# 86-611-15240 10187 

A DIAMOND DRILLING REPORT ON THE CORDOBA, PB 1 Fr., \& HIGH CLAIMS

OF THE TARA-86 GROUP
CASSIA DISTRICT
LIARD MINING DIVISION

| OWNERS: | ERICKSON GOLD MINING CORPORATION |
| :--- | :--- |
| CUSEC INDUSTRIES LTD. |  |
| OPERATOR: | ERICKSON GOLD MINING CORPORATION |
| WORK DONE ON: | CORDOBA, PB 1 Fr., HIGH |
| WORK PERFORMED: | MAY $20-$ SEPTEMBER 171986. |
| LOCATED: | NTS 104 P/4E |
|  | LATITUDE $59011.8^{\prime} \mathrm{N}$ |
|  | LONGITUDE $129 \circ 40.2^{\prime} \mathrm{W}$ |

BY:

CORE LOGGED BY:
ALEX BORONOWSKI, B.Sc.; under the supervision of R. SOMERVILLE, PEng.
H. SKIT, B. SC.
B. BOWER

FILMED
M. YOUNG, B. Sc.

DATE:
OCTOBER 11986

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### 1.0 INTRODUCTION

Between May 20 th and September 17 th, forty holes with a total of 4,385.25 metres were drilled on the Cusac Property area by Erickson Gold Mining Corporation. This program has two objective: 1. locating new, major orebodies in the Cusac area 2. delineating an ore shoot within the Eileen Vein. Most of the diamond drilling was conducted on the Eileen Vein structure, E-W Vein, Dino Vein, Hot-Flat Vein, Jill Vein and Sky Vein.

Twenty-five of the holes were drilled on the Cordoba claim; eleven holes were drilled on the PB 1 Fr .; and four holes were drilled on the High claim. The hole numbers and relevant data for this drilling are summarized in Appendix B. The holes were logged by H. Smit, B. Bower, J. Pardoe, M. Young, and C. Sebert. The core is stored on the property. Assay procedure and copies of the drill logs and assay results are contained in Appendix $A$. Maps showing the collar locations in relation to the claim boundaries are located in the back pocket of this report.

### 2.0 LOCATION AND ACCESS

The Tara-86 Group is situated in northern British Columbia, 15 kilometres southeast of the town of Cassiar. Access to the property is via Highway 37 from Watson Lake which is 150 kilometres north-northeast, or from Kitwanga which is 655 kilometres to the south.

Access to the Tara-86 Group from Highway 37 is via the Erickson Gold Mining Corp. road which intersects the highway two kilometres south of the Cassiar turn-off. The Ross road a recently constructed haulage road connects the Cusac portal to the Erickson Mill Site.

### 3.0 TOPOGRAPHY AND VEGETATION

The Tara-86 Group covers a portion of the southwestern slope of Table Mountain from approximately the 1200 metre elevation to the 1400 metre elevation. Relief is generally moderate. Spruce, Balsalm, and Lodge-pole Pine of non-commercial value cover the hillside. The tree line occurs on the northern portion of the High claim in the vicinity of the Sky Vein. Outcrop coverage is fair. Overburden consisting of lodgement till and glacio-fluvial sediments is generally less than 8 metres thick.

### 4.0 HISTORY

The Tara-86 Group is comprised of nineteen claims, situated 2-3 kilometres south of the Erickson Mill Site at the headwaters of Pooley Creek. The ground was first prospected in 1937 when Consolidated Mining and Smelting Company of Canada trenched several veins on the Cordoba claim. Pete Hamlin exposed quarz veins in trenches and two shallow shafts were sunk between 1942 and 1946. Cusac Industries staked the Tara claims in 1977 and 1979 and constructed a 60 ton/day mill on the Cordoba claim. In 1981, 586 tons of ore was open pit mined from the Dino Vein and milled at Erickson. This was followed in 1982 with a 1200 foot crosscut to the nearby Hot Vein. Drifting along the Hot Vein was continued for 300 feet and a breakthrough raise was driven to surface. Erickson Gold Mining Corp. acquired the Cusac ground in 1984 by option agreement. During the 1985 field season the Eileen Vein was discovered and delineated partially. In autumn of 1985 a decline was collared and by summer 1986 production was proceeding on the vein.



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## LEGEND - SYLVESTER GROUP

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MISSISSIPPIAN TO (?) PERMIAN
SYLVESTER GROUP
Interbedded Sediments - 5D
5Da Greywacke
5Db Siltstone
5Dc Sandstone
5Dd Argillite
5De Limestone (continuous pods)
5Df Chert, ribbon chert, interbedded chert and
    argillite
Interbedded volcanics - 5C
5Ca Massive meta-basalt to andesite flows, without pillows, occassional local phenocrysts of feldspar or pyroxene.
5Cb Meta-basalt to andesite tuff breccia and/or flow breccia, with local phenocrysts of feldspar or pyroxene, pillow volcanics.
5Cc Rhyolite, sills and/or dykes.
5Cd Argillaceous tuff and breccia.
5Ce Cherty tuff, tuffaceous chert.
5B Undifferentiated metasediments:
Chert, tuff chert, includes some argillite, in northeast well layered chert - phyllite, ribboned chert and argillite.
5A Argillite, siltstone,chert, quartzite limestone pebble conglomerate, tuff includes numerous diabase and andesite sills.
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### 6.0 GEOLOGY AND MINERALIZATION

Cusac Property is located within the Sylvester Allocthon, a fault-bounded assemblage of upper Paleozoic chert, greenstone, clastics and ultramafic rocks, thrust over rocks autochthonous to the North American Craton in post-Triassic to early Cretaceous times. The rocks underlying Cusac Property are Sylvester Group volcanics and sedimentary rocks of late Devonian to early Mississippian age (see Geological Legend, Figure 3). Sedimentary lithologies include siltstone, chert, sandstone, argillite, greywacke and minor limestone. The volcanics include both flow-type rocks and pyroclastics. Ultramafic rocks, subsequently altered to listwanite, were probably emplaced in Mississippian period. During the Mid-Cretaceous Period the Cassiar Batholith intruded the western part of the allochthon. Tertiary diabase dykes occur throughout the area.

Within the Cusac-Table Mountain area argillite occurs stratigraphically above a thick sequence of volcanic flows and pyroclastics with lesser interbedded chert and argillite. Fault-bound pods and lenses of listwanite occur along this contact. Quartz veins of $1-2$ metres average thickness have been emplaced within dilatent shear faults and fractures which are particularly well developed in the relatively brittle volcanics. Gold ore shoots are commonly localized beneath the listwanites which indicates that these rocks may exert chemical and/or physical control on mineralization. The rocks throughout the region have been subjected to a minimum of three folding events and metamorphosed to the greenschist facies.

### 7.0 SUMMARY OF WORK

A total of $3,420.75$ metres of BQ size diamond drilling and 964.5 metres of NQ size diamond drilling was completed between May 20 th and September 17th 1986. Twenty-five of the holes are located on Cordoba claim; eleven of the holes are located on the PB 1 Fr. and four holes (NQ size) are located on the High claim. The location of the drill holes relative to the claim boundaries are shown on the maps located in the back pocket of this report.

The core was logged, split, and assayed for gold/silver on the property. The core is stored at the Erickson Main Mine Office area.

### 8.0 PURPOSE OF WORK

The 1986 diamond drill program was conducted in order to locate new orebodies and test the eastward and down dip continuity of the Eileen Vein.

MAP 1-A-2
86-182 to 190 were drilled to test the newly discovered auriferous bearing Jill Vein.

MAPS 1-D-3 \& 1-O-2
S86-31 to 34 were drilled to test the Sky Vein structure.

MAP 1-H-1
86-159, 86-164 to 168 were drilled to test an auriferous bearing quartz vein structure located to the north of the Eileen Vein. 86-170 to 172 tested the Dino Vein and its Western Extension.

MAP 1-H-4
86-173 to 175 were drilled to test the eastward extension of the Hot-Flat Vein system.

MAPS 1-I-2 \& 1-X-3
86-158 and U/G (underground) CU86-178 and 179 were drilled to test the continuity of the Eileen Vein towards the east.

CU86-176, CU86-191 and 192, tested for quartz vein structures north of the Eileen Vein.

CU86-177 and 193 tested for quartz vein structures south of the Eileen Vein.

MAPS 1-W-1 \& 1-W-4
86-160 to 163, 86-169, 86-180 were drilled to test for quartz vein structures to the south of the Eileen Vein.

MAP 1-W-3
86-181 was drilled to test the down dip extension of the auriferous bearing E-W Vein.

### 9.0 CONCLUSIONS

MAP 1-A-2
DDH 182 - 190 were drilled on the newly discovered Jill Vein which contains visible gold on surface. The vein was drilled over a strike length of 85 metres. The most significant intersection occurs in DDH 183 which assayed 0.227 oz.Au./ton 0.66 oz.Ag./ton over a width of 1.75 metres. A three hole fence situated 20 metres east of the DDH 186 failed to locate the eastern extension of the vein. However, a 0.6 metre wide quartz stringer which assayed 0.112 oz.Au./ton was intersected in 86-190.

MAPS 1-D-3 \& 1-02
86-31 intersected very low grade mineralization within volcanics on either side of a 0.6 metre quartz vein. The quartz vein occurs at 85.1 metres depth. Further down the hole are zones of quartz flooding within argillite and another low-grade quartz vein at 126.2 metres, which assayed trace over 0.7 metres. 86-32 intersected interbedded sandstone and argillite to 176 metres, and then a zone of quartz veining to 203 metres. Volcanics were encountered from 203 metres to the end of the hole. Listwanite occurs from 178.4 to 182.1 metres. Immediately below this zone is a quartz breccia and vein zone which assayed 0.176 oz.Au./ton over 0.95 metres. Core recovery within this hole was poor (8-43\%). 86-33 intersected low-grade gold mineralization 80 metres down dip from the previous intersection. 86-34 which was drilled 160 metres west of the previous holes did not obtain any significant results. The sky Vein structure is a wide and long structure which has pierced the overlying argillites. Quartz breccia zones and quartz veins contain low to medium-grade gold mineralization. However, to date the zones of economic interest are discontinuous along strike and down dip. Correlation is made more difficult due to the intense faulting and poor core recovery throughout the Sky Vein structure. All core is of NQ size.

MAP 1-H-1
86-159 intersected a 1.5 metre wide quartz vein at 89.6 metres which assayed 0.096 oz.Au./ton. A 0.65 metre interval within this vein assayed 0.185 oz .Au./ton. The vein appears to be the eastward continuity of the vein intersected in 86-141. 86-164 situated between 141 and 154 intersected a 0.2 metre wide quartz stringer zone which assayed $0.288 \mathrm{oz.Au} . /$ ton $1.35 \mathrm{oz.Ag/ton}$ and the target vein at 63.7 metres. This vein assayed 0.2 oz.Au./ton over 0.5 metres plus 0.4 metres of footwall which assayed 0.192 oz.Au./ton. $86-165$ was drilled west of 164 and intersected a 6.2 metre wide quartz vein which assayed $0.007 \mathrm{oz.Au./ton}$. These intersections appears to be the western extension of the quartz vein structure. 86-166 to 168 were drilled east of 159 . 86-166
intersected a 0.5 metre width of hangingwall listwanite and quartz stringer which assayed $0.238 \mathrm{oz.Au./ton}$, and the target vein at 95.2 metres which assayed 0.016 oz.Au./ton over a width of 2.1 metres. $86-167$ and 168 were drilled to the east of 166 . 86-167 intersected a 0.2 metre wide pyrite stringer zone assayed 0.162 oz.Au./ton which may represent the eastward extension of the upper 86-166 intersection. 86-167 contains a 1.5 metre wide quartz vein at 99.9 metres which assayed $0.05 \mathrm{oz.Au} . /$ ton and within this vein is a 0.3 metre section which assayed 0.230 oz.Au./ton. This quartz vein correlates with the 2.1 metre quartz vein in 86-166. 86-168 did not contain a significant intersection. The area north of the Eileen Vein appears to have favourable structures and the potential for hosting an auriferous quartz vein.

86-170 to 172 tested the down dip and northern extension of the Dino Vein. 86-170 encountered a dyke at the expected intersection. 86-171 contains two closely spaced intersections which assayed 0.850 oz.Au/ton $0.53 \mathrm{oz.Ag} . /$ ton over 0.3 metres and $0.178 \mathrm{oz.Au} /$ ton $0.09 \mathrm{oz.Ag./ton}$ over 0.75 metres. 86-172 does not contain any significant intersection.

MAP $1-\mathrm{H}-4$
86-173 to 177 tested the zone where the steeply dipping Hot Vein was expected to intersect the shallowly dipping flat Vein. The three hole fence did not intersect the Hot Vein but the Flat Vein was encountered in all the holes. None of the following flat Vein intersections contain significant assay values: a 5.2 metre quartz vein in $86-173$, a 9.3 metre quartz vein in $86-174$, and a 1.3 metre quartz vein in $86-175$.

MAPS 1-I-2 \& $1-X-3$
86-158, the most easterly hole drilled to test the extension of the Eileen Vein was lost approximately 15 metres from the target area. The hole was shutdown due to bad caving and a high volume of water flow caused by a major fault thought to lie along the listwanite-volcanic contact. A 1.2 metre wide vein was intersected at 216.9 metres which assayed 0.008 oz.Au./ton. CU86-178 \& 179 were drilled to the south and north from the end of the Cusac decline. $86-179$ does not contain any significant intersections and was shutdown in listwanite at 49.8 metres. $86-179$ was stopped at 16.4 metres. A 0.6 metre quartz vein was intersected at 7.3 metres which assayed trace gold.

CU86-176 contains two intersections which assayed 0.6 metres of 0.144 oz.Au./ton $0.26 \mathrm{oz.Ag/ton}$ and 0.4 metres of 0.166 oz.Au./ton 0.06 oz.Ag./ton. These intersections may correlate with the intersections of DDH 166 - 168. These two intersections are within zones of intense dolomite alteration within proximity to quartz stringer zones. The latter intersection is adjacent to a fault and may represent a thin sliver of a thicker quartz vein. At 232.9 metres an intersection of a 0.2 metres breccia
zone assayed 0.209 oz.Au./ton. $86-191$ and 192 were intended to test the intersections of CU86-176 approximately 90 metres to the east. 86-191 intersected a 0.5 metre quartz vein which assayed 0.124 oz.Au./ton at 56.3 metres. $86-192$ intersected the same vein at 57.9 metres which assayed 0.007 oz.Au./ton over 0.9 metres. Another quartz vein was encountered at 90.9 metres which assayed 0.127 oz.Au./ton. These intersections may be the southerly off-set of quartz veins encountered in CU86-176, or may be new veins.

CU86-177 drilled to the south of the Eileen vein structure encountered a 0.7 metre quartz vein at 134.3 metres which assayed 0.072 oz.Au./ton. The mineralogy and alteration is sufficiently interesting that 86-193 was drilled from surface to test this quartz vein. No significant results were obtained.

MAP 1-W-1 \& 1-W-4
86-160 to 163, 86-169, and 86-180 completed a fence to the south of the Eileen Vein. $86-160,162,163,169$ and 180 do not contain any significant intersections. However, 86-163 encountered a 2.0 metre quartz vein at 52.5 metres which contains graphitic styolites, pyrite, chalcopyrite, tetrahedrite, sphalerite, galena and intensely carbonate altered wallrock. 86-161 intersected a 0.6 metre quartz vein which assayed 0.145 oz .Au./ton and a deeper quartz stringer zone which assayed 1.816 oz.Au./ton. over a width of 0.3 metres.

MAP $1-W-3$
86-181 tested the down dip extension of the $E-W$ vein which contains visible gold on surface. A 1.65 metre quartz vein was intersected and assayed trace gold. However a 0.4 metre quartz stringer zone higher in the hole assayed 0.317 oz .Au./ton. This intersection appears to correlate with a previously drilled hole.

### 10.0 RECOMMENDATIONS

The Eileen Vein requires further drilling to determine its eastward extension.

The quartz vein structures to the north of the Eileen Vein should be followed-up with more drilling.

A quartz vein structure appears to exist south of the Eileen Vein which will require fence drilling to define its significance.
11.0 COST STATEMENT FOR THE TARA-86 GROUP

Statement of Exploration and Development - June 9, 1986.
Work performed:
Five $B Q$ Diamond Drill Holes were drilled for a total of 578.0 metres of core on the Cordoba claim during the period from May 20th to June 6th 1986.

Hole Number Date Drilled Total length metres Drilling Costs

| $86-158$ | May 20 | 230.7 | $\$ 18990.23$ |
| :--- | :--- | ---: | ---: |
| $86-159$ | May 27 | 120.1 | 8608.16 |
| $86-160$ | May 30 | 92.6 | 7559.77 |
| $86-161$ | June 2 | 120.3 | 7514.10 |
| $86-162$ | June 5 | 14.3 | 1399.10 |
| subtotal |  |  |  |
|  |  | 578.0 |  |

Room and Board for drillers

$$
4 \text { men } \mathrm{x} \$ 50 / \text { day } / \text { man } x 18 \text { days } \$ 3600.00
$$

Core logging
5 days geologist x \$175/day 375.00
5 days room \& board x \$50/day 250.00
Assays $\quad 41 \mathrm{Au} . \&$ Ag. assays x \$16/sample 656.00
11.0 COST STATEMENT FOR THE TARA-86 GROUP

Statement of Exploration and Development - October 1986.
Work performed:
Thirty-one $B Q$ Diamond Drill Holes were drilled for a total of 2842.75 metres of core on the Cordoba, and PB 1 claims during the period from June 6 th to September 17 1986. Four NQ Diamond Drill Holes were drilled for a total of 964.5 metres on the High claim during the period from July 3rd. to July 30th 1986.

Hole Number Date Drilled Total length metres Drilling Costs

| 86-163 | June 6 | 119.2 | \$ 7444.10 |
| :---: | :---: | :---: | :---: |
| 86-164 | June 8 | 78.0 | 5086.60 |
| 86-165 | June 12 | 113.4 | 7662.75 |
| 86-166 | June 14 | 103.9 | 7195.25 |
| 86-167 | June 16 | 111.3 | 7590.25 |
| 86-168 | June 19 | 63.1 | 4780.25 |
| 86-169 | June 21 | 96.0 | 7237.83 |
| 86-170 | June 24 | 34.4 | 2932.83 |
| 86-171 | June 25 | 38.4 | 3170.33 |
| 86-172 | June 26 | 48.8 | 3790.33 |
| 86-173 | June 28 | 117.3 | 10431.47 |
| 86-174 | June 30 | 61.6 | 5954.60 |
| 86-175 | July 2 | 75.9 | 5459.25 |
| CU86-176 | Aug 1 | 309.7 | 15544.60 |
| CU86-177 | Aug 16 | 254.49 | 15636.50 |
| Cu86-178 | Aug 26 | 55.8 | 4203.50 |
| CU86-179 | Sept 5 | 16.4 | 1319.50 |
| 86-180 | July 30 | 83.2 | 6914.92 |
| 86-181 | Aug 2 | 108.5 | 7228.82 |
| 86-182 | Aug 6 | 37.8 | 3163.82 |
| 86-183 | Aug 7 | 31.1 | 2803.82 |
| 86-184 | Aug 8 | 61.3 | 4556.32 |
| 86-185 | Aug 10 | 41.4 | 4429.44 |
| 86-186 | Aug 12 | 58.2 | 4568.12 |
| 86-187 | Aug 13 | 24.8 | 2793.12 |
| 86-188 | Aug 14 | 105.8 | 7303.12 |
| 86-189 | Aug 16 | 81.7 | 5915.62 |
| 86-190 | Aug 18 | 102.76 | 6958.12 |
| CU86-191 | Sept 6 | 120.1 | 6775.50 |
| CU86-192 | Sept 11 | 150.3 | 11573.10 |
| 86-193 | Sept 14 | 138.1 | 10633.70 |
| S86-31 | July 3 | 128.6 | 8969.15 |
| S86-32 | July 7 | 217.3 | 18870.67 |
| S86-33 | July 13 | 263.7 | 21124.57 |
| S86-34 | July 21 | 354.9 | 23275.05 |
|  | subtotal | 3807.25 | \$73296.92 |

Room and Board for drillers
Surface 5 men $x$ \$50/day/man x 81 days $\$ 20250.00$ U/G 4 men $x \$ 50 /$ day/man $x 46$ days 9200.00
Core logging
70 days geologist x \$175/day12255.00
70 days room \& board $x$ \$50/day ..... 3500.00
Assays 625 Au. \& Ag. assays $x$ \$16/sample ..... 10000.00
Report Writing \& Drafting
5 days x \$200/day ..... 1000.00
12.0 STATEMENT OF QUALIFICATIONS

I, Alex Boronowski, of 500-171 West Esplanade Street, North Vancouver, British Columbia, do hereby certify that:

I hold A B.Sc. degree in Geology obtained at the University of British Columbia, Vancouver in 1970. I have practiced my profession for sixteen years. I am a fellow of the Geological Association of Canada and a member of the canadian Institute of Mining and Metallurgy.

I am author of this report, which is based upon work conducted under the supervision of R. Somerville, P. Eng. during the 1986 field season on the Tara-86 Group for Erickson Gold Mining Corp. near Cassiar, British Columbia.


Alex Boronowski, B.Sc.









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