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A Review of Gold Mineralisation at the HUDSON ZONE STERLING GOLD PROSPECT EXPLORATION LICENCE 47/2003 Tasmania

For

SARACEN MINERAL HOLDINGS LIMITED

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Summary

A persistent zone of sulphide-associated gold mineralisation has been defined by diamond drilling over a strike length of 300 metres to a depth of 235 metres below surface in the Hudson (formerly known as Lakeside) Zone of the Sterling Gold Prospect, near Tullah in western Tasmania. This zone is developed in volcanogenic sediments of the Farrell Group adjacent and parallel to the footwall of the Henty Fault.

The sulphide-associated gold mineralisation is enveloped by an extensive alteration halo that extends into the enclosing sediments for a distance of some 50 metres from the Henty Fault, manifest as a chlorite-tourmaline mineral assemblage with associated tin as cassiterite. The alteration halo also contains sporadic sulphide-associated gold mineralisation.

Three separate drilling campaigns have been conducted at the Hudson prospect. A total of 22 holes, six reverse circulation percussion and 18 diamond core, has generated 19 intercepts of gold mineralisation at average gold contents of 1.0 g/t or better. A representative selection of these intercepts is tabulated below. Core from the diamond drill holes sunk by EZ was not analysed for gold initially. EZ and Billiton subsequently sampled remaining core from mineralised zones in these holes and analysed for gold but these results cannot be considered as representative due to the small proportion of the original core that remained for resampling.

Criteria	Hole ID	From_m	To_m	Interval_m	Grade Au g/t
Widest Interval	RED88-4	260.0	273.0	5.0	1.31
Narrowest Interval	LSRC04	57.0	58.0	1.0	3.29
Highest grade	RED87-3	111.0	114.65	3.65	5.88
Lowest grade	LSD10	53.0	56.0	3.0	1.03

Additional diamond drilling is recommended to gain a more realistic estimate of actual gold grade as limited diamond drilling tends to underestimate gold content for deposits of this type. A real possibility exists for higher-grade zones within the gold mineralisation and in extensions along strike and at depth.

The Hudson Zone gold mineralisation bears a strong spatial relationship, and probably a generic relationship, with the Henty Fault, a major and persistent structure in the region. The gold mineralisation has potential for associated silver, arsenic and tin mineralisation.

This metal association indicates a possible Devonian age magmatic overprint to possibly remobilised base metal mineralisation generated in the Cambrian.

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Remit

The author was requested by Saracen Mineral Holdings Limited to review the gold mineralisation defined by previous drilling at the Hudson Zone of the Sterling Gold Project, near Tullah in western Tasmania.

The drilling has been performed by Electrolytic Zinc Company of Australia [EZ] 1979-1981, Billiton Australia [BA] – a subsidiary of The Shell Metals Division, in 1987-1988 and Pasminco in 1997 and comprised mostly diamond core drilling, with Pasminco completing six reverse circulation percussion [RCP] holes.

Saracen has assembled a comprehensive database of progressive exploration results from open file reports now held in the archives of Mineral Resources Tasmania [MRT] and with assistance from Pasminco in supplying relevant digital data.

Project Background

The Hudson Zone (formerly known as Lakeside) was uncovered as a gold prospect by BA in 1986. EZ had discovered stanniferous sulphide mineralisation in the area in 1979 by following up a geophysical anomaly (Induced Polarisation zone of chargeability) in the vicinity of the Henty Fault Zone beneath unconsolidated glacial sediments, with a diamond core drill hole (MRP212). EZ drilled two additional diamond core holes in 1981 (MRP219 and MRP233) to test the tin content of the sulphide zones in the Farrell Group in the footwall of the Henty Fault but failed to encounter significant additional mineralisation.

BA, alerted to the possibility of repetitions of Henty-style gold deposits in close spatial association with the Henty Fault, resampled the remaining core from the EZ drill holes in 1986. BA used fire assays to determine gold content of EZ core. EZ had initially only performed aqua-regia/AAS analytical methods in their gold determinations and failed to detect significant values in the sulphide zones. BA’s resampling detected significant gold values in hole MRP233 (3 metres averaging 4.09 ppm Au) with lower but anomalous values in the sulphide zones in MRP212 and MRP219.

This was sufficient encouragement for BA to mount an extensive diamond drilling program to seek additional gold mineralisation in the sulphide zones in the Farrell Group in the footwall of the Henty Fault. This led to the discovery of the Lakeside gold deposit in 1987-1988. Pasminco subsequently conducted shallower drilling in 1997.

Saracen's Database

The author has had free access to the results of all past drilling at the Hudson Zone, assembled by Saracen. The database for the Hudson Zone comprises all available data generated by EZ, BA and Pasminco in the period between 1979 and 1998. This comprises mostly statutory reports, which include drill logs and sections, geophysical, geochemical and geological and other relevant information.

It is common when experienced, long-established and specialist mineral exploration companies report on their activities over long periods of time spent in a region, little coverage is given of the methodology of their established, regional-specific and adapted exploration techniques. Hence, the reports in Saracen's database do not contain detailed information related to specific sampling and other procedures, of the nature one might crave to establish the exploration credentials of an unknown mineral exploration company.

It is reasonable to assume exploration techniques were adopted by these experienced companies that generated the Hudson Zone database that are commensurate with establishing a robust database with sufficient integrity for use in generating a meaningful gold mineralisation estimate.

Details of the drill holes in the database are set out in Table 1 below and locations of the holes are shown in Figure 1.

Table 1 Drill Hole Survey Data

(NOTE: Azimuth is assumed parallel to AMG)

SECTION	HOLE ID	DATE	COMPANY	EASTING	NORTHING	RL m	AZ	DECL	TD m	REPORT
537 5250N	RED88-2	May-88	Shell Metals	384375.8	5375249.5	173.7	90	50	289.3	88-2895
537 5250N	LSRC 1	Oct-96	Pasminco	384565.0	5375245.0		90	60	86.0	97-4073
537 5250N	LSRC 2	Oct-96	Pasminco	384564.6	5375272.7		90	60	81.0	97-4073
537 5300N	RED87-6	Jul-87	Shell Metals	384499.7	5375300.3	174.2	90	51.0	157.0	87-2751
537 5300N	LSRC 3	Oct-96	Pasminco	384566.3	5375296.4		90	60	86.0	97-4073
537 5300N	LSRC 4	Oct-96	Pasminco	384575.4	5375319.4		90	60	73.0	97-4073
537 5350N	RED88-4	mid-88	Shell Metals	384386.0	5375352.1		90	65	325.0	88-2895
537 5350N	LSRC 5	Oct-96	Pasminco	384578.6	5375344.4		90	60	90.0	97-4073
537 5350N	LSRC 6	Oct-96	Pasminco	384588.5	5375367.1		90	60	80.0	97-4073
537 5350N	RED87-5	Aug-87	Shell Metals	384530.0	5375350.1	165.1	90	56.5	145.5	87-2751
537 5350N	MRP212	Dec-79	EZ	384424.4	5375330.6	170.0	90	60.0	293.5	80-1468
537 5400N	RED87-2	May-87	Shell Metals	384436.2	5375420.5	160.1	90.5	60.0	260.3	87-2751
537 5400N	RED87-3	May-87	Shell Metals	384516.2	5375401.4	159.9	90	45.0	153.4	87-2751
537 5400N	LSD 10	Feb-97	Pasminco	384587.7	5375393.8		90	60	62.0	97-4073
537 5450N	MRP233	Aug-81	EZ	384484.9	5375420.2	159.0	90	60	197.7	82-1840
537 5450N	LSD 09	Feb-97	Pasminco	384593.0	5375441.8		90	60	76.9	97-4073
537 5450N	LSD 08	Feb-97	Pasminco	384629.5	5375431.2		90	60	66.0	97-4073
537 5500N	RED87-7	Aug-87	Shell Metals	384411.8	5375550.9	162.9	106	45.0	277.0	87-2751
537 5500N	RED88-1	Apr-88	Shell Metals	384411.1	5375551.1	162.9	106	60.0	322.0	88-2895
537 5550N	RED87-8	Sep-87	Shell Metals	384412.2	5375551.0	162.9	106	45.0	280.0	87-2751

The MRP series drill holes were drilled for EZ. The database includes detailed log sheets with inserted assay values. The MRP series drill holes paths were surveyed with down hole equipment. There was no recorded core loss in the interval in MRP233 that BA resampled.

The RED-series drill holes were drilled for BA. Detailed handwritten drill logs are available with transcribed assay values, including averaged repeat and check gold values. Gold assays were performed by Comlabs, a reputable laboratory, by fire assay, using a 50 gram charge. BA contends that repeated check assays at other laboratories confirmed accuracy of gold assays. Samples of half-core were collected for assay usually over one-metre intervals.

The LS series of drill holes were drilled for Pasminco. Detailed drill logs for the RCP drill holes LSRC sub-series, contain transcribed assay values for gold. There is the possibility of transcription errors as the drill logs are typed. This is not considered an issue however as assay values are also available in a digital database spreadsheet, obtained from Pasminco, hence some cross checking is possible. Detailed drill logs are not available for the LSD-series (diamond core) holes. However detailed geological data is included on cross sectional drawings and assay values are in the digital database. The LS-series holes were not subjected to down hole surveying. This in not considered material as the holes were generally shallow.

Gold mineralisation review techniques

A geological appreciation of the Hudson Zone was established using the database.

Cross sections were generated at 25 metre centres for a 300-metre strike length. (**see Figures 2 to 11**)

Gold assay values and summarised geology was transferred to drill hole traces on these sections. Gold assays were colour-coded. These sections, showing gold mineralisation intercepts above 1.0 g/t Au are included as Appendix I (Sections **– Figures 2 to 12**)

The sampling interval is commonly one-metre, for both core and RCP holes, with two-metre and less than one-metre intervals used occasionally.

A series of mineralised intercepts was generated at a cut-off grade of 1.0 g/t gold [Au]. Individual intervals were aggregated to achieve this. Down hole widths were assumed to approximate true widths. Strict cut-off criteria were relaxed in the following cases.

Intervals with gold values less than the 1.0 g/t Au cut-off were included only if the combined value did not reduce the composite interval average value to a value less than 1.0 g/t Au.

A longitudinal section was generated at 384550E, perpendicular to the cross sections and parallel to northings of the Australian Map Grid [AMG]. This section showing the intercepts above 1.0 g/t Au is included in Appendix I (**see Figure 12**).

Billiton Australia Resource Estimate

BA generated a gold mineralisation estimate in 1988 they referred to as “drill indicated” a term that is inconsistent with the 2004 Joint Ore Reserves Committee (JORC) Code. It would be an inferred gold mineralisation in the context of the JORC Code. This estimate appears reasonable in the context of the current review of gold mineralisation. BA generated an envelope around the RED and MRP-series intercepts that averaged greater than 1 ppm gold values on a constructed longitudinal section. This envelope enclosed an area of 43,250 square metres. BA estimated 750,000 tonnes containing an average gold content of 2.1 grams per tonne using an average width of the envelope of 5.1 metres and a specific gravity of 3.4, for an estimated 50,000 ounces of gold.

Geological Model

Exploration results in the Hudson Zone area indicate the Henty Fault is a strong, well-defined structure. It is situated at the contact of the Mount Black Volcanics [MBV] and the Farrell Group sediments [FG]. It is a sharp contact at the base of the andesitic volcanics comprising the MBV. It sometimes extends into the footwall sediments of the FG, manifest as schists, with some graphite development.

The gold mineralisation at the Hudson Zone is hosted in a sulphide assemblage (comprising massive and semi-massive bands) within an altered andesitic arenite within the FG. The deposit has been described as stratiform in nature. Replacement textures are common and the deposit is enveloped by a persistent alteration halo manifest as a quartz-chlorite-tourmaline assemblage as gangue to the sulphide zones and host sediments. Carbonates are also noted. The halo extends up to 50 metres into the FG sediments from the Henty Fault. The MBV in the hanging wall of the Henty Fault are also altered, manifest predominantly as silicification. The presence of tourmaline as a gangue mineral and tin as an elemental presence in the sulphide zones (EZ's initial reason for commencing exploration drilling in 1979) is considered strong evidence for a post host rock mineralising event related to an interpreted deep intrusive system. The Henty Fault is inferred to have acted as a conduit to hydrothermal solutions generated by this magmatic event. Tin, silver and arsenic are intimately associated with the sulphide zones in the Hudson zone but paragenetic relationships are not clearly understood.

The MBV are host to occurrences of mineralisation associated with sulphides, including a 30-centimetre intercept of silver-lead-zinc base metal mineralisation in MRP212. Scattered gold values up to 1ppm are also recorded in the MBV in places indicating the widespread dispersive nature of the later mineralising fluids.

This report is directed specifically to the gold mineralisation however the following aspects are considered significant and worthy of investigation.

- Potential associated silver, arsenic and tin in the Hudson gold mineralisation
- Base-metal sulphide potential of the MBV
- Paragenesis of sulphide mineralisation

APPENDIX I
(Sections)

SELECTED CROSS SECTIONS

5375250N (Figure 2)
5375275N (Figure 3)
5375300N (Figure 4)
5375325N (Figure 5)
5275350N (Figure 6)
5375375N (Figure 7)
5375400N (Figure 8)
5375425N (Figure 9)
5375450N (Figure 10)
5375525N (Figure 11)

AND LONGITUDINAL SECTION

384550E (Figure 12)

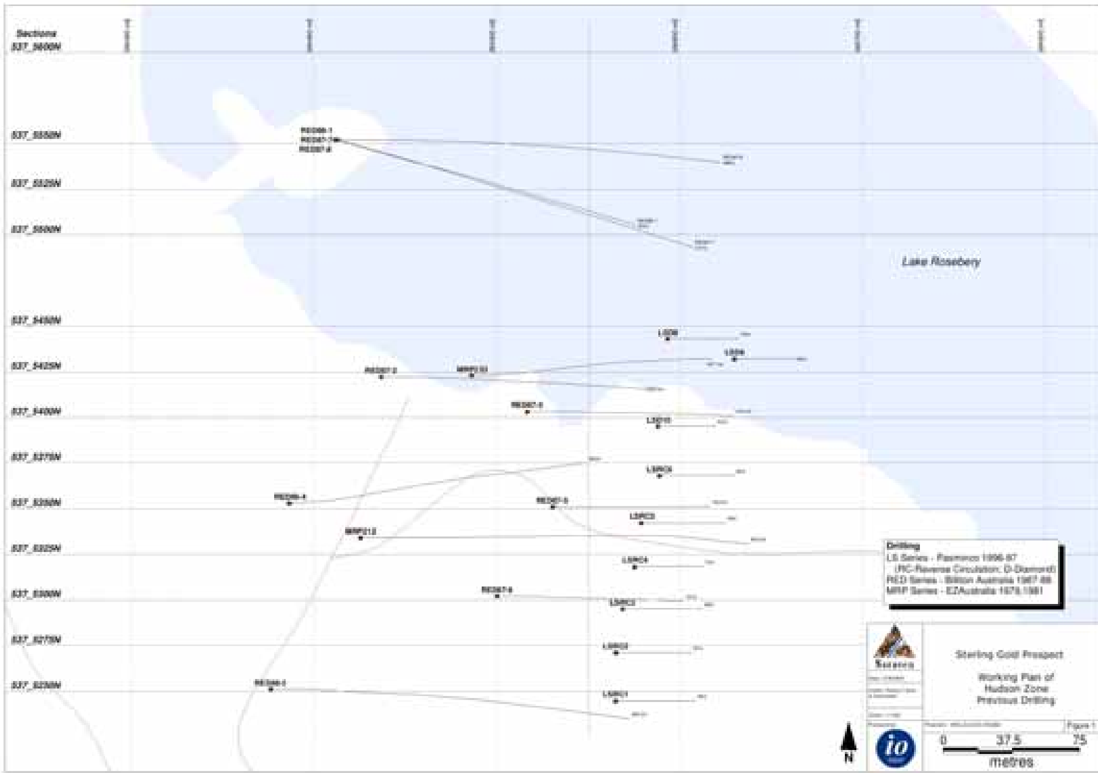
Sections
Lake Rosebery
Drilling
LS Series - Pasminco 1996-97
(RC-Reverse Circulation; D-Diamond)
RED Series - Billiton Australia 1987-88
MRP Series - EZAustralia 1979,1981
Sterling Gold Prospect
Working Plan of
Hudson Zone
Previous Drilling
N
0
37.5
75
metres

FIGURE 1

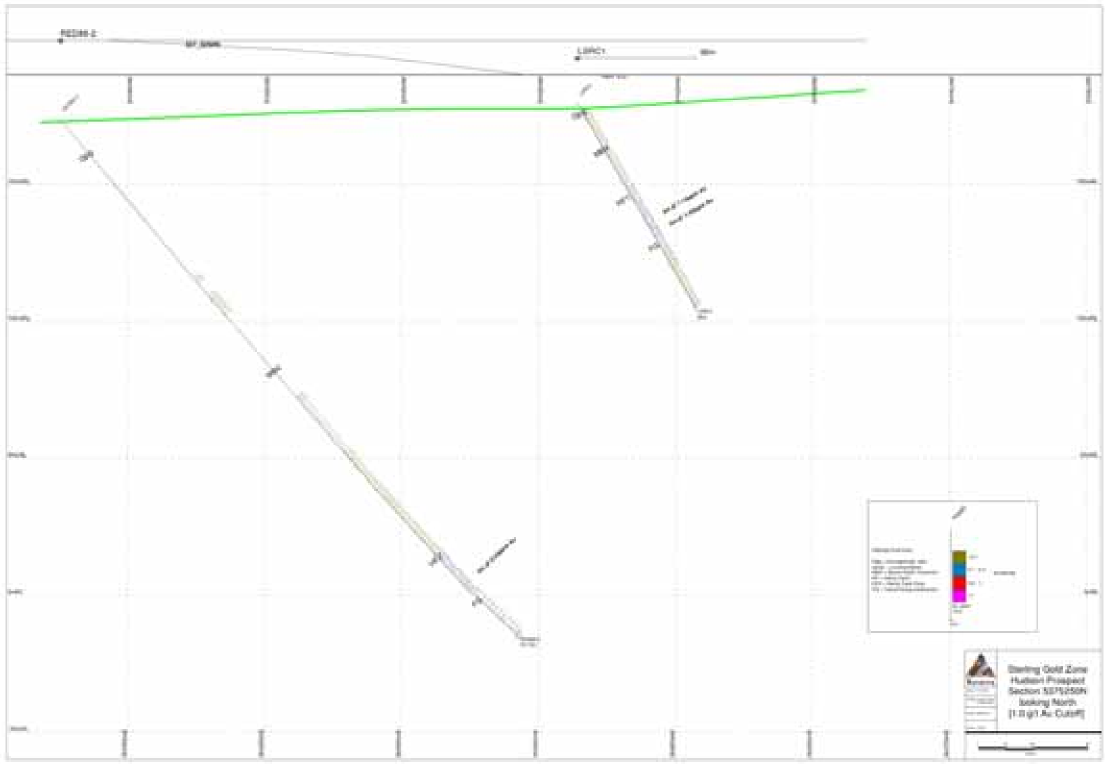

FIGURE 2

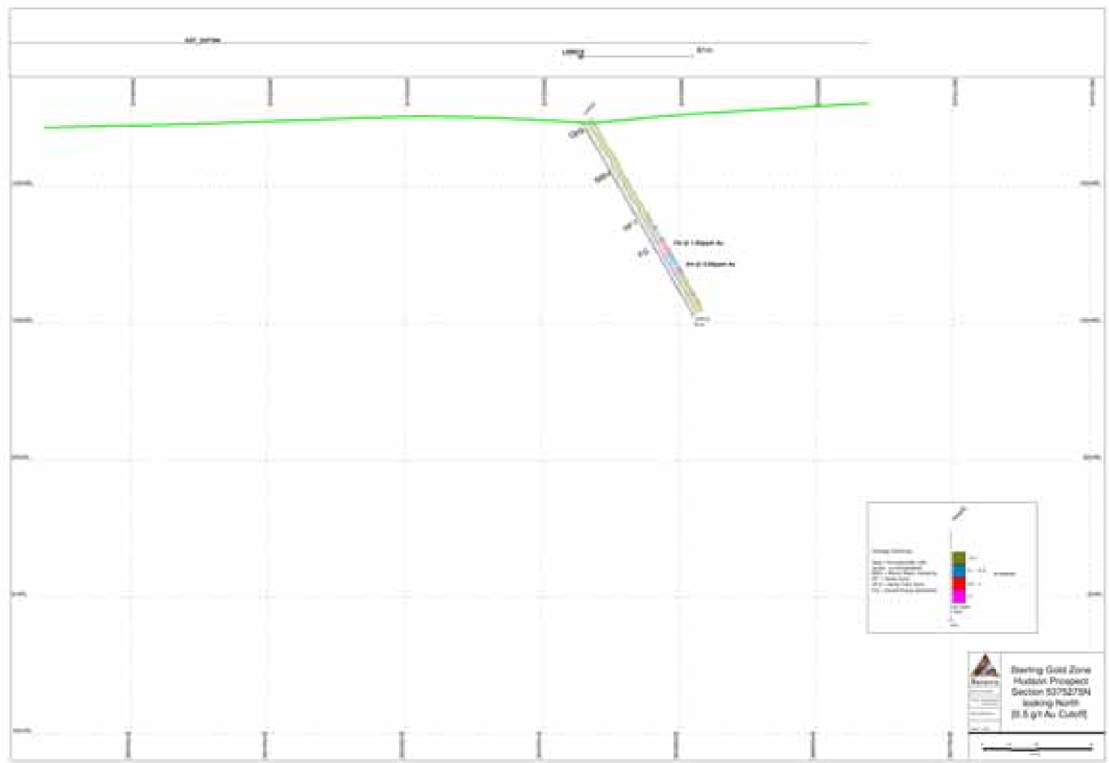
Sterling Gold Zone
Hudson Prospect
looking North
(0.5 g/t Au Cutoff)

FIGURE 3

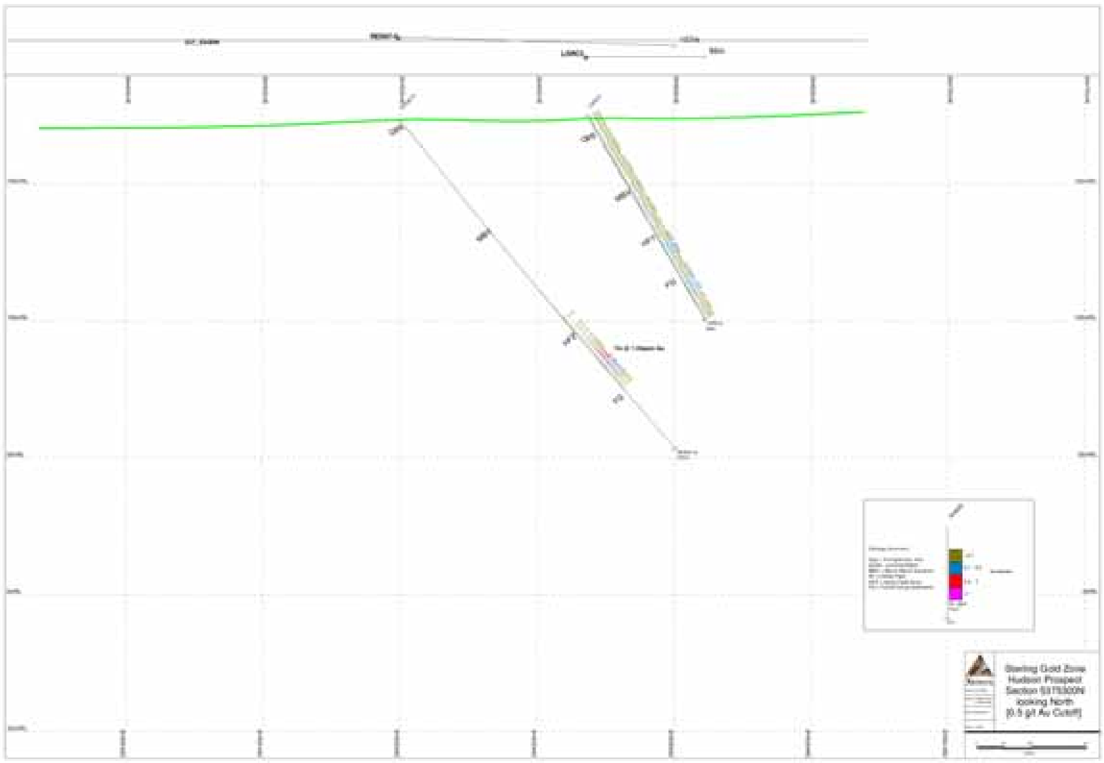
Starling Gold Zone
Hudson Prospect
Section 6375300N
looking North
[0.5 g/t Au Cutoff]

FIGURE 4

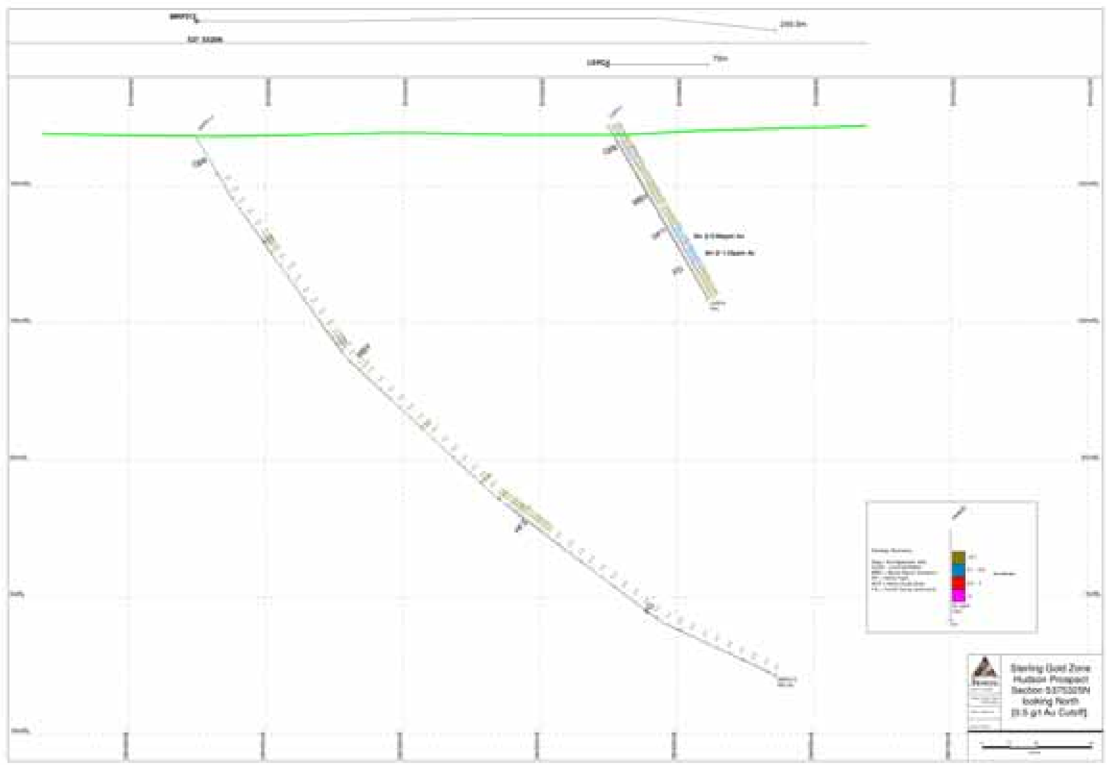
Sterling Gold Zone
Hudson Prospect
Section 5375325N
looking North
[0.5 g/t Au Cutoff]

FIGURE 5

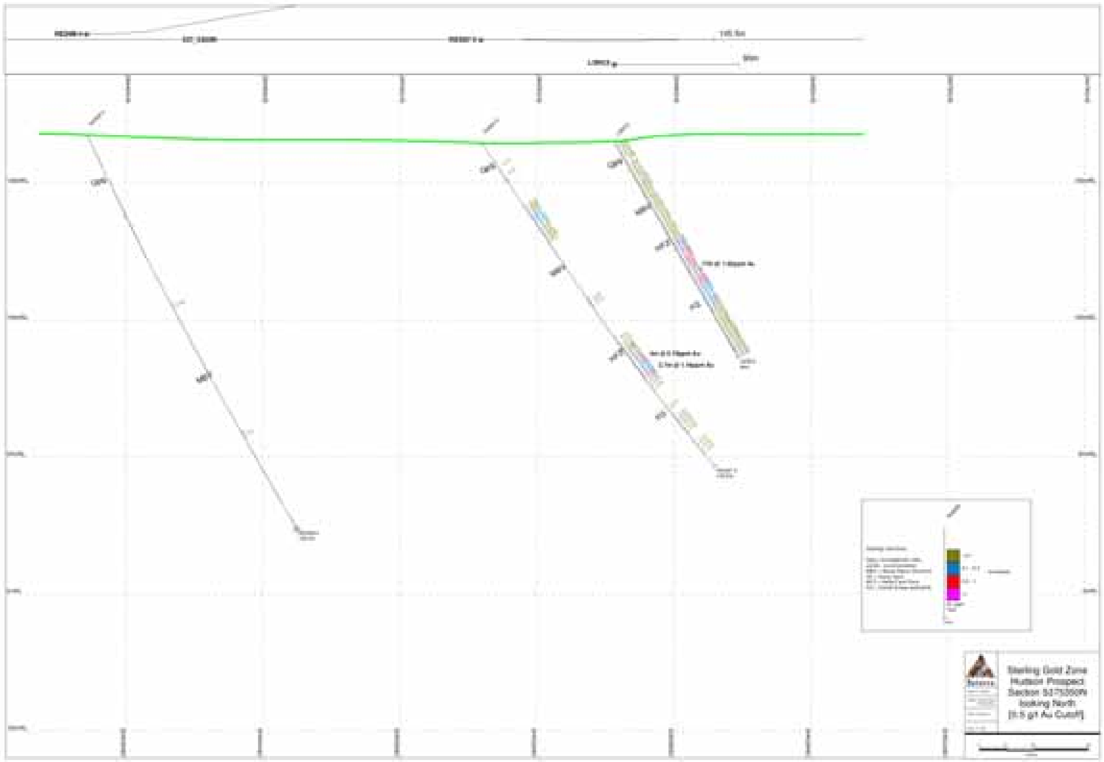
Sterling Gold Zone
Hudson Prospect
looking North
[0.5 g/t Au Cutoff]

FIGURE 6

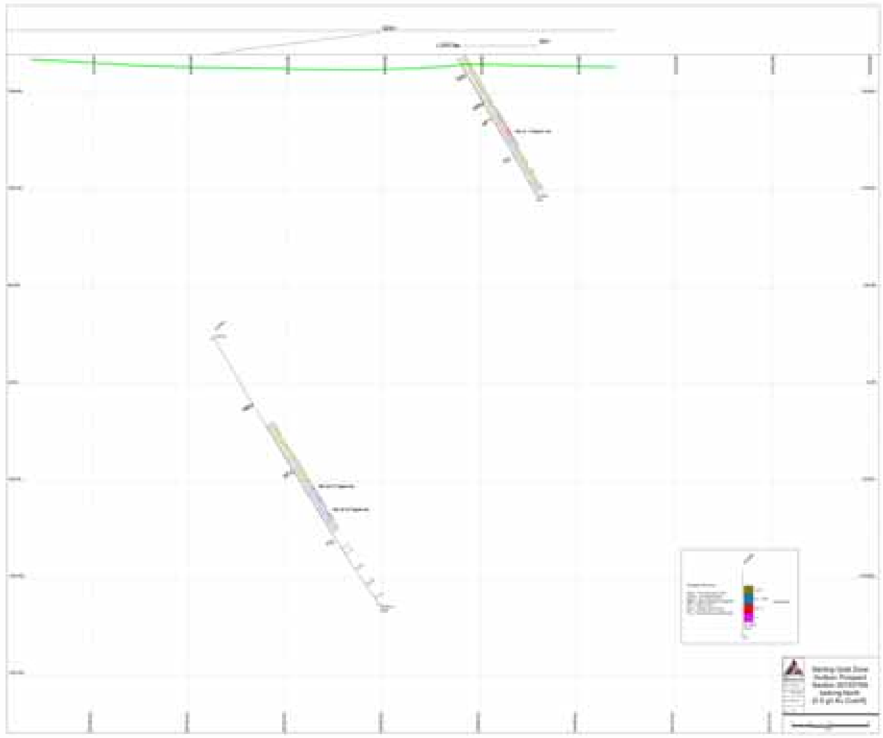

FIGURE 7

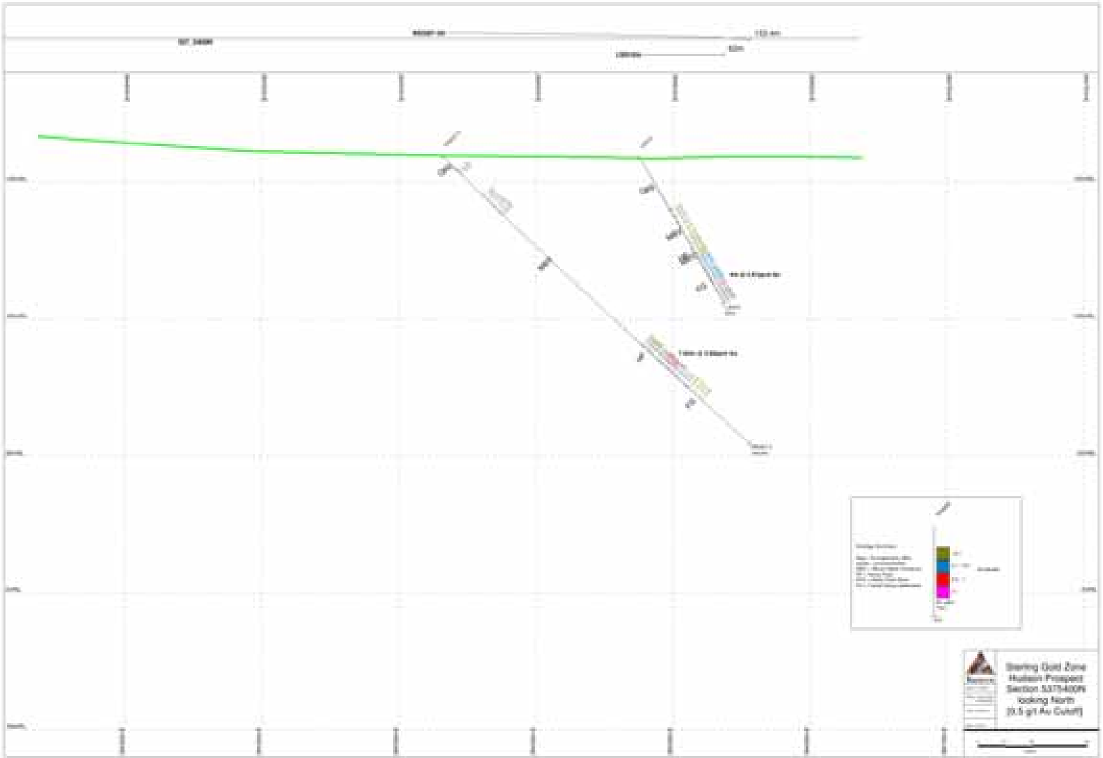
Sterling Gold Zone
Hudson Prospect
Section 5375400N
looking North
[0.5 g/t Au Cutoff]

FIGURE 8

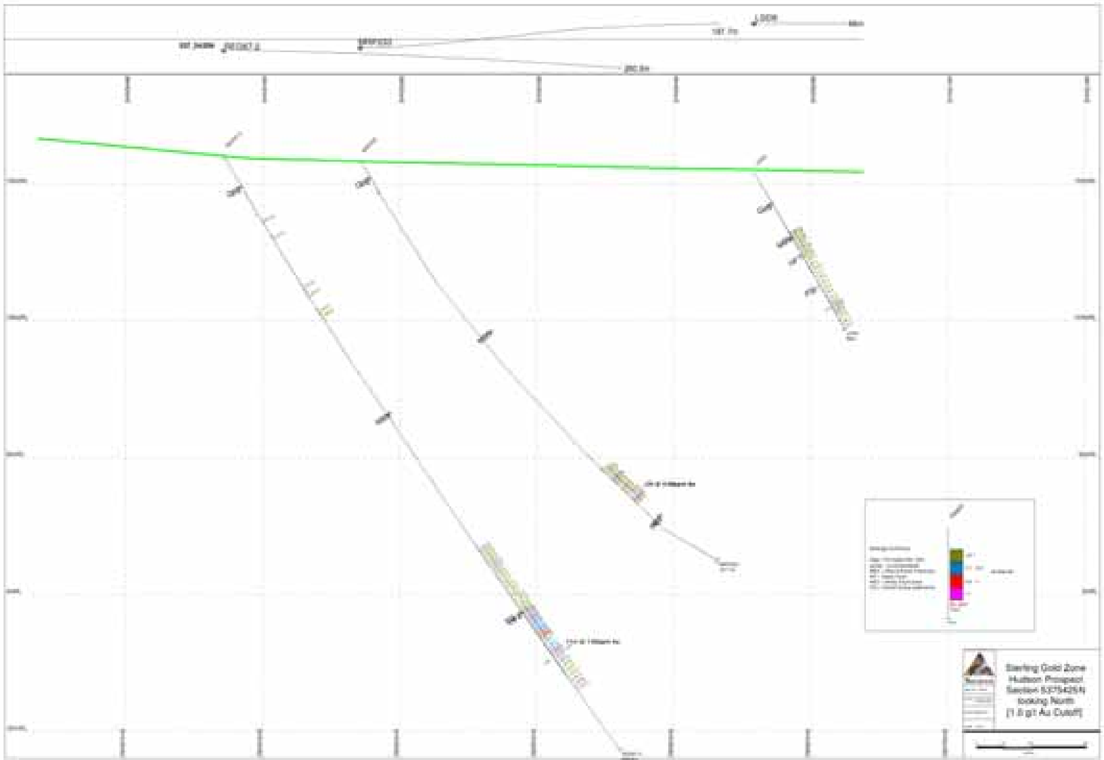
Sterling Gold Zone
Hudson Prospect
Section 5375425N
looking North
[1.0 g/t Au Cutoff]

FIGURE 9

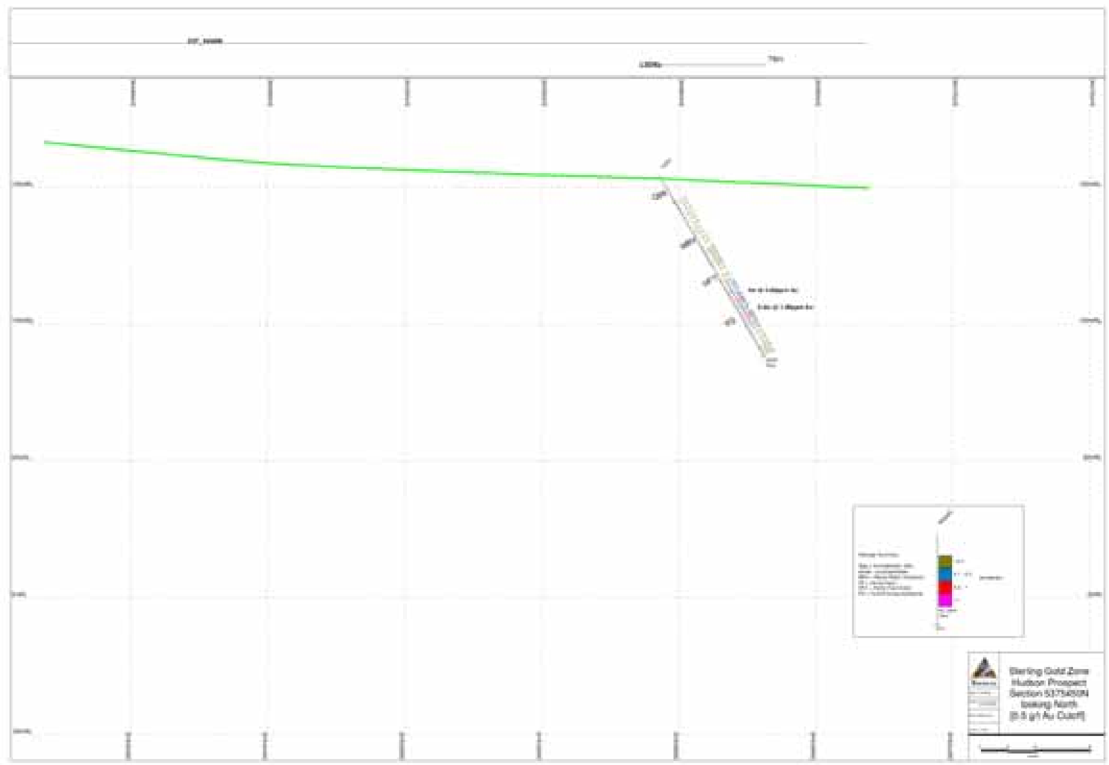
Sterling Gold Zone
Hudson Prospect
looking North
(0.5 g/t Au Cutoff)

FIGURE 10

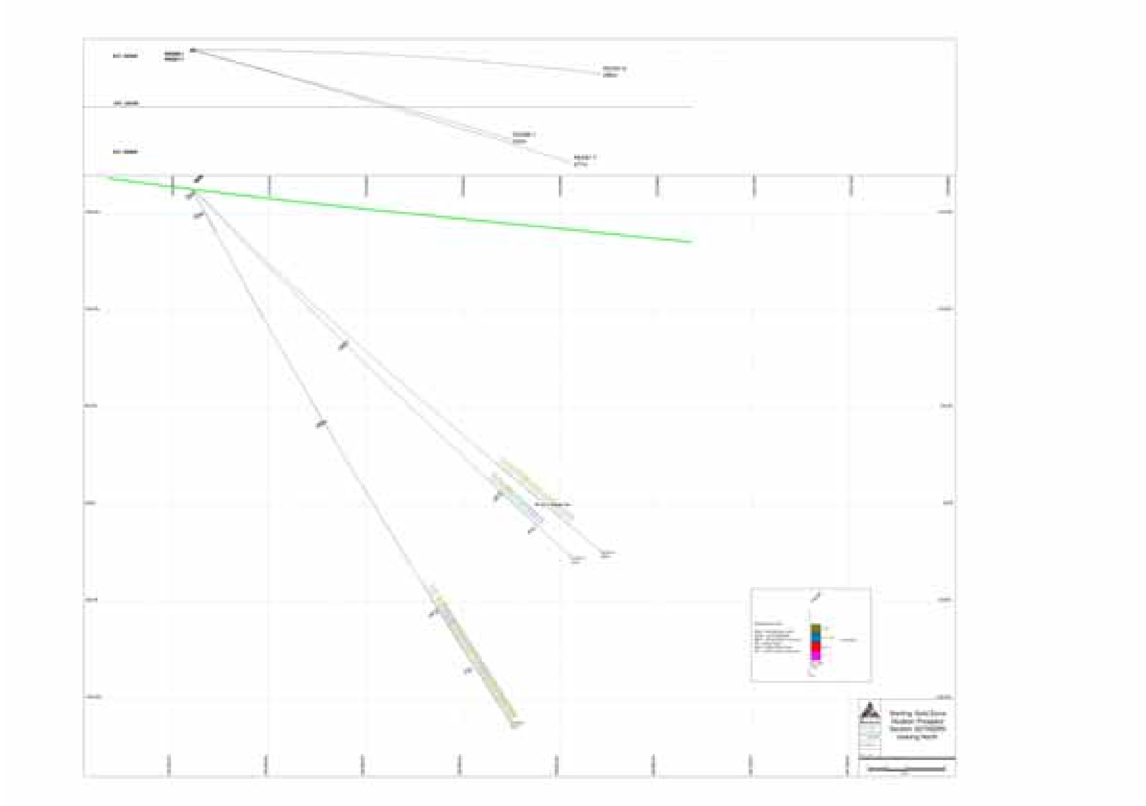

FIGURE 11

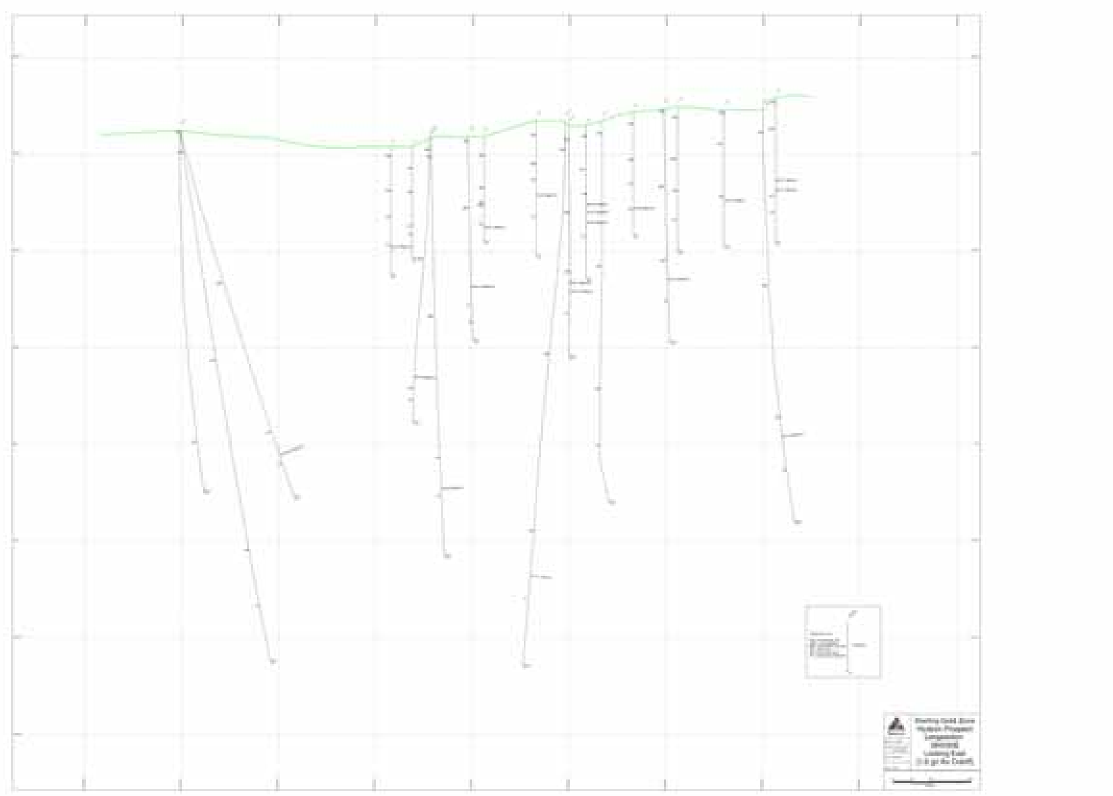

FIGURE 12