CUMBERLAND RESOURCES LTD
Form 6-K
March 11, 2004

FORM 6-K

1SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

2Report of Foreign Private Issuer
Pursuant to Rules 13a-16 or 15d-16
Under the Securities Exchange Act of 1934

For the month of **March**

Commission File Number **001-31969**

Cumberland Resources Ltd.
(Translation of registrant's name into English)

950 - 505 Burrard Street, Box 72, One Bentall Centre, Vancouver, B.C., Canada, V7X 1M4
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F....[**X**]..... Form 40-F...[ ]...

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ____

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Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

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Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes

[ ]

No

[**X**]

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-________

Note to U.S. Readers

The terms "Mineral Resource", "Measured Mineral Resource", "Indicated Mineral Resource, "Inferred Mineral Resource" used in this report are Canadian mining terms as defined in accordance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects under the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum Standards. While the terms "mineral resource," "measured mineral resource," "indicated mineral resource," and "inferred mineral resource" are recognized and required by Canadian regulations, they are not defined terms under standards in the United States. As such, information contained in this report concerning descriptions of mineralization and resources under Canadian standards may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements of the Securities and Exchange Commission. "Indicated mineral resource" and "inferred mineral resource" have a great amount of uncertainty as to their existence and a great uncertainty as to their economic and legal feasibility. These mineral resource estimates include inferred mineral resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. It can not be assumed that all or any part of an "indicated mineral resource" or "inferred mineral resource" will ever be upgraded to a higher category. Investors are cautioned not to assume that any part or all of mineral deposits in these categories will ever be converted into reserves.

3

4Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Cumberland Resources Ltd.

Date: March 10, 2004

By: /s/ Kerry M Curtis

Name: Kerry M Curtis

Title: President & CEO

IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 Technical Report, in accordance with Form 43-101F1, for Cumberland Resources Ltd. (Cumberland) by AMEC Americas Limited (AMEC). The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in AMEC s services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended to be used by Cumberland, subject to the terms and conditions of its contract with AMEC. That contract permits Cumberland to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities laws, any other use of this report by any third party is at that party s sole risk.

CONTENTS

FIGURES

Figure 13-6:

Meadowbank SRM Control Chart for GS-1 (2001-2003)

Figure 13-7:

Meadowbank SRM Control Chart for GS-2 (2001-2003)

Figure 13-8:

Meadowbank SRM Control Chart for GS-3 (2001-2003)

Figure 13-9:

Meadowbank SRM Control Chart for GS-4 (2001-2003)

Figure 13-10:

Meadowbank SRM Control Chart for GS-9 (2003)

Figure 13-11:

Meadowbank SRM Control Chart for GS-10 (2003)

Figure 13-12:

Meadowbank SRM Control Chart for GS-10 (2003)

Figure 13-13:

2000 2003 Check Assays (AA and Grav.) Scatter Plot

Figure 13-14:

2000 2003 Check Assays (A.A. & Grav.) Relative Percent Difference

TABLES

APPENDICES

QA/QC Pre-2000 (from the 2000 Prefeasibility Study)

E

QA/QC 2000-2003 Charts for Check and Duplicate Assays

F

Specific Gravity Data

G

List of Drill Holes Checked

H

List of Drill Hole Locations and Mineralized Intervals

I

List of Solids

J

Assay and Composite Histograms and Probability Plots

K

Variograms

L

Interpolation Parameters

1.0

SUMMARY

Cumberland Resources Ltd. (Cumberland) has asked AMEC Americas Limited (AMEC) to provide resource estimation assistance and a technical report for the Meadowbank project in Nunavut, Canada. Steve Blower, P.Geo., an employee of AMEC, served as the Qualified Person responsible for preparing the technical report as defined in National Instrument 43-101, Standards of Disclosure for Mineral Properties, and in compliance with Form 43-101F1 (the Technical Report). Steve Blower and Stephen Juras, P.Geo., Principal Geologist with AMEC, visited the Meadowbank project on 9 to 11 September 2003.

The Meadowbank property is located in the Kivalliq District of Nunavut, approximately 70 km north of Baker Lake. Cumberland is currently completing a feasibility study based on the resource estimates that are the subject of this report. Planned production scenarios involve open-pit mining from at least three deposits, Goose Island, Portage, and Vault that are located within 8 km of each other. The deposits occur at the south end of a north trending belt of mineralization that has been traced for over 20 km.

Meadowbank is an Archean-aged Iron Formation hosted gold deposit located within the Woodburn Lake Group. Most of the mineralization at the Goose Island and Portage deposits is hosted by highly tectonized iron formation, but intermediate volcanic rock assemblages host the majority of the mineralization at the more northerly Vault deposit. Mineralization is commonly associated with intense quartz flooding, disruption of banding in the iron formation and the presence of abundant pyrrhotite.

A total of 763 diamond drill holes have been drilled from surface at Meadowbank. AMEC has verified the accuracy of the database with a check of five percent of the assay and survey data against original source data records. Gold assays have been completed with industry standard fire assay techniques that in recent years are supported by Cumberland s QA/QC program. The program consists of the regular insertion of standard reference materials, blanks, and core duplicate samples into the sample stream.

A number of bulk density determinations have been completed on diamond drill core samples with a weight-in-air/weight-in-water technique. The samples were coded by lithology and intensity of mineralization, so that mean specific gravities could be applied to mineralized and unmineralized subsets of lithologic groups.

Mineral resource estimates at Meadowbank are based on geologically constrained grade block models that were constructed by interpolating composited assay values with inverse distance techniques. AMEC has checked the validity of the models with a number of methods and is satisfied that the resource models provide an acceptable estimate of tonnage and grade for the completion of a feasibility study.

The Meadowbank mineral resource estimate is summarized in Table 1-1 below.

Table 1-1: Meadowbank Resource Statement, 29 January 2004

Deposit	Deposit	Tonnes	Grade	Ounces
Portage (1.5 g/t cutoff)	Measured	1,013,000	5.5	179,000
	Indicated	10,805,000	4.5	1,563,000
	Sub-Total	11,818,000	4.6	1,742,000
	Inferred	774,000	4.3	107,000
Goose Island (1.5 g/t cutoff)	Measured	-	-	-
	Indicated	1,924,000	4.8	297,000
	Sub-Total	1,924,000	4.8	297,000
	Inferred	2,069,000	4.8	319,000
Vault Deposit (2.0 g cutoff)	Measured	38,000	3.4	4,000
	Indicated	7,905,000	3.6	915,000
	Sub-Total	7,944,000	3.6	919,000
	Inferred	2,513,000	3.8	307,000

All Deposits	Measured	1,051,000	5.4	183,000
	Indicated	20,634,000	4.2	2,786,000
	Sub-Total	21,685,000	4.3	2,998,000
	Inferred	5,356,000	4.3	740,000

*Note: the totals may not add due to rounding.

This resource estimate is reported above a cutoff grade of 1.5 g/t Au for the Portage and Goose Island deposits and 2.0 g/t Au for the Vault Deposit, reflecting a gold price of US$325/oz.

2.0

INTRODUCTION AND TERMS OF REFERENCE

Cumberland Resources Ltd. (Cumberland) has asked AMEC Americas Limited (AMEC) to assist with the estimation of mineral resources at the Meadowbank project in Nunavut, Canada, as part of an on-going Feasibility study also being completed by AMEC. Steve Blower, P.Geo., an employee of AMEC, served as the Qualified Person responsible for the preparation of the resource estimate and this technical report as defined in National Instrument 43-101, Standards of Disclosure for Mineral Properties.

Information and data for the report were obtained from a site visit by AMEC on 9 to 11 September 2003, as well as from reports received directly from Cumberland personnel. Pertinent geological information was reviewed in sufficient detail to prepare this report.

2.1

Terms of Reference

Unless otherwise specified, all units of measurement in this report are metric and all costs are expressed in Canadian dollars. The payable metals, gold and silver, are priced in United States dollars (US$) per ounce.

The statement of mineral resources as of 29 January 2004 is based on a gold price of US$325/oz and a conversion rate of 1.0 to 1.35 (Cdn$ to US$).

3.0

DISCLAIMER

No disclaimer statement is necessary for the issuance of this report.

4.0

PROPERTY DESCRIPTION AND LOCATION

The Meadowbank property consists of 10 Crown mining leases and 3 Nunavut Tunngavik Inc. (NTI) exploration concessions located in the Kivalliq District of Nunavut in Northern Canada; National Topographic Series Mapsheets 56 E/4 and and 66 H/1, UTM (Zone 14) coordinates 7214000 N and 638000 E, near latitude 65° 00 N and longitude 96° 00 W. The property lies in the Third Portage Lake area, approximately 70 km north of the village of Baker Lake (see Figure 4-1).

4.1

Mineral Tenure

Title to the 10 leases and 3 concessions is held 100% by Cumberland. Table 4-1 lists the status of mineral tenure for the Meadowbank Project. All of the mining leases and Exploration Concessions are currently in good standing, including the NTI Exploration Concession that contains the Vault deposit. All the surrounding claims are contiguous, with the exception of one sub-area of concession BL 14-99-02. The Crown mining leases have been legally surveyed, but the NTI Exploration Concessions have not. (Note: NTI concessions were acquired by map staking and there is nothing on the ground to survey)

Table 4-1 shows the status of mineral tenure for the Meadowbank Project, including the Vault deposit. The claim map is shown in Figure 4-2.

Table 4-1: Status of Mineral Tenure for the Meadowbank Project

Claim Name	Lease #	Effective Date	Expiry Date	Acreage	Hectares

		Crown Mining Leases			
Dick	3669	13 Dec. 1995	13 Dec 2016	1800	728.44
Carey	3670	13 Dec. 1995	13 Dec 2016	2545	1029.93
OY 2	3782	27 Apr. 1998	27 Apr. 2019	2547	1030.74
OY 3	3783	27 Apr. 1998	27 Apr. 2019	2582	1044.90
OY 4	3784	27 Apr. 1998	27 Apr. 2019	1954	790.76
YO 1	3777	27 Apr. 1998	27 Apr. 2019	1460	590.84
YO 2	3778	27 Apr. 1998	27 Apr. 2019	2020	817.47
YO 3	3779	27 Apr. 1998	27 Apr. 2019	1652	668.54
YO 4	3780	27 Apr. 1998	27 Apr. 2019	1105	447.18
YO 5	3781	27 Apr. 1998	27 Apr. 2019	607.76	245.95
		NTI Exploration Concessions			
BL 14-99-01		31 Dec. 2000			9234
BL 14-99-02		31 Dec. 2000			8502
BL 14-99-03		31 Dec. 2000			5390

Figure 4-1: Meadowbank Deposit Location

Figure 4-2: Claim Map

4.2

Permits and Agreements

The NTI Exploration Concessions are being explored under an agreement with Nunavut Tunngavik Inc., the non-profit organization responsible for administering mineral rights on Inuit-owned Lands. The agreement has undergone several years of review and has only recently been standardized by the NTI. Provisions include yearly exploration expenditures and fees and standard reporting requirements similar to those existing under federal jurisdictions for assessment. The yearly land fees and required exploration expenses for the NTI concessions increase as the exploration agreements mature. For 2004, the Exploration Concessions require payment of $46,252.00 for land fees and combined expenditures of $231,260.00 on exploration directed at the exploration areas.

During the exploration phase, lands within Exploration Concessions can be held for up to 20 years. The agreement incorporates a production lease, which can be activated upon delivery of a pre-feasibility study. Production from the new lands will be subject to a 12% net profits interest royalty in which annual deductions are limited to 85% of gross revenue. All deductions are placed into one deduction pool and can be carried forward until fully deducted. The agreement also allows for potential participation by the NTI in financing all or part of planned mine development.

Two permits are required to conduct exploration work on Inuit Owned Lands in the Territory of Nunavut. One is the Land Use Permit administered by the Kivalliq Inuit Association (KIA). The company applies for this permit annually by submitting a proposal of work that must be approved by the KIA and various boards that administer the Land Use Permits. The other required permit is the Water Use Permit, administered by the Nunavut Water Board, which covers the amount of water the project will use in camp and for exploration purposes in one calendar year.

5.0

ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1

Accessibility

The Meadowbank Project is serviced via Baker Lake (70 km to the south), which provides summer shipping access and year-round airport facilities. Winter access to the project area is by helicopter, ski-equipped aircraft or snow vehicle over a winter ice road. Helicopter or float-equipped Twin Otter aircraft provide transportation during the summer. The camp is within 2 km of the Goose Island and Portage deposits, but is approximately 8 km from the Vault deposit.

5.2

Physiography

Land exposure consists of gently rolling hills and muskeg bound by numerous lakes and rivers. Vegetation is limited to small shrubs, lichen, and grasses.

5.3

Climate

Arctic winter conditions prevail from October through May, with temperatures ranging from +5°C to -60°C. This region is considered to have an arid arctic climate where snowfall rarely exceeds 1 m and annual rainfall is not significant. Light to moderate snowfall is accompanied by variable winds of up to 90 km/h. Summer temperatures usually range from -5°C to +25°C. Exploration work is generally conducted from March through to September.

5.4

Local Resources

The camp consists of a large wood framed head office/kitchen/dry facility, three large Weatherhaven all-weather structures (geology office/core shack/recreational facilities) and numerous insulated canvas tents and Weatherhaven sleeper tents (Figure 5-1). It can currently accommodate up to 60 people. Baker Lake has a year-round population of approximately 1,200 inhabitants and the services available there include a nursing clinic, motels and restaurants, expediters, an all season airport and 2.5 months of ice-free shipping access to Hudson Bay via Baker Lake and Chesterfield Inlet.

Figure 5-1: Meadowbank Camp

Figure -:

Figure 5-2: Baker Lake

6.0

HISTORY

6.1

Pre-1985

Exploration for gold in the Meadowbank area was motivated by the discovery of uranium in the Baker Lake basin in the 1970s. In the following decade, regional grassroots exploration programs outlined gold-bearing Archean greenstone belts in the Baker Lake area. In the Meadowbank area, this work culminated in the staking of ground by Wollex Exploration in 1983 due to the presence of anomalous gold and silver values in prospecting samples.

6.2

1985-1988

In 1985, a joint venture with Asamera Minerals (Asamera) (60%) and Comaplex Minerals Ltd. (Comaplex) (40%) was launched to explore gold and silver showings in the area. Over the next few years, several of these targets were evaluated by diamond drilling and by land-based magnetometer and VLF and airborne magnetometer geophysical surveys. In 1987, the Third Portage deposit the first of five gold deposits currently known at Meadowbank, was discovered.

6.3

1989-1991

Six exploration permits were acquired in 1989, and the joint venture was expanded to include Agnico-Eagle Mines, Hecla Mining Company, and Lucky Eagle Mines. This joint venture executed a detailed exploration program that consisted of ground magnetic and EM geophysical surveys, 1,529 m of core drilling and surface mapping. Over the next two years work was focussed on and around the Third Portage deposit. Three wide-spaced drill holes intersected mineralization in what is now known as the Goose Island deposit.

6.4

1992-1993

Agnico-Eagle, Hecla Mining, and Lucky Eagle did not fulfill their work obligations in 1992 and ceased to be partners in the joint venture.

6.5

1994-1997

In 1994, Cumberland Resources Ltd. entered the joint venture by acquiring Asamera s 60% interest. Drilling and geophysical programs, including detailed ground magnetic surveys and Max Min (HLEM) surveys, continued through to 1997. This work further delineated the Third Portage deposit and outlined the Goose Island deposit. The North Portage deposit was also discovered and delineated during this period. In 1997 Cumberland Resources Ltd. became the sole owner/operator of the project when it acquired Comaplex s 40% interest.

6.6

1998-1999

The Bay Zone was discovered in 1998. In 1998 and 1999, a total of 24,191 m of drilling was completed in 160 drill holes on all of the deposits. In 1999, extensive surface trenching at the Third Portage deposit was completed. Also in 1999, Cumberland initiated a regional prospecting program to the north of the known deposits. The focus was on re-assessing property that had been previously explored by the original joint venture. This work confirmed the existence of two mineralized trends in the Meadowbank area and led the company to acquire three mineral exploration agreements (NTI Exploration Concessions) on approximately 30,000 ha on 31 December 1999. These land parcels were contiguous with the mining leases surrounding the existing Meadowbank deposits.

6.7

2000

Exploration in 2000 focussed on the newly acquired concessions and concentrated on locating mineralization proximal to the existing Meadowbank deposits that would be amenable to open pit mining. In the spring, 37 drill holes were completed (3,546 m) on three showings, one of which was the Vault occurrence. This work resulted in the discovery of the Vault deposit.

Contemporaneously with the definition of the Vault mineralization in 1999 and 2000, Cumberland retained MRDI (now AMEC) to complete a pre-feasibility study on the Bay Zone, Goose Island, North Portage and Third Portage deposits. The work included an estimate of the mineral resource and reserve and involved a preliminary mine plan that utilized a combination of open pit and underground mining methods.

6.8

2001

The 2001 exploration program consisted of grid preparation, ground geophysics, and continued diamond drilling on the Vault prospect. The geophysical programs included ground magnetic, down-hole IP, and 1,590 line km of airborne magnetometer and EM surveys. Drilling in 2001 consisted of 4,044 m in 19 holes and targeted along-strike and down-dip extensions of the mineralization. It also filled in portions of the deposit drilled in 2000.

MRDI was again contracted by Cumberland to update the geological resource on the Vault deposit based on the 2000 and 2001 drilling results. This work was completed in November of 2001.

6.9

2002

In 2002, Cumberland completed 8,191 m of definition diamond drilling in 66 holes at the Vault deposit. Most of these holes were designed to increase the sampling density within the relatively near surface portion of the deposit and to improve confidence levels there in preparation for a feasibility study. Additionally, 18 holes totalling 1,783 m were completed on the PDF deposit. These holes followed up on scattered drill hole intersections obtained during 2000, and were successful in partially delineating a significant new zone of mineralization. In the Potage area, 6,022.5 m of drilling was completed in 58 holes. Most of the drilling in the Portage area focused on the newly discovered Connector zone and infill in the North Portage Deposit in preparation for a feasibility study. These holes successfully connected the North and Third Portage areas into one single deposit, providing continuous mineralization over 1800 m of strike length. Other exploration work in 2002 included the completion of a large program of overburden RC drilling in the area between the Vault and North Portage deposits in an effort to locate gold anomalies in the glacial till immediately down-ice of buried deposits. The work resulted in the definition of several anomalies.

7.0

GEOLOGICAL SETTING

After extensive discussions with the Cumberland geological staff, a review of trench exposures at Vault and Third Portage, and a review of diamond drill core, AMEC is satisfied that the level of understanding of the geology at Meadowbank is very good. The geological staff is generally using appropriate techniques to gather, store and utilize a large amount of detailed geological data.

7.1

Regional Geology

The deposits that make up the Meadowbank Project lie in the Rae subprovince of the western Churchill Province of the Canadian Shield (Figure 7-1). The host unit is the Archean (ca. 2.7 Ga) Woodburn Lake Group (Zaleski et al., 2000), which occurs as a narrow neck of structurally complex supracrustal rocks sandwiched between granite plutons (Henderson et al., 1991; Henderson and Henderson, 1994). Rocks of the Woodburn Lake Group have been correlated with units of the Prince Albert Group to the northeast towards Committee Bay. Correlations with supracrustal rocks to the south across the Snowbird Tectonic Zone near Baker Lake are less clear (Zaleski, 1997). The Paleo-proterozoic Baker Lake Basin unconformably overlies the Woodburn Lake Group to the south.

The Woodburn Lake Group consists of quartzites, komatiites, iron formation, felsic to intermediate volcaniclastic rocks and related sedimentary rocks. These units are variably deformed and metamorphosed at greenschist to granulite facies (Fraser, 1988). The regional metamorphic history is characterized by amphibolite facies assemblages to the south of the Meadowbank Project. To the north, chloritoid-bearing greenschist facies assemblages prevail, suggesting that the Meadowbank gold deposits lie near the greenschist-amphibolite transition (Zaleski et al., 1999b). A low-grade Hudsonian thermal metamorphic overprint is indicated by 1750 Ma K-Ar ages of micas (Ashton et al., 1996), and Hudsonian magmatic activity documented by 1835 Ma monzonite in an undeformed granite dyke south of Meadowbank (Roddick et al., 1992).

Three principal deformation increments are preserved throughout the Meadowbank region. These entail an early tight to isoclinal folding and profound transposition (D1), subsequent mesoscopic to macroscopic kink folding (D2) of D1-related fabrics, and a gentler crenulation overprint (D3), which weakly modifies D1-D2 fabrics. The morphologies of the D1-D3 structural fabric elements, and their relative timing relations, are consistent throughout the area.

Figure 7-1: Regional Geology (Alexander et al., 2003)

7.3

Property-Scale Lithology and Stratigraphy

The Meadowbank property is underlain by a complex, polydeformed package of Archean supracrustal rocks that is dominated by intermediate volcaniclastic rocks and wackes, with lesser interbedded iron formation, pelitic schist, ultramafic schist and quartzite (Figure 7-2).

Figure 7-2: Property Geology

7.2.1

Goose Island and Portage Deposit Areas

In the Third Portage Lake area, the supracrustal stratigraphy consists (from oldest to youngest) of: (1) ultramafic volcanics, (2) felsic to intermediate volcaniclastic and/or greywacke, (3) interbedded magnetite-chert iron formation and associated pelitic schists, and (4) quartzite (Alexander et al., 2003).

In the Portage - Goose Island area, the package of rocks occur in a recumbent fold geometry with the volcaniclastic/clastic units and interbedded pelitic and chemical sediments isoclinally folded about an ultramafic core. This geometry is best developed in the central part of Third Portage, where the fold closure can be seen. To the north and south of Third Portage, erosion has removed the closure and only the lower limb of the fold structure remains. A detailed description of the lithological units is provided below.

A north-south trending, steeply west dipping fault runs along the western margin of the Goose, Third Portage and North Portage deposits, rarely clipping the down-dip extension of mineralization. On section there is a very small apparent normal dip slip displacement, however Cumberland geologists believe that the more significant movement may be dextral strike slip, juxtaposing the Bay Zone against Third Portage.

In addition to the north-south trending structure, at least two northwest striking faults cut across the Portage area mineralized trend. Between the Third Portage and North Portage portions of the Portage deposit, a fault occurs beneath Second Portage Lake. Based on the displacement of geological marker horizons, it s apparent offset is sinistral, however modeling of the mineralized zones shows no significant displacement across the fault and therefore the apparent displacement may be due instead to a small dip slip movement across shallow dipping stratigraphy. A second northwest trending fault occurs between Third Portage and Goose Island (Powder Fault). This fault crosses the mineralized trend in an area of sparse drilling and its orientation and magnitude of displacement is not well understood.

Ultramafic Volcanics/Komatiites (UMV)

Ultramafic volcanics at Meadowbank are a pale blue-grey to blue-green, fine-grained to aphanitic, talc±serpentine chlorite schist. Numerous blebs and stringers of calcite that tend to be aligned parallel to the dominant foliation commonly cut the units. A variant of this unit, UMA, contains abundant coarse, randomly oriented actinolite/tremolite blades of metamorphic origin. UMA tends to occur near contacts of UMV and iron formation.

Iron Formation (IFMQ or IFQM)

Oxide facies iron formations are the most common host of mineralization at Meadowbank. These units consist of banded magnetite (brown) and chert (grey/white). The bands are 0.5 cm to 5 cm thick and often display impressive evidence of strong folding that is related to regional stresses. Sulphide minerals (pyrrhotite and/or pyrite) commonly occur as a replacement of magnetite in the iron formation or aligned along later fabrics as a fracture fill. Gold in the iron formations is intimately associated with this sulphide mineralization.

Intermediate Volcaniclastic (IV)

These units are clastic to volcaniclastic units that are commonly grey-green to yellow-green and are fine to medium grained schists that have been subjected to varying amounts of sericite and/or chlorite alteration. The units are commonly cut by 1% to 5% grey to white quartz veinlets, which tend to be aligned parallel to the dominant foliation. The unit can also be host to significant gold mineralization, with gold associated with pyrite and pyrrhotite. The sulphides commonly occur either as disseminations or fracture fillings associated with the quartz veinlets. The main subtypes of the IV that have been identified at Meadowbank include:

•

IVchl: An aphanitic, chlorite rich unit that is best described as a pelitic schist. These units commonly contain significant biotite and lesser garnet porphyroblasts.

•

IVt: A medium to coarse grained member of the IV, commonly containing clasts >3 mm in size. It generally has the same mineralogy as the IV described above.

Quartzite/Chert Pebble Conglomerate (QTZT/CPC)

This is a fine to medium grained unit, which contains minor muscovite and sericite on foliation planes. Often contains minor fuchsite and disseminated pyrite. Quartzite often grades into or is interbedded with chert pebble conglomerate. The chert pebble conglomerate generally contains subrounded clasts (1 cm to 5 cm in size) of chert and/or quartz. Minor disseminated pyrite is often present in the matrix.

7.2.2

Vault Deposit Area

The stratigraphy of the Vault deposit area is similar to that described above (for Goose Island and Portage) but with a notable absence of ultramafic units and a decrease in abundance and continuity of the oxide facies iron formation (IFMQ or IFQM). The deformational history in the Vault area appears to be similar to that of the Portage deposits with a dominant early isoclinal folding event, with associated transposition, and subsequent minor modification by later deformation.

The Vault deposit is disrupted by two sets of normal faults. The first set is a series of east-west striking, moderately south dipping structures. These faults are spaced 75 m to 150 m apart and have minor dip slip displacements of up to 15 m or 20 m (often less). The second set are north-south trending, steeply east dipping structures with dip slip displacements in the range of 30 m to 50 m. The relative timing of the two sets is uncertain.

The Vault area is underlain by a thick succession of intermediate to felsic volcaniclastic rocks and wackes, and subordinate interlayered iron formation and pelitic schists. Stratigraphy at the Vault deposit consists of fine-grained, feldspar-quartz-chlorite-sericite schist (IV) (intermediate volcaniclastics and meta-greywacke), intercalated with feldspar-chlorite schist (IVchl), oxide facies iron formation (IFMQ) and medium-grained, quartz-feldspar-sericite±chlorite schist (IVT/FV). The IV units appear to be similar to those in the Portage area and are variably sericite and/or chlorite altered. This alteration is generally thought to be a reflection of the original composition of the units, but it may also locally be an alteration product related to mineralization.

8.0

DEPOSIT TYPE

The Meadowbank area contains numerous showings of a wide range of types of mineral occurrences, including massive sulphide, polymetallic vein, vein gold, iron formation hosted gold and disseminated gold (Kerswill et al, 1998). Gold mineralization in the Meadowbank deposits can be classified in two main deposit types: iron formation hosted gold and Lode gold (disseminated/replacement style); although several different styles of mineralization can be commonly found in the same area. The iron formation hosted deposits are represented by Portage and Goose Island, while the disseminated/replacement Lode gold deposits are best represented by Vault.

Similarities in the stratigraphic setting, lithogeochemical and geophysical signatures imply a genetic link between massive sulphide and pyrrhotite-rich sulphide iron formation mineralization, and between pyrite-rich oxide iron formation and pyritic exhalite mineralization (Kerswill et al, 1998). These same similarities led Cumberland geologists to theorize that the genetic link between iron formation hosted deposits and the Vault deposit is related to the introduction of hydrothermal fluids (gold and sulphide bearing) during the Archean isoclinal fold event.

8.1

Portage and Goose Island Deposits

The mineralization in the Portage and Goose Island areas at Meadowbank is iron formation hosted. Typically, gold in these types of deposits occurs as fine disseminations associated with pyrite, pyrrhotite, and arsenopyrite, or in cross-cutting quartz veins and veinlets hosted in iron formations and adjacent rocks within volcanic or sedimentary sequences. Mineralization is generally within, or near, favourable iron formations. Most deposits occur adjacent to prominent regional structural and stratigraphic features, and mineralization is often related to local structures. Contacts between ultramafic (commonly komatiitic) rocks and tholeiitic basalts or sedimentary rocks are important. All known deposits occur in Precambrian sequences; however, there are some potentially favourable chemical sediment horizons in Paleozoic rocks. Changes in pinch-outs and facies within geologically favourable units are important loci for ore deposition.

Examples of this style of deposit in Canada are Lupin and Cullaton Lake (Northwest Territories and Nunavut), and Musselwhite, Detour Lake, Madsen Red Lake, Pickle Crow, and Dona Lake (Ontario). International examples are Homestake (South Dakota, USA); Mt. Morgans (Western Australia); Morro Vehlo and Raposos, Mineas Gerais (Brazil); Vubachikwe and Bar 20 (Zimbabwe); and Mallappakoda, Kolar District (India).

Good arguments have been presented supporting both syngenetic exhalative (Kerswill et al., 1998) and epigenetic, structurally controlled (Armitage et al., 1996) origins to the iron formation hosted gold mineralization at Meadowbank. Observations from drill core can support both models. However, in AMEC s opinion, observations of an association between increased gold grades and the presence of secondary silica flooding along with disruptions of the finely banded lamellae in the iron formation supports the latter model of origin.

8.2

Vault Deposit

The Vault Deposit can probably best be described as a disseminated/replacement Lode gold deposit. Disseminated and replacement gold deposits comprise mainly stratabound auriferous bodies of disseminated to massive sulphides, commonly pyritic, that are hosted either by micaceous and/or aluminous schists, derived from tuff and volcanic sandstone or by carbonate-clastic sedimentary rocks; spatial associations with granitoid rocks are common (Poulsen, 1996). In most cases, minor folds have been noted to be contemporaneous with foliation and the transposition of bedding into parallelism with foliation is a common attribute. Such transposition accounts for the straightness of belts and is largely responsible for obscuring the primary relationships between the ore deposits and their host rocks (Paulsen, 1996). Sericitic alteration is also a common feature of most deposits of this type and ore distribution is not dictated by vein quartz.

Canadian examples of this type of deposit include the Hemlo deposit in Ontario, QR and Equity Silver deposits in British Columbia and the Hope Brook deposit in Newfoundland. International examples include the Archean Big Bell and Sons of Gwalia deposits in Western Australia and the late Proterozoic Paleozoic Haile, Brewer and Ridgeway deposits in South Carolina, US.

The morphology, alteration and geometry of the Vault Deposit appear to support the disseminated/replacement Lode gold classification, however the main ore zone also appears to coincide with a zone of high strain, which may indicate that structural controls are also important at Vault. There are also varieties of volcanic associated auriferous sulphide deposits, such as the Bousquet No. 1 Deposit in the Abitibi Belt, that may also be correlatives of the Vault.

9.0

MINERALIZATION

Gold mineralization in the Meadowbank deposits is intimately associated with sulphides, dominantly pyrite and pyrrhotite. The styles and timing of gold mineralization discussed below are based on observations of the banded iron formation hosted deposits near Third Portage Lake: Portage Deposit and Goose Island, and the Bay Zone, and from work on the more recently discovered shear hosted Vault Deposit, seven km to the north. Similarities in the styles of mineralization found in these deposits indicate that these observations are valid in a regional context.

9.1

Detailed Mineralized Zone Descriptions

9.1.1

Goose Island and Portage Deposits

In the main deposit area, near Third Portage Lake, pyrrhotite and pyrite occurs in two main habits. Most predominant is as replacement of magnetite in the oxide iron formations where the sulphides tend to be concentrated along SO//S1 planes and possibly S2 in fold limbs. Also important is sulphide occurring as fracture fill ± silica and disseminations in both the iron formation and surrounding clastic units. Total sulphide content generally varies from 1% to 2% up to approximately 10%. Locally over very short widths sulphide content, the proportions of pyrrhotite versus pyrite and replacement versus fracture fill can be higher and variable. In the Goose Island and Third Portage areas pyrrhotite replacement is dominant while in North Portage pyrite replacement is dominant. Gold grades do generally increase with increasing sulphide content however there does not appear to be a specific correlation with either pyrrhotite or pyrite.

The bulk of the gold mineralization in the deposits is contained within the iron formations (wrapped around a core of ultramafic rocks), with mineralization in the clastic units probably representing remobilization and secondary enrichment by gold bearing fluids. The gold tends to be concentrated along the lower limb and in the hinge areas of the recumbent fold, and shows excellent continuity both along strike and down dip through the deposits. The concentration of sulphides and gold along S1 and S2 in the deposits indicates that the bulk of the mineralization must have occurred during the D1-D2 deformational event (syn D1-D2). Later concentrations of pyrite ± pyrrhotite and gold are associated with local quartz veins that appear to occur along the axial planes of F3 folds. This style of mineralization is probably related to remobilization of pre-existing gold during the D3 deformational event. Figures 9-1 and 9-2 depict the surface geology and a typical section of the Portage deposit.

Figure9-1: Portage Surface Geology Plan

Figure 9-2: Portage Geology Section - 3P2 Grid, Section 180N

Defined over a 1.85 km strike length and across lateral extents of 100 m to 230 m; the geometry of the Third and North Portage deposits consists of a NNW striking recumbent fold with limbs that extend to the west. The hinge area is only expressed in parts of the strike and the lower limb is preserved throughout (splitting into several strands in the hinge area). The lower limb is typically 6 m to 8 m in true thickness, reaching up to 20 m in the hinge area. Later folding event have created a north-south porpoising effect on the gold-bearing units. This deposit group remains open along the strike to the north, at depth and southwards towards the Goose Island deposit.

Goose Island deposit is similar in its geometry and setting, with a NNW trend and a steep westerly dip. Mineralized zones typically occur as a single unit near surface, splaying into several limbs at depth. The deposit is currently defined over a 750 m strike length and down to 500 m at depth (mainly in the southern end); with true thicknesses of 10 m to 12 m (reaching up to 20 m locally).

9.1.2

Vault Deposit

At the Vault Deposit pyrite is the dominant gold bearing sulphide mineral. Sulphides occur in several planar, shallowly dipping lenses that are associated with a zone of deformation that is generally expressed by a strong foliation (SO/S1 plane). Mineralization tends to be concentrated in the volcaniclastic units, where the sulphides occur as weak to strong disseminations and as fracture fill, with percentages ranging from 1% up to 10% to 15%. Later cross cutting quartz-carbonate veinlets carrying minor chalcopyrite, sphalerite, galena and occasionally grains of native gold, are present locally.

There is a strong correlation between sulphide content and sericite-silica alteration. The association between sericite alteration and gold is also prevalent in the mineralized clastic units of the other deposits at Meadowbank. In the Vault area, the iron formations tend to lack significant gold mineralization, this may be due partly to their discontinuous and wispy nature. The gold mineralization in the Vault deposit shows excellent continuity both down dip and along strike.

The Vault Deposit is planar with a defined strike of 1,100 m at an azimuth of 047° (UTM zone 14). It remains open down its dip of 22° to the southeast; but has been defined for 700 m, down dip. The deposit has been disturbed by two sets of normal faults striking east-west and north-south and dipping moderately to the southeast and steeply to the east respectively. The main lens has an average true thickness (based on 1g/t shell) 8 m to 12 m, reaching as high as 18 m locally. The hanging wall lenses are typically 3 m to 5 m (up to 7 m) in true thickness.

Figure 9-3 and 9-4 depict the surface geology and a typical section of the Vault deposit.

Figure 9-3: Vault Surface Geology Plan

Figure 9-4: Vault Geology Section 4575N

9.1.3

Other Mineral Occurrences

Numerous gold showings are known to exist on the Meadowbank property from previous programs of mapping and prospecting. Currently only the PDF Deposit, located approximately 10 km north-northwest of Vault, has been drilled with sufficient density to calculate an inferred resource.

Mineralization in the PDF Deposit is also dominantly associated with pyrite. Sulphide mineralization appears to be concentrated along So//S1 and possibly S2 as in the other Meadowbank deposits. Gold mineralization tends to be concentrated in a package of interbedded pelitic schist and chert-magnetite iron formation, which is generally silicified and may contain significant quartz veining. Although higher grades may be associated with the quartz veining, ore grade material is also found associated with disseminated pyrite in both pelitic schists and iron formations.

9.2

Relationship of Mineralization to Deformation

The relative timing of these deformational events and the paragenetic sequence outlined below is largely based on the work of regional mappers, including Henderson et al. (1992), Ashton (1982), Zaleski et al. (1997,1999) and Pehrsson et al. (2000). Regionally, S1 foliations are present in Archean granites that are themselves folded by map scale, northwest vergent F2 folds. This suggests that D1 deformation was ongoing by ca. 2620 Ma., the age of the oldest Archean granite in the area. Concentration of sulphides and gold along S1 implies that the earliest stages of mineralization had commenced before or during intrusion of the granites.

Work by Pehrsson et al. (2000) suggests that the regional northwest-vergent D2 fold-fault stack deforms the Archean granites, and does not predate their intrusion. The maximum age for D2 is 2599 Ma, the age of the youngest granite with S2 foliation (cf. Ashton, 1982). The lower bound for D2 deformation is 1840 Ma, the age of a crosscutting pegmatite dyke (Roddick et al., 1992). The similarity between the attitude and vergence of D2 structures of the Woodburn Lake group and the Amer fold-thrust belt lead Ashton (1988), and Davis and Zaleski (1998) to suggest that D2 is Paleoproterozoic, an interpretation consistent with present data. Isotopic studies are presently underway to better constrain the timing of S2 development. Data from this ongoing study suggests that mineralization is pre- to syn-D2 (Pehrsson et al., 2000). This allows that earliest mineralization predates granite intrusion and is Archean in age. The age of D2, whether late Archean or Proterozoic, remains to be established.

D3 deformation post-dates intrusion of the late Archean granitoids but has no lower bound. Zaleski et al. (1999) have previously drawn attention to the nearly identical orientation, geometry, and vergence of F3 folds and D2 structures in the Amer group. These folds locally overprint structures in the deposit area but do not appear to have any link to mineralization.

10.0

EXPLORATION

10.1

Recent Exploration

In 2003, exploration at Meadowbank was focussed on three main objectives: (1) infill drilling at the Vault, Portage and Goose Island deposits, (2) regional mapping and other follow-up work on targets generated by the 2002/2003 overburden reverse circulation drilling program, and (3) additional drilling at the PDF deposit.

10.1.1

Infill Drilling at the Vault, Portage and Goose Island Deposits

A combined total of 165 holes (16,153.5 m) were drilled at the Vault, Portage and Goose Island deposits in 2003. One hundred and five (9,058 m) of the holes were drilled at Vault, 55 (6,817.5 m) were drilled at Portage, and 5 (278 m) were drilled at Goose Island. All of these holes were designed as infill holes to improve confidence levels for future resource estimates.

10.1.2

Exploration Drilling

Ten holes totalling 1,103 m were drilled to test the Wally south area, 3 km to the north of the Vault deposit. Results from this program have helped to refine 2004 exploration drilling targets

10.1.3

Regional Mapping and Other Follow-up Work on Targets from the 2002 RC Program

A program of geological mapping and sampling was carried out on the Meadowbank project between 3 July and 8 September 2003. Fieldwork was initiated on historical prospecting sites and RC overburden drilling targets generated during the spring 2002 & 2003 programs. In all, approximately 90 km2 was covered by 1:10,000 scale mapping and sampling to cover prospective regional stratigraphy in the PDF, *Crown, Wally South, Longroot, Ron, Jim* and *Ukalik* zones. Mapping was concurrent with and partially overlapped a 1:10,000 scale structural geological mapping program (Barclay, W.A., November 2003).

Objectives of the mapping program were:

1.

Evaluation of RC till and bedrock anomalies.

2.

Target evaluation and generation through geological mapping, prospecting, and rock sampling.

3.

Structural data collection and interpretation to support a model of re-folded but generally flat-lying, thrust imbricated stratigraphy at Meadowbank (Barclay, W.A., March 2002).

The main components of the program were:

4.

1:10,000 scale geological mapping over roughly 90 km^2

5.

Prospecting and rock sampling (326 samples).

A five person mapping crew, covering the aforementioned zones, conducted fieldwork on the Meadowbank trend. Lithogeochemical sampling totalled 326 samples with 26 (8%) assaying at over 1.0 g/t Au. The geological mapping program successfully enhanced the understanding of the geology in the area, and recognized several regional faults that may offset mineralization in the *Vault* and *North Portage* areas. In the *Crown* area north of *Vault*, several important stratigraphic marker units were recognized that appear to be similar to those in the Vault deposit.

10.1.4

Additional Drilling at the PDF Deposit

Diamond drilling in the *PDF* area in 2003 was successful in further delineating the gold deposit, located approximately 22 km north of the Meadowbank camp on the eastern shores of Pipedream Lake. The *PDF* deposit is located in exploration area BL14-99-02 on NTS map sheet 66 H/1 and is centred at approximately 7228700N 636800E (NAD 27 zone 14).

A total of 912 m of NQ size drill core was drilled in seven holes from 22 July to 1 August 2003 on the *PDF* grid. A total of 438 samples from this program were sent to International Plasma Laboratories of Vancouver for assay. To date gold mineralization has been intersected in 23 of 31 holes drilled in the *PDF* deposit area, including hole PDF03-028 that intersected 2.54 g/t over 4.04 m.

The mineralized zone has been traced along strike for approximately 300 m and up to 250 m down dip locally. The auriferous vein set(s) show good continuity both down dip and along strike but may pinch and swell as it passes through the deposit area. Inferred resource estimates for the *PDF* deposit calculated in 2003 outlined 344,000 t at 5.2 g/t Au for a total of 57,511 oz of contained gold.

10.1.5

Reverse Circulation Overburden Drill Program

A program of reverse circulation overburden drilling (RC) was conducted in the period 15 April to 8 May 2003 covering 12.2 km^2 of prospective volcaniclastic stratigraphy between the *Crown* and *Longroot* target areas. Combined with 2002 RC drilling, the 2003 program extends the gold grain, till geochemical, bedrock geochemical and bedrock lithologic data coverage to 16.5 km of the volcaniclastic belt north from and encompassing the *Portage* and *Vault* gold deposits.

The 2003 RC drill program utilized a 100 m x 300 m grid pattern oriented approximately parallel to the dominant ice direction of 350°. A total of 381 vertical holes (1517.4 m) were completed during the RC program with 131 holes (34.4%) drilled in exploration concession BL14-99-01 and 250 holes (65.6%) drilled in concession BL14-99-02.

A total of 414 till samples collected during the program received gold grain analysis from Overburden Drilling Management in Ottawa along with fire assay for gold with ICP trace element geochemistry from International Plasma Labs in Vancouver. A total of 377 bedrock samples received fire assay for gold with a 30 element ICP analysis at International Plasma Labs in Vancouver.

The reverse circulation drill program appears to be an effective prospecting tool for the Meadowbank Project, enabling the systematic evaluation of large areas of ground in a relatively short time period. The program was successful in generating a number of exploration targets, including several high priority targets proximal to the Vault

Deposit.

A strong gold in till anomaly was identified at the *Crown* target with a single sample returning 2,220 pristine plus modified gold grains (normalized to 10 kg).

Elevated gold (up to 170 ppb), arsenic and zinc in bedrock and localized gold counts up to 909 pristine plus modified grains suggest good exploration potential at *Longroot.*

10.2

Future Exploration

Mapping, prospecting, airborne geophysics, RC drilling and ongoing interpretation of the geochemistry and the geometry of the gold deposits have recently defined several high priority target areas. The prime objective of the 2004 exploration program is to drill test these anomalies in a phased program commencing in March. Phase one involves a spring drill program on ice-based targets and phase two will entail a mapping and drill program during the summer.

The priority drill targets include but are not limited to the following:

Phase One	
Goose Island Deeps	7 holes, 3,200 m
Goose Portage Gap	5 holes, 1,500 m
Vault Area	20 holes, 1,900 m
Phaser Lake Vault SW Vault East Vault South	
Crown Area	12 holes, 1,800 m
Regional Targets	8 holes, 1,200 m
Total	52 holes, 9,600 m
Phase Two	
Jim Zone	6 holes, 800 m
Vault Area	7 holes, 900 m
Longroot	4 holes, 700 m
Total	17 holes, 2,400 m

11.0

DRILLING

11.1

Data

A total of 678 drill holes were used for the resource estimate. Out of these 217 were drilled on the Vault deposit, 69 on Goose Island, and 392 on Portage. Complete lists of the drill holes and mineralized intervals are provided in Appendix A.

11.2

Drilling Methods

All of the drilling data stored in the Meadowbank resource modelling database has been collected from diamond core holes. Almost all of the holes were completed with NQ sized equipment, with the only exceptions being 11 metallurgical holes and 8 geotechnical holes that were completed with larger HQ sized equipment. One contractor, Boart Longyear Drilling of Saskatoon, Saskatchewan, has completed all of the holes at Meadowbank, utilizing two LY-38 drill rigs that were joined in 1999 by a hydraulic LF70 rig.

In AMEC s opinion, the equipment and methods used to collect drill core at Meadowbank are consistent with industry standard practices.

11.3

Surveying

Surveying at Meadowbank is accomplished with a Total Station instrument and calculations are referenced to a series of control points tied to a local geodetic monument.

All of the Goose Island and Portage drill hole and trench sample data is stored in the Gemcom database with Portage local grid coordinates (baseline at 022.58° from true north) and UTM Nad83 Zone14 coordinates. All of the Vault drill hole and trench sample data is stored in the Gemcom database with Vault local grid coordinates (baseline at 044.39° from true north) and UTM Nad83 Zone 14 coordinates. Figure 11-1 shows the relationships between: (1) true, (2) magnetic, (3) UTM and (4) local grid azimuths.

Figure 11-1: Relationship between Local Grids at Meadowbank with Respect to True (astro), UTM and Magnetic North

11.3.1

Collar Locations

Drill Hole Layout

With the exception of some very old holes drilled prior to 1990, all collar locations that were drilled prior to the summer of 2002 were laid out along a surveyed reference grid marked by wooden stakes and flagging that had been previously set out with a transit. Hole locations drilled prior to 1990 were laid out with a compass and chain. Hole locations drilled after the spring of 2002 were laid out with a Total Station.

Figures 11-2 to 11-4 are plan maps of the three main deposit areas Vault, Goose Island and Portage respectively. These figures show the pattern and location of the drilling preformed in these areas to date.

Figure 11-2: Vault Drill Hole Location Map

Figure 11-3: Goose Island Drill Hole Location Map

Figure 11-4: Portage Drill Hole Location Map

Drill Hole Pick-up

The majority of the drill hole collar locations at Meadowbank have been surveyed with a Total Station after or during drilling. However, drill holes collared on lake ice before 2002 were not surveyed. Contract surveyors located the hole collars drilled on land prior to 2002 with a Total Station in batches after the drilling campaigns were complete. During 2002 and 2003, Cumberland personnel surveyed the drill holes with a Total Station while the drill was set-up on the hole.

AMEC is confident that the drill hole collar locations are accurate. Any risk due to a lack of collar location surveys for the holes drilled from lake ice prior to 2002 is minimized by Cumberland s use of a Total Station instrument to layout the hole collar position prior to drilling.

11.3.2

Collar Orientations

The collar orientations for the holes completed in 2002 and 2003 were measured by surveying two points on the drill string with a Total Station while the drill was set up on the hole. Prior to 2002, idealized collar orientations have been utilized because the drill hole collars were surveyed after the drill was moved off the hole. The idealized orientations are based on two assumptions: (1) that the drill azimuth was set up parallel to the wooden stake grid reference line, and (2) that the line was correctly located. To test the validity of those assumptions, AMEC plotted the difference between the surveyed azimuths and the designed (ideal) azimuths for the holes drilled at Portage in 2002 and 2003 (Figure 11-5). The variability of these azimuths can be reasonably assumed to reflect the variability of the unsurveyed pre-2002 azimuths.

Figure 11-5: Comparison of Idealized and Surveyed Drill Hole Collar Azimuths at Portage

The data in Figure 11-5 demonstrates that 86% of the azimuths surveyed in 2002 to 2003 were within 5° of the intended azimuth, and that all of the hole orientations were within 10° of the intended azimuth. AMEC considers the collar azimuth deviations measured in 2002 to 2003 to be reasonable and similar to those encountered in other definition drilling campaigns. It is also AMEC s opinion that: (1) the true collar azimuths of the holes drilled prior to 2002 are probably scattered around the idealized azimuth with a similar amount of variability, and (2) that this will have little or no influence on the reliability of the drill hole data at Portage. The impact of the azimuth variability is expected to be minor due to the short down hole distances to the intersections at Portage (average 66 m) and the relatively steep dips of the drill holes at Portage (average -65°). AMEC recommends that Cumberland continue the practice of surveying the collar orientations while the drill is set-up on the hole during future drilling campaigns.

11.3.3

Down hole Surveys

All of the drill holes have been subjected to down-hole orientation surveys with a single shot Sperry-sun instrument. Azimuth data for holes located at Goose Island and Portage were not retained because of the influence of the highly magnetic BIF on the readings. Some of the azimuth data at Vault has been incorporated into the database due to the absence of BIF there.

The drilling contractors conduct the Sperry-sun surveys and the readings were collected at 50 m intervals during drilling or after the hole was complete. Cumberland geologists interpret the surveys and applied adjustments for the magnetic declination, UTM correction, and local grid rotation when applicable (Vault only).

A total of 16 holes (11 at Goose Island and five at Third Portage) have been surveyed with a Light-log instrument. Light-log surveys record the position of a focused light beam at the end of a rod to determine the curvature of the hole and thus magnetic rocks do not affect the results. Table 11-1 summarizes the deviations recorded by the Light-log.

AMEC is encouraged by the relatively small amount of down hole deviation recorded by the Light-log surveys at Goose Island and Third Portage. However, the number of surveyed holes is too small to draw any conclusions on the amount and significance of down-hole deviation in the unsurveyed holes. For Portage, and the relatively shallow northern portion of Goose Island, it is AMEC s opinion that the risk due to the lack of down hole azimuth surveys is largely mitigated by the short distances to the mineralized intersections and the moderate to steep dips of the drill holes. The risk is higher at the deep southern portions of Goose Island and AMEC recommends that future drilling campaigns targeted at south Goose employ non-magnetic down hole survey methods. AMEC also recommends that all new drill holes greater than 150 m in length be surveyed with non-magnetic down hole survey methods.

Table 11-1: Light-log Down Hole Survey Results

Hole-id	Length	Collar Dip	Collar Az	Toe Dip	Toe Az	Dev Dip	Dev Az
G96-134	275.0	-57.50	90.00	-56.30	93.99	1.20	3.99
G96-138	257.0	-66.00	90.00	-69.10	96.07	3.10	6.07
G97-160	473.6	-72.00	90.00	-74.00	91.92	2.00	1.92
G97-161	543.0	-67.00	90.00	-71.00	88.91	4.00	1.09
G97-163	571.0	-63.00	90.00	-66.00	91.12	3.00	1.12
G97-165	551.0	-66.50	90.00	-69.00	91.80	2.50	1.80
G98-232	510.0	-62.50	90.00	-59.90	83.14	2.60	6.86

TP98-237	347.0	-66.00	90.00	-67.00	98.42	1.00	8.42
G98-238	661.0	-64.00	90.00	-64.20	98.80	0.20	8.80
TP98-243	456.0	-70.00	90.00	-67.00	87.47	3.00	2.53
TP98-270	351.0	-67.00	90.00	-65.55	82.09	1.45	7.91
TP98-272	338.0	-66.00	90.00	-63.00	95.52	3.00	5.52
G99-325	231.0	-55.00	90.00	-53.50	94.61	1.50	4.61
G99-332	201.0	-49.00	90.00	-47.20	94.22	1.80	4.22
G99-333	246.0	-50.00	90.00	-47.80	93.53	2.20	3.53
TP99-343	230.0	-66.00	90.00	-66.00	95.86	0.00	5.86
Average	390.1	-62.97	90.00	-62.91	92.34	2.03	4.64

11.3.4

Topography and bathymetry

Eagle Mapping Services surveyed the topography at Goose Island and Portage with aerial photogrammetry in 1998. Air photo coverage was extended north to include the Vault area in the summer of 2002. Deliverables from the surveys included 1:10,000 and 1:20,000 scale colour air photos, and digital topographic contour lines at 2 m intervals.

Golder Associates completed a bathymetric survey on the lake ice in the spring off 2002 and 2003. The survey utilized ground penetrating radar with the location controlled by real-time GPS (Golder, 2003).

In AMEC s opinion, the methods used to collect topographic and bathymetric data at Meadowbank are consistent with industry standards.

11.4

Core Logging Procedures

Cumberland geologists logged the drill core in camp. Data on lithology, mineralogy, alteration and structure were routinely collected along with some basic geotechnical parameters such as RQD, fracture density and recovery. Sample intervals were marked by the geologists and assigned sample numbers after geological logging. External consultants completed more detailed geotechnical logging of selected drill holes when warranted.

On the final logs, percentage estimates of sulphide and alteration mineralogy were accompanied by assay results and text descriptions of consistent geological intervals. Lithological unit codes often contained alteration type descriptors. For example, IV*sc* was a lithologic code used for *sericite* altered IV. The result of the alteration/lithology combinations is an large number of unique lithologic codes. Collar coordinates and drill hole orientation data were also included on the logs. For most holes, the film disks from the Sperry-sun surveys were attached to the original log. An example drill log is provided in Appendix B.

In AMEC s opinion, the core logging facilities presently on-site are spacious and well equipped. The drill logs are well organized and contain sufficient detail to adequately characterize the geology of the Meadowbank deposits. To reduce the number of lithologies and simplify geological coding of assay and composite assay intervals, AMEC recommends keeping alteration codes separate from lithological codes. AMEC also recommends that a copy of the original assay certificates be attached to each drill log to facilitate future checks and audits.

12.0

SAMPLING METHOD AND APPROACH

Generally, all of the sulphidic core drilled at Meadowbank was sampled along with a minimum shoulder of 1 m of waste material on either side of the sulphide-bearing interval. Sample intervals are geologically constrained and are generally determined on the basis of sulphide content or at lithological contacts. Sample lengths in the database range from 9 cm up to a maximum of 7.27 m, but only 20% of the samples have a length greater than 1.0 m, and only 0.3% of the samples have a length greater than 2.0 m. A histogram and probability plot of all of the Meadowbank sample lengths is provided in Appendix C.

The sample intervals marked by the geologists during core logging were split in half longitudinally with a mechanical core splitter. One half was bagged for analysis and the other was returned to the core box and kept as a permanent record. Sampled intervals were marked in the box with metal tags that indicate the interval meterage and the sample number (Figure 12-1). Details of logging and sampling procedures, as described by Cumberland geologists, are included in Appendix B.

Figure 12-1: Metal Sample Interval Markers

AMEC considers the sampling methods to be consistent with industry standard practices. All of the sampled drill core observed by AMEC during the site visit had been split with care to maximize sample representativity. That is, all of the core pieces returned to the boxes were completely split and of a uniform size.

13.0

SAMPLE PREPARATION, ANALYSIS, AND SECURITY

Several different operators have conducted drill programs on the Meadowbank project since 1989, and consequently several different labs have been used for sample analysis.

13.1

Sample Preparation

No information is available on the sample preparation protocols that were in place prior to 1995. From 1995 to the present, the samples were prepared at International Plasma Laboratory Ltd in Vancouver, BC IPL s sample preparation protocol involved crushing the sample in a jaw crusher to 95% passing -10 mesh (2 mm). The crushed sample was then split in a riffle splitter to a 250 g subsample, which was pulverized in it s entirety to 90% passing 150 mesh (100 µm). Details of sampling procedures, including the insertion of QA/QC samples and shipping methods, as described by Cumberland geologists, is included in Appendix B.

Due to the lack of information on the sample preparation protocols prior to 1995, AMEC is unable to comment on their suitability. For the period from 1995 to the present, it is AMEC s opinion that the protocol generally corresponds to industry standard practices. However, AMEC is concerned about the relatively small subsample of crushed material that is pulverized. The gold content of the subsample may not be representative of the gold content of the entire sample and this is probably contributing to the poor analytical precision discussed below in Section 13.3. Prior to executing any future infill or pre-production drilling, AMEC recommends that Cumberland complete a detailed heterogeneity study to determine the minimum subsample sizes required at each stage of the sample preparation/analytical process.

13.2

Analysis

The majority of the analyses completed since 1995 have been conducted by International Plasma Laboratories of Vancouver, BC. Below is a list of the labs used and assaying procedures from 1989 to present. Detailed fire assay protocols from IPL are provided in Appendix D.

13.2.1

1989

- Analysis conducted by X-Ray Assay Laboratories (XRAL), Don Mills, Ontario
- Sample analysis by fire assay with DCP (direct couple plasma) finish; results reported in ppb
- These results were then converted to g/t
- Second assay completed on samples assaying >10,000 ppb, using gravimetric finish.

13.2.2

1990

- Analysis conducted by TerraMin Research Labs, Calgary, Alberta
- Sample analysis by fire assay with AA finish
- Second assay completed on samples assaying >5 g/t, again using AA finish (from the split rejects).

13.2.3

1991

- Analysis conducted by Bondar-Clegg, North Vancouver, BC
- Sample analysis by fire assay with AA finish
- Second assay completed on samples assaying >3 g/t using gravimetric finish (although second assays were completed on some samples, only one value reported on sample certificates).

13.2.4

1995

- Analysis conducted by International Plasma Laboratory Ltd., Vancouver, BC
- Sample analysis by fire assay with AA finish
- No second assays completed in 1995.

13.2.5

1996-2003

- Analysis conducted by International Plasma Laboratory Ltd., Vancouver, BC
- Sample analysis by fire assay with AA finish.
- Second assay completed on samples assaying >1 g/t, using gravimetric finish
- A QA/QC program was initiated in 1998 check assaying conducted by Chemex Labs.

In AMEC s opinion, the analytical methods used to determine the gold content of rocks at Meadowbank are consistent with industry standard practices.

13.3

Quality Assurance/Quality Control

13.3.1

Introduction

QA/QC programs were implemented at the Meadowbank gold project in 1998 in conjunction with Prefeasibility studies concluded in 2000. QA/QC protocols were improved in 2001 in anticipation of future feasibility studies and will continue as development advances and exploration continues. A summary of QA/QC during this period is shown in Table 13-1. The QA/QC program has encompassed a wide variety of assays from 42,647 surface and drill core samples from the six known gold deposits on the property.

Table 13-1: Summary of Meadowbank Project QA/QC 1998-2003

Type of Sample & Year	# of Samples	2nd Lab (if applicable)	QA/QC included	Total # Samples Submitted
Duplicates				
2001	61	n/a	n/a	61
2002	385	n/a	n/a	385
2003	597	n/a	n/a	597
Total Duplicates				**1,043**
Check Assays				
Pre 1998 Pulp	42	Chemex	1 blank/2 standards	45
Pre 1998 Reject	90	Chemex	5 blanks/5 standards	100
1998 Pulp	102	Chemex	?	102
1998 Reject	37	IPL	?	37
1999 Pulp	129	Chemex	4	133
1999 Reject	81	IPL	?	81
1998-1999 MRDI Pulp	70	IPL	?	70
2000 Pulp	74	Chemex	?	74
2001 Pulp	80	Chemex	5 standards	85
2002 Spg. Pulp	176	Chemex & Acme	10 standards	186
2002 Sum. Pulp	296	Acme	18 standards	314
2003 Pulp	623	Acme	33 standards	656
Total Check Assays				**1,883**
Standards				
1998	46	n/a	n/a	46
1999	54	n/a	n/a	54
2001	60	n/a	n/a	60
2002	387	n/a	n/a	387
2003	609	n/a	n/a	609
Total Standards				**1,156**
Blanks				
2001	60	n/a	n/a	60
2002	390	n/a	n/a	390
2003	596	n/a	n/a	596
Total Blanks				**1,046**
Re-Runs				

2000	55	IPL	3 standards	58
2003	580	IPL	28 standards	608
Total Re-runs				**666**
Total all Sample Types				**5,794**

The first program, which was initiated in 1998, was designed by MRDI Canada at the request of Cumberland. The program consisted of Canmet standard reference materials (SRM s) and blanks inserted into the sample stream by the primary lab (IPL), which also prepared and assayed coarse reject duplicates. Check assays were performed on pulps forwarded to a second lab (Chemex). In addition, a limited number of pulp and reject check assays were performed in 1998 on materials from the 1995, 1996 and 1997 drilling programs.

A more rigorous QA/QC program was instituted by Cumberland in 2001. That program, which is currently in use, consisted of the insertion of CDN Resource Laboratories Ltd. SRM s, field blanks and field (core) duplicates at the project site. For check assays, 5% of annual samples were submitted to a second lab (Acme) for analysis. In 2003, pulps for a further 5% of the years samples were obtained from the primary lab, new blind standards were inserted, new sample numbers were assigned and the samples were re-submitted to the primary lab.

13.3.2

Summary of QA/QC Results

Duplicates, Check Assays, & Re-runs

Results for field duplicates, check assays and re-runs from all programs including 2003, consistently demonstrate an unbiased scatter typical of a coarse gold component or nugget effect. Work to date, including prefeasibility level QA/QC analysis in 2000 yielded similar conclusions. The unbiased nature of the scatter was verified through blind submission of previously assayed pulp samples to IPL and Chemex in 1998. Results from this re-submission program verified that erratic results were likely not the result of poor accuracy or precision, suggesting coarse or liberated gold was the most likely cause of the erratic but unbiased duplicate and check assays. A study needs to be undertaken to determine an ideal pulp sample size, the results of which will be applied to preparation of future exploration program and grade control samples. This will help to reduce this scatter giving greater precision.

Standards

Since 2001 the QA/QC program has employed standards (SRM s) at four different grade levels. Results from SRM s over the course of the project generally fall within acceptable limits. With the application of a more rigorous QA/QC program in 2001, the Company began re-assaying all sample runs containing a failed SRM. If the SRM passed upon re-assay, revised results for the run were entered into the database.

Most SRM s were not submitted blind by Cumberland to the primary lab. In 2003 a blind re-submission program, similar to that completed in 1998, returned results demonstrating higher variability and failure rates than those submitted with normal sample shipments. Efforts will be made to ensure that SRM s in future sample submissions are blind to the lab.

Blanks

The field blank that is submitted by Cumberland is, in most cases, indicating that no contamination is occurring in the sample preparation and assaying processes. Approximately 1% of the blanks submitted, however, have returned anomalous gold values of > 0.10 g/t Au. Investigation suggests the presence of occasional low-grade gold values associated with the material, rather than contamination.

13.3.3

Recommendations

The current QA/QC program is deemed adequate, however AMEC recommends the following improvements:

- A study to determine an ideal pulp sample size for all future sampling at the Meadowbank Project. An optimized sample split or pulp size will help towards maintaining acceptable precision of duplicate pair data.

- Stronger measures to ensure that SRM s submitted to the primary lab are blind.

- A source of blank material be located that is proven to contain no anomalous gold, so that it can more effectively serve its purpose of detecting contamination in the sample prep phase.

- A comprehensive project QA/QC database should be compiled to keep all data together. This database should be monitored and maintained by designated QA/QC personnel, which will help to monitor lab performance over time.

13.3.4

QA/QC Program

A sample preparation flow sheet, representing the implementation of the current QA/QC program is shown in Figure 31-1. In earlier programs coarse reject duplicates were also prepared at the crushing stage of preparation at IPL. Field blanks were used to check for the presence of contamination in both sample preparation and assaying. Analytical results from the SRMs were used to evaluate laboratory accuracy and precision. Core duplicates were used to evaluate the sample preparation performance. Pulp check assay duplicates provided a measure of the accuracy of the initial determination performed by the primary laboratory and an estimate of the analytical variance + pulp sub-sampling variance.

Figure 13-1: QA/QC Sample Preparation Flow Sheet For The Meadowbank Property

The acceptance limits for each set of checks and control samples are:

For standards, the accepted range should be the accepted value plus or minus two standard deviations. Less than 5% of the results from the submitted standard material should fall outside these limits.

Blanks should return values less than or equal to three times the detection limit.

Duplicate analyses (Original A1 and Duplicate A2) performed on core duplicates should be within ±30% relative difference, where the relative difference is defined as:

$$|(A1-A2)/(0.5*(A1+A2))| < 0.3$$

Duplicate analyses (A and B) performed on pulps should be within ± 10% relative difference:

$$|(A-B)/(0.5*(A+B))| < 0.1$$

In the formulae above, results below detection are assigned a value of zero. The equations are undefined where both values are below detection. Approximately 10%, except for standards as described above, of the values may fall outside of the limits. If these are random occurrences, for example one in every ten may fall outside the limits if the outliers do not tend to be occurring in some pattern.

13.3.5

Standards Performance

The two standards listed below were used during the 1998/1999 programs, followed by the graphs of their performance, as shown in the Pre-feasibility report (prepared by MRDI) in 2000:

Table 13-2: CANMET Standard Reference Material

SRM	Certified Value	95% Confidence Interval
MA-3a	8.56 g/t	0.09 g/t
CH-3	1.40 g/t	0.03 g/t

During the 1998 program, approximately 8% of the assays of the lower grade SRM, CH-3 (Figure 13-2) and approximately 36% of the higher grade SRM, MA-3a (Figure 13-3), fell outside the 95% confidence limits. These results lead to the recommendations for an audit of the IPL laboratory and re-assaying those batches where the SRM result fell outside of the confidence limits.

Figure 13-2: Meadowbank SRM Control Chart for Canmet SRM: CH-3 (1998)

13-3: Meadowbank SRM Control Chart for Canmet SRM: MA-3A (1998)

As shown in Figures 13-4 and 13-5 below, the same two SRM s returned much better results in 1999; where no assays fell outside of the control or confidence limits for either standard.

Figure 13-4: Meadowbank SRM Control Chart for Canmet SRM: CH-3 (1999)

Figure 13-5: Meadowbank SRM Control Chart for Canmet SRM: MA-3A (1999)

During 2001 to 2003, Cumberland used six different standard reference material samples, purchased from CDN Laboratories of Vancouver. Table 13-3 lists these SRM samples and their corresponding grade ranges.

Table 13-3: SRM Samples Used in 2001-2003

SRM ID	Mean Value		2*STD
Standard GS-1:	5.07	±	0.43
Standard GS-2:	1.53	±	0.18
Standard GS-3:	0.79	±	0.07
Standard GS-4:	3.45	±	0.21
Standard GS-9:	1.75	±	0.14
Standard GS-10:	0.82	±	0.09

Figures 13-6 through 13-11 display the results of the above SRM samples during the 2001 to 2003 period. The current protocol for the insertion of SRM samples, in use by Cumberland is not considered entirely blind, as the lab can recognize the pulp bags of standards in between samples of split core. To test the effect of this a reassay program was implemented; where 5% of the 2003 samples were re-sent to IPL as pulps together with 28 SRM sample. The results are shown as orange triangles in the charts for SG-1, SG-4, SG-9, and SG-10. These clearly show a wider scatter (~21% outside of the accepted limits) suggesting lab familiarity with the standards used. Recommendations with regards to this have been made by AMEC and Cumberland will be adjusting their SRM insertion protocol to address this issue.

Figure 13-6: Meadowbank SRM Control Chart for GS-1 (2001-2003)

Figure 13-7: Meadowbank SRM Control Chart for GS-2 (2001-2003)

Figure 13-8: Meadowbank SRM Control Chart for GS-3 (2001-2003)

Figure 13-9: Meadowbank SRM Control Chart for GS-4 (2001-2003)

Figure 13-10: Meadowbank SRM Control Chart for GS-9 (2003)

Figure 13-11: Meadowbank SRM Control Chart for GS-10 (2003)

13.3.6

Blank Sample Performance

Field blank samples have been utilized by Cumberland, as part of their QA/QC program since 2001. Figure 13-12 shows the results of these blanks samples (by the year of their submission).

Figure 13-12: Meadowbank SRM Control Chart for GS-10 (2003)

Overall, the blank samples have preformed well and the samples that returned with anomalous gold values have been investigated. It was concluded that the failure of the blanks was caused by mineralization within the blank material as opposed to contamination problems with the laboratory. Based on AMEC s recommendations, Cumberland will be looking into a better source of blank material (and/or better choosing criteria), in order to more effectively serve its purpose of detecting contamination.

13.3.7

Duplicates and Checks Performance

The QA/QC program at Meadowbank, throughout the years, has used several types of duplicate samples. There have been coarse reject duplicates, pulp duplicates (to an umpire laboratory) and field duplicates (1/4 core until 2003, then ½ core vs. ½ core primary sample).

Results from Pre-2000

Details of the results and discussions for the pulp and coarse reject Checks can be found in Appendix E. Up to the year 2000, 343 pulp, and 208 coarse reject checks had been taken and analyzed.

Results show that approximately 80% of the pulp check assays fall within a 20% relative difference (calculated as shown in Section 13.3.3). Although, these have a higher discrepancy than is normally deemed acceptable (i.e. 90% within a 10% relative difference), the discrepancies were observed to be un-biased and randomly distributed.

The results from the coarse reject checks were also found to be slightly below the usual acceptance limit (of 90% within a 30% relative difference) at approximately 80% within a 30% relative difference. These also were found to be un-biased differences.

Results from 2000 to 2003

During this period duplicated samples comprised of two types; pulp checks (to an umpire laboratory) and field duplicates.

Figures 13-13 and 13-14, graphically display the results from the pulp-check assays against the umpire laboratories Chemex and ACME. A more detailed set of graphs, separated by analytical method (i.e. AA, Grav. And the combination of the two as used in the database) can be found in Appendix F.

Figure 13-13 shows the scatter of the checks versus the original IPL assays (up to a 10 g/t value) with the 10% acceptance range.

Figure 13-13: 2000 2003 Check Assays (AA and Grav.) Scatter Plot

Based on 327 pairs for Chemex and 1,091 pairs for ACME, this chart shows an unbiased scatter, with Chemex results displaying a tighter distribution. Figure 13-14 below, shows the same data pairs in terms of relative percent difference (calculated as per the equation in Section 13.3.4). Once again, the scatter of the paired data, although higher than the desired range, shows an un-biased distribution, with Chemex performing slightly better than ACME.

Figure 13-14: 2000 2003 Check Assays (A.A. & Grav.) Relative Percent Difference

Figure 13-15 better quantifies these distributions, showing that approximately 80% of the Chemex umpire pairs fall within a 20% absolute relative difference in comparison with ACME for which 80% of the pairs are within 30%. For the purpose of this chart pairs with a mean gold value of less than 0.2 g/t were eliminated, leaving 153 and 477 pairs for Chemex and ACME respectively.

Figure 13-15: 2000 2003 Check Assays (A.A. & Grav.) Percentile Rank

The nature of this less-than-desirable scatter can likely be attributed to the nature of the gold distribution and grain-size. Although unfavourable, the un-biased nature of this variance mitigates the risks involved in using the data. However, AMEC recommends the completion of a study to determine an ideal pulp sample size to increase the precision of the assaying for future use in detailed mine design and grade control.

The field duplicate data behaved similarly. Up until the 2003 drilling program, Cumberland had been using one half of the core as the primary sample and one quarter (or half of the remainder) as a duplicate. This practice was changed in 2003 to using the complete second half as the duplicate sample (leaving none of the core for the sample interval behind).

Figure 13-16 is a graphical representation of the results of the field duplicate samples taken at Meadowbank from 2001 to 2003. The graph shows an un-biased distribution falling outside of the desirable relative difference range of 30%. For better visibility in the lower grade ranges the graph has been truncated at a maximum mean grade of 10 g/t.

Figure 13-16: Relative Percent Difference

For comparison, these were split into three groups by deposits. Figures 13-17 to 13-19 show the same distribution pattern, about the relative percent difference axis, for Vault, Portage/Goose Island and PDF deposits. The total number of field duplicate pairs used for these comparisons are 1,042 with 558 from Vault deposit, 399 from Goose Island and Portage deposits combined and only 85 from PDF.

Figure 13-17: Relative Percent Difference Vault

Figure 13-18: Relative Percent Difference Goose Island and Portage Deposits

Figure 13-19: Relative Percent Difference PDF

Figure 13-20 better demonstrates the comparison between Vault and Goose Island/Portage deposits with respect to each other and the overall group. For the purpose of this chart, duplicate pairs with a mean gold grade lower than 0.2 g/t, were removed, leaving a total of 479 pairs (325 from Vault and 146 from Goose Island/Portage). Unlike duplicated pulp samples, field duplicates are not only affected by the variability of the analytical procedures, but also (and likely to a larger extent) by the inherent variability of the mineralization. In this case, the different style of mineralization, which exists at Vault displays a lower variance, with approximately 62% of the data falling within a 30% absolute percent difference. Comparatively, at Goose Island and Portage deposits, only about 45% of the duplicated pairs fall within a 30% absolute difference range. A more thorough list of charts for the field duplicate samples can be found in Appendix F.

Figure 13-20: Percentile Ranking

13.4

Specific Gravity

Cumberland has obtained a total of 224 specific gravity determinations from rocks at Meadowbank. IPL completed all of the determinations with a weight in air weight in water technique with an electronic Jolly balance. Competent pieces of core were weighed in air and then in water and the density was calculated according to the equation specific gravity=$weight_{air}/(weight_{air}-weight_{water})$. Under normal conditions, specific gravity, a unitless ratio, is equivalent to the density in grams per cubic centimetre. The core was not dried prior to the analysis, but because of the compact, non-porous nature of the rocks at Meadowbank, drying of the samples prior to specific gravity determinations was not required.

Average specific gravity results are summarized by deposit and rock type in Table 13-4. A complete list of results is attached in Appendix G.

Table 13-4: Mean Specific Gravity Determinations

Deposit	**Mineralization**	**Rocktype**	**No. of Determinations**	**Mean Specific Gravity**
Goose Island	Mineralized	IF	32	3.18
	Mineralized	IV	12	2.79
	Unmineralized	None	0	na
TP - Bay Zone	Mineralized	IF	46	3.30
	Mineralized	IV	10	2.89
	Unmineralized	IF	26	3.44
	Unmineralized	IV	8	2.82
	Unmineralized	UM	10	2.91
Vault	Mineralized	IV	39	2.76
	Unmineralized	IV	41	2.75
Total			**224**	**3.02**

For resource modelling purposes, the average specific gravity for each rock type was applied to all blocks with that rock code. Lithological solid models prepared by Cumberland were used to select the blocks for specific gravity assignment.

In AMEC s opinion, the specific gravity data meets minimum quantity requirements and is of sufficient quality to support a feasibility study resource model. However, AMEC also considers that the resource model would benefit from additional specific gravity tests and recommends that at least 5% of the assay samples should have an accompanying SG determination. With over 26,000 assays in the Meadowbank database, Cumberland should strive for at least 1,300 specific gravity determinations. Cumberland personnel can complete the determinations on site and the results can be validated by a series of check determinations at commercial labs.

AMEC also cautions that the specific gravity tests have been completed on competent pieces of core due to the inherent difficulties involved in testing incompetent samples. This is a common and potentially serious problem, given that competent core will have a higher bulk density than incompetent core. This sample bias can lead to overestimation of tonnage in deposits with significant components of incompetent rock. In AMEC s opinion, the rocks at Meadowbank are generally very competent and the risk of over-estimation of tonnage due to specific gravity sample bias is minimal.

14.0

DATA VERIFICATION

14.1

Assays

AMEC tested the integrity of the assay database with three methods: (1) a 5% data comparison against original records, (2) a check of all of the very high grade assays (>100 g/t Au) in the database, and (3) Gemcom s database validation tools. Cumberland s assay data is stored in a Gemcom database containing 26,580 assays from 480 drill holes.

14.1.1

Five Percent Data Check

Five percent of the drillholes at each of the Goose Island, Portage, and Vault deposits were selected at random and the assay data for these holes was dumped from the Gemcom database and checked manually against the original assay certificates. Table 14-1 summarizes the number of records checked and the number of errors found for each deposit. A list of all of the drill holes checked is provided in Appendix H.

Table 14-1: Five Percent Data Validation Results

	Assays				Surveys			
Deposit	**# Checked**	**Errors**	**Error Rate**	**Nature of Errors**	**# Checked**	**Errors**	**Error Rate**	**Nature of Errors**
Goose Island	186	0	0.0%	na	86	0	0.0%	na
Portage	1,043	1	0.1%	NP96-140 163 m to 164 m should be 0.20 g/t.	59	0	0.0%	na
Vault	453	0	0.0%	na	48	1	2.08%	VLT00-024 at 134 m dip should be 70
Total	**1,682**	**1**	**0.05%**		**193**	**1**	**0.5%**	

14.2

Surveys

The integrity of the collar and down hole survey database was tested by comparing 5% of the survey records dumped from the Gemcom database with the original records. The holes checked were the same as those that were checked for assay errors. Original survey records were a combination of: (1) spreadsheets obtained by Cumberland from contract surveyors, (2) digital data dumps from the Total Station survey instrument, or (3) records recorded on the drill logs.

Only one minor transcription error was encountered in a down-hole survey dip, which has been noted in Table 14-1 (VLT00-024 at 134 m, dip should be -70; not -73).

In AMEC s opinion, the data used for the resource estimate is robust and essentially free of error.

15.0

ADJACENT PROPERTIES

This section is not applicable.

16.0

MINERAL PROCESSING AND METALLURGICAL TESTING

SGS Lakefield Research (Lakefield) located in Lakefield, Ontario, is conducting the feasibility metallurgical testwork for the Meadowbank project.

The current feasibility test work is being conducted on freshly prepared core samples from the three main Meadowbank deposits; Portage, Vault and Goose Island. An earlier Preliminary Assessment study completed in early 2002 was conducted on old assay rejects crushed to 10 mesh, and no special handling techniques or storage precautions were in place to minimize potential surface oxidation of the samples. The results showed a range of inconclusive metallurgical responses that were characterized by high cyanide consumptions. Ultimately it was recognized that sample ageing could be a significant factor in explaining this and it was decided to initiate a new phase of test work using fresh core as the basis of the feasibility testwork.

Four new composites representing each of the deposits have been tested to date by gravity, flotation, and cyanidation. This gave significant improvements in the metallurgy over previous testwork results. At the end of April 2003 the new test data was used to conduct an economic trade-off study on three alternative flow sheet options; whole ore cyanidation, float concentrate cyanidation, or cyanidation of both float concentrate and tails.

The trade-off study indicated the Meadowbank deposits are more economically amenable to whole ore cyanidation than the more complex bulk sulphide flotation and concentrate cyanidation flowsheet used in the preliminary assessment study. Subsequently whole ore cyanidation was selected for the basis of the current feasibility study. Lakefield also completed checks on residue assays from this testwork and these continue to support the economic selection of whole ore cyanidation.

Using whole ore cyanidation, including pre-aeration and gravity, projected recoveries have marginally improved from the original Preliminary Assessment study and vary from 91% to 95%; generally with finer grinds having the higher recoveries. In addition, cyanide consumption is significantly lower.

Lakefield have recently completed the feasibility test program, but their report has not been issued at time of writing. It is expected some additional variability mapping work will be completed once the feasibility production schedule has been established.

17.0

MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

17.1

Mineral Resource Statement

The mineral resource estimate at Meadowbank is summarized in Table 17-1.

Table 17-1: Meadowbank Resource Statement

Deposit	Deposit	Tonnes	Grade	Ounces

Portage (1.5 g/t cut-off)	Measured	1,013,000	5.5	179,000
	Indicated	10,805,000	4.5	1,563,000
	Sub-Total	11,818,000	4.6	1,742,000
	Inferred	774,000	4.3	107,000
Goose Island (1.5 g/t cut-off)	Measured	0	0.0	0
	Indicated	1,924,000	4.8	297,000
	Sub-Total	1,924,000	4.8	297,000
	Inferred	2,069,000	4.8	319,000
Vault Deposit (2.0g cut-off)	Measured	38,000	3.4	4,000
	Indicated	7,905,000	3.6	915,000
	Sub-Total	7,944,000	3.6	919,000
	Inferred	2,513,000	3.8	307,000
All Deposits	Measured	1,051,000	5.4	183,000
	Indicated	20,634,000	4.2	2,786,000
	Sub-Total	21,685,000	4.3	2,998,000
	Inferred	5,356,000	4.3	740,000

17.2

Mineral Resource Estimation Methods

Mineral resources at all three Meadowbank deposits were estimated with three dimensional block models interpolated with inverse distance methods. The interpolations were constrained by geologically controlled three dimensional wireframe solid models of the mineralization.

17.2.1

Geological Model

Three-dimensional solid models of geology and mineralization for each of the Meadowbank deposits were created by Cumberland. They were built by interpreting the geology and extent of mineralization on paper plots of vertical sections displaying diamond drill hole data. Geological interpretations were hand-drawn by Cumberland geological staff and included all lithological and structural features. Care was taken to ensure that the interpretations were consistent from section to section. Grade shells of 1 g/t were constructed with similar methods and utilized mineralized interval composites from the diamond drill holes and the interpreted geology as the primary references. No minimum thickness was applied. Care was taken to ensure that dilution was minimized through the application of consistent rules. Up to 2.0 m of internal waste was allowed, provided that the length-weighted average grade of the waste plus the outer assay result(s) was 0.9 g/t Au or higher. The geometry of the grade shells was heavily influenced by the geological interpretation and as a result they are generally stratabound. However, in some cases they do cross lithologic boundaries in keeping with the current epi-genetic model of mineralization.

The lithology outlines and one-gram shells were then digitized from the paper copies into Gemcom© software as polylines. The polylines were snapped to the drill hole lithology units and composites, respectively, and then wobbled to smooth the outlines between snapping points. The outlines (3-D rings) were then stitched together using tie lines to create separate three-dimensional solids for each of the primary rock types and the one-gram shells. Contour lines were used to create intermediate outlines or to pinch out rock or one-gram solids where needed.

A complete list of solids is provided in Appendix I.

17.2.2

Compositing

Capped assays were composited into 1.5 m down hole composites inside the grade shells based on the intervals from the 1 g composites used to construct the grade shell wireframes (Section 17.2.1). Residual composites at the down-hole end of the intervals with a length of less than 0.50 m were not used for grade interpolation.

17.2.3

Capping

Goose Island

The primary tool for assessing the appropriate capping level at Goose Island was a Monte Carlo simulation study that was augmented with statistical analysis. In the Monte Carlo simulation, 4% of the samples met a high-grade threshold of 30 g/t and accounted for 45% of the metal in the deposit. Approximately 111 samples (4,800 t/sample) will be mined in the course of a year, with four of those being from the high-grade portion of the distribution. The results indicated that 28% of the metal was of sufficiently high risk to be removed from the model. With this amount of metal removed (equivalent to a flat cap of 30 g/t), the mine can be expected to achieve more metal than forecast, four years out of five. One year out of five, the mine can be expected to achieve less metal than forecast. The removal of metal at Goose Island was accomplished by a combination of high-grade capping of assays and high grade composite restriction. Instead of a flat cap of 30 g/t, a more relaxed cap level of 50 g/t Au was used, and high grade composites in excess of 30 g/t were restricted to a range of influence equivalent to 2 block lengths in each dimension (20 m in the strike direction and 12 m in the others). The net effect, based on contained metal value, was to emulate a 30 g/t capping value but allow some local participation of the higher-grade values. This strategy also helped control the amount of grade smoothing produced by the interpolation.

The flat cap level of 30 g/t suggested by the Monte Carlo simulation compares well to the results of a decile analysis that suggested a flat cap of 38 g/t. As well, a pick of probable inflection points on a cumulative probability plot suggests that a flat cap of 30 g/t, corresponding to the 97th percentile of the assays would be reasonable.

Portage

A combined capping/restriction strategy similar to that employed at Goose Island was adopted at Portage. Monte Carlo simulations suggested that 12.5% of the metal at Portage was of sufficiently high risk to be removed from the model, which equated to a flat cap of 35 g/t Au. However, as with Goose Island, the removal of metal was actually achieved by capping the assays at 50 g/t Au, and restricting the influence of composites greater than 25 g/t to two block lengths in each dimension (20 m in the strike direction and 12 m in the others).

The flat cap of 35 g/t Au suggested by the Monte Carlo simulation is corroborated by an inflection point on the assay probability plot at 35 g/t (~the 97.5th percentile).

Vault

At Vault, the Monte Carlo simulation analysis suggested that 16% of the metal was of sufficiently high risk to be removed from the model, which equates to a flat cap of 17 g/t. Unlike the other two deposits, which utilized a combination of capping and high-grade restriction to remove the appropriate amount of metal from the model, the Vault metal reduction was achieved with a simple flat cap of 17 g/t. The flat cap option was selected by Cumberland because it is consistent with Cumberland s interpretations of the distribution of gold grades at Vault. In Cumberland s opinion, the gold grades at Vault are more regularly distributed and less skewed than at the other two deposits, and this is supported by the statistical analysis discussed in Section 17.2.4, after the removal of one very high grade outlier.

As with the other two deposits, the cap level suggested by the Monte Carlo simulation exercise is consistent with a marked inflection point on the cumulative probability plot at 13 g/t, corresponding to the 98th percentile.

17.2.4

Statistics

The statistical properties of the assay and composite populations are discussed below for the three deposits. Table 17-1 summarizes the key statistical parameters for both the assays and the composites.

17-2: Summary of Assay and Composite Statistics

		Mean	CV	1st Quartile	Median	3rd Quartile	Max	Number
Goose Island	Assays	7.1	3.86	1.2	2.3	5.6	570.2	930
	Composites	6.3	3.21	1.5	2.7	5.0	450.8	796
Portage	Assays	6.1	2.70	1.2	2.5	5.9	642.0	4,309
	Composites	5.4	1.66	1.5	2.7	5.7	170.9	3,072
Vault	Assays	4.5	9.60	1.2	2.1	4.0	2,318.0	2,998
	Composites	3.6	2.12	1.5	2.4	4.1	260.1	1,551

Goose Island

The assays at Goose Island within the 1 g/t mineralized shell can be characterized as relatively high grade and moderately skewed. The mean gold grade is 7.1 g/t and the coefficient of variation (CV) is 3.86. The 1.5 m composite grade is slightly lower and less skewed with a mean of 6.3 g/t and a CV of 3.21. A histogram and probability plot of the Goose Island assays and composites are provided in Appendix J.

Most of the Goose Island mineralization is hosted by Iron formation or intermediate volcanics. Table 17-2 summarizes the assay grades by rock type within the mineralized shell.

Table 17-3: Goose Island Gold Assays by Rock Type

Rock Type	Mean Au Grade (g/t)	Number of Assays
Felsic Dyke	5.0	20
Iron Formation	5.6	695
Intermediate Volcanic	12.2	179

Quartz Vein	20.5	16
Ultramafic	4.6	10
Grand Total	7.1	930

Figure 17-1 is a contact plot showing the nature of the gold grades near iron formation/intermediate volcanic contacts.

Figure 17-1: Contact Plot of Iron Formation and Intermediate Volcanic Gold Grades at Goose Island

Figure 17-1 demonstrates that the assay gold grades in iron formation are very similar to the assay gold grades in nearby intermediate volcanics.

Portage

The mean gold assay grade at Portage is 6.1 g/t Au, slightly lower than the mean gold assay grade at Goose Island. The distribution of Portage assay grades is less skewed than at Goose Island, with a CV of 2.70. The Portage 1.5 m composites are slightly lower grade and less skewed than the assays with a mean gold grade of 5.4 g/t and a CV of 1.66. A histogram and probability plot are provided in Appendix J.

Table 17-3 summarizes the assay gold grades by rock-type. Note that the data set does not include the 3P2 or Bay zone portions of the Portage deposit.

Table 17-4: Portage Gold Assays by Rock Type

Rocktype	Mean Au Grade (g/t)	Number of Assays
Felsic Dyke	1.23	10
Felsic Volcanic	3.40	43
Iron Formation	5.80	1,622
Intermediate Volcanic	5.33	608
Quartz Vein	9.63	66
Ultramafic	11.39	12
Grand Total	**5.75**	**2,361**

As with Goose Island, it is clear from Table 17-3 that most of the mineralization within the Portage 1 g/t Au grade shell is hosted by iron formation and intermediate volcanics. The mean grades of the assays from those two rock types are very similar. Figure 17-2 is a contact plot showing the relationship between the grades of the two rocktypes and the distance between them.

Figure 17-2: Contact Plot of Iron Formation and Intermediate Volcanic Gold Grades at Portage

Figure 17-2 demonstrates that the mean intermediate volcanic gold grades are slightly lower on average than the mean iron formation grades near their contacts.

Vault

The mean gold assay grade at Vault is slightly lower than the mean grades of the other two deposits at 4.5 g/t. The dataset is also the most skewed with a CV of greater than nine. However, a large proportion of the skew in the assay data is due to one very high grade assay of 2,318 g/t Au. When this assay is removed from the population, the mean assay grade drops to 3.7 g/t Au and the CV indicates a much less skewed distribution with a value of 2.03. After compositing all of the assays to 1.5 m equal lengths, the grade drops to 3.6 g/t and the CV decreases to 2.12. A histogram and probability plot for the assays and composites is provided in Appendix J.

Almost all of the mineralization at Vault is hosted by intermediate volcanics and therefore no summary table of grades by rock type is provided. For the same reason, no contact plots are provided either.

17.2.5

Geostatistics

As discussed in Section 17.2.7, all of the interpolations utilized inverse distance weightings and therefore variography played only a minor role in the resource estimate at Meadowbank. At Portage and Vault, the variography was used to guide the shape and size of the search ellipses, and was also used in the confidence limit studies for classification (Section 17.4) and in the validation exercises (Section 17.3).

Goose Island

At Goose Island, the variography was difficult to interpret due to: (1) a lack of data, and (2) the nature of the tight to isoclinal folding that is currently interpreted to have occurred after the deposition of the gold mineralization. Nevertheless, the variograms are included in Appendix K for the sake of completeness.

Portage

At Portage, the direction of maximum continuity is oriented subhorizontally in the along strike direction with a slight plunge to the south of -9° towards 160°. The maximum range in this direction is 260 m. However, it should be noted that over 90% of the variability (including the nugget effect) can be attributed to a first structure with much a much shorter maximum range of 35 m in a similar orientation. The nugget effect was modelled from the down-hole variogram at 50% of the total variability. The variograms are included in Appendix K.

Vault

The direction of maximum continuity at Vault was modelled with one structure oriented with a plunge of -11° toward 123°. The maximum range in this direction was 84 m. The nugget effect was modelled at 10% of the total variability. The variograms are included in Appendix K.

17.2.6

Block Model Definitions

Three different block models were required, one each for the three deposits. The Goose Island, Portage, and Vault models are stored in the GCDBG2, GCDBMB, and GCDBVT Gemcom© projects, respectively. Their definitions are summarized in Table 17-5.

Table 17-5: Block Model Definitions

	Origin (m local grid)			Size (m)			Number of Blocks			
Deposit	**X**	**Y**	**Z**	**Row**	**Column**	**Level**	**Row**	**Column**	**Level**	**Rotation**
G.I.	-450	-1,800	150	10	6	6	115	170	92	0
Portage	-900	-650	168	10	6	6	225	216	40	0
Vault	-5,200	3950	166	10	6	6	150	220	81	0

17.2.7

Interpolation Methods

Goose Island

At Goose Island, 1.5 m composite gold grades were interpolated with the inverse distance squared method. Poor quality variograms precluded the use of geostatistical methods at Goose Island, see Section 17.2.4. Due to a change in the strike direction of the Goose Island mineralization, two search domains were utilized, north and south. The strike direction in the north domain is 010° and the strike direction in the south domain is 020°. A three-pass interpolation scheme was used in each of the search domains, with each successive pass utilizing longer search radii. A table of interpolation parameters is provided in Appendix L. As outlined in Section 17.2.2, a high grade search restriction was utilized in combination with a high grade cap level to control excessive smoothing of high grade samples, while at the same time allowing local high grade results to be honoured in the block grades.

To prevent interpolation across lenses, the blocks were coded with a series of polygons in plan-view so that unique codes could be assigned to each lens and lens-split. Figure 17-3 is an example of the lens coding polygons employed at Goose Island. A matrix of lens code relationships is attached in Appendix M.

Figure 17-3: Lens Coding Polygons on the 0 m Planview at Goose Island

Portage

The interpolation plan at Portage was similar to that utilized at Goose Island. An inverse distance squared weighting scheme was used to interpolate composite grades. Three passes were used, with each successive pass utilizing longer search radii (see Appendix L). The search radii of the first pass were equal to twice the range of the first structure of the Portage variogram (70 m x 30 m x 20 m). The radii of the second pass were equal to twice the radii of pass one (140 m x 70 m x 40 m), and the radii of the third pass were equal to the maximum range of the second structure (260 m x 145 m x 100 m). A total of six search domains were utilized to rotate the search ellipses into the plane of the mineralization (see Appendix L). As mentioned in Section 17.2.2, unwanted smearing of high grade composite values was achieved with a high grade restriction added to the search. Composites greater than 25 g/t Au were not utilized in the interpolation neighbourhood if their distance from the block being estimated was more than two block lengths.

As with Goose Island, polygons were used to uniquely code individual lenses and splays to prevent interpolation across lenses. The polygons were outlined on vertical sections every 20 m through the deposit. A matrix of lens code boundary relationships is attached in Appendix M.

Vault

The interpolation plan used at Vault was similar to that at the other two deposits, except that a flat cap was used to control the high grades, rather than a restricted high-grade search. As with the other deposits, the interpolation utilized an inverse distance squared weighting and three passes were used to successively fill blocks with longer search radii. Each lens at Vault was uniquely coded with wireframed solids to prevent cross-lens interpolation.

17.3

Mineral Resource Validation

The Meadowbank grade models were validated with four methods:

1.

Visual comparison of colour coded blocks and composites on plans and sections

2.

Global comparisons of mean block grades and mean composite grades

3.

Local comparisons of mean block grades and nearest neighbour model grades on a series of section or level slices through each deposit

4.

Change of support checks with Herco comparisons of model grade and tonnage curves against transformed nearest neighbour grade and tonnage curves.

17.3.1

Visual Comparisons

For all three deposits, the visual comparisons of block and composite grades show a reasonable correlation between the two values. No major discrepancies have been noted. Appendix N contains a representative plan and section from each of the three deposits showing colour coded composite and block grades.

17.3.2

Global Comparisons

The global block grade statistics are compared to the global composite and nearest neighbour model grade statistics in Appendix N for each of the three deposits.

The comparison demonstrates that on a global basis, the block model grade at Goose Island is essentially unbiased with respect to the input data. It is within 3.2% of the nearest neighbour model grade and is within 5.4% of the mean composite grade (capped at 30 g/t Au). The mean composite grade is higher than both the nearest neighbour and inverse distance block model grades because the data is slightly clustered. Data clustering is commonly encountered in resource estimation data sets, especially among high-grade composites.

The same can be said of the Portage grade block model, which is within 6.5% of the nearest neighbour model grade and within 9.8% of the mean capped (at 35 g/t Au) composite grade. As with Goose Island, the mean composite grade is higher than both the nearest neighbour and inverse distance block model grades because the data is slightly clustered. No global bias is evident.

At Vault, the mean inverse distance block model grade is within 1% of the mean nearest neighbour model grade and within 4% of the mean capped composite grade. The close agreement between these values indicates that the Vault data is not very clustered and no bias is evident in the block model grades.

17.3.3

Local Comparisons

For the three deposits, the mean inverse distance block grade has been compared to the mean nearest neighbour block grade on a series of parallel slices in section and plan view. The results are presented as line graphs in Appendix N.

Generally, the graphs show good agreement between the two sets of block grades, with the inverse distance model curves being slightly smoother than the nearest neighbour model curves, as they should be. Exceptions occur where the number of blocks contributing to the mean grade is low.

17.3.4

Change of Support Checks

The distribution of grades in the 20 m x 10 m x 10 m sized model blocks will be different from (smoother than) the distribution of grades in smaller SMU sized blocks. Therefore, the grade and tonnage curves for the 20 m x 10 m x 10 m sized blocks have been compared to grade and tonnage curves for the nearest neighbour models after transformation with a hermite polynomial (Herco), to ensure that the level of smoothing is appropriate. The graphs are attached as Appendix O.

In each case, the curves are similar at the 1.5 g/t Au cutoff grade, indicating that the 20 m x 10 m x 10 m block grades are appropriately smoothed and the grade and tonnage curves should be achievable at this cutoff grade. It should be noted, however, that the grade and tonnage curves tend to diverge at higher cutoff grades, and therefore the grades and tonnages that they predict at higher cutoff grades may not be achievable.

17.4

Classification

In determining the appropriate classification criteria for the Meadowbank deposits, several factors were considered:

- NI43-101/CIM requirements and guidelines
- observations from the site visit in 2003
- confidence limit analyses
- experience with similar deposits
- historical classification schemes at Meadowbank.

The classification criteria for each deposit were assessed individually and the results are summarized below in Table 17-5. The excellent trench exposures of mineralization at Portage and Vault give sufficiently high confidence to the material within 25 m of them to justify classification as Measured. The confidence limit analyses at these two deposits supports the classification of material drilled with a spacing of 50 m x 50 m as Indicated. However, the continuity of grade and mineralization in areas drilled with a larger spacing cannot be sufficiently demonstrated for classification as Indicated, but can be reasonably assumed, given the geological model employed by Cumberland. Therefore this material is eligible for classification as Inferred.

At Goose Island, the lack of trench exposures and relatively wide spaced drilling precludes the classification of mineralization as Measured. Confidence limit analyses indicate that the portions of the deposit drilled at a spacing of 35 m x 35 m are eligible for classification as Indicated. The remainder of the mineralization can be classified as Inferred. The criteria for classification as Indicated is more conservative at Goose Island than at Portage and Vault because the mineralization at Goose Island is more irregular.

Table 17-6: Classification Criteria

Deposit	Measured	Indicated	Inferred
Goose Island	None	Drill Spacing of 35 x 35 m or less	All remaining blocks in the 1 g/t grade shell
Portage	Within 25 m of a trench exposure	Drill Spacing of 50 x 50 m or less	All remaining blocks in the 1 g/t grade shell
Vault	Within 25 m of a trench exposure	Drill Spacing of 50 x 50 m or less	All remaining blocks in the 1 g/t grade shell

18.0

OTHER DATA AND INFORMATION

This section is not applicable.

19.0

REQUIREMENTS FOR TECHNICAL REPORTS ON PRODUCTION PROPERTIES

This section is not applicable.

20.0

CONCLUSIONS AND RECOMMENDATIONS

AMEC has assisted Cumberland with the estimation of Mineral Resources at the Meadowbank project. AMEC s general conclusions from this work are as follows:

- Three main gold deposits have been delineated at Meadowbank: Goose Island, Portage and Vault. The first two can be categorized as Iron Formation Hosted deposits, while Vault can be classified as a Disseminated/Replacement Lode gold deposit. The geology of the Meadowbank Project, including the controls on mineralization are well understood.

- The database used to estimate the mineral resource for the Meadowbank Project consists of samples from 678 diamond drill holes and a small number of trenches. Almost all of the drill hole collar locations have been surveyed with a total station instrument, and most of the holes have undergone some type of down-hole surveying as well. Those holes that have not been subjected to down hole surveys will not have an adverse effect on the reliability of resource estimates due to their small number and short length. In AMEC s opinion, the methods used to collect samples at Meadowbank are consistent with standard industry practices.

- The core logging facilities and procedures generally meet or exceed industry standard practices. To simplify geological coding of assay and composite assay intervals, AMEC recommends keeping alteration codes separate from lithological codes. AMEC also recommends that a copy of the original assay certificates be attached to each drill log to facilitate future checks and audits.

- The transfer of data to the resource database was verified with a 5% check of the assay database and survey records against original records.

- Cumberland s sampling procedures and assaying methods are consistent with standard industry practices. Since 2001, Cumberland has followed a comprehensive quality assurance program that includes the submission of standards, blanks, field duplicates, and pulp duplicates. Program accuracy and overall precision were good. Results from the pulp duplicate analyses indicate poor precision, possibly due to insufficient pulp sample size for the nature of the gold mineralization. Notwithstanding the imprecision in the pulp duplicates, it is AMEC s opinion that the data used for the resource estimate is under sufficient control to form the basis of the mineral resource estimate. However, prior to executing any future drilling programs, AMEC recommends that:

  - A study be undertaken to determine the appropriate pulp sample size. An optimized sample split or pulp size will help towards maintaining acceptable precision of duplicate pair data.

  - Stronger measures be implemented to ensure that SRM s submitted to the primary lab are blind.

-

A source of blank material be located that is proven to contain no anomalous gold, so that it can more effectively serve its purpose of detecting contamination in the sample prep phase.

-

A comprehensive project QA/QC database be compiled to keep all data together. This database should be monitored and maintained by designated QA/QC personnel, which will help to monitor lab performance over time.

•

Three dimensional block models have been used to estimate the mineral resource at Meadowbank. The models were constructed with inverse distance weighting techniques on capped and composited assays. The models have been subjected to several validation exercises and based on those results AMEC considers the estimate to be robust.

•

The models have been classified into Measured, Indicated or Inferred categories consistent with the CIM definitions referred to in NI43-101.

This independent mineral resource estimate supports the 29 January 2004 Meadowbank mineral resource statement.

21.0

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APPENDIX A

Example Core Logging Form
Core Logging and Sampling Procedures

CONSOL

VLT03-156

				STRUCTURE								ALTERATION							MINERA	
ROCK OVB	CT-A	BD-A	FOL1	FOL2	SH-A	SH-I	RQD	VN-T	VN%	GA	BT	GRU	CHL	SIL	SER	MT	PO	PY	ASPY	C
Vcs;porph;IVchl								q	1				25		1			1		
Vcs;porph;IVchl			75					q	1				25		1			1		
Vcs;porph;IVchl			80					q	20				15		1			1		

IVT;sil		80	q	40	5	2	1		0
IVT;sil			q	35	10	2	1		0
IVcs;sil	80	80	q	1	10	2	1		1
IVcs;sil			qc	3	10	2	1		1
B									
IVcs;sil			q	1	10	3			
IVchl;IFMQ	80	75	qc	1	20			1	2
IVchl;IFMQ		65	qc	1	20			1	1
IVchl;IFMQ			qc	1	20			1	1

D														
IVchl;IFMQ		50	50	90				qc	2	20			1	2
IVchl;IFMQ		65	65					qc	2	20			1	3
IVchl;IFMQ								qc	1	20			1	1
S 2														
IVcs;QV								qc	30	20				1
IVcs;FZ;BX					55	2	0	cc	20	20				2
IVcs			60					qc	2	25		1		1
IVT	40		75					qc	1	5	1	2		1

IVchl;IVcs	80		cc	1	25	1	0
IVchl;IVcs			qc;cc	1	25	1	0
IVchl;IVcs		55	cc	1	25		1
IVchl;IVcs		60	cc	1	30	1	1

22.00	22.33	IVT Same as 16.33 - 17.72m, w strong foln and few 1cm cubic py xtals = S1 @ 70 dtca Lr ct - irreg	22.00	22.33	IVT	85	70		q	10	10	1	0		74055	0.33	0.34
22.33	23.10	IVchl/IVcs Same as 17.72 - 22m = S0/S1 @ 65 dtca @ 22.75m Lr ct @ 85 dtca	22.33	23.10	IVchl;IVcs		85	85	q	2	30	1	3		74056	0.77	0.07
23.10	29.00	IVT Same as 16.33-17.72m; 2-3% chl-py filled fractures,	23.10	24.50	IVT	85	65		q	5	5	2	0		74057	1.40	0.02
		2-5% white qtz	24.50	26.00	IVT		80		q	5	3	2	1	0	74058	1.50	0.06
			26.00	27.50	IVT				q	4	3	2	1		74059	1.50	0.09
		Mod ser-pot altn.	27.50	29.00	IVT		75		q	7	3	2	0		74060	1.50	0.39
		= S1 @ 80 dtca @ 26.1m		B											74061		0.01
		Lr ct - lost core															

		at block.														
29.00	29.59	IVcs Mottled green, fine grained, chl-ser altd, mod foln. w 3-5% discontinuous qtz vns and 5% anhedral py blebs & bands in fractures. = S1 @ 65 dtca @ 29.34m Lr ct @ 80 dtca	29.00	29.59	IVcs		65	q	5	15	1	5	74062	0.59	4.21	4.
29.59	30.76	IVT Same as 16.33-17.72m; 2-3% chl-py filled fractures = S1 @ 80 dtca @ 29.97m Lr ct @ 75 dtca	29.59	30.76	IVT	80	80	q	5	3	2	1	74063	1.17	2.45	2.
30.76	31.03	IVcs Same as 29-29.59m, 5% cubic py	30.76	31.03	IVcs	75	80	qc	2	20	1	5	74064	0.27	0.38	
					D								74065		0.31	
		= S1 @ 80 dtca @ 31.05 Lr ct ~80 dtca, undulating														
31.03	34.01	IVT	31.03	32.52	IVT	80		q	20	5	2	2	74066	1.49	0.25	
			32.52	34.01	IVT		70	q	5	3	2	1	74067	1.49	0.09	
		and qvts give a foliated texture. 20-35 % rounded qtz eyes surrounded by ser.														

		Py occurs in fractures.																	
		31.66-32.01m: 50% undulating white qtz vn w gal-py in fractures																	
		= S1 (qvt) @ 70 dtca @ 33.21m																	
		Lr ct @ 80 dtca																	
34.01	45.58	IVcs/IVsc	34.01	35.00	IVcs	80		85	qc	1		15	1	0		74068	0.99	0.13	
		Very homogeneous, unfoliated to weakly foliated, fine grained IVcs w	35.00	35.71	IVcs							15	1	0		74069	0.71	0.14	
		tr-3% vfg py dissem interbedded w 20% creamy ser-rich bands of	35.71	35.95	IVsc		85	85			5	10	2	3		74070	0.24	1.29	1.
		IVcs, with foln and qtz stringers, fg py in foln/dissem	35.95	37.30	IVcs							20	1	1		74071	1.35	0.12	
		= S0/S1 @ 85 dtca @ 35.74m	37.30	38.28	IVcs			85	qc	1		20	1	1		74072	0.98	0.04	
		= S0/S1 @ 85 dtca @ 44.66m			S 4											74073		3.56	3.
		Lr ct @ 80 dtca	38.28	39.29	IVcs				qc	2		15	1	0		74074	1.01	0.05	
			39.29	40.29	IVcs				qc	2		15	1	0		74075	1.00	0.02	
			40.29	40.72	IVsc		90	90	qc	1		10	2	3		74076	0.43	0.63	
			40.72	41.19	IVcs				qc	1		15	1	1		74077	0.47	0.21	
			41.19	41.41	IVsc;IVcs			85				10	2	2		74078	0.22	0.99	
			41.41	42.00	IVcs				qc	2		15	1	1		74079	0.59	0.29	
			42.00	42.82	IVsc			85	qc	1		7	2	7		74080	0.82	10.23	10
			42.82	44.00	IVcs;IVsc				q	1		15	1	1		74081	1.18	0.82	
			44.00	44.86	IVcs		85	85	qc	1		15	1	2		74082	0.86	0.41	
			44.86	45.58	IVcs;IVsc				qc	1		10	2	3	0	74083	0.72	2.61	2.

					B										74084	<0.01	
45.58	46.32	IVsc Creamy & beige, well foliated, fine grained IVsc w ~7% vfg dissem py, strong ser altn. = S1 @ 75 dtca @ 46.12m Lr ct @ 85 dtca	45.58	46.32	IVsc	80		75	q	1			3	7	74085	0.74	6.
46.32	46.71	IVcs Light to med grey, fine grained, mod silicified, weakly chl altd interval	46.32	46.71	IVcs	85		80	q	2	5	1	1	5	74086	0.39	10
		w fg py dissem along foln = S1 @ 80 dtca @ 46.49m Lr ct @ 85 dtca			S 1										74087		5.
46.71	48.85	IVT	46.71	47.80	IVT									1	74088	1.09	0.
			47.80	48.85	IVT									1	74089	1.05	0.
		and qvts give a foliated texture. 20-35 % rounded qtz eyes surrounded by ser. Fg IVT near lr ct. Py occurs in fractures. = S1 (qvts) @ 65 dtca @ 46.74m Lr ct @ 90 dtca			D										74090		0.
48.85	50.75	IVchl/IVcs Dark green, aphanitic, strongly altd IVchl with ~30% bands of fg	48.85	49.41	IVchl;IVcs	90	85	85	q	3	25		1	3	74091	0.56	5.
		more	49.41	50.00	IVchl;IVcs			85	q	2	25		1	1	74092	0.59	0.

		grey-green IVcs. Few 1cm quartz veins parallel foln and some qtz & qtz-carb veining at lr ct. Py is both cubic and fg dissem in foln = S0/S1 @ 85 dtca @ 49.3m Lr ct @ 85 dtca	50.00	50.75	IVchl;IVcs		90	90	q;qc	5	30			4	74093	0.75	6.
50.75	51.79	IVsc/IVcs Well foliated/laminated, fine grained, mod ser-chl altd, w dark green,	50.75	51.79	IVsc;IVcs	85	80	80	q	2	10	2		5	74094	1.04	5.
		beige, and cream bands. Fg py (3 up to 15% locally) dissem in S1 foln = S0/S1 @ 80 dtca @ 51.03m Lr ct @ 85 dtca			B										74095		0.
51.79	52.42	IVT Same as 48.85 - 50.75m, locally silicified, trace py in fractures = S1 @ 80 dtca @ 52.28m Lr ct @ 70 dtca	51.79	52.42	IVs	85		80	q	10	2	2		0	74096	0.63	0.
52.42	54.02	IVsc/IVcs Same as 50.75 - 51.79m; locally med grained in more chl-rich bands	52.42	53.20	IVsc	70	75	75	q	2	5	3		4	74097	0.78	2.
		Py fg ff/dissem, 2 blebs po = S0/S1 @ 75 dtca @ 53.23m Lr ct @ 80 dtca	53.20	54.02	IVsc			80	q	1	10	2	0	5	74098	0.82	2.

54.02	58.62	IVT	54.02	55.00	IVT	80			q	3	2	1	2		1		0.1	74099	0.98	0.
		Same as 48.85 - 50.75m, locally silicified, trace py in fractures	55.00	56.00	IVT				q	2	2		2	0	1			74100	1.00	0.
		= S1 @ 70 dtca @ 56.1m	56.00	57.00	IVT			70	q	2	2	1	2		1		0.1	74101	1.00	0.
		57.9-58.03m: khaki band of IVcs with strong foln @ 75 dtca	57.00	57.80	IVT				q	1	2	1	2		1	0	0.1	74102	0.80	0.
		Lr ct @ 80 dtca	57.80	58.10	IVT;IVcs			75	q	3	5		2		1			74103	0.30	0.
			58.10	58.62	IVT				q	1	2		2		1			74104	0.52	0.
					S 3													74105		0.
58.62	59.35	IVcs/IVT	58.62	59.35	IVcs;IVT	80	80	80	q	2	10		2		1			74106	0.73	0
		Mixed zone of 60% IVcs bands (fg, green-grey, fol) and IVT as above.			D													74107		(
		= S0/S1 @ 80 dtca @ 58.93m																		
		Lr ct @ 60 dtca																		
59.35	62.98	IVT/IVsc	59.35	60.10	IVT	60		80	q	3	2		2		1			74108	0.75	0
		Same IVT as 48.85 - 50.75m, w 15% bands of khaki IVsc w fg py	60.10	61.00	IVT				q	5	2		2		2	0	0.1	74109	0.90	4
		61.19m: 0.8cm wide py-sph-gal band, very nice @ 65 dtca	61.00	62.00	IVT		80	80	q	2	5		2		1			74110	1.00	1
		= S0/S1 @ 80 dtca @ 61.67m	62.00	62.98	IVT		80	80	q	4	5		2		1			74111	0.98	0
		= S0/S1 @ 80 dtca @ 62.88m			B													74112		<
		Lr ct @ 80 dtca																		
62.98	63.91	FV/IVs/IVcs	62.98	63.91	FV;IVs;IVcs	80	70	70	qc	1	5	2	2		6			74113	0.93	7
		Strongly silicified FV																		

		(55%) interbedded w softer yellowy IVs w py														
		= S0/S1 @ 70 dtca @ 63.35m														
		Lr ct @ 80 dtca														
63.91	64.75	IVT	63.91	64.75	IVT	80			q	15	3	1	2	1	74114	0.84
		Same as 48.85 - 50.75m, locally silicified, trace py in fractures														
		Lr ct @ 75 dtca														
64.75	65.26		64.75	65.26		80			q	1	10		1	1	74115	0.51
		Brecciated texture with crackled IVT with 10% chl in fractures, weak														
		Lr ct @ 80 dtca														
65.26	68.65	IVcs/IVsc,minor bio	65.26	66.00	IVcs;IVsc;IVT	80	90	90	q	2	15		1	3	74116	0.74
		Well foliated, fine grained, beige to dark brown to green-grey interval	66.00	66.88	IVcs;IVsc			80	q	5	20		1	3	74117	0.88
			66.88	67.74	IVcs;IVsc				q	3	20		1	1	74118	0.86
		the S1 foln plane.	67.74	68.65	IVcs;IVsc			85	q	4	20		1	2	74119	0.91
		65.8-65.9m: band of silicified IVT														
		= S0/S1 @ 90 dtca @ 65.9m														
		Lr ct @ 85 dtca														
68.65	68.99	IVT	68.65	68.99	IVT	85		85	q	5	5	1	2	1	74120	0.34

		Same as 48.85 - 50.75m. = S1 (qvt) @ 85 dtca @ 68.91m Lr ct @ 85 dtca																
68.99	69.39	IVcs Dark khaki, fine grained IVcs with mod-strong chl-ser altn, 5-10% fg dissem py along S1 foln plane. = S1 @ 85 dtca @ 69.13m Lr ct @ 80 dtca	68.99	69.39	IVcs	85		85	qc;q	3		15	2		7	74121	0.40	2
69.39	69.90	IVT Same as 48.85 - 50.75m. = S1 (qvt) @ 80 dtca @ 69.51m Lr ct @ 80 dtca	69.39	69.90	IVT	80		80	q	3		1	1		0	74122	0.51	0
69.90	71.16	IVchl/IFQM Dark green, aphanitic IVchl interbedded w grey, aphanitic chert>mt iron formation. Minor thin py-rich bands // to foln = S0/S1 @ 75 dtca @ 70.64m Lr ct @ 65 dtca	69.90	71.16	IVchl;IFQM	80	75	75	qc	2		25		1	2	74123	1.26	4
71.16	74.00	IVcs/IVsc, bio	71.16	72.21	IVcs	65		75	qc	2	5	15	1		2	74124	1.05	0
		Well foliated, fine grained, beige to	72.21	72.75	IVsc				qc	4		10	2		3	74125	0.54	2

	green-grey interval with minor biotite rich zones. F gr py in dissem in fractures and along	72.75	73.20	IVcs;bio			80		qc	4	5	15	1	1			74126	0.45	0		
	the S1 foln plane. Trace sph-gal along a couple of fractures.	73.20	74.00	IVsc			80		qc	7		10	2	4			74127	0.80	0		
	= S1 @ 75 dtca @ 72.0m			D													74128		1		
	= S1 @ 80 dtca @ 73.49m																				
	Lr ct @ 70 dtca																				
77.00	IVT	74.00	75.00	IVT	70		75		q;qc	4		3	1	1	0		74129	1.00	1.04	0.98	
	Same as 48.85 - 50.75m.	75.00	76.00	IVT					q;qc	3		2	1	1	0	0.1	74130	1.00	2.92	2.83	
	few thin py-rich stringers, and 5% qtz-carb-chl veins	76.00	77.00	IVT			70		q;qc	4		3	1	1			74131	1.00	3.15	3.46	
	= S1 @ 70 dtca @ 76.48m			S 2													74132		1.51	1.52	
	Lr ct - broken core																				
78.00	IVcs/FV	77.00	78.00	IVcs		70	70	75	q	5		20	2	2			74133	1.00	0.80		
	Dark grey, and khaki banded interval w mod ser-chl altn. This section																				
	may be so dark because of alteration from fluids from bx/fault below.																				
	= S0/S1 @ 70 dtca @ 75.48m																				
	Lr ct @ 75 dtca																				

79.17		78.00	79.17	IVcs;BX;FZ B	75			75	qc	15	15		1	6	74134	1.17	1.48	1.60
															74135		0.01	
	are rounded/milled w 30% matrix of chl-py. Core intact (not broken). Large qtz-carb (4-7cm) irreg, no sulphide, at top of interval. Lr ct @ 65 dtca																	
81.52	IVsc, sil Beige to khaki, fine grained portion with mod-strong ser	79.17	79.73	IVsc	65				q	10	2	2	2	20	74136	0.56	4.59	4.95
	altn and	79.73	80.55	IVsc;sil		75	75		q	15	2	2	2	7	74137	0.82	3.09	3.13
	locally strongly silicified/qtz flooded. Py-ser bands define foln.	80.55	81.52	IVsc					q	8	2	2	2	15	74138	0.97	5.19	5.40
	= S0/S1 @ 75 dtca @ 80.25m Lr ct @ 80 dtca																	
90.65	IVcs/IVsc Medium to dark grey, fine grained, clouded interval w 20%	81.52	82.50	IVcs;IVsc	80	80	80		q	5	15		1	0	74139	0.98	0.54	
	khaki more	82.50	83.38	IVcs;IVsc					q	2	15		1	1	74140	0.88	0.34	
	sericitic bands. Minor fg py in fractures, up to 2% locally.	83.38	84.30	IVcs;IVsc			80		q	4	15		1	0	74141	0.92	0.16	
	Minor thin qtz carb stringers // to core axis	84.30	90.65	IVcs;IVsc			80		q;qc	3	15		1	0	NS	6.35		
	= S0/S1 @ 80 dtca @ 81.85m = S1 @ 80 dtca @ 86.06m																	

	Lr ct @ 75 dtca													
91.02	QIVT Med-dk green-grey, med to coarse grained, 50-70% white qtz eyes, surrounded by a lt gr ser-py matrix. Lr contact of unit is a 3cm chl-rich shear zone (sil?) which crosscuts the S1 foln in this unit. S1@ 75 dtca; SH @ 40 (155R)	90.65	91.02	QIVT	75	75							NS	0.37
103.76	IVcs/IVcs,tuff Med - dark grey-green; fine grained, weak to mod chl altn, wk ser altn, locally tuffaceous w qtz eyes. 2% thin qtz stringers, mostly at high angles to core axis. Trace cubic py dissem. Few <2cm IVchl bands. = S1 @ 70 dtca @ 96.42m 100.82-101m: bull white qtz-carb vn w ur ct @ 30 dtca Lr ct - gradational; S1 @ 80 dtca	91.02	103.76	IVcs	40	70	q;qc	2	15	1	0		NS	12.74
116.00	IVcs/FV	103.76	116.00	IVcs;FV	80 85	85	q;cc	1	15	1			NS	12.24

IVcs, as above but in this portion there is 5% bands of "cherty-looking" (not hard) FV, creamy to light pink, aphanitic to very fine grained, well foliated. Only trace qvts and calcite stringers. Minor IVchl bands.
= S0/S1 @ 85 dtca @ 107.68m

E. O. H.

Cumberland Resources Ltd.

Meadowbank Project

Memorandum

To:

File

From: Andrew Hamilton

Re:

Drill Core Sampling Procedures at Meadowbank

Date:

January 23, 2004

During the core logging procedure (described in a memo by Roger March dated July 25, 2003) the core logger is also responsible for layout of drill core samples and insertion of QA/QC materials.

Sampling intervals are coincident with the geodet intervals (based on lithology, structure and sulphide content) and are marked on the core in red china marker, and arrows are drawn to indicate the sample interval. A sample tag with unique number is placed under a piece of core at the end of the interval. Sample lengths on drilling programs up to and including 2003, vary from 15 cm to 1.5 metres, although sample lengths of between 30 cm and 1.0 metre are the most common. The shorter lengths were used on narrow intervals containing visible gold or extreme sulphide concentrations, while samples longer than 1.0 metre were used over intervals of low but consistent sulphide content or alteration. A minimum sample length of 30 cm is to be used on future programs.

The logger also places into the core a strip of flagging tape indicating where in the sample sequence standards, blanks and duplicates are to placed. One standard, one blank and one duplicate are inserted randomly by the logger in every 22 samples.

In the sampling room the samples are split using a manual splitter, with one half being placed in a plastic sample bag and the other half being returned to the box. An aluminium tag is stapled to the core box at the start of each sample interval giving the down hole depth and the sample number. The sample tag is placed in the plastic sample bag, the number is written on the outside of the bag in black marker, and the bags are sealed with locking ties.

When a standard flag is encountered the sampler selects the appropriate standard (4 are used) and writes the sample number on the tin top bag. The label on the standard (has standard name and grade) is peeled off and the standard is placed in a bag with the sample tag and sealed as above. The remaining label is stuck to the appropriate sample tag in the tag booklet so a record is maintained that the correct standard was used.

A field blank is used at Meadowbank. Boxes of NQ core from previously drilled intervals of ultramafic are in the core shack. Blanks are pre-screened by the geologists for sulphides such that anything containing excessive sulphide is not chosen. When a blank flag is encountered the sampler selects about 20 cm of ultramafic material, splits it and places it in a plastic sample bag as if it is a normal sample.

Field duplicates are also used at Meadowbank. Prior to 2003 the sample intervals designated for duplicates were cut by saw in half and then one side was cut in half again to create quartered core. One quarter was designated as the original sample while the second sample number was designated as the duplicate. Starting with the 2003 program and upon the advice of AMEC, Cumberland started to submit only manually split core with one half as the original sample and the second half as the duplicate. Thus all core from these intervals is assayed and no core record remains.

Boxes of split core are labelled with an aluminium tag that states the drill hole number, box number and the from/to measurements of the core contained in the box. The boxes are stored sequentially in commercially constructed core racks next to the core logging facility. A spreadsheet and map of the core racks is updated at the end of each drilling season.

Sample shipments are always prepared in multiples of 22, which correspond directly to a given loggers sampling sequence. This way the QA/QC protocol is followed all the way through the logging, shipment and analytical processes. The samples are placed in rice sacks that are securely tied at the top with baling wire and labelled both with a shipping tag and on the side of the bag in felt marker, with the lab address, shipment number and bag number. The shipment number, bag number and the samples each bag contains are also recorded in a logbook and spreadsheet that is kept on site for reference. A sample shipment form from the primary lab is filled out, a copy of which is kept in a binder while the original is put in one of the bags.

Sample shipments are transported to Baker Lake via helicopter, bombardier or delta, and then shipped via Calm Air and Air Canada Cargo to IPL Labs in Vancouver, B.C. The lab confirms that all bags from the shipment are received and that all samples on the sample shipment form are received before proceeding with any analytical work. If there is a discrepancy the shipment is put aside until it is resolved.

Cumberland Resources Ltd.

Meadowbank Project

Memorandum

To: File

From: Roger March

Re: Drill core logging procedures

Date: July 25, 2003.

Once the core is received in camp, it is geotechnically logged by geological technicians on site who record geotechnical data: % Recovery, % RQD, and fracture density for all holes with detailed geotech logging completed on select holes as required based on consultation with Golder personnel. Once the geotech work is complete, the holes are then logged in detail by company geologists.

In the past, drill logs were completed on paper at the site and entered into digital format (excel) in the office at the end of the field season. Since 2002, this step has been removed, and all logs are now completed in excel as the logging takes place in the field. The logging still records all the same parameters as in the past. Data is entered in spreadsheet format in excel and then used to create comma delimited ASCII files which are dumped into the GEMCOM database.

During logging, geological units are broken out, described, and structural elements are recorded. To facilitate compilation of our GEMCOM database, a visual estimation of the percentage of certain commonly occurring elements such as veining, chlorite, sulphide content, etc. are recorded in spreadsheet format in a geological detail (geodet) section. Silica, sericite alteration and magnetite content is also recorded, but these items use a 1 to 3 scale indicating whether an item is weak, moderate, or strong (see appendix for example of core logging sheet).

Such descriptive parameters as rock type, colour, texture and grain size, percentage and type of sulphide mineralization are recorded in the text section of the log as well as in spreadsheet format, along with measurements of the orientation of structural fabric relationships which includes foliations, veins and shearing/faulting.

Once the logging is complete, separate excel sheets are created by cutting and pasteing the required data. These sheets are used to create the GEMCOM dump files. Details on the creation of the dump files are provided in a separate memo.

APPENDIX B

Sample Length Histograms and Probability Plots

APPENDIX C

IPL Analytical Protocols

Method of Gold analysis by Fire Assay / AAS

(a)

10.00 to 30.00 grams of sample was weighed into a fusion pot which contained a combination of fluxes such as lead oxide, sodium carbonate, borax, silica flour, baking flour or potassium nitrate. After the sample and fluxes had been mixed thoroughly, some silver inquart and a thin layer of borax was added on top.

(b)

The sample was then charged into a fire assay furnace at 2000 F for one hour, at this stage, lead oxide would be reduced to elemental lead and slowly sunken down to the bottom of the fusion pot and collected the gold and silver along the way.

(c)

After one hour of fusion, the sample was then taken out and pour into a conical cast iron mould, the elemental lead which contained precious metals would stayed at the bottom of the mould and any unwanted materials called slag would floated on top and removed by hammering, a "lead button" is formed.

(d)

The lead button was then put back in the furnace onto a preheated cupel for a second stage of separation, at 1650 F, the lead button became liquefied and absorbed by the cupel, but gold and silver which had higher melting points would stayed on top of the cupel.

(e)

After 45 minutes of cupellation, the cupel was then taken out and cooled, the dore bead which contained precious metals was then transferred into a test tube and dissolved in hot Aqua Regia solution heated by a hot water bath.

(f)

The gold in solution is determined with an Atomic Absorption spectrometer. The gold value, in parts-per-billion, or grams-per-tonne is calculated by comparison with a set of known gold standards.

QUALITY CONTROL

Every fusion of 24 pots contains 22 samples, one internal standard or blank, and a random reweigh of one of the samples. Samples with anomalous gold values greater than 1000 ppb are automatically checked by Fire Assay/AA methods. Samples with gold values greater than 10000 ppb are automatically checked by Fire Assay/Gravimetric methods.

APPENDIX D

QA/QC Pre-2000 (from the 2000 Prefeasibility Study)

***From 2000 Pre-feasibility Report (by MRDI for Cumberland Resources)**

Evaluation of QA/QC Results

Results for the pulp check assays, coarse rejects and SRMs are evaluated in the following sections. These results indicate that coarse gold particles are present in the samples. The effect of coarse gold on the evaluations is discussed, and it is concluded the assay results are adequate for the resource estimations made as part of this study. Recommendations for dealing with the coarse gold in the sampling and assaying are given in other documents previously delivered to CRL.

Pulp Check Assay Results Prior to 1998

There were 42 check assays run on pulp material from drilling conducted prior to 1998. Comparison of the original and check values using the relative difference formula defined above had only 52% of the relative differences within 10% (Figure 2.9). There were 83% of the differences within 20%. This lack of correspondence in the preliminary results produced concerns about the presence of coarse gold in the samples. (Appendix B - fax from M. Sedore to G. Dickson). Discussions at this time, also, raised the possibility of conducting an audit of the primary laboratory. At this point, there was too little information to know if the differences in check assays were the result of coarse gold or a possible laboratory problem. Subsequent check assay work indicated that coarse gold was the most likely cause of the differences.

Figure 2.9: Percentage of Check Assays vs. the Relative Difference (pre-1998)

Pulp Check Assay Results from 1998

The results from the pulp duplicates, as shown in Figure 2.10 and Figure 2.11, show there are not as strong a correspondence between the IPL assays and Chemex checks than is usually desirable. Only 53% of the duplicate pulp samples display a relative difference of less than 10%, and just 80% fall within 20%. However, Figure 2.11 shows the results tend to scatter on both sides of the x=y line indicating no bias in the results. The discrepancies in these data are similar to the differences identified in the checks run on the drilling prior to 1998. Again, there is no clear indication what causes the assays to be erratically different.

The pattern of differences prompted a program of blindly resubmitting samples to the same lab. This program was conducted after similar results appeared in the 1999 check assays. The resubmission work indicated erratic differences occurred in reassays from both primary and check laboratories, and it was unlikely laboratory procedure caused the differences.

Figure 2.10: Precentage of Check Assays vs. the Absolute Relative Difference (1998)

Figure 2.11: Scatter of Original (IPL) and Check (Chemex) Assay Results (1998)

Pulp Check Assaying for 1999

The results from the pulp duplicates, as shown in Figure 2.12, show the correspondence between the IPL assays and Chemex checks is about the same as it is for 1998. About 80% fall within 20%. Again, the results tend to scatter on both sides of the relative difference = 0 line, indicating no bias in the results. The discrepancies in these data are similar to the differences identified in all prior check results.

Figure 2.12: Percentage of Check Assays vs. the Relative Difference (1999)

Coarse Reject Check Assaying for 1998

The results from the assaying of the coarse reject duplicates by IPL are shown in Figure 2.13. These results show a higher discrepancy rate than what is usually deemed acceptable (see previous descriptions). Approximately 85% of the duplicate assays are within 30% relative difference.

Figure 2.13: Percentage of Coarse Reject vs. the Absolute Difference (1998)

Coarse Reject Check Assaying for 1999

The results from the assaying of the coarse reject duplicates by IPL are shown in Figure 2.14. The results are similar to 1998. Approximately 85% of the duplicate assays are within 30% relative difference.

Figure 2.14 Percentage of Coarse Reject Difference vs. the Relative Difference (1999)

Standard Reference Material Results

SRMs used by CRL were purchased from CANMET (Natural Resources Canada). The html page describing the two SRMs is included in Appendix B. Table 2.4 summarizes the values and confidence intervals for these SRMs used.

Table 2.4: CANMET Standard Reference Material

SRM	**Certified Value**	**95% Confidence Interval**
MA-3a	8.56 g/t	0.09 g/t
CH-3	1.40 g/t	0.03 g/t

Assaying of SRM produced results that lead to the recommendations for an audit of the IPL laboratory. Assays of the lower grade SRM, CH-3, showed approximately 8% of the assays fall outside the 95% confidence limits (Figure 2.15). Ideally, only 5% of the results should fall outside of the confidence limits, but the discrepancy may be attributed to the small number of assays. For the higher grade SRM, MA-3a, approximately 36% of the assays fell outside the 95% confidence limits (Figure 2.16). Clearly, this failure was not the result of a small sampling. MRDI recommends re-assaying those batches where the SRM result fell outside of the confidence limits.

Figure 2.15: Meadowbank SRM Control Chart for Cnmet SRM: CH-3 (1998)

Figure 2.16: Meadowbank SRM Control Chart for Canmet SRM: MA-3A (1998)

Standard Reference Material Results for 1999

Results from the assays of SRM in 1999 are quite good. No assays fell outside of the control or confidence limits for either standard (Figures 2.17 and 2.18).

Figure 2.17: Meadowbank SRM Control Chart for Canmet SRM: CH-3 (1999)

Figure 2.18: Meadowbank SRM Control Chart for Canmet SRM: MA-3A (1999)

Final Laboratory Check Program

To verify that coarse gold and not a laboratory caused the lack of correspondence in the check assays, seventy (including blanks and SRM) previously assayed pulp samples were resubmitted blind to both IPL and Chemex. The results from this program indicate that erratic results are probably not the result of lab problems. Samples resubmitted to either lab return results that show the same type of correspondence as the check assays of the pulps. The re-submission results suggest coarse or liberated gold is the most likely cause of the erratic but unbiased check assays.

APPENDIX E

QA/QC 2000-2003 Charts for Check and Duplicate Assays

APPENDIX F

Specific Gravity Data

APPENDIX G

List of Drill Holes Checked

HOLE-ID	Deposit
VLT00-008	Vault
VLT00-024	Vault
VLT01-045	Vault
VLT02-061	Vault
VLT02-094	Vault
VLT03-115	Vault
VLT03-127	Vault
VLT03-144	Vault
VLT03-162	Vault
VLT03-183	Vault
VLT03-198	Vault
91053	Goose Island
G95-070	Goose Island
G96-111	Goose Island
G99-325	Goose Island
G03-440	Goose Island
90027	Portage
91044	Portage
91047	Portage
NP02-401	Portage
NP02-405	Portage
NP02-413	Portage
NP03-480	Portage
NP96-140	Portage
NP96-159	Portage
TP95-096	Portage
TP97-194	Portage
TP97-203	Portage
TP97-209	Portage
TP97-216	Portage
TP98-236	Portage
TP98-261	Portage
TP99-344	Portage
TP99-364	Portage
TP99-382	Portage

APPENDIX H

List of Drill Hole Locations and Mineralized Intervals

Hole-ID	East (m)	North (m)	Elev (m)	Length (m)
91050	-508.00	-1100.00	137.55	167.00
91051	125.00	-1100.00	136.25	179.00
91052	162.60	-969.21	136.41	176.00
91053	146.00	-1400.00	134.75	248.00
91064	150.00	-1200.00	134.95	200.00
G03-437	-75.81	-1224.97	132.95	45.00
G03-438	82.01	-1250.06	133.63	56.00
G03-439	85.50	-1275.23	133.82	63.00
G03-440	84.61	-1300.24	134.10	65.00
G03-441	70.02	-1225.12	133.96	50.00
G95-065	80.60	-1049.95	135.05	62.00
G95-066	20.92	-1050.05	134.34	116.00
G95-067	34.46	-1149.98	134.38	74.00
G95-068	-23.55	-1150.06	134.14	197.00
G95-069	-2.42	-1199.85	134.05	113.00
G95-070	-30.64	-1249.54	134.04	158.00
G95-071	-79.36	-1149.95	134.13	248.00
G96-097	35.30	-1250.30	134.35	98.00
G96-098	-74.20	-1250.20	134.35	224.00
G96-099	29.50	-1300.60	134.35	113.00
G96-100	-76.40	-1200.00	134.35	227.00
G96-101	48.10	-1200.40	134.35	53.00
G96-102	-28.60	-1300.40	134.35	182.00

G96-103	-58.70	-1300.00	134.35	209.00
G96-104	48.60	-1149.60	133.80	59.00
G96-105	-55.90	-1150.40	134.35	218.00
G96-106	45.40	-1350.20	134.35	140.00
G96-107	-16.80	-1350.40	134.35	170.00
G96-108	-56.10	-1099.10	134.35	216.36
G96-109	-53.10	-1350.30	134.35	233.00
G96-110	45.90	-1100.20	134.35	71.00
G96-111	-56.00	-1050.10	134.35	206.00
G96-112	-56.10	-976.00	134.35	203.00
G96-113	19.50	-975.90	134.35	116.00
G96-114	53.30	-899.90	134.35	140.00
G96-115	-13.00	-1399.80	134.35	209.00
G96-116	-6.80	-900.10	134.35	156.00
G96-117	49.30	-749.80	134.35	131.00
G96-118	-8.70	-750.20	134.35	92.00
G96-127	-96.80	-1000.70	134.35	233.00
G96-128	42.20	-1499.60	134.35	134.00
G96-129	28.40	-1599.10	134.35	121.50
G96-130	-60.60	-1400.40	134.35	273.50
G96-131	-88.60	-1300.50	134.35	275.00
G96-132	-15.40	-1600.80	134.35	227.00
G96-133	-14.50	-1500.00	134.35	230.00
G96-134	-114.30	-1200.00	134.35	275.00
G96-138	-104.40	-1100.00	134.35	257.00
G97-160	-141.00	-1299.00	134.15	473.60
G97-161	-210.60	-1199.90	134.15	543.00
G97-163	-149.30	-1400.10	134.25	571.00
G97-165	-64.10	-1599.80	134.45	551.00
G97-172	-25.20	-1748.50	134.35	469.00
G97-182	1.10	-1100.10	134.45	168.00
G98-225	-94.02	-1200.16	133.22	377.00
G98-226	-114.38	-1300.15	133.25	536.00
G98-227	-27.49	-1200.03	133.21	230.00
G98-228	-104.56	-1400.23	133.28	552.00
G98-229	5.56	-1150.10	133.19	180.00
G98-231	10.37	-1250.05	133.36	158.00
G98-232	-74.36	-1500.14	133.27	510.00
G98-238	-134.47	-1499.90	133.02	661.00
G99-323	20.80	-1174.24	134.08	96.00
G99-324	-15.15	-1174.21	133.91	175.00

G99-325	-63.68	-1174.25	133.86	231.00
G99-329	28.18	-1224.91	133.59	98.00
G99-331	-6.28	-1224.89	133.51	144.00
G99-332	-44.30	-1224.91	134.01	201.00
G99-333	-78.25	-1224.96	133.48	246.00
Hole-ID	**East (m)**	**North (m)**	**Elev (m)**	**Length (m)**
89001	-83.22	92.61	141.64	131.00
89002	-83.30	92.54	141.38	56.00
89002	-83.30	92.54	141.38	119.00
89003	-109.63	167.62	142.02	113.00
89004	-110.39	166.97	142.08	136.00
89005	-102.37	129.37	141.98	119.00
89006	-105.13	127.55	141.41	89.00
89007	-195.10	222.04	139.79	110.00
89008	-130.26	151.59	140.88	106.00
89009	-162.50	183.34	138.99	113.00
89010	-200.84	333.02	139.26	113.00
89011	-81.07	-448.69	134.81	80.00
89012	-84.85	54.47	139.54	137.00
89013	40.39	-4.41	141.63	107.00
90014	-4.05	-39.72	140.48	116.70
90015	-221.27	361.63	137.45	65.00
90016	-35.67	44.47	141.19	122.00
90017	-35.30	0.02	140.11	140.00
90018	-36.17	-0.92	140.19	137.00
90019	7.80	0.00	141.26	101.00
90020	-208.55	196.20	136.08	101.00
90021	-211.40	242.78	137.82	95.00
90022	-221.70	283.28	137.72	62.00
90023	-223.80	323.68	138.33	62.00
90024	-44.29	60.84	141.56	118.00
90025	-23.58	30.96	141.16	122.00
90026	51.27	-79.66	141.55	110.00
90027	27.68	19.12	141.68	77.35
90028	-64.69	125.59	142.70	95.00
90029	-254.90	263.38	133.59	80.00
90030	-250.10	303.88	133.38	65.00
90031	-197.30	323.48	139.51	50.00
90032	-242.10	323.78	135.91	59.00
90033	-6.51	19.84	141.27	119.00
90034	11.59	32.52	141.89	92.00

90035	-116.09	-45.78	136.01	176.00
90036	-64.27	28.23	139.79	131.00
90037	29.84	44.81	142.23	65.00
90038	-138.66	196.37	141.80	86.00
90039	-199.60	281.87	139.31	62.00
90040	-531.46	1120.34	135.82	116.00
91041	49.22	-41.12	141.29	74.00
91042	-0.12	-79.65	140.24	128.00
91043	42.71	-199.85	138.63	146.00
91044	-18.48	-199.98	135.30	146.00
91045	-21.55	-200.07	135.15	86.00
91046	-320.09	-199.84	134.92	200.00
91047	-337.40	65.60	138.98	203.00
91048	-400.00	400.00	143.10	158.00
91049	-698.63	-200.81	147.84	230.00
91056	-84.39	-448.40	134.75	209.00
91057	-160.97	461.74	135.18	161.00
91058	-161.88	461.88	135.16	71.00
91059	-72.00	322.00	147.30	122.00
91060	-211.99	460.96	134.20	71.00
91061	-210.27	461.60	134.24	74.00
G96-122	2.10	-600.00	134.35	149.00
G97-169	-100.50	-600.10	134.25	233.00
G98-259	-250.15	-600.44	133.56	393.00
GNP02-01	-428.72	1024.50	138.87	111.00
GNP02-02	-535.71	1124.49	136.87	109.50
GNP02-03	-458.39	1224.83	146.84	111.00
GTP02-01	-227.97	263.66	137.59	110.00
GTP02-02	-68.40	-92.60	138.01	149.00
NP02-385	-234.92	600.07	132.73	80.00
NP02-386	-320.13	750.05	132.70	164.00
NP02-387	-394.71	825.26	132.50	191.00
NP02-390	-259.77	650.25	132.43	101.00
NP02-391	-313.93	650.33	132.31	104.00
NP02-392	-363.44	650.15	132.41	179.00
NP02-393	-321.76	600.27	132.43	110.00
NP02-397	-405.00	865.00	133.30	152.00
NP02-398	-455.00	865.00	133.30	170.00
NP02-399	-344.40	825.22	133.14	107.00
NP02-400	-390.74	940.23	132.88	116.00
NP02-401	-454.55	940.73	132.91	158.00

NP02-404	-210.62	600.16	133.26	75.00
NP02-405	-184.81	600.11	133.24	102.00
NP02-406	-354.72	865.00	133.33	87.00
NP02-407	-304.53	865.40	134.24	72.00
NP02-408	-320.02	825.20	133.27	84.57
NP02-409	-295.21	825.41	132.78	78.00
NP02-410	-292.96	700.85	132.81	108.00
NP02-411	-267.01	700.75	132.77	80.00
NP02-412	-241.88	700.50	133.24	69.00
NP02-413	-370.23	790.24	133.43	105.00
NP02-414	-320.66	790.12	133.39	90.00
NP02-415	-234.34	650.26	133.10	83.00
NP02-416	-538.79	1077.40	133.65	123.00
NP02-417	-498.10	981.08	133.55	102.00
NP02-418	-268.20	825.08	132.93	80.00
NP02-419	-254.46	865.08	132.99	63.00
NP02-420	-321.83	900.37	133.62	75.00
NP02-421	-353.59	979.73	136.24	71.00
NP02-422	-402.68	1000.25	137.24	80.00
NP02-423	-387.57	1075.10	143.12	89.00
NP02-424	-438.42	1075.76	141.31	92.00
NP02-425	-473.95	1075.34	137.55	110.00
NP02-426	-471.30	1100.51	139.82	101.00
NP02-427	-505.42	1100.49	136.97	104.00
NP02-428	-494.98	1150.55	141.08	104.00
NP02-429	-546.12	1150.51	137.90	122.00
NP02-430	-451.65	1175.46	145.17	80.00
NP02-431	-475.02	1275.69	147.30	98.00
NP02-432	-624.78	1276.14	140.30	161.00
NP02-433	-600.71	1315.17	144.96	155.00
NP02-434	-549.60	1314.78	146.40	131.00
NP03-445	-334.55	700.05	132.63	110.00
NP03-446	-380.00	700.00	133.23	136.00
NP03-447	-451.68	700.79	133.24	169.00
NP03-454	-280.71	750.19	133.23	92.00
NP03-458	-280.55	789.94	133.27	77.00
NP03-460	-420.25	790.34	133.00	119.00
NP03-461	-505.00	940.00	133.00	47.00
NP03-480	-550.03	1400.26	150.68	108.00
NP03-481	-599.33	1400.26	147.80	159.00
NP03-482	-649.97	1399.93	144.37	160.00

NP03-483	-699.56	1400.00	139.78	230.00
NP03-484	-652.35	1315.24	141.28	197.00
NP03-485	-675.69	1275.41	137.90	230.00
NP96-139	-569.72	1125.30	134.30	224.00
NP96-140	-481.48	1125.19	139.81	164.00
NP96-141	-505.06	1350.53	150.32	119.00
NP96-142	-564.66	1350.15	147.63	149.00
NP96-147	-524.80	1176.10	140.65	119.00
NP96-148	-575.70	1175.00	137.27	143.52
NP96-149	-533.20	1225.90	142.47	125.00
NP96-150	-563.10	1225.90	141.07	132.00
NP96-158	-620.70	1175.40	134.87	176.00
NP96-159	-607.80	1226.00	138.47	188.00
NP97-173	-408.80	750.10	132.57	284.00
NP97-174	-646.20	1126.40	132.57	212.00
NP97-175	-484.40	1025.10	132.27	110.00
NP97-176	-541.50	1024.90	132.47	167.00
NP97-177	-611.10	1025.20	132.00	227.00
NP97-192	-724.80	1448.90	137.98	290.00
NP98-241	-360.16	749.41	132.88	179.00
NP98-244	-458.79	749.19	132.66	239.00
NP98-247	-420.56	899.68	133.04	179.00
NP98-249	-470.14	899.29	132.94	236.00
NP98-252	-370.06	899.71	133.10	113.00
NP98-254	-426.72	824.85	132.69	227.00
NP98-257	-476.51	824.35	133.03	224.00
NP98-260	-475.47	599.48	134.60	209.00
NP98-262	-376.48	599.48	132.55	179.00
NP98-264	-272.85	599.86	132.83	110.00
NP98-273	-657.25	1225.19	135.71	217.00
NP98-274	-611.99	1350.28	144.87	204.00
NP98-275	-664.48	1350.46	141.26	120.00
NP98-276	-664.48	1350.46	141.26	258.00
NP98-295	-673.39	1449.80	141.65	167.00
NP98-297	-622.98	1450.07	145.84	152.00
NP98-300	-573.50	1449.98	150.22	114.00
NP98-304	-431.55	1124.82	143.54	90.00
NP98-306	-377.36	1125.38	144.58	81.00
NP98-307	-481.71	1225.12	144.66	89.00
NP98-308	-334.67	1125.78	143.51	90.00
NP98-309	-433.81	1225.59	146.32	92.00

NP98-310	-434.70	1024.99	137.88	87.00
NP98-311	-384.26	1224.73	146.89	77.00
NP98-318	-384.55	1025.25	139.04	78.00
NP98-319	-335.11	1025.31	138.98	75.00
NP98-320	-298.48	1126.01	142.04	75.00
NP98-321	-575.15	1274.83	143.03	137.00
NP98-322	-524.24	1275.08	145.31	111.00
TP02-388	-260.32	550.21	132.51	80.00
TP02-389	-346.70	550.10	132.47	110.00
TP02-394	-231.05	499.95	133.04	62.00
TP02-395	-280.23	499.81	132.66	110.00
TP02-396	-332.29	499.98	132.09	110.00
TP02-402	-180.85	499.74	133.45	70.00
TP02-403	-209.95	550.27	133.10	99.00
TP03-435	-166.62	-325.03	136.62	190.00
TP03-436	-170.50	-275.09	134.15	185.00
TP03-442	-17.92	-225.25	133.60	200.00
TP03-443	-54.69	-225.15	133.60	167.00
TP03-444	-98.72	-224.72	133.60	167.00
TP03-448	-274.18	209.37	133.39	80.00
TP03-449	-68.36	-274.89	134.12	152.00
TP03-450	-53.72	-299.87	133.99	156.00
TP03-451	-59.78	-325.14	132.07	173.00
TP03-452	-239.18	119.75	134.14	119.00
TP03-453	-209.21	149.74	134.28	96.00
TP03-455	-28.79	-275.09	134.03	149.00
TP03-456	5.37	-274.70	133.92	130.00
TP03-457	-312.00	350.00	133.00	20.54
TP03-459	-19.94	-324.90	131.54	152.00
TP03-462	-161.77	150.06	139.02	104.00
TP03-463	-159.13	95.06	137.62	113.00
TP03-464	-127.36	95.18	139.17	119.00
TP03-465	-149.95	34.32	135.78	146.00
TP03-466	-149.50	35.35	135.81	134.00
TP03-467	-63.70	163.36	145.59	80.00
TP03-468	-84.01	148.89	143.25	98.00
TP03-469	-44.24	176.74	147.89	55.00
TP03-470	-56.04	187.01	147.72	47.00
TP03-471	-72.66	175.46	145.83	71.00
TP03-472	-86.42	165.73	143.87	95.00
TP03-473	-100.63	155.90	142.20	107.00

TP03-474	-109.95	148.91	142.06	107.00
TP03-475	-75.31	118.50	142.46	101.30
TP03-476	-74.92	118.76	142.40	110.00
TP03-477	-72.30	138.99	143.30	113.00
TP03-478	-51.18	153.99	146.07	74.00
TP03-479	-48.75	137.58	145.65	74.00
TP03-486	-499.16	380.45	146.01	380.00
TP03-487	-448.18	95.82	141.32	401.00
TP03-488	-178.94	191.87	138.27	107.00
TP03-489	-164.11	201.97	139.65	101.00
TP03-490	-40.83	104.41	142.56	101.00
TP03-491	-21.55	119.51	144.94	91.24
TP95-082	-10.01	-157.83	139.52	140.00
TP95-083	51.14	-156.47	142.15	77.00
TP95-084	-9.66	-119.79	140.04	131.00
TP95-085	51.71	-120.19	142.95	83.00
TP95-086	0.54	69.27	143.17	94.00
TP95-087	-90.69	7.53	137.89	137.00
TP95-088	-40.63	89.20	142.25	116.00
TP95-089	-106.24	38.09	138.45	140.00
TP95-090	-82.28	113.37	141.89	101.00
TP95-091	-177.50	176.70	138.21	113.00
TP95-092	-195.96	168.06	136.75	98.00
TP95-093	-226.97	377.14	136.03	65.00
TP95-094	-196.67	376.75	138.77	59.00
TP95-095	-223.33	416.03	136.28	56.00
TP95-096	-191.92	416.38	137.26	50.00
TP96-119	-273.80	325.50	133.20	59.00
TP96-120	-267.90	379.80	133.20	62.00
TP96-121	-262.60	468.30	133.20	74.00
TP96-123	2.80	-349.60	133.80	167.00
TP96-125	-292.40	466.30	133.20	86.00
TP96-126	-297.10	325.60	133.20	71.00
TP96-135	-39.40	-349.90	133.80	176.00
TP96-136	9.10	-299.90	133.80	122.00
TP96-137	-49.20	-299.80	133.80	185.00
TP96-151	-92.60	220.93	145.19	88.00
TP96-152	-147.66	136.66	139.67	119.00
TP96-153	-72.03	194.01	145.87	53.00
TP96-154	-56.49	148.91	145.30	78.50
TP96-155	-153.47	281.86	141.27	77.00

TP96-156	-28.82	-38.70	139.59	134.00
TP96-157	-340.62	246.72	134.10	152.00
TP97-166	-25.30	-249.30	133.38	173.00
TP97-167	-84.30	-249.80	133.08	200.00
TP97-168	-131.60	-196.40	133.28	212.00
TP97-170	-201.90	-195.10	133.38	269.00
TP97-178	-257.10	-162.90	133.28	257.00
TP97-179	-188.40	-163.50	132.48	209.00
TP97-180	-224.10	-128.50	133.28	206.00
TP97-181	-289.00	-128.30	133.28	269.00
TP97-183	-239.80	-194.10	133.38	230.00
TP97-185	-20.68	-157.74	139.00	191.00
TP97-187	-21.11	-157.80	138.82	179.00
TP97-189	-29.84	-119.89	139.56	188.00
TP97-191	-39.03	-158.57	136.82	176.00
TP97-193	-21.33	-79.97	139.76	170.00
TP97-194	-66.12	-39.88	137.97	158.00
TP97-195	-44.82	-80.01	138.57	136.00
TP97-196	-130.65	-250.17	137.32	200.00
TP97-197	-66.44	-39.88	137.93	140.00
TP97-198	-75.13	-79.85	136.96	179.00
TP97-199	-130.08	-250.11	137.34	170.00
TP97-200	-19.11	-119.65	139.31	149.00
TP97-201	-131.54	-250.43	137.27	215.00
TP97-202	-19.63	-119.61	139.31	140.00
TP97-203	-109.18	-349.91	138.24	215.00
TP97-204	91.88	-120.18	141.25	41.00
TP97-205	-54.41	111.08	142.15	116.00
TP97-206	-114.28	-299.89	137.33	179.00
TP97-207	-149.60	65.82	136.26	122.00
TP97-208	-130.30	-299.89	136.42	217.00
TP97-209	-130.14	119.74	140.03	122.00
TP97-210	-175.80	119.62	135.52	143.00
TP97-211	-94.70	-399.79	137.26	203.00
TP97-212	-164.56	65.56	135.53	140.00
TP97-213	-110.23	0.49	136.92	160.00
TP97-214	-132.82	-324.60	136.88	116.00
TP97-215	-158.04	0.15	134.38	173.00
TP97-216	-138.70	-275.00	136.04	119.00
TP97-217	-130.79	-349.90	136.02	128.00
TP97-218	-124.49	-374.69	136.47	131.00

TP97-219	-399.09	64.70	139.71	243.00
TP97-220	-374.20	-198.84	140.77	272.00
TP98-230	-170.34	-324.84	133.77	248.00
TP98-233	-185.25	-39.35	133.72	218.00
TP98-234	-75.82	-159.97	133.77	56.00
TP98-235	-125.28	-79.70	134.36	161.00
TP98-236	-129.06	-159.73	133.48	74.00
TP98-237	-230.01	-375.56	133.43	347.00
TP98-239	-82.09	-119.70	135.12	83.00
TP98-240	-210.14	-0.02	133.66	209.00
TP98-242	-259.74	-0.02	133.58	194.00
TP98-243	-231.85	-326.51	133.29	456.00
TP98-245	-310.00	-0.02	133.56	203.00
TP98-246	-225.44	-79.09	133.44	254.00
TP98-248	-324.04	-79.03	133.57	206.00
TP98-250	-287.26	-39.49	133.40	170.00
TP98-251	-173.93	-375.42	133.30	252.00
TP98-253	-199.91	-275.11	133.67	245.00
TP98-255	-249.58	-275.28	133.43	224.00
TP98-256	-199.19	-449.41	133.41	351.00
TP98-258	-175.90	-120.69	133.50	173.00
TP98-261	-294.63	179.81	134.79	152.00
TP98-263	-248.98	-449.47	133.45	354.00
TP98-265	-173.27	-160.05	133.41	101.00
TP98-266	-274.81	-79.24	133.36	239.00
TP98-267	-148.72	-448.05	133.65	291.00
TP98-268	-174.28	-79.30	133.36	110.00
TP98-269	-218.87	-225.40	133.65	275.00
TP98-270	-223.25	-300.04	133.42	351.00
TP98-271	-266.55	-225.65	133.61	257.00
TP98-272	-174.54	-500.12	133.37	338.00
TP98-277	-344.28	179.72	136.22	198.00
TP98-278	-449.43	66.16	139.35	198.00
TP98-279	-98.75	464.81	136.11	116.00
TP98-280	-398.98	-80.72	134.36	207.00
TP98-281	-189.23	350.10	139.38	62.00
TP98-282	-163.37	325.48	141.23	62.00
TP98-283	-199.32	304.13	139.44	71.00
TP98-284	-320.19	-273.93	137.85	255.00
TP98-285	-149.62	304.34	141.32	59.00
TP98-286	-34.39	171.25	147.28	56.00

TP98-287	-31.52	148.71	146.22	83.00
TP98-288	-299.24	119.90	135.32	210.00
TP98-289	-5.26	118.42	145.18	77.00
TP98-290	-393.74	180.18	137.83	216.00
TP98-291	-9.24	90.83	143.48	101.00
TP98-292	-349.03	119.75	137.75	189.00
TP98-293	-163.62	420.61	137.32	140.00
TP98-294	-159.46	350.20	140.29	47.00
TP98-296	-399.69	0.17	135.42	195.00
TP98-312	-169.36	380.51	139.01	93.00
TP98-313	5.12	51.60	142.07	102.00
TP98-314	-128.57	261.89	143.48	39.00
TP98-315	-39.57	89.63	141.84	117.00
TP98-316	-119.45	303.18	143.69	84.00
TP98-317	-131.38	325.12	142.52	51.00
TP99-326	-148.25	-180.01	133.82	62.00
TP99-327	-172.26	-180.10	133.91	92.00
TP99-328	-195.27	-180.25	133.78	110.00
TP99-330	-217.23	-180.19	133.65	134.00
TP99-334	-209.86	-159.73	133.78	125.00
TP99-335	-157.87	-199.76	134.39	98.00
TP99-336	-231.86	-159.80	133.56	142.00
TP99-337	-284.12	304.06	133.15	66.00
TP99-338	-182.62	-199.60	133.87	107.00
TP99-339	-264.20	303.92	133.23	69.00
TP99-340	-259.28	350.23	133.76	60.00
TP99-341	-240.23	-180.20	133.76	149.00
TP99-342	-249.55	379.90	133.38	57.00
TP99-343	-192.67	-224.73	133.72	230.00
TP99-344	-257.37	325.45	134.71	60.00
TP99-345	-243.33	284.38	134.54	57.00
TP99-346	-176.27	-226.16	133.90	177.00
TP99-347	-263.28	284.30	133.80	54.00
TP99-348	-300.14	263.66	133.20	69.00
TP99-349	-274.57	263.52	133.34	57.00
TP99-350	-277.31	241.61	133.39	72.00
TP99-351	-156.84	-225.31	135.22	119.00
TP99-352	-244.38	242.20	133.94	75.00
TP99-353	-261.73	419.78	132.73	66.00
TP99-354	-295.87	419.61	132.87	75.00
TP99-355	-150.41	-139.91	133.74	32.00

TP99-356	-244.95	-39.86	133.97	93.00
TP99-357	-191.42	-138.44	133.97	119.00
TP99-358	-232.82	-60.10	133.83	132.60
TP99-359	-170.35	-138.73	133.76	101.00
TP99-360	-216.57	-138.19	133.78	137.00
TP99-361	-190.01	-59.94	134.04	75.00
TP99-362	-200.08	-79.99	134.15	90.00
TP99-363	-159.31	-79.92	133.95	57.00
TP99-364	-153.19	-119.58	133.66	57.00
TP99-365	-186.01	-249.51	133.71	75.00
TP99-369	-313.11	549.84	132.75	117.00
TP99-370	-21.37	-15.07	140.49	147.00
TP99-371	-45.57	17.21	140.59	117.00
TP99-372	-85.25	38.03	139.12	135.00
TP99-373	26.41	18.57	141.75	30.00
TP99-374	67.14	47.09	144.40	69.00
TP99-375	47.07	57.39	144.77	60.00
TP99-376	34.50	73.19	145.12	60.00
TP99-377	-0.70	48.34	142.09	30.00
TP99-378	12.17	81.71	144.26	57.00
TP99-379	15.71	108.48	146.42	72.00
TP99-380	-13.51	88.53	143.51	51.00
TP99-381	-153.75	234.35	141.51	72.00
TP99-382	-227.93	263.50	137.22	72.00
TP99-383	-205.03	261.80	138.26	81.00
TP99-384	-174.87	263.31	140.94	75.00
TPMET02-01	-53.77	187.27	147.49	60.25
TPMET02-02	80.21	20.16	143.31	66.00
TPMET02-03	-114.06	224.95	145.20	60.00
Hole-ID	**East (m)**	**North (m)**	**Elev (m)**	**Length (m)**
GTVLT02-01	-4799.77	4574.49	146.04	120.00
GTVLT02-02	-4884.53	4859.91	142.33	93.00
GTVLT02-03	-4870.22	4739.52	144.66	93.00
GTVLT03-04	-4603.87	4928.27	141.05	200.00
VLT00-001	-4923.80	4949.95	143.45	107.00
VLT00-002	-4959.81	4950.18	143.33	53.00
VLT00-003	-4899.79	4675.07	148.12	101.00
VLT00-004	-4950.00	5100.00	142.55	92.00
VLT00-005	-4800.00	4925.00	142.55	95.00
VLT00-006	-4890.30	4949.67	142.71	74.00
VLT00-007	-4849.93	4925.64	142.05	92.00

VLT00-008	-4949.22	4675.01	148.16	101.00
VLT00-009	-4651.36	4926.87	143.06	113.00
VLT00-010	-4873.27	4499.92	151.06	110.00
VLT00-011	-4782.28	4499.46	149.21	122.00
VLT00-012	-4725.57	4350.28	142.07	134.00
VLT00-013	-4834.78	4350.53	144.47	116.00
VLT00-014	-4875.01	4350.04	145.32	83.00
VLT00-015	-4824.82	4674.32	146.01	104.00
VLT00-016	-4750.33	4674.13	143.03	122.00
VLT00-017	-4900.71	4574.69	151.69	77.00
VLT00-018	-4824.30	4575.78	149.45	101.00
VLT00-019	-4900.73	4424.48	151.96	80.00
VLT00-020	-4826.92	4425.15	147.82	101.00
VLT00-021	-4753.46	4572.48	142.55	134.00
VLT00-022	-4924.88	4800.19	148.87	80.00
VLT00-023	-4830.92	4800.62	145.96	101.00
VLT00-024	-4749.71	5100.01	142.55	134.00
VLT00-025	-5132.56	4674.80	142.55	80.00
VLT00-026	-4698.47	5100.14	142.55	164.00
VLT00-027	-4849.56	5749.63	142.55	182.00
VLT01-028	-4651.52	4574.81	142.35	198.00
VLT01-029	-4599.46	4800.61	144.31	228.00
VLT01-030	-4623.19	5100.33	142.11	225.00
VLT01-031	-4775.00	5300.00	142.55	207.00
VLT01-032	-4575.00	5300.00	142.55	270.00
VLT01-033	-4574.42	4926.93	142.87	198.00
VLT01-034	-4516.18	4914.76	142.55	288.00
VLT01-035	-4375.00	4925.00	142.55	339.00
VLT01-036	-4475.00	4800.00	142.55	306.00
VLT01-037	-4553.00	4575.00	142.55	201.00
VLT01-038	-4625.00	4500.00	142.55	207.00
VLT01-039	-4661.76	4673.93	142.36	174.00
VLT01-040	-4735.00	4800.00	142.55	156.00
VLT01-041	-4725.00	4925.00	142.55	186.00
VLT01-042	-4573.59	4673.60	142.08	213.00
VLT01-043	-4625.00	5200.00	142.55	294.00
VLT01-044	-4775.31	5025.30	144.30	129.00
VLT01-045	-4843.33	5025.13	143.12	105.00
VLT01-046	-4799.46	5099.78	142.90	120.00
VLT02-047	-4200.85	4923.65	139.48	464.00
VLT02-048	-4420.00	4675.00	142.55	320.00

VLT02-049	-4523.00	5100.00	143.60	304.00
VLT02-050	-4665.00	5150.00	144.80	284.00
VLT02-051	-4375.00	4800.00	142.55	347.00
VLT02-052	-4780.00	5150.00	144.80	149.00
VLT02-053	-4300.05	5024.98	139.93	416.00
VLT02-054	-4406.57	4574.99	140.05	353.00
VLT02-055	-4250.62	4801.06	139.96	410.00
VLT02-056	-4883.52	5149.88	139.98	107.00
VLT02-057	-4951.52	5202.77	139.82	113.00
VLT02-058	-4950.46	5300.04	140.03	122.00
VLT02-059	-4950.25	4349.74	146.15	51.00
VLT02-060	-4950.79	4425.06	148.16	51.00
VLT02-061	-4850.35	4460.11	149.87	87.00
VLT02-062	-4831.17	4500.27	149.12	111.00
VLT02-063	-4732.55	4500.53	141.92	132.00
VLT02-064	-4851.47	4539.86	149.51	102.00
VLT02-065	-4799.70	4539.86	146.30	120.00
VLT02-066	-4734.90	4539.79	143.36	120.00
VLT02-067	-4870.75	4575.00	149.84	84.00
VLT02-068	-4786.39	4575.33	145.42	114.00
VLT02-069	-4950.14	4459.81	149.30	51.00
VLT02-070	-4900.33	4459.99	150.71	72.00
VLT02-071	-4968.20	4500.12	147.78	42.00
VLT02-072	-4924.31	4499.72	150.51	60.00
VLT02-073	-4950.30	4539.79	148.45	51.00
VLT02-074	-4900.61	4539.76	150.61	72.00
VLT02-075	-4950.52	4574.86	148.39	45.00
VLT02-076	-4949.69	4624.93	147.16	60.00
VLT02-077	-4901.09	4625.00	146.96	81.00
VLT02-078	-4848.76	4624.97	146.76	90.00
VLT02-079	-4800.43	4625.16	144.60	111.00
VLT02-080	-4750.67	4625.26	141.75	132.00
VLT02-081	-4790.11	4675.09	141.76	102.00
VLT02-082	-4865.48	4675.00	146.48	87.00
VLT02-083	-4969.98	4739.99	143.45	42.00
VLT02-084	-4910.06	4739.99	146.23	60.00
VLT02-085	-4850.59	4740.10	143.07	83.00
VLT02-086	-4790.56	4739.89	141.48	102.00
VLT02-087	-4970.34	4799.88	146.30	42.00
VLT02-088	-4881.04	4802.14	145.46	75.00
VLT02-089	-4970.61	4859.72	146.88	42.00

VLT02-090	-4925.33	4859.83	146.20	57.00
VLT02-091	-4880.33	4859.96	140.94	72.00
VLT02-092	-4926.61	4149.87	143.64	153.00
VLT02-093	-4958.93	4249.69	143.59	84.00
VLT02-094	-4750.46	4150.05	141.16	126.00
VLT02-095	-4975.23	4299.64	144.46	51.00
VLT02-096	-4925.02	4299.48	143.73	72.00
VLT02-097	-4976.21	4387.56	146.50	42.00
VLT02-098	-4925.65	4387.39	147.69	72.00
VLT02-099	-4777.61	4424.60	145.80	120.00
VLT02-100B	-4670.51	4739.89	141.81	164.00
VLT02-101	-4609.80	4740.00	141.71	196.00
VLT02-102	-4500.18	4149.95	140.84	225.00
VLT02-103	-3807.60	4150.41	153.25	117.00
VLT02-104	-3837.80	4157.48	149.34	102.00
VLT02-105	-4949.99	4492.02	149.60	51.00
VLT02-106	-4815.46	4602.82	146.10	102.00
VLT02-107	-4899.62	4649.87	146.68	66.00
VLT02-108	-4922.92	4555.70	149.58	60.00
VLT03-109	-4894.90	4829.85	143.00	62.00
VLT03-110	-4850.95	4829.52	142.67	84.00
VLT03-111	-4800.66	4829.52	140.88	107.00
VLT03-112	-4839.34	5535.27	139.56	65.00
VLT03-113	-4831.04	4859.94	140.26	98.00
VLT03-114	-4790.19	5534.81	139.44	111.00
VLT03-115	-4800.90	4890.19	139.70	140.00
VLT03-116	-4940.20	5024.95	140.10	50.00
VLT03-117	-4845.16	4890.01	139.57	92.00
VLT03-118	-4900.47	4890.10	143.89	80.00
VLT03-119	-4885.67	5025.02	139.11	74.00
VLT03-120	-4908.01	4925.18	141.44	68.00
VLT03-121	-4975.77	4830.53	146.52	30.00
VLT03-122	-4825.43	4387.99	146.73	101.00
VLT03-123	-4961.55	4989.83	140.54	41.00
VLT03-124	-4909.96	4989.79	139.68	77.00
VLT03-125	-4839.92	4975.24	139.29	92.00
VLT03-126	-4950.06	4830.02	147.05	42.00
VLT03-127	-4875.93	4387.88	146.14	80.00
VLT03-128	-4813.06	5025.03	140.99	101.00
VLT03-129	-4915.12	4349.88	146.49	65.00
VLT03-130	-4875.34	4299.79	142.69	80.00

VLT03-131	-4761.29	4925.13	139.83	125.00
VLT03-132	-4983.66	4859.87	145.68	25.00
VLT03-133	-4790.21	4975.24	140.08	116.00
VLT03-134	-4974.03	4889.93	143.53	20.00
VLT03-135	-4850.41	3935.49	140.27	68.00
VLT03-136	-4784.18	4799.97	140.22	125.00
VLT03-137	-4949.03	4889.79	144.46	45.00
VLT03-138	-4984.12	4925.39	141.71	35.00
VLT03-139	-4958.56	4929.68	141.36	50.00
VLT03-140	-4919.53	4769.93	145.91	56.00
VLT03-141	-4800.46	3935.51	139.21	86.00
VLT03-142	-4929.92	3319.70	142.03	101.00
VLT03-143	-4935.50	4709.92	145.42	62.00
VLT03-144	-4980.70	3319.82	144.77	53.00
VLT03-145	-4884.81	4710.00	145.29	77.00
VLT03-146	-4865.50	4425.09	149.17	92.00
VLT03-147	-4869.79	4769.90	145.86	81.00
VLT03-148	-4801.64	4459.74	147.88	110.00
VLT03-149	-4823.89	4770.10	143.87	101.00
VLT03-150	-4752.75	4460.35	144.08	119.00
VLT03-151	-4767.17	4770.07	140.26	106.00
VLT03-152	-4769.47	4539.90	144.51	116.00
VLT03-153	-4748.29	4739.83	140.09	122.00
VLT03-154	-4820.59	4739.78	141.73	59.00
VLT03-154B	-4820.77	4739.76	141.11	92.00
VLT03-155	-4736.69	4708.80	140.69	125.00
VLT03-156	-4785.45	4709.43	141.01	116.00
VLT03-157	-4836.33	4709.64	143.81	86.00
VLT03-158	-4991.61	4799.55	144.58	30.00
VLT03-159	-5003.52	4800.11	144.84	20.00
VLT03-160	-4959.30	4769.96	144.75	40.00
VLT03-161	-4990.09	4769.86	144.41	30.00
VLT03-162	-4940.85	4740.24	145.14	45.00
VLT03-163	-4960.76	4710.38	144.50	45.00
VLT03-164	-4984.88	4709.90	143.90	40.00
VLT03-165	-4974.60	4675.99	144.46	40.00
VLT03-166	-4993.20	4674.90	143.08	30.00
VLT03-167	-5007.63	4674.87	143.91	25.00
VLT03-168	-4756.96	4859.96	139.86	140.00
VLT03-169	-4683.30	4863.24	142.44	170.00
VLT03-170	-4971.66	4624.69	147.16	40.00

VLT03-171	-4996.99	4625.40	145.52	33.00
VLT03-172	-4975.30	4574.25	146.98	40.00
VLT03-173	-4994.93	4575.40	146.83	30.00
VLT03-174	-4980.87	4540.54	148.76	40.00
VLT03-175	-5010.27	4540.27	146.14	30.00
VLT03-176	-4992.25	4500.22	147.20	30.00
VLT03-177	-5018.55	4500.22	146.67	25.00
VLT03-178	-4683.92	4539.80	140.29	137.00
VLT03-179	-4701.16	4574.90	142.30	140.00
VLT03-180	-4980.69	4460.64	147.87	40.00
VLT03-181	-5010.65	4459.89	146.95	30.00
VLT03-182	-5024.23	4460.27	147.15	20.00
VLT03-183	-4980.14	4425.57	147.86	40.00
VLT03-184	-5010.08	4425.47	147.81	30.00
VLT03-185	-5024.57	4423.08	147.46	25.00
VLT03-186	-4700.48	4624.90	141.05	140.00
VLT03-187	-5006.54	4387.75	147.54	24.00
VLT03-188	-5035.17	4388.14	147.58	30.00
VLT03-189	-4979.98	4349.47	146.55	40.00
VLT03-190	-5010.67	4350.07	147.18	30.00
VLT03-191	-4979.91	5059.90	139.87	45.00
VLT03-192	-4925.59	5060.27	139.97	70.00
VLT03-193	-4876.75	5060.14	140.11	85.00
VLT03-194	-4825.17	5059.93	139.91	105.00
VLT03-195	-4774.88	5060.11	140.88	137.00
VLT03-196	-4722.42	5059.97	141.60	149.30
VLT03-197	-4639.11	4924.96	141.01	173.00
VLT03-198	-4635.38	4860.00	141.53	203.00
VLT03-199	-4649.25	4624.84	139.98	173.00
VLT03-200	-4648.02	4799.35	139.20	212.00
VLT03-201	-4619.45	4674.78	140.67	182.00
VLT03-202	-4649.77	4973.33	140.41	191.00
VLT03-203	-4711.79	4675.16	142.09	161.00
VLT03-204	-4690.52	5025.25	140.23	182.00
VLT03-205	-4634.99	4709.97	141.37	176.00
VLT03-206	-4744.67	5025.04	142.74	144.00
VLT03-207	-4775.53	4387.85	144.14	107.00
VLT03-208	-4682.83	4710.44	142.12	152.00
VLT03-209	-4785.74	4349.74	144.46	119.00
VLT03-210	-4550.88	4739.92	140.73	230.00
VLT03-211	-5075.28	4860.28	141.65	155.00

VLT03-212	-5299.98	4859.76	147.65	149.00
Hole-ID	**From (m)**	**To (m)**	**Length (m)**	**Au Grade (g/t)**
91051	24.70	31.00	6.30	2.61
91051	43.90	45.50	1.60	1.17
91051	48.70	49.00	0.30	1.73
91051	83.30	91.60	8.30	12.40
91051	95.00	99.50	4.50	2.85
91051	108.60	126.50	17.90	13.12
91052	153.00	160.90	7.90	5.33
91053	78.50	80.00	1.50	3.01
91064	113.70	116.00	2.30	7.30
91064	120.50	125.00	4.50	1.39
91064	137.70	140.60	2.90	318.25
91064	147.50	165.50	18.00	4.17
91064	177.30	181.00	3.70	1.72
91064	186.50	187.80	1.30	1.58
G03-438	18.24	19.00	0.76	21.00
G03-438	23.15	23.58	0.43	4.53
G03-438	28.47	29.70	1.23	2.39
G03-438	35.21	36.10	0.89	2.24
G03-439	19.22	25.92	6.70	17.52
G03-439	30.46	32.40	1.94	3.28
G03-439	36.35	37.10	0.75	2.03
G03-440	26.60	33.29	6.69	18.55
G03-440	36.80	38.21	1.41	3.69
G03-440	41.64	42.18	0.54	1.63
G03-441	17.90	24.25	6.35	7.61
G03-441	29.80	31.06	1.26	1.51
G03-441	35.25	36.25	1.00	1.18
G95-065	38.20	41.35	3.15	2.41
G95-066	74.00	77.00	3.00	13.64
G95-066	81.00	85.70	4.70	5.55
G95-066	89.00	92.55	3.55	1.87
G95-066	106.70	109.70	3.00	100.89
G95-067	30.00	40.10	10.10	1.98
G95-067	42.50	45.50	3.00	2.86
G95-067	49.50	50.60	1.10	1.33
G95-067	57.10	58.20	1.10	4.00
G95-068	92.65	101.90	9.25	17.61
G95-068	111.90	138.70	26.80	5.65
G95-068	141.85	143.60	1.75	3.30

G95-068	151.80	156.80	5.00	1.30
G95-068	163.80	185.50	21.70	3.56
G95-069	53.50	56.30	2.80	2.01
G95-069	66.50	81.00	14.50	7.91
G95-069	92.50	94.50	2.00	5.66
G95-070	114.40	146.00	31.60	7.50
G95-071	163.80	166.80	3.00	2.73
G95-071	171.15	171.65	0.50	1.47
G95-071	175.85	178.85	3.00	3.05
G95-071	191.30	193.30	2.00	5.91
G95-071	216.85	219.85	3.00	2.50
G95-071	226.50	228.55	2.05	5.00
G95-071	233.85	234.85	1.00	6.77
G96-097	53.00	56.00	3.00	1.66
G96-097	63.00	70.00	7.00	9.00
G96-097	73.00	76.00	3.00	2.76
G96-097	82.00	83.00	1.00	3.00
G96-098	153.40	156.40	3.00	1.84
G96-098	164.40	165.40	1.00	14.60
G96-098	169.36	174.63	5.27	1.26
G96-098	182.00	184.00	2.00	2.94
G96-098	187.00	196.00	9.00	2.97
G96-099	90.70	95.70	5.00	5.75
G96-099	100.70	101.70	1.00	18.00
G96-100	138.96	150.96	12.00	3.64
G96-100	159.74	163.74	4.00	2.40
G96-100	169.74	172.74	3.00	8.31
G96-100	177.74	185.74	8.00	3.88
G96-100	191.74	192.74	1.00	1.53
G96-100	204.78	205.78	1.00	3.63
G96-100	216.78	217.78	1.00	1.40
G96-101	20.00	28.00	8.00	18.99
G96-101	34.00	38.00	4.00	1.24
G96-102	137.45	139.45	2.00	3.10
G96-102	144.70	152.50	7.80	5.81
G96-102	155.75	156.75	1.00	2.00
G96-102	159.50	160.50	1.00	4.03
G96-103	164.20	170.20	6.00	3.32
G96-103	172.86	176.88	4.02	4.24
G96-103	181.81	191.25	9.44	2.14
G96-104	23.00	29.00	6.00	3.26

G96-104	32.74	33.74	1.00	1.30
G96-104	36.74	40.74	4.00	2.35
G96-105	118.76	134.36	15.60	11.89
G96-105	139.24	141.24	2.00	6.10
G96-105	156.14	164.14	8.00	4.92
G96-105	171.68	178.68	7.00	1.41
G96-105	182.58	203.00	20.42	2.49
G96-106	75.00	76.00	1.00	1.73
G96-106	81.00	84.00	3.00	1.83
G96-107	133.55	140.95	7.40	2.03
G96-107	143.95	144.95	1.00	3.60
G96-108	134.14	140.14	6.00	3.17
G96-108	144.00	147.00	3.00	4.16
G96-108	158.96	165.96	7.00	1.63
G96-108	168.96	169.96	1.00	1.70
G96-108	173.60	176.60	3.00	1.73
G96-108	178.91	179.91	1.00	1.27
G96-108	182.91	188.91	6.00	3.34
G96-109	177.12	184.30	7.18	3.43
G96-109	192.63	200.25	7.62	2.86
G96-109	205.24	207.24	2.00	4.85
G96-110	37.73	50.74	11.00	2.20
G96-111	150.38	153.38	3.00	24.48
G96-111	156.38	157.38	1.00	1.00
G96-111	165.50	167.50	2.00	6.32
G96-111	174.50	175.50	1.00	1.60
G96-111	187.40	191.40	4.00	1.46
G96-112	173.37	174.37	1.00	1.07
G96-113	87.70	89.90	2.20	4.41
G96-114	55.70	56.70	1.00	1.67
G96-115	166.25	176.25	10.00	3.17
G96-115	200.43	200.75	0.32	3.40
G96-127	218.30	220.30	2.00	2.18
G96-127	223.30	224.30	1.00	1.33
G96-130	244.00	256.00	12.00	2.75
G96-131	225.10	227.50	2.40	20.73
G96-131	248.00	249.00	1.00	1.70
G96-131	253.00	254.81	1.81	4.00
G96-131	258.25	260.25	2.00	3.46
G96-132	205.44	209.44	4.00	4.24
G96-132	217.00	218.00	1.00	1.17

G96-134	213.34	214.34	1.00	7.03
G96-134	229.68	233.90	4.22	12.62
G96-134	238.08	240.08	2.00	1.12
G96-134	261.00	262.00	1.00	1.00
G96-134	265.00	266.00	1.00	1.70
G96-138	12.00	13.00	1.00	1.53
G97-160	344.00	345.00	1.00	6.84
G97-160	394.30	399.30	5.00	2.00
G97-160	408.70	409.70	1.00	3.20
G97-161	394.10	397.10	3.00	4.78
G97-163	305.60	306.60	1.00	1.95
G97-163	314.00	316.00	2.00	2.72
G97-163	369.20	369.70	0.50	26.80
G97-163	388.30	389.30	1.00	4.55
G97-163	394.90	397.10	2.20	11.47
G97-163	445.90	449.90	4.00	2.08
G97-163	457.30	458.00	0.70	4.95
G97-163	464.00	473.50	9.50	15.15
G97-163	490.20	494.20	4.00	2.88
G97-165	260.20	261.20	1.00	6.55
G97-165	271.70	272.70	1.00	1.25
G97-165	294.00	296.00	2.00	18.02
G97-165	357.00	361.00	4.00	3.65
G97-165	370.80	373.80	3.00	3.03
G97-165	392.60	394.60	2.00	1.75
G97-165	405.30	408.30	3.00	15.97
G97-165	419.60	423.60	4.00	1.75
G97-165	467.50	468.50	1.00	4.12
G97-165	474.50	477.50	3.00	1.80
G97-165	487.50	488.50	1.00	1.29
G97-165	491.50	492.50	1.00	1.10
G97-165	511.00	512.00	1.00	3.15
G97-169	189.22	190.22	1.00	2.00
G97-172	424.30	427.60	3.30	3.77
G97-172	432.40	433.40	1.00	2.93
G97-172	441.90	443.70	1.80	1.90
G97-182	84.40	93.40	9.00	7.44
G97-182	113.06	114.06	1.00	1.35
G98-225	18.40	18.90	0.50	2.60
G98-225	184.80	189.74	4.94	2.69
G98-225	193.74	194.74	1.00	2.40

G98-225	199.31	202.91	3.60	14.37
G98-225	209.62	211.54	1.92	17.16
G98-225	238.50	243.90	5.40	1.99
G98-225	246.90	248.90	2.00	1.52
G98-225	251.50	252.10	0.60	3.40
G98-226	262.19	263.65	1.46	4.92
G98-226	281.47	281.85	0.38	2.30
G98-226	351.75	354.97	3.22	1.79
G98-226	359.21	361.14	1.93	2.12
G98-226	394.47	398.00	3.53	1.23
G98-226	401.00	402.45	1.45	2.21
G98-226	410.45	417.88	7.43	1.54
G98-226	459.47	462.70	3.23	2.64
G98-227	84.60	92.20	7.60	2.86
G98-227	101.00	102.00	1.00	1.60
G98-227	107.50	124.70	17.20	2.72
G98-228	250.99	252.61	1.62	2.78
G98-228	263.45	269.18	5.73	1.76
G98-228	276.70	281.82	5.12	1.81
G98-228	306.68	307.63	0.95	1.85
G98-228	372.00	372.70	0.70	2.82
G98-228	389.60	394.00	4.40	5.94
G98-228	409.62	410.49	0.87	9.40
G98-228	418.00	420.00	2.00	5.82
G98-228	458.00	459.60	1.60	4.00
G98-228	478.52	485.50	6.98	1.04
G98-228	498.56	498.96	0.40	3.75
G98-229	65.40	78.60	13.20	11.36
G98-229	81.70	82.30	0.60	5.05
G98-229	106.00	112.60	6.60	2.40
G98-229	117.20	118.10	0.90	1.55
G98-231	82.56	96.56	14.00	7.18
G98-231	99.76	107.72	7.96	1.53
G98-231	113.00	113.56	0.56	10.15
G98-232	279.10	282.12	3.02	2.71
G98-232	284.60	285.90	1.30	3.00
G98-232	298.70	301.15	2.45	7.46
G98-232	387.00	387.75	0.75	4.00
G98-232	412.70	417.86	5.16	2.03
G98-232	449.82	455.56	5.74	1.70
G98-238	305.15	308.70	3.55	12.53

G98-238	506.35	508.25	1.90	1.69
G98-238	522.64	527.50	4.86	1.39
G98-238	562.75	564.40	1.65	2.50
G98-238	573.00	573.95	0.95	24.00
G98-238	607.55	613.10	5.55	2.63
G98-259	351.07	351.88	0.81	2.25
G99-323	43.12	53.32	10.20	3.53
G99-323	58.03	61.85	3.82	3.32
G99-324	82.94	107.71	24.77	5.14
G99-324	115.61	117.78	2.17	2.28
G99-324	121.85	126.00	4.15	7.09
G99-324	131.40	132.40	1.00	2.50
G99-325	139.27	147.11	7.84	16.88
G99-325	154.72	159.30	4.58	35.03
G99-325	166.42	170.70	4.28	1.02
G99-325	177.20	178.30	1.10	1.50
G99-325	190.20	191.20	1.00	1.20
G99-325	194.30	198.00	3.70	2.00
G99-325	202.30	202.90	0.60	11.00
G99-325	210.30	215.80	5.50	4.31
G99-329	50.10	57.10	7.00	2.87
G99-329	60.10	65.20	5.10	1.87
G99-329	68.20	72.60	4.40	1.05
G99-329	75.90	76.50	0.60	6.00
G99-331	73.40	80.90	7.50	1.40
G99-331	88.40	89.90	1.50	1.05
G99-331	92.20	102.40	10.20	1.97
G99-331	107.00	107.80	0.80	1.80
G99-331	124.70	127.10	2.40	9.19
G99-332	119.00	133.80	14.80	2.86
G99-332	138.70	142.00	3.30	7.54
G99-332	148.20	162.00	13.80	3.04
G99-332	169.90	171.30	1.40	2.45
G99-332	191.85	192.45	0.60	2.75
G99-333	157.90	161.60	3.70	9.33
G99-333	165.20	171.50	6.30	8.92
G99-333	178.83	181.04	2.21	1.60
G99-333	187.18	192.30	5.12	1.11
G99-333	194.95	196.10	1.15	1.25
G99-333	203.60	212.40	8.80	3.58
G99-333	216.20	217.50	1.30	4.95

G99-333	221.00	222.30	1.30	1.51
G99-333	232.00	232.60	0.60	4.95

Hole-ID	**From (m)**	**To (m)**	**Length (m)**	**Au Grade (g/t)**
89001	58.50	67.00	8.50	5.63
89001	77.30	85.40	8.10	4.06
89002	50.30	56.00	5.70	4.29
89002	50.10	58.50	8.40	4.58
89002	64.30	71.00	6.70	4.97
89002	75.00	93.50	18.50	3.44
89003	5.30	15.60	10.30	5.37
89003	26.80	29.50	2.70	1.24
89003	32.00	35.00	3.00	3.47
89003	39.00	56.30	17.30	4.42
89003	59.00	65.00	6.00	8.82
89003	74.50	75.50	1.00	1.40
89003	80.50	83.50	3.00	1.70
89003	88.50	89.50	1.00	2.20
89004	6.00	10.00	4.00	2.97
89004	17.00	22.00	5.00	3.26
89004	52.70	75.00	22.30	2.67
89004	77.50	82.00	4.50	4.12
89005	24.00	26.00	2.00	1.10
89005	29.50	32.70	3.20	102.48
89005	46.30	52.70	6.40	6.08
89005	64.00	85.00	21.00	1.75
89005	91.00	99.00	8.00	2.09
89006	46.10	50.50	4.40	1.68
89006	58.50	67.50	9.00	1.36
89006	76.00	87.50	11.50	3.37
89007	19.20	26.70	7.50	10.28
89007	37.30	44.00	6.70	3.17
89007	51.50	60.30	8.80	2.39
89007	63.50	69.10	5.60	1.68
89007	78.40	81.10	2.70	2.23
89007	86.00	87.20	1.20	1.49
89008	51.50	53.00	1.50	1.80
89008	58.00	70.00	12.00	1.52
89008	75.00	86.00	11.00	3.60
89008	88.50	90.50	2.00	2.11
89009	14.70	27.30	12.60	3.32
89009	32.30	33.30	1.00	8.44

89009	36.30	37.30	1.00	1.51
89009	43.30	67.80	24.50	2.37
89009	73.70	77.70	4.00	3.76
89009	84.50	86.50	2.00	4.42
89009	93.60	94.60	1.00	6.95
89010	11.00	24.60	13.60	16.08
89010	27.60	28.60	1.00	2.18
89010	34.60	45.20	10.60	3.68
89011	14.50	16.50	2.00	14.23
89011	34.00	36.00	2.00	6.76
89011	41.00	42.00	1.00	4.27
89012	7.00	8.40	1.40	1.60
89012	23.00	24.00	1.00	1.11
89012	84.00	86.60	2.60	31.29
89012	93.20	113.80	20.60	3.20
89012	116.80	117.80	1.00	2.60
89013	14.00	18.80	4.80	20.49
89013	27.70	29.00	1.30	1.08
89013	32.00	37.30	5.30	8.40
90014	24.00	25.00	1.00	9.76
90014	45.00	47.00	2.00	2.52
90014	50.60	55.00	4.40	1.81
90014	75.70	80.00	4.30	3.74
90014	84.80	95.75	10.95	4.65
90015	14.30	28.72	14.42	6.33
90015	37.80	47.00	9.20	1.82
90016	6.00	12.98	6.98	6.70
90016	26.58	29.50	2.92	6.09
90016	66.20	69.20	3.00	2.26
90016	72.13	79.80	7.67	3.11
90016	81.80	89.20	7.40	8.77
90017	21.25	23.30	2.05	2.33
90017	40.20	40.90	0.70	1.17
90017	71.72	76.70	4.98	19.23
90017	79.20	87.35	8.15	2.91
90017	90.16	112.10	21.94	4.04
90018	4.75	5.75	1.00	10.34
90018	75.90	81.37	5.47	7.26
90018	86.15	91.75	5.60	4.91
90018	94.74	95.74	1.00	5.86
90018	97.91	102.63	4.72	4.58

90018	109.55	114.45	4.90	2.32
90019	7.85	15.67	7.82	9.45
90019	49.16	50.80	1.64	1.56
90019	64.25	65.05	0.80	4.26
90019	71.05	74.02	2.97	4.98
90020	26.72	27.72	1.00	2.12
90020	36.00	40.20	4.20	5.69
90020	42.75	48.00	5.25	2.52
90020	50.00	60.00	10.00	3.45
90020	64.75	74.85	10.10	6.24
90021	22.00	29.00	7.00	46.04
90021	32.56	34.50	1.94	3.85
90021	36.50	37.50	1.00	1.44
90021	40.00	43.50	3.50	1.70
90021	47.50	48.50	1.00	1.23
90021	50.80	57.34	6.54	2.44
90021	60.46	61.33	0.87	3.94
90021	69.00	70.00	1.00	1.56
90021	76.65	78.64	1.99	6.22
90021	84.36	87.00	2.64	3.46
90022	11.83	12.50	0.67	1.50
90022	16.50	18.50	2.00	2.52
90022	25.17	27.80	2.63	6.08
90022	31.00	32.00	1.00	1.31
90022	40.00	45.50	5.50	2.02
90022	48.50	49.50	1.00	2.10
90022	52.00	53.00	1.00	2.18
90023	16.00	17.00	1.00	22.86
90023	22.75	33.00	10.25	6.09
90023	39.00	40.18	1.18	1.93
90023	44.15	51.60	7.45	3.28
90024	6.20	10.00	3.80	7.81
90024	28.00	37.70	9.70	4.20
90024	68.80	70.64	1.84	9.82
90024	73.20	84.92	11.72	7.60
90025	7.80	16.00	8.20	7.99
90025	66.24	77.00	10.76	3.01
90025	79.80	90.70	10.90	3.66
90025	96.42	96.80	0.38	1.67
90026	5.00	5.85	0.85	3.70
90026	10.00	10.90	0.90	2.64

90026	14.80	18.25	3.45	1.80
90026	21.00	23.38	2.38	7.78
90026	47.97	50.15	2.18	40.33
90026	60.12	66.00	5.88	4.34
90027	16.54	36.10	19.56	6.11
90027	54.11	64.00	9.89	2.38
90028	9.28	11.77	2.49	15.37
90028	14.77	19.05	4.28	4.98
90028	22.20	25.29	3.09	1.93
90028	38.04	42.12	4.08	5.98
90028	45.00	51.00	6.00	2.32
90028	53.29	60.34	7.05	2.01
90028	66.48	70.63	4.15	2.00
90029	21.30	24.30	3.00	3.74
90029	28.78	40.88	12.10	1.62
90030	17.85	21.53	3.68	7.31
90030	26.60	34.60	8.00	3.56
90030	40.64	41.64	1.00	1.50
90031	9.14	22.40	13.26	9.23
90031	26.00	31.00	5.00	1.91
90031	31.70	41.10	9.40	2.29
90032	19.26	25.00	5.74	6.57
90032	30.05	35.90	5.85	4.75
90032	42.67	44.22	1.55	2.78
90032	47.40	47.89	0.49	8.34
90032	50.22	50.66	0.44	6.52
90033	6.00	7.29	1.29	3.20
90033	10.80	28.30	17.50	2.67
90033	72.15	77.08	4.93	13.04
90033	80.00	83.00	3.00	1.78
90033	86.75	94.50	7.75	3.15
90034	14.18	17.70	3.52	5.95
90034	21.70	38.25	16.55	11.47
90034	41.00	52.50	11.50	13.03
90034	58.70	59.70	1.00	1.04
90034	62.53	67.10	4.56	6.30
90034	70.20	74.70	4.50	5.99
90035	30.50	33.50	3.00	1.69
90035	57.00	57.92	0.92	43.60
90035	137.75	140.23	2.48	6.52
90036	8.00	9.00	1.00	1.95

90036	72.70	75.20	2.50	7.52
90036	78.00	82.42	4.42	3.20
90036	85.18	101.00	15.82	3.93
90037	7.00	8.00	1.00	1.43
90037	11.50	14.60	3.10	1.05
90037	16.60	17.60	1.00	1.37
90037	32.00	35.23	3.23	7.07
90037	41.60	42.60	1.00	3.80
90037	49.25	54.10	4.85	3.00
90038	2.00	8.50	6.50	3.88
90038	14.50	16.21	1.71	2.12
90038	19.65	20.27	0.62	15.28
90038	25.24	35.55	10.31	12.19
90038	42.60	48.00	5.40	3.04
90038	52.55	53.94	1.39	3.74
90038	58.25	59.00	0.75	7.38
90038	62.60	65.45	2.85	4.03
90038	77.00	78.50	1.50	2.40
90038	83.00	85.22	2.22	1.31
90039	11.00	14.00	3.00	7.96
90039	16.00	17.85	1.85	2.31
90039	20.25	27.00	6.75	9.61
90039	29.00	31.00	2.00	1.10
90039	34.00	38.00	4.00	4.95
90039	45.00	51.00	6.00	1.96
90040	24.80	25.69	0.89	1.43
90040	30.60	31.60	1.00	1.11
90040	85.95	91.30	5.35	2.46
90040	99.80	102.00	2.20	25.25
91041	30.00	32.60	2.60	13.10
91041	37.50	37.90	0.40	1.30
91041	41.00	45.70	4.70	2.43
91042	6.50	10.00	3.50	2.90
91042	46.10	49.10	3.00	1.30
91042	52.30	53.30	1.00	1.90
91042	56.30	59.00	2.70	1.71
91042	97.50	100.50	3.00	3.26
91042	103.60	110.00	6.40	4.21
91043	48.00	51.40	3.40	11.51
91043	56.00	60.80	4.80	3.01
91044	108.80	119.50	10.70	5.19

91044	131.20	132.20	1.00	1.65
91045	20.00	22.50	2.50	1.92
91045	26.50	27.25	0.75	1.03
91047	94.00	95.00	1.00	1.64
91047	150.30	154.10	3.80	3.11
91047	159.00	161.50	2.50	5.12
91047	173.00	173.95	0.95	1.06
91048	76.00	77.00	1.00	2.05
91048	90.70	92.00	1.30	2.33
91056	26.80	30.90	4.10	2.73
91057	42.20	43.60	1.40	3.33
91057	77.00	78.00	1.00	2.06
91058	5.50	7.50	2.00	1.75
91060	9.10	9.50	0.40	1.48
91060	11.30	15.50	4.20	2.23
91060	30.45	30.60	0.15	6.62
91060	33.70	34.70	1.00	3.87
91061	14.90	17.00	2.10	2.79
91061	21.00	28.00	7.00	9.21
91061	40.00	59.00	19.00	1.65
G97-169	189.22	190.22	1.00	2.00
G98-259	351.07	351.88	0.81	2.25
GNP02-01	56.87	58.03	1.16	4.44
GNP02-01	67.91	78.05	10.14	3.93
GNP02-01	82.60	84.31	1.71	2.38
GNP02-03	43.42	45.00	1.58	2.66
GNP02-03	48.00	53.30	5.30	2.73
GNP02-03	61.08	61.86	0.78	2.91
GTP02-01	36.10	55.65	19.55	4.84
GTP02-01	60.00	63.10	3.10	2.69
GTP02-01	77.30	79.25	1.95	1.33
GTP02-01	92.20	94.00	1.80	4.07
GTP02-02	2.80	6.15	3.35	2.42
NP02-385	25.75	29.20	3.45	5.01
NP02-385	32.66	38.50	5.84	12.54
NP02-386	33.00	33.85	0.85	1.35
NP02-386	38.00	39.00	1.00	1.80
NP02-386	40.70	41.40	0.70	1.50
NP02-386	50.75	52.30	1.55	1.57
NP02-386	54.30	56.90	2.60	2.77
NP02-386	68.00	69.00	1.00	2.00

NP02-387	31.25	33.75	2.50	2.92
NP02-387	36.90	38.80	1.90	5.35
NP02-387	45.90	52.82	6.92	12.32
NP02-390	30.90	34.30	3.40	18.52
NP02-390	39.10	45.10	6.00	1.56
NP02-390	47.50	47.85	0.35	2.17
NP02-390	61.20	62.20	1.00	1.88
NP02-391	33.60	34.60	1.00	5.45
NP02-391	43.80	44.65	0.85	6.52
NP02-391	57.30	58.42	1.12	1.63
NP02-392	66.70	67.97	1.27	1.71
NP02-392	69.40	69.83	0.43	1.79
NP02-393	48.88	49.40	0.52	1.21
NP02-393	49.70	50.00	0.30	2.29
NP02-393	55.20	59.20	4.00	1.39
NP02-393	66.55	67.35	0.80	2.68
NP02-393	70.40	70.60	0.20	16.50
NP02-397	34.25	35.10	0.85	6.51
NP02-397	41.30	50.73	9.43	32.09
NP02-397	55.60	57.05	1.45	1.91
NP02-398	145.90	146.90	1.00	7.36
NP02-399	41.84	47.65	5.81	3.47
NP02-399	53.73	56.29	2.56	3.93
NP02-400	15.57	16.58	1.01	2.17
NP02-400	30.17	31.17	1.00	34.10
NP02-400	38.30	40.09	1.79	5.36
NP02-400	50.25	50.77	0.52	2.34
NP02-400	98.73	100.15	1.42	3.00
NP02-401	27.70	30.40	2.70	2.59
NP02-401	50.35	53.28	2.93	2.23
NP02-401	59.31	60.14	0.83	1.40
NP02-404	21.58	22.80	1.22	1.48
NP02-404	29.78	32.60	2.82	3.10
NP02-406	36.16	36.81	0.65	8.60
NP02-406	45.17	47.05	1.88	3.68
NP02-407	4.95	7.75	2.80	1.61
NP02-407	17.02	17.77	0.75	1.03
NP02-407	18.85	19.55	0.70	2.11
NP02-407	26.98	27.30	0.32	3.37
NP02-407	37.85	41.13	3.28	3.29
NP02-407	46.75	48.50	1.75	21.24

NP02-407	49.92	51.00	1.08	1.80
NP02-407	53.30	54.50	1.20	5.93
NP02-407	62.00	63.00	1.00	5.27
NP02-408	42.95	46.50	3.55	2.12
NP02-408	49.95	52.00	2.05	2.28
NP02-408	56.95	59.00	2.05	1.49
NP02-409	12.50	13.62	1.12	2.43
NP02-409	42.30	45.72	3.42	7.17
NP02-409	50.55	51.80	1.25	3.85
NP02-409	56.00	57.00	1.00	1.12
NP02-410	30.11	33.40	3.29	1.64
NP02-410	34.50	35.10	0.60	1.29
NP02-410	49.47	49.96	0.49	5.53
NP02-410	53.86	54.86	1.00	1.32
NP02-410	58.28	59.91	1.63	1.59
NP02-410	61.49	62.30	0.81	1.08
NP02-410	63.89	66.27	2.38	1.52
NP02-411	25.80	26.80	1.00	2.45
NP02-411	46.00	49.30	3.30	3.43
NP02-411	51.30	54.60	3.30	2.37
NP02-412	26.80	27.30	0.50	19.92
NP02-412	32.50	33.37	0.87	5.95
NP02-412	45.25	46.30	1.05	1.27
NP02-413	39.95	47.30	7.35	5.04
NP02-413	54.60	55.10	0.50	5.60
NP02-414	48.03	52.95	4.92	6.80
NP02-414	55.40	60.75	5.35	2.96
NP02-415	32.00	37.00	5.00	3.03
NP02-416	38.55	42.30	3.75	1.40
NP02-416	44.52	48.30	3.78	1.36
NP02-416	79.60	81.65	2.05	3.76
NP02-416	85.25	88.08	2.83	4.56
NP02-416	94.00	98.00	4.00	1.66
NP02-417	44.15	44.67	0.52	1.70
NP02-417	68.45	70.10	1.65	5.14
NP02-417	74.40	80.40	6.00	2.12
NP02-418	37.00	39.00	2.00	1.75
NP02-418	48.38	51.04	2.66	2.03
NP02-419	19.46	20.45	0.99	10.00
NP02-420	35.38	35.59	0.21	6.26
NP02-420	38.82	39.54	0.72	20.75

NP02-420	45.69	46.56	0.87	8.75
NP02-420	57.70	58.94	1.24	1.17
NP02-421	15.10	16.85	1.75	4.71
NP02-421	30.28	31.10	0.82	1.35
NP02-421	33.95	34.90	0.95	12.00
NP02-422	15.90	18.00	2.10	2.13
NP02-422	33.43	33.75	0.32	36.50
NP02-422	39.74	41.55	1.81	1.92
NP02-422	44.48	45.71	1.23	1.50
NP02-422	65.50	67.00	1.50	1.70
NP02-423	31.85	33.02	1.17	5.75
NP02-423	59.88	60.70	0.82	1.80
NP02-424	27.25	28.25	1.00	7.00
NP02-424	31.25	31.75	0.50	1.40
NP02-424	46.70	48.16	1.46	4.92
NP02-424	53.68	55.42	1.74	5.70
NP02-425	3.40	4.20	0.80	1.39
NP02-425	8.00	9.00	1.00	1.22
NP02-425	43.84	44.70	0.86	1.40
NP02-425	60.10	64.80	4.70	5.11
NP02-425	71.90	72.90	1.00	7.00
NP02-425	75.17	76.29	1.12	1.70
NP02-426	31.16	37.82	6.66	3.09
NP02-426	46.00	47.47	1.47	2.30
NP02-426	54.32	55.33	1.01	4.00
NP02-426	61.75	65.64	3.89	9.67
NP02-427	13.70	14.59	0.89	3.40
NP02-427	57.94	58.64	0.70	4.60
NP02-427	63.02	64.45	1.43	3.51
NP02-427	69.69	76.26	6.57	6.75
NP02-427	72.92	74.10	1.18	0.00
NP02-428	42.05	42.72	0.67	22.65
NP02-428	58.75	60.10	1.35	5.25
NP02-428	63.70	66.33	2.63	1.92
NP02-428	71.48	73.76	2.28	8.66
NP02-428	83.23	83.86	0.63	11.90
NP02-429	49.19	52.00	2.81	1.20
NP02-429	73.10	73.95	0.85	3.00
NP02-429	78.50	78.70	0.20	1.45
NP02-429	83.70	90.52	6.82	4.17
NP02-429	94.00	94.59	0.59	4.90

NP02-429	106.00	106.45	0.45	1.15
NP02-430	25.45	26.33	0.88	2.38
NP02-430	33.20	34.06	0.86	6.97
NP02-430	62.63	63.15	0.52	2.07
NP02-430	72.10	72.35	0.25	1.43
NP02-431	47.93	48.45	0.52	1.90
NP02-431	63.16	63.64	0.48	17.90
NP02-431	71.45	72.80	1.35	20.25
NP02-432	120.38	127.75	7.37	3.51
NP02-432	132.18	135.60	3.42	2.28
NP02-433	105.35	107.45	2.10	39.53
NP02-433	109.95	114.70	4.75	4.52
NP02-433	122.87	123.30	0.43	4.73
NP02-433	125.00	126.00	1.00	1.43
NP02-434	28.30	28.70	0.40	10.15
NP02-434	65.56	66.30	0.74	4.30
NP02-434	92.48	93.20	0.72	4.00
NP02-434	108.00	110.00	2.00	1.10
NP03-445	43.55	45.00	1.45	4.68
NP03-445	48.28	56.90	8.62	5.15
NP03-445	61.00	64.00	3.00	5.63
NP03-446	55.10	56.99	1.89	1.80
NP03-446	59.07	59.84	0.77	2.11
NP03-447	77.25	77.98	0.73	1.22
NP03-447	83.30	84.57	1.27	5.50
NP03-447	89.65	91.30	1.65	1.70
NP03-447	99.80	100.35	0.55	1.42
NP03-447	104.77	105.06	0.29	2.83
NP03-447	123.45	124.66	1.21	7.80
NP03-454	32.00	32.95	0.95	1.41
NP03-454	48.00	50.00	2.00	12.21
NP03-454	54.40	55.43	1.03	4.01
NP03-458	20.28	20.84	0.56	22.00
NP03-458	37.72	39.21	1.49	5.76
NP03-458	44.58	46.16	1.58	1.94
NP03-460	56.68	57.06	0.38	5.60
NP03-460	61.75	66.65	4.90	2.10
NP03-460	81.27	91.61	10.34	1.53
NP03-460	94.85	96.34	1.49	1.63
NP03-480	37.75	38.25	0.50	5.40
NP03-481	29.24	31.10	1.86	1.90

NP03-481	34.10	36.10	2.00	13.75
NP03-481	77.63	80.05	2.42	21.48
NP03-481	90.26	94.00	3.74	2.34
NP03-481	106.31	107.00	0.69	2.57
NP03-481	110.15	118.52	8.37	3.24
NP03-481	131.83	132.83	1.00	1.16
NP03-481	134.83	135.84	1.01	1.13
NP03-482	110.92	111.77	0.85	4.30
NP03-482	133.85	136.37	2.52	2.20
NP03-482	142.14	143.64	1.50	1.50
NP03-482	146.49	147.40	0.91	2.34
NP03-483	116.28	116.69	0.41	3.85
NP03-483	121.86	122.88	1.02	4.10
NP03-483	160.57	166.00	5.43	4.15
NP03-483	173.05	179.00	5.95	1.77
NP96-139	91.45	102.47	11.02	4.98
NP96-139	113.00	114.00	1.00	1.66
NP96-140	37.00	38.00	1.00	1.17
NP96-140	44.00	46.00	2.00	1.11
NP96-140	70.00	74.00	4.00	4.95
NP96-140	77.00	79.00	2.00	2.84
NP96-140	91.00	92.00	1.00	1.27
NP96-141	16.00	17.00	1.00	1.67
NP96-141	80.00	83.00	3.00	1.96
NP96-141	100.00	101.00	1.00	1.77
NP96-142	32.00	36.00	4.00	2.56
NP96-142	82.00	84.00	2.00	3.62
NP96-142	106.00	107.00	1.00	1.37
NP96-142	110.00	111.00	1.00	5.13
NP96-142	119.00	120.00	1.00	1.30
NP96-142	143.00	144.00	1.00	1.07
NP96-147	33.00	34.00	1.00	1.00
NP96-147	55.00	56.00	1.00	2.03
NP96-147	63.00	68.00	5.00	4.59
NP96-147	81.00	82.00	1.00	2.00
NP96-147	88.00	92.00	4.00	8.69
NP96-147	107.00	108.00	1.00	1.33
NP96-148	67.00	68.00	1.00	2.06
NP96-148	93.00	97.00	4.00	2.73
NP96-148	100.00	106.00	6.00	5.38
NP96-149	30.00	31.10	1.10	2.06

NP96-149	65.00	66.00	1.00	1.19
NP96-149	71.00	73.00	2.00	2.21
NP96-149	83.00	88.00	5.00	4.79
NP96-149	91.10	92.00	0.90	13.50
NP96-150	43.00	44.00	1.00	1.60
NP96-150	79.00	80.00	1.00	2.50
NP96-150	89.00	97.50	8.50	6.34
NP96-158	172.00	173.00	1.00	6.70
NP96-159	106.80	121.80	15.00	3.75
NP97-173	83.00	86.00	3.00	1.40
NP97-173	115.05	120.05	5.00	1.89
NP97-173	122.78	123.78	1.00	12.53
NP97-173	131.60	132.60	1.00	1.65
NP97-175	24.00	26.00	2.00	7.93
NP97-175	55.81	57.81	2.00	3.46
NP97-175	64.81	69.81	5.00	3.66
NP97-175	81.81	82.81	1.00	1.45
NP97-176	82.95	92.95	10.00	4.72
NP97-176	141.58	142.58	1.00	1.25
NP97-177	128.50	129.50	1.00	1.96
NP98-241	47.70	51.80	4.10	1.45
NP98-241	140.90	141.90	1.00	2.05
NP98-244	133.34	133.75	0.41	4.60
NP98-247	36.30	38.09	1.79	1.15
NP98-247	44.11	53.22	9.11	4.48
NP98-249	177.70	178.70	1.00	1.80
NP98-252	16.40	16.70	0.30	2.75
NP98-252	35.90	38.30	2.40	2.36
NP98-252	45.60	47.50	1.90	1.50
NP98-254	93.50	96.20	2.70	11.71
NP98-254	102.00	104.20	2.20	4.91
NP98-254	147.30	148.60	1.30	2.50
NP98-260	129.34	131.34	2.00	1.63
NP98-262	76.58	82.22	5.64	1.06
NP98-262	85.96	90.52	4.56	3.65
NP98-264	33.54	39.35	5.81	6.66
NP98-264	45.00	53.70	8.70	1.97
NP98-264	69.70	71.70	2.00	2.22
NP98-273	131.00	131.60	0.60	1.35
NP98-274	37.55	38.85	1.30	1.14
NP98-274	41.40	42.70	1.30	1.18

NP98-274	120.52	121.56	1.04	3.60
NP98-274	126.44	127.64	1.20	4.29
NP98-276	139.43	144.00	4.57	2.56
NP98-276	150.40	153.00	2.60	1.60
NP98-295	109.61	110.82	1.21	1.07
NP98-295	143.77	146.50	2.73	9.68
NP98-295	152.21	153.16	0.95	1.20
NP98-297	39.95	41.56	1.61	3.02
NP98-297	55.86	58.00	2.14	3.93
NP98-297	65.90	71.15	5.25	1.29
NP98-297	122.47	125.37	2.90	4.33
NP98-297	142.26	143.46	1.20	11.80
NP98-304	39.76	42.75	2.99	8.07
NP98-304	48.10	49.73	1.63	3.27
NP98-304	69.60	71.00	1.40	1.10
NP98-304	82.75	84.25	1.50	3.05
NP98-306	49.12	51.00	1.88	1.80
NP98-306	53.65	54.65	1.00	2.50
NP98-306	75.20	81.00	5.80	2.30
NP98-307	46.69	47.70	1.01	2.00
NP98-307	50.15	50.56	0.41	2.60
NP98-307	67.32	68.21	0.89	2.40
NP98-307	77.52	78.43	0.91	25.50
NP98-308	51.95	52.60	0.65	3.70
NP98-309	40.88	41.89	1.01	3.90
NP98-309	52.90	53.84	0.94	1.20
NP98-310	29.80	32.00	2.20	3.05
NP98-310	46.65	47.85	1.20	1.20
NP98-310	53.40	59.40	6.00	3.18
NP98-311	20.36	21.01	0.65	1.20
NP98-318	26.20	27.10	0.90	20.60
NP98-318	34.80	35.30	0.50	1.30
NP98-318	52.40	53.20	0.80	4.95
NP98-318	61.90	63.00	1.10	1.75
NP98-318	65.90	68.20	2.30	1.35
NP98-319	7.50	21.90	14.40	1.79
NP98-319	28.10	28.90	0.80	1.45
NP98-319	51.60	52.40	0.80	1.70
NP98-319	54.40	55.20	0.80	5.30
NP98-319	59.40	60.20	0.80	1.25
NP98-320	16.10	18.10	2.00	1.73

NP98-320	24.40	25.00	0.60	6.50
NP98-321	93.90	97.60	3.70	2.01
NP98-321	105.30	105.70	0.40	2.20
NP98-321	108.00	110.00	2.00	1.33
NP98-322	74.90	78.30	3.40	2.37
NP98-322	83.20	85.70	2.50	1.31
NP98-322	95.00	96.00	1.00	1.10
NP98-322	101.80	102.90	1.10	1.15
TP02-388	34.42	40.80	6.38	7.23
TP02-388	44.75	50.80	6.05	3.93
TP02-389	78.40	82.40	4.00	3.60
TP02-394	16.60	26.50	9.90	6.55
TP02-394	42.25	44.25	2.00	1.26
TP02-395	41.50	52.70	11.20	7.91
TP02-395	55.00	58.69	3.69	1.42
TP02-395	63.88	66.15	2.27	6.61
TP02-396	45.90	46.40	0.50	2.88
TP02-396	69.70	80.00	10.30	6.49
TP02-402	10.20	13.20	3.00	1.05
TP02-403	14.12	19.17	5.05	2.15
TP02-403	26.93	29.47	2.54	0.97
TP03-435	56.50	57.50	1.00	2.84
TP03-435	66.46	68.32	1.86	3.80
TP03-435	72.66	73.80	1.14	5.30
TP03-435	76.90	79.85	2.95	3.62
TP03-435	83.64	87.80	4.16	3.00
TP03-435	98.74	99.45	0.71	1.98
TP03-435	104.34	105.00	0.66	1.40
TP03-435	116.00	117.00	1.00	1.18
TP03-435	179.25	183.19	3.94	1.84
TP03-435	187.00	189.00	2.00	5.72
TP03-436	44.75	45.67	0.92	2.98
TP03-436	145.88	147.07	1.19	41.75
TP03-436	151.19	153.80	2.61	1.49
TP03-436	156.30	158.97	2.67	3.00
TP03-436	161.00	162.20	1.20	7.93
TP03-442	22.00	22.62	0.62	1.21
TP03-442	25.25	31.18	5.93	2.46
TP03-442	33.64	34.13	0.49	4.30
TP03-442	42.62	44.10	1.48	12.21
TP03-442	56.30	56.63	0.33	1.57

TP03-442	108.06	122.10	14.04	8.21
TP03-442	125.42	126.49	1.07	2.85
TP03-442	133.90	134.37	0.47	6.00
TP03-442	173.70	174.68	0.98	1.10
TP03-443	111.91	119.73	7.82	19.51
TP03-443	125.60	126.45	0.85	1.62
TP03-443	139.48	139.85	0.37	13.60
TP03-444	106.41	110.00	3.59	2.90
TP03-444	113.70	115.85	2.15	3.09
TP03-448	18.10	20.75	2.65	1.09
TP03-448	46.30	54.70	8.40	5.00
TP03-448	61.00	61.80	0.80	3.52
TP03-449	97.15	108.25	11.10	6.59
TP03-449	120.30	123.42	3.12	1.14
TP03-449	131.17	131.40	0.23	1.00
TP03-450	119.94	120.64	0.70	1.37
TP03-450	127.32	128.45	1.13	3.72
TP03-451	39.74	43.00	3.26	3.39
TP03-451	118.10	119.00	0.90	1.42
TP03-451	120.98	122.72	1.74	17.94
TP03-451	125.00	132.51	7.51	6.23
TP03-451	134.77	137.00	2.23	7.95
TP03-452	6.60	9.23	2.63	10.92
TP03-452	77.10	78.73	1.63	3.90
TP03-453	70.24	74.70	4.46	7.27
TP03-453	85.24	85.75	0.51	1.25
TP03-455	113.00	119.37	6.37	2.02
TP03-455	121.45	122.04	0.59	3.34
TP03-459	101.97	102.60	0.63	2.14
TP03-459	104.19	105.12	0.93	1.30
TP03-459	106.60	107.60	1.00	1.75
TP03-459	112.50	113.50	1.00	2.01
TP03-459	115.60	116.13	0.53	1.03
TP03-459	124.54	125.54	1.00	2.50
TP03-462	74.15	78.71	4.56	4.94
TP03-463	66.68	76.39	9.71	5.44
TP03-463	78.42	78.71	0.29	1.14
TP03-463	80.85	82.00	1.15	2.06
TP03-463	88.40	90.63	2.23	1.01
TP03-464	79.05	84.82	5.77	4.29
TP03-464	86.75	87.40	0.65	1.73

TP03-464	89.88	97.88	8.00	2.21
TP03-464	101.18	101.73	0.55	4.30
TP03-465	7.65	9.62	1.97	2.61
TP03-465	24.60	26.03	1.43	4.10
TP03-465	30.00	33.92	3.92	13.37
TP03-465	145.00	146.00	1.00	4.80
TP03-466	7.75	10.23	2.48	1.54
TP03-466	17.00	18.78	1.78	12.76
TP03-466	105.96	112.10	6.14	5.95
TP03-466	121.97	123.00	1.03	11.23
TP03-467	6.34	25.00	18.66	3.31
TP03-467	27.30	29.00	1.70	5.46
TP03-467	33.38	37.67	4.29	2.32
TP03-467	44.55	47.55	3.00	6.00
TP03-468	1.15	11.87	10.72	6.97
TP03-468	21.29	23.94	2.65	2.37
TP03-468	27.00	65.36	38.36	2.84
TP03-469	2.79	3.75	0.96	2.46
TP03-469	6.67	7.68	1.01	1.39
TP03-469	9.93	16.71	6.78	7.56
TP03-469	34.25	35.25	1.00	4.00
TP03-470	5.72	12.93	7.21	4.19
TP03-471	3.74	10.06	6.32	15.24
TP03-471	16.78	20.93	4.15	5.03
TP03-471	27.30	28.55	1.25	2.16
TP03-471	32.67	34.95	2.28	4.06
TP03-471	37.30	38.32	1.02	4.89
TP03-472	2.50	6.36	3.86	10.02
TP03-472	14.50	30.36	15.86	4.71
TP03-472	34.53	44.80	10.27	3.80
TP03-472	54.43	57.10	2.67	1.77
TP03-472	63.18	68.56	5.38	2.54
TP03-473	2.30	22.02	19.72	6.95
TP03-473	31.45	37.51	6.06	2.99
TP03-473	39.95	45.12	5.17	1.07
TP03-473	52.03	53.28	1.25	15.59
TP03-473	57.19	61.52	4.33	1.95
TP03-473	64.04	75.70	11.66	2.90
TP03-473	78.35	86.06	7.71	1.72
TP03-474	15.76	23.55	7.79	2.36
TP03-474	33.00	38.77	5.77	4.26

TP03-474	42.65	45.00	2.35	1.60
TP03-474	48.57	50.97	2.40	9.28
TP03-474	57.76	59.50	1.74	5.35
TP03-474	68.59	76.86	8.27	5.09
TP03-474	79.62	86.44	6.82	3.43
TP03-475	47.23	49.55	2.32	3.47
TP03-475	52.25	54.51	2.26	2.90
TP03-475	57.44	76.26	18.82	9.29
TP03-475	81.84	83.34	1.50	2.40
TP03-476	25.85	28.80	2.95	3.52
TP03-476	52.48	61.23	8.75	3.50
TP03-476	63.92	68.61	4.69	4.19
TP03-476	78.03	81.64	3.61	3.48
TP03-477	8.66	11.99	3.33	6.96
TP03-477	14.50	17.80	3.30	3.56
TP03-477	40.28	59.61	19.33	2.95
TP03-477	62.58	67.43	4.85	5.13
TP03-477	69.57	72.01	2.44	2.59
TP03-478	0.83	7.40	6.57	8.35
TP03-478	9.42	12.50	3.08	3.34
TP03-478	16.69	21.47	4.78	2.10
TP03-478	24.57	39.98	15.41	1.61
TP03-479	3.00	12.42	9.42	2.92
TP03-479	14.85	36.25	21.40	3.82
TP03-479	42.10	52.00	9.90	2.99
TP03-486	119.47	120.66	1.19	1.04
TP03-487	115.22	116.45	1.23	0.74
TP03-487	119.09	120.92	1.83	1.16
TP03-487	123.50	124.56	1.06	20.05
TP03-488	16.94	22.72	5.78	8.44
TP03-488	45.65	61.56	15.91	4.34
TP03-488	65.03	66.14	1.11	4.64
TP03-488	71.00	78.57	7.57	3.70
TP03-489	11.14	25.61	14.47	5.14
TP03-489	33.97	42.07	8.10	2.57
TP03-489	44.90	47.52	2.62	2.23
TP03-489	51.39	63.58	12.19	2.66
TP03-489	66.29	68.37	2.08	5.09
TP03-489	78.30	80.12	1.82	2.27
TP03-489	89.95	90.95	1.00	1.57
TP03-490	5.85	7.00	1.15	1.72

TP03-490	11.04	15.09	4.05	7.00
TP03-490	19.09	20.74	1.65	1.48
TP03-490	23.20	32.90	9.70	1.66
TP03-490	46.06	48.15	2.09	9.68
TP03-490	50.96	63.54	12.58	1.90
TP03-490	68.69	71.69	3.00	5.31
TP03-490	74.69	79.64	4.95	8.78
TP03-490	82.06	85.83	3.77	16.56
TP03-490	87.94	88.94	1.00	2.62
TP03-491	2.51	13.13	10.62	6.28
TP03-491	17.73	23.38	5.65	1.80
TP03-491	27.00	28.04	1.04	4.07
TP03-491	30.12	41.70	11.58	1.97
TP95-082	5.00	6.40	1.40	1.01
TP95-082	23.20	24.30	1.10	1.81
TP95-082	29.30	30.30	1.00	5.66
TP95-082	104.10	109.25	5.15	1.76
TP95-082	112.20	117.20	5.00	5.37
TP95-082	118.20	119.20	1.00	1.11
TP95-083	6.00	7.00	1.00	1.35
TP95-083	33.70	35.20	1.50	1.15
TP95-083	44.00	45.00	1.00	4.26
TP95-083	54.60	62.40	7.80	2.58
TP95-084	23.40	24.40	1.00	3.76
TP95-084	29.20	30.20	1.00	19.50
TP95-084	65.20	66.50	1.30	2.00
TP95-084	111.80	115.80	4.00	4.51
TP95-084	117.80	119.80	2.00	1.04
TP95-085	4.40	7.20	2.80	1.96
TP95-085	12.20	16.30	4.10	1.43
TP95-085	24.50	25.10	0.60	2.42
TP95-085	38.30	39.60	1.30	1.00
TP95-085	46.90	48.20	1.30	3.93
TP95-085	57.90	65.90	8.00	8.57
TP95-086	7.30	21.00	13.70	17.10
TP95-086	31.00	33.00	2.00	1.35
TP95-086	43.00	44.00	1.00	1.36
TP95-086	58.50	59.50	1.00	1.43
TP95-086	63.50	65.50	2.00	7.49
TP95-087	94.40	107.40	13.00	7.22
TP95-087	111.40	112.40	1.00	1.29

TP95-088	6.70	34.70	28.00	6.86
TP95-088	45.70	53.00	7.30	1.58
TP95-088	55.10	71.00	15.90	2.68
TP95-088	76.00	92.00	16.00	6.65
TP95-089	98.80	104.80	6.00	2.95
TP95-089	108.80	109.80	1.00	1.19
TP95-090	40.30	41.30	1.00	4.15
TP95-090	46.20	49.20	3.00	2.89
TP95-090	53.20	59.20	6.00	2.19
TP95-090	62.20	68.20	6.00	2.80
TP95-090	76.00	78.00	2.00	3.10
TP95-091	53.00	65.00	12.00	8.65
TP95-091	67.00	90.00	23.00	2.17
TP95-092	66.30	81.80	15.50	2.46
TP95-093	14.00	34.00	20.00	2.28
TP95-093	35.00	47.00	12.00	2.43
TP95-094	6.00	22.00	16.00	2.05
TP95-094	28.00	39.00	11.00	4.38
TP95-095	12.40	23.40	11.00	2.77
TP95-095	34.50	43.50	9.00	2.08
TP95-096	27.70	31.60	3.90	2.34
TP96-119	24.17	25.17	1.00	46.70
TP96-119	32.17	33.17	1.00	3.43
TP96-119	36.17	42.17	6.00	1.87
TP96-120	36.30	45.06	8.76	2.97
TP96-120	47.06	49.45	2.39	5.07
TP96-121	27.00	29.00	2.00	4.23
TP96-121	42.15	57.14	14.99	1.56
TP96-121	64.45	66.03	1.58	2.13
TP96-125	65.65	71.65	6.00	3.72
TP96-126	14.09	17.09	3.00	5.30
TP96-126	55.00	58.00	3.00	4.67
TP96-137	124.00	125.00	1.00	1.17
TP96-137	127.00	128.00	1.00	1.73
TP96-151	4.00	5.00	1.00	1.50
TP96-151	9.90	10.90	1.00	2.50
TP96-151	14.50	22.50	8.00	2.60
TP96-152	72.57	77.57	5.00	3.04
TP96-152	80.57	81.57	1.00	1.27
TP96-153	5.00	8.00	3.00	1.38
TP96-153	14.00	23.00	9.00	2.19

TP96-154	5.00	22.00	17.00	5.72
TP96-154	25.00	31.00	6.00	1.66
TP96-154	35.00	56.00	21.00	3.49
TP96-154	61.73	62.73	1.00	4.13
TP96-154	68.13	69.13	1.00	4.67
TP96-155	13.76	16.76	3.00	5.42
TP96-155	18.76	33.76	15.00	2.64
TP96-156	5.00	7.00	2.00	3.10
TP96-156	108.44	117.00	8.56	6.73
TP97-166	7.00	12.00	5.00	41.50
TP97-166	35.12	36.12	1.00	5.25
TP97-166	119.42	120.42	1.00	3.05
TP97-166	129.42	132.42	3.00	2.01
TP97-167	128.00	136.00	8.00	6.50
TP97-167	142.00	143.00	1.00	1.47
TP97-167	146.00	148.00	2.00	1.93
TP97-168	119.21	122.21	3.00	11.25
TP97-168	123.21	124.21	1.00	1.45
TP97-168	126.21	127.21	1.00	1.20
TP97-168	129.21	130.21	1.00	1.15
TP97-168	138.38	139.04	0.66	1.20
TP97-170	31.43	32.43	1.00	1.30
TP97-170	35.43	36.43	1.00	2.24
TP97-170	48.43	50.43	2.00	7.07
TP97-170	61.43	75.43	14.00	6.19
TP97-170	82.43	84.43	2.00	2.65
TP97-170	88.43	91.43	3.00	4.10
TP97-170	94.43	95.43	1.00	2.45
TP97-179	39.08	40.08	1.00	1.59
TP97-179	41.08	43.08	2.00	1.68
TP97-179	47.08	48.08	1.00	2.31
TP97-179	50.08	51.08	1.00	1.09
TP97-179	64.08	73.08	9.00	20.88
TP97-179	76.08	80.08	4.00	1.66
TP97-179	85.08	91.08	6.00	3.49
TP97-179	161.00	161.75	0.75	2.40
TP97-180	160.64	163.64	3.00	1.10
TP97-181	190.30	192.40	2.10	1.71
TP97-183	79.18	82.18	3.00	3.10
TP97-183	85.18	86.18	1.00	4.47
TP97-185	10.73	14.40	3.67	2.23

TP97-185	38.12	45.12	7.00	2.63
TP97-185	124.64	126.62	1.98	25.27
TP97-185	129.78	132.55	2.77	5.13
TP97-187	105.80	117.63	11.83	3.20
TP97-187	120.46	123.46	3.00	7.64
TP97-187	128.46	131.89	3.43	2.44
TP97-187	134.76	137.00	2.24	1.96
TP97-189	3.00	8.00	5.00	4.02
TP97-189	13.80	17.12	3.32	2.59
TP97-189	20.12	22.04	1.92	3.84
TP97-189	37.30	38.30	1.00	1.40
TP97-189	58.00	59.00	1.00	1.05
TP97-189	124.70	133.64	8.94	6.73
TP97-191	13.31	14.85	1.54	2.25
TP97-191	19.30	24.42	5.12	3.97
TP97-191	124.30	126.30	2.00	2.00
TP97-193	34.42	35.75	1.33	35.45
TP97-193	39.05	40.05	1.00	1.30
TP97-193	54.65	55.65	1.00	13.10
TP97-193	112.20	115.21	3.01	5.35
TP97-194	104.30	112.20	7.90	2.92
TP97-194	119.20	127.40	8.20	5.79
TP97-195	10.50	14.28	3.78	6.90
TP97-195	53.56	54.56	1.00	2.00
TP97-195	58.56	59.56	1.00	8.50
TP97-195	65.56	66.56	1.00	4.00
TP97-195	109.75	115.75	6.00	2.54
TP97-196	4.00	4.80	0.80	1.45
TP97-196	18.80	24.00	5.20	2.51
TP97-196	54.60	56.10	1.50	1.72
TP97-196	58.90	59.90	1.00	0.87
TP97-196	138.90	139.30	0.40	1.10
TP97-196	140.30	141.30	1.00	1.18
TP97-196	149.00	150.30	1.30	1.90
TP97-196	153.30	153.70	0.40	6.10
TP97-196	161.40	162.40	1.00	2.83
TP97-196	172.80	173.80	1.00	3.25
TP97-197	47.20	52.20	5.00	1.19
TP97-197	103.17	116.00	12.83	6.92
TP97-197	127.07	131.36	4.29	2.81
TP97-198	3.00	4.00	1.00	3.35

TP97-198	18.90	19.90	1.00	9.55
TP97-198	34.30	35.30	1.00	1.60
TP97-198	37.20	39.20	2.00	3.50
TP97-198	59.50	60.50	1.00	1.90
TP97-198	117.20	126.70	9.50	2.37
TP97-198	129.60	130.60	1.00	1.80
TP97-198	140.20	141.00	0.80	3.95
TP97-199	4.00	9.80	5.80	3.20
TP97-199	20.50	21.50	1.00	1.20
TP97-199	24.50	25.50	1.00	2.20
TP97-199	29.40	30.20	0.80	1.40
TP97-199	42.50	45.50	3.00	4.79
TP97-199	50.10	52.80	2.70	7.15
TP97-199	124.90	128.50	3.60	2.93
TP97-200	11.60	12.60	1.00	3.50
TP97-200	57.20	58.60	1.40	4.61
TP97-200	60.00	61.00	1.00	1.40
TP97-200	102.50	112.90	10.40	2.37
TP97-200	115.30	116.40	1.10	13.35
TP97-200	123.10	125.50	2.40	1.19
TP97-201	3.00	4.70	1.70	1.90
TP97-201	16.90	17.90	1.00	1.35
TP97-201	19.80	21.00	1.20	1.20
TP97-201	44.90	45.90	1.00	2.50
TP97-201	52.20	53.20	1.00	1.20
TP97-201	66.60	67.60	1.00	1.60
TP97-201	84.20	85.60	1.40	1.15
TP97-201	92.30	95.00	2.70	2.04
TP97-201	100.10	101.70	1.60	1.36
TP97-201	111.90	113.00	1.10	2.25
TP97-201	119.00	121.30	2.30	2.36
TP97-201	132.30	134.80	2.50	2.52
TP97-201	142.00	144.00	2.00	2.40
TP97-201	146.00	147.00	1.00	1.45
TP97-201	156.60	160.80	4.20	1.89
TP97-201	175.20	175.70	0.50	1.00
TP97-201	177.60	178.40	0.80	1.70
TP97-201	184.80	187.10	2.30	1.38
TP97-202	116.00	120.80	4.80	13.46
TP97-203	4.60	5.70	1.10	1.51
TP97-203	10.40	13.40	3.00	1.01

TP97-203	18.00	19.00	1.00	1.50
TP97-203	26.60	37.20	10.60	8.84
TP97-203	170.00	171.20	1.20	1.05
TP97-204	10.90	24.40	13.50	7.85
TP97-205	9.00	22.40	13.40	2.38
TP97-205	25.90	30.20	4.30	2.04
TP97-205	38.60	48.40	9.80	8.65
TP97-205	50.60	57.10	6.50	4.00
TP97-205	62.20	64.20	2.00	1.75
TP97-205	75.30	76.30	1.00	1.45
TP97-206	5.60	7.60	2.00	7.09
TP97-206	11.62	12.18	0.56	1.40
TP97-206	19.80	20.80	1.00	3.60
TP97-206	26.55	28.05	1.50	7.00
TP97-206	40.90	42.90	2.00	2.28
TP97-206	47.50	48.50	1.00	3.75
TP97-206	53.93	54.60	0.67	3.25
TP97-206	132.50	141.13	8.63	19.90
TP97-206	143.13	152.44	9.31	2.46
TP97-207	102.00	104.90	2.90	4.17
TP97-207	109.00	112.50	3.50	4.70
TP97-208	4.90	5.90	1.00	1.70
TP97-208	10.10	11.80	1.70	8.76
TP97-208	15.60	18.20	2.60	5.13
TP97-208	51.90	54.30	2.40	2.15
TP97-208	63.10	64.10	1.00	1.70
TP97-208	70.60	72.50	1.90	1.99
TP97-208	86.80	87.80	1.00	1.35
TP97-208	96.60	98.80	2.20	4.75
TP97-208	117.60	118.70	1.10	1.60
TP97-208	122.70	125.00	2.30	2.14
TP97-208	140.20	143.20	3.00	8.03
TP97-208	158.30	160.20	1.90	8.83
TP97-209	69.50	76.10	6.60	13.23
TP97-209	82.40	84.10	1.70	5.50
TP97-209	87.40	88.60	1.20	2.55
TP97-210	62.20	70.50	8.30	6.23
TP97-210	72.30	72.60	0.30	4.70
TP97-211	20.80	21.30	0.50	1.22
TP97-212	14.00	25.70	11.70	2.50
TP97-212	31.40	32.60	1.20	2.60

TP97-212	35.60	40.70	5.10	8.45
TP97-212	89.80	92.90	3.10	3.51
TP97-212	96.10	99.30	3.20	5.26
TP97-213	15.30	18.60	3.30	1.23
TP97-213	98.40	113.20	14.80	6.42
TP97-213	131.90	133.30	1.40	6.75
TP97-214	12.90	18.60	5.70	5.48
TP97-214	24.80	25.60	0.80	1.50
TP97-214	36.10	37.90	1.80	1.73
TP97-214	45.90	48.20	2.30	1.73
TP97-214	57.60	58.60	1.00	1.00
TP97-215	12.50	18.10	5.60	1.92
TP97-215	34.20	36.20	2.00	5.05
TP97-215	114.10	122.70	8.60	6.22
TP97-216	29.30	32.30	3.00	2.85
TP97-216	35.70	36.50	0.80	2.50
TP97-216	44.00	46.40	2.40	3.10
TP97-216	60.00	61.50	1.50	12.43
TP97-217	6.00	6.80	0.80	2.50
TP97-217	8.80	10.00	1.20	1.40
TP97-217	19.60	20.60	1.00	2.00
TP97-217	42.20	42.80	0.60	1.15
TP97-217	50.50	57.00	6.50	2.26
TP97-218	3.00	6.70	3.70	2.30
TP97-218	9.70	18.10	8.40	1.09
TP97-218	35.30	38.50	3.20	4.60
TP97-219	106.40	111.80	5.40	3.34
TP97-219	115.20	117.60	2.40	2.29
TP98-230	45.80	46.80	1.00	1.42
TP98-230	63.00	64.60	1.60	1.24
TP98-230	70.70	71.70	1.00	1.28
TP98-230	88.30	90.20	1.90	1.28
TP98-230	97.60	98.00	0.40	1.95
TP98-230	104.20	109.50	5.30	8.71
TP98-230	118.00	119.10	1.10	3.01
TP98-230	126.60	127.60	1.00	4.25
TP98-230	135.90	136.50	0.60	2.10
TP98-230	142.50	144.40	1.90	1.49
TP98-230	151.90	157.50	5.60	2.73
TP98-230	186.10	188.30	2.20	1.64
TP98-230	196.10	197.10	1.00	1.50

TP98-233	4.40	5.40	1.00	2.90
TP98-233	12.30	15.00	2.70	1.64
TP98-235	5.00	6.00	1.00	2.50
TP98-235	23.25	24.20	0.95	2.10
TP98-235	43.50	44.40	0.90	2.90
TP98-235	142.20	143.60	1.40	1.55
TP98-237	160.30	164.50	4.20	1.65
TP98-237	213.10	217.80	4.70	9.25
TP98-237	314.00	314.50	0.50	4.25
TP98-240	140.90	141.50	0.60	0.96
TP98-242	40.00	41.50	1.50	1.42
TP98-242	48.05	49.50	1.45	1.80
TP98-242	131.15	132.95	1.80	1.42
TP98-243	146.52	148.40	1.88	1.66
TP98-243	170.65	171.61	0.96	67.62
TP98-243	174.30	175.12	0.82	1.50
TP98-243	258.30	265.80	7.50	1.40
TP98-243	271.83	272.40	0.57	2.40
TP98-243	276.40	277.40	1.00	1.50
TP98-245	66.00	66.25	0.25	4.00
TP98-245	104.45	105.45	1.00	1.10
TP98-246	17.10	20.10	3.00	2.12
TP98-246	97.00	98.00	1.00	2.15
TP98-246	230.69	233.65	2.96	1.50
TP98-248	66.88	67.88	1.00	1.10
TP98-248	75.41	79.55	4.14	9.15
TP98-248	83.59	84.26	0.67	0.97
TP98-248	96.30	96.74	0.44	3.10
TP98-251	36.85	41.60	4.75	3.04
TP98-251	70.00	72.00	2.00	9.90
TP98-251	84.61	88.50	3.89	1.92
TP98-251	109.00	111.00	2.00	3.06
TP98-251	135.60	138.67	3.07	2.12
TP98-253	46.67	47.25	0.58	5.00
TP98-253	66.94	69.65	2.71	5.00
TP98-253	77.90	80.15	2.25	5.00
TP98-253	82.06	86.09	4.03	5.00
TP98-253	88.41	89.36	0.95	11.50
TP98-253	93.84	95.20	1.36	2.15
TP98-253	103.52	104.59	1.07	1.45
TP98-253	115.00	121.04	6.04	3.17

TP98-253	124.52	128.53	4.01	1.27
TP98-253	132.06	134.35	2.29	2.53
TP98-253	136.67	138.48	1.81	2.25
TP98-253	150.50	158.07	7.57	3.43
TP98-253	160.56	161.56	1.00	1.55
TP98-255	126.97	127.58	0.61	1.35
TP98-255	173.62	176.13	2.51	1.02
TP98-256	170.15	171.88	1.73	20.95
TP98-256	185.55	187.82	2.27	4.37
TP98-256	220.36	221.36	1.00	8.30
TP98-256	262.90	264.60	1.70	1.22
TP98-258	47.82	50.13	2.31	1.17
TP98-258	57.23	59.89	2.66	2.13
TP98-258	62.81	64.10	1.29	16.72
TP98-258	71.70	77.18	5.48	2.27
TP98-258	158.53	161.59	3.06	2.96
TP98-261	47.20	49.30	2.10	1.26
TP98-261	80.00	81.90	1.90	6.04
TP98-261	88.50	94.80	6.30	9.75
TP98-265	44.50	47.50	3.00	4.36
TP98-265	60.10	62.80	2.70	1.44
TP98-266	66.19	69.51	3.32	1.92
TP98-267	74.60	78.61	4.01	1.40
TP98-267	104.85	106.50	1.65	1.60
TP98-268	6.26	13.82	7.56	7.08
TP98-268	16.90	17.34	0.44	10.60
TP98-268	20.15	22.30	2.15	1.43
TP98-268	25.44	27.41	1.97	5.58
TP98-268	31.51	32.64	1.13	2.40
TP98-269	65.68	66.68	1.00	1.20
TP98-269	69.52	70.43	0.91	2.90
TP98-269	74.00	74.46	0.46	1.70
TP98-269	81.60	88.48	6.88	2.33
TP98-269	123.61	126.12	2.51	2.57
TP98-269	134.00	136.86	2.86	1.96
TP98-269	225.25	227.82	2.57	1.16
TP98-270	77.30	78.80	1.50	4.60
TP98-270	81.57	84.07	2.50	1.09
TP98-270	86.90	101.72	14.82	2.58
TP98-270	107.25	107.85	0.60	10.00
TP98-270	111.46	116.14	4.68	2.48

TP98-270	139.47	139.92	0.45	2.40
TP98-270	145.86	153.97	8.11	2.72
TP98-270	279.00	280.80	1.80	1.36
TP98-270	295.25	296.44	1.19	1.83
TP98-270	312.58	313.58	1.00	2.25
TP98-271	93.30	93.67	0.37	1.40
TP98-271	99.67	100.26	0.59	1.90
TP98-271	110.92	113.95	3.03	2.69
TP98-271	116.20	117.40	1.20	1.65
TP98-271	138.33	138.86	0.53	1.25
TP98-271	142.67	144.89	2.22	1.30
TP98-271	147.31	148.29	0.98	1.25
TP98-271	155.23	155.83	0.60	1.80
TP98-272	87.22	91.69	4.47	1.25
TP98-272	201.40	203.40	2.00	13.91
TP98-272	212.75	216.40	3.65	8.33
TP98-272	224.90	228.40	3.50	4.19
TP98-272	243.00	246.70	3.70	3.76
TP98-272	269.20	270.00	0.80	1.90
TP98-281	5.80	21.60	15.80	4.05
TP98-281	30.50	43.60	13.10	2.89
TP98-282	19.25	33.20	13.95	3.07
TP98-283	10.10	23.50	13.40	8.67
TP98-283	32.50	34.30	1.80	2.51
TP98-283	40.10	42.80	2.70	7.00
TP98-285	7.20	7.70	0.50	1.80
TP98-285	10.40	12.00	1.60	4.72
TP98-285	14.60	29.10	14.50	2.26
TP98-286	5.00	13.90	8.90	1.46
TP98-286	33.40	34.70	1.30	1.00
TP98-287	9.40	11.60	2.20	1.65
TP98-287	14.90	21.30	6.40	3.38
TP98-287	28.20	29.50	1.30	1.85
TP98-288	111.30	111.80	0.50	3.30
TP98-288	113.03	114.84	1.81	8.39
TP98-289	9.30	10.10	0.80	8.50
TP98-289	21.00	30.50	9.50	4.29
TP98-290	101.34	105.50	4.16	3.42
TP98-290	143.48	144.32	0.84	1.95
TP98-291	4.30	22.70	18.40	17.16
TP98-291	25.40	29.40	4.00	7.24

TP98-291	39.70	50.90	11.20	4.74
TP98-292	120.10	120.50	0.40	4.50
TP98-292	156.30	157.20	0.90	9.00
TP98-292	159.70	160.50	0.80	2.30
TP98-293	15.86	16.09	0.23	18.80
TP98-294	3.50	4.50	1.00	1.35
TP98-294	9.40	10.86	1.46	1.40
TP98-294	17.15	24.22	7.07	3.89
TP98-296	100.95	103.18	2.23	1.29
TP98-296	109.50	110.33	0.83	1.25
TP98-296	140.60	142.05	1.45	5.75
TP98-312	24.00	25.50	1.50	6.70
TP98-312	29.08	30.30	1.22	1.50
TP98-313	7.82	46.23	38.41	27.33
TP98-313	52.14	54.06	1.92	2.29
TP98-313	57.66	58.86	1.20	2.88
TP98-313	65.40	67.26	1.86	5.80
TP98-313	69.66	75.23	5.57	5.98
TP98-314	3.60	14.10	10.50	3.37
TP98-314	18.40	22.80	4.40	1.82
TP98-315	6.84	9.76	2.92	6.50
TP98-315	14.36	16.37	2.01	3.85
TP98-315	37.11	39.71	2.60	1.30
TP98-315	68.57	87.04	18.47	3.57
TP98-316	6.20	8.40	2.20	4.63
TP98-317	5.50	11.20	5.70	6.23
TP98-317	15.20	17.40	2.20	1.50
TP99-327	28.10	29.00	0.90	1.30
TP99-327	35.25	36.60	1.35	1.10
TP99-327	40.10	42.75	2.65	1.38
TP99-327	47.00	48.00	1.00	6.10
TP99-327	50.20	52.00	1.80	1.48
TP99-327	59.50	61.50	2.00	1.66
TP99-327	66.30	67.30	1.00	2.75
TP99-327	77.00	82.00	5.00	14.41
TP99-327	84.25	84.85	0.60	1.20
TP99-328	36.50	40.00	3.50	1.60
TP99-328	47.50	47.80	0.30	2.30
TP99-328	61.90	63.65	1.75	2.54
TP99-328	69.05	70.35	1.30	2.05
TP99-328	85.05	86.10	1.05	3.10

TP99-328	88.70	91.90	3.20	2.70
TP99-328	99.35	101.70	2.35	2.10
TP99-330	24.60	25.20	0.60	2.20
TP99-330	29.75	30.05	0.30	2.00
TP99-330	31.65	32.50	0.85	1.60
TP99-330	53.25	57.30	4.05	1.57
TP99-330	67.00	71.50	4.50	1.24
TP99-330	74.00	76.40	2.40	2.75
TP99-330	89.20	91.15	1.95	2.10
TP99-334	31.96	32.89	0.93	2.00
TP99-334	42.27	42.74	0.47	16.95
TP99-334	53.59	54.20	0.61	1.20
TP99-334	64.54	70.59	6.05	6.35
TP99-334	80.09	80.51	0.42	2.30
TP99-334	87.53	88.82	1.29	2.05
TP99-334	91.00	91.80	0.80	1.40
TP99-335	46.15	49.10	2.95	5.39
TP99-335	63.00	64.25	1.25	1.51
TP99-335	74.90	75.80	0.90	1.70
TP99-336	65.08	66.06	0.98	5.21
TP99-336	69.96	70.73	0.77	2.60
TP99-336	94.85	95.85	1.00	12.50
TP99-336	115.40	116.64	1.24	1.80
TP99-337	20.10	21.20	1.10	2.80
TP99-337	34.90	47.50	12.60	4.82
TP99-338	21.82	25.50	3.68	2.95
TP99-338	37.74	39.39	1.65	1.83
TP99-338	45.67	46.30	0.63	4.95
TP99-338	70.82	71.62	0.80	5.40
TP99-338	84.20	85.25	1.05	5.30
TP99-338	93.20	95.74	2.54	1.59
TP99-339	25.55	26.75	1.20	7.72
TP99-339	34.70	45.20	10.50	3.12
TP99-339	48.50	48.75	0.25	11.51
TP99-340	20.80	22.10	1.30	2.20
TP99-340	31.70	42.30	10.60	2.79
TP99-340	44.50	47.30	2.80	1.61
TP99-341	74.15	77.40	3.25	1.47
TP99-341	129.95	130.52	0.57	2.00
TP99-341	132.43	133.88	1.45	10.97
TP99-342	20.80	35.50	14.70	5.88

TP99-342	47.00	48.80	1.80	2.91
TP99-343	65.25	69.68	4.43	1.65
TP99-343	76.80	78.60	1.80	3.91
TP99-343	81.40	82.40	1.00	1.90
TP99-343	86.60	87.13	0.53	2.25
TP99-343	160.05	166.00	5.95	5.91
TP99-343	216.23	217.30	1.07	2.00
TP99-344	6.90	8.50	1.60	2.72
TP99-344	20.60	23.60	3.00	8.11
TP99-344	32.15	37.10	4.95	2.36
TP99-344	39.10	40.10	1.00	1.50
TP99-344	43.60	49.50	5.90	1.15
TP99-345	26.05	42.45	16.40	2.32
TP99-346	13.70	14.77	1.07	2.11
TP99-346	24.66	29.00	4.34	1.69
TP99-346	49.70	50.70	1.00	1.00
TP99-346	61.46	63.20	1.74	2.46
TP99-346	65.82	66.22	0.40	5.25
TP99-346	78.10	79.05	0.95	1.30
TP99-346	87.20	88.30	1.10	3.65
TP99-346	161.13	163.84	2.71	36.96
TP99-347	25.00	26.60	1.60	2.56
TP99-347	32.10	48.40	16.30	3.16
TP99-349	30.10	45.90	15.80	5.32
TP99-350	38.10	46.50	8.40	3.95
TP99-351	45.48	47.70	2.22	9.18
TP99-351	62.32	63.42	1.10	1.40
TP99-352	26.70	31.40	4.70	2.18
TP99-352	33.90	48.10	14.20	3.00
TP99-352	50.60	51.50	0.90	2.50
TP99-353	28.95	47.40	18.45	4.35
TP99-353	52.60	54.20	1.60	3.45
TP99-354	52.90	58.70	5.80	9.25
TP99-354	61.10	62.90	1.80	5.94
TP99-356	76.73	77.27	0.54	2.30
TP99-356	79.87	81.92	2.05	3.91
TP99-357	31.00	39.42	8.42	1.55
TP99-357	93.80	98.90	5.10	2.06
TP99-358	12.05	18.10	6.05	2.41
TP99-358	20.40	22.95	2.55	1.40
TP99-358	32.95	33.95	1.00	11.54

TP99-358	68.90	70.55	1.65	3.43
TP99-358	73.85	76.55	2.70	16.81
TP99-358	87.00	91.30	4.30	9.35
TP99-360	91.95	94.30	2.35	1.76
TP99-361	9.23	11.33	2.10	13.03
TP99-361	24.10	25.40	1.30	1.50
TP99-361	30.60	31.90	1.30	2.15
TP99-363	2.80	5.17	2.37	2.01
TP99-363	7.80	13.60	5.80	1.57
TP99-363	21.41	21.90	0.49	2.35
TP99-363	25.80	31.30	5.50	1.85
TP99-365	36.71	39.48	2.77	2.32
TP99-365	61.06	61.95	0.89	1.55
TP99-369	48.50	56.60	8.10	6.61
TP99-369	67.60	70.07	2.47	3.30
TP99-369	82.00	84.40	2.40	1.22
TP99-370	4.70	8.71	4.01	6.00
TP99-370	84.67	87.94	3.27	3.26
TP99-370	92.36	93.76	1.40	6.89
TP99-370	96.66	103.54	6.88	3.40
TP99-370	107.57	114.64	7.07	2.48
TP99-371	18.42	19.42	1.00	10.25
TP99-371	71.15	72.06	0.91	2.30
TP99-371	74.65	77.30	2.65	6.91
TP99-371	80.50	89.60	9.10	5.40
TP99-371	92.46	92.83	0.37	1.75
TP99-371	95.12	96.00	0.88	3.60
TP99-371	98.94	99.25	0.31	4.40
TP99-371	103.09	103.76	0.67	3.50
TP99-372	95.57	97.45	1.88	6.02
TP99-372	99.97	110.80	10.83	4.72
TP99-372	115.80	118.27	2.47	3.22
TP99-373	5.00	12.32	7.32	4.22
TP99-374	9.00	9.56	0.56	2.25
TP99-374	38.27	40.10	1.83	0.77
TP99-374	45.07	61.36	16.29	6.19
TP99-375	25.71	42.54	16.83	16.21
TP99-375	43.83	44.73	0.90	1.40
TP99-376	2.71	3.60	0.89	3.30
TP99-376	7.25	8.36	1.11	1.90
TP99-376	15.48	20.52	5.04	1.27

TP99-376	25.52	46.79	21.27	12.73
TP99-377	4.49	9.66	5.17	0.87
TP99-378	4.96	32.28	27.32	9.47
TP99-378	37.57	44.60	7.03	2.70
TP99-379	10.86	12.00	1.14	4.58
TP99-379	20.54	21.27	0.73	2.70
TP99-379	32.60	33.04	0.44	7.80
TP99-379	37.27	41.36	4.09	3.31
TP99-380	3.00	26.50	23.50	10.13
TP99-380	29.40	31.32	1.92	45.86
TP99-381	3.00	7.00	4.00	7.76
TP99-381	15.00	22.07	7.07	6.00
TP99-381	24.24	25.53	1.29	2.65
TP99-381	30.21	32.82	2.61	5.08
TP99-381	37.88	44.90	7.02	3.53
TP99-381	47.00	58.26	11.26	2.23
TP99-382	13.65	14.90	1.25	1.55
TP99-382	16.15	17.35	1.20	4.00
TP99-382	24.35	31.95	7.60	3.64
TP99-382	33.85	36.35	2.50	1.52
TP99-382	49.08	52.35	3.27	4.36
TP99-383	12.20	21.53	9.33	3.59
TP99-383	28.13	28.62	0.49	2.20
TP99-383	41.48	45.21	3.73	2.77
TP99-383	47.33	51.84	4.51	2.84
TP99-384	3.30	16.20	12.90	6.63
TP99-384	19.50	24.70	5.20	1.53
TP99-384	27.85	38.40	10.55	5.44
TP99-384	42.00	52.80	10.80	4.14
TPMET02-01	4.25	4.70	0.45	1.40
TPMET02-01	10.76	11.20	0.44	4.30
TPMET02-01	16.50	18.94	2.44	4.01
TPMET02-01	22.75	23.50	0.75	1.42
TPMET02-01	27.19	27.76	0.57	2.38
TPMET02-01	30.55	35.79	5.24	3.42
TPMET02-01	38.64	44.55	5.91	6.92
TPMET02-01	52.00	55.54	3.54	4.28
TPMET02-02	4.31	5.20	0.89	1.29
TPMET02-02	10.57	11.54	0.97	1.00
TPMET02-02	12.77	13.85	1.08	5.74
TPMET02-02	19.46	20.00	0.54	1.55

TPMET02-02	34.72	37.43	2.71	1.73
TPMET02-02	39.97	40.74	0.77	4.00
TPMET02-02	43.56	48.84	5.28	7.17
TPMET02-03	4.45	20.85	16.40	5.36
TPMET02-03	25.35	33.33	7.98	3.21
TPMET02-03	35.52	36.95	1.43	2.18

Hole-ID	**From (m)**	**To (m)**	**Length (m)**	**Au Grade (g/t)**
GTVLT02-01	59.95	61.35	1.40	9.44
GTVLT02-01	67.05	72.00	4.95	2.06
GTVLT02-01	82.75	84.58	1.83	2.10
GTVLT02-01	100.65	108.50	7.85	6.32
GTVLT02-02	10.35	13.00	2.65	2.56
GTVLT02-02	25.20	29.41	4.21	2.29
GTVLT02-02	34.50	34.87	0.37	73.20
GTVLT02-02	37.55	46.30	8.75	2.94
GTVLT02-02	61.60	69.22	7.62	1.76
GTVLT02-02	73.78	83.85	10.07	2.29
GTVLT02-03	18.00	20.05	2.05	1.77
GTVLT02-03	33.25	41.30	8.05	5.87
GTVLT02-03	42.60	43.90	1.30	1.13
GTVLT02-03	50.60	58.60	8.00	1.43
GTVLT02-03	61.50	62.50	1.00	1.20
VLT00-001	21.40	23.10	1.70	1.04
VLT00-001	27.90	35.10	7.20	2.20
VLT00-002	12.40	15.00	2.60	1.34
VLT00-002	18.15	21.90	3.75	2.81
VLT00-003	13.80	16.25	2.45	1.05
VLT00-003	22.60	29.65	7.05	1.87
VLT00-003	31.45	34.30	2.85	1.91
VLT00-003	36.75	43.00	6.25	1.89
VLT00-003	45.60	52.70	7.10	2.37
VLT00-004	35.40	38.00	2.60	1.30
VLT00-005	27.50	30.54	3.04	1.99
VLT00-005	52.15	53.35	1.20	1.90
VLT00-005	66.05	79.50	13.45	2.28
VLT00-005	83.00	84.00	1.00	1.95
VLT00-005	86.70	88.95	2.25	3.00
VLT00-006	30.45	34.80	4.35	1.11
VLT00-006	35.90	47.60	11.70	2.68
VLT00-006	49.30	50.30	1.00	1.10

VLT00-007	15.85	17.80	1.95	1.32
VLT00-007	36.90	44.70	7.80	5.05
VLT00-007	54.85	70.20	15.35	1.87
VLT00-008	11.75	16.00	4.25	1.35
VLT00-008	20.40	25.40	5.00	11.63
VLT00-008	28.40	33.45	5.05	4.47
VLT00-009	89.80	90.85	1.05	1.25
VLT00-010	28.95	30.25	1.30	1.02
VLT00-010	56.30	66.50	10.20	3.98
VLT00-011	10.10	12.10	2.00	3.72
VLT00-011	80.75	88.80	8.05	4.23
VLT00-012	27.20	30.60	3.40	1.55
VLT00-013	65.60	69.80	4.20	3.75
VLT00-014	53.00	55.85	2.85	2.55
VLT00-015	35.50	38.74	3.24	1.49
VLT00-015	41.05	46.45	5.40	7.08
VLT00-015	50.70	52.00	1.30	1.33
VLT00-015	56.00	68.25	12.25	1.73
VLT00-015	71.06	73.70	2.64	2.02
VLT00-016	56.25	61.50	5.25	1.97
VLT00-016	63.30	68.40	5.10	1.67
VLT00-016	75.50	76.06	0.56	1.17
VLT00-016	78.70	101.55	22.85	2.70
VLT00-017	35.50	37.00	1.50	1.99
VLT00-017	45.50	59.10	13.60	3.50
VLT00-018	29.08	30.50	1.42	1.95
VLT00-018	37.80	42.20	4.40	1.57
VLT00-018	47.90	51.45	3.55	1.16
VLT00-018	54.10	55.20	1.10	1.25
VLT00-018	61.05	80.75	19.70	3.60
VLT00-019	48.00	53.00	5.00	4.80
VLT00-020	67.55	75.70	8.15	2.37
VLT00-021	6.50	7.50	1.00	1.05
VLT00-021	36.20	37.40	1.20	1.35
VLT00-021	69.00	70.00	1.00	1.10
VLT00-021	90.70	98.40	7.70	4.71
VLT00-022	13.00	20.27	7.27	4.29
VLT00-022	28.89	29.95	1.06	1.35
VLT00-022	31.45	34.20	2.75	3.82
VLT00-022	45.85	46.85	1.00	1.00
VLT00-023	35.90	37.60	1.70	1.21

VLT00-023	51.40	61.10	9.70	2.90
VLT00-024	86.35	87.64	1.29	1.89
VLT00-024	96.87	105.62	8.75	7.02
VLT00-026	119.60	128.85	9.25	3.94
VLT01-028	123.75	129.63	5.88	3.65
VLT01-029	123.74	127.55	3.81	2.35
VLT01-029	159.35	165.95	6.60	3.70
VLT01-029	169.50	177.59	8.09	3.83
VLT01-029	179.77	181.00	1.23	2.09
VLT01-030	140.90	142.16	1.26	4.54
VLT01-030	154.05	160.80	6.75	2.59
VLT01-033	145.45	152.15	6.70	2.53
VLT01-033	168.43	174.90	6.47	1.50
VLT01-034	257.07	264.00	6.93	2.69
VLT01-035	261.58	262.80	1.22	1.40
VLT01-035	311.53	316.32	4.79	8.09
VLT01-036	177.27	178.95	1.68	1.18
VLT01-036	192.85	195.55	2.70	1.94
VLT01-036	218.00	225.34	7.34	1.79
VLT01-036	227.50	233.63	6.13	1.92
VLT01-037	96.00	97.70	1.70	2.41
VLT01-037	125.70	127.90	2.20	2.11
VLT01-037	169.30	172.60	3.30	1.83
VLT01-038	48.94	49.56	0.62	1.14
VLT01-038	134.76	136.45	1.69	4.25
VLT01-039	82.37	84.08	1.71	2.70
VLT01-039	101.20	102.00	0.80	6.64
VLT01-039	110.14	110.40	0.26	1.55
VLT01-039	115.80	116.05	0.25	2.75
VLT01-039	120.10	133.50	13.40	4.49
VLT01-040	88.60	93.02	4.42	1.77
VLT01-040	107.73	120.40	12.67	3.62
VLT01-041	56.90	58.90	2.00	10.96
VLT01-041	68.50	68.85	0.35	15.00
VLT01-041	71.70	73.34	1.64	1.43
VLT01-041	95.96	96.83	0.87	2.05
VLT01-041	102.35	107.60	5.25	4.69
VLT01-041	112.60	116.33	3.73	6.54
VLT01-042	90.96	94.28	3.32	3.01
VLT01-042	135.20	137.39	2.19	1.33
VLT01-042	139.33	142.35	3.02	3.28

VLT01-042	147.00	147.84	0.84	1.90
VLT01-042	151.55	154.77	3.22	1.25
VLT01-042	157.40	159.03	1.63	1.33
VLT01-042	162.70	171.55	8.85	4.38
VLT01-043	212.05	214.60	2.55	6.40
VLT01-043	249.20	249.65	0.45	3.40
VLT01-044	88.86	92.80	3.94	5.76
VLT01-044	95.00	102.45	7.45	2.08
VLT01-045	57.80	68.05	10.25	2.30
VLT01-046	68.42	69.42	1.00	5.70
VLT01-046	75.42	88.00	12.58	4.29
VLT02-047	347.60	349.00	1.40	1.84
VLT02-047	355.40	356.50	1.10	11.26
VLT02-047	404.50	407.00	2.50	1.63
VLT02-047	413.90	414.70	0.80	1.20
VLT02-047	418.00	419.10	1.10	1.08
VLT02-048	161.80	164.25	2.45	1.37
VLT02-048	171.80	176.55	4.75	5.70
VLT02-048	233.10	235.25	2.15	3.06
VLT02-048	240.10	242.15	2.05	1.62
VLT02-048	248.00	254.85	6.85	1.75
VLT02-048	258.10	259.90	1.80	2.02
VLT02-048	261.90	264.20	2.30	1.41
VLT02-049	152.63	152.83	0.20	107.30
VLT02-049	269.05	269.80	0.75	3.34
VLT02-050	85.10	85.90	0.80	1.33
VLT02-050	151.80	152.00	0.20	2.16
VLT02-050	156.65	157.70	1.05	6.39
VLT02-050	186.40	187.10	0.70	1.53
VLT02-050	191.20	191.55	0.35	1.02
VLT02-051	218.85	219.25	0.40	4.04
VLT02-051	254.65	255.50	0.85	1.46
VLT02-051	272.00	272.84	0.84	1.89
VLT02-051	296.00	304.55	8.55	9.66
VLT02-052	94.60	96.65	2.05	1.91
VLT02-052	106.50	108.95	2.45	8.23
VLT02-053	351.10	355.35	4.25	1.29
VLT02-053	357.65	358.05	0.40	1.81
VLT02-054	155.70	162.40	6.70	1.60
VLT02-054	217.60	218.15	0.55	2.30
VLT02-054	234.15	235.15	1.00	4.36

VLT02-055	329.95	331.07	1.12	1.08
VLT02-055	358.03	361.90	3.87	2.90
VLT02-055	364.38	367.60	3.22	1.62
VLT02-055	375.46	379.42	3.96	0.96
VLT02-055	381.50	390.83	9.33	2.52
VLT02-056	47.45	48.57	1.12	5.50
VLT02-056	58.35	59.46	1.11	1.49
VLT02-056	61.70	69.10	7.40	6.90
VLT02-057	28.20	29.20	1.00	1.39
VLT02-057	51.90	53.55	1.65	2.40
VLT02-059	22.67	29.20	6.53	2.97
VLT02-060	4.05	4.70	0.65	5.75
VLT02-060	27.88	37.05	9.17	2.63
VLT02-061	25.15	25.57	0.42	1.15
VLT02-061	64.21	73.55	9.34	2.93
VLT02-062	24.15	25.04	0.89	2.30
VLT02-062	67.95	79.85	11.90	3.32
VLT02-063	94.63	101.81	7.18	3.00
VLT02-064	12.67	13.90	1.23	1.10
VLT02-064	21.82	25.37	3.55	1.06
VLT02-064	58.92	70.90	11.98	12.53
VLT02-065	71.01	71.88	0.87	2.44
VLT02-065	76.58	82.22	5.64	3.59
VLT02-066	40.83	42.36	1.53	1.44
VLT02-066	64.20	65.30	1.10	1.28
VLT02-066	68.90	74.20	5.30	1.61
VLT02-066	94.53	101.02	6.49	4.83
VLT02-067	17.80	18.15	0.35	3.30
VLT02-067	33.90	35.45	1.55	1.30
VLT02-067	43.40	44.70	1.30	1.08
VLT02-067	49.30	67.35	18.05	2.77
VLT02-068	38.58	40.00	1.42	6.50
VLT02-068	72.00	72.62	0.62	1.10
VLT02-068	80.00	90.90	10.90	4.35
VLT02-069	7.37	9.43	2.06	1.19
VLT02-069	27.48	37.31	9.83	4.13
VLT02-070	49.47	55.77	6.30	3.36
VLT02-071	18.60	29.67	11.07	3.98
VLT02-072	4.65	5.10	0.45	2.95
VLT02-072	38.84	48.00	9.16	2.01
VLT02-073	16.75	18.00	1.25	1.20

VLT02-073	23.60	40.47	16.87	2.44
VLT02-074	37.55	40.29	2.74	1.51
VLT02-074	43.18	56.55	13.37	3.54
VLT02-075	10.08	11.38	1.30	1.10
VLT02-075	14.34	15.00	0.66	2.50
VLT02-075	26.42	27.48	1.06	6.15
VLT02-075	31.78	32.46	0.68	1.20
VLT02-076	7.36	8.76	1.40	1.20
VLT02-076	16.05	17.30	1.25	1.18
VLT02-076	18.40	19.00	0.60	22.50
VLT02-076	21.17	30.28	9.11	3.76
VLT02-076	33.28	34.80	1.52	1.50
VLT02-077	13.90	15.40	1.50	2.60
VLT02-077	19.69	20.87	1.18	2.15
VLT02-077	38.94	44.51	5.57	2.49
VLT02-077	54.85	55.84	0.99	1.10
VLT02-078	4.15	5.31	1.16	2.40
VLT02-078	29.34	30.34	1.00	2.70
VLT02-078	33.10	34.57	1.47	11.30
VLT02-078	37.10	39.10	2.00	1.55
VLT02-078	49.20	50.70	1.50	1.20
VLT02-078	61.39	70.24	8.85	2.87
VLT02-078	74.15	75.15	1.00	1.70
VLT02-079	25.97	27.18	1.21	2.65
VLT02-079	43.65	50.00	6.35	3.87
VLT02-079	53.15	54.20	1.05	1.65
VLT02-079	60.18	63.27	3.09	1.09
VLT02-079	71.65	84.78	13.13	4.97
VLT02-080	57.80	60.00	2.20	25.66
VLT02-080	64.69	69.30	4.61	1.32
VLT02-080	75.83	77.94	2.11	2.16
VLT02-080	83.13	85.56	2.43	4.15
VLT02-080	90.02	100.63	10.61	6.37
VLT02-081	46.06	47.65	1.59	5.92
VLT02-081	52.00	58.07	6.07	2.21
VLT02-081	60.89	61.80	0.91	5.98
VLT02-081	65.42	68.38	2.96	2.47
VLT02-081	70.79	84.67	13.88	3.11
VLT02-082	33.36	34.06	0.70	9.80
VLT02-082	36.92	53.65	16.73	1.75
VLT02-082	55.22	59.66	4.44	2.33

VLT02-083	7.63	10.51	2.88	2.57
VLT02-084	24.34	27.88	3.54	6.13
VLT02-084	33.95	40.00	6.05	2.00
VLT02-085	19.00	20.00	1.00	2.40
VLT02-085	27.50	27.87	0.37	5.50
VLT02-085	31.78	32.35	0.57	4.00
VLT02-085	34.55	47.38	12.83	11.57
VLT02-085	53.57	60.82	7.25	2.11
VLT02-085	63.80	66.76	2.96	3.38
VLT02-085	70.19	71.19	1.00	3.50
VLT02-086	41.79	42.25	0.46	1.75
VLT02-086	54.02	60.95	6.93	2.87
VLT02-086	64.12	64.95	0.83	5.15
VLT02-086	71.45	79.01	7.56	2.61
VLT02-086	81.78	82.56	0.78	4.30
VLT02-087	7.48	7.89	0.41	1.68
VLT02-087	11.63	19.75	8.12	1.31
VLT02-088	19.92	25.92	6.00	1.52
VLT02-088	30.46	40.18	9.72	2.11
VLT02-088	43.00	46.40	3.40	2.09
VLT02-089	4.11	4.31	0.20	1.46
VLT02-089	7.15	7.90	0.75	1.02
VLT02-089	10.30	12.00	1.70	1.18
VLT02-090	2.99	4.58	1.59	1.27
VLT02-090	13.96	18.10	4.14	1.93
VLT02-090	21.40	22.01	0.61	4.66
VLT02-090	25.72	32.58	6.86	2.68
VLT02-090	35.22	36.77	1.55	3.85
VLT02-091	4.69	5.13	0.44	19.25
VLT02-091	10.00	15.24	5.24	3.12
VLT02-091	27.97	30.37	2.40	2.14
VLT02-091	36.00	37.95	1.95	3.15
VLT02-091	43.20	47.80	4.60	4.32
VLT02-091	51.95	57.00	5.05	3.37
VLT02-093	21.53	23.40	1.87	1.66
VLT02-094	88.62	92.21	3.59	1.76
VLT02-095	21.02	22.37	1.35	1.84
VLT02-096	32.76	36.76	4.00	1.53
VLT02-097	19.30	22.58	3.28	4.31
VLT02-098	11.39	12.27	0.88	2.95
VLT02-098	34.65	39.82	5.17	4.07

VLT02-099	85.55	89.29	3.74	2.67
VLT02-100B	89.15	90.54	1.39	1.68
VLT02-100B	94.85	96.58	1.73	3.16
VLT02-100B	106.15	111.47	5.32	1.97
VLT02-100B	130.45	136.78	6.33	3.96
VLT02-101	116.70	119.78	3.08	4.58
VLT02-101	124.16	125.30	1.14	10.90
VLT02-101	128.09	129.66	1.57	2.90
VLT02-101	135.43	145.18	9.75	1.08
VLT02-101	148.83	162.33	13.50	3.84
VLT02-102	19.96	20.96	1.00	1.15
VLT02-102	180.59	181.59	1.00	1.59
VLT02-104	29.75	30.49	0.74	5.10
VLT02-105	25.48	36.66	11.18	2.89
VLT02-106	14.00	15.00	1.00	2.14
VLT02-106	41.32	43.60	2.28	0.98
VLT02-106	48.38	49.25	0.87	2.25
VLT02-106	53.97	57.00	3.03	1.20
VLT02-106	65.62	86.08	20.46	2.23
VLT02-107	27.20	28.34	1.14	2.22
VLT02-107	32.73	36.37	3.64	1.66
VLT02-107	38.50	48.87	10.37	3.13
VLT02-107	49.82	52.10	2.28	1.28
VLT02-108	21.90	22.40	0.50	1.89
VLT02-108	23.34	25.93	2.59	1.53
VLT02-108	34.31	49.65	15.34	2.95
VLT03-109	8.71	11.42	2.71	3.99
VLT03-109	18.69	19.19	0.50	1.24
VLT03-109	23.08	32.63	9.55	3.39
VLT03-109	36.44	37.62	1.18	2.02
VLT03-109	42.46	47.00	4.54	2.00
VLT03-110	8.60	8.85	0.25	3.84
VLT03-110	24.68	25.80	1.12	2.06
VLT03-110	29.36	29.62	0.26	10.55
VLT03-110	33.90	36.92	3.02	2.16
VLT03-110	42.62	52.64	10.02	1.99
VLT03-110	55.55	60.65	5.10	4.23
VLT03-110	77.27	79.35	2.08	2.34
VLT03-111	22.83	23.40	0.57	2.36
VLT03-111	40.50	41.00	0.50	2.88
VLT03-111	47.90	48.46	0.56	37.05

VLT03-111	53.70	57.35	3.65	1.85
VLT03-111	65.45	67.65	2.20	0.98
VLT03-111	70.11	80.05	9.94	2.81
VLT03-112	11.16	11.63	0.47	0.99
VLT03-112	27.01	28.04	1.03	1.42
VLT03-113	18.25	19.65	1.40	4.15
VLT03-113	25.67	29.00	3.33	4.09
VLT03-113	34.00	48.80	14.80	4.81
VLT03-113	57.35	65.05	7.70	1.97
VLT03-113	68.65	72.00	3.35	2.40
VLT03-113	74.20	78.40	4.20	1.60
VLT03-114	54.70	55.08	0.38	1.88
VLT03-115	0.00	0.00	0.38	0.00
VLT03-115	28.15	29.80	1.65	1.69
VLT03-115	31.70	32.22	0.52	2.60
VLT03-115	47.48	51.85	4.37	2.67
VLT03-115	70.64	77.00	6.36	2.03
VLT03-115	79.85	81.50	1.65	4.73
VLT03-116	24.55	34.55	10.00	1.53
VLT03-117	3.50	5.00	1.50	1.40
VLT03-117	12.50	12.88	0.38	1.60
VLT03-117	28.33	29.75	1.42	1.82
VLT03-117	33.70	34.83	1.13	4.00
VLT03-117	38.00	41.06	3.06	4.66
VLT03-117	47.74	48.75	1.01	1.90
VLT03-117	58.10	62.53	4.43	2.83
VLT03-117	65.45	74.32	8.87	1.39
VLT03-118	8.30	9.30	1.00	1.70
VLT03-118	21.00	29.40	8.40	2.71
VLT03-118	32.07	49.40	17.33	1.74
VLT03-118	51.55	52.55	1.00	1.64
VLT03-119	23.96	25.80	1.84	2.84
VLT03-119	32.30	33.43	1.13	1.05
VLT03-119	34.91	49.85	14.94	3.35
VLT03-120	18.47	19.04	0.57	5.35
VLT03-120	22.33	40.40	18.07	5.94
VLT03-121	3.00	6.15	3.15	1.29
VLT03-121	11.33	11.80	0.47	2.98
VLT03-122	36.10	36.39	0.29	2.03
VLT03-122	66.84	69.33	2.49	6.95
VLT03-122	72.00	73.00	1.00	3.08

VLT03-123	15.50	23.00	7.50	4.87
VLT03-123	30.00	30.40	0.40	1.13
VLT03-124	30.85	32.23	1.38	4.09
VLT03-124	35.10	40.39	5.29	2.45
VLT03-125	16.25	19.11	2.86	2.46
VLT03-125	22.86	23.06	0.20	4.59
VLT03-125	52.50	53.37	0.87	3.40
VLT03-125	54.86	66.12	11.26	2.83
VLT03-126	2.55	18.95	16.40	3.08
VLT03-126	22.00	23.00	1.00	1.37
VLT03-126	30.08	31.03	0.95	1.55
VLT03-127	51.22	54.62	3.40	3.95
VLT03-128	43.90	45.00	1.10	3.25
VLT03-128	51.35	51.70	0.35	1.01
VLT03-128	62.83	64.00	1.17	1.01
VLT03-128	69.40	78.10	8.70	4.55
VLT03-128	82.85	83.60	0.75	1.19
VLT03-129	36.64	40.47	3.83	1.85
VLT03-130	46.82	50.38	3.56	2.55
VLT03-131	44.39	46.85	2.46	4.26
VLT03-131	54.20	55.45	1.25	6.08
VLT03-131	57.45	60.45	3.00	1.16
VLT03-131	62.44	65.25	2.81	1.05
VLT03-131	80.40	81.74	1.34	1.69
VLT03-131	86.07	93.57	7.50	2.58
VLT03-131	99.50	100.90	1.40	1.48
VLT03-132	2.65	4.10	1.45	1.87
VLT03-133	24.90	25.15	0.25	10.45
VLT03-133	27.20	28.25	1.05	1.52
VLT03-133	47.00	47.22	0.22	2.06
VLT03-133	69.50	70.05	0.55	1.22
VLT03-133	72.87	85.60	12.73	2.90
VLT03-133	89.18	92.30	3.12	1.73
VLT03-134	2.46	6.26	3.80	11.87
VLT03-134	13.64	19.32	5.68	2.35
VLT03-135	12.90	13.60	0.70	1.21
VLT03-135	14.70	16.00	1.30	6.08
VLT03-136	22.90	23.13	0.23	1.08
VLT03-136	36.95	37.20	0.25	2.36
VLT03-136	51.65	52.48	0.83	2.43
VLT03-136	55.68	56.85	1.17	1.93

VLT03-136	61.04	61.95	0.91	1.82
VLT03-136	63.82	72.80	8.98	3.68
VLT03-136	77.00	77.20	0.20	1.52
VLT03-136	85.45	86.00	0.55	1.39
VLT03-136	87.45	96.40	8.95	1.33
VLT03-137	9.90	10.16	0.26	3.96
VLT03-137	12.43	16.70	4.27	3.60
VLT03-137	18.15	30.71	12.56	1.71
VLT03-138	3.60	4.10	0.50	2.27
VLT03-138	8.70	14.10	5.40	1.94
VLT03-139	8.65	9.37	0.72	2.38
VLT03-139	12.33	12.63	0.30	3.48
VLT03-139	16.92	23.39	6.47	2.57
VLT03-139	27.20	27.60	0.40	1.18
VLT03-140	3.54	4.24	0.70	4.12
VLT03-140	6.60	7.30	0.70	4.91
VLT03-140	10.57	10.87	0.30	1.73
VLT03-140	12.35	17.40	5.05	5.47
VLT03-140	22.50	22.75	0.25	4.38
VLT03-140	25.22	29.57	4.35	1.63
VLT03-140	44.61	45.00	0.39	4.88
VLT03-141	28.64	31.29	2.65	1.86
VLT03-142	56.26	56.45	0.19	1.66
VLT03-143	3.10	4.05	0.95	3.20
VLT03-143	8.50	9.25	0.75	1.09
VLT03-143	11.60	12.60	1.00	1.28
VLT03-143	13.26	17.75	4.49	3.15
VLT03-143	20.60	27.67	7.07	3.24
VLT03-143	29.90	33.43	3.53	1.55
VLT03-145	10.95	12.71	1.76	1.69
VLT03-145	14.43	14.75	0.32	2.17
VLT03-145	17.00	20.16	3.16	2.22
VLT03-145	24.72	32.15	7.43	3.00
VLT03-145	34.61	38.60	3.99	1.35
VLT03-145	40.90	47.62	6.72	3.76
VLT03-145	49.91	52.74	2.83	3.51
VLT03-145	53.88	54.15	0.27	2.37
VLT03-145	56.75	57.35	0.60	13.85
VLT03-146	28.59	28.88	0.29	2.04
VLT03-146	57.10	64.80	7.70	2.41
VLT03-147	22.70	23.12	0.42	6.65

VLT03-147	26.00	27.08	1.08	2.40
VLT03-147	31.80	32.20	0.40	1.87
VLT03-147	36.88	41.17	4.29	2.58
VLT03-147	47.45	47.90	0.45	1.46
VLT03-148	36.48	36.87	0.39	1.19
VLT03-148	74.76	83.00	8.24	2.47
VLT03-149	3.10	3.50	0.40	3.08
VLT03-149	40.40	40.60	0.20	2.84
VLT03-149	46.00	53.37	7.37	2.87
VLT03-149	64.39	81.14	16.75	3.05
VLT03-150	46.70	46.97	0.27	1.57
VLT03-150	87.61	94.64	7.03	3.96
VLT03-151	60.76	61.25	0.49	1.59
VLT03-151	63.52	65.65	2.13	3.19
VLT03-151	68.00	69.00	1.00	1.28
VLT03-151	76.20	78.75	2.55	3.53
VLT03-151	84.85	95.80	10.95	4.22
VLT03-152	51.64	53.12	1.48	2.41
VLT03-152	60.80	62.00	1.20	2.82
VLT03-152	84.08	92.00	7.92	3.32
VLT03-153	51.00	51.62	0.62	3.45
VLT03-153	60.10	65.30	5.20	2.22
VLT03-153	68.14	72.11	3.97	9.18
VLT03-153	85.80	86.98	1.18	4.88
VLT03-153	92.35	102.30	9.95	2.99
VLT03-153	105.50	106.47	0.97	2.54
VLT03-154B	23.95	24.05	0.10	2.56
VLT03-154B	36.78	51.41	14.63	3.63
VLT03-154B	56.00	67.90	11.90	1.91
VLT03-154B	71.27	73.55	2.28	4.87
VLT03-154B	76.05	77.00	0.95	1.42
VLT03-155	27.91	28.07	0.16	6.71
VLT03-155	57.77	64.50	6.73	2.16
VLT03-155	66.90	68.61	1.71	3.44
VLT03-155	71.30	71.96	0.66	2.40
VLT03-155	77.96	85.43	7.47	2.59
VLT03-155	90.85	108.15	17.30	2.15
VLT03-156	29.00	30.76	1.76	3.18
VLT03-156	35.71	35.95	0.24	1.38
VLT03-156	42.00	46.71	4.71	4.69
VLT03-156	48.85	54.02	5.17	3.31

VLT03-156	60.10	81.52	21.42	2.49
VLT03-157	28.88	29.88	1.00	4.81
VLT03-157	33.34	51.33	17.99	4.46
VLT03-157	55.68	60.80	5.12	2.43
VLT03-157	66.40	66.80	0.40	8.20
VLT03-158	6.00	6.90	0.90	2.02
VLT03-158	10.85	12.52	1.67	2.21
VLT03-159	8.29	8.58	0.29	2.78
VLT03-160	12.70	17.17	4.47	2.84
VLT03-161	2.15	6.24	4.09	2.53
VLT03-161	7.00	7.75	0.75	1.39
VLT03-162	13.25	14.60	1.35	3.94
VLT03-162	17.90	18.95	1.05	1.44
VLT03-163	5.80	7.48	1.68	2.80
VLT03-163	10.29	18.60	8.31	2.38
VLT03-165	5.70	6.74	1.04	2.39
VLT03-165	10.65	15.85	5.20	3.03
VLT03-165	18.00	25.02	7.02	1.14
VLT03-166	4.70	5.30	0.60	1.95
VLT03-166	7.00	10.72	3.72	3.96
VLT03-166	16.92	20.57	3.65	1.67
VLT03-167	5.80	6.80	1.00	1.00
VLT03-168	60.54	60.95	0.41	3.44
VLT03-168	64.12	64.53	0.41	8.17
VLT03-168	86.28	94.30	8.02	2.48
VLT03-168	100.00	101.55	1.55	2.54
VLT03-169	97.69	98.00	0.31	2.68
VLT03-169	104.80	108.70	3.90	5.27
VLT03-169	111.57	115.70	4.13	1.13
VLT03-169	122.79	136.15	13.36	2.77
VLT03-169	139.23	139.72	0.49	1.08
VLT03-170	5.50	6.50	1.00	1.17
VLT03-170	9.30	10.16	0.86	1.83
VLT03-170	15.84	21.68	5.84	3.48
VLT03-171	2.43	11.18	8.75	4.12
VLT03-172	4.00	5.00	1.00	1.68
VLT03-172	9.05	16.60	7.55	6.06
VLT03-172	21.25	21.48	0.23	2.61
VLT03-173	4.00	11.05	7.05	2.74
VLT03-173	16.97	17.60	0.63	3.12
VLT03-174	10.20	13.60	3.40	1.37

VLT03-174	16.55	23.15	6.60	1.53
VLT03-175	3.00	3.54	0.54	1.33
VLT03-175	7.00	7.75	0.75	3.22
VLT03-176	8.20	8.40	0.20	6.30
VLT03-176	12.90	24.08	11.18	4.31
VLT03-177	3.60	15.95	12.35	5.12
VLT03-178	58.20	59.42	1.22	1.16
VLT03-178	78.63	79.06	0.43	1.35
VLT03-178	84.55	85.63	1.08	1.31
VLT03-178	88.69	90.28	1.59	2.65
VLT03-178	109.32	116.00	6.68	5.01
VLT03-179	42.54	43.09	0.55	1.28
VLT03-179	75.85	77.00	1.15	1.37
VLT03-179	80.90	83.37	2.47	0.98
VLT03-179	104.98	111.40	6.42	4.25
VLT03-180	10.00	10.92	0.92	1.85
VLT03-180	17.23	27.00	9.77	3.31
VLT03-181	6.70	19.10	12.40	5.97
VLT03-182	7.95	14.35	6.40	11.31
VLT03-183	16.90	25.20	8.30	3.91
VLT03-184	8.00	14.13	6.13	3.94
VLT03-185	7.90	10.75	2.85	1.12
VLT03-186	77.80	81.34	3.54	8.05
VLT03-186	91.67	92.63	0.96	1.75
VLT03-186	95.55	95.95	0.40	2.07
VLT03-186	103.42	114.70	11.28	3.77
VLT03-187	10.30	13.37	3.07	4.09
VLT03-188	9.00	9.46	0.46	0.98
VLT03-189	18.73	20.75	2.02	3.22
VLT03-190	10.52	12.67	2.15	5.18
VLT03-191	16.00	24.12	8.12	1.84
VLT03-192	32.19	39.78	7.59	2.56
VLT03-193	44.90	57.25	12.35	3.06
VLT03-194	65.67	76.03	10.36	6.48
VLT03-195	71.23	73.78	2.55	2.33
VLT03-195	80.06	92.28	12.22	3.08
VLT03-196	78.69	79.95	1.26	3.18
VLT03-196	101.73	115.13	13.40	2.39
VLT03-196	117.10	120.00	2.90	1.38
VLT03-196	122.60	123.65	1.05	2.10
VLT03-197	92.00	92.94	0.94	1.15

VLT03-197	105.35	105.72	0.37	5.66
VLT03-197	108.60	109.02	0.42	1.92
VLT03-197	111.95	112.20	0.25	1.11
VLT03-197	114.12	114.85	0.73	1.35
VLT03-197	130.50	131.40	0.90	5.26
VLT03-197	134.00	142.79	8.79	2.88
VLT03-197	149.88	151.47	1.59	2.84
VLT03-198	117.50	118.38	0.88	6.88
VLT03-198	121.55	123.90	2.35	1.86
VLT03-198	131.00	131.66	0.66	2.73
VLT03-198	136.46	136.80	0.34	12.90
VLT03-198	148.00	151.10	3.10	1.78
VLT03-198	156.55	163.19	6.64	3.81
VLT03-199	85.55	87.90	2.35	1.20
VLT03-199	111.43	113.88	2.45	2.45
VLT03-199	120.91	131.56	10.65	4.91
VLT03-200	133.35	133.70	0.35	6.60
VLT03-200	141.95	144.12	2.17	3.01
VLT03-200	146.95	155.70	8.75	3.14
VLT03-201	56.80	57.14	0.34	2.05
VLT03-201	97.72	99.79	2.07	4.11
VLT03-201	104.10	105.30	1.20	1.23
VLT03-201	117.03	119.75	2.72	1.61
VLT03-201	122.55	128.21	5.66	1.37
VLT03-201	131.83	138.16	6.33	1.57
VLT03-201	141.50	149.20	7.70	4.83
VLT03-201	161.64	162.70	1.06	1.82
VLT03-202	74.35	78.97	4.62	2.36
VLT03-202	95.00	95.17	0.17	2.57
VLT03-202	106.43	106.63	0.20	2.18
VLT03-202	114.90	115.21	0.31	2.10
VLT03-202	122.94	123.37	0.43	1.56
VLT03-202	130.20	140.14	9.94	2.79
VLT03-202	143.79	145.12	1.33	4.33
VLT03-202	149.14	150.80	1.66	3.23
VLT03-203	39.55	42.00	2.45	1.05
VLT03-203	64.45	65.25	0.80	4.62
VLT03-203	69.00	70.00	1.00	2.56
VLT03-203	76.00	77.72	1.72	2.00
VLT03-203	79.95	80.44	0.49	1.53
VLT03-203	81.44	81.85	0.41	1.69

VLT03-203	83.25	84.75	1.50	7.17
VLT03-203	93.31	94.93	1.62	9.26
VLT03-203	97.65	114.00	16.35	6.70
VLT03-204	48.05	48.20	0.15	2.47
VLT03-204	51.23	52.29	1.06	10.23
VLT03-204	52.73	53.32	0.59	1.35
VLT03-204	56.45	58.02	1.57	2.23
VLT03-204	92.72	93.69	0.97	1.96
VLT03-204	101.11	101.52	0.41	1.22
VLT03-204	102.88	103.53	0.65	1.84
VLT03-204	112.50	113.15	0.65	2.14
VLT03-204	117.16	123.86	6.70	2.38
VLT03-204	124.49	124.75	0.26	1.31
VLT03-204	128.56	130.32	1.76	1.23
VLT03-204	132.32	133.20	0.88	1.21
VLT03-205	56.75	57.34	0.59	11.75
VLT03-205	95.86	96.46	0.60	1.02
VLT03-205	97.73	101.53	3.80	8.61
VLT03-205	104.71	105.77	1.06	2.55
VLT03-205	108.81	109.67	0.86	12.00
VLT03-205	113.76	119.95	6.19	2.28
VLT03-205	124.39	126.00	1.61	1.39
VLT03-205	132.57	139.80	7.23	1.56
VLT03-205	143.40	149.64	6.24	4.44
VLT03-206	81.42	82.12	0.70	1.15
VLT03-206	86.70	87.53	0.83	1.08
VLT03-206	91.72	93.89	2.17	2.30
VLT03-206	100.82	108.02	7.20	3.43
VLT03-206	111.20	113.73	2.53	1.68
VLT03-207	4.48	5.02	0.54	1.41
VLT03-207	10.52	11.30	0.78	3.40
VLT03-207	21.43	22.70	1.27	5.76
VLT03-207	26.92	27.34	0.42	1.72
VLT03-207	84.86	85.23	0.37	3.12
VLT03-208	57.22	57.60	0.38	1.36
VLT03-208	82.90	88.40	5.50	5.42
VLT03-208	90.18	91.34	1.16	4.76
VLT03-208	93.80	94.07	0.27	4.19
VLT03-208	98.01	102.33	4.32	80.37
VLT03-208	114.52	129.71	15.19	3.26
VLT03-208	139.00	139.68	0.68	3.84

VLT03-209	43.49	44.31	0.82	3.05
VLT03-209	76.98	77.31	0.33	1.42
VLT03-209	81.35	81.93	0.58	3.33
VLT03-210	131.39	135.05	3.66	2.16
VLT03-210	135.68	136.31	0.63	1.09
VLT03-210	140.50	141.52	1.02	4.43
VLT03-210	149.95	150.27	0.32	1.50
VLT03-210	151.34	153.50	2.16	2.19
VLT03-210	155.87	169.94	14.07	5.20
VLT03-210	178.68	189.30	10.62	6.09

APPENDIX I

List of Solids

Meadowbank Solid List

Deposit	**Solid Type**	**Area**	**Rock Code**	**Path**	**File Name**
Portage	Grade Shells	3P2	3P2	tin\2003\3P2_C	CLIP_1.bt2
Portage	Grade Shells	TPNP	TPNP	tin\2003\TPNP	ALL.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_A.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_A*.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_B.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_C.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_D.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_E.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_J.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_K.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_L.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	BZ_R.bt2
Portage	Grade Shells	Bay Zone	BZ	tin\2003	TP_R.bt2

Portage	Grade Shells	3P2	WASTE	tin\2003\3P2_W	CLIPC.bt2
Portage	Grade Shells	TPNP	WASTE	tin\2003\TPNP_W	CLIPB.bt2
Portage	Geology Solids	3P2	UM	tin\2003\3P2_202	CLIP_1.bt2
Portage	Geology Solids	3P2	IF	tin\2003\3P2_203	CLIP_1.bt2
Portage	Geology Solids	3P2	IV	tin\2003\3P2_204	CLIP_1.bt2
Portage	Geology Solids	0-500N	UM	tin\2003\0-500N	202_CL.bt2
Portage	Geology Solids	0-500N	IF	tin\2003\0-500N	203_CL.bt2
Portage	Geology Solids	0-500N	IV	tin\2003\0-500N	204_CL.bt2
Portage	Geology Solids	500-1450N	IF	tin\2003\203	500N.bt2
Portage	Geology Solids	500-1450N	UM	tin\2003\202	500N.bt2
Portage	Geology Solids	500-1450N	QTZT	tin\2003\208	500N.bt2
Portage	Geology Solids	500-1450N	IVchl	tin\2003\201	500N.bt2
Portage	Geology Solids	500-1450N	IV	tin\2003\204	500N.bt2
Portage	Geology Solids	500S-000	IF	tin\2003\203	500S.bt2
Portage	Geology Solids	500S-000	UM	tin\2003\202	500S.bt2
Portage	Geology Solids	500S-000	QV	tin\2003\205	500S.bt2
Portage	Geology Solids	500S-000	QFP	tin\2003\207	500S.bt2
Portage	Geology Solids	500S-000	IV	tin\2003\204	500S.bt2
Portage	Faults/Surfaces	Fault		tin\2003_NPT\NSfaultN	clip.bt2
Portage	Faults/Surfaces	Fault		tin\2003_NPT\NSfaultT	clip.bt2
Portage	Faults/Surfaces	Clipping		tin\Solid\3P2\CLIP	WHOLE.bt2
Portage	Faults/Surfaces	Clipping		tin\Solid\3P2\CLIP	WHOLEB.bt2
Portage	Faults/Surfaces	Overburden		tin\Base\2004\OVB	MIN.bt2
Portage	Faults/Surfaces	Topography		tin\TOPO\BATH02\MODEL	4.bt2
Vault	Grade Shells	A-1	10	tin\VLT\A-1	CLIP3.bt2
Vault	Grade Shells	A-HW-1	80	tin\VLT\A-HW-1	CLIP_2.bt2
Vault	Grade Shells	A-HW-2	90	tin\VLT\A-HW-2	FINAL.bt2
Vault	Grade Shells	A-HW-3	100	tin\VLT\A-HW-3	CLIP_2.bt2
Vault	Grade Shells	A-HW-4	110	tin\VLT\A-HW-4	CLIP_1.bt2
Vault	Grade Shells	B-1-1	20	tin\VLT	B-1-1.bt2
Vault	Grade Shells	B-1-2	30	tin\VLT\B-1-2	CLIP_2.bt2
Vault	Grade Shells	B-FW	170	tin\VLT	B-FW.bt2
Vault	Grade Shells	B-HW-1	120	tin\VLT\B-HW-1	CLIP.bt2
Vault	Grade Shells	B-HW-2	130	tin\VLT\B-HW-2	CLIP.bt2
Vault	Grade Shells	C-1-1	40	tin\VLT	C-1-1.bt2
Vault	Grade Shells	C-1-2	50	tin\VLT\C-1-2	CLIP.bt2
Vault	Grade Shells	C-HW-1	140	tin\VLT\C-HW	CLIP.bt2
Vault	Grade Shells	C-HW-2	150	tin\VLT	C-HW-2.bt2
Vault	Grade Shells	D-1	60	tin\VLT\D-1	CLIP.bt2
Vault	Grade Shells	D-HW	160	tin\VLT\D-HW	TEMP.bt2

Vault	Grade Shells	E-1	70	tin\VLT\E-1	CLIP3.bt2
Vault	Geology Solids		IVA	tin\2003\VAULT	IVA.bt2
Vault	Geology Solids		IVT	tin\2003\VAULT	IVT.bt2
Vault	Geology Solids		IF/IVchl	tin\2003\VAULT	IVIVchl.bt2
Vault	Faults/Surfaces	Fault		tin\A\2003\VLT	FLT_A.bt2
Vault	Faults/Surfaces	Fault		tin\B\VLT\FLT_B	CLIP.bt2
Vault	Faults/Surfaces	Fault		tin\C\VLT\FLT_C	CLIP.bt2
Vault	Faults/Surfaces	N-S		tin\Fault_S\VLT\FLT_N_N	CLIP.bt2
Vault	Faults/Surfaces	N-S		tin\Fault_N\VLT\FLT_N_S	CLIP.bt2
Vault	Faults/Surfaces	Overburden		tin\base\2003\OVB	MIN.bt2
Vault	Faults/Surfaces	Topography		tin\TOPO\BATH02	MODEL03.bt2
Goose Island	Grade Shells		1 gram	tin\GOOSE\2003	1gram_R.bt2
Goose Island	Grade Shells		Waste	tin\GOOSE200\1_gram	int_waste.bt2
Goose Island	Geology Solids		202	tin\2003	UMV.bt2
Goose Island	Geology Solids		203	tin\2003\IF	Main.bt2
Goose Island	Geology Solids		203	tin\2003\IF	Upper.bt2
Goose Island	Geology Solids		204	tin\2003\IV	Main.bt2
Goose Island	Geology Solids		204	tin\2003\IV	Upper.bt2
Goose Island	Geology Solids		206	tin\2003	MV.bt2
Goose Island	Geology Solids		208	tin\2003	QTZT.bt2
Goose Island	Faults/Surfaces	Overburden		tin\2002\OVB	Min_ex.bt2
Goose Island	Faults/Surfaces	Topography		tin\TOPO\Bath02	GS_mod.bt2

APPENDIX J

Assay and Composite Histograms and Probability Plots

APPENDIX K

Variograms

APPENDIX L

Interpolation Parameters

Interpolation Parameters

Goose Island

Search Domain	**Pass**	**Search**			**High Grade Restriction**		**Cap Level**	**Min**	**Max**	**Max/Hole**
		Rotation Type	**Rot. Angles**	**Radii (XxYxZ)**	**Thresh. Grade**	**Search Rad. (XxYxZ)**				
North	1	ZXZ (RRR)	-10, 5, 5	60 x 45 x 45 m	30 g/t	20 x 12 x 12 m	50 g/t	5	16	4
	2	ZXZ (RRR)	-10, 5, 5	120 x 90 x 90 m	30 g/t	20 x 12 x 12 m	50 g/t	5	16	4
	3	ZXZ (RRR)	-10, 5, 5	240 x 180 x 180 m	30 g/t	20 x 12 x 12 m	50 g/t	2	16	none
South	1	ZXZ (RRR)	10, 5, 5	60 x 45 x 45 m	30 g/t	20 x 12 x 12 m	50 g/t	5	16	4
	2		10, 5, 5		30 g/t		50 g/t	5	16	4

		ZXZ (RRR)		120 x 90 x 90 m		20 x 12 x 12 m				
	3	ZXZ (RRR)	10, 5, 5	240 x 180 x 180 m	30 g/t	20 x 12 x 12 m	50 g/t	2	16	none

Portage

Search Domain	Pass	Search			High Grade Restriction		Cap Level	Min	Max	Max/Hole
		Rotation Type	Rot. Angles	Radii (XxYxZ)	Thresh. Grade	Search Rad. (XxYxZ)				
1	1	ZYZ (RRR)	20, -45, 0	70 x 30 x 20	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	2	ZYZ (RRR)	20, -45, 0	140 x 70 x 40	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	3	ZYZ (RRR)	20, -45, 0	260 x 145 x 100	25 g/t	20 x 12 x 12 m	50 g/t	2	10	none
2	1	ZYZ (RRR)	20, 10, 0	70 x 30 x 20	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	2	ZYZ (RRR)	20, 10, 0	140 x 70 x 40	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	3	ZYZ (RRR)	20, 10, 0	260 x 145 x 100	25 g/t	20 x 12 x 12 m	50 g/t	2	10	none
3	1	ZYZ (RRR)	20, -60, 0	70 x 30 x 20	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	2	ZYZ (RRR)	20, -60, 0	140 x 70 x 40	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	3	ZYZ (RRR)	20, -60, 0	260 x 145 x 100	25 g/t	20 x 12 x 12 m	50 g/t	2	10	none
4	1	ZYZ (RRR)	20, -30, 0	70 x 30 x 20	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	2	ZYZ (RRR)	20, -30, 0	140 x 70 x 40	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	3	ZYZ (RRR)	20, -30, 0	260 x 145 x 100	25 g/t	20 x 12 x 12 m	50 g/t	2	10	none
5	1	ZYZ (RRR)	20, 60, 0	70 x 30 x 20	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	2	ZYZ (RRR)	20, 60, 0	140 x 70 x 40	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	3	ZYZ (RRR)	20, 60, 0	260 x 145 x 100	25 g/t	20 x 12 x 12 m	50 g/t	2	10	none
6	1	ZYZ (RRR)	20, 90, 0	70 x 30 x 20	25 g/t	20 x 12 x 12 m	50 g/t	4	12	3
	2		20, 90, 0		25 g/t		50 g/t	4	12	3

		ZYZ (RRR)		140 x 70 x 40		20 x 12 x 12 m				
	3	ZYZ (RRR)	20, 90, 0	260 x 145 x 100	25 g/t	20 x 12 x 12 m	50 g/t	2	10	none

Vault

Search Domain	Pass	Search			High Grade Restriction		Cap Level	Min	Max	Max/Hole
		Rotation Type	Rot. Angles	Radii (XxYxZ)	Thresh. Grade	Search Rad. (XxYxZ)				
None	Pass #1	ZYZ (RRR)	18, 9, 52	50 x 70 x 10	none	na	17 g/t	4	12	3
	Pass #2	ZYZ (RRR)	18, 9, 52	100 x 140 x 20	none	na	17 g/t	4	12	3
	Pass #3	ZYZ (RRR)	18, 9, 52	280 x 200 x 40	none	na	17 g/t	1	12	none

APPENDIX M

Domain Relationships

APPENDIX N

Local Grade Comparisons
Representative Block Model Plans and Sections

APPENDIX O

Herco Comparisons