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ASSESSMENT REPORT ON THE 2010-2011 DRILLING PROGRAM CONDUCTED ON THE ORPHÉE PROPERTY (ABITIBI, QUÉBEC)

Project Location

Latitude: 49° 13' 01" N; Longitude: 76° 30' 57" W
Mountain and Ruette Townships
Abitibi Region, Québec, Canada
(NTS: 32F02/32F01)

Prepared for

Nyrstar
Route 1000, Km 42 C.P. 6000
Lebel-sur-Quévillon
J0Y 1X0

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1.0 SUMMARY

This report presents the work performed during the 2010-2011 exploration program conducted on the Orphée property belonging to Breakwater Resources Ltd ("Breakwater", now Nyrstar), and reviews any historical work performed prior to 2009. It also contains the information used to formulate the recommended exploration program. The authors, Dominique Bousquet, B.Sc., G.I.T., and Cédric de Marneffe, B.Sc., G.I.T. wrote this report under the supervision of Vincent Jourdain, PhD, Eng., after reviewing all available data from earlier surveys and any other information judged relevant, suitable and reliable.

Many exploration programs have been carried out on the Orphée property since the 1970s, generally as follow-up work to airborne electromagnetic surveys. There were five (5) major phases of exploration on this property by Selco, SEREM, Cambior and Breakwater Resources/Metco Resources. The exploration work in the western area, executed by SEREM in the 1990s, led to the discovery of the Orphée lens.

The Orphée Zone, oriented N117° with a steep dip to the northeast, consists of massive to semi-massive sulphide lenses. The sulphide assemblage of pyrite, pyrrhotite, sphalerite and trace amounts of chalcopyrite occurs in intermediate to felsic volcanic rocks (andesitic to rhyolitic). In 2009, Scott Wilson Mining filed a resource calculation for the deposit: indicated resources of 809,000 tonnes @ 7.3%Zn, 0.35%Cu, 14.0g/t Ag and 0.13g/t Au.

In 2011, a Titan-24 DC/IP/MT survey (the second such survey on the property) covered 7 lines with a 400-m spacing, from line 4+00 E to 28+00 E, and 18 lines with a 400-m spacing from line 84+00E to 152+00 E. Quantec Geoscience identified fifteen (15) targets defined by IP-DC±MT anomalies. One target in the western area corresponds to the extension of the Grevet B Zone. Seven targets are located in the central area (line 32+00 E to 80+00 E), which was surveyed in 2007. Seven other targets are located in the eastern area.

Hole-to-hole resistivity and IP surveys were carried out by Abitibi Geophysics in eighteen (18) independent pairs of receiver holes over the Orphée property. The 3D interpretation has shown a possible geometry for the massive sulphide zones. The survey proposes three areas based on the raw and inverted results from the hole-to-hole resistivity/IP data acquired as part of the Orphée Project. The first target area is the Orphée Zone itself and the associated chargeability anomalies. The second area is near the surface (to a maximum depth of 200 m), and is parallel to the Orphée Zone. The final target area is an IP anomaly along the eastern extension of the Orphée Zone.

Borehole InfiniTEM surveys were carried out by Abitibi Geophysics from November 5 to 15, 2010. In all, five (5) drill holes (10-ORP-149 to -153) were surveyed. These holes were originally drilled to intercept Titan 24 anomalies. The InfiniTEM survey detected several off-hole anomalies and identified two steeply dipping conductive horizons. Seven drill holes were proposed by Abitibi Geophysics as follow-up work.

Breakwater Resources carried out two drilling programs in 2010 and 2011. One of the objectives was to test the depth extensions and eastern extension for the Orphée lens. The programs revealed a greater potential than previously recognized for the eastern extension. It contains greater amounts of sulphide mineralization, with grades such as **4.1% Zn, 0.32% Cu and 6.3 g/t Ag over 6.5 m; 4.45% Zn, 0.29% Cu and 26.29 g/t Ag over 3.5 m; 3.42% Zn, 1% Cu and 9.6 g/t Ag over 9.5 m**. A mineralized lens in felsic tuffs above the Orphée Zone has

been interpreted on sections. This lens contains pyrite (max. 25%), pyrrhotite (max. 5%), sphalerite (max. 5%), and trace amounts of chalcopyrite, with weak grades of 0.3% Zn over 0.7 m.

The felsic volcanic rocks in the Orphée Zone and those near the surface to the north of the zone are very similar. These two groups of felsic rocks cannot be distinguished based on the types of alteration that affected them. They both present elevated IALT values and low TiO_2 values.

The aim of some of the down-hole geophysical surveys during the 2010 and 2011 programs was to test anomalies, such as the Titan24, exploration IP, down-hole 3D IP, and InfiniTEM anomalies. Some of these anomalies were explained by low grades or by mineralization. The highest grade is associated with a Titan 24 anomaly: **1.2% Zn with 1.2 g/t Ag over 0.6 m**. The method that successfully detected the most targets was hole-to-hole 3D IP.

The longitudinal section include with this report displays the limits of the Indicated Resources (Scott Wilson Mining: Salmon et al., 2009) and includes data from the 2010-2011 Breakwater Resources drilling programs. It also shows the positions of recommended drill holes to tighten the drill spacing.

InnovExplo's recommend Phase 1 drilling program comprises thirty-one (31) holes totalling 13,000 metres, which will tighten the current drill hole spacing (exceeding 100 metres in some cases) down to 35-40 metres. Six (6) of the holes will target the Indicated Resources in the West Zone, nineteen (19) holes will target Indicated Resources in the Main Zone, and six (6) holes will target Inferred Resources in the southeast extension of the Main Zone. This program must be completed when the ground is frozen (January to March) so drill rigs can access the site. Phase 1 will take approximately 50 days using two drill rigs for a total cost of approximately $1,690,000.

After this first phase of drilling, the resource estimate should be updated. The results of the estimate will be used to plan a follow-up exploration program that may consist of drilling from surface and underground. The main objectives for a Phase 2 drilling program will likely be to further tighten the drill spacing and cover specific areas for future mine planning purposes.

On longitudinal section the Orphée Zone remains open to the east. An additional recommendation is to drill to shallow depths (up to 300 m below surface) in the eastern end of the property. The data will be used to assess the potential of the East Zone, as defined in the longitudinal section, from surface to 300 m (there is currently no data east of section 17300N). Another goal would be to link the Orphée Zone to historical grades. The distance to drill-test is about 1.5 km.

Zinc grades were intersected in historical holes 1.5 km west of the Orphée Zone. In the gap between these two locations, holes 10-ORP-149 and 150 passed through siliceous altered rocks with high IALT values: the same type of rock found in the Orphée Zone. Several of the geophysical anomalies in the eastern part of the property have not yet been tested, including zones with several coincident geophysical anomalies. One of these (Zone "B") contains historical holes with zinc grades, but the land belongs to the Cree. It is thus recommended to inquire about the possibility of exploring this area of zinc potential.

A final recommendation is to carry out a prospecting and mapping program based on known outcrops.

2.0 INTRODUCTION

InnovExplo Inc ("InnovExplo") was contracted by Mr. Mario Doucet (Mine Manager, Langlois Mine) and Mr. Torben Jensen (Vice President, Engineering), both of Breakwater Resources Ltd ("Breakwater"), to plan, supervise and execute an exploration work program on the Orphée property. Since then, Nyrstar acquired Breakwater, thereby also acquiring all the rights and obligations related to the Orphée property.

This report presents the work performed during the 2010-2011 exploration program on the Orphée property belonging to Breakwater Resources Ltd (now Nyrstar). The report also contains all the information used to formulate the recommended exploration program herein.

The authors, Dominique Bousquet, B. Sc., GIT and Cédric de Marneffe, B.Sc., GIT, wrote this report under the supervision of Vincent Jourdain, PhD., Eng., after reviewing all available data from earlier surveys and other information judged relevant, suitable and reliable. Technical support was provided by Marcel Naud and Denis Lebreux, both of InnovExplo. Venetia Bodycomb of Vee Geoservices provided the linguistic editing and some translation.

The nomenclature used for the lithologies in this report follows the codes provided by the *Ministère des ressources naturelles* in their report MB9628 (Sharma, 1996).

The authors have a good understanding of mineral exploration models for gold and base metal deposits by virtue of having work in such environments. The exploration work presented in this report was carried under the supervision of Karine Brousseau and Alain Carrier of InnovExplo.

InnovExplo conducted a review and appraisal of the information used in the preparation of the present report and is of the opinion that the conclusions and recommendations herein are valid and appropriate considering the status of the project. The author has fully researched and documented the conclusions and recommendations submitted in this report.

3.0 PROPERTY DESCRIPTION AND LOCATION

3.1 Location

The Orphée property is located 44 km northeast of Lebel-sur-Quévillon, Québec, on NTS map sheets 32F02 and 32F01 (Fig.3.1). The center point of the property is 76°30'57"W and 49°13'01"N.

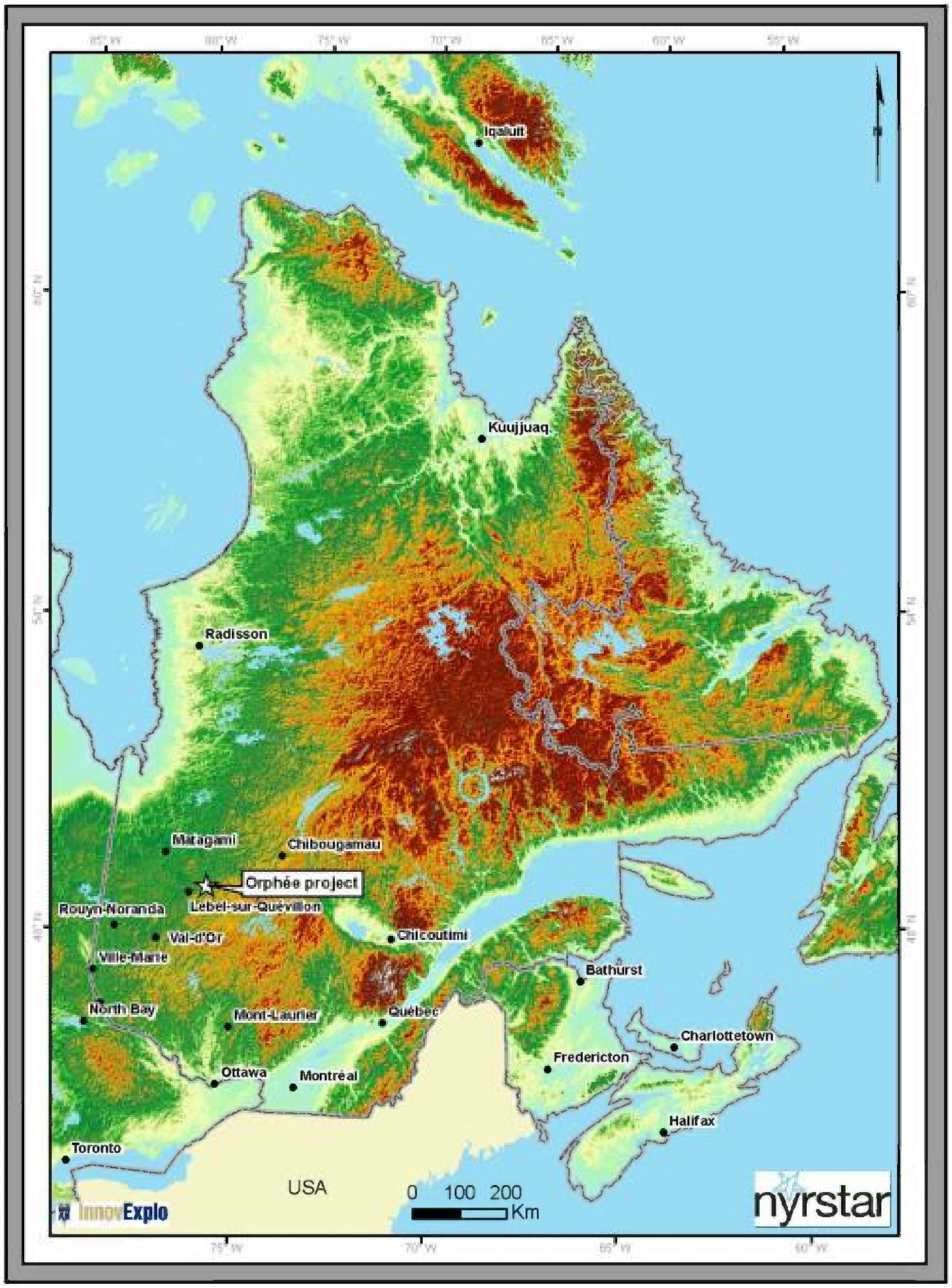

Figure 3.1 – Location map of the Orphée Project

3.2 Mining titles status

The property comprises 147 claims for a total 2,825.3 hectares straddling the Mountain and Ruette townships in Québec (Fig. 3.2). The claims are owned 100% by Breakwater Resources Ltd (now Nyrstar) (refer to table of mining titles status in Appendix I).

Carat Exploration Inc ("the Prospectors") retains a 2% net smelter return ("NSR") on mineral production from the Orphée Property. According to the agreement between Breakwater and Carat Exploration, Breakwater may reduce the NSR to 1% at any time by issuing/transferring to the prospectors $100,000 worth of Breakwater shares, based upon market value of the shares at the time of delivery.

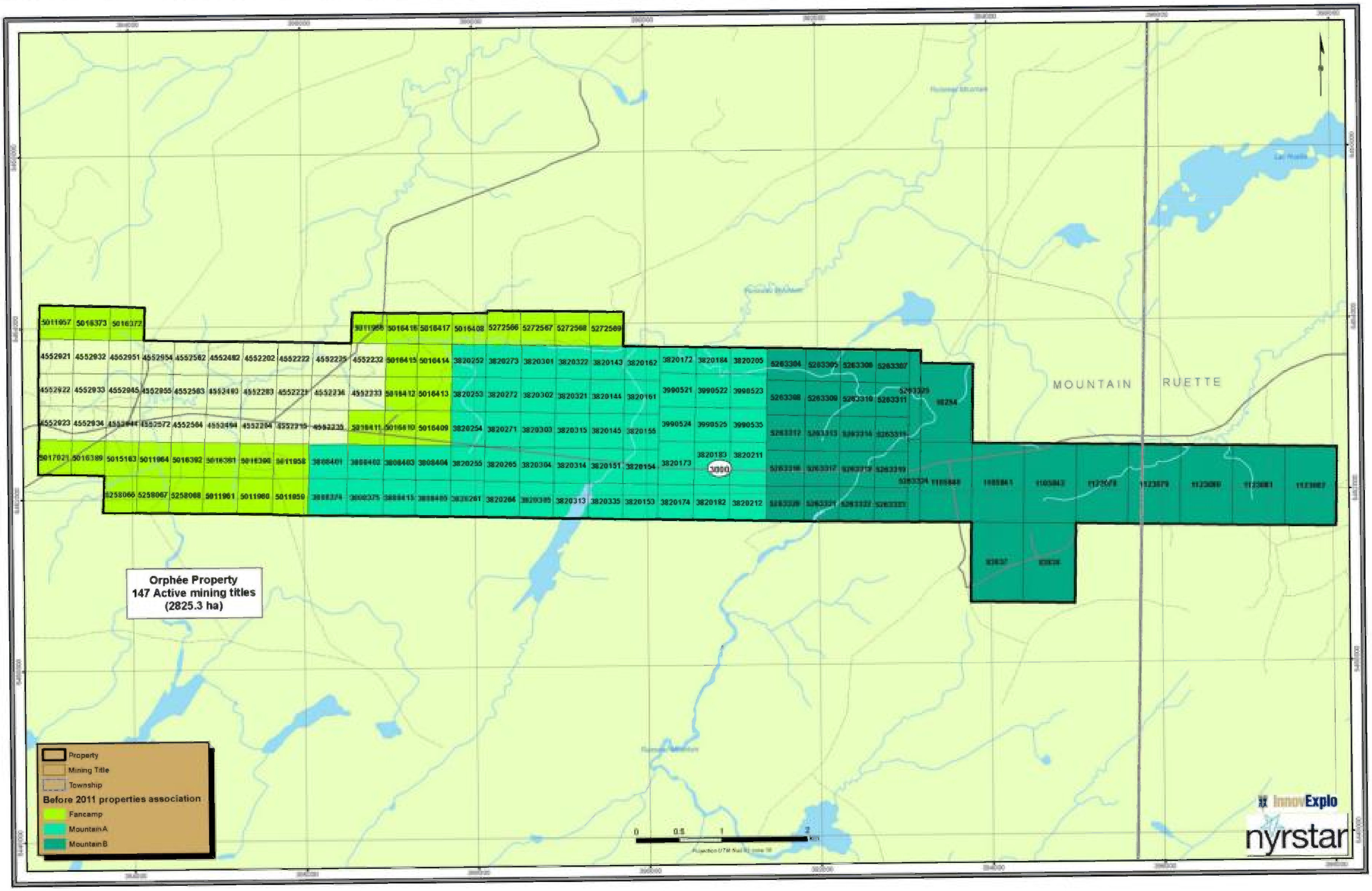

Figure 3.2 – Claim map for the Orphée property

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTUCTURE AND PHYSIOGRAPHY

4.1 Accessibility

The Orphée property, 44 km northeast of Lebel-sur-Quévillon, is easily accessed by Domtar's gravel road number 1000, and then by road 3000. Domtar's road 3000 passes through the centre of the property (Fig. 4.1).

4.2 Climate

The climate for the Orphée property region is continental, marked by cold, dry winters and hot, humid summers, with mean temperatures ranging from 17°C in July to -17°C in January. The historical recorded low was -43.9 °C, and the high 36.1 °C. There are on average, 209 days of frost. Historical records indicate a mean annual precipitation of 954 mm. The most abundant rainfall occurs in September with an average of 101.5 mm. Snow accumulates from October to May with a peak from December to March.

4.3 Local Resources

Lebel-sur-Quévillon is a small town with a population of approximately 2,000. The forestry and mining industries constitute the cornerstones of Lebel-sur-Quévillon's local economy. Until recently, the main businesses were the Comtois sawmill (Resolute Forest Products, formerly Abitibi Bowater Inc) and the Langlois mine (now owned by Nyrstar following its recent acquisition of Breakwater Resources Ltd), both of which ceased operating in November 2008. A development program is currently underway at the Langlois mine and production should start up again in the first half of 2012. The town of Lebel-sur-Quévillon has motels, restaurants, a gas station and a grocery store. Full infrastructure and an experienced mining workforce are also available in a number of nearby well-established mining towns, such as Val-d'Or, Rouyn-Noranda, La Sarre, Matagami and Chibougamau. Several exploration and mining contractors are located within a few hours' drive from the Orphée property. Although Lebel-sur-Quévillon has its own small airport, Val-d'Or has the closest commercial airport with regularly scheduled direct flights to Montréal.

4.4 Physiography

The Orphée property is relatively flat, covered by mature conifer forest. The ground is generally solid, except for the western end where it is swampy.

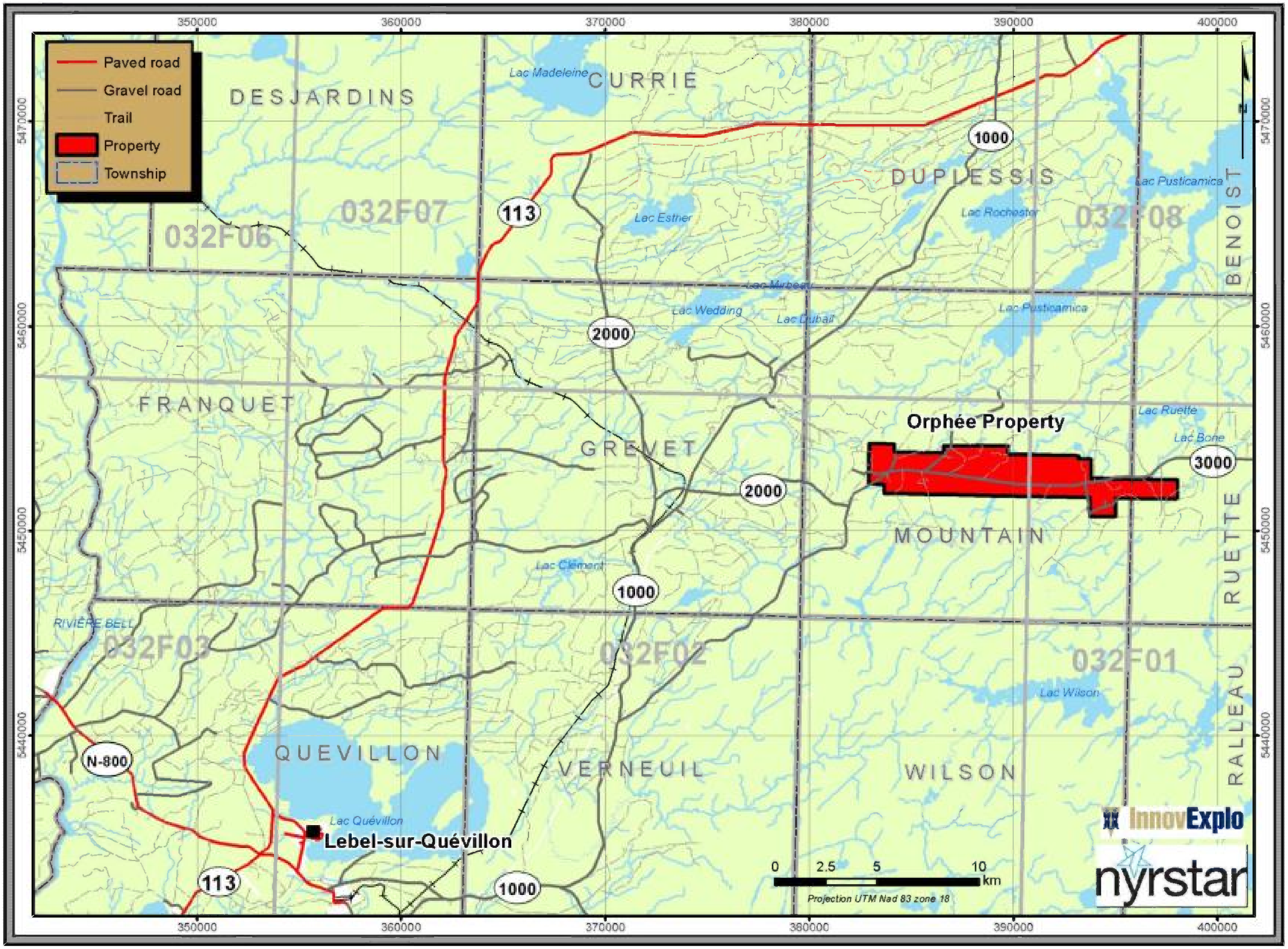

Figure 4.1 – Topography and accessibility of the Orphée property and its vicinity

5.0 HISTORY

Many exploration programs have been carried out on the Orphée property since the 1970s, generally as follow-up work to airborne electromagnetic surveys.

There were five (5) major phases of exploration on this property. For conciseness, these are combined into two (2) broad time periods: all years up to and including 1999 (pre-2000), and 2000-2009. The reader is referred to the accompanying compilation maps and tables respectively available in the pocket and appendices, also organized according to these same time periods.

The two compilation maps in the pocket present the main historical geophysical axes (HEM, IP, Pulse-EM/DEEP-EM and gravimetric coverage), as well as the locations of historical diamond drill holes. The work covered by the first map (pre-2000) is based on InnovExplo's compilation, and the second map (2000-2009) is based on Metco Resources and Breakwater Resources data (Bussières and Liboiron, 2008). Appendix II contains a complete list and all relevant data for the historical diamond drill holes on the Orphée property.

Several historical properties were fused to form the current Orphée property, divided into western and eastern areas to facilitate discussion. The western Orphée area includes the former Orphée and Fancamp properties as defined by Cambior in 1996 (Gaudreault and Pearson, 1996), as well as by Metco in 2008 (Bussières and Liboiron, 2008). The eastern Orphée area corresponds to the former Mountain A property as defined by Cambior in 1996 (Gaudreault and Pearson, 1996), later separated into the Mountain A and Mountain B properties by Metco as represented in Gaudreault and Pearson (1996). These subdivisions are represented in the compilation maps. The terms "Orphée lens" and "Orphée deposit", as used in this report, refer specifically to the area covered by the resource estimate prepared by Scott Wilson Mining (Salmon et al., 2009).

Beginning in 2007, some of Metco's diamond drill holes aimed at the Orphée lens were no longer exclusively collared within the limits of the current Orphée property. The collars for some of these holes were positioned to the west, in an area that does not fall within the boundaries of the currently defined Orphée property. This explains the gaps in the ORP DDH series starting in 2006/2007 in the table of historical diamond drill holes in Appendix II, which lists only those holes with collars within the limits of the current Orphée property. Even in 2011, three (3) of the ORP holes were drilled just outside the current property boundaries (see also Section 9).

5.1 Pre-2000 exploration phase

Works carried out during this period and the most significant drilling results are listed with references in Appendix III.

The first significant exploration phase focused on the western part of the property and was carried out by Selco during the 1970s and early 1980s. Following several geophysical surveys, DDH 53-11-1 was drilled and intercepted 1.03% Cu and 1.46% Ni over 0.3 m.

SEREM Ltée carried out the next exploration phase, mainly from 1980 to 1983, in the eastern part of the property, formerly known as the Mountain A property (Cambior compilation report, by Gaudreault and Pearson, 1996). The programs included numerous geophysical surveys and ten (10) diamond drill holes, which returned several Zn anomalies, with the best result being 1.6% Zn over 1.45 m.

A major exploration phase occurred from 1990 to 1992, mostly carried out by SEREM, touching on all parts of the current Orphée property. The exploration work in the western area led to the discovery of the Orphée lens. Sixteen (16) holes were drilled into the lens and its vicinity. Also in the western area, eleven (11) holes were drilled to the east of the lens, within the former Orphée and Fancamp property boundaries (Cambior property delimitation, Gaudreault and Pearson, 1996). Several Zn anomalies were obtained, with a maximum value of 1.33% Zn over 0.5 m. As for the eastern area (former Mountain A property; see Cambior report by Gaudreault and Pearson, 1996), four (4) holes drilled on Grid 7 yielded Zn anomalies up to 1.03% Zn over 0.5 m.

Cambior was then active in the western area from 1993 to 2000. Eighteen (18) holes were drilled during this period, including six (6) across the Orphée lens and in its immediate vicinity, and twelve (12) further east but still within the western part of the property. Several Zn anomalies were obtained in the latter holes, and the area with the most significant results (8% Zn over 1 m, 1.81% Zn over 5 m, and 2.39% Zn over 2 m) is characterized by geophysical signatures that may correlate with the signatures for the Orphée lens 2 km to the west. Two gold anomalies (5.14 g/t Au over 0.34 m and 1.2 g/t Au over 1 m) were also observed in the northern half of this western area.

5.2 2000-2009

The most recent historical exploration phase was carried out by Metco and Breakwater from 2000 to 2009. A detailed compilation list of the work activities during this timeframe is presented in Appendix IV. This table is taken from the 2008 Metco technical report (Bussières and Liboiron, 2008). Appendix V presents a list of references for the work in Appendix IV. No work was carried out after 2008 until the 2010 InnovExplo exploration program.

Almost the entire Orphée property was covered by IP, Pulse-EM (DeepEM), and geological surveys during the 200-2009 period. A few local-scale InfiniTEM and gravimetric surveys were also conducted. The first Titan 24 (DC/IP) survey focused on the western part of the property, including the Orphée lens area.

As many as 127 diamond drill holes have probed the current Orphée property during this time period, including 86 over the Orphée lens and its immediate vicinity. Some of the holes drilled away from the Orphée lens also yielded Zn anomalies. The most significant results (up to 1.9% Zn over 1.5 m) confirmed the historical zinc results reported in this area. These Zn anomalies, like the historical results, are characterized by geophysical signatures that may correlate with the signatures for the Orphée lens, 2 km to the west.

A significant assay of 1.13% Cu over 0.7 m was also obtained in the northeast area of the property.

The first mineral resource estimate for the Orphée deposit was published in March 2009 by Scott Wilson Mining (Salmon et al., 2009). It reported a total indicated resource of 809,000 t @ 7.3% Zn, 0.35% Cu, 14 g/t Ag and 0.13 g/t Au, and an inferred resource of 143,000 t @ 5.93% Zn, 0.83% Cu, 13 g/t Ag and 0.20 g/t Au.

6.0 GEOLOGICAL SETTING

Most of this section was modified from Card and Poulsen (1998), which describes the Archean Superior Province in detail, and from Daigneault et al. (2004), which describes the Abitibi Greenstone Belt in detail. Other sources, such as assessment reports and the professional expertise and knowledge of the author, were also used to complete the description of the geological setting.

6.1 Regional Geology

The Lebel-sur-Quévillon area lies within the east-central portion of the Abitibi Subprovince in the Superior Province of the Canadian Shield (Fig. 6.1). This subprovince consists of a large Archean belt of volcano-plutonic rocks that extends more than 600 kilometres from Timmins in Ontario to Chibougamau in Québec. The belt is bordered to the north by granitic rocks of the Opatica Subprovince and to the south by sedimentary rocks of the Pontiac Subprovince. The southern limit of the Abitibi Subprovince is roughly marked by the Larder Lake-Cadillac Tectonic Zone. It also happens to be one of the richest mining regions in the world and has produced large amounts of gold, copper, zinc, silver and iron from the Timmins, Kirkland Lake, Rouyn-Noranda, Val-d'Or, Matagami and Chibougamau mining districts.

The Orphée property area is characterized by volcanic rocks of the first volcanic cycle of the Northern Volcanic Zone (Chown et al., 1992). This sequence is characterized by mafic volcanism (oceanic plain-type) with superimposed felsic volcanic edifices. The volcanic sequence is dominated by massive, pillowed and brecciated basalts of tholeiitic composition in an extensive subaqueous basalt plain measuring 1 to 3 km thick, mainly composed of mafic to intermediate flows. Mafic volcanic rocks are intercalated with sedimentary and felsic volcanic rocks. The vast majority of volcanic episodes took place from 2.75 to 2.70 Ga and was closely followed by deformation, regional metamorphism and an episode of plutonism during the period from 2.70 to 3.65 Ga (Card and Poulsen, 1998). Sedimentary assemblages occur as thin, discontinuous, east-trending belts more than 100 km in length. These are primarily Bouma-cycled turbidites intercalated with volcanogenic conglomerates, banded iron formations, shale and chert. Felsic volcanic rocks—mostly massive, tuffaceous or brecciated rhyolitic to rhyodacitic lava flows—are dispersed throughout the Northern Volcanic Zone in edifices that range from 0.2 to 5 km thick. The volcanic rocks were affected by the Kenorean north-south regional compression (Chown et al., 1992; Daigneault et al., 2004). This compression resulted in a well-developed E-W schistosity flowing around regional plutons.

The Lebel-sur-Quévillon area hosts many projects that reached an advanced exploration stage or even production. From west to east, the gold and base metal potential of the area is illustrated by the Sleeping Giant gold mine (North American Palladium Ltd), 102 km west of Duplessis-Mountain, and the Langlois zinc-copper-silver mine (formerly Breakwater Resources Ltd, now Nyrstar), 5 km northwest of Orphée.

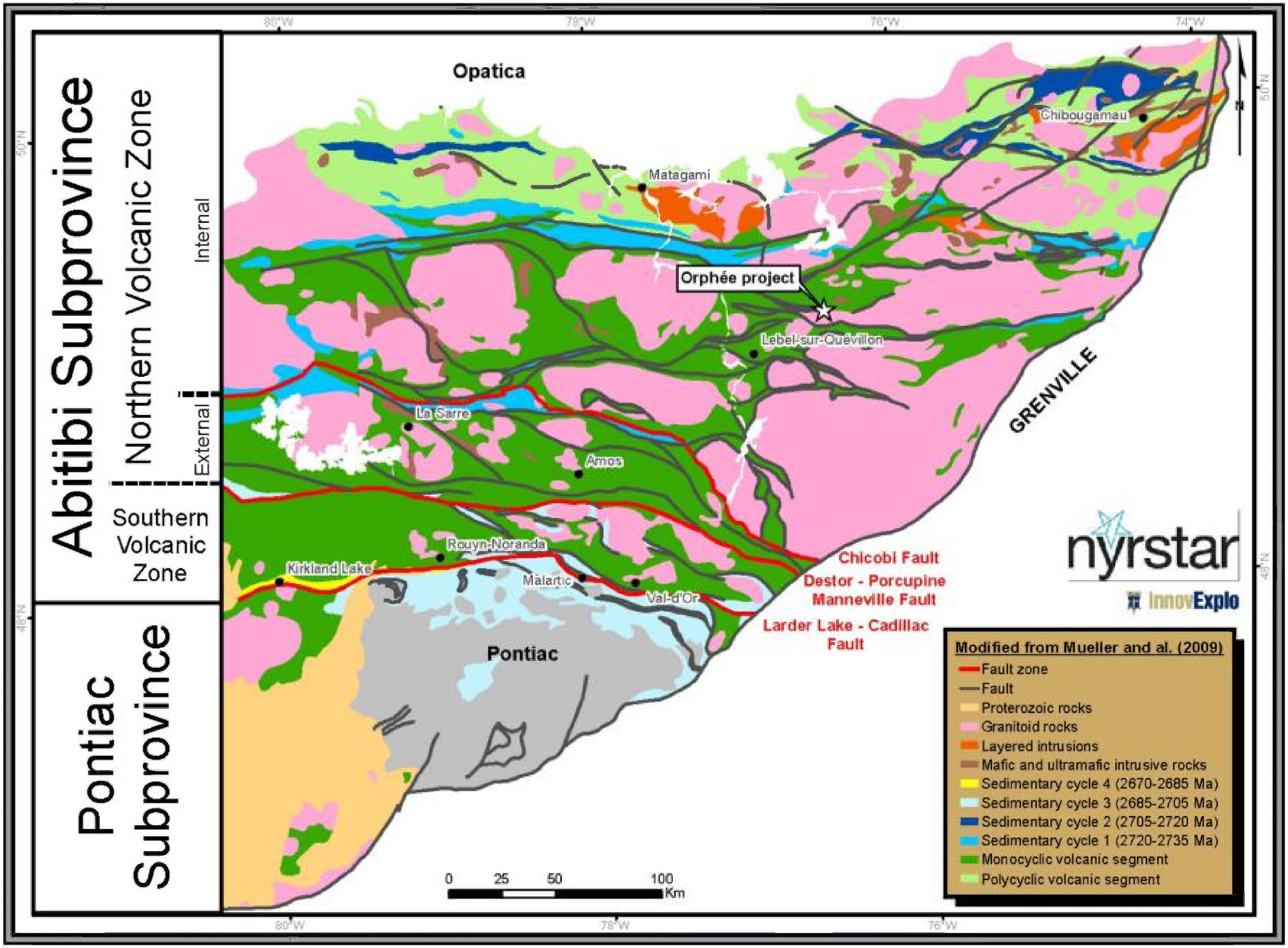

Figure 6.1 – Regional geology of Abitibi Subprovince

6.2 Local Geology

The Orphée property is underlain by a sequence of volcanic rocks consisting of felsic volcanics intercalated with intermediate to mafic units (Fig. 6.2, provided by Metco Resources Inc.)

The intermediate to mafic volcanic rocks are of andesitic to basaltic composition, displaying massive, pillowed or brecciated textures. The felsic units are generally massive, pale grey to white or rusty on altered surfaces. The felsic Mountain Stock (or Mountain Pluton) overlaps the southern edge of the property. This medium grained intrusion is white to pale grey, locally containing quartz phenocrysts. The timing of emplacement is pre- to syn-tectonic (Barrette 1989).

In the area of the property, the Cameron Deformation Zone (CDZ) is 5 km wide and extends from the Wedding Lake Fault to the Ruette Township (central part). In terms of mineralization, the CDZ is noted for its base metals, but other types are also present. Massive sulphide zones are associated mainly with the felsic volcanic rocks found in the southern and central parts of the CDZ (Bussières and Théberge, 2005). This geological context has the same orientation as the mineralized zones of the Langlois mine and Grevet B.

The Rochester Fault, oriented NE-SW, crosscuts the CDZ. This fault was in turn cross-cut by a diabase dyke.

The Orphée Zone, oriented N117° with a steep dip to the northeast, consists of massive to semi-massive sulphide lenses. The sulphide assemblage of pyrite, pyrrhotite, sphalerite and trace amounts of chalcopyrite occurs in intermediate to felsic volcanic rocks (andesitic to rhyolitic).

The map of the Orphée property (Fig. 6.2) indicates three main occurrences and one deposit. The deposit, the "Orphée Zone", is at the far western end of the property. In 2009, Scott Wilson Mining filed a resource calculation for the deposit: indicated resources of **809,000 tonnes @ 7.3% Zn, 0.35% Cu, 14.0g/t Ag and 0.13g/t Au**.

Located in the centre of the property, the "Mountain A" showing is characterized by sphalerite mineralization (2-3%) in a rhyolite with phenocrysts of eye-shaped quartz and garnet. The presence of sphalerite is reflected in a drill interval of 0.5 m grading 1.03% Zn.

The "Ruisseau Mountain-1" showing consists of felsic tuff with interbeds of intermediate tuff, overlain by a layer of intermediate to mafic tuff. The latter is associated with weak pyrrhotite mineralization (<3%) and chalcopyrite (<1%). Grades in one drill hole were **0.57% Cu** and **3.7 g/t Ag over 0.35 m.**

At the far eastern end of the property is the "Ruisseau Mountain-2" showing. Host lithologies are alternating felsic tuff and intermediate to mafic tuff. The latter contains sulphides in the form of millimetre-scale laminations of pyrite and pyrrhotite (1-3%), sphalerite (<1%), traces of galena and chalcopyrite. The analyses revealed grades such as **0.24% Zn** and **0.57% Pb over 0.66 m** in a drill hole.

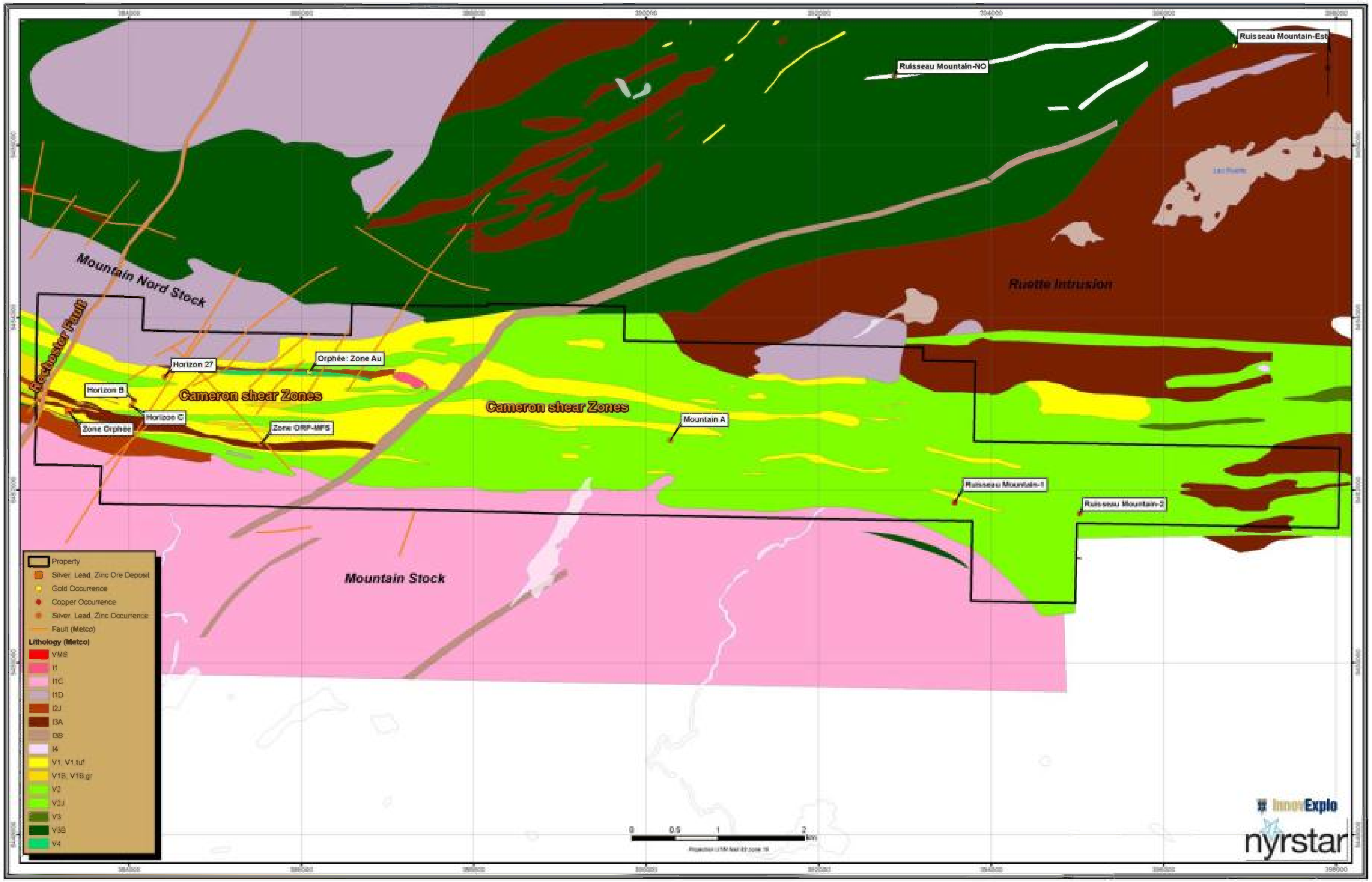

Figure 6.2 – Local geology of the Orphée property

7.0 DEPOSIT TYPES

The Orphée property is a Volcanogenic Massive Sulphide (VMS) deposit.

The following section is slightly modified from Alan et al. (2007) and Franklin (1996).

Volcanogenic massive sulphide deposit typically occur as lenses of polymetallic massive sulphide that form at or near the seafloor in submarine volcanic environments, and are classified according to base metal content, gold content, or host-rock lithology. These deposits types are discovered in submarine volcanic terranes that range in age from 3.4 Ga to actively forming deposits in modern seafloor environments. The most common feature among all types of VMS deposits is that they are formed in extensional tectonic settings, including both oceanic seafloor spreading and arc environments.

As a result of large-scale fluid flow, VMS mining districts are commonly characterized by extensive semi-conformable zones of hydrothermal alteration that intensifies into zones of discordant alteration in the immediate footwall and hanging wall of individual deposits. They form from metal-enriched fluids associated with seafloor hydrothermal convection. VMS deposits are major sources of Zn, Cu, Pb, Ag and Au.

Deposits of the copper-zinc group are within volcanic sequences that are dominated by mafic volcanic rocks, with locally volumetric felsic rocks. Deposits typified by the Noranda and Matagami Lake districts were formed at depths of considerably more than 500m. These are associated with a massive to pillowed mafic flows. Felsic ash-flow tuff beds are usually prominent immediately below the deposits, and felsic domes may immediately underlie or enclose the ore.

Alteration occurs in two distinct zones. Alteration pipes occur immediately below the massive sulphide zones. The pipes are silicified and sericitized; chlorite is subordinate and is most abundant on the periphery of the pipes. Aluminosilicate minerals are prominent. Lower, semi-conformable alteration zones occur several hundreds of metres or more below the massive sulphide deposits. This zone contains epidote, actinolite, and quartz.

Pyrite typically constitutes 50-90% of the massive ore, with sphalerite, chalcopyrite, and galena forming about 10%. Deposits formed in deep water contain only sphalerite and chalcopyrite as their principal ore minerals. Those that formed in shallow water contain recoverable galena. Deposits of the copper-zinc group are concordant to semi-conformable massive iron sulphide bodies, commonly underlain by stringer ore. The Langlois mine (formerly Breakwater Resources Ltd, now Nyrstar), located about 20 km northwest of the Orphée property, is the same type of deposit.

8.0 EXPLORATION

8.1 Geophysical

8.1.1 Titan 24

In 2007, a first Titan-24 DC/IP/MT survey covered 13 lines spaced at 400 metres from line 32+00 E to 80+00 E. Quantec Geoscience identified two (2) major linear chargeable horizons (IP axis), named A and B, respectively lying along strike with the Orphée–Grevet B zones (south horizon) and the Langlois Mine (north horizon). Within these two horizons, five (5) IP-DC-MT anomalies were defined (excluding the Orphée Zone extension). Two (2) MT anomalies, without corresponding IP or DC anomalies, were also defined away from the two major chargeable horizons.

In 2011, a second Titan-24 DC/IP/MT survey covered 7 lines with a 400-m spacing, from line 4+00 E to 28+00 E, and 18 lines with a 400-m spacing from line 84+00E to 152+00 E. The data from the 2007 survey was integrated into the new survey and the entire dataset interpreted. Quantec Geoscience identified a total of fifteen (15) targets defined by IP-DC±MT anomalies. One target (T01) in the western area (line 4+00 E to 28+00 E) corresponds to the extension of the Grevet B Zone. Seven targets (T02 to 08) are located in the central area (line 32+00 E to 80+00 E), which was surveyed in 2007. Seven targets (T09 to 15) are located in the eastern area (line 84+00 E to 152+00 E). Table 8.1 relates the two interpretations in the central section.

Table 8.1 – Titan 24 anomalies from the 2007 and 2011 programs

Line	IP axis A		IP axis B	
	2007	2011	2007	2011
32 E	Orphée Zone	T03	---	T02
36 E	Orphée Zone	T03	Zone #1	T02
40E	Orphée Zone	T04	Zone #1	T02
44 E	Zone #2	T04	---	---
48 E	Zone #2	---	---	---
52 E	---	T05	---	---
56 E	Zone #3	T05	---	---
60 E	---		---	---
64 E	---		---	---
68 E	---	T06	Zone #4	T08
72 E	Zone #5	T06	Zone #4	T08
76 E	Zone #5	T07	---	T08
80 E	---	T07	---	---

8.1.2 Hole-to-Hole 3D IP Survey

Hole-to-hole resistivity and IP surveys were carried out by Abitibi Geophysics from December 4 to December 19, 2010 and January 11 to January 22, 2011, in eighteen (18) independent pairs of receiver holes over the Orphée property. The 3D interpretation has shown a possible geometry for the massive sulphide zones. The survey proposes three areas based on the raw and inverted results from the hole-to-hole resistivity/IP data acquired as part of the Orphée Project.

The first target area is the Orphée Zone itself and the associated chargeability anomalies. The second area is near the surface (to a maximum depth of 200 m), and is parallel to the Orphée Zone but 380 m to the northeast (in plan view), between sections 17025 E and 17200 E (Appendix VIII).

The final target area to be discussed is an IP anomaly observed on the east side of the extension of the Orphée Zone.

8.1.3 InfiniTEM Explorations

The borehole InfiniTEM surveys were carried out by Abitibi Geophysics from November 5 to 15, 2010. In all, five drill holes (10-ORP-149 to -153) were surveyed. These holes were originally drilled to intercept Titan 24 anomalies. The InfiniTEM survey detected several off-hole anomalies and identified two steeply dipping conductive horizons. Seven drill holes were proposed by Abitibi Geophysics as follow-up work.

The work carried out by Breakwater Resources is presented in Figure 8.1 and in the pocket of this report (Appendix VIII).

Figure 8.1 – Compilation map of 2010-2011 work conducted on the Orphée property

8.2 Lithogeochemistry

All the lithogeochemical samples collected during the 2010-2011 drilling programs were classified using the Winchester and Floyd (1977) diagram (Fig. 8.2). This graph demonstrates that the volcanic rocks on the Orphée property are rhyolitic, andesitic and basaltic in composition. The intrusive rocks are intermediate to mafic. The sample designations in the legend reflect field lithology codes taken from MRN report MB9628 (Sharma, 1996). Note that the discrepancy between field-assigned rock names and their geochemical classification reveals that many samples are misidentified in the field, in many cases due to the effects of alteration and mineralization on protolith characteristics.

Figure 8.3 illustrates the yttrium content as a function of zirconium. Samples form a direct linear relationship, demonstrating a constant ratio. In addition, the average Y/Zr ratio is 5.85%. This average and the fact that most range from 5 to 7% indicate that the rocks on the Orphée property are intermediate in composition.

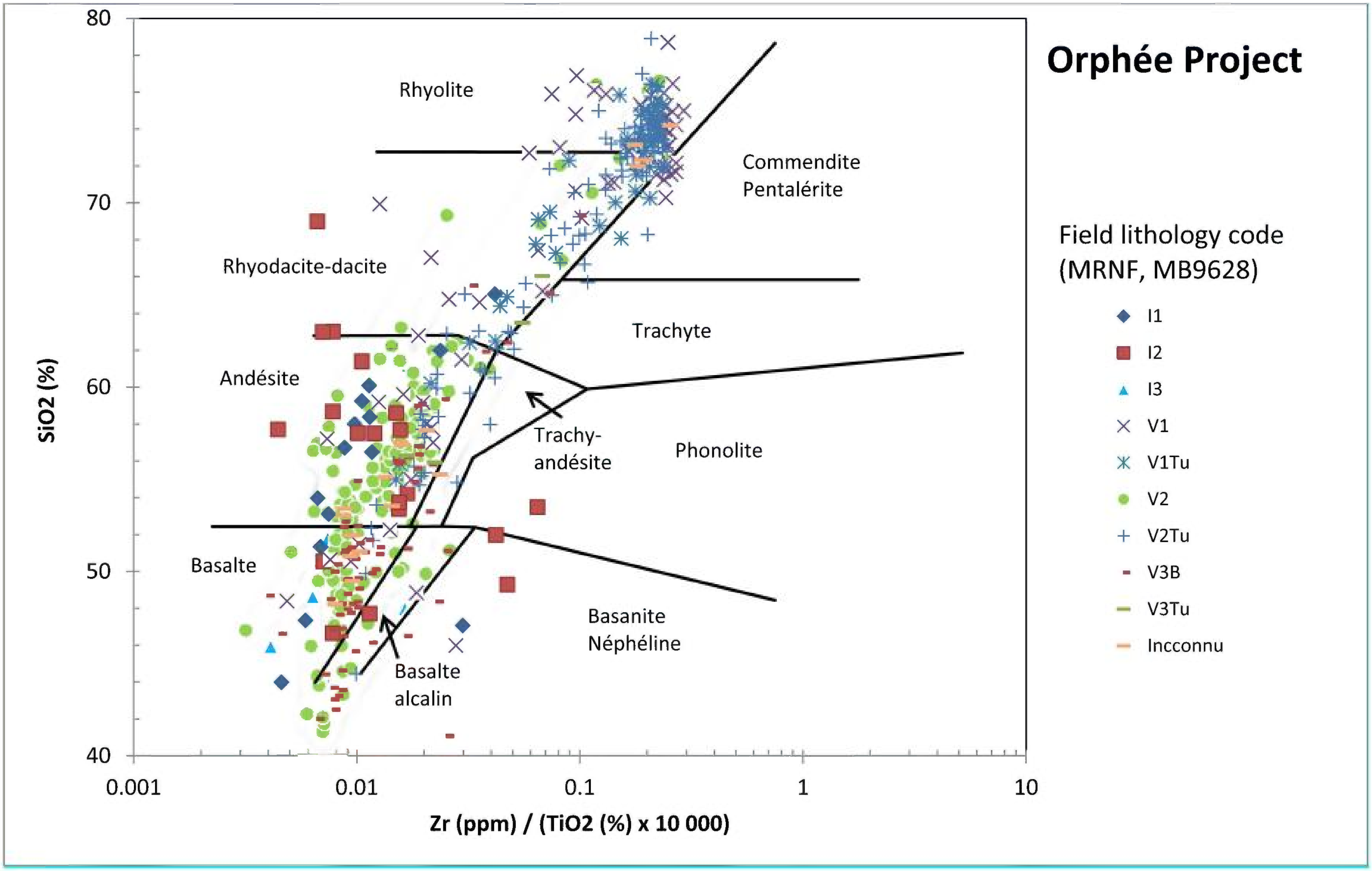

Figure 8.2 – Samples from the Orphée property plotted on a Winchester and Floyd (1997) diagram

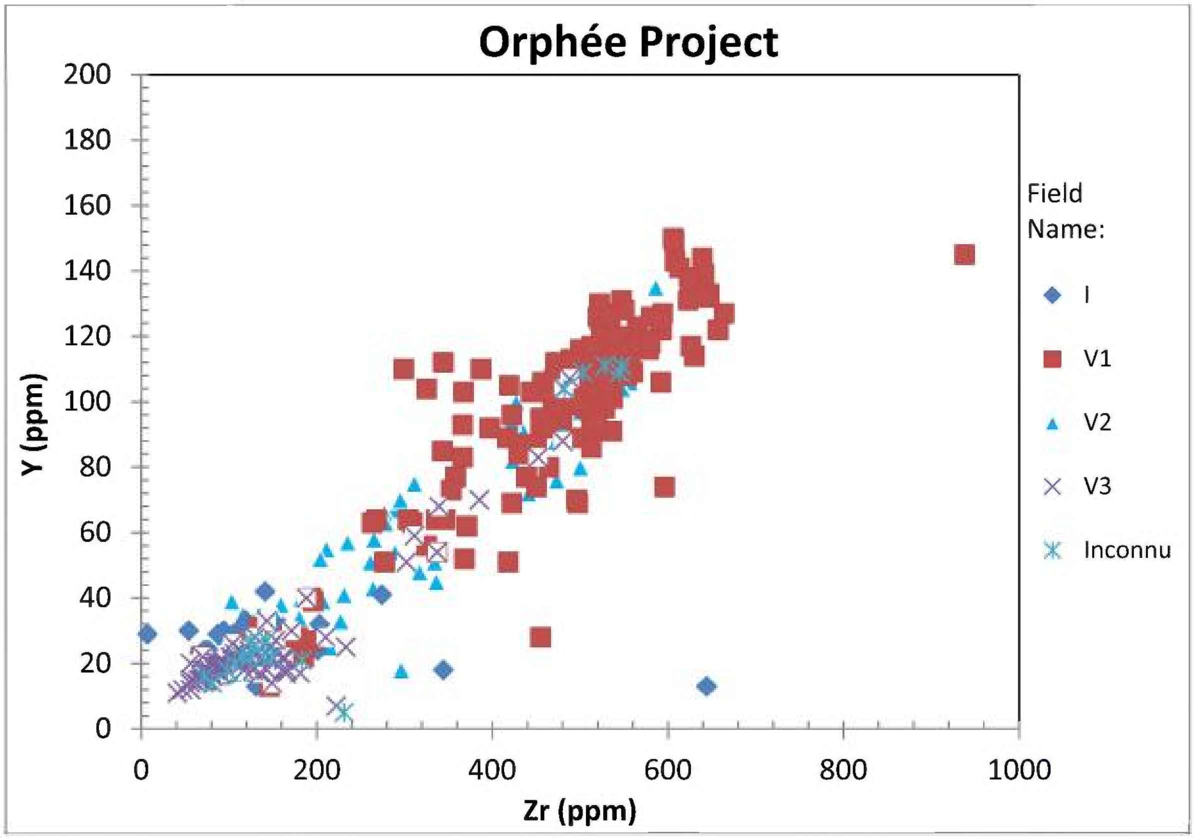

Figure 8.3 – Yttrium (Y) as a function of zirconium (Zr)

9.0 DRILLING

The Orphée property was the subject of two drilling programs. The first consisted of **forty-six (46) NQ diamond drill holes** for a total of **27,477.8 metres**. This drilling program was conducted by Forage Rouillier and Forage G4. The drilling activities for Forage Rouillier were carried out from July 26 2010 to April 2, 2011, and Forage G4, from February 21 to April 9, 2011. A total of 4096 mineralised samples and 856 whole-rock geochemistry samples were analyzed by ALS Chemex (Table 9.1).

The second drilling program completed **ten (10) diamond drill holes** of NQ size for a total of **3,141 metres**. This drilling program was conducted by Forage Rouillier and was carried out from September 8 to October 2, 2011. A total of 515 mineralized samples and 136 whole-rock geochemistry samples were analyzed in 2011 at Accurassay Laboratory (Table 9.1).

The core was logged and sampled by InnovExplo at the Langlois mine site. Deviation tests were made while drilling using a Flex-It instrument for the first drilling program and using a Reflex instrument for the second. Single shot deviation tests were done on a routine basis (every 30 metres down the hole), and multi-shot surveys were done once the holes were completed (every 3 metres up the hole).

All the drill holes were surveyed by the firm *Sylvestre, Julien, Leclerc Arpenteurs-géomètres*, except for 11-ORP-188 (this hole was flooded).

The aim of the drilling program was to text the depth extension of the massive sulphide Orphée lens (11 holes: 11-ORP-171A, 173, 174A, 175A, 176, 177, 179, 180, 181A, 182 and 183A), and to intercept the eastern extension of the Orphée lens (10 holes: 154, 155A, 156, 157, 158, 159, 160, 161A, 162A and 163.

Other holes were planned to test to the geophysical anomalies, such as the Titan 24 anomaly (holes 10-ORP-149 to -153 and 10-OPR-164; 11-ORP-165, 166, 167A, 168, 169, 170, 172 and 184), exploration IP anomalies (11-ORP-185, 186, 188), PP 3D en forage (11-ORP-189, 191, 193) and downhole InfiniTEM anomalies (11-ORP-190 and 192).

Table 9.1 – Compilation of details from the 2010-2011 diamond drilling program

Hole_ID	UTM NAD83 Zone 18		DRILLING			SAMPLES		
	Easting	Northing	Azimut	Dip (°)	Final Length (m)	Economic Samples	Litho Samples	QA/QC
10-ORP-149	384480	5452852	195	-70	798.5	57	34	8
10-ORP-150	384 483	5 452 750	195	-50	499.0	63	24	8
10-ORP-151	386 889	5 452 589	195	-60	698.0	112	31	16
10-ORP-152	387 289	5 452 535	195	-60	679.0	162	24	22
10-ORP-153	385 285	5 452 454	195	-65	900.0	102	17	14
10-ORP-154	383 561	5 452 841	209	-70	406	45	10	7
10-ORP-155	383 474	5 452 889	209	-70	31	0	0	0
10-ORP-155A	383 474	5 452 889	209	-70	423.5	97	14	13
10-ORP-156	383 781	5 453 034	209	-70	780.2	112	28	15

Hole_ID	UTM NAD83 Zone 18		DRILLING			SAMPLES		
	Easting	Northing	Azimut	Dip (°)	Final Length (m)	Economic Samples	Litho Samples	QA/QC
10-ORP-157	383 595	5 453 108	209	-70	826	215	25	30
10-ORP-158	383 886	5 453 223	209	-70	941.8	177	29	24
10-ORP-159	383 837	5 453 119	209	-80	1201	188	35	26
10-ORP-160	383 731	5 452 940	209	-70	709	69	22	9
10-ORP-161	383 722	5 453 130	209	-70	42	0	0	0
10-ORP-161A	383 722	5 453 130	209	-70	877	204	23	28
10-ORP-162	383 518	5 452 954	209	-70	22	62	18	9
10-ORP-162A	383 518	5 452 954	209	-70	550	0	0	0
10-ORP-163	383 920	5 453 064	209	-70	904	125	28	16
10-ORP-164	384 153	5 453 206	209	-70	928	155	27	21
11-ORP-165	383 714	5 453 661	209	-65	928	256	27	35
11-ORP-166	383 336	5 453 858	209	-60	900	139	28	19
11-ORP-167	386 130	5 453 916	195	-60	42	0	0	0
11-ORP-167A	386 130	5 453 916	195	-60	813.5	35	26	4
11-ORP-168	385 709	5 453 444	195	-60	1039	256	32	35
11-ORP-169	386 453	5 453 374	195	-65	592.9	90	21	13
11-ORP-170	386 903	5 453 559	195	-60	703	128	24	19
11-ORP-171	383 292	5 453 164	209	-70	6	0	0	0
11-ORP-171A	383 292	5 453 164	209	-70	695.3	71	22	9
11-ORP-172	382 937	5 453 145	209	-60	802.5	68	23	8
11-ORP-173	383 531	5 453 184	209	-70	885.1	131	25	17
11-ORP-174	383 187	5 453 179	209	-70	24	0	0	0
11-ORP-174A	383 187	5 453 179	209	-70	678	70	21	9
11-ORP-175	383 412	5 453 181	209	-70	17.7	0	0	0
11-ORP-175A	383 412	5 453 181	209	-70	799.8	143	22	20
11-ORP-176	382 840	5 453 179	209	-70	441.3	29	11	6
11-ORP-177	382 871	5 453 234	209	-70	605.3	63	18	7
11-ORP-178	383 452	5 453 252	209	-70	24	0	0	0
11-ORP-178A	383 452	5 453 252	209	-70	361	76	12	10
11-ORP-179	383 333	5 453 244	209	-70	1054.9	149	34	22
11-ORP-180	382 900	5 453 289	209	-70	683.3	41	20	7
11-ORP-181	382 967	5 453 201	209	-70	9	0	0	0
11-ORP-181A	382 967	5 453 201	209	-70	620	52	18	8
11-ORP-182	382 932	5 453 347	209	-70	840.5	99	28	14
11-ORP-183	383 216	5 453 240	209	-70	4.5	0	0	0
11-ORP-183A	383 216	5 453 240	209	-70	840	111	26	14
11-ORP-184	383 024	5 453 305	209	-70	851.2	144	29	18
Total	**46 DDH**				**27477.8**	**4096**	**856**	**560**

Hole_ID	UTM NAD83 Zone 18		DRILLING			SAMPLES		
	Easting	Northing	Azimut	Dip (°)	Final Length (m)	Economic Samples	Litho Samples	QA/QC
11-ORP-185	395 621	5 451 916	205	-50	174	20	5	3
11-ORP186	395 121	5 451 791	205	-50	12	0	0	0
11-ORP-186A	395 121	5 451 791	205	-50	306	49	10	6
11-ORP-187	394 662	5 451 636	205	-50	177	20	6	3
11-ORP-188	395 165	5 452 194	205	-50	282	62	9	8
11-ORP-189	383 846	5 453 249	209	-50	435	111	18	15
11-ORP-190	385 405	5 452 517	195	-60	447	20	12	4
11-ORP-191	383 778	5 453 272	209	-50	429	72	13	9
11-ORP-192	386 998	5 452 679	195	-65	501	78	36	10
11-ORP-193	383 801	5 453 121	209	-50	378	83	27	10
Total		**10 DDH**			**3141**	**515**	**136**	**68**
TOTAL		**56 DDH**			**30618.8**	**4611**	**992**	**628**

* Unsurveyed collar indicated by blue highlighting

On the Orphée Zone, the main lithology is an intermediate volcanic rock, with subordinate layers of mafic composition. The intermediate rock is andesitic, hard, fine-grained, and medium grey-green. Mineralization consists of disseminated pyrite (max. 1%). The mafic volcanic rock is basaltic, generally massive, soft, fine-grained, and medium green. These volcanic units are sometimes tuffaceous, with the clasts altered to chlorite, carbonate and sericite, stretched parallel to the foliation.

Felsic units, such as rhyolite and felsic tuff, are also present in these volcanic rock sequences. The felsic units are pale beige to translucent and fine-grained (sometimes aphanitic). The tuffs contain clasts altered to carbonate, sericite and chlorite, stretched parallel to the foliation. The rhyolite units sometimes include porphyries with disseminated quartz phenocrysts (<1cm). Mineralization consists of pyrite, pyrrhotite (combined max. of 40%) and sphalerite.

The intrusive rocks are dykes of variable compositions, from felsic to mafic, ranging in width from tens of centimetres to more than a metre. They are generally conformable to the foliation in the volcanic rocks. The two types of felsic rocks are aplites and granites (or granodiorite). The aplites are aphanitic, translucent pale beige and slightly pinkish. The granites (or granodiorite) are medium-grained and locally contain blue-quartz porphyries. They are typically present at depth and are at least a metre thick. The intermediate intrusions are more silicified, fine to medium-grained, greyish, and homogenous. These dykes occasionally display discordant contacts with the volcanic units. The mafic dykes are homogenous, fine-grained, soft to moderately hard, and dark green, with disseminated carbonates.

The semi-massive to massive Orphée sulphide lens is typically hosted by a felsic or intermediate volcanic rock, either massive or tuffaceous. Mineralization consists of pyrite, pyrrhotite, sphalerite and sometimes chalcopyrite. The metals present are zinc, copper, silver and gold. The longitudinal section of the Orphée Zone is presented in Figure 9.1. Drill hole descriptions are provided in Appendix VII, the certificates of analysis in Appendix VI, and sections + maps in Appendix VIII.

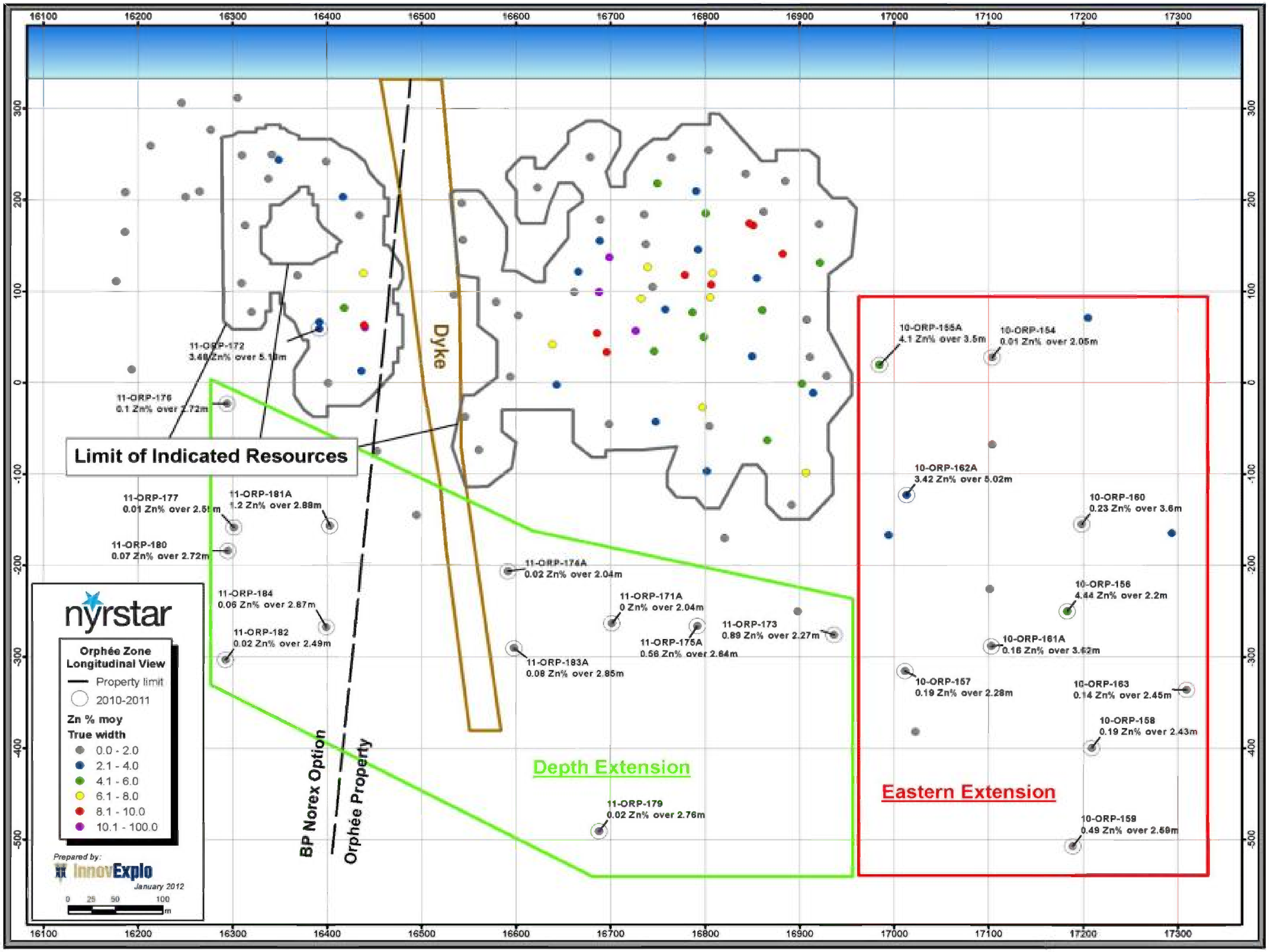

Figure 9.1 – Longitudinal view of the Orphée area

9.1 Orphée Zone targets

9.1.1 Depth extension of the Orphée Zone

Eleven (11) holes were drilled to test the depth extension of the Orphée Zone. Five (5) of these intersected sulphide-mineralized zones in the extension of the zone. The best grades are presented in Table 9.2, and the text below discusses the results for each hole. Note that interval lengths are measured along the core.

Hole 11-ORP-173 passed through a sequence of intermediate, mafic and felsic volcanic rocks. The Orphée Zone occurs between 703 and 706 m, at the contact between a felsic tuff and a felsic to intermediate tuff. Mineralization consists of 5% pyrite, 1% pyrrhotite and 6% sphalerite as masses displaying weak foliation-parallel stretching. The calculated weighted average was **0.89% Zn, 0.05% Cu and 2.7g/t Ag over 3.0m** including **3.96% Zn over 0.6m**. An felsic to intermediated tuff encountered at 26.2 m down the hole contains mineralization consisting of 25% pyrite and grades of **0.08% Zn, 0% Cu and 4.6 g/t Ag over 3.2m**.

Hole 11-ORP-181A passed through sulphide-rich felsic volcanic rock. The Orphée Zone (from 543.2 to 547.8 m) is characterized by mineralization consisting of 20% pyrite, 8% pyrrhotite and 5% sphalerite distributed as elongated masses of thin veinlets parallel to the foliation. Sphalerite is reddish-brown. The weighted average is **1.2% Zn, 0.03% Cu and 2.2 g/t Ag over 4.6 m** with grades of **3.02% Zn over 1m** and **1.14% Zn over 0.7m**.

The Orphée Zone in hole 11-ORP-175A (from 686.5 to 690.1 m) is represented by 10% pyrite, 3% pyrrhotite and 4% sphalerite as disseminated masses of less than 1 cm. The host rock is a felsic tuff with blue quartz phenocrysts. The weighted average is **0.6% Zn, 0.01% Cu, 1.7 g/t Ag over 3.6m** including a grade of **1.83% Zn over 0.6 m**.

In hole 11-ORP-176, the Orphée Zone is present from 391.8 to 396.6 m in a felsic volcanic rock and characterized by 10% pyrite, 6% pyrrhotite and 1% sphalerite as disseminated masses or sometimes as thin veinlets parallel to the foliation. This mineralization yielded 0.3% Zn over 1.2 m.

The Orphée Zone in hole 11-ORP-179 occurs from 897.0 to 901.7 m in a felsic tuff with feldspar phenocrysts. Mineralization is characterized by 3% to 22% pyrite and 2.5% to 8% pyrrhotite. However, no significant assays were obtained from this hole.

The following drill holes did not contain any mineralization, nor did they yield any significant grades associated with the Orphée Zone (based on the interpretation of the sections in Appendix IV).

The interpreted Orphée Zone should have been present at 720 m in hole 11-ORP-182. At this depth is a thin layer (12 m) of a felsic to intermediate tuffaceous rock enclosed in andesite. The tuff contains a maximum of 10% pyrite and 4% pyrrhotite disseminated as masses less than 1 cm, without significant assay results. At 94 m along the hole, another felsic to intermediate tuff contains 2% pyrite with an accompanying grade of 0.3% Zn over 0.7 m.

Hole 11-ORP-174A should have intercepted the Orphée Zone at about 600 m. At this depth, the rock is a weakly mineralized (max. 2% pyrite) felsic to intermediate tuff. At 80 m, the hole intersected a felsic to intermediate tuff with a maximum of 3% pyrite associated with a grade of 0.3% Zn over 0.6 m.

Hole 11-ORP-171A intersected a felsic to intermediate tuff at the predicted depth of the Orphée Zone (644 m). The tuff is not mineralized and did not return significant grades.

The same was found for hole 11-ORP-183A. At 700 m, the hole intersected a felsic to intermediate tuff with weak mineralization (1.5% pyrite and 1.5% pyrrhotite).

Hole 11-ORP-177 contains intervals of weakly mineralized felsic tuff and felsic to intermediate tuff (max. 2% pyrite and 1% pyrrhotite). At the downhole distance for the interpreted Orphée Zone (395 m), the hole encountered a felsic to intermediate tuff with quartz phenocrysts. Mineralization consists of 2% pyrite and 1% pyrrhotite with relatively insignificant assay results.

The Orphée Zone in hole 11-ORP-180 is enclosed in a felsic to intermediate tuff with 2% pyrrhotite and 1% pyrite at about 580.5 m.

Table 9.2 – Best assay results for the Orphée lens area (2010-2011 program)

DDH	FROM (m)	TO (m)	LENGTH (m)	Zn (%)	WEIGHTED AVERAGE* Zn (%)	Cu (%)	WEIGHTED AVERAGE* Cu (%)	Ag (g/t)	WEIGHTED AVERAGE* Ag g/t	AVERAGE CORE LENGTH (m)	Estimated True Width (m)
11-ORP-171A	319.0	320.0	1.0	0.02		0.00		4.20			
11-ORP-173	24.0	24.8	0.8	0.09	0.084	0.00	0	7.10	4.6	3.2	
11-ORP-173	24.8	26.2	1.4	0.07		0.00		2.10			
11-ORP-173	26.2	27.2	1.0	0.10		0.00		6.10			
11-ORP-173	703.0	703.6	0.6	3.96	0.89	0.05	0.05	1.70	2.70	3.00	2.23
11-ORP-173	703.6	704.5	0.9	0.07		0.01		0.0.3			
11-ORP-173	704.5	705.2	0.7	0.14		0.11		8.40			
11-ORP-173	705.2	706.0	0.8	0.18		0.06		1.50			
11-ORP-175A	291.0	292.0	1.0	0.01		0.00		2.00			
11-ORP-175A	686.5	687.3	0.8	0.11	0.56	0.00	0.01	3.70	1.67	3.6	2.6
11-ORP-175A	687.3	688.3	1.0	0.26		0.00		0.40			
11-ORP-175A	688.3	688.9	0.6	0.83		0.01		0.70			
11-ORP-175A	688.9	689.5	0.6	0.11		0.01		1.95			
11-ORP-175A	689.5	690.1	0.6	1.83		0.02		1.80			
11-ORP-176	355.3	356.2	0.9	0.04		0.01		2.10			
11-ORP-178A	343.8	344.5	0.7	0.77		0.47		5.20			
11-ORP-179	301.5	302.3	0.8	1.29		0.00		0.70			
11-ORP-179	583.5	585.0	1.5	0.10		0.18		6.65			
11-ORP-181A	543.2	544.0	0.8	0.96	1.20	0.03	0.03	2.30	2.22	4.6	2.84
11-ORP-181A	544.0	545.0	1.0	**3.02**		0.08		4.10			
11-ORP-181A	545.0	546.2	1.2	0.05		0.01		1.40			
11-ORP-181A	546.2	547.1	0.9	0.97		0.01		1.70			
11-ORP-181A	547.1	547.8	0.7	1.14		0.01		1.50			
11-ORP-191	244.9	245.4	0.5	0.21		0.04		2.00			
11-ORP-191	299.9	300.8	0.9	0.44		0.05		2.00			
11-ORP-193	75.3	76.3	1.0	0.02		0.00		2.00			

* Averages are calculated with uncut values and are based on analytical values only.
Blue cells represent weighted averages for the Orphée Zone
Bold text emphasizes values of Zn > 1%, Cu > 1%, Ag > 2 g/t.

9.1.2 Eastern extension Orphée Zone

Ten holes were drilled to test the East extension of the Orphée Zone. Eight of these holes reached the target. The best grades are presented in Table 9.3.

Hole 11-ORP-155 was positioned about 50 m to the east of the indicated resource boundary as defined by Breakwater in 2009 (Fig. 9.1). The mineralization of the Orphée Zone was present over an interval from 296.2 to 352.5 m. The rocks comprise mainly felsic tuff with quartzitic clasts. Three massive sulphide sections were identified. The first, from 296.2 to 321.8 m, consists of 3% to 50% pyrite, from 0.5% to 8% pyrrhotite as centimetre-scale masses and from trace amounts to 15% sphalerite that also locally occur as thin veinlets. The weighted averages are: **2.68% Zn, 0.18% Cu and 6.35 g/t Ag over 1.1 m; 3.09% Zn, 0.04% Cu and 1.96 g/t Ag over 2.5 m;** and **1.76% Zn, 0.01% Cu and 0.64 g/t Ag over 2.1 m.** The second, from 333.6 to 340.1 m, consists of 25 to 60% pyrite, 10 to 20% pyrrhotite, 3 to 25% sphalerite and 3% chalcopyrite (near the end) as masses. Pyrite is sometimes present as disseminations around the pyrrhotite-pyrite masses. The weighted average is **4.1% Zn, 0.32% Cu and 6.3 g/t Ag over 6.5 m** (including **10.2% Zn over 0.8 m)**. The third, from 341.2 to 352.5 m, contains mineralization ranging from 1 to 80% pyrite, 5 to 15% pyrrhotite, trace to 35% sphalerite with traces of chalcopyrite. The weighted average is **4.77% Zn, 0.45% Cu and 7.82 g/t Ag over 4.6 m** (with **22.7% Zn over 0.9 m**). A 1-m horizon containing up to 1% pyrite separates the last two semi-massive layers.

Located 120 m under hole 11-ORP-155A, hole 11-ORP-162A a intercepted the Orphée Zone from 482 to 495.2 m. The geological context is the contact between a felsic tuff and an intermediate to mafic volcanic rock. The mineralization is marked by the presence of two massive sulphide layers separated by a 0.2-m containing 1% pyrite and 1% pyrrhotite. The first massive sulphide layer, from 482 to 491.5 m, ranges from 4 to 90% pyrite, 1 to 95% pyrrhotite, trace to 30% sphalerite and trace to 20% chalcopyrite over a distance of 9.5 m. The weighted average for the Orphée Zone was **3.42% Zn, 1% Cu and 9.6 g/t Ag over 9.5 m** including **12.25% Zn over 0.6 m, 8.6% Zn over 0.9 m; 2.86% Cu with 25.4 g/t Ag over 0.5 m; 3.1% Cu with 26.2 g/t Ag over 0.6 m.** The second was from 491.5 to 495.2 m with 2 to 80% pyrite, 2 to 40% pyrrhotite, traces of sphalerite and trace to 5% chalcopyrite. The pyrite occurs as crystals (up to 2.5 cm across) float in a matrix of pyrrhotite. The weighted average is from **0.58% Zn, 1.17% Cu and 11.78 g/t Ag over 3.7 m** including **3.1% Cu and 26.2 g/t Ag over 0.6 m.**

A semi-massive sulphide layers was encountered in hole 10-ORP-156 from 644 to 647.5 m. The rock is felsic tuff with generally quartzitic clasts. The mineralization associated with the Orphée Zone consists of approximately 40% pyrite, 20% sphalerite, 10% pyrrhotite and 2% chalcopyrite as masses (sometimes as aligned mineral grains). The weighted average is **4.45% Zn, 0.29% Cu, 26.29 g/t Ag over 3.5 m** (including **13.65% Zn** and **78.85 g/t Ag over 1.1 m**).

Hole 11-ORP-159 intersected semi-massive sulphides over an interval from 888.8 to 898 m. The first was encountered from 888.8 to 893 m in a felsic tuff with quartzitic clasts. Semi-massive sulphides (2 to 20% pyrite, traces to 30% sphalerite) are present as aligned grains and, less commonly, as stockwork texture. The weighted average is **0.49% Zn, 0.02% Cu and 3.04 g/t Ag over 4.2 m** including **3.86% Zn and 20.7 g/t Ag over 0.5 m.** The second semi-massive sulphide layer is present from 895 to 898 m with 5% pyrite, 0.5% pyrrhotite and 7% sphalerite, disseminated in bands up to 2 cm wide. The weighted average is **0.34% Zn, 0.01% Cu and 2.43 g/t Ag over 3 m.** The two layers are separated by a 2-m wide weakly mineralized (2% pyrite) horizon without any significant grades.

In hole 11-ORP-160, the Orphée Zone (from 530.9 to 535.3 m) is detected as 10-15% pyrite and 2% pyrrhotite as aligned grains parallel to foliation in a felsic tuff with quartzitic clasts. The associated grade is 0.4% Zn over 0.9 m.

The Orphée Zone in hole 11-ORP-157 is present from 687.6 to 713.4 m in an tuffaceous intermediate rock with 3 to 8% pyrite and traces of sphalerite. The sphalerite occurs along fractures and the pyrite as thin masses, stretched parallel to the foliation, in places forming veinlets. The weighted average is 0.2% Zn, 0% Cu and 0.2 g/t Ag over 2.28 m.

In hole 11-ORP-158, the Orphée Zone occurs from 874.7 to 875.3 m in a fine-grained felsic to intermediate volcanic rock. Mineralization consists of 4% pyrrhotite and 2% pyrite as thin masses or thin veinlets parallel to foliation, with 8% sphalerite as thin reddish-brown veinlets. This assemblage returned a zinc grade of 0.6% Zn over 0.6 m.

In hole 11-ORP-161, the Orphée Zone was interpreted from 708.7 to 713.8 m. The rock is a felsic tuff with quartzitic clasts. Mineralization consists of 15% pyrite, 1% pyrrhotite and 1% sphalerite as aligned grains parallel to foliation. No significant grades were obtained.

The Orphée Zone was interpreted from 714.8 to 736.2 m in hole 10-ORP-163. The rock is an intermediate tuff with 0.5% pyrite, 0.5% pyrrhotite and 0.5% sphalerite. No significant grades were obtained.

Hole 10-ORP-154 contains intervals of mineralized felsic tuff. The Orphée Zone is interpreted from 333.9 to 337.5 m in a basaltic rock with traces of pyrite. No significant grades were obtained.

Table 9.3 – Best assay results from the eastern extension of the Orphée lens (2010-2011 program)

DDH	FROM (m)	TO (m)	LENGTH (m)	Zn (%)	WEIGHTED AVERAGE* Zn (%)	Cu (%)	WEIGHTED AVERAGE* Cu (%)	Ag (g/t)	WEIGHTED AVERAGE* Ag g/t	AVERAGE CORE LENGTH (m)	Estimated True Width (m)
10-ORP-155A	280.5	281.0	0.5	0.46		0.10		4.60			
10-ORP-155A	296.2	296.8	0.6	3.56	2.68	0.06	0.18	3.90	6.35	1.10	
10-ORP-155A	296.8	297.3	0.5	1.63		0.33		9.30			
10-ORP-155A	315.0	316.0	1.0	**7.12**	3.09	0.05	0.04	2.30	1.96	2.50	
10-ORP-155A	316.0	316.5	0.5	0.15		0.03		1.20			
10-ORP-155A	316.5	317.5	1.0	0.53		0.03		2.00			
10-ORP-155A	319.7	320.9	1.2	2.07	1.76	0.01	0.01	0.70	0.64	2.10	
10-ORP-155A	320.9	321.8	0.9	1.36		0.01		0.55			
10-ORP-155A	326.6	327.9	1.3	0.75		0.01		2.50			
10-ORP-155A	332.8	333.6	0.8	0.29		0.20		8.70			
10-ORP-155A	333.6	334.1	0.5	5.07	4.10	0.14	0.32	4.20	6.30	6.50	3.45
10-ORP-155A	334.1	335.3	1.2	1.47		0.11		1.80			
10-ORP-155A	335.3	336.1	0.8	1.32		0.53		**10.10**			
10-ORP-155A	336.1	336.6	0.5	0.46		0.12		8.30			
10-ORP-155A	336.6	337.1	0.5	5.35		0.02		1.40			
10-ORP-155A	337.1	338.2	1.1	4.34		0.23		3.20			
10-ORP-155A	338.2	339.0	0.8	**10.20**		0.27		5.30			
10-ORP-155A	339.0	339.5	0.5	**6.56**		0.49		7.70			
10-ORP-155A	339.5	340.1	0.6	3.61		1.11		**20.30**			
10-ORP-155A	341.2	341.7	0.5	1.37	0.67	0.63	0.45	**11.10**	7.78	1.70	
10-ORP-155A	341.7	342.3	0.6	0.69		0.65		**10.40**			
10-ORP-155A	342.3	342.9	0.6	0.07		0.11		2.40			
10-ORP-155A	344.4	345.3	0.9	**22.70**	4.77	0.47	0.45	**10.10**	7.82	4.60	
10-ORP-155A	345.3	346.3	1.0	0.45		0.06		2.00			
10-ORP-155A	346.3	346.8	0.5	0.21		0.85		**10.20**			
10-ORP-155A	346.8	347.6	0.8	0.24		0.02		2.90			
10-ORP-155A	347.6	348.1	0.5	0.22		0.59		7.60			
10-ORP-155A	348.1	349	0.9	0.76		0.95		**15.20**			
10-ORP-155A	349.6	350.3	0.7	0.25	0.13	0.70	0.46	**11.20**	6.83	2.90	
10-ORP-155A	350.3	351.3	1.0	0.09		0.40		7.40			
10-ORP-155A	351.3	352.0	0.7	0.12		0.30		3.10			
10-ORP-155A	352.0	352.5	0.5	0.07		0.45		4.80			
10-ORP-155A	353.7	354.2	0.5	0.04		0.04		2.20			
10-ORP-155A	355.3	355.8	0.5	0.07		1.93		**28.70**			
10-ORP-155A	374.5	375.7	1.2	0.35		0.01		2.40			
10-ORP-156	644.0	644.6	0.6	0.36	4.45	0.03	0.29	4.20	26.29	3.5	2.17
10-ORP-156	644.6	645.7	1.1	**13.65**		0.88		**78.85**			
10-ORP-156	645.7	646.5	0.8	0.12		0.02		2.20			
10-ORP-156	646.5	647.5	1.0	0.23		0.01		1.00			
10-ORP-156	647.5	648.3	0.8	0.37		0.01		2.00			
10-ORP-156	651.5	652.2	0.7	0.35		0.01		2.20			
10-ORP-156	653.0	654.0	1.0	0.89		0.03		2.10			
10-ORP-156	674.5	675.4	0.9	0.10		0.53		4.80			

DDH	FROM (m)	TO (m)	LENGTH (m)	Zn (%)	WEIGHTED AVERAGE* Zn (%)	Cu (%)	WEIGHTED AVERAGE* Cu (%)	Ag (g/t)	WEIGHTED AVERAGE* Ag g/t	AVERAGE CORE LENGTH (m)	Estimated True Width (m)
10-ORP-158	775.0	775.6	0.6	0.02		0.28		2.50			
10-ORP-159	335.5	336.0	0.5	0.03		0.60		8.10			
10-ORP-159	888.8	889.3	0.5	3.86		0.09		20.70			
10-ORP-159	889.3	889.8	0.5	0.06		0.03		1.80			
10-ORP-159	889.8	890.9	1.1	0.05	0.49	0.00	0.02	0.40	3.04	4.2	2.55
10-ORP-159	890.9	892.0	1.1	0.03		0.01		0.70			
10-ORP-159	892.0	893.0	1.0	0.02		0.00		0.30			
10-ORP-159	895.0	896.0	1.0	0.38		0.01		2.90			
10-ORP-159	896.0	897.0	1.0	0.11	0.34	0.01	0.01	2.10	2.43	3	
10-ORP-159	897.0	898.0	1.0	0.54		0.02		2.30			
10-ORP-161A	164.7	166.2	1.5	0.43		0.03		3.00			
10-ORP-161A	166.2	167.1	0.9	0.21		0.03		4.20			
10-ORP-161A	720.0	721.1	1.1	0.09		0.14		3.30			
10-ORP-161A	760.0	760.7	0.7	0.02		0.01		3.00			
10-ORP-161A	761.6	762.1	0.5	0.01		0.00		25.30			
10-ORP-162A	479.5	480.2	0.7	1.25		0.07		0.90			
10-ORP-162A	482.0	482.7	0.7	0.05		0.33		3.40			
10-ORP-162A	482.7	483.3	0.6	0.35		0.50		6.00			
10-ORP-162A	483.3	483.8	0.5	1.09		0.28		8.10			
10-ORP-162A	483.8	484.7	0.9	8.60		0.48		4.70			
10-ORP-162A	484.7	485.7	1.0	7.31		0.33		3.55			
10-ORP-162A	485.7	486.3	0.6	3.15		1.18		10.30			
10-ORP-162A	486.3	486.9	0.6	12.25	3.42	0.50	1.00	5.70	9.56	9.5	4.95
10-ORP-162A	486.9	487.4	0.5	7.63		1.89		15.30			
10-ORP-162A	487.4	488.4	1.0	1.23		1.36		13.20			
10-ORP-162A	488.4	488.9	0.5	0.38		2.86		25.40			
10-ORP-162A	488.9	489.4	0.5	0.78		1.01		8.90			
10-ORP-162A	489.4	490.0	0.6	0.48		1.10		10.30			
10-ORP-162A	490.0	490.8	0.8	0.54		1.55		13.95			
10-ORP-162A	490.8	491.5	0.7	1.58		1.34		11.50			
10-ORP-162A	491.5	492.0	0.5	0.21		0.96		8.00			
10-ORP-162A	492.0	492.7	0.7	0.11		0.08		1.15			
10-ORP-162A	492.7	493.2	0.5	1.50	0.58	0.98	1.17	14.90	11.78	3.7	
10-ORP-162A	493.2	493.8	0.6	1.36		3.10		26.20			
10-ORP-162A	493.8	494.7	0.9	0.35		1.17		11.40			
10-ORP-162A	494.7	495.2	0.5	0.16		0.79		10.70			
10-ORP-163	197.1	198.4	1.3	0.05		0.00		2.95			
10-ORP-163	729.6	730.7	1.1	0.11		0.07		2.10			

* Averages are calculated with uncut values and are based on analytical values only.
Blue cells represent weighted averages for the Orphée Zone.
Bold text emphasizes values of Zn > 1%, Cu > 1%, Ag > 2g/t.

9.1.3 Lithogeochemistry

All lithogeochemical samples of volcanic and intrusive rocks near the massive sulphide Orphée Zone were processed using NORMAT software. The following diagrams are graphical representations of the various types of alteration as a function of their distance from the Orphée Zone in drill hole. The origin of each graph is the centre of the massive sulphide horizon or its interpreted extensions. The positive and negative values represent the respective distances to the north and south of the Orphée Zone. The holes were drilled from north to south through the lens and its extensions, thus plotted points in the north field are closer to surface. South represents the end of the hole, where fewer samples were taken.

Figure 9.2 illustrates the amount of silica in volcanic and intrusive samples as a function of their distance to the Orphée Zone. Felsic rocks are present in the Orphée lens and to the north. Few felsic rocks were observed south of the Orphée lens.

The lithogeochemical study focuses on the felsic rocks because they are the main host to mineralization in the Orphée Zone itself and to weaker mineralized zones to the north. The goal is to determine if the Orphée Zone felsic rocks have a different degree of alteration than non-Orphée felsic rocks.

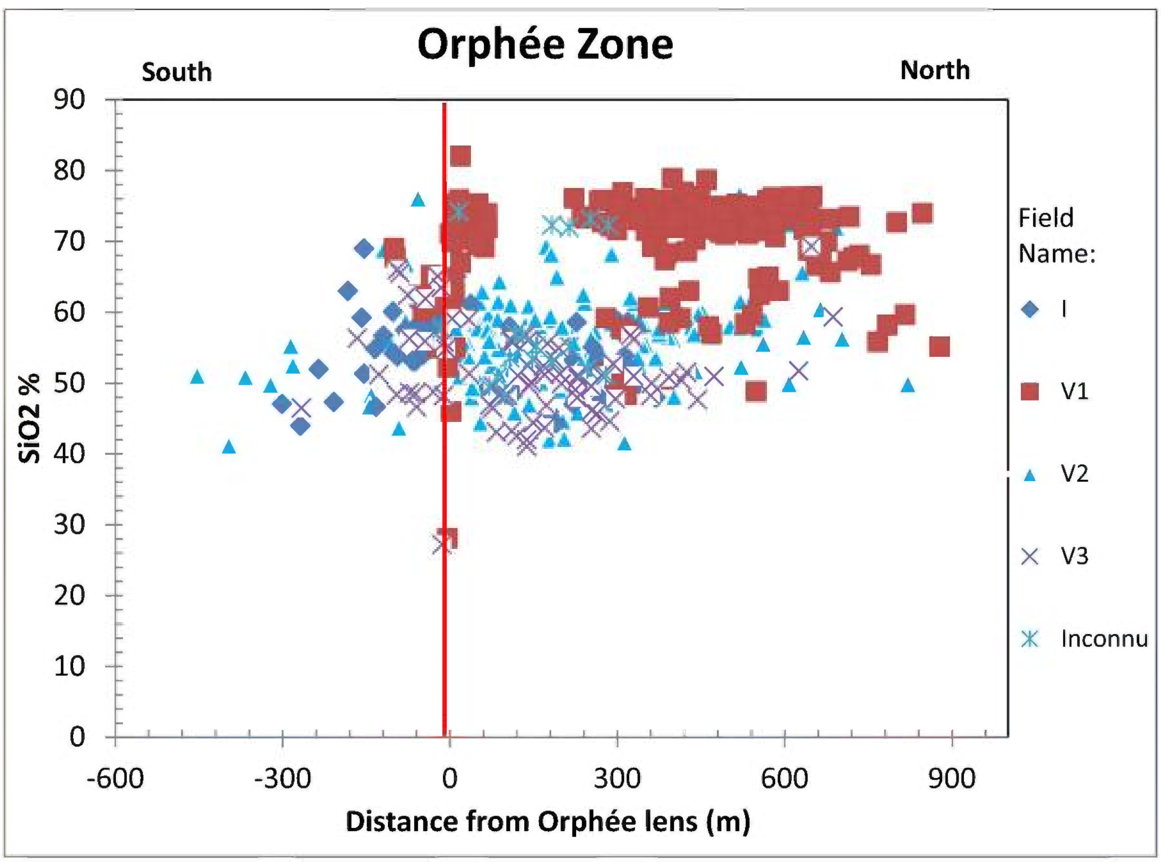

Figure 9.2 – Silica (SiO2) content as a function of distance from the Orphée lens

Figure 9.3 illustrates the IALT values (the sum of 4 alteration indexes: IPara, ISer, IChlo, IPyro) as a function of the distance from the Orphée Zone. The felsic and intermediate rocks are generally more altered (high IALT values).

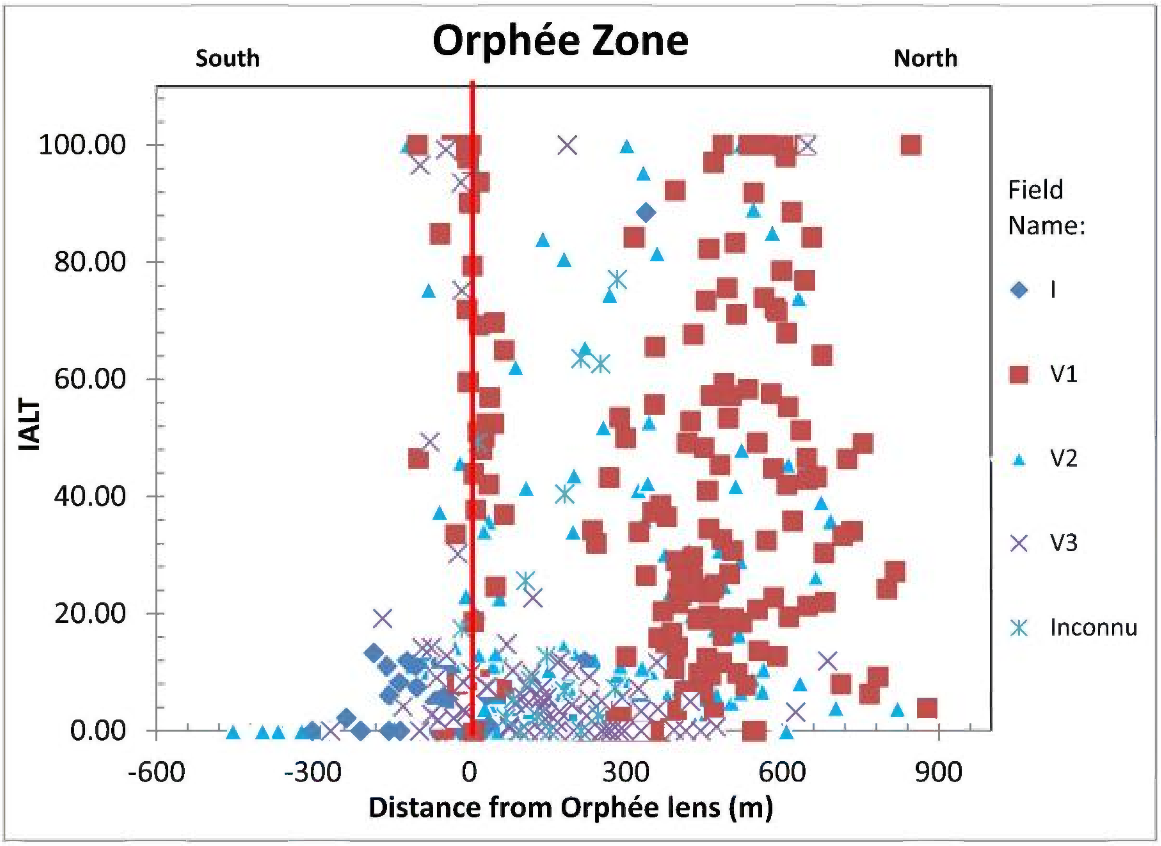

Figure 9.3 – Alteration index (IALT) as a function of distance from the Orphée lens

Figure 9.4 illustrates the amount of titanium oxide (TiO_2) as a function of the distance from the Orphée lens. Samples form two groups, one with <0.5% TiO2 and the other >0.5%. The felsic volcanic rocks typically have less TiO_2. Whether the rocks are north of the Orphée Zone or within it, the TiO_2 contents are similar.

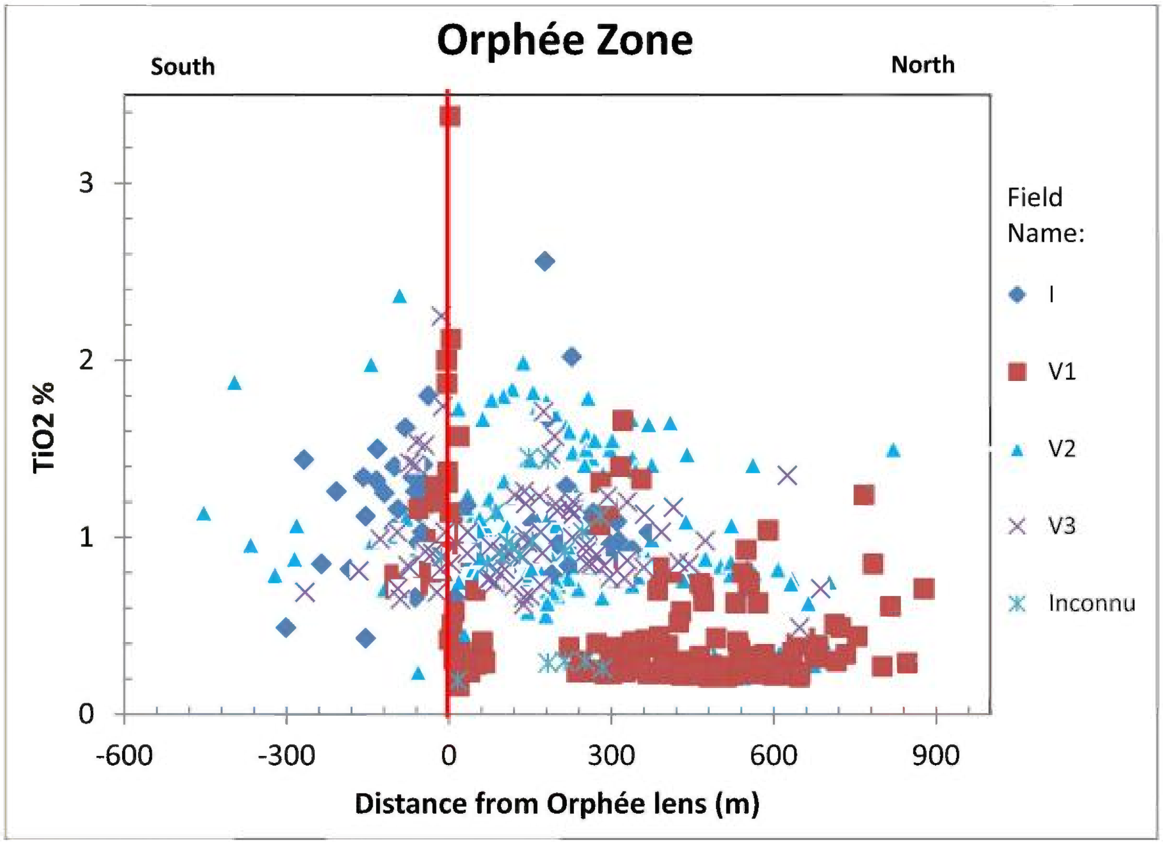

Figure 9.4 – Titanium (TiO2) as a function of distance from the Orphée lens

In summary, felsic volcanic rocks are present to the north of the Orphée Zone and within it. The various types of alteration do not appear to preferentially affect either of these two groups of felsic rocks. Both have high IALT values and low TiO_2 values.

9.2 GEOPHYSICAL TARGETS

The geological contexts for the investigated geophysical anomalies, as observed in drill hole, displayed only slight variations. The main lithology is always intermediate volcanic rock, but in some cases is andesitic (fine-grained, homogenous, medium green) and others tuffaceous (clasts altered to chlorite, sericite, carbonates). Mineralization is represented by pyrite and sometimes pyrrhotite. The intermediate rock alternates with layers of mafic and/or felsic rock. The mafic rocks are generally basaltic (fine-grained, dark green, soft, and altered to chlorite and carbonates) or tuffaceous (clasts altered to chlorite and carbonates). Mineralization is weak. When present, the felsic rocks are rhyolitic (aphanitic texture, translucent pale colour, very hard) or tuffaceous (sericitized clasts, carbonatized and weakly chloritized). Mineralization is represented by pyrite and pyrrhotite, which may be abundant.

The intrusive rocks are of the same composition as those present in the Orphée Zone.

9.2.1 Titan 24 exploration targets

Fourteen (14) holes were planned to test the Titan 24 anomalies, of which eleven (11) were recommended by Quantec Geoscience following their 2007 survey. These recommendations related to IP chargeability, DC resistivity, and MT resistivity anomalies. Breakwater Resources drilled all the recommended holes as well as three others (11-ORP-167A, 168 and 184).

The first hole was 10-ORP-149. The target was a DC resistivity anomaly of moderate intensity from 195 to 280 m. The rock is essentially a fine-grained homogenous andesite with weak mineralization (0.5% pyrite). The DC resistivity anomaly was not explained.

Hole 10-ORP-150 targeted a DC and MT resistivity anomaly to a shallow depth (from 70 to 125 m) and a second MT anomaly from 280 to 450 m. The first was a tuffaceous felsic rock interlayered with andesite. From 74.8 to 86.7m, mineralization consisted of 1% disseminated as veinlets, which could explain the Titan 24 anomaly. The second generally consists of weakly mineralized (max. 1% sulphide), fine-grained andesite. The MT resistivity anomaly was not explained.

The aim of hole 10-ORP-151 was to test a weak DC resistivity anomaly from 110 to 230 m, as well as a strong IP chargeability anomaly that coincides with a DC resistivity anomaly from 445 to 680 m. The depth range of the first anomaly corresponds to an intermediate to mafic volcanic rock with weak pyrite mineralization; the second corresponds to sulphide-bearing alternations of massive-texture intermediate volcanic rock with intermediate to mafic tuff. The sulphides, disseminated pyrite (max. 1%) and pyrrhotite (max. 4%), are concentrated at the beginning of this interval. This mineralization can only explain the second anomaly.

Hole 10-ORP-152 tested a strong IP anomaly and a weak DC resistivity anomaly at 365 to 560 m. The hole encountered massive basaltic rock with intermediate to mafic tuff containing 1% disseminated pyrrhotite in this interval. Most of the sulphide mineralization is present from 350 to 430 m. This pyrrhotite could explain the anomaly.

Hole 10-ORP-153 was positioned to intersect a moderate MT anomaly from 530 to 880 m. The hole passed through medium-grained granodiorite with traces of disseminated pyrite, but this rock cannot explain the anomaly.

Hole 10-ORP-164 aimed to test a chargeability IP anomaly at depth (more than 950 m) and a weak MT resistivity anomaly around 180 m. The IP anomaly was too deep; the hole did not reach this target. The MT resistivity anomaly is associated with a felsic to intermediate tuff with quartz phenocrysts but no sulphides. The anomaly was not explained. This hole did, however, encounter a mineralized zone around 550 m containing 2 to 20% pyrite, 0.5 to 5% pyrrhotite, traces to 15% chalcopyrite and traces to 5% sphalerite as fine bands. Grades included **0.5% Zn over 0.6 m** and **16.3 g/t Ag over 0.5 m**.

Hole 11-ORP-165 tested a weak IP chargeability from 190 to 265m and a moderate MT resistivity anomaly from 550 to 725m. The first depth interval corresponds to a felsic to intermediate tuff, with up to 3% pyrite over 0.9 m, and basalt with traces of pyrite. The IP chargeability anomaly could not be explained. In the second depth interval, the hole encountered a mineralized interval of 1 to 6% pyrite in a felsic to intermediate tuff. Pyrite is concentrated at the beginning of this interval and is associated with low zinc grades of **0.2% Zn over 1.5m** and **0.15% Zn over 1.5m**. The anomaly is thus explained by this sulphide-bearing interval. Other grades are locally present along this hole, such as **0.5% Zn over 1.5 m** (to 323.5 m) with 1.5% pyrite, **0.4% Zn over 1.5m** (to 380.5 m) with 1.5% pyrite, **0.3% Zn over 0.7 m** (to 885.3 m) with 1% pyrite as masses.

Hole 11-ORP-166 targeted a DC and MT resistivity anomaly from 420 to 550 m and a DC resistivity anomaly from 740 to 900 m. For the first depth interval, the hole encountered felsic to intermediate tuff with quartz phenocrysts and weak mineralization. The anomaly was not explained, despite the presence of an isolated low grade assay of 0.3% Zn over 0.5 m. The second depth interval corresponds to alternations of felsic to intermediate tuff and intermediate to mafic tuff. Sulphide mineralization consists of 1% pyrite as very fine disseminated masses yielding a low-grade assay of **0.24% Zn over 0.9 m**. This sulphide-bearing rock explains the second targeted anomaly. In between the two Titan 24 anomalies, the hole passed through an interval with 20% pyrite over 0.6 m surrounded by 1 to 3% disseminated pyrite. No significant grades were obtained.

The objective for hole 11-ORP-167A was to intersect a strong MT resistivity anomaly from 400 to 700m. The depth interval corresponds to alternations of felsic to intermediate tuff and mafic tuff. Pyrite was sporadically present (0.5%). The strong resistivity anomaly was not explained.

Hole 11-ORP-168 targeted a strong IP chargeability anomaly a strong MT resistivity anomaly from 410 to 690 m. At this depth, the rock consists of felsic to intermediate tuffaceous rock, andesite and basalt. Sulphide mineralization is generally present in the felsic to intermediate tuffs as 0.5 to 5% pyrite. Low zinc grades were obtained, including 0.18% Zn over 1.5 m and 0.15% Zn over 0.6 m. The amount of sulphides is too low to explain this anomaly. The strong IP chargeability anomaly covers a very wide interval, from 250 to 930 m, but nothing was encountered down-hole that could explain it. Semi-massive sulphides were intersected from 940 to 956 m in an intermediate tuff. Mineralization consists of 1 to 55% pyrite with traces of sphalerite, and grades of **0.48% Zn and 2% Ag over 0.8m** and **0.44% Zn and 1.6% Ag over 0.8m**.

Hole 11-ORP-169 tested an MT and DC resistivity anomaly (240 to 280 m) as well as a strong IP chargeability anomaly (310 to 450 m). For the first of these depth intervals, the hole passed through felsic to intermediate tuff and an intermediate tuff, both with traces of pyrite. The second interval was in alternations of intermediate to mafic volcanic rock and felsic to intermediate tuff. Sulphide mineralization varies from traces to 3% disseminated pyrite. The hole did not explain either anomaly.

Hole 11-ORP-170A tested a weak DC and TC resistivity anomaly at a depth of 345 to 570 m. The main rock type encountered in this interval was an intermediate volcanic rock (more felsic towards the end of the interval) with local mineralization ranging from 1 to 3% disseminated pyrite. Pyrite was not always present and thus could not explain the anomaly. The highest concentration of pyrite was encountered just before the anomaly (from 265.7 to 328.3 m), with 1.5 to 10% pyrite over 62.6 m, and grades of **0.8% Zn and 1.9 g/t Ag over 0.9 m**.

For hole 11-ORP-172, the target was a weak IP chargeability anomaly from 360 to 480m. The only mineralization observed in this depth interval was 1% sphalerite, 2% pyrrhotite and 4% pyrite in a felsic to intermediate tuff measuring 11.4 m (core length). No significant results were obtained. This mineralization cannot explain the anomaly. At 340 m, a layer of massive sulphides was encountered in a felsic to intermediate tuff with 5 to 80% pyrite, 1 to 25% pyrrhotite, traces to 45% sphalerite, and traces to 2% chalcopyrite. The sulphides represent the Orphée Zone, yielding weighted averages of **0.5% Zn, 0.16% Cu and 20.2 g/t Ag over 8.1 m**; **3.48% Zn, 0.44% Cu and 18.86 g/t Ag over 7.7 m; and 0.17% Zn, 0.03% Cu and 4 g/t Ag over 8.8 m**.

The last hole, 11-ORP-184, targeted a strong IP chargeability anomaly at great depth. The hole was not long enough to reach it. The last lithology encountered down-hole was basalt with diorite, and no mineralization was observed. One zinc grade (1.2% Zn over 0.6 m) was obtained at 493.3 m in a felsic to intermediate tuff without any visible sulphide mineralization.

Table 9.4 – Best assay results from the 2010-2011 Titan 24 program

DDH	FROM (m)	TO (m)	LENGTH (m)	Zn (%)	WEIGHTED AVERAGE* Zn (%)	Cu (%)	WEIGHTED AVERAGE* Cu (%)	Ag (g/t)	WEIGHTED AVERAGE* Ag g/t	AVERAGE CORE LENGTH (m)	Estimated True Width (m)
10-ORP-149	146.5	148.0	1.5	0.00		0.00		3.20			
10-ORP-164	84.2	84.8	0.6	0.01		0.31		2.90			
10-ORP-164	447.7	448.3	0.6	0.48		0.03		3.20			
10-ORP-164	560.1	560.6	0.5	0.36		0.66		**16.30**			
11-ORP-168	919.4	920.2	0.8	0.02		0.00		3.90			
11-ORP-168	953.5	954.3	0.8	0.48		0.00		2.00			
11-ORP-169	166.0	166.8	0.8	0.01	0.014	0.30	0.69	2.30	5.30	1.3	
11-ORP-169	166.8	167.3	0.5	0.02		1.32		**10.10**			
11-ORP-169	167.9	168.4	0.5	0.02	0.02	0.46	0.61	3.10	5.05	2.2	
11-ORP-169	168.4	169.0	0.6	0.02		0.32		3.40			
11-ORP-169	169.0	169.5	0.5	0.01		0.24		2.70			

DDH	FROM (m)	TO (m)	LENGTH (m)	Zn (%)	WEIGHTED AVERAGE* Zn (%)	Cu (%)	WEIGHTED AVERAGE* Cu (%)	Ag (g/t)	WEIGHTED AVERAGE* Ag g/t	AVERAGE CORE LENGTH (m)	Estimated True Width (m)
11-ORP-169	169.5	170.1	0.6	0.02		1.33		**10.30**			
11-ORP-169	173.1	174.1	1.0	0.01		0.25		2.05			
11-ORP-170	678.1	678.7	0.6	0.07		0.14		4.10			
11-ORP-172	308.1	308.8	0.7	0.02		0.01		3.80			
11-ORP-172	310.0	311.5	1.5	0.03		0.00		**32.30**			
11-ORP-172	312.0	313.0	1.0	0.04		0.02		3.00			
11-ORP-172	313.8	315.2	1.4	0.38		0.05		7.30			
11-ORP-172	315.2	316.0	0.8	2.35		0.02		**30.60**			
11-ORP-172	316.0	316.5	0.5	0.06		0.01		**12.90**			
11-ORP-172	316.5	317.0	0.5	0.05	0.50	0.18	0.16	**31.80**	20.19	8.1	
11-ORP-172	317.0	318.2	1.2	0.08		0.24		**25.00**			
11-ORP-172	318.2	319.3	1.1	1.07		0.46		**32.25**			
11-ORP-172	319.3	319.9	0.6	0.25		0.28		**35.70**			
11-ORP-172	319.9	320.9	1.0	0.11		0.12		**16.60**			
11-ORP-172	320.9	322.0	1.1	1.10		0.23		**18.50**			
11-ORP-172	322.0	323.1	1.1	4.22		0.44		**18.40**			
11-ORP-172	323.1	324.6	1.5	6.03		0.35		**14.60**			
11-ORP-172	324.6	325.2	0.6	5.12	3.48	0.31	0.44	8.40	18.86	7.7	5.1
11-ORP-172	325.2	326.2	1.0	3.10		0.60		**22.20**			
11-ORP-172	326.2	327.2	1.0	4.38		0.66		**27.90**			
11-ORP-172	327.2	328.0	0.8	0.67		0.40		**15.70**			
11-ORP-172	328.0	328.6	0.6	1.39		0.62		**25.00**			
11-ORP-172	328.6	329.8	1.2	0.28		0.05		7.55			
11-ORP-172	329.8	330.5	0.7	0.30		0.26		7.80			
11-ORP-172	330.5	331.0	0.5	0.16		0.04		2.90			
11-ORP-172	331.0	332.0	1.0	0.04		0.00		2.70			
11-ORP-172	332.0	333.4	1.4	0.06		0.00		4.80			
11-ORP-172	333.4	334.3	0.9	0.06		0.06		2.70			
11-ORP-172	334.3	335.5	1.2	0.28	0.17	0.08	0.034	3.10	3.99	8.8	
11-ORP-172	335.5	336.7	1.2	0.13		0.07		3.20			
11-ORP-172	336.7	337.6	0.9	0.63		0.02		2.40			
11-ORP-172	337.6	338.3	0.7	0.22		0.04		**13.90**			
11-ORP-172	338.3	339.3	1.0	0.06		0.00		2.40			
11-ORP-172	346.5	347.7	1.2	0.01		0.01		2.45			
11-ORP-184	493.3	493.9	0.6	1.17		0.05		1.20			

* Averages are calculated with uncut values and are based on analytical values only.
Bold text emphasizes values of Zn > 1%, Cu > 1%, Ag > 2g/t

9.2.2 IP Explorations targets

In 2005, Metco Resources carried out a ground-based IP survey at the eastern end of the Orphée property (formerly the Mountain B property). The 43-101 compliant technical report of Bussières (2006b) recommended six (6) holes to test the shallow anomalous corridors oriented 110°. Breakwater Resources only drilled four of the holes because the other two could only be drilled in wintertime.

The aim of the first hole, 11-ORP-185, was to intersect an IP anomaly from 140 to 160 m. No mineralization was observed in this interval. The rock is a fine-grained, medium green basalt. The IP anomaly was not explained by this hole. Just before the anomaly depth (at 82.4 m), assays yielded the highest **gold** grade of the drilling program: **1.5 g/t Au over 0.6 m** associated with 1.5% pyrite.

Hole 11-ORP-186A was planned to test two IP anomalies from 85 to 115 m and 260 to 285 m. Weakly mineralized, massive to tuffaceous basaltic rock was encountered over the first interval. A pyrite concentration of 15% was associated with quartz phenocrysts in fine-grained basalt. No significant sulphides were observed in the second depth interval. Neither IP anomaly was explained by this drill hole. Mineralization was, however, observed at the beginning of the hole (37.7 to 47.4 m) as 1 to 3% pyrite, 1% pyrrhotite and 1 to 8% sphalerite as elongated masses or sometimes as stringers. Assay values were **0.8% Zn over 0.5 m**, **0.4% Zn over 0.7 m**, **0.8% Zn over 0.6 m**, and **0.6% Zn over 0.7 m**.

Hole 11-ORP-187 tested another IP anomaly ranging from 130 to 155 m. No significant sulphide mineralization or assay results were obtained from this hole.

The aim of the last hole, 11-ORP-188, was to test two anomalies, from 105 to 120 m and from 190 to 210 m. The first anomaly corresponded to an interval containing 1 to 5% pyrite and 2 to 5% pyrrhotite as very fine masses in a mafic tuff. No sulphide mineralization is present on either side of this interval. The second IP interval included a concentration of 4% pyrite masses over 2 m. The first anomaly is thus explained by sulphide mineralization, but not the second. Low grades were obtained in this hole: **0.5% Zn over 0.6 m** (at 70.6 m) and **0.5% Zn over 0.7 m** (at 127.7 m). No significant sulphide mineralization was observed for these intervals.

Table 9.5 – Best assays results for the IP exploration targets (2010-2011 program)

DDH	FROM (m)	TO (m)	LENGTH (m)	Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)
11-ORP-185	82.4	83.0	0.6	0.08	0	0.5	1.47
11-ORP-186A	37.7	38.2	0.5	0.77	0.01	0.5	0
11-ORP-186A	42.3	42.9	0.6	0.83	0.02	0.5	0
11-ORP-186A	46.7	47.4	0.7	0.62	0.02	0.5	0

9.2.3 3D IP in the Orphée lens area

Breakwater Resources drilled three (3) holes to test the second anomalous zone interpreted by Abitibi Geophysics (as described in section 8.0).

The aim of the first hole, 11-ORP-189, was to intersect the far eastern end of the chargeable body at an approximate depth range of 175 to 248 m. The interval contained most of the sulphides encountered in this hole, in an intermediate volcanic rock with blue quartz phenocrysts. Sulphides were essentially pyrite as disseminations or as small disseminated masses. The maximum pyrite concentration is 50% over 0.2 m. No significant zinc values were obtained.

The second hole, 11-ORP-191, passed through the chargeable zone from 108 to 188 m and from 270 to 299 m. The first segment did not contain any sulphide mineralization. Pyrite is present on either side of the zone. The second zone contained fine-grained basaltic rock. Sulphide mineralization is concentrated at one end (from 298.5 to 301.7m) with 1.5% pyrite and traces of sphalerite. The associated grades are 0.4% Zn over 0.7m and 0.4% Zn over 0.9m. The second chargeability anomaly in this hole is thereby explained.

The last hole, 11-ORP-193, tested the core of an IP anomaly from 79 to 211 m in an intermediate rock (alternating massive and tuffaceous textures). Sulphide mineralization is mainly concentrated in the centre of this interval, from 121 to 154 m, with 1 to 4% pyrite and traces of sphalerite. One of the grades is 0.3% Zn over 1.0 m. The last anomaly is thus explained. Up to 5% pyrite was also observed before this interval, at around 70 m.

Table 9.6 – Best assays results for 3D IP anomalies in the Orphée lens area (2010-2011 program)

DDH	FROM (m)	TO (m)	LENGTH (m)	Zn (%)	Cu (%)	Ag (g/t)
11-ORP-191	298.4	299.1	0.7	0.44	0.02	0.5
11-ORP-191	299.9	300.8	0.9	0.44	0.05	2

9.2.4 InfiniTEM Explorations targets

The InfiniTEM survey carried out in November 2010 proposed seven drill holes to test off-hole anomalies. Breakwater Resources only drilled two.

The aim of the first hole, 11-ORP-190, was to test an off-hole anomaly observed at a depth of 210 metres in hole 10-ORP-153. The conductor responsible for this InfiniTEM anomaly is located down-dip and northeast of hole 10-ORP-153. Hole 11-ORP-190 was therefore collared 100 m northeast and 100 metres behind hole 10-ORP-153 in order to intersect the anomaly at a depth of 300 m. Hole 11-ORP-190 intersected a granitic rock with thin interlayers of intermediate to mafic volcanic rock from 194.3 m to 447 m. No significant mineralization was encountered. The targeted InfiniTEM anomaly thus remains unexplained.

The second hole, 11-ORP-192, targeted an off-hole InfiniTEM anomaly at a depth of 435 m in hole 10-ORP-150. The conductor causing this anomaly is down-dip and northeast of hole 10-ORP-150. Hole 11-ORP-192 was positioned to intercept the anomaly at a distance of 100 m. Unfortunately, the hole was 500 m long and the anomaly was interpreted at 580 m. The rock essentially consists of intermediate volcanic rock with and without quartz phenocrysts. Sulphide mineralization varies from traces to 3% pyrite (disseminated) and traces to 3% sphalerite (disorganized masses). No significant values were obtained. The hole did not seem to reach the anomaly.

10.0 SAMPLING METHOD AND APPROACH

The drill core sampling method and approach for the Orphée Project was established by InnovExplo. There was no indication of anything in the drilling, core handling or sampling procedures or in the sampling methods and approach that could have had a negative impact on the reliability of the reported assay results.

Drill core was boxed, covered and sealed at the drill rig and then moved to the InnovExplo logging and sample preparation facilities at the Langlois mine by employees of the drilling company. After being examined and described (logged), the core was sampled according to an established protocol. Core sample intervals were selected based on the presence of visible mineralization, alteration or structural features, and were limited by lithological contacts. Minimum and maximum sample lengths were established at 0.5 and 1.5 metres. The core of the selected interval was cut in half using a typical table-feed circular rock saw and hydraulic splitter, with one half put aside for shipment to the laboratory. Half of all sampled core was retained for future reference. A sample tag bearing the same number was placed at the end of the sampled interval. Samples were then placed into sample bags by InnovExplo personnel and the bags delivered to the assay lad by Transport Aldée Naud.

Drill core from the Orphée property is presently stored at the Langlois mine. The site is fenced-off from the surrounding area and has supervised entrance.

InnovExplo is of the opinion that the sampling procedures follow industry standards and are of good quality.

Samples were grouped and shipped in batches of 25 samples. Each batch comprised 22 regular samples, 1 field duplicate sample selected at random, 1 field blank and 1 certified reference material.

At the request of InnovExplo, the ALS Chemex laboratory added a 26^{th} sample to every batch received in the form of a coarse duplicate of the 25^{th} sample. A pulp duplicate was also randomly inserted into each batch, bringing the total to 27 samples. For the fusion process, three (3) batches were combined to create a single large batch of 81 samples. To these large batches, the laboratory randomly added three (3) additional quality control samples (1 analytical blank and 2 certified reference materials), bringing the total of 84 samples.

At the request of InnovExplo, the Accurassay laboratory added a 26^{th} sample to every batch received in the form of a coarse duplicate of the 25^{th} sample. A pulp duplicate was also randomly inserted into each batch, bringing the total to 27 samples. The laboratory randomly added two additional quality control samples (1 analytical blank and 1 certified reference material) to each fusible batch.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Two laboratories were used to analyze samples from the 2010 and 2011 drilling programs on the Orphée property: ALS Chemex in Val-d'Or and Accurassay Laboratories in Rouyn-Noranda.

11.1 ALS Chemex Laboratories

ALS Chemex, an ISO 9001:2000 accredited facility in Val-d'Or, was used for some of the assaying for the 2010-2011 drilling program on the Orphée property. InnovExplo is of the opinion that ALS Chemex assaying procedures and QA/QC protocols follow industry standards and are of good quality.

11.1.1 Sample Preparation (ALS Chemex Laboratories)

This section describes the sample preparation protocol for the Québec division of ALS Chemex.

The entire sample is crushed using either an oscillating jaw crusher or a roll crusher, with the specification that more than 70% of the crushed sample material must pass a 2mm (10mesh) screen. A 250-gram fraction derived from the crushing process is then pulverized using a ring mill to 85% passing 75µm (200 mesh).

11.1.2 Analysis (ALS Chemex Laboratories)

Gold was analyzed by fire assay with AAS (absorption atomic spectrometry) finish (ALS Chemex code Au-AA23) using a 30-gram nominal sample weight. The method offers detection limits from 0.005 to 10 ppm. For grades over 3.0 g/t Au, samples were re-assayed with a gravimetric finish (ALS Chemex Au-GRA22).

11.2 Accurassay Laboratories

Accurassay Laboratories was used for some of the assaying for the Orphée drilling programs. InnovExplo is of the opinion that Accurassay's assaying procedures and QA/QC protocols follow industry standards and are of good quality.

11.2.1 Sample preparation (Accurassay Laboratories)

The entire sample is crushed with either an oscillating jaw crusher or a roll crusher, with the specification that more than 70% of the crushed sample material must pass a 2-mm (-8mesh) screen. A 250-gram fraction derived from the crushing process is then pulverized using a ring mill to 85% passing 75µm (200 mesh).

11.2.2 Analysis (Accurassay Laboratories)

Gold was analyzed by fire assay with AAS finish (absorption atomic spectrometry) using a 30-g nominal sample weight. The method offers detection limits from 0.005 to 30 ppm. For grades over 3.0 g/t Au, samples were re-assayed with a gravimetric finish (Accurassay code Au-ALFA7). Samples were also assayed by ICP (ALAR1) for thirty-six (36) elements.

11.3 Results of Quality Control

11.3.1 Blank

The field blank used for the 2010 and 2011 programs was a sample of gold-barren calcareous rock externally tested by different laboratories. The field blank is usually selectively placed after potentially high-grade samples (submitted as regular samples, blind to the laboratory) to detect contamination during preparation.

One blank was inserted in every batch of 25 samples. InnovExplo's recommended quality control protocol stipulates that if any blank yields a gold value above 0.1 g/t Au for ALS Chemex or above 0.05 g/t Au for Accurassay Laboratories, the entire batch should be re-assayed.

For the 2010-2011 Orphée program, gold results for the blanks fell far below the recommended thresholds, as shown in Figure 11.1 (ALS Chemex) and Figure 11.2 (Accurassay).

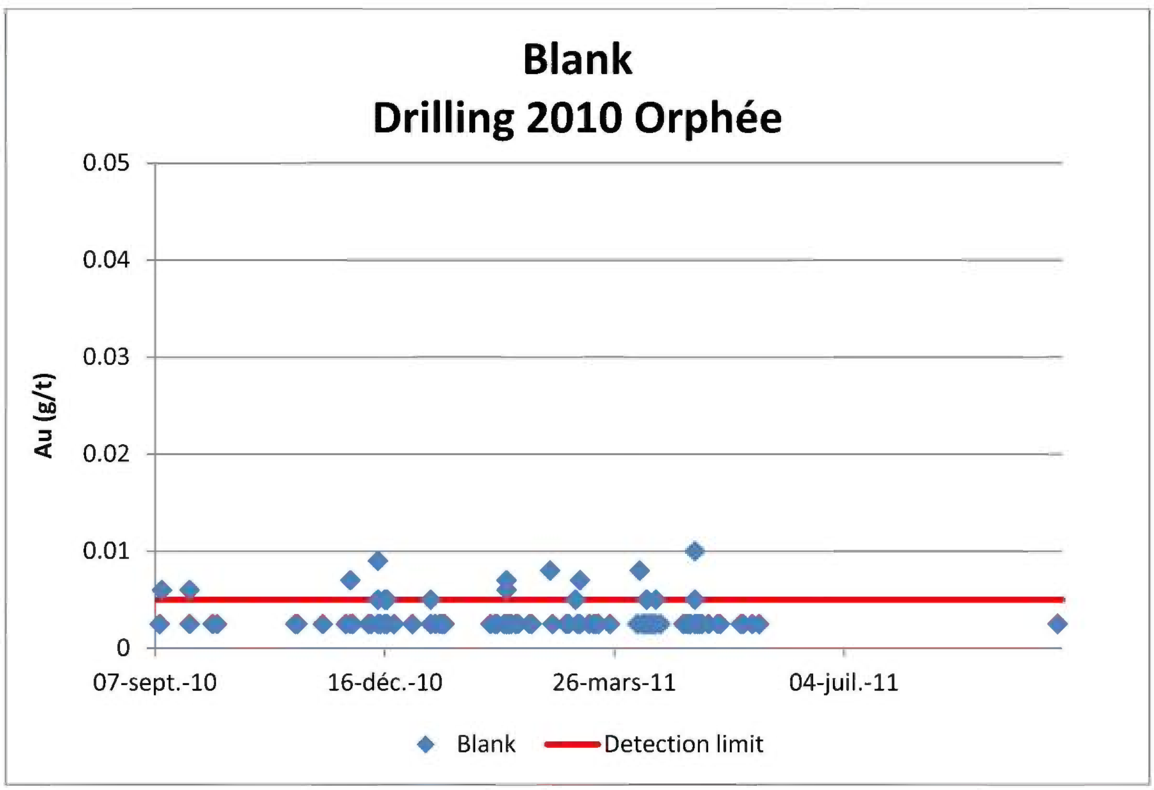

Figure 11.1 – ALS Chemex results for blanks from the 2010 drilling program on Orphée property (Note: Au analyses below the detection limit are plotted at 0.005 g/t Au, representing half the detection limit)

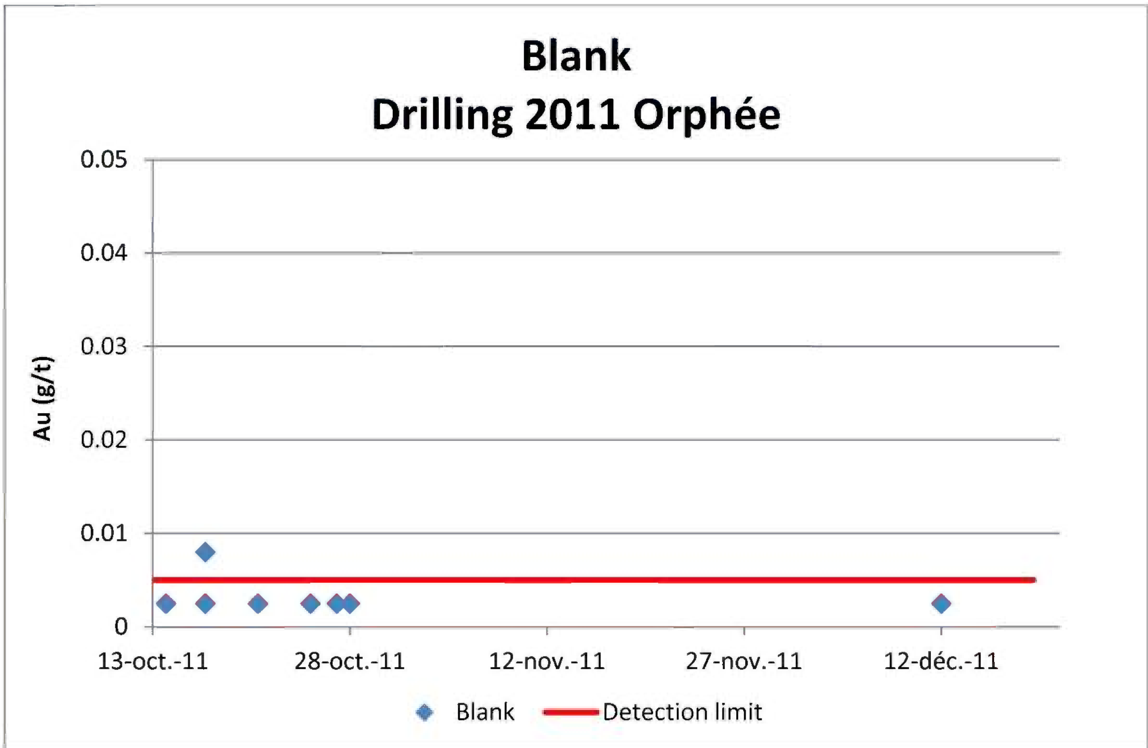

Figure 11.2 – Accurassay results for blanks from the 2011 drilling program on the Orphée property (Note: Au analyses below the detection limit are plotted at 0.005 g/t Au, representing half the detection limit).

11.3.2 Certified Reference Material (standard)

InnovExplo inserted one certified reference material (standard) from Rocklabs Ltd into every field batch of 25 samples. InnovExplo's recommended quality control protocol stipulates that if any standard yields a gold value above or below three times the standard deviation given by Rocklabs, then the entire batch should be re-analyzed.

Five (5) standards were used during the 2010 and 2011 drilling program on the Orphée property:

- SE-44 with a theoretical value of 0.606 g/t Au (standard deviation of 0.017 g/t Au)
- SF-45 with a theoretical value of 0.848 g/t Au (standard deviation of 0.028 g/t Au)
- SG-40 with a theoretical value of 0.976 g/t Au (standard deviation of 0.022g/t Au)
- SH-41 with a theoretical value of 1.344 g/t Au (standard deviation of 0.041 g/t Au)
- SH-55 with a theoretical value of 1.375 g/t Au (standard deviation of 0.045 g/t Au)

Figure 11.3 shows the ALS Chemex results for sample SE 44. The red line indicates the Rocklabs grade and the green lines three times the standard deviation (± 0.051 g/t Au). Fourteen (14) SE-44 standards were inserted in the 2010-2011 drill samples from the Orphée property and analyzed by fire assay with AAS finish.

Figure 11.4 shows the ALS Chemex results for sample SF 45. The red line indicates the Rocklabs grade and the green lines three times the standard deviation (± 0.084 g/t Au). Twenty-five (25) SF-45 standards were inserted in the 2010-2011 drill samples from the Orphée property and analyzed by fire assay with AAS finish.

Figure 11.5 shows the ALS Chemex results for sample SG-40. The red line indicates the Rocklabs grade and the green lines three times the standard deviation (± 0.066 g/t Au). Seventy-nine (79) SG-40 standards were inserted in the 2010-2011 drill samples from the Orphée property and analyzed by fire assay with AAS finish.

Figure 11.6 shows the ALS Chemex results for sample SH-41. The red line indicates the Rocklabs grade and the green lines three times the standard deviation (± 0.123 g/t Au). Sixty-eight (68) SH-41 standards were inserted in the 2010-2011 drill samples from the Orphée property and analyzed by fire assay with AAS finish.

Figures 11.3 to 11.11 demonstrate that the quality control protocol established by InnovExplo was not properly followed during the re-analysis procedure. Some results for the re-analyzed standards were above or below the limit but were not re-analyzed again. Considering the Orphée property is a zinc project with only low-grade gold, InnovExplo's quality control protocol was based primarily on zinc duplicates, and Figure 11.14 and 11.17 demonstrates the reliability of the zinc duplicates. However, the gold standards were useful for verifying laboratory consistency over time.

Only batch TB11014684 was re-analyzed because the result for standard SG40 was much too low (0.555 g/t Au instead of 0.976 g/t Au). The second analysis yielded a result of 0.946 g/t Au, thereby passing InnovExplo's quality control.

Figure 11.7 shows the Accurassay results for sample SG40. The red line indicates the Rocklabs grade and the green lines three times the standard deviation (± 0.066 g/t Au).

Ten (10) SG-40 standards were inserted in the 2011 drill samples and analyzed by fire assay using AAS finish. Two results did not meet InnovExplo's quality control criteria. They were re-analyzed and the results are shown in the same figure ("December 13, 2010").

Figure 11.8 shows the Accurassay results for sample SH55. The red line indicates the Rocklabs grade and the green lines three times the standard deviation (± 0.135 g/t Au). Ten (10) SH-55 standards were inserted in the 2011 drill samples from the Orphée property and analyzed by fire assay using AAS finish. One result was below three times the standard deviation and this batch was re-analyzed with a new standard, SF-57 (theoretical value of 0.848 g/t and standard deviation of 0.03 g/t Au). The new results are shown in Figure 11.9.

Figure 11.10 shows the Accurassay results for sample SH-41. Two (2) SH-41 standards were inserted in the 2011 drill samples and analyzed using AAS finish. One (1) result did not pass InnovExplo's quality control. This batch was re-analyzed with a new standard, SJ-53 (theoretical value of 2.637 g/t Au and standard deviation of 0.048 g/t Au). The results of the re-analysis are shown in Figure 11.11.

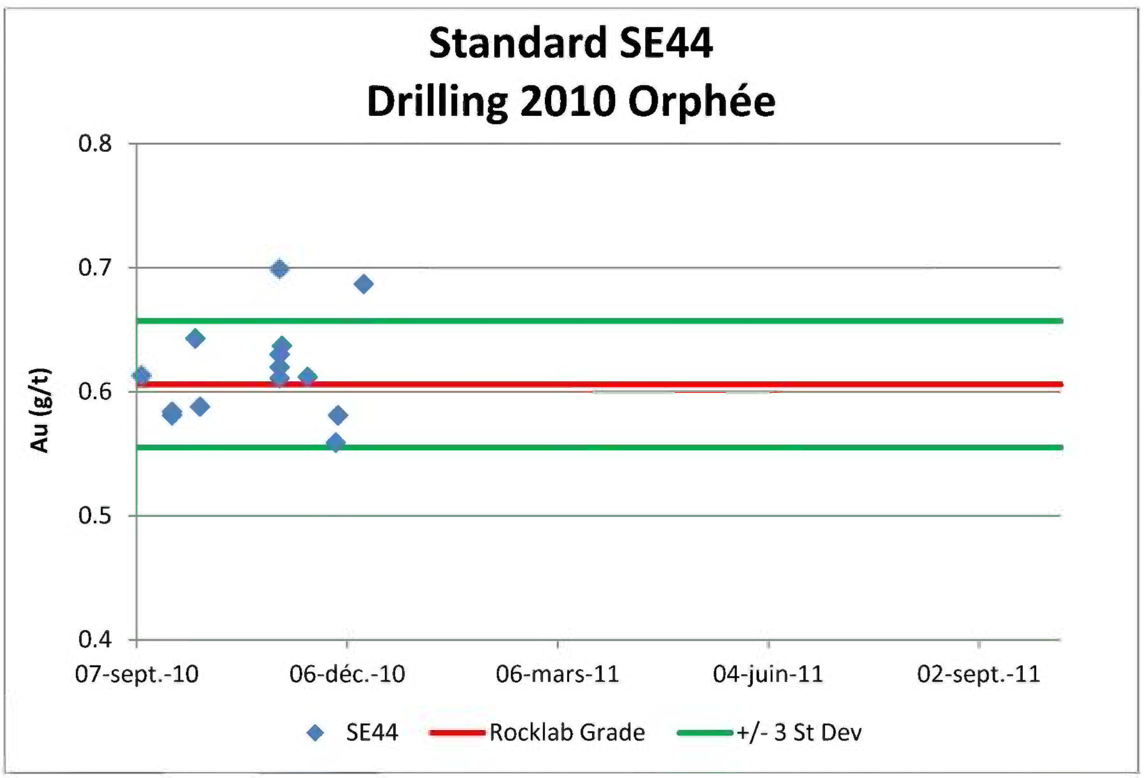

Figure 11.3 – ALS Chemex results for standard SE 44 using AAS finish

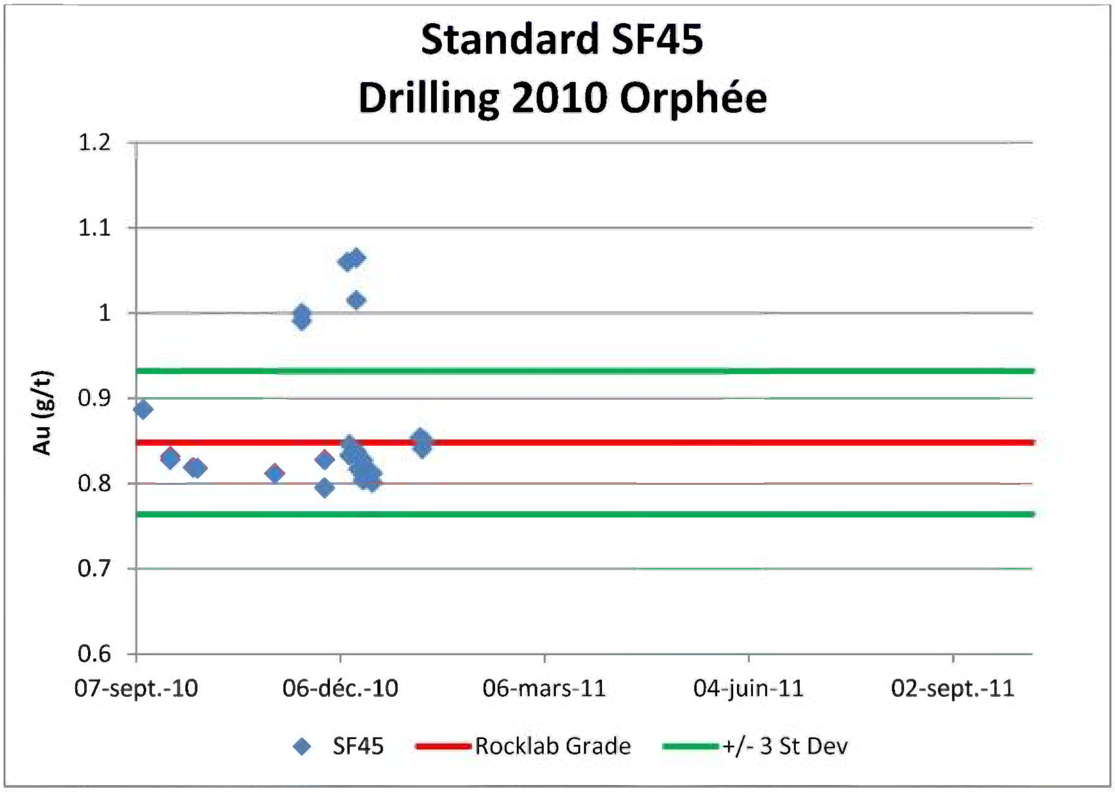

Figure 11.4 – ALS Chemex results for standard SF 45 using AAS finish

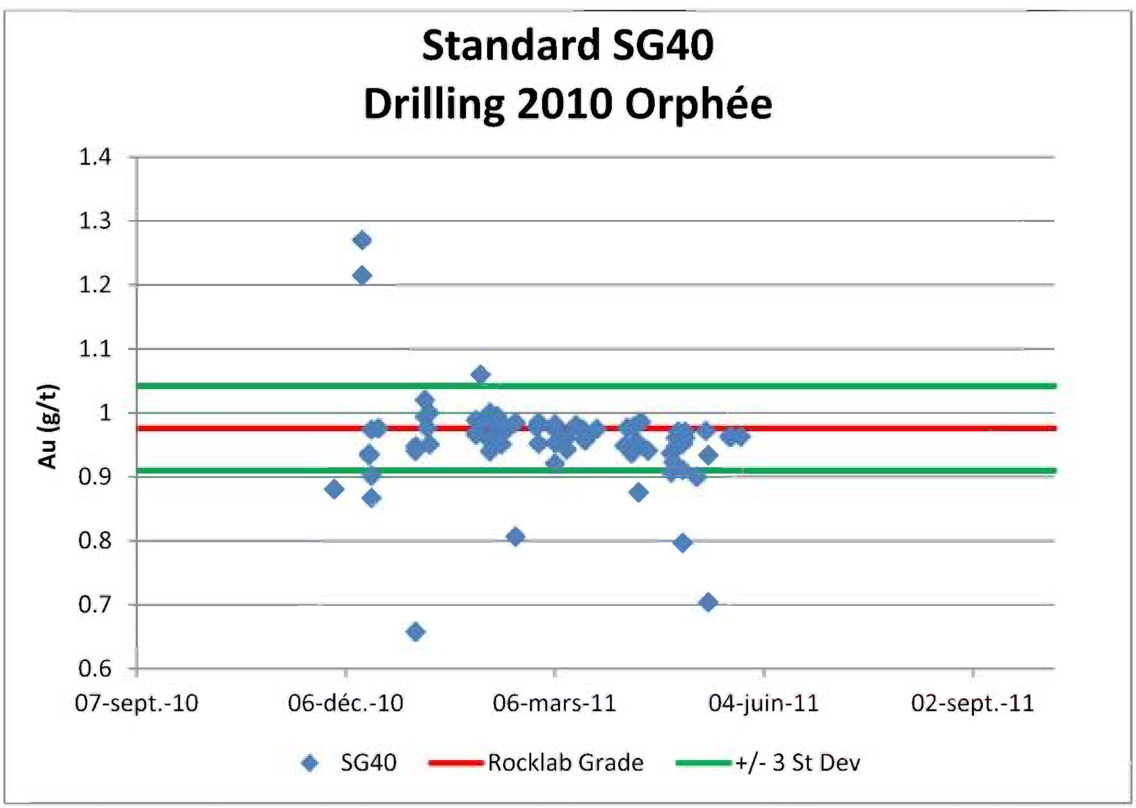

Figure 11.5 – ALS Chemex results for standard SG40 using AAS finish

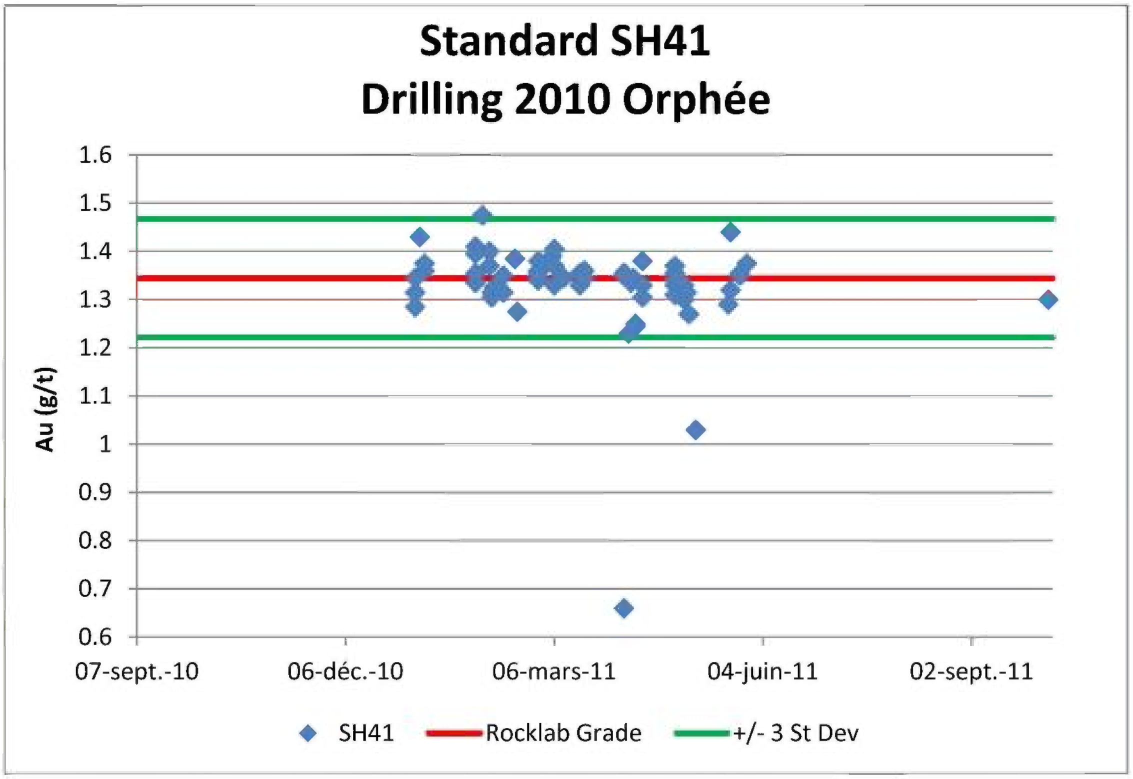

Figure 11.6 – ALS Chemex results for standard SH 41 using AAS finish

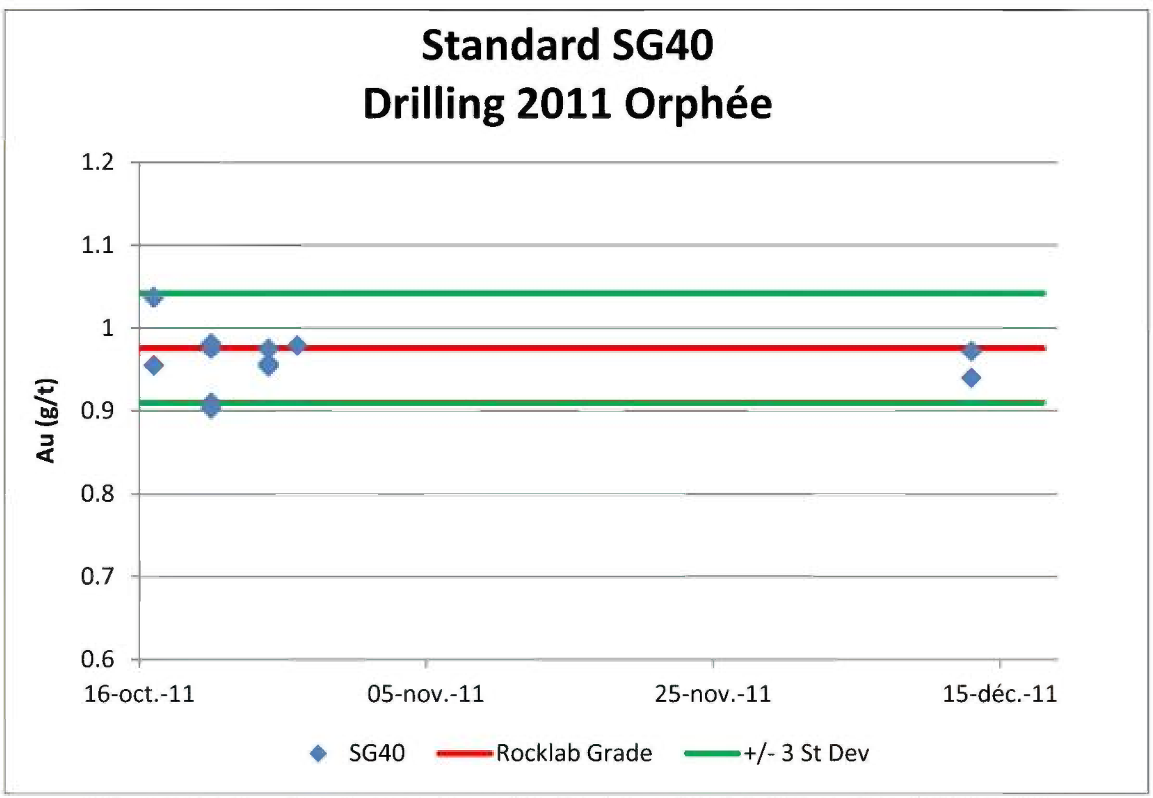

Figure 11.7 – Accurassay results for standard SG40 using AAS finish

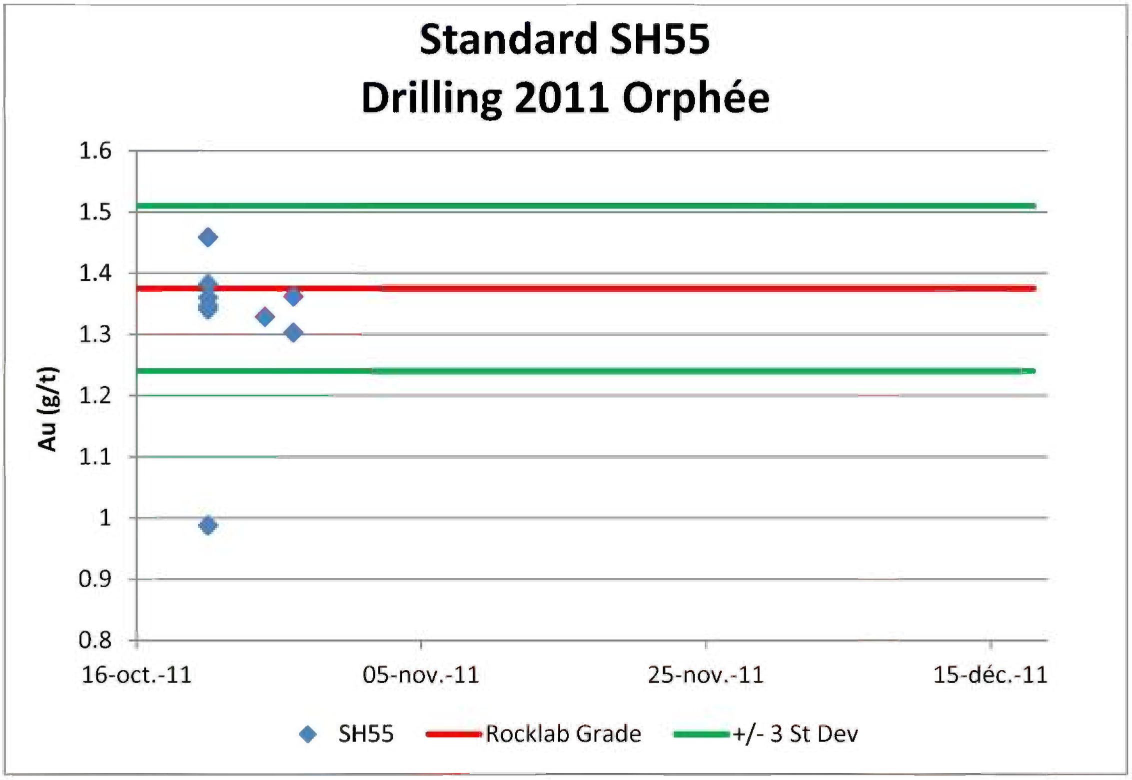

Figure 11.8 – Accurassay results for standard SH55 using AAS finish

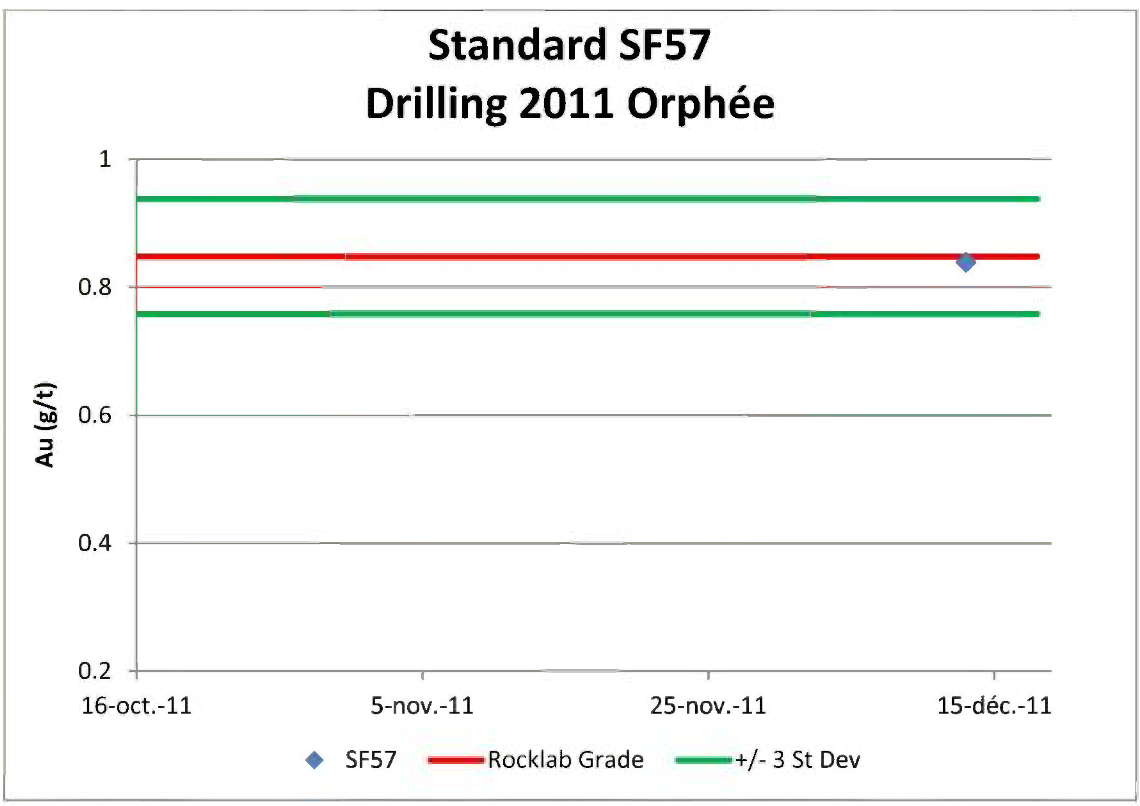

Figure 11.9 – Accurassay results for standard SF57 using AAS finish

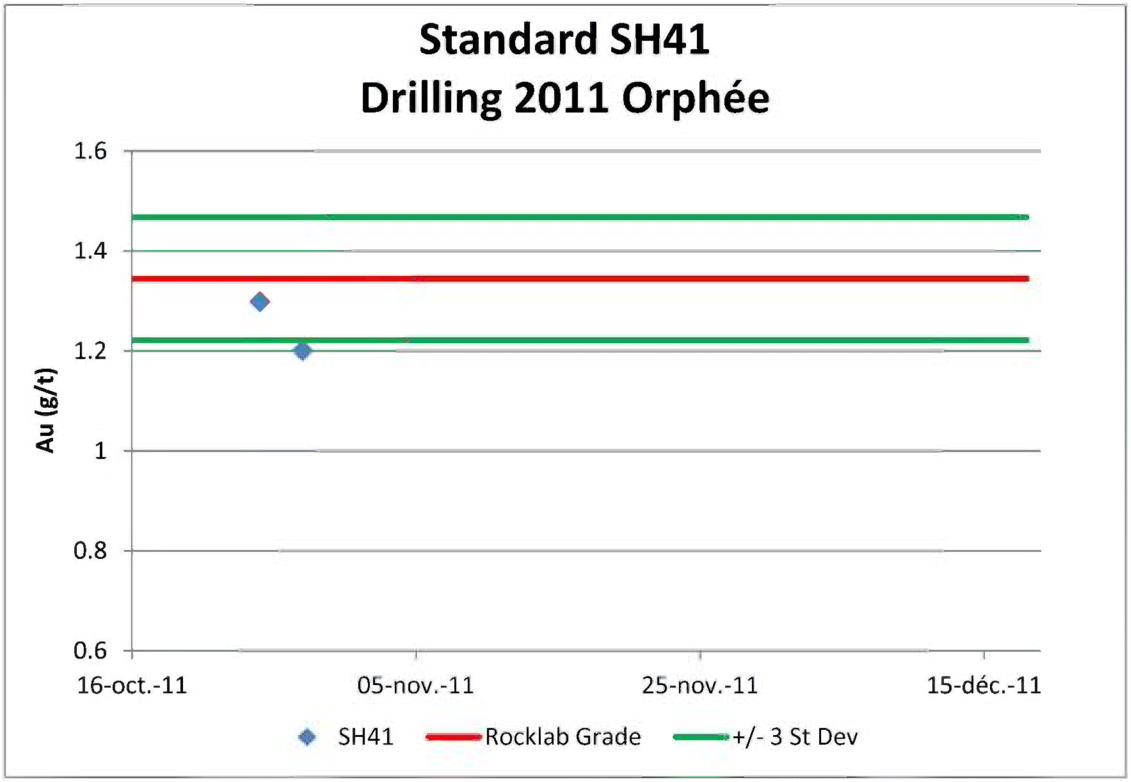

Figure 11.10 – Accurassay results for standard SH41 using AAS finish

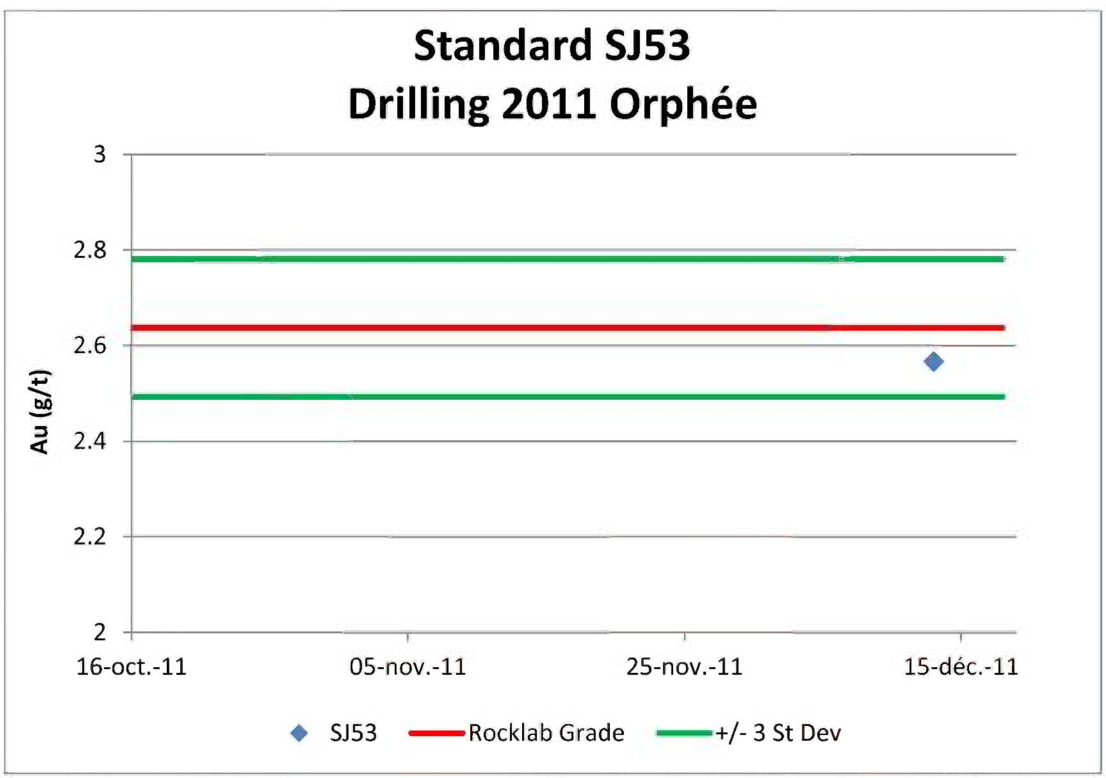

Figure 11.11 – Accurassay results for standard SJ53 using AAS finish

11.3.3 Duplicates

A series of duplicate samples taken at each stage of the sampling and sample preparation process allow the precision to be incrementally monitored through the stages. The number of duplicate types depends on the number of process steps, but InnovExplo's protocol typically includes three (3): the field duplicate, a coarse crush duplicate, and a pulp duplicate.

11.3.4 Field Duplicate Sample

A field duplicate is prepared for one (1) sample selected at random from each field sub-batch (with some bias to ensure results are included from all grades ranges) and included as a regular sample, blind to the laboratory. The samples to be analyzed are provided from the half of the half-split core; that is, from a ¼-split of the original whole core.

The results for field duplicates can be used to determine total precision (i.e. reproducibility) of the sample analysis process, from sampling through to sample preparation. When used in conjunction with other sample preparation duplicates, the incremental loss of precision can be determined for each of the various stages of the sampling- preparation- assaying process. For the field duplicate increment, this can indicate whether loss of precision can be attributed to initial sample size.

11.3.5 Coarse Crush Duplicate Sample

The laboratory is instructed to prepare a coarse crush duplicate for the 25th sample in each batch.

The entire sample is crushed and then splitted. Up to 1,000 g of each of these parts is pulverised. The rest of the procedure is done normallyé

The coarse duplicate sample (250 g) is taken after the primary crushing stage, before proceeding with the other regular samples.

By measuring the precision of the coarse crush duplicate, the incremental loss of precision can be determined for the coarse crush stage of the process, thus indicating whether sub-sample size of 250 g taken after primary crushing is adequate to ensure a representative sub-split.

11.3.6 Pulp Duplicate Sample

The laboratory is instructed to assay a pulp duplicate prepared from one (1) sample selected at random from each sub-batch of samples.

The entire sample is crushed, pulverised and then splitted. Two 50-g samples are taken from it (one from each part) and analysed using the elaborated procedure.

By measuring the precision of the pulp duplicates, the incremental loss of precision can be determined for the pulp pulverizing stage of the process, thus indicating whether a pulp size of 30g taken after pulverization is adequate to ensure representative fusing and analysis.

For the 2010 and 2011 drilling programs on the Orphée property, the following were inserted into every batch of 25 samples: one (1) random field duplicate (a quarter-split sample), one (1) coarse duplicate of the 25th sample and one (1) random pulp duplicate (prepared by both laboratories). Even though some differences may be observed between the original samples and their duplicates, the samples were not re-analyzed using a different method because inherent sample heterogeneity (or the nugget effect) may strongly affect gold values.

Figure 11.12 (ALS Chemex) demonstrates the relationship between frequency and precision for all gold duplicates. It was noted that 78% of pulp duplicates show accuracy better than 20%. These results were considered satisfactory. The gold pulp duplicate was more precise than the coarse duplicate, which was in turn more precise than the field duplicate.

Figure 11.13 (ALS Chemex) demonstrates the relationship between frequency and precision for all copper duplicates. It was noted that 96% of pulp duplicates show accuracy better than 20%. These results were considered satisfactory. The copper pulp duplicate was more precise than the coarse duplicate, which was in turn more precise than the field duplicate.

Figure 11.14 (ALS Chemex) demonstrates the relationship between frequency and precision for all zinc duplicates. It was noted that 99% of pulp duplicates show accuracy better than 20%. These results were considered satisfactory. The zinc pulp duplicate was more precise than the coarse duplicate, which was in turn more precise than the field duplicate.

Figure 11.15 (Accurassay) demonstrates the relationship between frequency and precision for all gold duplicates. It was noted that 62% of pulp duplicates show accuracy better than 20%. These results were considered satisfactory. The gold coarse duplicate was more precise than the pulp duplicate, which was in turn more precise than the field duplicate.

Figure 11.16 (Accurassay) demonstrates the relationship between frequency and precision for all copper duplicates. It was noted that 100% of pulp duplicates show accuracy better than 20%. These results were considered satisfactory. The copper pulp duplicate was more precise than the coarse duplicate, which was in turn more precise than the field duplicate.

Figure 11.17 (Accurassay) demonstrates the relationship between frequency and precision for all zinc duplicates. It was noted that 100% of pulp duplicates show accuracy better than 20%. These results were considered satisfactory.

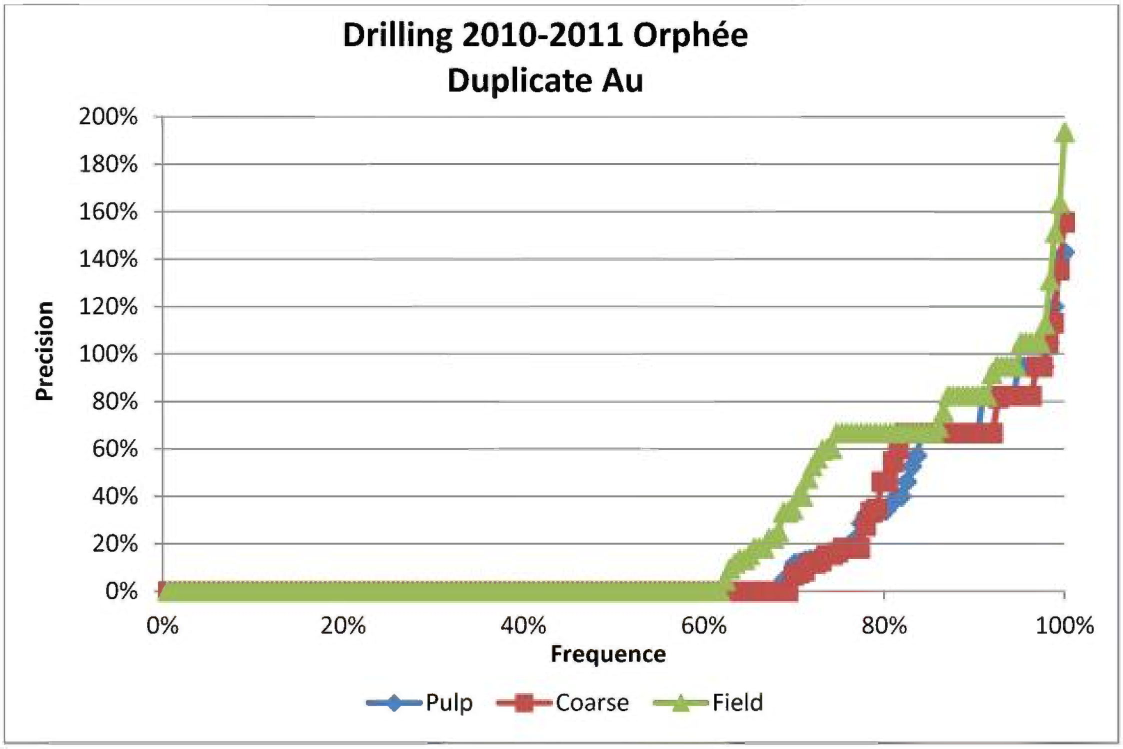

Figure 11.12 – ALS Chemex results showing the relationship between frequency and precision for every Au duplicate.

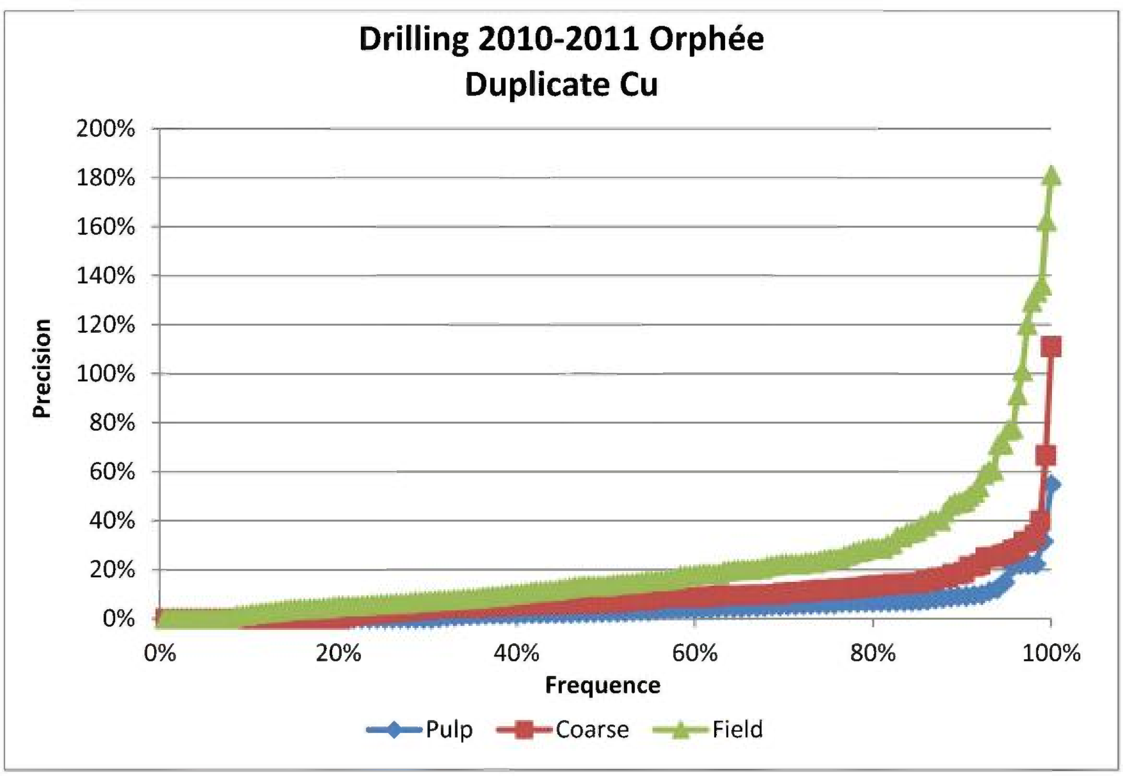

Figure 11.13 – ALS Chemex results showing the relationship between frequency and precision for every Cu duplicate.

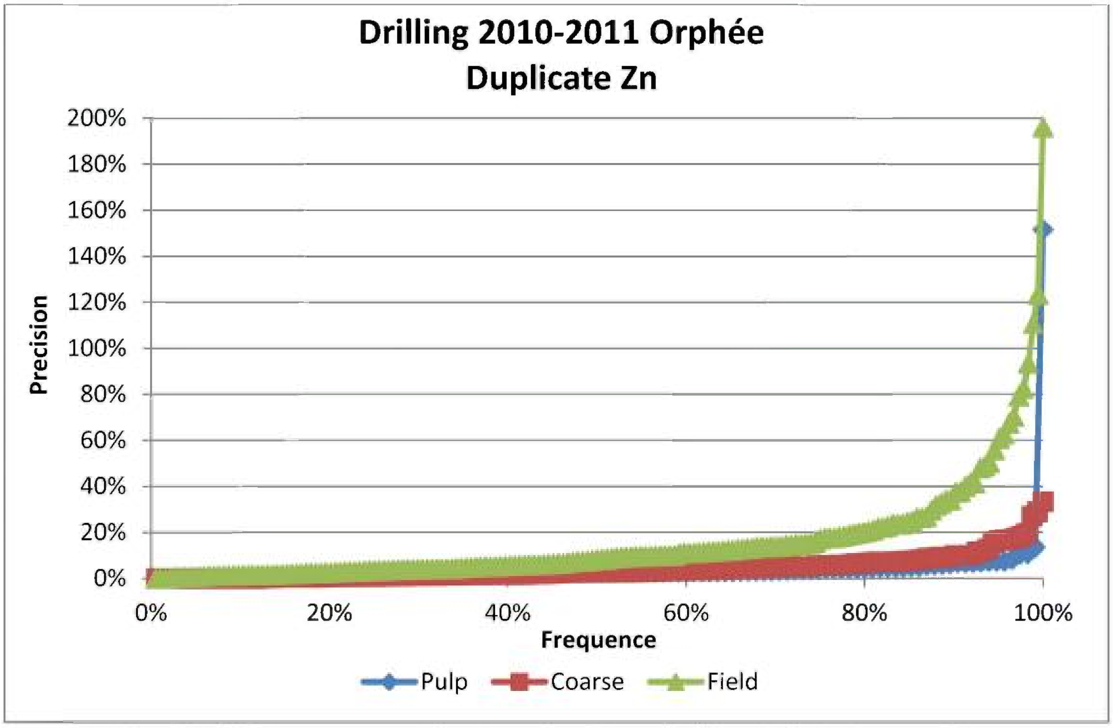

Figure 11.14 – ALS Chemex results showing the relationship between frequency and precision for every Zn duplicate.

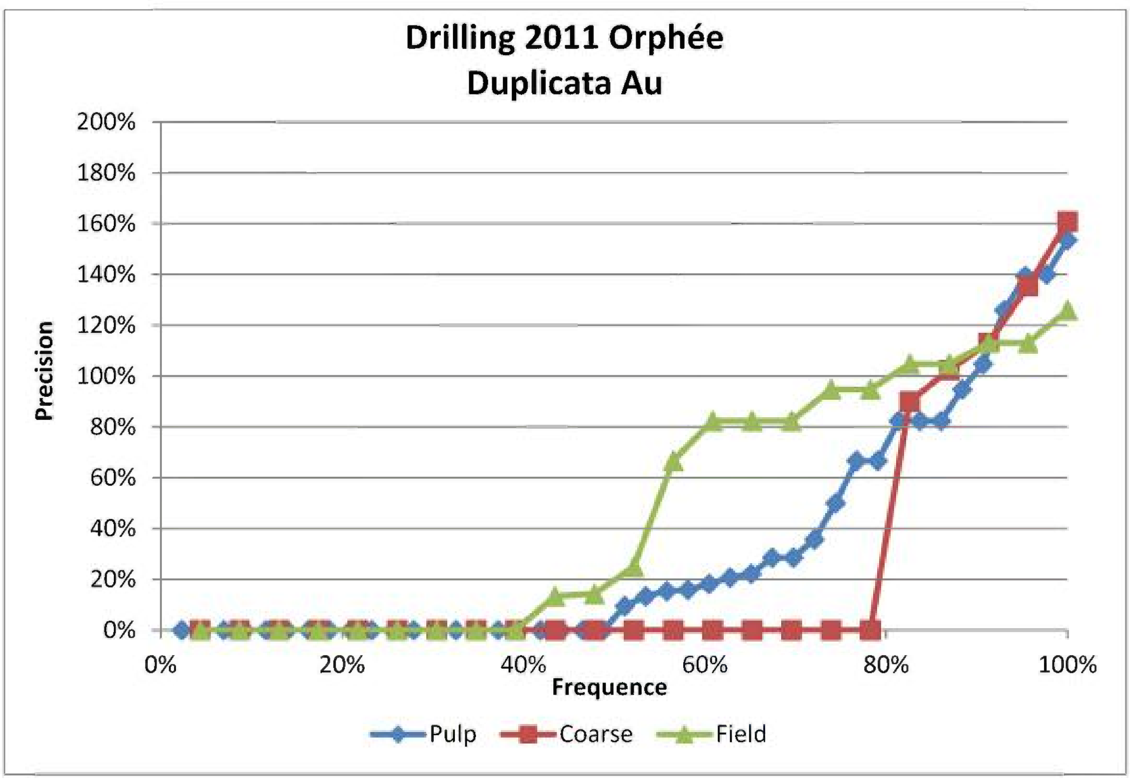

Figure 11.15 – Accurassay results showing the relationship between frequency and precision for every Au duplicate.

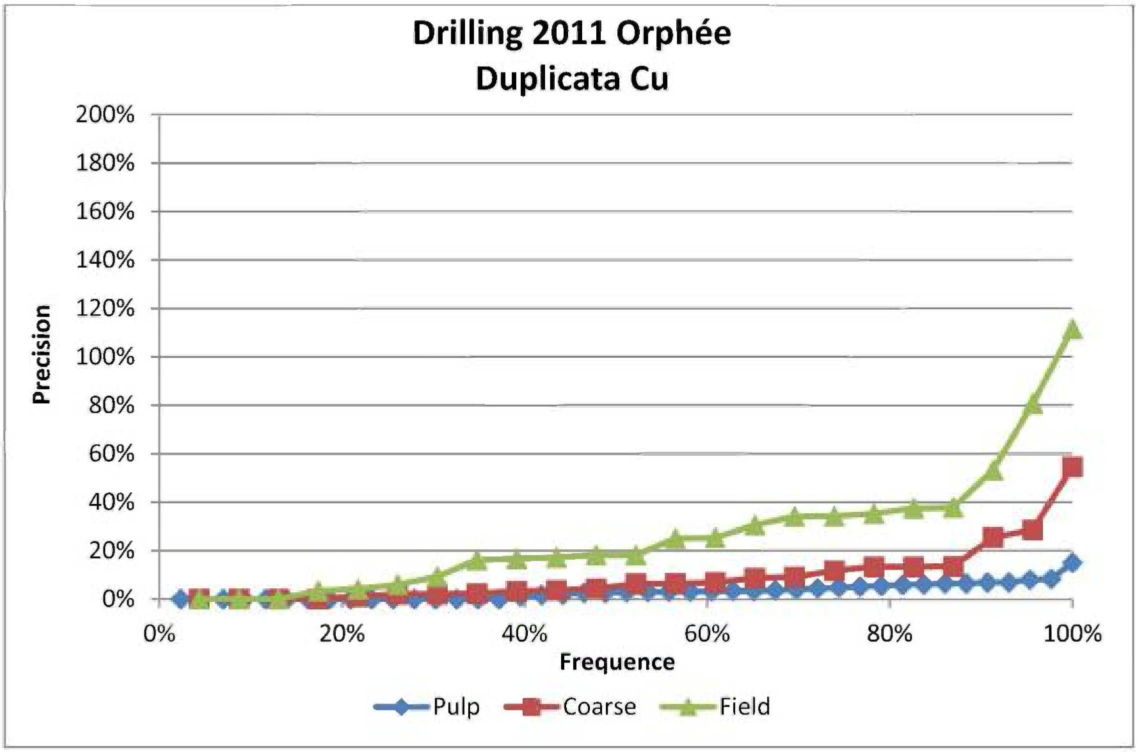

Figure 11.16 – Accurassay results showing the relationship between frequency and precision for every Cu duplicate.

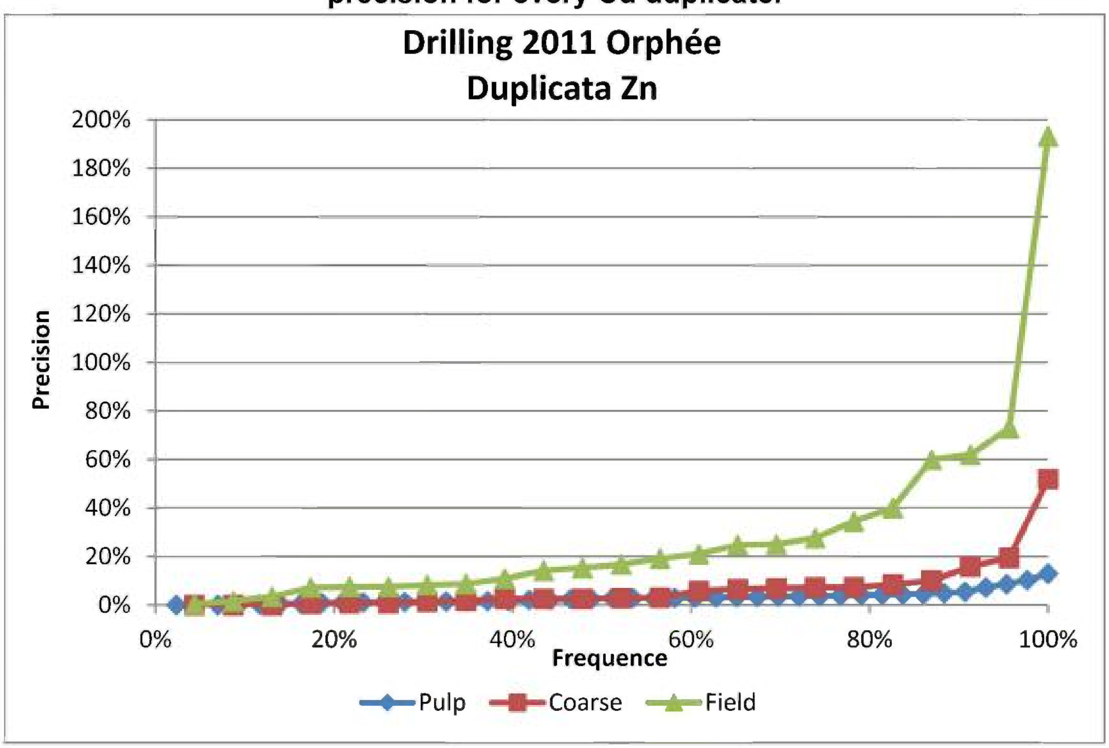

Figure 11.17 – Accurassay results showing the relationship between frequency and precision for every Zn duplicate.

12.0 INTERPRETATION AND CONCLUSIONS

Breakwater Resources carried out two drilling programs in 2010 and 2011. One of the objectives was to test the depth extensions and eastern extension for the Orphée lens. The programs revealed a greater potential than previously recognized for the eatern extension. It contains greater amounts of sulphide mineralization, with grades such as **4.1% Zn, 0.32 % Cu and 6.3 g/t Ag over 6.5 m; 4.45% Zn, 0.29% Cu and 26.29 g/t Ag over 3.5 m; 3.42% Zn, 1% Cu and 9.6 g/t Ag over 9.5 m**. A mineralized lens in felsic tuffs above the Orphée Zone has been interpreted on sections. This lens contains pyrite (max. 25%), pyrrhotite (max. 5%), sphalerite (max. 5%) and trace amounts of chalcopyrite, with weak grades of 0.3% Zn over 0.7m.

The felsic volcanic rocks in the Orphée Zone and those near the surface to the north of the zone are very similar. These two groups of felsic rocks cannot be distinguished based on the types of alteration that affected them. They both present elevated IALT values and low TiO_2 values.

The aim of some of the down-hole geophysical surveys during the 2010 and 2011 drilling programs was to test geophysical anomalies, such as Titan24, exploration IP, down-hole 3D IP, and InfiniTEM anomalies. Some of these anomalies were explained by low grades or by mineralization. The highest grade is associated with a Titan 24 anomaly: **1.2% Zn with 1.2 g/t Ag over 0.6 m**. The method that successfully detected the most targets was hole-to-hole 3D IP.

The longitudinal section in Figure 13.1 displays the limits of the Indicated Resources (Scott Wilson Mining: Salmon et al., 2009) and includes data from the 2010-2011 Breakwater Resources drilling programs. It also presents recommended Phase 1 drill holes to tighten the current drill spacing (which exceeds 100 metres in some cases) to 35-40 metres. Note that a 25-metre drill spacing is currently used at the Langlois for mine planning purposes. Additional drilling should thus be expected for Phase 2.

On longitudinal section, it is also possible to determine that the Orphée Zone remains open to the east.

The plan view presents the latest information about the Orphée lens up to section17 300N. A further 1.5 km to the east, zinc grades were intersected in historical holes. Between these two locations, holes 10-ORP-149 and 150 passed through siliceous altered rocks with high IALT values: the same type of rock found in the Orphée Zone.

13.0 RECOMMENDATIONS

InnovExplo recommends drilling a first phase (filled squares) comprising thirty-one (31) holes totalling 13,000 metres, which will tighten the drill hole spacing down to 35-40 metres. Six (6) of the holes will target the Indicated Resources in the West Zone, nineteen (19) holes will target Indicated Resources in the Main Zone, and six (6) holes will target Inferred Resources in the southeastern extension of the Main Zone. This program must be completed when the ground is frozen (January to March) so drill rigs can access the site. Phase 1 will take approximately 50 days using two drill rigs for a total cost of approximately $1,690,000.

After this first phase of drilling, the resource estimate should be updated. The results of the estimate will be used to plan a follow-up exploration program that may consist of drilling from surface and underground. The Phase 2 drilling program should cover specific areas for future mine planning purposes.

An additional recommendation is to carry out a program to drill to shallow depths (up to 300 m below surface) in the eastern end of the property. This will allow the potential of the East Zone in the longitudinal section to be assessed; above 300 m, the latest information stops at section 17300N. Another goal would be to link the Orphée Zone to historical grades (in area “A” on the recommendations map in the pocket of this report). The distance to drill-test is about 1.5 km.

On the work compilation map, several of the geophysical anomalies have not yet been tested in the eastern part of the property. Circled in red are zones with several coincident geophysical anomalies. Zone “B” contains the historical holes with zinc grades, but the land belongs to the Cree. It is thus recommended to inquire about the possibility of exploring this area of zinc potential.

A final recommendation is to carry out a prospecting and mapping program based on known outcrops.

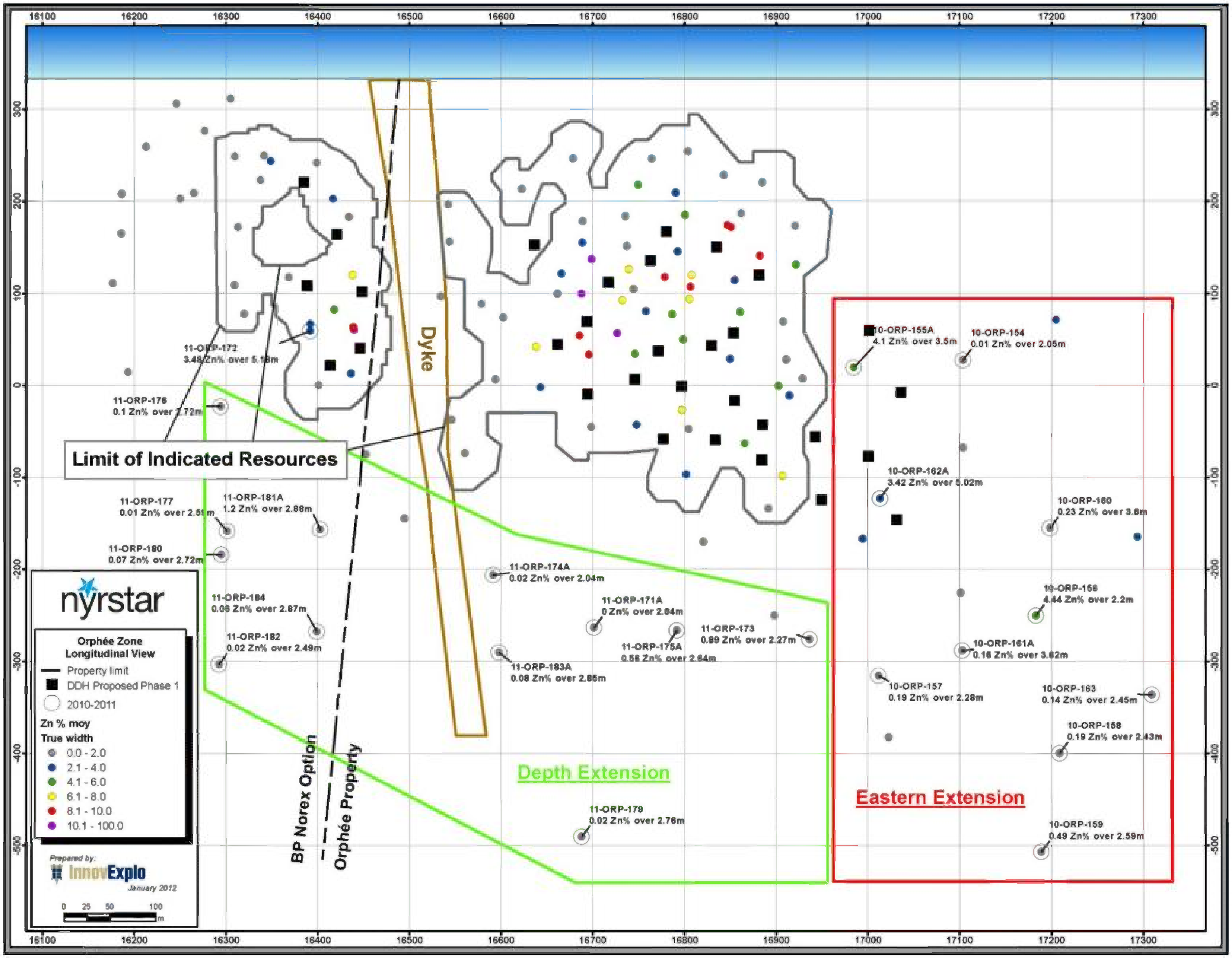

Figure 13.1 – Longitudinal section of the Orphée area with recommended work

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15.0 SIGNATURE PAGE

ASSESSMENT REPORT ON THE 2010-2011DRILLING PROGRAM CONDUCTED ON THE ORPHÉE PROPERTY (ABITIBI, QUÉBEC)

Project Location

Latitude: 49° 13' 01" N; Longitude: 76° 30' 57" W
Mountain and Ruette Townships
Abitibi Region, Québec, Canada
(NTS: 32F02/32F01)

Prepared for

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Route 1000, km 42 C.P. 6000
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Signed at Val-d'Or, on March 1st, 2012

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1217809

16.0 CERTIFICATES OF AUTHORS

I, Dominique Bousquet, Geologist-in-training (OGQ, no.1304) do hereby certify that:

1. I am a consulting geologist at InnovExplo (9117-9077 Québec Inc), 560-B 3e Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
2. I graduated with a Bachelor of Geology degree from Université du Québec (Montreal) in 2008.
3. I am a member of the Ordre des Géologues (OGQ, no. 1304).
4. I have worked as a geologist for a total of 3 years since graduating from university. I have been a consulting geologist for InnovExplo since June 2008.
5. I am responsible for the preparation of the report titled "Assessment report on the 2010-2011 drilling program conducted on the Orphée Property, Abitibi, Québec" dated March 1st, 2012. I visited the Orphée property in 2010-2011.
6. I have had no prior involvement with the property that is the subject of the Report.
7. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report and for which the failure to disclose would make the Report misleading.
8. I am independent of the issuer.

Dated, this 1st day of March 2012 at Val-d'Or.

Dominique Bousquet, B.Sc., G.I.T.

I, Cédric de Marneffe, Geologist-in-training (OGQ, no.1484), do hereby certify that:

1. I am a consulting geologist at InnovExplo (9117-9077 Québec Inc), 560-B 3e Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
2. I graduated with a Masters of Geology degree from Université de Liège (Liège, Belgium) in 2010.
3. I am a member in good standing of the Ordre des Géologues du Québec (OGQ, no. 1484).
4. I have worked as a geologist for a total of 2 years since graduating from university. I have been a consulting geologist for InnovExplo since May 2010.
5. I am responsible for the preparation of the report titled "Assessment report in the 2010-2011 drilling program conducted on the Orphée Property, Abitibi, Québec" dated March 1st, 2012. I visited the Orphée property in 2010-2011.
6. I have had no prior involvement with the property that is the subject of the Report.
7. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report and for which the failure to disclose would make the Report misleading.
8. I am independent of the issuer.

Dated, this 1st day of March 2012 at Val-d'Or.

Cédric de Marneffe, B.Sc., G.I.T.

I, Vincent Jourdain, Ph.D., Eng. (OIQ) do hereby certify that:

1. I am Technical Director of Geology at InnovExplo (9117-9077 Québec Inc), 560-B 3e Avenue, Val-d'Or, Québec, Canada, J9P 1S4.

2. I hold a B.Sc.A. in geological engineering from Université Laval (Québec City), having graduated in 1984.

3. I hold a M.Sc.A. in Earth Sciences from Université du Québec à Chicoutimi, having graduated in 1987.

4. I hold a Ph.D. in Mineral Resources from Université du Québec à Montréal, having graduated in 1993.

5. I am a member of the Québec Order of Engineers and the Canadian Institute of Mining and Metallurgy and Petroleum.

6. I have been continuously engaged in professional roles in the mineral industry since graduating in 1984.

7. I have read the definition of "qualified person" set out in Regulation 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person".

8. I am responsible for supervising the report titled "Assessment report on the 2010-2011 drilling program conducted on the Orphée Property, Abitibi, Québec" dated March 1st, 2012.

9. I never had any prior involvement with the property that is the subject of the Technical Report.

10. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, and that the omission to disclose would make the Technical Report misleading.

11. I am independent of the issuer.

Dated, this 1st day of March 2012 at Val-d'Or.

Vincent Jourdain, Ph.D., P.Eng.