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## CITRONEN PROJECT RESOURCES

Ironbark Zinc Limited (“Ironbark” or “The Company”) hereby presents the information pertaining to the exploration and mineral resource estimates of the Citronen Zinc-Lead Project in accordance with ASX Listing Rule 5.8 and in compliance with the 2012 JORC Code.

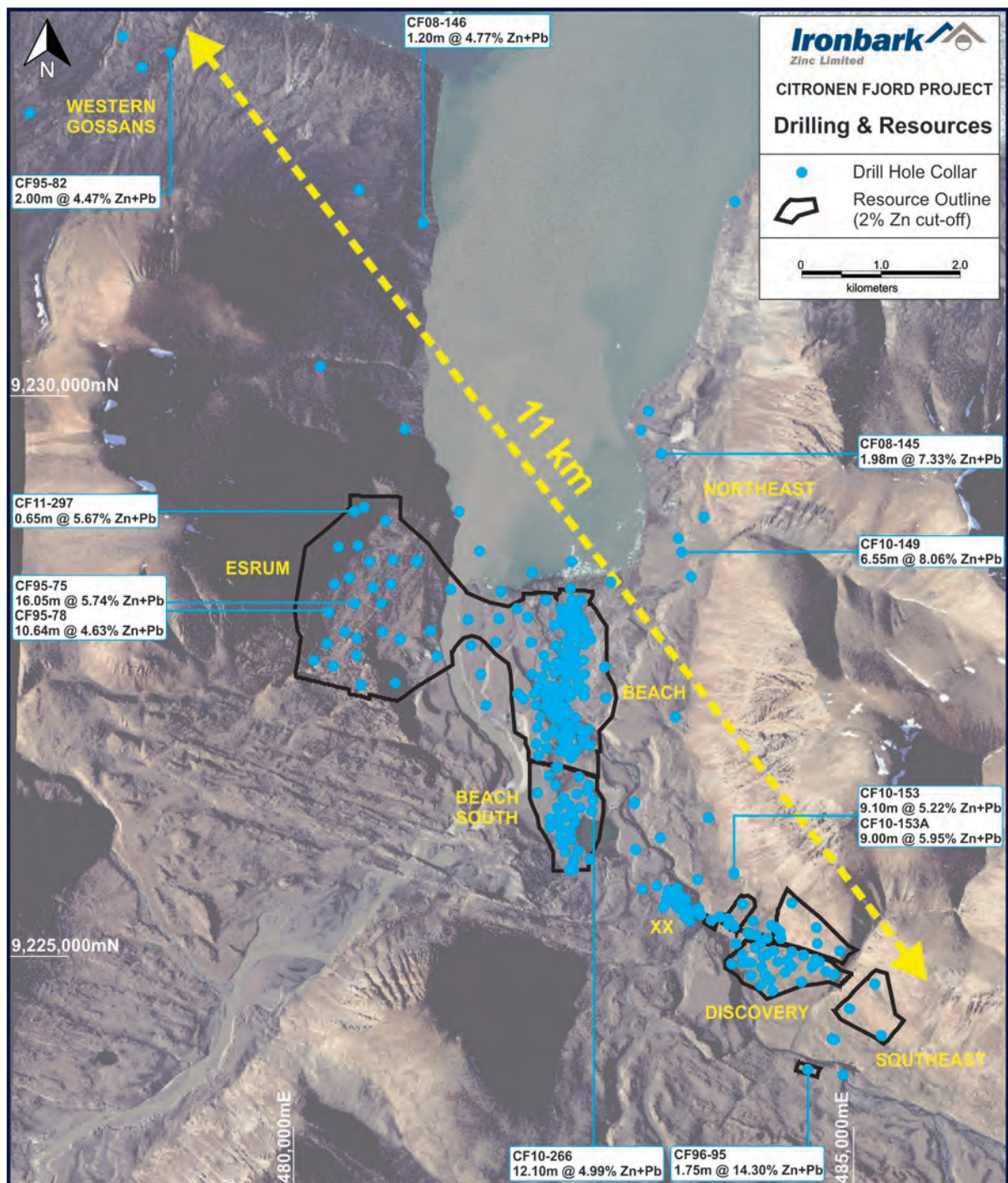
Beach + Esrum Zones					
Classification	Cut-off	Tonnes	Zn%	Pb%	Zn+Pb%
Measured	6.00%	5,031,646	8.00	0.75	8.75
Indicated	6.00%	9,173,104	7.74	0.61	8.35
Inferred	6.00%	3,434,811	6.69	0.51	7.19
<b>Total</b>	<b>6.00%</b>	<b>17,639,561</b>	<b>7.61</b>	<b>0.63</b>	<b>8.24</b>

*Reported at a 6.0% Cut-off using Inverse Distance Squared (ID2) Interpolation  
Small errors may be present due to rounding*

These 17.64 million tonnes at 8.24% Zn+Pb (at a 6.0% cut-off; ID2 interpolation) represent the high-grade core of the Citronen Deposit, within a larger resource of 70.8 million tonnes at 5.7% Zn+Pb (using ID2 and a 3.5% zinc cut-off; refer to ASX announcement 25 November 2014), and a global resource of 131.1 million tonnes @ 4.5% Zn+Pb (using Ordinary Kriging interpolation and a 2.0% Zinc cut-off) refer to ASX Announcement 9<sup>th</sup> January 2012). The 2.0% zinc cut-off was initially used to provide an envelope of low-grade mineralisation that would be used in scoping and further studies. Higher grade cut-off's (3.5% and 6.0% zinc) were used when the Company was conducting mine optimisation studies.

These resource figures were estimated in early 2012 by consultants Ravensgate, who estimated the resources of each category (Measured, Indicated and Inferred) for each of the three orebodies at Citronen – Beach, Esrum and Discovery Zones. Ravensgate estimated the resources using several cut-off grades from 0.1% zinc up to 6.0% zinc. The Report by Ravensgate was prepared with reference to the guidelines of the 2004 JORC Code.

A total of 313 diamond drill holes totalling 67,068.9m have been completed at the project since exploration began in 1993. This figure excludes some drilling that was completed purely for geotechnical purposes. The strike length of the mineralised holes of economic grade is 11 kilometres (Figure 1).



**Figure 1: Citronen Project drill hole locations and resource outline, highlighting the strike length of known mineralisation and high-grade drill intercepts outside, or at the edge of, the current resource.**

Ninety one percent of effectively drilled holes (holes completed to target depth) at the project have intersected sulphide mineralisation and the deposit is open in almost every direction and many economic intercepts are outside the current resource wireframe. JORC Table 1 contains information regarding the exploration and resource estimates of the Project and Annexure 1 contains information on all drill holes with significant intercepts.

## **Background**

Ravensgate was commissioned by Ironbark to carry out a series of resource estimates for the three main deposit sub-areas of Ironbark's Citronen Fjord Zinc Project. This was to allow ongoing planning and mine engineering studies. This model is an update of Ironbark's November 2010 model and includes new drilling completed by Ironbark during the field season of 2011. This report is based on Internal data supplied by Ironbark as well as other associated public information provided by previous title holders, previous technical reports from consultants and previous explorers, as well as other published and unpublished data relevant to the area.

One of Ravensgate's personnel has been involved in the drilling and project development at an early stage and has visited site. Where possible the site visit information has helped examine the significance of any identifiable major material concerns or problems with respect to the current geological and exploration data or the interpreted mineralisation geometries.

The Citronen Fjord Zinc deposit was discovered by Platinova A/S in May 1993, when outcropping zinc-lead gossans (now known as the Discovery Zone) were identified during a regional reconnaissance exploration program. Platinova carried out an extensive geological mapping, geophysics and drilling program during the summers from 1993 to 1997, in which approximately 33,000 metres of diamond drilling in 143 holes was completed. Four main prospects were identified (Discovery, Beach, Esrum and the Western Gossans), with stratiform zinc-lead mineralisation identified in three main stratigraphic horizons (Levels 1, 2 and 3). A small amount of fault hosted zinc-lead mineralisation was also identified at the Discovery "XX" Zone. Ironbark acquired the project from Bedford (No. 3) in early 2007 and during the summer of 2007 completed an intensive sampling program of previously un-assayed Platinova drill core. Based on this new information Ironbark contracted Wardrop to complete a new resource. Wardrop estimated a NI 43-101 compliant Indicated resource of 40.4Mt at 4.2% Zn and 0.5% Pb and an Inferred resource of 32.1 Mt at 4.2% Zn and 0.6% Pb. Ironbark has actively explored the project and between 2008 and 2011 Ironbark has completed 166 holes for 32,239.9 metres, bringing the total at Citronen to 313 holes for 67,068.9 metres. These drill collars are shown below in Figures 1A to 1D.

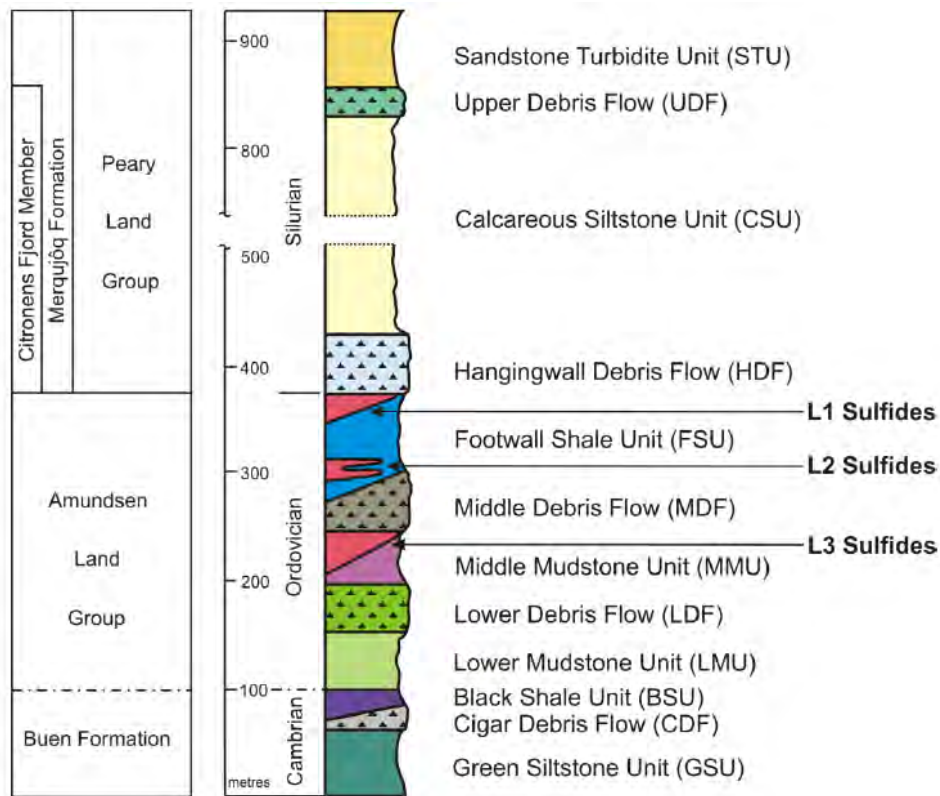
## **Geology**

The Citronen Fjord Zinc deposit lies within the Palaeozoic Franklinian Basin, a continental scale sedimentary basin, which extends some 2,500km westwards through Northern Greenland and into the Arctic Islands of Canada. Two major sedimentary facies associations are recognised in the area around Citronen Fjord. To the south, bounded by the Navarana Escarpment is a shallow marine marginal carbonate sequence of rocks.

The Citronen Fjord Zinc Deposit lies within Ordovician deep-water argillaceous rocks, interbedded with carbonate debris flows sourced from the carbonate platform to the south. This is overlain by sandstone turbidites of Silurian age formed during the Caledonian Orogeny. The basin was deformed during Devonian-Carboniferous times, which is expressed as southerly facing folds and thrust faults in the area around Citronen Fjord.

The stratigraphic column for the host rock sequence at Citronen is shown in Figure 2 and a geological map of the area in Figure 3. The oldest rocks within the project area are the siltstones of the Buen Formation, which are of Lower Cambrian age. Three informal units have been identified within this formation, the lower Green Siltstone, the Cigar Debris Flow, and the Black Siltstone (in which the Trilobite *Olenellus* has been identified).





**Figure 2: Stratigraphic Column.**

Overlying the Cambrian sequence (but not in a stratigraphic contact) lies the Ordovician Admundsen Land Group, which hosts the massive sulphide zinc mineralisation. This is made up of a sequence of variably calcareous and carbonaceous mudstones and shales, which are interbedded with three limestone/dolomite-clast debris flows that have been derived from the carbonate platform to the south. These form distinctive marker horizons throughout the project area. From the base they are called the Lower, Middle and Hanging Wall Debris Flows. The base of Hanging Wall Debris Flow is taken to be the base of the overlying Silurian Merqujôq Formation, which is comprised of siltstones and sandstone turbidites. A fourth major debris flow - the Upper Debris Flow lies within this formation.

Base metal mineralisation at Citronen Fjord is primarily contained within Amundsen Land Group mudstones. Three main stratigraphic horizons of mineralisation have been identified by Platinova. Level 1 Sulphides, which make up the gossans at the Discovery Zone, lies immediately beneath the Hangingwall Debris Flow within the Footwall Shale Unit. Towards the central and lower part of the Footwall Shale Unit is the Level 2 Sulphide horizon, which makes up much of the Beach Zone and is also found at the Esrum Zone. Immediately below the Middle Debris Flow within the Middle Mudstone Unit lies the Level 3 Sulphides which is the most widely spatially distributed horizon. Level 3 Sulphides are found at Discovery, Beach, Esrum and the Western Gossans. Known sulphide and zinc mineralisation occurs over an area of 11km in strike.

Three main styles of sulphide mineralisation have been identified at Citronen Fjord; mound-like masses that formed above sea-floor vents; interbedded sulphides that form laminae and beds within the mudstone sequence and were deposited as broad aprons to the sulphide mounds; and cross-cutting, epigenetic mineralisation that is primarily found in the debris flows and may represent feeder systems for overlying sea-floor vents. The main sulphides present at Citronen are pyrite, sphalerite and galena. Both sphalerite and galena are generally fine grained. Pyrite dominated sulphide mineralisation takes on a brassy yellow hue and changes in colour to a pale brown and then to a pale pink/red with increasing zinc grade.

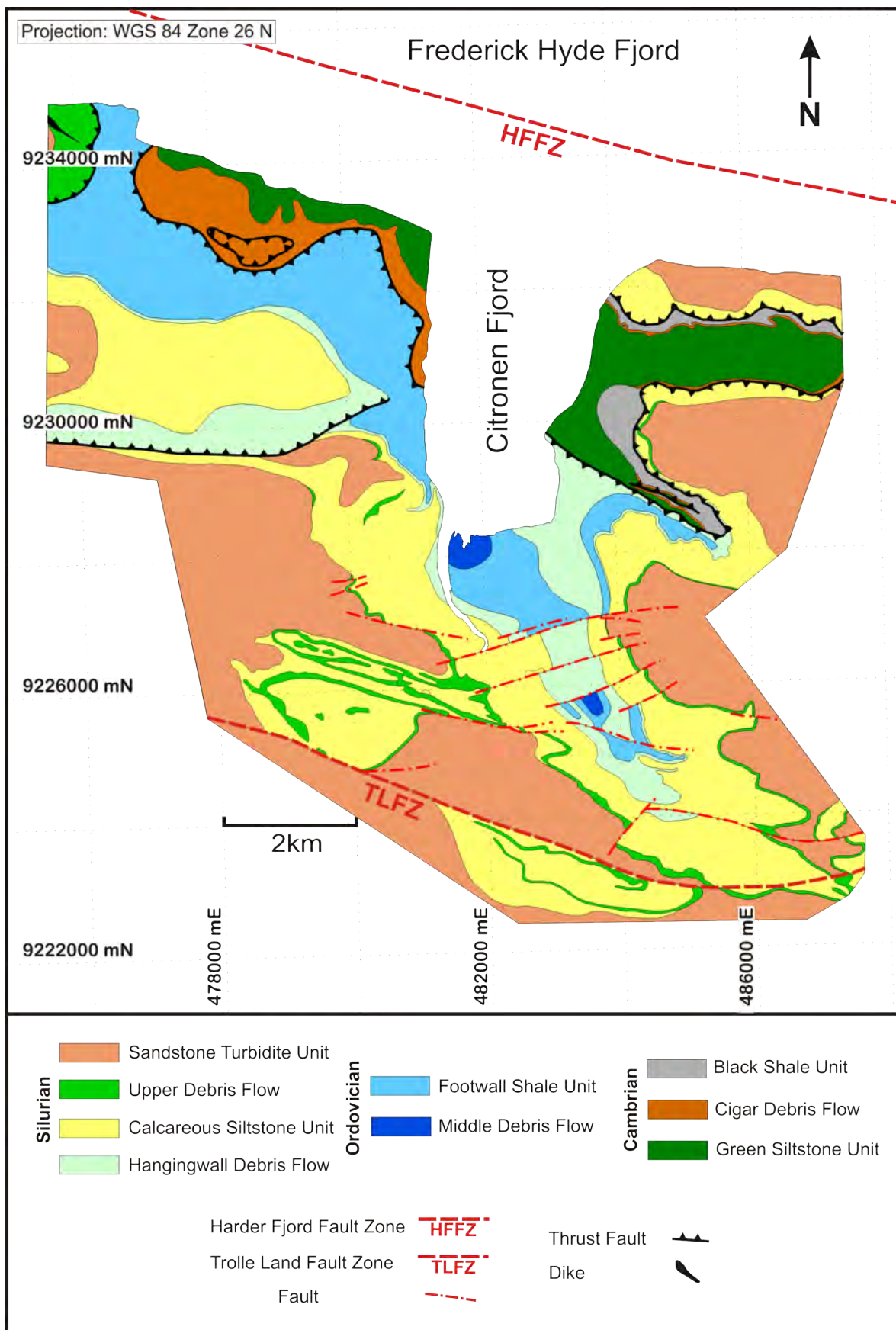


Figure 3: Geological Map of Citronen Fjord.

The massive sulphides are generally medium grained and weakly bedded or have little sedimentary structure. They often display distinct dendritic pyrite with voids filled with calcite or dolomite. Zinc grades are generally low, ranging from 1% to 3% Zn. The massive sulphides are interpreted to be vent-proximal pyritic sulphide mounds, with the dendritic textures representing remobilisation by pulses of sulphide bearing fluids.

The bedded and laminated sulphides contain higher concentrations of sphalerite and galena than the massive sulphides. Bedded sulphides are characteristically planar-laminated and thin-bedded, with individual layers ranging from 1mm to 1m, although most layers are tens of centimetres in thickness. Zinc grades generally range from 1% Zn up to 30% Zn for individual layers.

Within the debris flows matrix fill and replacement type mineralisation occurs, with its distribution strongly controlled by steeply dipping NW striking faults. This style of mineralisation is much coarser grained than bedded and massive sulphides, with very coarse-grained sphalerite. It is interpreted to be epigenetic in origin and may represent feeder zones to the overlying massive and laminated sulphides. The most well drilled and understood of these is called the Discovery "XX" Zone, where mineralisation is controlled by a NW striking fault within the Middle Debris flow. Volumetrically this style of mineralisation is relatively insignificant, constituting less than 1% of the global zinc resource tonnage. Ravensgate has reviewed this area with Ironbark personnel and is given to understand that the mineralised material accounted for in this area may have been slightly understated as this style of mineralisation as it is typically sub vertical in nature and drilling carried out so far is predominantly vertical and not well designed to explore for this style of mineralisation.

## **Drilling**

The 2012 Citronen Project Resource estimation updates are based upon 67,068.9m metres of diamond core drilling in 313 holes (including re-drills; excluding geotech holes) drilled from 1993 to 1997 and from 2008 to 2011. The project was drilled by Platinova A/S between 1993 and 1997 who completed 32,826m of drilling in 147 holes including re-drills (holes CF93-001 to CF97-143). Between 2008 and 2011 Ironbark completed 166 drill holes for a total of 32,239.9m including re-drills (holes CF08-144 to CF11-297).

Drilling at the project has been completed by different contract drillers each year using one of a Boyles 300, Boyles 1700, Duralite 500 or Duralite 1000 drill rig. The majority of diamond drilling at the project has been completed using BQ (36.5mm diameter) diameter drill core. From 2008 to 2011, Ironbark completed substantial amounts of larger diameter NQ (47.6mm diameter) and HQ (63.5mm diameter) drilling to obtain metallurgical and geotechnical samples. The majority of holes drilled are vertical which is close to optimal for intersecting the generally flat lying mineralisation horizons.

In 2009 and 2010 Ironbark drilled 27 angled holes to obtain geotechnical information and test short range grade variability. Holes were surveyed down-hole using a Reflex digital single shot camera. Drill core was orientated where possible using a Reflex ACT-II core orientation tool.

The upper portions of holes drilled into gravel overburden were drilled either using a tricone (roller) bit or using casing advancer or shoe-bit until bed-rock was intercepted. The hole was then cased off and diamond cored for the remainder of the hole. Due to the perma-frost present at the project, holes were drilled using heated water, with salt (CaCl) used to assist in difficult drilling conditions.

In 2010 Ironbark completed a detailed site survey and generated a new sub one metres accuracy site topographic surface. The Relative Level's of each drill hole was accurately calculated by registering the collar points onto this digital terrain model surface. Collars were visually checked in Minesight.

In 2011 almost all holes drilled at the project were re-surveyed using a Trimble 5700 Differential GPS which is accurate to within 25cm. Drill hole collar locations were modified to reflect this new more accurate survey data.

The Citronen Drilling database contains 7,395 half diamond drill core samples. The majority of samples are half-cored 1 metre BQ core samples, which are generally around 1.5kg in weight. For the fine-grained homogenous nature of Sedex mineralisation, this sample volume is considered as generally adequate for accurate resource estimation.

From 1993 to 1997 Platinova took 1,540 samples from holes CF93-01 to CF97-143. Samples for analysis were selected by geological logging assisted by a portable XRF machine. Generally, Platinova focussed on sampling only the higher-grade mineralisation. Sample intervals ranged from 0.14m to 2.53m, but on average were 1 metre. Half drill-core samples were analysed by Chemex Laboratories of Vancouver, Canada for Ag, Cu, Pb, Zn using Aqua Regia digest and AAS method, with Fe estimated by Peroxide NaOH fusion and titration.

In 2007 Ironbark completed an extensive sampling program at Citronen, taking 2,765 new samples from previously unsampled Platinova drill core. This was done to develop better understanding of the tenor and distribution of zinc and lead mineralisation for new resource calculations. The drill core was examined, photographed and intervals of interest marked up for sampling. Sample widths ranged from 0.15m to 1.35m but were generally 1 metre. These intervals were cut, and half core sent to ALS Chemex Laboratories of Vancouver BC for assay by four-acid digestion and atomic emission spectrometric analysis for Zn, Pb and Fe.

For the 2008 to 2011 drilling programs drill holes were geologically logged and 3,089 samples selected for analysis with assistance of a Niton XL3t portable XRF machine. Sample widths ranged from 0.3m to 1.9m but were on average 1 metre. Half drill-core samples were sent to ALS Chemex Laboratories in Ojebyn, Sweden for sample preparation and final analysis. Samples were analysed for Al<sub>2</sub>O<sub>3</sub>, As, CaO, Co, Cr, Cu, Fe, Fe<sub>2</sub>O<sub>3</sub>, K, MgO, MnO, Ni, P<sub>2</sub>O<sub>5</sub>, Pb, S, SiO<sub>2</sub>, TiO<sub>2</sub> and Zn using a four-acid digestion and ICP-AES spectrometric analysis.

Ravensgate was made aware that “industry best practice” QA/QC procedures were followed at Citronen.

The Interpretation of the lithological boundaries and the generation of a “rock mass” and mineralogical models from available drilling is at a considerably advanced level. Geological continuity is based upon a coherent and relatively predictable lithological model. The lithological 3-D solid models developed for the Citronen Project uses all available data and is used to subsequently fill block model blocks for material coding and bulk density assignment as necessary for resource estimation.

Samples from metallurgical testing were assayed and were able to be verified against readings obtained by the Niton XRF. These indicate the Niton XRF readings are reasonably accurate tending towards slightly conservative as observed from parallel reading and chemical analysis. Based on this correlation, values used in some drill intercepts obtained by Niton XRF when considered in conjunction with standard chemical analyses are robust enough with qualification to be included in resource estimations for some of the Inferred and less so the Indicated resource categories. These data were only used when confined to a known geological horizon or zone.

Drillhole data used in the 2011 resource estimation is primarily from half BQ drill core and NQ drill core. Some NQ and HQ intervals were “sliver sampled” where approximately one third of the core was taken for assay, with the remainder being used for metallurgical testwork. Sample volumes for these samples were similar to half BQ core, so have not introduced any sample size bias. Core recoveries for the project are generally excellent; ie >95%. Due to the homogenous nature of the style of mineralisation any core loss (which is negligible) is assumed to be at the same grade as the recovered portion; ie no weighting for sample recovery has been applied to resource estimation.

Ironbark has undertaken adequate measures to ensure integrity of assay data used in the resource estimation. A number of quality controls were undertaken during Ironbark’s initial 2007 investigation of the deposit in order to correlate Ironbark’s new data (original assaying of Platinova core) to that of the historic data compiled by Platinova. Ironbark took the remaining half core for 15 of Platinova’s samples and had it assayed by the same



laboratory (now ALS Chemex of Vancouver, Canada). Comparison of the Ironbark and Platinova assay data showed a 0.98 correlation co-efficient for Zn and 0.96 for Pb. Duplicate chemical assays were regularly performed with a total of 123 duplicate analyses performed during the period 2007-2011. The correlation of these beta samples to the original alpha sample was exceptional with both Zn and Pb having a correlation co-efficient of effectively 1.00.

### **Geological Interpretation**

Excellent outcrop exposure, geological logging, digital core photographs and a good understanding of the deposit geology has enabled Ironbark to build a robust 3D geological model of the major lithological units. This model was updated and refined by Ravensgate using new drilling information from the 2009 and 2010 drilling programs.

The three major debris flows (the Hanging Wall, Middle and Lower) were modelled by creating footwall and hanging wall surfaces based on drilling and outcrop information. These surfaces were then used to create solid triangulations, which were used as guides in correlating the various mineralised stratigraphic horizons. The base of the glacial till overburden was modelled so that overburden areas could be excluded from any subsequent resource modeling. In addition, major faults were modelled as surfaces. Of note is that there were some refinements to the fault zone models based on geological data collected on site during 2010. The fault zone separating the Beach North and South zones which had previously been interpreted to be striking east is now believed to be striking southeast (parallel to the Trolle Land Fault) and extends into the Esrum Zone.

Zinc-lead mineralised domains were initially modelled by Ravensgate geologists using MineSight 3-D modelling software accounting for new drilling information which has required some re-interpretation and refinement of geological and mineralisation models. Interpretation was again primarily done in cross-section using geological logging, core photographs and the 3D geological model. Cross sections were orientated on 100m and 50m sections orientated perpendicular to the dominant strike of the domain being modelled.

Two separate sets of new up-dated wireframes were constructed for each domain at the Esrum and Beach areas. The two different domain sets were defined as edge cut-off's of 2% and 4.0% which were selected as natural Zinc mineralisation sample population domains. The wire-frames previously developed for the Discovery area (using 3.5% Zn delineation level) were retained as no additional drilling has been carried out in this area. Wireframe development was guided by using a minimum true width of 2m which was generally applied except at the margins of domains where mineralisation may be thinner or where some steeper dipping mineralisation was encountered or interpreted. An approximate "half drill hole spacing" distance of influence approach was used for extrapolating "end plates" of mineralisation domains along strike and down-dip. Triangulation solids were extensively checked for overlaps in section and plan to ensure their geological validity. Triangulated solids were then used for coding, composite files and the block model.

The deposit statistics for all areas were thoroughly reviewed for sample support considerations using both raw sample data and composite data. A standard 1m length down-hole composite data set was initially examined. The compositing, subsequent data processing and statistical analysis, were carried out in MineSight Compass® software.

After briefly re-examining the localised statistics for all three Citronen project areas, it was determined that the majority of mineralised domains display relatively low composite population variances and low coefficients of variation. As with the December 2010 modelling, the composite length of 1m was retained as a suitable length for further modelling work as it was deemed that this length was short enough to adequately honour the dimensions of geological and mineralisation domains being modelled. The 1m down-hole composite set was used to again briefly re-examine the probability and spatial distribution statistics for each project area as well as for the semi-variogram modelling studies. The compositing of assay data and the subsequent file generation process was a straight forward "total drill-hole" slope (vertical) length composite calculation run on all drill-holes.



All of the 1m composites contained within the main zinc mineralisation “containment” wire-frames domains were used to revisit and refine the previously developed representative semi-variograms. The resultant parameter data derived from the variogram modelling was again used to carry out the block model interpolation calculations runs. The composite data was again coded according to the various mineralisation domains that encompassed them. It was necessary in some cases to re-examine these mineralisation domains in response to some minor localised mineralisation domain changes with respect to ore zone geometry orientation.

The allocation of a set of geologic flagging codes to the composited drill-hole interval was by direct intersection of composite drill-hole traces contained within the wire-framed geological triangulations. A coding threshold of 25% of the 1m composite interval was again used for all coding in the Citronen Deposit Areas.

In the case of the Beach, Discovery and Esum areas, all of the composites were coded by:

- firstly the main Zinc mineralisation wire-frames (ZONE=1 - 24) and
- then the AREA domain coding sets.
  - Beach AREA Domains : AREA=1-3
  - Discovery AREA Domains : AREA=4-5
  - Esum AREA Domains : AREA=6-7.

The final coded data was extracted and tabulated for review and then distilled into standard Log Probability plots which were used to help determine other statistical parameters related to “outlier” cut-off grades and appropriate variogram grade calculation ranges. As with the previous December 2010 modelling, the effect of varying top cuts particularly upon the observed coefficient of variation was briefly re-examined to help determine the most appropriate value to be used in each case during interpolation calculations.

The Log Probability plots were used to describe in detail the constrained composites population distribution within the Beach, Discovery and Esum mineralisation zone domains. Plots were produced for each of the deposit mineralisation domains (ZONE = 1-24).

Typical log probability plots using a zinc grade range between 0.01 and 100% Zn. The distribution of Zinc (and Lead) within the defined domains at Beach, Discovery and Esum is observed to be relatively predictable and mostly display low coefficients of variation (CV ~0.4-1.0) particularly at the nominal zinc mineralisation zone definition lower cut-off level. In line with the previous December 2010 modelling a similar variable grade / cut-off distance restriction regime calibrated by probability statistics analysis for each AREA domain was applied during Kriging interpolation. Essentially composite grades above a selected level are not permitted to have any interpolation influence beyond a predetermined 3-D distance. Ravensgate’s opinion, considering the relatively low coefficients of variations observed for the three main Citronen project areas that only minimal outlier treatment need be considered. Ravensgate used the 98-99th percentile level as the main starting point for the grade restriction implementation level. The restriction distance was also set as 60 to 80 metres depending on the drilling density available within any given mineralisation domain. The application of this method of restriction is by default “spherical” unlike the overall anisotropic search ellipsoids that are used locally for normal block model interpolation within any given ore zone or Area Domain. The resource estimation results derived from the “grade” / “distance restrictions” interpolation runs adopted by Ravensgate and reported upon for the main zinc and lead items are now the preferred reporting items for the block models.

### **Bulk Density**

To calculate the bulk density of mineralisation Ironbark took both empirical measurements of bulk density and also calculated the theoretical density based on the assayed value. Due to the size and scale of deposits, Ironbark elected to use a “calculation” method based upon the relative amount of sulphides and mudstone within each mineralised zone for arriving at bulk density values to be assigned to the block models. The bulk density variation with respect to the amount of sulphides and mudstone within each mineralised zone has undergone a series of careful reviews particularly in 2010 and 2011. The Zn, Pb, and Fe values estimated for each block were used to

create a dynamic calculated bulk density in the model. Theoretical (calculated) densities for each assayed interval were calculated by using a formula using the assayed zinc, lead and iron values. The formula assumes that the zinc is all reporting to sphalerite (density of 4.05), lead reports to galena (density of 7.4), remaining iron reports to pyrite (density of 5.01), and the remainder is mudstone gangue (density of 2.78). This approach was thought to be more accurate than using an averaged density value for each domain.

### **Geostatistics**

As with the December 2010 resource modelling deposit statistics for all zones were again briefly re-examined. A standard 1m down-hole composite length was again chosen as an appropriate composite length for statistical review and for block model interpolation as this was generally the most commonly used sample interval. After examining the localised 1m composite statistics it was again determined that the majority of mineralised domains display relatively low composite variances and in localised areas relatively low overall coefficients of variation. The compositing of assay data and the subsequent file generation process was a straight forward “total drill-hole” slope length weighted composite calculation in MineSight™. Length weighting was used in the compositing process and edge composites were coded within mineralisation shells with a composite “in/out” precision of 25%.

The 1m composite data-set ultimately generated from all composited drill-holes was used to develop representative semi-variograms for the various mineralisation domains at Citronen. The derived variogram parameter data was then subsequently entered and used to modify the block model interpolation calculations runs.

The composite data was coded according to the various mineralisation domains that encompassed them in the same manner as that used in December 2010. The allocation of a set of geologic flagging codes to the composited drill-hole interval was by direct intersection of composite drill-hole traces contained within the wire-framed geological triangulations.

A selected set of the coded data was re-extracted and tabulated for review and then distilled into standard Log Probability plots which were then used to help determine other statistical parameters and for a brief review of the variography for the major domains in each of the Esum, Beach and Discovery Areas.

Ravensgate relied on the comprehensive review of the deposit “variography” and representative semi-variograms modelled during the December 2010 Citronen resource modelling studies. The additional drilling and assay data obtained during the 2011 field season on preliminary analysis did not significantly alter the interpreted deposit understanding or the sample spatial variability.

Overall the 1m sample or composite length is optimal for defining mineralisation zone thickness variability, which is observed to be approximately from 3.4 to 5.5 metres. These ranges / thicknesses were not interpreted to vary significantly following the additional drilling carried out in 2011 and therefore the modelled mineralisation geometries required little modification to match the typical field observations for the geologically logged mineralisation zones.

Following a re-assessment of the new 2011 drilling data, particularly in the Esum Area, Ravensgate considered that the current drilling density of 50x50m (or closer) as has been achieved in most of the Beach Zones is adequate for approaching the definition of resources as Measured, Indicated and Inferred where appropriate, however with the caveat that consideration must be given to all other “modifying factors” with respect to the JORC Code. Ravensgate is still of the opinion that it is also necessary to continually re-consider locally any details related to mineralisation variability and proposes that Ironbark should still carry out further detailed sampling in selected locations to observe “short range” spatial variability. A detailed test using a drill test pattern of close spaced holes in a “Geostatistical L or X” shaped configuration try to help to confirm mineralisation continuity.

Drilling densities in each ore body and resource classification are as follows;

Beach Zone

Measured 50x50m

Indicated 100x100m

Inferred >100 x 100m

Discovery Zone

Measured 50x50m

Indicated 100x100m

Inferred >100x100m

Esrum Zone

Indicated 200 x 250m

Inferred >200x250m

The 340m interpolation range used for primary interpolation runs in December 2010 was based on the broad “between hole” variography and is also a practical distance required to adequately “fill” blocks within mineralisation shells for each main metal item in the block model. This same basic set of interpolation parameters was retained for the End of 2011 block model up-dates. The 50x50m drilling pattern present throughout the main parts of the Citronen area is sufficient to allow adequate numbers of sample composites to be used within interpolation search ellipsoids.

The reasonably consistent drilling density available for the Beach and Discovery Areas and increased drilling density achieved for the Esrum Area combined with up-dated observations with respect to the overall lower deposit spatial variability again demonstrates relatively predictable mineralisation continuity. As was observed in 2010, it should still be stressed however that the overall lower sample numbers and the presence of some known major fault zones still contribute to structural complexity and mineralisation variability.

The Esrum zone is overall quite deep and whilst it has been subjected to some additional infill drilling it has not been drilled to the same extent as the Beach and Discovery Areas. The relatively long 340m range retained at Esrum in interpolation is still adequate to capture a significant number of composites in any given search ellipsoid using the still relatively sparse 200x250m drilling pattern. The available drilling pattern at Esrum does not presently allow for reliable assessment of the representativeness of sampling or local or longer range mineralisation continuity.

**Block Modelling**

After consideration of the data density and ore zone geometry factors following the December 2010 modelling, it was decided that the optimal estimation block size to be used for the global Citronen model should still be 10m x10m – East (X), North (Y) block size to retain mineralisation resolution and provide a reasonable Selective Mining Unit (SMU) volume. Considering the anticipated underground mining methodology to be employed for the majority of Citronen Mineralisation, the bench height was reduced from 2m to 1m Elev (Z) to assist with resolution of the sometimes relatively thin mineralisation zones. The relatively small block size was retained primarily to help achieve better mineralisation domain coding resolution whilst not unduly compromising local sample and block support considerations. An additional minor change was also made to the block model coding regime where previously there was a block code and an associated percentage volume factor used to rationalize mineralisation domain volumes. This was simplified in the End of 2011 modelling to a “calibrated” 50% block-in/block-out coding methodology mainly directed towards allowing for more flexible resource summary reporting.

Ravensgate again used the standard and commonly used Ordinary Kriging interpolation technique for all block model interpolation for block model items used to describe Zn, Pb and Fe distribution and all subsequent

resource reporting. In keeping with the previous December 2010 modelling and at Ironbark's request, additional inverse distance squared interpolation items were retained for comparison in line with Ironbark's earlier 2008 resource estimations.

One large block model was constructed capturing all the main Citronen mineralised zones including the Beach, Discovery and Esrum zones. Numerous block model items were also assigned for use in interpolation including the main zinc (Zn) item [ZNKR1 and ZNID1] as well as items for lead (Pb) [PBKR1 & PBID1] and iron (Fe) [FEKR1 & FEID1].

The following is a brief summary of the methods and assumptions employed in construction of the up-dated Citronen block model:

- Re-loading and validation of the available up-dated Citronen 2011 drilling data set.
- Modification and development of 3D geology lithology domains and structures as necessary as a consequence of introducing some of the new 2011 drilling data.
- Validation and updating as well as reconstruction of some of the mineralisation domains at both 2.0% and 4.0% edge cut off levels. Validation of solids for geological integrity.
- Block model constructed and variables coded with the various domains, surfaces and solids for both the 2.0% and 4.0% Zn shell domains.
- Model blocks were coded with a corresponding ZONE, AREA and GEOL code using a 50% "block-in/block-out" mineralisation domain "captured" block coding basis.
- Composite assay files generated and up-dated and coding of 1m composites for each domain integer code.
- Block model construction and major material type and domain code coding for composite file - block model file "matching".
- Generation of multiple block estimation run files with appropriate parameters for separate 2% Zn and 4% Zn mineralisation domains.
- Block model estimation run, using representative "single pass" ellipsoids assigned according to the AREA domain to account for variable mineralisation orientations.
- The "broad" 2% Zn shells were interpolated first, followed by a second "internal" overprint interpolation run series for the higher grade 4% Zn mineralisation domain shells.
- Review of modelled blocks on screen and via cut-off reports to ensure that interpolation has been carried out correctly.
- Review of coded blocks on screen and check resource summary tables at various lower cut-offs.
- Script run to assign bulk density values to appropriate mineralisation domains using measured and assumed density factors adjusted with local mineralisation grades from the Zn, Pb and Fe items.
- Review of the ancillary item statistics required for assignment of Mineralisation classification codes using script runs to assign QLTY Code Item.
- Grade tonnage reports generated and tabulated. Comparison of different interpolation techniques.
- Visual cross checking of modelled blocks grades in section and plan to ensure composite and domain data has been honoured.

## **Interpolation**

The general approach to model interpolation was to carry out a sequential series of Ordinary Kriging interpolation runs separately for each mineralised domain, with parameters "tuned" for each particular domain orientation and also the localised domain statistics and variography. A separate set of interpolation runs are also required for each element being interpolated, particularly if those elements have different localised sample and grade distribution characteristics.

For each of the Citronen Deposit areas it was possible to assign specific "nugget" and "sill" and search ellipsoid parameters for the Zinc, Lead and Iron items and for the various 2% Zn and 4% Zn mineralisation domains



separately. For mineralisation zones with less available sample composites, it was sometimes necessary to use adjacently located or associated data and apply those parameters as appropriate. This approach whilst not ideal is an accepted compromise for the deposit domains as observed. The elements interpolated using the “assumed” and “adjacent domain” variogram parameters should be reviewed carefully and by default, as the resource classification is moderated accordingly in these sparsely sampled zones.

The higher grade (high Zn concentration) domains were restricted according to the probability statistics observed within each mineralisation domain. Generally the “grade / cut-off - distance restriction” regime was applied at the 98th or 99th percentile level and the restrictions used were the same as those used in the December 2010 block modelling.

After preliminary interpolation runs have been carried out for each element, the block model is interrogated to check if all required coded blocks have been filled. Preliminary resource summary tables are also then produced to review interpolation results from a “global” standpoint. Once modelling estimation runs were completed and the model was coded appropriately, the resulting modelled results were reviewed visually and the estimation run files checked to make sure estimations had been carried out correctly.

Specifically the validation process carried out examined the block model by:

- Visual checking of interpolation block model results in plan and section
- Comparison of input versus output statistics globally
- Review of localised mineralisation domains by de-cluster analysis
- Reviewing of “Quality of Estimate” data and associated confidence coding analysis
- Direct comparison with the December 2010 estimates

Overall the observed volume-variance changes when using the modified bench height when compared with the December 2010 block model for each the three main Citronen deposit areas does not appear significant. The final block models using ZNKR1 (Ordinary Kriging) are shown in Figures 4 and 5. For comparison, Figure 7 shows the Beach Zone Long Section from Figure 6 using Inverse Distance Squared (ZNID).

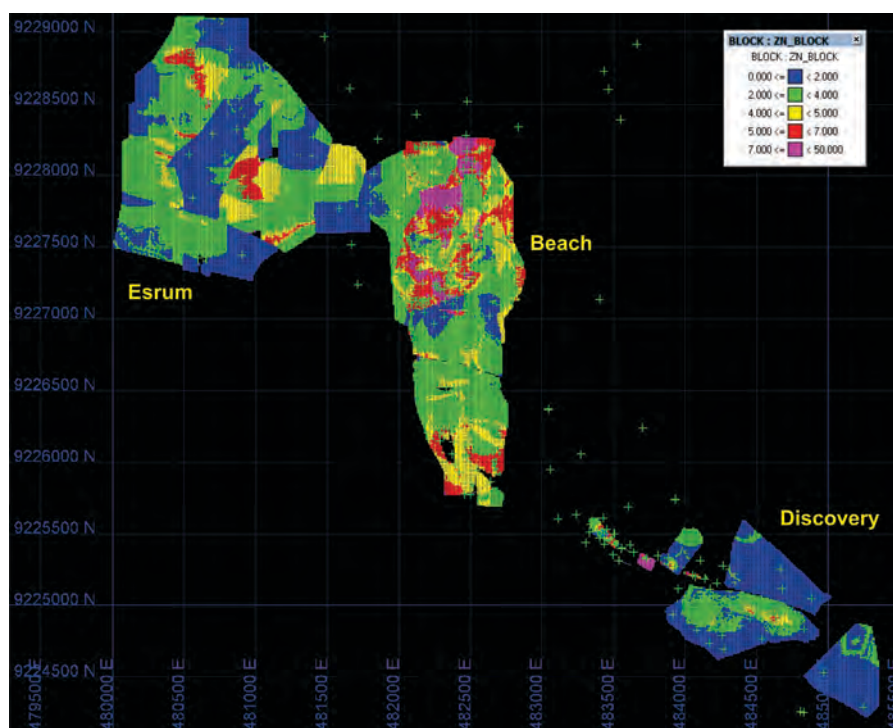


Figure 4: Plan view of the Citronen Resource Block model using ZNKR1.

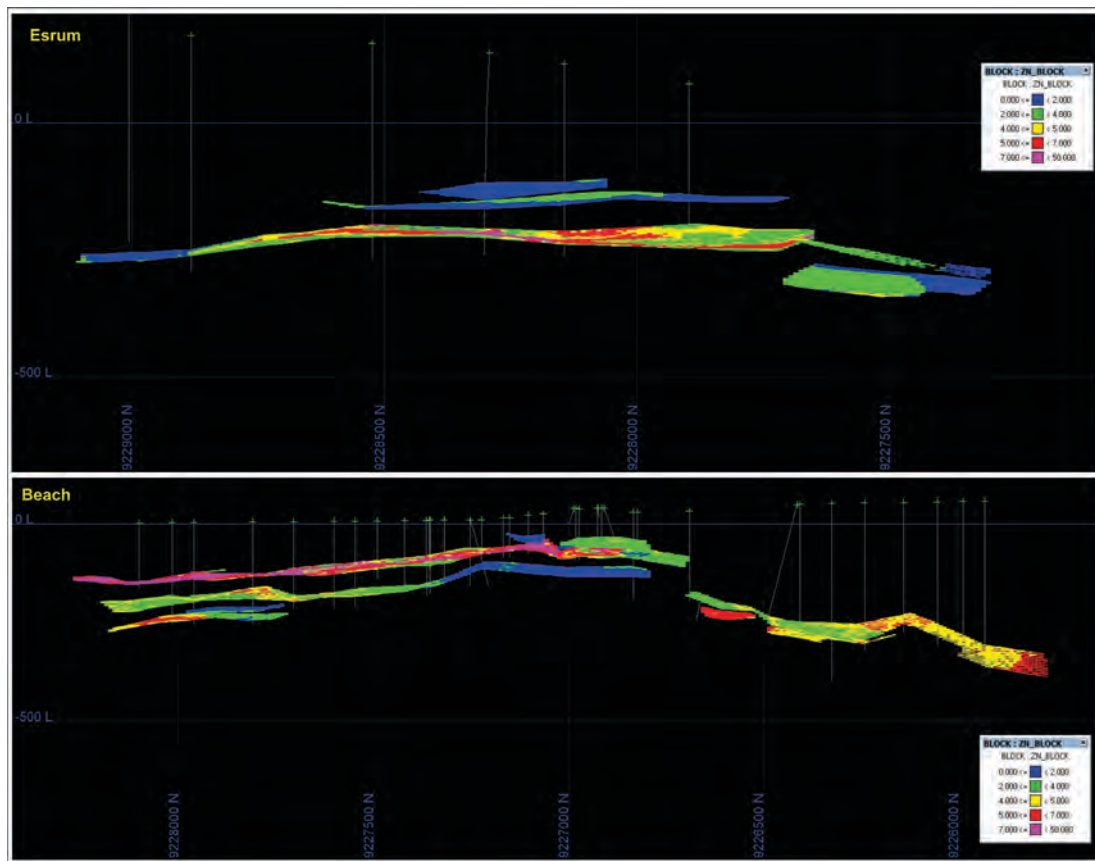


Figure 5: Long Sections (looking east) of the Esum and Beach Zone block models using ZNKR1.

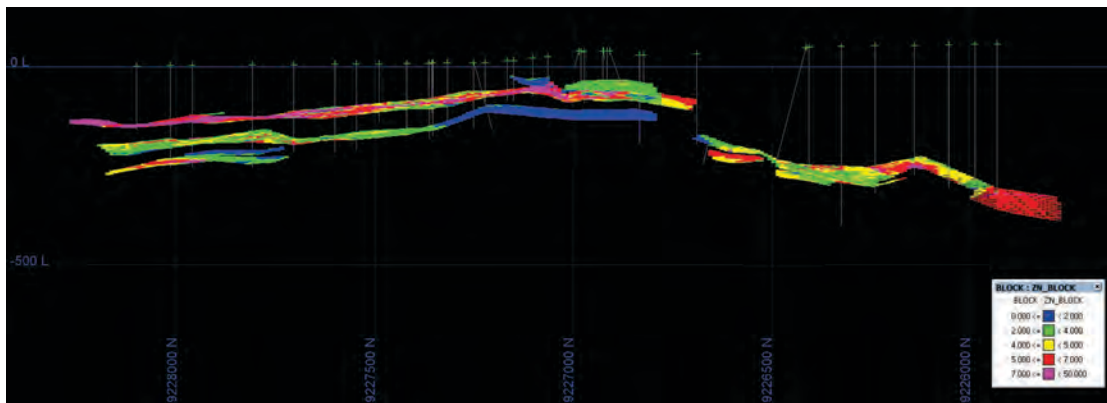


Figure 6: Long section (looking east) of the Beach Zone block model using ZNID.

## Modifying Factors

Ironbark released a Feasibility Study Update on 12<sup>th</sup> September 2017 which details all modifying (mining, metallurgical, processing, economical, infrastructure, marketing, legal, environmental, social and government) factors and are only briefly summarised below;

- **Mining:** The 2012 Citronen Resource estimate was used by consultants Mining Plus in a mine optimisation study. A room and pillar underground mining method for the Esrum and Beach zones was chosen with a four metre mining width, and open pit mining for the Discovery zone. The open pit mining was pushed back to the tenth year of operation to allow for faster payback using higher grade Beach zone ore in the first years of mining.
- **Metallurgical & Processing:** Zinc and lead are present as sphalerite and galena sulphide minerals. The laminated sulphides that make up the bulk of the resource are amenable to a dense media separation treatment, followed by straightforward float circuit to produce separate zinc and lead concentrates.
- **Economics & Marketing:** Zinc is the fourth most used metal in the world. Its applications range from galvanising steel products for rust proofing including construction steel and car chassis, uses in bronze alloys and even as an essential fertiliser trace element additive. Zinc is not easily substitutable and is an essential metal to modern society. The project has shown sensitivity to fluctuations in the zinc price, with the zinc price being a function of global supply of, and demand for, zinc concentrate.
- **Infrastructure:** There is no infrastructure at Citronen; to progress to operation all infrastructure would need to be constructed including roads, port, accommodation, workshops and a larger airstrip.
- **Legal:** The deposit is held 100% by Ironbark within an Exploitation Licence, granted in December 2016 for 30 years.
- **Government:** Greenland is considered to be a low sovereign risk jurisdiction and the Greenland Government is highly supportive of exploration and mining.

Announcement authorised by and contact:

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## **Disclosure Statements and Important Information**

### **Forward Looking Statements**

The following information is not intended to guide any investment decisions in Ironbark Zinc Limited. This material contains certain forecasts and forward-looking information, including possible or assumed future performance, costs, production levels or rates, reserves and resources, prices and valuations and industry growth and other trends. Such forecasts and information are not a guarantee of future performance and involve many risks and uncertainties, as well as other factors. Actual results and developments may differ materially from those implied or expressed by these statements and are dependent on a variety of factors. The Company believes that it has a reasonable basis for making the forward looking statements in the announcement, based on the information contained in this and previous ASX announcements.

The Citronen Zinc Project is considered to be at an early development stage and will require further regulatory approvals and securing of finance and there is no certainty that these will occur. Nothing in this material should be construed as either an offer to seek a solicitation or as an offer to buy or sell Ironbark securities. Consideration of the technical and financial factors requires skilled analysis and understanding of their context.

Ironbark is not aware of any new information or data that materially affects the information included in this ASX release, and Ironbark confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the estimates in this release continue to apply and have not materially changed.

### **Competent Persons Statement**

The information included in this report that relates to Exploration Results & Mineral Resources is based on information compiled by Ms Elizabeth Clare Laursen (B. ESc Hons (Geol), GradDip App. Fin., MSEG, MAIG), an employee of Ironbark Zinc Limited. Ms Laursen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Laursen consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### **Competent Persons Disclosure**

Ms Laursen is an employee of Ironbark Zinc Limited and currently holds securities in the company.



# JORC Code, 2012 Edition – Table 1 report template

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>All samples are from diamond core, and include a mixture of quarter, half or whole core and BQ, NQ or HQ sizes. Samples are taken from varying intervals from 40cm length to 2.5m length depending on visual differences and compositions analysed by a hand-held Niton XL3t Analyser.</li> <li>Mineralised zones were analysed with a 30 second reading every 5cm along the core. These results are only used for onsite interpretation and form the basis of the samples chosen for laboratory assay.</li> <li>Sampling is carried out under QAQC procedures as per industry standards.</li> <li>Certified sample standards and duplicate samples are added in a ratio of 1 sample per every 10 samples. Most hole collars have been surveyed using a Trimble DGPS system which has an accuracy of &lt;1m; the remaining holes have been surveyed by hand-held GPS with an accuracy of &lt;5m.</li> <li>Two distinct exploration drilling campaigns have been conducted at Citronen. The first was between 1993 and 1997 conducted by Platinova A/S who drilled 149 holes totalling 32,842.95m. Sample intervals varied from 0.15 - 2.5m, the average sample width was 1.0m.</li> <li>The second campaign of drilling was conducted by Ironbark Zinc Limited between 2008 and 2011 who drilled 166 diamond holes totalling 34,239.93m. Sample intervals varied from 0.2 - 1.5m and the average sample width was 0.9m.</li> <li>A sampling program was conducted by Ironbark in 2007, where 2,645 samples were taken from the Platinova drill core. Samples varied from 0.2 - 1.3m and the average sample width was 0.95m. Some of these samples were from previously un-sampled drill core and other samples were quarter core samples from previously assayed intervals, used as a quality control check.</li> <li>Core samples from the 1993 drilling were sent to Chemex Labs Ltd of North Vancouver B.C. Canada. Samples were crushed, split and a portion pulverised followed by a four-acid digest and Inductively Coupled Plasma Mass Spectrometry (ICP-MS) finish.</li> <li>Core samples from the 1994 drilling were sent to Bondar Clegg Inchcape Testing Services of Ottawa, Ontario, Canada. These samples were crushed split, and a portion pulverised to minus 200 mesh. A four-acid digest was used followed by ICP-MS and also AAS for samples greater than 20% Fe and 15% Zn.</li> <li>Core samples from the 1995 drilling were sent to Chemex Labs Ltd of Vancouver, B.C., Canada.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>Samples were crushed, split and a portion pulverised to minus 150 mesh followed by reverse Aqua-Regia digest finished by Atomic Absorption Spectrometry (AAS).</p> <ul style="list-style-type: none"> <li>Core samples from the 1996 and 1997 drilling were sent to Cominco Ltd. Laboratory in Rexdale, Ontario, Canada. Samples were crushed, split and a portion pulverised to minus 150 mesh followed by reverse Aqua-Regia digest finished by AAS.</li> <li>The core samples taken in 2007 by Ironbark were sent to ALS Chemex in Vancouver, B.C., Canada. The samples were crushed, split and a portion pulverised to 75µm, followed by a four acid digest and an AAS technique.</li> <li>The core samples taken in 2008 - 2011 by Ironbark were sent to ALS Chemex in Ojebyn, Sweden. The samples were crushed, split and a portion pulverised to 75µm, followed by a four acid digest and an Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) finish.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>All drilling at the Citronen Project has been standard tube diamond drilling, of either BQ, NQ or HQ diameter. In areas with overburden (glacial till) either a tri-cone roller bit or shoe bit was used to drill down to competent rock. Overburden material was discarded.</li> <li>Most holes were vertical and therefore nor oriented. The few drilled at an angle were oriented using a Reflex tool.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Recovered drill core was measured every 3m run and any core loss was recorded.</li> <li>Core recoveries were excellent throughout the project and the need for triple tube drilling was not required. All core was checked &amp; measured by a geologist and rod counts carried out by drillers.</li> <li>Information from the diamond drilling does not suggest that there is a correlation between recoveries and grade. Diamond drill core from the Citronen deposit has a very high recovery.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes were logged for a combination of geological and geotechnical attributes to a level of detail to support a Mineral Resource estimation.</li> <li>Logging is both qualitative and semi-quantitative in nature; all drill core was photographed.</li> <li>The total length of all recovered drill core was logged in detail.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is</li> </ul>	<ul style="list-style-type: none"> <li>Of 7,395 samples, 6,421 are half-core (87%), 968 are quarter-core (13%) and six samples are whole core samples. All core was sawn with a core-saw.</li> <li>All drilling conducted at Citronen was diamond drilling.</li> <li>All samples were crushed, split and pulverised at a laboratory. The sample preparation is industry standard for the fine-grained nature of this Sedimentary-Exhalative (SEDEX) mineralisation style.</li> <li>Laboratory certified standards and duplicates</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>were used alternatively every 10 samples as a quality control measure.</p> <ul style="list-style-type: none"> <li>One duplicate per twenty samples was taken.</li> <li>The sample sizes are appropriate to the fine-grained mineralisation of this SEDEX mineralisation style.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>The assay methods used are considered appropriate and near total digestion.</li> <li>A Niton XL3t hand-held XRF analyser was used to determine the appropriate core intervals to send for laboratory assay. Each reading was 30 seconds long, taken each 5cm along the drill core.</li> <li>Duplicate samples and laboratory certified standards have been used alternatively every ten samples. All samples have returned results within an acceptable range.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Ravensgate Consultants conducted a verification procedure on the Citronen database during the resource estimation process.</li> <li>Several drill holes have been twinned and have shown comparable results including; <ul style="list-style-type: none"> <li>Holes CF08-153 &amp; CF08-153A (both vertical holes) were drilled 9m horizontally apart at surface with an elevation difference of 12cm. CF08-153 returned 9.1m @ 5.16% Zn from 14.0m and CF08-153A returned 9.0m @ 5.92% Zn from 14.0m.</li> <li>Holes CF10-245A and CF10-245B (both vertical holes) were drilled 1 metre apart at surface. The drill holes intersected 12.2m and 13.7m of overburden (glacial till) respectively and intersected the Hangingwall Debris Flow Unit at 175.5m and 174.5m depth respectively.</li> </ul> </li> <li>Primary data was either collected as paperlogs, or entered into a database program or Excel spreadsheet. Paper logs were later transferred to a digital database. Data was verified and checked by senior Ironbark staff and by external consultants Expedio, Ravensgate &amp; Mining Plus. The Database was stored as Excel spreadsheets and a Microsoft Access Database.</li> <li>There has been no adjustment to the assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes prior to 2011 were surveyed using a DGPS which has an accuracy of &lt;1m. 2011 holes were picked up by handheld GPS which has proven to have an accuracy of approximately 5m. Downhole surveys were conducted on all angled drill holes using REFLEX (industry standard) equipment.</li> <li>The Grid System used for all location data points at Citronen is UTM WGS 84 Zone 26.</li> <li>Ironbark purchased a Digital Elevation Model, produced from satellite imagery, for the Citronen Region that has an accuracy of approximately 2.5m.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological</li> </ul>	<ul style="list-style-type: none"> <li>Hole spacing varies across the three orebodies; in the Beach Zone and Discovery Zone 30-100m, in the Esrum Zone &gt;150m.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The data spacing and distribution is sufficient to determine geological and grade continuity.</li> <li>A composite length of 1m was selected after analysis of the raw sample lengths for use in resource calculations.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The orientation of the drilling is approximately perpendicular to the strike and dip of the mineralisation and therefore should not be biased.</li> <li>Angled drill holes provided a check against mineralisation width in vertical holes.</li> <li>There are no known biases caused by the orientation of the drill holes.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Drill core was kept on site and sample dispatch was overseen by the site manager. Samples were transported by charter plane to Svalbard (Norway), then air freighted to the laboratory by a local logistics company.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Ravensgate reviewed original laboratory assay files and compared them with the database. No errors were found.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Citronen Fjord Deposit is located wholly within Exploitation Licence 2016/30 which is 100% owned by Ironbark Zinc Limited. The licence lies within the Northeast Greenland National Park.</li> <li>A 2% royalty is payable to vendors.</li> <li>The Licence was granted in December 2016 for a period of 30 years.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The deposit was previously explored by Platinova A/S between 1993 and 1997.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Citronen Fjord deposit lies within the Palaeozoic Franklinian Basin, a sedimentary basin which extends across Northern Greenland and into Canada. The deposit lies within Ordovician deep water argillaceous rocks, interbedded with carbonate debris flows sourced from the carbonate platform to the south. Base metal mineralisation at Citronen is primarily contained within the Amundsen Land Group mudstones. Three main stratigraphic horizons of mineralisation were identified by Platinova A/S. Known sulphide and zinc mineralisation occurs over an area of 12km in strike (identified to date). The main sulphides present are pyrite, sphalerite and galena. Three types of sulphide mineralisation are present: mound-like masses, interbedded sulphides that form laminae and beds within the</li> </ul>



Criteria	JORC Code explanation	Commentary
		mudstones and cross-cutting epigenetic mineralisation that is primarily found in the carbonate debris flows.
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Annexure 1.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>All reported assays have been length weighted.</li> <li>No metal equivalents have been reported.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation is interpreted to be flat-lying to gently dipping and drill holes have been angled (either vertical or at 60 degrees) to intercept the mineralisation as close to perpendicular as possible, therefore resulting in true widths of mineralisation.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figures 1A to 1D.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All results have been reported.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density,</li> </ul>	<ul style="list-style-type: none"> <li>Geological mapping, geotechnical and metallurgical studies have been conducted and are included in the Feasibility Study for the Project. The Feasibility Study Updated was released on 12 September 2017.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>A positive feasibility study report for the Citronen Project was released to the ASX on 29 April 2013 and an application for an Exploitation (Mining) Licence was granted in December 2016. An update to the Feasibility Study was released on 12 September 2017. The project is being developed to become an operating mine and as the deposit is open in every direction further exploration (drilling) is expected to be conducted in the future.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li><i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li><i>Data validation procedures used.</i></li> </ul>	<ul style="list-style-type: none"> <li>All drilling data has been reviewed and audited by several internal personnel and external consultants. Data validation techniques include: further assaying historic core, surveying hole collars, use of laboratory standards &amp; duplicates, three internal cross-checks of all drill hole data by geologists and several external consultant cross-checks of all available data.</li> <li>Three Resource Estimates have been calculated prior to the Ravensgate Resource 2012; <ul style="list-style-type: none"> <li>- Wardrop Consulting, 2007</li> <li>- Ironbark, 2008 (in-house)</li> <li>- Ravensgate, 2010</li> </ul> </li> <li>Examination of the prior estimate reports were used as part of the data validation procedures for the Ravensgate Resource Report 2012.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li><i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>One of the Ravensgate Resource Report 2012 authors was involved in Ironbark's exploration programmes and project development in 2007, 2008 &amp; 2009.</li> <li>The author was integral in the establishment of industry best QA/QC practices and has intimate knowledge of all procedures used on site.</li> <li>The author of the Wardrop 2007 Resource Estimate Report was involved in the planning and execution of the 1990's drilling.</li> <li>The author of the Ironbark 2008 in-house Resource Estimate was involved in the planning and execution of the 2007 sampling, and 2008-2011 drilling programs.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> <li><i>Nature of the data used and of any assumptions made.</i></li> <li><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li><i>The factors affecting continuity both of grade</i></li> </ul>	<ul style="list-style-type: none"> <li>The Ravensgate Resource Report 2012 states "Interpretation of the lithological boundaries model for the mineralisation interpretation used for the resource modelling is supported by a significant amount of drill logging or surface mapping and is at an advanced level". Ravensgate classified the Geological Interpretation as a low-moderate risk in the Resource Calculation Risk Assessment. Zinc-lead mineralised domains were initially modelled</li> </ul>

Criteria	JORC Code explanation	Commentary
	and geology.	using MineSight 3-D modelling software. Interpretation was primarily done in cross-section using geological logging and the 3D geological model. Cross sections were oriented on 100m and 50m sections oriented perpendicular to the dominant strike of the domain being modelled.
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The area containing the Citronen Resource stretches 6.5km from the north-west corner of the Esrum Zone to the south-east corner of the Discovery Zone. The deposit is exposed at surface in the Discovery Zone and reaches a depth of 575m below surface in the Esrum Zone. The deposit is open along strike and at depth.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul style="list-style-type: none"> <li>Resource estimations were generated using standard 3D 'uniform block size' modelling techniques.</li> <li>The Ordinary Kriging interpolation technique was employed owing to the low coefficients of variation observed for sample composites for each domain area.</li> <li>Three separate block models were created - one each for the Beach, Esrum and Discovery Zones due to the large file sizes. Variable upper high grade Zinc cut-offs were applied to the 1m down-hole composite data set prior to carrying out interpolation.</li> <li>In Ravensgate's opinion a general level of cut-off at the 98th or 99th percentile level be implemented in conjunction with local domain statistics to help minimise the change of over-estimation of grades. Major, minor and down hole axis length for interpolation were obtained by using variograms. These vary depending on Zone.</li> <li>Higher Zn grade domains were restricted according to the probability statistics observed within each mineralisation domain. Generally the grade cut-off - distance restriction regime was applied to at the 98th or 99th percentile level.</li> <li>A composite length of 1m was used as it was deemed this length was short enough to honour the dimensions of geological and mineralisation domains being modelled. The composite subsequent data processing and statistical analysis, were carried out in MineSight Compass Software. Wireframe development was guided using a minimum true width of 2m.</li> <li>An approximate 'half of drill hole spacing' distance of influence approach was used for extrapolating.</li> <li>Block size was 10m x 10m with bench height of 1m.</li> <li>No assumptions behind modelling of selective mining units were made.</li> <li>No assumptions about correlation between variables was made.</li> <li>Zinc and Lead distribution within the defined domains is relatively predictable and mostly display low coefficients of variation (CV 0.4-1.0).</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>In Ravensgate's opinion, considering the relatively low coefficients of variations observed for the three main Citronen project areas that only minimal outlier treatment need be considered. Ravensgate used the 98-99th percentile level as the main starting point for the grade restriction implementation level. The restriction distance was also set as 60 to 80 metres depending on the drilling density available within any given mineralisation domain.</li> <li>Wardrop Consulting completed a resource estimate in 2007 and in 2008 an in-house resource was calculated by Ironbark. Ravensgate consultants were contracted in 2010 to calculate a resource to include the 2008, 2009 and 2010 drilling. Ravensgate were contracted again after the 2011 drilling was completed to provide a resource encompassing all drilling to date at the project. The resource estimates from 2007, 2008 and 2010 were used as check estimates against the 2012 Resource.</li> <li>No by-product recovery assumptions have been made.</li> <li>Deleterious elements have not been considered in the Resource Calculation based on the results from metallurgical testwork to date.</li> <li>The resource estimate was reviewed by two Competent Persons from Ravensgate and the block model cross-checked with the drilling data both by Ravensgate and in-house.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Bulk densities were based on dry tonnes.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>A 6.0% zinc cut off was used as the resource is being used in mine optimisation studies.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No specific assumptions were made about mining methods by Ravensgate whilst calculating the resource estimate, other than considering the use of standardised surface (Discovery Zone) and underground mining (Esrum &amp; Beach Zones) methods. Mining Plus consultants have proposed the room and pillar underground mining method to maximise recovery. Further information on mining methods can be found in Ironbark's Feasibility Study Update released 12 September 2017.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical testing has been carried out on Citronen drill core after the 2008, 2009, 2010 and 2011 drilling campaigns. The testwork has been conducted by Burnie Laboratories in Tasmania (now part of ALS Global). Ore processing will incorporate the following stages: primary &amp; secondary crushing, dense media separation, grinding and classification, flotation and concentrate thickening and filtration. Very high zinc flotation recoveries of 85% have been achieved.</li> <li>Further information on metallurgical and process testwork can be found in the Ironbark</li> </ul>



Criteria	JORC Code explanation	Commentary
		Feasibility Study Update released 12 September 2017.
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>A full Environmental Impact Assessment has been completed and submitted to the Government of Greenland. Environmental factors and management solutions are outlined in the Feasibility Study Report for Citronen released on the ASX on 29 April 2013.</li> <li>Tailings from the mine will be used as backfill underground or stored in an on-ground Tailings Storage Facility. Waste rock will be stored in a waste dump on surface. Environmental studies concluded that mine wastes will not significantly increase the levels of metals in the aquatic or terrestrial environment of the area.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>Ironbark conducted numerous empirical Specific Gravity (SG) measurements of drill core from a large range of different rock types and mineralisation styles from the deposit. Ironbark also examined statistical methods to calculate bulk density based on element assay and stoichiometric density. To calculate the bulk density in the deposit, Ironbark produced a theoretical density for each block in the model based upon the interpolated value of Fe, Pb and Zn and rock type coding. This approach is thought to be more accurate than using a constant density value for each domain. The interpolated densities for each block were calculated using a formula that utilised the Ordinary Kriged Fe, Pb and Zn values for that block. The formula assumes that all Zn is reporting to sphalerite (SG of 4.05), Pb to galena (SG of 7.4) and Fe to pyrite (SG of 5.01), with the remainder consisting of mudstone gangue (SG of 2.78).</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>The Citronen Resource was classified into Measured, Indicated &amp; Inferred categories using a mathematical calculation based on distance to the nearest composite and the number of composites used in each ore domain. The resource estimate calculated by a Competent Person of Ravensgate Consultants has adhered to the JORC (2004) guidelines and the resource estimate and all its working has been verified by another Competent Person. Both Competent Persons signed off on the resource calculation. The Resource calculation has not been recalculated since 2011 as no further drilling has been completed.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>A JORC compliant resource for Citronen was initially calculated in 2007 by Wardrop Consulting. In 2008 a JORC compliant in-house resource was calculated by Ironbark, then Ravensgate calculated a JORC compliant estimate in 2010 and 2011 to include the latest drilling. Each of these Resource Estimates and Reports have been extensively reviewed inhouse and the latest resource was reviewed by Mining</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<p>Plus Consultants to ensure its suitability for underground mining optimisation.</p> <ul style="list-style-type: none"> <li>Ravensgate have categorised the relative accuracy/confidence of the Citronen Resource as low risk and stated "The Citronen Project Area continues to be deemed to have potential for economic merit and possible larger scaled development. Further development work should be continued if possible in order to try to extend or increase the underlying resource base".</li> </ul>

# Annexure 1: Citronen Project Drill Hole Collar Locations & Significant Intercepts

HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF93-01	D	484447	9225037	161.40	360	-90	9.10	5.18	7.92	2.74	3.96	0.22
CF93-01A	D	484447	9225037	161.40	360	-90	78.30	4.90	30.60	25.70	3.49	0.73
								57.80	68.10	10.30	3.42	0.66
CF93-02	D	484124	9225070	101.40	360	-90	78.00	6.70	32.10	25.40	2.07	0.40
CF93-03	D	484180	9224900	80.92	22	-60	100.30	11.90	35.20	23.30	4.01	0.85
								<b>12.40</b>	<b>15.93</b>	<b>3.53</b>	<b>7.62</b>	<b>2.55</b>
CF93-04	D	484260	9224788	87.26	360	-90	75.90	28.80	30.40	1.60	2.50	0.80
CF93-05	D	484009	9225466	145.98	360	-90	91.40	55.57	63.95	8.38	4.28	0.35
CF93-06	D	483881	9225332	115.30	360	-90	91.10	52.30	53.40	1.10	5.40	0.23
CF93-07	D	484658	9224970	200.88	360	-90	91.10	9.44	30.52	21.08	2.75	0.43
CF93-08	D	484341	9225218	170.20	360	-90	91.10	3.62	14.00	10.38	4.65	1.47
								<b>3.62</b>	<b>6.92</b>	<b>3.30</b>	<b>9.49</b>	<b>3.81</b>
CF93-08A	D	484341	9225218	170.20	360	-90	18.50	Ineffective depth				
CF93-09	XX	483240	9225629	90.31	360	-90	101.40	Ineffective depth				
CF93-10B	B	482519	9227127	9.68	360	-90	227.70	80.43	88.51	8.08	5.07	0.29
								<b>83.57</b>	<b>86.23</b>	<b>2.66</b>	<b>10.93</b>	<b>0.46</b>
CF93-11	B	482319	9227206	12.68	360	-90	166.80	92.13	97.18	5.05	3.19	0.29
CF94-09	XX	483240	9225629	90.31	360	-90	116.00	56.00	57.00	1.00	1.11	0.08
CF94-12	NE	483170	9229870	8.14	360	-90	200.00	NSI				
CF94-13	NE	483100	9229690	5.78	360	-90	182.30	67.00	69.00	2.00	2.00	0.02
CF94-14	NE	483940	9231740	10.00	360	-90	140.00	NSI				
CF94-15	B	482376	9226832	28.81	360	-90	149.00	99.20	110.80	11.60	2.13	0.22
CF94-15B	B	482376	9226832	28.89	360	-90	221.00	103.60	111.30	7.70	2.03	0.21
CF94-16	NW	480580	9231840	122.50	360	-90	191.00	67.00	68.00	1.00	0.80	0.04
CF94-17	B	481803	9227808	3.06	360	-90	284.00	166.00	168.50	2.50	2.32	0.16
CF94-18	B	482176	9227044	44.89	360	-90	194.00	<b>178.20</b>	<b>178.80</b>	<b>0.60</b>	<b>9.70</b>	<b>0.24</b>
CF94-19	B	482050	9227299	25.12	360	-90	215.00	201.10	205.10	4.00	1.80	0.13
CF94-20	D	484450	9225477	278.85	360	-90	106.00	55.00	59.60	4.60	2.26	0.38
CF94-21	B	482226	9227502	6.95	360	-90	194.00	109.00	118.60	9.60	3.07	0.33
CF94-22	D	484662	9225249	267.76	360	-90	191.00	103.50	105.40	1.90	1.95	0.12
CF94-23	B	482533	9227447	7.99	360	-90	206.00	99.00	114.85	15.85	5.07	0.56
								<b>112.05</b>	<b>114.85</b>	<b>2.80</b>	<b>17.91</b>	<b>1.22</b>
CF94-24	D	484881	9225045	268.85	360	-90	178.00	130.00	133.00	3.00	1.68	0.23
CF94-25	D	484536	9224767	134.18	360	-90	86.00	NSI				
CF94-26	B	482789	9227309	18.53	360	-90	209.00	163.00	174.85	11.85	1.93	0.16
CF94-27	BS	483271	9226053	61.28	360	-90	212.00	173.00	176.00	3.00	1.60	0.39
CF94-28	B	482774	9227579	15.60	360	-90	179.00	137.00	138.00	1.00	0.62	0.04
CF94-29	D	483604	9225688	81.36	360	-90	122.00	58.00	65.00	7.00	2.26	0.09
CF94-30	E	481098	9228520	91.99	360	-90	212.00	210.00	211.00	1.00	1.12	0.07
CF94-31	B	482400	9227704	5.32	360	-90	221.00	124.80	134.05	9.25	5.37	0.51
								196.20	202.20	6.00	4.40	0.56
CF94-32	B	482641	9226883	14.82	360	-90	222.40	88.40	91.00	2.60	3.77	0.14
CF94-33	B	482118	9227802	6.23	360	-90	220.00	181.60	204.00	22.40	1.97	0.21
CF94-34	BS	482542	9226601	31.20	360	-90	308.00	215.00	216.80	1.80	2.50	0.47
CF94-35	B	482654	9227828	4.47	360	-90	272.00	230.00	234.55	4.55	4.41	0.35
CF94-36	BS	482553	9226327	51.01	360	-90	401.00	284.00	293.10	9.10	3.40	0.42
CF94-37	B	482326	9227953	3.04	360	-90	257.00	191.00	210.00	19.00	3.12	0.62
CF94-38	BS	482176	9226461	48.61	360	-90	365.00	337.00	340.00	3.00	2.45	0.23

HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF94-39	BS	483057	9225948	46.26	360	-90	275.00	122.00	123.00	1.00	1.14	0.05
CF94-40	B	482589	9227640	6.07	360	-90	240.50	207.50	221.00	13.50	3.09	0.31
CF94-41	XX	483113	9225600	66.44	360	-90	230.00	165.00	166.00	1.00	2.78	0.09
CF94-42	B	482466	9227907	3.77	360	-90	272.00	141.00	146.00	5.00	7.77	0.39
								184.00	198.00	14.00	4.90	0.75
							<b>including</b>	<b>186.50</b>	<b>193.50</b>	<b>7.00</b>	<b>7.31</b>	<b>1.27</b>
CF94-43	XX	483514	9225427	92.82	360	-90	227.00	93.25	103.00	9.75	7.69	0.18
CF94-44	B	482091	9228025	1.83	360	-90	245.00	176.00	185.00	9.00	3.80	0.31
							<b>including</b>	<b>180.50</b>	<b>183.75</b>	<b>3.25</b>	<b>8.17</b>	<b>0.60</b>
CF94-45	XX	483303	9225435	91.41	360	-90	287.00	NSI				
CF94-46	XX	483538	9225309	90.85	109	-61	197.00	NSI				
CF94-47	B	482234	9227685	5.82	360	-90	220.00	102.50	106.10	3.60	4.53	0.52
CF94-48	XX	483426	9225608	102.57	360	-90	158.00	70.80	74.60	3.80	2.23	0.22
CF94-49	B	482400	9227546	6.34	360	-90	218.00	105.00	126.15	21.15	4.95	0.47
							<b>including</b>	<b>116.90</b>	<b>124.15</b>	<b>7.25</b>	<b>9.10</b>	<b>1.02</b>
								177.85	189.00	11.15	4.25	0.21
CF94-50	B	482247	9228178	1.00	360	-90	245.00	172.55	195.20	22.65	2.63	0.17
							<b>including</b>	<b>174.05</b>	<b>178.12</b>	<b>4.07</b>	<b>6.69</b>	<b>0.28</b>
								210.00	223.00	13.00	2.45	0.61
CF94-51	B	482566	9228172	1.00	360	-90	286.00	153.00	157.30	4.30	4.99	0.30
CF94-52	B	481853	9228254	-0.72	360	-90	141.00	Ineffective depth				
CF94-53	B	481713	9227240	11.33	360	-90	263.00	239.50	240.60	1.10	2.00	0.09
CF95-52	B	481853	9228254	-0.69	360	-90	258.00	192.10	192.66	0.56	3.72	1.25
CF95-54	E	481660	9228610	0.00	360	-90	413.00	288.80	291.25	2.45	5.13	0.38
CF95-55	B	482477	9228519	0.00	360	-90	416.00	345.65	345.90	0.25	1.28	0.14
CF95-56	E	481400	9228270	1.00	360	-90	326.00	183.35	186.00	2.65	2.45	0.56
CF95-57	B	482125	9228428	1.00	360	-90	365.00	260.15	261.35	1.20	2.80	0.19
CF95-58	E	481480	9228970	1.00	360	-90	356.00	253.90	254.75	0.85	1.55	0.14
CF95-59	NW	480990	9229700	30.37	360	-90	338.00	274.10	274.65	0.55	2.00	0.16
CF95-60	E	481217	9227909	28.00	360	-90	238.00	173.00	181.30	8.30	1.51	0.24
CF95-61	B	482836	9228340	0.98	360	-90	356.00	248.52	249.27	0.75	7.60	0.47
CF95-62	E	481278	9227676	4.83	360	-90	233.00	177.00	183.50	6.50	4.12	0.58
CF95-63	B	481554	9228000	2.11	360	-90	188.00	128.80	131.00	2.20	3.97	0.47
CF95-64	B	481825	9228016	0.71	360	-90	223.00	172.80	174.00	1.20	2.51	0.39
CF95-65	B	481585	9227771	0.93	360	-90	212.00	168.00	168.00	1.00	0.99	0.12
CF95-66	E	480868	9228322	112.32	360	-90	393.50	263.62	267.02	3.40	2.68	0.53
CF95-67	E	481101	9228529	92.33	360	-90	437.00	278.00	306.60	28.60	2.95	0.63
CF95-68	E	480819	9228882	171.76	360	-90	467.00	426.22	426.85	0.63	3.94	0.15
CF95-69	E	481103	9228528	92.01	112	-57	384.50	302.90	321.50	18.60	1.85	0.51
CF95-70	E	480887	9228541	132.29	360	-90	390.00	293.00	298.90	5.90	2.63	0.62
CF95-71	E	480630	9229005	232.95	360	-90	317.00	Ineffective depth				
CF95-71B	E	480630	9229005	232.95	360	-90	469.50	NSI				
CF95-72	E	480678	9228524	156.42	360	-90	425.00	355.30	366.80	11.50	4.82	0.44
CF95-73	E	480564	9227688	131.96	360	-90	507.50	443.00	476.17	33.17	2.01	0.40
CF95-74	NW	480233	9230269	231.63	360	-90	513.50	466.00	467.00	1.00	0.77	0.05
CF95-75	E	480537	9228146	152.72	360	-90	442.00	383.00	399.05	16.05	5.19	0.55
							<b>including</b>	<b>390.00</b>	<b>395.15</b>	<b>5.15</b>	<b>7.59</b>	<b>0.61</b>
CF95-76	E	480488	9228379	187.25	360	-90	449.50	404.80	424.60	19.80	3.74	0.49
CF95-77	WG	478640	9232940	165.69	360	-90	201.00	145.00	148.00	3.00	1.28	0.10
CF95-78	E	480311	9228067	188.29	360	-90	494.00	451.90	462.54	10.64	4.34	0.29



HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF95-79	WG	477640	9232530	326.11	360	-90	437.00	250.92	253.15	2.23	2.06	0.08
CF95-80	E	480786	9227897	77.47	360	-90	329.00	280.57	285.20	4.63	3.97	0.45
CF95-81	E	480401	9228652	219.49	360	-90	509.00	459.00	460.13	1.13	2.59	0.25
CF95-82	WG	478900	9233070	120.01	360	-90	288.00	184.50	186.50	2.00	4.43	0.03
CF95-83	E	480782	9228143	116.21	360	-90	379.00	261.20	270.00	8.80	3.44	0.86
								333.98	340.45	6.47	4.08	0.26
CF95-84	WG	478470	9233220	140.00	360	-90	258.00	226.00	227.00	1.00	2.36	0.10
CF95-85	B	482456	9227318	8.72	360	-90	203.00	85.15	100.75	15.60	3.19	0.33
								<b>108.00</b>	<b>111.00</b>	<b>3.00</b>	<b>12.58</b>	<b>1.28</b>
CF95-86	B	482597	9227321	9.90	360	-90	320.00	152.50	165.75	13.25	2.20	0.27
CF96-87	B	482450	9227628	5.60	360	-90	219.00	128.46	137.10	8.64	6.57	0.56
								<b>128.46</b>	<b>131.26</b>	<b>2.80</b>	<b>13.90</b>	<b>1.12</b>
								177.97	192.00	14.03	3.38	0.27
CF96-88	B	482434	9227809	4.40	360	-90	259.00	131.60	137.22	5.62	6.76	1.62
								178.28	195.00	16.72	4.00	0.84
								<b>185.07</b>	<b>189.74</b>	<b>4.67</b>	<b>5.66</b>	<b>0.58</b>
								219.00	229.00	10.00	1.94	0.74
CF96-89	D	483910	9224933	67.93	360	-90	219.60	218.00	218.50	0.50	7.47	0.28
CF96-90	D	484318	9224948	123.16	360	-90	230.00	31.00	53.60	22.60	3.24	0.72
								37.80	44.00	6.20	5.35	1.18
CF96-91	D	484280	9225048	125.87	360	-90	92.00	16.00	20.00	4.00	2.52	4.31
CF96-92	D	484264	9225274	159.40	360	-90	65.30	NSI				
CF96-93	D	484073	9225199	113.29	360	-90	100.00	<b>18.20</b>	<b>38.00</b>	<b>19.80</b>	<b>9.58</b>	<b>0.04</b>
								82.00	87.00	5.00	7.18	0.02
CF96-94	D	484193	9224993	105.87	360	-90	93.00	5.50	39.00	33.50	2.87	0.54
CF96-95	SE	484593	9223985	96.82	360	-90	250.00	<b>95.55</b>	<b>97.30</b>	<b>1.75</b>	<b>14.00</b>	<b>0.30</b>
CF96-96	XX	483435	9225501	81.18	360	-90	155.00	<b>57.95</b>	<b>90.00</b>	<b>32.05</b>	<b>8.87</b>	<b>0.12</b>
								<b>68.20</b>	<b>76.75</b>	<b>8.55</b>	<b>19.02</b>	<b>0.05</b>
CF96-97	XX	483732	9225321	119.61	360	-90	125.00	<b>67.00</b>	<b>77.65</b>	<b>10.65</b>	<b>10.50</b>	<b>1.10</b>
								<b>74.29</b>	<b>75.79</b>	<b>1.50</b>	<b>24.00</b>	<b>0.18</b>
CF96-98	D	483880	9225286	107.41	360	-90	141.00	<b>40.00</b>	<b>43.02</b>	<b>3.02</b>	<b>9.55</b>	<b>0.33</b>
CF96-99	XX	483613	9225422	48.08	360	-90	103.50	NSI				
CF96-100	B	482436	9227419	7.57	360	-90	179.00	93.95	103.90	9.95	5.09	0.68
								<b>101.65</b>	<b>103.90</b>	<b>2.25</b>	<b>14.93</b>	<b>1.14</b>
								105.70	114.80	9.10	3.13	0.51
								159.00	179.00	20.00	2.52	0.30
								<b>172.00</b>	<b>174.00</b>	<b>2.00</b>	<b>4.63</b>	<b>0.39</b>
CF96-101	B	482505	9227529	7.07	360	-90	212.70	108.00	115.00	7.00	3.52	0.53
								<b>119.00</b>	<b>126.00</b>	<b>7.00</b>	<b>10.22</b>	<b>0.53</b>
								<b>121.65</b>	<b>125.00</b>	<b>3.35</b>	<b>19.17</b>	<b>0.95</b>
								181.00	191.37	10.37	5.26	0.28
CF96-102	XX	483352	9225584	104.50	360	-90	119.00	96.00	98.00	2.00	5.09	0.07
CF96-103	XX	483332	9225508	76.39	360	-90	131.00	NSI				
CF96-104	XX	483557	9225399	92.33	115	-60	131.00	NSI				
CF96-105	B	482420	9227222	10.03	360	-90	99.00	71.80	86.02	14.22	4.29	0.38
								<b>74.28</b>	<b>79.25</b>	<b>4.97</b>	<b>6.65</b>	<b>0.43</b>
CF96-106	XX	483496	9225351	92.90	360	-90	170.00	NSI				
CF96-107	XX	483505	9225500	82.46	360	-90	119.00	48.80	50.15	1.35	2.20	0.06
CF96-108	B	482340	9227304	9.59	360	-90	125.00	<b>80.65</b>	<b>102.55</b>	<b>21.90</b>	<b>6.68</b>	<b>2.81</b>
								<b>90.52</b>	<b>98.85</b>	<b>8.33</b>	<b>10.66</b>	<b>4.01</b>

HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF96-109	XX	483503	9225498	82.77	230	-62	146.00	138.00	139.00	1.00	4.71	0.16
CF96-110	XX	483437	9225426	84.90	40	-60	137.00	110.00	118.33	8.33	4.51	2.12
CF96-111	B	482244	9227337	9.21	360	-90	173.00	92.15	109.90	17.75	2.11	0.33
CF96-112	XX	483437	9225426	115.35	40	-45	130.00	101.00	102.00	1.00	3.11	0.05
CF96-113	B	482342	9227409	8.57	360	-90	134.00	94.05	117.00	22.95	3.86	0.65
	<i>including</i>							<b>98.68</b>	<b>101.32</b>	<b>2.64</b>	<b>10.79</b>	<b>0.99</b>
CF96-114	XX	483557	9225394	91.92	198	-77	143.00	NSI				
CF96-115	XX	483388	9225517	78.92	18	-73	127.00	87.45	93.10	5.65	5.63	0.02
CF96-116	XX	483388	9225516	78.81	360	-90	125.00	86.28	95.45	9.17	4.42	0.16
CF96-117	B	482322	9227123	22.04	360	-90	110.00	<b>84.00</b>	<b>88.28</b>	<b>4.28</b>	<b>7.91</b>	<b>0.64</b>
CF96-118	B	482342	9227623	6.68	360	-90	233.00	<b>113.73</b>	<b>117.70</b>	<b>3.97</b>	<b>9.18</b>	<b>1.11</b>
CF96-119	D	484051	9225207	110.92	360	-90	77.00	26.25	43.05	16.80	6.23	0.02
	<i>including</i>							<b>35.52</b>	<b>38.95</b>	<b>3.43</b>	<b>14.04</b>	<b>0.03</b>
CF96-120	D	484051	9225207	110.83	360	-90	146.00	28.08	46.00	17.92	4.97	0.03
	<i>including</i>							35.39	39.55	4.16	8.36	0.03
								<b>105.10</b>	<b>106.60</b>	<b>1.50</b>	<b>6.45</b>	<b>14.00</b>
CF96-121	D	484136	9225183	118.28	360	-90	125.00	108.28	111.80	3.52	6.25	0.49
CF96-122	B	482537	9227840	4.07	360	-90	278.00	143.00	151.06	8.06	6.75	0.34
								197.16	212.00	14.84	3.19	0.43
	<i>including</i>							<b>208.77</b>	<b>211.33</b>	<b>2.56</b>	<b>10.14</b>	<b>1.00</b>
CF96-123	D	483933	9225268	140.44	195	-75	150.00	71.00	75.00	4.00	4.58	0.37
CF96-124	XX	483637	9225369	52.34	360	-90	109.00	NSI				
CF96-125	B	482565	9228015	2.70	360	-90	260.00	<b>160.82</b>	<b>162.02</b>	<b>1.20</b>	<b>8.80</b>	<b>0.36</b>
CF96-126	B	482409	9227064	24.69	360	-90	89.00	76.85	81.95	5.10	4.55	0.89
CF96-127	B	482317	9227016	44.35	360	-90	155.00	136.14	139.24	3.10	7.50	0.58
CF96-128	B	482505	9227732	4.93	360	-90	227.00	<b>133.00</b>	<b>140.80</b>	<b>7.80</b>	<b>9.37</b>	<b>0.50</b>
	<i>including</i>							<b>139.13</b>	<b>140.80</b>	<b>1.67</b>	<b>22.72</b>	<b>0.92</b>
CF97-129	B	482246	9226963	44.61	360	-90	179.00	151.08	156.1	5.02	4.83	0.68
								<b>160.72</b>	<b>162.90</b>	<b>2.18</b>	<b>10.50</b>	<b>3.87</b>
CF97-130	B	482206	9227138	41.80	60	-75	158.00	125.00	130.20	5.20	4.02	0.25
CF97-131	B	482262	9226862	45.73	360	-90	236.00	144.82	149.45	4.63	2.77	0.49
CF97-132	B	482597	9227515	7.24	360	-90	170.00	169.00	170.00	1.00	4.24	0.98
CF97-133	B	482167	9226901	47.33	360	-90	215.00	172.00	176.00	4.00	3.78	0.18
CF97-134	B	482546	9227927	3.53	360	-90	264.00	149.00	157.13	8.13	5.23	0.27
	<i>including</i>							<b>153.65</b>	<b>156.31</b>	<b>2.66</b>	<b>11.06</b>	<b>0.55</b>
								210.13	217.81	7.68	4.42	0.84
CF97-135	B	482180	9226790	47.07	85	-85	203.00	154.66	158.00	3.34	3.02	0.25
CF97-136	B	482453	9228045	2.71	360	-90	279.00	148.50	153.74	5.24	7.73	0.35
CF97-137	B	482261	9227248	14.11	264	-75	149.00	98.30	104.32	6.02	7.38	0.39
	<i>including</i>							<b>99.24</b>	<b>101.00</b>	<b>1.76</b>	<b>15.61</b>	<b>0.73</b>
CF97-138	B	482179	9227414	9.55	360	-90	130.00	92.15	99.66	7.51	5.57	0.88
	<i>including</i>							<b>93.80</b>	<b>95.80</b>	<b>2.00</b>	<b>11.96</b>	<b>1.52</b>
								102.25	108.81	6.56	5.83	0.39
CF97-139	B	482475	9228174	1.51	360	-90	179.00	147.60	158.30	10.70	7.29	0.33
	<i>including</i>							<b>147.60</b>	<b>150.10</b>	<b>2.50</b>	<b>17.10</b>	<b>0.67</b>
CF97-140	B	482125	9227519	8.38	360	-90	229.30	185.50	193.00	7.50	2.63	0.35
CF97-141	B	482253	9227592	6.54	360	-90	213.65	98.00	104.44	6.44	4.84	0.96
CF97-142	B	482337	9227775	4.60	360	-90	245.00	<b>131.90</b>	<b>133.05</b>	<b>1.15</b>	<b>21.50</b>	<b>2.60</b>
CF97-143	B	482470	9228283	1.00	360	-90	266.00	235.68	237.11	1.43	4.00	0.10
CF08-144	BS	483044	9226369	20.30	360	-90	251.00	206.25	208.20	1.95	3.18	0.21

HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF08-144A	BS	483043	9226366	20.30	360	-90	47.50	Ineffective depth				
CF08-145	NE	483282	9229486	13.87	360	-90	459.00	373.72	375.70	1.98	6.95	0.38
CF08-146	NW	481150	9231550	16.52	360	-90	359.00	108.00	109.20	1.20	4.37	0.40
CF08-147	BS	482459	9226119	54.97	360	-90	422.30	276.05	286.45	10.40	3.61	0.59
CF08-148	BS	482501	9225770	61.12	60	-60	404.00	296.00	303.80	7.80	2.13	0.20
CF08-149	NE	483464	9228605	44.04	360	-90	468.00	317.35	323.90	6.55	7.67	0.39
	<i>including</i>							<b>317.35</b>	<b>320.80</b>	<b>3.45</b>	<b>10.78</b>	<b>0.40</b>
CF08-150	BS	482353	9226324	50.65	360	-90	451.00	334.60	342.20	7.60	4.56	0.59
CF08-151	NE	483663	9228919	83.40	360	-90	351.00	22.75	23.45	0.70	2.39	0.01
CF08-152	NE	483548	9228388	48.69	360	-90	338.00	306.00	308.00	2.00	3.56	0.43
CF08-153	D	483928	9225742	123.81	360	-90	116.40	14.00	23.10	9.10	5.16	0.12
CF08-153A	D	483930	9225733	123.93	360	-90	194.40	14.00	23.00	9.00	5.92	0.03
	<i>including</i>							<b>15.00</b>	<b>18.00</b>	<b>3.00</b>	<b>8.97</b>	<b>0.04</b>
CF08-154	D	483702	9226240	95.96	360	-90	262.70	110.00	113.00	3.00	1.32	0.08
CF08-155	B	483403	9227135	77.48	360	-90	267.00	117.00	123.00	6.00	2.83	0.10
CF08-156	D	484272	9224692	80.29	360	-90	257.40	24.00	29.60	5.60	1.16	0.18
CF08-157	E	480907	9227444	37.09	360	-90	365.00	338.90	341.40	2.50	2.15	0.27
CF08-158	D	484165	9224735	65.45	360	-90	53.00	26.20	29.30	3.10	1.71	0.17
CF08-159	D	484082	9224828	58.47	360	-90	48.40	29.00	32.00	3.00	2.29	0.18
CF08-160	D	484079	9224937	63.40	360	-90	44.00	4.90	24.45	19.55	3.47	0.70
	<i>including</i>							<b>11.70</b>	<b>16.00</b>	<b>4.30</b>	<b>7.51</b>	<b>0.53</b>
CF08-161	E	480598	9227423	132.85	360	-90	332.00	Ineffective depth				
CF08-161A	E	480598	9227423	132.86	360	-90	449.00	430.70	431.30	0.60	5.63	0.07
CF08-162	D	484006	9225010	60.12	360	-90	44.40	29.35	40.10	10.75	4.50	0.52
CF08-163	D	484211	9224835	81.02	360	-90	47.40	22.00	31.00	9.00	2.02	0.36
CF08-164	D	484387	9224854	117.63	360	-90	45.10	38.80	39.80	1.00	3.11	0.27
CF08-165	D	484413	9224960	147.61	360	-90	46.00	<b>2.50</b>	<b>10.40</b>	<b>7.90</b>	<b>5.63</b>	<b>3.46</b>
	<i>including</i>							<b>2.50</b>	<b>4.30</b>	<b>1.80</b>	<b>8.82</b>	<b>11.85</b>
CF08-166	BS	482348	9226689	31.55	360	-90	228.60	NSI				
CF08-166A	BS	482354	9226689	31.55	360	-90	80.00	NSI				
CF08-167	E	480455	9227901	148.32	360	-90	440.00	394.60	409.25	14.65	3.81	0.27
CF08-168	D	484222	9225154	128.47	360	-90	109.50	70.07	71.72	1.65	3.28	0.02
CF08-169	E	480290	9227792	168.37	360	-90	485.00	483.35	485.00	1.65	3.56	1.23
CF08-170	D	484553	9225008	175.67	360	-90	18.00	Ineffective depth				
CF08-170A	D	484553	9225008	175.73	360	-90	97.00	17.90	37.00	19.10	4.35	0.84
CF08-171	E	480351	9227590	148.41	360	-90	579.40	528.40	548.55	20.15	1.87	0.30
CF08-172	D	484827	9224833	205.21	360	-90	209.90	205.05	207.50	2.45	0.91	0.10
CF08-173	E	480178	9227644	175.93	360	-90	605.00	546.85	554.50	7.65	2.25	0.58
CF08-174	SE	484905	9223940	105.00	20	-89	236.00	98.20	98.70	0.50	0.96	0.02
CF08-175	BS	482468	9226119	55.12	90	-60	423.63	267.52	281.81	14.29	3.64	0.45
	<i>including</i>							<b>272.50</b>	<b>280.03</b>	<b>7.53</b>	<b>4.63</b>	<b>0.40</b>
CF08-176	B	482467	9226974	38.97	90	-65	92.00	88.60	92.00	3.40	7.49	0.83
CF08-177	B	482465	9226973	38.96	90	-80	128.00	89.35	102.28	12.93	4.49	0.55
CF08-178	BS	482424	9225931	57.43	360	-90	409.00	376.30	380.00	3.70	7.21	0.79
CF08-179	BS	482400	9226413	48.68	15	-75	310.55	293.00	299.37	6.37	3.71	0.68
CF08-180	BS	482461	9225774	60.05	360	-90	255.00	Ineffective depth				
CF08-181	BS	482289	9226147	52.63	360	-90	396.00	391.00	394.00	3.00	4.02	0.09
CF09-182	B	482441	9226925	39.83	360	-90	114.00	<b>93.75</b>	<b>98.00</b>	<b>4.25</b>	<b>11.07</b>	<b>0.86</b>

HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF09-183	B	482439	9226923	40.10	100	-70	117.00	<b>94.55</b>	<b>99.00</b>	<b>4.45</b>	<b>11.29</b>	<b>1.17</b>
CF09-184	B	482402	9226915	39.13	360	-90	117.00	102.00	105.00	3.00	6.60	0.51
CF09-185	B	482421	9226908	39.55	180	-70	120.00	<b>98.30</b>	<b>105.00</b>	<b>6.70</b>	<b>8.27</b>	<b>0.92</b>
CF09-186	B	482418	9226981	38.66	360	-90	120.00	99.00	113.00	14.00	4.48	0.61
CF09-187	B	482440	9226985	38.81	30	-70	129.00	111.00	117.00	6.00	7.46	0.67
CF09-188	B	482371	9226972	36.76	360	-90	129.00	102.50	109.00	6.50	4.46	0.32
CF09-189	B	482429	9226822	28.43	360	-90	105.00	89.50	96.50	7.00	3.46	0.33
CF09-190	B	482482	9226776	28.40	360	-90	117.00	89.20	99.00	9.80	2.28	0.32
CF09-191	B	482476	9226849	27.57	360	-90	105.00	76.50	82.80	6.30	7.66	0.76
CF09-192	B	482508	9226853	26.56	30	-70	84.00	66.50	71.00	4.50	5.70	0.63
CF09-193	B	482521	9226827	27.20	360	-90	78.00	58.40	71.00	12.60	4.95	0.73
CF09-194	B	482581	9226900	16.58	360	-90	61.50	42.00	47.00	5.00	3.69	0.33
CF09-195	B	482577	9226945	15.77	270	-70	72.00	43.00	49.00	6.00	3.84	0.42
CF09-196	B	482553	9227018	11.13	360	-90	66.50	22.10	26.00	3.90	2.92	0.22
CF09-197	B	482470	9227058	23.01	360	-90	87.00	49.50	57.00	7.50	4.20	0.58
CF09-198	B	482378	9227102	21.82	360	-90	99.00	77.00	80.10	3.10	7.87	0.63
CF09-199	B	482402	9227150	15.30	360	-90	102.00	75.00	81.50	6.50	3.70	0.20
CF09-200	B	482357	9227167	15.10	360	-90	102.00	82.85	85.85	3.00	7.66	0.51
CF09-201	B	482290	9227203	14.50	180	-70	114.00	<b>89.00</b>	<b>93.00</b>	<b>4.00</b>	<b>9.38</b>	<b>0.59</b>
CF09-202	B	482272	9227216	14.06	220	-70	117.00	96.00	102.00	6.00	7.57	0.41
	<i>including</i>							<b>96.00</b>	<b>99.00</b>	<b>3.00</b>	<b>12.10</b>	<b>0.65</b>
CF09-203	B	482455	9227175	10.23	360	-90	90.00	59.10	61.40	2.30	5.32	0.38
CF09-204	B	482425	9227221	9.83	360	-90	99.00	76.05	77.70	1.65	4.20	0.21
CF10-205	B	481991	9228098	0.25	360	-90	198.00	165.50	167.50	2.00	3.27	0.21
CF10-206	B	482530	9228100	1.95	360	-90	240.00	157.00	164.00	7.00	5.40	0.27
CF10-207	B	482625	9227890	3.78	360	-90	195.25	NSI				
CF10-208	NE	483435	9228730	26.56	360	-90	339.70	NSI				
CF10-209	B	482595	9227780	4.98	360	-90	171.00	NSI				
CF10-210	B	482475	9227750	4.98	360	-90	159.00	<b>130.00</b>	<b>135.00</b>	<b>5.00</b>	<b>11.67</b>	<b>0.53</b>
CF10-211	B	482500	9227675	5.62	360	-90	228.00	<b>132.00</b>	<b>137.50</b>	<b>5.50</b>	<b>14.05</b>	<b>0.70</b>
								192.00	201.00	9.00	5.74	0.36
CF10-212	B	482530	9227600	6.81	360	-90	231.00	198.00	203.00	5.00	4.02	2.62
CF10-213	B	482500	9227645	6.00	360	-90	219.00	<b>130.50</b>	<b>137.50</b>	<b>7.00</b>	<b>11.56</b>	<b>0.55</b>
	<i>including</i>							<b>133.50</b>	<b>137.00</b>	<b>3.50</b>	<b>18.97</b>	<b>0.85</b>
								191.50	199.00	7.50	5.51	0.42
CF10-214	B	482520	9227370	8.00	360	-90	125.05	96.00	109.00	13.00	6.63	0.70
	<i>including</i>							<b>102.00</b>	<b>105.00</b>	<b>3.00</b>	<b>18.83</b>	<b>1.58</b>
CF10-215	B	482400	9227600	6.16	360	-90	222.00	121.50	132.00	10.50	8.86	0.65
	<i>including</i>							<b>122.00</b>	<b>127.00</b>	<b>5.00</b>	<b>13.49</b>	<b>0.74</b>
CF10-216	B	482430	9227365	8.18	265	-77	194.70	89.00	102.00	13.00	4.80	0.47
	<i>including</i>							<b>96.00</b>	<b>99.00</b>	<b>4.00</b>	<b>13.41</b>	<b>0.74</b>
CF10-217	B	482430	9227490	6.82	360	-90	147.00	107.00	121.50	14.50	6.12	0.66
	<i>including</i>							<b>113.00</b>	<b>116.00</b>	<b>3.00</b>	<b>11.52</b>	<b>1.20</b>
CF10-218A	B	482468	9227852	4.15	360	-90	69.00	Ineffective depth				
CF10-218B	B	482466	9227846	4.19	360	-90	261.00	134.50	142.00	7.50	4.67	0.31
	<i>including</i>							<b>134.50</b>	<b>137.50</b>	<b>3.00</b>	<b>8.08</b>	<b>0.43</b>
								184.00	194.00	10.00	4.28	0.56
CF10-219	B	482480	9227568	6.00	270	-72	59.00	Ineffective depth				
CF10-220A	B	482590	9227380	7.57	270	-80	33.00	Ineffective depth				



HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF10-220B	B	482594	9227386	8.56	270	-80	218.10	169.25	172.85	3.60	4.05	0.29
CF10-221	B	482420	9227960	3.09	360	-90	258.00	131.00	139.00	8.00	5.12	0.25
	<i>including</i>							<b>137.00</b>	<b>139.00</b>	<b>2.00</b>	<b>12.39</b>	<b>0.56</b>
								184.00	196.50	12.50	5.41	0.81
								233.00	249.50	16.50	2.93	0.35
CF10-222	B	482470	9228110	2.00	360	-90	279.00	<b>155.00</b>	<b>158.00</b>	<b>3.00</b>	<b>10.14</b>	<b>0.42</b>
								260.60	264.70	4.10	6.17	0.29
CF10-223	B	482505	9227980	3.00	360	-90	272.40	145.00	153.00	8.00	5.64	0.22
	<i>including</i>							<b>151.00</b>	<b>153.00</b>	<b>2.00</b>	<b>12.33</b>	<b>0.37</b>
CF10-224	B	482631	9227022	11.22	360	-90	59.00	Ineffective depth				
CF10-225	B	482390	9228015	2.74	360	-90	258.00	186.55	195.00	8.45	4.05	0.55
								237.00	243.00	6.00	4.25	0.30
CF10-226	B	482380	9228100	1.90	360	-90	162.80	Ineffective depth				
CF10-227	B	482597	9227957	3.35	360	-90	276.00	225.40	230.50	5.10	6.78	0.90
CF10-228	B	482510	9228046	2.70	360	-90	246.00	<b>149.00</b>	<b>157.00</b>	<b>8.00</b>	<b>7.56</b>	<b>2.72</b>
	<i>including</i>							<b>154.50</b>	<b>157.00</b>	<b>2.50</b>	<b>13.99</b>	<b>0.52</b>
CF10-229	B	482352	9227354	9.14	360	-90	184.20	97.00	115.50	18.50	4.73	0.69
CF10-230	D	484013	9224943	56.79	360	-90	57.00	21.40	24.50	3.10	3.33	0.61
CF10-231	D	483951	9225113	60.88	90	-70	65.00	NSI				
CF10-232	XX	483811	9225347	102.64	180	-70	122.00	NSI				
CF10-233	D	484105	9225309	135.87	360	-90	128.00	NSI				
CF10-234	D	484307	9225252	167.13	360	-90	71.00	NSI				
CF10-235	D	484307	9225252	167.09	45	-70	65.00	NSI				
CF10-236	D	484171	9225111	114.20	10	-70	89.15	NSI				
CF10-237	D	484226	9225017	113.78	360	-90	44.00	7.00	24.00	17.00	1.99	0.48
								28.00	40.00	12.00	2.56	0.65
CF10-238	D	484349	9225160	156.45	304	-70.8	47.00	10.20	11.20	1.00	3.16	1.81
CF10-239	D	484348	9225160	156.46	350	-70	44.00	6.00	7.00	1.00	3.23	0.47
CF10-240	D	484632	9224904	188.53	360	-90	71.00	2.70	13.00	10.30	4.42	0.79
								4.30	8.00	3.70	7.49	0.85
CF10-241	D	484632	9224904	188.55	135	-70	92.00	3.70	19.00	15.30	3.72	0.63
CF10-242A	D	484690	9224952	207.81	44	-70	50.65	10.50	29.00	18.50	4.11	1.22
CF10-243	D	484690	9224952	207.74	360	-90	39.70	11.20	31.00	19.80	4.04	0.73
CF10-244	D	484674	9225115	246.83	360	-90	63.00	Ineffective depth				
CF10-245A	E	480944	9227833	56.31	360	-90	188.00	Ineffective depth				
CF10-245B	E	480951	9227829	55.78	360	-90	302.00	241.00	243.00	2.00	7.41	0.44
CF10-246	E	480561	9227844	140.50	360	-90	440.00	378.00	405.50	27.50	2.82	0.77
	<i>including</i>							<b>400.50</b>	<b>402.50</b>	<b>2.00</b>	<b>10.37</b>	<b>2.80</b>
CF10-247	SE	485246	9224288	167.96	225	-70	285.00	241.50	242.00	0.50	5.39	-
CF10-248	XX	483418	9225510	79.72	360	-90	122.00	92.00	97.00	5.00	5.06	0.16
CF10-249	XX	483418	9225510	79.75	45	-70	122.40	<b>58.30</b>	<b>60.30</b>	<b>2.00</b>	<b>20.71</b>	<b>0.10</b>
								<b>69.50</b>	<b>98.00</b>	<b>28.50</b>	<b>12.84</b>	<b>0.07</b>
	<i>including</i>							<b>69.50</b>	<b>84.50</b>	<b>15.00</b>	<b>20.23</b>	<b>0.03</b>
CF10-250	B	482349	9227356	8.99	360	-90	126.00	87.30	106.00	18.70	4.36	0.97
	<i>including</i>							<b>98.30</b>	<b>103.15</b>	<b>4.85</b>	<b>6.76</b>	<b>2.23</b>
CF10-251	B	482284	9227415	8.38	360	-90	165.00	90.00	112.00	22.00	3.21	0.33
	<i>including</i>							93.50	67.00	3.50	6.12	0.55

HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF10-252	B	482272	9227379	8.31	360	-90	198.20	91.50	115.50	24.00	2.84	0.30
CF10-253	B	482323	9227530	7.70	360	-90	240.00	103.20	109.00	5.80	7.49	0.55
								166.00	179.00	13.00	3.07	0.22
							<i>including</i>	169.50	175.00	5.50	5.27	0.71
CF10-254	B	482370	9227251	9.88	360	-90	165.00	70.00	92.00	22.00	3.45	0.80
							<i>including</i>	71.00	74.00	3.00	5.38	1.17
							<i>and</i>	87.00	92.00	4.00	4.64	1.62
CF10-255	B	482370	9227251	9.90	216	-70	180.00	77.40	90.00	12.60	5.35	0.58
							<i>including</i>	84.00	88.00	4.00	9.67	1.07
CF10-256	B	482375	9227317	9.48	360	-90	165.00	80.00	104.50	24.50	6.44	2.00
	B						<i>including</i>	94.00	104.00	10.00	10.80	3.41
CF10-257	B	482253	9227230	14.12	240	-70	185.00	101.00	107.00	6.00	6.17	0.29
CF10-258	B	482167	9227242	26.22	360	-90	211.50	119.85	123.35	3.50	3.84	0.23
CF10-259	B	482001	9227346	23.54	360	-90	51.00	Ineffective depth				
CF10-260	BS	482375	9226053	54.56	360	-90	362.00	347.00	350.00	3.00	4.38	0.30
CF10-261	BS	482526	9226443	49.12	360	-90	326.00	313.30	318.00	4.70	5.28	0.26
CF10-262	B	481668	9227519	5.78	360	-90	27.00	Ineffective depth				
CF10-263A	BS	482410	9226405	49.15	360	-90	52.00	Ineffective depth				
CF10-263B	BS	482410	9226405	49.16	360	-90	336.00	303.50	314.00	10.50	3.68	0.83
CF10-264	BS	482417	9226239	52.53	360	-90	372.00	312.40	320.00	7.60	4.72	1.05
CF10-265	BS	482487	9226285	51.67	360	-90	373.20	307.00	312.50	5.50	6.89	1.04
CF10-266	BS	482673	9226392	49.56	360	-90	297.00	259.50	260.25	12.10	4.38	0.61
CF10-267A	BS	482659	9226292	51.42	360	-90	55.00	Ineffective depth				
CF10-267B	BS	482662	9226293	51.35	360	-90	282.00	NSI				
CF10-268	BS	482621	9226472	48.38	360	-90	63.00	Ineffective depth				
CF10-269	BS	482455	9226349	50.54	360	-90	327.00	296.00	308.00	12.00	2.50	0.61
CF10-270	XX	483406	9225468	81.69	52	-70	134.00	100.50	105.60	5.10	3.82	0.23
CF10-271	XX	483454	9225527	78.98	225	-70	39.00	Ineffective depth				
CF10-271A	XX	483454	9225527	78.98	225	-75	137.00	61.00	95.00	34.00	9.09	0.39
							<i>including</i>	61.00	81.00	20.00	14.10	0.24
CF10-272	XX	483338	9225562	74.40	200	-75	152.00	119.50	121.00	1.50	3.69	0.14
CF10-273	BS	482640	9225864	50.94	360	-90	358.25	266.00	267.50	1.50	5.74	0.46
CF10-274	BS	482541	9225943	49.59	360	-90	326.00	300.00	303.00	3.00	3.48	0.20
CF10-275	D	484451	9224906	146.92	360	-90	90.00	55.60	59.60	4.00	1.94	0.82
CF10-276	D	484748	9224863	201.00	360	-90	104.00	3.80	19.00	15.20	2.21	0.35
CF10-277	SE	485192	9224749	288.01	360	-90	260.00	237.00	252.50	15.50	2.23	0.40
CF10-278	SE	484966	9224528	180.22	360	-90	278.00	222.00	225.00	3.00	1.91	0.17
CF10-279	SE	484806	9224258	115.19	360	-90	24.00	Ineffective depth				
CF10-280	SE	484829	9224251	118.32	360	-90	300.00	160.75	163.00	2.25	2.73	0.61
CF10-281	BS	482342	9226231	52.30	360	-90	282.00	Ineffective depth				
CF10-282	BS	482476	9226038	54.99	360	-90	242.00	158.00	159.00	1.00	1.89	0.13
CF10-283	BS	482509	9226202	53.26	360	-90	170.00	Ineffective depth				
CF10-283B	BS	482510	9226205	53.24	360	-90	279.00	245.00	255.55	10.55	4.13	0.57
CF10-284	BS	482467	9226050	55.35	360	-90	323.00	297.00	304.50	7.50	3.10	0.51
CF10-285	BS	482383	9226139	53.76	360	-90	330.00	304.20	309.00	4.80	5.20	0.45
CF10-286	BS	482396	9225986	56.52	360	-90	397.70	369.00	370.00	1.00	5.39	0.49

HoleID	Zone	Easting	Northing	RL	Azi	Dip	EOH (m)	From (m)	To (m)	Width (m)	Zn%	Pb%
CF10-287	BS	482289	9226230	51.24	360	-90	385.00	356.50	359.00	2.50	3.40	1.45
CF10-288	BS	482500	9225855	62.00	360	-90	347.50	327.50	340.50	13.00	1.51	0.11
CF10-289	BS	482632	9226526	33.46	225	-80	295.60	258.65	266.50	7.85	2.40	0.41
CF11-290	BS	482460	9225774	47.00	85.7	-80.3	383.30	338.50	343.50	5.00	3.23	0.23
CF11-291	BS	482333	9226524	49.00	360	-90	303.00	283.50	288.05	4.55	7.10	0.59
	<i>including</i>							<b>283.50</b>	<b>285.00</b>	<b>1.50</b>	<b>16.39</b>	<b>1.22</b>
CF11-292	B	482147	9227342	43.00	360	-90	140.00	114.00	121.70	7.70	7.01	0.51
CF11-293	E	480361	9228317	206.27	360	-90	497.00	448.00	460.10	12.10	2.87	0.20
CF11-294	E	480702	9228292	138.25	290	-84.2	401.00	349.30	358.80	9.50	5.27	0.90
	<i>including</i>							<b>349.30</b>	<b>353.00</b>	<b>3.70</b>	<b>10.26</b>	-
CF11-295	BS	482275	9226610	51.00	54.2	-72.7	314.00	297.00	304.75	7.75	3.05	0.19
CF11-296	E	480566	9228662	178.78	187	-89	460.00	404.35	416.70	12.35	3.08	0.27
CF11-297	E	480542	9228966	231.25	360	-90	545.00	503.90	504.55	0.65	5.42	0.25

#### Hole Prefix

CF93-	Holes drilled in 1993
CF94-	Holes drilled in 1994
CF95-	Holes drilled in 1995
CF96-	Holes drilled in 1996
CF97-	Holes drilled in 1997
CF08-	Holes drilled in 2008
CF09-	Holes drilled in 2009
CF10-	Holes drilled in 2010
CF-11	Holes drilled in 2011
<b>NSI</b>	No Significant Intercept

#### Zone

E	Esrum
B	Beach
BS	Beach South
D	Discovery
XX	XX Zone
SE	Southeast
NE	Northeast
WG	Western Gossans

Co-ordinates: UTM Zone 26N WGS84

