THE SCOTCH CREEK PROPERTY

Map-staked Claims

Claim Name	Area	Record Number	Claim Name	Area	Record Number
MARION	**162.86 ha (402.26 A)**	**604866**	**MARION 2**	**366.36 ha (904.91 A)**	**605310**
PENNY	**81.43 ha (201.13 A)**	**604872**	**SOUTHERN CROSS 1**	**183.12 ha (452.31 A)**	**794642**
GLORIA	**81.43 ha (201.13 A)**	**604873**	**SOUTHERN CROSS 2**	**101.76 ha (251.35 A)**	**794662**
KARALEE	**162.82 ha (402.17 A)**	**604938**	**SOUTHERN CROSS 3**	**244.34 ha (603.52 A)**	**801662**
			Total Property Area	**1,384.12 ha (3,418.78 A)**	

Location:
Kamloops Mining Division
N.T.S.: 82 L/13 + L/14 B.C.: 082L 093
50° 57' 15"N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.

A Technical Report written for the Property Owner:
Zenith Exploration Inc.
4550 Prime Street, North Vancouver,
British Columbia, V7K 2R4

By:
John Ostler; M.Sc., P.Geo., Consulting Geologist
1015 Clyde Avenue, West Vancouver,
British Columbia, V7T 1E3

Dated and effective November 10, 2017

PROFESSIONAL
PROVINCE OF
JOHN D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST

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THE SCOTCH CREEK PROPERTY

Item 1: SUMMARY

The Scotch Creek property comprises 8 map-staked claims covering 1,384.12 hectares (3,418.78 acres) in the Kamloops Mining Division and in the Kamloops Land District in Shuswap Highland in south-central British Columbia. It is located on N.T.S. map sheets 82 L/13 and L/14, and on B.C. map sheet 082L 093. The current expiry date of these claims is February 19, 2023.

Zenith Exploration Inc. of North Vancouver, British Columbia owns of 100% of the claims subject to a 2% net smelter return payable Brent F. Hahn and Barry S. Hartley. No parts of the Scotch Creek property cover private land. The nearest native land is the Scotch Creek No. 4 Indian Reserve, located 0.75 km (0.46 mi) south of the southeastern corner of the SOUTHERN CROSS 3 (801662) claim. The area from Shuswap to Adams Lake is within the traditional territory of the Adams Lake, Little Shuswap, and Neskonlith native bands. Consultation with those bands will be necessary during mine development on the Scotch Creek property. Zenith has not made contact with any of those native bands.

There is no plant or equipment, inventory, mine or mill structure on these claims. It is anticipated that a damage bond of $30,000 will be required for the recommended exploration program. Application for a permit to conduct the first phase of the recommended work program has not been made yet.

The Scotch Creek property occupies a southeasterly facing slope adjacent with the southeastern part of Adams Plateau. Elevations on the property range from 1,375 m (4,511 ft) at its northwestern corner on the MARION 2 (605310) claim to 950 m (3,117 ft) on the PENNY (604872) claim at the southeastern corner of the property-area. Adequate fresh water for a mining operation could be drawn by gravity from Corning (Lee) Creek from a location about 1.2 km (0.73 mi) northwest of the northwestern corner of the property.

The Scotch Creek property hosts a second-growth forest comprised mostly of cedar, spruce, fir, and cottonwood trees which is in various states of growth. There is insufficient timber suitable for mining on the claims.

Two parallel, high-voltage power transmission lines cross the southeastern parts of the PENNY (604872), SOUTHERN CROSS 2 (794662), and SOUTHERN CROSS 3 (801662) claims in the property's southeastern part. A three-phase power transmission line services residences along Lee Creek Road, within 2.2 km (1.34 mi) of the southern boundary of the property.

The Scotch Creek area experiences cold winters and hot, dry summers. Winter snow falls in the property area by late November and stays on the ground until April in open areas, and until June on shady slopes at higher elevations in the north-western part of the claim-area. Surface work can be conducted on the property from April to November during a normal year.

The property is accessible by road from the south, west, and east. The easterly route up the 670 and 671 roads is the easiest route and is passable by 2-wheel drive vehicles in dry summer weather. The 670 road diverges from the Scotch Creek-Celista road west of the village of Scotch Creek north of Shuswap Lake. That road connects with the Squilax-Adams Lake road that diverges from B.C. Highway 1 at Squilax, between Shuswap and Little Shuswap lakes. Most of the property-area is accessible via a system of old logging roads that are in various conditions.

The village of Scotch Creek, located about 20 km from the claims, is the nearest supply and service center to the property. Services at Scotch Creek are sufficient to support surface exploration programs such as prospecting, mapping, or soil sampling. The town of Chase, located on B.C. Highway 1 about 50 km (30.5 mi) southwest of the property, hosts the nearest helicopter base and a rail yard where mineral products can be

loaded into rail cars for transport to a smelter. The city of Kamloops, located on B.C. Highway 1 about 99 km (60.4 mi) southwest of the property, is the nearest regional service and supply centre. Kamloops has services necessary to support a mining operation.

The author's 2010 geologic mapping has revealed that the metasedimentary and metavolcanic rocks in the Scotch Creek property-area are an upright succession that represent various coeval facies resulting from two concurrent eruptions into a shallow marine basin. All of the Noranda/Kuroko-type mineralization exposed in the property-area is hosted by a single unit of fine-grained chloritic tuff located in the upper part of a trachytic volcanic succession.

Prior to 2009 no structural geology had been conducted in the Scotch Creek property area, one which had been subjected to four phases of deformation. Consequently, early exploration success was sporadic and early operators did not understand why they found mineralization or how they could find more of it.

Total monetary value of recent (2010 to 2012) exploration on the property was in excess of $325,000 according to the audited records of Signal Exploration Inc. The author personally conducted or was involved in that exploration. In his opinion, it was critical to advancing the Scotch Creek property to its current state in which the reasons for location of mineralization are reasonably well-known and the possibility of finding a body of economic mineralization is increased greatly. If a formal valuation of the Scotch Creek property is to be done, the author suggests that the monetary value of the 2010 to 2012 exploration of the property should be included in that valuation.

The 2010 exploration program was designed to gain an understanding of why mineralization occurred where it did so that its location and orientation could be predicted with some confidence. The 2012 induced polarization program was designed to increase the confidence level at which the trends of mineralization could be predicted. Both programs succeeded, and consequently, the current data from the property is adequate to support the author's conclusions and recommendations in this Technical Report.

Repetitions of a single syngenetic bed of Noranda/Kuroko-type massive sulphide mineralization occur in most of the Scotch Creek property area. Generally, these sulphide occurrences are thin and duplication of them by thrust faulting or thickening in shallow syn-sedimentary basins are the mechanisms upon which one must rely to produce massive sulphide occurrences with minable thicknesses.

The massive sulphide target in the southeastern "basin" in the eastern part of the Marion (604866) claim produced the largest and most intense soil and geophysical targets on the property. Those difference makes it the primary exploration target thereon.

The Scotch Creek property is surrounded and presumably underlain by anatectic plumes of the Shuswap Metamorphic Complex. In those plumes of hot corrosive fluid, country rock is variably melted in place and sulphide mineralization is re-mobilized and re-deposited at higher levels in the geologic pile. The author expects that this process is responsible for enrichment of the original Palaeozoic-age massive sulphide mineralization in the southeastern "basin", by Cretaceous-age disseminated mineralization related to fluids of the Shuswap Metamorphic Complex. Presently, the southeastern "basin" located in the eastern part of the MARION (604866) claim, is the most prospective exploration target on the Scotch Creek property.

It is recommended that a two-phase work program of access development, trenching, sampling, and drilling be conducted in the southeastern "basin" area located in the eastern part of the MARION (604866) claim.

The first phase of recommended work comprises 1.4 km (0.85 mi) of road renovation, 1.2 km (0.73 mi) of road building, the establishing of two drill sites, machine trenching, and rock sampling.

The second phase of recommended work comprises drilling that will result in the production of 1,200 m (3,937ft) of NQ or NT core. A series of four holes averaging 300 m (984 ft) in length should be drilled in groups of two at two locations.

The estimated costs of the two recommended phases of exploration are as follow:

Program	Estimated Cost inc. G.S.T. + Contingency
1st Phase: road renovation and construction, drill site development, trenching and sampling	$ 125,294
2nd Phase: 1,200 m (3,937 ft) of NQ or NT drilling	$ 292,677
Total Estimated Cost:	$ 417,971

THE SCOTCH CREEK PROPERTY

Item 2: INTRODUCTION

The author, John Ostler; M.Sc., P.Geo., was commissioned by Zenith Exploration Inc. through Cassiar East Yukon Expediting Ltd. to write this Technical Report entitled "The Scotch Creek Property" dated and effective November 10, 2017, in order to produce documentation necessary to support the acquisition of a material mineral property.

This report is based upon: published and unpublished records of the results of previous exploration in the Scotch Creek property-area, of property examinations and regional geological mapping conducted by geologists of the British Columbia Geological Survey and of the Geological Survey of Canada, the results of the 2010 exploration program on the Scotch Creek property which was conducted and supervised by the author and the 2012 geophysical program conducted by David Mark, P.Geo. of Geotronics Consulting Inc. Citations of that work are in standard format in Item 27 of this report.

The author examined the Scotch Creek property in person on September 27, 2017. Lines and roads were grown in and littered with fallen trees. He saw no evidence that any work has been conducted on the property since the 2012 exploration program. Review of the tenures of the claims comprising the property revealed that no work post-dating the 2012 program was filed for assessment credit to the claims. The author opines that his attendance on the property on September 27, 2017 represents a Current Personal Inspection of the Scotch Creek property in compliance with part 6.2.1 of National Instrument 43-101.

Item 3: RELIANCE ON OTHER EXPERTS

The author has relied upon information provided by the government of British Columbia in matters of land tenure, security of title, and regulations that may affect one's ability to develop the Scotch Creek property, and on David Mark, P.Geo. regarding the results of the 2012 induced polarization survey (Mark, 2012).

Item 4: PROPERTY DESCRIPTION AND LOCATION

The Scotch Creek property-area covers the southeastern margin of Adams Plateau in the southern part of Shuswap Highland in southern British Columbia. It is located on N.T.S. map sheets 82 L/13 and L/14, and on B.C. map sheet 082L 093 (Figures 1and 2). The centre of the property-area is at 50° 57' 15" north latitude and at 119° 29' 26" west longitude (U.T.M.: 5,647,460 N., 324,840 E.) (Table 4).

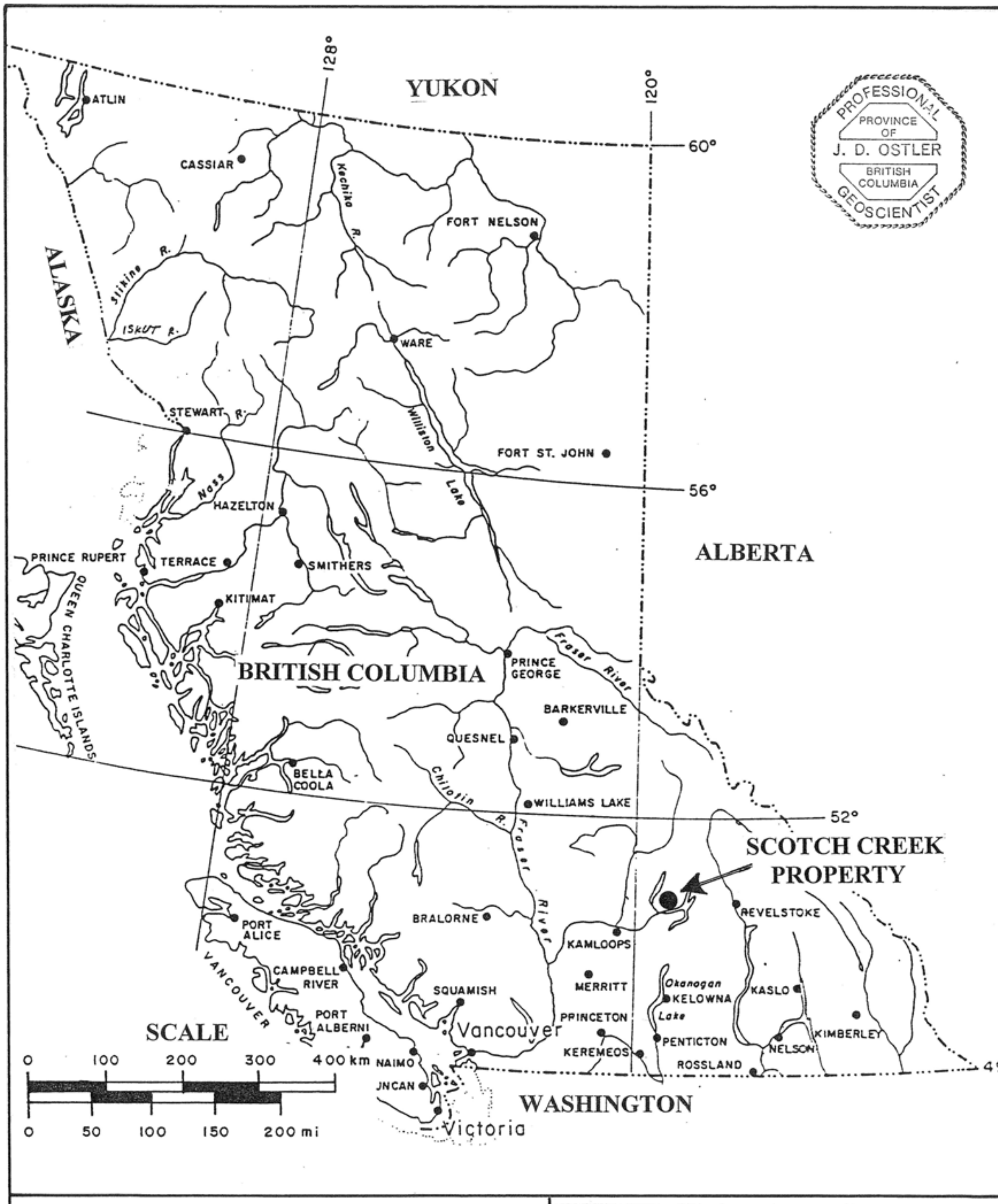
The property comprises 8 map-staked claims covering 1,384.12 hectares (3,418.78 acres) in the Kamloops Mining Division and in the Kamloops Land District. The tenures of the claims (Figure 2) are as follow:

Table 1
Map-staked Claims

Claim Name	Record No.	Area: hectares (Acres)	Record Date	Expiry Date	Registered Owner
MARION	604866	162.86 (402.26)	May 22, 2009	Feb. 19, 2023	Brent F. Hahn
PENNY	604872	81.43 (201.13)	May 22, 2009	Feb. 19, 2023	Brent F. Hahn
GLORIA	604873	81.43 (201.13)	May 22, 2009	Feb. 19, 2023	Brent F. Hahn
KARALEE	604938	162.82 (402.17)	May 25, 2009	Feb. 19, 2023	Brent F. Hahn
MARION 2	605310	366.36 (904.91)	June 2, 2009	Feb. 19, 2023	Brent F. Hahn
SOUTHERN CROSS 1	794642	183.12 (452.31)	June 18, 2010	Feb. 19, 2023	Brent F. Hahn
SOUTHERN CROSS 2	794662	101.76 (251.35)	June 18, 2010	Feb. 19, 2023	Brent F. Hahn
SOUTHERN CROSS 3	801662	244.34 (603.52)	June 28, 2010	Feb. 19, 2023	Brent F. Hahn
Total Property area		1,384.12 (3,418.78)			

On November 3, 2017, Zenith Exploration Inc. purchased the claims comprising the Scotch Creek property from Brent F. Hahn and Barry S. Hartley. Thus, as of the effective date of this Technical Report being November 10, 2017, Zenith Exploration Inc. owns 100% of those claims. Presently Brent F. Hahn is the registered owner of the claims (Table 1). It has been reported to the author that transfer of registered ownership of the claims will occur as soon as confirmation of Zenith's BCeID is received from the British Columbia government.

Zenith's 100% ownership of the claims comprising the Scotch Creek property is subject to a 2% net smelter return payable as 1% each to Brent Hahn and Barry Hartley.



N.

Figure 1

CASSIAR EAST YUKON EXP. LTD.

ZENITH EXPLORATION INC.

GENERAL LOCATION

SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,840 E.
N.T.S.: 82 L/13 + L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. NOVEMBER, 2017

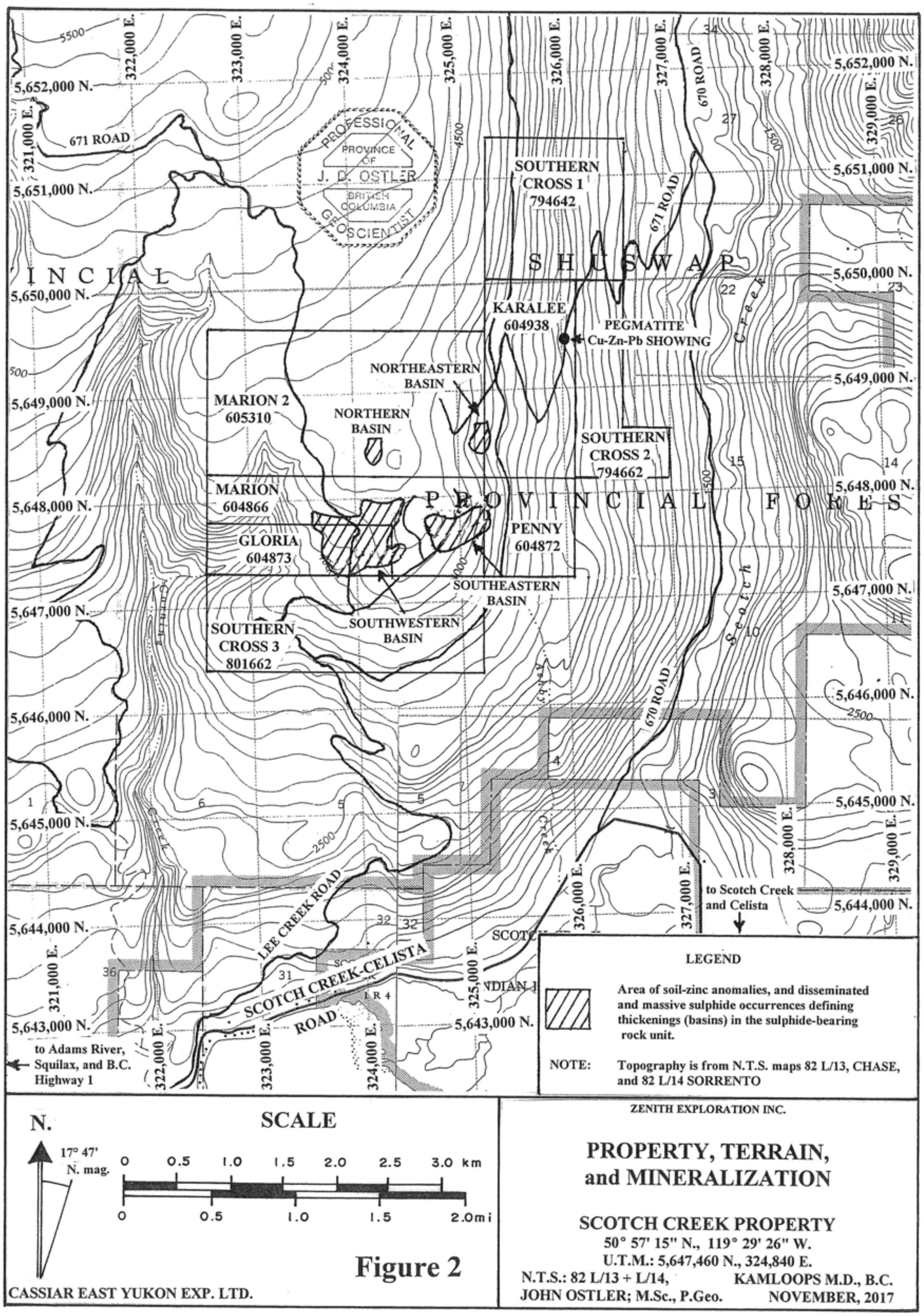

SOUTHERN CROSS 1
794642
KARALEE
604938
PEGMATITE
Cu-Zn-Pb SHOWING
NORTHEASTERN BASIN
MARION 2
605310
NORTHERN BASIN
SOUTHERN CROSS 2
794662
MARION
604866
GLORIA
604873
PENNY
604872
SOUTHEASTERN BASIN
SOUTHWESTERN BASIN
SOUTHERN CROSS 3
801662
SHUSWAP
PROVINCIAL FORES
671 ROAD
670 ROAD
LEE CREEK ROAD
SCOTCH CREEK-CELISTA ROAD
Scotch Creek
to Scotch Creek and Celista
to Adams River, Squilax, and B.C. Highway 1
LEGEND
Area of soil-zinc anomalies, and disseminated and massive sulphide occurrences defining thickenings (basins) in the sulphide-bearing rock unit.
NOTE: Topography is from N.T.S. maps 82 L/13, CHASE, and 82 L/14 SORRENTO
N.
17° 47' N. mag.
SCALE
0 0.5 1.0 1.5 2.0 2.5 3.0 km
0 0.5 1.0 1.5 2.0mi
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
PROPERTY, TERRAIN, and MINERALIZATION
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,840 E.
N.T.S.: 82 L/13 + L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. NOVEMBER, 2017

Figure 2

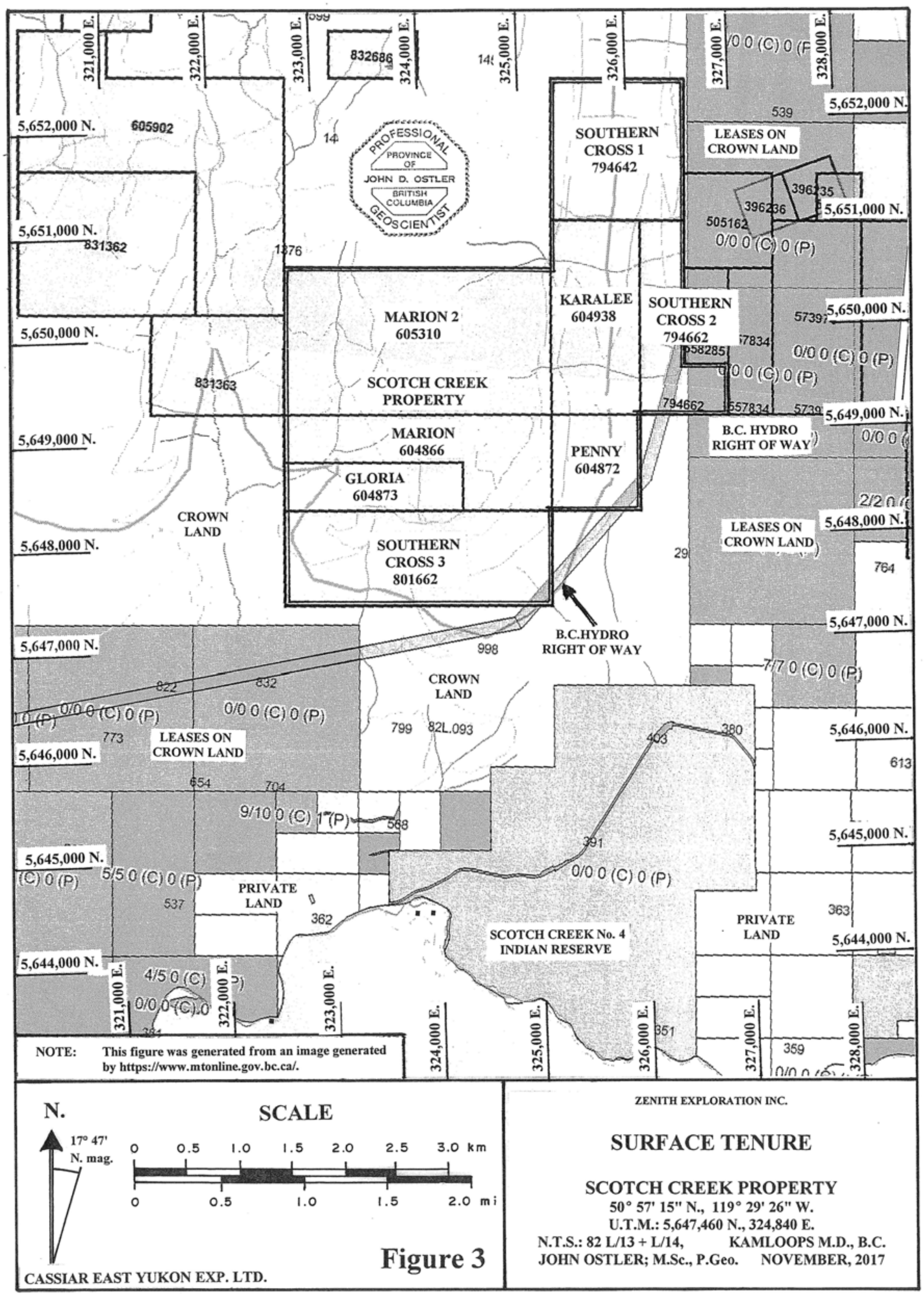

321,000 E.
322,000 E.
323,000 E.
324,000 E.
325,000 E.
326,000 E.
327,000 E.
328,000 E.
5,652,000 N.
5,651,000 N.
5,650,000 N.
5,649,000 N.
5,648,000 N.
5,647,000 N.
5,646,000 N.
5,645,000 N.
5,644,000 N.
832686
605902
831362
831363
PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
JOHN D. OSTLER
SOUTHERN CROSS 1
794642
LEASES ON CROWN LAND
396235
396236
505162
0/0 0 (C) 0 (P)
MARION 2
605310
SCOTCH CREEK PROPERTY
KARALEE
604938
SOUTHERN CROSS 2
794662
MARION
604866
PENNY
604872
GLORIA
604873
SOUTHERN CROSS 3
801662
B.C. HYDRO RIGHT OF WAY
CROWN LAND
LEASES ON CROWN LAND
B.C.HYDRO RIGHT OF WAY
CROWN LAND
82L.093
LEASES ON CROWN LAND
PRIVATE LAND
SCOTCH CREEK No. 4
INDIAN RESERVE
PRIVATE LAND
NOTE: This figure was generated from an image generated by https://www.mtonline.gov.bc.ca/.
N.
17° 47' N. mag.
SCALE
0 0.5 1.0 1.5 2.0 2.5 3.0 km
0 0.5 1.0 1.5 2.0 mi
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
SURFACE TENURE
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,840 E.
N.T.S.: 82 L/13 + L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. NOVEMBER, 2017

Figure 3

Effective July 1, 2012 in British Columbia, a mineral claim holder must do and record a minimum amount of assessment work or pay cash in lieu of work per year for each hectare within a claim to maintain that claim in good standing as follows:

Table 2
Annual Assessment Work Required to Maintain a Mineral Tenure

Anniversary Year after Record Date of Tenure	$ Amount of Assessment Work/ha Required to Extend the Expiry Date of a Tenure for 1 Year
Years 1 and 2	$5.00/ha
Years 3 and 4	$10.00/ha
Years 5 and 6	$15.00/ha
Subsequent years	$20.00/ha

Effective July 1, 2012, the amount of cash in lieu of work required to extend the expiry date of a mineral tenure for one year is double the amount of assessment work required for that year. To facilitate the transition to the new assessment requirement rates, when assessment work was filed to the benefit of any mineral tenure for the first time after July 1, 2012, that tenure was deemed to be in the first anniversary year of it's record date. On February 21, 2013, sufficient assessment work was filed to extend the expiry dates of the claims of the Scotch Creek property to February 19, 2023 (Mineral Titles event No. 5,433,071). By that time, work had already been filed to extend the expiry dates of the claims to from July 18, 2018 to November 25, 2020; thus the deemed first anniversary dates of the claims ranged from the previously mentioned dates. Extending the expiry date of the claims for one year would cost as follows:

Table 3
Annual Cost of Assessment Work

Year (due by February 19)	Property Area (ha) Requiring Work for 1 Year Expiry Extension	Required Work @ $5/ha	Required Work @ $10/ha	Required Work @ $15/ha	Required Work @ $20/ha	Total Annual Cost of Work
2017 to 2023	0	$0	$0	$0	$0	$0
2024	1,384.12	$0	$8,549.00	$0	$10,584.40	$19,133.40
2025 and 2026	1,384.12	$0	$0	$12,823.50	$10,584.40	$23,407.90
2027 and later years	1,384.12	$0	$0	$0	$27,682.40	$27,682.40

Map-staked mineral claims in British Columbia are endowed with metallic and some industrial mineral rights but no surface rights. Surface rights can be obtained during production permitting.

These claims are located on the provincial virtual mineral tenure grid. No posts or lines exist on the ground; thus, there is no uncertainty regarding the area covered by the claims. Also, there are no natural features and improvements relative to, and affect the location of the outside property boundaries. However, there are conditions that may affect the design of future exploration and development programs on the property (Figure 3). Leases (SID (PIN) 90021761 and 3341900) secure a B.C. Hydro power line right of way above the southeastern part of the property. This right of way is located about 1.2 km (0.73 mi) southeast of the primary exploration target area on the property (Figures 2 and 3).

According to the government of British Columbia through the Tantalus Gator system and the Integrated Land Resource Registry, available at www.mtonline.bc.ca and at www.ILRR.ca , no parts of the Scotch Creek property cover private land. The nearest native reserve to the Scotch Creek property is the Scotch Creek No. 4 Indian Reserve, located 0.75 km (0.46 mi) south of the southeastern corner of the property (Figure 3). The area between Shuswap and Adams lakes is within territory of the Adams Lake, Little Shuswap, and Neskonlith native bands. Consultation with those bands would be necessary during mine development. There is no plant or equipment, inventory, mine or mill structure on these claims.

At the effective date of this Technical Report, being November 10, 2017, Zenith's 100% ownership of the claims comprising the Scotch Creek property is subject to a 2% net smelter return payable as 1% each to Brent Hahn and Barry Hartley. The author knows of no other royalties, back-in rights, payments, or agreements and encumbrances to which the Scotch Creek property is subject. Also, the property is subject to no environmental liabilities from previous exploration or mining activities.

Permits from the British Columbia government and environmental bonds will be required to conduct the recommended exploration program. It is anticipated that the cost of bonds for that program will be $30,000. A Notice of Work to the government of British Columbia regarding the first phase of the recommended program has not been made yet.

All Noranda/Kuroko-type sulphide mineralization on the property is hosted by a single stratigraphic unit. Four areas of comparitively thick sulphide accumulation "basins" have been identified tentatively by 2010 soil survey and geological mapping (Ostler, 2013, 2011B and 2011C).

The locations of the property center and significant exploration areas within the property area, including the four "basins", are as follow (Figures 2, and 16):

Table 4
Locations of Significant Areas on the Scotch Creek Property

Center of Entity	U.T.M. Co-ordinates	Longitude and Latitude
property centre	5,647,460 N., 324,840 E.	50° 57' 15" N., 119° 29' 26" W.
Centre of anomalies and previous main drilling area on the MARION (604866) claim	5,647,483 N., 324,938 E.	50° 57' 17" N., 119° 29' 44" W.
Pegmatitic scarn sulphide mineralization on the 671 road on the northeastern KARALEE (604938) claim	5,649,465 N., 326,022 E.	50° 58' 20" N., 119° 28' 48" W.
Approximate centre of the 2010 soil anomalies defining the northeastern sulphide basin	5,648,400 N., 325,200 E.	50° 57' 38" N., 119° 29' 21" W.
Massive sulphide intersection in DDH SC-3 near the centre of the southeastern sulphide basin	5,647,695 N., 324,970 E.	50° 57' 15" N., 119° 29' 32" W.
Disseminated sulphide intersection in SC-4 near the centre of the southwestern basin	5,647,440 N., 323,895 E.	50° 57' 06" N., 119° 30' 26" W.
Approximate centre of the 2010 soil anomalies defining the northern sulphide basin	5,648,400 N., 324,000 E.	50° 57' 37" N., 119° 30' 22" W.
0.91 tonne (1-ton) boulder of massive sulphide containing up to 10% copper found during 1970 prospecting on the current GLORIA (604873) claim	5,647,735 N., 322,940 E.	50° 57' 15" N., 119° 31' 16" W.

Item 5: ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

The Scotch Creek property occupies a southeasterly facing slope adjacent with Adams Plateau. Elevations of the property range from 1,375 m (4,511 ft) at its northwestern corner to 950 m (3,117 ft) on the at the southeastern corner of the property-area. The northwestern part of the property-area is occupied by gentle slopes generally less than 10°; its southeastern part hosts steep slopes averaging 30° (Figure 2). The property hosts a second-growth forest comprised mostly of cedar, spruce, fir, and cottonwood trees which is in various states of growth. There is insufficient timber suitable for underground mining on the claims.

Directions for road access to the property are as follow:

Between Little Shuswap and Shuswap lakes, leave B.C. Highway 1 and take the Squilax Road for about 3 km (1.8 mi) northward to near Adams River where the road divides. At the divide, turn to the right onto the Scotch Creek-Celista road and follow it for 10.4 km (6.3 mi) to the 670 (Scotch Creek Main) road. Leave the pavement by turning left onto the 670 road. At about 7.1 km (4.3 mi) up the 670 road turn left (north-westward) up the 671 road toward the high-voltage power line. The Scotch Creek property is crossed by the 671 road from about 6 to 13 km (3.7 to 7.9 mi) along it. Most of the property-area is accessible via a system of old logging roads that are in various conditions.

The village of Scotch Creek, located on the Scotch Creek-Celista road about 20 km from the claims, is the nearest supply and service center to the property. Services at Scotch Creek are sufficient to support surface exploration programs such as prospecting, mapping, or soil sampling. The town of Chase, located on B.C. Highway 1 about 50 km (30.5 mi) southwest of the property, hosts the nearest helicopter base and a rail yard where mineral products can be loaded for rail transport to a smelter. The city of Kamloops, located on B.C. Highway 1 about 99 km (60.4 mi) southwest of the property, is the nearest regional service and supply centre with services necessary to support a mining operation.

The Scotch Creek area experiences cold winters and hot, dry summers. Winter snow falls in the property area by late November and stays on the ground until April in open areas, and until June on shady slopes at higher elevations in the north-western part of the claim-area. Surface work can be conducted on the property from April to November during a normal year.

The current exploration targets on the property are on crown land with no special restrictions on development thereon (Table 4, Figures 2 and 3). Normally, upon development permitting, one is able to secure surface rights necessary to conduct a permitted mining operation. The author knows of no legal impediment to Zenith Exploration Inc. being able to secure such surface rights as part of the permitting process.

Two parallel, high-voltage power transmission lines cross the southeastern part of the property (Figure 3). A three-phase power transmission line services residences along Lee Creek Road, within 2.2 km (1.34 mi) of the southern boundary of the property. Adequate fresh water for a mining operation could be drawn by gravity from Corning (Lee) Creek from a location about 1.2 km (0.73 mi) northwest of the northwestern corner of the property (Figures 2 and 3).

Both the mining business and the pool of professionals and skilled tradesmen who serve it are international and mobile. The Adams Plateau area has already demonstrated that it was able to attract personnel to work at mines in the area. That area has sufficient amenities to attract the people needed to operate a new mine.

There is adequate, reasonably flat area appropriate for erecting an mill and developing a tailings pond on the MARION (604866) and MARION 2 (605310) claims in the central part of the property-area (Figure 2).

Item 6: HISTORY

Item 6.1 Chronology of Ownership and Exploration of Claims in the Scotch Creek Property-area

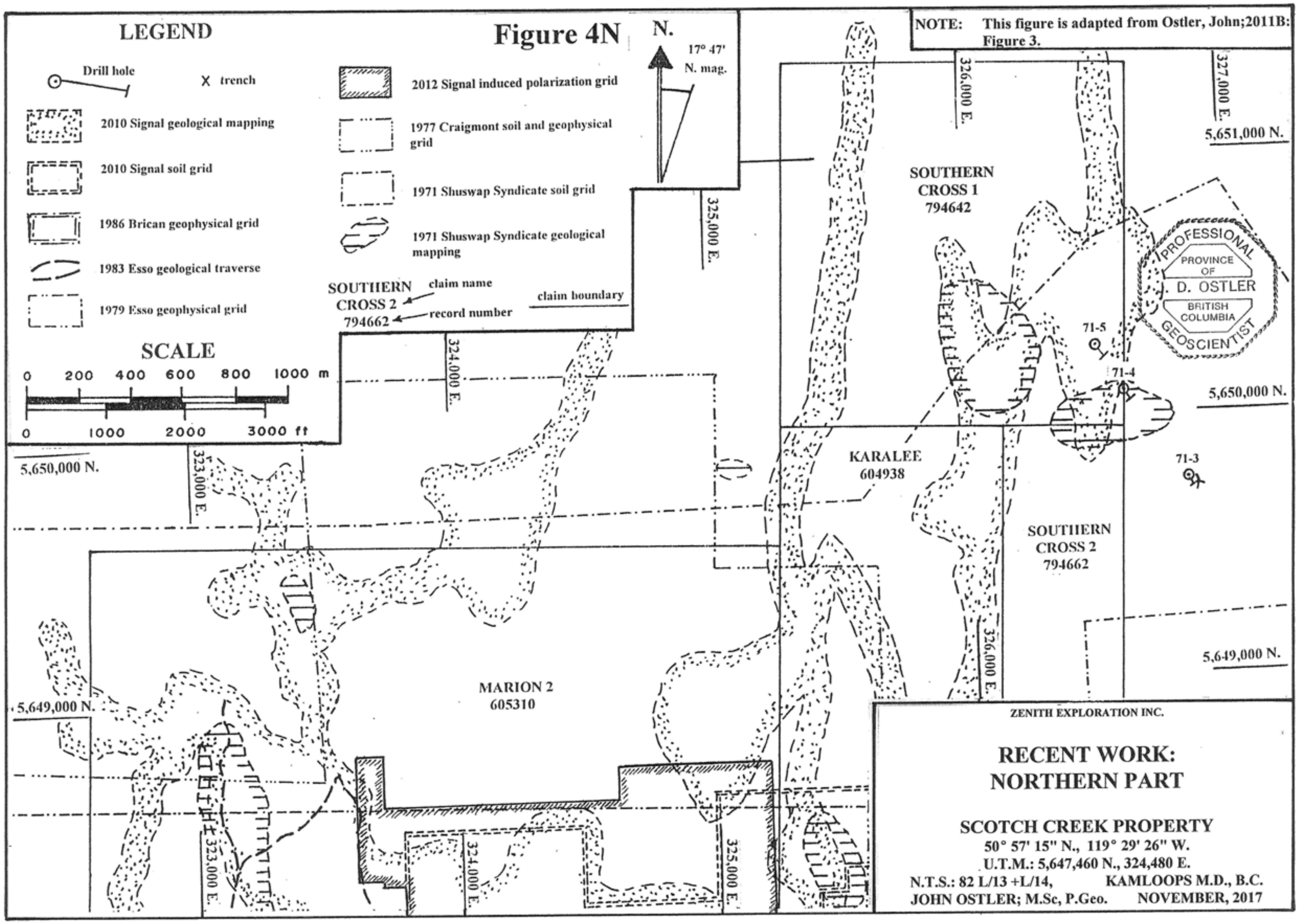
Pre-1927

During the 1920s, Adams Plateau became known for its numerous zinc-lead-silver showings. The area was intensively prospected.

At that time, a series of at least 10 hand-trenches were dug to explore disseminated and massive sulphide mineralization in chloritic felsic crystal tuff east and south of the horse logging camp on the central part of the current MARION (604866) claim (Figure 5C). It is assumed that all of the current property-area was prospected by the late 1920s.

During 2010, the author found a massive sulphide block weighing in excess of 90 kg (198 lb) close to the doorway of the ruined bunkhouse in the logging camp (Figure 5C). The block had not moved for several decades and was assumed to have been placed there about the time that the hand trenches were dug. The author broke it with a sledge and sampled it. A composite chip sample (S23-1) contained: 456 ppm copper, 0.545% lead, 178 ppm zinc, >1% arsenic, 47.6 gm/mt (1.39 oz/ton) silver, and 2.05 gm/mt (0.06 oz/ton) gold. The block was comprised of mostly pyrrhotite, arsenopyrite, pyrite, with minor amounts of sphalerite and galena.

1930 Several zinc-lead-silver occurrences had been discovered along Scotch Creek including the Iron Pot located on Acid (Ruby) Creek about 300 m (984.3 ft) east-southeast of the northeastern corner of the current SOUTHERN CROSS 2 (794662) claim (Figure 5E). By 1930, two short adits had been driven into mineralization at the showings area.


LEGEND
Drill hole
X trench
2010 Signal geological mapping
2010 Signal soil grid
1986 Brican geophysical grid
1983 Esso geological traverse
1979 Esso geophysical grid
2012 Signal induced polarization grid
1977 Craigmont soil and geophysical grid
1971 Shuswap Syndicate soil grid
1971 Shuswap Syndicate geological mapping
SOUTHERN CROSS 2 794662
claim name
record number
claim boundary
SCALE
0 200 400 600 800 1000 m
0 1000 2000 3000 ft
Figure 4N
N.
17° 47' N. mag.
NOTE: This figure is adapted from Ostler, John;2011B: Figure 3.
327,000 E.
326,000 E.
325,000 E.
324,000 E.
323,000 E.
5,651,000 N.
5,650,000 N.
5,649,000 N.
SOUTHERN CROSS 1 794642
SOUTHERN CROSS 2 794662
KARALEE 604938
MARION 2 605310
71-5
71-4
71-3
PROFESSIONAL
PROVINCE OF
D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
ZENITH EXPLORATION INC.
RECENT WORK: NORTHERN PART
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

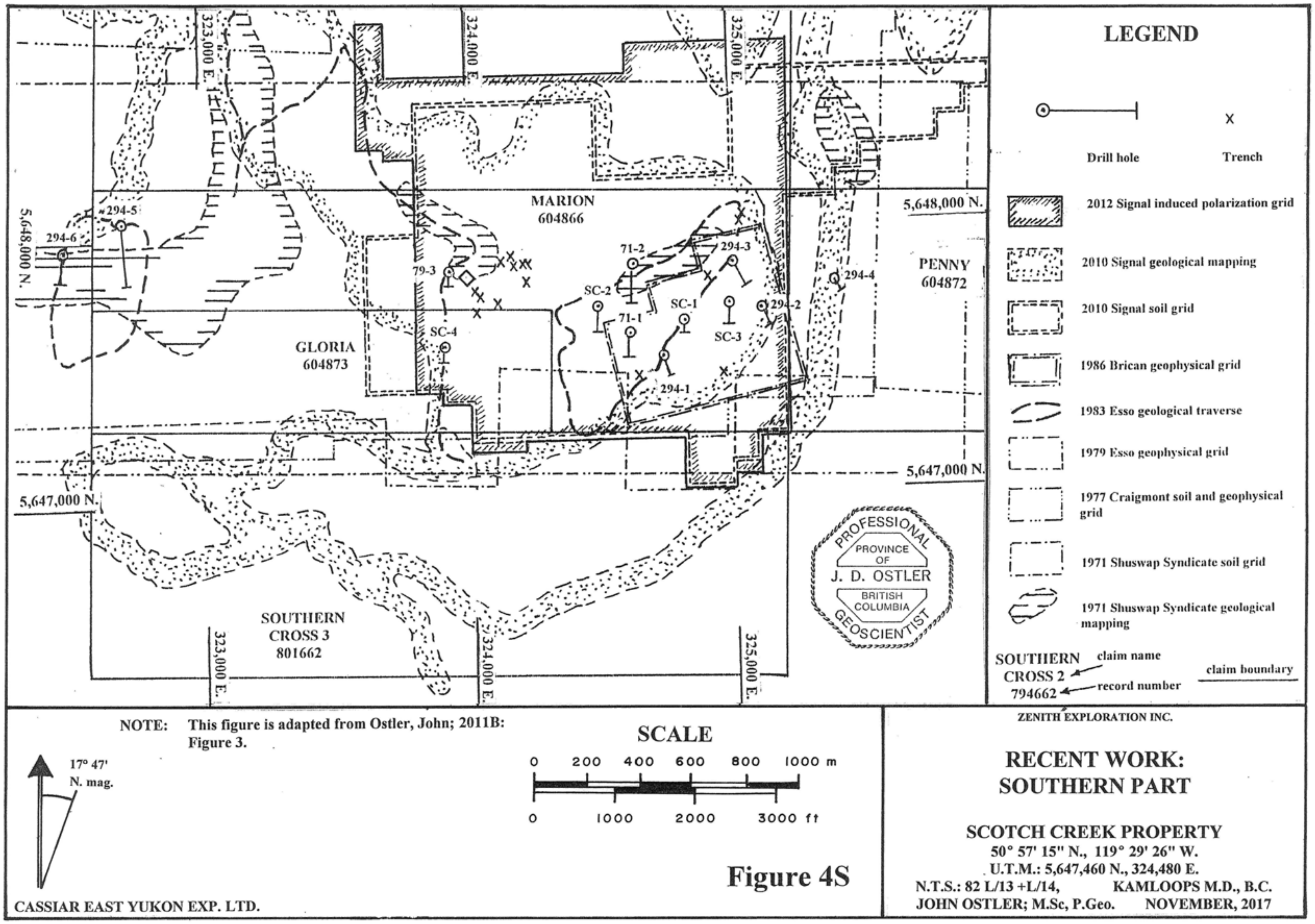

LEGEND
Drill hole
Trench
2012 Signal induced polarization grid
2010 Signal geological mapping
2010 Signal soil grid
1986 Brican geophysical grid
1983 Esso geological traverse
1979 Esso geophysical grid
1977 Craigmont soil and geophysical grid
1971 Shuswap Syndicate soil grid
1971 Shuswap Syndicate geological mapping
SOUTHERN CROSS 2 794662
claim name
record number
claim boundary
MARION 604866
GLORIA 604873
PENNY 604872
SOUTHERN CROSS 3 801662
5,648,000 N.
5,647,000 N.
323,000 E.
324,000 E.
325,000 E.
294-1
294-2
294-3
294-4
294-5
294-6
71-1
71-2
79-3
SC-1
SC-2
SC-3
SC-4
PROFESSIONAL
PROVINCE OF
J. D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
NOTE: This figure is adapted from Ostler, John; 2011B: Figure 3.
17° 47'
N. mag.
SCALE
0 200 400 600 800 1000 m
0 1000 2000 3000 ft
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
RECENT WORK: SOUTHERN PART
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

Figure 4S

1970 K.L. Daughtry (1986) reported upon the exploration activity in the current Scotch Creek property-area as follows:

> In 1970, during the course of a regional exploration project, strong geochemical anomalies in copper and zinc were detected in stream sediments on Corning and Nikwikwaia Creeks. Follow-up prospecting resulted in the discovery of massive and disseminated stratabound pyrrhotite-pyrite-chalcopyrite-sphalerite mineralization on Nikwikwaia, Corning and Acid Creeks. The most attractive mineralization found at this stage was a 1-ton (0.91 tonne) boulder of massive sulphide mineralization discovered on the east fork of Corning Creek (Table 4, Figure 5W). A grab sample of this boulder contained over 10% copper.
>
> Daughtry, K.L.; 1986: p. 4.

1970 to 1971

A total of 177 claims comprising the Nik, West, Corn, East, South, and Acid groups were recorded on maps produced by Derry, Michener, and Booth. That property covered a roughly rectangular area of about 32 km^2 (11.9 mi^2) which included most of the current Scotch Creek property-area..

1971 A reconnaissance grid comprising 66 km (41 mi) of line was flagged over a 28-km^2 (10.4-mi^2) area covering most of the 1971 claim group (Figures 4N and 4S). Soil and magnetometer surveys were conducted over most of the grid. Stratigraphic mapping traverses were made over a total of about 92 ha (227.2 A) around the headwaters of the eastern fork of Nikwikwaia Creek, on both forks of Corning Creek, along the ridge crest across the central part of the current property-area, and near the Acid Creek adits across the current SOUTHERN CROSS 1 (794642) claim.

Despite significant problems in that data (Item 12, this report), K.L. Daughtry (1986) reported the following results:

> ... This work indicated the presence of a 10,000-foot (3,048-m) long magnetically anomalous zone (on the current PENNY (604872), MARION (604866), and GLORIA (604873) claims) which was co-incident with anomalous copper and zinc values (concentrations) in soils. The magnetic anomaly appeared to lie parallel with the stratigraphy and was correlative with a sulphide-bearing sequence of phyllites...
>
> Daughtry, K.L.; 1986: p. 4-5.

Daughtry's magnetically anomalous zone was depicted on maps of the era to have been a single west-northwest trending zone that dipped gently to the north. Subsequent mapping has shown that to have been an erroneous oversimplification (Figures 5E, 5C, 5W, and 6).

From August 29 to September 29, 1971 Derry, Michener and Booth Ltd. conducted a drill program for the Shuswap Syndicate. A total of 622.4 m (2,042 ft) of BQ drilling was done.

Holes 71-1 and 71-2 were drilled in the eastern part of the current MARION (604866) claim (Table 5, Figures 4S and 5C). Holes 71-3 to 5 were drilled northwest of the Acid Creek adits and about 300 m (984.2 ft) east-southeast of the northeastern corner of the current SOUTHERN CROSS 2 (794662) claim (Table 5, Figures 4N and 5E).

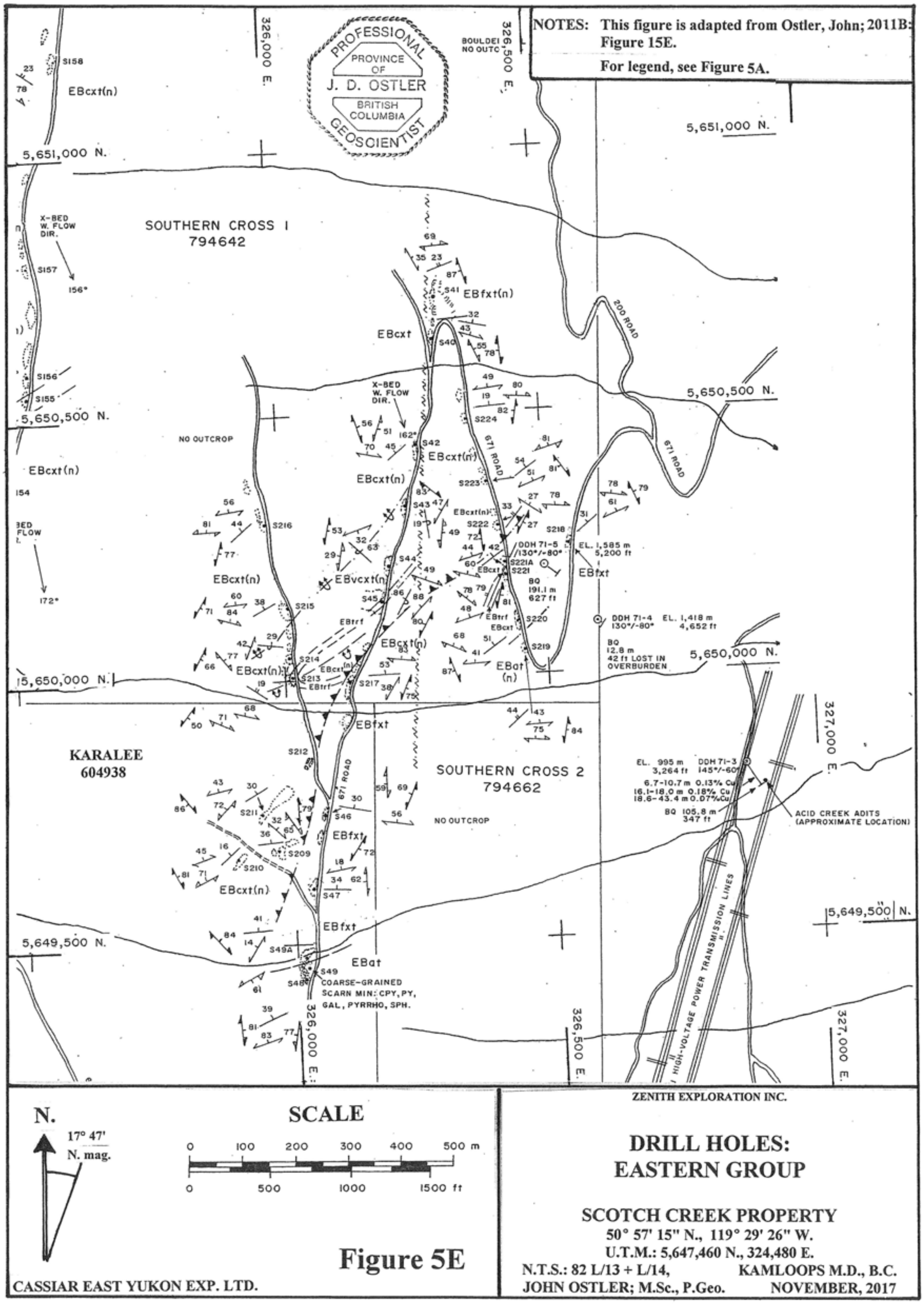
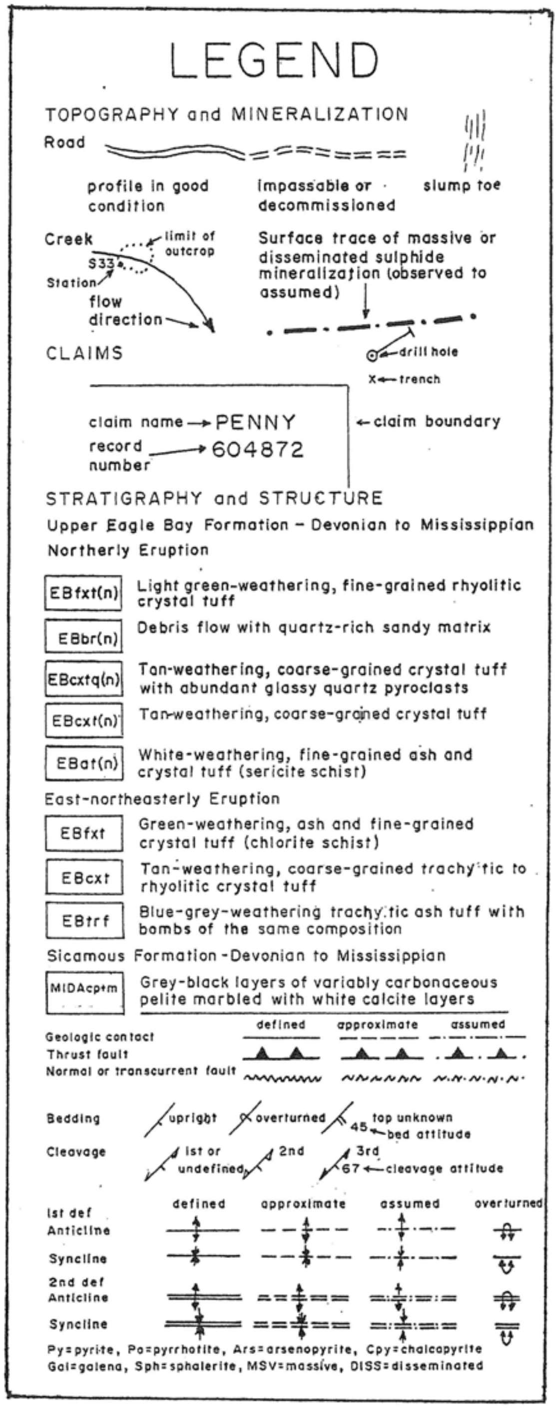

NOTES: This figure is adapted from Ostler, John; 2011B: Figure 15E.
For legend, see Figure 5A.
PROFESSIONAL
PROVINCE OF
J. D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
SOUTHERN CROSS 1
794642
SOUTHERN CROSS 2
794662
KARALEE
604938
5,651,000 N.
5,650,500 N.
5,650,000 N.
5,649,500 N.
326,000 E.
326,500 E.
327,000 E.
X-BED
W. FLOW
DIR.
NO OUTCROP
200 ROAD
671 ROAD
DDH 71-5
/130°/-80°
EL. 1,585 m
5,200 ft
BQ
191.1 m
627 ft
DDH 71-4
130°/-80°
EL. 1,418 m
4,652 ft
BQ
12.8 m
42 ft LOST IN
OVERBURDEN
EL. 995 m
3,264 ft
DDH 71-3
145°/-60°
6.7-10.7 m 0.13% Cu
16.1-18.0 m 0.18% Cu
18.6-43.4 m 0.07% Cu
BQ 105.8 m
347 ft
ACID CREEK ADITS
(APPROXIMATE LOCATION)
HIGH-VOLTAGE POWER TRANSMISSION LINES
COARSE-GRAINED
SCARN MIN: CPY, PY,
GAL, PYRRHO, SPH.
N.
17° 47'
N. mag.
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
DRILL HOLES:
EASTERN GROUP
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 + L/14,
KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo.
NOVEMBER, 2017

Figure 5E

Figure 5A

Legend to Figures 5E, 5C, and 5W



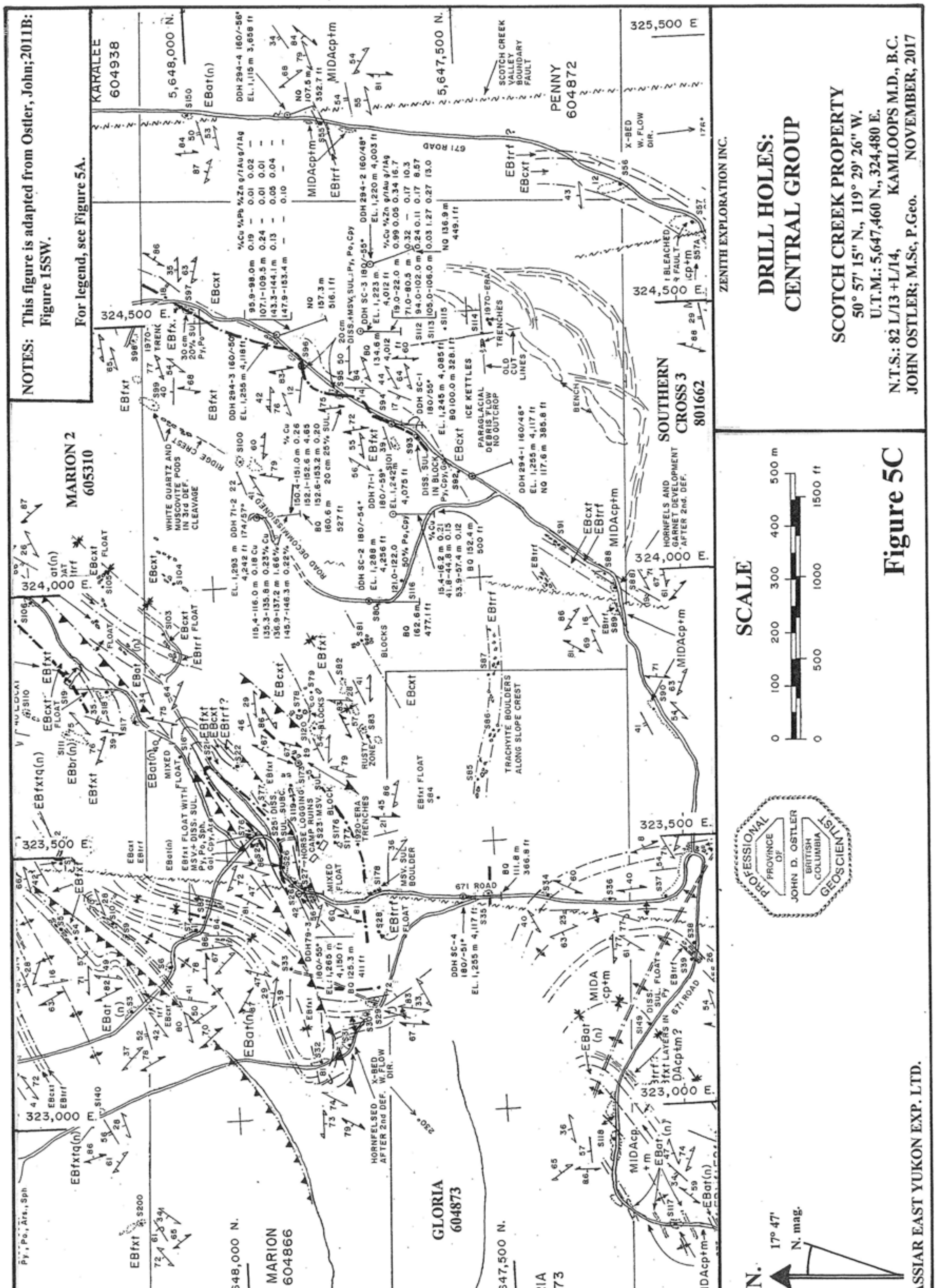
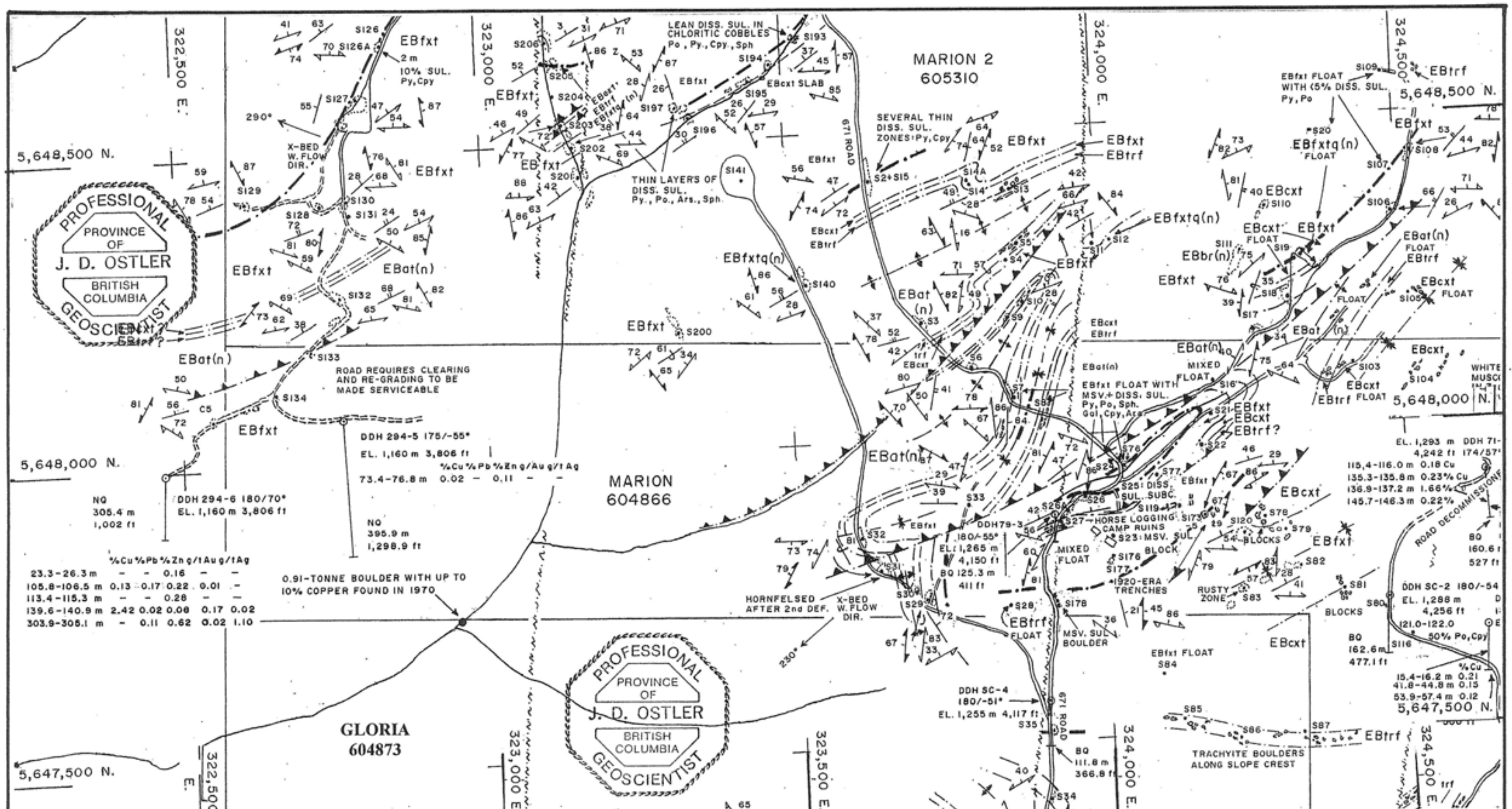

NOTES: This figure is adapted from Ostler, John; 2011B: Figure 15SW.
For legend, see Figure 5A.
MARION 2 605310
SOUTHERN CROSS 3 801662
KARALEE 604938
PENNY 604872
GLORIA 604873
MARION 604866
ZENITH EXPLORATION INC.
CASSIAR EAST YUKON EXP. LTD.
SCALE
DRILL HOLES: CENTRAL GROUP
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

Figure 5C



NOTES: This figure is adapted from Ostler, John; 2011B: Figure 15SW.

For legend, see Figure 5A.

N.
17° 47'
N. mag.

SCALE

0 100 200 300 400 500 m

0 500 1000 1500 ft

Figure 5W

CASSIAR EAST YUKON EXP. LTD.

ZENITH EXPLORATION INC.

DRILL HOLES: WESTERN GROUP

SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

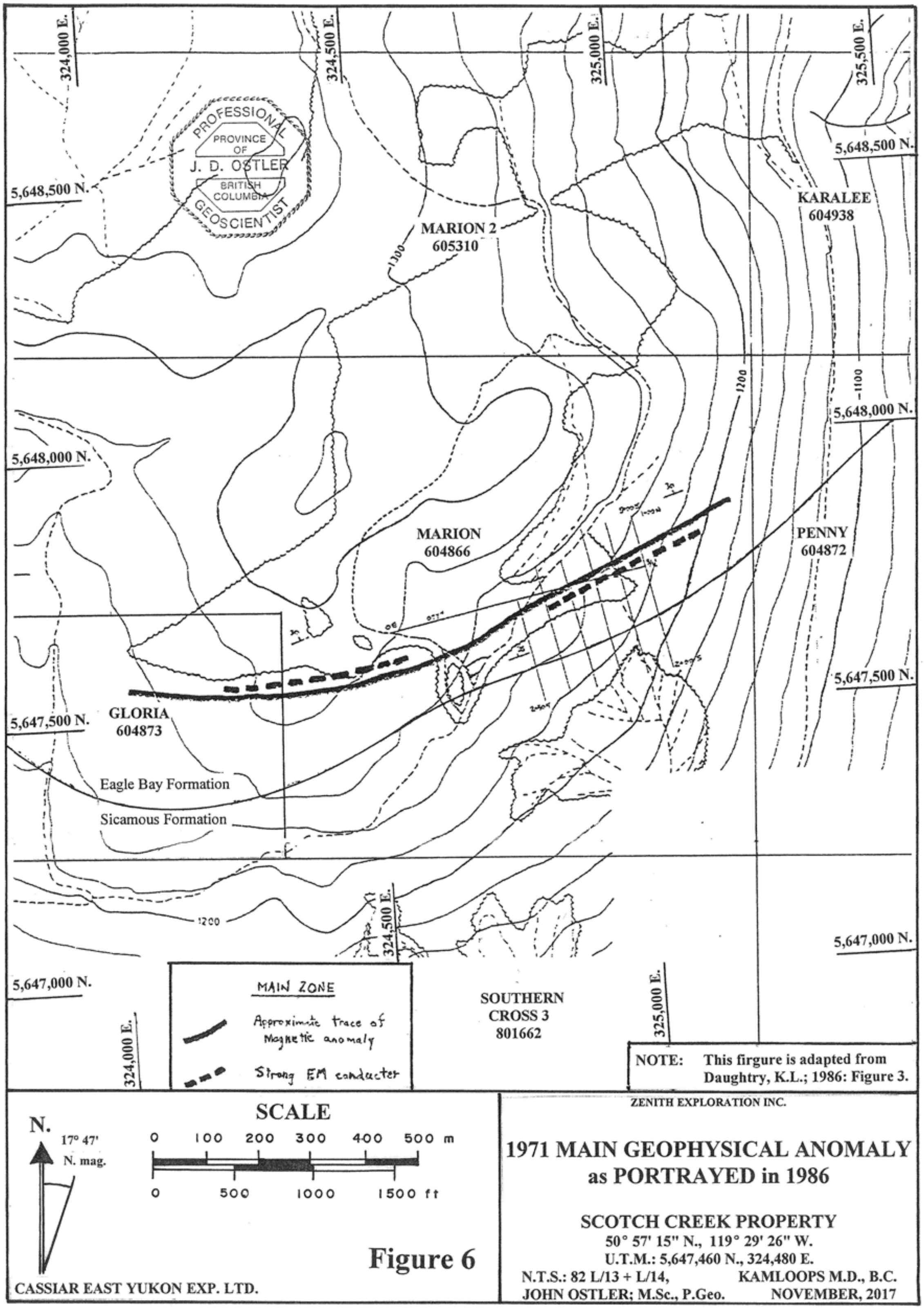

324,000 E.
324,500 E.
325,000 E.
325,500 E.
5,648,500 N.
5,648,000 N.
5,647,500 N.
5,647,000 N.
PROFESSIONAL
PROVINCE OF
J. D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
MARION 2
605310
KARALEE
604938
MARION
604866
PENNY
604872
GLORIA
604873
Eagle Bay Formation
Sicamous Formation
1300
1200
1100
MAIN ZONE
Approximate trace of Magnetic anomaly
Strong EM conducter
SOUTHERN CROSS 3
801662
NOTE: This firgure is adapted from Daughtry, K.L.; 1986: Figure 3.
N.
17° 47'
N. mag.
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
Figure 6
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
1971 MAIN GEOPHYSICAL ANOMALY
as PORTRAYED in 1986
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 + L/14,
KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo.
NOVEMBER, 2017

Table 5
Significant Drill Intersections

Drill Hole No. and U.T.M. Location	On Current Claim	Orientation	Elevation m ft	Length m ft	Interval m ft	Cu %	Pb %	Zn %	Au gm/mt oz/t	Ag gm/mt oz/t
71-1 5,647,652 N., 324,625 E.	MARION 604866	180/-59°	1,242 4,074.8	152.4 500.0	15.4-16.2 51.0-53.0 41.8-44.8 137.0-147.0 53.9-57.4 177.0-178.0	0.21 0.15 0.12	? ? ?	? ? ?	Trace Trace Trace	2.40 0.07 Trace Trace
71-2 5,647,910 N., 324,630 E.	MARION 604866	174/-57°	1,293 4,242.1	160.6 527	115.4-116.0 378.5-380.5 135.3-135.8 444.0-445.5 136.9-137.2 449.0-450.0 145.7-146.3 478.0-480.0 150.4-151.0 493.5-495.5 152.1-152.6 499.0-500.5 152.6-153.2 500.5-502.5	0.18 0.23 1.66 0.22 0.26 4.65 0.20	? ? ? ? ? ? ?	? ? ? ? ? ? ?	Trace 0.17 0.005 0.34 0.010 0.34 0.010 Trace 1.37 0.04 Trace	Trace 2.06 0.06 6.86 0.20 1.37 0.04 Trace 16.5 0.48 Trace
71-3 5,649,812 N., 326,865 E.	312 m (1,023.6 ft) east of property	145/63°	995 3,264.4	105.8 347.0	18.6-20.4 61.0-67.0 20.4-21.3 67.0-70.0 21.6-23.2 71.0-76.0 24.7-26.2 81.0-86.0 26.2-27.7 86.0-91.0 29.1-31.2 95.5-102.5 40.1-40.7 131.5-133.5	0.12 0.14 0.13 0.14 0.10 0.22 0.13	? ? ? ? ? ? ?	? ? ? ? ? ? ?	0.17 0.005 Trace Trace Trace Trace Trace Trace	1.37 0.04 1.03 0.03 1.03 0.03 0.69 0.02 0.69 0.02 0.69 0.02 1.37 0.04
71-4 5,650,090 N., 326,595 E.	SOUTHERN CROSS 1 794642	130/-60°	1,418 4,652.2	12.8 42.0	lost in overburden at 12.8 42.0					
71-5 5,650,205 N., 326,500 E.	SOUTHERN CROSS 1 794642	130/-80°	1,585 5,200.1	191.1 627	No significant intersections					
SC-1 5,647,650 N., 324,795 E.	MARION 604866	180/-55°	1,245 4,084.6	100.0 328.1	No significant intersections					
SC-2 5,647,705 N, 324,464 E	MARION 604866	180/-54°	1,288 4,225.7	162.6 477.1	121.0-122.0 397.0-400.3 50% po, cpy				metal content unknown	
SC-3 5,647,695 N., 324,970 E.	MARION 604866	180/-55°	1,223 4,012.5	134.6 441.6	19.0-22.0 62.3-72.2 71.0-80.5 232.9-264.1 94.0-102.0 308.4-334.6 105.0-106.0 344.5-347.8	0.99 0.32 0.24 0.03	Trace Trace Trace Trace	0.05 Trace 0.11 1.27	0.34 0.010 0.17 0.005 0.17 0.005 0.27 0.008	16.1 .0.47 10.3 0.30 8.57 0.25 13.0 0.38

NOTES: Significant intersections are defined as those containing more than 0.1% copper, lead, or zinc.
Po = pyrrhotite, Py = pyrite, Cpy = chalcopyrite, Gal = galena, sph = sphalerite, ars = arsenopyrite

Table 5 Continued
Significant Drill Intersections

Drill Hole No. and U.T.M. Location	On Current Claim	Orientation	Elevation m ft	Length m ft	Interval m ft	Cu %	Pb %	Zn %	Au gm/mt oz/t	Ag gm/mt oz/t
SC-4 5,647,440 N., 323,895 E.	GLORIA 604873	180/-51°	1,255 4,117.4	111.8 366.8	No significant intersections					
79-3 5,647,868 N., 323,933 E.	MARION 604866	180/-55°	1,265 4,150.0	125.3 411.1	No significant intersections					
294-1 5,647,502 N., 324,693 E.	MARION 604866	160/-46°	1,255 4,117.4	117.6 385.8	No significant intersections					
294-2 5,647,670 N., 325,095 E.	MARION 604866	160/-48°	1,220 4,002.6	136.9 449.1	No significant intersections					
294-3 5,647,860 N., 324,970 E.	MARION 604866	160/-50°	1,255 4,117.5	157.3 516.1	95.9-98.0 314.6-321.5 107.1-109.5 351.4-359.3 143.3-144.1 470.1-472.8 147.9-153.4 485.2-503.3	0.19 0.24 0.13 Trace	Trace Trace Trace Trace	0.01 0.01 0.05 0.10	0.02 0.001 0.01 <0.001 0.04 0.001 Trace	Trace Trace Trace Trace
294-4 5,647,810 N., 325,380 E.	PENNY 604872	160/-56°	1,115 3,658.1	107.5 352.7	No significant intersections					
294-5 5,648,074 N., 322,765 E.	MARION 604866	175/-55°	1,160 3,805.8	395.9 1,298.9	73.4-76.8 240.8-252.0	0.02	Trace	0.11	Trace	Trace
294-6 5,647,995 N., 322,469 E.	98 m (321.5 ft) west of property	180/-70°	1,160 3,805.8	305.4 1,002.0	23.3-26.3 76.4-86.3 105.8-106.5 347.1-349.4 113.4-115.3 372.1-378.3 139.6-140.9 458.0-462.3 303.9-305.1 997.1-1001.0	Trace 0.13 Trace 2.42 Trace	Trace 0.17 Trace 0.02 0.11	0.16 0.22 0.28 0.08 0.62	Trace 0.11 0.003 Trace 0.17 0.005 0.02 0.001	Trace Trace Trace 0.02 0.001 1.10 0.032

NOTES: Significant intersections are defined as those containing more than 0.1% copper, lead, or zinc.
Po = pyrrhotite, Py = pyrite, Cpy = chalcopyrite, Gal = galena, sph = sphalerite, ars = arsenopyrite

1976 In May, 1976, K.L. Daughtry staked the SCOTCH (371) claim comprising 15 units covering 375 ha (926.3 A) to cover the main 1971 geophysical anomaly (Figure 6). He sold the claim to Brican Resources Ltd., through a non-arms-length transaction. Brican optioned it to Craigmont Mines Ltd. K.L. Daughtry and A. Wynne (1987) reported that an additional 6 claims comprising 104 claim units, the SC1 to SC6, covering 2,600 ha (6,422 A), had been staked during 1976. Craigmont commissioned an airborne DIGHEM survey of an extensive area that included the 1976-era SC claim group (Fraser, 1976) (not available).

1977 A grid comprising 48 km (29.3 mi) of line and covering 9.4 km^2 (3.5 mi^2) was cut in an area that covered most of the current Scotch Creek property (Figures 4N and 4S). K.L. Daughtry and A. Wynne (1987) reported that soil geochemical, magnetometer and very low frequency electromagnetic surveys were conducted over the whole grid area. Only the results of the soil survey were filed for assessment credit by N.B. Vollo (1977B). Although soil results indicated a complex underlying stratigraphy, the Craigmont management clung to the previous opinion that structure was simple and the rocks underlying the property area formed a single westward striking, shallowly northward dipping assemblage (Figure 6).

From May 16 to June 10, Craigmont conducted a diamond drill program of 509 m (1,669.9 ft) of BQ core drilled in four holes. Holes SC-1 and SC-2 were drilled north of the road that extends along the slope crest in the eastern part of the current MARION (604866) claim. They flanked the Shuswap Syndicate's holes 71-1 and 71-2 on the east and west respectively. Drill hole SC-3 was drilled down hill from the road at a location about 190 m (623.4 ft) east-northeast of hole SC-1. Drill hole SC-3 penetrated the most intense part of the 1971 geophysical anomaly. Drill hole SC-4 was drilled beneath the 671 road in the eastern part of the current GLORIA (604873) claim. SC-4 tested what was perceived to be the western extension of a single east-west trending anomaly (Daughtry and Wynne, 1987) (Figure 6). In his unpublished notes on drilling, K.L. Daughtry wrote that hole SC-1 intersected minor sulphides in concentrations up to 5% pyrrhotite, pyrite, chalcopyrite, and sphalerite. He noted that SC-2 intersected 1 m (3.3 ft) of massive pyrrhotite and chalcopyrite. Such an intersection was recorded from 121 to 122 m (397.0 to 400.3 ft) in the SC-2 drill log. Drill hole SC-3 was the most successful hole of the 1977 program. It intersected four significantly mineralized zones including 3 m (9.8 ft) from 19 to 22 m (62.3-72.2 ft) containing: 0.99% copper, 0.05% zinc, 16.1 gm/mt (0.47 oz/ton) silver, and 0.34 gm/mt (0.01 oz/ton) gold. Farther down that hole, two other long intersections containing 0.32% and 0.24% copper respectively were reported in the SC-3 drill log (Table 5). Hole SC-4 intersected only weak mineralization. Variability in the intensity of mineralization was attributed to variable mineralization along a single horizon. Still no structural geology had been mapped in the property-area.

1978 The SC-1 to SC-6 claims were allowed to lapse. The SCOTCH 2 (1587) claim of 18 claim units covering 450 ha (1,080 A) was staked adjacent to the western boundary of the SCOTCH (371) claim. The renewed 2-claim property covered a total of 825 ha (2,037.5 A).

1979 Activity in the current Scotch Creek property-area in 1979 was described as follows:

> Esso Resources Canada Ltd. optioned the SCOTCH property from Brican in March, 1979 and conducted further ground magnetometer and electromagnetic Max Min (horizontal loop) surveys. This work confirmed the presence of strong magnetic anomalies with significant apparent displacement from the location defined by Craigmont. One short hole was drilled by Esso to test one of the conductors. This hole intersected both sulphide mineralization and graphitic schist.
>
> Daughtry, K.L and Wynne A.; 1987: p. 6.

1979 Continued

A grid comprising 42.3 km (25.8 mi) of line and covering an area of 7.8 km^2 (2.98 mi^2) was cut for Esso by Scope Exploration Services (Figure 4S). The eastern and central parts of the 1979 grid covered the southern and central parts of the current Scotch Creek property. MAX-MIN horizontal-loop, electromagnetic, and ground magnetic surveys were conducted. Readings were taken at very closely spaced stations along widely spaced lines Lloyd Wilson (1979) (Figure 7) succumbed to the temptation to extrapolate the along-line detail across unknown areas between the widely spaced lines. That resulted in anomalies having been stretched out in an east-west direction which helped to substantiate the opinion that the rocks were lying in a single simple structure. Wilson described the results of those surveys as inconclusive.

Esso Resources Canada Limited drilled DDH 79-3 at west side of the 671 road in the central part of the MARION (604866) claim (Table 5, Figure 5C). The hole tested a short electromagnetic conductor that was identified by the 1979 survey. Several thin and lean sulphide-bearing zones were penetrated in tuffaceous volcanic rocks above a graphitic sedimentary layer encountered at the bottom of the hole (Stewart, 1979).

1983 Esso Resources Canada Limited commissioned J.M. Marr (1984) to conduct a program of reconnaissance mapping, silt and rock-chip sampling across the 1979 Esso grid which extended from the eastern part of the current MARION (604866) claim-area westward to the main branch of Corning Creek. The eastern two/thirds of that program was conducted in the area of the current Scotch Creek property (Figures 4N and 4S). Little outcrop was examined and no significant structural interpretation was attempted.

1984 The SCOTCH 2 (1587) claim was allowed to lapse, reducing the property to the original SCOTCH (371) claim. Subsequently, Esso Resources terminated its option to acquire the SCOTCH property.

1986 Brican Resources Ltd. cut a grid over the most intense part of the 1971 geophysical anomaly in the area surrounding the location of drill hole SC-3 in the eastern part of the current MARION (604866) claim (Figures 4S and 6). The grid comprised 4.2 km (2.56 mi) (Daughtry and Wynne, 1987). Ground magnetic survey and a MAX-MIN horizontal-loop, electromagnetic survey were conducted (Figures 8 and 9). A gravity survey conducted by MWH Geophysics Ltd. of Sydney, B.C. along line 4 + 00 E, resulted in the production of a single gravity profile (Figure 10).

1987 During June, 1987, the area west of the SCOTCH (371) claim that was covered by the SCOTCH 2 (1587) claim during the early 1980s was re-staked as the 18-unit SCOTCH 2 (7097) claim. The property was returned to its pre-1985 size of 825 ha (2,037.5 A).

1988 From January 23 to February 25, 1988, Brican Resources Ltd. conducted a program that resulted in the drilling of a total of 1,220.4 m (4,003.9 ft) of NQ core in 6 holes.

Drill holes 294-1 to 294-3 were drilled into the 1986 Brican grid-area in the eastern part of the current MARION (604866) claim (Table 5, Figure 4S and 5C). Drill hole 294-1 tested the western extension of the area of the most intense anomalies in the 1986 grid-area. Drill hole 294-3 was located on the road along the ridge crest in the northeastern part of the 1986 Brican grid. It tested an northeastward strike extension of the mineralized rock intersected in hole SC-3 that was drilled in 1977. Hole 294-3 had four significantly mineralized intersections the best of which was crossed from 107.1 to 109.5 m (351.4 to 359.2 ft) and contained: 0.24% copper, 0.01% zinc, and traces of lead, gold and silver (Kyba, 1988).

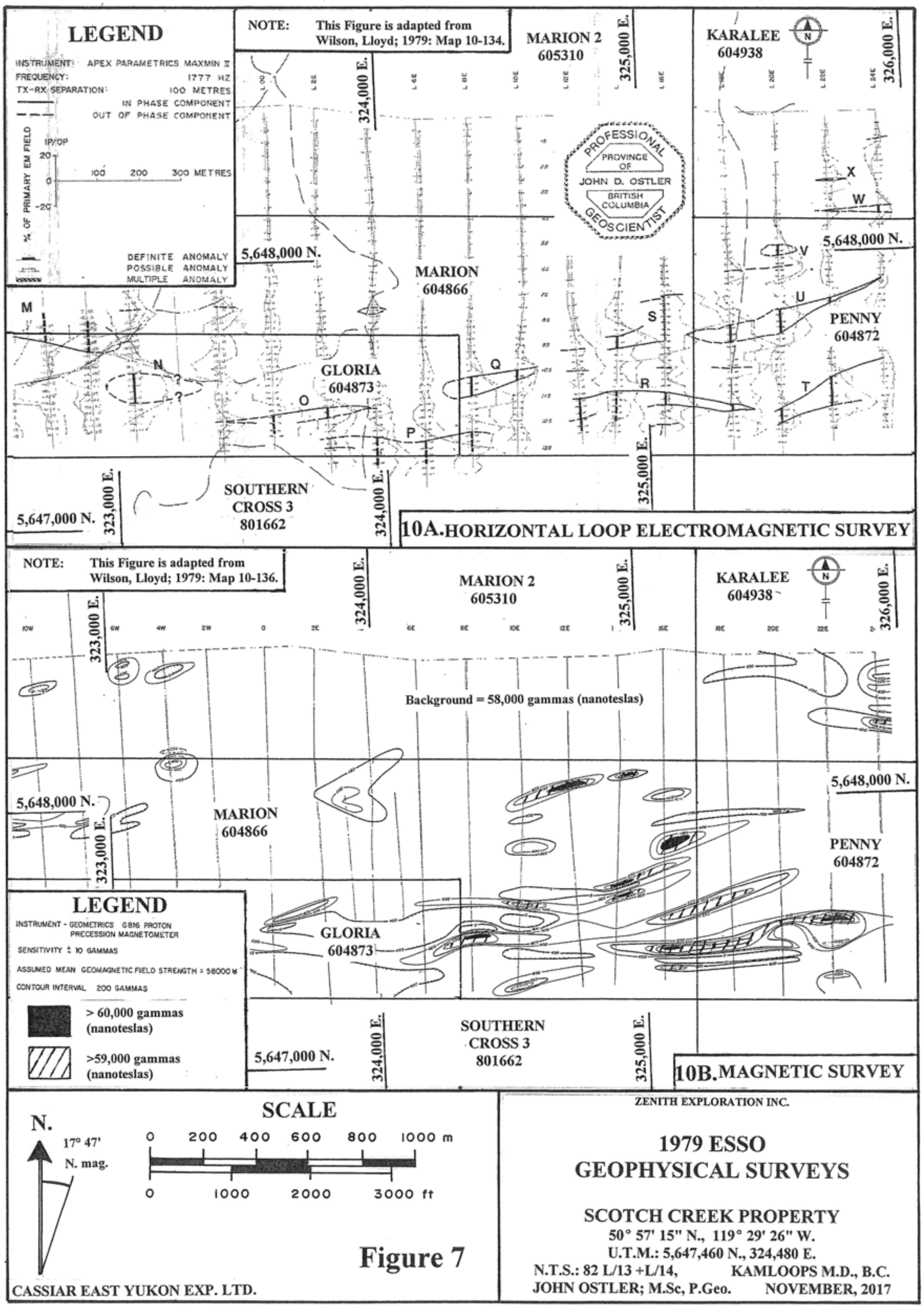

LEGEND
INSTRUMENT: APEX PARAMETRICS MAXMIN II
FREQUENCY: 1777 HZ
TX-RX SEPARATION: 100 METRES
IN PHASE COMPONENT
OUT OF PHASE COMPONENT
% OF PRIMARY EM FIELD
IP/OP
100 200 300 METRES
DEFINITE ANOMALY
POSSIBLE ANOMALY
MULTIPLE ANOMALY
NOTE: This Figure is adapted from Wilson, Lloyd; 1979: Map 10-134.
MARION 2
605310
KARALEE
604938
324,000 E.
325,000 E.
326,000 E.
5,648,000 N.
MARION
604866
GLORIA
604873
PENNY
604872
SOUTHERN CROSS 3
801662
5,647,000 N.
323,000 E.
PROFESSIONAL
PROVINCE OF
JOHN D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
M
N
O
P
Q
R
S
T
U
V
W
X
10A.HORIZONTAL LOOP ELECTROMAGNETIC SURVEY
NOTE: This Figure is adapted from Wilson, Lloyd; 1979: Map 10-136.
Background = 58,000 gammas (nanoteslas)
LEGEND
INSTRUMENT - GEOMETRICS G816 PROTON PRECESSION MAGNETOMETER
SENSITIVITY ± 10 GAMMAS
ASSUMED MEAN GEOMAGNETIC FIELD STRENGTH = 58000 γ
CONTOUR INTERVAL 200 GAMMAS
> 60,000 gammas (nanoteslas)
>59,000 gammas (nanoteslas)
10B.MAGNETIC SURVEY
SCALE
0 200 400 600 800 1000 m
0 1000 2000 3000 ft
N.
17° 47' N. mag.
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
1979 ESSO
GEOPHYSICAL SURVEYS
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

Figure 7

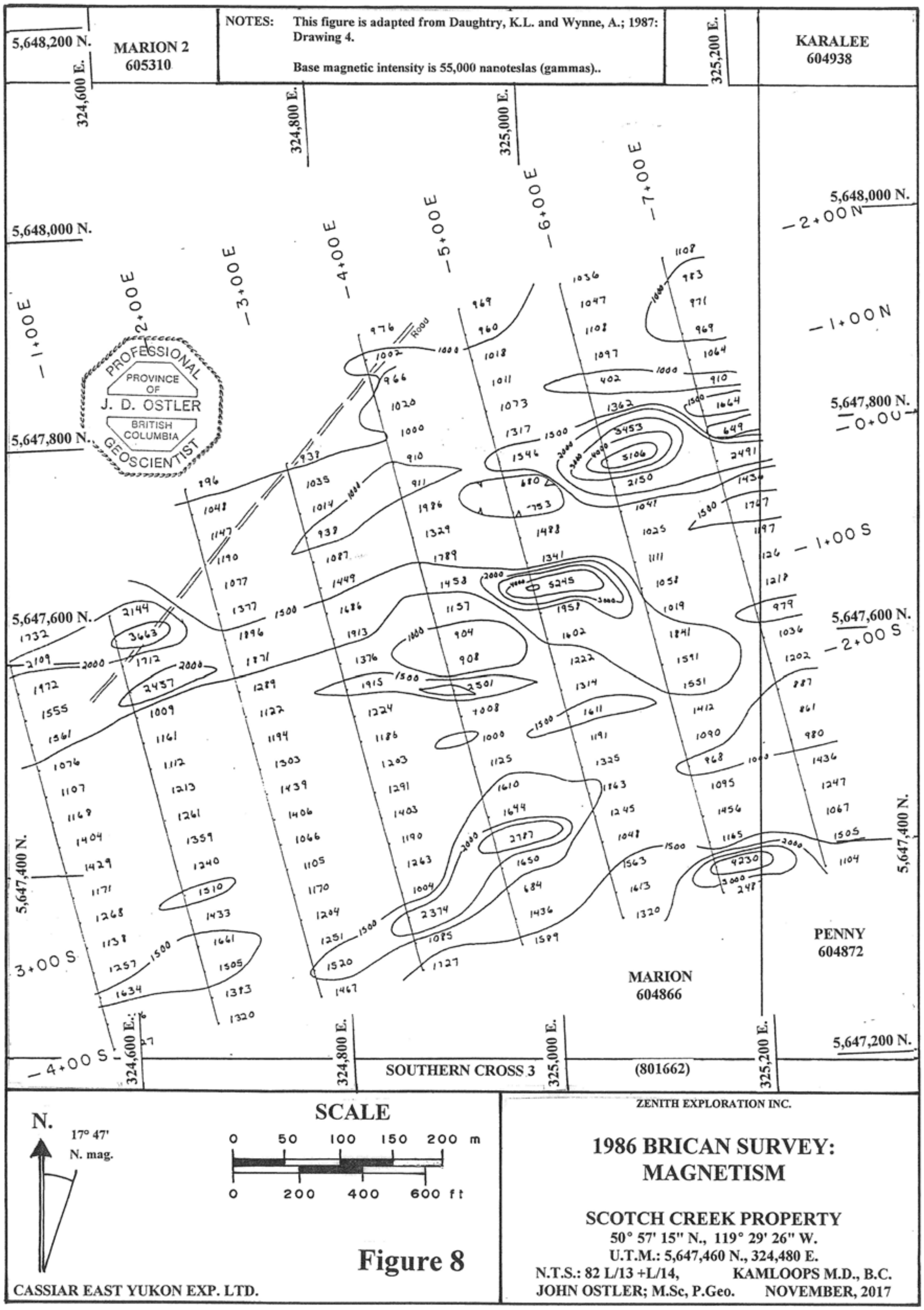
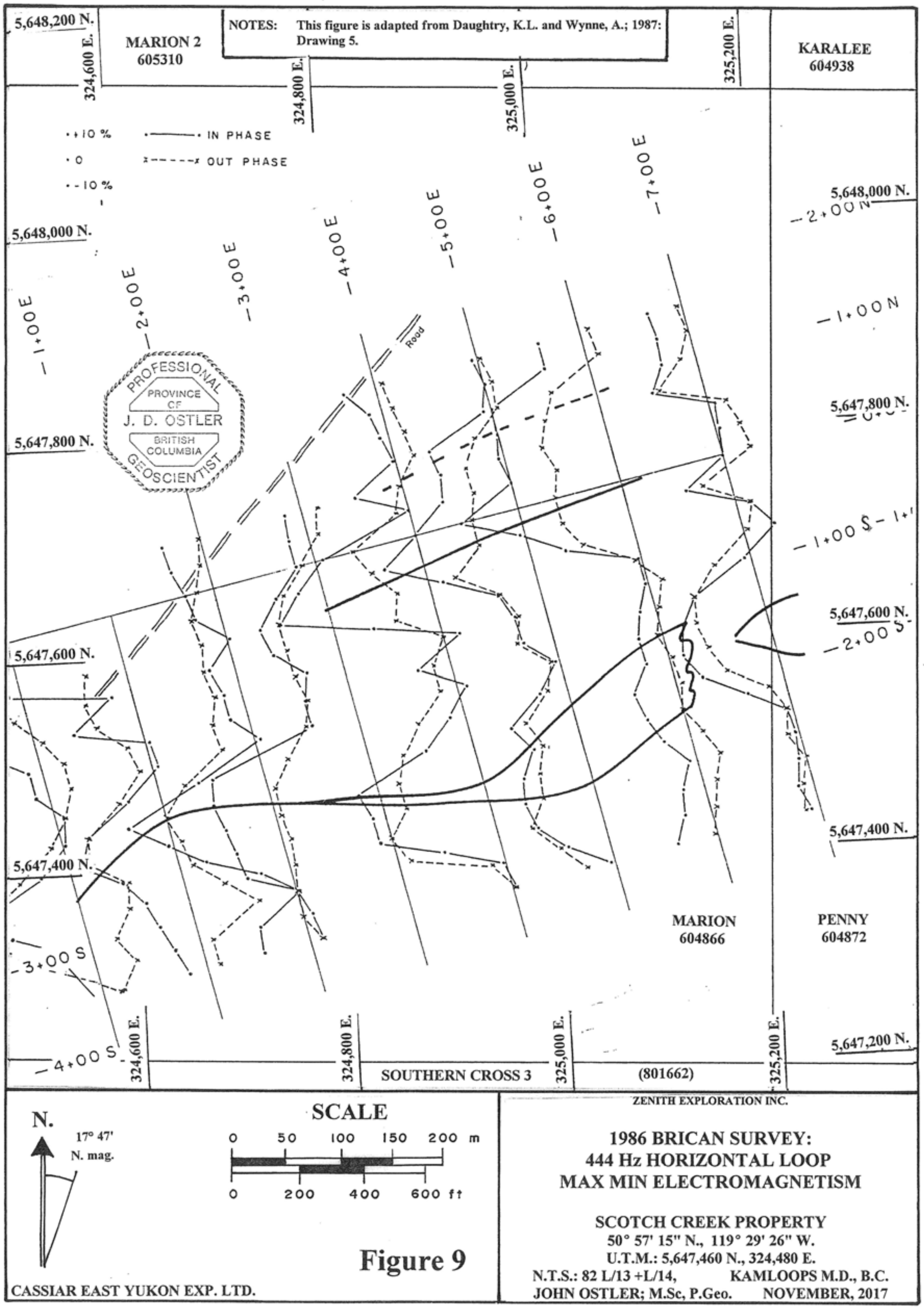
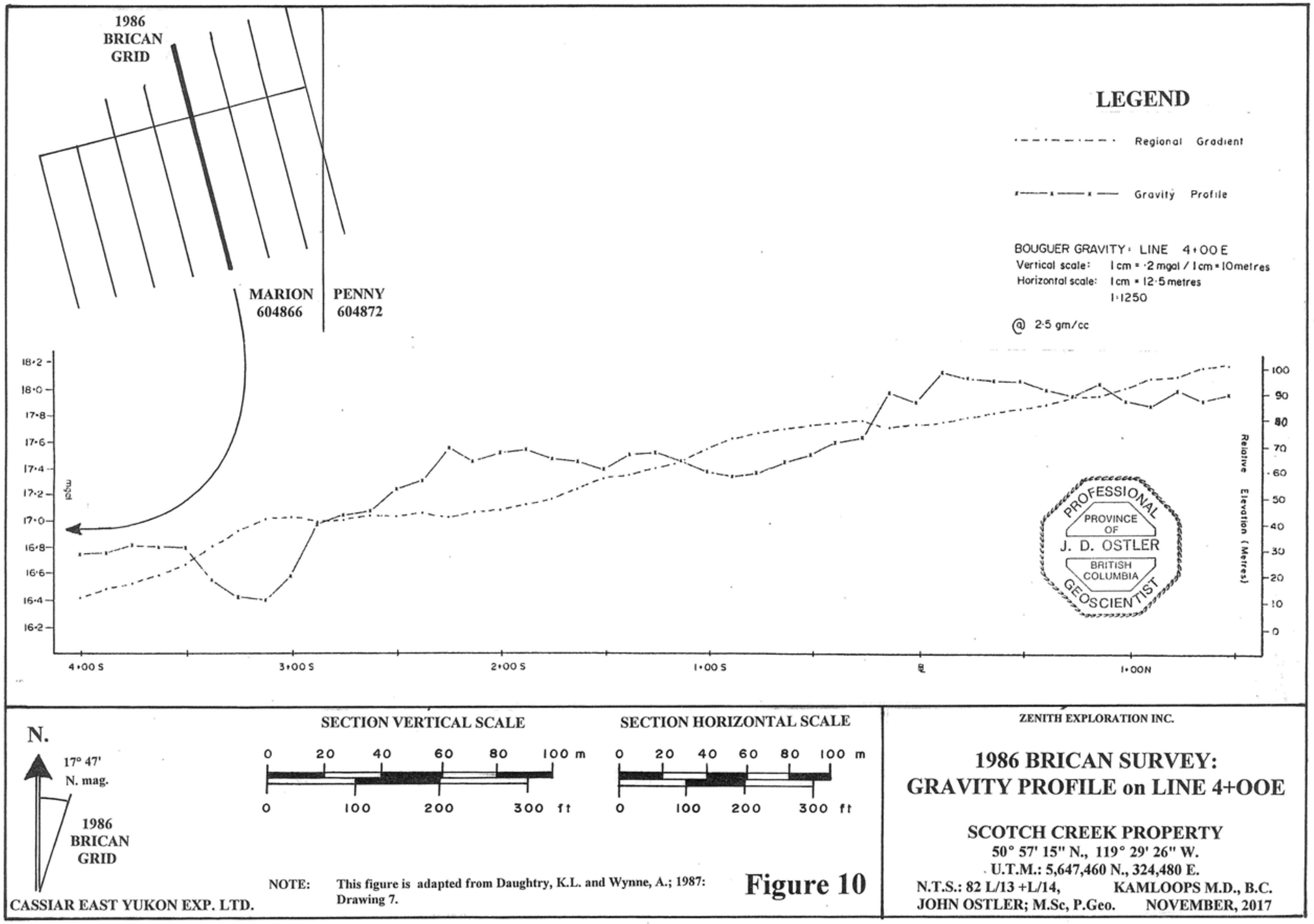

NOTES: This figure is adapted from Daughtry, K.L. and Wynne, A.; 1987: Drawing 4.
Base magnetic intensity is 55,000 nanoteslas (gammas)..
MARION 2
605310
KARALEE
604938
PENNY
604872
MARION
604866
SOUTHERN CROSS 3
(801662)
5,648,200 N.
5,648,000 N.
5,647,800 N.
5,647,600 N.
5,647,400 N.
5,647,200 N.
324,600 E.
324,800 E.
325,000 E.
325,200 E.
PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
J. D. OSTLER
SCALE
0 50 100 150 200 m
0 200 400 600 ft
N.
17° 47'
N. mag.
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
1986 BRICAN SURVEY:
MAGNETISM
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

Figure 8


5,648,200 N.
MARION 2
605310
324,600 E.
NOTES: This figure is adapted from Daughtry, K.L. and Wynne, A.; 1987: Drawing 5.
324,800 E.
325,000 E.
325,200 E.
KARALEE
604938
+10 %
0
-10 %
IN PHASE
OUT PHASE
5,648,000 N.
1+00 E
2+00 E
3+00 E
4+00 E
5+00 E
6+00 E
7+00 E
2+00 N
1+00 N
Road
PROFESSIONAL
PROVINCE OF
J. D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
5,647,800 N.
1+00 S
5,647,600 N.
2+00 S
5,647,400 N.
3+00 S
MARION
604866
PENNY
604872
4+00 S
5,647,200 N.
SOUTHERN CROSS 3
(801662)
N.
17° 47'
N. mag.
SCALE
0 50 100 150 200 m
0 200 400 600 ft
Figure 9
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
1986 BRICAN SURVEY:
444 Hz HORIZONTAL LOOP
MAX MIN ELECTROMAGNETISM
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017


1986
BRICAN
GRID
MARION
604866
PENNY
604872
LEGEND
Regional Gradient
Gravity Profile
BOUGUER GRAVITY: LINE 4+00E
Vertical scale: 1cm = ·2 mgal / 1cm = 10metres
Horizontal scale: 1cm = 12·5 metres
1:1250
@ 2·5 gm/cc
mgal
Relative Elevation (Metres)
PROFESSIONAL
PROVINCE OF
J. D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
N.
17° 47'
N. mag.
1986
BRICAN
GRID
CASSIAR EAST YUKON EXP. LTD.
SECTION VERTICAL SCALE
SECTION HORIZONTAL SCALE
NOTE: This figure is adapted from Daughtry, K.L. and Wynne, A.; 1987: Drawing 7.
Figure 10
ZENITH EXPLORATION INC.
1986 BRICAN SURVEY:
GRAVITY PROFILE on LINE 4+OOE
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

2009 Joseph T. Lawrence and his son Bruce M. Squinas map-staked the MARION (604866), PENNY (604872), GLORIA (604873), KARALEE (604938), and MARION 2 (605310) claims from May 22 to June 2. Those claims formed the core of the current Scotch Creek property. That summer, the claims were presented to the author by the prospectors for initial examination. Upon review, the author determined that geological input into previous exploration had been minimal. Previous operators had lacked sufficient understanding of the stratigraphy and rock structure that determined the location and orientation of mineralization. Consequently, previous exploration results were sporadic. The author concluded that the property hosted significant untested merit; he presented it to several clients. Response was minimal until the 2009 international financial crisis passed.

2010 On February 23, Barry Hartley secured an option from Joseph Lawrence and Bruce Squinas to acquire 100% ownership of the Scotch Creek property for a total of $12,342. Hartley exercised the option and the MARION (604866), PENNY (604872), GLORIA (604873), KARALEE (604938), and MARION 2 (605310) claims were transferred to him on July 20.

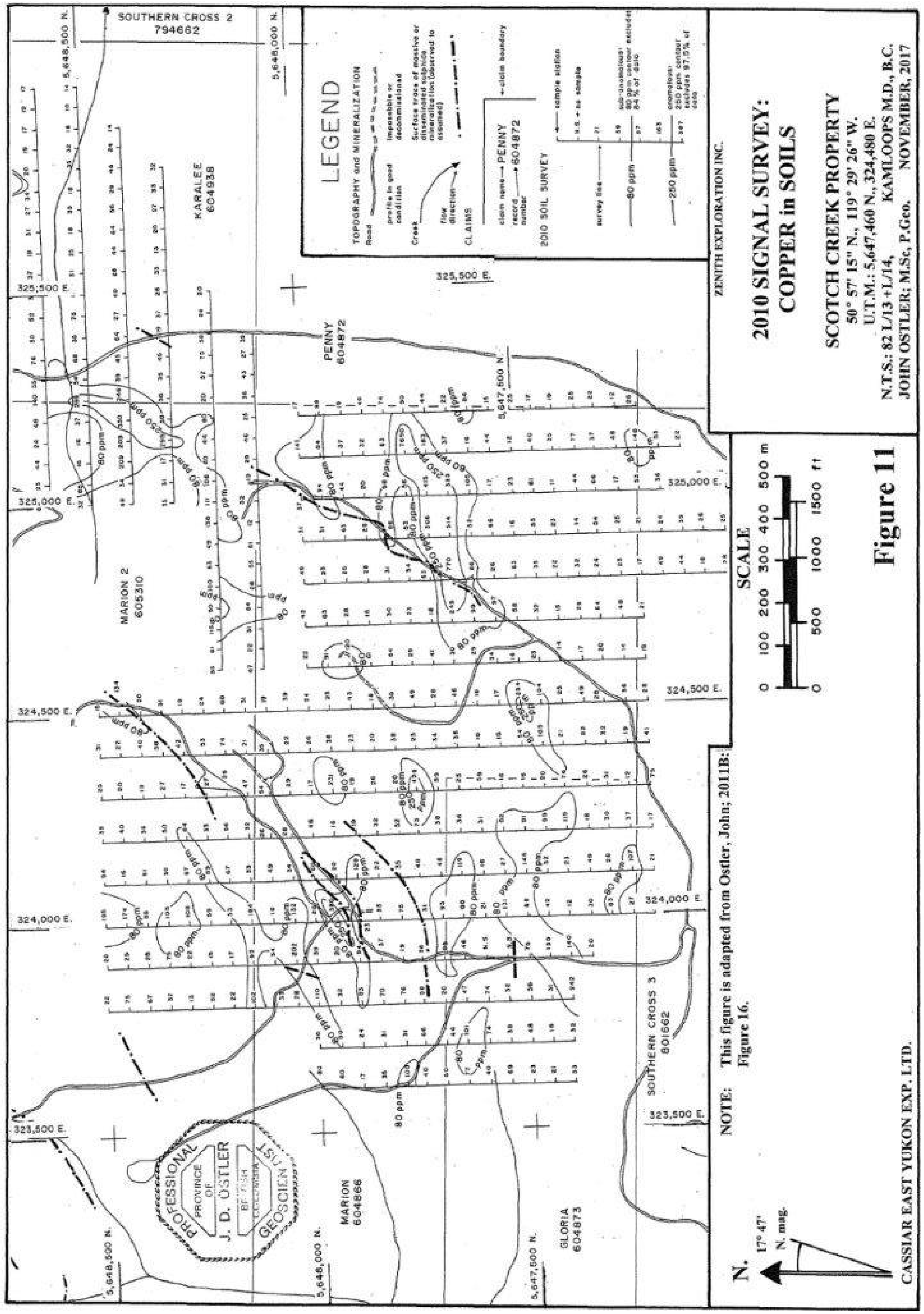
The author made two brief trips to examine and map some of the geology on the Scotch Creek property on May 31 to June 3, and on June 11 to 15. At that time he discovered that massive and disseminated mineralization was hosted in a single zone produced by a trachytic eruption with a vent area located east-northeast of the property-area.

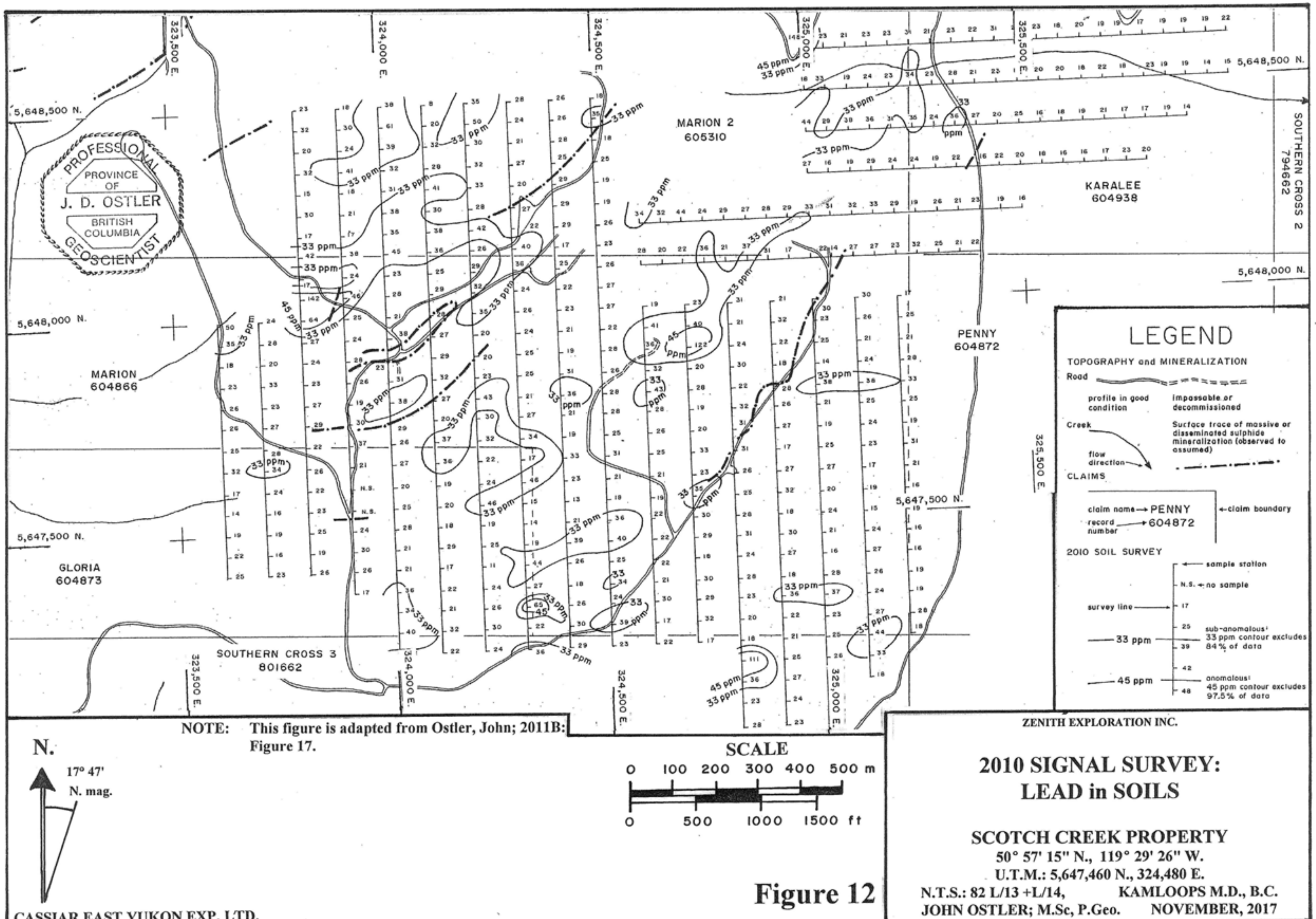
Because Barry Hartley was out of communication, the author map-staked the SOUTHERN CROSS 1 (794642) and SOUTHERN CROSS 2 (794662) claims on June 18, to cover prospective un-staked ground east of the property. Those claims were transferred to Hartley at cost, on June 24. Barry Hartley map-staked the SOUTHERN CROSS 3 (801662) claim on June 28, to cover the ground down-hill of, and adjacent to the southern boundaries of the MARION (604866), and GLORIA (604873) claims, in order to protect a possible portal location for a trackless decline into mineralization hosted on those claims.

Signal Exploration Inc. Acquired rights to the Scotch Creek property from Barry S. Hartley in a non-arms length transaction.

Signal contracted with the author through his exploration company, Cassiar East Yukon Expediting Ltd., to conduct an exploration program of geological mapping, prospecting and soil survey on the Scotch Creek property (Ostler, 2011B). Work was conducted from August 30 to October 2. During that program, a total of 482 ha (1,190.5 A) were mapped at a scale of 1:5,000 across most of the property-area (Figures 23N, and 23S). A total of 42 samples of mineralization were taken. An estimated 100 hectares (247 acres) of area was prospected with varying degrees of intensity in numerous areas throughout the property-area as an adjunct to geological mapping. Soil survey was conducted over a grid comprising a total of 22.95 km (14.0 mi) of survey line and 2.4 km (1.5 mi) of base line for a total of 25.35 km (15.5 mi) of line laid out along U.T.M. grid lines. Lines were laid out at 100-m (328-ft) spacings and soil samples were taken at 50-m (164-ft) intervals along each line. A total of 481 soil samples were taken (Figures 11 to 15).

Noranda/Kuroko massive and disseminated sulphide mineralization was confirmed to have been deposited primarily in a single unit hosted by fine-grained chloritic ash and crystal tuff form a trachytic eruption with a vent area presumed to have been east-northeast of the property-area. The mineralized bed was found to be located about 30 m (98.4 ft) stratigraphically above a distinctive contact between a blue-grey lapilli tuff and coarse-grained crystal tuffs of the same eruption. Four “basins” where sulphide mineralization had been thickened by syngenetic or deformational processes were identified tentatively in the grid-area (Figures 2 and 16).


2010 SIGNAL SURVEY:
COPPER in SOILS
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017
ZENITH EXPLORATION INC.
LEGEND
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
SOUTHERN CROSS 2
794662
KARALEE
604938
PENNY
604872
MARION 2
605310
SOUTHERN CROSS 3
801662
MARION
604866
GLORIA
604873
5,648,500 N.
5,648,000 N.
5,647,500 N.
325,500 E.
325,000 E.
324,500 E.
324,000 E.
323,500 E.
80 ppm
250 ppm
17° 47'
N. mag.
N.
NOTE: This figure is adapted from Ostler, John; 2011B: Figure 16.
CASSIAR EAST YUKON EXP. LTD.
Figure 11


SOUTHERN CROSS 2
794662
MARION 2
605310
KARALEE
604938
PENNY
604872
MARION
604866
GLORIA
604873
SOUTHERN CROSS 3
801662
5,648,500 N.
5,648,000 N.
5,647,500 N.
323,500 E.
324,000 E.
324,500 E.
325,000 E.
325,500 E.
33 ppm
45 ppm
PROFESSIONAL GEOSCIENTIST
PROVINCE OF
J. D. OSTLER
BRITISH COLUMBIA
LEGEND
TOPOGRAPHY and MINERALIZATION
Road
profile in good condition
impassable or decommissioned
Creek
flow direction
Surface trace of massive or disseminated sulphide mineralization (observed to assumed)
CLAIMS
claim name → PENNY
record number → 604872
← claim boundary
2010 SOIL SURVEY
← sample station
N.S. ← no sample
survey line
sub-anomalous: 33 ppm contour excludes 84% of data
anomalous: 45 ppm contour excludes 97.5% of data
NOTE: This figure is adapted from Ostler, John; 2011B: Figure 17.
N.
17° 47'
N. mag.
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
ZENITH EXPLORATION INC.
2010 SIGNAL SURVEY:
LEAD in SOILS
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017
Figure 12
CASSIAR EAST YUKON EXP. LTD.

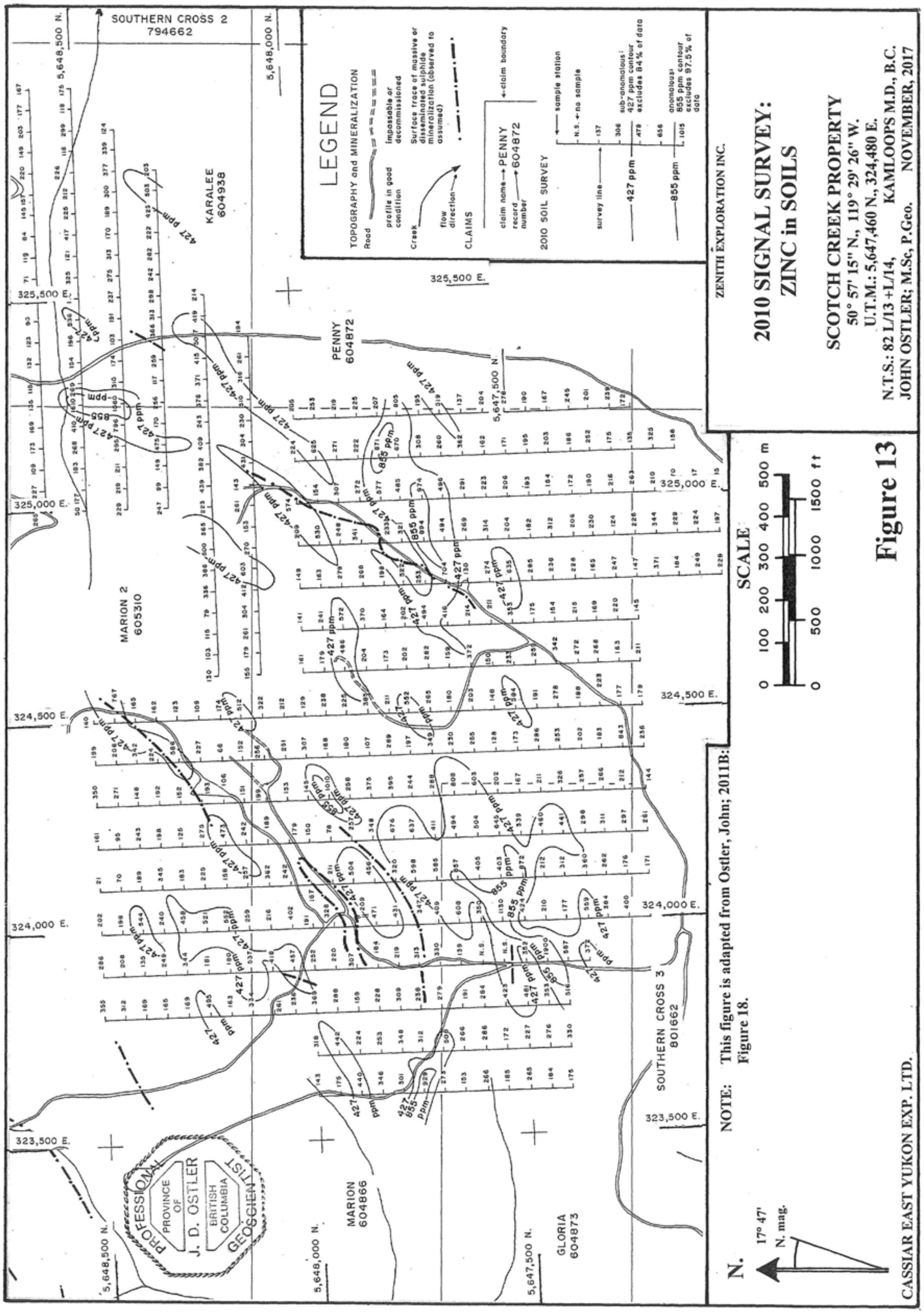
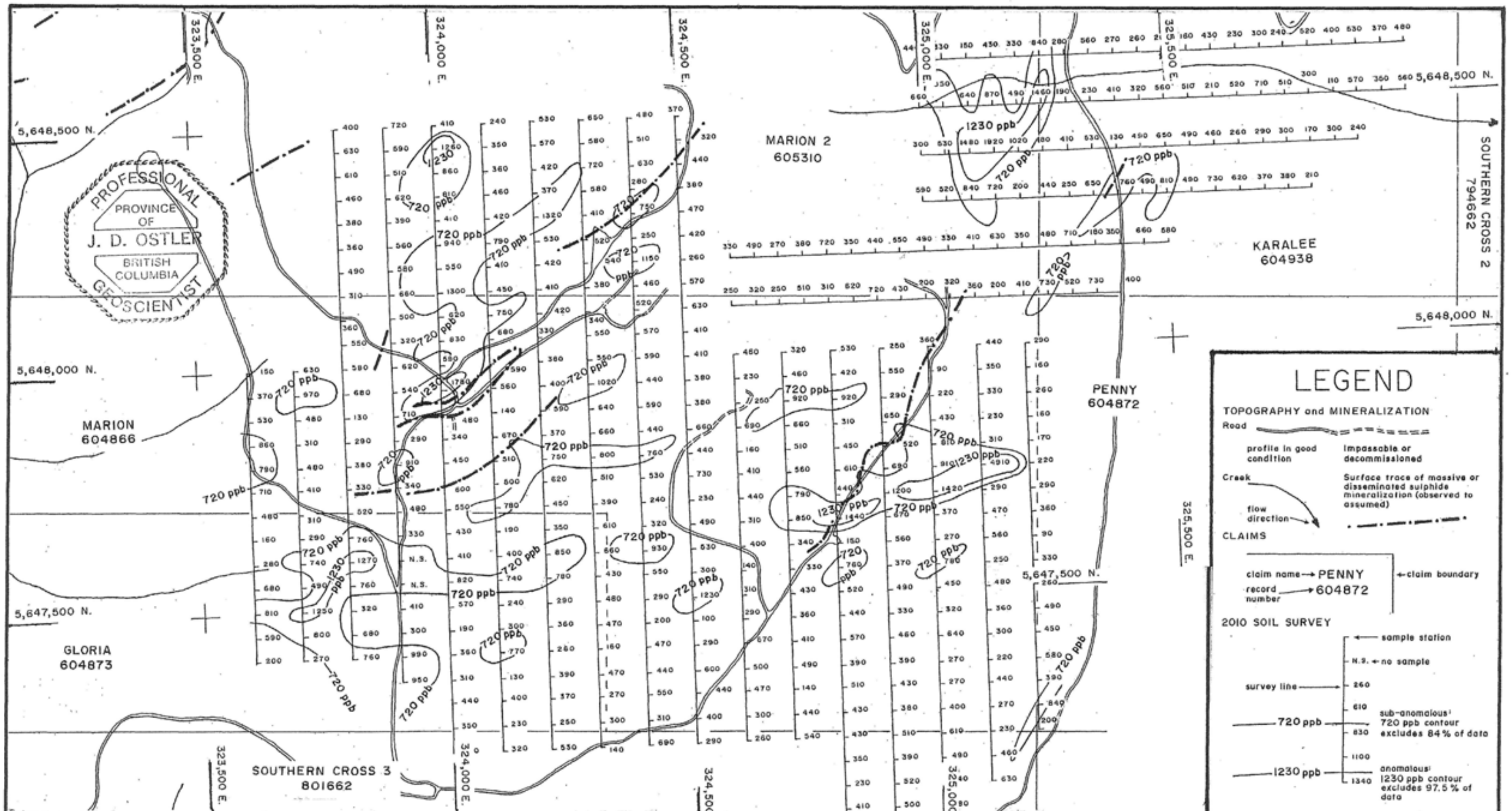

ZENITH EXPLORATION INC.
2010 SIGNAL SURVEY: ZINC in SOILS
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017
LEGEND
TOPOGRAPHY and MINERALIZATION
Road
profile in good condition
impassable or decommissioned
Creek
flow direction
Surface trace of massive or disseminated sulphide mineralization (observed to assumed)
CLAIMS
claim name → PENNY
record number → 604872
← claim boundary
2010 SOIL SURVEY
survey line
sample station
N.S. ← no sample
427 ppm
sub-anomalous: 427 ppm contour excludes 84% of data
855 ppm
anomalous: 855 ppm contour excludes 97.5% of data
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
SOUTHERN CROSS 2
794662
KARALEE
604938
PENNY
604872
MARION 2
605310
SOUTHERN CROSS 3
801662
MARION
604866
GLORIA
604873
5,648,500 N.
5,648,000 N.
5,647,500 N.
325,500 E.
325,000 E.
324,500 E.
324,000 E.
323,500 E.
N.
17° 47'
N. mag.
NOTE: This figure is adapted from Ostler, John; 2011B: Figure 18.
CASSIAR EAST YUKON EXP. LTD.
PROFESSIONAL
PROVINCE OF
J. D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST

Figure 13



NOTE: This figure is adapted from Ostler, John; 2011B: Figure 19.

CASSIAR EAST YUKON EXP. LTD.

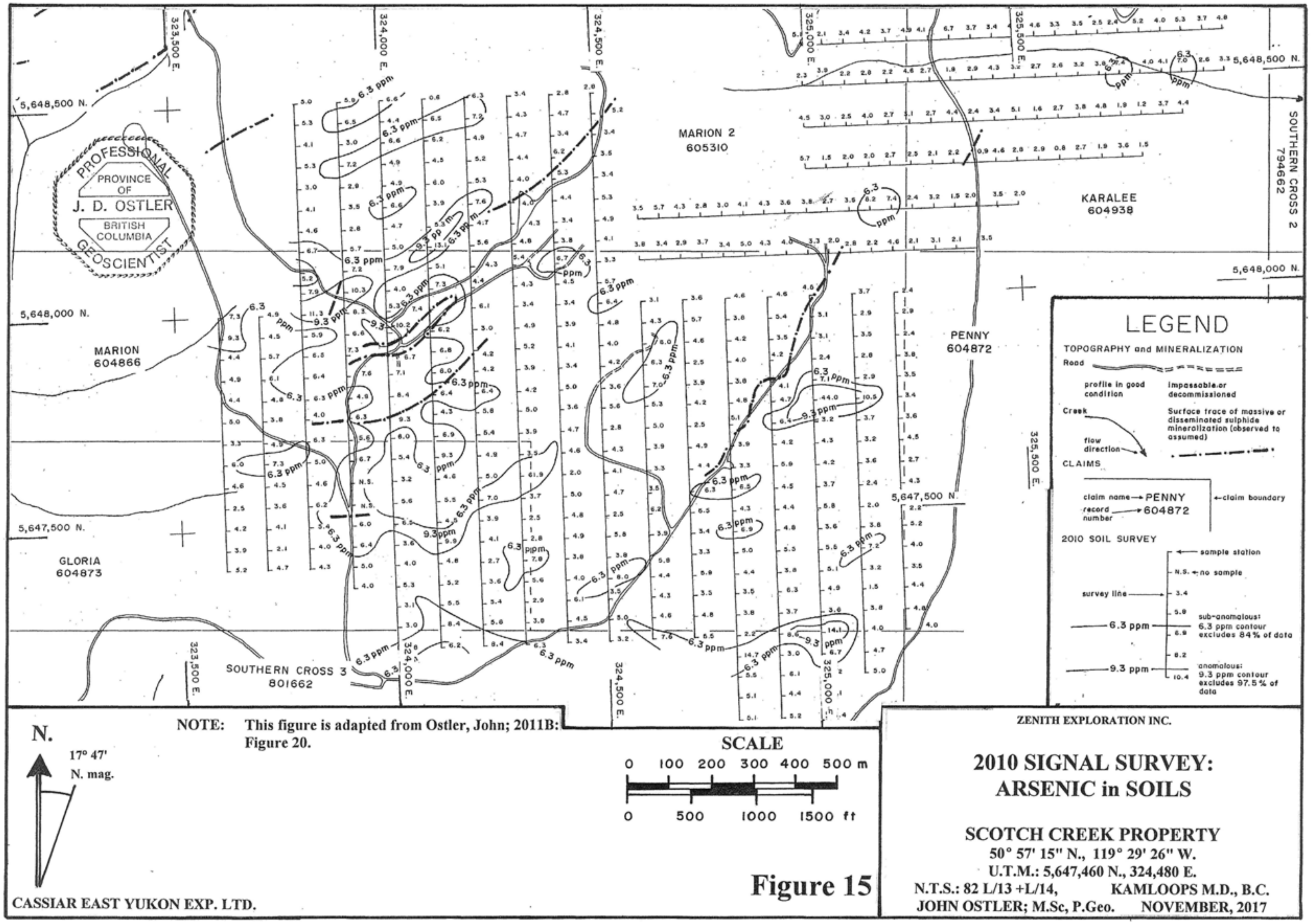
ZENITH EXPLORATION INC.

2010 SIGNAL SURVEY: SILVER in SOILS

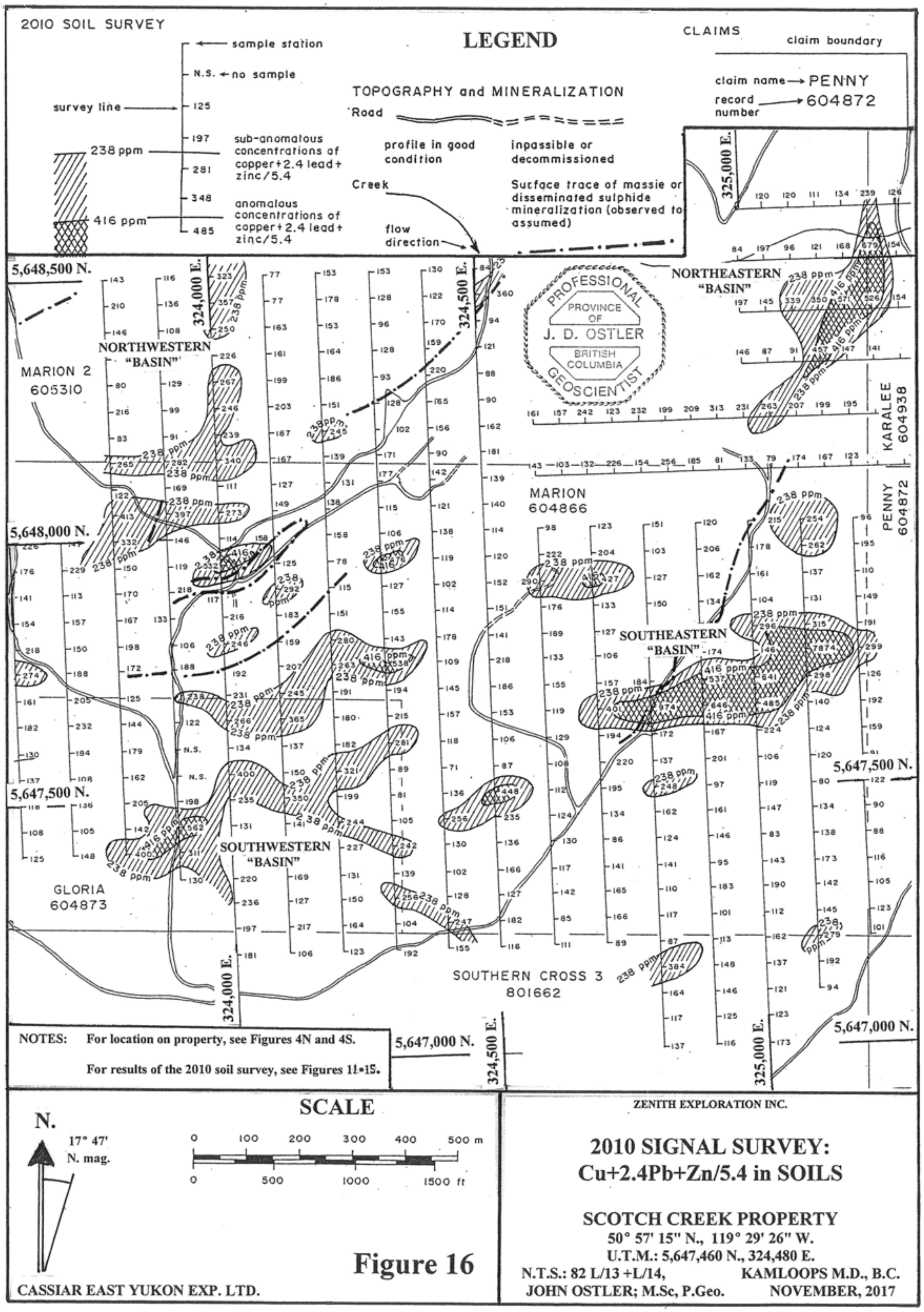
SCOTCH CREEK PROPERTY

50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 + L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. NOVEMBER, 2017

Figure 14



LEGEND
TOPOGRAPHY and MINERALIZATION
Road
profile in good condition
impassable or decommissioned
Creek
flow direction
Surface trace of massive or disseminated sulphide mineralization (observed to assumed)
CLAIMS
claim name → PENNY
record number → 604872
←claim boundary
2010 SOIL SURVEY
← sample station
N.S. ← no sample
survey line
6.3 ppm
sub-anomalous: 6.3 ppm contour excludes 84% of data
9.3 ppm
anomalous: 9.3 ppm contour excludes 97.5% of data
SOUTHERN CROSS 2
794662
KARALEE
604938
MARION 2
605310
PENNY
604872
MARION
604866
GLORIA
604873
SOUTHERN CROSS 3
801662
PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
J. D. OSTLER
5,648,500 N.
5,648,000 N.
5,647,500 N.
323,500 E.
324,000 E.
324,500 E.
325,000 E.
325,500 E.
N.
17° 47'
N. mag.
NOTE: This figure is adapted from Ostler, John; 2011B: Figure 20.
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
Figure 15
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
2010 SIGNAL SURVEY:
ARSENIC in SOILS
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017


2010 SOIL SURVEY
LEGEND
CLAIMS
claim boundary
sample station
N.S. no sample
survey line
238 ppm
416 ppm
sub-anomalous concentrations of copper+2.4 lead+ zinc/5.4
anomalous concentrations of copper+2.4 lead+ zinc/5.4
TOPOGRAPHY and MINERALIZATION
Road
profile in good condition
inpassible or decommissioned
Creek
flow direction
Surface trace of massie or disseminated sulphide mineralization (observed to assumed)
claim name PENNY
record number 604872
5,648,500 N.
5,648,000 N.
5,647,500 N.
5,647,000 N.
324,000 E.
324,500 E.
325,000 E.
NORTHWESTERN "BASIN"
NORTHEASTERN "BASIN"
SOUTHWESTERN "BASIN"
SOUTHEASTERN "BASIN"
MARION 2 605310
MARION 604866
GLORIA 604873
KARALEE 604938
PENNY 604872
SOUTHERN CROSS 3 801662
PROFESSIONAL PROVINCE OF J. D. OSTLER BRITISH COLUMBIA GEOSCIENTIST
NOTES: For location on property, see Figures 4N and 4S.
For results of the 2010 soil survey, see Figures 11-15.
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
N.
17° 47' N. mag.
Figure 16
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
2010 SIGNAL SURVEY: Cu+2.4Pb+Zn/5.4 in SOILS
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

2011 On May 27, the claims comprising the Scotch Creek property were transferred from Barry Hartley to Signal Exploration Inc.

2012

The most common base metals in the mineralized unit are copper, lead, and zinc. They are unevenly distributed throughout mineralization and they have different mobilities in soils. Consequently, anomalies of hose metals are not coincident and in some places subtle. The writer calculated a derivative of copper, lead, and zinc results of the 2010 soil survey to address these difficulties.

Constructing a derivative of the base-metal data works well for Noranda/Kuroko sulphide mineralization because it is associated soil anomalies of different metals are commonly from the same source. The most common base metals in the target mineralization are normally chosen. The author chose copper, lead, and zinc. Next, the influences of the chosen metals are equalized using their sub-anomalous thresholds. Anomalous thresholds that may be influenced by a few exotic numbers are considered potentially unreliable for this. In the case of the 2010 soil survey, the sub-anomalous threshold for copper (80 ppm) was about 2.4 times that of lead (33 ppm), and it was about 1/5.4 of that of zinc (427 ppm). Thus, the value of the derivative for copper, lead, and zinc results from each soil station was calculated using the formula:

copper (ppm) + 2.4 lead (ppm) + zinc /5.4 (ppm) = derivative value (ppm)

The same formula was used on the sub-anomalous and anomalous thresholds for the three base-metals to establish the sub-anomalous and anomalous thresholds of the distribution of the derivative (Figure 16).

In a distribution of base-metal derivatives, spurious single-metal anomalies tend to be submerged into a higher derivative background level while multi-element anomalies, which are more likely to be related to polymetallic mineralization, are enhanced. Also, anomalies from a single source that are separated by differing soil-metal mobilities are brought together just down-slope of their source.

The result of these effects is increased clarity of soil-survey results. Calculation of the derivative of the 2010 soil data resulted in the identification of the southeastern “basin” in the eastern part of the MARION (604866) claim as the most prospective area and best drilling target on the property (Figure 16).

2012 Continued

Signal Exploration Inc. contracted with Cassiar East Yukon Expediting Ltd., the author's private service company, to cut out a grid along north-south U.T.M. grid lines in the general area of the 2010 soil grid. Cutting was done from June 4 to July 5. The grid comprised 17 lines with a total length of 21.225 km (12.95 mi) spaced 100 m (328 ft) apart. Also, a total of 1,150 m (3,773 ft) of generator access line was cut out from the 671 road to the ends of the lines in the eastern part of the survey-grid. The grid covered 208 hectares (499.2 A).

Geotronics Consulting Inc., a service company controlled by David G. Mark, P.Geo., was commissioned to conduct an induced polarization survey over the 2012 grid. The survey dipole length and reading interval was 25 m (82 ft). Readings were read at up to 10 levels (intervals) (Mark, 2012). The survey was done from June 27 to July 10.

David Mark's conclusions were as follow:

> The IP survey has revealed numerous anomalies throughout the survey area that are complex in relation to each other much as the geology and soil geochemistry surveys indicate. Some of this is due to the mineralization occurring along folded beds ... Some is also due to the numerous faulting across the property (Figure 20) ... As a result, it is difficult to isolate some of the anomalies for exploration target purposes and thus two or more anomalies in some cases will be grouped together as an anomalous zone...
>
> Anomalous Zone A occurs within the northwest corner of the survey area (Figure 17). It consists of three IP anomalous highs that reach values in excess of 40 msec. The strike length of the anomalous zone in at least 900 metres (2,953 ft) with it possibly being open to the northeast. The width, which is difficult to determine, varies from about 200 metres (656 ft) to over 400 metres (1,312 ft).
>
> 'A' correlates with soil geochemistry highs striking in a northeasterly direction. It therefore follows that the IP is probably reflecting sulphide mineralization and the sulphides are probably those of copper and lead, as suggested by the soils. The soils also suggest zinc, which usually occurs in the form of sphalerite, but this would not be reflected by IP since sphalerite is a non-conductor. There is also correlation with resistivity highs, for the most part in the range of 1000 to 2000 ohm-metres, which is expected on this property since the mineralization occurs within a trachytic rock type which would be reflected as a resistivity high.
>
> Anomalous Zone B occurs within the central part of the survey area striking in a northeasterly direction and reaching highs of over 40 msec (Figure 17). The strike length is up to 1300 metres (4,265 ft) and the width averages about 200 metres (656 ft).
>
> This anomalous zone also correlates with soil geochemistry highs and resistivity highs of 1000 to 2000 ohm-metres, suggesting the same interpretation as above, for anomalous zone B, that is, copper and lead sulphides occurring within a trachytic rock-type.
>
> Anomalous Zone C occurs within the central to southern part of the survey area also striking in a east-northeasterly direction and reaching highs of over 40 msec (Figure 17). The strike length is up to 1300 metres (4,265 ft) and the width averages about 200 metres (656 ft).
>
> Similar to anomalous zones A and B, soil geochemistry metal highs correlate with IP anomalous zone C. Resistivity highs also correlate with C, however, resistivity lows also correlate suggesting a different host rock.

<u>Anomalous Zone D</u> is different from the above three anomalous zones, in that it strikes east-west and it occurs at depth. The strike length is about 1000 metres (3,281 ft), the width about 300 metres (984 ft), and it reaches a high of over 90 msec (Figure 17). Because the strike is easterly and that of the others is east-northeasterly to northeasterly, this anomaly crosses the other anomalies and thus it is difficult at times to determine the correct label for some of the anomalous responses. However, it must be considered that the different anomalous responses may be occurring at different depths.

There is some correlation with soil geochemistry highs, but limited correlation is expected since the causative source is interpreted to occur at depths of 25 to 50 metres (82 to 164 ft).

This anomaly does not correlate with resistivity highs or lows but to moderate resistivity values (intensities) in the range of 500 to 900 ohm-metres, and on the northern edge of an easterly striking resistivity high. This suggests that the causative source of the IP anomaly may be occurring along a lithological contact, with the resistivity high to the south possibly reflecting and intrusive, or a metavolcanic with higher silica content.

The characteristics of anomaly D suggest that its causative source is different than that of the other three anomalies, possibly a copper porphyry.

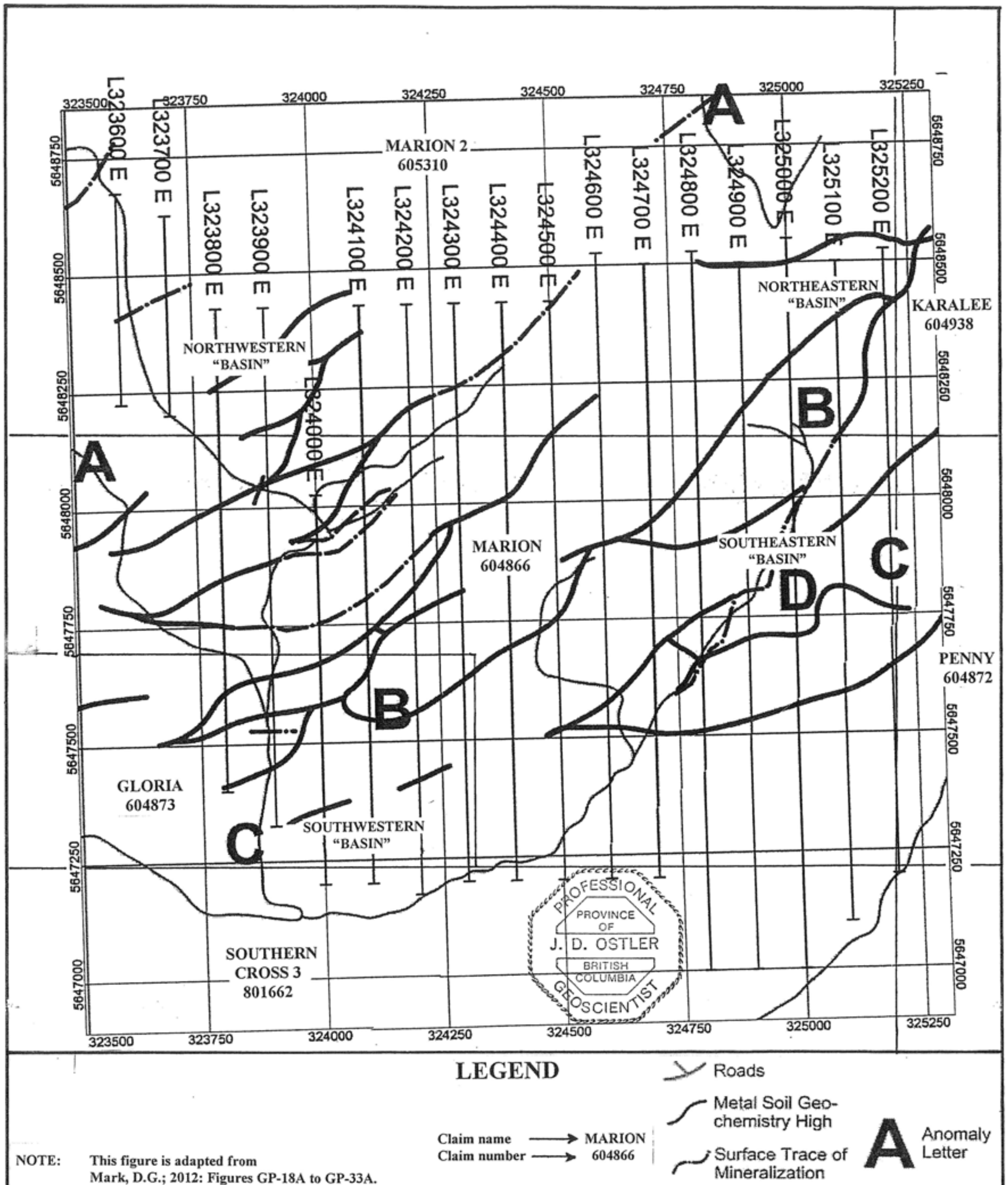
Mark, David G.; 2012: pp. 20-22.

The most prospective areas as defined by the 2012 induced polarization survey are in its central part where comparitively uncontaminated trachytic tuff has resistivities ranging from 500 to 1,500 ohm-m, and in its northeastern part of the grid-area where similar trachytic stratigraphy has resistivities ranging from 900 to 1,500 ohm-m. The central area hosts the southwestern "basin" area, centred south of drill hole SC-4, and the southeastern "basin" area (Figure 18).

The author integrated results of the 2010 geological and soil geochemical surveys (Figures 11 to 15) with information from the sections from the 2012 induced polarization survey (Mark, 2012) to construct the assumed structure of rocks underlying the 2012 grid-area. A plastic model was assumed for the first three phased of deformation and a brittle one was assumed for the fourth phase (Figure 20).

2016 Control of Signal Exploration Inc. was sold. Focus of the company ceased to be mineral resources.

2017 On August 27, ownership of the claims comprising the Scotch Creek property reverted from Signal Exploration Inc. to Brent F. Hahn and Barry S. Hartley. Hahn became the registered owner of the claims and held 50% interest in them in trust for Hartley. On November 3, 100% interest in the claims was sold by Brent Hahn and Barry Hartley, to Zenith Exploration Inc. for 15,000,000 common shares of that company and a 2% net smelter return from production from the Scotch Creek property. The net smelter return was deeded to Hahn and Hartley on November 10.



PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
J. D. OSTLER

N.
17° 47'
N. mag.

SCALE
0 250 500 m
0 500 1000 1500 ft

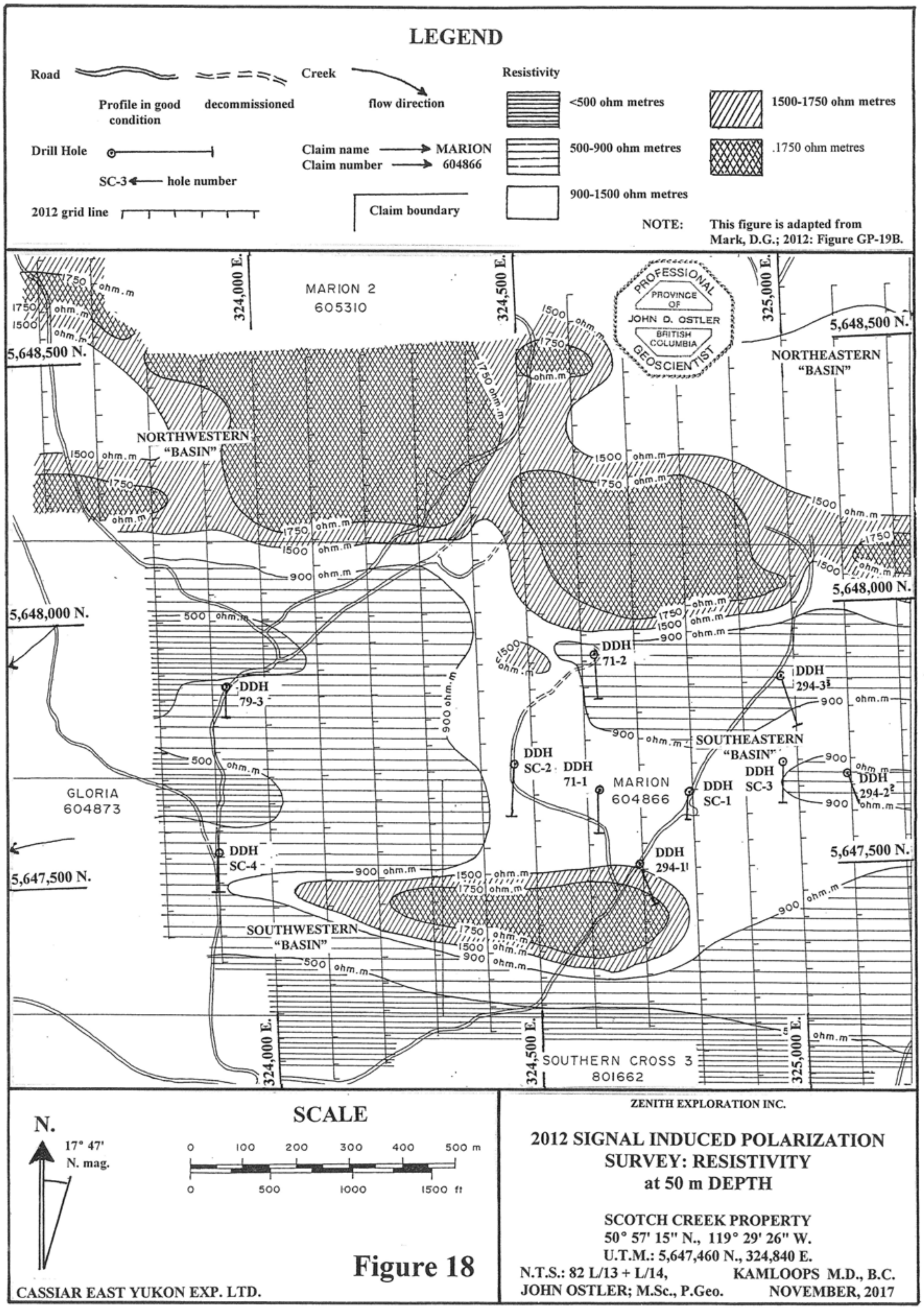
Figure 17

CASSIAR EAST YUKON EXP. LTD.

ZENITH EXPLORATION INC.

2012 SIGNAL INDUCED POLARIZATION SURVEY: CHARGEABILITY CONDUCTORS

SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,840 E.
N.T.S.: 82 L/13 + L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. NOVEMBER, 2017


LEGEND
Road
Profile in good condition
decommissioned
Creek
flow direction
Resistivity
<500 ohm metres
500-900 ohm metres
900-1500 ohm metres
1500-1750 ohm metres
.1750 ohm metres
Drill Hole
SC-3 hole number
Claim name MARION
Claim number 604866
2012 grid line
Claim boundary
NOTE: This figure is adapted from Mark, D.G.; 2012: Figure GP-19B.
MARION 2
605310
324,000 E.
324,500 E.
325,000 E.
5,648,500 N.
5,648,000 N.
5,647,500 N.
NORTHWESTERN "BASIN"
NORTHEASTERN "BASIN"
SOUTHEASTERN "BASIN"
SOUTHWESTERN "BASIN"
PROFESSIONAL
PROVINCE OF
JOHN D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
DDH 71-2
DDH 79-3
DDH 294-3
DDH SC-2
DDH 71-1
MARION
604866
DDH SC-1
DDH SC-3
DDH 294-2
DDH SC-4
DDH 294-1
GLORIA
604873
SOUTHERN CROSS 3
801662
500 ohm.m
900 ohm.m
1500 ohm.m
1750 ohm.m
N.
17° 47' N. mag.
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
Figure 18
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
2012 SIGNAL INDUCED POLARIZATION SURVEY: RESISTIVITY at 50 m DEPTH
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,840 E.
N.T.S.: 82 L/13 + L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. NOVEMBER, 2017

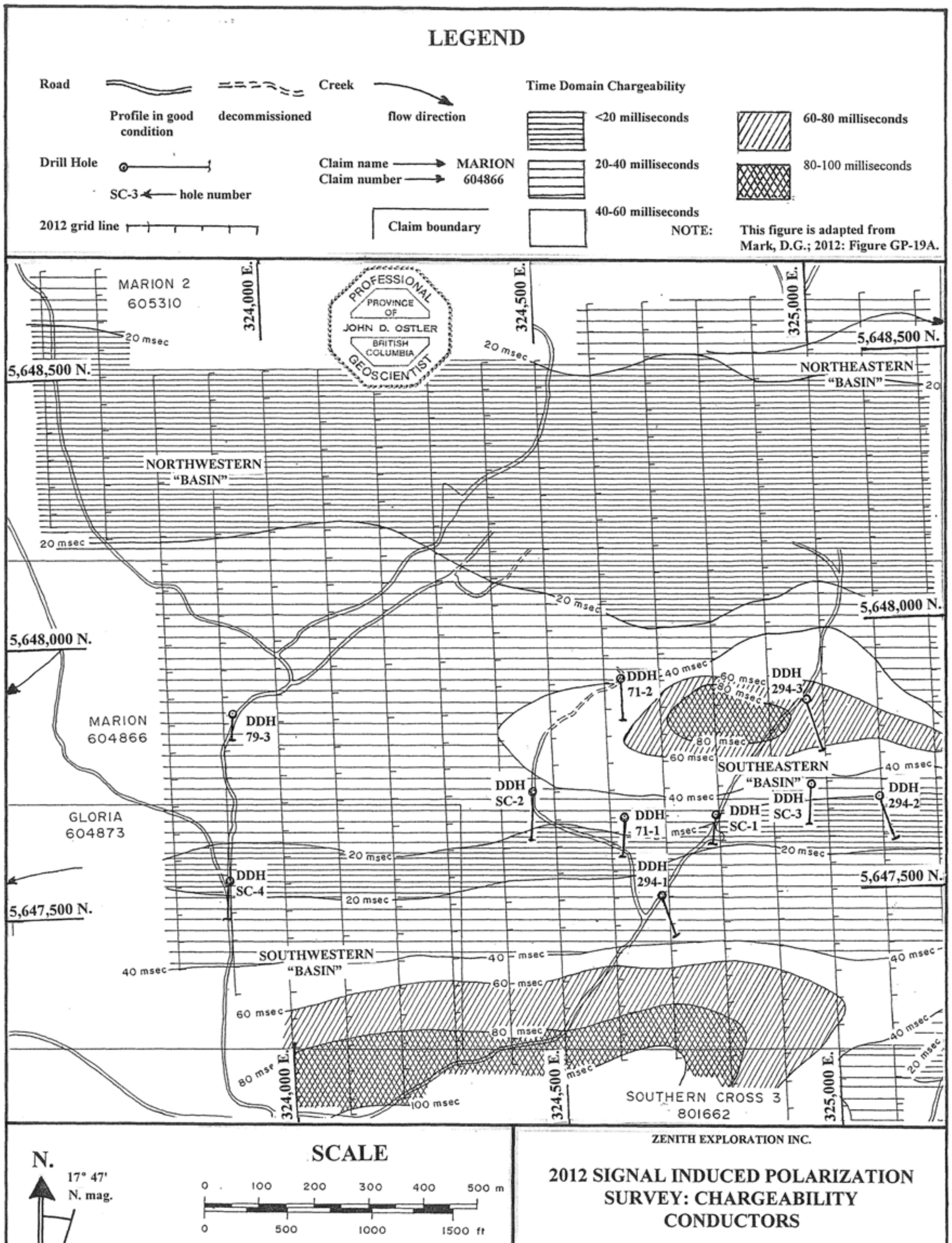


Figure 19

CASSIAR EAST YUKON EXP. LTD.

ZENITH EXPLORATION INC.

2012 SIGNAL INDUCED POLARIZATION SURVEY: CHARGEABILITY CONDUCTORS

SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,840 E.
N.T.S.: 82 L/13 + L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. NOVEMBER, 2017

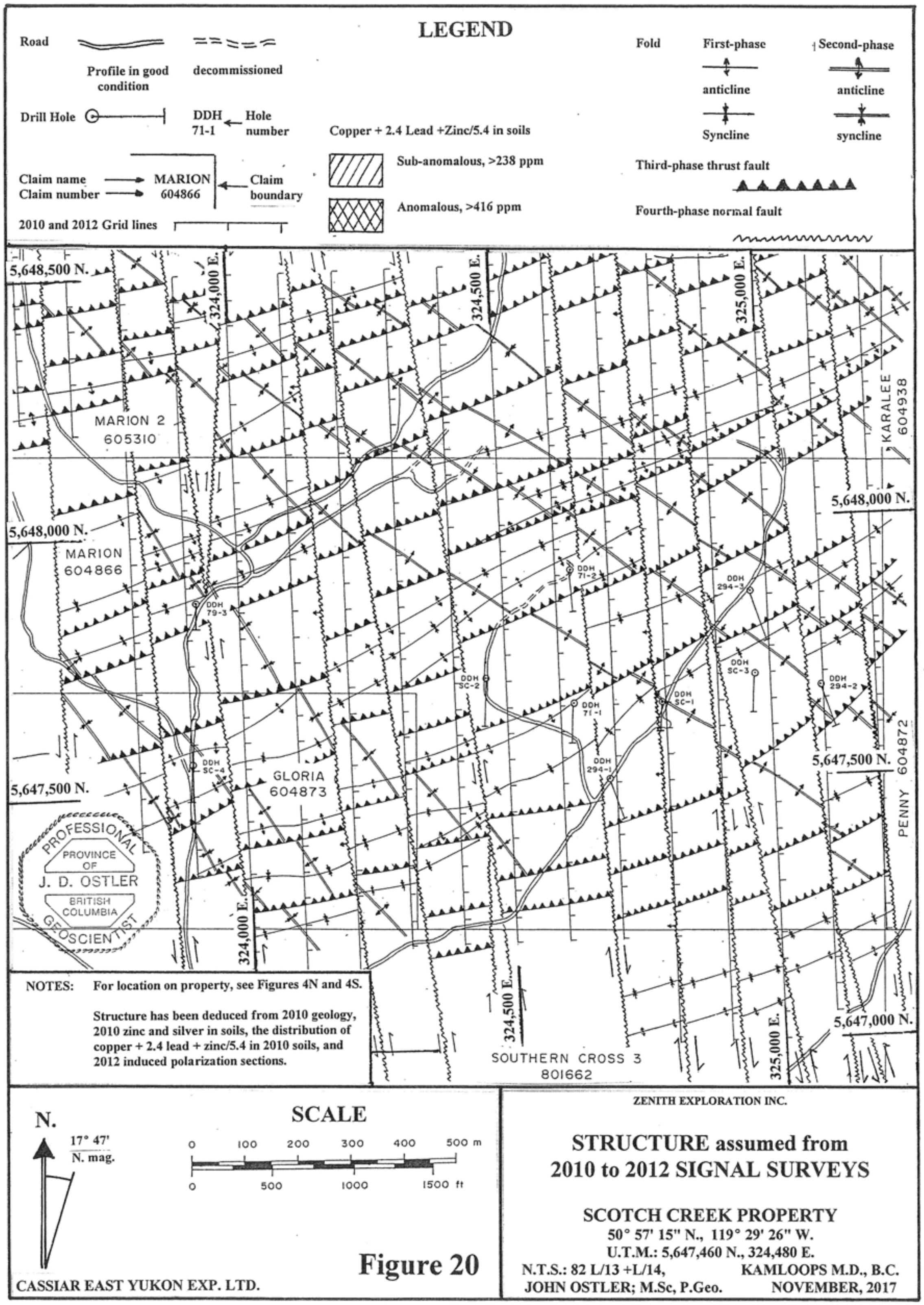

LEGEND
Road
Profile in good condition
decommissioned
Drill Hole
DDH 71-1
Hole number
Claim name
Claim number
MARION 604866
Claim boundary
2010 and 2012 Grid lines
Copper + 2.4 Lead +Zinc/5.4 in soils
Sub-anomalous, >238 ppm
Anomalous, >416 ppm
Fold
First-phase
Second-phase
anticline
anticline
Syncline
syncline
Third-phase thrust fault
Fourth-phase normal fault
5,648,500 N.
324,000 E.
324,500 E.
325,000 E.
MARION 2
605310
KARALEE
604938
5,648,000 N.
5,648,000 N.
MARION
604866
DDH 79-3
DDH 71-2
DDH 294-3
DDH SC-2
DDH SC-3
DDH 294-2
DDH 71-1
DDH SC-1
DDH SC-4
DDH 294-1
GLORIA
604873
5,647,500 N.
5,647,500 N.
PENNY 604872
PROFESSIONAL
PROVINCE OF
J. D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
324,000 E.
324,500 E.
325,000 E.
5,647,000 N.
SOUTHERN CROSS 3
801662
NOTES: For location on property, see Figures 4N and 4S.
Structure has been deduced from 2010 geology, 2010 zinc and silver in soils, the distribution of copper + 2.4 lead + zinc/5.4 in 2010 soils, and 2012 induced polarization sections.
N.
17° 47'
N. mag.
SCALE
0 100 200 300 400 500 m
0 500 1000 1500 ft
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
STRUCTURE assumed from 2010 to 2012 SIGNAL SURVEYS
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14,
KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo.
NOVEMBER, 2017

Figure 20

Item 6.2 Value of Recent Exploration

Prior to 2009 no structural geology had been conducted in the Scotch Creek property area, one which had been subjected to four phases of deformation. Consequently, early exploration success was sporadic and early operators did not understand why they found mineralization or how they could find more of it.

Total monetary value of recent (2010 to 2012) exploration on the property was in excess of $325,000 according to the audited records of Signal Exploration Inc. The author personally conducted or was involved in that exploration and in his opinion it was critical to advancing the Scotch Creek property to its current state in which the reasons for location of mineralization are reasonably well-known and the possibility of finding a body of economic mineralization is increased greatly. If a formal valuation of the Scotch Creek property is to be done, the author suggests that the monetary value of the 2010 to 2012 exploration of the property should be included in that valuation.

Item 6.3 Historical Mineral Resource and Reserve Estimates, and Production from the Scotch Creek Property-area

No historical estimates of mineral resources or reserves related to the Scotch Creek property, or historical production from the Scotch Creek property-area are known to the author.

Item 7: GEOLOGICAL SETTING AND MINERALIZATION

Item 7.1 Regional Geology

The area northwest of Shuswap Lake was mapped and interpreted by A.V. Okulitch (1979) of the Geological Survey of Canada, from 1972 to 1974 (Figure 21).

An account of the history of orogenic events in the area now covered by south-central British Columbia was recorded by A.V. Okulitch (1979) as follows:

> Intrusive rocks ... and meagre but widespread stratigraphic and structural evidence suggest that two orogenic events affected the Eastern Cordillera during Palaeozoic time. The first of these ... (that may have) occurred in the Late Ordovician, is the Cariboo Orogeny. At its type locality in the Cariboo Mountains a major break occurs between the Upper Cambrian and Upper Middle Ordovician strata ... Metamorphism of the Lardeau Group at 479 +/- 17 Ma ..., a widespread mid-Ordovician unconformity in the Rocky Mountain Thrust Belt ... and effusion of volcanic rocks in the Lardeau Group and Eagle Bay Formation suggest considerable orogenic activity along the continental margin ... earliest structures in units of the Lardeau assemblage are interpreted to have formed during the Ordovician Cariboo Orogeny. Early structures in the Shuswap Complex may have also formed at this time.

The second Palaeozoic event is represented by a profound unconformity below middle Devonian strata in the Rocky Mountain thrust belt ..., a stratigraphic break in the Cariboo Mountains between Silurian and late Devonian units ... and an unconformity between the Milford and Lardeau groups in the Kootenay Arc ... and possibly west of Adams Lake. Formation of this unconformity coincided with Late Devonian plutonism and uplift. Greatest uplift, where the Devonian-Mississippian unconformity cuts below the mid-Ordovician one, corresponds generally with known exposures of Devonian plutons.

Permo-Triassic orogenic events (Sonoman) comprise deformation, low grade metamorphism, plutonism, uplift and erosion that effected rocks as young as Permian and preceded deposition of strata as old as Late Triassic in and south of the project-area and as old as Middle Triassic to the southeast near Grand Forks ...

The Columbian Orogeny, occurring during Early Jurassic to mid-Cretaceous time, was the major event affecting rocks in the project-area. Most of the polyphase (early (second phase), and late) folding, regional metamorphism and faulting took place at this time. Extensive plutonism accompanied and followed deformation ...

Within the project-area, radiometric data ... suggest that ... waning regional metamorphism and deformation took place at least 130 to 155 Ma (Early Cretaceous to Middle Jurassic). Early Jurassic rocks ... were affected by most deformational phases of the orogeny; Early Cretaceous plutons are post-tectonic.

Uplift and erosion followed the Columbian Orogeny... Movement along northerly trending faults and latest warping preceded or accompanied extrusion of (early Tertiary plateau basalts). Numerous feeder dykes followed fracture and fault planes. Such tensional features may be induced by post-orogenic erosion, uplift and cooling of the crust ...

Post Eocene uplift and faulting took place predominantly in the Shuswap Complex and resulted in erosion of (early Tertiary Kamloops Group volcanics) and further exposure of the metamorphic terrane.

Okulitch, A.V.; 1979: G.S.C., Open File 637,
Notes to Map B: Stratigraphy and Structure.

Trygve Hoy (1998) of the British Columbia Geological Survey wrote a summary paper regarding the stratigraphy of Adams Plateau northwest of the Scotch Creek area. Many of his conclusions can be applied to the property-area. The oldest Eagle Bay-Formation rocks on Adams Plateau are a series of Grenvillian to Cambrian-age mafic volcanic rocks that Hoy (1998) correlated to the Index Formation of the Lardeau Group in the Kootenay Arc. Overlying the mafic volcanic succession, is one of gritty sedimentary rocks that Hoy (1998) correlated with the Ordovician to Silurian-age Jowett Formation of the Lardeau Group.

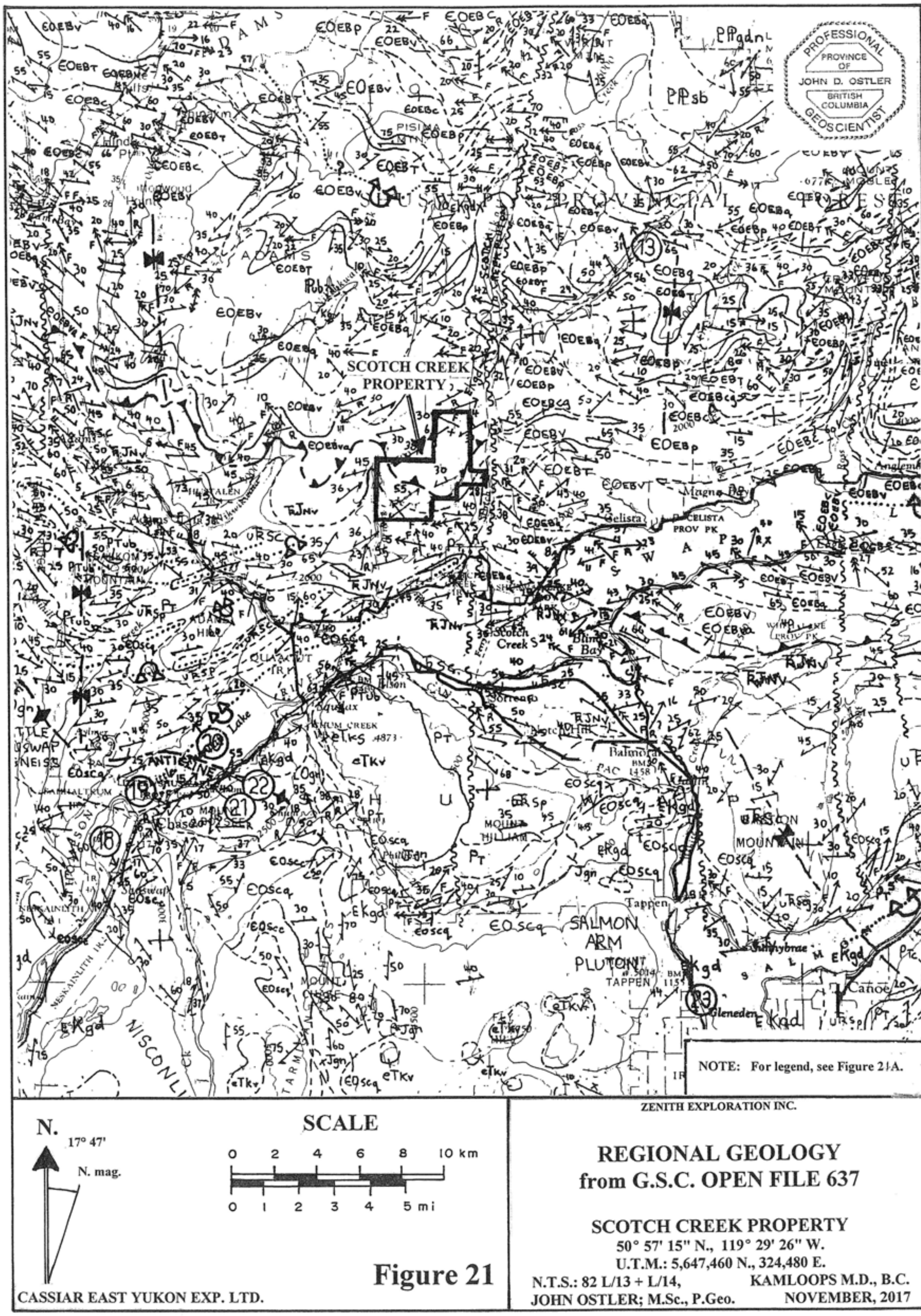


Figure 21

CASSIAR EAST YUKON EXP. LTD.

ZENITH EXPLORATION INC.

REGIONAL GEOLOGY from G.S.C. OPEN FILE 637

SCOTCH CREEK PROPERTY

50° 57' 15" N., 119° 29' 26" W.

U.T.M.: 5,647,460 N., 324,480 E.

N.T.S.: 82 L/13 + L/14, KAMLOOPS M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. NOVEMBER, 2017

Figure 21A
Legend to Figure 21

PHANEROZOIC
CENOZOIC
TERTIARY OR QUATERNARY
PLIOCENE OR PLEISTOCENE

TQs CONGLOMERATE (NEAR VERNON); BASALTIC ARENITE, BRECCIA, RUBBLE, CONGLOMERATE (ALONG NORTH THOMPSON AND CLEARWATER RIVERS).

TERTIARY
MIOCENE AND/OR PLIOCENE (MAY INCLUDE PLEISTOCENE)

mTv PLATEAU LAVA; OLIVINE BASALT, ANDESIDE, RELATED ASH AND BRECCIA; BASALTIC ARENITE; MINOR BASAL SEDIMENTS; (MAY INCLUDE YOUNGER VALLEY BASALTS).

EOCENE AND (?) OLIGOCENE
KAMLOOPS GROUP (PRINCETON GROUP IN SOUTHWEST CORNER; SKULL HILL FORMATION ALONG NORTH THOMPSON RIVER).

eTkv ANDESITE, BASALT, DACITE, TRACHYTE FLOWS AND DYKES, BRECCIA, TUFF, AGGLOMERATE.

KAMLOOPS GROUP (CHU CHUA FORMATION ALONG NORTH THOMPSON RIVER; TRANQUILLE BEDS NEAR WESTERNMOST SOUTH THOMPSON RIVER; INCLUDES UNIT Tcg ON MAP A).

eTks SANDSTONE, CONGLOMERATE, SHALE; MINOR COAL, TUFF ARKOSE.

UNCONFORMITY

PALEOCENE OR EOCENE

pTy SYENITE, GRANITE; MINOR MONZONITE, SHONKINITE.

MESOZOIC
CRETACEOUS

Kg GRANITE, GRANODIORITE; LESSER QUARTZ MONZONITE AND QUARTZ DIORITE.

BALDY BATHOLITH AND SATELLITIC STOCKS.

Kqm QUARTZ MONZONITE, GRANODIORITE; MINOR PEGMATITE.

EARLY CRETACEOUS
SALMON ARM, DEEP CREEK, NISCONLITH AND SCOTCH CREEK PLUTONS.

eKgd GRANODIORITE, GRANITE, QUARTZ MONZONITE; MINOR DIORITE, GABBRO, QUARTZ, DIORITE.

RAFT BATHOLITH

eKqm QUARTZ MONZONITE, GRANODIORITE; MINOR PEGMATITE AND DIORITE.

JURASSIC OR CRETACEOUS

(hatched) SYENITE AND FELSITE DYKES.

JURASSIC

Jgn MASSIVE AND FOLIATED, SYNTECTONIC PEGMATITE, APLITE, LEUCOCRATIC GRANITE AND QUARTZ MONZONITE BORDERING AND WITHIN SHUSWAP METAMORPHIC COMPLEX AND OKANAGAN PLUTONIC AND METAMORPHIC COMPLEX; SILVER STAR INTRUSIONS; (MAY INCLUDE ORTHOGNEISS OF PALAEOZOIC AND PROTEROZOIC AGES).

LATE JURASSIC
VALHALLA PLUTONIC ROCKS

lJgd GRANODIORITE, GRANITE; MINOR GABBRO, DIORITE, QUARTZ DIORITE.

EARLY JURASSIC
LONG RIDGE PLUTON

eJg FOLIATED, LINEATED GRANITE (MAY INCLUDE PALAEOZOIC PLUTONIC ROCKS).

NELSON PLUTONIC ROCKS; THUYA BATHOLITH AND SATELLITIC STOCKS.

eJgd QUARTZ DIORITE, GRANODIORITE; MINOR DIORITE, GRANITE, AMPHIBOLITE, GABBRO AND ULTRAMAFIC ROCKS.

eJdi DIORITE; MINOR QUARTZ DIORITE AND GABBRO.

eJy SYENITE AND MONZONITE.

INTRUSIVE CONTACT

TRIASSIC AND JURASSIC
UPPER TRIASSIC AND LOWER JURASSIC
NICOLA GROUP (POSSIBLY INCLUDES SLOCAN GROUP NEAR SOUTHEAST EDGE OF AREA).

TrJNv ANDESITE AND BASALT FLOW ROCKS, PORPHYRITIC AUGITE ANDESITE, BRECCIA, TUFF, AGGLOMERATE, GREENSTONE, CHLORITIC PHYLLITE; MINOR ARGILLITE, LIMESTONE, SERICITIC SCHIST.

UPPER TRIASSIC
KARNIAN AND NORIAN
NICOLA GROUP

uTrNs BLACK SHALE, ARGILLITE, CONGLOMERATE, LIMESTONE, SILTSTONE; MINOR TUFF AND PHYLLITE.

uTrNc LIMESTONE

SLOCAN GROUP
SICAMOUS FORMATION

uTrSc SERICITIC, GRAPHITIC AND ARGILLACEOUS LIMESTONE; CALCAREOUS PHYLLITE, ARGILLITE.

uTrSp SHALE, ARGILLITE, MASSIVE SILTSTONE, PHYLLITE, TUFF AND CALCAREOUS PELITE; MINOR CONGLOMERATE, LIMESTONE, GREENSTONE, CHLORITIC PHYLLITE AND ANDALUCITE -, STAUROLITE - AND KYANITE - BEARING SCHIST.

uTrScg CONGLOMERATE.

PALAEOZOIC AND MESOZOIC
OKANAGAN PLUTONIC AND METAMORPHIC COMPLEX (MAY INCLUDE METAMORPHIC EQUIVALENTS OF UNIT CPTA AND/OR OLDER ROCKS, AND TRIASSIC GNEISSIC GRANITE).

PMn HORNBLENDE AND BIOTITE GNEISS, PARAGNEISS; MINOR SCHIST, MARBLE, QUARTZITE AND AMPHIBOLITE.

PMnm DIORITIC GNEISS, AMPHIBOLITE.

Psc MARBLE.

Psb QUARTZ MICA SCHIST.

Figure 21A
Legend to Figure 21 Continued

PALAEOZOIC

Permian and (?) Pennsylvanian

Kaslo Group

PKvb	Massive and foliated greenstone, chloritic phyllite, amphibolite; minor ultramafic rocks.
PKub	Serpentinized ultramafic rocks.

Slide Mountain Group

Fennell Formation

PF	Pillow lava flows, massive and foliated greenstone, greenschist, argillaceous chert; minor amphibolite, limestone, breccia.
PFt	Chert
PFp	Argillite, siltstone
PFcg	Conglomerate
PFub	Serpentinized ultramafic rocks.

Tsalkom Formation

PT	Greenstone, chlorite phyllite, amphibolite; minor black shale, limestone, marble.
PTub	Serpentinized ultrmafic rocks.
PTc	Massive, white limestone.
PTcg	Foliated and stretched quartz pebble conglomerate.
PTm	Amphibolitic gneiss.
PTsc	Grey, diopsidic marble.

Carboniferous and Permian (may include Triassic)

Chesterian - Morrowan and Wolfcampian-Guadalupian (may include Karnian - Norian).

Thompson Assemblage (may include unit uTRNs).

CPTA	Undivided.
CPTAs	Siliceous argillite, volcaniclastic sandstone, quartzite, siltstone; minor limestone, sheared conglomerate, breccia and greenstone.
CPTAv	Greenstone, tuff.
CPTAc	Massive, crystalline white and grey limestone; minor chert pebble conglomerate, argillaceous limestone and chert.
CPTAcg	Conglomerate with limestone matrix.

Carboniferous

Milford Group

CMss	Siltstone, sandstone, shale; minor quartz granule conglomerate.
CMsp	Black shale, argillite; minor sandstone.
CMvd	Greenstone, chloritic phyllite.

Mississippian

Osagean - Meramecian

Milford Group

MMc	Fine grained grey limestone; minor dolomite and shale.
MMcg	Granule to boulder conglomerate, some with limestone and greenstone clasts.

Mississippian (?) or older

Old Dave Intrusions (includes ultramafic rocks associated with units ЄOEbv and TRJNv).

Pub	Serpentinite and serpentinized ultramafic rocks; minor pyroxenite and peridotite.

Chapperon Group

PCv	Chloritic phyllite, greenstone, micaceous schist; minor limestone and ultramafic rocks.

Devonian

Late Devonian

Mount Fowler Batholith, South Fosthall Pluton;

lDgn	Foliated and lineated leucocratic granite, granitic feldspar porphyry, quartz monzonite, granodiorite, minor pegmatite and quartz diorite.

Figure 21A
Legend to Figure 21 Continued

ORDOVICIAN

LATE ORDOVICIAN

LITTLE SHUSWAP GNEISS

LOgn	LEUCORATIC GRANITE GNEISS, QUARTZ MONZONITE GNEISS, GRANODIORITE GNEISS; MINOR DIORITE GNEISS.

CAMBRIAN AND ORDOVICIAN

EAGLE BAY FORMATION

ЄOEBvq	FOLIATED ACID VOLCANIC ROCKS, CHERT, SILICEOUS PHYLLITE; SHEARED AND ALTERED QUARTZ FELDSPAR PORPHYRY AND/OR QUARTZ GRANULE CONGLOMERATE; GNEISSIC ACID IGNEOUS ROCKS NEAR SHUSWAP LAKE.
ЄOEBv	GREENSTONE, CHLORITIC PHYLLITE; MINOR AGGLOMERATE, SERICITIC PHYLLITE, QUARTZITE, LIMESTONE AND TUFF.
ЄOEBq	SERICITIC, SILICEOUS PHYLLITE, SERICITIC QUARTZITE, QUARTZ BIOTITE SCHIST, QUARTZ BIOTITE GARNET SCHIST; MINOR TUFF AND LAYERS OF UNITS ЄOEBv, ЄOEBc.
ЄOEBp	BLACK ARGILLITE, ARGILLACEOUS PHYLLITE, SHALE; MINOR LIMESTONE.
ЄOEBc	MASSIVE WHITE CRYSTALLINE LIMESTONE, DARK GREY FOLIATED LIMESTONE; MINOR LIMESTONE WITH CHERT NODULES.
ЄOEBcg	CONGLOMERATE, SOME WITH BLACK QUARTZ CLASTS; MINOR BRECCIA AND AGGLOMERATE.

TSHINAKIN LIMESTONE MEMBER

ЄOEBT	MASSIVE WHITE CRYSTALLINE LIMESTONE; MINOR GREENSTONE AND GREENSCHIST.

SILVER CREEK FORMATION

ЄOscq	QUARTZ BIOTITE, SERICITE AND GARNET SCHIST; MINOR QUARTZO-FELDSPATHIC BIOTITE GNEISS, PEGMATITE, AMPHIBOLITE, MARBLE.

CHASE QUARTZITE MEMBER

ЄOscc	QUARTZITE, SILICEOUS MARBLE, CRYSTALLINE LIMESTONE; MINOR PELITIC SCHIST.

PROTEROZOIC AND PALAEOZOIC (MAY INCLUDE ARCHAEAN)

SHUSWAP METAMORPHIC COMPLEX

PPns	UNDIVIDED: GRANITOID GNEISS, PARAGNEISS, SCHIST; MINOR QUARTZITE, MARBLE, AMPHIBOLITE.
PPsb	QUARTZ MICA SCHIST, COMMONLY GARNET-AND SILLIMANITE-BEARING.
PPsq	QUARTZITE; MINOR PELITIC SCHIST.
PPsc	MARBLE, DIOPSIDIC MARBLE; MINOR CALCIUM SILICATE GNEISS AND AMPHIBOLITE.
PPm	AMPHIBOLITE, AMPHIBOLITIC GNEISS, MINOR HORNBLENDE BIOTITE SCHIST.
PPsqc	SILICEOUS MARBLE, CALCAREOUS QUARTZITE, CALCIUM SILICATE GNEISS; MINOR PELITIC SCHIST.
PPgdn	GRANODIORITE, DIORITE AND TONALITE GNEISS; AUGEN GNEISS.

GEOLOGICAL BOUNDARIES (APPROXIMATE, ASSUMED).

FAULTS

MYLONITE ZONES (TEETH ON HANGING WALL).

THRUST FAULTS (APPROXIMATE, ASSUMED; TEETH ON HANGING WALL).

HIGH ANGLE FAULTS (APPROXIMATE, ASSUMED).

PLANAR STRUCTURES

BEDDING (TOPS KNOWN: INCLINED, OVERTURNED).

BEDDING (TOPS UNKNOWN: HORIZONTAL, INCLINED, VERTICAL).

FOLIATION, SCHISTOSITY; GNEISSIC LAYERING OR CLEAVAGE (HORIZONTAL, INCLINED, VERTICAL); EARLIEST OR ONLY OBSERVED.

AXIAL PLANES (INCLINED, VERTICAL) OF MESOSCOPIC FOLDS OBSERVED TO HAVE DEFORMED BEDDING; EARLIEST OR ONLY OBSERVED.

AXIAL PLANES (INCLINED, VERTICAL) OF LATER MESOSCOPIC FOLDS OBSERVED TO HAVE DEFORMED BEDDING, FOLIATION OR PRE-EXISTING STRUCTURES.

AXIAL PLANES (INCLINED, VERTICAL) OF LATEST MESOSCOPIC FOLDS OBSERVED TO HAVE DEFORMED BEDDING AND TWO PHASES OF PRE-EXISTING STRUCTURES.

LINEAR STRUCTURES

LINEATIONS (PLUNGING, HORIZONTAL) FORMED BY FOLD AXES (F), BEDDING/FOLIATION INTERSECTION (X), MINERAL ALIGNMENT OR RODDING (R) AND BOUDINAGE AXES (A); (UNDETERMINED LINEATIONS NOT LABELLED); EARLIEST OR ONLY OBSERVED.

LINEATIONS (PLUNGING, HORIZONTAL) OBSERVED TO BE ASSOCIATED WITH LATE FOLDS OR SUPERIMPOSED UPON PRE-EXISTING STRUCTURES.

LINEATIONS (PLUNGING, HORIZONTAL) OBSERVED TO BE ASSOCIATED WITH LATEST FOLDS OR SUPERIMPOSED UPON TWO PHASES OF PRE-EXISTING STRUCTURES.

FOLDS

EARLY AXIAL TRACE (ANTIFORM: UPRIGHT, OVERTURNED OR RECUMBENT).

EARLY AXIAL TRACE (SYNFORM: UPRIGHT, OVERTURNED OR RECUMBENT).

LATE AXIAL TRACE (ANTIFORM, SYNFORM).

GEOCHRONOLOGIC SAMPLE SITE

♀ PALAEONTOLOGIC SAMPLE

♂ RADIOMETRIC SAMPLE

Table 6
Table of Geologic Events and Lithologic Units in the Scotch Creek Property-area

Time	Formation or Event
Recent 0.01-0 m.y.	**Valley rejuvenation**: Down cutting of stream gullies through till, development of soil profiles.
Pleistocene 1.6-0.01 my.	**Glacial erosion and deposition:** Removal of Tertiary-age regolith, deposition of till and related sediments at lower elevations, smoothing of the Tertiary-age land surface.
Eocene to Pliocene 57.1-1.6 m.y.	**Erosion, and unroofing of the rocks, incision of the land surface:**
Eocene 56.5-35.4 my.	**Tensional faulting:** Deposition of the Kamloops Group flood basalt on the erosional surface
Late Cretaceous to Eocene 97-57.1 m.y.	**Disruption of stratigraphy by northerly trending transcurrent faults, onset of regional erosion.** **Transcurrent and normal faulting of Upper Eagle Bay and Sicamous Formation rocks**
Early to Middle Cretaceous 146-97 m.y.	**Thrust and transcurrent faulting, and deformation of the Cache Creek terrane: Thrust faulting of Upper Eagle Bay and Sicamous Formation rocks possibly related to local development of the Shuswap Metamorphic Complex.**
Early Jurassic to Middle Cretaceous 200-130 m.y.	**Columbian Orogeny:** **Deformation of Cache Creek rocks in a northeastward dipping subduction zone, accretion of Nicola Group rocks to North America:** progressive deformation and regional metamorphism, overriding of Cache Creek and Quesnel terrain rocks onto Kootenay Arc strata, intense deformation, uplift, regional metamorphism culminating in extensive plutonism in Kootenay Arc rocks. The orogeny progressed from east to west. **First and second phase of folding in Upper Eagle Bay and Sicamous Formation rocks**
Late Triassic (Rhaetian) 209.6-200 m.y.	**Deposition of the Nicola Group, and associated alkalic intrusions:** mafic volcanics, associated sediments, and coeval dioritic sub-volcanic intrusions cut by monzonitic to dioritic stocks in an island arc environment.
Late Permian to Early Triassic 256-241 m.y.	**Mild orogenic event in southern British Columbia:** Deformation, low-grade metamorphism, plutonism, uplift and erosion.
Late Devonian to Triassic 355-251 m.y.	**Deposition of the Kaslo and Milford Group clastic sediments in the Cordilleran Miogeosyncline.** These rocks were deposited on an erosional surface resulting in a major unconformity between them and the underlying eugeosynclinal rocks.
Late Devonian to Mississippian 355 to 314 m.y.	**Deposition of Upper Eagle Bay Formation felsic volcanic rocks and Sicamous Formation pelitic and carbonate sedimentary rocks** deposited on an erosional on Middle Eagle Bay stratigraphy. **MINERALIZATION:** **Deposition of disseminated and massive sulphide mineralization across the current Scotch Creek property-area during a trachytic eruption**
Late Devonian 383-355 my.	**Regional Uplift and Plutonism:** An erosional surface developed on the Middle Eagle Bay, Slocan and Lardeau group rocks.
Early to Middle Ordovician 490-460 m.y	**Cariboo Orogeny:** Early deformation and regional metamorphism of the Lower to Middle Eagle Bay Formation, Slocan and Lardeau groups.
Cambrian to Devonian 544-355 m.y.	**Deposition of the Lower to Middle Eagle Bay Formation mafic volcanic and meta-sedimentary rocks**, and the Lardeau and Slocan group volcanics and sediments in the Cordilleran Eugeosyncline.
	m.y. = million years ago

NOTE: Data for this table was compiled by the author from various sources including Okulitch (1979), Hoy (1998), and Douglas ed. (1970).

The uppermost stratigraphic succession that Trygve Hoy (1998) identified, was one of intermediate to felsic volcanic strata intercalated with variable carbonaceous and carbonate-bearing pelitic meta-sedimentary units. He equated those rocks to the Devonian to Mississippian-age Milford Group which is a record of the final miogeosynclynal filling of the Cordilleran Geosyncline. The intermediate to felsic metavolcanic rocks of this succession were considered by some other stratigraphers to have been the uppermost rock units of the Eagle Bay Formation; the pelitic metasedimentary rocks were previously assigned to the Sicamous Formation.

Equivalents of Hoy's (1998) felsic volcanic rocks and metasedimentary rocks are exposed on the current Scotch Creek property, where the two rock units represent facies of one depositional event.

Item 7.2 Regional Geophysics

From June to August, 1965, the federal Department of Mines and Technical Surveys conducted a fixed-wing airborne aeromagnetic survey over the central part of the Shuswap Lake area. Energy, Mines, and Resources Map 4782G covering N.T.S. map-area 82 L/14 was one of the aeromagnetic maps produced. During June, 1965, another fixed-wing aeromagnetic survey was conducted adjacent with and to the west of the Shuswap Lake-area survey. One of the maps produced from that survey was Energy, Mines, and Resources Map 4409G covering N.T.S. map-area 82 L/13 (East half). The current Scotch Creek property-area straddles the boundary of those two maps. Both maps were re-scaled to 1:50,000 to produce parts of Figure 22.

The plateau area covering the northwestern part of the property-area is magnetically flat with intensities ranging from about 61,800 to 62,000 nanoteslas (gammas). The northeastern part of the property area covers the western slope of the Scotch Creek valley. That slope corresponds with a decrease in magnetic intensity that culminates in a magnetic "low" of about 61,200 nanoteslas (gammas) near the creek about 1.8 km (1.1 mi) northwest of the SOUTHERN CROSS 1 (794642) claim.

The most important regional magnetic feature in the property-area is an intense magnetic "high" that is centred on the 1986 Brican grid-area at the boundary between the eastern parts of the MARION (604866) and SOUTHERN CROSS 3 (801662) claims. Previous exploration results indicate that massive sulphide mineralization may be responsible for this regional magnetic feature.

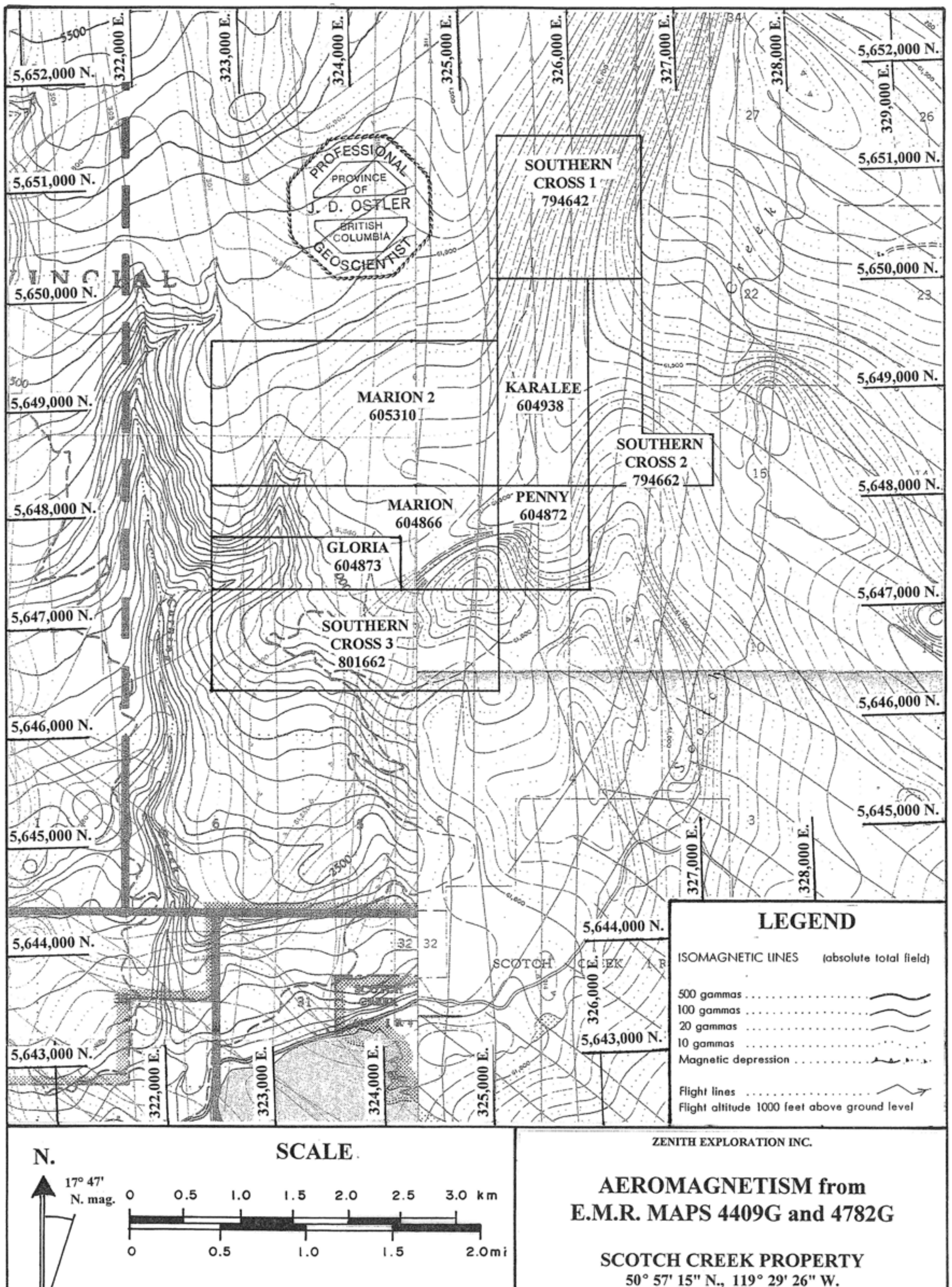


Figure 22

CASSIAR EAST YUKON EXP. LTD.

ZENITH EXPLORATION INC.

AEROMAGNETISM from E.M.R. MAPS 4409G and 4782G

SCOTCH CREEK PROPERTY

50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

Item 7.3 Property Geology

7.3.1 Stratigraphy

At the commencement of the 2010 exploration program there was no reliable geological map of the Scotch Creek property-area.

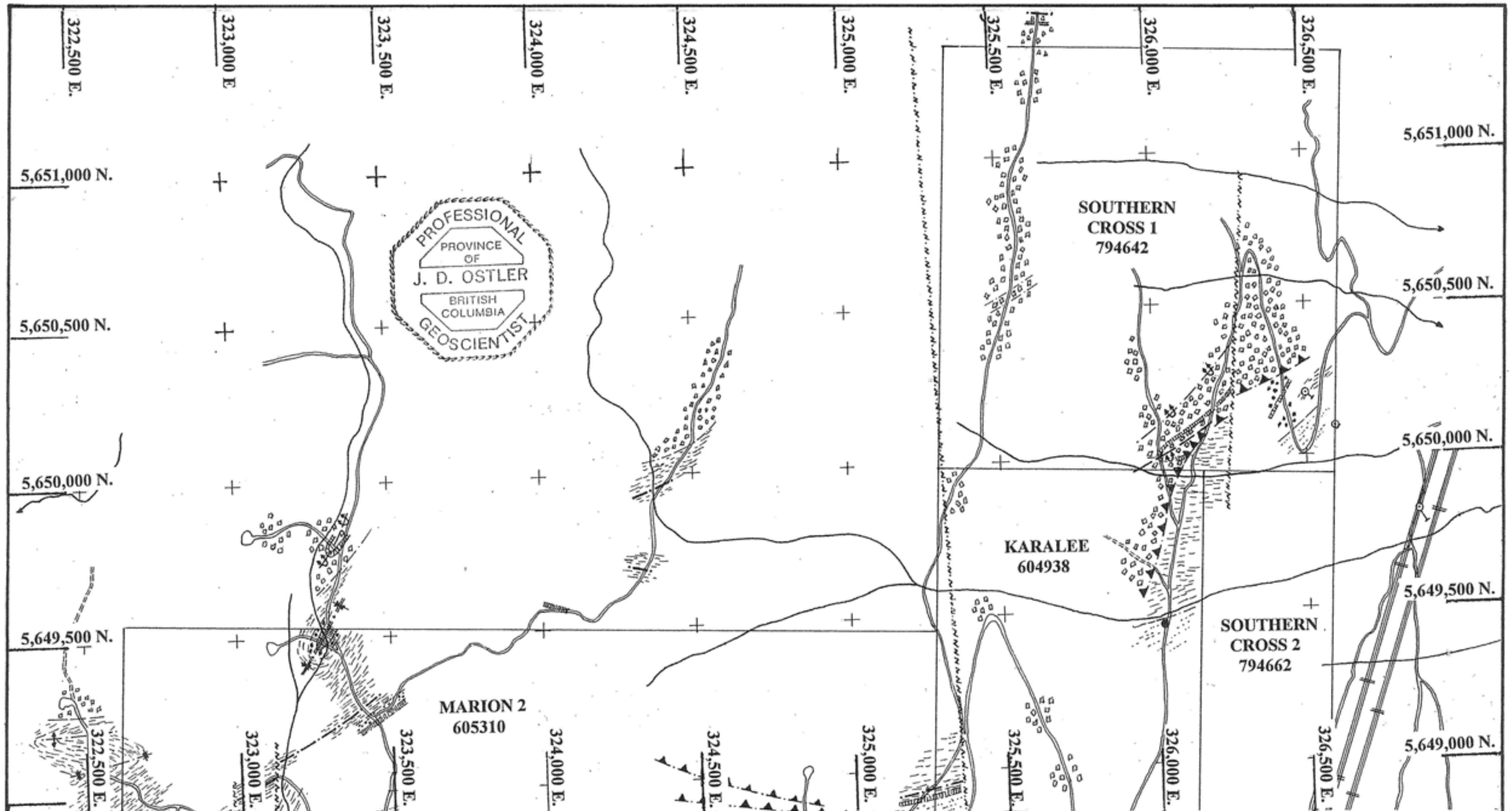
The author's 2010 geologic mapping has revealed that the metasedimentary and metavolcanic rocks in the Scotch Creek property area are an upright succession that represent various coeval facies resulting from two concurrent eruptions into a shallow marine basin (Figures 23N and 23S) (Ostler, 2011B and 2011C).

The eruption responsible for the greatest deposition of volcanic material emanated from a vent-area north of the property-area. It produced a thick pile of rhyolitic to dacitic crystal tuff that was barren of mineralization in the property-area.

Another eruption from a vent-area located east-northeast of the property-area was more trachytic in composition and was responsible for all of the Noranda/Kuroko-type mineralization exposed in the property-area. All of the volcanic stratigraphy mapped to date in the property-area is sub-aqueous.

The most important stratigraphic marker bed on the property is a blue-grey trachytic tuff that is the basal unit of the east-northeastern eruption. That tuff was deposited as a single graded bed up to 4.5 m (14.8 ft) thick in the eastern part of the property area. Its thickness declines to about 1 m (3.1 ft) in the southern and western boundary areas of the property. This increase in thickness to the east-northeast indicates that the vent from which it emanated was located in that direction.

The pyroclastic emission that formed this tuff bed was a single event probably lasting only a few hours. Consequently, the tuff is a precise time-stratigraphic marker defining a single day in geologic history. Not only is this rock-unit located at the base of the east-northeasterly eruption, it occurs within the stratigraphy of the northern eruption on the SOUTHERN CROSS 1 (794642) claim (Figure 23N) and out into the metasedimentary stratigraphy in the southwestern part of the property-area. This reveals that the east-northeasterly eruption and the mineralization with which it was associated was deposited during the progress of the northerly eruption, and both eruptions were spewing pyroclastic debris into the surrounding marine basin while other sediments were being deposited there. All of the rocks on the Scotch Creek property are coeval.



N.
17° 47'
N. mag.

NOTES: This figure is adapted from Ostler, John; 2011C: Figure 15SW.

For legend, see Figure 23A.

SCALE

0 200 400 600 800 1000 m

0 1000 2000 3000 ft

Figure 23N

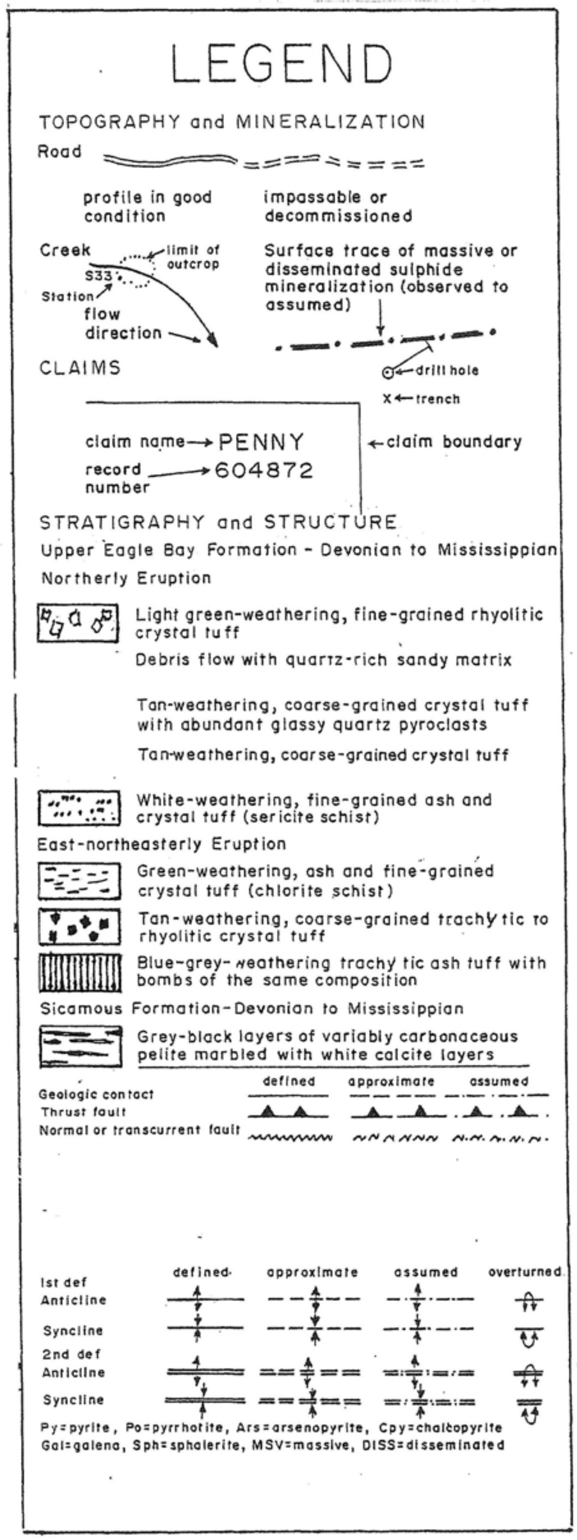
CASSIAR EAST YUKON EXP. LTD.

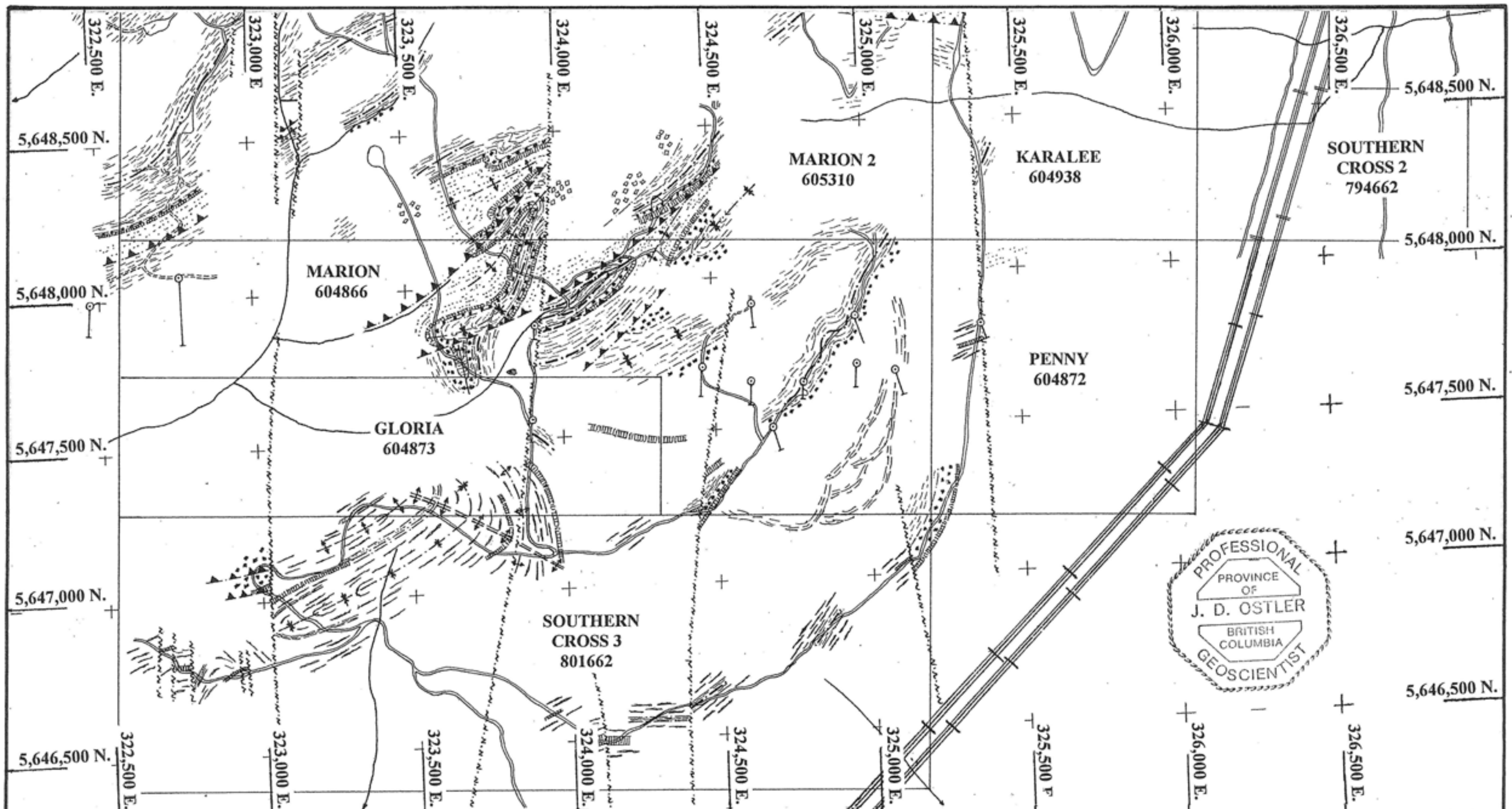
ZENITH EXPLORATION INC.

**SIMPLIFIED PROPERTY GEOLOGY:
NORTHERN PART**

SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

Figure 23A
Legend to Figures 23N and 23S





N.

17° 47'
N. mag.

NOTES: This figure is adapted from Ostler, John; 2011C: Figure 15SW.

For legend, see Figure 23A.

SCALE

0 200 400 600 800 1000 m

0 1000 2000 3000 ft

Figure 23S

ZENITH EXPLORATION INC.

SIMPLIFIED PROPERTY GEOLOGY: SOUTHERN PART

SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

CASSIAR EAST YUKON EXP. LTD.

The rocks of the east-northeastern eruption are a fining-upward succession of trachytic tuffs. Atop that succession is a fine-grained succession of green chloritic tuff or sediment which reflects waning of the eruption and hosts Noranda/Kuroko-type massive sulphide mineralization. Adjacent to the mineralized horizon, the fine-grained tuff becomes quite chloritic and is commonly Lincoln green, both on fresh and weathered surfaces. Blebs and ribbons of sulphide minerals occur throughout the chloritic part of this rock-unit. Mineralization culminates in a layer or series of layers that were deposited in a narrow stratigraphic interval in relatively quiet water above and around the flanks of lenses of the coarse-grained crystal tuff (Figures 5C and 23S). Disrupted traces of the mineralized horizon are exposed a just above the trachytic tuff north of the SOUTHERN CROSS 1 (794642) claim boundary (Figure 23N), indicating that sulphide mineralization occurred over an extensive area during the progress of the northern eruption.

Sulphide deposition occurred in a single, relatively uncontaminated layer in the southern part of the property-area. Farther north on the MARION 2 (605310) claim, it was diluted by pyroclastic material from the northern eruption. In some places, mineralization is split into several beds by intervening rhyolitic ash layers of the barren northern eruption (Figures 5C, 5W, and 23S). For details of the mineralized layer, see Item 7.4 of this report.

Variably carbonaceous and carbonate-rich pelite and marble are exposed across much of the southwestern part of the property-area. These rock-units have been correlated with the Sicamous Formation (Okulitch, 1979 and others) and as the uppermost unit of the Eagle Bay Formation (Hoy, 1998, and others). They represent background sedimentation in a relatively shallow marine basin fairly close to carbonate banks or reefs.

7.3.2 Deformation and Metamorphism

Rocks in the Scotch Creek property-area have been subjected to at least two episodes of folding, followed by thrust faulting and then transcurrent faulting. Both the first and second phases of folding are presumed to be related to the Columbian Orogeny that progressed from the Early Jurassic to Middle Cretaceous Period.

First-phase folds in the Upper Eagle Bay Formation felsic volcanic rocks are close to tight and upright, with east-west trending axial traces. Probably, the axial planes of these folds were nearly vertical when they formed. Most of these folds extend for about 500 m (1,640.4 ft) from limb to limb.

The second phase of deformation produced upright, open folds with mostly northwesterly trending fold axes. The orientations of these folds indicates that the principle compressive stress direction rotated from north-south to northeast-southwest between the first and second phases of folding. Discrete minor structure sets related to the two phases of folding and the rotation of a first-phase cleavage around second-phase fold limbs suggest to the author that plastic deformation was more poly-phase than progressive. Second-phase folds are up to 800 m (2,624.7 ft) from limb to limb.

Unroofing late during the Columbian Orogen may have been responsible for reductions in temperature and confining pressure which resulted in a change in deformation style from ductile to brittle. This was accompanied by another change in the orientation of the principle stresses. The principle compressive stress rotated to a northwest-southeast orientation. This, associated with the advance of metamorphism related to the Cretaceous-age Shuswap Metamorphic Complex northwest of the property-area (Ostler, 2011A) were responsible for the development of thrust faults as felsic volcanic stratigraphy from the east-northeasterly eruption was pushed southeastward over metasedimentary rocks.

From the Late Cretaceous Period to the Eocene epoch, north-northwesterly transcurrent faults developed throughout the Scotch Creek property-area.

Regional metamorphism in the property-area attained a maximum of middle amphibolite grade during the second phase of plastic deformation.

Item 7.4 Mineralization

7.4.1 Volcanogenic Massive and Disseminated Sulphide

Although occurrences of this type of mineralization are plentiful in the Scotch Creek property-area, they are all exposures of a single, extensive, sulphide-bearing, stratigraphic interval located about 30 m (98.4 ft) stratigraphically above the upper contact of the blue-grey trachyte ash tuff. Both of those rock-units are resistant marker beds. Consequently, the general location of the sulphide-bearing interval is easy to predict on the ground.

Material from the coeval northern rhyolitic eruption variously contaminated sulphide deposition which was the background sedimentation on the sea floor at that time. Contamination and disruption of the sulphide-bearing layer decreases from extreme, north of the SOUTHERN CROSS 1 (794642) claim, to moderate and variable on the Marion 2 (605310) claim, to negligible on the MARION (604866) and GLORIA (604873) claims in the southern part of the property-area. Near the northwestern corner of the MARION 2 (605310) claim at station S126A (northwest corner of Figure 5W), the sulphide-bearing interval occurs as thin layers of disseminated and massive sulphide mineralization over a 2-m (6.56-ft) thickness. These laminae are separated by at least three fine-grained, rhyolitic tuff layers.

Undiluted sulphide deposition averages about 25 cm (0.82 ft) in thickness in much of the southern part of the property-area. Thickness increases to more than 3 m (9.84 ft) where sulphide-bearing brines may have ponded in depressions on the palaeo-sea-floor or thickened during deformation as in drill hole SC-3 (Table 5). Four such “basins” are indicated by soil-metal anomalies and geological mapping during the 2010 program augmented by the zinc and silver results of previous surveys and by old drill data (Ostler, 2011B and 2011C). The locations of those basins were confirmed by the distribution of copper + 2.4 X lead + zinc/5.4 (Figures 16 and 24) and also by chargeability anomalies from the current (2012) program (Mark, 2012) (Figure 18). Maximum massive sulphide thickness is not known yet, partly due to sparse data.

The 2010 soil survey results on the eastern part of the MARION (604866) claim indicate that massive sulphide deposition is zoned with regard to copper and zinc contents (Figures 11 and 13). Of particular interest, are copper-rich areas within the northeastern and southeastern “basins” (Figure 16). These areas of high soil-copper contents are interpreted to be reflections of copper-rich zones within more extensive zinc-rich sulphide accumulations. Areas of anomalous soil-silver concentrations within soil-zinc anomalies are deemed to represent zones of high lead and silver concentration in sulphide accumulations assuming that most silver is associated with galena (PbS).

Where sulphide mineralization was thin, metamorphism has been able to penetrate and re-crystallize it. Platy segregations and crystals of pyrite, pyrrhotite, chalcopyrite, sphalerite, galena, and arsenopyrite are normally oriented in local cleavage planes. Sulphides in these areas are comparitively pyrite-rich and deficient in pyrrhotite and arsenopyrite in comparison to thicker massive sulphide sections. This may be due to the replacement of pyrrhotite and arsenopyrite by pyrite and a loss of arsenic during metamorphism.

Where massive sulphide mineralization exceeded 50 cm (1.64 ft) in thickness, it has been almost impermeable to metamorphic fluids; original sedimentary textures and mineralization have been better-preserved. Arsenopyrite and silica separated from the fluid first. Both formed small segregations and beads, commonly less than 1 cm (0.4 inch) long. Arsenopyrite blebs commonly are concentrated in planes parallel with the enclosing bedding planes. Silica blebs are more randomly dispersed throughout the sulphide mass. Chalcopyrite, pyrite, and pyrrhotite all appear to have crystallized next, forming layers and segregations throughout the sulphide mass. Sphalerite and galena form a fine-grained groundmass that fills the voids left after crystallization of other minerals.

Only a small fraction of the total extent of massive sulphide mineralization in the property-area that is indicated by the 2010 and 2012 exploration, and historic drilling has been observed and sampled. Thus, average textures and abundances of various sulphide minerals can not be determined yet. In 2010, the author sampled 42 occurrences of sulphide mineralization that could be found in outcrop and subcrop during his mapping (Ostler, 2011B). Sampling methods varied and coverage was insufficient to be used to predict the tenor or true thickness of unexposed mineralization. However, the block of massive sulphide sampled at station S23 could be used as a general guide to the possible tenor of massive mineralization that is not significantly contaminated significantly with rhyolitic material from the northern eruption. A composite chip sample from that block contained: 456 ppm copper, 0.545% lead, 178 ppm zinc, >1% arsenic, 47.6 gm/mt (1.39 oz/ton) silver, and 2.05 gm/mt (0.06 oz/ton) gold.

7.4.2 Enrichment by Broken Hill (Okanagan)-type Disseminated Mineralization

Repetitions of a single syngenetic bed of Noranda/Kuroko-type massive sulphide mineralization occur in most of the Scotch Creek property area. Generally, these sulphide occurrences are thin and duplication of them by thrust faulting or thickening or in shallow syn-sedimentary basins are the mechanisms upon which one must rely to produce massive sulphide occurrences with minable thicknesses.

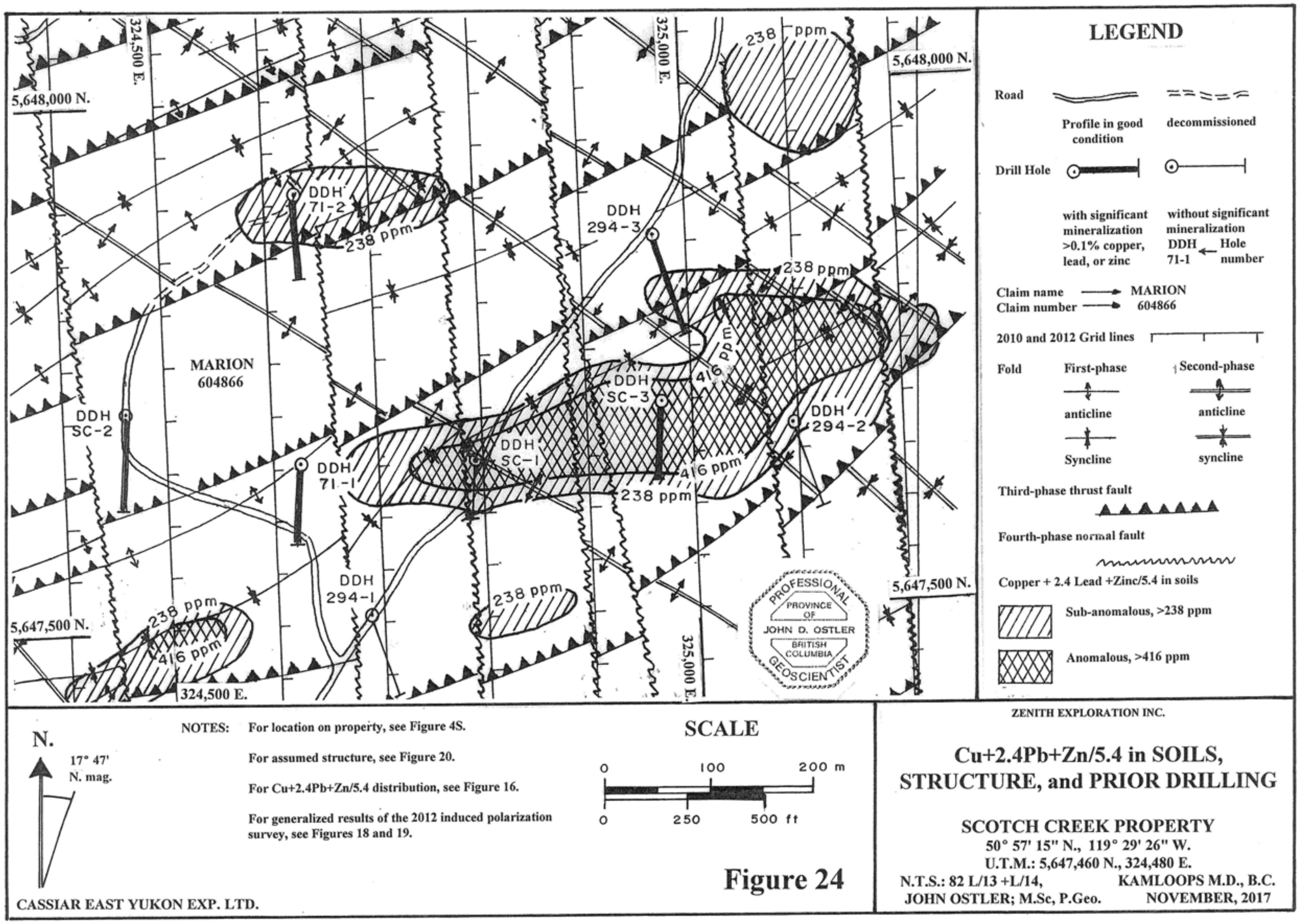

5,648,000 N.
324,500 E.
325,000 E.
5,647,500 N.
DDH 71-2
238 ppm
DDH 294-3
DDH SC-3
DDH SC-1
DDH 71-1
DDH SC-2
DDH 294-1
DDH 294-2
416 ppm
MARION
604866
PROFESSIONAL
PROVINCE OF
JOHN D. OSTLER
BRITISH COLUMBIA
GEOSCIENTIST
LEGEND
Road
Profile in good condition
decommissioned
Drill Hole
with significant mineralization >0.1% copper, lead, or zinc
without significant mineralization
DDH 71-1 Hole number
Claim name MARION
Claim number 604866
2010 and 2012 Grid lines
Fold
First-phase
Second-phase
anticline
Syncline
syncline
Third-phase thrust fault
Fourth-phase normal fault
Copper + 2.4 Lead +Zinc/5.4 in soils
Sub-anomalous, >238 ppm
Anomalous, >416 ppm
N.
17° 47'
N. mag.
NOTES: For location on property, see Figure 4S.
For assumed structure, see Figure 20.
For Cu+2.4Pb+Zn/5.4 distribution, see Figure 16.
For generalized results of the 2012 induced polarization survey, see Figures 18 and 19.
SCALE
0 100 200 m
0 250 500 ft
CASSIAR EAST YUKON EXP. LTD.
ZENITH EXPLORATION INC.
Cu+2.4Pb+Zn/5.4 in SOILS, STRUCTURE, and PRIOR DRILLING
SCOTCH CREEK PROPERTY
50° 57' 15" N., 119° 29' 26" W.
U.T.M.: 5,647,460 N., 324,480 E.
N.T.S.: 82 L/13 +L/14, KAMLOOPS M.D., B.C.
JOHN OSTLER; M.Sc, P.Geo. NOVEMBER, 2017

Figure 24

The massive sulphide target in the southeastern “basin” in the eastern part of the Marion (604866) claim produced the largest and most intense soil and geophysical targets on the property (Figures 16 to 19 and 24). Those difference makes it the primary exploration target thereon.

The Scotch Creek property is surrounded and presumably underlain by anatectic plumes of the Shuswap Metamorphic Complex. In those plumes of hot corrosive fluid, country rock is variably melted in place and sulphide mineralization is re-mobilized and re-deposited at higher levels in the geologic pile. The author expects that this process is responsible for the disseminated mineralization that occurs in the most prospective target area in the southeastern “basin” in the eastern part of the MARION (604866) claim.

At the Alwin property which adjoins the Highland Valley mine property to the west, high grade Cretaceous-age, chalcopyrite-chlorite veins related to the Shuswap Metamorphic Complex overprint potassic alteration related to the main Triassic-Jurassic-age porphyry deposit. North of Lac La Jeune, gold-bearing veins related to the Cretaceous-age Shuswap Metamorphic Complex overprint Triassic-age copper enrichment. At Tinmilsh Lake near Aspen Grove, Triassic-age porphyry mineralization is surrounded by Cretaceous-age copper-bearing quartz veins. One should not be surprised to encounter more than one episode of mineralization on the Scotch Creek property with Cretaceous-age disseminated Broken Hill type mineralization overprinting early Palaeozoic age Noranda-type massive sulphide beds.

Evidence relating to such overprinting from general to specific are as follow:

1. There is a significant regional aeromagnetic anomaly over the eastern part of the MARION (604866) claim that indicates the presence of a significant accumulation of magnetic iron and copper-bearing sulphide minerals, specifically: chalcopyrite, pyrite, and arsenopyrite. Sphalerite (ZnS) is the most abundant economic sulphide mineral in the property area. It is not magnetic and invisible to magnetic surveys.

2. In 1977, Craigmont Mines conducted a drill program in the property area (Daughtry and Wynne, 1987) (Figure 5E). Drill hole SC-3 was drilled in the eastern part of the regional magnetic anomaly in the eastern part of the MARION (604866) claim (Figure 8). Two sections of disseminated mineralization were reported (Table 5): the section from 94.0 to 102.0 m contained 0.24% Cu, trace of Zn, 0.17 gm/mt Au, and 8.57 gm/mt Ag; the section from 105.0 to 106.0 m contained 0.03% Cu, 1.27% Zn, 0.27 gm/mt Au, and 13.0 gm/mt Ag.

3. David Mark (2012) noted that the chargeability high, anomaly ‘D’ located over the southeastern “basin”was significantly different from the others in that it had the signature of a conductor generated by disseminated mineralization (Figure 17).

4. An intense anomaly in the 2012 soil derivative: Cu + 2.4 Pb + Zn /5.4 that relates the local concentration of zinc to the other surveys coincides with other lines of evidence and indicates that drill hole SC-3 penetrated diagonally through the upper part of the most intense mineralization in the southeastern "basin" and on the property (Figures 16 and 24).

Item 8: DEPOSIT TYPES

Item 8.1 Noranda/Kuroko-type Massive Sulphide Deposit

The primary mineral exploration target on the Scotch Creek property is a Noranda/Kuroko type massive sulphide deposit. Noranda/Kuroko massive sulphide deposits were described by Trygve Höy (1995) as follows:

NORANDA/KUROKO MASSIVE SULPHIDE Cu-Pb-Zn G06

IDENTIFICATION

SYNONYM: Polymetallic volcanogenic massive sulphide.

COMMODITIES (*BYPRODUCTS*): Cu, Pb, Zn, Ag, Au (*Cd, S, Se, Sn, barite, gypsum*)

EXAMPLES (British Columbia (MINFILE # - *Canada/ International*):
Homestake (082M025), Lara (092B001), Lynx (092B129), Myra (092F072), Price (092F073), H-W (092F330), Ecstall (103H011), Tulsequah Chief (104K011), Big Bull (104K008), Kutcho Creek (104J060), Britannia (092G003); Kidd Creek (Ontario, Canada), Buchans (Newfoundland, Canada), Bathurst-Newcastle district (New Brunswick, Canada), Horne-Quemont (Québec, Canada), Kuroko district (Japan), Mount Lyell (Australia), Rio Tinto (Spain), Shasta King (California, USA), Lockwood (Washington, USA).

GEOLOGICAL CHARACTERISTICS

CAPSULE DESCRIPTION:
One or more lenses of massive pyrite, sphalerite, galena, and chalcopyrite commonly within felsic volcanic rocks in a calcalkaline bimodal arc succession. The lenses may be zoned, with a Cu-rich base and a Pb-Zn-rich top; low-grade stockwork zones commonly underlie lenses and barite or chert layers may overlie them.

TECTONIC SETTING:
Island arc; typically in a local extensional setting or rift environment within, or perhaps behind, an oceanic or continental margin arc.

DEPOSITIONAL ENVIRONMENT / GEOLOGICAL SETTING:
Marine volcanism; commonly during a period of more felsic volcanism in an andesite (or basalt) dominated succession; locally associated with fine-grained marine sediments; also associated with faults or prominent fractures.

AGE OF MINERALIZATION:
Any age; In British Columbia typically Devonian; less commonly Permian-Mississippian, Late Triassic, Early (and Middle) Jurassic, and Cretaceous.

HOST / ASSOCIATED ROCK TYPES:

Submarine volcanic arc rocks; rhyolite, dacite associated with andesite or basalt; less commonly, in mafic alkaline arc successions; associated epiclastic deposits and minor shale or sandstone; commonly in close proximity to felsic intrusive rocks. Ore horizon grades laterally and vertically into thin chert or sediment layers called informally "exhalites".

DEPOSIT FORM:

Concordant massive to banded sulphide lens which is typically metres to tens of metres thick and tens to hundreds of metres in horizontal dimension; sometimes there is a peripheral apron of "clastic" massive sulphides; underlying crosscutting "stringer" zone of intense alteration and stockwork veining.

TEXTURE / STRUCTURE:

Massive to well layered sulphides, typically zoned vertically and laterally; sulphides with quartz, chert or barite gangue (more common near the top of the deposit); disseminated, stockwork and vein sulphides (footwall).

ORE MINERALOGY (Principal and *subordinate*):

Upper massive zone: pyrite, sphalerite, galena, chalcopyrite, *pyrrhotite, tetrahedrite-tennanite, bornite, arsenopyrite.* Lower massive zone: pyrite, chalcopyrite, *sphalerite, pyrrhotite, magnetite.*

GANGUE MINERALOGY:

Barite, chert, *gypsum, anhydrite and carbonate* near top of lens, carbonate, quartz, chlorite and sericite near the base.

ALTERATION MINERALOGY:

Footwall alteration pipes are commonly zoned from the core with quartz, sericite or chlorite to an outer zone of clay minerals, albite and carbonate (siderite or ankerite).

ORE CONTROLS:

More felsic component of mafic to intermediate volcanic arc succession; near centre of felsic volcanism (marked by coarse pyroclastic breccias or felsic dome); extensional faults.

ASSOCIATED DEPOSIT TYPES:

Stockwork Cu deposits; vein Cu, Pb, Zn, Ag, Au.

EXPLORATION GUIDES

GEOCHEMICAL SIGNATURE:

Zn, Hg and Mg halos, K addition and Na and Ca depletion of footwall rocks; closer proximity to deposit - Cu, Ag, As, Pb; within deposit - Cu, Zn, Pb, Ba, As, Ag, Au, Se, Sn, Bi.

GEOPHYSICAL SIGNATURE:

Sulphide lenses usually show either an electromagnetic or induced polarization signature depending on the style of mineralization and the presence of conductive sulphides. In recent years borehole electromagnetic methods have proven successful.

OTHER EXPLORATION GUIDES:

Explosive felsic volcanics, volcanic centres, extensional faults, exhalite (chert) horizons, pyritic horizons.

ECONOMIC FACTORS

GRADE AND TONNAGE:

Average deposit size is 1.5 million metric tonnes (1.65 million tons) containing 1.3% Cu, 1.9% Pb, 2.0% Zn, 0.16 g/t (0.047 oz/ton) Au and 13 g/t (0.38 oz/ton) Ag ... British Columbia deposits range from less than 1 to 2 million metric tonnes (1.1 to 2.2 million tons) to more than 10 million metric tonnes (11 million tons). The largest are the H-W 10.1 million metric tonnes (11.1 million tons) with 2.0% Cu, 3.5% Zn, 0.3% Pb, 30.4 g/t (0.89 oz/ton) Ag and 2.1 g/t (0.061 oz/ton) Au ,and Kucho with a combined tonnage of 17 million metric tonnes (18.7 million tons) of 1.6% Cu, 2.3% Zn, 0.06% Pb, 29 g/t (0.85 oz/ton) Ag and 0.3 g/t (0.009 oz/ton) Au.

IMPORTANCE:

Noranda/Kuroko massive sulphide deposits are major producers of Cu, Zn, Ag, Au and Pb in Canada. Their high grade and commonly high precious metal content continue to make them attractive exploration targets.

Höy, Trygve, in:
Lefebure, D.V. and Ray, G.E. ed.; 1995, pp. 53-54.

Item 8.2 Broken Hill (Okanagan)-type Massive and Disseminated Deposit

Broken Hill type massive and disseminated sulphide deposits were described by Trygve Höy (1996) as follows:

BROKEN HILL TYPE Pb-Zn-Ag +/- Cu S01

IDENTIFICATION

SYNONYMS: Shuswap-type, Ammeburg-type Zn-Pb, Jervois-type.

COMMODITIES (*BY-PRODUCTS*): Pb, Zn, Ag, (*Cu, Au, barite*)

EXAMPLES (British Columbia (MINFILE # - *Canada/ International*):

Cottonbelt (082M086), River Jordan (082M001), Ruddock Creek (082M082-084), Big Ledge? (082LSE012), Colby? (082ESW062); *Broken Hill and Pinnacles (New South Wales, Australia), Broken Hill and Black Mountain, Aggeneys district and Gammsberg area (South Africa), Knalla and Nygruvan, Bergslaggen district (Sweden).*

GEOLOGICAL CHARACTERISTICS

CAPSULE DESCRIPTION:

Deposits comprise massive to semi-massive galena, sphalerite, pyrrhotite and pyrite and/or magnetite layers or stacked lenses hosted by thin-bedded, commonly calcareous paragnesiss successions. A complex gangue mineralogy includes a variety of calcsilicate minerals. These stratabound deposits are typically thin, but laterally extensive and were deformed and metamorphosed together with their hostrocks.

TECTONIC SETTING:

Strongly deformed and metamorphosed supracrustal rocks commonly referred to as ‘mobile belts’ which probably originated in an intracratonic rift or possibly continental margin setting.

DEPOSITIONAL ENVIRONMENT / GEOLOGICAL SETTING:

Marine sediments and associated minor bimodal (?) Volcanics (often felsic, possibly alkalic) reflect active extensional tectonics. Host successions include inferred evaporites and are generally interpreted as shallow marine. Underlying gneissic successions suggest some deposits formed on or along margins of tectonic highs. However, intense deformation and metamorphism have commonly masked relationships.

AGE OF MINERALIZATION:

Commonly Lower and Middle Proterozoic; some British Columbia deposits may be hosted by Late Proterozoic to Cambrian rocks.

HOST / ASSOCIATED ROCK TYPES:

Hosted by thin-bedded calcareous schists, impure marble, quartzites and, less commonly, graphitic schists. A common and important host rock is garnet quartzite which occurs as envelopes to the sulphide bodies; associated with well layered and heterogeneous successions of quartzite, crystalline marble, quartzo-feldspathic gneiss, hornblende gneiss, and abundant pelitic and calcareous schist and gneiss; locally associated carbonatite and amphibolite. Banded iron formations, chert, gahnite, quartzites and tourmalinites are common in the host stratigraphic succession as distal facies or in footwall successions. Scapolite-rich units and sulphur isotopes suggest associated evaporites. Metamorphic grades vary from amphibolite to granulite.

DEPOSIT FORM:

Stacked sulphide on sulphide/magnetite lenses are common; they are thin, irregular, discontinuous, strongly deformed massive sulphide bodies. Thickening in fold hinges is often critical to make economic thickness. Individual lenses vary from less than a metre to tens of metres and may extend hundreds of metres often grading laterally into quartzite, quartz gahnite, garnet quartzite or pyrite/pyrrhotite disseminated units that may persist for tens of kilometers.

TEXTURE / STRUCTURE:

Mineralization occurs as discontinuous massive to semimassive sulphide lenses or as disseminated stratabound sulphides. Sulphides are massive to irregular banded, with locally coarse "skarn" textures; locally well-layered or laminated sulphides and silicates occur. They are commonly medium to coarse grained and intimately intergrown with gangue calcsilicate minerals, quartz or magnetite; as well, there are occasional thin monomineralic sulphide layers. Disseminated sulphides are common in granular marble. Pegmatite zones are present I some ore (mineralized) zones.

ORE MINERALOGY (Principal and *subordinate*):

Galena, sphalerite, galena, magnetite pyrrhotite pyrite; chalcopyrite, tetrahedrite, molybdenite arsenopyrite, löllingite. In some deposits, magnetite makes up more than 40% of the ore (mineralization). Some deposits display zoning from siliceous Zn-rich to distal carbonate-silicate Pb-Ag ore (mineralization).

GANGUE MINERALOGY:

Quartz, garnet, calcite, rhodonite, magnetite, siderite, pyroxenes and amphiboles, commonly manganiferous, fluorite, *Mn olivine, apatite, gahnite, plagioclase, biotite, chlorite, ankarite, epidote, graphite, barite, hematite, wollastonite, sillimanite, staurolite, vesuvianite*. The complex gangue mineralogy is characteristic of Broken Hill-type deposits.

ALTERATION MINERALOGY:

Original alteration assemblages are replaced by a complex variety of metamorphic minerals. Alteration envelopes and deposit zoning are common in larger deposits, but are generally not recognized in smaller ones. Footwall alteration pipes are generally not recognized, except for some of the Cu-rich deposits, which complicates their interpretation. Typically the alteration reflects enrichment of Fe, Si, Mn, Ca, P, F, K and CO_3 and includes metamorphic silicates including amphiboles, olivine, biotite, phlogopite, sillimanite, orthoclase and clinozoisite as well as carbonates, fluorite and a variety of other minerals. Spessartine-quartz halos surround many deposits, with more regional silicification (quartz) and K (sillimanite) enrichment. In the Broken Hill area, Australia, with increasing intensity of mineralization, Fe-Si-Mn systems (typical of metamorphosed iron formations) are overprinted by extreme Ca-Mn-F enrichment with calcsilicate assemblages.

WEATHERING:

Large gossans are not common; however, pyrrhotite and pyrite in some deposits locally produce rusted outcrops. Some Australian deposits have deep weathered zones: gossanous quartz-garnet-gahnite rocks, with abundant Mn and Fe oxides (goethite and coronadite) and carbonates (dolomite, cerrusite, and smithsonite). Leached sulphides mark the transition into underlying sulphide ore (mineralization).

ORE CONTROLS:

Not well understood; deposits appear to be restricted to Proterozoic “mobile belts”, generally interpreted to be intracratonic rifts. Oxidized shallow marine basins, possibly developed due to extensional faulting above basement highs, and associated bimodal (?) Volcanism are local controls.

GENETIC MODEL:

Difficult to interpret due to high metamorphic grades. A sedimentary exhalite origin, with sulphide deposition in rapidly deepening rifts, is preferred because the deposits are associated with iron formations, chert and Mn-rich iron oxide facies. This environment, dominated by oxidized facies, contrasts with reduced, anoxic basins that commonly host sedex deposits. However, associated bimodal volcanics, ore (mineralization) and gangue chemistry and sulphide textures suggest similarities with volcanogenic massive sulphide deposition. Some workers have supported replacement models for the mineralization.

ASSOCIATED DEPOSIT TYPES:

Sedimentary exhalitave deposits ..., carbonatites ..., nepheline syenites, polymetallic veins ... and W-Mo veins.

EXPLORATION GUIDES

GEOCHEMICAL SIGNATURE:

Anomalous enrichments of Mn, Cu, Au, Bi, Sb, W, Co, and As in the ore (mineralization) and some proximal exhalative units; high Ag:Pb ratios, Mn and K enrichment (with muscovite, k-feldspars and sillimanite) in alteration halos; elevated base metal values (concentrations) (particularly Zn) and Mn in more regional iron formations. In silt samples expect anomalous Pb, Zn, Ag, Mn and Ba.

GEOPHYSICAL SIGNATURE:

Deposits with associated magnetite produce strong magnetic anomalies. Electromagnetic and induced polarization surveys may detect those deposits with pyrrhotite and pyrite massive sulphide lenses. Associated graphite in some (*e.g.* Big Ledge) may provide local targets.

OTHER EXPLORATION GUIDES:

Main exploration guide is appropriate sedimentary/tectonic environment - thin-bedded succession of paragneiss with abundant carbonate. The mineralization may occur at, or near, the transition from quartzo-feldspathic basement rocks to fine-grained metasediments. Rapid lithologic facies change changes in the vicinity of deposits may indicate local hydrothermal systems. Associated volcanism is indicative of extension or rifting. Associated volcanism is indicative of extension or rifting. In closer proximity to deposits, unusual mineral assemblages include garnet quartzites, gahnite quartzites and Mn-rich calcsilicate with skarn textures.

ECONOMIC FACTORS

TYPICAL GRADE AND TONNAGE:

Deposits frequently occur in clusters with numerous small, uneconomic deposits. Broken Hill-type targets average less than 5 to 20 Mt, but may be in excess of 100 Mt (Broken Hill, Australia: 280 Mt containing 10.0% Pb, 8.5% Zn and 148 g/t Ag, including approximately 150 Mt of more than 20% Pb + Zn). Grades are variable, commonly with 2 to 10% Pb, 2 to 8% Zn and 10 to 150 g/t Ag. Some deposits contain no byproduct copper, others have 0.1 to 1% Cu. In British Columbia, known deposits range in size from less than one million to 6.5 Mt; geological reserves (resources) may be considerably larger. Grades range from approximately 2 to 5% Zn and 2.5 to 6.5% Pb with up to 50 g/t Ag. Ruddock Creek contains 5 Mt with 7.5% Zn, 2.5% Pb and Jordan River, 2.6 Mt with 5.6% Zn, 5.1% Pb and 35 g/t Ag.

ECONOMIC LIMITATIONS:

Structural thickening is often critical to the genesis of economic deposits. Broken Hill-type deposits have not been mined in British Columbia, due mainly to their form - thin, though laterally persistent layers - and their location in remote, mountainous terrains.

IMPORTANCE:

These deposits are an important source for lead, zinc and silver, and remain attractive exploration targets in British Columbia.

Höy, Trygve
in:
Lefebure, D.V. and Höy, Trigve ed.; 1996, pp. 117-119.

Item 9: EXPLORATION

Item 9.1 Summary of the Exploration Conducted by the Author on the Scotch Creek Property

During the summer of 2009, the author examined the published literature regarding the area currently covered by the Scotch Creek property. On April 15, 2011, the author examined published and unpublished documents regarding the property-area in the Discovery Consultants Ltd. property files located in Kelowna, British Columbia.

The author conducted exploration on the Scotch Creek property from May 31 to June 3, June 11 to 15, August 30 to September 17, and September 21 to October 2, 2010.

The main part of Signal Exploration's 2010 exploration on the Scotch Creek property was conducted from August 30 to October 2, 2010 (Ostler, 2011B). The writer attended at the property at several times while conducting exploration on a near-by property from June 3 to 17 and from June 24 to July 9, 2011.

Cutting of the 2012 geophysical grid was conducted by the author's company, Cassiar East Yukon Expediting Ltd. from June 5 until July 5, 2012. During that program, the author was on the Scotch Creek property from June 5 to 10, June 12 to 14, June 16 to 20, and from June 23 to July 5, 2012. Also, he was on the property at various times from September 5 to September 25, 2012 while conducting work on other parts of Adams Plateau.

Item 9.2 Current Exploration

Zenith Exploration Inc. has conducted no exploration or sampling on the Scotch Creek property.

Item 10: DRILLING

Zenith Exploration Inc. has conducted no exploration or sampling on the Scotch Creek property.

Item 11: SAMPLE PREPARATION, ANALYSIS, AND SECURITY

Zenith Exploration Inc. has conducted no exploration or sampling on the Scotch Creek property. Thus, there is no sample preparation, analysis or security upon which to report.

Item 12: DATA VERIFICATION

All available data from prior exploration programs has been reviewed by the author who is the Qualified Person for the Scotch Creek project as described in Part 1.1 of National Instrument 43-101.

Much of the historic exploration results were not filed for assessment credit and thus were not entered into the public record. Fortunately, some of those results survived in the files of Discovery Consultants Ltd. of Vernon, British Columbia. The author is grateful for the opportunity to view those files.

K.L. Daughtry (1986) reported that in 1970, the Shuswap Syndicate conducted a silt-geochemical and prospecting program that resulted in the discovery of massive and disseminated sulphide mineralization on Nikwikwaia and Corning creeks. The most notable occurrence was a 0.91-tonne (1-ton) boulder of massive sulphide from which a grab sample contained greater than 10% copper. No reports from that program are available to the author. However, the location of the massive sulphide boulder is recorded on a 1971 geological map produced by Derry, Michener and Booth presumably for the Shuswap Syndicate. The estimated location of the boulder is recorded in Table 4 and in Figure 5W of this report.

From 1970 to 1972, the Shuswap syndicate staked 177 claims and conducted geological mapping, soil and ground magnetic surveys over a broad area that included the current Scotch Creek property-area (Figures 4N and 4S). Three progress reports dated from 1970 to 1972 written by K.L. Daughtry for the Shuswap Syndicate and for Derry, Michener and Booth Ltd. were listed in the references of K.L. Daughtry (1986) (Item 27, this report). Those reports were not available to the author. However, he was able to gain possession of 1:9,600-scale ground-magnetic, soil-copper, soil-zinc, and geological maps recording some of the 1971 work from the Discovery Consultants property file.

Data from the ground magnetic survey was not corrected for diurnal variation in the solar flux. Consequently, differences in recorded magnetic intensities due to diurnal variations were far greater than those generated by differences in the magnetism of local stratigraphy over most of the grid, rendering that data of little use. The 450-m (1,476-ft) line spacings were so great that neither magnetic nor soil geochemical data could be contoured among them with any confidence. However, areas of high soil-copper and zinc concentrations crossed by the 1971 lines corresponded with those areas with high soil-metal concentrations as identified by subsequent surveys.

The 1971 geological mapping crew focused on major creek gullies and locations where outcrops had been reported by the soil-survey crew (Figures 4N and 4S). Although the mappers diligently recorded the metamorphic minerals that they saw in outcrop, they did not “see” through the metamorphism to discern original stratigraphy; thus, their interpretations were inconsistent. For example, coarse-grained crystal tuffs were described as anything from quartz-diorite gneiss to quartz-eye greywacke. However, their observations were consistent, and upon re-mapping at some of their stations, the author could translate most of their rock descriptions into original volcanic or sedimentary rock types (Figures 5E, 5C, 5W, 23N, and 23S) (Item 7.3, this report). The most obvious planar attitude of each outcrop was recorded as a cleavage; no structural interpretation was attempted.

The author opines that a combination of uncorrected magnetic data, sparse soil data, and a lack of understanding of the structural geology and pre-metamorphic stratigraphy of the area by the 1971 exploration crew resulted in the simplistic assumption that mineralization was hosted in an inverted monoclinal succession of schists and phyllites that had an east-west strike and a northerly dip (Figure 6). That fallacious assumption misguided exploration for the next 15 years.

From August 29 to September 29, 1971 Derry, Michener and Booth Ltd. conducted a drill program for the Shuswap Syndicate. A total of 622.4 m (2,042 ft) of BQ drilling was done. Holes 71-1 and 71-2 were drilled in the eastern part of the current MARION (604866) claim (Figures 4S and 5C). Holes 71-3 to 71-5 were drilled up hill from the Acid Creek adits and on the current SOUTHERN CROSS 1 (794642) claim (Figure 5E). Although the author has seen no reports of the 1971 drilling, he did find a copy of the original drill logs in the Discovery Consultants property file. Rock types were logged by the metamorphic minerals present. There were no stratigraphic or structural interpretations. Although no certificates of analysis or assay were present, results of analyses of higher-grade sections were recorded in the logs (Table 5). The author estimated drill hole locations from pencil additions to the 1971 geological map (Figures 5E and 5C) (Table 5). He has seen no core from this drilling. Results of the 1971 Derry, Michener and Booth drilling were not confirmed.

By 1976, some of the current Scotch Creek property-area was covered by the SC claim group, owned by Brican Resources Ltd. and optioned to Craigmont Mines Ltd. Craigmont commissioned an airborne DIGHEM survey of an extensive area that included the 1976-era SC claim group (Fraser, 1976). No report of that survey was available, thus the results of it remain unknown to the author.

A grid comprising 48 km (29.3 mi) of line and covering 9.4 km^2 (3.5 mi^2) was cut in an area that covered most of the current Scotch Creek property (Figures 4N and 4S). K.L. Daughtry and A. Wynne (1987) reported that soil geochemical, magnetometer, and very low frequency, electromagnetic surveys were conducted over the whole grid area. The results of the soil survey were filed for assessment credit by N.B. Vollo (1977B). No reports of the 1977 Craigmont geophysical surveys are known to the author.

A soil-copper anomaly generally co-incident with the 1971 main geophysical anomaly was located in the southern part of the 1977 grid on the eastern parts of the current MARION (604866) and GLORIA (604873) claims. Other anomalies occurred across the two previously mentioned claims as well as in the southern part of the current MARION 2 (605310) claim. The patterns of both the 1977 soil-copper and lead anomalies were similar to those from the 2010 Signal soil survey (Figures 15 and 16) (Ostler, 2011B). Thus results from the two surveys are mutually confirmatory.

Although the trace of the main 1971 geophysical anomaly could be interpreted to have been expressed in soil-zinc anomalies across the southern part of the 1977 soil grid-area, the anomalies are weak and not very indicative of local zinc mineralization. By comparison, the soil-zinc anomalies from the 2010 survey are quite intense (Figure 13). Obviously, the amount of zinc in those soil profiles has not changed significantly from 1977 to 2010. The author is of the opinion that the difference in the results of the two soil surveys is due to recent improvements in lab techniques, most notably to the development of the ICP (induced coupled plasma) technique.

From May 16 to June 10, 1977, Craigmont conducted a diamond drill program of 509 m (1,669.9 ft) of BQ core drilled in four holes. Holes SC-1 and SC-2 were drilled north of the road that extends along the slope crest in the eastern part of the current MARION (604866) claim (Figures 4S and 5C). Drill hole SC-3 was drilled down hill from the road at a location about 190 m (623.4 ft) east-northeast of hole SC-1. Drill hole SC-3 penetrated the most intense part of the 1971 geophysical anomaly (Figure 6). Drill hole SC-4 was drilled beneath the 671 road in the eastern part of the current GLORIA (604873) claim. SC-4 tested what was perceived to be the western extension of a single east-west trending anomaly (Daughtry and Wynne, 1987) (Figures 4S and 6).

The log of drill hole SC-2 without assays was filed for assessment by N.B. Vollo (1977A). The author found the original drill logs and K.L. Daughtry's notes on this drilling in the Discovery Consultants property file. The author suspects that this drilling was reported upon by K.L. Daughtry in 1978 to Brican Resources. That report is not available to the author. The drill logs from 1977 were similar to those from the 1971 drilling. Rock units were described by metamorphic minerals, structural interpretations were minimal, and they contained no certificates or other records of analyses. The author found sampling summaries from those drill holes among K.L. Daughtry's unpublished notes (Table 5). No core from this drilling is known to exist. The results of the 1977 Craigmont drilling could not be confirmed.

Esso Resources Canada Ltd. optioned the SCOTCH property from Brican in March, 1979 and conducted further ground magnetometer and electromagnetic Max Min (horizontal loop) surveys (Wilson, 1979) (Figure 7). The electromagnetic anomalies from that survey were weak and inconclusive. D.L. Daughtry and A. Wynne (1987) wrote, "This work confirmed the presence of strong magnetic anomalies with significant apparent displacement from the location defined by Craigmont." The author agrees that the magnetic anomalies from the 1979 Esso survey more closely resemble those of the 1977 and 2010 soil surveys (Figures 11 to 15) than they do the 1971 main geophysical anomaly as assumed by the Shuswap Syndicate (Figure 6). The similarities of the results of the 1977, 1979 and 2010 surveys provides some mutual confirmation of those results.

Esso drilled hole 79-3 on the 671 road in the central part of the current MARION (604866) claim. That 125.3-m (411.1-ft) long hole tested one of the 1979 conductors (Stewart, 1979). In his log, Alfred Stewart reported thin intervals of disseminated sulphide mineralization. No sampling results were included in his assessment report. Alfred Stewart was the first core logger working in the property-area who saw through the effects of metamorphism to discern the original sedimentary and volcanic stratigraphy in the drill core. The author did not encounter any core from the 1979 Esso drill hole and can not confirm the results from that drilling.

In 1983, Esso sent J.M. Marr (1984) to the Scotch Creek area to conduct some geological mapping, rock and silt sampling (Figures 4N and 4S). The author re-visited some of Marr's outcrops and he estimates that Marr spent three days on the project. Marr's mapping results are about the same as those recorded on the 1971 Derry, Michener and Booth maps.

In 1985, Brican Resources Ltd. conducted a hand and backhoe trenching program. Although no report of that trenching was available to the author, he did find K.L. Daughtry's unpublished notes about that program in the Discovery Consultants property file. A total volume of 146.2 m^3 (5,129.5 ft^3 or 193.5 yd^3) of work was reported in 10 trenches. The trench locations were not recorded. Several 1980s-era hand and backhoe trenches that occur along the logging road across the northeastern MARION (604866) claim are assumed by the author to be most of those trenches. That work could not be confirmed.

In 1986, Brican Resources Ltd. cut a grid over the area surrounding the location of drill hole SC-3 in the eastern part of the current MARION (604866) claim (Figure 4S). The grid covered 7.5 ha (18.5 A) of which 6.0 ha (14.8 A) was covered by a magnetic survey (Daughtry, 1986). Later that summer, the grid was expanded to comprise 4.2 km (2.56 mi) (Daughtry and Wynne, 1987). The ground magnetic survey was re-done. Also a MAX-MIN horizontal-loop, electromagnetic survey was conducted over the whole expanded grid (Figures 8 and 9). A gravity survey conducted along line 4 + 00 E, resulted in the production of a single gravity profile (Figure 10).

The pattern resulting from the second 1986 Brican magnetic survey was typical of one derived from a folded, or fault-repeated mineralized unit. Although less definitive than the 1986 magnetic data, the results of the electromagnetic survey are similar (Figures 8 and 9). The 1986 Brican anomalies are in the same area as D.G. Mark's (2012) chargeability anomaly 'D' (Figure 17). The identification of anomaly 'D' from the 2012 induced polarization survey provides confirmation of the 1986 Brican magnetic and electromagnetic anomalies.

The southern end of Line 4+00 E of the 1986 Brican grid is on probably the thickest part of a para-glacial debris flow. Debris-flow thickness decreases to nil where the line crosses the road at the slope crest at about 1+60 N. A 20 to 30-cm (0.6 to 1-ft) thick layer of disseminated to massive sulphide mineralization is exposed along the northwestern margin of the road (Figures 5C and 10). These features are deemed to be largely responsible for generally increasing gravity intensity from south to north along the line. Two gravity highs, occurring at about 2+20 S and 0+00 S are close to the 1986 Brican magnetic anomalies and are covered by the southeastern "basin" anomaly as defined by the Cu + 2.4Pb + Zn/5.4 derivative (Figures 16 and 24). The results of the 1986 Brican surveys are consistent with para-glacial geomorphological features on the ground and with the results of the 1979 and 2012 geophysical as well as 1977 and 2010 soil surveys. Thus, the results of all of these surveys are mutually confirmatory.

From January 23 to February 25, 1988, Brican Resources Ltd. conducted a program that resulted in the drilling of a total of 1,220.4 m (4,003.9 ft) of NQ core in 6 holes (Figures 5C and 5W) (Table 5).

Drill holes 294-1 to 294-3 were drilled into the 1986 Brican grid-area in the eastern part of the current MARION (604866) claim. Drill hole 294-3 was located on the road along the ridge crest in the northeastern part of the 1986 Brican grid. It tested an northeastward strike extension of the mineralized rock intersected in hole SC-3 that was drilled in 1977. Hole 294-3 had four significantly mineralized intersections (Table 5) and confirmed that there was some extent to the sulphide mineralization that was intersected in drill hole SC-3.

Drill holes 294-5 and 294-6 were located on coincident soil-geochemical and co-incident geophysical anomalies that had been identified by 1971 to 1979 surveys between the main and eastern branches of Corning Creek. Hole 294-5 was drilled on the current MARION (604866) claim near its western boundary. Base-metal intersections in those two drill holes confirmed the soil-lead anomaly into which they were drilled (Figures 4S, and 5W).

The 1988 Brican drilling was filed for assessment credit (Kyba, 1988). Little attempt was made to see through metamorphism to record original stratigraphy. Although certificates of analysis did not accompany the logs, results of the sampling of intersections with comparitively high metal contents were included with the logs. The author has seen no core from the 1988 Brican drill program and can not confirm those results.

Bruce Squinas, Joseph Lawrence and two associates conducted a prospecting program in the property-area from April 17 to 22, 2010 (Squinas, 2010). The prospectors found indications of four occurrences of Noranda/Kuroko-type sulphide mineralization and one occurrence of pegmatite fault-related mineralization. Subsequently, those occurrences were confirmed in person by the author in the presence of Bruce Squinas.

The author personally conducted or supervised all of the 2010 exploration on the Scotch Creek property and filed the results in an assessment report (Ostler, 2011B) (Figures 10 to 15, and 23N to 23S). Also, he conducted the line cutting portion of the 2012 induced polarization program, calculated geological structure in the 2012 grid-area (Figure 20), constructed the derivative: Cu + 2.4XPb +Zn/5.4 from the 2010 soil results and mapped its distribution (Figures 16 and 24).

The 2010 exploration program was designed to gain an understanding of why mineralization occurred where it did so that its location and orientation could be predicted with some confidence. The 2012 induced polarization program was designed to increase the confidence level at which the trends of mineralization could be predicted. Both programs succeeded, and consequently, the current data from the property is adequate to support the author's conclusions and recommendations in this Technical Report.

Item 13: MINERAL PROCESSING AND METALLURGICAL TESTING

To the knowledge of the author, no mineral processing studies or metallurgical tests have been conducted on mineralization from the Scotch Creek property-area.

Item 14: MINERAL RESOURCE ESTIMATES

To the knowledge of the author, no resource estimates have been calculated of mineralization within the Scotch Creek property-area.

Items 15 to 22: REPORTING REQUIREMENTS FOR ADVANCED PROPERTIES

Reporting requirements for development and production properties contained within National Instrument 43-101 and in Items: 15 to 22 of 43-101F1 are not applicable to this report.

Item 23: ADJACENT PROPERTIES

No development on any adjacent property affects the potential of the Scotch Creek property.

Item 24: OTHER RELEVANT DATA AND INFORMATION

There are no unusual or unique circumstances or facts affecting the ownership, or potential to develop the Scotch Creek property.

Item 25: INTERPRETATIONS AND CONCLUSIONS

Prior to 2009, no structural geology had been conducted in the Scotch Creek property area, one which had been subjected to four phases of deformation. Consequently, early exploration success had been sporadic and early operators did not understand why they found mineralization or how they could find more of it.

Total monetary value of recent (2010 to 2012) exploration on the property was in excess of $325,000 according to the audited records of Signal Exploration Inc. The author personally conducted or was involved in that exploration and in his opinion it was critical to advancing the Scotch Creek property to its current state in which the reasons for location of mineralization are reasonably well-known and the possibility of finding a body of economic mineralization is increased greatly. If a formal valuation of the Scotch Creek property is to be done, the author suggests that the value of the 2010 to 2012 exploration of the property should be included in that valuation.

The 2010 exploration program was designed to gain an understanding of why mineralization occurred where it did so that its location and orientation could be predicted with some confidence. The 2012 induced polarization program was designed to increase the confidence level at which the trends of mineralization could be predicted. Both programs succeeded, and consequently, the current data from the property is adequate to support the author's conclusions and recommendations in this Technical Report.

Repetitions of a single syngenetic bed of Noranda/Kuroko-type massive sulphide mineralization occur in most of the Scotch Creek property area. Generally, these sulphide occurrences are thin and duplication of them by thrust faulting or thickening in shallow syn-sedimentary basins are the mechanisms upon which one must rely to produce massive sulphide occurrences with minable thicknesses.

The massive sulphide target in the southeastern "basin" in the eastern part of the Marion (604866) claim produced the largest and most intense soil and geophysical targets on the property. Those difference makes it the primary exploration target thereon.

The Scotch Creek property is surrounded and presumably underlain by anatectic plumes of the Shuswap Metamorphic Complex. In those plumes of hot corrosive fluid, country rock is variably melted in place and sulphide mineralization is re-mobilized and re-deposited at higher levels in the geologic pile. The author expects that this process is responsible for enrichment of the original Palaeozoic-age massive sulphide mineralization in the southeastern "basin" by Cretaceous-age disseminated mineralization related to fluids of the Shuswap Metamorphic Complex. Presently, the southeastern "basin" located in the eastern part of the MARION (604866) claim, is the most prospective exploration target on the Scotch Creek property.

Item 26: RECOMMENDATIONS

It is recommended that a two-phase program comprising drill site access development, trenching, and drilling be conducted in the southeastern “basin” located in the eastern part of the MARION (604866) claim.

The first phase of the recommended program should comprise access and drill site development, and excavator trenching. The 1977 drill road extends northeastward along the break in slope from the switchback at KM 12 on the 671 road. Although the roadbed is in good condition, the road is covered with brush and fallen trees. 1.4 km of road from the switchback to a log landing at U.T.M.: 5,647,600 N., 324,860 E. should be cleaned and renovated with a mid-size excavator (200 to 250 size). 1.2 km of new road should be built down the slope east of the landing, across the soil anomaly of the southeastern “basin”. Although there is no rock outcrop in that area, it is assumed that rock outcrop is not far from surface and some mineralized rock will be exposed during road construction. This should be augmented by machine trenches excavated across the target zone. All roadside and trench rock exposures should be sampled to provide some quantification of the tenor of mineralization across the target zone. Two roadside drill sites should be developed: one near the location of 1977 drill hole SC-3, and the other near the centre of the most intense part of the soil anomaly in the eastern part of the southeastern “basin”.

The second phase of the recommended program should result in 1,200 m (3,937 ft) of NQ or NT core to be drilled in the southeastern “basin” area on the MARION (604866) claim. A series of four holes averaging 300 m (984 ft) in length should be drilled in groups of two at the following two locations:

Location 1 at 5,647,675 N., 325,170 E., in the eastern part of the soil anomaly
Location 2 at 5,647,600 N., 324,875 E., northwest of 1977 DDH SC-3
At each location a hole should be drilled at 160°/-65° and 200°/-65°. Core should be split and sampled at 2-m (6.56-ft) intervals resulting in the production of 600 samples. Estimated costs are as follow:

Table 7
Estimated Cost of the Recommended First-phase Exploration Program

Item	**Cost**	**Accumulated Cost**
Direct Excavator Costs: 2.6 km (1.59 mi) of road renovation and construction, including culvert development, opening and closing of trenches and development of 2 drill sites, including down time for sampling, 24 days @ $1,600/day (all-in price) . . . . Machine and equipment mobilization . . . . Culverts	$ 38,400 $ 2,000 $ 4,000 $ 44,400	$ 44,400
Geological Wages: Geology, engineering rock sampling and project field supervision, 1 geologist 28 days @ $600/day . . . . 26 days program management, data compilation, and reporting @ $600/day	$ 16,800 $ 15,600 $ 32,400	$ 32,400
Transport and Crew Costs for Geological Support and Management: 1-ton 4X4 pick-up truck; 28 days @ $160/day . . . . Fuel	$ 4,480 $ 1,000 $ 5,480	$ 5,480
Camp and Crew Costs for Geological Support and Management: Cabin rental; 1 month @ $5,000/month . . . . Field and Sampling supplies . . . . Camp food and meals in transit; 28 man days @ $35/day	$ 5,000 $ 300 $ 980 $ 6,280	$ 6,280
Communication Costs: Satellite phone and long distance telephone . . . . FM truck radio; 1 month @ $120/month	$ 400 $ 120 $ 520	$ 520
Assay and analysis Costs: 120 rock samples ICP + fire assay @ $75/sample	$ 9,000	$ 9,000
Office, Environmental and Compliance Costs: Project administration . . . . Filing and maintenance of Notice of Work . . . . Office expenses	$ 3,000 $ 5,000 $ 2,400 $ 10,400	$ 10,400
Itemized Cost of Recommended First-phase Program		**$ 108,480**
Goods and services tax (G.S.T.) (5% of $108,480)		$ 5,424
Itemized Budget		**$ 113,904**
Contingency 10% of itemized budget		$ 11,390
Total Estimated Cost of Recommended First-phase Program		**$ 125,294**

Table 8
Estimated Cost of the Recommended Second-phase Exploration Program

Item	**Cost**	**Accumulated Cost**
Direct Drilling Costs:		
1,200 m (3,937 ft) of NQ or NT core drilling @ $120/m	$ 144,000	
(This is an all-in sub-contractor's price including such items as bits and hole control fluids)		
Drill, machinery and rod mobilization	$ 5,000	
220 wooden N core boxes + lids @ $30/box + lid	$ 6,600	
	$ 155,600	$ 155,600
Geological Wages:		
1 geologist (agent for the client company for the purpose of shift reports)		
22 days field time @ $600/day	$ 13,200	
25 days program management, data compilation, and reporting @ $600/day	$ 15,000	
1 geological technician 22 days @ $380/day	$ 8,360	
	$ 36,560	$ 36,560
Transport and Crew Costs for Geological Support and Management:		
1-ton 4X4 pick-up truck; 22 days @ $160/day	$ 3,520	
Fuel	$ 1,000	
	$ 4,520	$ 4,520
Camp and Crew Costs for Geological Support and Management:		
Cabin rental; 1 month @ $5,000/month	$ 5,000	
Core splitter rental, splitting and sampling supplies	$ 1,600	
1 chain saw; 22 days @ $30/day	$ 660	
Camp food and meals in transit; 44 person days @ $35/person day	$ 1,540	
	$ 8,800	$ 8,800
Communication Costs:		
Satellite phone and long distance telephone	$ 400	
FM truck radio; 1 month @ $120/month	$ 120	
	$ 520	$ 520
Assay and analysis Costs:		
600 2-m core samples ICP + fire assay @ $75/sample	$ 45,000	$ 45,000
Office, Environmental and Compliance Costs:		
Office expenses	$ 2,400	$ 2,400
Itemized Cost of Recommended Second-phase Program		**$ 253,400**
Goods and services tax (G.S.T.) (5% of $253,400)		$ 12,670
Itemized Budget		**$ 266,070**
Contingency 10% of itemized budget		$ 26,607
Total Estimated Cost of Recommended Second-phase Program		**$ 392,677**

The estimated total cost of both phases of the recommended program is $417,971.

Item 27: REFERENCES

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Date and Signature Page:

John Ostler: M.Sc., P.Geo.,
Consulting Geologist
West Vancouver, British Columbia,
Effective November 10, 2017

APPENDIX ‘A’

CERTIFICATE of the QUALIFIED PERSON

I, John Ostler, of 1015 Clyde Avenue in the City of West Vancouver, Province of British Columbia do hereby certify:

That I am a consulting geologist with business address at 1015 Clyde Avenue, West Vancouver, British Columbia;

That this Certificate of the Qualified Person applies to the Technical Report entitled “ The Scotch Creek Property” dated effective November 10, 2017;

That I am a graduate of the University of Guelph, Ontario where I obtained my Bachelor of Arts degree in Geography (Geomorphology) and Geology in 1973, that I am a graduate of Carleton University of Ottawa, Ontario where I obtained my Master of Science degree in Geology in 1977, that I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia, and that I have been engaged in the study and practice of the geological profession for more than 40 years;

That I have participated in exploration for volcanogenic massive sulphide deposits since 1977 for clients, for one of my own public companies, and on my own behalf in Canada, the United States of America, and Chile and that I have also explored and examined mineralization related the Shuswap Metamorphic Complex and specifically Broken Hill-type (Okanagan) massive and disseminated occurrences for clients and on my own behalf since 1992;

That I have read the definition of Qualified Person set out in Part 1.1of National Instrument 43-101and I hereby certify that because of my education, professional affiliation, and relevant experience, I am a Qualified Person with regard to the Scotch Creek property as defined in Part 1.1of National Instrument 43-101;

That I conducted or supervised all of the 2010 exploration on the Scotch Creek property during the following times during 2010: May 31 to June 3, June 11 to 15, August 30 to September 17, and September 21 to October 2, that I conducted or supervised the 2012 grid construction on the property from June 5 to 10, June 12 to 14, June 16 to 20, and from June 23 to July 5, 2012, that I examined the property September 27, 2017, that my examination of the records of Signal Exploration Inc., the owner of the property from 2012 to 2017 and of Zenith Exploration Inc., the current owner of the property, indicates that no work has been conducted on the property since September 25, 2012, that at the time of my September 27, 2017 examination of the property, all lines and access roads off the 671 road were grown in and covered with fallen trees and it was obvious that access to the 2012 grid area and target areas of the property had not been maintained, and that my attendance on the property on September 27, 2017 represents a Current Personal Inspection of the Scotch Creek property in compliance with part 6.2 of National Instrument 43-101;

That I am responsible for all of the Technical Report entitled “The Scotch Creek Property” dated effective November 10, 2017;

That because my client, Barry Hartley, was out of communication at the time, as previously instructed, I map-staked the SOUTHERN CROSS 1 (794642) and SOUTHERN CROSS 2 (794662) claims on June 18, 2010 to cover un-staked ground east of the property, and that I transferred those claims to Barry Hartley at cost, on June 24, 2010;

That I am independent of the Scotch Creek property, of Signal Exploration Inc., and Zenith Exploration Inc. as is defined in Part 1.5 of National Instrument 43-101;

That my involvement with the Scotch Creek property prior to the 2010 exploration program was my review of previous published exploration in the property-area on behalf of Joseph Lawrence and Bruce Squinas in 2008, presentation of the property to clients in 2009 and 2010, and review of exploration data in the Discovery Consultants property files on April 15, 2010. I conducted exploration on the Scotch Creek property from May 31 to June 3, June 11 to 15, August 30 to September 17, and September 21 to October 2, 2010 on behalf of Signal Exploration Inc. I was on the property at several times while conducting exploration on a near-by property from June 3 to 17 and from June 24 to July 9, 2011. I was on the property conducting the 2012 line cutting program from June 5 to 10, June 12 to 14, June 16 to 20, and from June 23 to July 5, 2012 for Signal Exploration Inc. Also, I was on the property at various times from September 5 to September 25, 2012 while conducting work on other parts of Adams Plateau. I examined the property on September 27, 2017;

That I have read National Instrument 43-101and that the Technical Report entitled "The Scotch Creek Property" dated and effective November 10, 2017 complies with the current version of National Instrument 43-101 and 43-101F1; and

That as of the date of this certificate, to the best of my knowledge, information, and belief, the Technical Report entitled "The Scotch Creek Property" dated and effective November 10, 2017 contains all scientific and technical information that is required to be disclosed to make said Technical Report not misleading.

John Ostler; M.Sc., P.Geo.
Consulting Geologist
West Vancouver, British Columbia
Effective November 10, 2017