

TELEPHONES:
DAYS: 685-2261
683-1288

103I/9W
103I,J-72 to 76

EVENINGS: 261-0789
922-3883
985-6772

CANADIAN MINE SERVICES LTD.
619-620 - 475 HOWE STREET
VANCOUVER 1, B.C.

018059

REPORT ON THE
GOLCONDA COPPER SHOWINGS

OF

SHASTA MINES AND OILS LTD. (N.P.L.)

TERRACE AREA

COMINECA MINING DIVISION

BRITISH COLUMBIA

BY

R.W. PHENDLER, B.S.C., P. ENG.

2175-6

September 24, 1968.



CONTENTS

	Page
INTRODUCTION	1
SCOPE	1
LOCATION AND ACCESS	2
PHYSICAL FEATURES	3
HISTORY	3
CLAIMS	5
GEOLOGY	5
MINERAL DEPOSITS	6
SOIL SAMPLING	9
DEVELOPMENT	10
CONCLUSIONS	10
RECOMMENDATIONS	12
CERTIFICATION	
MAPS ACCOMPANYING REPORTS -	
PROPERTY LOCATION MAP - 1" - 20 miles	
CLAIM MAP 1" - 1 mile	
GEOLOGY MAP 1" - 100'	

TELEPHONES:
DAYS: 685-2261
683-1288

EVES: 261-0789
922-3883
985-6772

CANADIAN MINE SERVICES LTD.

619-620 - 475 HOWE STREET
VANCOUVER 1, B.C.

Vancouver, B.C.,
September 24, 1968.

Mr. H.C. Faulkner,
Shasta Mines and Oils Ltd., (N.P.L.)
1380 Pemberton Avenue,
North Vancouver, B.C.

Gentlemen:

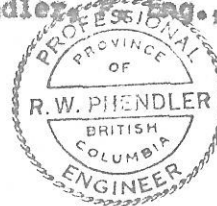
I hereby consent to the inclusion of my report
on the Golconda Claim group of Shasta Mines and Oils Ltd.,
Omineca Mining Division, British Columbia, dated September
24, 1968, in the prospectus of the company.

Yours very truly,

R.W. Phendler

RWP:c.

R.W. Phendler, Eng., B.Sc.



SUMMARY OF REPORT ON THE
GOLCONDA COPPER SHOWINGS OF
SHASTA MINES AND OILS LTD. (N.P.L.)
OMINECA MINING DIVISION, BRITISH COLUMBIA
September 24, 1968.

Shasta Mines and Oils Ltd. holds fifty four claims fourteen miles northeast of Terrace, British Columbia, on Bornite Ridge, near Usk.

The claims cover a mineralized shear zone that can be traced on surface for 500' along strike. Only one open cut of any significance has been trenched across the zone and bornite and malachite was observed across the 27' width. Three samples taken across the zone averaged 4.16% Cu and 2.51 oz. Ag.

A parallel albite dyke is traceable with the mineralized shear zone for the entire length and is of some significance.

A diamond drill hole put down beneath the principal trench at -55° assayed 3.30% Cu over 46.0' (true width with vertical dip 22'). This assay is combined core and sludge and was not taken by the writer.

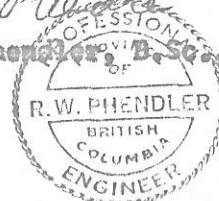
Reconnaissance soil sampling was done in late 1967 and an anomalous area of low intensity in copper was reportedly discovered about 500' southeast of the principal showing.

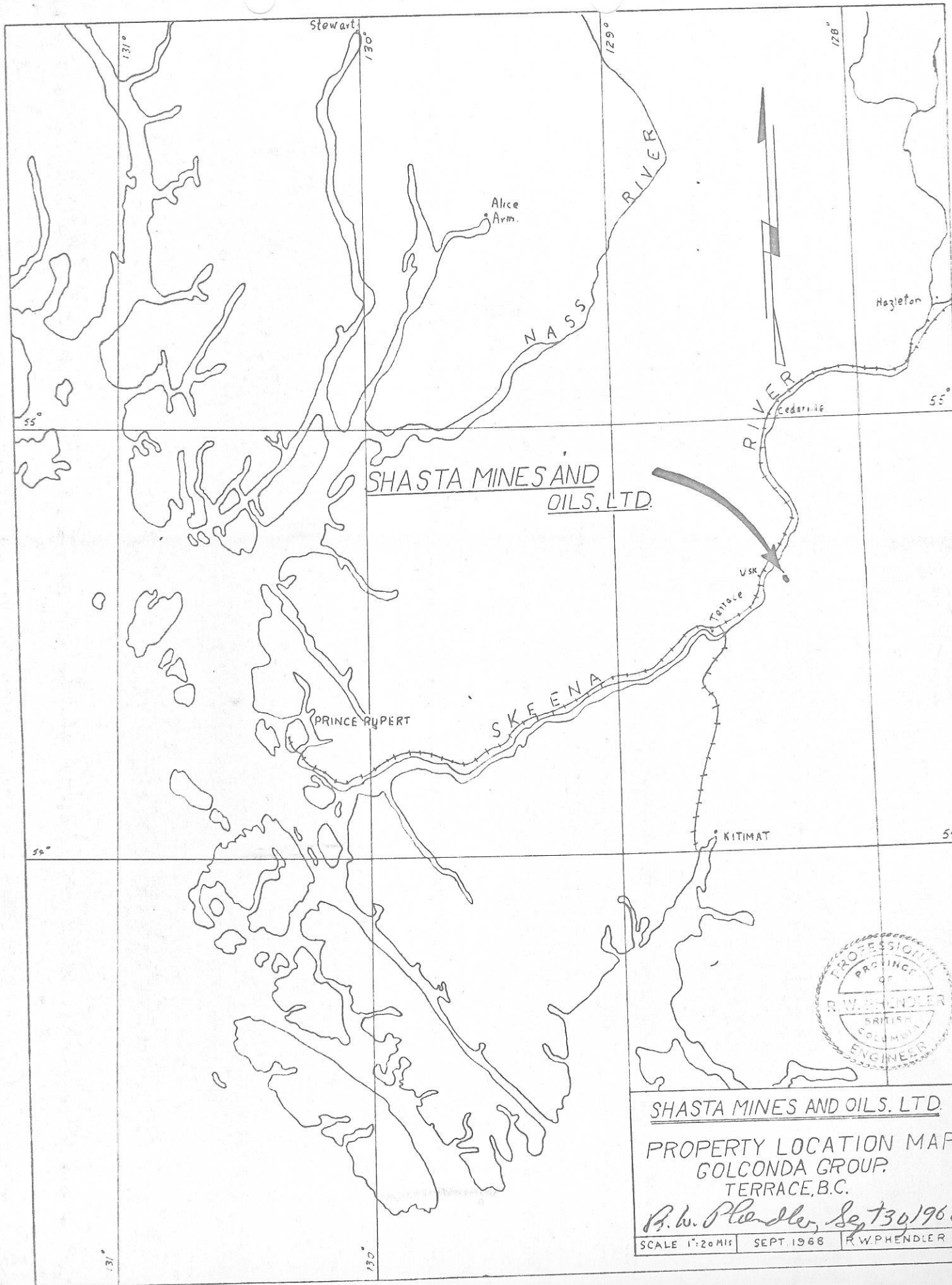
Additional exploration is warranted in the area and it is the opinion of the writer that good possibilities exist for the encountering of commercial quantities of copper-silver ores.

Respectfully submitted,

RWP:ic.

R.W. Phendler, D.Sc., P. Eng.





SHASTA MINES AND OILS. LTD.

PRINCE RUPERT

KITIMAT



SHASTA MINES AND OILS. LTD.

PROPERTY LOCATION MAP
GOLCONDA GROUP
TERRACE, B.C.

R.W. Phendler, Sep 130/1968

SCALE 1"=20 MILES SEPT. 1968 R.W. PHENDLER

REPORT ON THE GOLCONDA COPPER SHOWINGS
OF SHASTA MINES & OILS LTD., TERRACE AREA,
OMINECA MINING DIVISION, BRITISH COLUMBIA.

INTRODUCTION

The Golconda copper showings lie two miles east of Usk, near Terrace, B.C., at an elevation of 2,000' above sea level.

A bornite bearing westerly - striking shear zone can be followed for about five hundred feet along strike. Maximum width is 27 feet and host rock is medium to fine grained dark green andesite cut by an albite dyke.

The area of interest lies on the west slope of Bornite Ridge where numerous other copper showings have been known for many years.

A few trenches were put down in the past but during the 1967 field season one sizeable trench was cut and some diamond drilling was carried out. The showings are presently covered by 54 mining claims.

SCOPE

The property was examined on September 17, 1968, in the presence of Mr. Joe Bell, of Usk, vendor of the claim group and his nephew, Mr. James O'Brien of Terrace, B.C.

Geological mapping was done, nine chip samples were taken and all outcrops showing mineralization on the principal shear zone were examined.

LOCATION AND ACCESS

The property under discussion lies 15 miles northeast of Terrace, British Columbia, on the west flank of Bornite Ridge. The town of Usk is the closest community to the claim group, being only half a mile south along Highway 69 from the gravel pit from which the trail to the showing departs. Highway 69 follows the valley of the Skeena River.

Access from the gravel pit near Usk is by a tractor trail which rises from 300' to 2,000' above sea level. The grade is not steep and a four-wheel drive road could be constructed with little difficulty. Distance is about two miles, staying in heavy timber country with little undergrowth. The Emma Creek valley is paralleled most of the way.

Quickest access is by helicopter from Terrace directly to a bog which serves as an adequate landing pad situated 150' north of a small cabin near the showings. The gravel pit near the highway serves as an excellent base if much equipment is being moved in to the camp.

Approximate co-ordinates are as follows:

Longitude	129° 22'W
Latitude	54° 37'N

PHYSICAL FEATURES

Ample water for mining operations is available throughout the year from either the Emma Creek, north of the showings, or a creek of similar size a few hundred feet to the south. Good timber is available at the site and cut lumber is available in good supply from a sawmill at Usk, a few miles away. Precipitation is not considered to be heavy and year round operations could easily be carried out.

The Canadian National Railway line between Prince George and Prince Rupert follows the north shore of the Skeena River. Closest access to the rail line is at Terrace, 14 miles to the southwest. Hydro power is also available at Usk.

A plywood cabin (16' x 8') was constructed on the property in 1967 and is suitable for a summer field program for about two men.

HISTORY

The British Columbia Minister of Mines Report for 1899 has the first mention of gold and silver-bearing quartz veins in the vicinity of the present activity. The claims at that time were known as the Hickey group and showed shearing and associated mineralization within andesite volcanics.

In 1929 a trench existed near the west border of the Golconda claim at an elevation of 1675 feet and exposed an albite dyke intruding the andesite, which was fractured and mineralized. Bornite, chalcopyrite and malachite were seen and a sample assayed 1.0 oz. Ag, 1.1% Cu across a width of 15'. In 1956 the property was examined by Dr. J. Mandy and he reports finding an old trench half a mile from the mouth of Emma Creek at an elevation of 1090 feet. A sample taken by him assayed 3.5 oz. Ag and 1.0% Cu. He describes the showing as being well oxidized and 15' in width.

There are no other records of activity on the property until Shasta Mines and Oils optioned the crown granted Golconda claim and eight other claims from Joseph Bell of Uk in 1967. In May of that year J.P. Elwell, P. Eng. examined the ground and recommended prospecting, trenching, sampling, stripping, road construction and possible diamond drilling.

During 1967 a tractor trail was constructed and some trenching on the principal showing was done. In August of that year J.J. McIntosh, P. Eng. examined the property and recommended soil sampling. A limited amount was done (six days) and this was immediately followed by Packsack diamond

drilling. A total of 212 feet was drilled in four holes, all within a few feet of the principal showing.

CLAIMS

Shasta Mines and Oils Ltd. acquired the original crown grant Golconda #167 claims from Joe Bell under the option agreement that was completed September 15, 1967. The claims SHA 1-8 were included in this option agreement. The following claims were acquired under option from J. McAskill: L166, L168, L169, L170, L174 and 30213.

The claims NIP 1-10 and TUK 1-29 were staked by Shasta Mines and Oils Ltd. in 1967.

The total area now held by the company is close to 2,000 acres made up of 54 claims.

GEOLOGY

The claims under discussion are underlain by andesitic rocks of the Hazleton group of Jurassic age. A few miles to the south are acid and intermediate granitic intrusives of Cretaceous age.

The andesite in the vicinity of the showings are generally medium to fine grained and dark green in colour. Hydro-thermal alteration in the vicinity of the mineral showings is not strong although some epidotization was observed.

The albite dyke in the mineral area appears to follow the shear zone that strikes $N80^{\circ}E$. Dip is irregular but is believed to be near vertical with local dips to 50° to both north and south.

MINERAL DEPOSITS

The principal shear zone on which the mineralization occurs appears to be continuous for at least 500 feet along strike. The main trench showed that mineralization is at least 27' wide. On the south side a light coloured, fine grained albite dyke can be seen and this may or may not be the limit of the mineralization, as overburden covers the extension.

Three samples were taken across this trench:

<u>Sample No.</u>	<u>Width</u>	<u>%Cu</u>	<u>%Ag</u>	<u>Location</u>
09458	7.0	5.50	3.40	Main trench - N. Zone
09459	15.0	0.69	0.41	" between zone
09460	<u>5.0</u>	<u>12.70</u>	<u>7.58</u>	" S. zone
Total	27.0'	4.16	2.51	

Diamond Drill hole No. 1 was drilled from the south limit of the trench and was drilled north at -55° under the trench. The core and sludge was sampled in 1967 and the writer cannot verify for the authenticity of the results as follows:

<u>Core samples</u>				<u>Sludge Samples</u>	
<u>Footage</u>	<u>Width</u>	<u>%Cu</u>	<u>Oz. Ag</u>	<u>%Cu</u>	<u>Oz. Ag</u>
0-12'	12'	2.29	1.20	6.91	4.23
12'-46'	34'	1.02	0.38	4.68	-
0-46'	46'	1.35	0.59	5.26	-

Average of core and sludge - 46', 3.30 Cu, Silver samples - incomplete. With a vertical dip to the zone, true width as intersected in the drill hole is 22'. The hole continued to 85', the last 39' averaging 0.15 Cu and 0.10 Ag.

The great difference between the assays of the cores and the sludges may be due to the grinding of the more friable metals in deference to the competent andesites. However, the important fact is that mineralization was intersected continually for 46.0'.

Diamond drill holes 2 and 3 were drilled vertically or near vertically for 47' and 52' respectively on the south side of the mineralized shear zone. Hole 4 was drilled vertically on the north side of the shear zone for 28'. Samples from hole 3 showed continuous mineralization averaging 0.7 Cu, probably parallelling the zone.

Only hole #1 was of much value. Holes 2 and 4 failed to intersect the zone and merely intersected wall rock

dissemination of mineral.

Following is a summary of drill hole results as taken from the 1967 sample sheets. The core was logged for rock type, structure, etc., by John McAskill in 1967.

Hole No.	Width Min.	%Cu	Oz. Ag	Length	Location
1	46'	3.30	incomplete	85'	Intersected ore zone 35' down
2	8'	1.12	-	47'-30'	S of hole 1, vertical
3	9'	2.10	-	52'-50'	SW of hole 2 vertical
4	28'	.05	-	28	28' 30 N of mineral zone vent

Chip samples taken by the writer are as follows:

Sample No.	Width	%Cu	Oz. Ag	Location
09458	7.0'	5.50	3.40	Main trench, N. zone
09459	15.0'	0.69	0.41	" between zones
09460	5.0'	12.70	7.59	" S zone
09461	2.0'	3.10	3.26	100' W along shear, zone
09462	2.0'	3.10	3.32	200 W along shear zone
09463	0.5'	2.80	1.60	300 W along shear zone
09464	3.0'	5.50	12.80	200' E along shear zone
09465	5.0'	0.19	0.58	1 mile W on cat road qtz. vein
09466	20.0'	2.50	-	1.5 mile W on cat road albite dyke

With the first three samples representing the full width of mineral at the main trench (27.0' of 4.16 Cu, 2.51 Ag), the 500' length of the exposed mineral structure averages

4.13 Cu and 3.47 Ag across 6.9'. The narrow widths of samples 09461 to 09464 do not necessarily represent the full width of the mineral as little or no plug hole blasting or trenching has been done. Additional trenching will undoubtedly expose additional widths.

SOIL SAMPLING

A small program of soil sampling was done to cover the area for 1,000' in each direction from the Golconda showing; J. McAskill who carried out the work in 6 days in September, 1967, concludes as follows:

"The results of the soil sampling were most interesting as it is noted that the areas being most anomalous are located uphill and to the southeast of the known showings. This indicates that a prospecting program should be commenced immediately."

There is no mention of procedures followed, intensity or size of anomalous areas or where the samples were analyzed. By verbal communication with J. McAskill a hot extraction method was used. Background count was less than 10 ppm and the anomalous area has numerous readings in the 40 ppm range but few high than 50 ppm. It is felt that soil sampling can be a useful tool in outlining areas of interest.

DEVELOPMENT

Total development on the property consists of one recent trench and numerous old, partially caved trenches.

No record of production exists for the property and no ore reserve can be calculated at this time.

CONCLUSIONS

The strength of the fracturing within the shear zone is impressive as is the amount of disseminated bornite contained within the apparently fresh andesites.

The associated quartz veining and the continuity of the accompanying albite dyke suggests a fairly strong zone of fracturing, through which the mineralizing solutions were allowed to penetrate.

In general massive andesites are competent and resistant to fracturing. However, the Golconda shear zone shows strength and is in no way cut off in either direction.

The results of drill hole 1 are encouraging with 46.0' of continuous bornite mineralization averaging over 3.0% Cu.

It is the opinion of the writer that the showings warrant additional exploratory work. Trenching accompanied by blasting should be carried out systematically across the

zone, both east and west from the main showings.

This should be followed by diamond drilling to check for continuity in depth and along strike.

On a more regional pattern systematic soil sampling and geophysical work should be carried out along strike from the main zone in conjunction with detailed geological mapping of the area.

RECOMMENDATIONS

The following program is recommended to assess the ore-making possibilities of the Golcanda showing.

PHASE 1

Improvement of trail to four-wheel drive standard	\$5,000
Soil Sampling over an area 1 mile by 1 mile	10,000
Systematic trenching & follow up, plug-hole blasting	10,000
Geophysical survey	<u>10,000</u>
Total Phase 1	\$35,000

PHASE 2

Diamond drilling dependent on work mentioned above. 5 holes at 300' 1500' @ \$10	15,000
Engineering and administration	<u>3,000</u>
Total Phase 2	18,000

PHASE 3

Additional diamond drilling of Phase 2 drilling if same has favourable results 7 holes at 600' - 4200' @ \$10/foot	42,000
Engineering and Administration	<u>5,000</u>
Total Phase 3	<u>47,000</u>
Total All Phases	\$100,000

CERTIFICATION

I, Roy William Phendler, of the City of West Vancouver in the Province of British Columbia, hereby certify as follows:

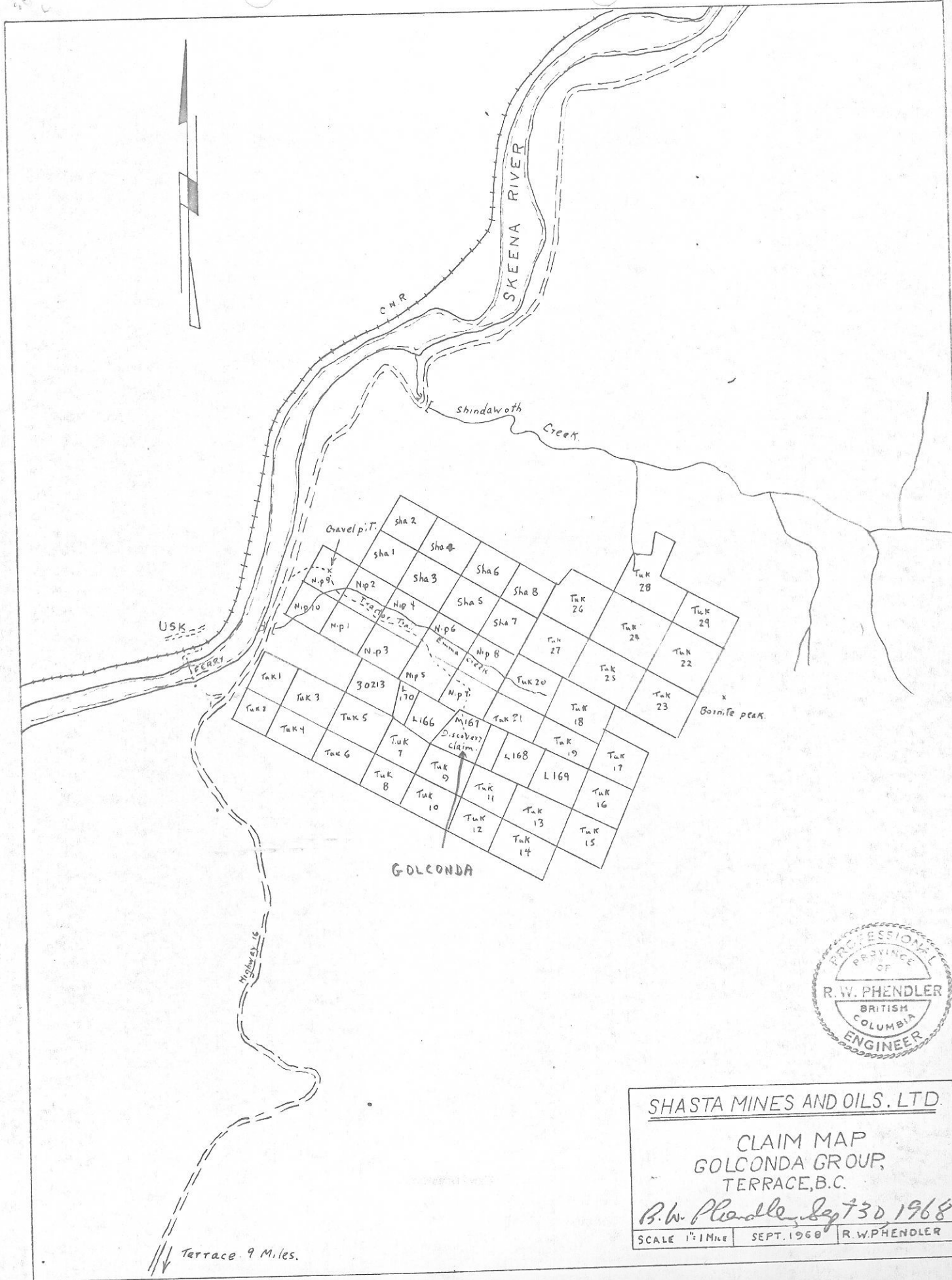
1. That I am a registered Professional Engineer of the Province of British Columbia.
2. That I am a graduate of McGill University, Montreal, Quebec, with a Bachelor of Science in Geology.
3. That I have practised my profession as geologist continuously for the past 15 years in Quebec, Ontario, Saskatchewan and British Columbia in Canada and Peru and Colombia in South America.
4. That I have no interest directly or indirectly in the mineral claims of Shasta Mines and Oils Ltd. nor do I expect to receive any.
5. That the information contained herein was compiled during an examination of the showings of the Golconda group on September 17, 1968.

R. W. Phendler

R.W. Phendler,
B.Sc., P. Eng.

RAP:c.





SHASTA MINES AND OILS. LTD.
CLAIM MAP
GOLCONDA GROUP,
TERRACE, B.C.
R.W. Phendler Sept 30, 1968
SCALE 1"=1 Mile SEPT. 1968 R.W. PHENDLER

