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## ASSESSMENT REPORT ON

# 2021 GEOPHYSICAL EXPLORATION PROGRAMME <br> BANDED IRON FORMATION PROPERTY <br> IAMGOLD OPTION CLAIMS, GOLDEN SKY PROJECT 

MISHIBISHU LAKE AREA
SAULT STE. MARIE MINING DIVISION

Submitted to:
Ministry of Ministry of Northern Development, Mines, Natural Resources and Forestry

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## INTRODUCTION

Angus Gold Inc. ("Angus" or "the Company") acquired the Golden Sky Project over the course of 2020 and 2021, through staking and various property acquisitions and agreements.

During the summer of 2020, Angus Gold Inc. began exploration on the Golden Sky Project. The initial programs included a high-resolution airborne magnetic survey and a LiDAR survey, which included high resolution orthophotos, over the majority of the project. In addition to highlighting numerous geological and structural features, the results also helped to delineate an extensive banded iron formation (BIF) on the property. As a follow-up to regional airborne surveys, the Company embarked on a mapping program focused primarily on the BIF, near the southern extent of the Golden Sky Project, and the Dorset Property, which is situated to the north and east of the BIF.

The geological work on the BIF Property focused on detailed mapping of stratigraphy and sampling to assess the BIF's potential for hosting Au-mineralization. In the Winter of 2021 ground geophysical work, comprising Abitibi Geophysics OreVision3D ${ }^{\circledR}$ Induced Polarization survey, was completed over the western half of Angus' BIF target. Owing to the success of the mapping, sampling and geophysical programs a fall drilling program was planned to help define favourable targets and structures identified from the summer and winter programs. This report details the ground geophysical work completed on the BIF Property during 2020 and 2021.

All map coordinates are UTM Nad 83, Zone 16. All costs are in Canadian Dollars. The work completed as detailed in this report was completed under Plan PL-20-000110.

## LOCATION, ACCESS AND CLAIMS

The Golden Sky project is located approximately 5 km north of Lake Superior in Northern Ontario and 50km due west of Wawa, Ontario (Figure 1). The project is accessed by truck via Paint Lake Road, an all-season road maintained 7 days a week on behalf of Wesdome Gold Mines Ltd. that serves their operating Eagle River and Mishi Pit Mines. Paint Lake Road is accessed by Highway 17, approximately halfway between Wawa and White River. Access is controlled by a security gate at KM 50 of Paint Lake Road which requires a sign in procedure and permission from Wesdome.

The Golden Sky project comprises a total of 1149 claims, 947 of which are $100 \%$ owned by Angus Gold and 202 claims that are part of an Option Agreement with IAMGOLD Corporation. The Golden Sky project was acquired by staking as well as various purchase agreements.

The BIF Property that is subject of this report, is part of the IAMGOLD Option Agreement (Figure 2). The BIF Property is located at KM 60.5 on Paint Lake Road, where a turn off is available to use as a parking spot where you can access the property by foot. Helicopter support is required to access portions of the property due to difficult topography. This report details work that was completed on the 32 mineral claims as listed in Table 1. A total of $\$ \$ 432,110$ in work was completed on these claims during this program and is being used to keep the project claims in good standing.


Figure 1. Location of the Golden Sky project


Figure 2. Location of the BIF property claims (subject of this report).

Table 1. Mineral claims information (that are the subject of this report)

|  | Tenure ID | Owner | Township | Tenure Type | Tenure Status | Work Required | Due Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 104468 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 2 | 119709 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 3 | 119936 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 4 | 129122 | lamgold | MISHIBISHU LAKE AREA | Boundary Cell Mining Claim | Active | 200 | January 26, 2022 |
| 5 | 129123 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 6 | 165034 | lamgold | MISHIBISHU LAKE AREA | Boundary Cell Mining Claim | Active | 200 | January 26, 2022 |
| 7 | 183969 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 8 | 183970 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 9 | 222448 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 10 | 230397 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 11 | 230398 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 12 | 230399 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 13 | 242598 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 14 | 259054 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 15 | 259087 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 16 | 259088 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 17 | 268476 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 18 | 278407 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 19 | 278427 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 20 | 279795 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 21 | 289234 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 22 | 296495 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 23 | 297030 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 24 | 298428 | lamgold | MISHIBISHU LAKE AREA | Boundary Cell Mining Claim | Active | 200 | January 26, 2022 |
| 25 | 298429 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 26 | 298430 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 27 | 298431 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 28 | 328410 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 29 | 338023 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 30 | 338024 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |
| 31 | 339449 | lamgold | MISHIBISHU LAKE AREA | Boundary Cell Mining Claim | Active | 200 | January 26, 2022 |
| 32 | 339450 | lamgold | MISHIBISHU LAKE AREA | Single Cell Mining Claim | Active | 400 | January 26, 2022 |

## REGIONAL GEOLOGY

The Golden Sky Project is located in the Superior Province of Northern Ontario. The Superior province is separated into 4 regions based on broad-scale structural and lithological characteristics (Percival et al. 2012). These regions harbour many terranes and subprovinces, typically bounded by extensive crustalscale fault lineaments and distinct lithological, geochronological and tectonic terranes (Leclair et al. 1993). The Wawa-Abitibi terrane (WAT), is separated into two distinct volcano-plutonic domains: the Wawa Subprovince and the Abitibi Subprovince. The Kapuskasing Structural Zone (KSZ), a paleoprotorezoic uplift structure, characterized by its intense deformation and high metamorphic grades bifurcates the terrane, bounding the Wawa and Abitibi Subprovince's eastern and western extent respectively.

The Wawa and Abitibi Subprovinces are characterized by a variety of volcanic assemblages and sedimentary sequences which have been affected by broad scale greenschist grade metamorphism. These metavolcanic-sedimentary belts are intruded and deformed by volcano-coeval tonalite-trondhjemite-
granodiorite and granite plutonism (Percival et al. 2012). The aureoles surrounding the large TTG suite intrusions often increase metamorphic grade to amphibolite facies and overprint or obscure regional strain patterns. The tectonostratigraphic evolution of the WAT is still debated, varying from an allochthonous terrane framework to more modern interpretations suggesting a traditional autochthonous stratigraphic interpretation. The various metavolcanic and metasedimentary assemblages have been interpreted to be derived from an oceanic setting, evolving from plateau settings through to arc and rift environments. This interpretation is particularly well suited to the Michipicoten area of the WAT which hosts the Golden sky project and Dorset property. Both the Wawa (Michipicoten, Wawa, Mishibishu greenstone belts) and Abitibi (Swayze and Abitibi greenstone belts) Subprovinces have been prolific sites for exploration and mining of a variety of commodities, with successful exploration continuing to this day.

The Mishibishu Greenstone Belt (MGB) trends east-west and has been interpreted as an extension of the Michipicoten Greenstone Belt despite a gap of granitoid terrane between the two (Figure 3). The MGB has established age ranges from $2.72 \mathrm{Ga}-2.67 \mathrm{Ga}$, which includes coeval plutonism and volcanism as well as associated sedimentation (Keller, 1989). The supracrustal rocks consist of metavolcanic rocks and metasedimentary rocks at greenschist facies metamorphic grade that are intruded by several batholiths, which are subsequently crosscut by at least two generations of diabase dykes. Mafic metavolcanic rocks comprise $15 \%$ of the belt, including massive to pillowed basalts and porphyritic andesites. Intermediate metavolcanic rocks make up $10 \%$ of the belt commonly comprising predominantly tholeiitic and calcalkaline dacites as well as some calc-alkaline andesites. Felsic volcanic rocks underlie $7 \%$ of the belt, mainly occurring as lapilli tuffs as well as various pyroclastic breccias and calc-alkaline rhyolitic flows. Approximately $10-15 \%$ of the supracrustal rocks in the belt are clastic metasedimentary rocks comprising $\sim 60 \%$ wacke, $\sim 30 \%$ conglomerate, and $10 \%$ thinly laminated mudstones. Chemical metasediments make up the remainder of the supracrustal assemblage ( $<5 \%$ ) and are predominantly banded iron formations consisting of magnetitic chert, jasper, and magnetite-rich clastic metasediments. The supracrustal assemblage described above is intruded by a variety of plutonic rocks which appear to be emplaced from insipient volcanism to late tectonism which make up the remainder of the volume of rock in the area. The intrusive suites vary from small scale hypabyssal feldspar and quartz-feldspar porphyritic dykes, synvolcanic hypabyssal gabbros to large scale felsic batholiths covering many $\mathrm{km}^{2}$ of the belt. Migmatitic contact zones occurring between the major batholiths and the supracrustal assemblage extend for 500700 m . The supracrustal rocks are bound to the north by the massive Pukaskwa Batholith which extends northward out of the MGB. The Floating Heart Batholith (FHB) is texturally similar to the Pukaskwa Batholith, commonly occurring as porphyritic, foliated biotite-muscovite tonalite. The FHB occupies approximately $125 \mathrm{~km}^{2}$ and forms the southern limit of the belt. The Bowman Lake Batholith (BLB) underlies approximately $60 \mathrm{~km}^{2}$ and occurs near the eastern margin of the MGB and is comprised of muscovite-biotite granodirite to granite. The Mishibishu Lake Stock (MLS) comprises $30 \mathrm{~km}^{2}$ of the belt and is located under a series of lakes near Mishibishu Lake in the centre of the belt. The MLS is composed of pyroxene bearing monzonite to quartz monzonite and is bordered by two distinct deformation zones, the Mishibishu Deformation Zone to the north, and the Rook Lake Deformation Zone to the south. The Central Pluton underlies about $125 \mathrm{~km}^{2}$ of the belt to the west of the MLS and is comprised almost entirely of porphyritic muscovite-biotite monzogranites and granodiorite. The various intrusive rocks and supracrustal assemblage are then crosscut by multiple sets of diabase dykes that appear to exploit regional brittle structures verging NNE and NW. Crosscutting relations in the field suggest the NNE trending dikes are earlier than the NW trending dykes.


Figure 3. Regional geology of the Golden Sky project area.
The Mishibishu Greenstone Belt strikes roughly east-west and is approximately 50 km long and 20 km wide. The penetrative east-west fabric, which is locally obscured by anastomosing structures around large intrusive suites, becomes slightly concave towards the eastern and western margins with average strikes pointing SE and SW respectively. The supracrustal rocks described above have several sequences of thin repeating stratigraphy suggesting tight isoclinal folding throughout the belt. Regional folding is also observed between the major batholiths, including a regional-scale overturned syncline to the north of The Central Pluton. Five major deformation zones have been identified in the MGB (from northernmost to southernmost): East Pukawaska/Iron Lake Deformation Zone (EPDZ/ILDZ); Mishibishu Deformation Zone (MDZ); Rook Lake Deformation Zone (RLDZ), Mishi Creek Deformation Zone (MCDZ) and the Eagle River Deformation Zone (ERDZ). The above deformation zones cross-cut the volcano-sedimentary packages of the MGB, irrespective of lithology, and are accompanied by intense alteration which obscures primary lithology. The Dorset Shear Zone (DSZ) lies within the MCDZ, and hosts the Dorset Gold Resource.

There are two actively producing gold mines and one past-producing gold mine in the MGB: (1) Wesdome's Mishi Pit, which has produced 59,700 oz of Au from 831,000 t at a grade of $2.2 \mathrm{~g} / \mathrm{t}$ Au between 2002 and 2019; (2) Wesdome's Eagle River Mine which has produced 1.3million oz Au from 4.2million
tonnes at an average grade of $9.6 \mathrm{~g} / \mathrm{t}$ Au between 1996 and 2019; and (3) Wesdome's past producing Magnacon Mine ( 12,058 oz Au, 189,000 tonnes @ $2.20 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ ).

## LOCAL GEOLOGY

The BIF Property is located near the eastern extent of a $7+\mathrm{km}$ exposure of banded iron formation (BIF) intercalated with clastic metasedimentary and mafic volcanic rocks. The property covers areas of the BIF to the north and east of Cameron Lake and includes significant brittle deformation that has off-set the stratigraphy by 100s of meters. BIF can provide an excellent chemical trap for gold precipitation when exposed to metal bearing fluids exploiting structure within the BIF (Oswald et al. 2015).

The geology of the BIF Property is dominated by a repeating sequence of intercalated silicate-rich BIF, oxide (magnetite) facies BIF, mafic metavolcanics variably metamorphosed and altered to chlorite-garnet schist, and meta-greywacke. The repeating nature of this stratigraphy suggests a potentially tightly folded and thrusted sequence typically striking east-west and dipping most commonly to the north, with some local dips to the south. The sequence has seen multiple events of brittle-ductile deformation, including drag folding, isoclinal folding, refolded folds, and two repeating sets of fractures and faulting oriented northwest and northeast. Both sets of faults are exploited by diorite intrusions which have seen metamorphism and local deformation post emplacement, but the northwest striking faults appear to have been associated with more intense displacement than those striking northeast. This entire assemblage is cross-cut by further faulting which has been exploited by diabase dykes which strike north-northeast and northwest. The rocks in the area have undergone lower to upper greenschist facies metamorphism with local expressions of amphibolite grade metamorphism.

## PREVIOUS WORK

Historical work performed on the Golden Sky Project has primarily focused on the Dorset property, which is to the north-northeast of the BIF property. Due to the difficult terrain, there has been very limited work and minimal exploration drilling completed in the area of the BIF property.

There are limited records of historical work on the BIF Property with most of the exploration campaigns focused in the areas of the Magnacaon, Mishi and Eagle River deposit discoveries. The majority of this work was carried out in the 1980s and 1990s, however, exploration dates back to the 1950's. A summary of previous work completed in the area of the BIF Property is presented in Table 2. In the recent past, Trelawney Exploration and Mining completed the most comprehensive work (Roach and Smith, 2016).

In 2014, Talisker Gold Corp. began consolidating groups of claims in the region to create their Wawa Property. In 2020, Angus Ventures Inc. entered into an agreement with Talisker Gold Corp. to purchase $100 \%$ of the mineral claims that comprised the Wawa Property and their underlying respective option earn-in agreements. Following the purchase of the Wawa Property from Talisker Gold, Angus continued to consolidate land in the region by staking mineral claims and acquiring additional claim packages from other companies and prospectors. The final land package totaled $234 \mathrm{~km}^{2}$ and is named the Golden Sky Project. In September of 2020, Angus Ventures officially changed their name to Angus Gold Inc. Angus is the first company to perform exploration work on the property since Trelawney.

Table 2. Summary of historical work done in the area of the BIF Property

| Company/Individual | Year | Afri File No | Description of Work |
| :---: | :---: | :---: | :---: |
| Sand River Gold Mining | 1957 | 42C03SW8778 | Dip needle survey and 248.3 meters of drilling in 2 diamond drill holes no Au assays reported |
| ASARCO Exploration Ltd | 1972 | 42C03SW0122 | 299.7 meters of drilling in 4 diamond drill holes - no significant $\mathrm{Au}, \mathrm{Ag}, \mathrm{Cu}, \mathrm{Zn}$ assays returned |
| Amoco Canada Petroleum Company Ltd - Mining Div. | 1979 | 42C03SW0117 | Geological mapping |
| Amoco Canada Petroleum Company Ltd - Mining Division | 1980 | 42C03SW0118 | 380.3 meters of drilling in 4 diamond drill holes - no significant Au assays |
| Harbinson Mining and Oil Group | 1983 | $\begin{gathered} \text { 42C03SW0066 } \\ \& \\ \text { 42C03SW0114 } \\ \hline \end{gathered}$ | 507.2 line km of magnetics/EM/VLF-EM |
| Wasabi Resources Inc., Chavin of Canada Ltd, O'Brien Energy \& Resources Ltd | 1984 | 42C03SW0096 | 44.24 km of line-cutting, geological mapping \& sampling, soil sampling with 465 samples, and 14.4 km of MaxMin 11 HLEM survey |
| Wasabi Resources Inc., Chavin of Canada Ltd, O'Brien Energy \& Resources Ltd | 1984 | 42C03SW0098 | Prospecting and sampling, 40 km of ground magnetics, 9.8 km of Crone Radem VLF-EM |
| Wasabi Resources Inc. | 1986 | 42C03SW8770 | 271.6 meters of drilling in 4 diamond drill holes - no assays reported |
| Dominion Explorers Inc. \& Wasabi Resources Ltd | 1987 | 42C03SW0068 | Soil Sampling (1617 samples) |
| Dominion Explorers Inc. \& Wasabi Resources Ltd | 1987 | 42C03SW0127 | Geological mapping |
| Murgor Resources Inc. | 1996 | 42C03SW0049 | Prospecting and sampling with gold grab highlights... <br> Marten Shear - <5 to 4300 ppb Au Dorset Shear - <5 to 2300 ppb Au Floating Heart < 5 to 241 ppb Au Cameron Lake - <5 to 1500 ppb Au Birch Vein - < 5 to 51400 ppb Au |
| Murgor Resources Inc. | 1996 | 42C03SW0011 | 100 km of line-cutting and ground magnetic survey |
| TEREX Resources Inc. | 2005 | 20000001024 | 372.2 line km of helicopter magnetics/TDEM |
| Trelawny Mining \& Exploration Inc. | 2006 | 20000001179 | Diamond Drilling with 1001 meters in 4 drill holes - pending assays at time of report |
| Trelawny Mining \& Exploration Inc. | 2011 |  | Diamond Drilling with 693 meters in 3 drill holes - pending assays at time of report |
| Trelawny Mining \& Exploration Inc. | 2011 | 20000006616 | Prospecting highlighted by gold values from rock grabs returning up to $5.62 \mathrm{~g} / \mathrm{t}$ Au and $12.34 \mathrm{~g} / \mathrm{t}$ Au near the Eagle River Deformation Zone south of Cameron Lake |
| Trelawny Mining \& Exploration Inc. | 2013 |  | 996 line km of high resolution airborne magnetic survey by Eon Geosciences Inc. |
| Trelawny Mining \& Exploration Inc. | 2013 |  | Geological mapping and sampling with gold values from rock grabs returning up to $2.51 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ in the Cameron Lake area |
| Trelawny Mining \& Exploration Inc. | 2014 |  | 29.7 km of GPS mapping and sampling in three target areas: 1) Eagle River Deformation Zone RDZ Splay; 2) Cameron Lake; and 3) Rook Lake Deformation Zone (RLDZ) AREA |

## ANGUS GOLD 2020-2021 GEOPHYSICAL PROGRAM

In late October, 2020, Angus contracted Daniel Gauthier Exploration to begin cutting the ground geophysical grids on the Golden Sky project. Due to inclement weather and difficult access, the line cutting program was postponed until all water bodies had frozen. Pleson Geosciences was then contracted to finish the line-cutting. Work recommenced on the BIF grid in November 2020 and the grid was completed at the end of December, 2020.

The lines on the BIF grid were oriented north-south and ranged from 1.0 to 1.8 km in length. A total of 60.10 line km were cut on the BIF grid. In addition to the baseline and tielines, a few small access trails were strung together along the baseline to circumvent the difficult topography. Accommodation for the line cutting crews was provided by Angus Gold at a camp on Paint Lake Road.

Abitibi geophysics began the IP ground geophysics survey in mid January, 2021 and work was completed at the end of August, 2021. The program experienced significant delays due to forest fires and harsh weather in the area. The grid required helicopter support to transport the survey equipment safely to the western limits of the grid where topography is difficult to navigate.


Figure 4. Map of the IP grid completed on the BIF property (claims on which work was completed are highlighted in orange).

Abitibi's OreVision $3 \mathrm{D}^{\circledR}$ survey, was performed along 30 profiles (L $0+00 \mathrm{E}$ to $\mathrm{L} 29+00 \mathrm{E}$ ) on the BIF grid totalling 33.85 line kms. Part of the BIF Grid ( $L 6+00 E$ to $L 12+00 E$ ) omitted the 3 D readings to simplify field logistics around the Paint Lake Road and the Cameron Lake Camp. As such 10.975 km of OreVision ${ }^{\circledR}$ and 33.85 km of OreVision3D ${ }^{\circledR}$ was processed, to total 44.825 line km. Data was collected using a=25, n=1 to 20 configuration for a theoretical depth of investigation of 250 m .

Onsite supervision and co-ordination with the line cutting crews and Abitibi geophysics was completed by Gabrielle Hosein and Patrick Hamilton with supervision by Breanne Beh, who planned the scope of work.

Compilation and review of results was completed by Patrick Hamilton and Breanne Beh, both of whom authored this report.

Consulting firm, Ronacher McKenzie Geosciences (RMG), was contracted to review and interpret the BIF geophysical data along with available geological data; select geophysical anomalies; and provide drill targets in a summary memo. Work began in August 2021 and was completed by the end of September.

## RESULTS

A report provided by Abitibi Geophysics, is included as Appendix I to this report and contains the survey parameters as well as the interpretation of the survey completed by Abitibi geophysicists. Appendix II contains the IP Profiles and Appendix III contains the plan view maps generated by the Abitibi Geophysics survey.

The resistivity results from the Induced Polarisation survey were extremely variable on the BIF grid with values ranging from 100 to $200000 \mathrm{ohms}-\mathrm{m}$. There is a weak correlation between the resistive zones and magnetic lows.

The background chargeability on the grid ranged from $5-10 \mathrm{mV} / \mathrm{V}$ with the anomalies representing chargeable trends ranging from 15 to $50 \mathrm{mV} / \mathrm{V}$. Twenty (20) east-west chargeable IP trends as well as six (6) isolated chargeable anomalies were interpreted on the grid and prioritized for follow-up work based on their geophysical characteristics by Abitibi's geophysicist (see Appendix I). Both the chargeability and resistivity results display numerous breaks in the linear trends which are slightly offset from each other indicating the presence of faulting.

Ronacher McKenzie generated a structural interpretation on the BIF property (Figure 5) which was then coupled with compiled historic geological and geochemical data as well as the geophysical results from the Abitibi survey. The goal of this analysis of the data was to define what could potentially be structures or anomalies that could host Au mineralization. RMG generated several first-priority exploration targets (Table 3), defined as anomalies from the 3D-IP data that were coincident with interpreted geological structures and gold-anomalous surface samples. The geophysical anomalies had been filtered to generate discrete chargeable trends (Figure 6).


Figure 5. Map of Ronacher McKenzie Geosciences structural interpretation of the BIF property


Figure 6. Ronacher McKenzie Geosciences filtered 3DIP survey of the BIF grid.

Table 3. List of RMG's recommended drill targets on BIF property.

| Proposed <br> DDH | UTME <br> $\mathbf{8 3 z 1 6}$ | UTMN <br> $\mathbf{8 3 z 1 6}$ | Elevation <br> $(\mathbf{m})$ | Proposed <br> Length | Dip | Azimuth |
| :--- | :--- | :---: | ---: | ---: | ---: | ---: |
| DH-A | 615886 | 5319508 | 504 | 450 | -49 | 94 |
| DH-B | 616014 | 5319311 | 519 | 450 | -46 | 7 |
| DH-A-PH1 | 615985 | 5319656 | 479 | 431 | -45 | 160 |
| DH-A-PH2 | 616043 | 5319686 | 497 | 448 | -45 | 180 |
| DH-C | 615500 | 5319364 | 480 | 200 | -45 | 243 |
| DH-D | 615565 | 5319318 | 498 | 300 | -50 | 269 |
| DH-E | 615700 | 5318950 | 494 | 300 | -60 | 0 |
| DH-F | 615700 | 5318909 | 496 | 300 | -45 | 0 |

## RECOMMENDATIONS

The results from the BIF ground geophysical survey identified multiple targets for follow-up work. Targets should be prioritized based on several criteria including their geophysical signature, the proximity to known anomalous grab samples and their spatial association to anomalous geochemical samples.
BIF-hosted gold deposits are commonly associated with cross-cutting structures that provide conduits for Au bearing fluids. Exploration should be prioritized in areas where younger, cross-cutting faults have been identified.

The geophysical results should be paired with grab samples that have been collected and mapping work that has been completed on the property to identify the chargeability anomalies associated with surface mineralization. In addition, geochemical data from Angus' ongoing exploration program could be used to prioritize IP trends in areas where there is no outcrop exposure.

Owing to the potential for BIF-hosted Au mineralization on the BIF Property, the costs associated with the 2020-2021 geophysical survey are being applied to keep the claims in good standing. Drill targets have been generated by both Ronacher McKenzie as well as Abitibi Geophysics. Based on the results of the previous programs, a $5,000 \mathrm{~m}$ diamond drilling program is recommended to test priority targets, in particular those spatially associated with cross-cutting structures, anomalous surface grab samples and geochemical data.

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## Appendix I

Abitibi Ore Vision
Resistivity/Induced Polarization
Report

# INDUCED POLARIZATION SURVEY - CONFIGURATION 

## - OREVISION3D

GOLDEN SKY PROJECT / BIF \& DORSET GRIDS
Mishibishu Lake Area, Ontario, Canada
November 2021

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## 1. Research Objective

The Golden Sky Project is located approximately 50 kilometres west of the town of Wawa in Ontario, Canada. Geologically, the project is part of the prolific Mishibishu Lake Greenstone Belt (MLGB) within the Wawa Subprovince of the Superior Province (Figure 1).

Several important deformation zones traverse the MLGB and host the various known deposits already outlined in the region. These deformation zones are typically 100-800 m wide. The Mishibishu deformation zone is approximately 30 km long and trends southeast along the eastern margin of the MLGB. Both the former Magnacon and Mishi open pit mines are located along this deformation zone. To the south, the Eagle River deformation zone hosts the mineralization of the Eagle River mine. Gold mineralization in the MLGB is localized within those regionally extensive, steeply dipping deformation zones. These deformation zones consist of anastomosing ductile and brittle-ductile shear zones. Gold is usually concentrated in quartz veins of varying sizes and orientations ${ }^{1}$ (Figures 1 and 2).

The Golden Sky Project is favorably situated immediately between the Eagle River underground mine and the Mishi open pit mine and comprises the Mishi Creek (Dorset), Rook Lake, and part of the Mishibishu deformation zones (Figure 2).

Within the Mishi Creek (Dorset) deformation zone lies the most significant zone of mineralization presently recognized on the property: the Dorset zone. Gold mineralization in the Dorset zone occurs primarily in carbonate-altered, sulphide-mineralized zones. The gold is associated with pyrite and arsenopyrite with trace amounts of pyrrhotite and chalcopyrite. Increased sulphide concentrations and higher pyrite/arsenopyrite ratios commonly correspond to higher gold values within the zone ${ }^{1}$ (Figure 2).

The other significant target on the property, where grab sample values of $14.4 \mathrm{gpt} \mathrm{Au}, 7.83 \mathrm{gpt} \mathrm{Au}$ and 2.07 gpt Au were encountered in 1986, is known as the Cameron Lake zone. These samples were from an iron formation that has been mapped by the OGS and represents a prospect of high merit that has had no systematic exploration performed on it since this time ${ }^{1}$ (Figure 2).

The investigation of sulphide-rich mineralization concentrated in quartz vein zones along sheared structures is the objective of this project. The targeted zones would potentially yield geophysical anomalies characterised by low resistivity and or/and resistive highs found within or near by laterally extended zones of lower resistivities (shear zones). As iron-rich and therefore conductive formations are commonly found in this study area, distinguishing these from the targeted sulphides requires the information provided by chargeability data from the induced polarization (IP) method.

Abitibi Geophysics was therefore mandated to carry out an OreVision3D® IP survey on the property to cover both of the project's most advanced/prospective targets described above. The Dorset and the Cameron Lake zones will be referred as the Dorset and BIF Grids respectively and are outlined in red in Figure 2.

[^0]

Figure 1. Geology, deformation zones and gold deposits of the Golden Sky Project area.


Figure 2. Deformation zones and gold deposits found in and around the Golden Sky Project. The red boxes outline the IP survey areas.

## 2. IMPLEMENTED SOLUTION

The basic field implementation of IP is simple. An electrical current $(\mathbb{I})$ is sent through the ground, via a pair of current electrodes $\left(C_{1}-C_{2}\right)$. The primary voltage difference $\Delta \mathbf{V}_{\mathbf{p}}$ between two potential electrodes ( $\mathrm{P}_{1}-\mathrm{P}_{2}$ ) allows for the determination of the apparent resistivity, $\rho_{\mathrm{a}}$ of the subsurface. The apparent resistivity is expressed in ohm-m $(\Omega \mathrm{m})$ and is proportional to the difficulty of the electric current to circulate in the ground. In the absence of a solid metallic conductor, the resistivity will be largely dependent on the porosity of the rocks. The following geological phenomena will act on the resistivity of the rock formations:
Decrease
Clay weathering
Fracturing
Shearing
Metamorphism
Dissolution
Saltwater

> Increase
> Carbonatation
> Silicification
> Sericitization
> Albitization
> Compaction
> Metamorphism

The electrical current (I) will also charge the surface of the metallic minerals with the ions present in the groundwater, like little batteries in the ground. Once the current (I) is switched off, those batteries will discharge. The receiver records that weak secondary voltage difference $\Delta \boldsymbol{V}_{\mathbf{s}}$ decaying with time between the two potential electrodes $\left(\mathrm{P}_{1}-\mathrm{P}_{2}\right)$. The chargeability is the measure of this IP effect and is proportional to the total surface of metallic minerals in the subsurface rocks in contact with groundwater, just like lead plates in acid in a car battery. The secondary voltage $\Delta \mathbf{V}_{\mathbf{s}}$ is normalized by the primary voltage difference $\Delta \mathbf{V}_{\mathrm{p}}$ and by the acquisition time interval; the chargeability is therefore expressed in $\mathrm{mV} / \mathrm{V}$. In order to produce an anomaly, the grains do not need to be connected together, unlike electromagnetic (EM) methods.

Resistivity / induced polarization surveys are therefore very useful in mineral exploration to detect:

- Occurrences of disseminated sulphides (as low as $0.5 \%$ ) to which gold, silver, copper, molybdenum, etc. could be associated. When disseminated in a silicified, carbonated sericitized or albitized rock, the apparent resistivity will rise above the level of the other host rocks, facilitating the interpretation of these occurrences.
- Semi-massive to massive, non-conductive clusters (rich in sphalerite, silicified or electrically discontinuous).
- Massive clusters that do not offer good coupling with EM fields (vertical cylinder or small lenses).

The main disadvantage of IP surveys is that other chargeable minerals exist, such as graphite, clay minerals and some oxides. From a geological point of view, IP responses are almost never uniquely interpretable. The power of the IP technique can also be greatly diminished by the presence of a conductive overburden layer covering the basement rock. The OreVision ${ }^{\circledR}$ approach fills this gap while offering many advantages over conventional methods:

- Improved penetration through conductive overburden.
- Greater depth of investigation (2 to 4 times higher than conventional techniques, Figure 3).
- Better near surface resolution.
- Increased definition of the vertical extent of sources (Figure 4).


Figure 3. To the left, conventional IP pseudosections. To the right, OreVision ${ }^{\circledR}$ IP pseudosections demonstrating the increased depth of investigation.


Figure 4. A conventional IP survey allows the detection of the roof of this body buried at 50 m depth (top vertical section). OreVision ${ }^{\circledR}$ also allows to define the vertical extension (bottom section).

- Enhanced discrimination of one source overlying another (Figure 5).


Figure 5. OreVision ${ }^{\circledR}$ can detect a very deep source even below another.

- Higher data density, providing comprehensive coverage.
- More reliable 3D data inversions, allowing accurate drill targets to be delivered.

The OreVision ${ }^{\circledR}$ system was designed with the following consideration in mind. Figure 6 compares the difference in resolution between increasing the " $n$ " factor versus using larger "a" spacings. For a body buried at 200 m depth, the top section shows the inefficiency of 200 m "a" spacings with " $n$ " factors 1-6. The middle section shows a very weak response, below the normal noise level, with an "a" spacing of 100 m . The bottom section shows that this same body is easily detected with "a" spacings of 25 m and "n" factors from 1 to 30 .


Figure 6. Demonstration of the efficiency of increasing the factor " n " versus the spacing " a " to see deeper.

To achieve this degree of resolution, the following technological advances have been made:

- The development of a special 24-conductors cable with triple electrical insulation that ensures faultless measurements.
- The design and construction of an electronic switch (up to 240 channels) for automatic addressing of measuring electrodes, without numbering or connection errors (Figure 7).


Figure 7. Receiver ElrecPRO and SwitchPRO 240 from IRIS Instruments, automatically performing a series of several thousand compliance tests.

- The development by our partner IRIS Instruments of a powerful transmitter (13 A) that is transportable by a single operator.
- The optimization of our current injection method to maximize the signal-to-noise ratio.
- The streamlining of field operations allowing productivity like that of conventional approaches, therefore at a comparable price.
- The implementation, on a cloud platform, of a powerful algorithm that allows us to perform 3D inversions with less approximation than conventional solutions.

OreVision3D® has all the advantages of OreVision ${ }^{\circledR}$, plus a little extra. By taking an additional series of between line measurements the following benefits can be achieved:

- A depth of investigation reliable up to approximately 650 m (depending on the "a" and " n " spacings).
- 3D acquisition with pseudosections available.
- Increased sensitivity to sources not perpendicular to survey lines.
- Lower cost than other 3D solutions.

OreVision3D ${ }^{\circledR}$ measures a regular in-line pole-dipole/dipole-dipole array on one line, as well as offset dipole-dipole and Schlumberger arrays between two lines during the course of a survey.


Figure 8. Example of the OreVision $3 D^{\circledR}$ array, where $L 1+00 E$ and $L 2+00 E$ are the active lines.

- In the above example, $L 1+00 E$ and $L 2+00 E$ are the active lines. $L 1+00 E$ is read in its entirety, and measurements are made between L $1+00 \mathrm{E}$ and $\mathrm{L} 2+00 \mathrm{E}$.
- When this first set of measurements is completed, the set-up is advanced one line.
- L 2+00E and $L$ 3+00E are now the active lines; $L 2+00 E$ is read fully and measurements are taken between L $2+00 E$ and $L 3+00 E$.
- This continues until the last line, $\mathrm{L} 5+00 \mathrm{E}$, which is normally read as an in-line array.


## 3. GEOPHYSICAL INTERPRETATION

This OreVision $3 D^{\circledR}$ survey, performed along 30 profiles ( $\mathrm{L} 0+00 \mathrm{E}$ to $\mathrm{L} 29+00 \mathrm{E}$ ) on the BIF Grid and 40 profiles ( $\mathrm{L} 1+00 \mathrm{~W}$ to $\mathrm{L} 38+00 \mathrm{E}$ ) on the Dorset Grid was successful in mapping the resistivity and chargeability properties of the geological formations lying within the Golden Sky Project. Please note that part of the BIF Grid ( $\mathrm{L} 6+00 \mathrm{E}$ to $\mathrm{L} 12+00 \mathrm{E}$ ) omitted the 3D readings to simplify field logistics around the Paint Lake Road and the Cameron Lake Camp.

Quality control (QC) performed on the collected data validated $94 \%$ and $97 \%$ of the recorded readings from the BIF Grid and Dorset Grids respectively.

The validated data were subjected to 3D inversions using the DC-IP Res3D platform. The Res3D DC-IP Algorithm solves two inverse problems. The DC potentials are first inverted to recover the spatial distribution of electrical resistivities, and, secondly, the chargeability data are inverted to recover the spatial distribution of possible polarizable materials. The purpose of the inversion process is to convert the apparent Chargeability and Resistivity measurements into realistic Earth Models and to better characterize the position, geometry and physical parameters of conductive, resistive and polarizable sources. From the resulting Resistivity and Chargeability Earth Models, contour plan maps of Resistivity (8.2b and 8.2d) and Chargeability ( 8.3 b and 8.3 d ) as well as vertical sections were produced.

Additional parameters known as the Metal Factor and Gold Index were calculated from these two Earth Models and contour plan maps were produced: Metal Factor (8.4b and 8.4d) and Gold Index (8.6b and 8.6d). The Metal Factor and Gold Index are also shown on the vertical sections. The reader is requested to consult Appendix C for the meaning of these parameters.

For this project, each grid was interpreted separately. First, chargeable anomalies were highlighted with the help of the pseudosections, the recovered 3D models and the vertical sections. These observed anomalies were indicated on the vertical sections and those that seemed to be produced by the same anomalous source were correlated from line-to-line and grouped together in what is called a polarizable axis or trend. They were graded according to priority one, two, three or four according to their strength, chargeability/resistivity associations, length and general strike orientation and then transposed onto the Geophysical Interpretation maps (10.0b and 10.0d).

## BIF GRID

- Resistivity

On the BIF Grid, the recovered resistivity is characterized by a dynamic range of resistivity values ranging from approximately $100 \Omega \cdot \mathrm{~m}$ to just over $200000 \Omega \cdot \mathrm{~m}$. High resistivity and low resistivity zones have been outlined in blue and pink on the Geophysical Interpretation map (10.0b). The high resistivity zones are marked by values greater than $30000 \Omega \cdot \mathrm{~m}$ and the low resistivity zones are marked by values less than $3000 \Omega \cdot \mathrm{~m}$.

The strongest resistivities are found in the south, the west and the east parts of the grid. These resistive bodies are labelled as R1, R2, R3, R4, R5 and R6 and are outlined in Figure 9. R1 is moderately to highly resistive and somewhat elongated in the E-W direction, however this zone is not fully resolved within this survey area as it is located at the southern end of the lines. R3 and R4 are very well-defined, strongly resistive, circular-shaped bodies. R5, composed of two cores, defines the largest resistive zone observed within this grid. Two more resistive zones, labelled as R2 and R6, are also observed on this survey grid. R2 is a short, moderately resistive trend located near the centre of the grid, and R6 is a built-up resistive body/trend found in the southern corner of the grid. There is a loose correlation between the resistive zones and low magnetic areas.

There are 3 dominant conductive axes ( C 1 to C 3 ) observed on this survey grid. C 1 extends across the southern part of the BIF grid. Its western portion (C1A) is strongly conductive and well-defined from the surface down to the bottom of the model, while the central and eastern portions of this conductor (C1B and C 1 C ) are deeper and less conductive. This trend appears to have been disrupted in a few places, and these breaks seem to match quite well with the structural interpretation of the surveyed area (Figure 9). C2 is a strong and well-defined conductive trend that crosses the western part of the grid in a NE direction. The break between sections C2A and C2B of this trend correlate with a NW interpreted fault zone. Further west, the C2B section abruptly terminates against a NE fault zone. The northernmost trend (C3) is the best defined and most conductive trend on this survey grid. It follows the curved geological boundary between the volcanics and the banded iron formations, and the northern flank of a strongly magnetic axis. It well-defined from the surface to the base of the model.

## ○ <br> Chargeability

The overall chargeability response is moderate with an average chargeability background of approximately $5-10 \mathrm{mV} / \mathrm{V}$ and anomalous zones of moderate to high chargeability values ranging from $15 \mathrm{mV} / \mathrm{V}$ to over $50 \mathrm{mV} / \mathrm{V}$.

Twenty (20) east-west trending anomalous sources as well as six (6) isolated chargeable bodies were detected on this grid. A description of the interpretated anomalous trends is written below and can be followed using Figure 10 to Figure 12, and the Geophysical Interpretation Map (10.0b). Further explanation on the selected targets can be found in Table 2 "OreVision3D® Drilling Targets on the Golden Sky Project (BIF \& Dorset Grids)".

## > First Priority

The most interesting chargeable sources interpreted on this grid are first priority anomalies BIF-01, BIF-02, BIF-06 and BIF-07.

BIF-01 crosses the southern part of the grid. This chargeable axis is confined within a BIF (also a highly magnetic axis) and loosely follows conductive trend C 1 . The centre section of this trend is well-defined and strongly chargeable.

Chargeable trend BIF-02 is divided into two sections. The westernmost segment (BIF-02A) is strongly chargeable and loosely associated with conductive trend C2A, defining a strong Metal Factor anomaly. This section also follows a strongly magnetic corridor and is hosted within a BIF. BIF-02B follows a corridor of slightly higher resistivity values between C1A and C2A, and further east within resistive zone R2. It is mostly found within a low magnetic environment. The Cameron Lake mineralized zone is located about 50 m north of this axis.

BIF-06 traverses a large portion of the northern survey grid. East of L 9+00E this axis is divided into 2 segments; the northern one is labelled BIF-07. These two trends are probably the most attractive ones of the BIF Grid. They are closely associated with conductive trend C3, lie within a strongly magnetic axis and between $L 4+00 \mathrm{E}$ and $\mathrm{L} 12+00 \mathrm{E}$, and they straddle the geological boundary between a BIF and a schist unit. The eastern part of BIF-07 (east of the NW fault zone) is hosted within a BIF.

These anomalies are recommended for first priority DDH testing and where conditions are favorable, prospecting and trenching is also recommended.

## > Second Priority

Second priority chargeable sources BIF-03, BIF-04, BIF-05 and BIF-08 are generally not as well defined nor as strong as the first priority chargeable trends but still have great potential and are therefore recommended for DDH testing and trenching where conditions look favorable. BIF-03 is found in the centre of the survey grid following a highly magnetic trend and lying within a BIF. It is associated with moderate resistivity values. The chargeable response of this source is high in the western part of the trend ( $\mathrm{L} 11+00 \mathrm{E}$ and $\mathrm{L} 12+00 \mathrm{E}$ ). Chargeable axis BIF-04 is a weak to moderate source that traverses most of this survey grid. From west to east, this source crosses R3, C2B and R4, displaying a high Gold Index at its resistive extremities. BIF-05 also traverses a large portion of this survey grid. Its western segment (BIF-05A) trends south of C3A while segment BIF-05B loosely starts at the eastern end of C2B and crosses into the resistive zone (R4) at the junction of two interpreted faults. This easternmost resistive section also hosts anomalous sources BIF-04, BIF$10, \mathrm{BF}-12$ and part of BIF-06; the combination of these chargeable anomalies with R4 forms a high Gold Index core in this area. BIF-08 is a short anomaly of moderate to strong chargeable response found in the southwest corner of the grid. Its eastern segment, BIF-08B, correlates with conductive axis C1A and is highly magnetic in nature. BIF-08A to the west is only intersected by two lines and coincides with a region of magnetic intensity.

## > Third and Fourth Priority

The third and fourth priority anomalies (BIF-09 to BIF-25) are mainly poorly chargeable, isolated or of short strike length. Most of them were not sufficiently defined for targeting. Only four of the third priority anomalies are interpreted as suitable for DDH follow-up (BIF-09, BIF-11, BIF-12 and BIF14).


Figure 9. Resistivity at an elevation of 350 m showing the interpreted features along with the structural interpretation of the region (BIF Grid).


Figure 10. Geophysical interpretation including chargeable trends, interpreted structures and proposed proposed DDH collars, underlain by the resistivity grid at an elevation of 350 m (BIF Grid).


Figure 11. Geophysical interpretation including chargeable trends, interpreted structures and proposed DDH collars, underlain by the TMI-RTP grid (BIF Grid).


Figure 12. Geophysical interpretation including chargeable trends, interpreted structures and proposed DDH collars with local geology (BIF Grid).

## - DORSET GRID

## - Resistivity

The overall resistivity response over the Dorset Grid is moderate to high, ranging from approximately 275 to $200,000 \Omega \cdot \mathrm{~m}$. Please note that the zones highlighted in light blue on the Geophysical Interpretation Map (10.0d) outline resistivity values higher than $30,000 \Omega \cdot m$ while the pink areas represent resistivity values below $6000 \Omega \cdot m$.

A deep low resistivity trend (C1) is highlighted in the center of the grid. It has an arcuate shape and nearly spans the entire grid with an orientation between ESE and E. The resistivity values calculated here are in the range of $2000 \Omega \cdot \mathrm{~m}$ to $8000 \Omega \cdot \mathrm{~m}$. This is not extremely conductive, but it is low relative to the overall high resistivity values observed on the grid. The first section of this trend (C1A) is well-defined, especially between L 10+00E and L 19+00E. After L 19+00E a conductive offshoot extends south into a large N-S elongated conductive zone. The eastern portion is broken into smaller segments, labelled C1B and C1C. The segments C1A, C1B and C1C are each slightly offset from each other, which may suggest faulting.

Another zone of lower resistive values (C2), not entirely resolved within this survey boundary, is encountered in the southeast corner of the grid. This deep conductor separates into two branches labelled C2A and C2B. The northern branch, C2A, loosely correlates with a geological boundary.

Many other resistivity features are also identified on this grid;

- A resistive zone following the curved northern boundary of C 1 , located in the northern part of the survey area and composed of three bodies, R1A, R1B and R1C.
- A small resistive area formed by two bodies (R2A and R2B) aligned in an E-W direction. The area between the resistive cores correlates with an interpreted fault zone.
- A NS elongated resistive zone, labelled R3. This zone appears to be comprised of two cores.
- A large, elongated EW resistive body (R4) also formed by two distinct cores. R4 together with R1 are the most resistive areas.
- A poorly resolved, moderately resistive zone (R5) exists in the southwest corner of the study area.


## - Chargeability

The overall chargeability response over this grid is very similar to the BIF Grid. It is also moderate, with an average chargeability background of approximately $5-10 \mathrm{mV} / \mathrm{V}$ and anomalous zones of moderate to high chargeability ranging from $15 \mathrm{mV} / \mathrm{V}$ to over $50 \mathrm{mV} / \mathrm{V}$.

Twenty-seven (27) anomalous sources as well as two (2) isolated chargeable bodies were detected on this grid. A description of the interpretated anomalous trends is given below and can be followed using Figure 13 to Figure 17 and the Geophysical Interpretation Map (10.0d). Further explanation on the selected targets can be found in Table 2, "OreVision3D ${ }^{\circledR}$ Drilling Targets on the Golden Sky Project (BIF \& Dorset Grids)".

## $>$ First Priority

DOR-02 traverses the eastern half of the study area until merging with DOR-03 on L14+00E. This moderately chargeable source is closely linked to or above deep conductive trend C1A. There is no strong correlation with magnetic intensity of geology.

DOR-03 is the anomaly most closely linked with the known Dorset zone. It spans almost the entirety of the grid and cuts through both resistive and conductive environments. There is no strong association with interpreted resistivity trends. Between L 1+00W and L 10+00E DOR-03A has a strong correlation with a magnetic low. It is mainly hosted in mafic volcanics, whereas DOR-03B is hosted by metasediments.

DOR-04 and DOR-05 are trends located in the eastern half of the study area. They are both closely related to the Dorset mineralized zone. DOR-04 is highly chargeable while DOR-05 is moderately to weakly chargeable. The westernmost ends of both DOR-04 and DOR-05 overlap the southern boundary of a high magnetic axis (diabase dyke). DOR-04 begins at the transition between C1A and C1B and transitions into a more resistive environment to the east, while DOR-05 is almost exclusively located in a high resistivity environment. Between L 23+00E and L 26+00E, the interpretation becomes more complicated where DOR-04 and DOR-03A overlap with each other.

DOR-08 is a strongly conductive and chargeable source found in the southeast corner of the grid. It largely follows C2A, as well as the southern border of a weak to moderate magnetic trend. It also shows some correlation with a lithology change on its western end. It is one of the strongest Metal Factor anomalies of the study area.

## > Second Priority

DOR-01 is a group of 2 chargeability trends, DOR-01A and DOR-01B, which seem to have been offset by a diabase dike. Heavy faulting also seems to have affected both segments (fault zones near L 6+00E, L 25+00E, etc.). This trend is of weak to moderate intensity and usually lies within moderate resistivities and within a low magnetic environment. The only exception is the small middle segment of DOR-01B (L 15+00E to L 18+00E) located south of the Dorset zone which is found within a conductive region.

DOR-06 trends across the northern portion of the grid, north of the main EW trending high magnetic axis (diabase dyke) until turning south around $L 30+00 \mathrm{E}$. This source is moderately to highly chargeable and from west to east, it is associated with resistive zone R1C, conductive trends C1B and C1C, and R4 where it terminates. This easternmost segment displays a very high Gold Index anomaly and correlates very well with the Dorset zone. DOR-07 is a small chargeable segment of moderate to high intensity trending parallel and north of DOR-06 in the northeast corner of the grid.

Anomalous source DOR-09 runs on the northern boundary of highly conductive trend C2A and DOR-08, as well as a moderate magnetic lineament.

DOR-14 and DOR-15 are a couple of short strike length, weakly to moderately chargeable axes found in the northwest corner of this grid. They both abruptly terminate against diabase dykes on both ends. DOR-14 also terminates against a NW fault zone on its eastern end. DOR-14 is located just north of conductive trend C1A, while DOR-15 sits in the southern part of resistive zone R1A. Moreover, the MCT-05 trench showing seems to correlate with DOR-14.

## > Third and Fourth Priority

The other chargeable anomalies outlined in this report are rated third and fourth priority since they have low chargeable responses, are of short strike length or are isolated and/or poorly defined. Some of these sources still look promising for DDH testing. They include DOR-12 and DOR-13 in the western part of the survey grid as well as DOR-22 and DOR-25 in the east.


Figure 13. Resistivity at an elevation of 300 m showing the interpreted features along with the structural interpretation of the region (Dorset Grid).


Figure 14. Geophysical interpretation including chargeable trends, interpreted structures and proposed DDH collars (Dorset Grid).


Figure 15. Geophysical interpretation including chargeable trends, interpreted structures and proposed DDH collars, underlain by the resistivity grid at an elevation of 300 m (Dorset Grid).


Figure 16. Geophysical interpretation including chargeable trends, interpreted structures and proposed DDH collars, underlain by the TMI-RTP grid (Dorset Grid).


Figure 17. Geophysical interpretation including chargeable trends, interpreted structures and proposed DDH collars with local geology (Dorset Grid).

## 4. Conclusion and Recommendations

The OreVision3D ${ }^{\circledR}$ survey has allowed us to identify distinctive chargeable axes within the BIF and Dorset Grids. Using the available geological information, the priority and the importance attached to these sources has been reviewed and follow-up prospecting and drilling targets are recommended below.

## - Prospecting

Table 1 below lists sources that appear to be close enough to the surface (outcropping or subcropping) for prospecting or trenching.

Table 1. OreVision3D ${ }^{\circledR}$ Prospecting Targets on the Golden Sky Project (BIF \& Dorset Grids)

| Target (Priority Anomaly) | Location of the Prospecting Target |  | Prospecting stations |
| :---: | :---: | :---: | :---: |
|  | Line | Station |  |
| BIF Grid |  |  |  |
| 1_BIF-02A | L 0+00E | 3+00S | 3+25S - 2+75S |
|  | L 1+00E | $3+25 \mathrm{~S}$ | $3+50 \mathrm{~S}-2+75 \mathrm{~S}$ |
| 1_BIF-06 | L 7+00E | $3+75 \mathrm{~N}$ | $3+75 \mathrm{~N}-4+00 \mathrm{~N}$ |
| 1_BIF-07 | L 11+00E | $4+25 \mathrm{~N}$ | $4+00 \mathrm{~N}-4+50 \mathrm{~N}$ |
|  | L 15+00E | 4+75N | $4+50 \mathrm{~N}-5+00 \mathrm{~N}$ |
|  | L 16+00E | $4+25 \mathrm{~N}$ | $4+00 \mathrm{~N}-4+50 \mathrm{~N}$ |
|  | L 17+00E | 4+00N | $3+75 \mathrm{~N}-4+25 \mathrm{~N}$ |
|  | L 18+00E | 4+00N | $3+75 \mathrm{~N}-4+25 \mathrm{~N}$ |
|  | L 19+00E | $4+25 \mathrm{~N}$ | $4+00 \mathrm{~N}-4+50 \mathrm{~N}$ |
|  | L 20+00E | $3+25 \mathrm{~N}$ | $3+00 \mathrm{~N}-3+50 \mathrm{~N}$ |
|  | L 21+00E | 2+75N | $2+50 \mathrm{~N}-3+00 \mathrm{~N}$ |
|  | L 22+00E | $2+25 \mathrm{~N}$ | $2+00 \mathrm{~N}-2+50 \mathrm{~N}$ |
| 2_BIF-03 | L 13+00E | 2+75S | $3+00 \mathrm{~S}-2+50 \mathrm{~S}$ |
| 2_BIF-04 | L 10+00E | 0+50N | 0+25N - 0+75N |
|  | L 22+00E | 0+00N | 0+25S - 0+25N |
| 2_BIF-05A | L 6+00E | 2+75N | $2+50 \mathrm{~N}-3+00 \mathrm{~N}$ |
| 3_BIF-12 | L 24+00E | 1+50S | 1+75S - 1+00S |
| 3_BIF-17 | L 28+00E | $2+50 \mathrm{~N}$ | $2+00 \mathrm{~N}-2+75 \mathrm{~N}$ |
|  | L 29+00E | 2+50N | $2+00 \mathrm{~N}-2+75 \mathrm{~N}$ |
| 4_BIF-23 | L 14+00E | $5+00 \mathrm{~N}$ | $4+75 \mathrm{~N}-5+25 \mathrm{~N}$ |
| Dorset Grid |  |  |  |
| 1_DOR-02B | L 5+00E | 1+00S | 1+25S - 0+75S |
| 1_DOR-08 | L 31+00E | 2+75S | 3+25S - 2+50S |
|  | L 35+00E | 1+75S | 2+00S - 1+25S |
|  | L 36+00E | 1+00S | $1+25 \mathrm{~S}-0+75 \mathrm{~S}$ |
| 2_DOR-09 | L 38+00E | 0+00N | 0+25S - 0+25N |
| 3_DOR-22 | L 38+00E | 2+75S | $3+25 \mathrm{~S}-2+50 \mathrm{~S}$ |

## - Drilling

A drilling program has been recommended to test some of the axes (targets) outlined in this report.
Table 2 lists these proposed drill holes and their characteristics as well as the location and description of the associated targets. These initial holes should be planned to intersect the centre of the targets as outlined on the interpreted vertical sections.

The table includes images of the selected drill targets plotted on the chargeability section if not indicated otherwise.

Table 2. OreVision3D ${ }^{\circledR}$ Drilling Targets on the Golden Sky Project (BIF \& Dorset Grids)

| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| BIF Grid |  |  |  |  |  |  |  |
| 1_BIF-01a | Well-defined, strongly chargeable source found in the deeper parts of this survey within a conductive trend. <br> Near a NE fault zone within a high magnetic intensity environment. | 11+00E | 5+50S | 4+75S | 55 | 180 |  |
| 1_BIF-01b | Well-defined, somewhat vertically elongated target of moderate chargeability located north of a conductive trend. <br> Near a NE fault zone within high magnetic intensity environment. | 15+00E | 5+75S | 5+25S | 60 | 180 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |  |
| 1_BIF-02Aa | Shallow, possibly outcropping, moderately chargeable target. <br> Found within a shallow resistor on top of strongly conductive material. <br> This anomaly sits within a high magnetic intensity setting. | 0+00E | 3+00S | 3+25S | 55 | 0 |  |  |



| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 1_BIF-02Ba | Relatively shallow and weakly chargeable target. <br> Located within a narrow resistive zone inside an overall strongly conductive environment. <br> Near a NW fault zone within a high magnetic intensity environment. | 5+00E | $3+50$ S | $3+25 S$ | 60 | 0 |  |
| 1_BIF-02Bb | Well-defined, moderately to strongly chargeable source found in the mid to deep depths of this survey. <br> Located within a resistive body. <br> Near a NE fault zone within a low magnetic intensity environment. | 11+00E | $3+50$ S | 4+25S | 60 | 0 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 2_BIF-05Aa | Well-defined, relatively shallow and moderately to strongly chargeable target of limited depth extension. <br> Within a conductive environment, however not reaching into the stronger, deeper portion. <br> Near a NW fault zone and on the western boundary of a strong magnetic trend. | 1+00E | $1+75 \mathrm{~N}$ | $2+25 \mathrm{~N}$ | 55 | 180 |  |
| 2_BIF-05Ab | Shallow, weakly to moderately chargeable target within a highly conductive environment. <br> This DDH also aims to test the deeper part of BIF-06, within the strong Metal Factor core. <br> High magnetic intensity setting. | 7+00E | 2+87N | $2+50 \mathrm{~N}$ | 50 | 0 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 2_BIF-05Ba | Well-defined, relatively shallow and moderately chargeable target of limited depth extension. <br> On the periphery of a large conductive medium. <br> Located along a lineament of low magnetic intensity. | 12+00E | 1+87N | $2+50 \mathrm{~N}$ | 50 | 180 |  |
| 2_BIF-05Bb | Relatively shallow, moderately chargeable source located on the southern boundary of a conductive zone. <br> Appears to be dipping slightly to the north, however this may be caused by the merging of BIF-05B with the extensive and dominant source BIF-06. <br> On the intersection of two interpreted faults within a low magnetic intensity environment. | 16+00E | 1+37N | 1+75N | 55 | 180 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 1_BIF-06 | Moderately chargeable source located within a conductive environment. <br> The core of this anomaly may appear deeper in the inversion results because of its merging with BIF-05A. This merging may have also caused its southward dipping appearance. The apparent data suggest a shallow source, with some potential extension. <br> The deeper portion, a possible depth extension of this anomaly, is targeted by 2_BIF-05Ab. | 7+00E | $3+75 N$ | $3+50 \mathrm{~N}$ | 50 | 0 |  |
| 1_BIF-07a | Very well-defined and strongly chargeable body appearing to be southward dipping. <br> Located within the core of a strongly conductive zone that appears to be northward dipping. <br> This is a strong Metal Factor target. <br> Near a NW fault zone within a high magnetic intensity environment. | 14+00E | $4+25 \mathrm{~N}$ | 4+00N | 65 | 0 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 1_BIF-07b | Relatively shallow, very well-defined and strongly chargeable body. <br> Appears to be southward dipping and similarly to the previous target, located within the core of a strongly conductive zone that appears to be northward dipping <br> Located in a high magnetic intensity setting. | 20+00E | $3+25 N$ | $3+00 \mathrm{~N}$ | 60 | 0 |  |
| 2_BIF-03 | Well-defined, relatively shallow and moderately chargeable target of limited depth extension. <br> Displays a strong Gold Index. <br> Located in a high magnetic intensity setting. | 11+00E | 2+75S | $3+005$ | 55 | 0 |  |



| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 2_BIF-08B | Well-defined, relatively shallow and moderately chargeable target. <br> Within a well-defined conductive zone. <br> Correlates with a high magnetic intensity setting. | 5+00E | 5+00S | 5+50S | 55 | 0 |  |
| 3_BIF-09A | Well-defined, relatively shallow and moderately chargeable target. <br> Within a relatively resistive environment, on the boundary of a large resistive zone and a broad conductive trend. <br> Within a low magnetic intensity medium. | 16+00E | 7+75S | 7+50S | 65 | 180 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 3_BIF-11 | Well-defined, relatively shallow and moderately chargeable target of limited depth extension. <br> Within a moderately resistive environment. <br> Correlates with a high magnetic intensity setting. | 19+00E | 2+12S | 1+75S | 50 | 180 |  |
| 3_BIF-12 | Very similar to the target described above, but slightly larger, deeper and more resistive in nature. <br> Displays a strong Gold Index. | 19+00E | 1+00S | 1+25S | 65 | 0 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 3_BIF-14 | Well-defined, compact and relatively shallow target of moderate to high chargeability values. <br> Displays a limited depth extension. <br> Found within a moderately conductive environment, on the southern boundary of a large strongly conductive trend. <br> Located within a low magnetic intensity medium. | 9+00E | 0+50S | 0+37S | 65 | 0 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| Dorset Grid |  |  |  |  |  |  |  |
| 1_DOR-02B | Well-defined and strongly chargeable target found within a moderately resistive environment above a more conductive zone. <br> Appears to be slightly southward dipping. <br> Proximal to a NW fault zone. <br> Trenching recommended prior to drilling. | 5+00E | 1+50S | 1+25S | 60 | 25 |  |
| 1_DOR-03A | Deep and very strongly chargeable target found with a conductive environment. <br> Possibly extending below this survey's DOI. <br> A well-defined Metal Factor target. <br> Near the Dorset zone within a compact low magnetic intensity anomaly. | 15+00E | $1+00 \mathrm{~N}$ | 0+25N | 60 | 25 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 1_DOR-04 | Weak to moderately chargeable source located in the mid-depths of this survey's DOI. <br> Within a moderate resistivity environment, near the border of a large and highly resistive body. <br> Near a NNE fault zone. | $34+00 \mathrm{E}$ | $2+50 \mathrm{~N}$ | $3+50 \mathrm{~N}$ | 55 | 205 |  |
| 1_DOR-05 | Moderately chargeable target. The inversion result indicates that this source is very strong, however, this may be caused by its apparent merging with nearby source DOR-04. <br> Found within a strongly resistive environment resulting in a well-defined and robust Gold Index target. <br> Targets the Dorset zone. | 30+00E | $3+50 \mathrm{~N}$ | 4+50N | 55 | 205 | Gold Index |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 1_DOR-08 | Very well-defined and strongly chargeable target confined between two conductive zones. <br> Mid-depth target that appears to be southward dipping. At depths below the center of mass, this source seems to extend vertically. <br> Trenching recommended prior to drilling. | 36+00E | 1+50S | 2+00S | 60 | 25 |  |
| 2_DOR-01A | Moderately chargeable body found within a moderately resistive environment. <br> The core of this source is found in the deeper regions of this survey's DOI with possible extension below it. | 11+00E | 2+25S | 3+25S | 55 | 25 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 2_DOR-01B | Well-defined, compact, and relatively shallow target of moderate chargeability values. <br> Found within a moderately resistive environment above conductive materials. <br> Appears to be southward dipping. <br> Near the Dorset zone. | 16+00E | 1+00S | 1+25S | 60 | 25 |  |
| 2_DOR-06 | Moderately to highly chargeable target. The inversion result may be overestimating the strength of this source because of its apparent merging with nearby source DOR-07, and the few missing datapoints at depths in the measured data. <br> This source is resistive and lies on the northern flank of a deep resistive body. It displays a strong well-defined Gold Index. <br> The core of this source is found in the mid to deep depths of this survey's DOI with possible extension beyond it. <br> Appears to be northward dipping. <br> Targets the Dorset zone. | $31+00 \mathrm{E}$ | 5+00N | $5+75 \mathrm{~N}$ | 60 | 205 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 2_DOR-07 | Well-defined, relatively shallow and weakly to moderately chargeable target. <br> On the boundary between a resistive and a conductive body. <br> Near a NE fault zone. | 28+00E | 7+37N | 8+00N | 55 | 205 |  |
| 2_DOR-09 | Relatively shallow, well-defined and strongly chargeable target of limited depth extension. <br> Found within the transition zone between a shallow resistive layer and a deep conductor. | 37+00E | 0+25S | 0+75S | 60 | 25 |  |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 2_DOR-14 | Mid-depth target that appears to be northward dipping. At depths below the center of mass, this source seems to extend vertically. <br> Well-defined and moderately chargeable. <br> Near a NW fault zone and the Trench MTC-05 zone. | 1+00E | 0+00N | 0+50N | 60 | 205 |  |
| 2_DOR-15 | Well-defined and moderately chargeable target found within a resistive environment. Displays a well-defined, weak to moderate Gold Index anomaly. <br> Shallow to mid-depth target that appears to be southward dipping. | 4+00E | 0+37N | 0+00N | 60 | 25 | Gold Index |


| Target (Priority Anomaly) | Type / Target Interest | Location of the Drill Target |  | Proposed Drillhole |  |  | Target Visual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Line | Station | Station | Dip | Azimuth |  |
| 3_DOR-12A | Relatively shallow and weakly chargeable target found on the boundary of a southward dipping resistive body. | $3+00 E$ | 5+25S | 5+75S | 55 | 25 |  |
| 3_DOR-13 | Shallow and weakly chargeable target found within a moderately conductive | 2+00E | $3+67 \mathrm{~S}$ | 4+00S | 55 | 25 | 3_DOR-13 |



The author is confident that the Golden Sky Project offers potential for discovering new mineralized zones and that the drillholes recommended for the investigation of the anomalous sources identified by the present survey will be positive.

However, our knowledge of the property's geology is not as thorough as the geologist of Angus Gold. Our interpretation and recommendations are mainly based on the observed geophysical responses.

In order to maximize the outcome of the present results, Angus Gold, should, ensure all available geoscience information are compiled, assess and, if necessary, redefine the priority and nature of the recommendations proposed in this report.

Respectfully submitted, Abitibi Geophysics Inc.


Pam Coles, P.Geo., Chief Geophysicist PGO \#2612


Catherine Phaneuf, P.Geo., Project Geophysicist OGQ \#1860

## Appendix A: Project Overview

- Project ID
- Customer
- Representative
- LOCATION
- NeAREST SETTLEMENT
- AcCess


## Golden Sky Project

(Our reference: 21NT002A-P3)
Angus Gold Inc.
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Toronto, Ontario, M5C 1C4
www.angusgold.com
Gabrielle Hosein, P.Geo.
ghosein@angusgold.com
Mishibishu Lake Area, Ontario, Canada
NAD83 / UTM zone 16N : $616500 \mathrm{mE}, 5320500 \mathrm{mN}$ NTS Sheets: 42C/03

Wawa: approximately 50 km east of the survey area.
The property is accessible via Paint Lake Road, an all-weather gravel road which links the Trans Canada Highway 17 to the Eagle River Mine. The Paint Lake Road departs the TransCanada Highway approximately 50 km northwest of Wawa. At kilometer 66, an ATV/Skidder trail provides direct access to the property and leads to the Dorset area. The BIF area, located south of Dorset, can be accessed directly from Paint Lake Road.


Figure 18. General location of the Golden Sky Project.

- CULTURAL FEATURES
- LAND TENURE
- SURVEY GRIDS

Trails, borehole casings and other debris were observed on the Dorset Grid. The Paint Lake Road and the Cameron Lake Camp traverse the BIF Grid making data acquisition logistically more difficult around that area.

These features may have very slightly affected the quality of the data collected in some areas, but the overall effects are negligible.

The Golden Sky Project is located within the Mishibishu Lake Greenstone Belt (MLGB). Topography is moderate within the Dorset Grid, ranging from approximately 445 to 500 m above sea level. The BIF Grid topography is more intense, ranging from approximately 425 to 585 m above sea level, with many steep cliffs.

Hydrographically, many creeks and small lakes are present throughout the Dorset survey area. The BIF area includes a larger lake (Cameron Lake) in the southwestern part of the grid as well as a few more small ones.

The claims encompassed in the present project are wholly owned by Angus Gold Inc. as shown in Figure 19.

## BIF Grid

This survey grid consists of 30 lines oriented north. Lines are approximately 1.0 km to 1.8 km in length and are spaced every 100 m .

## Dorset Grid

This survey grid consists of 40 lines oriented 025 degrees north. Lines are approximately 1.0 km to 1.7 km in length and are spaced every 100 m .

Refer to Figure 19 for a plan view of the survey areas.

Local datum: NAD 83
Projection type: Universal Transverse Mercator (UTM)
Zone: 16N


Figure 19. Mineral claims and survey coverage over the Golden Sky Project.

## ApPENDIX B: DATA AcQuIsition

PERSONNEL

Ecologo

- SECURITY AND ENVIRONMENT

Saliou Bah, Ezekiel Charlebois, Zachary Paquin, Guillaume Nantel, Maxime Collin, Remi Daoust, Jean-Francois Dumoulin, John Shesha, Charles Tremblay, David Lafrenaye, Hugo Beaulieu, Hans Bjorkman, Fleury Nzisabira, Tamisha Blanchette, Henry-Philippe Bauer, Kevin Vaillancourt, Marc Auclair, Martial Girard, Gabriel Martin, Jean-Luc Gagnon, Brian Willard, Carole Picard, Tech., Catherine Phaneuf, P.Geo., Pam Coles, P.Geo.,

Crew chief and Rx operator Crew chief and Rx operator Crew chief and Rx operator Crew chief and Rx operator
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Field assistant
Plotting
QC, interpretation, and report Final validation of product conformity

Abitibi Geophysics adheres to the Ecologo Certification for the mining exploration industry. This certification promotes the widespread application of environmental, social, and economic practices of the highest standards. Abitibi Geophysics conforms with the standardized requirements of this certification and those of the government ministries related to these practices. The conditions for the execution of exploration work set by the governing bodies and any agreement between the claim owners and concerned Aboriginal communities are followed rigorously.

The crew encountered smoke in the survey area on the morning of July $16^{\text {th }}, 2021$. They immediately evacuated the area and reported the incident to the Ministry of Natural Resources and Forestry. The final report from the MNRF had not been received at the time this report was written.

As part of the Abitibi Geophysics Inc. EHS program, crew members received first aid training and were provided with the safety equipment and specialized training for the induced polarization technique.

- TYPE OF SURVEY
- Configuration
- ACQUISITION (including installation)
- Coverage
- IP TRANSMItTERS (TX)

Time Domain Resistivity / Induced Polarization

OreVision ${ }^{\circledR}$ and OreVision3D ${ }^{\circledR}$ "a" = 25 m / "n" = $\mathbf{1}$ to 20

January $19^{\text {th }}$ to February $12^{\text {th }}, 2021$
Break (data quality)
May $5^{\text {th }}$ to July $\mathbf{2 1}^{\text {st }}, 2021$
Break (fire incident)
August $9^{\text {th }}$ to August 31 ${ }^{\text {st }}, 2021$
BIF Grid: $\mathbf{1 0 . 9 7 5} \mathbf{~ k m}$ of OreVision ${ }^{\circledR}$ \& $\mathbf{3 3 . 8 5} \mathbf{~ k m}$ of OreVision3D® Dorset Grid: $\mathbf{5 2 . 1 2 5} \mathrm{km}$ of OreVision3D®

IRIS Instruments TIPIX, s/n: 2, 7, 12, 14, 16, 17, 19 and 38 Maximum output: up to 2.2 kW or 13 A or 1800 V Power supply: Honda 2000 VA Electrodes: shape memory alloy Resolution: $\quad 1 \mathrm{~mA}$ on output current display Waveform: bipolar square wave with $50 \%$ duty cycle Pulse duration: 1 second


Figure 20. Transmitted signal across $\mathrm{C}_{1}-\mathrm{C}_{2}$.

IRIS Elrec-PRO s/n 104, 123, 131, 184, 269, 302, 331, 368 and 377
SwitchPRO96: $\mathrm{s} / \mathrm{n}$ 63, 69, 112, 113, 114 and 115
SwitchPRO240: $\mathrm{s} / \mathrm{n} 65$ and 71
Electrodes: shape memory alloy
$\mathrm{V}_{\mathrm{P}}$ Primary voltage measurement:
\& Input impedance: $\quad 100 \mathrm{M} \Omega$
$\triangleleft$ Resolution: $\quad 1 \mu \mathrm{~V}$
\& Typical accuracy: $0.2 \%$
$\mathbf{M}_{\mathrm{a}}$ Apparent chargeability measurement:
\& Resolution: $\quad 0.01 \mathrm{mV} / \mathrm{V}$
\& Typical accuracy: $\quad 0.4 \%$
$\diamond$ Linear sampling mode: 20 -time slices ( $\mathrm{M}_{1}$ to $\mathrm{M}_{20}$ )
$\diamond$ All gates are normalized with respect to a standard decay curve for QC in the field.


Figure 21. Linear windows (1 s pulse).

- APPARENT RESISTIVITY CALCULATION
- QUALITY CONTROL (Records avallable upon request)
$\rho_{a}=2 \cdot \pi \cdot \frac{V_{p}}{I} \cdot n \cdot(n+1) \cdot a(\Omega \cdot m)$
Cumulative error: 5\% max, mainly due to chaining accuracy.


## Before the survey:

$\checkmark$ Transmitter and motor generator were checked for maximum output using calibrated loads.
$\checkmark$ Receiver was checked using the Abitibi Geophysics SIMPTM certified and calibrated $\mathrm{V}_{\mathrm{P}}$ and $\mathrm{M}_{\mathrm{a}}$ signal simulator.

## During data acquisition:

$\checkmark R x$ and $T x$ cable insulation were verified every morning.
$\checkmark$ Data was reviewed using Prosys $\|^{\circledR}$ allowing a daily, thorough monitoring of data quality and survey efficiency.
$\checkmark$ Sufficient pulses were stacked: a minimum of 8 pulses for every reading.
$\checkmark$ A minimum of 6 current electrodes and saltwater were used at each station.

## At the Base of Operations:

$\checkmark$ Field QCs were inspected and validated.
$\checkmark$ Each IP decay curve was analyzed with our proprietary Geosoft GX, InteractiveAnomaly ${ }^{\oplus}$. The gates that were rejected were not included in the calculation of the plotted Ma .

The first step in processing OreVision and OreVision3D ${ }^{\text {® }}$ data is quality control. To ensure consistent and efficient quality control Abitibi Geophysics has developed InteractiveAnomaly ${ }^{\oplus}$. This Geosoft GX analyses the normalized decay curve for each reading within the data set. Only readings that successfully pass quality control will be used to calculate the final chargeability. Following this automated procedure, the apparent resistivity and apparent chargeability pseudosections are reviewed and further manual QC is conducted.

Table 3. Quality Statistics

| Grid | BIF | Dorset |
| :--- | :---: | :---: |
| Average contact resistance across $\mathrm{Rx}_{\mathrm{x}}$ dipole $\left(\mathrm{P}_{1}-\mathrm{P}_{2}\right)$ | $21.8 \mathrm{k} \Omega$ | $11 \mathrm{k} \Omega$ |
| Average injected current to $\mathrm{T}_{\times}$dipole $\left(\mathrm{C}_{1}-\mathrm{C}_{2}\right)$ | 1430 mA | 307 mA |
| Average $\mathrm{V}_{\mathrm{p}}$ measured across $\mathrm{R}_{\mathrm{x}}$ dipole $\left(\mathrm{P}_{1}-\mathrm{P}_{2}\right)$ | 243 mV | 1090 mV |
| Observed windows found to fit a pure electrode <br> polarization relaxation curve | $88 \%$ | $96 \%$ |
| Average deviation of the validated, normalized <br> windows with respect to the mean chargeabilities. | $0.9 \mathrm{mV} / \mathrm{V}$ | $0.3 \mathrm{mV} / \mathrm{V}$ |

## Appendix C: Data Processing and Deliverables

REs3D Inversion

Limitations of the 3D inversion TECHNIQUE

Quality control (QC) performed on the collected data validated 94\% and $97 \%$ of the recorded resistivity and chargeability readings over the BIF and Dorset Grids, respectively. The validated data were inverted using the Res3D software to recover the apparent resistivity and chargeability values. This software is capable of inverting 3D apparent resistivity and chargeability volumes using a regular grid of surface electrodes.

The software generates a model consisting of rectangular prisms (blocks) and applies a number of features for optimizing the leastsquares routine for faster completion on large datasets.

For this project, the modelled mesh blocks were divided by 25 m in easting ( X ), 6 m in northing ( Y ), and 3 m in depth ( Z downward). These modeling areas were overlain by topographical data and 10 padding cells were added on either side of the x and y axes.

Inversions cannot create information that is not already in the raw data set (pseudosections), i.e., the limitations of the technique and array that was used will still prevail. However, noise is efficiently rejected, near-surface effects are easily identified and complex responses, such as two adjoining sources, a wide body or a dipping geological contact, are well resolved.

In the absence of hard constraining data about the subsurface geometry of the mineralization and considering the non-uniqueness of the geophysical inversion methods, any recovered electrical distribution is only one of an infinite number of possible distributions that could explain the observed data.

Resistive sources

For chargeable and resistive sources, the depth extension may seem limited (the inversion seems to close at depth). This is a limitation of the electrical method and not of the inversion. Above a resistive body, the current lines are diverted to follow the easier (more conductive) path. Therefore, the investigation at depth is deficient in the contribution of the deeper part of the chargeable body. In fact, it can be assumed that these bodies extend at depth.

Gold index

Digital data

From the recovered resistivity and chargeability models from the 3D inversion, the Metal Factor has been calculated as follows:

Metal Factor (MF) $=($ chargeability $/ \sqrt{ }$ resistivity $) \times 1000$
This parameter particularly highlights regions of low resistivity and high chargeability usually associated with semi-massive to massive sulphides as well as gold associated with disseminated sulphides in sheared or faulted environments. Note that a conductive zone with little or no chargeable association will still result in a high Metal Factor. This signature would be typical of a shear zone (ionic conductor) where sulphides were destroyed, thus producing no chargeable anomaly. This type of Metal Factor anomaly should still be considered in precious metals exploration, even in the absence of changeable anomaly. The resistivity and chargeability data should always be consulted prior to drawing any conclusions from the Metal Factor. The Metal Factor does not highlight resistive and chargeable zones as well as the Gold Index.

The Metal Factor Maps (8.4) display the results of this calculation. The Metal Factor is included with the vertical sections for each line.

From the recovered resistivity and chargeability models from the 3D inversion, the Gold Index has been calculated as follows:

Gold Index (GI) $=\left(\right.$ Chargeability ${ }^{2} \times$ Resistivity / 1000)
This parameter particularly highlights regions of high resistivity and chargeability which are amenable to hosting disseminated sulphides in quartz veins or associated with silicified / carbonatized / albitization alteration zones. Note that a resistive zone with little or no chargeable association will still result in a high Gold Index. This signature would be typical of an indurated (very resistive) zone in which electrolyte could not circulate to charge the metallic grains due to a lack of porosity. This Gold Index anomaly should still be considered in precious metals exploration, even in the absence of changeable anomaly. The resistivity and chargeability data should always be consulted prior to drawing any conclusions from the Gold Index. The Gold Index does not highlight conductive and chargeable zones as well as the Metal Factor.

The Gold Index Maps (8.6) display the results of this calculation. The Gold Index is included with the vertical sections for each line.

The maps, pseudosections and true depth sections are delivered in the Oasis Montaj map file and PDF formats. The maps are also delivered in the PNG, MapInfo, GeoTIFF, DXF and ArcView file formats.

A copy of all survey acquisition data (ASCII text format), processed data (Geosoft Montaj databases) and the inversion voxels are also included. The inversion voxels are also delivered in the OMF file format.

Table 4. Maps Produced

| Map Number | Description | Scale |
| :---: | :---: | :---: |
| BIF Grid |  |  |
| 30 Plates$\text { L } 0+00 \mathrm{E} \text { to } \mathrm{L} 29+00 \mathrm{E}$ | Apparent Resistivity and Chargeability Pseudosections (PDF format only) | 1:2500 |
|  | Vertical Sections with calculated Metal Factor and Gold Index | 1:10 000 |
| 8.2b_400 | Inverted Resistivity at an Elevation of 400 m ( $\Omega$.m) | 1:5000 |
| 8.2b_350 | Inverted Resistivity at an Elevation of 350 m ( $\Omega . \mathrm{m}$ ) | 1:5000 |
| 8.3b_400 | Inverted Chargeability at an Elevation of $400 \mathrm{~m}(\mathrm{mV} / \mathrm{V})$ | 1:5000 |
| 8.3b_350 | Inverted Chargeability at an Elevation of $350 \mathrm{~m}(\mathrm{mV} / \mathrm{V}$ ) | 1:5000 |
| 8.4b_400 | Calculated Metal Factor at an Elevation of 400 m | 1:5000 |
| 8.4b_350 | Calculated Metal Factor at an Elevation of 350 m | 1:5000 |
| 8.6b_400 | Calculated Gold Index at an Elevation of 400 m | 1:5000 |
| 8.6b_350 | Calculated Gold Index at an Elevation of 350 m | 1:5000 |
| 10.0b | Geophysical Interpretation | 1:5000 |
| Dorset Grid |  |  |
| 40 Plates <br> L $1+00 \mathrm{~W}$ to L $38+00 \mathrm{E}$ | Apparent Resistivity and Chargeability Pseudosections (PDF format only) | 1:2500 |
|  | Vertical Sections with calculated Metal Factor and Gold Index | 1:10 000 |
| 8.2d_400 | Inverted Resistivity at an Elevation of 400 m ( $\Omega . \mathrm{m}$ ) | 1:5000 |
| 8.2d_350 | Inverted Resistivity at an Elevation of $350 \mathrm{~m}(\Omega . \mathrm{m})$ | 1:5000 |
| 8.2d_300 | Inverted Resistivity at an Elevation of $300 \mathrm{~m}(\Omega . \mathrm{m})$ | 1:5000 |
| 8.3d_400 | Inverted Chargeability at an Elevation of $400 \mathrm{~m}(\mathrm{mV} / \mathrm{V})$ | 1:5000 |
| 8.3d_350 | Inverted Chargeability at an Elevation of $350 \mathrm{~m}(\mathrm{mV} / \mathrm{V}$ ) | 1:5000 |
| 8.3d_300 | Inverted Chargeability at an Elevation of $300 \mathrm{~m}(\mathrm{mV} / \mathrm{V})$ | 1:5000 |
| 8.4d_400 | Calculated Metal Factor at an Elevation of 400 m | 1:5000 |
| 8.4d_350 | Calculated Metal Factor at an Elevation of 350 m | 1:5000 |
| 8.4d_300 | Calculated Metal Factor at an Elevation of 300 m | 1:5000 |
| 8.6d_400 | Calculated Gold Index at an Elevation of 400 m | 1:5000 |
| 8.6d_350 | Calculated Gold Index at an Elevation of 350 m | 1:5000 |
| 8.6d_300 | Calculated Gold Index at an Elevation of 300 m | 1:5000 |
| 10.0d | Geophysical Interpretation | 1:5000 |

Vertical sections are bound, and colour maps are inserted in pouches at the end of this report. Our Quality Control System requires every final map to be inspected by at least two qualified persons before being approved and included within a final report.
$\square$

## Appendix II

3-D Induced Polarization Profiles / Vertical Sections





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## Appendix III

Plan View Maps of Chargeability and Resistivity










[^0]:    ${ }^{1}$ Geological information was obtained from "GUS 43-101 Technical Report on the Wawa Property, February 2020." and from the corporation presentation available on the Angus Gold website (https://www.angusgold.com/assets/pdf/2021-10-01-GUS-CP.pdf).

