Burnside Joint Venture
(Territory Goldfields NL 50% and
Buffalo Creek Mines Pty Ltd 50%)

BURNSIDE JOINT VENTURE

CZARINA RESOURCE REPORT
MLN 13
March, 2005

Compiled by: Bill Makar

Fleur Muller

Distribution: Northern Gold

Harmony Gold

Burnside Operation Pty Ltd

Author Fay Pitt

Distribution Northern Gold NL
Harmony Gold Australia
Burnside Operations Pty Ltd

Date August 2005

EXECUTIVE SUMMARY

A Resource Estimate of the Czarina deposit was carried out on behalf of the Burnside Joint Venture. This is the second Resource Estimate for Czarina carried out by the Joint Venture. This estimate follows the recent 16 hole RC infill drilling program at Czarina conducted by the Joint Venture.

A Classified Global Remaining Mineral Resource of 1,844,559t @ 1.72 g/t Au for 102,062 ounces was identified. The classified mineral resource reported is above a cut-off of 1.0 g/t Au. No economical constrains were imposed on the model. The resource categories are tabulated below.

LODE	CATEGORY	VOLUME	TONNES	AU	OUNCES
100	Indicated	445,656	1,202,091	1.84	71,113
100	Inferred	137,594	369,769	1.53	18,165
200	Indicated	-	-	-	-
200	Inferred	25,781	67,809	1.26	2,745
300	Indicated	-	-	-	-
300	Inferred	80,344	204,891	1.52	10,033
Total Indicated		445,656	1,202,091	1.84	71,113
Total Inferred		243,719	642,469	1.50	30,942
Grand Total		689,375	1,844,559	1.72	102,062

Czarina Classified Remaining Mineral Resource above 1 g/t Au as at 19th January 2005

The new Czarina model utilized historic drilling data and the 16 holes drilled during November 2004. The Czarina deposit is contained within MLN 13 in the Pine Creek Gold Project area and occurs in the southern extent of the Pine Creek Geosyncline within the Northern Territory.

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1. INTRODUCTION

Czarina is one of the deposits that form part of the resource base of the Pine Creek Project. The project tenements are centered adjacent to the west side of the Pine Creek town boundary, some 230km SE of Darwin, NT.

The Stuart Highway provides access to Pine Creek. The tenements may be accessed by graded and superceded tracks north, west and south west of town. MLN13 and MLN1130 host the majority of the historic gold mines, previous open pits and present deposits.

The Czarina resource is the down dip extension of the ore body mined by the Czarina pit. It is located in the north eastern sector of MLN13. The Czarina pit is situated on the east side of the Enterprise pit. Following completion in September 1993, it was completely back-filled with waste from the Gandys Hill open pit operation in adjacent MLN1130.

Burnside Operations Pty Ltd (BOPL) is the manager of the Pine Creek Project. The Burnside Joint Venture is a 50:50 joint venture between Territory Goldfields NL and Buffalo Creek Mines Pty Ltd. Burnside Operations Pty Ltd is the manager, operator and agent of the joint venture companies.

2. CZARINA DEPOSIT: - MINERAL RESOURCE STATEMENT

The resource estimates were classified in accordance with the Australian Code for Reporting of Mineral Resources and Ore reserves (JORC, 1999).

The Czarina Mineral Resource Statement was prepared by Burnside Operation Pty Ltd and Geostat Services Pty Ltd personnel.

The Burnside Operation Pty Ltd comprises of a Joint Venture 50% ownership between Northern Gold NL and Harmony Gold. Burnside Operations Pty Ltd maintains 100% ownership of the Pine Creek Project. Northern Gold NL act as the managers for the Joint Venture. The March 2005 Mineral Resource estimate was based on the drilling data available to December 2004. The estimate used Log Normal Kriging interpolation methodology.

This report summarizes resource and geological references compiled at the Northern Gold office, West Perth WA. Data presented in this report is included in the accompanying CD.

2.1 MINERAL RESOURCE REPORT

Table 2.1 lists the classified mineral resource above a cut-off of 1 g/t Au as at 19th January 2005; this cut-off is the present economical cut-off grade at current gold prices.

LODE	CATEGORY	VOLUME	TONNES	AU	OUNCES
100	Indicated	445,656	1,202,091	1.84	71,113
100	Inferred	137,594	369,769	1.53	18,165
200	Indicated	-	-	-	-
200	Inferred	25,781	67,809	1.26	2,745
300	Indicated	-	-	-	-
300	Inferred	80,344	204,891	1.52	10,033
Total Indicated		445,656	1,202,091	1.84	71,113
Total Inferred		243,719	642,469	1.50	30,942
Grand Total		689,375	1,844,559	1.72	102,062

Table 2.1 Czarina Classified Remaining Mineral Resource above 1 g/t Au as at 19th January 2005

2.2 COMPETENCY STATEMENT

Information in this report, insofar as it relates to Ore Reserves, Mineral Resources and Exploration Results, has been compiled by the Competent Person(s) tabulated below:

Competent Person	AusIMM/AIG Membership No.	Employer	Signature
Bill Makar	MAusIMM 109848	Burnside Operation Pty Ltd	
Fleur Dyer	MAusIMM MAIG	Geostat Services Pty Ltd	

Table 2.2 Competent Persons Register

3. PREVIOUS WORK

Czarina was previously mined from January 1992 to September 1993 by Pine Creek Goldfields (PCG). Mine reconciliation figures dated 28 September 1993 show the actual ore mine and milled from Czarina totaled 738,047t @ 1.67g/t Au; oxide 593,617t @ 1.61g/t Au, primary 144,430t @ 1.92g/t Au. The ore was recorded as mined from the 1205RL to the 1160RL, 45m depth. The pit was backfilled with waste to the 1212RL, the present western pit crest and sloped to the 1205RL, the eastern pit crest. The pit limits are 11215N to 11900N and 11300E to 11475E; 685m long by 175m wide which includes ramp access.

Deposit	***Commenced***	***Completed***	***Status***
Enterprise	Oct-85	Jan-93	Flooded
Czarina	Jan-92	Sep-93	Backfilled
North Gandys	Jun-93	Nov-93	Backfilled
South Gandys	Oct-93	Late1994	Flooded
International	Sep-93	Late1994	Backfilled
Monarch	?	Pre Aug 93	Backfilled
Millwood	?	?	Backfilled

Table 3.1 PCG; Open Pit Operating Period and Current Status

Pit	Tonnes	Grade	Recovered Ounces	Period	Duration
Enterprise	*8,349,737*	*2.67*		*1985 - 1993*	*8 year*
Czarina	*738,047*	*1.67*		*1992 - 1993*	*1 year*
Sub-total Enterprise/Czarina	9,087,784	2.59	597,894	1985-93	8 years
North Gandys	276,646	1.94	13,633	1993	4 months
South Gandys	1,004,384	1.97	50,247	1993-1994	1 year
International	744,977	1.62	30,681	1993-1994	1 year
Millwood/Monarch/Low Grade	1,163,706	1.58	81,197		
TOTAL	**12,277,497**	**2.37**	**773,652**		

Table 3.2 PCG; Pit Production October 1985 to November 1994

: Recovered ounces based on average 79% mill recovery.
: Separate figures Millwood, Monarch not located.
: Heap leach and low grade sources unknown.

4. GEOLOGY

4.1 REGIONAL GEOLOGY

The geology of the Pine Creek area comprises part of the Pine Creek Orogen of Lower Proterozoic age. The largely clastic sedimentary sequence was folded then intruded by phases of the syn-late orogenic Cullen Batholith around 1790My.

The Pine Creek tenement group lies within a metasediment lobe measuring 35 kilometres by 5 kilometres striking 315 degrees and bounded by Cullen Batholith. The lobe sits within a major northwest trending structural corridor termed the Noonamah-Katherine Lineament Zone that is 20 kilometres to 25 kilometres wide and has component gravity and magnetic anomalies.

In the Pine Creek area the lineament has been focused into the Pine Creek Shear Zone that contains numerous northwest striking tight fold axes and shears within members of the South Alligator and Finniss River Groups.

4.2 MINE GEOLOGY

Gold mineralisation at Pine Creek is contained predominantly within the axial zones of anticlines. Mineralisation within these folds formed within clastic sediments near the top of the Mt Bonnie Formation, locally transgressing above the conformable stratigraphic boundary into Burrell Creek Formation (Lower Finniss River Group). Host rocks there are have been subjected to stronger shear stress. In the central part of the tenement group, the tightly folded host greywacke-siltstone facies sequence (Mt Bonnie Fm) lies within the thermal aureole of the Cullen Batholith. Outcrops of granite occur in the NW of MLN1130.and the adjacent sediments have been compressed and contact metamorphosed to spotted phyllite and hornfels of greenschist facies grade.

Gold mineralisation at Pine Creek is focused on the axial zone of a major upright fold termed the Enterprise Anticline. The fold plunges shallowly towards 135 degrees at around 10 degrees and the limbs dip southwest and northeast at around 65 degrees. The fold axis is sub vertical. Adjacent parallel folds such as the Czarina and International Anticlines have also been productive.

The plunging Enterprise fold exposed a well-stratified succession of alternating mudstones, nodular cherty siltstones and greywackes that has been correlated in detail throughout the Pine Creek gold field. Figure 1 shows the solid geology interpretation with the mine grid and Figure 2 shows the mine stratigraphic column.

The Czarina Anticline is parallel to, and about 200 meters east of, the Enterprise Anticline. The fold axis strikes about 315° (W) and dips steeply to the west. The fold plunges gently to the south with an interlimb angle of about 30°- 40°. Gold mineralisation is hosted within the western limb of this fold that has been extensively modified by thrust faulting. The stratigraphic sequence is a monotonous greywacke sequence probably 50 -150 meters above the upper mine Greywacke. Mineralization is of similar style to that at Enterprise, being strata—bound and fold related.Gold mineralisation on the west limb extends northwest into MLN1130 as the Millwood and International deposits. Best gold mineralization is associated with zones of increased silicification, quartz veining and pyrite mineralization within the mainly siltstone units.

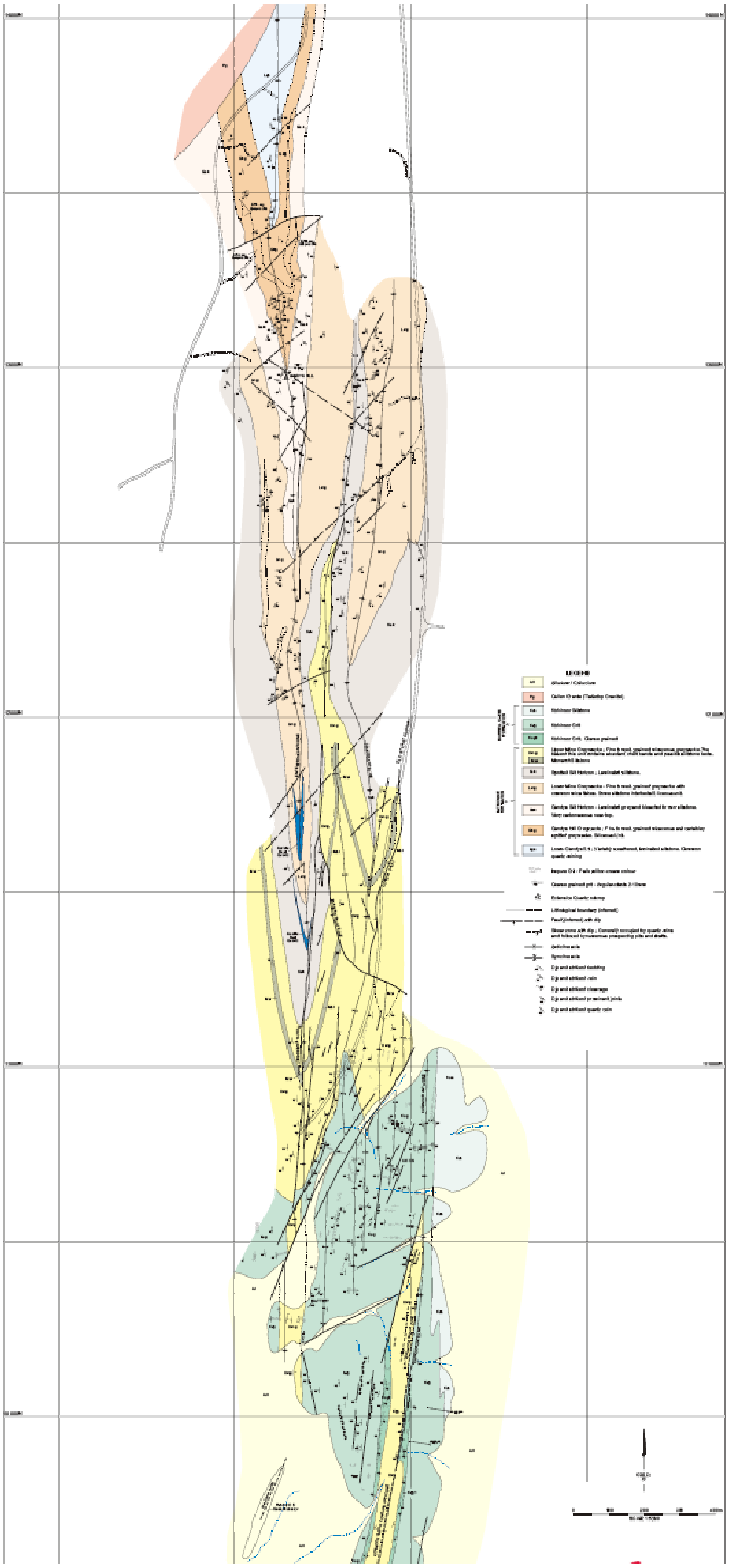
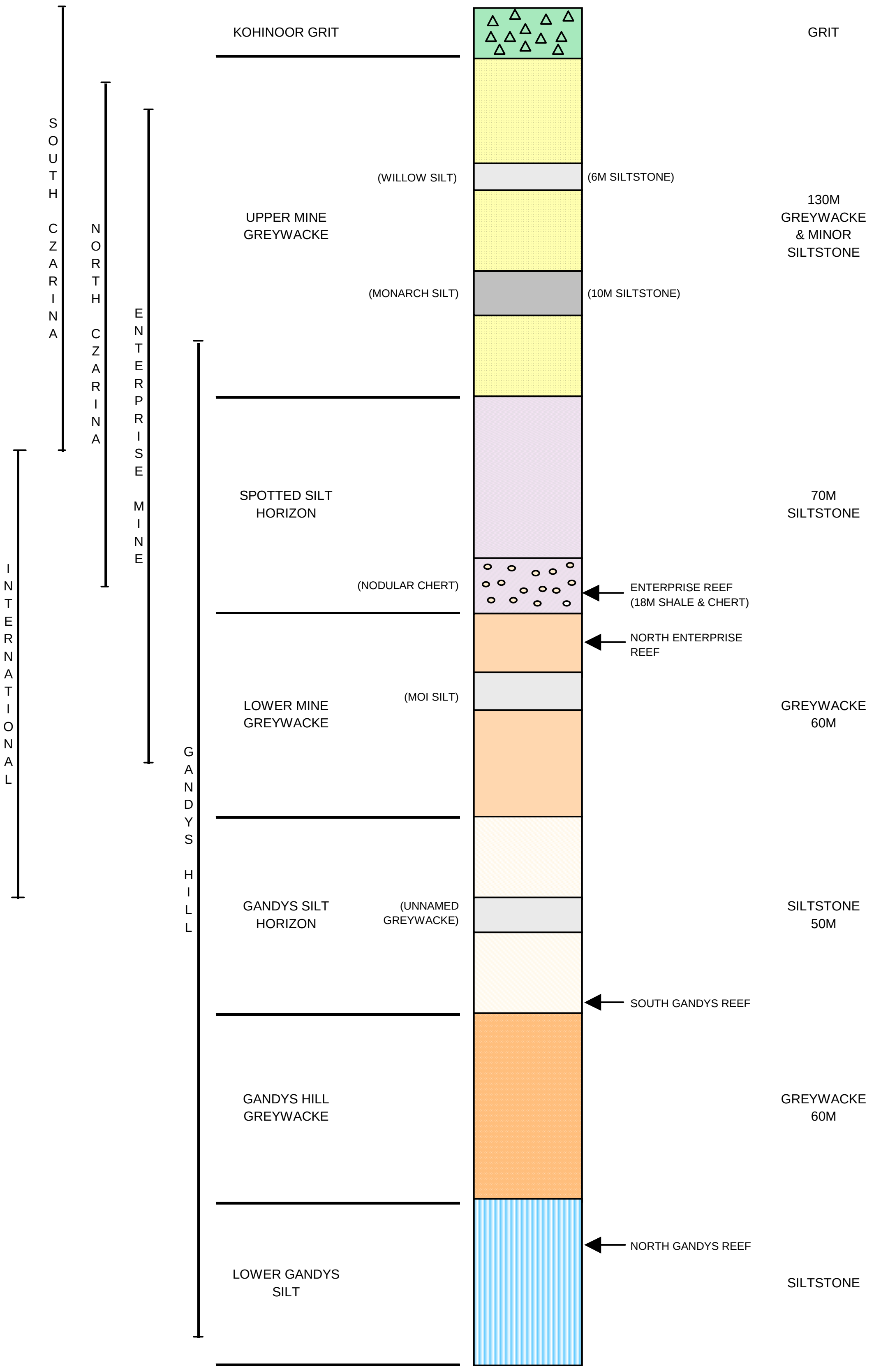


Figure 4.2.1: Pine Creek Mine Geology

Figure 4.2.2: Pine Creek Stratigraphic Column



5. RESOURCE DATABASE/ SAMPLING AND ASSAY PROCEDURES

5.1 DRILLING TECHNIQUES AND QUANTITIES

Historically, drilling activities in the vicinity of Pine Creek dates as far back as 1906, when government sponsored diamond holes were first collared. Modern exploration and mine definition drilling commenced in 1980. From 1980 to 1984 the main explorer for MLN 13 was RGC. In 1984 RGC and Enterprise Gold Mines NL established PCG to develop and manage the mining operations based on the Enterprise pit. Cyprus/Arimco was the main explorers of MLN 1130 (Gandys, International) until the lease was final acquired by PCG in 1992. Between 1994 and 2004 no drilling was carried out. In 2004 Burnside Operations Pty Ltd re-commenced exploration activities on MLN 13 with RC drilling carried out at Czarina and South Enterprise.

A number of different drilling techniques have been employed to sample this deposit by numerous companies. These include:

- Diamond Drilling (DDH), 391 holes totaling 37,875 metres
- Reverse circulation Drilling (RC): 1,364 holes totaling 79,694 metres.
- Open Hole Percussion (RAB): 657 holes totaling 23,947 metres.

Period	Drilling Type	Number of Holes	Meters Drilled	Hole Prefix
Pre-1994	RC	138	7,015	GRC
Pre-1994	RC	110	6,497	IRC
Pre-1994	RC	8	458	MRC
Pre-1994	RC	49	3,372	PCPH[1]
Pre-1994	RC	1,027	59,674	PCRC
Pre-1994	RC	11	332	THRC
Pre-1994	DDH	31	2,879	GDD
Pre-1994	DDH	28	2,126	IDD
Pre-1994	DDH	332	32,870	PCDH
Pre-1994	RAB	66	2,727	B
Pre-1994	RAB	32	1,284	C
Pre-1994	RAB	116	5,311	CX
Pre-1994	RAB	29	928	E
Pre-1994	RAB	414	13,697	PCPH
2004	RC	16	1,694	CZRC
2004	RC	5	652	SERC

Table 5.1.1: Summary of Drilling Data - Pine Creek Project

Notes:-[1] PCPH 831 to 834, 896 to 932, 985 to 992 were drilled by RC drilling methods.

For the Czarina Resource study a subset of information was extracted from the total available drilling database. The area lay between 11225N to11975N and 11212E to 11435E. A total of 169 drillholes were used and are summarized in Table 5.1.2.

Period	Drilling Type	Number of Holes	Meters Drilled	Hole Prefix
Pre-1994	DDH	46	3,932	PCDH
Pre-1994	RC	107	10,070	IRC
2004	RC	16	1,694	CZRC

Table 5.1.2: Summary of Drilling Data Subset – Czarina Resource Study

5.2 LOGGING, RECOVERY AND DATA MANAGEMENT

Geologists logged each hole at one meter intervals paying particular attention to degrees of weathering, lithological and structural contacts, zones of alteration, mineralization and geotechnical information. Representative samples were taken for each meter and placed in sample storage chip trays for future reference. The chip trays are stored on site in the PCG core shed.

During the 2004 drilling program all geological information derived from drilling were entered into spreadsheets (paper and computer form) and later converted into digital format. Prior to 2004 all geological and geotechnical data was entered onto drill logging sheets. This information was later re-entered and converted into digital format.

For the 2004 drilling program the logging codes were based of the PCG logging nomenclature.

For the 2004 drilling gold assays were received digitally, and results merged into the database manually.

5.3 LOCATION AND SURVEY CONTROL

5.3.1 Locations

The original PCG mine survey control was resurrected from limited information available; with checks carried of known points (local mine grid) to ensure best possible accuracy. Additional survey data is being sourced to confirm the present control. Further work is required to improve on the accuracy of the present control being used.

For the 2004 drilling program all hole co-ordinates were set out by DGPS using local mine grid co-ordinates. Once drill holes had been completed, they were re-surveyed to record accurate collar positions. Survey techniques prior to 2004 are unknown.

5.3.2 Down-Hole Survey

For the 2004 drilling program down hole surveys were routinely conducted on all drill holes using a electronic down-hole survey camera with a digital readout. The first survey was taken at 30m down the hole and then at 30m intervals, the last survey was taken 6m from the end of hole. All surveys were taken in open holes. Where there was a chance of the drillholes collapsing surveys were carried out in the rod string, with the first survey taken in the open hole prior to the collapse.

Pre-2004 from the information available the majority of drill holes have no down-hole surveys recorded. It appears that only the deeper diamond drill holes and less then 20% RC holes were surveyed, generally at 50 meter down-hole intervals. The down-hole survey technique is unknown.

5.4 SAMPLING

5.4.1 RC (Reverse Circulation) Sampling – 2004

The RC (Reverse Circulation) drilling system used was down-the-hole hammer with face sampling capabilities. RC sampling was carried out by the collection of drill cuttings at one meter intervals, via three tier riffle splitter attached to a cyclone fixed to the drill rig. The 12.5% split provided a 4 – 6kg sample size collected into a pre-labeled calico sample bag which was submitted for assay. Standards were inserted into the sample stream at the ratio of 1:20. The sample reject from the riffle splitter was collected in a large plastic sample bag and placed in numerical order near the vicinity of the drill hole. With boosted air system all samples were kept dry once the hole was collared below the waste backfill in the Czarina pit. The sample quality and recovery was good.

5.4.2 RC and Diamond Core Sampling – Pre 1994

The following information was sourced from various reports written by the PCG geologist. The information has been generalized to what appears to be the standards applied through out the mining operation.

RC and percussion (RAB) drillholes were sample at 2 meter intervals. The drill cuttings were riffle split to produce a final sample of 2 to 3kgs and submitted for 50 gram Fire Assay (FA). Standards were inserted into the sample stream (at the rig site) at the rate of 1 in 50 samples. Duplicate samples were also collect on occasion at the rate of one per hole at the rig site. The duplicate was the other half of the original sample collected in the splitting process.

In interrogating the database RC drillholes with a prefix of GRC, IRC, MRC and some PCRC holes numbered in the 1200 and 1300 series were sampled at 1 meter intervals. There are no records showing whether the RC drilling used cross-over subs or face sampling techniques.

Diamond drill core was split and submitted for 50 gram FA. The sample intervals for the core were 1.5 meter lengths for holes with a PCDH prefix and 1 meter intervals for diamond drillholes with a prefix of GDD and IDD.

Some 2.5 meter sample lengths were recorded with the PCDH prefix. Were ore grade intervals were expected three sub-samples were produced at the first splitting stage to produce triplicate assays. The value for the sample interval was taken as the means of the three assays.

5.5 ANALYSIS

5.5.1 Analysis – 2004

All samples were submitted to North Australia Laboratory (NAL), Pine Creek, NT for sample preparation and gold analysis.

Prior to analysis each entire sample was roll crushed to -3 millimeter and then dried. The dried sample was roll mixed and a 50% sub-split was then Keegor milled to p80/-100 microns. Each of the Keegor Mill pulp samples was split to a 200-250 gram as an assay pulp.

A 50 gram assay sample of each pulp was analyzed for gold by fire assay with an AAS finish.

The analytical method employed was FA50, using fire assay digest with AAS finish (Table 5.5.1.1).

Analysis	Analytical Method	Digest	Technique	Precision & Accuracy	Detection Limit	Data Units
Au	FA50	FA	AAS	± 15%	0.01	ppm
Au(R)	FA50	FA	AAS	± 15%	0.01	ppm
Au(R)	FA50	FA	AAS	± 15%	0.01	ppm

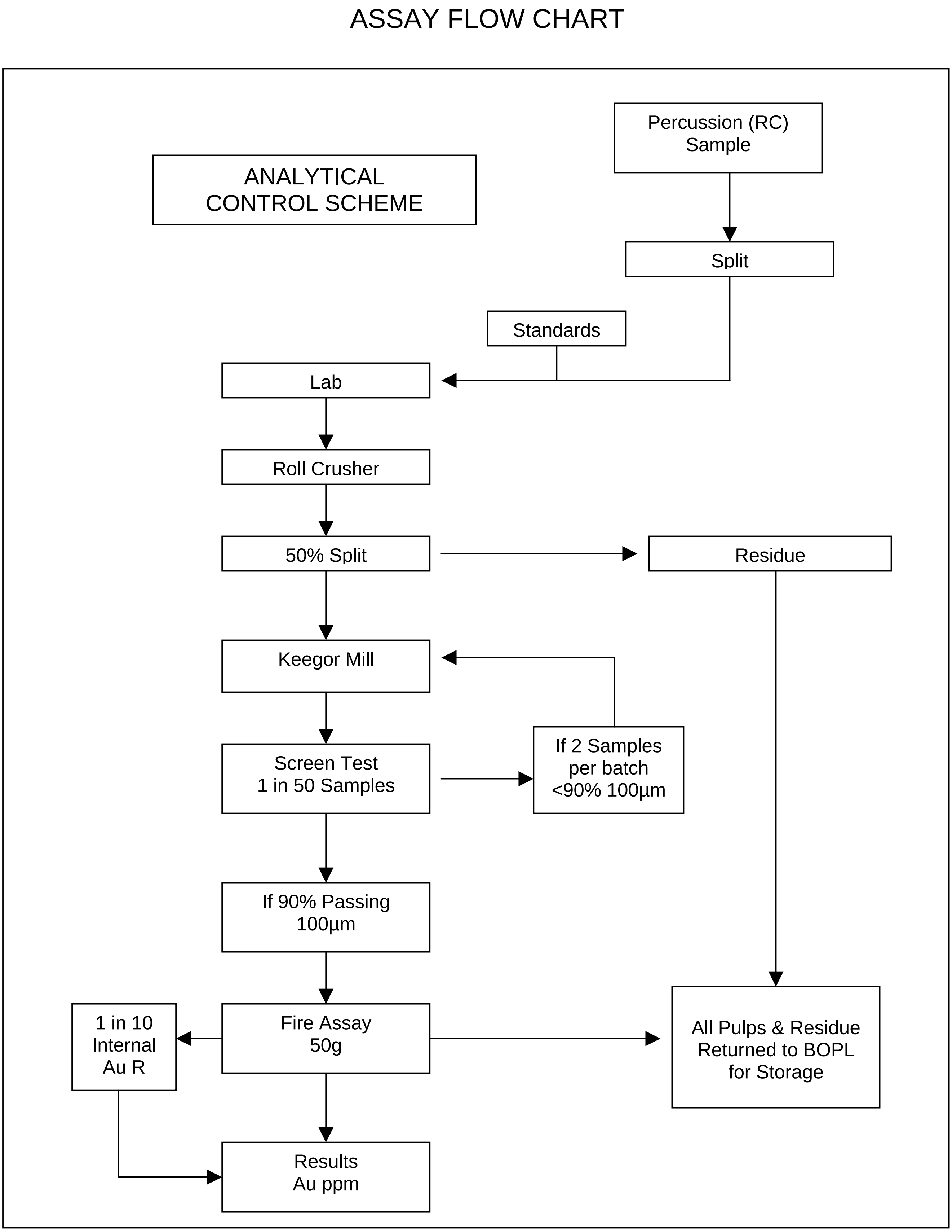
Table 5.5.1.1: NAL Analytical Method and Detection Limits; 2004 RC Drilling

Check assays of the original pulps were submitted to Amdel as part of the Quality Control program. Table 5.5.1.2 shows the analytical method, techniques and detection limits employed by Amdel.

Analysis	Analytical Method	Digest	Technique	Precision & Accuracy	Detection Limit	Data Units
Au1	FA1	FA	AAS	± 10%	0.01	ppm
Au2	FA1	FA	AAS	± 10%	0.01	ppm
Au3	FA1	FA	AAS	± 10%	0.01	ppm

Table 5.5.1.2: Amdel Analytical Method and Detection Limits; 2004 RC Drilling Check Assays.

Figure 5.5.1.1: Assay Flow Chart



Analysis – Pre 1994

All samples were submitted for 50 gram FA. To check the assay quality standard pulps were included in the sampling stream. In addition 2 PCG standards were added by the laboratory per assay batch received. To check the assay precision a second 50 gram fire assay charge was taken from a rate of 1 in 10 samples.

Sieve test were also carried out on randomly selected samples from each assay batch, after the samples were reduced to 106µm. The samples were sent to a second laboratory for check assaying and were sieve tested for the portion not passing 180µm. Plots of Au versus % not passing 106µm and 180µm show very little correlation between Au and sieve results suggesting sample preparation had little effect on assay values.

5.6 SPECIFIC GRAVITY DETERMINATION

Density values were applied globally by weathering zone. Values used for oxide and fresh were based on PCG values as applied to Czarina pit. The density value for the waste backfill is an estimate.

Waste Backfill	=	1.9 t/m^3
Oxide Material	=	2.4 t/m^3
Fresh Material	=	2.7 t/m^3

6. EXPLORATION RESULTS

Since the October 2004 Mineral Resource Statement / estimate, drilling was carried out on infilling the known resources at Czarina and South Enterprise. This is the first program of drilling carried out at the Pine Creek Operation since cessation of mining by PCG in 1994. The exploration results of the drilling program are included in the accompanying CD.

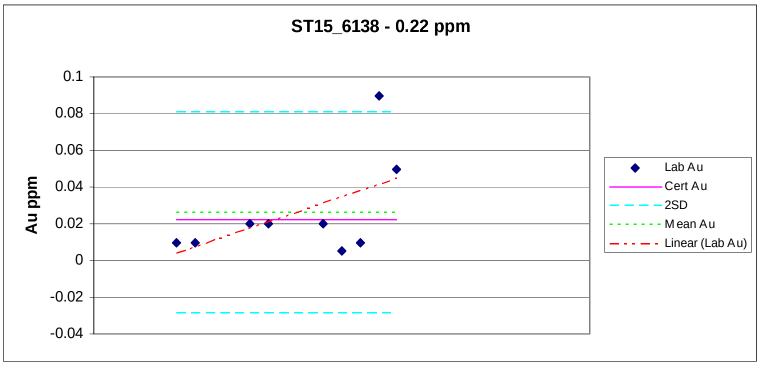
7. QA – QC

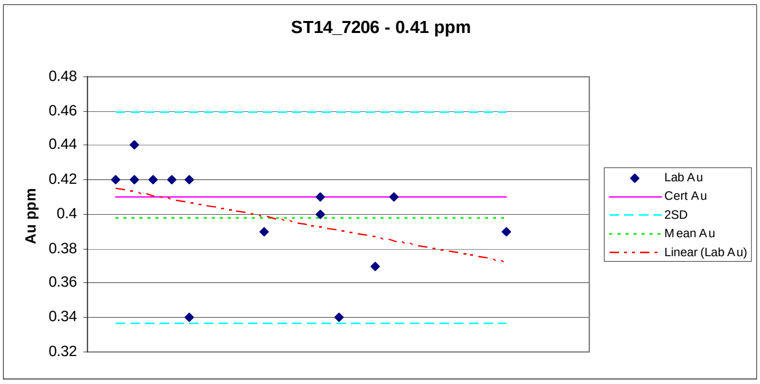
7.1.1 Standards

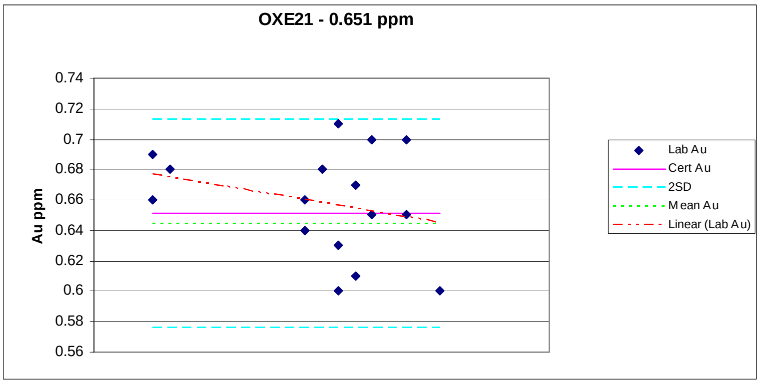
A total of 158 standards were submitted over the 2004 drilling program carried out at Pine Creek which included drilling at Czarina, South Enterprise and the waste dumps. Statistical summary and plots are shown in Table 7 and Figure 7.

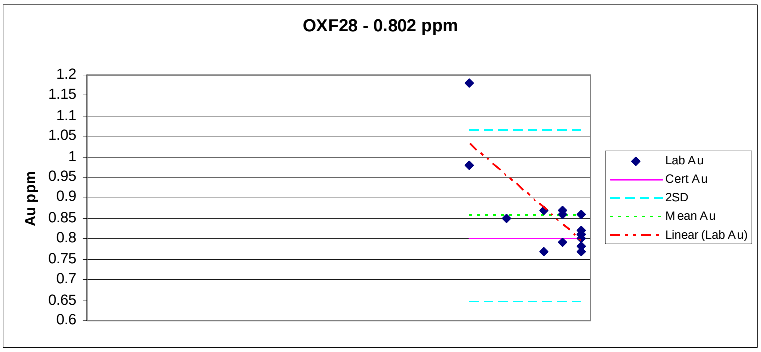
Certified Standard			No. of Samples	Calculated Values			
Standard Code	Value	SD		Mean Au	SD	cv	Mean sPD
ST15/6138	0.022	0.02	9	0.026	0.027	0.0030	-18.69
ST14/7206	0.41	0.04	14	0.398	0.030	0.0764	2.61
OXE21	0.651	0.026	17	0.644	0.034	0.0520	-1.02
OXF28	0.802	0.027	15	0.855	0.105	0.1229	-6.57
OXH19	1.344	0.053	37	1.372	0.058	0.0423	-2.22
ST147	2.66	0.14	18	2.623	0.091	0.0345	1.40
ST10/0301	3.4	0.15	23	3.461	0.108	0.0314	-1.79
ST18/8239	9.7	0.52	25	9.618	0.487	0.0506	0.85

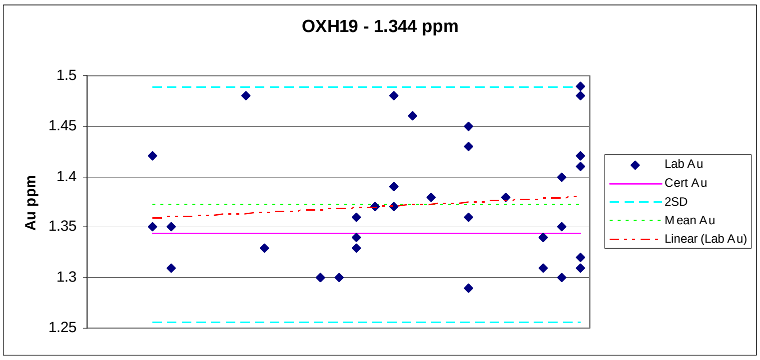
Table 7: Burnside Operation Pty Ltd Standards Submitted with Original Assays

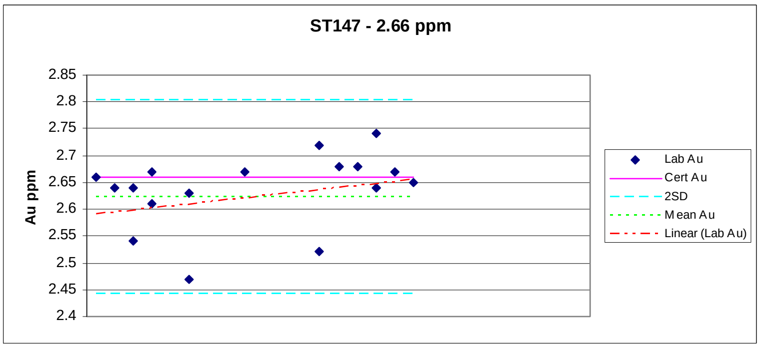


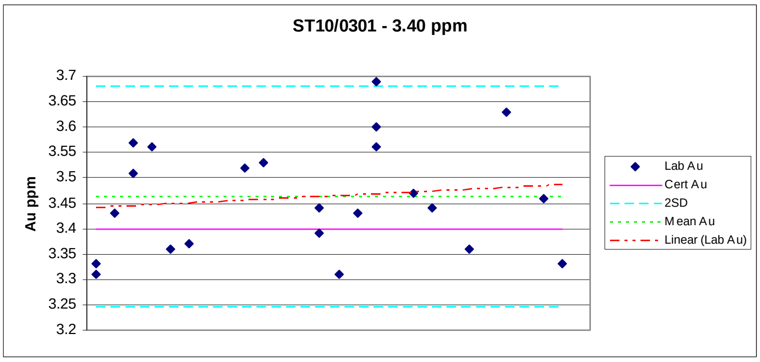





OXF28 - 0.802 ppm
Au ppm
1.2
1.15
1.1
1.05
1
0.95
0.9
0.85
0.8
0.75
0.7
0.65
0.6
Lab Au
Cert Au
2SD
Mean Au
Linear (Lab Au)


OXH19 - 1.344 ppm
Au ppm
1.5
1.45
1.4
1.35
1.3
1.25
Lab Au
Cert Au
2SD
Mean Au
Linear (Lab Au)


ST147 - 2.66 ppm
Au ppm
2.85
2.8
2.75
2.7
2.65
2.6
2.55
2.5
2.45
2.4
Lab Au
Cert Au
2SD
Mean Au
Linear (Lab Au)


ST10/0301 - 3.40 ppm
Au ppm
3.7
3.65
3.6
3.55
3.5
3.45
3.4
3.35
3.3
3.25
3.2
Lab Au
Cert Au
2SD
Mean Au
Linear (Lab Au)

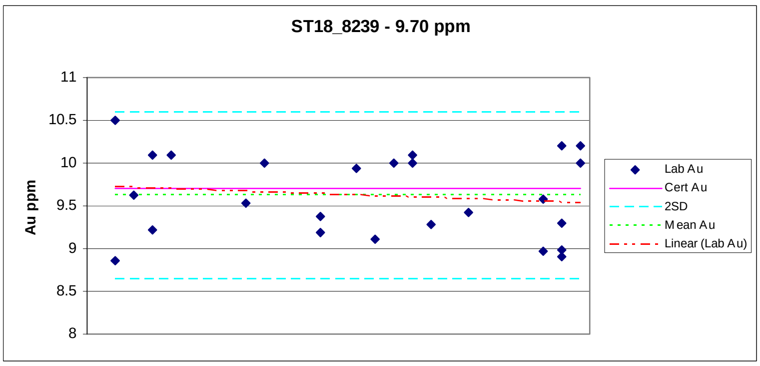

ST18_8239 - 9.70 ppm
Au ppm
11
10.5
10
9.5
9
8.5
8
Lab Au
Cert Au
2SD
Mean Au
Linear (Lab Au)

Figure 7: Certified Standard Plots; ST15/6138, ST14/7206, OXE21, OXF28, OXH19, ST147, ST10/0301 and ST18/8239

Results of Table 7 and Figure 7 shows good agreement between the certified value and the values returned by the laboratory. Most values fall within ±2 SD.

7.1.2 Comparative Assays – NAL Original v NAL Repeat

A total of 2347 samples were submitted for gold assay at North Australian Laboratories Pty Ltd (NAL) AT Pine Creek NT. 848 repeats of the original assay were carried out. Statistical summary and plots are shown in Table 7.1.2.1 and Figures 7.1.2.1, 7.1.2.2. Assay repeatability is acceptable

Range	No. of	Mean		SD		CV		Mean
Au g/t	Samples	Au	AuR	Au	AuR	Au	AuR	sRPHD
0 - 0.15	159	0.04	0.04	0.042	0.052	1.12	1.19	0.00
0.15 - 0.5	149	0.33	0.33	0.106	0.126	0.32	0.38	-1.01
0.5 - 1.0	200	0.71	0.71	0.141	0.163	0.20	0.23	0.71
1.0 - 1.5	117	1.23	1.23	0.140	0.186	0.11	0.15	0.44
1.5 - 5.0	188	2.46	2.44	0.896	0.911	0.36	0.37	0.31
5.0 - 10	22	6.39	6.27	1.209	1.230	0.19	0.20	1.54
gteq 10	13	14.42	14.20	3.878	3.590	0.27	0.25	0.00
TOTAL	848	1.34	1.33	2.144	2.108	1.61	1.59	0.00
>0.15	689	1.64	1.62	2.276	2.237	1.39	1.38	0.32

Table 7.1.2.1: Statistical Summary: NAL Original (Au) v Repeat (AuR)

Figure 7.1.2.1 shows a series of scatter plots for the data included in statistical summary table (Table 7.1.2.1). These scatter plots cover the following grade ranges: all grades above 0.15 g/t, 0.15 to 0.5 g/t, 0.5 to 5.0 g/t, all grades above 5.0 g/t. The scatter plots indicate a uniform distribution about the 1:1 line.

The spread of data shows good grouping around the 1:1 line indicating good comparison between the original assay and the repeat assay, although in the 0.15 – 0.5 g/t range there is a slightly greater spread.

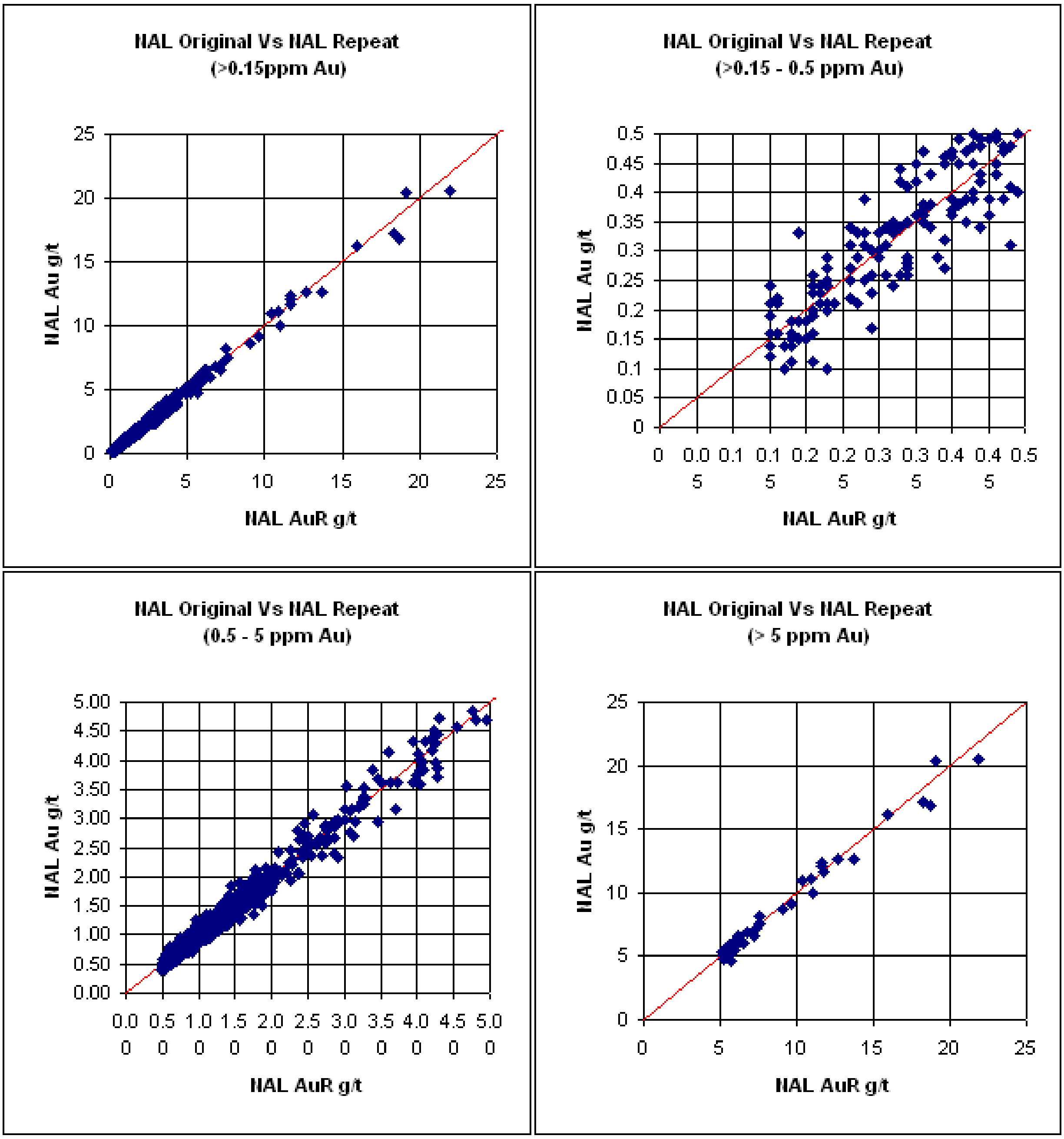


Figure 7.1.2.1: Scatter plots - NAL Original v NAL Repeat

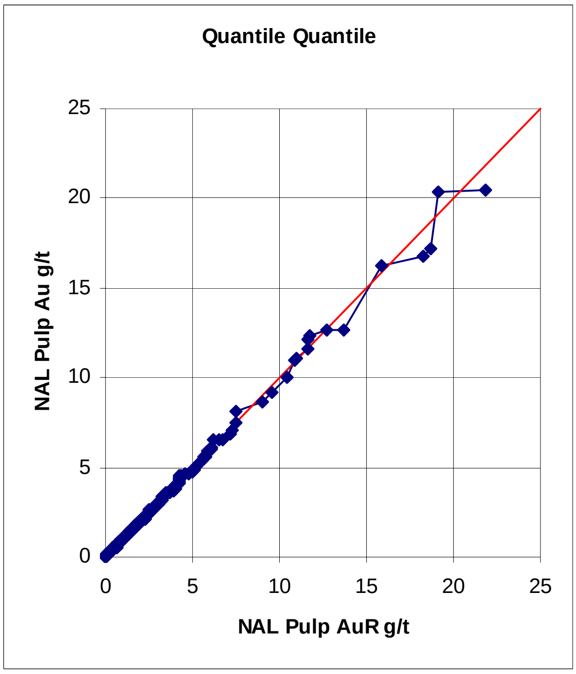


Figure 7.1.2.2 Quantile - Quantile Plot – NAL Original v NAL Repeat

The quantile – quantile plot, Figure 7.1.2.2 indicates acceptable data; the biased data in the range from +3.3 – 7.5g/t is barely discernible. The biased data in the +7.5 g/t range can be clearly seen.

7.1.3 Check Assays – NAL Original v Amdel

A total of 75 check assays of the original pulps were submitted to Amdel for gold assay as part of the Quality Control program. The gold grade range of the original assay varied from below detection to 13.7 g/t Au. The selection of check samples taken were representative of all the batches submitted. Three client submitted standards were also included. The Amdel assay value for the standards were within acceptable limits.

Statistical summary and plots are shown in Table 7.1.3.1 and Figures 7.1.3.1, 7.1.3.2. The check assays carried out by Amdel show a good comparison with the original assay results by NAL.

Range Au g/t	No. of Samples	Mean		SD		CV		Mean
		NAL	Amdel	NAL	Amdel	NAL	Amdel	sRPHD
0 - 0.15	5	0.08	0.13	0.05	0.07	0.65	0.55	-5.26
0.15 - 0.5	11	0.28	0.30	0.11	0.13	0.38	0.43	0.00
0.5 - 1.0	14	0.73	0.70	0.14	0.14	0.19	0.20	0.69
1.0 - 1.5	6	1.24	1.25	0.14	0.13	0.11	0.10	-2.24
1.5 - 5.0	27	2.92	3.00	0.98	1.09	0.33	0.37	-0.35
5.0 - 10	9	6.26	6.34	1.25	1.13	0.20	0.18	-1.53
gteq 10	3	12.47	12.33	1.37	1.59	0.11	0.13	1.11
TOTAL	75	2.58	2.62	2.87	2.87	1.11	1.10	0.00
>0.15	70	2.76	2.79	2.89	2.90	1.04	1.04	0.00

Table 7.1.3.1: Statistical Summary: NAL Original Au v Amdel Check Au

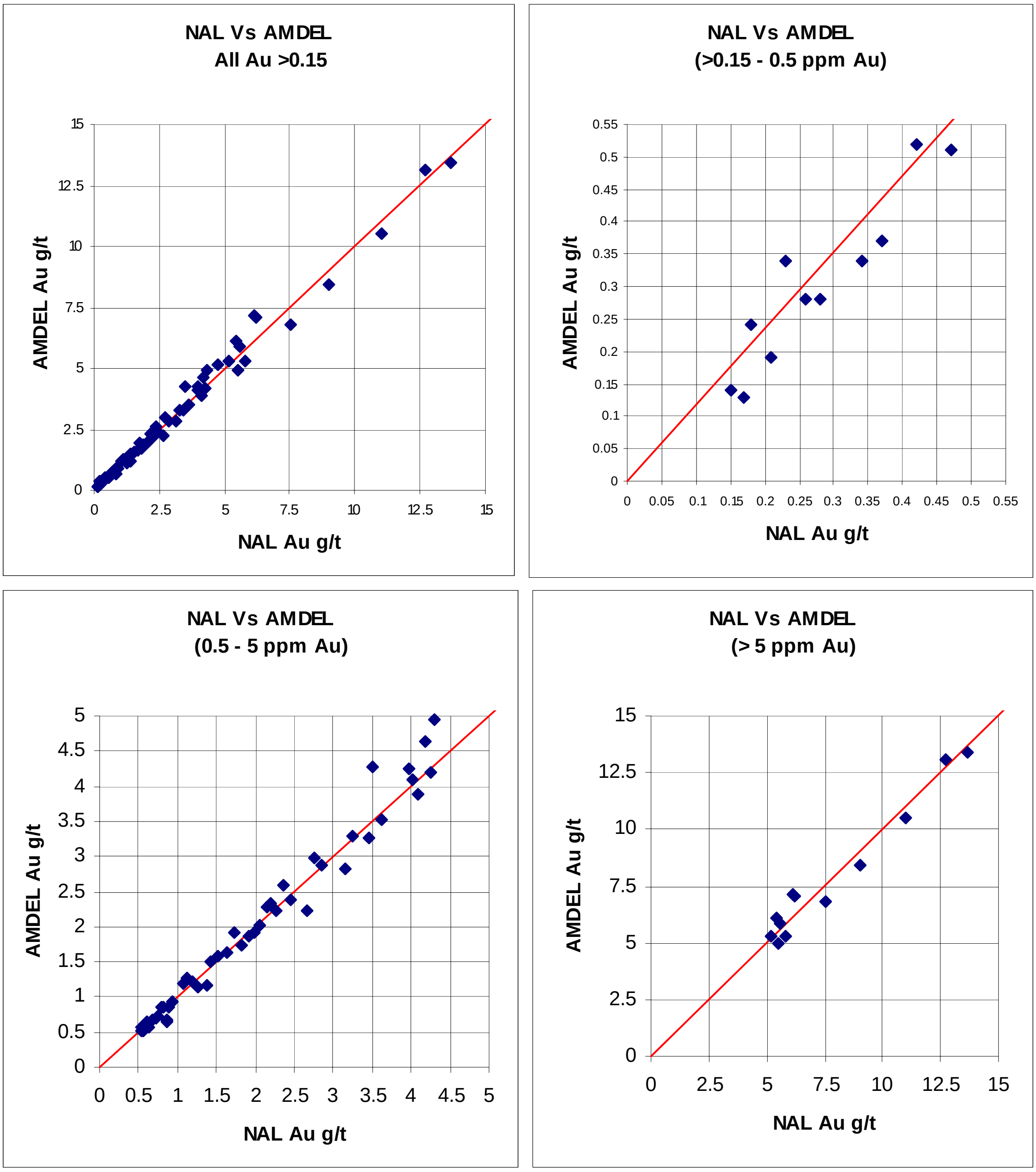
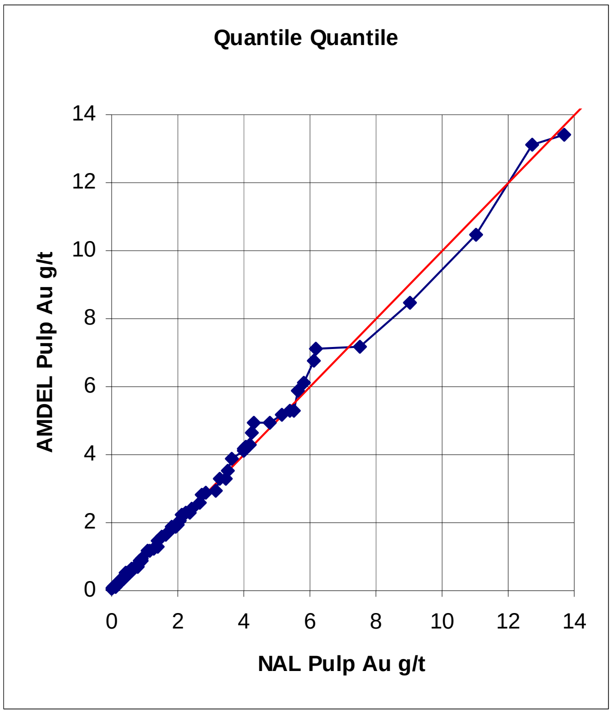


Figure 7.1.3.1: Scatter plots - NAL Original Au v Amdel Check Au.

Figure 7.1.3.1 shows a series of scatter plots for the data included in check assay statistical summary table (Table 7.1.3.1). These scatter plots cover the following grade ranges: all grades above 0.15 g/t, 0.15 to 0.5 g/t, 0.5 to 5.0 g/t, all grades above 5.0 g/t. The scatter plots indicate a uniform distribution about the 1:1 line.

Overall the spread of data shows good grouping around the 1:1 line indicating good comparison between the NAL original assay and the Amdel check assay. The graph showing the 0.15 – 0.5 ppm Au grade range indicates a slight bias towards Amdel.

Figure 7.1.3.2: Quantile - Quantile Plot – NAL Original Au v Amdel Check Au



The Quantile – Quantile plot Figure 7.1.3.2 show acceptable results although the biased data in the +3.5 g/t range is noticeable.

8. RESOURCE ESTIMATION METHODOLOGY

8.1 DATA UTILISED AND RESOURCE WIREFRAMES

A subset of 169 drillholes; 46 diamond core and 123 RC were used to compile the Czarina Resource estimate. 153 holes were drilled pre-1994, 16 RC holes were drilled during the November 2004 drill program.

The geological interpretation and wire-framing of the ore lenses was completed using MineMap software. Work was carried out by Burnside Operation Pty Ltd personnel. The ore lenses were interpreted in cross-sections with all strings snapped to drillholes using assay grade.

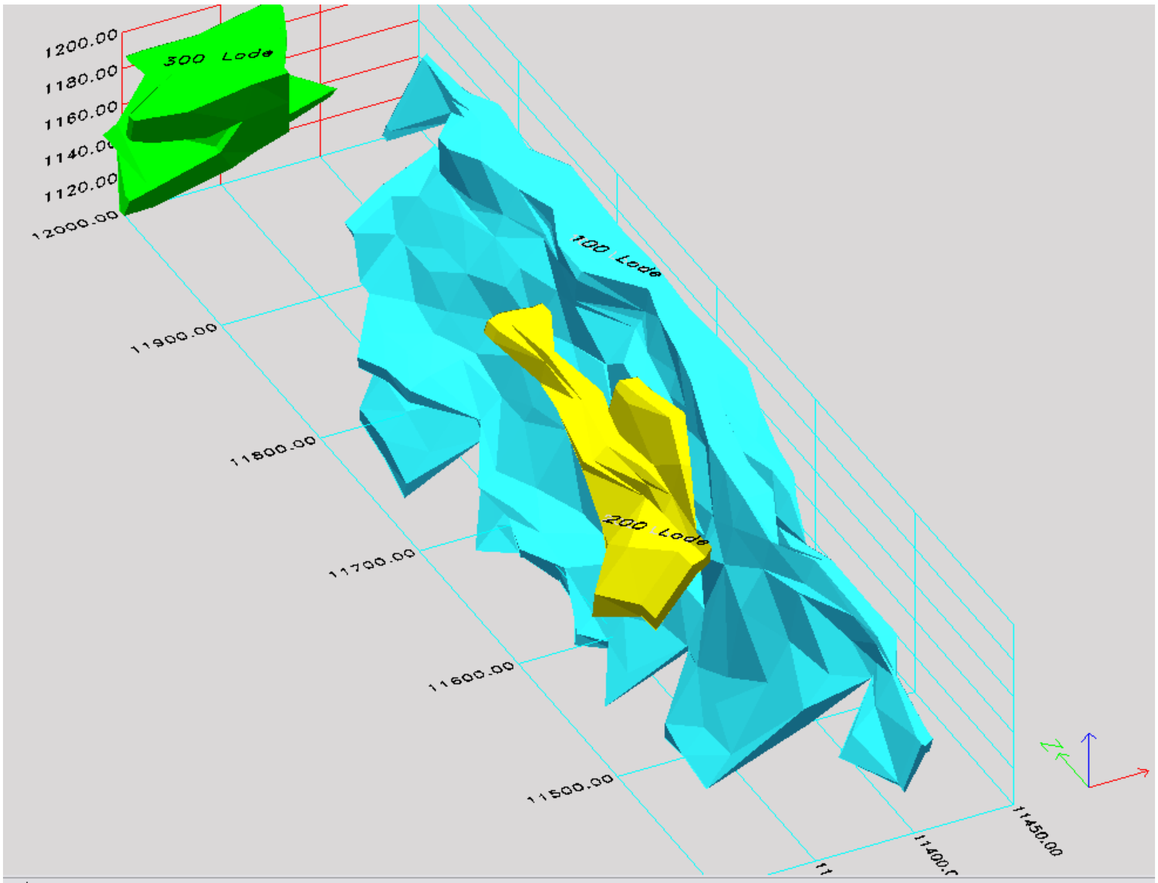
In general the interpreted mineralized envelope used a lower cut-off grade of 0.5 g/t Au. Wire-frames of the individual lodes; 100, 200 and 300 Lode were generated from the cross-sectional interpretations (Figure 8.1.1).

100 Lode is the main resource lode. It shows good continuity along strike and down dip. The approximate dimensions of the lode are 585m along strike (long) by 150m vertical depth from surface. The average true width is over 20m (varying from 5 to over 40m). It is developed along the west dipping limb of the Czarina Anticline hosted within mainly silicified siltstones.

The 200 Lode is a secondary lower grade irregular shaped lode developed with the greywacke lithological unit west of the 100 lode. Distance above the hangingwall contact with the 100 Lode varies from 5 to 20m. The approximate dimensions of the 200 Lode are 175m along strike by 80m vertical depth from surface with an average true width of 9m.

The 300 Lode is an isolated outcropping pod at the northern end of the Czarina model frame. It is interpreted as a flat lying poorly drilled mineralized pod at a greywacke siltstone interface. The approximate dimensions of the 300 Lode are 70m along strike, 50m vertical depth by 60m width.

Figure 8.1.1; A 3D view of the three Czarina wire-framed lodes. The 100 lode is the cyan wire-frame, the 200 Lode is yellow and the 300 lode is green. The view is looking down from the SW.



The wire-frames of the 3 lodes were validated and exported as dxf files to allow the files to be imported for work in other software. Survey string and wire-framed surface files of the original surface, the mined surface, final backfilled surface and the base of oxide surface were available in generating the Czarina resource model.

8.2 STATISTICS AND VARIOGRAPHY

8.2.1 Descriptive Statistics

Sample intervals within the exploration database were examined to determine the dominant sample length. Nearly all sample intervals were 1m in length, thus the data was composited to 1m intervals, honoring drillhole wireframe intersections.

Statistics were run within the resource drillhole database for all constrained composite data by envelope, and are presented in Table 8.2.1. No other mineralisation indicators were used, as data was extracted from within wireframes.

Parameter	100	200	300
Number	3678	238	229
Minimum	0.005	0.005	0.09
Maximum	47.57	11.6	16.4
Mean	1.74	1.081	1.433
Median	1	0.76	0.755
Std Dev	2.726	1.218	2.268
Variance	7.432	1.484	5.145
Std Error	0.001	0.005	0.01
Coeff Var	1.567	1.127	1.583
97.5%ile	8.277	4.64	7.863
Topcut	20	7	8
No cut	18	1	6
Cut Mean	1.71	1.06	1.31
Cut CV	1.42	1.02	1.27

Table 8.2.1 Uncut & cut composite statistics within lodes (g/t Au)

Statistical histograms and lognormal probability plots of all lodes are located in Figures 8.2.1 to 8.2.3.

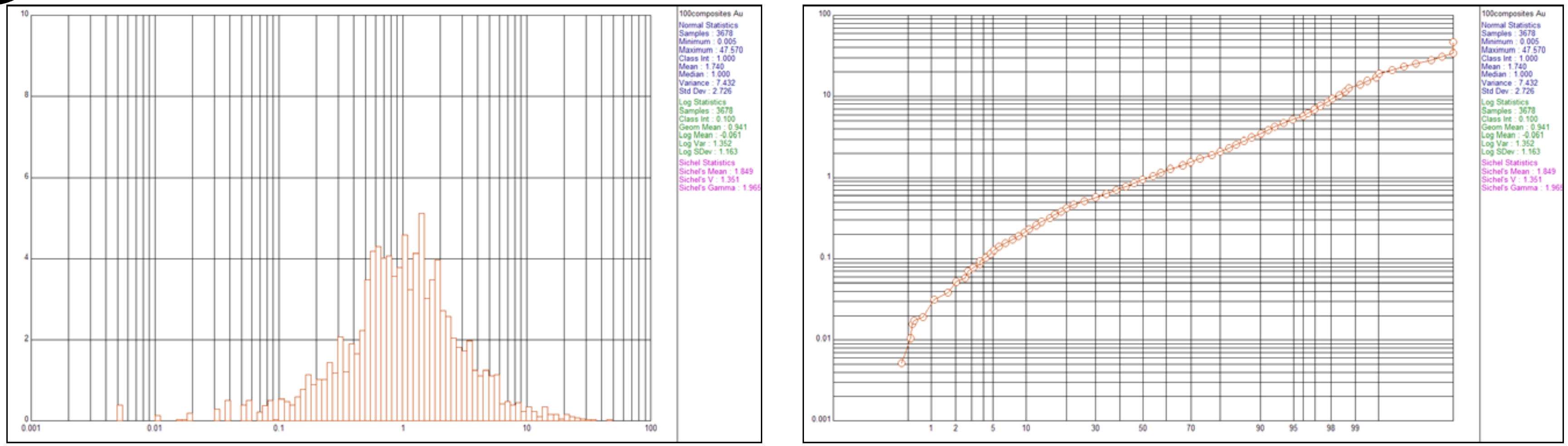


Figure 8.2.1 Lognormal histograms and lognormal probability plots – 100 Lode

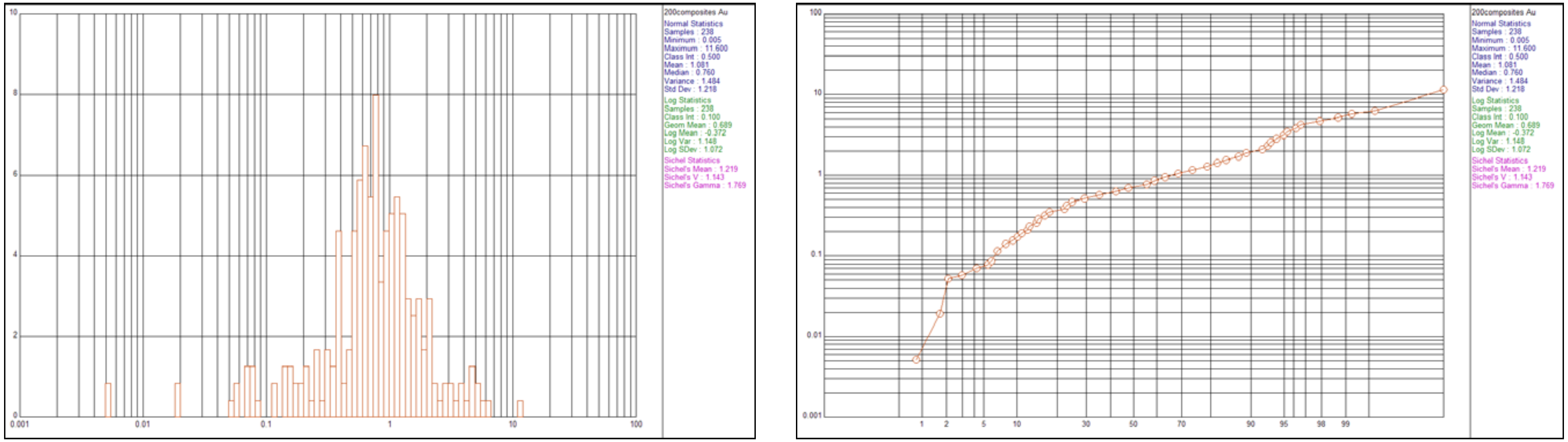
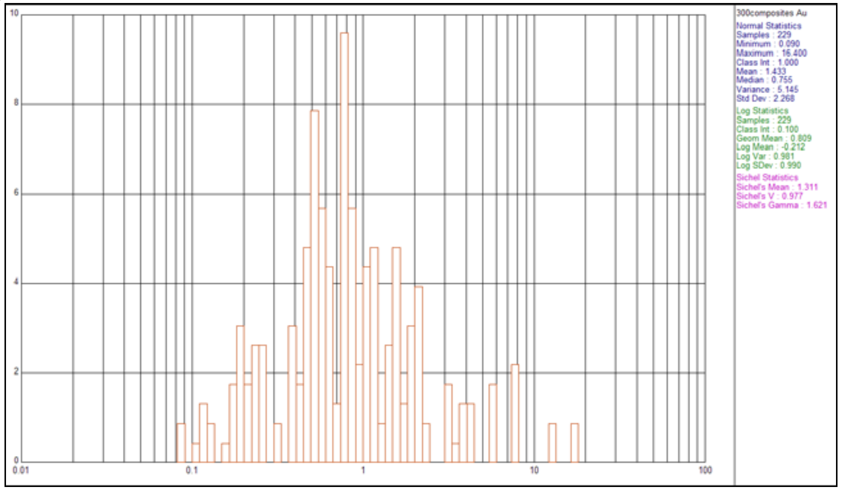


Figure 8.2.2 Lognormal histograms and lognormal probability plots – 200 Lode



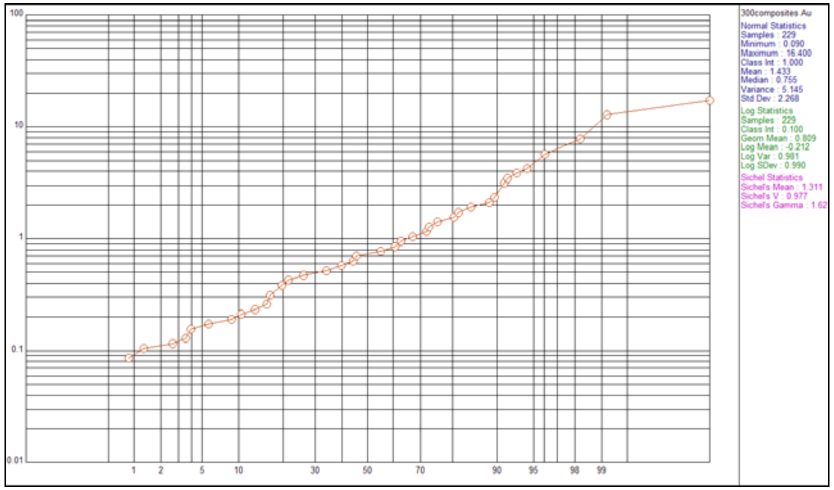


Figure 8.2.3 Lognormal histograms and lognormal probability plots – 300 Lode

Location statistics of exploration composites reveal the 100 lode to have the highest gold grades within the Czarina deposit, with a cut average of 1.71g/t Au respectively. Other lodes are comparatively low in Au grade, with average cut grades between 1.06 g/t Au to 1.31 g/t Au. All lodes suggest a lognormal distribution of Au grades within each lode.

8.2.2 Top-Cuts

Composite data within the exploration database was assessed for the need of a top-cut to be applied to data prior to grade estimation. Since Au composites exhibit several high-grade extreme values, with the mean grade low relative to the spread of data, and with an elevated coefficient of variation, top-cutting of Au composites is necessary to reduce the impact of extreme values on estimation of Au grades. The determination of a high-grade cut is made on the basis of histograms, probability plots and ranked data values.

Using the above criteria, a top-cut of 20 g/t Au was applied to the 100 lode, 7 g/t Au to the 200 lode, and 8g/t Au to the 300 lode, reflecting the relative grade distributions present in each lode. Table 8.2.1 summarises the top-cuts employed for cutting composites at Czarina, and resultant cut mean grades for each lode.

8.2.3 Variography

Variography analysis using lognormal variograms was performed on composite data from the 100 lode for the resource model. The 100 lode was split into two domains bounded by 11700N on the basis of lode geometry.

Fan interpretation of variograms for the northern domain in the horizontal plane show a 350° strike, with across-strike plane interpretations showing a moderate dip of -60° towards 260°, and an interpreted plunge of -49º/309º.
The southern domain revealed a strike of 020º strike, dipping -60º towards 290º with an interpreted plunge of -49º towards 339º.

Variograms with two spherical structures were modelled, with results in Table 8.2.3. Nugget effects are moderate, with 25% to 28% of the total variability. The down-dip direction demonstrates the largest range of spatial continuity, with a maximum spatial range of 70m for both domains. The plunge orientation has a slightly smaller range of spatial continuity, with 64m in the north, and 53m in the south. Lode widths are interpreted at 5.5m to 6m for both domains.

AU	Sill	Major	Semi-major	Minor
Nugget	0.28			
Sill 1/range	0.39	54	59	4
Sill 2/range	0.33	64	70	5.5
Nugget	0.25			
Sill 1/range	0.51	6	49	3
Sill 2/range	0.24	53	70	6

Table 8.2.3 Model variogram parameters for Czarina deposit

8.3 GRADE INTERPOLATION

8.3.1 Block sizes

Block size dimensions were considered for the Czarina deposit, taking into account drilling density and distribution of composite data within wireframes. A block size of 10m x 5m x 5m (along-strike x across-strike x RL) was used as being the optimum block size, given the average drill spacing of 20m throughout the deposit. These block sizes were considered optimum block sizes to fit the local drilling densities and reflect the likely mining selectivity achievable from the current data levels, whilst minimising kriging error.

Block model origin and extents are defined below in Table 8.3.1.

Model Limits	Extent of Model	No of Blocks	Block Size
11270N – 12030N	760m	76	10m
11200E – 11500E	300m	60	5m
1060mRL – 1230mRL	170m	38	5m

Table 8.3.1 Czarina Resource Model Extents

Blocks were subdivided into sub-blocks of 5m x 1m x 2.5m (north x east x RL) in order to fill areas adjacent to wireframe boundaries. The solid wireframes were used to limit the blocks available for grade interpolation, with block centroid locations used to define the blocks and sub-blocks for interpolation.

8.3.2 Modelling Parameters

Ordinary kriging, using parameters derived from the lognormal variograms was chosen to interpolate grades into blocks for all lodes. The skewed nature of the data distribution makes this technique ideal, whereas other techniques such as inverse distance interpolation assume a normal distribution, which can lead to errors if the data is not cut appropriately.

Inverse distance techniques also do not utilise the information obtained from the variogram in interpolation of blocks, and thus the spatial correlation between samples is not taken into account.

A total of two kriging passes were performed, with the second interpolation pass utilising an expanded search ellipse in an attempt to fill any remaining unfilled blocks. Only those blocks unfilled were interpolated by this second pass, and grades estimated from the first interpolation pass were left unchanged.

Each lode was treated as a separate hard boundary, restricting the Au grade interpolation to drillhole data located within each lode. A minimum of 8 composites and a maximum of 30 composites were used to interpolate each block grade for all lodes. A discretisation array of 5 (north) by 5 (east) by 5 (RL) was used to refine the kriging weights for each model block.

Local variations in geometry, strike and dip are present within all lodes at Czarina, which are not always consistent with those broader orientations identified in variography analysis. Hence, it is necessary to fine-tune these geometry variations for each lode to enable the appropriate fit of search ellipses and collection of relevant composites for interpolation. The 100 and 200 lodes were split into two interpolation domains bounded by 11700N on the basis of lode geometry. Table 8.3.2 below lists the strike, dip and plunge orientations employed for each lode and interpolation domain.

DOMAIN	STRIKE	PLUNGE	DIP
100N	309	-49	41
100S	339	-49	41
200N	309	-49	41
200S	339	-49	41
300	309	-49	10

Table 8.3.2 Czarina Lode Orientations for Interpolation

A search ellipse is used to select the samples to estimate a particular block, with ellipse dimensions guided by maximum range parameters modelled in the variography. A search ellipse dimension of 50m x 50m x 10m was used for all lodes in the initial pass of interpolation. For the second interpolation pass, search ellipses for the 100 lode were expanded by half, with the 300 lode search ellipse doubled. A larger second pass search ellipse was required for the 300 lode, as this lode had variable geometry within the lode wireframe, and thus blocks were more difficult to fill. All blocks were filled after the second subsequent interpolation pass for all lodes.

8.3.3 Block model validation

The Czarina block model was validated by several methods, including visual validations on-screen, global statistical comparisons of input and block grades, and local grade/depth relationships. The model was validated visually by viewing vertical sections and plans of the block model, with spatial comparison of kriged block grades against input composite grades to ensure grade trends were represented correctly.

8.3.3.1 Global statistical validations

Input average composite grades were statistically compared with mean block grades for all lodes, with summary results tabulated in Table 8.3.3 below.

LODE	NO OF COMPS	TONNES	CUT COMPOSITE AVERAGE AU	MODEL AVERAGE AU	% DIFFERENCE
100	3,678	2,686,122	1.71	1.67	-2.1%
200	238	135,244	1.06	1.08	1.6%
300	229	371,909	1.31	1.21	-8.1%
TOTAL	**4,145**	**3,193,275**	**1.65**	**1.59**	**-3.5%**

Table 8.3.3 Statistical validation of Au interpolated grades – Czarina deposit

Reconciliations between average input composite grades and mean block grades are robust, with the average modelled grade falling within 3.5% of cut composite grades. Differences between average composite and model grades for the 300 lode are a function of only three drill sections comprising this lode, with each section comprising a unique geometry, thus making it difficult for the model to fit the data and reproduce localised grade trends evenly.

8.3.3.2 Grade/Depth & Grade/Northing validations

Figures 8.3.1 to 8.3.3 illustrate the grade/depth relationship for all lodes within the Czarina deposit. Both input composite data and model grade data were averaged within 5m RL increments for each lode group, and plotted together with the number of composites to assess the reliability of the block model. Figures 8.3.4 to 8.3.6 illustrates the grade/northing relationship for all lodes, with both input composite data and model grade data averaged within 25m easting increments and plotted together with the number of composites.

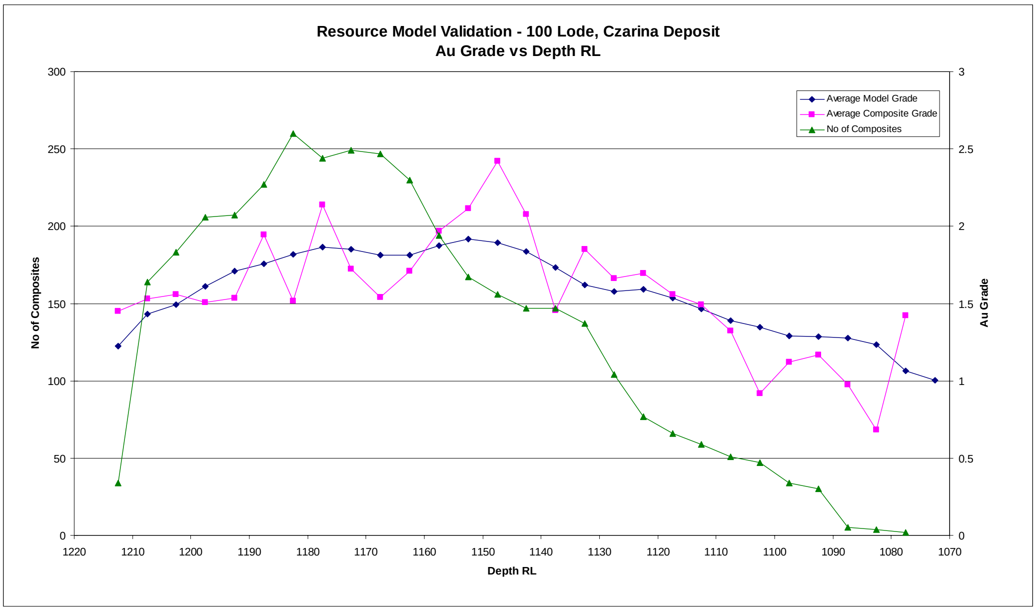


Figure 8.3.1 Au Grade vs Depth validation plot – 100 Lode, Czarina deposit

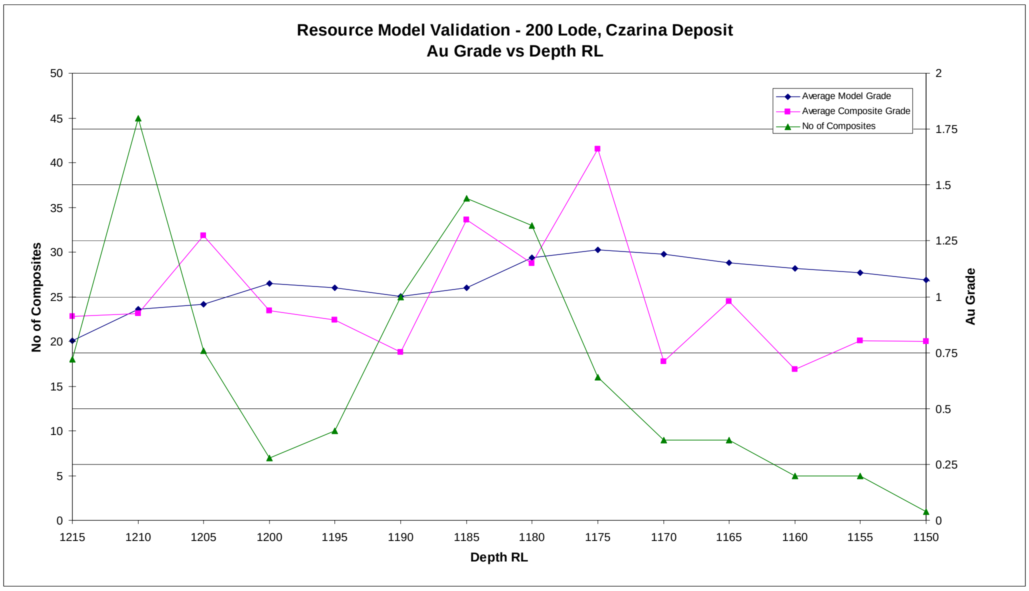


Figure 8.3.2 Au Grade vs Depth validation plot – 200 Lode, Czarina deposit

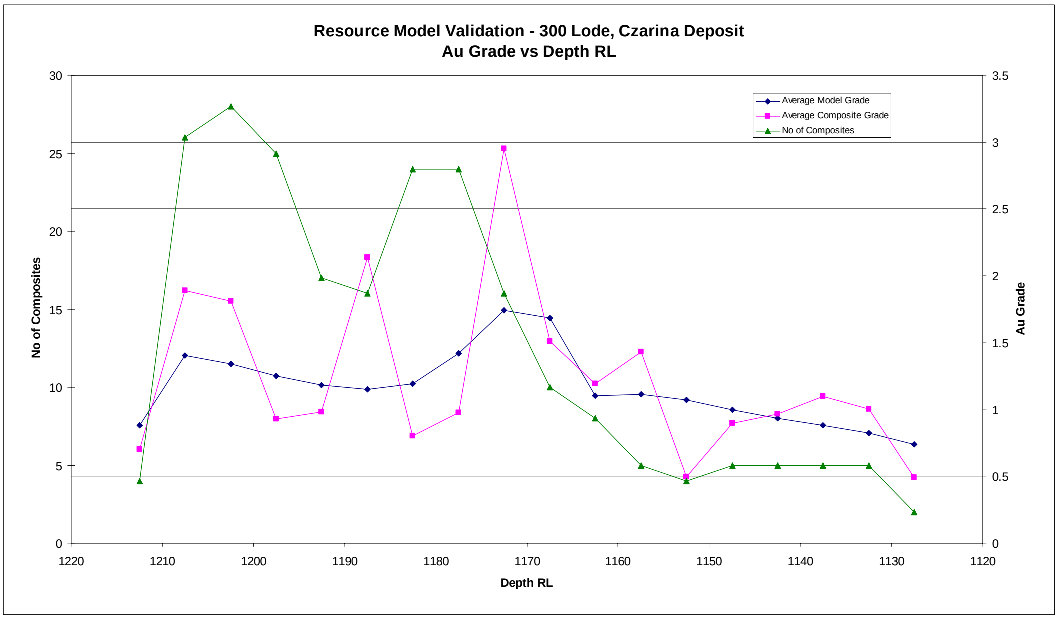


Figure 8.3.3 Au Grade vs Depth validation plot – 300 Lode, Czarina deposit

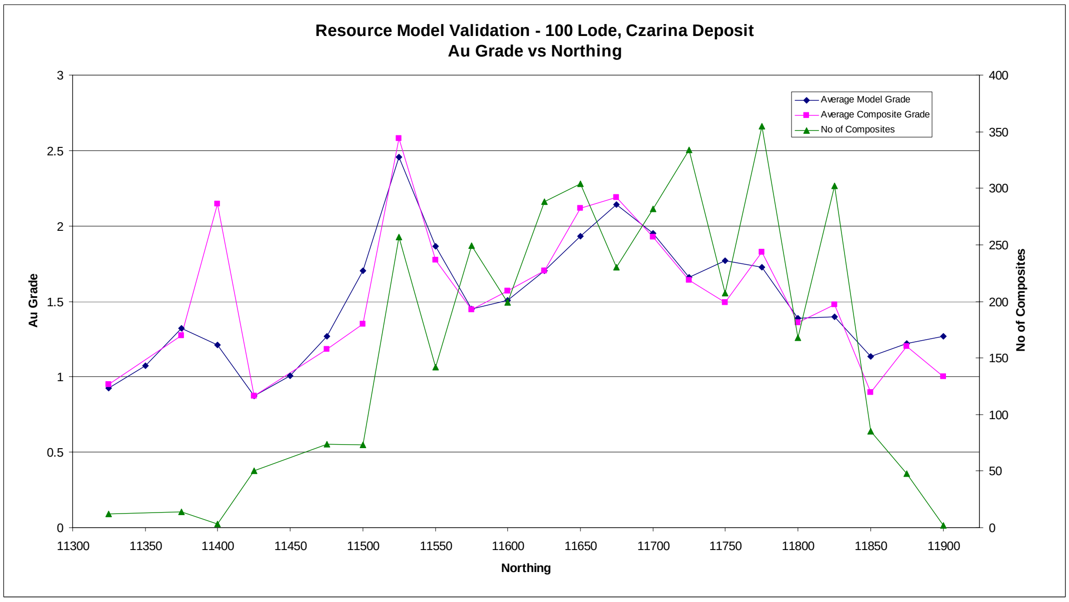


Figure 8.3.4 Au Grade vs Northing validation plot – 100 Lode, Czarina deposit

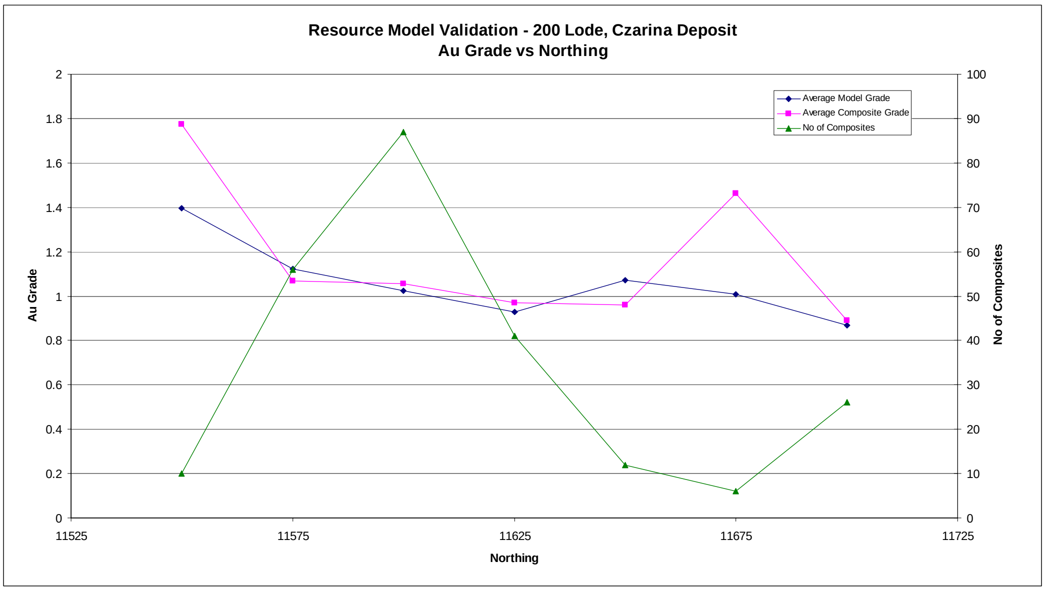


Figure 8.3.5 Au Grade vs Northing validation plot – 200 Lode, Czarina deposit

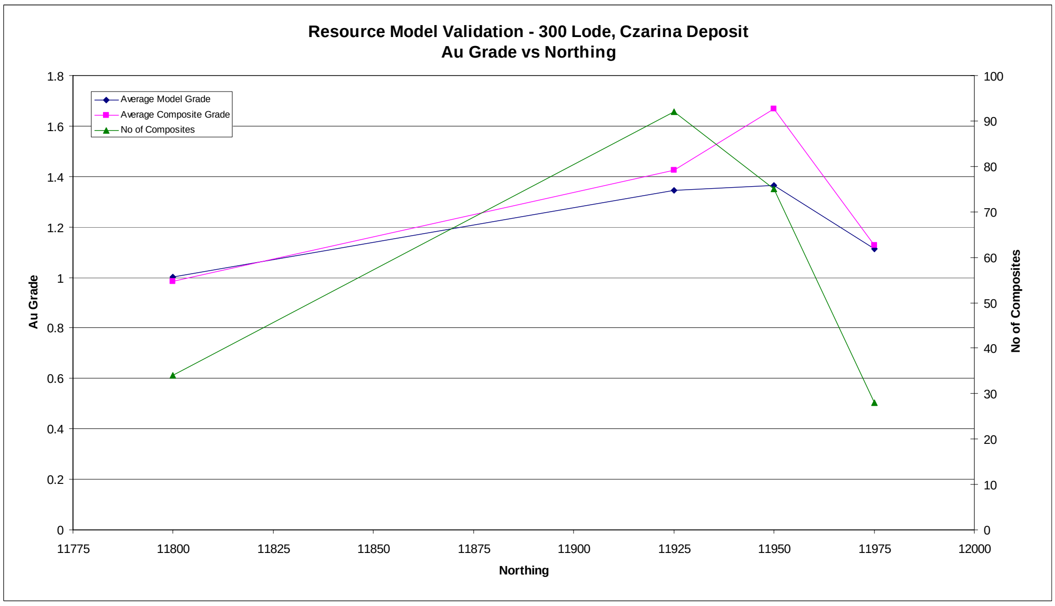


Figure 8.3.6 Au Grade vs Northing validation plot – 300 Lode, Czarina deposit

Comparison of model grades with composite grades for all lodes illustrate a good reconciliation, with model grades attempting to reproduce the fluctuations in composite grades. The depth validation represents a smoothing of composite grades by the model, with erratic high-grade spikes averaged out by block grades. The northing validation reveals a closer reconciliation of model grades and composites than the depth validation, with composite grades reproduced by block grades.

8.4 RESOURCE CLASSIFICATION AND REPORTING

The Czarina model resource has been classified into Indicated and Inferred categories according to the JORC code, using a combination of drilling density and confidence in grade continuity between drill sections. All lodes were classified on the basis of kriging variance.

The kriging variance is used as an objective measure of the geostatistical confidence in a given block, and represents the value of the squared error between the actual grade and the estimated grade generated by the kriging process. It is dependent on a number of criteria, including block size, internal block discretisation, sample numbers and the variogram parameters but is independent of the actual grade. Thus, using the Czarina variography as a guide, blocks for the Czarina deposit were suitable to be classified as Indicated if they were spaced approximately within 20m along-strike from drillholes, and 20m down-dip between drillholes. An Inferred classification is appropriate for those blocks located more than 10m along-strike from drillholes, and greater than 20m down-dip between drillholes. The ranges above represent a guideline only for the classifications, and actual ranges used to determine the threshold between Indicated and Inferred blocks were applied to modified distances from those above, using the spatial distribution of composite data as an additional guideline.

The classified global remaining mineral resource is reported in Table 8.4 as at 19th January 2005. The topography and weathering surfaces were used to construct a density model, which was used in reporting of model tonnage and grades. Densities applied were 2.4 t/m^3 from the topography surface to the base of oxidation, then 2.7 t/m^3 below this weathering surface. Density values were derived from bulk density measurements on drill core samples from Enterprise, a deposit adjacent to Czarina. Czarina consists of similar rock units as Enterprise, and the applied density values are based on arithmetic averages of all density samples within each Enterprise weathering zone from a total dataset of 21 drill core samples.

LODE	CATEGORY	VOLUME	TONNES	AU	OUNCES
100	Indicated	529,344	1,425,328	1.68	77,032
	Inferred	168,063	449,850	1.41	20,364
	Sub Total	**697,406**	**1,875,178**	**1.62**	**97,426**
200	Indicated	-	-	-	-
	Inferred	45,406	117,431	1.09	4,112
300	Indicated	-	-	-	-
	Inferred	142,594	365,259	1.21	14,209
Total Indicated		529,344	1,425,328	1.68	77,032
Total Inferred		356,063	932,540	1.29	38,685
Grand Total		**885,406**	**2,357,869**	**1.53**	**115,758**

Table 8.4 Czarina Classified Global Remaining Mineral Resource as at 19th January 2005

Table 8.5 lists the classified mineral resource above a cut-off of 1 g/t Au as at 19th January 2005; this cut-off is the present economical cut-off grade at current gold prices.

LODE	CATEGORY	VOLUME	TONNES	AU	OUNCES
100	Indicated	445,656	1,202,091	1.84	71,113
100	Inferred	137,594	369,769	1.53	18,165
200	Indicated	-	-	-	-
200	Inferred	25,781	67,809	1.26	2,745
300	Indicated	-	-	-	-
300	Inferred	80,344	204,891	1.52	10,033
Total Indicated		445,656	1,202,091	1.84	71,113
Total Inferred		243,719	642,469	1.50	30,942
Grand Total		689,375	1,844,559	1.72	102,062

Table 8.5 Czarina Classified Remaining Mineral Resource above 1 g/t Au as at 19th January 2005

9. RECOMMENDATIONS

A number of recommendations are made, in light of the completed resource model for Czarina, including infill drilling, additional drilling to extend and link wireframes, database quality assurance and density calculations.

9.1 Drilling recommendations

The strike extents of the 100 Lode are closed off with the current drilling. Additional holes may be required to close off the resource model down dip. It is recommended that economic mining studies be carried out on the current resource model to assist in planning the drilling targets. Planning the collar location of some of the deeper holes is made more difficult because of the near proximity of the Enterprise east pit wall under which the 100 lode dips.

A further review of the drilling requirements of Czarina should be made based on the results of re-modelling the 100 Lode as two separate wireframed lodes which dip at 50° W.

Additional drilling is recommended to test the oxide potential of the 300 Lode. Initially one line of drilling is recommended along the northern strike extent. Additional drill holes are recommended on the three current drilled sections to assist in delineating the lode structure. Drilling along the southern strike extent of the 300 Lode is limited because of the northern crest of the mined Czarina pit.

9.2 Other recommendations

The current resource database contains a considerable number of historical drillholes, with associated assay data. The database has been validated, with assay values assumed to be those of the original Au assays. It is recommended that this be verified by contracting a database person to sort through the historical archives and tabulate all the assay values of historical data for each batch, and to compare this with the Au values in the current resource database. This process forms an essential part of quality control/quality assurance and will reinforce the integrity of the database for any future due diligence.

Densities of 2.4t/m^3 and 2.7t/m^3 were used in reporting of model tonnage and grades, and are based on the average of all existing data within respective weathering zones at Enterprise. It is recommended that bulk densities be carried out on RC chips from recent drilling at Czarina to verify the current densities used.

One area of concern in the block model is the dip orientation of wireframes with respect to the variography results obtained. The wireframes modelled show a dip of -70° to -80°, whereas the variography analysis indicates a plunge of -49º. However, the variography results were obtained subsequent to the wireframing of the resource, and thus the benefit of variography was not realised at this stage. It is recommended that the Czarina deposit be re-wireframed in the next resource utilising a dip of -50°, with separation of the 100 lode into two discrete lodes.

The 300 lode is presently defined by only three drill sections. The mineralisation trends of this lode are not well understood, particularly with respect to the dip of mineralisation present. Further drilling is required to help define this lode and obtain a good grasp on the spatial orientations of this lode.

10. REFERENCES

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Appendix I
Czarina – November 2004 RC Drill Program
Geology Logs

Appendix II
Czarina – November 2004 RC Drill Program
Sampling Logs

Appendix III
Czarina - November 2004 RC Drill Program
Assay Standards Submitted

Appendix IV
Czarina – November 2004 RC Drill Program
NAL – Assay Results

Appendix V
Czarina – November 2004 RC Drill Program
AMDEL – Check Assay Results

Appendix VI
CD Digital Copy of Czarina Resource Report, Table, Figures and Appendices