

Report on the

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JENNIE VEIN

for

Nu-Energy Development Corporation Ltd. (N.P.L.)

by

J. M. Black, P.Eng.

September 27, 1976

*See GC 121, 1976*

provides encouragement for the exploration of the Ericksen Creek camp. He

REPORT ON  
NU-ENERGY DEVELOPMENT CORPORATION  
ERICKSON CREEK PROPERTY  
CASSIAR DISTRICT, B. C.

by  
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CONSULTING GEOLOGIST

APRIL 4, 1977

JENNIE VEIN  
Nu-Energy Development Corporation Ltd. (N.P.L.)

INTRODUCTION

The Jennie vein outcrops near Erickson Creek, about eight miles south-southeast of the community of Cassiar. In 1973, after a long period of inactivity, interest in this vein was resumed. That year some trenching was done and a limited geochemical survey carried out. In 1975 the vein was drilled. This work has been reported on by K. L. Daughtry, P.Eng. and by J. M. Dawson, P.Eng. Work was continued this year and this report describes results to date.

PROPERTY

It comprises three Crown-granted claims, eight old style claims and four new claims of seventeen units.

EARLY HISTORY

The vein was discovered in 1936 by prospectors. It appears to dip moderately northward. It was drilled in 1937. Some of the holes were not drilled far enough to intersect the vein because, as is now known, it dips steeply. After this a short adit was driven toward the vein. It also was stopped short of the vein. Subsequently, about 130 tons were mined from surface outcrops and milled in a small mill brought to the site.

1975-76 PROGRAM

In 1975, 700 feet of percussion drilling was done in six holes and 755 feet of diamond drilling was done in three holes. This year, 1,300 feet of diamond drilling was completed in eighteen holes. Of these, fifteen cored the vein. No. 13 is in very blocky ground and could not be completed to the vein. Nos. 15 and 16 were drilled near Erickson Creek, where a reversal of dip was suspected. They were drilled northward and the

vein also dips northward and the vein was not reached by them.

In addition, the geology near the vein was mapped and a geochemical prospecting program was carried out to look for evidence of any veins like the Jennie.

### GEOLOGY

The rock exposed near the creek and cored in the drill holes is dark and thin-bedded. It is predominantly an impure argillite and is now almost slate. Thin ashy beds are also present.

The beds generally are gently dipping. Locally they dip steeply, possibly caused by drag along minor faults.

The rocks have been intensely fractured and large amounts of silica have been introduced. Some has replaced the rock minerals and the rest has formed veins. Most of these are narrow and are only an inch or so wide. They have a great variety of attitudes. Some of them are essentially parallel to the Jennie vein. Most of them comprise only quartz and minor carbonate. The Jennie vein differs inasmuch as it is generally much wider and, wherever it is cored, it is mineralized.

Some copper mineralization occurs near the Jennie vein, especially in the hanging wall and elsewhere on the property. Its presence is marked by a bright green stain caused by thin films of malachite.

### GEOCHEMISTRY

Soil samples taken on traverses of the area, mostly north of the Jennie vein, and silt samples taken from Erickson and other creeks generally contain only small amounts of gold and copper. Greater amounts are present in Erickson creek below the Jennie vein and can be attributed to it. A few samples from south of the vein, that is uphill from it, are also

anomalous and, therefore, this area is worthy of more prospecting.

#### JENNIE VEIN

It is blocky and creamy white with rusty joints. Some of it is white with little mineral. Most of it is quartz with minor carbonate. Most of it contains sparse sulphides, tetrahedrite and pyrite erratically distributed. In addition, free gold is present in the outcrops and in most of the diamond drill core intersections. Some of the gold is closely associated with tetrahedrite and some is not. Some of it is extremely fine and other particles are coarse and readily visible. Very minor amounts of chalcopyrite, sphalerite and native copper are also present.

The vein, in places, contains country rock or splits into two or more sub-parallel veins. It ranges in width from about 1.5 feet to as much as 17.5 feet. The average true width, as measured from drill intersections (excluding low-grade intersections), is almost 7 feet.

It has been followed, under 15 to 20 feet of overburden, for 280 feet. It strikes west 20° south. In the east it dips about 85° north. Toward the west it gradually dips less steeply to about 70° north.

Since it is not known to be disrupted by any fault in the explored length, it must have formed at a very late stage of the geological history. It is a major vein.

#### GRADE

The gold content varies widely. Some of it, even where free gold is present, contains less than 1/3 of an ounce per ton and is considered to be below ore grade. Other sections contain several ounces per ton. The average grade, excluding low-grade sections (as shown on the accompanying figure), is 1.80 ounces per ton across an average thickness of 6.8 feet.

The tetrahedrite is weak and very friable and, where it veins the quartz, the core generally is broken. It seems likely that some of the fine gold associated with tetrahedrite was not recovered.

The silver content ranges less widely. It is generally somewhat greater than the gold, where the gold content is low, and it is generally less than the gold where the gold content is high. This suggests that most of it is associated with tetrahedrite and not with the free gold. The grade of silver is 1.6 ounces per ton.

In the 1975 percussion drill holes, the silver content is somewhat lower than in the 1976 drill holes. This suggests that silver in small particles of tetrahedrite was not recovered.

A high grade shoot is indicated by the grade of intersections in holes 6, 10 and 11. The highest values are from the foot wall where there is considerable tetrahedrite.

The location of the intersections of the vein and their thickness and grade are shown on the accompanying figure.

As shown on this figure, some intersections are considered to be less than ore grade because they are low grade or narrow. Most of the intersections are substantially above cut-off grade. As shown on the figure, grades were determined from the results of percussion drill holes 3, 5 and 7 and grade and width were determined from 1975 diamond drill holes 1 and 2 and 1976 diamond drill holes 1, 2, 5, 6, 8, 9, 10, 11 and 12.

#### OTHER VEIN

About 20 feet south of the Jennie vein, a parallel vein was cored in several of the holes. Some samples from this vein are of ore grade. It is narrow in the section explored, however, any extension of it may be of interest.

CONCLUSIONS

The Jennie vein is a major strong vein which is well-mineralized and has a high gold content. It has been followed for 280 feet and down dip for 165 feet. At present prices and costs, it can be mined profitably.

Its possible extension along strike and down dip has not been explored. Its location and attitude are now well defined.

RECOMMENDATIONS

1) That an adit or decline be driven to the vein to intersect it below the section drilled. This can be used to block out ore and to provide access for bulk sampling. It can also be used in the development of the vein.

2) That exploration be continued to test for extensions of the vein and in the area south of the vein to prospect for other veins.



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