

**Progress Report on the Resource Estimate  
and Exploration Programs at  
Vargbäcken Project, Sweden**

**For**

**First Fortune Investments Inc.**

**1103 - 1166 Alberni St.  
Vancouver, B.C. V6E 3Z3**

**by**

**Neil Inwood, Bsc (Geol) PgD (Hydro) (MAusIMM)**

**RSG Global**

**and**

**John Nebocat, BSc (Geol), P. Eng.**

**PGS Pacific Geological Services**

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## Executive Summary

In May 2007, the Mineral Resource for the Vargbäcken deposit was updated with the results of 9 additional RC and diamond drillholes drilled by Mawson Resources Limited ('Mawson') in 2006. The updated resource for Vargbäcken was estimated using the same block model and variography parameters as for the 2006 resource. The resource was estimated using the Multiple Indicator Kriging ('MIK') method based upon a block model with a parent cell size of 10m in the X direction, 20m in the Y direction and 5m in the Z direction. The block model was rotated 45 degrees clockwise around the z-axis so as to be orientated parallel to the trend of the mineralisation. The parent cells were sub-blocked to 2.5m in the X direction by 5m in the Y direction by 1.25m in the Z direction to enable adequate volume definition.

Mineralised domain boundaries for the purpose of constraining the resource estimation were modeled based on the geological logging, trench mapping and interpreted geological and structural controls. A total of nine mineralised domains were defined for the purposes of the resource estimation. Three north-west trending faults have been modeled which produce up to 60m of displacement to the mineralised zones.

The MIK estimation was undertaken based on the 3m composite Mawson gold data within the grouped mineralised domains at Vargbäcken. The North Atlantic Natural Resources ('NAN') diamond drillholes have been incompletely sampled and were excluded from the preferred estimate. MIK was completed using 15 indicator thresholds selected to adequately partition both the sample population and metal distribution. The MIK (gold) estimates for the grouped domains was processed to produce both a whole block E-type Mean estimate and a selective mining unit ('SMU') estimate, with the latter emulating 5m X by 10m Y by 2.5m Z size blocks.

The RSG Global preferred resource estimate for the Vargbäcken deposit was categorised in accordance with the criteria laid out in the Canadian National Instrument 43-101 ('CNI43') and The JORC Code. A combination of Indicated and Inferred Resources have been defined using definitive criteria determined during the validation of the grade estimates, with detailed consideration of the CNI43 categorisation guidelines. The criteria used to categorise the resources include the robustness of the input data and the confidence in the geological interpretation. The Indicated and Inferred gold Resource for the Vargbäcken prospect is summarised in the table below.

The 2007 resource update contains more indicated material and less inferred material than the 2006 resource estimate at a 0.6g/t cut off. For example, above a 0.6g/t Au lower cutoff grade, the 2006 estimate based upon a selective mining unit estimate (emulating 10mY by 5mX by 2.5mZ sized blocks) reported an Indicated Resources of 1.2Mt @ 1.19g/t Au for 58.3koz and an Inferred Resource of 1.1Mt @ 1.41g/t Au for 50.53koz. This represents a 12% increase in Indicated ounces and a 26% decrease in Inferred ounces compared to the 2006 resource. The difference in resources between the 2007 and 2006 estimates is mainly due to increased confidence in the modelling of Zone 20 and volume changes to the overall mineralised envelopes as a result of the recent drilling.

Vargbäcken Deposit May 2007 Resource  Multiple Indicator Kriging Estimate - Gold Min-18 and Max-32 Composites (Mawson Drilling)				
Resource Category	Lower Cutoff Au (g/t)	All Domains		
		Tonnes (Mt)	Grade (g/t Au)	Ounces (Koz)
10m X x 20mY x 5m Z Whole Block Panel				
Indicated	0	2.47	0.9	75.28
	0.60	1.74	1.2	64.99
	0.80	1.28	1.3	54.77
	1.00	0.96	1.5	45.4
	1.20	0.71	1.6	36.55
	1.50	0.34	1.9	20.88
Inferred	0	0.95	1.3	38.88
	0.60	0.81	1.4	37.1
	0.80	0.65	1.6	33.36
	1.00	0.57	1.7	31.16
	1.20	0.51	1.8	28.81
	1.50	0.38	1.9	23.27
Preferred Estimate - 10m X x 20mY x 5m Z Panel with Selective Mining Unit (10mY x 5m X x 2.5m Z)				
Indicated	0.60	1.37	1.4	63.22
	0.80	1.02	1.7	55.5
	1.00	0.76	2.0	47.93
	1.20	0.56	2.3	40.93
	1.50			
	0.38	2.7	33.1	
Inferred	0.60	0.65	1.7	35.78
	0.80	0.56	1.9	33.74
	1.00	0.49	2.0	31.74
	1.20	0.41	2.2	28.83
	1.50	0.32	2.4	24.7

The deposit has been sufficiently tested by exploration drilling and resource estimations to warrant a further stage of testing, namely detailed drilling of a near-surface part of the deposit to establish a small reliable resource which can be bulk sampled and processed at a pilot plant or nearby mill.

An induced polarization survey should be undertaken to target sulphide-bearing quartz veins between the existing deposit and the northeast zone drilled in 2006. Targets generated by the induced polarization survey should be trenched, mapped and sampled; a diamond drilling campaign should follow pending success in the foregoing programs.

These work programs are estimated to cost around \$622,600.

## **1.0 Introduction and Terms of Reference**

Prior to the recently announced agreements between Mawson Resources Ltd. (“Mawson”) and North Atlantic Natural Resources AB (“NAN” - a subsidiary of Lundin Mining AB) and First Fortune Investments Inc. (“FRF”), the authors of this report were commissioned by Mawson to conduct a field inspection of, and to determine a revised resource estimate for the Vargbäcken precious metal deposit located in the Skellefteå district of northern Sweden.

The property was visited by John Nebocat on October 16, 2005, at which time certain check samples were collected from drill cuttings stored on site. Mr. Nebocat is responsible for all sections of this report except for section 16, Mineral Resource and Mineral Reserve Estimates, and Appendices 1 through 4, which were authored by Neil Inwood of RSG Global Consultants, Perth, Australia. The relevant parts of the Executive Summary and Recommendations were co-authored by Neil Inwood.

Documentation used in compiling this report includes a qualifying report by Pantaleyev (2004), various press releases put out by Mawson between 2004 and 2007, Mawson Resources Limited's website and various digital files containing drillhole, surface geochemical, geological and survey data.

## **2.0 Reliance on Other Experts**

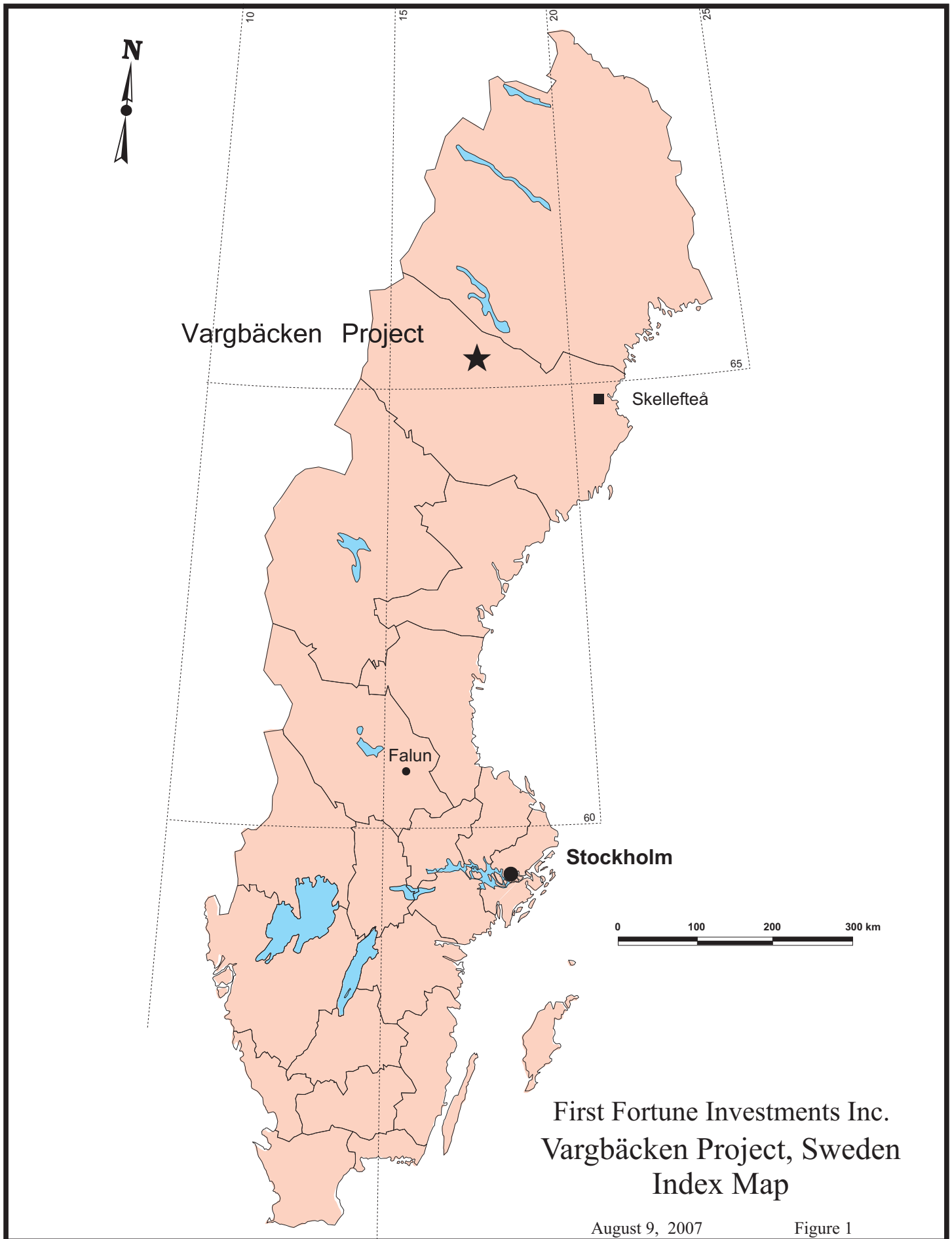
No parts of this report were derived from the opinions or technical expertise of individuals not deemed to be Qualified Persons.

## **3.0 Property Description and Location**

The reader is referred to the report by Pantaleyev, 2004, which describes this section in detail.

In addition, since the report by Pantaleyev, Mawson has applied for, and been granted, three additional tenements, namely *Bjurbäcksliden nr 1*, *Näverliden nr 1* and *Käringberget nr 1*, but the *Käringberget nr 1* has since been allowed to lapse. The *Granselliden nr 1* claim has expired and been reapplied for as *Granselliden nr 3*, and *Stenberget nr 1* has also expired and been reapplied for as *Stenberget nr 2*. The property locations and relevant statistics are shown in Figure 2; these statistics are current as of the most recent database release by SGU (May, 2007).

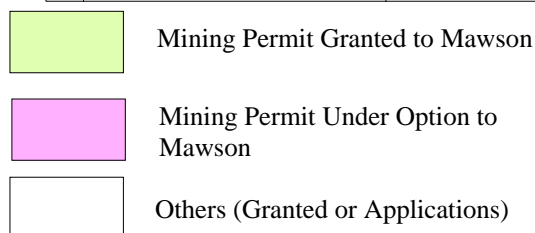
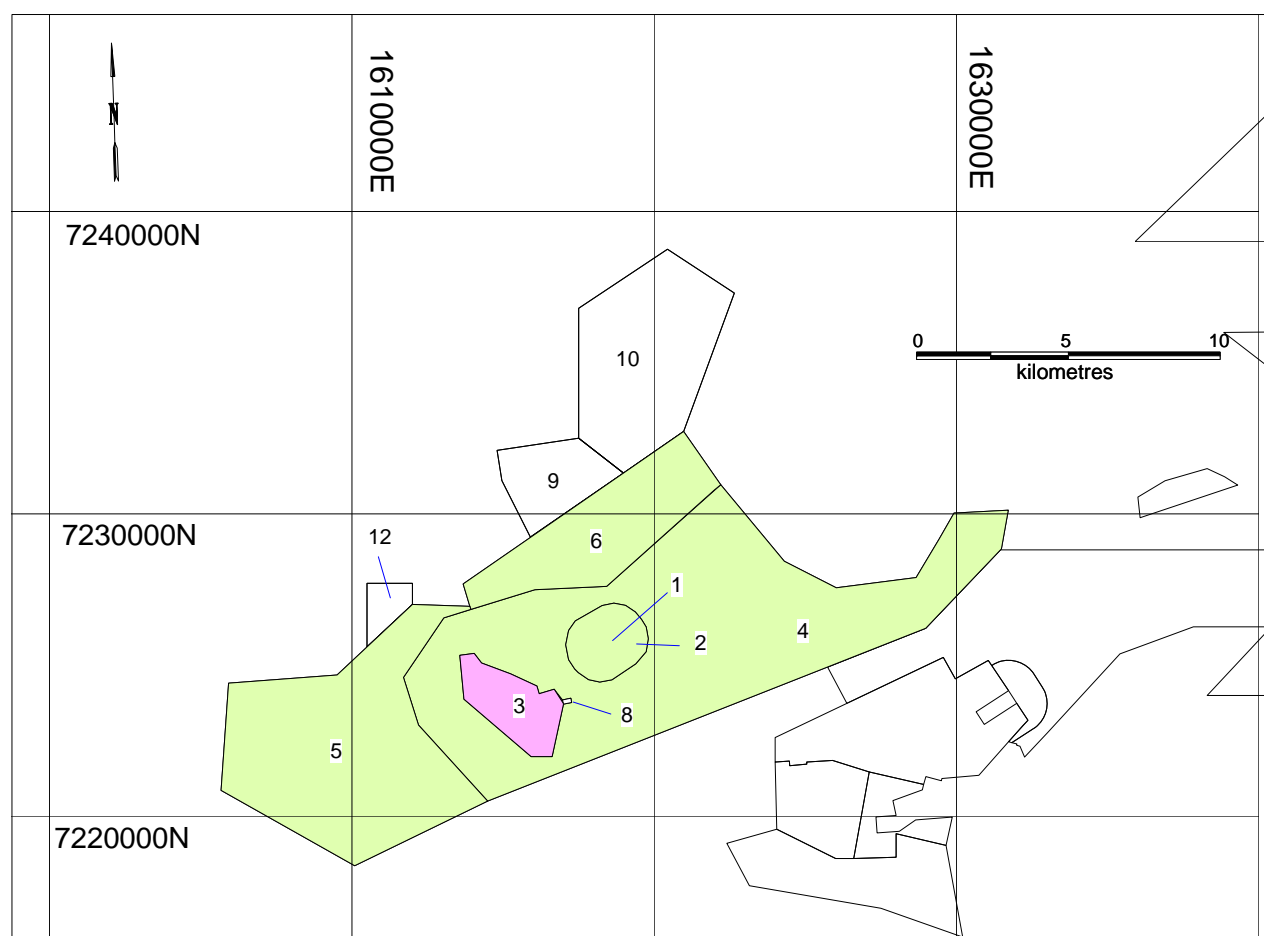
Through a revised agreement between Mawson and NAN, dated June 26, 2007, Mawson has purchased NAN's remaining 49% interest in the Vargbacken nr 1 property and NAN's 100% interest in the Stenberget nr 1 property. This agreement supercedes two previous agreements between these parties (the “Vargbäcken Agreement” and the “Stenberget Agreement”, dated June 28, 2004). The purchase price for these transactions is C\$250,000. Prior to this purchase, Mawson had earned 51% interest in the Vargbäcken K nr 1 property by spending C\$1,295,517.





## Granted

NAME	LICENCEID	AREA	VALIDFROM	VALIDTO	OWNER
Granselliden nr 1	4	7,806.47	15/06/2004	15/06/2007	Mawson Sweden AB (100%)
Vindelgransele nr 1	8	4.02	16/05/2001	01/01/3000	Niili Mineral AB (100%)
Granselliden nr 2	2	522.74	20/08/2004	20/08/2007	Mawson Sweden AB (100%)
Näverliden nr 1	6	1,896.17	19/01/2005	19/01/2008	Mawson Sweden AB (100%)
Bjurbäcksliden nr 1	5	4,167.13	19/01/2005	19/01/2008	Mawson Sweden AB (100%)
Stenberget nr 1	3	645.49	03/07/1997	03/07/2007	North Atlantic Natural Resources AB (100%)
Vargbäcken nr 1	1	20.52	13/10/2003	13/10/2028	Mawson Sweden AB
Brännäs nr 1001	10	2,528.33	26/06/2006	26/06/2009	Boliden Minerals AB (100%)
Storlandet	12	210.00	29/08/2006	29/08/2009	Lucky Swede Mining Handelsbolag (100%)
Kvarnträsket nr 1001	9	775.71	30/08/2006	30/08/2009	Boliden Minerals AB (100%)



Projection: Swedish Coordinate System,  
RT 90, 2.5 (Standard)

First Fortune Investments Inc.

**Vargbäcken Project**  
**Skellefteå, Sweden**

**Claim Tenure**

August 9, 2007

Figure 2

In conjunction with the agreement above, Mawson and NAN have also signed a Royalty Agreement, dated June 26, 2007, whereby NAN retains a 2% net smelter royalty on any sales from mineral production that may occur on the Vargbäcken K nr 1 and Stenberget nr 1 claim.

In a subsequent Letter of Understanding (“LOU”) between FRF and Mawson, dated July 19, 2007, Mawson has vended to FRF 25 exploration claims and 1 mining lease comprising 15 precious metal claims and 11 base metal claims. The claims covering the Vargbäcken deposit are part of this agreement. Previously, FRF had a Joint Venture Agreement on 7 of these precious metal properties, dated August 24, 2006, but this agreement will terminate upon completion of this new transaction.

The salient points of this LOU are:

- FRF shall issue to Mawson 6,000,000 fully paid FRF common shares.
- FRF shall pay Mawson C\$250,000
- Mawson retains a 2% NSR on certain properties that are the subject of this agreement
- FRF have the right to buy back 50% of each NSR granted to Mawson for C\$1M.

#### **4.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography**

The reader is referred to the report by Pantaleyev, 2004, which describes this section in detail.

#### **5.0 History**

The reader is referred to the report by Pantaleyev, 2004, which describes this section in detail.

#### **6.0 Geological Setting**

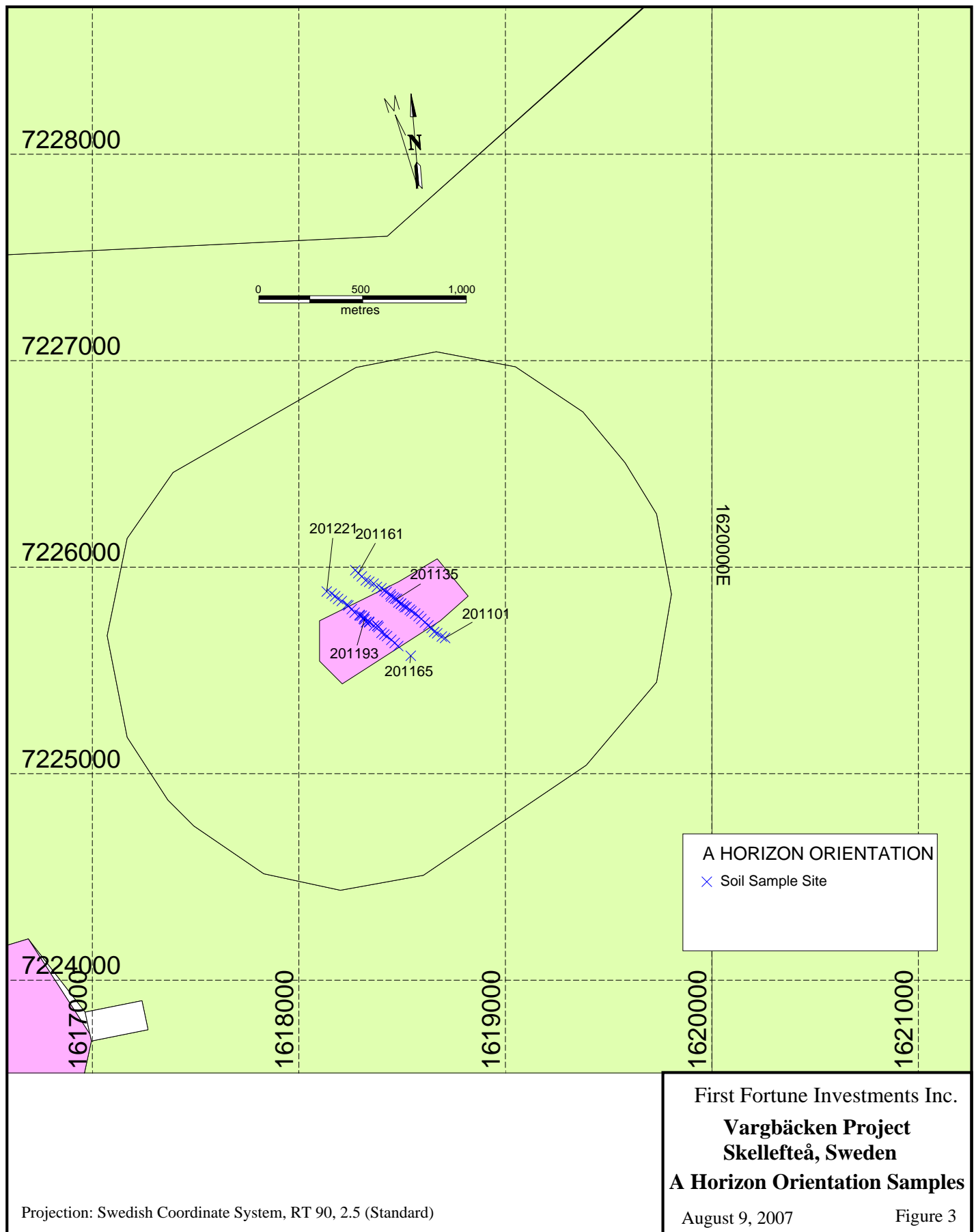
The reader is referred to the report by Pantaleyev, 2004, which describes this section in detail.

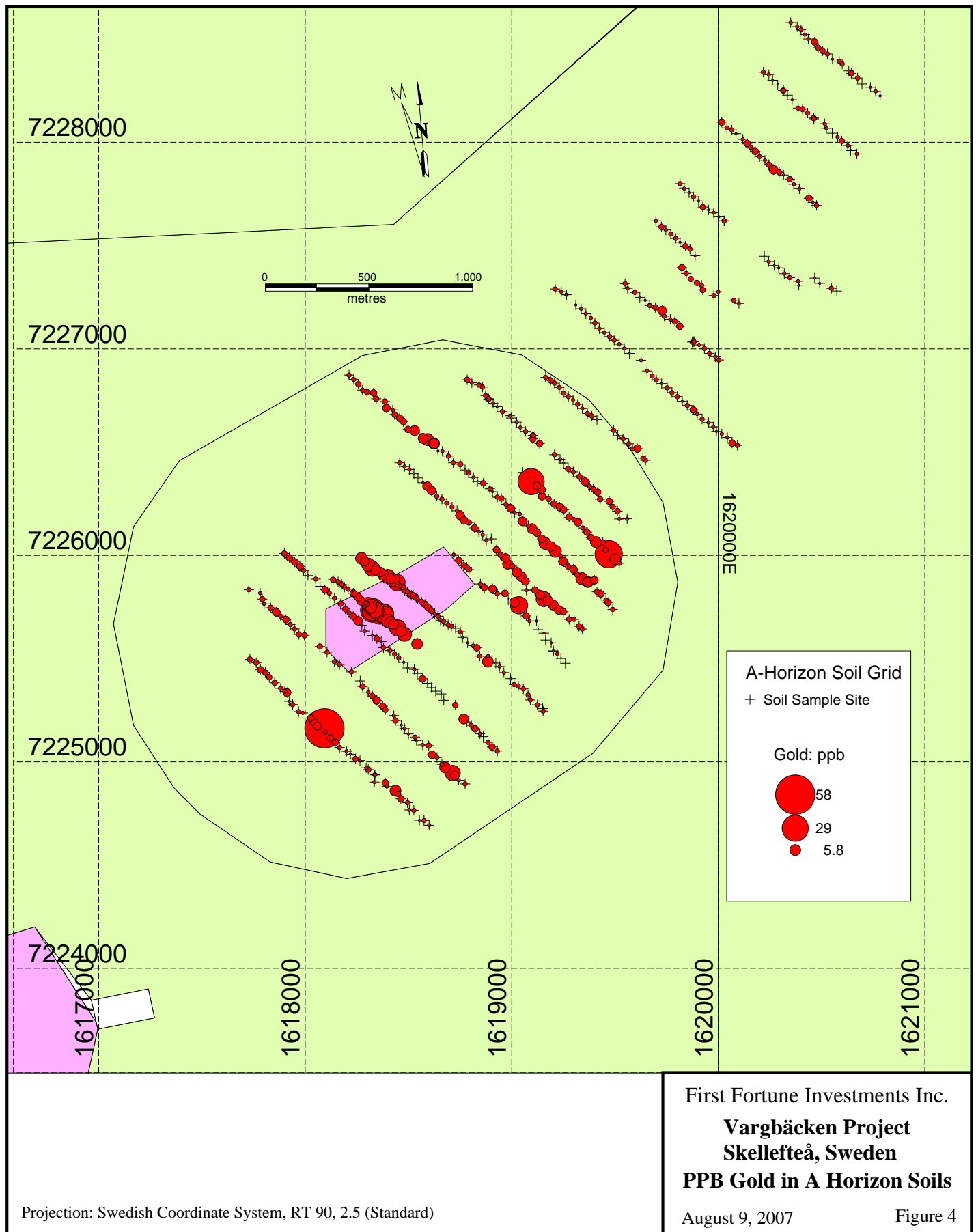
#### **7.0 Deposit Types**

The reader is referred to the report by Pantaleyev, 2004, which describes this section in detail.

#### **8.0 Mineralisation**

The reader is referred to the report by Pantaleyev, 2004, which describes this section in detail.





## **9.0 Exploration**

The work conducted by North Atlantic Natural Resources AB, prior to the work conducted by Mawson, was described by Pantaleyev, 2004, in the "History" section of his report. The following descriptions pertain only to the work performed by Mawson since their involvement in the property.

In addition to the drill programs conducted by Mawson (described in following section), a soil sampling grid was located on the property about 600m northeast of the original Vargbäcken showings and extends for about 3,000m further to the northeast. This grid of 574 samples is part of a larger survey containing a suite of 650 samples over an area roughly 2km by 1.5km, or 300 hectares. Gold values range from 0.2ppb to 77ppb in the entire population.

The results of this soil sampling survey has identified a zone of anomalous gold near the southwestern end of the new grid. The anomalous zone is about 500m long (NE-SW) by 300m wide (NW-SE). Figure 4 shows that the anomalous gold values are concentrated in the first three lines northeast from the main Vargbäcken deposit. From the 574 samples that fall within this grid, the gold values ranged from detection level to 58ppb (0.058ppm). Those values considered anomalous constitute the upper 5% of the values. The long dimension of this anomalous zone is along the trend of the diorite/metasediment contact that hosts the gold mineralization at the Vargbäcken showing.

Prior to this soil sampling survey, Mawson conducted an orientation survey to test the effectiveness of both A-horizon and B-horizon sampling. Sixty-three samples of each type were collected across the Vargbäcken mineralization along two lines roughly 160m apart and stations about every 20m. The survey was conducted Messrs. Michael Hudson and Mark Saxon, officers and directors of the Mawson Resources; both are Qualified Persons as defined by NI 43-101.

The survey demonstrated that the A-horizon method was effective in locating gold in the bedrock, but sampling procedures by the two samplers varied somewhat which resulted in one set containing higher gold levels with lower base metals, and vice versa. The sampling procedures have since been refined. These data are not included in the statistics with the samples from the later surveys to the northeast. Figure 3 shows the location of the orientation survey sites as blue crosses.

## **10.0 Drilling**

The drilling conducted by North Atlantic Natural Resources AB was discussed previously in the "History" section of the report written by Pantaleyev, 2004.

Mawson performed four drilling campaigns on the property: one in 2004, two in 2005 and one in 2006. The 2004 program was conducted between October 4th and December 9th; the 2005 programs were done between May 2nd and May 14th, between October

28th and December 6th. The 2006 RC program was completed between June 6th and June 18th, while the 2006 diamond drilling program was done between August 19th and November 12th. Table 1 below lists the salient statistics of Mawson's and NAN's drilling programs.

**Table 1. Summary of Drilling Statistics: 1997 - 2006**

Company	Campaign	Year	Drilling Type	Metres
NAN	1	1997	diamond	2,336.2
NAN	2	1998	diamond	2,575.3
Mawson	3	2004	reverse circulation	1,732
Mawson	4	2005	reverse circulation	1,036
Mawson	5	2005	reverse circulation	1,020
Mawson	6	2006	diamond	1,181
Mawson	6	2006	Reverse circulation	398
Mawson	6	2006	diamond*	529

\* northeast zone

Due to the relatively large amount of free gold found in the veins at Vargbäcken, Mawson opted to use reverse circulation (RC) drilling as an approach to obtaining a much larger sample, thus reducing the potential risk of "nugget" effect during sampling and analyses. In the first program, 7 of the 18 holes were twins of diamond drillholes located by NAN. Table 2 shows the respective diamond and RC drill holes plus a comparison of some of the higher grade intervals encountered in each (yellow boxes); The values in the white boxes are some of the higher grade intervals reported by Mawson of both their own and NAN's drilling.

**Table 2. Comparison of Diamond Drillholes Twinned by Reverse Circulation Drillholes**

NAN Hole	Gold (g/t)	Depth (m)	EOH (m)	MAW Hole	Gold (g/t)	Depth (m)	EOH (m)
97-04	2.1	52 - 53.6	98.4	RC32	1.2	68 - 84	97
	<0.07	67 - 68.9		including	4.9	68 - 69	
98-22	7.3	7.2 - 9.8	48.65	RC33	4.5	42 - 55	63
and	2.1	19.8 - 26.5		including	12.4	51 - 55	
98-16	5.8	46.9 - 63.7	95	RC34	10.4	38 - 41	94
	<0.07	39.9 - 40.9		including	28.1	40 - 41	
	0.58	45.9 - 46.9			4.2	46 - 47	
	4.95	52.2 - 54.2			3.3	52 - 54	
					8.6	57 - 67	
	1.08	58.7 - 60.2		including	56.4	59 - 60	
	0.3	66.0 - 67.5			8	66 - 67	
					19.8	70 - 84	
	1.08	69.8 - 70.8		including	137.2	70 - 71	
	0.52	70.8 - 71.8			8.0	71 - 72	
	0.11	81.8 - 82.8			116.5	82 - 83	
98-27	0.08	21.4 - 24.4	85.1	RC37	1.8	22 - 24	82

	0.31	59.1 - 60.55			1.9	58 - 61	
	0.2	64.6 - 66.0			1.1	64 - 66	
98-30	<0.07	59.25 - 63.7	123.1	RC39	2.2	60 - 62	134
	<0.07	97.4 - 98.6			1.1	96 - 98	
					2.2	120 - 128	
				including	4.4	123 - 124	
				and	4.7	125 - 126	
98-28	5.76	88.4 - 94.5	112.1	RC40*	n/a	n/a	111
98-20			117.5	RC44	5.3	31 - 35	93
	3.99	31.6 - 33.6		including	16.3	32 - 33	

\* no significant gold values obtained; hole was drilled about 10m below projection of zone in diamond drillhole.

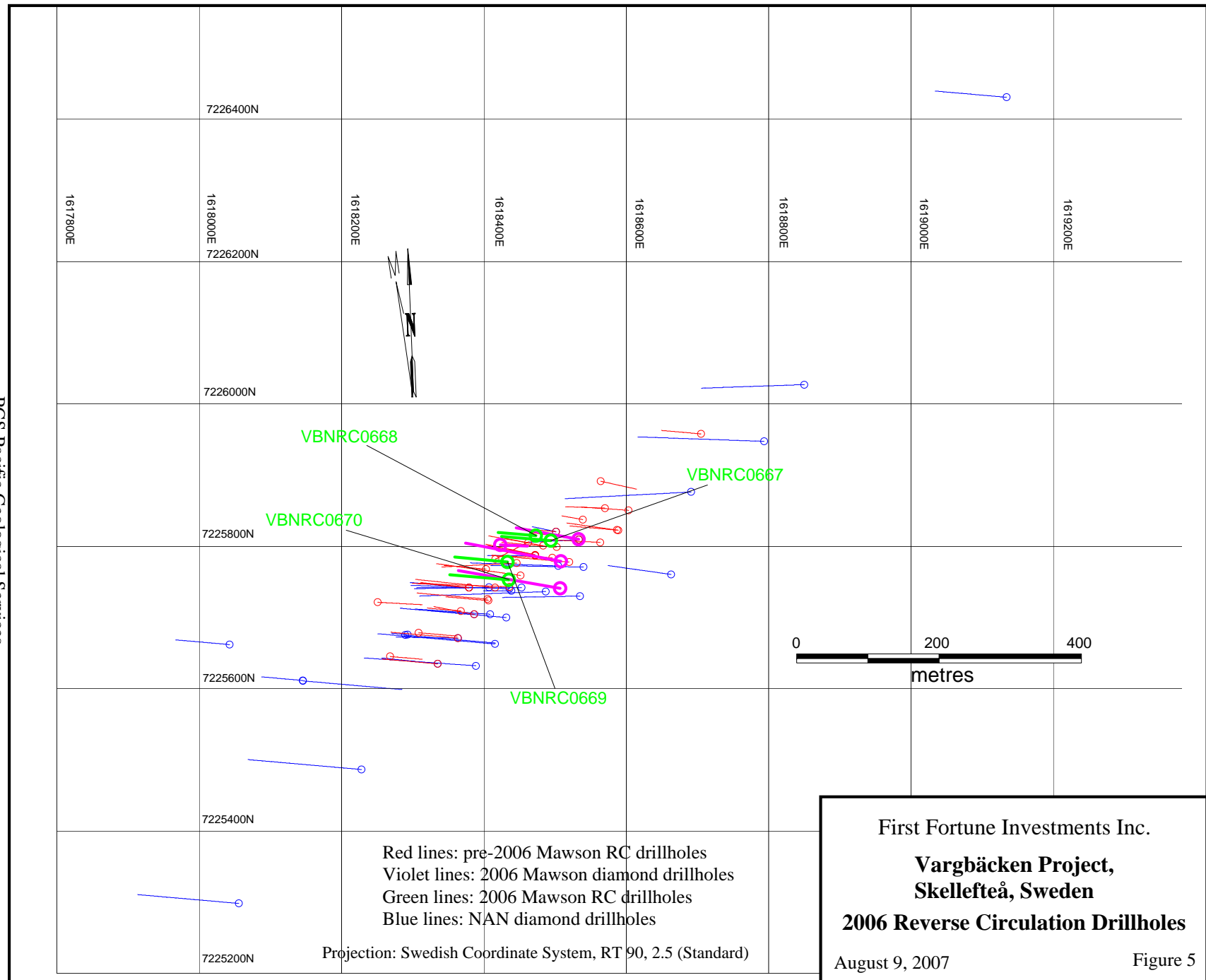
The above table shows that in all but one case the gold assays from the RC drilling are significantly higher than in the core drilling. The sample obtained from the RC drill (133 mm diameter) is about 8.5 times larger than that obtained from the previous slim-line diamond drill core [(46 mm diameter) (Hudson, 2004)]. Other significant intercepts, not shown above, include 8m of 4.1 g/t gold in hole RC49 and 4m of 7.0 g/t gold in RC45. Using a cut-off of 0.2 g/t gold, hole RC49 averaged 1.2 g/t gold over 74m, starting at 40m depth.

The second phase program comprised of nine RC holes totalling 1,036m drilled between May 2, 2005, and June 9, 2005. Significant intercepts, using a 0.5 g/t gold cut-off, include hole RC57 that ran 7.1g/t gold over 3m, RC56 that ran 3.9 g/t gold over 3m, RC53 that yielded 3.9 g/t gold over 11m and RC51 that yielded 5.0 g/t gold over 2m.

By using a 0.2 g/t gold cut-off, the mineralised intervals increase significantly. Hole RC53 intersected 46m running 1.7 g/t gold, RC56 yielded 36m at 1.2 g/t gold and RC51 yielded 37m of 1.1 g/t gold. Details of the second phase program are documented in a press release dated June 29, 2005, accessible on Mawson's website.

Seven RC holes were drilled in the third campaign between October 28, 2005, and December 6, 2005, totalling 1,020m. Using a 0.5 g/t gold cut-off, hole RC60 ran 6m at 2.1 g/t gold and 4m at 3.1 g/t gold, which included a 1m interval that ran 9.0 g/t gold. Hole RC61 yielded 13m a 6.3 g/t gold, including a 1m interval that ran 43.7 g/t gold. Additionally, RC62 ran 4.5 g/t gold over 3m and 1.9 g/t gold over 7m; RC63 yielded 6m at 2.5 g/t gold, RC64 ran 8m at 1.4 g/t gold, RC65 ran 6m at 2.4 g/t gold and RC66 yielded 4m at 1.9 g/t gold. A complete tabulation of the significant results from the third drill program is shown in a Mawson press release dated January 11, 2006, (Hudson, 2006).

As in the previous drill campaign, using a 0.2 g/t gold cut-off demonstrates the existence of a larger halo of lower grade mineralisation around the "bonanza" grade zones described above. Hole RC60 yielded 86m averaging 1.4 g/t gold, RC62 intersected 84m of 0.7 g/t gold and hole RC63 intersected 73m of 0.9 g/t gold.





Most of the holes were drilled in a westerly direction, but five were drilled easterly to northeasterly. Drillhole inclinations ranged from -30 degrees to -67.5 degrees, but most were at, or about -45 degrees. Hole depths ranged from 63m to 187m.

The fourth campaign in 2006 was a combined effort to:

- 1) Test certain potential high grade targets developed in the resource estimate model produced by RSG Global Consultants, Perth, Australia, using reverse circulation drilling.
- 2) Test the mineral potential of the deposit at greater depths using diamond drilling.
- 3) Test a gold-in-soil (A-horizon) geochemical anomaly located 600m northeast of the known resource using diamond drilling.

The RC program consisted of four holes totalling 398m. Figure 5 shows the locations of these holes.

Three of the holes intercepted broad intervals of gold mineralization, but one was abandoned before reaching the targeted zone (Hudson, 2006). Table 3 highlights the most significant intervals from these hole.

**Table 3. Vargbäcken Reverse Circulation Drill Hole Results July, 2006. 0.5 g/t Gold Lower Cut-off**

Location	Drill Hole	From (m)	To (m)	Width <sup>1</sup> (m)	Gold <sup>2</sup> (g/t)
Section 50N	RC67	22	42	20	2.38
		44	48	4	2.17
		58	70	12	1.95
Section 50N	RC68	4	39	35	2.51
	<i>including</i>	14	24	10	4.11
Section 00N	RC69	20	22	2	1.87
		28	30	2	1.54
		36	43	7	0.92
		47	67	20	1.10
		77	79	2	1.15
Section 30S	RC70 <sup>2</sup>	67	69	2	2.34
		83	85	2	1.22
		111	113	2	1.68

Note 1: Calculated using a 1m minimum thickness and a 0.5 g/t gold lower cut. No upper cut applied.

Note 2: Drill hole RC70 terminated at 118m before intersected main mineralized zone due to drilling problems

A deep diamond drilling program was performed test the mineralized zone at depth with the hope of extending the resource to 200 metres from surface. Five holes were drilled (DD76 to DD80) for a total length of 1,181.25m.

With the exception of hole 79, only spotty, single-sample anomalous gold values were obtained over 1.5m intervals. Gold values ranged from detection limit to 68.4 ppm (g/t). Table 4 shows the statistics of the deep drilling program, and Table 5 contains the most

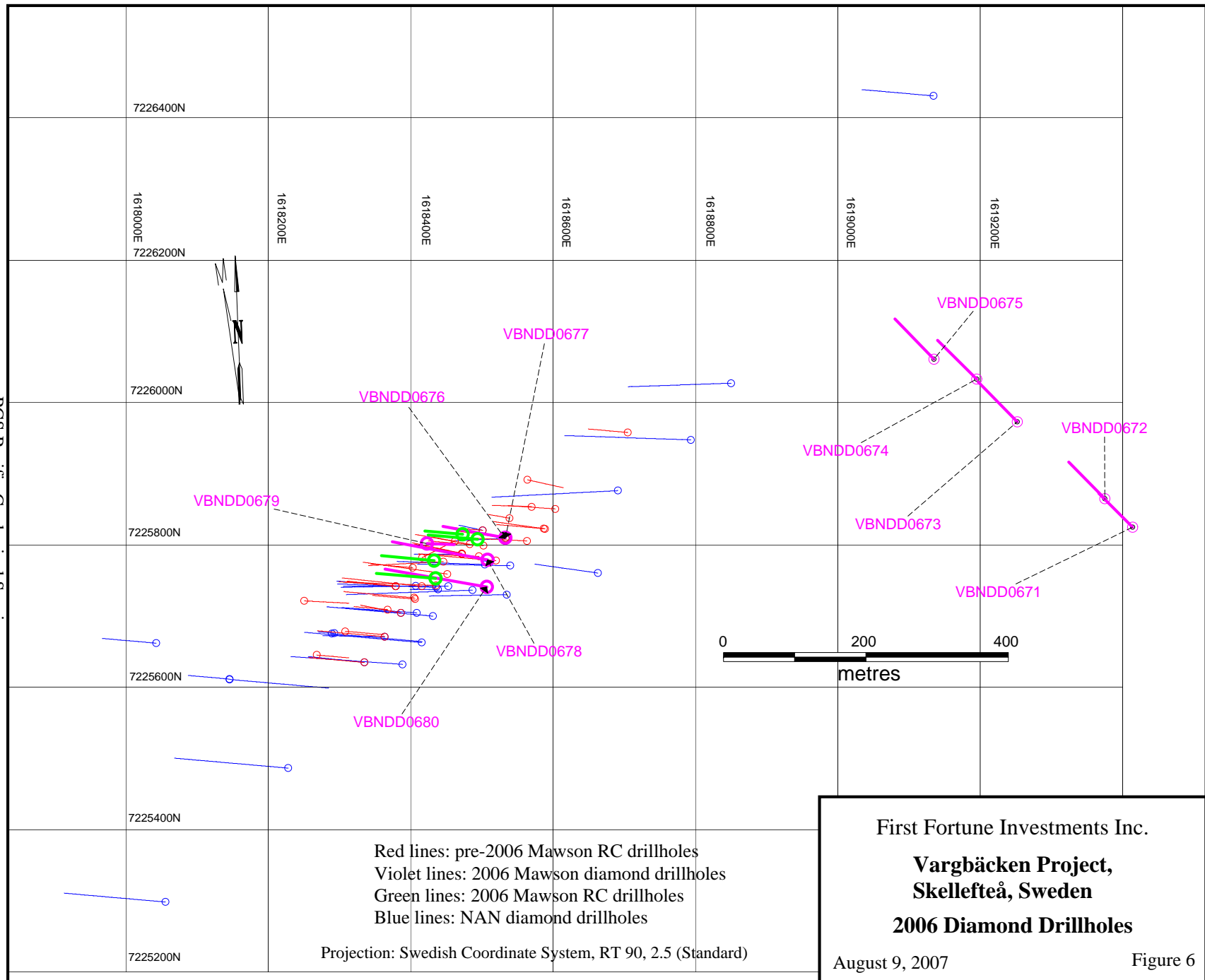


Figure 6

significant composited intervals.

**Table 4. Statistics of Deep Drilling Campaign, Vargbäcken, Sweden**

Drillhole	Depth (m)	Azimuth	Inclination
DD76	12*	280	-74
DD77	312.1	280	-73.4
DD78	396.2	280	-69.8
DD79	220.95	93	-80
DD80	240	281	-53

\* abandoned at 12m depth.

**Table 5. Significant Intercepts From 2006 Deep Drilling Campaign, Vargbäcken, Sweden**

Drillhole	From (m)	To (m)	Width (m)	Au (g/t)
DD77	108	111	3	0.93
DD78	107.8	110.8	3	2.97
DD79	34.5	55.5	12	3.91
DD79	58.5	63	4.5	1.48
DD79	72	78	6	2.23
DD79	121.5	124.5	3	4.1

The geochemical anomaly located about 600m northeast of the main Vargbäcken deposit was diamond drilled with five holes (DD71 to DD75) totalling 529.1m.

**Table 6. Statistics of the 2006 Northeast Zone Diamond Drilling Program, Vargbäcken, Sweden.**

Hole	Depth (m)	Azimuth	Inclination
DD71	95.2	315	-45
DD72	102	315	-45
DD73	110.7	315	-45
DD74	109.6	315	-45
DD75	111.6	315	-45

No significant assays were obtained from the holes in the northeast zone; the values ranged from detection limit to 0.18 ppm (g/t) gold.

The exact orientation, dip and plunge of the mineralisation is still not fully understood. Outcrop is sparse, and mineralization subcrops under a veneer of glacial till usually under 3m thick. The mineralization forms a complex series of quartz veins in four zones hosted in a diorite within an overall metasedimentary terrain. The highest density of mineralization and veins is found on the north-western contact of the diorite and metasediment package which may be associated to a structural jog within the diorite.

The drilling programs have shown a continuity to the mineralisation over 350m along strike and 120m depth. Although the deep drilling program has effectively delimited the vertical extent of the mineralization in this part of the deposit, there remains potential along strike to the northeast. The diorite intercepted in the drillholes in the northeast zone is believed to belong to a lower stratigraphic sequence than the one which hosts the mineralization at the main Vargbäcken deposit. Numerous sulphide-bearing quartz veins

were intercepted, but these did not contain potentially economic amounts of gold. It has been suggested that mineralized shoots may occur up-dip from this zone in the upper diorite/metasedimentary sequence and elsewhere along that contact (Saxon, pers com, 2007).

## **11.0 Sampling Method and Approach**

Within the Vargbäcken property, soil samples were taken every 30m along grid lines located from 200m to 300m apart. The soil sampling grid covers an area roughly 2.7km<sup>2</sup>. A total of 292 samples were collected from the grid during the second and third sampling programs.

Cuttings from the RC drill rig were routinely collected at 1m intervals. The cuttings passed through a cyclone and an attached series of nested Jones Splitters. The splitters reduced the ultimate sample that went to the laboratory by a factor of 8:1.

The Precambrian diorite, metasediments and quartz veins are quite competent rock units; as a result, the sample recovery was quite good. Although the exact orientation of the vein systems is not yet fully understood, they are believed to trend roughly north-south with a near- or sub-vertical dip component.

The area drilled by Mawson is roughly 575m northeast-southwest by 150m northwest-southeast, or about 8 hectares.

## **12.0 Sample Preparation, Analysis and Security**

The soil samples were taken from the A horizon immediately above the gray "ashen" looking layer. It consisted of black material being converted from organics to soil. The samples were sent to Acme Analytical Laboratories in Vancouver, B.C., Canada. There the material was dried, finely chopped and coarsely sieved to remove the larger woody fragments. The finer grained material is dissolved in acid, and the solution is assayed by ICP-MS (inductively coupled plasma, mass spectrometry) technique capable of detecting very low levels of elements.

As described above, the RC chip samples were taken at every 1m along the drillhole. The samples were split down to 1/8th of the total and sent to the laboratory. The remaining 7/8's is stored on site in large rice bags.

Figure 7 is a flow sheet outlining the sampling and quality control measures implemented by Mawson in their drilling programs until November 2004.

Due to changes in the drill rig set up and analysis of the QC data generated in the 2004 program, a few modifications to sampling protocol were implemented by Mawson in subsequent programs. Each 1m sample was sent directly to the cyclone without the intervening use of a bucket. Duplicate "field splits", at a rate of 1 per 33 samples, were

The on-site sampling was carried out by an employee of Mawson. The samples were sealed and shipped by an employee of Mawson directly to ALS Chemex's laboratory in Piteå, Sweden.

# SAMPLE HANDLING AND ASSAY PROTOCOL

Vargbäcken October – November 2004

```
graph TD
    A[Dry Cyclone  
40 kg/m from rig] --> B[Large Bucket]
    B --> C[1:8 riffle splitter]
    C --> D[3 - 4 kg Sample for Laboratory]
    C --> E[ALS - Chemex, Sweden]
    E --> F[0.5 kg split by mat roll]
    F --> G[Bottle Roll]
    G --> H[RESULT]
    F --> I[QC PATH - 1 in 33 STANDARDS AND BLANKS]
    F --> J[QC PATH - 1 in 20 LABORATORY DUPLICATE]
    F --> K[QC PATH - 1 in 20 TO ALS - CHEMEX SCREEN FIRE ASSAY]
    F --> L[QC PATH - RESIDUE ANALYSED FOR HIGH GRADE SAMPLES]
    F --> M[Reject to large plastic bag. Retained on site.]
    F --> N[QC PATH - 1 in 20 FIELD DUPLICATE RE-SPLIT]
```

Dry Cyclone  
40 kg/m from rig

Large Bucket

1:8 riffle splitter

3 - 4 kg Sample for Laboratory

ALS - Chemex, Sweden

0.5 kg split by mat roll

Bottle Roll

RESULT

QC PATH - 1 in 33 STANDARDS AND BLANKS

QC PATH - 1 in 20 LABORATORY DUPLICATE

QC PATH - 1 in 20 TO ALS - CHEMEX SCREEN FIRE ASSAY

QC PATH - RESIDUE ANALYSED FOR HIGH GRADE SAMPLES

Reject to large plastic bag. Retained on site.

QC PATH - 1 in 20 FIELD DUPLICATE RE-SPLIT

Sample sealed and transported by Mawson staff.

mawsonresources.com

TSX.V : MAW

PGS Pacific Geological Services  
- 17 -

The author believes that the sample handling, security, preparation and quality control measures implemented by Mawson Resources Limited is quite satisfactory and adequate.

### 13.0 Data Verification

The author has examined all digital analytical, geological and drill statistics files compiled by Mawson and found them to be efficiently and meticulously organised.

Drill sites and reject sample bags were examined on site on October 16, 2005. The author was accompanied by Dylan Jeffries, a geologist employed by Mawson to supervise the second drilling campaign in the autumn of 2005. During this visit, the author took six selected split samples from the rejects from drillhole RC56. The reject was poured onto a tarp, rolled and sampled with a trowel, making up to about a 2kg sample. The remaining reject was replaced into its original bag, sealed and stored on site. The check samples were assayed by ASL Chemex in Piteå, Sweden using the same bottle roll technique as described previously.

**Table 7. Comparison of Gold Assay Results, Selected Samples From Hole RC56**

Interval (m)	Mawson No.	Au (g/t)	J. Nebocat No.	Au (g/t)	% Variation From Original Sample
66-67	204525	1.24	VBK-1	0.91	-26.6
68-69	204527	0.29	VBK-2	0.57	96.6
69-70	204528	0.56	VBK-3	0.70	25.0
90-91	204550	0.29	VBK-4	0.32	10.3
89-90	204549	4.84	VBK-5	4.19	-13.4
88-89	204548	0.20	VBK-6	0.16	-20.0

The two sets of gold analyses compare quite favourably. Only sample VBK-2 showed a significant difference from the original. The variations are also dispersed, not consistently higher or lower with one set of results.

### 14.0 Adjacent Properties

Mawson Resources, by way of Mawson Sweden, AB, has acquired the Granselliden nr 1, Granselliden nr 2, Bjurbäcksliden nr 1, Näverliden nr 1 and Kåringberget nr 1 Exploration Licences covering in total 18,130 hectares of ground that surrounds the Vargbäcken Mine Permit. The Granselliden nr 1 claim has since expired and been reapplied for as *Granselliden nr 3*, and Stenberget nr 1 has also expired and been reapplied for as *Stenberget nr 2*. The western part of the Granselliden nr 2 claim also surrounds the Stenberget nr 2 claim that contains the Middagsberget and Fäbodliden prospects (Figure 2). These gold prospects, a few kilometres to the southwest of Vargbäcken deposit, are among the larger and better described occurrences in the district. All the known gold-quartz mineralization in this area is associated with dioritic intrusions, exemplified by Vargbäcken gold deposit (Panteleyev, 2004). These properties now belong to FRF.

Mawson completed a phase I, eight-hole, RC drill program totalling 583m on the Middagsberget property by July 2005. Using a 0.5 g/t gold cut-off grade, the best results obtained are:

- RC01: 11m of 2.05 g/t gold from 32m, including 2m of 5.92 g/t gold;
- RC08: 29m of 1.37 g/t gold from 52m, including 2m of 4.91 g/t gold;
- RC07: 4m of 5.79 g/t gold from 42m, including 1m of 20.30 g/t gold;
- RC04: 6m of 2.07 g/t gold from 34m;
- RC02: 3m of 2.42 g/t gold from 26m, including 1m of 5.50 g/t gold;  
4m of 2.72 g/t gold from 53m, including 1m of 9.01 g/t gold.

Gold mineralisation was delineated over an area of 100m by 100m, and the mineralisation remained open in all directions.

Ensuing mapping and soil sampling surveys have extended the known gold mineralisation from the Middagsberget zone to the Fäbodliden A, B and C zones, a further 3.1km to the north-northwest.

At the Fäbodliden B prospect, 1.8 km NNW of Middagsberget, at least 4 mineralized structures, each up to 1.5m wide, were traced for up to 150m along strike over an area 380m x 360m. Thirty rock samples from here averaged 2.87 g/t gold within a range from 0.01 g/t to 33.1 g/t gold.

One metre wide channel samples at Fäbodliden A, located 3.1km NNW of Middagsberget, averaged 0.39 g/t gold over 28m with samples ranging from 0.01 to 4.55 g/t gold. Mineralization is associated with quartz veined and silica-sulphide altered diorite. At Fäbodliden C, located 1.5km NNW of Middagsberget, ten samples taken from pervasively silicified and quartz veined diorite over an area 600m by 60m averaged 0.23 g/t gold and ranged from 0.02 to 0.8 g/t gold.

Outcrops are sparse in this area, but evidence suggests that the mineralization is structurally controlled and localized along the folded diorite-sediment contact where quartz veins are developed within broader zones of silica-chlorite-sulphide alteration (Hudson, 2005).

Further mapping and sampling led to the discovery of the Middagsberget North zone, about 1km NNW of the main Middagsberget showing which was drilled earlier that year. In total, 17 samples collected from boulders over an area 430m by 60m ranged from 0.02 g/t to 19.5 g/t gold, averaging 1.6 g/t gold. The angular nature of these boulders suggests that they have not been transported a great distance. A ground magnetic survey indicates that this new area lies within the 3.1km long Middagsbert-Fäbodliden trend interpreted by Mawson.

A second phase drilling program was completed at Middagsberget in October 2005.

Sixteen holes were completed for a total of 1171 metres. Nine of the holes tested the immediate strike extensions of the Middagsberget prospect; seven holes tested some surface geochemical anomalies within 1.2km of the Middagsberget prospect. Using a 0.5 g/t gold cut-off grade, the best results obtained are:

- RC09: 5m of 3.5 g/t gold from 20m, including 1m at 12.0 g/t gold;
- RC12: 1m of 12.9 g/t gold from 57m;
- RC13: 2m of 4.1 g/t gold from 34m;
- RC14: 4m of 1.5 g/t gold from 63m;
- RC15: 2m of 3.0 g/t gold from 42m;
- RC20: 6m of 1.1 g/t gold from 25m.

Gold mineralization has now been delineated over an area 300m by 100m and remains open at depth and to the northwest and southeast along the interpreted trend of the system. The mineralization has been traced by drilling from 15m to 80m below surface.

Further surface work at Middagsberget North discovered a 250m long boulder train containing bonanza-grade gold. Individual grab samples from five large and angular boulders up to 1m<sup>3</sup> in volume averaged 19.7 g/t gold within a range from 0.01 g/t to 60.8 g/t gold. These boulders are located 250m further southwest and down-ice from the boulders sampled previously.

A three hole, 247 m RC program was completed in the summer of 2006 at the Middagsberget North zone. The tested target was a coincident arsenic-gold in bedrock and boulder train anomaly. The holes failed to determine the source of the anomaly and boulders. The best result came from hole MIDNRC0602 which returned 9 metres averaging 0.45 g/t gold (Hudson, 2006).

## **15.0 Mineral Processing and Metallurgical Testing**

North Atlantic Natural Resources submitted six samples for bench scale testing by Lakefield Research Limited of gold recovery by cyanidation and gravity separation. A composite sample was prepared from the six individual samples and produced a sample with composite gold grade of 2.55 g/t. From the composite a 500 gram sample was cyanided for 48 hours. A 2 kilogram sample was ground so that about 60 per cent passed through a 200 mesh screen and the fines were put through a Falcon Superbowl Concentrator. The cyanide treatment resulted in a gold recovery of 98.8 per cent; the gravity concentrate recovered 68 per cent of the gold.

Mawson Resources has conducted no further metallurgical studies.



## **16.0 Mineral Resource Estimates**

### **16.1 Database Validation**

#### **16.1.1 Introduction**

The database used for the Vargbäcken May 2007 resource update was based upon the database used for the 2006 resource estimate (which was performed by RSG Global), with the addition of 9 extra drillholes (4 RC drillholes and 5 diamond drillholes) drilled by Mawson Resources Limited ('Mawson') in mid- to late-2006. The addition data for the extra drillholes were imported and validated by RSG Global.

The original 2006 database for the Vargbäcken prospect was compiled by Mawson technical staff and validated by RSG Global geological staff in Perth, Western Australia. Drillhole data from the 2004 to 2006 drilling conducted by Mawson was compiled directly into a relational Microsoft Access database by Mawson staff. Drilling data from North Atlantic Natural Resources ('NAN') conducted during 1997 and 1998 was compiled and validated by Mawson staff from available records. Drilling and data collection practices are outlined in the current report and in Panteleyev (2004).

The topographic pickup of the area supplied for the 2006 resource estimate was used, with changes made where necessary to incorporate the collar locations of the additional 9 drillholes.

#### **16.1.2 Validation of the Supplied Database**

The following database validation activities have been carried out by RSG Global in 2006 and 2007:

- Ensure compatibility of total hole depth data in the collar, survey, assay, geology, veining, and density table;
- Checking of drillhole collar locations against the surface topographic pick-up;
- Checking of drillhole survey records for unusual or suspect downhole deviations;
- Replacement of less than detection limit values (such as -0.005) with a positive numeric value of half the detection limit;
- Ensuring that the correct preferred assay value was used when multiple methods had been used to analyse an interval;
- Checking of geology logging codes;
- Replacement of missing or unsampled intervals with -99 for dilution prior to compositing; and
- Cross-checking of supplied Excel based laboratory assay files against the drillhole database for selected samples (top 20 gold assays plus 20 random samples).

No anomalies were identified in the manual cross-checks of the supplied Excel assay files. No original laboratory hard copies or certified electronic copies were checked in this process. No material errors were identified during the RSG Global database

validation activities.

### 16.1.3 Database Development

The validated drillhole database was linked to Surpac software using an ODBC link. Summary statistics of the drillhole database used for the current resource are displayed in Table 16.1.3\_1, while a list of the drillholes used in the study are included in Appendix 5.

**Table 16.1.3\_1**  
**Drilling and Sampling Statistics**

Vargbäcken Prospect					
Exploration Program	Method	Number	Average Length	Total Metres	Number of Primary Assays
NAN 1997	DD	13	179.7	2,336	867
NAN 1998	DD	17	148.2	2,519.7	629
Mawson 2004/2006	RC	39	107.33	4,186	2500
Mawson 2006	DD	5	236.25	1181.25	723
<b>Total</b>	<b>Drilling</b>	<b>74</b>	<b>136.55</b>	<b>10,241</b>	<b>4719</b>

## 16.2 Geological Interpretation and Modelling

### 16.2.1 Introduction

Lithological and mineralised domains were based upon those used for the 2006 resource estimate undertaken by RSG Global with changes made to accommodate new information from the additional 8 drillholes that were drilled subsequent to the 2006 resource estimate. The lithological and mineralised domain boundaries were interpreted using Surpac 3D mining software. Wireframe models of the lithological and grade domains were used to constraint the estimate for the deposit. The surface topography was defined using the combination of a 2006 surface survey conducted by Mawson, and the collars of the drillholes (also re-surveyed by Mawson).

### 16.2.2 Lithological Boundaries

Two principal lithologies have been identified at Vargbäcken; predominantly unmineralised meta-greywackes and the variably mineralised, north-east trending sill-like diorite which is parallel to the trend of the northern limb of an anticlinal axial trace (Panteleyev, 2004). The mineralised diorite, which contains the bulk of the mineralisation in the Vargbäcken project area, is interpreted to be faulted by three steep, north-west trending brittle faults, each with an estimated displacement of up to 60m. Based upon the results of the three-dimensional (3D) modeling, sub-block rotation by the faulting is also suspected to have occurred.

As for the 2006 estimate, four separate, fault displaced diorite bodies were modeled as part of the geological model. These bodies were modeled as closed three dimensional

solid models (3DM's). The three interpreted faults were modeled as wireframe surfaces.

The project area is overlain by up to 1 to 10m of glacial overburden. The overburden was modeled as a wireframe surface.

A typical cross section of the drilling and the modeled wireframe boundaries of the interpreted contacts is displayed in Figure 16.2.2\_1.

#### 16.2.3 Oxidation/Weathering Boundaries

No oxidation or weathering boundaries have been modeled for the Vargbäcken deposit. The rock type has been interpreted as fresh rock below the glacial overburden.

#### 16.2.4 Mineralised Domain Boundaries

Mineralised domain boundaries for the purpose of constraining the resource estimation have been modeled based on the geological logging, trench mapping and interpreted geological and structural controls. The interpretation reflects the following features:

- Mineralisation occurs predominantly near the north-west boundary of the diorite and surrounding meta-greywacke units, although several less-continuous mineralised zones were modeled away from the north-western diorite/meta-greywacke contact;
- Mineralisation occurs predominantly in the diorite bodies, with several discontinuous intersections encountered in the adjacent meta-greywacke unit. The extent of mineralisation in the greywacke unit has been limited using modeled contacts. A nominal 0.3g/t gold grade threshold was used to model the mineralised domain boundaries. This has resulted in a reasonable level of continuity between drilled sections; and
- There is a strong association between quartz veining and gold mineralisation. Logged quartz percentages were used as a guide when determining mineralised domain boundaries.

A total of nine mineralised domains were modeled. The mineralised domains (zones) were given codes 20 to 28 for the purposes of distinguishing areas during grade estimation. The drilling of the 9 additional drillholes by Mawson in 2006 has resulted only in minor to moderate changes to the geometries of Zones 20 and 21 and to the contacts of the respective diorite bodies when compared to the 2006 modeling.

Representative plan, cross-sectional and perspective views of the wireframe solid model of the mineralised domains are displayed in Figures 16.2.4\_1 to 16.2.4\_3.

#### 16.2.5 Validation of Geological Interpretation and Wireframe Models

- The geological constraints interpreted and modeled in the current study have been reviewed and validated in detail, with the following activities undertaken:-
- Review all modeled boundaries in plan, cross-section, long-section, oblique section

- and 3D rotated views;
- Ensure that all wireframe solids are closed and set to solid; and
- Compare the final geological model against available geophysical data (IP data was found to be very effective in delineating the diorite contacts).

## 16.3 Statistical Analysis

### 16.3.1 Introduction

Extensive statistical analysis was undertaken based upon 3m composites of the gold assay data and the bulk density data for the drilling. The activities completed for this phase of the study include:

- Coding the drillhole database based upon the mineralised domain models;
- Compositing the drillhole sampling to 3m down the hole;
- Compilation of descriptive statistics and histogram plots of the composited gold datasets, subdivided by mineralised domain;
- Outlier grade analysis and determination of upper-cuts for the gold composites; and
- Compilation of conditional statistics and determination of indicator thresholds for multiple indicator kriging (MIK) of gold.

### 16.3.2 Data Coding

The 3DM models of the mineralised domains were used to assign a series of codes into the drillhole database to allow the assessment of variations in grade and bulk density amongst the various domains. The coding applied is summarised in Table 16.3.2\_1.

**Table 16.3.2\_1**  
**Domain Coding – Vargbäcken**

Domain	Wireframe		Variable	
Type	Description	Name (*.dtm)	Object Number	Database Code
Overburden	All Overburden	rsg_overburden_box.dtm	1	1
Mineralisation Domains	Domain 20	revised_minxn2.dtm	20	20
	Domain 21	revised_minxn2.dtm	21	21
	Domain 22	revised_minxn2.dtm	22	22
	Domain 23	revised_minxn2.dtm	23	23
	Domain 24	revised_minxn2.dtm	24	24
	Domain 25	revised_minxn2.dtm	25	25
	Domain 26	revised_minxn2.dtm	26	26
	Domain 27	revised_minxn2.dtm	27	27
	Domain 28	revised_minxn2.dtm	28	28

The overburden and mineralised domain coding assigned to the drillhole and trench samples was visually compared with the corresponding wireframe boundaries in cross section and plan views to ensure all coding was robust. No errors were detected.

### 16.3.3 Compositing

As for the 2006 estimate, the drillhole samples were composited into 3m intervals, with a minimum composite length of 1.2m allowed. The compositing was performed as a means of achieving a uniform sample support. Any composite that was less than 1.2m was discarded. Intervals with no samples were assigned a zero grade for the composite calculation (diluted composites).

### 16.3.4 Statistical Analysis of the Composite Data

During the 2006 resource estimate it was decided to use only the Mawson drillhole samples for grade estimation as only approximately 22% of the NAN diamond core intersecting the main mineralised zones was sampled (621m out of a potential 2,818m). In 2006, the application of a dilution grade (e.g. 0.0025g/t Au) for non-sampled intervals resulted in the diluted NAN diamond drillhole composites having an average grade of 0.92g/t Au (from 192 composites) versus 1.1g/t Au for the diluted Mawson RC drillhole composites (from 444 composites). In contrast, the undiluted NAN diamond drillhole composites had an average grade of 1.13g/t Au (from 158 composites) which compared well to the average grade of 1.1g/t Au from the diluted Mawson RC drillhole composites (from 444 composites). Accordingly, only the Mawson drillhole samples were used for the 2007 resource upgrade.

Descriptive statistics of the composite gold data subdivided by the mineralised domains are summarised in Table 16.3.4\_1. The highest mean gold grades are reported for Zone 26, followed by Zone 20. The composites in Zone 24 and Zone 22 report the lowest mean grade. These zones are located further away from the western diorite/meta-greywacke contact than the other zones. The normalised variability (CV; calculated by dividing the standard deviation by the arithmetic mean) is highest for Zone 20.

**Table 16.3.4\_1**  
**Summary Statistics – Vargbäcken 2007**  
**Mawson Drilling - 3m Diluted Composites - No Residuals**

Zone	20	21	22	23	24	25	26	27	28	All Naive	All Declustered <sup>^</sup>
Count	314	199	47	6	33	46	13	21	1	680	680
Minimum	0.001	0.010	0.010	0.080	0.027	0.083	0.060	0.010	1.223	0.001	0.001
Maximum	49.82	10.13	11.98	2.32	7.76	15.09	10.98	3.67	1.22	49.82	49.823
Mean	<b>1.28</b>	<b>0.78</b>	<b>0.74</b>	<b>1.02</b>	<b>0.79</b>	<b>1.15</b>	<b>2.13</b>	<b>0.67</b>	<b>1.22</b>	<b>1.06</b>	<b>1.13</b>
Median	0.45	0.40	0.18	0.65	0.24	0.67	0.61	0.30	1.22	0.42	0.423
Standard Deviation	4.12	1.26	1.78	0.96	1.70	2.16	3.43	0.83	-	3.05	2.786
Variance	16.97	1.58	3.16	0.92	2.87	4.68	11.76	0.69	-	9.31	7.759
Coefficient of Variation	3.23	1.61	2.41	0.94	2.16	1.88	1.61	1.25	-	2.89	2.471

<sup>^</sup> Declustering was performed without zone domaining, based upon a 40m X by 40m Y x 18m Z block.

The effect of the inclusion of the sample data from the additional 9 drillholes is to slightly lower the mean grade of the 3m composites for the main mineralised zones (20, 21, 23, 24 and 25) from 1.11ppm Au in 2006 (444 samples) to 1.06ppm Au (552 samples), a 4% decrease.

Log probability plots (Figure 16.3.4\_1) for the gold data indicate that the gold composites form positively skewed distributions typical of gold deposits. Individual log histograms and probability plots of each zone are presented in Appendix 6.

#### 16.3.5 Outlier Analysis and Determination of Upper Cuts

Assessment of the high grade gold composites was completed to determine the requirement for high-grade cutting to be used for resource estimation. The approach taken is summarised as follows:

- Detailed review of histogram and probability plots, with significant breaks in populations used to interpret possible outliers;
- Detailed review of spatial distribution plots;
- Ranking of the composite data and the investigation of the influence of individual composites on the mean and standard deviation; and

Based upon this assessment it was decided not to cut the composite data for Multiple Indicator Kriging (MIK).

#### 16.3.6 Conditional Statistics

Conditional statistics were generated for Vargbäcken as Multiple Indicator Kriging (MIK) was considered an appropriate estimation methodology for the gold mineralisation. The conditional statistics were used to determine the appropriate indicator thresholds and also the intra-class mean grades to allow post-processing of the MIK estimates. The composite data for all of the domains were grouped for this purpose.

Initial conditional statistics were compiled based on the 10<sup>th</sup>, 20<sup>th</sup>, 30<sup>th</sup>, 40<sup>th</sup>, 50<sup>th</sup>, 60<sup>th</sup>, 70<sup>th</sup>, 80<sup>th</sup>, 90<sup>th</sup>, 92.5<sup>th</sup>, 95<sup>th</sup>, 97.5<sup>th</sup>, 99<sup>th</sup> and 99.5<sup>th</sup> percentiles of the composite data. The thresholds were then slightly adjusted to better accommodate the sample and grade distribution. The conditional statistics are summarised in Table 16.3.6\_1. It was decided to use the median of the top bin (15.60g/t Au) instead of the mean (21.82g/t Au) to limit the effect of outlier grades in the top bin.

<b>Table 16.3.6_1</b> <b>Conditional Statistics for Mawson RC and Diamond Composite Gold Data</b> <b>Using 3m un-cut composites, no residuals added</b>				
<b>Sample Percentile (%)</b>	<b>Threshold (Au g/t)</b>	<b>Samples</b>	<b>Class Mean (Au g/t)</b>	<b>Declustered^ Mean (Au g/t)</b>
7	<b>0.04</b>	49	0.02	0.02
13	<b>0.07</b>	42	0.05	0.06
25	<b>0.14</b>	77	0.10	0.11
33	<b>0.22</b>	54	0.18	0.18
44	<b>0.34</b>	80	0.27	0.27
55	<b>0.49</b>	73	0.42	0.42
66	<b>0.71</b>	75	0.59	0.59
78	<b>1.11</b>	82	0.89	0.89
84	<b>1.5</b>	41	1.27	1.25
89	<b>1.89</b>	34	1.68	1.69
94	<b>2.5</b>	30	2.16	2.14
95	<b>3.06</b>	12	2.80	2.76
96	<b>4</b>	7	3.64	3.70
97	<b>5.47</b>	5	4.44	4.42
99	<b>10.98</b>	10	7.74	7.95
		9	21.82	15.60 (median)

^ Declustering was performed without zone domaining, based upon a 40m X by 40m Y x 18m Z block

### 16.3.7 Statistical Analysis – Bulk Density Data

Bulk density data was available for four holes in the Vargbäcken deposit (VBN98015, VBN98016, VBN98021 and VBM98022). A total of 112 density readings were taken, 87 in diorite, 9 in meta-greywacke and 16 in basalt. The summary statistics for the bulk density readings are shown in Table 16.3.7\_1, whilst histogram plots are displayed in Appendix 3.

<b>Table 16.3.7_1</b> <b>Summary Statistics of Bulk Density Readings Grouped by Major Rock Types</b>				
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<b>Statistic</b>	<b>Diorite</b>	<b>Meta-Greywacke</b>	<b>Basalt</b>	<b>Overburden</b>
Count	87	9	16	-
Minimum	2.57	2.72	2.63	-
Maximum	2.91	2.86	2.97	-
Mean	2.75	2.78	2.75	-
Median	2.76	2.77	2.74	-
Standard Deviation	0.05	0.04	0.07	-
Variance	0.002	0.001	0.01	-
Coefficient of Variation	0.02	0.01	0.03	-
Density Used for Resource	2.75	2.75	2.75	1.8

Based upon a statistical analysis of the bulk density data, including analysis of the histograms, a density of 2.75t/m<sup>3</sup> was found to be appropriate for the diorite, basalts and greywacke. No density data was available for the unmineralised overburden (mostly glacial till). A value of 1.8t/m<sup>3</sup> was selected as being appropriate.

## **16.4 Variography**

### **16.4.1 Introduction**

Variography is used to describe the spatial variability or correlation of an attribute (gold, silver, sulphur, etc). The spatial variability is traditionally measured by means of a variogram, which is generated by determining the averaged squared difference of data points at a nominated distance (h), or lag. The averaged squared difference (variogram or  $\gamma(h)$ ) for each lag distance is plotted on a bivariate plot where the X-axis is the lag distance and the Y-axis represents the average squared differences ( $\gamma(h)$ ) for the nominated lag distance.

In this document, the term “variogram” is used as a generic word to designate the function characterising the variability of variables versus the distance between two samples. Both a traditional measure and a correlogram have been applied for the estimation studies completed for the Vargbäcken prospect.

Fitted to the determined experimental variography is a series of mathematical models which, when used in the kriging algorithm, will recreate the spatial continuity observed in the variography.

A combination of software packages have been employed to generate and model the variography, including the geostatistical software Isatis and the mining planning software package Vulcan. The rotations are reported as input for grade estimation, with X (rotation around Z axis), Y (rotation around Y`) and Z (rotation around X``) also being referred to as the major, semi-major and minor axes.

### **16.4.2 Vargbäcken Variography**

It was decided to use the results from the 2006 Vargbäcken variographic analysis performed by RSG Global for the 2007 resource update as only 9 additional drillholes had been drilled in the deposit.

In 2006, detailed grade and indicator variography was generated for the grouped domains. The approach taken to the variography was to generate a number of directional and down-the-hole variograms to identify the major directions of continuity prior to final generation and modelling. A number of directional variograms (15 thresholds) were generated and modeled for the grouped domains. Two spherical structures were fitted to the variograms.



The gold indicator variograms are presented in Table 16.4.2\_1. Detailed plots of the variography are shown in Appendix 4.

The indicator variography is characterised by a high nugget (0.45 to 0.65) and short ranged structures (13 to 30m for the first structure). This indicates that there is a significant amount of short-scale variability present. The total range for the indicators is relatively short, varying from 30 to 70m.

<p align="center"><b>Table 16.4.2_1</b></p> <p align="center"><b>Indicator Variograms for Gold – Vargbäcken</b></p>
---

All Domains									
Threshold	C <sub>0</sub>	C <sub>1</sub>	Range 1 (m)			C <sub>2</sub>	Range 2 (m)		
			X	Y	Z		X	Y	Z
0.04	0.55	0.25	20	20	4	0.20	40	35	12
0.07	0.55	0.25	20	20	4	0.20	50	40	15
0.14	0.50	0.30	25	20	4	0.20	70	55	15
0.22	0.45	0.32	30	10	4	0.23	70	55	15
0.34	0.45	0.25	30	10	5	0.30	70	55	15
0.49	0.45	0.25	30	10	5	0.30	70	50	15
0.71	0.50	0.30	25	15	5	0.20	70	45	15
1.11	0.50	0.30	25	15	5	0.20	60	40	12
1.5	0.55	0.30	22	15	7	0.15	60	40	12
1.89	0.55	0.30	15	15	7	0.15	45	40	12
2.5	0.55	0.23	13	20	7	0.22	45	40	12
3.06	0.55	0.23	13	20	7	0.22	45	40	12
4	0.60	0.23	13	20	4	0.17	40	35	9
5.47	0.65	0.20	13	15	4	0.15	40	35	6
10.98	0.65	0.20	13	15	4	0.15	30	25	6

### 16.4.3 Summary

The modeled variography is consistent with the interpreted controls on the mineralisation wherein a high degree of short scale variability exists between intercepts from adjacent drillholes and section lines. The implication of the generally high nugget is that a moderate to high level of smoothing will be produced by kriging. In addition, direct or linear estimation of small blocks suitable for mine planning is not appropriate. RSG Global considers that a non-linear approach is appropriate for estimation and as such selected Multiple Indicator Kriging. In addition to the estimation implications discussed above, the variography indicates that a close spacing of grade control drilling will be required before mining.

## 16.5 Block Modelling

### 16.5.1 Introduction

As for the 2006 resource estimate by RSG Global, a block model was constructed using the Surpac and Vulcan mining software packages. The initial volume model was created in Surpac; this model was then transferred to Vulcan for the MIK grade estimation and Change of Support (COS) corrections. The resulting MIK and COS variables were then back-imported into Surpac for validation, grade tonnage reporting and resource classification.

### 16.5.2 Block Construction Parameters

Table 16.5.2\_1 summarises the extents of the Vargbäcken block model. The resource block model was developed using block dimensions of 10m in the x-axis, 20m in the y-axis and 5 m in the z-axis with sub-blocking to 2.5m in the x-axis, 5m in the y-axis and 1.25m in the z-axis to allow appropriate resolution of the topographic surface, geology and mineralised zones. A rotation of 45 degrees clock-wise was applied from the origin so that the resultant block model was orientated parallel to the main mineralised zones and geological boundaries.

<b>Table 16.5.2_1</b> <b>2007 Block Model Dimensions</b>
---

	Origin	Extent	Number	Block Size	
				Parent	Sub-block
East	1617800	360	36	10	2.5
North	7225400	1040	52	20	5
Elevation	100	340	68	5	1.25
Rotation	45 degrees				

Table 16.5.2\_2 displays a full listing of the variables in the Vargbäcken block model. Table 16.5.2\_3 summarises how the geological and mineralised domain coding was applied to the block model.

<b>Table 16.5.2_2</b> <b>Block Model Variables</b>
---

Variables	Type	Default	Description
au_wb	Real	-99	Whole block gold estimate - MIK
category	Integer	0	Resource Classification: 1= Measured, 2 = Indicated, 3=Inferred
density	Real	2.7	Bulk Density
estflag	Real	0	MIK estimation flag
g0p4	Real	0	SMU gold grade >= 0.4g/t Au
g0p5	Real	0	SMU gold grade >= 0.5g/t Au

g0p6	Real	0	SMU gold grade >= 0.6g/t Au
g0p7	Real	0	SMU gold grade >= 0.7g/t Au
g0p8	Real	0	SMU gold grade >= 0.8g/t Au
g0p9	Real	0	SMU gold grade >= 0.9g/t Au
g1p0	Real	0	SMU gold grade >= 1.0g/t Au
g1p2	Real	0	SMU gold grade >= 1.2g/t Au
g1p5	Real	0	SMU gold grade >= 1.5g/t Au
g2p0	Real	0	SMU gold grade >= 2.0g/t Au
geology	Integer	20	0 = air, 5 = Overburden, 10=Diorite/basalt, 20-Meta-greywacke
ind1	Real	0	Indicator kriged estimate for threshold 1
ind10	Real	0	Indicator kriged estimate for threshold 10
ind11	Real	0	Indicator kriged estimate for threshold 11
ind12	Real	0	Indicator kriged estimate for threshold 12
ind13	Real	0	Indicator kriged estimate for threshold 13
ind14	Real	0	Indicator kriged estimate for threshold 14
ind15	Real	0	Indicator kriged estimate for threshold 15
ind16	Real	0	Indicator kriged estimate for threshold 16
ind17	Real	0	Indicator kriged estimate for threshold 17
ind2	Real	0	Indicator kriged estimate for threshold 2
ind3	Real	0	Indicator kriged estimate for threshold 3
ind4	Real	0	Indicator kriged estimate for threshold 4
ind5	Real	0	Indicator kriged estimate for threshold 5
ind6	Real	0	Indicator kriged estimate for threshold 6
ind7	Real	0	Indicator kriged estimate for threshold 7
ind8	Real	0	Indicator kriged estimate for threshold 8
ind9	Real	0	Indicator kriged estimate for threshold 9
t0p4	Real	0	SMU probability >= 0.4g/t Au
t0p5	Real	0	SMU probability >= 0.5g/t Au
t0p6	Real	0	SMU probability >= 0.6g/t Au
t0p7	Real	0	SMU probability >= 0.7g/t Au
t0p8	Real	0	SMU probability >= 0.8g/t Au
t0p9	Real	0	SMU probability >= 0.9g/t Au
t1p0	Real	0	SMU probability >= 1.0g/t Au
t1p2	Real	0	SMU probability >= 1.2g/t Au
t1p5	Real	0	SMU probability >= 1.5g/t Au
t2p0	Real	0	SMU probability >= 2.0g/t Au
weathering	Integer	0	0 - air, 1 Overburden, 2-Fresh
zone	Integer	0	Mineralised zone code

**Table 16.5.2\_3**  
**Block Model Domain Coding**

Domain Type	Description	Wireframe Name (*.00t)	Description	Variable Name	Code
Lithology	Diorite/Basalt Meta-Greywacke Overburden	revised_geol2.dtm N/A rsg_overburden_box.dtm	Diorite bodies Surrounding meta-greywackes Base of overburden	geology geology geology	10 20 5
	air	rsg_topo2.dtm	Surface topography	geology	0
Weathering	Fresh (default) Overburden	rsg_overburden_box.dtm rsg_overburden_box.dtm	Fresh Rock Overburden	weathering weathering	2 1
	Air (default)	rsg_topo2.dtm	Surface topography	weathering	0
Mineralisation Domains	Zone 20	revised_minxn2.dtm	Zone 20 = Object 20	zone	20
	Zone 21	revised_minxn2.dtm	Zone 21 = Object 21	zone	21
	Zone 22	revised_minxn2.dtm	Zone 22 = Object 22	zone	22
	Zone 23	revised_minxn2.dtm	Zone 23 = Object 23	zone	23
	Zone 24	revised_minxn2.dtm	Zone 24 = Object 24	zone	24
	Zone 25	revised_minxn2.dtm	Zone 25 = Object 25	zone	25
	Zone 26	revised_minxn2.dtm	Zone 26 = Object 26	zone	26
	Zone 27	revised_minxn2.dtm	Zone 27 = Object 27	zone	27
	Zone 28	revised_minxn2.dtm	Zone 28 = Object 28	zone	28

### 16.5.3 Block Model Validation

The block model was extensively validated against the geological and mineralisation model wireframes and the surface topography. The model has also been validated by viewing in multiple orientations using 3D viewing tools in Surpac.

### 16.5.4 Bulk Density Assignment

Bulk densities determined as per Table 16.3.7\_1 were assigned to the block model as displayed in Table 16.5.4\_1.

**Table 16.5.4\_1**  
**Block Model Bulk Density Assignments**

<b>Rock Type</b>	<b>Oxidation</b>	<b>Density</b>
Air	N/A	0
Overburden	N/A	1.8
Meta-greywacke	Fresh	2.75
Diorite/Basalt	Fresh	2.75

## **16.6 Grade Estimation**

### **16.6.1 Introduction**

Resource estimation for the Vargbäcken Prospect has been undertaken using Multiple Indicator Kriging (MIK) as the estimation methodology for gold.

Post processing of the MIK results was undertaken to produce a whole block or E-type mean estimate and selective mining unit (SMU) emulation for gold.

All primary estimates were completed using the Vulcan implementation of the GSLib indicator kriging algorithm, while post-processing of the MIK results was completed using RSG Global software.

### **16.6.2 Multiple Indicator Kriging**

#### Methodology

The multiple indicator kriging (MIK) technique is implemented by completing a series of Ordinary Kriging (OK) estimates of binary transformed data. A composite grade which is equal to or above a nominated cutoff or threshold is assigned a value of 1, while those below the nominated threshold are assigned a value of 0. Variography is computed and modeled on these binary transformed datasets to determine kriging parameters, with a series of OK estimates then undertaken for each of the nominated indicator thresholds using the transformed datasets.

The indicator estimates, with a range between 0 and 1, represent the probability the block will exceed the indicator cutoff grade. The probability of the points exceeding a cutoff can also be considered equivalent to the proportion of a nominated block that will exceed the nominated cutoff grade.

The estimation of a complete series of indicator cut-offs allows the reconstitution of the local histogram or conditional cumulative distribution function (ccdf) for the estimated block. This allows investigation of a series of local or block properties, such as the whole block mean grade and the proportion of the block, and corresponding grade, above or below a nominated cutoff grade. Such investigations require 'Post Processing' of the

MIK results, as discussed in Section 16.6.3.

### Multiple Indicator Kriging – Vargbäcken

MIK estimation was undertaken based on the 3m composite gold data within the grouped mineralised domains at Vargbäcken. Only Mawson RC and diamond composite data was used in the MIK estimation process. MIK was completed using 15 indicator thresholds selected to adequately partition both the sample population and metal distribution, as discussed in Section 16.3.6.

Sample neighbourhood testing was completed using the 2006 derived variography in to determine an appropriate search strategy for MIK estimation. This resulted in the use of a staged sample search strategy, as summarised in Table 16.6.2.2\_1. The effects of data clustering were minimised by using a maximum of 10 composites from any single drillhole to complete a block estimate. The rotations are reported as input for grade estimation, with X (rotation around Z axis), Y (rotation around Y`) and Z (rotation around X`) also being referred to as the major, semi-major and minor axes.

Estimation within the grouped domains used the variogram model parameters determined from the indicator variography, as discussed in Section 16.4.2.

The MIK estimation for the grouped domains was completed using whole block discretisation of 4 points in the x-dimension, 6 points in the y-direction and 2 points in the z-dimension for a total of 48 points per whole block estimate. Any sub-blocks within the 3D limit of each whole block were assigned the whole block MIK estimate.

<p><b>Table 16.6.2_1</b></p> <p><b>Sample Search Parameters – Multiple Indicator Kriging</b></p>
--

Domain	Pass	Search Orientation			Search Radii			Number of Samples		
		Bearing (Z- rotation)	Plunge (Y' - rotation)	Dip (X' - rotation)	Major Axis (m)	Semi-Major Axis (m)	Minor Axis (m)	Min	Max	Max / Hole
All	1	234.85	-44.14	-76	40	30	10	25	32	10
	2	234.85	-44.14	-76	80	60	20	4	32	10
	3	234.85	-44.14	-76	200	100	100	1	32	999

Domain control was not used for the input composite data due to the general dispersed nature of the mineralisation, and potential uncertainty both the location of interpreted faults and in sectional interpretations. As discussed in Section 16.3.4, the NAN series of

diamond drillholes were incompletely sampled through the mineralized zones, and the undiluted composites had a similar distribution to the RC composites, it was decided to only run the estimate using the Mawson RC and diamond composite samples.

### 16.6.3 Post IK Processing

#### Methodology

The primary function of MIK is to produce a conditional cumulative distribution function (ccdf) or local histogram for each block, conditional on or dependent on the data in the local estimation neighbourhood. The local histogram is constructed by combining the data from each of the estimates, produced using the range of indicator cutoffs, into a cumulative distribution function representing the entire block. The estimated indicator cutoffs represent the probability (or proportion) of that block exceeding the nominated cutoff for the given sample support or size.

#### Whole Block E-Type Mean Estimates

The E-type mean provides an estimate for the grade of the total block or “bulk-mining” scenario. This is achieved by discretising the calculated ccdf for each block into a nominated number of intervals and interpolating between the given points with a selected function (e.g.: the linear, power or hyperbolic models). The combination of all these interpolated values enables an average of the entire ccdf function to be determined and therefore an average whole block grade to be determined.

The following example shows the determination of an E-type mean grade estimate for a block containing three indicator cutoffs.

The indicator cutoffs and associated probabilities calculated are:

<i>Indicator</i>	<i>Cutoff Grade Aug/t</i>	<i>Indicator Probability (cumulative)</i>
minimum grade *	0	0.00 **
indicator 1	1	0.40
indicator 2	2	0.65
indicator 3	3	0.85
maximum grade *	4	1.00 **

Note : \* Cutoff grades determined by the user.

\*\* Indicator probability is assumed at the minimum and maximum cutoff

The whole block grade can now be determined in this block with the following parameters used for the purposes of the interpolation:

- Number of discretisation intervals: 4.
- Linear extrapolation between all points (median grade between nominated cutoffs).
- The worked example is then calculated with the following steps:-
- Interval 1 (0-1g/t Au)      median grade x probability/proportion attributed to the

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interval (0.5g/t Au x 0.40 = 0.200).

- Interval 2 (1 - 2g/t Au) median grade x proportion (1.5g/t Au x 0.25 = 0.375).
- Interval 3 (2 - 3g/t Au) median grade x proportion (2.5g/t Au x 0.20 = 0.500).
- Interval 4 (3 - 4g/t Au) median grade x proportion (3.5g/t Au x 0.15 = 0.525).
- Calculate total grade average all calculated intervals  
 $((0.2+0.375+0.500+0.525)/1) = 1.60\text{g/t Au}.$

It is also possible from this example to calculate the proportion and grade above a nominated cutoff (e.g. 2g/t - at sample support or complete selectivity). The following steps would be undertaken to calculate the tonnes and grade at sample selectivity using a 2g/t cutoff:

- Interval 3 (2 - 3g/t Au) median grade x proportion (2.5g/t Au x 0.20 = 0.500).
- Interval 4 (3 - 4g/t Au) median grade x proportion (3.5g/t Au x 0.15 = 0.525).
- Calculate total grade average all calculated intervals  
 $((0.500+0.525)/0.35)=2.93\text{g/t Au}$  with 0.35% of the block above the cutoff.

The effect of using a non-linear model to interpolate between cutoffs is to shift the grade weighting associated with that cutoff away from the median. For Vargbäcken, the intra-class means based on the uncut RC composite data have been used to reconstitute the ccdf and produce block statistics. For the upper bin, the median grade was used instead of the mean.

It is noted, however, that the calculation of the E-type mean and complete selectivity often does not allow mine planning to the level of selectivity which is proposed for production. To achieve an estimate which reflects the levels of mining selectivity envisaged, a selective mining unit (SMU) correction is often applied to the calculated ccdf.

#### Support Correction (Selective Mining Unit Estimation)

A range of techniques are known to produce a support correction and therefore allow for selective mining unit emulation. The common features of the support correction are:

- Maintenance of the mean grade of the histogram (E-type mean).
- Adjustment of the histogram variance by a variance adjustment factor (f )

The variance adjustment factor, used to reduce the histogram or ccdf variance, can be calculated using the determined variogram model from the dataset and is often adjusted on the basis of similar deposits for which close spaced grade control data are available. In simplest terms, the variance adjustment factor takes into account the known relationship derived from the dispersion variance.

*Total variance = variance of samples within blocks + variance between blocks.*



The variance adjustment factor is calculated as the ratio of the variance between the blocks and the variance of the samples within the blocks, with a small ratio (e.g. 0.10) indicating a large adjustment of the ccdf variance and large ratio (e.g. 0.80) representing a small shift in the ccdf.

Two simple support corrections that are available include the Affine and Indirect Lognormal correction, which are both based on the permanence of distribution. The discrete gaussian model is often applied to global change of support studies and Uniform Conditioning, but will not be discussed in the context of MIK, however has been used as a check against the MIK results. An indirect lognormal correction was applied to produce a selective mining unit estimate for the Vargbäcken mineralisation.

### Indirect Lognormal Correction

The indirect lognormal correction can be implemented by adjusting the quantiles (indicator cutoffs) of the ccdf with the variance adjustment factor so that the adjusted ccdf represents the statistical characteristics of the block volume of interest.

This is implemented with the following formula:

$$q' = a \times q^b$$

$q$  = quantile of distribution.  
 $q'$  = quantile of the variance-reduced distribution.

where the coefficients a and b are given by the following formula:

$$a = \sqrt{\frac{m}{f \cdot CV^2 + 1}} \left[ \frac{\sqrt{CV^2 + 1}}{m} \right]$$

$$b = \sqrt{\frac{\ln(f \cdot CV^2 + 1)}{\ln(CV^2 + 1)}}$$

$m$  = mean of distribution.  
 $f$  = variance adjustment factor .  
 $CV$  = coefficient of variation.

At the completion of the quantile adjustments, grades and tonnages (probabilities are then considered a pseudo tonnage proportion of the blocks) at a nominated cutoff grade can be calculated using the methodology described above (E-type mean). The indirect lognormal correction is the best suited of the common adjustments applied to MIK to

produce selective mining estimates for positively skewed distributions.

### Post IK Processing

The MIK (gold) estimates for the grouped domains was processed to produce both whole block E-type Mean and selective mining unit (SMU) estimates, with the latter emulating 5mE by 10mN by 2.5mRL size blocks. Each MIK estimate was processed based on the corresponding declustered intra-class mean grades (between indicator thresholds) and the grade variogram models summarised in Section 16.4. The declustered intra-class mean grade data used to produce preferred whole block and SMU estimates is shown in Table 16.3.6\_1. To limit the effect of extreme grades the median grade was used for the top class instead of the class mean.

A global variance adjustment factor of 0.15 was used to determine the appropriate change of support ratio to emulate a 5mE by 10mN by 2.5mRL SMU via an indirect lognormal change of support. The resultant grade tonnage distribution for the grouped domains has been compared with a corresponding global change of support distribution generated using the discrete gaussian change of support methodology. A reasonable level of reproducibility is evident in the comparative grade tonnage curves.

A detailed visual and statistical review of the whole block and SMU estimate was conducted including:

- A comparison of the block model whole block estimate versus the mean of the composited dataset, including weighting where appropriate to account for data clustering (See Table 16.6.3.2\_1);
- A comparison of the grade estimate against a theoretical change of support analysis generated via the discrete gaussian change of support;
- Visual comparison of the input composites data with the block grade estimates in various cross section views and in plan.

The block model whole block estimates for each of the mineralised domains report mean grades showing overall acceptable reproduction of the corresponding declustered (using 1/n cell declustering) composite datasets. Some zones exhibit the effect of composite allocation from adjacent zone as domain control was not used in sample allocation during the estimation process (see Section 16.6.2.2). Overall, the block model mean grade is in acceptable agreement with the declustered and raw composite means. RSG Global considers this to be appropriate for this style of estimation. Acceptable levels of reproducibility are noted between the input composites data and the block estimates on the basis of visual review. On this basis and the other validation checks, RSG Global believes the MIK whole block and selective mining unit gold estimates are appropriate and robust.

<b>Table 16.6.3.2_1</b> <b>Global Mean Grade Comparisons for Mawson Composites</b> <b>Declustered Composites Versus MIK Whole Block Grade Estimates</b> <b>(no cutoff and volume weighted)</b>				
Domain	Block Model Mean Grade (Au g/t)	Declustering Cell Dimensions	Composites Mean Grade (Au g/t)	
			Naïve	Declustered
20	1.05	40X x 40Y x 18Z	1.28	1.48
21	1.07	40X x 40Y x 18Z	0.78	0.83
22	0.67	40X x 40Y x 18Z	0.74	1.10
23	1.38	40X x 40Y x 18Z	1.02	1.05
24	0.76	40X x 40Y x 18Z	0.78	0.54
25	1.14	40X x 40Y x 18Z	1.15	1.01
26	1.60	40X x 40Y x 18Z	2.13	1.89
27	1.00	40X x 40Y x 18Z	0.67	0.61
28	0.79	40X x 40Y x 18Z	1.22	1.22
All	0.94	40X x 40Y x 18Z	1.06	1.13

## 16.7 Resource Reporting

### Introduction

The RSG Global preferred estimates for the Vargbäcken prospect have been categorised in accordance with the criteria laid out in the Canadian National Instrument 43-101 (“CNI43”) and the JORC code. A combination of Indicated and Inferred Resources have been defined using definitive criteria determined during the validation of the grade estimates, with detailed consideration of the CNI43 categorisation guidelines.

The following resource estimates constitute the RSG Global preferred estimates:

- Whole block gold estimate based on multiple indicator kriging (MIK) and E-type mean grade post processing, or
- Selective mining unit (SMU) gold estimate emulating 5mE by 10mN by 2.5mRL size blocks based on MIK and post processing using an indirect lognormal correction.

The MIK E-type mean whole block and selective mining unit estimates constitute alternative resource estimates.

### Criteria for Resource Categorisation

The RSG Global preferred resource estimate for Vargbäcken have been classified as a combination of Indicated and Inferred Mineral Resources based on the confidence level of the key criteria that were considered during resource classification as presented in Table 16.7.1.2\_1.

<b>Table 16.7.1.2_1</b> <b>Confidence Levels of Key Categorisation Criteria</b>
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Items	Discussion	Confidence
Drilling Techniques	RC/Diamond - industry standard approach.	High
Logging	Standard nomenclature and apparent high quality.	High
Drill Sample Recovery	Acceptable recoveries determined for the majority of the drilling.	Moderate - High
Sub-sampling Techniques and Sample Preparation	Industry standard for both RC and diamond drilling. Diamond data used for geological interpretation but not for estimation. Trench data not used.	High
Quality of Assay Data	Comprehensive internal laboratory and external quality control data available for the majority of the drilling. Data is of industry standard quality.	Moderate - High
Verification of Sampling and Assaying	Diamond versus RC twin drilling completed. RC drilling can report higher grades than diamond drilling over high-grade intersections. The global data distribution for RC and Diamond 3m composites is similar where sampled.	Moderate
Location of Sampling Points	Most drillhole collars DGPS surveyed and most RC drillholes have been downhole surveyed. Diamond drillholes have down-the-hole dip surveys, but no down-the-hole azimuth surveys.	Moderate
Data Density and Distribution	The deposit defined on a notional 25mE by 25mN to 50mE by 50mN drillhole spacing with most holes drilled through the mineralised zones. Only RC samples were used for the grade estimation.	Moderate - High
Audits or Reviews	Report by Panteleyev (2004) available. 2006 Resource estimate by RSG Global available	High
Database Integrity	No material errors identified.	High
Geological Interpretation	The interpreted lithological and oxidation/weathering boundaries are considered robust and of high confidence, while the defined mineralised zone constraints are predominantly of moderate to high confidence.	Moderate - High
Estimation and Modelling Techniques	Gold estimates based on detailed statistical and geostatistical analysis. Multiple indicator kriging with post processing used to produce whole block E-type mean estimates and selective mining unit estimates. Continuity as modeled by variography sometimes ambiguous.	Moderate to High
Cutoff Grades	Range of cutoff grades reported. A maximum cutoff grade of 1.5g/t recommended due to the nature of the mineralisation modeled.	N/A
Mining Factors or Assumptions	Whole block estimates for all mineralised regions completed for 10mE by 20mN by 5mRL size blocks, while notional 5mE by 10mN by 2.5mRL block dimensions are emulated in the selective mining unit (SMU) estimate for all domains. Lower confidence in support correction for Inferred.	Moderate - High

Applying the above confidence levels, resource classification codes were assigned to the resource block model using the following criteria applied to estimation statistics recorded during estimation of the resource gold grades:

### **Indicated Resources**

An Indicated Resource has been assigned based on blocks located in regions with strong geological understanding, and drilling at, or less than, 25m spacing.

### **Inferred Resources**

Inferred Resources for both prospects are based on regions outside the Indicated Resource that had reasonable geological understanding and 2 or more drillholes within 50m spacing.

### **Grade Tonnage Reporting**

Grade tonnage reports of the categorised Mineral Resources for the Vargbäcken deposit

are displayed in Table 16.7.1.3\_1 using a range of lower gold cutoff grades.

In summary, the following Mineral Resources at the Vargbäcken deposit are reported based on the MIK whole block (10mX by 20mY by 10mZ) gold grade estimates for all estimated zones, using a lower cutoff grade of 0.6g/t Au:

- Indicated Resource: 1.74Mt @ 1.16g/t Au (65.0koz)
- Inferred Resource: 0.81Mt @ 1.42g/t Au (37.1koz)

An alternative estimate for the Mineral Resources at the Vargbäcken deposit is reported below based on a selective mining unit estimate (emulating 10mY by 5mX by 2.5mZ sized blocks) for all domains, using a 0.6g/t Au lower cutoff grade:

- Indicated Resource: 1.37Mt @ 1.44g/t Au (63.2koz)
- Inferred Resource: 0.65Mt @ 1.70g/t Au (35.8koz)

<b>Table 16.7.1.3_1</b> <b>Vargbäcken Deposit - May 2007 Resource</b> <b>Multiple Indicator Kriging Estimate - Gold</b> <b>Min-18 and Max-32 Composites (Mawson Drilling)</b>				
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Resource Category	Lower Cutoff Au (g/t)	All Domains		
		Tonnes (Mt)	Grade (g/t Au)	Ounces (Koz)
10mX x 20mY x 5mZ Whole Block Panel				
Indicated	0	2.47	0.9	75.28
	0.60	1.74	1.2	64.99
	0.80	1.28	1.3	54.77
	1.00	0.96	1.5	45.4
	1.20	0.71	1.6	36.55
	1.50	0.34	1.9	20.88
Inferred	0	0.95	1.3	38.88
	0.60	0.81	1.4	37.1
	0.80	0.65	1.6	33.36
	1.00	0.57	1.7	31.16
	1.20	0.51	1.8	28.81
	1.50	0.38	1.9	23.27
Preferred Estimate - 10mX x 20mY x 5mZ Panel with Selective Mining Unit (10mY x 5mE x 2.5mZ)				
Indicated	0.60	1.37	1.4	63.22
	0.80	1.02	1.7	55.5
	1.00	0.76	2.0	47.93
	1.20	0.56	2.3	40.93
	1.50	0.38	2.7	33.1
Inferred	0.60	0.65	1.7	35.78
	0.80	0.56	1.9	33.74
	1.00	0.49	2.0	31.74
	1.20	0.41	2.2	28.83
	1.50	0.32	2.4	24.7

### Comparison to the 2006 Resource

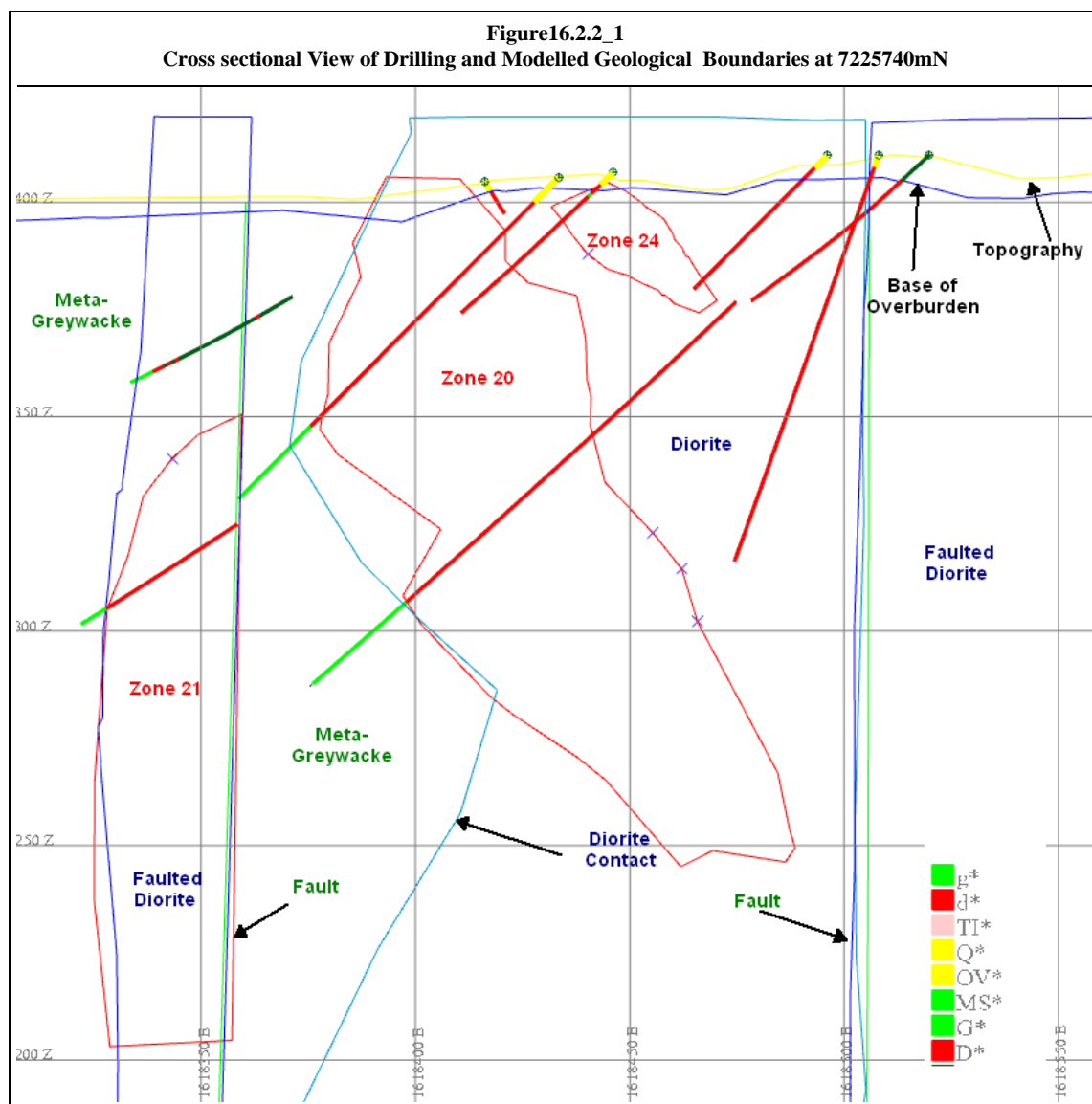
The 2007 resource update contains more indicated material and less inferred material than the 2006 resource estimate at a 0.6g/t cut off. For example, above a 0.6g/t Au lower cutoff grade, the 2006 estimate based upon a selective mining unit estimate (emulating 10mY by 5mX by 2.5mZ sized blocks) reported an Indicated Resources of 1.2Mt @ 1.19g/t Au for 58.3koz and an Inferred Resource of 1.1Mt @ 1.41g/t Au for 50.53koz. This represents a 12% increase in Indicated ounces and a 26% decrease in Inferred ounces compared to the 2006 resource. The 2006 Vargbäcken resource for 2006 is shown for comparison in Table 16.7.1.4\_1.

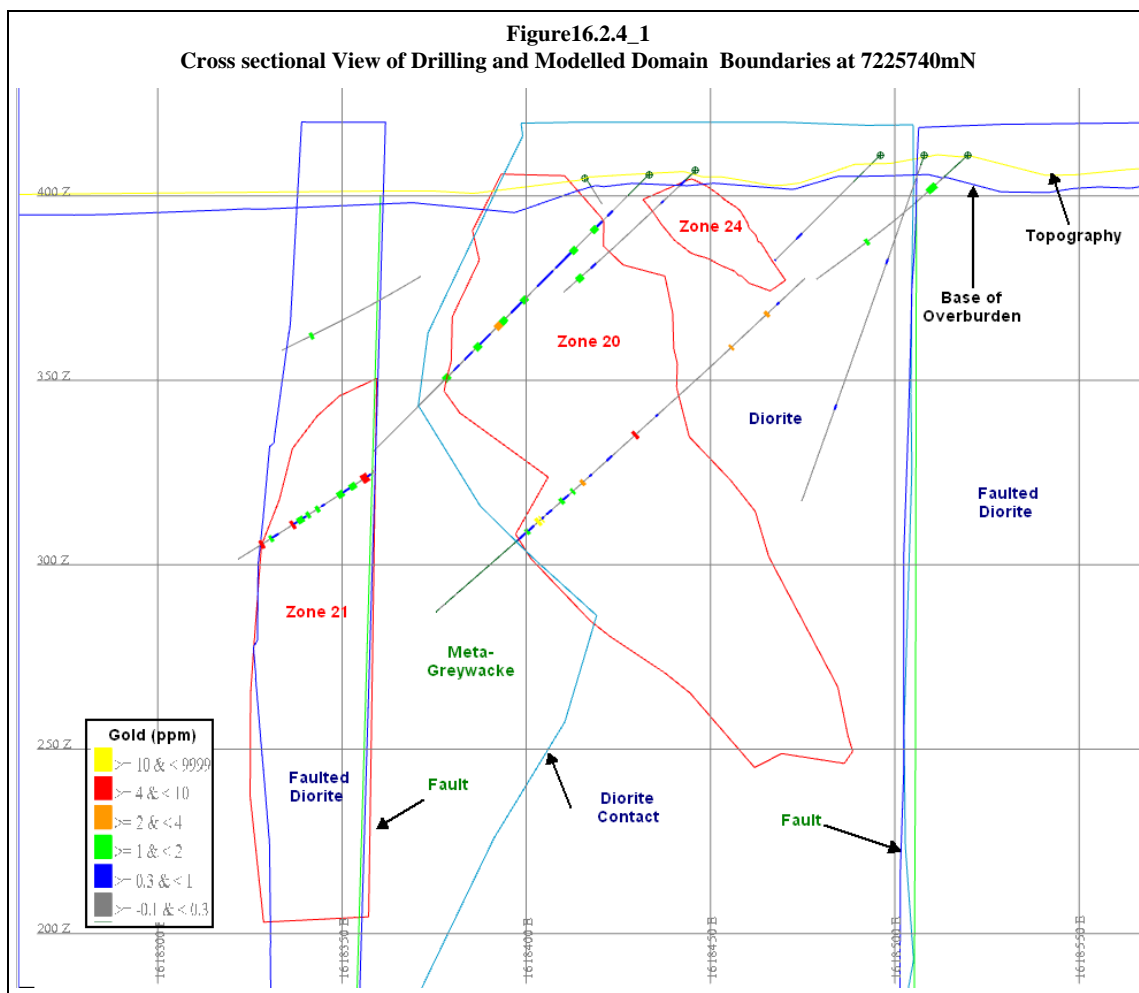
<p align="center"><b>Table 16.7.1.4_1</b>  <b>Vargbäcken Deposit – April 2006 Resource</b>  <b>Multiple Indicator Kriging Estimate - Gold</b>  <b>Min-18 and Max-32 RC Composites</b></p>
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Resource Category	Lower Cutoff Au (g/t)	All Domains		
		Tonnes (Mt)	Grade (g/t Au)	Ounces (Koz)
10mX x 20mY x 5mZ Whole Block Panel				
Indicated	0	2.1	0.98	66.55
	0.60	1.5	1.19	58.30
	0.80	1.2	1.35	49.96
	1.00	0.9	1.50	41.70
	1.20	0.7	1.60	35.72
	1.50	0.4	1.81	21.88
Inferred	0	1.2	1.31	52.28
	0.60	1.1	1.41	50.53
	0.80	1.0	1.52	47.25
	1.00	0.9	1.56	45.31
	1.20	0.8	1.61	42.47
	1.50	0.5	1.78	27.66
Preferred Estimate - 10mX x 20mY x 5mZ Panel with Selective Mining Unit (10mY x 5mX x 2.5mZ)				
Indicated	0.60	1.2	1.44	56.68
	0.80	1.0	1.64	50.84
	1.00	0.7	1.88	44.08
	1.20	0.5	2.16	37.49
	1.50	0.4	2.55	29.96
Inferred	0.60	0.9	1.68	48.12
	0.80	0.8	1.82	45.67
	1.00	0.7	1.99	42.23
	1.20	0.5	2.19	38.03
	1.50	0.4	2.50	31.79

The difference in resources between the 2007 and 2006 estimates is mainly due to increased confidence in the modelling of Zone 20 and volume changes to the overall mineralised envelopes as a result of the recent drilling.

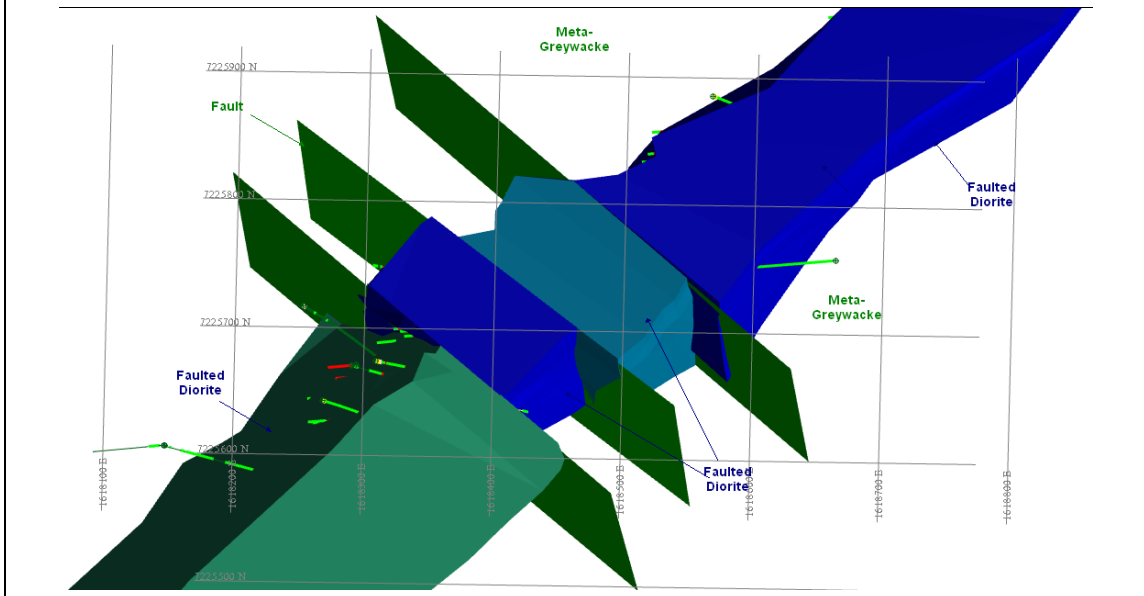
## 16.8 Illustrations







**Figure16.2.4 2**  
**Perspective View of Modelled Geological Boundaries**



**Figure16.2.4\_3**  
**Plan View of Drilling and Modelled Mineralised Zones**

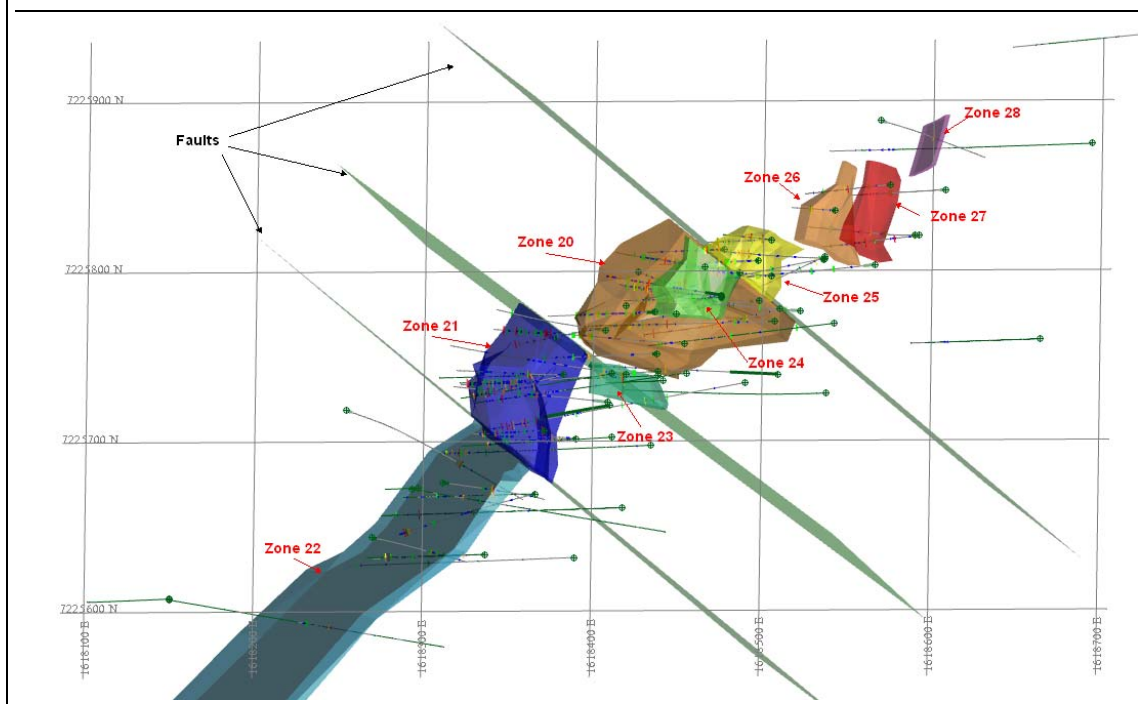
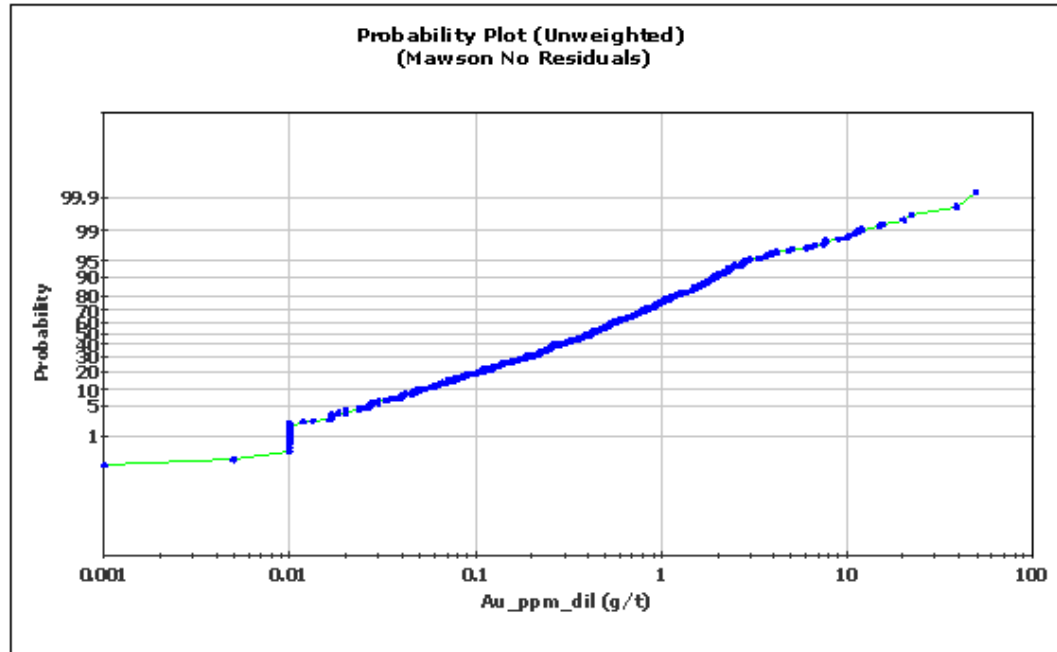


Figure16.3.4\_1  
Log-Probability Plot of Mawson 3m Composites – All Zones



## **17.0 Interpretations and Conclusions**

The addition of 9 RC and diamond drillholes to the Vargbäcken deposit have resulted in further refinement to the mineralisation and lithology model in this area. Additional deeper drilling near Zones 20 and 21 will aid in the understanding of geometries of the mineralised diorite units at depth, but may not necessarily be the priority targets for future exploration efforts.

The effect of the additional 2006 drilling has been to increase the confidence in some portions of the deposit (notably Zone 21) for the 2007 resource estimate. Based upon the MIK whole block (10mX by 20mY by 10mZ) gold grade, the estimates for all zones using a lower cutoff grade of 0.6g/t Au produces an Indicated Resource of 1.74Mt @ 1.16g/t Au (65.0koz) and an Inferred Resource of 0.81Mt @ 1.42g/t Au (37.1koz). An alternative estimate for the Mineral Resources at the Vargbäcken deposit is based on a selective mining unit estimate (emulating 10mY by 5mX by 2.5mZ sized blocks) for all domains, using a 0.6g/t Au lower cutoff grade which produces an Indicated Resource of 1.37Mt @ 1.44g/t Au (63.2koz) and an Inferred Resource: of 0.65Mt @ 1.70g/t Au (35.8koz).

The generally low gold results obtained in the drillholes beneath the A-horizon soil geochemistry anomaly in the northeast zone raises some questions as to the accuracy or validity of employing this method of sampling; however, the presence of sulphide-bearing quartz veins in these holes suggests that potential may exist up-plunge from these drill intercepts, and perhaps in the ground between the northeast zone and the main mineral deposit.

## 18.0 Recommendations

In view of the advanced exploration stage of this project, the following recommendations are posited:

- A detailed diamond drilling program (5m by 5m grid spacing) should be performed over the central part of the “20 Zone” which has minimal overburden cover. A large diameter core (like PQ) should be used to both extract a large sample and provide suitable for material geotechnical studies.
- Following the drilling program, a bulk sample in the order of 500 tonnes should be mined from this zone within the bounds of the detailed drill program. This material should be shipped to a metallurgical laboratory or nearby mill to reconcile the recoveries with the detailed drilled resource.
- An induced polarization survey should be performed northeast of the existing resource, enveloping the extent of the A horizon, gold-in-soil anomalies.
- Targets generated in the induced polarization survey should be trenched for mapping and sampling.
- A campaign of diamond drilling should follow pending positive results obtained in the preceding programs.

## 18.1 Budget (Canadian Dollars)

### 20 Zone Bulk Testing Program

600m of core (PQ diameter) diamond drilling @ \$180/m:	\$ 108,000
Permitting for bulk mining program	\$ 40,000
Bulk mining and extraction of 500 tonnes of mineralization:	\$ 100,000
Drill mobilization:	\$ 10,000
Site construction:	\$ 5,000
Drilling support costs (mud, reagents, core boxes):	\$ 10,000
Stand-by time (10 hours of men and machine @ \$200/hour:	\$ 2,000
Fixed start-up costs per drillhole:	\$ 7,500
Geologist and helper:	\$ 10,000
Analyses, 400 samples @ \$30/sample:	\$ 12,000

### Northeast Extension Program

Induced Polarization survey (10 line-km)	\$ 50,000
Mechanized Trenching	\$ 25,000
1,000m of core (HQ diameter) diamond drilling at \$110/m:	\$ 110,000
Drill mobilization:	\$ 15,000
Site construction:	\$ 5,000
Drilling support costs (mud, reagents, core boxes):	\$ 15,000
Stand-by time (10 hours of men and machine @ \$200/hour:	\$ 4,000

PGS Pacific Geological Services

Fixed start-up costs per drillhole:	\$ 7,500
Downhole surveying:	\$ 5,000
Geologist and helper:	\$ 10,000
Analyses, 500 samples @ \$30/sample:	\$ 15,000
Sub-total:	\$ 566,000
Contingencies @ 10%	\$ 56,600
<b><u>Total:</u></b>	<b><u>\$ 622,600</u></b>

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John Nebocat, BSc. PEng.

August 9, 2007

Gibsons, B.C.

## 19.0 REFERENCES

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## **Appendix 1**

### **Listing of Drillholes Used in the Study**



## Appendix 1

### Listing of Drillholes Used in the Study

HOLE_ID	HOLE_TYPE	EAST	NORTH	UTM_RL	EOH	YEAR	COMPANY
VBNRC0668	RC	1618473.54	7225814.97	404	76	2006	MAWSON RESOURCES LTD
VBND0677	DDm	1618533.13	7225810.35	404.68	312.1	2006	MAWSON RESOURCES LTD
VBNRC0670	RC	1618435.02	7225753.38	406.588	118	2006	MAWSON RESOURCES LTD
VBND0680	DDm	1618506.59	7225741.07	407	240	2006	MAWSON RESOURCES LTD
VBND0678	DDm	1618508	7225779	411	396.2	2006	MAWSON RESOURCES LTD
VBND0676	DDm	1618532.92	7225808.88	404.37	12	2006	MAWSON RESOURCES LTD
VBNRC0669	RC	1618433.29	7225777.97	405.817	106	2006	MAWSON RESOURCES LTD
VBNRC0667	RC	1618493.93	7225808.25	404	98	2006	MAWSON RESOURCES LTD
VBND0679	DDm	1618422.61	7225801.88	404	220.95	2006	MAWSON RESOURCES LTD
VBNRC0552	RC	1618519.93	7225777.85	411.2	154	2005	MAWSON RESOURCES LTD
VBNRC0559	RC	1618406.22	7225723.83	400.2	124	2005	MAWSON RESOURCES LTD
VBNRC0557	RC	1618538.9	7225837.62	404.1	43	2005	MAWSON RESOURCES LTD
VBNRC0553	RC	1618435.62	7225743.19	406.92	193	2005	MAWSON RESOURCES LTD
VBNRC0556	RC	1618502.21	7225798.84	405	112	2005	MAWSON RESOURCES LTD
VBNRC0551	RC	1618471.9	7225788.22	403	84	2005	MAWSON RESOURCES LTD
VBNRC0564	RC	1618404.98	7225725.79	400.2	120	2005	MAWSON RESOURCES LTD
VBNRC0555	RC	1618462.15	7225804.92	403	69	2005	MAWSON RESOURCES LTD
VBNRC0558	RC	1618586.83	7225822.87	404.9	94	2005	MAWSON RESOURCES LTD
VBNRC0566	RC	1618415.78	7225741.82	401	143	2005	MAWSON RESOURCES LTD
VBNRC0565	RC	1618250.58	7225721.36	400	168	2005	MAWSON RESOURCES LTD
VBNRC0561	RC	1618563.34	7225805.57	405	180	2005	MAWSON RESOURCES LTD
VBNRC0562	RC	1618483.07	7225800.79	404	94	2005	MAWSON RESOURCES LTD
VBNRC0550	RC	1618472.08	7225787.6	403	79	2005	MAWSON RESOURCES LTD
VBNRC0554	RC	1618403.01	7225768.07	399.5	84	2005	MAWSON RESOURCES LTD
VBNRC0563	RC	1618451.45	7225759.11	407	169	2005	MAWSON RESOURCES LTD
VBNRC0560	RC	1618588.81	7225822.62	404.9	146	2005	MAWSON RESOURCES LTD
VBNRC0432	RC	1618533.39	7225809.42	404.37	97	2004	MAWSON RESOURCES LTD
VBNRC0441	RC	1618308.08	7225678.7	400	63	2004	MAWSON RESOURCES LTD
VBNRC0437	RC	1618386.38	7225704.35	399.76	82	2004	MAWSON RESOURCES LTD
VBNRC0439	RC	1618363.48	7225671.13	406.06	134	2004	MAWSON RESOURCES LTD
VBNRC0435	RC	1618446	7225776.5	407	148	2004	MAWSON RESOURCES LTD
VBNRC0436	RC	1618416	7225782	405	89	2004	MAWSON RESOURCES LTD
VBNRC0440	RC	1618335.042	7225634.938	411.632	111	2004	MAWSON RESOURCES LTD
VBNRC0433	RC	1618501.22	7225820.59	403.7	63	2004	MAWSON RESOURCES LTD
VBNRC0447	RC	1618564	7225891.5	395	70	2004	MAWSON RESOURCES LTD
VBNRC0445	RC	1618570.04	7225853.74	395	76	2004	MAWSON RESOURCES LTD
VBNRC0434	RC	1618472.1	7225786.84	403	94	2004	MAWSON RESOURCES LTD
VBNRC0438	RC	1618367.6	7225709.2	399.76	67	2004	MAWSON RESOURCES LTD
VBNRC0442	RC	1618268.16	7225645.29	409	64	2004	MAWSON RESOURCES LTD
VBNRC0446	RC	1618603.11	7225850.66	395	94	2004	MAWSON RESOURCES LTD
VBNRC0443	RC	1618379	7225742	400.71	187	2004	MAWSON RESOURCES LTD
VBNRC0448	RC	1618705	7225958	406.49	79	2004	MAWSON RESOURCES LTD
VBNRC0444	RC	1618379	7225742	400.71	93	2004	MAWSON RESOURCES LTD
VBNRC0449	RC	1618496	7225784	411	121	2004	MAWSON RESOURCES LTD
VBN98015	DD	1618435.85	7225740.4	406.92	196.2	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98021	DD	1618431.383	7225700	401.861	211.8	1998	NORTH ATLANTIC NATURAL RESOURCES AB

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### Listing of Drillholes Used in the Study

HOLE_ID	HOLE_TYPE	EAST	NORTH	UTM_RL	EOH	YEAR	COMPANY
VBN98019	DD	1618438.5	7225737.58	404.88	55.6	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98018	DD	1618042.624	7225661.988	386.02	107.4	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98016	DD	1618472.1	7225786.84	402.35	95	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98023	DD	1618408.58	7225704.62	403.29	149.1	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98014	DD	1618055.62	7225298.32	380.47	201.8	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98017	DD	1619134.34	7226430.89	395	142.6	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98028	DD	1618335.042	7225634.938	411.632	112.1	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98020	DD	1618379	7225742	400.71	117.5	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98025	DD	1618452.92	7225741.87	407.56	208.4	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98030	DD	1618363.48	7225671.13	406.06	123.1	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98026	DD	1618539.83	7225770.87	406.82	184.25	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98024	DD	1618407.16	7225742.31	400.71	148.5	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98022	DD	1618501.22	7225820.59	403.7	48.65	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98031	DD	1618535.03	7225730.11	403.72	154.2	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98029	DD	1618415.56	7225662.82	406.1	234	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN98027	DD	1618386.38	7225704.35	399.76	85.1	1998	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97013	DD	1618227.97	7225486.47	403.07	226.5	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97006	DD	1618388.683	7225632.223	417.39	222.4	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97003	DD	1618663.009	7225760.55	412.744	126.4	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97004	DD	1618533.39	7225809.42	404.37	98.4	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97005	DD	1618486.92	7225736.4	404.24	251	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97002	DD	1618292.71	7225675.9	396.97	32.6	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97007	DD	1618691.18	7225876.31	406.85	251	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97008	DD	1618793.6	7225947.54	406.49	251	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97009	DD	1618145.459	7225611.562	392.794	82.3	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97010	DD	1618145.79	7225610.98	392.794	197.3	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97012	DD	1618850.17	7226027.25	395	204.8	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97001	DD	1618504.24	7225772.49	404.68	174.6	1997	NORTH ATLANTIC NATURAL RESOURCES AB
VBN97011	DD	1618289.42	7225675.26	396.97	180.1	1997	NORTH ATLANTIC NATURAL RESOURCES AB

## **Appendix 2**

### **Statistical Plots - Gold Data**

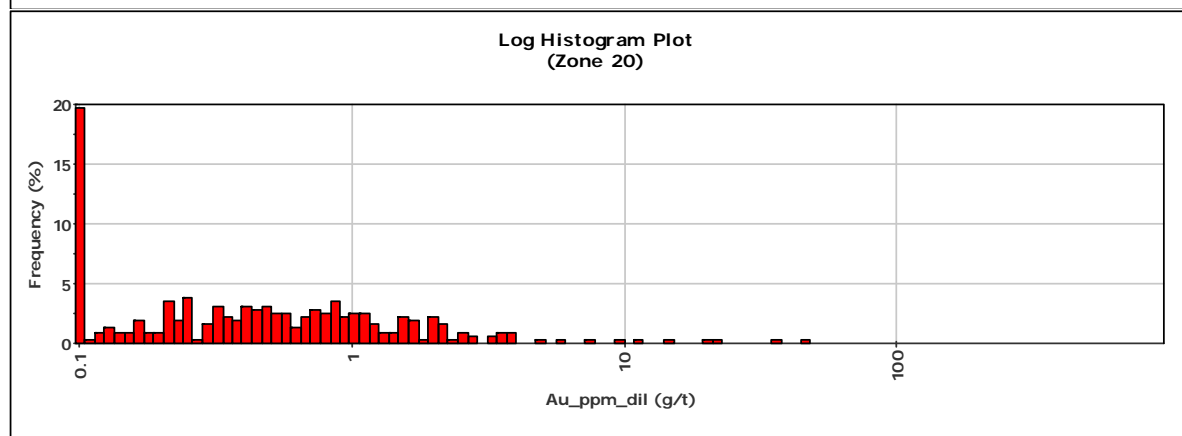
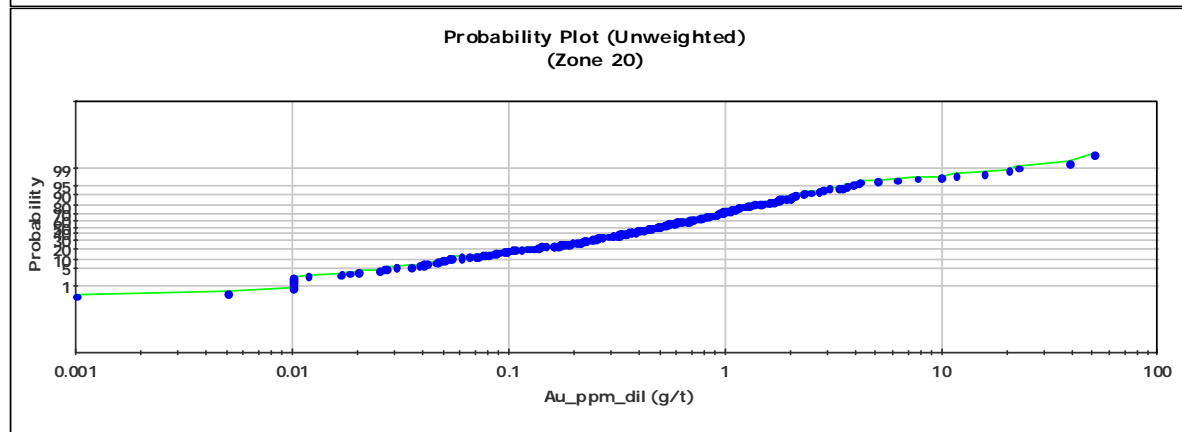
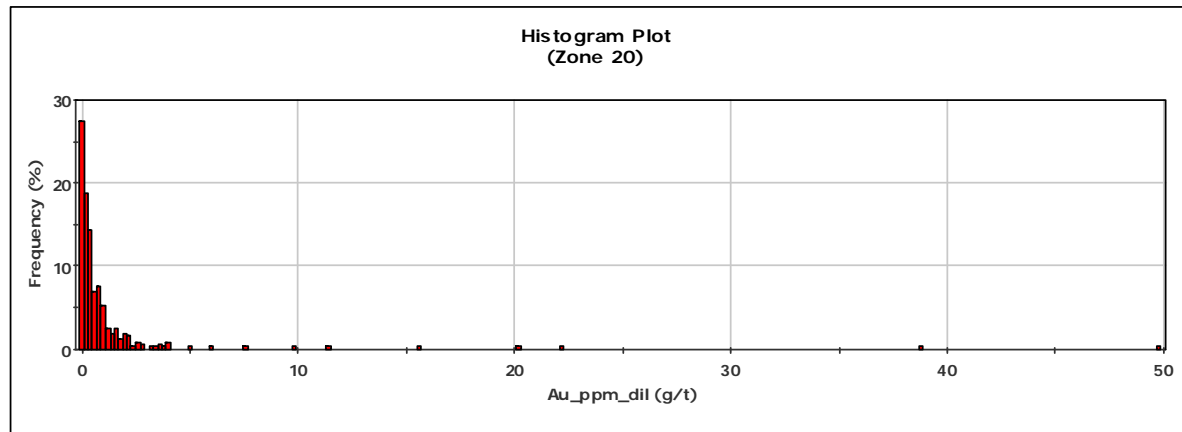
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 20)

	Unweighted	Weighted	Units
Samples:	314	N/A	
Minimum:	0.001	N/A	g/t
Maximum:	49.823	N/A	g/t
Mean:	1.275	N/A	g/t
Median:	0.450	N/A	g/t
Std. Deviation:	4.119	N/A	g/t
Coefficient of Variation:	3.232	N/A	



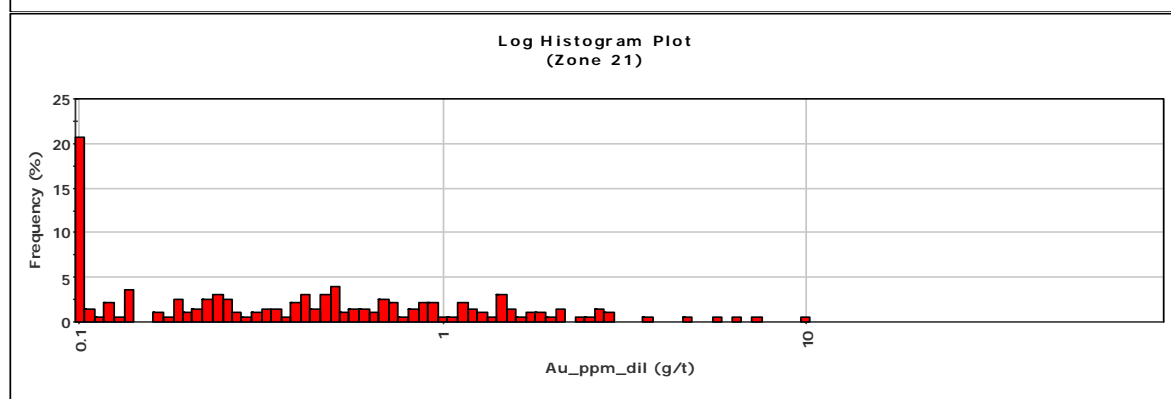
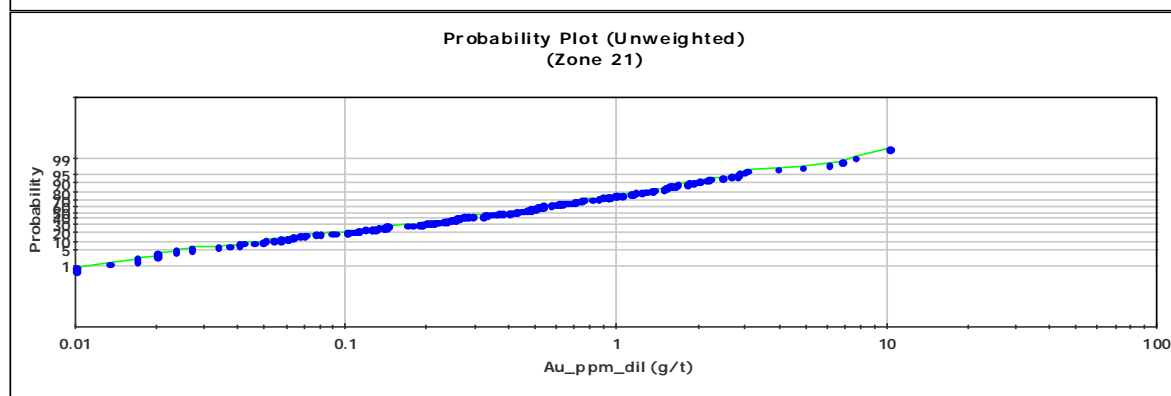
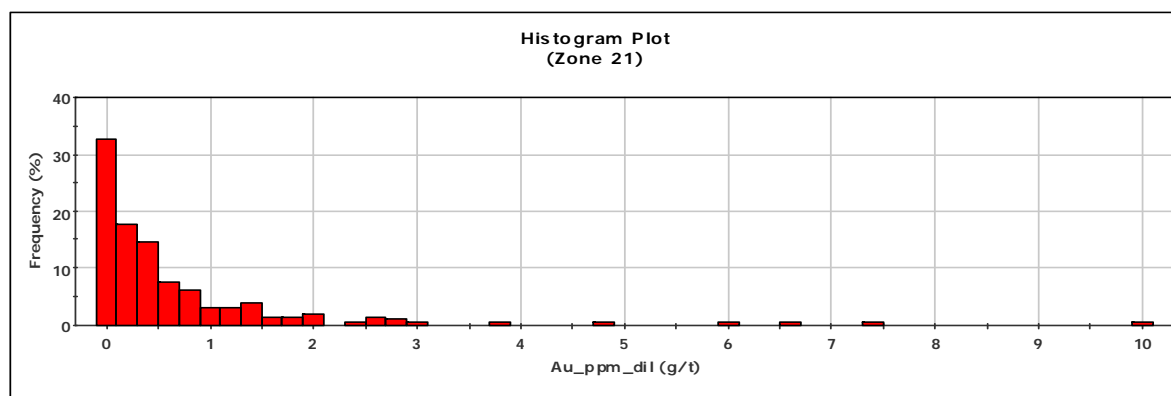
# Appendix 2

## Statistical Plots – Gold Data

### All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 21)

	Unweighted	Weighted	Units
Samples:	199	N/A	
Minimum:	0.010	N/A	g/t
Maximum:	10.127	N/A	g/t
Mean:	0.782	N/A	g/t
Median:	0.399	N/A	g/t
Std. Deviation:	1.259	N/A	g/t
Coefficient of Variation:	1.610	N/A	



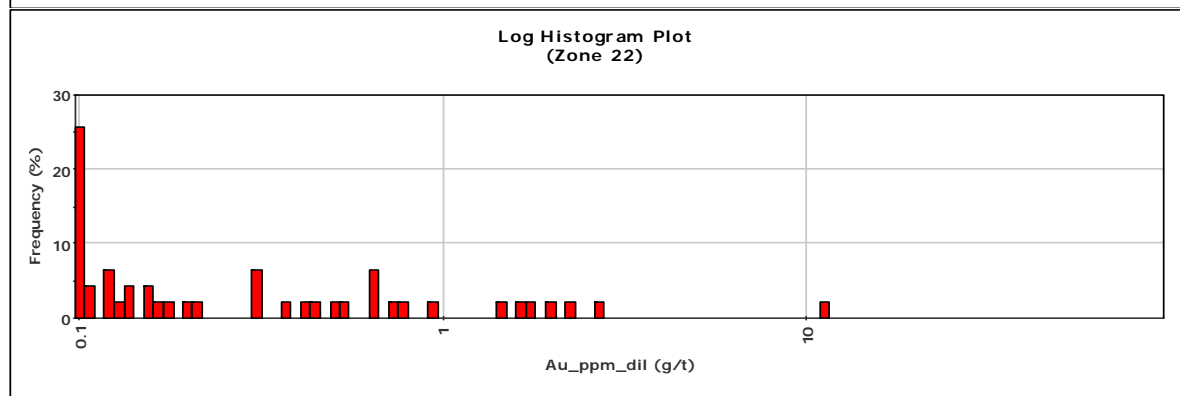
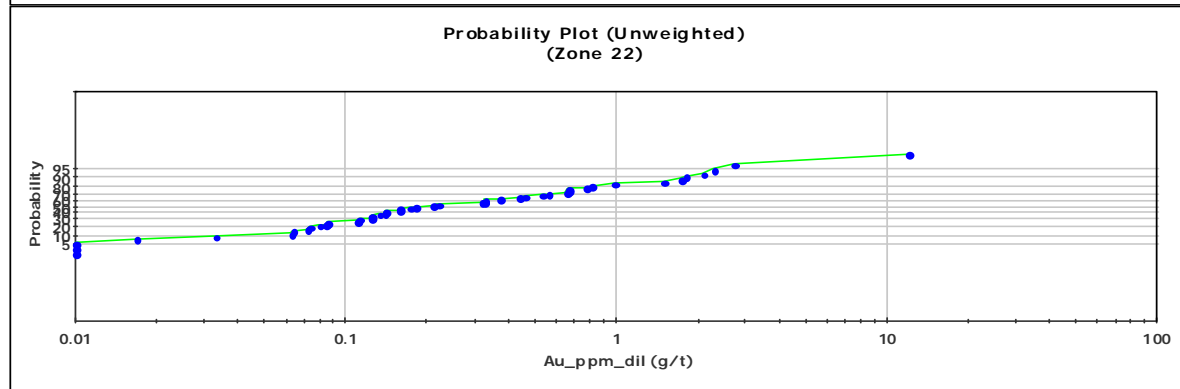
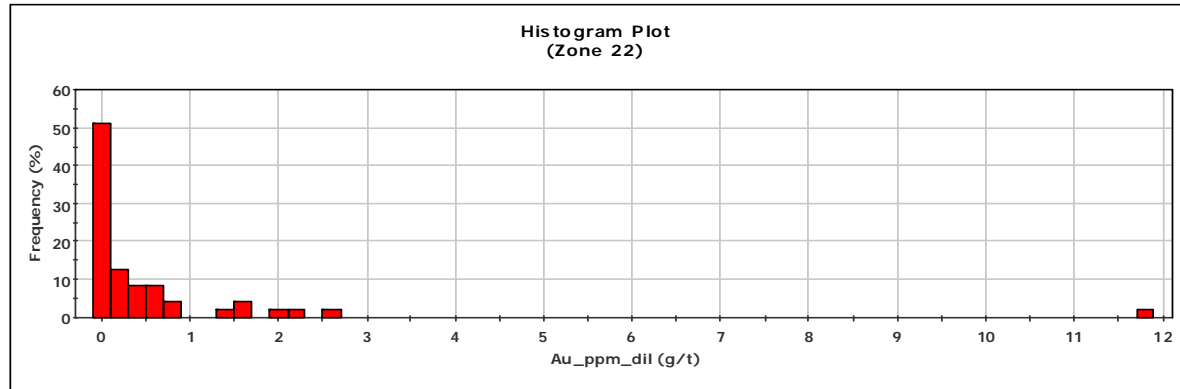
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 22)

	Unweighted	Weighted	Units
Samples:	47	N/A	
Minimum:	0.010	N/A	g/t
Maximum:	11.977	N/A	g/t
Mean:	0.737	N/A	g/t
Median:	0.179	N/A	g/t
Std. Deviation:	1.779	N/A	g/t
Coefficient of Variation:	2.414	N/A	



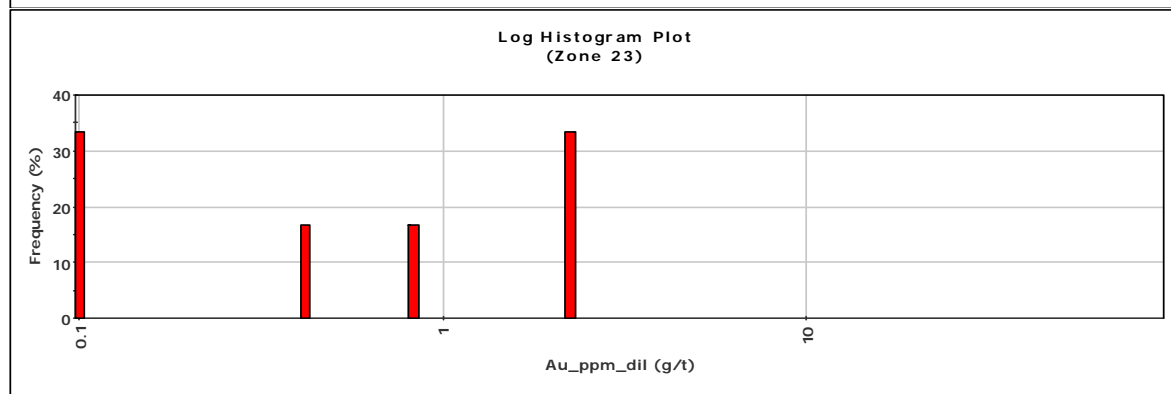
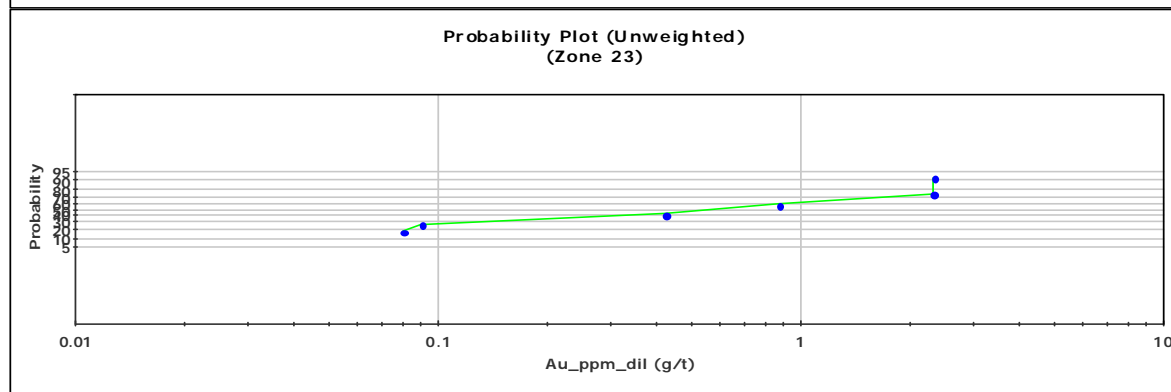
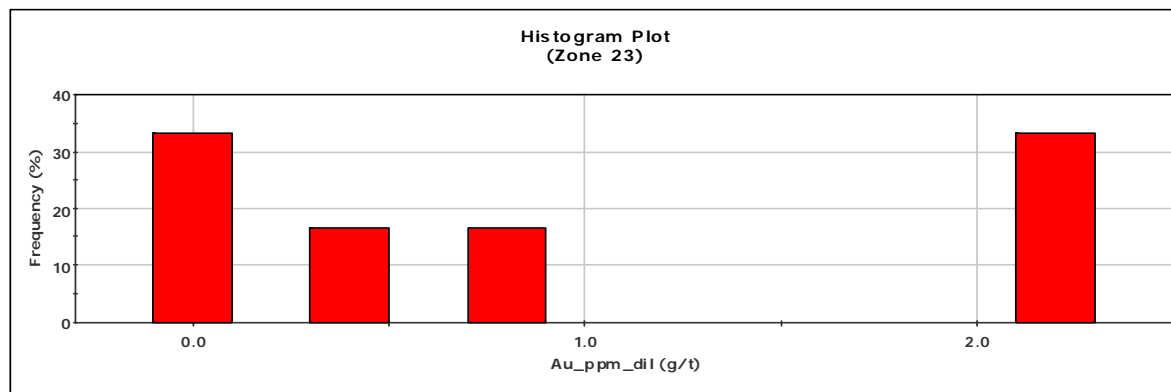
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 23)

	Unweighted	Weighted	Units
Samples:	6	N/A	
Minimum:	0.080	N/A	g/t
Maximum:	2.323	N/A	g/t
Mean:	1.016	N/A	g/t
Median:	0.647	N/A	g/t
Std. Deviation:	0.957	N/A	g/t
Coefficient of Variation:	0.941	N/A	



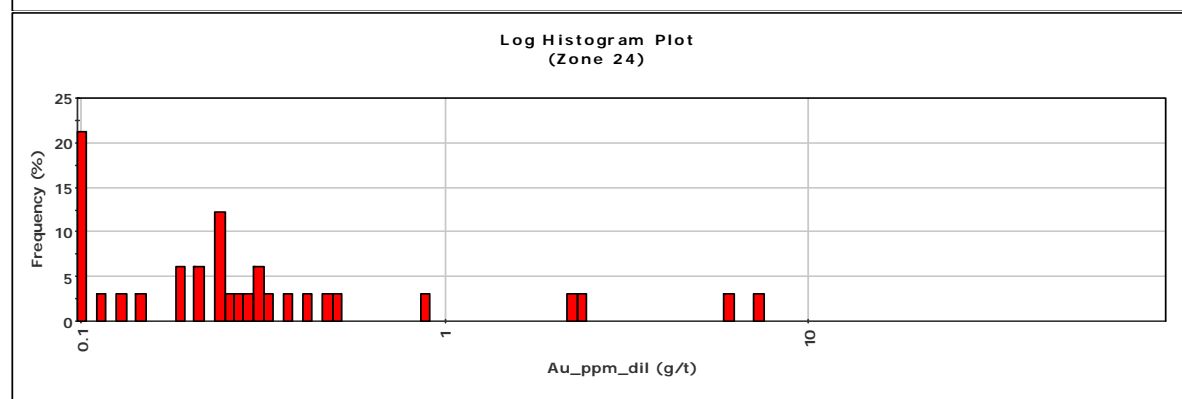
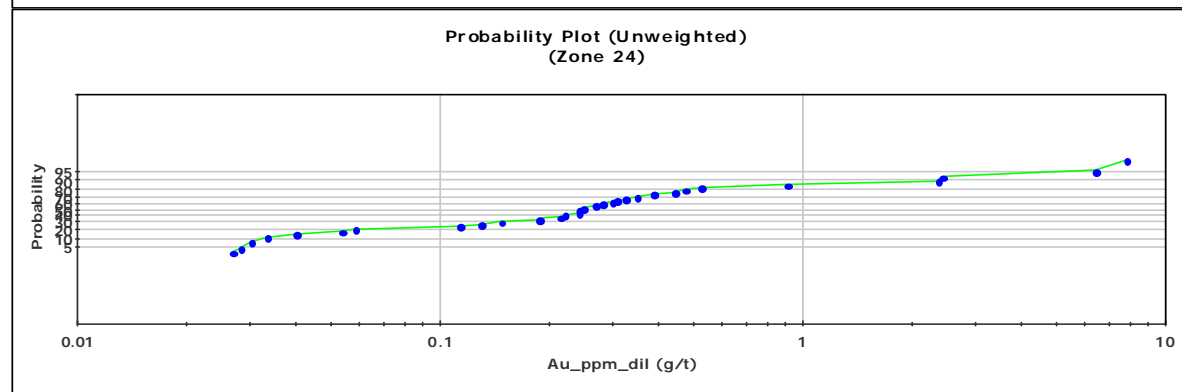
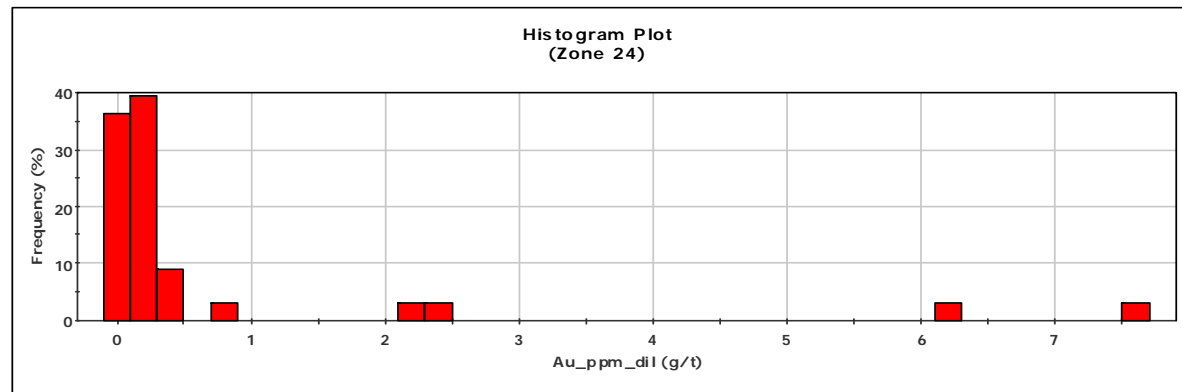
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 24)

	Unweighted	Weighted	Units
Samples:	33	N/A	
Minimum:	0.027	N/A	g/t
Maximum:	7.756	N/A	g/t
Mean:	0.785	N/A	g/t
Median:	0.240	N/A	g/t
Std. Deviation:	1.695	N/A	g/t
Coefficient of Variation:	2.159	N/A	





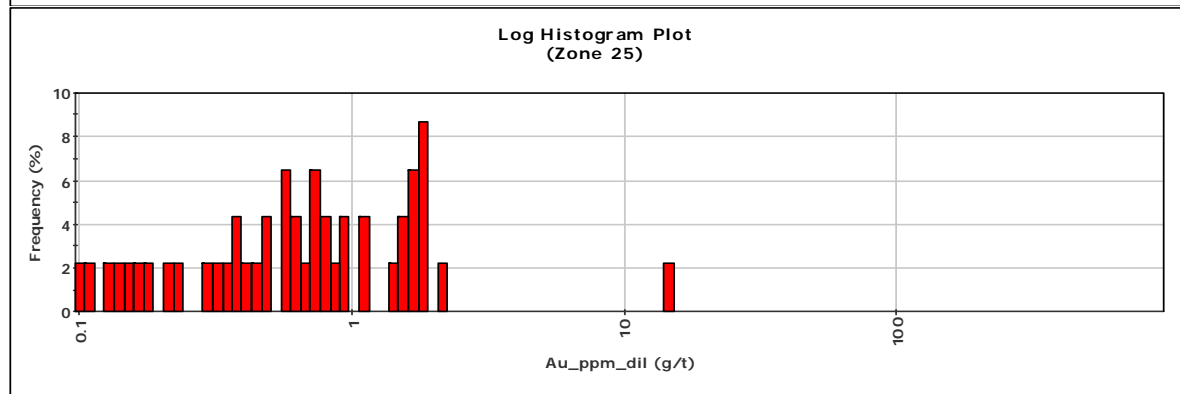
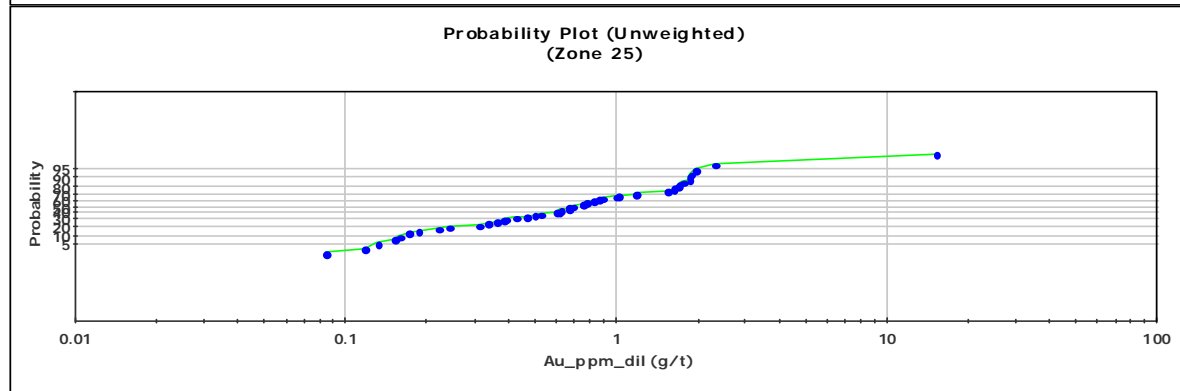
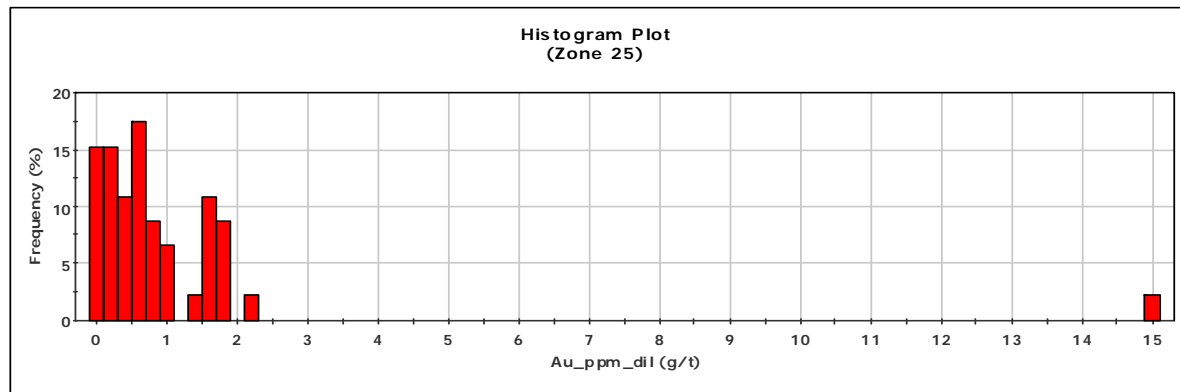
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 25)

	Unweighted	Weighted	Units
Samples:	46	N/A	
Minimum:	0.083	N/A	g/t
Maximum:	15.087	N/A	g/t
Mean:	1.150	N/A	g/t
Median:	0.673	N/A	g/t
Std. Deviation:	2.164	N/A	g/t
Coefficient of Variation:	1.881	N/A	



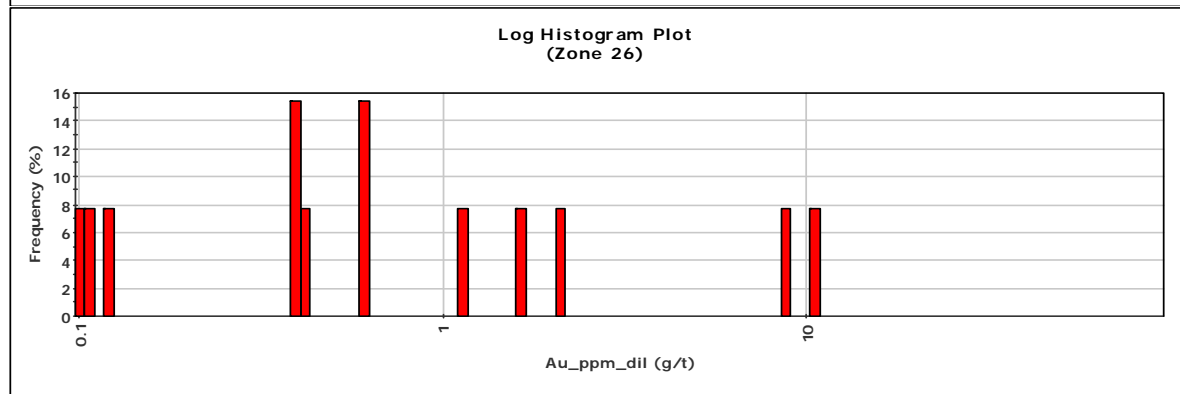
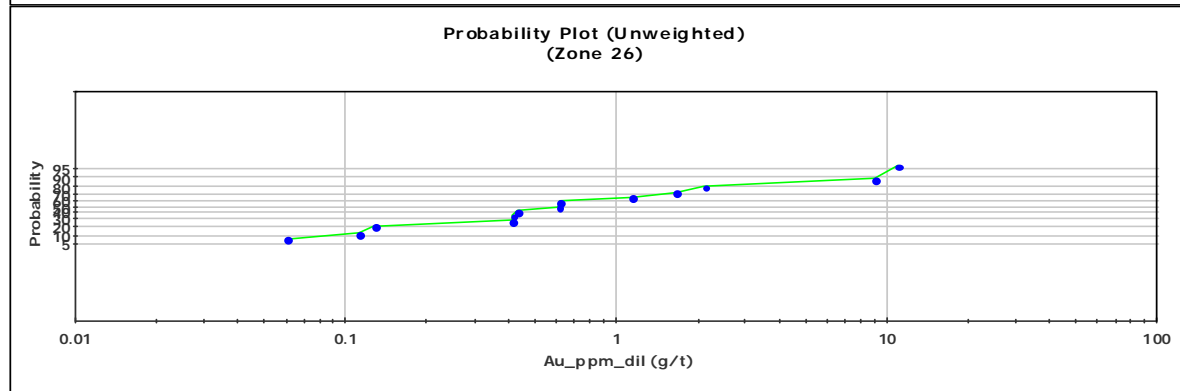
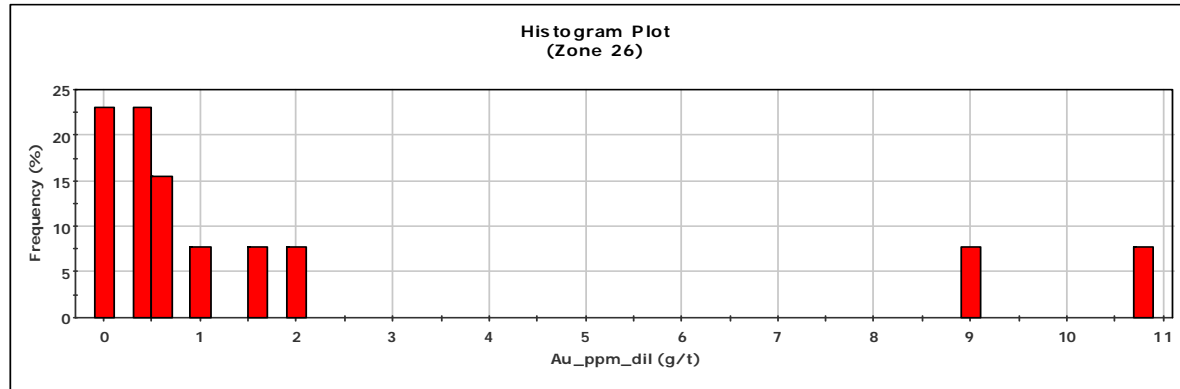
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 26)

	Unweighted	Weighted	Units
Samples:	13	N/A	
Minimum:	0.060	N/A	g/t
Maximum:	10.980	N/A	g/t
Mean:	2.130	N/A	g/t
Median:	0.610	N/A	g/t
Std. Deviation:	3.429	N/A	g/t
Coefficient of Variation:	1.609	N/A	



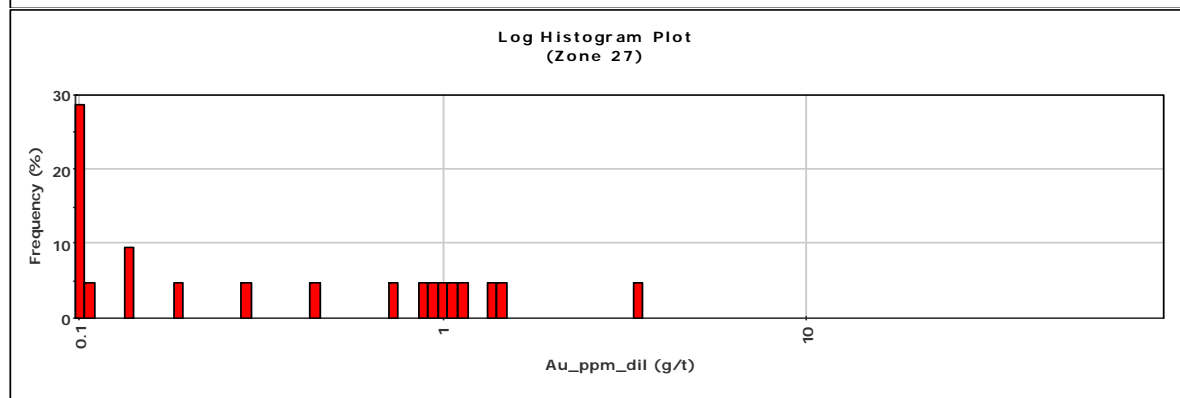
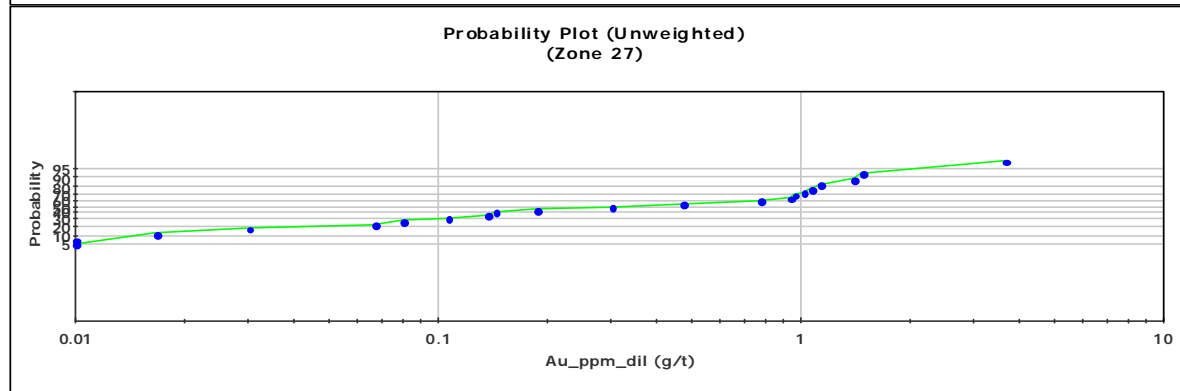
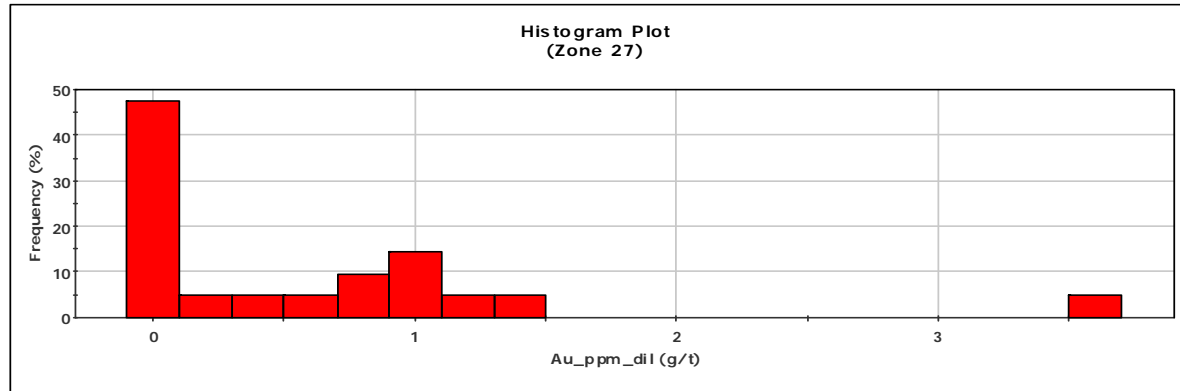
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 27)

	Unweighted	Weighted	Units
Samples:	21	N/A	
Minimum:	0.010	N/A	g/t
Maximum:	3.673	N/A	g/t
Mean:	0.666	N/A	g/t
Median:	0.300	N/A	g/t
Std. Deviation:	0.833	N/A	g/t
Coefficient of Variation:	1.249	N/A	



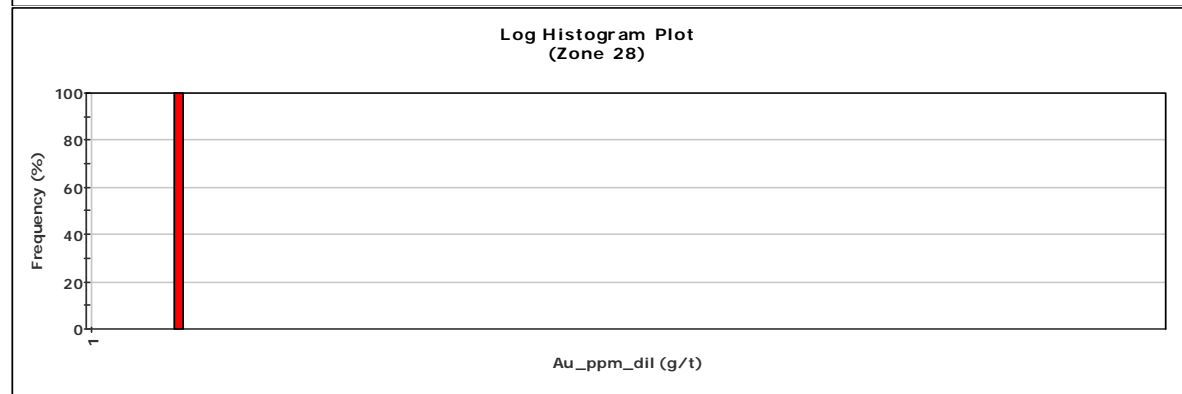
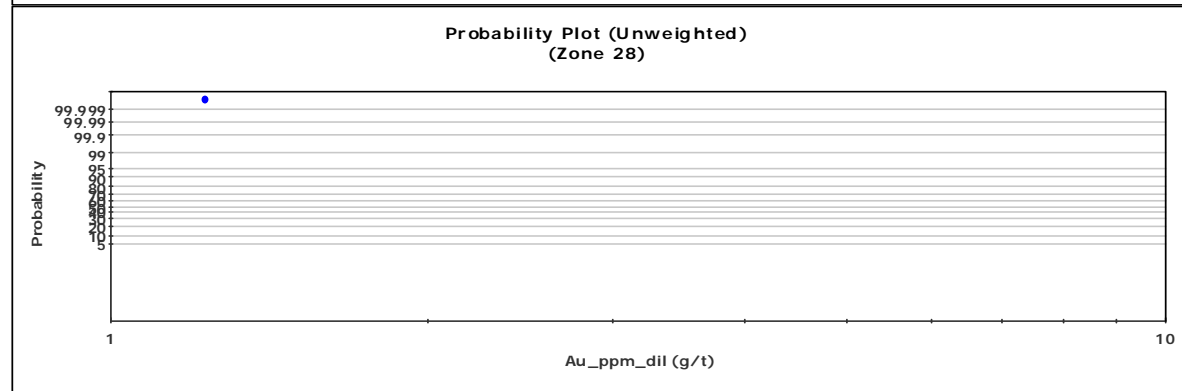
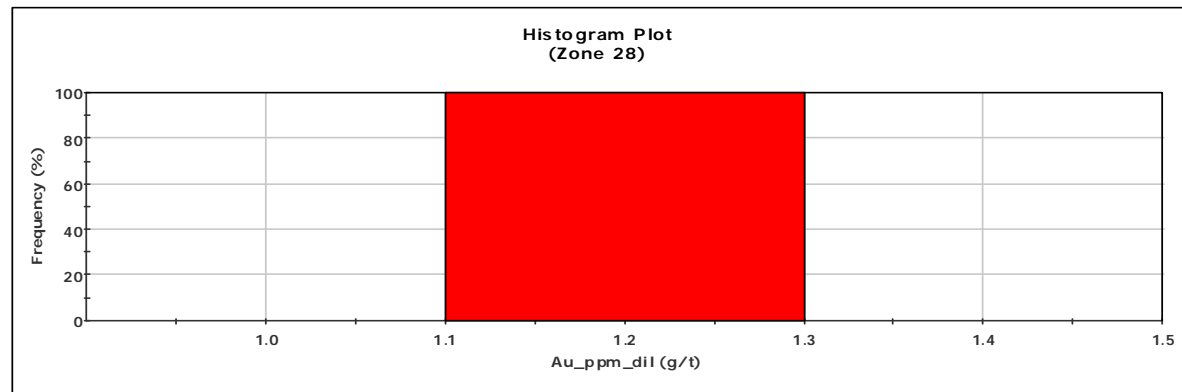
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

#### Mawson Samples - Diluted 3m Gold Composites (Zone 28)

	Unweighted	Weighted	Units
Samples:	1	N/A	
Minimum:	1.223	N/A	g/t
Maximum:	1.223	N/A	g/t
Mean:	1.223	N/A	g/t
Median:	1.223	N/A	g/t
Std. Deviation:	0.000	N/A	g/t
Coefficient of Variation:	0.000	N/A	



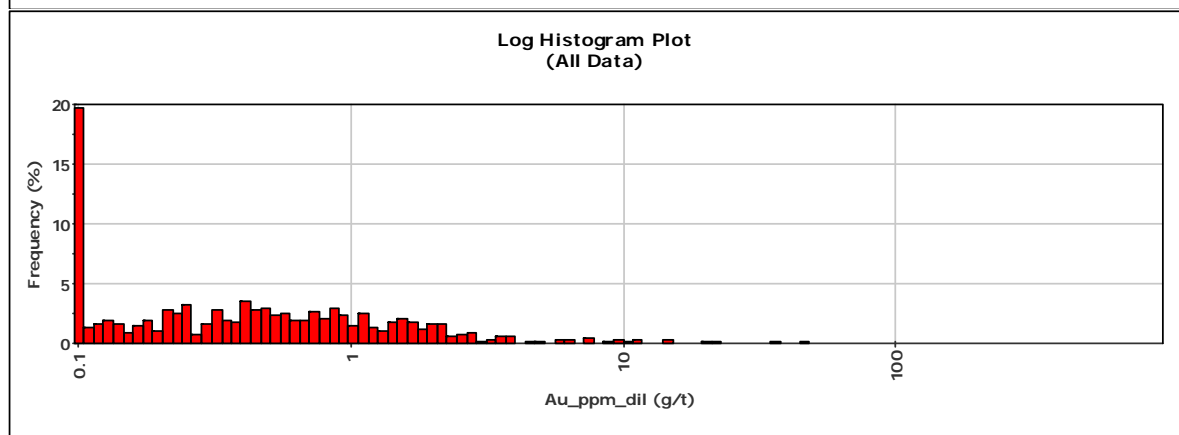
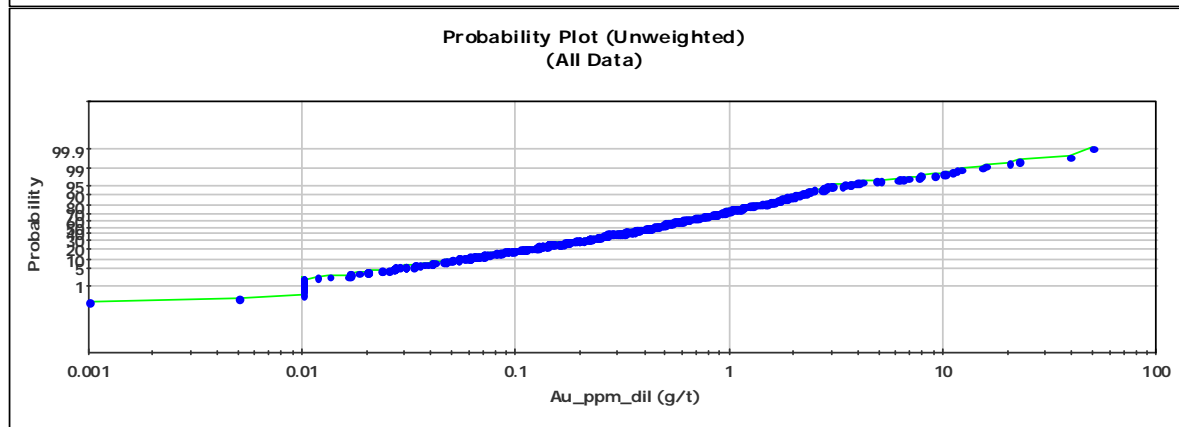
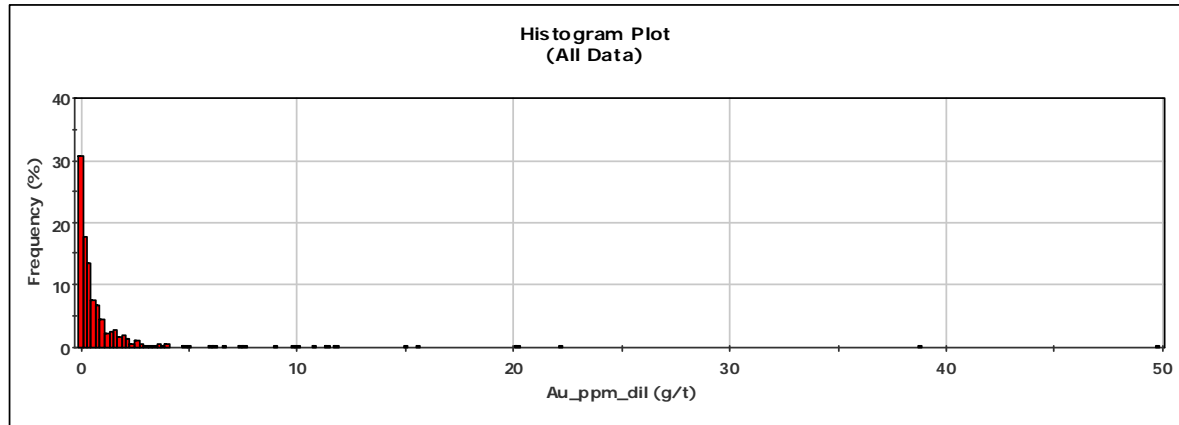
## Appendix 2

### Statistical Plots – Gold Data

All Composites by Zone

### Mawson Samples - Diluted 3m Gold Composites (All Data)

	Unweighted	Weighted	Units
Samples:	680	N/A	
Minimum:	0.001	N/A	g/t
Maximum:	49.823	N/A	g/t
Mean:	1.056	N/A	g/t
Median:	0.423	N/A	g/t
Std. Deviation:	3.051	N/A	g/t
Coefficient of Variation:	2.889	N/A	



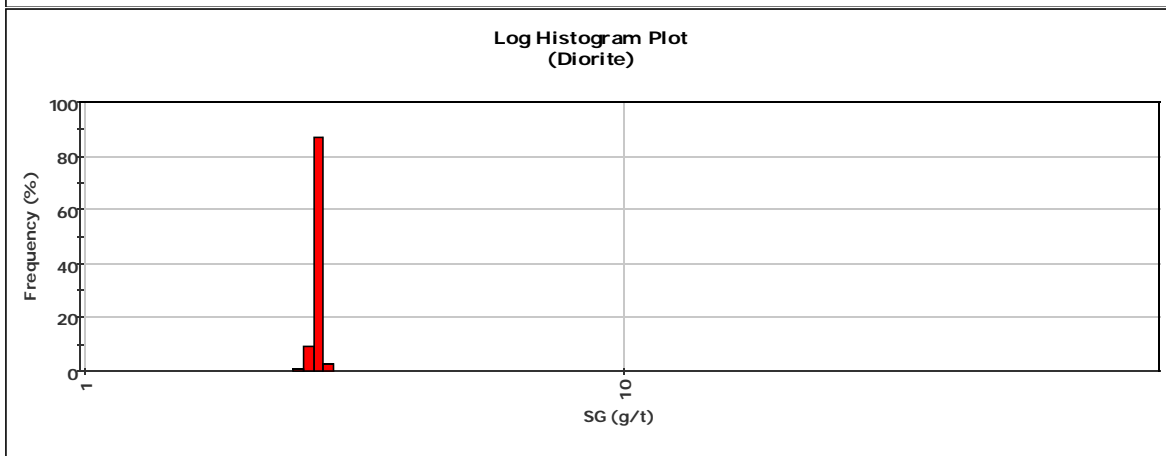
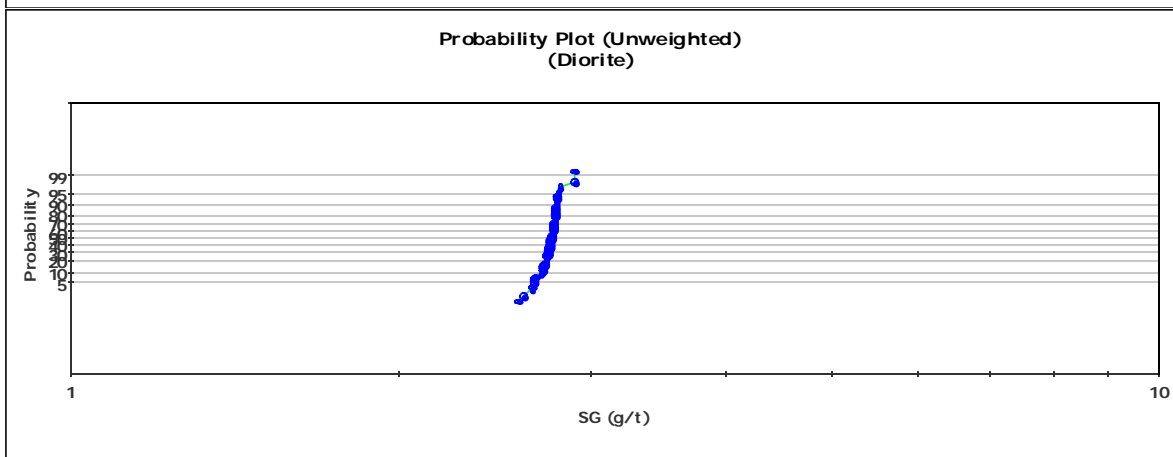
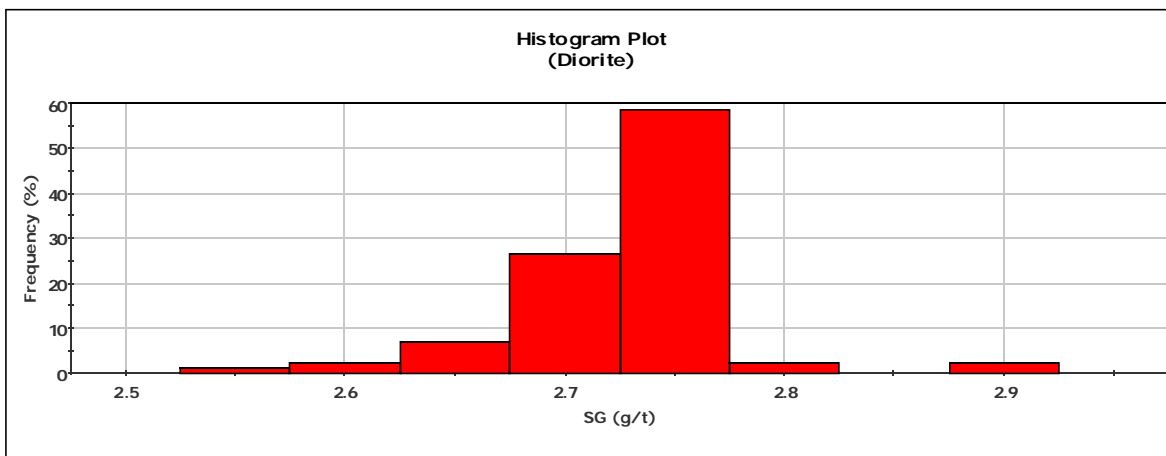
## **Appendix 3**

### **Density Plots**

## Appendix 3 Density Plots

### Vargbacken Bulk Density (Diorite)

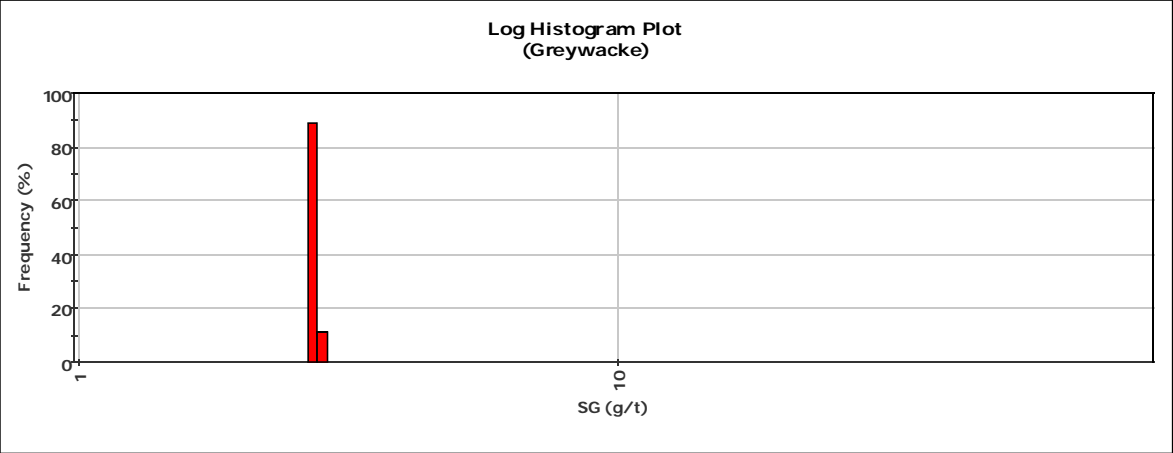
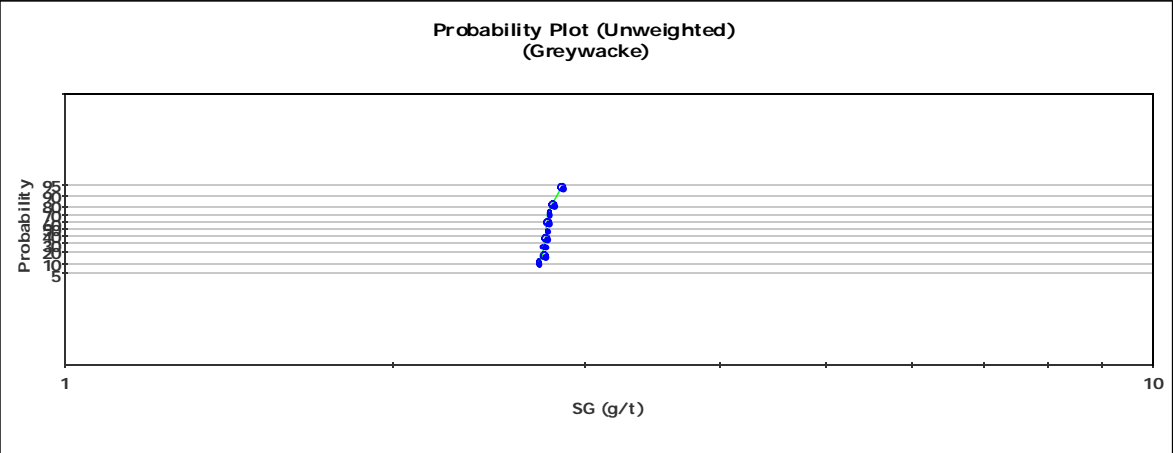
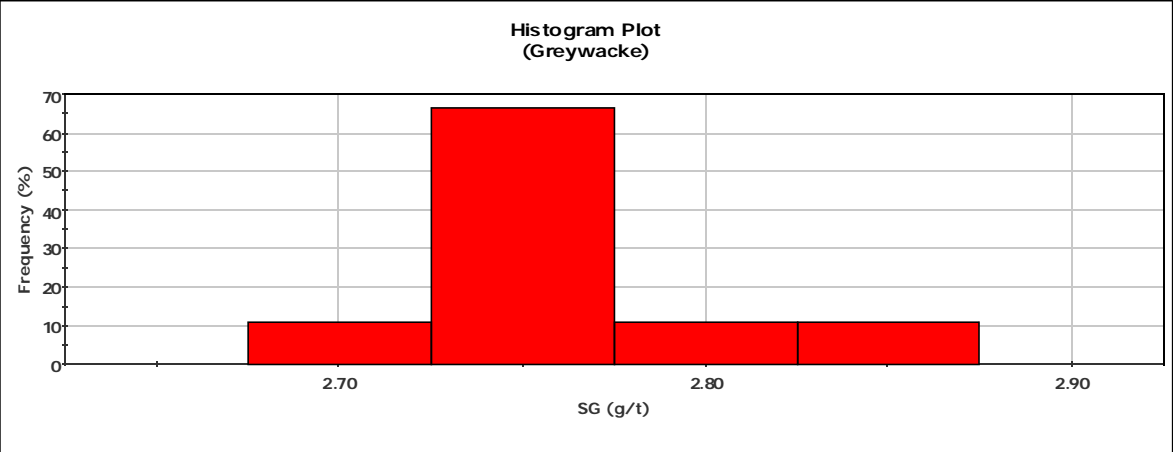
	Unweighted	Weighted	Units
Samples:	87	N/A	
Minimum:	2.57	N/A	g/t
Maximum:	2.91	N/A	g/t
Mean:	2.75	N/A	g/t
Median:	2.76	N/A	g/t
Std. Deviation:	0.05	N/A	g/t
Coefficient of Variation:	0.02	N/A	



# Appendix 3 Density Plots

## Vargbacken Bulk Density (Greywacke)

	Unweighted	Weighted	Units
Samples:	9	N/A	
Minimum:	2.72	N/A	g/t
Maximum:	2.86	N/A	g/t
Mean:	2.78	N/A	g/t
Median:	2.77	N/A	g/t
Std. Deviation:	0.04	N/A	g/t
Coefficient of Variation:	0.01	N/A	

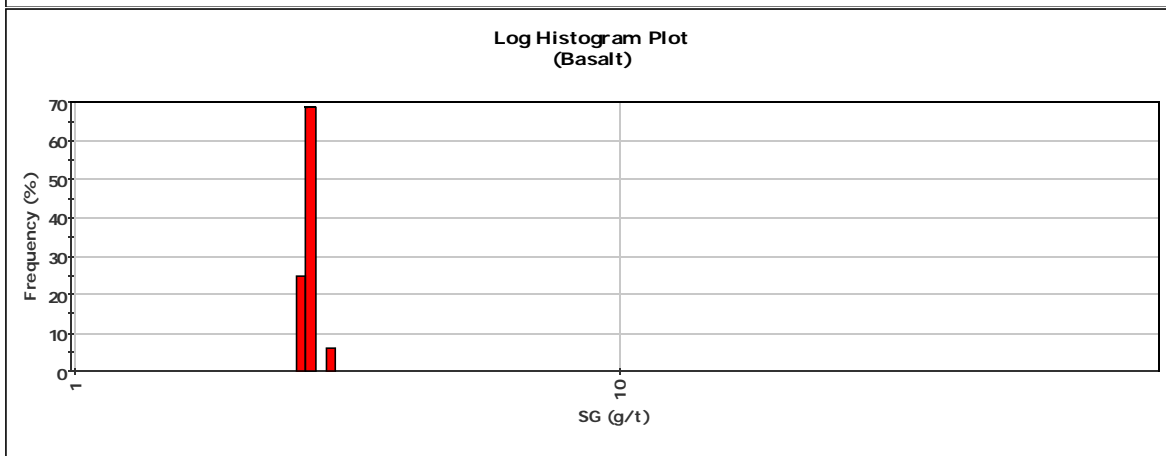
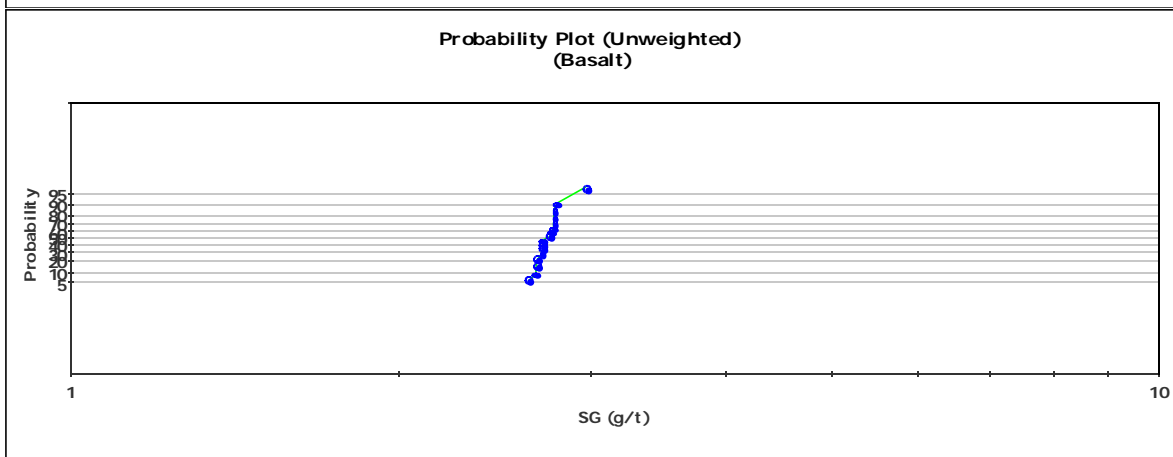
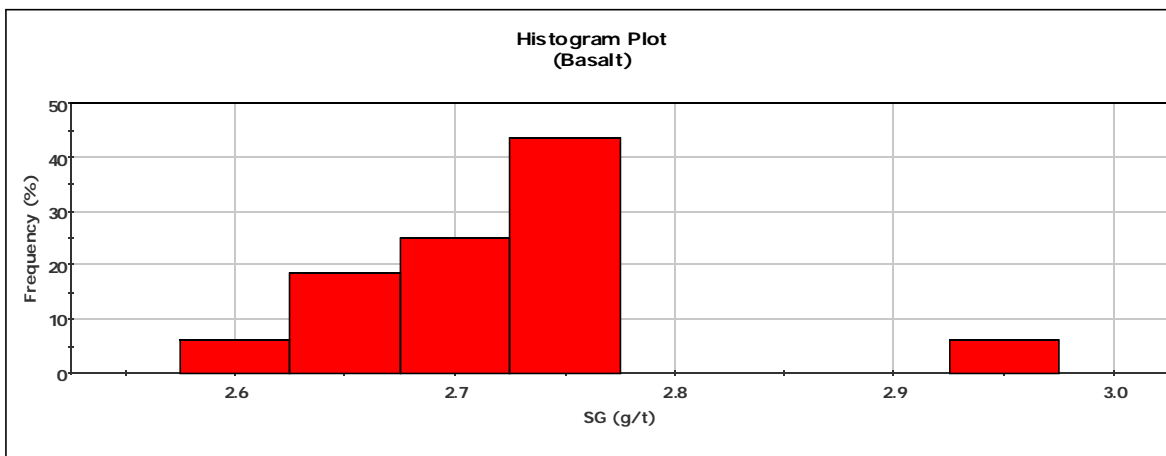




## Appendix 3 Density Plots

### Vargbacken Bulk Density (Basalt)

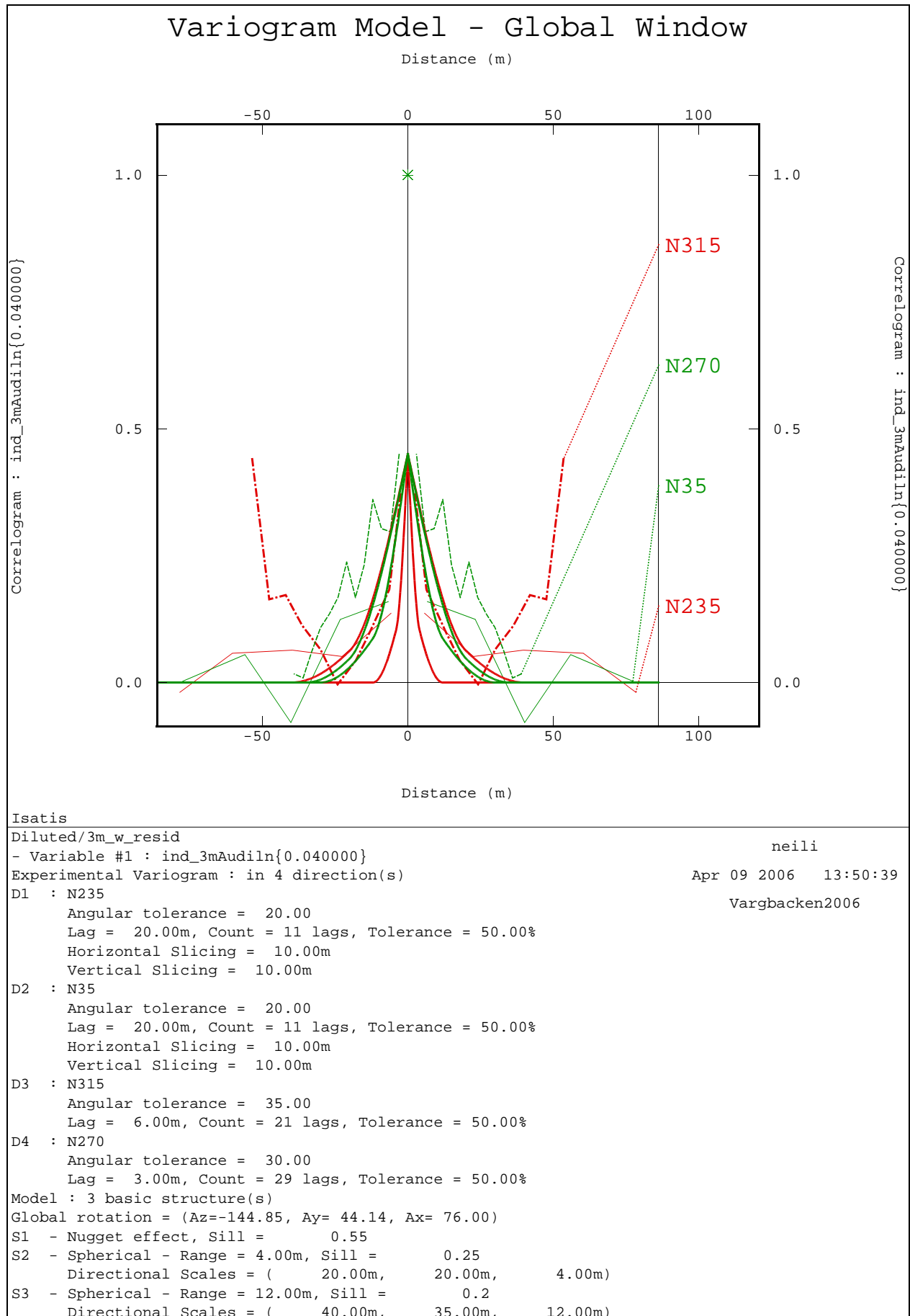
	Unweighted	Weighted	Units
Samples:	16	N/A	
Minimum:	2.63	N/A	g/t
Maximum:	2.97	N/A	g/t
Mean:	2.75	N/A	g/t
Median:	2.74	N/A	g/t
Std. Deviation:	0.07	N/A	g/t
Coefficient of Variation:	0.03	N/A	



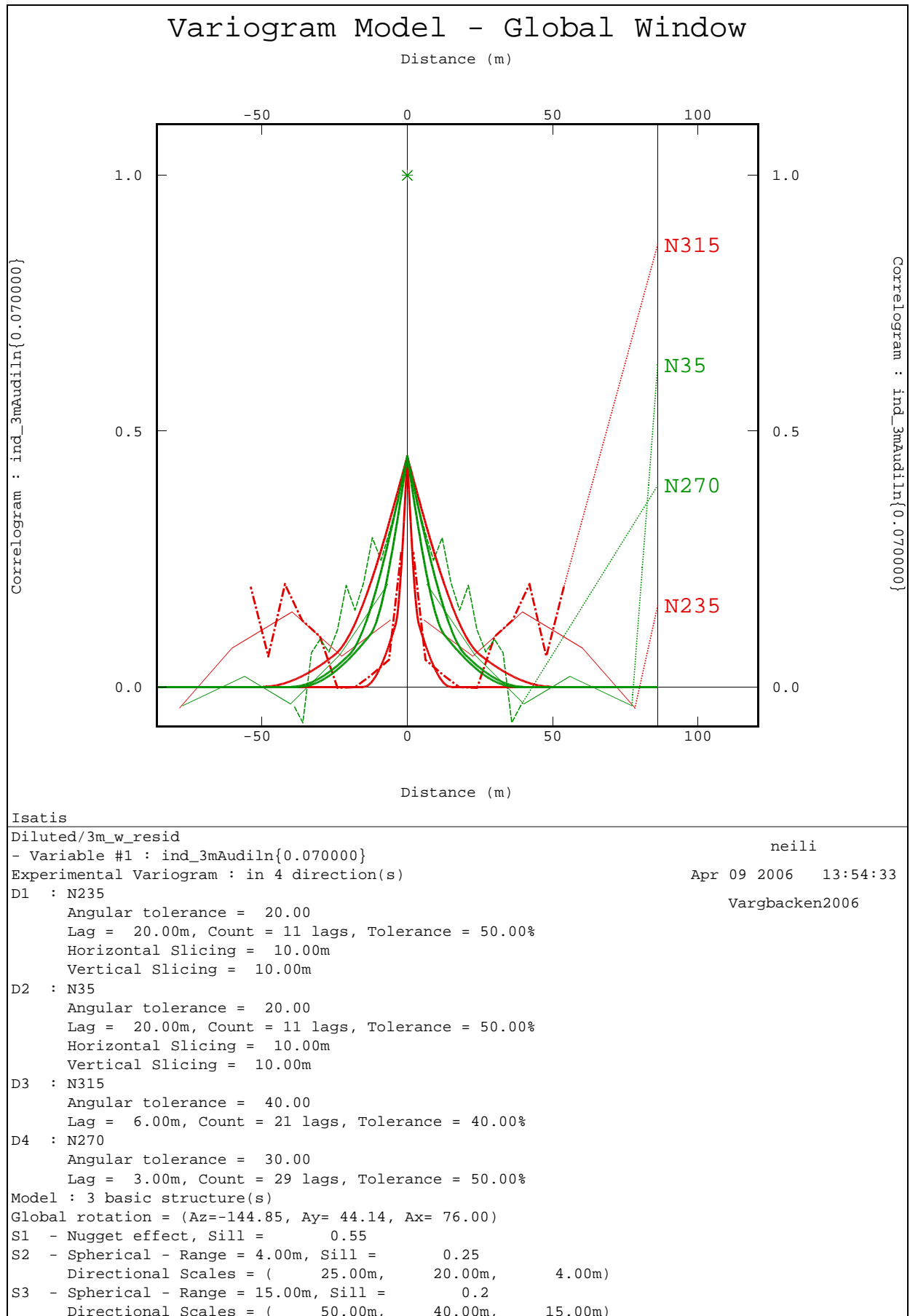
## **Appendix 4**

### **Variography**

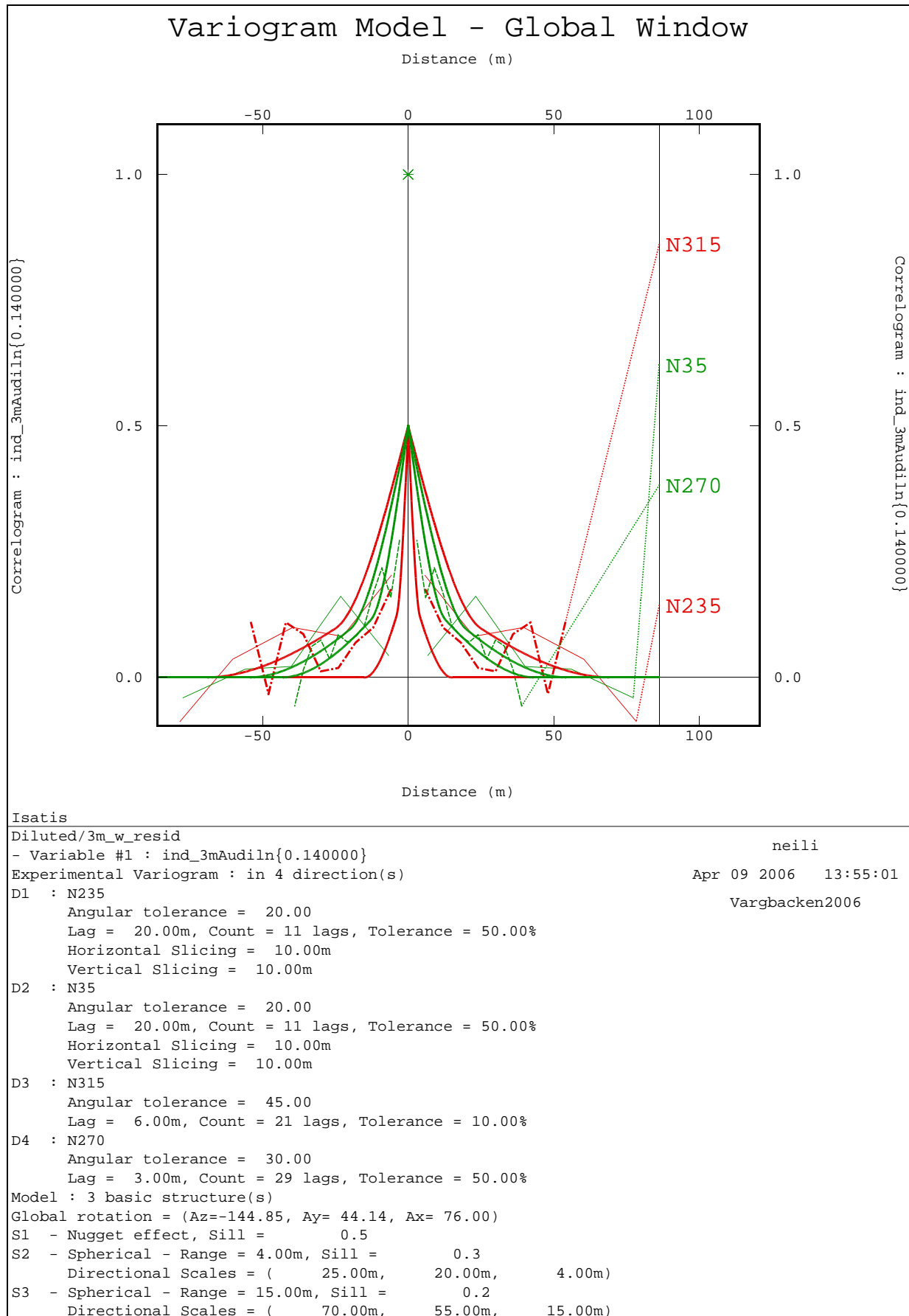
## Appendix 4 Variography



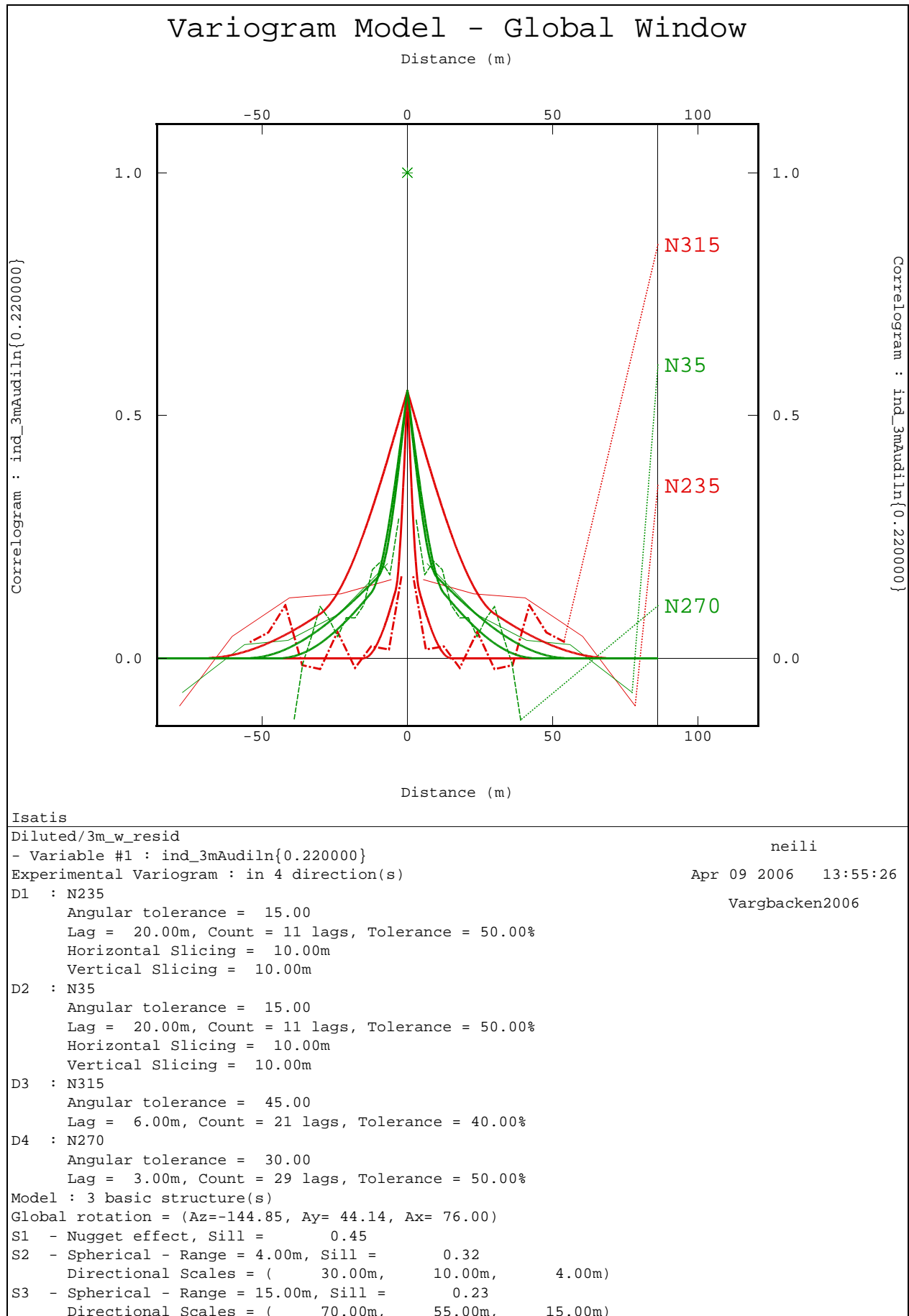
## Appendix 4 Variography



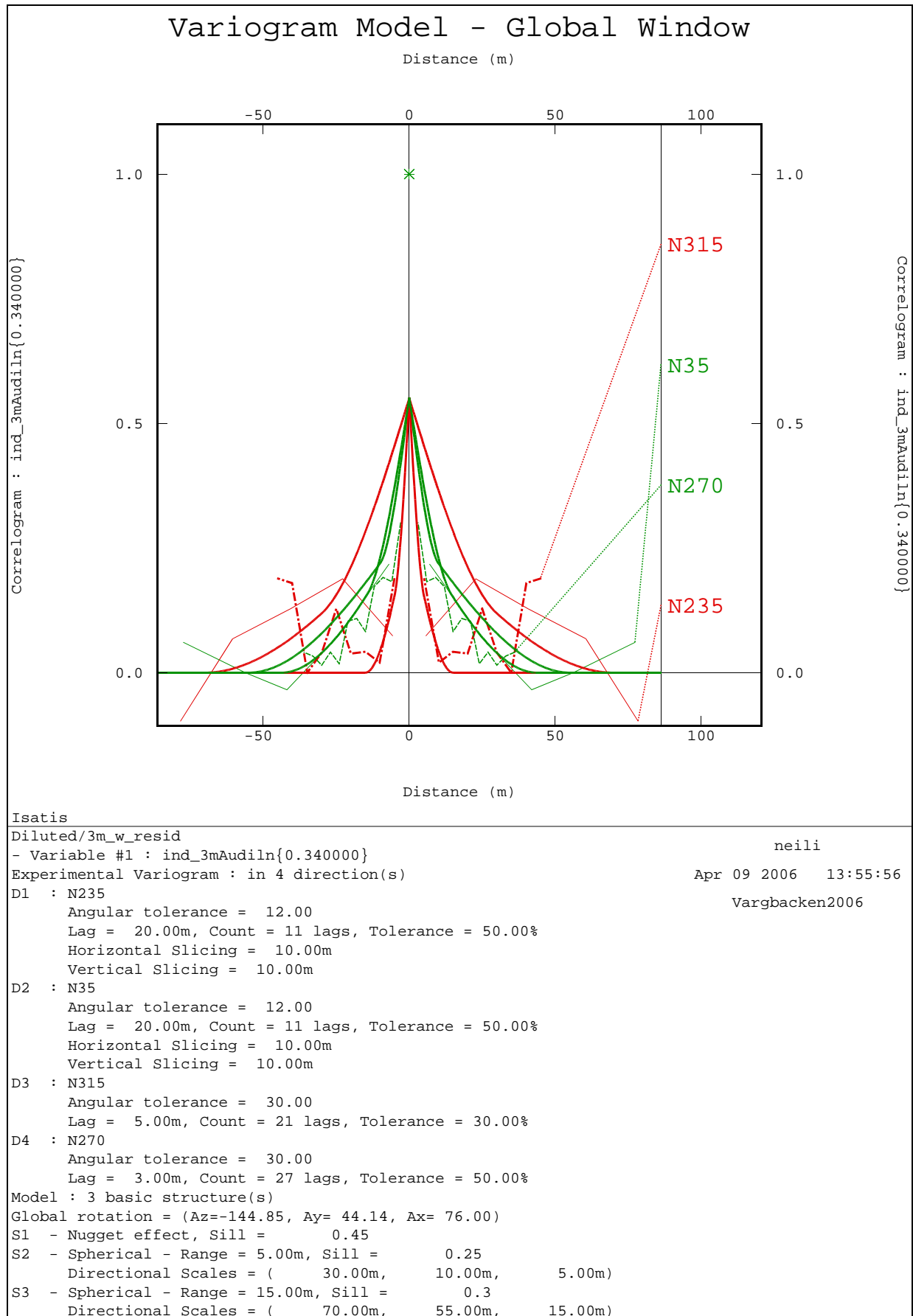
## Appendix 4 Variography



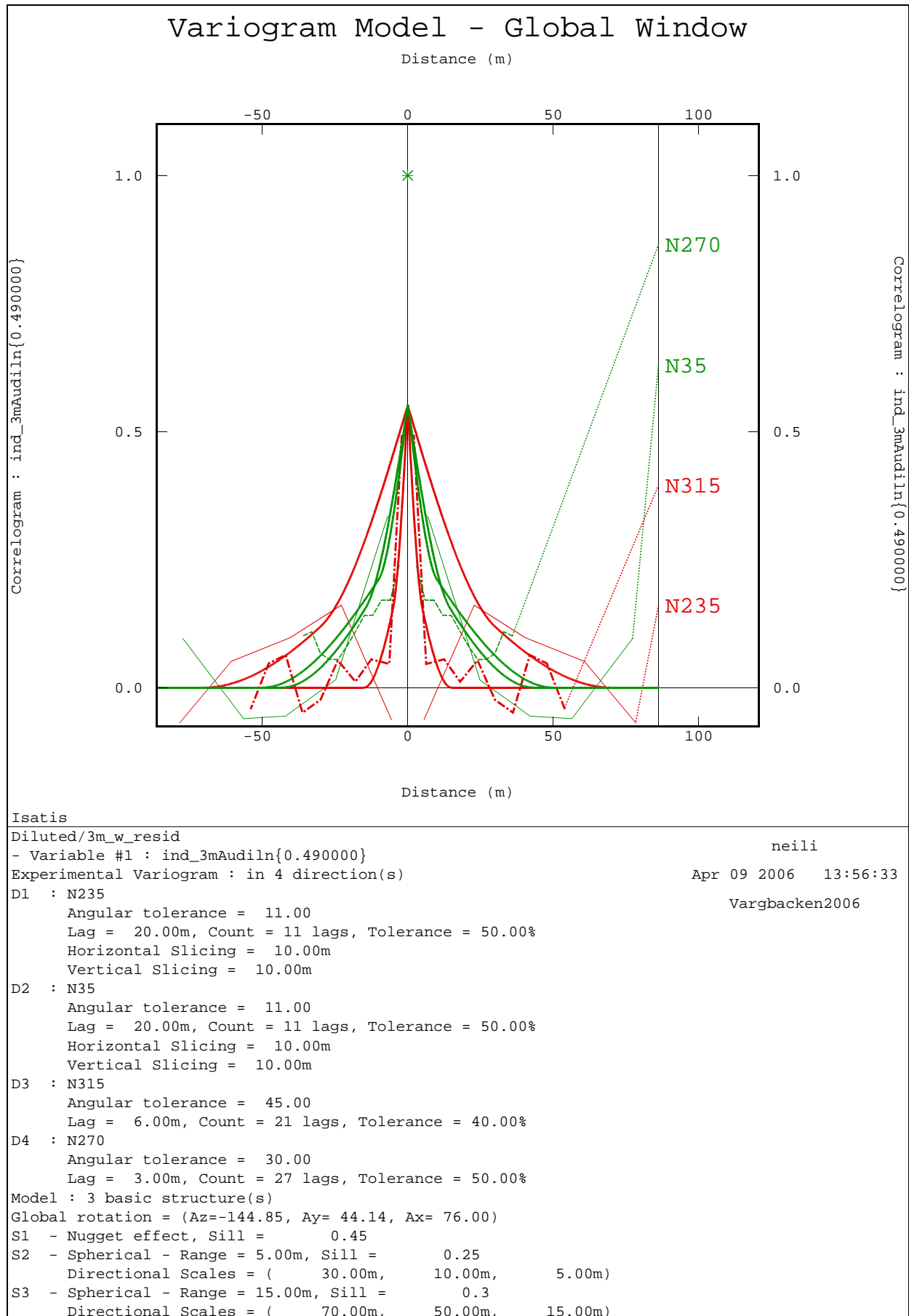
## Appendix 4 Variography



## Appendix 4 Variography

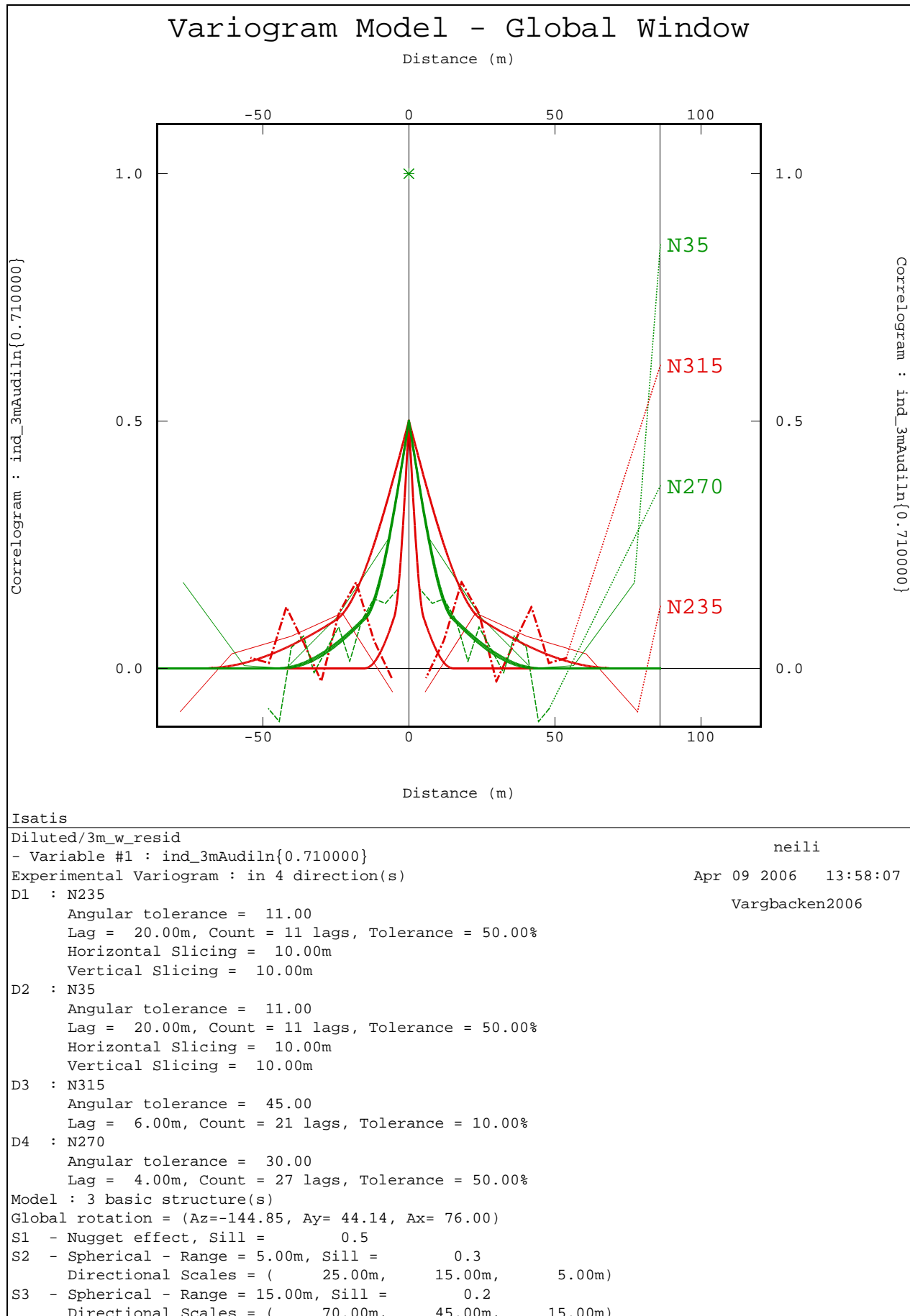


## Appendix 4 Variography

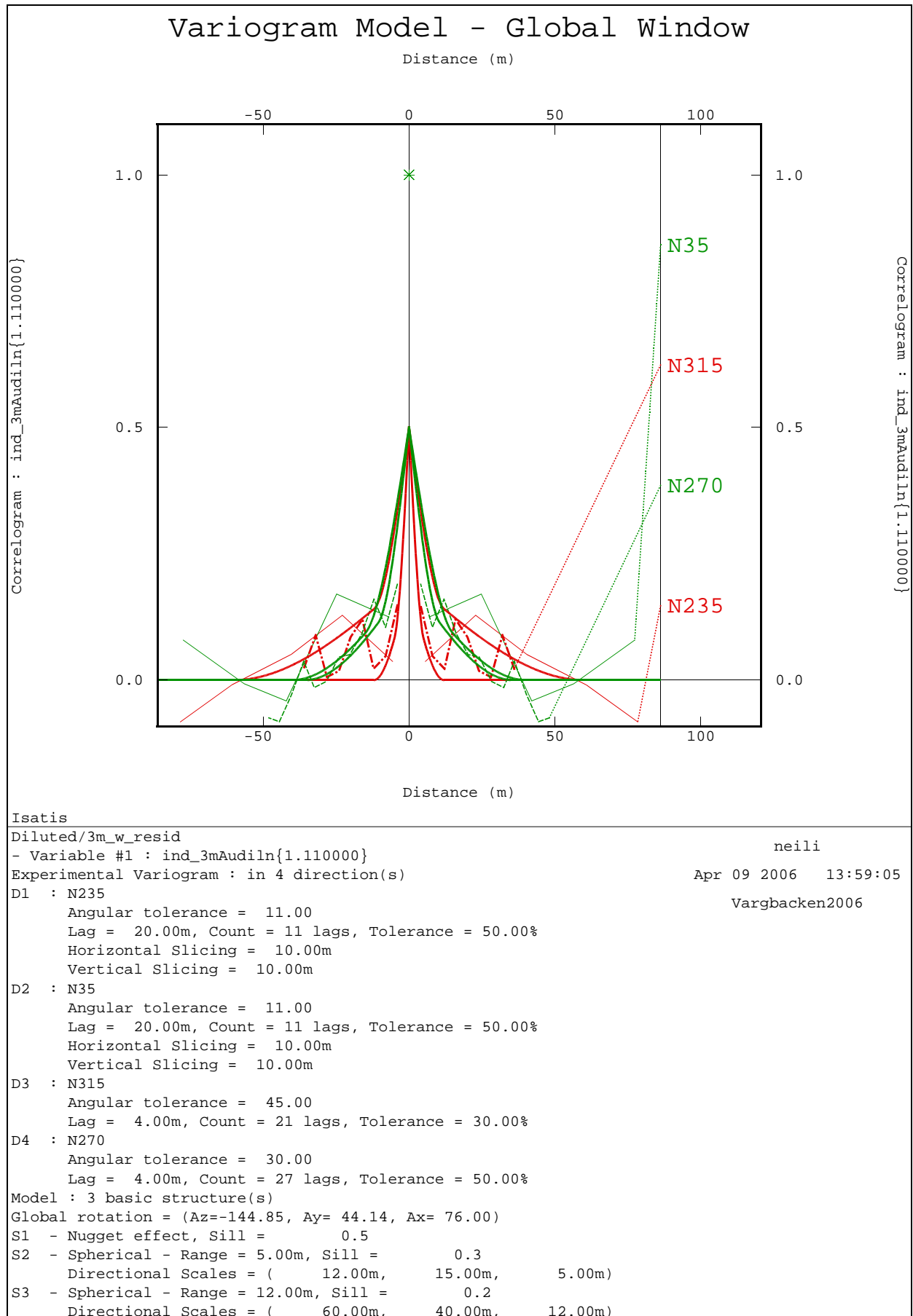




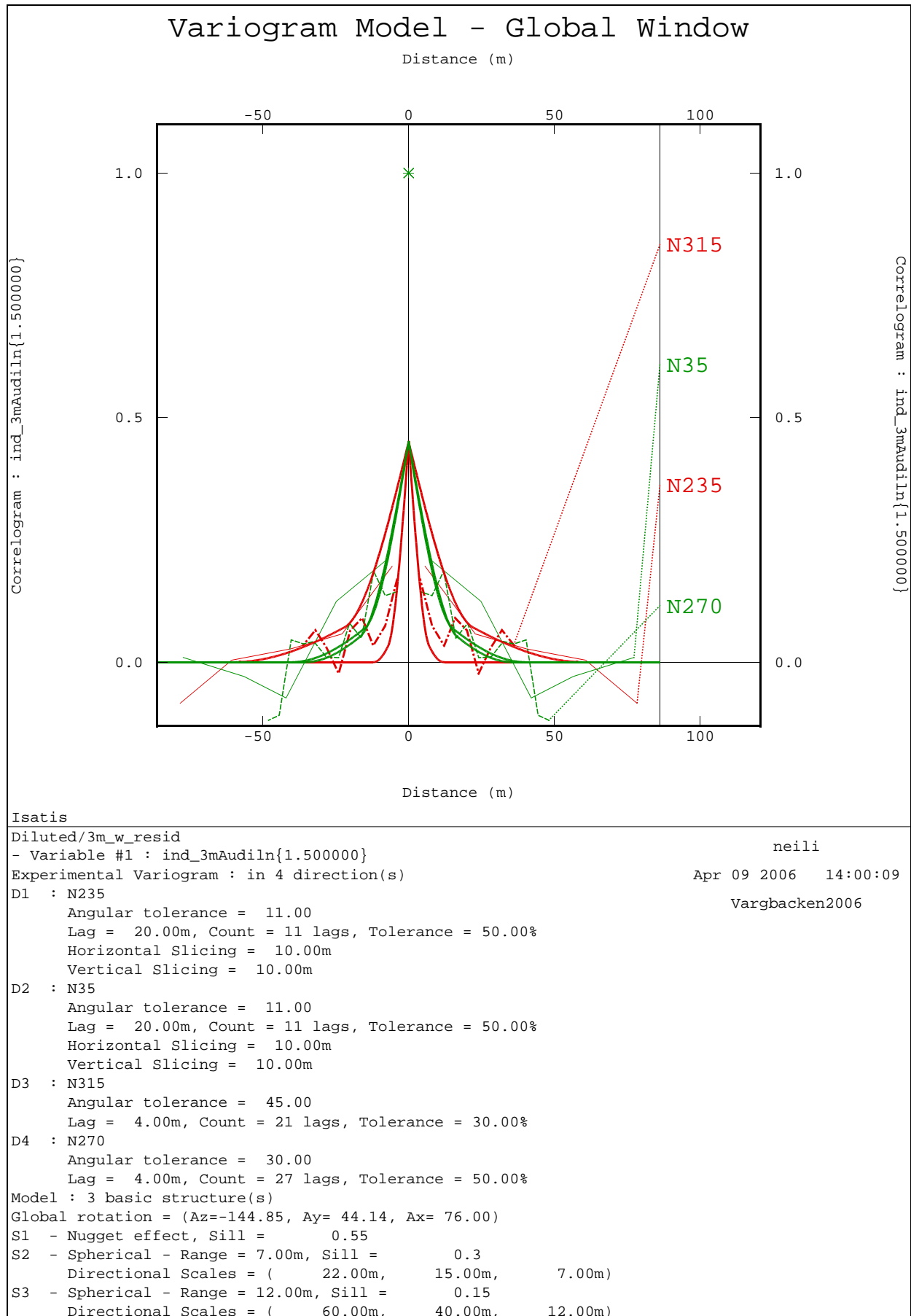
## Appendix 4 Variography



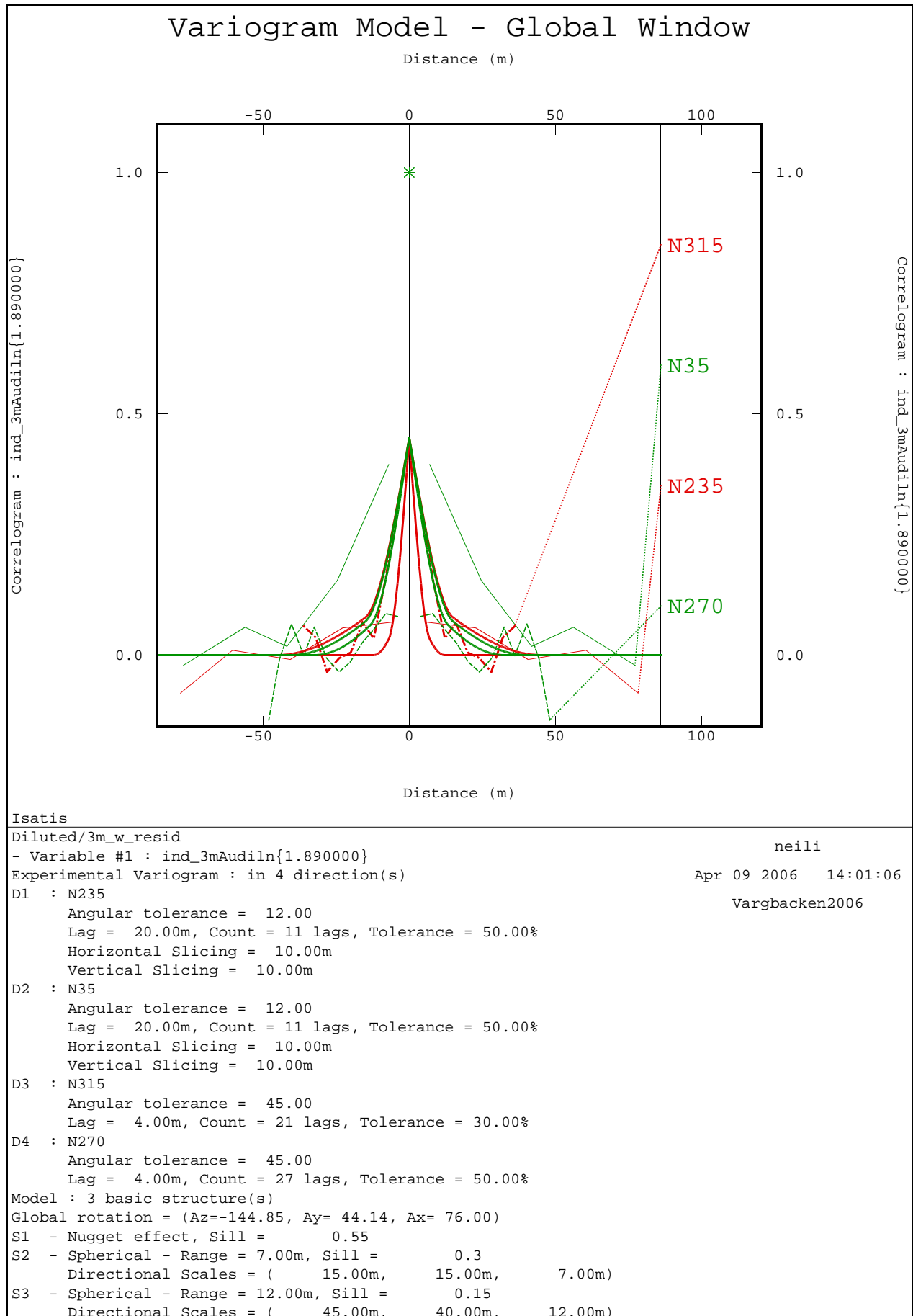
## Appendix 4 Variography



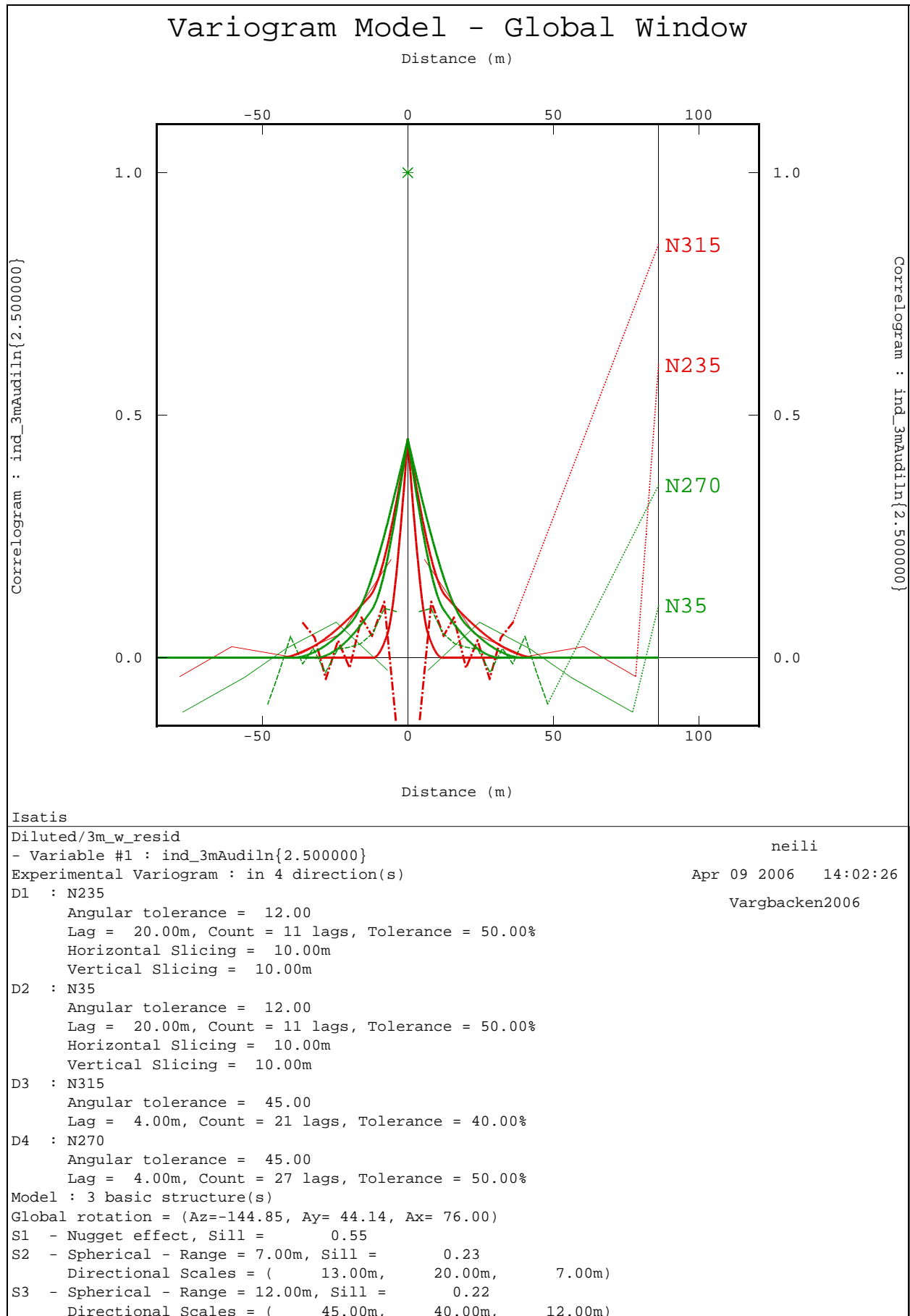
## Appendix 4 Variography



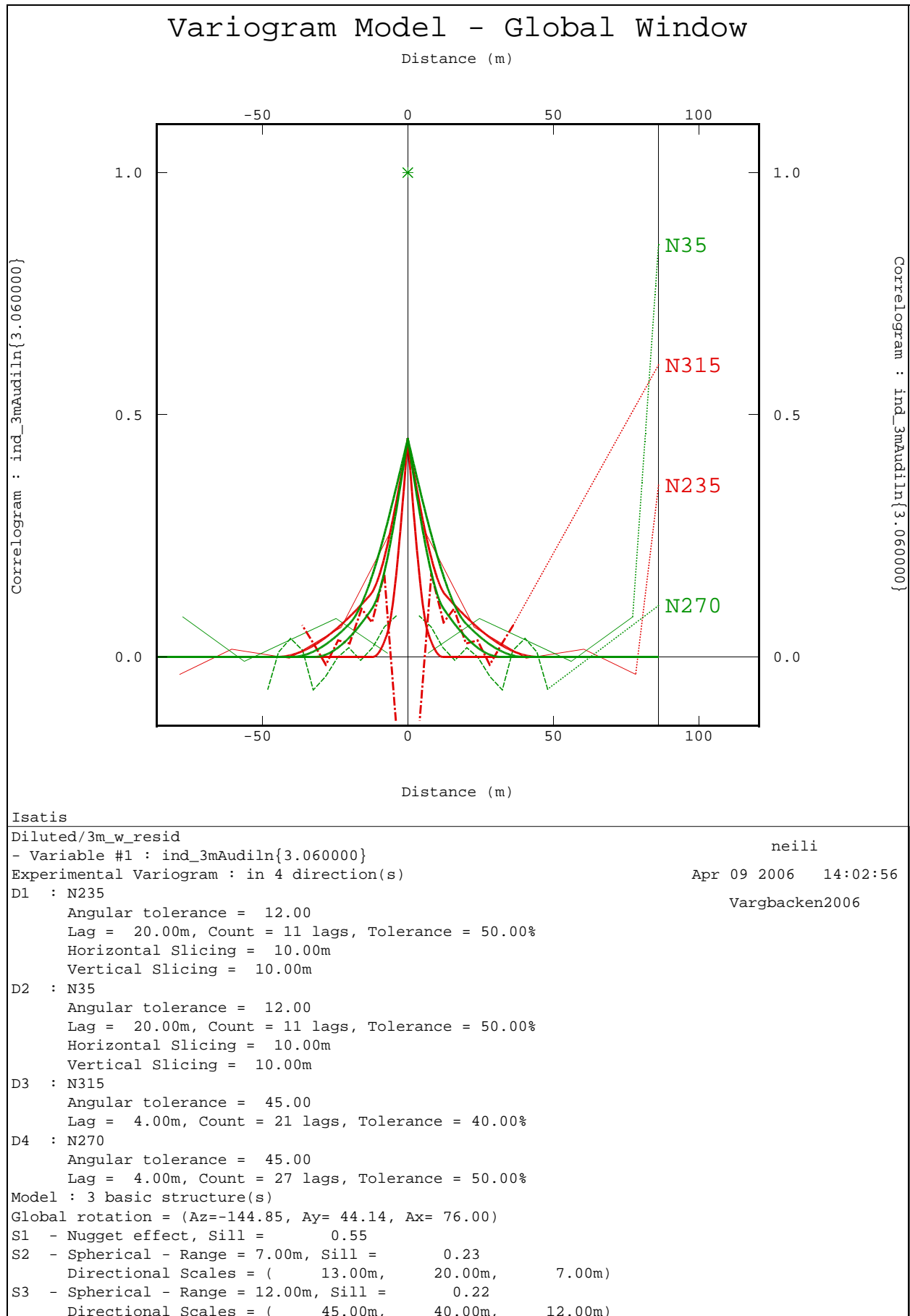
## Appendix 4 Variography



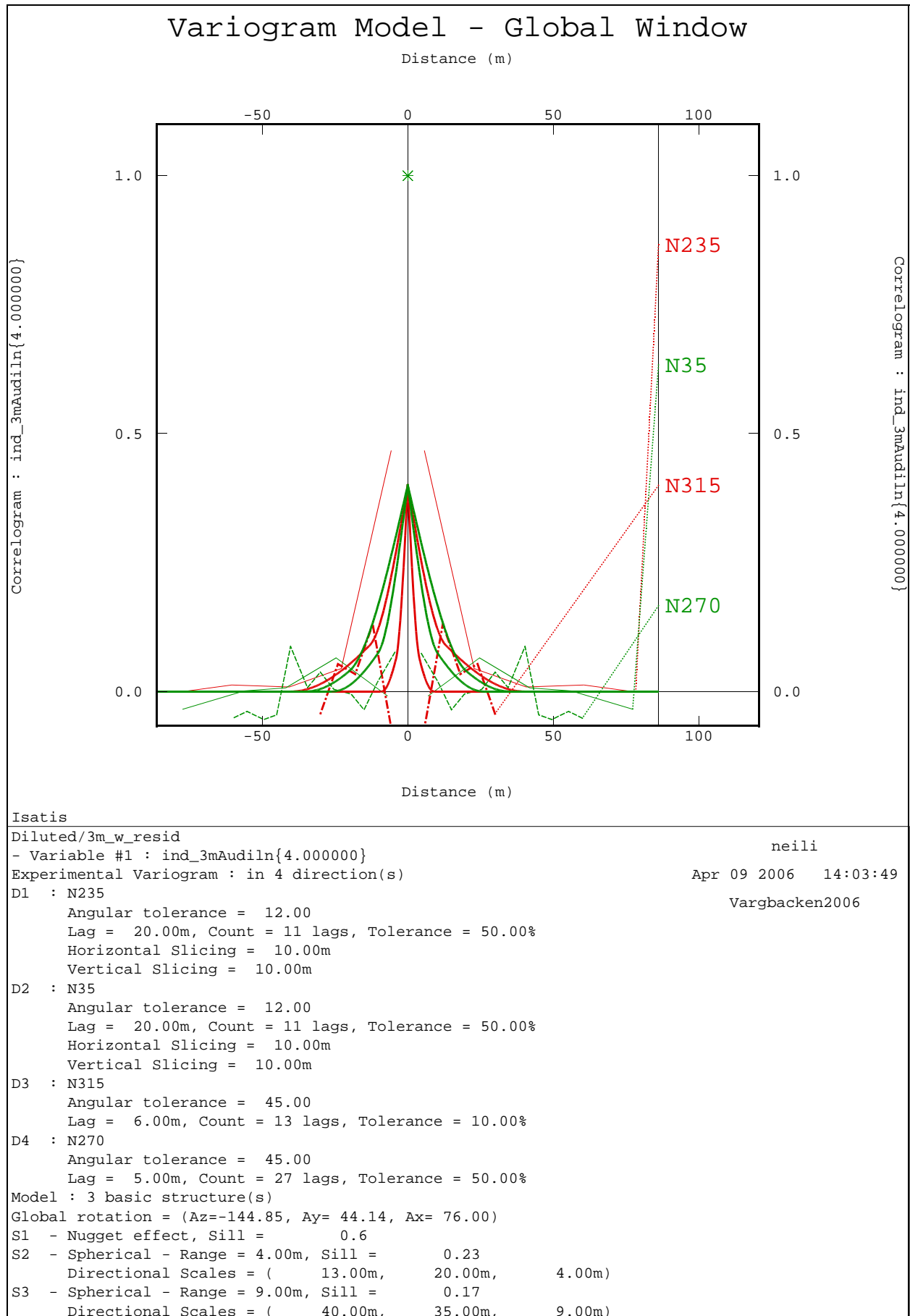
## Appendix 4 Variography



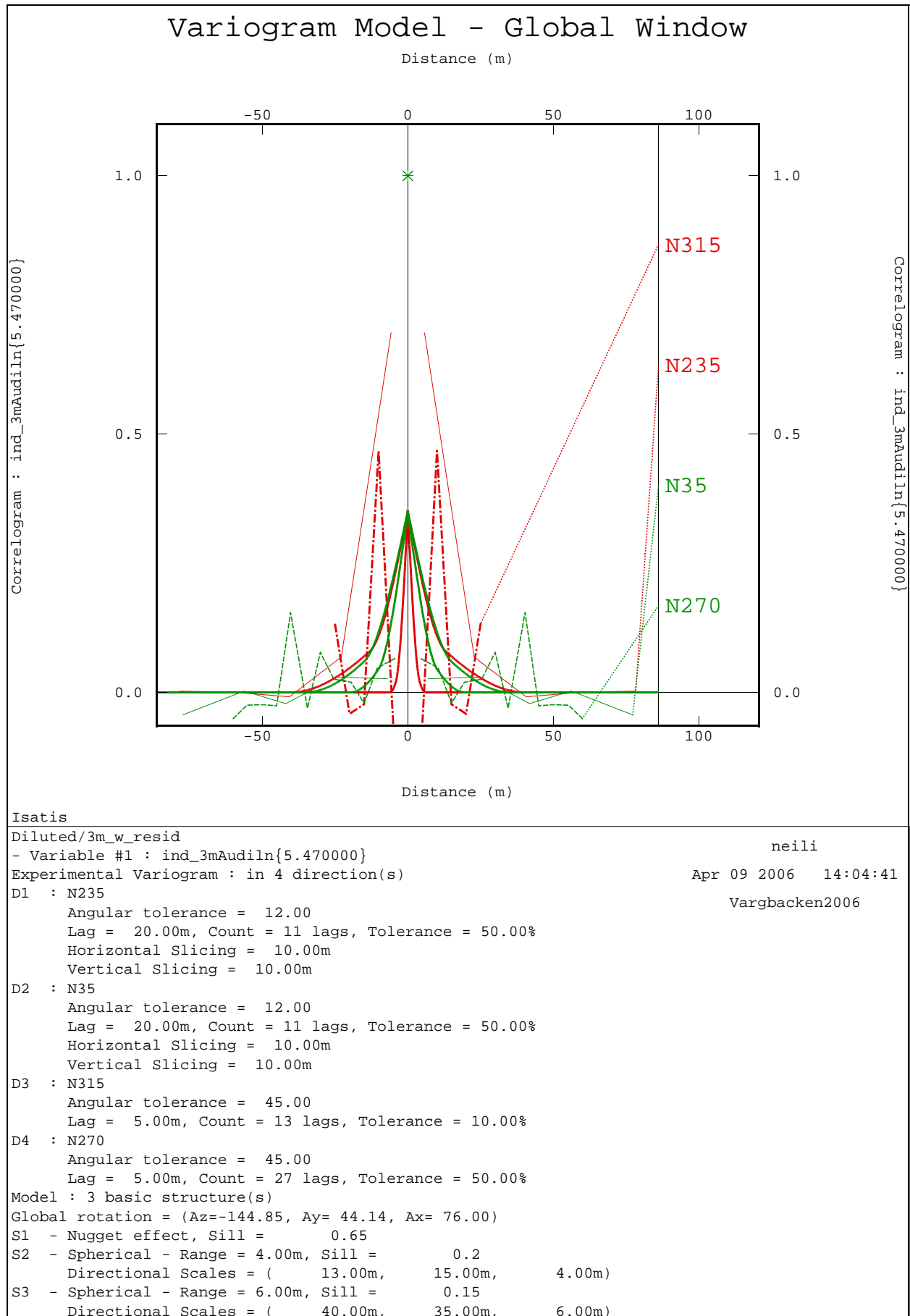
## Appendix 4 Variography



## Appendix 4 Variography



## Appendix 4 Variography





## Appendix 4 Variography

