Geological Report

on the Rusty Springs Claims

Dawson Mining District
NTS Map Sheets 116K08 and 116K09
Latitude 66° 30' N, Longitude 140° 25' W

Prepared For:

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December 4th, 2017

Summary

Despite many years of exploration and relatively limited success, the Rusty Springs prospect retains considerable potential for a large-tonnage deposit. The property lies within the east-vergent Taiga-Nahoni foldbelt, occurring in the core of a structural culmination exposing host Lower and Middle Devonian Ogilvie Formation dolostones. Mineralization occurs in stratabound and discordant zones along the contact with the overlying Devono-Mississippian Unnamed shale. Various deposit models, ranging from Mississippi Valley-type to epithermal vein-type have been employed. Poor exposure and relatively deep weathering resulting from the absence of Pleistocene glaciation account for the lack of consensus with regard to genesis, and accumulating evidence points to the potential for a high-temperature, carbonate-hosted massive sulphide deposit (manto-chimney complex). The great extent of mineralized and altered rocks, together with their stratabound nature, common significant thicknesses, local high grades, and potential for supergene enrichment suggest that Rusty Springs remains an attractive drill-oriented exploration target.

The Rusty Springs Property area has seen sporadic exploration since 1975, when rusty ground seeps were recognized during regional oil and gas exploration programs. Subsequent ground examination revealed silver-lead-zinc mineralization nearby. Staking of the area by Rio Alto Exploration followed, with systematic exploration programs carried out over the years by various operators.

High-grade mineralization was discovered in the Orma Hill area in 1978, and the focus of exploration efforts were concentrated in this area. Virtually all drilling was aimed at the Orma Vein since this time. Preliminary work, previous to the Orma discovery however, outlined anomalous soil geochemical values in the Mike Hill area. Limited drilling was carried out to define the nature of this mineralization, but met only limited success.

In 1992, the final core claims comprising the Rusty Springs Property were allowed to lapse. They were subsequently restaked, and optioned to Eagle Plains Resources, who now retain a 100% interest in the property.

Bulldozer trenching of the Mike Hill area in 1994 resulted in the discovery of high grade silver-lead-zinc mineralization within silicified carbonate material. Drilling carried out during 1995 was aimed at evaluating the mineralized zones exposed on the Mike Hill. Trenching and soil geochemical sampling was completed at the Big Onion area to follow-up geochemical work initiated during 1994.

In 1996, a 15 hole diamond drill program defined highly anomalous base metal values over significant widths within an apparently stratabound – stratiform horizon at the Ogilvie - Hart River contact. The 1997 program employed a reverse circulation drill in an attempt to improve penetration problems related to the highly abrasive cap rocks overlying the mineralized horizon. The drilling confirmed the presence of strata bound mineralization over a large area.

The 1998 program consisted of a combined shallow seismic and gravity geophysical survey. The survey defined a coincident positive Bouger gravity anomaly and seismic reflection profile interpreted to be related to a shallow sulphide body at the same stratigraphic horizon as sulphide mineralization defined in 1996 - 97.

Evaluation of the Rusty Springs Property continued in 1999 with a $273,001.81 diamond drilling and geological mapping program undertaken by the Eagle Plains Resources / CanAustra Resources joint venture. CanAustra had an option to earn a 60% interest in the Rusty Springs property by completing $2,000,000 in exploration expenditures, and making $70,000 in cash payments to Eagle Plains by 2003. Diamond drilling was directed toward testing geophysical anomalies defined by the 1998 combined seismic and gravity surveys and geological targets generated by 1999 mapping. A total of 616.9 meters

(2024 feet) of diamond drilling was completed in three holes. None of the holes were completed to target depth due to drilling problems. One of the holes, RS9901, intersected significant base metal mineralization.

Charlie Greig, a noted structural geologist, was retained in 1999 to compile a detailed structural map of the Rusty Springs property and to define a regional framework for the Rusty Springs mineralization. His work forms the basis for much of this report and was published in 2000 as part of the Yukon Exploration and Geology, 1999; Department of Indian and Northern Affairs.

2001 work on the Rusty Springs Property consisted of a short reconnaissance geological program. The total cost of the 2001 program was $16,500.08.

Work completed by Robber Hodder in 2009 and 2011 puts the geology and mineralization of the Rusty Springs deposit in a more modern context involving the presence of imbricate thrust-faults and their control on various forms of mineralization on the property. A regional magnetic survey was also completed in 2011. Total cost of the 2011 exploration program was $67,819.40.

In October and November of 2017 a thorough geologic and geochemical data compilation was completed in order to develop a preliminary 3D geologic models based on a number of genetic theories presented in past work. Additionally a one day property visit was conducted on June 21, 2017 by Robert Termuende, P.Geo, Tim Termuende, P.Geo and Chuck Downie, P.Geo and Data compilation and 3D geologic modeling was successful in developing a revised genetic model in which hydrothermal fluids migrate along the Orma Thrust Fault, and then replace permeable / porous carbonate rocks of the upper Ogilvie Formation with high-grade polymetallic base metals. Results of the geologic modeling, geochemical analysis and property visit are presented in this report.

Total cost of the 2017 data compilation and property visit was $42,798.

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Introduction

The prime objective of the 2017 data compilation was to consolidate all geochemical, geologic and geophysical data into a single 3D model and test various theories proposed from past work programs. These included the stratabound hypothesis presented in the mid 1990's and more recent genetic models in which imbricate thrust faults form the locus of fluid flow and epithermal mineralization (Hodder, 2011). A one day property visit was completed on June 21, 2017 with 7 samples collected from the Orma Hill area for geochemical analyses.

Location and Access

The Rusty Springs Ag-Pb-Zn-Cu prospect is situated in the north-westem part of the Yukon Territory at approximately 66" 30' North latitude and 140" 25' West longitude on N.T.S. mapsheet 116 IU8 and 1 16 W9. The property is 8 km south of the Arctic Circle and 29 km east of the Alaska border, near the headwaters of the Salmon Fork of the Yukon River (Figure 1). Relief in the Rusty Springs area is on the order of 1000 metres, with the highest point in the surrounding mountains at about 1500 metres. Summits and ridges are generally rounded and subdued, and the valleys are broad as the area lies in the part of the Yukon that was not glaciated during Pleistocene time.

Access to the property is via wheel or ski-equipped aircraft or by winter road. An all-weather, 600m (2000') airstrip was completed in 1996. As part of the 2011 work program a heavy duty mechanic and cat driver were brought in to refurbish the D7 and clear overgrowth on the airstrip. Supply centers are located at Dawson City, Yukon (274km), Circle, Alaska (175km), or Fairbanks, Alaska (365km). Airship staging areas to Rusty Springs are available along the Dempster Highway at Eagle Plains (164kms), or from the "150 Mile" airstrip (137km).

Road access has been previously developed for winter haulage from Mile 123 (Ogilvie Crossing) on the Dempster Highway over a distance of 193 km. The Dempster Highway is a maintained all-weather road providing access from the south. The winter road access traverses gently sloping without any major topographic obstacles.

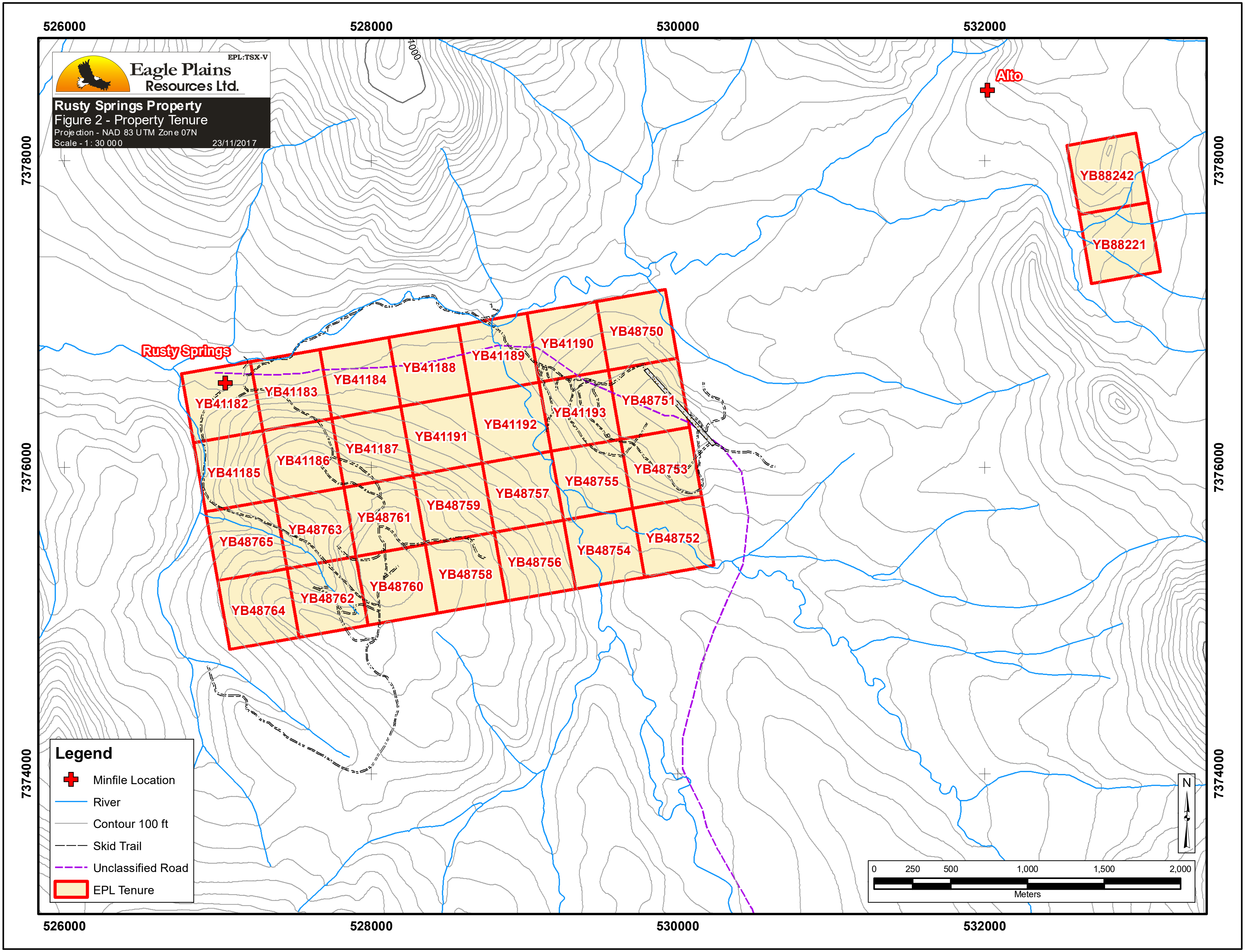
Tenure Description

The Rusty Springs property consists of two non-contiguous groups of quartz claims; Rusty Springs and Trog (Table 1; Figure 2). The Rusty Springs claim block consists of 30 contiguous quartz units while the Trog consists of 2 quartz claim units for a total area of 588 Ha. The mineral claim boundaries have not yet been legally surveyed. Title to the claims is currently held 100% in the name Eagle Plains Resources Ltd.


Eagle Plains Resources Ltd.
EPL:TSX-V
Rusty Spring Property
Figure 1 - Property Location
Projection - NAD 83 UTM Zone 07N
Scale - 1: 5 000 000
24/11/2017
140°0'0"W
135°0'0"W
130°0'0"W
125°0'0"W
120°0'0"W
70°0'0"N
65°0'0"N
60°0'0"N
Vuntut National Park
Alaska (USA)
Rusty Springs
Eagle Plains
Dempster Highway
Yukon
Territory
Dawson City
Wind River Trail
Mayo
Northwest Territories
Road
Faro
Beaver Creek
Carmacks
Ross River
Tungsten
Klondike Highway
Canol
Whitehorse
Highway
Johnsons Crossing
Watson Lake
British Columbia
Legend
Sprogge Property
Roads
Rivers
Lakes
Parks
0 50 100 150 200 250
Kilometers

Table 1 – Rusty Springs Tenure

Grant Number	***Claim Name***	***Claim Owner***	***Claim Expiry Date***	***Status***	***Ops Number***
YB41182	Eric	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80158
YB41183	Eric	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80159
YB41184	Eric	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80160
YB41185	Eric	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80161
YB41186	Eric	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80162
YB41187	Eric	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80163
YB41188	Jessica	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80164
YB41189	Jessica	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80165
YB41190	Jessica	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80166
YB41191	Jessica	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80167
YB41192	Jessica	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80168
YB41193	Jessica	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	80169
YB48750	Jessica	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82936
YB48751	Jessica	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82937
YB48752	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82938
YB48753	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82939
YB48754	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82940
YB48755	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82941
YB48756	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82942
YB48757	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82943
YB48758	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82944
YB48759	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82945
YB48760	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82946
YB48761	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82947
YB48762	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82948
YB48763	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82949
YB48764	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82950
YB48765	Shelly	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	82951
YB88221	Trog	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	88307
YB88242	Trog	EAGLE PLAINS RESOURCES LTD. - 100%	December 10, 2017	Active	88328



Eagle Plains Resources Ltd.
EPL:TSX-V
Rusty Springs Property
Figure 2 - Property Tenure
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 30 000
23/11/2017
526000
528000
530000
532000
7378000
7376000
7374000
1000
Alto
Rusty Springs
YB88242
YB88221
YB48750
YB41190
YB41189
YB41188
YB41184
YB41183
YB41182
YB48751
YB41193
YB41192
YB41191
YB41187
YB41186
YB41185
YB48753
YB48755
YB48757
YB48759
YB48761
YB48763
YB48765
YB48752
YB48754
YB48756
YB48758
YB48760
YB48762
YB48764
Legend
Minfile Location
River
Contour 100 ft
Skid Trail
Unclassified Road
EPL Tenure
N
0
250
500
1,000
1,500
2,000
Meters

PROPERTY HISTORY

(After Downie and Greig, 2000)

The Rusty Springs property was first staked in 1975, after investigation of deep red-orange springs and seeps in the valley of Carrol Creek led to the discovery of nearby silver, lead, zinc, and copper mineralization; the rusty seeps were fist noted during petroleum exploration in the area. Since the discovery, the property has been the focus for over $5,000,000.00 of exploration, including ten separate drill campaigns in two major phases (1975-83 and 1994-96) totaling over 10,000 metres of drilling in 123 holes. Table 2 is a synopsis of the work history on the property.

Exploration has mainly targeted high-grade silver, lead, copper, and zinc mineralization within brecciated and quartz and carbonate cemented and veined dolomite, and has been based on several genetic models, developed in part by geology students employed on the property and working on Bachelors theses (e.g., Schoel 1978, Hansen 1979, Bankowski 1980a). At various stages of exploration, models used to help guide exploration include: Mississippi Valley-type (MVT); Irish Plains-type (carbonate hosted exhalative, Bankowski 1980a); epithermal-type (veins and(or) hydrothermal replacement along a karsted surface, with supergene enrichment); and manto-chimney-type (high-temperature, carbonate hosted massive sulphides). Direct targeting of drillholes utilized various techniques, including prospecting, geologic mapping, geochemistry and geophysics. Many of the drill programs were plagued by drilling problems, such as poor recoveries in the strongly oxidized and leached mineralized intervals, or loss of water pressure in blocky brecciated zones with abundant open space. Drilling was often slow and costly in resistant siliceous 'chert' horizons that cap the mineralized stratigraphy. Trenching also met with varying success, mainly because of the deep permafrost and the deep, soliflucted overburden which predominates in unglaciated parts of the Yukon.

During the fall of 1975, while investigating an oolitic iron formation, a rusty spring-seep was observed by M.N. Chernoff. Upon investigation, the spring was found to be associated with high-grade silver, lead, zinc, and copper mineralization. A total of 92 quartz claims and 15 iron claims were staked during the fall and winter seasons.

During the 1976 summer season, a preliminary investigation of the property was conducted by Rio Alto Exploration Ltd., under the supervision of M.N. Chernoff. Exploration completed included helicopter-supported geological mapping, prospecting, sampling of mineralized float, and limited soil geochemical sampling. This work established the mineral setting, confirmed the presence of high-grade silver values, and demonstrated the usefulness of soil geochemistry. The mineral occurrences were considered to be hydrothermal vein systems with supergene enrichment possibilities.

Based on encouraging results from this preliminary reconnaissance, a follow-up field program consisting of geological mapping, soil geochemical sampling, and 975 metres (3200 feet) of diamond drilling was conducted in 1977. Again, the results were considered positive, even though poor drill core recoveries were obtained. Additional ground was staked to give a total of 380 quartz claims and 15 iron claims.

A geological thesis by G. Schoel concluded that the mineralization style was probably Mississippi Valley type.

During the winter of 1978, fuel, drill equipment, and supplies were ferried to the property by tractor train. That summer, two picket grids (totaling 67 lime km) were established over the claims. Further geological mapping, soil geochemical sampling, diamond milling (1840 meters), and metallurgical sampling were also completed. Poor drill core recoveries once again hampered the effectiveness of the program.

A geological thesis was undertaken by D. Hansen, again emphasizing a Mississippi Valley type model for the mineralization.

Exploration during the period 1975 to 1978 inclusive was funded by Rio Alto Exploration. In 1979, detailed geological mapping, a soil geochemical survey, an Induced Polarization survey, and a gravity survey were completed. Joint funding of this work was by Rio Alto and E & B Explorations Ltd. of Calgary, Alberta.

A geological thesis by J. Bankowski indicated a hydrothermal exhalative nature.

In 1980, E & B Explorations Ltd. as operator, focused on the widespread mineralization discovered on Orma Hill. Their program saw 1830 metres (6000 feet) of diamond drilling, bulldozer trenching, and some detailed geological mapping completed. Core recoveries were not significantly improved over previous years.

In 1982, Taiga Consultants Ltd was contracted by Kenton Natural Resources to carry out a geological evaluation of the property and subsequently a comprehensive mineral exploration and diamond drilling program. During this period, 510 metres (1673 feet) of diamond drilling was completed, as well as a soil geochemical survey, a geophysical (VLF-EM) survey, detailed geological mapping of the property, and six trenches dug in order to define the style of mineralization.

More recent research work, carried out by Jill Kirker (April 1982), strongly supports a hydrothermal origin for the mineralization.

In 1983, additional geophysical surveying and geochemical sampling were completed by Taiga Consultants Ltd. to detail geophysical conductors and geochemical zones previously outlined. During the fall of 1983,488 metres (1600 feet) of diamond drilling were completed.

In 1986, Kenton Natural Resources Inc., as operator, drilled two holes in the valley bottom between the Mike and Orma Hills in order to test an I.P. anomaly delineated in 1979 by previous operators. This program consisted of 404 m (1326') of drilling, and failed to intersect any significant mineralization. The drill was removed from the property following this short program.

The claims were gradually allowed to lapse, and in the spring of 1992, all claims comprising the property had expired. R.W. Termuende restaked the core area of the property on July 29th, 1992. 12 quartz claims were recorded, consisting of the Eric 1-6 and Jessica 1-6 claims.

A $190,000 exploration program was completed during the 1994 season. The focus of the two-stage program was to carry-out further systematic exploration in the Mike Hill area, as well as undertake initial re work in the region surrounding the claim area. A total of 531 soil, 67 rock, and 36 silt samples were taken, over two separate control grids that were established on the property, covering the Mike Hill and Big Onion areas. Coincident with the geological program, efforts were made to improve the infrastructure of the property, and included construction of a 530m (1800') airstrip, a 3.4km permanent road connecting the airstrip and camp areas, and 10km of drill-tote trails throughout the property. Environmental work was also undertaken in the Orma Hill area, with 8 man days spent collecting some

140 used fuel drums, refuse-burning, and general cleanup activities in areas of past development.

A two-phase trenching and diamond drilling program was carried out during 1995. Twenty-one drillholes totaling 1658 meters (5440 feet) were completed in the Mike and Orma hill areas, and a total of 400m of bulldozer trenching carried out in the Big Onion area. In addition, a 339-sample soil geochemistry survey was undertaken proximal to the Big Onion showing. A further 35 claim units were added to the existing property, bring the total area to 71 units. In addition, improvements were made to the airstrip, and an all-weather road network was completed to access all areas of the property. The total cost of the 1995 program was $539,000. The most impressive mineralized interval intersected in 1995 occurred in hole RS95-M7, where a 15.3m interval of a hole drilled on the Mike Hill assayed 15.1 oz/ton silver, 3% copper, and 1.3% zinc, from 28.6-43.9m.

A 15-hole, 7600' (2320m) diamond drilling program was carried out on the property in 1996 at a total cost of $560,000. The program was designed to test for the presence of deep-seated manto-type mineralization, which was interpreted to lie beneath high-grade "chimney" veins exposed on surface in the Mike and Orma Hill areas. In addition to geological work, significant improvements were made to property infrastructure, with three km of new roadwork completed, and the airstrip extended to 2000' (600m). Significant to the 1996 program was the discovery of stratabound mineralization, apparently over much of the property area, and beyond. As a result of the new interpretation, 478 quartz claim units were staked in the region, covering all favorable stratigraphy in the immediate area.

The $355,000 1997 program utilized a reverse circulation drill in an attempt to mitigate drilling problems associated with the highly abrasive cap rocks overlying the mineralized horizon. While the drill did perform better in the siliceous ground, there were problems with recovery and sample contamination within the mineralized zone. Two of the holes confirmed the presence of stratabound mineralization at the Hart River - Ogilvie Formation contact over a large area. During 1997, RW. Hodder, Ph.D., P.Eng., visited the property and examined existing drill core, outcrop, trenches and technical data. He concluded that "The limonitic interval at Rusty Springs is a resource of hundreds of millions of tons, but of very subeconomic amounts of base or precious metals ... the limonitic interval and it's enclosed quartz veins and lamellae are however vital symptoms that ore forming processes existed for major deposits of silver-lead-zinc and that deposits of this type cluster in districts of economic potential". Hodder also recommended focusing on locating sulphides below the present and paleo water table.

The $54,000.00 1998 program involved a combined shallow seismic and gravity geophysical survey. The surveys were run from the northeast flank of the airstrip east across the low lying swampy area. The survey defined a coincident positive Bouger gravity anomaly and seismic reflection profile interpreted to be related to a shallow sulphide body at the same stratigraphic horizon as sulphide mineralization defined in 1996 – 97.

Eagle Plains Resources continued mineral exploration at the Rusty Springs property in 1999 with a $273,000.00 field program. A three hole helicopter supported, diamond drill program to test for stratabound mineralization in the area of Orma Hill was carried out concurrently with a property and regional scale geologic mapping program under the direction of Charlie Greig.

Results from the 616.9 m (2024 feet) 1999 diamond drilling program at the Rusty Springs property were largely inconclusive because none of the holes could be completed to target depth. Two of the three holes intersected quartz carbonate crackle breccia within a strongly silicified (cherty?) black mudstone that overlies the mineralized horizon elsewhere on the property. While no massive sulphide or Katshat horizon was intersected, a mineralized breccia zone was encountered between 229.2 and 264.9 meters in hole RS99-01. Mineralization consisted of finely disseminated to patchy orange – red sphalerite associated with fine quartz crackle breccia and coarser collapse type breccia. The host rock was silicified black mudstone. The best mineralized intervals were 226.8 to 233.4 meters which averaged 2819 ppm zinc over 6.6 meters, and 249.8 to 264.9 meters which averaged 3100 ppm zinc over 15.1 meters. The brecciation, strong silicification and mineralization are consistent with the nature of the cap rocks associated with the Katshat horizon elsewhere on the property. Casing was left in all three of the drillholes to facilitate future deepening of the holes to intersect the mineralized horizon.

2001 work on the Rusty Springs Property consisted of a short reconnaissance geological program. The total cost of the 2001 program was $16,500.08.

In 2006 Rusty Springs was revisited by Robber Hodder, Bob Termuende and Lara Lewis of the YGS. The property visit involved 6 hours of showing examinations, minor geologic traverses, core review, aerial observations. Results of the property visit and subsequent data review suggest that although the current geologic dataset is accurate, it could possibly be reinterpreted in a modern geologic context. Specifically, geology / mineralization on the property should be put in a fold and thrust context and the close to 40 showings on the property could be utilized to vector towards larger sulphide or non-sulphide Pb-Zn deposits. Total cost of the 2006 exploration program was $14,473.57.

The 2011 Rusty Springs exploration program consisted of a regional heliborne magnetic survey and a 5 day field program designed to rehabilitate the existing airstrip and attempt to place Rusty Springs mineralization in a modern, regional context. The field crew consisted of R.W. Hodder and D.J. Bain of London, Ont. Sara Gleeson and Jesse Reimink of the University of Alberta and Geoff Garcia provided mechanical expertise and conducted rehabilitation of the airstrip.

Results of field work included a reinterpretation of the mineral paragenesis involving focused fluid flow / mineralization along discrete moderately west-dipping imbricate thrust faults and associated silicification and dolomitization of hanging wall and footwall rocks respectively.

Total expenditures for the 2011 exploration program were $67,819.40; see Appendix II for a detailed description of costs incurred during the exploration program.

Table 2 – Rusty Springs Exploration History

Year	*Work done*	*Company*	*Interpretations*	*Drilling*	*Significant results*	*Expenditure*	*Reference*
1976	staking, prospecting, mapping, limited soil sampling, hand-pitting	Rio Alto Exploration Ltd.	intrusive-related hydrothermal vein systems with supergene enrichment		Chip samples of float from several localities with 30-40% Zn, 5-15% Cu, and variable Pb and Ag; grab samples commonly averaged 10-70 opt (300-2000 g/t) Ag	$150,000	Chernoff (1976)
1977	prospecting, mapping, grid-soil sampling, diamond drilling, staking, metallurgical sampling	Rio Alto Exploration Ltd.	Precious-metal enriched Mississippi Valley-type (MVT) model adopted	3200 ft. (975 m) in 8 holes	High Ag and Pb values in one hole (123 ft. averaging 33.27 opt (947.5 g/t) Ag, 4.72% Pb, 2.36% Cu) but with poor recoveries	$187,000	White (1978); Schoel (1978)

Year	Work done	Company	Interpretations	Drilling	Significant results	Expenditure	Reference
1978	extensive line cutting and soil geochemistry, prospecting, diamond drilling, mapping, construction of winter road and airstrip	Rio Alto Exploration Ltd.	mineralized zones on Orma Hill follow low-angle fault; MVT model still accepted	6035 ft. (1840 m) in 30 holes	stratigraphic control noted on anomalous soil geochem zones following chert–dolomite contacts: Cu-Pb-Ag± Zn on Orma Hill; Zn± Cu± Pb± Ag on Mike Hill; poor recoveries in drilling	$555,000	Beck (1978)
1979	Induced Polarization and gravity surveys, line cutting, prospecting, mapping, soil sampling, hand pitting, trenching	Rio Alto Exploration Ltd.	MVT model still accepted		extent of upper Ogilvie Formation (mineralized showings or float found throughout) and contacts with overlying siliciclastic rocks established	$300,000	Hansen and Bankowski (1979); White (1979)
1980	diamond drilling, cat trenching, detailed mapping	E&B Explorations Inc. and Rio Alto Exploration Ltd. joint venture	mineralization considered to be of hydrothermal origin; Ogilvie-Hart River contact still considered a karsted horizon channeling mineralizing solutions	6,000 ft. (1829 m) in 27 holes	poor recoveries in upper parts of holes; numerous cm-to decimetre-thick tetrahedrite-tennantite veins intersected, which commonly yielded high Ag, Pb, and Cu values; mineralization on Orma Hill in part appears to be vein-related	$1,200,000	Bankowski (1980); Liedtke (1980)
1982	soil geochemistry, VLF-EM surveys, mapping, trenching, diamond drilling	Kenton Natural Resources Corporation	epithermal veins	1673 ft. (510 m) in 7 holes	common WNW-, NW-, and NNW-trending EM conductors outlined; Orma Hill vein systems defined	$116,000	Davis and Aussant (1982)
1983	fill-in soil geochemistry and VLF-EM surveys, diamond drilling	Kenton Natural Resources Corporation	epithermal veins	1600 ft. (488 m) in 2 holes	focused on Orma Hill vein systems	$350,000	Aussant (1983)
1986	diamond drilling	Kenton Natural Resources Inc.		1326 ft. (404 m) in 2 holes	tested (unsuccessfully) IP anomalies between Orma and Mike hills	$96,000	Chamberlain (1986)
1992	restaking						
1994	regional reconnaissance; trenching, airstrip and road construction; clean-up	Eagle Plains Resources Ltd.	epithermal veins, MVT	None	vein mineralization on 040° -trend discovered using soil geochem and trenching on Mike Hill; new showings discovered SW of Mike Hill	$190,000	Downie (1994)
1995	trenching, diamond drilling, soil geochemistry, staking, airstrip and road construction, GPS survey, claim staking	Eagle Plains Resources Ltd.	Manto-chimney type carbonate-hosted deposits	5440 ft. (1658 m) in 21 holes	15.1 oz/ton (425 g/t) Ag, 3% Cu, and 1.3% Zn over 50 ft. (15.3 m) on Mike Hill	$539,000	Termuende (1996)

Year	***Work done***	***Company***	***Interpretations***	***Drilling***	***Significant results***	***Expenditure***	***Reference***
1996	diamond drilling; airstrip extension, road construction, staking	Eagle Plains Resources Ltd.	carbonate-hosted manto-type deposits; stratabound hydrothermal mineralization along Ogilvie-Hart River Formation contact	7610 ft (2320 m) in 15 holes	highly anomalous base metal values over significant widths along Ogilvie-Hart River Formation contact	$560,000	Termuende and Downie (1997)
1997	reverse-circulation drilling, surface mapping, prospecting, road and drill pad construction, improvements to airstrip	Eagle Plains Resources Ltd. and Canaustra Resources Ltd.	stratabound hydrothermal mineralization along Ogilvie-Hart River Formation contact	1351 feet (412 m) in 8 holes	two widely spaced holes drilled through Ogilvie-Hart River Formation contact, confirming presence of stratabound mineralization; affirmation of distribution of chert and shale, including in low-lying areas (may cap mineralization preserved beneath the water table)	$356,000	Termuende and Downie (1998); Hodder (1997)
1998	gravity and seismic reflection surveys, property reconnaissance prospecting and mapping	Eagle Plains Resources Ltd. and Canaustra Resources Ltd.	stratabound hydrothermal mineralization along Ogilvie-Hart River Formation contact, below present and paleo-water tables	None	continuation of prospective stratigraphy at shallow depths northeast of Orma Hill; coincident with gravity anomalies	$54,000	Power (1998)
1999	diamond drilling, property-scale mapping, regional reconnaissance mapping, prospecting, and sampling; clean-up	Eagle Plains Resources Ltd. and Canaustra Resources Ltd.	stratabound hydrothermal mineralization along Ogilvie-Hart River Formation contact, below present and paleo-water tables	1040 ft. (317 m) in 3 holes	None	$273,000	Downie and Greig (2000)
2001	Short reconnaissance geological program	Eagle Plains Resources Ltd.	stratabound hydrothermal mineralization along Ogilvie-Hart River Formation contact, below present and paleo-water tables	None	None	$16,500	Downie (2002)
2006	Minor geologic mapping, sampling and showing examinations	Eagle Plains Resources Ltd.	possibly structurally controlled by moderately to steeply dipping thrust faults	None	None	$14,500	Higgs (2006)
2011	Geologic traverses and minor geochemical sampling	Aben Resources Ltd.	possibly structurally controlled by moderately to steeply dipping thrust faults	None	None	$67,800	Gallagher (2011)
				total drill frontage: 36,264 ft. (11,050 m) in 123 holes		total expenditures: $5,024,000	

Regional Geology

(After Downie and Greig, 2000)

The area mapped lies with in the northernmost part of the Cordilleran orogenic belt, known locally as the Taiga -Nahoni foldbelt, where Precambrian to Cretaceous predominantly sedimentary rocks of the eastward and northward tapering North American miogeocline were deformed in latest Cretaceous to Tertiary time (Norris 1996, Lane 1998). The area was first mapped by Norris (1981), who outlined a structural culmination, in part coincident with his Porcupine Anticline, cored by rocks of the Lower and Middle Devonian Ogilvie Formation. Norris (1981) shows stratigraphically lower rocks of Early Paleozoic, Cambrian, and Proterozoic age bounding the west side of the culmination and brought up by mainly west vergent contractional faults.

Property Geology

(After Downie and Greig, 2000)

Nine map units, ranging in age from Proterozoic to Cretaceous, correspond largely with those mapped by previous workers (e.g., Chernoff 1976, Kirker 1980a, Tempelman-Kluit 1981; Figure 2). Ages of the map units were taken mainly from Norris (1981, 1996). Exposure is generally poor near the valley bottom and consequently the focus for property-scale geologic mapping was on the rocks underlying surrounding ridges. The geology in the immediate vicinity of the mineralized and altered zones at Rusty Springs, which crop out at lower elevations in the vicinity of two lower hills, named the Mike and Orma hills, was examined briefly.

Stratigraphy

Lower to Upper Proterozoic rocks

Rusty weathering sandstone (quartzite), interbedded with maroon and local green siltstone and silty mudstone (siltite), occurs in a northerly trending belt in the southwesten most corner of the area mapped. The siliciclastic rocks, which were only briefly examined, appear to be conformable with steeply east dipping Lower Paleozoic dolostone and quartz rich sandstone to their east.

Lower Paleozoic rocks

Like the older rocks which they appear to overlie conformably, rocks of probable Late Cambrian through Early Devonian age occur in a northerly trending belt along the west margin of the map area The Lower Paleozoic rocks consist of white weathering dolostone, rusty weathering quartz-rich sandstone (quartzite), and siliceous fine grained clastic rocks, including green and maroon siltstone and silty mudstone (siltite). Rocks of similar general appearance occur to the north, but were neither examined nor differentiated from the older siliciclastic rocks. The Lower Paleozoic rocks are inferred to be in thrust contact with younger Paleozoic and Mesozoic rocks to the west, although a down-to-the-east normal fault was mapped along trend to the south by Norris (1981). The presence of inferred thrust is supported by the marked easterly vergence of folds in the area.

Lower and Middle Devonian Ogilvie Formation

Pale grey weathering dark grey dolostone and subordinate limestone and argillaceous rocks of the

Ogilvie Formation underlie the central part of the Rusty Springs property in the core of the Porcupine-Rusty Springs anticlinorium. They form common talus slopes on the flanks of Orma and Mike hills, but outcrop is scarce, even on roads and cat trails. Dolostone is fetid, and commonly brecciated, veined, and(or) vuggy. Breccia cements consist mainly of dolomite and spary calcite with local quartz, vugs are commonly lined with calcite and quartz, and veinlets are of similar mineralogy. Another common constituent of Ogilvie Formation breccias is pyrobitumen - it is commonly intergrown with dolomite cements and always associated with quartz and (or) calcite spar (Kirka 1982); it also locally coats vugs. Dolomite crystals in dolostone are typically fine to medium-grained and locally coarse-grained, with coarser-grained varieties typically weathering a paler grey colour. Locally, weakly dolomitized limestone contains recognizable brachiopods, ostracods, corals, and uinoids (Hansen 1979, Davis and Aussant 1982), although no diagnostic fossils have been reported. Float boulders and the few outcrops of the Ogilvie Formation suggest that it is not well stratified, but bedding is more apparent in diamond drill core, particularly where brecciation is less intense, and bedding to core axis angles typically suggest that the strata in the vicinity of Mike and Orma hills are gently dipping. Mainly on the basis of their contained fauna, Hansen (1979) interpreted the dolostones of the Ogilvie Formation as a shallow water "reefal" unit, while Kirker (1982) suggested a shallow water shelf environment The base of the Ogilvie Formation at Rusty Springs is not exposed, but a drill hole between Mike and Orma hills penetrated about 210 metres (probable true thickness) of dolostone, with local interbedded shale and rare limestone and quartzite (Chamberlain 1986).

At the top of the Ogilvie Formation at Rusty Springs is the informally named "Katshat unit", a recessive, gossanous oxide- and clay-rich unit which corresponds to a significant degree with the mineralized zones on the property. In general the unit appears to be stratabound separating the dolostone from overlying siliciclastic rocks, but in detail its contacts are highly irregular. The Katshat unit most likely represents altered and mineralized Ogilvie Formation limestone-it is discussed in more detail below.

Devonian-Mississippian fine-grained siliciclastic rocks

Disconformably overlying the Ogilvie Formation are siliceous mudstone, slate, shale, siltstone, and rare limestone of probable Devono-Mississippian age. The rocks were assigned by Norris (1981) to the Hart River Formation (Early and Late Carboniferous age), but they are more likely correlative with fine grained clastic rocks, such as the Upper Devonian Canol Formation, the Unnamed shale, the Upper Devonian and Lower Carboniferous Ford Lake shale (Norris 1981, 1996), and the Kayak Formation (Richards et al. 1996), because the Hart River consists mainly of limestone (Norris 1981, 1996). Herein the rocks have been assigned to the Unnamed shale.

The lowermost rocks in the sequence, best exposed on Orma and Mike hills and referred to locally as black 'chert', are perhaps more accurately referred to as a silicified and(or) siliceous mudstone. Thin laminations and recrystallized radiolaria are locally preserved (Hansen 1979). The siliceous rocks are up to 40 metres thick (Hodder 1997) and are commonly veined and brecciated; veins and breccia matrices consist mainly of quartz, calcite, and dolomite. The brecciated siliceous rocks appear in most places to cap the mineralized Katshat unit of the uppermost Ogilvie Formation, and black siliceous(?) fragments are locally a common component of the dolostone breccias that commonly comprise upper Ogilvie Formation rocks beneath the Katshat unit.

Up-section from the siliceous rocks, and comprising the bulk of the rocks assigned to the Unnamed shale, are relatively recessive pyritic, carbonaceous shale, mudstone, silty mudstone, and local thin- to medium bedded, poorly sorted fine grained litharenite. They are generally thinly bedded, and typically siliceous, although local calcareous shale was also noted. Local slate and rare dark grey, fetid and laminated algal limestone occur not far above its contact with the Ogilvie Formation. Erosion of this part of the unit, which is as much as 500 metres thick, has led to the broad and open drainage basin within which the Rusty Springs property sits.

The transition of the fine grained clastic sequence to the overlying mixed carbonate and clastic unit is commonly marked by the presence of thin to medium bedded siliceous fine sandy siltstone or fine grained sandstone. These rocks are typically pale grey and locally rusty weathering up close, but appear very dark from a distance because of a common covering of black lichen.

Upper Carboniferous and Permian (?) limestone and fine grained calcareous and siliceous clastic rocks.

Medium bedded, pale grey weathering medium to dark grey sandy and locally pebbly fetid limestone and rare dolostone characterize this unit. The limestone commonly contains irregular dark grey chert nodules and occurs in several(?) horizons of amalgamated beds that are up to several tens of metres thick. They form many of the better outcrops in the area and because of their resistant character, they underlie many of the ridges surrounding the broad upper drainage basin of Carrol Creek. The upper limit of the map unit is defined by presence of the uppermost continuous limestone sequence, while the transition from the underlying siliciclastic sequence is commonly marked by scattered float blocks of pebbly limestone. The pebbles are typically round to sub-round and are dominantly chert. Pebbly lithologies are more common to the southwest, whereas to the east, sandy limestone is more common and pebbly limestone occurs only locally. In addition, a limestone horizon containing abundant in situ corals was noted in the east but not to the south or southwest, and composite limestone horizons appear somewhat thicker (up to 50-60 metres) and may contain thicker-bedded to massive layers of upto 15 metres thickness. In spite of the predominance in outcrop of pebbly and cherty limestone, a significant portion of the map unit consists of relatively recessive, variably calcareous fine grained clastic rocks. They include dark weathering thin bedded and laminated siliceous or calcareous silty mudstone, and calcareous to siliceous shale, as well as local fine grained siliceous sandstone and siltstone. The total thickness of the limestone and associated clastic units is about 550-700 metres.

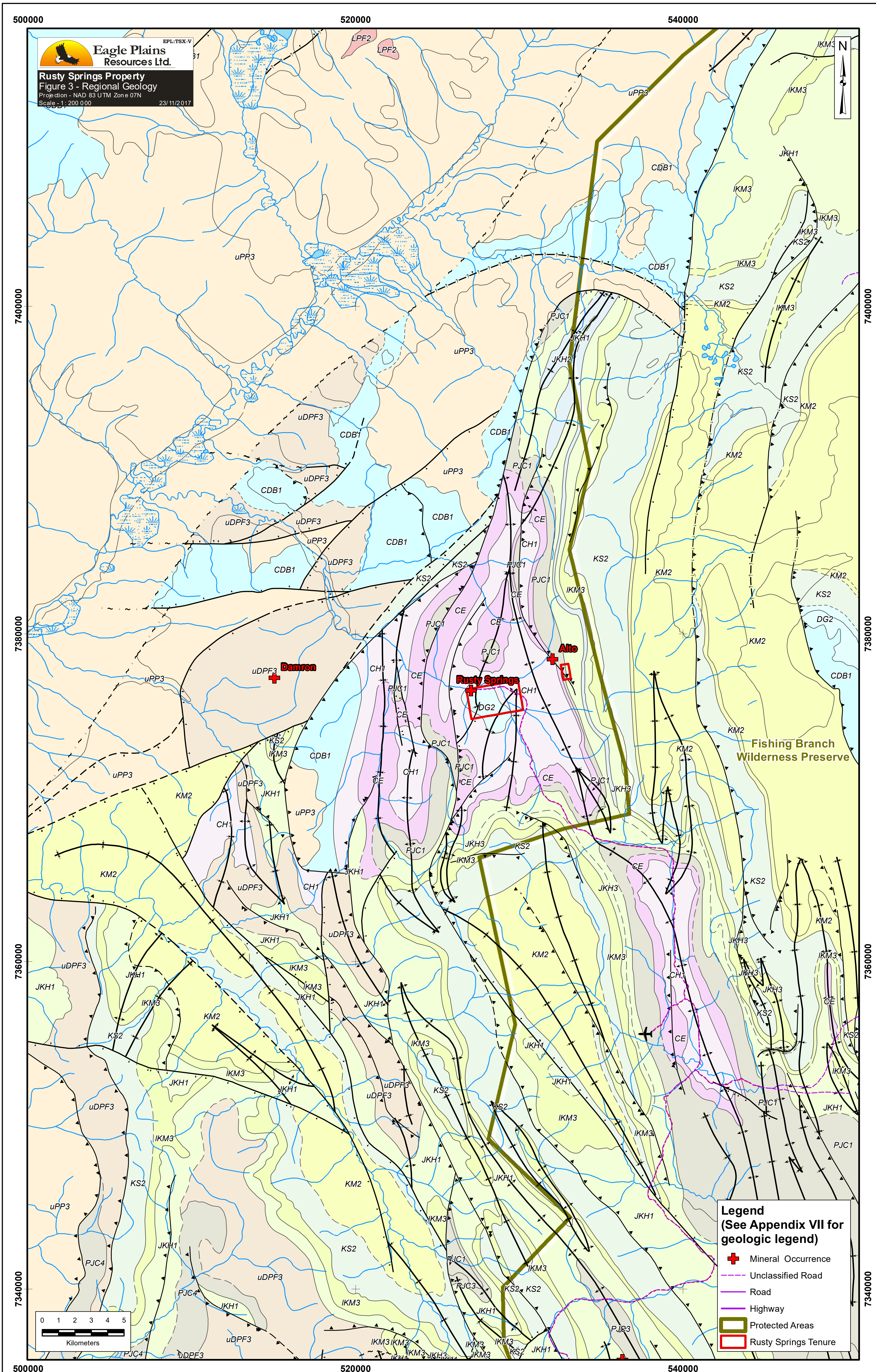
The rocks of this sequence have been included previously in the Upper Carboniferous Ettrain Formation, but Pennsylvanian and Permian fossils have been reported from within the area mapped, and so it is probably longer-ranging and likely includes rocks mapped as Jungle Creek Formation by earlier workers. If so, it is difficult to distinguish Ettrain from Jungle Creek in the field.

Jurassic and Lower Cretaceous dark weathering siliciclastic rocks

Lying conformably above the sequence containing the resistant grey carbonates is a dark weathering package of shale, silty mudstone, and sandstone of approximately 600 metres thickness. Included in this map unit are rocks that Norris (1981) assigned to the Jurassic and Lower Cretaceous Kigak, Porcupine River, and Husky formations. The lower part in the Rusty Springs area consists of common pale to medium brown weathering silty mudstone with local buff-weathering carbonate layers, and dark brown weathering shale. Near the east-central part of the area mapped, near its base, the sequence includes a thick (up to 46 metres Chernoff 1976) oolitic hematite-magnetite siliceous iron formation. Several kilometres along strike to the north, and at the same stratigraphic level, the base of the unit is marked by massive black carbonaceous and siliceous mudstone and silty mudstone. Similarly resistant siliceous rocks mark the upper part of the unit, which underlies many of the highest ridges in the south and east parts of the area mapped. They are very dark weathering and consist mainly of blocky weathering, medium grained feldspathic cherty quartz arenite and carbonaceous fine grained siliceous litharenite.

Lower Cretaceous shale, siltstone, and quartz arenite

The two units bounding the east side of the map area were taken from the mapping of Chernoff (1976), who shows numerous overturned beds within their bounds. He assigned the shale, siltstone, and quartz arenite comprising the units to the Cretaceous Marten Creek and Goodenough (sic) formations. Norris (1981) assigned them a Lower Cretaceous age, and included them in the his "Kwc" unit and the Mount Goodenough Formation.



Eagle Plains Resources Ltd.
EPL:TSX-V
Rusty Springs Property
Figure 3 - Regional Geology
Projection - NAD 83 UTM Zone 07N
Scale - 1: 200 000
23/11/2017
Legend
(See Appendix VII for geologic legend)
Mineral Occurrence
Unclassified Road
Road
Highway
Protected Areas
Rusty Springs Tenure
Fishing Branch Wilderness Preserve
Rusty Springs
Alto
Damron
Kilometers
0 1 2 3 4 5
N
500000
520000
540000
7400000
7380000
7360000
7340000

Structural Geology

Recent work by Hodder, 2011 has brought into question the long standing stratigraphic and structural interpretations and has reinterpreted current surficial geology in terms of a series of moderately west-dipping imbricate thrust faults. A review of the compiled surficial geologic data does not conclusively support one theory or the other but does seem to favor Downie and Greig's structural model and it has therefore been included in this section of the report.

After (Downie and Greig, 2000)

Folds are the dominant structural feature in the map area, and wavelengths of the typical east vergent open to tight and locally overturned folds are on the order of 1-5 kilometres . The folds occur across the crest of an approximately 20 kilometre wide, northerly trending and doubly-plunging anticlinorium centered on the mineralized showings at Rusty Springs. The east side of this domal feature corresponds to the Porcupine Anticline of Norris (1981). Brittle faults are common on the property, and have been intersected in drillholes and interpreted from geophysical surveys and surface features (such as shear stream patterns), but none of these faults appears to offset map units at the property scale. The plunge reversal that corresponds with the mineralized area and which has been interpreted by some (e.g., Chernoff 1976) to have been associated with a brittle fault, appears, from the map patterns, to be fold-related and the consequence of some deeper-level structure, such as a lateral ramp.

Several property-scale cross-sections have been prepared previously, beginning with that of Chernoff (1976), and followed by Kirker (1980) and Tempelman-Kluit (1981). Chernoff (1976) shows a large-sale easterly-overturned antifom which is centered on the Rusty Springs showings and which he interprets as being cored by intrusive rocks and floored by north trending, east-directed thrust faults. In contrast Kirker (1980) and Tempelman-Kluit show inferred, north-trending faults, but interpret them as west-vergent contractional faults. They also show related folds with generally open geometries (Kirker 1980, Tempelman-Kluit 1981). Our cross-sections, based on improved bedding control compiled in part from previous work and benefiting from drillhole control, suggests that the structural setting is somewhat more akin to that shown by Chernoff (1976), in that the transport direction across the anticlinorium is toward the east. An east-directed transport direction is also more in accord with the regional sense of vergence.

Speculatively, the area may be floored by a large-scale east-vergent contractional fault, in part as envisioned by Chernoff (1976). Key to this interpretation are the steeply dipping and overturned Cretaceous rocks along the east side of the area mapped by Chernoff (1976). They may represent the eastern, overturned limb of the northern Porcupine Anticline, and may be floored by an inferred southern continuation of an east-vergent contractional fault shown by Norris (1981) as bounding a panel of Upper Proterozoic to Lower Paleozoic rocks on their east side about 15-20 kilometres to the north-northeast. If this is the case, the doubly plunging anticlinorium underlying the Rusty Springs area may reflect the influence of a deep-seated feature, such as a lateral ramp, along the inferred contractional fault.

Mineralization

Although exploration models utilized at Rusty Springs have tended to exclusively target either stratabound or discordant styles of mineralization (e.g, Mississippi Valley-type or Irish Plains-type for the former, hydrothermal veins for the latter), there appears to be good evidence for both styles on the property, and they appear to be genetically related. Both styles of mineralization are found almost exclusively in the upper Ogilvie Formation and in the vicinity of the Mike and Orma (Hansen and Bankowski 1979), and their spatial association, similar geochemical signatures, and their association with similar brecciated and dolomitized zones, suggests a genetic link. Potential rests mainly with the stratabound mineralization, which may have greater thickness, much greater continuity, and can be much more readily explored for.

Vein-type mineralization: the Orma zone

Mineralization at the Orma zone, on the northwest flank of Orma hill, has been the focus for the bulk of the exploration work at Rusty Springs. Up to the 1990's, virtually all of the drilling on the property occurred there. The zone has yielded many of the highest grades in grab samples, trenches, and drill core (e.g., DDH80-01: 583 gm/t Ag, 8.23% Pb, 1.48% Cu over 6.5 metres) and trenching and drilling have confirmed that it is a discontinuous vein and vein stockwork zone which trends northwest and dips steeply. Vein-type mineralization also appears to be present locally at Mike Hill, with the difference that relatively high Zn and trace Au values commonly accompany the Ag, Pb, and Cu common to mineralization at the Orma zone (Downie 1994; e.g., DDH95-07: 518 gm/t Ag, 0.77% Pb, 3.0%Cu and1.3% Zn over 15.3metres).

Veins consist of massive galena-tetrahedrite (tennantite?), as is suggested by elevated As:Sb ratios in some assays, Liedtke (1980)), locally up to 1.0 m thick, which assay roughly 10-50 ounces per ton Ag. The veins are contained within a broader, commonly oxidized mineralized and altered zone (in part a vein stockwork) of up to 6 or 7 metres thickness. The altered zone typically assays 30 to 60 grams per ton Ag (Davis and Aussant 1982). Alteration within Ogilvie Formation carbonates, as described by Bankowski (1980b), is characterized by silica replacement, dolomitization, local brecciation, sanding (silicic alteration?), and decomposition (supergene alteration), and is manifest in part as a darker grey colour of the host rocks. The margin of the altered zone has a northwest trend, subparallel to that of the mineralized zone, and it appears to terminate, or turn bedding-parallel, to the southeast at the contact with overlying siliciclastic rocks (Bankowski 1980b). Minerals identified from the oxidized zones include smithsonite, cerussite, malachite, azurite, aurichalcite, pyrolusite, hemimorphite, plumbojarosite, gibbsite, valentinite, and natroalunite (Hansen 1979, Kirker 1980b); sphalerite and pyrite are also preserved locally with galena and tetrahedrite in siliceous vein and vein-breccia material.

Stratabound mineralization: the Katshat unit

Near the end of the 1996 exploration program, stratabound mineralization along the contact between the Ogilvie Formation and overlying Devono-Mississippian siliciclastic rocks became the principal exploration target (Termuende and Downie 1997). Almost all holes drilled in footwall Ogilvie Formation dolostone had essentially been barren, and with relatively thick oxidized mineralization cored at the contact in several previous drillholes that were collared in hangingwall siliciclastic rocks, it was realized that substantial potential existed for stratabound mineralization. It was also recognized that the most extensive geochemical anomalies on the property coincided with the contact, and that many drillholes targeting them had been collared in the strongly oxidized mineralized material-these holes had been plagued by poor core recoveries.

The oxidized material common to the upper contact of the Ogilvie Formation was referred to locally as the Katshat unit. It consists of strongly leached, porous limonitic to kaolinitic material with an earthy, gougy consistency, and is similar in appearance to the oxidized material surrounding discordant mineralization. It is typically 20 to 40 metres thick, and although it appears stratabound at the property scale, in detail it is irregular and discordant. Many of the minerals noted above as occurring in the Orma zone are also common in the Katshat unit. X-ray difraction studies indicate that much of the Katshat material consists of granular Fe, Mn, Ag, Pb, An, Cu, Ba, Al, P, and V oxide, carbonate, sulphate, and silicate mineral species, as well as quartz veinlets and laminae locally containing sulphides and sulphosalts like those in Orma zone veins and vein stockworks (Hodder, 1997). The Katshat unit is invariably overlain by brecciated and veined siliceous or silicified mudstone and chert of probable Devono-Mississippian age, which caps and in part has protected it from erosion. It is underlain by Ogilvie Formation dolostone, also typically brecciated and veined. The Katshat unit is strongly anomalous in Ag, Cu, Pb, and Zn over broad intervals and across a wide area (for e.g., 1.1 gm Ag, 881 ppm Cu, 139 ppm Pb, 3301 ppm Zn over 19.1 m in hole RS96-04 from the southwest part of Mike hill, and 1.6 gm Ag, 1475 ppm Cu, 1321 ppm Pb, and 2701 ppm Zn over 22.2m in hole RS96-14 from the south end of the airstrip on Orma hill). Results such as these suggest the possibility of tremendous continuity and potential, but the oxidized nature of the mineralization and the subeconomic grades also suggest that the preferred target be unoxidized portions of the horizon below the present and (or) paleo water table (Hodder 1997). Unoxidized Katshat unit was the target of the latest drill program, which attempted to test the upper Ogilvie Formation to the east and south of Orma hill. Results were mixed. Because of problems penetrating the very resistant siliceous and brecciated rocks which overlie the upper Ogilvie Formation and cap the Katshat horizon, the mineralized horizon was never reached. However, the presence of the siliceous rocks suggests that a strong stratabound mineralizing system existed well away from the surface exposures on Mike and Orma hills, and as such. the new information confirms that the Rusty Springs system is very large, and that it has significant potential remaining to be tested.

Timing of mineralization

The interpretation that Rusty Springs is a Mississippi Valley-type deposit related to karsting along the upper Ogilvie Formation contact suggests that the mineralizing event was likely bracketed by the ages of the Middle Devonian rocks below and the Upper Devonian to Mississippian rocks above. On the other hand, the discordant nature of mineralization and alteration at Rusty Springs indicates that it postdates deposition of the Lower to Middle Devonian Ogilvie Formation and at least the lowermost part of the overlying Devono-Mississippian section. In addition, one can argue that evidence such as the lack of obvious cleavage development in the Ogilvie Formation dolostones, which contrasts sharply with that common to most rocks across the property, including other carbonates, suggests that the mineralizing event may even have postdated much of the latest Cretaceous to Tertiary deformation affecting the area (alternatively, it is possible that this may reflect a contrast in competency between the more competent silica-altered and dolomitized rocks associated with mineralization and other less competent lithologies, or that a more subtle stylolitic cleavage exists in the dolostones - further study is needed). The parallelism of the Orma zone with structural trends (a fold axial plane?) and localization of Katshat - style mineralization in anticlinal hinge zones at Orma and Mike hills may also supports the hypothesis that mineralization post-dated deformation. A relatively young age is also supported by the rare occurrence of discordant metre-scale vein-breccia bodies of quartz or Fe carbonate at higher stratigraphic levels (Carboniferous to Permian) in the area surrounding Rusty Springs, and by limited Pb isotope data suggesting which that approximate those of Cordilleran Ag vein deposits of Late Mesozoic age (Kirker 1982).

Genesis

As mentioned above, several deposit models, including those for MVT and hydrothermal replacement along a karsted surface, have been employed in an effort to aid exploration at Rusty Springs. Poor exposure and consequent lack of local bedding control has hindered the collection of evidence with which to evaluate the various models, as has leaching and oxidation of the mineralized zones and dolomitization of footwall rocks. However, discussion of some of the existing evidence is worthwhile so that some models may be critically evaluated and perhaps ruled out, and others put forward in the hope that they aid exploration.

<u>Mississippi Valley-type</u>

Few, if any, of the textural features distinctive of MVT type deposits (e.g., Leach and Sangster 1993) have been positively identified on the property. For example, although the breccias common on the property have been interpreted as solution collapse features (e.g., Hansen 1979, Hodder 1997), cements and infillings of carbonate and local quartz are either massive or encrusted symmetrically around breccia fragments (e.g., Kiker 1982). There is no evidence for infilling by internal sediment, which would be strongly suggestive of a karst environment. Stratigraphic evidence also appears to argue against a karst environment. No regolith is preserved along the contact between the Ogilvie Formation and the overlying siliciclastic rocks that would indicate subaerial exposure, and even evidence for uplift, such as the presence of coarse grained clastic rocks, is lacking. According to Liedtke (1980), very little relief exists on the contact, and if anything subsidence is indicated: the stratigraphic transition is from a shallow water environment in which platformal carbonate was deposited, to a deeper water environment in which basinal shales were deposited.

Differences from classic MVT deposits also exist in the geochemistry and mineralogy at Rusty Springs, as has been noted by many previous workers. The high copper and silver contents, as well as low Zn:Pb ratios are generally atypical of MVT deposits (Leach and Sangster 1993), as are locally very high As and Sb values and the high Al values occurring in the Katshat unit (Termuende and Downie 1997). A geochemical fingerprint such as this is more consistent with an epithermal origin for metals within the host unit. Similar arguments can be made on mineralogic grounds, with the siliceous character of alteration, particularly in the hangingwall, and the common presence of tetrahedrite and argentiferous galena, which are more diagnostic of vein rather than stratabound Ag-Pb-Zn deposits, in the mineralized zones. Fluid inclusion and sulphur isotope data from quartz, calcite, and sphalerite at Rusty Springs are also more comparable to those from epithermal deposits than from those of MVT (Kirker 1982).

Regionally, the evidence also argues against an MVT setting. As Hodder (1997) notes, it is significant that the Ogilvie Formation at Rusty Springs is comprised largely of dolostone in an area in which limestone generally predominates. Even within the Ogilvie Formation itself, the regional dolomitization common to MVT districts appears to be absent-Norris (1996) describes only local dolomite beds in the lower part of the Ogilvie Formation in measured sections farther south in the Ogilvie Mountains.

In spite of the arguments against the presence of MVT mineralization, it remains possible that the mineralization and alteration evident on the Rusty Springs property may simply be the distal expression of a more typical MVT system with origins lieing in a hydrothermal karst system rather than a meteoric or meteoric-hydrothermal one (c.f. Leach and Sangster 1993).

High-temperature, carbonate-hosted massive sulphides: manto-chimney complexes

The mineralizing system at Rusty Springs bears some of the features of high-temperature, carbonate-hosted massive sulphide deposits (Titley 1993), which are also commonly referred to as manto-chimney complexes, and are rich sources of base and precious metals. This type of deposit, although occurring in quite varied structural and stratigraphic settings, is typically wholly or partially stratabound, commonly contains abundant pyrite, and contains Pb and significant Ag. Copper and Au can be present but are less common than Ag-Pb-Zn, and enrichment in one or the other of Cu-Pb-Zn can be variable. The deposits are generally thought to occur by replacement processes, initiated by hot fluids and(or) gases, above or near centres of thermal activity, and so intrusions are commonly (though not always) spatially associated. Vein, skarn, and even porphyry copper deposits may be closely associated the manto-chimney ores, and it is generally accepted that all are genetically related to the associated intrusions (Titley 1993).

The potential for manto-chimney deposits at Rusty Springs was initially recognized by Termuende (1996). The few preserved hypogene ore minerals recognized at Rusty Springs, such as galena and tetrahedrite, are common in the manto-chimney class, and the silica alteration common on the property is also commonly peripheral to ore or in this deposit type, or at least to districts in which such deposits occur. In addition, dolomitization is known to play a role in the formation of many high temperature, carbonate hosted deposits, and breccia bodies are also common to these systems (Titley 1993). The apparent controls on mineralization at Rusty Springs, such as the overlying impermeable fine grained siliceous shale cap, and perhaps the anticlinal fold hinges at Mike and Orma hills, also bear similarities to some manic-chimney deposits (e.g., Tombstone, Arizona; Titley 1993). This factor of predictability is an important advantage in exploration for manto-chimney ores, since they are known to be difficult to explore for. One of the main arguments against the application of the manto-chimney model at Rusty Springs is the lack of direct evidence for intrusive rocks, either on the property or in the region, although Chernoff (1976) shows an inferred intrusion at depth below the domal core of the Rusty Springs antiform. The nearest known plutons to Rusty Springs are Devonian (?) in age and outcrop to the north in the vicinity of Old Crow (Woodsworth et al. 1991).

Structurally controlled epithermal veining and replacement

This genetic model suggests that the base metal and silver showings at Orma, Mike Hill, and Big Onion are structurally controlled, epigenetic, hydrothermal metal concentrations. The first order structural control is moderately to steep-dipping thrust faults, not stratigraphy. The second order structural control is brecciation along these thrust faults. A third order control is transverse tear faults across the thrust faults.

There is appreciable hydrothermal alteration in the four showings consisting of silicification of a hangingwall black, thin-bedded crinoidal limestone and a shale, alternatively interpreted as chert in past work programs, and dolomitization of a footwall gray massive limestone, initially interpreted as a primary dolostone.

A middle two to three meters of breccia and quartz veins that contain fragments of black shale, black crinoidal thin-bedded limestone, and coarse, even-grained gray rock that appears to be a silicified limestone, and dolostone (Figure 4). Fragments are commonly elongate with a long axis averaging 10 cm and roughly aligned with the long axis of trenches exposing the prospect. Matrix to fragments is mostly a dull white crystalline quartz accompanied by minor white calcite. Where distance between fragments is less than two cm, quartz and calcite form a massive matrix. Where distance between fragments is more than two cm, there generally is a medial open vug into which protrude clear quartz crystals with terminating faces. In a few instances coarse galena, generally close to the footwall of cohesive dolostone, or close to discordant quartz veins, occupy the vugs. There are drops of bitumen in vuggs as well. Vein quartz is generally coarse, crystalline, white to slightly cream in colour (Figure 5). This quartz is cracked and those cracks are filled with fine-grained, crystalline white quartz with coarse galena and fine-grained, less abundant, tetrahedrite and sphalerite.

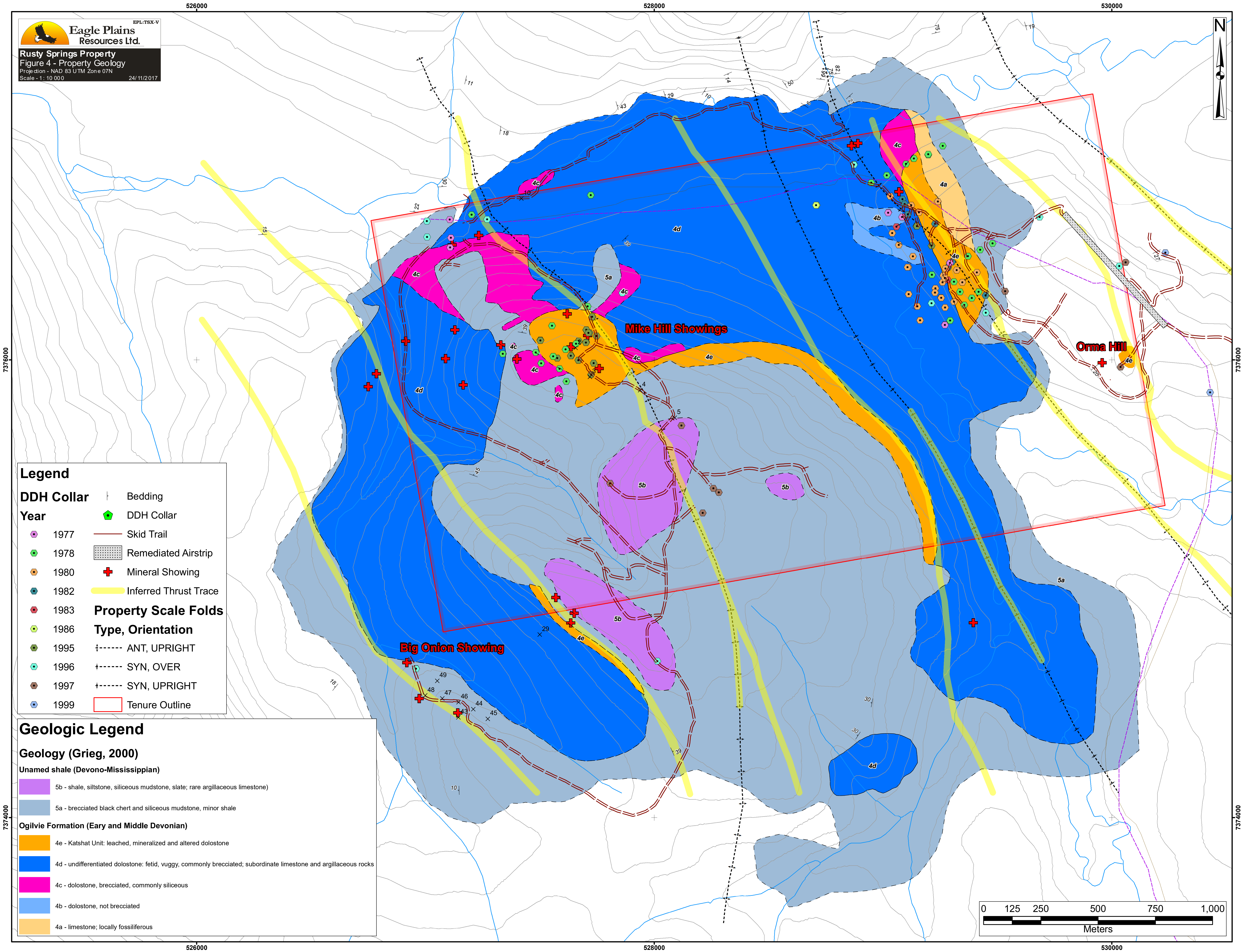
The sulphide mineral assemblage is within the latest quartz of a paragenesis beginning with a) dissolution and silicification of dolostone by a dull white quartz, followed by b) brecciation and recementation by white quartz and calcite, c) clear crystals of quartz in dissolution cavities (vugs), d) planar fracturing and filling of those fractures by a creamy quartz veins, and e) cracking of these quartz veins with subsequent filling of cracks by clear, fine-grained quartz, galena, tetrahedrite, and sphalerite. Some of this latest quartz and sulphide minerals also fill vugs.

Critical to this interpretation is the presence of structurally repeated mineralized horizons which should intersect at depth – or to the West.

Other economic potential in the vicinity of Rusty Springs

Little in the way of significant mineralization has been found in the immediate area around Rusty Springs, but recent work and a re-evaluation of work done previously indicates that some potential exists and that it should be tested. For example, in the most recent drilling, an interval approximately 40 metres thick within the Devono-Mississippian pyritic shales that overlie the Ogilvie Formation was highly anomalous in zinc; it included intersections of 7 and 15 metres which returned nearly 3000 ppm Zn. Although the hole did not reach its target, it is estimated that the Zn-rich zone lies approximately 100-150 metres up-section from the Ogilvie Formation, at about 250 metres depth. The zone occurs within a siliceous or weakly silicified carbonaceous pyritic mudstone, and sphalerite occurs as fine to medium grained honey brown disseminations, both within mudstone clasts, and within matrix hast rocks to zones of quartz or quartz-carbonate microbreccia. The pyritic and locally zinc-rich shales may be the source for the gossanous springs near the base of the north end of Mike hill which lend their name to the Rusty Springs property and, in fact, sediment issuing from the springs themselves was highly anomalous in zinc (Chernoff 1976). This suggests further that the recessive shale package may have potential for hosting Zn deposits, either similar in character to Rusty Springs, or perhaps of the SEDEX type, much as rocks of similar age, character, and tectonic setting farther southward in the Cordillera do (e.g., Macmillan Pass area, Y.T.; Gataga district, B.C.; Dawson et al. 1991). One might begin to evaluate this potential immediately south-southeast of the area mapped, where rusty creeks and springs, similar in appearance to those at the Rusty Springs property, were noted in the drainage that lies in the recessive core of Norris' (1981) Porcupine Anticline. The springs likely emanate from rocks correlative with the recessive and pyritic Devono-Mississippian rocks that overlie the Ogilvie Formation in the area mapped.

With regard to other possibilities, rare iron carbonate breccia and siliceous veins and vein-breccias were noted in outcrop or float while mapping the surrounding ridges, hut none bore visible sulphides, appeared extensive or was accompanied by significant alteration. About 40 kilometres further south, however, at the Pama (Bern) occurrence, which lies just inside the western boundary of the proposed Fishing Branch Protected area, an impressive, steeply dipping, north-northwest trending quartz-carbonate breccia zone that is hosted by carbonates can be traced for greater than two kilometres. It is outlined by a broad and intense soil geochemical anomaly (O'Donnell 1974) and near its southern end it contains tetrahedrite, copper oxides, and zinc and lead sulphates that bear some similarities to mineralization at Rusty Springs. The Pama property has never been drill-tested, yet smithsonite-rich samples yield assays of up to 47.80% Zn. Although it is hosted in carbonates and has at least some mineralogic similarities to Rusty Springs, no truly convincing evidence was found at the Pama that was suggestive of a significant element of stratigraphic control to mineralization. The breccia zone is hosted by limestone that is probably correlative with the uppermost limestones in the vicinity of Rusty Springs (Upper Carboniferous and Permian(?); considerably younger than the Ogilvie Formation). The breccia appears to dip steeply to the east-northeast, and lies subparallel to the steeply dipping eastern limb of what appears to be a gently southerly plunging, asymmetric, east vergent antiform. The breccia appears to be hosted entirely within limestone, and the limestone is only very locally dolomitized, which is in sharp contrast to Rusty Springs, where the better part of the Ogilvie Formation is dolomitized. Overlying the limestone is a sequence of relatively recessive, fine grained black carbonaceous rocks that appear to be capped by more resistant siliceous sandy beds. The sequence is similar in appearance to the Jurassic and Lower Cretaceous rocks along the east margin of the area mapped at Rusty Springs.



EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 4 - Property Geology
Projection - NAD 83 UTM Zone 07N
Scale - 1: 10 000
24/11/2017
N
526000
528000
530000
7376000
7374000
Mike Hill Showings
Orma Hill
Big Onion Showing
4a
4b
4c
4d
4e
5a
5b
Legend
DDH Collar
Year
1977
1978
1980
1982
1983
1986
1995
1996
1997
1999
Bedding
DDH Collar
Skid Trail
Remediated Airstrip
Mineral Showing
Inferred Thrust Trace
Property Scale Folds
Type, Orientation
ANT, UPRIGHT
SYN, OVER
SYN, UPRIGHT
Tenure Outline
Geologic Legend
Geology (Grieg, 2000)
Unamed shale (Devono-Mississippian)
5b - shale, siltstone, siliceous mudstone, slate; rare argillaceous limestone)
5a - brecciated black chert and siliceous mudstone, minor shale
Ogilvie Formation (Eary and Middle Devonian)
4e - Katshat Unit: leached, mineralized and altered dolostone
4d - undifferentiated dolostone: fetid, vuggy, commonly brecciated; subordinate limestone and argillaceous rocks
4c - dolostone, brecciated, commonly siliceous
4b - dolostone, not brecciated
4a - limestone; locally fossiliferous
0 125 250 500 750 1,000
Meters

2017 Exploration Program and Data Compilation

2017 Field Work

A one day field visit was completed on June 21, 2017. Robert Termuende, P.Geo., Tim Termuende P. Geo., and Chuck Downie, P.Geo mobilized to the property from the Eagle Plains Lodge with a Bell 206 LR chartered from the Fireweed Helicopters base in Dawson City.

Field crews landed near the historic Orma camp area north of the airstrip. A total of 7 samples were collected from the Orma trench area and from an exposure of high grade galena near the helicopter pad. The samples were labeled and placed in a rice bag which was sealed with a zip tie. The samples were transported to Cranbrook, BC with a company vehicle and then shipped to ALS Global Minerals in North Vancouver, BC for geochemical analyses.

The samples were analyzed using the ME-4ACD81 Base Metal by 4- acid digestion, ME-MS81 Lithium Borate Fusion ICP-MS, ME-MS41 Ultra Trace Aqua Regia ICP-MS package, and Ag-GRA21 with 30g FA-GRAV finish on over detection samples.

Table 3 – 2017 Sample Descriptions

SAMPLE NUMBER	***UTM***		***DESCRIPTION***
CDRS17-R001	529316	7376476	FLOAT/MASSIVE TETRAHEDRITE
CDRS17-R002	529332	7376337	FLOAT/NATURALINITE?
CDRS17-R003	529332	7376337	KATSHAT
CDRS17-R004	529420	7376317	FLOAT/TRENCH 8/HIGH GRADE SILVER/DISTINCT YELLOW WEATHERING STAIN
CDRS17-R005	529420	7376317	BANDED QUARTZ/DOLOMITE BRECCIA WITH TETRAHEDRITE
CDRS17-R006	529385	7376388	HIGH GRADE SILVER WITH TETRAHEDRITE
CDRS17-R007	529136	7376678	ORMA VEIN/ MASSIVE GALENA

Results

The analytical results confirmed the high grade tenor of the Orma Hill mineralization as well as identified a suite of pathfinder elements that may be used to trace the mineralizing system and to provide insight regarding ore genesis at Rusty Springs.

Table 4 - Select Analytical Results ME-MS41 / GRA21 / OG46

SAMPLE	***Ag (g/t)***	***Pb (%)***	***Cu (ppm)***	***Zn (ppm)***	***As (ppm)***	***Hg (ppm)***
CDRS17-R001	5630	9.24	5.77%	1330	>10000	2100
CDRS17-R002	14	942 ppm	3660	539	527	2.82
CDRS17-R003	4.63	381 ppm	217	145	610	1.87
CDRS17-R004	827	66.19	703	72	3780	275
CDRS17-R005	23	2.12	288	21	>10000	4.96
CDRS17-R006	634	44.74	5410	574	>10000	245
CDRS17-R007	1485	79.75	704	50	184.5	25.9

Table 5 - Select Analytical Results ME-MS81

SAMPLE	***Ba (ppm)***	***Ce (ppm)***	***Cr (ppm)***	***Dy (ppm)***	***La (ppm)***	***Sr (ppm)***
CDRS17-R002	1815	1.6	200	2.24	0.6	512
CDRS17-R003	78	5.7	10	0.48	3.2	2.4
CDRS17-R004	1860	15	<10	0.16	13.1	3.8
CDRS17-R005	141.5	26.7	10	0.6	19.4	6.3
CDRS17-R006	1380	50.1	10	0.94	33	4.7
CDRS17-R007	6040	4.3	10	1.23	4.2	17.4

Historic Data Compilation and Geologic Modeling

In October and November of 2017 a thorough geologic and geochemical data compilation was completed in order to develop preliminary 3D geologic models based on a number of the theories presented from current and past work. This included historic surficial geochemical surveys (soils, silts, rock samples), trenching results, geologic mapping and drilling. A total of 3570 samples were entered into the database, 84% of which are on the current property.

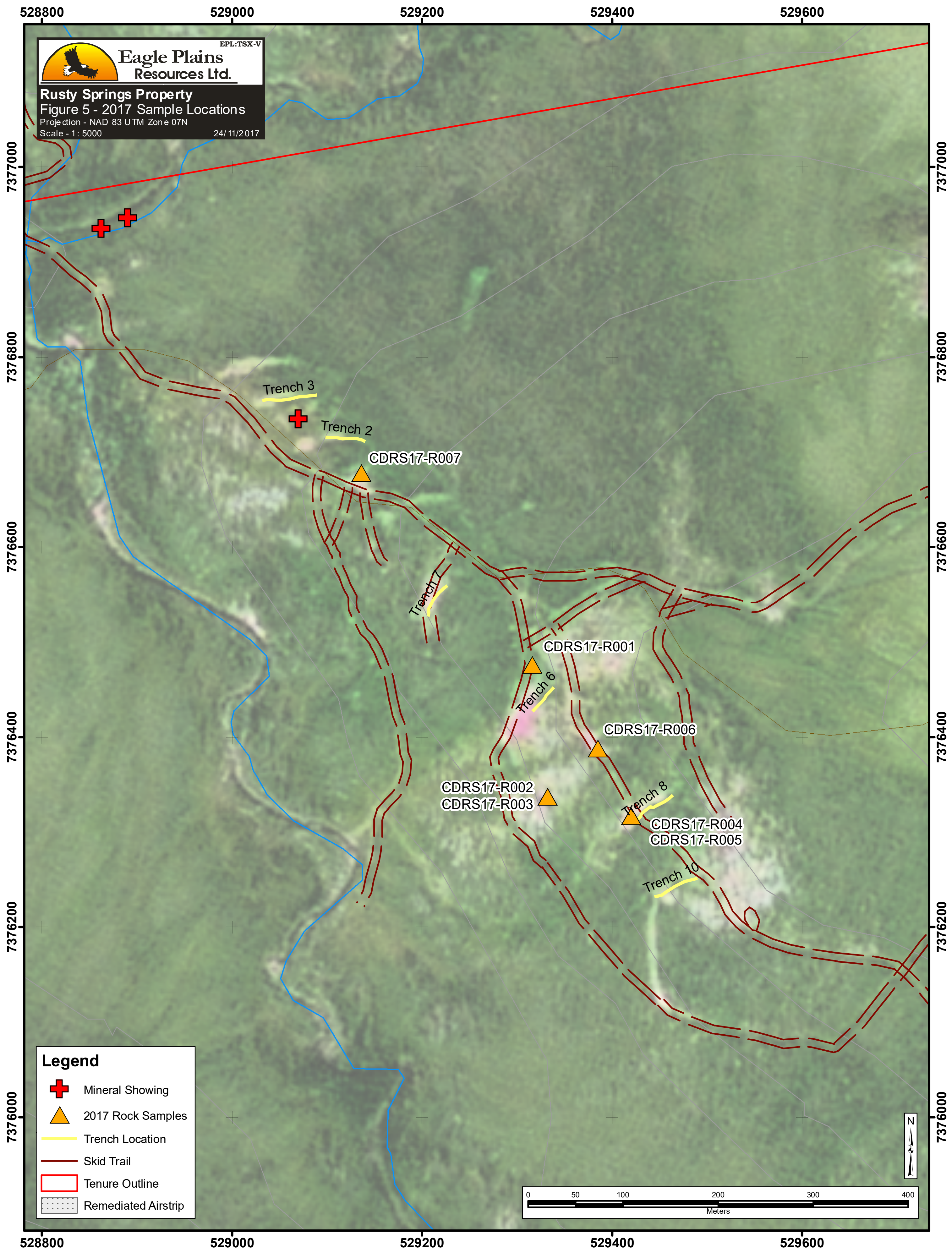
In order to maximize efficiency and ensure the overall quality of the compilation, all data was cataloged in terms of its legibility and spacial accuracy on a year by year basis. Data sets were then prioritized and included / omitted into the data compilation depending on a number of factors.

Spatial accuracy was commonly an issue in older reports which referenced mine grids of unknown origin / rotation and scale; therefore key compilation maps were utilized if possible to maintain relative spatial accuracy between different program data. A DGPS survey completed in 1992 was also very useful in terms of rectifying historic maps.

Similarly, downhole drill data was assessed in terms of the legibility of historic logs as well as consistency of geologic interpretations from year to year.

In both cases a conservative approach was taken and questionable data was not entered into the database.

A total of 2366 soils were entered, along with 53 grab samples and 124 chip / channel samples. A total of 136 drill hole collars were entered into the database along with variable lithologic and structural data; a total of 1168 assay values were imported into the database. A compilation map of digitized sample and DDH collar locations are presented in Figure 5.



528800
529000
529200
529400
529600
7377000
7376800
7376600
7376400
7376200
7376000
EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 5 - 2017 Sample Locations
Projection - NAD 83 UTM Zone 07N
Scale - 1: 5000
24/11/2017
Trench 3
Trench 2
CDRS17-R007
Trench 7
CDRS17-R001
Trench 6
CDRS17-R006
CDRS17-R002
CDRS17-R003
Trench 8
CDRS17-R004
CDRS17-R005
Trench 10
Legend
Mineral Showing
2017 Rock Samples
Trench Location
Skid Trail
Tenure Outline
Remediated Airstrip
N
0
50
100
200
300
400
Meters

Geochemistry

Soils

A total of 2366 soils samples were digitized the majority of which were limited to four element AAS analysis (222 were run for AR / ICP-OES analysis at Mike Hill in 1994). The extremely high values at Orma Hill require soil data to be divided into separate domains. Probability plots for the four major elements of interest on the property are presented in Figure 6 and statistics are presented in Table 6.

Background values for Pb, Zn, Cu and Ag are higher in Mike soils while highly anomalous values for Pb, Cu and Ag are extremely elevated at Orma (Figure 6). Overall, zinc concentrations at Mike Hill are extremely elevated is highly elevated at Mike Hill compared to Orma.

No soils on the property have been analyzed for gold.

Figure 6 – Probability Plots – Soils

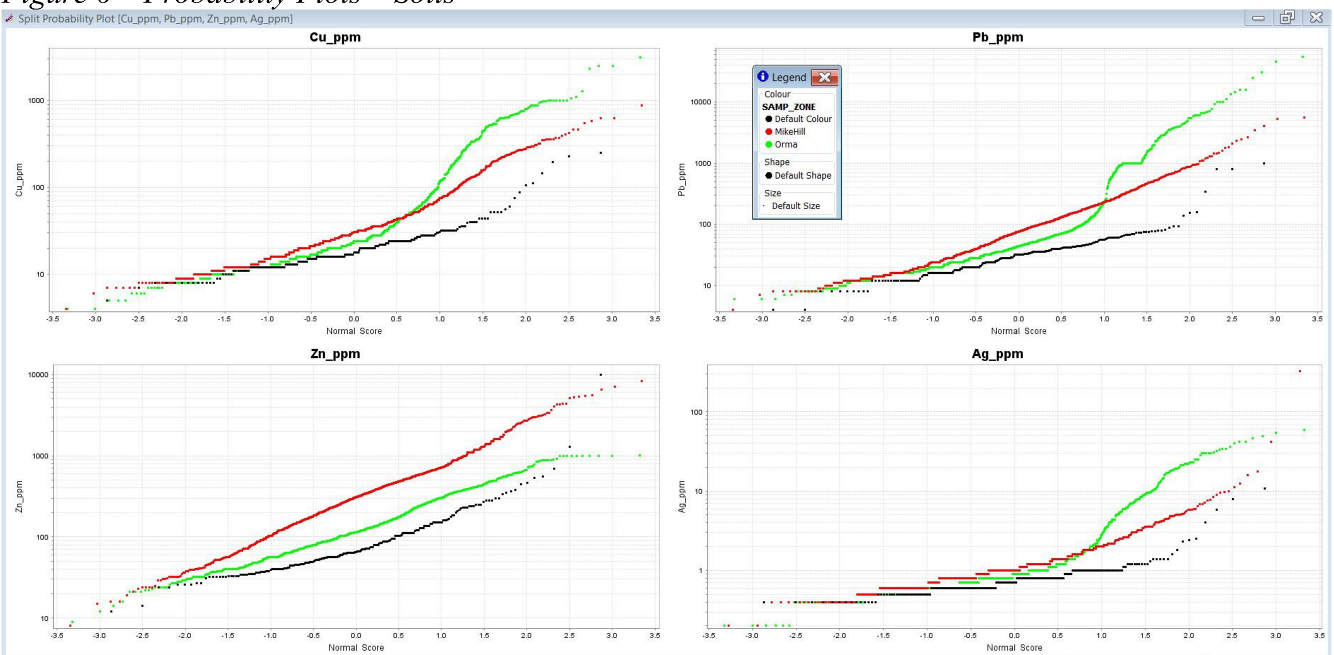


Table 6 – Geochemical Statistics – Soils

		Minimum	*Maximum*	*Mean*	*Median*	*Interquartile Range*	*Standard Deviation*	*50 Percentile*	*75 percentile*	*90 percentile*	*95 percentile*
All	Cu_ppm	4.0	3120.0	70.0	25.0	32.0	166.4	25.0	48.0	140.0	298.0
	Pb_ppm	4.0	54400.0	323.1	51.0	92.0	1866.6	51.0	118.0	440.0	1000.0
	Zn_ppm	8.0	10000.0	328.5	165.5	288.8	576.0	165.5	368.8	660.0	1000.0
	Ag_ppm	0.2	326.5	2.2	0.9	0.7	8.1	0.9	1.4	3.5	7.0
Mike Hill	Cu_ppm	4.0	880.0	52.7	31.0	31.0	73.8	31.0	50.0	116.0	200.8
	Pb_ppm	4.0	5580.0	162.0	76.0	127.0	352.9	76.0	160.0	335.0	563.0
	Zn_ppm	8.0	8350.0	504.6	310.0	399.5	729.9	310.0	551.5	1000.0	1600.0
	Ag_ppm	0.2	326.5	1.9	1.0	0.8	10.8	1.0	1.6	2.6	4.0
Orma	Cu_ppm	4.0	3120.0	98.3	24.0	37.0	236.3	24.0	52.0	268.0	540.0
	Pb_ppm	6.0	54400.0	553.6	44.0	64.0	2775.9	44.0	88.0	1000.0	2609.0
	Zn_ppm	9.0	1008.0	175.2	115.0	154.0	169.4	115.0	224.0	384.0	513.3
	Ag_ppm	0.2	59.0	2.7	0.9	0.8	6.0	0.9	1.4	6.2	12.2

Orma

Results of the Orma soil sample compilation are presented in Figures 7a to d. The soil data defines an extremely well developed 825m x 275m multielement (Pb, Cu and Ag) anomaly bounded to the East by the surface trace of the vein. This anomaly has typically been interpreted as primarily a result of downhill transport of enriched soils associated with the Orma vein. Compilation of lithologic data from the historic drillholes suggests a spatial relationship between the Katshat horizon in drillcore and the overall distribution of the soil anomaly; this anomaly is thought to be in situ and associated with decomposition of the Katshat horizon. Inflections in the Cu and Ag probability data (Figure 6) are consistent with an insitu anomaly associated with a high-grade vein system hosted in moderately elevated gossan horizon.

Mike Hill

Results of the Mike Hill soil sample compilation are presented in Figures 8a to e. Analysis of compiled Mike Hill soil samples reveals a number of linear trends defined by polymetallic mineralization: along Mike trend (previously established and open to the NE) as well as another well defined NNE trend (Pb and Zn) which appears to offset the main Mike trend (Figures 8a to d). This newly defined lineament has not been investigated via trenching or drilling. Limited analysis for Au was completed at Mike Hill in 1994 and resulted in spotty 100m-scale anomalies (Figure 8e).

EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 7a - Orma Hill
Soil Geochemistry Pb ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1: 5000
24/11/2017
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
N
Legend
Soil Samples - Pb ppm
< 44
44.1 - 88
88.1 - 1000
1000.1 - 2609
> 2609
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250
125
0
250
500
750
1,000
Meters

EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 7b - Orma Hill
Soil Geochemistry Zn ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
N
526500
527000
527500
528000
528500
529000
529500
530000
Legend
Soil Samples - Zn ppm
< 115
115.1 - 224
224.1 - 384
384.1 - 513
> 513
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250 125 0 250 500 750 1,000
Meters


EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 7c - Orma Hill
Soil Geochemistry Cu ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
N
Legend
Soil Samples - Cu ppm
< 24
24.1 - 52
52.1 - 268
268.1 - 540
> 540
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250
125
0
250
500
750
1,000
Meters


EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 7d - Orma Hill
Soil Geochemistry Ag ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1: 5000
24/11/2017
N
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
Legend
Soil Samples - Ag ppm
< 0.9
.91 - 1.4
1.41 - 6.2
6.21 - 12.75
>12.75
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250
125
0
250
500
750
1,000
Meters

EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 8a - Mike Hill
Soil Geochemistry Pb ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
N
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
Legend
Soil Samples - Pb ppm
<76
76.1 - 160
160.1 - 335
335.1 - 563
> 563
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250
125
0
250
500
750
1,000
Meters


EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 8b - Mike Hill
Soil Geochemistry Zn ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
N
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
Legend
Soil Samples - Zn ppm
< 310
310.1 - 550
550.1 - 1000
1000.1 - 1600
>1600
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250
125
0
250
500
750
1,000
Meters

EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 8c - Mike Hill
Soil Geochemistry Cu ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
N
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
Legend
Soil Samples - Cu ppm
< 31
31.1 - 50
50.1 - 116
116.1 - 200
> 200
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250
125
0
250
500
750
1,000
Meters

EPL:TSX-V
Eagle Plains
Resources Ltd.
Rusty Springs Property
Figure 8d - Mike Hill
Soil Geochemistry Ag ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
N
Legend
Soil Samples - Ag ppm
< 1
1.1 - 1.6
1.6 - 2.6
2.6 - 4
> 4
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250
125
0
250
500
750
1,000
Meters

EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 8e - Mike Hill
Soil Geochemistry Au ppb
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
N
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
Legend
Soil Samples - Au ppb
< 5
5.1 - 10
10.1 - 15
15.1 - 20
> 20
Mineral Showing
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
250
125
0
250
500
750
1,000
Meters

Rocks

A total of 53 grab samples and 124 chip samples were entered into the database; probability plots of key elements of interest are presented in Figure 9 and statistics are presented in Table 7. Rocks show identical relationships as soils between the Orma and Mike Hill Zones with higher background values at Mike Hill and higher Cu, Pb and Ag outlier data at Orma. The results of the 2017 field program and data compilation are presented in Figures 10a to d. Correlation plots of multielement geochemistry reveal a close association of base metal / silver with high-temperature "igneous" vector elements.

Figure 9 – Probability Plots – Rocks

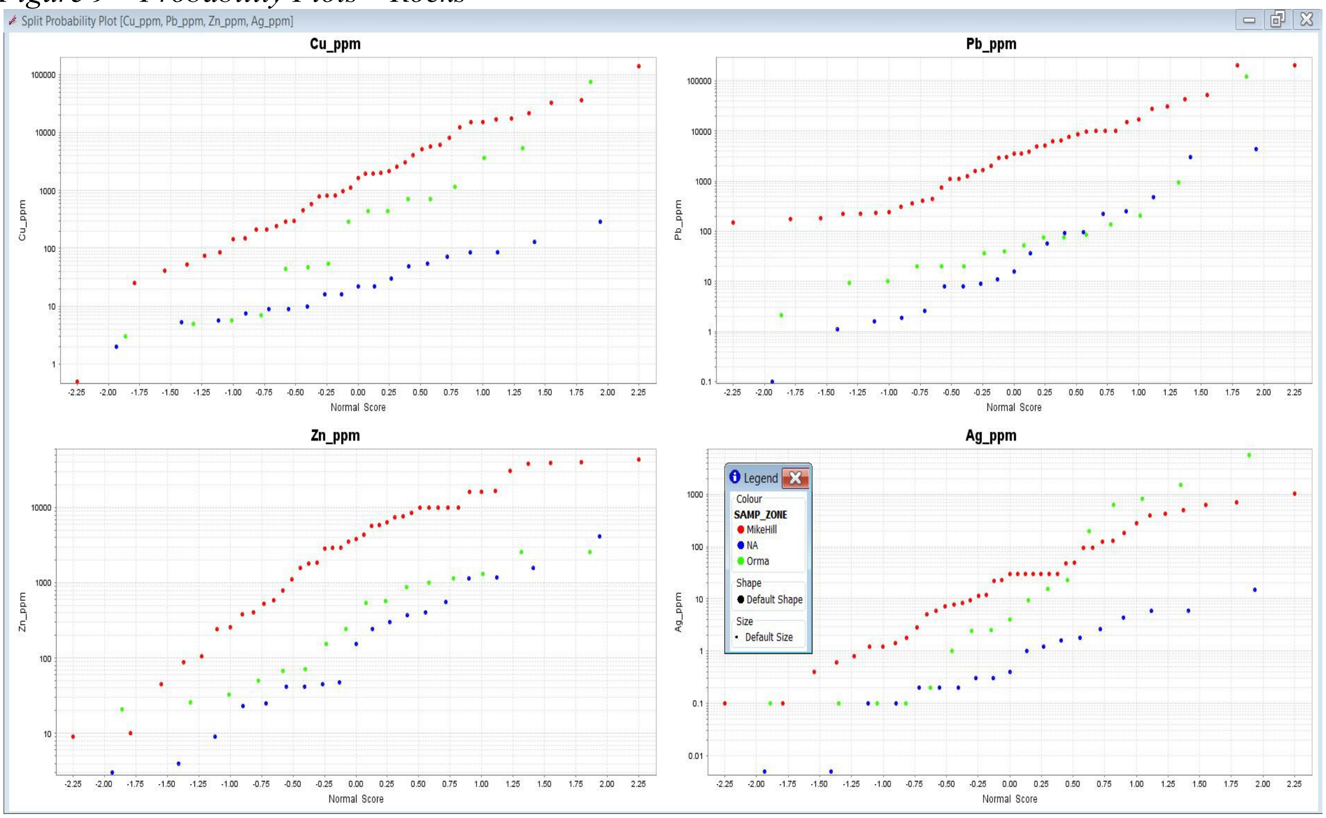


Table 7 – Geochemical Statistics – Rocks

		Minimum	***Maximum***	***Mean***	***Median***	***Interquartile Range***	***Standard Deviation***	***50 Percentile***	***75 percentile***	***90 percentile***	***95 percentile***
All	Pb_ppm	0.1	203560.0	10145.3	408.0	6223.0	33421.2	408.0	6298.0	15460.0	48872.0
	Zn_ppm	3.0	43700.0	4697.0	1016.0	4221.0	9314.7	1016.0	4376.0	11260.0	35600.0
	Ag_ppm	0.0	5630.0	159.1	6.3	29.0	638.6	6.3	30.0	428.8	768.9
	Cu_ppm	0.5	139000.0	5448.4	295.0	2092.0	17668.5	295.0	2141.0	15140.0	28520.0
	Pb_ppm	152.0	203560.0	17100.2	3500.0	9572.0	44127.0	3500.0	10000.0	41120.0	187032.0
Mike Hill	Zn_ppm	9.0	43700.0	8899.9	3833.0	9441.0	12261.6	3833.0	10000.0	37200.0	40240.0
	Ag_ppm	0.1	1020.0	121.6	29.6	105.9	227.3	29.6	109.8	483.6	690.9
	Cu_ppm	0.5	139000.0	8762.5	1651.0	6844.5	22634.2	1651.0	7073.0	20960.0	36060.0
	Pb_ppm	2.1	121200.0	7683.3	46.0	105.0	30272.0	46.0	125.0	37019.4	121200.0
Orma	Zn_ppm	21.0	2601.0	710.5	392.0	1071.0	859.9	392.0	1125.5	2601.0	2601.0
	Ag_ppm	0.1	5630.0	519.5	4.0	415.5	1379.3	4.0	415.7	2314.0	5630.0
	Cu_ppm	3.0	74400.0	5460.0	366.5	1014.8	18446.0	366.5	1031.0	26107.0	74400.0
	Pb_ppm	2.1	121200	7683.3	46	105	30271.9	46	125	37019.4	121200

Orma

Rock samples at Orma consistently return high-grade results with average values of 519.5 g/t Ag and 0.77% Pb; overall the geochemical data set is extremely positively skewed. Geochemical correlations for rocks take at Orma between key base metals and silver with Sb, Bi, Hg, Tl, As, K and Na are consistent with at least one phase of the hydrothermal system being high-temperature and possibly of an igneous source. The correlation with Na and K is consistent with the presence of natroalunite alteration commonly documented on the property.

Results from the 2017 field program are consistent with the statistical analytical results derived from the database compilation. All of the samples were collected from the Orma Hill area . Four of the seven samples returned values higher than the 75th percentile cut off for silver. Five of the samples returned values in excess of the 75th percentile cutoff for copper with one sample above the 90th percentile. Similiarly high values were returned for zinc and lead. Although not enough sample points exist to perform detaileed analyses, the results from the 2017 program show high levels of mercury, barium and the light rare earths lanthanum, cerium and dysprosium. The presence of mercury may indicate a high temperature mineralizing system, while the presence of numerous rare earth oxides may indicate a secondary phase of hydrothermal activity.

Mike

Elemental correlations are much less established at Mike Hill with Cu correlating with Zn, As, Sc, Sb and Bi while Pb and Ag do not correlate with any other elements. Elemental associations again are consistent with high-temperature hydrothermal fluids.

Trenching

Trenching at Orma Hill in 1980 and 1982 resulted in the delineation of a discontinuous, sub-vertical massive galena / tetrahedrite vein up to 1m in thickness that is hosted in a broad mineralized gossan zone (Figure 11). The vein, although apparently discontinuous, was exposed along a strike length of 670m in what is now interpreted to represent the surface trace of the Orma Thrust which has been well defined in drilling. It is thought that the Orma Vein represents a set of en-echelon (?) veins / tension gashes associated with motion on a shallow- to moderately-west-dipping fault surface.

The vein and associated gossan returned the following values from chip sample programs:

- Trench #2 - 34.74 oz/ton Ag over 2 metres which includes 0.8 metre of primary mineralization assaying 32.64 oz/ton Ag channel samples taken across the width of the primary galena / tetrahedrite vein at three locations range from a high of 51.96 oz/ton Ag over 0.6 metre to a low of 13.36 oz/ton Ag over 0.1 metre;
- Trench #6 - Channel samples taken from this trench indicate a broad gossan zone yielding 18.31 oz/ton Ag over 8.0 metres which further includes a higher-grade primary zone assaying 48.53 oz/ton Ag over 2 metres;
- Trench #7 - combined secondary and primary mineralized zone with a width of 3.9 metres assaying 5.6 oz/ton Ag which includes 0.5 metre of massive galena / tetrahedrite assaying 14.06 oz/ton
- Trench #8 - massive one-metre wide galena / tetrahedrite vein was uncovered within a 7-metre wide mineralized gossan area with abundant secondary copper mineralization; gossan zone 6 metres in width, assaying 13.45 oz/ton Ag, which includes the higher-grade massive galena / tetrahedrite vein which ran 42.12 oz/ton Ag over 1 metre.


EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 9a - Rock Geochemistry
Pb ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
Trench 3
Trench 2
Pb ppm 797500
Pb ppm 92400
Pb ppm 121200
Pb ppm 447400
Pb ppm 661900
Pb ppm 202000
Pb ppm 203560
Pb ppm 52320
Main Map Area
Inset A
528000
530000
532000
Inset A
532500
533000
7378000
7377500
7375000
0 50 100 200
Meters
N
Legend
Rock Samples
Pb ppm
< 408
408.1 - 6298
6298.1 - 15460
15460.1 - 48872
> 48872
Mineral Showing
Skid Trail
River
Trench Location
Contour 100 ft
Tenure Outline
Remediated Airstrip
250 125 0 250 500 750 1,000
Meters

EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 9b - Rock Geochemistry
Zn ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
Zn ppm 40300
Zn ppm 38800
Zn ppm 39700
Zn ppm 43700
Trench 000
Trench 075
Trench 175
Trench 225
Trench 300
Trench 3
Trench 2
Inset A
Main Map Area
Legend
Rock Samples
Zn ppm
< 1016
1016.1 - 4376
4376.1 - 11260
11260.1 - 35600
> 35600
Mineral Showing
Skid Trail
River
Trench Location
Contour 100 ft
Tenure Outline
Remediated Airstrip
250 125 0 250 500 750 1,000
Meters
0 50 100 200
Meters
N
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
532500
533000
7378000
7377500


EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 9c - Rock Geochemistry
Cu ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
526500
527000
527500
528000
528500
529000
529500
530000
7377000
7376500
7376000
7375500
7375000
Cu ppm 33000
Cu ppm 139000
Cu ppm 36400
Cu ppm 57700
Cu ppm 74400
Trench 3
Trench 2
Inset A
Main Map Area
528000
530000
532000
532500
533000
7378000
7377500
0 50 100 200
Meters
N
Legend
Rock Samples
Cu ppm
< 295
295.1 - 2141
2141.1 - 15140
15140.1 - 28520
> 28520
Mineral Showing
Skid Trail
River
Trench Location
Contour 100 ft
Tenure Outline
Remediated Airstrip
250 125 0 250 500 750 1,000
Meters

Eagle Plains Resources Ltd.
EPL:TSX-V
Rusty Springs Property
Figure 9d - Rock Geochemistry
Ag ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1 : 5000
24/11/2017
Main Map Area
Inset A
Legend
Rock Samples
Ag ppm
< 6.3
6.31 - 30
30.1 - 428.8
428.81 - 768.9
> 768.9
Mineral Showing
Skid Trail
River
Trench Location
Contour 100 ft
Tenure Outline
Remediated Airstrip
Meters
Ag ppm 1020
Ag ppm 1485
Ag ppm 5630
Ag ppm 827
Trench 3
Trench 2

EPL:TSX-V
Eagle Plains Resources Ltd.
Rusty Springs Property
Figure 11 - Orma Trenching
Ag ppm
Projection - NAD 83 UTM Zone 07N
Scale - 1: 3000
24/11/2017
527500
528000
528500
529000
529500
7377000
7376500
7376000
7375500
Trench 3
0 2.5 5 10 Meters
1:200
Trench 2
0 2.5 5 10 Meters
1:200
Trench 6
0 2.5 5 10 Meters
1:300
Trench 7
0 2.5 5 10 Meters
1:200
Trench 8
1:200
0 2.5 5 10 Meters
Trench 10
0 5 10 20 Meters
1:400
Trench 075
Trench 000
Legend
Chip Sample Location
Ag ppm
< 76.1
76.1 - 349.7
349.8 - 781
781.1 - 1444.1
> 1444.1
Mineral Showing
Trench Location
Skid Trail
River
Contour 100 ft
Tenure Outline
Remediated Airstrip
N
0 50 100 200 300 400 500
Meters

Drilling

A total of 136 drillhole collars were entered into the database and downhole / assay data was selectively entered for hole collared in the Orma Zone. Collar locations are presented on Figure 5. Downhole geology and associated data was first cataloged and drill logs scrutinized for legibility, completeness and consistency; the poor preservation of many of the older assessment reports, along with poor quality of scanned documents resulted in significant legibility issues. Extremely poor recoveries that plagued earlier drill programs (pre-1990) also made coding of downhole data difficult. It was therefore decided to focus on simple set of key geologic features (dolomite vs siliciclastic, regolith / Katshat and major structures). A series of two cross-sections, Figures 12a and b, contain downhole lithologic, structural and geochemical data for reference.

Lithology

After a review of the surficial and downhole geologic data it was decided to adopt the lithologic coding scheme of Grieg, 2000. A translation table between historic DDH coding schemes and the current adopted scheme is presented below.

Table 8 – Geologic Unit Translation

Greig, 2000		***Davis, 1982***		
5	undifferentiated siliciclastic rocks			
5b	shale, siltstone, siliceous mudstone, slate	5	Siltstone and Shale	lt. grey weathering with occasional rusty stains, black carbonaceous, slightly argillaceous siltstones, laminated thinly bedded with minor interbedded carbonaceous chert; well indurated
5a	brecciated black cert and siliceous mudstone	4	Chert	Brecciated and carbonaceous
4	undifferentiated carbonate rocks			
4e	Katshat Unit	5	Regolith	Orange to rusty colouring, highly fragmented, intensely weathered, siliceous, strongly limonitic
4d	undifferentiated fetid vuggy dolostone	3	Carbonaceous Dolomite Breccia	if described as fetid or vuggy
4c	brecciated dolostone	3	Carbonaceous Dolomite Breccia	med to dark grey, white dolomite breccia filling
4b	cyrstaline dolostone	2	Crystalline Dolomite Breccia	fine to coarsely crystalline; locally vuggy and porous
4a	locally fossiliferous limestone	1	Carbonaceous Dolomite Breccia	locally fossiliferous

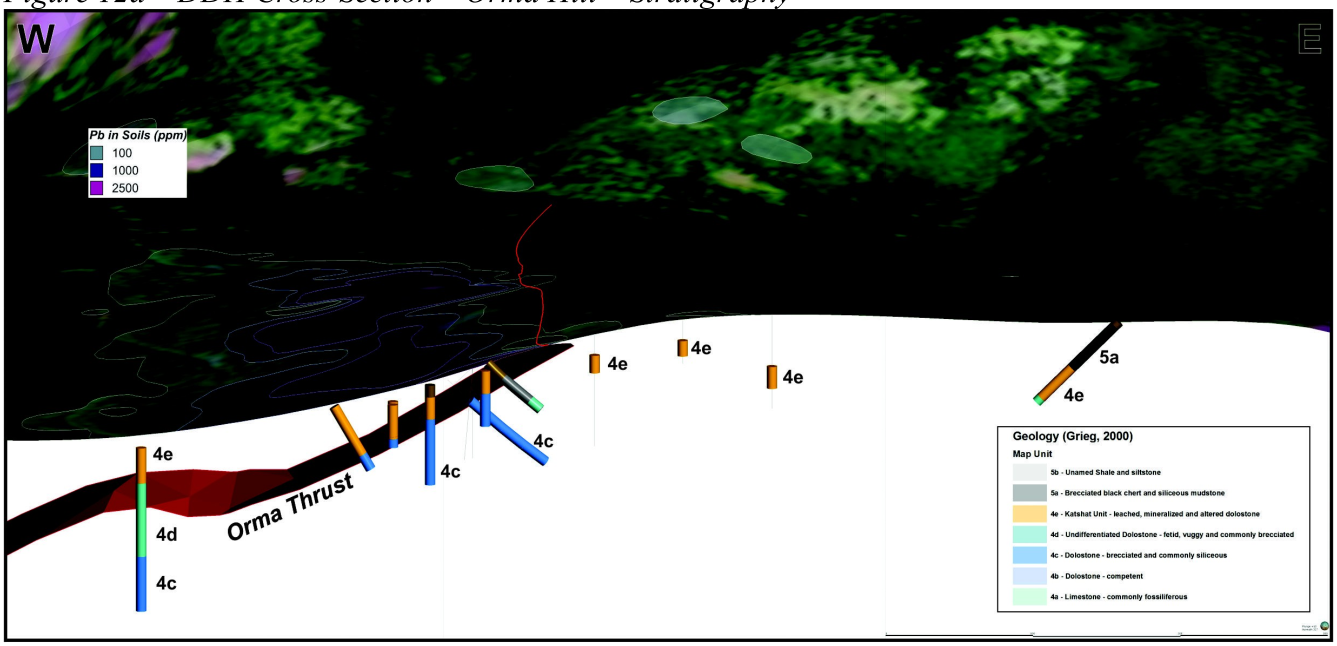
A schematic section through Orma hill shows the distribution of the footwall dolostone, the Katshat horizon and the foot wall siliciclastic rocks interpreted from the drill data compilation (Figure 12a). Compilation and recoding of lithologic data has shown that the Katshat horizon (4e) is not eroded away along the Western flank of Orma Hill but rather it is exposed as a dip slope. This can either be explained by a minor syncline with a fold axis to the West of Orma Hill or by the interpretation that the Katshat horizon is actually delineated by a moderately-west-dipping structure. Holes collared west of Orma Hill, in an attempt to intersect moderately-east-dipping stratabound mineralization, all failed to intersect the horizon or the dolostone footwall. They were commonly shutdown / abandoned in the overlying silicified hangingwall due to drilling issues. Anomalous geochemical values of upto 1.6 g/t

Ag and 250 ppm Pb were intersected in the hanging wall alteration zone.

Structure

The presence of a moderately-west-dipping fault on the western side of Orma Hill has been well documented since the first drilling / trenching programs of the 1970's. 3D analysis of the distribution of logged fault zones and associated hydrothermal mineralization has enabled accurate modeling of the Orma Thrust Fault. The projection of the fault surface, defined by drill hole data, correlates very well with the surface trace interpreted to be exposed in the Orma trenches. The Orma Thrust surface is included in Figure 12a.

Figure 12a – DDH Cross-Section – Orma Hill – Stratigraphy



Mineralization

At Orma, the primary target for drilling, from 1978 to 1995, was high-grade vein-breccias exposed in trenches that are hosted in the Katshat (4e) unit (Figure 5). Compilation of the drill hole data shows that this style of mineralization, although variable in grade and thickness, was consistently intersected along the same surficial trace as the Orma Thrust and it could be modeled as a discrete horizon within that fault surface (Figure 12b). It should be noted that the horizon is not defined by a continuous mineralized zone but rather discontinuous, likely en echelon veins or pads as observed in the trenching. Highlights of past drill programs that intersected this style of mineralization are presented in Table 9. Of note is the presence of Au mineralization encountered in 1982 drilling (Table 10) which appears to be hosted in the mineralized gossan (Katshat; 4e) that hosts the Orma Vein. There has been little to no focus on gold mineralization in any subsequent programs since 1982 – particularly at Orma Hill.

Table 9 – Orma DDH Intersections of Note

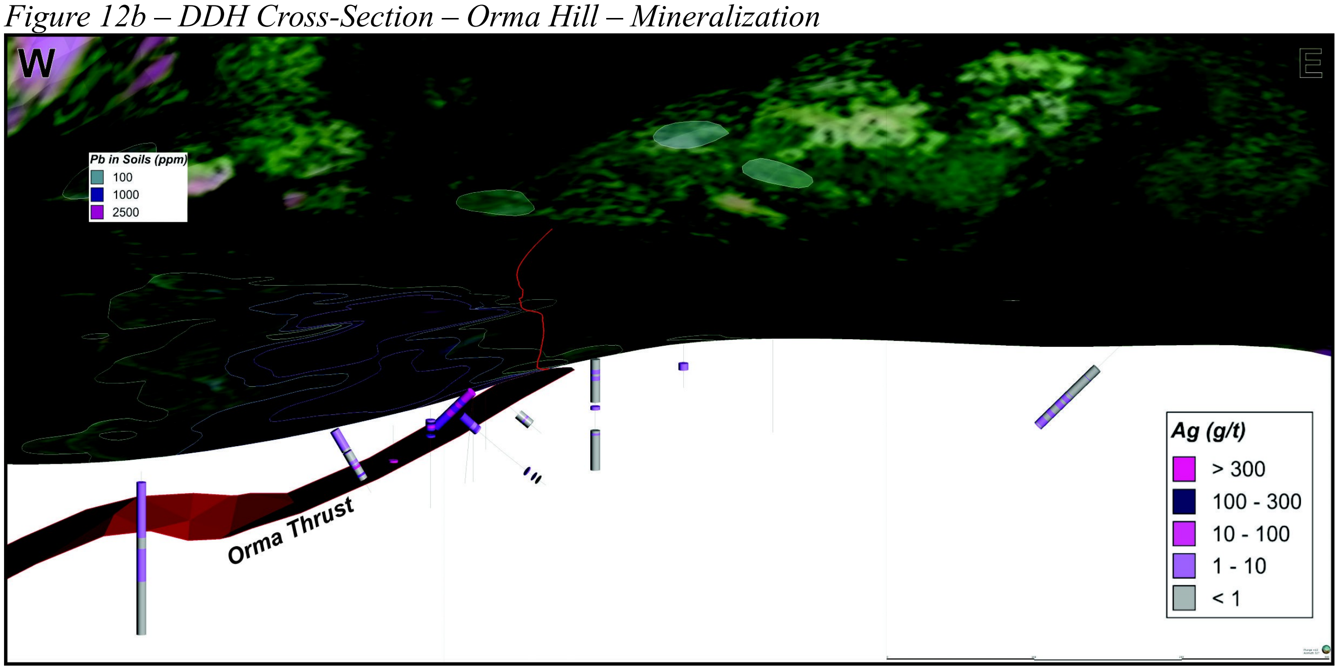
DDH ID	From (m)	To (m)	Length (m)	Ag (ppm)
77-8	0	8.23	8.23	2685.9
80-1	11.28	13.11	1.83	1944.9
77-8	11.28	23.47	12.19	1647.9
80-14	53.34	57.91	4.57	932.6
80-3	21.95	23.47	1.52	873.3
78-104	28.35	29.87	1.52	602.7
OR95-1	17.3	19	1.7	439.3
OR95-5	14.9	16.4	1.5	333.6

Table 10 – Orma DDH Intersections – Au

DDH ID	From (m)	To (m)	Length (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
82-3	25.15	25.76	0.61	50	200	2800	3.4	549
82-3	26.22	26.52	0.3	50	100	1300	8.2	411
82-5	19.51	19.76	0.25	400	32500	100	47.3	206

In 1995, intersection of the geochemically anomalous Katshat horizon on the Eastern flank of Orma Hill opened the possibility of a stratabound horizon that has the potential to host high-grade pod-like silver-lead-zinc mineralization associated with hydrothermal replacement of the upper Oglive carbonate rocks. Generally, the Katshat horizon was very rarely sampled, if ever recovered, in historic drillholes

Figure 12b – DDH Cross-Section – Orma Hill – Mineralization



Geochemistry

Due to a number of factors, historic drill programs completed very limited sampling of any recovered drill core and until 1995 analytic packages were limited to single element AAS techniques for Cu, Pb, Zn, Ag and occasionally Au. Statistics for major elements of interest are presented in Table 11.

Table 11 – Geochemical Statistics – DDH Core

	Minimum	Maximum	Mean	Median	Interquartile Range	Standard Deviation	50 Percentile	75 percentile	90 percentile	95 percentile
Cu_ppm	9.0	137200.0	2191.5	100.0	250.0	10802.2	100.0	300.0	1720.0	7340.0
Pb_ppm	1.0	526100.0	3489.8	48.0	217.0	25147.5	48.0	225.0	2629.8	7305.0
Zn_ppm	0.1	31500.0	729.9	156.5	649.0	1579.6	156.5	700.0	2211.5	3204.0
Ag_ppm	0.1	4553.1	21.2	0.3	2.0	195.0	0.3	2.1	10.4	29.0

For more recent drill programs that completed multielement ICP analysis of recovered drill core, relationships between economic elements of interest and other elements are not as well established as in rock samples. The following elemental associations have been observed:

- Ag – Sb, As;
- Cu – U, V and P;
- Pb – As, La, Ba;
- Zn – Ni, Co, Cd and Y.

Association with Sb, U, P and As are again consistent with possible intrusive source for fluids. Hg and W were not included in the analytic package.

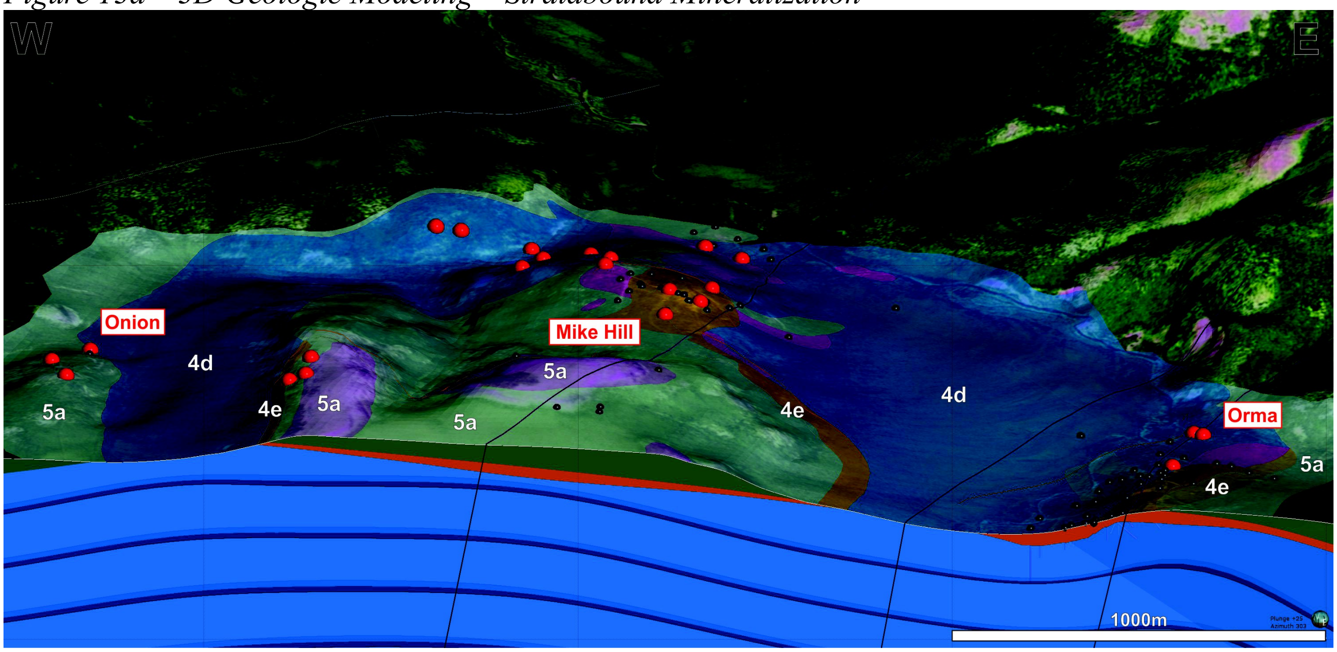
Geological Modeling

A number of different 3D geologic models based on past interpretations were created so that they could be tested against the compiled geologic dataset. These included the stratabound theory of Termuende (1996) and Downie and Greig (2000) as well as the structurally controlled imbricate thrust-fault model of Hodder (2011).

Stratabound 3D Model

Modeling of the property stratigraphy, consisting of a hanging wall siliciclastic unit (5), the Katshat (4e) and a footwall dolostone unit (4). Contacts were constructed directly in 3D from lithologic contact points in the drillhole database, surficial geologic mapping and soil geochemistry. Bedding (S_0) was also modeled based on the limited surficial structural data available as well as interpreted surficial traces of F1 fold axis. There were no property-scale faults constructed for this geologic model. A cross-section of the 3D model is presented in Figure 13a.

Figure 13a – 3D Geologic Modeling – Stratabound Mineralization

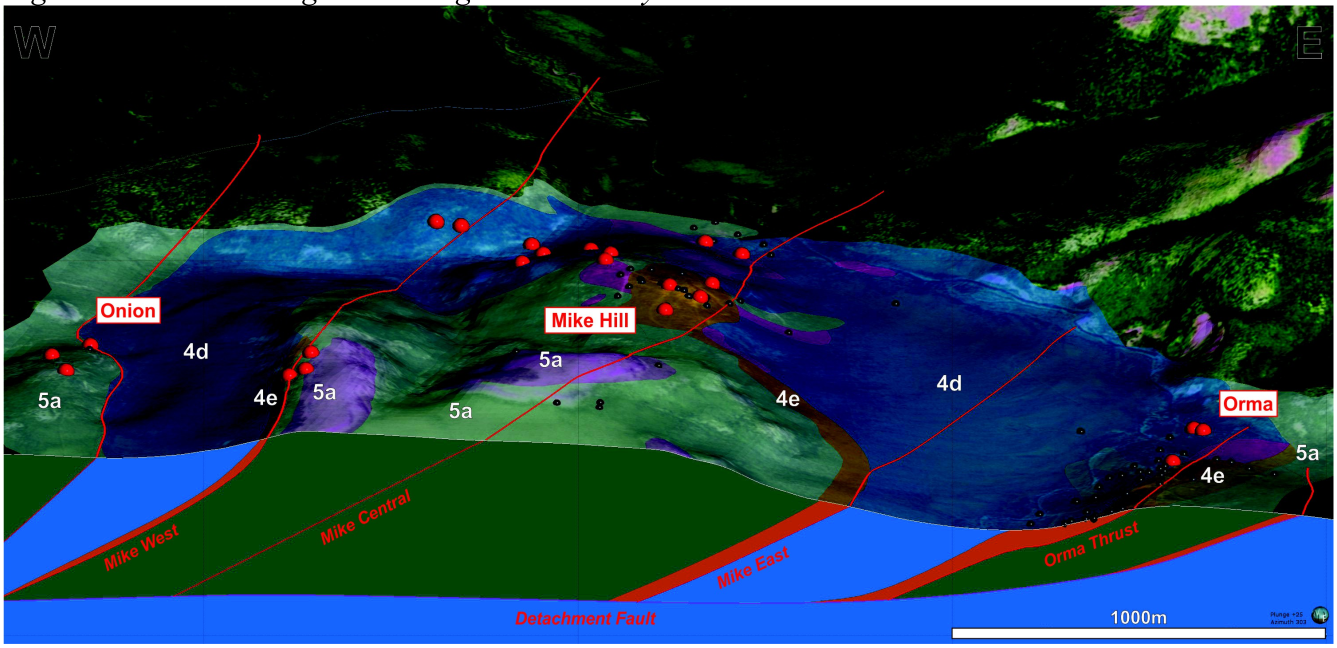


Imbricate Thrust 3D Model

As per Hodder's interpretation – the N-S trending surficial traces of the Katshat unit from Downie and Greig (2000) were modeled as the locus of east vergent thrust-faults that moderately dip to the west and originate from an underlying detachment fault. This included the well defined Orma Thrust fault who's geometry is also constrained by drilling and trenching. A cross-section of the 3D model is presented in Figure 13b.

The Katshat unit was then modeled as a ~40m thick discordant to semi-concordant unit in the immediate hanging wall of these thrust surfaces while the hanging wall siliciclastics and footwall carbonates distribution in each fault domain were based on the overall mapped lithologies of Greig.

Figure 13b – 3D Geologic Modeling – Structurally Controlled Mineralization



Both models locally agree well with surficial data and a comparison of both models to all compiled geologic / geochemical data is presented in Table 12. Surficial geology agrees very well with the stratabound model – no doubt in part because is was interpreted with that particular model in mind. Locally the thrust bound model works in the areas of Orma and Mike Hill, but would but require modification of surficial geology in some areas.

Soil geochemistry is a reliable way of mapping bedrock on the property and in some areas should identify stratigraphic repetition imparted by the presence of numerous thrust faults. To date, these repetitions are not reflected in the soil geochemistry, but admittedly more coverage is required.

The 3D modeling of S_0 is consistent with a primarily stratabound interpretation in which primary bedding is folded by open upright folds with a sub-horizontal enveloping surface. There appears to be very little evidence of deformation of S_0 via imbricate thrust faults.

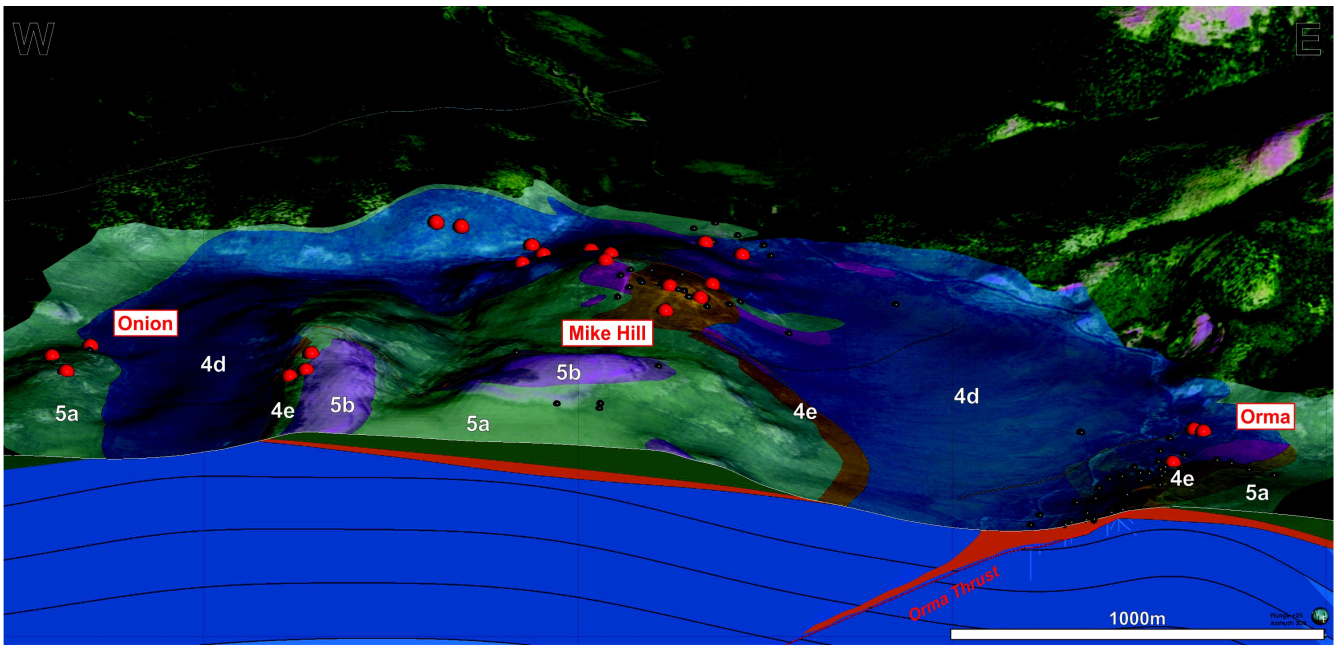
Table 12– Geologic Model Comparison and Assessment

		Genetic Model Description						
Model Source	***Model Type***	***Description***	***Mineralization Style***	***Primary Control***	***Surficial Expression***	***Surficial Geology***	***DDH Data***	***Soil Geochemistry***
Termuende (1996) Downie and Greig (2000)	Irish Type Pb-Zn-Ag Replacement	Replacement of reactive / permeable host rock by hydrothermal fluids Relatively flat lying, upright open fold geometry Little to no structural control Presence of Orma Vein not easily explained Lack of any feeder structures	Localized massive sulphide pods hosted within a geochemically anomalous and altered horizon	Primary stratigraphy	Mineralized horizons should be concordant and "ring" topographic highs and be eroded away in valleys	Distribution of Katshat horizon agrees very well with stratabound model Granted - surficial map was interpreted using this model	Intersection of Katshat horizon to the West of Orma Hill (Figure 12a) is most easily explained by a stratabound scenario	Anomalous base metal and silver distribution matches interpreted surficial trace of the stratabound Katshat horizon in most places
Hodder (2011)	Epithermal Veins	Mineralization occurs as hydrothermal replacement is hosted in a series of imbricate moderately ~W-dipping thrust faults Moderately west-dipping geometry hosting subvertical hydrothermal veins and breccias Presence of Orma vein in tectonic structure well documented	Discontinuous veins and breccias hosted within discrete structural corridors; subvertical in orientation	Geometry of thrust faults	Discordant mineralized horizons and veins; imbricated repetitive stratigraphy	Ignoring lateral discontinuities or cross-faults the existing surficial geology map would require some reworking	The presence of a low- to moderate-angle, west-dipping fault withing the Orma drill area cannot be ignored and does support this genetic theory locally	Presence of imbricate thrust faults should result in anomalous soil geochemistry to the East of Orma Hill; limited soil coverage in this area does not return anomalous values

TL Composite 3D Geologic Model

Although the stratabound model appears to fit the surficial data much better than the thrust fault model, it is hard to ignore the overwhelming evidence for the presence of at least one thrust fault on the property at Orma Hill. It therefore makes sense to suggest a composite model that involves presence of the Orma Thrust offsetting the gently folded flat lying upper Ogilvie / Canol Fm contact. This composite approach would address one major issue of the original stratabound model – the lack of fluid conduits required for fluid migration to the reactive host. Hydrothermal activity within the thrust fault as well as along the upper Ogilvie / Canol contact would result in hanging wall silicification and footwall dolomitization as per previous models. It does not discount the presence of other similar structures in mineralized zones such as Mike Hill and the Onion Zone but there is certainly less evidence for them.

Figure 14 – 3D Geologic Modeling – 2017 Composite Genetic Model



Conclusions

1. Data compilation and 3D modeling has been very useful in testing various genetic models presented by current and past workers and developing an exploration program to focus on intersecting economic grade mineralization.
2. A structurally controlled imbricate thrust-fault model was presented by Hodder in 2011 in which the surficial trace of these structures formed the locus of exposed epithermal mineralization and associated mineralized gossans; this is consistent with regional structural framework.
3. A stratabound model associated with carbonate-hosted massive sulphides (manto-chimney complexes) was presented by numerous past authors (Termuende, 1996 and Downie and Greig, 2000) in which a reactive horizon along the Ogilvie / Hart River stratigraphic contact was preferentially altered and mineralized.
4. A composite genetic model is preferred in which hydrothermal fluids migrate along, and alter / mineralize, the Orma Thrust Fault and then replace permeable / porous carbonate rocks of the upper Ogilvie Formation.
5. Elemental associations and mineral assemblages are consistent with hydrothermal fluids being sourced from a proximal intrusive source; possible intrusive candidates remain elusive as the nearest mapped intrusive is at Old Crow and the regional magnetic data flown in 2011 did not identify and obvious targets.
6. There has been no systematic exploration on the property that has focused on gold mineralization despite encouraging results in drill core and limited soil programs. The close association of mineralization with Sb, Bi, Hg and Tl is particularly encouraging when it comes to assessing the potential of gold mineralization on the property.
7. Significant weathering of mineralized zones and host rocks are extremely problematic in term of exploration but it does open the possibility of supergene enrichment at or below the (paleo) water table.
8. This composite model, based on geologic and geochemical data, highlights the potential at least three types of mineralization:
    1. high-temperature, carbonate-hosted massive sulphide deposit (manto-chimney complex) hosted within the highly anomalous Katshat stratigraphic horizon;
    2. epithermal, structurally controlled vein / breccia style mineralization within shear zones;
    3. supergene enrichment at or below the present or paleo water tables.

RECOMMENDATIONS

1. Key to properly testing the Rusty Springs deposit is utilizing new drilling technology to penetrate through the silicified hanging wall cap and ensure acceptable recoveries in highly-weathered / fractured rocks.
    1. A composite drill rig capable of both RC and diamond coring capabilities should be considered to take advantage of each methods capabilities in different rock types.
    2. A sonic drill system should also be considered as it is specifically designed to sample highly-weathered and unconsolidated material
2. Targeting focus on refining genetic model while intersecting mineralized horizon(s) at a sufficient depth that mineralization in preserved and / or has undergone supergene enrichment below the paleo water table.
    1. Based on revised stratigraphic model and encouraging results from abandoned holes RS99-1 to 3 a series of 3 to 4 holes should be collared on the Eastern Flank of Orma Hill and drilled to a significant depth to intersect the Canol / Ogilvie Fm. Contact.
3. Given the development of Carlin-style gold models in the Yukon since the last significant exploration program along with favorable geologic / geochemical variables it is recommended that a focused Au exploration program be conducted on the property. It should consist of a detailed orientation survey over the Orma Hill mineralized zone.
4. Although there is limited fresh exposure of bedrock on the Rusty Springs property, there is significant exposure along topographic highs to the North and South of the property. Major structures on the property should trace into these highs and could be exposed. Detailed mapping along these ridgelines should be conducted with a focus on detailed mapping of minor structures and their kinematic indicators. This could provide context for the overall structural setting of the rocks at Rusty Springs and significantly aid in refining the genetic model of the property.
5. Given the unglaciated nature of the property, along with the extremely high geochemical response ratio of the Katshat horizon, soil sampling serves as an excellent mapping tool in areas of little or no bedrock exposure
    1. a pXRF orientation survey over known bedrock stratigraphy would provide a classification scheme for soils taken in areas where the underlying bedrock composition remains unknown
6. The association of silver-lead-zinc mineralization with high-temperature / possibly igneous sourced fluids and their inferred relationship to moderately-west-dipping structures suggests a source further to the west. This should be a focus of any regional exploration programs in the future.

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Appendix I – Statement of Qualifications

I, Christopher S. Gallagher of 616 Nelson Street, in the city of Kimberley in the Province of British Columbia hereby certify that:

1) I am currently employed as Manager of Exploration Technology for TerraLogic Exploration Inc. with a business address: Suite 200 44-12th Ave South, Cranbrook, BC, V1C2R7.

2) I am a graduate of the Carleton University with the degree of Master of Science in Geology (2001).

3) I am a graduate of Carleton University with the degree of Bachelor of Science in Geology (1997).

4) I have never applied for, nor committed conduct preventing designation within the Association of Professional Engineers and Geoscientists of British Columbia.

5) I have practiced my profession in North America since 1999, having worked for various Junior Resource Companies and government surveys.

6) This report is based upon 2nd hand internal reports and personal communications with a personal examination of all available company and government reports pertinent to the Rusty Springs Property, located 180km west of Eagle Plains, YT

Dated this 4th day of December, 2017, in Cranbrook, British Columbia.

Christopher Gallagher, M.Sc.

Manager – Exploration Technology

TerraLogic Exploration Inc.

Appendix II – Statement of Expenditures

Statement of Expenditures 2017 Rusty Springs Project

Geological, Data Compilation and 3D Modeling

Personnel / Position	***Field Days***	***Days / Hours***	***Rate***	***Subtotal***	***Totals***
Tim Termuende, President EPL	6/19/2017 - 06/23/2017 (YB41190, YB41193)	5.00	$800.00	$4,000.00	
Chuck Downie, VP Exploration EPL	6/19/2017 - 06/23/2017 (YB41190, YB41193)	5.00	$800.00	$4,000.00	
				$8,000.00	$8,000.00
Data Compilation, Modelling and Reporting	***Personnel (Apply to All Claims Worked - Schedule B)***	***Hours***	***Rate***	***Subtotal***	
Chris Gallagher, M. Sc.	8/31/2017 - 11/30/2017	68.50	$80.00	$5,480.00	
Brad Robison, Geotechnician	10/31/2017 - 11/30/2017	168.50	$61.50	$10,362.75	
Grayson Clague, Data Manager	9/30/2017 - 11/30/2017	83.20	$50.50	$4,201.60	
Sharron Beddome, Data Manager	11/152017 - 11/30/2017	10.00	$35.00	$350.00	
				$20,394.35	$20,394.35
Geochemical Surveying	***Number of Samples***	***Number***	***Rate***	***Subtotal***	
Rock	Total Rock Samples 7; Rocks by Quartz Claim (Number of Samples, Grant Number): 1,YB41190; 6,YB41193	7	$93.35	$653.45	
				$653.45	$653.45
Transportation	***(Apply to Claims YB41190 and YB41193)***	***Number***	***Rate***	***Subtotal***	
Fuel	Truck Fuel			$1,654.34	
Helicopter + Fuel (hours)	FireWeed Helicopters			$7,145.84	
Parking				$199.85	
				$9,000.03	$9,000.03
Accommodation & Food	***(Apply to Claims YB41190 and YB41193)***			***Subtotal***	
Hotel				$2,445.67	
Meals	Actual cost of meals whilst traveling to and from the project - 5 ppl			$1,803.20	
				$4,248.87	$4,248.87
Geological and Geochemical	***(Apply to Claims YB41190 and YB41193)***			***Subtotal***	
Sampling Consumables	sample bags, tags, flagging, gloves, bear spray, batteries, maps			$277.49	
				$277.49	$277.49
Equipment Rentals	***(Apply to Claims YB41190 and YB41193)***	***Number***	***Rate/Week***	***Subtotal***	
Radio	TerraLogic Exploration Inc. (1 for 1 week)	1.00	$60.00	$60.00	
Satellite Phone + Airtime	TerraLogic Exploration Inc. (1 for 1 week)	1.00	$80.00	$80.00	
				$140.00	$140.00
Freight	***(Apply to Claims YB41190 and YB41193)***			***Subtotal***	
Expediting	Small's Expediting Services and Freight			$84.07	
				$84.07	$84.07
TOTAL Expenditures					**$42,798.26**

Appendix III – Analytic Techniques

ME- MS41
Ultra- Trace Level Methods Using ICP- MS and ICP- AES

Sample Decomposition:

Aqua Regia Digestion (GEO-AR01)

Analytical Method:

Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)

A prepared sample (0.50 g) is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, silver and tungsten and diluted accordingly. Samples are then analysed by ICP-MS for the remaining suite of elements. The analytical results are corrected for inter-element spectral interferences.

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	0.01	100
Aluminum	Al	%	0.01	25
Arsenic	As	ppm	0.1	10 000
Gold	Au	ppm	0.2	25
Boron	B	ppm	10	10 000
Barium	Ba	ppm	10	10 000
Beryllium	Be	ppm	0.05	1 000
Bismuth	Bi	ppm	0.01	10 000
Calcium	Ca	%	0.01	25
Cadmium	Cd	ppm	0.01	1 000
Cerium	Ce	ppm	0.02	500
Cobalt	Co	ppm	0.1	10 000
Chromium	Cr	ppm	1	10 000

Element	Symbol	Units	Lower Limit	Upper Limit
Cesium	Cs	ppm	0.05	500
Copper	Cu	ppm	0.2	10 000
Iron	Fe	%	0.01	50
Gallium	Ga	ppm	0.05	10 000
Germanium	Ge	ppm	0.05	500
Hafnium	Hf	ppm	0.02	500
Mercury	Hg	ppm	0.01	10 000
Indium	In	ppm	0.005	500
Potassium	K	%	0.01	10
Lanthanum	La	ppm	0.2	10 000
Lithium	Li	ppm	0.1	10 000
Magnesium	Mg	%	0.01	25
Manganese	Mn	ppm	5	50 000
Molybdenum	Mo	ppm	0.05	10 000
Sodium	Na	%	0.01	10
Niobium	Nb	ppm	0.05	500
Nickel	Ni	ppm	0.2	10 000
Phosphorus	P	ppm	10	10 000
Lead	Pb	ppm	0.2	10 000
Rubidium	Rb	ppm	0.1	10 000
Rhenium	Re	ppm	0.001	50
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	0.05	10 000
Scandium	Sc	ppm	0.1	10 000
Selenium	Se	ppm	0.2	1 000
Tin	Sn	ppm	0.2	500
Strontium	Sr	ppm	0.2	10 000

Element	Symbol	Units	Lower Limit	Upper Limit
Tantalum	Ta	ppm	0.01	500
Tellurium	Te	ppm	0.01	500
Thorium	Th	ppm	0.2	10000
Titanium	Ti	%	0.005	10
Thallium	Tl	ppm	0.02	10 000
Uranium	U	ppm	0.05	10 000
Vanadium	V	ppm	1	10 000
Tungsten	W	ppm	0.05	10 000
Yttrium	Y	ppm	0.05	500
Zinc	Zn	ppm	2	10 000
Zirconium	Zr	ppm	0.5	500

NOTE: In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

ME-OG46
Ore Grade Elements by Aqua Regia Digestion Using Conventional ICP-AES Analysis

Sample Decomposition:

HNO_3-HCl Digestion (ASY-AR01)

Analytical Method:

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)*

Assays for the evaluation of ores and high-grade materials are optimized for accuracy and precision at high concentrations. Ultra high concentration samples (> 15 -20%) may require the use of methods such as titrimetric and gravimetric analysis, in order to achieve maximum accuracy.

A prepared sample (0.4 g) is digested with concentrated nitric acid for 90 minutes in a graphite heating block. The resulting solution is diluted with concentrated hydrochloric acid before cooling to room temperature. The samples are diluted in a volumetric flask (100 or 250) mL with demineralized water and analysed using atomic absorption spectrometry.

***NOTE**: ICP-AES is the default finish technique for ME-OG46. However, under some conditions and at the discretion of the laboratory an AA finish may be substituted.

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	1	1500
Arsenic	As	%	0.01	30
Cadmium	Cd	%	0.001	10
Cobalt	Co	%	0.001	20
Copper	Cu	%	0.001	40
Iron	Fe	%	0.01	100
Manganese	Mn	%	0.01	50
Molybdenum	Mo	%	0.001	10
Nickel	Ni	%	0.001	10
Lead	Pb	%	0.001	20
Zinc	Zn	%	0.001	30

Ag-GRA21, Ag-GRA22, Au-GRA21 & Au-GRA22 – Precious Metals Gravimetric Analysis Methods

Sample Decomposition:

Fire Assay Fusion (FA-FUSAG1, FA-FUSAG2, FA-FUSGV1 & FA-FUSGV2)

Analytical Method:

Gravimetric

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents in order to produce a lead button. The lead button containing the precious metals is cupelled to remove the lead. The remaining gold and silver bead is parted in dilute nitric acid, annealed and weighed as gold. Silver, if requested, is then determined by the difference in weights.

List of Reportable Analytes:

Method Code	Element	Symbol	Units	Sample Weight (g)	Lower Limit	Upper Limit
Ag-GRA21	Silver	Ag	ppm	30	5	10,000
Ag-GRA22	Silver	Ag	ppm	50	5	10,000
Au-GRA21	Gold	Au	ppm	30	0.05	1000
Au-GRA22	Gold	Au	ppm	50	0.05	1000

Pb- VOL70, Pb- CON02, Pb- UMP70
Volumetric Titration with EDTA for the Determination of Lead

Sample Decomposition:

HNO_3 - HCl - H_2SO_4 - HF

Analytical Method:

Volumetric Titration

This method is suitable for the determination of high grade lead in custom ores and concentrates by volumetric techniques.

A suitable size of sample (0.5 to 1.0 grams) is weighed along with control standards, duplicates and proofs. The sample is digested with nitric, hydrochloric, sulphuric and hydrofluoric acids forming a lead sulphate precipitate. The sample is subsequently boiled with water then cooled and lead sulphate residue is collected by filtration. This residue is boiled with ammonium acetate solution then titrated with EDTA (xylenol orange indicator).

Notes:

Pb- VOL70 is used for overlimit analysis and the result is determined from a single analysis.

Pb- CON02 is used for Pb concentrates and the sample is analyzed in duplicate. Bi content will be checked if not already available from other requested methods.

Pb- UMP70 is used for umpire analysis. The sample is run in triplicate run and all residues and filtrates are checked for Pb and added to the total Pb reported. Bi content will be checked if not already available from other requested methods.

Method Code	Element	Symbol	Units	Lower Limit	Upper Limit
Pb-VOL70	Lead	Pb	%	0.01	100
Pb-CON02					
Pb-UMP70					

Precision

The tolerance
criteria for variation of analytical data result from all stages of the analysis and are subject to the sample matrix and the specific technique used.

Expected tolerance criteria at various concentrations for this method are as follows:

Element	Expected Tolerance Level			
	Detection Limit		1.0	+ 100%
Pb	1.1	-	5.0	+ 50%
(%)	5.1	-	10.0	+ 10%
	10.1	-	20.0	+ 5%
	20.1	-	40.0	+ 2.5%
	40.1	-	100.0	+ 1%

This table is intended as a guideline in the absence of repeatability and reproducibility data.

Appendix IV – Sample Locations and Descriptions

SAMPLE NUMBER	UTM		DESCRIPTION
CDRS17-R001	529316	7376476	FLOAT/MASSIVE TETRAHEDRITE
CDRS17-R002	529332	7376337	FLOAT/NATURALINITE?
CDRS17-R003	529332	7376337	KATSHAT
CDRS17-R004	529420	7376317	FLOAT/TRENCH 8/HIGH GRADE SILVER/DISTINCT YELLOW WEATHERING STAIN
CDRS17-R005	529420	7376317	BANDED QUARTZ/DOLOMITE BRECCIA WITH TETRAHEDRITE
CDRS17-R006	529385	7376388	HIGH GRADE SILVER WITH TETRAHEDRITE
CDRS17-R007	529136	7376678	ORMA VEIN/ MASSIVE GALENA

Appendix V – Analytic Certificates

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **TERRALOGIC EXPLORATION SERVICES INC.**
44 - 12TH AVE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

Finalized Date: 9-AUG-2017
This copy reported on 4-DEC-2017
Account: TELOEX

CERTIFICATE VA17149452

Project: Rusty Springs-1004241 TELOEX

This report is for 8 Rock samples submitted to our lab in Vancouver, BC, Canada on 17-JUL-2017.

The following have access to data associated with this certificate:

JESSE CAMPBELL	CHUCK DOWNIE	CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32m	Pulverize 500g - 85%<75um
BAG-01	Bulk Master for Storage

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Ag-OG46	Ore Grade Ag - Aqua Regia	ICP-AES
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Cu-OG46	Ore Grade Cu - Aqua Regia	ICP-AES
Pb-OG46	Ore Grade Pb - Aqua Regia	ICP-AES
Ag-GRA21	Ag 30g FA-GRAV finish	WST-SIM
ME-MS41	Ultra Trace Aqua Regia ICP-MS	

To: **TERRALOGIC EXPLORATION SERVICES INC.**
ATTN: ALS GEOCHEMISTRY

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **TERRALOGIC EXPLORATION SERVICES INC.**
44 - 12TH AVE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

Finalized Date: 9-AUG-2017
Account: TELOEX

Project: Rusty Springs-1004241 TELOEX

CERTIFICATE OF ANALYSIS VA17149452

Sample Description	Method	WEI-21	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Recvd Wt.	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.1	0.02	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05
CCDRS17R001		0.94	>100	0.84	>10000	<0.02	<10	400	0.31	83.9	0.11	67.4	10.10	1.4	8	0.07
CCDRS17R002		0.32	15.20	16.30	527	<0.02	10	1440	3.17	0.08	1.03	145.5	1.23	1.2	154	<0.05
CCDRS17R003		0.52	4.63	0.14	610	<0.02	<10	20	0.28	0.40	0.03	0.57	3.90	3.2	8	0.10
CCDRS17R004		2.44	>100	0.01	3780	<0.02	<10	800	<0.05	345	0.11	7.38	22.8	0.1	1	<0.05
CCDRS17R005		0.70	20.3	0.01	>10000	<0.02	<10	100	<0.05	3.13	0.04	0.20	5.12	0.2	9	<0.05
CCDRS17R006		1.46	>100	0.02	>10000	<0.02	<10	10	<0.05	191.5	0.01	10.85	32.4	0.2	2	<0.05
CCDRS17R007		4.00	>100	0.01	184.5	<0.02	<10	10	0.09	5.69	<0.01	9.43	0.89	1.0	1	<0.05
TTSANCA1		2.20	14.90	0.19	96.8	0.03	<10	1330	4.02	0.57	0.05	45.8	3.60	1.8	2	1.20

***** See Appendix Page for comments regarding this certificate *****

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Account: TELOEX

Project: Rusty Springs-1004241 TELOEX

CERTIFICATE OF ANALYSIS VA17149452

Sample Description	Method / Analyte / Units / LOR	ME-MS41 Cu ppm 0.2	ME-MS41 Fe % 0.01	ME-MS41 Ga ppm 0.05	ME-MS41 Ge ppm 0.05	ME-MS41 Hf ppm 0.02	ME-MS41 Hg ppm 0.01	ME-MS41 In ppm 0.005	ME-MS41 K % 0.01	ME-MS41 La ppm 0.2	ME-MS41 Li ppm 0.1	ME-MS41 Mg % 0.01	ME-MS41 Mn ppm 5	ME-MS41 Mo ppm 0.05	ME-MS41 Na % 0.01	ME-MS41 Nb ppm 0.05
CCDRS17R001		>10000	1.39	0.29	0.14	0.02	2100	0.424	0.02	5.7	0.5	0.02	108	3.63	0.02	<0.05
CCDRS17R002		3660	0.18	0.29	0.30	<0.02	2.92	<0.005	<0.01	0.4	0.5	0.06	20	2.47	0.02	<0.05
CCDRS17R003		217	7.14	0.46	0.13	<0.02	1.87	0.034	0.01	2.3	0.6	0.02	74	3.25	0.01	0.07
CCDRS17R004		703	0.14	0.27	0.11	<0.02	275	0.080	<0.01	18.7	0.1	0.01	10	4.79	0.01	<0.05
CCDRS17R005		288	1.65	0.23	0.07	<0.02	4.96	0.166	<0.01	3.4	0.6	0.01	61	1.66	0.01	<0.05
CCDRS17R006		5410	0.30	0.31	0.12	<0.02	245	0.210	<0.01	20.0	0.2	<0.01	79	0.44	0.01	<0.05
CCDRS17R007		704	0.58	0.05	<0.05	<0.02	25.9	0.027	<0.01	0.8	0.2	<0.01	143	0.91	0.01	<0.05
TTSANCA1		289	31.8	4.47	0.39	0.03	0.41	15.00	0.18	5.0	1.2	0.01	>50000	15.55	<0.01	0.12

***** See Appendix Page for comments regarding this certificate *****

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Project: Rusty Springs-1004241 TELOEX

CERTIFICATE OF ANALYSIS VA17149452

Sample Description	Method / Analyte / Units / LOR	ME-MS41 Ni ppm 0.2	ME-MS41 P ppm 10	ME-MS41 Pb ppm 0.2	ME-MS41 Rb ppm 0.1	ME-MS41 Re ppm 0.001	ME-MS41 S % 0.01	ME-MS41 Sb ppm 0.05	ME-MS41 Sc ppm 0.1	ME-MS41 Se ppm 0.2	ME-MS41 Sn ppm 0.2	ME-MS41 Sr ppm 0.2	ME-MS41 Ta ppm 0.01	ME-MS41 Te ppm 0.01	ME-MS41 Th ppm 0.2	ME-MS41 Ti % 0.005
CCDRS17R001		3.5	40	>10000	0.5	0.042	0.84	>10000	0.2	49.9	1.1	3.5	<0.01	0.02	<0.2	<0.005
CCDRS17R002		55.9	>10000	942	0.2	0.001	0.03	86.9	4.6	1.0	<0.2	414	<0.01	0.01	<0.2	<0.005
CCDRS17R003		41.2	200	381	0.9	<0.001	0.03	60.8	0.5	7.2	<0.2	1.4	<0.01	0.03	0.2	<0.005
CCDRS17R004		1.2	20	>10000	0.1	<0.001	0.06	>10000	0.1	13.3	7.6	3.7	<0.01	<0.01	<0.2	<0.005
CCDRS17R005		1.4	70	>10000	0.1	<0.001	0.05	1065	0.2	6.3	0.2	1.4	<0.01	<0.01	<0.2	<0.005
CCDRS17R006		1.5	10	>10000	0.2	0.001	5.79	>10000	0.2	21.2	4.1	4.1	<0.01	<0.01	<0.2	<0.005
CCDRS17R007		11.0	30	>10000	0.1	<0.001	>10.0	2910	0.2	1.0	7.7	3.3	<0.01	<0.01	<0.2	<0.005
TTSANCA1		1.3	1100	3000	5.0	0.001	0.02	19.45	3.1	1.0	<0.2	719	0.01	0.03	0.5	<0.005

***** See Appendix Page for comments regarding this certificate *****

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CRANBROOK BC V1C 2R7

Finalized Date: 9-AUG-2017
Account: TELOEX

Project: Rusty Springs-1004241 TELOEX

CERTIFICATE OF ANALYSIS VA17149452

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	Ag-OG46	Cu-OG46	Pb-OG46	Ag-GRA21
	Analyte	Tl	U	V	W	Y	Zn	Zr	Ag	Cu	Pb	Ag
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	LOR	0.02	0.05	1	0.05	0.05	2	0.5	1	0.001	0.001	5
CCDRS17R001		2.12	15.80	4	<0.05	5.49	1330	<0.5	>1500	5.77	9.24	5630
CCDRS17R002		0.15	35.6	117	<0.05	7.61	539	1.0				14
CCDRS17R003		0.13	1.26	30	<0.05	3.24	145	0.6				<5
CCDRS17R004		1.67	0.52	2	<0.05	1.10	72	<0.5	867		>20.0	827
CCDRS17R005		0.38	0.59	2	<0.05	0.89	21	0.5			2.12	23
CCDRS17R006		1.11	0.18	1	<0.05	4.66	574	<0.5	654		>20.0	634
CCDRS17R007		0.64	0.67	1	0.11	2.83	50	<0.5	>1500		>20.0	1485
TTSANCA1		0.09	60.6	40	51.1	30.6	4190	0.5				

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 9-AUG-2017
Account: TELOEX

Project: Rusty Springs-1004241 TELOEX

CERTIFICATE OF ANALYSIS VA17149452

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5g).

Applies to Method: ME-MS41

LABORATORY ADDRESSES

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:

Ag-GRA21	Ag-OG46	BAG-01	CRU-31
Cu-OG46	LOG-22	ME-MS41	ME-OG46
Pb-OG46	PUL-32m	SPL-21	WEI-21

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **TERRALOGIC EXPLORATION SERVICES INC.**
44 - 12TH AVE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

Finalized Date: 24-AUG-2017
This copy reported on 4-DEC-2017
Account: TELOEX

CERTIFICATE VA17170183

Project: Rusty Springs-1004241 TELOEX

This report is for 3 Rock samples submitted to our lab in Vancouver, BC, Canada on 14-AUG-2017.

The following have access to data associated with this certificate:

JESSE CAMPBELL	CHUCK DOWNIE	CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND-02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
Pb-VOL70	Pb by Titration

To: **TERRALOGIC EXPLORATION SERVICES INC.**
ATTN: ALS GEOCHEMISTRY

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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North Vancouver BC V7H 0A7
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www.alsglobal.com/geochemistry

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SUITE 200
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Finalized Date: 24-AUG-2017
Account: TELOEX

Project: Rusty Springs-1004241 TELOEX

CERTIFICATE OF ANALYSIS VA17170183

Sample Description	Method Analyte Units LOR	Pb-VOL70 Pb % 0.01
CCDRS17R004		66.19
CCDRS17R006		44.74
CCDRS17R007		79.75

***** See Appendix Page for comments regarding this certificate *****

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To: **TERRALOGIC EXPLORATION SERVICES INC.**
44 - 12TH AVE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

Finalized Date: 24-AUG-2017
Account: TELOEX

Project: Rusty Springs-1004241 TELOEX

CERTIFICATE OF ANALYSIS VA17170183

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method: FND-02 Pb-VOL70

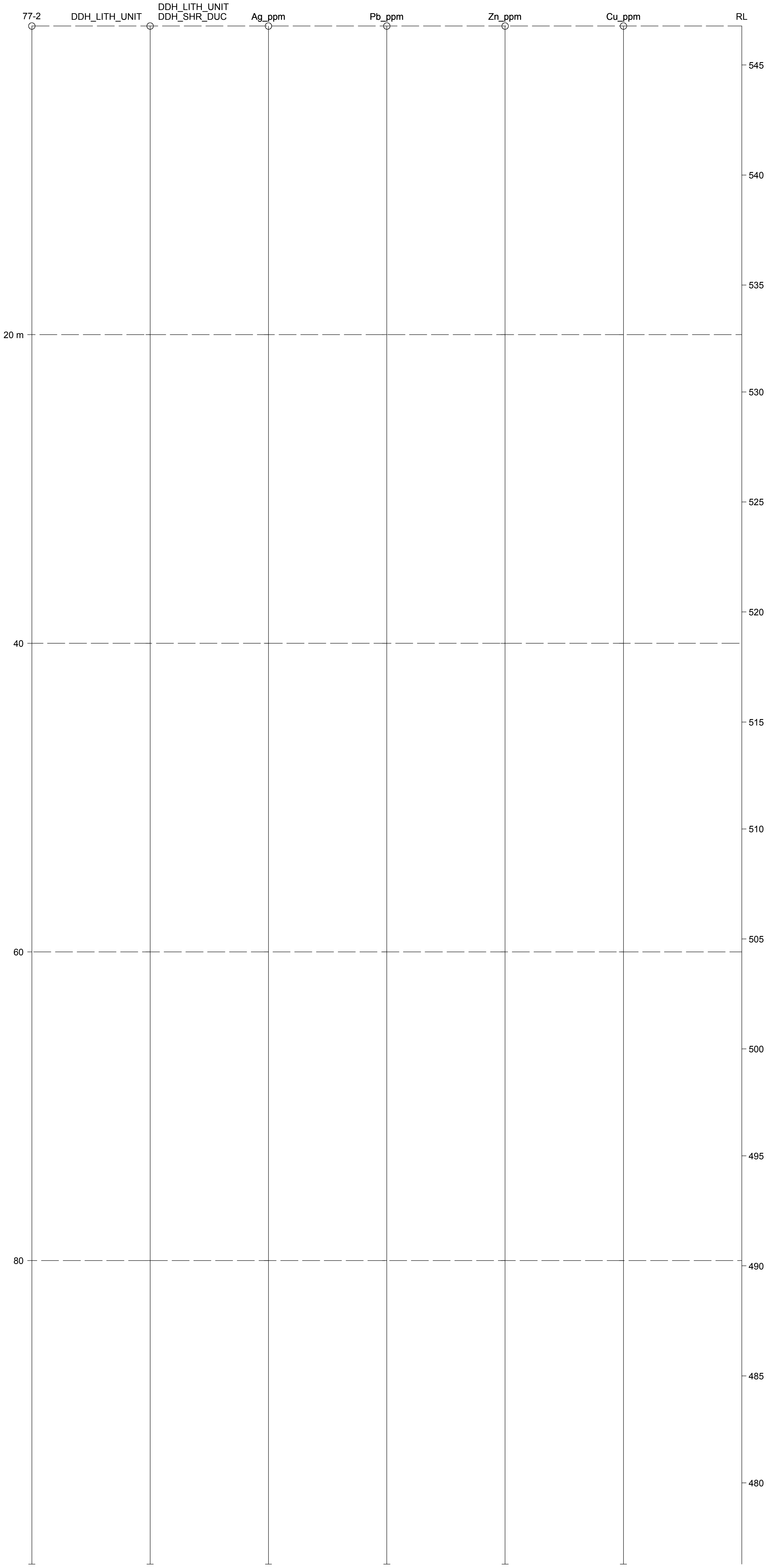
Appendix VI – DDH Logs

STRIP LOG: 77-1

Easting	Northing	RL	Azimuth	Dip	Depth
527108.0	7376492.0	546.6	123.0	-70.0	43.3

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100



STRIP LOG: 77-2

Easting	Northing	RL	Azimuth	Dip	Depth
527108.0	7376491.0	546.8	123.0	-45.0	99.7

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-3

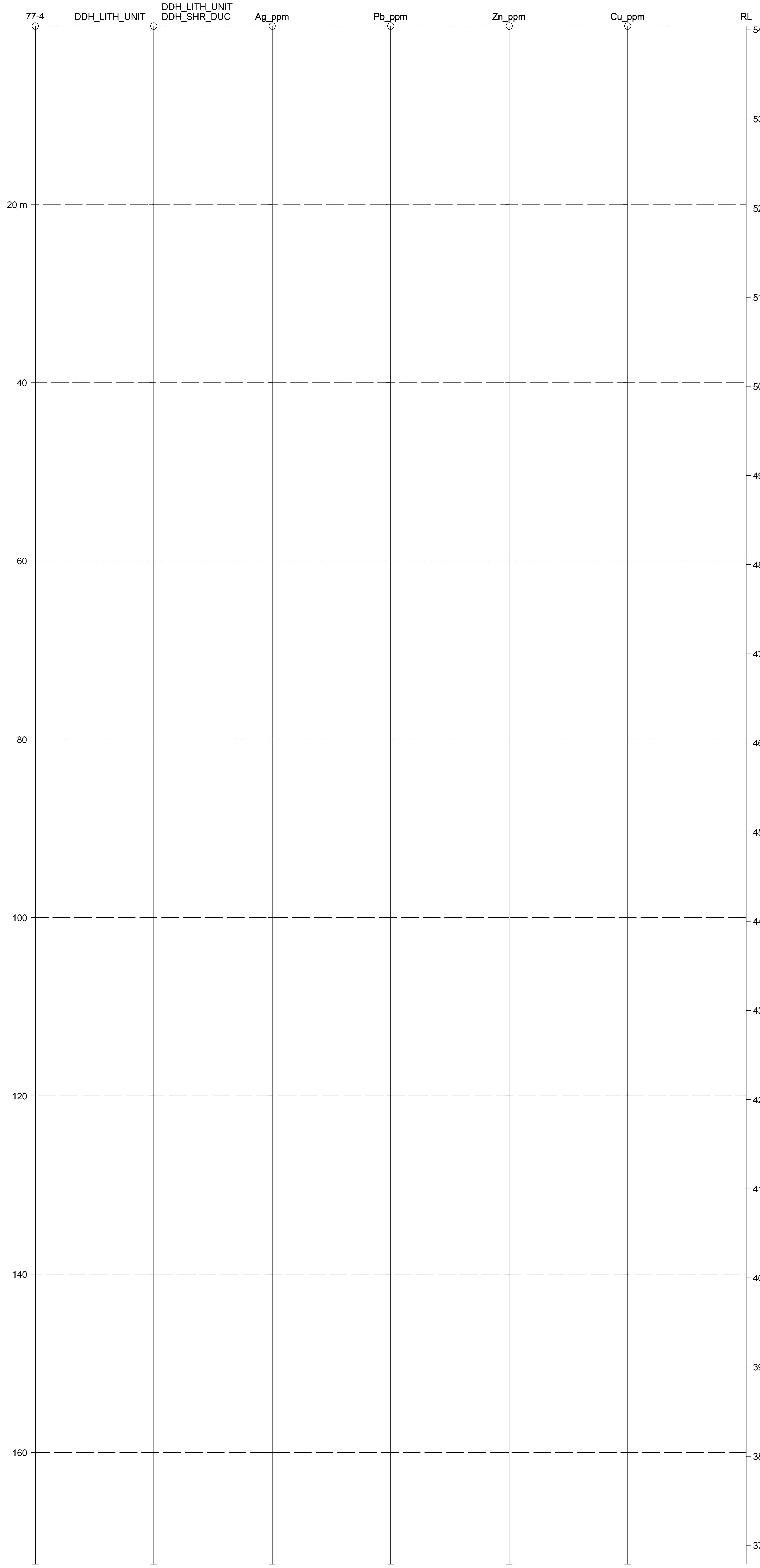
Easting	Northing	RL	Azimuth	Dip	Depth
527111.0	7376533.0	540.5	85.0	-45.0	105.8

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-4

Easting	Northing	RL	Azimuth	Dip	Depth
527111.0	7376533.0	540.5	0.0	-90.0	172.5

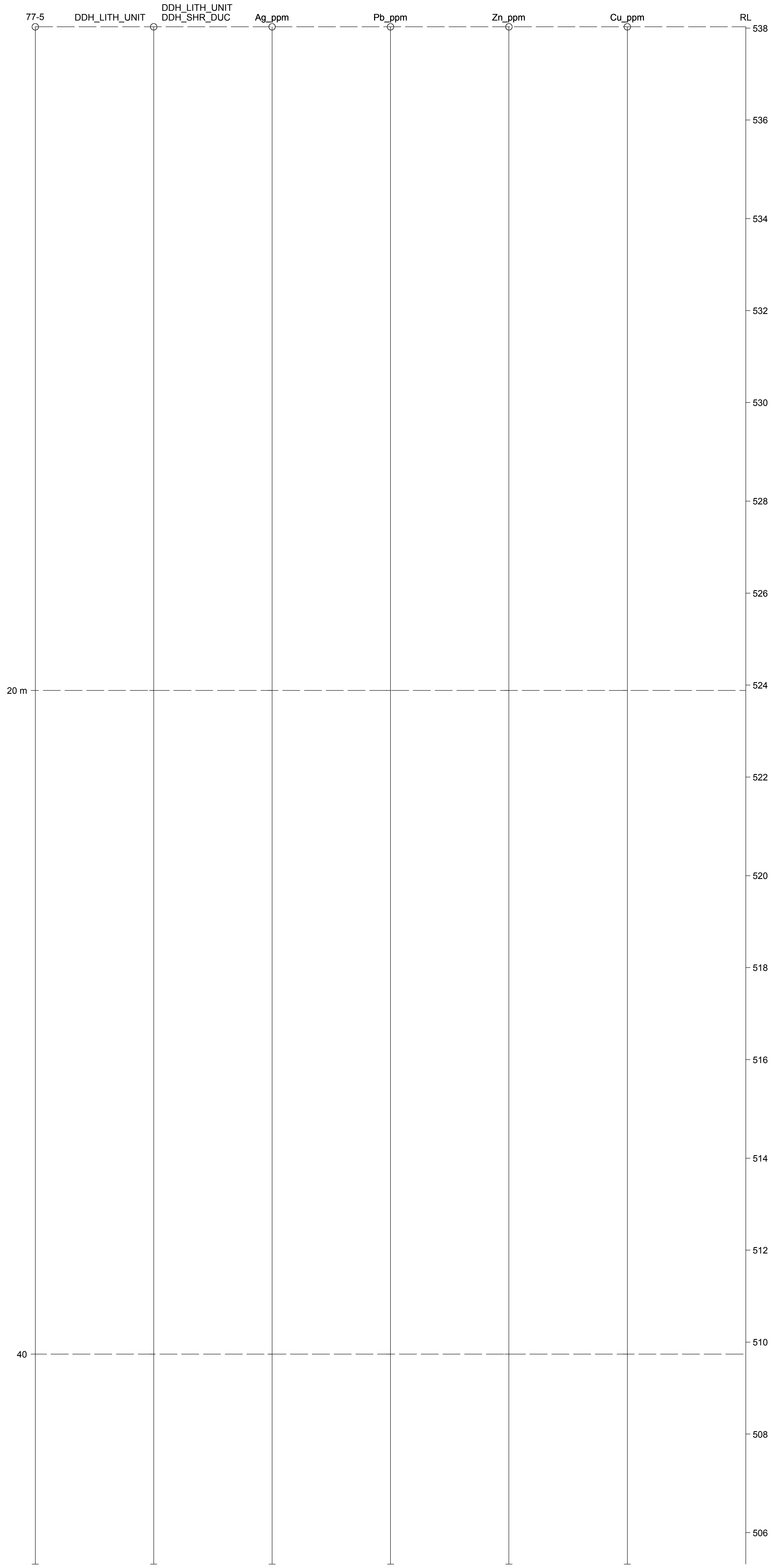


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-5

Easting	Northing	RL	Azimuth	Dip	Depth
527106.0	7376613.0	538.0	123.0	-45.0	46.3



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-6

Easting	Northing	RL	Azimuth	Dip	Depth
529292.0	7376423.0	622.1	0.0	-90.0	62.8

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-7

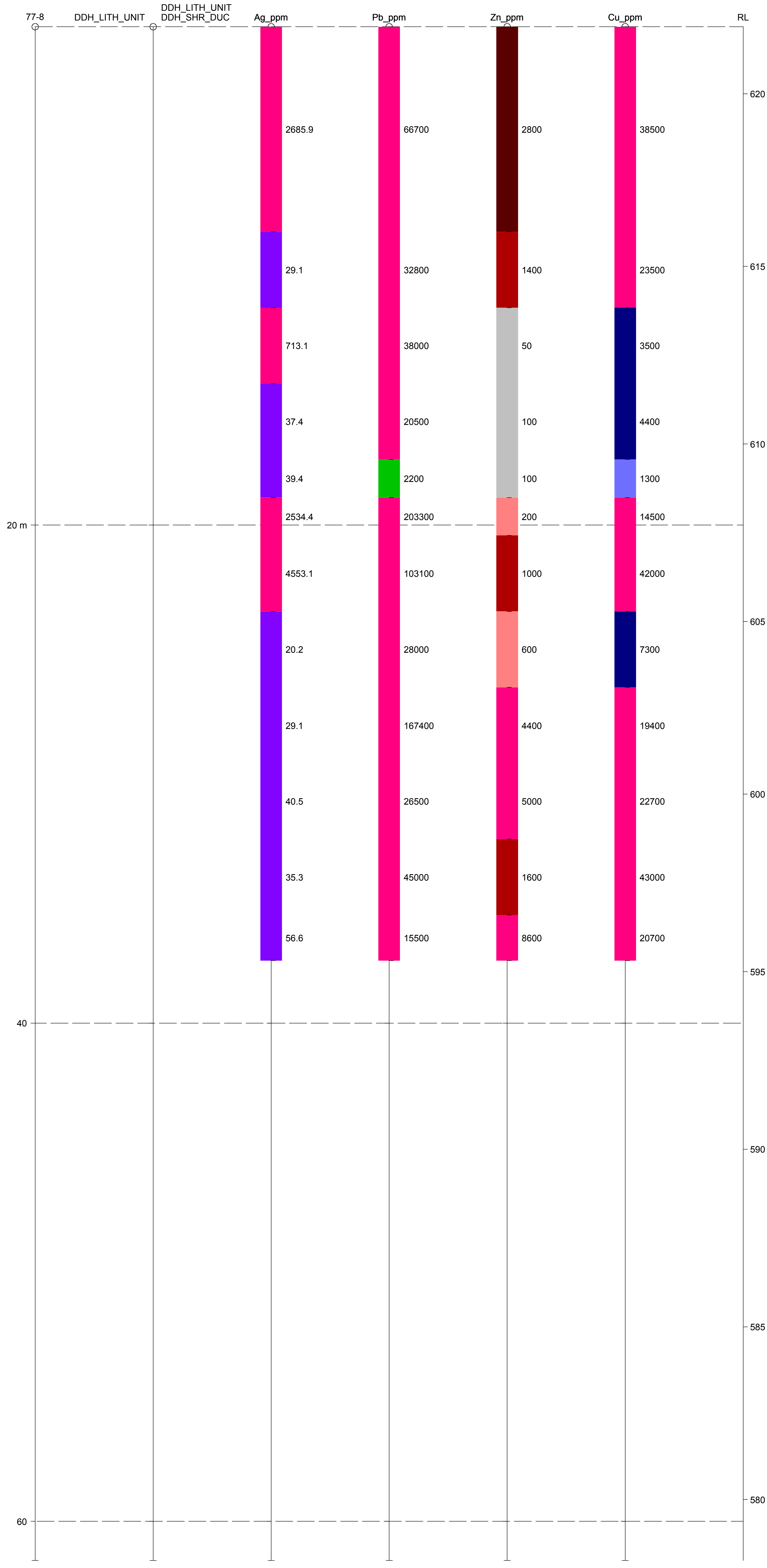
Easting	Northing	RL	Azimuth	Dip	Depth
529292.0	7376423.0	622.1	153.5	-45.0	90.5

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-8

Easting	Northing	RL	Azimuth	Dip	Depth
529291.0	7376423.0	621.8	260.0	-45.0	61.6



STRIP

1 DDH_LITH_UNIT PAT No patterns matched

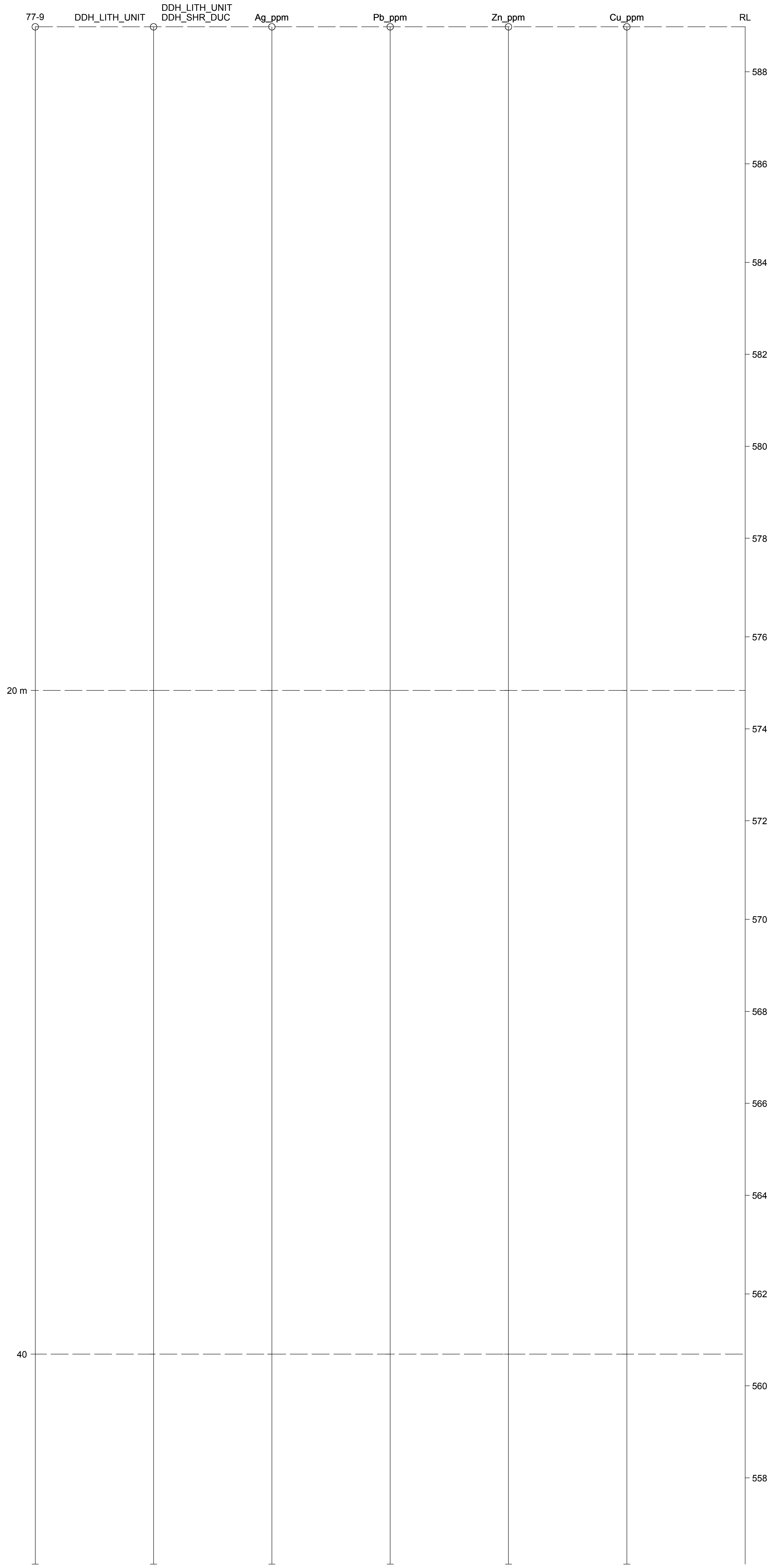
1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS: 300, 100, 10, 1

3 Pb_ppm NUMBER BANDS: 7300, 2700, 225, 48

4 Zn_ppm NUMBER BANDS: 3200, 2200, 700, 150

5 Cu_ppm NUMBER BANDS: 7300, 1700, 300, 100



STRIP LOG: 77-9

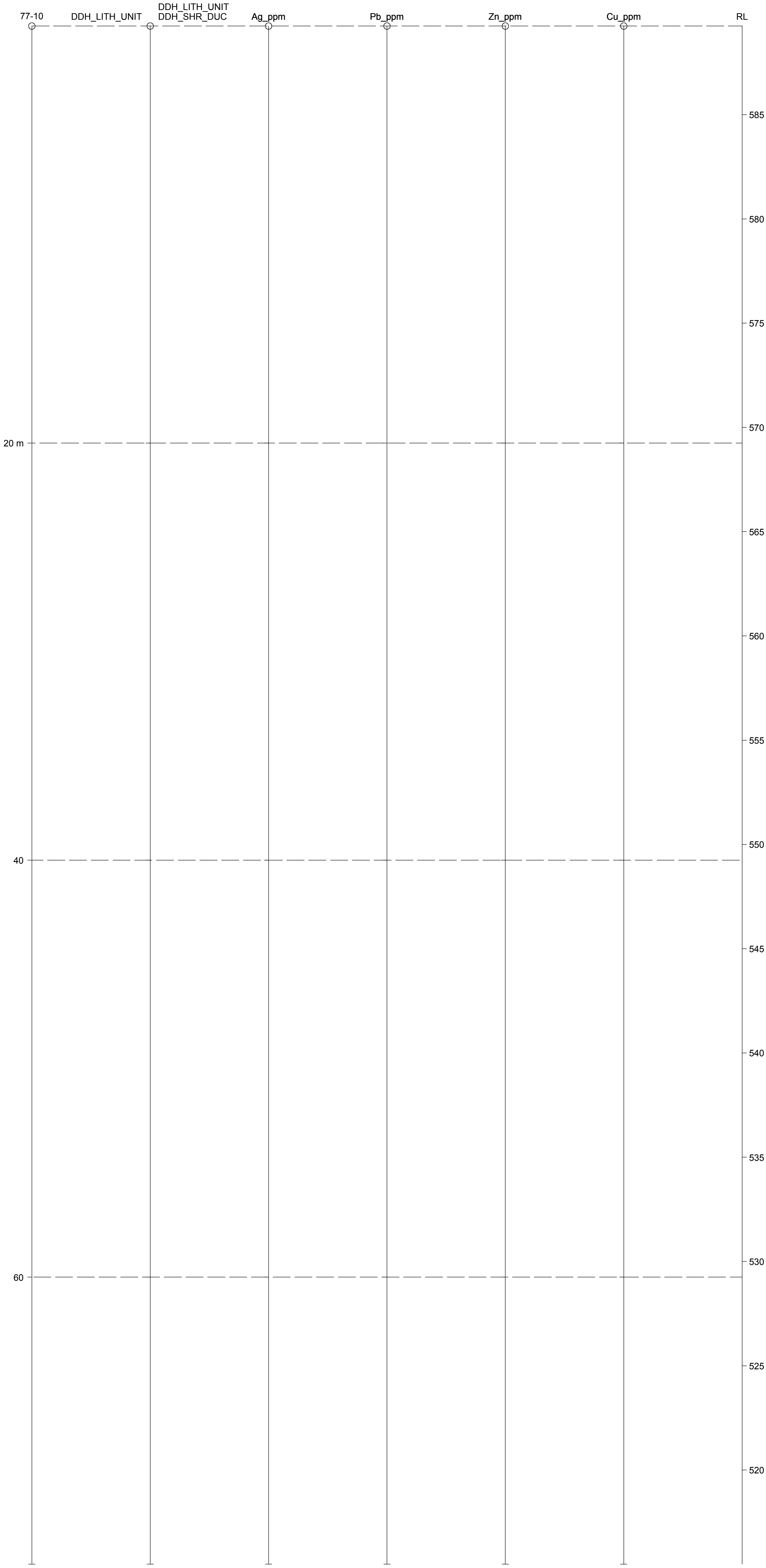
Easting	Northing	RL	Azimuth	Dip	Depth
529022.0	7376643.0	589.0	56.0	-45.0	46.3

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-10

Easting	Northing	RL	Azimuth	Dip	Depth
529023.0	7376644.0	589.3	0.0	-90.0	73.8

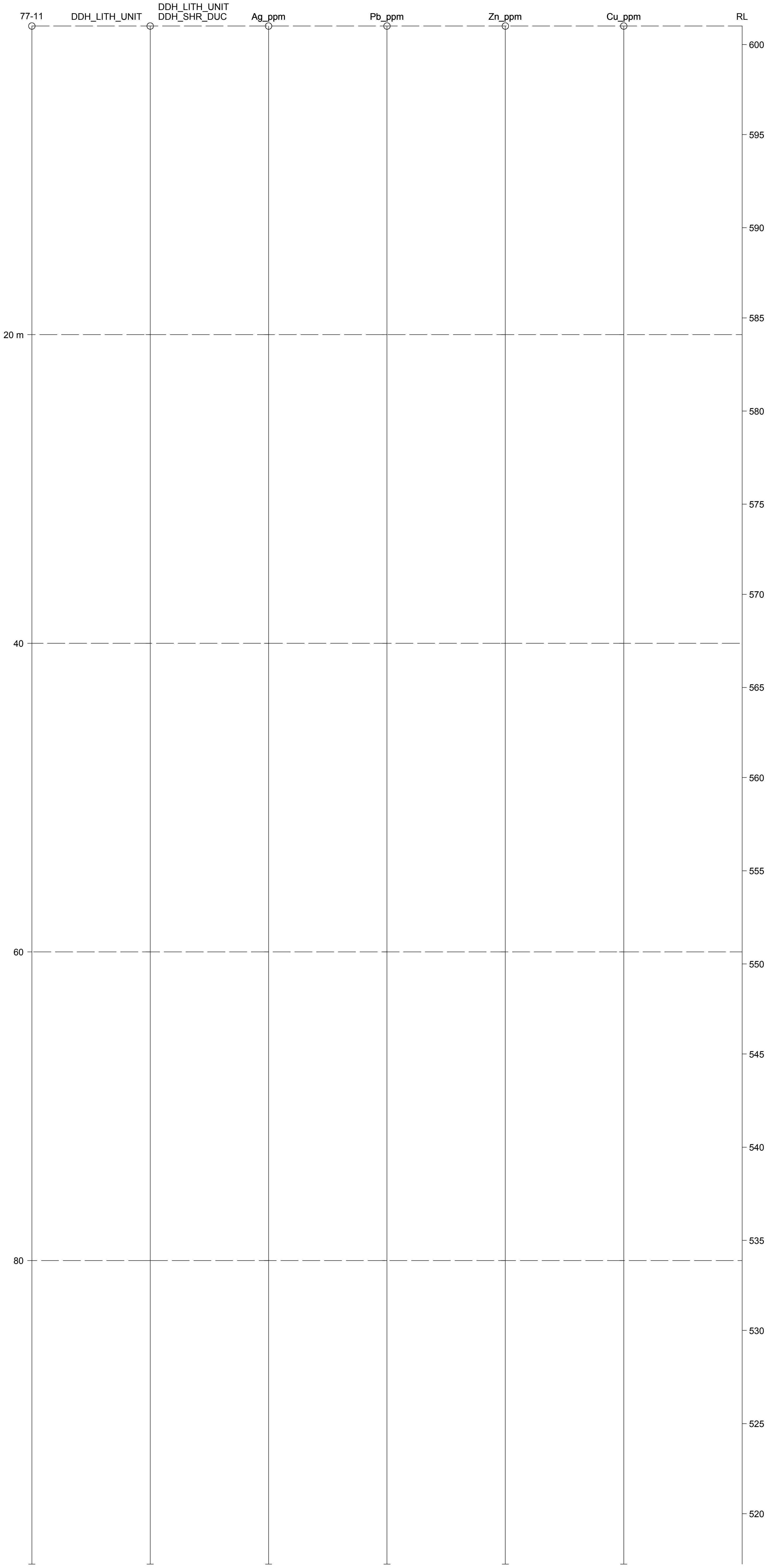


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-11

Easting	Northing	RL	Azimuth	Dip	Depth
529083.0	7376624.0	600.9	13.0	-57.0	99.7



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 77-12

Easting	Northing	RL	Azimuth	Dip	Depth
529270.0	7376152.0	582.5	0.0	-90.0	1.0

STRIP

1 DDH_LITH_UNIT PAT No patterns matched

1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
300
100
10
1

3 Pb_ppm NUMBER BANDS
7300
2700
225
48

4 Zn_ppm NUMBER BANDS
3200
2200
700
150

5 Cu_ppm NUMBER BANDS
7300
1700
300
100

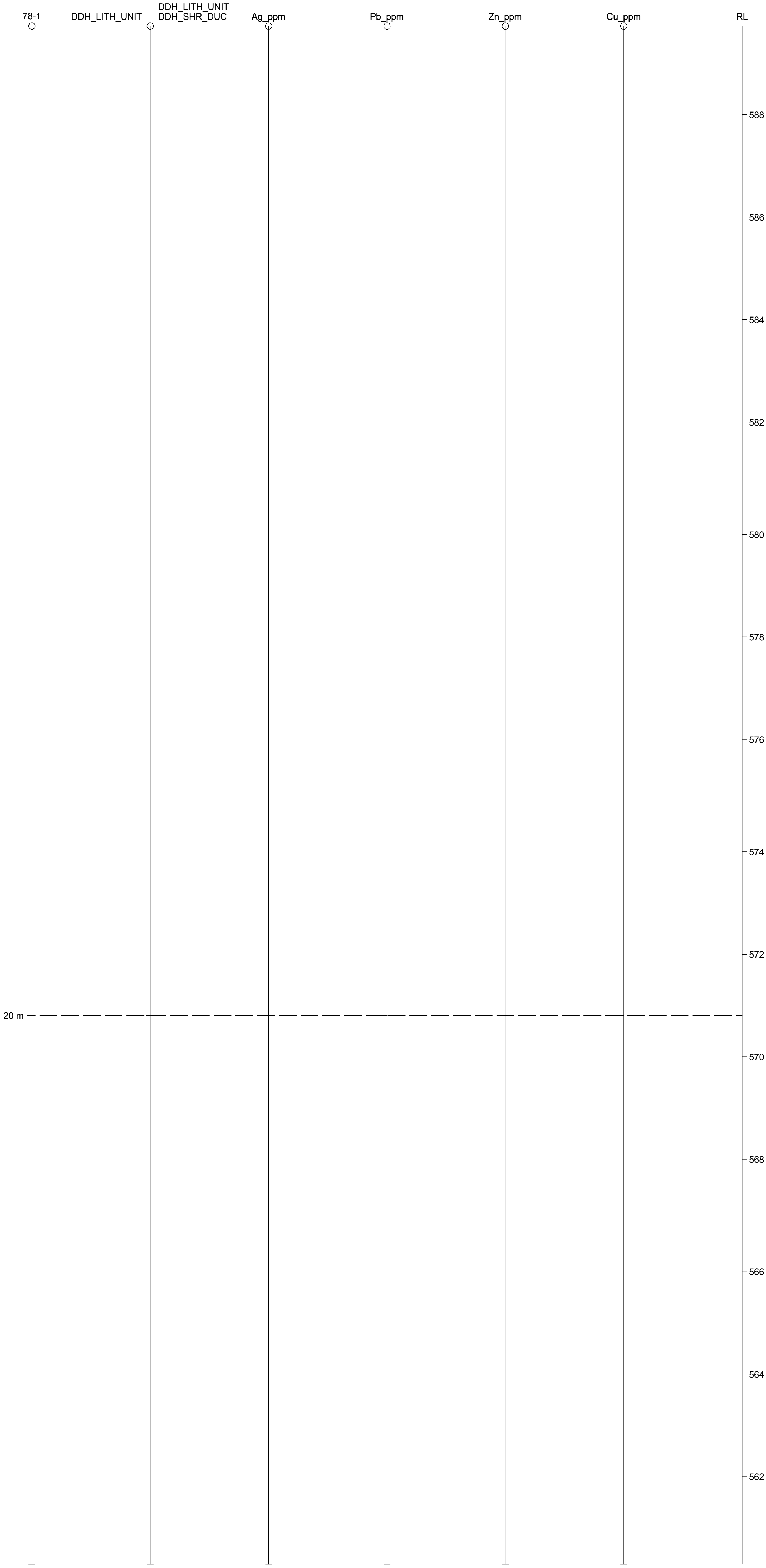
STRIP LOG: 77-13

Easting	Northing	RL	Azimuth	Dip	Depth
529270.0	7376153.0	582.7	60.0	-90.0	1.0

STRIP			
1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-1

Easting	Northing	RL	Azimuth	Dip	Depth
529293.0	7376172.0	589.6	240.0	-70.0	31.1

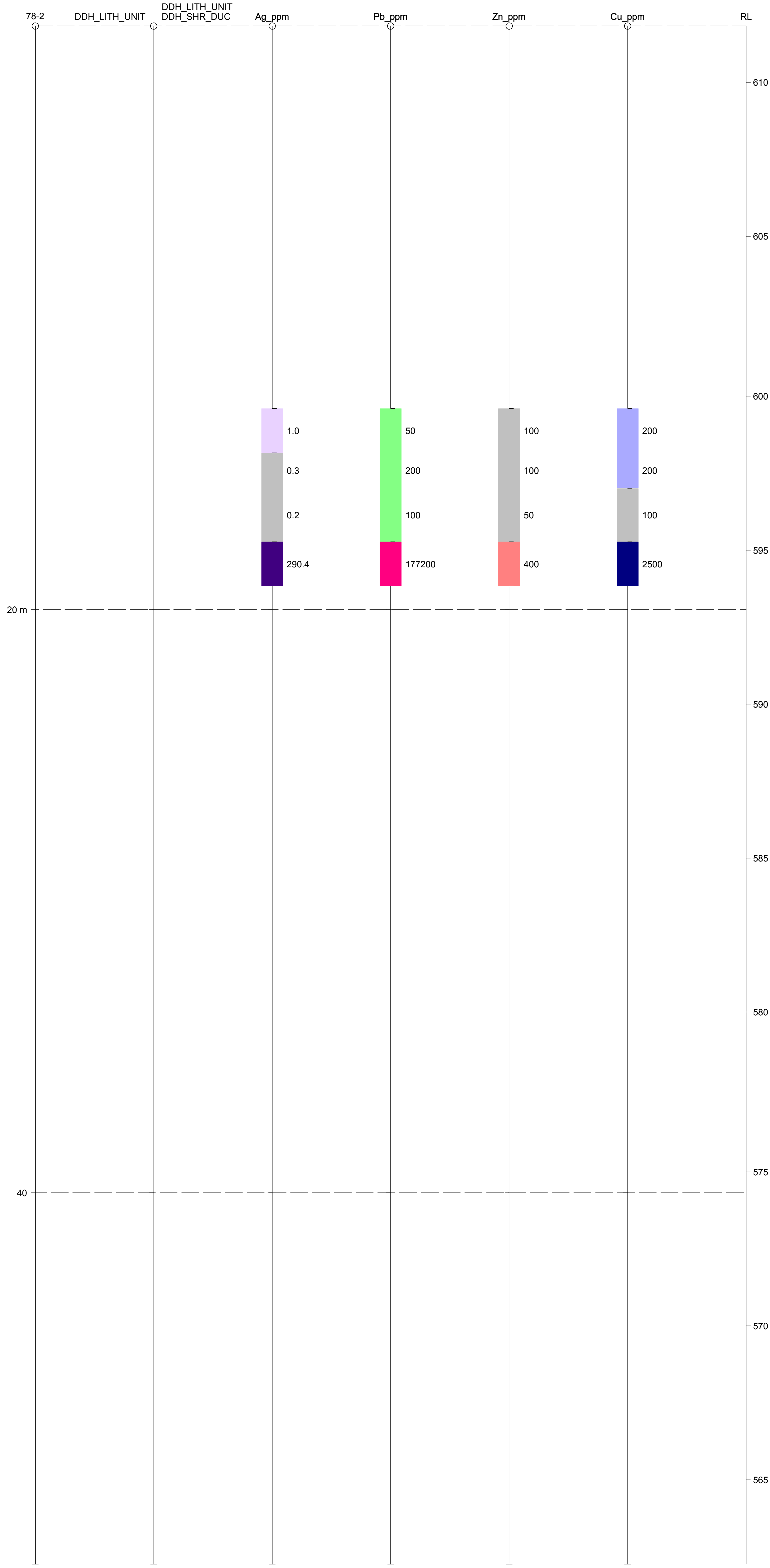


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-2

Easting	Northing	RL	Azimuth	Dip	Depth
529355.0	7376240.0	611.9	240.0	-70.0	52.7

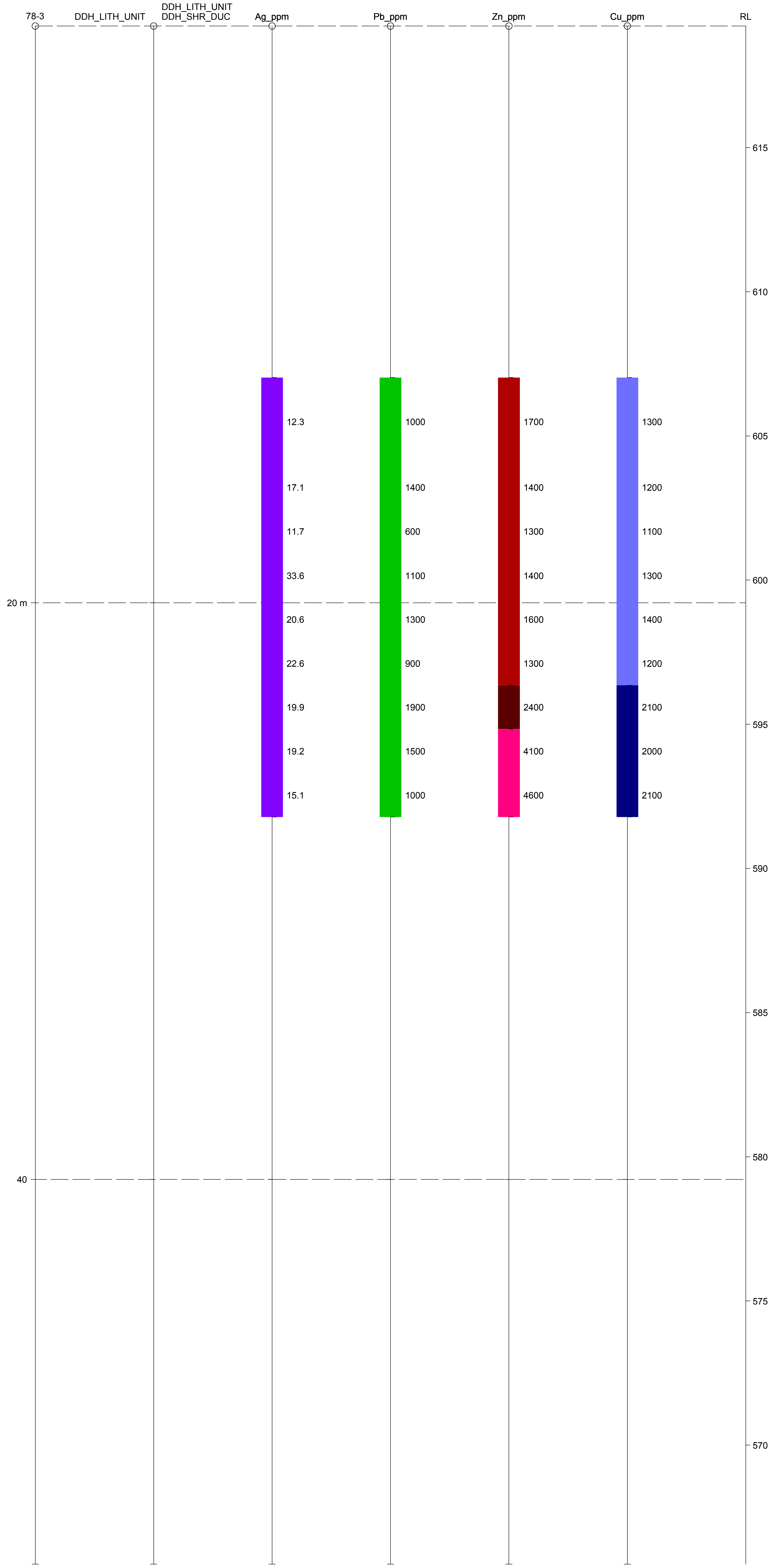


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-3

Easting	Northing	RL	Azimuth	Dip	Depth
529336.0	7376297.0	619.3	0.0	-90.0	53.3

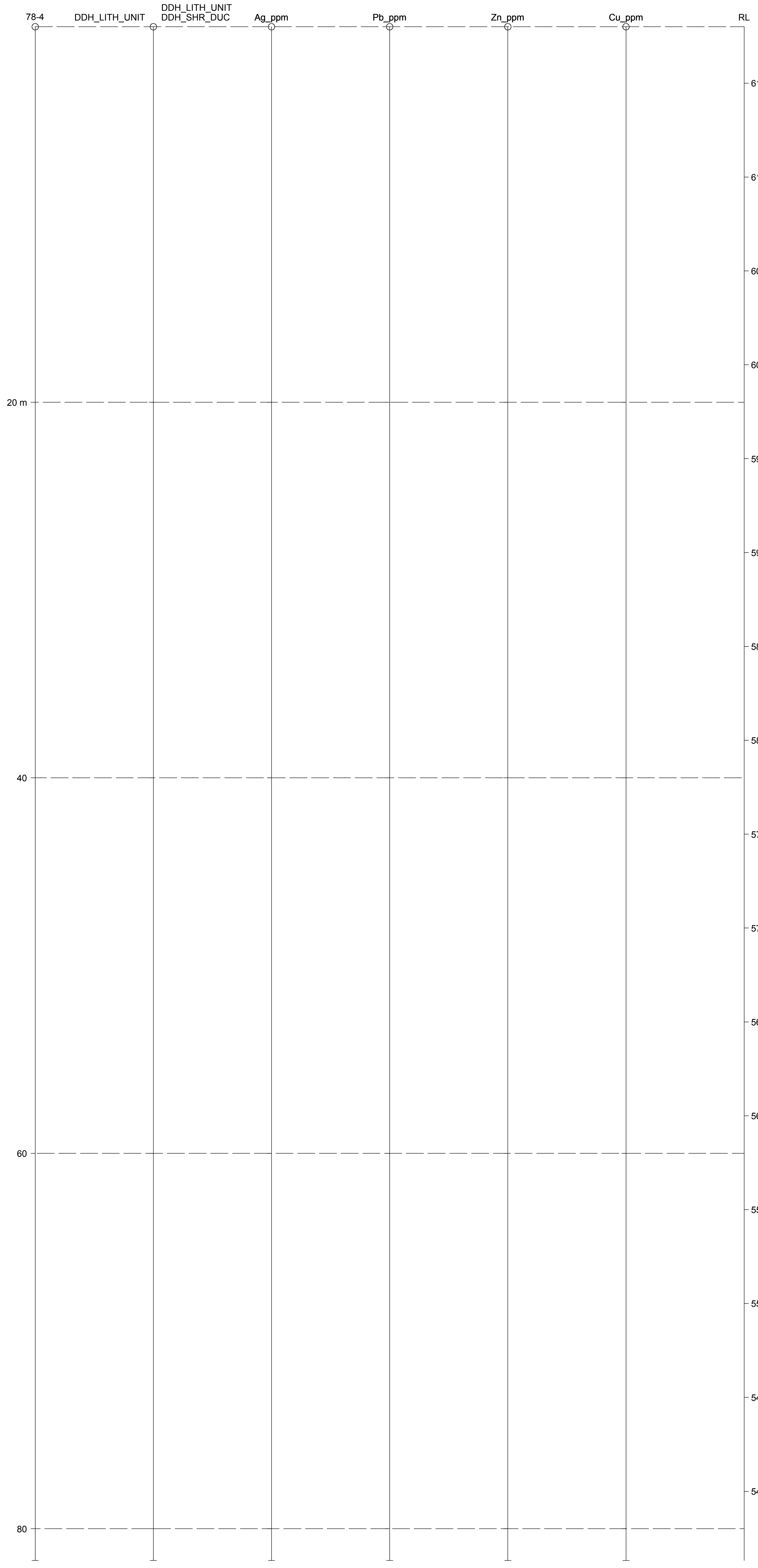


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-4

Easting	Northing	RL	Azimuth	Dip	Depth
529310.0	7376341.0	618.1	0.0	-90.0	81.7

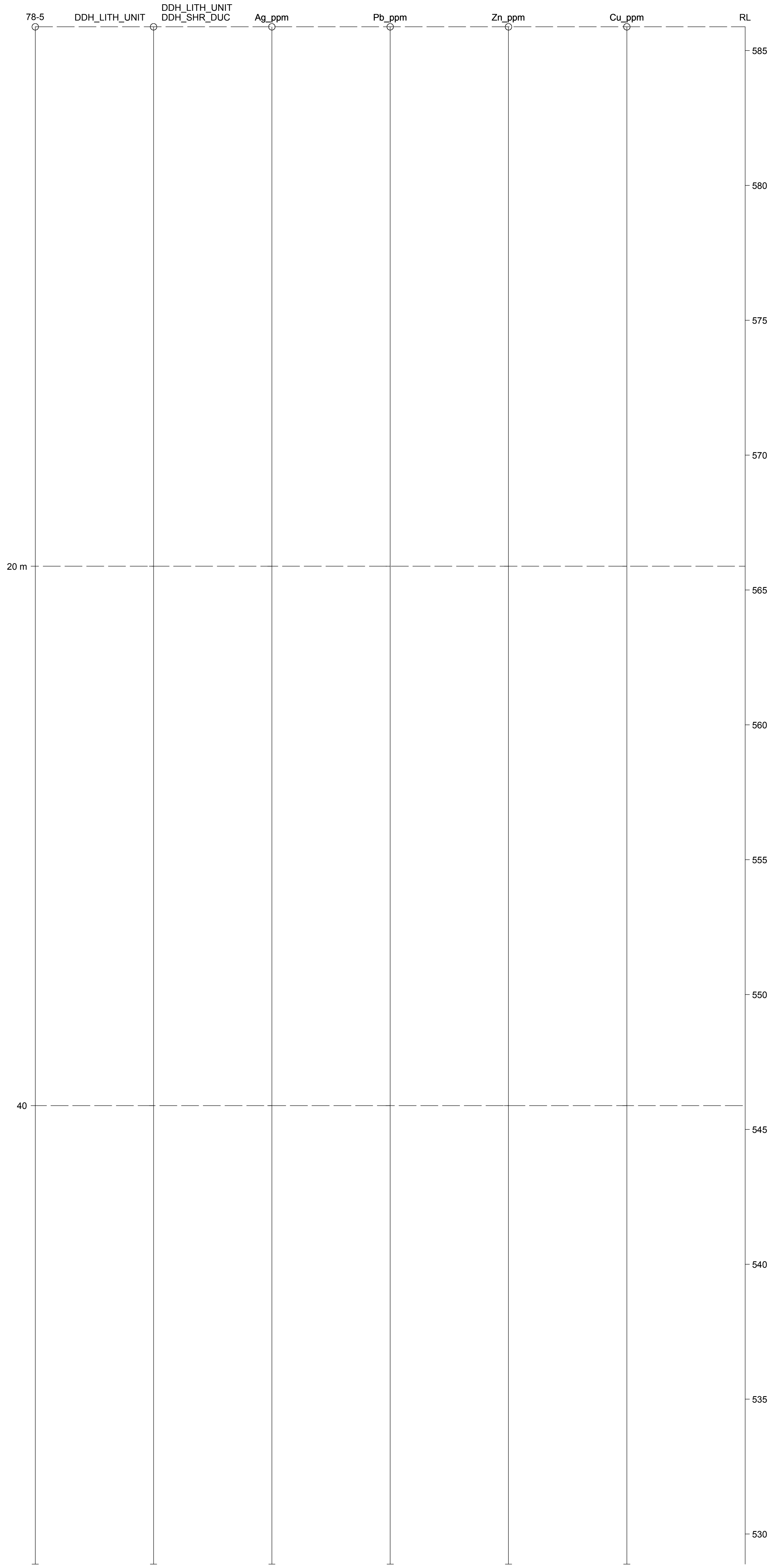


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-5

Easting	Northing	RL	Azimuth	Dip	Depth
529261.0	7376935.0	585.8	0.0	-90.0	57.0

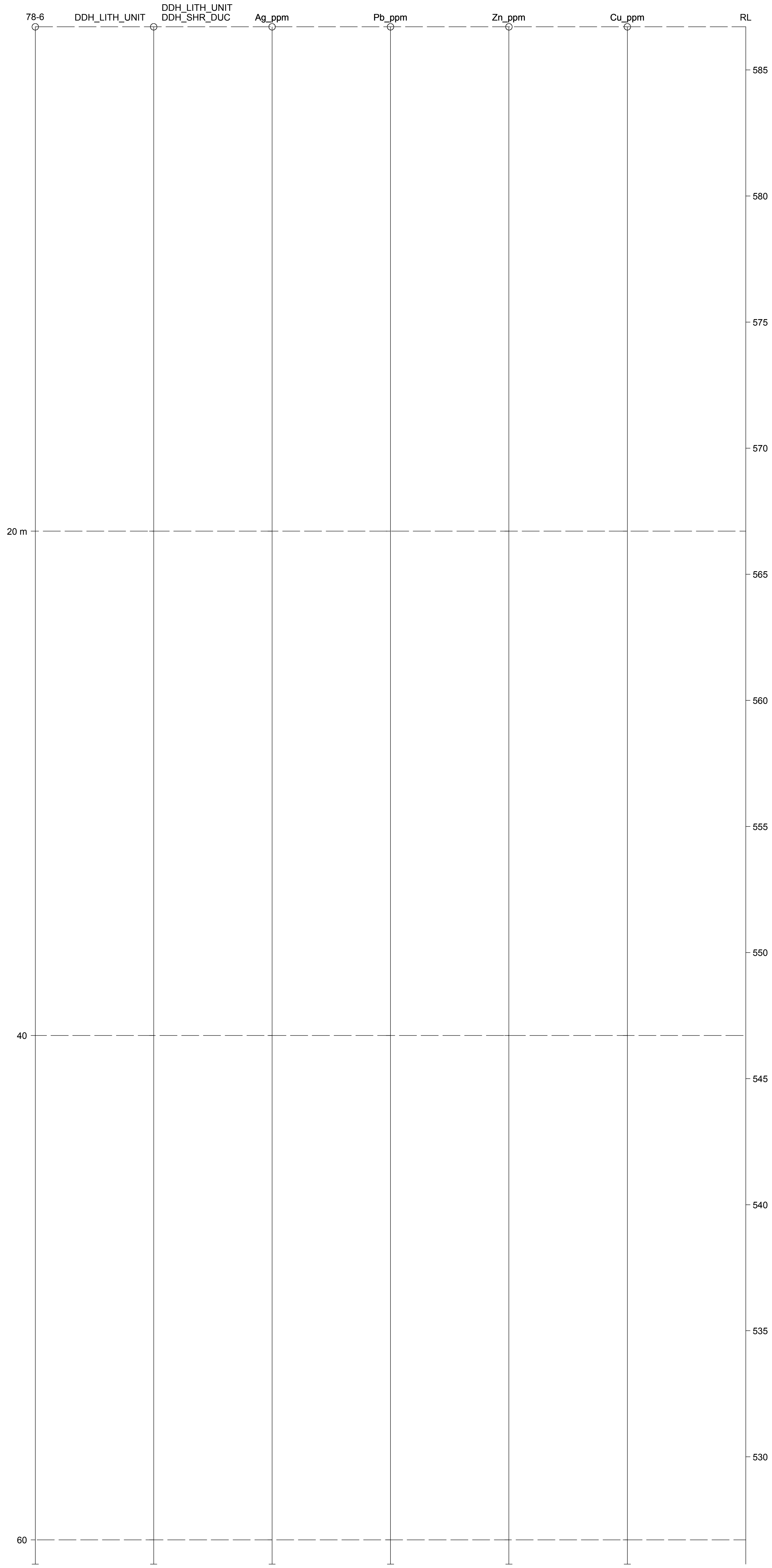


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-6

Easting	Northing	RL	Azimuth	Dip	Depth
529197.0	7376898.0	586.8	0.0	-90.0	61.0



STRIP

1 DDH_LITH_UNIT PAT No patterns matched

1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
300
100
10
1

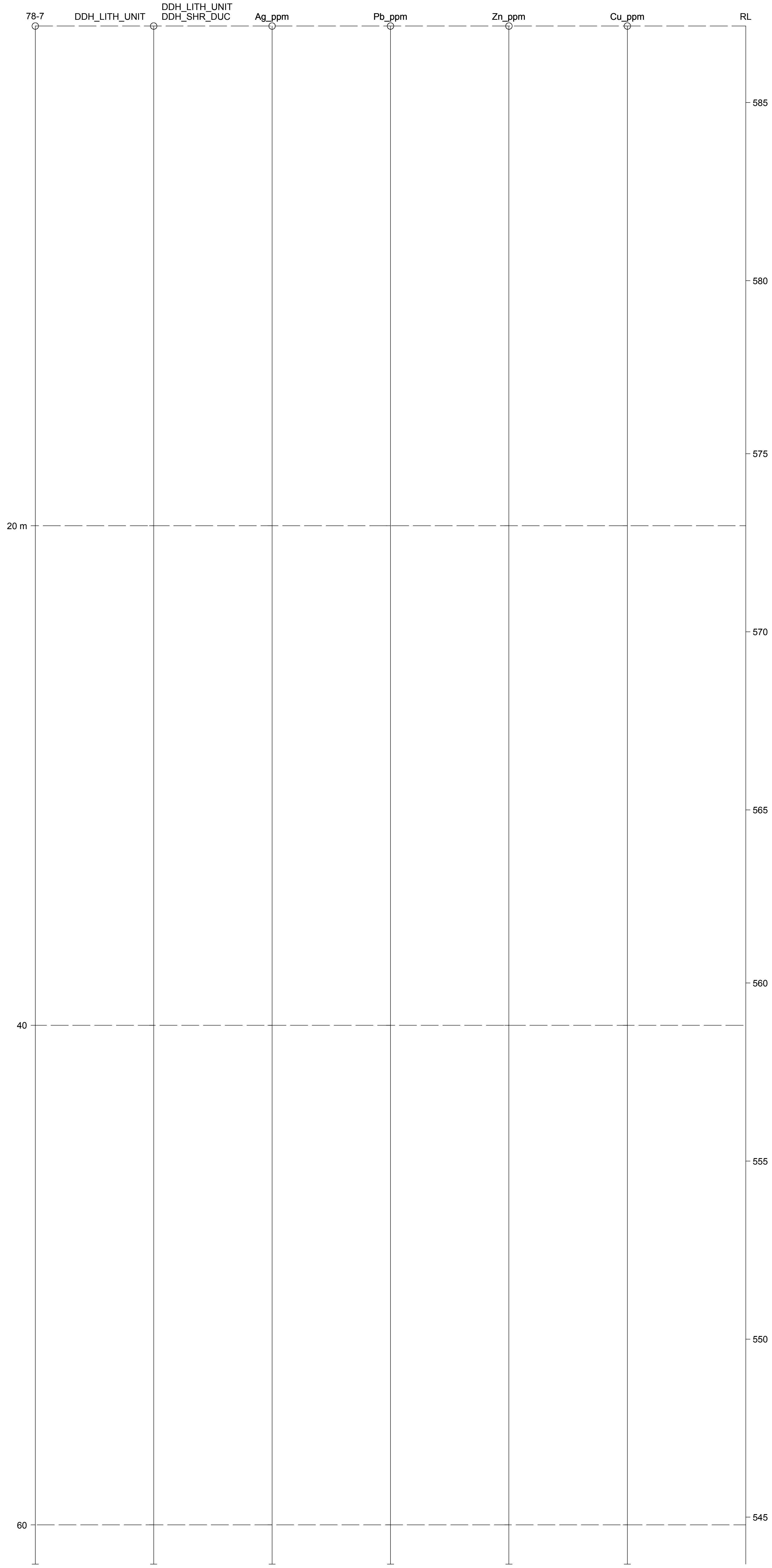
3 Pb_ppm NUMBER BANDS
7300
2700
225
48

4 Zn_ppm NUMBER BANDS
3200
2200
700
150

5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: 78-7

Easting	Northing	RL	Azimuth	Dip	Depth
529197.0	7376896.0	587.1	330.0	-45.0	61.6



STRIP

1 DDH_LITH_UNIT PAT No patterns matched

1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
300
100
10
1

3 Pb_ppm NUMBER BANDS
7300
2700
225
48

4 Zn_ppm NUMBER BANDS
3200
2200
700
150

5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: 78-8

Easting	Northing	RL	Azimuth	Dip	Depth
529135.0	7376880.0	586.1	0.0	-90.0	61.9

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-9

Easting	Northing	RL	Azimuth	Dip	Depth
529134.0	7376880.0	586.0	330.0	-45.0	64.9

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-10

Easting	Northing	RL	Azimuth	Dip	Depth
529100.0	7376856.0	587.0	0.0	-90.0	59.4

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-11

Easting	Northing	RL	Azimuth	Dip	Depth
529016.0	7376806.0	582.8	0.0	-90.0	40.5

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-12

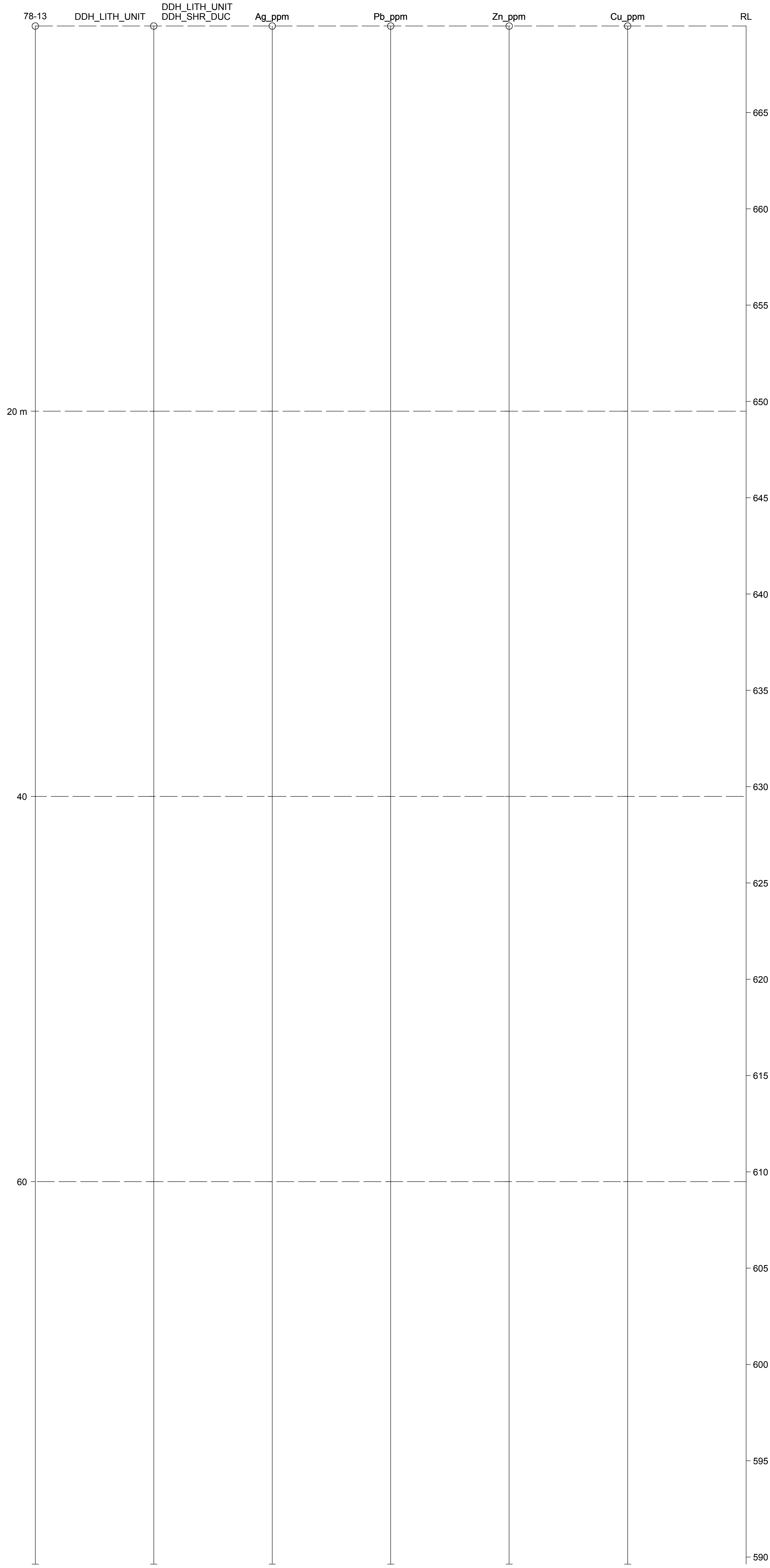
Easting	Northing	RL	Azimuth	Dip	Depth
528948.0	7376774.0	575.3	0.0	-90.0	46.0

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

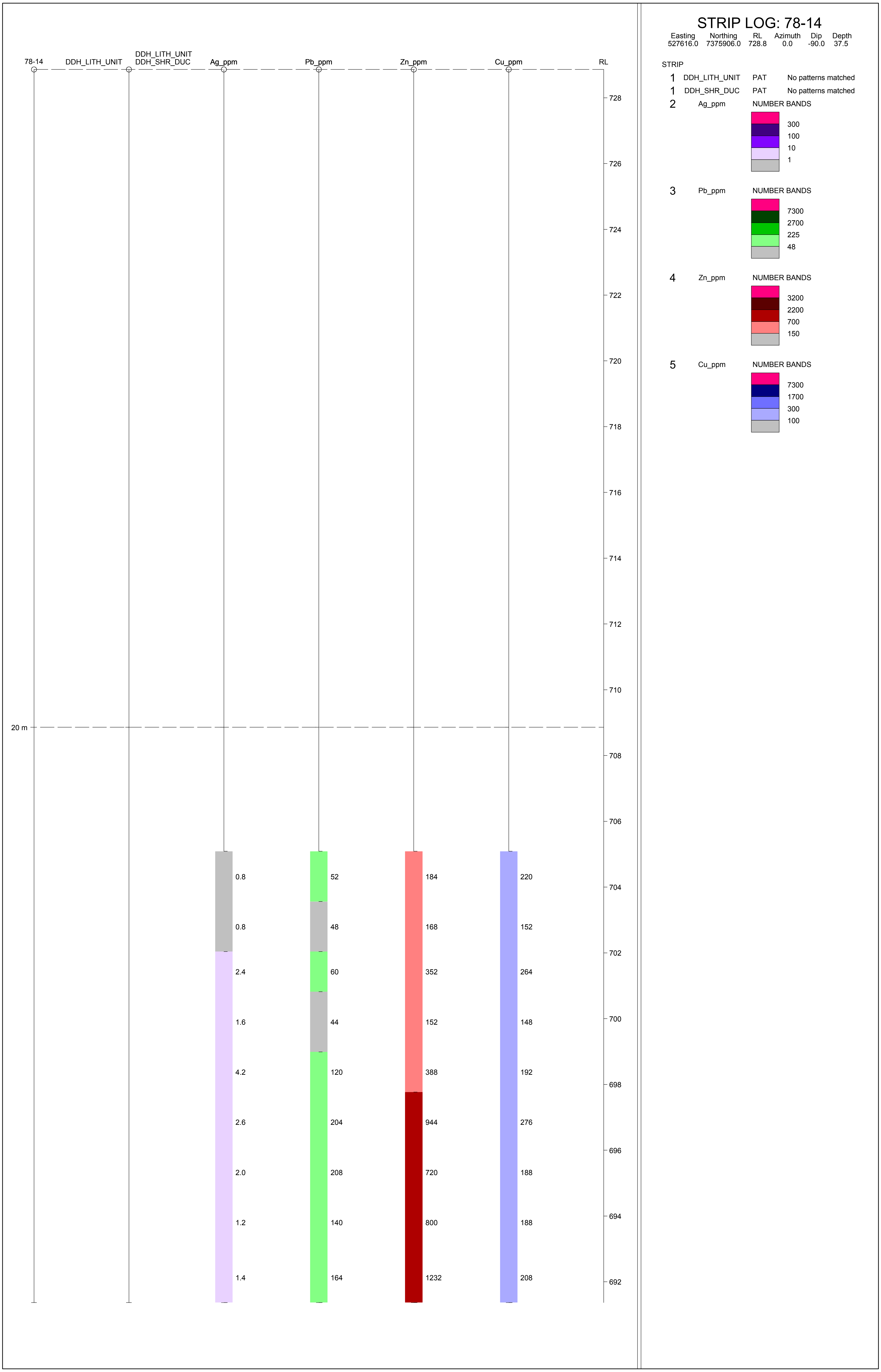
STRIP LOG: 78-13

Easting	Northing	RL	Azimuth	Dip	Depth
527709.0	7376234.0	669.4	0.0	-90.0	79.9



STRIP

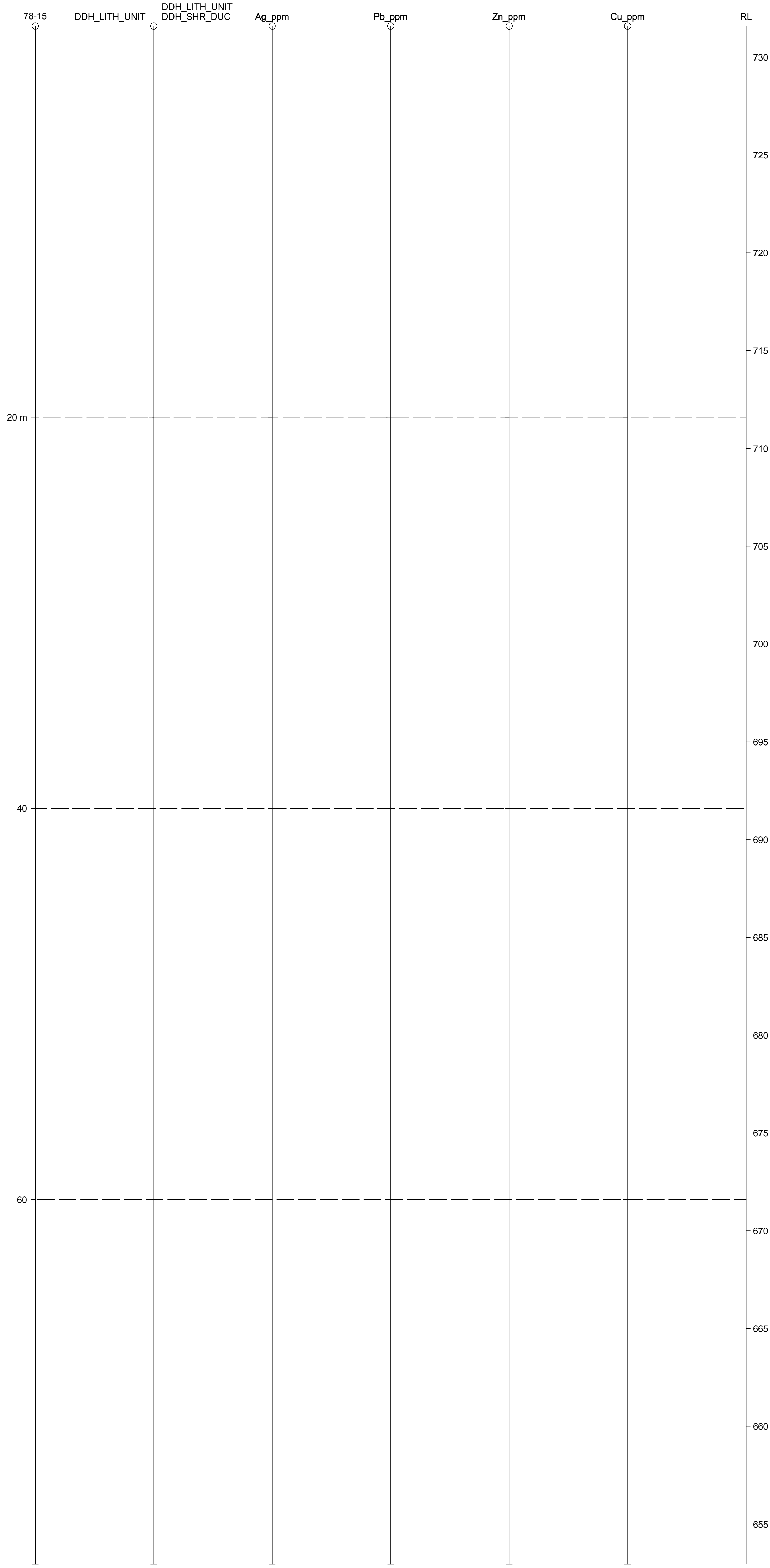
1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100



STRIP LOG: 78-14
Easting 527616.0
Northing 7375906.0
RL 728.8
Azimuth 0.0
Dip -90.0
Depth 37.5
STRIP
1 DDH_LITH_UNIT PAT No patterns matched
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100
78-14
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
728
726
724
722
720
718
716
714
712
710
20 m
708
706
704
702
700
698
696
694
692
0.8 52 184 220
0.8 48 168 152
2.4 60 352 264
1.6 44 152 148
4.2 120 388 192
2.6 204 944 276
2.0 208 720 188
1.2 140 800 188
1.4 164 1232 208

STRIP LOG: 78-15

Easting	Northing	RL	Azimuth	Dip	Depth
527586.0	7375961.0	731.5	0.0	-90.0	78.6

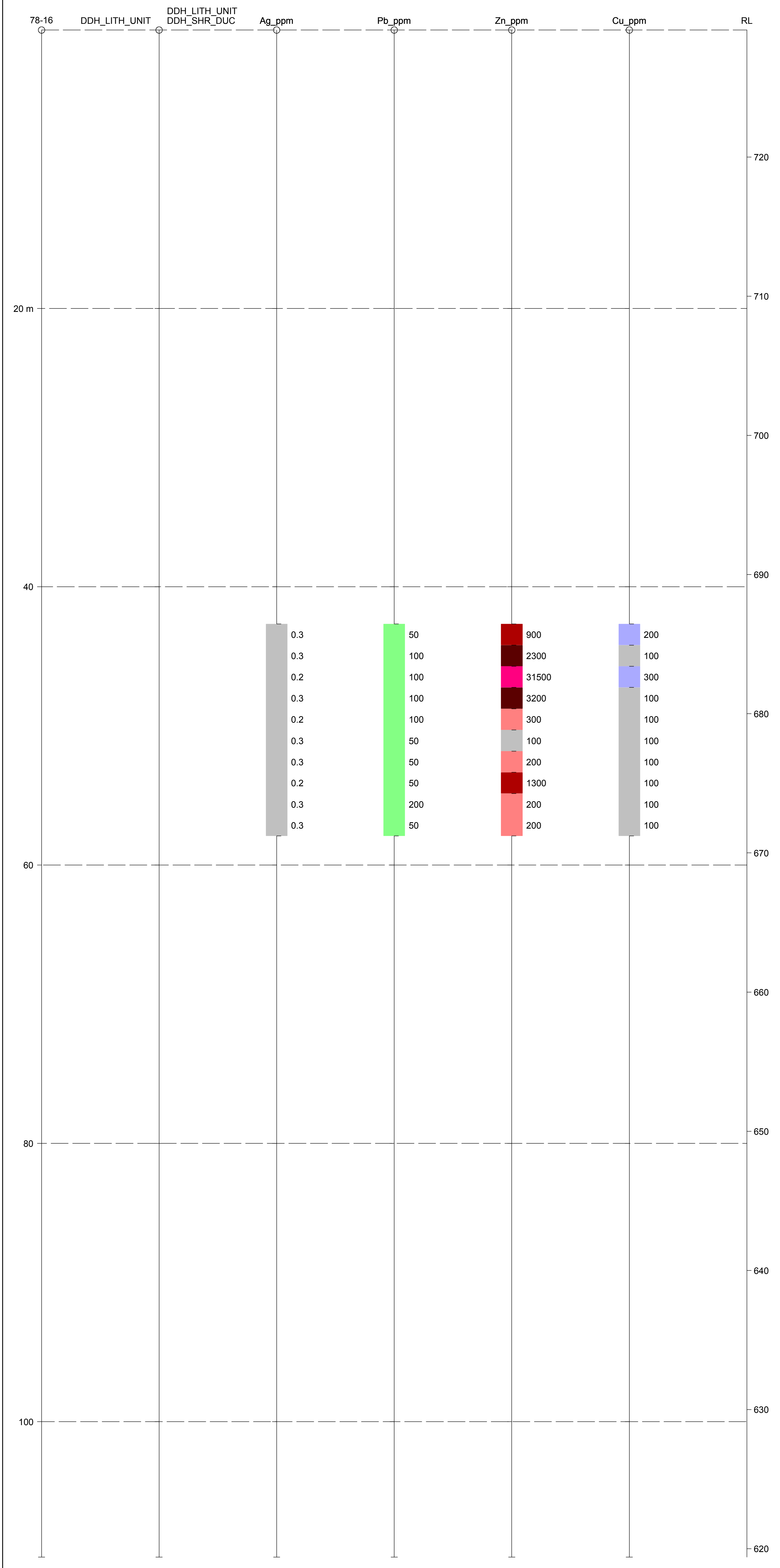


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

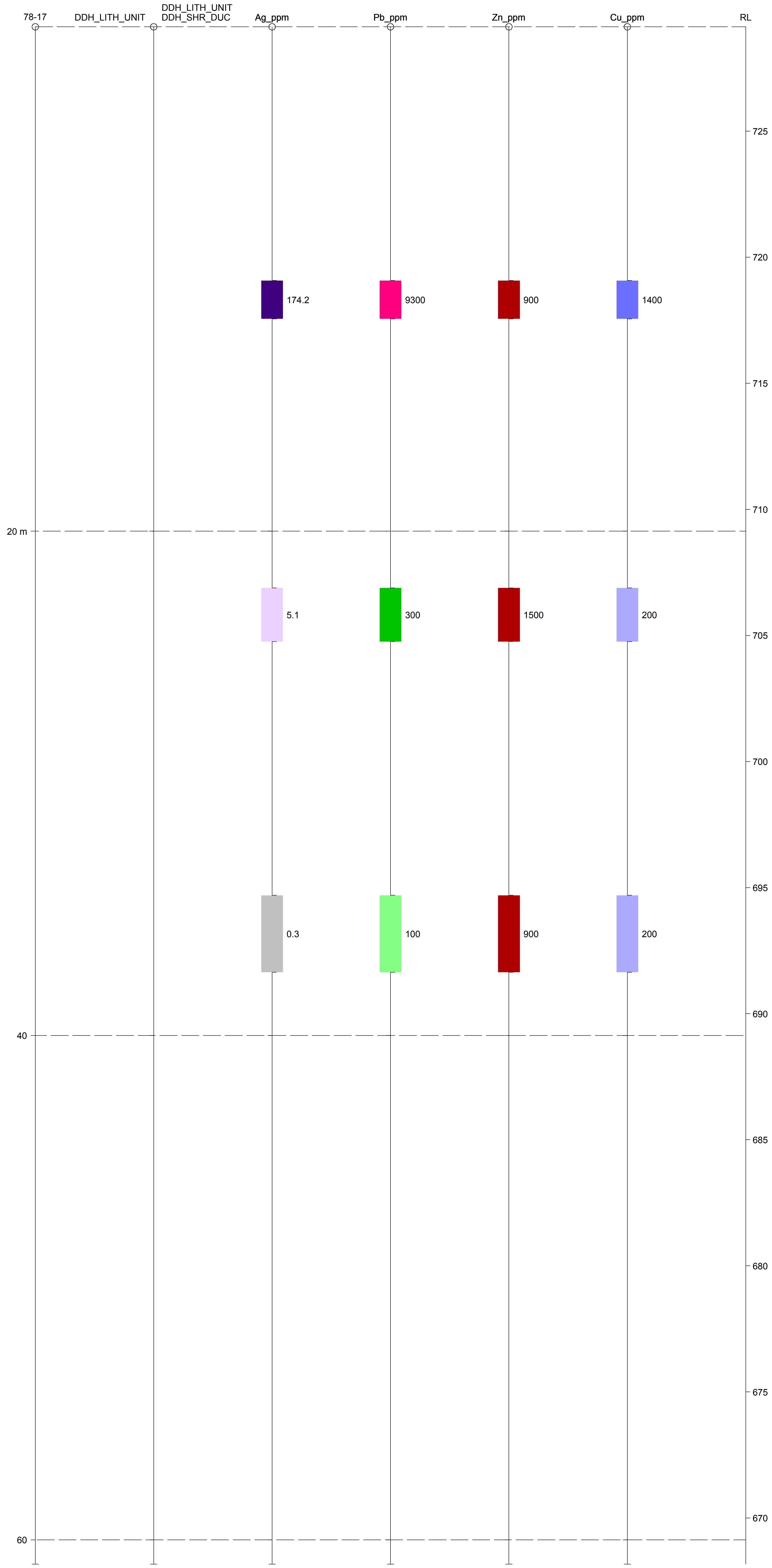
STRIP LOG: 78-16

Easting	Northing	RL	Azimuth	Dip	Depth
527558.0	7376015.0	729.2	0.0	-90.0	109.7



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100



STRIP LOG: 78-17

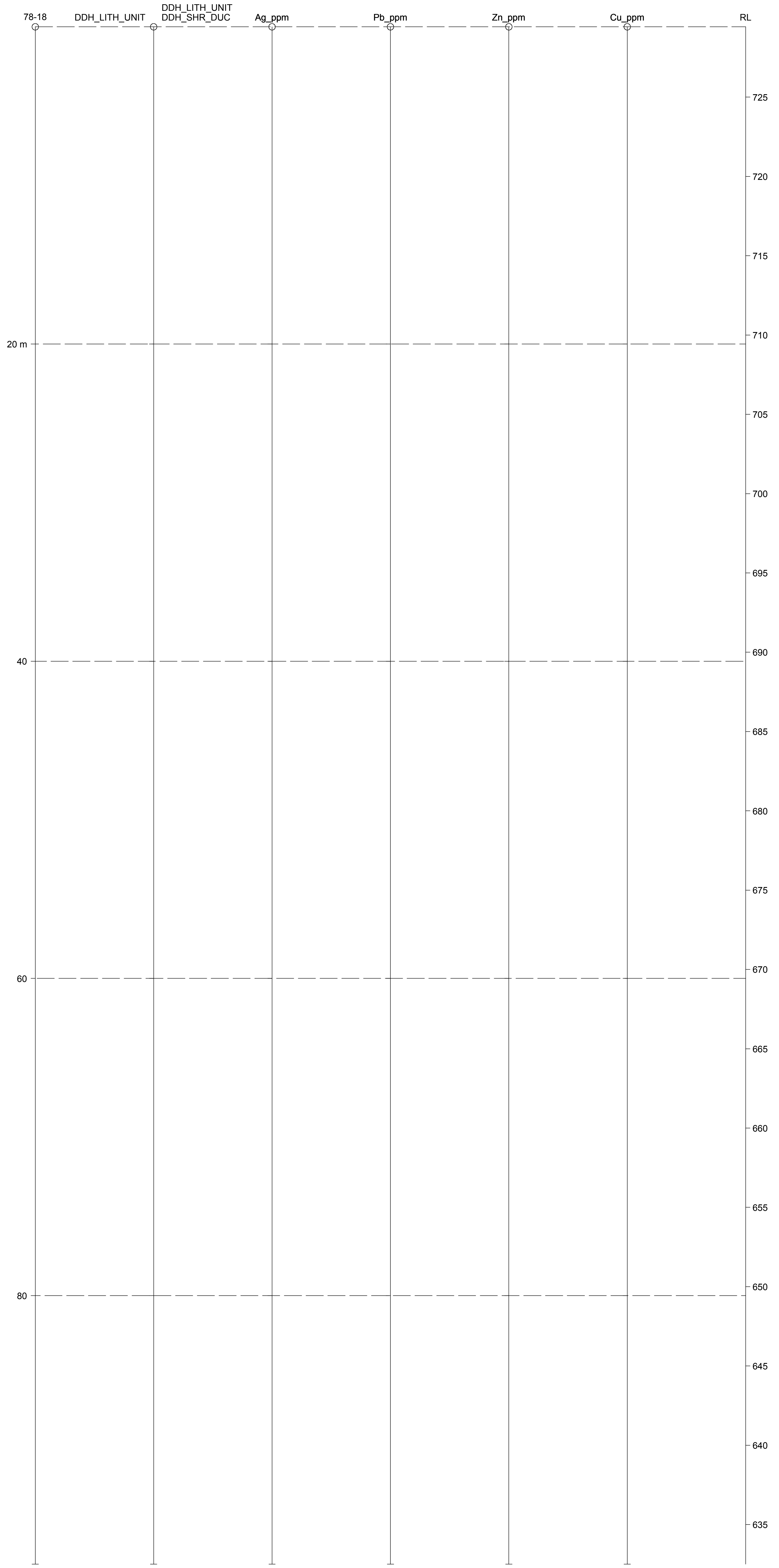
Easting	Northing	RL	Azimuth	Dip	Depth
527612.0	7376046.0	729.2	0.0	-90.0	61.0

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-18

Easting	Northing	RL	Azimuth	Dip	Depth
527506.0	7375985.0	729.5	0.0	-90.0	96.9



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-19

Easting	Northing	RL	Azimuth	Dip	Depth
527482.0	7376032.0	725.9	0.0	-90.0	37.5

STRIP			
1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-20

Easting	Northing	RL	Azimuth	Dip	Depth
527338.0	7376026.0	709.2	240.0	-60.0	61.0

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-21

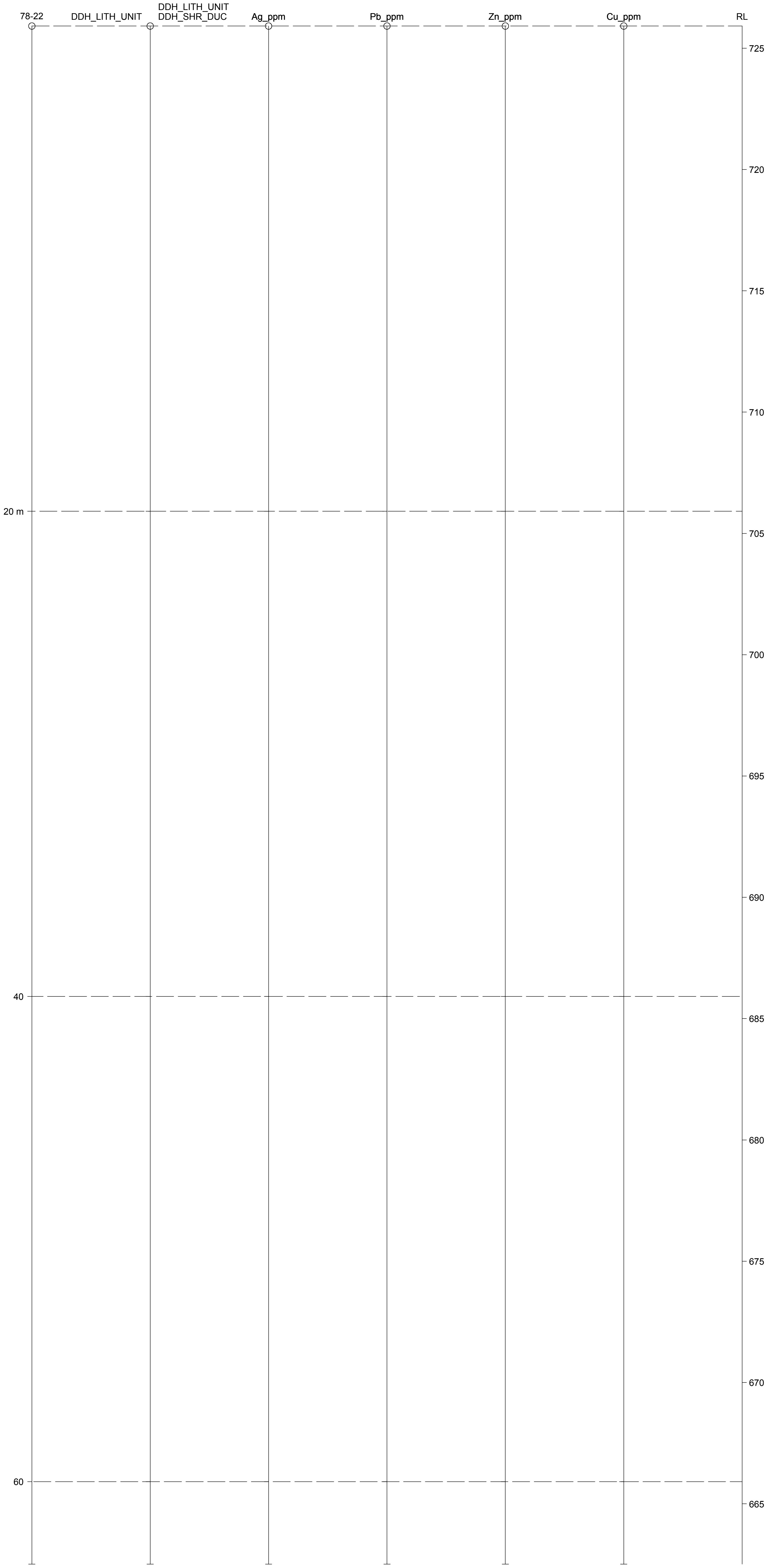
Easting	Northing	RL	Azimuth	Dip	Depth
527553.0	7376149.0	710.6	330.0	-60.0	65.5

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-22

Easting	Northing	RL	Azimuth	Dip	Depth
527658.0	7376070.0	726.0	0.0	-90.0	63.4

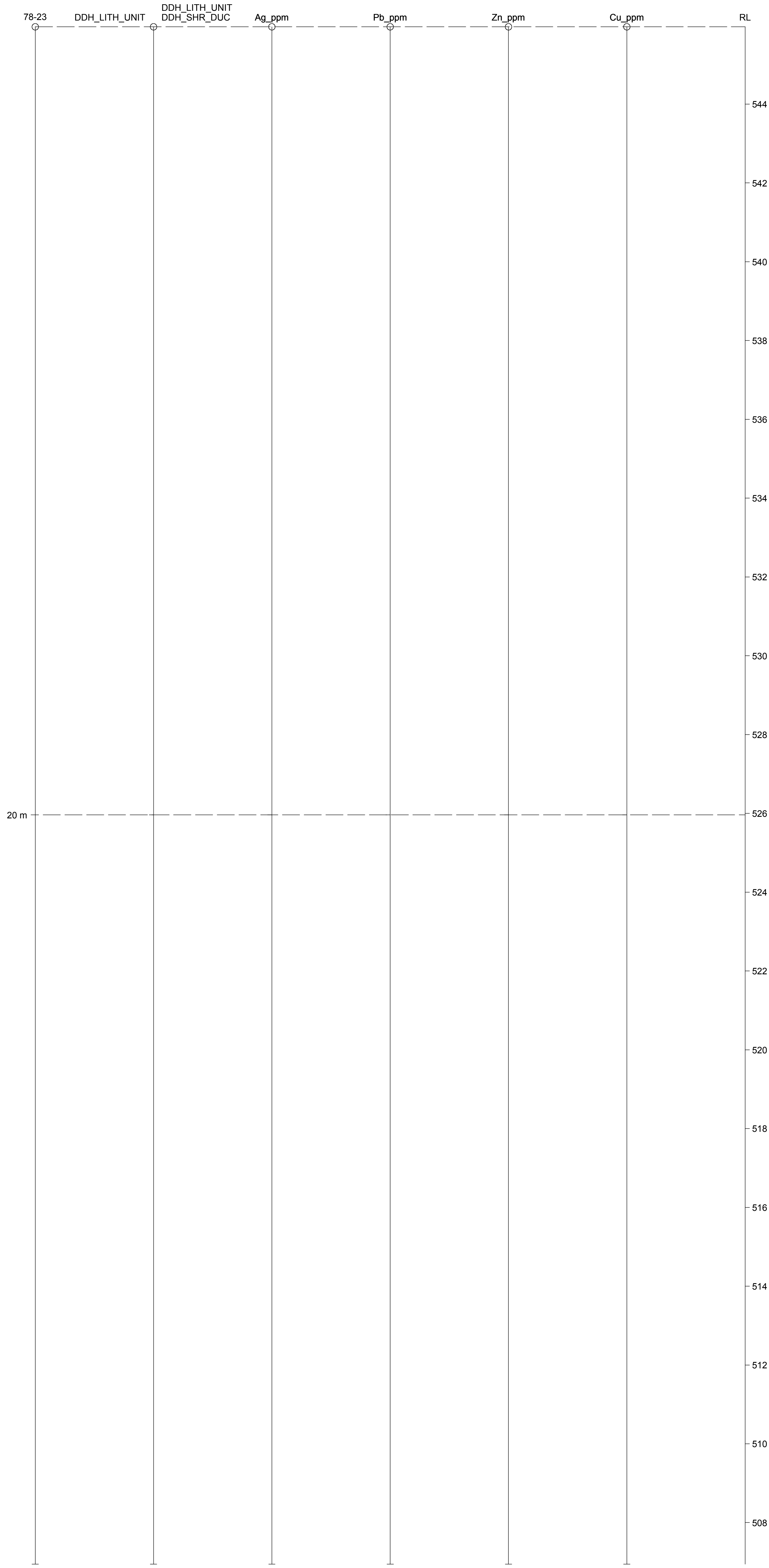


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-23

Easting	Northing	RL	Azimuth	Dip	Depth
527722.0	7376720.0	545.9	0.0	-90.0	39.0

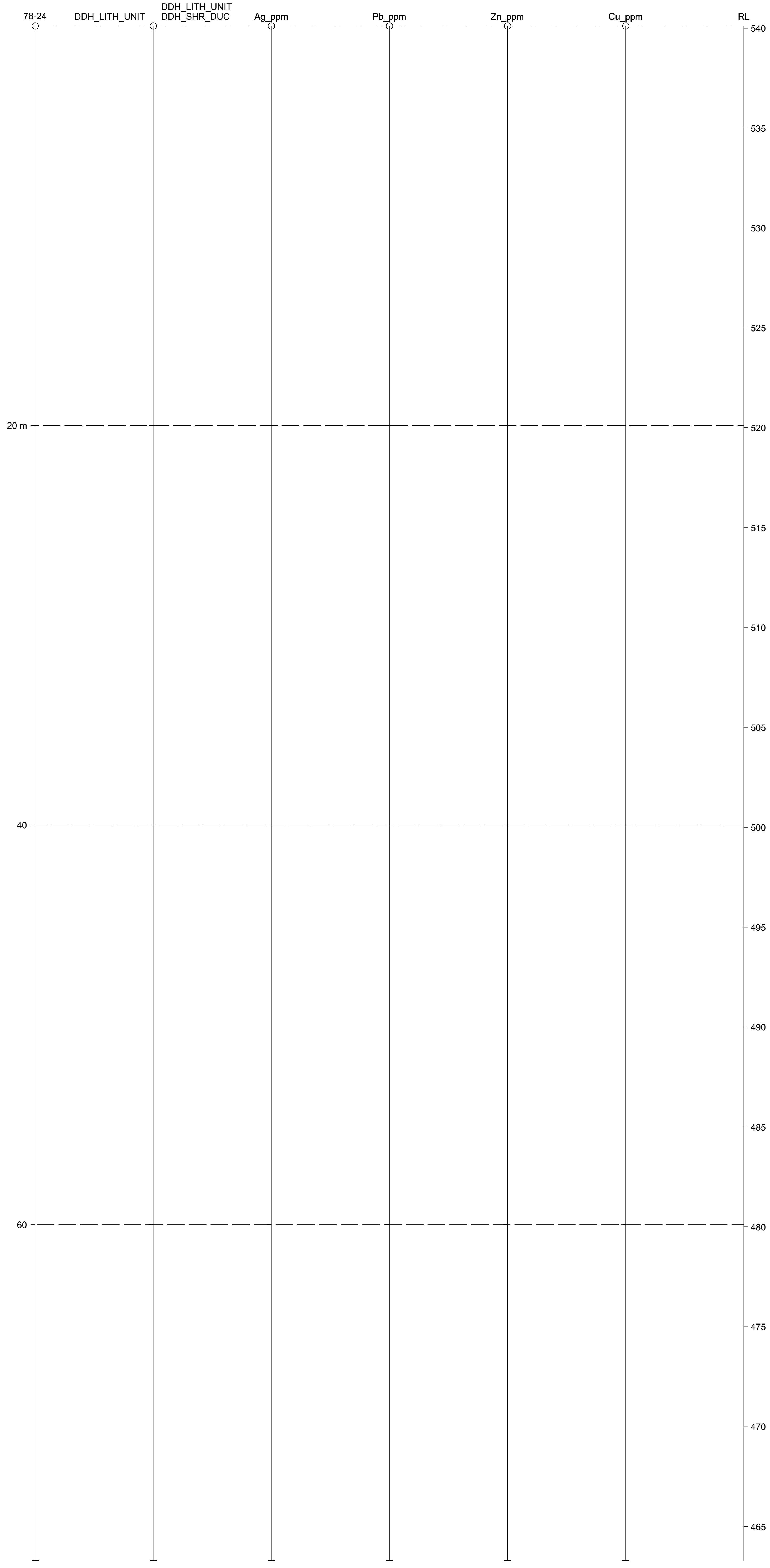


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-24

Easting	Northing	RL	Azimuth	Dip	Depth
527202.0	7376634.0	540.2	0.0	-90.0	76.8

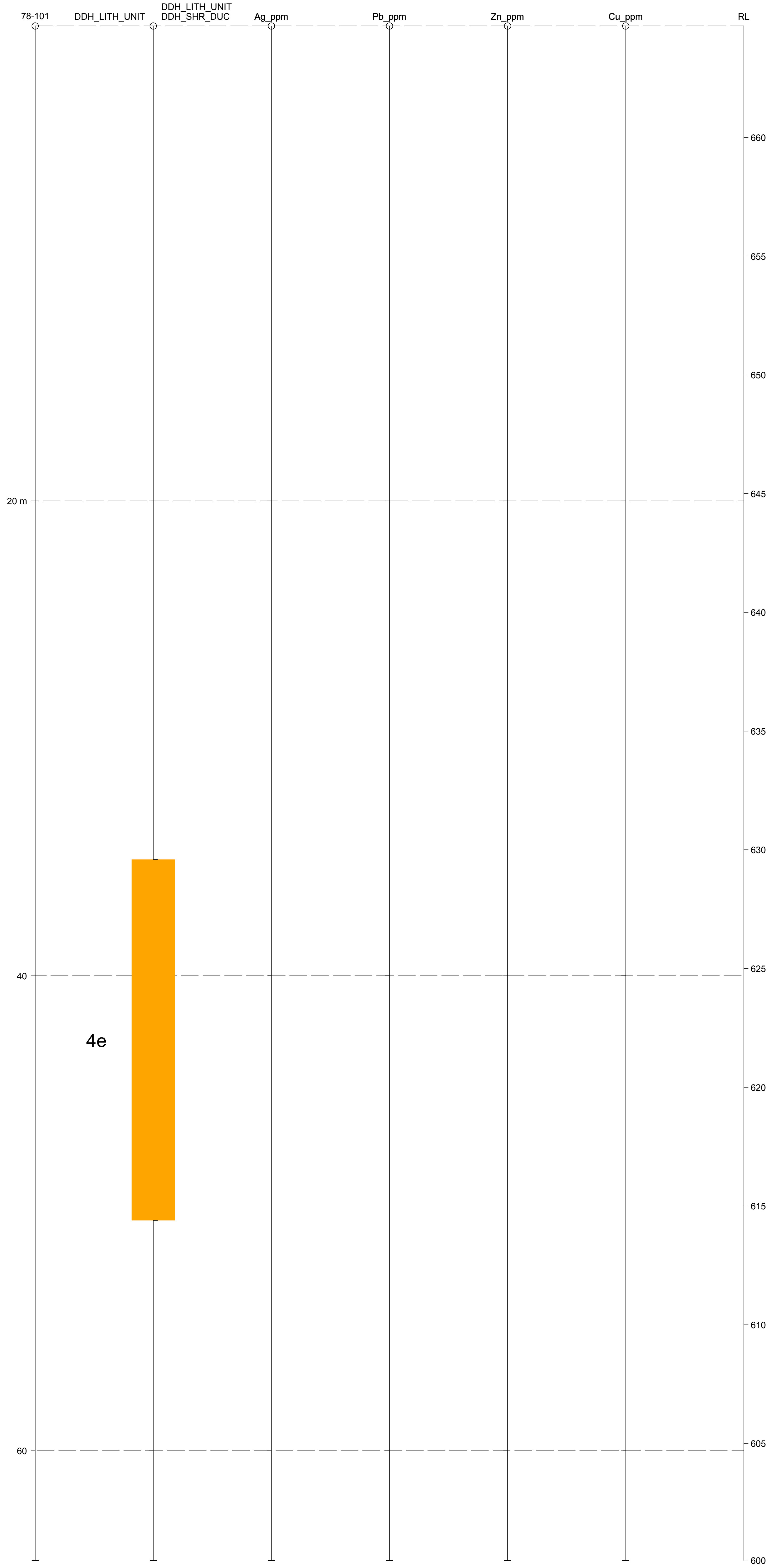


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-101

Easting	Northing	RL	Azimuth	Dip	Depth
529478.0	7376509.0	664.6	0.0	-90.0	64.6



STRIP

1 DDH_LITH_UNIT PAT LABEL
4e

1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
300
100
10
1

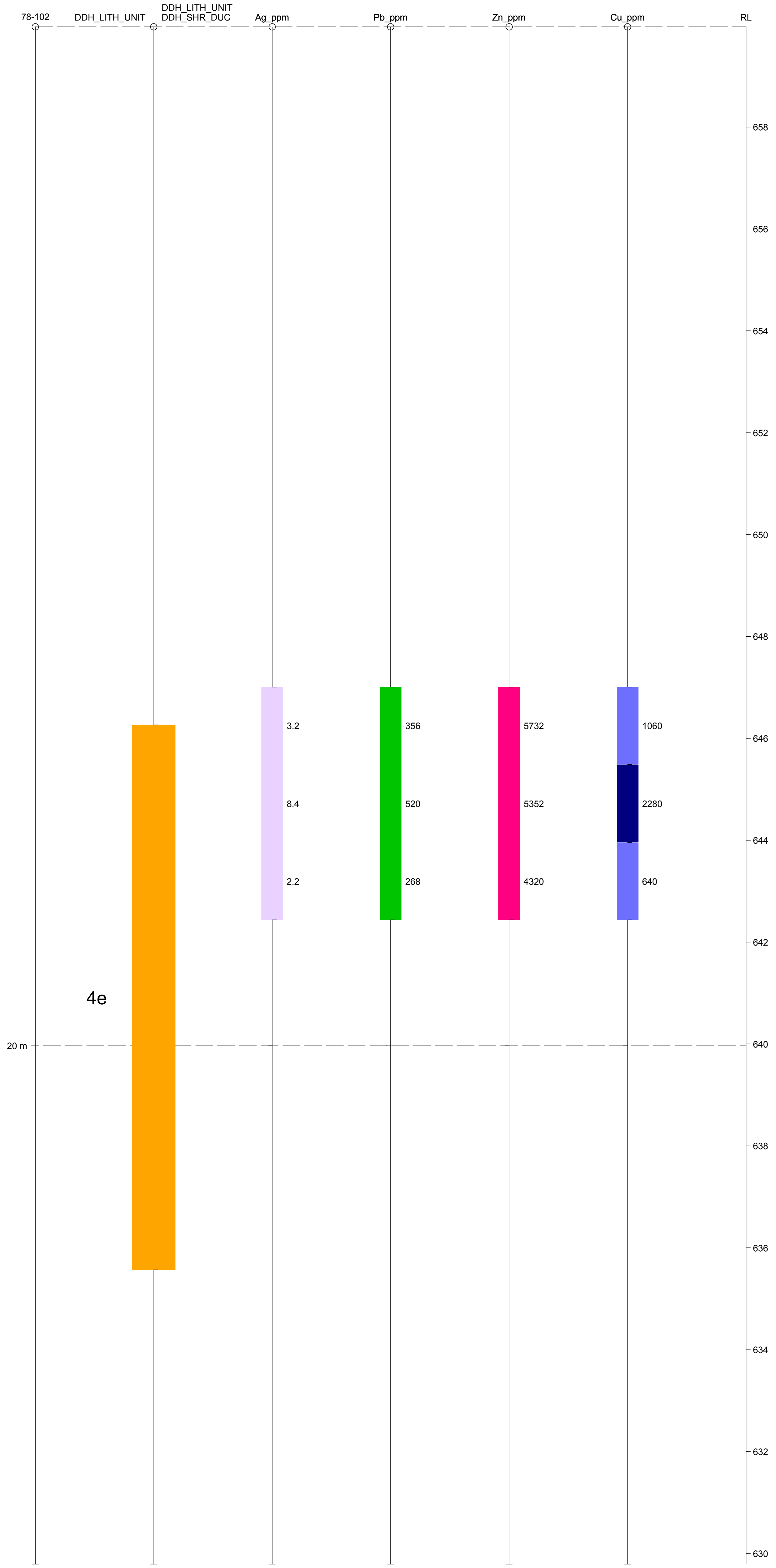
3 Pb_ppm NUMBER BANDS
7300
2700
225
48

4 Zn_ppm NUMBER BANDS
3200
2200
700
150

5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: 78-102

Easting	Northing	RL	Azimuth	Dip	Depth
529424.0	7376481.0	659.9	0.0	-90.0	30.2

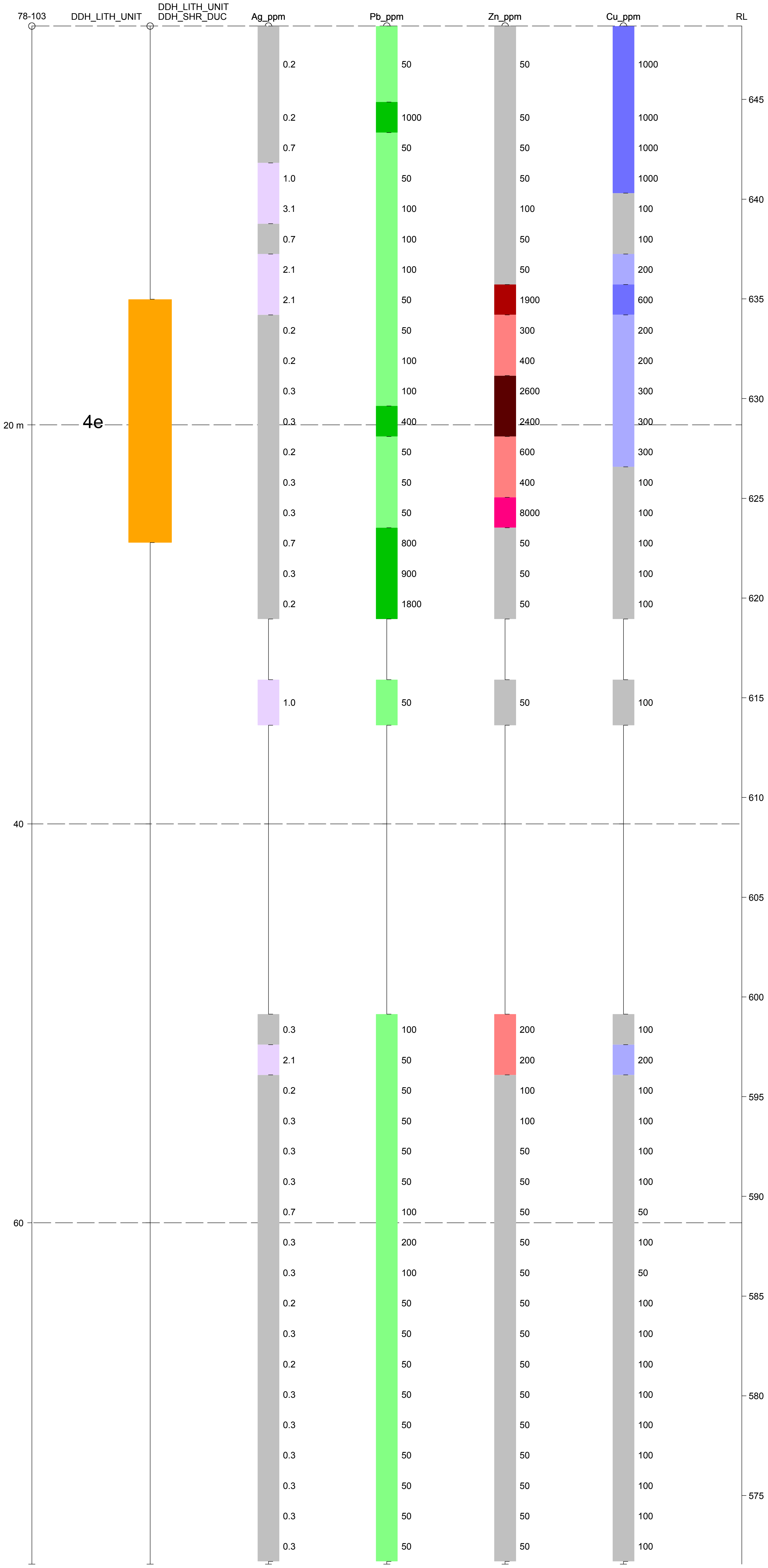


STRIP

1	DDH_LITH_UNIT	PAT	LABEL
			4e
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 78-103

Easting	Northing	RL	Azimuth	Dip	Depth
529371.0	7376453.0	648.6	0.0	-90.0	77.1



STRIP

1 DDH_LITH_UNIT — PAT — LABEL: 4e

1 DDH_SHR_DUC — PAT — No patterns matched

2 Ag_ppm — NUMBER BANDS: 300, 100, 10, 1

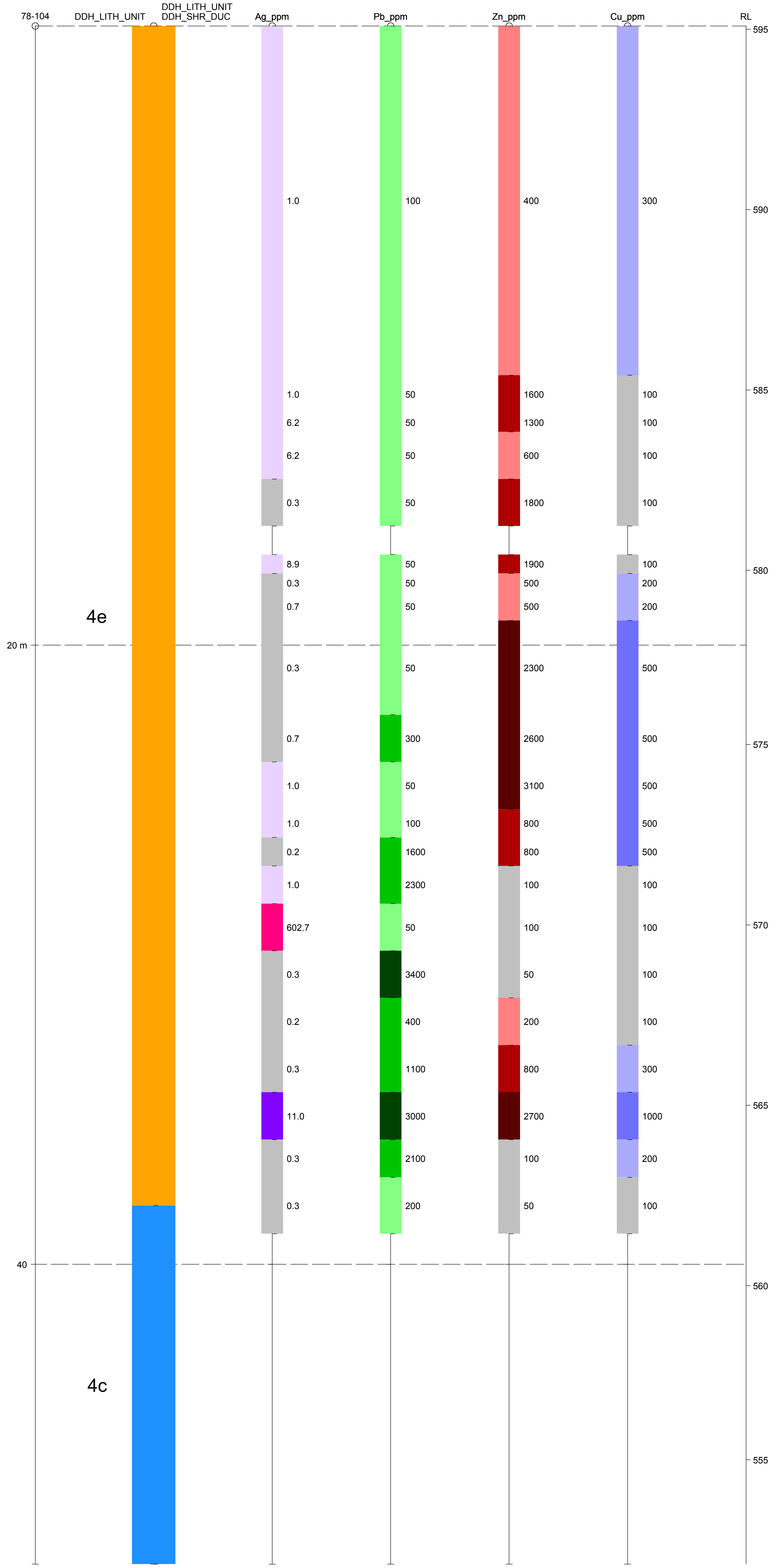
3 Pb_ppm — NUMBER BANDS: 7300, 2700, 225, 48

4 Zn_ppm — NUMBER BANDS: 3200, 2200, 700, 150

5 Cu_ppm — NUMBER BANDS: 7300, 1700, 300, 100

STRIP LOG: 78-104

Easting	Northing	RL	Azimuth	Dip	Depth
529213.0	7376372.0	595.2	60.0	-60.0	49.7



STRIP

1 DDH_LITH_UNIT PAT LABEL
- 4c
- 4e

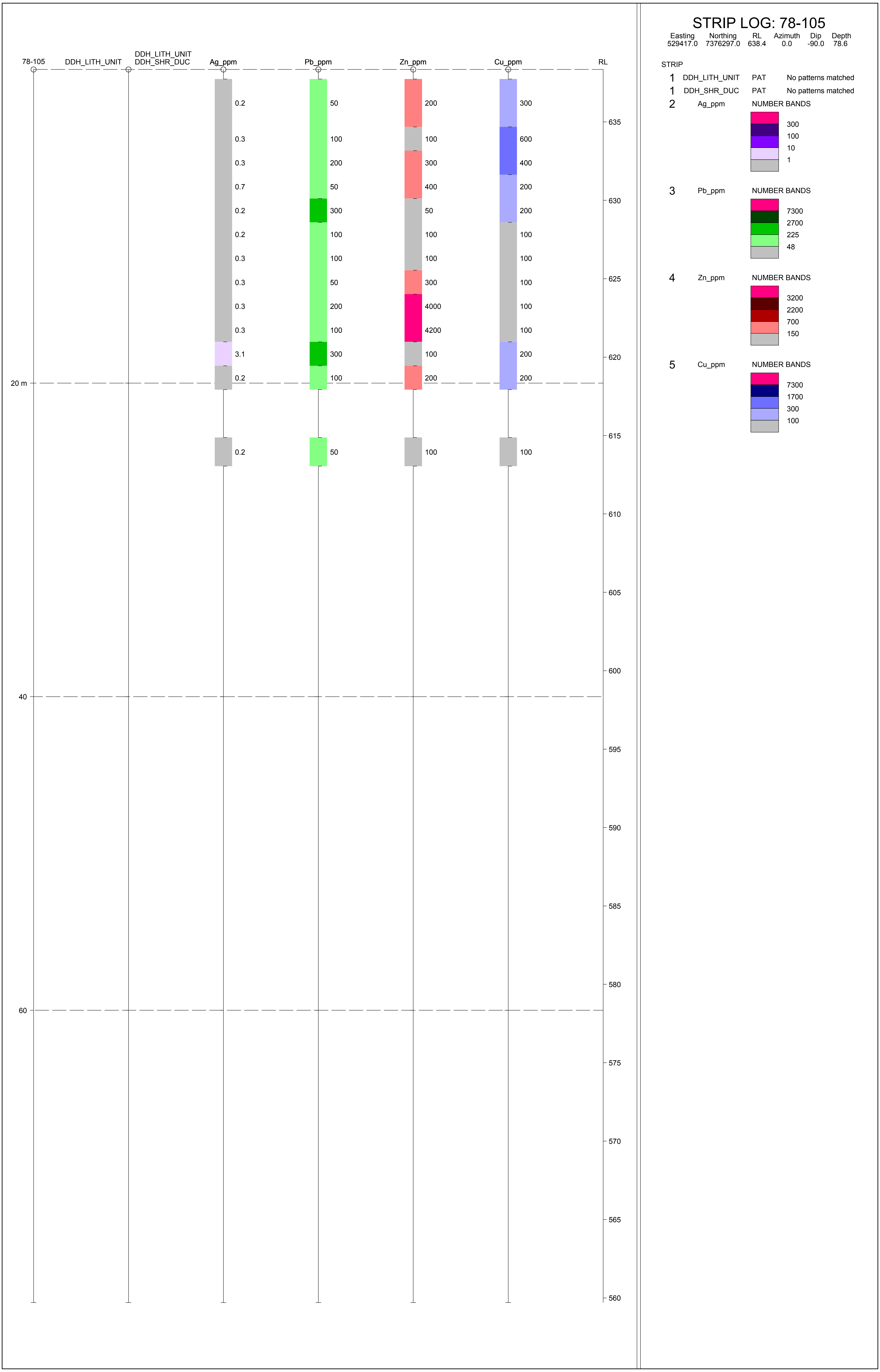
1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
- 300
- 100
- 10
- 1

3 Pb_ppm NUMBER BANDS
- 7300
- 2700
- 225
- 48

4 Zn_ppm NUMBER BANDS
- 3200
- 2200
- 700
- 150

5 Cu_ppm NUMBER BANDS
- 7300
- 1700
- 300
- 100

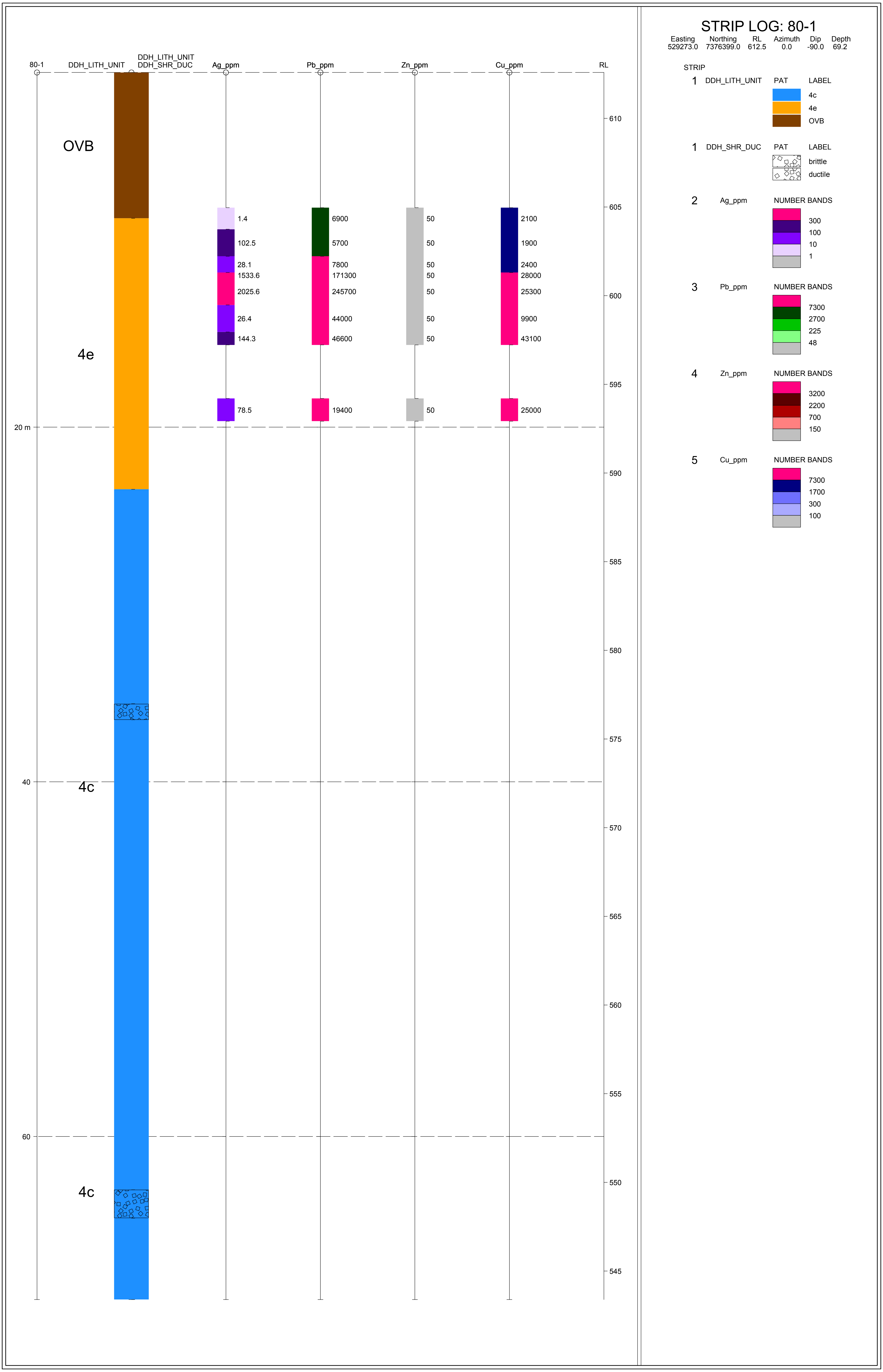

STRIP LOG: 78-105
Easting 529417.0
Northing 7376297.0
RL 638.4
Azimuth 0.0
Dip -90.0
Depth 78.6
STRIP
1 DDH_LITH_UNIT PAT No patterns matched
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS 300 100 10 1
3 Pb_ppm NUMBER BANDS 7300 2700 225 48
4 Zn_ppm NUMBER BANDS 3200 2200 700 150
5 Cu_ppm NUMBER BANDS 7300 1700 300 100
78-105
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
20 m
40
60
0.2 0.3 0.3 0.7 0.2 0.2 0.3 0.3 0.3 0.3 3.1 0.2 0.2
50 100 200 50 300 100 100 50 200 100 300 100 50
200 100 300 400 50 100 100 300 4000 4200 100 200 100
300 600 400 200 200 100 100 100 100 100 200 200 100
635 630 625 620 615 610 605 600 595 590 585 580 575 570 565 560

STRIP LOG: 78-106

Easting	Northing	RL	Azimuth	Dip	Depth
529388.0	7376270.0	624.8	0.0	-90.0	60.4

STRIP

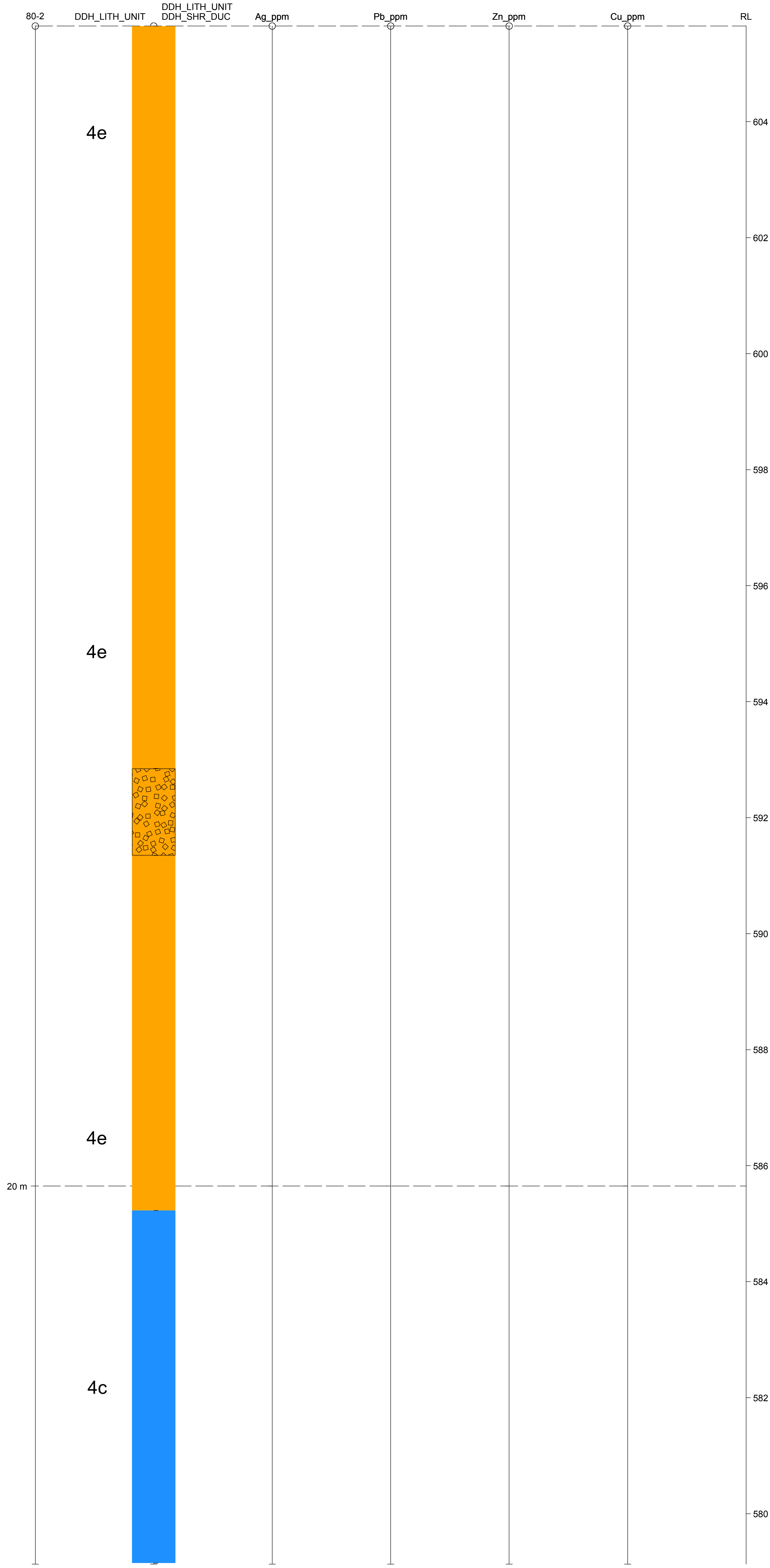
1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

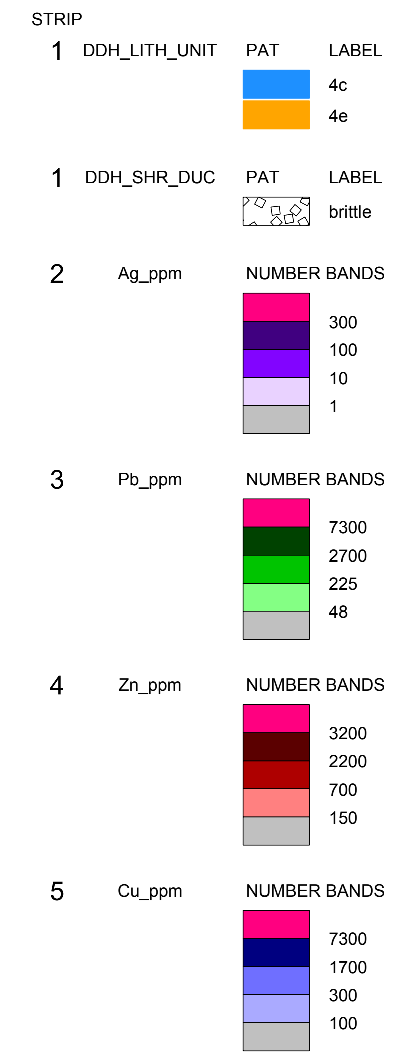


STRIP LOG: 80-1
Easting 529273.0
Northing 7376399.0
RL 612.5
Azimuth 0.0
Dip -90.0
Depth 69.2
80-1
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4e
4c
4c
20 m
40
60
610
605
600
595
590
585
580
575
570
565
560
555
550
545
1.4
102.5
28.1
1533.6
2025.6
26.4
144.3
78.5
6900
5700
7800
171300
245700
44000
46600
19400
50
50
50
50
50
50
50
50
2100
1900
2400
28000
25300
9900
43100
25000
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4e
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
ductile
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: 80-2

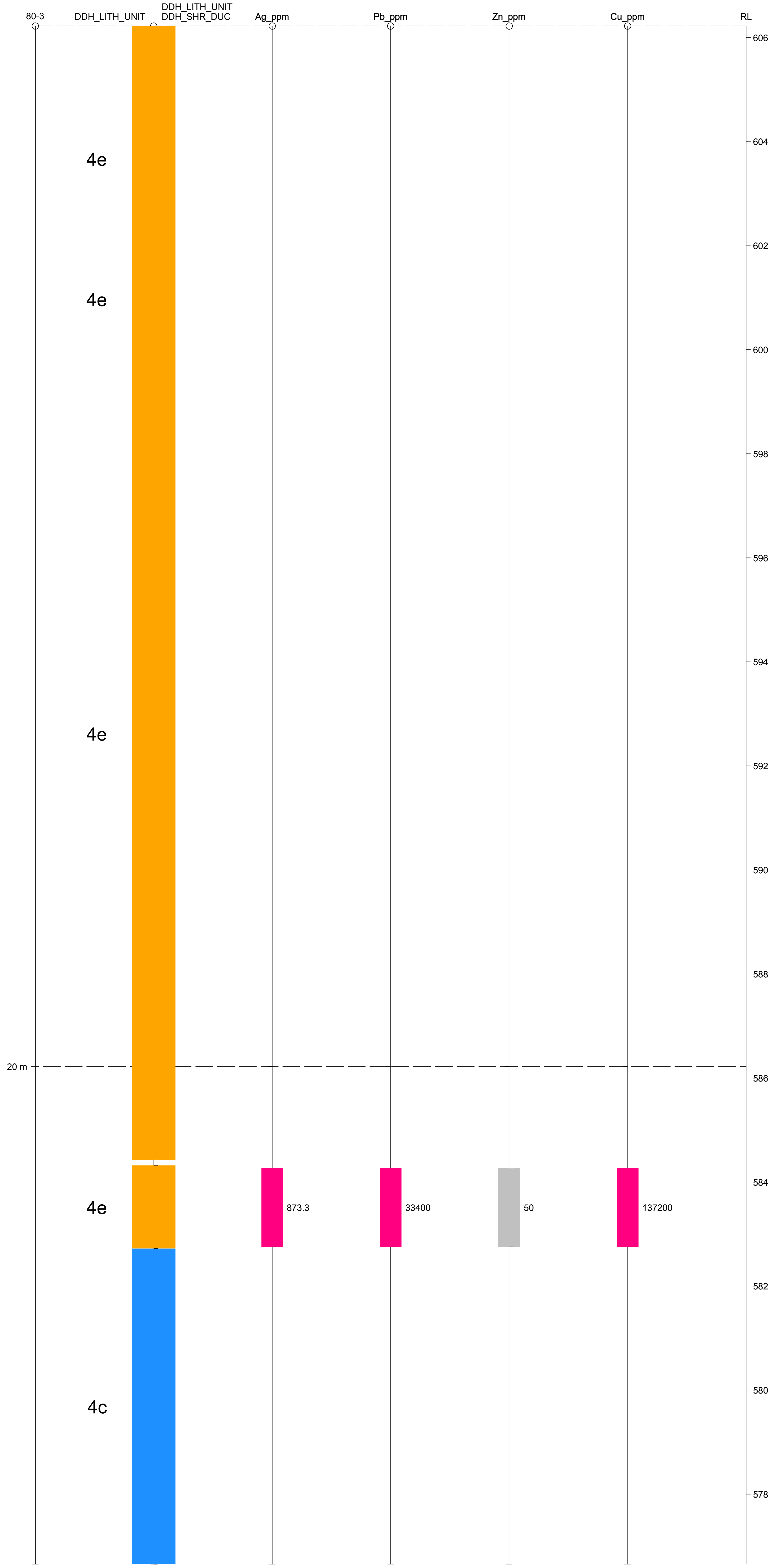
Easting	Northing	RL	Azimuth	Dip	Depth
529263.0	7376368.0	605.7	0.0	-90.0	26.5





STRIP LOG: 80-3

Easting	Northing	RL	Azimuth	Dip	Depth
529270.0	7376357.0	606.3	0.0	-90.0	29.6



STRIP

1 DDH_LITH_UNIT — PAT — LABEL
- 4c
- 4e

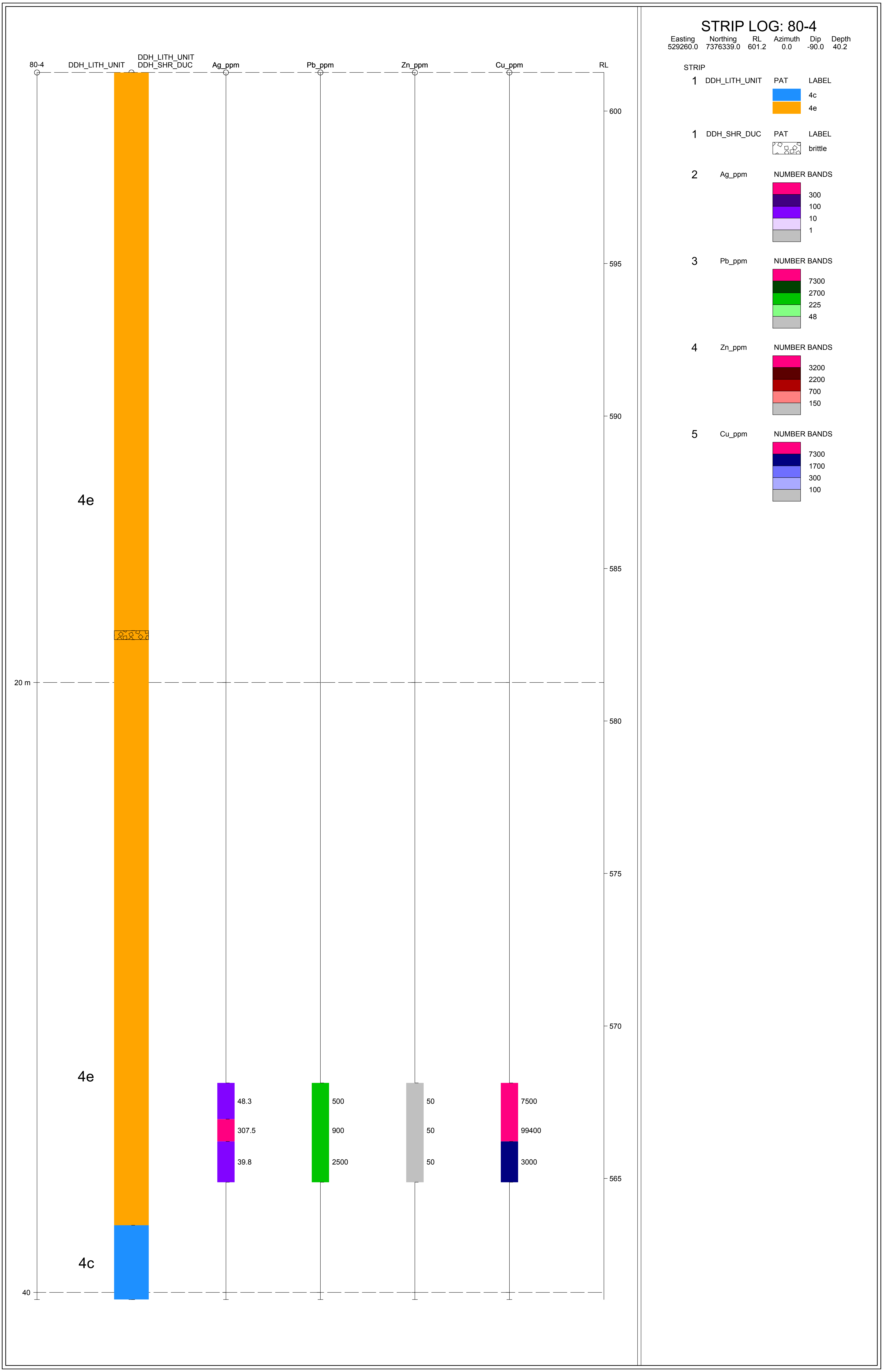
1 DDH_SHR_DUC — PAT — No patterns matched

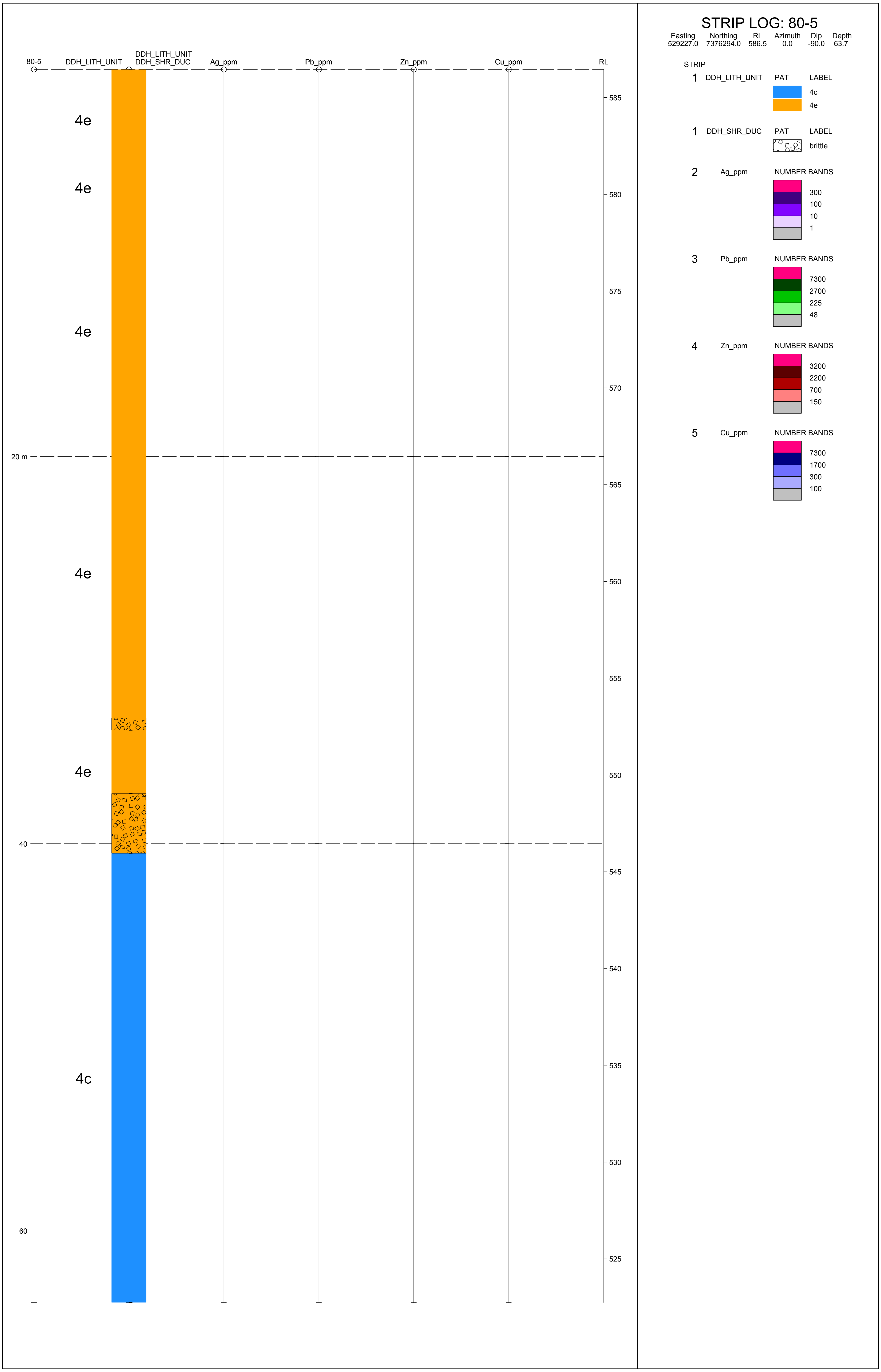
2 Ag_ppm — NUMBER BANDS
- 300
- 100
- 10
- 1

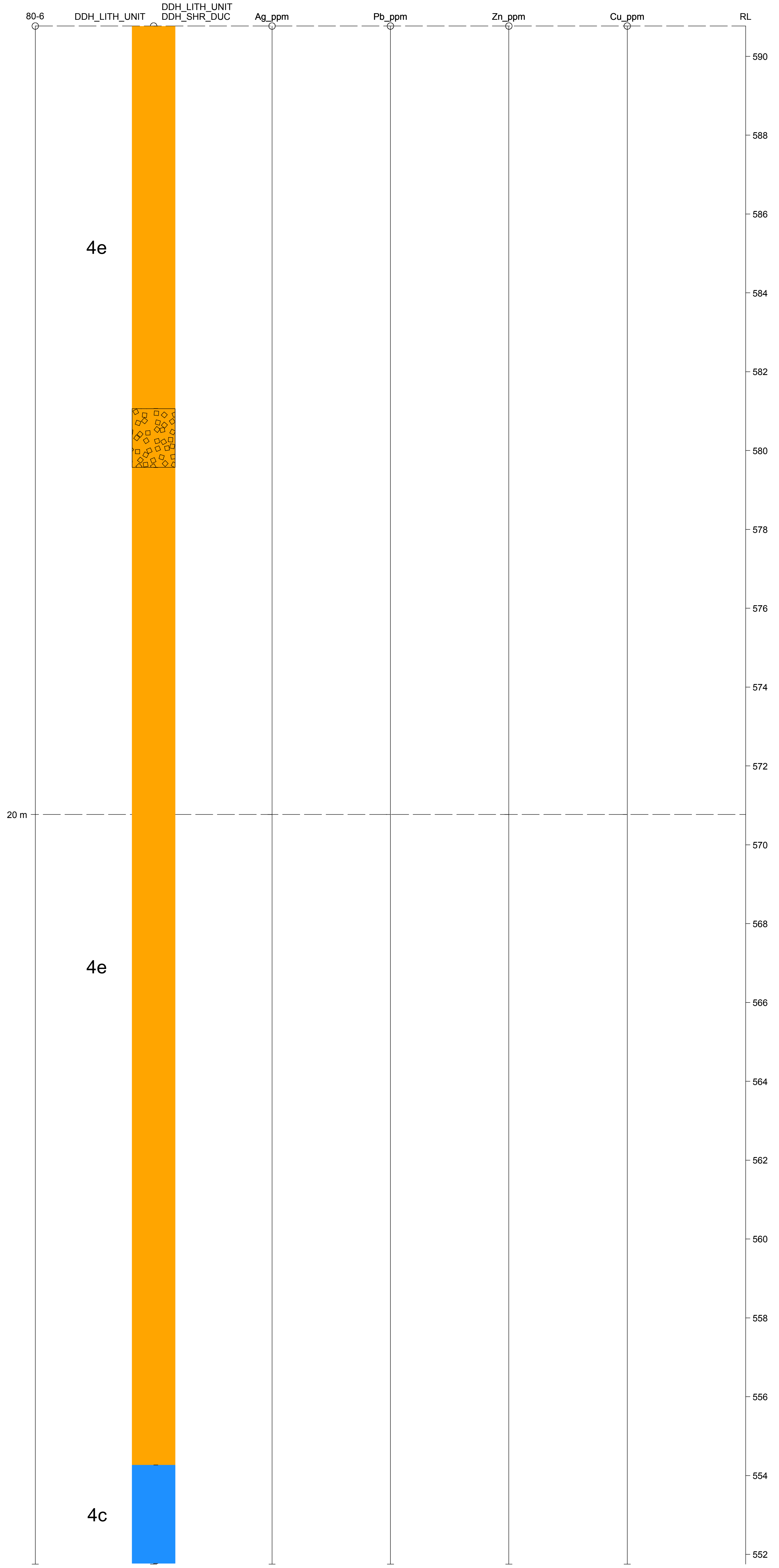
3 Pb_ppm — NUMBER BANDS
- 7300
- 2700
- 225
- 48

4 Zn_ppm — NUMBER BANDS
- 3200
- 2200
- 700
- 150

5 Cu_ppm — NUMBER BANDS
- 7300
- 1700
- 300
- 100


STRIP LOG: 80-4
Easting 529260.0
Northing 7376339.0
RL 601.2
Azimuth 0.0
Dip -90.0
Depth 40.2
80-4
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
600
595
590
585
580
575
570
565
4e
20 m
4e
48.3
307.5
39.8
500
900
2500
50
50
50
7500
99400
3000
4c
40
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4e
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100


STRIP LOG: 80-5
Easting 529227.0
Northing 7376294.0
RL 586.5
Azimuth 0.0
Dip -90.0
Depth 63.7
80-5
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
4e
4e
4e
4e
4e
4c
20 m
40
60
585
580
575
570
565
560
555
550
545
540
535
530
525
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4e
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100



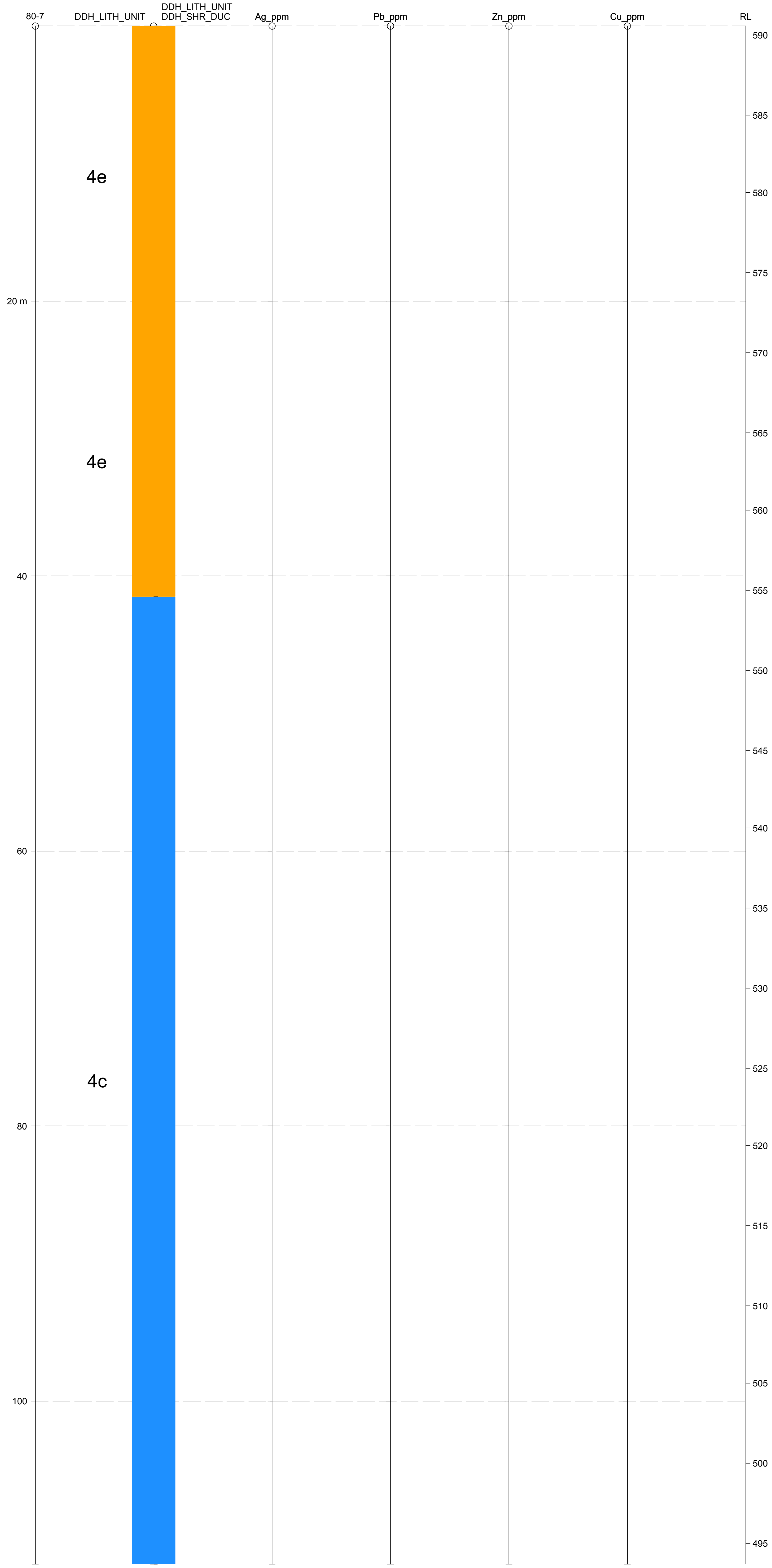
STRIP LOG: 80-6

Easting	Northing	RL	Azimuth	Dip	Depth
529254.0	7376271.0	590.7	0.0	-90.0	39.0

STRIP			
1	DDH_LITH_UNIT	PAT	LABEL
			4c
			4e
1	DDH_SHR_DUC	PAT	LABEL
			brittle
2	Ag_ppm	NUMBER BANDS	
			300
			100
			10
			1
3	Pb_ppm	NUMBER BANDS	
			7300
			2700
			225
			48
4	Zn_ppm	NUMBER BANDS	
			3200
			2200
			700
			150
5	Cu_ppm	NUMBER BANDS	
			7300
			1700
			300
			100

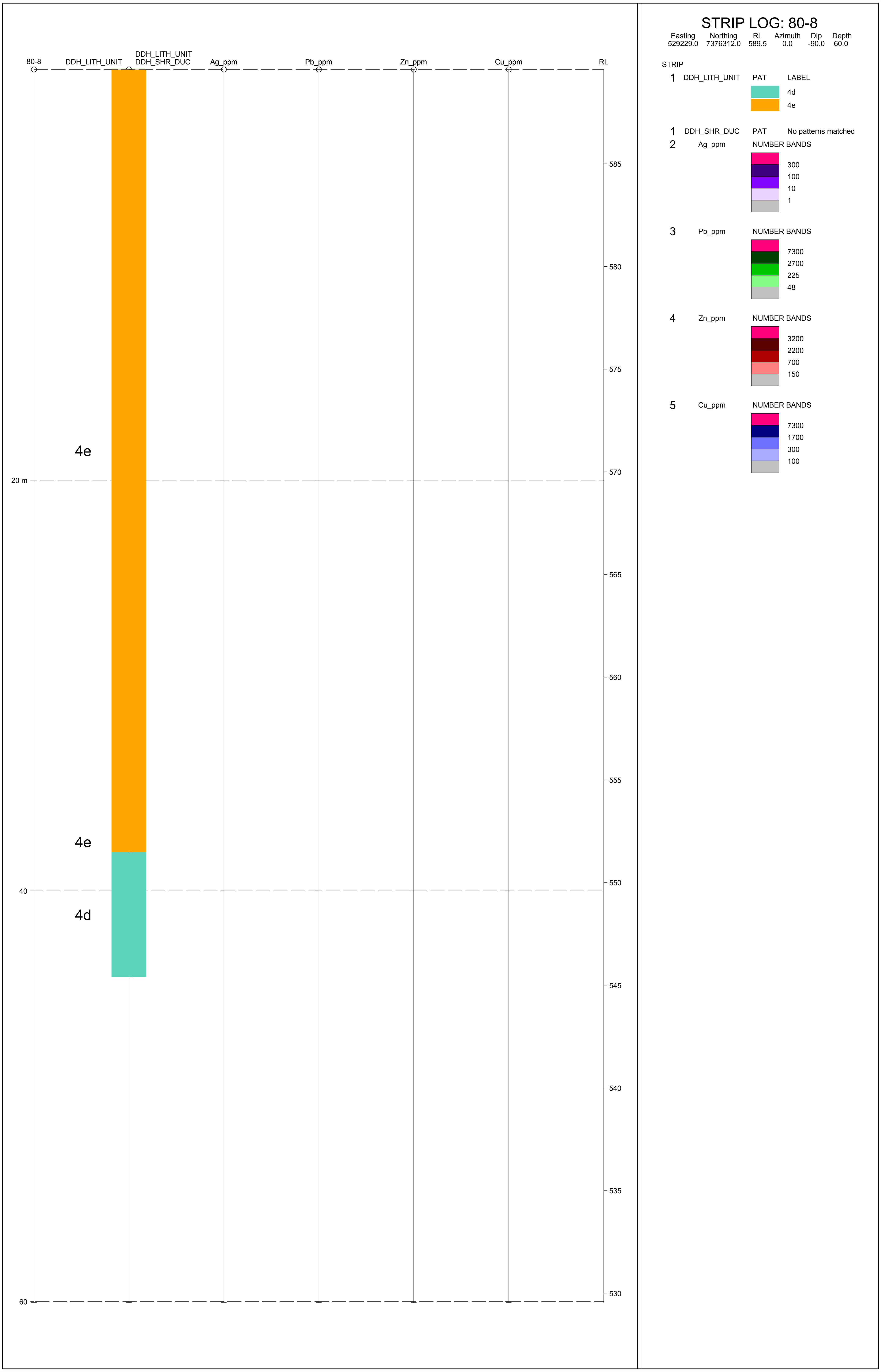
STRIP LOG: 80-7

Easting	Northing	RL	Azimuth	Dip	Depth
529253.0	7376272.0	590.6	60.0	-60.0	111.9



STRIP

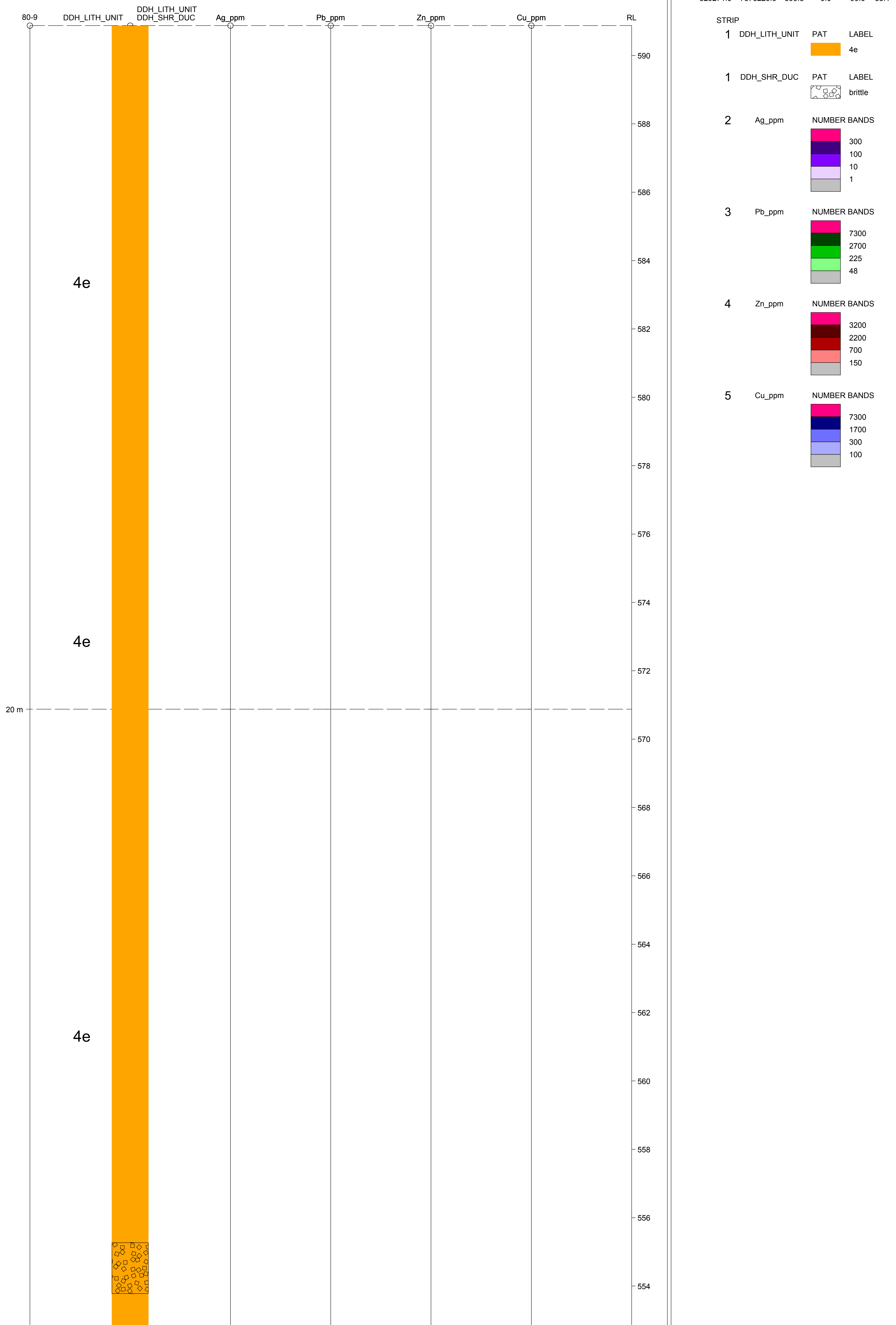
STRIP			
1	DDH_LITH_UNIT	PAT	LABEL
			4c
			4e
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100



STRIP LOG: 80-8
Easting 529229.0
Northing 7376312.0
RL 589.5
Azimuth 0.0
Dip -90.0
Depth 60.0
80-8
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
585
580
575
4e
20 m
570
565
560
555
4e
40
550
4d
545
540
535
60
530
STRIP
1 DDH_LITH_UNIT PAT LABEL
4d
4e
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

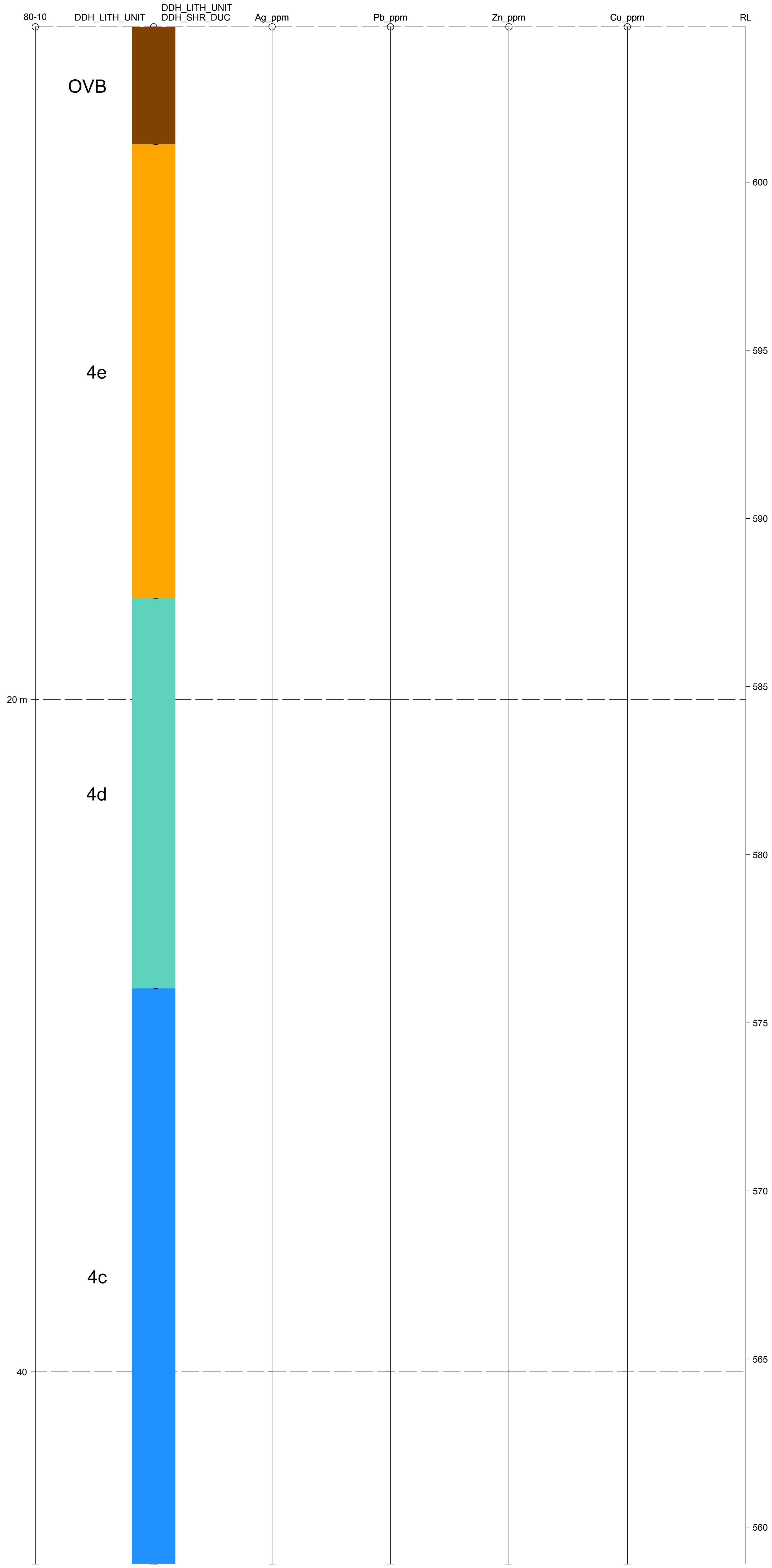
STRIP LOG: 80-9

Easting	Northing	RL	Azimuth	Dip	Depth
529271.0	7376229.0	590.8	0.0	-90.0	38.1



STRIP LOG: 80-10

Easting	Northing	RL	Azimuth	Dip	Depth
529310.0	7376254.0	604.7	0.0	-90.0	45.7



STRIP

1 DDH_LITH_UNIT — PAT — LABEL
- 4c
- 4d
- 4e
- OVB

1 DDH_SHR_DUC — PAT — No patterns matched

2 Ag_ppm — NUMBER BANDS
- 300
- 100
- 10
- 1

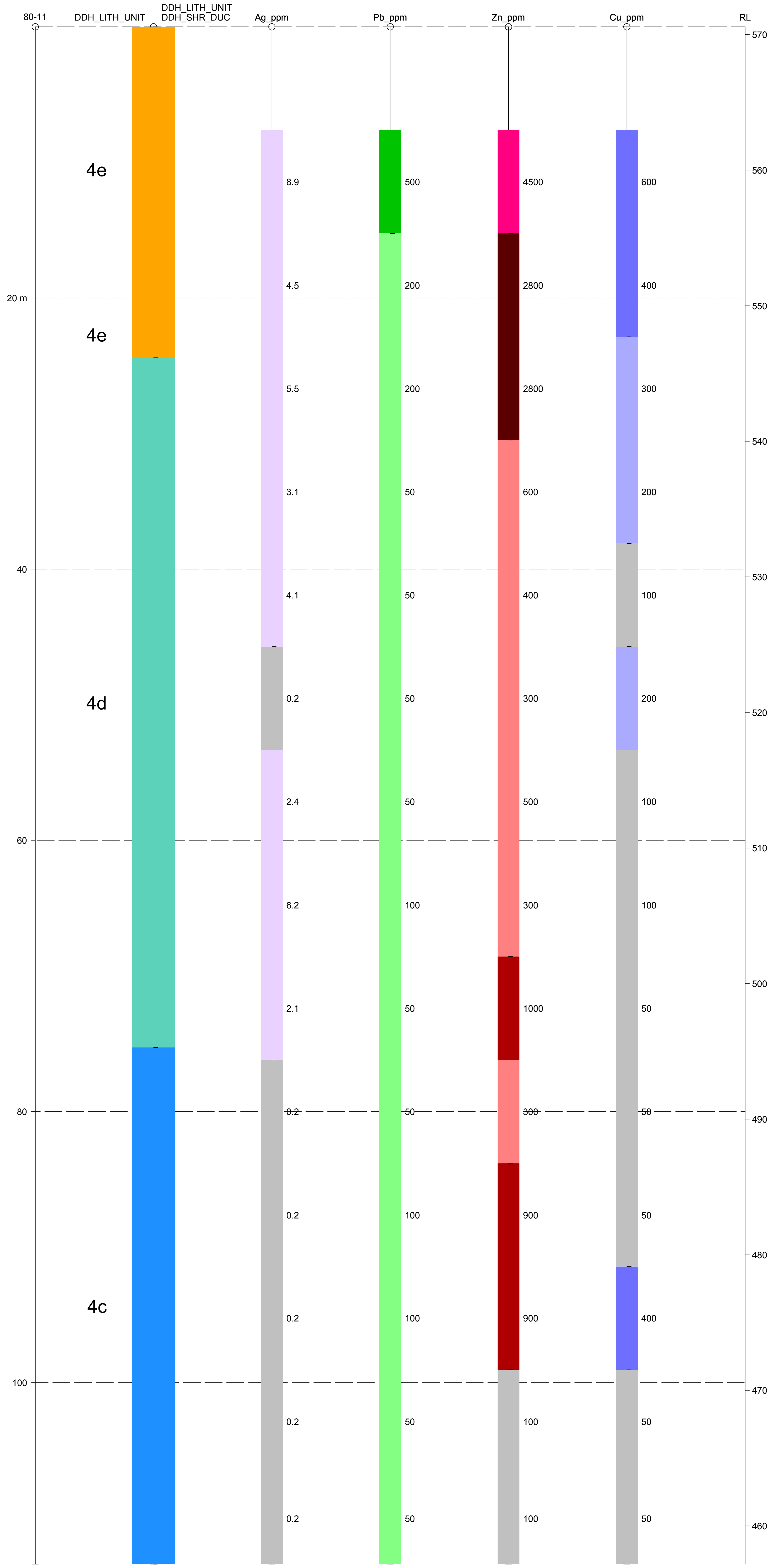
3 Pb_ppm — NUMBER BANDS
- 7300
- 2700
- 225
- 48

4 Zn_ppm — NUMBER BANDS
- 3200
- 2200
- 700
- 150

5 Cu_ppm — NUMBER BANDS
- 7300
- 1700
- 300
- 100

STRIP LOG: 80-11

Easting	Northing	RL	Azimuth	Dip	Depth
529112.0	7376287.0	570.5	0.0	-90.0	113.4

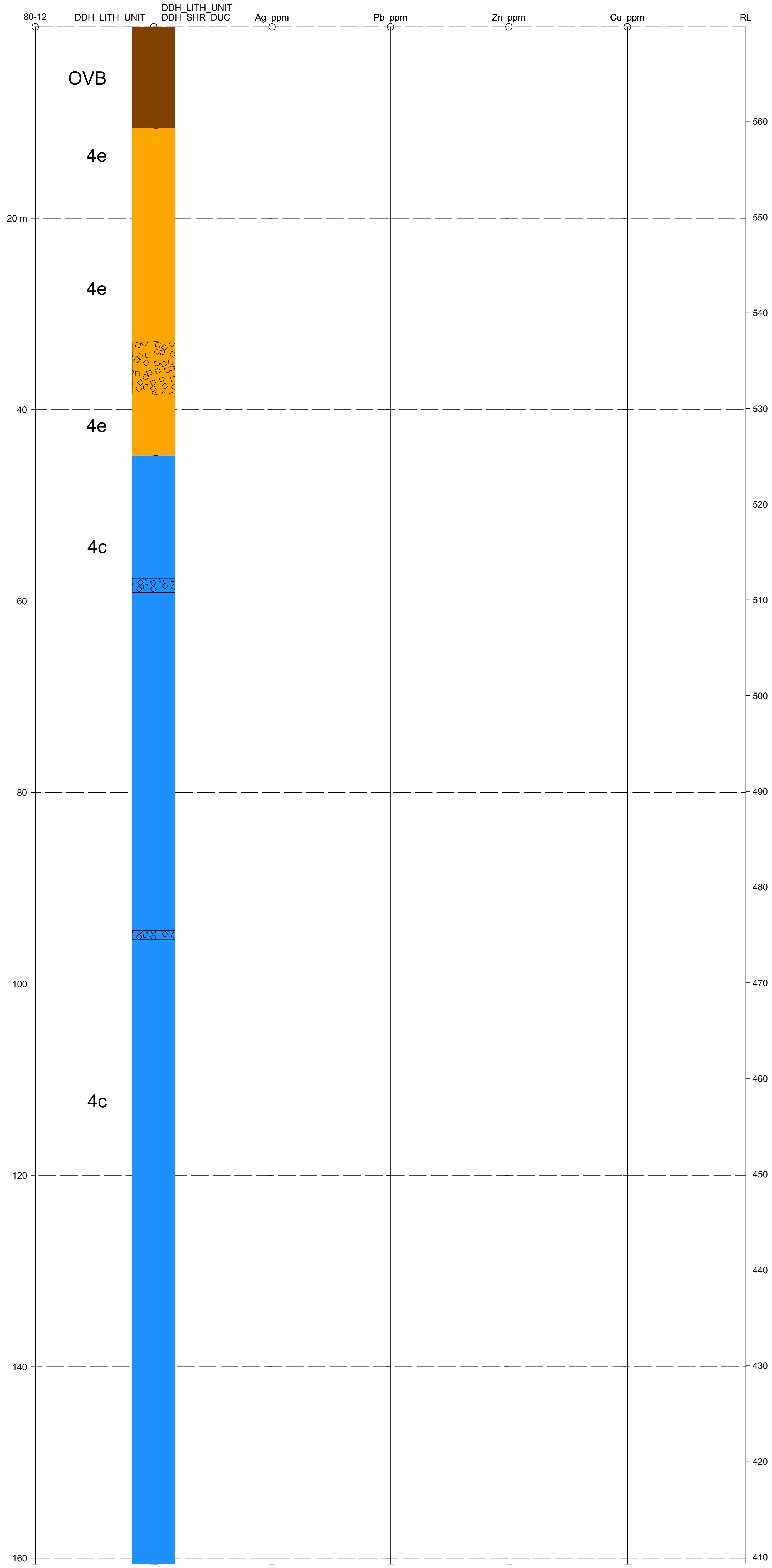


STRIP

		PAT	LABEL
1	DDH_LITH_UNIT	(blue)	4c
		(teal)	4d
		(orange)	4e
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

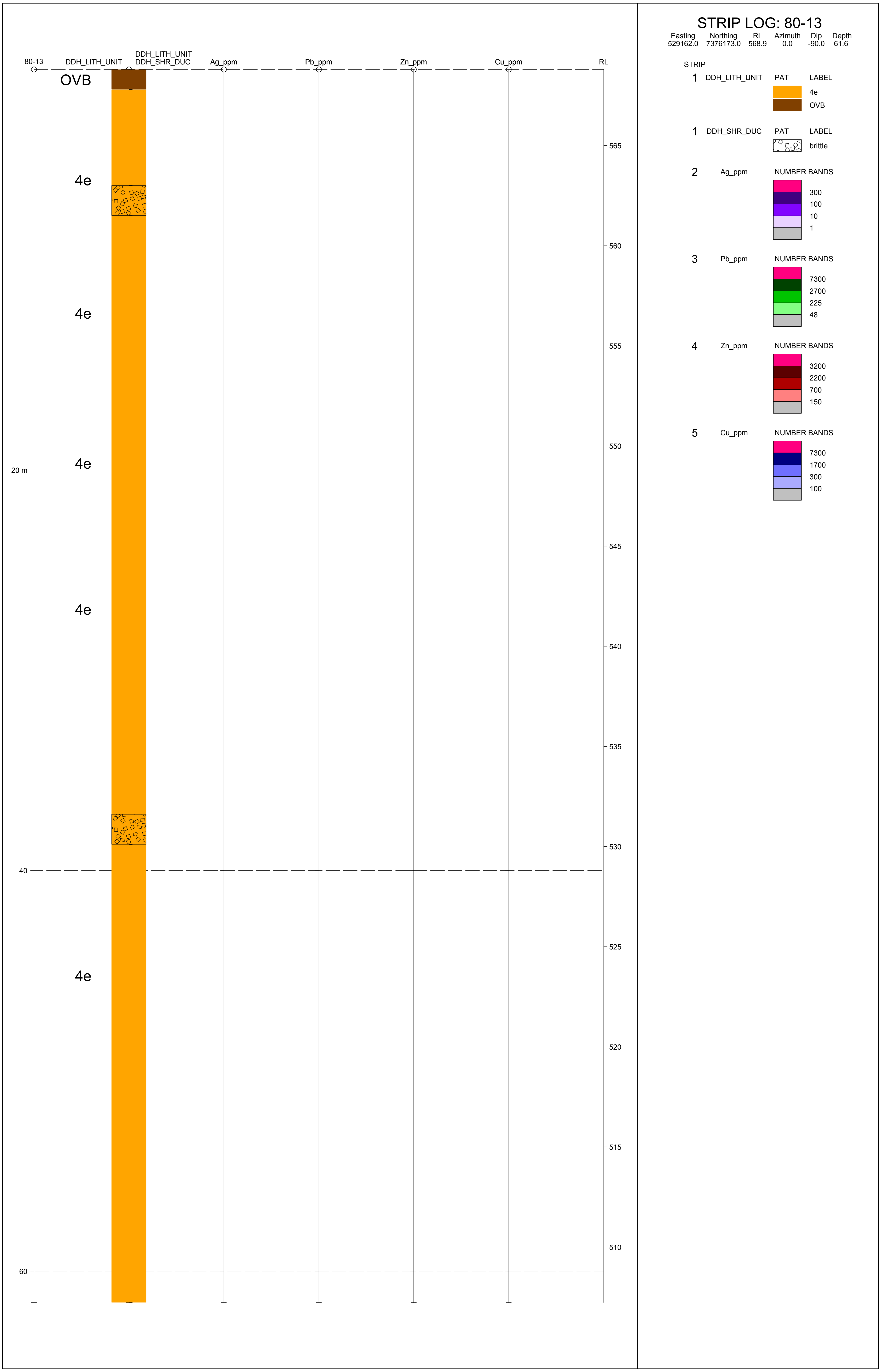
STRIP LOG: 80-12

Easting	Northing	RL	Azimuth	Dip	Depth
529150.0	7376234.0	569.8	0.0	-90.0	160.6



STRIP		PAT	LABEL
1	DDH_LITH_UNIT		
		blue	4c
		orange	4e
		brown	OVB
1	DDH_SHR_DUC		
		pattern	brittle

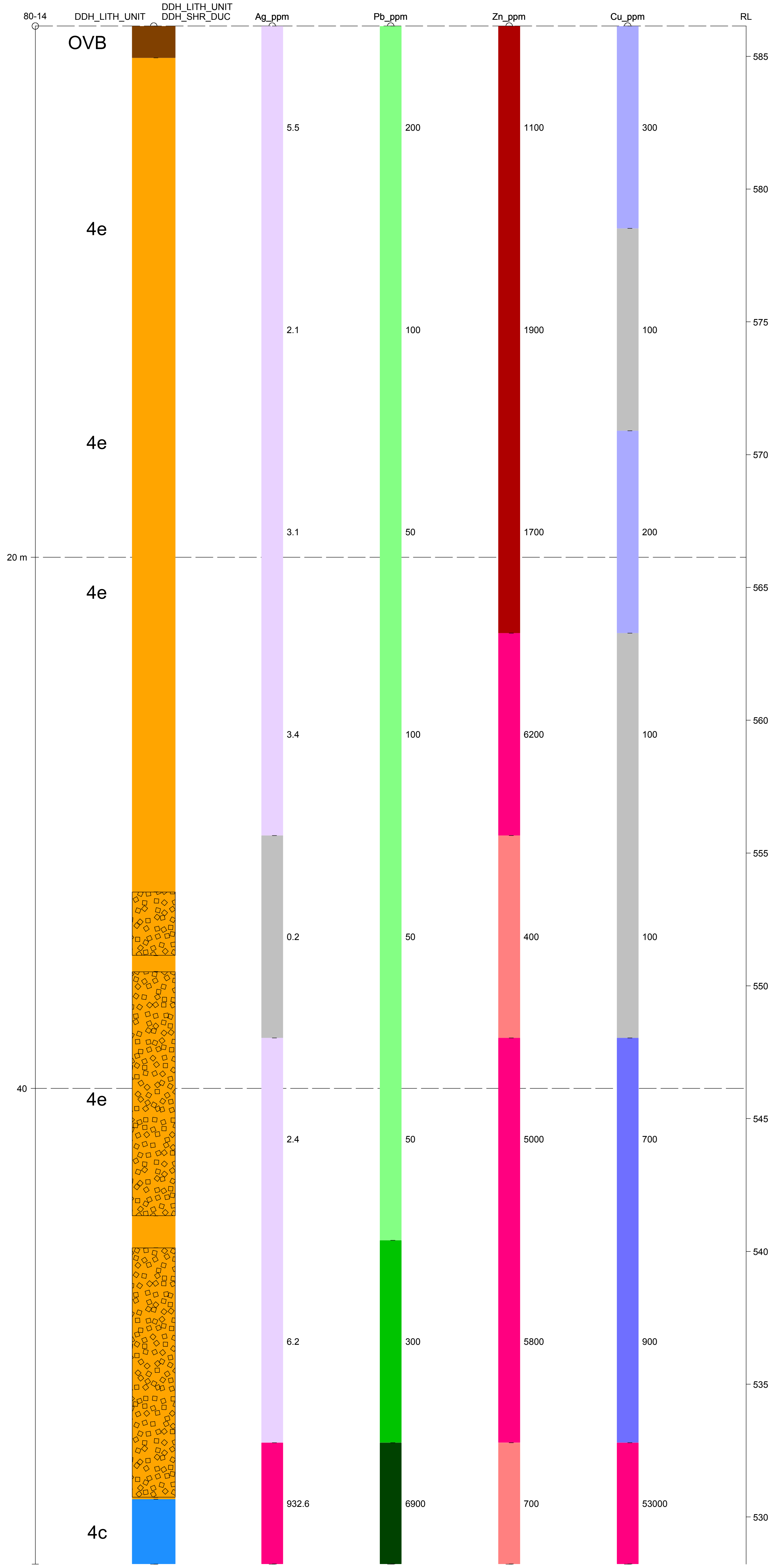
STRIP		NUMBER BANDS
2	Ag_ppm	300, 100, 10, 1
3	Pb_ppm	7300, 2700, 225, 48
4	Zn_ppm	3200, 2200, 700, 150
5	Cu_ppm	7300, 1700, 300, 100



STRIP LOG: 80-13
Easting 529162.0 Northing 7376173.0 RL 568.9 Azimuth 0.0 Dip -90.0 Depth 61.6
80-13
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4e
4e
4e
4e
4e
20 m
40
60
565
560
555
550
545
540
535
530
525
520
515
510
STRIP
1 DDH_LITH_UNIT PAT LABEL
4e
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

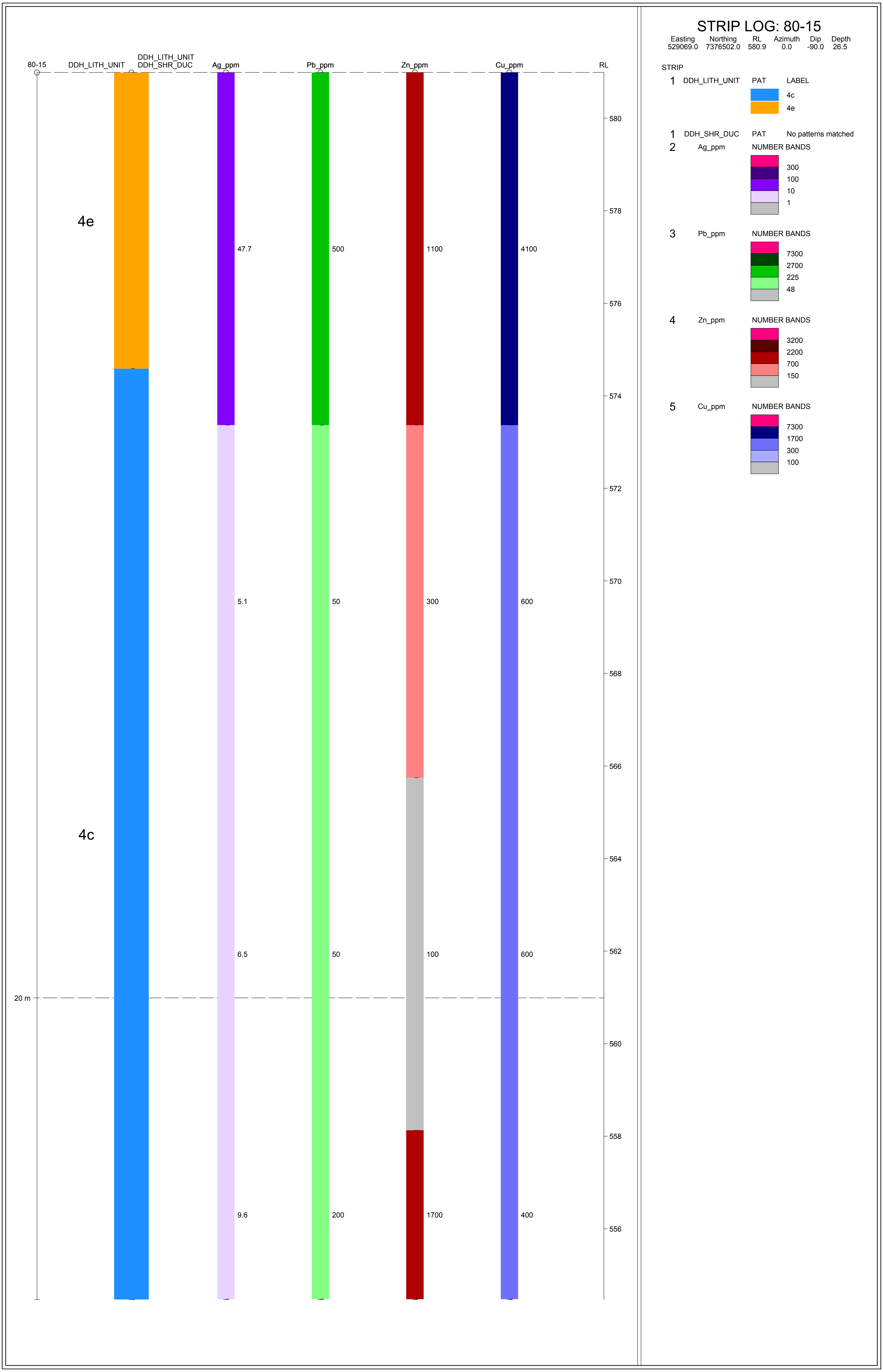
STRIP LOG: 80-14

Easting	Northing	RL	Azimuth	Dip	Depth
529130.0	7376452.0	586.2	0.0	-90.0	57.9



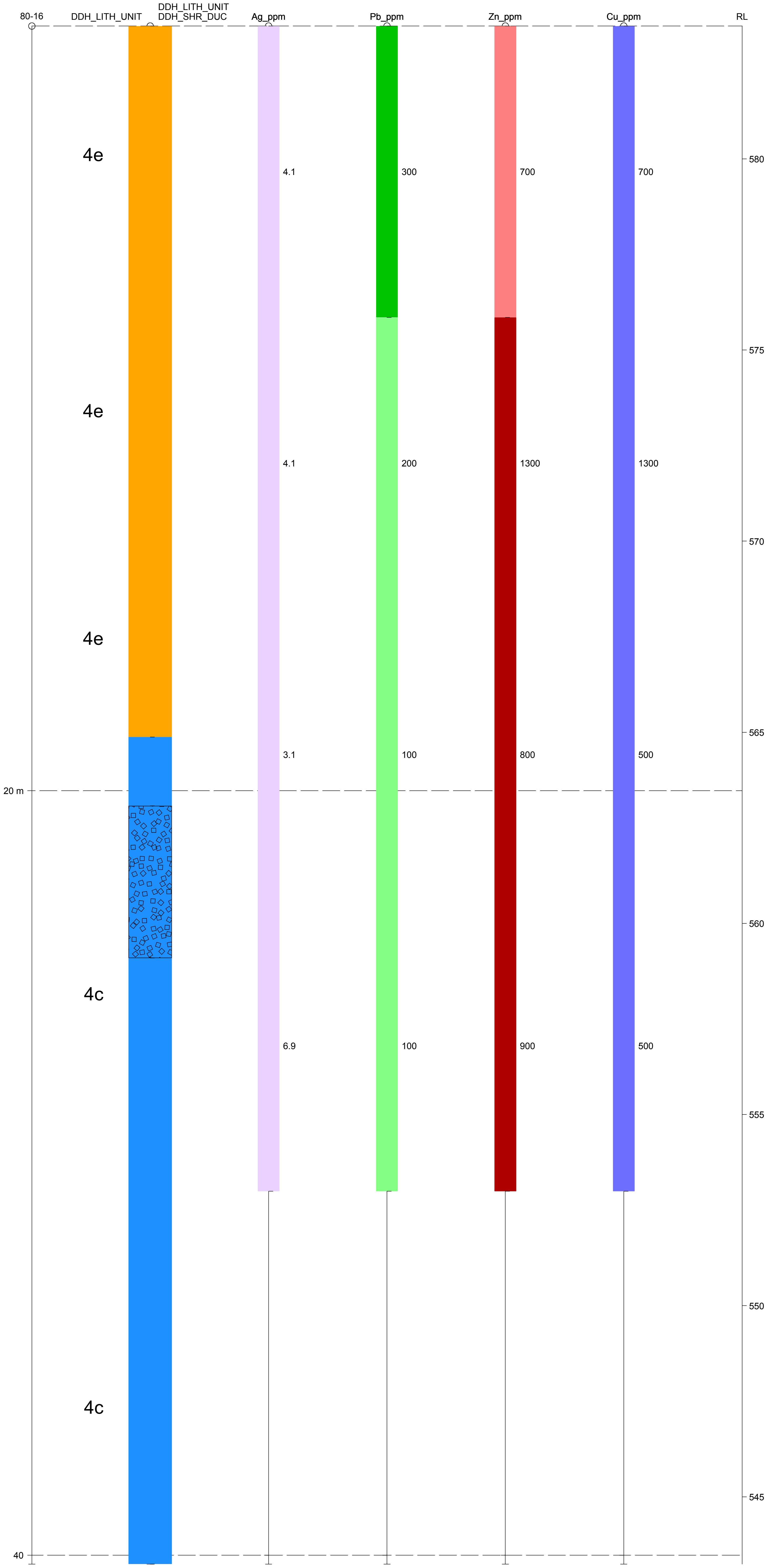
STRIP

STRIP			
1	DDH_LITH_UNIT	PAT	LABEL
			4c
			4e
			OVB
1	DDH_SHR_DUC	PAT	LABEL
			brittle
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100


STRIP LOG: 80-15
Easting 529069.0
Northing 7376502.0
RL 580.9
Azimuth 0.0
Dip -90.0
Depth 26.5
80-15
DDH_LITH_UNIT
DDH_LITH_UNIT DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
580
578
576
574
572
570
568
566
564
562
560
558
556
20 m
4e
4c
47.7
500
1100
4100
5.1
50
300
600
6.5
50
100
600
9.6
200
1700
400
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4e
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: 80-16

Easting	Northing	RL	Azimuth	Dip	Depth
529040.0	7376554.0	583.4	0.0	-90.0	40.2

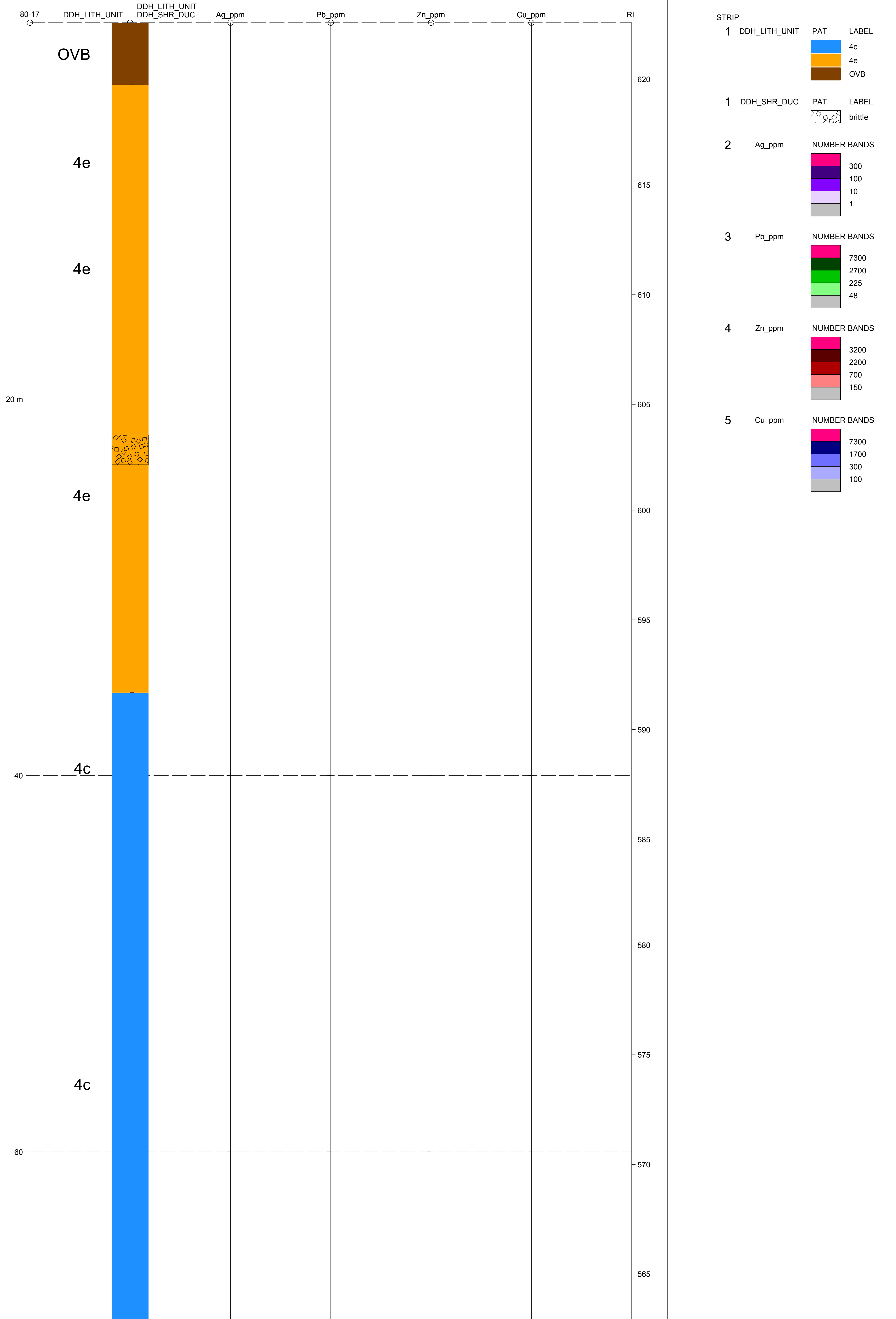


STRIP

STRIP		PAT	LABEL
1	DDH_LITH_UNIT	PAT	LABEL
			4c
			4e
1	DDH_SHR_DUC	PAT	LABEL
			brittle
2	Ag_ppm	NUMBER BANDS	
			300
			100
			10
			1
3	Pb_ppm	NUMBER BANDS	
			7300
			2700
			225
			48
4	Zn_ppm	NUMBER BANDS	
			3200
			2200
			700
			150
5	Cu_ppm	NUMBER BANDS	
			7300
			1700
			300
			100

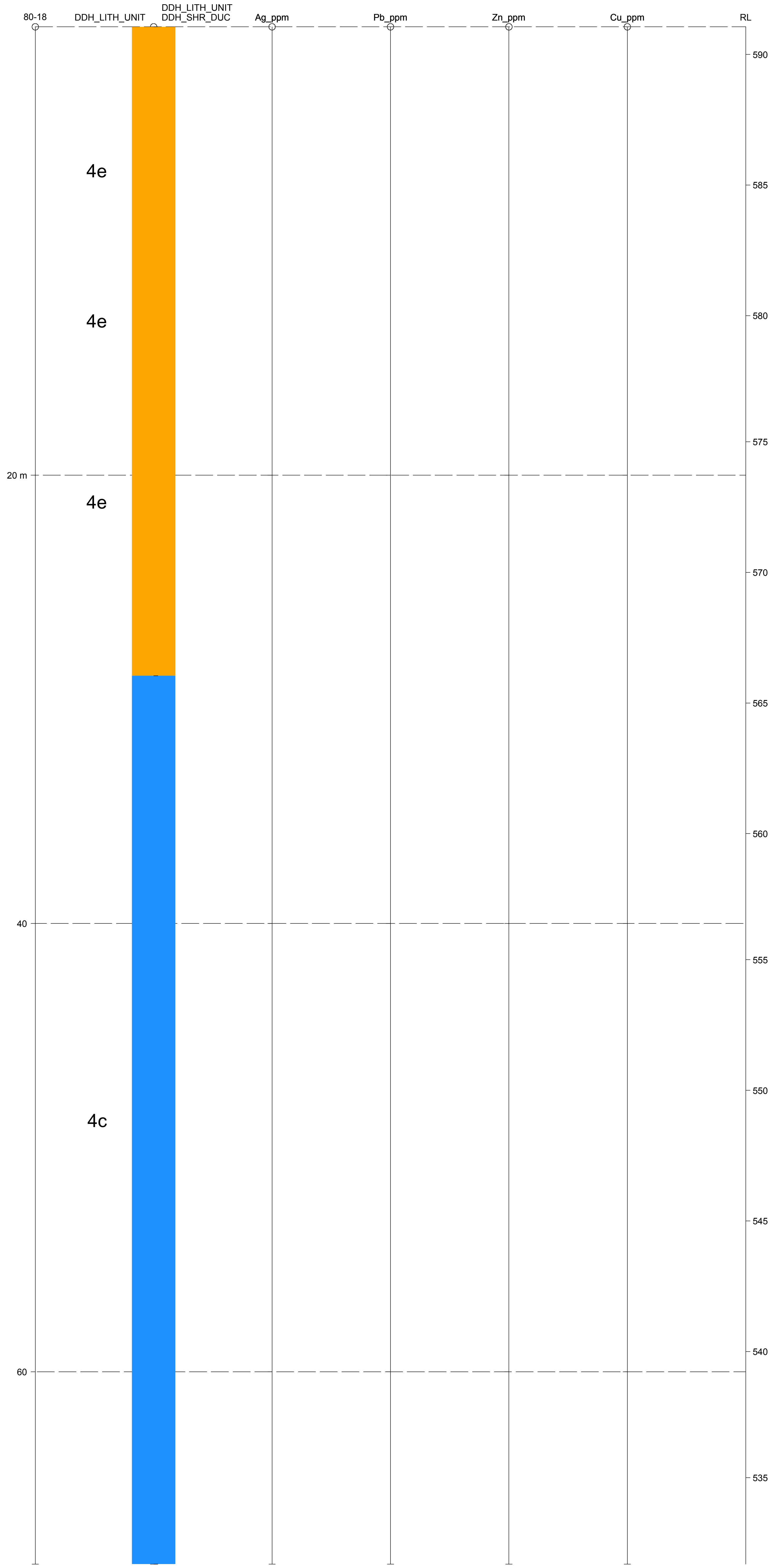
STRIP LOG: 80-17

Easting	Northing	RL	Azimuth	Dip	Depth
529240.0	7376692.0	622.5	53.0	-60.0	69.2



STRIP LOG: 80-18

Easting	Northing	RL	Azimuth	Dip	Depth
529031.0	7376715.0	591.1	53.0	-60.0	68.6

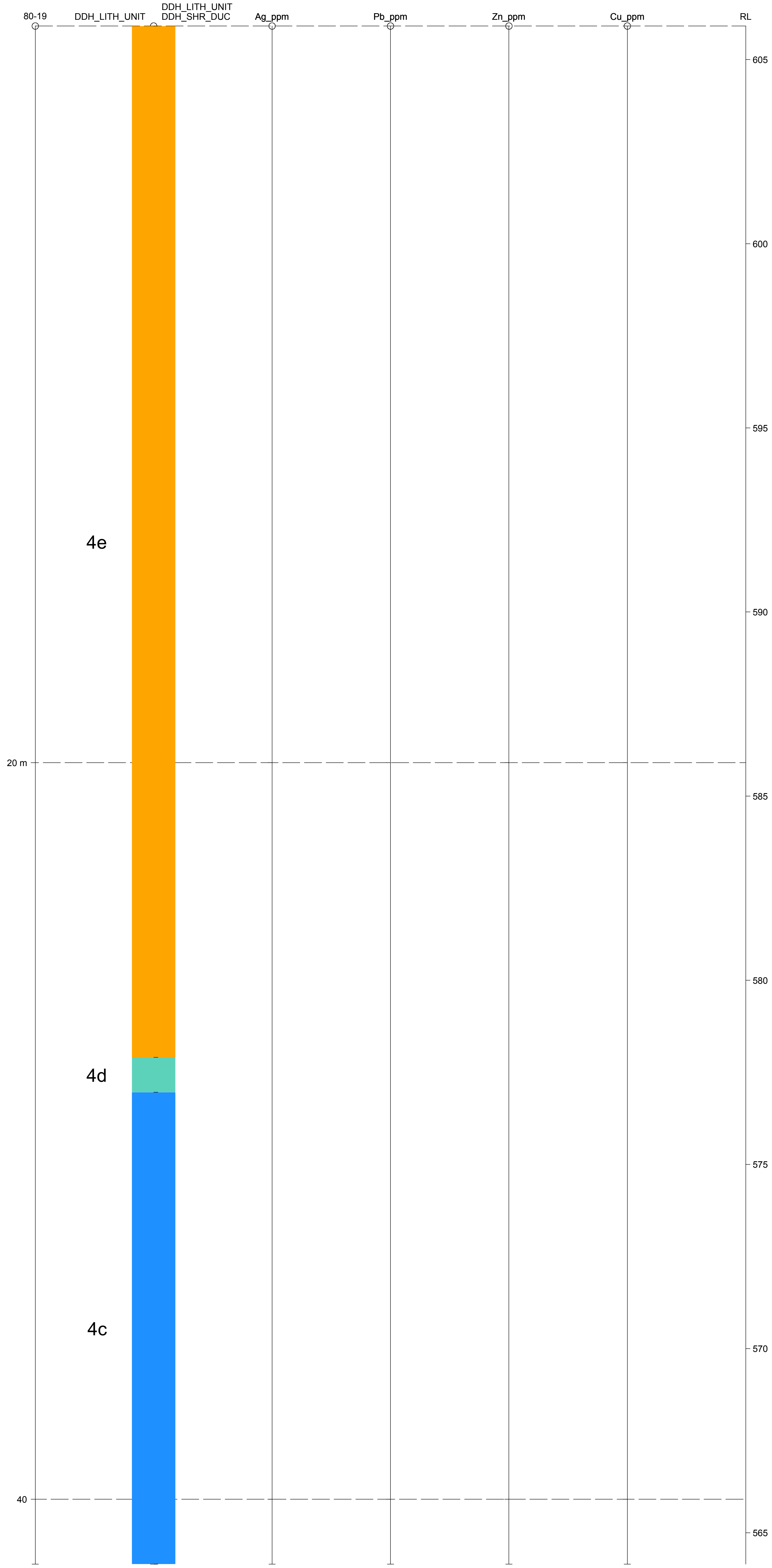


STRIP

1	DDH_LITH_UNIT	PAT	LABEL
			4c
			4e
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 80-19

Easting	Northing	RL	Azimuth	Dip	Depth
529123.0	7376676.0	606.0	0.0	-90.0	41.8



STRIP

1 DDH_LITH_UNIT PAT LABEL
- 4c
- 4d
- 4e

1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
- 300
- 100
- 10
- 1

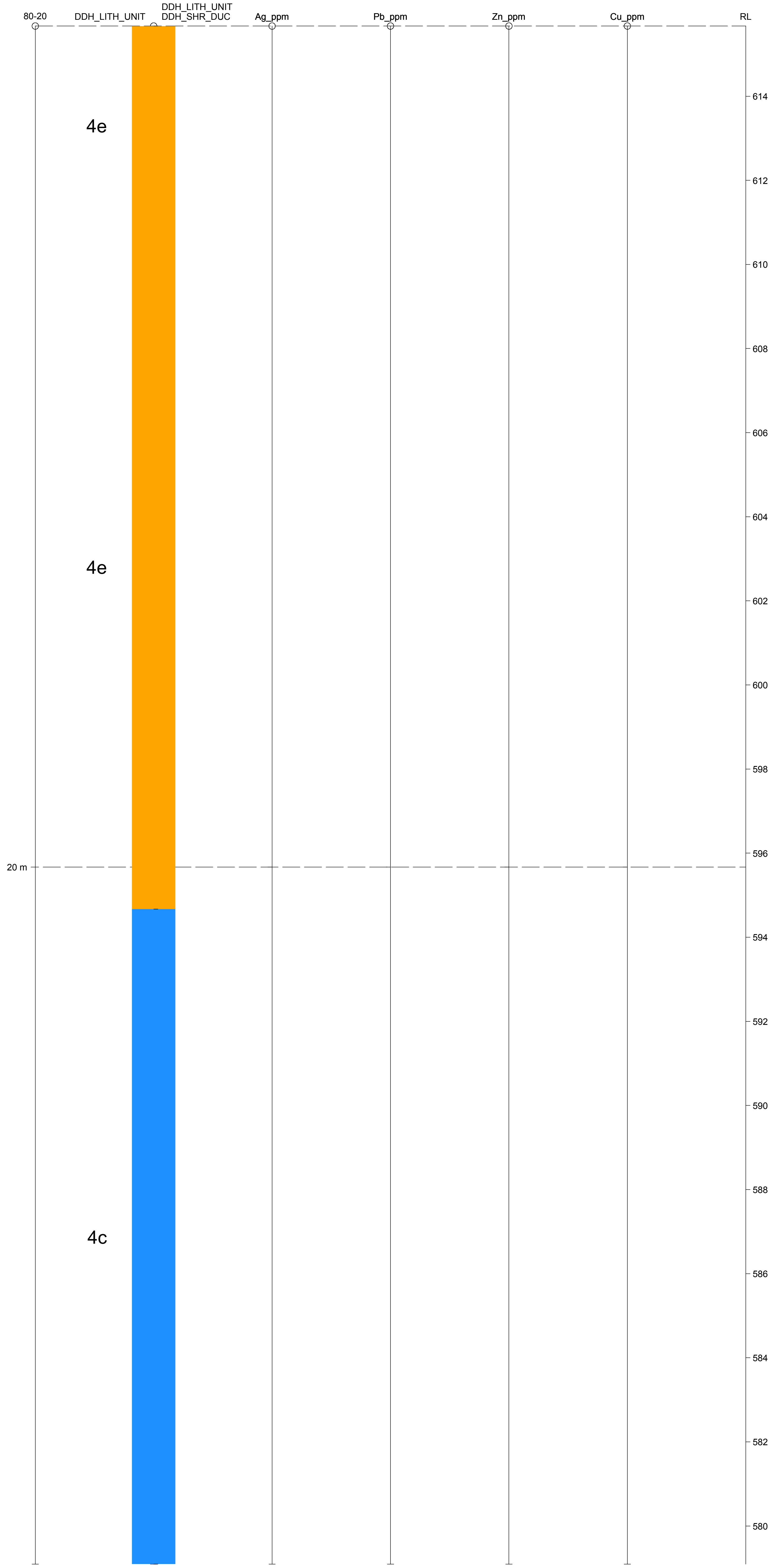
3 Pb_ppm NUMBER BANDS
- 7300
- 2700
- 225
- 48

4 Zn_ppm NUMBER BANDS
- 3200
- 2200
- 700
- 150

5 Cu_ppm NUMBER BANDS
- 7300
- 1700
- 300
- 100

STRIP LOG: 80-20

Easting	Northing	RL	Azimuth	Dip	Depth
529157.0	7376644.0	615.6	0.0	-90.0	36.6



STRIP

1 DDH_LITH_UNIT PAT LABEL
- 4c
- 4e

1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
- 300
- 100
- 10
- 1

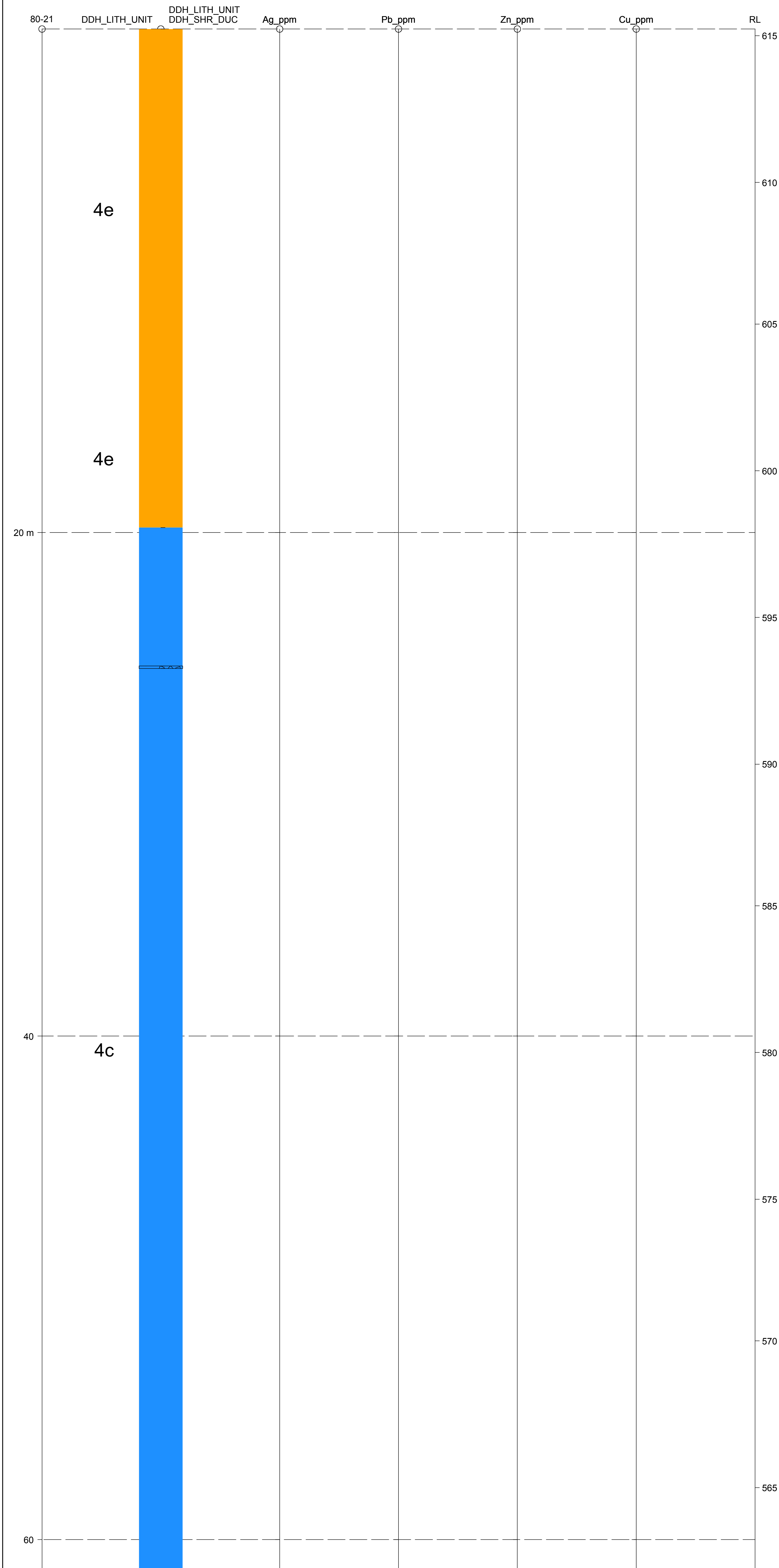
3 Pb_ppm NUMBER BANDS
- 7300
- 2700
- 225
- 48

4 Zn_ppm NUMBER BANDS
- 3200
- 2200
- 700
- 150

5 Cu_ppm NUMBER BANDS
- 7300
- 1700
- 300
- 100

STRIP LOG: 80-21

Easting	Northing	RL	Azimuth	Dip	Depth
529155.0	7376644.0	615.2	245.0	-60.0	61.3



STRIP

1 DDH_LITH_UNIT — PAT / LABEL: 4c, 4e

1 DDH_SHR_DUC — PAT / LABEL: transitional

2 Ag_ppm — NUMBER BANDS: 300, 100, 10, 1

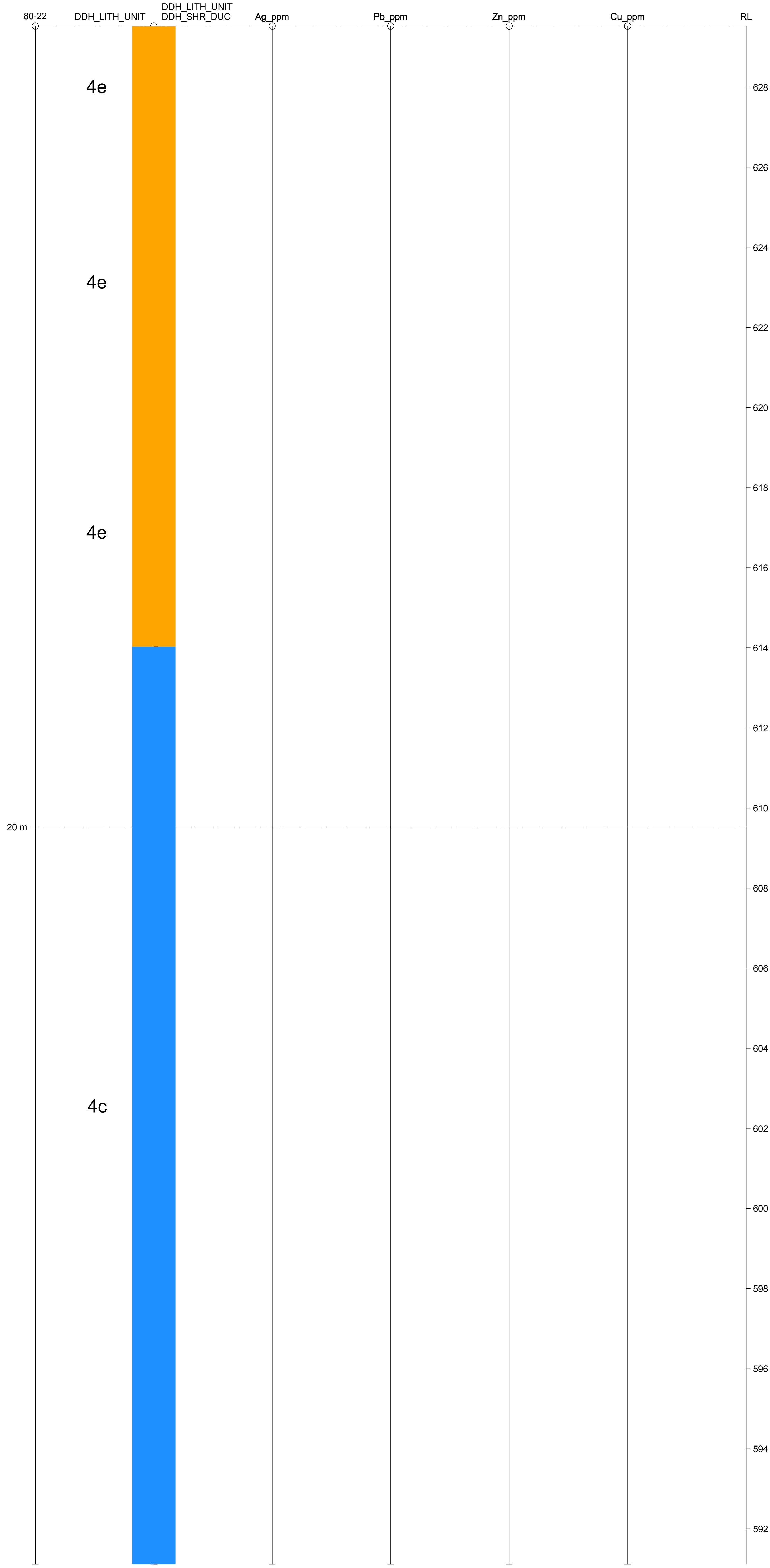
3 Pb_ppm — NUMBER BANDS: 7300, 2700, 225, 48

4 Zn_ppm — NUMBER BANDS: 3200, 2200, 700, 150

5 Cu_ppm — NUMBER BANDS: 7300, 1700, 300, 100

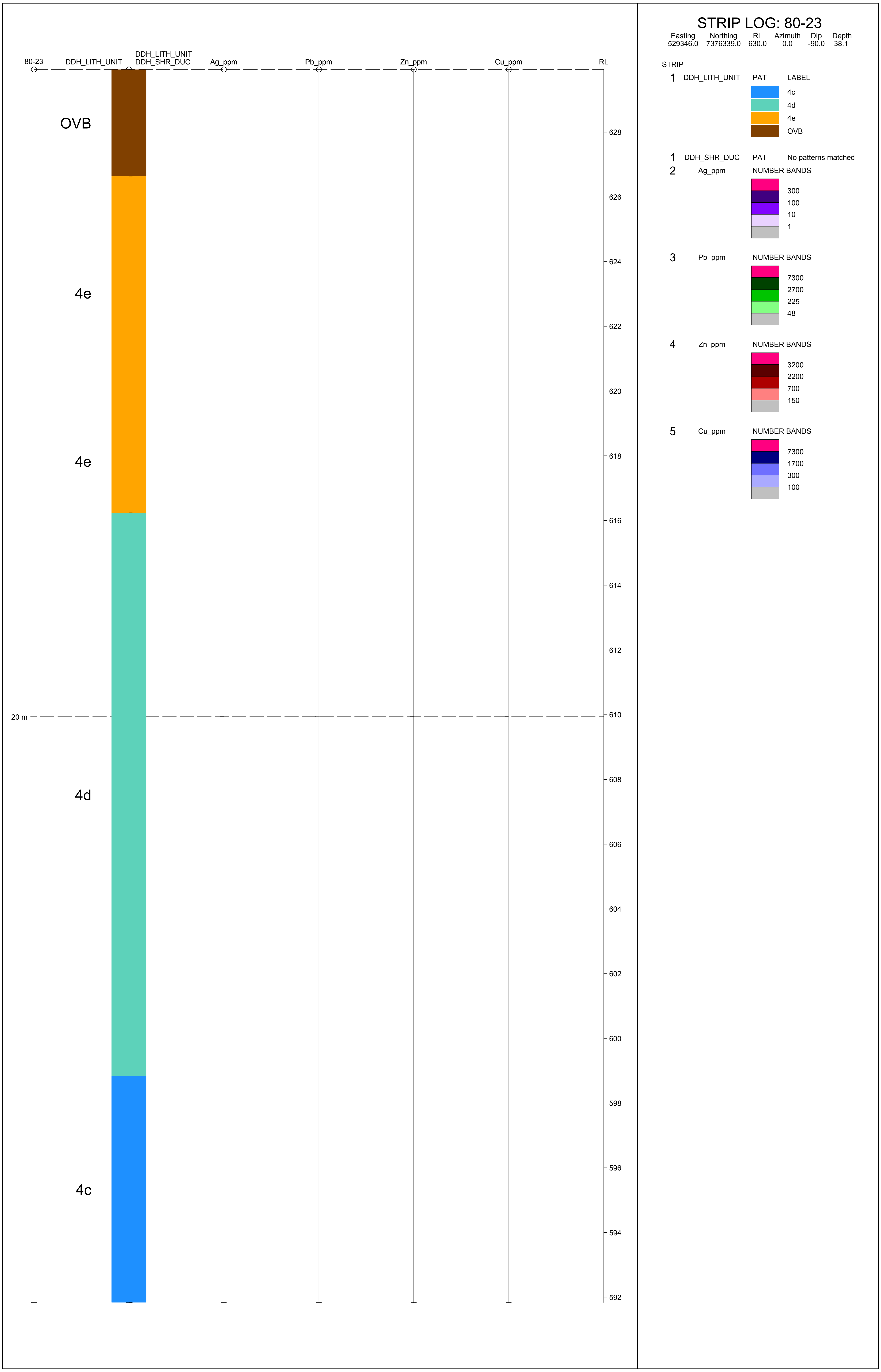
STRIP LOG: 80-22

Easting	Northing	RL	Azimuth	Dip	Depth
529322.0	7376392.0	629.6	0.0	-90.0	38.4



STRIP

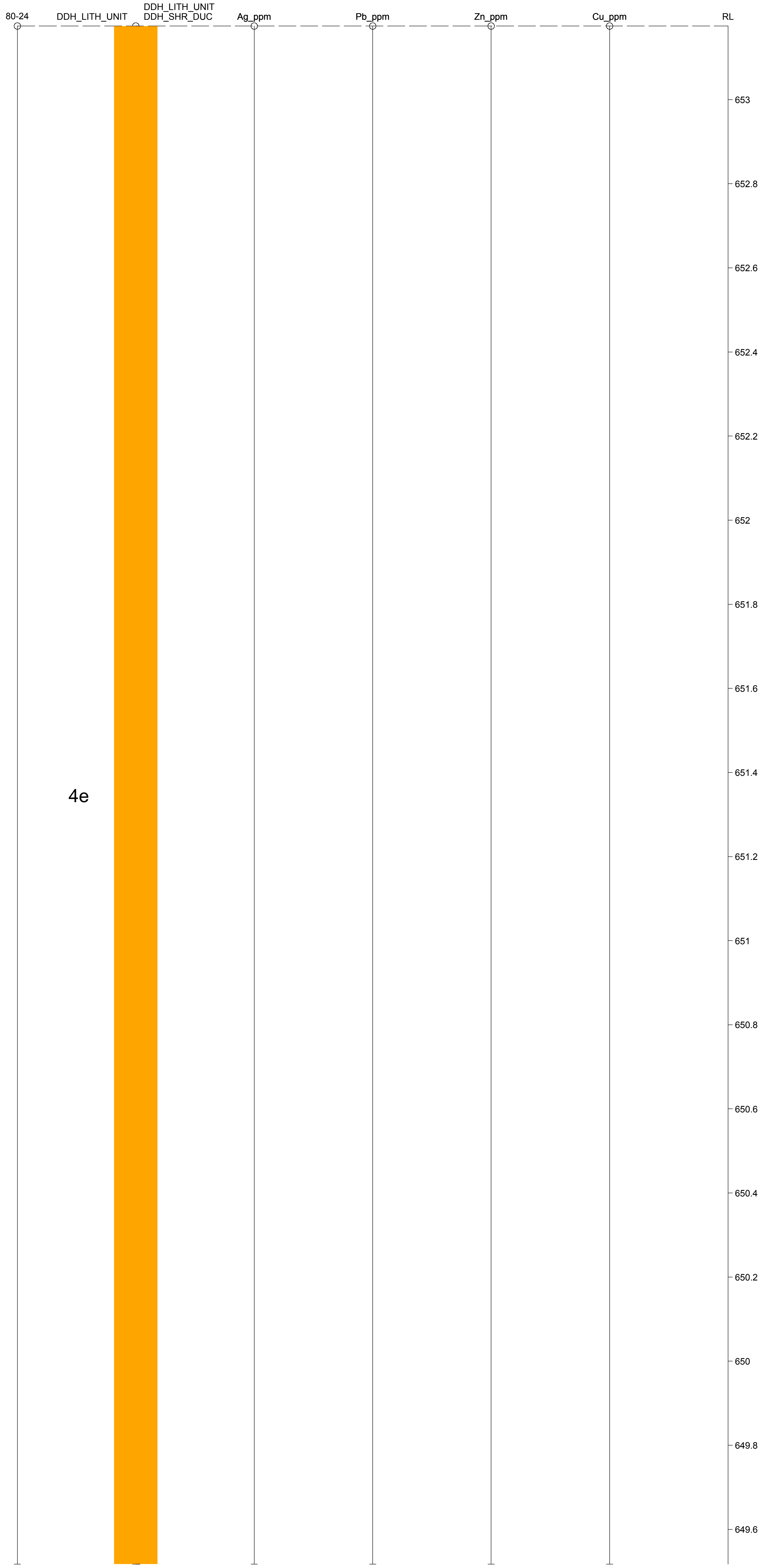
1	DDH_LITH_UNIT	PAT	LABEL
			4c
			4e
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300
			100
			10
			1
3	Pb_ppm	NUMBER BANDS	7300
			2700
			225
			48
4	Zn_ppm	NUMBER BANDS	3200
			2200
			700
			150
5	Cu_ppm	NUMBER BANDS	7300
			1700
			300
			100



STRIP LOG: 80-23
Easting 529346.0
Northing 7376339.0
RL 630.0
Azimuth 0.0
Dip -90.0
Depth 38.1
80-23
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4e
4e
4d
4c
20 m
628
626
624
622
620
618
616
614
612
610
608
606
604
602
600
598
596
594
592
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4d
4e
OVB
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

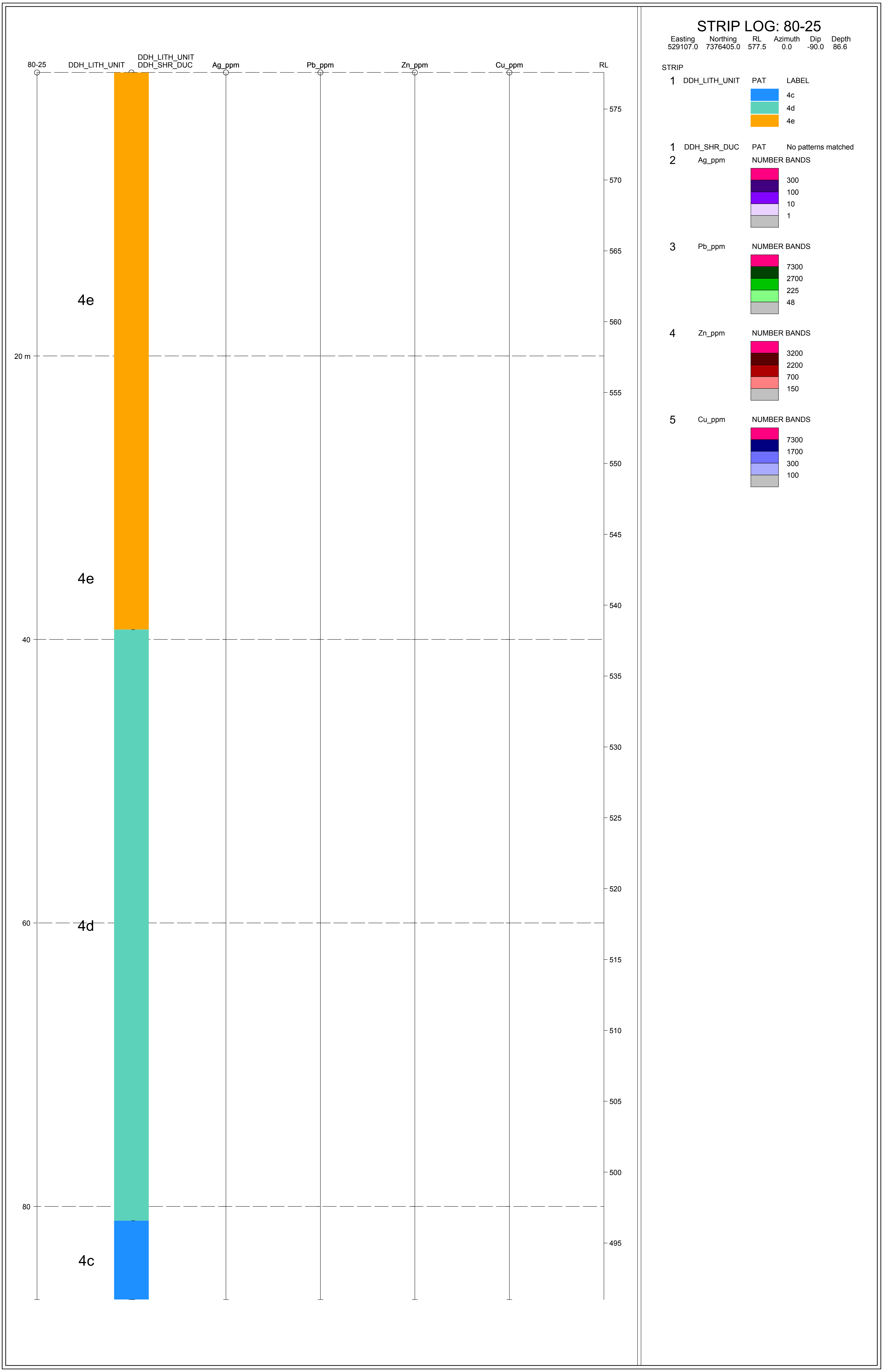
STRIP LOG: 80-24

Easting	Northing	RL	Azimuth	Dip	Depth
529410.0	7376382.0	653.1	0.0	-90.0	3.7



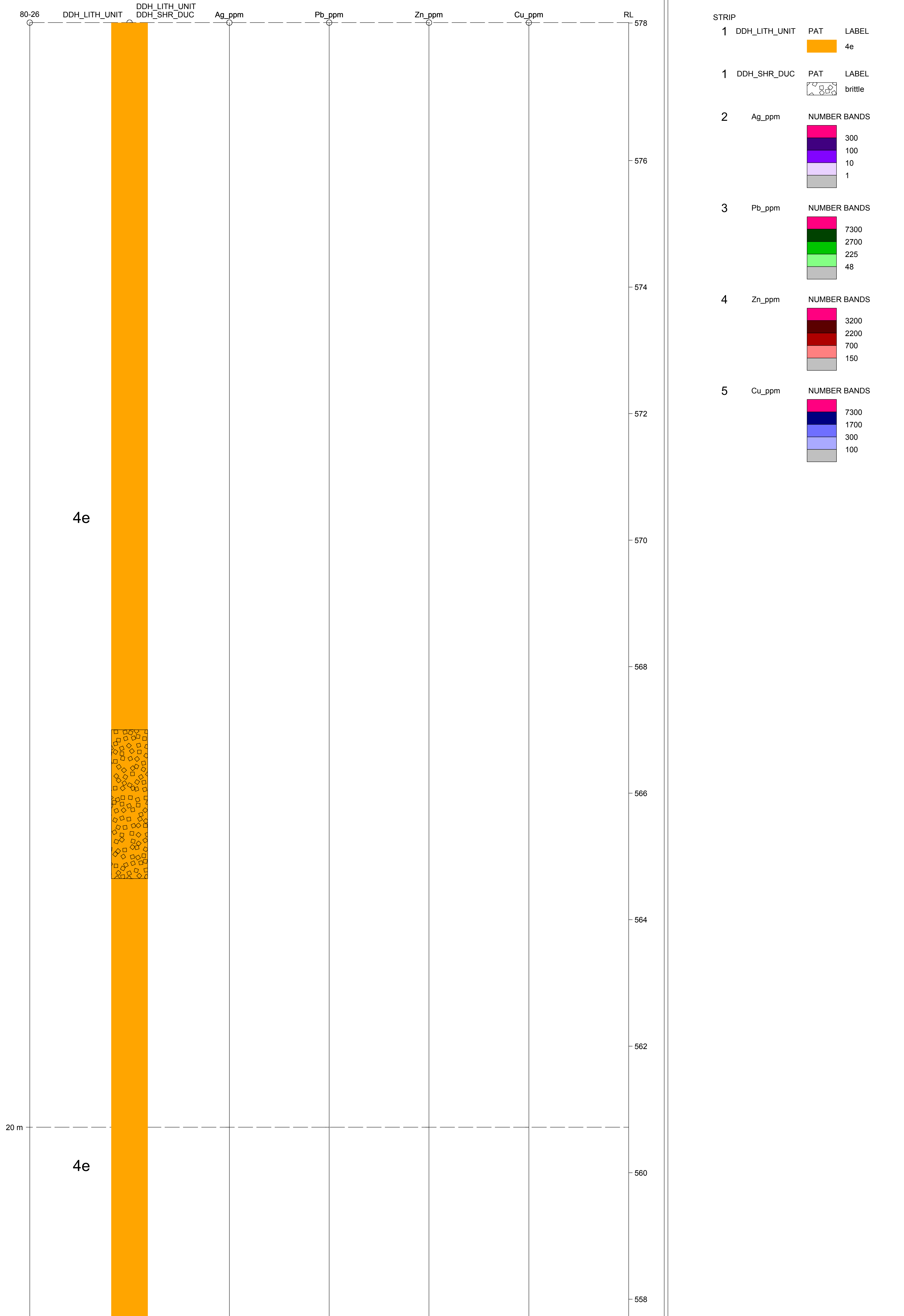
STRIP

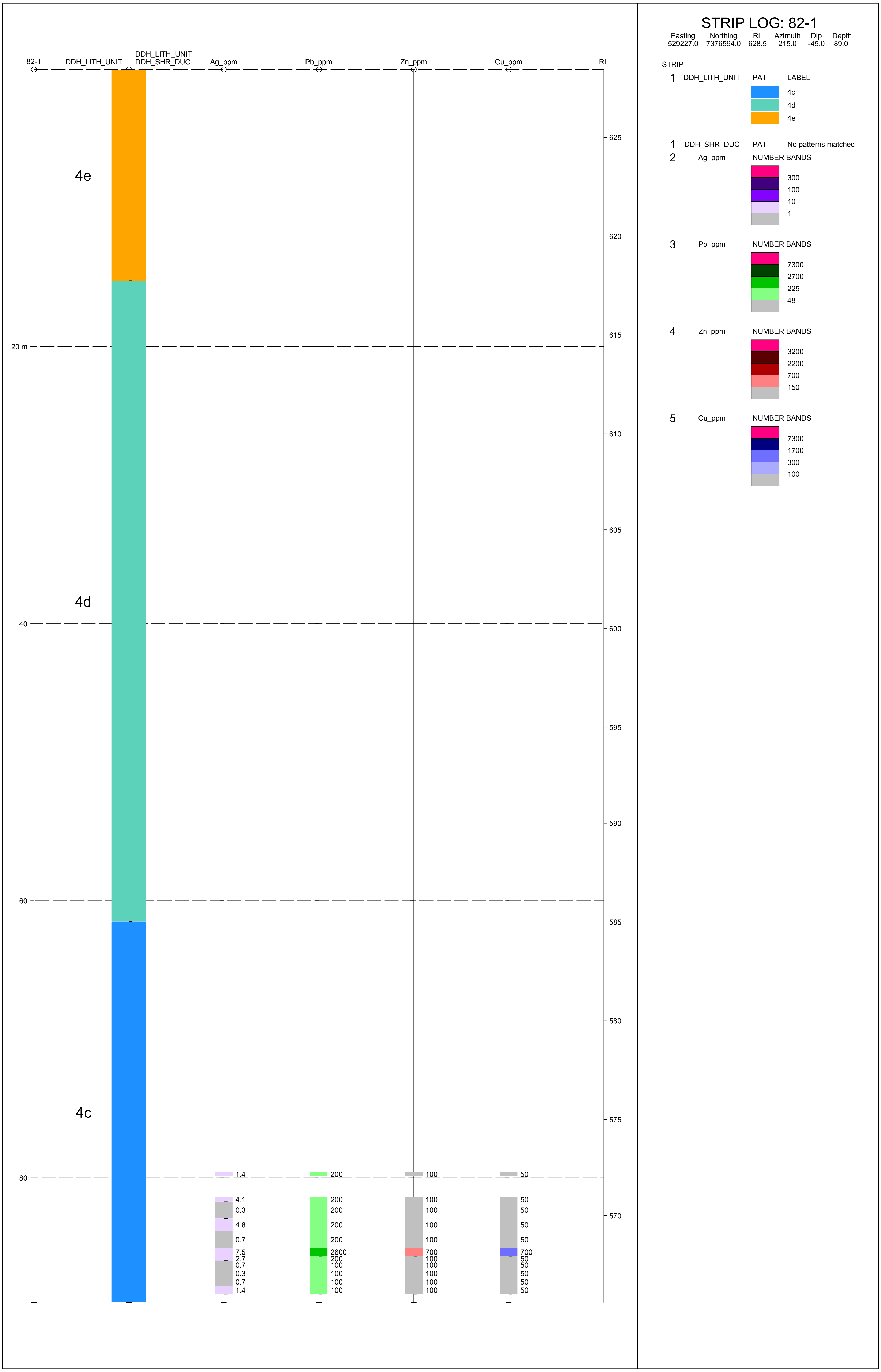
1	DDH_LITH_UNIT	PAT	LABEL
			4e
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300
			100
			10
			1
3	Pb_ppm	NUMBER BANDS	7300
			2700
			225
			48
4	Zn_ppm	NUMBER BANDS	3200
			2200
			700
			150
5	Cu_ppm	NUMBER BANDS	7300
			1700
			300
			100


STRIP LOG: 80-25
Easting 529107.0
Northing 7376405.0
RL 577.5
Azimuth 0.0
Dip -90.0
Depth 86.6
80-25
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
20 m
40
60
80
4e
4e
4d
4c
575
570
565
560
555
550
545
540
535
530
525
520
515
510
505
500
495
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4d
4e
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

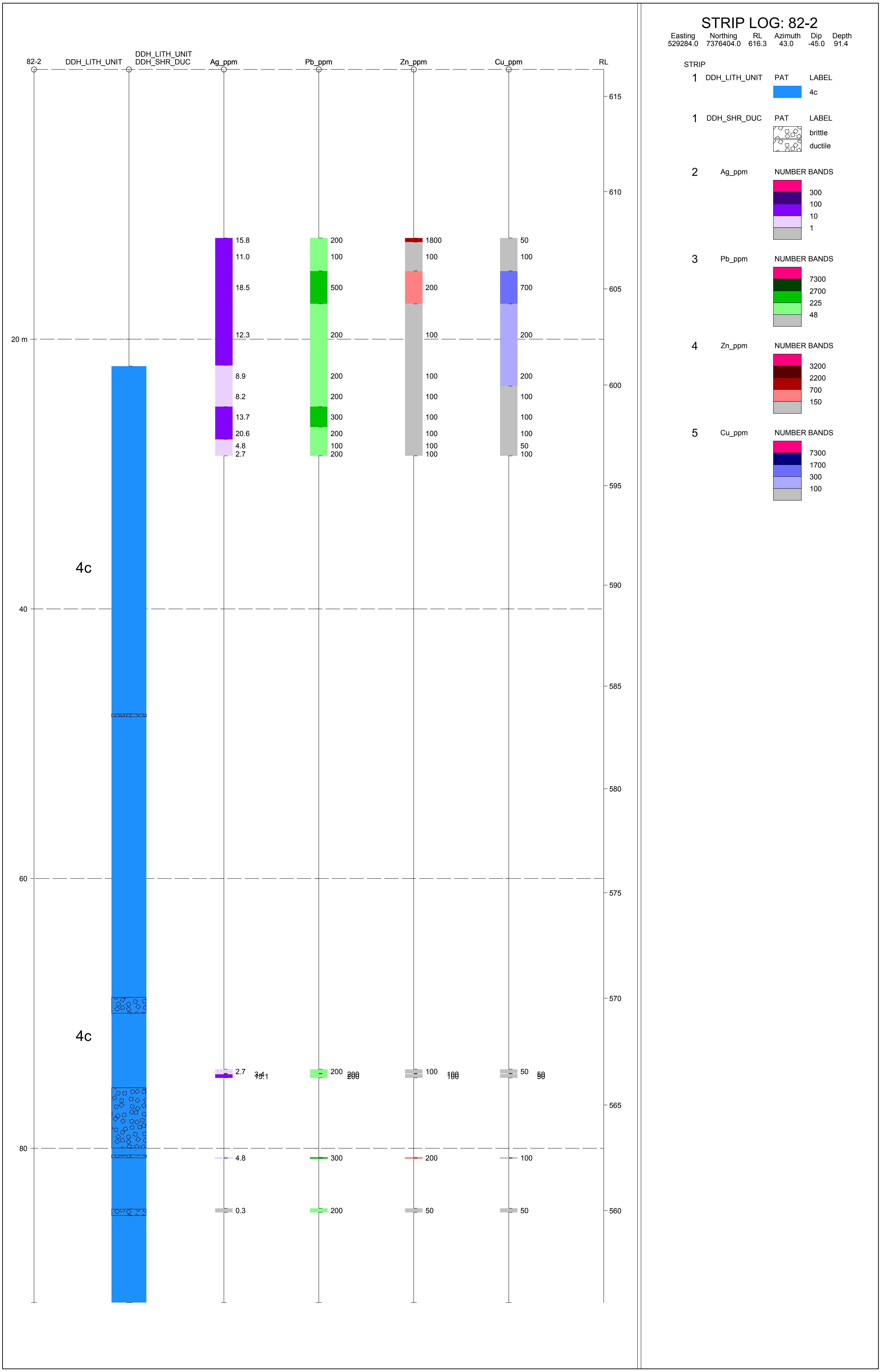
STRIP LOG: 80-26

Easting	Northing	RL	Azimuth	Dip	Depth
529110.0	7376405.0	578.1	335.0	-60.0	23.5

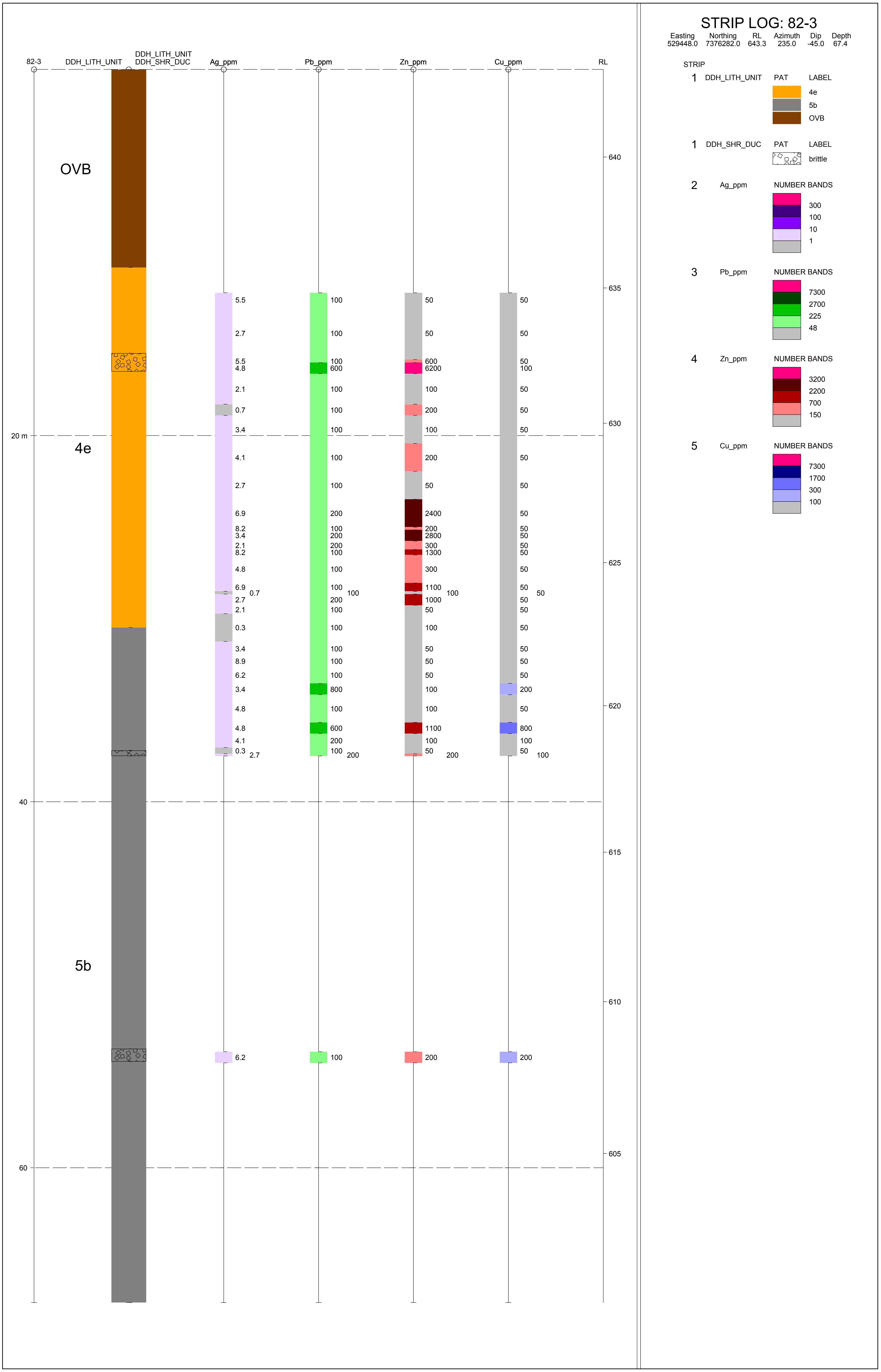




STRIP LOG: 82-1
Easting 529227.0
Northing 7376594.0
RL 628.5
Azimuth 215.0
Dip -45.0
Depth 89.0
82-1
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
4e
4d
4c
20 m
40
60
80
625
620
615
610
605
600
595
590
585
580
575
570
1.4
4.1
0.3
4.8
0.7
7.5
2.7
0.7
0.3
0.7
1.4
200
200
200
200
200
2600
200
100
100
100
100
100
100
100
100
100
700
100
100
100
100
100
50
50
50
50
50
700
50
50
50
50
50
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4d
4e
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

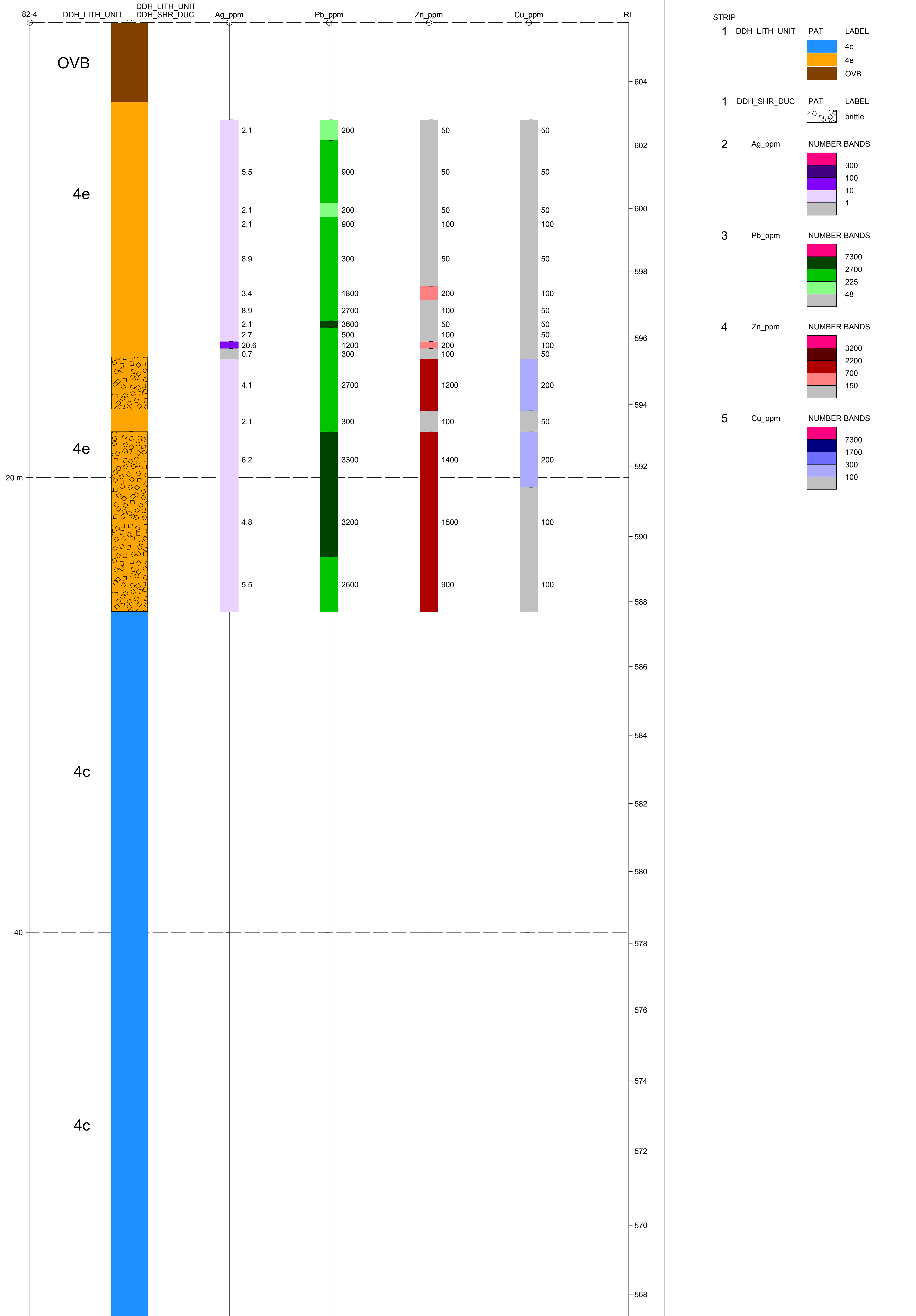


STRIP LOG: 82-2
Easting 529284.0
Northing 7376404.0
RL 616.3
Azimuth 43.0
Dip -45.0
Depth 91.4
82-2
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
20 m
40
60
80
615
610
605
600
595
590
585
580
575
570
565
560
4c
4c
15.8
11.0
18.5
12.3
8.9
8.2
13.7
20.6
4.8
2.7
2.7
4.8
0.3
200
100
500
200
200
200
300
200
100
200
200
300
200
1800
100
200
100
100
100
100
100
100
100
100
200
50
50
100
700
200
200
100
100
100
50
100
50
100
50
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
1 DDH_SHR_DUC PAT LABEL
brittle
ductile
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100


STRIP LOG: 82-3
Easting 529448.0
Northing 7376282.0
RL 643.3
Azimuth 235.0
Dip -45.0
Depth 67.4
82-3
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4e
5b
20 m
40
60
640
635
630
625
620
615
610
605
STRIP
1 DDH_LITH_UNIT PAT LABEL
4e
5b
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100
5.5 2.7 5.5 4.8 2.1 0.7 3.4 4.1 2.7 6.9 8.2 3.4 2.1 8.2 4.8 6.9 0.7 2.7 2.1 0.3 3.4 8.9 6.2 3.4 4.8 4.8 4.1 0.3 2.7 6.2
100 100 100 600 100 100 100 100 100 200 100 200 200 100 100 100 100 200 100 100 100 100 100 800 100 600 200 100 200 100
50 50 600 6200 100 200 100 200 50 2400 200 2800 300 1300 300 1100 100 1000 50 100 50 50 50 100 100 1100 100 50 200 200
50 50 50 100 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 200 50 800 100 50 100 200

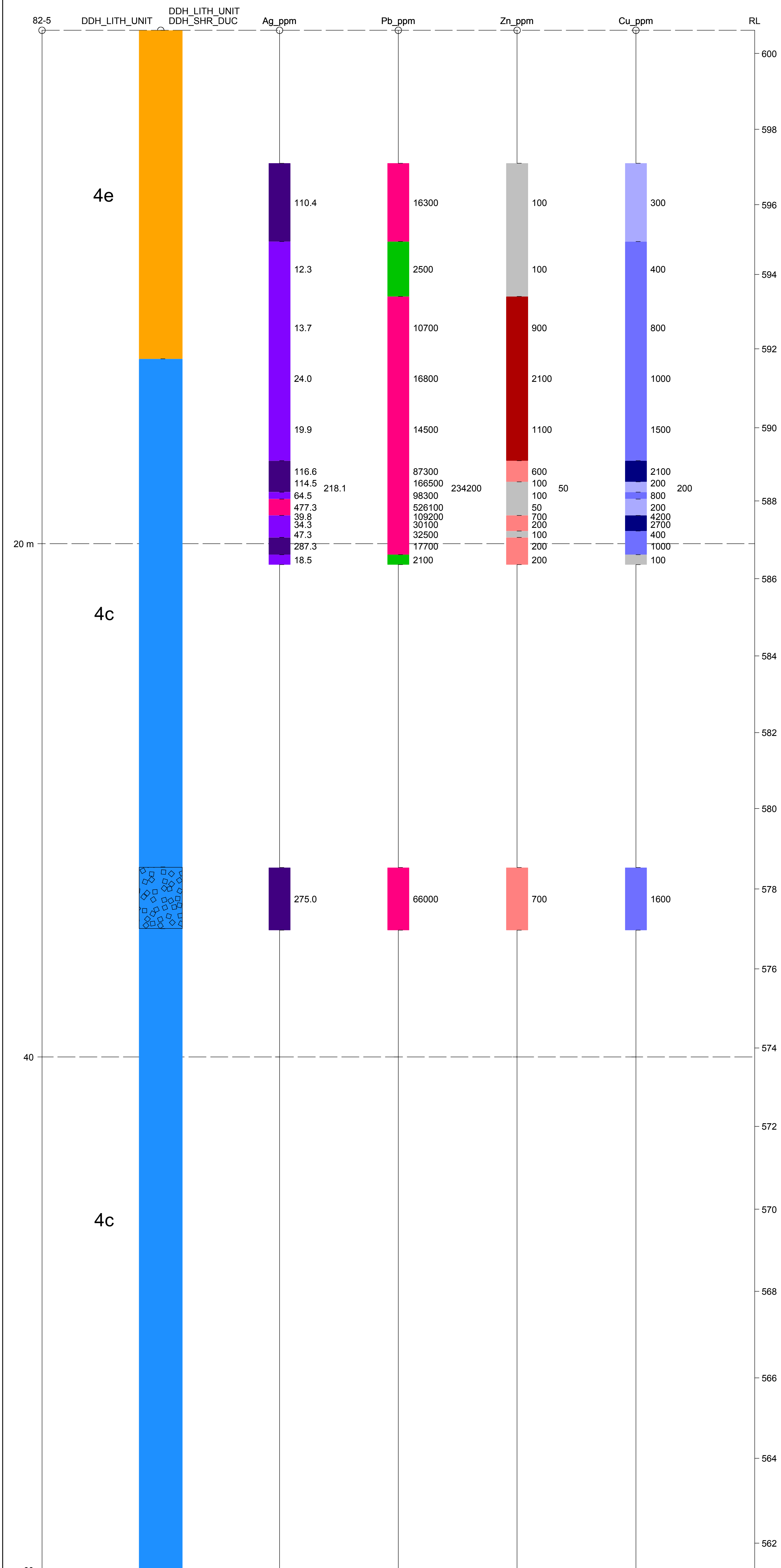
STRIP LOG: 82-4

Easting	Northing	RL	Azimuth	Dip	Depth
529108.0	7376636.0	605.8	50.0	-46.0	57.0



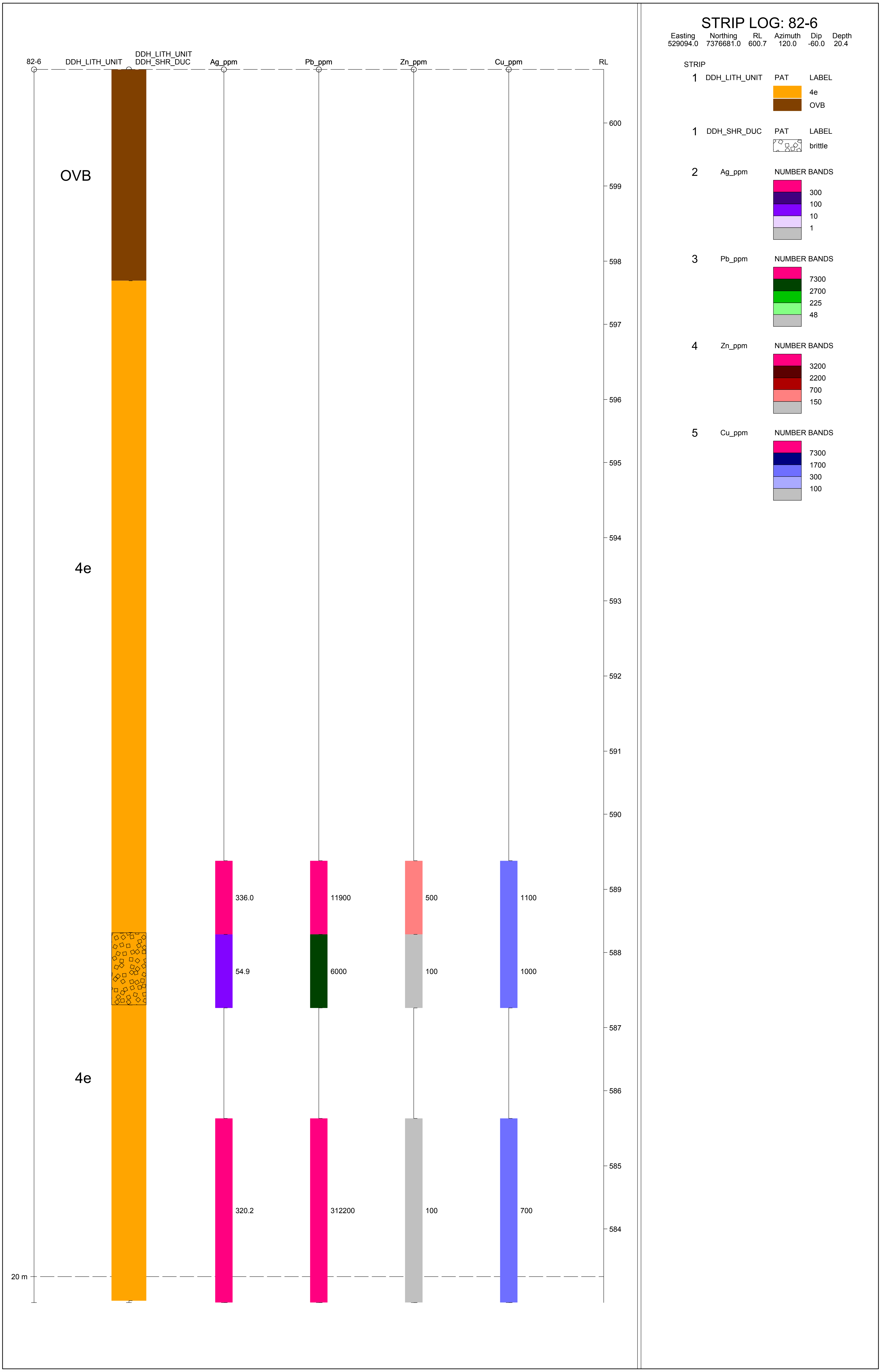
STRIP LOG: 82-5

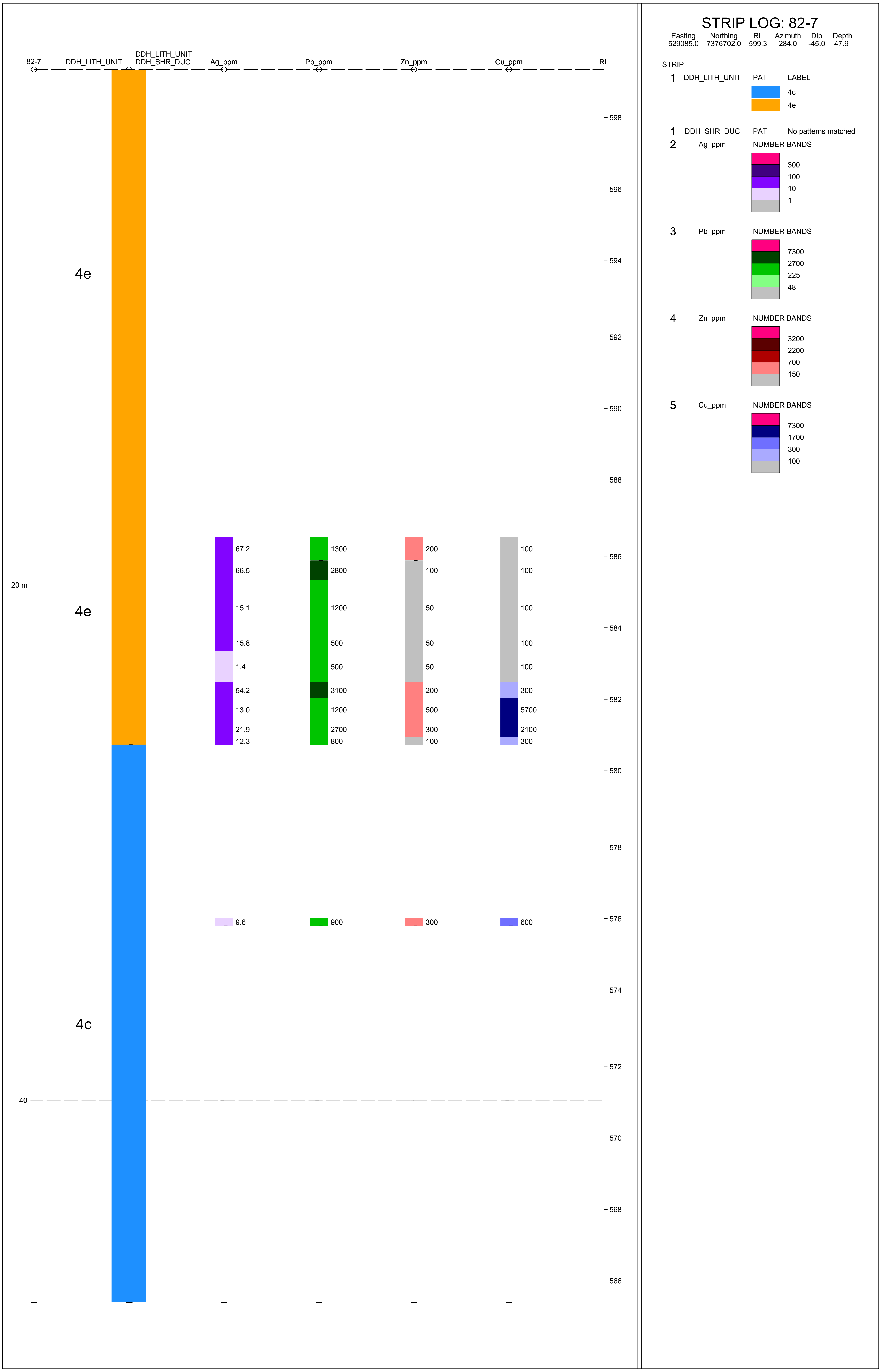
Easting	Northing	RL	Azimuth	Dip	Depth
529094.0	7376681.0	600.7	120.0	-45.0	60.0



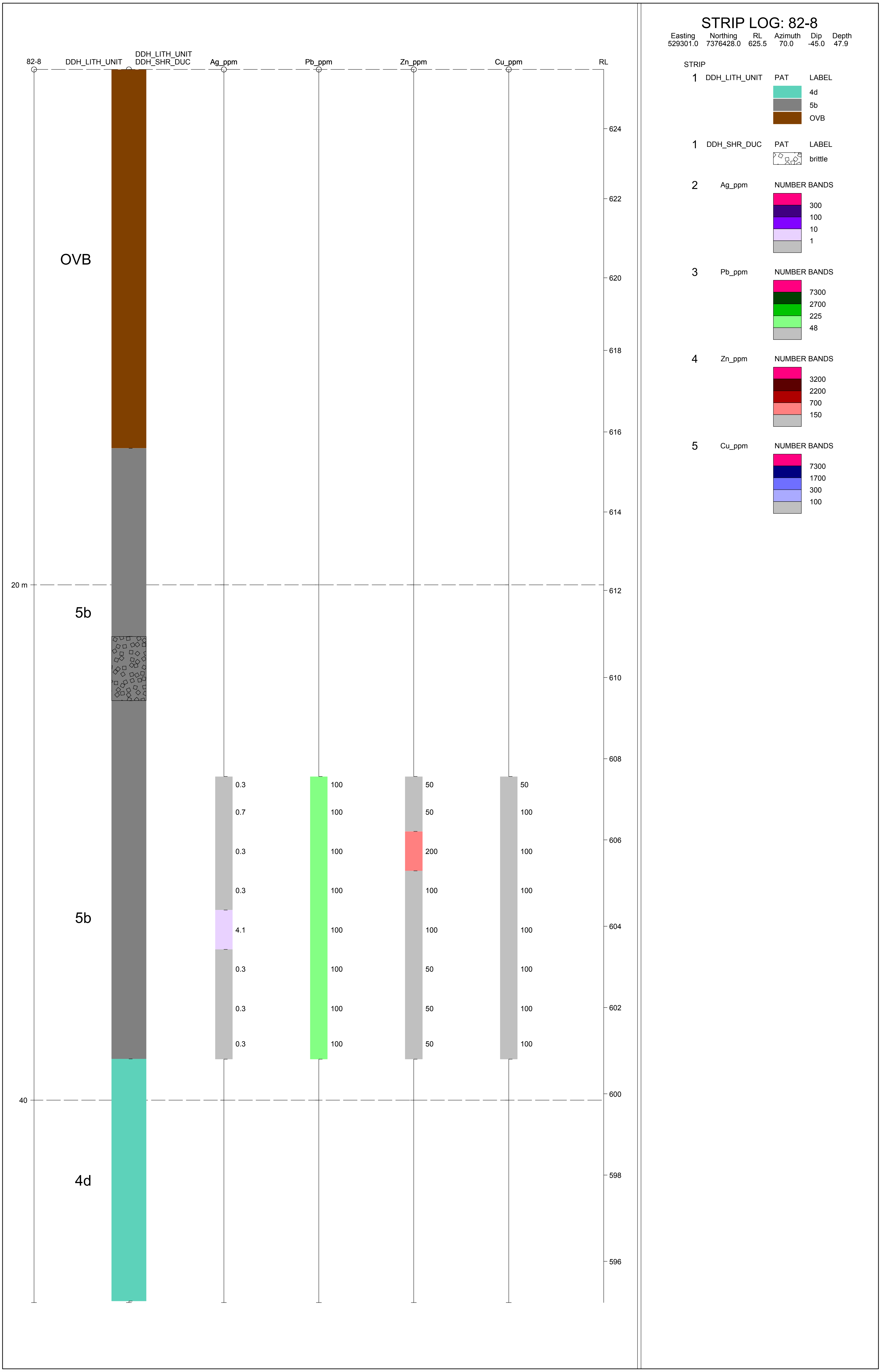
STRIP

1	DDH_LITH_UNIT	PAT	LABEL
			4c
			4e
1	DDH_SHR_DUC	PAT	LABEL
			brittly
2	Ag_ppm	NUMBER BANDS	
			300
			100
			10
			1
3	Pb_ppm	NUMBER BANDS	
			7300
			2700
			225
			48
4	Zn_ppm	NUMBER BANDS	
			3200
			2200
			700
			150
5	Cu_ppm	NUMBER BANDS	
			7300
			1700
			300
			100


STRIP LOG: 82-6
Easting 529094.0 Northing 7376681.0 RL 600.7 Azimuth 120.0 Dip -60.0 Depth 20.4
82-6
DDH_LITH_UNIT
DDH_LITH_UNIT DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4e
4e
336.0
11900
500
1100
54.9
6000
100
1000
320.2
312200
100
700
20 m
600
599
598
597
596
595
594
593
592
591
590
589
588
587
586
585
584
STRIP
1 DDH_LITH_UNIT PAT LABEL
4e
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100



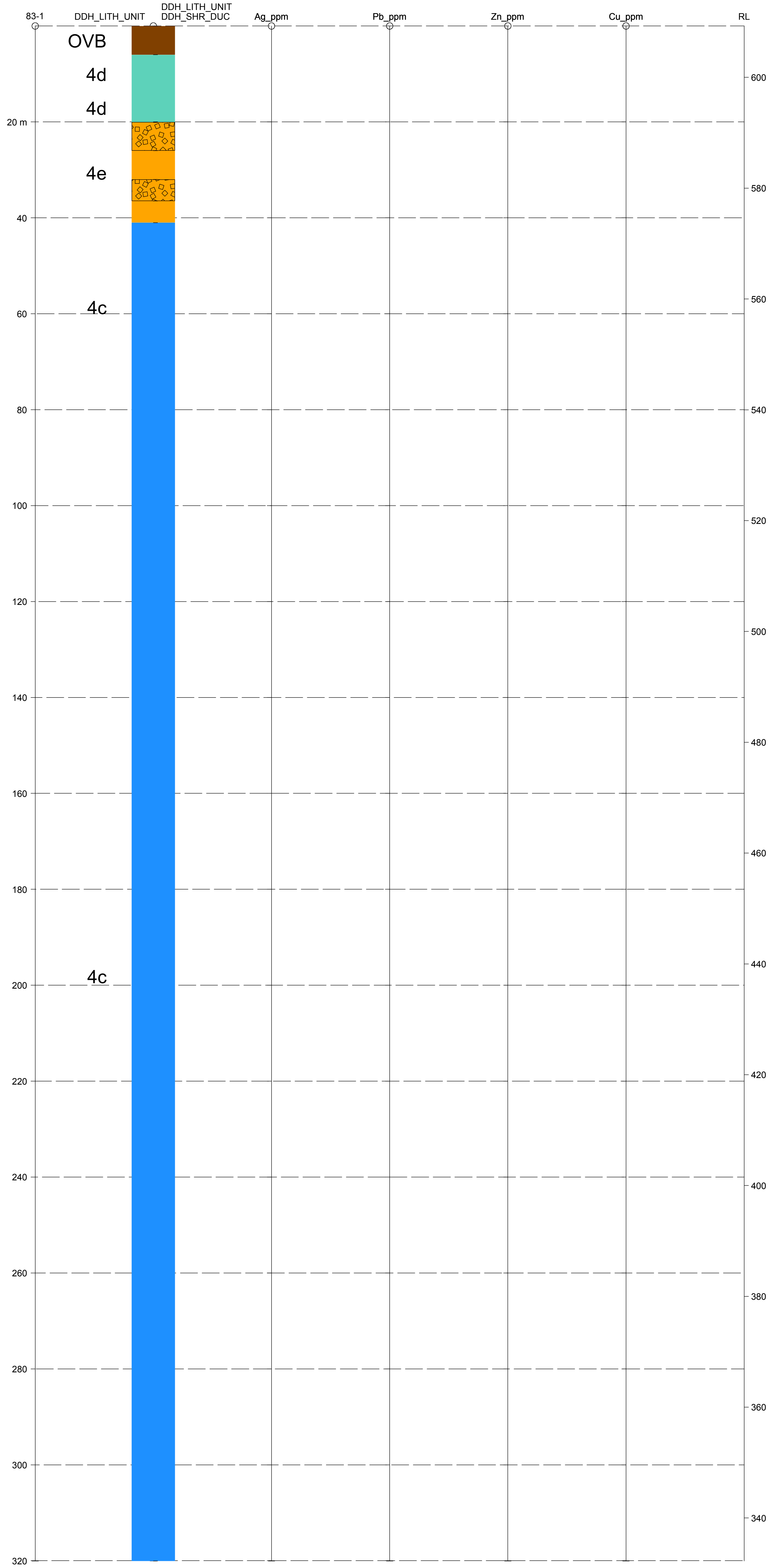
STRIP LOG: 82-7
Easting 529085.0
Northing 7376702.0
RL 599.3
Azimuth 284.0
Dip -45.0
Depth 47.9
82-7
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
598
596
594
592
590
588
586
584
582
580
578
576
574
572
570
568
566
20 m
40
4e
4e
4c
67.2
66.5
15.1
15.8
1.4
54.2
13.0
21.9
12.3
9.6
1300
2800
1200
500
500
3100
1200
2700
800
900
200
100
50
50
50
200
500
300
100
300
100
100
100
100
100
300
5700
2100
300
600
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4e
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

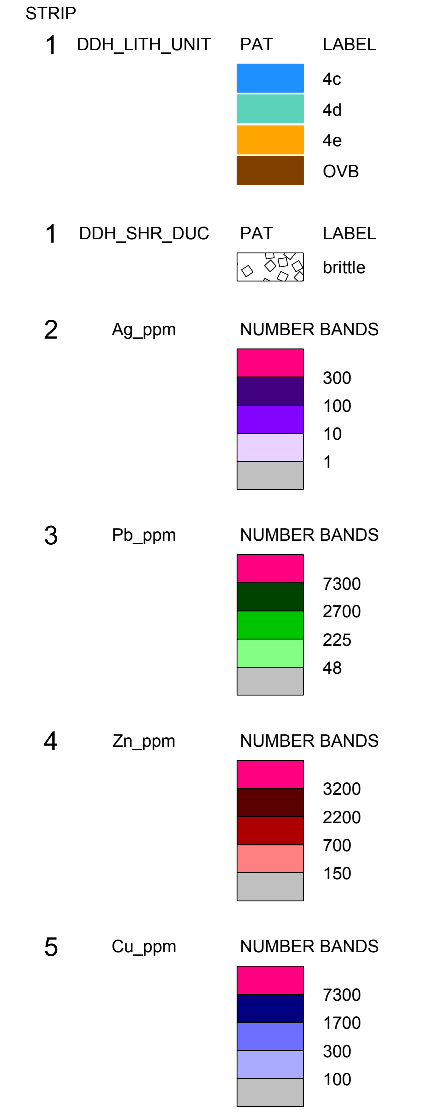


STRIP LOG: 82-8
Easting 529301.0 Northing 7376428.0 RL 625.5 Azimuth 70.0 Dip -45.0 Depth 47.9
82-8
DDH_LITH_UNIT
DDH_LITH_UNIT DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
5b
5b
4d
20 m
40
624
622
620
618
616
614
612
610
608
606
604
602
600
598
596
0.3 0.7 0.3 0.3 4.1 0.3 0.3 0.3
100 100 100 100 100 100 100 100
50 50 200 100 100 50 50 50
50 100 100 100 100 100 100 100
STRIP
1 DDH_LITH_UNIT PAT LABEL
4d
5b
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: 83-1

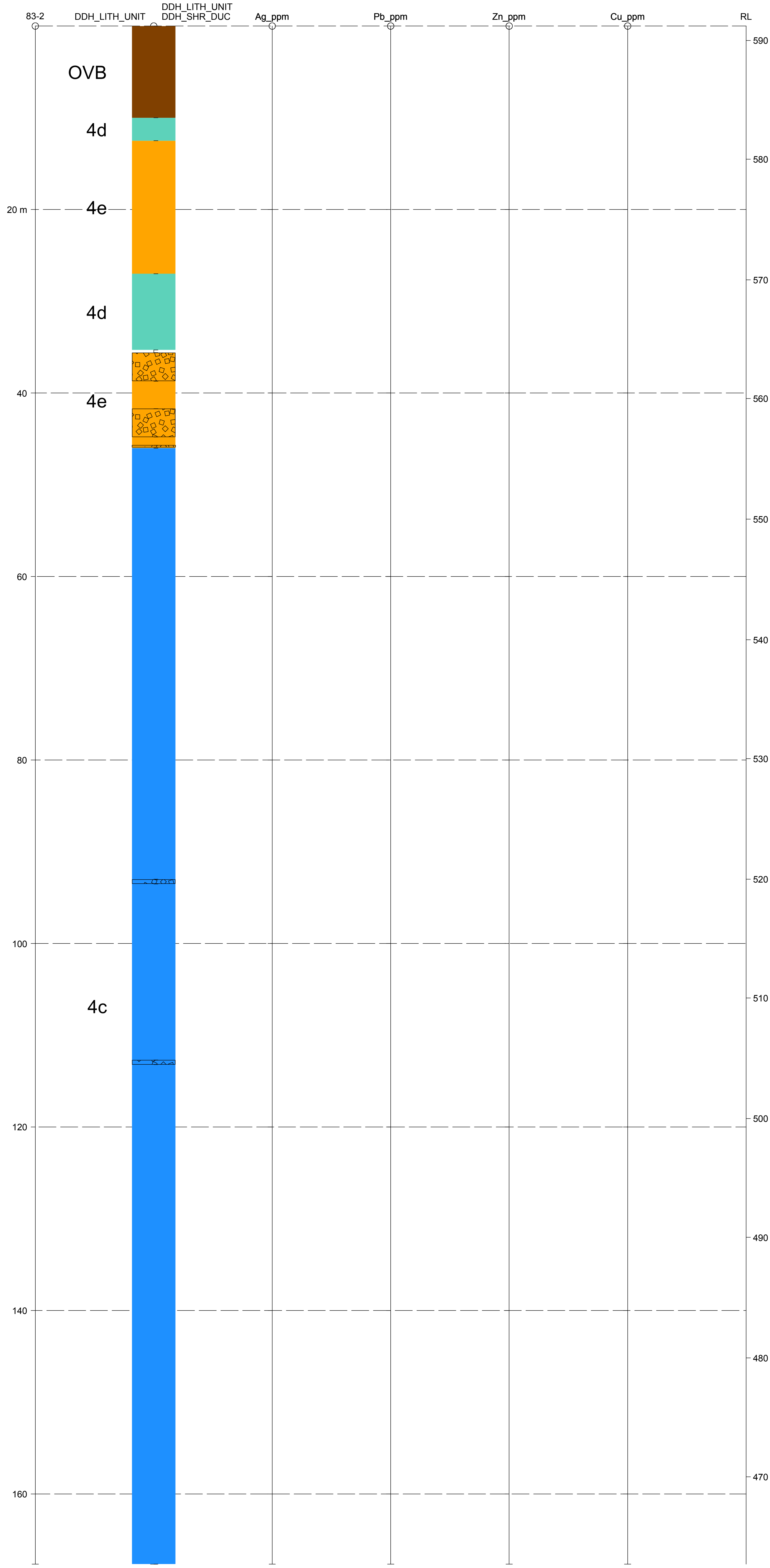
Easting	Northing	RL	Azimuth	Dip	Depth
529282.0	7376350.0	609.3	92.0	-60.0	320.0

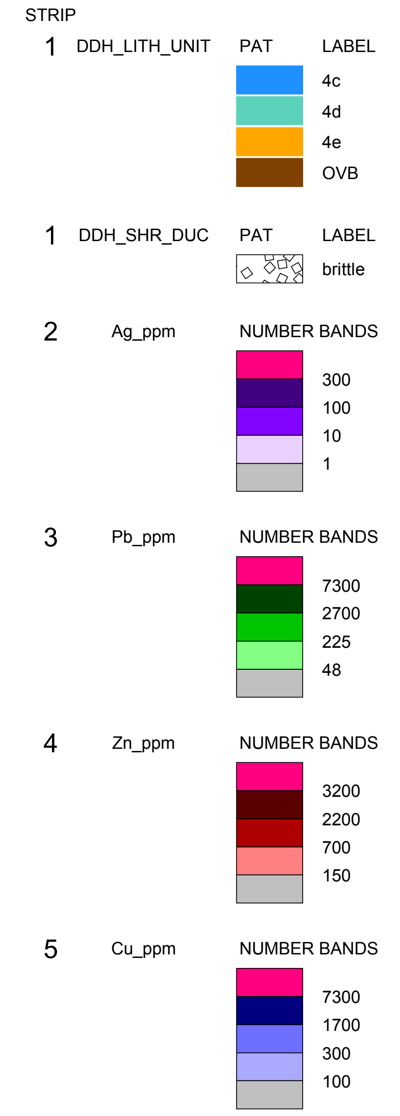




STRIP LOG: 83-2

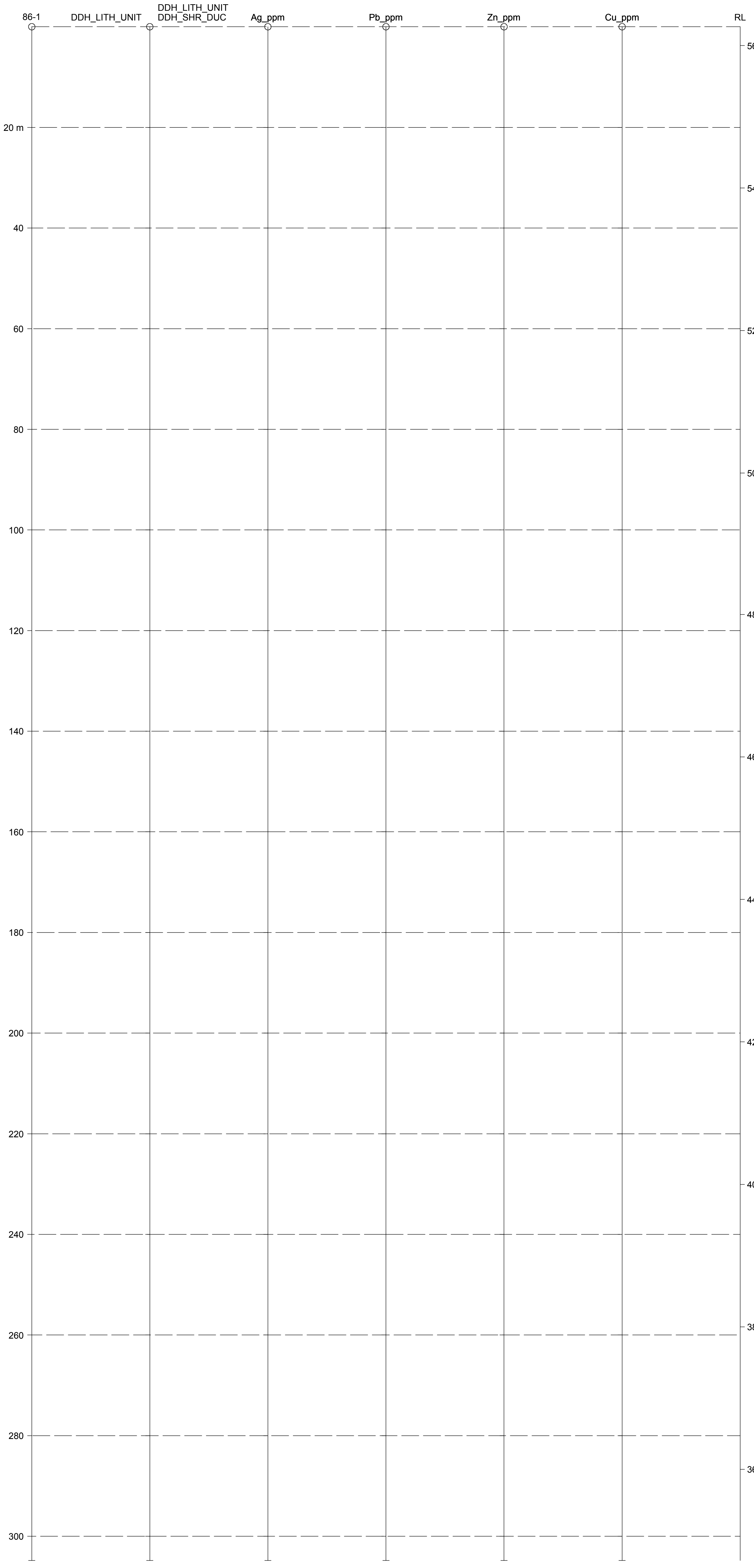
Easting	Northing	RL	Azimuth	Dip	Depth
529058.0	7376582.0	591.2	50.0	-50.0	167.6





STRIP LOG: 86-1

Easting	Northing	RL	Azimuth	Dip	Depth
528707.0	7376676.0	562.7	195.0	-45.0	304.8



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 86-2

Easting	Northing	RL	Azimuth	Dip	Depth
528710.0	7376676.0	562.6	15.0	-45.0	99.4

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-1

Easting	Northing	RL	Azimuth	Dip	Depth
527724.0	7375936.0	730.3	0.0	-90.0	1.0

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-2

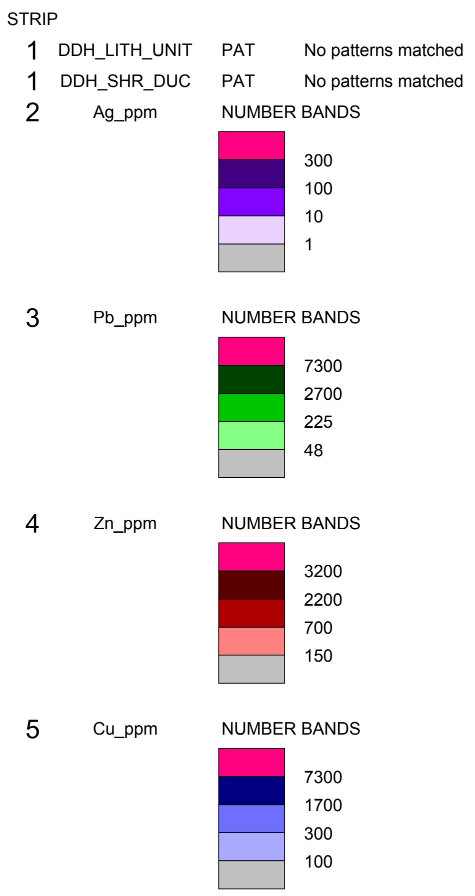
Easting	Northing	RL	Azimuth	Dip	Depth
527636.0	7376018.0	731.6	0.0	-90.0	1.0

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-3

Easting	Northing	RL	Azimuth	Dip	Depth
527668.0	7375998.0	731.5	0.0	-90.0	1.0



STRIP LOG: 95-4

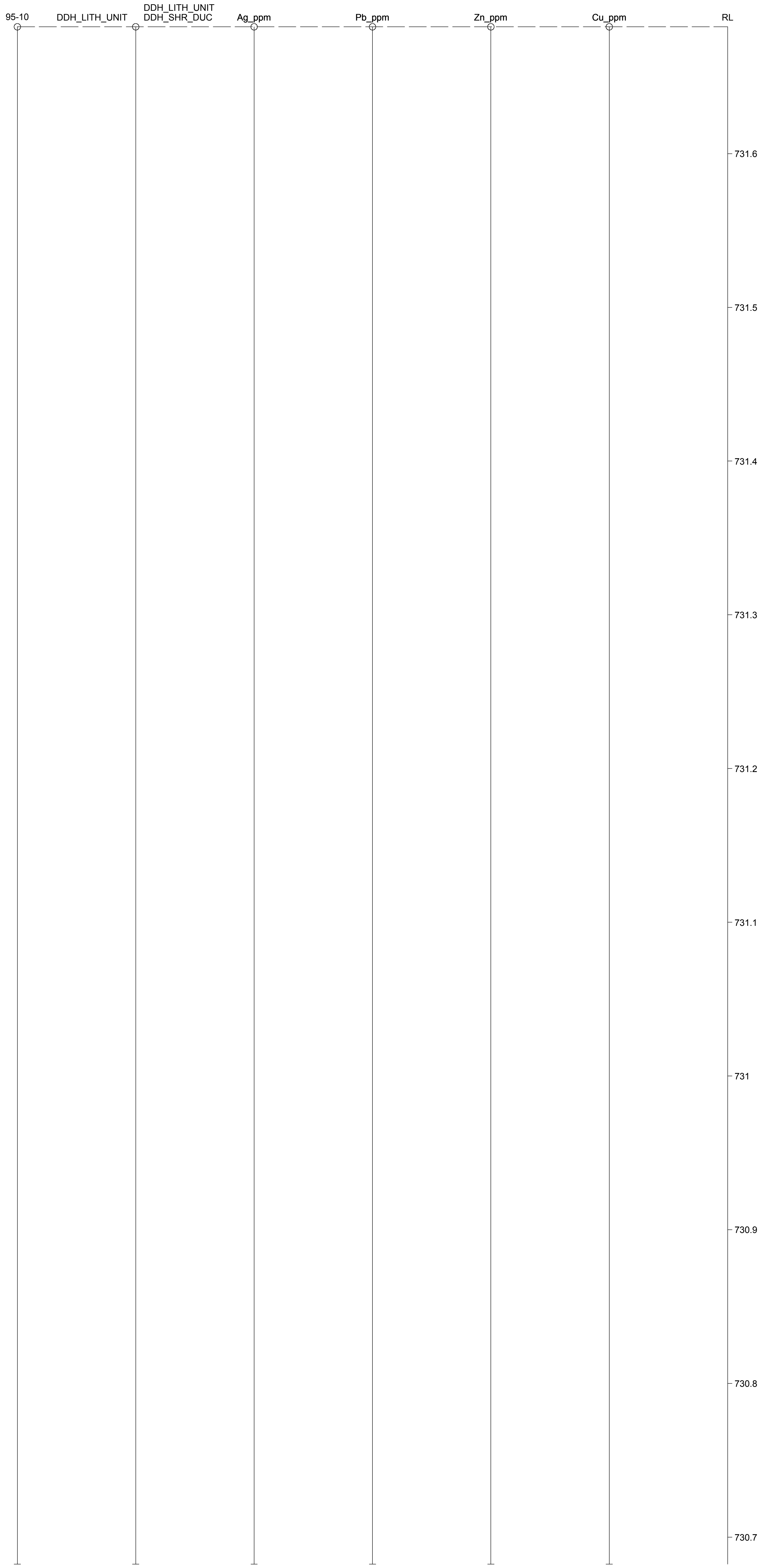
Easting	Northing	RL	Azimuth	Dip	Depth
527668.0	7375998.0	731.5	0.0	-90.0	1.0

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-10

Easting	Northing	RL	Azimuth	Dip	Depth
527636.0	7376019.0	731.6	0.0	-90.0	1.0



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-11

Easting	Northing	RL	Azimuth	Dip	Depth
527635.0	7376018.0	731.6	0.0	-90.0	1.0

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M1

Easting	Northing	RL	Azimuth	Dip	Depth
527735.0	7375986.0	727.1	310.0	-50.0	187.8

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M2

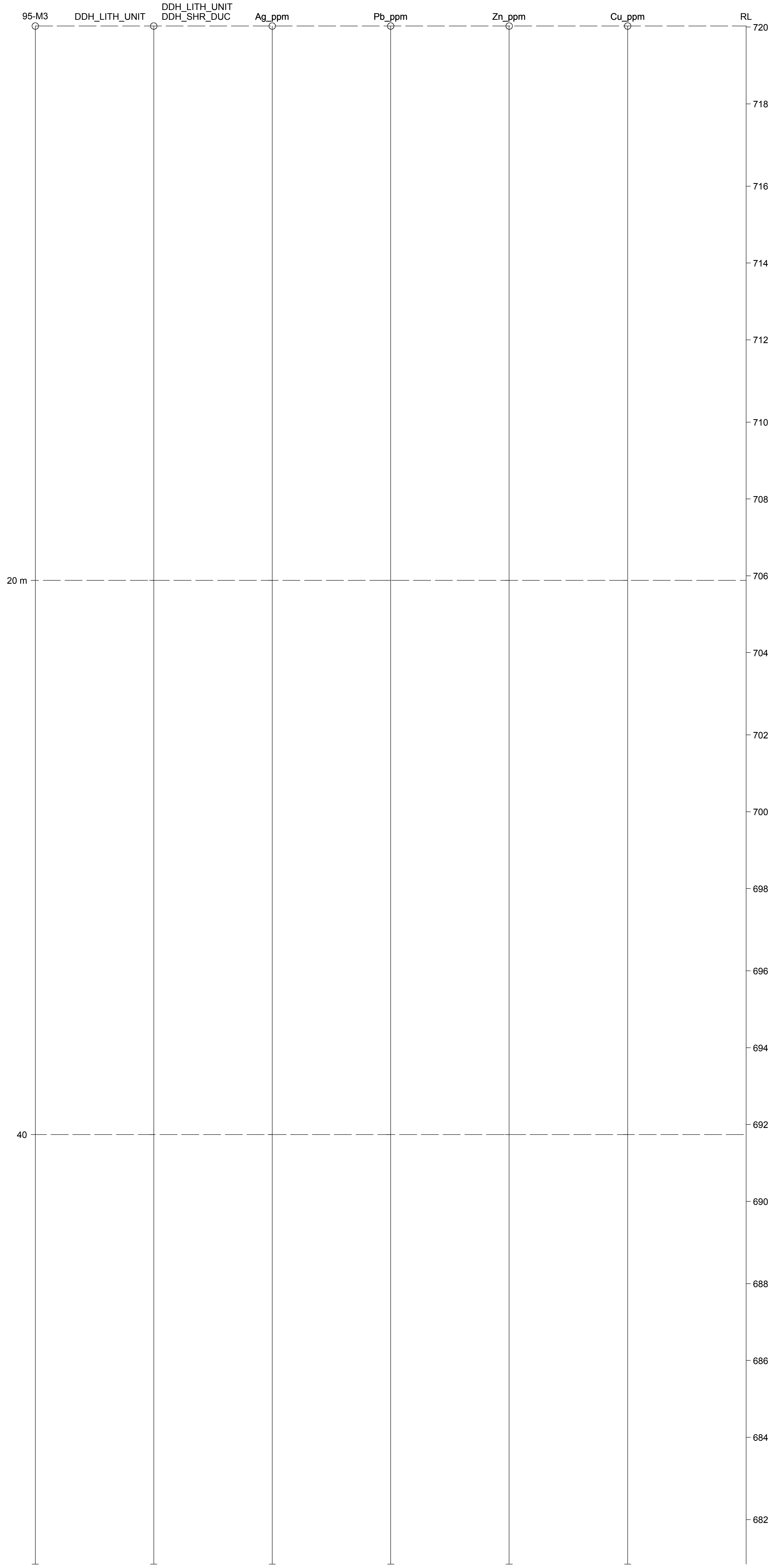
Easting	Northing	RL	Azimuth	Dip	Depth
527669.0	7376082.0	723.3	130.0	-45.0	65.2

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M3

Easting	Northing	RL	Azimuth	Dip	Depth
527701.0	7376075.0	720.0	250.0	-45.0	55.5

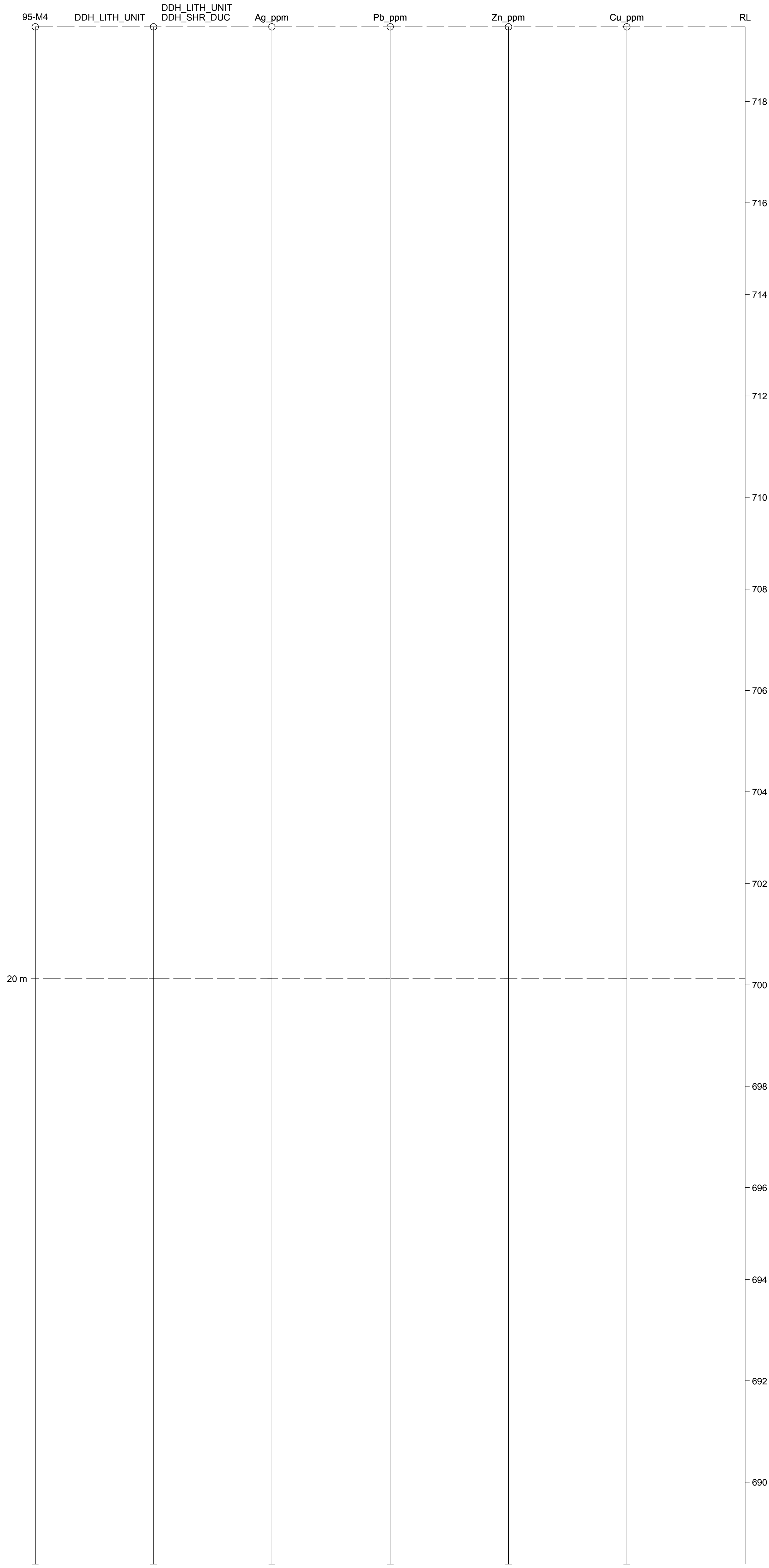


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M4

Easting	Northing	RL	Azimuth	Dip	Depth
527702.0	7376077.0	719.5	250.0	-75.0	32.3

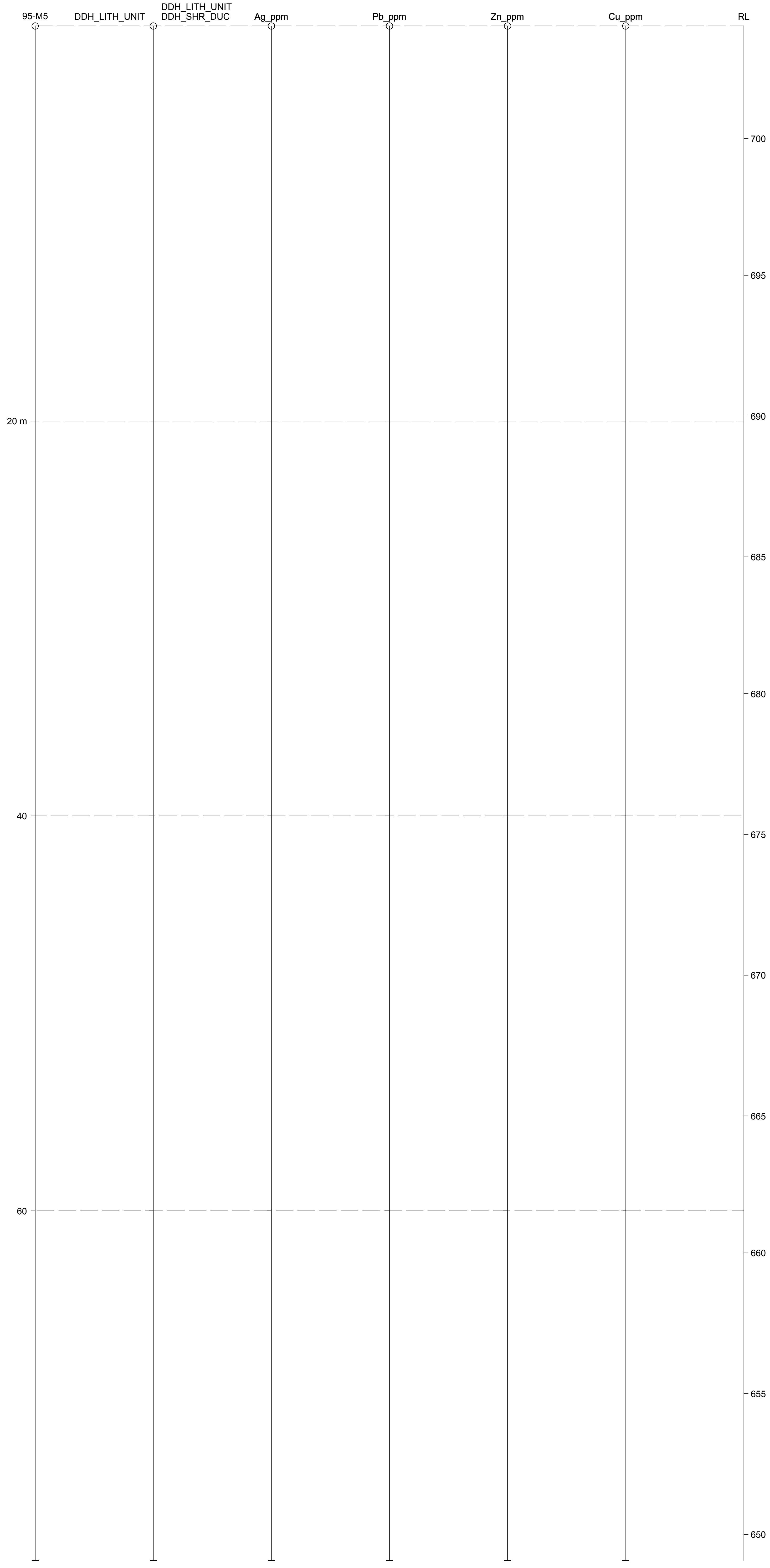


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M5

Easting	Northing	RL	Azimuth	Dip	Depth
527703.0	7376130.0	704.0	130.0	-45.0	77.7



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M6

Easting	Northing	RL	Azimuth	Dip	Depth
527703.0	7376131.0	703.6	130.0	-80.0	32.9

STRIP

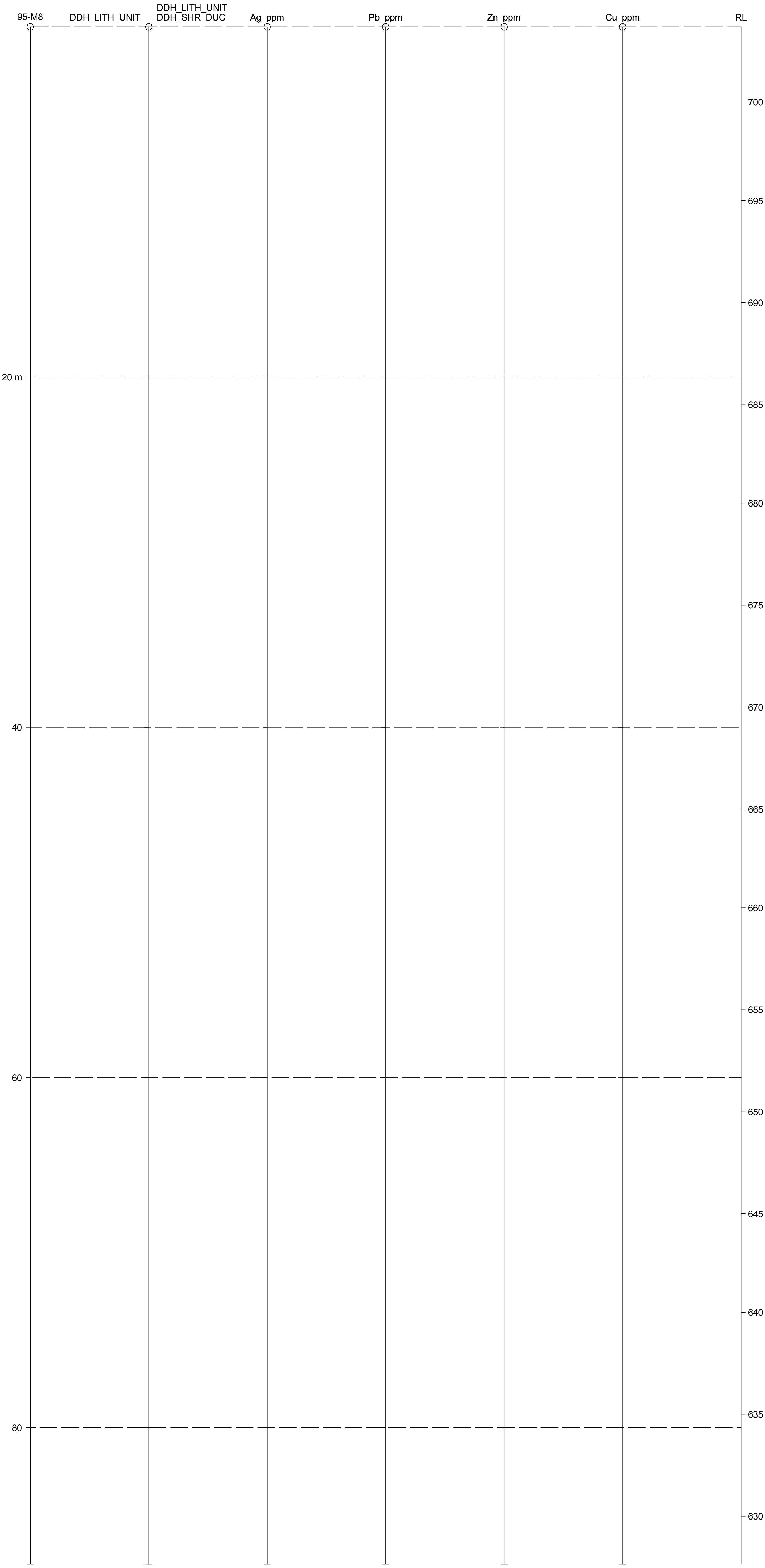
1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M7

Easting	Northing	RL	Azimuth	Dip	Depth
527703.0	7376131.0	703.6	130.0	-60.0	43.9

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100



STRIP LOG: 95-M8

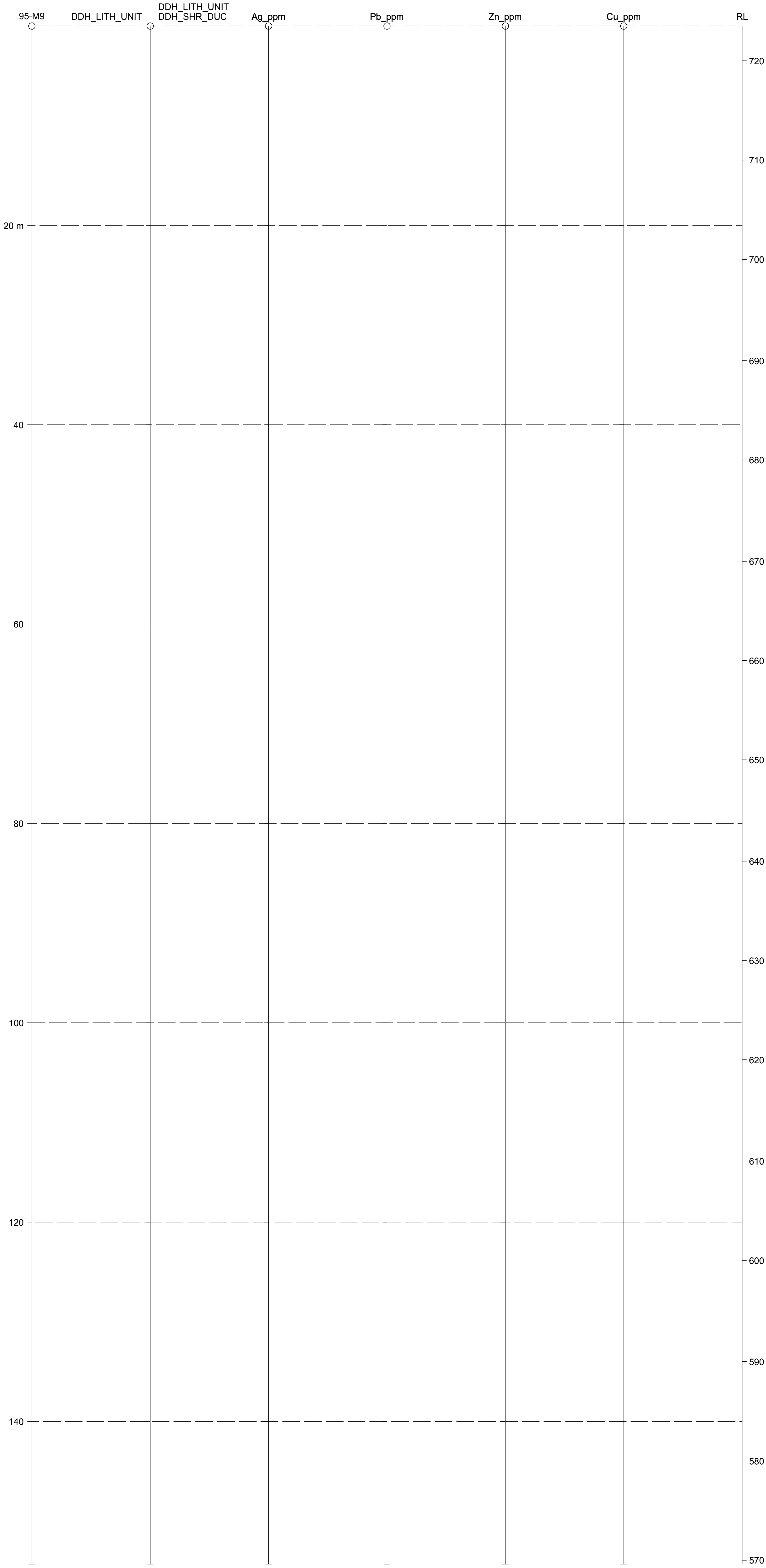
Easting	Northing	RL	Azimuth	Dip	Depth
527703.0	7376131.0	703.6	130.0	-60.0	87.8

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M9

Easting	Northing	RL	Azimuth	Dip	Depth
527670.0	7376081.0	723.4	130.0	-85.0	154.3



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M10

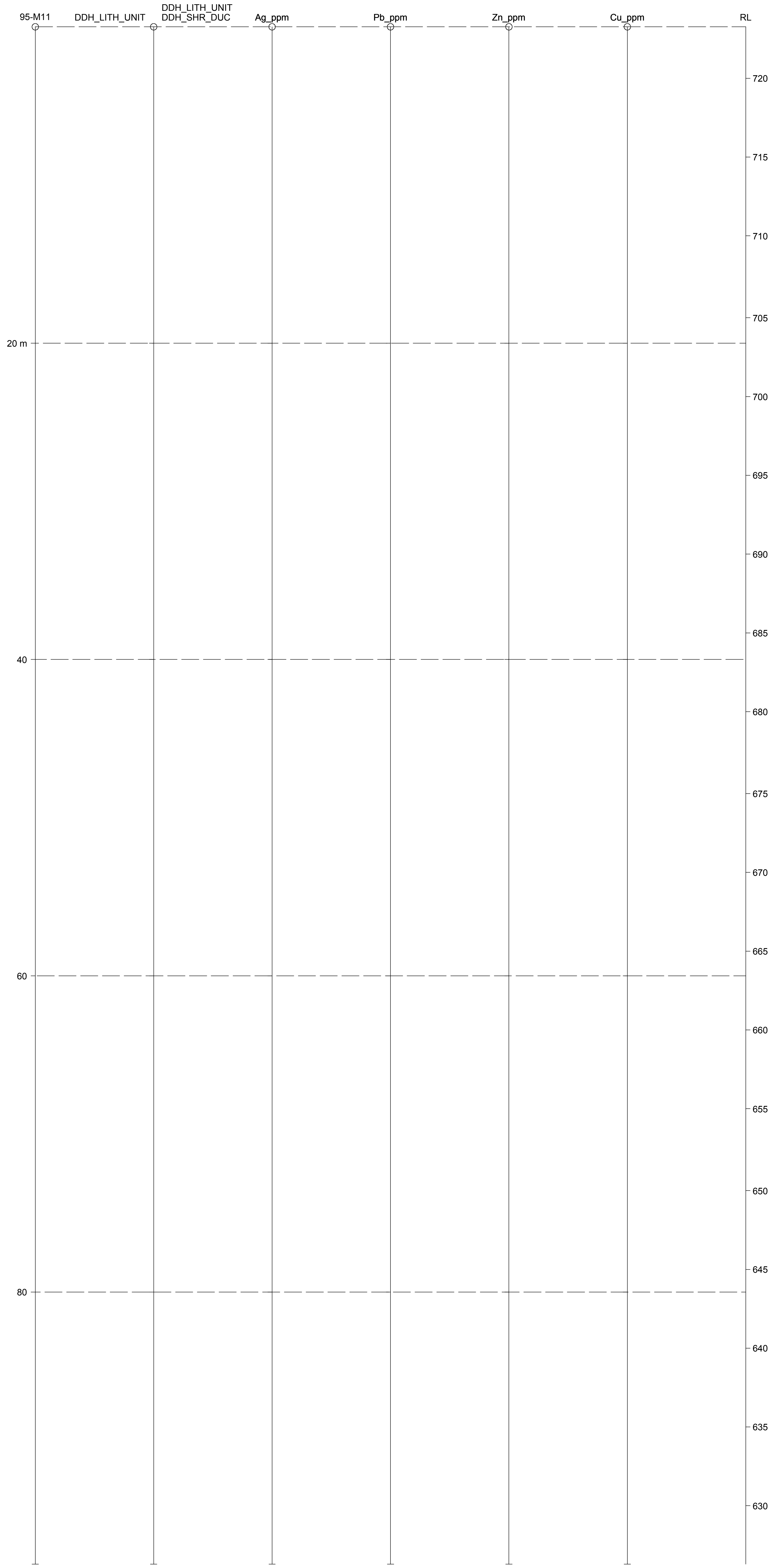
Easting	Northing	RL	Azimuth	Dip	Depth
527669.0	7376081.0	723.5	130.0	-65.0	87.8

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M11

Easting	Northing	RL	Azimuth	Dip	Depth
527670.0	7376082.0	723.2	130.0	-85.0	97.2



STRIP

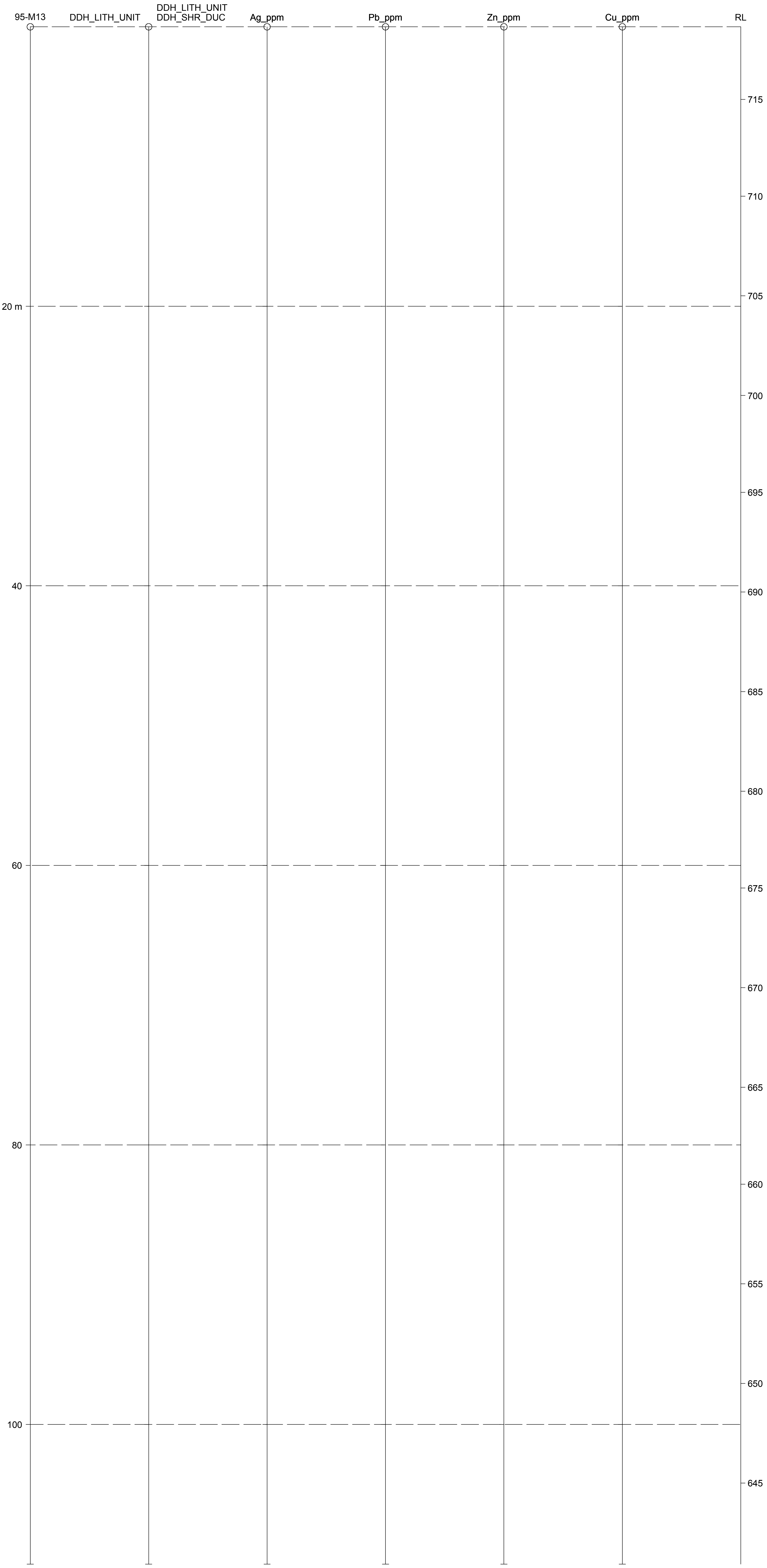
1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: 95-M12

Easting	Northing	RL	Azimuth	Dip	Depth
527576.0	7376008.0	730.4	130.0	-45.0	75.3

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

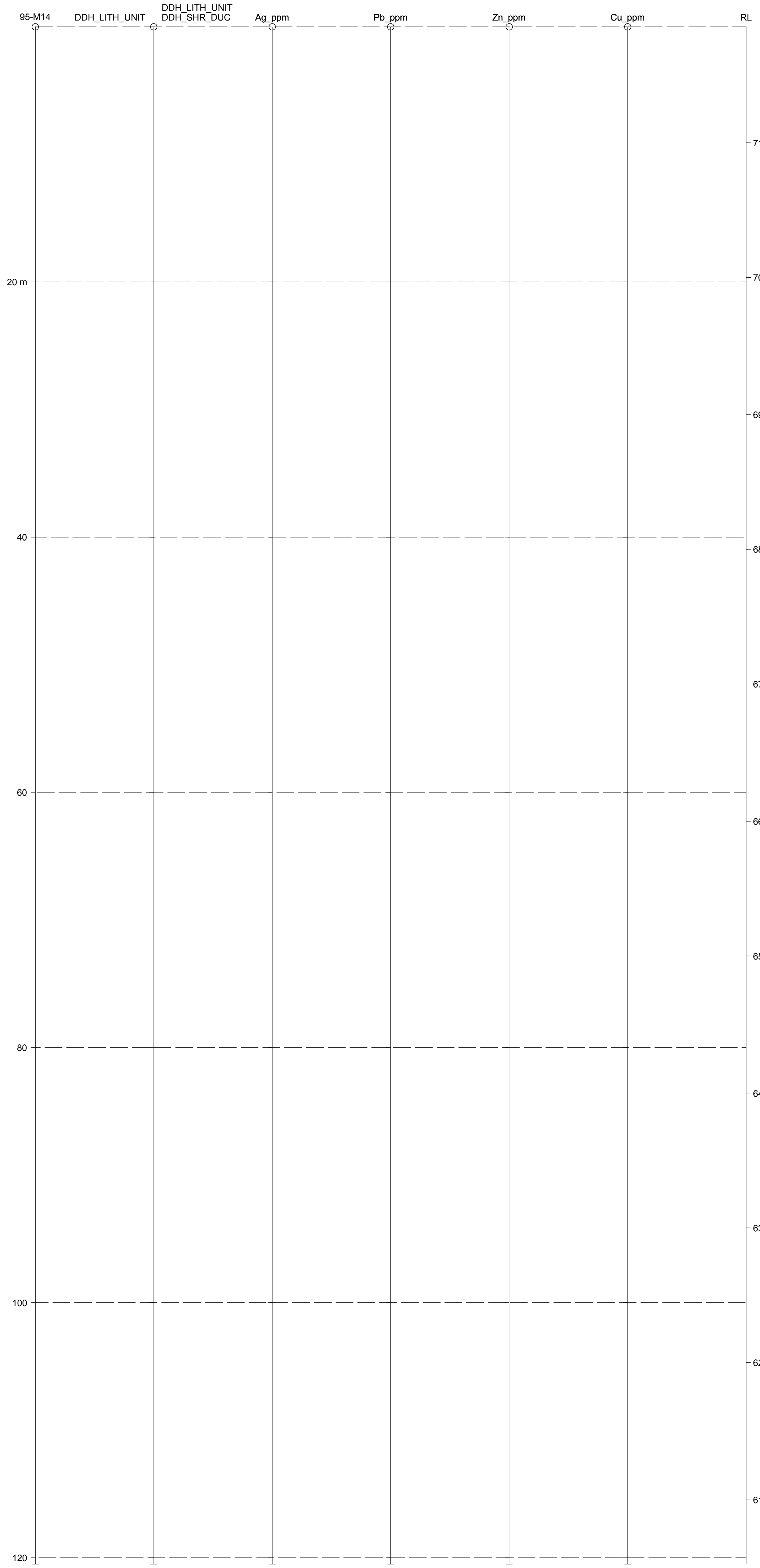


STRIP LOG: 95-M13

Easting	Northing	RL	Azimuth	Dip	Depth
527502.0	7376085.0	718.6	130.0	-45.0	110.0

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100



STRIP LOG: 95-M14

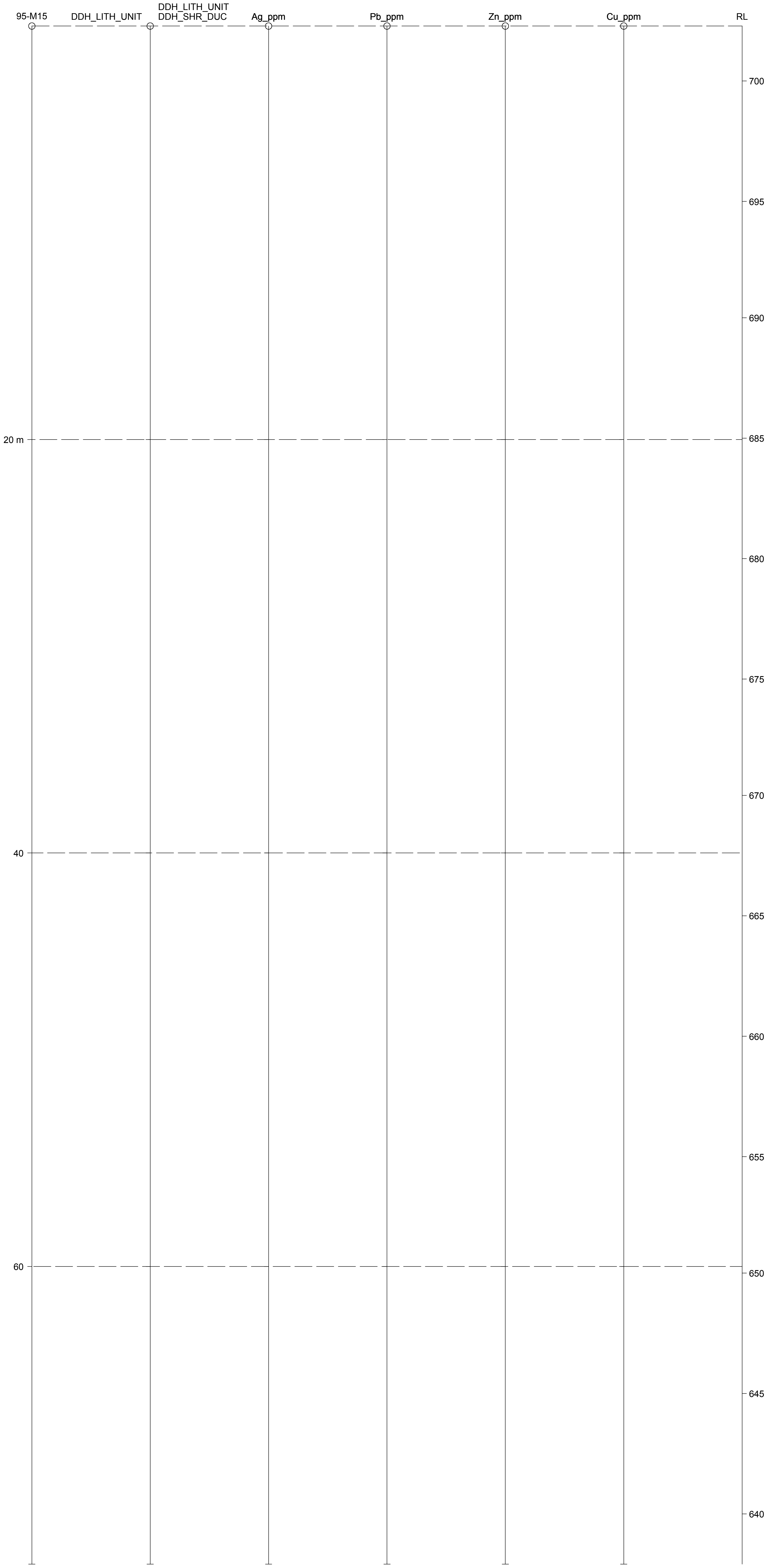
Easting	Northing	RL	Azimuth	Dip	Depth
527502.0	7376086.0	718.5	130.0	-70.0	120.5

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

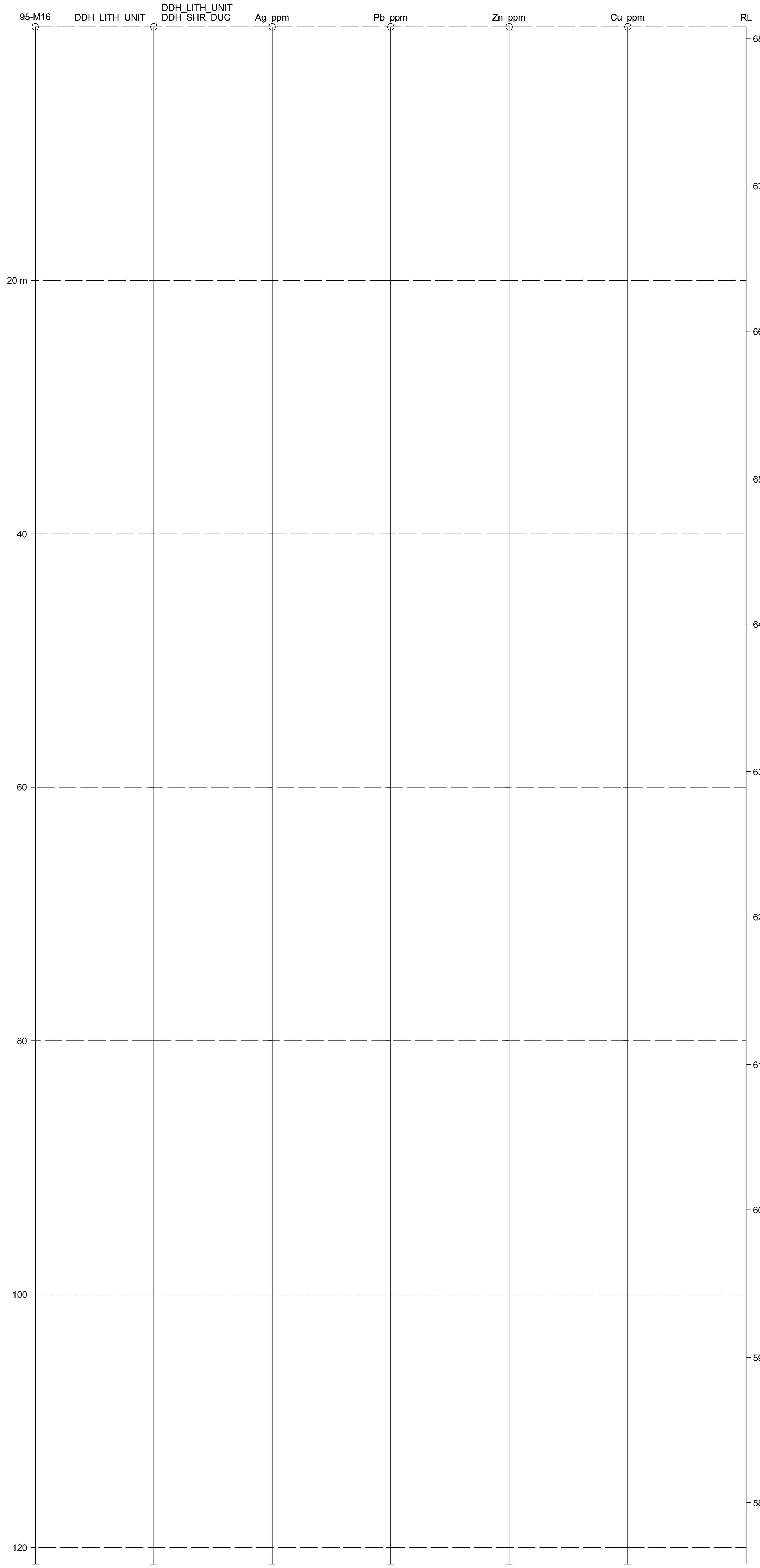
STRIP LOG: 95-M15

Easting	Northing	RL	Azimuth	Dip	Depth
527748.0	7376104.0	702.3	310.0	-60.0	74.4



STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100



STRIP LOG: 95-M16

Easting	Northing	RL	Azimuth	Dip	Depth
527728.0	7376188.0	680.9	120.0	-60.0	121.3

STRIP

1 DDH_LITH_UNIT PAT No patterns matched

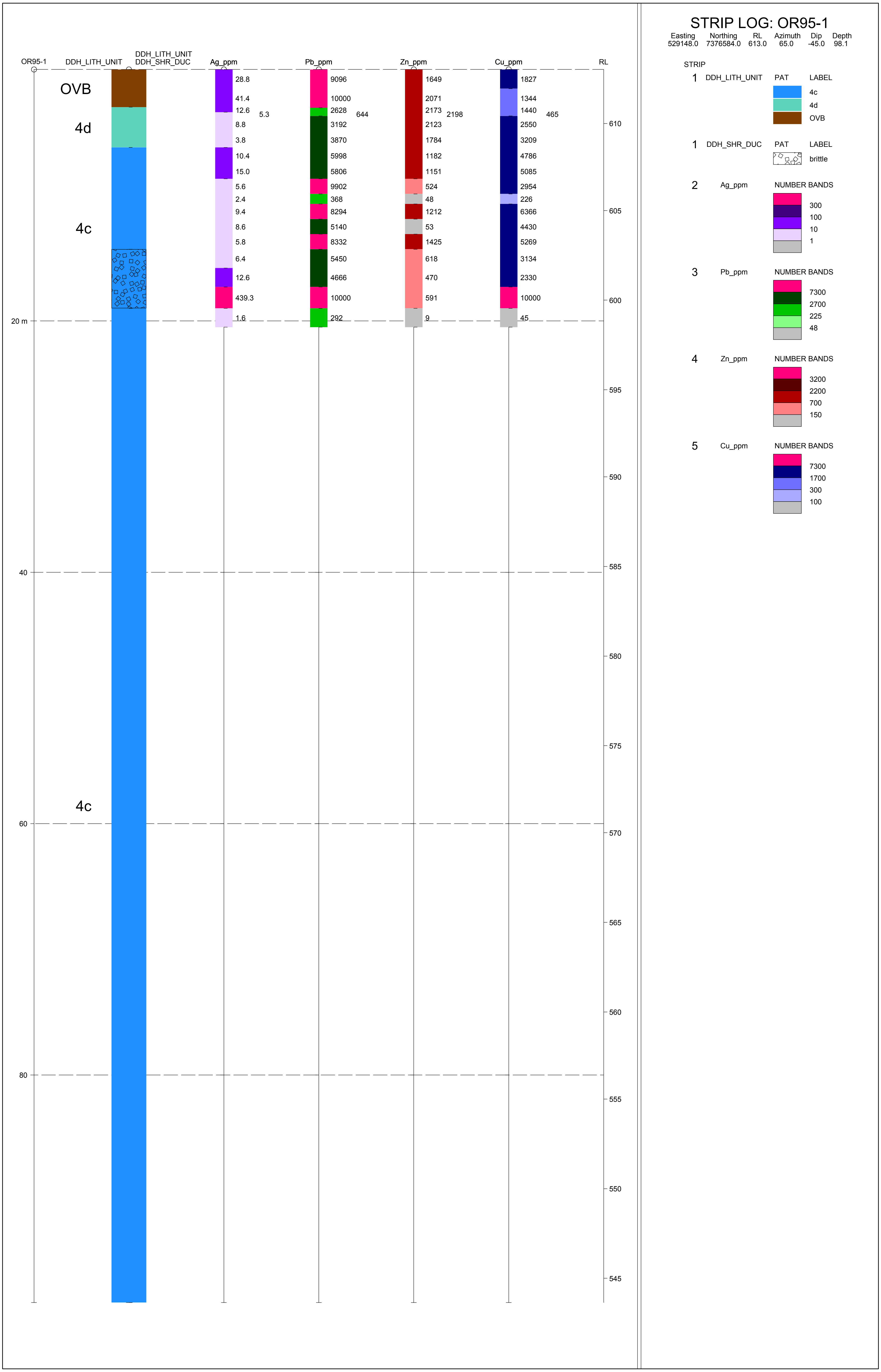
1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
300
100
10
1

3 Pb_ppm NUMBER BANDS
7300
2700
225
48

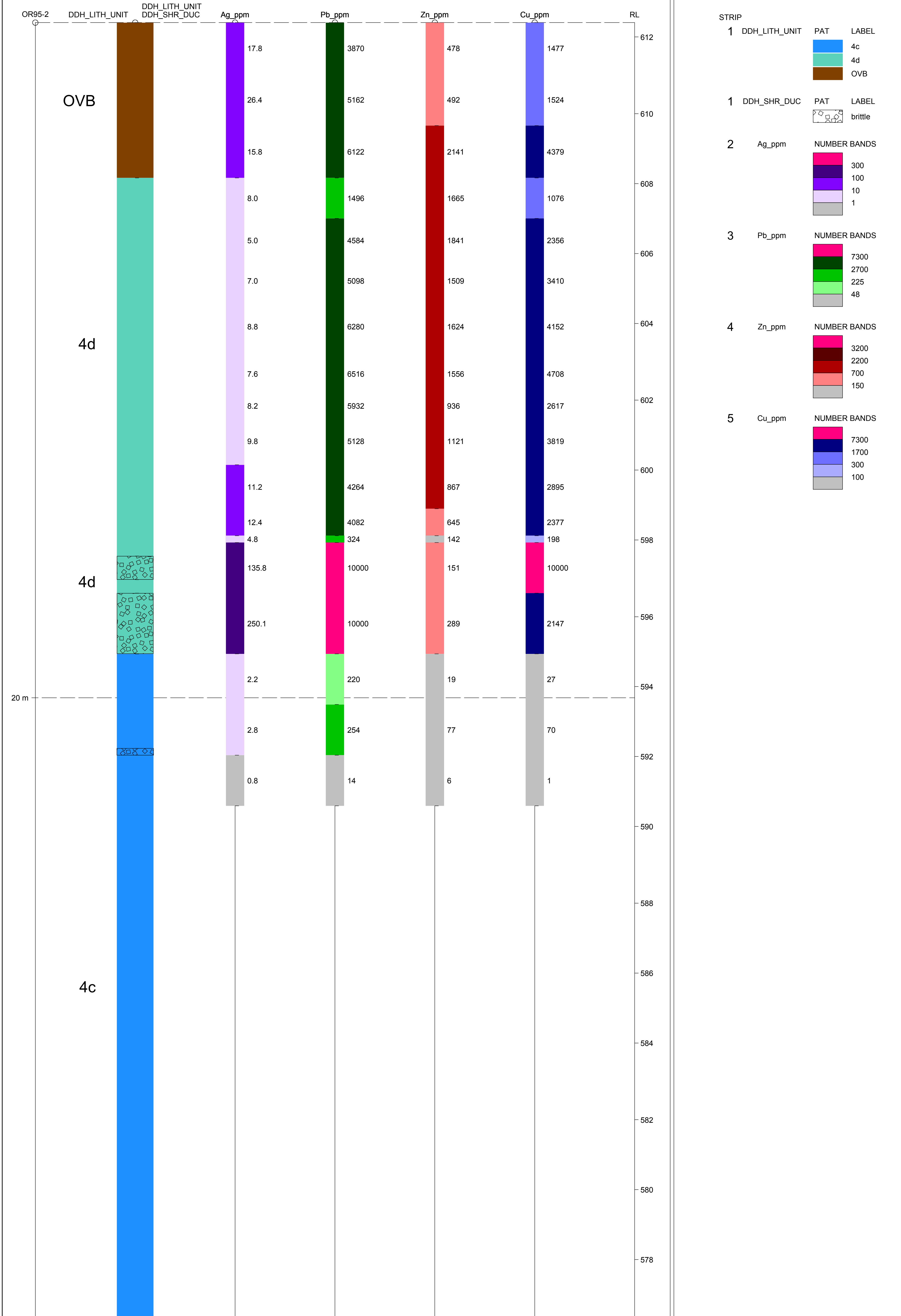
4 Zn_ppm NUMBER BANDS
3200
2200
700
150

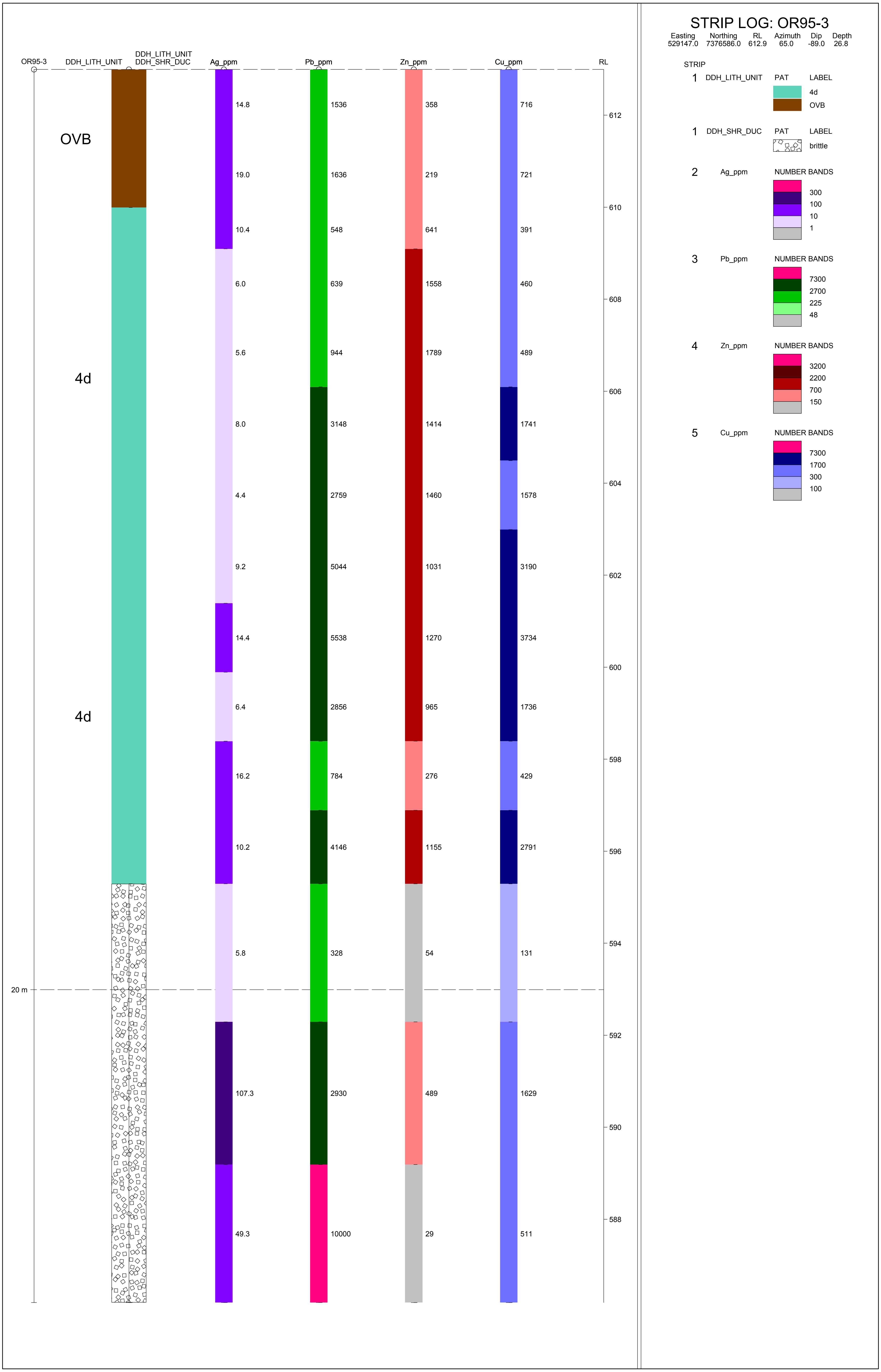
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

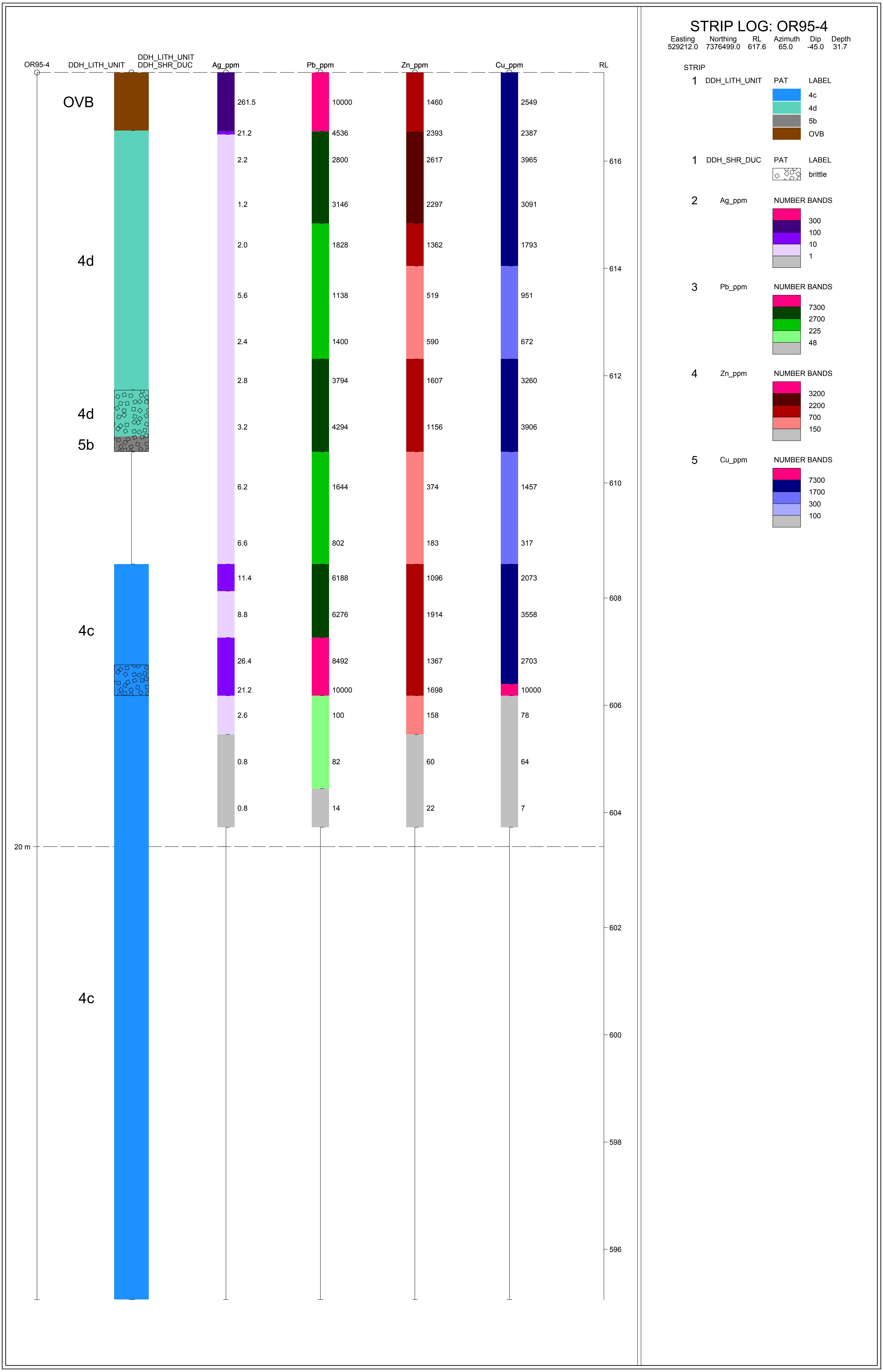

STRIP LOG: OR95-1
Easting 529148.0
Northing 7376584.0
RL 613.0
Azimuth 65.0
Dip -45.0
Depth 98.1
OR95-1
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4d
4c
4c
20 m
40
60
80
28.8
41.4
12.6
5.3
8.8
3.8
10.4
15.0
5.6
2.4
9.4
8.6
5.8
6.4
12.6
439.3
1.6
9096
10000
2628
644
3192
3870
5998
5806
9902
368
8294
5140
8332
5450
4666
10000
292
1649
2071
2173
2198
2123
1784
1182
1151
524
48
1212
53
1425
618
470
591
9
1827
1344
1440
465
2550
3209
4786
5085
2954
226
6366
4430
5269
3134
2330
10000
45
610
605
600
595
590
585
580
575
570
565
560
555
550
545
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4d
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

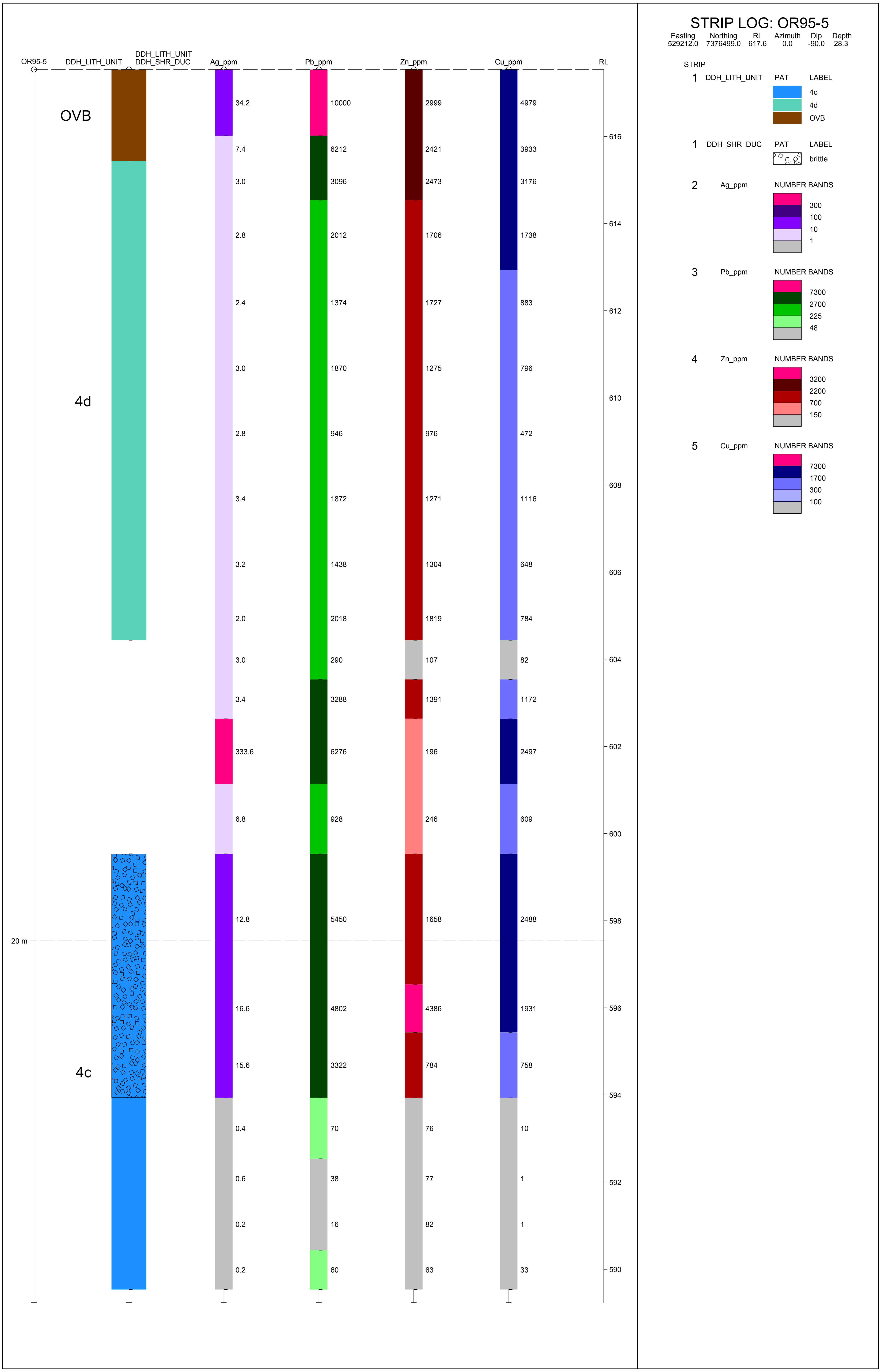
STRIP LOG: OR95-2

Easting	Northing	RL	Azimuth	Dip	Depth
529146.0	7376584.0	612.4	65.0	-70.0	38.4




STRIP LOG: OR95-3
Easting 529147.0
Northing 7376586.0
RL 612.9
Azimuth 65.0
Dip -89.0
Depth 26.8
OR95-3
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4d
4d
14.8
19.0
10.4
6.0
5.6
8.0
4.4
9.2
14.4
6.4
16.2
10.2
5.8
107.3
49.3
1536
1636
548
639
944
3148
2759
5044
5538
2856
784
4146
328
2930
10000
358
219
641
1558
1789
1414
1460
1031
1270
965
276
1155
54
489
29
716
721
391
460
489
1741
1578
3190
3734
1736
429
2791
131
1629
511
612
610
608
606
604
602
600
598
596
594
592
590
588
20 m
STRIP
1 DDH_LITH_UNIT PAT LABEL
4d
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100


STRIP LOG: OR95-4
Easting 529212.0
Northing 7376499.0
RL 617.6
Azimuth 65.0
Dip -45.0
Depth 31.7
OR95-4
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4d
4d
5b
4c
4c
20 m
261.5
21.2
2.2
1.2
2.0
5.6
2.4
2.8
3.2
6.2
6.6
11.4
8.8
26.4
21.2
2.6
0.8
0.8
10000
4536
2800
3146
1828
1138
1400
3794
4294
1644
802
6188
6276
8492
10000
100
82
14
1460
2393
2617
2297
1362
519
590
1607
1156
374
183
1096
1914
1367
1698
158
60
22
2549
2387
3965
3091
1793
951
672
3260
3906
1457
317
2073
3558
2703
10000
78
64
7
616
614
612
610
608
606
604
602
600
598
596
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4d
5b
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

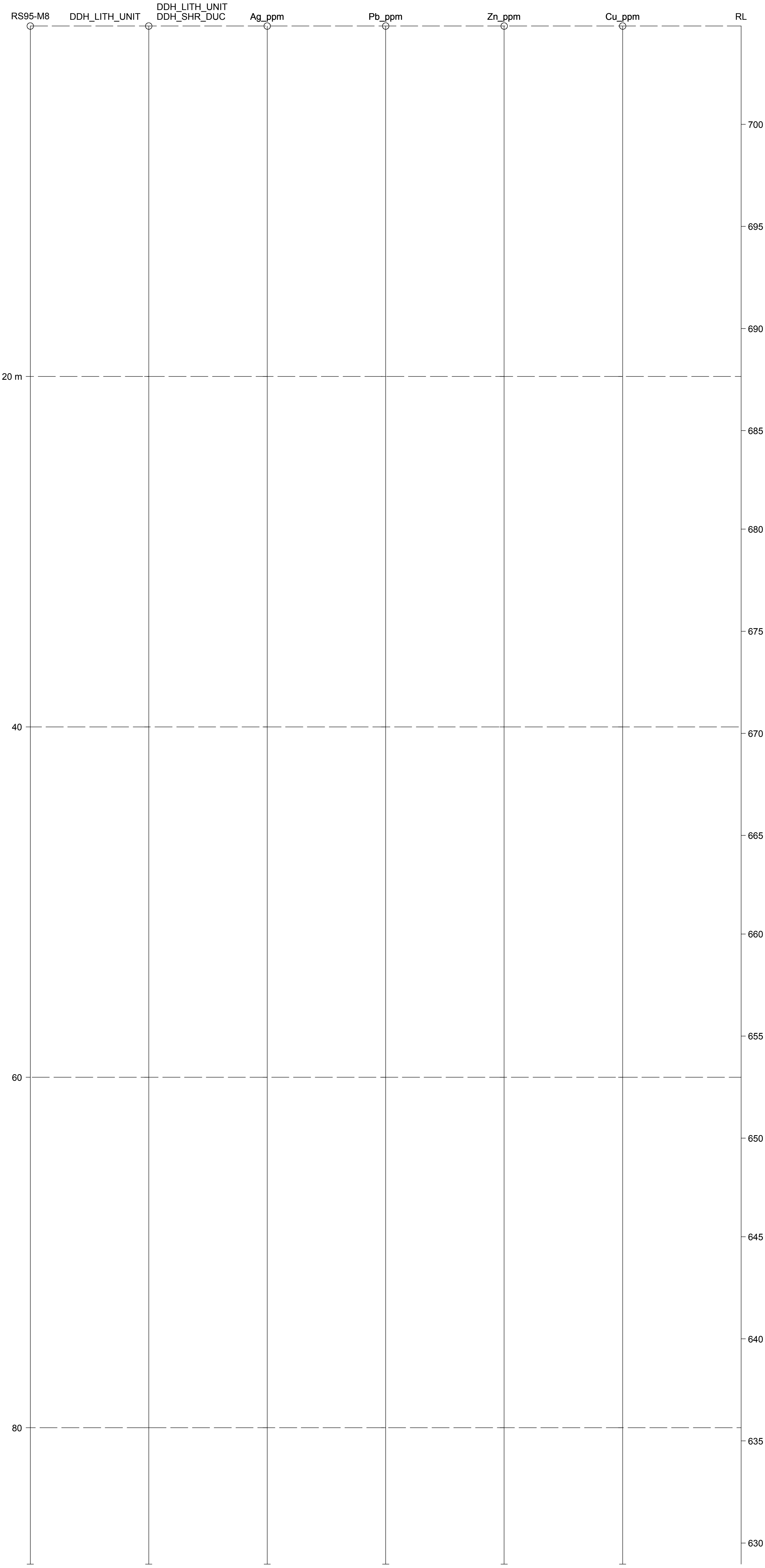

STRIP LOG: OR95-5
Easting 529212.0
Northing 7376499.0
RL 617.6
Azimuth 0.0
Dip -90.0
Depth 28.3
OR95-5
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
4d
4c
20 m
34.2
7.4
3.0
2.8
2.4
3.0
2.8
3.4
3.2
2.0
3.0
3.4
333.6
6.8
12.8
16.6
15.6
0.4
0.6
0.2
0.2
10000
6212
3096
2012
1374
1870
946
1872
1438
2018
290
3288
6276
928
5450
4802
3322
70
38
16
60
2999
2421
2473
1706
1727
1275
976
1271
1304
1819
107
1391
196
246
1658
4386
784
76
77
82
63
4979
3933
3176
1738
883
796
472
1116
648
784
82
1172
2497
609
2488
1931
758
10
1
1
33
616
614
612
610
608
606
604
602
600
598
596
594
592
590
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
4d
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: RS95-M7

Easting	Northing	RL	Azimuth	Dip	Depth
527712.0	7376118.0	705.9	130.0	-60.0	43.9

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100



STRIP LOG: RS95-M8

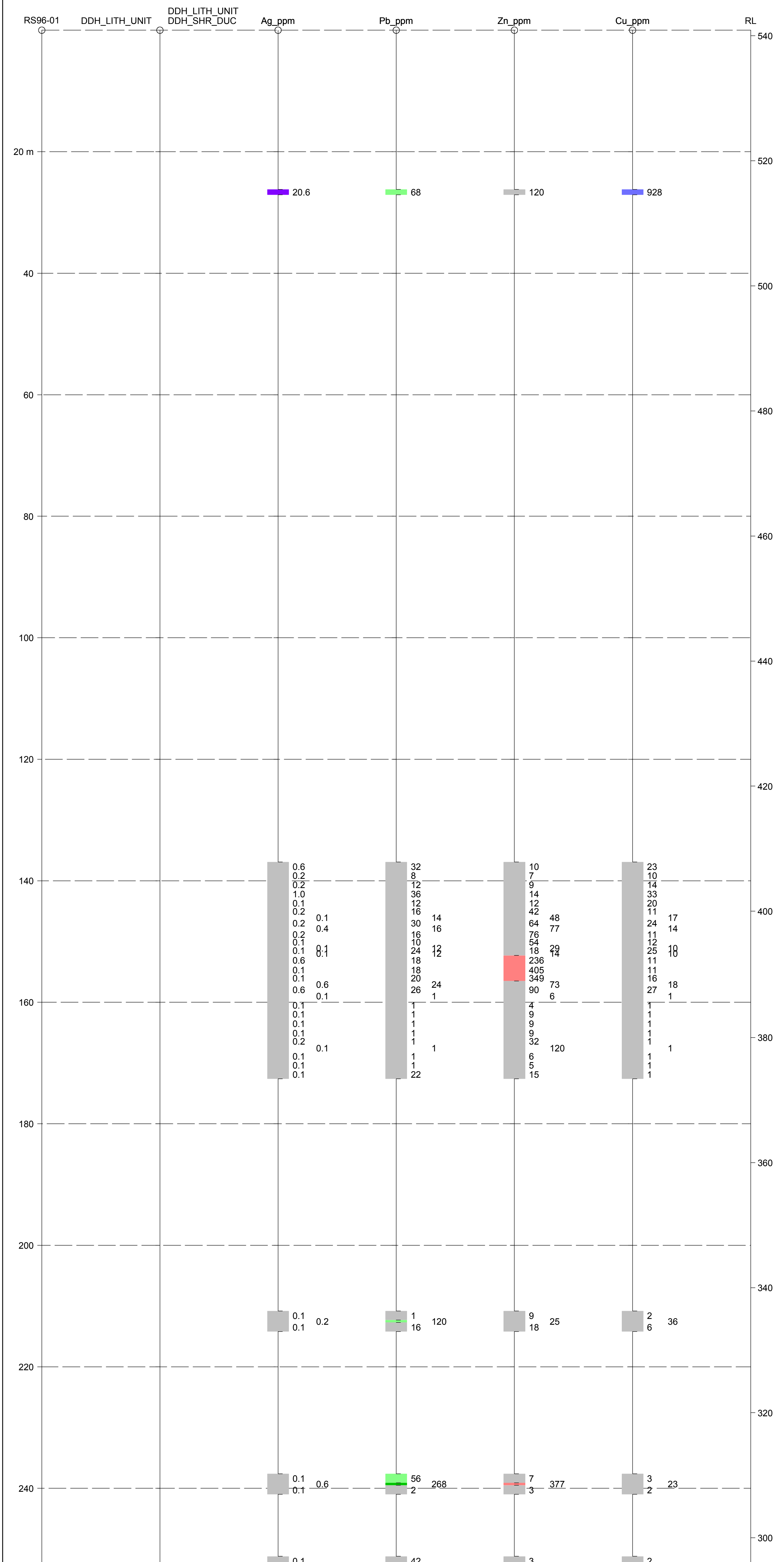
Easting	Northing	RL	Azimuth	Dip	Depth
527717.0	7376118.0	704.9	130.0	-60.0	87.8

STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: RS96-01

Easting	Northing	RL	Azimuth	Dip	Depth
527269.0	7376614.0	540.8	155.0	-76.0	252.7

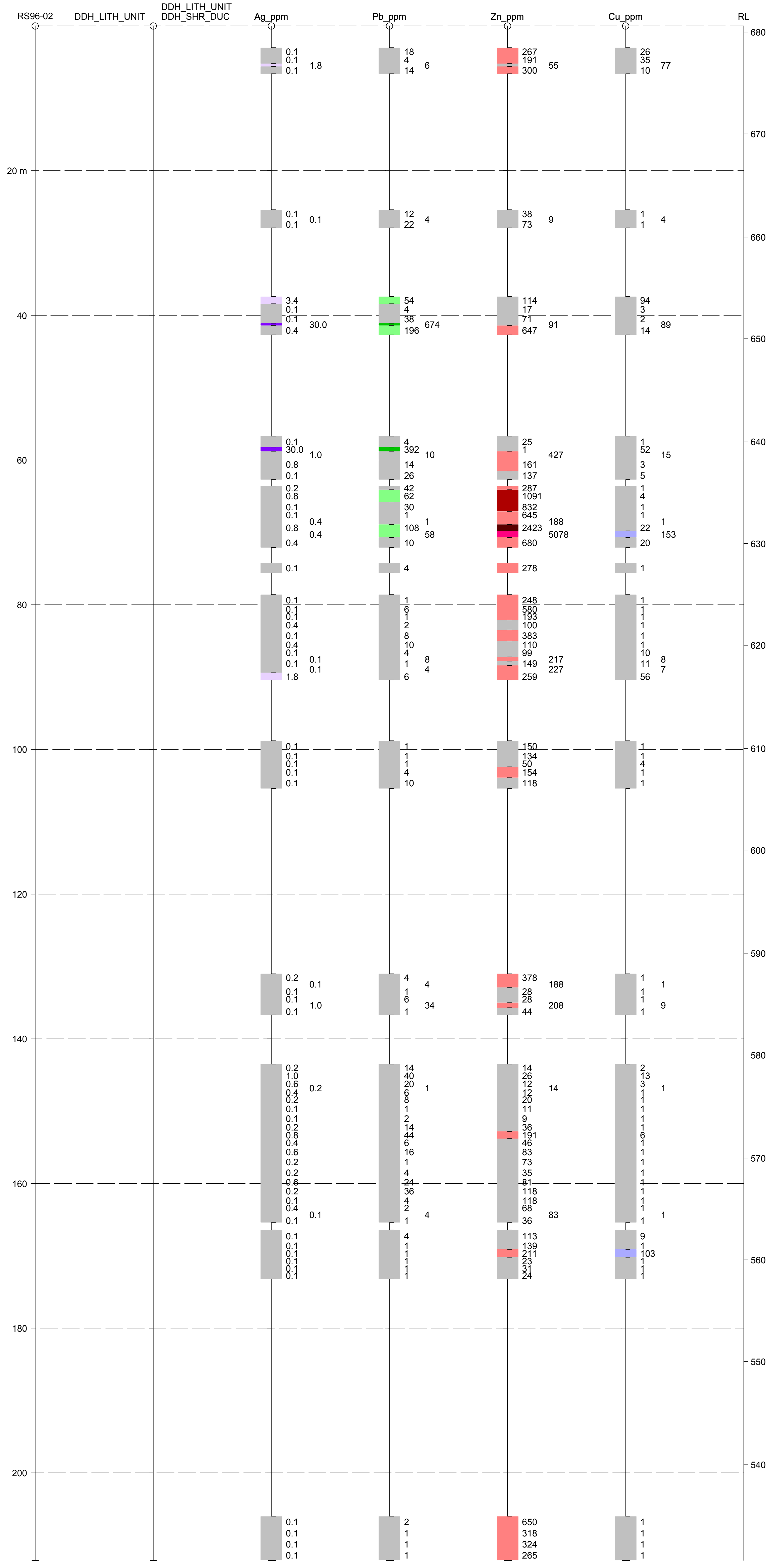


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: RS96-02

Easting	Northing	RL	Azimuth	Dip	Depth
527729.0	7376188.0	680.6	130.0	-45.0	212.1

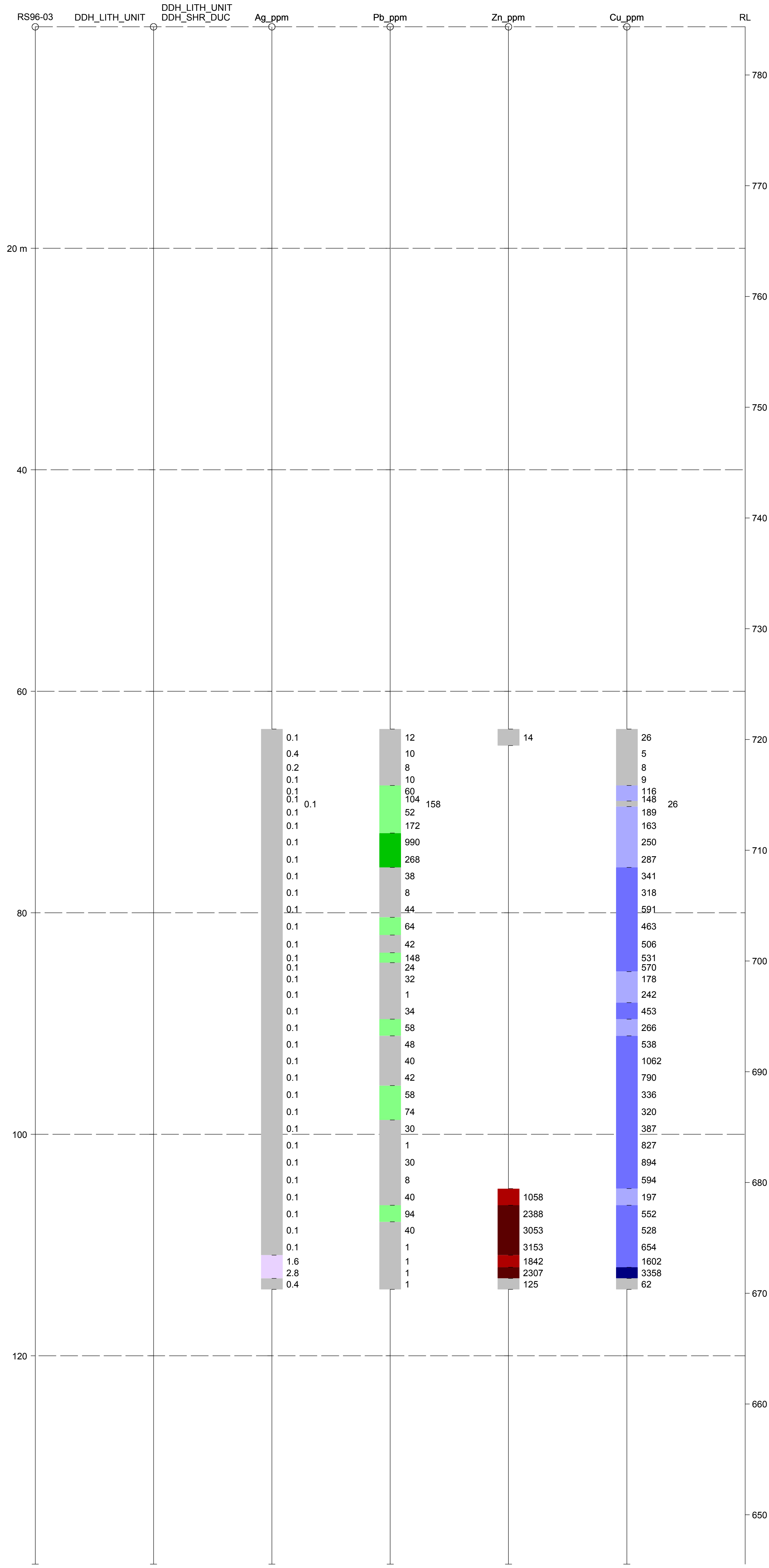


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

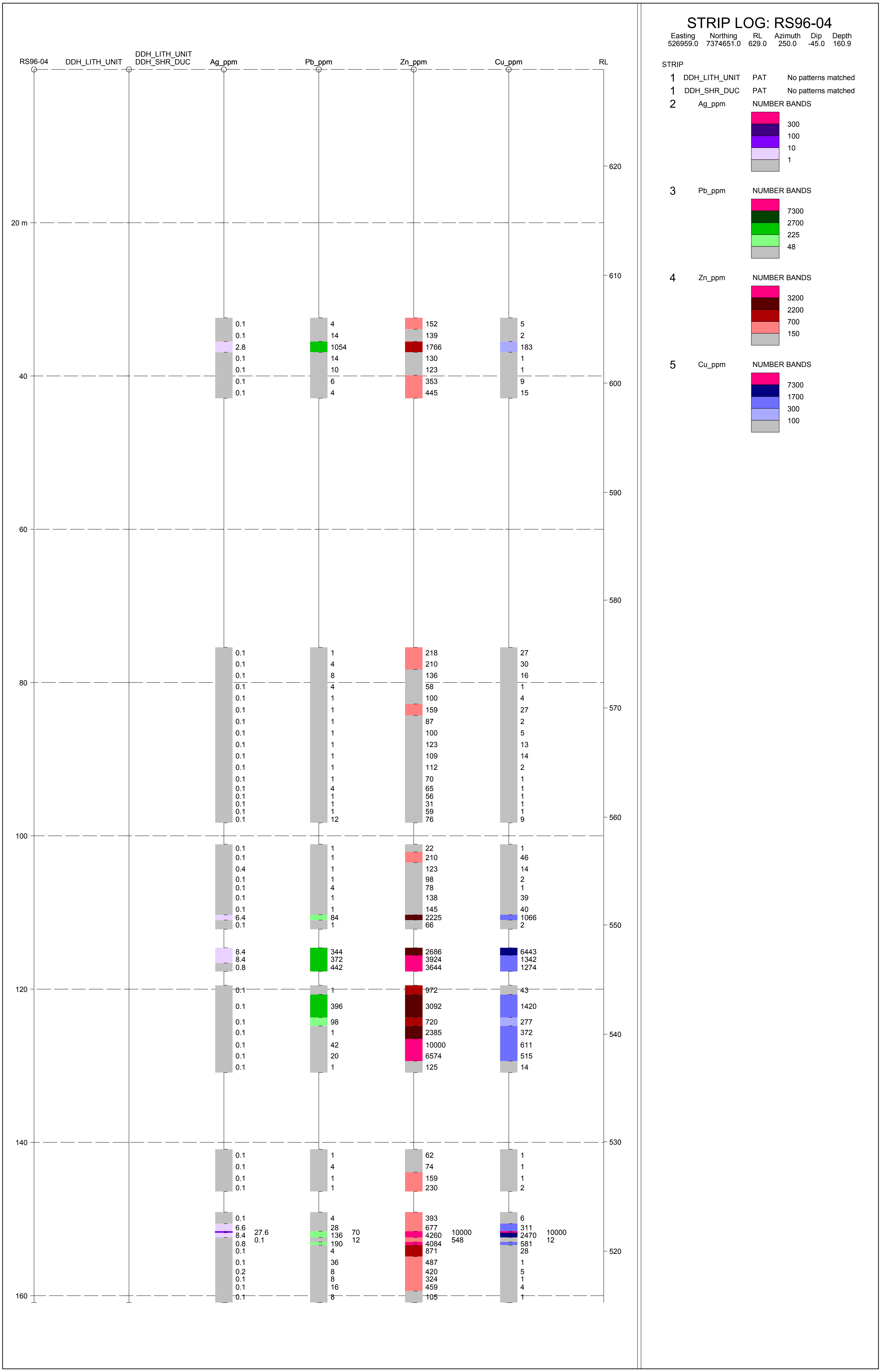
STRIP LOG: RS96-03

Easting	Northing	RL	Azimuth	Dip	Depth
528014.0	7374683.0	784.4	0.0	-90.0	138.8



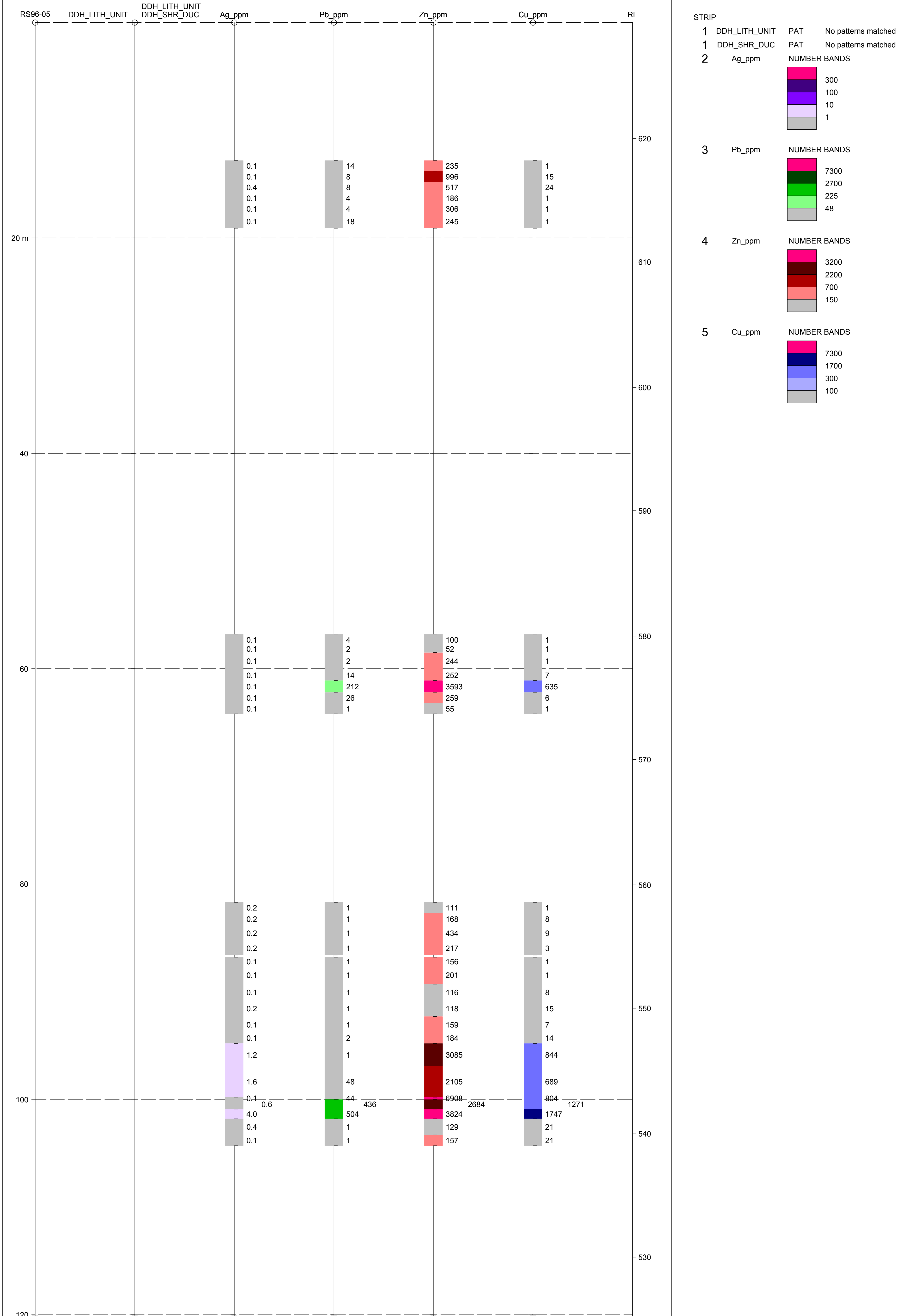
STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100


STRIP LOG: RS96-04
Easting 526959.0 Northing 7374651.0 RL 629.0 Azimuth 250.0 Dip -45.0 Depth 160.9
STRIP
1 DDH_LITH_UNIT PAT No patterns matched
1 DDH_SHR_DUC PAT No patterns matched
2 Ag_ppm NUMBER BANDS 300 100 10 1
3 Pb_ppm NUMBER BANDS 7300 2700 225 48
4 Zn_ppm NUMBER BANDS 3200 2200 700 150
5 Cu_ppm NUMBER BANDS 7300 1700 300 100
RS96-04
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
20 m
40
60
80
100
120
140
160
620
610
600
590
580
570
560
550
540
530
520
0.1 4 152 5
0.1 14 139 2
2.8 1054 1766 183
0.1 14 130 1
0.1 10 123 1
0.1 6 353 9
0.1 4 445 15
0.1 1 218 27
0.1 4 210 30
0.1 8 136 16
0.1 4 58 1
0.1 1 100 4
0.1 1 159 27
0.1 1 87 2
0.1 1 100 5
0.1 1 123 13
0.1 1 109 14
0.1 1 112 2
0.1 1 70 1
0.1 4 65 1
0.1 1 56 1
0.1 1 31 1
0.1 1 59 1
0.1 12 76 9
0.1 1 22 1
0.1 1 210 46
0.4 1 123 14
0.1 1 98 2
0.1 4 78 1
0.1 1 138 39
0.1 1 145 40
6.4 84 2225 1066
0.1 1 66 2
8.4 344 2686 6443
8.4 372 3924 1342
0.8 442 3644 1274
0.1 1 972 43
0.1 396 3092 1420
0.1 98 720 277
0.1 1 2385 372
0.1 42 10000 611
0.1 20 6574 515
0.1 1 125 14
0.1 1 62 1
0.1 4 74 1
0.1 1 159 1
0.1 1 230 2
0.1 4 393 6
6.6 28 677 311
8.4 27.6 0.1 136 70 12 4260 10000 548 2470 10000 12
0.8 190 4084 581
0.1 4 871 28
0.1 36 487 1
0.2 8 420 5
0.1 8 324 1
0.1 16 459 4
0.1 8 105 1

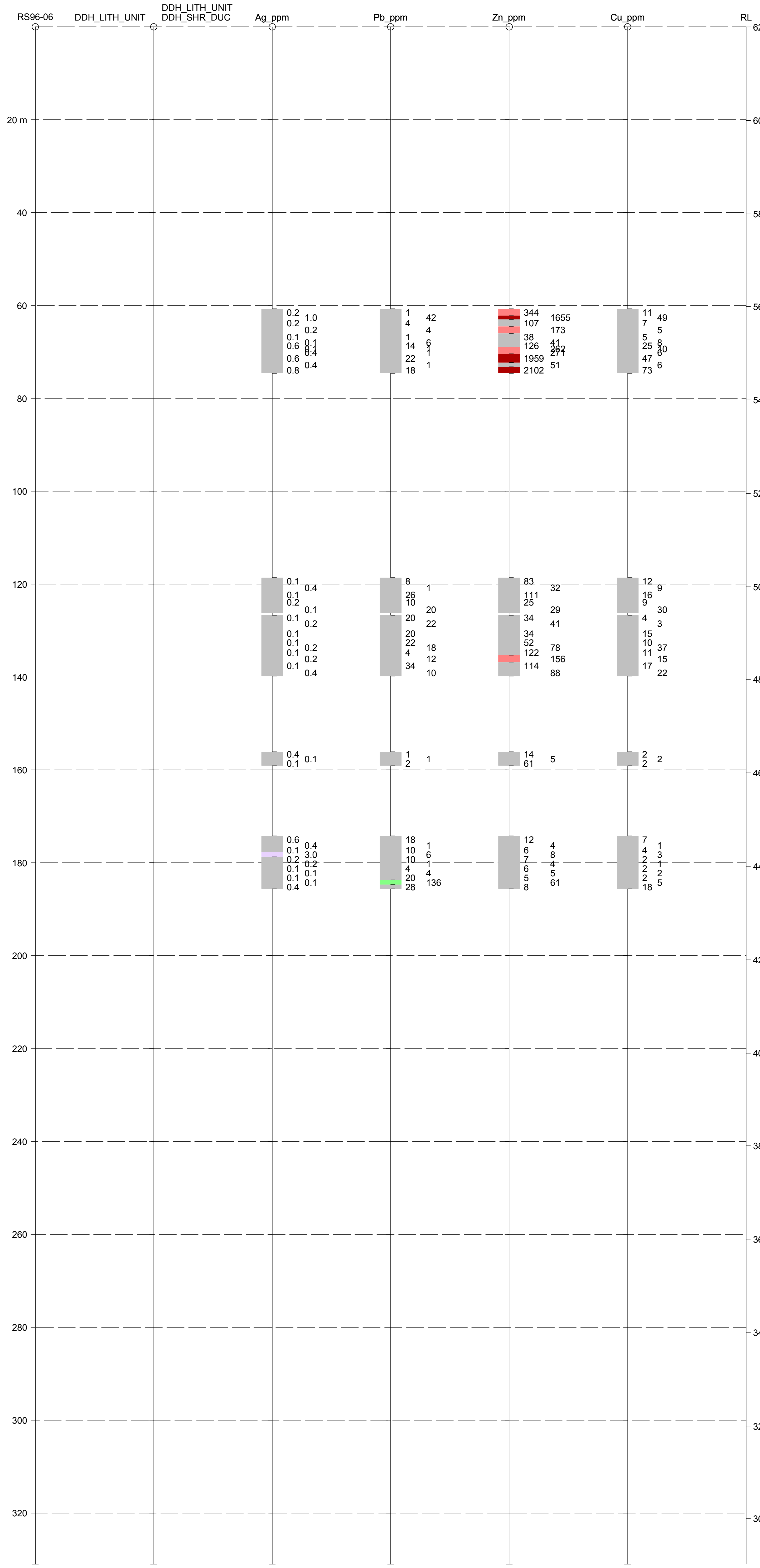
STRIP LOG: RS96-05

Easting	Northing	RL	Azimuth	Dip	Depth
526959.0	7374650.0	629.3	250.0	-60.0	120.1



STRIP LOG: RS96-06

Easting	Northing	RL	Azimuth	Dip	Depth
527860.0	7376292.0	620.1	130.0	-85.0	331.0

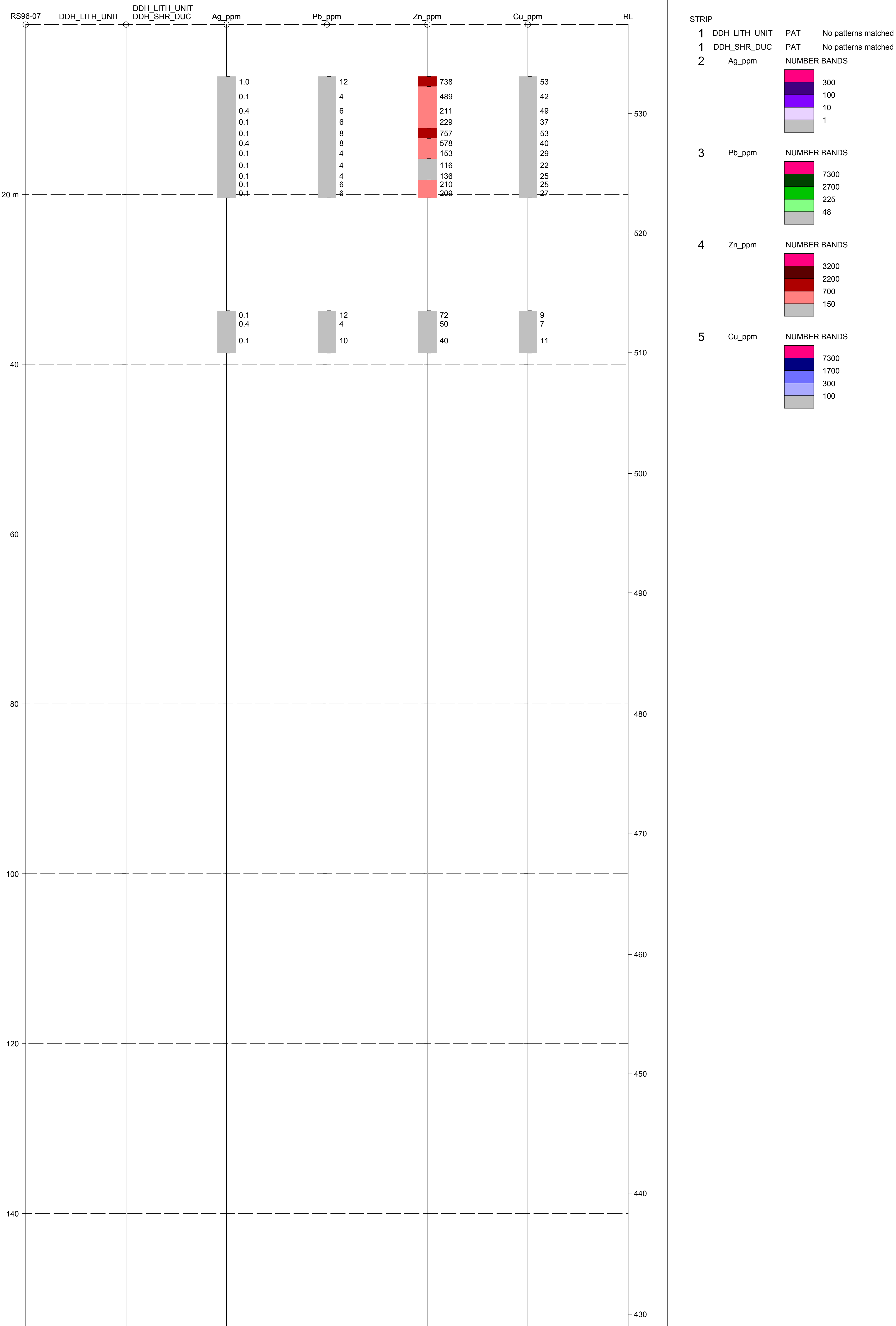


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

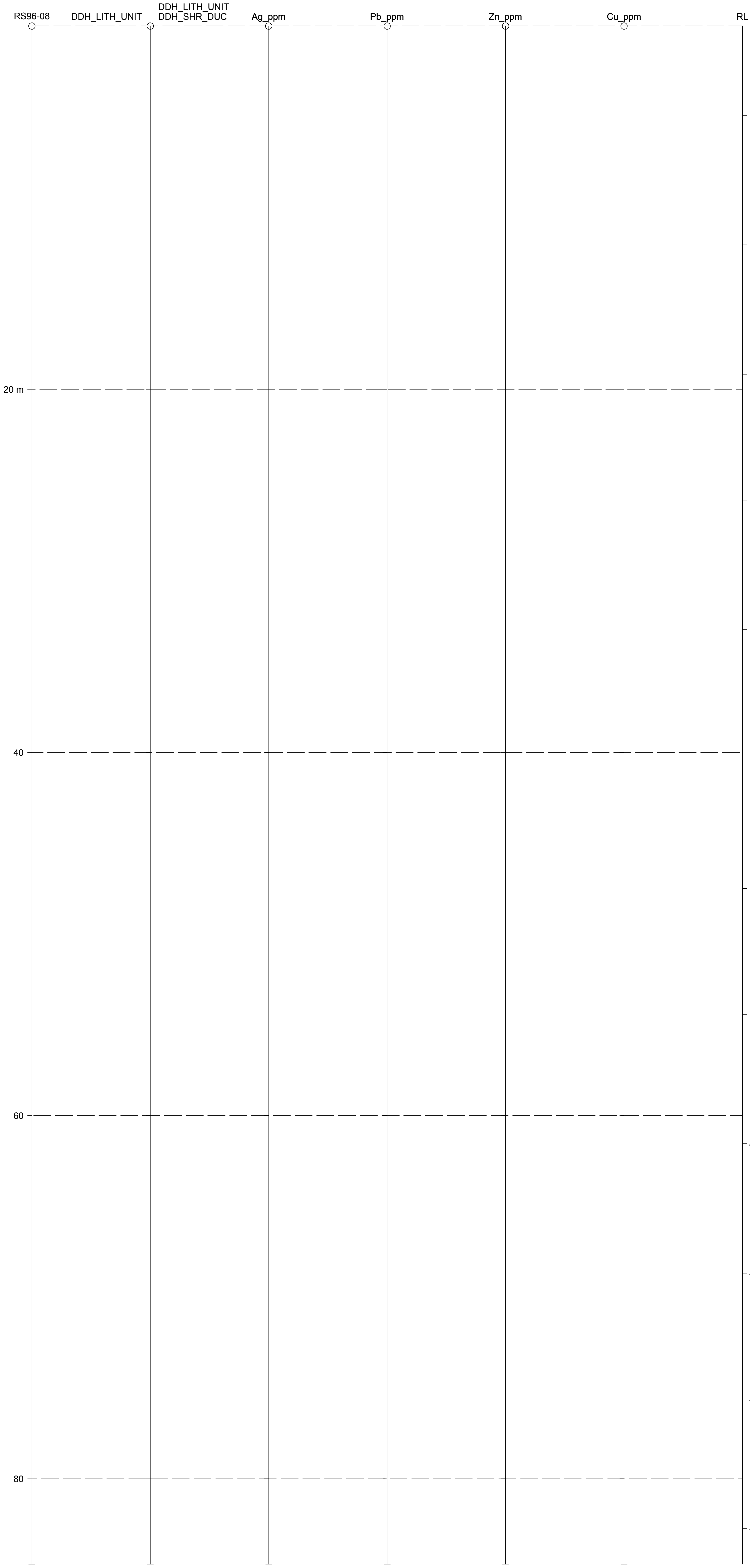
STRIP LOG: RS96-07

Easting	Northing	RL	Azimuth	Dip	Depth
527006.0	7376606.0	537.4	140.0	-45.0	153.6



STRIP LOG: RS96-08

Easting	Northing	RL	Azimuth	Dip	Depth
527007.0	7376537.0	538.5	90.0	-45.0	84.7

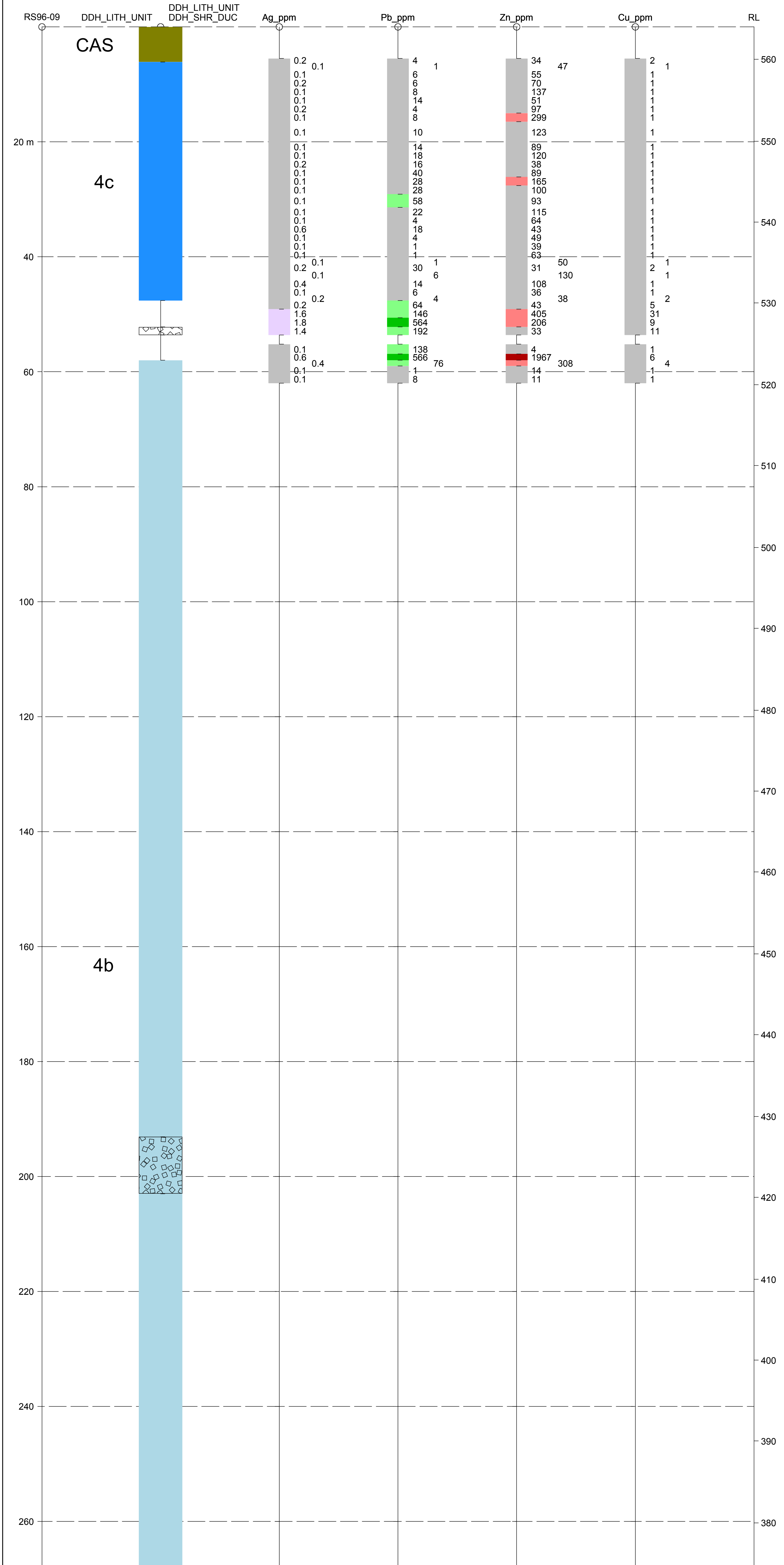


STRIP

1	DDH_LITH_UNIT	PAT	No patterns matched
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

STRIP LOG: RS96-09

Easting	Northing	RL	Azimuth	Dip	Depth
528873.0	7376853.0	564.0	65.0	-45.0	268.2



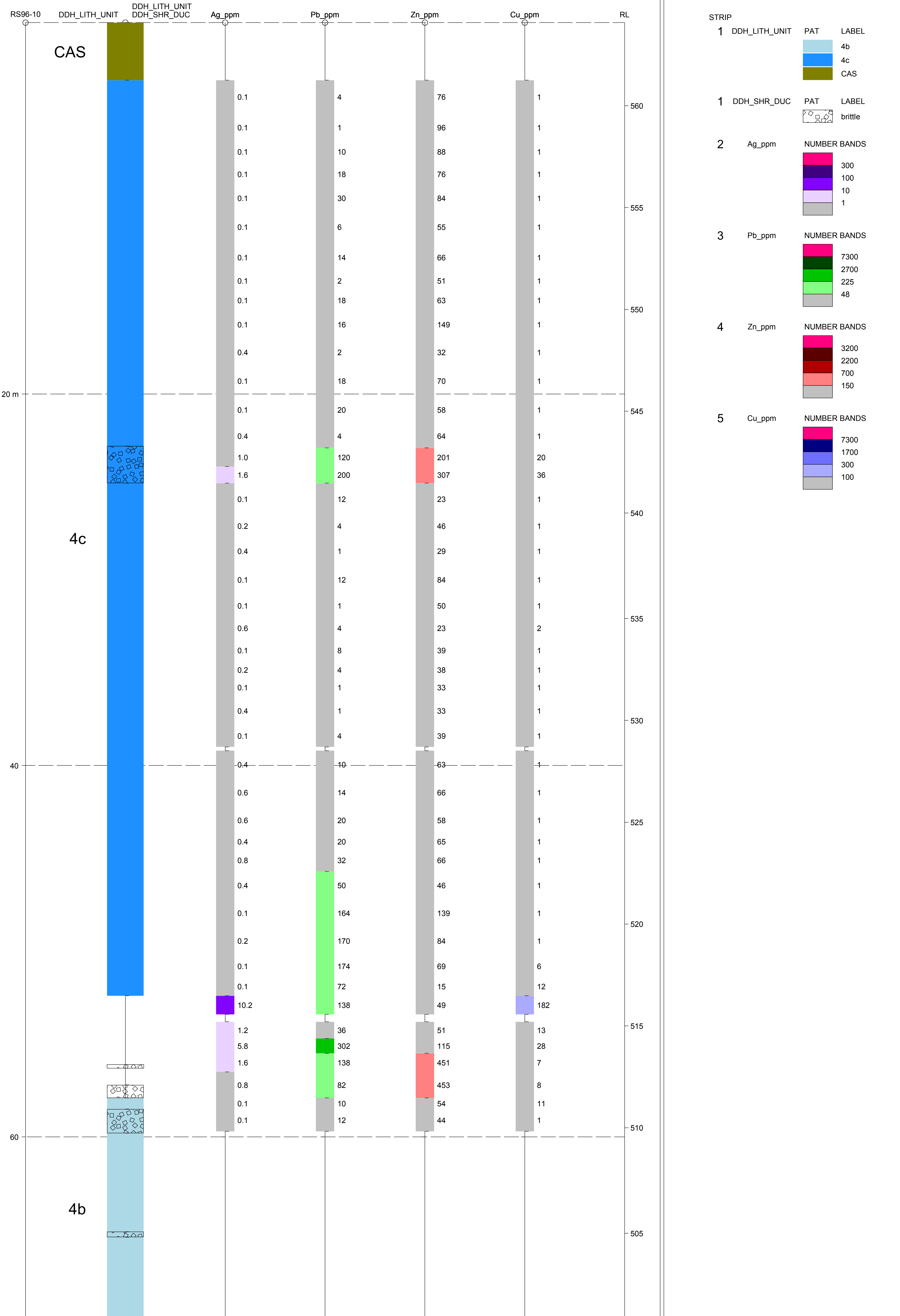
STRIP

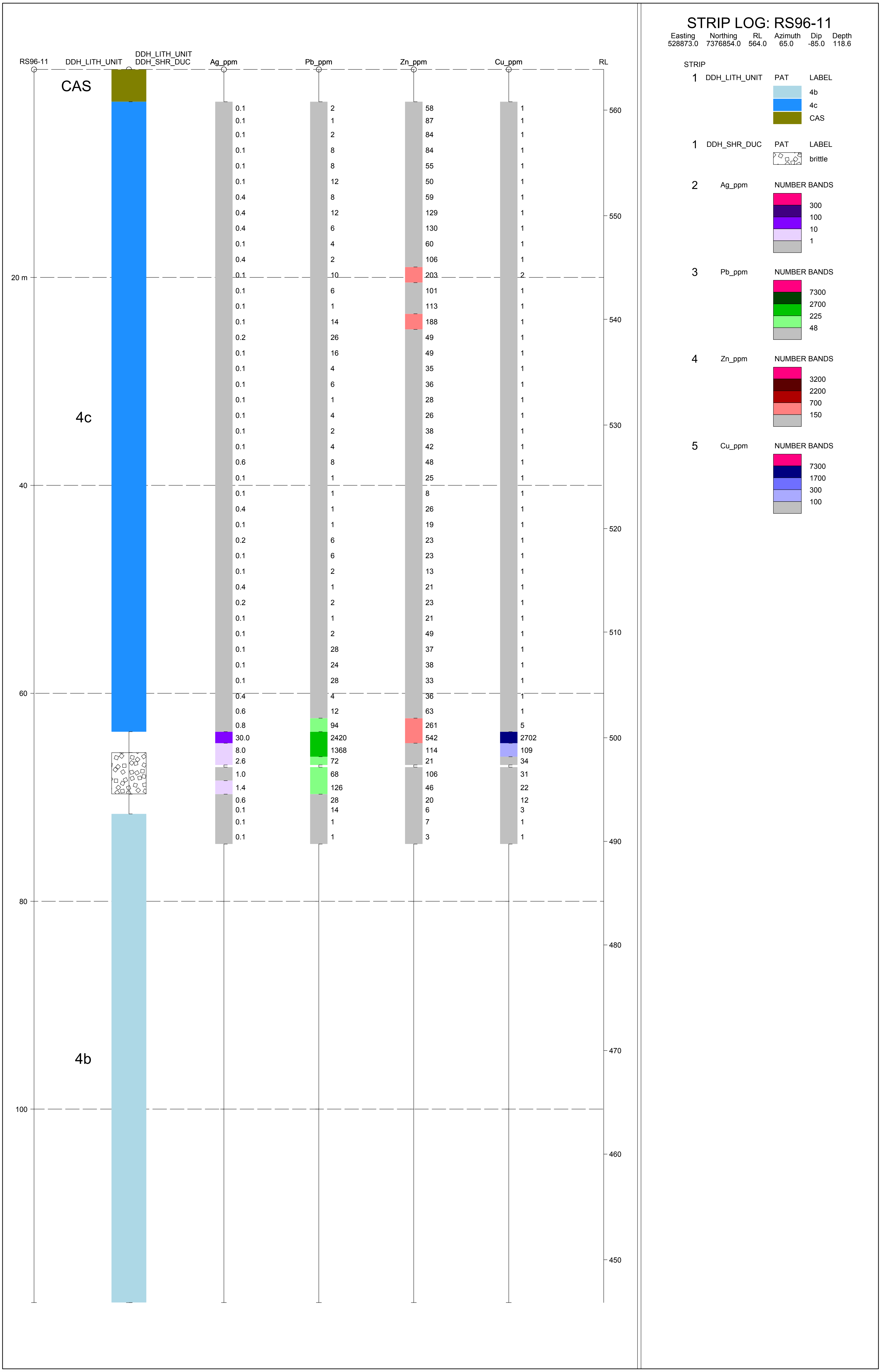
STRIP		PAT	LABEL
1	DDH_LITH_UNIT		4b
			4c
			CAS
1	DDH_SHR_DUC		brittle

STRIP		NUMBER BANDS
2	Ag_ppm	300, 100, 10, 1
3	Pb_ppm	7300, 2700, 225, 48
4	Zn_ppm	3200, 2200, 700, 150
5	Cu_ppm	7300, 1700, 300, 100

STRIP LOG: RS96-10

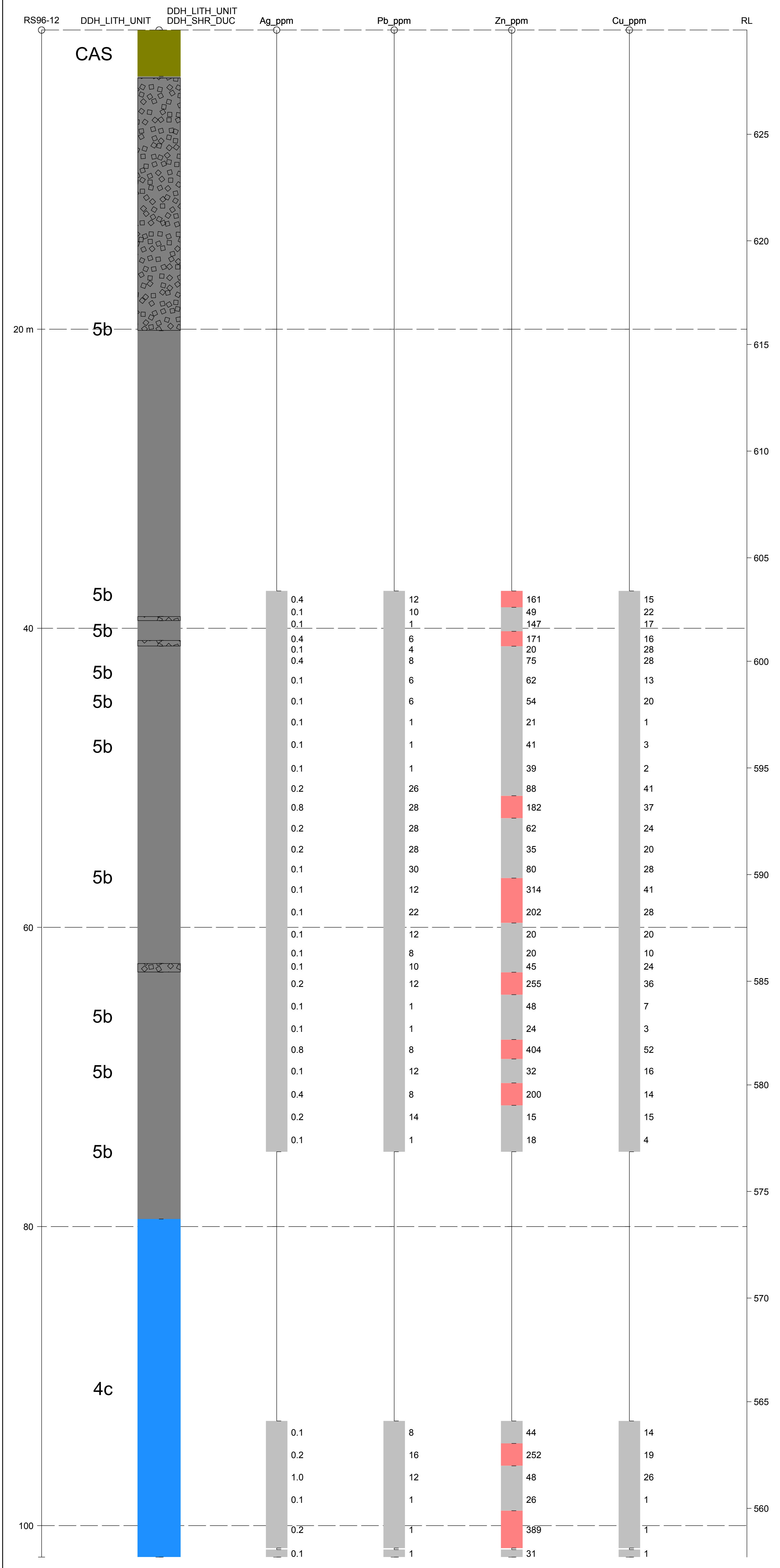
Easting	Northing	RL	Azimuth	Dip	Depth
528873.0	7376853.0	564.0	65.0	-65.0	69.8

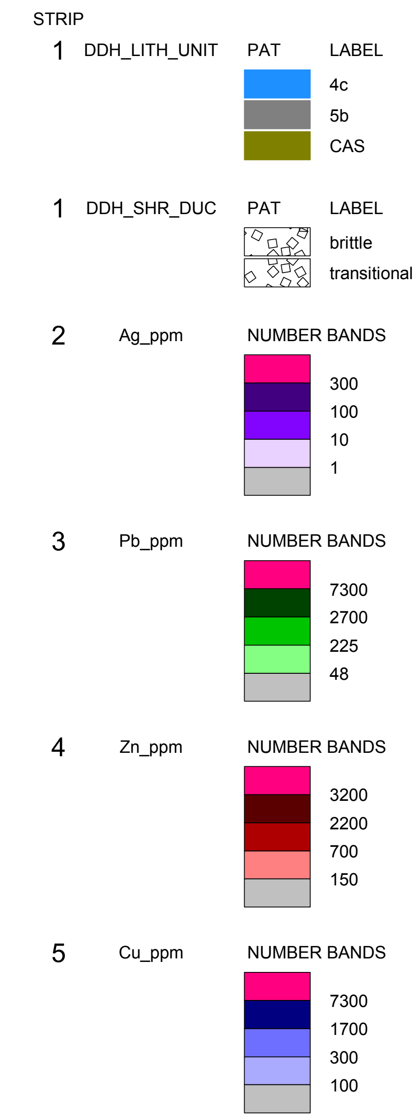


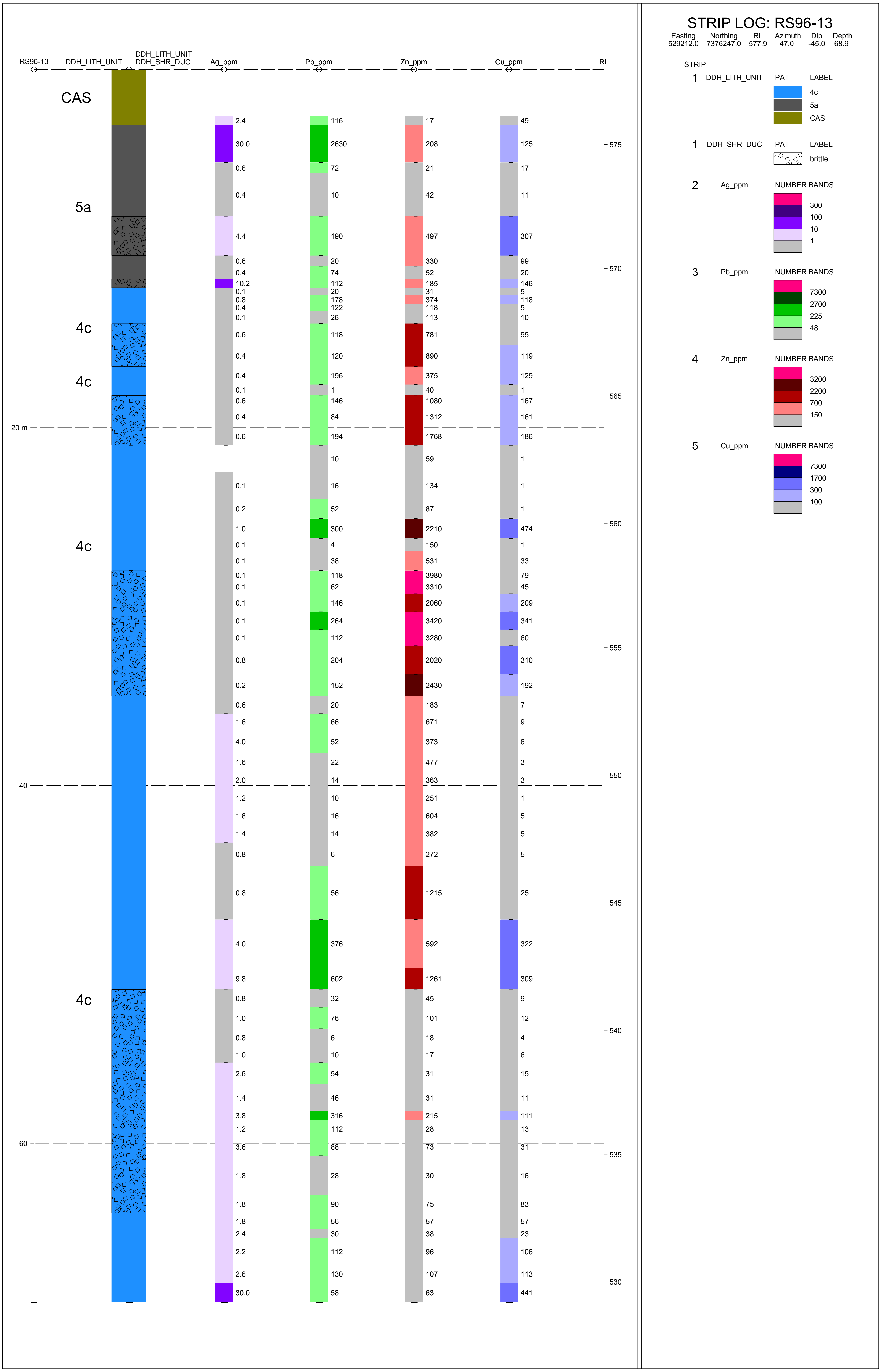

STRIP LOG: RS96-11
Easting 528873.0 Northing 7376854.0 RL 564.0 Azimuth 65.0 Dip -85.0 Depth 118.6
RS96-11
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
CAS
4c
4b
20 m
40
60
80
100
560
550
540
530
520
510
500
490
480
470
460
450
0.1 2 58 1
0.1 1 87 1
0.1 2 84 1
0.1 8 84 1
0.1 8 55 1
0.1 12 50 1
0.4 8 59 1
0.4 12 129 1
0.4 6 130 1
0.1 4 60 1
0.4 2 106 1
0.1 10 203 2
0.1 6 101 1
0.1 1 113 1
0.1 14 188 1
0.2 26 49 1
0.1 16 49 1
0.1 4 35 1
0.1 6 36 1
0.1 1 28 1
0.1 4 26 1
0.1 2 38 1
0.1 4 42 1
0.6 8 48 1
0.1 1 25 1
0.1 1 8 1
0.4 1 26 1
0.1 1 19 1
0.2 6 23 1
0.1 6 23 1
0.1 2 13 1
0.4 1 21 1
0.2 2 23 1
0.1 1 21 1
0.1 2 49 1
0.1 28 37 1
0.1 24 38 1
0.1 28 33 1
0.4 4 36 1
0.6 12 63 1
0.8 94 261 5
30.0 2420 542 2702
8.0 1368 114 109
2.6 72 21 34
1.0 68 106 31
1.4 126 46 22
0.6 28 20 12
0.1 14 6 3
0.1 1 7 1
0.1 1 3 1
STRIP
1 DDH_LITH_UNIT PAT LABEL
4b
4c
CAS
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

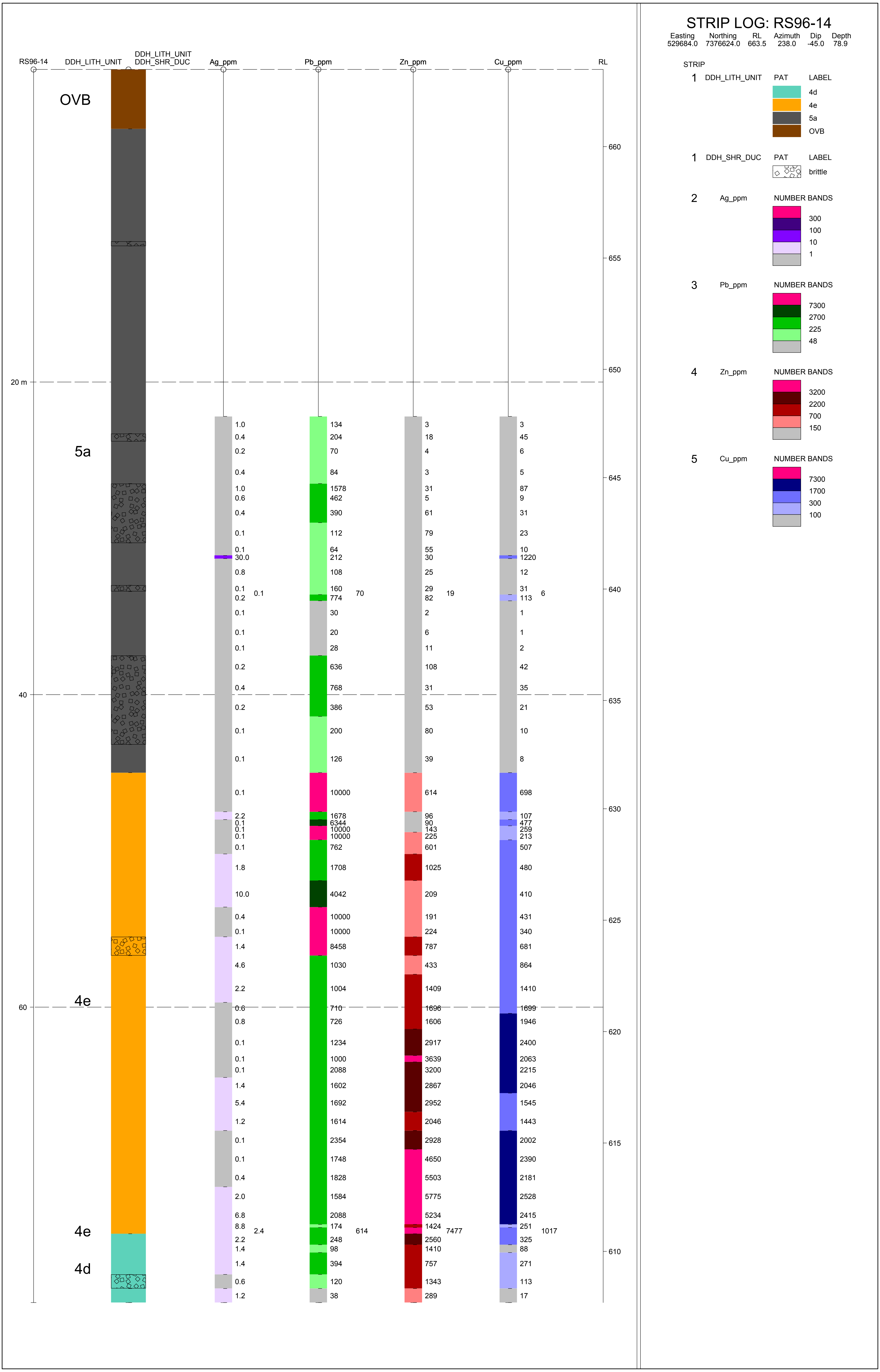
STRIP LOG: RS96-12

Easting	Northing	RL	Azimuth	Dip	Depth
529449.0	7376206.0	629.9	65.0	-45.0	102.1





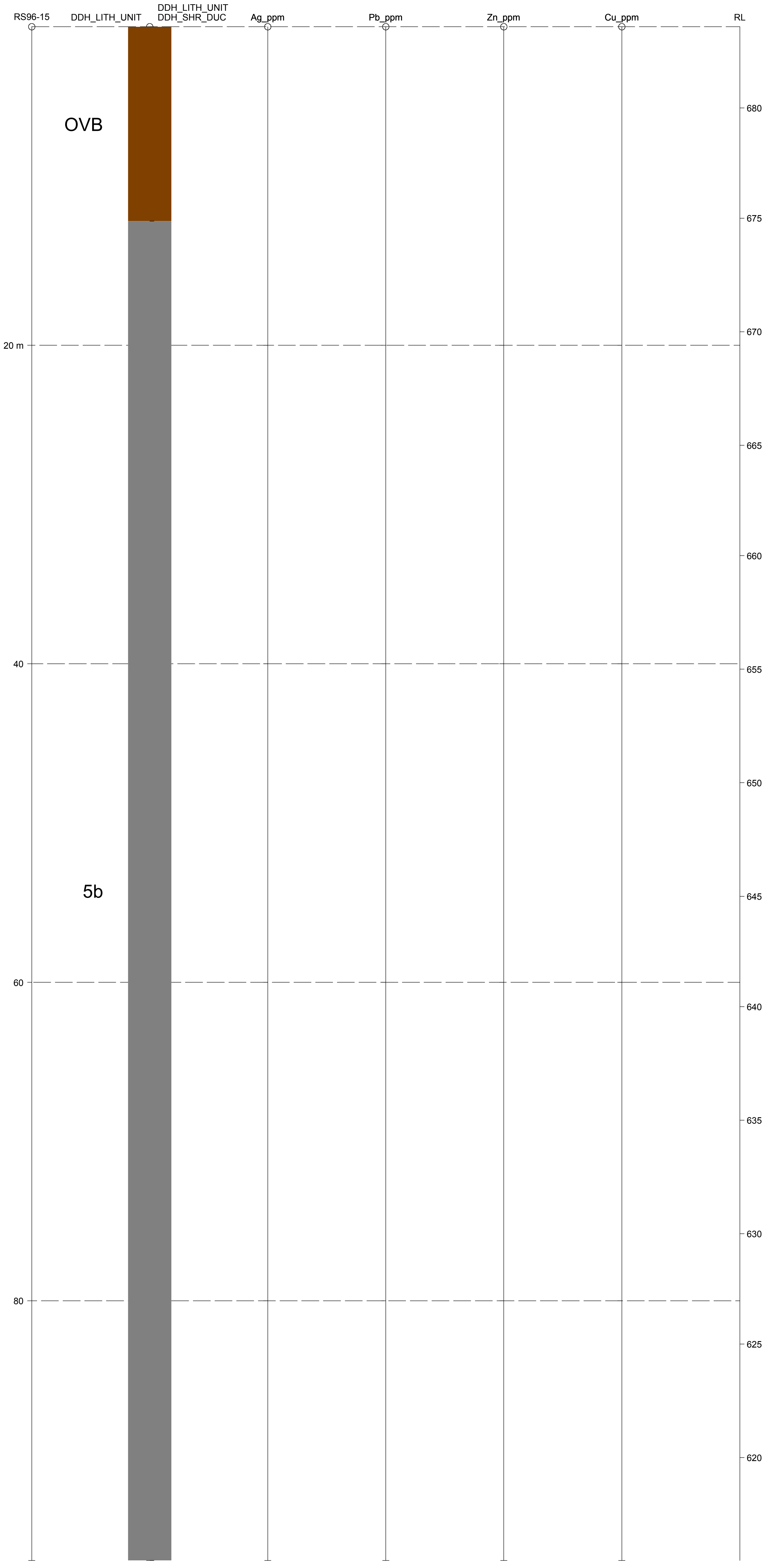

STRIP LOG: RS96-13
Easting 529212.0
Northing 7376247.0
RL 577.9
Azimuth 47.0
Dip -45.0
Depth 68.9
RS96-13
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
CAS
5a
4c
4c
4c
4c
20 m
40
60
575
570
565
560
555
550
545
540
535
530
Ag_ppm: 2.4, 30.0, 0.6, 0.4, 4.4, 0.6, 0.4, 10.2, 0.1, 0.8, 0.4, 0.1, 0.6, 0.4, 0.4, 0.1, 0.6, 0.4, 0.6, 0.1, 0.2, 1.0, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.8, 0.2, 0.6, 1.6, 4.0, 1.6, 2.0, 1.2, 1.8, 1.4, 0.8, 0.8, 4.0, 9.8, 0.8, 1.0, 0.8, 1.0, 2.6, 1.4, 3.8, 1.2, 3.6, 1.8, 1.8, 1.8, 2.4, 2.2, 2.6, 30.0
Pb_ppm: 116, 2630, 72, 10, 190, 20, 74, 112, 20, 178, 122, 26, 118, 120, 196, 1, 146, 84, 194, 10, 16, 52, 300, 4, 38, 118, 62, 146, 264, 112, 204, 152, 20, 66, 52, 22, 14, 10, 16, 14, 6, 56, 376, 602, 32, 76, 6, 10, 54, 46, 316, 112, 88, 28, 90, 56, 30, 112, 130, 58
Zn_ppm: 17, 208, 21, 42, 497, 330, 52, 185, 31, 374, 118, 113, 781, 890, 375, 40, 1080, 1312, 1768, 59, 134, 87, 2210, 150, 531, 3980, 3310, 2060, 3420, 3280, 2020, 2430, 183, 671, 373, 477, 363, 251, 604, 382, 272, 1215, 592, 1261, 45, 101, 18, 17, 31, 31, 215, 28, 73, 30, 75, 57, 38, 96, 107, 63
Cu_ppm: 49, 125, 17, 11, 307, 99, 20, 146, 5, 118, 5, 10, 95, 119, 129, 1, 167, 161, 186, 1, 1, 1, 474, 1, 33, 79, 45, 209, 341, 60, 310, 192, 7, 9, 6, 3, 3, 1, 5, 5, 5, 25, 322, 309, 9, 12, 4, 6, 15, 11, 111, 13, 31, 16, 83, 57, 23, 106, 113, 441
STRIP
1 DDH_LITH_UNIT PAT LABEL
4c
5a
CAS
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100



STRIP LOG: RS96-14
Easting 529684.0 Northing 7376624.0 RL 663.5 Azimuth 238.0 Dip -45.0 Depth 78.9
RS96-14 DDH_LITH_UNIT DDH_LITH_UNIT DDH_SHR_DUC Ag_ppm Pb_ppm Zn_ppm Cu_ppm RL
20 m
40
60
660
655
650
645
640
635
630
625
620
615
610
OVB
5a
4e
4e
4d
Ag_ppm: 1.0 0.4 0.2 0.4 1.0 0.6 0.4 0.1 0.1 30.0 0.8 0.1 0.2 0.1 0.1 0.1 0.2 0.4 0.2 0.1 0.1 0.1 2.2 0.1 0.1 0.1 0.1 1.8 10.0 0.4 0.1 1.4 4.6 2.2 0.6 0.8 0.1 0.1 0.1 1.4 5.4 1.2 0.1 0.1 0.4 2.0 6.8 8.8 2.2 1.4 1.4 0.6 1.2
0.1
2.4
Pb_ppm: 134 204 70 84 1578 462 390 112 64 212 108 160 774 30 20 28 636 768 386 200 126 10000 1678 6344 10000 10000 762 1708 4042 10000 10000 8458 1030 1004 710 726 1234 1000 2088 1602 1692 1614 2354 1748 1828 1584 2088 174 248 98 394 120 38
70
614
Zn_ppm: 3 18 4 3 31 5 61 79 55 30 25 29 82 2 6 11 108 31 53 80 39 614 96 90 143 225 601 1025 209 191 224 787 433 1409 1696 1606 2917 3639 3200 2867 2952 2046 2928 4650 5503 5775 5234 1424 2560 1410 757 1343 289
19
7477
Cu_ppm: 3 45 6 5 87 9 31 23 10 1220 12 31 113 1 1 2 42 35 21 10 8 698 107 477 259 213 507 480 410 431 340 681 864 1410 1699 1946 2400 2063 2215 2046 1545 1443 2002 2390 2181 2528 2415 251 325 88 271 113 17
6
1017
STRIP
1 DDH_LITH_UNIT PAT LABEL
4d
4e
5a
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: RS96-15

Easting	Northing	RL	Azimuth	Dip	Depth
530032.0	7376410.0	683.5	240.0	-45.0	96.3



STRIP

1 DDH_LITH_UNIT PAT LABEL
5b
OVB

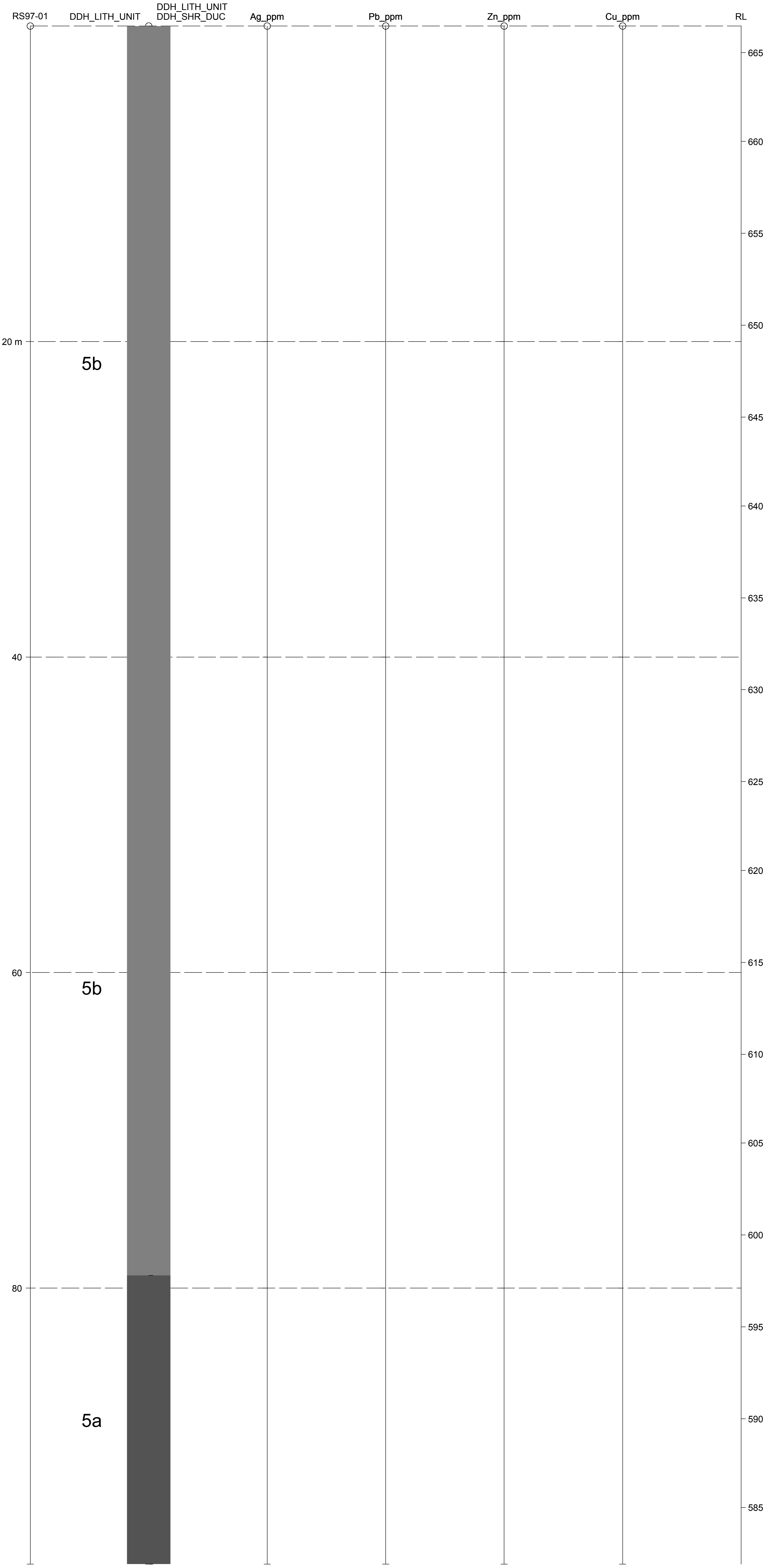
1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
300
100
10
1

3 Pb_ppm NUMBER BANDS
7300
2700
225
48

4 Zn_ppm NUMBER BANDS
3200
2200
700
150

5 Cu_ppm NUMBER BANDS
7300
1700
300
100



STRIP LOG: RS97-01

Easting	Northing	RL	Azimuth	Dip	Depth
530060.0	7376426.0	666.4	240.0	-60.0	97.5

STRIP

1 DDH_LITH_UNIT — PAT — LABEL
- 5a
- 5b

1 DDH_SHR_DUC — PAT — No patterns matched

2 Ag_ppm — NUMBER BANDS
- 300
- 100
- 10
- 1

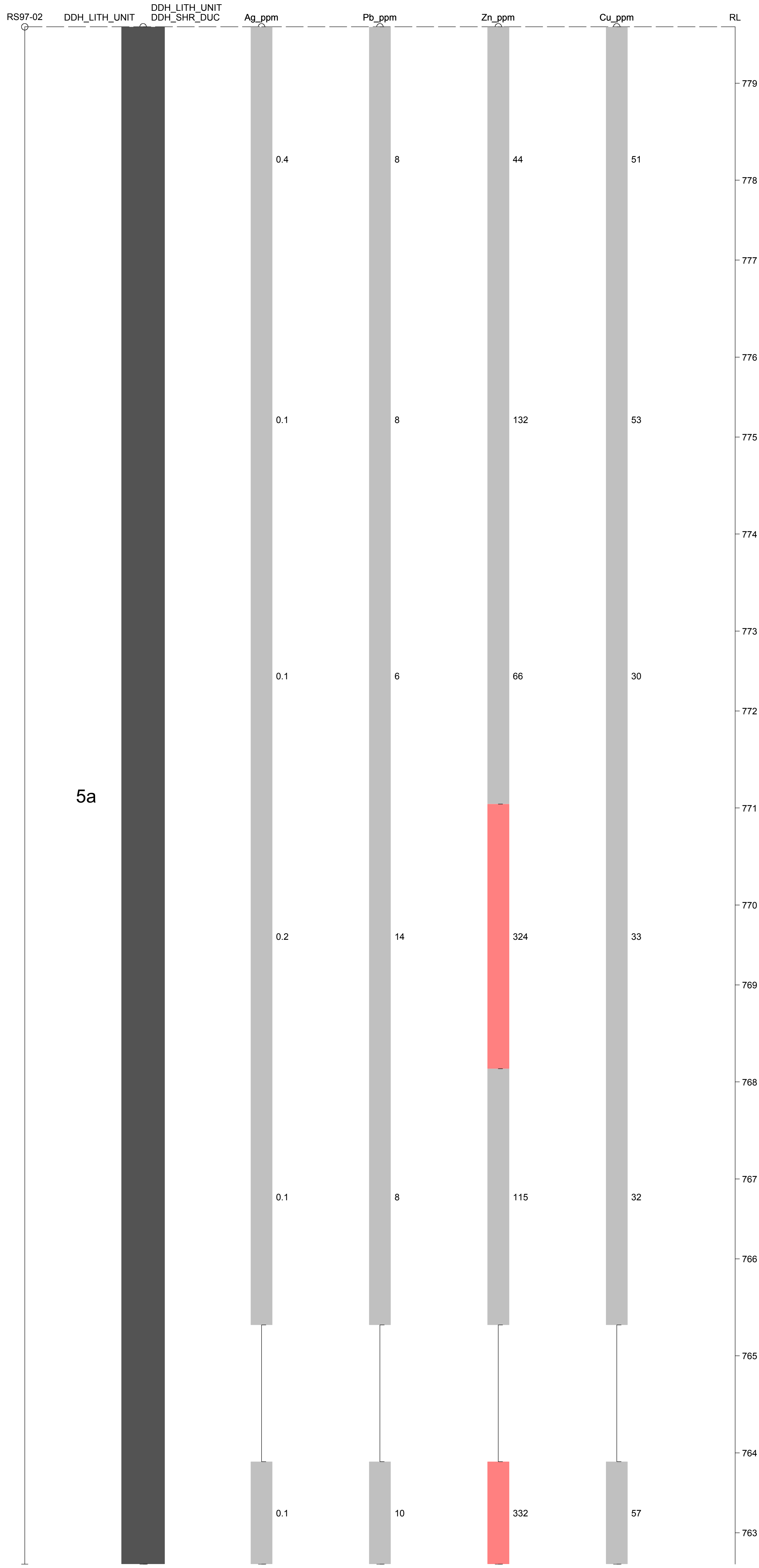
3 Pb_ppm — NUMBER BANDS
- 7300
- 2700
- 225
- 48

4 Zn_ppm — NUMBER BANDS
- 3200
- 2200
- 700
- 150

5 Cu_ppm — NUMBER BANDS
- 7300
- 1700
- 300
- 100

STRIP LOG: RS97-02

Easting	Northing	RL	Azimuth	Dip	Depth
528258.0	7375439.0	779.6	240.0	-70.0	18.0



STRIP

1 DDH_LITH_UNIT PAT LABEL
5a

1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
300
100
10
1

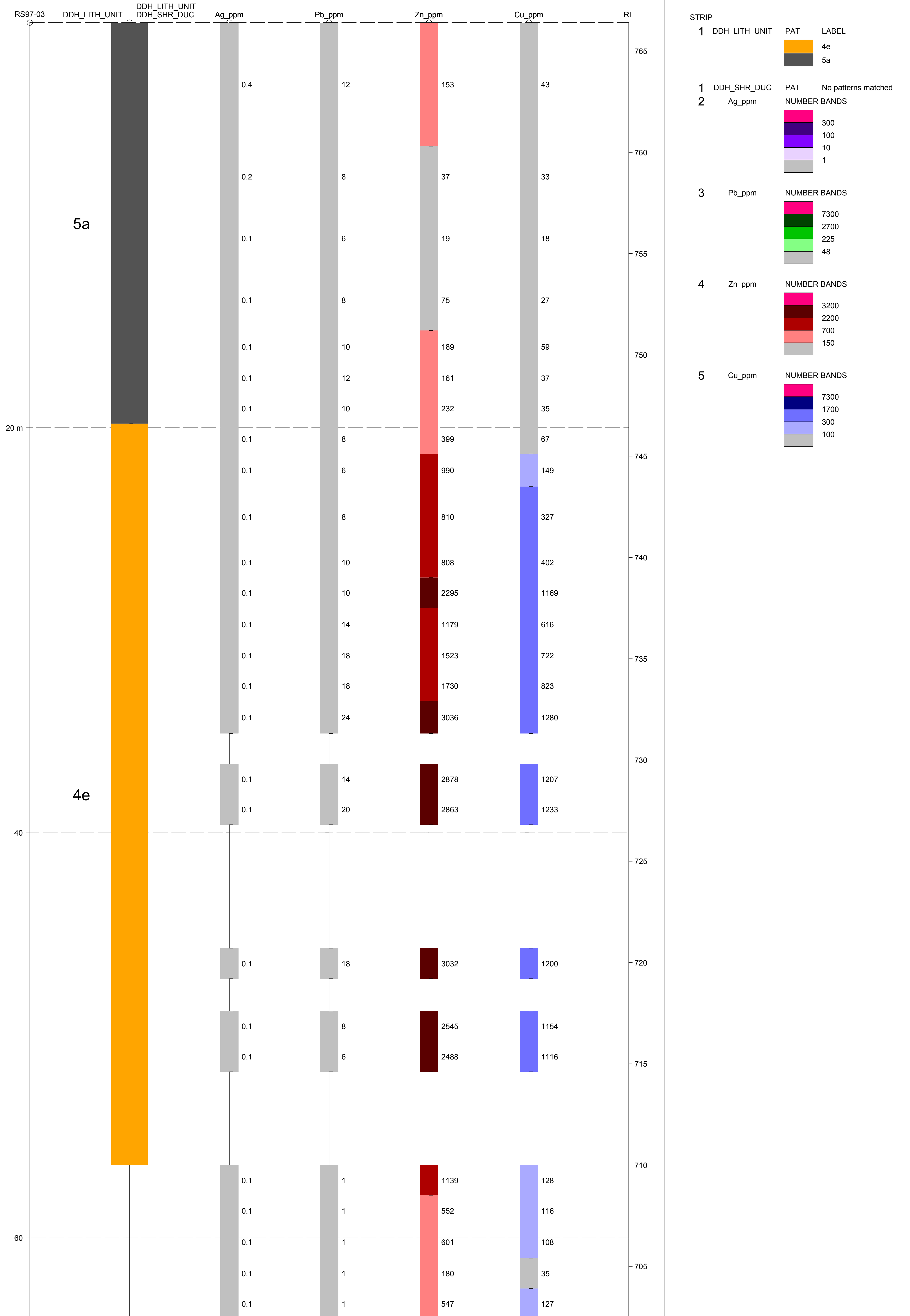
3 Pb_ppm NUMBER BANDS
7300
2700
225
48

4 Zn_ppm NUMBER BANDS
3200
2200
700
150

5 Cu_ppm NUMBER BANDS
7300
1700
300
100

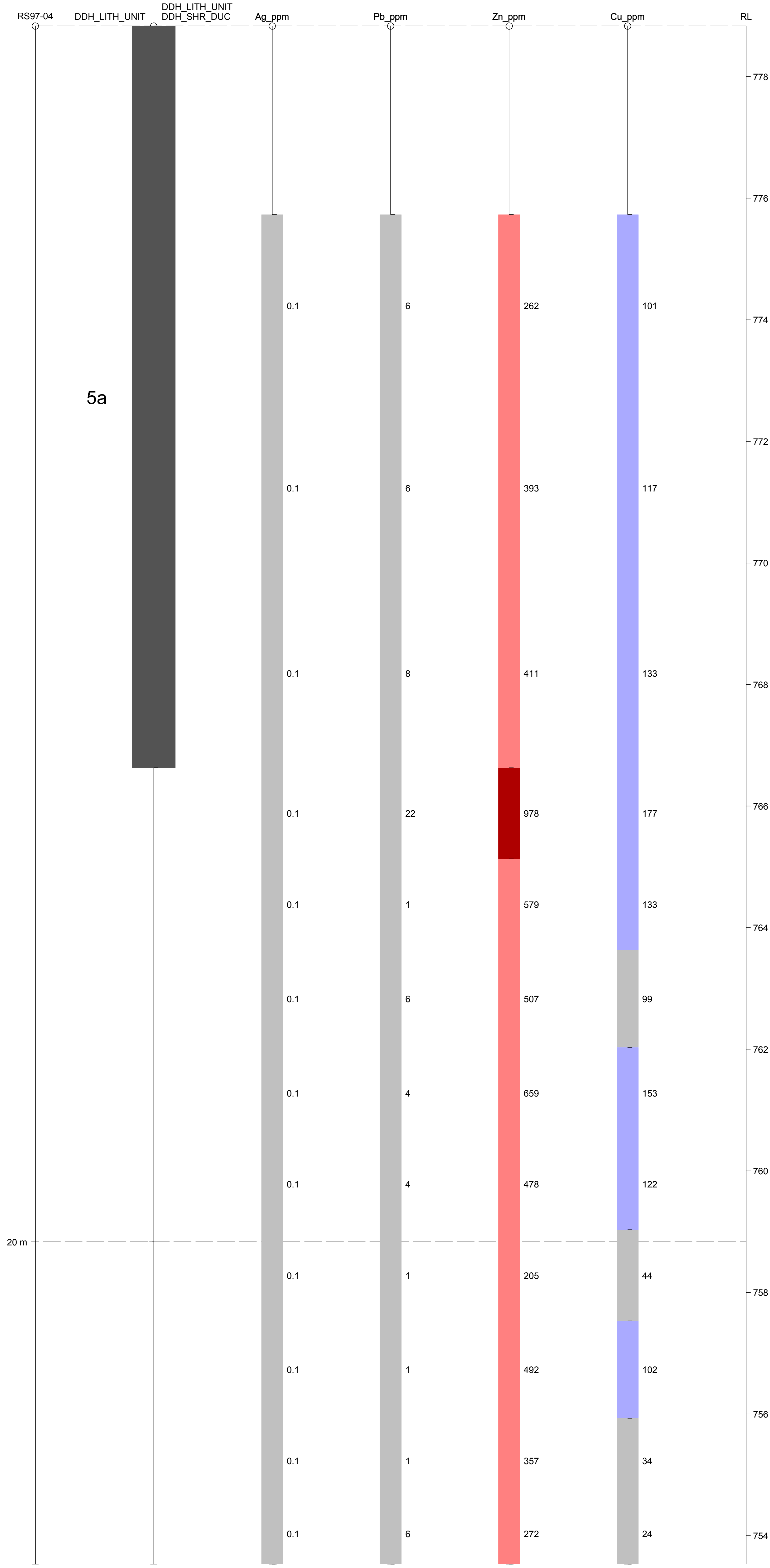
STRIP LOG: RS97-03

Easting	Northing	RL	Azimuth	Dip	Depth
528119.0	7375713.0	766.5	0.0	-90.0	64.0



STRIP LOG: RS97-04

Easting	Northing	RL	Azimuth	Dip	Depth
528282.0	7375421.0	778.9	0.0	-90.0	25.3



STRIP

1 DDH_LITH_UNIT PAT LABEL
5a

1 DDH_SHR_DUC PAT No patterns matched

2 Ag_ppm NUMBER BANDS
300
100
10
1

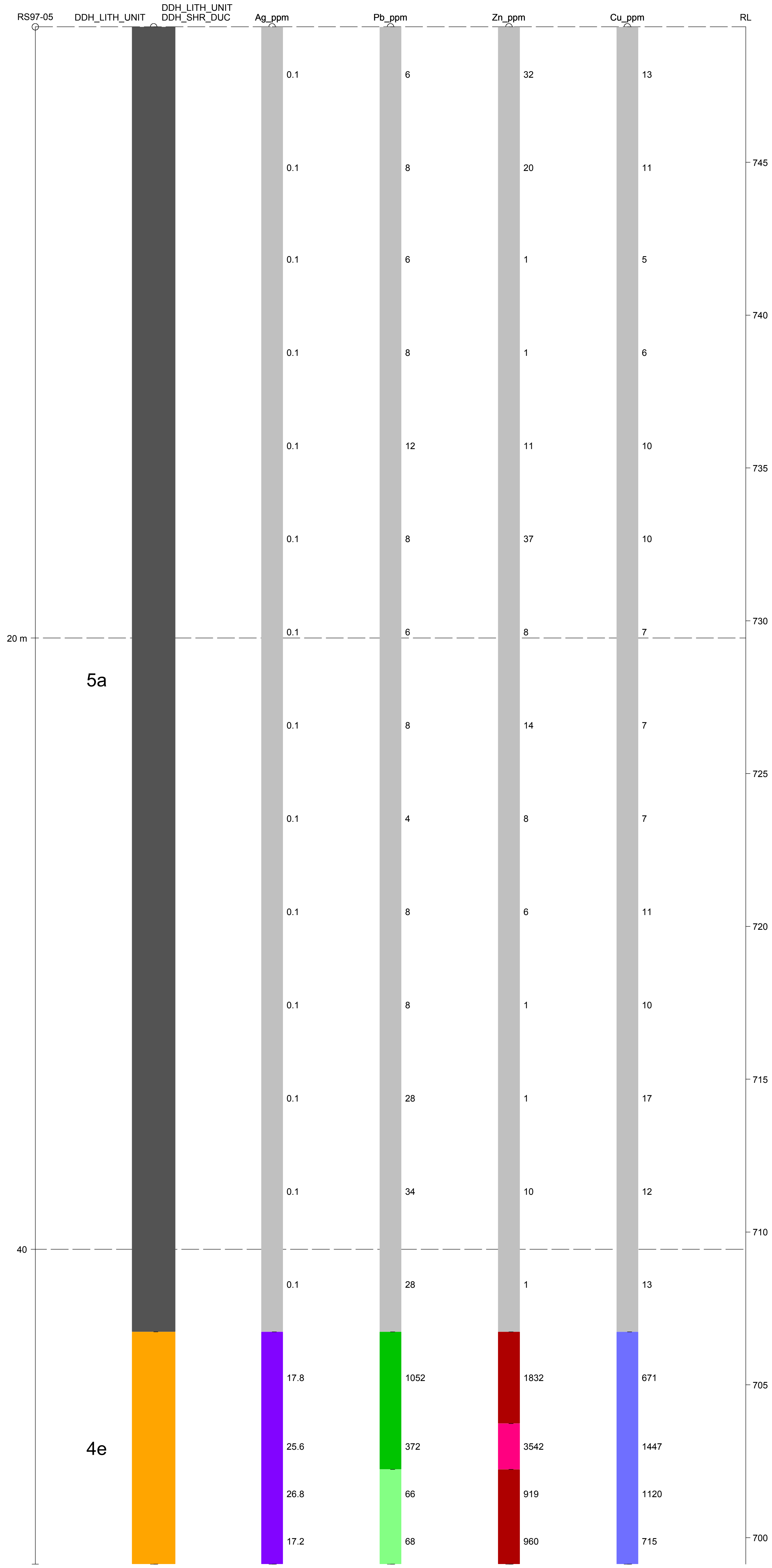
3 Pb_ppm NUMBER BANDS
7300
2700
225
48

4 Zn_ppm NUMBER BANDS
3200
2200
700
150

5 Cu_ppm NUMBER BANDS
7300
1700
300
100

STRIP LOG: RS97-05

Easting	Northing	RL	Azimuth	Dip	Depth
527807.0	7375461.0	749.5	0.0	-90.0	50.3



STRIP

1 DDH_LITH_UNIT — PAT — LABEL
- 4e
- 5a

1 DDH_SHR_DUC — PAT — No patterns matched

2 Ag_ppm — NUMBER BANDS
- 300
- 100
- 10
- 1

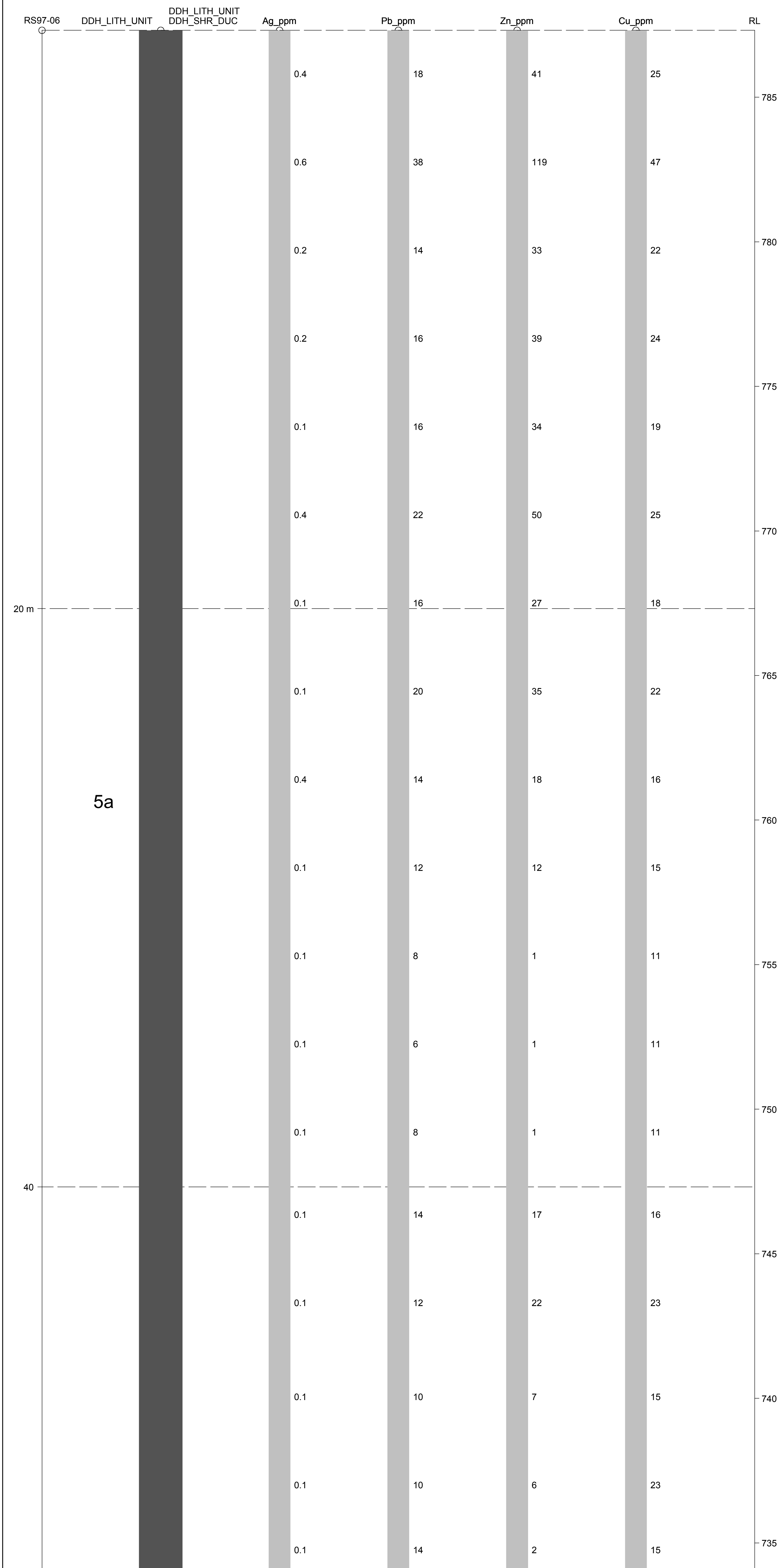
3 Pb_ppm — NUMBER BANDS
- 7300
- 2700
- 225
- 48

4 Zn_ppm — NUMBER BANDS
- 3200
- 2200
- 700
- 150

5 Cu_ppm — NUMBER BANDS
- 7300
- 1700
- 300
- 100

STRIP LOG: RS97-06

Easting	Northing	RL	Azimuth	Dip	Depth
528212.0	7375331.0	787.4	0.0	-90.0	53.3

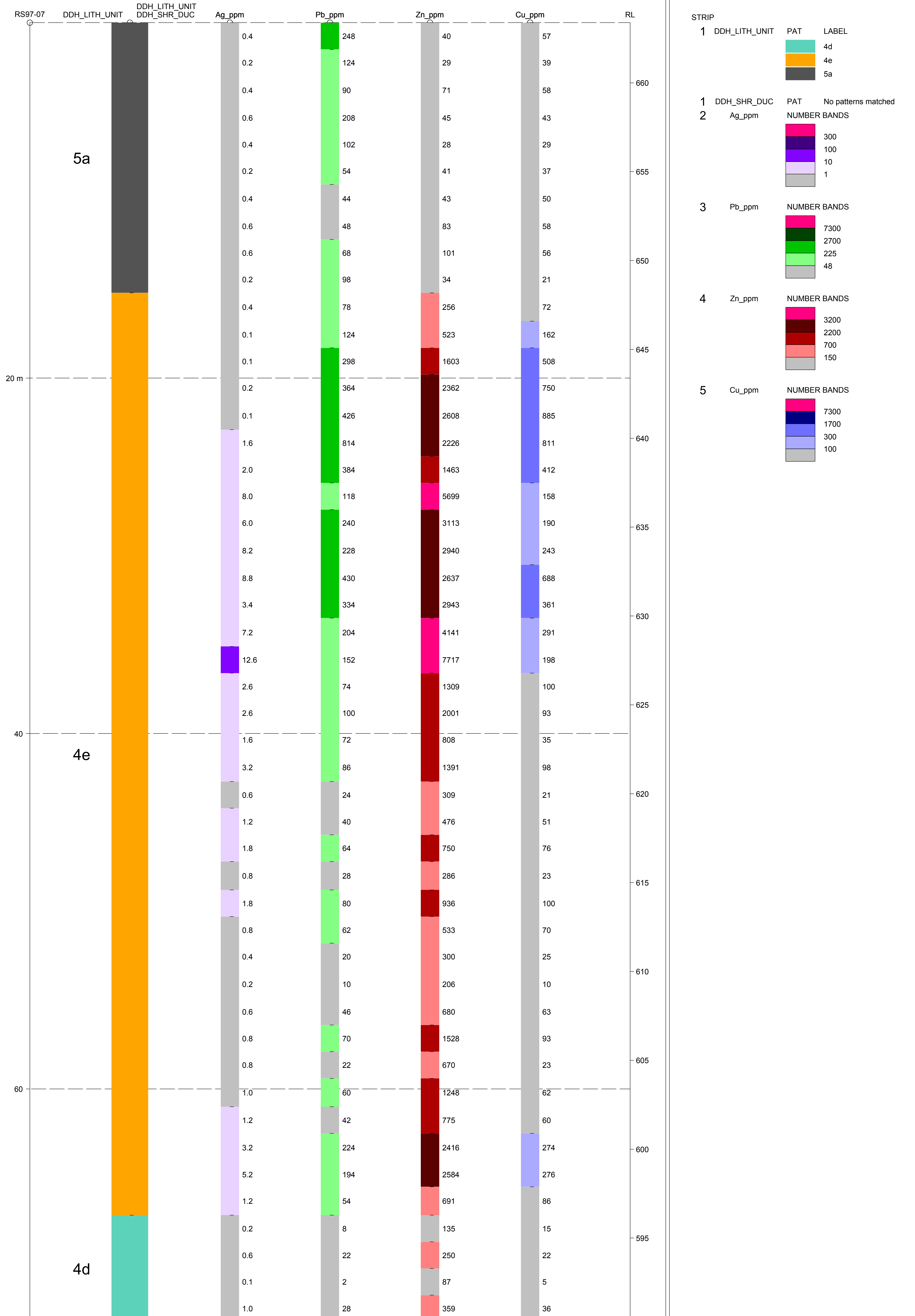


STRIP

1	DDH_LITH_UNIT	PAT	LABEL
			5a
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100

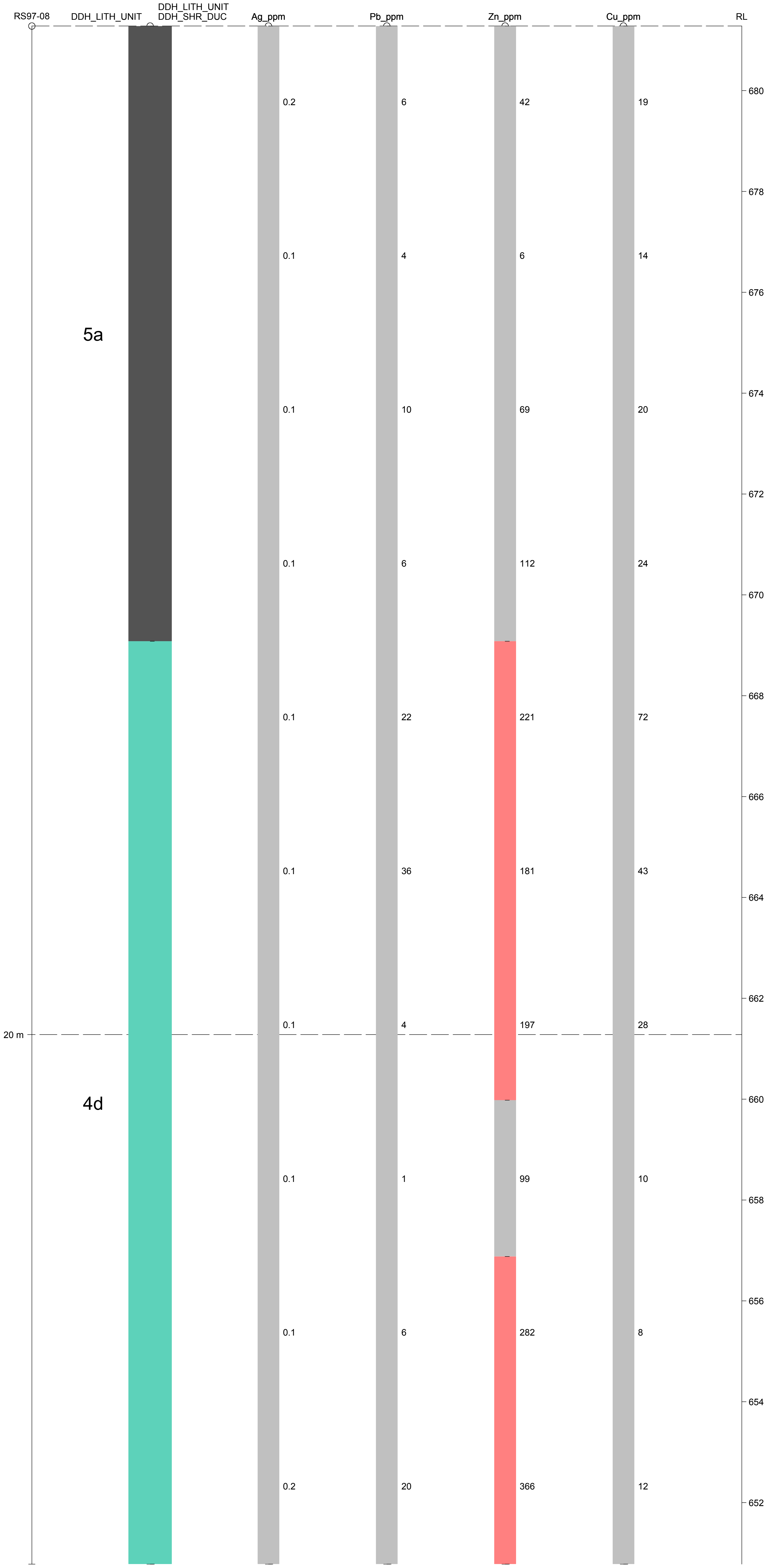
STRIP LOG: RS97-07

Easting	Northing	RL	Azimuth	Dip	Depth
529533.0	7376300.0	663.3	0.0	-90.0	73.1



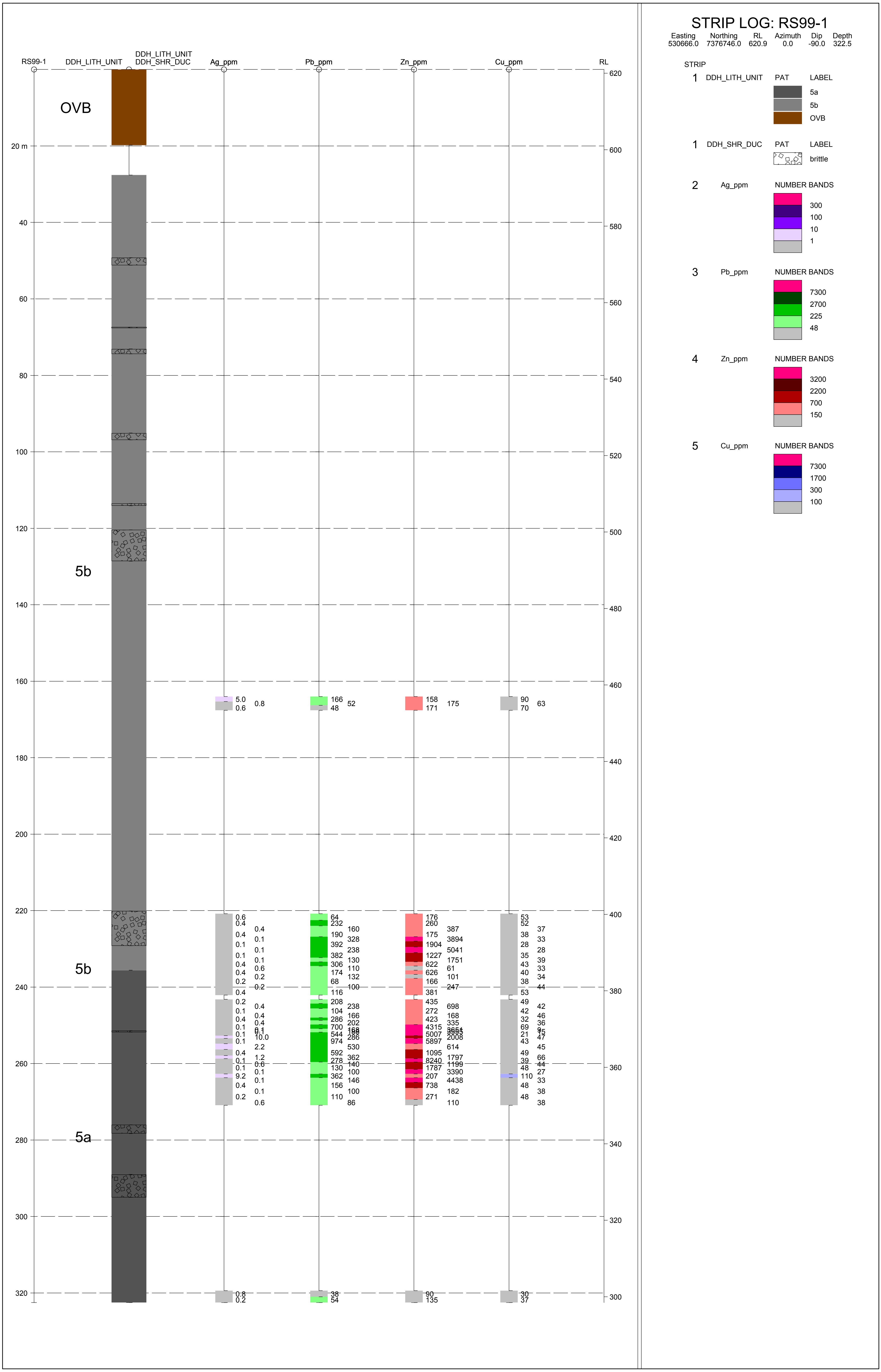
STRIP LOG: RS97-08

Easting	Northing	RL	Azimuth	Dip	Depth
530038.0	7375969.0	681.2	0.0	-90.0	30.5



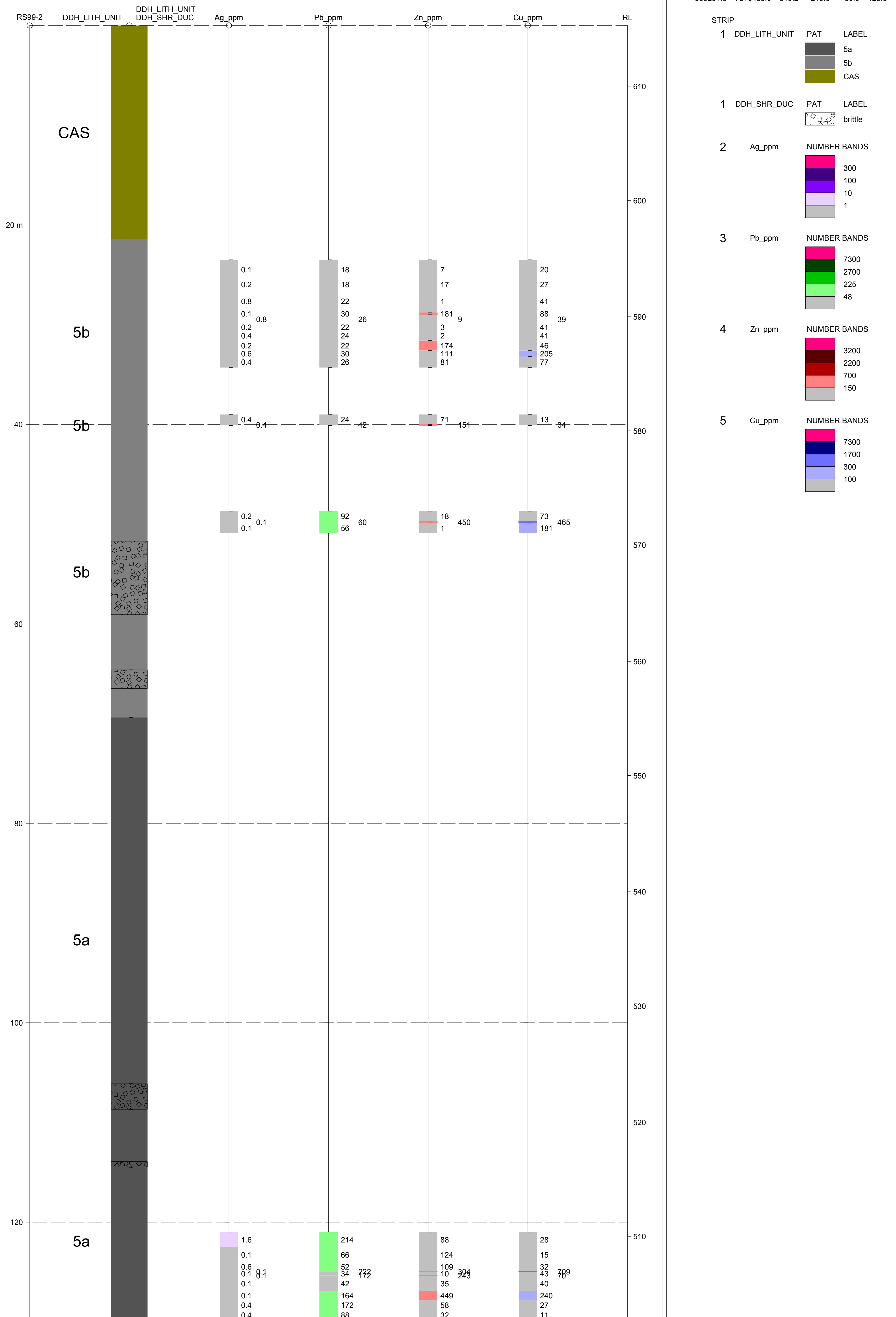
STRIP

1	DDH_LITH_UNIT	PAT	LABEL
			4d
			5a
1	DDH_SHR_DUC	PAT	No patterns matched
2	Ag_ppm	NUMBER BANDS	300, 100, 10, 1
3	Pb_ppm	NUMBER BANDS	7300, 2700, 225, 48
4	Zn_ppm	NUMBER BANDS	3200, 2200, 700, 150
5	Cu_ppm	NUMBER BANDS	7300, 1700, 300, 100


STRIP LOG: RS99-1
Easting 530666.0
Northing 7376746.0
RL 620.9
Azimuth 0.0
Dip -90.0
Depth 322.5
RS99-1
DDH_LITH_UNIT
DDH_LITH_UNIT
DDH_SHR_DUC
Ag_ppm
Pb_ppm
Zn_ppm
Cu_ppm
RL
OVB
5b
5b
5a
20 m
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
620
600
580
560
540
520
500
480
460
440
420
400
380
360
340
320
300
STRIP
1 DDH_LITH_UNIT PAT LABEL
5a
5b
OVB
1 DDH_SHR_DUC PAT LABEL
brittle
2 Ag_ppm NUMBER BANDS
300
100
10
1
3 Pb_ppm NUMBER BANDS
7300
2700
225
48
4 Zn_ppm NUMBER BANDS
3200
2200
700
150
5 Cu_ppm NUMBER BANDS
7300
1700
300
100

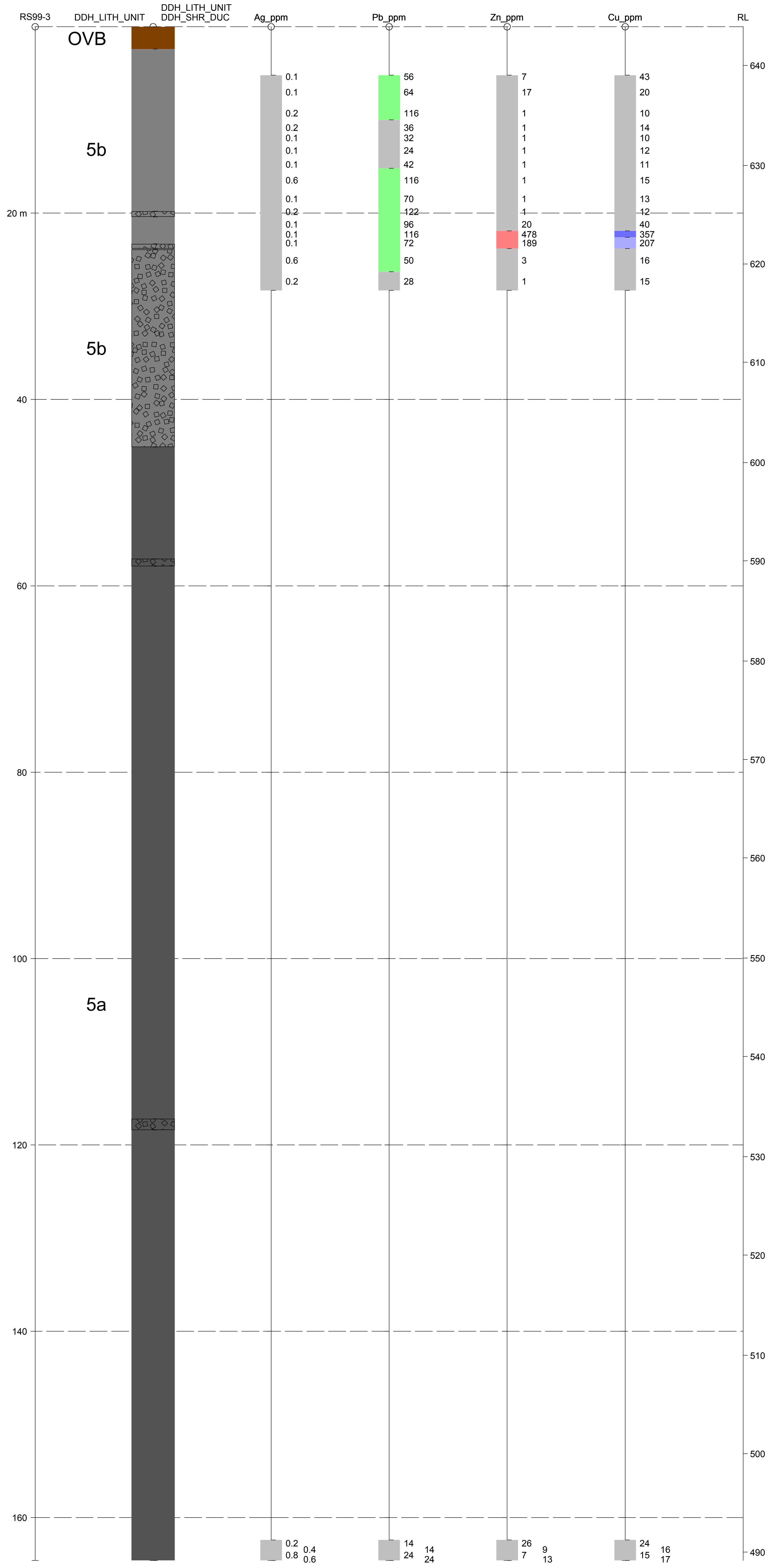
STRIP LOG: RS99-2

Easting	Northing	RL	Azimuth	Dip	Depth
530234.0	7376468.0	615.2	240.0	-60.0	129.8



STRIP LOG: RS99-3

Easting	Northing	RL	Azimuth	Dip	Depth
530429.0	7375858.0	643.9	246.0	-70.0	164.6



STRIP

1 DDH_LITH_UNIT — PAT / LABEL: 5a, 5b, OVB

1 DDH_SHR_DUC — PAT / LABEL: brittle, transitional

2 Ag_ppm — NUMBER BANDS: 300, 100, 10, 1

3 Pb_ppm — NUMBER BANDS: 7300, 2700, 225, 48

4 Zn_ppm — NUMBER BANDS: 3200, 2200, 700, 150

5 Cu_ppm — NUMBER BANDS: 7300, 1700, 300, 100

Appendix VII – Yukon Digital Geology Legend

Yukon Bedrock Geology - Legend
2016

Yukon Geological Survey

Yukon Energy, Mines and Resources

SOUTHWEST — A — C — C — E — NORTHEAST — F — G — NORTH — G

Eocene — Es — **SEWARD SUITE (52-41 Ma):** *non to weakly foliated, light to mid-brownish-grey, medium-grained, biotite and hornblende-biotite tonalite and granodiorite; rarer granite and quartz diorite* ***(Seward Suite)***

LATE EARLY CRETACEOUS

mKp

EKk — **KLUANE RANGES SUITE (124-115 Ma):** *mid-grey, medium to coarse-grained, biotite hornblende granodiorite, quartz diorite, quartz monzonite, and hornblende diorite* ***(Kluane Ranges Plutonic Suite)***

EKp — **PYROXENITE CREEK SUITE (124-113 Ma):** *medium-grained hornblende pyroxene gabbro, and biotite hornblende diorite; olivine and hornblende clinopyroxenite* ***(Pyroxenite Creek Ultramafic)***

UPPER JURASSIC TO LOWER CRETACEOUS

JKs

JKd — **DEZADEASH:** *clastic succession (1) but locally including undifferentiated younger strata (2)*
1, interbedded light to dark buff-grey lithic greywacke, sandstone, siltstone, thin dark grey shale, argillite, phyllite and conglomerate; rare tuff ***(Dezadeash Fm)***
2, sandstone, conglomerate, shale, siliceous tuff; shallow marine shelf deposits

LATE JURASSIC TO EARLIEST CRETACEOUS

JKp

JKs — **SAINT ELIAS SUITE (ca. 154-143 Ma):** *nonporphyritic and porphyritic (K-feldspar), biotite hornblende granodiorite; lesser nonporphyritic biotite and/or hornblende tonalite; locally includes biotite hornblende quartz monzodiorite, quartz diorite, granite, and quartz monzonite* ***(Saint Elias Suite)***

CRETACEOUS AND (?) OLDER

YA (YAKUTAT)

Ky — **YAKUTAT:** *greywacke and conglomerate in thick members or interbedded with siltstone, argillite, or slate; mélange with blocks (to several km) of greenstone, limestone, marble, granitic rocks, chert, and greywacke in a matrix of cherty and tuffaceous pelite* ***(Yakutat Gp)***

CG (CHUGACH)

Kv — **VALDEZ:** *dark grey argillite and greywacke: includes granitoid dikes, sills, and locally plugs, green pillow lava, breccia, and tuff; metamorphosed equivalents include brown schist, granitoid gneiss and dark green amphibolite* ***(Valdez Gp)***

WR (WRANGELLIA)

UPPER TRIASSIC TO (?) CRETACEOUS

uŦKT — **TATAMAGOUCHE:** *dark to light grey phyllite, medium to coarse-grained sandstone, minor greywacke and pebble conglomerate, may include upper parts of McCarthy Fm*

LATE TRIASSIC

LŦB — **MT. BEATON SUITE (ca. 217 Ma):** *medium to coarse-grained, unfoliated, hornblende diorite to hornblende-biotite,quartz diorite; salt and pepper appearance; locally abundant dark grey fine-grained gabbro; may include parts of the Early Cretaceous Kluane Ranges Suite*

UPPER TRIASSIC

uŦM — **MCCARTHY:** *light to dark grey calcareous to carbonaceous mudstone and shale; locally interbedded with buff-coloured limestone giving the rock as striped appearance*

UPPER TRIASSIC

uŦC — **CHITISTONE:** *thin interbedded light to dark grey argillaceous limestone and dark grey argillite; massive light grey limestone, limestone breccia and darker grey, well-bedded limestone; white to creamy-white gypsum and anhydrite* ***(McCarthy, Chitistone and Nizina limestone)***

uŦN — **NIKOLAI:** *basalt, andesite (2), basal conglomerate (1) and minor limestone (3)*
1, volcanic breccia, pillow lava and conglomerate at base
2, amygdaloidal basaltic and andesitic flows, with local tuff, breccia, shale and thin-bedded bioclastic limestone ***(Nikolai Greenstone)***
3, locally includes dark grey phyllite and minor thin grey Middle Triassic limestone

LATE TRIASSIC

LŦK — **KLUANE ULTRAMAFIC SUITE (232-228 Ma):** *mafic to ultramafic intrusions including peridotite, dunite (1) and gabbro (2)*
1, sheeny black peridotite, rare dunite ***(Kluane-type Mafic-Ultramafics Gabbro-Diabase Sills)***
2, medium grey-green, massive, medium-grained, pyroxene gabbro and greenstone sills ***(Maple Creek gabbro)***

MIDDLE TRIASSIC

mŦH — **HOGE CREEK:** *dark grey to black siltstone and mudstone; locally limy; grey, thinly-bedded limestone* ***(Hoge Creek Fm)***; *difficult to distinguish from parts of the Hasen Creek Fm*

LOWER PERMIAN

CPH — **SKOLAI - HASEN CREEK:** *fine-grained clastic rocks (1) and carbonate (2)*
1, interbedded dark grey and brown-weathered siltstone, mudstone and medium to coarse-grained sandstone; lower part contains volcaniclastic sandstone, tuff and rare basaltic flows; rare dark grey to black chert beds and chert-pebble conglomerate ***(Hasen Creek Fm)***

CPHc — *2, light to medium grey, massive to bedded limestone; locally fossiliferous; fossils include corals and crinoids - CPHc*

MISSISSIPPIAN TO PENNSYLVANIAN

CPs — **SKOLAI - STATION CREEK:** *volcanic rocks succeeded upward by clastic strata and including minor limestone*
1, undifferentiated Skolai Gp; includes variably metamorphosed and deformed Hasen Creek and Station Creek fms; meta-pelite, metavolcanic rocks and marble
2, dark green to black-weathered and fresh basalt flows, pillows, pillow breccia and hyaloclastics; red, magnetite-rich jasper found locally as interstitial material between pillows and within pillow breccia, thick accumulations of laminated jasper rarely occur ***(Station Creek Fm)***
3, thinly bedded, laminated to massive chert interbedded with crystal tuff; chert is mainly light to dark grey-banded with local black and dark brown massive beds; tuff ranges from maroon to green, fine grained and laminated with phenocrysts of quartz ± plagioclase ***(Station Creek Fm)***
4, interbedded volcanic breccia, agglomerate and volcaniclastic sandstone; dominated by pyroxene-phyric volcanic breccia; rare light grey-weathered, dark green to black, fresh, pyroxene-phyric basalt flows ***(Station Creek Fm)***
5, laminated to thinly bedded, light grey to light green volcanic tuff and volcaniclastic siltstone; local crystal rich tuffs interbedded with fine-grained volcanic ash

PENNSYLVANIAN TO EARLY PERMIAN

AXp

CPI — **ICEFIELD RANGES SUITE (308-285 Ma):** *mid to dark greenish-grey, medium-grained, nonfoliated and foliated, biotite hornblende quartz monzodiorite-quartz diorite-diorite, veined and intruded by leucocratic granodiorite and quartz syenite (agmatite); pink hornblende syenite* ***(Icefield Ranges Suite)***

DEVONIAN TO UPPER TRIASSIC AND (?) OLDER

AX

DŦI — **ICEFIELD:** *a grouping of diverse, dominantly upper Paleozoic partly equivalent strata subdivided into three dominant facies including pelitic rocks (1), carbonate (2) and volcanic rocks (3)*
1, thin to medium-bedded, fine to medium-grained, quartz-rich, micaceous, calcareous siltstone to sandstone, mica quartzite, or schist; minor interbedded phyllite, argillite and schist; rare limestone, marble, basic volcanic rocks, and gypsum-anhydrite
2, white to creamy-white gypsum and anhydrite; thin-bedded to massive, light grey to dark bluish-grey limestone or marble; minor dark grey calcareous argillite, calcareous siltstone-sandstone; local buff-grey crinoidal limestone
3, dark green (locally purple), porphyritic (augite) and non-porphyritic basaltic to andesitic flows and pillow lava; local volcaniclastic sediments, agglomerate, breccia, cherty tuff, grey limestone or marble, gypsum and basic intrusions

LATE DEVONIAN

AXp

LDsc — **STEEL CREEK SUITE (ca. 364 Ma):** *massive medium to coarse-grained, rusty grey-green hornblende pyroxene gabbro, minor medium grained gabbro-diabase and gabbro-pegmatite intrusions; rare pods of black peridotite; screens of flows, volcaniclastic rocks, minor argillite, and rare chert* ***(Mt. Cairnes Gabbro-Greenstone Complex; Steel Creek-Mt Constantine Gabbro Complex)***

Pv — *intrusive equivalents*
2, maroon to reddish purple (weathered and fresh), fine to very coarse grained andesite, breccia with clasts of feldspar-rich andesite in a matrix of the same composition; locally includes feldspar porphyry dikes of andesitic composition
3, dark grey to black weathered, very fine grained basalt, geographically limited to areas east of Porphyry Peak
4, undifferentiated Rhyolite Creek volcanic complex; andesite and dacite-rhyolite flows and breccia; minor basalt and basalt breccia
5, basal conglomerate/breccia; rounded to angular clasts of underlying metamorphic rocks within a sandy volcaniclastic matrix

PALEOCENE

Pp

PR — **RUBY RANGE SUITE (ca. 64-57 Ma):** *medium to coarse-grained equigranular to porphyritic rocks of intermediate composition (g), locally gneissic (gn); fine to coarse-grained, equigranular and porphyritic granitic rocks of felsic composition (q) and felsic dike rocks (f); gabbro (gb)*
f, orange and buff weathering light-coloured feldspar porphyry dike and flow rocks of intermediate to acidic composition - PfR
g, biotite-hornblende granodiorite (locally K-feldspar megacrysts), quartz monzonite, quartz diorite; hornblende and biotite hornblende diorite; biotite quartz feldspar porphyry and porphyritic biotite quartz monzonite ***(Ruby Range batholith)*** *- PgR*
q, leucocratic, biotite granite; miarolitic alaskite; saccharoidal textured, mafic-poor biotite granite; biotite-hornblende granite to leucocratic granodiorite with sparse, white, alkali feldspar phenocrysts; biotite quartz monzonite ***(Annie Ned granite)*** *- PqR*
gb, gabbro - PgbR
gn, minor granodiorite-gneiss - PgnR

UPPER CRETACEOUS

uKv

uKc — **CARMACKS:** *volcanic succession dominated by basic volcanic strata (1), but including intermediate (2) and locally felsic volcanic rocks (3) dominantly at the base of the succession, and locally, basal clastic strata (4); rare gabbro (5) (ca. 72-68 Ma)*
1, augite olivine basalt and breccia; hornblende feldspar porphyry andesite and dacite flows; vesicular, augite phyric andesite and trachyte; minor sandy tuff, granite boulder conglomerate, agglomerate and associated epiclastic rocks ***(Carmacks Gp, Little Ridge Volcanics, Casino Volcanics)*** *- uKcv*
2, andesite, porphyry - uKca
3, acid vitric crystal tuff, lapilli tuff and welded tuff including feeder plugs and necks; felsic volcanic flow rocks and quartz feldspar porphyries; green and purple massive tuff-breccia with feldspar phyric fragments ***(Carmacks Gp, Donjek Volcanics, some rocks formerly mapped as Mt. Nansen Gp;*** *the felsic part of the Carmacks Gp is difficult to distinguish from similar Tertiary and mid-Cretaceous (Mt. Nansen) felsic volcanic strata) - uKcf*
4, medium-bedded, poorly sorted, coarse to fine-grained sandstone, pebble conglomerate, shale, tuff, and coal; massive to thick-bedded locally derived granite or quartzite pebble to boulder conglomerate ***(Carmacks Gp; Colorado Creek Conglomerate)*** *- uKcs*
5, gabbro and monzonite bodies near Carmacks - uKcg

uKT — **TLANSANLIN:** *fine-grained basalt and basaltic andesite; plagioclase and hornblende-phyric andesite, dacite; welded lapilli tuff (ca. 78-74 Ma)*

uKW — **WINDY-TABLE:** *resistant, columnar jointed, quartz-phyric dacite flows, ash and lapilli tuff; maroon weathering, basal sedimentary and epiclastic rocks; dacite flows and flow breccia; brown basalt flows; includes dikes of quartz feldspar porphyry (ca. 85-80 Ma)* ***(Open Creek Volcanics)***

LATE CRETACEOUS

LKp

LKP — **PROSPECTOR MOUNTAIN SUITE (72-68 Ma):** *grey, fine to coarse-grained, massive, granitic rocks of felsic (q) intermediate (g) rarely mafic (d) composition and related felsic dikes (f)*
d, coarsely crystalline gabbro and diorite
g, hornblende-biotite granodiorite, hornblende diorite, quartz diorite ***(Wheaton Valley granodiorite; Katrina Creek suite)***
q, quartz monzonite, biotite quartz-rich granite; porphyritic alaskite and granite with plagioclase and quartz-eye phenocrysts; biotite and hornblende quartz monzodiorite, granite, and leucocratic granodiorite with local alkali feldspar phenocrysts ***(Prospector Mountain Suite, Carcross pluton)***
y, syenite
f, quartz-feldspar porphyry

LKc — **CASINO SUITE (79-72 Ma):** *grey, fine to coarse-grained, massive, granitic rocks of intermediate (g) composition and related felsic dikes (f)*
g, hornblende-biotite granodiorite, hornblende diorite, quartz diorite ***(Wheaton Valley granodiorite)***
f, quartz-feldspar porphyry

LKg — **UNDIVIDED SUITE - COAST MOUNTAINS:** *fine to coarse-grained granitic rocks of intermediate (gd) composition and probaly related orthogneiss*
gd, fine to coarse-grained hornblende diorite to tonalite with abundant garnet; locally grading into garnet amphibolite; gabbro
gn, medium to coarse-grained, mylonitic to weakly deformed, biotite, quartz ± garnet, orthogneiss; dark grey weathered, dark and light grey banded fresh; commonly interlayered with biotite schist or amphibolite of Snowcap assemblage (YT); inferred Late Cretaceous, but could be as old as Permian (?)

KS (KLUANE)

MESOZOIC

Kk — **KLUANE SCHIST:** *dark purplish brown staurolite cordierite biotite hornfels with relict schistose texture; quartz-sericite-chlorite schist; minor quartzite* ***(Kluane Schist)***
1, undifferentiated Kluane Schist
2, dark grey to black, fine-grained, quartz-biotite schist; local garnet and plagioclase porphyroblasts
3, light to dark grey, fine-grained, quartz-muscovite schist; variably carbonaceous; rare light grey carbonate lenses may be part of Snowcap or Finlayson assemblages of Yukon-Tanana terrane
4, gneissic equivalents of Kluane Schist and undifferentiated Yukon-Tanana terrane; migmatite, paragneiss and orthogneiss near the lower contact between Ruby Range batholith and Kluane Schist

ŦKs

ŦKB — **BLANCHARD RIVER:** *metasedimentary schist and paragneiss in the Coast plutonic complex*
1, medium to coarse-grained, orange weathered, dark grey to black, biotite-quartz-feldspar ± kyanite-sillimanite paragneiss; fine-grained, banded grey to dark grey metasedimentary rock
2, fine to medium-grained, garnet-biotite schist and metasedimentary rocks; brown to rusty weathered, dark grey fresh; layers variably richer in quartz or biotite; may result from low-grade metamorphism of part of the Dezadeash Fm

LOWER CRETACEOUS

mKs,v

mKN — **MOUNT NANSEN:** *massive aphyric or feldspar-phyric andesite to dacite flows, breccia and tuff; massive, heterolithic, quartz and feldspar-phyric, felsic lapilli tuff; flow-banded quartz-phyric rhyolite and quartz-feldspar porphyry plugs, dikes, sills and breccia* ***(Mount Nansen Gp, Byng Creek Volcanics, Hutshi Gp)***

lKIR — **INDIAN RIVER:** *clast-supported pebble to cobble conglomerate with clasts of vein quartz and foliated quartzite; coarse-grained sandstone; minor tuff*

EARLY CRETACEOUS

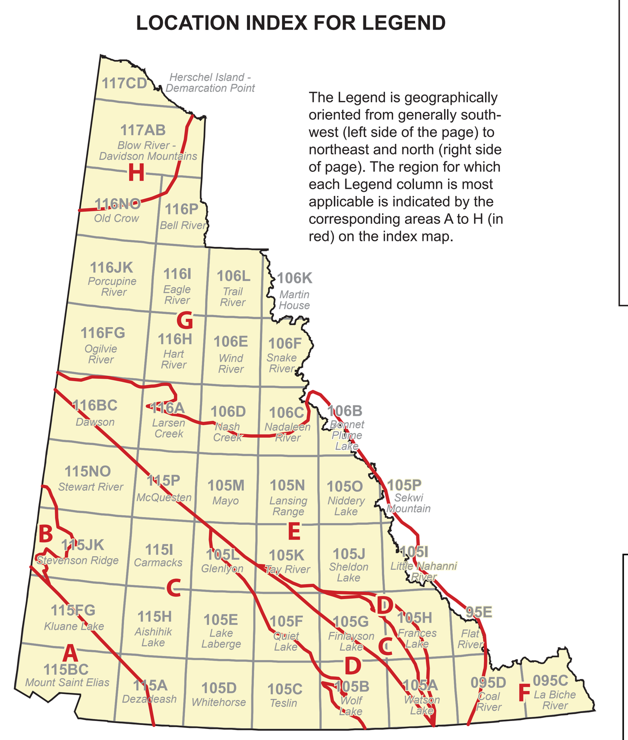
mKp

mKW — **WHITEHORSE SUITE (112-105 Ma):** *grey, medium to coarse-grained, generally equigranular granitic rocks of felsic (q), intermediate (g), locally mafic (d) and rarely syenitic (y) composition*
d, hornblende diorite, biotite-hornblende quartz diorite and mesocratic, often strongly magnetic, hypersthene-hornblende diorite, quartz diorite and gabbro ***(Whitehorse Suite, Coast Intrusions)***
g, biotite-hornblende granodiorite, hornblende quartz diorite and hornblende diorite; leucocratic, biotite hornblende granodiorite locally with sparse grey and pink potassium feldspar phenocrysts ***(Whitehorse Suite, Casino granodiorite, McClintock granodiorite, Nisling Range granodiorite)***
q, biotite quartz-monzonite, biotite granite and leucogranite, pink granophyric quartz monzonite, porphyritic biotite leucogranite, locally porphyritic (K-feldspar) hornblende monzonite to syenite, and locally porphyritic leucocratic quartz monzonite ***(Mt. McIntyre, Whitehorse plutons, Casino intrusions, Mt. Ward granite, Coffee Creek granite)***

EKp

EKT — **TESLIN SUITE (123-115 Ma):** *leucocratic, fine to coarse-grained, equigranular, hornblende-biotite granite, granodiorite, quartz monzonite and quartz monzodiorite, locally with sparse grey and pink potassium feldspar phenocrysts; associated aplitic phases and dikes* ***(Deadman Creek batholith)***

LOCATION INDEX FOR LEGEND



The Legend is geographically oriented from generally southwest (left side of the page) to northeast and north (right side of page). The region for which each Legend column is most applicable is indicated by the corresponding areas A to H (in red) on the index map.

F

Tvs

LOWER TERTIARY, MOSTLY(?) EOCENE

lTR — **ROSS:** *alkaline volcanic rocks (1) and terrestrial clastics (3)*
1, plagioclase, amphibole, olivine, nepheline and pyroxene-phyric, black, grey to greenish-grey, unfoliated volcanic rocks; feldspar, amphibole and pyroxene-phyric, very finely crystalline, light to medium-grey or greenish-grey, massive trachyte ***(Beaver River Alkaline Complex)*** *- lTRv*
3, compositionally immature, brown and reddish brown, conglomerate and sandstone; sandstone is typically crossbedded, poorly to well-indurated; minor basalt - lTRs

EOCENE

Ep

EyT — **TING SUITE:** *grey, unfoliated syenite, dominated by white feldspar with lesser biotite, coarsely crystalline; greyish-red and pale green aphanitic intrusive breccia with xenoliths of pink syenite, volcanic rocks and sandstone*

KTs

UPPER CRETACEOUS TO TERTIARY

KTB — **BONNET PLUME:** *sandstone, shale and coal, marine and nonmarine (1) and (2) deposited in foredeep of Cordilleran Orogen* ***(equivalent to "Brazeau foredeep clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
2, banded, feldspathic sandstone, coal ***(Wapiti Fm)***

UPPER CRETACEOUS

KT — **TENT ISLAND:** *shale with local siltstone, sandstone and conglomerate (1) and (2)* ***(equivalent to "Smoky foredeep marine shales" tectonic assemblage of Wheeler and McFeely, 1991)***
2, dark grey concretionary shale; mudstone; grey sandstone; marine ***(Kotaneelee Fm)***

LOWER CRETACEOUS AND (MOSTLY) UPPER CRETACEOUS

KM — **MONSTER:** *diverse assemblage of fine to coarse clastics, marine and nonmarine (1) to (7) deposited in foredeep of Cordilleran orogen* ***(equivalent to "Trevor southwesterly derived clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
7, carbonaceous sandstone and pebble conglomerate; dark grey shale, siltstone ***(Dunvegan Fm)***

LOWER CRETACEOUS

KS — **SHARP MOUNTAIN:** *fine and coarse clastic assemblage, mostly marine (1) to (7) deposited in foredeep of Cordilleran orogen* ***(equivalent to "Blairmore foredeep clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
5, concretionary dark grey and rusty weathering shale, gypsiferous in part; greenish grey sandstone, siltstone and shale ***(Fort St. John Gp including Garbutt, Scatter, Sikanni, Sully, and Lepine fms)***

NA (NORTH AMERICA - SOUTHEAST)

MIDDLE TO UPPER TRIASSIC

TJ — **JONES LAKE:** *dark grey and brown fine-grained siliciclastic rocks (1)*
1, grey, red and green shale interbedded with sandstone; brown, thin to thick-bedded, laminated or massive, locally bioturbated; minor brown to grey siltstone, locally calcareous or phosphatic; shalier and more recessive at base ***(Grayling and Toad fms)***

PERMIAN

PF — **FANTASQUE:** *assemblage of chert and shale, sandstone and mudstone (1), and limestone, dolostone (2)*
1, grey to black chert in medium to very thick beds separated by thin beds of shale; grey sandstone and mudstone ***(Fantasque Fm)***
2, limestone, dolostone, chert and shale ***(Tika and Fantasque fms)***

CARBONIFEROUS

CM — **MATTSON:** *generally divisible to lower thinly bedded grey sandstone, shale and coal (1) overlain by massive bedded, grey to brown sandstone (2), in turn overlain by grey sandstone, limestone and shale (3)* ***(Mattson Fm)***
1, quartz arenite, very fine to fine-grained, light grey or beige, grey to orange-weathering, thin to medium-bedded, typically cross-laminated; well-indurated, trace fossils common; interbedded with minor dark grey siltstone and shale ***(lower member)***
2, quartz arenite, locally cherty, grey to beige or brown, thick-bedded, fine to large-scale cross bedding, poorly to well-indurated; interbedded with minor medium to dark grey siltstone and shale ***(middle member)***
3, sandstone: quartz arenite, locally cherty, calcareous, or dolomitic, light to medium grey, commonly shows large-scale crossbedding; interbedded with minor limestone: grey, cherty and siliceous, typically fossiliferous with crinoids, brachiopods, bryozoans ***(upper member)***
4, undivided middle and upper members

CFG — **FLETT/GOLATA:** *limestone: cherty, grey, skeletal wackestone to packstone and lesser grainstone, massive; interbedded with minor shale, mudstone, or siltstone: calcareous, spiculitic; and sandstone* ***(Flett Fm)***; *overlain by dark grey to black silty shale and mudstone; minor fossiliferous limestone and dolostone* ***(Golata Fm)***

CP — **PROPHET:** *spiculitic, calcareous or dolomitic, dark grey, greyish-orange weathering, well bedded chert; rhythmically interbedded with cherty, medium to dark grey, skeletal wackestone to packstone; sandstone and black to dark grey shale*

DEVONIAN AND MISSISSIPPIAN

DMBR — **BESA RIVER:** *fine-grained clastic assemblage in southeastern Yukon*
1, black shale and argillite; brown and green shale and argillite; cherty argillite; fine-grained, quartzose sandstone; may locally include undivided black shale and chert of Ordovician to Devonian age ***(Besa River and minor Fort Simpson fms)***

MIDDLE DEVONIAN

DH — **HUME:** *assemblage of fossiliferous limestone*
1, buff-brown weathering argillaceous to silty, dark grey, fine-grained limestone, platy to thin-bedded; minor intercalated irregularly banded orange weathering dolostone and thin beds of resistant; orange-brown weathering limestone; richly fossiliferous ***(Headless Fm)***

DEVONIAN

DD — **DUNEDIN:** *limestone, locally dolomitic, mudstone to wackestone to skeletal-grainstone, medium to dark grey, grey-weathering, medium to thick-bedded, crinoid debris locally abundant; unit is resistant* ***(Dunedin Fm)***

SILURIAN TO MIDDLE DEVONIAN

SDc — *dolostone, locally sandy, finely crystalline, light to medium grey, beige to grey-weathering, medium to thick-bedded; locally laminated, locally vuggy, unfossiliferous; minor dolomitic siltstone, laminated* ***(Nonda, Muncho, McConnell and Stone fms)***

UPPER ORDOVICIAN AND SILURIAN

OSk — **KINDLE:** *dolostone succession*
2, medium to thick-bedded, black, coarse-grained dolostone and interbedded grey weathering laminated dolostone with nodules and bands of black chert; medium grey weathering, platy, grey argillaceous limestone with minor chert shale; massive and reefoid, fetid dolostone ***(Whittaker, Nonda fms)***

MIDDLE ORDOVICIAN

OSs — *grey to beige quartz arenite, locally conglomeratic; quartz-pebble conglomerate, subrounded to rounded clasts; minor sandstone and siltstone*

MIDDLE ORDOVICIAN

Os — **SUNBLOOD:** *mainly dolostone and limestone (1); local mafic volcanic (2)*
1, buff, rouge and light grey weathering platy dolostone and limestone; local interbedded light and dark grey fine crystalline and white coarse crystalline dolostone at base; rare thick beds of light blue-grey limestone ***(Sunblood Fm)***
2, basalt in southeast Yukon - Osv

CAMBRIAN TO ORDOVICIAN

ЄOoc — **OTTER CREEK:** *light grey, fine-grained, indistinctly bedded, resistant limestone; lesser buff to tan-weathering dolostone* ***(partly correlative with Haywire Fm)***

ЄOc — **CROW:** *sandstone (1) and basalt (2) in southeast Yukon*
1, cream to pink, indistinctly bedded, quartzose to subarkosic sandstone; lesser maroon to greyish red, laminated siltstone to argillite; minor conglomerate, limestone and dolostone interbeds; correlative with Rabbitkettle Fm

ЄOcv — *2, greyish green and maroon, grey-weathering, thick-bedded basaltic lapilli tuff and breccia interbedded with amygdaloidal, vesicular to massive pillowed flows; in part correlative with Rabbitkettle Fm volcanic rocks - ЄOcv*

LOWER CAMBRIAN

lЄs — **SEKWI:** *pale green to tan, brown-weathering, laminated, locally calcareous, locally fossiliferous, pelitic phyllite to siltstone; rusty brown-weathering, thin-bedded arkose; lesser laminated, silty limestone and cream-weathering, fine-grained quartzose sandstone; medium grey to dark grey and orange weathering limestone containing archaeocyathids near middle of unit* ***(Sekwi Fm)***

NEOPROTEROZOIC TO LOWER CAMBRIAN

uPЄV — **VAMPIRE:** *sandstone and siltstone, minor orthoquartzite; phyllite, slate, and argillite* ***(Vampire Fm)***
1, dark grey to pale green, rusty tan-weathering, noncalcareous, pinstriped silty, pelitic phyllite; lesser cream, quartzose sandstone and light grey-weathering siltstone; minor pebbly conglomerate to sandstone and grey, bedded limestone; locally metamorphosed to biotite-garnet-staurolite pelitic schist
2, pale grey, white-weathering, bedded to massive limestone or marble
3, green, grey-weathering, basaltic lapilli tuff and breccia interbedded with amygdaloidal, vesicular or massive, locally pillowed basaltic flows; intruded by equigranular, green, hornblende-plagioclase diabase

NEOPROTEROZOIC

LPP — **POOL CREEK SUITE (650-640 Ma):** *pink syenite, dominated by pink potassium-feldspar with lesser dark chloritized biotite, medium to coarsely-crystalline, unfoliated*

uPHC — **HAY CREEK (?):** *post-rift, fine to coarse siliciclastic rocks (1), cap dolostone (3) and glacial diamictite (5)*
1, banded green to grey or greyish-red argillite or siltstone; very fine grained, laminated or very thin bedded sandstone, soft-sediment slump folding is common; minor matrix-supported conglomerate ***(probably equivalent to Twitya Fm)*** *- uPHCt*
3, very fine to medium-grained, white to light grey or greenish-grey, massive to laminated or ripple cross-laminated quartz arenite; interbedded with minor dark grey to black, laminated siltstone ***(Keele Fm)*** *- uPHCk*
5, dark grey to black, orange-brown-weathering, polymictic, matrix-supported conglomerate; matrix mudstone to fine siltstone; clasts dominantly sandstone, siltstone and limestone ***(Toobally Fm)*** *- uPHCtb*

EXPLANATION

AGE OF TECTONIC ASSEMBLAGE

ASSEMBLAGE NAME: *assemblage description; assemblages are a subjective grouping of stratigraphic or metamorphic rock units that allow correlation and potrayal of lithological continuity on a regional scale* ***(applicable formation (Fm), suite, group (Gp), member (mb) names indicated in bold face)***; *informal stratigraphic units denoted by lower cases abbreviation (i.e. gp, fm)*
Assemblage names are chosen from a representative and/or significant constituent formation or group
1, separately distinguished and described components of assemblage indicated by subunits (i.e. 1, 2 ...), generally displayed at 1:250,000 scale
2, where indicated some subunits are distinguished by their own colour and/or pattern to add detail and clarity to the map
3, a diagonal dash pattern distinguishes volcanic facies of some subunits
4, a stipple pattern distinguishes distal, basinal facies of some subunits
5, a cross pattern distinguishes subvolcanic, plutonic subunits for some mixed clastic and volcanic assemblages
6, a red stipple pattern distinguishes subunits metamorphosed to eclogite or blueschist facies (in Yukon-Tanana terrane)

AGE OF PLUTONIC SUITE

PLUTONIC SUITE NAME: *plutonic suite description; plutonic suites as subjective groupings of plutonic rock units that allow correlation and potrayal of lithological continuity on a regional scale; plutonic suites can be subdivided on basis of composition* ***(applicable suite, batholith, or pluton names indicated in boldface)***
Suite names are chosen from a representative and/or significant named plutonic suite, batholith or pluton
q, granite, quartz monzonite
g, granodiorite
d, diorite
y, syenite
gb, gabbro
f, felsic dikes

Brackets indicate grouping by terrane, post-terrane amalgamation intrusive suites, and overlap assemblages colour-coded as follows:
dark blue – Ancestral North America (or Laurentia)
cyan – displaced Ancestral North America (or Laurentia)
brown – Intermontane (or peri-Laurentian) terranes
green – Insular terranes
yellow – overlap sequence
red – post-amalgamation plutonic suite

For clarity at the 1:1,000,000 scale, not all subunits in the legend are indicated separately on the map. For example, JKH1 and JKH3 are amalgamated under the colour of the parent unit JKH. The more detailed legend corresponds to map units in the GIS source data for display at the 1:250,000 scale.

The GIS data used to produce this map are regularly updated and available for download from the Yukon Geological Survey's website – www.geology.gov.yk.ca/update_yukon_bedrock_geology_map.html. The data can also be viewed and queried online using the Yukon Geological Survey interactive map service: http://mapservices.gov.yk.ca/YGS/SL/.

SYMBOLS

Geological contact (defined, approximate, inferred, extrapolated)

Fault, sense of movement unknown (defined, approximate, inferred, extrapolated)

Fault, normal, barb on downthrown side (defined, approximate, inferred, extrapolated)

Fault, low-angle detachment, crescent on upper plate (defined, approximate, inferred, extrapolated)

Fault, thrust, teeth on upper plate (defined, approximate, inferred, extrapolated)

Fault, thrust, overturned, teeth on upper plate (defined, approximate, inferred, extrapolated)

Fault, strike-slip, dextral (defined, approximate, inferred, extrapolated)

Fault, strike-slip, sinistral (defined, approximate, inferred, extrapolated)

Permanent ice and snow

REFERENCES:

Norris, D.K. 1997. Geology and mineral and hydrocarbon potential of northern Yukon Territory and northwestern District of Mackenzie. Geological Survey of Canada, Bulletin 422, 401 p.

Wheeler, J.O. and McFeely, P., 1991. Tectonic assemblage map of the Canadian Cordillera and adjacent parts of the United States of America. Geological Survey of Canada, Map 1712A, scale 1:2,000,000.

Yukon Geological Survey
Energy, Mines and Resources
Government of Yukon

Open File 2016-1
Yukon Bedrock Geology Map 2016

Sheet 2 of 2
Legend

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G

Qs

QUATERNARY

Q — **QUATERNARY:** *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

TERTIARY

TF — **FISH RIVER:** *fine to medium-grained sandstone, siltstone and mudstone (1) and (2) deposited in foredeep of Cordilleran orogen* ***(equivalent to Moose Channel (1) and Reindeer (2) tectonic assemblages of Wheeler and McFeely, 1991)***
1, fine to medium-grained sandstone with planar and hummocky cross-stratification, and ripple and horizontal lamination; upper light grey mudstone with thin interbeds of siltstone and very fine grained sandstone; alluvial grading upward to marine ***(Moose Channel Fm)***
2, weakly cemented to unconsolidated interbedded sandstone, pebbly sandstone, conglomerate, mudstone and some lignite; fluvial to deltaic ***(Reindeer Fm)***

KTs

UPPER CRETACEOUS

KT — **TENT ISLAND:** *shale with local siltstone, sandstone and conglomerate (1) and (2)* ***(equivalent to "Smoky foredeep marine shales" tectonic assemblage of Wheeler and McFeely, 1991)***
1, basal unit of massive sandstone to conglomerate in medium to thick beds succeeded by medium to dark grey, soft mudstone with thin interbeds of siltstone and very fine grained sandstone; submarine fan coarse clastics succeeded by marine shelf deposits ***(Tent Island Fm)***

UPPER CRETACEOUS TO TERTIARY

KTB — **BONNET PLUME:** *sandstone, shale and coal, marine and nonmarine (1) and (2) deposited in foredeep of Cordilleran Orogen* ***(equivalent to "Brazeau foredeep clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
1, medium to coarse-grained sandstone with minor thin lenses and layers of fine pebble conglomerate separated by layers of grey fissile shale; lignite; fluviatile and lacustrine ***(Bonnet Plume Fm (upper))***
2, banded, feldspathic sandstone, coal ***(Wapiti Fm)***

uKs

LOWER CRETACEOUS AND (MOSTLY) UPPER CRETACEOUS

KM — **MONSTER:** *diverse assemblage of fine to coarse clastics, marine and nonmarine (1) to (7) deposited in foredeep of Cordilleran orogen* ***(equivalent to "Trevor southwesterly derived clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
1, interbedded sandstone and shale; sandstone is generally fine-grained, locally pebbly and occurs in thin to medium beds; ripple cross-lamination and load casts common; carbonaceous debris common; marine ***(Trevor Fm)***
2, medium to dark grey shale and mudstone; rare bentonite; very fine to medium-grained sandstone with hummocky cross-stratification, horizontal lamination and thin interbeds of mudstone; bioturbation; marine to locally fluvial at top ***(Eagle Plain Fm)***
3, sandstone and shale; marine

KMb — *4, dominantly resistant massive pebble to cobble, and locally boulder conglomerate with lesser sandstone and shale; alluvial* ***(Bonnet Plume Fm (lower member))*** *- KMb*
5, lower part: brown weathering, fine-grained arkosic sandstone (marine?); middle part: silty mudstone and carbonaceous and conglomeratic sandstone (nonmarine?); upper part: mesa-forming chert-quartz sandstone-pebble conglomerate (fluviatile?) ***(Monster Fm)***

KMbc — *6, soft, light grey to black fissile shale with scattered cm-thick beds of white to yellow bentonite and ironstone concretions; marine* ***(Boundary Creek Fm)*** *- KMbc*
7, carbonaceous sandstone and pebble conglomerate; dark grey shale, siltstone ***(Dunvegan Fm)***

LOWER CRETACEOUS

KS1,3 — **SHARP MOUNTAIN:** *fine and coarse clastic assemblage, mostly marine (1) to (7) deposited in foredeep of Cordilleran orogen* ***(equivalent to "Blairmore foredeep clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
1, basal interbedded siltstone and silty shale with concretionary horizons overlain by interbedded glauconitic fine-grained sandstone, siltstone and shale; marine ***(Martin House Fm)***

KS2,7 — *2, thin-bedded dark grey to brown or black shale and interbeds of siltstone; concretions and clay (bentonite?) beds; locally basal beds are silty or sandy to conglomeratic; marine* ***(Arctic Red Fm)***
3, massive sandstone and pebble conglomerate; rare ripple cross-lamination in sandstone; shale-dominant units with thin beds of siltstone and very fine grained sandstone; local mud-supported conglomerate; marine sediment gravity flow deposits ***(Sharp Mountain Conglomerate)***

KS4,5,6 — *4, sandstone, conglomerate and shale; flyschoid*
5, concretionary dark grey and rusty weathering shale, gypsiferous in part; greenish grey sandstone, siltstone and shale ***(Fort St. John Gp including Garbutt, Scatter, Sikanni, Sully, and Lepine fms)***
6, dark grey weathering massive to poorly bedded chert sandstone and chert pebble conglomerate; fluvial(?) ***(Big Timber Fm)***
7, basal member of shale with thin interbeds of sandstone and pebbly sandstone; upper member of generally massive sandstone and conglomerate with normal and some inverse grading; conglomerate clasts to boulder size; marine sediment gravity flow deposits ***(Kathul Greywacke)***

JKs

lKM1 — **MOUNT GOODENOUGH:** *shale, siltstone, and sandstone (1) to (6) comprising alternating fine and coarse clastic units* ***(equivalent to upper part of "Parsons continental margin clastics" tectonic assemblage of Wheeler and McFeely, 1991)***
1, dominated by fine-grained quartz arenite with hummocky cross-stratification, swaley bedding, plane lamination, ripple lamination and bioturbation; members and interbeds of shale; marine inner shelf to upper shoreface ***(Martin Creek Fm; may include McGuire Fm)***

lKM2 — *2, shale with thin beds of siltstone and very fine grained argillaceous bioturbated sandstone; ironstone concretions in lower beds; marine* ***(McGuire Fm)***

lKM3,4 — *3, shale, siltstone, sandstone and coal; marine and nonmarine*
4, basal interbedded sandstone, siltstone, shale and locally conglomerate, with bioturbation, lamination and cross-stratification; upper beds are bioturbated dark grey shale, interbedded with thin siltstone and silty sandstone; marine ***(Mount Goodenough Fm)***

lKM5 — *5, dark grey to black argillite, siltstone and sandstone; turbiditic* ***(Biederman Argillite)***

lKM6 — *6, interbedded units of sandstone and shale; hummocky cross-stratification and planar lamination; marine* ***(Rat River Fm)***

JURASSIC AND LOWER CRETACEOUS

JKH1,3 — **HUSKY:** *shale and siltstone (1) and (3) and laterally equivalent coarser grained siltstone and sandstone (2) and (4) and undivided clastic strata (5) deposited on a marine shelf* ***(equivalent to lower part of "Parsons continental margin clastics" tectonic assemblage of Wheeler and McFeely, 1991)***
1, dark grey siltstone and shale ***(Kingak Fm (upper), may include Porcupine River and Husky fms, and Bug Creek Gp)***

JKH2 — *2, rusty to light grey fine to very fine grained sandstone; marine and nonmarine* ***(Porcupine River Fm)***
3, dark grey shale, siltstone and ironstone; marine ***(Husky Fm)***

JKH4 — *4, light grey glauconitic conglomeratic sandstone, shale and siltstone; marine* ***(North Branch Fm)***

JKH5 — *5, shale, siltstone, sandstone; minor conglomerate; limonitic nodules; marine and nonmarine* ***(undivided Jurassic and Lower Cretaceous clastic rocks)***

JURASSIC

JB — **BUG CREEK:** *several cycles of shale and shelf sandstone in northern Yukon (2), fining generally to the northwest (3), and including equivalent generally fine clastic strata in central Yukon (1)* ***(equivalent to upper part of "Spray River continental margin prism" tectonic assemblage of Wheeler and McFeely, 1991)***
1, dark grey argillite, slate, and phyllite, commonly graphitic, thin-bedded dark grey quartzite, platy to phyllitic quartzite; minor phyllite and limy quartzite ***(Lower Schist)***
2, succession of alternating coarse and fine clastic formations; rock types include soft, fissile shale, siltstone, fine to medium-grained sandstone with thin argillaceous interbeds and sandstone with large-scale cross bedding and bioturbation; marine ***(Bug Creek Gp: includes Aklavik, Murray Ridge, Almstrom Creek, Manuel Creek and Richardson Mountains fms)***

UPPER TRIASSIC

Ŧs — **SHUBLIK:** *commonly bioturbated calcareous shale, siltstone and sandstone; silty bioclastic limestone; local hummocky cross-stratification* ***(Shublik Fm)***

LOWER AND MIDDLE PERMIAN

PJc — **JUNGLE CREEK:** *clastic assemblage with some carbonate (1) but including undifferentiated clastics and carbonates of mostly(?) equivalent age (2) and a separately mappable partly equivalent carbonate (3) and conglomerate (4)*
1, consists upward of chert pebble conglomerate, sandstone and shale overlain by mixed calcareous or cherty mudstone, silty limestone and prominent resistant lenses of sandstone in turn overlain by yellow orange weathering, fine-grained, grey sandstone ***(Jungle Creek, Longstick fms)***
2, undivided Lower and Middle Permian strata including shale, siltstone, and limestone ***(Sadlerochit (in part), Echooka fms)***
3, rusty to light grey weathering, grey to white, crystalline skeletal limestone; partially silicified and dolomitized (upper part); interbedded black chert (middle part); calcitic sandstone, chert-pebble conglomerate, and sandy limestone (basal part) ***(Tahkandit Fm)***
4, chert-pebble conglomerate and fossiliferous sandstone with units of sandy to conglomeratic skeletal limestone ***(Step Conglomerate)***

NA (NORTH AMERICA)

UPPER DEVONIAN TO PERMIAN

uDPF — **FORD LAKE:** *generally fine to coarse-grained clastic succession equivalent to Canol, Imperial and(?) Tuttle assemblages (1) or including these and younger formations undivided (2) and (3)*
1, dark grey to black, silty pyritic shale and siltstone with subordinate sandstone, conglomerate and silty limestone ***(Ford Lake Shale)***
2, shale, siltstone, limestone, sandstone, conglomerate, chert undivided ***(Canol, Ford Lake, Hart River, and Ettrain fms undivided)***
3, shale, siltstone, limestone, sandstone, conglomerate, chert undivided ***(Ford Lake, Hart River, Ettrain, and Jungle Creek fms undivided)***

UPPER CARBONIFEROUS

CE — **ETTRAIN:** *cherty, echinoderm-bryozoan and ooid lime grainstone and mixed-skeletal lime packstone; glauconitic sandy carbonate; local quartz-chert siltstone and sandstone; marine* ***(Ettrain Fm)***

LOWER AND UPPER CARBONIFEROUS

CH — **HART RIVER:** *dominantly carbonate assemblage (1) with equivalent local clastics (2)*
1, thinly laminated, cherty spiculite and spicule lime packstone with subordinate sandstone, siltstone and calcareous shale; local lime grainstone; local members of lenticular to shoe-string sandstone grading into chert rich conglomerate ***(Hart River Fm)***
2, brown weathering sandstone, conglomerate and skeletal limestone; equivalent to upper part of Hart River ***(Hart River Fm)***

CARBONIFEROUS

CL — **LISBURNE:** *lime mudstone and wackestone, mixed skeletal lime packstone and grainstone; fine crystalline, sandy to silty dolostone; siltstone and shale; lime grainstone and packstone; ooid and skeletal-ooid grainstone* ***(Lisburne Gp undivided; Alapah and Wahoo fms)***

CARBONIFEROUS

CKY — **KAYAK:** *basal dark grey to black shale and siltstone with lesser thin bedded, locally conglomeratic sandstone grading upward to dark grey, calcareous shale with minor argillaceous, silty lime packstone and wackestone; basal parts coal bearing* ***(Kayak Fm)***

lCK — **KEKIKTUK:** *pebble-to-boulder conglomerate with subordinate conglomeratic sandstone and minor shale; clasts dominantly chert, but include white vein quartz, grit, sandstone, siltstone and scattered granitic clasts* ***(Kekiktuk Fm)***

LOWER CARBONIFEROUS

lCT — **TUTTLE:** *chert granule to pebble conglomerate and conglomeratic sandstone with subordinate siltstone and shale; minor coal; includes unnamed, partly correlative light grey medium-grained sandstone and dark grey shale; pro-deltaic, deltaic and fluvial* ***(Tuttle Fm)***

UPPER DEVONIAN

uDI — **IMPERIAL:** *rusty-weathering dark grey shale and siltstone generally in lower part of succession overlain by dark grey, fine-grained lithic sandstone and siltstone; siltstone and sandstone commonly as sharp-based graded beds* ***(Imperial Fm)***

uDC — **CANOL:** *dark grey to black noncalcareous, soft to very hard shale with scattered, orange-weathering, carbonate nodules and minor chert* ***(Canol and minor Hare Indian fms)***

MIDDLE DEVONIAN

DH — **HUME:** *assemblage of fossiliferous limestone (3) and similar, laterally equivalent units (1) and (2) and (4)*
1, buff-brown weathering argillaceous to silty, dark grey, fine-grained limestone, platy to thin-bedded; minor intercalated irregularly banded orange weathering dolostone and thin beds of resistant; orange-brown weathering limestone; richly fossiliferous ***(Headless Fm)***
2, massive, thick-bedded, fine to medium-grained, light grey weathering limestone ***(Nahanni Fm)***
3, dark grey, finely crystalline fossiliferous limestone and minor shale ***(Hume Fm)***
4, buff-grey weathering thin to medium-bedded silty limestone ***(Funeral Fm)***

DL — **LANDRY:** *thin to very thick bedded, resistant, light grey weathering, medium to light grey and brownish crypto-grained limestone; massive and thick-bedded bioclastic, locally reefoid limestone; black, platy limestone* ***(Landry Fm)***

UPPER LOWER TO LOWER MIDDLE DEVONIAN

DB — **GRIZZLY BEAR:** *limestone, white grey weathering, cliff forming, blocky partings, massive, fine to medium crystalline; scattered corals, brachiopods, bryozoans and twin canal echinoderm ossicles* ***(Grizzly Bear Fm)***

MIDDLE DEVONIAN

DN — **NATLA:** *dark grey weathering, platy, thin-bedded, recessive sooty limestone, in part crinoidal; uncommon beds of massive crinoidal limestone* ***(Natla Fm)***

LOWER AND MIDDLE DEVONIAN

DG — **GOSSAGE:** *assemblage consists of limestone and dolostone (1) and partly equivalent black limestone (2) and shale (3)*
1, black, calcareous shale; black richly fossiliferous limestone; orange brown weathering dolostone ***(Michelle Fm)***
2, dark grey and black, fine-grained limestone; recessive light grey, thick-bedded argillaceous limestone; black, argillaceous limestone; calcareous shale; marine ***(Ogilvie Fm)***
3, limestone and dolostone, light grey and dark brownish grey, fine to medium-grained, mostly alternating dark and light coloured medium to thick beds ***(Gossage Fm)***

UPPER SILURIAN TO LOWER DEVONIAN

SDD — **DELORME:** *buff to orange weathering, well-bedded, buff, light grey, brownish grey and dark grey, very fine grained dolostone; platy to flaggy, wavy banded blue-grey silty limestone with rare thin beds of buff weathering dolostone* ***(Delorme Fm)***

UPPER CAMBRIAN TO LOWER DEVONIAN

ЄDB — **BOUVETTE:** *lower Paleozoic undivided carbonate (1) with locally named tongues(?) (2) and (3)*
1, grey and buff-weathering dolostone and limestone, medium to thick-bedded; white to light grey weathering, massive dolostone; minor platy black argillaceous limestone, limestone conglomerate, and black shale; massive bluish-grey weathering dolostone ***(Bouvette Fm, unit ЄDb)***
2, biogenic, oolitic, siliceous, massive limestone; marine ***(Jones Ridge Fm)***
3, light grey, thick-bedded, pelletoidal limestone ***(Vunta Fm)***

CAMBRIAN TO DEVONIAN

ЄDR — **ROAD RIVER - RICHARDSON:** *black graptolitic shale, limestone and minor chert with mappable subdivisions (1) through (5) in Richardson Mtns.; correlations with Selwyn Mtns. include: lower (2) with ЄOR, upper (2) with OSR1, (4) with OSR2 and (5) with lower DME2* ***(Road River Gp)***
1, calcareous black shale and limestone (ЄDR0 ***of Norris, 1997)***
2, lower: pale yellow to grey weathering, thin to medium-bedded, shaly limestone with minor shale interbeds; minor chert and intraclast conglomerate; upper: black chert, graptolitic shale, silicified limestone and minor intraclast conglomerate (ЄDR1 ***of Norris, 1997)***
3, sharpstone breccia, heterogeneous, commonly with limestone and chert clasts; turbiditic (ЄDR2 ***of Norris, 1997)***
4, interstratified, yellowish to orange weathering argillite and yellowish to grey weathering shaly limestone and dolostone; minor black, calcareous shale, intraclast conglomerate and breccia (ЄDR3 ***of Norris, 1997)***
5, graptolitic, black shale and shaly limestone; minor limestone, intraclast conglomerates and breccia (ЄDR4 ***of Norris, 1997)***
6, black and grey chert, locally bioturbated; black and blue-black, siliceous, graptolitic shale; minor limestone

UPPER ORDOVICIAN AND SILURIAN

OSK — **KINDLE:** *dolostone succession includes mostly two laterally equivalent and lithologically similar formations (1) and (2), a partially equivalent local clastic-carbonate assemblage (3) and locally undivided carbonate of similar age (4)*
1, thick-bedded, dark grey to black and minor light grey weathering dolostone; locally massive, vuggy and reefoid; minor chert ***(Mt. Kindle Fm)***
2, thick-bedded, black, coarse-grained dolostone and interbedded grey weathering laminated dolostone with nodules and bands of black chert; medium grey weathering, platy, grey argillaceous limestone with minor chert shale; massive and reefoid dolostone ***(Whittaker, Nonda fms)***
3, well-bedded siltstone, sandstone, dolostone and shale
4, thick-bedded to massive light grey dolostone and limestone; dark grey, fetid limestone; includes undifferentiated beds as young as Lower Devonian

UPPER CAMBRIAN AND ORDOVICIAN

ЄOF — **FRANKLIN MOUNTAIN:** *dolostone succession with local basal quartzite and red bed member; includes two laterally equivalent and lithologically similar formations (1) and (2)*
1, grey, argillaceous, sandy and silty dolostone; basal red beds member consists of sandstone, red shale, conglomerate, dolostone and chert ***(Franklin Mountain Fm)***
2, well-banded, rhythmically bedded, grey and buff-orange dolostone; includes grey to black dolostone and dark grey to black limestone; local basal member of maroon dolostone and sandstone, silver-grey sandstone and sandy dolostone ***(Broken Skull Fm)***

UPPER CAMBRIAN

uЄT — **TAIGA:** *striped yellow and orange weathering fine crystalline, light grey limestone; light grey weathering, thick-bedded and massive dolostone; minor brown and green shale* ***(Taiga Fm)***

MIDDLE CAMBRIAN

mЄH — **HESS RIVER:** *shale, black, pyritic, unfossiliferous; occurs as interstratified thick units of black calcareous shale and rusty black shale* ***(Hess River Fm)***

G

LOWER AND MIDDLE CAMBRIAN

lmЄs — **SLATS CREEK:** *siltstone, sandstone and shale (1) and partly(?) correlative clastic rocks (2)*
1, rusty brown weathering, turbiditic, quartz sandstone with minor shale and siltstone; pale red weathering siltstone, sandstone, quartzite pebble and cobble conglomerate and limestone; maroon with green argillite with minor quartzite and limestone ***(Slats Creek Fm)***
2, grey, green and red argillite with laminated quartzite and siltstone; light brown quartzite at base; locally with grey-green chloritic shale and siltstone interbeds; trace fossil "Oldhamia", trilobites and archaeocyatha in basal conglomerate unit ***(Adams Argillite)***

lЄI — **ILTYD:** *limestone assemblage (1), (2), (3); also includes carbonate strata of uncertain Proterozoic to Cambrian age (4)*
1, fine-crystalline, dark grey limestone; light grey, medium crystalline biohermal dolostone ***(Iltyd Fm)***
2, fine-grained, yellow brown limestone, limy conglomerate-breccia; locally chert and chalcedony replacements; uncommon archaeocyathid and trilobite fossils ***(Hillard Fm)***
3, massive, light grey limestone, locally dolomitic; in places oolitic or contains dark grey chert; includes secondary silicification and chalcedony vugs ***(Funnel Creek Fm)***
4, light grey, medium-bedded dolostone; massive, pale grey limestone

LOWER CAMBRIAN

lЄs — **SEKWI:** *limestone, locally wavy bedded and nodular; limestone conglomerate slope breccia; massive grey dolostone; medium to thick-bedded quartz sandstone; purple siltstone; bright orange weathering, fine-crystalline dolostone* ***(Sekwi Fm)***

NEOPROTEROZOIC TO LOWER CAMBRIAN

uPЄV — **VAMPIRE:** *dark brown weathering, thin-bedded, argillaceous fine-grained sandstone and siltstone, minor interbedded medium to coarse-grained white to light grey orthoquartzite, phyllite, slate, and argillite* ***(Vampire Fm)***

PЄB — **BACKBONE:** *massive quartzite (1) with regionally extensive carbonate member (2) and local mafic volcanic rocks (3)*
1, light grey, red-brown, white, and pink, thick-bedded, medium to coarse-grained orthoquartzite; minor brown or maroon phyllite, platy siltstone, silty shale, thin-bedded fine-grained quartzite, grey limestone and sandy to pebbly limestone ***(Backbone Ranges Fm)*** *- PЄB*

PЄBc — *2, crypto-grained, mottled, mauve, pink, banded limestone and dolostone, locally silty, sandy or pebbly; massive light cream to pink weathering dolostone; massive grey limestone; minor quartzitic sandstone and brick red to purple shale* ***(Backbone Ranges Fm, "middle" carbonate mb)*** *- PЄBc*

uPЄI — **INGTA:** *varicoloured quartzite, siltstone and shale, minor silty and sandy dolostone* ***(Ingta Fm)***

NEOPROTEROZOIC (EDIACARAN)

uPRi — **RISKY:** *buff grey to buff yellow weathering poorly bedded, in part pisolitic dolostone, in part porous fine-grained dolostone; varicoloured quartzite, siltstone and shale, minor silty and sandy dolostone* ***(Risky Fm)***

uPB — **BLUEFLOWER:** *fine-grained siliciclastic and carbonate rocks, and locally conglomerate* ***(Blueflower Fm; equivalent in part to Yusezyu Fm, Hyland Gp)***
1, buff, grey and pale yellow-weathering limestone, planar and cross-bedded, interbedded with green-grey shale ***(lower mb)***
2, green or grey, rhythmically bedded mudstone, siltstone, and fine sandstone; matrix-supported conglomerate; grey and orange-coloured carbonate boulders in orange-brown-weathering, poorly sorted sandstone matrix ***(middle mb)***
3, brown-weathering, shale, siltstone and sandstone; pale grey-pink sandstone and grit; calcareous shale; sandy limestone; mudstone, siltstone; thinly bedded silty limestone ***(upper mb)***

uPG — **GAMETRAIL:** *grey, yellow and orange weathering dolostone, dolomitic siltstone/sandstone and limestone, commonly planar and/or cross-laminated; calcareous shale and siltstone; maroon shale; carbonate-clast breccia and conglomerate* ***(Gametrail Fm)***

uPN — **NADALEEN:** *brownish-grey siltstone, mudstone, limestone; limestone conglomerate; rhythmically, thin to medium-bedded mudstone and limestone; pink-grey sandstone and quartzite; calcareous sandstone and granule-pebble conglomerate* ***(Nadaleen fm)***
1, diamictite, conglomerate; clasts of carbonate and quartzite, pebble to boulder; matrix locally sandy; grey limestone; calcareous sandstone and grit ***(lower carbonate)***
2, grey, well-bedded silty limestone
3, diamictite, conglomerate; clasts of carbonate and quartzite, pebble to boulder; matrix locally sandy; grey limestone
4, pink-grey quartz arenite, granule-pebble conglomerate
5, black crystalline limestone
6, grey to greenish-brown rhythmically bedded fine-grained sandstone, siltstone, mudstone; maroon siltstone-mudstone ***(Stenbraten mb)***

uPs — **SHEEPBED:** *recessive, black weathering shale and siltstone; minor quartzite and limestone* ***(Sheepbed Fm)***

NEOPROTEROZOIC (CRYOGENIAN)

uPHC — **HAY CREEK:** *post-rift fine to coarse siliciclastic rocks (1) and equivalent dolostone (2), cap dolostone (3) and glacial diamictite (4)*
1, thin-bedded, brown weathering siltstone, shale interbedded with sandstone, granule to pebble conglomerate, and light grey weathering dolostone ***(Hay Creek Gp, Twitya Fm, Knorr Range (P1) succession)*** *- uPHCt*
2, massive to thick-bedded, light grey weathering dolostone commonly containing vugs, stromatolites, oncolites, ooilites and micritic intraclasts; commonly fetid; minor siltstone, sandstone and grit ***(Hay Creek Gp, Profeit Fm, Knorr Range (P2, P3) succession)*** *- uPHCp*
3, orange and brown weathering, commonly silty and sandy dolostone, in part well-laminated and flaggy; limestone, cross-bedded pebbly quartzite and conglomerate ***(Hay Creek Gp, Keele Fm)*** *- uPHCk*
4, brown weathering diamictite, granule to boulder; interbedded mudstone and siltstone; olistostrome; locally, distinct white dolostone member at top ***('Tepee dolostone')*** ***(Hay Creek Gp, Ice Brook Fm)*** *- uPHCi*

uPR — **RAPITAN:** *basal (rift) conglomerate (1) overlain by glacial diamictite (2) in turn succeeded by*
1, maroon mudstone with interbeds of sandy mud-matrix-conglomerate and pebbles of limestone, mudstone, sandstone and chert; thick-bedded to massive, sandstone and pebble to boulder conglomerate with clasts of carbonate, siltstone and quartz arenite ***(Rapitan Gp, Sayunei Fm)*** *- uPRsa*
2, brown, orange brown, and green weathering massive diamictite with rounded to subrounded pebbles and cobbles of carbonate, sandstone, (?)greenstone, chert, mudstone, igneous and metamorphic rocks; highly ferruginous dark red siltstone; iron formation ***(Rapitan Gp, Shezal Fm)*** *- uPRsh*
3, dark grey to black, orange-brown weathering, polymictic, matrix-supported conglomerate; matrix mudstone to fine siltstone, clasts dominantly sedimentary sandstone, siltstone and limestone ***(Eagle Creek Fm in Ogilvie Mtns)*** *- uPRec*
4, clastic rocks of uncertain affinity west of Nadaleen Mountain - uPRc

NEOPROTEROZOIC (TONIAN-CRYOGENIAN)

uPH — **HARPER:** *a volcanic and coarse-clastic rift succession, including stromatolitic dolostone and local felsic volcanic rocks*
1, orange to dark grey weathering diamictite with pebbles to boulders of quartzite and grey dolostone in dolomitic matrix; silty dolostone; dark grey shale; orange-brown to dark brown weathering platy siltstone, sandstone ***(Mt. Harper Gp)*** *- uPHs*
2, massive and pillowed andesitic flows, tuff-breccia, lapilli tuff, and ash-to-ash breccia; columnar-jointed basaltic andesite; hyaloclastic breccia ***(Mt. Harper Gp)*** *- uPHv*
3, heterolithic sandstone and conglomerate with pebble to boulder-sized angular and rounded clasts; clasts composed of dolostone, limestone, quartzite, and phyllite from underlying units; medium to thick-bedded, graded or massive, rare dolostone interbeds; dusky red wackestone/mudstone ***(Seela Pass Fm)*** *- uPHsp*

uPHcl — *4, finely laminated sandstone, siltstone, and shale interbedded with laterally discontinuous stromatolitic bioherms at base; sharply overlain by medium-bedded dolostone with abundant domal stromatolites, microbialite, evaporite pseudomorphs and sedimentary talc horizons; at top, interbedded black shale and stromatolitic dolostone; locally includes abundant chert and dolomitic silicified breccia* ***(Callison Lake Fm)*** *- uPHcl*
5, diabase dikes and sills - uPHd
6, light-orange weathering, rubble-forming, rhyolite flows, breccia and ignimbrite; locally quartz and plagioclase-phyric - uPHf

NEOPROTEROZOIC (TONIAN)

LPFd — **FRANKLIN SUITE (ca. 725-718 Ma):** *medium-grained gabbro dikes intruding Neoproterozoic? quartzite in the Porcupine River region; amphibolite, greenstone (probable correlative with Franklin dike swarm, ca. 725-720 Ma); brown-weathering, aphyric to phlogopite-phyric lamprophyre dikes crosscutting Wernecke and Mackenzie Mountains supergroups, and locally hosting abundant xenoliths; dark-green weathering, fine to medium-grained diorite dikes crosscutting Mackenzie Mountain Supergroup.*

uPL — **LITTLE DAL:** *thin-bedded, light grey to buff and orange weathering fine-grained dolostone; rare shale and argillite; upper part dominated by orange weathering stromatolitic dolostone and massive vuggy and craggy dolostone and includes gypsum* ***(Mackenzie Mountain Supergroup, Little Dal Gp)***

uPK — **KATHERINE:** *mature, very fine grained, thin to very thick bedded, brown, greenish grey and white orthoquartzite with recessive intervals of dark grey to black shale; rare stromatolitic dolostone* ***(Mackenzie Mountain Supergroup, Katherine Gp and Tigonkweine fm)***

LPGd — **GUNBARREL SUITE (ca. 780 Ma):** *dark-green-weathering, fine to medium-grained diorite within Tsezotene Fm. Locally, diorite is plagioclase-phyric and hosts veins of calcite, quartz and pyrite* ***(Tsezotene sills)***

uPTZ — **TSEZOTENE:** *grey, greenish grey or brown shale with interbeds of very fine grained, thin to medium-bedded, immature, grey and greenish grey sandstone or quartzite and orange weathering dolostone; hosts many gabbroic dikes and sills* ***(Mackenzie Mountain Supergroup, Tsezotene Fm)***

uPFu — **FIFTEENMILE (UPPER):** *siliciclastic-carbonate assemblage comprising two regionally correlated units (1) and (2)*
1, black to brown-coloured shale, siltstone, minor sandstone and conglomerate; carbonate grainstone, ribbon-bedded calcisiltite, intraclast breccia, and laminated micrite ***('Reefal assemblage')*** *- uPFur*
2, thick-bedded and massively recrystallized, silicified sucrosic dolostone; occasional ooids, coated grains, brecciated teepee structures, tabular clast conglomerate, intraclast breccia, low-angle and trough cross-stratification, microbialite, and low-relief stromatolites ***('Craggy dolostone')*** *- uPFuc*
3, greyish black shale; limestone; dolostone; diabase dikes and sills; undivided ***(Tindir Gp, lower)*** *- uPFut*

uPFl — **HEMATITE CREEK/FIFTEENMILE (LOWER):** *dominantly carbonate assemblage with basal clastic succession*
1, rusty weathering black shale with limestone laminates and stromatolite bioherms; dolostone with mudcracks and cryptalgal laminate, chert, teepee and molartooth structure; hematitic quartzite and dolostone; thin-bedded particulate limestone ***(Hematite Creek Gp)***
2, grey ribbon-bedded dolostone, oolitic grainstone, stromatolitic dolostone, and microbialaminite with tepee structures ***(Gibben Fm)*** *- uPFlg*
3, basal maroon shale and siltstone with abundant mud cracks; transitions upward into cyclic shale, siltstone, and dolostone intervals with grainstone, stromatolites, or microbialaminite; local stromatolitic bioherms and poorly sorted, massive coarse-grained sandstone beds; upper part contains large carbonate olistoliths ***(Chandindu Fm)*** *- uPFlch*

uPP — **PINGUICULA:** *dominantly carbonate assemblage (2) with basal clastics (1); includes possible other correlative carbonate and clastic rocks (3)*
1, basal siliciclastic red laminates; brown and grey siltstone and shale ***(Pinguicula Gp, unit A)***
2, thin-bedded laminated and flasered limestone; laminated dolosiltite; massive white dolostone with wavy cryptalgal lamination, cross-bedding, tepee structures, extensive dolomite veinlets and chert ***(Pinguicula Gp, units B-C)***
3, red, green and grey slaty argillite; fine-grained, light grey quartzite; dolostone ***(Pinguicula Gp undifferentiated; assignment tentative, may include Gillespie Lake and Pinguicula gps)***

MESOPROTEROZOIC

MPB — **BEAR RIVER SUITE (ca. 1220 Ma):** *dark-green-weathering, fine to medium-grained diorite crosscutting Quartet Gp. Locally, diorite hosts veins of epidote, quartz, calcite, pyrite, chalcopyrite and hematite*

mPH — **HART RIVER:** *mafic volcanic flows (1) and (3) and their possible intrusive equivalents (2)*
1, mafic volcanic flows, generally massive and fine-grained, locally pillowed ***(Hart River Volcanics)***
2, resistant dark weathering diorite and gabbro sills and dikes ***(Hart River Sills)***
3, basic to intermediate volcanic flows and aquagene tuffs ***(Khose Creek Volcanics)***

mPW — **WERNECKE BRECCIAS:** *hematitic and dolomitic breccia and related metasomatized country rock; breccia contains variably altered rotated siliceous and carbonate clasts (Wernecke Supergroup) and minor dike rock; breccia and metasomatites enriched in Cu, Co, U, Ag and Au* ***(Wernecke Breccias)***

MPgW — **WERNECKE SUITE:** *diabase dikes associated with Wernecke breccias; may include dikes related to Hart River, Gunbarrel, Franklin or Mt. Harper magmatism*

PALEOPROTEROZOIC

lPG — **GILLESPIE LAKE:** *dolostone and silty dolostone, locally stromatolitic, locally with chert nodules and sparry karst infillings, interbedded with lesser black siltstone and shale, laminated mudstone, and quartzose sandstone; local dolostone boulder conglomerate* ***(Wernecke Supergroup, Gillespie Lake Gp)***

lPQ — **QUARTET:** *black weathering shale, finely laminated dark grey weathering siltstone, and thin to thickly interbedded planar to cross-laminated light grey weathering siltstone and fine-grained sandstone; minor interbeds of orange weathering dolostone in upper part* ***(Wernecke Supergroup, Quartet Gp)***

lPFL — **FAIRCHILD LAKE:** *siltstone, sandstone (1) overlain by dolomitic siltstone and dolostone (2)*
1, lower: greenish grey weathering calcareous laminated siltstone, grey weathering fine-grained sandstone, and minor brown weathering carbonate, ripple cross-laminated;
2, upper: siltstone, dolomitic siltstone, and dolostone ***(Wernecke Supergroup, Fairchild Lake Gp)***
3, carbonate

EPBR — **BONNET PLUME RIVER SUITE (ca. 1710 Ma):** *greenish-grey-weathering, fine to medium-grained diorite preserved as megaclasts within Wernecke Breccia. Diorite locally hosts disseminations and veinlets of hematite or magnetite, and chalcopyrite*

H

Qs

QUATERNARY

Q — **QUATERNARY:** *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

AA (ARCTIC ALASKA - NORTH SLOPE)

LATE DEVONIAN

LDo — **OLD CROW SUITE (ca. 370-360 Ma):** *Paleozoic granitoid rocks in northern Yukon of mostly granitic (q) but including some of syenitic (y) composition*
q, medium to coarsely crystalline leucocratic biotite granite, variably altered ***(Old Crow, Schaeffer, Sedgwick, Ammerman, and Fitton granites)***
y, leucocratic syenite to hornblende nepheline syenite; medium crystalline equigranular to porphyritic and trachytic ***(Dave Lord syenodiorite)***

SILURIAN TO LOWER DEVONIAN

SDBH — **BUCKLAND HILLS:** *dark grey argillite, shale, lithic sandstone, chert granule to pebble conglomerate and conglomeratic sandstone* ***(Buckland Hills gp)***

CAMBRIAN TO SILURIAN

ЄSB — **BARN:** *Paleozoic shale, chert, and limestone; local Ordovician? volcaniclastic rocks; Yukon North Slope* ***(Barn gp)***
1, lower limestone: thin-bedded, grey to buff limestone; white weathering, black calcareous siltstone (Barn Range) - ЄSBl

ЄSBv — *2, dark green mafic volcanic and volcaniclastic rocks north of Malcom River (British Mtns) and in adjacent Alaska (Ovc in Alaska); mafic lapilli tuff - ЄSBv*
3, well-bedded dark grey, black and bright green chert, interbedded with dark grey siltstone, shale and argillite; rare grey limestone or marble (Silurian) - ЄSB

ЄSBc — *4, upper limestone: dark grey, thin-bedded, pelletoidal limestone (Barn Range) - ЄSBc*

CAMBRIAN

ЄWM — **WHALE MOUNTAIN:** *red-weathering, locally amygdaloidal basalt, volcanic conglomerate, minor limestone, calcareous coarse clastic rocks, mudstone and magnetite iron formation; Late Cambrian trilobites locally* ***(Whale Mountain volcanics)***

NEOPROTEROZOIC (EDIACARAN) TO CAMBRIAN

uPЄN — **NERUOKPUK:** *turbiditic sandstone, quartzite, grit, and pebble conglomerate interbedded with siltstone and lesser argillite; Yukon North Slope* ***(Neruokpuk Fm)***
1, fine to coarse sandstone, grit and pebble conglomerate, poorly sorted, turbiditic, locally feldspathic; siltstone and slaty argillite interbeds; local maroon, green and Oldhamia bearing slate in upper part ***(Neruokpuk Fm (senso stricto))*** *- uPЄNq*
2, slate and argillite, dark grey, maroon, red and green; minor grey siltstone, light grey chert, white weathering grey quartzite and siliceous ripple-cross laminated siltstone; Oldhamia trace fossils - uPЄNa
3, limestone - uPЄNc

NEOPROTEROZOIC (CRYOGENIAN-EDIACARAN)

uPF — **FIRTH:** *turbiditic limestone, siltstone, sandstone, argillite* ***(Firth gp)***
1, interbedded limestone, chert, and slaty argillite, siltstone and sandstone; highly strained; limestone is dark grey to black and clastic; clastics have common Bouma cycles, load and flute casts, and silty to muddy carbonate interbeds - uPFsl

uPFc — *2, limestone, dolostone - uPFc*

RECOMMENDED CITATION:

Colpron, M., Israel, S., Murphy, D.C., Pigage, L.C., and Moynihan, D., 2016. Yukon Bedrock Geology Map. Yukon Geological Survey, Open File 2016-1, 1:1,000,000 scale map and legend.