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REPORT ON 3D ALPHA IP WIRELESS TIME DOMAIN DISTRIBUTED INDUCED POLARIZATION SURVEY

LINGMAN LAKE PROPERTY
DISTRICT OF KENORA (PATRICIA PORTION),
ONTARIO, CANADA

LATITUDE 53.86221° N
LONGITUDE 92.89163° W

PREPARED FOR
SIGNATURE RESOURCES LTD.

MAY 3, 2023

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1.0 SUMMARY

This assessment report documents the results of a 3D Alpha IP - Wireless Time Domain Distributed Induced Polarization Survey conducted on Signature Resources' Lingman Lake gold property. The Lingman Lake property is located approximately 325 km north of the town of Red Lake, Ontario, in the District of Kenora, on NTS map sheet 53F/14 and 15 and centered at 92.89163° W and 53.86221° N or in UTM NAD 83 co-ordinates Zone 15U 507126 mE, 5968196 mN. The primary commodity sought being gold.

The report presents the technical operational logistics and the results from field data acquisition, and data processing and analysis by Simcoe Geoscience Ltd. of its proprietary IP system. The 3D Alpha IP Wireless Time Domain Induced Polarization survey was completed over a period of 45 days, June 13th-July 9th, & Oct. 21st - Nov. 7th, 2021. The survey timeline was impacted in early July due to numerous forest fires in northwestern Ontario. Under Emergency Area Order EAO 2021-13 declared on July 14, 2021, certain activities which included IP surveying were prohibited in Designated Fire Restriction Zones. This restriction effectively shut-down Signature's summer exploration program.

The 3D Alpha IP survey covered 36 claims (Table 1) over an area of 392.6 hectares, under permit PR-18-000120, with ninety (90) measuring dipoles spaced at 50 m north-south and 100 m east-west with 370 current injection points distributed between the potential electrodes. The potential electrodes were deployed in an area of 2.6 km by 1.5 km (3.93 km^2) with lateral extents of the current transmission electrodes equal to 3.5 km east-west grid offsets and 1.9 km north-south grid offsets.

TABLE 1. LIST OF CLAIMS COVERED BY 3DIP SURVEY.

Claim	Claim	Claim	Claim
PAT-40606	PAT-8075	177732	263837
PAT-40607	PAT-8076	194856	271376
PAT-40608	100973	194857	271377
PAT-40609	101564	198219	279710
PAT-8070	102862	204582	284295
PAT-8071	121022	212173	293094
PAT-8072	128988	224201	340569
PAT-8073	129624	261473	343229
PAT-8074	165490	263391	603560

The exploration objectives of the Alpha IP survey were to map the chargeability and resistivity responses associated with disseminated and semi-massive sulphides associated with structurally controlled gold mineralization similar in the West Zone, North Zone, Central Zone, South Zone and 11650N Zone and use their electrical signatures to target interzonal areas, depth extensions and strike extensions.

The survey was performed by Simcoe Geoscience Ltd. under the supervision of Riaz Mirza, P. Geo., Director, and Geoscientist of the company, which in large part was responsible for Section 8 of this report.

Walter Hanych, P. Geo., consultant to Signature Resources Ltd. and 'Qualified Person' defined the extent of the survey and assisted in data initial interpretations, compilations, and information relative to producing this report.

The survey has successfully detected and characterized geophysical signatures possibly related to economic mineralization including:

- Strong IP responses associated with low resistivity and moderate/high magnetic susceptibility. The anomalies in this group are potentially related to structurally controlled sulphide and gold mineralisation similar to North, West, South and 11650N shear–alteration gold mineralized zones documented at the Lingman Lake property.
- Moderate/weak IP responses associated with moderate/high resistivity and moderate/weak magnetic susceptibility. The anomalies in this group are potentially related to structurally controlled sulphide and gold mineralisation similar to the Central gold mineralized zones documented at the Lingman Lake Property.
- Moderate IP response associated with moderate to low resistivity values from surface to ~ 500 m, which are not particularly related to known mineralized zones in the property. The responses are consistent with disseminated mineralization with potential for structurally controlled gold and sulphide mineralization, usually offset from known and interpreted geological structures and faults.
- Deep (>300 m) moderate IP responses with moderate to low resistivity values and anomalous magnetic susceptibility highs.

Recommendations include a detailed GIS compilation of drill data, IP data and Magnetometer data. Detailed mapping of the area covered by the survey is also recommended to complement the GIS compilation. Recommendations are outline in Section 9.

2.0 INTRODUCTION

This Technical Report, with an effective date of May 3, 2023, was prepared for Signature Resources Ltd. ("Signature Resources", the "Company"). Signature Resources is a TSX Venture Exchange ("TSXV"), OTCQB and Frankfurt Stock Exchange listed company, located at 401 Bay Street, Suite 2704, Toronto, Ontario, M5H 2Y4. In 2021, Signature Exploration Ltd., a wholly owned subsidiary of Signature Resource Ltd. retained Simcoe Geoscience Ltd. to conduct a 3D Alpha IP Wireless Time Domain Induced Polarization survey over and around claims encompassing the Lingman Lake Patents. The historical Lingman Lake gold mine is located on PAT- 40606 (Figure **7**) and as whole, the project is referred to as Lingman Lake Property. The Property is located in the District of Kenora (Patricia Portion), Red Lake Mining District, Ontario, Canada (the "Property").

The Property covers 21,153-hectares consisting of 1,300-staked claims, 14-mineral rights Patented claims and 4-surface and mineral rights Patented claims. The claims are held by Signature Exploration Ltd. (Client No. 413102) a wholly owned subsidiary of Signature Resources Ltd.

The 3D IP survey survey covered 36-claims which includes the four surface and mineral rights Patents, seven of the mineral rights Patents and twenty-five Crown staked claims under permit PR-18-000120.

The historical Lingman Lake Gold Mine, an underground sub-structure that was developed in the 1940s, and as mentioned occurs on Patented Claim-40606. This substructure includes a three-compartment 131-metre-deep shaft which serviced three levels at depths of forty-six metres (150 Level), eighty-four metres (275 Level) and 122 metres (400 Level. These workings are contained within the area of the four full patents. Past drilling campaigns and underground exploration defined several mineralized zones which contain significant gold concentrations; these zones are referred to as the North Zone, Central Zone, South Zone, West Zone and 11650N Zone.

3.0 PROPERTY DESCRIPTION & LOCATION

3.1 Location

The Property is located in the District of Kenora (Patricia Portion) in northwestern Ontario 325 kilometres north of the Town of Red Lake (Figure **1**) and within the Red Lake Mining District (Lingman Lake, North of Lingman Lake, Seeber Lake, Vanderbrink Lake, Ponask Lake, South of Ponask Lake Areas). The Property is centered on UTM coordinates 507286 mE, 5968756 mN (Datum: NAD 83, Zone 15N) on NTS Sheet 53 F/15E (Figure **2** and Figure **3**).

The Lingman Lake gold property is located in the District of Kenora (Patricia Portion) in northwestern Ontario, 325-kilometres north of the Town of Red Lake and within the Red Lake Mining District. The Property is centered on UTM coordinates 507286 mE, 5968756 mN (Datum: NAD83, Zone 15N) The Property is situated within the traditional lands of the Red Sucker Lake First Nation ("FN") and the Sachigo Lake FN (Figure **4**).

FIGURE 1. GENERAL LOCATION MAP

3.2 Mineral Tenure

Effective the date of this report, the Property covers approximately 21,153-hectares and consists of 1,300-unpatented (single cell) mining claims (20,869 hectares), four full (mining and surface rights) patented claims (78.5 hectares) and 14-partial (mining rights only or "MRO") patented claims (275.5 hectares). The claims form a contiguous fabric that extends 32-kilometres in an east-west direction and 15-kilometres in a north-south direction (Figure **5**).

The claims are registered with Signature Exploration Ltd., client number 413102, a wholly owned subsidiary of Signature Resources Ltd.

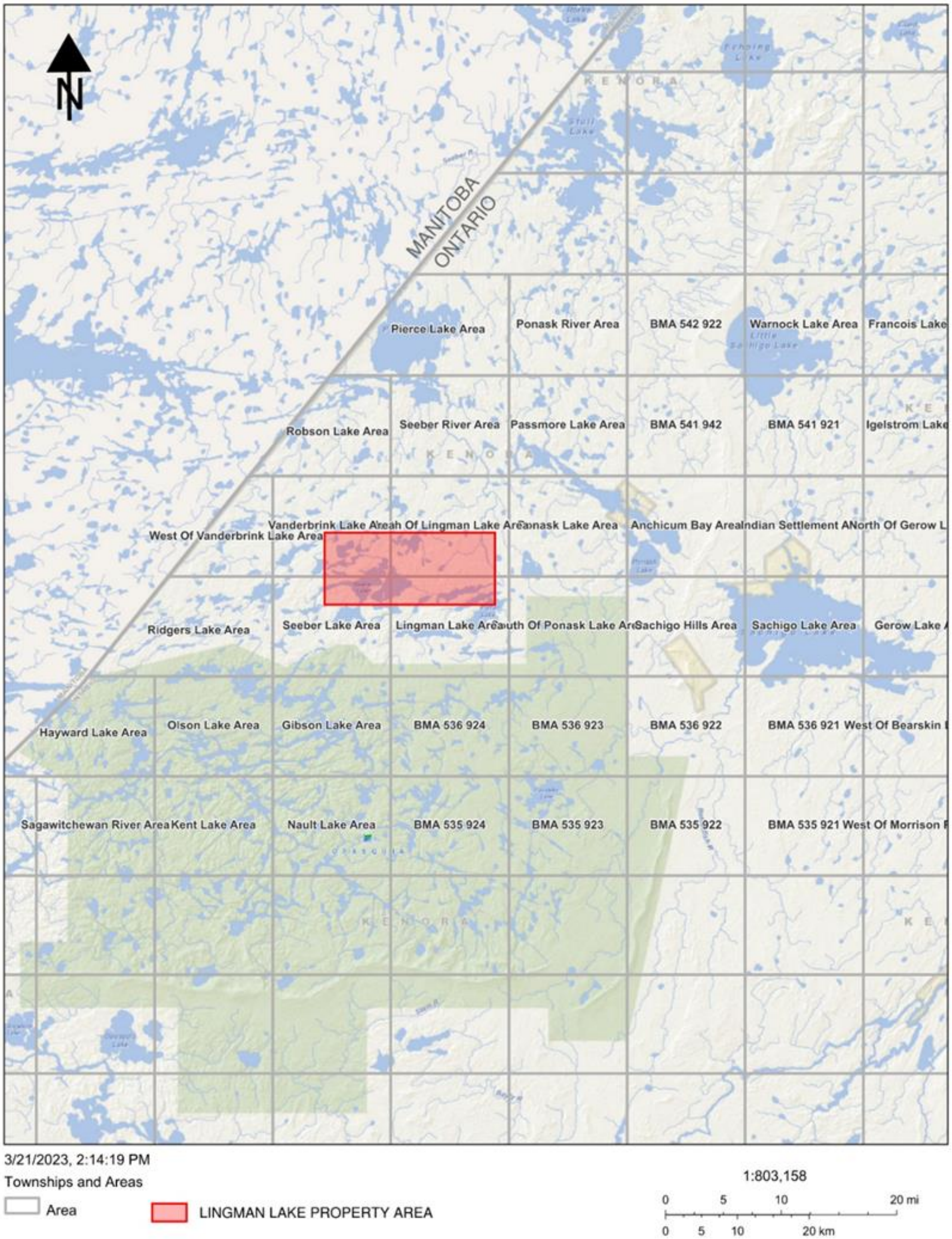

FIGURE 2. AREA REFERENCE MAP

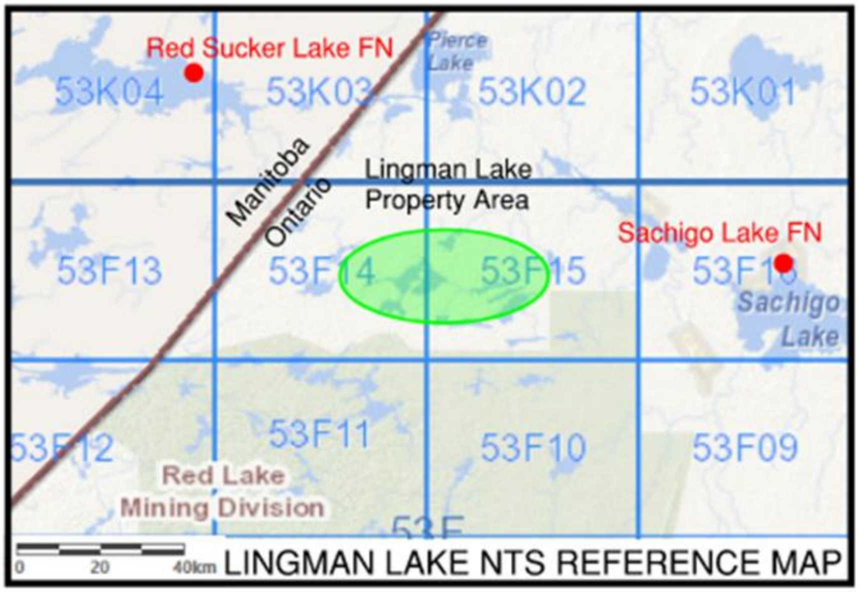

FIGURE 3. NTS REFERENCE MAP

FIGURE 4. LINGMAN LAKE PROPERTY IN RELATION TO FIRST NATIONS COMMUNITIES

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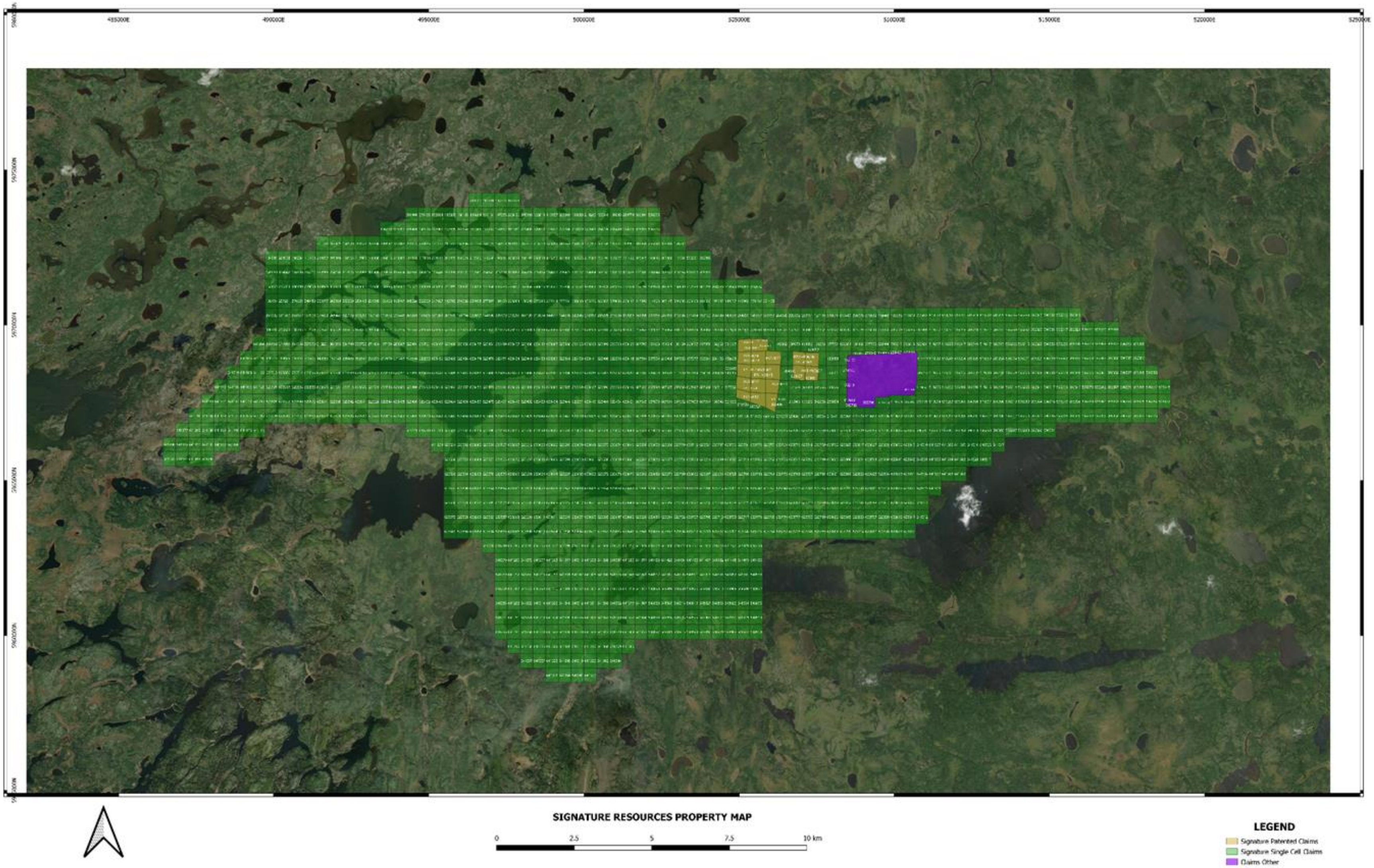

FIGURE 5: PROPERTY MAP

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY

4.1 Access

The Property is in a remote site with no all-weather roads leading into it. It is best accessed by float- or ski-equipped aircraft, or by helicopter. Charter aircraft are available from the Town of Red Lake, 325 kilometres south, from the First Nations ("FN") communities of Red Sucker Lake, MB (55 kilometres northwest) or Sachigo Lake, ON (45 kilometres east) or from Island Lake/Garden Hill, MB (110 kilometres west). The fixed wing aircraft are capable of landing on Lingman Lake; thence personnel or material are transferred to the area of the Lingman Lake mine site by ATV or muskeg tractor.

During the winter season access can be gained by a winter trail providing that the ground along this route is prepared for snowmobile travel. The trail originates at Red Sucker Lake FN, MB, and traverses easterly just south of Pierce Lake where it changes direction and heads south passing northeast of Seeber Lake and then southeasterly to the Lingman Lake mine site (Figure 6). The total distance of this overland and partial lake route is eighty-two kilometres. The Red Sucker Lake FN is linked by a winter road originating at the community of Norway House, MB, located near the northeast corner of Lake Winnipeg.

4.2 Climate

The climate is typical of mid-northern Canada between latitudes 53^{o}N and 57^{o}N with cold dry winters and warm summers with occasional hot days. The nearest reporting weather station (Weather Station ID 3880) is located at Island Lake/Garden Hill Airport (IATA Code: YIV) 110-kilometres to the west of the Property. The climate data presented below are the 1981-2010 Canadian Climate Normals for that station.

The average mean temperatures for these latitudes, in the continental interior, are for the coldest month, January, -21.5^{o} C (daily range: -26.6^{o} C to -16.4^{o} C), and for the hottest month, July 17.9^{o} C (daily range: 12.8^{o} C to 22.9^{o} C). The average annual mean temperature is -0.7^{o} C.

The average annual precipitation is 555.1-millimetres. The month of July receives the most precipitation with 92.8-millimetres of rainfall. Average mean snow depth (November to April) is 32.3-centimetres, with the maximum snowfall occurring between November and December when snowfall totals 65-centimetres for the period. In general, snowfall commences in October and ends in May. Exploration on the Property can be undertaken throughout the year; however, for safety reasons related to medical evacuation, a hiatus in work would occur during "freeze-up" and "break-up," which varies in length from 15 to 25 days. Ice conditions during these intervals negate the availability of fixed wing aircraft for logistical support; this may be overcome by the utilization of helicopters during these periods.

4.3 Local Resources and Infrastructure

There is no on-site infrastructure at the Lingman Lake mine site. Signature Resources has re-conditioned a large garage building which is currently serving as the core-logging facility. The company also has a tent camp capable of housing up to sixteen personnel which includes a kitchen tent and dry facility.

The Property does host an underground sub-structure that includes a 131-metre shaft, 998-metres of drifts, 235-metres of crosscuts, and 278-metres of raises. The current condition of the underground workings is not known. A portion of the shaft collar has collapsed into the shaft.

Red Sucker Lake FN, the Oji-Cree community, is located 55-kilometres northwest of the mine site, in Manitoba. With a population of 1,067 and an economic base sustained by trapping and commercial fishing, it is limited in its capacity to support an extensive infrastructure. The community hosts a modern nursing station (opened June 6, 2019) and a commercial airport (IATA Code: YRS) with a 1,082-metre (3,550 foot) crushed rock airstrip (refurbished 2018). Scheduled air service is provided daily by Perimeter Aviation LP with flights originating in Winnipeg, MB (IATA Code: YWG). The community also maintains its own float plane base located south of the community on Red Sucker Lake and operates a de Havilland DHC-2 Beaver for charter service.

The closest community to the Lingman Lake mine site is the Oji-Cree community located at Sachigo Lake FN, located approximately 45-kilometres east of the mine site. With a population base of 403, the settlement has undertaken economic initiatives which include the construction of a business complex centre for the community. The community is serviced year-round by air with flights to Sioux Lookout, ON, Thunder Bay, ON and Winnipeg, MB.

A trail/bush road was constructed in the mid 2000s to access the Lingman Lake area from the Sachigo Lake FN. This trail extends north of the community then west and south traversing just west of Sachigo Lake. From here, a west leading branch of the trail passes south of Ponask Lake ending up at the east bank of a small river that drains into the northwest sector of Anchicun Bay of Ponask Lake, 20.3-kilometres east of the Lingman Lake mine site.

The Property is situated 325-kilometres north of the Town of Red Lake, Ontario. Red Lake has a long history of servicing the gold mining industry. Within the Red Lake area, over seventeen gold mines have operated, the four largest of these being the Campbell, the Madsen, the Dickenson, and the Cochenour-Williams Mines. The Mining Recorder's Office and Regional Geologist's offices for the Red Lake Mining District are located in Red Lake. The lakes within the town area serve as float-plane bases for operators catering to the remote regions and chartered aircraft can be obtained from these operators to fly into Lingman Lake.

4.4 Physiography

The vegetation is typical of a Boreal Forest; spruce, jack pine, tamarack, birch, and poplar are the most common trees. Alders occupy swampy and poorly drained areas. Numerous lakes function as the drainage basins for abundant streams and rivers. Seeber, Manikoman, Durrell, Pullman and Lawson Lakes drain into Lingman Lake which in turn empties into the Seeber River at the lake's northeast end. The overall drainage is northerly into the Arctic watershed.

Three smaller lakes are situated within the immediate area of the Lingman Lake mine site. Referenced to the shaft collar, Shoe Lake is located 675-metres northwest, Base Lake is located 535-metres southwest, and Mud Lake is situated 680-metres east. The largest of these is Shoe Lake, covering an area of 9.1-hectares, followed by Base Lake at 6.3-hectares and Mud Lake at 2.9-hectares.

Topographic relief in the area is low and gradual. Lingman Lake is at an elevation of 250-metres amsl, while the highest point on the property, 1,500-metres north of the lake, in the vicinity of the shaft collar, attains an elevation of 284-metres amsl.

Overburden of poorly sorted till consisting of sand to gravel sized clasts averages 3.0-metres in thickness. The deepest overburden encountered in drilling occurs southeast of the east end of the South Zone and is over ten metres thick. A 10-kilometre long, north-northeast trending esker bisects Seeber Lake. The trend of the esker reflects glacial striae trends of 010^{o}, indicating a southward advancing ice sheet (Wilson, 1987).

5.0 HISTORY

Despite its relative remoteness, the Lingman Lake greenstone belt has been prospected since the mid to late 1930s. Gold showings were worked in the vicinity of the Lingman Lake mine and although the historical records are vague, there is reference to a stamp and grinding mill operating on the property in the late 1930s (JWEL, 1986). A map dated 1939, shows two veins, the No. 12 and No. 15 vein, which correlate with what is currently referred to as the 11650N Zone and South Zone respectively.

The onset of the Second World War interrupted most prospecting activity throughout the nation, and it was not until 1945 that the area received renewed interest. Lingman Lake Gold Mines Limited was incorporated and the company acquired 21 claims which were consolidated into the Lingman Lake property. Aggressive exploration campaigns were undertaken in the period from 1945 to 1949. The initial drilling (first 15 holes) appears to have been directed at testing the so-called No. 12 and No. 15 Veins discovered and worked in the late 1930s. Exploration shifted northward, and with the discovery of the North Zone, prompting surface and underground diamond drilling and underground workings which delineated the North and South Zones. These zones at this time were reported to host a ‘historical’ resource of an estimated 134,263 tonnes of material grading 14.1 g Au/t gold (**see Cautionary note**).

Cautionary Note: *The quantity reported as a ‘historical’ resource estimate is based on prior data and reports obtained by previous operators, and information provided by governmental authorities:*

I. A Qualified Person has not done sufficient work to verify the classification of the mineral resource estimates in accordance with current CIM categories.

II. *The Issuer is not treating the 'historical' estimate as a current NI 43-101-compliant mineral resource estimate. Establishing a current mineral resource estimate will require further evaluation.*

By 1949, the project was deemed to be sufficiently advanced that the company sought financing to bring the mine into production. Unfortunately, their efforts at financing failed and the operations at the mine were initially suspended and eventually shuttered.

The property remained idle during the interval 1949 to 1974. Then in late 1976, the prevailing economic conditions provided the catalyst for the company to seek financing to bring the Lingman Lake mine into production. The original company structure was re-organized under the name of Lakelyn Mines Limited. Unfortunately, these efforts were unsuccessful.

The most concentrated effort to finally bring the Lingman Lake mine to production occurred in the period from 1986 to 1990. By 1986, the company was organized as Twin Gold Mines Limited and, in that year, it entered into an option agreement with Massive Energy Limited and its wholly owned subsidiary, Agassiz Resources Ltd. Agassiz Resources acquired control of Twin Gold Mines and Massive Energy financed three diamond drill campaigns in 1987, 1988 and 1989, commissioned a "pre-feasibility"/scoping study, and three resource estimates. This work generated sufficiently encouraging results prompting the companies to mobilize fuel, hoisting components, head frame architecture, electrical generators, and various other equipment necessary to de-water the mine. Unfortunately, by 1991, weak equity markets and a prolonged economic downturn impacted the project to such an extent that all the companies involved in the project were eventually delisted from their respective exchanges and became insolvent by 1993.

With the abandonment of the property, various legal claims and proceedings were initiated; in time, environmental concerns surfaced regarding the integrity of the fuel storage tanks and the property was listed as an environmental liability and mine hazard site under the Abandoned Mines Inventory Survey. Between 1994 and 2010 these overriding issues effectively hindered exploration and development of the property. Resolution to these issues was achieved in late 2010 and early 2011 through various agreements.

The environs of the Property have been the subject of Ontario Government geological mapping programs since the 1930s (*e.g.,* Satterly and Meen, 1937; Bennett and Riley, 1969; Wilson, 1987; Stone, 2005).

Exploration work on the Property since that time has been documented in detail by Hanych and Racicot (2013), Selway (2017), Hanych and Selway (2017) and Komarechka and Hanych (2017). Subsequent to the exploration activities discussed in those reports, the Company has carried out compilation studies, airborne magnetic and Matrix VLF-EM surveying, diamond drilling, 3D IP and ground magnetometer surveying, all which, with the exception the IP and ground magnetometer survey, are summarized in a current National Instrument 43-101-compliant Technical Report (Siriunas and Hanych, 2019).

Company	Time Frame Year(s)	Drill Holes	Total Metreage
Lingman Lake Gold Mines	1945-1949	79 surface	11,174
		117 U/G	2,355
Lakelyn Mines Limited	1973	1	302
Massive-Agassiz-Twin Gold	1987	76	12,352
Massive-Agassiz-Twin Gold	1988	67	12,669
Massive-Agassiz-Twin Gold	1989	45? (34-known)	3,715
Echo Bay Mines	1996	11	1,999
Signature Resources	2018	12	1,501
Signature Resources	2021	27	5,520
Total surface drilling		268 U/G not included	51,587 U/G not included

TABLE 2: SUMMARY OF DIAMOND DRILL CAMPAIGNS

6.0 GEOLOGICAL SETTING and MINERALIZATION

6.1 Regional Geology

The Property is situated in the Lingman Lake volcano-sedimentary ("greenstone") belt within the Island Lake Domain of the North Caribou Terrane ("NCT") in the western part of the Superior Province (Stott *et al.* 2010; (Figure 6); previous nomenclature variously refers to the Sachigo, Berens River, and Gods Lake sub provinces as geological subdivisions in this principal sector of the Superior Province. The NCT has a central core that is dominated by batholiths of Mesoarchean age (2.8 Ga to 3.1 Ga). The Island Lake Domain and the Uchi Domain are thought to represent subsequent younger crust that was added to the northern and southern margins respectively of the NCT (*ibid.*). Several narrow, yet important, greenstone belts (including Lingman Lake and Red Lake) are preserved within the NCT (Siriunas and Jobin-Bevans, 2019).

As described by Wilson (1987), the supracrustal rocks in the Lingman Lake Greenstone Belt ("LLGB") consist of a sequence of steeply dipping, interbedded mafic to felsic (meta) volcanic rocks with associated clastic and chemical (meta) sedimentary rocks. The stratigraphy is dominated by mafic volcanic rocks. The volcanic and sedimentary rocks are intruded by a suite of intrusive rocks, often porphyritic, of intermediate to felsic composition. Supracrustal rocks in the LLGB may be contemporaneous with those of the Island Lake Greenstone Belt which lies to the west (Parks *et al.*, 2003).

All the rocks, both inside and outside of the belt, are cut by a series of eastward to south-eastward, steeply dipping, strike-slip faults which acted as channels for ascending hydrothermal fluids (Wilson, 1987). There appears to be a strong spatial relationship of these faults alongside the axis of the Seeber syncline. The faults are evident by *en echelon* dextral displacements of a north-northeast trending diabase dike, which passes just west of the shaft collar of the Lingman Lake Gold Mine. The greatest displacement of the dike occurs along 1.0 kilometre of its length where individual displacements of up to one hundred metres have been noted (Figure 7 and Figure 8).

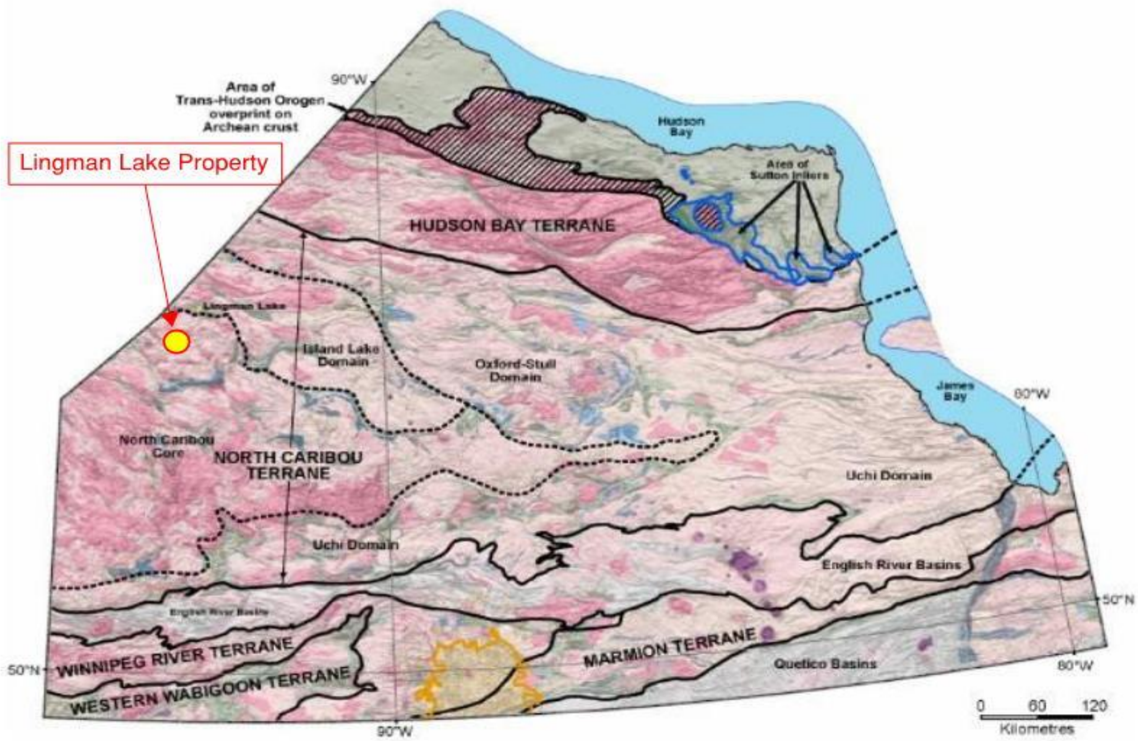

FIGURE 6: SUBDIVISIONS OF TERRANES AND DOMAINS IN THE WESTERN SUPERIOR PROVINCE

6.1 Property Geology Lingman Lake Mine

The Property hosts an historical mineral resource estimate of 234,684 oz of gold (1,063,904 tonnes grading 6.86 g Au/t at a 2.73 g Au/t cut-off) and includes what has historically been referred to as the Lingman Lake Gold Mine, an underground substructure consisting of a 126.5-metre shaft and three levels of development at depths of 46 m (the “150 Level”), 84 m (the “275 Level”) and 122 m (the “400 Level”). ***The historical mineral resource estimate is based on prior data and reports obtained and prepared by previous operators, and information provided by governmental authorities. A Qualified Person has not done sufficient work to verify the classification of the mineral resource estimates in accordance with current CIMM categories. The historical estimate should not be considered as a current NI 43-101-compliant mineral resource estimate. Establishing a current mineral resource estimate on the Property will require further evaluation.***

Precious metal mineralization occurs in five main zones on the Property: namely the North, South, Central, West, and 11650N zones (Figure **7**). Many of these Zones have also been subdivided into “A” and “B” splays/branches/bifurcations of discrete mineralization (Hanych and Selway, 2017). The zones dip at from 75° to 85° to the south. The North and West zones are thought to be equivalent but lie on opposing sides of a (generally) north-south trending diabase dike (Figure 7). The zones of mineralization have been interpreted to be structurally controlled by sub-parallel shears within altered mafic volcanic rocks and quartz-feldspar porphyritic intrusive bodies. Sulphide minerals (pyrite, pyrrhotite, chalcopyrite, galena, and sphalerite) and sulpharsenides (arsenopyrite) are reported to be present in the mineralized zones. The presence of native gold is rare (Wilson, 1987); Bowen (1988) states that there were three recognized cases of visible gold during the drilling program of 1987.

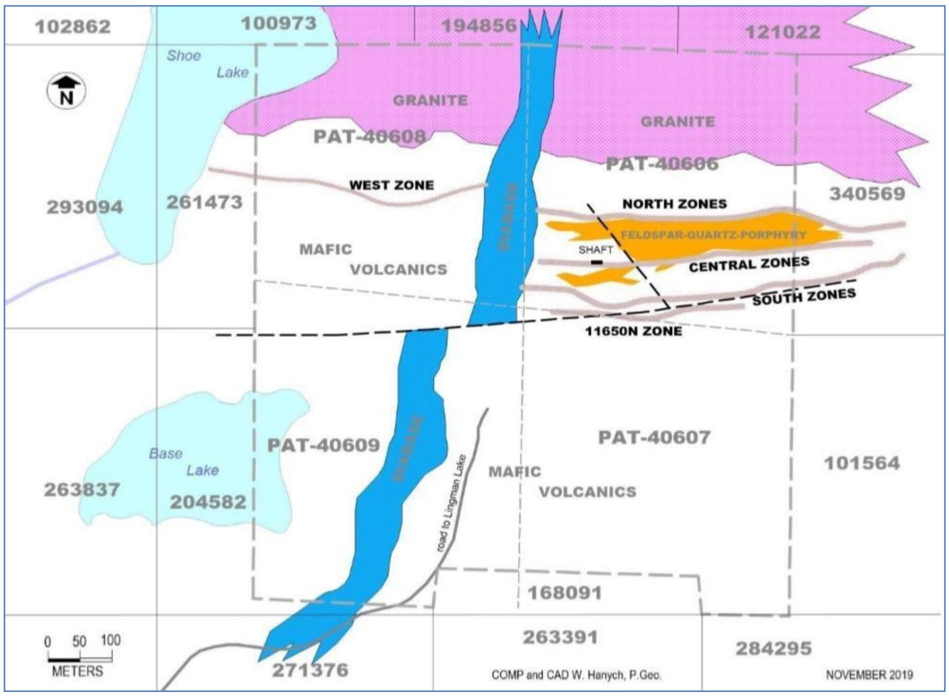

FIGURE 7. LINGMAN LAKE GOLD ZONES

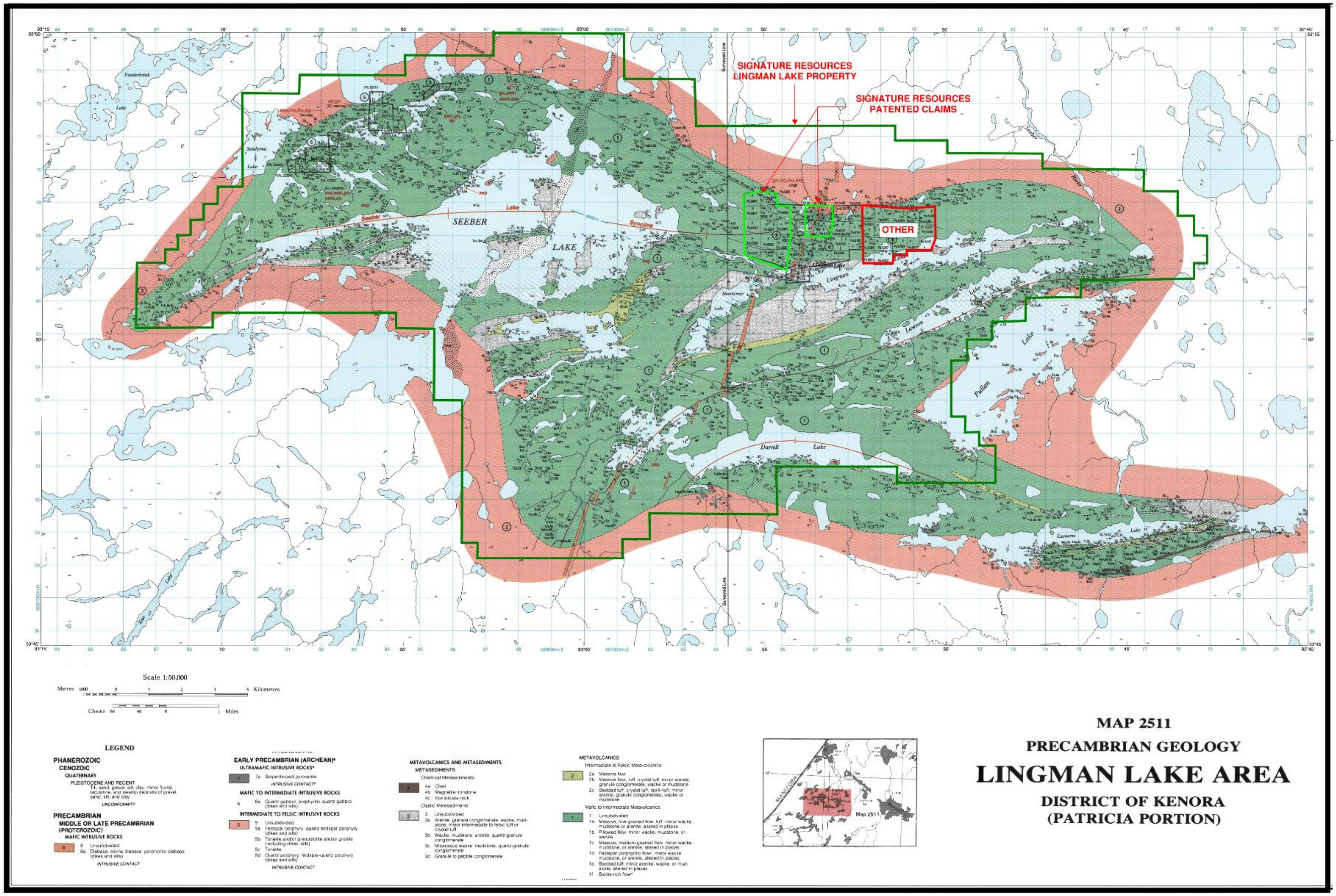

FIGURE 8: PROPERTY MAP IN RELATION TO LINGMAN LAKE GREENSTONE BELT

7.0 EXPLORATION MODEL

The primary commodity being explored for is gold modelled on orogenic Archean-age lode gold deposit. This class of epigenetic precious metal mineralization is structurally hosted in metamorphic, particularly greenschist, accretionary terranes (Groves *et al.*, 1998; Kerrich *et al.*, 2000; Groves *et al.*, 2016). Penetrative foliations resulting from the deformation produced shear zones/faults which acted as channel-ways permitting deep seated hydrothermal fluid-rock interactions to occur within the volcanic-sedimentary successions. In dilational zones where pressure and temperature conditions were conducive for fluid and gold precipitation, foliation parallel and foliation oblique mineralized zones can result. Whether the hydrothermal fluid system is generated by regional or contact metamorphogenic processes or by felsic intrusive magmatic-hydrothermal phases, the overriding condition for this model type is the presence of, and concentration of faults, shear zones and contact zones.

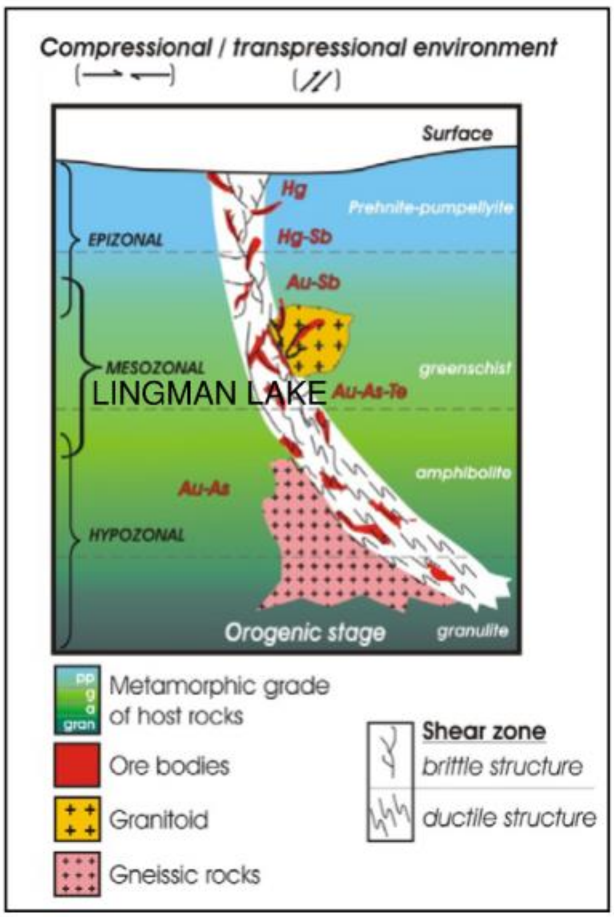

FIGURE 9: SETTINGS AND CHARACTERISTICS OF OROGENIC GOLD DEPOSITS (MODEL BY R. GOLDFARB, USGS)

On a local scale, mineralization may vary from shear hosted silica saturated i.e., silicification zones forming siliceous replacement-type mineralization with little to no veining, to distinct dilational vein arrays, sometimes producing stockworks, to prominent brittle fault vein and fissure vein systems where metre-scale veins develop (*ibid*).

Intrusive rocks can also be important host rocks for gold mineralization and display characteristics of porphyry-type mineralization. Disseminated pyrite and high fracture domains with quartz-carbonate veinlets can contain gold as inclusions in pyrite, in veinlets and along fractures. The magmatic-hydrothermal system in this environment can produce gold-mineralized zones on a scale of decametres to hectometres in potash-altered rocks. Examples of this model within Archean-age rocks inf Ontario include the Cote Lake deposit in Chester Township and the gold deposits of the Matachewan area (Figure **9**).

In the context of the Property, comparative features to the models outlined above include the presence of a mineralized high angle shear zones and faults proximal to a large pluton. The pluton appears to have an associated late magmatic phase resulting in the formation of feldspar porphyry stocks and dikes that are intrusive to the volcanic-sedimentary succession.

8.0. Section by Simcoe Geoscience - 3D Alpha Wireless Induced Polarization Survey

8.1 Introduction

The Alpha IP system eliminates unnecessary use of electrical wire - these aids in minimizing the overall on-ground impact of exploration activities (line clearing, etc.) on both the environment and ecosystem. The technology provides high resolution data to resolve smaller targets which could be missed in conventional IP surveys. No cables between receivers, no -fixed or pre-set positions of electrodes need to be respected. The high-resolution data generated from several receiving directions of each transmit position gives real 3D data which can be interpreted with 3D inversion software.

8.2 Survey Objectives

The exploration objectives of the 3D Alpha IP™ were to map the chargeability, resistivity responses associated with disseminated and sub-massive sulphides associated with structurally controlled gold mineralization.

The Alpha IP™ – a Wireless Time Domain Distributed IP system was used to provide the following benefits to the exploration program:

- To detect and delineate chargeability, resistivity anomalous zones related to structurally and stratigraphically controlled disseminated gold mineralization similar to the historical Lingman Lake Gold Mine, providing target mineralized zones.

- To map resistivity and chargeability features that indicate the lateral and depth extent of known gold mineralization zones with favorable host rocks and geological structures associated to the West Zone, North Zone, Central Zone, South Zone and 11650N Zone.

8.2 Survey Methodology and Scope

The Wireless Induced Polarization survey was conducted over an extensive area that included the Lingman Lake gold zones with ninety (90) measuring dipoles spaced at 50 m north-south and 100 m east-west with 370 current injection points distributed between the potential electrodes. The potential electrodes were deployed in an area of 2.6 km by 1.5 km (3.9 km^2) with lateral extents of the current transmission electrodes equal to 3.5 km east-west grid offsets and 1.9 km north-south grid offsets (Figure 11) Figure **11**. Alpha IP Electrode Arrays Coverage Lingman Lake).

TABLE 3. LIST OF CLAIMS AND AREA COVERED BY 3DIP SURVEY.

Claim	Coverage hectares	% of Survey	Claim	Coverage hectares	% of Survey	Total Survey ha
						392.59
PAT-8073	5.58	1.42	194856	11.48	2.92	
PAT-8074	6.37	1.62	194857	2.13	0.54	
PAT-8075	5.99	1.53	PAT-40606	20.53	5.23	
PAT-8076	2.87	0.73	PAT-40607	20.17	5.14	
PAT-8072	22.14	5.64	603560	0.67	0.17	
PAT-8071	23.53	5.99	263391	6.82	1.74	
PAT-8070	9.24	2.35	121022	11.49	2.93	
165490	6.58	1.68	340569	12.15	3.09	
102862	11.48	2.92	101564	12.48	3.18	
293094	11.24	2.86	284295	6.91	1.76	
263837	12.21	3.11	177732	11.47	2.92	
271377	5.19	1.32	128988	20.50	5.22	
100973	11.48	2.92	224201	19.63	5.00	
261473	7.48	1.91	343229	7.18	1.83	
204582	8.36	2.13	129624	5.67	1.44	
271376	7.10	1.81	212173	9.61	2.45	
PAT-40608	18.48	4.71	279710	9.55	2.43	
PAT-40609	18.64	4.75	198219	10.19	2.60	

In addition to 3D Alpha IP acquisition, at least nineteen (19) 2D Alpha IP profiles (L1E to L19E) were also acquired for the validity and repeatability of the 3D grid. The profiles were spaced at approximately 100 m east-west and stations at 50 m intervals. The lines were oriented with north-south azimuth

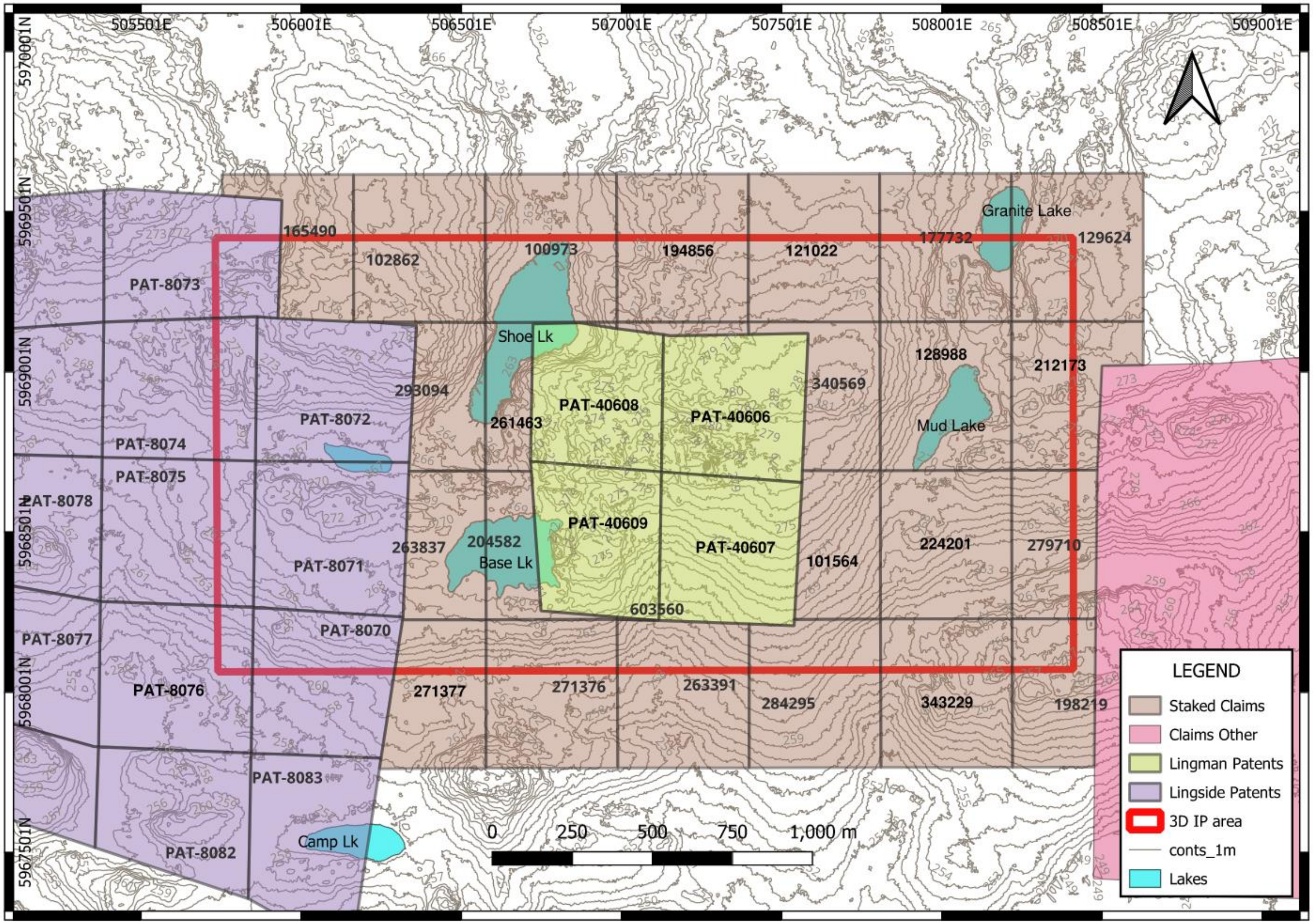

FIGURE 10. IP GRID AREA RELATIVE TO CLAIMS

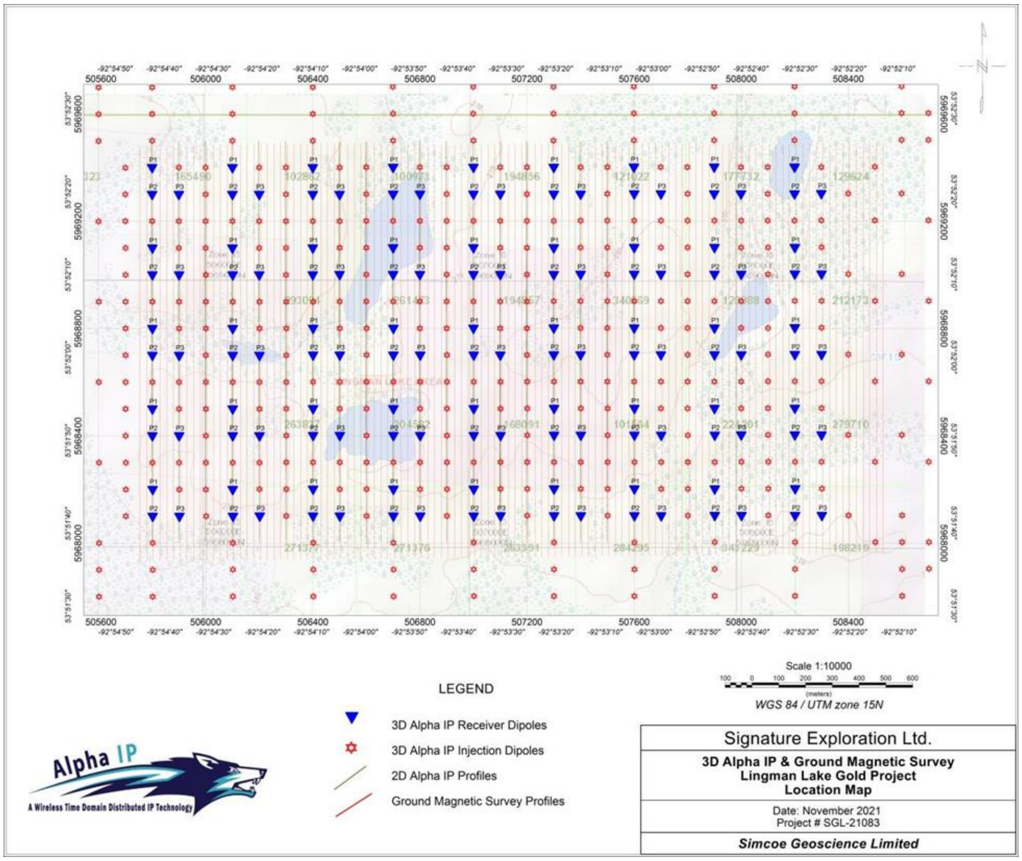

FIGURE 11. ALPHA IP ELECTRODE ARRAYS COVERAGE LINGMAN LAKE

8.2.1. 3D Alpha IP Wireless Time Domain Distributed System Set-Up

Simcoe used its "state of the art" Alpha IP™ - a Wireless Time Domain Distributed Induced Polarization system with the simultaneous deployment of multiple receiver and profiles in a grid pattern and current injected along and off the profiles. A schematic field setup with Alpha IP (Figure 12 and Figure 12).

The Alpha IP system provides precise full waveform time series data including Induced Polarization, Resistivity and SP (self potential) measurements. Each receiver unit (Alphi) is a dual channel system and continuously record at a 10 millisecond (ms) sample rate. The Alphi's synchronizes the GPS PPS signal with transmitter and current recording unit, allowing for smooth processing of the signal.

Each Alphi is fully independent, incorporating its own power source, GPS module and digital memory for up to 3 months continuous recording. Data on the memory can be downloaded directly on a simple USB stick for post processing.

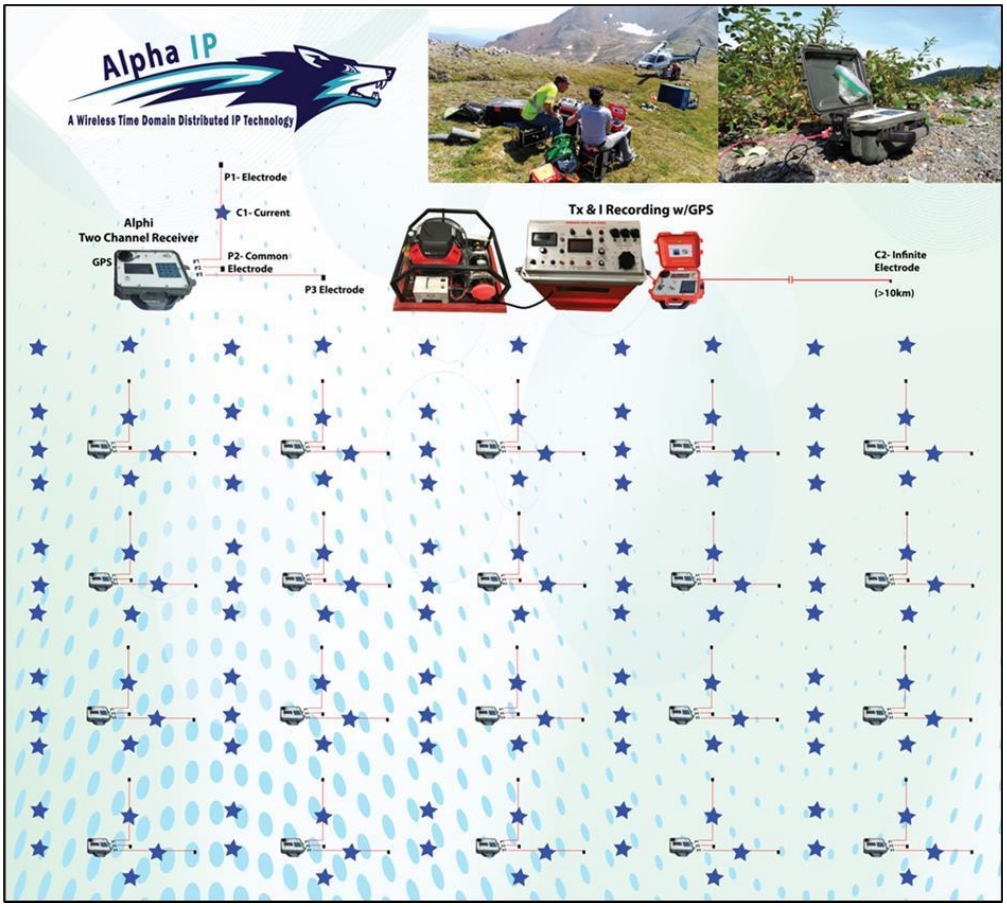

FIGURE 12. ALPHA IP SCHEMATIC 3D SET-UP WITH CURRENT INJECTIONS

In its standard configuration (a = 100 m / n = 0.5-40) Alpha IP surveys typically image DC resistivity to depths of 800-1000 m, and the IP typically images to 700-1000 m in sub-vertical tabular geologic settings and up to 50% more for sub-horizontal. The differences in penetration are a function of the relative property contrasts and relative signal-to-noise levels between the two measurements. Penetration also decreases or increases proportionally to the dipole-size (i.e., 400-600 m for 50 m dipoles, and 900-1200 m for 200 m dipoles) with good signal. A detailed introduction to Time Domain IP surveys is given in Telford, et al. (1976).

In its standard setup, each Alphi has a common electrode (P2) at the receiver. P1 and P2 are setup in opposite directions. The current recording unit, which sits in series between the injection electrode and transmitter records the injected current. GPS is used to synchronize an internal clock in order to accurately time stamp each record within an absolute accuracy of 250 microseconds (µs). Detailed technical specifications are Alpha IP™ system is provided in Appendix - E: Instrument Specifications.

8.2.2. Data Acquisition

Simcoe was responsible for staking and positioning the survey grid for this area. One of the crew members flagged the grid at every 50 m intervals with two color flags to differentiate receiver and injection dipole. Stainless steel non-polarized electrodes were used for both receiver and injection electrodes at 100 m intervals along the east-west orientations.

For 2D profiles, the lines at every 50 m intervals with two color flags in order to differentiate receiver and injection dipoles. Stainless steel non-polarized electrodes were used for both receiver and injection electrodes at 50 m intervals up to n = 16 along the profile orientation.

The infinite pole was setup in a pit with conductive ground before data acquisition. The infinite pit was dug and primed with salt and water for at least three days before current injections. The pole location was setup 8-10 km away from the survey area. A “10 kw” power transmitter (Walcer TX KW10) was used and powered by a Honda Motor Generator MG12A. The generator can output regulated 125V/220V AC, 20KVA maximum at 400 Hz/ 3 phase to the transmitter which has an output of 100-3200V in 10 steps with regulated current ranges from 0.05 – 20 Amps. The switching can be set to 1 sec, 2 sec, 4 sec, 8 sec. For this project 2 sec ON+ OFF- were used.

The current injection points were located at every 100 m between the potential dipoles. Data were acquired with dipole-pole-dipole (Reverse & Forward) current injections configuration. Extra current injections were also made at the end of the lines for additional depth coverage.

At the end of each day data is retrieved from both current recorder and receiver units (Alphi) on USB sticks, which are binary format files contains UTM positions of each receiver and injection electrodes, input and output voltages and input currents for every injection. Data is dumped to a field computer and field QA/QC is performed at the end of the survey day. If the data quality is acceptable the crew will be notified, and the line will be picked up and moved to next position if re-acquisition is not required.

The Induced Polarization and Resistivity field data was acquired with the following parameters (Table **4**).

TABLE 4. FIELD SURVEY SPECIFICATIONS AND PARAMETERS

Lingman Lake Gold Property, District of Kenora, Ontario, Canada	
Survey Array	Dipole-Pole-Dipole Array
Receiver Configuration	90 Rx = Continuous In-line voltages
Grid Dimensions	EW- 3000 m and 1600 m
Dipole length	Rx = 100 and 50 meters
Sampling Interval	Ex = 100 and 50 meters
Rx-Tx Separation	N-spacing = 1-90 and 1-26
Tx Current	+/- 1 - 20 Amps
Input Impedance	100 MOhms
Input Voltage	15V, automatic gain, input protection 1000V
Readings	Full waveform 10ms (100Hz) sampling rate
Noise Rejection	Power line rejection, SP linear drift correction
Transmitter Square wave Switching	2 sec., (2 sec. ON+, 2sec. OFF, 2 sec. ON-, 2sec. OFF)
Chargeability Windows	20 Programmable
Time-Series Stacking	up to 100 cycles (full waveform)
Read Time	approx. 7.0 minutes per station
Time-Domain Decay Window	1600 ms
Integration Start Time	220 ms
Integration End Time	1820 ms

8.2.3. 2D and 3D Alpha IP Data QA/QC and Post Processing

The final processing of Time Domain IP is complicated and performed in several steps using different processing platforms. Infield QA/QC and processing is completed with proprietary software (FullWave Viewer). The software allows review of the full waveform raw data, the stacked readings, and the chargeability decay (M) for each acquisition channel.

The data is viewed, current and voltage records are synchronized, edited if necessary and processed. “Noisy” data is rejected using an arithmetic algorithm to identify noisy half-cycles and to enhance Rx – Tx synchronization.

Once the data is synchronized and UTM coordinates of both current injections and receiver dipoles are verified, data is exported to view in ProSys Post Processing software, where data can be displayed both numerically and graphically. Conditioning of both resistivity and IP data involves adjustment of data errors and removal of poor-quality data for inversions.

Individual transmission events are viewed and analysed before the stacking process. Pseudo-section plots along with individual stacked curves, current values, resistivity, and decay curves are reviewed. Data density of complete grid and individual profiles Figure 13 and Figure 14).

Once the data satisfy the QA/QC process, the entire grid data file is exported onto inversion format to run the model inversions. In general, for the Lingman Lake Gold Property, District of Kenora, Ontario, Canada, the quality of the raw data is good, and the repeatability is excellent.

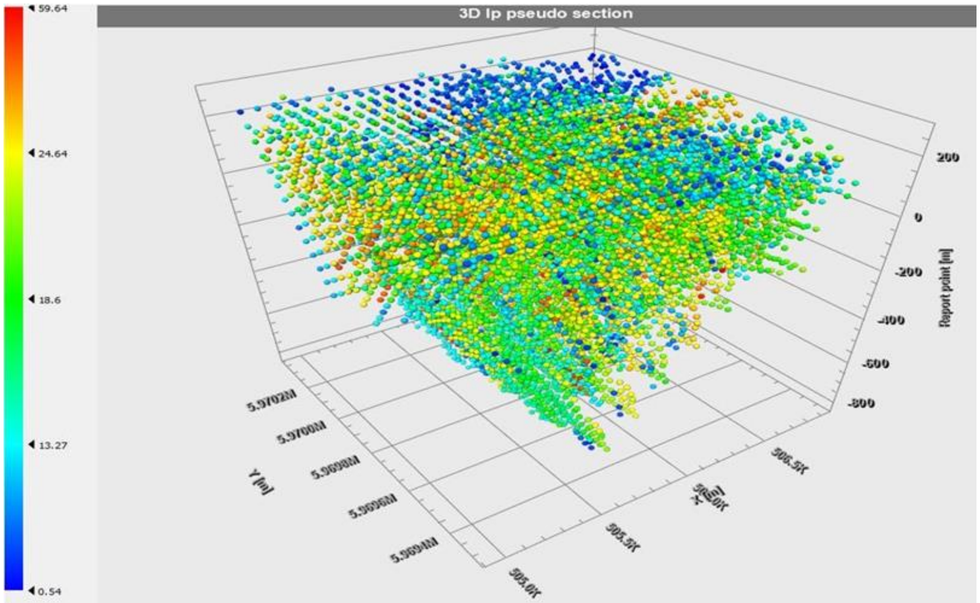

FIGURE 13. INDUCED POLARIZATION DATA QA/QC AND POST PROCESSING RESULTS

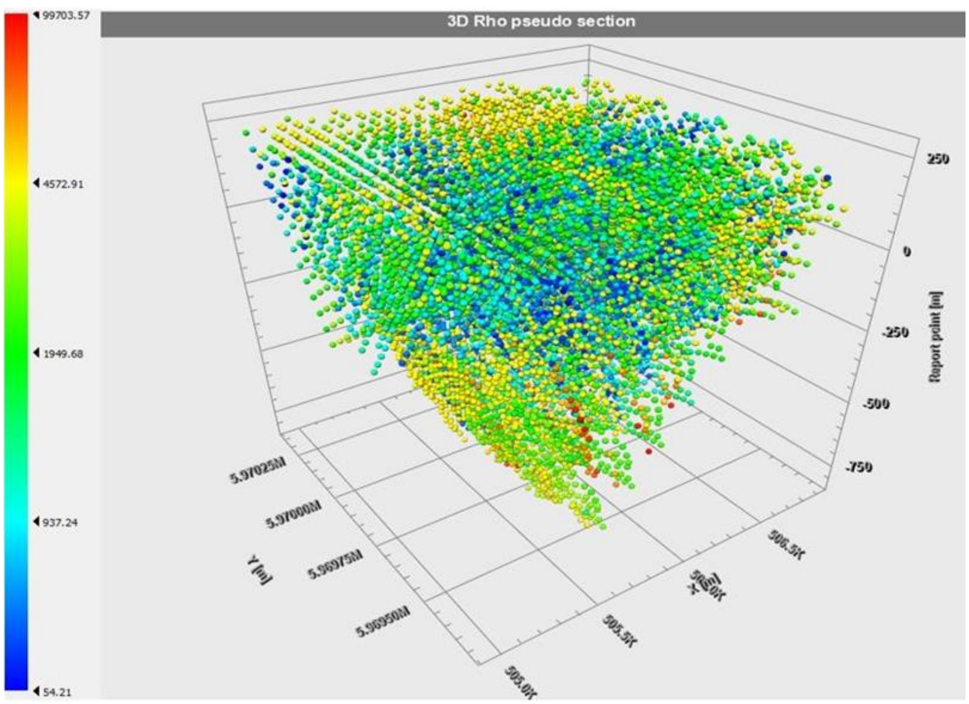

FIGURE 14. APPARENT RESISTIVITY DATA QA/QC AND POST PROCESSING RESULTS

8.2.4. 3D Inversions

3D Induced Polarization and Resistivity Models

The primary tool for evaluating the resistivity and induced polarization data is through the model inversion in two-dimensions and three-dimensions (2D & 3D). For this project, 3D models of resistivity and chargeability were also generated. The goal of the 3D model inversion is to recover the earth model which acceptably reproduces the field observed data in three-dimensions along and perpendicular to the survey lines and at depth. A preconditioned data set is used to generate 3D earth model and the same rules apply to the 3D modeling with regard to fitting the data too precisely, as some noise contaminated data could lead to introduce inversion 'artifacts'.

In general, the data are noise contaminated; therefore, to fit them precisely the process could lead to the introduction of inversion 'artifacts'. An inversion 'artifact' translates into a step up or down in resistivity or chargeability model values, usually around the periphery of the model to a level that is not logically reasonable. The inversions were generally run with successive removal of poorly fitting data and error adjustment before arriving at the final 3D models. Some data acquired with large transmit-receiver separations (deeper data) were not of high quality and were removed prior to inversion.

Under-fitting the data could lead to an underestimate of the conductivity information coded in the data, which could possibly generate biased earth model. The objective therefore is neither to under fit nor over fit the data. Rather, a model that reproduces the data only to within an amount that is justified by the estimated uncertainty in the data.

3D Resistivity and Chargeability inversions are carried out using non-uniform mesh with equal number of cells for both models. A uniform mesh of 25 m cell size was used in horizontal directions, vertical cells start with 10 m with an exponential increment of 1.05 with depth. Prior to run the final 3D inversion models, a number of coarser and finer meshes with larger and smaller cell sizes as well as internal parameters of inverse process were tested for model convergence.

The parameters used in the final 3D inversions are summarized in Table **5**. The user defined parameters used for the inverse process are intended to produce models with highest resolution and minimum artifacts. The quality of the raw induced polarization and resistivity data is good for all the surveyed lines. Overall, the ground contacts (electrical impedance of the grounding of the probes) were good as the contact resistance at transmit and receiving dipoles were low. The range of current injected in the ground was between 1 to 6.5 Amps except for few locations where currents were lower than 1 Amp. Simcoe recommends caution in targeting deep anomalies only based on the geophysical results of this survey.

TABLE 5. SUMMARY OF 3D DATA AND INVERSION PARAMETERS

Model	**Lingman Lake Project**
Grid Size	2.6x1.5 km
Reference Model	Homogeneous Half Space
Resistivity and Chargeability Ranges	55-92,000 ohm-m and 1-60 mV/v
No. of blocks	1
No. of Electrodes	860
No. of Data Points	15000
Dipole Spacing	100 m and 50 m
(without padding)	X (EW): 110, Y (NS): 60, Z (elevation): 26
Block size (m)	Mx=25 m, My=25 m, Mz=10 m
No. of iteration	20
Inversion time (h)	5.2
(%) Data misfit	4.1x103 @iter 16
Inversion Models	Lingman Lake 3D Final.dat

The 2D inversions are also carried out along 19 profiles to verify the validity of 3D models each line to produce cross-sections of the resistivity and chargeability variations. The UBC DCIP2D (UBC-GIF) inversion suite 1 (Oldenburg & Li, 1994) is used for the 2D inversion of the DC and IP data:

DCINV2D: program to invert DC potentials to recover a 2D conductivity model. IPINV2D: program to invert IP data to recover a 2D chargeability model.

8.3 Integrative Modelling and Interpretation

The inversion results of Resistivity, Chargeability and Susceptibility are interpreted and presented in cross-sections, plan maps and volumes, with the aim of providing detailed descriptions of the interpreted geological contacts or faults, chargeable mineralized zones and conductive/resistive structural trends.

Structures and lithologies are interpreted mainly from the resistivity, density and susceptibility plans and sections. IP chargeability can be an indicator of presence base metal mineralization that are associated with gold and alteration zones. Anomalous chargeability data are used to provide target areas for further exploration work including detailed geological mapping and drilling.

The smooth resistivity and chargeability models were used for the interpretation and targeting. The DC resistivity method is used to resolve the structure and lithology of the subsurface by measuring the electric potential (DC). Resistivity can be an indicator of metallic mineralization but is often controlled by rock porosity and is therefore an indirect indicator of alteration and mineral grain fabric.

Chargeability is a near-direct indicator of the presence of sulphide/oxide mineralization, in both massive and disseminated forms. The gold mineralization is commonly associated with sulphide/oxide mineralization; hence the IP method is a good tool for exploration. Chargeable mineralization is commonly associated to various types of iron and copper minerals and graphite, making it a useful tool for base-metals exploration.

Targets

Strong IP responses associated with low resistivity and moderate/high magnetic susceptibility.

The most favourable host rocks are mafic volcanics that have been silicified and carbonatized and occur in proximity to feldspar and/or quartz feldspar bodies that are up to 91 metres wide. Intrusive-volcanic contact domains display the best gold mineralized systems. Distal contact domains display variable gold mineralization, but they too can form important systems.

The North and West Zones are thought to be equivalent but lie on opposing sides of a (generally) north-south trending diabase dike. The zones of mineralization have been interpreted to be structurally controlled by sub-parallel shears within altered mafic volcanic rocks and quartz feldspar porphyritic intrusive bodies. Sulphide minerals (pyrite, pyrrhotite, chalcopyrite, galena, and sphalerite) and sulpharsenides (arsenopyrite) are present in the mineralized zones.

The North Zones are hosted in bifurcating, steeply south dipping shear-alteration structures that are associated with the north contact of a feldspar ± quartz porphyry body. These zones contain the best gold mineralization and are the most extensive. The structure controlling these zones is known to extend along a strike length of 670 metres and has been drill tested to 183 metre vertical depth. The shear-alteration system attains widths of up to 17 metres-true width where bifurcation of North Zone “B” (footwall) branches forming a sub-parallel hanging wall, North Zone “A”. The actual gold mineralized portion based on assay grade averages 2.43 metres in true width but can attain widths of 4.06 metres (true width). Overall, the zone is continuous along strike, but veining within it bifurcates and anastomizes within its shear-alteration envelope splitting into distinct mineralized branches. The North Zone remains open along strike to the east (to the west it is referred to as the West Zone), as well as down dip.

The South Zone shear-alteration structures are located 125 metres south of the North Zone. The South Zone consists of two sub-parallel, east-west striking, steeply south dipping, alteration-shear structures; the “A” and “B”, separated from each other by 12 to 15 metres. The “A” structure has been drilled tested along 670 metres of strike length while the “B” structure has been defined along a strike length of 375 metres.

The 11650N shear–alteration structure has been identified as a continuous feature along a 390- metre strike length and is located 192 metres south of the North Zone. This zone exhibits the strictest association of its alteration-shear envelope to gold mineralization although gold distribution can extend beyond that envelope. The structure hosts gold mineralization distributed along a strike length of 130 to 200 metres with a 60-metre vertical extent; it averages 1.52 metres in width but can attain widths of up to 3.2 metres (true width). The apparent limited extent of significant gold mineralization may be explained by the inadequate drilling of the zone. The down dip continuation of the gold-mineralized section remains open.

Moderate/weak IP responses associated with moderate/high resistivity and moderate/weak magnetic susceptibility.

Central Zone shear-alteration structures, originally referred to as the South Zone, are located 65 to 90 metres south of the North Zone. Two sub-parallel east-west trending, steeply south-dipping, mineralized shear alteration structures (“A” and “B”) separated from each other by 18 metres essentially strike continuously for 380 metres. At their eastern end they merge into one structure and the Central Zone “B” terminates. Although the shear-alteration structure exceeds 490 metres in strike length, the significant gold-mineralized portions of this structure, based on available drill data, are confined to the vicinity of the underground workings. The general dip of the zones is steep to the south; however, a reverse steep dip to the north is interpreted to occur between the 275 Level and 400 Level of the mine. This apparent dip reversal occurs over a 61-metre length from the shaft cross-cut eastward.

8.4. Results

Across the investigated area, the chargeability is in the range between 1 to 50 mV/v suggesting significant concentrations of sulphide and gold mineralization within the host rocks and structures. Most of the strong chargeability, low resistivity and moderate to high susceptibility responses are observed in the central portion of the project area, centered over the North, West, Central, South and 11650N mineral zones.

The strongest chargeability values are observed in association with low/moderate resistivity and strong sub-vertical gradient zones indicating the presence of structural contacts and fault systems with potential mineralization similar to North, West, South and 11650N mineral zones. The strong chargeability and moderate/gradient resistivity zones indicate the presence of shear zones and sub-vertical faults and or geological contacts potentially associated with sulphide mineralization and alteration zones at depth, as documented in the Central mineral zone.

The bulk apparent resistivities vary from less than 2 ohm-metres to over 40000 ohm-metres, where high resistivity zones are consistent with felsic intrusive rocks (granite and feldspar-quartz porphyry) on the north part and southern parts of the survey area. The low resistivity anomalies are commonly associated to shear zones, intrusive contact zones, sulphide mineralization and altered mafic volcanic rocks.

Low to moderate resistivity responses associated with moderate to high susceptibility anomalies in the central part of the grid, on either side of the north-south diabase dyke, are consistent with the North, West, South and 11650N mineralized zones, however elsewhere in the property the low resistivity responses indicate structurally controlled sulphide and gold mineralization, as determined by the induced polarization anomalous zones.

The chargeability and resistivity models presented in stacked depth slices and volumetric three-dimensional models show the correlation and continuation of chargeable and conductive responses in line to line lateral and vertical (depth) extent.

From a review of the stacked plan maps and sections it is apparent that there is a close correlation of the chargeability and resistivity signatures with surface mineralization, geology, anomalous assay values and structures particularly in the central part of the property where the measured parameters manifest the strongest intensity.

The iso-surfaces are useful to delineate and map un-explore anomalous chargeability zones, drillhole targets, the dip and strike of the geological structures and faults. It is recommended that drill plans should always be plotted in 3D space to minimize the possibility of missing un-tested targets. (magenta) and >1000 Ohm-meters (cyan). A high-resolution digital version of volumetric presentations, sections and plan maps are provided in the digital archives.

8.5. 2DIP, 3DIP Products

1. Chargeability contours; 230 m, 180 m and 130 m, (Appendix B)
2. Resistivity contours; 230 m, 180 m, and 130 m, (Appendix B)
3. Chargeability sections 505800E to 508400E, 100 m slices (Appendix C)
4. Chargeability sections 505800E to 508400E, 100 m slices (Appendix C)
5. Resistivity sections 505800E to 508400E, 100 m slices (Appendix C)
6. Chargeability, Resistivity and Magnetic Susceptibility volumes with stacked surfaces from various elevation levels, (Appendix D)

9.0 RECOMMENDATIONS

Based on the results of the Induced Polarization survey the Lingman Lake property warrants further work as tabulated below.

1. Detailed GIS compilations of drill data with IP data and ground magnetometer data.

2. Drill plans be plotted in 3D space to minimize the possibility of missing un-tested targets.

3. Detailed mapping over area covered IP survey.

4. Geological modelling of known zones.

10.0 REFERENCES

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APPENDIX - A - Certificates of Authors

WALTER HANYCH (P. GEO.)

Walter Hanych P. Geo., do hereby declare that:

1. I graduated in 1978 from Laurentian University, Sudbury, Ontario with an Honours Degree, Bachelor of Science in Geology.
2. I am a member in good standing with the Professional Geoscientists of Ontario, member number 1762.
3. I have been practicing my profession in exploration and advanced mine development projects for over 40-years in Canada, including, British Columbia, Nunavut Territory, Saskatchewan, Manitoba, Ontario, and Quebec, and internationally in the U.S. and Ireland.
4. I am a member of the Society of Economic Geologists and Prospectors and Developers Association of Canada.
5. I am responsible for assembling and preparing of portions of his report titled *"Report on 3D Alpha IP Wireless Time Domain Distributed Induced Polarization Survey, Lingman Lake Property, District of Kenora, (Patricia Portion), Ontario, Canada.*

Walter Hanych, P. Geo. (#1762)

("signed")

'Walter Hanych'

Collingwood, Ontario
May 3, 2023

I, Evelio Martinez del Pino, P. Geo., declare that

I am a Senior Geophysicist with residence in Hamilton, Ontario and presently employed in this capacity with Simcoe Geoscience Ltd.

I have obtained a Master's Degree in Applied Geophysics (M.Sc.) at International Institute for Geo-Information Science and Earth Observation (ITC) in Delft, The Netherlands, in 2000; and an Engineer's Degree (B.Sc.) in Geophysical Exploration at Gornii Mining Institute in St. Petersburg, Russia and at ISPJAE University in La Habana, CUBA in 1993.

I am a registered geoscientist, since 2004, with license to practice in the Province of Ontario, (PGO License # 1058). I am a Certified Environmental Site Assessor (Phase I), with license to practice in the Province of Ontario since 2015, (AESAC License # 17770).

I am a member of the Society of Exploration Geophysicists (SEG), member of the American Geophysical Union (AGU), and the Canadian Exploration Geophysicists Society (KEGS).

I have practiced my profession continuously since September 1993 in Canada, Cuba, The Netherlands, Portugal, USA, Russia, Argentina, Peru, Botswana and DRC.

I am the Professional Geophysicist responsible for this project. I have prepared this geophysical interpretation and completed the interpretation of the Alpha IP and legacy geophysical data contained in this report. I can attest that the information and interpretation accurately and faithfully reflect the data acquired on site.

The statements made in this report represent my professional opinion based on the consideration of the information and professional experience available at the time of executing this project.

Stouffville,

Ontario

December

18, 2021

[signed and sealed]

Evelio Martinez del Pino

Riaz Mirza, P. Geo., declare that.

I am Director and Geoscientist with residence in Georgina, Ontario and I am presently employed in this capacity with Simcoe Geoscience Limited, Stouffville, Ontario, Canada.

I hold the following academic qualifications: Bachelor of Science Degree (B.Sc.), Applied Geology from University of the Punjab, Pakistan in 1997, a Master of Science Degree (M.Sc.), Geophysics, Seismic Methods, from Quaid-e-Azam University, Pakistan in 2000, and an Advanced Master of Science Degree (M.Sc.), Applied Environmental Geoscience from University of Tuebingen, Germany in 2003;

I am a registered geoscientist, since 2012, with license to practice in the Province of Ontario, (PGO License # 2154).

I am a member of the Society of Exploration Geophysicists (SEG) and the Canadian Exploration Geophysics Society (KEGS).

I have practiced my profession continuously since 1997 in Southeast Asia, Europe, and North America, South America, Middle East, Africa.

I have no interest, nor do I expect to receive any interest in the properties or securities of Signature Resources Ltd, its clients, its subsidiaries, or its joint venture partners.

I am the Professional Geophysicist responsible for this project.

I was in charge of the data acquisition, Quality Control and Assurance of the acquired data; I have analyzed the data and reviewed the survey the report and can attest that these accurately and faithfully reflect the data acquired on site.

The statements made in this report represent my professional opinion in consideration of the information available to me at the time of writing this report.

Stouffville,

Ontario

December

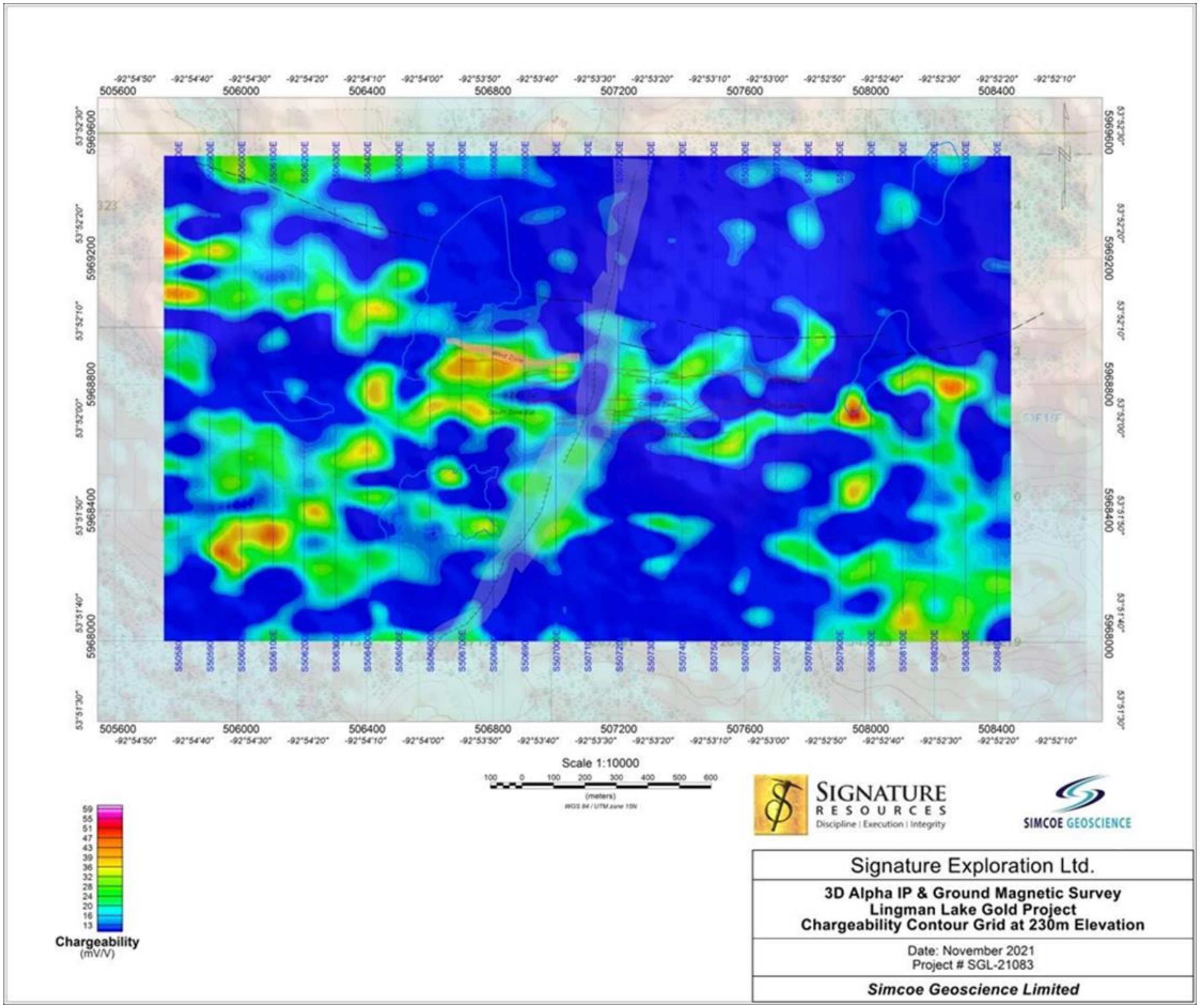
18, 2021

PROFESSIONAL GEOSCIENTIST
RIAZ M. MIRZA
PRACTISING MEMBER
2154
ONTARIO

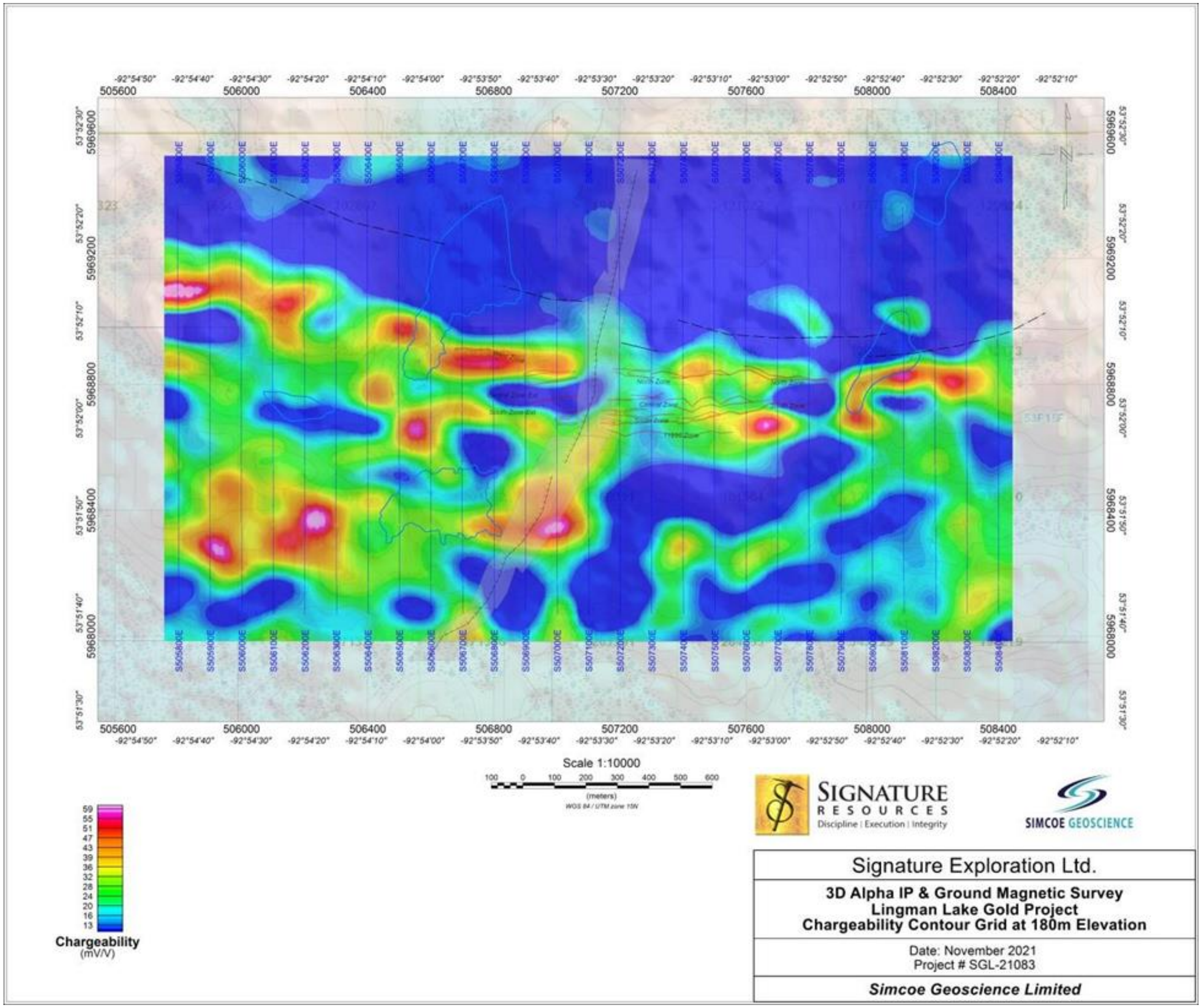
Riaz Mirza, M.S., P. Geo.
Director and Geoscientist
Simcoe Geoscience Limited

APPENDIX - B

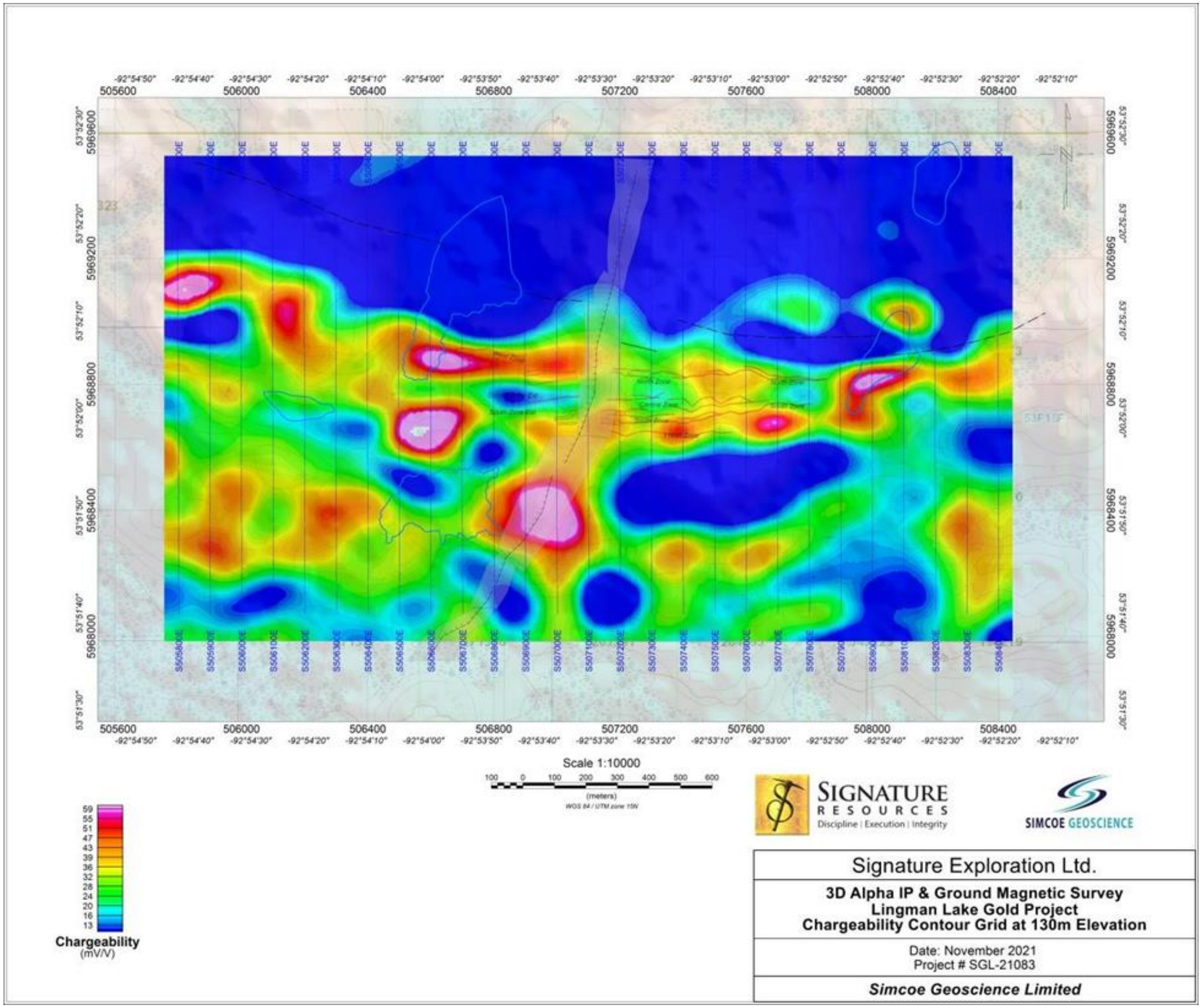
CHARGEABILITY AND RESISTIVITY CONTOURS
Elevations 230 m, 180 m and 130 m



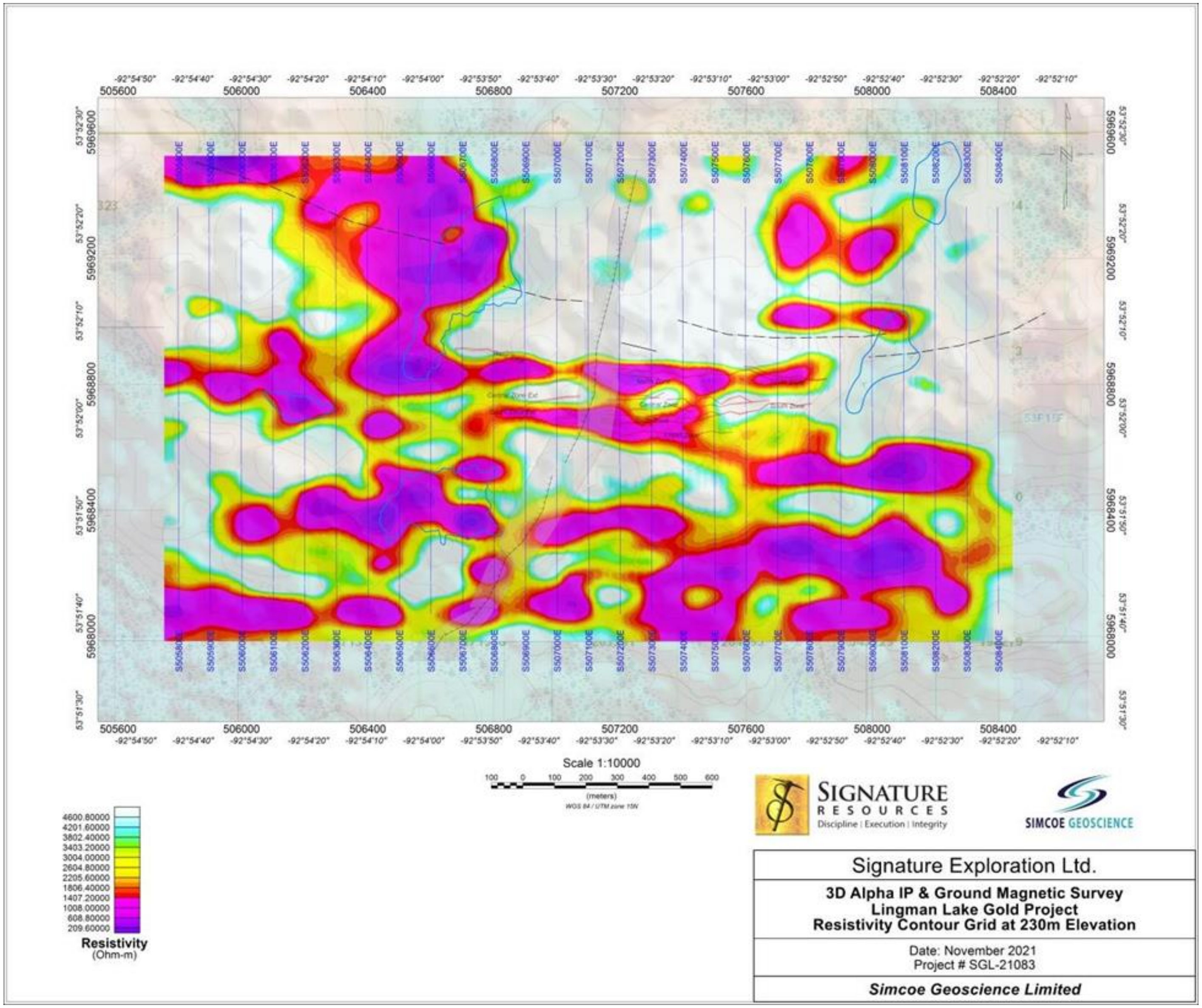
230 m Elevation: 3D Alpha IP Chargeability Contour Grid



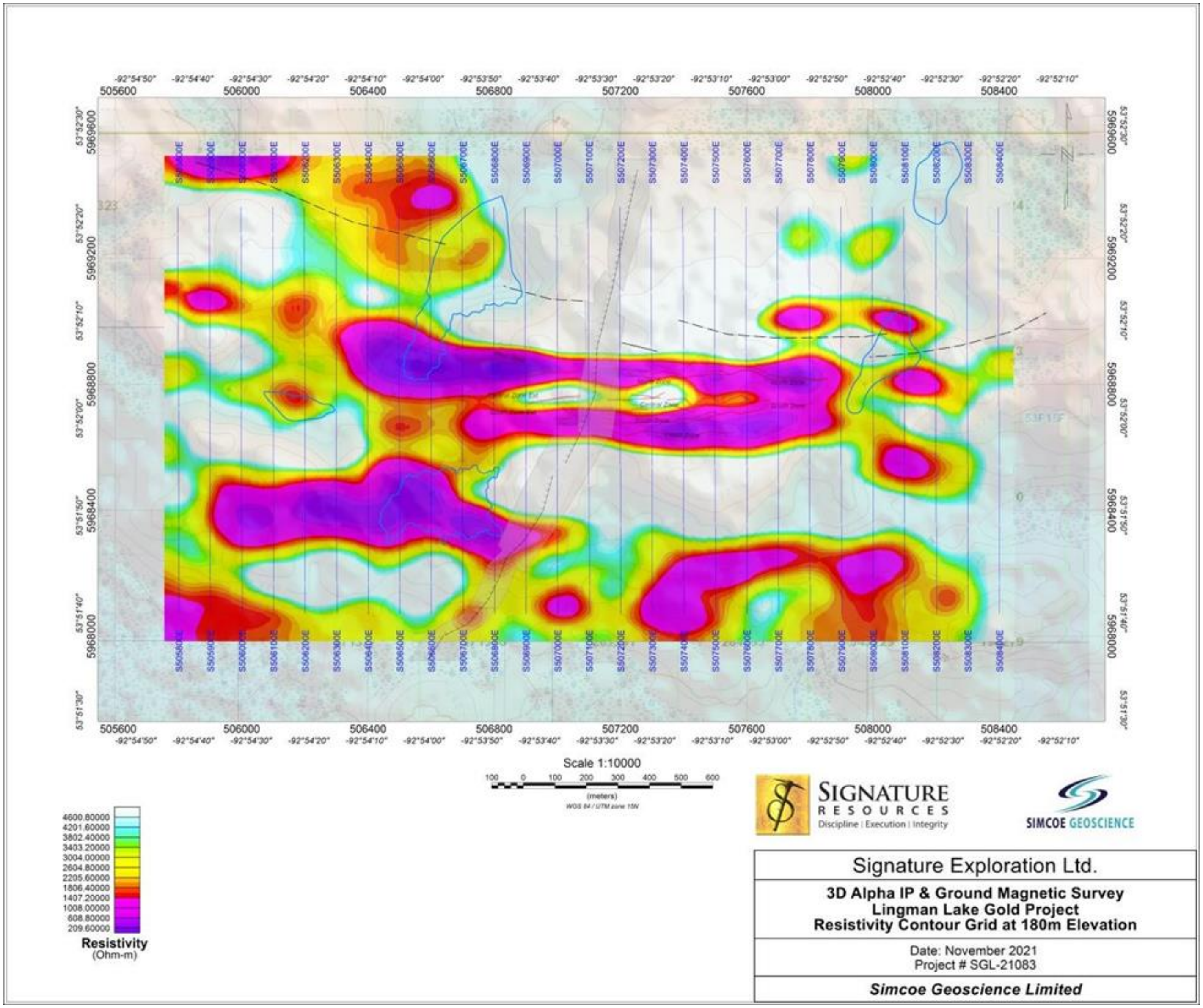
180 m Elevation 3D Alpha IP Chargeability Contour Grid



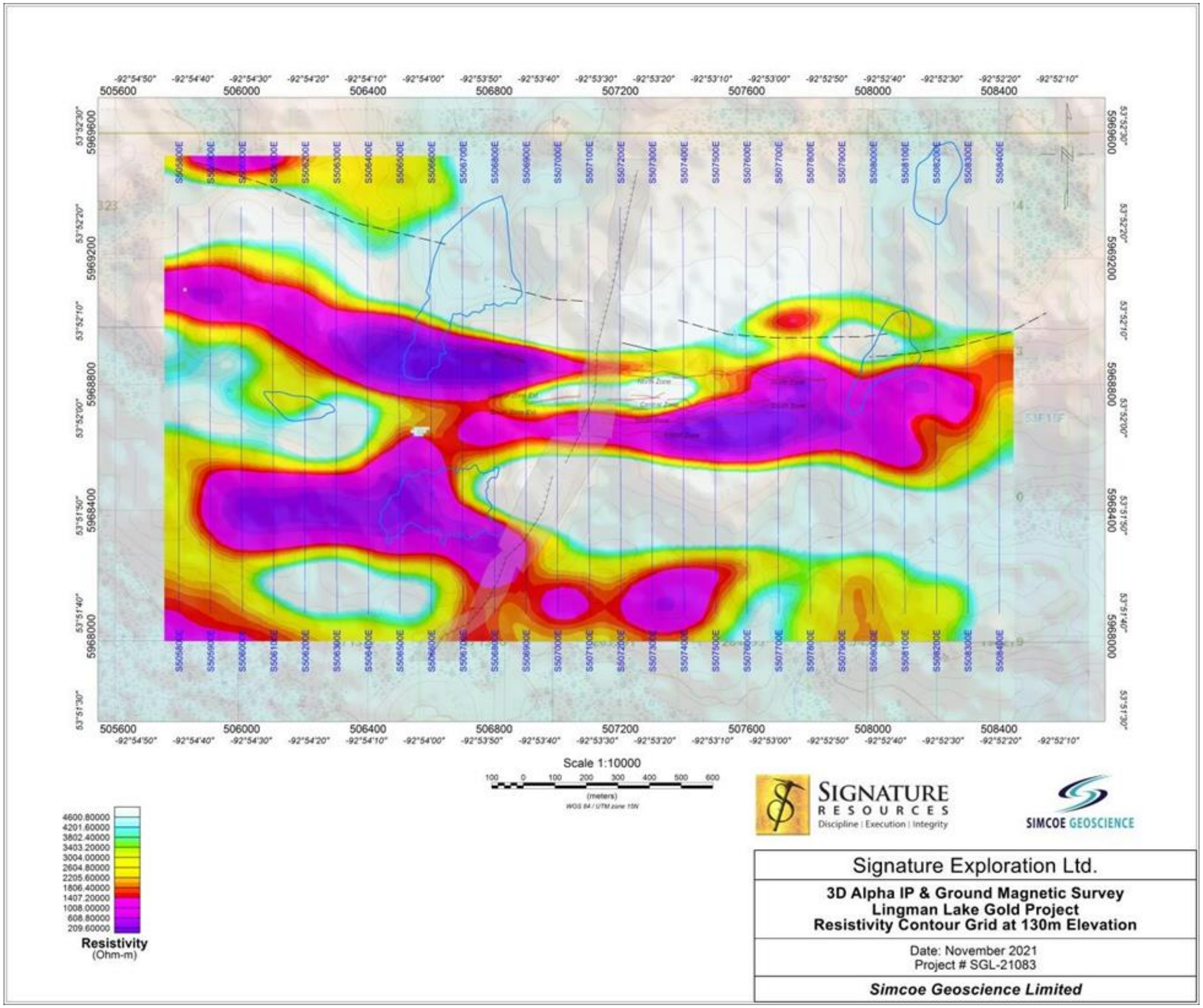
130 m Elevation: 3D Alpha IP Chargeability Contour Grid



230 m Elevation 3D Alpha IP Resistivity Contour Grid



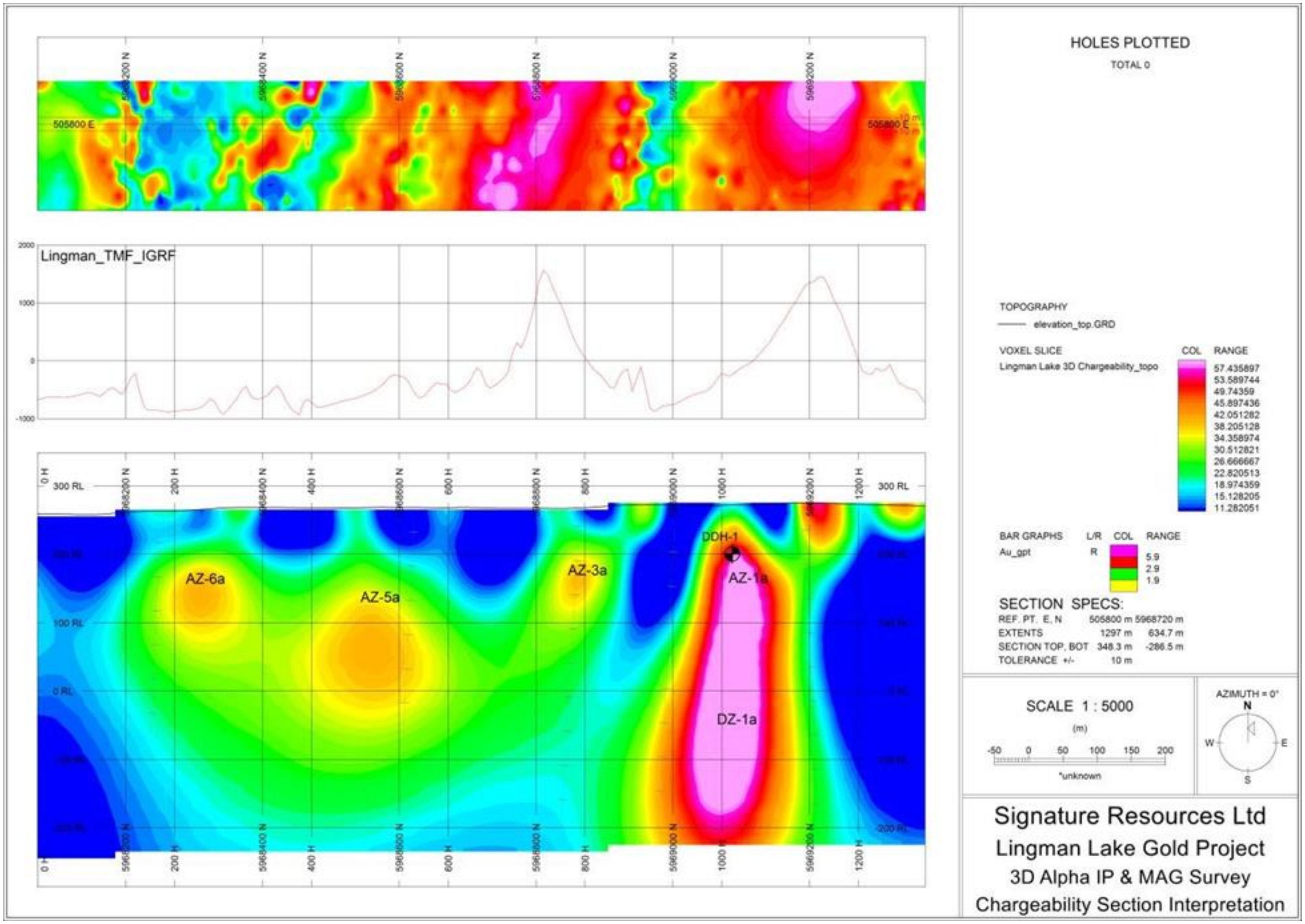
180 m Elevation 3D Alpha IP Resistivity Contour Grid



130 m Elevation 3D Alpha IP Resistivity Contour Grid

APPENDIX - C

CHARGEABILITY AND RESISTIVITY SECTIONS
100 m slices S505800E to S508400E



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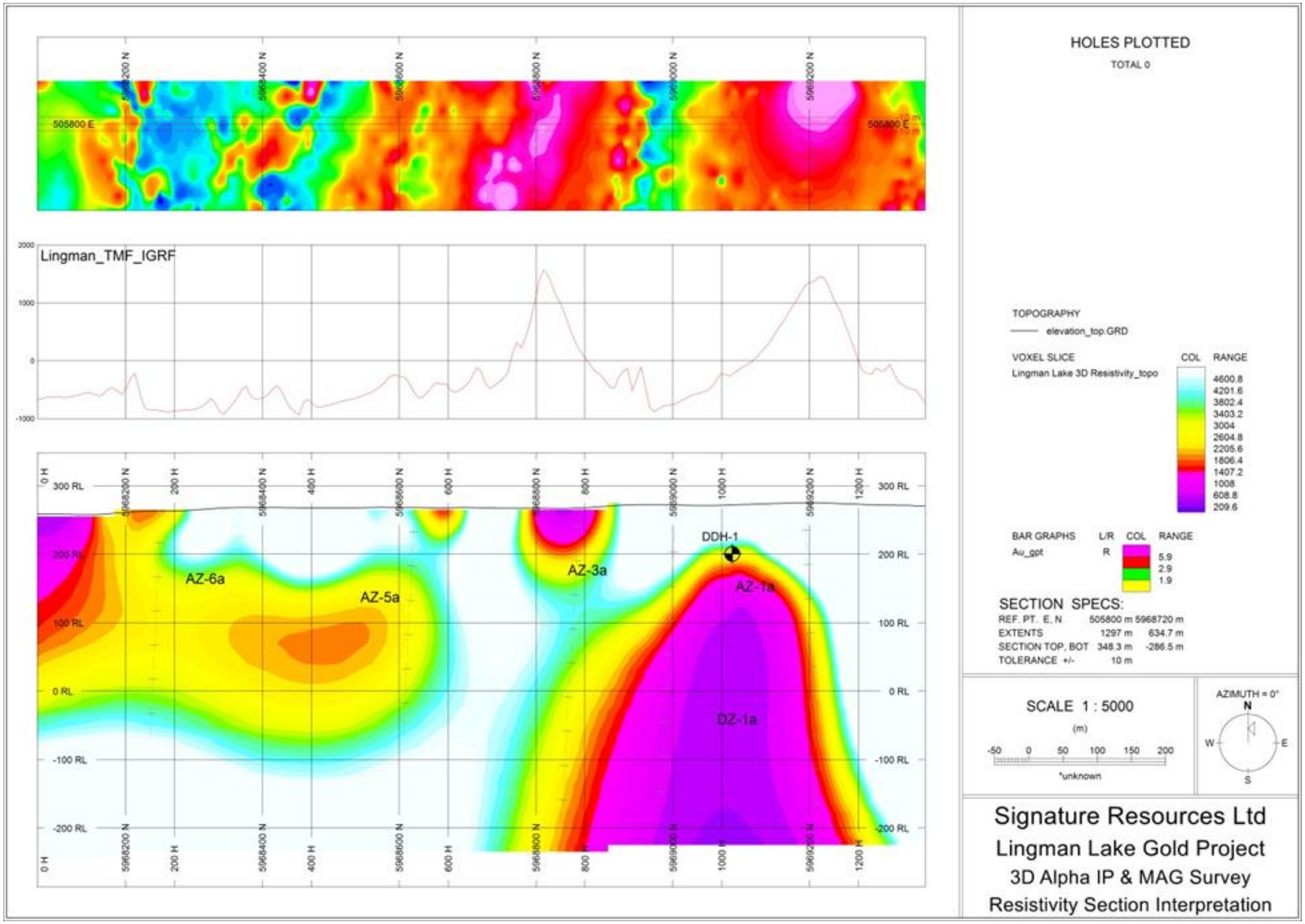

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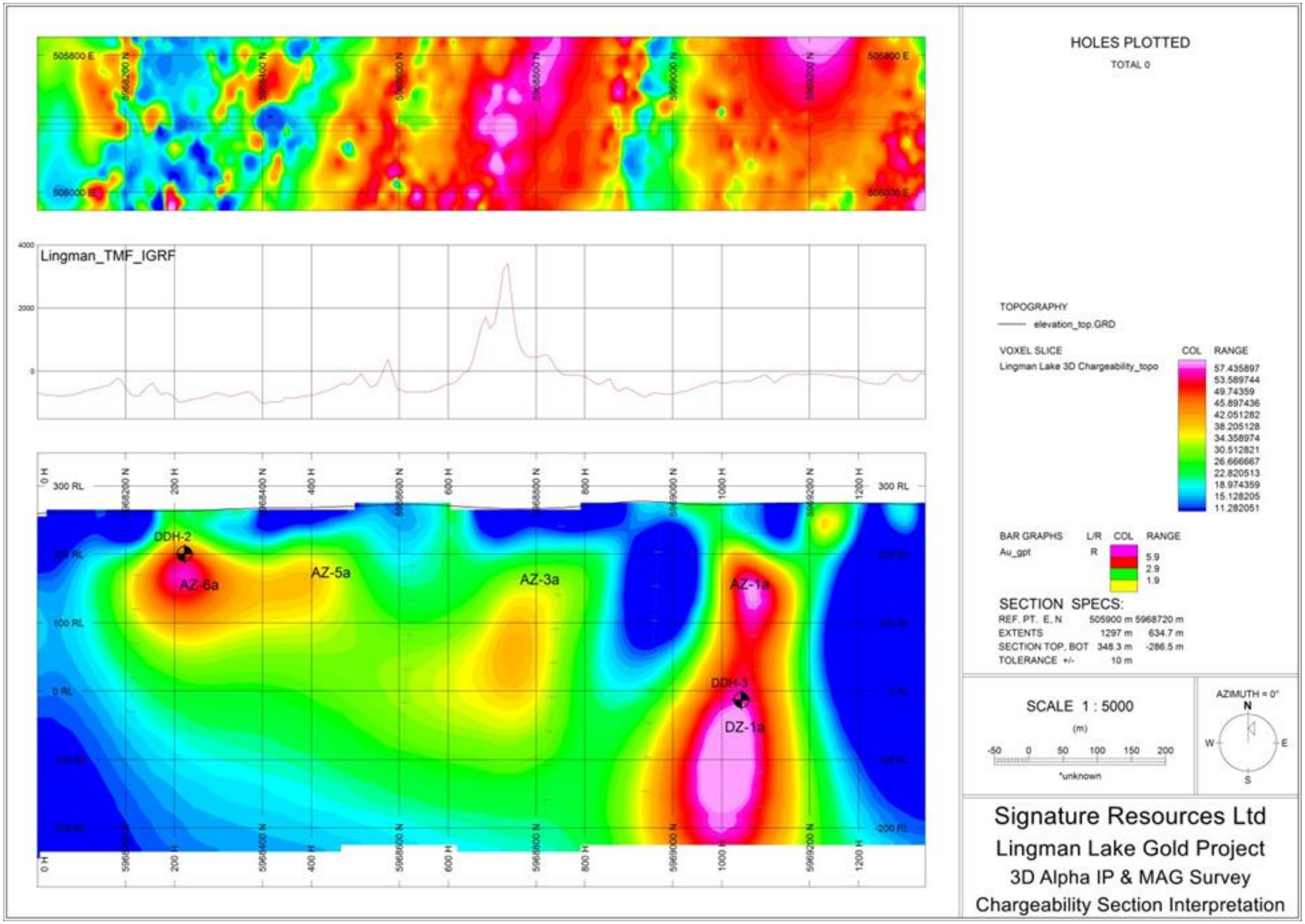

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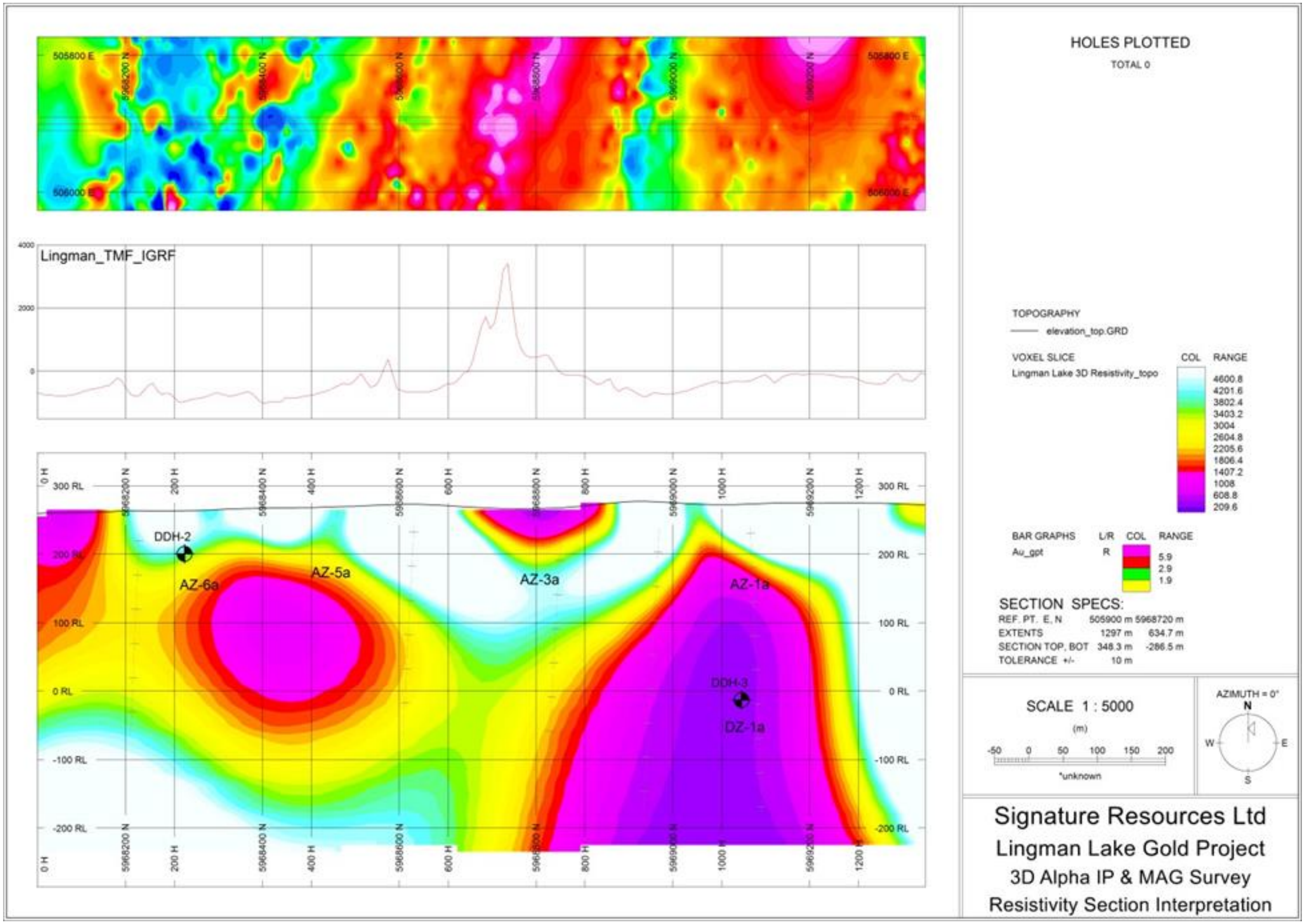

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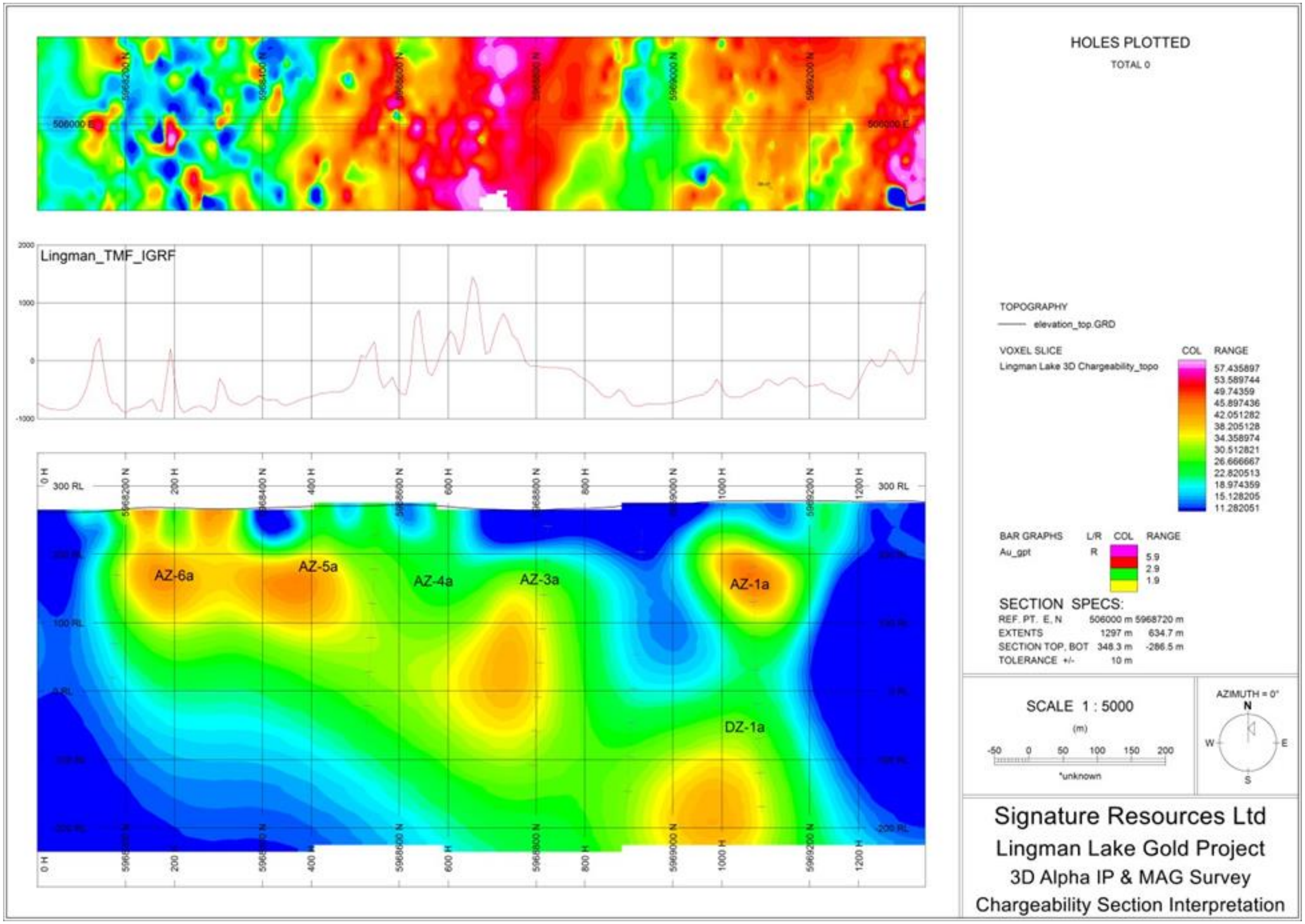

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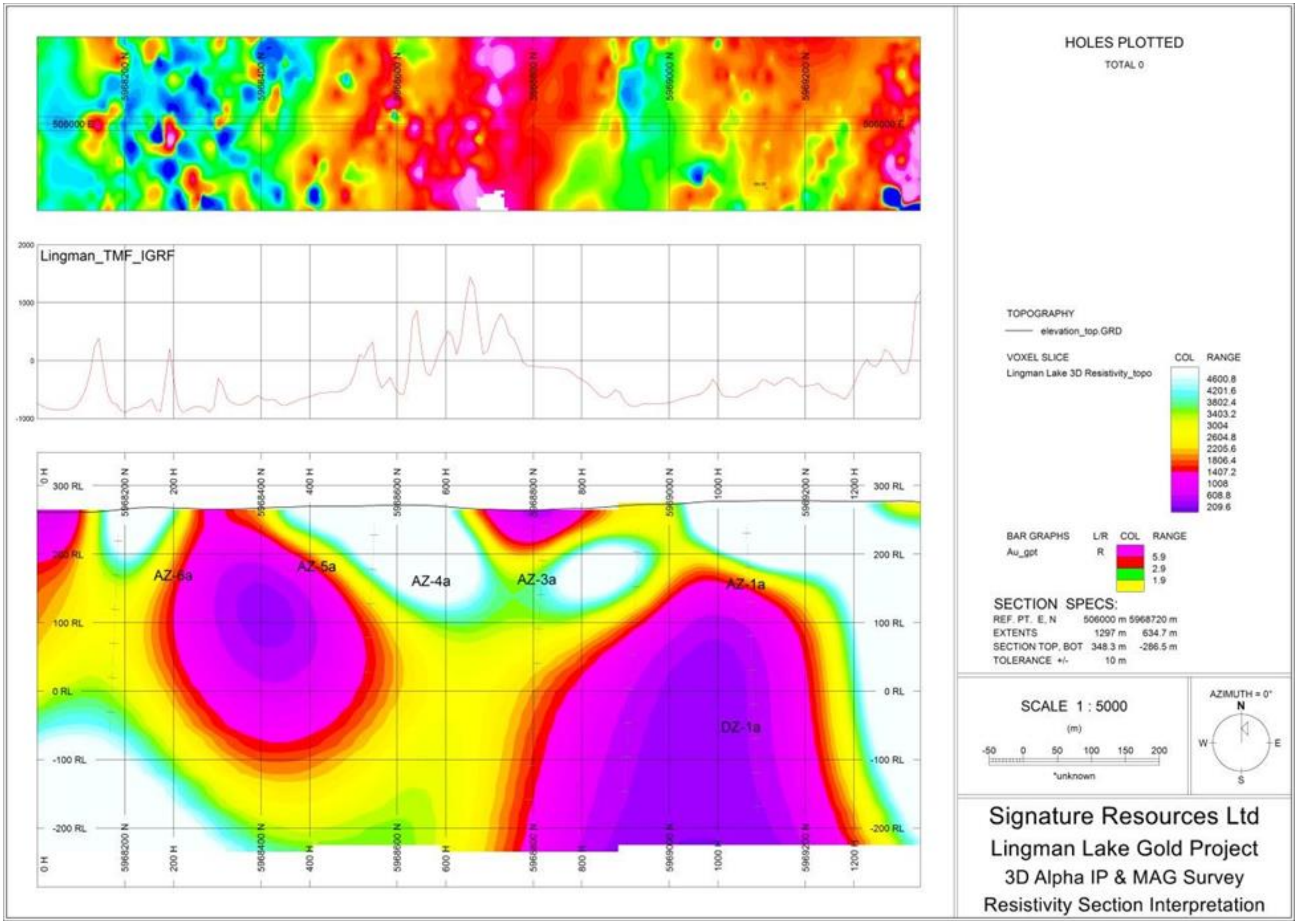

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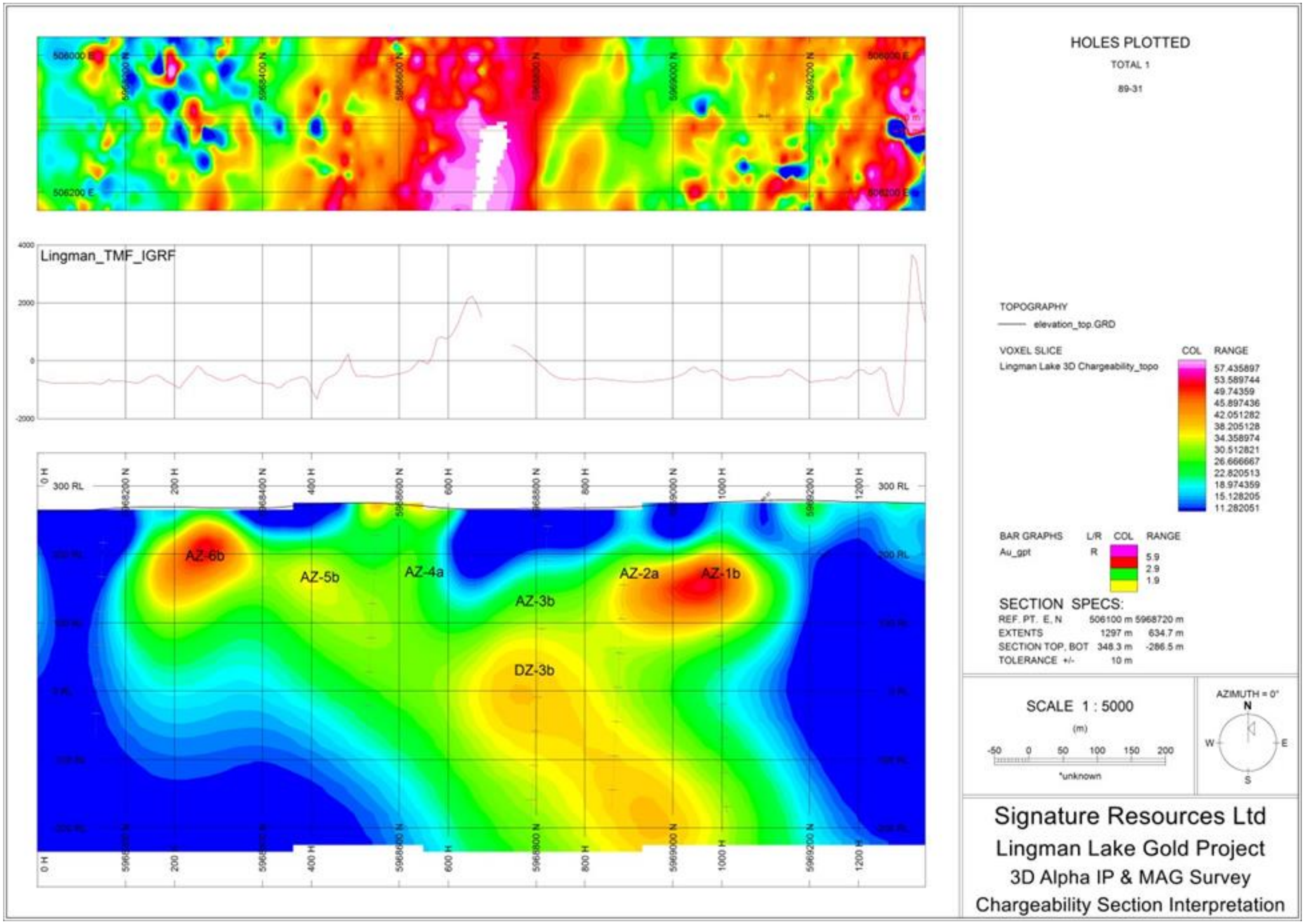

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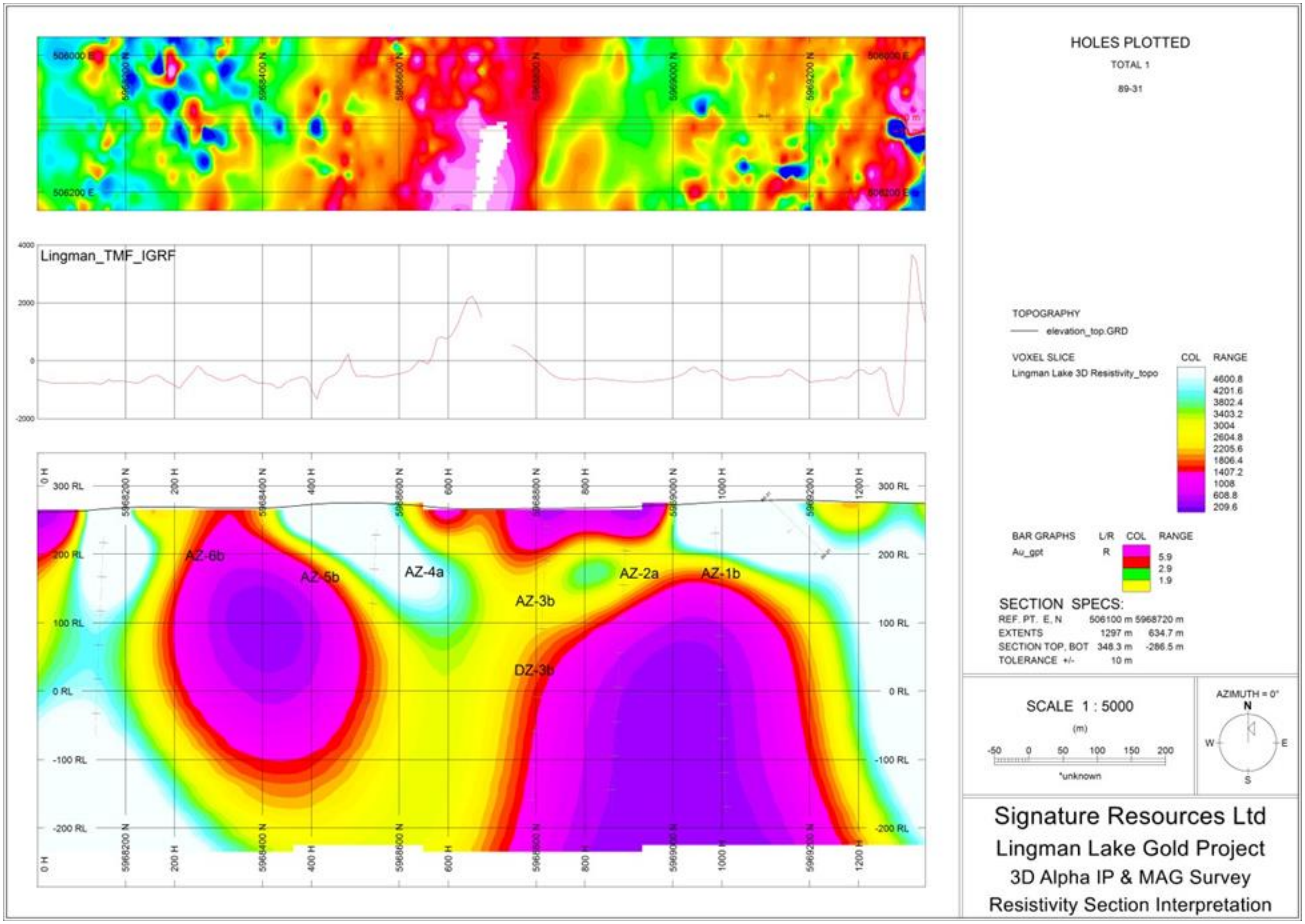

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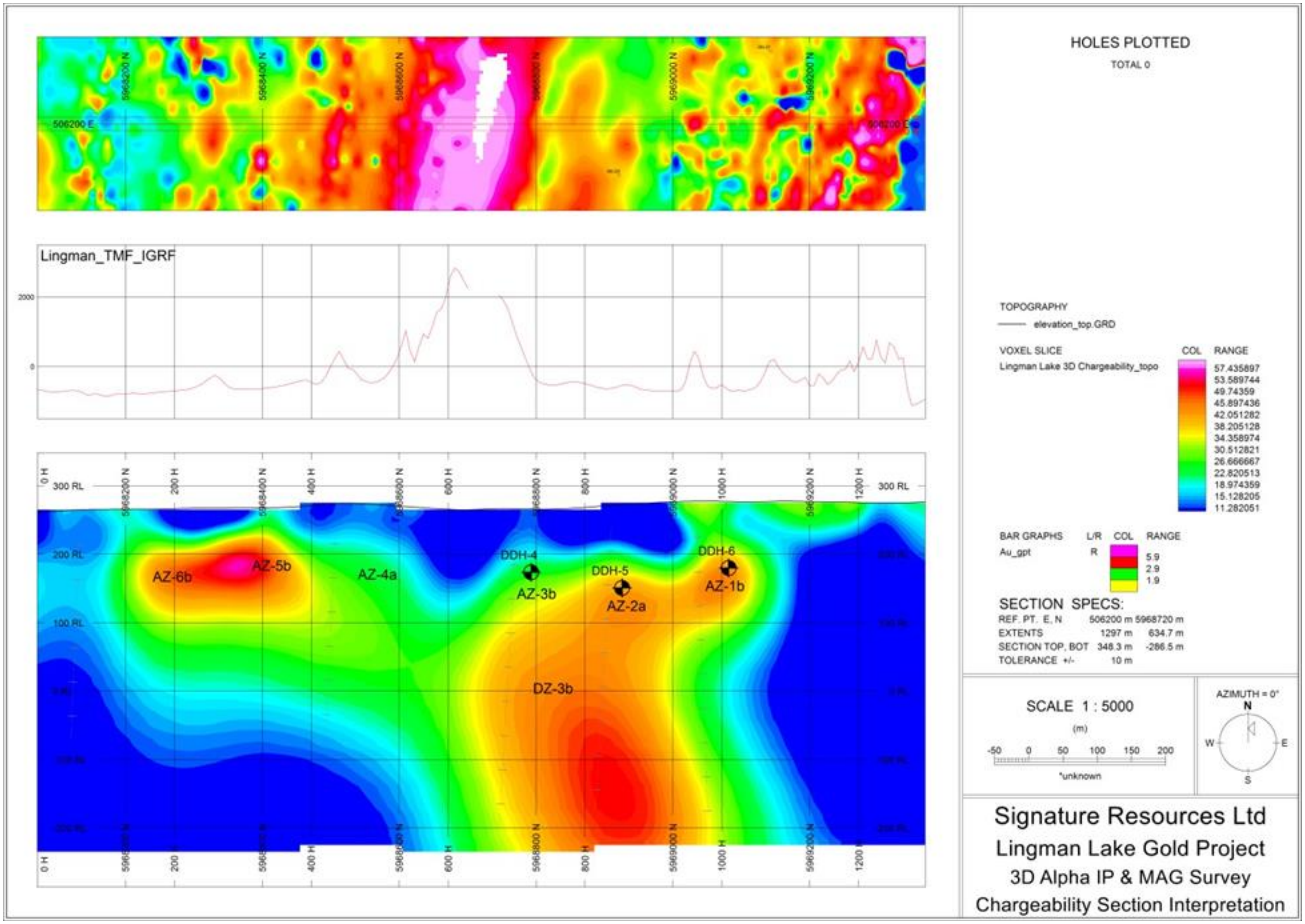

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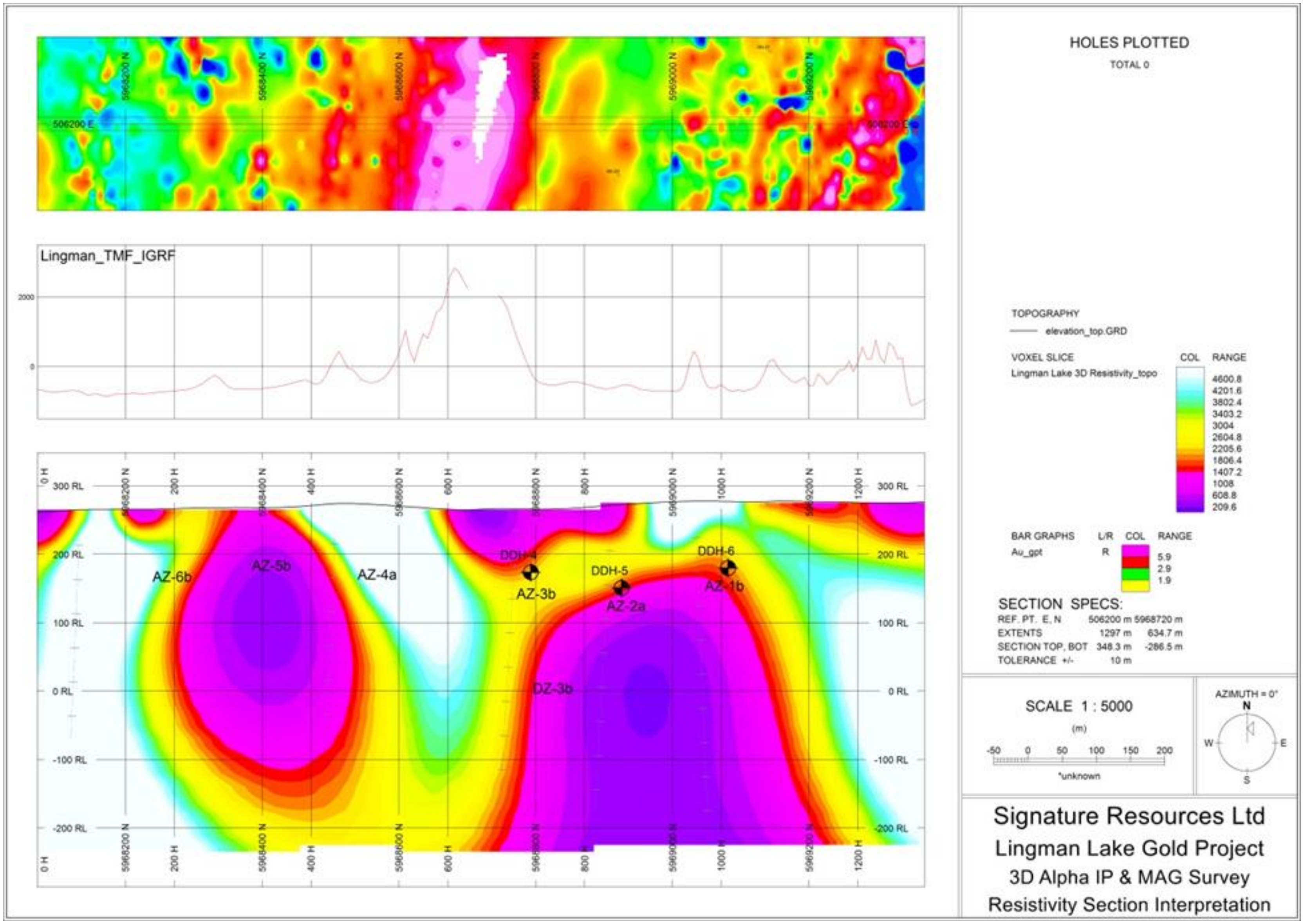

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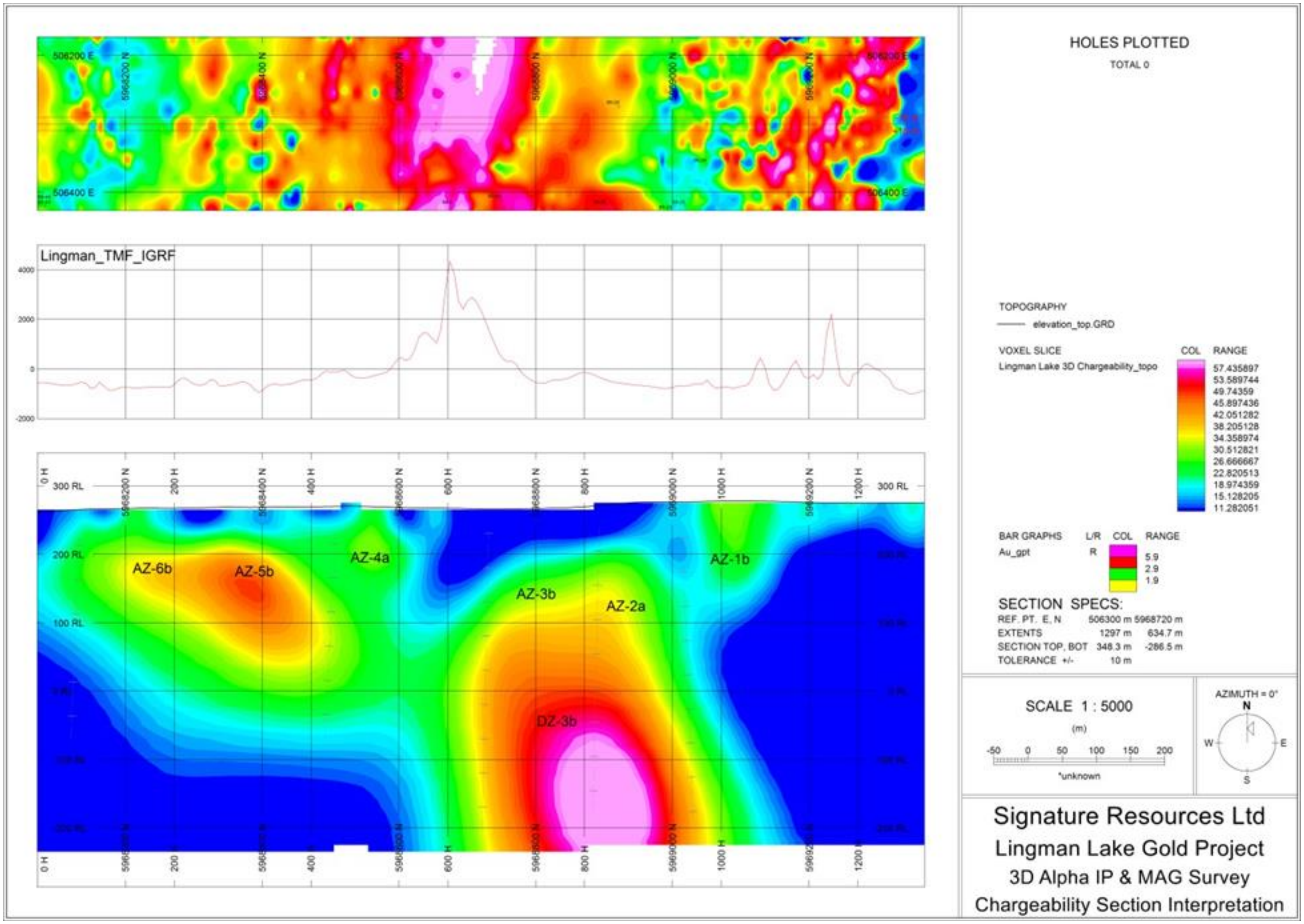

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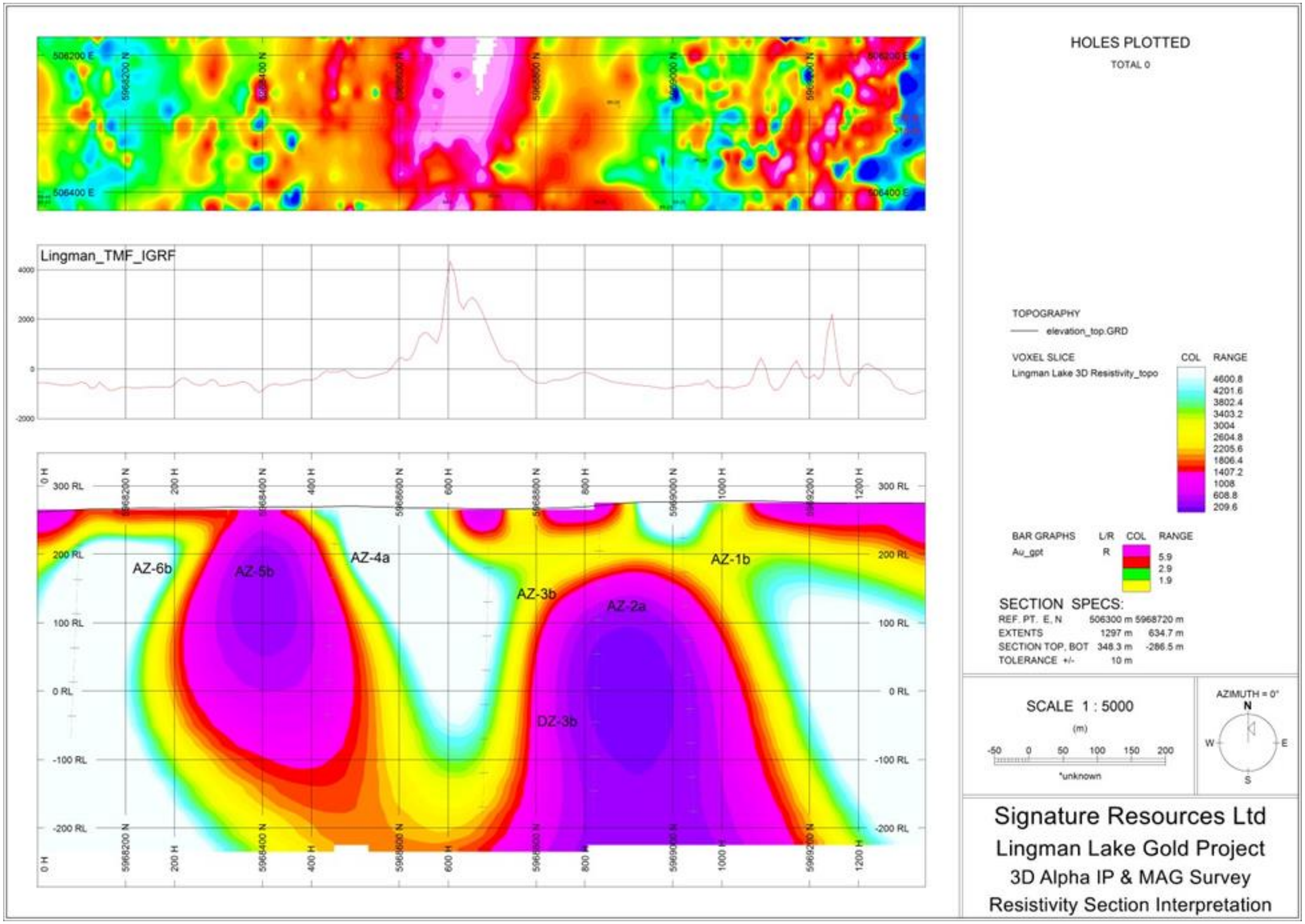

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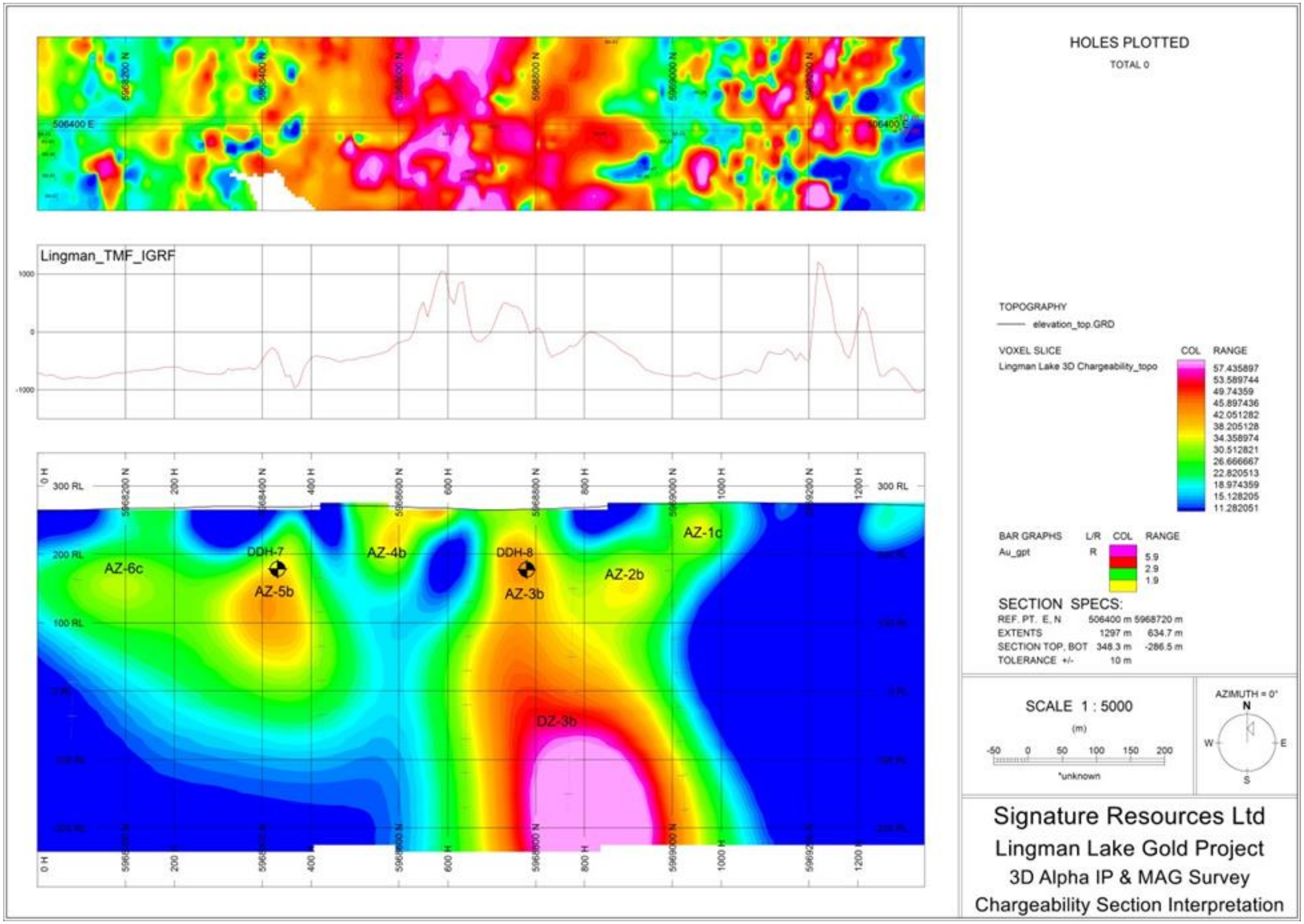

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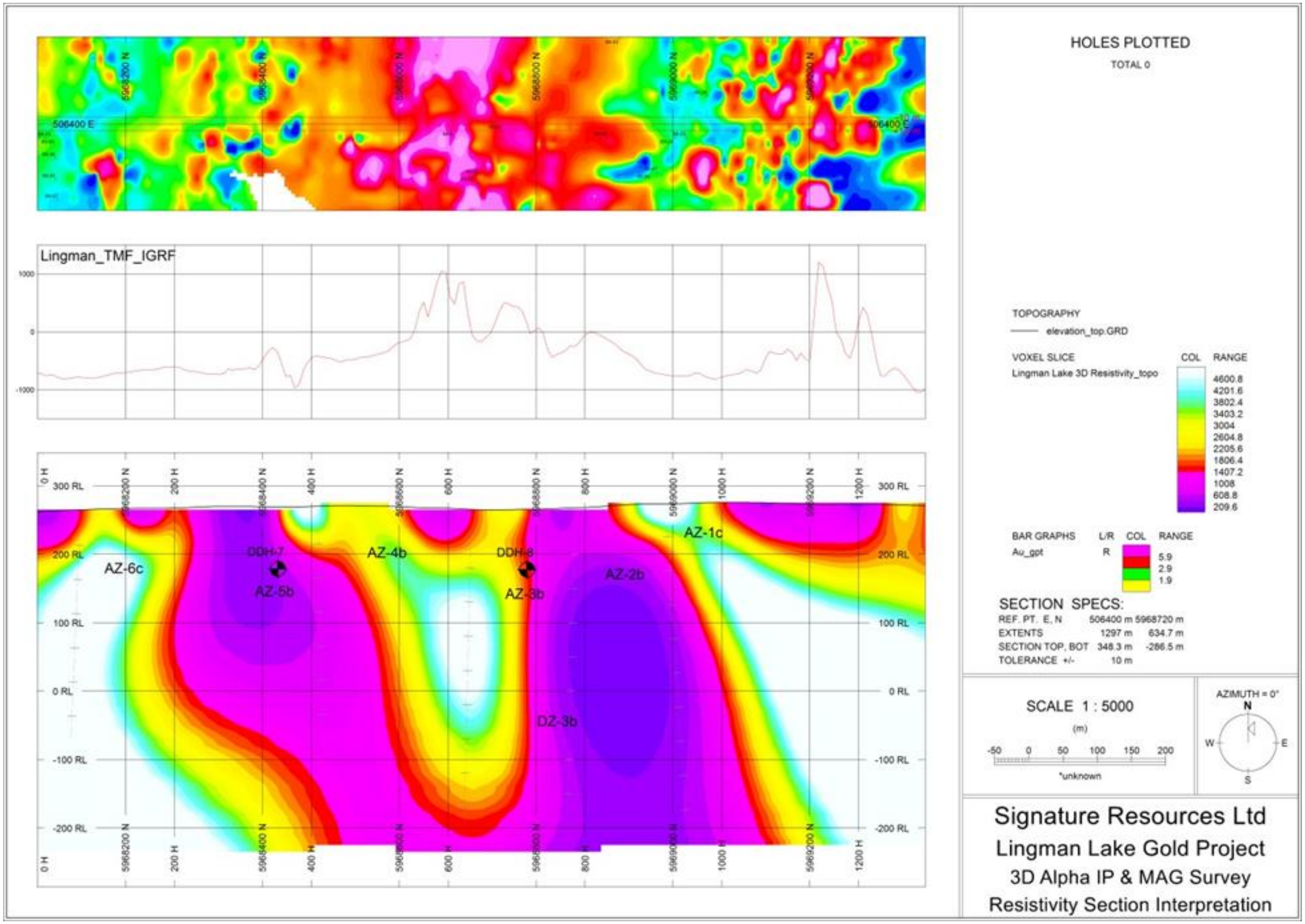

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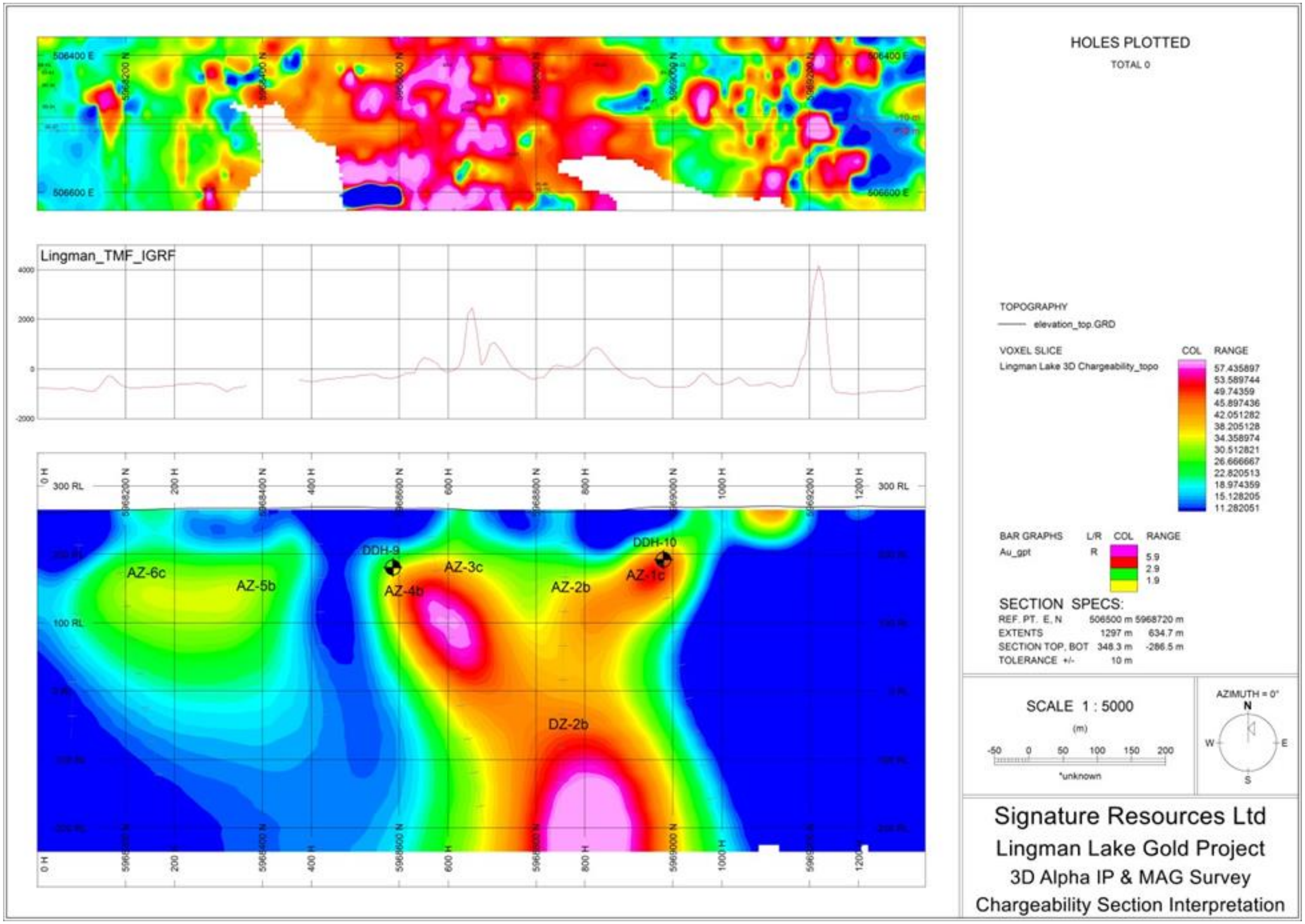

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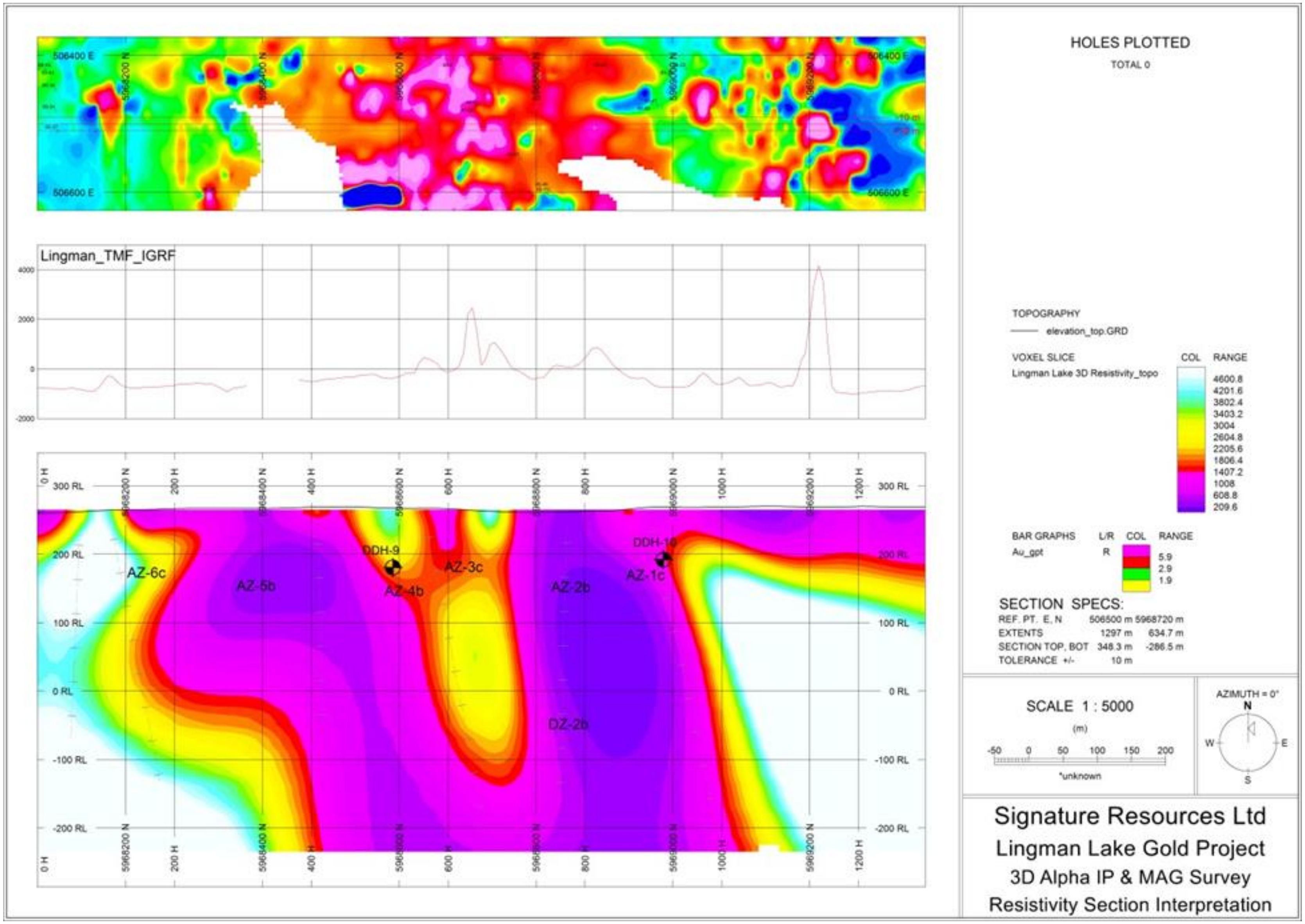

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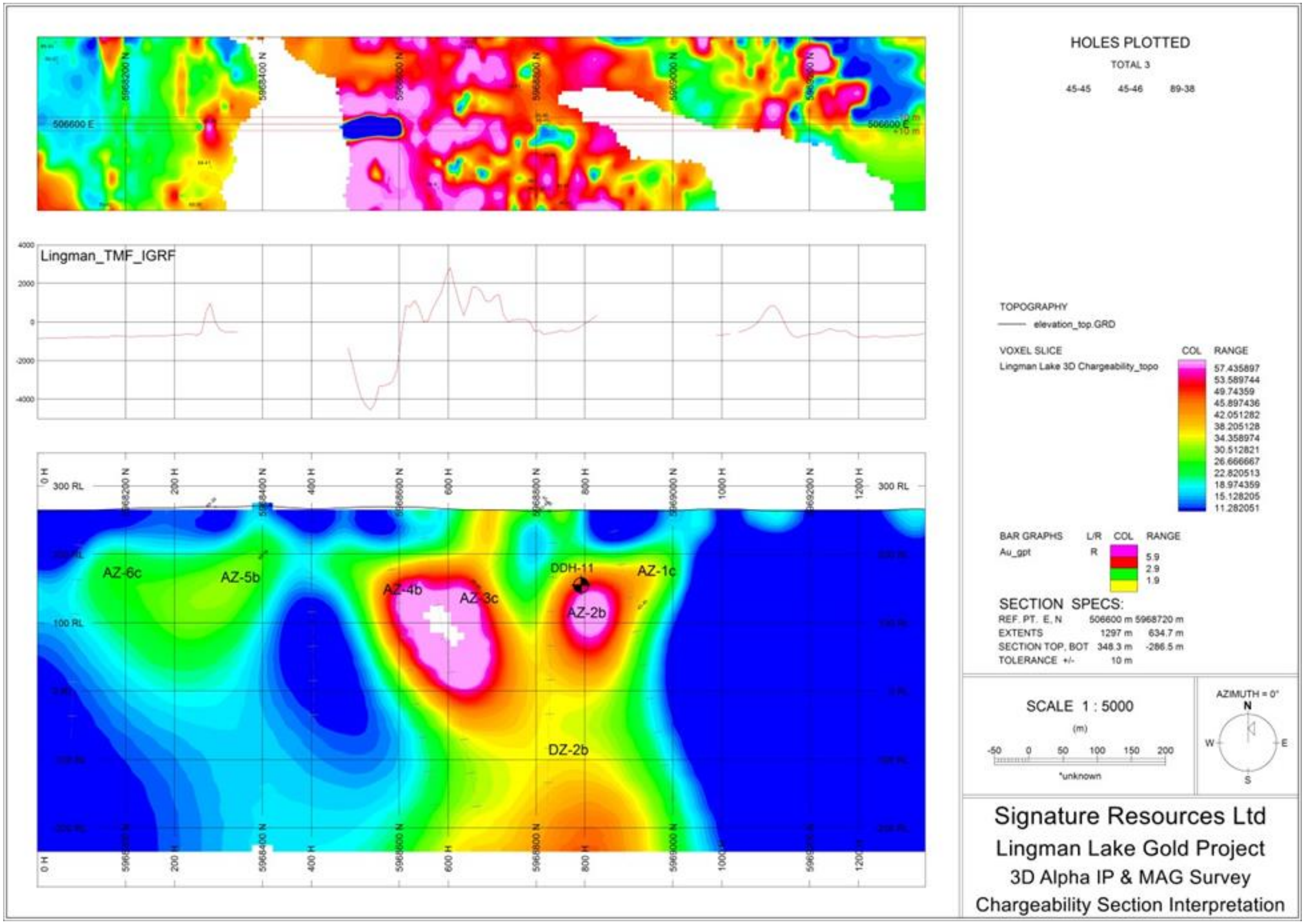

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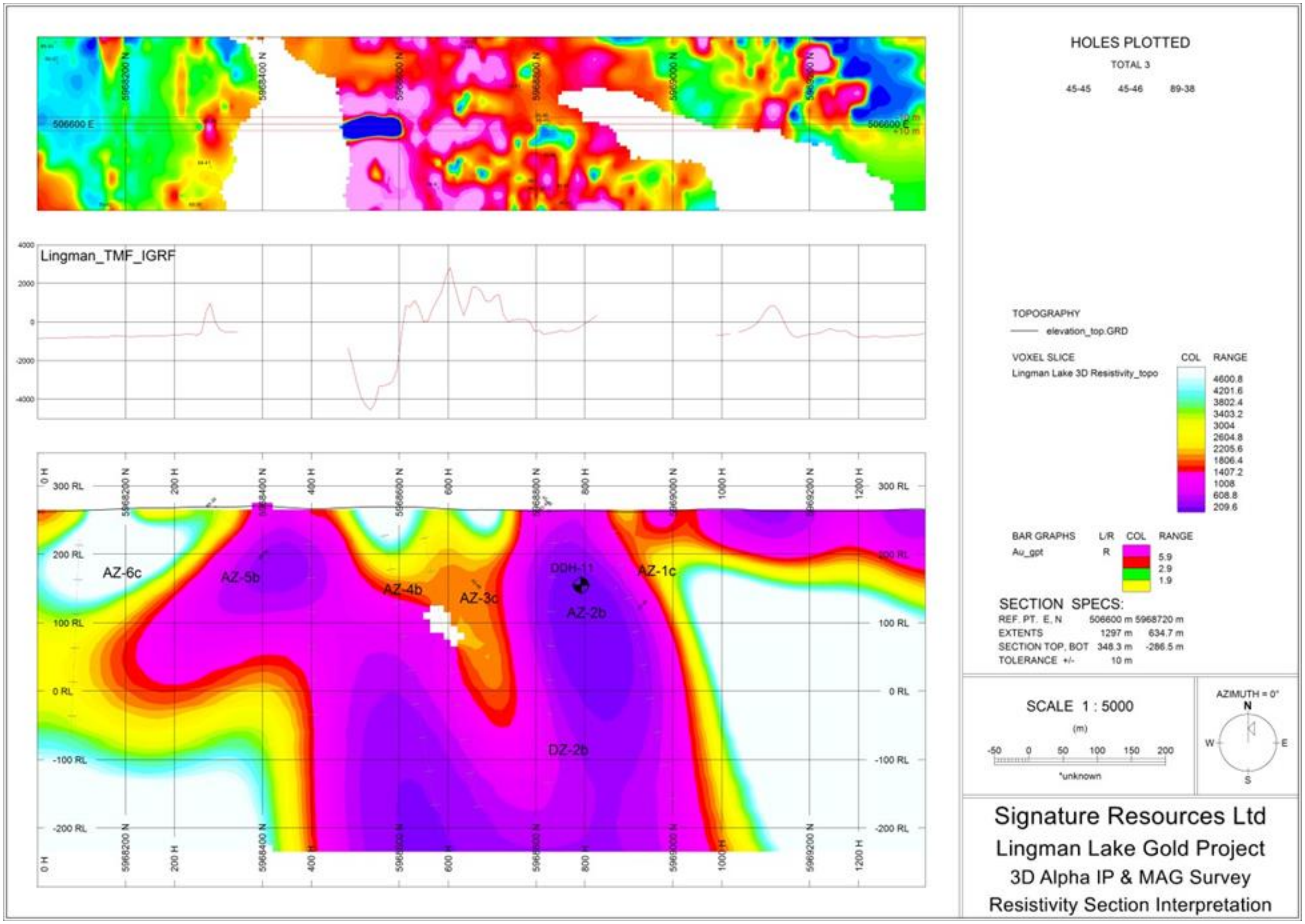

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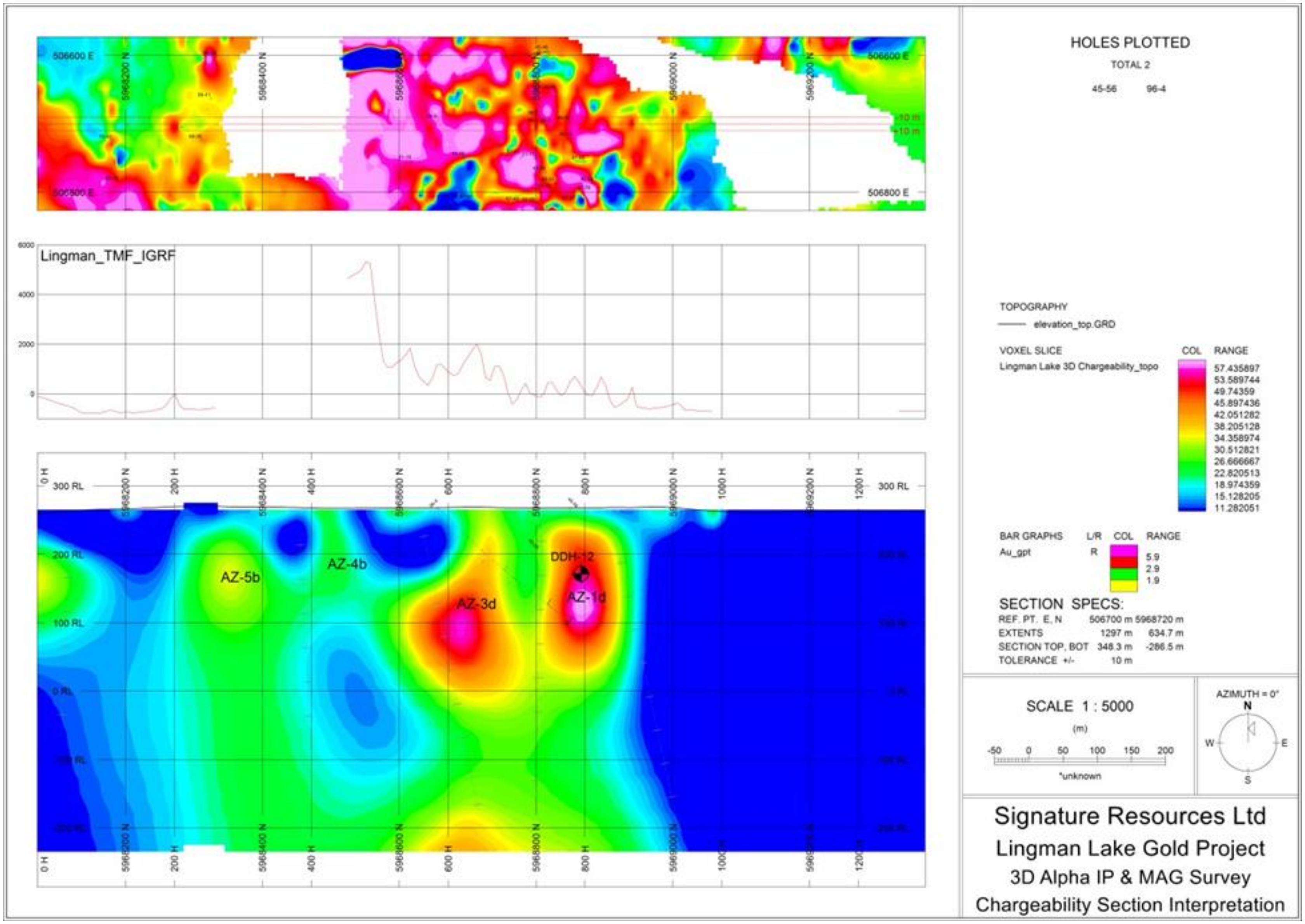

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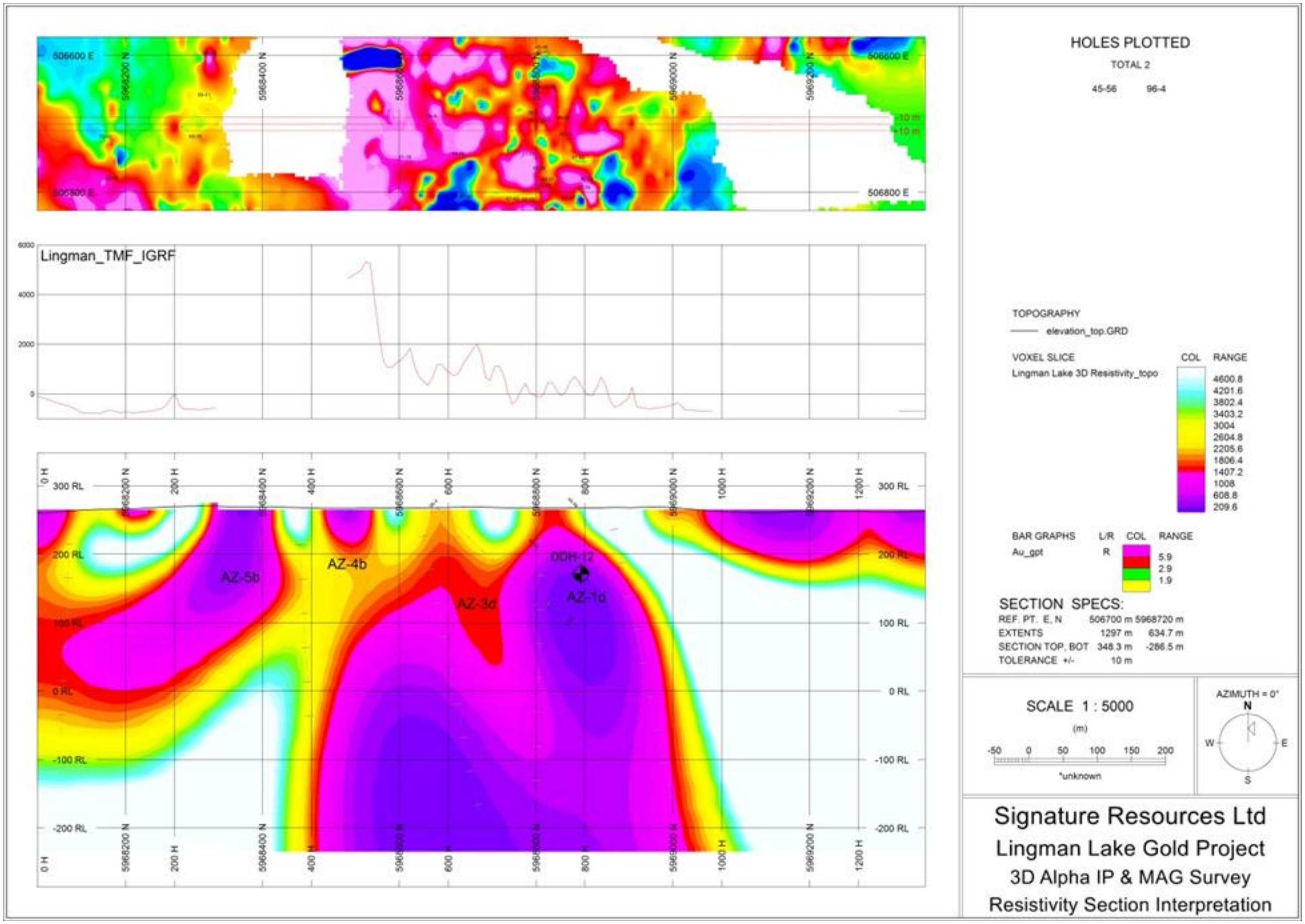

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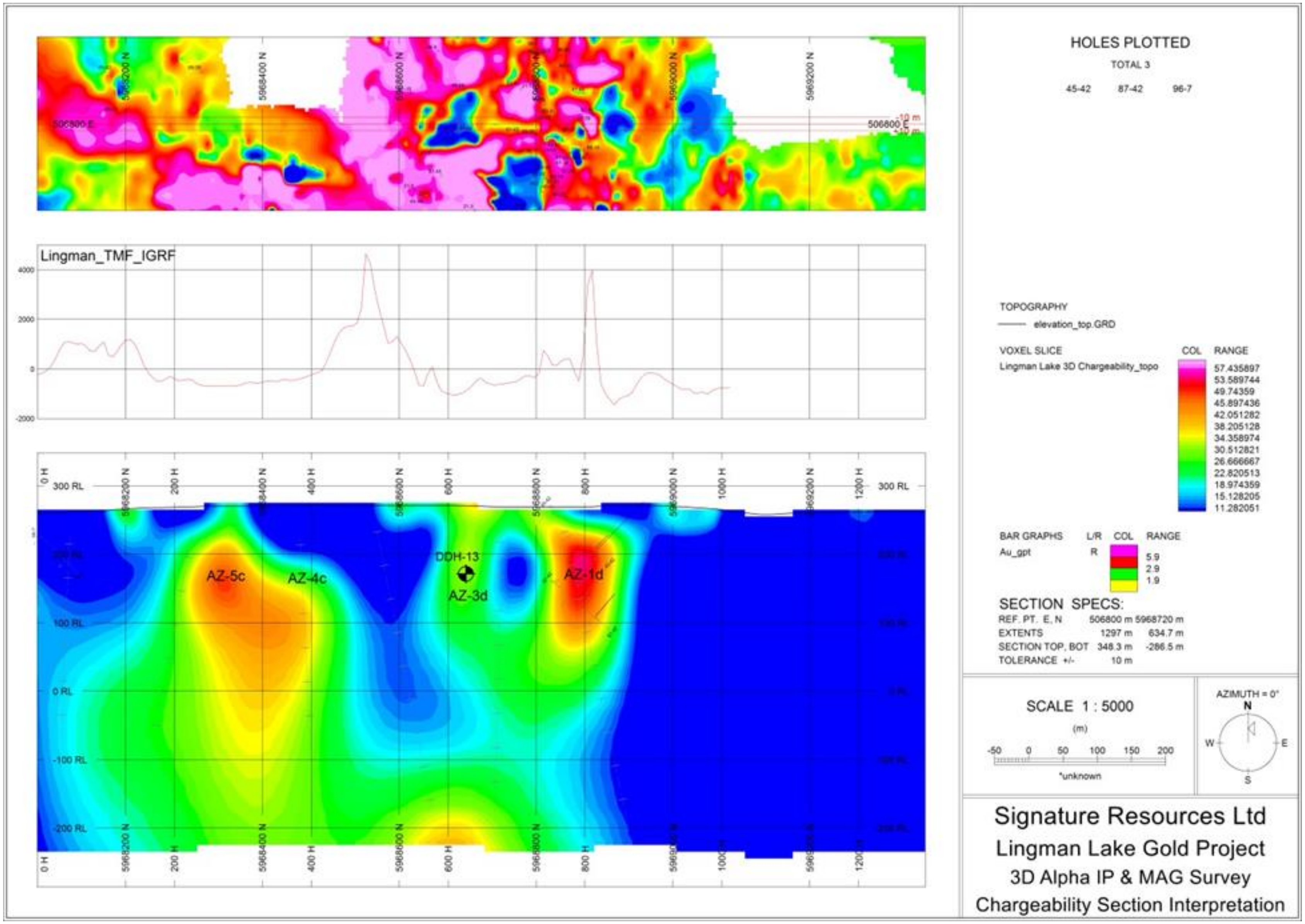

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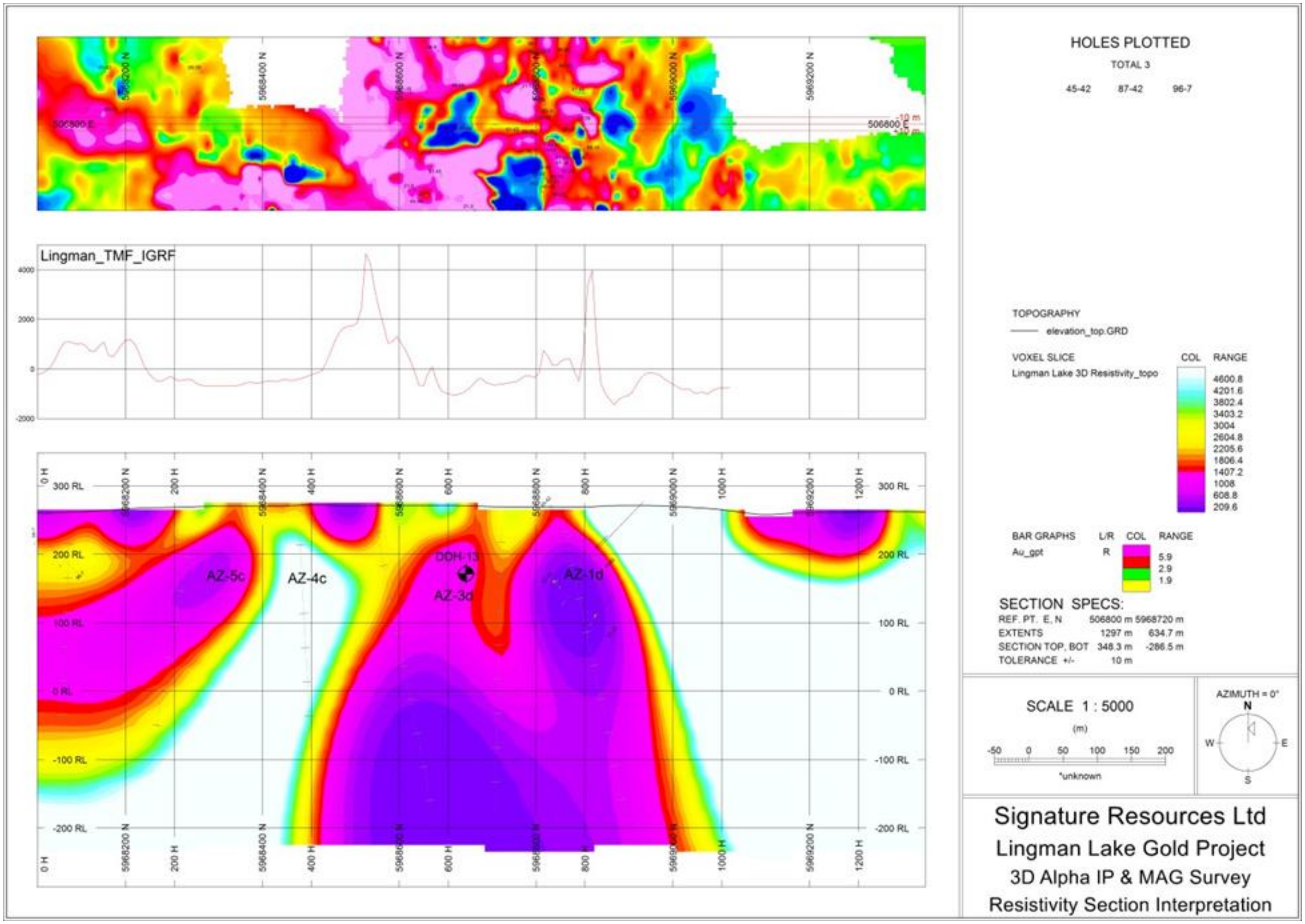

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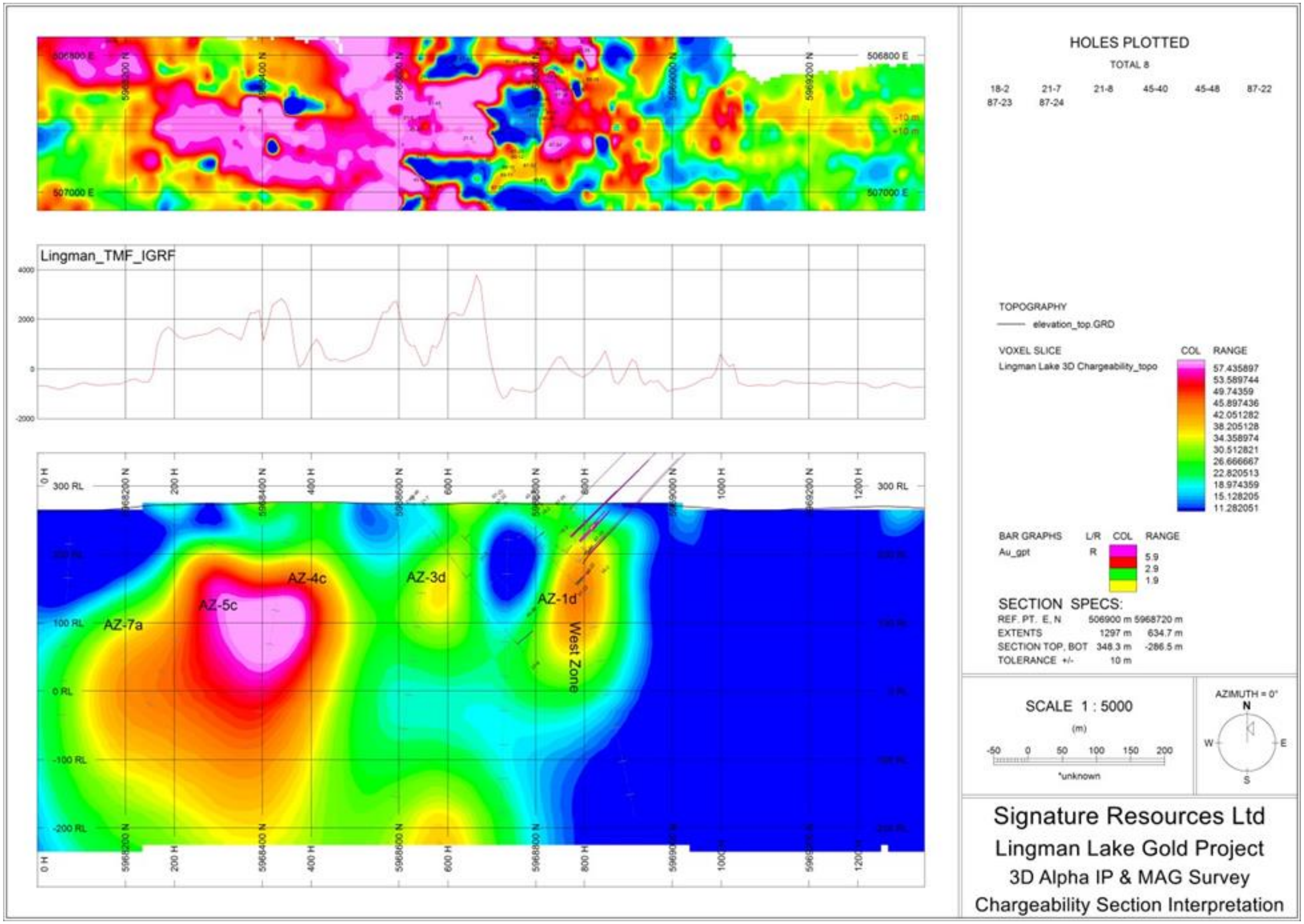

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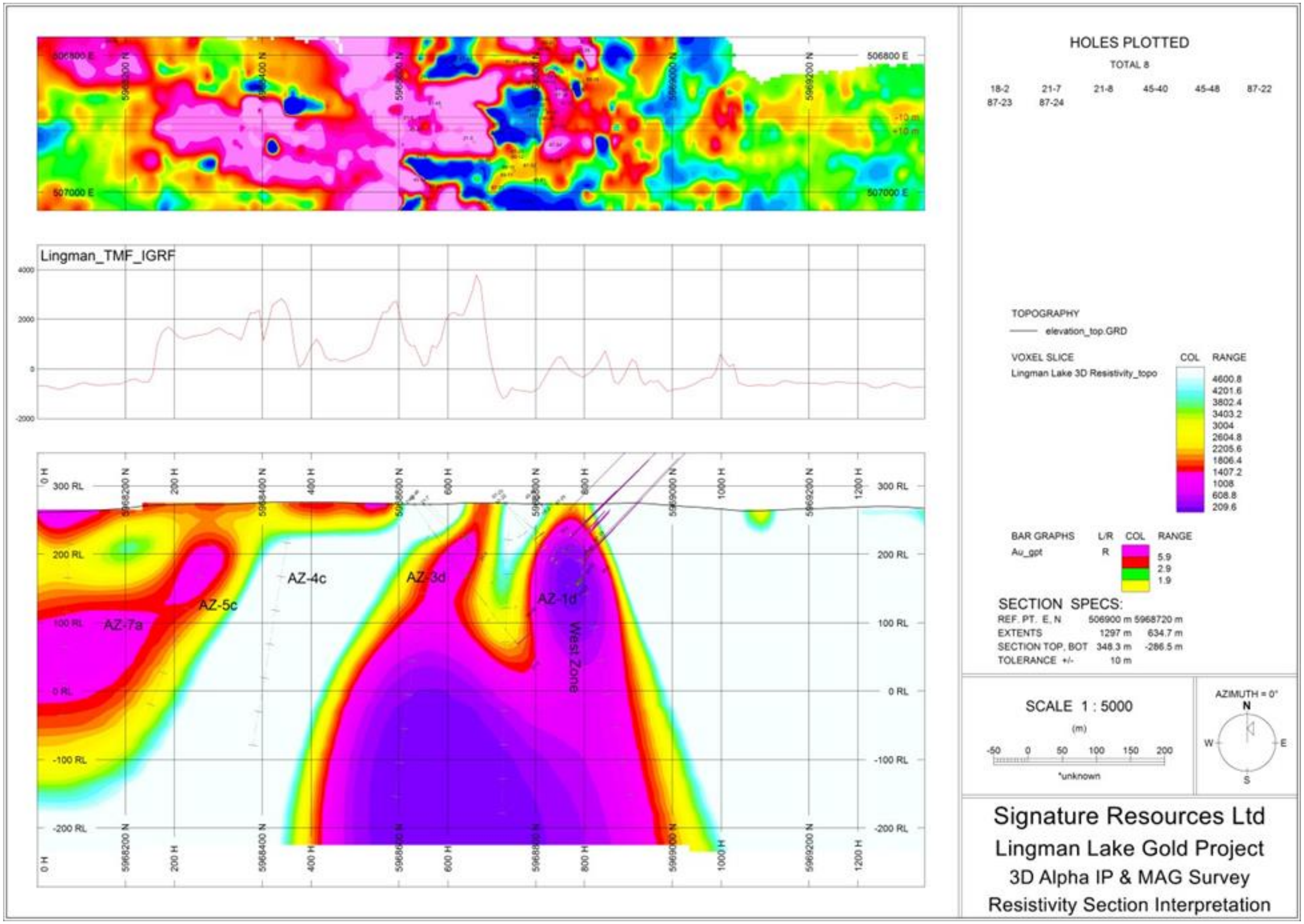

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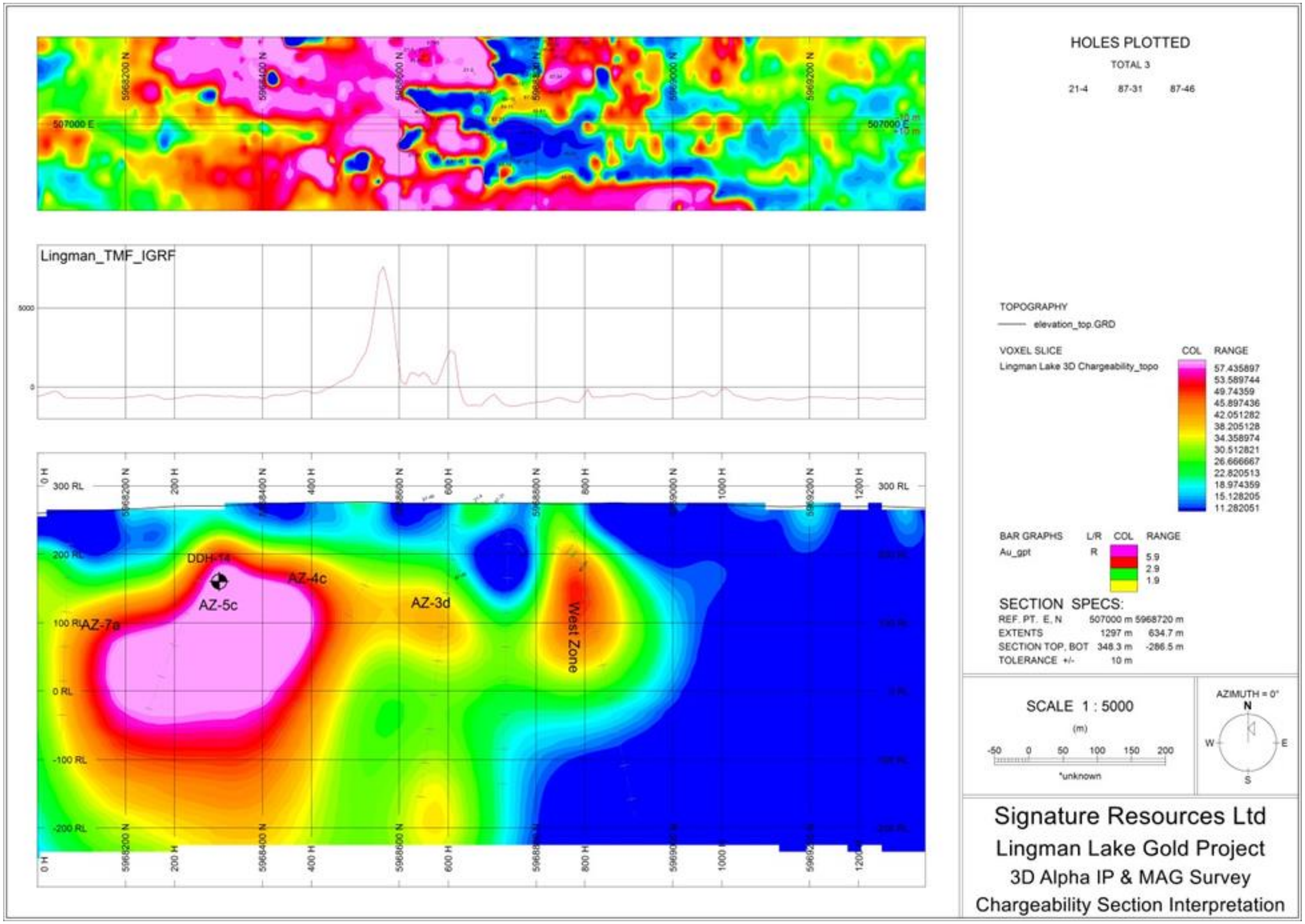

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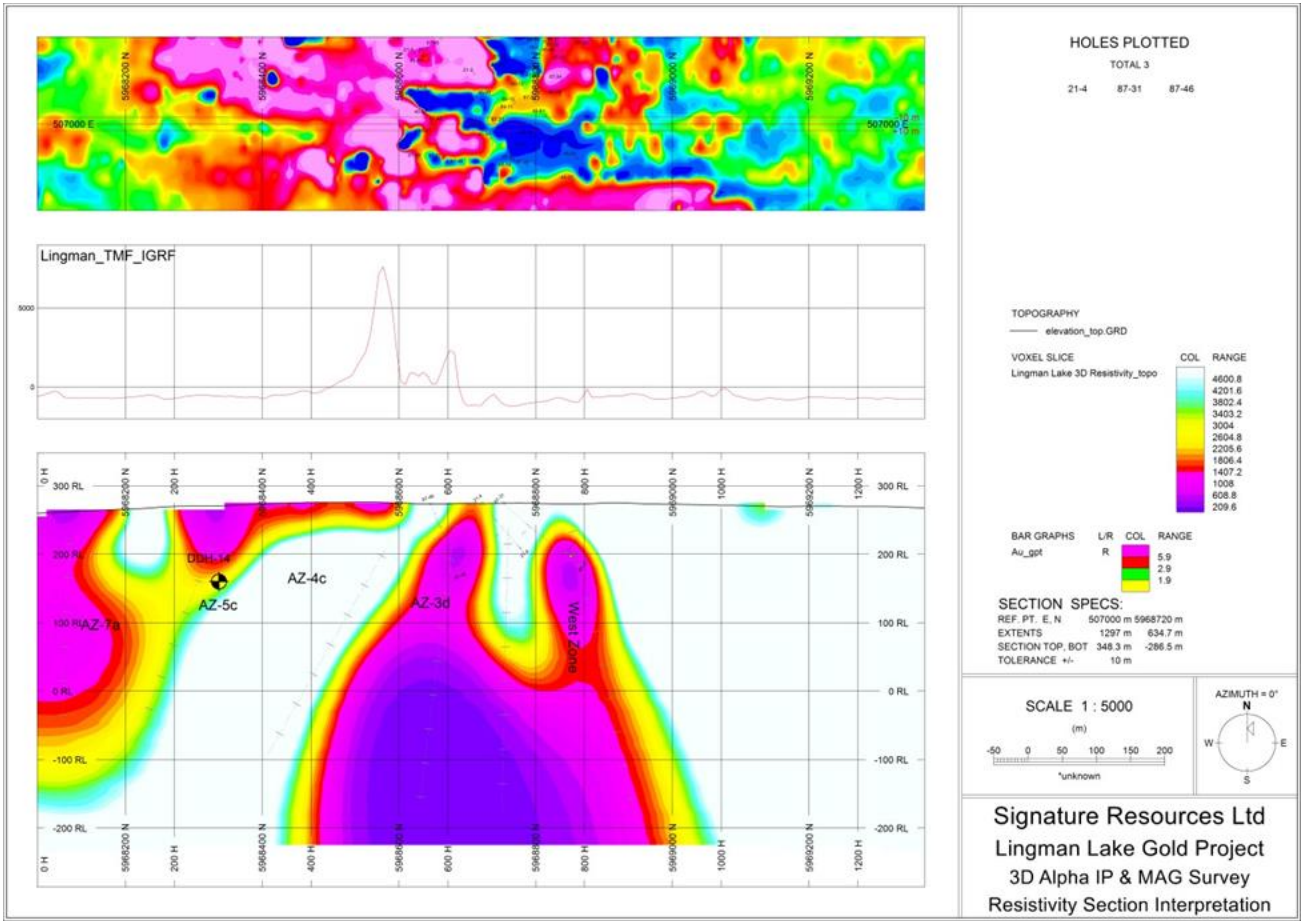

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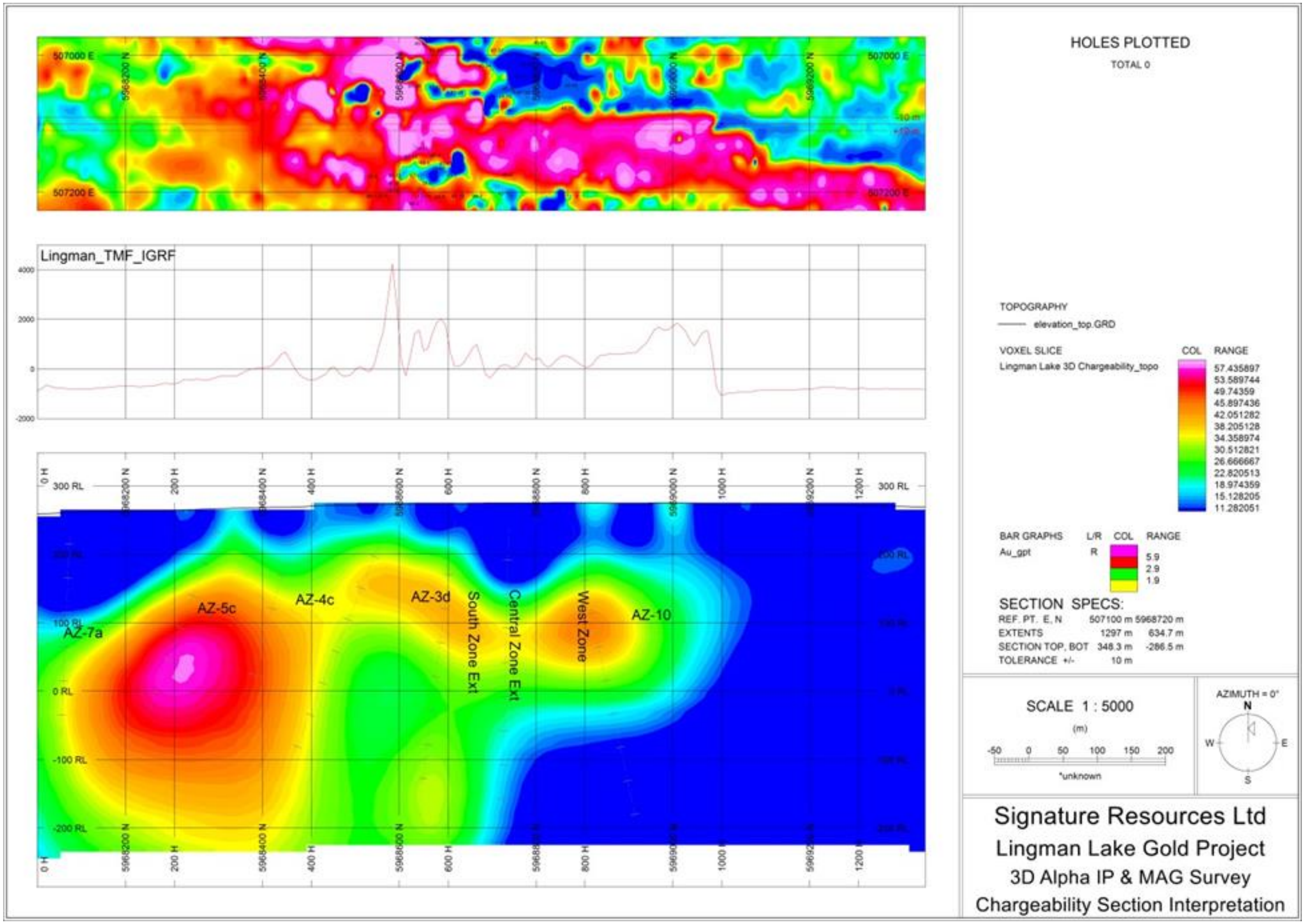

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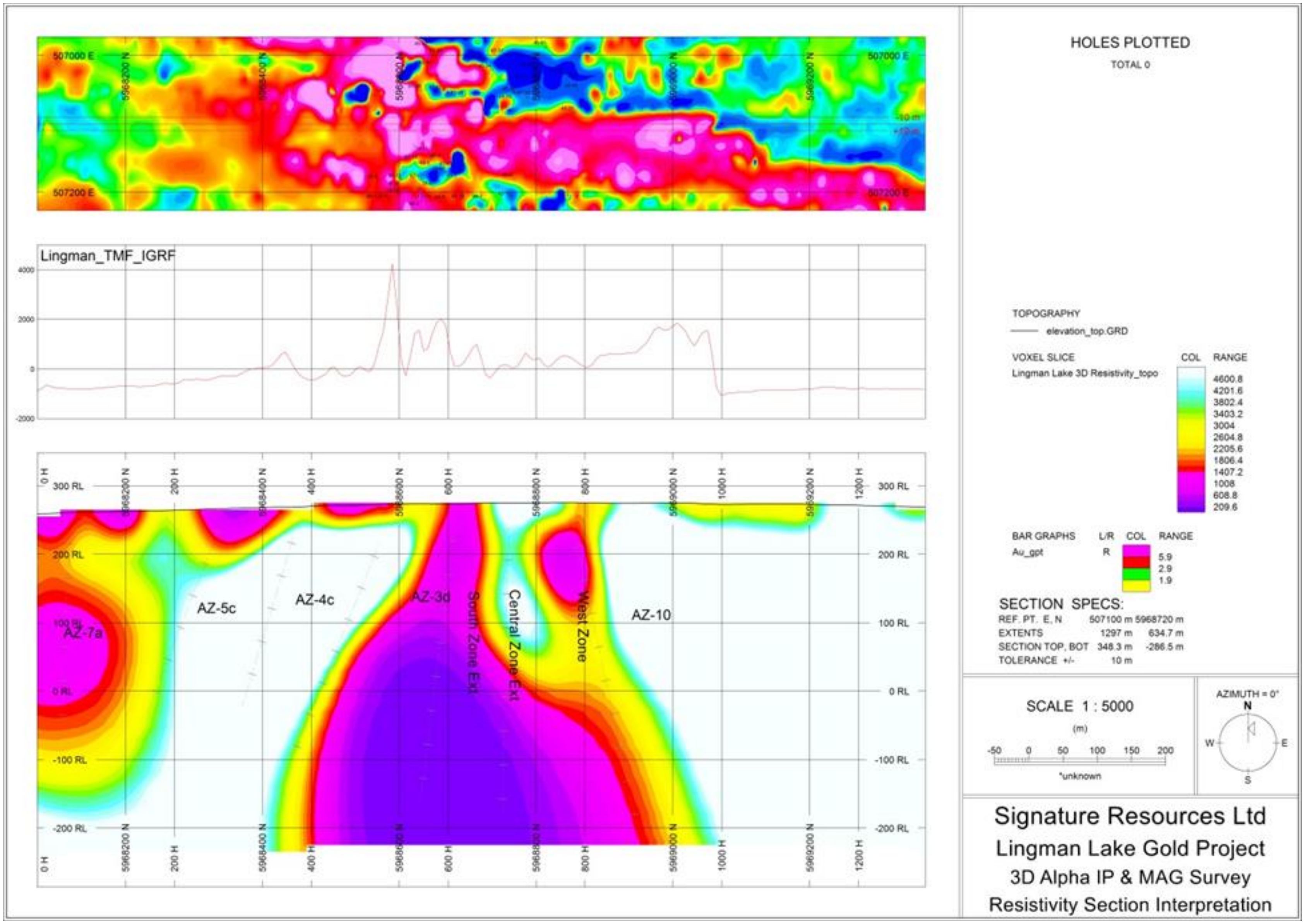

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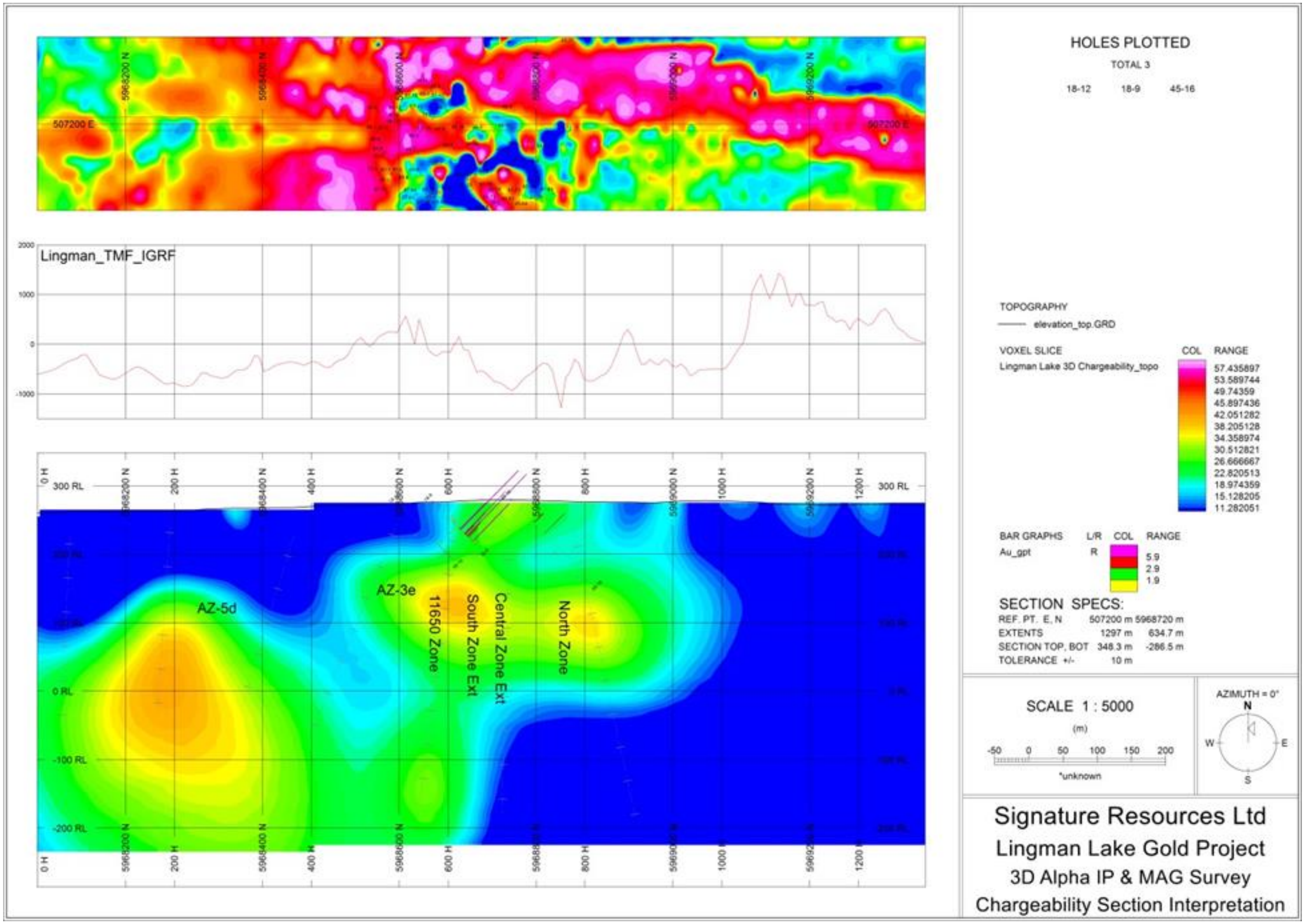

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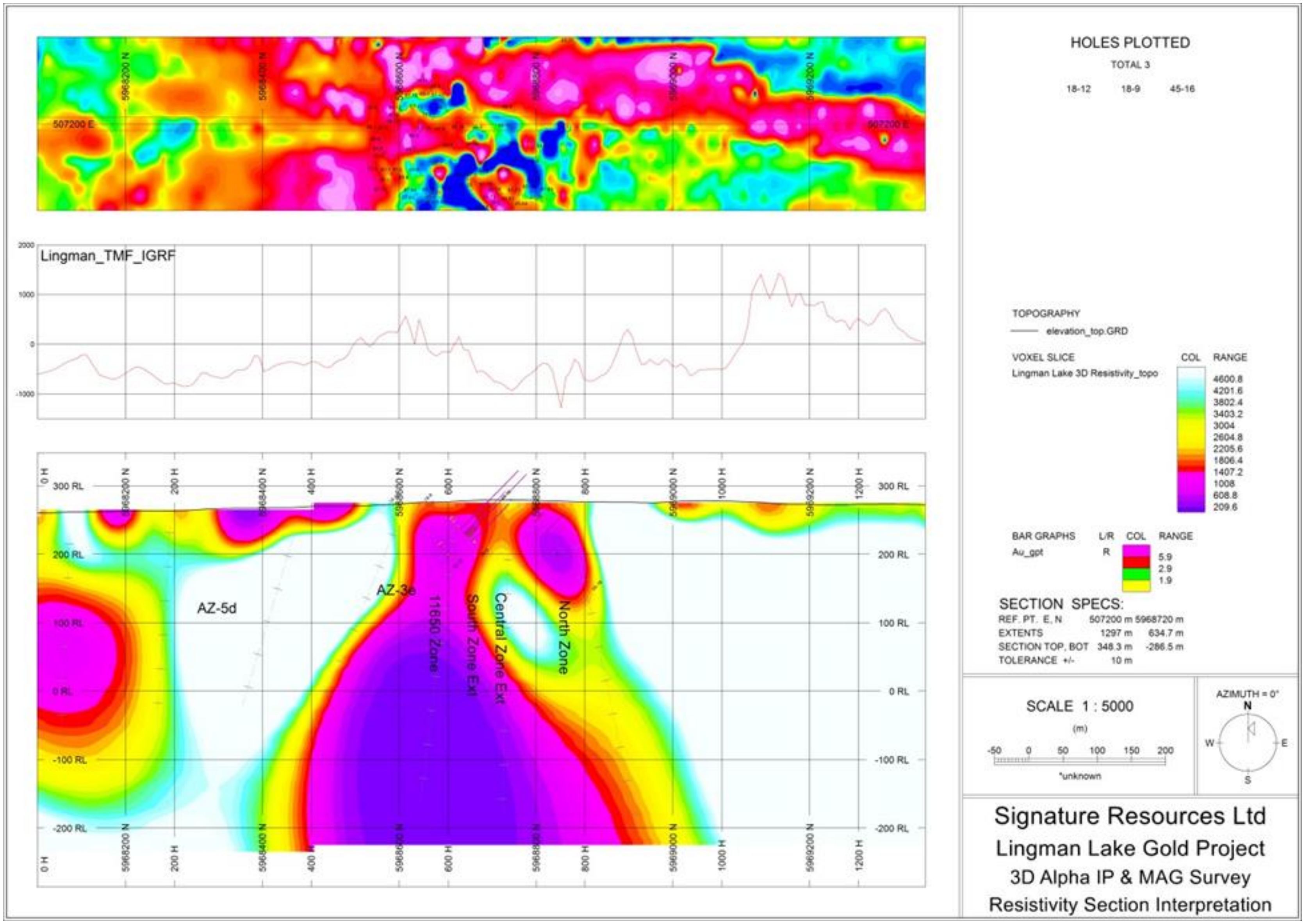

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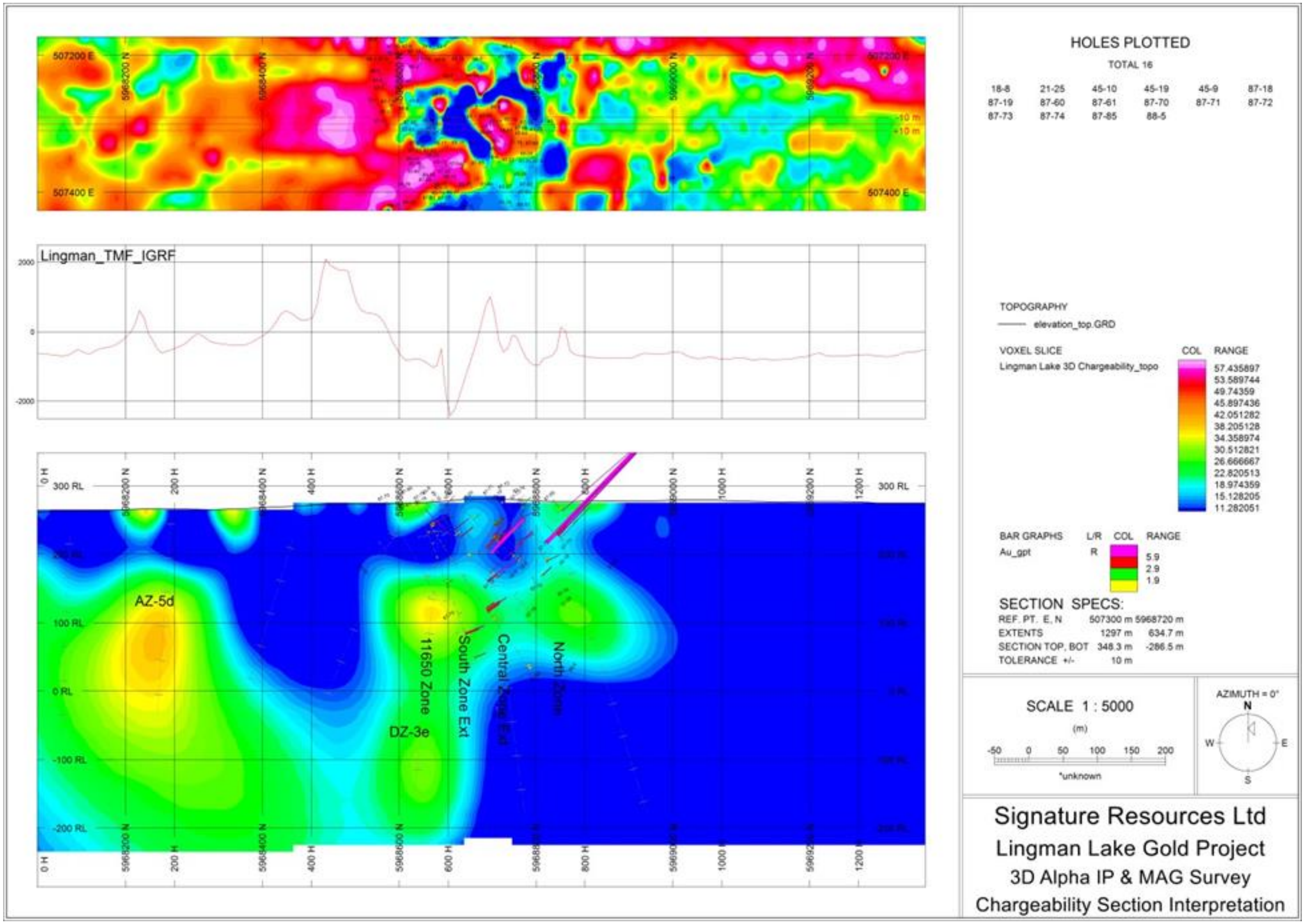

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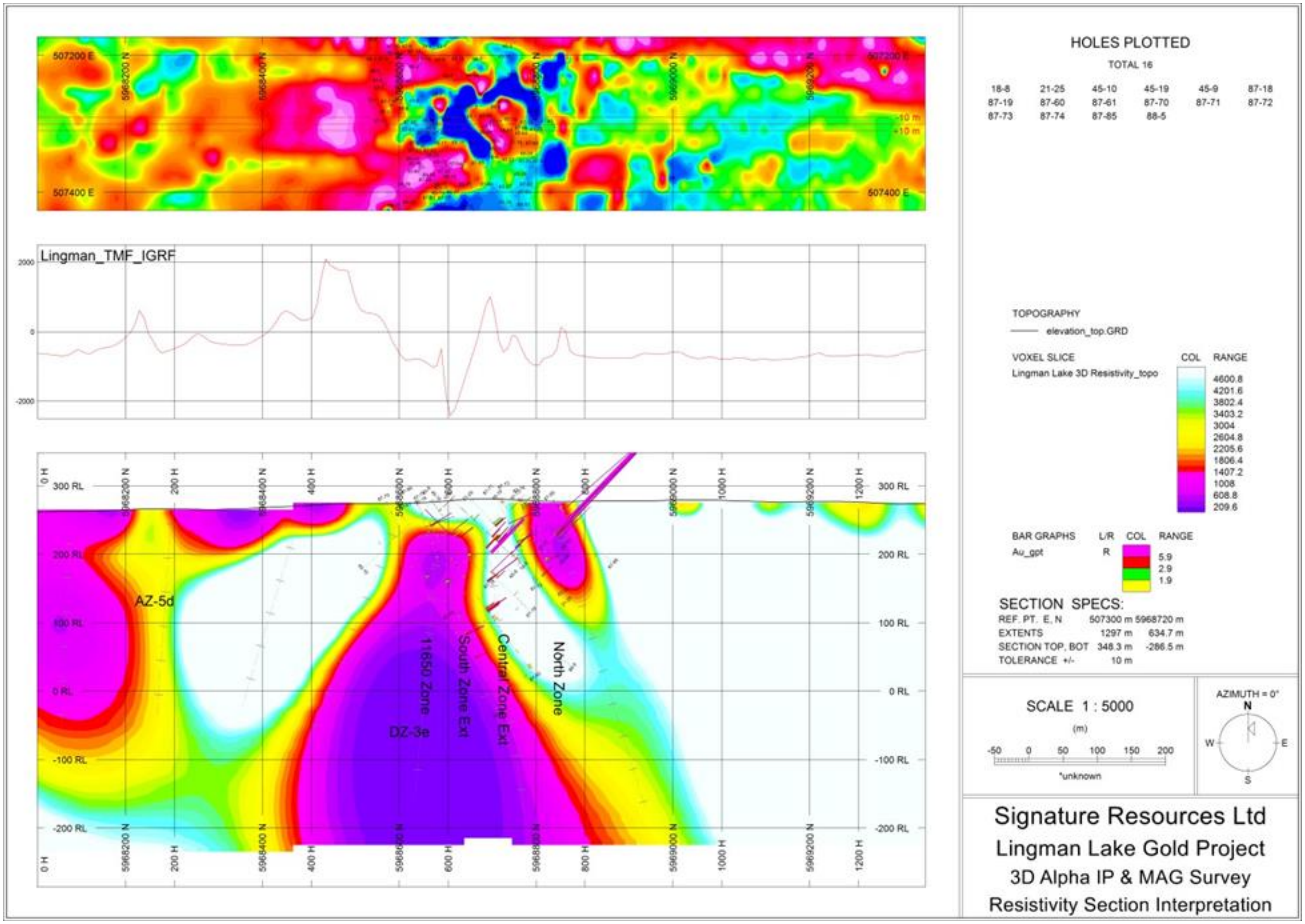

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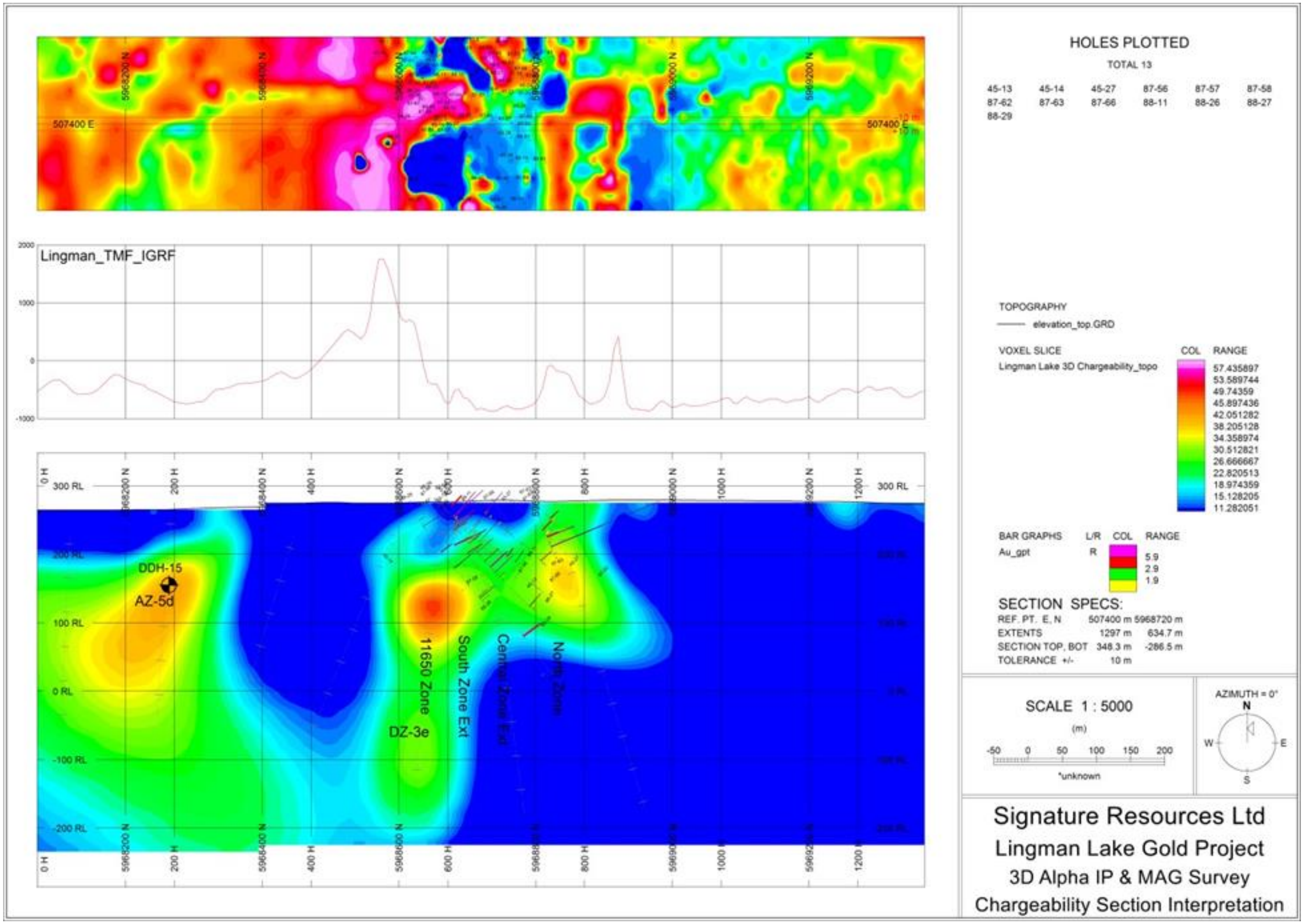

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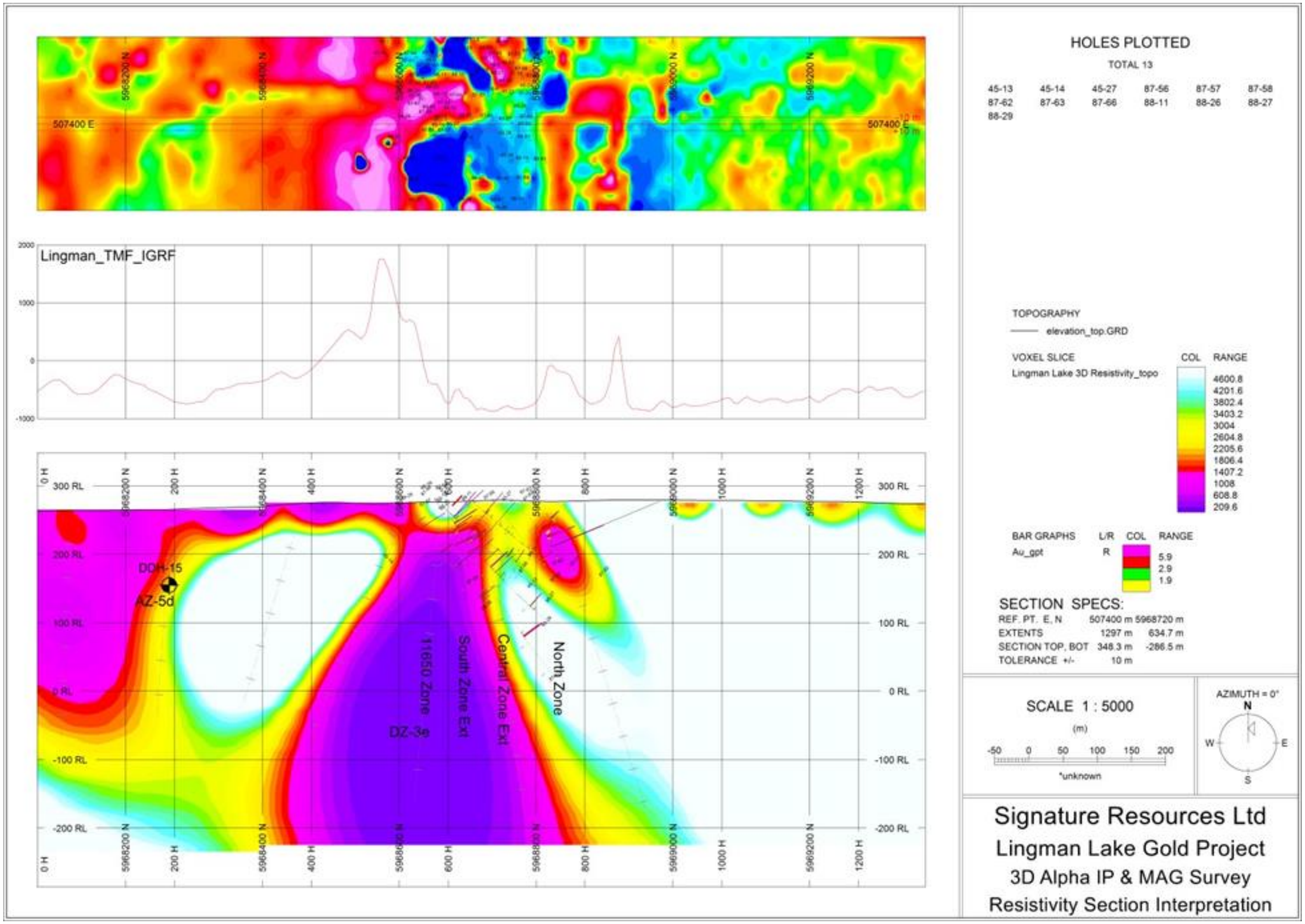

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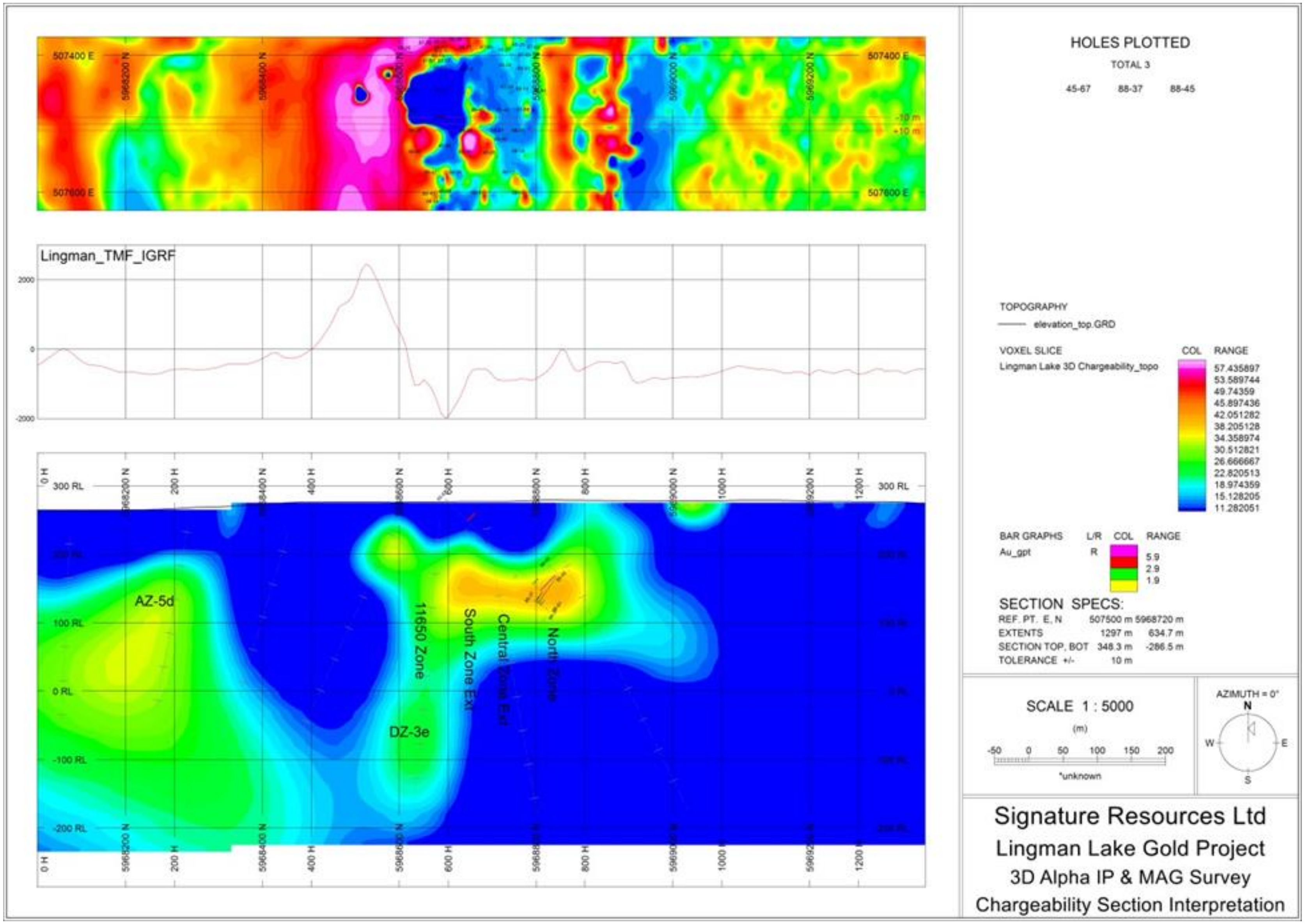

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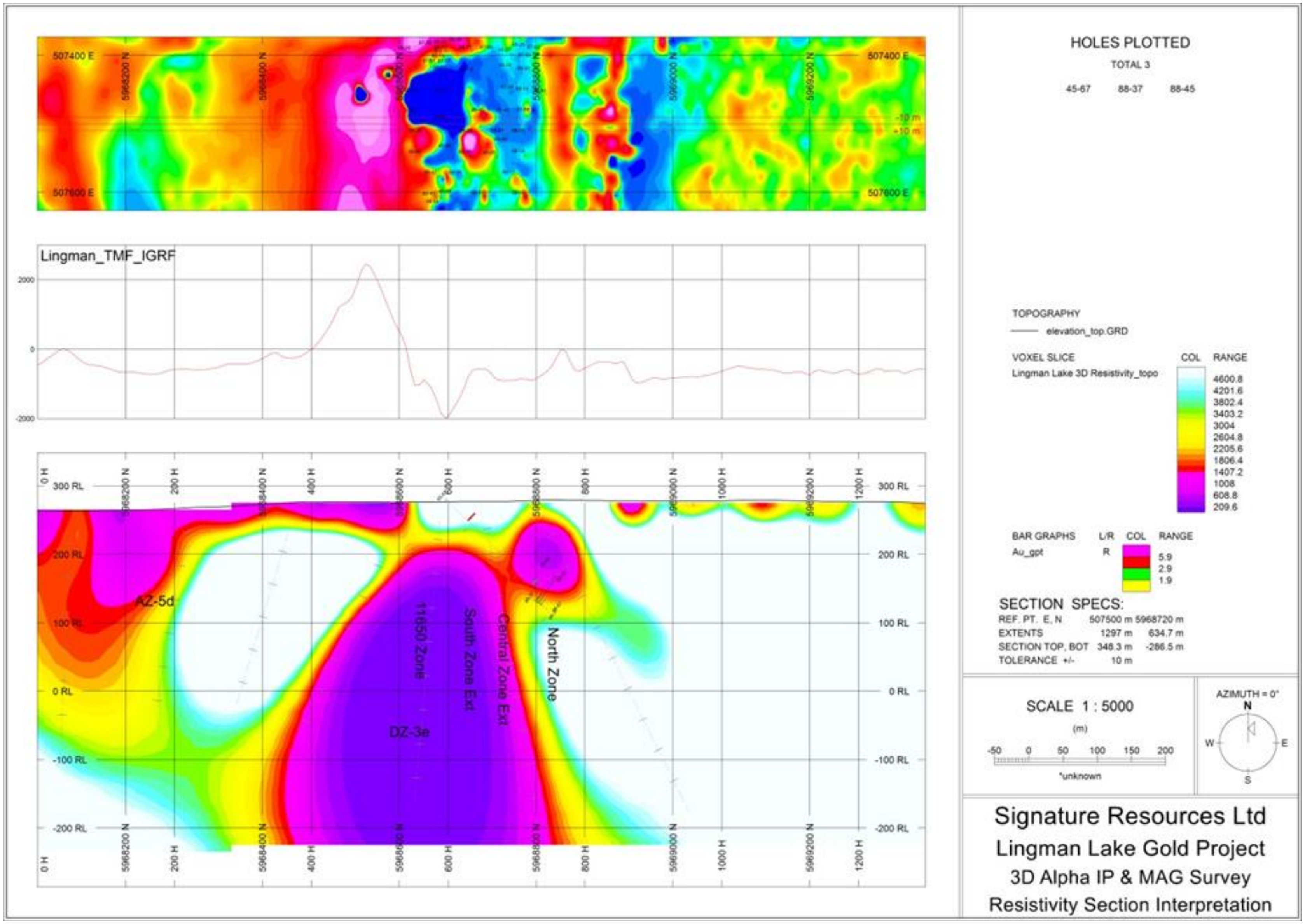

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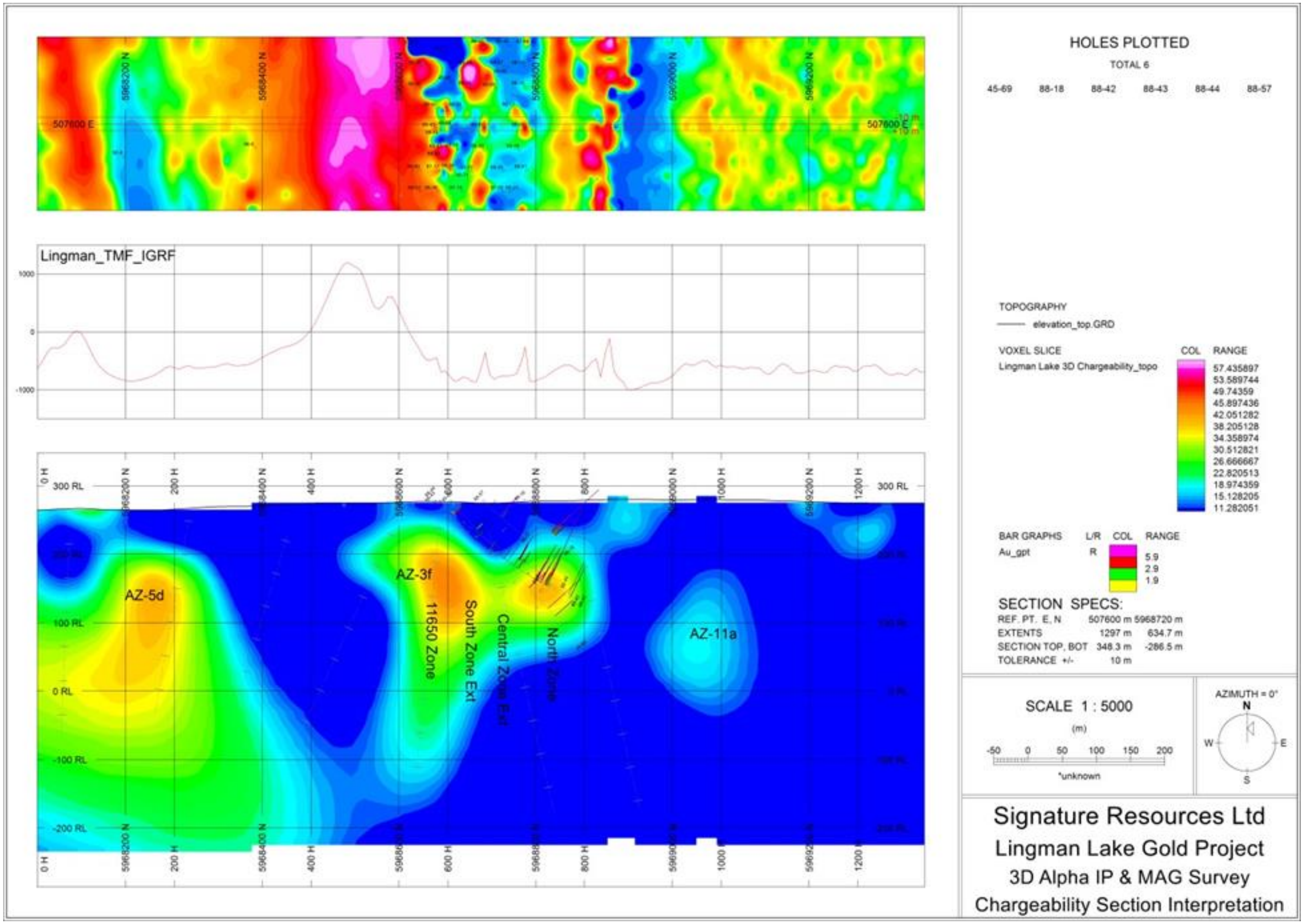

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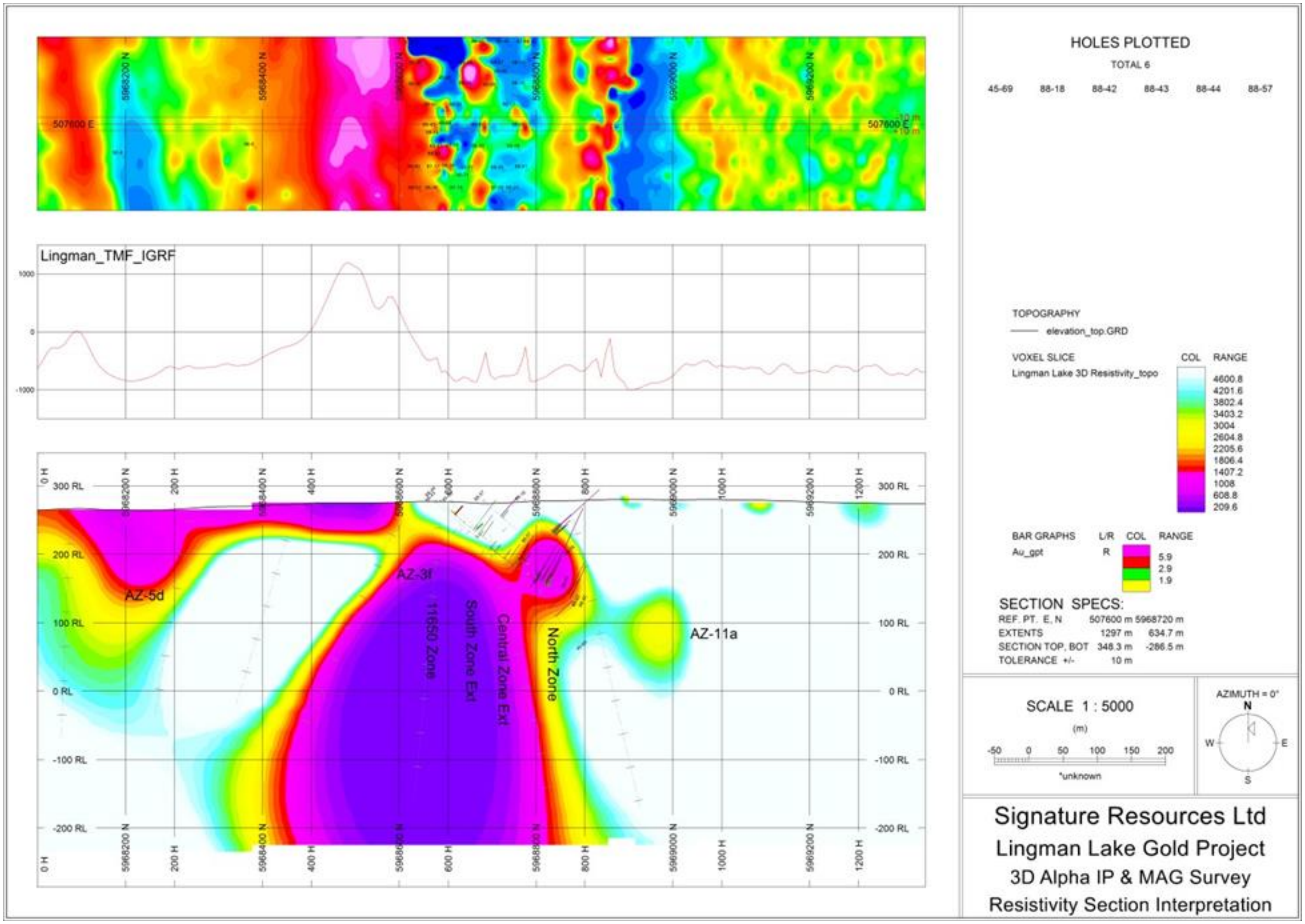

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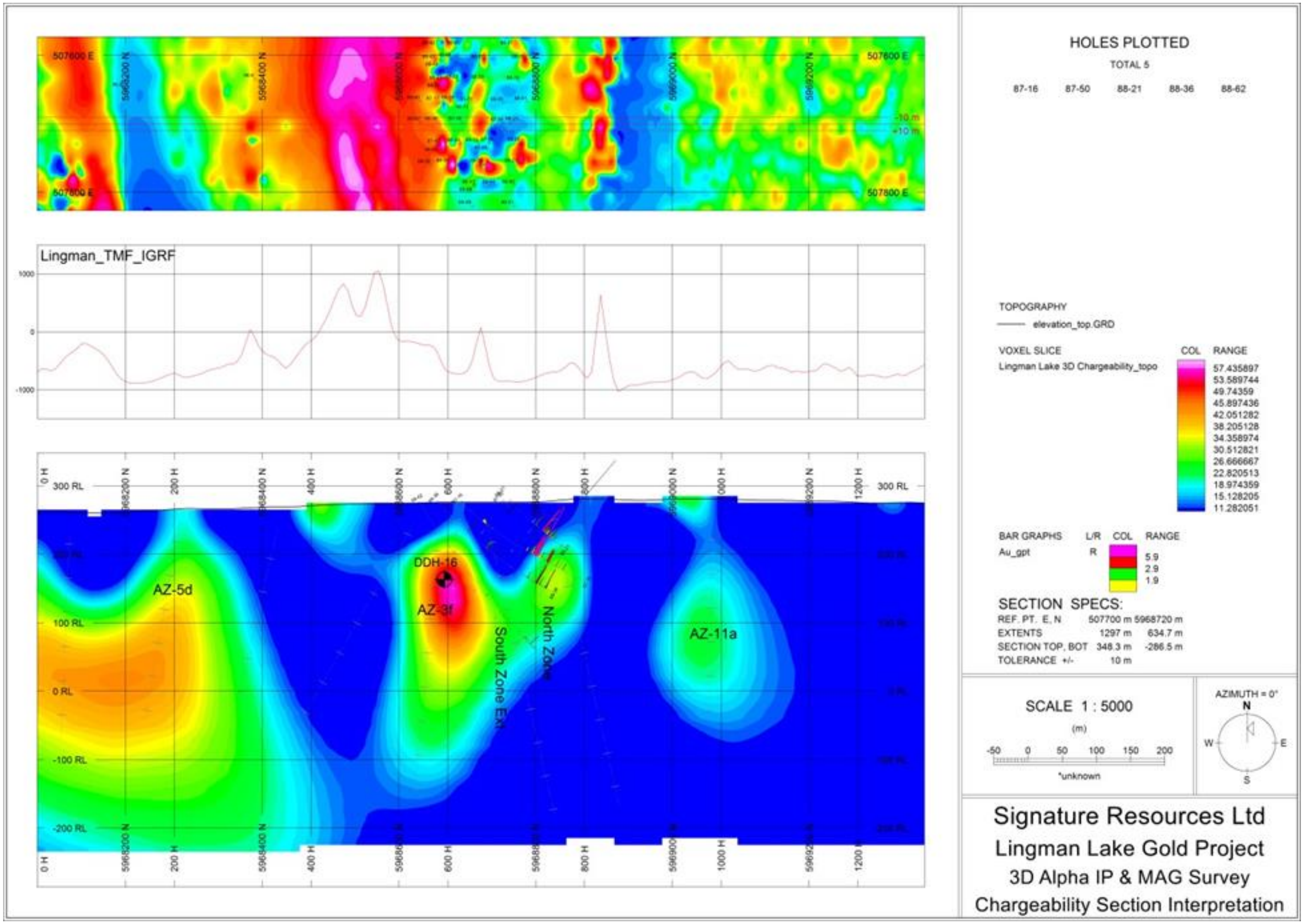

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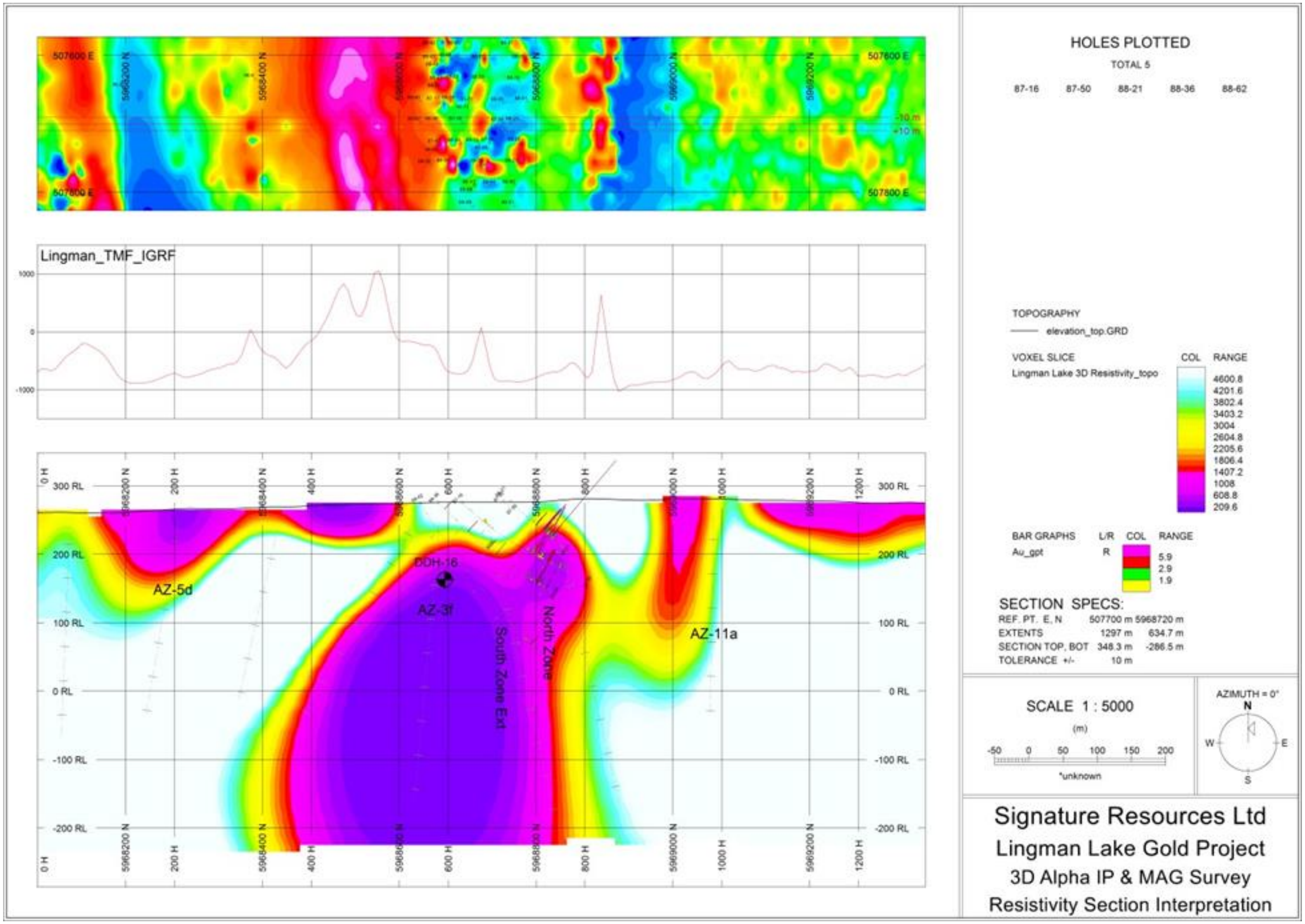

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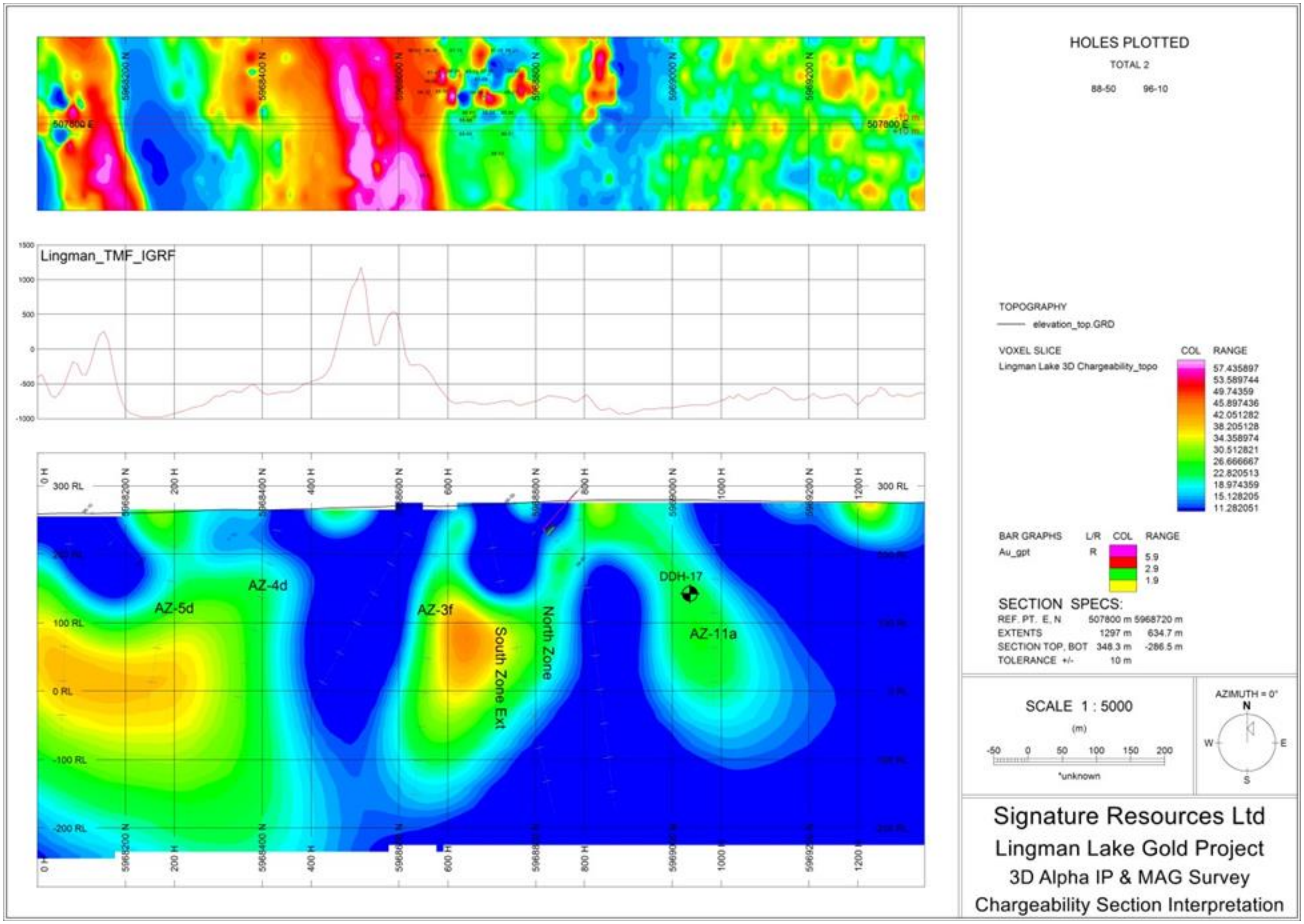

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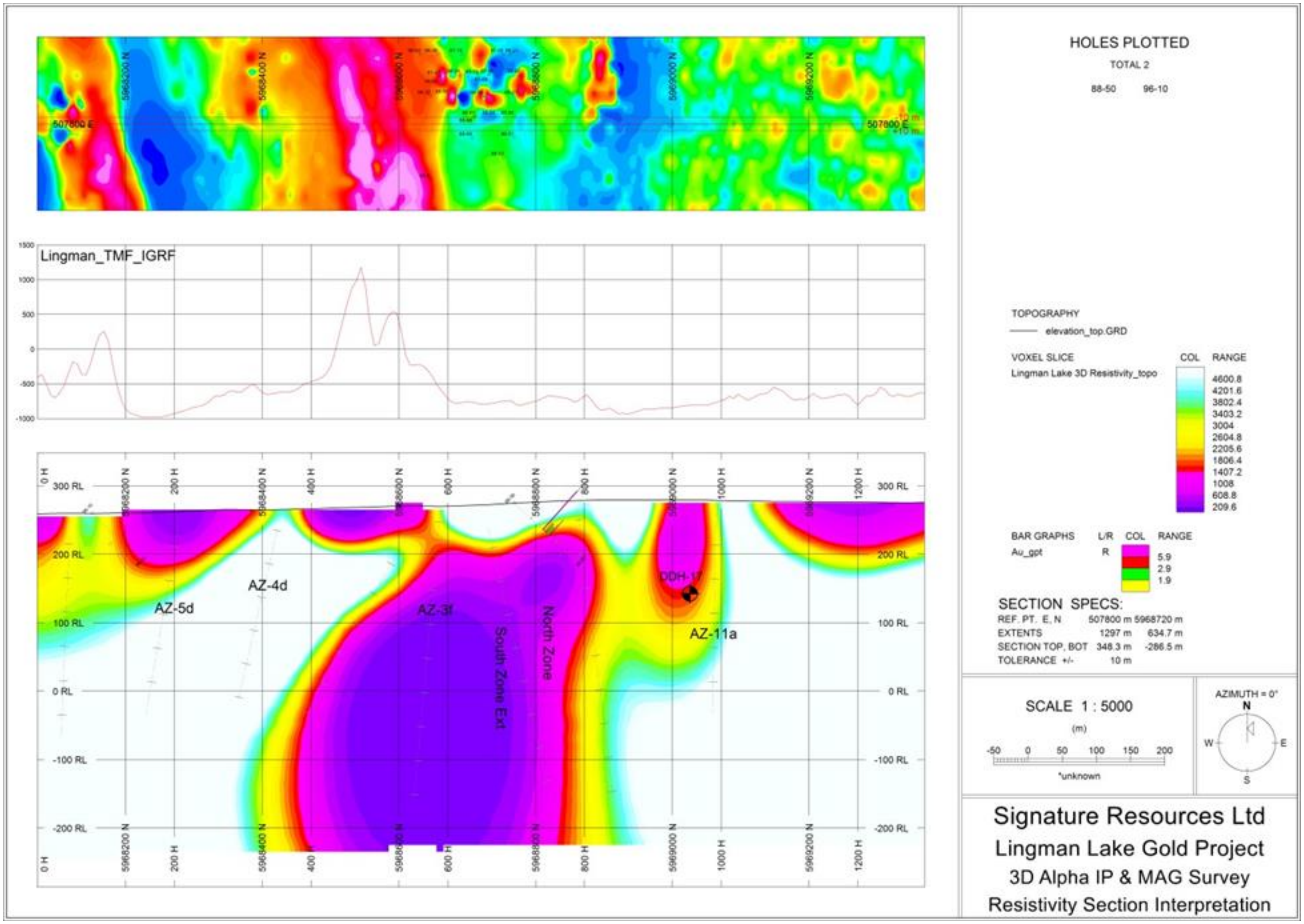

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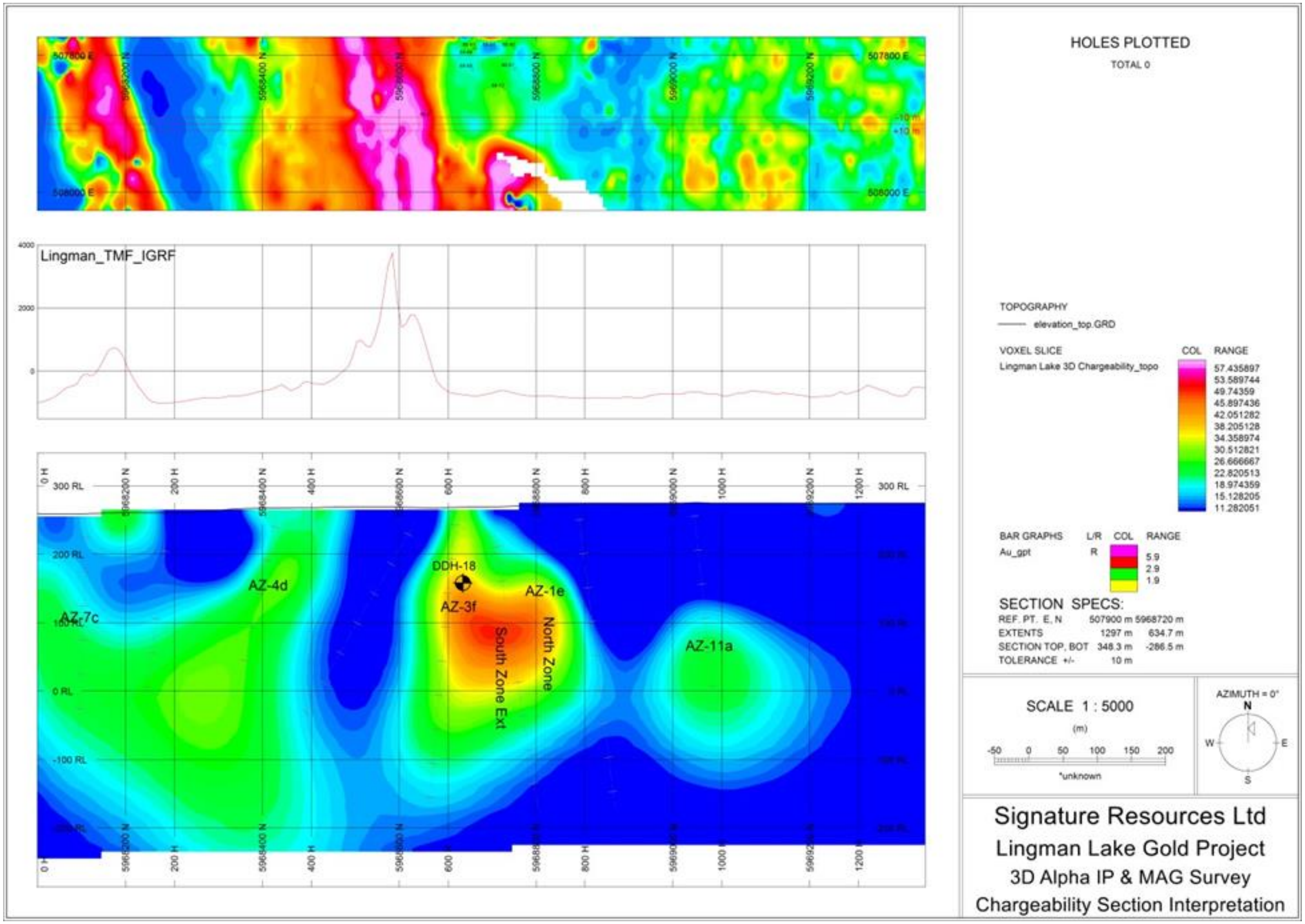

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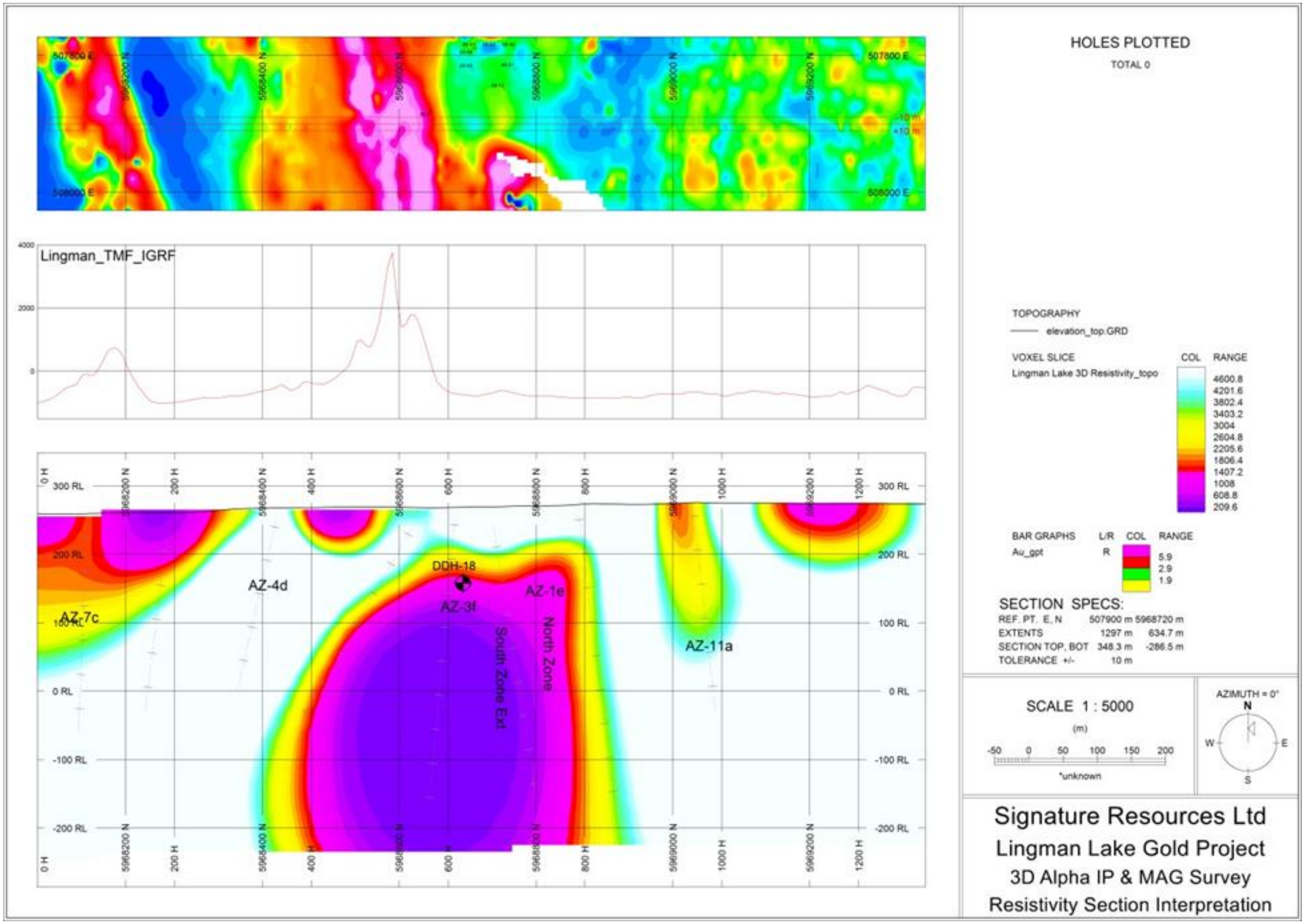

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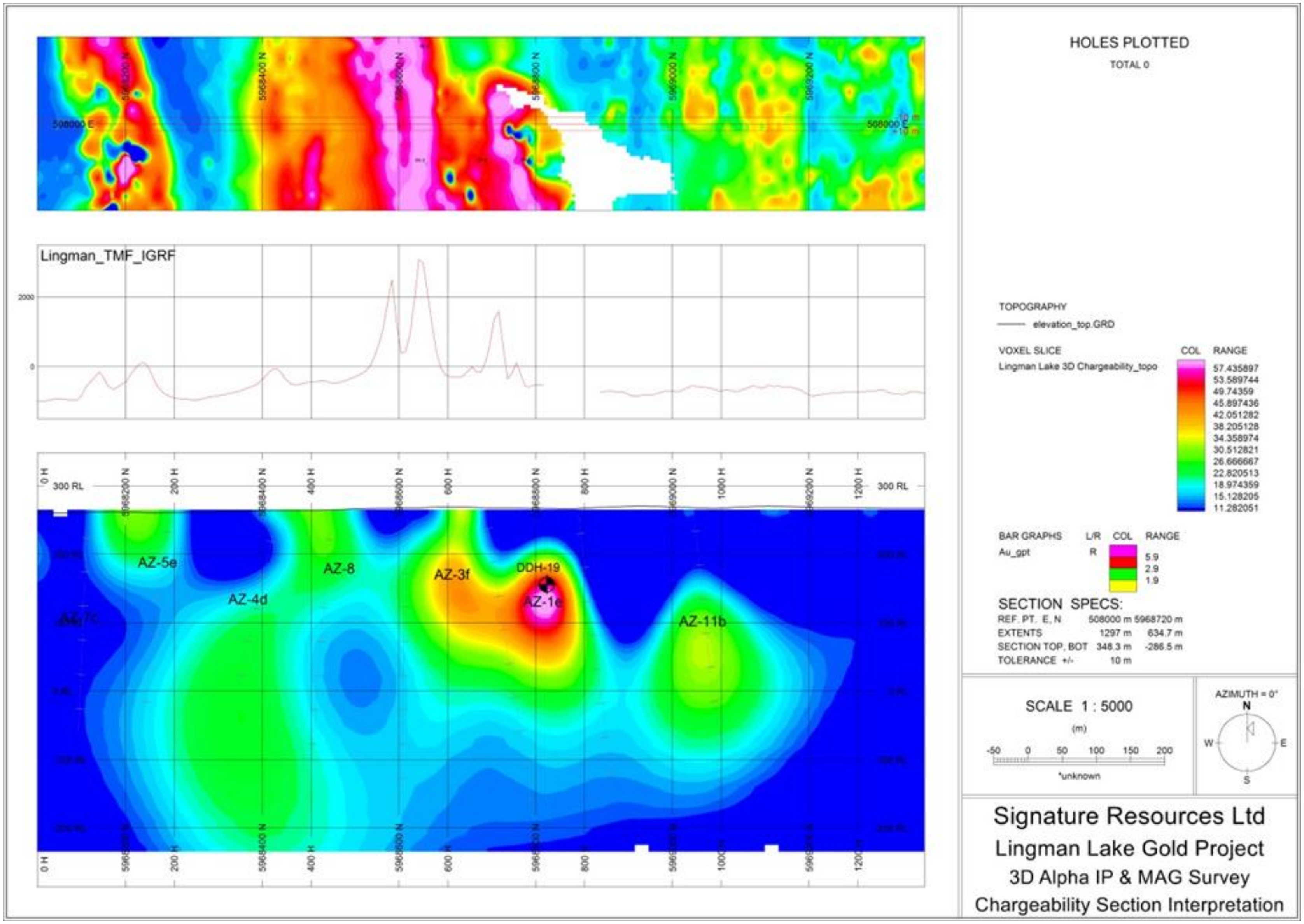

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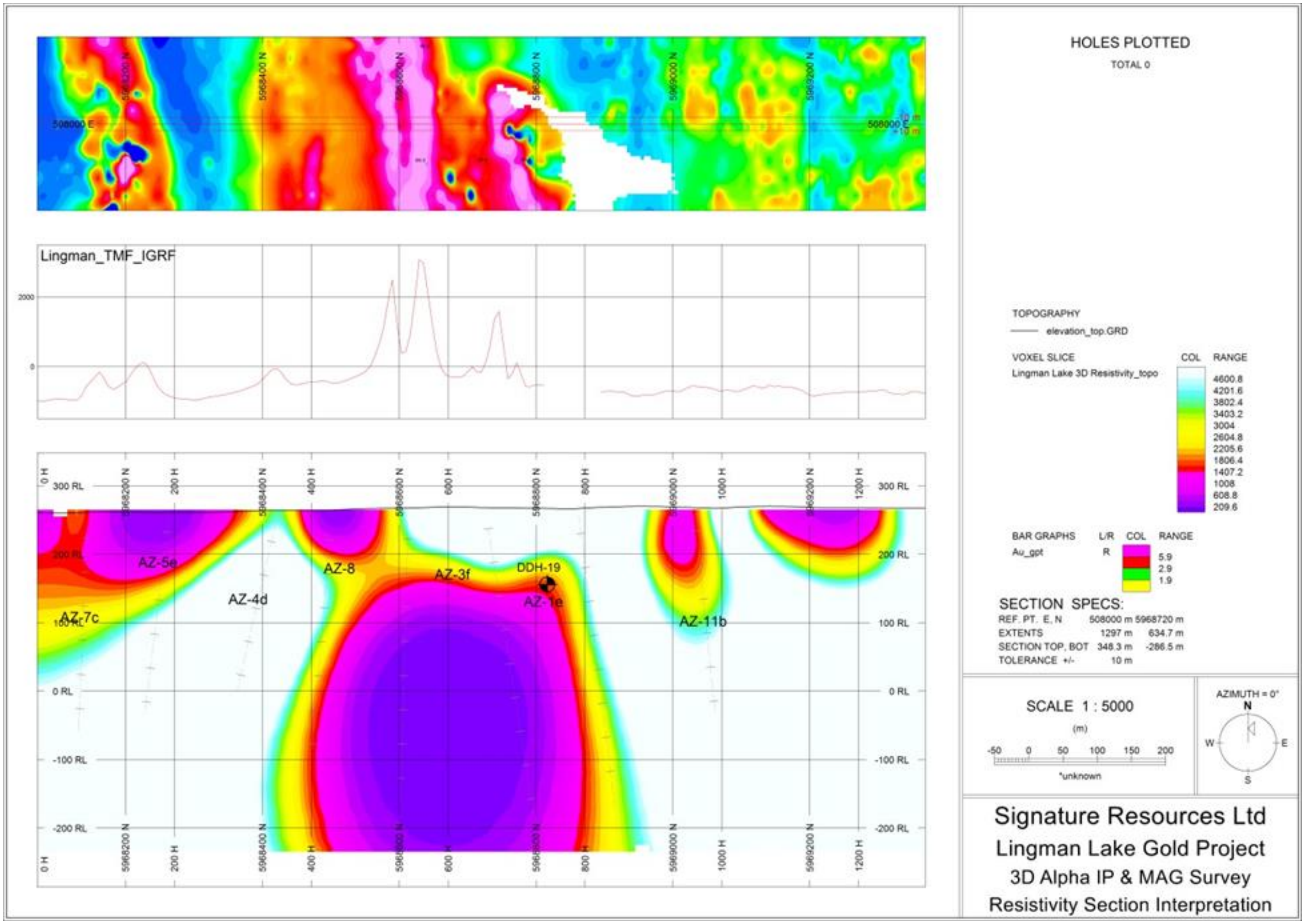

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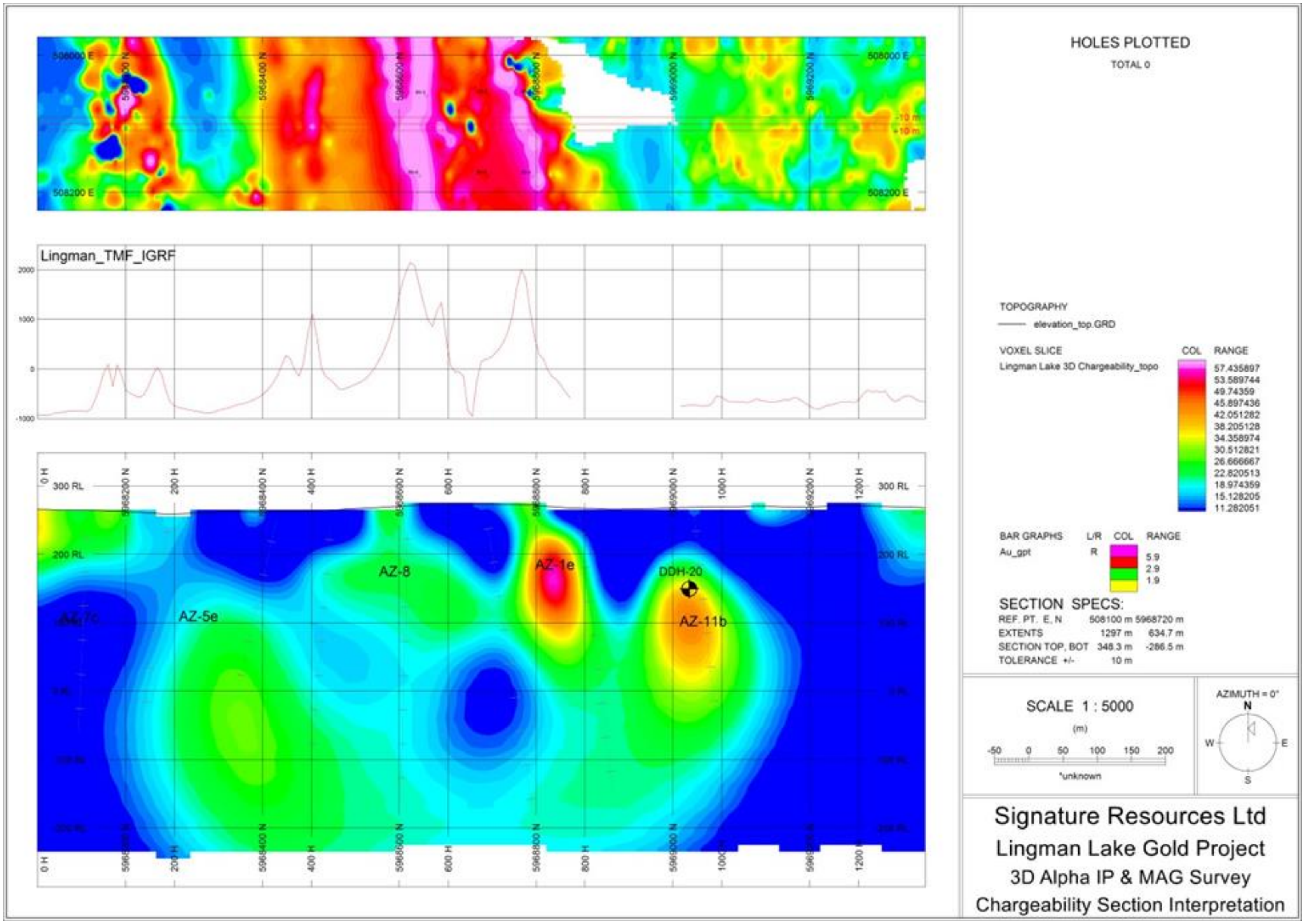

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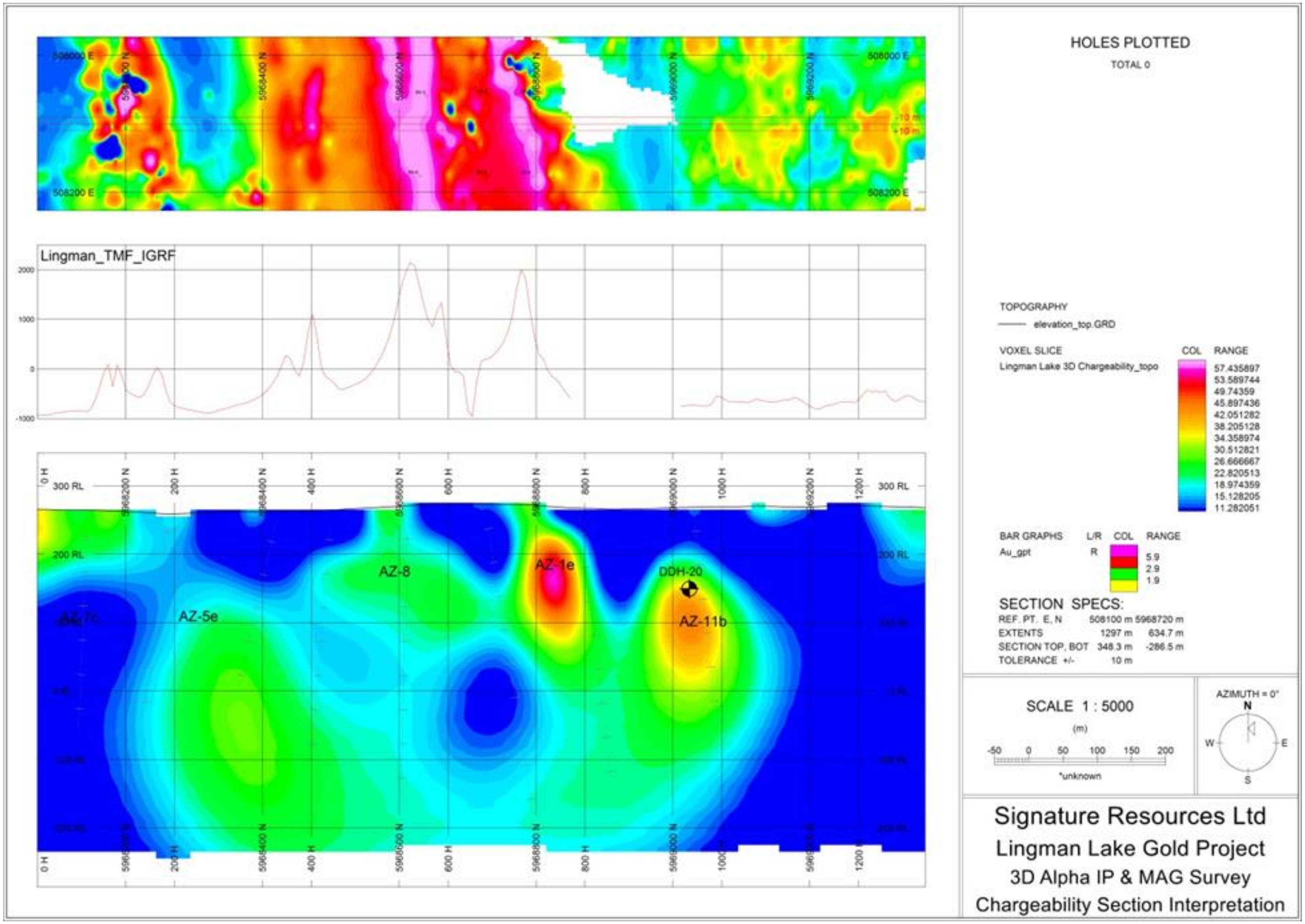

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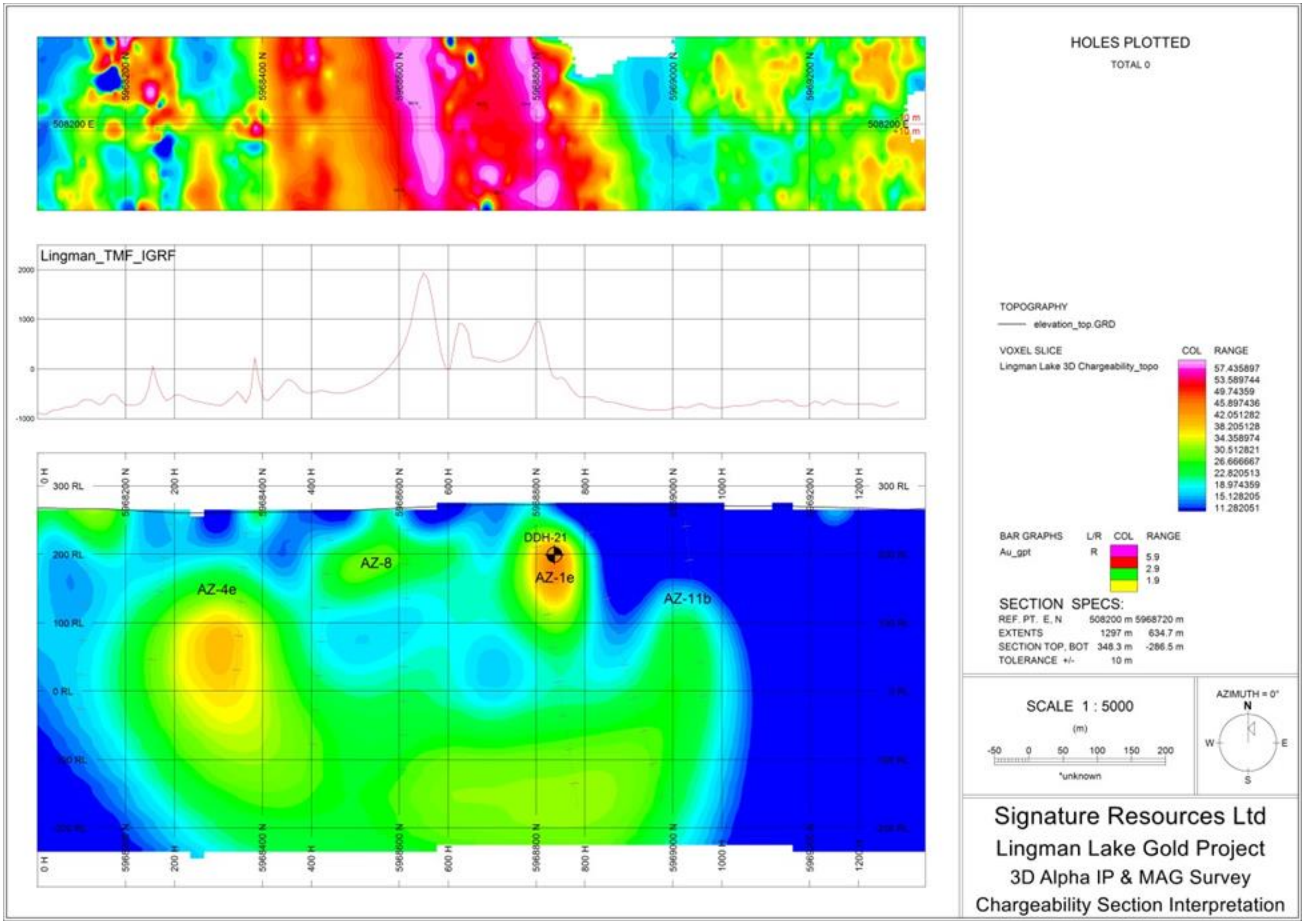

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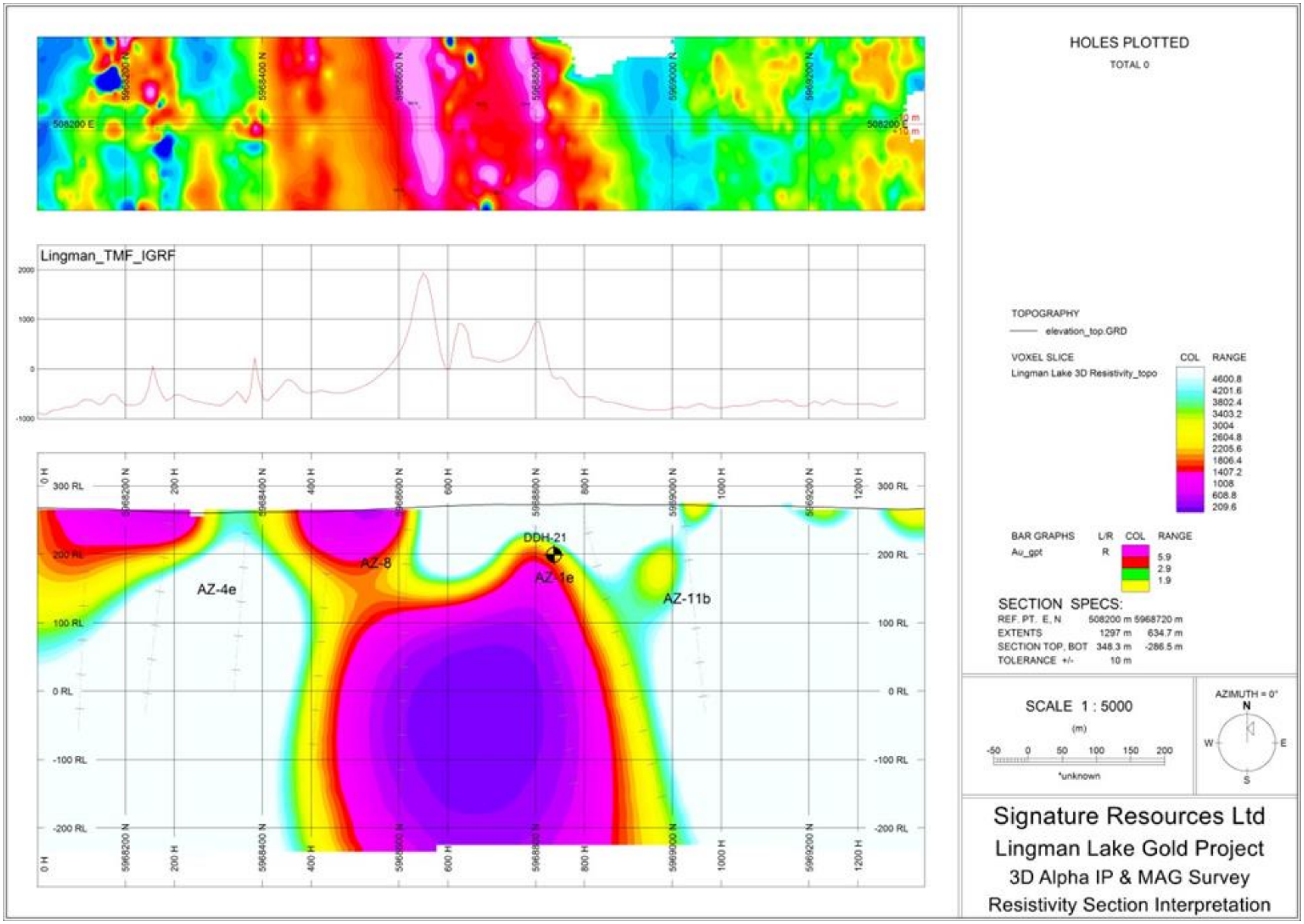

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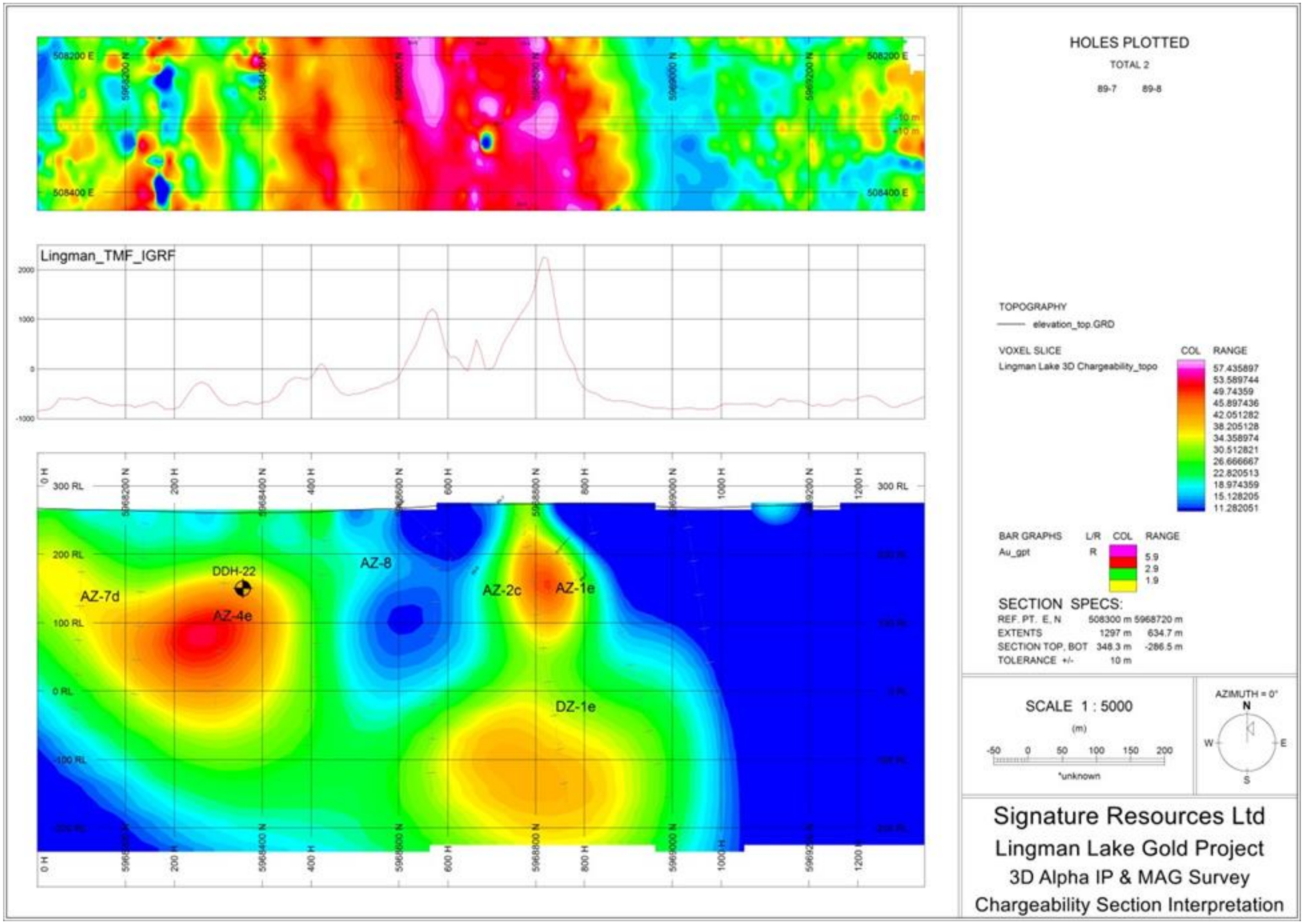

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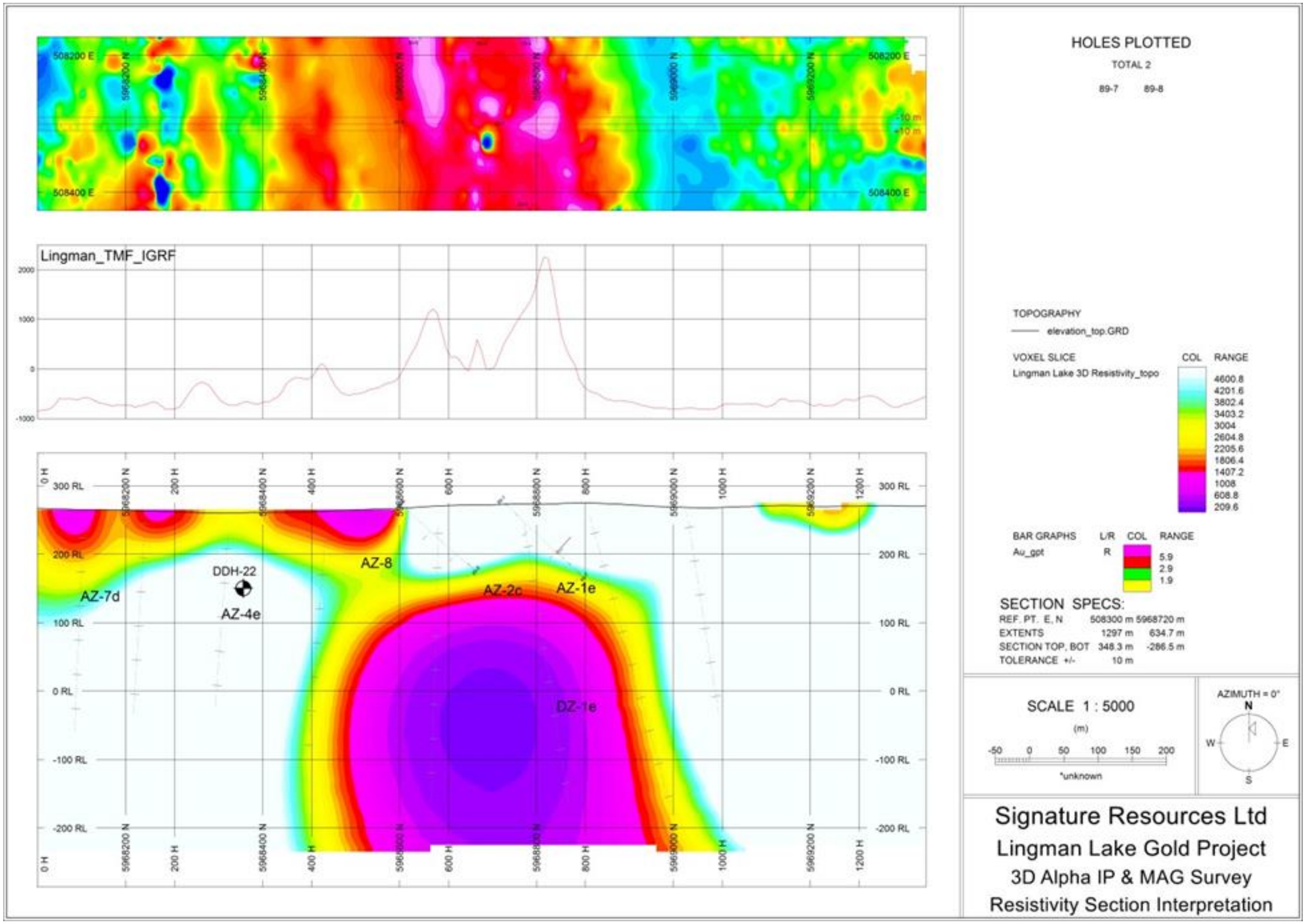

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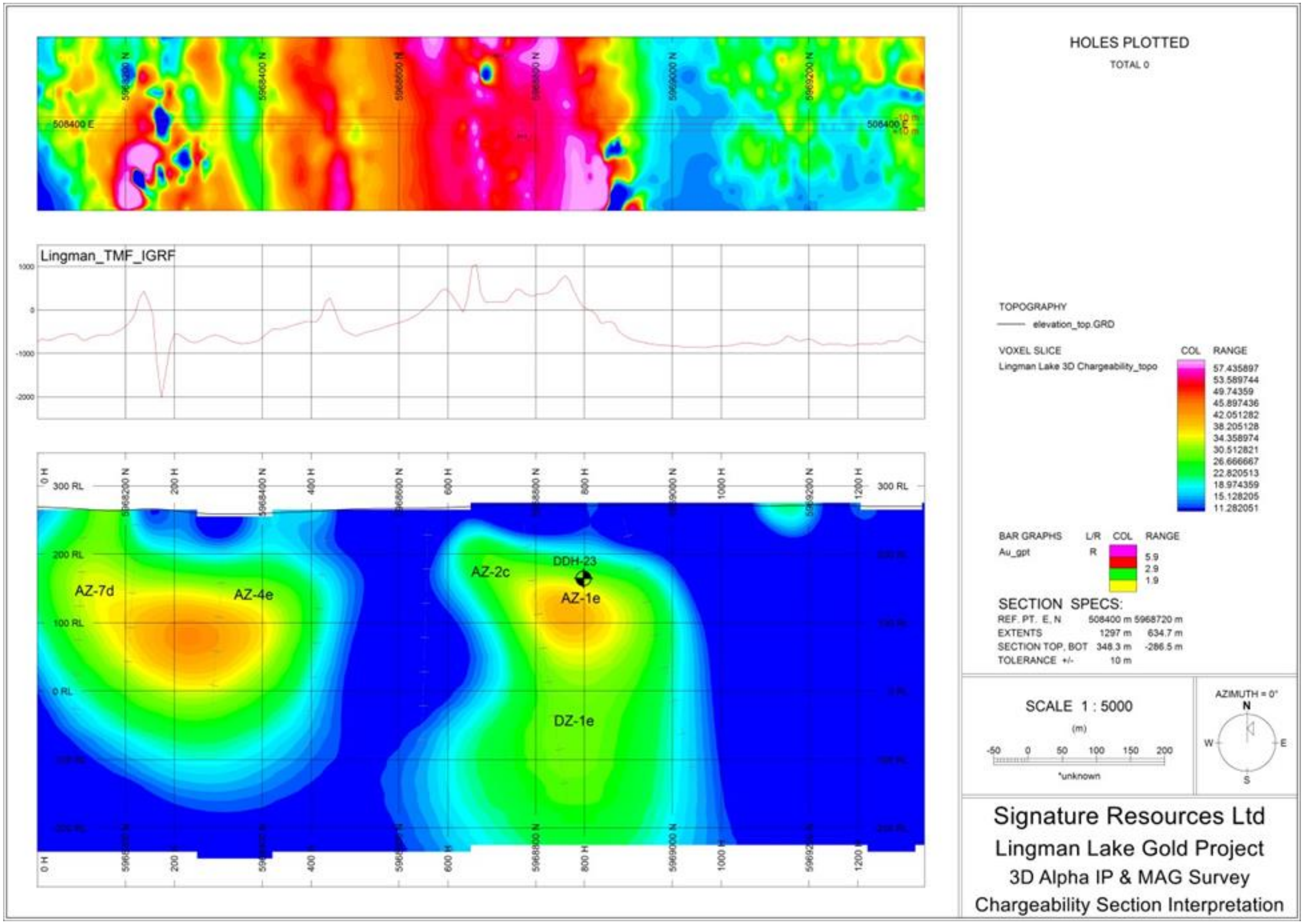

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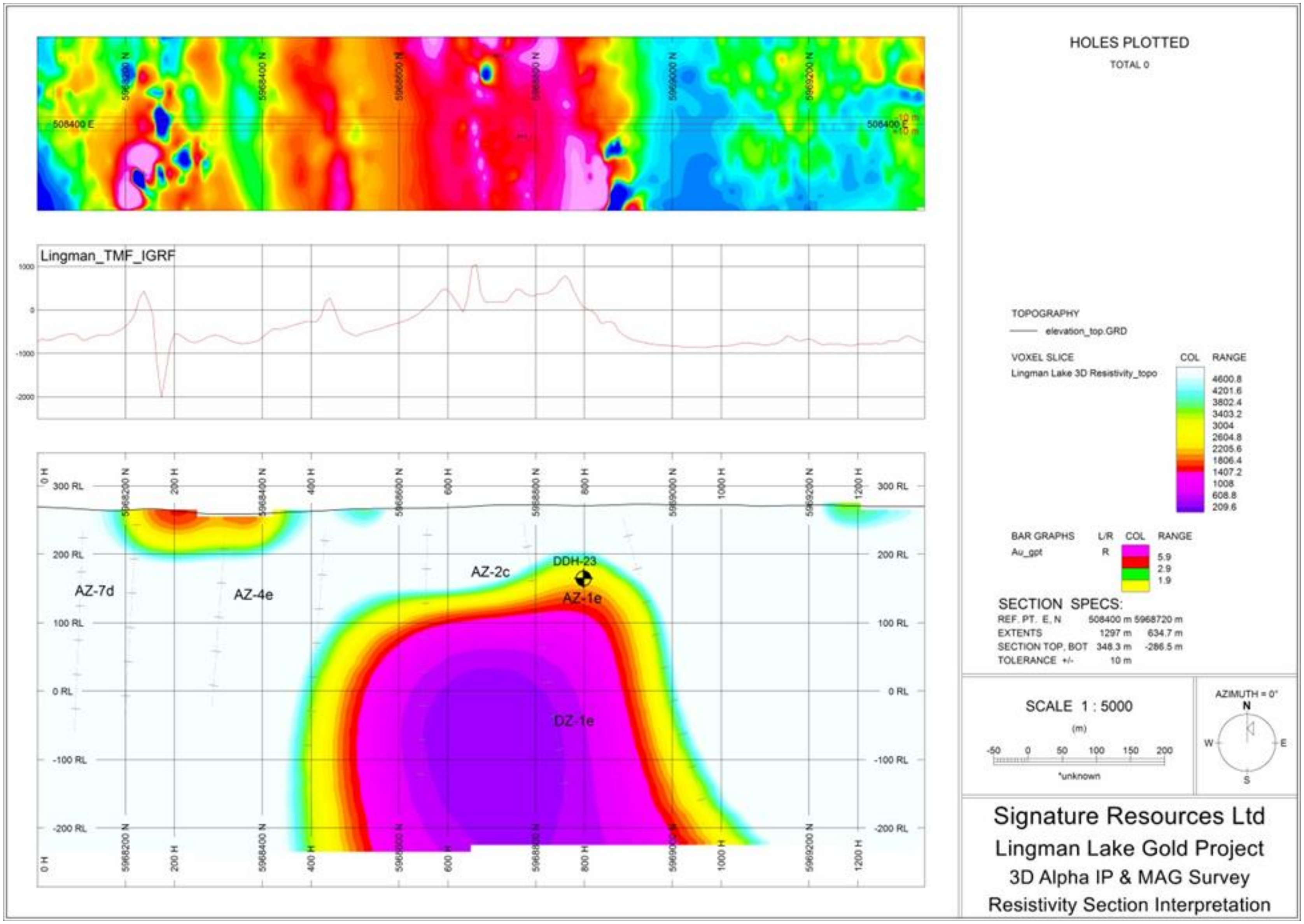
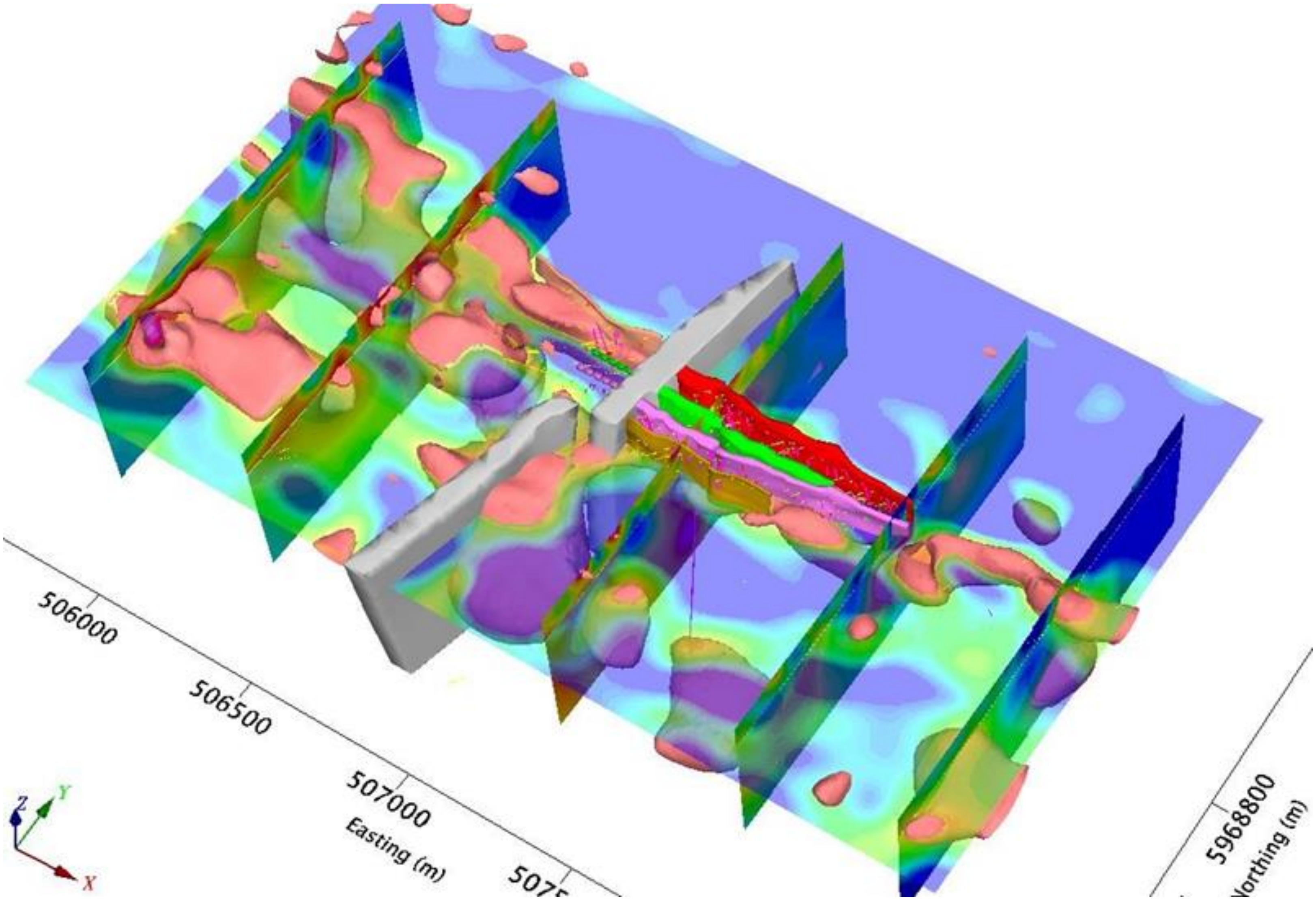


S508400E - Resistivity Section

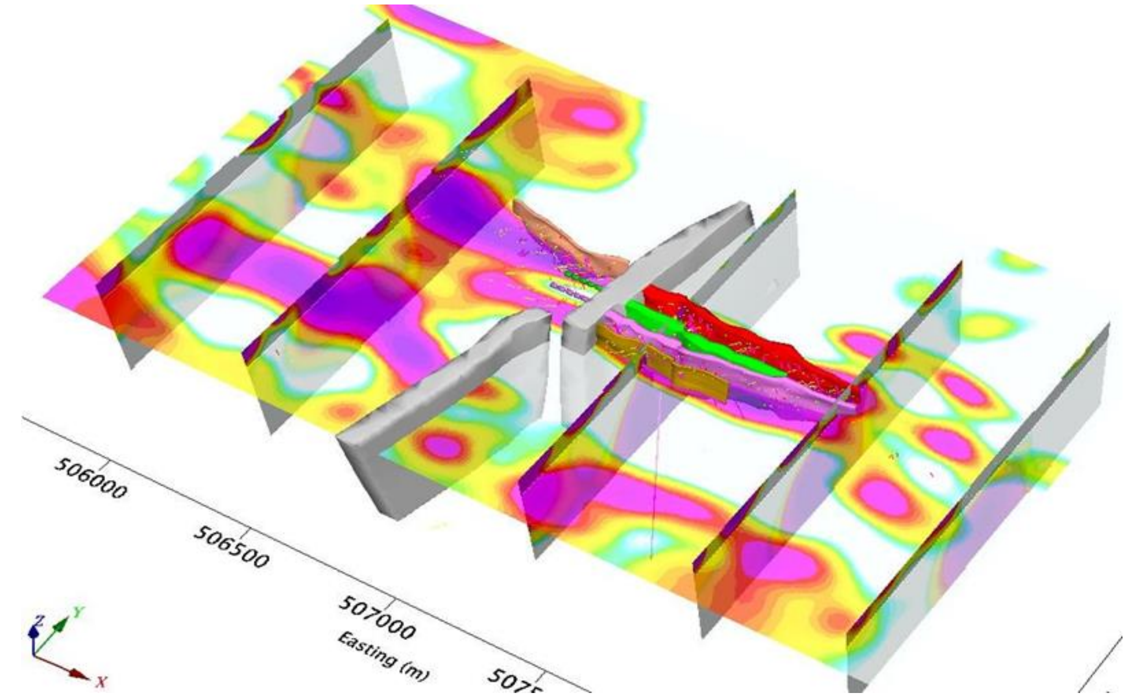
APPENDIX - D

3D VOLUMETRIC AND STACKED DEPTH SLICES MODELS

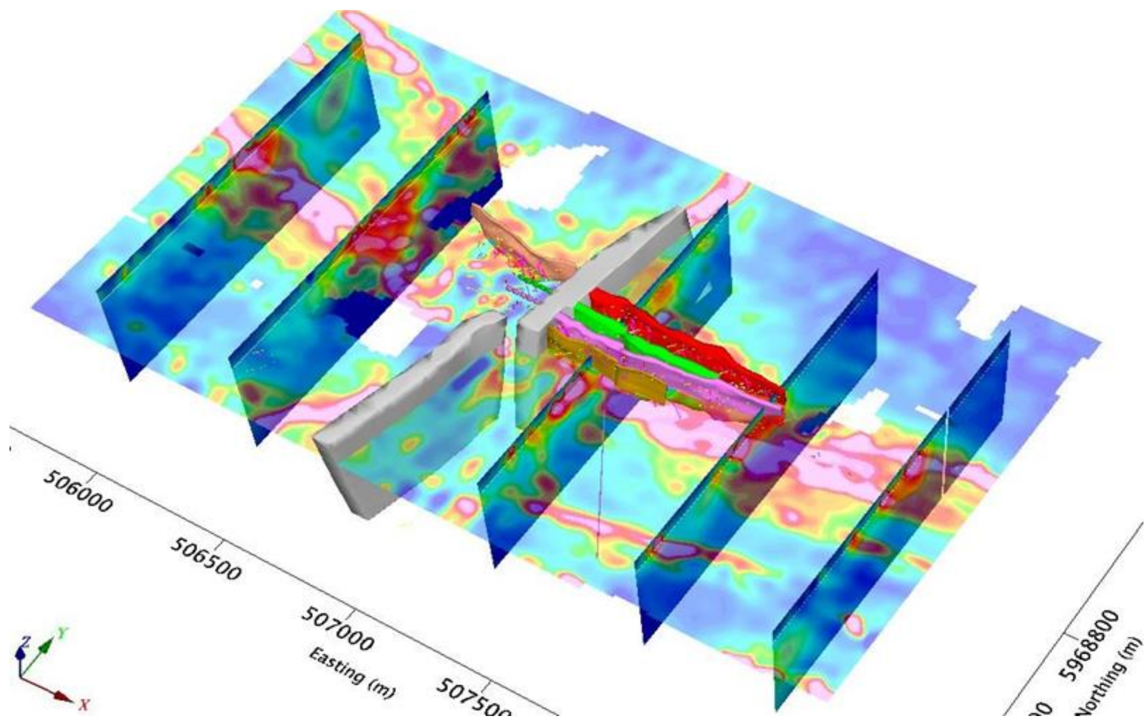
The iso-surfaces of chargeability are 25 mV/v (pink) and >35 mV/v (red) while resistivity iso-surfaces are <100 Ohm-meters



Stacked 3D Chargeability Slices and Iso-surfaces



Stacked 3D Resistivity Slices and Iso-surfaces

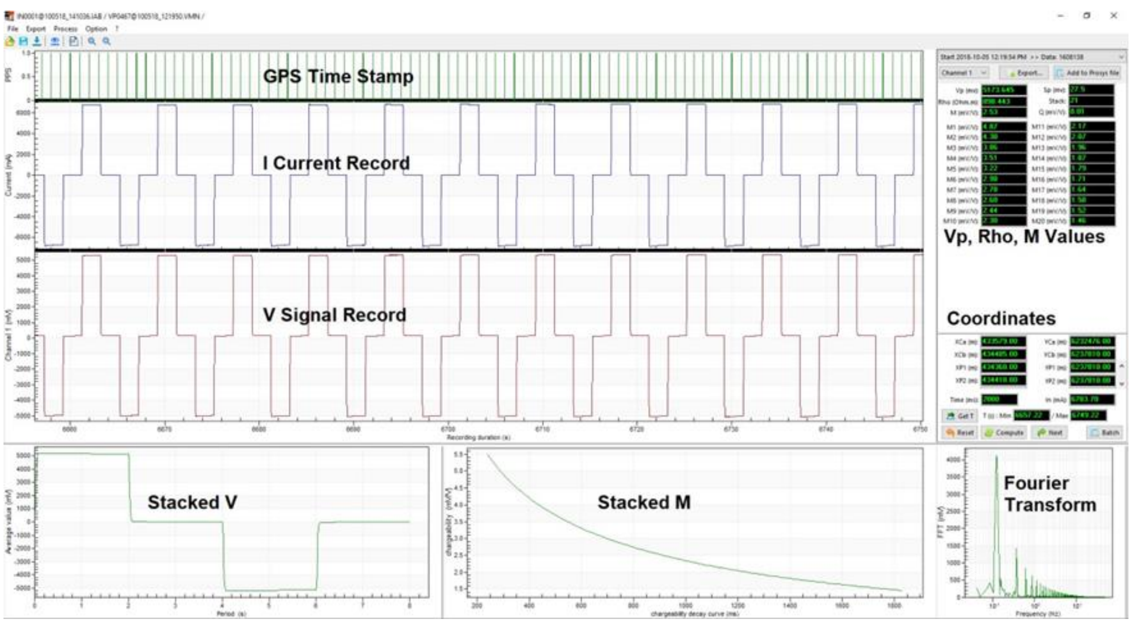


Stacked 3D Susceptibility Slices and Iso-surfaces

APPENDIX - E

INSTRUMENT SPECIFICATIONS

Typical Alpha IP Current Recorder and Voltage Receiver (Alphi)



IP Receiver (V-Alpha) Characteristics	
Pulse duration	1s, 2s, 4s, or 8s
Channels	2 Channels
Input Impedance	100 MOhms
Induced Polarization	(Chargeability) measured every 10 milliseconds (200 IP windows for a 2 sec pulse)
Input Voltage	15V, Automatic Gain, Input Protection 1000V
Resolution / Accuracy	1 µV / 0.2%
Readings	Full Waveform 10ms (100Hz) Sampling Rate, Resistivity, Self-Potential
Noise Rejection	Power Line Rejection, SP Linear Drift Correction.
Storage	Up to 70 days, Stored on Solid State Memory
Low Pass Filter & Upper Cut Off Frequency	10 Hz – 50Hz
Frequency Resolution	Up to 34 micro Hz
Time Resolution	250 micro seconds (Time Stamped Samples)
Contact Resistance Check	Fast resistance check to improve the contacts
GPS	Internal GPS with PPS (one pulse per second), GPS Input for Coordinates and Synchronization
Display	LCD Display, Graphic and Alpha Numeric with 16 Lines of 40 Characters
Data Flash Memory	one month recording
After Acquisition	Data retrieval on a USB Key
Battery Test	In Field Test
Power supply	Internal Li-Ion Rechargeable Battery; Optional External 12V Standard Battery
Autonomy	80 Operating Hours with the Internal Li-Ion Battery
Operating Temperature	-20 °C to +70 °C, Weather proof IP 67
Dimensions	31 x 25 x 15 cm
Weight	2.8 kg
IP Current Recorder (I-Alphi) Characteristics	
Pulse duration	1s, 2s, 4s, or 8s
Channels	1 channel
Input current	+/- 25000mA (optional 50A)
Resolution / Accuracy	0.1mA / 0.1%
Protection	up to 50 A and 3 000 V
Sensor	Magnetic Sensor
Magnetization offset (offset memory)	up to 0.05%
Readings	full waveform 10ms (100Hz) sampling rate
Calibration	Offset Calibration
Storage	up to 70 days 2 channels full waveform, stored on solid state memory
Time Resolution	250 micro seconds (time stamped samples)
Battery Test	In field test
GPS	Internal GPS with PPS (one pulse per second), GPS input for coordinates and synchronization
Display	LCD display, graphic and alpha numeric with 4 lines of 20 characters
Data Flash Memory	one month recording
After Acquisition	Data retrieval on a USB key
Power supply	internal Li-Ion rechargeable battery; optional external 12V standard car battery can be also used
Autonomy	80 operating hours with the internal Li-Ion battery

Operating Temperature	-20 °C to +70 °C, Weather proof IP 67
Dimensions	31 x 25 x 15 cm
Weight	3.0 kg
IP Transmitter Characteristics	
Voltage Input	125V line to neutral, 400 Hz / 3 phase
Output	100 - 3200V in 10 steps, 0.05 - 20 Amps, Tested to 10.5 kVA
Switching	1 sec., 2 sec., 4 sec., 8 sec.
Metering	LED for line voltage and output current
Size	63cm. x 54cm. x 25cm.
Weight	44 kg.
IP Generator Characteristics	
Output	Self Excite / Regulated, 120 / 220V AC, 20 KVA Max, 400 Hz / 3 phase
Generator	Bendix Aircraft Type, Very durable, Forced Air Cooled
Engine	24 HP Honda, Electric Start
Gasoline Tank	External - to minimize, shipping problems with airlines
Size	79cm. x 61cm. x 48cm
Weight	89 kg.