Pelly Ground Magnetics

105G/08, 105G/09 Yukon, Canada

WORK PERFORMED:
August 11-24, 2020

Prepared for:

BMC MINERALS

Prepared by:

AURORA GEOSCIENCES

Field Report
Pelly Ground Magnetics

Prepared for:
BMC Minerals (No.1) Ltd
Suite 750-789 West Pender Street
Vancouver BC V6E 1H2

Prepared by:
Aurora Geosciences Ltd.
34A Laberge Road, Whitehorse, Yukon, Y1A5Y9
Phone: (867) 668.7672 Fax: (867) 393.3577
www.aurorageosciences.com

Contents

1 SUMMARY

This report describes the total magnetic field ground survey conducted for BMC Minerals Ltd. on the Pelly claims, Yukon in August of 2020. The survey was planned as a detailed follow up to airborne geophysics collected in the same area five years earlier.

A 4-person crew left Whitehorse, YT on August 11, 2020 arriving at Kudz Ze Kayah (KZK) camp via the Robert Campbell highway. The survey area is 15 km due east of KZK camp and was accessed by daily helicopter set outs. Data collection was carried out over 12 days and the crew returned safely to Whitehorse on August 24, 2020.

2 CREW AND EQUIPMENT

The following personnel conducted the survey:

Shawn Scott	Senior Geophysical Technician	August 11- August 24, 2020
Andre Lebel	Geophysicist	August 11- August 24, 2020
Kristoffer Korol	Geophysical Technician	August 11- August 23, 2020
Alex MacDonald	Geophysical Technician	August 11- August 23, 2020

The crew was equipped with the following instruments and equipment:

Magnetometers:	7	-	GSM-19 magnetometers (S/N: 979, 980, 981, 810, 261, 134, 694)
	4	-	Walk-mag harnesses and accessories
	2	-	12 volt batteries and chargers
Other Equipment:	1	-	Flatbed truck
	1	-	Laptop with Oasis Montaj
	4	-	Delorme InReach
	4	-	Bear spray and bear bangers
	4	-	Handheld Garmin GPS

3 SURVEY LOCATION

The Pelly claims are located between 15 km and 20 km due east of KZK camp, on the north-eastern shore of Wolverine Lake, Yukon, approximately 130 km southeast of Ross River, Yukon. A polygon outline of the claims and target areas was supplied by BMC. An initial plan of 242 line-kilometres were laid out at an azimuth of 63°. An additional 73 line-kilometres at the same azimuth were added later for a total of 315 line-kilometres. Four tie-line segments were surveyed, roughly perpendicular to the survey lines totaling an additional 18 kilometres.

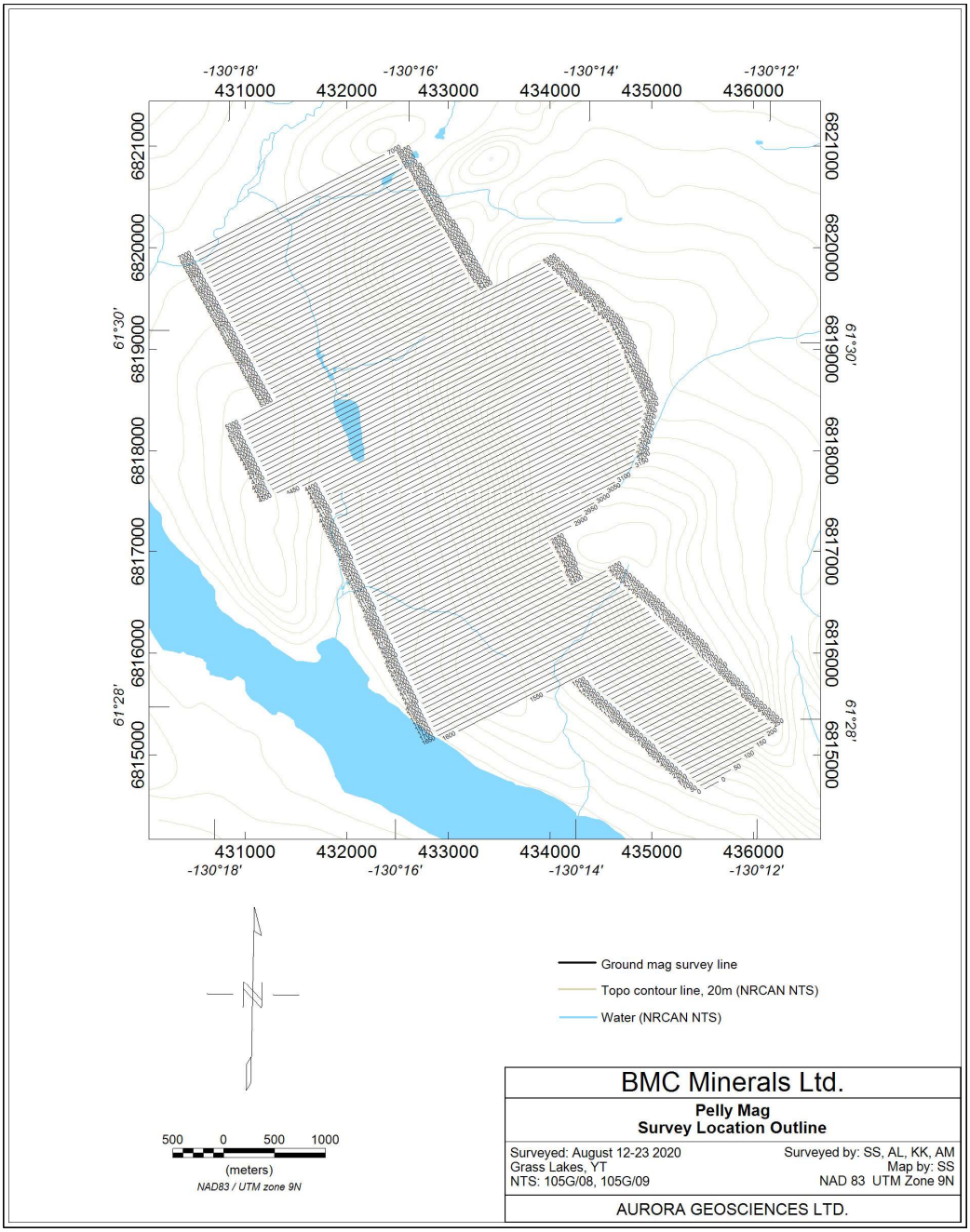


Figure 1: Survey location outline

4 SURVEY SPECIFICATIONS

The survey was performed with the following specifications:

Geographic datum & projection:	NAD83, UTM Zone 9N
Line Spacing:	50 m
Reading cycle:	1 reading every 1 second
Temporal geomagnetic variation:	The base station was installed in a magnetically quiet area and cycled at 3 seconds. Base station and field magnetometers were synchronized daily to GPS time prior to surveying. Temporal geomagnetic variation was removed by linear interpolation and subtraction of the base station drift.
Noise threshold:	The survey would have been suspended if geomagnetic variation exceeded 10 nT over 10s on a sustained basis. No data were collected when geomagnetic noise exceeded this specification and therefore no data were removed from the final data set.

5 SURVEY OPERATIONS AND DATA COLLECTION

Data collection began on August 12, 2020 and was completed on August 23, 2020. A control grid was established in a magnetically quiet area several hundred metres from camp. 20 stations were read by each operator each morning to establish an independent daily offset to be applied to all data recorded by that operator.

A pair of base magnetometers were set up down a quiet side road away from camp. The base magnetometers were cycled to take a reading every 3 seconds to record diurnal variations. The area chosen was originally slated to have no traffic on the road, but several vehicles did drive by on August 20. These spikes were removed from the base data and the gaps were interpolated from the otherwise quiet dataset.

Base Station S/N	Easting (NAD 83 Zone 9)	Northing (NAD 83 Zone 9)
134 (Primary)	413981	6819407
694 (Backup)	413971	6819385

Table 1: Base magnetometer locations

The target area was surveyed starting with the southernmost lines and progressed northwards. In the event that a full line was surveyed in segments by multiple operators or on multiple days, an area of overlap of at least 20 metres was surveyed so they could be levelled to each other. Overall, the majority of the grid was surveyed; the only exceptions are the small lake on the west side of the grid and some small gaps where the crew were forced to walk around dangerous cliff bands.

6 DATA PROCESSING

The mag data were downloaded at the end of each survey day and the raw, unedited data archived. A copy of the data was then corrected for diurnal variations using recordings from the base magnetometer. Each data point was georeferenced using coordinates collected during the survey with non-differential handheld GPS units.

Profiles of the corrected magnetic data were reviewed on a line by line basis to check for data integrity. Daily control readings collected were used to create a daily offset for each operator. Overlap areas were used to create an offset between multiple operators or daily files. Tie line data were used to create line-by-line offset values that were applied selectively to reduce the introduction of new error. Occasional hardware or operator error that appear as traceable sudden offsets on a single file were corrected by static shift addition. Any remaining corrugation was filtered using the Oasis Montaj Microlevelling function.

Plan images of the total magnetic field were produced using Geosoft's Rangrid (minimum curvature) gridding algorithm with a cell size of 12.5 m.

7 PRODUCTS

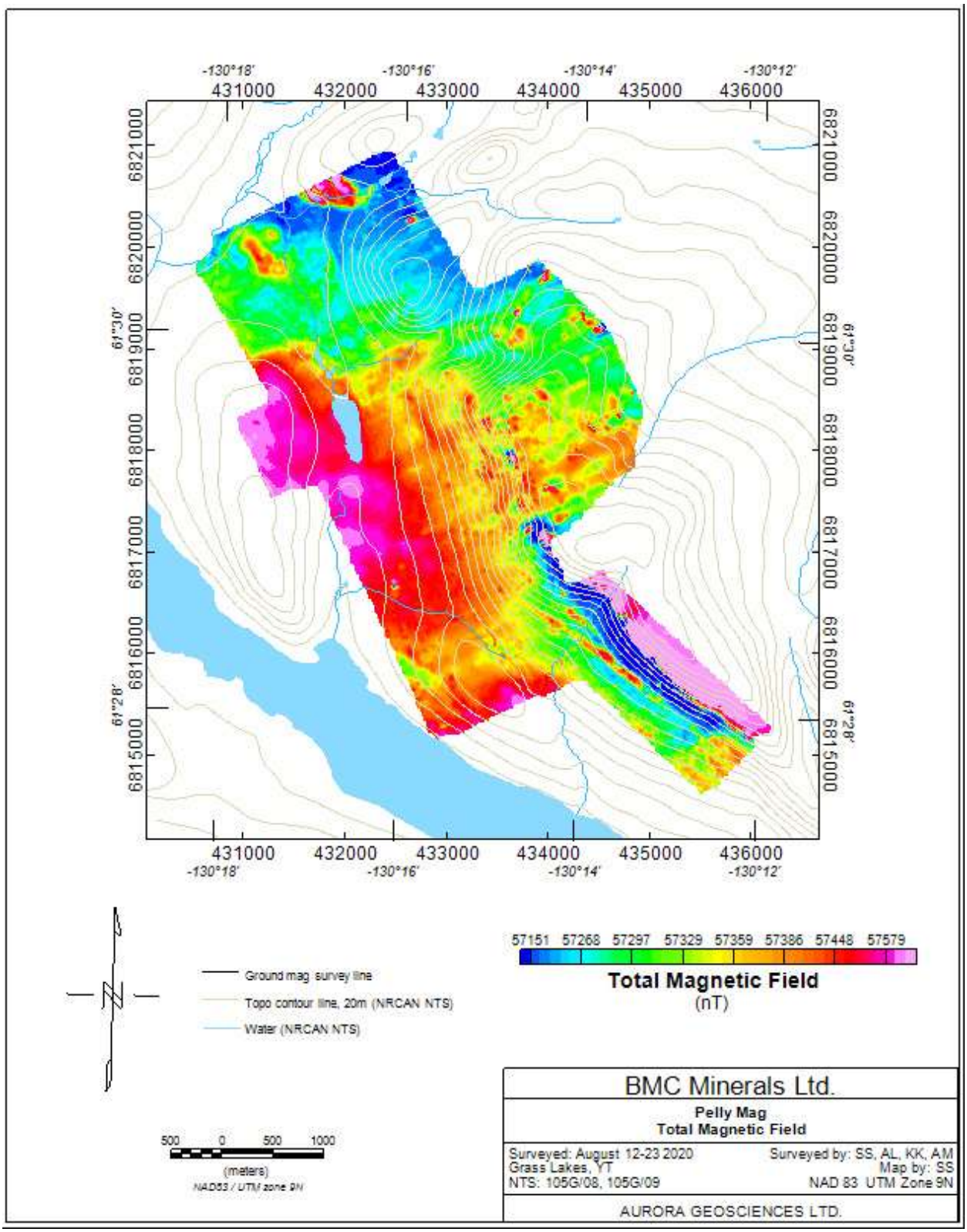


Figure 2: Total magnetic field

The following are attached to the digital version of this report:

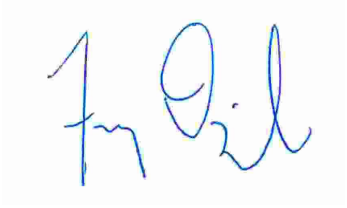
Folder	File Name	Description of Contents
Documents\	*BMC-20200908-Pelly_Mag_Crew_Log.pdf*	Crew log in PDF format
Documents\	*BMC-20200908-Pelly_Mag_Field_Report.pdf*	A copy of this report in PDF format
Final Products\	*BMC-20200908- Pelly_Mag_*.pdf*	Maps in PDF format
Processed Data\Images	*BMC-20200908- Pelly_Mag_TMF**	Gridded mag data in Geosoft grid and geoTIFF formats
Processed Data\Database	*BMC-20200908- Pelly_Mag_TMF**	Processed final database in Geosoft and ASCII formats

Respectfully submitted,
Aurora Geosciences Ltd.

_____

Shawn Scott,
Senior Geophysical Technician

Reviewed by



_____

Franz Dziuba,
Project Manager - Geophysics