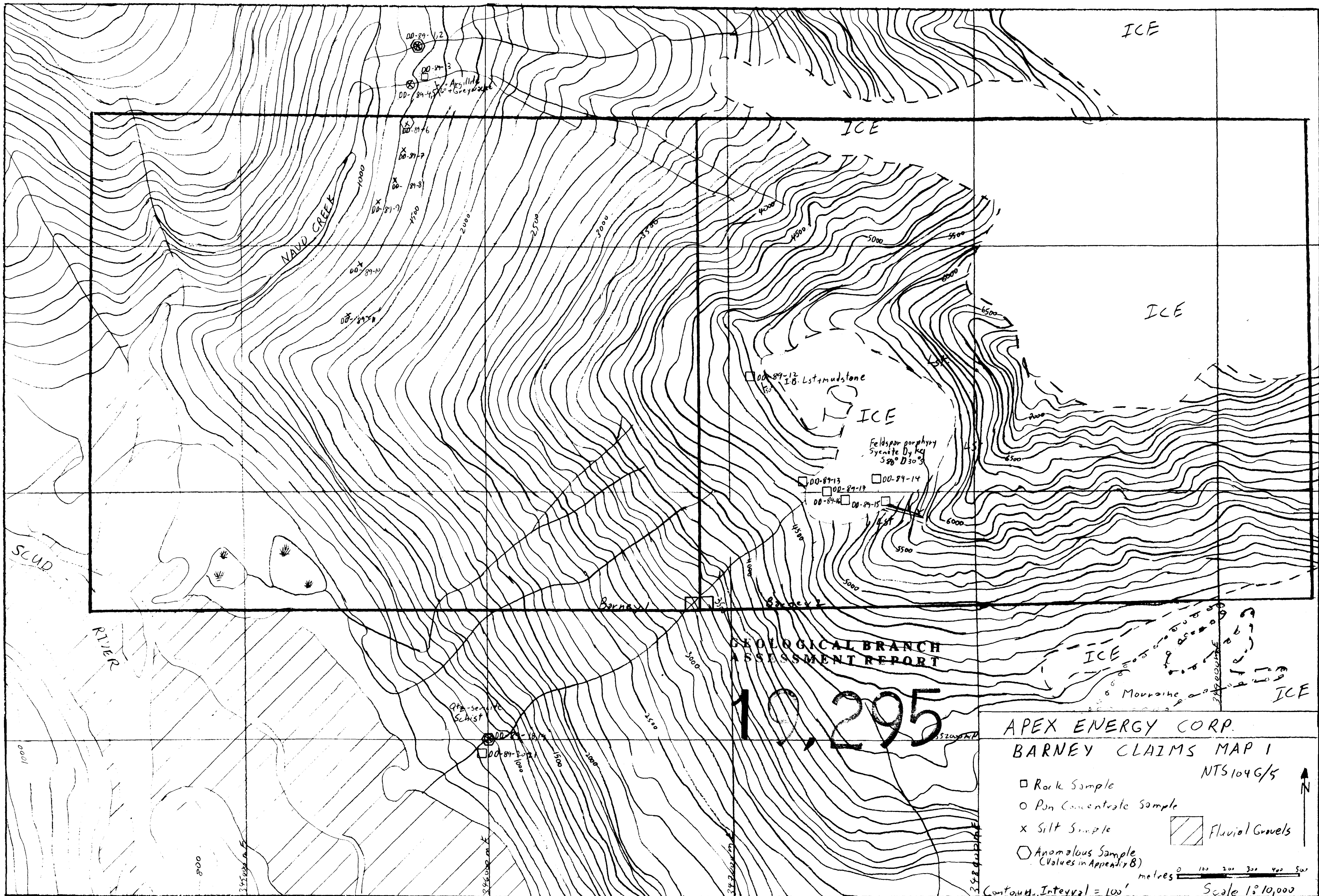
1. I am a geologist residing at 2348 Palmerston Avenue, West Vancouver, B.C. V7V 2W1.
2. I am a Fellow of the Geological Association of Canada.
3. I am a graduate of the University of British Columbia with a B.Sc. - Geology (1980).
4. I have worked in the mineral exploration industry since 1969.
5. I am a Director and Exploration Manager of Apex Energy Corp.

November 1, 1989



David St. Clair Dunn, F.G.A.C.





**APEX ENERGY CORP.**  
**BARNEY CLAIMS MAP 1**  
 NTS 1046/5

- Rock Sample
- Psn Concentrate Sample
- × Silt Sample
- ⬡ Anomalous Sample (Values in Appendix B)
- ▨ Fluvial Gravels

metres 0 100 200 300 400 500  
 Contour Interval = 100' Scale 1:10,000