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REPORT ON THE KEYSTONE GROUP OF CLAIMS,

KEYSTONE MOUNTAIN AREA, NELSON MINING DIVISION,

BRITISH COLUMBIA, CANADA

GEOLOGICAL BRANCH
ASSESSMENT REPORT

PART 1 OF 2

FOR

12,075

DELAWARE RESOURCES CORP.

Suite 150 - 1900 8th Street S.W.
Calgary, Alberta, Canada T2R 1B2

COVERING:

Keystone Fr. # 5137	1 c.g.	Folio 4105
Cable # 5138	1 c.g.	Folio 4105
Tin Brok # 5139	1 c.g.	Folio 4105
General White # 5140	1 c.g.	Folio 4105
Omega Fr. # 5141	1 c.g.	Folio 4105
Delaware # 5136	1 c.g.	Folio 41491
Del # 5137	1 c.g.	Folio 41491
Clarendon # 5142	1 c.g.	Folio 41556
Clarendon Fr.	1 c.g.	Folio 41556
		Record No.
Princess No. 1 #4627	1 reverted c.g.	3505 (11)
Gene 1	15 units	2960 (3)
Gene 2	18 units	2961 (3)
Gene 3	5 units	2962 (3)

LOCATED:

Lat. 49°14' Long. 117°18' NTS 82F/3W
Elev. 4000 ft - 5000 ft ASL

Prepared By:

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ANGINEL RESOURCES LTD.
626-9th Ave., Castlegar, B.C., Canada

March 9, 1984

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SCHEDULE OF ACCOMPANYING MAPS & ILLUSTRATIONS

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1. SUMMARY AND CONCLUSION

The exploration program carried out on the Keystone Group of claims owned by Delaware Resources Corp. included the following:

40 Km (24.97 miles) of line cutting
2.3 Km (1.44 miles) of VLF-EM test profiles
0.82 Km (0.50 mile) of Vertical Loop EM test profiles
2.3 Km (1.44 miles) of Total Field magnetic tests
0.9 km (0.56 mile) of geochemical test profiles
200 hectares (494 acres) of detailed geologic mapping
30.15 Km (18.84 miles) of VLF-EM surveys
30.15 Km (18.84 miles) of Total Field magnetic survey
18.5 Km (11.56 miles) of geochemical soil sampling
13 man-days of underground sampling

The geologic mapping extended the known strike length of the Keystone zone for an additional 1200 feet (365 meters) to the northeast.

The combined geophysical and geochemical surveys gave positive indications that the Keystone zone probably continues for 2100 feet (650 meters) to the southwest and 2300 feet (700 meters) to the northeast right up to and beyond the border of the property.

Five coincidental geochemical and geophysical anomalies and three geochemical anomalies were found which gave credence to the

geological observation that there are multiple mineralized zones parallel to and crosscutting the main Keystone zone.

The use of the Cutler, Maine station for the VLF-EM survey to detect conductors crosscutting the Keystone trend was not effective. It is thought that conductive overburden masked the weak signals from this station. The VLF-EM data therefore did not reflect all the mineralized zones indicated by the geochemical survey and by the geologic mapping. Test profiles with the Vertical Loop EM instrument showed that it is capable of detecting the conductors crosscutting the Keystone trend.

The main Keystone zone is a prime exploration target for drilling and trenching. The underground sampling defined drill targets in the Keystone mine.

The remainder of the property is a good area to conduct an exploration program similar to that done in 1983 since most of the anomalies detected in 1983 are open.

2. INTRODUCTION

Upon request of Delaware Resources Corp., owner of the Keystone Group of claims, geological, geophysical, and geochemical surveys were conducted on this mining property in 1983. The purpose of these surveys was to identify precious metal drilling and trenching targets.

3. LOCATION AND ACCESS

The Keystone gold-silver property is located in the Nelson Mining Division of British Columbia, Canada on the southwest side of Keystone Mountain four and one half aerial kilometers northwest of Salmo, British Columbia. It is 8 kilometers north of the settlement of Erie, 38 kilometers from the smelter in Trail, and 38 kilometers from the airport in Castlegar (see Plate 1). The property claims are plotted on NTS 82F/3W with coordinates 49°14' Lat. and 117° 18' Long. (see Plate 2).

The property is partly accessible by paved road (Highway 3) and then by an all-weather gravel road from Erie (Second Relief road) which connects with the Keystone road to the property.

The topography of the property is gentle to moderate and lies at an elevation of 4000 feet (1219 meters) to 5000 feet (1524 meters) above sea level. The property is covered with merchantable timber, in fact, the lower part of the property has been logged. The crown granted claims in the property do not have any timber rights. The

property has ample water and the company holds a water licence on Hooch Creek which runs through the property. The snow-free period in the area is from the middle of May to the middle of November.

The property is 8 kilometers from a hydro-electric power line of West Kootenay Power and Light Company.

4. PROPERTY DESCRIPTION AND HISTORY

The Keystone Group of Claims consists of ten crown-grants, a reverted crown-grant, and three located metric claims. Details of the property are as follows :

	Area (Hec.)	Folio No.	Annual Taxes	Due Date
Delaware # 5136	16.17	41491		
Del # 15672	19.73	41491	$22.26	July 2
Keystone Fr. #5137	8.85	4105		
Cable # 5138	16.95	4105		
Tin Brok # 5139	16.41	4105	$44.81	July 2
General White Fr. # 5140	10.94	4105		
Omega # 5141	19.12	4105		
Clarendon # 5142	13.48	41556		
Clarendon Fr. # 5143	13.88	41556	$13.89	July 2
		Record No.	Annual Assessment	Due Date
Princess No. 1 # 4627 (reverted crown grant)	20.90	3505	$100.00	Nov. 28
Gene 1	15 units	2960 (3)	$1500.00	Mar. 9
Gene 2	18 units	2961 (3)	$1800.00	Mar. 9
Gene 3	5 units	2962 (3)	$ 500.00	Mar. 14

These claims are plotted on Plate 2 (M82F/3W).

The crown-granted claims were originally staked before the turn of this century. The original Keystone group was composed of the six crown-grants; Keystone Fraction, Cable, Tin Brok, General White Fraction, and Omega. In 1900-1901, A.L. Davenport of Spokane, Washington sunk a 35-foot shaft on the Keystone vein and drove a drift 190 feet long (No. 1 Level, see Plate 16) which was later extended to 350 feet by subsequent workers. The property was leased to various operators in 1902 to 1910. There is no record of work done in 1911 to 1931. In 1932, a small concentration mill was erected to treat the dumps from the various operations. By this time a crosscut had been driven 64 feet below Level No. 1 for 390 feet to intersect the Keystone vein and a drift was driven 70 feet southwesterly and 270 feet northeasterly (Level No. 2, see Plate 14). A raise was put up to the vein 30 feet south of where the crosscut reached it and followed the vein for 100 feet. This raise was later connected to Level No. 1 . The property was operated from 1932 to 1939 by Dufferin Gold Mines. In 1940 to 1942, the property was operated by Slocan Silver Mines who did 232 feet of drifting, 25 feet of crosscutting, and 300 feet of surface trenching. World War II put an end to the operation due to lack of miners. The property lay dormant from 1943 to 1978. In 1979, Ronald and Donald Tjader rehabilitated the portals and extended the drift (Tjader Drift) located on the Cable claim.

Between 1901 to 1981, intermittent production from the Keystone Mine amounted to 1,834 tons at 1.45 oz/ton gold and 2.93 oz/ton silver.

To the southwest and on the general strike of the Keystone vein, the Delaware and Del claims were located and crown-granted to A.L. Davenport in 1923. Numerous trenches were dug across the projected strike of the Keystone vein and a drift was driven for 50 feet (see Plate 7). No production record from these claims exists.

At the Princess No. 1 claim, the mineralized exposures were trenched. This work was done in conjunction with the work being done on the "Mjolner vein" in the Houlton crown grant by Mjolner Mines Ltd. This work was apparently done prior to 1936.

There is no record on what had been done on the Clarendon and Clarendon Fraction which was held by Slocan Silver Mines.

The Gene claims were staked in 1983 for Delaware Resources Corp. and consolidated with the rest of the property. An exploration program was carried out on the property in 1983.

11. STATEMENT OF COSTS

Dates of Work:

P. J. Santos

Fieldwork:	April 14, 15, 21, 22, 1983 May 3, 9, 11, 13, 24, 27, 1983 June 6, 10, 13, 16, 18, 20, 1983 July 2, 1983 August 15, 31, 1983
Research & Report prep.:	Feb. 10, 13, 16, 17, 1983 Feb. 23, 24, 25, 26, 27, 1984 Mar. 1, 2, 3, 6, 7, 8, 9, 1984

David Rennie

Fieldwork:	May 12, 13, 17, 18, 19, 24, 1983 June 21, 1983 July 5, 6, 7, 8, 11, 13, 14, 15, 1983 Aug. 15, 23, 31, 1983 Sept. 1, 2, 6, 7, 8, 1983

John Murray

Fieldwork:	April 21, 22, 25, 1983 May 3, 6, 9, 10, 11, 17, 18, 19, 20, 24, 25, 26, 31, 1983 June 1, 2, 3, 6, 7, 8, 9, 10, 13, 14, 15, 1983

Ken Syrja

Fieldwork:	June 1,2, 3, 6, 7, 8, 9, 10, 13, 14, 16, 17, 20, 21, 22, 1983 July 1, 4, 5, 6, 7, 8, 1983

Robert Beynon

Fieldwork:	May 6, 9, 10, 11, 17, 18, 19, 20, 24, 25, 26, 27, 30, 31, 1983 June 1, 2, 3, 6, 7, 8, 13, 14, 15, 16, 17, 20, 21, 22, 1983 July 4, 5, 6, 7, 8, 1983

5. REGIONAL GEOLOGY

The general area in which the Keystone property of Delaware Resources Corp. is located lies on the eastern flank of the eugeosyncline that borders the Kootenay Arc of British Columbia on the west.

This region is underlain by the lower Cambrian units of the Kootenay Arc (Laib Formation), a succession of Permian (?) to middle Jurassic eugeosynclinal sediments and volcanics (Ymir Group and Rossland Group) and lower Cretaceous intrusives (Nelson Intrusives) as shown on Plate 3.

Recent work by geologists in southern British Columbia has resulted in the designation of the Rossland Group which now consists of the Archibald Formation, Elise Formation, Hall Formation, Beaver Mountain Formation, Rossland Volcanics, and the Ymir Formation. A correlation of these formations is shown on Plate 6.

Brief descriptions of the rock formations in the are presented below.

Laib Formation (Map Unit 7c, Lower Cambrian)

The Laib Formation is exposed on the southeast corner of Plate 3. It consists of an assemblage of argillaceous schists, phyllite, argillaceous quartzite, dolomite, and limestone. The limestone and dolomite units of this formation host the lead-zinc ore-bodies commonly associated with the Kootenay Arc. The Laib Formation is

intruded by granitic to granodioritic phases of the Nelson Intrusives and is at fault contact with the argillites of the Ymir Group. The Laib is one of the formations that make up the Kootenay Arc.

Ymir Formation (Map Unit 11, Lower Jurassic)

The Ymir Formation occurs in the southeast corner of Plate 3 and is in fault contact with the Laib Formation. Normally, it overlies the conformably the the Laib. It is composed of dark-colored argillaceous quartzite, argillites, and slates. This formation hosts the better known gold deposits of the Ymir Gold Camp. It is equivalent to or probably identical to the Hall Formation.

Archibald Formation (Map Unit 12, Triassic ? and Jurassic)

The Archibald Formation is exposed on Archibald Creek and Erie Creek as shown on Plate 3. It consists of thin-bedded, grey sandstone intercallated with argillites, massive sandstone, and some banded siltstone and bedded tuff. At Erie Creek, the sandstone is pebbly and interbedded with tuff. According to H.W. Little (1960) this formation is Sinemurian (Lower Jurassic) and calls these rock units Sinemurian Beds. This formation is now classified as a member of the Rossland Group.

Elise Formation (Map Unit 13, Lower Jurassic)

The Elise Formation occurs at Erie Creek, Hooch Creek, and Hell-Roaring Creek as shown on Plate 3. The formation essentially

consists of greenstones of andesitic to basaltic composition. In some instances the texture is coarse enough to be called gabbro. Normally, the volcanics exhibit flow breccia textures. These rocks are usually dark gray green, often black-brown or light green due to alteration, commonly serpentinization. It is frequently intruded by granite and granodiorite of the Nelson Intrusives. The Elise is the host rock of several important gold deposits in the area such as the Second Relief Mine, Porto Rico, and the Clubine-Comstock mine. The Elise Formation is now considered as the lowest subdivision of the Rossland Group. The Elise forms an anticline trending northeast south of Keystone Mountain. This formation is probably the equivalent of the Rossland Volcanics and represents the less altered portions of the Rossland Volcanics.

Hall Formation (Map Unit 14, Lower to Middle Jurassic)

The Hall Formation forms a north-south trending belt from Salmo to Hall Creek. The rock units of the formation are commonly grey to black and carbonaceous and when sheared graphite is formed. It consists of argillites, banded siltstones, graywacke-sandstone, quartzite, and conglomerate. Some beds are pyritic and some are calcareous. The formation is invaded by granitic to granodioritic phases of the Nelson Intrusives. Adjacent to these intrusives, hornfelsed zones are developed.

This is the most important formation in the area. It hosts the more important gold deposits such as the Arlington, Keystone, and

Silver Dollar, and Hall Creek mines. The Hall formation is equivalent if not identical to the Ymir Formation. Both formations are now classified under the Rossland Group.

Rossland Volcanics (Map Unit 16, Middle to Upper Jurassic)

The Rossland Volcanics are exposed south of Hell-Roaring Creek on the south side of Plate 3. The formation consists of lava flows of altered andesite and basalt. This formation is commonly altered to greenstone with the development of serpentine and olivine. This formation is now part of a larger group of eugeosynclinal deposits called the Rossland Group.

Nelson Intrusives (Map Unit 17, Lower Cretaceous)

The Nelson Intrusives occur extensively west and north of Salmo. This intrusive exhibits various phases. From Nelson northward, it is usually granitic, towards the south of Nelson it is granodioritic. Away from the main batholith body, the Nelson Formation form numerous stocks that intrude all the older rocks in the area. Sills of rhyollite and dikes of lamprophyre cuts the Hall Formation and are included in the Nelson Intrusives. The Nelson hosts some of the small but high grade gold vein deposits in the area.

6. LOCAL GEOLOGY

The Keystone property is underlain by rock formations belonging to the Rossland Group and the Nelson Intrusives. The members of

the Rossland Group encountered in the Keystone property are the Elise Formation (volcanics) and the Hall Formation (sediments) which are intruded by the Nelson Intrusive (granodiorite, rhyolite, and lamprophyre).

The Elise Formation consists of basalt and andesite flows intercalated with andesite tuff and agglomerate. The volcanics also occur as flow breccias. The volcanics is usually porphyritic with augite and/or plagioclase as phenocrysts. The gray-green color of the rocks indicates a low-grade type of alteration. In places the andesite tuff contain disseminated pyrite.

The Hall Formation at the Keystone property is essentially dark-colored, gray to black, carbonaceous argillites and shale which if sheared forms graphitic zones. Intercalated with the argillites are thin-bedded quartzites, sandstones, and siltstones.

The Hall Formation forms a syncline in the adjoining Arlington property to the west, while at the Keystone property, a granodiorite stock caused a doming of the sediments around the stock. An annular zone of carbonaceous hornfels is developed around this stock. A complex system of quartz veining with associated sulfides occur as sills and veins cutting the argillites.

Sills and dikes of granitic composition (rhyolite) occur with the argillite beds. Quartz veins are developed above and/or below the sills and on either or both sides of the dikes. Sulfides composed of pyrite, sphalerite, galena, tetrahedrite, and rarely

pyrrhotite occur with the quartz veins (see Fig. 4). In places the sulfides form swarms of veinlets in brecciated argillite in the absence of quartz (see Fig. 3). More details on the mineralization are found on the section on mineralization of this report.

Thin bands of pyrite are interbedded with the argillites (see Fig. 1). Disseminations of fine pyrite are also concentrated along certain thin horizons of the argillite (see Fig. 2). These pyrite occurrences are syngenetic which were deposited under reducing conditions that are usually developed in eugeosynclinal environments. Further details on this type of mineralization are presented in Section 7 of this report.

7. MINERALIZATION

Sulfide mineralization in the Keystone property consists of pyrite, sphalerite, galena, minor tetrahedrite, and rare pyrrhotite. This mineralization forms three systems: as syngenetic bands in the argillites, as hydrothermal veins with quartz parallel to the bedding of the argillites, and as veins with or without quartz cutting across the bedding of the argillites (also hydrothermal). These systems have associate geophysical and geochemical trends (see Plates 14, 15, and 22).

The syngenetic mineralization is megascopically observable as thin distinct bands of pyrite parallel to the bedding of the black

argillites (see Fig. 1) and as disseminated pyrite concentrated along certain layers of the black argillites (see Fig. 2). A sample of this material assayed 48 ppb Au, 1.10 ppm Ag, 9.1 ppm As, 4.7 ppm Sb, 91 ppm Cu, 15 ppm Pb, and 36 ppm Zn which indicate an elevated content of gold and silver.

Hydrothermal mineralization consists of gold and silver bearing sulfides forming massive to semi-massive veins and disseminations usually in association with quartz (see Fig. 3 and 4). These quartz-sulfide veins occur between the bedding planes of the argillite forming superimposed multiple zones varying in thickness from a few inches to as much as twelve feet. At the adjacent Arlington mine, the Big Bullpen stope was 60 feet thick due to the multiple zones encountered.

Fracturing across the bedding (cross-fracturing) is also mineralized and the underhand stope at the Keystone mine was driven into one of these cross-fracturing. In places the sulfides, mainly pyrite act as the cementing material (mattrix) of brecciated argillite (see Fig. 3).

Gold and silver is directly associated with the sulfides, and the grade is directly proportional to the amount of sulfides present, particularly the sphalerite. The precious metals are however not confined to the sulfides and quartz but are also diffused into the wall rocks. No free gold has been identified except occasionally in boxworks left over from oxidized sulfides found

near the surface.

Surface and underground sampling was recently done on the property. Sampling was undertaken by W. Sirola, P. Eng., a consulting engineer and the assays ranged from .067 oz/ton Au to 2.93 Oz/ton Au. These assays are plotted on Plate 13. Some samples were also taken by R. Netolitzky, President of Delaware Resources Corp. and the assays are found in the Appendix of this report. A total of 46 channel samples were taken from the acessible underground workings of the Keystone Mine. The assays ranged from .003 oz/ton Au to .62 oz/ton Au. These assays are plotted on Plate 16 and the assay certificates are found in the Appendix of this report.

According to the Ministry of Mines reports and the smelter settlement sheets, the production from the Keystone ore-body from 1901 to 1981 amounted to 1,834 tons of 1.45 oz/ton Au and 9.93 oz/ton Ag with values in gold, silver, and silica.

The Keystone ore-body is essentially identical to the adjacent Arlington ore-body. It is considered the up-dip extension of the Arlington ore-body. The average strike of the Keystone vein is N35°E and dips 20° NW. Mineralized cross-fractures and lamprophyre dikes cutting the Keystone vein trend to the northwest. Past mining and exploration activities has traced the mineralization for 600 feet (183 meters) along the strike. Recent detailed surface mapping has traced the Keystone vein along

strike for an additional length of 1200 feet (366 meters). Past explorations by drifting has traced for 1000 feet (304 meters) what appears to be the down-dip extension of the Keystone zone (see Plate 7).

A statistical study by G. Addie (1980) indicates that the Arlington and the Keystone ore-bodies are genetically related, both being deposited during the second phase of mineralization in the area (see Plate 12).

The large majority of the gold mines in the Trail Creek and Nelson Mining divisions are hosted by rock formations belonging to the Rossland Group (see Plate 6). In the Salmo-Ymir area, the host rocks of the gold deposits are the argillites in the Hall and Ymir formations. In the Rover Creek, Erie Creek, and Rossland areas, the greenstones of the Rossland Volcanics and the Elise Formation are the host rocks. The Rossland Group therefore is analogous to the Archean greenstones of Ontario, to the Milford Series of the Tillicum area and the Slocan sediments of the Slocan area of British Columbia. The Hall Formation, the Elise Formation, and greenstone formations of Ontario were deposited under reducing conditions in a volcano-sedimentary sequence as evidenced by the carbonaceous contents of the formations and the presence of syngenetic pyrite. Under such depositional conditions, gold was deposited syngenetically. The gold was then remobilized by hydrothermal fluids supplied by later intrusions

(such as the granodiorite stock, Map Unit 17c, Plate 3) and re-deposited along fractured zones, bedding planes, and other structures with favorable porosity and permeability. This explains the the predominance of gold bearing orebodies within the formational units of the Rossland Group in areas where intrusions and shearing occur.

8. GEOPHYSICS

In the spring and early summer of 1983, 60.3 kilometers of geophysical surveys were conducted on the Keystone Group of claims. These surveys were comprised of 30.15 kilometers of VLF-EM (Very Low Frequency - Electromagnetic) survey and 30.15 kilometers of Total Field magnetic survey which were conducted by personnel of Interpretex Resources Ltd. under the direction of the author. The objectives of these surveys were to trace the extention of the main Keystone zone beyond its currently explored limits, to detect the presence of additional conductors parallel to the Keystone trend, and to delineate the cross-cutting mineralized structures known to occur in the property.

Prior to the above-mentioned surveys, preliminary test profiles were conducted to determine the best parameters for the surveys. These tests were conducted on lines 14a, 15, 15b, and 16 as shown on Plate 5 totaling 2.3 kilometers. These lines were cut across and over the known ore-body at the Keystone mine. These tests

involved VLF-EM using a Geonics EM-16 instrument, Vertical Loop E.M. using McPhar VHEM Electromagnetic System instruments, and Total Field magnetics using a Geometrics G-816 magnetometer. The results of these preliminary test profiles are shown on Plate 17, Plate 18, and Plate 19. The VLF data (Plate 17) and the Vertical Loop E.M. data (Plate 18) showed good response over the Keystone ore-body. However, poor coupling with the Hawaii station and masking by conductive overburden apparently prevented the strong vertical loop conductor at the "XO" positions over Line 15 and Line 15b from showing up on the VLF profiles. The low frequencies used by the VHEM Vertical Loop E.M. system will be useful in penetrating below the conductive overburden where VLF response will be masked and weak (Rockel, May 1983).

The Total Field magnetic tests (Plate 19) did not correlate directly with conductivity. It was felt however that the magnetic information on the survey area may be useful in outlining structural features.

In the subsequent electromagnetic surveys it was decided to use the VLF-EM instrument only. In addition to using the Seattle/ Hawaii stations for conductors striking northeast (Keystone Trend), the Cutler, Maine station was used instead of the VHEM Vertical Loop E.M. instrument to detect conductors crosscutting the Keystone trend. It was also decided that a base station magnetometer will be used to facilitatae the magnetic survey.

The parameters of the geophysical surveys are as follows:

Line separation	122 meters (400 feet)
Station spacing	25 meters (82 feet)
Horizontal Control	compass and chain, slope corrected
Base line azimuth	035°
Instrumentation:	
VLF-EM	Geonics EM-16 Cutler, Seattle, Hawaii crystals
Magnetics	Geometrics G-816 magnetometer Geometrics G-856 Memory Auto-recording Digital Base Station magnetometer

The results of the geophysical surveys are shown on Plate 20, Plate 21, Plate 22, and Plate 23. The majority of the conductive zones trend azimuth 030° to 060°.

The strongest and most consistent conductive feature is the main Keystone zone. This multiple conductive zone appears to terminate south of Line 10 (outside of property) and continues northward off the northeast border of the property. The geochemical data and geologic mapping support these findings.

A strong VLF-EM response on Line 15 at 1350W is thought to be caused by a buried metal pipe. However, it is coincident with a magnetic high typical of bedrock magnetism (Rockel, July 1983) and it is also coincident with a gold soil geochemical anomaly (see Plate 14).

A VLF conductor on Line 15 at 875 W coincides partly with a geochemical anomaly that tremds to the northwest. This trend is not well reflected by the Fraser Filtered VLF data since this method is not effective in delineating northwest trends as was indicated by the preliminary test profiles.

A strong VLF response on Line 17 at 500 E is coincidental with a Au-Ag geochemical trend which may either be part of a zone parallel to the Keystone zone or part of a zone crosscuting the Keystone zone.

A conductive trend on Line 19 at 700 W is coincidental with the intersection of two geochemical anomalies.

Three conductive trends occur east of the baseline near Hooch Creek more or less parallel to the Keystone trend. The geochemical data, although incomplete in this area appears to follow a similar trend.

Fault trends interpreted from the geophysical data (Rockel, 1983) were not supported by the geological mapping. However, this part of the area is close to the contact of the granodiorite stock on Keystone Mountain and the the lithological change may have affected the geophysical charecteristics of the area.

In conjunction with the VLF survey, a magnetometer survey was conducted using the same grid lines. A total of 30.15 kilometers were surveyed. A repeatability of plus or minus 3 gammas was mantained. The results of the Total Field magnetic survey are plotted and contoured on Plate 23. To simplify the data presentation,

50,000 gammas were subtracted from each reading. The magnetic data do not correlate with the electromagnetic and geochemical data which means that the Keystone mineralization is not related to any significant amount of pyrrhotite. The data do show a very active magnetic environment in the northeastern part of the property in proximity to the granodiorite stock that intrudes the Hall Formation at Keystone Mountain. At 1350 W on Line 15 where there is thought to be a "buried pipe" causing a distinct VLF response, the magnetic data only indicata typical bedrock magnetism.

9. GEOCHEMISTRY

The 1983 exploration program on the Keystone property included 18.5 kilometers of geochemical soil sampling. The objectives of this geochemical program are to delineate the extensions of the Keystone zone, to detect mineralized zones parallel to Keystone zone, and to delineate mineralized zones crosscutting the Keystone zone.

Prior to the soil sampling program, two profile lines (Line 14 and Line 15a, total length .9 km) which ran across the Keystone ore zone were soil sampled to determine the best possible parameters for the survey. The A-horizon (humus) was sampled and analyzed for gold. The B-horizon was also sampled and analyzed for gold, silver, copper, lead, and zinc. The results of these tests

are shown as profiles on Plate 8, Plate 9, Plate 10, and Plate 11. The statistical analyses and the assays are included in the Appendix of this report.

The gold in the A and B horizons, the silver and particularly the lead in the B-horizon are bi-modal, probably due to the presence of syngenetic and hydrothermal mineralization and the fact that the test lines went through old trenches and the nugget effect is considerable. Nevertheless, the gold silver, copper, and zinc profiles closely parallel each other. The lead profile is markedly "wavy" due to the higher standard deviation. This is thought to be due to the more severe nugget effect from relatively large lead (galena) "nuggets". The profile of the gold in the A-horizon reflects more accurately the Keystone ore zone. This is probably due to the better control that is possible when sampling the A-horizon (humus).

It was decided in the subsequent geochemical soil survey to sample only the B-horizon and assay for gold and silver only since their profiles closely parallel each other. The parameters of this soil survey are as follows:

Line spacing	122 meters (400 feet)
Sample spacing	25 meters (82 feet)
Survey control	Compass and chain, slope corrected
Base line azimuth	035°
Analytical method	Au & Ag by fire assay

Statistical analyses By Osborne-1 Computer

Number of samples

Test profiles 74

Soil survey 798

The contoured results of this soil sampling program are presented on Plate 14 and Plate 15. The statistical analyses of the geochemical data are found in the Appendix of this report.

The value of 15 ppb Au in the B-horizon is considered definitely anomalous in undisturbed areas (where no trenching or mining have been done). This value is greater than the mean plus one standard deviation of the log gold values in the profile tests and equal to the mean plus one standard deviation of the log gold values in the actual survey. This value is also twice the gold value over the Keystone ore zone.

The value of 1.00 ppm in the B-horizon is taken as anomalous for silver in undisturbed areas. This value is the mean plus two standard deviations of the log silver values in the profiling tests and equal to the mean plus one standard deviation of the actual survey. This is about twice the actual value of the silver over the Keystone ore zone.

The gold geochemical map show two sets of trends, one parallel to the Keystone zone and the other crosscutting the Keystone. One strong gold anomaly on the edge of the edge of the survey area (Line 16 and Line 18) has a trend different from the rest of the anomzlies.

All the northeast trending geochemical anomalies have distinct geophysical signatures but the crosscutting geochemical trends have vague or none at all. However, this is probably due to the limitations of the VLF survey.

The most obvious geochemical anomaly is over the Keystone ore zone. Like the geophysical survey, the geochemical survey has traced this zone for 2100 feet (650 meters) southwest of the known zone and 2300 feet (700 meters) northeast of the main zone right up to and beyond the border of the property.

The strong VLF anomaly on Line 15 at 1350 W that is thought to be a "buried pipe" is part of a gold geochemical anomaly 750 meters (2460 feet) long and open to the southwest and trends parallel to the Keystone zone.

On Line 19 at 700 W and Line 20, 500 W is a gold geochemical anomaly 250 meters (820 feet) long trending parallel to the Keystone zone and open to the northeast. It appears to connect with a gold anomaly that extends all the way to Line 10 and the main baseline.

At 500 E on Line 15, there appears to be a junction of two gold anomalies, one of which trends parallel to the Keystone zone and the other crosscutting it. The geochemical data in this area is incomplete but these anomalies have associated geophysical conductive trends.

On Line 11, 200 W to Line 15, 800 W is a gold geochemical anomaly 800 meters (2624 feet) long and still open to the south.

There is no distinct geophysical trend associated with this gold anomaly except at Line 15, 875 W and at Line 11, 200 W where it crosses the Kystone zone. However, this may be due to the limitation of the VLF survey.

On Line 10 at the base line to Line 17, 250 W is a gold geochemical zone that cut across the Keystone trend. This geochemical trend is 1100 meters (3608 feet) long and appears to connect with the gold geochemical anomaly at Line 19, 700 W which is parallel to the Keystone trend. This anomaly is open to the south. The profile tests with the VHEM Vertical Loop E.M. picked up a conductor on Line 15 and Line 15b (see Plate 18) that coincide with this anomaly but the subsequent VLF surveys did not pick up this conductor due to the conductive overburden.

A very pronounced gold geochemical anomaly was found on Line 17 and Line 16 at 1250 E . It is at least 250 meters long and is open to the south. There is no associated geophysical trend but this is because it is at the edge of the surveyed area.

The geochemical data east of the base line from Line 5 to Line 15 is incomplete. Nevertheless, the available data suggest several trends more or less parallel to the geophysical conductive trends.

The silver geochemical data reflect to a lesser extent the gold geochemical data. The Keystone ore zone was detected to a limited extent.

The gold anomaly on Line 17 and Line 16 has an associated

silver geochemical reflection but it is comparatively vague and narrow.

Two silver anomalies loosely match the two gold anomalies that crosscuts the Keystone trend at the southwestern part of the surveyed area.

Two silver anomalies trend parallel to the Keystone trend on Line 18, 250 W and Line 16, 500 W. There appears to be no gold geochemical anomalies associated with them but there is a weak geophysical trend associated with them.

East of the base line from Line 10 to Line 16 are several silver trends that appear to correlate with several geophysical conductive trends. The geochemical data is quite incomplete in this area to make more detailed observation than this.

10. RECOMMENDATIONS

Further exploration of the property is recommended. Part of the Keystone Zone can now be drilled without further detailing. There are several underground targets that are ready for drilling without further detailing.

Detailing using closer line spacing should be done on the various geophysical and geochemical anomalies detected in 1983.

Several lines not soil sampled in 1983 should be sampled to define the geochemical anomalies better.

The northwest trending anomalies crosscutting the Keystone

trend should be surveyed with a Vertical Loop E.M. survey to delineate them further prior to trenching/drilling.

Contingent on the results of the detailing work, the delineated anomalies should be trenced and/or drilled.

The line cutting and exploration should be extended to the rest of the property.

The Keystone road should be extended to provide access to the norhtern part of the property.

Loring McIsaac

Fieldwork: May 17, 18, 19, 20, 24, 25, 26, 27, 30, 31, 1983
June 1, 2, 3, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 1983
July 4, 5, 6, 7, 1983

Peter Dorey

Fieldwork: May 17, 18, 19, 20, 24, 25, 26, 27, 30, 31, 1983

Lloyd Addie

Fieldwork: May 17, 18, 19, 20, 24, 25, 26, 27, 30, 31, 1983
June 1, 2, 3, 6, 7, 8, 9, 10, 13, 14, 15, 17, 20, 21, 22, 1983
July 4, 5, 6, 7, 8, 1983

Manolito Cillo

Drafting: June 9, 15, 17, 18, 22, 1983
July 19, 20, 21, 22, 25, 1983
Aug. 6, 19, 20, 1983

Henry Huser

Fieldwork: May 3, 1983

Ed Rockel

Fieldwork: May 12, 13, 1983
June 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 1983
July 1, 3, 1983

Hallie Rockel

Fieldwork: May 12, 13, 1983
June 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 1983
July 1, 3, 1983

Maxine Lukey

Secretarial:	May	17, 19, 21, 24, 27, 28, 29, 30, 1983
	June	16, 17, 20, 21, 22, 23, 24, 28, 1983
	July	4, 5, 7, 8, 12, 13, 1983
	Aug.	10, 12, 15, 16, 18, 24, 25, 1983
	Sept.	2, 9, 13, 14, 15, 28, 29, 1983

Wages:

Geologists		$13,600.00
Drafting and secretarial		2,557.50
Line cutting		6,791.50
Trenching		247.50
Soil sampling, 37 man-days @ $90.00/day		4,320.00
Underground sampling		2,070.00
Assays		
Acme Analytical	$5,481.12	
Terra-Min Lab.	719.20	
	$6,200.32	6,200.32
Geophysics		
Interpretex Resources Ltd.		9,958.07
Truck Rental (Includes gas, oil diesel fuel)		3,250.00
Equipment and supplies		
Field equipment (includes underground safety equip.)	2776.87	
Disposable supplies	459.15	
	$3236.00	3,236.02
Accommodations		
Groceries for camp		717.50

Freight and Mail	283.25
B.C. Telephone	118.64
Printing, Reproduction, Color processing	857.66
Preparation of Reports	2,043.70
Miscellaneous	299.50
TOTAL	$56,551.16

Written and Submitted By:

P. J. Santos

Perfecto J. Santos, P. Eng.

March 9, 1984

12. BIBLIOGRAPHY

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13. STATEMENT OF QUALIFICATIONS

I, Perfecto J. Santos, hereby certify:

That I am a Consulting Geological Engineer residing at 626 - 9th Avenue, Castlegar, B.C., Canada,

That I am a registered Professional Engineer in the Province of British Columbia, Canada,

That I am a graduate of the College of Engineering, University of the Philippines with a Bachelor of Science degree in Mining Engineering (Geology Option),

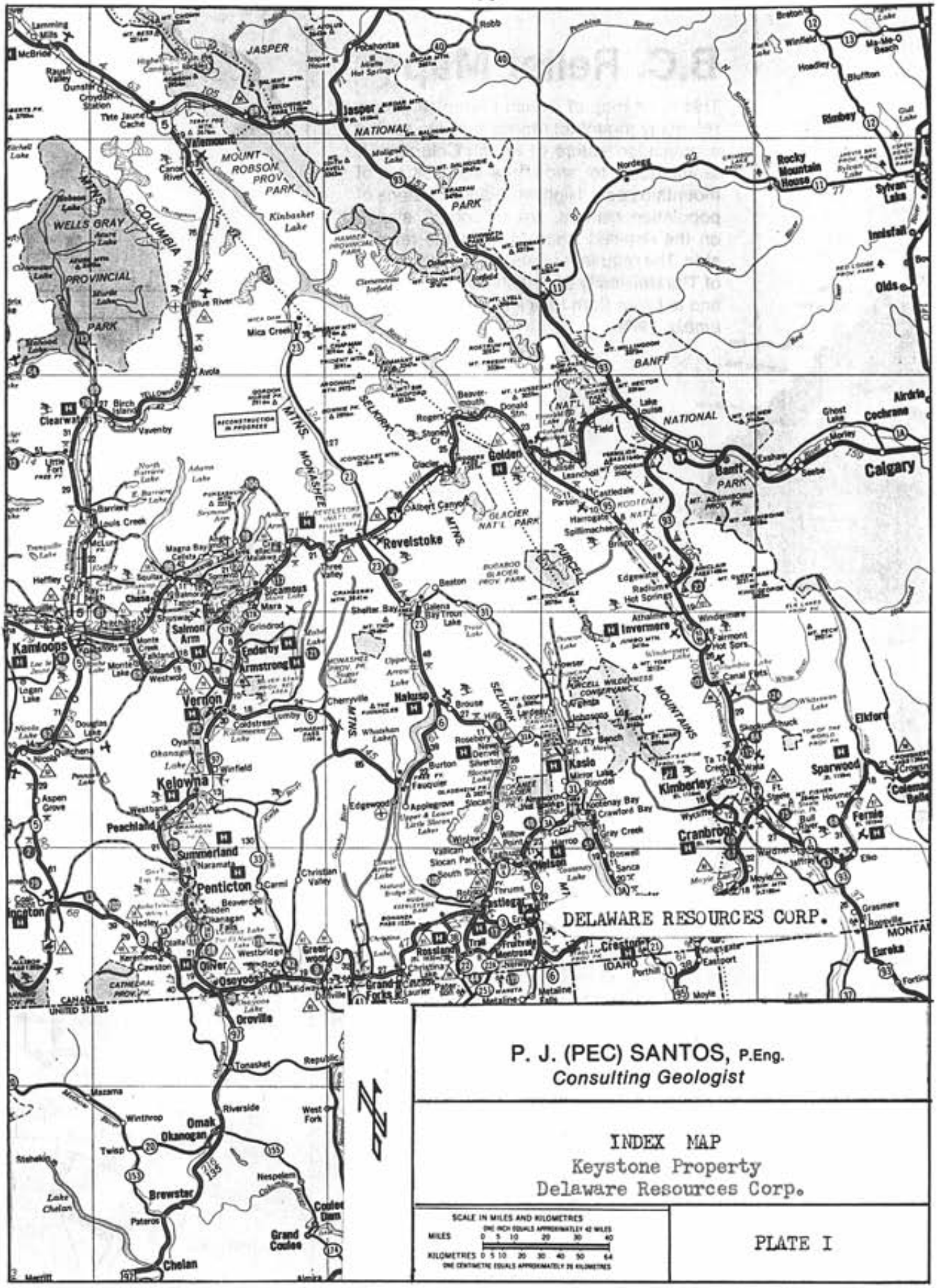
That I have been practicing my profession for the past twenty three years,

That I personally supervized the work as this described in this report on the Keystone Group of Claims owned by Delaware Resources Corp. of Calgary, Alberta, Canada.

P. J. Santos

P. J. Santos, P. Eng.

Consulting Geological Engineer



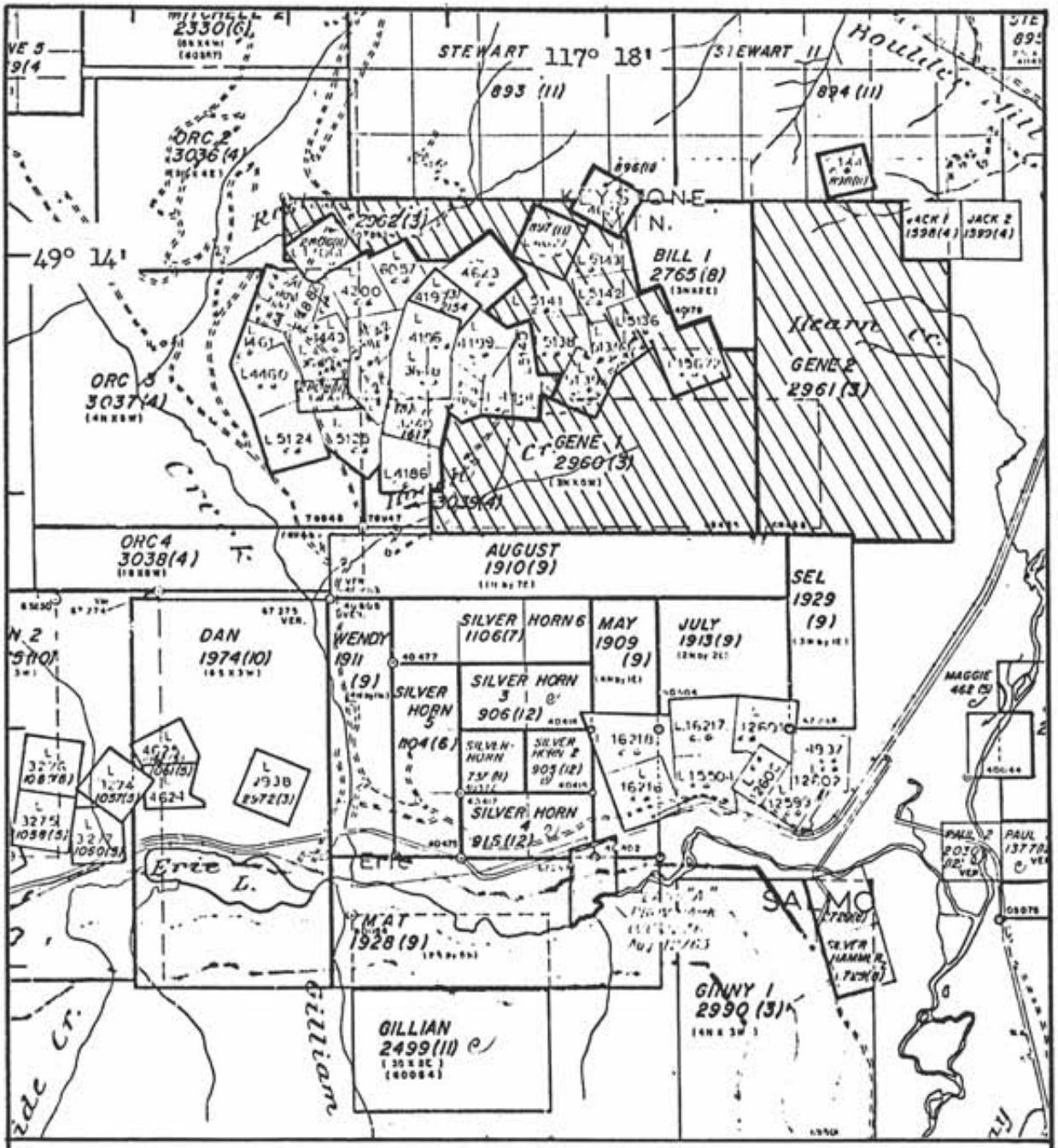
P. J. (PEC) SANTOS, P.Eng.
Consulting Geologist

INDEX MAP
Keystone Property
Delaware Resources Corp.

SCALE IN MILES AND KILOMETRES
ONE INCH EQUALS APPROXIMATELY 42 MILES
MILES 0 5 10 20 30 40
KILOMETRES 0 5 10 20 30 40 50 64
ONE CENTIMETRE EQUALS APPROXIMATELY 26 KILOMETRES

PLATE I

M82F3/W



LEGEND and SYMBOLS

Keystone Group

N

Miles 0 1.0

Kilometers 0 1 2.0

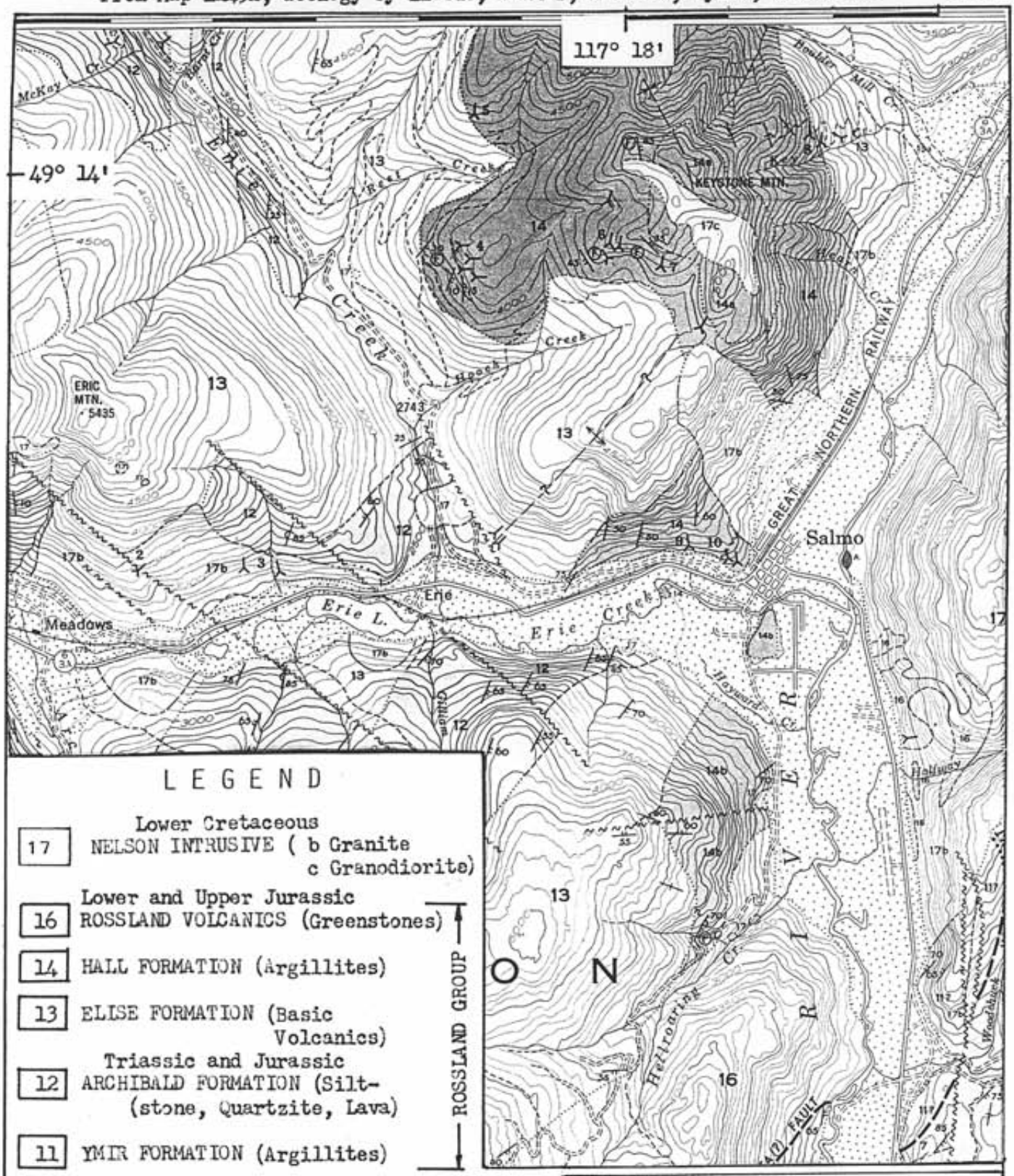
P. J. (PEC) SANTOS P. ENG.
Consulting Geologist

Project Title

Keystone Group
DELAWARE RESOURCES CORP.

DATE: Feb. 1984	SCALE: 1:50 000
DRAWN BY: P. J. SANTOS	PLATE NO. 2

From Map 1145A, Geology by Little, Walker, Mathews, Fyles, & Hewlett 82F3/W



LEGEND

17	Lower Cretaceous NELSON INTRUSIVE (b Granite c Granodiorite)	
16	Lower and Upper Jurassic ROSSLAND VOLCANICS (Greenstones)	ROSSLAND GROUP
14	HALL FORMATION (Argillites)	
13	ELISE FORMATION (Basic Volcanics)	
12	Triassic and Jurassic ARCHIBALD FORMATION (Silt-(stone, Quartzite, Lava)	
11	YMIR FORMATION (Argillites)	
7c	Lower Cambrian LAIB FORMATION	

0 1 2 Miles

0 1 2 3 Kilometers

P. J. (PEC) SANTOS, P.Eng.
Consulting Geologist

GEOLOGIC MAP

KEYSTONE AREA

SCALE: 1:63360 1" to 1 Mi.

PLATE 3

ERA, PERIOD, EPOCH		NELSON (WEST HALF) H.W. LITTLE			NELSON (EAST HALF) RICE, 1941	ROVER-ERIE CREEKS AREA	GOLD DEPOSITS (EXAMPLES)
		WEST PART	SOUTHEAST PART	NORTHEAST PART	WEST PART		
TERTIARY	PLIOCENE		?				
	MIOCENE		CONGLOMERATE				
	OLIGOCENE		?				
	EOCENE						
	PALEOCENE	?					
MESOZOIC	UPPER CRETACEOUS	SOPHIE MOUNTAIN FORMATION					
		?				NELSON INTRUSIVES	ROZAN BLACKCOCK, ROANOAKE, WILCOX, DAYBREAK GRANITE - POORMAN ATHABASCA
	LOWER CRETACEOUS						
	UPPER JURASSIC		?				
	MIDDLE JURASSIC		HALL FORMATION			ROSSLAND GROUP	PATTI (Norcross Res.) CONNOR (Waybo Res.) ROZAN (Patrick Res.) ROOT (Noramex Min.) HUNGARY MAN (Waybo) YMIR MINE KEYSTONE (Delaware) SILVER DOLLAR ARLINGTON (Erie Gold) CLUBINE COMSTOCK TILLICUM AREA SECOND RELIEF MAY & JENNIE PERRIER ROSSLAND GOLD-CAMP BEE (Silver Dart Min.) Bulldog (Silver Dart Min.)
		?					
	LOWER JURASSIC	ROSSLAND F.M.	ROSSLAND F.M.	(ROSSLAND FORMATION TO NORTHWEST)			
		?	?	?	?	HALL-YMIR FORMATION (UNIT B)	
			SINEMURIAN BEDS	SLOCAN GROUP	SLOCAN GROUP		
	TRIASSIC		?	?	?		
			YMIR GROUP	KASLO GROUP	KASLO GROUP		
			?		?	ROSSLAND FORMATION (ELISE-BEAVER MOUNTAIN FORMATION)	
PALÆOZOIC	PERMIAN	?					
	PENNSYLVANIAN	MOUNT ROBERTS FORMATION			MILFORD GROUP		
		?					
	MISSISSIPPIAN				?		
	DEVONIAN						

PLATE·6 *Correlation of Formations and Golds Deposits in The Nelson - Castlegar Area and other areas including The Rover-Erie Creeks Area. (modified from H.W. Little's GSC memoir 308)*

To Accompany report by P.J. SANTOS P.Eng.

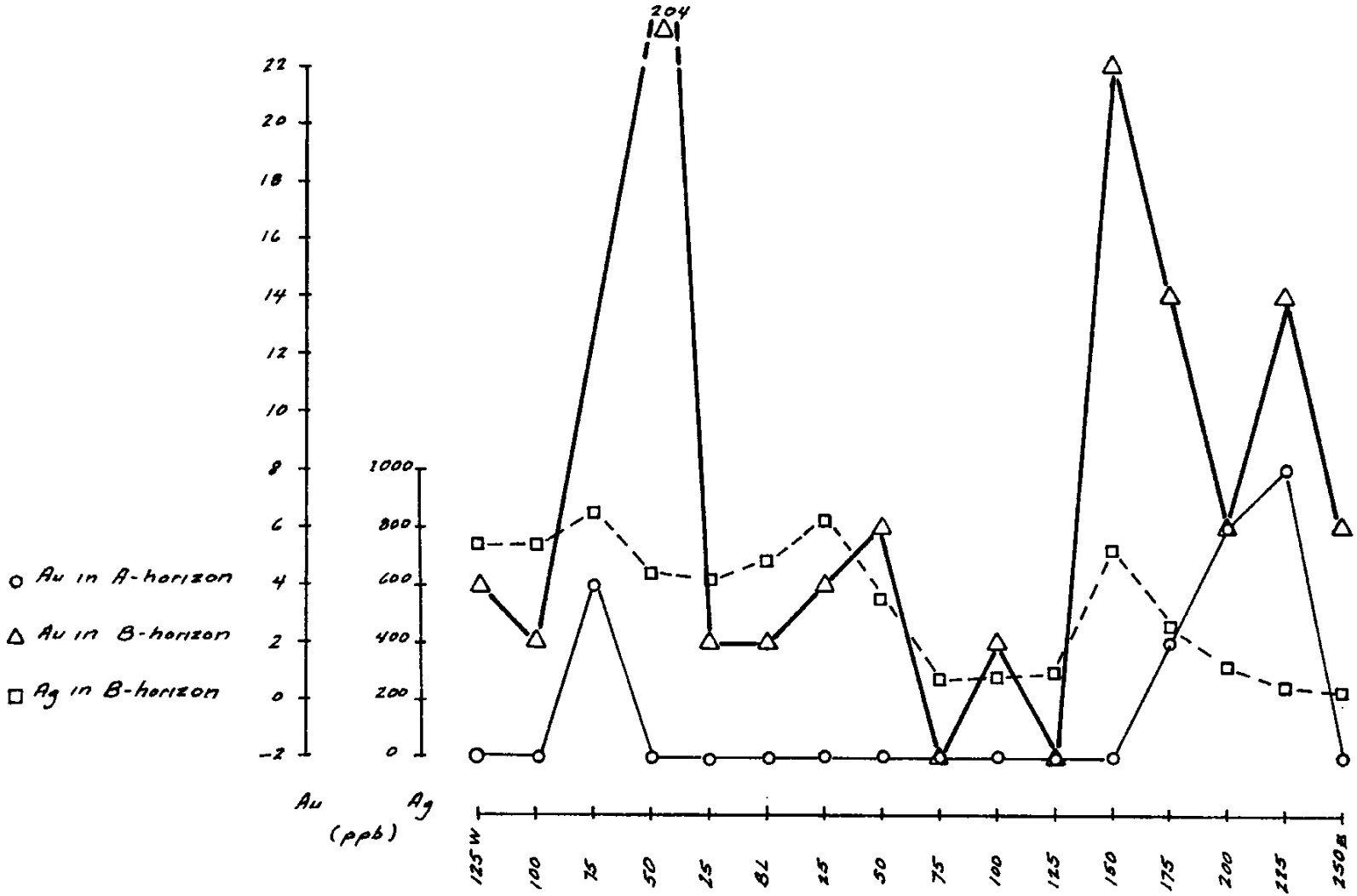


PLATE 8 Au & Ag Geochemical Soil Profiles
Line 15(a)

R.J. Santos, P.Eng.
Feb. 1984

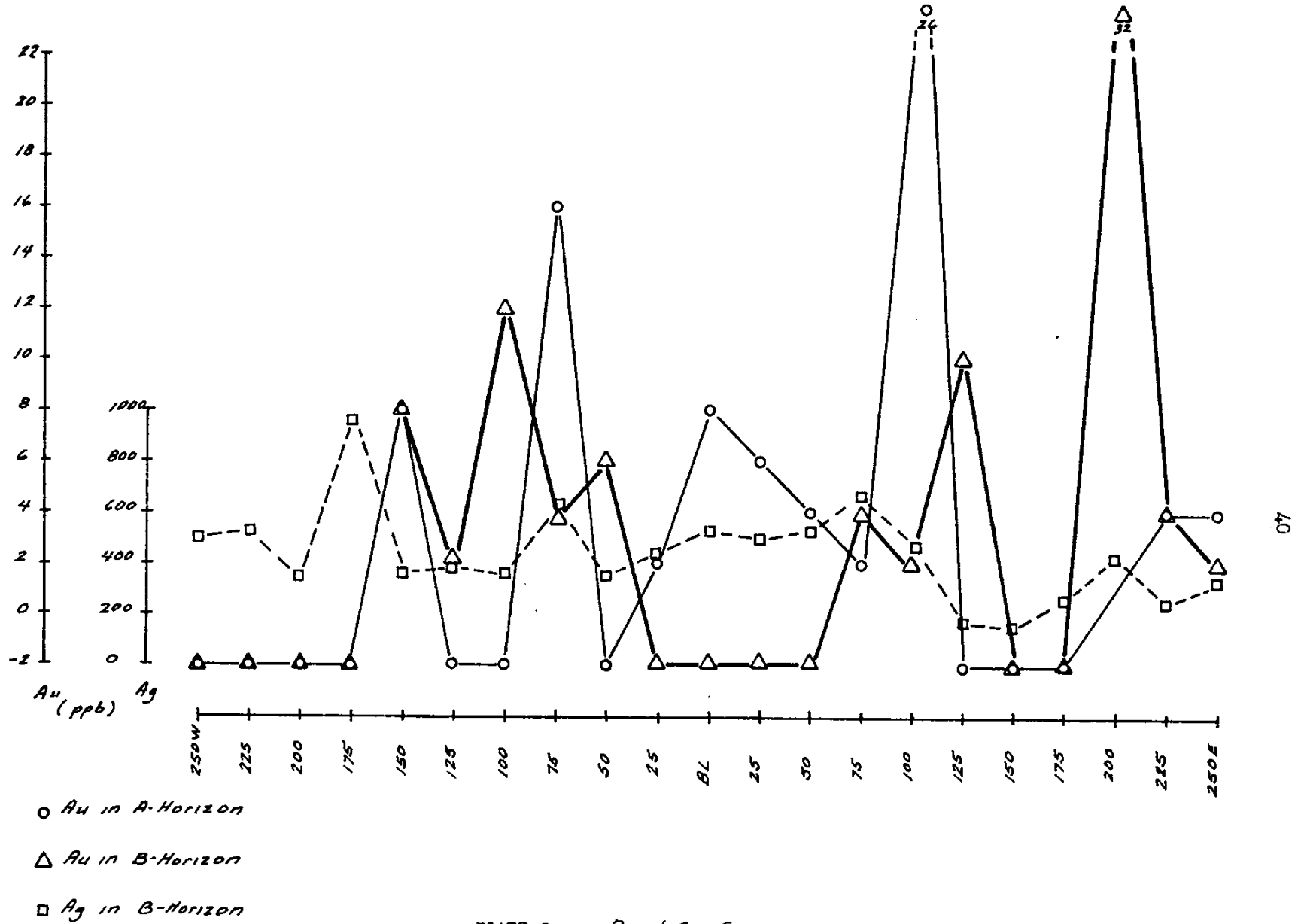


PLATE 9 Au & Ag Geochemical Soil Profiles
Line 14

P.J. Santos, P.Eng
Feb. 1984

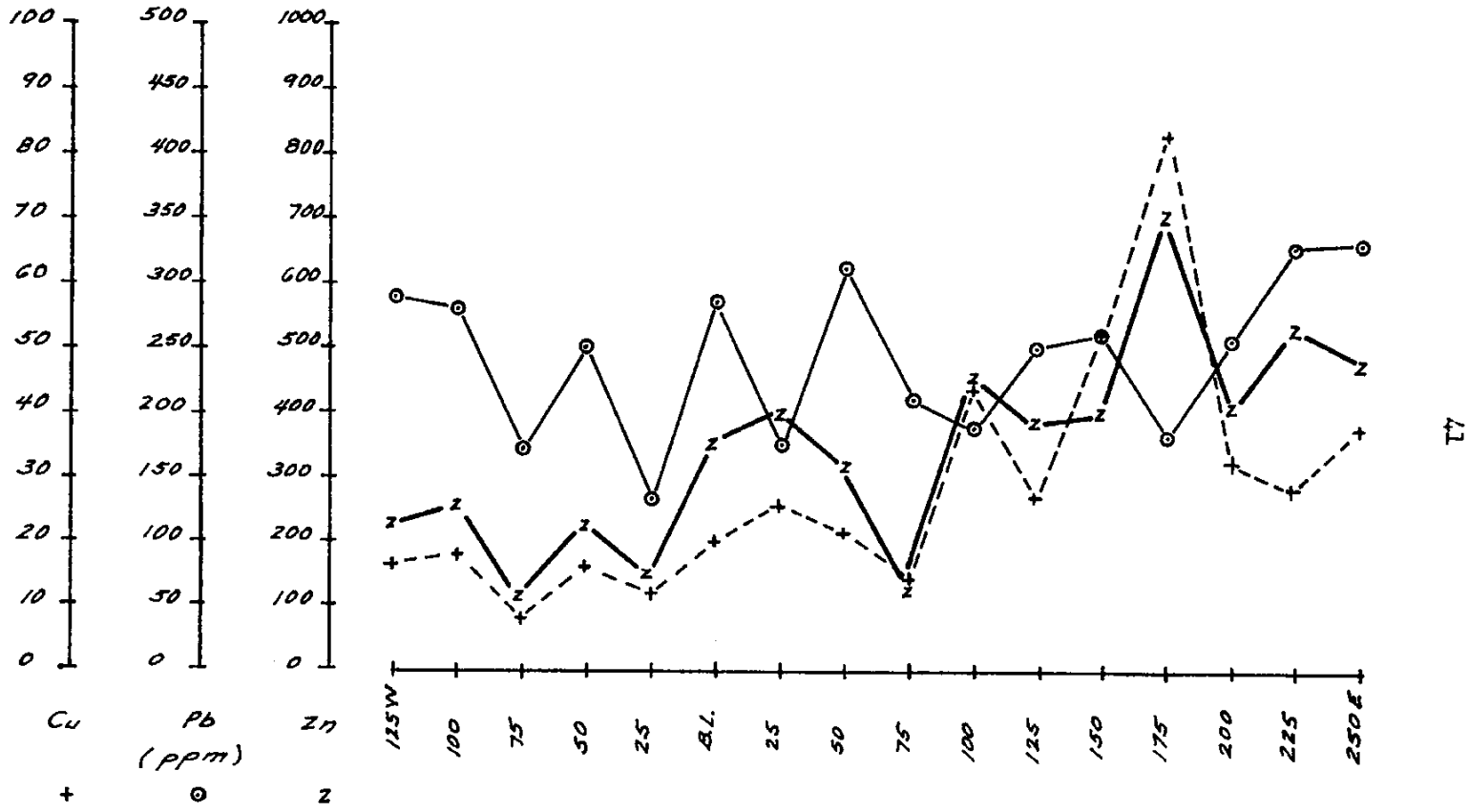


PLATE 10 Cu-Pb-Zn Geochemical Soil Profiles
Line 15(a)

P.J. Santos, P.Eng
Feb. 1984

PLATE 11 Cu-Pb-Zn Geochemical Soil Profiles
Line 14

P.J. Santos, P.Eng.
Feb. 1984

Chart from G. Addie's

"Gold in the Nelson Area"

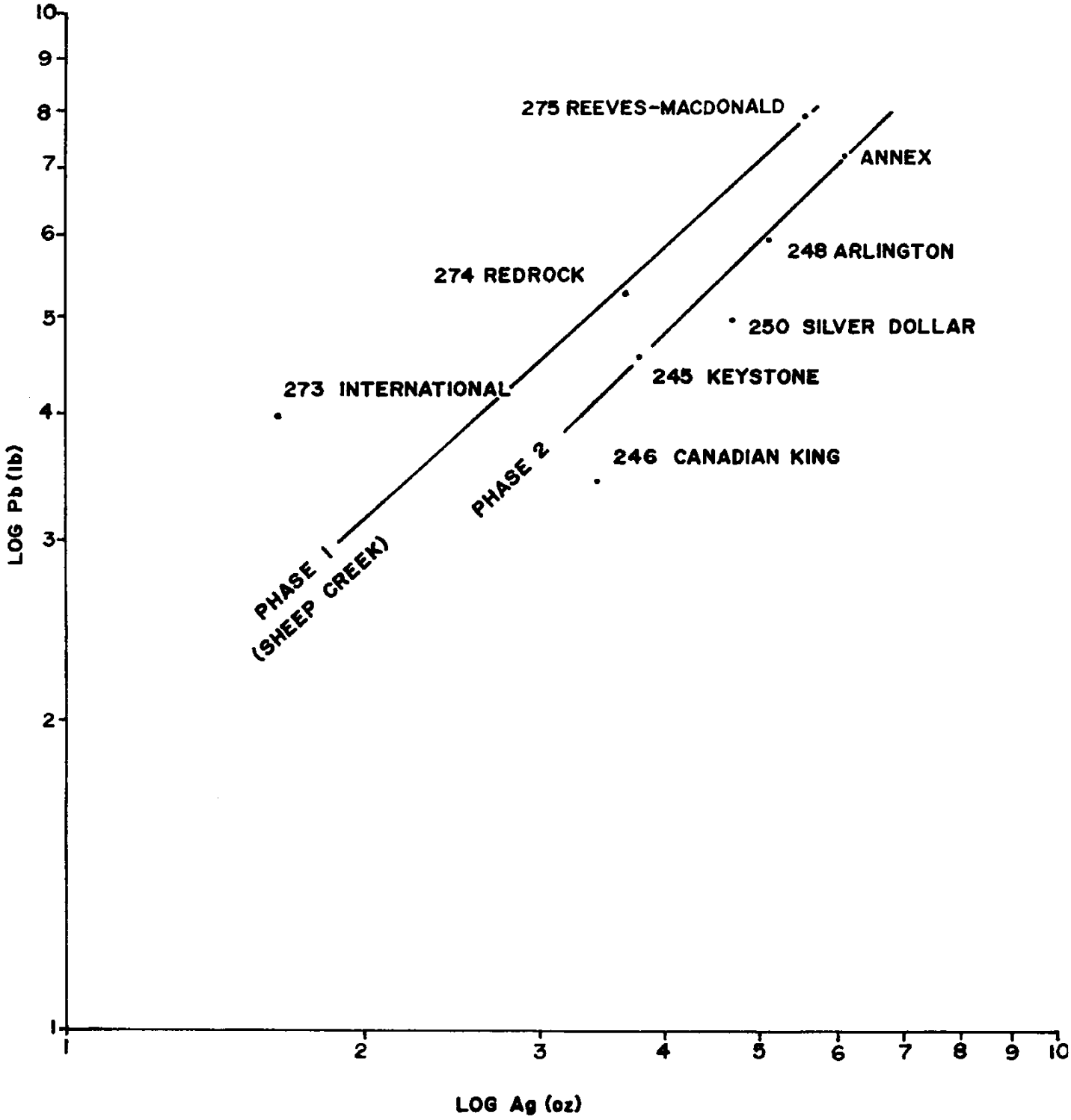


PLATE 12 Statistical correlation of the Arlington and Keystone properties using production data.

DELAWARE

L. 5136

CABLE

L. 5138

KEYSTONE

FRAC.

L. 5137

DEL

L. 15672

TIN BROK

L. 5139

MAIN BASELINE

3520
.067/1.28
DECLINE

TRADER DRIFT

#3517 .105/.052

CABIN

#3521
DUMP

#3518
.102/6.14

#3516
.4125/.054

DUMP WITH ORE CAR

LAST TRENCH VISITED

#3519
2.938/3.31

4500

N

LEGEND

OZ/TON Au → .425/.054 ← OZ/TON Au

#3516 SAMPLE No.

UNDERGROUND WORKINGS

VENTILATION SHAFT

PORTAL

SURFACE TRENCH

DUMP

0 200 400 600 FEET

0 50 100 150 200 METRES

BASE MAP BY ANGINEL RESOURCES LTD.

DELAWARE RESOURCES CORP.

SURFACE AND UNDERGROUND SAMPLING OF KEYSTONE PROPERTY

SAMPLED BY. W.M. SHOA, P.Eng.	DATE.	SCALE. 1:2400 (1"=200')	PLATE No. 13

Fig. 1
Photograph of syngenetic pyrite in black argillites of the Hall Formation forming distinct interbeds. Shown also hydrothermal quartz veins with pyrite cutting the argillite.

Fig. 2
Photograph of black argillites (Hall Formation) containing syngenetic pyrite disseminated preferentially along certain horizons.

Fig. 3
Photograph of brecciated argillite cemented with pyrite and quartz.

Fig. 4
Photograph of typical high grade ore consisting of quartz vein material with pyrite, galena, sphalerite, and tetrahedrite which is gold and silver bearing.

Fig. 5

Photograph of the Keystone ore-body exposed in a trench consisting of superimposed parallel sills of sulfide-bearing quartz in argillites and quartzite.

Fig. 6

Photograph of a piece of argillite that depicts in miniature two systems of mineralization, one following the bedding, the other cross-cutting the bedding of the argillite.

cc to P.J.Santos

TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 83-118

Delaware Resources

Date July 8, 1983

Client Project DEL-1

Sample No.	Au ppb	Ag ppb	Cu ppm	Pb ppm	Zn ppm
B Horizon Soil					
Line 14 250 W	-2	500	22	230	450
225	-2	550	20	187	750
200	-2	360	18	310	470
175	-2	980	22	300	630
150	8	360	26	330	670
125	2	390	31	310	700
100	12	360	61	115	880
75	4	610	25	310	470
50	6	350	23	260	410
25	-2	430	20	390	380
BL	-2	520	19	340	300
25 E	-2	500	64	20	500
50	-2	520	34	21	500
75	4	670	67	23	520
100	2	460	49	25	760
125	10	190	230	13	1810

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7
(403) 276-8668 Telex 03-821172 CGY

TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 83-118

Date

Client Project DEL-1

Sample No.	Au ppb
A Horizon Humus	
Line 15 A 125 W	-2
100	-2
75	4
50	-2
25	-2
BL	-2
25 E	-2
50	-2
75	-2
100	-2
125	-2
150	-2
175	2
200	6
225	8
250	-2

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7
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TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 83-118 Date

Client Project DEL-2 Page 3/4

Sample No.	Au ppb	Ag ppb	Cu ppm	Pb ppm	Zn ppm
B Horizon Soil					
Line 15 A 125 W	4	740	17	290	230
100	2	760	18	280	260
75	204	830	9	173	115
50	-2	650	16	250	230
25	2	620	12	128	154
BL	2	660	20	280	350
25 E	4	720	26	180	400
50	6	370	22	310	320
75	-2	280	15	210	137
100	2	280	44	188	440
125	-2	300	27	250	390
150	22	720	53	260	400
175	14	420	84	174	710
200	6	340	33	260	420
225	14	240	29	330	540
250	6	230	28	330	480

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7
(403) 276-8668 Telex 03-821172 CGY

TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 83-118 Date

Client Project DEL-2 Page 4/4

Sample No.	Au ppb
A Horizon Humus	
Line 14 250 W	-2
225	-2
200	-2
175	-2
150	8
125	-2
100	-2
75	16
50	-2
25	2
BL	8
25 E	6
50	4
75	2
100	26
125	-2

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7
(403) 276-8668 Telex 03-821172 CGY

cc to P.J. Santos

TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 83-121 Delaware Resources Date July 8, 1983

Client Project DEL-3 Page 1/1

Sample No.	Au ppb	Ag ppb	Cu ppm	Pb ppm	Zn ppm
B Horizon Soils					
Line 14 150 E	-2	180	53	16	1560
175	-2	260	93	23	1750
200	32	430	100	21	960
225	4	250	60	22	790
250	2	320	46	24	510
A Horizon Humus					
Line 14 150 E	-2				
175	-2				
225	4				
250	4				
200	Not received				

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7
(403) 276-8668 Telex 03-821172 CGY

Project: Delaware
Date run: March 2/84
Operator: DWR

Units for Au and Ag are log ppb. All others are log ppm.

B-Horizon samples

Element	Mean	SD
log Au	0.50	0.54
log Ag	2.63	0.19
log Cu	1.51	0.29
log Pb	2.10	0.50
log Zn	2.68	0.27

A-Horizon samples

Element	Mean	SD
log Au	0.28	0.41

Project: Delaware
Date run: March 2/84
Operator: DWR

Line 14 / 250 W --> 250E
B-Horizon samples

Element	Mean	SD
log Au	0.38	0.46
log Ag	2.61	0.18
log Cu	1.60	0.30
log Pb	1.90	0.58
log Zn	2.82	0.21

Line 15 / 125W --> 250E
B-Horizon samples

Element	Mean	SD
log Au	0.67	0.61
log Ag	2.67	0.20
log Cu	1.38	0.25
log Pb	2.37	0.12
log Zn	2.49	0.22

Line 14 / 250W --> 250E
A-Horizon samples

Element	Mean	SD
log Au	0.36	0.46

Line 15 / 125W --> 250E
A-Horizon samples

Element	Mean	SD
log Au	0.15	0.30

Units for Au and Ag are log ppb. All others are log ppm.

HISTOGRAM FOR ELEMENT log Au (A-Horizon)
PROJECT: Delaware
OPERATOR: DWR; DATE March 2/84

CELL	NO. OF SAMPLES	CUM. FR. %
-0.20 - 0.00	0	0.00
0.00 - 0.20	22	61.11
0.20 - 0.40	3	69.44
0.40 - 0.60	0	69.44
0.60 - 0.80	6	86.11
0.80 - 1.00	3	94.44
1.00 - 1.20	0	94.44
1.20 - 1.40	1	97.22
1.40 - 1.60	1	100.00

Histogram for log gold - DELAWARE PROJECT

CELL	FREQ	
.00- .20	22	**********
.20- .40	3	***
.40- .60	0	
.60- .80	6	******
.80- 1.00	3	***
1.00- 1.20	0	
1.20- 1.40	1	*
1.40- 1.60	1	*

HISTOGRAM FOR ELEMENT log Au (B-Horizon)
PROJECT: Delaware
OPERATOR: DWR DATE March 2/84

CELL	NO. OF SAMPLES	CUM. FR. %
-0.25 - 0.00	0	0.00
0.00 - 0.25	13	35.14
0.25 - 0.50	7	54.05
0.50 - 0.75	5	67.57
0.75 - 1.00	5	81.08
1.00 - 1.25	4	91.89
1.25 - 1.50	1	94.59
1.50 - 1.75	1	97.30
1.75 - 2.00	0	97.30
2.00 - 2.25	0	97.30
2.25 - 2.50	1	100.00

Histogram for loggold (B-Horizon) - DELAWARE PROJECT

CELL	FREQ	
.00- .25	13	**********
.25- .50	7	*******
.50- .75	5	*****
.75- 1.00	5	*****
1.00- 1.25	4	****
1.25- 1.50	1	*
1.50- 1.75	1	*
1.75- 2.00	0	
2.00- 2.25	0	
2.25- 2.50	1	*

HISTOGRAM FOR ELEMENT log Ag (B-Horizon)
PROJECT: Delaware
OPERATOR: DWR DATE March 2/84

CELL	NO. OF SAMPLES	CUM. FR. %
2.17 - 2.26	0	0.00
2.26 - 2.35	2	5.41
2.35 - 2.44	4	16.22
2.44 - 2.53	4	27.03
2.53 - 2.62	7	45.95
2.62 - 2.71	6	62.16
2.71 - 2.80	5	75.68
2.80 - 2.89	7	94.59
2.89 - 2.98	1	97.30
2.98 - 3.07	1	100.00

Histogram for log silver (B-Horizon) - DELWARE PROJECT

CELL	FREQ	
2.17- 2.26	0	
2.26- 2.35	2	**
2.35- 2.44	4	****
2.44- 2.53	4	****
2.53- 2.62	7	*******
2.62- 2.71	6	******
2.71- 2.80	5	*****
2.80- 2.89	7	*******
2.89- 2.98	1	*
2.98- 3.07	1	*

HISTOGRAM FOR ELEMENT log Cu (B-Horizon)
PROJECT: Delaware
OPERATOR: DWR DATE March 2/84

CELL	NO. OF SAMPLES	CUM. FR. %
0.80 - 0.95	0	0.00
0.95 - 1.10	2	5.41
1.10 - 1.25	3	13.51
1.25 - 1.40	11	43.24
1.40 - 1.55	8	64.86
1.55 - 1.70	3	72.97
1.70 - 1.85	6	89.19
1.85 - 2.00	3	97.30
2.00 - 2.15	0	97.30
2.15 - 2.30	0	97.30
2.30 - 2.45	1	100.00

Histogram for log copper (B-Horizon) - DELAWARE PROJECT

CELL	FREQ	
.80- .95	0	
.95- 1.10	2	**
1.10- 1.25	3	***
1.25- 1.40	11	**********
1.40- 1.55	8	********
1.55- 1.70	3	***
1.70- 1.85	6	******
1.85- 2.00	3	***
2.00- 2.15	0	
2.15- 2.30	0	
2.30- 2.45	1	*

HISTOGRAM FOR ELEMENT log Pb (B-Horizon)
PROJECT: Delaware
OPERATOR: DWR DATE March 2/84

CELL			NO. OF SAMPLES	CUM. FR. %
1.01	-	1.11	0	0.00
1.11	-	1.21	2	5.41
1.21	-	1.31	1	8.11
1.31	-	1.41	7	27.03
1.41	-	1.51	0	27.03
1.51	-	1.61	0	27.03
1.61	-	1.71	0	27.03
1.71	-	1.81	0	27.03
1.81	-	1.91	0	27.03
1.91	-	2.01	0	27.03
2.01	-	2.11	2	32.43
2.11	-	2.21	0	32.43
2.21	-	2.31	5	45.95
2.31	-	2.41	4	56.76
2.41	-	2.51	11	86.49
2.51	-	2.61	5	100.00

Histogram for log lead (B-Horizon) - DELAWARE PROJECT

CELL		FREQ	
1.01-	1.11	0	
1.11-	1.21	2	**
1.21-	1.31	1	*
1.31-	1.41	7	*******
1.41-	1.51	0	
1.51-	1.61	0	
1.61-	1.71	0	
1.71-	1.81	0	
1.81-	1.91	0	
1.91-	2.01	0	
2.01-	2.11	2	**
2.11-	2.21	0	
2.21-	2.31	5	*****
2.31-	2.41	4	****
2.41-	2.51	11	**********
2.51-	2.61	5	*****

HISTOGRAM FOR ELEMENT log Zn (B-Horizon)
PROJECT: Delaware
OPERATOR: DWR DATE March 2/84

CELL	NO. OF SAMPLES	CUM. FR. %
1.93 - 2.06	0	0.00
2.06 - 2.19	3	8.11
2.19 - 2.32	0	8.11
2.32 - 2.45	3	16.22
2.45 - 2.58	4	27.03
2.58 - 2.71	13	62.16
2.71 - 2.84	4	72.97
2.84 - 2.97	6	89.19
2.97 - 3.10	1	91.89
3.10 - 3.23	1	94.59
3.23 - 3.36	2	100.00

Histogram for log zinc (B-Horizon) - DELAWARE PROJECT

CELL	FREQ	
1.93- 2.06	0	
2.06- 2.19	3	***
2.19- 2.32	0	
2.32- 2.45	3	***
2.45- 2.58	4	****
2.58- 2.71	13	**********
2.71- 2.84	4	****
2.84- 2.97	6	******
2.97- 3.10	1	*
3.10- 3.23	1	*
3.23- 3.36	2	**

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED JULY 15 1983

DATE REPORTS MAILED July 22/83

GEOCHEMICAL ASSAY CERTIFICATE

A .500 GM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : AG.
SAMPLE TYPE : SOIL - DRIED AT 60 DEG C., -80 MESH.
AU** - INCLUDING PD, PT 10 GM, FIRE ASSAY CONCENTRATION, HNO3 LEACH OFF AG.
AQUA REGIA DIGESTION, GRAPHITE AA ANALYSIS.

ASSAYER D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

ANGINEL RESOURCES FILE # 83-1209 PROJECT:DELEWARE PAGE# 1

SAMPLE	AG PPM	AU** PPB
10 750W	.7	3
10 725W	.5	4
10 700W	.5	45
10 675W	.6	5
10 650W	.4	6
10 625W	.7	14
10 600W	.6	7
10 575W	.8	8
10 550W	.9	11
10 525W	.5	4
10 25E	.6	95
10 50E	.4	1
10 75E	.6	18
10 100E	.6	3
10 125E	.4	3
10 150E	.6	4
10 175E	.4	3
10 200E	.4	2
10 225E	.6	6
10 250E	.3	4
10 275E	.5	2
10 300E	.4	5
10 325E	.6	6
10 350E	.4	23
10 374E	1.0	16
10 400E	.3	11
10 425E	1.1	7
10 450E	.5	8
10 475E	.4	19
10 500E	.5	15
10 525E	.5	13
10 550E	.4	24
10 575E	.4	14
10 600E	.6	15
10 625E	.7	32
10 650E	.4	11
10 675E	.8	23

SAMPLE	AG PPM	AU** PPB
10 700E	.5	64
10 750E	1.3	7
10 775E	.5	15
10 800E	.9	5
10 825E	.9	7
10 850E	1.1	6
10 875E	1.2	7
10 900E	.6	15
10 950E	.7	5
10 975E	.7	13
10 1000E	.5	13
10 1025E	.6	6
10 1050E	.6	6
10 1075E	1.1	8
10 1100E	.9	10
10 1125E	.7	57
10 1150E	.6	4
10 1175E	.7	9
10 1200E	.4	4
10 1209E	.7	4
11 725W	.5	2
11 700W	.6	4
11 675W	.6	5
11 650W	.7	3
11 625W	.8	5
11 600W	1.2	3
11 575W	1.1	26
11 550W	.1	8
11 525W	.2	4
11 500W	1.2	9
11 475W	1.4	5
11 450W	1.0	4
11 425W	2.1	3
11 400W	.5	19
11 375W	.9	3
11 350W	.8	9
11 325W	.7	4

SAMPLE	AG PPM	AU** PPB
11 300W	.4	6
11 275W	.6	2
11 250W	.7	32
11 225W	.4	4
11 200W	.4	90
11 175W	.4	70
11 150W	.2	2
11 125W	.4	2
11 100W	.2	1
11 75W	.3	39
11 50W	.2	71
11 25W	.4	3
11 0W	.8	5
12 725W	.3	6
12 700W	.4	4
12 675W	.5	13
12 650W	.7	16
12 625W	.7	39
12 600W	.6	12
12 575W	1.1	20
12 550W	.4	24
12 525W	.4	42
12 500W	2.4	8
12 475W	2.4	8
12 450W	2.4	8
12 425W	2.2	32
12 400W	.6	210
12 375W	.3	19
12 350W	.1	13
12 325W	.2	11
12 300W	.3	15
12 275W	.1	11
12 250W	.1	10
12 225W	.2	10
12 200W	.4	11
12 175W	.4	7
12 150W	.2	7

ANGINEL RESOURCES FILE # 83-1209 PROJECT:DELEWARE PAGE# 4

SAMPLE	AG PPM	AU** PPB
12 125W	.7	12
12 100W	.5	10
12 75W	.5	11
12 50W	.7	13
12 25W	.6	11
12 0W	.7	7
13 725W	.5	1
13 700W	.5	1
13 650W	.6	1
13 625W	.3	2
13 600W	1.2	5
13 575W	.7	25
13 550W	.6	2
13 525W	.7	20
13 500W	.5	3
13 475W	.8	2
13 450W	.5	4
13 425W	.5	4
13 400W	.6	5
13 375W	.4	3
13 350W	.3	31
13 325W	.6	3
13 300W	.5	2
13 275W	.4	2
13 250W	.5	29
13 225W	.6	3
13 200W	.8	3
13 175W	.8	3
13 150W	.4	2
13 125W	.5	7
13 100W	.8	1
13 75W	.7	1
13 50W	.8	1
13 25W	.4	1
13 600E	.6	4
13 625E	.6	4
13 650E	1.8	8

ANGINEL RESOURCES FILE # 83-1209 PROJECT: DELEWARE PAGE# 5

SAMPLE	AG PPM	AU** PPB
13 675E	.8	5
13 700E	.7	4
13 725E	3.4	2
13 750E	1.2	10
13 775E	.7	5
13 800E	1.2	4
13 825E	.6	2
13 850E	.7	4
13 875E	1.2	10
13 900E	.8	9
13 925E	.7	10
13 950E	1.4	4
13 975E	1.1	4
13 1000E	1.4	1
13 ~~1050E~~ 1025E	.8	5
13 ~~1075E~~ 1050E	1.4	3
13 ~~1100E~~ 1075E	.8	3
13 ~~1125E~~ 1100E	.7	5
13 ~~1150E~~ 1125E	.7	5
13 ~~1175E~~ 1150E	.9	1
13 ~~1200E~~ 1175E	.5	1
13 ~~1225E~~ 1200E	1.0	1
13 ~~1250E~~ 1225E	.8	3
14 750W	.7	2
14 725W	.9	3
14 700W	.7	25
14 675W	.5	16
14 650W	2.2	5
14 625W	.9	2
14 600W	.7	3
14 575W	.8	3
14 550W	.7	2
14 525W	.7	9
14 500W	.8	3
14 475W	.5	2
14 450W	.7	1
14 425W	.5	2

ANGINEL RESOURCES FILE # 83-1209 PROJECT:DELEWARE PAGE# 6

SAMPLE	AG PPM	AU** PPB
14 400W	.4	3
14 375W	.1	25
14 350W	.6	4
14 325W	.3	3
14 300W	.4	7
14 275W	.3	15
14 275E	.5	8
14 300E	.2	14
14 325E	.3	24
14 350E	.4	25
14 375E	.5	9
14 400E	.3	21
14 425E	.3	19
14 450E	.4	41
14 475E	.3	13
14 500E	.4	3
14 525E	.4	10
14 550E	.5	5
14 575E	.1	10
14 600E	.9	9
14 625E	.3	16
14 650E	.2	58
15 1700W	.8	20
15 1675W	1.6	6
15 1650W	.8	5
15 1625W	1.0	5
15 1600W	.6	8
15 1575W	.5	6
15 1550W	.5	6
15 1525W	.6	13
15 1500W	.4	3
15 1475W	1.3	13
15 1450W	.9	6
15 1425W	.8	31
15 1400W	.4	62
15 1375W	.8	24
15 1350W	.7	6

ANGINEL RESOURCES FILE # 83-1209 PROJECT:DELEWARE PAGE# 7

SAMPLE	AG PPM	AU** PPB
15 1325W	.6	12
15 1300W	.8	5
15 1275W	.6	7
15 1250W	.6	13
15 1225W	.5	9
15 1200W	.3	3
15 1175W	.5	8
15 1150W	.6	4
15 1125W	.4	3
15 1100W	.3	6
15 1075W	.3	8
15 1050W	.4	19
15 1025W	.4	4
15 1000W	.5	5
15 975W	.6	2
15 950W	.6	2
15 925W	.8	5
15 900W	.4	5
15 875W	.3	5
15 850W	.6	29
15 825W	.5	13
15 800W	.6	8
15 775W	.4	3
15 750W	.4	15
15 725W	.6	3
15 700W	.8	10
15 675W	.6	7
15 650W	1.2	3
15 625W	.4	6
15 600W	.8	8
15 575W	1.1	5
15 550W	.8	3
15 525W	.5	3
15 500W	.6	3
15 475W	.6	10
15 450W	.4	1
15 425W	.6	3

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SAMPLE	AG PPM	AU** PPB
15 400W	.8	4
15 375W	.6	4
15 350W	.7	16
15 325W	.7	3
15 300W	.7	3
15 275W	.7	7
15 250W	.6	3
15 225W	.4	2
15 200W	.6	2
15 175W	.7	4
15 150W	.8	1
15 125W	.6	1
15 100W	1.3	1
15 75W	.9	1
15 50W	.7	1
15 25W	.7	10
15 25E	.8	26
15 50E	.7	41
15 150E	.4	61
15 175E	.8	4
15 200E	.4	4
15 225E	.5	16
15 250E	.5	3
15 275E	.3	6
15 300E	.3	4
15 325E	.5	14
15 350E	.7	1
15 375E	.4	4
15 400E	.4	5
15 425E	.5	19
15 450E	.4	6
15 475E	.7	12
15 500E	.7	4
15 525E	.6	33
15 550E	.6	24
15 575E	.5	3
15 600E	.6	40

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SAMPLE	AG PPM	AU** PPB
15 625E	.5	7
15 650E	.5	14
15 675E	.7	11
15 700E	.6	4
16 1525W	1.0	4
16 1500W	.9	2
16 1475W	1.6	5
16 1450W	.9	3
16 1425W	1.2	4
16 1400W	1.4	15
16 1375W	.9	32
16 1350W	1.5	30
16 1325W	1.2	20
16 1300W	1.0	6
16 1275W	.6	5
16 1250W	.7	2
16 1225W	.7	4
16 1200W	.8	13
16 1175W	.9	5
16 1150W	.6	2
16 1125W	.8	5
16 1100W	.6	19
16 1075W	.7	6
16 1050W	.6	6
16 1025W	.5	2
16 1000W	.6	2
16 975W	.8	2
16 925W	.6	4
16 900W	.7	4
16 875W	.5	4
16 850W	.7	2
16 825W	1.2	5
16 800W	.5	3
16 775W	.4	4
16 750W	.4	3
16 725W	.5	11
16 700W	.2	4

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SAMPLE	AG PPM	AU** PPB
16 675W	.4	5
16 650W	.5	4
16 625W	.4	7
16 600W	.5	3
16 575W	.9	4
16 550W	1.6	3
16 525W	2.5	3
16 500W	1.5	2
16 475W	1.8	5
16 450W	.9	3
16 425W	.7	120
16 400W	.6	1
16 375W	.6	3
16 350W	.5	2
16 325W	.4	3
16 300W	.7	1
16 275W	.6	2
16 250W	.5	1
16 225W	.7	3
16 200W	.7	4
16 175W	.6	3
16 150W	.6	5
16 125W	.9	3
16 100W	.8	3
16 75W	.8	12
16 50W	.6	1
16 25W	.5	3
16 0W	.6	5
16 25E	1.2	2
16 50E	.7	4
16 75E	.4	2
16 100E	.8	3
16 125E	.3	2
16 150E	.4	4
16 175E	.6	5
16 200E	.5	2
16 225E	.4	1

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SAMPLE	AG PPM	AU** PPB
16 250E	.6	9
16 275E	.2	7
16 300E	.6	15
16 325E	.6	22
16 350E	.5	11
16 375E	.5	2
16 400E	.7	2
16 425E	.6	23
16 450E	.7	12
16 475E	.6	16
16 500E	.7	14
16 525E	.6	3
16 550E	.4	7
16 575E	.6	10
16 600E	.7	5
16 625E	.6	3
16 650E	2.1	5
16 675E	.8	4
16 700E	.6	9
16 725E	.8	4
16 750E	.6	18
16 775E	.7	21
16 800E	.8	3
16 825E	.5	12
16 850E	.8	4
16 875E	.9	2
16 900E	.7	7
16 925E	.9	4
16 950E	2.4	7
16 975E	.7	3
16 1000E	.9	17
16 1025E	1.2	5
16 1050E	1.0	5
16 1075E	1.0	6
16 1100E	.6	9
16 1125E	.9	4
16 1150E	.8	5

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SAMPLE	AG PPM	AU** PPB
16 1175E	.5	22
16 1200E	.6	17
16 1225E	1.4	470
16 1250E	1.3	20
17 1350W	.5	6
17 ~~1325W~~ 1275 W	.4	2
17 ~~1300W~~ 1250	.5	360
17 ~~1275W~~ 1275	.6	64
17 ~~1250W~~ 1200	.5	56
17 ~~1225W~~ 1175	.6	20
17 ~~1200W~~ 1150	.7	34
17 ~~1175W~~ 1125	.6	9
17 ~~1150W~~ 1100	1.1	7
17 ~~1125W~~ 1075	.8	1
17 ~~1100W~~ 1050	.5	4
17 ~~1075W~~ 1025	.6	3
17 ~~1050W~~ 1000	.9	4
17 ~~1000W~~ 975	.8	10
17 ~~975W~~ 950	.5	3
17 ~~950W~~ 925	.7	4
17 ~~925W~~ 900	.6	4
17 ~~900W~~ 875	.6	4
17 ~~875W~~ 850	.5	1
17 ~~850W~~ 825 W	.7	1
17 800W	.8	4
17 775W	.6	2
17 750W	.6	2
17 725W	.5	3
17 700W	.4	2
17 675W	.5	2
17 650W	.7	2
17 625W	.5	8
17 600W	1.0	6
17 575W	.7	5
17 550W	.6	12
17 525W	.9	42
17 500W	1.2	110

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SAMPLE	AG PPM	AU** PPB
17 475W	.4	4
17 450W	.4	4
17 425W	.5	3
17 400W	.4	5
17 375W	1.0	5
17 350W	.3	3
17 325W	.6	6
17 300W	.5	3
17 275W	.6	3
17 250W	.4	3
17 225W	.5	3
17 ~~220W~~ 200W	.5	4
17 175W	.5	3
17 150W	.4	5
17 125W	.4	1
17 100W	.1	2
17 75W	.3	4
17 50W	.5	3
17 25W	.4	2
17 0W	.4	4
17 25E	.8	9
17 50E	.6	2
17 75E	.6	10
17 100E	.5	2
17 125E	.4	19
17 150E	1.1	5
17 175E	.6	21
17 200E	.4	2
17 200A	.4	2
17 225A	.5	18
17 250A	.5	21
17 275A	.5	43
17 300A	.4	8
17 325A	.1	57
17 350A	.4	8
17 375A	.3	6
17 400E	.2	41

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SAMPLE	AG PPM	AU** PPB
17 425E	.4	19
17 450E	.3	5
17 475E	.4	4
17 500E	.6	8
17 525E	.3	9
17 550E	.6	2
17 575E	.4	2
17 600E	.8	28
17 625E	.4	2
17 650E	.4	3
17 675E	.3	10
17 700E	.4	2
17 725E	.5	2
17 750E	.6	1
17 775E	.5	2
17 800E	.8	6
17 825E	.5	6
17 850E	.6	17
17 875E	.5	9
17 900E	.7	15
17 925E	.9	3
17 950E	.4	17
17 975E	1.6	4
17 1000E	1.1	5
17 1025E	.5	9
17 1050E	.6	38
17 1075E	.2	11
17 1100E	.9	22
17 1125E	1.1	5
17 1150E	1.0	85
17 1175E	1.1	7
17 1200E	1.6	5
17 1225E	.5	4
18 1250W	.9	5
18 1225W	.6	4
18 1200W	.5	9
18 1175W	.5	2

ANGINEL RESOURCES FILE # 83-1209 PROJECT:DELEWARE PAGE# 15

SAMPLE	AG PPM	AU** PPB
18 1150W	.4	9
18 1125W	.7	4
18 1100W	.6	9
18 1075W	.7	6
18 1050W	.4	16
18 1025W	.6	8
18 1000W	1.1	7
18 975W	.7	13
18 950W	.5	5
18 925W	.6	6
18 900W	.7	7
18 875W	.6	2
18 850W	1.6	2
18 825W	.6	17
18 800W	.8	5
18 775W	.6	4
18 750W	.7	4
18 725W	.5	8
18 700W	.8	4
18 675W	.7	15
18 650W	.5	3
18 625W	.5	3
18 600W	.5	4
18 575W	.5	2
18 550W	.7	3
18 525W	.4	2
18 500W	.8	13
18 475W	.7	4
18 450W	.7	3
18 425W	.9	1
18 400W	.8	14
18 375W	.7	3
18 350W	.8	2
18 325W	.6	5
18 300W	1.4	3
18 275W	3.2	3
18 250W	1.1	11

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SAMPLE	AG PPM	AU** PPB
18 225W	.8	4
18 200W	.7	3
18 175W	.9	4
18 150W	.6	6
18 125W	.8	2
18 100W	.6	4
18 75W	.6	4
18 50W	.6	6
18 25W	.4	2
18 0W	.7	2
18 25E	1.0	9
18 50E	.5	6
18 75E	1.0	1
18 100E	2.0	2
18 125E	.7	5
18 150E	.6	125
18 175E	.8	6
18 200E	.7	3
18 225E	.7	9
18 250E	.7	8
18 275E	.8	8
18 300E	.7	39
18 325E	.7	1050
18 350E	1.2	30
18 ~~350A~~ 375E	1.1	15
18 ~~375A~~ 400E	.8	29
18 ~~400A~~ 425	1.0	11
18 ~~425A~~ 450	.9	31
18 ~~450A~~ 475	.5	5
18 ~~475A~~ 500	.4	4
18 ~~500A~~ 525	.5	1
18 ~~525A~~ 550	.7	1
18 ~~550A~~ 575	.8	1
18 ~~575A~~ 600	1.0	1
18 ~~600A~~ 625	1.1	3
18 ~~625A~~ 650	.8	1
18 ~~650E~~ 675E	.7	2

ANGINEL RESOURCES FILE # 83-1209 PROJECT:DELEWARE PAGE# 17

SAMPLE	AG PPM	AU** PPB
18 ~~675E~~ 700E	.6	8
18 ~~700E~~ 725	.6	7
18 ~~725E~~ 750	.5	6
18 ~~750E~~ 775E	.6	9
18 800E	.7	8
18 825E	.6	5
18 850E	.7	5
18 875E	.8	8
18 900E	.7	2
18 925E	.8	10
18 950E	1.6	11
18 975E	1.5	7
18 1000E	.8	9
18 1025E	.9	12
18 1050E	1.0	17
18 1075E	.6	9
18 1100E	.9	17
18 1125E	.6	1
18 1150E	.8	6
18 1175E	1.0	2
18 1200E	.7	1
18 1225E	.9	90
18 1250E	.9	2
19 1032W	.7	4
19 1000W	.4	3
19 975W	.7	2
19 950W	.6	36
19 925W	.7	4
19 900W	.7	3
19 875W	.8	3
19 850W	.8	9
19 825W	.6	4
19 800W	.6	9
19 775W	.7	7
19 750W	.7	11
19 725W	.6	6
19 700W	.5	70

ANGINEL RESOURCES FILE # 83-1209 PROJECT:DELEWARE PAGE# 18

SAMPLE	AG PPM	AU** PPB
19 675W	.3	20
19 650W	.7	6
19 625W	.6	6
19 600W	.3	4
19 575W	.3	7
19 550W	.4	5
19 525W	.5	4
19 500W	.3	1
19 475W	.6	1
19 450W	.7	1
19 425W	.5	3
19 400W	.4	3
19 375W	.5	3
19 350W	1.0	4
19 325W	.6	4
19 300W	.6	2
19 275W	.3	2
19 250W	.4	1
19 225W	.6	2
19 200W	.5	2
19 175W	.4	3
19 150W	.5	4
19 125W	.4	5
19 100W	.3	5
19 75W	.3	3
19 50W	.3	6
19 25W	.5	3
19 25E	.5	4
19 50E	.3	5
19 75E	.3	3
19 100E	.4	3
19 125E	.3	2
19 150E	.5	2
19 175E	.3	4
19 200E	.4	4
19 225E	.4	4
19 250E	.4	2

ANGINEL RESOURCES FILE# 83-1209 PROJECT: DELEWARE PAGE# 19

SAMPLE	AG PPM	AU* PPB
19 275E	.4	11
19 300E	.4	6
19 325E	.4	7
19 350E	.3	4
19 375E	.2	7
19 400E	.7	3
19 425E	.5	4
19 ~~475E~~ 450E	.6	3
19 ~~500E~~ 475	.4	3
19 ~~525E~~ 500	.6	5
19 ~~550E~~ 525	.4	2
19 ~~575E~~ 550	.5	3
19 ~~600E~~ 575	.8	3
19 ~~625E~~ 600	.9	3
19 ~~650E~~ 625	1.0	2
19 ~~675E~~ 650	.5	3
19 ~~700E~~ 675	.3	3
19 ~~725E~~ 700	1.3	11
19 ~~750E~~ 725	.7	7
19 ~~775E~~ 750	.4	13
19 ~~800E~~ 775	.5	4
19 ~~825E~~ 800	.6	3
19 ~~850E~~ 825	.4	4
19 ~~875E~~ 850	.5	3
19 ~~900E~~ 875	.6	2
19 ~~925E~~ 900	1.6	3
19 ~~950E~~ 925	1.0	4
19 ~~975E~~ 950	.7	10
19 ~~1000E~~ 975	1.3	9
19 ~~1025E~~ 1000	1.1	8
19 ~~1050E~~ 1025	.4	7
19 ~~1075E~~ 1050	.5	6
19 ~~1100E~~ 1075	.6	7
19 ~~1125E~~ 1100	.5	2
19 ~~1150E~~ 1125	.3	2
19 ~~1175E~~ 1150	.9	4
19 ~~1200E~~ 1175 E	.5	2

ANGINEL RESOURCES FILE# 83-1209 PROJECT: DELEWARE PAGE# 20

SAMPLE	AG PPM	AU** PPB
19 ~~1225E~~ 1200E	.9	3
19 ~~1250E~~ 1225	.8	3
19 ~~1275E~~ 1250	1.1	2
19 ~~1294E~~ 1274E	.7	2
20 0E	1.2	4
20 25E	.6	3
20 50E	.6	4
20 75E	.8	4
20 100E	.6	9
20 125E	.9	5
20 150E	.7	10
20 175E	.9	7
20 200E	1.0	7
20 225E	.9	6
20 250E	.8	7
20 275E	.8	6
20 300E	1.0	13
20 325E	.7	11
20 350E	1.0	7
20 375E	1.1	9
20 400E	.6	9
20 425E	.5	6
20 450E	.7	6
20 475E	.8	7
20 500E	.7	8
20 525E	.7	6
20 550E	.9	5
20 575E	.7	7
20 600E	.7	2
20 625E	.5	9
20 650E	.6	3
20 675E	.6	2
20 700E	.8	4
20 725E	.6	6
20 750E	.6	4
20 775E	.4	12
20 800E	.9	9

ANGINEL RESOURCES FILE # 83-1209 PROJECT:DELEWARE PAGE# 21

SAMPLE	AG PPM	AU** PPB
20 825E	.8	9
20 850E	.5	6
20 875E	.8	6
20 900E	.3	7
20 925E	.4	10
20 950E	.3	4
20 975E	.6	9
20 1000E	.5	10
20 1025E	.6	5
20 1050E	.5	10
20 1075E	.4	4
20 1100E	.6	3
20 1125E	.5	3
20 1150E	.3	4
20 1175E	.4	2
20 1200E	.3	5
20 1225E	.5	4
20 1250E	.5	3

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED JULY 18 1983

DATE REPORTS MAILED Aug 3/83

GEOCHEMICAL ASSAY CERTIFICATE

A .500 GM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : AG.
SAMPLE TYPE : SOIL - DRIED AT 60 DEG C., -80 MESH.
AU** - INCLUDING PD, PT 10 GM, FIRE ASSAY CONCENTRATION, HNO3 LEACH OFF AG,
AQUA REGIA DIGESTION, GRAPHITE AA ANALYSIS.

ASSAYER DEAN TOYE, CERTIFIED B.C. ASSAYER

ANGINEL RESOURCES FILE # 83-1243 PROJECT:DELEWARE RES. PAGE# 1

SAMPLE	AG PPM	AU** PPB
20 950W	.7	4
20 925W	.8	3
20 900W	.7	4
20 875W	.3	2
20 850W	.4	5
20 825W	.7	9
20 800W	.4	3
20 775W	.5	2
20 750W	.5	2
20 725W	.5	3
20 700W	.5	2
20 675W	.5	2
20 650W	.4	7
20 625W	.4	5
20 600W	.3	15
20 575W	.3	5
20 550W	.3	16
20 525W	.5	6
20 500W	.4	33
20 475W	.4	9
20 450W	.3	2
20 425W	.4	2
20 400W	.3	25
20 375W	.4	3
20 350W	.5	6
20 325W	.3	11
20 300W	.3	11
20 275W	.2	3
20 250W	.5	17
20 225W	.2	3
20 200W	.1	4
20 175W	.4	3
20 150W	.4	5
20 125W	.2	2
20 100W	.2	6
20 75W	.4	10
20 50W	.3	17
20 25W	.5	39
20 0W	1.5	3

HISTOGRAM FOR ELEMENT LOG GOLD
PROJECT: DELAWARE
OPERATOR: DWR DATE FEB. 7/84

CELL		NO. OF SAMPLES	CUM. FR. %
3.02 -	2.81	1	0.13
2.81 -	2.60	1	0.25
2.60 -	2.39	1	0.38
2.39 -	2.18	1	0.50
2.18 -	1.97	4	1.00
1.97 -	1.76	11	2.38
1.76 -	1.55	17	4.52
1.55 -	1.34	34	8.78
1.34 -	1.13	61	16.44
1.13 -	0.92	106	29.74
0.92 -	0.71	119	44.67
0.71 -	0.50	179	67.13
0.50 -	0.29	218	94.48
0.29 -	0.08	0	94.48
0.08 -	-0.13	44	100.00

DELAWARE Project
Mean and standard deviation for LOG GOLD

Mean value= 0.750
Standard deviation= 0.424
Number of samples= 798

HISTOGRAM FOR ELEMENT LOG SILVER
PROJECT: DELAWARE
OPERATOR: DWR DATE FEB. 7/84

CELL	NO. OF SAMPLES	CUM. FR. %
0.53 - 0.43	2	0.25
0.43 - 0.33	7	1.13
0.33 - 0.23	5	1.76
0.23 - 0.13	19	4.14
0.13 - 0.03	41	9.28
0.03 - -0.07	65	17.44
-0.07 - -0.17	189	41.15
-0.17 - -0.27	140	58.72
-0.27 - -0.37	129	74.91
-0.37 - -0.47	118	89.71
-0.47 - -0.57	55	96.61
-0.57 - -0.67	0	96.61
-0.67 - -0.77	18	98.87
-0.77 - -0.87	0	98.87
-0.87 - -0.97	0	98.87
-0.97 - -1.07	9	100.00

DELAWARE Project
Mean and standard deviation for LOG SILVER

Mean value= -0.229
Standard deviation= 0.208
Number of samples= 798

Histogram for log gold - DELAWARE PROJECT

CELL		FREQ	
3.02-	2.81	1	
2.81-	2.60	1	
2.60-	2.39	1	
2.39-	2.18	1	
2.18-	1.97	4	
1.97-	1.76	11	**
1.76-	1.55	17	***
1.55-	1.34	34	******
1.34-	1.13	61	**********
1.13-	.92	106	**********
.92-	.71	119	**********
.71-	.50	179	**********
.50-	.29	218	**********
.29-	.08	0	
.08-	-.13	44	********
SUM		797	

Histogram for log silver - DELAWARE PROJECT

CELL		FREQ	
.53-	.43	2	
.43-	.33	7	*
.33-	.23	5	*
.23-	.13	19	****
.13-	.03	41	**********
.03-	-.07	65	**********
-.07-	-.17	189	**********
-.17-	-.27	140	**********
-.27-	-.37	129	**********
-.37-	-.47	118	**********
-.47-	-.57	55	**********
-.57-	-.67	0	
-.67-	-.77	18	****
-.77-	-.87	0	
-.87-	-.97	0	
-.97-	-1.07	9	
SUM		797	

DELAWARE RESOURCES CORPORATION
#150, 1300 - 8 Street, S.W.
Calgary, Alberta
T2R 1B2

July 6, 1983.

M E M O

TO: G. Harper
J. Toffan
P. Santos ✓

FROM: R. K. Netolitzky

Please find enclosed, copy of analytical results from samples collected from my visit to the Delaware property. The locations for the samples will be general.

#89026 - Grab samples from the main dump area comprised of pyritic argillite referred to as syngenetic pyrite banding. The sample displays slight Au and Ag enrichment.

#89027 - Grab samples from the main dump. Graphitic argillite breccia mixture of syngenetic and replacement pyrite up to 5 to 10%. This sample contains anomalous Au levels and also illustrates that the As levels in the vein systems are anomalous.

#89028 - Grab sample main portal vein material, pyritic.

#89029 - Trench 2, east of main workings, grab sample from dump. Very graphitic - pyrite-quartz vein.

#89030 - East of main workings. Grab sample from dump with small ore car. Pyritic quartz vein material.

#89031 - Rhyolite float from surface near main workings. Represents sample from rhyolific sill which is in close proximity to the main workings. Contains 2 - 3% finely disseminated Pyrite.

#89032 - Vein quartz - minor pyrite (5%) with 1 - 2% Galena. Grab sample from footwall of vein from crosscut.

DELAWARE RESOURCES CORPORATION

R. K. Netolitzky

RKN:sc
Enclosure

TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 83-095 Delaware Resources Date June 20,1983

Client Project Page 1/1

Sample No.	Au ppb	Ag ppm	As ppm	Sb ppm	Cu ppm	Pb ppm	Zn ppm
89026	48	1.10	9.1	4.7	91	15	36
89027	216	0.84	320	7.5	76	41	85
89028	560	4.30	230	4.4	58	95	550
89029	636	8.90	240	3.6	17	250	2120
89030	968	34.0	270	3.8	60	1590	5600
89031	4	0.40	2.6	0.6			
89032	3620	48.0	530	19.3			

Au oz/T
.006
.016
.019
.026
0.106

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7
(403) 276-8668 Telex 03-821172 CGY

Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C.
V2C 5P5
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. P. J. Santos
626-9th Ave.
Castlegar, B.C.

Mr. R. Netolitzky
Delaware Resources Corp.
150, 1300-8th St. S.W.
Calgary, Alta.
T2R 1B1

Project: Delaware

Certificate No. K 5649

Date July 26, 1983

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No	Marked	Au	Ag	Pb	Zn					
		ozs/ton	ozs/ton	per cent	per cent					
1	10101	.007	.15	.03	.48					
2	10102	.013	.12	.02	.02					
3	10103	.015	.52	.38	.54					
4	10104	.006	.12	.06	.09					
5	10105	.013	.15	.37	.24					
6	10106	.005	.15	.17	.18					
7	10107	.023	.15	.04	.03					
8	10108	.008	.12	.04	.09					
9	10109	.023	.15	.03	.03					
10	10110	.004	.09	.01	.06					
11	10111	.003	.09	.01	.03					
12	10112	.042	.06	.02	.06					
13	10113	.010	.12	.04	.08					
14	10114	.021	.20	.21	.14					
15	10115	.065	.35	.24	.09					
16	10116	.007	.09	.05	.55					
17	10117	.073	.29	.19	.38					
18	10118	.005	.26	.24	.23					
19	10119	.014	.29	.25	.31					
20	10120	.156	.20	.11	.63					

NOTE:
Rejects retained three weeks
Pulps retained three months
unless otherwise arranged

Registered Assayer, Province of British Columbia

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CERTIFICATE OF ASSAY

TO Mr. P. J. Santos Mr. R. Netolitzky

Project: Delaware

Certificate No. K 5649

Date July 26, 1983

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No	Marked	Au	Ag	Pb	Zn					
		ozs/ton	ozs/ton	per cent	per cent					
21	10121	.49	.32	.14	.28					
22	10151	.006	.29	.09	.33					
23	10152	.007	.17	.08	.14					
24	10153	.003	.09	.03	.36					
25	10154	.017	.15	.13	.51					
26	10155	.014	.44	.37	.33					
27	10156	.040	.12	.15	.29					
28	10157	.62	.12	.05	.17					
29	10158	.018	.23	.10	.24					
30	10159	.055	.38	.30	.29					
31	10160	.62	.17	.02	.09					
32	10161	.015	.09	.03	.36					
33	10162	.39	.70	.56	1.18					
34	10163	.038	.50	.40	.99					
35	10164	.027	.23	.14	.58					
36	10165	.004	.20	.13	.72					
37	10166	.009	.32	.20	1.10					
38	10167	.108	1.34	1.15	.96					
39	10168	.175	.44	.28	.89					
40	10169	.011	.29	.21	.74					

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NOTE:
Rejects retained three weeks.
Pulps retained three months
unless otherwise arranged.

Registered Assayer, Province of British Columbia

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V2C 5P5
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CERTIFICATE OF ASSAY

TO Mr. P. J. Santos Mr. R. Netolitzky

Certificate No. K 5649

Date July 26, 1983

Project: Delaware

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No	Marked	Au	Ag	Pb	Zn
		ozs/ton	ozs/ton	per cent	per cent
41	10170	.41	.41	.25	.32
42	10171	.204	.55	.39	.60
43	10172	.006	.12	.02	.32
44	10173	.010	.17	.07	.21
45	10174	.007	.12	.03	.53
46	10175	.006	.15	.04	.38

NOTE:
Rejects retained three weeks
Pulps retained three months
unless otherwise arranged.

Registered Assayer, Province of British Columbia