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Company Announcements Office
Australian Securities Exchange

Yangibana Mineral Resource Report 2019

The attached Yangibana Mineral Resource Report 2019 has been lodged with the ASX to support tenement applications in Western Australia as required by the Government of Western Australia Department of Mines, Industry Regulation and Safety.

The information in this report has previously been announced to the market – See ASX announcement dated 31 October 2019.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 31 October 2019 and, in the case of mineral resources or ore reserves, all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.

This announcement has been approved by the Board.

Guy Robertson
Company Secretary



YANGIBANA PROJECT MINERAL RESOURCE REPORT 2019

Abstract

Mineral Resource update on the Yangibana project deposits, Bald Hill, Frasers, Auer
(including Auer North) Yangibana and Yangibana North.

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1 Resource Estimation

Mineral Resources detailed below are quoted inclusive of any Mineral Reserves.

1.1 General comments common to all deposits within the Yangibana project

All mineral resources were created with the same panel size of 10m x 10m x 5m. This size was chosen as a compromise between the average drill spacing (up to 40m x 40m in some detail areas), size of the mineralisation wireframes (in order to limit resulting low mineralised proportions), orientation of mineralisation (ideally the panels would have been orientated with the mineralisation however this results in a model that is unusable for pit optimisation purposes) and the models ultimate use for mine planning.

The drilling data supplied by Hastings was limited to selected assay intervals with large sections of the drilling unsampled. In order to create a dataset that was appropriate for mineral resource estimation the unsampled zones within the drilling were replaced with zero values. In a limited number of instances, for geological consistency, the mineralised envelopes were carried through areas within drill holes that had not been sampled. In these cases the minimum thickness of intercept was assumed to be 2m and, in common with the rest of the drilling, these intervals were assumed to be at zero grade.

In a limited number of cases where the assay values did not meet the TREO cut off grade criteria for wireframing assessment of the mineralisation was undertaken using elevated Fe values. This was done to enable a consistent mineralised envelope with the low TREO (and other element) values incorporated. In general these areas are of limited extent.

Following the review of the original Yangibana mineral resource estimates, based on an elevated Nd + Pr cut off, a decision was taken to re-wireframe all of the deposits that contained ore reserves using a TREO cut-off grade in order to improve the geological and grade consistency of the modelled wireframes. In this instance a TREO grade of approximately 0.18% was chosen for the wireframing value as this was considered to represent the transition between consistently mineralised and non mineralised material. In cases where a lower grade was adjacent to significantly higher grades the lower grade interval was incorporated into the wireframe as these were constructed around the final 1m composites rather than the original selective sampling.

Within this document element values are stated as the oxide equivalent irrespective of whether the oxide formula is stated i.e. Nd and Nd₂O₃ both refer to Neodymium Oxide.

1.2 QAQC

In general, and when taken in total, the QAQC regime executed by Hastings has provided reasonable support for the accuracy and precision of the assay results underpinning the mineral resource estimate. Whilst there is evidence of some degree of assay bias in the results of the individual certified standards employed during the drilling programmes the biases are not considered to be significant particularly when all of the standards and elements are considered. It is more likely that the assay method chosen by Hastings is not fully compatible with that used to provide the original certification

results with the consequence that the individual assays report marginally higher or lower than expected. It should be noted that the vast majority of results for standards remain within the normal control limits of 2SD despite any perceived individual bias. It should be noted that standard GRE-01 appears to have failed 11 out of the 50 certifying analyses suggesting either an issue with the standard itself or that one of the certifying analytical methods was inappropriate for the material, potentially the one used by Hastings.

The lower than targeted number of standards, blanks and duplicates analysed – approximately one in thirty drill samples rather than one in twenty – is not unexpected. It is recommended that for future drilling programmes Hastings should focus on ensuring that the one in twenty target is more closely adhered to. It is not believed that the shortfall in analysed quality control samples has impacted the overall QAQC programme.

It is highly recommended that Hastings move away from using surplus 'non mineralised' material from drill hole programs as quality control blank samples. Analysis of this material to date has shown that it may contain varying amounts of mineralisation which then impacts on its use as a 'blank' value. Whilst there may be some merit in having a blank that is in effect matrix matched to the mineralised samples it is of far greater value to have material that is genuinely blank. It is suggested that some form of coarse crushed road base or quartz be used in the future. Provided the material is truly blank it can be used to both identify cross contamination in sample preparation and any sample swaps throughout the laboratory process.

Should additional samples be sent away for umpire analysis it is strongly suggested that certified reference material also be included in the assay batch in order to provide confirmation of the relative accuracy of the duplicated results. The work completed by Hastings to date provides half of the answer (can the samples be repeated with a reasonable degree of accuracy) but make no comment on the absolute difference in value between the samples. All that can be said is that, on average, one laboratory is higher than the other, not which one is more accurate to the 'real' value.

It is highly recommended that the quality control samples be scrutinised as soon as they are received in order to enable timely resolution of any quality control issues. In circumstances where certified standards return results that are greater than 2SD from the mean value the samples preceding and following the standard should be re-analysed immediately in order to resolve the out of control range issue. The same applies for blanks (returning high values) and duplicates that do not appear to match their original value. Given that the out of range samples have been identified in this document it is recommended that the re-analysis work is completed in the near future in order to confirm the performance of the analytical process.

Sample duplicate performance appears reasonable with regard to precision however there is an indication that the duplicate samples may be biased low. This is possibly as a result of differences between the collection of the duplicate sample and the original. It is suggested that, when the next drilling program is undertaken, additional emphasis is placed on confirming that both samples are taken in a similar manner and that sampling protocols on the drill rig are rigorous

Full details of the QAQC regime employed by Hastings can be found in the following document - YGB-00-000-EXP-DRL-REP-0001_revB.docx

1.3 Indicator Kriging for Mineral Resource Estimation

The MIK method was developed in the early 1980's with a view toward addressing some of the problems associated with estimation of mineral resources in mineral deposits. These problems arise where sample grades show the property of extreme variation and consequently where estimates of grade show extreme sensitivity to a small number of very high grades. These characteristics are typical of many metal deposits where the component of interest comprises a very small proportion of the rock mass, for example lode gold deposits, and where the coefficient of variation in samples is commonly 1.5 or higher 2. MIK is one of a number of methods that can be used to provide better estimates than the more traditional methods such as ordinary kriging and inverse distance weighting.

It is fundamental to the estimation of mineral resources that the estimation error is inversely related to the size of the volume being estimated. To take the extreme case, the estimate of the average grade of a deposit generated from a weighted average grade of the entire sample data set is much more reliable than the estimate of the average grade of a small block of material within the deposit generated from a local neighbourhood of data.

Another fundamental notion relevant to the optimisation of mineral resources to develop an open pit mine and schedule is that the optimisation algorithm does not require the mineral resource be defined on extremely small blocks relative to data spacing.

The basic unit of an MIK block model is a panel that normally has the dimensions of the average drill hole spacing in the horizontal plane. The panel should be large enough to contain a reasonable number of blocks, or Selective Mining Units (SMUs; about 15). The SMU is the smallest volume of rock that can be mined separately as ore or waste and is usually defined by a minimum mining width. For the Yangibana project, the dimensions of this block are assumed to be in the order of 5mE x 5mN x 3mRL. In this instance, due to the compromises outlined above the number of smu's per panel is 8.

The goal of MIK is to estimate the tonnage and grade of ore that would be recovered from each panel if the panel were mined using the SMU as the minimum selection criteria to distinguish between ore and waste. To achieve this goal, the following steps are performed:

1. Estimate the proportion of each domain within each panel. This estimation can be achieved by kriging of indicators of domain classifications of sample data points or by using wireframes. In all Yangibana project models, the proportions of each domain in each panel were estimated by indicator kriging to set up the domain framework, an explicit geology model was then imported into the modelling process in order to more reasonable honour the geological wireframing.
2. Estimate the histogram of grades of sample-sized units within each domain within each panel using MIK. MIK actually estimates the probability of the grade within each panel being less than a series of indicator threshold grades. These probabilities are interpreted as panel proportions.

3. For each domain, and for each panel that receives an estimated grade greater than 0 ppm for the element estimated, implement a block support correction (variance adjustment) on the estimated histogram of sample grades in order to achieve a histogram of grades for SMU-sized blocks. This step incorporates an explicit adjustment for Information Effect.
4. Calculate the proportion of each panel estimated to exceed a set of selected cut-off grades, and the grades of those proportions.
5. Apply to each panel, or portion of a panel below surface, a bulk density to achieve estimates of recoverable tonnages and grades for each panel.

Apart from considerations of mineral resource confidence classification, Step 5 completes construction of the mineral resource model. The estimates of mineral resources for each panel may be combined to provide an estimate of global mineral resources for the deposit.

1.4 Panel Model Extents

	East	North	Elevation
Bald Hill			
Panel origin (centroid)	427375	7354795	117.5
Panel dimensions	10	10	5
No. of panels	138	218	51
Panel discretisation	4	4	2
SMU size	5	5	2.5
Frasers			
Panel origin (centroid)	429005	7350405	182.5
Panel dimensions	10	10	5
No. of panels	140	200	40
Panel discretisation	4	4	2
SMU size	5	5	2.5
Auer			
Panel origin (centroid)	423305	7348005	152.5
Panel dimensions	10	10	5
No. of panels	220	410	40
Panel discretisation	4	4	2
SMU size	5	5	2.5
Yangibana			
Panel origin (centroid)	414805	7356405	202.5
Panel dimensions	10	10	5
No. of panels	280	100	34
Panel discretisation	4	4	2
SMU size	5	5	2.5
Yangibana North			
Panel origin (centroid)	415555	7361655	202.5

Panel dimensions	10	10	5
No. of panels	250	175	34
Panel discretisation	4	4	2
SMU size	5	5	2.5

Search rotations

	Rotation axis	Rotation	Rotation axis	Rotation
Bald Hill	y	-15		
Frasers	z	-45	y	-50
Auer	z	65	x	-70
Yangibana	x	-50		
Yangibana North	z	60	y	-10

Table 1 Mineral resource model panel extents

1.5 Indicator Kriging Parameters

The input parameters to Indicator Kriging of the Yangibana project mineralisation include:

In order to speed up the process, correlations were performed between the various elements for each individual deposit in order to define a sequence of variograms to be used, elements with a correlation >0.9 were grouped together with an assessment of the highest correlation where an element fell into more than one group. In general either TREO or Nd + Pr variography was used for the following elements; Ce, La, Nd, Pr, Sm, LREO, TREO and Nd+Pr. HREO variography was predominantly used for Dy, Eu, Gd, Ho, Tb, Y and HREO. The other elements had individual variography however Yb, Lu and Tm were frequently estimated together.

Table 2 details the individual combinations for each deposit

	Variogram	Elements							
Bald Hill	Nd+Pr	Ce	La	Nd	Pr	Sm	Th	LREO	TREO
	HREO	Dy	Eu	Gd	Ho	Tb	Y		
	Yb	Tm							
		Er	Lu	U					
Frasers	TREO	Ce	La	Nd	Pr	Sm	Th	LREO	Nd+Pr
	HREO	Dy	Er	Eu	Gd	Ho	Tb	Y	
	Yb	Tm	Lu						
		U							
Auer	TREO	Ce	La	Nd	Pr	Sm	LREO	Nd+Pr	
	HREO	Dy	Er	Eu	Gd	Ho	Tb	Y	
	Yb	Lu	Tm						
		Th	U						
Yangibana	TREO	Ce	La	Nd	Pr	Th	LREO	Nd+Pr	
	HREO	Dy	Eu	Gd	Ho	Sm	Tb		
	Yb	Tm							
		Er	Lu	Y	U				
Yangibana North	Nd+Pr	Ce	La	Nd	Pr	LREO	TREO		
	HREO	Dy	Eu	Gd	Ho	Sm	Tb	Y	
		Er	Lu	Tm	Yb	Th	U		

Table 2 Combined variography

Indicator variogram models describing the spatial continuity of indicator variables within each domain at each indicator threshold.

Variograms describing the spatial continuity of element grades within each domain.

Mean element grades of each of the indicator classes within each domain.

The indicator variogram models applied in each of the geological domains are detailed in the Mineral Resource Report Appendix. The last variogram model listed in each table is the variogram model of element grades, used for calculation of variance adjustments.

Conditional statistics of sample data for each element in each of the modelling domains are detailed in the Mineral Resource Report Appendix.

Table 1 shows the grid framework and kriging search parameters used in the indicator kriging models. Within each deposit, the boundaries between domains were treated as hard boundaries in the kriging process.

1.6 Compositing

In all cases samples were composited to 1m prior to use in both the estimation and wireframing process.

Summaries of the numbers of resulting data by area and sample type are shown in Table 3.

	Original Samples	Inserted zero	Total Samples	Mineralised Samples
Bald Hill	6763	15229	21992	3253
Frasers	1949	6927	8876	830
Auer	4084	16828	20912	2419
Yangibana	1564	5395	6954	499
Yangibana North	2791	5493	8284	1319

Table 3 Sample composites

1.7 Domaining

Each deposit was assessed for grade and geological continuity and mineralised wireframes were defined around a combination of TREO grades and, where TREO grades were low and continuity was desired, Fe grades as an indication of mineralisation. There were only a very small number of intercepts within the wireframes where Fe continuity was required to be used.

Whilst the modelling process creates an indicator kriged version of the individual deposit domain continuity it was important to maintain a more explicit version of the wireframe block proportions within the resulting model. As a consequence a 'third party' geological domain was explicitly inserted into the indicator modelling process such that the resulting mineralised domain proportions closely match those of the underlying wireframes.

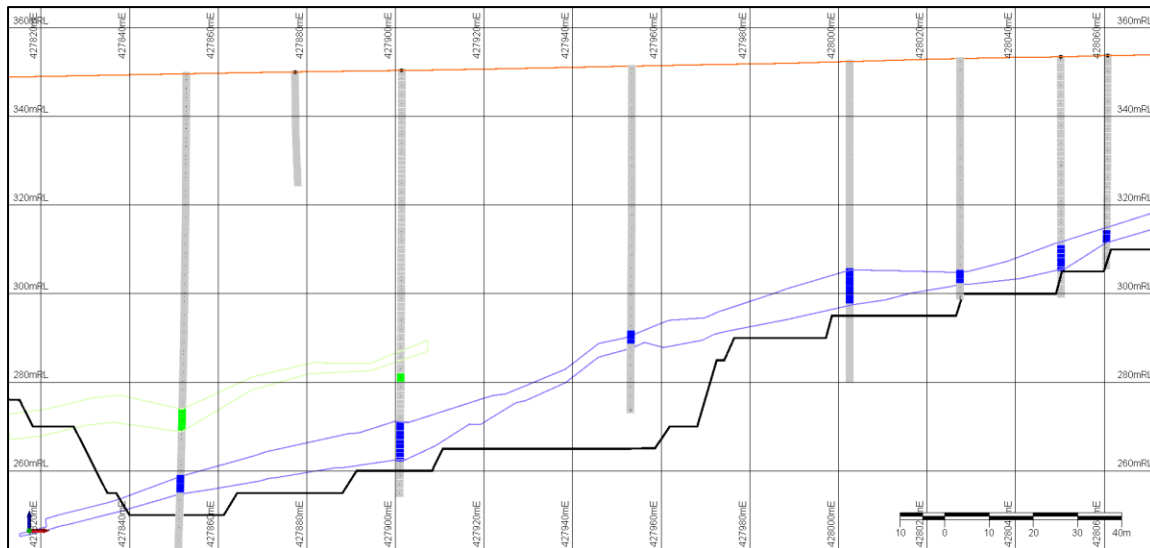


Figure 1 Cross-section through Bald Hill, composites coloured by primary domain code

Figure 1 shows an example cross-section through Bald Hill with composites coloured by primary domain code. Domains 2 and 3 in all instances are treated as the primary mineralised domain with only minor mineralisation being present in Domains 1 which is excluded from the final resource.

Figure 2 shows the actual wireframes used to define the Bald Hill mineralisation. It should be noted that Bald Hill domain 3 is the isolated southern extension of the main wireframe.

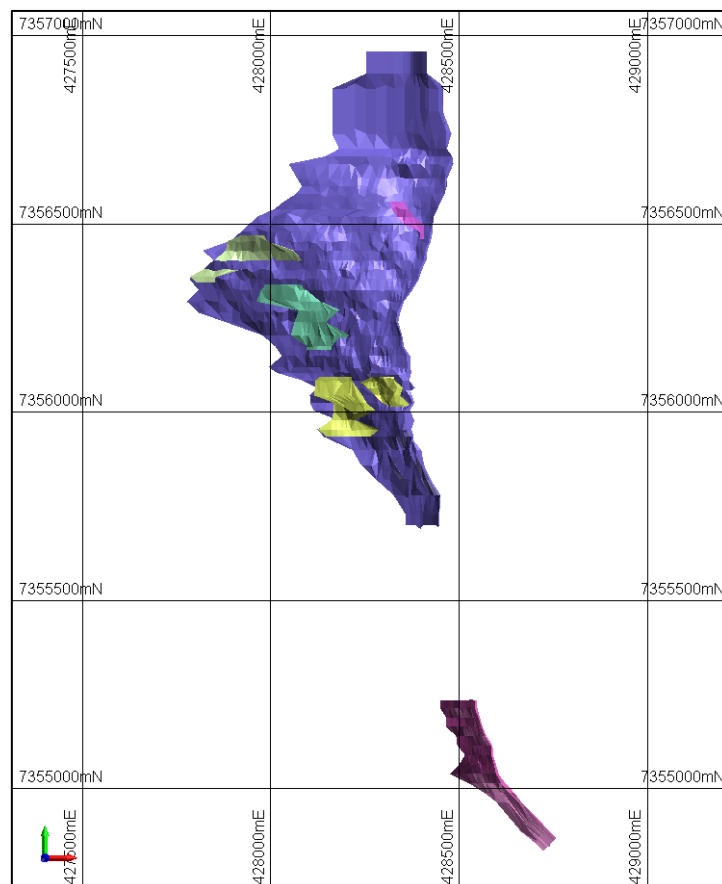


Figure 2 Bald Hill wireframes

1.8 Univariate Statistics

Histograms of element grades in each of the Deposits are detailed in the Mineral Resource Report Appendix.

Each of the areas contains large proportions of samples that were deliberately not assayed and therefore have a grade of 0ppm. As a consequence of this, histograms, univariate statistics and conditional statistics for the unmineralized domains (domain 1 in all mineral resource estimates) have been excluded from the reporting. Table 4 shows an example of the univariate statistics for the Bald Hill Main wireframe Nd+Pr and HREO elements.

	Nd + Pr	HREO
No of Data	3253	3253
Mean	0.34	457.637
Variance	0.14	224471
CV	1.1	1.035
Minimum	0	0
Q1	0.105	170.59
Median	0.238	321.765
Q3	0.441	568.983
Maximum	5.185	5946.324
IQR	0.336	398.393

Table 4 Proportions of sample composites allocated below detection limit grades

1.9 Conditional Statistics

Table 5 details the conditional statistics for Nd + Pr for the Bald Hill deposit. Conditional statistics for each element in each of the Deposits are detailed in the Mineral Resource Report Appendix.

Grade Threshold	Cumulative Proportion	Class Mean	Class Median	Mean above	Samples
0.043	0.10	0.019	0.017	0.376	325
0.085	0.20	0.065	0.065	0.415	325
0.129	0.30	0.106	0.105	0.459	325
0.179	0.40	0.153	0.153	0.510	326
0.238	0.50	0.209	0.209	0.571	325
0.303	0.60	0.271	0.271	0.645	325
0.389	0.70	0.345	0.348	0.746	326
0.441	0.75	0.414	0.414	0.812	162
0.506	0.80	0.474	0.473	0.896	163
0.589	0.85	0.542	0.538	1.014	163
0.718	0.90	0.648	0.642	1.196	162
1.040	0.95	0.849	0.837	1.544	163
1.278	0.97	1.137	1.123	1.813	65
1.818	0.99	1.486	1.460	2.459	65
5.185	1.00	2.459	2.253		33

Table 5 Conditional statistics Nd + Pr example

1.10 Variograms of element Grades

For all deposits variograms of the primary elements were defined and used in the mineral resource estimate. The variogram parameters used for each element suite and deposit are detailed in the Mineral Resource Report Appendix.

In all instances the directional trends evident in the variogram maps are evident to some extent in plan views of the sample data. They normally conform to the orientation of the mineralisation within the wireframes

For each of the deposits, experimental variograms of primary element grades were calculated and modelled. The azimuths referred to in the titles of the diagrams conform to the trigonometric convention in which azimuth zero is grid east and azimuth 90 is grid north.

As expected, variogram model ranges in the vertical direction are relatively short due to the predominantly thin nature of the mineralisation. The majority of variograms display reasonable structure, with anisotropies reflecting those observed in the variogram maps.

1.11 Indicator Variograms

Sample data from each of the Details were transformed to indicator data using probability thresholds at $P = 0.1, 0.2, 0.3, 0.4, 0.5, 0.55, 0.6, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 0.97$ and 0.99 .

For each of deposits, and for each domain in the deposits, experimental indicator variograms were calculated and modelled for the selected primary elements or individual elements where no grouping was possible. Figure 3 shows an example set of down-hole indicator variograms and fitted models for Nd + Pr in domain 2 of Bald Hill. Relative nuggets increase, and ranges decrease at increasing indicator thresholds as expected. Included for reference is the downhole variogram for the untransformed data.

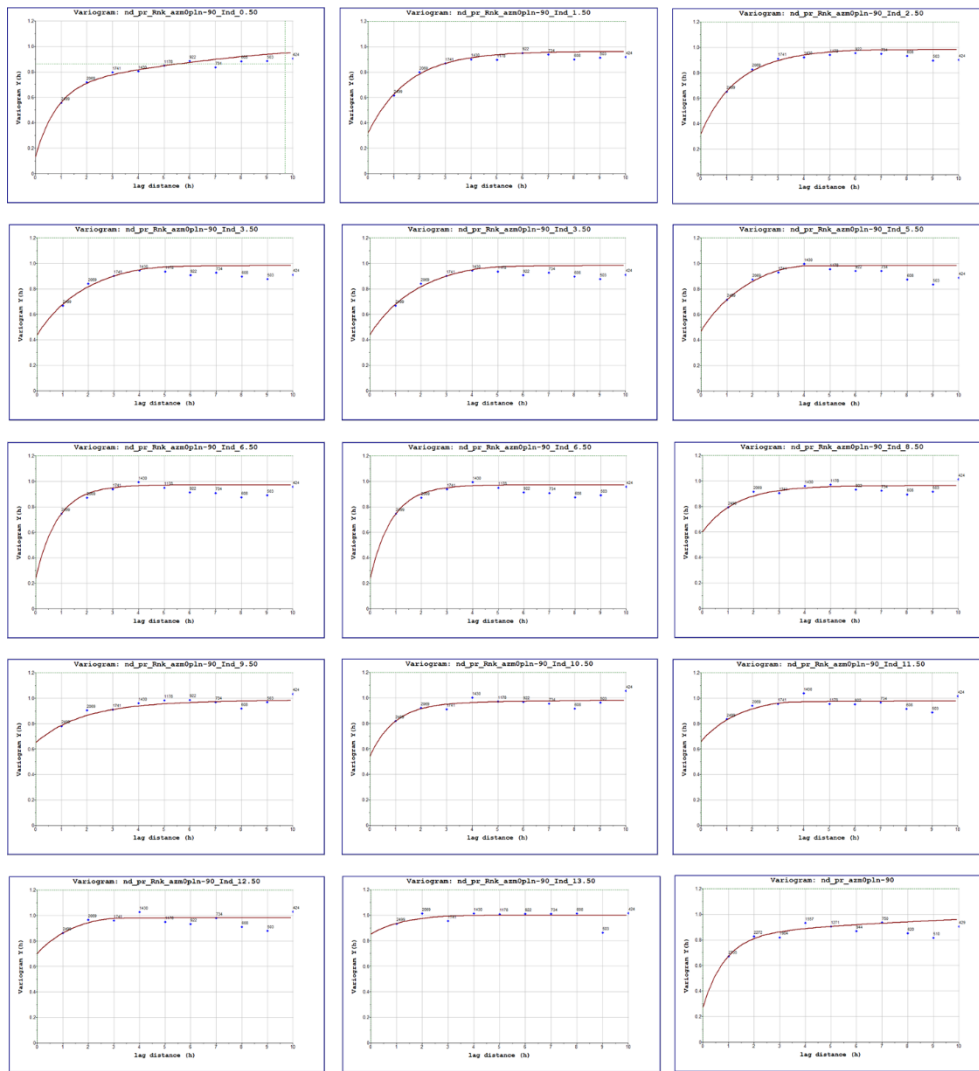


Figure 3 Down-hole indicator variograms, Nd + Pr, domain 2 Bald Hill

1.12 Indicator Kriging Parameters

The input parameters to Indicator Kriging of the Yangibana project mineralisation include:

Indicator variogram models describing the spatial continuity of indicator variables within each domain at each indicator threshold.

Variograms describing the spatial continuity of elements of interest within each deposit and domain. These variograms may be grouped for particular elements which have a correlation of greater than 0.9

Creation of mean element grades of each of the indicator classes within each deposit and domain.

The indicator variogram models applied in each of the geological domains are detailed in the Mineral Resource Report Appendix. The last variogram model listed in each table is the variogram model of primary element grades, used for calculation of variance adjustments.

The conditional statistics of sample data for each individual element for each deposit and in each of the modelling domains are detailed in the Mineral Resource Report Appendix.

Table 1 shows the grid framework and kriging search parameters used in the indicator kriging models. Within each deposit, the boundaries between domains were treated as hard boundaries in the kriging process.

1.13 Block Support Adjustment (Variance Adjustment)

1.13.1 General

The block support adjustment is one of the most important properties of a recoverable mineral resource model based on non-linear estimation methods like MIK. It is an essential part of the model and involves important assumptions about the nature of the block grade distribution within each panel of the model.

Indicator Kriging provides a direct and reliable estimate of the histogram of grades of sample-sized units within each panel of the model provided the panel dimensions are of an appropriate size. However, ore is not selected on sample-sized units during mining; it is selected by shovels that have a minimum mining width and loaded into trucks that are despatched to either ore or waste. The flexibility of digging equipment and the size of the trucking equipment provide an indication of the size of the smallest block of rock that will be mined as ore or waste. To estimate with some accuracy the mineral resources in a deposit that will be recovered with a certain set of mining equipment, the histogram of grades of sample-sized units in a panel provided by MIK must be adjusted to account for the size of the mining block.

There are a number of adjustment methods that can be used and most of these are described well in Journel & Huijbregts (1978) or Isaaks & Srivastava (1989). These methods make three reasonable assumptions:

The average grade of sample-sized units and blocks within the panel is the same and is equal to the estimated average grade of the panel.

The variance, or spread, of the block grades within the panel is less than the variance of grades of sample-sized units within the panel and the change of variance from sample-sized units to blocks can be calculated from the variogram of metal grades.

The approximate shape of the histogram of block grades can be reasonably predicted by some appropriate assumptions.

1.13.2 The Variance Adjustment

The size of the variance adjustment needed to obtain the variance of the block grade distribution within the panel can be calculated using the rule of additivity of variances, which in the case of block support adjustment is often called Krige's Relationship:

$$\text{Var}(\text{samples in a panel}) = \text{Var}(\text{samples in a block}) + \text{Var}(\text{blocks in a panel})$$

The variance of sample grades in a panel and the variance of samples within a block can be directly calculated from the variogram of metal grades for the particular domain. The ratio of $\text{Var}(\text{blocks in panel})$ to $\text{Var}(\text{samples in panel})$ is that required to implement the block support adjustment.

1.13.3 Shape of the Block grade Distribution

There are a number of rules of thumb that are useful when making judgements about the shape of the block grade distribution within each panel and they relate to the size of the variance adjustment ratio:

If the variance adjustment ratio is greater than 0.7, it may be useful to assume that the shape of the histogram of block grades is similar to that of the histogram of grades of sample-sized units. This is known as the Affine Correction method. Its application to deposits sensitive to extreme sample grades is usually inappropriate.

If the variance adjustment ratio is between 0.3 and 0.7 and the information adjustment is negligible, then the Indirect Lognormal Correction method of Isaaks & Srivastava (1989) can be useful. This is a rule of thumb based on the experience of the authors.

If the variance adjustment ratio is less than 0.3, it is reasonable to assume there is a high degree of symmetrization in the block grade histogram. If the histogram of sample grades in a panel is positively skewed, the histogram of block grades is assumed to be lognormal in shape. If the histogram of sample grades in a panel is approximately symmetrical or negatively skewed, the block grade histogram is assumed to be normal in shape. The theoretical support for these assumptions comes from the Central Limit Theorem of probability. The theory supports the interpretation that as the variance adjustment ratio becomes very small, the shape of the block grade distribution must approach that of a normal distribution. This fact can also be demonstrated using geostatistical conditional simulation. In this software's implementation of MIK, this approach is called the Direct Lognormal Correction method. As implemented by GS3, the shape of the histogram of sample-sized units is assessed on a panel-by-panel basis.

1.13.4 The Information Effect

The variance adjustment described above is only part of the adjustment required in many mineral deposits where the short scale variation in metal grades is extreme. This variance adjustment provides an estimate of the variance of true block grades under the assumption that grade control selection will operate with knowledge of the true block grades. While this assumption is never absolutely true, it can be a reasonable assumption in some deposits where the short scale variability is small and the

grade control sampling density is high. In many deposits, however, an additional variance adjustment must be undertaken to account for the “Information Effect”.

In the absence of production information or grade control sampling, the Information Effect ratio is based on the variograms of metal grade and on the grade control sample spacing expected to be used during mining.

1.13.5 Variance Adjustments Applied to the Yangibana Project Models

Variance adjustment ratios applied in estimating Yangibana project REE mineral resources are listed in Table 19. These ratios have been applied using the Direct Lognormal Correction method (i.e., incorporating symmetrization of block grade distributions). Selective mining (SMU) dimensions of 5mE x 5mN x 2.5mRL and grade control sample spacing of 4mE x 4mN x 1mRL have been assumed.

Table 6 shows representative adjustment values for the major components for each model for the main mineralised domain.

		Panel to block adjustment	Information effect
Bald Hill	Nd + Pr	0.117	0.729
	HREO	0.087	0.412
	Yb	0.149	0.777
Frasers	TREO	0.157	0.653
	HREO	0.138	0.406
	Yb	0.154	0.677
Auer	TREO	0.115	0.663
	HREO	0.071	0.500
	Yb	0.190	0.857
Yangibanna	TREO	0.051	0.050
	HREO	0.122	0.666
	Yb	0.066	0.538
Yangibanna North	Nd + Pr	0.143	0.712
	HREO	0.122	0.541
	Yb	0.096	0.438

Table 6 Variance adjustments applied to the Yangibana project mineral resource models

1.14 Mineral Resource Classification

Panels in the mineral resource model were allocated an initial confidence category based on the number and location of samples used to estimate proportions and grade of each panel. The approach is based on the principle that larger numbers of samples, which are more evenly distributed throughout the search neighbourhood, will provide a more reliable estimate. The number of samples and the particular geographic configurations that may qualify the panel as Measured rather than Indicated or Inferred are essentially the domain of the Competent Person. The search parameters used to decide the initial classification of a mineral resource panel in this study are:

- Minimum number of samples found in the search neighbourhood.

For Measured and Indicated mineral resources, this parameter is set to sixteen. For Inferred mineral resources, a minimum of eight samples is required. This parameter ensures that the panel estimate is generated from a reasonable number of sample data.

- Minimum number of spatial octants informed.

The space around the centre of a panel being estimated is divided into eight octants by the axial planes of the data search ellipsoid. This parameter ensures that the samples informing an estimate are relatively evenly spread around the panel and do not all come from one drill hole. For Measured and Indicated mineral resources, at least four octants must contain at least one sample. For Inferred panels, at least two octants must contain data.

- The distance to informing data.

The search radii define how far the kriging program may look in any direction to find samples to include in the estimation of mineral resources in a panel. Panel dimensions and the sampling density in various directions usually influence the length of these radii. It is essential that the search radii be kept as short as possible while still achieving the degree of resolution required in the model. For Measured mineral resources the east, north and vertical radii were set to 25, 25 and 12.5 metres respectively. For Indicated category, these radii were expanded by 100 per cent. For Inferred category the plan view search radii were expanded to 100 x 100 metres and the vertical search radius set at 50m metres.

Figure 4 is an example of the classification distribution through out the Bald Hill model

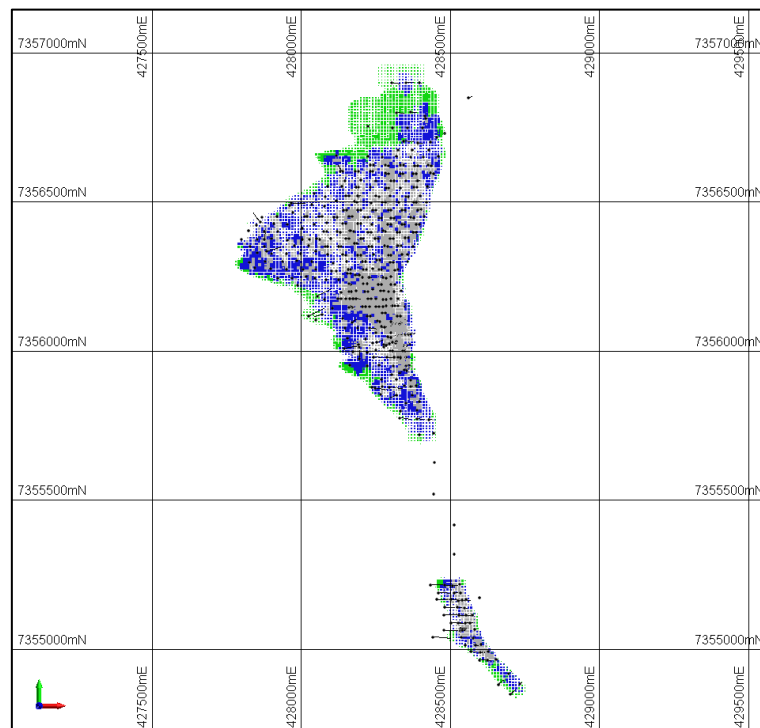


Figure 4 Resource classification Bald Hill

Grey represents Measured, blue Indicated and Green Inferred

1.15 Post-processing and Reclassification

Where warranted the mineral resource classifications were adjusted to more reasonably reflect the local distribution of drilling and the quality of the underlying data (particularly the availability and distribution of bulk density information). Where this was undertaken wireframes were constructed in order to directly allocate mineral resource classification to the models which resulted in some re-distribution of classification values within the model from those imposed during the modelling process.

In order to represent weathering and bulk density distributions throughout the mineral resource estimates the previous weathering surfaces were used to update rocktype and bulk density values throughout the models.

1.16 Bulk Density

The Mineral Resource database as presented contains some 370 bulk density determinations covering a number of deposits within the project area.

Deposit	Holes	Bulk Density determinations
Auer	2	6
Auer North	2	4
Bald Hill	21	272
Frasers	5	49
Simons Find	1	4
Yangibana NW	5	35

In all cases the bulk density determinations were performed at the assay laboratory using standard techniques, either uncoated for highly competent core or wax coated for less competent/vuggy core. As a consequence of the style of mineralisation there is a significant amount of variability in the bulk density values, ranging from 1.43 to 3.74 depending on the amount of internal cavities within the sample and the iron concentration of the rock.

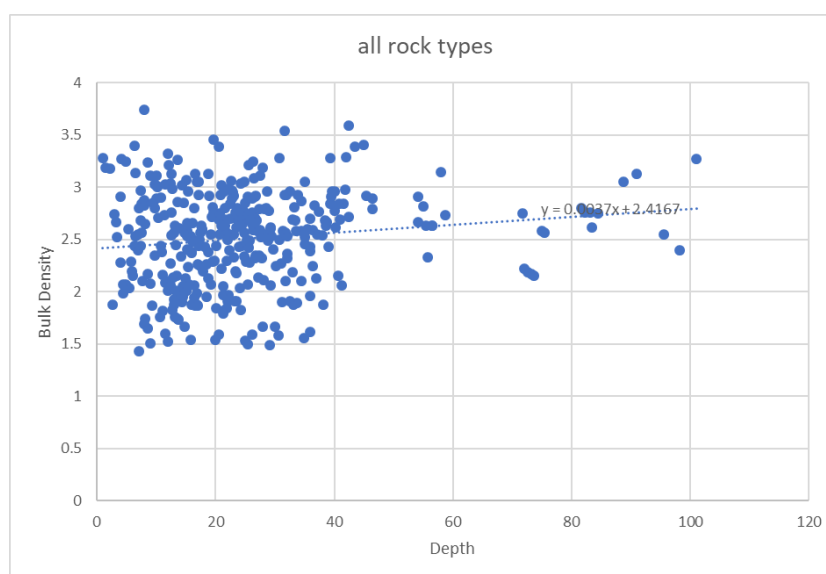


Figure 5 Bulk Density distribution with depth

Figure 5 shows the distribution of bulk density values with increasing depth and illustrates the wide distribution of values, particularly near surface, and the generally increasing tenor of value with depth. As the mineralisation appears to be primarily associated with ironstone any correlation between iron content and bulk density is expected to be of importance.

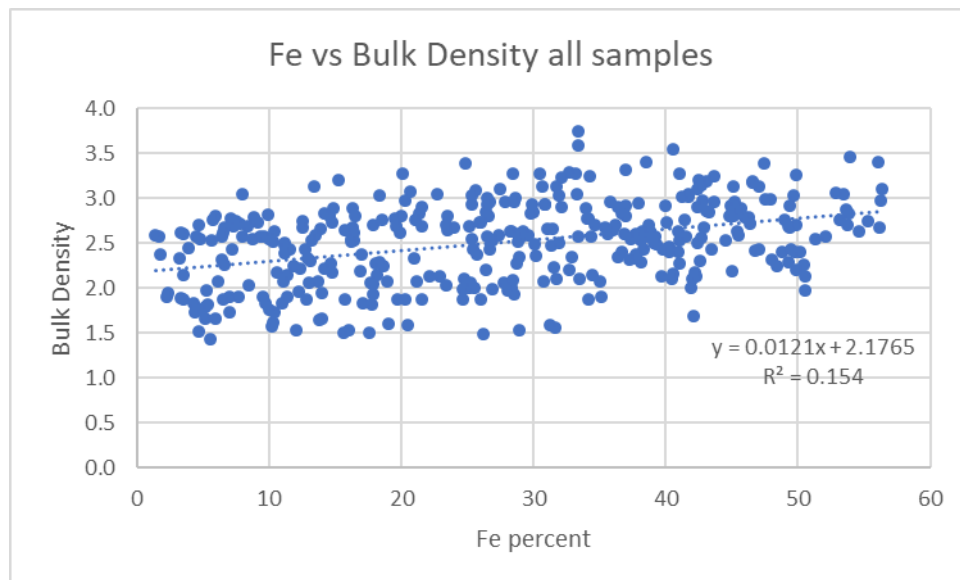


Figure 6 Bulk Density distribution vs Iron

As expected, an increasing trend between bulk density and iron content can be seen however the correlation is not sufficient robust to allow for the use of an Fe proxy within the mineral resource estimate.

Analysis of the bulk density values from larger pieces of competent drill core suggests a much more robust correlation between bulk density and iron as would be expected.

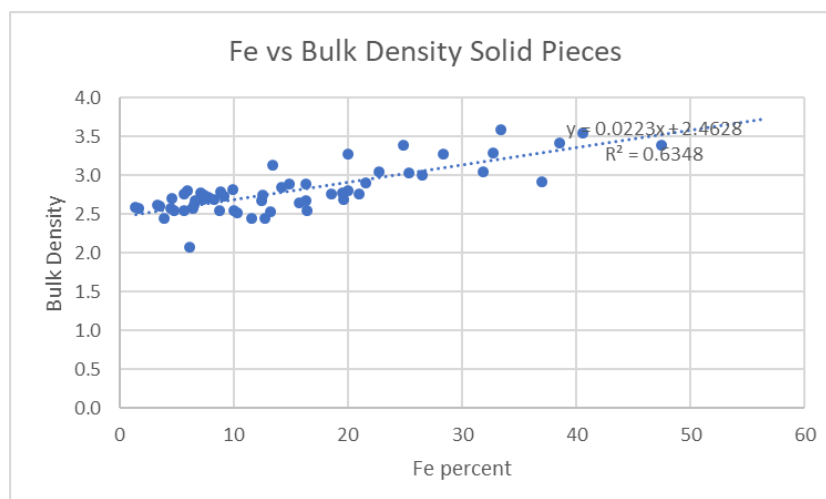


Figure 7 Bulk Density distribution vs Iron, competent core

There appears to be no correlation between bulk density and TREO values.

Basic analysis on the bulk density values for the main deposits was carried out and a preliminary distribution with increasing depth was determined. This distribution was assessed against the provided weathering surfaces and found to be reasonable. In the Mineral Resource estimates the provided weathering surfaces were used to determine the transitions between various bulk density regimes.

The mineral resource estimates for those deposits which do not contain Measured category Mineral Resources were downgraded on the basis of applying bulk density values from other deposits within the project area rather than using measured values from that particular deposit. It is highly recommended that Hasting source additional bulk density determinations, particularly for those deposits that do not currently have them, in order to improve the confidence in the local bulk density values applied to the Mineral Resource estimates.

1.17 Classification comparison

As there was a general increase in the amount of Measured and Indicated category Mineral Resources within the Mineral Resource estimates for the project an assessment was carried out to determine whether the parameters applied during the estimation process to derive basic classification information were appropriate.

Ordinary kriged (OK) estimates for both Bald Hill and Frasers were constructed using the following parameters with rotations appropriate to the individual deposits applied.

Search Pass	Range East	Range North	Range Vertical	Octants	Minimum samples	Minimum Holes
1	40	40	20	8	12	2
2	60	60	30	8	10	2
3	80	80	40	4	8	1

Table 7 Search pass comparison

Whilst the use of search passes longer with lower sample requirements than those used within the Mineral Resource estimate, for the primary classification of Measured and Indicated, may appear counter intuitive it should be noted that the MIK estimate uses the entire dataset to determine search pass criteria. The OK check estimate only used those samples that were classified as falling within the mineralised wireframe.

In general, and allowing for differences in final estimate grades due to differing estimation techniques, the results suggested that the distribution of Measured and Indicated material within the MIK estimate is reasonable and appropriate. Figure 8 should be compared with Figure 4 for a visual indication of the comparison between the two estimates. It can be seen that there is a reasonable correlation between both the Measured and Indication material distributions throughout the deposit (as would be expected given the distribution and density of the drilling). It should be noted that the mineralisation wireframe is not fully estimated during the third pass resulting in a reduction, within the OK model, of material which would be classified as Inferred.

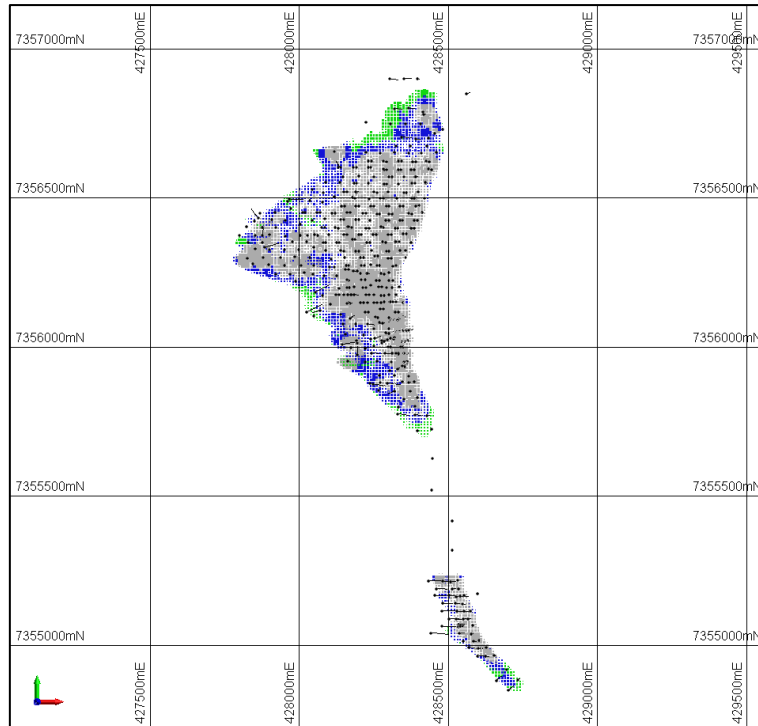


Figure 8 Resource classification Bald Hill OK model

A similar situation exists for the Frasers estimate as shown in Figure 9 and Figure 10. The section of the deposit shown is the main domain as this is the only area that contains measured and Indicated Mineral Resources, the outlying areas were re-classified to Inferred post estimation. The extent of Measured and Indicated can be seen to be similar in both estimates, it should be noted that the Frasers OK estimate is based on a 2.5m smu size and as a consequence there appears to be voids within the mineralised envelope to the north east end of this portion of the deposit.

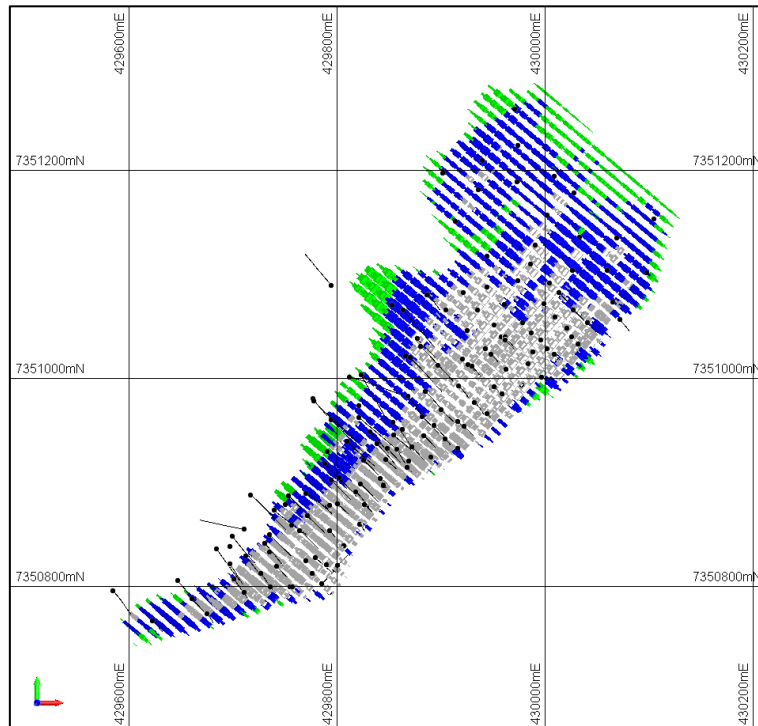


Figure 9 Resource classification Frasers MIK model main domain

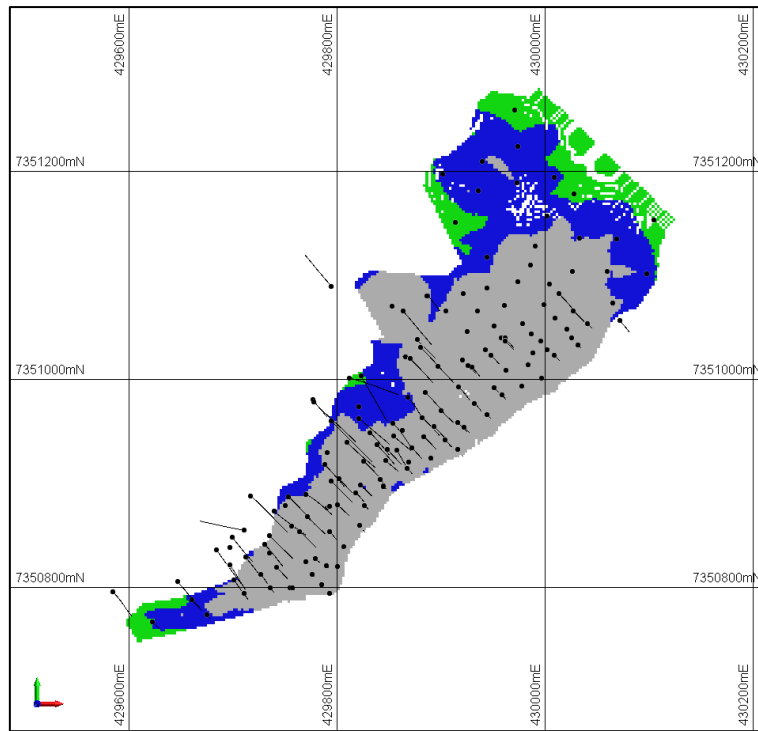


Figure 10 Resource classification Frasers OK model main domain

1.18 Comparison to Published Resource

For the majority of the Yangibana project deposits the update to the mineral resource estimates has seen an increase in Measured and Indicated category tonnes with a reduction in element grades for a slight reduction in total contained metal. These changes are due to the increased thickness of the mineralised wireframe as a result of the use of a TREO cut-off grade to define mineralisation rather than an Nd + Pr grade. As a result there has been inclusion of peripheral (to the Nd + Pr wireframes) lower grade mineralisation. The previous mineral resource had a dilution skin applied to it however this skin appears to not have been as wide as the revised wireframes.

The increase in Measured and Indicated category material is due to the availability of an increased number of samples for use in the estimation as a result of the overall greater thickness of the updated wireframes.

The reduction in Inferred material contained within the mineral resource estimates is due to a more restrictive approach to wireframeing, particularly at depth in order to more closely align the wireframes with the existing drilling.

		Update			Published		
		tonnes	treo %	nd + pr %	tonnes	treo %	nd + pr %
Bald Hill	Measured	2,935,901	1.001	0.399	3,345,000	0.990	0.400
	Indicated	2,534,016	0.959	0.381	1,419,000	1.050	0.410
	Inferred	821,454	0.785	0.313	1,487,000	0.900	0.340
	TOTAL	6,291,371	0.956	0.381	6,251,000	0.980	0.390

		tonnes	treo %	nd + pr %	tonnes	treo %	nd + pr %
Frasers	Measured	553,944	1.662	0.689	398,000	1.550	0.660
	Indicated	372,300	1.315	0.551	407,000	1.530	0.650
	Inferred	393,131	0.954	0.377	670,000	0.710	0.300
	TOTAL	1,319,375	1.353	0.557	1,475,000	1.170	0.490

		tonnes	treo_pct	nd pr_pct	tonnes	treo_pct	nd pr_pct
Auer	Indicated	1,397,305	1.014	0.358	1,004,000	1.090	0.390
	Inferred	716,699	1.027	0.350	1,000,000	1.090	0.370
	TOTAL	2,114,005	1.018	0.355	2,004,000	1.090	0.380
Auer North	Indicated	357,876	0.924	0.318	462,000	1.090	0.370
	Inferred	141,961	0.919	0.320	220,000	0.920	0.290
	TOTAL	499,836	0.922	0.319	682,000	1.030	0.350
Total	Indicated	1,755,181	0.995	0.350	1,466,000	1.090	0.384
	Inferred	858,660	1.009	0.345	1,220,000	1.059	0.356
	TOTAL	2,613,841	1.000	0.348	2,686,000	1.075	0.372

		tonnes	treo %	nd + pr %	tonnes	treo %	nd + pr %
Yangibana	Indicated	1,726,304	0.838	0.398	1,318,000	0.857	0.405
	Inferred	786,341	0.520	0.249	851,000	0.813	0.383
	TOTAL	2,512,646	0.738	0.352	2,169,000	0.838	0.399

		tonnes	treo %	nd + pr %	tonnes	treo %	nd + pr %
Yangibana North	Measured	662,578	1.385	0.359	985,000	1.633	0.432
	Indicated	4,151,899	1.412	0.362	3,589,000	1.562	0.410
	Inferred	969,998	1.434	0.367	1,390,000	1.572	0.405
	TOTAL	5,784,475	1.412	0.362	5,963,000	1.577	0.413

Table 8 Yangibana project Resource comparison

1.19 Recommendations

As indicated previously, it is recommended that additional bulk density samples be sourced, particularly from those deposits which do not currently either have any or very few. This is particularly relevant for Auer, Auer North and Yangibana.

In conjunction it is recommended that a program of re-logging of any remaining core (possibly from digital core photographs) and RC chips be undertaken in order to improve the quality of the lithological and weathering logging. Currently there is a degree of confusion regarding what has been logged as oxidation – it appears to be a composite of oxidation state, weathering and, potentially, alteration.

It has been noted that the selective sampling of both core and RC chips may have resulted in the miss identification of the mineralised zones for a number of the deposits. Should the TREO envelope extend to either side of the currently defined mineralised boundaries it would be expected to add to the overall Mineral Resource and enhance the potential mineability of the deposit.

During the more recent drilling programs undertaken at the project radiometric counts per second (cps) and magnetic susceptibility (magsus) readings were routinely taken on both core and RC samples. Analysis of the data collected suggests that there is a very good correlation between cps and magsus (overall 0.986 for all readings taken) suggesting that the methodologies employed are robust.

Analysis of the distribution of cps and magsus values and the main elements of interest, Nd₂O₃ and Pr₆O₁₁, suggests that there is a moderate, but variable by deposit, level of correlation which could be used to identify any potential areas of the deposits which would benefit from additional analysis. Table 9 details the correlation between cps and various element and element combinations. The lower than expected correlation with ThO₂ is potentially as a result of the inclusion of a variable radiometric background component which has not been identified.

Deposit	ThO ₂	TREO	Nd ₂ O ₃ +Pr ₆ O ₁₁
Auer	0.856	0.823	0.822
Auer North	0.857	0.698	0.709
Bald Hill	0.758	0.707	0.733
Frasers	0.742	0.717	0.705
Yangibana	0.783	0.810	0.812
Yangibana NW	0.824	0.779	0.779

Table 9 cps to element correlation by deposit

Table 10 shows the element, cps and mag sus values for Auer hole AURC006. The highlighted TREO values indicate the intervals selected for analysis and used to define the mineralised intersection. The cps interval highlighted suggest an additional area of elevated cps and magsus values which would warrant investigation and analysis. In this instance there may be the potential to increase the width of the mineralisation by >35%. It is suggested that detailed analysis of any preceding or tailing non assayed intervals with high cps and mag sus values be undertaken with a view to potentially expanding the thickness of the mineralised wireframes.

Hole	From	To	ThO ₂	U ₃ O ₈	TREO %	Nd+Pr %	cps	magsus
AURC006	26	27	0	0	0	0	232.4	110.08
AURC006	27	28	69.07053	5.28748	0.40857952	0.17915516	268.9	127.37
AURC006	28	29	126.98964	6.24884	0.51088508	0.19533412	363	171.94
AURC006	29	30	775.70643	8.89258	1.67631981	0.61705307	1663.2	787.8
AURC006	30	31	850.23888	7.45054	2.29969371	0.69253091	1103.7	522.78
AURC006	31	32	378.35175	6.60935	1.10908438	0.35079837	508.5	240.86
AURC006	32	33	326.91867	11.05564	1.26277267	0.41927543	460	217.88
AURC006	33	34	348.31119	8.4119	1.52877087	0.49979902	532.2	252.08
AURC006	34	35	116.17959	6.60935	0.54202667	0.16910159	324.6	153.75
AURC006	35	36	0	0	0	0	285.7	135.33
AURC006	36	37	0	0	0	0	331.8	157.16
AURC006	37	38	0	0	0	0	285.2	135.09
AURC006	38	39	0	0	0	0	265.3	125.66

Table 10 cps to element correlation by deposit

Given the current distribution of drilling it is recommended that, prior to the commencement of final mine planning, a detailed grade control style drill program be completed at the deposits identified for early mining. This will allow for the identification of local scale grade variability and will more reasonably inform the short range spatial distribution of grades within the selected deposits.

2 Mineral Resource Statement

Whilst mineral resources have been estimated at a number of cut-off grades using Multiple Indicator Kriging with block support correction it is more appropriate in this instance to base the mineral resource estimates on the E-Type (or mineralised domain average grade) value contained within the model. This is particularly the case as the models are required to report all REE elements plus Th and U relative to an Nd + Pr cut-off grade. Primary model panel dimensions are 10mE x 10mN x 5mRL. Estimates assume that final grade control sampling at approximately 4mE x 4mN x 1mRL spacing will be available prior to final mining and a selective mining unit of approximately 5mE x 5mN x 2.5mRL. Estimates for the deposits are summarised in the tables below.

The assumed degree of selectivity that can be achieved during mining and subsequent haulage applied to the is regarded as reasonable at this stage in the development of the project. Once mining commences it is suggested that examination of the appropriateness of the block support correction applied to the model be determined and, if required, adjusted.

Resources are reported at a 0.2% Nd + Pr cut-off grade.

		Grade ppm																							
		density	tonnes	ce	dy	er	eu	gd	ho	la	lu	nd	pr	sm	tb	tm	y	yb	th	u	lreo	hreo	treo %	nd + pr %	
Bald Hill	Measured	2.51	2,935,901	4,007	65.9	11.7	78.5	192.9	6.8	1,169	0.7	3,246	758	368	19.8	1.0	165.0	5.5	475	26.7	9,516	548	1.001	0.399	
	Indicated	2.59	2,534,016	3,915	60.9	10.3	74.4	182.3	6.2	1,134	0.6	3,091	732	344	18.5	0.9	148.2	4.8	445	22.9	9,154	507	0.959	0.381	
	Inferred	2.57	821,454	3,214	51.4	8.5	60.4	148.8	5.1	915	0.5	2,542	603	283	15.5	0.7	122.7	3.9	378	19.0	7,449	417	0.785	0.313	
	TOTAL	2.55	6,291,371	3,866	62.0	10.7	74.5	182.9	6.3	1,122	0.6	3,092	727	347	18.7	0.9	152.7	5.0	450	24.1	9,100	514	0.956	0.381	
		Grade ppm																							
		density	tonnes	ce	dy	er	eu	gd	ho	la	lu	nd	pr	sm	tb	tm	y	yb	th	u	lreo	hreo	treo %	nd + pr %	
Frasers	Measured	2.58	553,944	7,403	65.8	11.8	76.8	201.3	7.5	1,251	0.6	5,525	1,447	437	21.2	1.0	182.2	5.7	578	32.4	16,068	584	1.662	0.689	
	Indicated	2.62	372,300	5,825	55.0	8.8	66.6	159.2	5.7	988	0.5	4,420	1,146	348	16.5	0.8	137.3	4.1	468	28.6	12,795	450	1.315	0.551	
	Inferred	2.58	393,131	4,724	43.0	7.8	47.5	112.8	4.9	769	0.4	3,006	793	243	12.1	0.7	120.2	3.4	431	19.2	9,404	348	0.954	0.377	
	TOTAL	2.59	1,319,375	6,160	56.0	9.7	65.2	163.0	6.2	1,033	0.5	4,463	1,167	354	17.2	0.8	151.1	4.6	503	27.4	13,159	476	1.353	0.557	
		Grade ppm																							
		density	tonnes	ce	dy	er	eu	gd	ho	la	lu	nd	pr	sm	tb	tm	y	yb	th	u	lreo	hreo	treo_pct	nd pr_pct	
Auer	Indicated	2.60	1,397,305	4,691	48.8	11.5	57.0	132.3	6.2	1,162	0.6	2,843	754	289	13.4	1.1	155.6	5.4	182	7.0	9,680	291	1.014	0.358	
	Inferred	2.62	716,699	4,757	49.1	11.5	57.1	131.4	6.2	1,302	0.6	2,778	745	298	13.3	1.0	156.2	5.3	189	7.0	9,798	293	1.027	0.350	
	TOTAL	2.60	2,114,005	4,714	48.9	11.5	57.1	132.0	6.2	1,209	0.6	2,821	751	292	13.4	1.1	155.8	5.3	185	7.0	9,720	292	1.018	0.355	
Auer North	Indicated	2.56	357,876	4,703	20.5	6.8	28.8	57.1	3.0	1,095	0.7	2,488	721	151	5.3	0.8	90.6	5.2	149	7.1	9,059	207	0.924	0.318	
	Inferred	2.64	141,961	4,783	19.6	6.4	28.1	56.0	2.9	1,205	0.6	2,518	736	162	5.1	0.7	83.4	5.2	151	6.5	9,117	192	0.919	0.320	
	TOTAL	2.58	499,836	4,725	20.2	6.7	28.6	56.8	3.0	1,126	0.6	2,497	725	154	5.2	0.7	88.6	5.2	149	6.9	9,075	202	0.922	0.319	
Total	Indicated	2.59	1,755,181	4,693	43.0	10.5	51.3	117.0	5.6	1,148	0.6	2,770	747	261	11.8	1.0	142.4	5.4	176	7.0	9,553	274	0.995	0.350	
	Inferred	2.62	858,660	4,761	44.2	10.6	52.3	118.9	5.6	1,286	0.6	2,735	743	275	12.0	1.0	144.2	5.3	183	6.9	9,685	276	1.009	0.345	
	TOTAL	2.60	2,613,841	4,716	43.4	10.6	51.6	117.6	5.6	1,194	0.6	2,759	746	265	11.8	1.0	143.0	5.3	178	7.0	9,597	275	1.000	0.348	
		Grade ppm																							
		density	tonnes	ce	dy	er	eu	gd	ho	la	lu	nd	pr	sm	tb	tm	y	yb	th	u	lreo	hreo	treo %	nd + pr %	
Yangibana	Indicated	2.75	1,726,304	2,638	36.4	7.3	128.5	239.6	3.7	520	0.4	3,428	597	682	14.2	0.6	93.3	3.5	1,411	31.3	7,870	524	0.838	0.398	
	Inferred	2.75	786,341	1,604	22.7	5.1	79.0	147.6	2.3	305	0.3	2,139	366	423	8.9	0.4	54.7	2.3	827	17.7	4,856	322	0.520	0.249	
	TOTAL	2.75	2,512,646	2,314	32.1	6.6	113.0	210.8	3.2	453	0.4	3,025	524	601	12.5	0.5	81.2	3.1	1,229	27.0	6,927	461	0.738	0.352	
		Grade ppm																							
		density	tonnes	ce	dy	er	eu	gd	ho	la	lu	nd	pr	sm	tb	tm	y	yb	th	u	lreo	hreo	treo %	nd + pr %	
Yangibana North	Measured	2.69	662,578	6,743	39.0	5.8	86.1	188.0	3.4	2,754	0.4	2,804	834	369	16.4	0.4	78.2	2.4	448	19.3	13,549	415	1.385	0.359	
	Indicated	2.71	4,151,899	6,932	41.1	5.8	85.2	191.5	3.7	2,834	0.3	2,829	858	369	15.9	0.4	88.8	2.5	512	23.7	13,775	433	1.412	0.362	
	Inferred	2.77	969,998	7,068	40.9	6.0	85.9	190.9	3.7	2,859	0.4	2,860	869	373	15.9	0.4	91.0	2.5	514	23.9	14,015	436	1.434	0.367	
	TOTAL	2.72	5,784,475	6,933	40.8	5.8	85.4	191.0	3.6	2,829	0.3	2,831	857	370	16.0	0.4	88.0	2.5	505	23.2	13,789	432	1.412	0.362	
		Grade ppm																							
		density	tonnes	ce	dy	er	eu	gd	ho	la	lu	nd	pr	sm	tb	tm	y	yb	th	u	lreo	hreo	treo %	nd + pr %	
Total	Measured	2.55	4,152,424	4,896	61.6	10.8	79.5	193.2	6.3	1,433	0.6	3,479	862	378	19.5	0.9	153.4	5.0	484	26.3	11,033	531	1.150	0.431	
	Indicated	2.66	10,539,700	5,091	45.9	8.0	83.4	183.6	4.7	1,700	0.5	3,036	777	395	15.6	0.7	114.5	3.7	585	22.1	10,959	440	1.136	0.377	
	Inferred	2.67	3,829,584	4,362	40.4	7.6	67.5	148.8	4.3	1,350	0.4	2,631	673	329	13.1	0.6	105.3	3.5	466	17.3	9,282	364	0.963	0.327	
	TOTAL	2.64	18,521,708	4,897	48.3	8.6	79.3	178.6	5.0	1,568	0.5	3,052	774	378	15.9	0.7	121.3	4.0	538	22.1	10,629	445	1.103	0.379	

Table 11 Yangibana Project Estimated Resources

3 Appendix

3.1 Element correlations

For the purposes of grouping elements together in order to limit the amount of variography needed to be completed correlation matrices were completed on mineralised material for each deposit and the elements were grouped on their predominant correlations. The correlation matrices for each deposit are shown below with grouped elements highlighted.

Bald Hill

	CeO2 ppm	Dy2O3 ppm	Er2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Ho2O3 ppm	La2O3 ppm	Lu2O3 ppm	Nd2O3 ppm	Pr6O11 ppm	Sm2O3 ppm	Tb4O7 ppm	Tm2O3 ppm	Y2O3 ppm	Yb2O3 ppm	ThO2 ppm	U3O8 ppm	LREO ppm	HREO ppm	TREO %	Nd2O3 + Pr6O11 %
CeO2 ppm	1.000000																				
Dy2O3 ppm	0.516748	1.000000																			
Er2O3 ppm	0.418143	0.846121	1.000000																		
Eu2O3 ppm	0.754130	0.920640	0.751598	1.000000																	
Gd2O3 ppm	0.656166	0.965884	0.784258	0.982375	1.000000																
Ho2O3 ppm	0.480104	0.989549	0.834391	0.882566	0.935710	1.000000															
La2O3 ppm	0.984503	0.470321	0.392548	0.714830	0.610570	0.435955	1.000000														
Lu2O3 ppm	0.384204	0.686846	0.775810	0.617834	0.627617	0.685118	0.353159	1.000000													
Nd2O3 ppm	0.946877	0.671395	0.566919	0.876719	0.794058	0.632999	0.924023	0.491756	1.000000												
Pr6O11 ppm	0.985260	0.596801	0.497625	0.820356	0.728735	0.558703	0.965159	0.440476	0.985181	1.000000											
Sm2O3 ppm	0.816619	0.858896	0.703565	0.984456	0.945360	0.820514	0.784860	0.593380	0.932935	0.879947	1.000000										
Tb4O7 ppm	0.563616	0.988517	0.792443	0.944696	0.984594	0.972492	0.513784	0.630856	0.707121	0.638277	0.887884	1.000000									
Tm2O3 ppm	0.431548	0.912348	0.853288	0.785279	0.835050	0.942774	0.393116	0.804065	0.571583	0.503131	0.734196	0.875280	1.000000								
Y2O3 ppm	0.460266	0.946111	0.740615	0.834713	0.891510	0.975198	0.416651	0.611685	0.602731	0.533117	0.778512	0.938032	0.916415	1.000000							
Yb2O3 ppm	0.422188	0.871036	0.854705	0.753084	0.796115	0.893397	0.386865	0.818318	0.559279	0.492896	0.706974	0.824733	0.957874	0.850815	1.000000						
ThO2 ppm	0.838953	0.740088	0.510539	0.891949	0.842947	0.723702	0.810217	0.428163	0.913338	0.882879	0.924570	0.789572	0.633108	0.735063	0.593791	1.000000					
U3O8 ppm	0.409366	0.379263	0.284782	0.417375	0.403015	0.396005	0.382909	0.362777	0.425175	0.423742	0.424401	0.395124	0.450763	0.414301	0.479131	0.478255	1.000000				
LREO ppm	0.990304	0.591549	0.489734	0.818106	0.725394	0.553759	0.975109	0.435828	0.981740	0.997903	0.878633	0.633963	0.498751	0.528817	0.487900	0.882404	0.420452	1.000000			
HREO ppm	0.600551	0.988321	0.808358	0.954558	0.985267	0.978929	0.555249	0.657838	0.745230	0.676068	0.908843	0.993041	0.896856	0.953523	0.850177	0.818281	0.417147	0.672042	1.000000		
TREO %	0.986233	0.621574	0.514082	0.838376	0.750527	0.584636	0.969240	0.454324	0.985430	0.997456	0.894405	0.662731	0.527343	0.559267	0.514469	0.893374	0.427083	0.999271	0.699821	1.000000	
Nd2O3+Pr6O11 %	0.956373	0.658697	0.554993	0.867971	0.783411	0.620270	0.933992	0.483096	0.999464	0.990268	0.924960	0.695602	0.559828	0.590826	0.547891	0.909618	0.425876	0.987076	0.733738	0.989985	1.000000

Frasers

	CeO2 ppm	Dy2O3 ppm	Er2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Ho2O3 ppm	La2O3 ppm	Lu2O3 ppm	Nd2O3 ppm	Pr6O11 ppm	Sm2O3 ppm	Tb4O7 ppm	Tm2O3 ppm	Y2O3 ppm	Yb2O3 ppm	ThO2 ppm	U3O8 ppm	LREO ppm	HREO ppm	TREO %	Nd2O3 + Pr6O11 %
CeO2 ppm	1.000000																				
Dy2O3 ppm	0.644064	1.000000																			
Er2O3 ppm	0.499186	0.882041	1.000000																		
Eu2O3 ppm	0.800109	0.951933	0.763850	1.000000																	
Gd2O3 ppm	0.734366	0.979542	0.806857	0.990686	1.000000																
Ho2O3 ppm	0.604452	0.983493	0.949881	0.905450	0.940019	1.000000															
La2O3 ppm	0.956480	0.643598	0.507499	0.799139	0.732533	0.607532	1.000000														
Lu2O3 ppm	0.277165	0.517476	0.819907	0.394780	0.429062	0.639423	0.283112	1.000000													
Nd2O3 ppm	0.948849	0.773604	0.608184	0.910029	0.856920	0.730080	0.960450	0.323954	1.000000												
Pr6O11 ppm	0.962779	0.726063	0.566840	0.874814	0.814636	0.683443	0.979299	0.303531	0.995445	1.000000											
Sm2O3 ppm	0.863282	0.910061	0.728739	0.989110	0.965680	0.864755	0.865432	0.380976	0.958223	0.931416	1.000000										
Tb4O7 ppm	0.674859	0.994127	0.838284	0.971009	0.992043	0.962250	0.672948	0.455530	0.802942	0.756741	0.933055	1.000000									
Tm2O3 ppm	0.387450	0.719613	0.953852	0.587048	0.627698	0.824927	0.402900	0.930738	0.471717	0.439515	0.562863	0.660534	1.000000								
Y2O3 ppm	0.571283	0.940034	0.979856	0.847399	0.884130	0.980633	0.576389	0.757236	0.687396	0.644633	0.810130	0.908951	0.897461	1.000000							
Yb2O3 ppm	0.315900	0.603254	0.892794	0.469938	0.508404	0.724181	0.329836	0.970265	0.380402	0.354683	0.452560	0.539578	0.978943	0.820746	1.000000						
ThO2 ppm	0.962269	0.740898	0.558541	0.876766	0.824200	0.690652	0.910102	0.295147	0.955365	0.950523	0.919155	0.772388	0.420137	0.649781	0.334077	1.000000					
U3O8 ppm	0.574431	0.576776	0.475108	0.627187	0.613877	0.553256	0.554359	0.261248	0.621099	0.607128	0.641385	0.595493	0.369476	0.524790	0.298658	0.604624	1.000000				
LREO ppm	0.987694	0.711642	0.556145	0.860830	0.799831	0.669987	0.975898	0.302675	0.986043	0.992501	0.918276	0.742091	0.432192	0.632224	0.350586	0.968217	0.601922	1.000000			
HREO ppm	0.692812	0.992571	0.900128	0.962703	0.982229	0.984150	0.693888	0.572358	0.815648	0.772235	0.932284	0.987621	0.754935	0.955700	0.648973	0.779622	0.595809	0.758108	1.000000		
TREO %	0.985763	0.725503	0.570824	0.870241	0.811287	0.684572	0.974280	0.313214	0.987948	0.992912	0.925389	0.755079	0.445312	0.646823	0.362360	0.969430	0.606112	0.999797	0.771100	1.000000	
Nd2O3+Pr6O11 %	0.952494	0.764197	0.599954	0.903317	0.848682	0.720830	0.965138	0.319907	0.999799	0.997155	0.953314	0.793839	0.465306	0.678928	0.375285	0.955070	0.618633	0.988146	0.807141	0.989739	1.000000

Auer

	CeO2 ppm	Dy2O3 ppm	Er2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Ho2O3 ppm	La2O3 ppm	Lu2O3 ppm	Nd2O3 ppm	Pr6O11 ppm	Sm2O3 ppm	Tb4O7 ppm	Tm2O3 ppm	Y2O3 ppm	Yb2O3 ppm	ThO2 ppm	U3O8 ppm	LREO ppm	HREO ppm	TREO %	Nd2O3 + Pr6O11 %
CeO2 ppm	1.000000																				
Dy2O3 ppm	0.671132	1.000000																			
Er2O3 ppm	0.573992	0.930432	1.000000																		
Eu2O3 ppm	0.823196	0.920109	0.769743	1.000000																	
Gd2O3 ppm	0.755258	0.952653	0.807321	0.988104	1.000000																
Ho2O3 ppm	0.627230	0.983864	0.977720	0.857878	0.894864	1.000000															
La2O3 ppm	0.943377	0.674620	0.550193	0.816600	0.757976	0.619014	1.000000														
Lu2O3 ppm	0.462113	0.663315	0.849395	0.530422	0.547377	0.749146	0.400388	1.000000													
Nd2O3 ppm	0.934202	0.758076	0.648062	0.906896	0.849594	0.708804	0.876736	0.516229	1.000000												
Pr6O11 ppm	0.967208	0.716898	0.612649	0.874086	0.807900	0.669459	0.920361	0.494291	0.988846	1.000000											
Sm2O3 ppm	0.839058	0.890221	0.740885	0.991549	0.972674	0.826784	0.821299	0.521963	0.937449	0.900900	1.000000										
Tb4O7 ppm	0.714510	0.985236	0.868044	0.964673	0.987808	0.944161	0.721697	0.593395	0.805188	0.763549	0.939684	1.000000									
Tm2O3 ppm	0.529195	0.849892	0.974416	0.684347	0.718030	0.917773	0.489759	0.932157	0.599583	0.567638	0.662716	0.777960	1.000000								
Y2O3 ppm	0.628379	0.957059	0.985744	0.826915	0.859457	0.986866	0.611603	0.799737	0.702692	0.667992	0.798837	0.909868	0.942973	1.000000							
Yb2O3 ppm	0.487307	0.748890	0.915064	0.594703	0.620903	0.829715	0.432705	0.978812	0.551723	0.523994	0.582403	0.674762	0.974332	0.868918	1.000000						
ThO2 ppm	0.806860	0.621251	0.528332	0.745033	0.694722	0.582186	0.746949	0.400220	0.825396	0.823365	0.770665	0.659924	0.479860	0.581774	0.432392	1.000000					
U3O8 ppm	0.384845	0.482502	0.554360	0.432544	0.438150	0.515175	0.333769	0.593607	0.427966	0.406144	0.441944	0.453076	0.595347	0.524576	0.614391	0.554580	1.000000				
LREO ppm	0.990066	0.722010	0.613408	0.874391	0.810626	0.673224	0.948132	0.484850	0.972049	0.990777	0.894097	0.768374	0.563570	0.670200	0.515845	0.823690	0.403029	1.000000			
HREO ppm	0.725652	0.991089	0.927481	0.946235	0.967010	0.974895	0.718118	0.695897	0.812610	0.773607	0.923959	0.986103	0.858489	0.960776	0.769933	0.667482	0.500807	0.775997	1.000000		
TREO %	0.988205	0.737857	0.630054	0.884121	0.822990	0.689891	0.947214	0.496622	0.973952	0.990681	0.902422	0.782682	0.579100	0.686429	0.529470	0.824517	0.409922	0.999724	0.790600	1.000000	
Nd2O3+Pr6O11 %	0.943074	0.750639	0.641659	0.901542	0.842218	0.701669	0.887786	0.512479	0.999485	0.993114	0.931347	0.797740	0.593835	0.696545	0.546792	0.826517	0.424074	0.977917	0.805745	0.979393	1.000000

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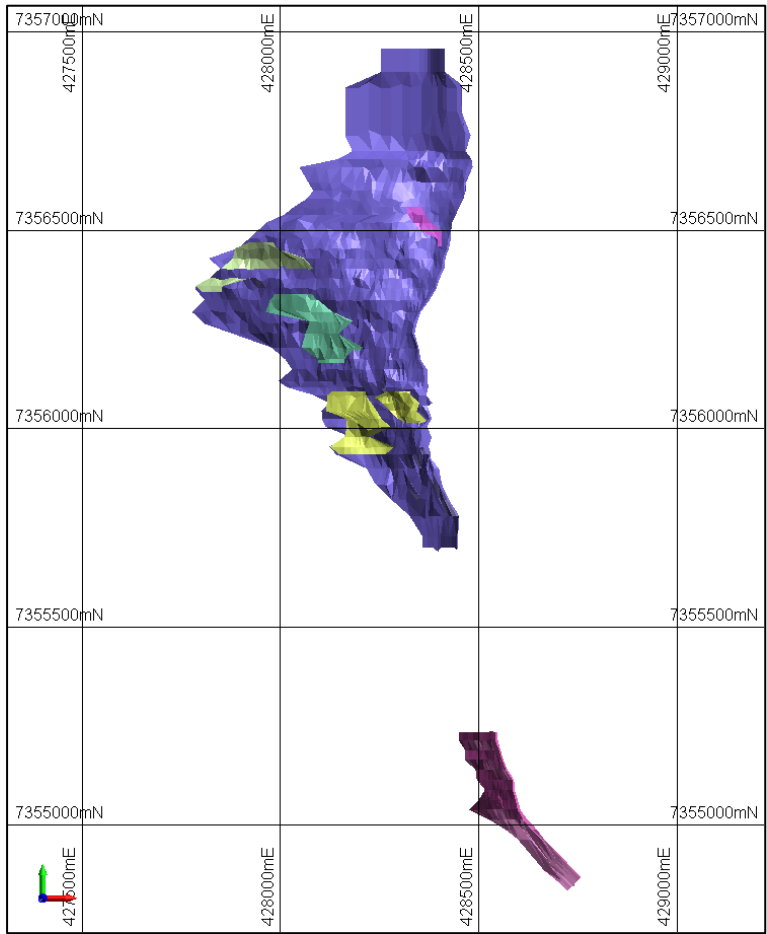
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CeO2 ppm	1.000000																				
Dy2O3 ppm	0.635677	1.000000																			
Er2O3 ppm	0.404871	0.789500	1.000000																		
Eu2O3 ppm	0.847146	0.909808	0.629291	1.000000																	
Gd2O3 ppm	0.782002	0.940428	0.643459	0.989187	1.000000																
Ho2O3 ppm	0.587999	0.976504	0.733689	0.848486	0.887431	1.000000															
La2O3 ppm	0.994343	0.601113	0.376248	0.816274	0.747007	0.558235	1.000000														
Lu2O3 ppm	0.420251	0.723533	0.791190	0.603461	0.611171	0.716598	0.401626	1.000000													
Nd2O3 ppm	0.986778	0.721814	0.477542	0.910653	0.857617	0.666477	0.975048	0.468869	1.000000												
Pr6O11 ppm	0.995833	0.671138	0.432968	0.872409	0.811933	0.621438	0.990070	0.437144	0.995198	1.000000											
Sm2O3 ppm	0.904519	0.860533	0.584596	0.990753	0.966809	0.795734	0.877574	0.567928	0.953960	0.924499	1.000000										
Tb4O7 ppm	0.696074	0.984849	0.758957	0.955912	0.976524	0.938709	0.659732	0.690808	0.781511	0.730134	0.916067	1.000000									
Tm2O3 ppm	0.485598	0.876436	0.831565	0.704146	0.732762	0.903505	0.462116	0.861596	0.550771	0.513008	0.656299	0.823897	1.000000								
Y2O3 ppm	0.577437	0.908176	0.563731	0.801590	0.840536	0.954706	0.553519	0.636235	0.643549	0.606495	0.755749	0.866921	0.821116	1.000000							
Yb2O3 ppm	0.475969	0.864935	0.871672	0.696550	0.721956	0.882334	0.451592	0.882426	0.539753	0.500448	0.649565	0.813276	0.943626	0.784405	1.000000						
ThO2 ppm	0.934175	0.656317	0.329856	0.851772	0.810560	0.620825	0.922305	0.379252	0.937342	0.938368	0.898549	0.717990	0.479646	0.629959	0.456926	1.000000					
U3O8 ppm	0.671142	0.569909	0.283175	0.671244	0.653195	0.568860	0.649924	0.434462	0.674760	0.665799	0.691462	0.595355	0.464016	0.594739	0.473545	0.723914	1.000000				
LREO ppm	0.994626	0.696022	0.453783	0.892672	0.835474	0.643489	0.985439	0.456276	0.998115	0.998367	0.940587	0.756017	0.531575	0.625290	0.521201	0.940180	0.678071	1.000000			
HREO ppm	0.771068	0.964363	0.671494	0.981335	0.993646	0.927449	0.737967	0.652135	0.845550	0.801177	0.954489	0.984861	0.784559	0.890029	0.770876	0.795718	0.656998	0.823999	1.000000		
TREO %	0.991665	0.716082	0.469089	0.905088	0.851012	0.663904	0.981152	0.470466	0.998884	0.996813	0.949526	0.774543	0.549398	0.644545	0.538762	0.940865	0.682896	0.999564	0.840366	1.000000	
Nd2O3+Pr6O11 %	0.988776	0.714516	0.471025	0.905373	0.851167	0.660006	0.977951	0.464311	0.999888	0.996551	0.950050	0.774143	0.545340	0.638285	0.534079	0.938082	0.673810	0.998775	0.839293	0.999189	1.000000

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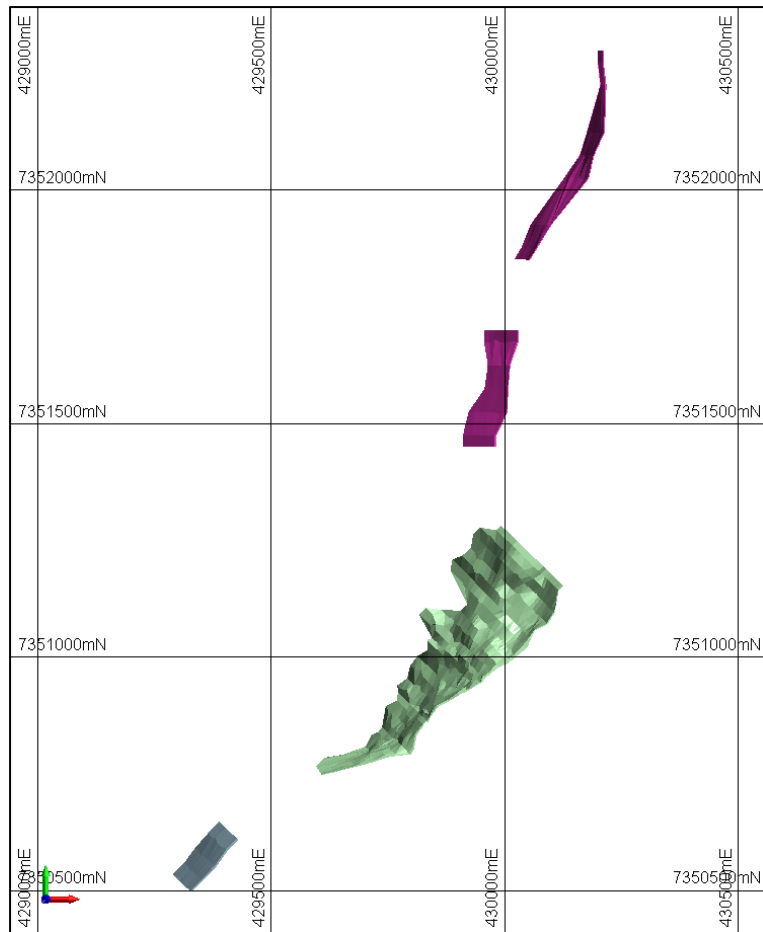
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CeO2 ppm	1.000000																				
Dy2O3 ppm	0.674935	1.000000																			
Er2O3 ppm	0.489629	0.786018	1.000000																		
Eu2O3 ppm	0.822636	0.958323	0.746609	1.000000																	
Gd2O3 ppm	0.750378	0.984342	0.757632	0.983566	1.000000																
Ho2O3 ppm	0.642508	0.985089	0.757345	0.925937	0.962606	1.000000															
La2O3 ppm	0.994460	0.638785	0.461230	0.790743	0.715047	0.606272	1.000000														
Lu2O3 ppm	0.344262	0.377486	0.522915	0.436247	0.359983	0.372821	0.329180	1.000000													
Nd2O3 ppm	0.981691	0.774970	0.575493	0.901256	0.844112	0.740489	0.965224	0.364098	1.000000												
Pr6O11 ppm	0.994629	0.722952	0.526714	0.859840	0.796780	0.689074	0.983902	0.336642	0.994288	1.000000											
Sm2O3 ppm	0.874117	0.928628	0.713769	0.991545	0.968157	0.896600	0.844057	0.410300	0.941989	0.907764	1.000000										
Tb4O7 ppm	0.701503	0.931177	0.717526	0.941969	0.928988	0.907451	0.668915	0.559494	0.785560	0.736550	0.913324	1.000000									
Tm2O3 ppm	0.495663	0.807913	0.784578	0.754575	0.769149	0.838146	0.465025	0.591349	0.581508	0.532163	0.722248	0.774374	1.000000								
Y2O3 ppm	0.575066	0.902710	0.587277	0.825093	0.884597	0.925068	0.543612	0.121814	0.667621	0.625021	0.806864	0.767270	0.723364	1.000000							
Yb2O3 ppm	0.460757	0.719832	0.705756	0.688235	0.680748	0.749717	0.433181	0.717321	0.533276	0.487049	0.657637	0.750234	0.889380	0.609262	1.000000						
ThO2 ppm	0.830136	0.804629	0.480216	0.849700	0.855795	0.801165	0.807273	0.071550	0.876403	0.862202	0.883441	0.707151	0.568076	0.855573	0.460049	1.000000					
U3O8 ppm	0.418076	0.435581	0.244375	0.436132	0.454641	0.448678	0.406684	0.006545	0.438621	0.433044	0.452695	0.362458	0.334785	0.505169	0.277187	0.566135	1.000000				
LREO ppm	0.998932	0.700951	0.511782	0.843652	0.774891	0.667787	0.992636	0.348546	0.988618	0.997588	0.892502	0.723486	0.517400	0.599482	0.478907	0.843612	0.424454	1.000000			
HREO ppm	0.740408	0.989842	0.751916	0.978583	0.996456	0.974712	0.705568	0.357894	0.833764	0.786459	0.961165	0.929784	0.788185	0.913588	0.700733	0.862197	0.464952	0.764930	1.000000		
TREO %	0.998168	0.712754	0.521166	0.852276	0.785374	0.679864	0.991084	0.350891	0.990511	0.998059	0.899681	0.733259	0.527622	0.611336	0.487613	0.849182	0.428074	0.999857	0.775707	1.000000	
Nd2O3+Pr6O11 %	0.985773	0.763440	0.564525	0.892370	0.833764	0.729066	0.970650	0.357966	0.999680	0.996670	0.934850	0.774754	0.570412	0.658212	0.522869	0.873943	0.437752	0.991766	0.823412	0.993325	1.000000

3.2 Mineral Resource Wireframes

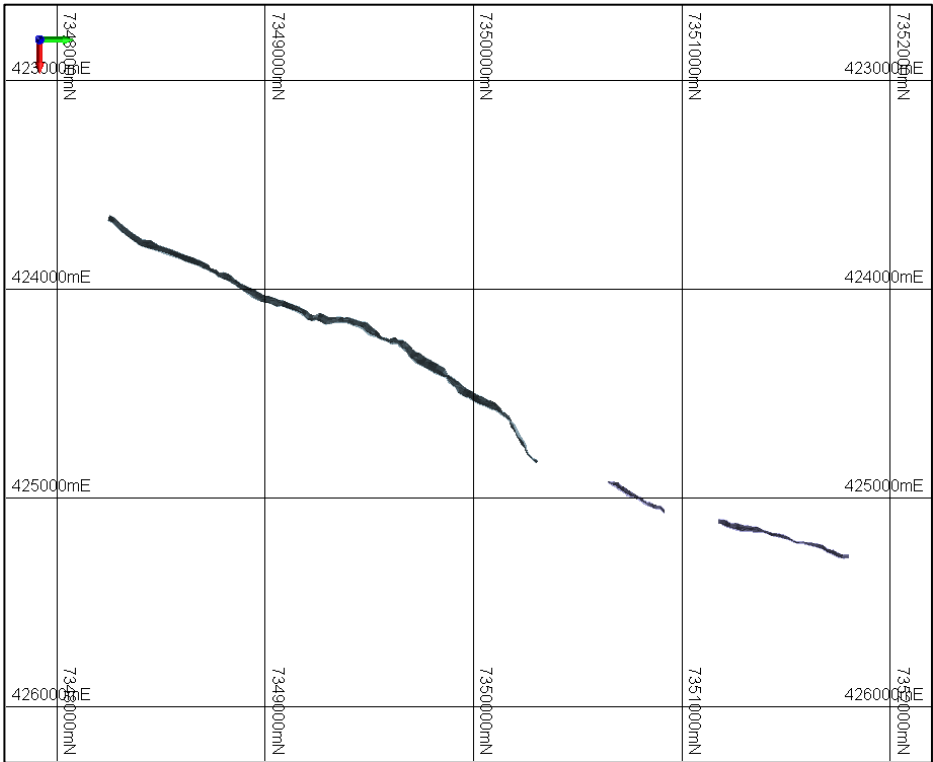
Bald Hill



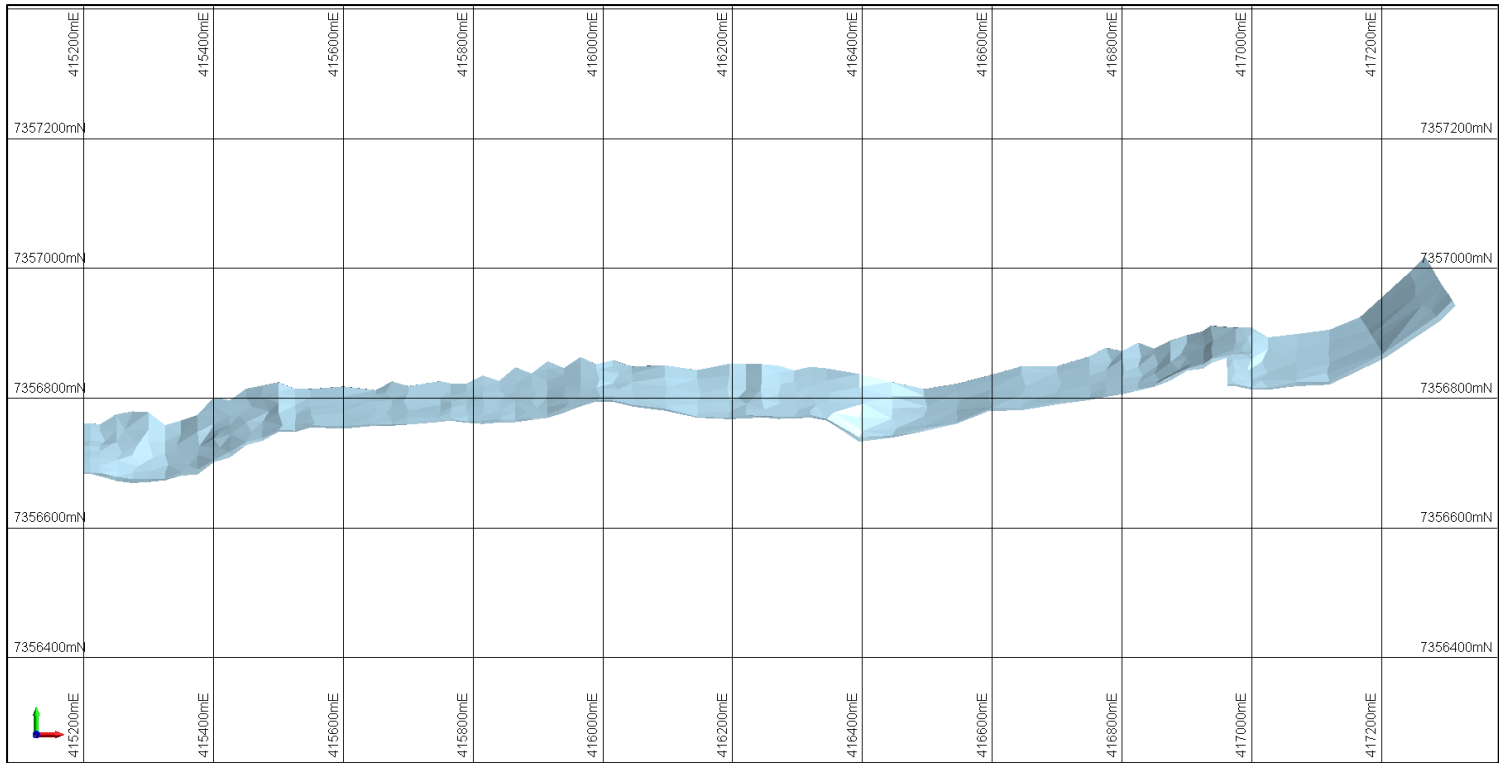
Fraser's



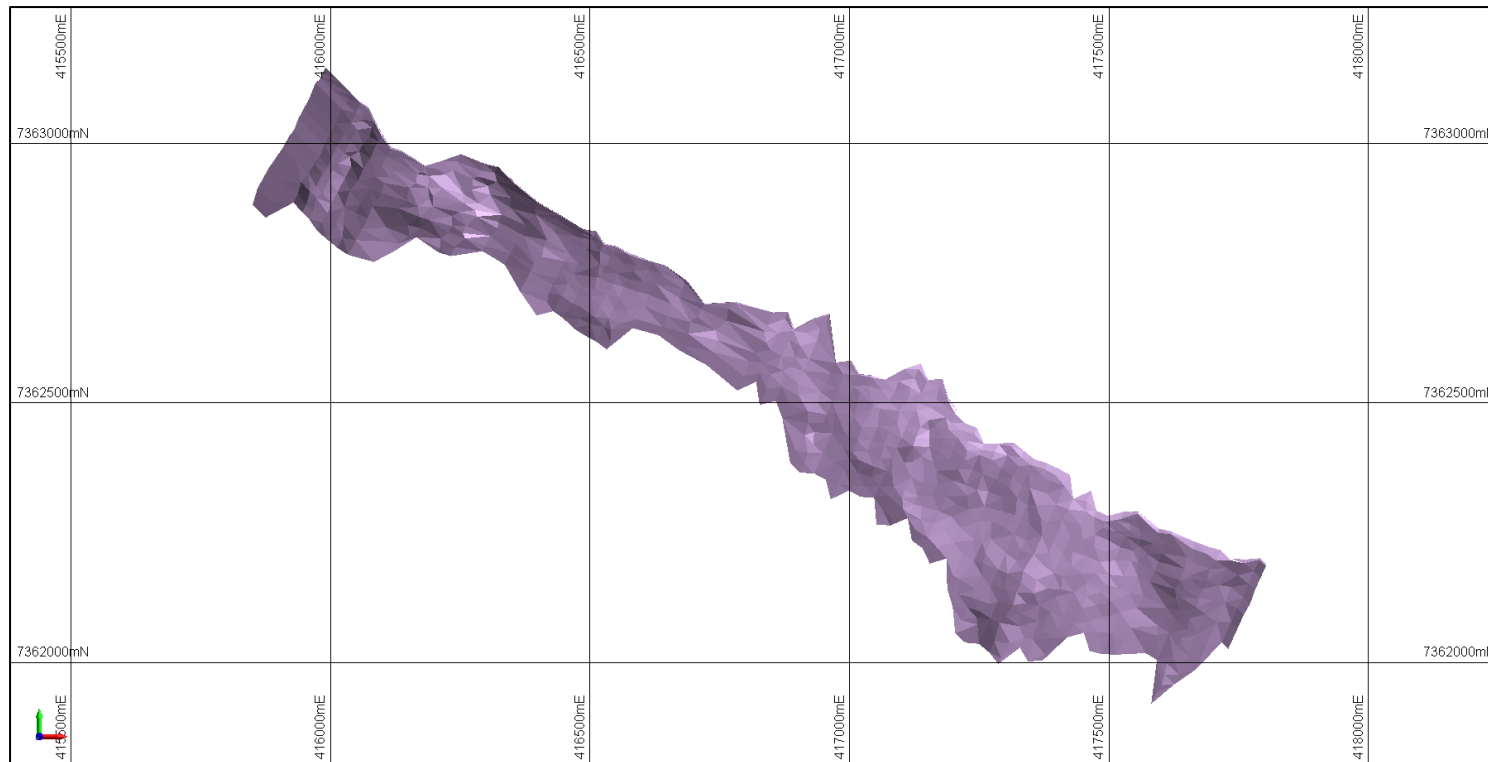
Auer



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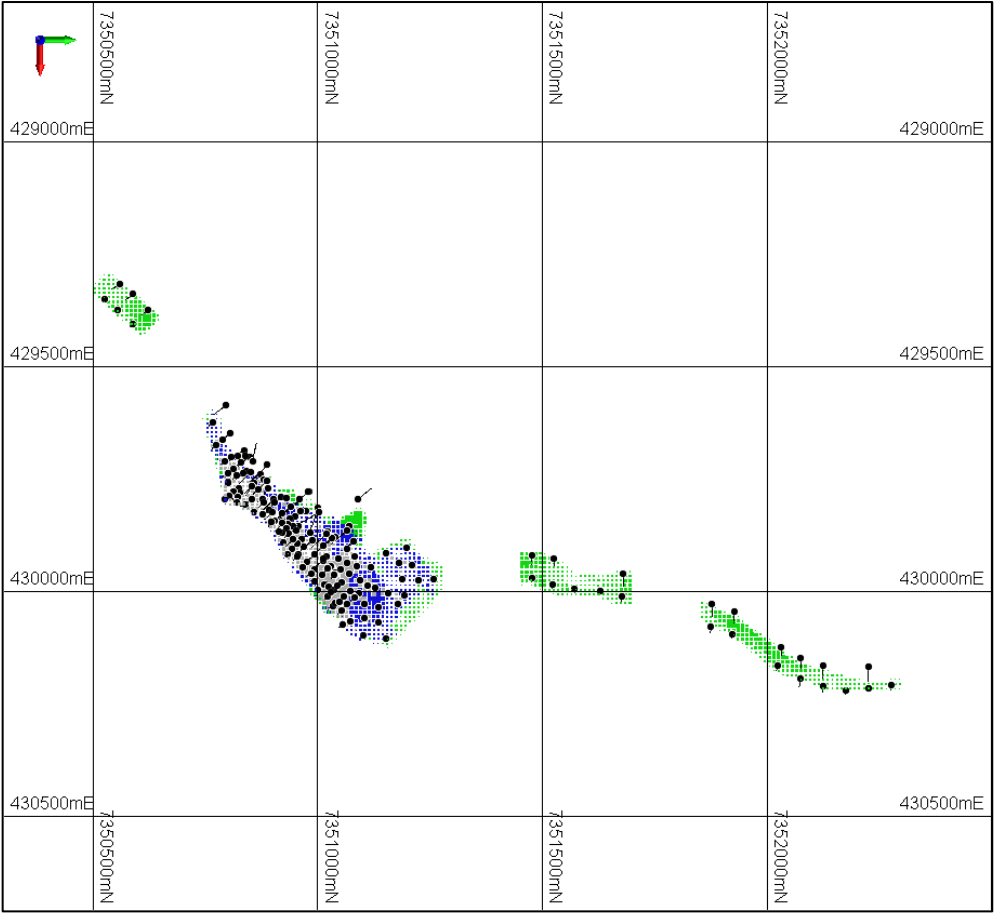
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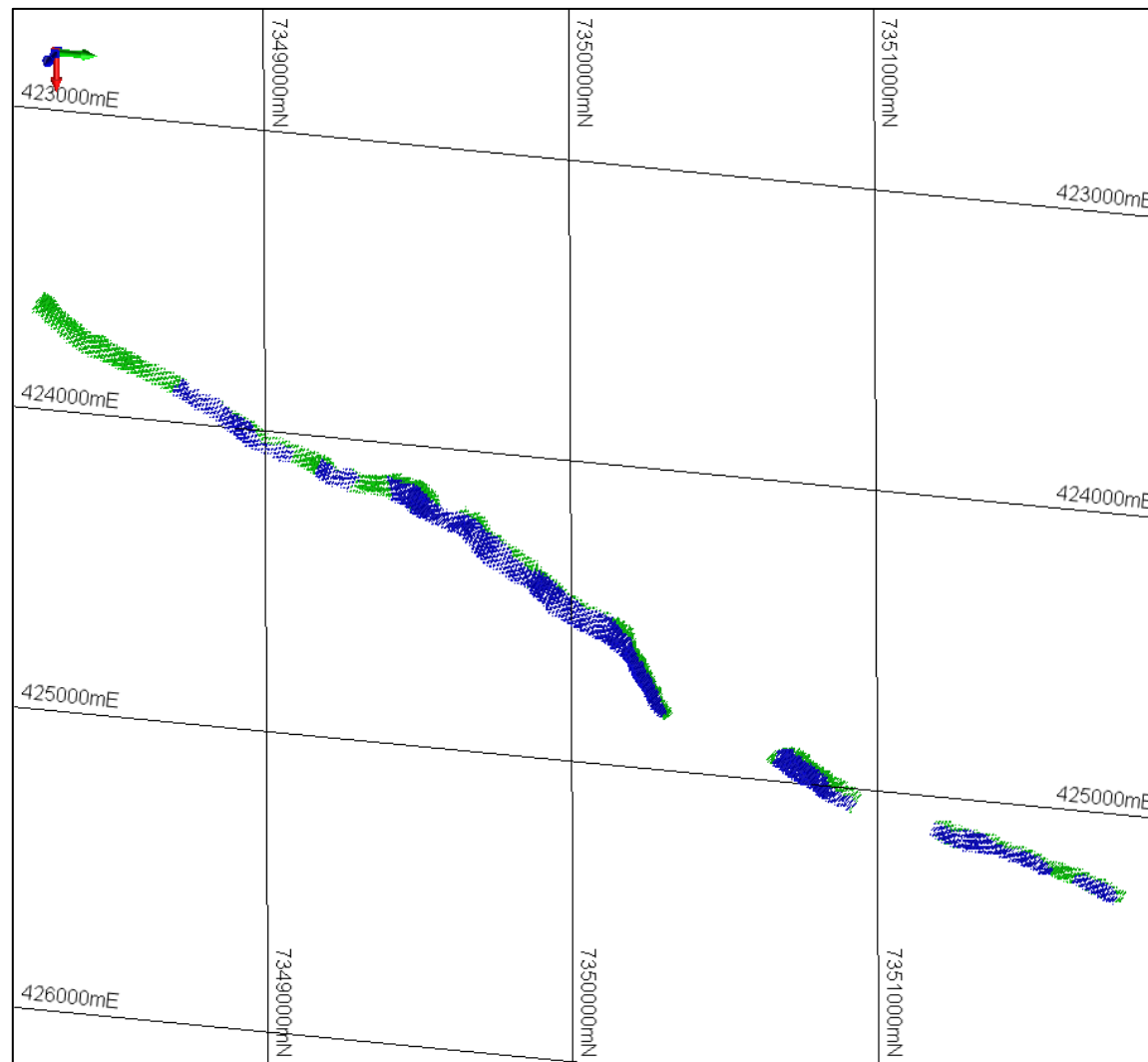
3.3 Mineral Resource Classification

In addition to the previously described mineral resource classification figure the following illustrate the final resource classifications applied to the Yangibana project deposits. The classification colour scheme is as follows, grey = Measured, Blue = Indicated and Green = Inferred.

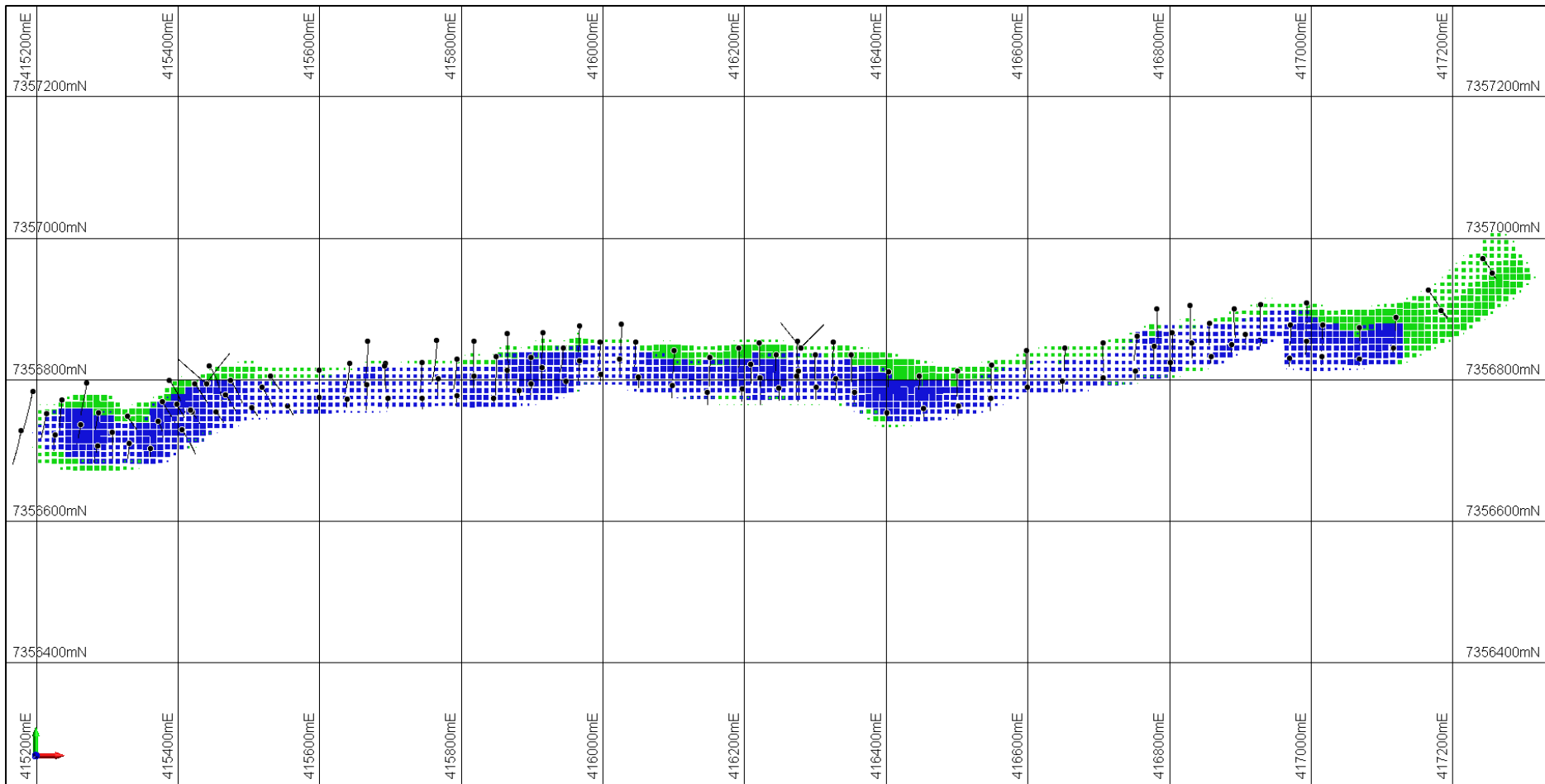
Frasers



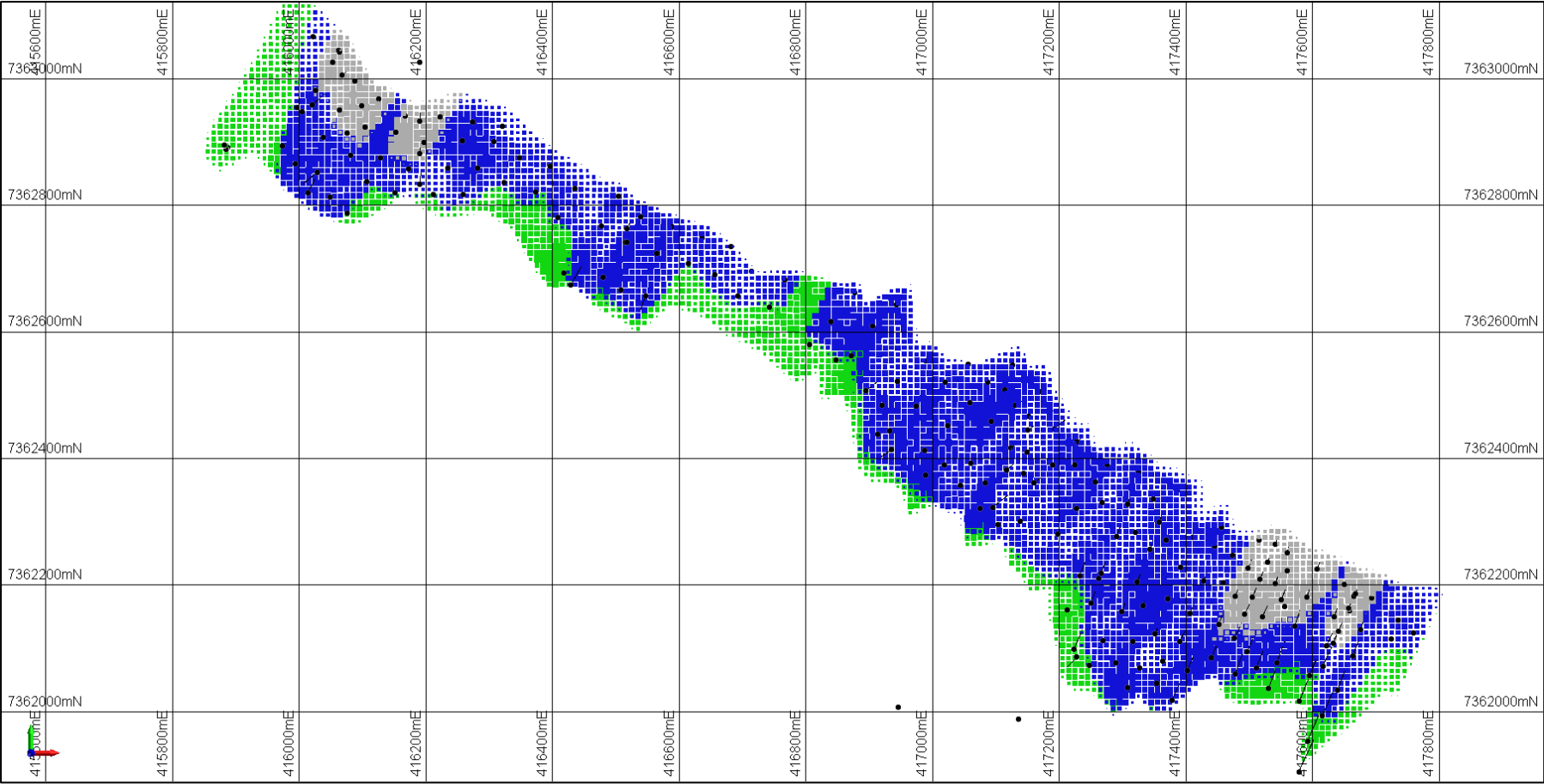
Auer – due to the length of the Auer and Auer North deposits the image has been rotated to an oblique view and the drill holes have been removed.



Yangibana



Yangibana North



3.4 Conditional Statistics for all elements.

Bald Hill

Nd + Pr Varography Cumulative Proportion	Grade Threshold Nd + Pr %	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Ce ppm	Mean	La ppm	Mean	Nd ppm	Mean	Pr ppm	Mean	Sm ppm	Mean	Th ppm	Mean	LREO ppm	Mean	TREO %	Mean	
0.10	0.043	0.019	402	186	119	58	358	157	80	34	47	22	49	20	1029	469	0.115	0.055	297
0.20	0.085	0.065	823	617	228	174	716	541	159	121	87	67	99	75	2056	1557	0.224	0.171	297
0.30	0.129	0.106	1230	1017	342	281	1083	892	242	197	130	109	150	125	3086	2523	0.33	0.273	298
0.40	0.179	0.153	1785	1507	479	410	1512	1296	339	289	180	153	212	180	4398	3727	0.472	0.399	297
0.50	0.238	0.209	2360	2074	641	559	1998	1752	447	394	233	205	281	246	5702	5058	0.607	0.54	298
0.60	0.303	0.271	3014	2683	854	744	2552	2275	581	514	301	267	368	323	7281	6516	0.776	0.694	297
0.70	0.389	0.345	3852	3414	1095	974	3247	2893	758	668	378	338	479	423	9415	8318	0.995	0.885	297
0.75	0.441	0.414	4383	4107	1247	1169	3666	3444	857	809	429	402	551	513	10691	10021	1.142	1.063	149
0.80	0.506	0.474	5127	4721	1455	1349	4191	3927	987	921	485	455	625	585	12279	11460	1.294	1.218	149
0.85	0.589	0.542	6022	5522	1769	1596	4862	4500	1149	1062	569	522	731	680	14388	13229	1.508	1.393	148
0.90	0.718	0.648	7312	6629	2151	1945	6075	5412	1413	1267	690	624	900	811	17466	15777	1.836	1.657	149
0.95	1.040	0.849	10561	8626	3049	2544	8551	7163	2026	1655	940	793	1220	1044	25282	20555	2.679	2.164	149
0.97	1.278	1.137	13860	12139	4121	3531	10581	9505	2548	2255	1113	1021	1481	1332	31776	28538	3.29	2.974	59
0.99	1.818	1.486	20160	16444	5990	4923	14936	12399	3624	2955	1676	1327	2131	1729	46259	37399	4.784	3.879	60
1.00	5.185	2.459	42231	26909	12792	8111	43073	20345	8777	4883	5418	2156	5590	2807	112291	61309	11.824	6.316	30

HREO Varography Cumulative Proportion	Grade Threshold HREO	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Dy ppm	Mean	Eu ppm	Mean	Gd ppm	Mean	Ho ppm	Mean	Tb ppm	Mean	Y ppm	Mean			
0.10	98	57	11	6	10	5	26	13	1.38	0.83	2.82	1.51	33	16			297
0.20	151	124	17	14	18	14	46	36	1.95	1.72	4.71	3.78	49	41			297
0.30	199	174	22	19	27	23	65	55	2.64	2.30	6.47	5.59	62	55			298
0.40	257	227	29	25	36	31	86	75	3.32	2.94	8.59	7.44	79	70			297
0.50	326	291	37	33	49	42	115	100	4.01	3.65	11.17	9.90	97	88			298
0.60	413	371	47	42	62	55	147	131	5.04	4.54	14.47	12.93	118	107			297
0.70	507	458	59	53	78	70	186	166	6.19	5.63	18.23	16.20	147	132			297
0.75	580	543	68	63	89	84	211	198	7.10	6.67	20.82	19.56	168	157			149
0.80	670	621	79	73	101	95	243	226	8.13	7.59	24.11	22.54	189	178			149
0.85	789	726	94	85	120	110	288	266	9.62	8.81	28.82	26.37	224	204			148
0.90	979	881	116	105	145	133	351	319	12.01	10.72	36.11	32.14	282	252			149
0.95	1299	1125	157	134	195	169	481	411	16.04	13.67	48.93	41.80	374	322			149
0.97	1569	1421	195	174	239	214	578	526	19.47	17.84	59.99	53.45	472	418			59
0.99	2435	1922	307	245	348	282	892	703	32.07	24.51	90.92	73.29	769	588			60
1.00	5946	3276	738	420	1023	455	2386	1165	80.64	43.63	226.89	126.88	1914	1060			30

Other Varography Cumulative Proportion	Grade Threshold Yb ppm	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Tm ppm	Mean	Er ppm	Mean	Lu ppm	Mean	U ppm	Mean	
0.10	1.48	0.89	0.30	0.16	2.63	1.59	0.23	0.13	5.17	2.46	297
0.20	2.16	1.87	0.46	0.35	3.77	3.21	0.34	0.26	8.65	6.98	297
0.30	2.73	2.44	0.46	0.46	4.69	4.18	0.34	0.34	11.54	10.09	298
0.40	3.30	3.00	0.57	0.56	5.75	5.18	0.46	0.42	14.66	13.17	297
0.50	3.87	3.60	0.69	0.67	6.98	6.38	0.57	0.47	18.15	16.29	298
0.60	4.56	4.24	0.91	0.80	8.35	7.68	0.57	0.57	22.47	20.29	297
0.70	5.58	5.02	1.03	0.97	10.41	9.34	0.68	0.67	28.48	25.14	297
0.75	6.15	5.82	1.14	1.10	11.66	10.97	0.80	0.79	32.08	30.20	149
0.80	6.83	6.48	1.26	1.22	13.27	12.35	0.91	0.86	36.77	34.14	149
0.85	7.74	7.27	1.49	1.41	15.55	14.25	1.02	0.96	42.42	39.50	148
0.90	9.11	8.43	1.81	1.62	19.21	17.15	1.25	1.09	50.23	45.72	149
0.95	12.41	10.49	2.40	2.03	26.99	22.44	1.59	1.39	62.13	55.31	149
0.97	14.92	13.51	2.97	2.60	34.53	30.19	2.05	1.78	72.58	66.60	59
0.99	21.98	18.02	4.68	3.60	55.69	43.41	3.18	2.41	96.14	82.78	60
1.00	55.00	30.99	12.11	6.22	251.57	96.23	13.65	5.17	455.68	133.19	30

Frasers

Nd + Pr Varography Cumulative Proportion	Grade	Class																		
	Threshold	Mean	Class		Class		Class		Class		Class		Class		Class		Class		Class	
	TREO %	Mean	Ce ppm	Mean	La ppm	Mean	Nd ppm	Mean	Pr ppm	Mean	Sm ppm	Mean	Th ppm	Mean	LREO ppm	Mean	Nd + Pr %	Mean	Samples	
0.10	0.222	0.147	841	517	139	93	759	503	181	118	75	49	81	49	2073	1342	0.094	0.062	75	
0.20	0.301	0.264	1189	1007	209	175	1084	918	253	219	103	89	114	98	2844	2471	0.135	0.114	76	
0.30	0.401	0.351	1581	1386	278	243	1425	1244	338	299	136	118	145	129	3753	3314	0.176	0.154	75	
0.40	0.544	0.478	2106	1862	365	322	1987	1685	462	403	182	160	202	173	5123	4495	0.245	0.209	75	
0.50	0.700	0.624	2762	2425	495	423	2452	2203	599	530	230	207	260	233	6664	5889	0.305	0.274	76	
0.60	0.901	0.803	3599	3173	615	554	3141	2853	777	688	287	262	331	297	8524	7620	0.39	0.355	75	
0.70	1.206	1.042	4971	4187	871	736	4151	3639	1076	904	369	327	436	382	11526	9881	0.522	0.454	76	
0.75	1.395	1.296	5829	5379	992	937	4776	4453	1218	1141	434	400	530	482	13342	12430	0.605	0.559	38	
0.80	1.559	1.49	6558	6256	1163	1085	5439	5155	1354	1287	494	466	610	568	14986	14234	0.679	0.646	37	
0.85	1.825	1.7	8255	7293	1438	1300	6395	5846	1619	1488	576	525	714	661	17775	16278	0.816	0.733	38	
0.90	2.707	2.191	12403	9545	2083	1709	8933	7607	2345	1903	765	650	956	828	26129	20975	1.119	0.95	38	
0.95	4.288	3.419	19264	15238	3602	2628	13659	11296	3627	3008	1045	884	1490	1233	42100	33299	1.738	1.428	38	
0.97	5.380	4.824	26106	22435	4572	4058	17009	15246	4690	4178	1165	1109	1853	1682	53239	47224	2.131	1.943	15	
0.99	7.199	6.15	33064	28785	5281	4909	22827	19507	6392	5304	1956	1416	2743	2223	69909	60047	2.867	2.478	15	
1.00	16.262	9.94	76401	48718	16282	8473	51322	33227	14545	8703	2690	2368	5559	3701	161121	97468	6.587	4.192	15	

HREO Varography Cumulative Proportion	Grade	Class	Dy ppm	Class	Er ppm	Class	Eu ppm	Class	Gd ppm	Class	Ho ppm	Class	Tb ppm	Class	Y ppm	Class	Samples	
	Threshold	Mean		Mean		Mean		Mean		Mean		Mean		Mean		Mean		Mean
	HREO	Mean		Mean		Mean		Mean		Mean		Mean		Mean		Mean		Mean
0.10	115	78	14	9	2.52	1.73	15	10	35	23	1.60	1.09	3.76	2.48	39	27	75	
0.20	152	135	18	16	3.32	2.91	20	17	49	42	2.06	1.82	5.29	4.54	51	45	76	
0.30	206	178	24	21	4.35	3.80	27	24	67	58	2.64	2.37	7.29	6.14	65	58	76	
0.40	254	227	31	27	5.26	4.72	36	32	85	76	3.32	2.99	9.06	8.04	81	73	76	
0.50	321	286	39	35	6.29	5.74	47	41	111	96	4.24	3.72	11.53	10.15	99	89	76	
0.60	412	365	50	44	7.78	7.00	57	52	138	124	5.16	4.67	14.94	13.23	124	111	75	
0.70	514	458	63	56	9.83	8.81	73	65	175	156	6.64	5.87	18.82	16.71	156	138	76	
0.75	581	554	73	68	10.75	10.22	84	78	201	189	7.33	7.07	21.29	19.90	173	165	38	
0.80	658	625	81	76	12.12	11.39	100	92	232	216	8.25	7.87	23.99	22.97	200	186	37	
0.85	792	710	94	86	14.98	13.41	115	107	264	247	10.20	9.09	28.03	25.77	241	219	38	
0.90	985	885	122	109	19.21	17.07	141	126	342	301	12.72	11.30	36.35	32.34	305	269	38	
0.95	1313	1148	160	142	25.96	22.09	194	165	470	402	16.50	14.78	47.75	42.17	407	354	38	
0.97	1709	1465	202	178	32.59	29.55	242	219	585	519	21.65	19.11	63.63	54.15	484	441	15	
0.99	2345	2007	280	239	47.34	38.51	364	288	839	702	29.90	24.59	88.92	73.82	756	581	15	
1.00	3051	2560	356	324	114.81	65.50	486	416	1111	952	39.40	35.77	115.62	99.99	1527	926		

Other Varography Cumulative Proportion	Grade	Class									Samples
	Threshold	Mean	Class		Class		Class		Class		
	Yb ppm	Mean	Tm ppm	Mean	Lu ppm	Mean	U ppm	Mean			
0.10	1.14	0.82	0.23	0.18	0.11	0.08	5.41	3.04	75		
0.20	1.59	1.36	0.34	0.29	0.23	0.20	9.37	7.32	76		
0.30	1.94	1.78	0.46	0.36	0.23	0.23	13.46	11.53	75		
0.40	2.39	2.17	0.46	0.46	0.34	0.30	16.58	14.96	76		
0.50	2.85	2.60	0.57	0.55	0.34	0.34	21.63	18.99	76		
0.60	3.42	3.12	0.69	0.66	0.46	0.39	26.44	24.27	75		
0.70	4.21	3.75	0.91	0.79	0.57	0.49	32.33	29.41	76		
0.75	4.67	4.42	1.03	0.94	0.57	0.57	35.57	33.88	78		
0.80	5.35	5.10	1.14	1.08	0.68	0.65	39.54	37.62	37		
0.85	6.60	6.04	1.37	1.21	0.80	0.74	45.18	42.28	38		
0.90	7.86	7.21	1.71	1.54	1.02	0.91	52.74	48.69	38		
0.95	11.84	9.72	2.40	1.99	1.37	1.20	73.90	63.12	18		
0.97	15.49	13.65	3.08	2.76	1.82	1.59	85.32	77.55	35		
0.99	25.17	20.77	4.45	3.97	2.73	2.19	145.29	108.28	15		
1.00	113.76	43.28	17.36	7.59	16.83	5.44	287.57	200.63			

Auer

TREO Varography Cumulative Proportion	Grade Threshold TREO %	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Ce ppm	Mean	La ppm	Mean	Nd ppm	Mean	Pr ppm	Mean	Sm ppm	Mean	LREO ppm	Mean	Nd + Pr %	Mean			
0.10	0.119	0.065	471	247	123	67	322	163	82	42	37	20	1087	574	0.04	0.02	160		
0.20	0.182	0.151	763	616	194	157	500	415	127	105	57	47	1704	1395	0.063001	0.052	161		
0.30	0.260	0.221	1139	953	277	235	713	600	182	154	79	67	2459	2060	0.088001	0.075	160		
0.40	0.371	0.311	1635	1356	387	323	1021	862	264	221	108	94	3467	2918	0.129	0.108	161		
0.50	0.492	0.427	2199	1893	517	446	1360	1195	351	307	148	128	4632	4040	0.172	0.151	160		
0.60	0.665	0.568	2957	2550	707	608	1840	1591	474	410	199	173	6248	5377	0.232	0.2	161		
0.70	0.910	0.77	4170	3544	989	838	2480	2146	665	558	265	230	8677	7333	0.315	0.27	160		
0.75	1.097	1.008	5134	4636	1209	1091	2975	2719	802	732	318	290	10476	9622	0.378	0.345	80		
0.80	1.287	1.193	6145	5659	1480	1356	3548	3241	968	878	381	343	12441	11418	0.454	0.412	81		
0.85	1.579	1.433	7496	6770	1780	1635	4467	3963	1177	1063	460	416	15200	13731	0.566	0.502	80		
0.90	1.968	1.791	9185	8283	2313	2010	5416	4953	1471	1324	577	513	18939	17144	0.691	0.628	80		
0.95	2.753	2.292	12790	10861	3307	2787	7263	6263	1976	1694	744	646	26692	22046	0.92	0.796	80		
0.97	3.217	2.953	15140	14053	3953	3583	8491	7841	2390	2169	877	812	30933	28468	1.081	0.998	32		
0.99	4.164	3.599	19845	17034	4952	4411	11780	10033	3142	2692	1218	1022	40013	34702	1.474	1.271	32		
1.00	6.234	4.884	29030	23008	8837	6348	17514	13958	4563	3644	2391	1609	60408	47077	2.208	1.757	17		

HREO Varography Cumulative Proportion	Grade Threshold HREO	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Dy ppm	Mean	Er ppm	Mean	Eu ppm	Mean	Gd ppm	Mean	Ho ppm	Mean	Tb ppm	Mean	Y ppm	Mean			
0.10	14	1	8	4	2.06	1.24	7	4	18	10	1.09	0.66	2.00	1.14	26	13	160		
0.20	79	58	11	10	3.09	2.57	11	9	27	22	1.60	1.35	2.82	2.43	41	33	161		
0.30	112	96	15	14	4.12	3.54	16	13	38	32	2.18	1.85	4.00	3.39	53	46	160		
0.40	152	130	21	18	5.37	4.80	21	19	51	44	2.86	2.48	5.41	4.70	71	62	161		
0.50	202	176	27	24	6.86	6.10	29	25	69	60	3.67	3.22	7.18	6.25	92	81	160		
0.60	267	233	37	32	8.92	7.83	38	34	91	81	4.81	4.27	9.65	8.39	124	107	161		
0.70	363	313	48	42	11.32	10.10	52	45	123	105	6.19	5.54	12.35	10.95	158	142	160		
0.75	408	386	54	51	12.69	12.08	60	57	139	131	6.99	6.59	14.31	13.44	178	169	80		
0.80	470	439	62	58	14.41	13.58	72	66	170	154	7.88	7.40	16.94	15.62	203	191	81		
0.85	535	502	72	67	17.61	15.92	88	81	205	188	9.39	8.60	20.35	18.72	243	223	80		
0.90	636	587	92	81	21.73	19.45	108	98	250	227	11.80	10.49	24.11	22.13	301	270	80		
0.95	787	701	120	103	28.24	24.70	143	125	341	292	15.35	13.44	33.40	28.96	400	342	80		
0.97	866	822	143	131	34.31	31.77	171	155	395	366	18.21	16.87	38.93	35.87	479	427	32		
0.99	980	917	191	165	45.63	39.59	241	198	535	448	25.43	20.98	51.99	45.12	598	531	32		
1.00	3524	1357	397	238	82.56	56.87	473	299	978	657	48.23	30.52	111.86	68.10	866	740	17		

Other Varography Cumulative Proportion	Grade Threshold Yb ppm	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Tm ppm	Mean	Lu ppm	Mean	Th ppm	Mean	U ppm	Mean			
0.10	0.91	0.55	0.23	0.13	0.11	0.02	25	12	1.20	0.68	160		
0.20	1.48	1.19	0.34	0.27	0.23	0.15	38	32	1.92	1.54	161		
0.30	1.94	1.70	0.46	0.37	0.23	0.23	52	44	2.52	2.19	160		
0.40	2.39	2.18	0.57	0.49	0.34	0.27	72	61	3.37	2.96	161		
0.50	3.07	2.77	0.69	0.62	0.34	0.34	97	84	4.33	3.83	160		
0.60	3.99	3.51	0.91	0.76	0.46	0.45	129	111	5.29	4.80	161		
0.70	5.12	4.54	1.14	0.98	0.68	0.56	175	149	6.49	5.91	160		
0.75	5.92	5.48	1.26	1.18	0.68	0.68	204	190	7.33	6.85	80		
0.80	6.72	6.31	1.37	1.33	0.80	0.79	248	226	8.53	7.89	81		
0.85	8.20	7.45	1.71	1.56	1.02	0.94	297	273	9.85	9.23	80		
0.90	10.36	9.28	2.17	1.94	1.25	1.15	369	336	12.50	11.09	80		
0.95	13.92	12.14	2.86	2.47	1.71	1.53	498	434	17.79	14.84	80		
0.97	16.97	15.36	3.43	3.13	2.05	1.87	603	545	20.79	19.20	32		
0.99	24.14	19.78	4.68	4.03	2.73	2.37	776	676	26.92	23.53	32		
1.00	35.98	27.78	7.77	5.59	4.21	3.45	2429	979	140.72	53.88	17		

Auer North

TREO	Grade	Class																	
Varography	Threshold	Mean																	
Cumulative		Class																	
Proportion	TREO %	Mean	Ce ppm	Class Mean	La ppm	Class Mean	Nd ppm	Class Mean	Pr ppm	Class Mean	Sm ppm	Class Mean	LREO ppm	Class Mean	Nd + Pr %	Class Mean		Samples	
0.10	0.111	0.051	521	239	126	61	241	100	70	29	21	10	1041	476	0.031	0.013		81	
0.20	0.185	0.142	918	722	211	168	412	320	122	94	34	27	1751	1354	0.054	0.042		81	
0.30	0.293	0.232	1492	1165	342	273	661	535	196	159	51	42	2867	2229	0.087	0.069		82	
0.40	0.436	0.362	2292	1887	501	417	992	833	301	245	75	63	4228	3521	0.130	0.108		81	
0.50	0.586	0.514	3106	2654	686	593	1408	1193	428	361	101	88	5711	4999	0.184	0.155		82	
0.60	0.800	0.681	3979	3524	886	780	1938	1648	578	501	133	117	7707	6636	0.253	0.215		81	
0.70	1.061	0.929	5393	4722	1172	1007	2779	2296	813	690	183	155	10373	9073	0.354	0.298		81	
0.75	1.203	1.129	6354	5850	1341	1254	3172	2981	938	875	219	201	11863	11041	0.419	0.386		41	
0.80	1.450	1.331	7210	6777	1564	1453	3727	3445	1116	1032	252	238	14054	13015	0.482	0.448		41	
0.85	1.720	1.591	8609	7884	1825	1676	4468	4054	1332	1227	293	274	16820	15586	0.574	0.530		40	
0.90	1.995	1.856	10017	9300	2202	2013	5336	4889	1564	1446	369	329	19535	18172	0.693	0.633		41	
0.95	2.454	2.205	12480	11189	2894	2585	6590	6042	1934	1749	458	404	23924	21551	0.854	0.779		41	
0.97	2.665	2.576	13365	12912	3419	3112	7748	7257	2146	2057	504	484	26444	25311	0.984	0.929		16	
0.99	3.356	3.009	17437	15410	4499	3928	9764	8430	2629	2363	633	546	32804	29517	1.226	1.077		16	
1.00	7.734	4.532	38258	23294	9032	5896	23334	13834	6631	3759	1285	913	76413	44648	2.997	1.753			

HREO Varography Cumulative Proportion	Grade		Class Mean															Samples
	Threshold	Class																
	HREO	Mean	Dy ppm	Class Mean	Er ppm	Class Mean	Eu ppm	Class Mean	Gd ppm	Class Mean	Ho ppm	Class Mean	Tb ppm	Class Mean	Y ppm	Class Mean		
0.10	32	11	4	2	2.06	1.24	4	2	9	5	0.57	0.29	0.94	0.49	15	8	81	
0.20	55	44	6	5	3.09	2.57	6	5	14	12	0.80	0.69	1.41	1.18	24	20	81	
0.30	77	66	8	7	4.12	3.54	9	8	20	17	1.15	0.97	2.00	1.75	32	28	82	
0.40	103	91	10	9	5.37	4.80	14	12	27	24	1.49	1.30	2.59	2.34	41	36	81	
0.50	130	118	13	12	6.86	6.10	19	16	37	32	1.83	1.65	3.41	2.97	52	47	82	
0.60	162	145	16	14	8.92	7.83	24	22	47	42	2.18	2.03	4.23	3.86	66	58	81	
0.70	218	190	21	18	11.32	10.10	32	28	64	54	2.86	2.52	5.88	4.96	81	73	81	
0.75	261	239	25	23	12.69	12.08	39	36	76	69	3.44	3.11	6.70	6.24	99	89	41	
0.80	297	278	29	27	14.41	13.58	46	43	90	82	4.24	3.80	8.00	7.31	121	109	41	
0.85	377	335	36	33	17.61	15.92	53	49	106	97	5.16	4.65	9.53	8.76	149	135	40	
0.90	452	415	44	40	21.73	19.45	64	58	125	116	6.42	5.68	11.88	10.59	193	169	41	
0.95	591	528	57	51	28.24	24.70	80	71	156	139	8.82	7.66	14.59	13.10	262	225	41	
0.97	661	625	64	61	34.31	31.77	85	82	179	167	9.85	9.38	16.82	15.75	294	275	16	
0.99	793	726	79	74	45.63	39.59	109	97	235	199	11.46	10.44	21.64	18.67	345	322	16	
1.00	996	877	138	97	82.56	56.87	228	149	394	291	21.65	14.09	31.52	26.94	573	424	9	

Other Varography Cumulative Proportion	Grade	Class											Samples
	Threshold	Mean	Class		Class		Class		Class				
	Yb ppm	Mean	Tm ppm	Mean	Lu ppm	Mean	Th ppm	Mean	U ppm	Mean			
0.10	0.57	0.30	0.11	0.03	0.00	0.00	19	6	1.08	0.46		81	
0.20	1.03	0.79	0.23	0.16	0.11	0.07	34	27	1.92	1.51		81	
0.30	1.37	1.19	0.23	0.23	0.23	0.18	49	41	2.88	2.37		82	
0.40	1.82	1.59	0.34	0.33	0.23	0.23	71	59	3.85	3.31		81	
0.50	2.28	2.06	0.46	0.40	0.34	0.30	95	81	4.93	4.36		82	
0.60	3.30	2.77	0.57	0.51	0.46	0.39	130	112	6.13	5.51		81	
0.70	3.99	3.62	0.69	0.65	0.57	0.52	173	151	7.93	6.98		81	
0.75	4.67	4.34	0.80	0.79	0.68	0.63	204	187	9.25	8.52		41	
0.80	6.04	5.45	1.03	0.97	0.91	0.77	246	226	10.46	9.83		41	
0.85	8.09	7.13	1.37	1.24	1.14	0.98	284	262	12.02	11.28		40	
0.90	10.36	9.20	1.83	1.57	1.48	1.28	344	320	15.02	13.52		41	
0.95	16.17	12.55	2.74	2.13	2.16	1.74	424	384	19.71	17.06		41	
0.97	17.76	17.14	2.97	2.88	2.39	2.32	478	456	23.43	21.51		16	
0.99	24.37	20.47	3.66	3.28	3.53	2.99	603	525	28.84	26.19		16	
1.00	39.74	30.44	6.85	4.62	5.46	4.45	931	721	45.18	34.42			

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TREO Varography Cumulative Proportion	Grade Threshold TREO %	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Ce ppm		La ppm		Nd ppm		Pr ppm		Th ppm		LREO ppm		Nd + Pr %		
0.10	0.111	0.066	274	157	64	37	423	232	69	38	133	51	991	569	0.049	0.027	49
0.20	0.153	0.133	428	360	96	81	607	507	98	83	229	190	1386	1169	0.071	0.059	50
0.30	0.214	0.185	599	514	129	112	840	713	134	118	312	273	1893	1658	0.098	0.083	50
0.40	0.297	0.253	852	717	169	150	1166	1003	193	162	453	378	2705	2271	0.136	0.116	50
0.50	0.421	0.361	1189	1014	234	201	1680	1433	274	233	639	538	3850	3255	0.196	0.167	50
0.60	0.547	0.48	1637	1416	325	278	2158	1922	356	320	852	754	4982	4404	0.252	0.225	50
0.70	0.685	0.612	2181	1893	441	377	2736	2423	467	415	1096	973	6456	5678	0.321	0.283	50
0.75	0.817	0.749	2569	2372	508	478	3279	3003	548	505	1342	1219	7454	6956	0.382	0.351	25
0.80	1.017	0.915	3073	2864	603	555	4251	3729	707	630	1627	1486	9509	8472	0.495	0.436	25
0.85	1.236	1.12	3685	3379	718	650	5010	4619	858	783	1997	1843	11630	10453	0.596	0.541	25
0.90	1.428	1.345	4498	4228	950	830	6003	5521	1026	952	2542	2287	13484	12582	0.703	0.647	25
0.95	1.997	1.665	6559	5173	1172	1031	8287	6877	1431	1173	3390	2964	18615	15578	0.985	0.805	25
0.97	2.359	2.207	7898	7268	1582	1442	9801	9044	1764	1626	4086	3751	22415	20987	1.152	1.064	10
0.99	4.534	3.326	14153	10649	2936	2104	18465	13691	3183	2386	7320	5492	42342	31477	2.165	1.610	10
1.00	7.693	5.578	26908	19627	5569	4075	31054	22898	5844	4266	22432	11219	74257	53922	3.690	2.710	5

HREO Varography Cumulative Proportion	Grade Threshold HREO	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Dy ppm	Mean	Eu ppm	Mean	Gd ppm	Mean	Ho ppm	Mean	Sm ppm	Mean	Tb ppm	Mean			
0.10	101	65	7	5	19	11	40	23	0.92	0.58	92	54	2.71	1.67	49		
0.20	146	122	11	9	29	24	58	49	1.15	1.03	139	120	3.76	3.19	50		
0.30	194	170	14	12	40	35	81	69	1.49	1.34	195	167	5.29	4.38	50		
0.40	247	222	18	16	56	47	104	93	1.95	1.76	281	238	6.70	5.97	50		
0.50	333	293	24	21	72	65	146	124	2.64	2.30	373	329	8.94	7.82	50		
0.60	417	377	30	27	96	84	187	165	3.21	2.88	479	425	11.53	10.22	50		
0.70	523	469	39	34	120	108	238	212	4.01	3.56	603	537	14.94	13.09	50		
0.75	585	556	44	41	137	128	265	249	4.47	4.23	709	651	16.47	15.78	25		
0.80	712	653	49	46	167	150	316	289	5.04	4.71	849	775	19.76	18.31	25		
0.85	822	760	57	52	198	182	374	340	5.84	5.39	1043	934	22.47	21.07	25		
0.90	935	878	69	63	243	221	438	411	7.10	6.46	1260	1152	26.23	24.53	25		
0.95	1326	1155	100	82	314	274	596	516	10.08	8.50	1723	1435	37.76	31.85	25		
0.97	1478	1387	109	104	405	352	735	645	11.46	10.72	2050	1822	40.70	38.99	10		
0.99	2014	1788	129	121	527	462	940	845	12.72	12.05	3010	2510	57.05	48.69	10		
1.00	3002	2464	159	151	818	681	1604	1200	16.15	14.80	4881	3875	76.22	66.20	5		

Other Varography Cumulative Proportion	Grade Threshold Yb ppm	Class Mean Class Mean	Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Class Mean		Samples
			Tm ppm	Mean	Er ppm	Mean	Lu ppm	Mean	Y ppm	Mean	U ppm	Mean			
0.10	1.03	0.70	0.23	0.13	1.72	1.16	0.11	0.06	21	11	5.17	2.59	49		
0.20	1.37	1.19	0.23	0.23	2.40	2.04	0.23	0.19	31	26	8.65	6.88	50		
0.30	1.82	1.59	0.34	0.32	2.97	2.63	0.23	0.23	39	35	12.27	10.63	50		
0.40	2.16	2.00	0.46	0.37	3.77	3.39	0.34	0.29	51	45	15.74	14.07	50		
0.50	2.62	2.42	0.57	0.47	4.80	4.32	0.34	0.34	66	58	22.83	18.78	50		
0.60	3.19	2.91	0.57	0.57	5.83	5.28	0.46	0.40	82	73	28.24	24.98	50		
0.70	3.76	3.54	0.80	0.71	7.32	6.51	0.57	0.47	102	91	36.53	32.04	50		
0.75	4.21	3.98	0.80	0.80	8.12	7.76	0.57	0.57	112	107	40.62	38.61	25		
0.80	4.90	4.56	0.91	0.88	9.15	8.71	0.68	0.63	124	118	46.39	43.16	25		
0.85	5.47	5.26	1.14	1.02	11.09	9.93	0.80	0.75	144	134	50.95	48.91	25		
0.90	6.83	6.19	1.37	1.18	13.04	11.96	1.02	0.91	173	161	60.69	56.07	25		
0.95	8.88	7.93	1.83	1.54	19.44	16.92	1.25	1.12	256	213	80.87	69.87	25		
0.97	10.48	9.92	2.06	1.91	21.27	20.38	1.37	1.29	288	269	91.09	85.15	10		
0.99	11.73	10.93	2.51	2.33	28.59	24.87	1.93	1.74	323	306	115.72	103.00	10		
1.00	19.36	15.33	3.66	3.02	72.04	50.09	2.50	2.30	414	372	218.71	155.07	5		

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Nd + Pr Varography Cumulative Proportion	Grade Threshold	Class Mean Class	Class		Class		Class		Class		Class		Class		Samples
	Nd + Pr %	Mean	Ce ppm	Mean	La ppm	Mean	Nd ppm	Mean	Pr ppm	Mean	LREO ppm	Mean	TREO %	Mean	
0.10	0.035	0.022	577	362	225	138	272	174	75	48	1204	771	0.129	0.085	131
0.20	0.055	0.045	961	775	371	297	428	353	125	100	1985	1585	0.206	0.168	132
0.30	0.080	0.067	1406	1161	554	453	633	520	179	149	2866	2383	0.299	0.250	132
0.40	0.116	0.097	2030	1714	781	657	893	756	261	216	4194	3480	0.434	0.363	132
0.50	0.172	0.143	3036	2473	1189	973	1337	1115	381	316	6233	5070	0.643	0.530	132
0.60	0.245	0.205	4392	3709	1759	1464	1900	1590	551	465	8862	7487	0.924	0.777	132
0.70	0.334	0.287	6012	5134	2412	2062	2587	2213	767	649	12199	10429	1.263	1.081	132
0.75	0.389	0.359	6977	6498	2823	2607	2995	2769	870	823	14145	13142	1.466	1.361	66
0.80	0.474	0.428	8276	7624	3401	3060	3654	3306	1052	965	16950	15456	1.756	1.603	66
0.85	0.567	0.52	10788	9485	4339	3846	4374	4003	1331	1199	21602	18995	2.200	1.963	66
0.90	0.737	0.647	13862	12080	5509	4895	5695	4963	1707	1506	27817	24059	2.842	2.473	66
0.95	0.969	0.839	18388	15892	7530	6392	7409	6442	2280	1948	36953	31420	3.792	3.230	66
0.97	1.162	1.052	22339	19995	9193	8284	8837	8068	2739	2464	43978	39482	4.526	4.053	26
0.99	1.597	1.327	32862	26547	13889	11206	12089	10157	3883	3140	63581	52070	6.566	5.308	26
1.00	2.946	2.113	63235	41862	27122	17818	22031	16047	7430	5079	121470	81949	12.283	8.337	14

HREO Varography Cumulative Proportion	Grade Threshold	Class Mean Class	Class		Class		Class		Class		Class		Class		Samples
	HREO	Mean	Dy ppm	Mean	Eu ppm	Mean	Gd ppm	Mean	Ho ppm	Mean	Sm ppm	Mean	Tb ppm	Mean	
0.10	72	53	7	5	10	7	24	16	0.80	0.60	43	27	2.18	1.53	17
0.20	98	85	10	8	14	12	34	29	1.15	0.98	62	52	3.06	2.60	26
0.30	126	110	12	11	21	18	47	40	1.37	1.21	90	76	4.00	3.52	31
0.40	166	144	16	14	30	25	67	57	1.60	1.47	128	107	5.53	4.72	37
0.50	218	190	21	18	43	36	95	78	2.06	1.81	186	157	7.41	6.40	45
0.60	289	255	27	24	58	50	126	109	2.52	2.27	257	223	10.23	8.79	55
0.70	395	336	37	31	80	68	173	148	3.44	2.96	348	297	13.88	11.95	71
0.75	465	427	43	40	97	87	207	190	3.89	3.67	417	381	17.05	15.47	87
0.80	554	503	51	47	114	105	245	226	4.67	4.25	500	457	20.58	18.74	109
0.85	651	601	62	57	138	126	296	271	5.50	5.07	593	547	24.35	22.54	126
0.90	809	725	75	67	168	151	366	329	6.64	5.98	733	652	29.99	27.12	157
0.95	1103	933	110	89	221	191	496	421	9.62	8.00	932	829	41.76	35.86	222
0.97	1287	1187	128	116	273	237	581	533	11.00	10.35	1152	1016	51.05	45.61	260
0.99	1749	1506	162	145	348	307	784	698	14.20	12.54	1438	1277	67.51	59.29	321
1.00	2558	1960	254	197	493	398	1144	905	21.99	17.59	2343	1726	117.62	86.03	509

Other Varography Cumulative Proportion	Grade Threshold	Class Mean Class	Class		Class		Class		Class		Class		Samples
	Er ppm	Mean	Lu ppm	Mean	Tm ppm	Mean	Yb ppm	Mean	Th ppm	Mean	U ppm	Mean	
0.10	1.60	1.14	0.08	0.01	0.11	0.06	0.80	0.56	59	41	3.97	2.66	131
0.20	2.06	1.85	0.11	0.11	0.23	0.20	1.14	0.99	87	74	5.65	4.91	132
0.30	2.40	2.22	0.23	0.19	0.23	0.23	1.37	1.23	126	106	7.33	6.51	132
0.40	2.86	2.63	0.23	0.23	0.30	0.24	1.59	1.45	173	147	9.34	8.29	132
0.50	3.43	3.11	0.23	0.23	0.34	0.34	1.82	1.67	258	215	11.90	10.53	132
0.60	4.14	3.73	0.34	0.27	0.34	0.34	2.05	1.91	355	303	15.38	13.49	132
0.70	5.37	4.68	0.34	0.34	0.46	0.44	2.39	2.22	481	414	21.03	18.17	132
0.75	5.95	5.67	0.35	0.34	0.57	0.48	2.69	2.54	576	527	24.92	23.27	66
0.80	6.86	6.44	0.45	0.43	0.57	0.57	2.99	2.85	702	643	29.08	27.12	66
0.85	8.23	7.56	0.57	0.47	0.69	0.63	3.42	3.23	839	766	34.73	31.82	66
0.90	10.63	9.35	0.68	0.61	0.87	0.75	4.44	3.84	1001	922	43.74	39.04	66
0.95	14.64	12.52	1.14	0.86	1.14	1.01	5.81	5.12	1323	1157	60.57	51.33	66
0.97	17.15	15.79	1.59	1.35	1.37	1.26	6.83	6.39	1481	1424	73.42	67.52	26
0.99	24.01	20.45	3.18	2.24	1.83	1.59	9.00	7.84	2039	1722	96.51	84.39	26
1.00	62.89	34.61	7.05	4.78	2.97	2.28	21.64	12.39	3541	2434	195.64	125.05	14

3.5 Variography

Bald Hill Nd+Pr Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
TREO threshold	0.13	0.57	exp	27.5	8	2.5	0.27	sph	28	52	13	0.03	sph	734	59	431	1	z	-5	y	0	x	1	
1	0.115	0.13	0.57	exp	27.5	8.0	2.5	0.27	sph	28.0	52.0	13.0	0.03	sph	734.0	59.0	431.0	1.00	z	-5	y	0	x	1
2	0.224	0.32	0.64	exp	45.0	8.5	4.5	0.02	sph	55.0	180.0	641.0	0.02	sph	56.0	181.0	684.0	1.00	-17	-9				13
3	0.330	0.32	0.58	exp	23.0	22.5	3.5	0.08	sph	34.0	63.0	6.0	0.02	sph	45.0	93.0	594.0	1.00	77	8				-23
4	0.472	0.44	0.36	exp	9.5	35.5	4.0	0.18	sph	35.0	39.0	5.0	0.02	sph	47.0	40.0	478.0	1.00	56	-12				-6
5	0.607	0.28	0.63	exp	19.5	24.0	3.0	0.07	sph	39.0	49.0	4.0	0.02	sph	41.0	50.0	550.0	1.00	38	-15				-12
6	0.776	0.47	0.18	exp	24.0	37.5	2.5	0.33	sph	39.0	40.0	4.0	0.02	sph	196.0	41.0	352.0	1.00	58	-6				-6
7	0.995	0.24	0.73	exp	23.5	19.5	2.5	0.01	sph	36.0	356.0	469.0	0.02	sph	37.0	431.0	486.0	1.00	-28	-10				4
8	1.142	0.48	0.25	exp	13.5	22.0	2.5	0.25	sph	27.0	24.0	4.0	0.02	sph	43.0	77.0	10.0	1.00	2	-14				-1
9	1.294	0.60	0.36	exp	21.5	18.5	3.0	0.02	sph	41.0	316.0	329.0	0.02	sph	42.0	327.0	334.0	1.00	-16	-8				40
10	1.508	0.65	0.31	exp	17.5	62.5	5.0	0.02	sph	23.0	125.0	11.0	0.02	sph	43.0	479.0	150.0	1.00	-3	-17				14
11	1.836	0.54	0.42	exp	28.5	15.5	2.5	0.02	sph	46.0	20.0	18.0	0.02	sph	48.0	22.0	154.0	1.00	19	-14				-24
12	2.679	0.66	0.17	exp	13.5	14.5	2.5	0.14	sph	26.0	26.0	3.0	0.03	sph	84.0	160.0	58.0	1.00	40	-28				16
13	3.290	0.70	0.14	exp	20.5	9.0	2.5	0.14	sph	25.0	20.0	3.0	0.02	sph	185.0	23.0	176.0	1.00	-0	-15				-1
14	4.784	0.85	0.09	exp	17.5	10.0	2.5	0.04	sph	25.0	21.0	3.0	0.02	sph	35.0	23.0	6.0	1.00	-0	-14				11
15	11.824	0.27	0.57	exp	11.5	19.0	2.5	0.14	sph	21.0	94.0	15.0	0.02	sph	22.0	105.0	118.0	1.00	59	2				-17
16																								
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Prefill Variogram Models

☐ pre-fill all using first vario in list

☐ pre-fill all with prev domain group

☐ pre-fill all with domain group -> Dom1_sub1

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill Nd + Pr Domain 3

Variogram Model Parameters

Dom3_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
TREO threshold	0.13	0.57	exp	27.5	8	2.5	0.27	sph	28	52	13	0.03	sph	734	59	431	1	z	-5	y	0	x	1	
1	0.081	0.13	0.57	exp	27.5	8.0	2.5	0.27	sph	28.0	52.0	13.0	0.03	sph	734.0	59.0	431.0	1.00	z	-5	y	0	x	1
2	0.150	0.32	0.64	exp	45.0	8.5	4.5	0.02	sph	55.0	180.0	641.0	0.02	sph	56.0	181.0	684.0	1.00	-17	-9				13
3	0.230	0.32	0.58	exp	23.0	22.5	3.5	0.08	sph	34.0	63.0	6.0	0.02	sph	45.0	93.0	594.0	1.00	77	8				-23
4	0.314	0.44	0.36	exp	9.5	35.5	4.0	0.18	sph	35.0	39.0	5.0	0.02	sph	47.0	40.0	478.0	1.00	56	-12				-6
5	0.389	0.28	0.63	exp	19.5	24.0	3.0	0.07	sph	39.0	49.0	4.0	0.02	sph	41.0	50.0	550.0	1.00	38	-15				-12
6	0.542	0.47	0.18	exp	24.0	37.5	2.5	0.33	sph	39.0	40.0	4.0	0.02	sph	196.0	41.0	352.0	1.00	58	-6				-6
7	0.676	0.24	0.73	exp	23.5	19.5	2.5	0.01	sph	36.0	356.0	469.0	0.02	sph	37.0	431.0	486.0	1.00	-28	-10				4
8	0.741	0.48	0.25	exp	13.5	22.0	2.5	0.25	sph	27.0	24.0	4.0	0.02	sph	43.0	77.0	10.0	1.00	2	-14				-1
9	0.879	0.60	0.36	exp	21.5	18.5	3.0	0.02	sph	41.0	316.0	329.0	0.02	sph	42.0	327.0	334.0	1.00	-16	-8				40
10	1.002	0.65	0.31	exp	17.5	62.5	5.0	0.02	sph	23.0	125.0	11.0	0.02	sph	43.0	479.0	150.0	1.00	-3	-17				14
11	1.215	0.54	0.42	exp	28.5	15.5	2.5	0.02	sph	46.0	20.0	18.0	0.02	sph	48.0	22.0	154.0	1.00	19	-14				-24
12	1.519	0.66	0.17	exp	13.5	14.5	2.5	0.14	sph	26.0	26.0	3.0	0.03	sph	84.0	160.0	58.0	1.00	40	-28				16
13	1.872	0.70	0.14	exp	20.5	9.0	2.5	0.14	sph	25.0	20.0	3.0	0.02	sph	185.0	23.0	176.0	1.00	-0	-15				-1
14	2.060	0.85	0.09	exp	17.5	10.0	2.5	0.04	sph	25.0	21.0	3.0	0.02	sph	35.0	23.0	6.0	1.00	-0	-14				11
15	3.078	0.27	0.57	exp	11.5	19.0	2.5	0.14	sph	21.0	94.0	15.0	0.02	sph	22.0	105.0	118.0	1.00	59	2				-17
16																								
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Prefill Variogram Models

☐ pre-fill all using first vario in list

☐ pre-fill all with prev domain group

☐ pre-fill all with domain group -> Dom1_sub1

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill HREO Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations					
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang			
HREO threshold	0.18	0.49	exp	2.5	8	2.5	0.06	sph	4	25	13	0.27	sph	206	37	16	1	z	11	y	-45	x	-17
1 98.430	0.18	0.49	exp	2.5	8.0	2.5	0.06	sph	4.0	25.0	13.0	0.27	sph	206.0	37.0	16.0	1.00	z	11	y	-45	x	-17
2 150.802	0.23	0.37	exp	17.0	6.0	2.5	0.13	sph	36.0	16.0	3.0	0.27	sph	42.0	164.0	16.0	1.00		39		0		0
3 199.249	0.34	0.14	exp	24.5	8.0	2.5	0.31	sph	40.0	38.0	3.0	0.21	sph	42.0	41.0	16.0	1.00		-12		-9		1
4 257.238	0.22	0.53	exp	17.0	37.5	2.5	0.23	sph	42.0	108.0	8.0	0.02	sph	44.0	662.0	651.0	1.00		0		-13		9
5 326.126	0.36	0.19	exp	6.0	12.5	2.5	0.23	sph	10.0	15.0	3.0	0.22	sph	60.0	62.0	8.0	1.00		23		-8		-1
6 412.586	0.13	0.83	exp	26.5	31.5	3.0	0.02	sph	40.0	74.0	480.0	0.02	sph	42.0	454.0	510.0	1.00		7		-10		0
7 506.805	0.17	0.66	exp	32.0	10.5	2.5	0.14	sph	37.0	107.0	9.0	0.03	sph	38.0	118.0	407.0	1.00		28		-12		1
8 580.338	0.35	0.37	exp	37.0	9.0	2.5	0.06	sph	47.0	12.0	3.0	0.22	sph	73.0	46.0	7.0	1.00		-2		-6		1
9 570.333	0.45	0.27	exp	10.0	19.5	2.5	0.01	sph	28.0	24.0	5.0	0.27	sph	79.0	43.0	6.0	1.00		73		-8		-6
10 789.329	0.27	0.66	exp	20.5	20.5	2.5	0.03	sph	45.0	335.0	311.0	0.04	sph	46.0	352.0	324.0	1.00		-30		-13		7
11 379.445	0.28	0.70	exp	25.0	27.0	2.5	0.01	sph	40.0	415.0	302.0	0.01	sph	41.0	443.0	415.0	1.00		-1		-11		7
12 298.506	0.61	0.05	exp	20.5	15.5	2.5	0.29	sph	26.0	17.0	3.0	0.05	sph	51.0	227.0	24.0	1.00		-1		-15		-1
13 568.927	0.74	0.03	exp	19.0	15.0	2.5	0.20	sph	26.0	22.0	3.0	0.03	sph	52.0	141.0	17.0	1.00		2		-15		2
14 435.388	0.79	0.13	exp	19.0	19.5	2.5	0.06	sph	41.0	41.0	5.0	0.02	sph	49.0	52.0	6.0	1.00		62		-7		-12
15 346.324	0.28	0.68	exp	28.5	3.5	4.5	0.02	sph	44.0	353.0	353.0	0.02	sph	47.0	383.0	384.0	1.00		-0		-14		-33
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill HREO Domain 3

Variogram Model Parameters

Dom3_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations					
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang			
HREO threshold	0.18	0.49	exp	2.5	8	2.5	0.06	sph	4	25	13	0.27	sph	206	37	16	1	z	11	y	-45	x	-17
1 70.976	0.18	0.49	exp	2.5	8.0	2.5	0.06	sph	4.0	25.0	13.0	0.27	sph	206.0	37.0	16.0	1.00	z	11	y	-45	x	-17
2 123.276	0.23	0.37	exp	17.0	6.0	2.5	0.13	sph	36.0	16.0	3.0	0.27	sph	42.0	164.0	16.0	1.00		39		0		0
3 166.004	0.34	0.14	exp	24.5	8.0	2.5	0.31	sph	40.0	38.0	3.0	0.21	sph	42.0	41.0	16.0	1.00		-12		-9		1
4 218.908	0.22	0.53	exp	17.0	37.5	2.5	0.23	sph	42.0	108.0	8.0	0.02	sph	44.0	662.0	651.0	1.00		0		-13		9
5 274.094	0.36	0.19	exp	6.0	12.5	2.5	0.23	sph	10.0	15.0	3.0	0.22	sph	60.0	62.0	8.0	1.00		23		-8		-1
6 331.465	0.13	0.83	exp	26.5	31.5	3.0	0.02	sph	40.0	74.0	480.0	0.02	sph	42.0	454.0	510.0	1.00		7		-10		0
7 407.180	0.17	0.66	exp	32.0	10.5	2.5	0.14	sph	37.0	107.0	9.0	0.03	sph	38.0	118.0	407.0	1.00		28		-12		1
8 501.148	0.35	0.37	exp	37.0	9.0	2.5	0.06	sph	47.0	12.0	3.0	0.22	sph	73.0	46.0	7.0	1.00		-2		-6		1
9 574.843	0.45	0.27	exp	10.0	19.5	2.5	0.01	sph	28.0	24.0	5.0	0.27	sph	79.0	43.0	6.0	1.00		73		-8		-6
10 562.738	0.27	0.66	exp	20.5	20.5	2.5	0.03	sph	45.0	335.0	311.0	0.04	sph	46.0	352.0	324.0	1.00		-30		-13		7
11 309.613	0.28	0.70	exp	25.0	27.0	2.5	0.01	sph	40.0	415.0	302.0	0.01	sph	41.0	443.0	415.0	1.00		-1		-11		7
12 146.700	0.61	0.05	exp	20.5	15.5	2.5	0.29	sph	26.0	17.0	3.0	0.05	sph	51.0	227.0	24.0	1.00		-1		-15		-1
13 258.867	0.74	0.03	exp	19.0	15.0	2.5	0.20	sph	26.0	22.0	3.0	0.03	sph	52.0	141.0	17.0	1.00		2		-15		2
14 720.653	0.79	0.13	exp	19.0	19.5	2.5	0.06	sph	41.0	41.0	5.0	0.02	sph	49.0	52.0	6.0	1.00		62		-7		-12
15 228.552	0.28	0.68	exp	28.5	3.5	4.5	0.02	sph	44.0	353.0	353.0	0.02	sph	47.0	383.0	384.0	1.00		-0		-14		-33
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill Yb Domain 2

Variogram Model Parameters

Domain (current/prev/next): **Dom2_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
Yb threshold	0.48	0.19	exp	13	9	3.5	0.09	sph	85	11	14	0.24	sph	138	25	24	1	z	36	y	5	x	-64	
1	1.480	0.48	0.19	exp	13.0	9.0	3.5	0.09	sph	85.0	11.0	14.0	0.24	sph	138.0	25.0	24.0	1.00	z	36	y	5	x	-64
2	2.164	0.19	0.55	exp	24.5	9.5	3.0	0.24	sph	25.0	154.0	22.0	0.02	sph	123.0	1684.0	424.0	1.00	0	-16	-9			
3	2.733	0.08	0.67	exp	7.5	29.5	2.5	0.04	sph	11.0	90.0	9.0	0.22	sph	363.0	231.0	25.0	1.01	58	7	4			
4	3.302	0.40	0.01	exp	17.0	13.0	2.5	0.36	sph	26.0	23.0	4.0	0.23	sph	109.0	287.0	26.0	1.00	19	5	0			
5	3.872	0.44	0.01	exp	16.0	28.0	2.5	0.39	sph	33.0	56.0	4.0	0.16	sph	37.0	308.0	259.0	1.00	11	-8	-17			
6	4.555	0.07	0.70	exp	2.5	31.5	9.5	0.08	sph	16.0	39.0	173.0	0.15	sph	448.0	40.0	183.0	1.00	-23	79	29			
7	5.580	0.40	0.52	exp	22.5	60.0	6.0	0.06	sph	57.0	87.0	792.0	0.02	sph	60.0	90.0	797.0	1.00	26	-12	-8			
8	6.149	0.39	0.14	exp	5.5	5.0	2.5	0.19	sph	15.0	16.0	3.0	0.28	sph	76.0	56.0	14.0	1.00	21	1	3			
9	6.832	0.41	0.32	exp	19.0	6.0	2.5	0.25	sph	46.0	72.0	10.0	0.02	sph	47.0	74.0	330.0	1.00	-2	-5	1			
10	7.743	0.38	0.47	exp	20.0	2.5	8.5	0.13	sph	40.0	25.0	277.0	0.02	sph	43.0	29.0	285.0	1.00	13	-15	-81			
11	9.110	0.58	0.16	exp	18.0	9.5	2.5	0.16	sph	25.0	23.0	3.0	0.10	sph	42.0	148.0	121.0	1.00	16	-18	6			
12	12.412	0.55	0.41	exp	22.5	24.5	2.5	0.02	sph	24.0	44.0	332.0	0.02	sph	695.0	46.0	692.0	1.00	-80	25	22			
13	14.917	0.68	0.06	exp	20.5	20.0	2.5	0.24	sph	26.0	26.0	3.0	0.02	sph	37.0	34.0	4.0	1.00	43	-11	-10			
14	21.977	0.92	0.04	exp	20.5	2.5	2.5	0.02	sph	49.0	27.0	6.0	0.02	sph	53.0	54.0	7.0	1.00	-0	-14	-16			
15	54.999	0.33	0.38	exp	22.0	24.5	3.0	0.27	sph	44.0	32.0	9.0	0.02	sph	45.0	364.0	268.0	1.00	-0	-7	-0			
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Pre-fill Variogram Models

☐ pre-fill all using first vario in list

☐ pre-fill all with prev domain group

☐ pre-fill all with domain group -> **Dom1_sub1**

Bald Hill Yb Domain 3

Variogram Model Parameters

Domain (current/prev/next): **Dom3_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
Yb threshold	0.48	0.19	exp	13	9	3.5	0.09	sph	85	11	14	0.24	sph	138	25	24	1	z	36	y	5	x	-64	
1	1.139	0.48	0.19	exp	13.0	9.0	3.5	0.09	sph	85.0	11.0	14.0	0.24	sph	138.0	25.0	24.0	1.00	z	36	y	5	x	-64
2	1.708	0.19	0.55	exp	24.5	9.5	3.0	0.24	sph	25.0	154.0	22.0	0.02	sph	123.0	1684.0	424.0	1.00	0	-16	-9			
3	2.164	0.08	0.67	exp	7.5	29.5	2.5	0.04	sph	11.0	90.0	9.0	0.22	sph	363.0	231.0	25.0	1.01	58	7	4			
4	2.619	0.40	0.01	exp	17.0	13.0	2.5	0.36	sph	26.0	23.0	4.0	0.23	sph	109.0	287.0	26.0	1.00	19	5	0			
5	3.074	0.44	0.01	exp	16.0	28.0	2.5	0.39	sph	33.0	56.0	4.0	0.16	sph	37.0	308.0	259.0	1.00	11	-8	-17			
6	3.758	0.07	0.70	exp	2.5	31.5	9.5	0.08	sph	16.0	39.0	173.0	0.15	sph	448.0	40.0	183.0	1.00	-23	79	29			
7	4.555	0.40	0.52	exp	22.5	60.0	6.0	0.06	sph	57.0	87.0	792.0	0.02	sph	60.0	90.0	797.0	1.00	26	-12	-8			
8	5.010	0.39	0.14	exp	5.5	5.0	2.5	0.19	sph	15.0	16.0	3.0	0.28	sph	76.0	56.0	14.0	1.00	21	1	3			
9	5.694	0.41	0.32	exp	19.0	6.0	2.5	0.25	sph	46.0	72.0	10.0	0.02	sph	47.0	74.0	330.0	1.00	-2	-5	1			
10	6.604	0.38	0.47	exp	20.0	2.5	8.5	0.13	sph	40.0	25.0	277.0	0.02	sph	43.0	29.0	285.0	1.00	13	-15	-81			
11	8.540	0.58	0.16	exp	18.0	9.5	2.5	0.16	sph	25.0	23.0	3.0	0.10	sph	42.0	148.0	121.0	1.00	16	-18	6			
12	11.615	0.55	0.41	exp	22.5	24.5	2.5	0.02	sph	24.0	44.0	332.0	0.02	sph	695.0	46.0	692.0	1.00	-80	25	22			
13	13.209	0.68	0.06	exp	20.5	20.0	2.5	0.24	sph	26.0	26.0	3.0	0.02	sph	37.0	34.0	4.0	1.00	43	-11	-10			
14	16.762	0.92	0.04	exp	20.5	2.5	2.5	0.02	sph	49.0	27.0	6.0	0.02	sph	53.0	54.0	7.0	1.00	-0	-14	-16			
15	25.621	0.33	0.38	exp	22.0	24.5	3.0	0.27	sph	44.0	32.0	9.0	0.02	sph	45.0	364.0	268.0	1.00	-0	-7	-0			
16																								
17																								
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19																								
20																								

Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Pre-fill Variogram Models

☐ pre-fill all using first vario in list

☐ pre-fill all with prev domain group

☐ pre-fill all with domain group -> **Dom1_sub1**

Bald Hill Er Domain 2

Variogram Model Parameters

Domain (current/prev/next): **Dom2_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
Er threshold	0.51	0.05	exp	6	44.5	8	0.22	sph	11	149	30	0.22	sph	12	174	71	1	z	-32	y	51	x	-38	
1	2.630	0.51	0.05	exp	6.0	44.5	8.0	0.22	sph	11.0	149.0	30.0	0.22	sph	12.0	174.0	71.0	1.00	z	-32	y	51	x	-38
2	3.774	0.23	0.41	exp	17.5	38.0	2.5	0.09	sph	18.0	82.0	6.0	0.27	sph	72.0	89.0	19.0	1.00	26	19				
3	4.688	0.35	0.08	exp	2.5	10.5	2.5	0.34	sph	5.0	41.0	4.0	0.23	sph	213.0	203.0	28.0	1.00	47	16				
4	5.752	0.28	0.22	exp	8.5	28.5	2.5	0.28	sph	17.0	38.0	4.0	0.22	sph	429.0	100.0	29.0	1.00	80	4				
5	6.975	0.36	0.01	exp	4.0	5.0	2.5	0.43	sph	31.0	29.0	3.0	0.20	sph	223.0	35.0	249.0	1.00	69	-10				
6	8.348	0.24	0.39	exp	11.0	37.5	2.5	0.14	sph	31.0	62.0	4.0	0.23	sph	218.0	218.0	15.0	1.00	58	-7				
7	10.406	0.37	0.19	exp	36.0	11.0	2.5	0.23	sph	37.0	17.0	3.0	0.21	sph	51.0	71.0	29.0	1.00	30	-3				
8	11.664	0.13	0.69	exp	20.5	20.5	2.5	0.03	sph	43.0	49.0	6.0	0.15	sph	44.0	101.0	352.0	1.00	-14	-10				
9	13.285	0.42	0.13	exp	4.0	8.0	2.5	0.27	sph	12.0	26.0	3.0	0.18	sph	51.0	78.0	63.0	1.00	-18	12				
10	15.552	0.43	0.34	exp	9.5	18.5	2.5	0.20	sph	38.0	63.0	17.0	0.03	sph	78.0	153.0	83.0	1.00	26	-10				
11	19.211	0.53	0.36	exp	5.5	10.0	36.0	0.09	sph	59.0	29.0	43.0	0.02	sph	319.0	339.0	44.0	1.00	23	68				
12	26.987	0.56	0.01	exp	24.5	19.5	2.5	0.16	sph	37.0	22.0	3.0	0.27	sph	88.0	26.0	10.0	1.00	29	9				
13	34.534	0.69	0.26	exp	13.0	40.5	7.0	0.03	sph	87.0	111.0	8.0	0.02	sph	103.0	114.0	10.0	1.00	64	-23				
14	55.688	0.79	0.13	exp	14.0	10.5	6.0	0.06	sph	39.0	17.0	7.0	0.02	sph	51.0	21.0	9.0	1.00	2	-3				
15	251.570	0.47	0.03	exp	3.0	16.0	2.5	0.26	sph	4.0	27.0	4.0	0.24	sph	91.0	87.0	15.0	1.00	-13	20				
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill Er Domain 3

Variogram Model Parameters

Domain (current/prev/next): **Dom3_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
Er threshold	0.51	0.05	exp	6	44.5	8	0.22	sph	11	149	30	0.22	sph	12	174	71	1	z	-32	y	51	x	-38	
1	2.173	0.51	0.05	exp	6.0	44.5	8.0	0.22	sph	11.0	149.0	30.0	0.22	sph	12.0	174.0	71.0	1.00	z	-32	y	51	x	-38
2	3.087	0.23	0.41	exp	17.5	38.0	2.5	0.09	sph	18.0	82.0	6.0	0.27	sph	72.0	89.0	19.0	1.00	26	19				
3	4.231	0.35	0.08	exp	2.5	10.5	2.5	0.34	sph	5.0	41.0	4.0	0.23	sph	213.0	203.0	28.0	1.00	47	16				
4	5.031	0.28	0.22	exp	8.5	28.5	2.5	0.28	sph	17.0	38.0	4.0	0.22	sph	429.0	100.0	29.0	1.00	80	4				
5	6.518	0.36	0.01	exp	4.0	5.0	2.5	0.43	sph	31.0	29.0	3.0	0.20	sph	223.0	35.0	249.0	1.00	69	-10				
6	7.661	0.24	0.39	exp	11.0	37.5	2.5	0.14	sph	31.0	62.0	4.0	0.23	sph	218.0	218.0	15.0	1.00	58	-7				
7	9.720	0.37	0.19	exp	36.0	11.0	2.5	0.23	sph	37.0	17.0	3.0	0.21	sph	51.0	71.0	29.0	1.00	30	-3				
8	10.978	0.13	0.69	exp	20.5	20.5	2.5	0.03	sph	43.0	49.0	6.0	0.15	sph	44.0	101.0	352.0	1.00	-14	-10				
9	12.350	0.42	0.13	exp	4.0	8.0	2.5	0.27	sph	12.0	26.0	3.0	0.18	sph	51.0	78.0	63.0	1.00	-18	12				
10	14.465	0.43	0.34	exp	9.5	18.5	2.5	0.20	sph	38.0	63.0	17.0	0.03	sph	78.0	153.0	83.0	1.00	26	-10				
11	18.525	0.53	0.36	exp	5.5	10.0	36.0	0.09	sph	59.0	29.0	43.0	0.02	sph	319.0	339.0	44.0	1.00	23	68				
12	24.814	0.56	0.01	exp	24.5	19.5	2.5	0.16	sph	37.0	22.0	3.0	0.27	sph	88.0	26.0	10.0	1.00	29	9				
13	31.103	0.69	0.26	exp	13.0	40.5	7.0	0.03	sph	87.0	111.0	8.0	0.02	sph	103.0	114.0	10.0	1.00	64	-23				
14	39.451	0.79	0.13	exp	14.0	10.5	6.0	0.06	sph	39.0	17.0	7.0	0.02	sph	51.0	21.0	9.0	1.00	2	-3				
15	61.978	0.47	0.03	exp	3.0	16.0	2.5	0.26	sph	4.0	27.0	4.0	0.24	sph	91.0	87.0	15.0	1.00	-13	20				
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill Lu Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
Lu threshold	0.52	0.01 exp 6.5 3 18.5	0.43 sph 16 9 130	0.04 sph 656 96 561	1	z 43 y -7 x -74
1	0.227	0.01 exp 6.5 3 18.5	0.43 sph 16 9 130	0.04 sph 656 96 561	1.00	z 43 y -7 x -74
2	0.341	0.08 exp 9.5 31.5 2.5	0.15 sph 21 174 130	0.28 sph 22 183 140	1.00	-30 2 28
3	0.341	0.32 exp 8 13 2.5	0.17 sph 12 41 30	0.27 sph 82 175 350	1.00	-65 -3 -5
4	0.455	0.01 exp 9 7 2.5	0.33 sph 25 27 40	0.24 sph 58 118 400	1.00	-33 4 -3
5	0.569	0.02 exp 3 18 2.5	0.36 sph 11 47 30	0.22 sph 42 127 380	1.00	-23 -46 -3
6	0.569	0.36 exp 35 2.5 2.5	0.17 sph 38 4 40	0.26 sph 251 156 180	1.00	18 2 16
7	0.682	0.02 exp 29 30 2.5	0.27 sph 40 41 30	0.27 sph 134 98 170	1.00	-12 5 11
8	0.796	0.01 exp 36 23 2.5	0.26 sph 43 35 30	0.24 sph 80 42 350	1.00	80 -8 -6
9	0.910	0.02 exp 2.5 11 2.5	0.20 sph 3 27 30	0.27 sph 262 73 190	1.00	-6 18 -4
10	1.023	0.33 exp 20 10 2.5	0.20 sph 32 159 300	0.02 sph 34 166 1460	1.00	-22 -4 2
11	1.249	0.46 exp 3 11 2.5	0.12 sph 14 16 30	0.19 sph 67 83 190	1.00	40 18 5
12	1.592	0.24 exp 2 30 2.5	0.27 sph 24 38 70	0.02 sph 655 46 4170	1.00	81 17 1
13	2.047	0.27 exp 11 43 60	0.02 sph 24 44 3590	0.02 sph 736 49 7270	1.00	81 -21 11
14	3.184	0.09 exp 8 14 32.5	0.02 sph 9 114 330	0.02 sph 10 118 350	1.00	63 30 6
15	13.645	0.19 exp 6 24 40	0.02 sph 15 31 120	0.27 sph 27 34 290	1.00	47 -30 14
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill Lu Domain 3

Variogram Model Parameters

Dom3_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
Lu threshold	0.52	0.01 exp 6.5 3 18.5	0.43 sph 16 9 130	0.04 sph 656 96 561	1	z 43 y -7 x -74
1	0.114	0.01 exp 6.5 3 18.5	0.43 sph 16 9 130	0.04 sph 656 96 561	1.00	z 43 y -7 x -74
2	0.227	0.08 exp 9.5 31.5 2.5	0.15 sph 21 174 130	0.28 sph 22 183 140	1.00	-30 2 28
3	0.341	0.32 exp 8 13 2.5	0.17 sph 12 41 30	0.27 sph 82 175 350	1.00	-65 -3 -5
4	0.341	0.01 exp 9 7 2.5	0.33 sph 25 27 40	0.24 sph 58 118 400	1.00	-33 4 -3
5	0.455	0.02 exp 3 18 2.5	0.36 sph 11 47 30	0.22 sph 42 127 380	1.00	-23 -46 -3
6	0.455	0.36 exp 35 2.5 2.5	0.17 sph 38 4 40	0.26 sph 251 156 180	1.00	18 2 16
7	0.569	0.02 exp 29 30 2.5	0.27 sph 40 41 30	0.27 sph 134 98 170	1.00	-12 5 11
8	0.682	0.01 exp 36 23 2.5	0.26 sph 43 35 30	0.24 sph 80 42 350	1.00	80 -8 -6
9	0.682	0.02 exp 2.5 11 2.5	0.20 sph 3 27 30	0.27 sph 262 73 190	1.00	-6 18 -4
10	0.853	0.33 exp 20 10 2.5	0.20 sph 32 159 300	0.02 sph 34 166 1460	1.00	-22 -4 2
11	1.137	0.46 exp 3 11 2.5	0.12 sph 14 16 30	0.19 sph 67 83 190	1.00	40 18 5
12	1.478	0.24 exp 2 30 2.5	0.27 sph 24 38 70	0.02 sph 655 46 4170	1.00	81 17 1
13	1.592	0.27 exp 11 43 60	0.02 sph 24 44 3590	0.02 sph 736 49 7270	1.00	81 -21 11
14	1.944	0.09 exp 8 14 32.5	0.02 sph 9 114 330	0.02 sph 10 118 350	1.00	63 30 6
15	2.956	0.19 exp 6 24 40	0.02 sph 15 31 120	0.27 sph 27 34 290	1.00	47 -30 14
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill U Domain 2

Variogram Model Parameters

Domain (current/prev/next): **Dom2_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
U threshold	0.42	0.01	exp	10.5	6	44.5	0.5	sph	11	15	161	0.07	sph	12	16	180	1	z	27	y	-62	x	19	
1	5.167	0.42	0.01	exp	10.5	6.0	44.5	0.50	sph	11.0	15.0	161.0	0.07	sph	12.0	16.0	180.0	1.00	z	27	y	-62	x	19
2	8.652	0.24	0.60	exp	3.5	28.0	20.5	0.14	sph	34.0	91.0	22.0	0.02	sph	50.0	95.0	23.0	1.00	-0	-33	-19			
3	11.536	0.29	0.10	exp	11.5	31.5	2.5	0.35	sph	28.0	39.0	3.0	0.26	sph	287.0	275.0	20.0	1.00	18	17	28			
4	14.661	0.29	0.10	exp	16.5	24.5	2.5	0.40	sph	45.0	38.0	3.0	0.21	sph	366.0	41.0	25.0	1.00	-2	23	0			
5	18.146	0.08	0.62	exp	21.5	22.5	2.5	0.27	sph	27.0	98.0	9.0	0.03	sph	38.0	99.0	445.0	1.00	-19	-8	7			
6	22.472	0.20	0.50	exp	11.5	7.5	2.5	0.27	sph	28.0	165.0	11.0	0.03	sph	31.0	329.0	320.0	1.00	-32	-15	10			
7	28.480	0.22	0.62	exp	15.0	33.0	3.5	0.14	sph	27.0	167.0	16.0	0.02	sph	29.0	171.0	387.0	1.00	-28	-10	4			
8	32.085	0.37	0.59	exp	24.5	37.0	5.5	0.02	sph	37.0	290.0	452.0	0.02	sph	38.0	408.0	455.0	1.00	-32	-21	14			
9	36.772	0.23	0.46	exp	10.0	11.0	2.5	0.05	sph	16.0	23.0	3.0	0.26	sph	71.0	68.0	9.0	1.00	74	-10	3			
10	42.420	0.29	0.53	exp	33.0	15.0	4.0	0.15	sph	49.0	76.0	5.0	0.03	sph	50.0	190.0	735.0	1.00	-71	1	7			
11	50.231	0.26	0.51	exp	16.5	13.5	2.5	0.21	sph	25.0	31.0	5.0	0.02	sph	154.0	37.0	304.0	1.00	25	-16	-8			
12	62.128	0.39	0.22	exp	3.0	3.5	2.5	0.37	sph	21.0	33.0	3.0	0.02	sph	44.0	122.0	344.0	1.00	71	7	19			
13	72.583	0.21	0.75	exp	2.5	2.5	3.0	0.02	sph	20.0	60.0	4.0	0.02	sph	21.0	64.0	147.0	1.00	56	23	-33			
14	96.136	0.55	0.10	exp	3.0	16.5	2.5	0.32	sph	7.0	20.0	3.0	0.03	sph	23.0	29.0	3.5	1.00	63	-4	-15			
15	155.685	0.15	0.31	exp	20.5	19.5	2.5	0.27	sph	33.0	32.0	4.0	0.27	sph	52.0	34.0	12.0	1.00	79	-1	-5			
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17																								
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Bald Hill U Domain 3

Variogram Model Parameters

Domain (current/prev/next): **Dom3_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
U threshold	0.42	0.01	exp	10.5	6	44.5	0.5	sph	11	15	161	0.07	sph	12	16	180	1	z	27	y	-62	x	19	
1	4.687	0.42	0.01	exp	10.5	6.0	44.5	0.50	sph	11.0	15.0	161.0	0.07	sph	12.0	16.0	180.0	1.00	z	27	y	-62	x	19
2	6.850	0.24	0.60	exp	3.5	28.0	20.5	0.14	sph	34.0	91.0	22.0	0.02	sph	50.0	95.0	23.0	1.00	-0	-33	-19			
3	9.734	0.29	0.10	exp	11.5	31.5	2.5	0.35	sph	28.0	39.0	3.0	0.26	sph	287.0	275.0	20.0	1.00	18	17	28			
4	11.777	0.29	0.10	exp	16.5	24.5	2.5	0.40	sph	45.0	38.0	3.0	0.21	sph	366.0	41.0	25.0	1.00	-2	23	0			
5	14.901	0.08	0.62	exp	21.5	22.5	2.5	0.27	sph	27.0	98.0	9.0	0.03	sph	38.0	99.0	445.0	1.00	-19	-8	7			
6	17.785	0.20	0.50	exp	11.5	7.5	2.5	0.27	sph	28.0	165.0	11.0	0.03	sph	31.0	329.0	320.0	1.00	-32	-15	10			
7	21.991	0.22	0.62	exp	15.0	33.0	3.5	0.14	sph	27.0	167.0	16.0	0.02	sph	29.0	171.0	387.0	1.00	-28	-10	4			
8	24.635	0.37	0.59	exp	24.5	37.0	5.5	0.02	sph	37.0	290.0	452.0	0.02	sph	38.0	408.0	455.0	1.00	-32	-21	14			
9	27.759	0.23	0.46	exp	10.0	11.0	2.5	0.05	sph	16.0	23.0	3.0	0.26	sph	71.0	68.0	9.0	1.00	74	-10	3			
10	30.643	0.29	0.53	exp	33.0	15.0	4.0	0.15	sph	49.0	76.0	5.0	0.03	sph	50.0	190.0	735.0	1.00	-71	1	7			
11	34.969	0.26	0.51	exp	16.5	13.5	2.5	0.21	sph	25.0	31.0	5.0	0.02	sph	154.0	37.0	304.0	1.00	25	-16	-8			
12	38.575	0.39	0.22	exp	3.0	3.5	2.5	0.37	sph	21.0	33.0	3.0	0.02	sph	44.0	122.0	344.0	1.00	71	7	19			
13	43.141	0.21	0.75	exp	2.5	2.5	3.0	0.02	sph	20.0	60.0	4.0	0.02	sph	21.0	64.0	147.0	1.00	56	23	-33			
14	52.394	0.55	0.10	exp	3.0	16.5	2.5	0.32	sph	7.0	20.0	3.0	0.03	sph	23.0	29.0	3.5	1.00	63	-4	-15			
15	93.233	0.15	0.31	exp	20.5	19.5	2.5	0.27	sph	33.0	32.0	4.0	0.27	sph	52.0	34.0	12.0	1.00	79	-1	-5			
16																								
17																								
18																								
19																								
20																								

Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Fraser's TREO Domain 2

Variogram Model Parameters

Domain (current/prev/next): Dom2_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
treo threshold	0.46	0.16 exp 14 11 2.5	0.24 sph 21 17 3	0.14 sph 27 28 4	1	z -7 y 1 x -9
1	0.222	0.16 exp 14.0 11.0 2.5	0.24 sph 21.0 17.0 3.0	0.14 sph 27.0 28.0 4.0	1.00	z -7 y 1 x -9
2	0.301	0.39 exp 4.0 6.0 2.5	0.02 sph 36.0 7.0 8.0	0.02 sph 37.0 8.0 20.0	1.00	39 -35 10 19
3	0.401	0.49 exp 6.0 29.5 3.5	0.02 sph 9.0 49.0 67.0	0.02 sph 14.0 212.0 159.0	1.00	-45 10 0 0
4	0.544	0.13 exp 3.0 26.5 3.5	0.29 sph 14.0 48.0 4.0	0.02 sph 23.0 346.0 79.0	1.00	-44 5 4 4
5	0.700	0.34 exp 17.0 5.5 3.0	0.15 sph 33.0 20.0 5.0	0.01 sph 53.0 42.0 59.0	1.00	50 7 -20 0
6	0.901	0.41 exp 2.5 10.5 2.5	0.43 sph 14.0 21.0 4.0	0.02 sph 1227.0 1158.0 364.0	1.00	81 29 -24 0
7	1.206	0.64 exp 10.5 32.5 4.0	0.02 sph 18.0 129.0 16.0	0.02 sph 24.0 187.0 23.0	1.00	45 -21 -1 0
8	1.395	0.49 exp 8.0 5.0 30.5	0.30 sph 21.0 6.0 33.0	0.02 sph 28.0 10.0 79.0	1.00	59 -13 52 0
9	1.559	0.33 exp 4.5 2.5 5.5	0.19 sph 5.0 34.0 6.0	0.02 sph 13.0 42.0 7.0	1.00	44 11 -3 0
10	1.825	0.20 exp 3.0 8.5 2.5	0.38 sph 8.5 20.0 4.0	0.03 sph 32.0 32.0 8.0	1.00	2 -0 -4 0
11	2.707	0.27 exp 9.5 17.5 2.5	0.21 sph 18.0 24.0 3.0	0.03 sph 42.0 45.0 10.0	1.00	37 5 -4 0
12	4.288	0.19 exp 5.0 18.0 2.5	0.37 sph 12.0 30.0 4.0	0.02 sph 16.0 88.0 6.0	1.00	61 14 -34 0
13	5.380	0.08 exp 9.5 5.5 2.5	0.35 sph 13.0 21.0 3.0	0.03 sph 32.0 33.0 4.0	1.00	57 8 -24 0
14	7.199	0.03 exp 14.0 12.5 2.5	0.17 sph 18.0 20.0 3.0	0.02 sph 37.0 25.0 4.0	1.00	46 1 -24 0
15	16.262	0.21 exp 8.5 3.5 2.5	0.26 sph 14.0 20.0 3.0	0.35 sph 21.0 24.0 4.0	1.00	33 5 -19 0
16						
17						
18						
19						
20						

Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Fraser's TREO Domain 3

Variogram Model Parameters

Domain (current/prev/next): Dom3_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
treo threshold	0.46	0.16 exp 14 11 2.5	0.24 sph 21 17 3	0.14 sph 27 28 4	1	z -7 y 1 x -9
1	0.058	0.16 exp 14.0 11.0 2.5	0.24 sph 21.0 17.0 3.0	0.14 sph 27.0 28.0 4.0	1.00	z -7 y 1 x -9
2	0.162	0.39 exp 4.0 6.0 2.5	0.02 sph 36.0 7.0 8.0	0.02 sph 37.0 8.0 20.0	1.00	39 -35 10 19
3	0.265	0.49 exp 6.0 29.5 3.5	0.02 sph 9.0 49.0 67.0	0.02 sph 14.0 212.0 159.0	1.00	-45 10 0 0
4	0.350	0.13 exp 3.0 26.5 3.5	0.29 sph 14.0 48.0 4.0	0.02 sph 23.0 346.0 79.0	1.00	-44 5 4 4
5	0.463	0.34 exp 17.0 5.5 3.0	0.15 sph 33.0 20.0 5.0	0.01 sph 53.0 42.0 59.0	1.00	50 7 -20 0
6	0.534	0.41 exp 2.5 10.5 2.5	0.43 sph 14.0 21.0 4.0	0.02 sph 1227.0 1158.0 364.0	1.00	81 29 -24 0
7	0.636	0.32 exp 10.5 32.5 4.0	0.02 sph 18.0 129.0 16.0	0.02 sph 24.0 187.0 23.0	1.00	45 -21 -1 0
8	0.808	0.49 exp 8.0 5.0 30.5	0.30 sph 21.0 6.0 33.0	0.02 sph 28.0 10.0 79.0	1.00	59 -13 52 0
9	0.849	0.33 exp 4.5 2.5 5.5	0.19 sph 5.0 34.0 6.0	0.02 sph 13.0 42.0 7.0	1.00	44 11 -3 0
10	0.988	0.20 exp 3.0 8.5 2.5	0.38 sph 8.5 20.0 4.0	0.03 sph 32.0 32.0 8.0	1.00	2 -0 -4 0
11	1.335	0.27 exp 9.5 17.5 2.5	0.21 sph 18.0 24.0 3.0	0.03 sph 42.0 45.0 10.0	1.00	37 5 -4 0
12	1.493	0.19 exp 5.0 18.0 2.5	0.37 sph 12.0 30.0 4.0	0.02 sph 16.0 88.0 6.0	1.00	61 14 -34 0
13	1.713	0.08 exp 9.5 5.5 2.5	0.35 sph 13.0 21.0 3.0	0.03 sph 32.0 33.0 4.0	1.00	57 8 -24 0
14	2.158	0.03 exp 14.0 12.5 2.5	0.17 sph 18.0 20.0 3.0	0.02 sph 37.0 25.0 4.0	1.00	46 1 -24 0
15	2.950	0.21 exp 8.5 3.5 2.5	0.26 sph 14.0 20.0 3.0	0.35 sph 21.0 24.0 4.0	1.00	33 5 -19 0
16						
17						
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19						
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Fraser's HREO Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations					
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang	
hreo threshold	0.59	0.37	exp	7.5	23.0	4.0	0.02	sph	8.0	118.0	122.0	0.02	sph	11.0	170.0	147.0	1.00	z 23	y 56	x 42
1 14.830	0.59	0.37	exp	7.5	23.0	4.0	0.02	sph	8.0	118.0	122.0	0.02	sph	11.0	170.0	147.0	1.00	z 23	y 56	x 42
2 152.178	0.45	0.50	exp	6.5	29.0	3.0	0.03	sph	27.0	120.0	67.0	0.02	sph	44.0	187.0	68.0	1.00	-12	62	32
3 206.139	0.44	0.27	exp	17.5	2.5	2.5	0.27	sph	47.0	18.0	11.0	0.02	sph	64.0	19.0	13.0	1.00	32	-5	7
4 253.778	0.46	0.18	exp	5.5	3.5	2.5	0.09	sph	21.0	12.0	3.0	0.27	sph	58.0	18.0	12.0	1.00	53	-10	-15
5 320.806	0.19	0.68	exp	7.0	3.5	3.0	0.11	sph	10.0	10.0	5.0	0.02	sph	516.0	64.0	224.0	1.00	40	-5	27
6 412.015	0.29	0.67	exp	9.0	22.5	3.5	0.02	sph	13.0	166.0	192.0	0.02	sph	17.0	228.0	258.0	1.00	-16	-27	25
7 514.093	0.36	0.41	exp	5.5	15.5	3.5	0.21	sph	8.0	19.0	4.0	0.02	sph	9.0	21.0	128.0	1.00	-11	-29	-35
8 581.363	0.28	0.61	exp	4.5	46.0	3.5	0.09	sph	5.0	47.0	5.0	0.02	sph	18.0	50.0	14.0	1.00	-4	4	-33
9 557.888	0.37	0.52	exp	3.0	3.0	4.0	0.09	sph	7.0	38.0	15.0	0.02	sph	10.0	84.0	19.0	1.00	0	0	0
10 792.420	0.48	0.46	exp	3.5	8.5	6.0	0.04	sph	4.0	11.0	15.0	0.02	sph	5.0	12.0	34.0	1.00	0	0	0
11 384.832	0.44	0.52	exp	6.5	23.0	5.0	0.02	sph	7.0	104.0	10.0	0.02	sph	8.0	105.0	13.0	1.00	-19	19	-17
12 313.280	0.38	0.40	exp	2.5	17.5	2.5	0.20	sph	39.0	18.0	4.0	0.02	sph	40.0	70.0	5.0	1.00	63	-29	-33
13 709.477	0.61	0.01	exp	9.0	2.5	2.5	0.37	sph	16.0	6.0	3.0	0.01	sph	20.0	7.0	4.0	1.00	42	-1	-29
14 345.015	0.88	0.07	exp	8.5	38.0	2.5	0.03	sph	19.0	61.0	4.0	0.02	sph	20.0	73.0	5.0	1.00	60	-6	15
15 51.363	0.02	0.82	exp	4.0	14.0	4.0	0.15	sph	8.0	33.0	5.0	0.01	sph	78.0	169.0	84.0	1.00	22	-5	-23
16																				
17																				
18																				
19																				
20																				

Read Model Enter

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Fraser's HREO Domain 3

Variogram Model Parameters

Dom3_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations					
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang	
hreo threshold	0.59	0.37	exp	7.5	23.0	4.0	0.02	sph	8.0	118.0	122.0	0.02	sph	11.0	170.0	147.0	1.00	z 23	y 56	x 42
1 46.132	0.59	0.37	exp	7.5	23.0	4.0	0.02	sph	8.0	118.0	122.0	0.02	sph	11.0	170.0	147.0	1.00	z 23	y 56	x 42
2 70.946	0.45	0.50	exp	6.5	29.0	3.0	0.03	sph	27.0	120.0	67.0	0.02	sph	44.0	187.0	68.0	1.00	-12	62	32
3 11.006	0.44	0.27	exp	17.5	2.5	2.5	0.27	sph	47.0	18.0	11.0	0.02	sph	64.0	19.0	13.0	1.00	32	-5	7
4 145.002	0.46	0.18	exp	5.5	3.5	2.5	0.09	sph	21.0	12.0	3.0	0.27	sph	58.0	18.0	12.0	1.00	53	-10	-15
5 155.796	0.19	0.68	exp	7.0	3.5	3.0	0.11	sph	10.0	10.0	5.0	0.02	sph	516.0	64.0	224.0	1.00	40	-5	27
6 194.229	0.29	0.67	exp	9.0	22.5	3.5	0.02	sph	13.0	166.0	192.0	0.02	sph	17.0	228.0	258.0	1.00	-16	-27	25
7 227.460	0.36	0.41	exp	5.5	15.5	3.5	0.21	sph	8.0	19.0	4.0	0.02	sph	9.0	21.0	128.0	1.00	-11	-29	-35
8 251.962	0.28	0.61	exp	4.5	46.0	3.5	0.09	sph	5.0	47.0	5.0	0.02	sph	18.0	50.0	14.0	1.00	-4	4	-33
9 316.904	0.37	0.52	exp	3.0	3.0	4.0	0.09	sph	7.0	38.0	15.0	0.02	sph	10.0	84.0	19.0	1.00	0	0	0
10 406.373	0.48	0.46	exp	3.5	8.5	6.0	0.04	sph	4.0	11.0	15.0	0.02	sph	5.0	12.0	34.0	1.00	0	0	0
11 479.409	0.44	0.52	exp	6.5	23.0	5.0	0.02	sph	7.0	104.0	10.0	0.02	sph	8.0	105.0	13.0	1.00	-19	19	-17
12 546.079	0.38	0.40	exp	2.5	17.5	2.5	0.20	sph	39.0	18.0	4.0	0.02	sph	40.0	70.0	5.0	1.00	63	-29	-33
13 711.835	0.61	0.01	exp	9.0	2.5	2.5	0.37	sph	16.0	6.0	3.0	0.01	sph	20.0	7.0	4.0	1.00	42	-1	-29
14 309.393	0.88	0.07	exp	8.5	38.0	2.5	0.03	sph	19.0	61.0	4.0	0.02	sph	20.0	73.0	5.0	1.00	60	-6	15
15 325.287	0.02	0.82	exp	4.0	14.0	4.0	0.15	sph	8.0	33.0	5.0	0.01	sph	78.0	169.0	84.0	1.00	22	-5	-23
16																				
17																				
18																				
19																				
20																				

Read Model Enter

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Frasers Yb Domain 2

Variogram Model Parameters

Domain (current/prev/next): Dom2_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang					
yb threshold	0.69	0.02	exp	14.5	38	144	0.02	sph	21	44	311	0.27	sph	23	72	338	1	z	21	y	-16	x	-41	
1	1.139	0.69	0.02	exp	14.5	38.0	144.0	0.02	sph	21.0	44.0	311.0	0.27	sph	23.0	72.0	338.0	1.00	z	21	y	-16	x	-41
2	1.594	0.40	0.31	exp	9.0	4.5	14.5	0.02	sph	17.0	28.0	15.0	0.27	sph	259.0	40.0	17.0	1.00	45	0	41			
3	1.936	0.33	0.38	exp	2.5	7.0	2.5	0.02	sph	29.0	20.0	3.0	0.27	sph	59.0	176.0	30.0	1.00	21	81	70			
4	2.391	0.09	0.62	exp	14.0	35.5	2.5	0.27	sph	17.0	45.0	38.0	0.02	sph	31.0	462.0	46.0	1.00	-50	-35	5			
5	2.847	0.11	0.60	exp	33.0	9.0	2.5	0.02	sph	42.0	13.0	143.0	0.27	sph	45.0	17.0	174.0	1.00	44	-1	-34			
6	3.416	0.42	0.30	exp	3.5	53.0	8.5	0.03	sph	10.0	134.0	10.0	0.25	sph	20.0	151.0	12.0	1.00	-46	-18	11			
7	4.213	0.31	0.39	exp	22.5	14.0	3.0	0.27	sph	185.0	15.0	224.0	0.03	sph	227.0	16.0	225.0	1.00	64	-31	-60			
8	4.669	0.40	0.31	exp	48.5	12.5	6.0	0.02	sph	68.0	13.0	102.0	0.27	sph	80.0	14.0	111.0	1.00	54	11	-36			
9	5.352	0.48	0.23	exp	25.0	5.5	12.5	0.02	sph	26.0	29.0	13.0	0.27	sph	40.0	47.0	14.0	1.00	46	21	48			
10	6.604	0.44	0.25	exp	11.5	16.0	5.5	0.04	sph	12.0	50.0	19.0	0.27	sph	14.0	64.0	20.0	1.00	-37	-50	35			
11	7.857	0.44	0.27	exp	17.5	14.0	9.5	0.04	sph	18.0	41.0	10.0	0.25	sph	21.0	79.0	12.0	1.00	22	39	54			
12	11.842	0.44	0.20	exp	17.0	12.5	8.5	0.09	sph	23.0	13.0	9.0	0.27	sph	24.0	14.0	13.0	1.00	41	32	51			
13	15.486	0.08	0.62	exp	2.5	2.5	2.5	0.03	sph	4.0	58.0	5.0	0.27	sph	9.0	71.0	10.0	1.00	68	21	23			
14	25.165	0.83	0.01	exp	28.5	11.5	2.5	0.15	sph	61.0	20.0	4.0	0.01	sph	66.0	21.0	5.0	1.00	-35	24	5			
15	113.756	0.14	0.45	exp	2.5	4.0	8.5	0.14	sph	16.0	63.0	9.0	0.27	sph	92.0	65.0	12.0	1.00	81	-12	35			
16																								
17																								
18																								
19																								
20																								

Read Model

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK

Cancel

Frasers Yb Domain 3

Variogram Model Parameters

Domain (current/prev/next): Dom3_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang					
yb threshold	0.69	0.02	exp	14.5	38	144	0.02	sph	21	44	311	0.27	sph	23	72	338	1	z	21	y	-16	x	-41	
1	0.683	0.69	0.02	exp	14.5	38.0	144.0	0.02	sph	21.0	44.0	311.0	0.27	sph	23.0	72.0	338.0	1.00	z	21	y	-16	x	-41
2	0.911	0.40	0.31	exp	9.0	4.5	14.5	0.02	sph	17.0	28.0	15.0	0.27	sph	259.0	40.0	17.0	1.00	45	0	41			
3	1.139	0.33	0.38	exp	2.5	7.0	2.5	0.02	sph	29.0	20.0	3.0	0.27	sph	59.0	176.0	30.0	1.00	21	81	70			
4	1.253	0.09	0.62	exp	14.0	35.5	2.5	0.27	sph	17.0	45.0	38.0	0.02	sph	31.0	462.0	46.0	1.00	-50	-35	5			
5	1.594	0.11	0.60	exp	33.0	9.0	2.5	0.02	sph	42.0	13.0	143.0	0.27	sph	45.0	17.0	174.0	1.00	44	-1	-34			
6	1.936	0.42	0.30	exp	3.5	53.0	8.5	0.03	sph	10.0	134.0	10.0	0.25	sph	20.0	151.0	12.0	1.00	-46	-18	11			
7	2.391	0.31	0.39	exp	22.5	14.0	3.0	0.27	sph	185.0	15.0	224.0	0.03	sph	227.0	16.0	225.0	1.00	64	-31	-60			
8	2.505	0.40	0.31	exp	48.5	12.5	6.0	0.02	sph	68.0	13.0	102.0	0.27	sph	80.0	14.0	111.0	1.00	54	11	-36			
9	3.074	0.48	0.23	exp	25.0	5.5	12.5	0.02	sph	26.0	29.0	13.0	0.27	sph	40.0	47.0	14.0	1.00	46	21	48			
10	3.530	0.44	0.25	exp	11.5	16.0	5.5	0.04	sph	12.0	50.0	19.0	0.27	sph	14.0	64.0	20.0	1.00	-37	-50	35			
11	4.441	0.44	0.27	exp	17.5	14.0	9.5	0.04	sph	18.0	41.0	10.0	0.25	sph	21.0	79.0	12.0	1.00	22	39	54			
12	7.174	0.44	0.20	exp	17.0	12.5	8.5	0.09	sph	23.0	13.0	9.0	0.27	sph	24.0	14.0	13.0	1.00	41	32	51			
13	8.654	0.08	0.62	exp	2.5	2.5	2.5	0.03	sph	4.0	58.0	5.0	0.27	sph	9.0	71.0	10.0	1.00	68	21	23			
14	10.134	0.83	0.01	exp	28.5	11.5	2.5	0.15	sph	61.0	20.0	4.0	0.01	sph	66.0	21.0	5.0	1.00	-35	24	5			
15	12.070	0.14	0.45	exp	2.5	4.0	8.5	0.14	sph	16.0	63.0	9.0	0.27	sph	92.0	65.0	12.0	1.00	81	-12	35			
16																								
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Read Model

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK

Cancel

Fraser's U Domain 2

Variogram Model Parameters

Domain (current/prev/next): Dom2_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
u threshold	0.24	0.44	exp	38.5	37.0	14.0	0.31	sph	39.0	90.0	15.0	0.01	sph	47.0	102.0	20.0	1.00	z	-12	y	3	x	-13	
1	5.408	0.24	0.44	exp	38.5	37.0	14.0	0.31	sph	39.0	90.0	15.0	0.01	sph	47.0	102.0	20.0	1.00	z	-12	y	3	x	-13
2	9.373	0.30	0.16	exp	28.5	2.5	4.5	0.52	sph	30.0	19.0	12.0	0.02	sph	45.0	20.0	13.0	1.00	48	-1	-1	6		
3	13.459	0.27	0.44	exp	4.0	8.5	8.0	0.27	sph	17.0	9.0	12.0	0.02	sph	49.0	21.0	17.0	1.00	-5	-81	-70			
4	16.583	0.01	0.71	exp	7.0	5.5	2.5	0.01	sph	20.0	15.0	11.0	0.27	sph	24.0	20.0	14.0	1.00	-7	-27	-38			
5	21.631	0.04	0.60	exp	36.0	2.5	2.5	0.09	sph	52.0	9.0	4.0	0.27	sph	151.0	10.0	12.0	1.00	-48	-26	45			
6	26.437	0.25	0.65	exp	3.0	13.5	6.0	0.08	sph	11.0	73.0	7.0	0.02	sph	12.0	123.0	8.0	1.00	41	-21	-29			
7	32.326	0.35	0.07	exp	10.0	2.5	4.0	0.56	sph	19.0	3.0	8.0	0.02	sph	27.0	6.0	30.0	1.00	-34	-14	-42			
8	35.570	0.32	0.03	exp	3.0	3.0	2.5	0.62	sph	4.5	23.0	4.0	0.03	sph	7.0	33.0	5.0	1.00	0	0	0			
9	39.536	0.35	0.01	exp	10.0	40.0	3.0	0.62	sph	25.0	62.0	3.0	0.02	sph	30.0	109.0	7.0	1.00	26	19	-27			
10	45.184	0.20	0.76	exp	11.0	2.5	6.0	0.02	sph	63.0	105.0	7.0	0.02	sph	64.0	125.0	9.0	1.00	18	-22	-44			
11	52.745	0.37	0.34	exp	10.5	4.0	5.5	0.27	sph	15.0	14.0	7.0	0.02	sph	19.0	29.0	9.0	1.00	32	-18	-21			
12	73.905	0.33	0.38	exp	9.0	12.5	4.5	0.27	sph	32.0	40.0	8.0	0.02	sph	33.0	44.0	9.0	1.00	-58	-19	7			
13	85.321	0.10	0.48	exp	8.0	29.5	2.5	0.40	sph	27.0	38.0	5.0	0.02	sph	29.0	52.0	7.0	1.00	-19	-25	9			
14	45.286	0.60	0.01	exp	2.5	4.0	2.5	0.38	sph	4.0	30.0	3.0	0.01	sph	5.0	45.0	4.0	1.00	-24	-28	-10			
15	287.567	0.04	0.37	exp	22.0	4.5	3.0	0.56	sph	30.0	5.0	6.0	0.03	sph	31.0	7.0	7.0	1.00	80	21	-60			
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Fraser's U Domain 3

Variogram Model Parameters

Domain (current/prev/next): Dom3_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
u threshold	0.24	0.44	exp	38.5	37.0	14.0	0.31	sph	39.0	90.0	15.0	0.01	sph	47.0	102.0	20.0	1.00	z	-12	y	3	x	-13	
1	1.442	0.24	0.44	exp	38.5	37.0	14.0	0.31	sph	39.0	90.0	15.0	0.01	sph	47.0	102.0	20.0	1.00	z	-12	y	3	x	-13
2	2.644	0.30	0.16	exp	28.5	2.5	4.5	0.52	sph	30.0	19.0	12.0	0.02	sph	45.0	20.0	13.0	1.00	48	-1	-1	6		
3	3.845	0.27	0.44	exp	4.0	8.5	8.0	0.27	sph	17.0	9.0	12.0	0.02	sph	49.0	21.0	17.0	1.00	-5	-81	-70			
4	6.730	0.01	0.71	exp	7.0	5.5	2.5	0.01	sph	20.0	15.0	11.0	0.27	sph	24.0	20.0	14.0	1.00	-7	-27	-38			
5	9.133	0.04	0.60	exp	36.0	2.5	2.5	0.09	sph	52.0	9.0	4.0	0.27	sph	151.0	10.0	12.0	1.00	-48	-26	45			
6	11.777	0.25	0.65	exp	3.0	13.5	6.0	0.08	sph	11.0	73.0	7.0	0.02	sph	12.0	123.0	8.0	1.00	41	-21	-29			
7	15.622	0.35	0.07	exp	10.0	2.5	4.0	0.56	sph	19.0	3.0	8.0	0.02	sph	27.0	6.0	30.0	1.00	-34	-14	-42			
8	16.944	0.32	0.03	exp	3.0	3.0	2.5	0.62	sph	4.5	23.0	4.0	0.03	sph	7.0	33.0	5.0	1.00	0	0	0			
9	21.510	0.35	0.01	exp	10.0	40.0	3.0	0.62	sph	25.0	62.0	3.0	0.02	sph	30.0	109.0	7.0	1.00	26	19	-27			
10	23.553	0.20	0.76	exp	11.0	2.5	6.0	0.02	sph	63.0	105.0	7.0	0.02	sph	64.0	125.0	9.0	1.00	18	-22	-44			
11	32.085	0.37	0.34	exp	10.5	4.0	5.5	0.27	sph	15.0	14.0	7.0	0.02	sph	19.0	29.0	9.0	1.00	32	-18	-21			
12	34.849	0.33	0.38	exp	9.0	12.5	4.5	0.27	sph	32.0	40.0	8.0	0.02	sph	33.0	44.0	9.0	1.00	-58	-19	7			
13	39.296	0.10	0.48	exp	8.0	29.5	2.5	0.40	sph	27.0	38.0	5.0	0.02	sph	29.0	52.0	7.0	1.00	-19	-25	9			
14	46.506	0.60	0.01	exp	2.5	4.0	2.5	0.38	sph	4.0	30.0	3.0	0.01	sph	5.0	45.0	4.0	1.00	-24	-28	-10			
15	51.673	0.04	0.37	exp	22.0	4.5	3.0	0.56	sph	30.0	5.0	6.0	0.03	sph	31.0	7.0	7.0	1.00	80	21	-60			
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Auer TREO Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
treo threshold	0.58	0.01 exp 14.5 25 3	0.38 sph 24 29 6	0.03 sph 90 55 7	1	z 0 y -27 x -12
1	0.119	0.01 exp 14.5 25 3	0.38 sph 24 29 6	0.03 sph 90 55 7	1.00	z 0 y -27 x -12
2	0.182	0.06 exp 24.5 33.5 2.5	0.05 sph 38.0 61.0 4.0	0.02 sph 122.0 103.0 11.0	1.00	-14 -37 -9
3	0.260	0.01 exp 20.5 35.5 2.5	0.01 sph 35.0 46.0 3.0	0.01 sph 59.0 58.0 4.0	1.00	-30 -56 1
4	0.371	0.97 exp 25.0 12.5 2.5	0.25 sph 50.0 15.0 4.0	0.02 sph 1098.0 1855.0 1283.0	1.00	56 -3 -43
5	0.492	0.43 exp 24.0 22.5 2.5	0.21 sph 33.0 27.0 3.0	0.35 sph 53.0 61.0 4.0	1.00	77 13 -34
6	0.665	0.01 exp 5.5 2.5 3.0	0.64 sph 46.0 3.0 11.0	0.01 sph 1606.0 966.0 1349.0	1.00	57 -6 46
7	0.910	0.24 exp 20.5 16.0 2.5	0.23 sph 26.0 26.0 3.0	0.27 sph 70.0 27.0 4.0	1.00	60 -0 -32
8	1.097	0.70 exp 37.5 20.5 2.5	0.21 sph 38.0 21.0 3.0	0.02 sph 1657.0 1225.0 1025.0	1.00	57 -3 -37
9	1.287	0.77 exp 38.0 38.0 2.5	0.03 sph 46.0 47.0 3.0	0.13 sph 53.0 54.0 4.0	1.00	57 -2 -32
10	1.579	0.35 exp 37.0 38.0 2.5	0.11 sph 44.0 46.0 3.0	0.01 sph 64.0 79.0 5.0	1.00	-28 -30 -1
11	1.968	0.47 exp 10.5 32.5 2.5	0.01 sph 12.0 33.0 3.0	0.02 sph 13.0 91.0 7.0	1.00	-26 -27 0
12	2.753	0.15 exp 19.5 20.5 2.5	0.03 sph 24.0 25.0 3.0	0.03 sph 37.0 35.0 4.0	1.00	-26 -30 -2
13	3.217	0.01 exp 14.5 20.5 2.5	0.04 sph 17.0 25.0 3.0	0.04 sph 22.0 34.0 4.0	1.00	-30 -30 -0
14	4.164	0.01 exp 8.0 3.5 2.5	0.01 sph 24.0 11.0 3.0	0.04 sph 25.0 12.0 2.5	1.01	77 12 -29
15	6.234	0.03 exp 4.0 36.5 2.5	0.04 sph 11.0 43.0 3.0	0.14 sph 16.0 32.0 4.0	1.00	-30 -25 -0
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Read Model Enter

Pre-fill Variogram Models

☐ pre-fill all using first vario in list

☐ pre-fill all with prev domain group

☐ pre-fill all with domain group -> Dom1_sub1

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Auer TREO Domain 3

Variogram Model Parameters

Dom3_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
treo threshold	0.17	0.55 exp 4.5 30.5 2.5	0.26 sph 74 106 8	0.02 sph 77 113 12	1	z 41 y -58 x -29
1	0.111	0.55 exp 4.5 30.5 2.5	0.26 sph 74 106 8	0.02 sph 77 113 12	1.00	z 41 y -58 x -29
2	0.185	0.43 exp 6.0 2.5 2.5	0.20 sph 20.0 33.0 3.0	0.36 sph 47.0 57.0 4.0	1.00	-24 -38 25
3	0.293	0.02 exp 3.0 12.0 2.5	0.57 sph 23.0 43.0 3.0	0.13 sph 38.0 58.0 4.0	1.00	36 -34 -36
4	0.436	0.01 exp 9.0 18.0 2.5	0.60 sph 15.0 26.0 3.0	0.11 sph 21.0 47.0 4.0	1.00	53 -3 -32
5	0.586	0.13 exp 2.5 9.5 5.5	0.08 sph 3.0 20.0 24.0	0.22 sph 4.0 32.0 28.0	1.00	-30 77 5
6	0.800	0.70 exp 30.5 17.5 3.0	0.03 sph 32.0 35.0 4.0	0.02 sph 51.0 44.0 6.0	1.00	38 -20 13
7	1.061	0.41 exp 24.5 30.5 2.5	0.27 sph 51.0 50.0 5.0	0.17 sph 60.0 64.0 6.0	1.00	42 20 -31
8	1.203	0.12 exp 14.5 8.5 2.5	0.17 sph 45.0 14.0 4.0	0.26 sph 54.0 64.0 6.0	1.00	31 -11 -1
9	1.450	0.34 exp 10.5 4.0 3.5	0.23 sph 29.0 61.0 4.0	0.02 sph 1697.0 1222.0 1204.0	1.01	59 -6 -25
10	1.720	0.28 exp 9.5 8.0 2.5	0.28 sph 25.0 9.0 4.0	0.02 sph 401.0 40.0 586.0	1.00	78 16 -9
11	1.995	0.26 exp 5.0 2.5 16.5	0.10 sph 8.0 3.0 23.0	0.08 sph 20.0 4.0 35.0	1.00	51 -6 57
12	2.454	0.02 exp 8.5 7.0 2.5	0.02 sph 9.0 23.0 3.0	0.08 sph 20.0 31.0 4.0	1.00	23 -18 -24
13	2.665	0.04 exp 8.0 28.5 3.0	0.02 sph 16.0 29.0 6.0	0.02 sph 19.0 30.0 7.0	1.00	61 3 22
14	3.356	0.02 exp 8.0 17.5 3.5	0.02 sph 11.0 18.0 4.0	0.02 sph 20.0 19.0 5.0	1.00	64 3 42
15	7.734	0.05 exp 14.5 11.0 3.0	0.04 sph 24.0 17.0 4.5	0.11 sph 28.0 23.0 8.0	1.01	3 -18 -28
16						
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Read Model Enter

Pre-fill Variogram Models

☐ pre-fill all using first vario in list

☐ pre-fill all with prev domain group

☐ pre-fill all with domain group -> Dom1_sub1

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Auer HREO Domain 2

Variogram Model Parameters

Domain (current/prev/next): **Dom2_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
hreo threshold	0.52	0.26 exp 8.5 2.5 36.0	0.19 sph 14.0 29.0 194.0	0.03 sph 452.0 30.0 451.0	1.00	z 25 y -36 x 18
1 13.937	0.52	0.26 exp 8.5 2.5 36.0	0.19 sph 14.0 29.0 194.0	0.03 sph 452.0 30.0 451.0	1.00	z 25 y -36 x 18
2 79.152	0.58	0.16 exp 3.0 3.5 3.0	0.12 sph 4.0 4.0 4.0	0.14 sph 110.0 31.0 16.0	1.00	z 55 y -35 x -51
3 112.037	0.44	0.51 exp 30.0 27.0 3.5	0.02 sph 697.0 766.0 121.0	0.03 sph 1541.0 1017.0 271.0	1.00	z 74 y 5 x -37
4 152.052	0.22	0.72 exp 36.5 12.5 2.5	0.02 sph 647.0 43.0 224.0	0.04 sph 2446.0 733.0 332.0	1.00	z 56 y 1 x -37
5 201.714	0.16	0.78 exp 2.5 20.5 17.5	0.02 sph 174.0 193.0 24.0	0.04 sph 209.0 213.0 26.0	1.00	z -30 y 48 x -0
6 266.614	0.46	0.50 exp 4.0 32.5 4.5	0.02 sph 21.0 169.0 170.0	0.02 sph 29.0 233.0 233.0	1.00	z -30 y 15 x -0
7 263.015	0.32	0.52 exp 19.0 15.5 2.5	0.15 sph 23.0 165.0 4.0	0.01 sph 41.0 67.0 96.0	1.00	z -21 y 2 x 1
8 407.741	0.23	0.73 exp 37.5 4.5 2.5	0.02 sph 40.0 5.0 69.0	0.02 sph 420.0 297.0 1057.0	1.00	z 61 y 3 x 3
9 469.554	0.59	0.13 exp 20.5 12.5 2.5	0.24 sph 26.0 19.0 3.0	0.04 sph 36.0 26.0 4.0	1.00	z 60 y -0 x -30
10 534.810	0.70	0.07 exp 2.5 18.5 2.5	0.22 sph 3.0 40.0 42.0	0.01 sph 606.0 43.0 642.0	1.00	z -28 y 43 x 1
11 535.720	0.73	0.13 exp 2.5 9.5 2.5	0.12 sph 4.0 62.0 4.0	0.02 sph 5.0 77.0 60.0	1.00	z -30 y -38 x 0
12 787.443	0.83	0.02 exp 2.5 13.0 6.0	0.12 sph 3.0 25.0 21.0	0.03 sph 347.0 60.0 314.0	1.00	z -29 y 63 x 5
13 366.160	0.90	0.05 exp 6.5 2.5 2.5	0.04 sph 39.0 39.0 314.0	0.02 sph 41.0 41.0 330.0	1.01	z 63 y -1 x 15
14 380.469	0.88	0.01 exp 68.5 75.5 15.0	0.06 sph 120.0 86.0 16.0	0.06 sph 123.0 87.0 17.0	1.01	z 81 y -34 x 28
15 524.338	0.61	0.35 exp 13.0 36.5 4.5	0.02 sph 25.0 201.0 199.0	0.02 sph 50.0 400.0 396.0	1.00	z -30 y -18 x -0
16						
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Auer HREO Domain 3

Variogram Model Parameters

Domain (current/prev/next): **Dom3_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
hreo threshold	0.24	0.33 exp 45.5 45.0 3.0	0.4 sph 47.0 89.0 18.0	0.03 sph 314.0 294.0 21.0	1.00	z 53 y -1 x -5
1 31.662	0.24	0.33 exp 45.5 45.0 3.0	0.40 sph 47.0 89.0 18.0	0.03 sph 314.0 294.0 21.0	1.00	z 53 y -1 x -5
2 54.915	0.37	0.32 exp 7.0 37.5 19.0	0.23 sph 16.0 40.0 224.0	0.08 sph 17.0 42.0 255.0	1.00	z -16 y 68 x 40
3 77.383	0.28	0.50 exp 6.0 15.5 10.0	0.13 sph 10.0 152.0 90.0	0.09 sph 13.0 200.0 196.0	1.00	z -30 y 41 x 1
4 102.754	0.36	0.39 exp 4.0 11.0 7.5	0.12 sph 54.0 65.0 8.0	0.13 sph 76.0 81.0 10.0	1.00	z -33 y -18 x 1
5 129.733	0.25	0.31 exp 9.5 35.5 3.0	0.26 sph 12.0 112.0 9.0	0.18 sph 151.0 152.0 10.0	1.00	z 1 y -17 x -10
6 161.626	0.25	0.55 exp 7.5 6.0 4.5	0.18 sph 181.0 177.0 12.0	0.02 sph 450.0 352.0 30.0	1.00	z 62 y 0 x 1
7 218.204	0.25	0.27 exp 7.5 12.0 2.5	0.07 sph 21.0 21.0 7.0	0.41 sph 74.0 84.0 10.0	1.00	z -32 y -26 x 1
8 260.857	0.33	0.12 exp 18.0 19.0 2.5	0.09 sph 19.0 39.0 5.0	0.46 sph 85.0 84.0 10.0	1.00	z -27 y -21 x -1
9 297.199	0.37	0.17 exp 6.0 4.5 8.0	0.45 sph 136.0 137.0 9.0	0.01 sph 1349.0 838.0 741.0	1.00	z 77 y 4 x -13
10 376.839	0.44	0.12 exp 4.0 20.0 6.5	0.03 sph 15.0 30.0 7.0	0.41 sph 71.0 77.0 9.0	1.00	z -21 y -14 x -3
11 451.602	0.38	0.01 exp 36.0 38.0 2.5	0.47 sph 58.0 76.0 5.0	0.14 sph 59.0 91.0 6.0	1.00	z 27 y -53 x -59
12 591.385	0.59	0.01 exp 4.0 14.0 4.5	0.36 sph 36.0 67.0 6.0	0.04 sph 49.0 70.0 7.0	1.00	z 47 y 12 x -28
13 360.917	0.88	0.04 exp 16.5 52.5 8.0	0.04 sph 57.0 68.0 9.0	0.04 sph 65.0 76.0 10.0	1.00	z 47 y -31 x -0
14 793.311	0.88	0.08 exp 18.0 7.5 2.5	0.02 sph 19.0 8.0 112.0	0.02 sph 20.0 9.0 119.0	1.00	z 12 y 1 x 67
15 396.287	0.19	0.31 exp 6.0 7.0 8.0	0.44 sph 64.0 8.0 63.0	0.06 sph 398.0 190.0 179.0	1.00	z 56 y -1 x 78
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Auer Yb Domain 2

Variogram Model Parameters

Domain (current/prev/next): Dom2_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
yb threshold	0.51	0.16	exp	53	52	3.5	0.06	sph	63	121	8	0.27	sph	64	131	11	1	z	13	y	-12	x	-25	
1	0.911	0.51	0.16	exp	53.0	52.0	3.5	0.06	sph	63.0	121.0	8.0	0.27	sph	64.0	131.0	11.0	1.00	z	13	y	-12	x	-25
2	1.480	0.40	0.01	exp	28.5	38.0	2.5	0.32	sph	45.0	46.0	3.0	0.27	sph	73.0	88.0	16.0	1.00	-8	-39	-14			
3	1.936	0.02	0.71	exp	23.5	38.0	2.5	0.25	sph	24.0	95.0	19.0	0.02	sph	1117.0	264.0	1567.0	1.00	-38	-9	2			
4	2.391	0.06	0.65	exp	2.5	38.0	2.5	0.27	sph	10.0	119.0	151.0	0.02	sph	1081.0	778.0	1698.0	1.00	-29	-11	0			
5	3.074	0.24	0.28	exp	2.5	29.5	27.5	0.19	sph	4.0	61.0	61.0	0.29	sph	62.0	905.0	223.0	1.00	-30	42	79			
6	3.985	0.08	0.56	exp	2.5	29.5	5.0	0.34	sph	13.0	126.0	192.0	0.02	sph	1217.0	578.0	789.0	1.00	-28	80	0			
7	5.124	0.32	0.25	exp	6.5	20.5	3.0	0.16	sph	77.0	73.0	5.0	0.27	sph	121.0	232.0	18.0	1.00	60	0	-29			
8	5.921	0.36	0.28	exp	7.0	6.5	3.0	0.09	sph	39.0	61.0	4.0	0.27	sph	120.0	113.0	11.0	1.00	-31	11	0			
9	6.718	0.40	0.29	exp	4.5	16.0	4.0	0.07	sph	5.0	35.0	5.0	0.24	sph	68.0	68.0	8.0	1.00	-24	20	2			
10	8.199	0.11	0.57	exp	2.5	17.5	2.5	0.03	sph	35.0	118.0	9.0	0.29	sph	60.0	124.0	10.0	1.00	-26	5	6			
11	10.362	0.38	0.35	exp	7.0	2.5	2.5	0.25	sph	59.0	47.0	8.0	0.02	sph	63.0	305.0	521.0	1.00	60	-0	10			
12	13.921	0.26	0.58	exp	17.5	2.5	2.5	0.02	sph	65.0	61.0	8.0	0.14	sph	79.0	77.0	10.0	1.00	53	-0	-6			
13	16.967	0.75	0.21	exp	37.5	33.5	7.0	0.02	sph	70.0	292.0	559.0	0.02	sph	72.0	403.0	575.0	1.00	28	9	13			
14	24.140	0.69	0.21	exp	3.5	43.5	4.0	0.08	sph	18.0	59.0	6.0	0.02	sph	19.0	66.0	8.0	1.00	77	-6	12			
15	35.983	0.18	0.13	exp	5.0	9.5	2.5	0.22	sph	6.0	22.0	3.0	0.47	sph	90.0	96.0	12.0	1.00	-11	-21	-7			
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK

Cancel

Auer Yb Domain 3

Variogram Model Parameters

Domain (current/prev/next): Dom3_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
yb threshold	0.01	0.56	exp	4.5	26	2.5	0.16	sph	69	41	15	0.27	sph	293	42	22	1	z	-23	y	-1	x	-2	
1	0.569	0.01	0.56	exp	4.5	26.0	2.5	0.16	sph	69.0	41.0	15.0	0.27	sph	293.0	42.0	22.0	1.00	z	-23	y	-1	x	-2
2	1.025	0.39	0.42	exp	11.5	13.5	10.0	0.17	sph	42.0	256.0	147.0	0.02	sph	45.0	332.0	520.0	1.00	77	-76	3			
3	1.366	0.35	0.28	exp	7.5	18.5	10.5	0.18	sph	41.0	19.0	42.0	0.19	sph	301.0	20.0	129.0	1.00	60	0	0			
4	1.822	0.36	0.06	exp	15.5	6.5	7.5	0.56	sph	16.0	181.0	94.0	0.02	sph	17.0	260.0	126.0	1.00	-29	30	5			
5	2.277	0.33	0.05	exp	4.5	36.5	36.5	0.38	sph	7.0	57.0	58.0	0.24	sph	68.0	539.0	78.0	1.00	-30	20	-0			
6	3.302	0.33	0.07	exp	105.0	12.0	12.5	0.32	sph	149.0	84.0	13.0	0.28	sph	154.0	212.0	14.0	1.00	-48	-58	15			
7	3.985	0.24	0.16	exp	9.0	2.5	2.5	0.26	sph	49.0	13.0	187.0	0.34	sph	215.0	14.0	207.0	1.00	61	1	34			
8	4.669	0.19	0.14	exp	16.5	2.5	2.0	0.57	sph	73.0	9.0	64.0	0.10	sph	196.0	20.0	65.0	1.00	60	-0	24			
9	6.035	0.23	0.17	exp	7.5	8.0	9.5	0.37	sph	8.0	12.0	89.0	0.23	sph	11.0	170.0	96.0	1.00	-30	22	0			
10	8.085	0.25	0.02	exp	7.0	6.5	27.5	0.65	sph	57.0	7.0	40.0	0.08	sph	522.0	522.0	66.0	1.00	42	13	40			
11	10.362	0.10	0.47	exp	52.5	6.5	4.0	0.41	sph	166.0	11.0	166.0	0.02	sph	167.0	12.0	171.0	1.00	57	-5	30			
12	16.170	0.29	0.01	exp	5.5	2.5	2.5	0.42	sph	33.0	4.0	3.0	0.28	sph	130.0	88.0	9.0	1.00	49	2	-6			
13	17.764	0.46	0.01	exp	2.5	18.5	2.5	0.27	sph	3.0	40.0	3.0	0.26	sph	112.0	150.0	10.0	1.00	-13	-5	-2			
14	24.368	0.38	0.13	exp	24.5	28.0	2.5	0.46	sph	29.0	44.0	6.0	0.03	sph	36.0	63.0	7.0	1.00	38	-17	-3			
15	39.741	0.04	0.05	exp	2.5	20.5	19.0	0.49	sph	5.0	42.0	41.0	0.43	sph	12.0	200.0	74.0	1.01	-30	21	-0			
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK

Cancel

Auer Th Domain 2

Variogram Model Parameters

Domain (current/prev/next): **Dom2_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type		Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang				
th threshold	0.27	0.44	exp	2.5	2.5	2.5	0.04	sph	4	4	28	0.25	sph	120	9	56	1	z	11	y	9	x	48	
1	25.034	0.27	0.44	exp	2.5	2.5	2.5	0.04	sph	4.0	4.0	28.0	0.25	sph	120.0	9.0	56.0	1.00	z	11	y	9	x	48
2	38.006	0.29	0.46	exp	2.5	7.5	2.5	0.10	sph	3.0	33.0	3.0	0.15	sph	111.0	40.0	9.0	1.00	z	48	y	-21	x	-22
3	51.547	0.35	0.17	exp	2.5	36.5	2.5	0.46	sph	3.0	37.0	16.0	0.02	sph	7.0	107.0	106.0	1.00	z	-32	y	32	x	-1
4	71.915	0.01	0.81	exp	37.0	7.0	2.5	0.16	sph	45.0	55.0	4.0	0.02	sph	1149.0	104.0	959.0	1.00	z	-26	y	-43	x	-2
5	96.608	0.09	0.72	exp	2.5	5.0	2.5	0.17	sph	19.0	49.0	6.0	0.02	sph	54.0	148.0	185.0	1.00	z	-40	y	-12	x	5
6	128.810	0.24	0.39	exp	4.0	8.0	2.5	0.36	sph	8.0	9.0	3.0	0.01	sph	26.0	35.0	9.0	1.00	z	-16	y	-2	x	-0
7	175.350	0.34	0.06	exp	5.5	20.0	2.5	0.58	sph	26.0	25.0	3.0	0.02	sph	414.0	364.0	196.0	1.00	z	55	y	-3	x	-33
8	204.367	0.42	0.02	exp	35.5	36.0	2.5	0.55	sph	36.0	38.0	3.0	0.01	sph	122.0	693.0	250.0	1.00	z	50	y	-12	x	-53
9	248.176	0.38	0.18	exp	33.5	32.0	2.5	0.42	sph	34.0	35.0	3.0	0.02	sph	38.0	164.0	557.0	1.00	z	-2	y	-1	x	-1
10	296.992	0.45	0.21	exp	14.5	28.5	2.5	0.32	sph	46.0	46.0	3.0	0.02	sph	106.0	104.0	7.0	1.00	z	43	y	-12	x	-34
11	368.793	0.61	0.25	exp	20.5	4.5	2.5	0.12	sph	25.0	18.0	3.0	0.02	sph	1195.0	1410.0	1536.0	1.00	z	60	y	-0	x	-29
12	497.945	0.79	0.06	exp	2.5	20.0	20.5	0.13	sph	4.0	34.0	34.0	0.01	sph	66.0	143.0	106.0	0.99	z	-30	y	60	x	78
13	502.632	0.83	0.07	exp	10.5	19.5	2.5	0.08	sph	43.0	57.0	7.0	0.02	sph	110.0	113.0	14.0	1.00	z	-34	y	-6	x	1
14	776.389	0.97	0.01	exp	2.5	18.5	2.5	0.01	sph	3.0	25.0	3.0	0.01	sph	4.0	32.0	5.0	1.00	z	80	y	-75	x	-81
15	129.417	0.36	0.04	exp	18.5	2.5	2.5	0.58	sph	26.0	3.0	4.0	0.02	sph	223.0	222.0	31.0	1.00	z	60	y	-0	x	81
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Auer Th Domain 3

Variogram Model Parameters

Domain (current/prev/next): **Dom3_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type		Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang				
th threshold	0.25	0.36	exp	2.5	35	2.5	0.12	sph	36	93	7	0.27	sph	44	194	13	1	z	-17	y	33	x	15	
1	18.889	0.25	0.36	exp	2.5	35.0	2.5	0.12	sph	36.0	93.0	7.0	0.27	sph	44.0	194.0	13.0	1.00	z	-17	y	33	x	15
2	34.251	0.46	0.03	exp	19.0	13.5	2.5	0.26	sph	44.0	21.0	3.0	0.25	sph	45.0	122.0	8.0	1.00	z	60	y	-1	x	5
3	48.930	0.39	0.37	exp	38.0	38.0	2.5	0.22	sph	48.0	47.0	6.0	0.02	sph	58.0	48.0	8.0	1.00	z	-53	y	12	x	-5
4	71.005	0.06	0.77	exp	23.0	38.0	2.5	0.14	sph	31.0	72.0	8.0	0.03	sph	32.0	83.0	9.0	1.00	z	7	y	-5	x	-8
5	94.559	0.13	0.75	exp	31.5	3.5	3.5	0.10	sph	43.0	48.0	4.0	0.02	sph	48.0	49.0	6.0	1.00	z	53	y	9	x	29
6	130.290	0.13	0.75	exp	31.5	3.5	3.5	0.10	sph	43.0	48.0	4.0	0.02	sph	48.0	49.0	6.0	1.00	z	53	y	9	x	29
7	173.075	0.41	0.20	exp	3.5	48.0	35.5	0.36	sph	5.0	62.0	68.0	0.03	sph	10.0	151.0	69.0	1.00	z	25	y	81	x	54
8	203.570	0.48	0.11	exp	2.5	25.0	17.5	0.39	sph	4.0	34.0	25.0	0.02	sph	509.0	37.0	552.0	1.00	z	37	y	36	x	-8
9	246.355	0.42	0.18	exp	4.0	15.0	2.5	0.39	sph	13.0	33.0	4.0	0.01	sph	37.0	37.0	9.0	1.00	z	19	y	-36	x	-55
10	284.020	0.45	0.32	exp	3.0	22.5	3.5	0.21	sph	4.0	28.0	5.0	0.02	sph	95.0	92.0	6.0	1.00	z	51	y	-55	x	-61
11	344.442	0.53	0.14	exp	12.5	9.0	2.5	0.32	sph	21.0	17.0	4.0	0.01	sph	25.0	21.0	6.0	1.00	z	16	y	-27	x	-38
12	424.095	0.69	0.27	exp	2.5	5.5	5.0	0.02	sph	9.0	9.0	7.0	0.02	sph	183.0	181.0	12.0	1.00	z	56	y	81	x	81
13	478.373	0.82	0.14	exp	29.0	36.5	2.5	0.02	sph	45.0	37.0	3.0	0.02	sph	55.0	38.0	5.0	1.00	z	15	y	-28	x	27
14	503.315	0.95	0.03	exp	5.5	6.0	2.5	0.01	sph	14.0	11.0	3.0	0.01	sph	17.0	20.0	4.0	1.00	z	43	y	-10	x	-29
15	531.144	0.20	0.56	exp	15.0	21.0	3.5	0.15	sph	26.0	27.0	4.0	0.09	sph	43.0	33.0	5.0	1.00	z	41	y	-0	x	7
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Read Model

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OK Cancel

Auer U Domain 2

Variogram Model Parameters

Domain (current/prev/next): **Dom2_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
u threshold	0.47	0.01	exp	3	5	2.5	0.25	sph	4	10	3	0.27	sph	107	12	19	1	z	35	y	22	x	-33	
1	1.202	0.47	0.01	exp	3.0	5.0	2.5	0.25	sph	4.0	10.0	3.0	0.27	sph	107.0	12.0	19.0	1.00	z	35	y	22	x	-33
2	1.923	0.16	0.51	exp	3.0	20.5	2.5	0.29	sph	14.0	89.0	114.0	0.04	sph	735.0	93.0	745.0	1.00	-30	-18	-0	-0	-44	
3	2.524	0.18	0.48	exp	20.5	7.5	2.5	0.07	sph	51.0	8.0	56.0	0.27	sph	105.0	456.0	57.0	1.00	60	-0	-0	-79	0	
4	3.365	0.06	0.65	exp	2.5	37.0	4.0	0.27	sph	97.0	82.0	714.0	0.02	sph	103.0	89.0	748.0	1.00	-30	-4	-4	-0	8	
5	4.326	0.22	0.50	exp	8.5	54.5	4.0	0.25	sph	13.0	76.0	70.0	0.03	sph	386.0	79.0	257.0	1.00	-32	24	-0	-0	-11	
6	5.287	0.21	0.54	exp	4.0	27.5	3.5	0.23	sph	29.0	102.0	223.0	0.02	sph	39.0	296.0	240.0	1.00	-9	-45	14	-0	-0	
7	6.489	0.19	0.63	exp	20.0	36.0	3.0	0.03	sph	81.0	54.0	33.0	0.15	sph	413.0	124.0	39.0	1.00	-36	26	0	-75	-29	
8	7.330	0.42	0.19	exp	5.0	19.0	3.0	0.28	sph	29.0	29.0	4.0	0.11	sph	54.0	137.0	131.0	1.00	57	0	-0	-0	-0	
9	8.532	0.43	0.32	exp	30.0	15.0	2.5	0.22	sph	47.0	91.0	6.0	0.03	sph	60.0	897.0	804.0	1.00	60	-0	-0	-0	-0	
10	9.854	0.30	0.43	exp	34.0	2.5	2.5	0.08	sph	90.0	7.0	6.0	0.19	sph	91.0	106.0	7.0	1.00	57	0	-0	-0	-0	
11	12.498	0.47	0.19	exp	20.5	8.5	2.5	0.04	sph	26.0	9.0	3.0	0.30	sph	81.0	10.0	10.0	1.00	60	-0	-0	-0	-0	
12	17.785	0.42	0.44	exp	3.0	16.5	3.0	0.12	sph	7.0	41.0	5.0	0.02	sph	143.0	87.0	20.0	1.00	-30	5	-0	-0	-0	
13	20.789	0.61	0.01	exp	2.5	35.0	6.5	0.36	sph	3.0	44.0	7.0	0.02	sph	184.0	46.0	12.0	1.00	-31	60	-2	-56	1	
14	26.918	0.77	0.19	exp	19.5	49.5	4.5	0.02	sph	21.0	56.0	294.0	0.02	sph	22.0	58.0	325.0	1.00	26	-78	-0	-0	-0	
15	40.719	0.04	0.35	exp	8.5	20.5	2.5	0.47	sph	17.0	25.0	3.0	0.14	sph	76.0	410.0	281.0	1.00	-32	-27	-0	-0	-0	
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Auer U Domain 3

Variogram Model Parameters

Domain (current/prev/next): **Dom3_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
u threshold	0.01	0.62	exp	37	2.5	8	0.34	sph	46	36	182	0.03	sph	50	40	258	1	z	60	y	1	x	-74	
1	1.082	0.01	0.62	exp	37.0	2.5	8.0	0.34	sph	46.0	36.0	182.0	0.03	sph	50.0	40.0	258.0	1.00	z	60	y	1	x	-74
2	1.923	0.08	0.45	exp	3.0	6.0	3.5	0.20	sph	19.0	7.0	4.0	0.27	sph	51.0	230.0	152.0	1.00	-46	60	-3	-0	3	
3	2.884	0.17	0.29	exp	8.5	11.5	3.5	0.15	sph	61.0	21.0	7.0	0.39	sph	323.0	22.0	93.0	1.00	60	-0	-0	-0	1	
4	3.845	0.17	0.34	exp	2.5	38.0	13.5	0.19	sph	7.0	53.0	97.0	0.30	sph	83.0	61.0	357.0	1.00	-27	15	-81	-0	1	
5	4.927	0.27	0.15	exp	2.5	18.0	11.0	0.38	sph	8.0	66.0	63.0	0.20	sph	52.0	406.0	98.0	1.00	-29	58	-7	-0	1	
6	6.129	0.29	0.05	exp	4.5	19.5	5.0	0.38	sph	5.0	76.0	56.0	0.28	sph	15.0	227.0	228.0	1.00	-30	21	-0	-0	1	
7	7.931	0.32	0.04	exp	3.5	12.0	2.5	0.40	sph	19.0	34.0	4.0	0.24	sph	134.0	137.0	17.0	1.00	-10	-64	-18	-0	1	
8	9.253	0.30	0.12	exp	18.0	20.5	2.5	0.48	sph	49.0	50.0	6.0	0.10	sph	119.0	652.0	81.0	1.00	-30	-31	-0	-0	1	
9	10.455	0.44	0.04	exp	20.5	4.5	2.5	0.47	sph	49.0	6.0	6.0	0.05	sph	322.0	156.0	37.0	1.00	60	-0	-0	-56	-8	
10	12.017	0.42	0.03	exp	20.5	12.0	2.5	0.48	sph	41.0	21.0	5.0	0.07	sph	73.0	22.0	9.0	1.00	60	-0	-0	-0	1	
11	15.021	0.39	0.03	exp	20.0	4.0	2.5	0.56	sph	42.0	24.0	5.0	0.02	sph	69.0	25.0	8.0	1.00	61	2	-52	4	1	
12	19.708	0.46	0.27	exp	2.5	20.5	7.5	0.21	sph	7.0	56.0	30.0	0.06	sph	8.0	67.0	35.0	1.00	-30	58	-19	11	1	
13	23.433	0.58	0.31	exp	5.0	7.0	3.5	0.09	sph	27.0	14.0	4.0	0.02	sph	30.0	42.0	6.0	1.00	-38	-8	-28	-0	1	
14	28.841	0.97	0.01	exp	4.0	5.0	2.5	0.01	sph	16.0	30.0	3.0	0.01	sph	21.0	51.0	4.0	1.00	47	-10	-0	-0	1	
15	45.184	0.22	0.02	exp	2.5	20.5	2.5	0.53	sph	30.0	41.0	4.5	0.23	sph	229.0	601.0	75.0	1.00	-31	-10	-0	-0	1	
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana TREO Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
treo threshold	0.84	0.12 exp 3.5 53 53	0.02 sph 6 91 91	0.02 sph 8 114 93	1	z -25 y 19 x 45
1 0.111	0.84	0.12 exp 3.5 53.0 53.0	0.02 sph 6.0 91.0 91.0	0.02 sph 8.0 114.0 93.0	1.00	z -25 y 19 x 45
2 0.153	0.63	0.28 exp 16.5 2.5 37.5	0.07 sph 41.0 5.0 73.0	0.02 sph 60.0 7.0 75.0	1.00	z -72 y -3 x 40
3 0.214	0.66	0.27 exp 3.0 21.0 20.5	0.05 sph 4.0 27.0 33.0	0.02 sph 5.0 29.0 36.0	1.00	z -81 y 59 x 33
4 0.297	0.45	0.50 exp 2.5 26.5 3.5	0.03 sph 5.0 77.0 76.0	0.03 sph 8.0 124.0 124.0	1.01	z -81 y 40 x -13
5 0.421	0.57	0.30 exp 2.5 17.5 2.5	0.12 sph 6.0 22.0 3.0	0.01 sph 47.0 41.0 6.0	1.00	z 5 y -17 x -34
6 0.547	0.53	0.01 exp 23.0 17.5 2.5	0.45 sph 34.0 30.0 3.0	0.01 sph 64.0 42.0 5.0	1.00	z 81 y 39 x -9
7 0.685	0.49	0.01 exp 24.5 13.0 2.5	0.49 sph 34.0 36.0 3.0	0.01 sph 39.0 60.0 5.0	1.00	z 28 y 14 x -43
8 0.817	0.49	0.15 exp 24.5 5.5 2.5	0.35 sph 42.0 33.0 3.0	0.01 sph 45.0 37.0 4.0	1.00	z 62 y 27 x -13
9 1.017	0.27	0.53 exp 37.5 25.0 2.5	0.19 sph 40.0 32.0 3.0	0.01 sph 74.0 42.0 5.0	1.00	z -19 y -11 x -28
10 1.236	0.54	0.23 exp 6.5 2.5 2.5	0.20 sph 17.0 22.0 3.0	0.03 sph 33.0 27.0 4.0	1.00	z -20 y -11 x -30
11 1.428	0.68	0.14 exp 2.0 2.5 13.0	0.17 sph 25.0 3.0 32.0	0.01 sph 71.0 5.0 35.0	1.00	z 55 y 25 x 73
12 1.997	0.65	0.12 exp 2.5 22.0 26.5	0.22 sph 3.0 46.0 33.0	0.01 sph 4.0 59.0 52.0	1.00	z 81 y -62 x 26
13 2.359	0.75	0.21 exp 2.5 31.0 21.5	0.02 sph 3.0 42.0 22.0	0.02 sph 5.0 77.0 24.0	1.00	z 66 y -23 x -10
14 4.534	0.98	0.01 exp 8.0 18.0 2.5	0.01 sph 22.0 21.0 3.0	0.01 sph 31.0 35.0 4.0	1.01	z -6 y -4 x -30
15 7.693	0.45	0.14 exp 3.5 2.5 2.5	0.37 sph 30.0 3.0 3.0	0.04 sph 62.0 24.0 4.0	1.00	z 0 y 0 x 0

Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana HREO Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
hreo threshold	0.72	0.24 exp 6.5 28.5 5.5	0.02 sph 11 71 153	0.02 sph 13 73 171	1	z 76 y 80 x 36
1 00.608	0.72	0.24 exp 6.5 28.5 5.5	0.02 sph 11.0 71.0 153.0	0.02 sph 13.0 73.0 171.0	1.00	z 76 y 80 x 36
2 45.854	0.60	0.01 exp 31.0 36.5 2.5	0.38 sph 61.0 61.0 4.0	0.01 sph 66.0 78.0 5.0	1.00	z 78 y 30 x -6
3 94.021	0.56	0.01 exp 20.5 38.0 2.5	0.38 sph 24.0 46.0 3.0	0.05 sph 40.0 110.0 7.0	1.00	z 0 y 0 x -50
4 247.235	0.53	0.13 exp 38.0 18.0 2.5	0.32 sph 39.0 40.0 3.0	0.02 sph 190.0 1681.0 1155.0	1.00	z 0 y 0 x -31
5 332.974	0.68	0.06 exp 38.0 2.5 37.0	0.25 sph 46.0 3.0 47.0	0.01 sph 79.0 5.0 76.0	1.00	z -70 y -50 x 81
6 417.184	0.52	0.01 exp 25.0 2.5 2.5	0.46 sph 27.0 3.0 47.0	0.01 sph 78.0 5.0 80.0	1.00	z 0 y 0 x 40
7 522.548	0.52	0.03 exp 38.0 2.5 35.5	0.44 sph 39.0 3.0 46.0	0.01 sph 61.0 4.0 64.0	1.00	z 54 y 25 x 73
8 584.791	0.37	0.14 exp 11.5 2.5 5.0	0.47 sph 22.0 3.0 7.0	0.02 sph 764.0 547.0 95.0	1.00	z 81 y 32 x 81
9 711.954	0.59	0.30 exp 13.5 5.0 5.5	0.08 sph 22.0 6.0 36.0	0.03 sph 59.0 37.0 285.0	1.00	z 3 y -0 x 44
10 322.012	0.39	0.05 exp 9.0 4.5 2.5	0.54 sph 21.0 16.0 3.0	0.03 sph 30.0 22.0 4.0	1.01	z -1 y 4 x 1
11 334.560	0.49	0.02 exp 2.5 17.0 18.5	0.46 sph 3.0 30.0 41.0	0.03 sph 4.0 36.0 58.0	1.00	z -13 y 80 x 28
12 325.567	0.73	0.23 exp 19.0 3.0 15.5	0.02 sph 21.0 4.0 16.0	0.02 sph 22.0 6.0 17.0	1.00	z 9 y 15 x 78
13 477.597	0.87	0.09 exp 14.0 33.0 2.5	0.02 sph 25.0 34.0 4.0	0.02 sph 52.0 39.0 5.0	1.00	z 16 y 10 x -4
14 113.857	0.95	0.04 exp 15.5 11.5 2.5	0.01 sph 16.0 27.0 3.0	0.01 sph 75.0 41.0 5.0	1.01	z 69 y 28 x -11
15 302.386	0.26	0.36 exp 8.5 20.0 2.5	0.35 sph 20.0 22.0 3.0	0.03 sph 32.0 24.0 4.0	1.00	z 50 y 24 x -25

Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana Yb Domain 2

Variogram Model Parameters

Domain (current/prev/next): Dom2_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
yb threshold	0.23	0.53	exp	3	37.5	2.5	0.22	sph	34	97	7	0.02	sph	51	109	9	1	z	6	y	-50	x	-25	
1	1.025	0.23	0.53	exp	3.0	37.5	2.5	0.22	sph	34.0	97.0	7.0	0.02	sph	51.0	109.0	9.0	1.00	z	6	y	-50	x	-25
2	1.366	0.60	0.03	exp	94.0	78.0	26.5	0.03	sph	107.0	153.0	27.0	0.35	sph	108.0	304.0	39.0	1.01	z	0	0	0	0	0
3	1.822	0.47	0.03	exp	10.0	8.0	2.5	0.24	sph	24.0	15.0	3.0	0.26	sph	95.0	81.0	13.0	1.00	z	18	-16	-48	-48	-48
4	2.164	0.52	0.14	exp	26.5	25.0	2.5	0.07	sph	50.0	121.0	8.0	0.27	sph	86.0	151.0	13.0	1.00	z	-7	-19	-28	-28	-28
5	2.619	0.34	0.37	exp	2.5	4.0	17.5	0.27	sph	15.0	6.0	23.0	0.02	sph	68.0	43.0	26.0	1.00	z	59	-65	5	5	5
6	3.188	0.15	0.71	exp	11.5	3.0	2.5	0.12	sph	233.0	29.0	230.0	0.02	sph	965.0	1009.0	763.0	1.00	z	0	0	0	0	0
7	3.758	0.43	0.42	exp	2.5	2.5	9.0	0.14	sph	20.0	11.0	166.0	0.02	sph	1718.0	1187.0	1062.0	1.01	z	17	-14	38	38	38
8	4.213	0.47	0.03	exp	2.5	2.5	20.0	0.47	sph	8.0	3.0	24.0	0.03	sph	321.0	40.0	323.0	1.00	z	49	42	60	60	60
9	4.896	0.36	0.36	exp	15.5	2.5	14.5	0.20	sph	16.0	3.0	15.0	0.08	sph	17.0	4.0	16.0	1.00	z	35	34	51	51	51
10	5.466	0.48	0.48	exp	20.5	2.5	20.5	0.02	sph	87.0	14.0	102.0	0.02	sph	89.0	526.0	103.0	1.00	z	70	48	74	74	74
11	6.832	0.39	0.46	exp	17.0	2.5	2.5	0.13	sph	27.0	94.0	13.0	0.02	sph	45.0	217.0	68.0	1.00	z	0	0	0	0	0
12	8.882	0.66	0.27	exp	4.0	4.0	8.0	0.05	sph	10.0	17.0	10.0	0.02	sph	75.0	239.0	72.0	1.00	z	0	0	0	0	0
13	10.476	0.88	0.08	exp	4.0	8.5	4.0	0.02	sph	17.0	9.0	5.0	0.02	sph	25.0	11.0	6.0	1.00	z	0	0	0	0	0
14	11.729	0.98	0.01	exp	5.5	17.5	2.5	0.01	sph	17.0	20.0	3.0	0.01	sph	35.0	35.0	4.0	1.01	z	32	17	-25	-25	-25
15	19.358	0.43	0.06	exp	7.0	2.5	2.5	0.34	sph	18.0	3.0	3.0	0.17	sph	78.0	167.0	20.0	1.00	z	1	-1	-50	-50	-50
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Read Model

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OK Cancel

Yangibana Er Domain 2

Variogram Model Parameters

Domain (current/prev/next): Dom2_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
er threshold	0.57	0.14	exp	2.5	34.5	2.5	0.27	sph	16	74	11	0.02	sph	87	77	12	1	z	20	y	-11	x	-47	
1	1.715	0.57	0.14	exp	2.5	34.5	2.5	0.27	sph	16.0	74.0	11.0	0.02	sph	87.0	77.0	12.0	1.00	z	20	y	-11	x	-47
2	2.401	0.70	0.01	exp	33.0	2.5	2.5	0.02	sph	34.0	179.0	12.0	0.27	sph	127.0	202.0	14.0	1.00	z	6	9	14	14	14
3	2.973	0.60	0.04	exp	2.5	15.0	2.5	0.09	sph	3.0	21.0	3.0	0.27	sph	237.0	118.0	18.0	1.00	z	68	8	0	0	0
4	3.774	0.53	0.31	exp	2.5	2.5	12.0	0.14	sph	12.0	79.0	94.0	0.02	sph	464.0	84.0	659.0	1.00	z	25	-47	41	41	41
5	4.803	0.39	0.44	exp	17.5	20.5	2.5	0.02	sph	52.0	120.0	40.0	0.15	sph	54.0	173.0	60.0	1.00	z	81	31	-4	-4	-4
6	5.832	0.38	0.12	exp	2.5	18.5	18.0	0.48	sph	3.0	20.0	19.0	0.02	sph	321.0	40.0	325.0	1.00	z	40	-53	-46	-46	-46
7	7.318	0.50	0.34	exp	3.0	8.5	5.0	0.15	sph	5.0	40.0	38.0	0.01	sph	125.0	295.0	294.0	1.00	z	36	-26	-63	-63	-63
8	8.119	0.48	0.25	exp	3.5	18.5	8.0	0.26	sph	7.0	55.0	50.0	0.01	sph	194.0	239.0	236.0	1.00	z	78	-53	-33	-33	-33
9	9.148	0.52	0.25	exp	5.0	15.5	3.5	0.08	sph	10.0	23.0	4.0	0.15	sph	89.0	64.0	11.0	1.00	z	-0	-2	-21	-21	-21
10	11.092	0.53	0.38	exp	9.0	7.0	3.0	0.05	sph	12.0	174.0	181.0	0.04	sph	13.0	197.0	199.0	1.00	z	39	-28	27	27	27
11	13.036	0.57	0.03	exp	2.5	2.5	2.5	0.38	sph	6.5	38.0	37.0	0.02	sph	12.0	89.0	45.0	1.00	z	48	-32	-65	-65	-65
12	19.440	0.42	0.03	exp	2.5	12.0	2.5	0.26	sph	10.0	27.0	93.0	0.29	sph	14.0	104.0	94.0	1.00	z	70	-41	-19	-19	-19
13	21.269	0.45	0.01	exp	2.5	28.5	32.0	0.40	sph	14.0	156.0	92.0	0.14	sph	20.0	200.0	93.0	1.00	z	-53	43	44	44	44
14	28.588	0.55	0.27	exp	18.0	22.5	4.0	0.14	sph	27.0	53.0	5.0	0.04	sph	37.0	67.0	7.0	1.00	z	8	7	-29	-29	-29
15	72.041	0.02	0.61	exp	2.5	12.0	16.0	0.05	sph	30.0	17.0	17.0	0.32	sph	31.0	253.0	49.0	1.00	z	-76	40	-81	-81	-81
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Read Model

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana Lu Domain 2

Variogram Model Parameters

Domain (current/prev/next): Dom2_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
lu threshold	0.7	0.04 exp 18.5 18 2.5	0.24 sph 65 136 9	0.02 sph 78 138 13	1	z -17 y 0 x 2
1	0.114	0.70 0.04 exp 18.5 18.0 2.5	0.24 sph 65.0 136.0 9.0	0.02 sph 78.0 138.0 13.0	1.00	z -17 y 0 x 2
2	0.227	0.57 0.12 exp 24.0 50.0 5.5	0.29 sph 31.0 71.0 9.0	0.02 sph 100.0 72.0 10.0	1.00	z 25 y -24 x -54
3	0.227	0.47 0.22 exp 11.0 46.5 3.5	0.29 sph 17.0 69.0 10.0	0.02 sph 1090.0 73.0 1091.0	1.00	z 34 y -25 x -58
4	0.341	0.22 0.49 exp 31.0 38.0 2.5	0.27 sph 79.0 80.0 13.0	0.02 sph 347.0 88.0 28.0	1.00	z -1 y 5 x -50
5	0.341	0.25 0.46 exp 15.5 15.5 2.0	0.06 sph 17.0 101.0 16.0	0.23 sph 24.0 109.0 60.0	1.00	z 78 y 20 x -3
6	0.455	0.39 0.32 exp 25.0 30.5 2.5	0.25 sph 69.0 56.0 78.0	0.04 sph 73.0 57.0 83.0	1.00	z 23 y 14 x -31
7	0.569	0.52 0.17 exp 7.0 11.0 5.0	0.29 sph 35.0 91.0 6.0	0.02 sph 36.0 139.0 9.0	1.00	z 45 y -27 x -63
8	0.569	0.56 0.05 exp 5.0 28.0 2.5	0.06 sph 77.0 117.0 8.0	0.33 sph 88.0 135.0 11.0	1.00	z 55 y -19 x 4
9	0.682	0.42 0.29 exp 2.5 2.5 9.0	0.27 sph 21.0 6.0 33.0	0.02 sph 62.0 453.0 308.0	1.00	z -23 y 74 x 15
10	0.796	0.51 0.45 exp 56.0 7.0 56.5	0.02 sph 146.0 39.0 89.0	0.02 sph 170.0 43.0 90.0	1.00	z 14 y -10 x 38
11	1.023	0.49 0.13 exp 31.0 2.5 2.5	0.36 sph 59.0 54.0 5.0	0.02 sph 87.0 56.0 7.0	1.00	z 10 y 22 x 18
12	1.251	0.49 0.10 exp 34.5 7.5 4.5	0.38 sph 35.0 74.0 5.0	0.03 sph 78.0 82.0 7.0	1.00	z 45 y 18 x 34
13	1.365	0.24 0.03 exp 13.5 6.5 3.0	0.71 sph 23.0 10.0 5.0	0.02 sph 41.0 15.0 65.0	1.00	z -38 y 14 x 46
14	1.933	0.98 0.01 exp 7.5 10.0 2.5	0.01 sph 20.0 24.0 3.0	0.01 sph 55.0 49.0 4.0	1.01	z 71 y 29 x -10
15	2.502	0.37 0.19 exp 16.0 14.0 7.0	0.36 sph 82.0 27.0 12.0	0.08 sph 311.0 946.0 118.0	1.00	z -4 y 3 x -53
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NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana Y Domain 2

Variogram Model Parameters

Domain (current/prev/next): Dom2_sub1

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure	2nd Structure	3rd Structure	Sill	3D Axis Rotations
		C1 Type Ax Ay Az	C2 Type Ax Ay Az	C3 Type Ax Ay Az		ax1 ang ax2 ang ax3 ang
y threshold	0.38	0.01 exp 6.5 31.5 19.5	0.53 sph 7 79 100	0.08 sph 8 91 114	1	z -15 y 77 x -35
1	21.207	0.38 0.01 exp 6.5 31.5 19.5	0.53 sph 7.0 79.0 100.0	0.08 sph 8.0 91.0 114.0	1.00	z -15 y 77 x -35
2	30.605	0.49 0.22 exp 2.5 2.5 18.0	0.02 sph 116.0 16.0 49.0	0.27 sph 118.0 18.0 51.0	1.00	z 54 y 52 x 50
3	39.494	0.33 0.42 exp 2.5 17.5 19.0	0.23 sph 15.0 121.0 63.0	0.02 sph 71.0 122.0 64.0	1.00	z -81 y 41 x 5
4	51.304	0.47 0.06 exp 6.5 5.5 2.5	0.21 sph 9.0 7.0 3.0	0.26 sph 28.0 69.0 9.0	1.00	z -39 y -19 x -29
5	65.908	0.40 0.44 exp 2.5 12.5 2.5	0.14 sph 16.0 82.0 12.0	0.02 sph 17.0 96.0 66.0	1.00	z 33 y 59 x -32
6	81.655	0.33 0.03 exp 5.5 9.5 2.5	0.59 sph 19.0 20.0 3.0	0.05 sph 108.0 41.0 13.0	1.00	z -4 y -3 x -20
7	102.100	0.28 0.66 exp 45.5 45.5 3.0	0.04 sph 202.0 226.0 15.0	0.02 sph 206.0 257.0 17.0	1.00	z 1 y 1 x -50
8	12.259	0.09 0.82 exp 10.0 12.0 2.5	0.07 sph 21.0 19.0 3.0	0.02 sph 47.0 23.0 7.0	1.00	z -23 y -10 x -32
9	123.561	0.09 0.82 exp 13.0 2.5 2.5	0.07 sph 27.0 46.0 7.0	0.02 sph 225.0 789.0 1536.0	1.00	z 0 y -1 x 22
10	44.007	0.58 0.03 exp 3.0 16.0 3.5	0.34 sph 23.0 26.0 4.0	0.05 sph 42.0 38.0 5.0	1.00	z 69 y 42 x 2
11	172.960	0.62 0.16 exp 7.0 4.5 2.5	0.21 sph 10.0 20.0 3.0	0.01 sph 38.0 43.0 6.0	1.00	z -3 y 26 x -7
12	255.504	0.53 0.31 exp 2.5 20.5 27.0	0.15 sph 3.0 41.0 28.0	0.01 sph 4.0 43.0 44.0	1.00	z 81 y -60 x 15
13	287.759	0.65 0.06 exp 2.5 8.0 20.0	0.27 sph 3.0 44.0 30.0	0.02 sph 5.0 72.0 76.0	1.00	z 19 y -52 x 43
14	322.682	0.98 0.01 exp 5.5 8.0 2.5	0.01 sph 38.0 13.0 3.0	0.01 sph 72.0 29.0 5.0	1.01	z 69 y 29 x -10
15	413.987	0.34 0.03 exp 2.5 2.5 14.0	0.54 sph 3.0 3.0 26.0	0.09 sph 153.0 19.0 154.0	1.00	z -53 y -52 x 81
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NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana U Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
u threshold	0.23	0.01	exp	25	7.5	55.5	0.28	sph	29	11	138	0.48	sph	119	13	139	1	z	1	y	-2	x	47	
1	5.167	0.23	0.01	exp	25.0	7.5	55.5	0.28	sph	29.0	11.0	138.0	0.48	sph	119.0	13.0	139.0	1.00	z	1	y	-2	x	47
2	8.652	0.31	0.65	exp	44.5	27.0	5.5	0.02	sph	176.0	56.0	125.0	0.02	sph	181.0	62.0	138.0	1.00	-0	-0	-0	-0	-0	-0
3	12.269	0.31	0.23	exp	57.5	60.5	4.0	0.41	sph	91.0	91.0	6.0	0.05	sph	105.0	108.0	7.0	1.00	81	13	-2	-2	-2	-2
4	15.742	0.03	0.60	exp	13.0	8.5	2.5	0.33	sph	23.0	20.0	4.0	0.04	sph	28.0	26.0	5.0	1.00	28	9	-29	-29	-29	-29
5	22.832	0.01	0.78	exp	38.0	35.5	2.5	0.19	sph	61.0	53.0	4.0	0.02	sph	106.0	289.0	22.0	1.00	0	0	-17	-17	-17	-17
6	28.240	0.46	0.13	exp	16.0	3.0	2.5	0.38	sph	23.0	4.0	3.0	0.03	sph	36.0	26.0	4.0	1.00	0	0	0	0	0	0
7	36.532	0.52	0.01	exp	19.5	18.0	2.5	0.46	sph	28.0	31.0	3.0	0.01	sph	30.0	47.0	5.0	1.00	12	25	-32	-32	-32	-32
8	40.617	0.47	0.01	exp	25.0	20.5	2.5	0.51	sph	33.0	34.0	3.0	0.01	sph	38.0	51.0	4.0	1.00	4	18	-38	-38	-38	-38
9	46.386	0.40	0.45	exp	2.5	5.5	2.5	0.14	sph	3.0	9.0	4.0	0.01	sph	44.0	20.0	5.0	1.00	40	8	-20	-20	-20	-20
10	50.952	0.58	0.31	exp	7.0	3.0	4.5	0.09	sph	20.0	15.0	5.0	0.02	sph	49.0	47.0	6.0	1.00	8	-5	-19	-19	-19	-19
11	60.686	0.45	0.02	exp	4.0	2.0	2.0	0.02	sph	7.5	3.0	3.0	0.51	sph	16.0	4.0	4.0	1.00	0	0	0	0	0	0
12	80.874	0.57	0.31	exp	12.0	6.5	3.0	0.10	sph	15.0	62.0	4.0	0.02	sph	41.0	64.0	5.0	1.00	0	1	-49	-49	-49	-49
13	91.089	0.77	0.19	exp	45.5	43.5	3.0	0.02	sph	51.0	52.0	4.0	0.02	sph	71.0	70.0	5.0	1.00	-22	-29	-13	-13	-13	-13
14	115.724	0.64	0.26	exp	21.0	35.0	3.0	0.08	sph	22.0	38.0	4.0	0.02	sph	23.0	41.0	6.0	1.00	-12	21	-8	-8	-8	-8
15	218.709	0.09	0.36	exp	12.0	15.0	2.5	0.51	sph	18.0	23.0	3.0	0.04	sph	28.0	30.0	4.0	1.00	-17	-11	-30	-30	-30	-30
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc. the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Pre-fill Variogram Models

☐ pre-fill all using first vario in list

☐ pre-fill all with prev domain group

☐ pre-fill all with domain group -> Dom1_sub1

Yangibana North Nd + Pr Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang		
ndpr threshold	0.63	0.33	exp	3	38	2.5	0.02	sph	4	46	3	0.02	sph	5	61	4	1	z 60	y 47	x 0	
1	0.035	0.63	0.33	exp	3.0	38.0	2.5	0.02	sph	4.0	46.0	3.0	0.02	sph	5.0	61.0	4.0	1.00	z 60	y 47	x 0
2	0.055	0.62	0.19	exp	15.0	16.0	2.5	0.17	sph	21.0	21.0	3.0	0.02	sph	113.0	98.0	14.0	1.00	-19	3	33
3	0.080	0.44	0.11	exp	13.5	23.0	2.5	0.44	sph	35.0	33.0	3.0	0.01	sph	76.0	47.0	5.0	1.00	43	-24	16
4	0.116	0.41	0.01	exp	2.5	37.0	2.5	0.57	sph	14.0	47.0	3.0	0.01	sph	16.0	79.0	5.0	1.00	-27	25	10
5	0.172	0.44	0.01	exp	38.0	38.0	2.5	0.54	sph	46.0	46.0	3.0	0.01	sph	61.0	61.0	4.0	1.00	10	4	16
6	0.245	0.42	0.01	exp	26.5	25.5	2.5	0.57	sph	33.0	45.0	3.0	0.01	sph	37.0	53.0	4.0	1.01	-8	-4	30
7	0.334	0.36	0.09	exp	6.0	4.0	2.5	0.50	sph	9.0	12.0	3.0	0.05	sph	13.0	34.0	4.0	1.00	59	-31	2
8	0.389	0.25	0.36	exp	2.5	3.0	2.5	0.35	sph	5.0	19.0	3.0	0.04	sph	13.0	25.0	4.0	1.00	22	-22	28
9	0.474	0.32	0.15	exp	6.5	15.5	2.5	0.50	sph	8.0	20.0	3.0	0.03	sph	16.0	23.0	4.0	1.00	-24	10	33
10	0.567	0.43	0.22	exp	5.0	5.5	2.5	0.35	sph	11.0	10.0	3.0	0.00		0.0	0.0	1.00	22	-20	23	
11	0.737	0.60	0.18	exp	19.5	10.0	2.5	0.21	sph	23.0	13.0	3.0	0.01	sph	34.0	35.0	4.0	1.00	17	-17	25
12	0.969	0.67	0.26	exp	2.5	13.0	2.5	0.05	sph	3.0	18.0	3.0	0.01	sph	25.0	20.0	4.0	0.99	60	-10	6
13	1.162	0.83	0.11	exp	2.5	2.5	2.5	0.04	sph	3.0	9.0	3.0	0.02	sph	4.0	10.0	4.0	1.00	13	-12	25
14	1.597	0.85	0.09	exp	3.0	2.5	2.5	0.05	sph	5.0	3.0	3.0	0.02	sph	24.0	33.0	4.0	1.01	-34	12	9
15	2.946	0.15	0.42	exp	9.0	18.5	2.5	0.38	sph	25.0	21.0	3.0	0.05	sph	29.0	29.0	4.0	1.00	15	-21	25
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Read Model

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK

Cancel

Yangibana North HREO Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang		
hreo threshold	0.35	0.22	exp	16.5	24.5	2.5	0.42	sph	27	30	3	0.01	sph	59	47	4	1	z 34	y -24	x 19	
1	71.780	0.35	0.22	exp	16.5	24.5	2.5	0.42	sph	27.0	30.0	3.0	0.01	sph	59.0	47.0	4.0	1.00	z 34	y -24	x 19
2	97.960	0.14	0.74	exp	2.5	2.5	3.5	0.02	sph	11.0	32.0	4.0	0.10	sph	77.0	76.0	5.0	1.00	11	34	34
3	25.590	0.43	0.07	exp	10.5	2.5	2.5	0.49	sph	22.0	14.0	3.0	0.01	sph	48.0	15.0	5.0	1.00	62	-31	-35
4	165.910	0.43	0.01	exp	29.0	29.5	2.5	0.44	sph	46.0	45.0	3.0	0.12	sph	56.0	50.0	4.0	1.00	62	-10	19
5	218.100	0.38	0.01	exp	38.0	37.0	2.5	0.60	sph	46.0	38.0	3.0	0.01	sph	76.0	77.0	5.0	1.00	58	-10	-3
6	288.610	0.35	0.13	exp	23.0	34.0	2.5	0.51	sph	39.0	36.0	3.0	0.01	sph	42.0	61.0	4.0	1.00	39	-25	16
7	395.180	0.43	0.14	exp	9.0	16.0	2.5	0.41	sph	18.0	18.0	3.0	0.02	sph	37.0	26.0	4.0	1.00	26	-24	19
8	464.560	0.48	0.07	exp	11.0	12.5	2.5	0.43	sph	17.0	16.0	3.0	0.02	sph	27.0	36.0	4.0	1.00	27	-25	29
9	553.910	0.51	0.16	exp	17.5	17.0	2.5	0.32	sph	27.0	35.0	3.0	0.01	sph	36.0	58.0	4.0	1.00	14	-16	26
10	550.550	0.54	0.42	exp	7.5	2.5	3.0	0.03	sph	15.0	54.0	4.0	0.01	sph	39.0	66.0	5.0	1.00	8	-9	28
11	308.680	0.67	0.25	exp	2.5	21.0	2.5	0.06	sph	13.0	24.0	3.0	0.02	sph	39.0	51.0	4.0	1.00	73	-30	1
12	102.590	0.73	0.21	exp	15.0	2.5	2.5	0.04	sph	18.0	3.0	23.0	0.02	sph	59.0	5.0	70.0	1.00	-19	2	-60
13	287.050	0.76	0.13	exp	13.0	2.5	16.5	0.09	sph	15.0	3.0	35.0	0.02	sph	16.0	5.0	63.0	1.00	3	-10	-64
14	749.060	0.86	0.09	exp	13.5	16.0	2.5	0.03	sph	30.0	31.0	3.0	0.02	sph	59.0	53.0	4.0	1.00	-5	-3	25
15	558.040	0.17	0.51	exp	12.0	7.0	2.5	0.31	sph	18.0	23.0	3.0	0.01	sph	36.0	36.0	4.0	1.00	24	-23	22
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Read Model

NOTE: If Indicator Variogram file names (.vmof) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK

Cancel

Yangibana North Er Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
er threshold	0.43	0.35	exp	4	2.5	3.5	0.2	sph	40	5	51	0.02	sph	1549	1592	106	1	z	22	y	21	x	-19	
1	1.600	0.43	0.35	exp	4.0	2.5	3.5	0.20	sph	40.0	5.0	51.0	0.02	sph	1549.0	1592.0	106.0	1.00	z	22	y	21	x	-19
2	2.060	0.54	0.07	exp	15.5	34.5	2.5	0.38	sph	64.0	71.0	5.0	0.01	sph	256.0	255.0	17.0	1.00	-15	-1	-1	12		
3	2.400	0.19	0.66	exp	36.0	2.5	37.0	0.14	sph	55.0	4.0	58.0	0.01	sph	89.0	6.0	74.0	1.00	-22	13	-22	-54		
4	2.860	0.46	0.02	exp	45.5	3.5	18.0	0.50	sph	52.0	4.0	52.0	0.02	sph	92.0	6.0	80.0	1.00	-34	4	-39	-61		
5	3.430	0.34	0.01	exp	37.5	2.5	4.0	0.64	sph	47.0	3.0	46.0	0.01	sph	77.0	5.0	60.0	1.00	-31	1	-2	29		
6	4.140	0.36	0.07	exp	8.0	2.5	2.5	0.54	sph	14.0	3.0	7.0	0.03	sph	36.0	5.0	24.0	1.00	-6	-2	20	22		
7	5.370	0.46	0.04	exp	6.0	5.5	2.5	0.48	sph	23.0	19.0	3.0	0.02	sph	36.0	31.0	4.0	1.00	-28	9	25	-19		
8	5.950	0.40	0.09	exp	13.0	18.0	2.5	0.48	sph	18.0	22.0	3.0	0.03	sph	20.0	35.0	4.0	1.00	28	-25	22	80		
9	6.860	0.49	0.03	exp	4.0	14.5	2.5	0.45	sph	6.0	24.0	3.0	0.03	sph	22.0	31.0	4.0	1.00	-30	13	-35	30		
10	8.230	0.36	0.29	exp	6.0	6.5	2.5	0.32	sph	12.0	20.0	3.0	0.03	sph	16.0	42.0	8.0	1.00	20	-27	14	6		
11	10.630	0.59	0.37	exp	14.0	2.5	10.0	0.02	sph	77.0	181.0	12.0	0.02	sph	78.0	184.0	13.0	1.00	15	-35	14			
12	14.640	0.69	0.27	exp	24.5	24.5	3.0	0.02	sph	27.0	27.0	4.0	0.02	sph	39.0	28.0	5.0	1.00	-18	13	30			
13	17.150	0.57	0.08	exp	20.5	34.5	2.5	0.34	sph	27.0	61.0	3.7	0.01	sph	42.0	87.0	5.5	1.00	-8	-4	14			
14	24.010	0.43	0.01	exp	4.0	14.5	2.5	0.54	sph	27.0	38.0	3.0	0.02	sph	28.0	71.0	5.0	1.00	23	7				
15	62.890	0.30	0.04	exp	2.5	4.5	4.0	0.63	sph	3.0	20.0	7.0	0.03	sph	68.0	49.0	26.0	1.00	46	27				
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc. the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana North Lu Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure					2nd Structure					3rd Structure					Sill	3D Axis Rotations						
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az		ax1 ang	ax2 ang	ax3 ang				
lu threshold	0.4	0.41	exp	4	38	2.5	0.17	sph	5	73	76	0.02	sph	15	74	87	1	z	59	y	26	x	-66	
1	0.080	0.40	0.41	exp	4.0	38.0	2.5	0.17	sph	5.0	73.0	76.0	0.02	sph	15.0	74.0	87.0	1.00	z	59	y	26	x	-66
2	0.110	0.43	0.41	exp	8.5	8.5	2.5	0.14	sph	97.0	97.0	12.0	0.02	sph	105.0	105.0	13.0	1.00	12	-28	-13			
3	0.230	0.39	0.40	exp	38.0	6.0	2.5	0.04	sph	47.0	36.0	3.0	0.17	sph	150.0	75.0	12.0	1.00	60	-10	17			
4	0.230	0.51	0.13	exp	2.5	3.5	2.5	0.14	sph	3.0	4.0	3.0	0.22	sph	165.0	26.0	20.0	1.00	60	-7	41			
5	0.230	0.43	0.36	exp	9.5	18.0	2.5	0.08	sph	11.0	100.0	67.0	0.13	sph	15.0	126.0	112.0	1.00	-25	27	16			
6	0.340	0.42	0.40	exp	31.0	2.5	14.0	0.02	sph	54.0	214.0	15.0	0.16	sph	55.0	238.0	16.0	1.00	-15	-53	-13			
7	0.340	0.39	0.01	exp	2.5	10.0	2.5	0.37	sph	3.0	16.0	3.0	0.23	sph	310.0	44.0	21.0	1.00	66	2	-9			
8	0.350	0.41	0.05	exp	14.0	12.0	2.5	0.40	sph	18.0	15.0	3.0	0.14	sph	19.0	114.0	29.0	1.00	-25	25	21			
9	0.450	0.31	0.06	exp	2.5	13.5	2.5	0.46	sph	7.0	22.0	3.0	0.17	sph	107.0	80.0	21.0	1.00	60	-7	11			
10	0.570	0.38	0.14	exp	4.5	15.5	2.5	0.20	sph	6.0	25.0	3.0	0.28	sph	131.0	120.0	16.0	1.00	-26	-2	17			
11	0.680	0.45	0.08	exp	17.0	7.5	2.5	0.27	sph	39.0	118.0	15.0	0.20	sph	129.0	126.0	16.0	1.00	-29	1	17			
12	1.140	0.30	0.03	exp	7.5	8.0	3.0	0.08	sph	13.0	89.0	17.0	0.59	sph	114.0	107.0	20.0	1.00	48	-10	-21			
13	1.590	0.35	0.04	exp	28.0	22.0	12.5	0.51	sph	83.0	114.0	14.0	0.10	sph	101.0	121.0	15.0	1.00	18	18	35			
14	3.180	0.65	0.01	exp	11.0	31.5	3.5	0.25	sph	31.0	74.0	6.0	0.09	sph	70.0	96.0	7.0	1.00	3	-4	22			
15	7.050	0.30	0.03	exp	15.0	20.5	2.5	0.27	sph	40.0	108.0	18.0	0.40	sph	112.0	109.0	19.0	1.00	-29	8	14			
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc. the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana North Tm Domain 2

Variogram Model Parameters

Domain (current/prev/next): **Dom2_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type		Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang				
tm threshold	0.5	0.31	exp	2.5	18.5	2.5	0.17	sph	15	43	9	0.02	sph	16	133	130	1	z	59	y	51	x	26	
1	0.110	0.50	0.31	exp	2.5	18.5	2.5	0.17	sph	15.0	43.0	9.0	0.02	sph	16.0	133.0	130.0	1.00	z	59	y	51	x	26
2	0.230	0.57	0.14	exp	2.5	3.0	2.5	0.27	sph	11.0	15.0	9.0	0.02	sph	12.0	18.0	94.0	1.00	z	19	y	-33	x	35
3	0.230	0.56	0.02	exp	2.5	32.0	5.5	0.27	sph	3.0	46.0	8.0	0.15	sph	151.0	128.0	10.0	1.00	z	71	y	60	x	7
4	0.300	0.45	0.51	exp	14.5	4.0	60.5	0.03	sph	26.0	363.0	329.0	0.01	sph	27.0	370.0	361.0	1.00	z	8	y	-74	x	-39
5	0.340	0.44	0.05	exp	36.5	2.5	15.5	0.49	sph	46.0	3.0	44.0	0.02	sph	562.0	393.0	47.0	1.00	z	-23	y	-18	x	-16
6	0.340	0.32	0.06	exp	10.5	9.0	2.5	0.61	sph	12.0	19.0	3.0	0.01	sph	139.0	207.0	32.0	1.00	z	9	y	-4	x	37
7	0.460	0.37	0.01	exp	9.5	12.0	2.5	0.61	sph	21.0	46.0	3.0	0.01	sph	52.0	59.0	4.0	1.00	z	42	y	-27	x	15
8	0.570	0.47	0.07	exp	5.5	7.5	2.5	0.45	sph	16.0	12.0	3.0	0.01	sph	36.0	25.0	4.0	1.00	z	47	y	-26	x	13
9	0.570	0.50	0.01	exp	11.0	17.5	2.5	0.48	sph	32.0	40.0	3.0	0.01	sph	58.0	43.0	5.0	1.00	z	15	y	-16	x	26
10	0.690	0.52	0.19	exp	33.5	33.5	2.5	0.28	sph	37.0	35.0	3.0	0.01	sph	58.0	59.0	4.0	1.00	z	39	y	-25	x	17
11	0.870	0.70	0.01	exp	36.0	36.5	2.5	0.27	sph	47.0	46.0	3.0	0.02	sph	243.0	101.0	16.0	1.00	z	-29	y	0	x	10
12	1.140	0.85	0.03	exp	38.0	36.5	2.5	0.11	sph	46.0	47.0	3.0	0.01	sph	47.0	49.0	4.0	1.00	z	-4	y	-48	x	75
13	1.370	0.87	0.03	exp	12.0	15.5	2.5	0.08	sph	21.0	18.0	3.0	0.02	sph	103.0	22.0	18.0	1.00	z	24	y	-20	x	21
14	1.830	0.89	0.01	exp	11.0	11.0	2.5	0.08	sph	12.0	26.0	3.0	0.02	sph	46.0	51.0	5.0	1.00	z	-8	y	-4	x	30
15	2.970	0.35	0.05	exp	2.5	13.0	17.5	0.58	sph	3.0	19.0	23.0	0.02	sph	23.0	183.0	190.0	1.00	z	62	y	73	x	79
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana North Yb Domain 2

Variogram Model Parameters

Domain (current/prev/next): **Dom2_sub1**

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type		Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang				
yb threshold	0.55	0.01	exp	2.5	22	2.5	0.18	sph	4	23	3	0.26	sph	32	105	9	1	z	77	y	0	x	-1	
1	0.800	0.55	0.01	exp	2.5	22.0	2.5	0.18	sph	4.0	23.0	3.0	0.26	sph	32.0	105.0	9.0	1.00	z	77	y	0	x	-1
2	1.140	0.47	0.01	exp	12.5	2.5	2.5	0.25	sph	15.0	3.0	3.0	0.27	sph	58.0	47.0	11.0	1.00	z	42	y	-24	x	34
3	1.370	0.43	0.12	exp	31.5	37.5	2.5	0.24	sph	38.0	44.0	3.0	0.21	sph	139.0	119.0	9.0	1.00	z	35	y	-55	x	25
4	1.590	0.44	0.01	exp	20.0	2.5	4.0	0.42	sph	46.0	3.0	46.0	0.13	sph	96.0	24.0	80.0	1.00	z	-50	y	5	x	-81
5	1.820	0.40	0.57	exp	5.5	3.5	12.5	0.01	sph	24.0	5.0	72.0	0.02	sph	26.0	6.0	89.0	1.00	z	-55	y	-19	x	-28
6	2.050	0.26	0.55	exp	2.5	31.0	2.5	0.16	sph	44.0	44.0	3.0	0.03	sph	45.0	677.0	671.0	1.00	z	63	y	-79	x	10
7	2.390	0.04	0.93	exp	8.5	2.5	8.0	0.02	sph	13.0	91.0	15.0	0.01	sph	242.0	308.0	175.0	1.00	z	1	y	-14	x	-55
8	2.690	0.20	0.65	exp	2.5	2.5	9.5	0.14	sph	3.0	18.0	18.0	0.01	sph	52.0	24.0	129.0	1.00	z	8	y	44	x	-38
9	2.990	0.44	0.51	exp	3.0	22.5	24.5	0.03	sph	4.0	31.0	33.0	0.03	sph	289.0	298.0	37.0	1.01	z	75	y	14	x	3
10	3.420	0.46	0.50	exp	15.5	2.5	20.5	0.02	sph	16.0	124.0	129.0	0.02	sph	17.0	133.0	137.0	1.00	z	59	y	-73	x	-74
11	4.440	0.67	0.20	exp	4.0	9.5	18.5	0.09	sph	11.0	90.0	53.0	0.04	sph	14.0	113.0	66.0	1.00	z	59	y	38	x	-2
12	5.810	0.79	0.01	exp	2.5	37.5	33.5	0.19	sph	3.0	46.0	46.0	0.01	sph	4.0	47.0	63.0	1.00	z	75	y	10	x	-67
13	6.830	0.78	0.18	exp	2.5	15.5	33.5	0.02	sph	3.0	16.0	34.0	0.02	sph	4.0	19.0	35.0	1.00	z	64	y	6	x	3
14	9.000	0.67	0.19	exp	2.5	22.5	17.5	0.12	sph	3.0	44.0	27.0	0.02	sph	4.0	60.0	43.0	1.00	z	78	y	65	x	41
15	21.640	0.22	0.72	exp	20.5	2.5	16.0	0.02	sph	21.0	167.0	169.0	0.04	sph	22.0	177.0	175.0	1.00	z	-60	y	73	x	-47
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Read Model

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana North Th Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations								
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang				
th threshold	0.67	0.12	exp	6.5	12	2.5	0.2	sph	8	13	3	0.01	sph	12	27	4	1	z	7	-13	x	28	
1	58.940	0.67	0.12	exp	6.5	12.0	2.5	0.20	sph	8.0	13.0	3.0	0.01	sph	12.0	27.0	4.0	1.00	z	7	-13	x	28
2	86.820	0.63	0.17	exp	16.0	12.0	2.5	0.17	sph	20.0	16.0	3.0	0.03	sph	34.0	45.0	6.0	1.00	-1	-17	-25		
3	125.620	0.58	0.06	exp	19.5	9.0	2.5	0.34	sph	23.0	16.0	3.0	0.02	sph	25.0	23.0	4.0	1.00	44	-28	18		
4	173.070	0.44	0.01	exp	35.0	37.5	2.5	0.54	sph	46.0	47.0	3.0	0.01	sph	62.0	77.0	5.0	1.00	-23	7	11		
5	258.420	0.39	0.06	exp	16.0	7.5	2.5	0.50	sph	21.0	16.0	3.0	0.05	sph	25.0	17.0	4.0	1.00	23	-18	12		
6	355.480	0.40	0.04	exp	6.5	5.5	2.5	0.51	sph	16.0	12.0	3.0	0.05	sph	24.0	22.0	4.0	1.00	60	-19	5		
7	481.220	0.38	0.32	exp	11.0	3.0	2.5	0.27	sph	15.0	16.0	3.0	0.03	sph	28.0	25.0	7.0	1.00	18	-19	28		
8	575.660	0.35	0.33	exp	5.5	9.0	2.5	0.31	sph	24.0	17.0	3.0	0.01	sph	27.0	18.0	4.0	1.00	81	-26	9		
9	702.200	0.50	0.12	exp	13.0	3.5	2.5	0.37	sph	26.0	13.0	3.0	0.01	sph	28.0	23.0	4.0	1.00	25	-25	22		
10	938.520	0.60	0.06	exp	4.0	10.5	2.5	0.31	sph	10.0	12.0	3.0	0.03	sph	29.0	26.0	4.0	1.00	-22	6	36		
11	1005.560	0.54	0.40	exp	2.5	9.0	2.5	0.04	sph	11.0	26.0	3.0	0.02	sph	25.0	32.0	4.0	1.00	74	-23	5		
12	1323.490	0.73	0.21	exp	12.0	9.5	2.5	0.04	sph	18.0	22.0	3.0	0.02	sph	26.0	33.0	4.0	1.00	62	-27	14		
13	180.610	0.79	0.11	exp	6.5	5.5	2.5	0.07	sph	7.0	12.0	3.0	0.03	sph	26.0	13.0	4.0	1.00	-30	19	35		
14	139.340	0.98	0.01	exp	17.5	16.5	2.5	0.01	sph	18.0	35.0	3.0	0.01	sph	70.0	47.0	5.0	1.01	18	-18	24		
15	541.140	0.05	0.57	exp	11.5	2.0	2.0	0.32	sph	22.0	3.0	3.0	0.06	sph	30.0	4.0	4.0	1.00	0	0	0		
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

Yangibana North U Domain 2

Variogram Model Parameters

Dom2_sub1 Domain (current/prev/next)

Variogram Models for Grade Thresholds in this Domain

Grade	Nug C0	1st Structure				2nd Structure				3rd Structure				Sill	3D Axis Rotations									
		C1	Type	Ax	Ay	Az	C2	Type	Ax	Ay	Az	C3	Type	Ax	Ay	Az	ax1 ang	ax2 ang	ax3 ang					
u threshold	0.34	0.64	exp	3.5	53	53	0.01	sph	4	62	57	0.01	sph	6	94	90	1	z	60	y	23	x	-3	
1	3.970	0.34	0.64	exp	3.5	53.0	53.0	0.01	sph	4.0	62.0	57.0	0.01	sph	6.0	94.0	90.0	1.00	z	60	y	23	x	-3
2	5.650	0.36	0.37	exp	2.5	19.5	2.5	0.25	sph	4.0	25.0	25.0	0.02	sph	250.0	315.0	39.0	1.00	62	11	-0			
3	7.330	0.18	0.48	exp	5.0	7.0	2.5	0.28	sph	10.0	15.0	3.0	0.06	sph	127.0	129.0	16.0	1.00	80	-10	-3			
4	9.340	0.17	0.76	exp	36.0	3.0	2.5	0.01	sph	61.0	4.0	61.0	0.06	sph	244.0	16.0	244.0	1.00	-9	-4	-81			
5	11.900	0.22	0.33	exp	5.5	5.0	2.5	0.32	sph	9.0	13.0	3.0	0.13	sph	20.0	33.0	4.0	1.00	59	-24	-5			
6	15.380	0.26	0.03	exp	10.5	10.5	2.5	0.68	sph	17.0	18.0	3.0	0.03	sph	36.0	34.0	5.0	1.00	53	-48	-4			
7	21.030	0.04	0.60	exp	3.0	7.0	2.5	0.33	sph	8.0	10.0	3.0	0.03	sph	22.0	16.0	4.0	1.00	8	33	27			
8	24.920	0.03	0.74	exp	3.0	12.0	3.0	0.20	sph	18.0	22.0	4.0	0.03	sph	25.0	23.0	5.0	1.00	43	-26	11			
9	29.080	0.31	0.26	exp	19.0	18.0	2.5	0.41	sph	23.0	19.0	3.0	0.02	sph	59.0	60.0	8.0	1.00	18	7	5			
10	34.730	0.39	0.50	exp	3.5	2.5	2.5	0.09	sph	6.0	60.0	91.0	0.02	sph	8.0	121.0	104.0	1.00	7	74	-51			
11	43.740	0.42	0.45	exp	12.0	2.5	4.0	0.02	sph	15.0	30.0	5.0	0.11	sph	16.0	41.0	6.0	1.00	34	-14	24			
12	60.570	0.29	0.16	exp	2.5	6.0	2.5	0.53	sph	23.0	20.0	3.0	0.02	sph	29.0	22.0	4.0	1.00	37	-31	39			
13	73.420	0.55	0.04	exp	11.5	5.5	2.5	0.34	sph	17.0	25.0	3.0	0.07	sph	21.0	33.0	4.0	1.00	-15	5	18			
14	96.510	0.66	0.20	exp	19.5	11.5	2.5	0.12	sph	23.0	24.0	3.0	0.02	sph	26.0	34.0	4.0	1.00	13	-15	26			
15	195.640	0.04	0.47	exp	25.0	28.0	2.5	0.47	sph	47.0	52.0	4.0	0.02	sph	80.0	90.0	5.0	1.00	26	-17	15			
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Read Model Enter

NOTE: If Indicator Variogram file names (.vmod) differ only in the Rank order e.g. 0.50, 1.50 etc, the "Read Model" function will read the model files sequentially if you start with the "0.50" model in Position 1 in the table.

OK Cancel

3.6 Bald Hill and Frasers MIK vs OK comparison

Following the MIK estimation of the Yangibana project deposits using Multi Indicator Kriging (MIK) methodologies a request was made by BDA to undertake an estimate for Bald Hill and Frasers in order to confirm the distribution of Measured and Indicated categories and provide a check on the actual MIK estimates. In the first instance the MIK estimates had been considered to be an independent check on the original OK estimates (which had external dilution applied) however, due to the overall increase in total Measured and Indicated tonnes this additional check was requested.

The original MIK estimates had search distances set at 25m (approximating Measured) and 50m (approximating Indicated) with a minimum of 16 samples from 4 octants. The Ordinary Kriged (OK) estimates had search distances set at 40m and a 12 sample minimum (to approximate Measured) and 60m with a 10 sample minimum (to approximate Indicated), both with a 4 octant limit.

The same input datasets were used for both deposits,

A trial was made for Bald Hill using Minestis software (which also resulted in conditionally simulated (CS) and local uniformed conditioning (LUC) estimates) with an additional Micromine confirmation model, the Frasers deposit was estimated using Micromine software.

Both the Bald Hill and Frasers OK estimates used a 10m x 10m x 5m parent block in conjunction with a block wireframe proportion to provide a final tonnes and grade value.

At the suggestion of BDA, wider wireframes, based on a 0.18% TREO grade were used for both the MIK and OK estimates. These updated wireframes incorporate significant amounts of low-grade Nd + Pr values. These low grade values are incorporated throughout both deposits irrespective of the actual wireframe thickness at any point.

BALD HILL

Mineral Resource estimate values for Bald Hill are detailed in the table below with the quoted estimate shown as MIK block average (the average grade of the mineralised portion of the resource block), the MIK recoverable resource above related to this model is shown as the MIK Recoverable >0.2% Nd + Pr value with the corresponding OK estimate (mineralised portion within a full block).

Class	MIK block average			MIK Recoverable >0.2%			OK		
	Mt	TREO%	Nd+Pr %	Mt	TREO%	Nd+Pr %	Mt	TREO%	Nd+Pr %
Measured	2.62	1.078	0.430	2.62		0.438	4.00		0.360
Indicated	2.12	1.084	0.430	2.01		0.444	0.82		0.334
Inferred	0.58	0.973	0.387	0.54		0.405	0.21		0.335
Total	5.32	1.069	0.425	5.17		0.437	5.03		0.354

For the MIK recoverable results, SMU size was set at 5m x 5m x 2.5m.

Values are reported at an effective 0.2% Nd+Pr cut-off grade – defined for the MIK mineralised proportion average grade and OK models and implicit in the MIK recoverable model as the 0.2% proportion is reported.

As part of the Minestis Bald Hill OK estimate an SMU (2.5m x 2.5m x2m) dimensioned model was also estimated with the results shown below. Whilst there are a broad range of results (in terms of tonnes

and grades) all of the models have similar total metal contents (to within 6%) with the exception of the Nearest Neighbour model.

	Nearest Neighbour			Inverse Distance Squared			Ordinary Kriging		
Search	M t	Nd + Pr grade	M lb	M t	Nd + Pr grade	M lb	M t	Nd + Pr grade	M lb
40	2.196	0.400	19.342	3.523	0.377	29.273	3.506	0.367	28.353
60	0.627	0.355	4.916	1.192	0.344	9.047	1.224	0.322	8.696
80	0.152	0.363	1.215	0.207	0.362	1.651	0.219	0.332	1.605
Infinite	0.223	0.369	1.814	0.271	0.358	2.138	0.270	0.315	1.876
Total	3.198	0.387	27.287	5.193	0.368	42.110	5.219	0.352	40.531
	Local Uniform Conditioning			Simulation Mean			Simulation 1		
Search	M t	Nd + Pr grade	M lb	M t	Nd + Pr grade	M lb	M t	Nd + Pr grade	M lb
40	2.867	0.416	26.279	3.460	0.380	29.015	2.629	0.479	27.776
60	0.949	0.372	7.779	1.201	0.331	8.773	0.830	0.459	8.404
80	0.179	0.377	1.491	0.215	0.361	1.713	0.168	0.498	1.837
Infinite	0.195	0.375	1.614	0.260	0.300	1.718	0.161	0.435	1.541
Total	4.191	0.402	37.163	5.136	0.364	41.220	3.788	0.474	39.559

It should be noted that the grades are substantially higher in the single simulation (which reflects the underlying Nd + Pr population) and the overall metal reduction in the Nearest Neighbour model suggests the negative impact of included waste within the same dataset.

Estimation parameters for these models were not optimised as they were intended for check use only.

Bald Hill Nd + Pr conditional statistics

Grade Threshold	Cumulative Proportion	Class Mean	Class Median	Mean above cut-off	Samples
0.043	10.00%	0.019	0.017	0.376	325
0.085	20.00%	0.065	0.065	0.415	325
0.129	30.00%	0.106	0.105	0.459	325
0.179	40.00%	0.153	0.153	0.510	326
0.238	50.00%	0.209	0.209	0.571	325
0.303	60.00%	0.271	0.271	0.645	325
0.389	70.00%	0.345	0.348	0.746	326
0.441	75.00%	0.414	0.414	0.812	162
0.506	80.00%	0.474	0.473	0.896	163
0.589	85.00%	0.542	0.538	1.014	163
0.718	90.00%	0.648	0.642	1.196	162
1.040	95.00%	0.849	0.837	1.544	163
1.278	97.00%	1.137	1.123	1.813	65
1.818	99.00%	1.486	1.460	2.459	65
5.185	100.00%	2.459	2.253		33

Of note is the fact that at least 40% of the samples contained within the wireframe are lower than the nominal reporting Nd + Pr cut-off grade suggesting significant internal dilution within the wireframes.

Bald Hill nominal sections

8m @ 0.182%

4m @ 0.892%

4m @ 0.664%

5m @ 0.201% or 3m @ 0.254%

5m @ 0.159%

2m @ 0.468%

1m @ 0.240%

6m @ 0.481%

2m @ 0.207%

These examples of a typical sections illustrates the effect of the inclusion of low value Nd + Pr samples in areas of reasonable deposit thickness.

Blue bar represents drill hole intercept included in the estimation dataset.

The green text represents the > 0.2% Nd+Pr composite grade within the intercept including internal waste.

Bald Hill estimate conclusion

The Bald Hill OK estimate represents a significantly diluted version of the MIK estimate due to the incorporation of low-grade Nd+Pr intercepts as a result of the decision to adopt a 0.18% TREO mineralisation value for the resource wireframe.

The minimum thickness of 2m for the wireframe would be expected to include some low Nd+Pr grades however the incorporation of these values when the wireframe is >5m is likely to result in the over dilution of the estimate when using OK techniques.

It is expected that the OK estimate will result in at least 10-20% dilution incorporated into the model.

FRASERS DEPOSIT

The estimate values are the same as those for the Bald Hill deposit

Class	MIK block average			MIK Recoverable >0.2%			OK		
	Kt	TREO%	Nd+Pr %	Kt	TREO%	Nd+Pr %	Kt	TREO%	Nd+Pr %
Measured	553.9	1.662	0.689	562.0		0.687	804.8	1.138	0.481
Indicated	372.3	1.315	0.551	317.7		0.506	303.1	0.731	0.310
Inferred	393.1	0.954	0.377	382.4		0.353	175.3	0.630	0.264
Total	1,319.4	1.353	0.557	1,266.2		0.541	1,283.2	0.977	0.412

For the MIK recoverable results, SMU size was set at 5m x 5m x 2.5m.

Values are reported at an effective 0.2% Nd+Pr cut-off grade – defined for the MIK mineralised proportion average grade and OK models and implicit in the MIK recoverable model as the 0.2% proportion is reported.

Shortening the search distances maintained the total Measured and Indicated tonnes whilst increasing the grade of the Measured and Indicated (with a coincident reduction in tonnes for Measured) illustrating the very localised distribution of grade.

Frasers conditional statistics

Grade Threshold	Cumulative Proportion	Class Mean	Class Median	Mean above cut-off	Samples
0.094	0.10	0.062	0.077	0.560	75
0.135	0.20	0.114	0.114	0.616	76
0.176	0.30	0.154	0.155	0.681	75
0.245	0.40	0.209	0.207	0.760	76
0.305	0.50	0.274	0.274	0.858	76
0.390	0.60	0.355	0.361	0.983	75
0.522	0.70	0.454	0.447	1.160	76
0.605	0.75	0.559	0.558	1.280	38
0.679	0.80	0.646	0.652	1.435	37
0.816	0.85	0.733	0.732	1.669	38
1.119	0.90	0.950	0.963	2.028	38
1.738	0.95	1.428	1.427	2.628	38
2.131	0.97	1.943	1.917	3.074	15
2.867	0.99	2.478	2.438	4.192	15
6.587	1.00	4.192	4.023		8

Of note is the fact that at least 30% of the samples contained within the wireframe are lower than the nominal reporting Nd + Pr cut-off grade suggesting significant internal dilution within the wireframes.

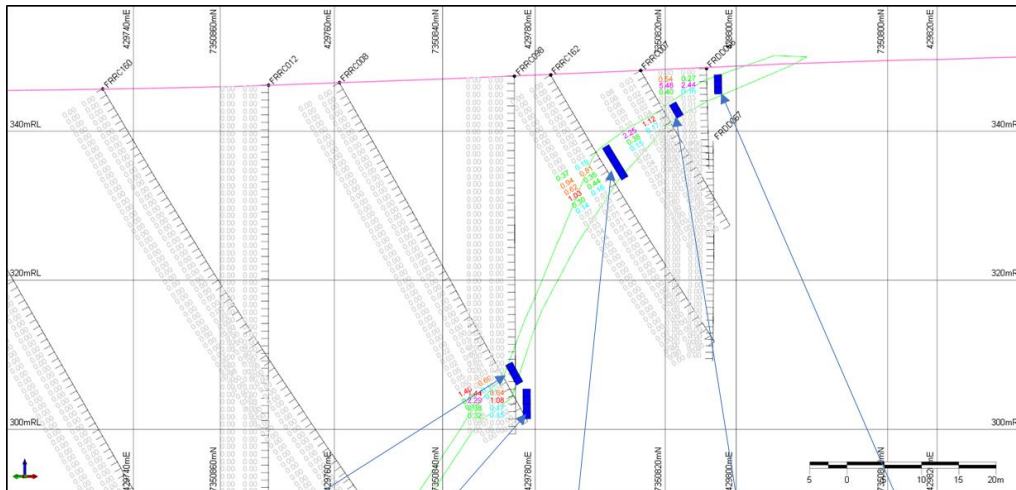
The mean grade of the total sample population for the main zone is 0.511%

Frasers nominal sections

The example of a typical section illustrates the effect of the inclusion of low value Nd + Pr samples in areas of reasonable deposit thickness.

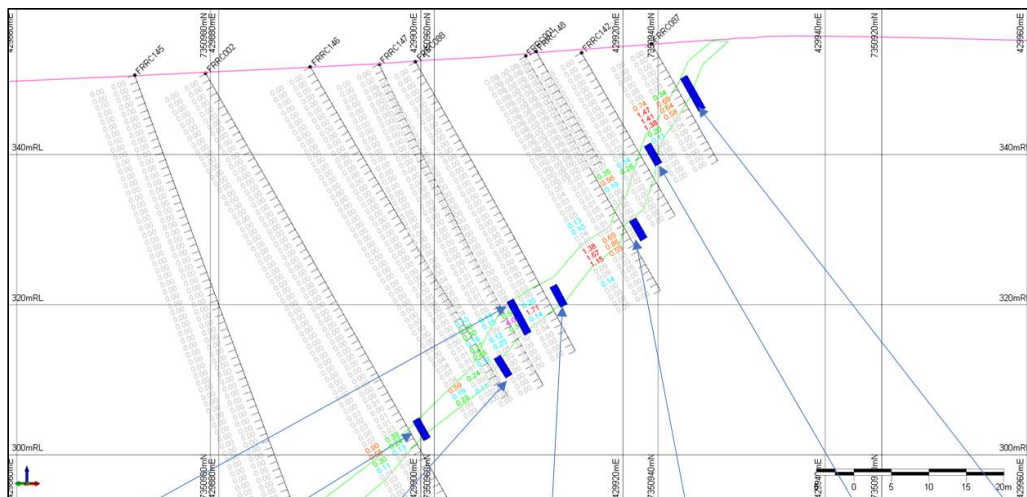
Blue bar represents drill hole intercept included in the estimation dataset.

The green text represents the > 0.2% Nd+Pr composite grade within the intercept including internal waste.



3m @ 0.329% 4m @ 0.512% 5m @ 0.329% 2m @ 0.647% 3m @ 0.954%

2m @ 0.441% 2m @ 0.863% 3m @ 0.431% 2m @ 1.353%



5m @ 0.139% 3m @ 0.253% 3m @ 0.144% 3m @ 0.680% 3m @ 0.713% 3m @ 0.170% 5m @ 0.468%

2m @ 0.158% 2m @ 0.313% 2m @ 0.161% 2m @ 0.950% 2m @ 0.211% 4m @ 0.563%

The Frasers OK estimate represents a significantly diluted version of the MIK estimate due to the incorporation of low-grade Nd+Pr intercepts as a result of the decision to adopt a 0.18% TREO mineralisation value for the resource wireframe.

The minimum thickness of 2m for the wireframe would be expected to include some low Nd + Pr grades however, due to the generally thin nature of the deposit, the incorporation of these values when the wireframe is >2m is likely to result in the over dilution of the estimate when using OK techniques.

It is expected that the OK estimate will result in at least 20-30% dilution incorporated into the model. A simple reduction of outlier low grade values where the mineralised intercept is >3m increases the resource grade by approximately 18% for a minimal reduction in tonnes.

CONCLUSION

Both the Bald Hill and Frasers OK models show significant degrees of incorporated dilution relative to the MIK estimates with the MIK estimates being similar to the original (externally diluted) OK estimates based around wireframes restricted to a 0.2% Nd+Pr grade.

This additional dilution is due to wireframing around an expanded TREO cut-off grade (of approximately 0.18% TREO) which has resulted in the incorporation of 'waste' Nd + Pr grades even when the wireframe thickness is well over 5m.

Due to the localised nature of higher grade values and the general overall thickness of the mineralisation, the Frasers deposit appears to be particularly susceptible to this over dilution effect.

At Frasers, the search process, particularly with regard to actual distances employed, has a substantial impact on the resultant distribution of grades within the OK estimate. In this instance, using search distances equivalent to those used in the MIK estimate increased the Measured grade by ~7% and the Indicated grade by ~15% with a slight increase in Measured + Indicated tonnes.

At Bald Hill, limiting the wireframe to a minimum 2m thickness and removing 'waste' Nd + Pr grades on some of the longer intervals resulted in a 12% decrease in wireframe volume and the removal of approximately 20% of the low-grade portion of the dataset. In this case the Measured and Indicated grades increased by ~20% with a 9% decrease in Measured and Indicated tonnes relative to the original OK estimate.

As would be expected the MIK mineralised panel average grade values above a 0.2% cut-off grade match the 0.2% Nd+Pr cut-off recoverable resources. There is minimal reduction in contained tonnes with the application of 5% or 10% minimum panel proportion restrictions suggesting that the vast majority of panels are >10% mineralised material.

In both cases the Measured and Indicated tonnes within the OK estimates, based on 40m and 60m searches, have been maintained. For the Frasers deposit, an additional short range estimate suggests that this relationship also exists using 25m and 50m OK search distances such is the distribution of drilling.

The MIK estimates for the resources represent the most reasonable values for the project deposits and that the OK estimates, due to the incorporation of significant amounts of 'waste' materials from the use of a global TREO% wireframe grade, are over diluted particularly should a selective mining process be undertaken. Were the deposits to be estimated using OK techniques alone it would be expected that new wireframes would be completed that would limit the incorporation of external waste where the mineralised intercepts have a reasonable thickness.

3.7 RC vs DD assessment

Following concerns expressed during the review of the data and mineral resource estimates an assessment of the potential for RC downhole smearing and comparison between RC and adjacent diamond drill (DD) holes has been completed.

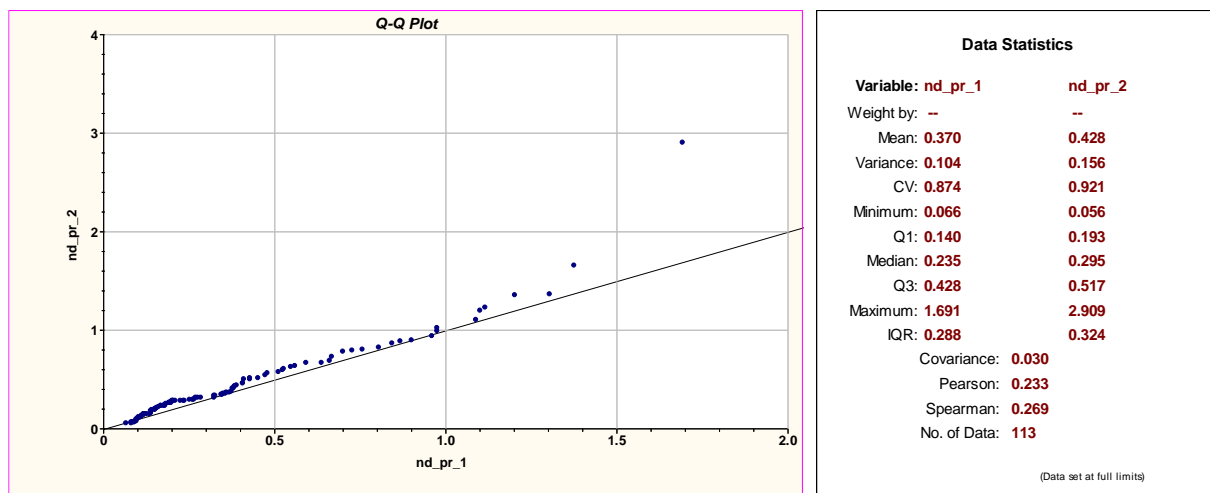
The Yangibana project as a whole contains 10 DD twins of existing RC drill holes. All holes except BH06, an original RC drill hole, have been drilled vertically and have separation distances of less than 2.5m. Due to the angled crossover between BHDD110 and BH06 the separation distance between these two holes is between 5m and 8m within the area of mineralisation.

Intercepts were compared at a 0.18% TREO cut-off composited to a common value of 1m, the same value used in the deposit wireframing process. The table below details the RC/DD pairs with regards to separation between the mineralised intercepts, length, TREO% grade and Grade * Thickness values. Also shown is the actual DD intercept.

Twin Pair	Separation	RC			DD			Actual DD			Comment
		Length	TREO grade	GT	Length	TREO grade	GT	Length	TREO grade	GT	
BHDD110/BH06	5	6	1.304	7.824	7	1.175	8.225	6.48	1.262	8.17776	
	8	3	1.430	4.290	5	0.866	4.330	4.10	1.05	4.305	0.5m core loss at 0
	6				1	0.745					Additional
	7				2	0.554					Additional
BHDD114/BHRC040	2.5	4	0.956	3.824	4	0.553	2.212	4.25	0.522	2.2185	
BHDD116/BHRC056	2.3	8	0.523	4.184	7	0.461	3.227	5.70	0.554	3.1578	0.6m core loss at 0
					3	0.310					
BHDD117/BHRC033	1.7	13	0.702	9.126	14	0.819	11.466	14.35	0.816	11.7096	
BHDD118/BHRC057	1.5	6	0.589	3.534	6	0.552	3.312	5.60	0.591	3.3096	0.5m core loss at 0
FRDD065/FRRC022	1.2	11	0.931	10.241	12	1.115	13.380	11.50	1.158	13.317	
YWDD059/YWRC022	2.5	5	1.499	7.495	5	1.883	9.415	4.30	2.102	9.0386	core loss at start and 0.2m internal at 0, end in mineralisation
		3	0.904								Beyond end of DD hole
YWDD060/YWRC037	1.1	11	1.766	19.426	11	1.199	13.189	10.98	1.21	13.2858	0.1m core loss at 0
YWDD061/YWRC058	2.8	7	2.505	17.535	7	1.834	12.838	5.80	2.196	12.7368	

A number of the core intervals include various lengths of core loss which would likely impact the DD grade and GT values. There are additional intervals within one RC and one DD hole which are not represented in the adjacent drill hole.

A nearest neighbor assessment, within a 5m x 5m x 5m search, of RC and DD hole Nd + Pr values was undertaken and the results are presented below. The population distribution of DD (as nd_pr_1) and RC (as nd_pr_2) suggest a slight bias towards RC values this appears due to an initial low grade bias for values below 0.2% Nd + Pr. Above approximately 0.2% Nd + Pr the populations appear to be very similar.



Analysis was completed on composited DD intervals in order to give a more reasonable comparison relative to the mineral resource estimate. Actual DD sample intervals are also tabulated.

In general, intercepts within both the RC and DD holes represent the same mineralised length in 50% of cases and within 1m for four twins with the maximum difference being 2m towards the DD intercept. For those intercepts with a length difference, four favour the DD hole with one favouring the RC hole. Additional intercepts within the hole favour DD holes with three with RC holes only having one – located beyond the extent of the twinned DD hole.

Whilst the total GT value slightly favours the RC holes (suggesting RC grades are slightly higher) the values are to some extent biased by two RC intercepts in the Yangibana deposit. Without these two twins the DD drill holes have a higher total GT value indicating higher overall DD thickness and, potentially, grade.

A number of DD intercepts are affected by identified core loss, either within the intercept or at the start, the compositing process has dealt with these assuming a zero grade. The data available to date indicates that there is minimal difference between RC and DD holes and provides no indication of downhole RC smearing.

3.8 Updated QAQC

Introduction

Following the review of the sample data used for the mineral resource estimate concern has been expressed regarding the performance of assay standards routinely inserted into the assay stream for the original assay of drill samples. Comment has been made regarding assay bias evidenced by the QAQC standards with respect to the assay dataset as a whole.

Inserted QAQC standards have been re-examined from the dataset provided (HAS_Yangibana_DHDB.accb) as well as both the original and most recent SGS pulp re-assays.

Analytical code IMS90Q (peroxide fusion) was used for both SGS sets of assays and code FP6/ICPMS (peroxide fusion) was used for the original Genalysis work, all are considered total digests and are also considered to be comparable.

From the reported information the lower limit of detection for Nd for the Genalysis assays is 0.1ppm and for the SGS assays it is 10ppm.

Samples for the original SGS re-assay were derived from the following deposits over the period from 2014 to 2017;

- Auer North 24, Auer 90, Bald Hill 253, Demarcay 3, Frasers 70, Gossan 7, Hatchett 3, Hook 11, Kane's Gossan 9, Lions Ear 16, Mosander 2 Yangibana 75, Yangibana West 45.

Samples for the SGS recent re-assay were a subset of the above and represented the following;

- Auer North 24, Auer 90, Bald Hill 86, Frasers 27.

All commentary regarding QAQC results only relate to Nd analyses.

Geostats standard GRE-01

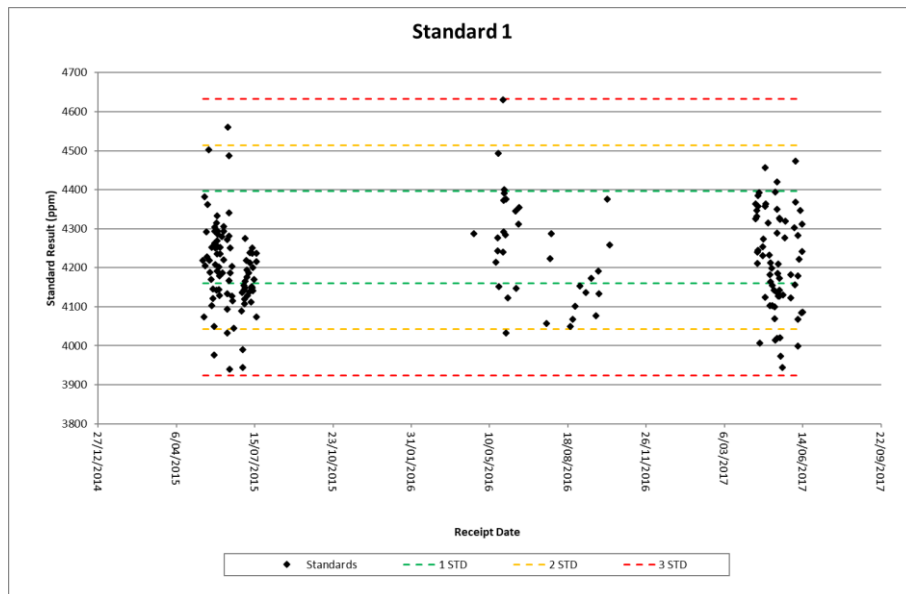
Geostats standard GRE-01 has a certified average grade of 4,278ppm with a standard deviation of 118ppm.

The certified values were derived from a total of 39 (out of 50 possible) assays indicating that the standard potentially caused issues for some certifying laboratories.

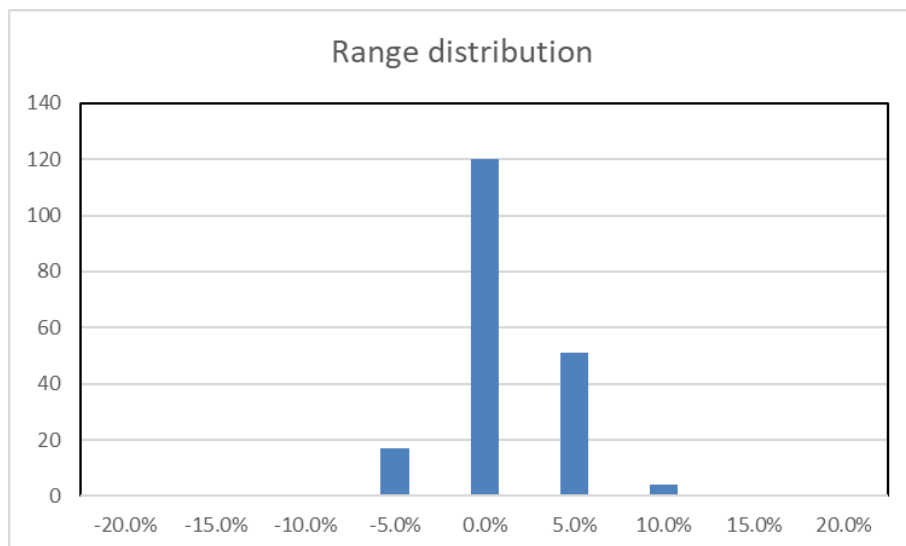
As is common with Geostats CRM's there are no details of the certifying analytical methods or what methods the standard is certified for.

The standard control chart is shown in the chart below.

GRE-01 control chart



GRE-01 assay range distribution



There are a total of 194 results of which 15 are outside a 2 standard deviation (SD) control limit – 2 are above and 13 are below.

Whilst there appears to be a moderate scatter within the dataset with a minor low bias to the results for earlier batches this appears to have been eliminated in later batches.

The global average of all the results is 4,213ppm suggesting a very slight overall low bias, with an SD of 119 – very similar to the original certifying values.

From the value range distribution 71% of samples had a value less than that certified including 8% with a value at least 5% less than certified, of the remainder 2% had a value at least 5% greater than certified.

Other than a requirement to re-assay samples around the 15 standards that failed QAQC limits the standard is considered to have performed well.

Geostats standard GRE-02

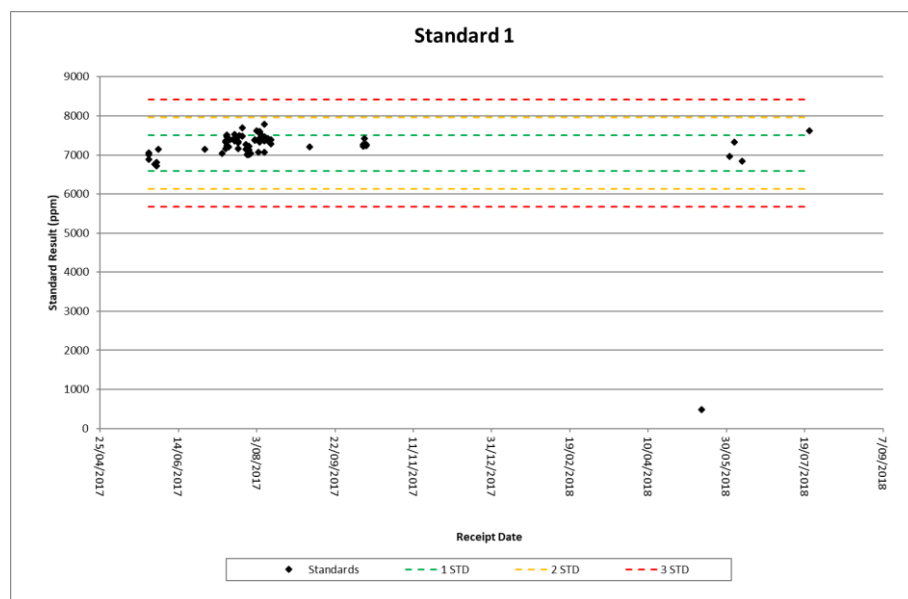
Geostats standard GRE-02 has a certified average grade of 7,048ppm with a standard deviation of 456ppm.

The certified values were derived from a total of 50 (out of 50 possible) assays indicating that the standard reformed adequately for all certifying laboratories.

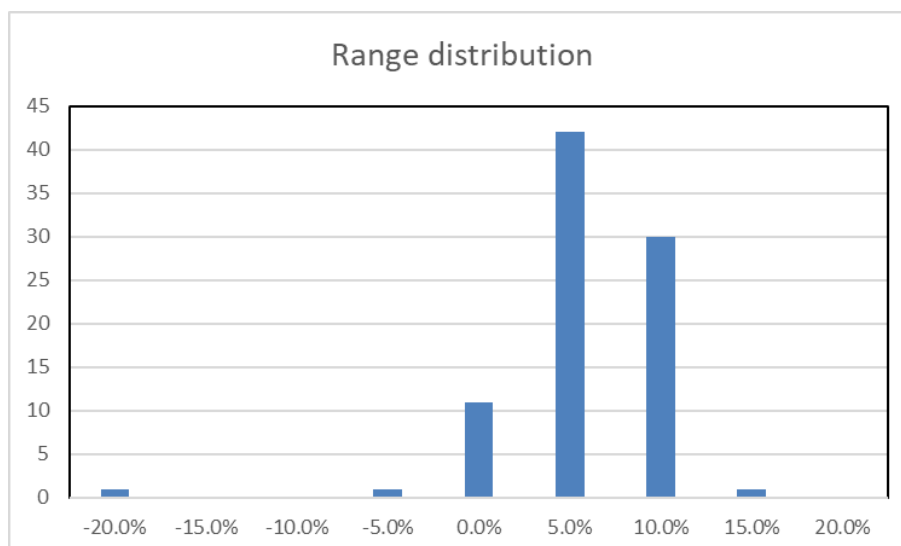
As is common with Geostats CRM's there are no details of the certifying analytical methods or what methods the standard is certified for.

The standard control chart is shown on the chart below.

GRE-02 Control Chart



GRE-02 assay range distribution



There are a total of 89 results of which 1 is outside a 2 standard deviation (SD) control limit – in this case below.

There appears to be a moderate scatter within the dataset with a minor high bias to the results for the mid batches, this appears to not be evident in earlier and later batches.

The global average of all the results is 7,227ppm suggesting a very slight overall high bias, with an SD of 769 – reflective of the degree of scatter within the results.

Other than a requirement to re-assay samples around the 1 standards that failed QAQC limits the standard is considered to have performed reasonably well

From the value range distribution 15% of samples had a value less than that certified including 2% with a value at least 5% less than certified, of the remainder 36% had a value at least 5% greater than certified.

Geostats standard GRE-03

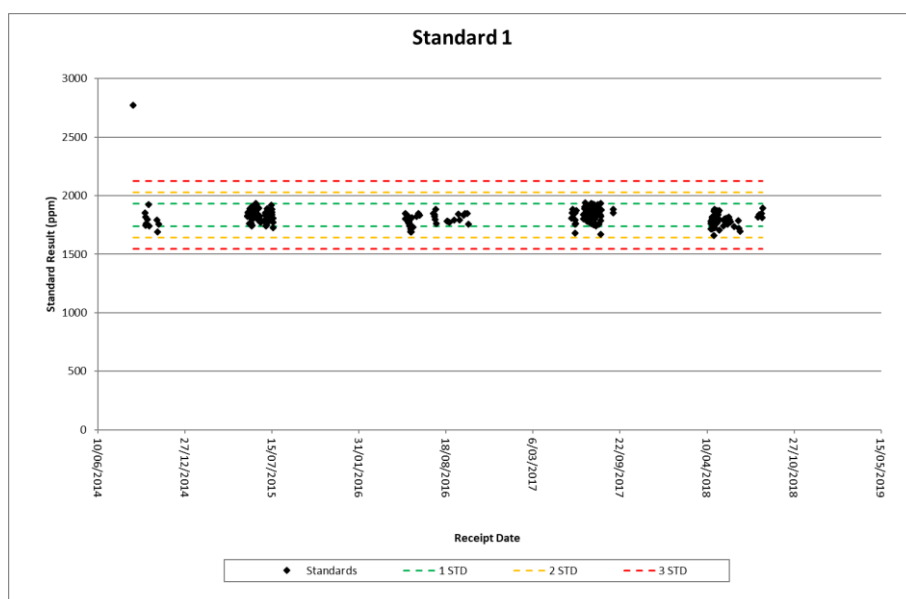
Geostats standard GRE-03 has a certified average grade of 1,835ppm with a standard deviation of 97ppm.

The certified values were derived from a total of 50 (out of 50 possible) assays indicating that the standard reformed adequately for all certifying laboratories.

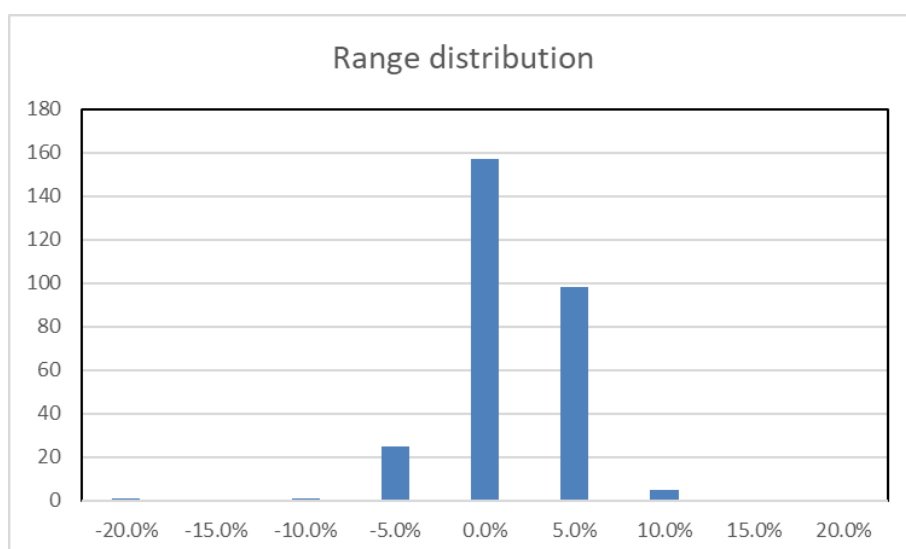
As is common with Geostats CRM's there are no details of the certifying analytical methods or what methods the standard is certified for.

The standard control chart is shown on the following chart.

GRE-03 Control Chart



GRE-03 assay range distribution



There are a total of 290 results of which 3 are outside a 2 standard deviation (SD) control limit – 1 above and 2 below.

There appears to be a little scatter within the dataset with a minor low bias to the results for the latter batches, this appears to not be evident in earlier batches. Most results are within 1 SD of the certified value

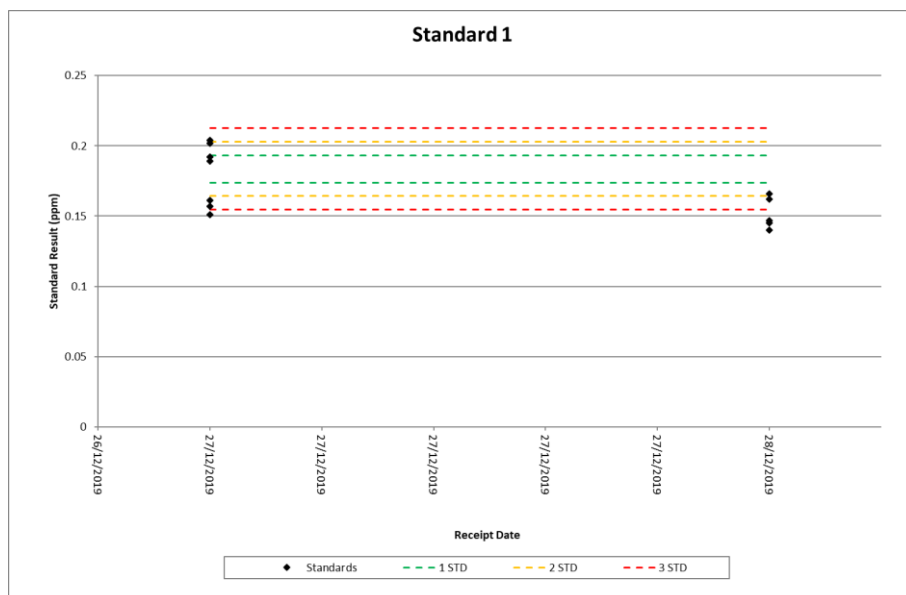
The global average of all the results is 1,825ppm suggesting minimal bias, with an SD of 53 – reflective of the degree of scatter within the results. The standard in this case appears to have performed more consistently than during certification, all be it at a single laboratory

Other than a requirement to re-assay samples around the 3 standards that failed QAQC limits the standard is considered to have performed very well.

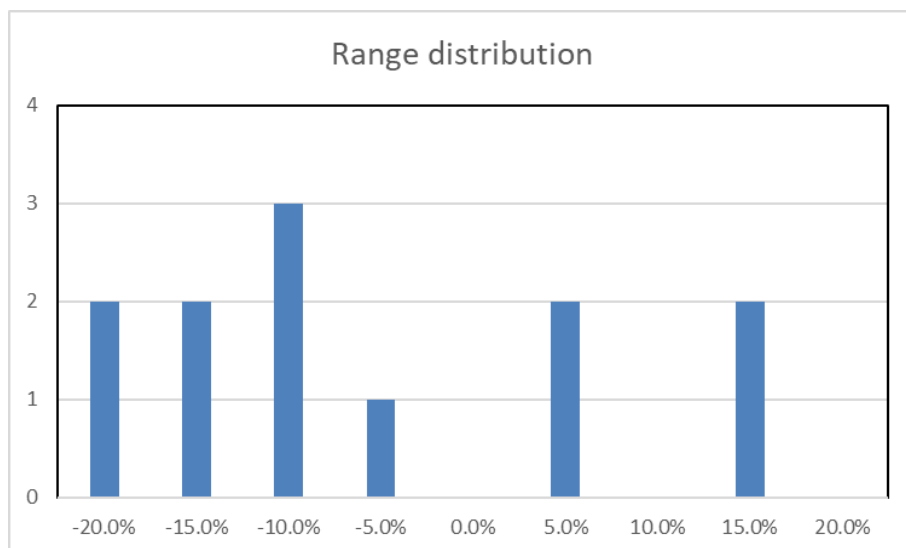
From the value range distribution 64% of samples had a value less than that certified including 9% with a value at least 5% less than certified, of the remainder 2% had a value at least 5% greater than certified.

It should be noted that the very high value for the first standard sample is probably due to a sample swap with standard GRE-04.

GRE-03 recent SGS re-assay control chart



GRE-03 recent assay range distribution



The most recent re-assay of pulp samples at the SGS laboratory included 12 GRE-03 standards which appear to have performed worse than the original sample dataset.

There are a total of 12 results of which 8 are outside a 2 standard deviation (SD) control limit – 1 above and 7 below.

Scatter of the results is moderate with a potentially low bias for the later batch. The standard would be considered to have performed poorly.

Geostats standard GRE-04

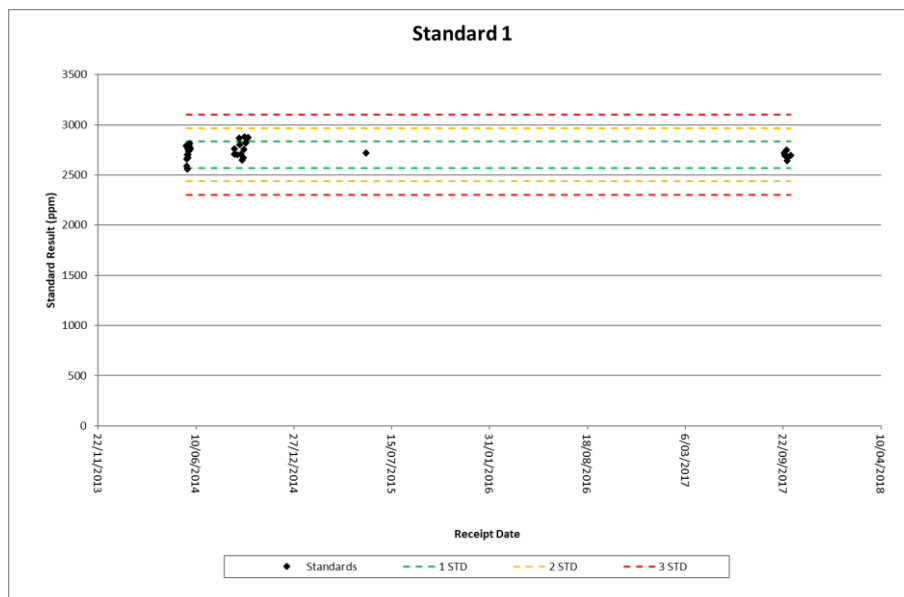
Geostats standard GRE-04 has a certified average grade of 2,702ppm with a standard deviation of 133ppm.

The certified values were derived from a total of 50 (out of 50 possible) assays indicating that the standard reformed adequately for all certifying laboratories.

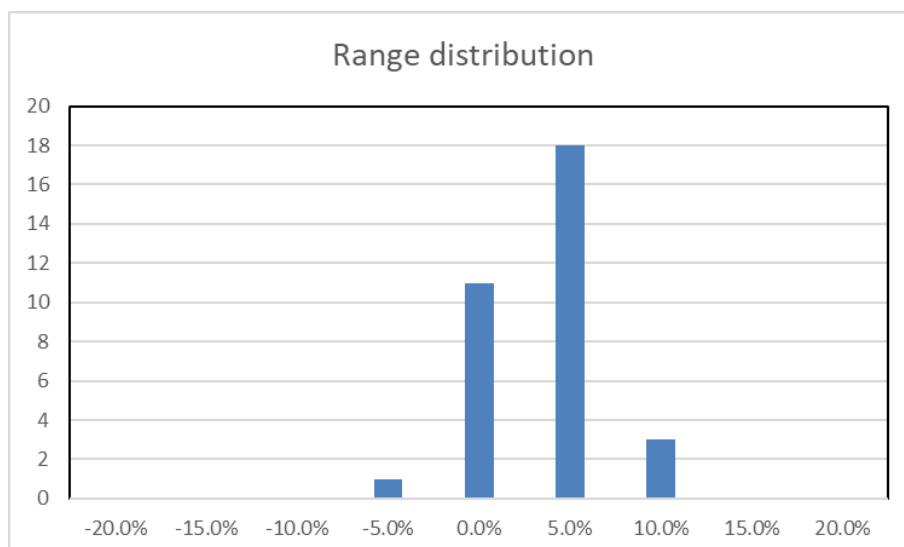
As is common with Geostats CRM's there are no details of the certifying analytical methods or what methods the standard is certified for.

The standard control chart is shown on the chart below.

GRE-04 control chart



GRE-04 assay range distribution



There are a total of 37 results of which none are outside a 2 standard deviation (SD) control limit.

There appears to be a limited scatter within the dataset with a slight high bias to the results for the mid batch (which could be considered to contain a wider scatter) this appears to not be evident in earlier and later batches.

The global average of all the results is 2,735ppm suggesting a very slight overall high bias, with an SD of 75 – reflective of the limited scatter within the results and suggesting a better outcome than the original certification values.

From the value range distribution 36% of samples had a value less than that certified including 3% with a value at least 5% less than certified, of the remainder 9% had a value at least 5% greater than certified.

The standard is considered to have performed well

Geostats standard GRE-05

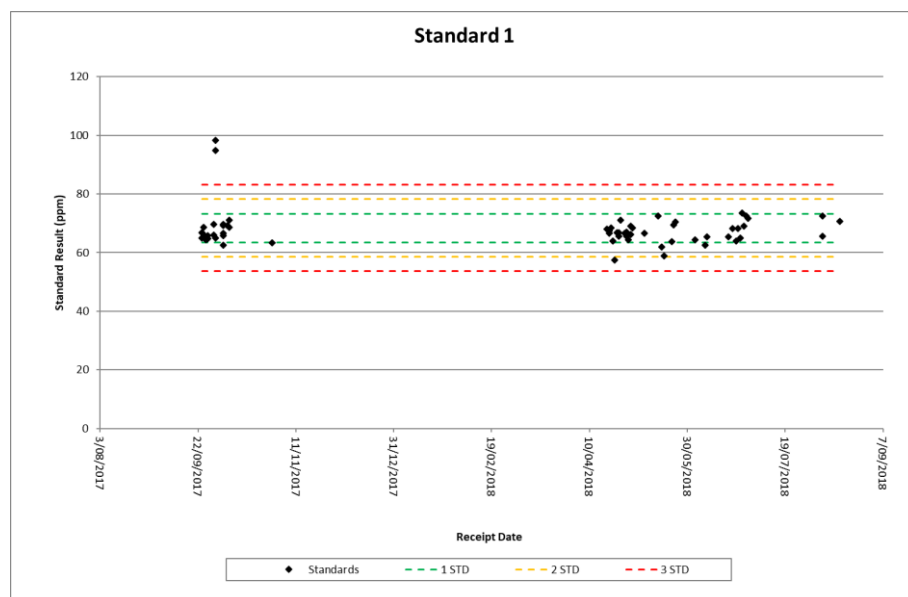
Geostats standard GRE-05 has a certified average grade of 68ppm with a standard deviation of 5ppm.

The certified values were derived from a total of 50 (out of 50 possible) assays indicating that the standard reformed adequately for all certifying laboratories.

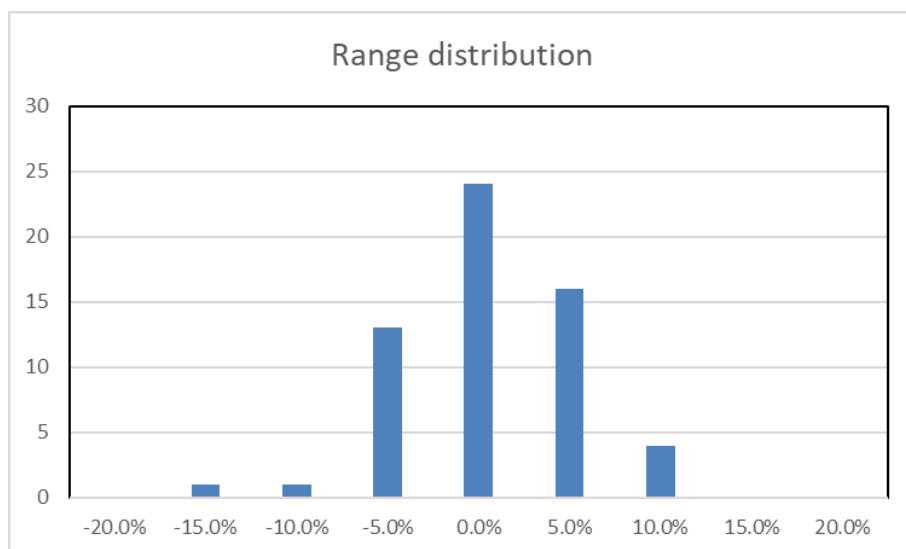
As is common with Geostats CRM's there are no details of the certifying analytical methods or what methods the standard is certified for.

The standard control chart is shown on the chart below.

GRE-05 control chart



GRE-05 assay range distribution chart



There are a total of 61 results of which 3 are outside a 2 standard deviation (SD) control limit – 2 above and 1 below.

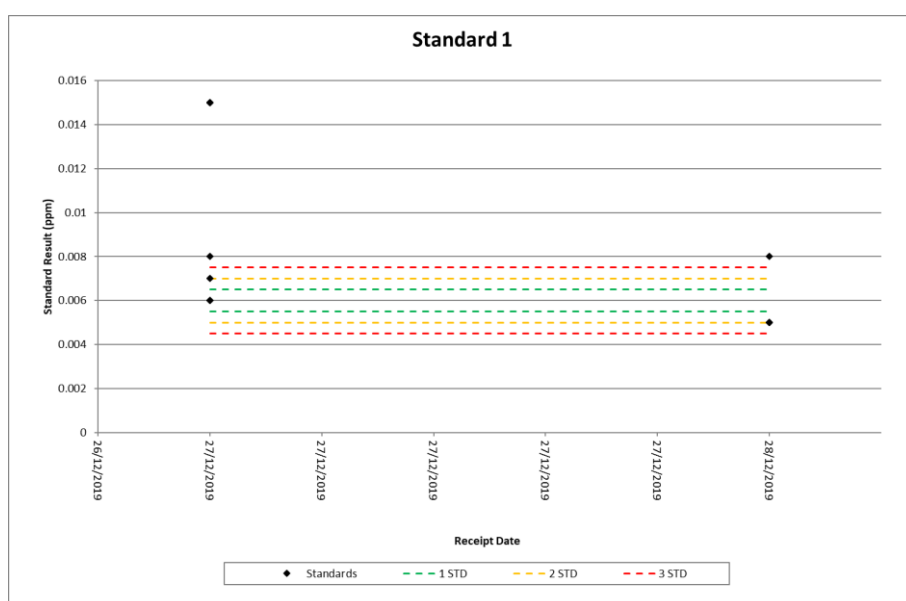
There appears to be moderate scatter within the dataset with a minor low bias to the results for all batches, this appears to not be evident in earlier batches. Most results are within 1 SD of the certified value

The global average of all the results is 68ppm suggesting minimal overall bias, with an SD of 7 – reflective of the degree of scatter within the results.

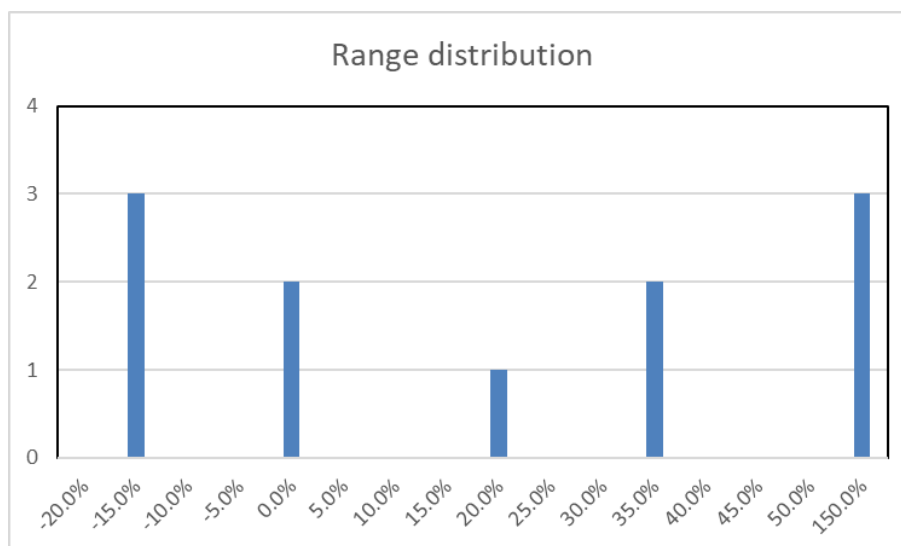
From the value range distribution 64% of samples had a value less than that certified including 25% with a value at least 5% less than certified, of the remainder 10% had a value at least 5% greater than certified.

Other than a requirement to re-assay samples around the 3 standards that failed QAQC limits the standard is considered to have performed very well.

GRE-05 recent SGS assay



GRE-05 recent assay range distribution



The most recent re-assay of pulp samples at the SGS laboratory included 11 GRE-05 standards which appear to have performed worse than the original sample dataset.

There are a total of 11 results of which 5 are outside a 2 standard deviation (SD) control limit all of which are above.

Scatter of the results is moderate with a potentially high bias due to the 3 high values. The standard would be considered to have performed poorly potentially as a result of the analytical method chosen.

Additional standards recent SGS assay

An additional 11 OREAS standards were inserted into the sample stream to give an additional view on the quality of the assay process.

Standard	Nd %	Certified value	Difference	SD	Pass / Fail	Comment
OREAS 461	0.167	0.1629	+2.5%	0.0054	Pass	
OREAS 461	0.121	0.1629	-25.7%	0.0054	Fail	Possibly swap with GRE-03 though poor multi element fit
OREAS 462	0.259	0.256	+1.1%	0.0128	Pass	
OREAS 462	0.007	0.256	-97.3%	0.0128	Fail	Possibly swap with GRE-05 good multi element fit
OREAS 462	0.201	0.256	-21.5%	0.0128	Fail	
OREAS 462	0.178	0.256	-30.5%	0.0128	Fail	
OREAS 463	0.381	0.362	+5.3%	0.0185	Pass	
OREAS 464	0.852	0.994	-14.3%	0.032	Fail	
OREAS 464	0.117	0.994	-88.2%	0.032	Fail	Possibly swap with GRE-03/OREAS 461 Poor multi element fit for GRE-03, better for OREAS461 – would still be a significant fail in this case
OREAS 464	0.909	0.994	-8.6%	0.032	Fail	
OREAS 465	1.13	1.18	-4.2%	0.05	Pass	

As can be seen from the previous table, even accounting for possible standard swaps, half of OREAS standards failed with a greater than 2 SD difference.

The grades of the majority of the standards were lower than the certifying value and those of QAQC passes were only slightly higher than the certified value suggesting an overall low bias in the results.

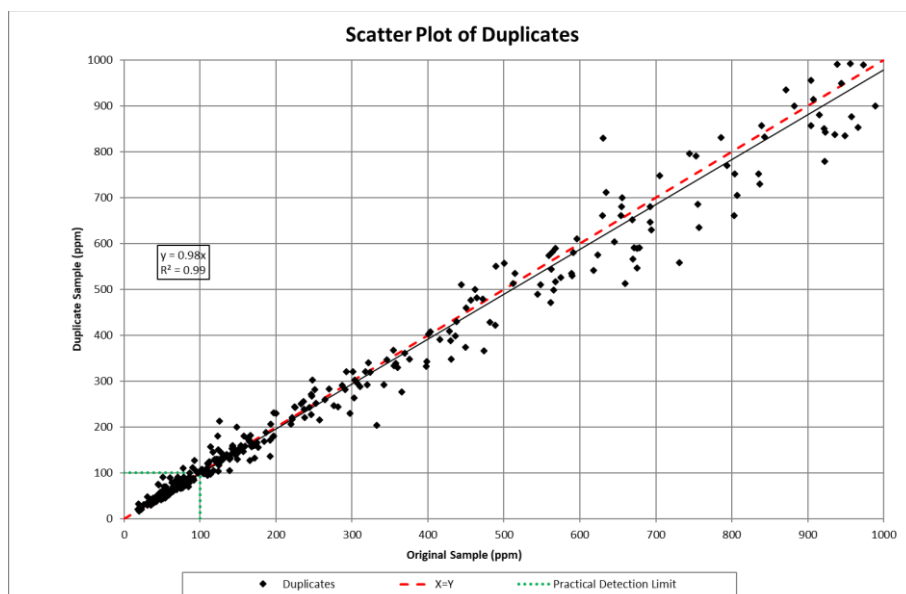
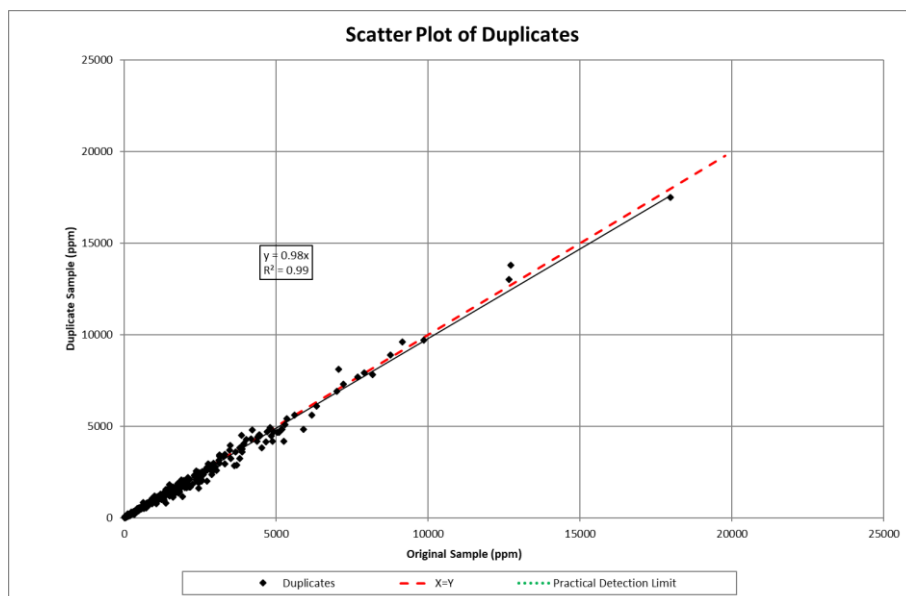
The performance of the assays for the OREAS standards is similar to that of the GEOSTATS standards.

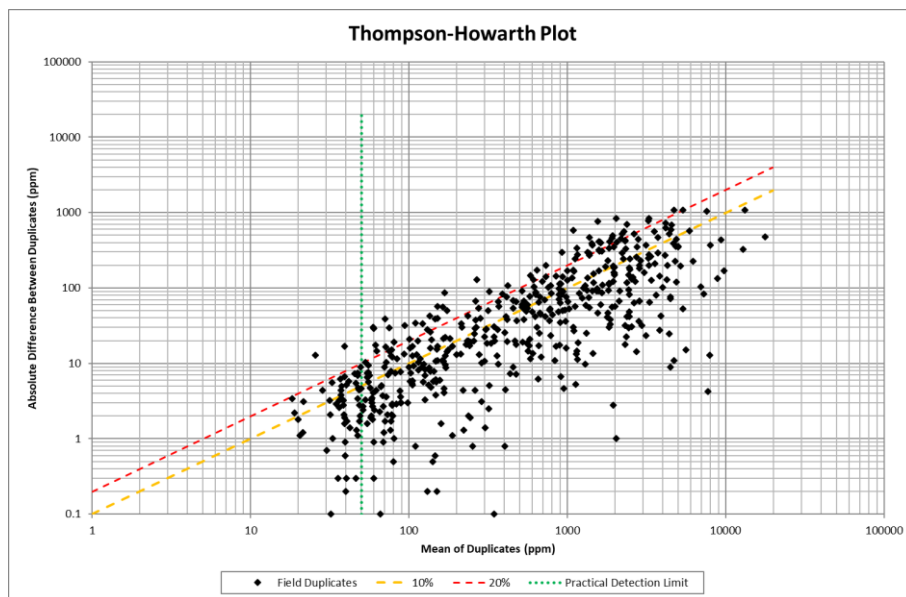
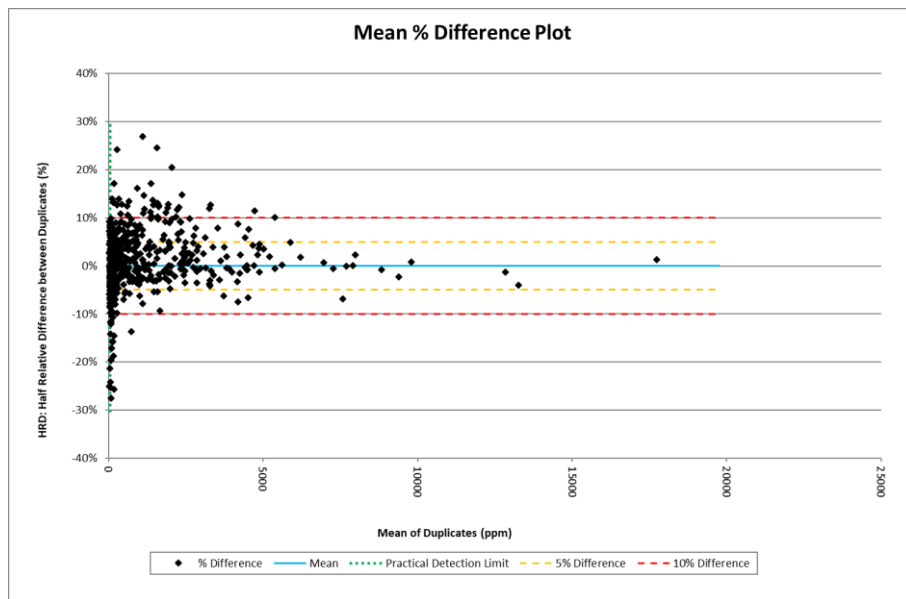
Pulp Duplicate analysis

As a check on the original analysis of samples by Genalysis a set of sample pulps was sent to SGS for confirmation analyses.

There appear to be a total of 534 pulp re-assays within the database of which 30 currently record a value of 5,000ppm (the over-range value for the SGS method employed). Of these 30, 18 had an over-range analysis in order to determine the actual grade above 5,000ppm – for unknown reasons, the remaining 12 were not re-analysed and have been removed from the pulp duplicate analysis. This resulted in a total of 521 duplicate pairs being used.

Original Genalysis vs Original SGS





As can be seen from the preceding charts there is a reasonable correlation between duplicate values when the SGS over-range re-assays are taken into account. The global average grade of the original values of 1,251ppm vs SGS re-assay of 1,204 (<4% difference) suggests a <2% average relative difference (ARD).

88% of the samples within the dataset lie within a <20% ARD, close to the target QAQC pass value of >90% samples with an ARD <20%.

The distribution of values within the mean difference plot indicates a slight bias towards the original values though this may be related to individual batches.

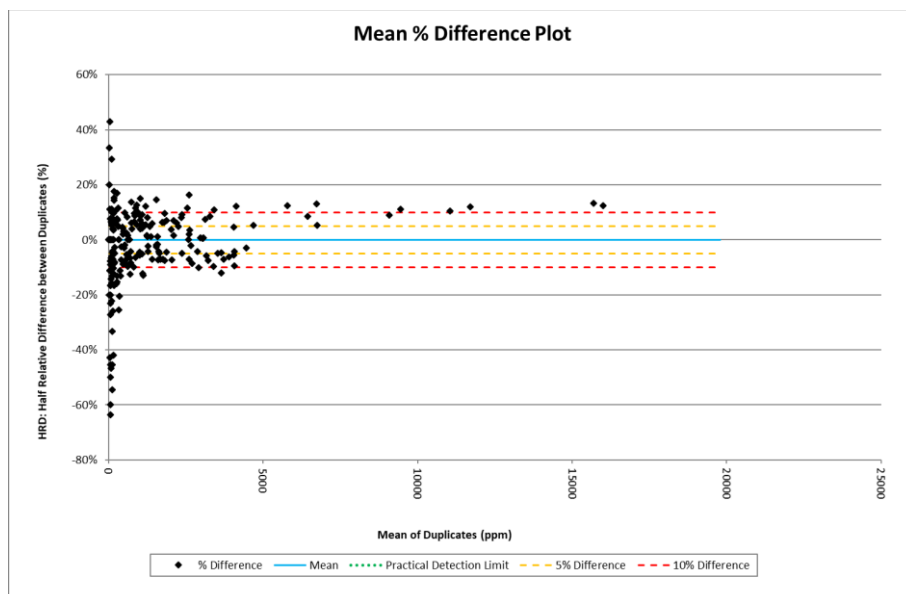
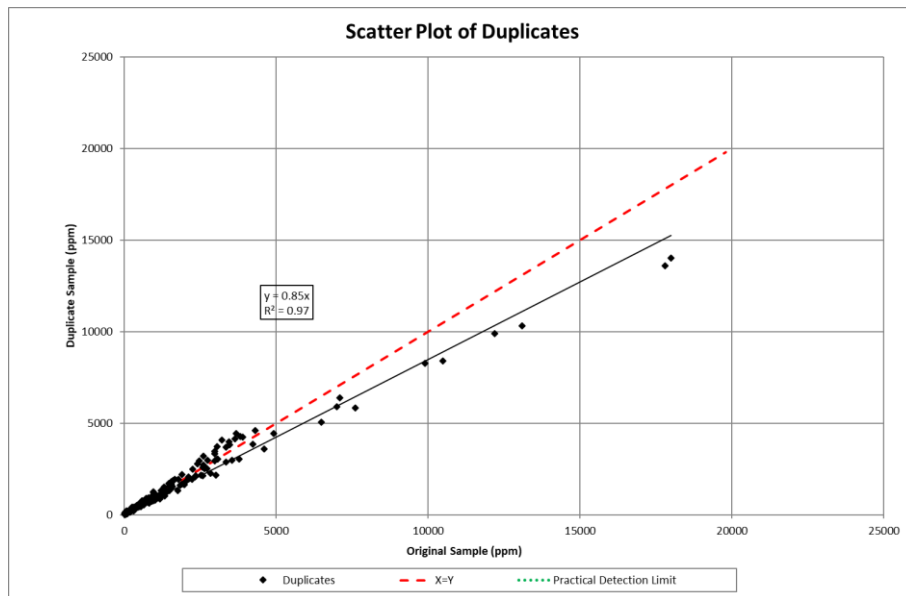
The results in this instance are considered good, though suggest that the SGS re-assays are potentially biased lower than the original Genalysis results. From the analysis of the Geostats standards there is

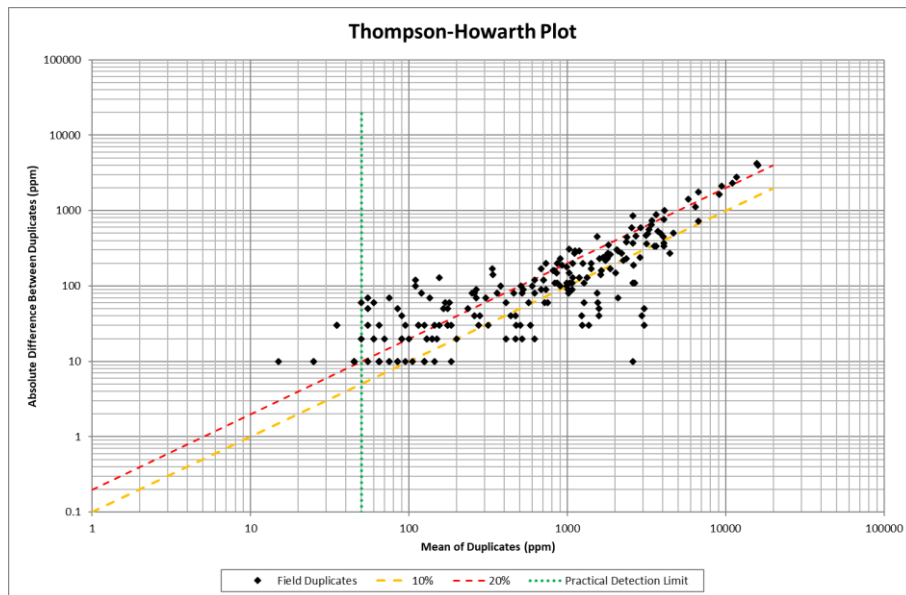
potential for the Genalysis results to have a slight low bias suggesting that the SGS values would have reported lower compared to the Geostats standards should any have been inserted into the original SGS assay batches.

Recent SGS re-assay

In order to assess the value of the SGS pulp assay process 227 samples were re-submitted to SGS along with a number of inserted CRM standards in order to gauge the performance of the SGS lab. As has been illustrated above, the standard values returned by the laboratory were not conclusive however duplicate analysis was completed on the samples both relative to the original Genalysis values and to the original SGS re-assay.

Original SGS assay vs recent SGS re-assay





A batch of 227 original samples were re-sent to SGS for assay, with accompanying CRM standards, in order to assess the original SGS pulp re-assays.

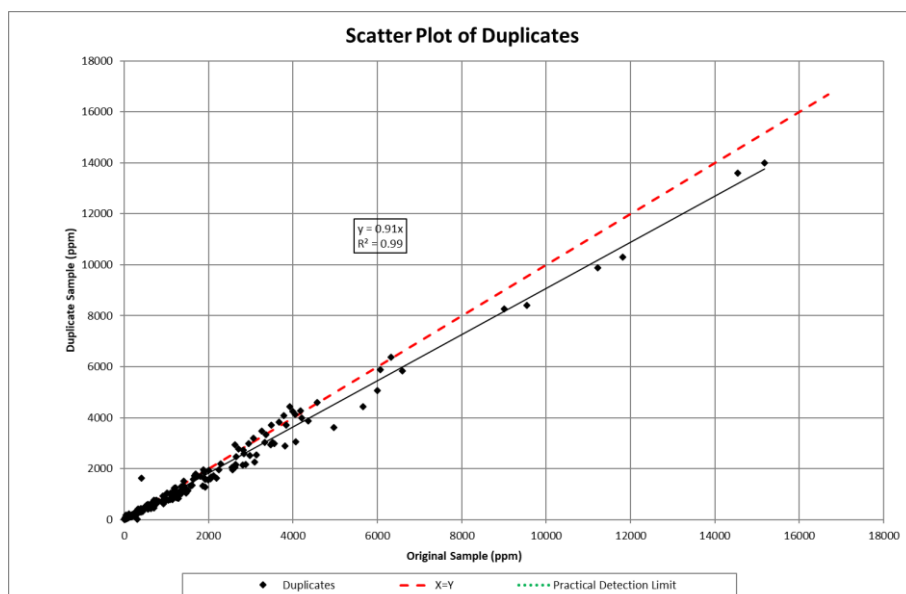
The scatter plot between the two results indicates a greater variation than that between the original Genalysis value and first SGS pulp re-assay, the regression appears influenced by values above approximately 7,000ppm.

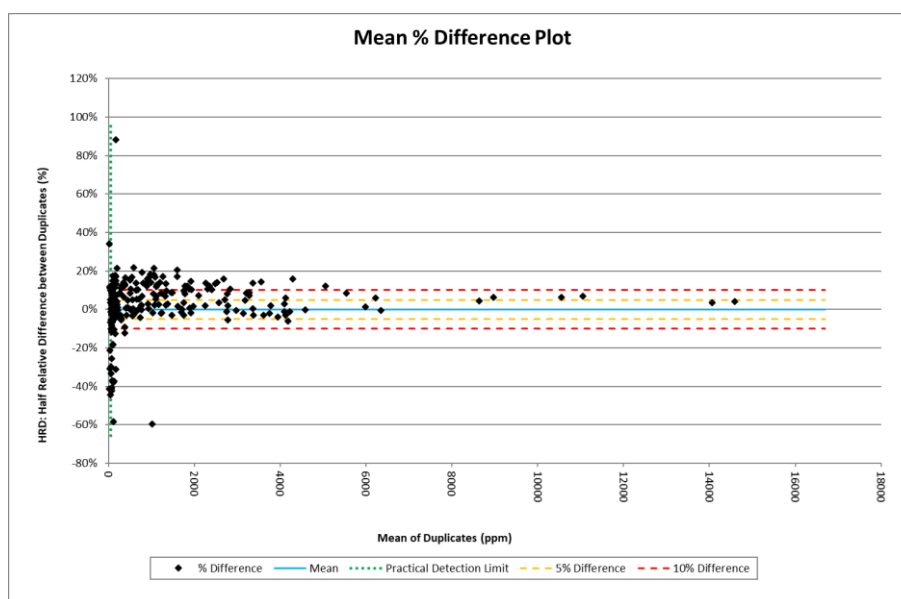
Only 74% of samples pass the <20% ARD test.

The mean difference plot indicates two populations within the dataset, one with predominantly higher second values and the other with lower values – this appears to be related to the assay batches.

In general the second SGS re-assay is not seen as a good fit to the first.

Original Genalysis assay vs recent SGS re-assay





The SGS check re-assay values were plotted against the original Genalysis assay values with the results being more scattered than against the SGS original pulp assays though with a less variable regression, again with an identifiable difference between the two check batches.

In this instance there were only 63% of the samples <20% ARD, this appears to have been due to values generated from one of the two batches.

The second SGS re-assay appears to have not have been as consistent as the first.

Summary

The original standards included in the samples sent to Genalysis appear to have performed well with the vast majority of results falling within a 2 SD limit. Some batches show localised minor high and low bias but this does not affect the overall result. Standard GRE-01 shows a minor low bias for all batches whilst retaining an SD similar to that of the certifying assays. The inserted Geostats standards can be considered to have validated the analysis of the drill samples with an indication of a slight negative bias to the final results for the drill samples.

The results of the pulp sample re-assay at SGS are reasonable with a good correlation between values – 88% of samples are <20% ARD with a global regression R^2 value of 0.99 and slope of 0.98. There is a suggestion within the data that the SGS samples are biased slightly low compared to the Genalysis samples.

Results from the most recent SGS re-assay are poorer, evidenced by both the standard values and correlations between both the original Genalysis and SGS pulp re-assay values. The two batches show high/low bias relative to both previous assays.

Conclusion

The QAQC data provided indicates that the original Genalysis assay values for Nd are reasonable, evidenced by both the GEOSTATS standards and the original SGS pulp re-assays.

The most recent SGS pulp re-assay appears to have been of poorer quality than the previous work with a potential inter batch bias.