

86-341-14953

SOIL GEOCHEMICAL SURVEY  
 NUSWAT, CORE LODGE 1 & 2 MINERAL CLAIMS  
 OMINECA MINING DIVISION  
 TROITSA LAKE, B.C.  
 NTS 93 E/11 W  
 LATITUDE 53°32'<sup>1</sup> NORTH, LONGITUDE 127°<sup>22.5'</sup>~~23'~~ WEST

FILMED

Prepared for

Owner/Operator: PAYDAY RESOURCES INC.

**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

14,953

ARCTEX ENGINEERING SERVICES

Locke B. Goldsmith, P. Eng.  
 Consulting Geologist

Paul Kallock  
 Geologist

FILMED  
 1986

June 11, 1986

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	(Pocket inside back cover)

SOIL GEOCHEMICAL SURVEY  
NUSWAT, CORE LODGE 1 & 2 MINERAL CLAIMS  
OMINECA MINING DIVISION  
TROITSA LAKE, B.C.  
NTS 93 E/11 W

SUMMARY

The Nuswat and Core Lode 1 & 2 mineral claims of Payday Resources Inc. are located in west-central British Columbia, 110 km south of Houston, B.C. The southern and eastern parts of the claims are underlain by the late Cretaceous Troitsa stock. Surrounding the stock are volcanic and sedimentary rock of the Hazelton, Skeena and Kasalka groups, each of which may underlie parts of the Nuswat and Core Lode 1 & 2 claims. Soil samples collected along an east-west line during May 1986 did not reveal anomalous gold concentrations. Exploration should be concentrated south of the current work, in closer proximity to base and precious metal soil anomalies detected in 1983.

## INTRODUCTION

The Nuswat, Core Lode 1 and Core Lode 2 mineral claims are located on the south and west shore of Troitsa Lake in west-central British Columbia, 110 km south-southwest of Houston, B.C. The claims are situated in the Omineca Mining Division, NTS map sheet 93 E/11 W. Co-ordinates 53°32'N latitude and 127°23'W longitude cross the property. Elevations range from 898 metres (2947 feet) at Troitsa Lake to 1863 metres (6110 feet) at the peak in the centre of the Nuswat claim. The property consists of 54 units (approximately 900 hectares) and is owned by Payday Resources Inc.

<i>Claim Name</i>	<i>Units</i>	<i>Record No.</i>	<i>Recording Date</i>	<i>Expiry Date</i>
Nuswat	20	5202(5)	May 30, 1983	May 30, 1987
Core Lode 1	16	5513(7)	July 12, 1983	July 12, 1987
Core Lode 2	18	5514(7)	July 12, 1983	July 12, 1987

The north shore of Tahtsa Lake, 16 km north of the claims, is the terminus of the nearest road. Helicopter transport from Houston, B.C., 110 km northeast of the property, is available.

The Troitsa Lake area, now partially covered by the Payday Resources Inc. claims, was first staked in 1966. Silver Standard Mines Ltd. carried out limited mapping, trenching and drilling in that year. In 1969, Aston Resources acquired the property and flew an airborne magnetic and electromagnetic survey in the area. Cerro Mining Company of Canada acquired the property in 1971. In 1972, Quintana Minerals Corporation completed a single 457 metre diamond drill hole. Detailed geologic mapping was later carried out by Cawthorn (1973).

The Nuswat and Core Lode 1 & 2 claims were staked in 1983. They cover the northern part of the mineralized intrusive which attracted the original exploration. Detailed soil sampling in the southern parts of the claims was undertaken in 1983 by J.G. Ager Consultants Ltd. Subsequent evaluation of the 1983 survey was made by Arctex Engineering Services (Kallock and Goldsmith, 1984). On May 23 and 24, 1986, an aerial reconnaissance and soil geochemical survey were carried out at the lower elevations of the Core Lode 1 & 2 and northwestern

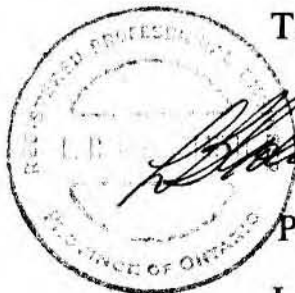
# NUSWAT and CORE LODGE 1 & 2 CLAIMS

# PAYDAY RESOURCES INC.



## LOCATION MAP

Troitsa Lake, B.C. OMINECA M.D. N.T.S. 93E 11E



P. KALLOCK, Geologist

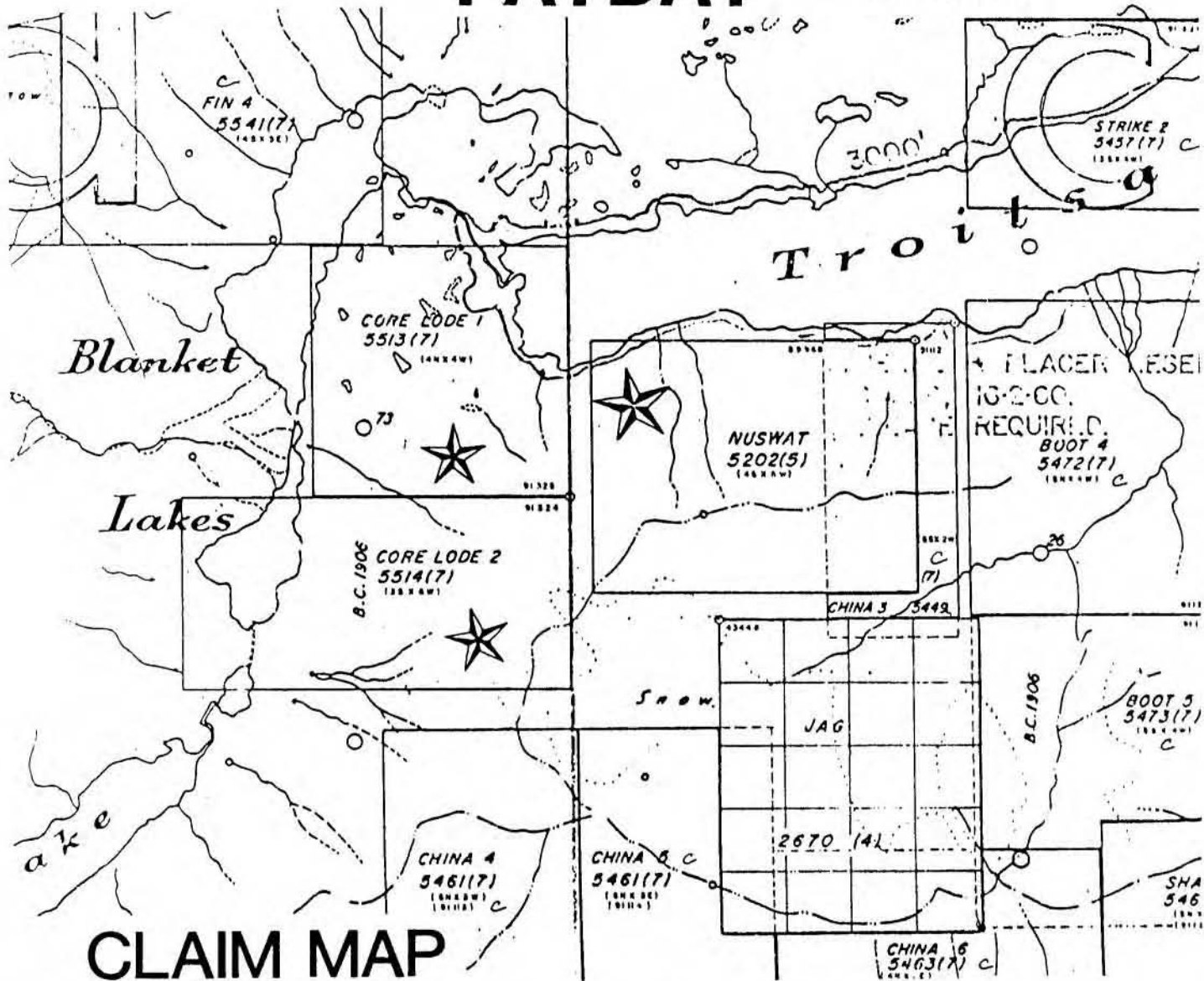
Locke B. Goldsmith, P. Eng., Consulting Geologist

JUNE 1986

ARCTEX ENGINEERING SERVICES

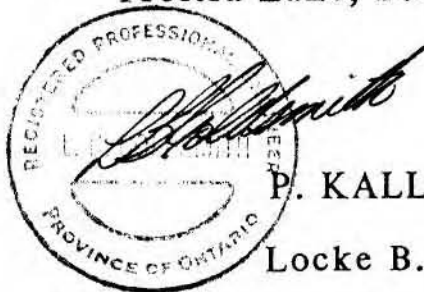
# NUSWAT and CORE LODE 1 & 2 CLAIMS

# PAYDAY RESOURCES INC.



## CLAIM MAP

Troitsa Lake, B.C. OMINECA M.D. N.T.S. 93E 11E



P. KALLOCK, Geologist

Locke B. Goldsmith, P. Eng., Consulting Geologist

METRES 0 500 1000



JUNE 1986

ARCTEX ENGINEERING SERVICES

slopes of the Nuswat claims. The following discussion pertains to the data obtained during this soil survey.

## GEOLOGIC SETTING

Regionally, the Nuswat and Core Lode 1 & 2 claims lie within the Intermontane Belt, approximately 15 km east of the main granitic masses and metamorphics of the Coast Plutonic Complex. To the south and east, the Jurassic Hazelton Group composed primarily of volcanics and lesser sediments forms the basement or oldest rock units. Overlying the Hazelton Group in the claim area and to the north are sediments of the Lower Cretaceous Skeena Group and a thick sequence of subaerial volcanics of the Kasalka Group. Intimately related to Cretaceous vulcanism are various intermediate intrusions grouped as Bulkley or Kasalka type.

Block faulting, ring and radial faults, and subsequent intrusion by dykes and/or hydrothermal fluids may have affected a large part of the area between Tahtsa and Troitsa lakes where a large caldera, 22 km in diameter, may have formed during Cretaceous vulcanism. The Payday Resources Inc. property may straddle the southern rim of this obscure collapse feature.

Detailed description of the property geology has been addressed in a previous report for Payday Resources Inc. by Kallock and Goldsmith (1984). The reader should refer to this report for detailed stratigraphic and structural data.

In summary, the Nuswat claim is underlain, in large part, by a compositionally zoned circular stock of granodiorite to quartz monzonite which intrudes rocks of the Hazelton, Skeena and Kasalka groups. It is referred to as the Troitsa stock and appears to have a relatively flat top. A thick lensoid-shaped mass of quartz porphyry or rhyolite with sill-like extremities intrudes the stock along its western margin in the area of the Core Lode 1 & 2 claim. Northwest and rarely northeast-trending dykes of quartz porphyry, lamprophyre, andesite and feldspar porphyry cut both the granodiorite and rhyolite intrusions.

## SOIL GEOCHEMICAL SURVEY

During May, 1986, an east-west survey line was measured and soil samples gathered at intervals of approximately 50 metres. The base station (0+00E-W) is located near the creek which drains into the most southerly corner of Troitsa Lake. Thirty-five soil samples and one rock sample were collected. Analysis for gold was performed by Chemex Labs Ltd. of North Vancouver, B.C. A long, narrow-bladed shovel was used to retrieve soil from a depth of 5 to 15 cm. By late May, winter snows had not completely melted, therefore sample intervals were not regularly spaced and locations were established in clearings or thin snow areas along the measured survey line. Locations of samples are shown on the accompanying map in the pocket of this report. Analytical procedures which were used by Chemex Labs Ltd. to determine gold content are included in the Appendix.

Results of the soil geochemical survey indicate that none of the material sampled contained anomalous quantities of gold. None of the 35 samples contained over 5 parts per billion gold, which is the limit of detection for the analytical method which was used. One rock sample, collected at 1+00N, 2+00E contained 1 to 2% disseminated pyrite in a chloritic altered andesite. This sample contained 30 ppb gold, which is not significant compared to soils from previous surveys established farther south. For example, a significant gold anomaly with values up to 275 ppb gold is located at 1310 metre (4300 feet) elevation, which is approximately 600 metres due south of the east end of the current survey line. This and other metal anomalies are documented in the report for Payday Resources Inc. by Kallock and Goldsmith (1984).

## CONCLUSIONS

No anomalous gold was detected in soil samples collected along an east-west trending grid line near the southwest corner of Troitsa Lake on the Nuswat and Core Lode 1 & 2 claims of Payday Resources Inc. The area of the grid is presumably underlain by andesitic volcanics of the Hazelton Group, Skeena Group sediments, and rhyolite or quartz-feldspar porphyry intrusive rocks. The negative results of this survey indicate that significant base and precious metal



soil anomalies, outlined in the 1983 exploration programme, which are located up-slope and more than 600 metres to the south, do not extend to the shore of Troitsa Lake. Further exploration should therefore be directed toward the south of the current survey area.

## RECOMMENDATIONS

The recommended exploration programme outlined by Kallock and Goldsmith (1984) for the Nuswat *et al.* claims remains as a valid plan. Geological mapping, soil and rock geochemical surveys, and geophysical surveys including VLF-EM and magnetics, designed to cover the entire claim block should be continued. Due to the high altitude of some of the property, exploration during the late summer months would be most advantageous.

Phase 3 may include additional geochemistry and limited shallow diamond drilling of selected targets. Phase 4 could require a similar budget with emphasis on drilling of selected targets. Phase 5 would require extensive drilling.

## COST ESTIMATE

### Phase 2

A small amount of Phase 2 as outlined in Kallock and Goldsmith (1984) has been carried out by the May 1986 programme documented in this report. The remainder could be budgeted as follows:

Grid layout	\$ 2,500
Soil geochemical survey	2,500
Geological mapping	4,000
Ground geophysics, including VLF-EM and Mag.	2,000
Geochemical analysis	3,700
Camp and supplies	1,500
Travel	1,000
Helicopter	6,000
Engineering and supervision	2,500
Reporting	3,000
	<hr/> 28,700

Phase 2 (cont.)	Subtotal:	\$ 28,700	
Contingencies @ 10%		<u>2,870</u>	
		31,570	\$ 31,570

## Phase 3

Rock and soil geochemical surveys	\$ 5,000	
Shallow diamond drilling, 250 m @ \$120/m	30,000	
Camp and supplies	3,000	
Travel	1,000	
Helicopter	8,000	
Assays, analyses	4,000	
Engineering and supervision	5,000	
Reporting	<u>3,000</u>	
	59,000	
Contingencies @ 20%	<u>11,800</u>	
	70,800	70,800

## Phase 4

Shallow diamond drilling, 250 m @ \$120/m	\$ 30,000	
Camp and supplies	3,000	
Travel	1,000	
Helicopter	8,000	
Assays	1,500	
Engineering and supervision	4,000	
Reporting	<u>2,000</u>	
	49,500	
Contingencies @ 20%	<u>9,900</u>	
	59,400	59,400



## Phase 5

Diamond drill programme, 1000 m, allow \$120/m plus support and engineering		<u>250,000</u>
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Total, Phases 2-5	\$411,770
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Results of each Phase should be compiled into an engineering report; continuance to the subsequent Phase should be contingent upon receiving favourable conclusions and recommendations from an Engineer.

Respectfully submitted,

Locke B. Goldsmith, P.Eng.  
Consulting Geologist

  
  
Paul Kallock  
Geologist

Vancouver, B.C.

June 11, 1986

**ENGINEER'S CERTIFICATE  
LOCKE B. GOLDSMITH**

1. I, Locke B. Goldsmith, am a Registered Professional Engineer in the Province of Ontario and the Northwest Territories, and a Registered Professional Geologist in the State of Oregon. My address is 301, 1855 Balsam Street, Vancouver, B.C.
2. I have a B.Sc. (Honours) degree in Geology from Michigan Technological University, a M.Sc. degree in Geology from the University of British Columbia, and have done postgraduate study in Geology at Michigan Tech and the University of Nevada. I am a graduate of the Haileybury School of Mines, and am a Certified Mining Technician. I am a Member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy, and a Fellow of the Geological Association of Canada.
3. I have been engaged in mining exploration for the past 27 years.
4. I have authored the report entitled, "Soil Geochemical Survey, Nuswat, Core Lode 1 & 2 Mineral Claims, Omineca Mining Division, Troitsa Lake, B.C.", dated June 11, 1986. The report is based upon fieldwork and research supervised by the author.
5. I have no ownership in the property, nor in the stocks of Payday Resources Inc.
6. I consent to the use of this report in a prospectus, or in a statement of material facts related to the raising of funds.

Respectfully submitted,



*Locke B. Goldsmith*

Locke B. Goldsmith, P.Eng.  
Consulting Geologist

Vancouver, B.C.  
June 11, 1986

**GEOLOGIST'S CERTIFICATE**

I, Paul Kallock, do state: that I am a geologist with Arctex Engineering Services, 301 - 1855 Balsam Street, Vancouver, B.C.

I Further State That:

1. I have a B.Sc. degree in Geology from Washington State University, 1970. I am a Fellow of the Geological Association of Canada.
2. I have engaged in mineral exploration since 1970, both for major mining and exploration companies and as an independent geologist.
3. I have co-authored the report entitled, "Soil Geochemical Survey, Nuswat, Core Lode 1 & 2 Mineral Claims, Omineca Mining Division, Troitsa Lake, B.C." The report is based on my fieldwork carried out on the property and on previously accumulated geologic data.
4. I have no direct or indirect interest in any manner in either the property or securities of Payday Resources Inc., or its affiliates, nor do I anticipate to receive any such interest.
5. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.



*Paul Kallock*  
Paul Kallock  
Geologist

Vancouver, B.C.

June 11, 1986

## REFERENCES

- Cawthorn, N.G. 1973. Geology and Petrology of the Troitsa Lake Property, Whitesail Lake Map Area, B.C. M.Sc. Thesis, Univ. of British Columbia.
- Davidson, D.A., P.Eng., and Woolverton, H., P.Eng. 1969. Geological, Geochemical and Geophysical Report on the OVP 1-36 and MK 1-60 Claims. Aston Resources Limited Assessment Report #2026.
- Hodder, R.W. and MacIntyre, D.G. 1979. Place and Time of Porphyry Type Copper-Molybdenum Mineralization in Upper Cretaceous Caldera Development, Tahtsa Lake, B.C. *In: Papers on Mineral Deposits of Western North America. Nevada Bureau of Mines and Geology, Report 37,* pp. 175-184.
- Kallock, P. and Goldsmith, L.B. 1984. Soil Geochemical Survey and Geological Data Evaluation, Nuswat, Core Lode 1 and Core Lode 2 Mineral Claims, Troitsa Lake Area, B.C. Private report for Payday Resources Inc.
- MacIntyre, D.G. 1976. Evolution of Upper Cretaceous Volcanic and Plutonic Centres and Associated Porphyry Copper Occurrences. Tahtsa Lake Area, B.C. Ph.D. Thesis, Univ. of British Columbia.
- MacIntyre, D.G. 1985. Geology and Mineral Deposits of the Tahtsa Lake District, West Central British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin #75.
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- Neugebauer, H. 1967. Geological Report on the Claims OVP #49-60, SW End of Troitsa Lake, B.C. Silver Standard Mines Ltd. Assessment Report #1091.
- van der Heyden, P. 1982. Geology of the West-Central Whitesail Lake Area, B.C. M.Sc. Thesis, Univ. of British Columbia.

## ITEMIZED COST STATEMENT, 1986 PROGRAMME

## A. Wages

P. Kallock, geologist, May 22, 23, 24, 25, total 4 days @ \$330/day	\$1,320	
G. Bennett, prospector, May 22, 23, 24, 25, total 4 days @ \$220/day	880	
L.B. Goldsmith, consulting geologist, $\frac{1}{4}$ May 21, $\frac{1}{4}$ 27, $\frac{3}{4}$ 29, total $1\frac{1}{4}$ days @ \$400/day	<u>500</u>	
	\$2,700	\$2,700.00

## B. Food, Accommodation

May 22-25, 1986 - \$326.48 = \$40.81/man/day		326.48
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## C. Transportation

Vehicle, 1350 miles @ \$.25/mile	\$ 337.50	
" 1118 km @ \$.30/km	335.10	
" 1 day @ \$45/day	45.00	
Gas	184.10	
Fixed-wing reconnaissance	100.00	
Helicopter	<u>718.90</u>	
	1,720.60	1,720.60

## D. Analyses

35 soil samples	\$257.25	
1 rock sample	<u>9.25</u>	
	266.50	
= \$7.40/sample		266.50

## E. Report

Photocopying, prints, supplies, report materials, drafting, word processing		<u>247.20</u>
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TOTAL: \$5,260.79

APPENDIX





# 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

## CERTIFICATE OF ANALYSIS

TO : ARCTEX ENGINEERING

301 - 1855 BALSAM ST.  
VANCOUVER, B.C.  
V6K 3M3

CERT. # : A8613055-001-A  
INVOICE # : 18613055  
DATE : 6-JUN-86  
P.C. # : NONE  
NUSWAT-PAYDAY

CC: PAUL KALLUCK

Sample description	Prep code	Au ppt FA+AA						
1+00N 1+26E	201	<5	--	--	--	--	--	--
1+00N 2+01E	201	<5	--	--	--	--	--	--
1+00N 2+30E	201	<5	--	--	--	--	--	--
1+00N 3+04E	201	<5	--	--	--	--	--	--
1+00N 3+30E	201	<5	--	--	--	--	--	--
1+00N 4+13E	201	<5	--	--	--	--	--	--
1+00N 4+83E	201	<5	--	--	--	--	--	--
1+00N 5+13E	201	<5	--	--	--	--	--	--
1+75N 0+30E	201	<5	--	--	--	--	--	--
1+75N 1+40E	201	<5	--	--	--	--	--	--
1+75N 2+00E	201	<5	--	--	--	--	--	--
1+75N 2+50E	201	<5	--	--	--	--	--	--
1+75N 3+00E	201	<5	--	--	--	--	--	--
1+75N 3+50E	201	<5	--	--	--	--	--	--
1+75N 4+50E	201	<25 (small sample)	--	--	--	--	--	--
1+00N 0+00W	201	<5	--	--	--	--	--	--
1+00N 0+50W	201	<5	--	--	--	--	--	--
1+00N 1+00W	201	<5	--	--	--	--	--	--
1+00N 1+50W	201	<5	--	--	--	--	--	--
1+00N 2+00W	201	<5	--	--	--	--	--	--
1+00N 2+50W	201	<5	--	--	--	--	--	--
1+50N 3+00W	201	<5	--	--	--	--	--	--
1+50N 3+75W	201	<5	--	--	--	--	--	--
1+50N 4+25W	201	<5	--	--	--	--	--	--
1+50N 4+50W	201	<5	--	--	--	--	--	--
1+50N 5+00W	201	<5	--	--	--	--	--	--
1+50N 5+50W	201	<5	--	--	--	--	--	--
1+50N 6+00W	201	<5	--	--	--	--	--	--
1+50N 6+50W	201	<5	--	--	--	--	--	--
1+50N 7+50W	201	<5	--	--	--	--	--	--
1+50N 8+50W	201	<5	--	--	--	--	--	--
1+50N 9+00W	201	<5	--	--	--	--	--	--
1+50N 9+50W	201	<5	--	--	--	--	--	--
1+50N 10+00W	201	<5	--	--	--	--	--	--
6+00N 5+00W	201	<5	--	--	--	--	--	--

Certified by Hart Bichler

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 HNO<sub>3</sub> 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

Copper, Lead, Zinc, Silver ppm:

1.0 gm sample is digested with perchloric-nitric acid (HClO<sub>4</sub>-HNO<sub>3</sub>) 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

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 KI and mixed. A portion of the reduced solution is converted to arsine with NaBH<sub>4</sub> and the arsenic content determined using flameless atomic absorption.

Detection limit: 1 ppm



# 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

## CERTIFICATE OF ANALYSIS

TO : ARCTEX ENGINEERING

301 - 1855 BALSAM ST.  
VANCOUVER, B.C.  
V6K 3M3

CERT. # : A8613056-001-A  
INVOICE # : I8613056  
DATE : 2-JUN-86  
P.C. # : NONE  
NUSAT-PAYDAY

CC: PAUL KALLOCK

Sample description	Prep code	Au ppb FA+AA					
1+00N 2+COE	205	30	--	--	--	--	--

Certified by Hart Bichler

NUSWAT & CORE LODE 1 MINERAL CLAIMS  
 OMINECA MINING DIVISION, B.C. NTS 93E/11W

PAYDAY RESOURCES INC.  
**GEOCHEMICAL SURVEY**

LOCKE B. GOLDSMITH, P.Eng., CONSULTING GEOLOGIST  
 PAUL KALLOCK, GEOLOGIST

ARCTEX ENGINEERING SERVICES  
 JUNE 1986

ROCK SAMPLE  $\Delta$  30 P.P.B.  
 STREAM SEDIMENT SAMPLE  $\odot$   
 SOIL SAMPLE  $\uparrow$  ALL VALUES  
 < 5 P.P.B. Au  
 EXCEPT WHERE  
 SHOWN.

0 50m. 100m.

STREAM   
 OUTCROP   
 LAKE SHORELINE 



STREAM SEDIMENT SAMPLE  
 6N 5W

CORE LODE 1  
 5513 (7)

NUSWAT  
 5202 (5)

TROITSA LAKE

APPROXIMATE  
 CLAIM BOUNDARY



"QUARTZ EYE"  
 RHYOLITE  
 PORPHYRY

**14,953**  
**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

< 25 P.P.B.  
 $\uparrow$  (SMALL SAMPLE)

30 P.P.B. ROCK SAMPLE 1N 2E.  
 FINE-GRAINED ANDESITE  
 WITH 1% DISSEMINATED PYRITE,  
 TRACE CHALCOPYRITE

FINE-GRAINED  
 GRANODIORITE  
 OUTCROP.

10+00 W

7+50 W

5+00 W

2+50 W

0+00

2+50 E

5+00 E

3+00 N

2+00 N

1+00 N