TECHNICAL REPORT
ON THE
GARRISON GOLD PROPERTY

LARDER LAKE MINING DIVISION
GARRISON TOWNSHIP, ONTARIO, CANADA

for

NORTHERN GOLD MINING INC.

Report No. 961

A.C.A. Howe International Limited
Toronto, Ontario, Canada

Patrick Hannon, M.A.Sc., P.Eng.
Doug Roy, M.A.Sc., P.Eng.
Ian D. Trinder, M.Sc., P.Geo.

Effective Date: April 19, 2012
Signing Date: June 01, 2012

A.C.A. HOWE INTERNATIONAL LIMITED
Mining and Geological Consultants

Effective Date: **April 19, 2012**
Signing Date: **June 01, 2012**

Report Number: **961**

Client Reference: **NORTHERN GOLD MINING INC.**

TECHNICAL REPORT ON THE GARRISON GOLD PROPERTY

LARDER LAKE MINING DIVISION
GARRISON TOWNSHIP, ONTARIO, CANADA

Authors:

Patrick Hannon, M.A.Sc., P.Eng. *"Signed and Sealed"*
Associate Consulting Engineer

Doug Roy, M.A.Sc., P.Eng. *"Signed and Sealed"*
Associate Consulting Engineer

Ian D. Trinder, M.Sc., P.Geo. *"Signed and Sealed"*
Senior Geologist

365 Bay Street, Suite 501, Toronto, ON, Canada, M5H2V1 (t) +1.416.368.7041, (f) +1.416.368.2579
254 High Street, Berkhamsted, Hertfordshire, HP41AQ, U.K. (t) +44.1442.873.398, (f) +44.1442.865.710
website: www.acahowe.ca; www.acahowe.co.uk

Office Locations: Toronto – London – Halifax

TABLE OF CONTENTS

1 SUMMARY 1

1.1 INTRODUCTION 1

1.2 PROPERTY LOCATION, ACCESS AND DESCRIPTION 1

1.3 GEOLOGY AND MINERALIZATION 1

1.4 DATA VERIFICATION AND QA/QC 2

1.5 GARRISON GOLD PROPERTY MINERAL RESOURCES SUMMARY 2

1.5.1 2012 Garrcon Deposit Mineral Resource Estimate Update 3

1.5.2 2009 Jonpol Deposit Mineral Resource Estimate 6

1.6 2011 Garrcon Preliminary Economic Assessment 9

1.7 CONCLUSIONS AND RECOMMENDATIONS 10

2 INTRODUCTION 15

2.1 GENERAL 15

2.2 SCOPE AND CONDUCT 16

2.3 SOURCES OF INFORMATION 18

2.4 UNITS AND CURRENCY 18

2.5 GLOSSARY 19

3 RELIANCE ON OTHER EXPERTS 22

4 PROPERTY DESCRIPTION AND LOCATION 23

4.1 PROPERTY LOCATION 23

4.2 PROPERTY DESCRIPTION 23

4.3 PROPERTY, OTHER OBLIGATIONS 27

4.3.1 Newfield, Garrcon and Brydges Groups 27

4.3.2 Linton Group 28

4.3.3 Other Underlying Agreements, Royalties or Encumbrances 28

4.3.4 Additional Proximal Northern Gold Properties 29

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPY 32

5.1 ACCESSIBILITY 32

5.2 CLIMATE AND PHYSIOGRAPHY 32

5.3 LOCAL RESOURCES AND INFRASTRUCTURE 32

6 PROPERTY HISTORY 35

6.1 GENERALPROPERTY EXPLORATION HISTORY SINCE 1985 35

6.2 GARRCON DEPOSIT EXPLORATION HISTORY 37

6.3 JONPOL DEPOSIT EXPLORATION HISTORY 39
6.4 GARRISON PROPERTY HISTORIC RESERVES AND RESOURCES 43
6.4.1 Garrcon Deposit 43
6.4.2 Jonpol Deposit 44
7 GEOLOGICAL SETTING AND MINERALIZATION 45
7.1 REGIONAL GEOLOGICAL SETTING 45
7.2 Local Geological Setting 49
7.3 MINERALISATION 50
7.3.1 Garrcon Mineralised Zone 50
7.3.2 Jonpol Deposit 52
8 DEPOSIT TYPES 54
8.1 EXPLORATION TARGETS 54
8.2 DEPOSIT MODELS 54
9 EXPLORATION 57
9.1 NORTHERN GOLD 2009 EXPLORATION 57
9.2 2010 SURFACE GRID AND GEOPHYSICS 57
9.3 2010 DRILL HOLE COLLAR SURVEY 59
9.4 2010 REHABILITATION 59
9.5 2010 SURFACE STRIPPING / SAMPLING 60
9.6 2010 METALLURGICAL TESTING 62
9.7 2010 PETROGRAPHIC STUDY 62
9.8 2010 – 2011 ENVIRONMENTAL BASELINE STUDY / PERMITTING 63
9.9 2011 IP GEOPHYSICAL SURVEY 63
9.10 2011 SURFACE STRIPPING / SAMPLING 66
9.11 2011-2012 HYPERSPECTRAL CORE MAPPING 69
9.12 2010, 2011 AND 2012 DIAMOND DRILL PROGRAMS 70
9.13 2011 – 2012 ENVIRONMENTAL BASELINE STUDY / PERMITTING 70
10 DRILLING 71
10.1 HISTORICAL DRILLING ON GARRCON DEPOSIT 71
10.2 NORTHERN GOLD 2009 DRILL PROGRAM 71
10.3 2010 DIAMOND DRILLING 72
10.4 2011 DIAMOND DRILLING 74
10.5 2012 DIAMOND DRILLING 74
10.6 GENERAL DRILL HOLE, CORE HANDLING, LOGGING AND SAMPLING METHODS AND APPROACH 75

10.6.1 Northern Gold Drill Hole Survey Methods 75
10.6.2 Northern Gold Drill Hole, Core Handling, Logging and Sampling Methods 76
11 SAMPLE PREPARATION, ANALYSES AND SECURITY 80
11.1 SWASTIKA LABS 2009-2010 81
11.1.1 Sample Preparation 81
11.1.2 Analytical Procedures 81
11.2 EXPERT LABS 2010-2012 82
11.2.1 Sample Preparation 82
11.2.1 Analytical Procedures 82
11.3 SGS MINERAL SERVICES 2010-2012 82
11.3.1 Sample Preparation 83
11.3.2 Analytical Procedures 83
11.4 HISTORIC QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) PROGRAMS 84
11.5 NORTHERN GOLD QA/QC PROGRAMS 84
11.5.1 2009 Northern Gold QA/QC Programs 84
11.5.2 2010-2011 Northern Gold QA/QC Programs 84
12 DATA VERIFICATION 99
12.1 ACA HOWE 2010 VERIFICATION 99
12.1.1 ACA Howe Site Visits 99
12.1.2 ACA Howe Verification Sampling 100
12.1.3 Database Verification 101
13 MINERAL PROCESSING AND METALLURGICAL TESTING 102
13.1 Garrcon Deposit 102
13.1.1 Preliminary Metallurgical Studies 102
13.1.2 Howe Discussion 103
14 MINERAL RESOURCE ESTIMATE 104
14.1 INTRODUCTION 104
14.2 GARRCON MINERAL RESOURCE ESTIMATE UPDATE 105
14.2.1 Introduction 105
14.2.2 Data Sources 105
14.2.3 Site Grid Transformation 106
14.2.4 Mineralised Zone Interpretation 107
14.2.5 Internal Waste Zones 108
14.2.6 Sample Regularising/Compositing 115
14.2.7 Sample Statistics 115

14.2.8 Specific Gravity 120
14.2.9 Variography 120
14.2.10 Block Modelling 131
14.2.11 Cut-off Grades 132
14.2.12 Top-Cut Grade 132
14.2.13 Restriction of Certain Samples 134
14.2.14 Grade Estimation 134
14.2.15 Resource Classification Parameters 135
14.2.16 Results 137
14.2.17 Cross-Validation of Results 140
14.2.18 Comparison with Previous Resource Estimate 140
14.3 2009 JONPOL DEPOSIT MINERAL RESOURCE ESTIMATE 141
14.3.1 Introduction 141
14.3.2 Resource Estimation Methodology 141
14.3.3 Jonpol Desposit Resource Estimate 143
14.4 GARRISON GOLD PROPERTY MINERAL RESOURCES SUMMARY 147
15 MINERAL RESERVE ESTIMATES 147
16 MINING METHODS - PROPOSED 148
16.1 CAUTION TO THE READER 148
16.2 INTRODUCTION 149
16.3 SUMMARY OF RELEVANT INFORMATION AVAILABLE 149
16.4 PROPOSED MINING AND PROCESSING METHODS 150
16.5 OPEN PIT MINING 151
16.5.1 Pit Optimisation 151
16.5.2 Practical Pit Design (“De-optimisation”) 162
16.6 PRODUCTION RATE 165
16.7 MINE SCHEDULE 165
16.8 MINE PLANNING PARAMETERS 165
16.8.1 Required Mining Fleet and Machinery 168
16.8.2 Dewatering 172
16.8.3 Waste Management Area 172
16.9 HEAP LEACH FACILITY 172
16.9.1 Design Considerations for Reclamation and Closure 173
17 RECOVERY METHODS 175

17.1 INTRODUCTION 175
17.2 GRAVITY-CYANIDE CIRCUIT DESIGN 178
17.2.1 Basis of Design 178
17.2.2 Grinding 179
17.2.3 Regrind 179
17.2.4 Sulphide Concentration 180
17.2.5 Silicate/Carbonate Leach 180
17.2.6 Cyanidation Consumables 181
17.3 HEAP LEACHING 181
18 PROJECT INFRASTRUCTURE 182
18.1 LAND REQUIREMENTS 182
19 MARKET STUDIES AND CONTRACTS 184
19.1 GOLD MARKET 184
20 CAPITAL AND OPERATING COSTS 186
20.1 ACCURACY OF COST ESTIMATE 186
20.2 CAPITAL COSTS 187
20.2.1 Mining Capital Costs 187
20.2.2 Processing Capital Costs 189
20.2.3 Reclamation Bonding 193
20.3 OPERATING COSTS 193
20.3.1 Estimation method and factors 194
20.3.2 Mine Explosives 195
20.3.3 Mine/Heap Leach Fuel Use and Storage 195
20.3.4 Mine and Mill Personnel 196
20.3.5 Anticipated Reclamation and Environmental Costs during Closure Phase 199
21 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT 200
21.1 BIO-PHYSICAL CONDITIONS 200
21.1.1 NAR Environmental Baseline Studies 2010-2011 201
21.1.1 Blue Heron Environmental Baseline Studies 2011-2012 202
21.2 ARCHAEOLOGICAL AND HERITAGE RESOURCES 204
21.3 ABORIGINAL PEOPLES 204
21.4 LOCAL RESIDENTS 205
21.5 OTHER DEVELOPMENTS 205
21.6 PUBLIC CONSULTATION 205

21.7 ANTICIPATED PERMITTING TIMETABLE AND COSTS 205
21.8 ANTICIPATED ENVIRONMENTAL COSTS DURING OPERATIONAL PHASE 209
21.9 ANTICIPATED ENVIRONMENTAL COSTS DURING CLOSURE PHASE 209
22 ECONOMIC ANALYSIS 210
22.1 PRINCIPAL ASSUMPTIONS 210
22.2 ECONOMIC ANALYSIS 210
22.2.1 Capital and Operating Costs 210
22.2.2 Projected Revenue 212
22.2.3 Taxes 213
22.2.4 Economic Summary 214
22.3 FINANCIAL INDICATORS 214
22.4 PAYBACK 215
22.5 ROYALTIES 215
22.6 SENSITIVITY 215
23 ADJACENT PROPERTIES 217
24 OTHER RELEVANT DATA AND INFORMATION 217
25 INTERPRETATION AND CONCLUSIONS 218
26 RECOMMENDATIONS 221
27 REFERENCES 225
28 DATE AND SIGNATURE PAGE 228
29 CERTIFICATES OF QUALIFICATIONS 229

LIST OF FIGURES

Figure 2-1: Open Pit Terms (MEH) 19
Figure 4-1: Garrison Gold Property Location 24
Figure 4-2: Property Claim Map 25
Figure 4-3: Property Claim Map with Historic Claim Group Outlines 26
Figure 4-4: Location of Northern Gold non-contiguous claim groups in the area of the Garrison Gold Property 29
Figure 7-1: Regional Geology 48
Figure 7-2: Property Geology 51
Figure 9-1: 2009 Exploration Grid Layout 58
Figure 9-2: 2010 Contoured Total Field Magnetic Plan Map – Garrison Gold Property 59
Figure 9-3: 2010 Garrcon Surface Stripping Locations 60
Figure 9-4: Distribution of Surface Channel Samples and +0.3 g/tonne Au Intervals (+0.3 and +0.5 g/tonne Au highlighted yellow and red respectively) 61
Figure 9-5: Distribution of Surface Channel Samples and +0.3 g/tonne Au Intervals (+0.3 and +0.5 g/tonne Au highlighted yellow and red respectively) 62
Figure 9-6: Modeled 3-D Resistivity 65
Figure 9-7: Modeled 3-D Chargeability 65

Figure 9-8: 2011 Garrcon Surface Stripping Locations....67
Figure 9-9: Distribution of Surface Channel Samples at 2011 Stripping Areas L4W and L4+50W 68
Figure 9-10: Distribution of Surface Channel Samples at 2011 Stripping Areas L16W - Hillside and L18W - West Rock....68
Figure 10-1: Northern Gold Diamond Garrcon 2009-2012 Drill Hole Plan (local grid coordinates) 73
Figure 11-1: Standard OREAS 61Pa (4.460 g/tonne Au) results plotted against time....86
Figure 11-2: Standard SF45 (0.848 g/tonne Au) results plotted against time....86
Figure 11-3: Standard SF57 (0.848 g/tonne Au) results plotted against time....87
Figure 11-4: Standard SG40 (0.976 g/tonne Au) results plotted against time....87
Figure 11-5: Standard SJ39 (2.641 g/tonne Au) results plotted against time....88
Figure 11-6: Standard SH55 (1.375 g/tonne Au) results plotted against time....88
Figure 11-7: Standard SJ53 (2.637 g/tonne Au) results plotted against time....89
Figure 11-8: Standard SL46 (5.870 g/tonne Au) results plotted against time....89
Figure 11-9: Standard SN50 (8.685 g/tonne Au) results plotted against time....90
Figure 11-10: Standard SN60 (8.595 g/tonne Au) results plotted against time....90
Figure 11-11: Blank sample analytical results plotted against time....91
Figure 11-12: Plot of primary assays versus core duplicate assays (FA-AA)....93
Figure 11-13: Plot of primary assays versus core duplicate assays (FA-Gravimetric)....93
Figure 11-14: Plot of primary assays versus preparation duplicates (FA-AA)....94
Figure 11-15: Plot of primary assays versus preparation duplicates (FA-GRAV)....95
Figure 11-16: Pulp Duplicate Check Assay Scatter plot Comparison (FA-AA)....96
Figure 11-17: Pulp Duplicate Check Assay Scatter plot Comparison (FA-Gravimetric)....97
Figure 11-18: FA-AA Check Assay Absolute Relative Percent Difference (RPD) Plot....97
Figure 11-19: FA-Gravimetric Check Assay Absolute Relative Percent Difference (RPD) Plot .98
Figure 14-1: Plan view of drilling and mineralised zones (local site grid coordinates)....109
Figure 14-2: 3-D view of the Garrcon zone....110
Figure 14-3: Cross-sections....111
Figure 14-4: Sample statistics for the main mineralised zone (natural log of regularised samples). 115
Figure 14-5: Statistical comparison between "current drilling" and "existing drilling."....117
Figure 14-6: Probability plots for the higher grade and lower grade domains....119
Figure 14-7: Semi-variograms....122
Figure 14-8: Semi-variogram surfaces....129
Figure 14-9: Lower-grade, along strike semi-variogram showing Measured and Indicated ranges. 136
Figure 14-10: Longitudinal Section of Jonpol Polygonal Resource Blocks....145
Figure 16-1: Mining and Processing of the Garrcon Gold Deposit....151
Figure 16-2: Plan view of $1200 pit (optimum pit)....157
Figure 16-3: Three-dimensional view of the $1200 pit (optimum pit)....158
Figure 16-4: Longitudinal section showing the $1200 pit (optimum pit)....159
Figure 16-5: Cross-section 1050 West....160
Figure 16-6: Cross-section 1150 West....161
Figure 16-7: Conceptual pit design cross-section....162

Figure 16-8: 3D view of the de-optimised (benches and haul roads added), $1200 pit, facing west. 163
Figure 16-9: 3D view of the de-optimised (benches and haul roads added), $1200 pit, facing southeast. 164
Figure 17-1: Gold processing sub-circuits including crushing, stock piles, heap leach, CIP and furnace as well as carbon regeneration and cyanide recycle and destruction. All processes concerning the tailings have not been included in the processing analysis. 176
Figure 17-2: Northern Gold Crushing Circuit 177
Figure 17-3: Simplified initial flow sheet showing 120 micrometers initial grind. 179
Figure 19-1 - Historical & Projected Gold Price (PEA is based on $1,200 per troy ounce gold) 184
Figure 19-2: Gold price, consumer price index and the M&S Mine-Mill Index plotted against time from 1975 to present. The graph illustrates the value in year x divided by the value in 1975. 185
Figure 20-1 - Accuracy of Estimates for Projects (Modified after A.L. Mular, CIM S. Val. 25, 1982) 186
Figure 20-2 - Marshall & Swift Mine-Mill Index, 1974-2010 187
Figure 21-1: Province of Ontario's EA Process 206
Figure 21-2: Overview Permitting and Approval Requirements that may Potentially Affect a Mine Development in Ontario – (http://www.mndm.gov.on.ca/mines/mg/mindev/permits_e.asp) 208
Figure 22-1: Sensitivity Spider diagram (Gold Grade and Gold Price have same trend) 216

LIST OF TABLES

Table 4-1: List of patented mining claims comprising the Garrison Gold Property. 23
Table 4-2: Northern Gold Plato and Sims claim groups in the area of the Garrison Gold Property 30
Table 6-1: Historical Garrcon diamond drill defined reserves, Jonpol Explorations Ltd. (1988) .43
Table 6-2: Historical Jonpol diamond drill defined reserves, Jonpol Explorations Ltd. (1988) 44
Table 7-1: Regional Table of Formations (Berger 2002) 47
Table 10-1: Historic Drilling included in Northern Gold's Garrcon Drill Hole and Resource Database 71
Table 11-1: QA/QC certified reference materials for 2010 and 2011 drilling programs. 85
Table 12-1: ACA Howe Verification Samples – SGS Analytical Method 100
Table 12-2: ACA Howe Duplicates *vs*. Original Samples 101
Table 14-1: Cross-section definitions. 108
Table 14-2: Semi-variogram exponential model parameters. 121
Table 14-3: Block model parameters. 132
Table 14-4: Higher grade samples. 133
Table 14-5: Grade estimation parameters. 135
Table 14-6: Block model fields. 135
Table 14-7: Summary of mineral resources (non-diluted). 138
Table 14-8: Details of mineral resources. 139
Table 14-9: Comparison with 2011 Garrcon mineral resource estimate. 141
Table 14-10: 2009 Jonpol Deposit Resource Estimate 146

Table 14-11: Garrison Gold Property – Mineral Resources Summary 147
Table 16-1: Pit optimisation parameters. 151
Table 16-2: Summary of pit optimization results (Indicated plus Inferred mineral resources). ..152
Table 16-3: In-pit 2011 mineral resources, by cut-off. 153
Table 16-4: 2011 Resources by level 155
Table 16-5: Percent of 2011 Resources in the Indicated category, by Level. 156
Table 16-6: Pit design parameters ("de-optimisation"). 162
Table 16-7 - Mining Schedule for 10,300 tpd plant (quantities rounded).................................165
Table 16-8: Pit Quantities, Non-Diluted 166
Table 16-9: Quantities used in the PEA study 167
Table 16-10: Major Mining Items 168
Table 16-11 – Blasthole Specifications and Drill Requirements 169
Table 16-12 - Physical Properties of Rocks 170
Table 16-13 - Haulage Truck Cycle Time 171
Table 16-14 - Haulage Truck Requirement...171
Table 16-15 Shovel Cycle Time & Total Shovels Requirement..171
Table 17-1: Blast fragmentation size analysis...176
Table 18-1: Estimated land area required for the mining plan based on solids depths. 183
Table 20-1: Major Mine Equipment Capital Costs 188
Table 20-2: Major Mill Equipment Capital Costs...190
Table 20-3: Processing Capital Cost Estimation Factors 191
Table 20-4 Crushing Circuit...192
Table 20-5 Heap Leach Capital Costs...192
Table 20-6: Grinding circuit capital cost summary..193
Table 20-7 – Mine and Mill Operating Costs 194
Table 20-8: Indirect operating cost estimation factors excluding electricity, consumables, and process operators. 195
Table 20-9 - Explosives Use 195
Table 20-10 - Fuel and Lubricant Use 196
Table 20-11 - Mine and Mill Personnel, Salary plus burden 197
Table 20-12: Common sub-circuit Operating costs in dollars per hour and dollars per tonne. ...198
Table 20-13 Estimated Operating Cost for the circuit 198
Table 20-14 Heap Leach Operating Costs 199
Table 22-1: Capital Cost Summary...211
Table 22-2: Yearly Operating Cost Summary...211
Table 22-3 – Projected Revenue 212
Table 22-4 Economic Summary - Income, Taxes and Interest Estimate 214
Table 22-5 - PEA Financial Indicators, Garrcon Deposit 215
Table 22-6: Sensitivities Table...216
Table 26-1: Proposed Budget – May to December 2012 224

LIST OF PLATES

Plate 5-1: Core logging/core sampling facility (January 21, 2011). 33
Plate 5-2: Core saw and sample preparation facility (January 2011). 34

LIST OF APPENDICES

APPENDIX A: Diamond Drill Holes used in 2012 Garrcon Mineral Resource Estimate Update

APPENDIX B: Northern Gold diamond drill holes completed April 19, 2012 but not used in 2012 Garrcon Resource Estimate Update because data retrieval still in progress

1 SUMMARY

1.1 INTRODUCTION

This technical report ("the Report") has been prepared by A. C. A. Howe International Limited ("Howe") at the request of Mr. Martin Shefksy, President, Northern Gold Mining Inc. ("Northern Gold" or "the Company"). This report is specific to the standards dictated by National Instrument 43-101 and Form 43-101F1 (Standards of Disclosure for Mineral Projects) in respect to the Garrison Gold Property ("the Property") and focuses on Howe's independent Garrcon Deposit mineral resource estimate update. Howe's 2009 Jonpol Deposit mineral resource estimate (George, 2009) and 2011 Garrcon Deposit Preliminary Economic Assessment ("PEA") (Hannon, Roy and Trinder, 2011) are also repeated.

1.2 PROPERTY LOCATION, ACCESS AND DESCRIPTION

The Property is located in the Timmins-Kirkland Lake area of northeastern Ontario along the Highway 101 corridor east of the town of Matheson. Specifically it is located in Garrison Township, Larder Lake Mining Division, approximately 40 kilometres north of Kirkland Lake, 40 kilometres east of Matheson, and 100 kilometres east of Timmins, Ontario.

The Property is comprised of 43 patented mining claims covering an area of approximately 476.1 hectares (1176.5 acres). The claims that make up the Property have been historically grouped into four contiguous claim blocks known as the Newfield, Garrcon, Brydges and Linton.

1.3 GEOLOGY AND MINERALIZATION

The Property is located within the Archean Abitibi Subprovince of the Superior Province of the Canadian Shield. The Property overlies about 4 kilometres of the regionally significant Destor-Porcupine Fault Zone and a major splay, the Munro Fault Zone. The Property is underlain by Kidd-Munro Assemblage metavolcanic rocks which, in the absence of faults, are unconformably overlain by Timiskaming Assemblage clastic metasedimentary rocks, composed of conglomerate, wacke-sandstone, siltstone, argillite and schist. The Timiskaming Assemblage rocks are closely associated with the Destor-Porcupine Fault Zone from the Quebec border to Hislop Township a distance of approximately 65 kilometres (Berger, 2002) . Banded magnetite-hematite iron formation is complexly interbedded and structurally interleaved with clastic metasedimentary rocks. On the Property the Timiskaming Assemblage is fault bounded, on the north side by the Munro fault and on the south side by the Destor-Porcupine Fault Zone.

The Destor-Porcupine Fault Zone comprises a variably altered and deformed sequence of metavolcanic rocks that include komatiites and tholeiitic basalts. Significant gold deposits generally occur in clusters within and adjacent the Destor-Porcupine Fault Zone. Where clustering occurs, the gold deposits are associated with disseminated pyrite zones in sub-parallel auriferous structures over limited strike distances. An example of this clustering is the

Holloway Mine and Holt-McDermott gold mines in Holloway Township, approximately 15 kilometres east of the Property. These two deposits occur along two separate gold-bearing structures which, as at the Garrison Property, are largely covered by overburden.

Gold mineralisation on the Property is similar to many of the deposits in the Timmins Gold Camp, where high-grade, gold-mineralized quartz veins and gold-bearing disseminated sulphide zones occur within and adjacent to shear zones, as steeply dipping ore shoots. On the Property gold mineralisation occurs in quartz-pyrite vein stockworks within the intervening Timiskaming sedimentary rocks on the northern edge of the Destor-Porcupine Fault Zone (Garrcon Deposit comprising the Garrcon North, Shaft and South Zones) and also occurs in sulphide-rich bodies (pyrite-arsenopyrite) within the Destor-Porcupine Fault Zone (903 Zone) and Munro Fault Zone (Jonpol Deposit comprising the JD, JP, RP and East Zones).

1.4 Data Verification and QA/QC

Howe has reviewed the Garrcon deposit data provided by Northern Gold, including the drill hole database, has visited the site and has reviewed sampling procedures and security. Howe believes that the data presented by the Company are generally an accurate and reasonable representation of the Garrcon deposit mineralisation. Howe concludes that the database for the Garrcon deposit is of sufficient quality to provide the basis for the conclusions and recommendations reached in this Report.

Northern Gold's current sampling and analytical protocols are considered by Howe to be appropriate. The quality control and quality assurance (QA/QC) protocols of the Company are industry standard. Northern Gold's QA/QC results to date indicate that there are no major problems with the accuracy of the analyses. While there is no available QA/QC data for the historic exploration on the Property, it was conducted under the supervision of experienced geologists and Howe is of the opinion that the data is of sufficient quality to be used in a current NI 43-101 compliant resource estimate.

1.5 Garrison Gold Property Mineral Resources Summary

A summary of mineral resources on the Garrison Gold Property follows:

Deposit	Resource Category	Tonnes	Au Grade (g/tonne)	Ounces Au
Garrcon Deposit	Measured (2012)	17,640,000	1.06	604,000
Garrcon Deposit	Indicated (2012)	20,830,000	1.00	668,000
Jonpol Deposit	Indicated (2009)	253,100	7.77	63,200
	Total Indicated	21,083,000	1.08	731,000
	Measured+Indicated	38,723,000	1.07	1,335,000
Garrcon Deposit	Inferred (2012)	15,780,000	0.72	367,000
Jonpol Deposit	Inferred (2009)	1,555,800	4.93	246,540
	Total Inferred	17,336,000	1.09	614,000

Notes on Mineral Resource Estimate:
1. Columns may not total correctly due to rounding
2. Garrcon mineral resources:
   a. Block cut-off grade for defining Mineral Resources was 0.3 g/tonne.
   b. Ordinary block kriging ("OBK") was used for estimating block grades.
3. Jonpol mineral resources:
   a. Cut-off grade for mineralised zone interpretation was approximately 0.5 g/tonne.
   b. Mineral resources were estimated using the polygonal longitudinal section method.

The 2012 Garrcon mineral resource estimate update (this Report) and the 2009 Jonpol mineral resource estimate are summarized below:

1.5.1 2012 Garrcon Deposit Mineral Resource Estimate Update

Northern Gold's exploration program from October 2009 to December 2011 has confirmed and expanded work carried out by previous operators and has delineated a significant gold resource at the Garrcon deposit.

During January-March 2012, ACA Howe International Limited ("Howe") carried out a mineral resource estimate update to its 2011 mineral resource estimate for the Garrcon Zone at Northern Gold's Garrison Project. The resource estimate, completed in accordance to NI 43-101 requirements, includes holes up to Hole GAR-11-180, drilled during December 2011.

The updated resource estimate was prepared by Doug Roy, M.A.Sc., P.Eng., Associate Mining Engineer with Howe. Geological interpretation was provided by Ian Trinder, M.Sc., P.Geo., Senior Geologist with Howe. Micromine software (Version 2011) was used to facilitate the resource estimating process. The resource estimate was prepared in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves[1].

For resource estimation, Northern Gold provided several forms of digital data. Input files were created from the supplied data for import to Micromine resource modeling software.

[1] CIM Definition Standards - For Mineral Resources and Mineral Reserves, adopted November 27, 2010

Using a cut-off grade of 0.1 g/tonne gold for mineralised zone interpretation, Howe outlined a mineralised zone that is nearly vertical, 1200 metres long and 300 metres wide (on average) and has been intersected to depths of up to 650 metres.

Mineralised zones were outlined to enforce geological control during block modeling. Because of the larger scale and lower grade nature of the mineralisation, it was assumed that the deposit would be modeled using larger scale, surface mining methods.

Interpretations were accomplished by plotting and interpreting hard-copy cross-sections. Those interpretations were digitized and zone intercepts were determined.

The main Garrcon zone is constrained to the south by Porcupine-Destor Fault which is delineated by ultramafic and chlorite talc schists. Similarly there appears to be a smaller more limited ultramafic body bounding (at least locally) the mineralisation to the north.

Samples were regularised over 1.0 metre intervals - the most common sample interval for samples within the mineralised zones. Statistics were calculated for regularised samples within the main mineralised zone. The mean value for all samples was 0.31 g/tonne.

The large amount of drilling that was carried out since the previous resource estimate revealed distinct areas of higher grade mineralisation within the Garrcon Zone. These areas were outlined and treated as a separate domain.

Directional variography was carried out separately for the lower grade and higher grade sub-domains of the Garrcon Zone, revealing semi-variogram ranges of up to 55 metres.

A block model was constructed with a block size of 10x10x10 metres. There were two sub-blocks in each direction for a geological resolution of 5x5x5 metres.

The chosen cut-off grade for mineralised zone interpretation was 0.1 g/tonne of gold. The chosen "block cut-off" [2] grade for defining mineral resources was 0.3 g/tonne. No top-cut grade was used.

Resource classification parameters were chosen based on a combination of variography results and the author's judgment. Inferred, Indicated, and Measured mineral resources were identified.

Because of the good results from directional variography, ordinary block kriging was considered to be an acceptable and appropriate method for estimating block grades in this deposit.

Grade estimation was carried out in three "runs." The first run had a maximum search radius of 55 metres and required samples from at least three holes. In subsequent runs, the parameters

[2] The grade at which it is possible to mine and process an exposed block (*i.e.*: stripping not included).

were relaxed to a maximum search radius of 110 metres and required samples from at least two holes in Run 2 and at least one hole in Run 3.

Measured plus Indicated mineral resources totaled 38.5 million tonnes with an average gold grade of 1.03 g/tonne, for 1,272,000 ounces. Inferred mineral resources totaled 15.8 million tonnes with an average gold grade of 0.72 g/tonne, for 367,000 ounces.

2012 Garrcon Deposit Mineral Resource Estimate Update

Depth	Resource Category	Block Cut-off Grade (g/tonne)	Tonnes	Au Grade (g/tonne)	Ounces Au
Less Than 200m Deep	Measured	0.3	16,400,000	1.04	548,000
	Indicated	0.3	9,230,000	0.92	274,000
	Measured+Indicated	0.3	25,630,000	1.00	822,000
	Inferred	0.3	4,450,000	0.67	95,000
More Than 200m Deep	Measured	0.3	1,240,000	1.41	56,000
	Indicated	0.3	11,600,000	1.06	394,000
	Measured+Indicated	0.3	12,840,000	1.09	450,000
	Inferred	0.3	11,330,000	0.75	272,000
Total	Measured	0.3	17,640,000	1.06	604,000
	Indicated	0.3	20,830,000	1.00	668,000
	Measured+Indicated	**0.3**	**38,470,000**	**1.03**	**1,272,000**
	Inferred	**0.3**	**15,780,000**	**0.72**	**367,000**

Notes on Mineral Resource Estimate:
1. Cut-off grade for mineralised zone interpretation was 0.1 g/tonne.
2. Block cut-off grade for defining Mineral Resources was 0.3 g/tonne.
3. No top-cut grade was used.
4. Gold price was $US 1500 per troy ounce.
5. Zones extended up to 100 metres down-dip from the last intercept. Along strike, zones extended halfway to the next cross-section.
6. Minimum width was 5 metres, though in no place was the zone that narrow.
7. Non-diluted.
8. No mineral reserves were identified. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
9. Resource estimate prepared by Doug Roy, M.A.Sc., P.Eng., ACA Howe International Limited.
10. A specific gravity (bulk density) value of 2.79 was applied to all blocks - a representative value based on 1,174 measurements.
11. Ordinary block kriging ("OBK") was used for estimating block grades.
12. Measured mineral resources were defined where three holes were used to estimate block grades and the average distance to samples was 25 metres or less. Indicated mineral resources were defined where three holes were used to estimate block grades and the average distance to samples was 40 metres or less (based on variography).
13. The volume/tonnes of historical underground exploration workings have not been subtracted from this mineral resource estimate - the amount would not be significant compared with the volume/tonnes of mineral resource.

Howe is unaware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that may materially affect the Garrcon mineral resource estimate.

1.5.2 2009 Jonpol Deposit Mineral Resource Estimate

The mineral resource estimate for the Jonpol Deposit was prepared and reported on behalf of ValGold Resources Ltd. by Mr. Peter George, ACA Howe Associate Geologist in 2008 (George, P.T., 2008). The resource was re-released and reported on behalf of Northern Gold in 2009 (George, P.T., 2009). A high grade - low tonnage underground mining operation was targeted in the resource estimation.

The Qualified Person for the Jonpol Mineral Resource estimate as reported in this Report is Mr. Ian Trinder, M.Sc., P.Geo.

Mr. George completed an initial resource estimate for portions of the Jonpol deposit where he was of the opinion that there is sufficient evidence of continuity of vein structure coupled with assay values that could be considered economic.

Mr. George completed the resource estimation utilizing industry-standard, polygonal volumetric estimation methods projected on a vertical longitudinal section, supported by interpretation of mineralized structures on vertical cross sections and level plans at right angles to the longitudinal section.

Mr. George reviewed in detail the assay data and cross-checked it against drill logs and assay sheets and no material errors or omissions were noted. All assaying was by a reputable assay laboratory with a long history of quality work.

Mr. George tabulated all of the blank and standard analyses and found no material deviations that would indicate any problems within the Swastika Laboratory accuracy and reproduction.

Mr. George compiled all of the drill hole information into a digital database for use in Geosoft Target software in order to prepare drill sections, level plans, and longitudinal sections for the evaluation of the mineral resource potential of the Jonpol deposit. During the data compilation Mr. George found no material errors or omissions in the numerous sources of information compiled into the current digital database.

Mr. George was of the opinion that the assay database for the Jonpol was of sufficient quality to provide the basis for the conclusions and recommendations reached in the 2008 and 2009 technical reports.

Statistical analysis of mineralized samples from the Jonpol deposit was not completed.

Mr. George assumed a specific gravity (SG) of 2.8 for determination of tonnage from volumetric data.

While Mr. George did not specifically state a cut-off grade, a minimum grade of 0.5 g/tonne was used for color-coding of assays to outline the extent and continuity of zones of mineralization (see Section 14.3.2.6). The cut-off grade for interpretation of mineralised zones interpretation was therefore approximately 0.5 g/tonne of gold.

No top-cut was applied by Mr. George.

The Jonpol mineral resource estimate is based upon 196 composited assay intersections.

The vertical longitudinal section is oriented along a bearing of 070^o (true) parallel to the trend of the mineralized structures and the orientation of historic grid baselines on the Property. Assay composite pierce-points were plotted on the longitudinal section showing grade, horizontal width in metres and the hole number. The data is viewed looking in a northerly direction.

Cross sections oriented at right angles to the longitudinal section (bearing 340^o (true)) and level plans at 50-metre intervals were prepared and reviewed to confirm historic interpretation of the mineralized structure orientation and to identify the numerous zones.

Mr. George was of the opinion that the following areas of influence are appropriate for the Jonpol Deposit resource estimation:

- Indicated Resources – maximum 15 metres around the pierce-point or half way to adjacent pierce-points. Maximum area for an "indicated polygon" is 710 square metres.
- Inferred Resources – maximum 25 metres around the pierce-point or half way to adjacent pierce-points. Maximum area for an "inferred polygon" is 1,965 square metres.

Resource estimates were completed for four, laterally contiguous mineralized zones along the Munro Fault, which is a splay from the regional Porcupine-Destor Fault. The mineralized structures strike approximately 070^o (true) and dip steeply to the south.

The results of the resource estimate are summarized in the following table:

2009 Jonpol Deposit Mineral Resource Estimate

Zone	Indicated Resource			Inferred Resource		
	Tonnes	Au g/tonne	Ounces Au	Tonnes	Au g/tonne	Ounces Au
JP Zone	236,100	7.69	58,380	812,400	4.66	121,750
JD Zone				168,000	7.37	39,830
RP Zone	12,100	10.91	4,260	124,300	5.05	20,170
East Zone	4,900	3.58	560	451,100	4.47	64,790
Totals	**253,100**	**7.77**	**63,200**	**1,555,800**	**4.93**	**246,540**

Notes on Jonpol Mineral Resource Estimate:

1. Resource estimate prepared by Peter T. George, P.Geo., Associate, ACA Howe International Limited.
2. The Qualified Person for the Jonpol Mineral Resource estimate as reported in this Report is Mr. Ian Trinder, M.Sc., P.Geo.
3. Cut-off grade for mineralised zone interpretation was approximately 0.5 g/tonne.
4. No top-cut grade was used.
5. A specific gravity (bulk density) value of 2.8 was applied to all zones.
6. Mineral resources were estimated using the polygonal longitudinal section method.
7. Indicated mineral resources were permitted a 15 metre radius of influence around a drill hole pierce-point or half the distance to the adjacent drill hole pierce-point whichever the lesser. Inferred mineral resources were permitted a 25 metre radius of influence around a drill hole pierce-point or half the distance to the adjacent drill hole pierce-point whichever the lesser.
8. Resource is non-diluted.
9. No mineral reserves were identified. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
10. The tonnes extracted from historical underground exploration and bulk sample development workings have not been subtracted from this mineral resource estimate.

Mr. Trinder has examined the Jonpol Deposit resource longitudinal section, cross-sections and spreadsheet generated by Mr. George. Mr. Trinder is of the opinion that the 2009 mineral resource estimate for the Jonpol deposit as generated by Mr. George is a reasonable reflection of the mineral resources at the Jonpol deposit on the Garrison Gold Project and has been completed to industry standards and in accordance to NI 43-101.

Mr. Trinder notes however that Mr. George's 2009 resource estimate is drill indicated, in-situ and undiluted. The volume of the limited historically excavated drifts, crosscuts and stopes within the JP zone have not been deleted from the mineral resource volume (see Section 6.3). Should Northern Gold undertake future work at the Jonpol deposit, Mr. Trinder recommends that prior to completion of any potential future mineral resource update of the Jonpol Deposit, the Company search for and acquire, if possible, all production records and level plans from the historic underground work completed in 1990 and 1996-1997 in an attempt to accurately determine volumes, tonnages and grades of extracted mineralization. This information, if available, could be incorporated into any future resource update. Use of 3-D modeling software should be considered to accurately locate the underground sublevels with respect to the surface drill holes. Selection of cut-off grade and top-cut should be re-examined and determined on the basis of gold price and economics at that future date.

Howe is not aware of any other material changes to the resource base since the mineral resource was estimated in 2009. Howe is unaware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that may materially affect the Jonpol mineral resource estimate.

1.6 2011 Garrcon Preliminary Economic Assessment

Howe reviewed the Garrcon Deposit at the level of a Preliminary Economic Assessment (PEA) in 2011 (Hannon, Roy and Trinder, 2011). The reader is cautioned that this PEA uses Indicated and Inferred Mineral Resources. The reader is further cautioned that the 2011 Garrcon PEA is based on Howe's 2011 Garrcon mineral resource estimate (Hannon, Roy and Trinder, 2011) which has now been replaced by the 2012 Garrcon mineral resource update presented in this report. The 2011 Garrcon PEA reported in this report has not been updated to reflect the changes in the Garrcon mineral resource and current costs however it is still an indication of the project's potential.

NI 43-101 Part 2, Section 2.3(1)(b) and Companion Policy 43-101CP, Part 2, Section 2.3(1) Restricted Disclosure, prohibits the disclosure of the results of an economic analysis that includes or is based on inferred mineral resources, an historical estimate, or an exploration target. However, under NI 43-101, Part 2, Section 2.3(3) and Companion Policy 43-101CP, Part 2 section 2.3(3), the use of inferred mineral resources is allowed in a Preliminary Economic Assessment in order to inform investors of the potential of the property.

The 2011 PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

For the purposes of the PEA, a pit was optimised using the following parameters.

Parameter	Value
Mining Cost, Ore or Waste (Drilling, Blasting, Loading & Hauling)	$2.34 per tonne
Rehab Cost	$0.25 per tonne Milled
Dilution	5%
Mining Recovery	95%
Gold Price	$US 1,200 per ounce
Processing Cost (CIL/CIP, Heap Leach)	$5.31 / $4.22, per tonne Processed
Processing Recovery	98%, 65%
Specific Gravity	2.73
Overall Slope Angle (rock, overburden / fault material)	45°, 30°

The pit optimisation results were as follows.

Pit Details	CIL/CIP	Heap Leach	Total
Gold Price ($US per Ounce)	$1,200		
Cut-off Grade (g/tonne):	0.30	0.15	
Non-Diluted Ore (tonnes)	33,000,000	18,300,000	51,300,000
Non-Diluted Ounces	960,000	120,000	1,080,000
Non-Diluted Grade (g/tonne)	0.90	0.20	0.65
Waste Tonnes	102,000,000		
Pit Depth (m)	300		
Footprint (Hectares)	43		
Stripping Ratio (t_{waste}:t_{ore})	2:1		

A mining schedule and economic model was developed for the operation. The 2011 PEA indicates that the mining of the Garrcon gold deposit by open pit mining methods would be feasible today. This PEA has determined that, with the Mineral Resources outlined to date (2011), a combination gravity-agitated leach plant and a heap leach facility would be economic with a base case net present value (5.0% discount rate) of $266 million and an internal rate of return of 47%.

The 2011 PEA conditions included $1,200/troy ounce gold, a processing rate of about 11,300 tonnes per day and a heap leach facility processing about 2.3 million tonnes per year.

The project is most sensitive to grade and the price of gold and least sensitive to capital costs. The 2011 PEA has been completed using order of magnitude costs and rock quality values typical of northern Ontario. The project economics would be even better if the present price of gold (2011 - $1500+) were used; however, at the time of the PEA (2011) the project was still 3 to 5 years from production and it was prudent to use a lower number. As the project advances, a gold price closer to the present price can be used.

1.7 Conclusions and Recommendations

Northern Gold's exploration drilling program during 2009, 2010 and 2011 has confirmed and delineated a significant gold resource at the Garrcon Deposit. The 2011 step-out and fill-in drilling added metal content (gold ounces) and caused a shift of resources from the Inferred category to the Indicated and Measured categories. Previously, no Measured mineral resources had been identified.

Based on the mineral resource update reported herein and the 2011 PEA, Howe concludes that the Garrcon Deposit and the Garrison Gold Property warrant additional expenditures to be further developed. Further exploration is also warranted on the Jonpol Deposit

Howe recommends that the following work be incorporated into Northern Gold's ongoing project development plans to further refine estimates of costs, recoveries, engineering and mine design to facilitate the development of a Pre-feasibility Study:

1. Continue the advanced exploration permitting currently in progress to be followed by the work necessary for operational permitting.

2. Expand the permitting process to include potential mill sites, heap leach pads and tailings management areas using claims recently acquired by Northern.

3. Continue and expand the current drilling program:
    a. Continue the Garrcon infill drilling program to improve the quality of existing resources.
    b. Emphasis should also be placed on step out drilling beyond the current Garrcon resource footprint to:
        i. test for potential mineralization in meta-sediments between the current Garrcon resource mineralization shell and the Munro Fault Zone/Jonpol East Zone to the north;
        ii. test geophysical anomalies defined by the 2011 IP survey and;
        iii. continue to test beneath meta-sediment outcrops and newly stripped meta-sediments hosting stockwork veining with anomalous gold mineralization.

4. Northern Gold should continue specific gravity measurements of representative samples. Sufficient samples should be tested to be representative of the various mineralized and non-mineralized rock types within the Garrcon Zone along its entire strike length, width and depth. The number of samples will depend on the statistical variance of the measurements.

5. Co-author Roy recommends that when sampling and assaying work is reviewed in the next Garrcon mineral resource update, the cumulative normal probability curves (refer to Figure 14-6) be updated. Co-author Roy also recommends that several of the resource blocks that used the higher grade samples from Table 14-4 be drill-targeted to verify the estimated grades.

6. Further mineral processing work should be carried out to support assumptions that were made in this report. The work that has been carried out thus far is quite preliminary. This work should be expanded by exploring various processing options, determining which options would best suit this particular deposit and optimising the most promising flowsheet. Should that flowsheet consider heap leaching, a bulk sample pilot trial should be carried out to determine the actual, realised processing recovery value as opposed to the laboratory-predicted value. Testwork should include:
    a. Sieve analysis vs. gold grade.
        i. For each stage of the rock breakage history, a sieve analysis and grade of gold should be determined. This should be completed for selected bulk sampling sites where at least several hundred tonnes can be blasted on surface. At each stage of crushing, the ore should be sieved and a gold grade determined for each size fraction...

b. Flotation Test Program
   i. Test four different grinds from approximately 70% at -200 mesh to 95% at -200 mesh. In these tests use reagent X-523 for 10 minutes followed by a 10-minute float with frother and potassium amyl xanthate.
   ii. Take the best of the above conditions and repeat with reagent Aerofloat 208 replacing the X-523. Take the best of the above conditions and jig the flotation feed and remove the coarser gold prior to flotation.
   iii. Have all tests that are performed above assayed for gold, silver and sulphur.
   iv. Repeat the best test of above and have all flotation floats performed for five 3-minute intervals to establish the flotation rate for the various minerals.
   v. Repeat the best tests of above but clean, reclean and re-reclean the two flotation products, and have the final re-reclean concentrate assayed for copper, lead and zinc as well. Also, repeat the best test using reclaimed water from a previous float test.
c. Bottle roll tests to give some indication of the leaching character of the rock.
d. Column leaching tests should be completed to get some idea of percolation rates for the heaps.
e. Determination of solution application rates and solution percolation rates, crushing and agglomeration testing.

7. Continue testing the deposit for any potential Acid Rock Drainage (ARD) and confirmation of the relatively high calcium content, which is expected to neutralize any ARD potential.

8. A study of the structural geology, a map of the jointing system and a report on the geotechnical properties of the potential pit should be completed. The geotechnical properties of the rock types at the Garrcon property (Uniaxial Compressive Strength (UCS), Tensile Strength, Young's modulus and Poisson's ratio) should be determined. A suite of samples representing different parts of the deposit and each rock type should be tested at a rock mechanics laboratory.

9. Additional land may be required around the deposit, to store waste rock and tailings facilities. More detailed site engineering is required to confirm the suitability and sufficiency of the current property area for final mine and processing facilities should they be constructed.

10. Approximately 10 kilometres of line will be required to bring 3 phase power to the site. A right of way for this line should be investigated and talks with Ontario Hydro should be initiated.

11. A hydrological study should be completed to determine the amount of water that must be pumped to keep the pit dry. Any water bearing fractures found should be mapped so

that they can be grouted off if necessary. A water storage facility will have to be in place to supply mill water, heap leach water as well as fire-fighting water.

12. A rock penetration rate study should be undertaken in order to determine the penetration rate for down the hole hammer type blast hole drills. Drill manufacturers often offer this service. A variety of core or rock samples should be tested so that an accurate penetration rate can be determined.

13. Update the Garrcon resource estimate to include the results of the ongoing 2012 drill program. The update should be completed after sufficient drilling has been completed along strike of the currently defined mineral resource.

14. Should Northern Gold undertake future work at the Jonpol deposit, Howe recommends that prior to completion of any potential future mineral resource update of the Jonpol Deposit, the Company compile all available production records, level plans and mill and smelter records from the historic underground work completed in 1990 and 1996-1997 in an attempt to accurately determine volumes, tonnages and grades of extracted mineralization and bulk sampling data. This information, should be incorporated into any future resource update. Use of 3-D modeling software should be considered to accurately locate the underground sublevels with respect to the surface drill holes. Selection of cut-off grade and top-cut should be re-examined and determined on the basis of gold price and economics at that future date.

Following Howe's recommendations, Northern Gold has developed a work program and cost estimate totaling $14,000,000 for the balance of 2012 to further advance the project. The proposed program and budget as shown in the table below will permit Northern Gold to complete 36,000 metres of diamond drilling and approximately 40,000 metres of RC drilling to upgrade and expand the resource and initiate condemnation drilling in addition to EBS and Permitting, metallurgical and engineering studies.

Howe considers Northern Gold's proposed budget reasonable and recommends that the Company proceed with the proposed work program.

Item #	Property	Activity	Year	Estimated Cost to end of 2012
1	Garrison, Sims, Plato	Environmental Baseline Studies (EBS) - Phase 2 Aquatic ecology Terrestrial ecology Hydrology & Surface Water Quality Geochemistry Hydrogeology Archeology Siting of mill, waste and tailings Mine Closure Plan Project management (permitting)	2012 & 2013	$800,000
2	Garrison	Surface Geology & Structural Mapping	2012	$50,000
3	Garrison	Geotechnical Assessment Desktop analysis Field mapping & core logging Pit slope design Analysis & reporting	2012	$225,000
4	Garrison	Detailed Metallurgical Testwork Obtain and ship samples SAG mill testing Crushing and screening Gravity and gravity recovery testing Heap leach amenability testing Engineered process recovery plant	2012	$1,500,000
5	Garrison, Sims, Plato	Project Description (permitting)	2012	$25,000
6	Garrison, Sims, Plato	Public & First Nation Consultation	2012 & 2013	$50,000
7	Garrison, Sims, Plato	Pre-Feasibility Study	2012 & 2013	$500,000
8	Garrison	Diamond Drilling (17,500m @ $225/m) Garrcon infill drilling Garrcon step-out drilling Jonpol East drilling Other property drilling	2012	$4,500,000
9	Garrison, Sims, Plato	Reverse Circulation Drilling (32,000m @ $125/m) Garrcon infill and metallurgical sampling Sims claims condemnation drilling Plato claims condemnation drilling	2012 only	$4,000,000
10	Garrison	Move core shack facility	2012	$500,000
			Subtotal	$12,150,000
		Approx. 15%	Contingency	$1,850,000
			Total	**$14,000,000**

2 INTRODUCTION

2.1 GENERAL

This technical report ("the Report") has been prepared by A. C. A. Howe International Limited ("Howe") at the request of Mr. Martin Shefksy, President, Northern Gold Mining Inc. ("Northern Gold" or "the Company"). This report is specific to the standards dictated by National Instrument 43-101 and Form 43-101F1 (Standards of Disclosure for Mineral Projects) in respect to the Garrison Gold Property ("the Property") and focuses on Howe's independent Garrcon Deposit mineral resource estimate update. Howe's 2009 Jonpol Deposit mineral resource estimate and 2011 Garrcon Deposit Preliminary Economic Assessment ("PEA") are also repeated. The Property is situated in Garrison Township, Larder Lake Mining Division, Ontario, approximately 100 kilometres east of the city of Timmins.

Northern Gold is a junior resource company listed on the TSX Venture Exchange under the symbol "NGM". The corporate head office is located at Suite 800 20 Victoria St., Toronto, Ontario, M5C 2N8. The company's field office is located in the town of Kirkland Lake, Ontario, approximately 40 km south of the Property area.

The Company's current focus is the Garrison Gold Property on which it has acquired an undivided 100% interest in 35 claims from ValGold Resources Inc., an undivided 100% in seven claims from June Linton, and a further five sevenths interest in one claim from June Linton, Karen Wicket & Lynn Troke. Certain claims are subject to royalty payments as detailed in Section 4.3.

Howe is an international mining and geological consulting firm that has been serving the international mining community for over 30 years. Howe is well recognized by the major Canadian Stock Exchanges and provincial regulatory bodies and its personnel have worked on projects involving a wide variety of commodities and deposit types throughout the world. The firm's services are provided through offices in Toronto and Halifax, Canada; and London, England.

Neither Howe nor any of the Authors of the opinions expressed in this Report (nor family members nor associates) have business relationships with the Company or any associated company, nor with any other company mentioned in this Report which is likely to materially influence their impartiality or create the perception that the credibility of this Report could be compromised or biased in any way. The views expressed herein are genuinely held and deemed independent of the Companies.

Moreover, neither the Authors of this Report nor Howe (nor their family members nor associates) have any financial interest in the outcome of any transaction involving the property considered in this Report, other than the payment of normal professional fees for the work undertaken in its preparation (which are based upon hourly charge-out rates and reimbursement of expenses). The payment of such fees is not dependent upon the content or conclusions of either this Report, nor any consequences of any proposed transaction.

2.2 SCOPE AND CONDUCT

The purpose of the report is to complete an update of Howe's June 23, 2011 mineral resource estimate for the Company's Garrcon Deposit at its Garrison Township Gold Property (Hannon, Roy and Trinder, 2011). The Garrcon Deposit is a bulk tonnage resource encompassing the historically recognized, higher grade Shaft, South and North zones. Howe's 2009 Jonpol Deposit mineral resource estimate (George, 2009) and 2011 Garrcon Deposit Preliminary Economic Assessment ("PEA") (Hannon, Roy and Trinder, 2011) are also restated.

This Report was prepared and co-authored by Mr. Doug Roy, M.A.Sc., P.Eng., Mr. Patrick Hannon, M.A.Sc., P.Eng., Associate Consulting Engineers and Qualified Persons (QP) with Howe and Mr. Ian D. Trinder, M.Sc. (Geology), P.Geo., Senior Geologist and QP with Howe. Mr. Ian Flint, Ph.D., P.Eng., Associate Consulting Engineer with Howe prepared Sections 13, 17 and 20.2.2 under the supervision of Mr. Hannon. Mr. Roy is a mining engineer with over ten years experience in the mining industry. He has participated in numerous projects and resource estimates for precious metals and base metals projects and has authored or co-authored numerous OSC-2A and NI 43-101 resource reports. Mr. Hannon is a mining and geological engineer with over 35 years experience in the mining industry. He has also participated in numerous projects, resource estimates, feasibility estimates and valuations for precious metals deposits. He has authored numerous OSC 2A and NI 43-101 reports. Mr. Flint is a mineral processing engineer with over 20 years of mineral processing experience in areas of design, operations, and research. Mr. Trinder has over 20 years experience in the mining industry with a background in international precious and base metals mineral exploration including project evaluation and management.

The updated Garrcon mineral resource estimate and repeated 2009 Jonpol mineral resource estimate were prepared in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves. Only mineral Resources were estimated – no Reserves were defined.

Mr. Roy visited the Property site and Northern Gold's Kirkland Lake field office on April 12-14, 2012. During the property visit, Mr. Roy met with Mr. Michael Gross, Northern Gold's Vice President Exploration and Mr. Brian Madill, the Company's Supervisor - Computer Modeling and Lands to discuss the Company's exploration activities, methodologies, findings and interpretations. Mr. Roy completed a review of recent drilling on the Property, the drilling and sampling methodology, quality assurance and quality control procedures, security, etc. Mr. Roy conducted a site visit to the Property accompanied by Mr. Gross and Mr. Greg Matheson, the Company's Project Geologist to examine the Property area and ongoing exploration activities.

Mr. Trinder visited the Property site and Northern Gold's Kirkland Lake field office on January 19th to 22nd, 2011 as part of Howe's due diligence in the preparation of Howe's 2011 technical report (Hannon, Roy and Trinder, 2011). During the property visit, Mr. Trinder met with Mr. Michael Gross, Northern Gold's Vice President Exploration and Mr. Greg Matheson, the Company's Project Geologist to examine the Property area and discuss the Company's exploration activities, methodologies, findings and interpretations. Mr. Trinder completed a thorough review of all recent Garrcon drilling on the Property, acquired a complete digital database of all historic and current Garrcon drilling on the Property, and reviewed and made copies of historic reports available for the Property. In addition, Mr. Trinder reviewed drilling and sampling methodology, quality assurance and quality control procedures, security, etc.

Mr. Trinder also visited the Property site and Northern Gold's Kirkland Lake field office on July 12th and 13th, 2010 as part of Howe's due diligence in the preparation of Howe's 2010 technical report (Roy and Trinder, 2010). During the property visit, Mr. Trinder met with Mr. Michael Gross, Northern Gold's Vice President Exploration and Mr. Greg Matheson, the Company's Project Geologist to examine the Property area and discuss the Company's exploration activities, methodologies, findings and interpretations. Mr. Trinder completed a thorough review of all recent Garrcon drilling on the Property, acquired a complete digital database of all historic and current Garrcon drilling on the Property, and reviewed and made copies of historic reports available for the Property. In addition, Mr. Trinder reviewed drilling and sampling methodology, quality assurance and quality control procedures, security, etc.

The effective date of this report is April 19, 2012; the Garrcon updated mineral resource estimate is based on historical and Northern Gold 2009-2011 drill hole assay data available to Howe as of March 15, 2012. Only assay results from the Company's 2011 drill program up to GAR-11-180 are considered in the resource estimate, which was the limit of assay data available at the cut-off date for the mineral resource estimate. Assays from four (4) 2011 drill holes within this sequence were not included in the resource update because either the holes were not yet drilled, the holes were not yet sampled or, the assay results had not yet been returned from the laboratory. The Jonpol mineral resource estimate is repeated from Howe's 2008 and 2009 technical reports (George, 2008 and 2009). Howe reserves the right, but will not be obligated to revise this Report and conclusions if additional information becomes known to Howe subsequent to the date of this Report.

Northern Gold reviewed draft copies of this Report for factual errors. Any changes made as a result of these reviews did not include alterations to the conclusions made. Therefore, the statement and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Report.

Northern Gold has accepted that the qualifications, expertise, experience, competence and professional reputation of Howe's Principals and Associate Geologists and Engineers are appropriate and relevant for the preparation of this Report. The Company has also accepted that Howe's Principals and Associates are members of professional bodies that are appropriate and relevant for the preparation of this Report.

Northern Gold has warranted that full disclosure of all material information in its possession or control at the time of writing has been made to Howe, and that it is complete, accurate, true and not misleading. The Company has also provided Howe with an indemnity in relation to the information provided by it, since Howe has utilized Northern Gold's information while preparing this Report. The Company has agreed that neither it nor its associates or affiliates will make any claim against Howe to recover any loss or damage suffered as a result of Howe's use of that information in the preparation of this Report. Northern Gold has also indemnified Howe against any claim arising out of the assignment to prepare this Report, except where the claim arises out of any proven willful misconduct or negligence on the part of Howe. This indemnity is also applied to any consequential extension of work through queries, questions, public hearings or additional work required arising out of the engagement.

2.3 SOURCES OF INFORMATION

In preparing the Garrcon updated resource estimate, Howe has utilized a digital database received from Northern Gold in Microsoft Excel spreadsheet format. Howe has also reviewed geological reports, maps, miscellaneous technical papers, company letters and memoranda, and other public and private information as listed in Section 27 (References) of this Report. Howe has carefully reviewed all of this information and assumed that all of the information and technical documents reviewed and listed in the "References" are accurate and complete in all material aspects. Howe has only reviewed the land tenure in a preliminary fashion, and has not independently verified the legal status or ownership of the property or the underlying agreements. Historical mineral resource figures contained in the Report, including any underlying assumptions, parameters and classifications, are quoted "as is" from the source. Howe confirms the Garrcon and Jonpol mineral resource estimates were completed in accordance with National Instrument 43-101 and Form 43-101F1 (Standards of Disclosure for Mineral Projects) and the definitions and guidelines of the CIM Definition Standards for Mineral Resources and Mineral Reserves.

In addition, Howe carried out discussions with Mr. Michael Gross, Northern Gold's Vice President Exploration and Mr. Greg Matheson, the Company's Project Geologist. Howe's extensive experience in mesothermal vein deposits was also drawn upon.

The Authors believe that the data presented by Northern Gold are a reasonable and accurate representation of the Garrison Gold Property.

2.4 UNITS AND CURRENCY

All units of measurement used in this report are metric unless otherwise stated. Historical tonnage figures are reported as originally published in "tons" (short tons). Base metal values are reported in percent (%) or parts per million (ppm). Historical gold and silver grades are reported in their original unit of oz Au/ton or oz Ag/ton (ounces per short ton), although metric equivalents are also given for clarity. Recent analyses are reported in g/t (grams per metric tonne), ppm or parts per billion (ppb). Distances are expressed as kilometres (km) and metres (m). The Canadian dollar is used throughout this Report unless otherwise stated. The exchange rate for conversion of U.S. dollars to Canadian dollars was US$1.00: C$0.99 at the effective date of this report. At the time of writing the 2011 Garrcon PEA (Hannon, Roy and Trinder, 2011) as repeated in this report the exchange rate for conversion of U.S. dollars to Canadian dollars was US$1.00: C$1.03.

Location coordinates are expressed in Universal Transverse Mercator (UTM) grid coordinates, Zone 17, using the 1983 North American Datum, (NAD83).

2.5 GLOSSARY

Angle of repose: The angle of repose or angle of rest is the maximum slope at which a heap of loose material will stand without sliding.

Bench [mining]: A bench may be defined as a ledge that forms a single level of operation above which mineral or waste materials are mined back to a bench face. The mineral bearing material or waste is removed in successive layers, each of which is a bench. Several benches may be in operation simultaneously in different parts of, and at different elevations in the open pit mine. The bench height is the vertical distance between the highest point of the bench, or the bench crest, and the toe of the bench (**Figure 2-1**, MEH[3])

Bench slope: The bench slope is the angle, measured in degrees, between the horizontal and an imaginary line joining the bench toe and crest.

Berm: A berm is a horizontal shelf or ledge within the ultimate pit wall slope. The berm interval, berm slope angle, and berm width are governed by the geotechnical configuration of the slope.

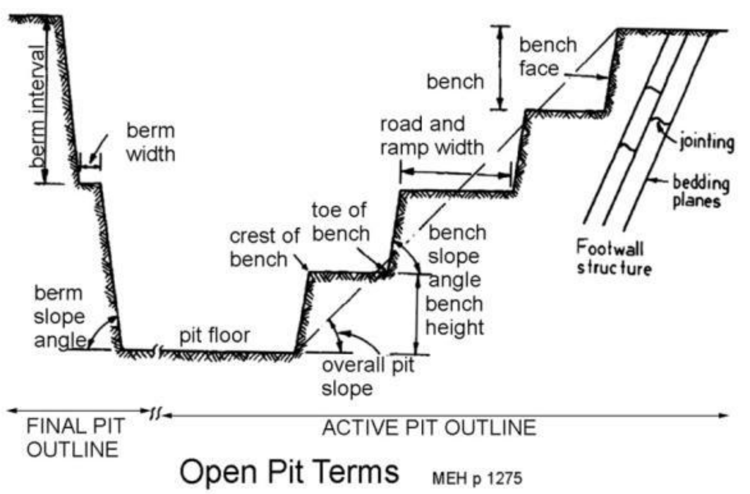


Figure 2-1: Open Pit Terms (MEH[4])

EBITDA: A measurement of a company's operating profitability. It is equal to earnings before interest, tax, depreciation and amortization (EBITDA) divided by total revenue. Because EBITDA excludes depreciation and amortization, EBITDA margin can provide an investor

[3] MEH – Mining Engineering Handbook, Society for Mining, Metallurgy, and Exploration, Inc. 2nd printing: December 1996

[4] MEH – Mining Engineering Handbook, Society for Mining, Metallurgy, and Exploration, Inc. 2nd printing: December 1996

with a cleaner view of a company's core profitability. (Ref: http://www.investopedia.com/terms)

Feasibility Study: " is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of realistically assumed mining, processing, metallurgical, economic, marketing, legal, environmental, social and governmental considerations together with any other relevant operational factors and detailed financial analysis, that are necessary to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study."

Haul Road: A haul road must be maintained into the pit for the duration of open pit mining. A spiral system is an arrangement whereby the haul road is arranged spirally along the perimeter walls of the pit so that the gradient of the road is more or less uniform from the top to the bottom of the pit. A zigzag or switchback system is an arrangement in which the road surmounts the steep grade of a pit wall by zigzagging, generally on the footwall side of the pit. The choice of spiral or zigzag is dependent upon several factors including the shape and size of the ore body, safety, truck economics and capabilities, and local pit slope stability.

Overall pit slope angle: The overall pit slope angle is the angle at which the wall of an open pit stands, as measured between the horizontal and an imaginary line joining the top bench crest with the bottom bench toe.

Pit limits: The pit limits are the vertical and lateral extent to which open pit mining may be economically conducted.

Preliminary Economic Assessment: A study, other than a pre-feasibility or feasibility study, that includes an economic analysis of the potential viability of mineral resources;
Companion Policy 43-101CP (4) "preliminary economic assessment" – The term "preliminary economic assessment", which can include a study commonly referred to as a scoping study, is defined in the Instrument. A preliminary economic assessment might be based on measured, indicated, or inferred mineral resources, or a combination of any of these. We consider these types of economic analyses to include disclosure of forecast mine production rates that might contain capital costs to develop and sustain the mining operation, operating costs, and projected cash flows.

Preliminary Feasibility (Pre-Feasibility) Study: "is a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve." The CIM Definition Standards requires the completion of a Preliminary Feasibility Study as the minimum prerequisite for the conversion of Mineral Resources to Mineral Reserves.

3 RELIANCE ON OTHER EXPERTS

Howe has relied upon the Ontario Ministry of Northern Development and Mines ("MNDM") for information on unpatented mining claim location and status. The MNDM disclaims any guarantee or warranty that their information is accurate, complete or reliable. Howe has relied upon the Company, its management and legal counsel for information related to underlying contracts and agreements pertaining to the historic acquisition of the patented and unpatented mining claims and their status. The Property description presented in this report is not intended to represent a legal, or any other opinion as to title.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 PROPERTY LOCATION

The Property is located in the Timmins-Kirkland Lake area of northeastern Ontario along the Highway 101 corridor east of the town of Matheson (Figure 4-1). Specifically it is located in Garrison Township, Larder Lake Mining Division, approximately 40 kilometres north of Kirkland Lake, 40 kilometres east of Matheson, and 100 kilometres east of Timmins, Ontario. The Property is situated within National Topographic System (NTS) map sheet 32/D12 at approximately latitude 48°30’58” North and longitude 79°57’11” West (UTM Zone 17N co-ordinates 578,115E and 5,374,030N, NAD83 Datum).

4.2 PROPERTY DESCRIPTION

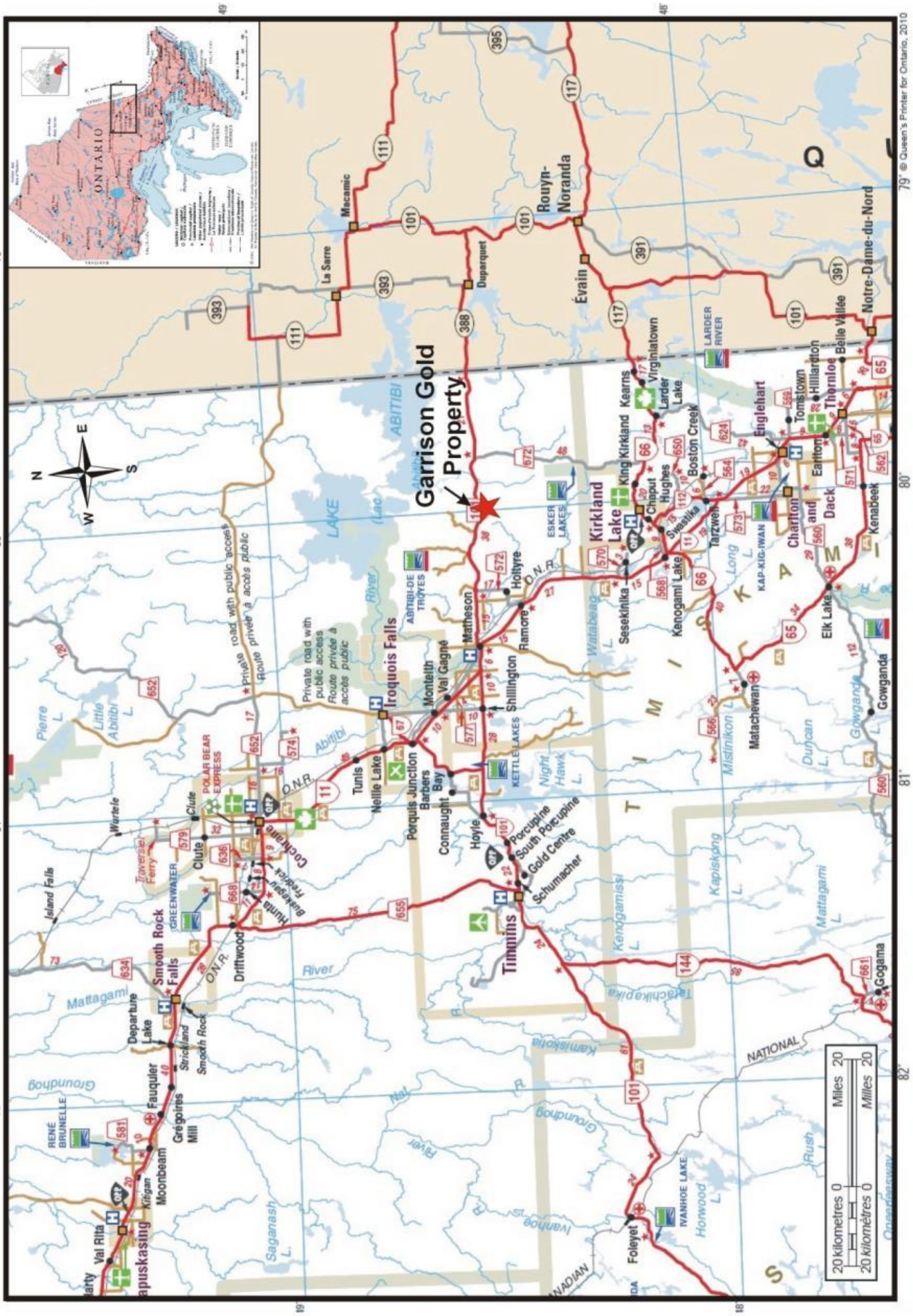
The Property is comprised of 43 patented mining claims covering an area of approximately 476.1 hectares (1176.5 acres) (Table 4-1; Figure 4-2). The claims that make up the Property have been historically grouped into four contiguous claim blocks known as the Newfield, Garrcon, Brydges and Linton Groups (Table 4-1; Figure 4-3).

Land surveyors established claim boundaries at the time the claims were patented. The cost of maintaining tenure of the patented claims is comprised of nominal fees (Provincial Land Tax and Provincial Mining Tax).

Table 4-1: List of patented mining claims comprising the Garrison Gold Property.

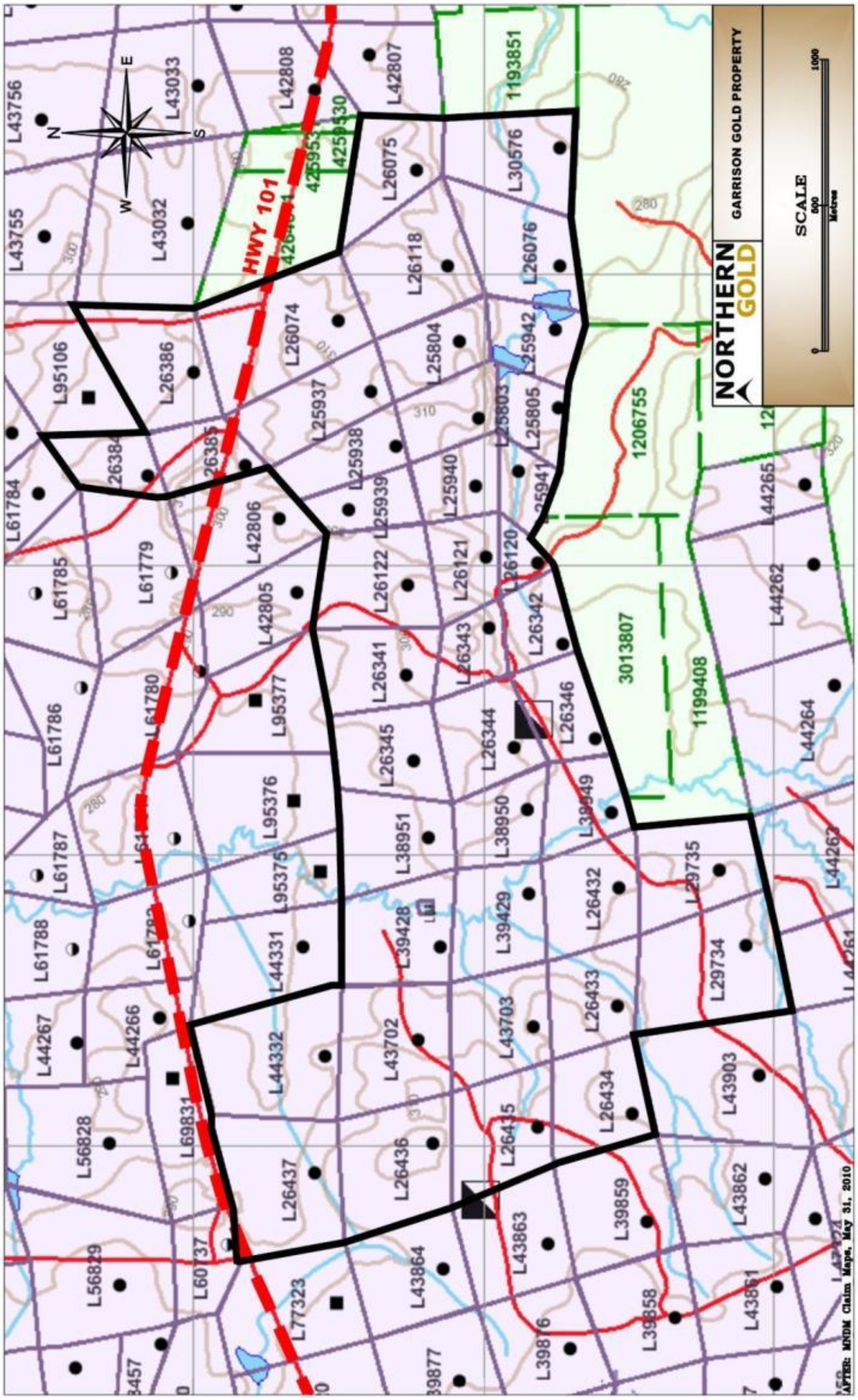
Claim Group	Claim Numbers (L)	No. Claims	Status	Holder	Percentage*
Newfield	26432 to 26437	6	Patented	Northern Gold Mining Inc.	100
	29734 to 29735	2	Patented	Northern Gold Mining Inc.	100
	39428 to 39429	2	Patented	Northern Gold Mining Inc.	100
	43702 to 43703	2	Patented	Northern Gold Mining Inc.	100
	44331 to 44332	2	Patented	Northern Gold Mining Inc.	100
Garrcon	26120 to 26122	3	Patented	Northern Gold Mining Inc.	100
	26341 to 26346	6	Patented	Northern Gold Mining Inc.	100
	38949 to 38951	3	Patented	Northern Gold Mining Inc.	100
Brydges	25803 to 25805	3	Patented	Northern Gold Mining Inc.	100
	25937 to 25942	6	Patented	Northern Gold Mining Inc.	100
Linton	26074	1	Patented	Northern Gold Mining Inc.	100
	26075 to 26076	2	Patented	Northern Gold Mining Inc.	100
	26116	1	Patented	Northern Gold Mining Inc.	100
	26384 to 26386	3	Patented	Northern Gold Mining Inc.	100
	30576	1	Patented	Northern Gold Mining Inc.	100
	TOTAL:	**43**			

* Northern Gold’s percentage subject to completion of the terms of sales agreements detailed in Section 4.3



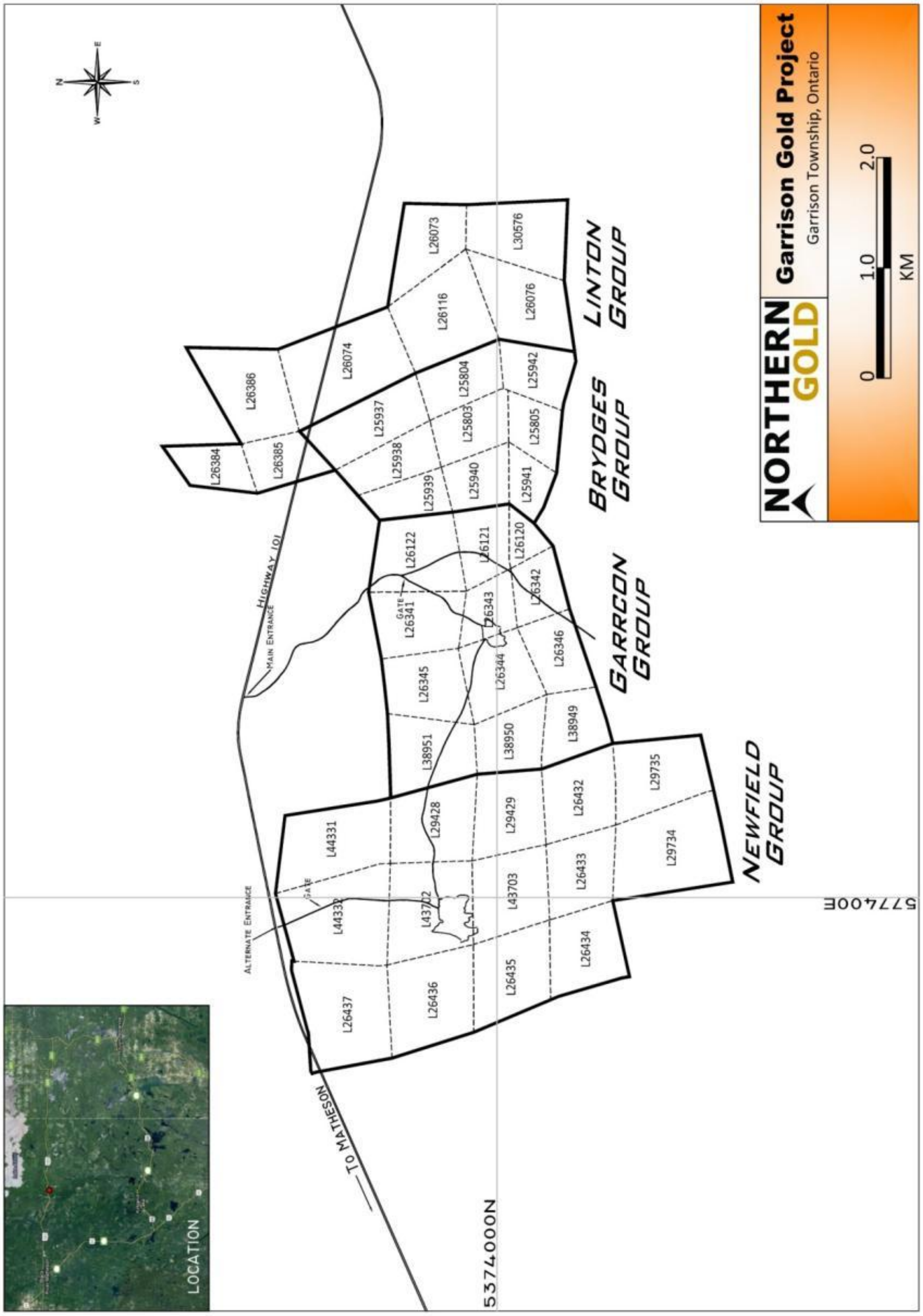
Map Source: Ontario Ministry of Transportation

Figure 4-1: Garrison Gold Property Location



Source: Northern Gold 2012

Figure 4-2: Property Claim Map



Source: Northern Gold 2012

Figure 4-3: Property Claim Map with Historic Claim Group Outlines

4.3 PROPERTY, OTHER OBLIGATIONS

4.3.1 Newfield, Garrcon and Brydges Groups

On September 9, 2009 Northern Gold entered into an Option Agreement with ValGold Resources Ltd. (ValGold) covering 35 claims of the Garrison Gold Property owned 100% by ValGold Resources Inc. (Newfield, Garrcon and Brydges Groups). Under the terms of the agreement, Northern Gold could earn up to an undivided 80% interest in the Property in two phases.

Subsequently, under the terms of a sales agreement executeded on April 7th 2011, Northern Gold purchased ValGold's 100% interest in the Garrison property with TSX Venture approval of the transaction granted on April 14, 2011.

In consideration for this sale, ValGold received:

- a cash payment of C$325,000 and a promissory note for an additional C$325,000 paid on or before August 13, 2011.
- 16 million common shares in Northern Gold ("Northern Gold Shares") giving ValGold aggregate holding of 17,437,500 common shares of Northern Gold, representing ownership of approximately 14.8% of the issued and outstanding shares of Northern Gold on a non-diluted basis.
- a 2% net smelter return royalty of which: (i) half (i.e. 1%) can be acquired by Northern Gold for C$5 million paid to ValGold at any time upon the earlier of thirty-six months following the date of closing and the commencement of commercial production, and (ii) the remaining 1% can be acquired for a further payment of C$10 million at any time upon the earlier of seventy-two months following the date of closing and the commencement of commercial production.

For a period ending on the earlier of twenty-four months after closing or a change of control Northern Gold has a right to vote the Northern Gold Shares. In addition, Northern Gold has a right of first refusal to provide a buyer for any sale by ValGold in excess of 160,000 Northern Gold Shares in any calendar month.

Under the terms of the original Garrison Option and Joint Venture Agreement, Northern Gold had the right to earn up to an undivided 80% interest in the Property in two phases. Northern Gold could acquire a 50% undivided interest in the property by making exploration expenditures totaling $4,000,000 plus cash payments to ValGold totaling $1,000,000 over four years for a total expenditure of $5,000,000. The cash payments to ValGold totaling $1,000,000 over four years could be made either in cash or in Northern Gold stock at Northern Gold's option, using a 20 day value weighted average price, upon regulatory approval. Northern Gold was also to complete work on the property in the amount of $4,000,000 over four years, with $500,000 being spent on the property in the first year of the agreement and not less than $750,000 to be expended in each of the subsequent years. After earning the 50% interest, Northern Gold could increase its interest to 80% percent by making additional cash payments totaling $1,000,000 over four years (again with all or part of the payments being made in Northern Gold stock equivalent, using a 20 day value weighted average price) and completing additional work on the property in the amount of $4,000,000 over four years.

At the time of closing the buy-out of the Garrison Option and Joint Venture Agreement, Northern Gold was in the second year of the option agreement and had made $400,000 in payments ($200,000 in cash and the issuance of 2.2 million in shares in satisfaction of the other $200,000 payment obligation) and had incurred over $3,000,000 in exploration expenditures.

The 2% net smelter return royalty held by ValGold is inclusive of a net smelter return royalty held by Cominco (now Teck Resources Limited) (1.5% on ore above the 400-foot level and 2.0% on ore below the 400-foot level) on the Garrcon claim group (12 claims, L26120 to 22, L26341 to 46, and L38949 to 51), which cover both the Jonpol East Zone and the Garrcon Zone. Northern Gold informs Howe that the royalty to be paid on the Garrcon Group never exceeds 2%. Any monies to be paid to Teck under the Cominco royalty are to be deducted from any monies due to ValGold. The NSR agreement was made between previous property holder Jonpol Explorations Ltd. and Cominco, and has not been reviewed by Howe.

4.3.2 Linton Group

On April 12, 2011 Northern Gold announced that it reached a definitive agreement with June Linton, Lynn Troke and Karen Wickett to acquire a 96.4% interest in the Linton Claim Group consisting of eight patented mining claims contiguous to the eastern boundary of the historic Brydges Group. The acquisition of this strategic group of claims increased the size of the Garrison Gold Property to 476.1 hectares.

The claims were purchased in two transactions. The first transaction consisted of the purchase of a 100% interest in seven of the claims (26075 to 26076, 26116, 26384 to 26386 and 30576). They were purchased for a cash payment of $91,000 plus 107,692 common shares of Northern Gold Mines Inc., and a 1% NSR, with TSX Venture approval of the first transaction granted on April 25, 2011. The second transaction is the purchase of a five sevenths (71.4%) interest in the eighth claim (26074) for a cash consideration of $20,000 and a 1% NSR, to be apportioned to the vendors on a pro rata basis subject to closing and approval by the TSX Venture Exchange.

In a third transaction, Northern Gold purchased on April 30, 2012, the remaining 3.6% interest in the Linton Claim Group (two sevenths (28.6%) interest in claim 26074) for a cash payment of $8,000 from Carol Linton Whelpdale with no stock or royalty payments.

4.3.3 Other Underlying Agreements, Royalties or Encumbrances

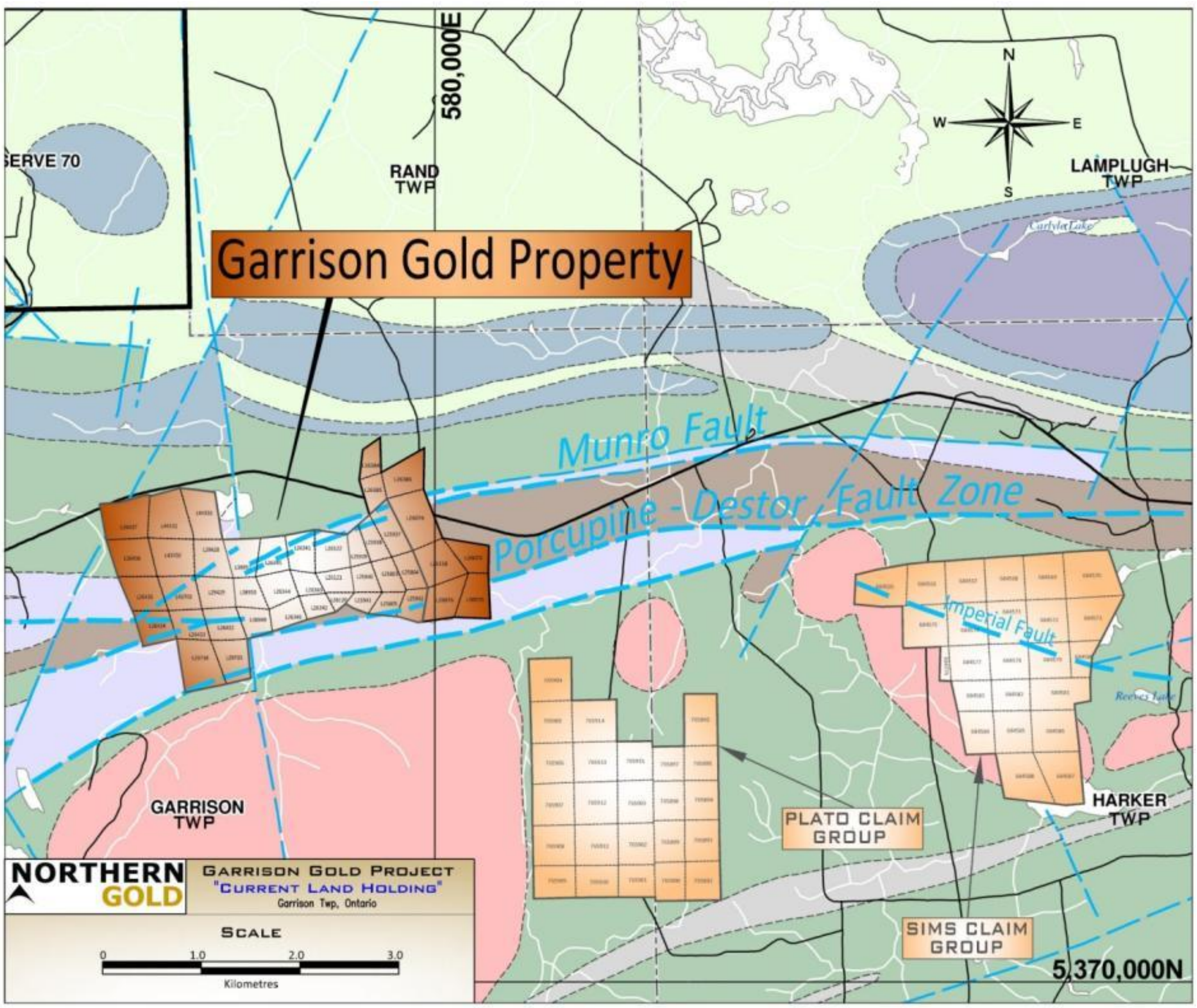
Howe is unaware of any obligations, underlying agreements, royalties or encumbrances on the Property other than the above Agreements and the Cominco Royalty and is not aware of any environmental liabilities or public hazards associated with the Property. The exploration shaft and ramp that were established at the Jonpol Deposit during the 1980’s and 1990’s have been capped and meet current regulatory standards for closure. The portal to the Jonpol ramp has been blocked with coarse mine waste. In Ontario, work permits are not required to perform the work recommended in this Report.

The primary focus of Northern Gold's work and expenditures has been the Garrcon Deposit located in the south central portion of the Garrison Gold Property.

4.3.4 Additional Proximal Northern Gold Properties

Northern Gold has acquired through purchase agreements, two non-contiguous claim groups in the area of the Garrison Gold Property in Garrison and Harker Townships (Figure 4-4).

The Plato (24 claims – approx 384 ha) and Sims (24 claims – approx 384 ha) properties are 100% percent owned by Northern Gold subject to purchase agreements detailed in Sections 4.3.4.1 and 4.3.4.2. Claim details and status are presented in Table 4-2.



Source: Northern Gold, 2012

Figure 4-4: Location of Northern Gold non-contiguous claim groups in the area of the Garrison Gold Property

Table 4-2: Northern Gold Plato and Sims claim groups in the area of the Garrison Gold Property

Claim Number	Claim Group	Township	Claim Units	Approx Area (ha)	Recording Date	Claim Due Date	Work Required
765901	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765902	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765903	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765904	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765905	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765906	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765907	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765908	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765909	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765910	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765911	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765912	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765913	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765914	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765915	Plato	Garrison	1	16	1983-Jun-15	2013-Jun-15	$400
765892	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
765893	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
765894	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
765895	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
765896	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
765897	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
765898	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
765899	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
765900	Plato	Harker	1	16	1983-Jun-15	2013-Jun-15	$400
684565	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684566	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684567	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684568	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684569	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684570	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684571	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684572	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684573	Sims	Harker	1	15.64	1982-Nov-29	2013-Nov-29	$391
684574	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684575	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684576	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400

Claim Number	Claim Group	Township	Claim Units	Approx Area (ha)	Recording Date	Claim Due Date	Work Required
684577	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684578	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684579	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684580	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684581	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684582	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684583	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684584	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684585	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684586	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684587	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
684588	Sims	Harker	1	16	1982-Nov-29	2013-Nov-29	$400
		TOTAL	48	767.64			$19,191

4.3.4.1 Plato Claim Group Purchase Agreement

On May 25, 2011, Northern Gold announced that it had entered into a definitive agreement to acquire a 100% interest in the Plato Claim Group from Plato Gold Corporation (Plato). The Agreement is subject to an underlying 2% Gross Metal Royalty on all metals produced from the property and is held by Géoconseils Jack Stoch Ltée (Géoconseils) in accordance with an Agreement between Géoconseils and Plato dated November 27th, 2007. The claims were purchased for a cash payment of $72,000 and 175,000 common shares of Northern Gold on the closing date of May 27, 2011. The 24 unpatented mining claims, covering approximately 384 hectares, are located in Garrison and Harker Townships approximately 1 kilometre southeast of the Linton claim block portion of Northern Gold's Garrison Gold Property (Figure 4-4).

4.3.4.2 Sims Claim Group Purchase Agreement

Northern Gold announced on April 19, 2011 that it had entered into a definitive agreement to acquire a 100% interest, subject to a NSR royalty, in the Sims Claim Group consisting of 24 staked mining claims. The Claims were purchased for a cash payment of $72,000, a 1.5% NSR royalty on all production and 100,000 common shares of Northern Gold. The agreement of purchase and sale was dated April 15, 2011 and approved by TSX Venture on April 26, 2011. Northern Gold has the right to buy back the NSR royalty for $1.5 million. The Sims claims, covering approximately 384 hectares, are located in Harker Township only 3.9 kilometers east of the Linton claim block portion of the Garrison Gold Property (Figure 4-4).

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPY

5.1 ACCESSIBILITY

The Garrison Gold Property is located approximately 40 kilometres north of Kirkland Lake, 40 kilometres east of Matheson, and 100 kilometres east of Timmins, Ontario. Air access to the area is available via scheduled commercial flights to Timmins. Direct highway access to the area from Toronto is via Highways 400 and 11 north through North Bay to Matheson (approximately 560 km) then east from Matheson along Highway 101. Highway 101 traverses the north side of the Property and an 800 metre long gravel road, constructed in 1988, allows for 2-wheel drive access to the Property from the highway. Additional bush roads provide further access into the Property.

5.2 CLIMATE AND PHYSIOGRAPHY

There is low topographic relief in the immediate area of the Property. Property elevations range from 289 to 305 metres above sea level (ASL) with swamp and overburden covered areas between hummocks of clay rimmed outcrop. Jack pine and balsam grow on esker and sandy soil areas; wet areas are vegetated with spruce, cedar and tag alder. Bedrock exposure is generally poor (~10-20% exposure) and overburden is typically >5 metres thick.

The Property area experiences four distinct seasons. Daily average winter temperature in January is -17 degrees Celsius with an extreme daily minimum of -47 Celsius. Daily average summer temperature in July is +18 degrees Celsius with an extreme daily maximum of +39 degrees Celsius. The region has average annual precipitation of approximately 89 centimetres including approximately 59 centimetres of rain, largely during the months of April to October and up to 3 metres of winter snow accumulation, occurring largely between the months of November and April.

Mineral exploration can be conducted year-round. In lake covered or swampy areas, exploration activities such as geophysical surveys and diamond drilling are more easily conducted in the winter due to better accessibility after freeze-up.

5.3 LOCAL RESOURCES AND INFRASTRUCTURE

There are numerous operating gold and base metal mines in the area and the necessary infrastructure for mining and mineral exploration, including skilled labour, is available locally. The Property is located about 100 kilometres east of the City of Timmins, Ontario (2011 population: 43,165), a major mining centre with a skilled and educated work force, a commercial airport and rail service. Other population centres in the area include Matheson (2011 population: 2,410) and Kirkland Lake (2011 population: 7,334), an active mineral exploration and mining town with rail service.

Existing surface site infrastructure at the time of Howe's latest site visit consisted of the following:

- A graveled site access road from Highway 101 allowing 2 wheel-drive vehicle access;
- A security gatehouse;
- A renovated core shack (Plate 5-1) with logging room and attached core sampling room containing electric core saws and water storage tanks (Plate 5-2). The core shack also has additional storage areas for core and ATV's;
- A three room field office trailer;
- One diesel powered electric generator for core logging and core sampling rooms;
- Two decommissioned railway boxcars for storage of sample rejects and pulps;
- Core storage racks have been dismantled and all core has been moved and palletized on a gravel pad at the Jonpol site;
- Weather station.

A 115kV power transmission line of unknown capacity is located approximately 10 km southeast of the property along Highway 672 and water is readily available in the vicinity of the Property. The Property and adjacent Northern Gold Plato claim holdings may be of sufficient area for the establishment of potential mine infrastructure such as tailings and waste storage areas, heap leach pads and processing plant site. More detailed site engineering is required to confirm the suitability and sufficiency of the current property area for final mine and processing facilities should they be constructed.

Plate 5-1: Core logging/core sampling facility (January 21, 2011).

Plate 5-2: Core saw and sample preparation facility (January 2011).

6 PROPERTY HISTORY

Exploration conducted on the Property dates back to 1935 (Satterly, 1949). The mining claims that make up the Property are patented and as a result very little of the exploration work carried out on the Property has been filed with the government and hence the data is not in the government assessment work files. Initial drilling on the Property occurred in the period 1935-1946 with additional drilling completed during 1983. None of this data has been included in the Northern Gold's current exploration drill hole database. The most important historic data relating to the Property is the exploration work completed since 1985 by Jonpol Explorations Ltd. (and its partners Cominco, Lac Minerals and Hillsborough Resources), ValGold and Northern Gold. Northern Gold's current drill hole database includes only holes drilled between 1985 and present. The majority of work has concentrated on the Jonpol deposit and Garrcon deposit areas within the Property.

Bath (1990) summarized the exploration and development from 1935 to 1989, for the area within and surrounding the present Property. Squair (2000) further summarized exploration conducted up to 1997. General and deposit specific exploration history is presented in the following Sections 6.1 to 6.3.

The historic resource and reserve estimates noted in Section 6.0 and its subsections of this Report are 'historical' in nature and not in compliance with NI 43-101. A qualified person has not done the work necessary to verify the historical estimates as current estimates under NI 43-101 and as such they should not be relied upon. Howe and Northern Gold are not treating the historical estimates as current mineral resources or mineral reserves; they are presented for informational purposes only.

6.1 GENERAL PROPERTY EXPLORATION HISTORY SINCE 1985

1985-1992: In 1985 the current Property was acquired by Jonpol Explorations Ltd. (Jonpol). From 1985 to 1992 Jonpol and its partners completed 80,604 metres of surface BQ diamond drilling in 300 holes of which:

- 237 holes (65,637.5 metres) were focused on the Jonpol deposit and its strike extents. The drilling defined five zones – JD, JP, RP, Garrcon West and Garrcon East. The latter two zones are now collectively referred to as the East zone to avoid confusion with the Garrcon deposit.
- 48 holes (10,628.0 metres) were focused on the Garrcon deposit and its strike extents.
- 15 holes (4,338.6 metres) were focused on the eastern extension of the 903 zone on claim L29734.

1990: Jonpol and T & H Resources Limited concluded an option agreement with Lac Minerals Ltd. which expanded the existing property and allowed Jonpol and T & H the opportunity to conduct underground exploration on the JP zone, investigate the westward extension of the JD zone onto the Hastings ground (specifically claims

L39876 and 43863), and to investigate the "903" gold zone (specifically claims L43903 of the Wright-Hargreaves group and L43862 of the Hastings group) which extends eastward onto the southeast corner of the Garrison Property (claim L29734) (Squair, 2000).

1991: The Lac Minerals agreement was terminated and the Hastings and Wright-Hargreaves properties along with five peripheral claims south of the Garrcon were returned to Lac (Squair, 2000).

1995-1996: In October 1995, Jonpol and T & H Resources Ltd. optioned the Linton and Brydges claim groups to Moneta Porcupine Mines Inc. Under the agreement Moneta Porcupine could earn an undivided 50% interest in the 16 claims by tendering 80,000 Moneta shares, a $7,000 payment and expending $500,000 in surface exploration on the property before October 26, 1998. A further 25 % interest in the claims could be earned by Moneta Porcupine by expending an additional $1.0 million on surface exploration before October 26, 2000. The exploration program was joint ventured with Alto Minerals Inc., who conducted lithogeochemical sampling, mapping and real section IP geophysics to assess gold-bearing sulphide zones in this sector of the property. The joint venture completed 10.7 line km of real section IP on lines 100 m apart over the claims, and tested selected anomalous sections with four BQ diamond drill holes (MG-96-1 to 4) totaling 1,080 metres (3,544 ft.). The option agreement had lapsed by the time of Squair's (2000) report.

1996-1997: On July 26, 1996, Jonpol Explorations Ltd. and T & H Resources Ltd. signed an agreement with Hillsborough Resources Limited ("Hillsborough") whereby Hillsborough was granted an option to carry out an advanced exploration program at the JP Zone. Work completed is summarized in Section 6.3.The option agreement was terminated in 1997.

2005: ValGold Resources Inc. secured 100% ownership of the Property's Newfield, Garrcon and Brydges claim groups in June 2005 (subject to the Cominco NSR on the Garrcon claim blocks). Initial work consisted of data review and preliminary data compilation as part of the planning process for a diamond drilling program.

2009: In September 2009 Northern Gold entered into an Option Agreement with ValGold covering the Garrison Gold property (historic Newfield, Garrcon and Brydges claim blocks).

2011: Under the terms of an agreement announced on April 7th 2011, Northern Gold purchased ValGold's 100% interest in the Garrison Gold property (historic Newfield, Garrcon and Brydges claim blocks) with TSX Venture approval of the transaction granted on April 14, 2011.

On April 12, 2011 Northern Gold announced that it reached a definitive agreement with June Linton, Lynn Troke and Karen Wickett to acquire a 96.4% interest in the Linton Claim Group which has now been incorporated into the Garrison Gold property.

2012: On April 30, 2012, Northern Gold purchased the remaining 3.6% interest in the Linton Claim Group (two sevenths (or 28.6%) interest in claim 26074) from Carol Linton Whelpdale.

6.2 GARRCON DEPOSIT EXPLORATION HISTORY

Exploration and development history from 1935 to 1988 has been extracted from Bath (1990) with metric equivalents inserted by Howe:

"1935: The Consolidated Mining and Smelting Company of Canada Ltd. optioned 9 claims from a Mr. McKenzie, sank a 256 foot (78 metre) deep inclined (to the south at 62 degrees) shaft, performed about 1,033 feet (315 metres) of lateral exploration work on the 120 and 240 foot (36.5 and 73 metre) levels, and hoisted about 7,612 tons (6,920 tonnes) of waste material. By year end, about 10,550 feet (3,216 metres) of underground and surface diamond drilling had been completed (Young 1937, Sinclair et al. 1937, Sinclair et al. 1938).

1936: Garrcon Mines Ltd. was incorporated in May with Consolidated Mining and Smelting controlling the company and acting as operator on the Garrcon Mines property. 1,745 feet (532 metres) of lateral underground exploration work and additional underground diamond drilling were completed (Sinclair et al. 1938).

1937: 4 feet (1.2 metres) of shaft sinking, 1,542 feet (470 metres) of lateral underground exploration work, 21 surface holes totaling 5,070 feet (1,545 metres), and 33 underground holes totaling about 5, 905 feet (1,800 metres) were diamond drilled. Before operations were suspended at year end, aggregate lateral underground exploration work amounted to 636 feet (194 metres) on the 120 foot (36.5 metre) and 3,655 feet (1,114 metres) on the 240 foot (73 metre) levels (Sinclair et al. 1939), aggregate diamond drilling totaled 16,099 feet (4,907 metres) (of which 11,029 feet (3,362 metres) were drilled underground) and about 520 feet (158 metres) of trenching had been completed (Satterly 1949).

1941: Consolidated Mining and Smelting diamond drilled one 293 foot (89 metre) hole near the northeast corner of claim 38950.

1946: Consolidated Mining and Smelting completed a magnetic survey.

1949: By this time, Consolidated Mining and Smelting controlled in addition to the Garrcon property, 3 contiguous patented claims to the west (claim Nos. 39949-51). Before 1949, trenching and 4 holes totaling 2,110 feet (643 metres) were diamond drilled on these claims (Satterly 1949).

1983: Kerr Addison Mines Ltd. diamond drilled 10 holes on the 12 Consolidated Mining and Smelting/Garrcon Mines (by this time, optioned by Cominco Ltd.) claims (Jonpol Explorations Ltd. 1987 Annual Report).

1985: Jonpol Explorations Ltd. acquired the right to earn a 49% interest in the 12 Cominco/Garrcon Mines claims.

1986: Diamond drilling by Cominco was financed by Jonpol Explorations and delineated 2 additional auriferous zones (the North and South Zones). These were described (The Northern Miner, February 10, 1986) to be stratabound and not vein type. By July, Jonpol had earned a 49% interest in the property (The Northern Miner, July 21, 1986). By September, the South Zone was reported (The Northern Miner, September 29, 1986) to be hosted by altered sediment, to average 6 feet (1.8 metres) in width, and to have been traced by diamond drilling to the (vertical) 500 foot (152 metre) level along about l,300 feet (396 metres) of strike. The North Zone had by this time been traced along strike for about 200 feet (61 metres), to the (vertical) 500 foot (152 metre) level, averaged 10.7 feet (3.3 metres) in width, and was reported to be hosted by a wide shear.

1987: By midyear, drilling funded by Jonpol Explorations and supervised by Cominco had established reserves of 1.5 million tons (1.36 million tonnes) of material averaging 0.04 ounce of gold per ton (1.37 grams gold per tonne) above the 200 foot (61 metre) level near the shaft. The South Zone was indicated to average 0.15 ounce of gold per ton (5.14 grams gold per tonne) across 3.8 feet (1.2 metres) along l,400 feet (427 metres) of strike. The North Zone was reported to have been drill defined along 300 feet (91 metres) of strike. A new auriferous zone within the "Munro Shear" was reported to average 10 feet (3 metres) in width, to be drill defined along 250 feet (76 metres) of strike, with a mineralized drill core length of 36.9 feet (11.3 metres) averaging 0.30 (cut) ounce of gold per ton (10.28 grams gold per tonne - cut) intersected within it (Jonpol Explorations Ltd. 1987 Annual Report). By July, Jonpol Explorations/Cominco were reported (The Northern Miner, July 27, 1987) to have spent $500,000 and that an additional $2 million was budgeted for additional exploration during the next 2 years.

1988: Jonpol Explorations announced in a news release dated February 2, 1988 that aggregate drill defined reserves were estimated to be 350,900 tons (319,000 tonnes) of material averaging 0.191 ounce of gold per ton (6.55 grams gold per tonne) above the (vertical) 500 foot (152 metre) level in three distinct zones. Later, Jonpol Explorations acquired a 100% interest in the property following Cominco's having diamond drilled 79 holes totaling about 70,168 feet (21,387 metres) since 1983 (A. D. Drummond, project engineer, Jonpol Explorations Ltd. , pers. comm. 1988). In July, Lac Minerals Ltd. obtained the right to acquire a 50% interest in the (Jonpol Explorations) properties (The Kirkland Lake Northern Daily News, July 7, 1988; The Northern Miner, July 11, 1988), and in November, Lac Minerals optioned the property (The Northern Miner, November 21, 1988).''

1991: The Lac Minerals agreement was terminated.

2006-2007: ValGold completed 3 BQ and 11 NQ diamond drill holes on the Garrcon zone totaling 5,709 metres.

2009: Northern gold completed 11 NQ diamond drill holes on the Garrcon zone totaling 2,330 metres (see Section 10).

2010: Northern Gold completed 47 NQ diamond drill holes on the Garrcon zone totaling 11,250 metres (see Section 10). Additional exploration included ground magnetometer and VLF-EM surveys, surface stripping and sampling, and preliminary metallurgical testing.

2011: Northern Gold completed 118 NQ diamond drill holes plus 13 drill hole extensions on the Garrcon zone totaling 42,112 metres (see Section 10). Additional exploration included an IP geophysical survey, surface stripping and sampling, and hyperspectral drill core imaging and analysis.

2012: To the effective date of this report, Northern Gold completed 49 NQ diamond drill holes plus 10 drill hole extensions on the Garrcon zone totaling 23,381 metres (see Section 10). Hyperspectral core imaging and analysis is now a routine procedure completed on all diamond drill core.

6.3 JONPOL DEPOSIT EXPLORATION HISTORY

Exploration and development history from 1935 to 1989 has been extracted from Bath (1990) with metric equivalents inserted by Howe:

"Pre-1946: The claim group was staked by G. Adams and was later optioned to Wright-Hargreaves Mines Ltd. Wright-Hargreaves Mines diamond drilled 4 holes totaling 2,742 feet (Satterly 1949).

1946-1947: Dome Exploration (Canada) Ltd. acquired the property and formed Newfield Mines Ltd. to explore it. Newfield Mines diamond drilled 20 holes totaling 16,164 feet (Satterly 1949), most of which were drilled in the south part of the property in an attempt to locate an eastern extension of an auriferous zone which had been intersected via diamond drilling by Wright-Hargreaves Mines on patented claim no. 43903. Results of the Newfield Mines drilling included auriferous intersections of 0.22, 0.17, 0.27, and 0.45 ounce of gold per ton across core lengths of 1.4, 4.8, 2.8, and 2.0 m, respectively, and additional "commercial" values in pyritic syenitic or feldspar porphyry.

1987: T & H Resources Ltd. (a member of the Jonpol group of companies) optioned the northernmost block of 9 claims (nos. 26435-37, 39428-29, 43702-03, and 44331-32) *from Newfield Mines (The Northern Miner, July 6, 1987). Newfield Mines retained a 30% net profit interest. Jonpol Explorations Ltd. (a member of the Jonpol group) later earned a 50% interest in the T & H Resources property interest. T & H Resources and Jonpol Explorations completed magnetic and VLF electromagnetic surveys (T & H Resources Ltd. 1987 Annual Report) and diamond drilled 38 holes totaling 29,289 feet.*

1988: Findore Resources Inc. optioned from Newfield Mines the southernmost block of 5 patented claims. Coastoro Resources Ltd. (a member of the Jonpol group) acquired a 20% interest of the T & H Resources X Jonpol Explorations interest in the northern 9 claims, and the Jonpol group raised $3 million to be spent in the area during 1988 (The Northern Miner, January 18, 1988). In February, Findore Resources optioned its Newfield Mines claims to Morgain Minerals Inc. and Orcana Resources Inc. (The Northern Miner, February 15, 1988). By March, gold mineralization on the Jonpol group controlled ground was reported (T & H Resources 1987 Annual Report) to consist of 3 mineralized Zones (the JP, the RP, and the JD) extending with breaks along about 2,200 feet of strike. By May, T & H Resources agreed to "... arrange a pooled interest merger with Coastoro..." (The Northern Miner, May 9, 1988). By June, drill defined reserves of 914,500 tons of material averaging 0.235 ounce of gold per ton in the JP Zone and 83,000 tons of material averaging 0. 234 ounce of gold per ton in the RP Zone had been delineated (The Northern Miner, June 13, 1988). By June 30, aggregate drilling on the property totaled about 105,000 feet in 103 holes (A. D. Drummond, project engineer, Jonpol group of companies, pers. comm., July 15, 1988). In July, Lac Minerals Ltd. obtained a right to acquire a 50% interest in the Jonpol group controlled part of the property (The Kirkland Lake Northern Daily News, July 7, 1988; The Northern Miner July 11, 1988). As of August 25, 1988, aggregate drilling by the Jonpol group totaled 132,697 feet in 136 holes (A. D. Drummond, pers. comm. August 1988). Drill defined reserves were revised to 1. 3 million tons of material averaging 0.231 ounce of gold per ton (The Northern Miner, September 5, 1988). The Garrison Township assets of T & H Resources and Coastoro Resources were consolidated under the name T & H Resources (The Northern Miner, October 10, 1988). Lac Minerals optioned the property in November (The Northern Miner, November 21, 1988).

1989: T & H Resources and Jonpol Explorations began underground exploration, including the sinking of a 500 foot deep 3 compartment vertical exploration shaft (Jonpol Explorations Ltd. 1989 Annual Report; The Northern Miner, June 19, 1989). By September, the shaft had reached the 485 foot level and stations had been established on the 250 and 475 foot levels (Jonpol Explorations Ltd. / T & H Resources Ltd. Interim Report dated September 30, 1989).''

1990: T & H Resources and Jonpol Explorations underground program was completed in March 1990. Work completed included:

- 184 metre (605 foot) vertical 6.7 x 2.7 metre 3 compartment shaft
- 185 metres of 1.5 x 2.1 metre cross cut and drill stations
- 4,747.2 metres (15,575 feet) of AXT drilling in 42 holes

- 182.2 metres of Bazooka (AXT) drilling in 22 holes into walls of 476 foot (150 metre) level drift.
- 147.8 metres of drifting in the JP Main Zone on the 476 foot (150 metre) below surface level
- bulk sampling, 79 rounds

Metallurgical testing at Lakefield Research in November 1990 indicated that the material from the JP Main Zone in the Munro Fault Zone gives 50% recovery with direct cyanidation. Flotation concentrates contained 95 % of the gold in the rougher concentrate which when cleaned could produce cleaner concentrates in the 4 to 8 opt gold range. Pressure oxidation cyanide leach tests of the concentrate recovered 99 % of the contained gold suggesting a potential gold recovery of 95% using that system. The underground bulk sample rounds contained 0.3 to 1.4% As (Squair, 2000).

1991: The Lac Minerals agreement was terminated.

1992: Jonpol completed seven holes totaling 796 metres.

1994: Jonpol drilled three diamond drill holes (N-94-1, 2 and 3) with a northwest azimuth on claims P-26435 and P-26434 to test for the western down-plunge extension of the JP Zone (Squair, 2000). Total footage drilled was 5,128 feet between September 24 and October 22, 1994.

A four-line (3800W to 4400W) Mise-a-la-Masse survey was then completed to determine the near surface conductivity of the auriferous sulphide in drill hole N-94-1.

1995: Jonpol completed a follow-up diamond drilling program (Phase 2) to test strata and shear zones down dip and on strike from drill hole N-94-1 on claims 43703, 26433, 26434 and 26435. During the period from January 26 to February 16, 1995, six BQ diamond drill holes totaling 3,550 feet were completed (N-95-1 to N-95-6).

A four-hole, 9200-foot Phase 3 drill program was then planned to test the potential for possible gold concentrations at the basal basalt/ultramafic contact and within felsic volcanic and intrusive rocks above the upper thrust of the Munro Fault to the east of the JP deposit and down plunge from the Garrcon West (now Jonpol East) zone. Two drill holes of the four-hole program, N-95-7 and N-95-8, were laid out on claims 38950 and 39429. Drill hole N-95-7 was completed September 16, 1995. Hole N-95-8 was lost at 1,270 feet in sheared ultramafic near the top of the Munro Fault. Repeated efforts to cement and drill through the zone were unsuccessful, and the hole plus the remainder of the program was abandoned on October 22, 1995. The two holes totaled 3,767 feet. Gold-silver assays for 269 samples from 30 sulphide intersections within the two holes were of geochemical interest only, but the program has demonstrated that anomalous gold values occur within non-refractory sulphides (pyrite) south of the Munro Fault.

A six-line Mise-a-la-Masse survey was conducted to determine near surface conductivity around hole N-95-7.

1996-1997: On May 29, 1995, Jonpol Explorations Ltd. and T & H Resources Ltd. signed a letter of intent with Hillsborough Resources Limited ("Hillsborough") to complete a Joint Venture agreement whereby Hillsborough would be granted an option to carry out an advanced exploration program at the JP Zone. Under the agreement Hillsborough would undertake to develop and mine the known gold-bearing albite-sericite-pyrite zones and ship ore to a custom mill and smelter at Noranda, Quebec. After recovery of Hillsborough's initial costs, the parties would share net smelter proceeds, if any, from the advanced mine program. The Hillsborough option encompassed all known gold-bearing zones on the Newfield and Garrcon group of claims, to a vertical depth of 305 meters (1,000 ft) from the shaft collar on patented claim 43703; work was carried out on claims 43702 and 43703. Canadian Mine Development, a wholly owned subsidiary of Hillsborough Resources conducted the permitting and development work.

Permitting for the advanced exploration program began June 12, 1995, the mine closure plan was accepted by Ontario Ministry of Natural Resources ("MNR") on August 24, 1995, and site operations began in mid-October, 1995, with the excavation of the decline portal and the establishment of ore and waste pads. At the beginning of the test program, Hillsborough established an on-site fire assay laboratory to insure that sample and assay results kept pace with mine development.

The mineralized zone was developed from a 12 foot x 14 foot (3.7 metre by 4.3 metre), 18°-20° decline excavated to the 476 Level. A ventilation raise connected the 350 Level to surface. Ore was removed by drifting and benching on 6 levels between 80 and 150 metres below surface. The first gold-albite-sericite-pyrite-arsenopyrite test samples were shipped to the Noranda custom mill and smelter complex in September 1996. Between September 1996 and April 1997, 55,751 short wet tons or 54,109 short dry tons of mineralized rock, were shipped to the Noranda custom mill and smelter complex. Choi (1997) reports that the total recovered gold was 9,476 ounces and total gold lost to tailings was 1,100 ounces for total available gold of 10,576 ounces, a recovery of 89.60% and a calculated feed grade of 0.1955 oz/ton. The calculated feed grade of 6.70 grams/tonne (0.1955 oz/ton) Au was much lower than the estimated grade of 8.33 grams/tonne (0.243 oz/ton) Au (Squair, 2000). The advanced underground exploration program was terminated on March 29, 1997. Mine closure and environmental clean-up procedures were completed and the Hillsborough option was terminated in 1997. A minimum of 458,000 tons at 0.28 opt Au were reported to remain in place at the JP Zone (Squair, 2000).

2005-2007: ValGold completed 63 NQ diamond drill holes on the Jonpol deposit totaling 26,646.3 metres.

2011-2012: Northern gold extended seven Garrcon NQ diamond drill holes into the Jonpol East zone.

6.4 GARRISON PROPERTY HISTORIC RESERVES AND RESOURCES

Various historical resource estimates on gold mineralisation in the Jonpol and Garrcon deposits have been provided by various authors since the mid 1980's. These historical resources, which are summarized and reported by Bath (1990), and by Squair (2000) who referred to historical reports by DDH Geomanagement Ltd. (1989) and R.J. Bradshaw (1989).

The historic resource and reserve estimates noted in Section 6.0 and its subsections of this Report are 'historical' in nature and not in compliance with NI 43-101. A qualified person has not done the work necessary to verify the historical estimates as current estimates under NI 43-101 and as such they should not be relied upon. Howe and Northern Gold are not treating the historical estimates as current mineral resources or mineral reserves; they are presented for informational purposes only.

Using original terminology, the historical estimates were referred to as reserves (deemed to be economically viable at the time) and resources. These historic categories of "reserve" and "resource" do not conform to current CIM definitions as set out in sections 1.2 and 1.3 of NI 43-101. None of the historic estimates are supported by available technical reports.

Howe has undertaken the work necessary to establish current mineral resources for the Jonpol and Garrcon deposits as reported in Section 14 of this report.

6.4.1 Garrcon Deposit

By mid 1987, Jonpol Explorations Ltd. had established reserves of *1.5 million tons (1.36 million tonnes) of material averaging 0.04 ounce of gold per ton (1.37 grams gold per tonne) above the 200 foot (61 metre)* level and within the area of the Garrcon shaft.

In a news release dated February 2nd, 1988, Jonpol Explorations Ltd. announced aggregate drill defined reserves of *350,900 tons (319,000 tonnes) of material averaging 0.191 ounce of gold per ton (6.55 grams gold per tonne)* above the (vertical) 500 foot level and contained in three distinct zones (Table 6-1). Note that the Hole 33 Area corresponds to the current Jonpol East zone and is not within the current Garrcon deposit footprint.

Table 6-1: Historical Garrcon diamond drill defined reserves, Jonpol Explorations Ltd. (1988)

Mineralized Zone	Tonnage (tons)	Average Au Grade (opt)
Hole 33 Area (*Munro Fault Zone*)	81,300	0.267
North Zone Area	166,800	0.161
Shaft Area (*incl. South Zone?*)	102,800	0.180
Weighted Average:	**350,900**	**0.191**

6.4.2 Jonpol Deposit

The following diamond drill indicated reserves for the Jonpol deposit (Table 6-2) appeared in The Northern Miner on June 13, 1988 (Bath, 1990):

Table 6-2: Historical Jonpol diamond drill defined reserves, Jonpol Explorations Ltd. (1988)

Mineralized Zone	Approx. Strike Length (ft)	Average Width (ft)	Tonnage (tons)	Au Grade (opt)
JP Zone	800	17.3	914,500	0.235
RP Zone	193	12.5	83,000	0.234
		Total (weighted average)	997,500	0.235

Drill defined reserves were revised to 1.3 million tons of material averaging 0.231 ounce of gold per ton as reported in The Northern Miner on September 5, 1988 (Bath, 1990).

In a report dated August 17, 1989, R.J. Bradshaw estimated that the JP Zone contained a mineral resource of 700,000 tons at 0.19 opt gold to 1300 feet from surface (Squair, 2000)

Squair (2000) noted that DDH Geomanagement Ltd. (1989) reported the five zones of the Jonpol Deposit (JD, IP, RP, Garrcon West and Garrcon East) had an estimated gold mineralization (to a depth of 1,000 feet) of 513,800 tons at 0.28 opt gold over 11 feet width, at a cut-off of 0.15 opt gold, or 1,050,200 tons at 0.18 opt gold over 10 feet width, at a cut-off of 0.08 opt gold.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGICAL SETTING

Garrison Township, situated in the Abitibi Greenstone Belt ("AGB"), is underlain by Neoarchean supracrustal rocks of the Abitibi Subprovince of the Canadian Shield. Supracrustal rocks are divided into tectonostratigraphic units called assemblages for descriptive purposes. The reader is referred to Jackson and Fyon (1991) for a full discussion of the Archean geology of the Superior Province and to Ayer et al. (2001) for a more recent interpretation of the AGB geology. Gold deposits are structurally controlled and are widely distributed within the AGB, but all of the large deposits occur within 2 km of the Porcupine-Destor Fault Zone, the Pipestone Fault Zone and the Cadillac-Larder Lake Shear Zone.

The most recent description of the regional geology of the area is by Berger (2002) in his geological synthesis of the Highway 101 area, east of Matheson. Berger (op cit p.xvii) has summarized the regional geological setting as follows (Table 7-1):

"The study area is underlain by Neoarchean supracrustal and intrusive rocks that are subdivided into 5 lithotectonic assemblages. The Kidd-Munro assemblage underlies the north part of the study area and is composed of a tholeiitic metavolcanic member and a calc-alkalic metavolcanic member. Ultramafic to mafic layered sills intrude the metavolcanic rocks. The Tisdale assemblage is composed of tholeiitic metavolcanic rocks and subordinate amounts of calc-alkalic metavolcanic rocks. The distribution of the assemblage is poorly constrained because of the Porcupine-Destor deformation zone and related splay faults transect the assemblage in several places. The Kinojevis assemblage underlies the south part of the study area and is composed of predominantly mafic tholeiitic metavolcanic rocks that are intercalated with thin units of tholeiitic rhyolite and calcalkalic metavolcanic rocks. The Porcupine assemblage underlies the northwest part of the study area and is composed of greywacke, argillite, and rare conglomerate that are intruded by small alkalic intrusions. The Timiskaming assemblage is composed of clastic and chemical metasedimentary rocks and rare alkalic metavolcanic rocks that are distributed within and near to the Porcupine-Destor deformation zone. Ultramafic to felsic alkalic intrusive rocks are also correlated with the Timiskaming assemblage and occur as dikes, small single-phase intrusions and large multi-phase intrusions throughout the area. Paleoproterozoic quartz-diabase dikes, Keweenawan-age olivine diabase dikes and Jurassic kimberlite dikes and diatremes intrude the Neoarchean rocks.

The Porcupine-Destor deformation zone is a crustal-scale structure that transects the study area and is characterized by south-side-up vertical movement. The fault zone and related northeast-striking splay faults such as the Ghostmount fault and McKenna fault, are the loci for gold mineralisation. Northeast-striking faults with dominant vertical displacement transect the Porcupine-Destor deformation zone. Two of these faults, the Hislop fault and Garrison fault, are major structural features that act as the boundaries to different *metallogenic segments. Gold mineralisation occurs in different structural settings, different styles, and different types of alteration patterns in each segment."*

Gold is extracted from the St Andrew Goldfield Ltd.'s Holloway and Holt mines in Holloway Township, Brigus Gold's Black Fox mine in Hislop Township and St Andrew Goldfield Ltd.'s Hislop mine in Hislop Township (approximately 15 kilometres east, 32 kilometres west and 27 kilometres west of the Property respectively). Several past-producing gold mines are located in Hislop and Garrison townships. Many gold prospects and occurrences are located throughout the study area and there is excellent potential for future discoveries. There is potential for platinum group elements mineralisation in the ultramafic to mafic layered, intrusions and the ultramafic phases of the alkalic intrusions (Berger, 2002). Diamonds occur in some of the kimberlite intrusions (Berger, 2002).

Table 7-1: Regional Table of Formations (Berger 2002)

PHANEROZOIC
CENOZOIC QUATERNARY HOLOCENE Lake, stream and wetland deposits PLEISTOCENE Glacial, glaciofluvial and glaciolacustrine deposits, sand, gravel, and clay.
UNCONFORMITY
MESOZOIC JURASSIC Kimberlite dikes and diatremes
INTRUSIVE CONTACT
PRECAMBRIAN
PROTEROZOIC Mafic intrusive rocks, Diabase dikes
INTRUSIVE CONTACT
ARCHEAN NEOARCHEAN Metamorphosed Alkalic Felsic and Intermediate Intrusive Rocks Syenite, monzonite, quartz monzonite, granite, feldspar and quartz feldspar porphyry, intrusion breccia, pegmatitic syenite, schist, mylonite, albitite
INTRUSIVE CONTACT
Metamorphosed Alkalic Ultramafic and Mafic Intrusive Rocks Hornblendite, pyroxenite, melasyenite, pegmatitic melasyenite, lamprophyre, gabbro and/or diorite
INTRUSIVE CONTACT
Metamorphosed Tholeiitic Ultramafic and Mafic Intrusive Rocks Peridotite, pyroxenite, gabbro, gabbronorite, schist, diorite, pegmatitic gabbro
INTRUSIVE CONTACT
Mafic and Intermediate Alkalic Metavolcanic Rocks Massive and porphyritic amphibole-biotite-bearing flows, flow breccias Clastic and Chemical Metasedimentary Rocks: **Timiskaming Assemblage** Greywacke, sandstone, arkose, siltstone, argillite, polymictic conglomerate, schist, chert, laminated magnetite-hematite iron formation.
UNCONFORMITY
Clastic and Chemical Metasedimentary Rocks: Turbidites: **Porcupine Assemblage** Greywacke, siltstone, argillite, graphitic and pyritic mudstone, conglomerate, schist, chert Felsic Metavolcanic Rocks: **Kidd-Munro Assemblage and Kamiskotia Assemblage** Flows, tuffs, lapilli tuff, tuff breccia, schist Mafic to Intermediate Metavolcanic Rocks: **Kidd-Munro, Tisdale and Kinojevis Assemblages** Massive, flow-laminated and pillowed flows with flow top and pillow breccia, as well as amygdaloidal and variolitic varieties; tuff, lapilli tuff, schist, breccia, and feldspar porphyry Mafic Metavolcanic Rocks: **Kidd-Munro, Tisdale and Kinojevis Assemblages** Massive and pillowed flows with pillow and flow top breccia, as well as variolitic and amygdaloidal varieties; tuff and lapilli tuff, schist, leucoxene-bearing units, graphite breccia, dikes, hornfelsic greenstone Ultramafic, Komatiitic, and Mafic Metavolcanic Rocks: **Kidd-Munro, Lower Tisdale and Stoughton-Roquemaure Assemblages** Massive, spinifex and polysuture textured flows, schist and basaltic komatiite

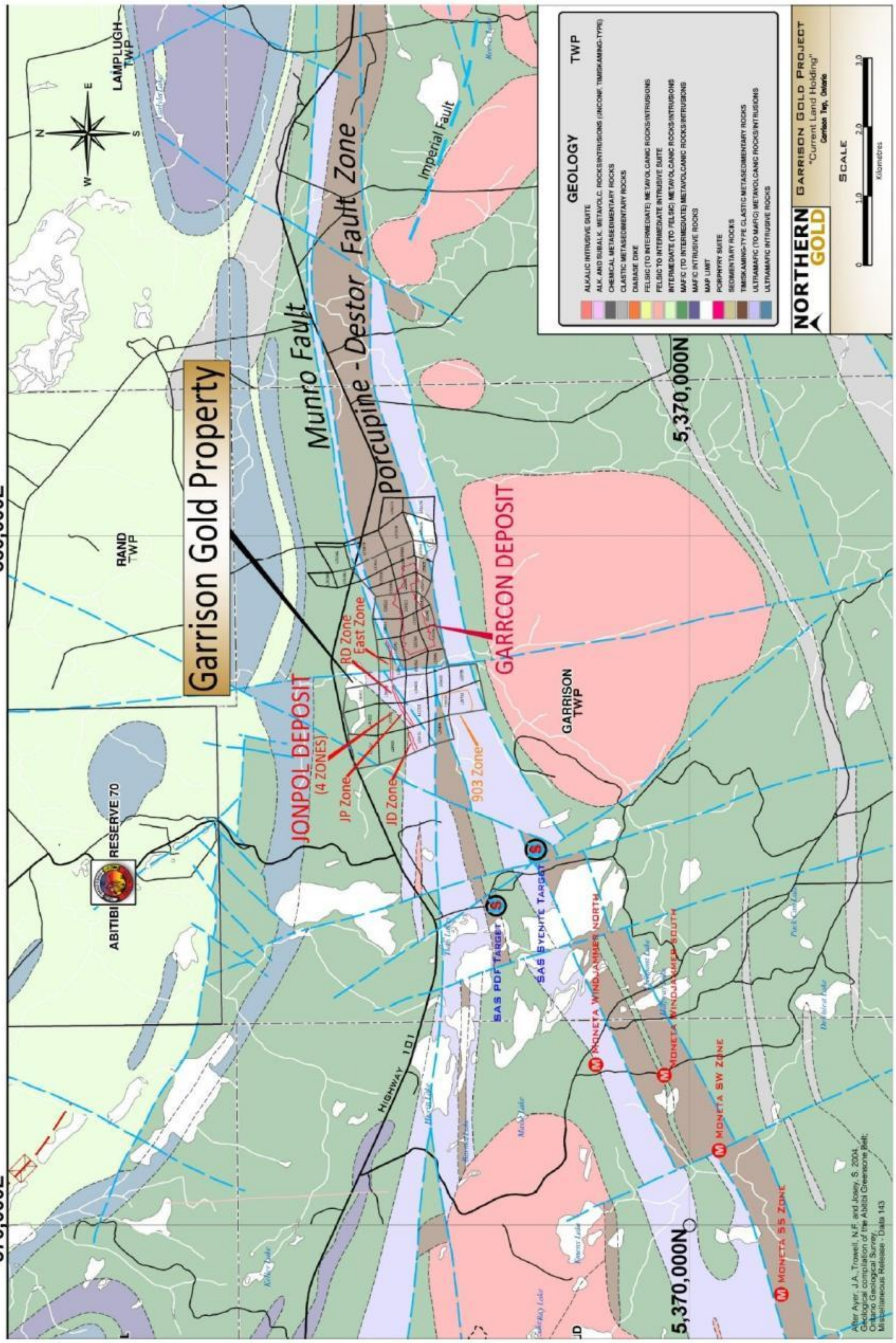


Figure 7-1: Regional Geology

7.2 Local Geological Setting

Satterly (1949) mapped Garrison Township for the Ontario Department of Mines and his mapping provides the best geological work relating to the geology of the Property. Berger (2002) made minor amendments to the geology and brought the nomenclature for the various volcanic-sedimentary units up-to-date in terms of the current understanding of the stratigraphy of the Abitibi Greenstone Belt.

Figure 7-2 presents a summary of the geology in the immediate area of the Property. The Property is underlain by rocks of the Kidd-Munro and Timiskaming Assemblages and about 4 kilometres of the regionally significant Destor-Porcupine Fault Zone and a major splay, the Munro Fault Zone. Both fault zones comprise a variably altered and deformed sequence of metavolcanic rocks that include komatiites and tholeiitic basalts. The map also shows the location of Highway 101, the Jonpol and Garrcon shafts, the Jonpol adit and ramp and the Property boundary.

The Kidd-Munro Assemblage is comprised of massive to pillowed, mafic (high magnesium and iron tholeiites) and ultramafic (komatiite) metavolcanic rocks. The metavolcanic flows strike in a general east-west direction and dip steeply to the south, however, outcrop is limited and there is probably significant local folding, particularly in the vicinity of the major fault zones that cross the property. No surface exposures of ultramafic (komatiite) metavolcanics have been identified, however, in drill core there are abundant occurrences of talc schists, talc-carbonate schists, and carbonate-mariposite schists that are indicative of the presence of ultramafic or high magnesium tholeiites in the metavolcanic sequence. It is a clear possibility that the Munro and Porcupine-Destor faults are focused within the ultramafic rock units because of their high ductility compared to the more brittle mafic metavolcanic, felsic metavolcanic and metasedimentary assemblages. The Munro fault hosts the Jonpol Deposit.

Timiskaming Assemblage clastic metasedimentary rocks, composed of conglomerate, wacke-sandstone, siltstone, argillite and schist, are closely associated with the Porcupine-Destor deformation zone from the Quebec border to Hislop Township a distance of approximately 65 kilometres (Berger, 2002). Banded magnetite-hematite iron formation is complexly interbedded and structurally interleaved with clastic metasedimentary rocks. The Timiskaming Assemblage is younger than the Kidd-Munro Assemblage and in the absence of faults; the contact between the assemblages is an angular unconformity. On the Property the Timiskaming Assemblage is fault bounded, on the north side by the Munro fault and on the south side by the Porcupine-Destor fault. The metasedimentary beds strike in a general east-west direction and dip steeply to the south. In general along the Munro fault zone the bedding tops are facing to the north, whereas to the south along the Porcupine-Destor fault zone the bedding tops are facing to the south. The Timiskaming metasediments host the Garrcon Deposit immediately north of the Porcupine-Destor fault.

Immediately to the south of the Property is a large, metamorphosed, alkalic intrusive stock with a plan view diameter of 4 to 4.5 kilometres (Figure 7-1). The intrusive varies in composition from granite to monzonite.

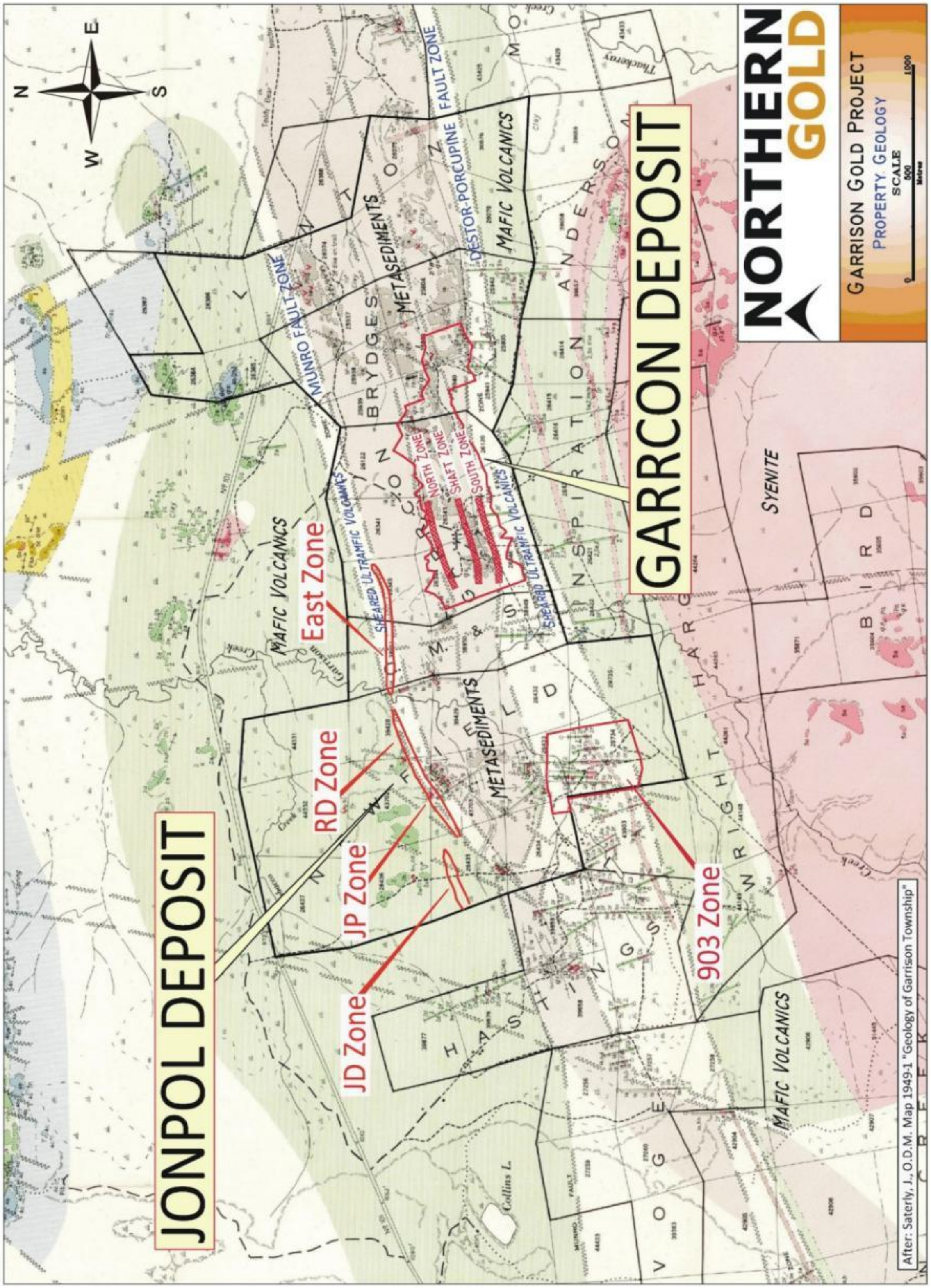
7.3 MINERALISATION

7.3.1 Garrcon Mineralised Zone

The Garrcon Zone exploration target located at UTM 5,373,700 metres north and 578,450 metres east on the Property includes the historic Shaft, South and North Zones. It occurs within the Timiskaming Assemblage adjacent to the Porcupine-Destor fault and is a zone of brecciated, silicified metasediment with disseminated sulphides (pyrite and arsenopyrite) and irregular quartz veinlets. Preliminary metallurgical testwork indicates that the Garrcon mineralisation is non-refractory and is free milling (Section 13).

7.3.1.1 Host Rocks, Structures and Alteration

Gold mineralisation in the Garrcon North and Garrcon Shaft/South zones is hosted by Timiskaming-age metasedimentary rock sequences that include greywacke, arkose and iron formation, occurring adjacent to the Destor-Porcupine Fault Zone (Figure 9-1). These metasedimentary sequences have been hydrothermally altered and mineralized in distinct zones persisting to depth. Native gold grains and gold-bearing sulphide mineralisation occur in quartz-carbonate vein stockworks and locally is disseminated in the wall rocks. Principal minerals are native gold, pyrite, magnetite, specularite, and pyrrhotite with subordinate chalcopyrite, sphalerite, galena and arsenopyrite. Gangue minerals are vein quartz and carbonate (calcite, dolomite, and ankerite). Pervasive wall rock alteration is common adjacent to the veins, usually consisting of carbonatisation (ankerite or ferroan dolomite) and minor sulphides (pyrite and pyrrhotite).



Source: Northern Gold 2012

Figure 7-2: Property Geology

7.3.1.2 Length, Width, Depth and Continuity of Mineralisation

Development and mining at the Garrcon Shaft zone began in 1935 with the sinking of a 256 foot (78 metre) deep shaft by Consolidated Mining and Smelting Company of Canada Ltd. In 1986, diamond drilling by Cominco Ltd. delineated 2 new auriferous ore zones (the North and South zones) which were described as "stratabound". The South Zone was reported to be hosted by altered sedimentary rocks, with mineralisation averaging 6 feet (1.8 metres) in width, and traced by diamond drilling to 500 feet (152 metres) vertical along 1,300 feet (396 metres) of strike. The South Zone is described by Bath (1990) as striking 75°, dipping south at 50° and within about 70 feet (21 metres) of and/or within a regional scale, east-striking and steeply shear developed between clastic sedimentary rocks to the north and komatiitic rocks to the south. The North Zone was reported to be hosted in a shear zone, had been traced along strike for about 200 feet (61 metres) down to 500 feet (152 metres) in the vertical, and averaged 10.7 feet (3.3 metres) in width.

Howe's deposit model was developed with the aim of establishing a bulk tonnage resource estimate for the Company's Garrcon Deposit encompassing the known Shaft, South and North Zones and as such identifies a broad zone of enveloping mineralisation that extends over an east-west distance of 1200 metres and remains open to the east. The mineralisation averages approximately 300 metres wide, with the narrowest width of 175 metres located on the more sparsely drilled eastern end of the zone, reaching a maximum width of 375 metres in the more densely drilled western portion of the zone. About half of the 1200 metre east-west length of the zone is bounded by the Destor-Porcupine fault system on the south and the contact with mafic and ultramafic rocks on the north. Widths are still open on the remainder of the 1200 metre strike length. Mineralisation included in the resource extends from surface across the entire zone to a depth of 125 metres on the more sparsely drilled eastern end and reaches a depth of up to 650 metres on the western half of the zone and remains open at depth.

7.3.2 Jonpol Deposit

The Jonpol Deposit (JD, JP, RP and East Zones) located at UTM 5,373,875 metres north and 577,325 metres east, was the primary exploration target on the Property in the 1980s and 1990s and was previously reported in Howe's 2009 technical report (George, 2009).

7.3.2.1 Host Rocks, Structures and Alteration

The Jonpol Deposit is a zone of gold mineralisation hosted in structurally controlled alteration zones within mafic to ultramafic (tholeiitic to komatiitic) rocks along the north contact of the Munro Fault which crosses the north-central part of the Property. The Jonpol gold mineralisation is generally associated with pervasive carbonate alteration with late stage silicification, sulphidisation (pyrite and arsenopyrite) and sericitisation, giving the altered rock a pale buff to pale purple-grey hue. Northern Gold reports that Lakefield (now SGS Canada Inc.) testwork on behalf of previous operators indicated approximately 50% of the Jonpol mineralisation is refractory in nature.

7.3.2.2 Length, Width, Depth and Continuity of Mineralisation

The Jonpol deposit comprises four, laterally contiguous mineralized zones (JD, JP, RP and East Zones) along the Munro Fault, which is a splay from the regional Porcupine-Destor Fault.

The mineralized structures strike approximately 070^{o} (true) and dip steeply to the south. The JD zone has a strike length of approximately 300 metres, The JP and RP have a combined strike of approximately 700 metres and the East zone has a strike of approximately 600 metres (Figure 7-2). The mineralized structures have been intersected from surface to a maximum drill intersected vertical depth of approximately 500 metres below surface. Horizontal widths of mineralized structures in the 2009 mineral resource estimate varied from less than 1 metre to greater than 10 metres. The zones remain open to depth.

8 DEPOSIT TYPES

8.1 Exploration Targets

The Garrcon Zone exploration target on the Property includes the historic Shaft, South and North Zones. It occurs within the Timiskaming Assemblage adjacent to the Porcupine-Destor fault and is described as a zone of brecciated, silicified, sandstone with disseminated sulphides (predominantly pyrite) and irregular quartz veinlets. Preliminary metallurgical testwork indicates that the Garrcon mineralisation is non-refractory and is free milling (Section 13).

The Jonpol Deposit (JD, JP, RP and East Zones) was the primary exploration target on the Property in the 1980s and 1990s and is detailed in Howe's 2009 technical report (George, 2009). The Jonpol Deposit is a zone of gold mineralisation hosted in structurally controlled alteration zones within mafic to ultramafic (tholeiitic to komatiitic) rocks along the north contact of the Munro Fault which crosses the central part of the Property. The Jonpol gold mineralisation is generally associated with pervasive carbonate alteration with late stage silicification, sulphidisation (pyrite and arsenopyrite) and sericitisation, giving the altered rock a pale buff to pale purple-grey hue.

8.2 Deposit Models

Robert (1998) has provided an updated statement of the geological characteristics of Archean gold deposits (update of Robert 1996).

Robert has concluded that a close examination of the geological characteristics of Archean world-class gold deposits reveals a significant diversity in the nature and chemistry of the ore, hydrothermal alteration, and lithological or structural associations. Several geological styles of deposits can be distinguished:

- Quartz-carbonate veins in shear zones, faults and folds, and related extensional structures;
- Zones of stockwork veinlets and disseminated sulphides associated with small porphyry intrusions;
- Sulphide-rich veins and vein arrays;
- Gold-rich volcanogenic massive sulphide ("VMS") lenses in felsic volcanic rocks; and
- Rare carbonate-rich veins and siliceous replacements.

Geological relationships suggest that the porphyry-style, gold-rich VMS and possibly epithermal-style deposits have formed during the stages of construction (volcanic-plutonic activity) of the greenstone belts at depths of less than 5 kilometres, whereas orogenic deposits have formed during deformation at depths in excess of 5 kilometres.

These different styles of gold deposits commonly occur within the same districts or along the same fault zones, indicating that gold deposits within a given district formed at different crustal levels, at different times, and by different processes, and have been juxtaposed by successive episodes of burial, uplift, and deformation that have been focused in certain areas.

With specific reference to the southern Abitibi Greenstone Belt, where the Property is located, Robert notes that development begins with the accumulation of volcanic rocks in one or more cycles and the emplacement of coeval igneous intrusions. This represents the main phase of construction of volcanic plutonic edifices, which is partly accompanied by, but mostly followed by, turbidite (greywacke, shale and siltstone) sedimentation. This main phase of construction was followed by a first episode of deformation (D1) tilting, folding and overthrusting of supracrustal units, accompanied by diorite-tonalite intrusions. Subsequent uplift and erosion led to the deposition of alluvial-fluvial Timiskaming-type sedimentary rocks above an angular unconformity. This Timiskaming stage can be regarded as a renewed stage of volcano-plutonic construction as it was accompanied by the emplacement of high-level intrusives and volcanic rocks of alkalic composition. The Timiskaming stage was followed by the main period of deformation of the volcanic-plutonic edifices, beginning with regional D2 shortening across the belt and evolving into D3 transcurrent deformation.

Quartz-carbonate vein deposits consist of networks of quartz-carbonate veins in moderately to steeply dipping brittle-ductile shear zones and related extensional veins and vein arrays and breccia veins in relatively competent lithologic units. The deposits are spatially associated with major shear zones but have a tendency to be hosted by second and third order structures and splays. In the larger deposits, the vein networks have a surface footprint exceeding 1 kilometre of strike length and generally extend vertically to depths of 1 kilometre or more (McIntyre deepest levels were at approximately 2.5 kilometres below surface.

Robert (op cit) further noted that there is a strong association of world-class deposits with districts that contain a large proportion of mafic and ultramafic volcanic rocks.

In the Timmins gold camp, all of the above-mentioned styles of mineralisation can be found, and multiple styles can be found within a single mine, for example the Dome and Hollinger-McIntyre mines.

In quartz-carbonate vein deposits gold mineralisation occurs in both the veins and in adjacent altered wall rocks, with the bulk of the gold found in the veins. The mineralized veins consist of quartz and carbonate minerals, with subordinate amounts of pyrite, arsenopyrite, pyrrhotite, native gold, base metal sulphides, tourmaline, scheelite, talc, sericite and chlorite. Alteration envelopes, a few metres to tens of metres thick surround the veins, and may consist of reduced carbon, carbonatisation, potassium metasomatism, sodium metasomatism, sulphidisation and silicification (Card et al, 1988).

Carbonatisation is the most common and most extensive type of alteration in quartz vein deposits. This type of alteration involves the progressive replacement of Ca, Fe and Mg silicate minerals by carbonate species through the addition of carbon dioxide and is inwardly zoned from calcite to ankerite and dolomite. Potassium metasomatism is found in close proximity to the veins as sericitisation of chlorite and plagioclase, the development of K-feldspar and biotite and the presence of fuchsite in ultramafic rocks. Sulphidation is restricted to the immediate wall rocks of the veins. Pyrite is the dominant sulphide with lesser amounts of pyrrhotite and arsenopyrite, but the volume of total sulphide minerals is generally less than 10%. Sodium metasomatism results in the formation of albite and paragonite. Silicification results in quartz flooding of the host rocks and an abundance of quartz veinlets and stockworks.

At the district and property scale, exploration for quartz-carbonate vein gold deposits focuses on broad transpressional shear zones located along lithologic boundaries. The gold mineralisation tends to occur within structures measuring hundreds to thousands of metres long that are subsidiary to major fault zones. At a more local scale mapping of alteration mineral assemblages can delineate favourable portions of shear zones. Even though the sulphide content of the quartz veins and the associated wall rock alteration is low, induced polarisation and resistivity geophysical methods result in a recognizable chargeability response, while the increased quartz content is recognized as an increase in resistivity. Carbonatisation causes destruction of magnetic minerals in mafic rocks, creating a negative magnetic feature coincident with alteration surrounding the lode deposits. In glaciated areas, geochemical surveys using heavy mineral concentrates derived from sampling till can be used to define areas of potential lode gold mineralisation. In addition, Mobile Metal Ion-type soil geochemical surveys have proven to be applicable in overburden covered areas.

9 EXPLORATION

The primary focus of Northern Gold's work and expenditures has been the Garrcon Deposit located in the south central portion of the Garrison Gold Property. Work programs implemented by Northern Gold since 2009 include geophysics, surface stripping/sampling, diamond drilling, hyperspectral drill core imaging and analysis, asset and infrastructure rehabilitation, and environmental baseline studies. Northern Gold has conducted no work to date on the recently acquired Sims and Plato claim blocks located east of the Garrison Property.

This section outlines work completed by Northern Gold on the Property through April 19, 2012, the effective date of this report. As of this date, collar information was available for drill holes up to GAR-12-233 (note that because hole numbers are pre-assigned in groups of ten to a particular drill rig, some holes within this sequence were not yet competed). However, information (such as assay information) was not yet available/completed for the 2012 drill holes and nine (9) of the 2011 drill holes (GAR-11-154, GAR-11-168 to 169, GAR-11-179, GAR-11-181 to 183 and GAR-11-190 to 191) in this sequence.

In this report, the cut-off date for data inclusion in the updated Garrcon mineral resource estimate was March 15, 2012. The resource update includes new assay data for all 2011 drill holes up to GAR-11-180 except four (4) drill holes which were either not yet drilled, not yet sampled or were awaiting the return of assay results from the laboratory (GAR-11-154, GAR-11-168 to 169 and GAR-11-179. These and the remaining 2011 and the 2012 diamond drill holes will be reported in future technical reports when assay results are obtained and incorporated into future resource updates. The 2011 PEA included assay data from all Northern Gold 2009-2011 drill holes up to GAR-11-74 except GAR-10-29 (not sampled at that time) and GAR-11-64 to GAR-11-69 and GAR-11-75 onward (assay data not available at the cut-off date for the 2011 Garrcon mineral resource estimate/PEA).

Mineral exploration activities including diamond drilling, core logging and hyperspectral drill core imaging and analysis, sampling and assaying are ongoing at the Garrcon Deposit at the time of this report.

9.1 NORTHERN GOLD 2009 EXPLORATION

Exploration conducted by Northern gold is described in detail in Howe's 2010 technical report (Roy and Trinder, 2010). Work included:

- Satellite imagery; 25 square kilometer area over the entire Garrison Gold Property.
- Due diligence review of the ValGold data to identify errors and omissions.
- 11 NQ diamond drill holes on the Garrcon Deposit totaling 2,330 metres.

9.2 2010 SURFACE GRID AND GEOPHYSICS

Northern Gold contracted Kirkland Gems and Minerals, PO Box 834, Kirkland Lake, Ontario P2N 3K4, to chainsaw cut 40 line kilometres of grid on the Garrison Gold Property between

February 9th and March 18th 2010. The grid covers the entire property and includes a baseline with an azimuth of 070°/250° True North. Twenty nine grid lines were cut perpendicular to the grid at 340°/160° True North and one tie line was cut parallel to the baseline (Figure 9-1). Grid lines were spaced at 100 metre intervals with stations picketed every 25 metres. Northern Gold's Civil Technician, Dave Eves subsequently completed a GPS survey of the grid lines.

The Company contracted Larder Geophysics, 14579 Government Rd., Larder Lake, Ontario P0K 1L0, to complete a ground magnetometer - VLF/EM survey over the entire 40 kilometres of grid. The survey was conducted with a GSM-19 v7 Overhauser magnetometer in walking mag/VLF mode. Readings were collected every second with the position extrapolated using the time to go 12.5m. VLF samples were taken at 12.5m sample intervals. A second GSM-19 was employed as a base station for diurnal correction. A total of 38.2125 line kilometers of magnetic and VLF EM surveying was conducted over a five day period between April 19th and April 28th, 2010. The survey consisted of 59838 magnetometer and 3057 VLF EM readings.

The contoured Total Field magnetic plan map is presented in Figure 9-2. The zone of higher magnetic response sub-paralleling the baseline to the south corresponds to the Porcupine-Destor Fault. The large ovoid shaped area of extremely high magnetic response on the baseline corresponds to magnetite iron formation.

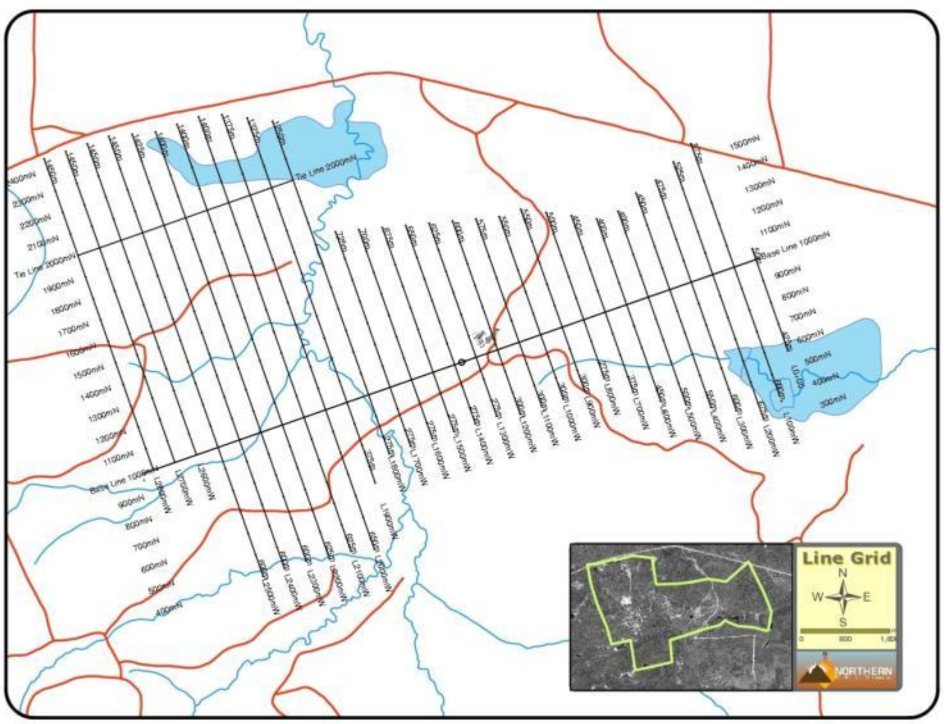


Figure 9-1: 2009 Exploration Grid Layout

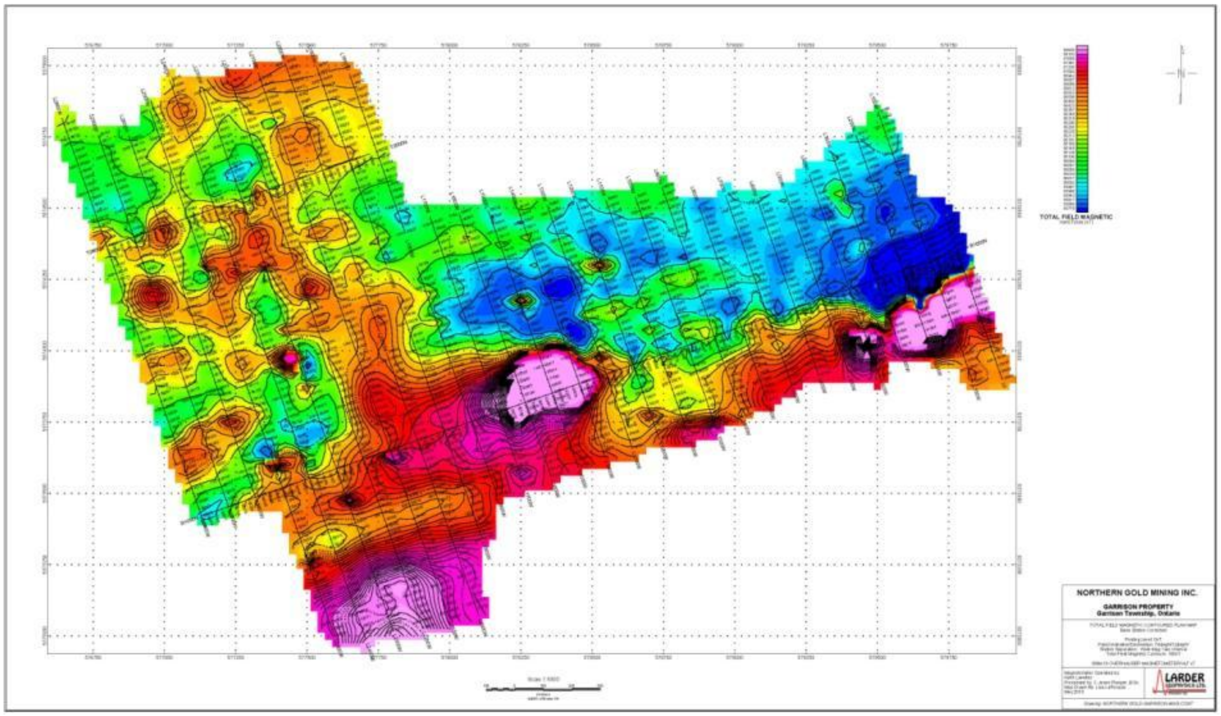


Figure 9-2: 2010 Contoured Total Field Magnetic Plan Map – Garrison Gold Property

9.3 2010 Drill hole Collar Survey

On attempting to ground truth collar locations of historical Garrcon diamond drilling it was evident that there were inconsistencies in the data supplied by ValGold. Northern Gold identified location inaccuracies related to diamond drill holes drilled from the "Cominco Grid". Ground-truthing deemed collar locations for holes drilled from the historical "Newfield Grid" to be accurate. Between January 26th and May 30th 2010, Northern Gold's Civil Technician, Dave Eves utilized a differential global positioning system (DGPS) to identify multiple drill holes and historical grid lines on the "Cominco Grid" and reposition these holes and grid lines to fit the ground-truthed model. The overall repositioning resulted in a roughly 10 metre shift to the West for all "Cominco Grid" drill holes.

9.4 2010 Rehabilitation

In addition to property and core rehabilitation work conducted on the property in 2009 (Roy and Trinder, 2010), the following work was conducted in 2010:

New core storage pads were constructed and new core storage racks were purchased and set up at the core shack facility. The core shack building was expanded to provide additional short term drill core storage until logging and splitting are completed, improve the core splitting work area and provide covered cold storage for ATV's and snow machines.

9.5 2010 SURFACE STRIPPING / SAMPLING

Following receipt of high grade assays from grab samples collected on an outcropping quartz vein identified as the 1070 vein, prospecting found other quartz veins and evidence of earlier Cominco (?) work nearby. Consequently, a surface stripping program was initiated at the Garrison site on May 13th and conducted intermittently until July 3rd 2010. A total of four areas were stripped of overburden with an excavator and washed using a Wajax fire pump. The total surface area exposed in all four areas is roughly 5000 m^2. The areas stripped and washed are identified in Figure 9-3 as the light beige stippled areas.

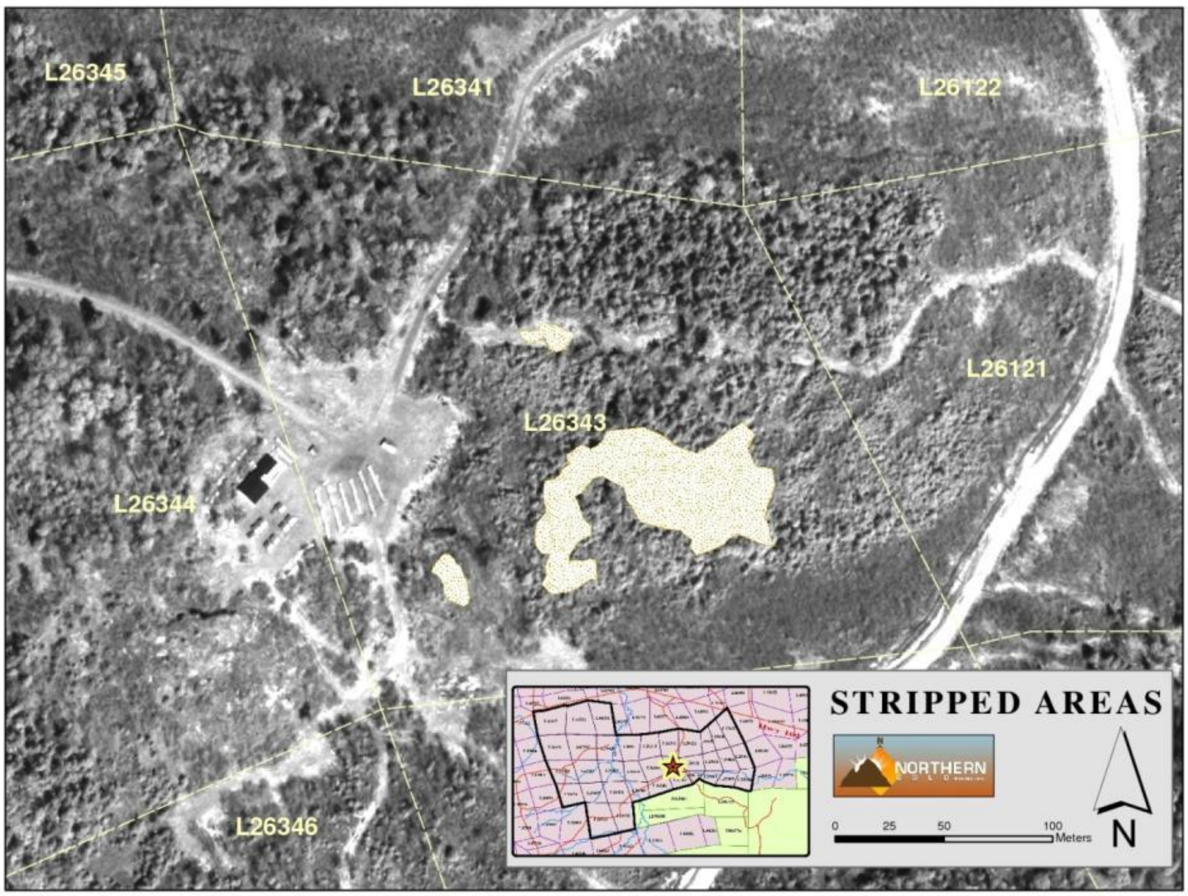


Figure 9-3: 2010 Garrcon Surface Stripping Locations

The largest of the three stripped areas focused on multiple high-grade veins found east of the core shack along the Garrcon Shaft Zone with visible gold frequently observed in the newly exposed quartz veins. The other two stripped areas were significantly smaller, focusing on small surface showings around drill hole collars from previous drilling by Northern or other operators.

Approximately 150 metres of channel samples were cut on the newly exposed outcrops with a self-propelled circular saw using a diamond cutting blade in July and August 2010 (Figure 9-4 and Figure 9-5). Samples were collected from the channels at a maximum of one metre intervals. Channels were cut with an approximate 4 centimetre width and 4 centimetre depth. Channels were cut in both north-south and east-west directions and tested both overall mineralized zones and specific veins/stringers. Channel samples returning greater than 0.3 and 0.5 g/tonne gold are highlighted in yellow and red in (Figure 9-4 and Figure 9-5). Detailed mapping and additional sampling on a more detailed east-west and north-south grid pattern is recommended at stripped area C and possibly area B and outcrop area D. Sampling on an orthogonal grid pattern will assist in confirming the spatial distribution of the gold mineralization.

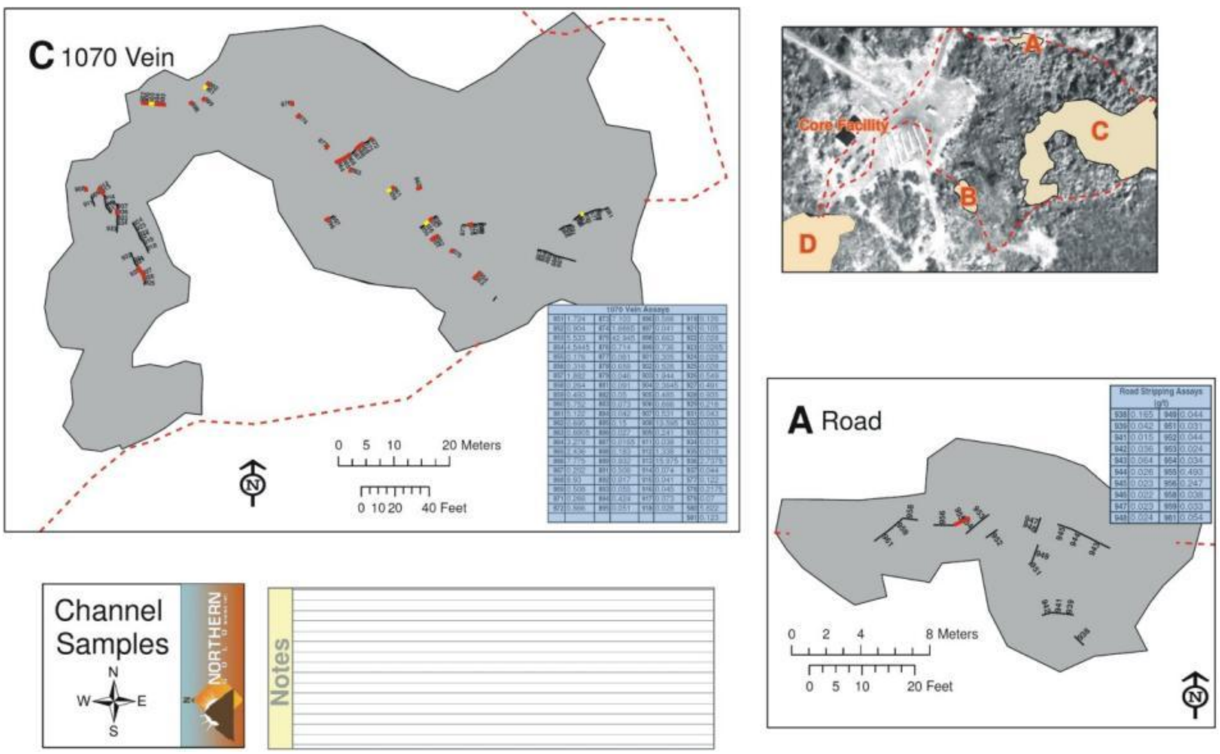
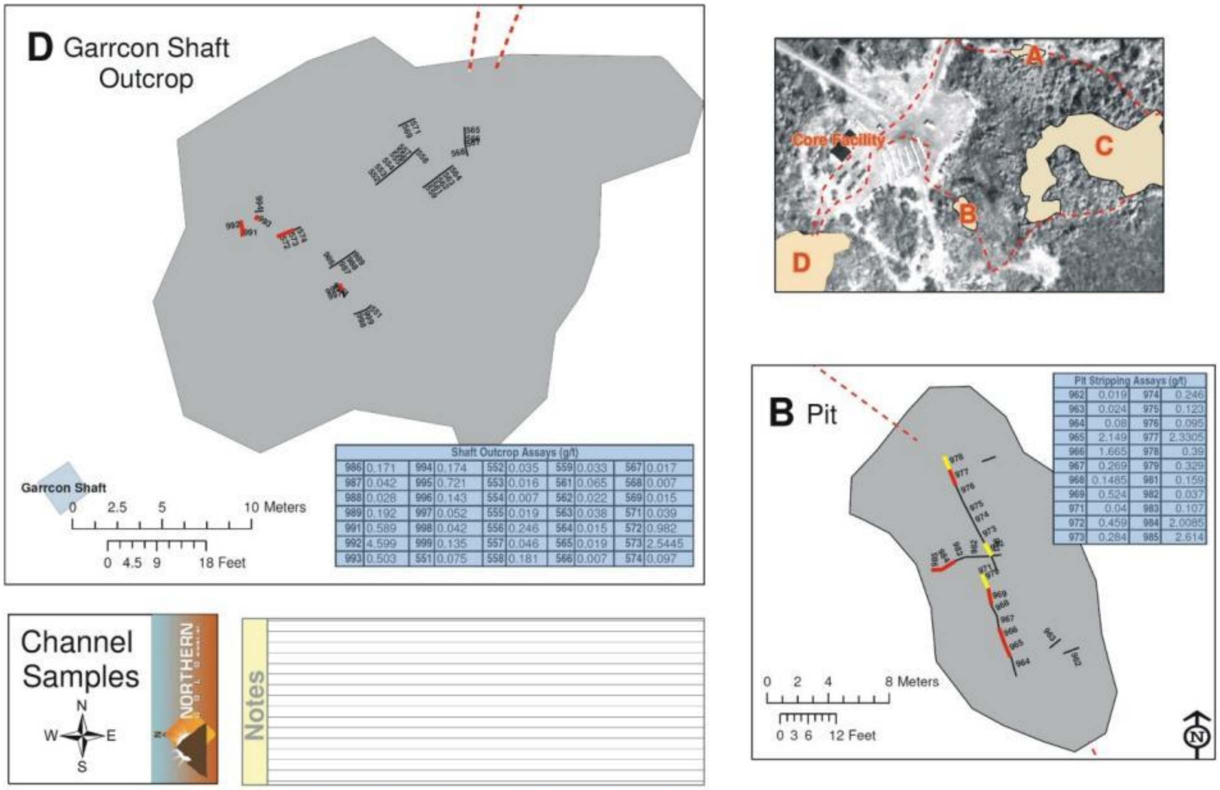


Figure 9-4: Distribution of Surface Channel Samples and +0.3 g/tonne Au Intervals (+0.3 and +0.5 g/tonne Au highlighted yellow and red respectively)



Shaft Outcrop Assays (g/t)									
986	0.171	994	0.174	552	0.035	559	0.033	567	0.017
987	0.042	995	0.721	553	0.016	561	0.065	568	0.007
988	0.028	996	0.143	554	0.007	562	0.022	569	0.015
989	0.192	997	0.052	555	0.019	563	0.038	571	0.039
991	0.589	998	0.042	556	0.246	564	0.015	572	0.982
992	4.599	999	0.135	557	0.046	565	0.019	573	2.5445
993	0.503	551	0.075	558	0.181	566	0.007	574	0.097

Pit Stripping Assays (g/t)			
962	0.019	974	0.246
963	0.024	975	0.123
964	0.08	976	0.095
965	2.149	977	2.3305
966	1.665	978	0.39
967	0.269	979	0.329
968	0.1485	981	0.159
969	0.524	982	0.037
971	0.04	983	0.107
972	0.459	984	2.0085
973	0.284	985	2.614

Figure 9-5: Distribution of Surface Channel Samples and +0.3 g/tonne Au Intervals (+0.3 and +0.5 g/tonne Au highlighted yellow and red respectively)

9.6 2010 Metallurgical Testing

In late 2010, Northern Gold submitted two composite samples of Garrcon mineralization to SGS Mineral Services of Lakefield, Ontario for preliminary metallurgical testwork. Results of the testwork are presented in Section 13 of this report.

9.7 2010 Petrographic Study

Northern Gold submitted fourteen drill core samples to Craig H.B. Leitch, Ph.D., P. Eng., 492 Isabella Point Road, Salt Spring Island, B.C. for petrographic study in late 2010.

Mr. Leitch was provided the samples without field names in order not to influence his interpretation. He therefore based his rock type classification on petrographic textures. Mr. Leitch identified two mafic metavolcanic samples (PS-1 and 5), two intermediate crystal tuff samples (PS-6 and 7), seven felsic tuff to ash tuff samples (PS-4 and 8 to 13), two samples of possible hypabyssal intrusive porphyry (one felsic, PS-2, and one mafic, PS-14), and one sample of magnetite facies banded iron formation (BIF) (PS-3).

Albite-Kspar-dolomitic alteration or ankeritic carbonate-quartz-chlorite-sericite-pyrite-magnetite/hematite-rutile alteration is significant in most of the samples except PS-14, and is generally associated with intense, locally pervasive, stockworks of thin veinlets of quartz-carbonate ±albite-Kspar-chlorite-sulfides-magnetite/hematite, very minor chalcopyrite and possible trace sphalerite.

Gold was observed in two samples, PS-8 (included in, or along microfractures in, vein pyrite) and PS-11 (in Kspar or carbonate-chlorite-pyrite-hematite-local native gold stockwork veins). Gold was not observed in PS-13 which was reported to contain visible gold in the hand specimen.

9.8 2010 – 2011 Environmental Baseline Study / Permitting

Northern Gold retained N.A.R. Environmental Consultants Inc. (NAR) of Sudbury, Ontario from 2010 to 2011 to initiate environmental baseline studies on the Garrison property in anticipation of advanced exploration permitting and potential resource development. NAR's program is presented in Section 20 of this report.

9.9 2011 IP Geophysical Survey

An induced polarization (IP) survey was conducted by Peter E. Walcott & Associates Limited of 608 - 1540 West 2nd Ave. Vancouver British Columbia, using a pulse type system. The principal components of the system are manufactured by Instrumentation GDD Inc. of Quebec and basically consist of three units, a GDD GRx16 Receiver and a GDD 5 KW Transmitter powered by a Honda 6.5 Kw Generator. From February 15 and March 20, 2011 approximately 34 kilometres of IP surveying was completed on the property.

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode, C_1, and the potential electrodes, P_1 through P_{n+1}, are moved in unison along the survey lines at a spacing of "a" (the dipole) apart, while the second current electrode, C_2, is kept constant at "infinity". The distance, "na" between C_1 and the nearest potential electrode generally controls the depth to be explored by the particular separation, "n", traverse.

Measurements – first to tenths separation – of apparent chargeability – the IP response parameter – and resistivity were made along the traverse lines with 25 and 50 metre dipole in various areas of the survey grid on 100 and 200 metre line spacing respectively.

Horizontal positions were recorded using a Garmin GPSmap60CX. This handheld unit has an accuracy of plus or minus 3 metres in excellent conditions with degradation to plus or minus 15 metres in obstructed areas such as thick forest. Northings, eastings and GPS elevations were recorded every 100 metres along the lines, although the latter was not used.

Station elevations were recorded using a Brunton ADC Summit altimeter. This instrument measures elevations using barometric pressures to an accuracy of plus or minus 3 metres. Corrections for errors due to variations in atmospheric pressure were made by comparison to readings obtained on a similar instrument, held stationary at a base location at 2 minute intervals. Altimeter elevations were recorded every 50 metres.

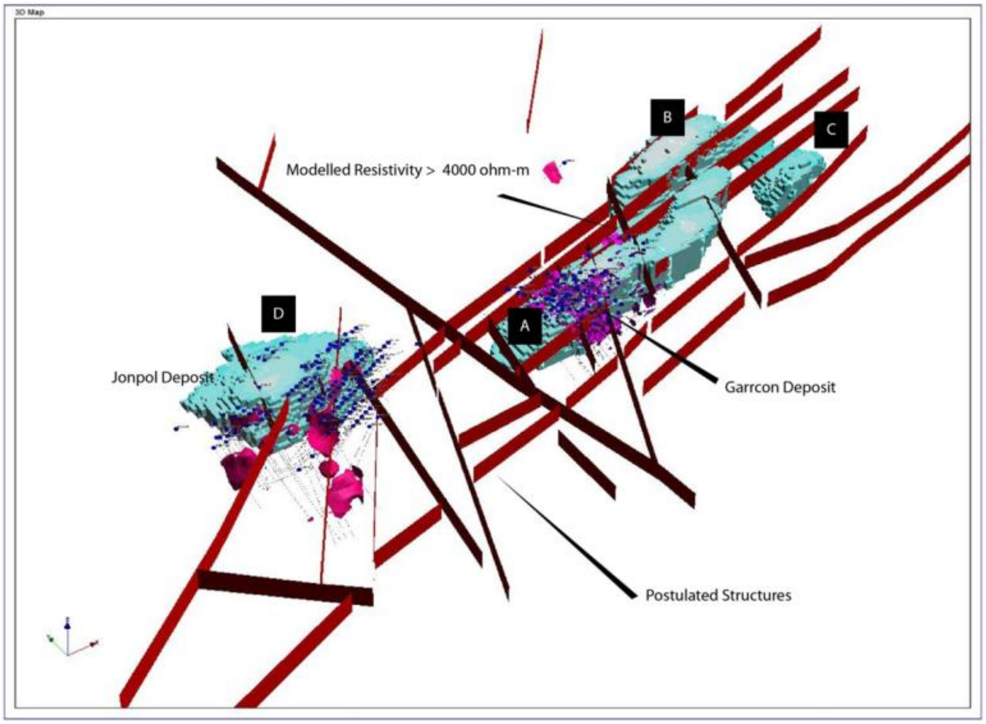
The I.P. data are presented by Walcott (2012) as individual pseudo section plots of apparent chargeability and resistivity at a scale of 1:5,000 along with 3D inverted sections and a discussion of the results.

A large number of inverted chargeability curves are potentially related to clay responses. Despite efforts to circumvent these issues a number of chargeability readings within the area of interest were removed. The data was then subjected to 3D inversion using Geoelectrical Loke 3D software. The chargeability component of the survey proved somewhat challenging and inversion parameters were modified in an attempt to compensate for the negative values, thus creating some doubt as to the effectiveness of the chargeability inversion.

Despite the potential limitations of the chargeability component of the survey, the 2011 induced polarization survey delineated a number significant features, in particular, a number of resistive units are proximal to both the Garcon and Jonpol deposits within the modeled resistivity data, and are likely associated with a silicified unit which hosts the aforementioned deposits (Walcott, 2012).

The Garrcon deposit is encompassed within an east-northeast trending resistive unit (‘A’) (Figure 9-6). The main Garrcon deposit is situated on the western end of this resistive unit flanking a small magnetic high. A moderate chargeability anomaly occurs within the region of known mineralization (Figure 9-7). A number of weak cross structures are interpreted from the magnetic dataset of the Ontario government airborne Megatem survey and may be a factor controlling the distribution of mineralization (Walcott, 2012).

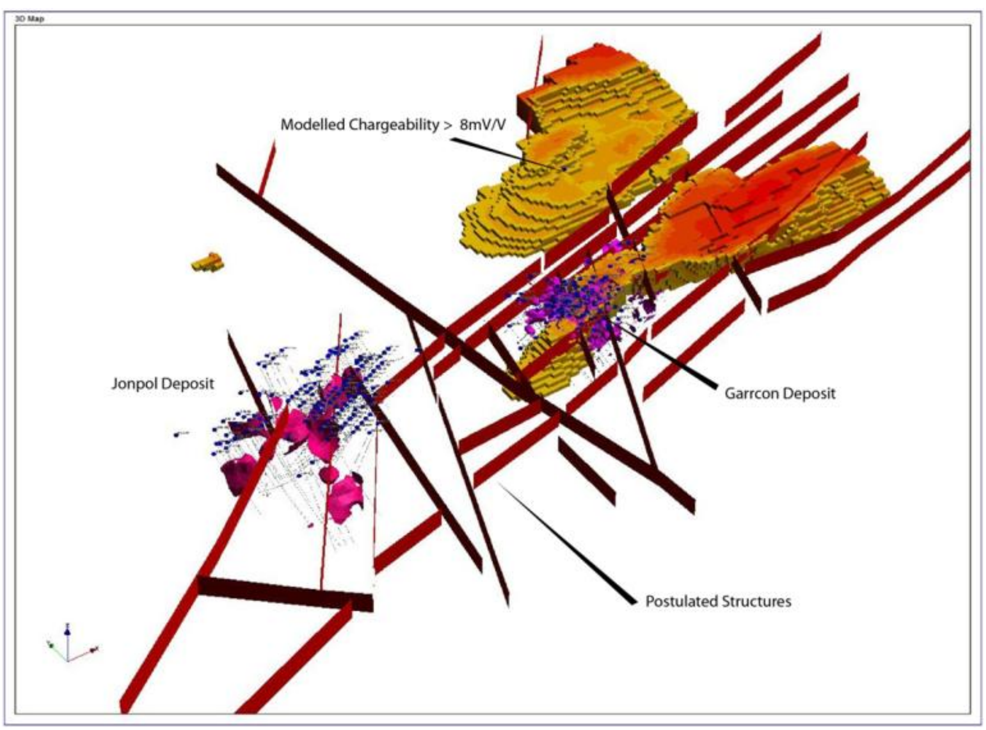
As the east-northeast (‘A’) trending resistive unit progresses east, it flanks the contact between the metasediments in the south and the volcanic unit in the north and is truncated in the east by a weak northwest trending structure interpreted from airborne magnetic (Figure 9-6). Throughout resistive unit (‘A’) a weak to moderate chargeability response is present within the modeled data set, however given the aforementioned issues with the chargeability responses, Walcott (2012) indicates caution should be exercised when evaluating same.



Source: (Walcott, 2012)

Figure 9-6: Modeled 3-D Resistivity

(modeled resistivity = blue voxels; modeled mineralized drill intercepts = magenta)



Source: (Walcott, 2012)

Figure 9-7: Modeled 3-D Chargeability

(modeled chargeability = orange voxels; modeled mineralized drill intercepts = magenta)

Paralleling the main unit, a secondary resistivity feature (‘B’) is present north of (‘A’) and within the Munro fault zones in the eastern portion of the survey grid (Figure 9-6). This feature is also associated with a weak to moderate chargeability response (Figure 9-7) and may be of interest. Walcott (2012) recommends that historic exploration data for this area should be reviewed and compiled, and if warranted this resistivity feature should be drill tested.

North of anomaly ‘B’ a large chargeability zone is observed (Figure 9-7), within a lower resistivity unit, on the north side of the Munro fault zone. Walcott (2012) interprets that this chargeability anomaly is likely associated with a lithological change and is of little interest.

Immediately south of Anomaly ‘B’ within mapped meta-sediment unit, a large chargeability high, within moderate resistivity (‘C’) is observed (Figure 9-6 and Figure 9-7). This feature is associated with an intense magnetic high, potentially reflecting a banded iron formation.

Over the Jonpol deposit in the western portion of the survey area, a large resistivity (‘D’) feature can be observed in the modeled response, associated with a weak magnetic feature (Figure 9-6). The Jonpol deposit is situated on the southern contact, partially contained within the resistivity high. No discernible chargeability response can be observed within this zone.

Walcott (2012) recommends that before additional geophysical surveys are undertaken, a detailed review of the Ontario government airborne Megatem survey should be completed. The raw EM data should be obtained and 3D inversion should be performed in order to generate a regional resistivity model over the Garrison property in an attempt to identify any highly resistive zones potentially associated with silification. In addition Walcott (2012) suggests that a high resolution heli-borne magnetic survey utilizing a horizontal gradient system may be useful in identifying weak cross structures bisecting the more resistive zones.

9.10 2011 Surface Stripping / Sampling

Northern Gold continued a surface stripping program in the Garrcon deposit area in 2011. A total of five areas were stripped of overburden with an excavator and washed using a Wajax fire pump. The areas stripped and washed are identified in Figure 9-8 as the yellow striped areas.

One stripped area (L7W) was completed in May 2011 and focused on multiple veins in metasediments immediately north of the east end of the Garrcon resource area (Figure 9-8). Later in 2011 four additional areas were stripped. Two of these stripped areas (L4W and L4+50W) focused on multiple veins in metasediments immediately north of the east end of the Garrcon resource area (Figure 9-8). Two other stripped areas (Hillside and L18W) were completed northwest of the Garrcon resource area and south of the Jonpol East zone (Figure 9-8).

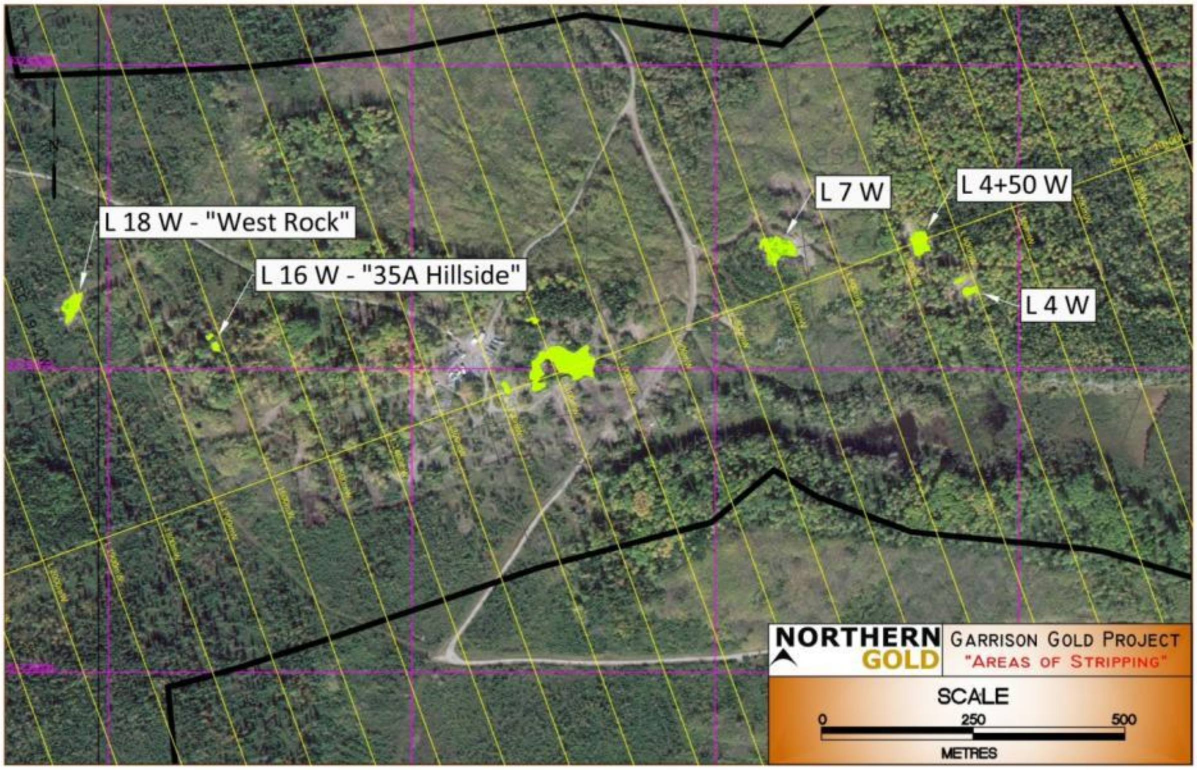


Figure 9-8: 2011 Garrcon Surface Stripping Locations
(labeled)

Approximately 248 channel samples were cut on the newly exposed bedrock surface (L7W area was not sampled due to time constraints) with a self-propelled circular saw using a diamond cutting blade (Figure 9-9 and Figure 9-10). Samples were collected from the channels at a maximum of one metre intervals. Channels were cut with an approximate 4 centimetre width and 4 centimetre depth. Channels were cut in both north-south and east-west directions and tested both overall mineralized zones and specific veins/stringers. Twenty-eight (28) samples returned greater than 100 ppb Au of which 8 returned greater than 300 ppb Au and of which 7 returned greater than 500 ppb Au. Howe recommends detailed mapping and if possible additional sampling on a more detailed east-west and north-south grid pattern at stripped areas L4W, L7W, L4+50W and L18W–West Rock. Sampling on an orthogonal grid pattern will assist in confirming the spatial distribution of the gold mineralization.

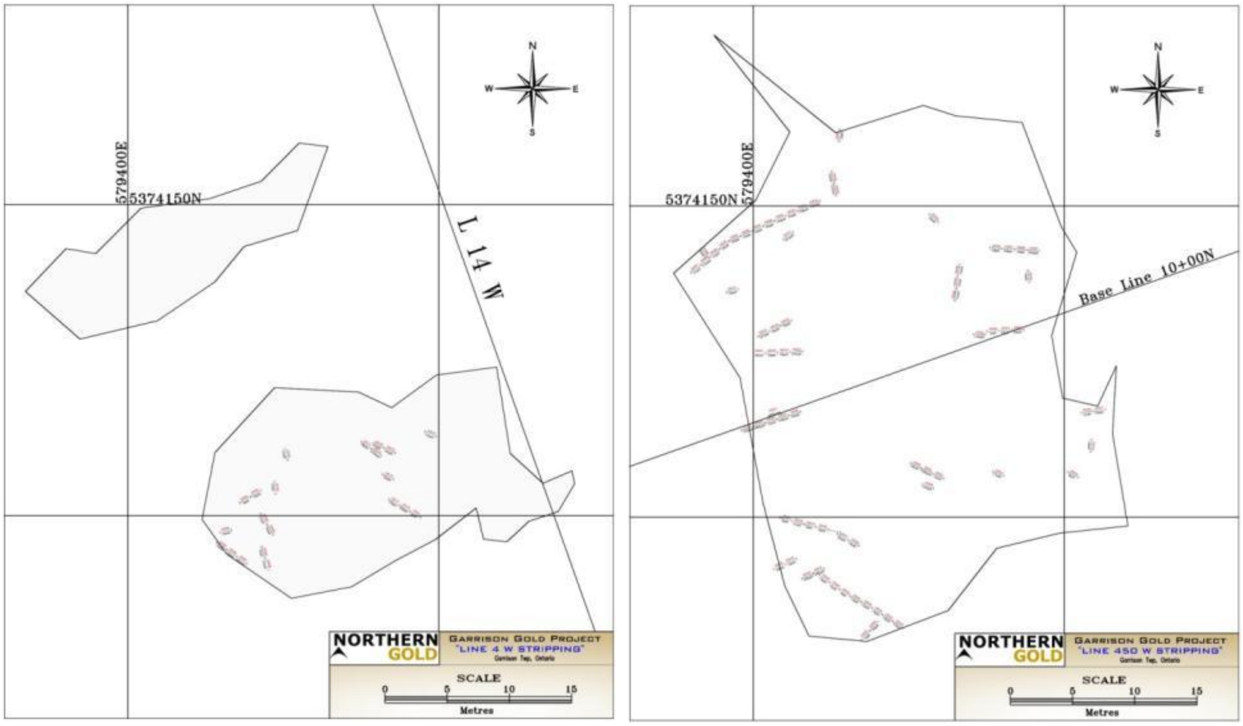


Figure 9-9: Distribution of Surface Channel Samples at 2011 Stripping Areas L4W and L4+50W

Figure 9-10: Distribution of Surface Channel Samples at 2011 Stripping Areas L16W - Hillside and L18W - West Rock

9.11 2011-2012 HYPERSPECTRAL CORE MAPPING

Northern Gold retained Photonic Knowledge Inc. (PK) of 481 Grande-Côte Rosemere, Québec in the spring of 2011 to conduct a test of its Core Mapper™ hyperspectral imaging system on 4,900 metres of Garrcon core including the generation of a project specific spectral library.

The Core Mapper™ hyperspectral system collects and analyses information from across the electromagnetic spectrum. The wavelength differences of absorbed and reflected light shone onto the core samples is analysed in hundreds of very narrow bands of the visible and near infrared light spectrum between wavelengths of 400 and 1000 nanometers down to a resolution of 2 nanometers. This technological application has a spatial precision of 1 square millimeter. Processing of the information identifies characteristic patterns for minerals, rock types and alteration types that can be mapped and displayed graphically in a variety of ways, in two or three dimensions, to guide additional drilling, model the deposits, target assaying zones within the core and generally speed up interpretation of results and generally add value by providing new insights into this and other data collected in a mineral exploration program.

The Core Mapper™ system simultaneously analyzes up to 5 boxes of drill core with resolution of up to 1 mm^2 per pixel and a field of view of 1.5 m^2. Up to 1,000 metres of NQ core may be processed per 12 hour shift. A second camera also acquires a high-definition RGB image (classic "photograph") of the core samples. The hyperspectral data is then processed to generate:

- A spectral classification of elements based of a spectral library highlighting mineralogy, lithology and alteration.
- A linearized image of the spectral classification.
- A digital file with hyperspectral data for import into drilling logs and modeling software.

PK generated a preliminary spectral library using core samples provided by Northern Gold and applied it to the initial test of 4,900 metres. Hyperspectral (and visual) identification of various lithologies at Garrcon is complicated by the pervasive overprint alteration minerals. Northern Gold and PK developed two spectral libraries, one to identify lithologies and the other alteration. The alteration-based spectral library is based on detailed analysis of alteration mineralogy in selected core samples and Northern Gold reports a strong correlation to gold assay values.

Northern Gold has since retained PK to conduct on-going hyperspectral imaging of drill core at the Garrison Gold Property. All Northern Gold Garrcon drill core to date has been scanned as well as 14 historic archived Garrcon drill holes and 3 historic Jonpol East zone drill holes. Currently Northern Gold is using Core Mapper™ 1 to 2 days per week to map and determine the mineralogic content of approximately 1,500 to 2,000 metres of core. To date, core from all Northern Gold Garrcon drill holes and approximately 8 historic drill holes have been analyzed.

Interpretation of the hyperspectral imaging data by Northern Gold personnel is ongoing. Northern Gold's near term plan is to continue to use the Core Mapper™ system to continue analyzing core from ongoing drilling and over 100,000 metres of historic core drilled by previous operators at the Jonpol deposit and elsewhere on the Property.

9.12 2010, 2011 AND 2012 DIAMOND DRILL PROGRAMS

Northern Gold's 2010, 2011 and ongoing 2012 diamond drill programs have focused on in-fill drilling and expanding the initial 2010 mineral resource estimate (Roy and Trinder, 2010) and subsequent 2011 mineral resource estimate (Hannon, Roy and Trinder, 2010) on the Garrcon deposit. The drill programs are described in Section 10 of this Report.

9.13 2011 – 2012 ENVIRONMENTAL BASELINE STUDY / PERMITTING

In the fall of 2011, Blue Heron Solutions for Environmental Management Inc. (Blue Heron) of Timmins, Ontario, in conjunction with Golder Associates Ltd. (Golder), were contracted by Northern Gold to conduct a review of baseline study requirements, the existing NAR environmental baseline program, and to provide recommendations to expand upon the program to ensure sufficient and appropriate baseline information was being collected for the planning, permitting and potential development of the Company's proposed Garrcon open pit in particular. A Phase 1 Environmental Baseline Study Report on the NAR environmental baseline program (Blue Heron, 2012a) was prepared and submitted to Northern Gold. In support of the recommendations outlined in that report, the Blue Heron and Golder subsequently prepared a scope of work plan for a comprehensive Phase 2 Environmental Baseline Study to prepare Northern Gold for permitting of the Garrcon project (Blue Heron, 2012b). Northern Gold retained Blue Heron and Golder in April 2012 to conduct the recommended work. Blue Heron and Golder's program is presented in Section 20 of this report.

10 DRILLING

10.1 HISTORICAL DRILLING ON GARRCON DEPOSIT

Initial drilling on the Garrcon Deposit occurred in the period 1935-1946 with additional drilling completed during 1983. None of this data is available in sufficient detail to be included in Northern Gold's current drill hole database. The most important historic data relating to Garrcon Deposit is the exploration work completed since 1985 by Cominco / Jonpol Explorations Ltd. and by ValGold Resources Inc.

The following surface diamond drill holes were completed by Cominco/Jonpol during the period 1985 to 1988 and by ValGold during 2006 and 2007. Northern Gold's current drill hole and resource database includes only holes drilled between 1985 and present (Appendix A).

Table 10-1: Historic Drilling included in Northern Gold's Garrcon Drill Hole and Resource Database

Company	Year	# Drill Holes	Length (m)
Cominco/Jonpol	1985	5	619.2
Cominco/Jonpol	1986	14	2,696.5
Cominco/Jonpol	1986-1987	6	1,417.3
Cominco/Jonpol	1987	11	3,481.4
Cominco/Jonpol	1988	3	592.3
ValGold	2006	10	3,393.0
ValGold	2007	5	2,361.0
	Total	**54**	**14,560.7**

10.2 NORTHERN GOLD 2009 DRILL PROGRAM

Northern Gold's 2009 diamond drill program focused on verifying results by in-filling historic drilling of the Shaft, South and North zones at the Garrcon Deposit. Northern Gold personnel supervised the Program.

Northern Gold's 2009 Garrcon Deposit diamond drilling program commenced October 26, 2009 and was completed on December 11, 2009. The program consisted of 2,330 metres of NQ core (47.6 millimetres diameter) in 10 drill holes. All holes were completed to their planned depths except holes GAR-09-03 and GAR-09-07 which were lost when they encountered the historic Cominco underground workings. GAR-09-03 required an offset and restart as GAR-09-03A. In 2010, drill hole GAR-10-12 was offset 3 metres from GAR-09-07 and completed to planned depth (Appendix A).

Major Drilling International Group (Major) of Winnipeg, Manitoba was the diamond drill contractor. For all holes, Major used a Longyear 50 skid-mounted rig that was operated on two 12-hour shifts per day, five days per week. The drill contractor constructed drill access trails and drill pads. Drill water was supplied by pump and hose from a local surface water sources.

At the completion of hole GAR-09-10, a total of approximately 2,571 core samples excluding standards, blanks and duplicates had been collected and sent to Swastika Labs in Kirkland Lake, Ontario.

10.3 2010 Diamond Drilling

Northern Gold's 2010 diamond drill program at the Garrcon Deposit focused on infill drilling and some expansion of the east end of the resource where there were fewer holes. Northern Gold personnel supervised the Program.

In 2010, Northern Gold contracted with Major for a planned 10,000 metre diamond drilling program on the Garrcon Deposit. Major began drilling May 10, 2010 and as of December 16, 2010, 11,129 metres of NQ diamond drilling had been completed in 47 drill holes (GAR-10-11 to GAR-10-48 and GAR-10-50 to GAR-10-58) plus 351 metres in one hole extension (GAR-10-20X. Three holes failed in overburden and required restarts (GAR-10-34, 34B and 38) (Appendix A).

Major used up to two VD5000 skid-mounted rigs which operated on two 12-hour shifts per day, five days per week. The drill contractor constructed drill access trails and drill pads. Drill water was supplied by pump and hose from a local surface water sources.

The Company had completed up to hole GAR-10-22 at the time of Howe's first property visit on July 12, 2010. The drill rig was onsite but the drilling program was on a three week break.

At the completion of hole GAR-10-58, a total of approximately 10,893 core samples from the 2010 drill holes and extensions excluding standards, blanks and duplicates had been collected and sent to the laboratory for analysis.

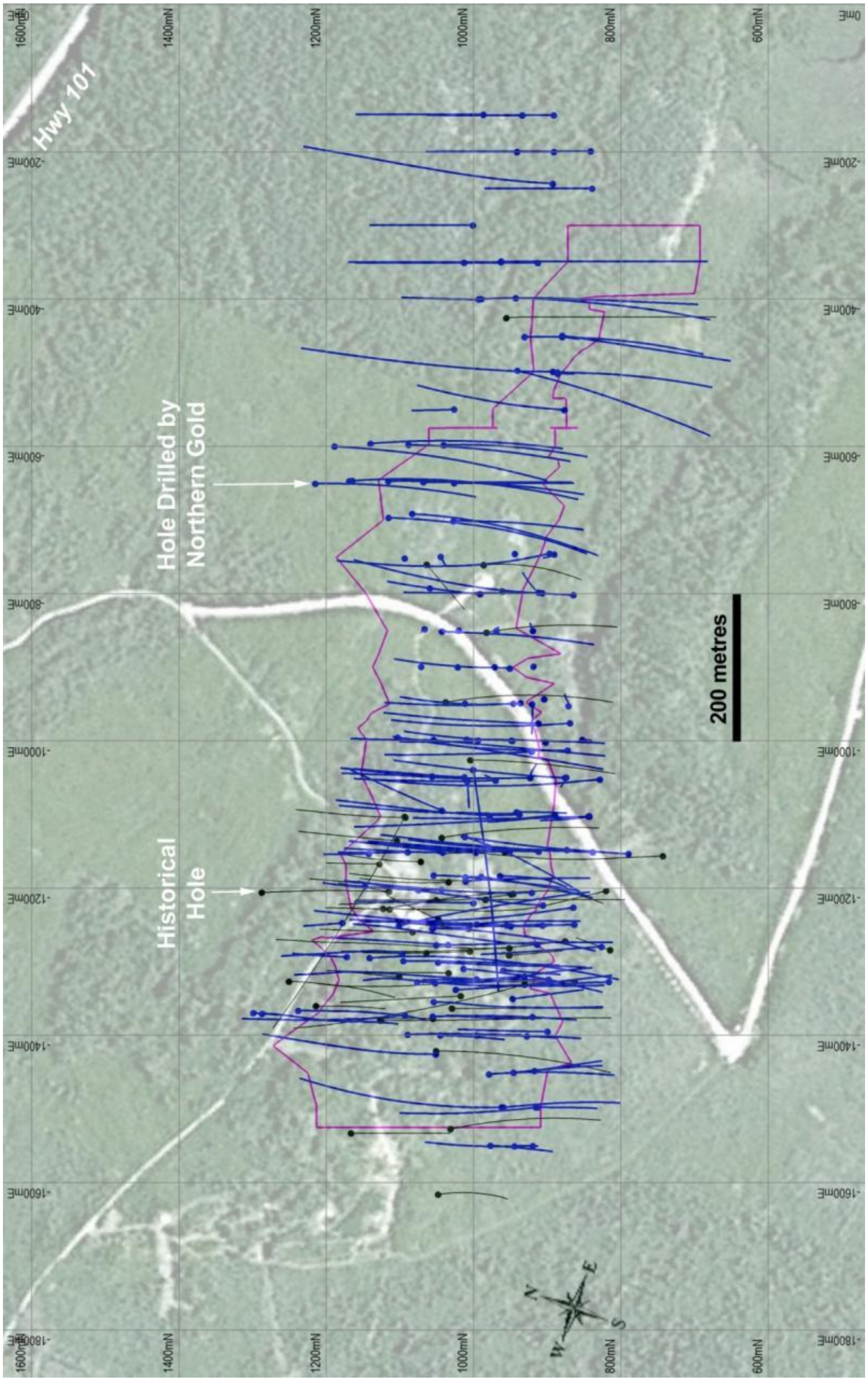


Figure 10-1: Northern Gold Diamond Garrcon 2009-2012 Drill Hole Plan (local grid coordinates)

10.4 2011 DIAMOND DRILLING

Northern Gold's 2011 diamond drill program is a continuation of its 2010 program and is focused on infill and step-out drilling at the Garrcon Deposit. Northern Gold personnel are supervising the Program as in 2009 and 2010.

The drill contractor, Major, resumed drilling January 4, 2011 and in August 2011, Asinii Drilling (Asinii) of Notre-Dame-Du-Nord, Quebec was added as a second drill contractor. In 2011, 39,273 metres of NQ diamond drilling was completed in 118 drill holes (GAR11-49 and GAR-11-59 to GAR-11-126, GAR-11-130 to GAR-11-138, GAR-11-140 to GAR-11-152, GAR-11-154, GAR-11-160 to GAR-11-183 and GAR-11-190 to GAR-11-191), plus 2,839 metres in 13 hole extensions (GAR-11-15X, 24X, 35X, 37X, 11-39X, 11-50X, 11-70X, 11-74X, 11-93X, 11-94X, 11-95X, 106X and 109X) (Appendix A and B). Four holes failed in overburden and required a restart.

Major used two Atelier VD5000 skid-mounted rigs which were operated on two 12-hour shifts per day, five days per week and Asinii used two Usinage Marcotte HTM2500 skid-mounted rigs which were operated on two 12-hour shifts per day, seven days per week. The drill contractors constructed drill access trails and drill pads. Drill water was supplied by pump and hose from a local surface water sources.

Major's two diamond drill rigs were working on holes GAR-11-61 and GAR-11-71A at the time of Howe's property visit on January 21, 2011.

At the completion of hole GAR-11-180, a total of approximately 43,808 core samples from the 2011 drill holes and extensions excluding standards, blanks and duplicates had been or were in the process of being laid out, collected and sent to the laboratory for analysis.

10.5 2012 DIAMOND DRILLING

Northern Gold's 2012 diamond drill program is a continuation of its 2011 program and is focused on infill and step-out drilling at the Garrcon Deposit. Northern Gold personnel are supervising the Program as during 2009 to 2011.

The drill contractors, Major and Asinii, resumed drilling January 3, 2012 and as of the effective date of this report (April 19, 2012), 21,479 metres of NQ diamond drilling has been completed in 49 drill holes (GAR-12-127 to GAR-12-129, GAR-12-139, GAR-12-153, GAR-12-155 to GAR-12-159, GAR-12-184 to GAR-12-189, GAR-12-192 to GAR-12-198, GAR-12-200 to GAR-12-217, GAR-12-220, GAR-12-222 to GAR-12-224 and GAR-12-230 to GAR-12-233) plus 1,902 metres in 10 hole extensions (GAR-12-46X, 12-58X, 12-59X, 12-66X, 12-71AX, 12-105X, 12-121X, 12-131X, 12-138X and 12-171X) (Appendix B).

Until April 3, 2012, Major used two Atelier VD5000 skid-mounted rigs which were operated on two 12-hour shifts per day, five days per week and Asinii used two Usinage Marcotte

HTM2500 skid-mounted rigs which were operated on two 12-hour shifts per day, seven days per week. Since the beginning of April 2012 the contractors have been using one drill unit each operating on two 12-hour shifts per day, five days per week. The drill contractors construct drill access trails and drill pads. Drill water is supplied by pump and hose from a local surface water sources.

The 2012 drill holes are not included in the updated Garrcon mineral resource update because the program is ongoing and as of March 15, 2012, the cut-off date for the updated mineral resource estimate, no assay data from 2012 diamond drill holes was yet available (Appendix B). When assay results are obtained, the 2012 diamond drill holes will be incorporated into a future resource update and reported in a supporting technical report.

Major's diamond drill rig was working on hole GAR-12-217 and Asinii's diamond drill rig was working on hole GAR-12-224 at the time of Howe's property visit on April 13, 2012.

10.6 General Drill Hole, Core Handling, Logging and Sampling Methods and Approach

Historical (1985-1995) work on the Property was not reported in the manner currently required under NI 43-101, however, Howe is of the opinion that the geologists of the 1985-1995 era followed procedures related to the logging and sampling of drill core that would meet current NI 43-101 standards with exception of the insertion of QA/QC standards and blanks. However, written descriptions of the procedures were rarely recorded in technical reports at that time.

Sampling conducted by ValGold in its 2006-2007 drill programs have been described by Howe in its 2009 technical report (George, 2009). It is presumed by Howe that all historic sampling by Cominco / Jonpol in the 1985-1988 drill programs was completed in a manner consistent with accepted industry standard sampling and assaying techniques current at that time.

Based on a detailed review of the drilling and assay database of the Company's drilling and the historic drilling, Howe concludes that the historic sampling methods, core logging and assaying for the Property have met or were basically equivalent to standards currently required under NI 43-101.

The remainder of this section reviews the methods used by the Company.

10.6.1 Northern Gold Drill Hole Survey Methods

The drill casing is left in each hole and capped to permit gyroscopic surveying of the hole after the drill rig is removed and potentially future downhole geophysical testing and/or deepening of the holes.

Upon completion of drill holes in 2009 and 2010, drill hole collar coordinates and elevations were surveyed in UTM coordinates (NAD83) utilizing a Magellan Mobile Mapper CX DPGS with a horizontal accuracy of 0.3m. GPS coordinates of all collar locations were recorded and tied into the exploration grid. Northern Gold subsequently had all 2009 and 2010 drill holes resurveyed by Mazac Geoservices Inc. of 34, 9e Avenue Ouest, La Sarre, Quebec utilizing a Leica 1200 GPS system and Stabila electronic level.

Beginning in 2011, upon completion of drill holes, Northern Gold temporarily surveys the drill hole collar coordinates and elevations in UTM coordinates (NAD83) utilizing a Magellan Mobile Mapper CX DPGS with a horizontal accuracy of 0.3m. GPS coordinates of all collar locations are recorded and tied into the exploration grid. Mazac, utilizing a Leica 1200 GPS system, completes a final survey of the new hole collars every one to two months when they are onsite to conduct downhole gyroscopic surveys.

In 2009 and 2010, the drill contractor completed down-hole directional surveys on all diamond drill holes at approximately 100 metre intervals using a Reflex EZ Shot single shot digital survey tool. Beginning in 2011, Northern Gold retained Mazac to complete gyroscopic downhole surveys of the completed drill holes in batches every one to two months. Because the holes are now surveyed after completion of the hole, five holes have not been surveyed due to damaged casing or downhole obstructions and six holes have been only partially surveyed due to downhole obstructions. Howe recommends that Northern Gold consider conducting preliminary Reflex downhole surveys at least near the top, middle and end of hole at the time of drilling to avoid the possibility of having no survey information if the gyroscopic survey cannot be completed because of subsequent obstructions in the hole.

Howe is of the opinion that the drill hole survey methods meet industry and NI 43-101 standards.

10.6.2 Northern Gold Drill Hole, Core Handling, Logging and Sampling Methods

Core is retrieved from the drill string using conventional wireline techniques. Sample security and chain of custody starts with the removal of core from the core tube and boxing of drill core at each drill. Core is removed from the core tube by the drill contractor's personnel, carefully placed in labeled wooden core boxes and localized by depth blocks inserted. The boxed core remains under the custody of the drillers until it is transported from the drill to Northern Gold's secure core processing and sampling facility at the Property by either the drill contractor or one of the Company's designated personnel.

The core processing facility is located on the Property near the Garrcon Shaft and is located at the end of a gated road off of Highway 101. The facility has an office and an adjacent, secure core facility used for logging, sawing core and packing samples for shipment to the assay laboratory. The core facility has space for storage of core prior to logging.

At the core facility core boxes are opened and inspected to ensure correct boxing and labeling of the core by the drill contractors then re-closed. Remedial actions are undertaken, if necessary, to correct deficiencies in the spatial information prior to entry into a database. The core is stored securely at the company's core processing facility until it is moved into the core shack for processing.

Processing of the core starts with the core being laid out on workbenches and cleaned prior to logging and sample interval marking. Spatial information related to each box of core is checked for accuracy and consistency at this point. Remedial actions are undertaken, if necessary, to correct deficiencies in the spatial information prior to entry into a database. A geotechnical log of core recovery and RQD measurements is completed by a geological technician under the supervision of a Northern Gold geologist. A Northern Gold geologist then completes a descriptive log. Prior to drill hole GAR-11-100 (June 2011) this descriptive log was a detailed description of rock type (maintaining consistency with previous work), structure, alteration, and mineralisation (including presence of VG, quartz veining and its angle with the axis of the core). As of GAR-11-100 core logging now comprises a quick lithologic log as a reference check for comparison with the Photonic Knowledge ("PK") lithology using hyperspectral imaging. The core is next photographed with a high-resolution camera, capturing RAW digital images that are later converted to either a JPEG or TIFF formatted image. This high-resolution photography produces a digital image with a file resolution of 20 to 25 mega-pixels, assuring images of sufficient quality to enable re-logging on a monitor at greater than actual size. Three boxes of core are photographed at the same time, first photographing the core on one side and then rotating the core 180 degrees for a second image. The core is then securely stored on site and placed in the queue for hyperspectral imaging. Hyperspectral imaging provides a detailed analysis and false-colour image of the various hydrothermal alteration types known to be associated with gold mineralization in the Garrcon Deposit. PK includes QA/QC imaging checks in every scan completed. Drill core and sample information are input into a digital database using portable computer workstations at the workbenches.

Following the PK hyperspectral imaging, the geologist selects the sample intervals and inputs the intervals into the drill hole database. The selected portions of core are marked and measured for sampling and are identified with one part of a three part assay tag, placed at the downhole end of the sample interval.

The core is sawn with a 230-volt 5hp Husqvarna water-cooled masonry saw with 14-inch diamond blade and with a mounted jig to assure the core is split equally. The core saw is located in a ventilated room separate from the core logging facility. Fresh water is used as a cooling/lubricating fluid; recycled water is not used.

The core is cut in half longitudinally, perpendicular to the foliation (50% split) with one half placed into plastic sample bags along with part two of the three part assay tag and sealed. The other half core is returned to the core box for archive and future verification and testing (if required). Each sample bag has the sample number written on the outside of the bag with black permanent marker corresponding to the sample tag placed inside. Information on the third part of the assay tag is entered into the database and the drill log, at which time accuracy and consistency are again reviewed and remedied, if necessary.

Core logging, sawing, sample bagging and sample shipment preparation is completed either by or under the onsite supervision of a Northern Gold geologist. Certified reference materials (standards), sample blanks and ½ core duplicate samples are inserted by Northern Gold into each sample batch submitted to the lab for the purpose of quality control (¼ core duplicates were submitted up to hole GAR-10-36, November 2010).

After sampling is completed, the archived core boxes are labeled and placed on core racks assembled in the yard of Northern Gold's field office on the Property.

The process described above is standard procedure for all exploration drilling conducted outside of the Garrcon resource footprint, defined by Howe in its 2011 technical report (Hannon, Roy and Trinder, 2011). Within that resource footprint, whole core analysis is now utilized in preference to half-core analysis. Whole core sampling began in August 2011 (GAR-11-110). Northern Gold has noted that the benefits of and rationale for implementing whole core analysis includes:

1. Larger sample size results in more reliable analyses, particularly in gold deposits.
2. Northern Gold is of the opinion that PK's hyperspectral imaging process produces far greater, better and more consistent lithology and alteration data than can be obtained by conventional visual core logging, reducing the need to retain half of the split core as a reference source.
3. The current physical archived core library from within the Garrcon resource footprint contains nearly 200 drill holes, which Northern Gold believes is more than adequate for any future needs.
4. The drill core photographic record is of sufficient quality to serve as a backup resource for questions that may arise regarding the lithology, alteration, or mineralization.
5. Coarse sample rejects are archived and securely stored onsite serving as another resource for questions that may arise regarding the lithology, alteration, or mineralization.

Core recovery is generally very good in the Property area and Howe is confident that there are no sampling or recovery factors that would negatively impact the sampling procedures.

Sample intervals vary from 0.3 metres to a maximum of 1.0 metre in length. The majority of samples are 1.0 metre in length but some are shortened for geological reasons. More than 99% of the drill core is submitted to a certified analysis laboratory for assaying. The core not submitted for analysis is collected (retained) for hand samples, petrographic samples and ARD analysis or for such other technical needs as they arise from time to time.

Sealed sample bags are placed in rice sacks and sealed. Northern Gold personnel maintain possession of the samples in the secure core shack until delivery to the laboratory. Sample batches are transported to the analytical laboratory in a timely fashion by Company personnel and transferred to the laboratory's chain of custody procedures and protocols. Samples are shipped direct from the site to the laboratory or via the Company's Kirkland Lake office. Northern Gold's chain of custody protocols require the signing and maintenance of tracking logs and receipts when samples are shipped from the Property, and when they are picked up from analysis laboratories and delivered to another laboratory or returned to the Property. When utilizing commercial transportation to ship from the Property, all shipping sacks are sealed with a numbered tag, the removal of which is recorded upon receipt by the receiving analytical laboratory. Laboratory pulps and rejects are backhauled to the Property and stored in a locked boxcar container.

Following analysis, digital assay files provided by the laboratory are merged with a "from" and "to" interval file created by Northern, with the sample number linking the two files. This methodology limits data entry errors to sample numbering, as well as the "from" and "to" specifications; assay

Overall, sampling methods are to industry standards for mineralisation of this type. Howe notes that while Northern Gold's current practice of whole core sampling within the Garrcon resource shell may not be considered an industry standard it is reasonable given the benefits and rationale of whole-core sampling of gold mineralization with a nugget effect such as that at Garrcon. Howe is of the opinion that whole core sampling is appropriate within the current resource "footprint" given that approximately 200 archived holes are available for this area and Northern Gold's implementation of protocols such as high resolution digital photography, secure onsite archiving of coarse sample rejects and state-of-the-art hyperspectral core imaging. Howe recommends Northern gold continue to half-core sample when testing the margins of the Garrcon resource and beyond where drill hole density is low, understanding of the lithology, alteration and mineralization is limited and a sufficient core archive has yet to be established. Howe is of the opinion that the sampling methods meet NI 43-101 standards.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sampling and assaying methods conducted by ValGold in its 2006-2007 drill programs have been described by Howe in its 2009 technical report (George, 2009). It is presumed by Howe that all historic sampling by Cominco / Jonpol in the 1985-1988 drill programs was completed in a manner consistent with accepted industry standard sampling and assaying techniques current at that time.

Northern Gold's sample preparation and analyses for the 2009 drill program and holes GAR-10-11 and part of GAR-10-12 for the 2010 drill program were conducted by Swastika Laboratories Limited, Swastika, Ontario, P0K 1T0. Swastika Laboratories Limited participates in the Proficiency Testing Program for Mineral Analysis Laboratories (PTP-MAL), a testing program conducted bi-annually by the Standards Council of Canada. Swastika is the holder of a Certificate of Laboratory Proficiency.

Swastika Labs continued as Northern Gold's primary analysis laboratory until June 2010, at which time Swastika Laboratory informed the Company that turn-a-round for the Company's assays would increase because the laboratory had committed to providing priority service to another client that had committed to a significant sample volume. In the interest of maintaining better assay turn-a-round times, the Company decided to seek alternate analytical services.

As an immediate, though short term solution, the Company sent samples to Polymet Resources Inc. (Certified ISO 9001:2008) of Cobalt, Ontario (drill holes GAR-10-12 (part) to GAR-10-14).

Northern evaluated six analytical laboratories and selected Laboratoire Expert Inc. (Expert Labs) of 127 Boulevard Industriel, Rouyn-Noranda, Québec as its principal laboratory and SGS Canada Inc. Mineral Services of 1883 Leslie Street, Toronto Ontario as its secondary laboratory. Expert Labs is an accredited laboratory (PTP-MAL – Accredited by Standards Council of Canada – in accordance with ISO/IEC 43-1). SGS-Toronto is a reputable, ISO/IEC17025 accredited laboratory qualified for the material analysed. Both labs utilize industry standard quality control procedures.

As discussed in Howe's 2010 report (Roy and Trinder, 2010), a comparison of Swastika and Polymet check samples showed a significant scatter and generally poor gold analytical precision for pulps, Howe has attributed this to the analytical detection limit and methods utilised at the Polymet laboratory. In addition, normal check sampling of primary Polymet analyses at Expert and SGS on samples from GAR-10-12 to GAR-10-14 returned differences between the check assays and the original Polymet results (Polymet was consistently lower, and in some cases, much lower) leading to the suspicion that the Polymet lab was under-reporting gold at the lower grades. Northern Gold submitted all pulps from the Polymet samples to both Expert Labs and SGS Mineral Services for re-assay. Upon comparison of the results from the three labs, Northern Gold, in consultation with Howe, elected to delete the Polymet assays from its assay database and average the Expert and SGS analytical results.

It is the opinion of Howe that all potential gold mineralized zones in the Company's drill core have been sampled and that the sample preparation, security and analytical procedures implemented have been adequate for the exploration conducted to date by Northern Gold. Northern Gold has implemented a quality assurance and quality control (QA/QC) protocol as detailed in Section 11.5.

No aspect of the sample preparation subsequent to delivery to the laboratory was conducted by an employee, officer, director or associate of the Company.

11.1 Swastika Labs 2009-2010

11.1.1 Sample Preparation

Sample preparation consisted of conventional drying in ovens if required; crushing; splitting and; pulverizing. After drying, the sample was passed through a jaw crusher producing material of approximately -1/2 inch, with further size reduction to -10 mesh by a roller mill. A 300 gm sample was riffle split from the -10 mesh sample and pulverised to >90% -200 mesh using a ring and puck pulveriser. Silica sand was used to clean the equipment between each sample to prevent cross contamination. Prepared sample pulps were matted to ensure homogeneity prior to analysis. The homogeneous sample was then sent to the fire assay laboratory.

11.1.2 Analytical Procedures

All samples were analysed for gold by fire assay. A homogenized 30 gram charge of the sample is mixed with a lead based flux fused for one hour and fifteen minutes. Each sample has a silver solution added to it prior to fusion that allows each sample to produce a precious metal bead after cupellation. The fusing process results in lead buttons that contain all of the precious metals from the sample as well as the silver that was added. The button is then placed in a cupelling furnace where all of the lead is absorbed by the cupel and a silver bead, which contains any gold from the sample, is left in the cupel. The cupel is removed from the furnace and allowed to cool. Once the cupel has cooled sufficiently, the silver bead is placed in an appropriately labeled test tube and digested using aqua regia. The samples are bulked up with 1.0 ml of distilled de-ionized water and 1.0 ml of 1% digested lanthanum solution. The samples are allowed to cool and are mixed to ensure proper homogeneity of the solution. Once the samples have settled they are analysed for gold using atomic absorption spectroscopy. The atomic absorption spectroscopy unit is calibrated using appropriate certified standards in an air-acetylene flame. All gold assays that are greater than 1 g/tonne are automatically re-assayed by fire assay with a gravimetric finish for better accuracy & reproducibility.

Swastika re-assays every 10th pulp (on average) as a check on laboratory precision and at their discretion frequently assays a second pulp.

11.2 EXPERT LABS 2010-2012

11.2.1 Sample Preparation

Sample preparation – the total sample is dried if necessary and crushed to 90% -10 mesh. A 300 gram subsample is split out using a Jones type riffle splitter. The 300 gram subsample portion is pulverized to 90% -200 mesh in a ring and puck pulveriser and used as the sample source for assaying.

The crusher reject material is stored until Northern is satisfied that assay results are acceptable, after which Northern instructs the laboratory to return the rejects to the Property or one of Northern Gold's designated personnel picks up the rejects and returns them the Property where they are placed in secure and dry storage for historic reference.

11.2.1 Analytical Procedures

All samples are assayed using the lead fire assay procedure with an AA geochemical finish. The detection limit is 0.005 g/tonne. All samples that assay higher than 1.0 g/tonne are re-assayed using a gravimetric finish to improve accuracy of the higher grade samples. The detection limit is 0.03 g/tonne.

Beginning in July 2010, Northern implemented the metallic screen lead fire assay analysis procedure for all sample intervals where visible gold or metallic minerals identified as visible gold are seen. Expert Labs metallic screen procedure is as follows:

- The entire sample is dried if necessary, crushed and pulverized.
- The pulverized material is screened by hand on a 100 mesh screen.
- The screen undersize is homogenized and lead fire assayed in triplicate (three individual 30g charges) using a gravimetric finish.
- The total screen oversize is lead fire assayed using a gravimetric finish.
- All assay results are combined using a weighted average calculation to determine an assay value for the entire sample.

As part of the Expert Lab's QA/QC protocol, the laboratory assays 10% of all samples submitted in duplicate. Additionally, the laboratory includes a reagent blank and a gold standard in each batch of 28 samples. All laboratory QA/QC results are reported to the Company.

Following completion of all assays, re-assays, analysis of results and upon instructions from Northern, the primary laboratory packages all remaining pulps, completes a submission document and ships the pulps to the secondary analysis laboratory, SGS-Toronto.

11.3 SGS MINERAL SERVICES 2010-2012

In November 2010, because assay turn-a-round times at Expert in September and October were normally exceeding 25 days, the Company began sending a portion of its primary samples to SGS in Toronto. The resultant turn-a-round times for both Expert and SGS were better and the Company has continued splitting the primary assaying between the two laboratories. Expert continues, following fire assaying and acceptance by the Company of the results, to send all pulps to SGS for analysis by CN solubility for gold and for geochemical analysis of a 32 mineral suite as discussed in more detail below. Following receipt of fire assay results from SGS, the Company issues instructions to SGS for the shipment of selected pulps amounting to about 5% of the samples submitted to Expert for re-assay as a check on the accuracy and efficiency of SGS.

11.3.1 Sample Preparation

Primary core samples received at SGS are prepared using its sample preparation package PRP89, which consists of conventional drying if required, in 105^{o}C ovens; crushing; splitting and; pulverizing. After drying, the sample is passed through a primary oscillating jaw crusher producing material of 75% passing a 2mm screen. A 250-gram sub-sample is split from the crushed material using a stainless steel riffle splitter. This split is then ground to 85% passing 75 microns or better using a ring pulveriser.

11.3.2 Analytical Procedures

Primary core samples are prepared and assayed using the lead fire assay procedure with an ICP geochemical finish. The detection limit is 0.005 g/tonne. All samples that assay higher than 3.0 g/tonne are re-assayed using a gravimetric finish to improve accuracy of the higher grade samples (SGS' lower limit for reporting fire assay-gravimetric results is 3 g/tonne Au).

All sample pulps are assayed with the SGS BLE653 cold cyanide leach procedure with geochemical finish using a 30 gram sample.

All sample pulps are assayed for multi-elements using the SGS ICP40B analysis procedure. The ICP40B procedure uses four (4) acid digestion followed by ICP OES (inductively coupled plasma atomic emission spectroscopy) and reports results for 32 elements at a variety of concentration limits.

Based on lead fire assay results in the primary analysis laboratory, Northern selects approximately 5% of the samples submitted to Expert to be re-assayed by SGS as check samples using lead fire assay procedures that are the same as those used by Expert. These check assays are to check the accuracy and efficiency of Expert Laboratories. Check assaying is conducted as follows:

- All samples reported by Expert to have a grade of less than 3 g/tonne are lead fire assayed using the SGS FAI323 procedure which is a lead fire assay on a 30 gram sample with an ICP geochemical finish.
- All samples reported by Expert to have a grade greater than 3 g/tonne will be lead fire assayed using the SGS FAG303 procedure which has a gravimetric finish and uses a 30 gram sample.

SGS also has its own internal QA/QC protocols including standards, blanks and duplicates and the results of these analyses are also reported along with the results on Northern Gold's samples.

Following verification from Northern that the SGS results are acceptable, SGS packages all remaining unused pulps and ships them back to the Company at its Kirkland Lake office. Upon receipt, the pulps are kept in secure storage until the next work day when the pulps are transported back to the Garrison Gold Property, cataloged and placed in long term, dry and secure storage.

11.4 HISTORIC QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) PROGRAMS

Documentation is not available on any assay QA/QC program that may have been used by Cominco / Jonpol during their 1985-1988 drill programs however standards and blanks were not typically inserted by the exploration companies during this time period.

ValGold submitted blanks and standards representing approximately 1 blank or standard per 10 core samples during the period of its 2006-2007 drill program in 2005 to 2007. Howe (George, 2009) tabulated all of the blank and standard analyses and found no material deviations that would indicate any problems with the laboratory's accuracy and reproducibility.

11.5 NORTHERN GOLD QA/QC PROGRAMS

11.5.1 2009 Northern Gold QA/QC Programs

Northern Gold implemented QA/QC procedures for the 2009 drill program that included insertion of certified reference materials (standards), pulp and reject duplicates and sample blanks.

Howe reviewed and detailed the results of the 2009 QA/QC program in its 2010 technical report (Roy and Trinder, 2010). Northern Gold's 2009 QA/QC results indicated no major problems with the analyses with respect to accuracy, precision and contamination.

11.5.2 2010-2011 Northern Gold QA/QC Programs

11.5.2.1 Accuracy

To monitor accuracy, certified reference materials (CRM) or standards are inserted sequentially into the sample stream before shipment from the field at a rate of at least 1 in every 20 samples submitted.

High, medium and lower-grade gold standards are used in each sample shipment. The CRMs were obtained from Ore Research and Exploration Pty. Ltd. of Bayswater, Victoria, Australia (distributed by Analytical Solutions Inc. of Toronto, Ontario, Canada); and Rocklabs, Auckland, New Zealand (Table 11-1). The standards were received prepared (pulverized to –

200 mesh and blended) and either pre-packaged in 50 to 60 gram packets or in 2.5 kilogram containers from which Northern Gold weighs out 50 to 60 gram packets.

Table 11-1: QA/QC certified reference materials for 2010 and 2011 drilling programs.

Standard	Au (ppm)	SD (ppm)	Supplier	Period of Use
OREAS 61Pa	4.46	0.13	Ore Research and Exploration	2010 intermittently
SF45	0.848	0.028	Rocklabs	Nov 2010 – Mar 2012
SF57	0.848	0.030	Rocklabs	Mar 2012
SG40	0.976	0.022	Rocklabs	Apr 2011 - Mar 2012
SH55	1.375	0.045	Rocklabs	Jan – Mar 2012
SJ39	2.641	0.083	Rocklabs	2010 intermittently
SJ53	2.637	0.048	Rocklabs	Aug 2010 – Mar 2012
SL46	5.867	0.170	Rocklabs	Aug 2010 to Apr 2011
SN50	8.685	0.180	Rocklabs	Nov 2010 – Mar 2012
SN60	8.595	0.223	Rocklabs	Jan – Mar 2012

To check the accuracy of the laboratory, control limits (CL) are established at accepted mean ±3σ (standard deviation) and warning limits (WL) at accepted mean ±2σ. Any single standard analysis beyond the upper (UCL) and lower (LCL) control limits is considered a "failure". In addition, three successive standard analyses outside of the upper (UWL) and lower (LWL) warning limits on the same side of the mean could also constitute a failure. Successive warning results may indicate laboratory bias and possibly incorrect calibration of the laboratory equipment.

The results from the QA/QC standards were plotted versus time for each standard (Figure 11-1 to Figure 11-9). The upper and lower warning and control limits and mean Au value (Au-ppm) for the QC sample are shown on each chart.

Several instances of mislabeling and insertion of the wrong standard were recognized by Howe and these samples have been removed from the charts.

Most of the standards returned values within the accepted mean ±2SD (standard deviations). Howe recommends that the Company review any results falling outside the control limits. Expert Labs generally shows good results but there may be a slight bias to under-reporting of grade by the FA-AA method at grades greater than 2 g/tonne Au (Figure 11-7 to Figure 11-9). Expert's FA-Gravimetric method generally shows a very slight positive bias. Howe notes that while generally within acceptable levels, the number of failures and overall spread of analytical results for SGS analyzed standards is greater than that of the primary lab Expert. In particular, during the month of March 2011, SGS results showed a generally strong positive bias with numerous warnings and several failures particularly at the higher grade standards (Figure 11-7 to Figure 11-9). This may reflect an incorrect calibration of the laboratory equipment. Also, from mid April 2011 to mid December 2011, SGS results showed numerous results both below and above recommended limits at the higher grade standard SN50 (Figure

11-9). The numerous Expert SG40 standards under-reporting at approximately 0.85 g/tonne may actually be mislabeled SF45 samples (Figure 11-4). Also note two samples of SJ53 returned extremely low assay values that cannot be attributed to mislabeled standards. This may be an indication of sample pulp mislabeling or a mix-up of sample order in the furnace tray at the lab. Howe recommends that Northern Gold conduct a review of all above noted problems and their affected sample batches and implement remedial action, including re-assay, if warranted.

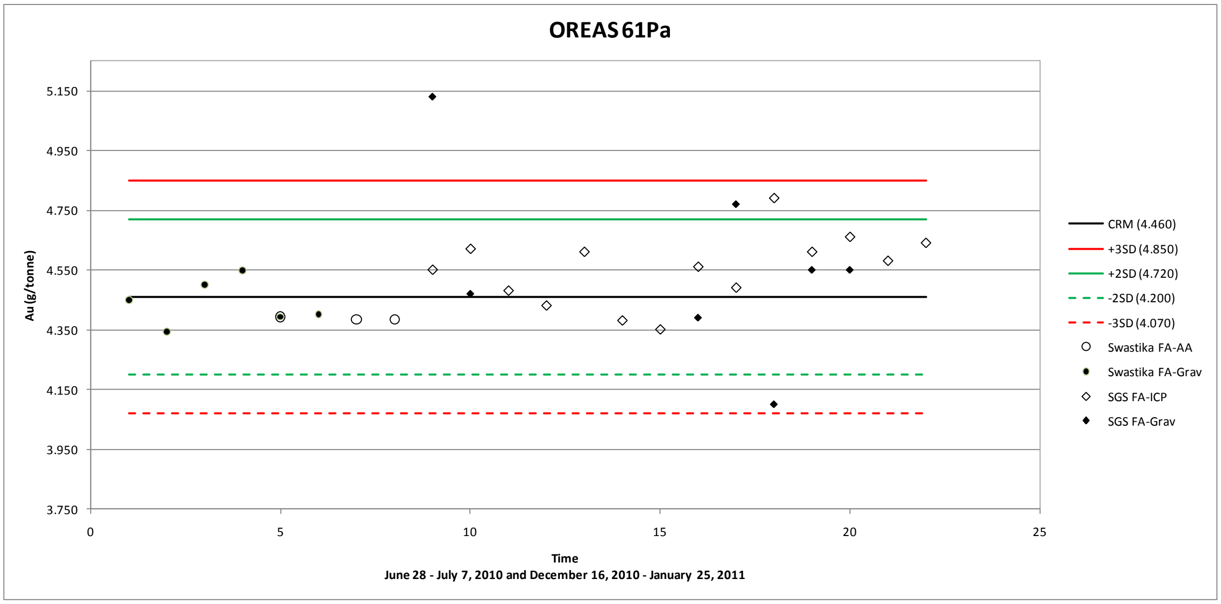


Figure 11-1: Standard OREAS 61Pa (4.460 g/tonne Au) results plotted against time

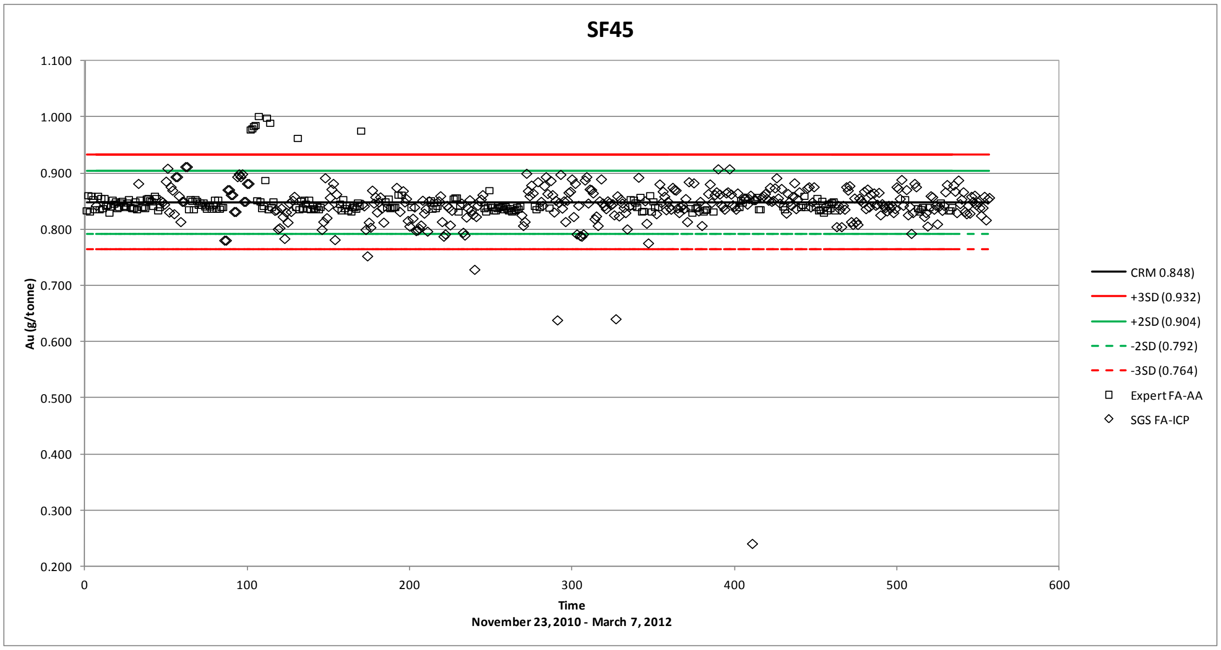


Figure 11-2: Standard SF45 (0.848 g/tonne Au) results plotted against time

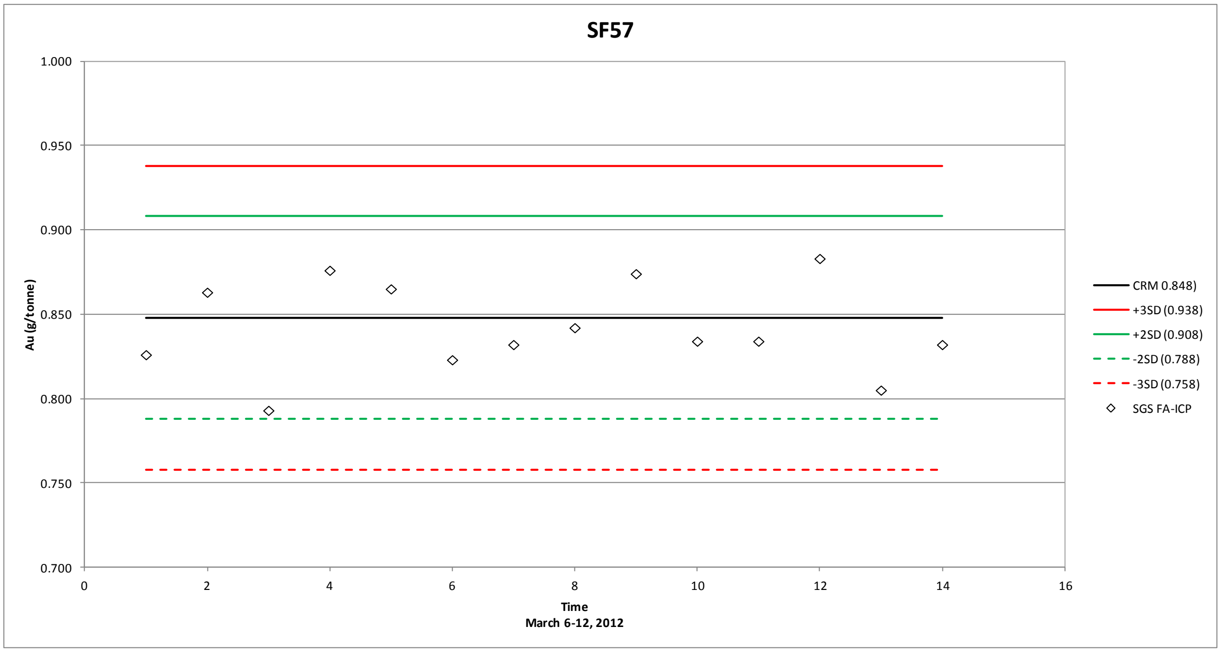


Figure 11-3: Standard SF57 (0.848 g/tonne Au) results plotted against time

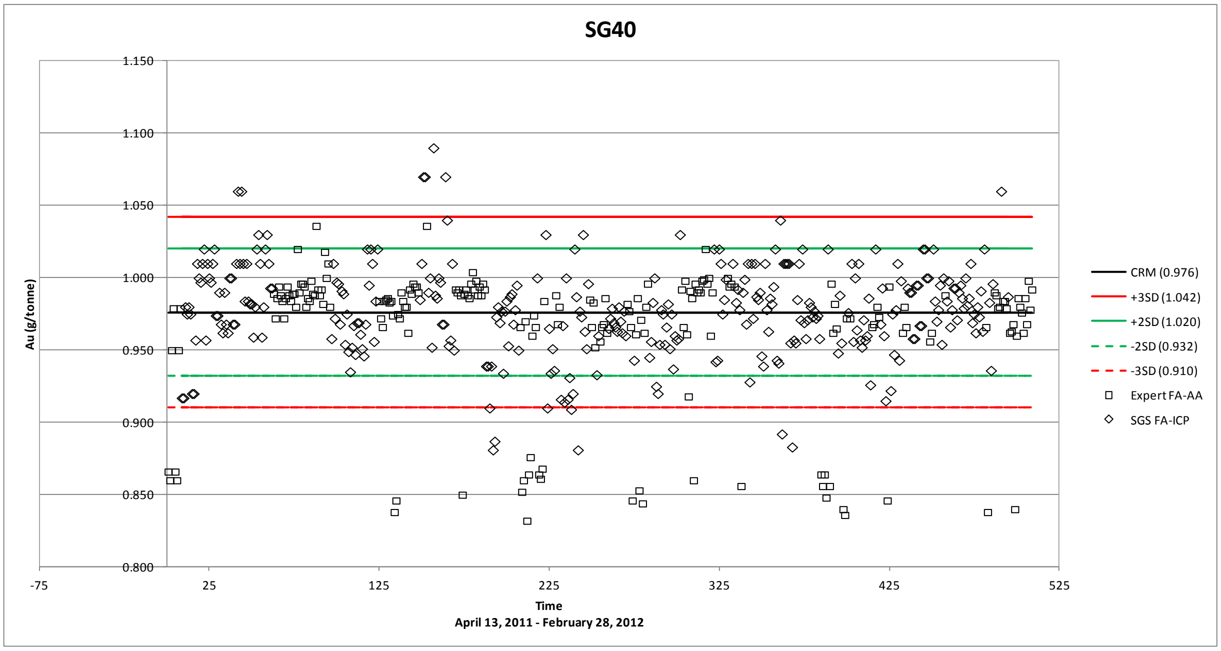


Figure 11-4: Standard SG40 (0.976 g/tonne Au) results plotted against time

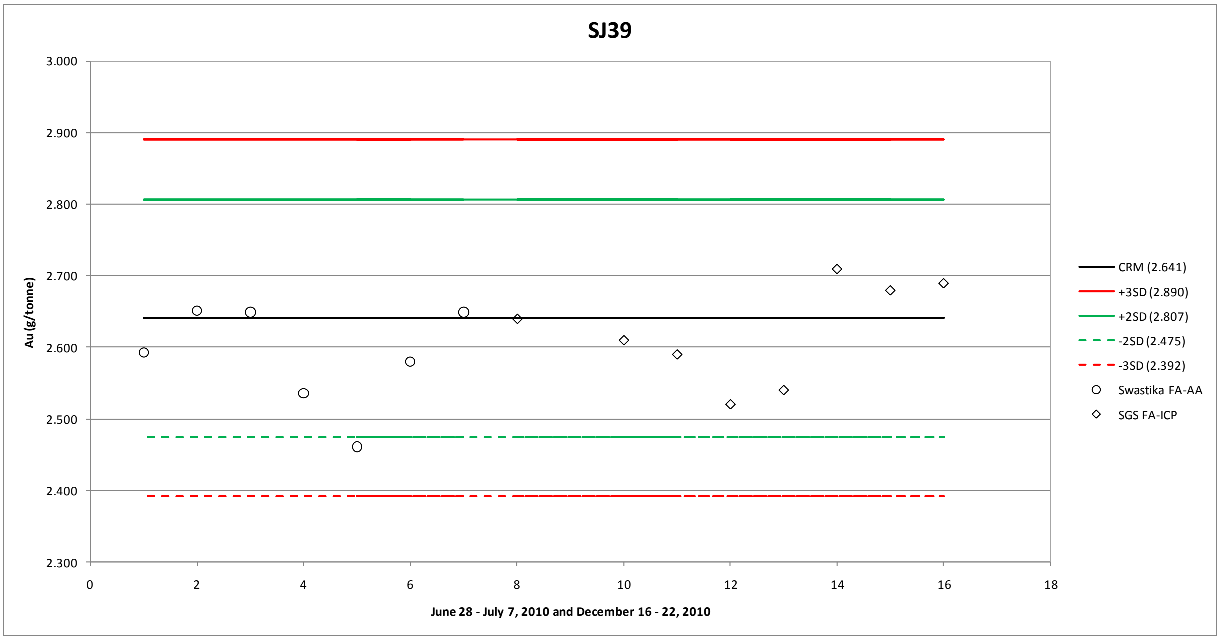


Figure 11-5: Standard SJ39 (2.641 g/tonne Au) results plotted against time

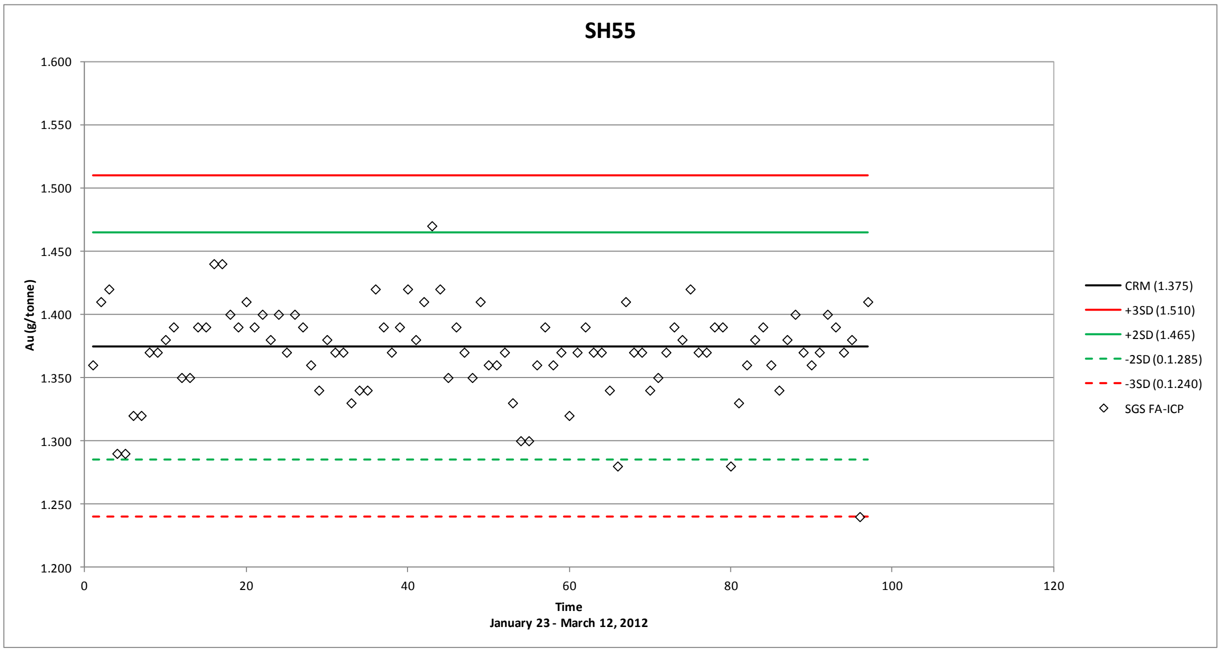


Figure 11-6: Standard SH55 (1.375 g/tonne Au) results plotted against time

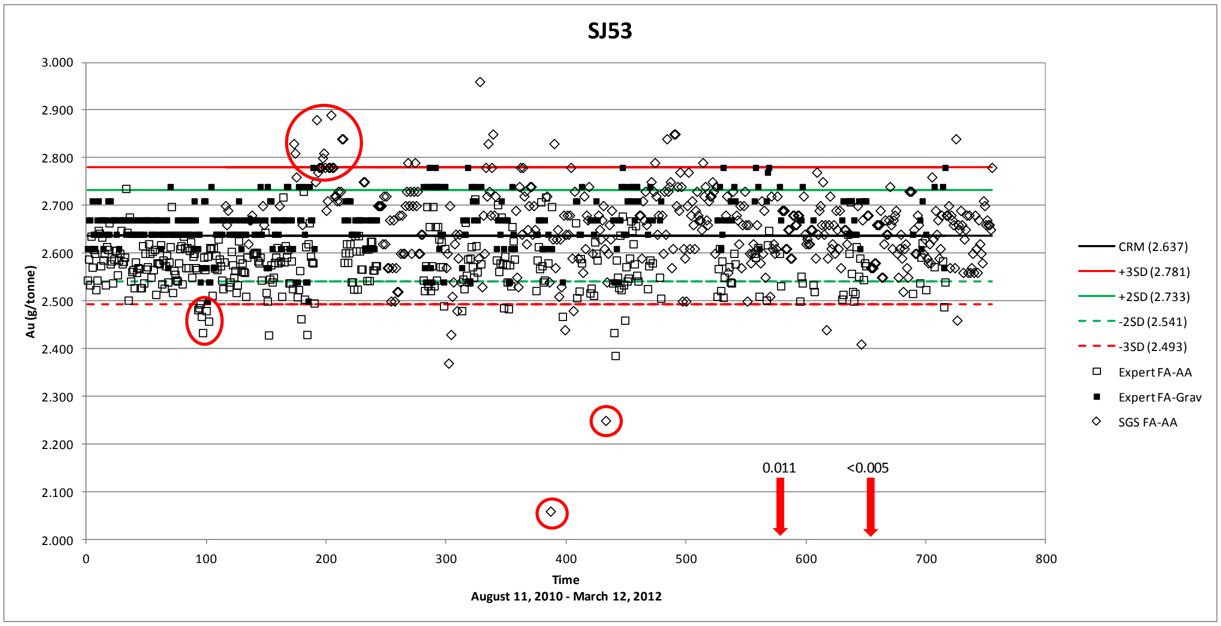


Figure 11-7: Standard SJ53 (2.637 g/tonne Au) results plotted against time

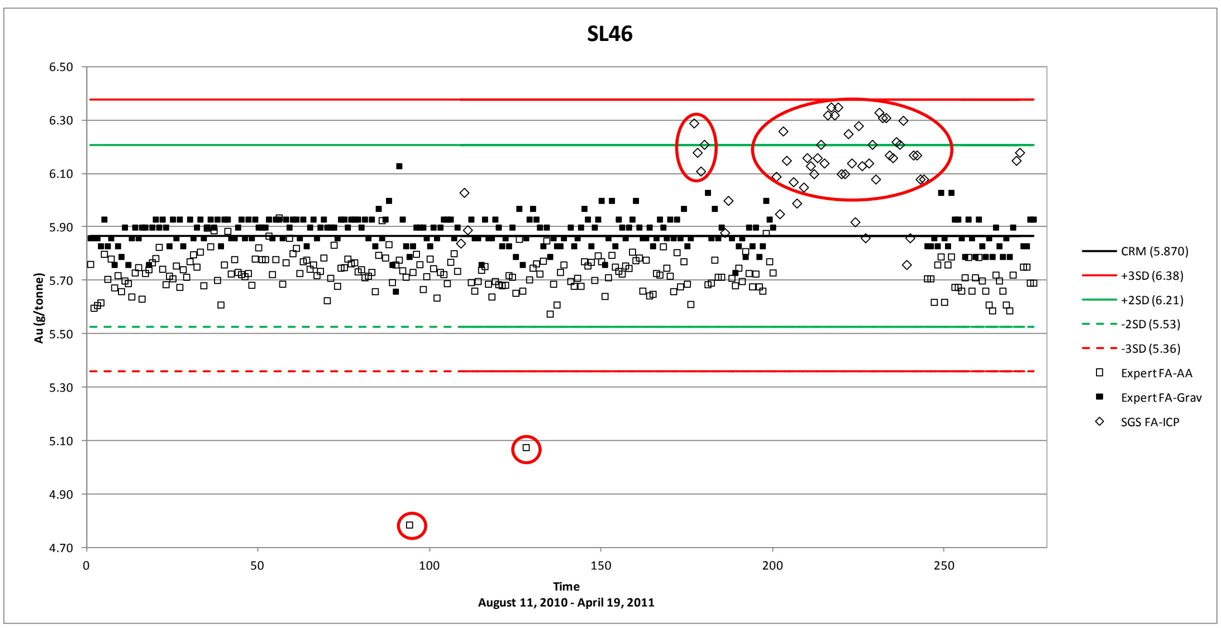


Figure 11-8: Standard SL46 (5.870 g/tonne Au) results plotted against time

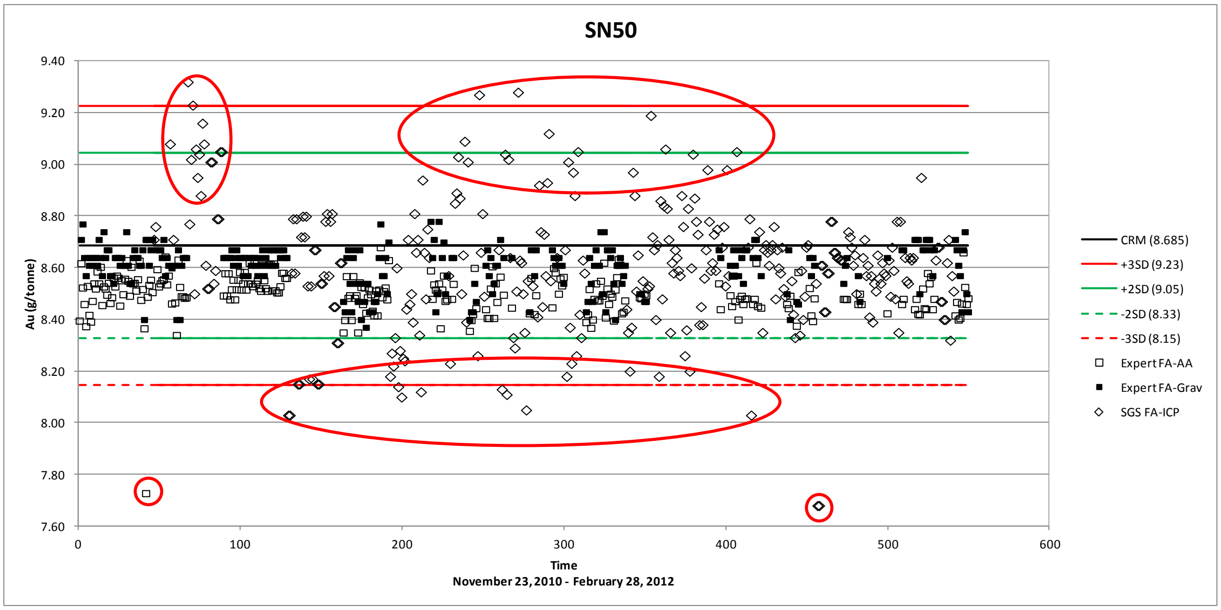


Figure 11-9: Standard SN50 (8.685 g/tonne Au) results plotted against time

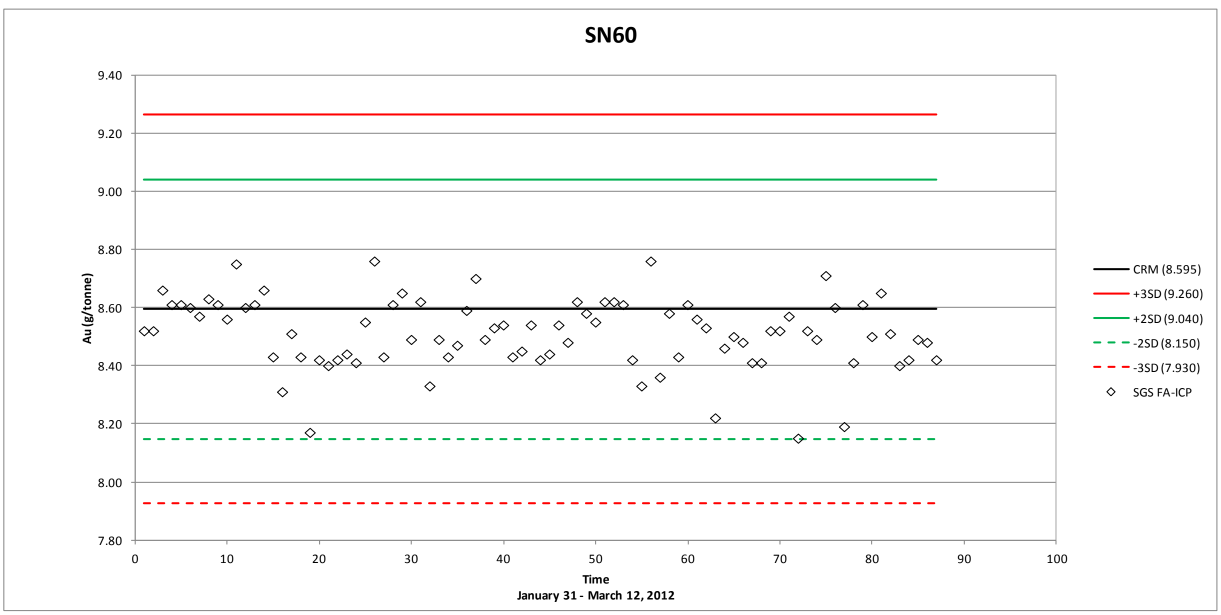


Figure 11-10: Standard SN60 (8.595 g/tonne Au) results plotted against time

11.5.2.2 Contamination

Two laboratory sample preparation processes that have significant potential for cross-contamination between samples are the jaw crushing and ring pulverizing stages. Contamination could also occur in the analytical side of the laboratory or from sample mislabeling.

Contamination is normally monitored through the routine insertion of coarse field blank material into the sample stream. As a rough guide, Howe suggests that blank samples should have analyses of less than 5x the detection limit. This, of course depends on how low the analytical detection limit is and the natural background concentration of the blank material.

Northern Gold inserted blanks approximately every 20th sample into the drill core sample batches before shipment. The Company utilizes commercial coarse marble aggregate for the blank material.

Howe suggests that the maximum acceptable value for the blank material be 25 ppb or 0.025 g/tonne gold. A blank sample that assayed greater than the maximum acceptable value should be considered a failure.

The results from the Blanks were plotted against time with the maximum acceptable value on the chart illustrated in Figure 11-11.

Most of the blanks inserted into the sample batches returned gold concentrations below the maximum acceptable value. Several blank analyses returned results greater than the suggested maximum value. One sample which returned approximately 0.6 g/tonne Au may be an indication of contamination, sample pulp mislabeling or a mix-up of sample order in the furnace tray at the lab.Howe recommends that the Company review the results of associated batches, particularly the SGS batches which correspond to the March 2011 and mid-April to Mid December 2011 time period when SGS returned a significant number of warnings and failures for high standard values.

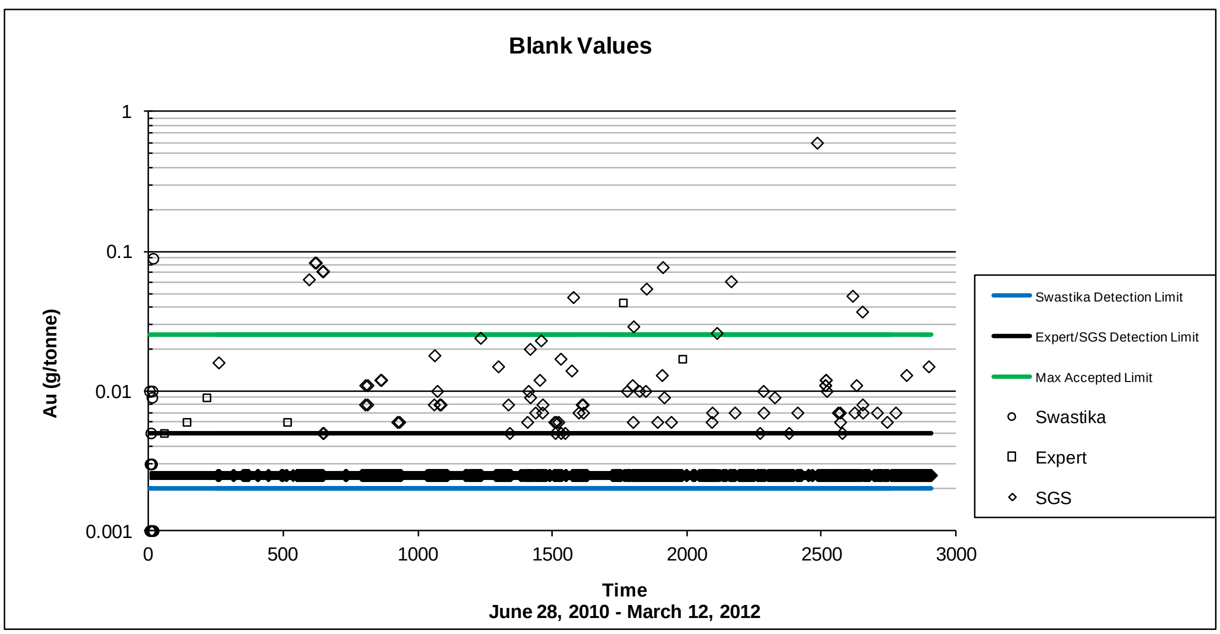


Figure 11-11: Blank sample analytical results plotted against time

11.5.2.3 Precision

Precision is often monitored by the insertion of duplicate samples at a rate of 1 in 20 samples submitted. The duplicates may be quarter/half core duplicates and/or preparation duplicates, split after the initial jaw-crushing phase to make two pulps. Northern Gold inserted both quarter core duplicates and preparation duplicates into the sample stream each at a rate of 1 in 40 samples such that there was a duplicate sample every 20 samples. In addition laboratories routinely analyse pulp duplicates, split after the pulverizing phase, as part of their internal quality control programs.

Core Duplicates

Generally, in a duplicate sampling program, quarter core duplicates are a compromise as a core duplicate. The best measure of precision is to analyse the other half of the core, leaving no remaining core. Precision indicated by quarter core duplicate is generally poorer than indicated by half core duplicates. In a duplicate sampling program, the core duplicate analyses account for the largest portion of total error in the entire process, and as such provide the best indication of the precision of any individual analyses.

In its 2009 drill program and 2010 drill program up to GAR-10-36 Northern Gold submitted quarter core duplicates. Beginning with hole GAR-10-37 the Company elected to utilize the entire archived half core in its core duplicate sampling program. While using both core halves from the selected sample intervals does not leave any core in that interval for reference purposes, this procedure yields improved correlation between duplicate core samples as compared to using quarter-core duplicates, as was the previous practice. At the time of data cut-off for the Garrcon mineral resource estimate update, the Company had submitted a total of approximately 1,106 core duplicate samples in the 2010 and 2011 programs.

Original analysis data vs. the quarter and half core duplicate analysis is plotted in Figure 11-12 and Figure 11-13. Any values that plot significantly away from the correlation line may indicate a potential nugget effect or, less likely sample preparation errors or analytical errors. Overall, the graph shows good correlation between the original samples and quarter core duplicates, however note that the majority of the samples have primary gold values less than 0.3 g/tonne. Howe recommends additional core duplicates be taken from higher grade mineralized intervals after the primary analyses have been completed.

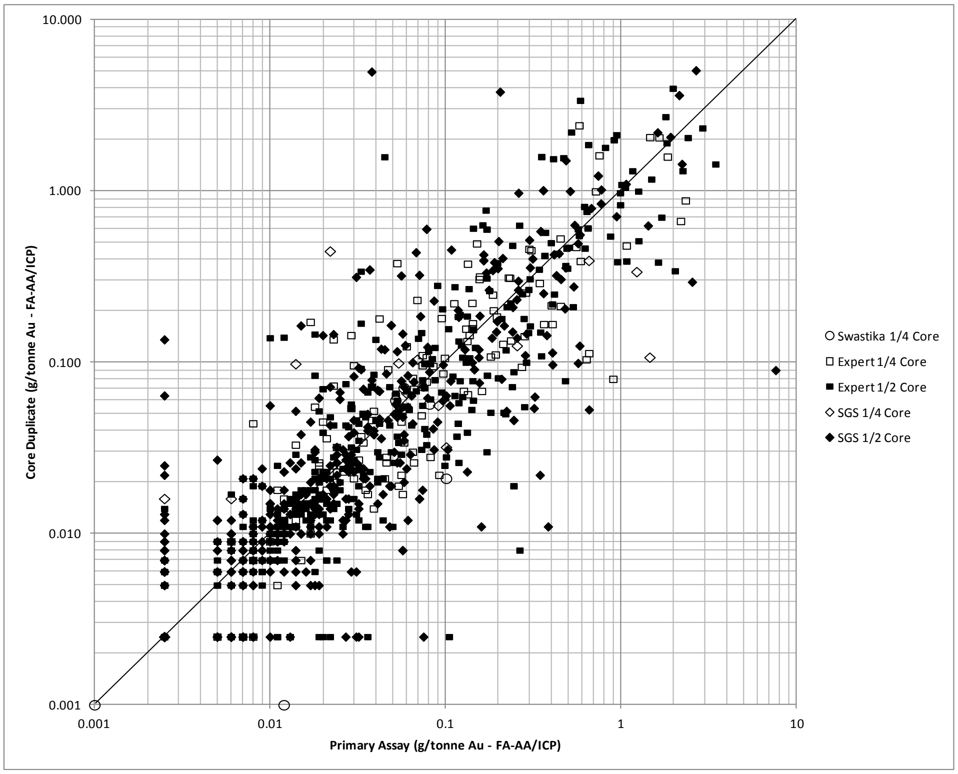


Figure 11-12: Plot of primary assays versus core duplicate assays (FA-AA)

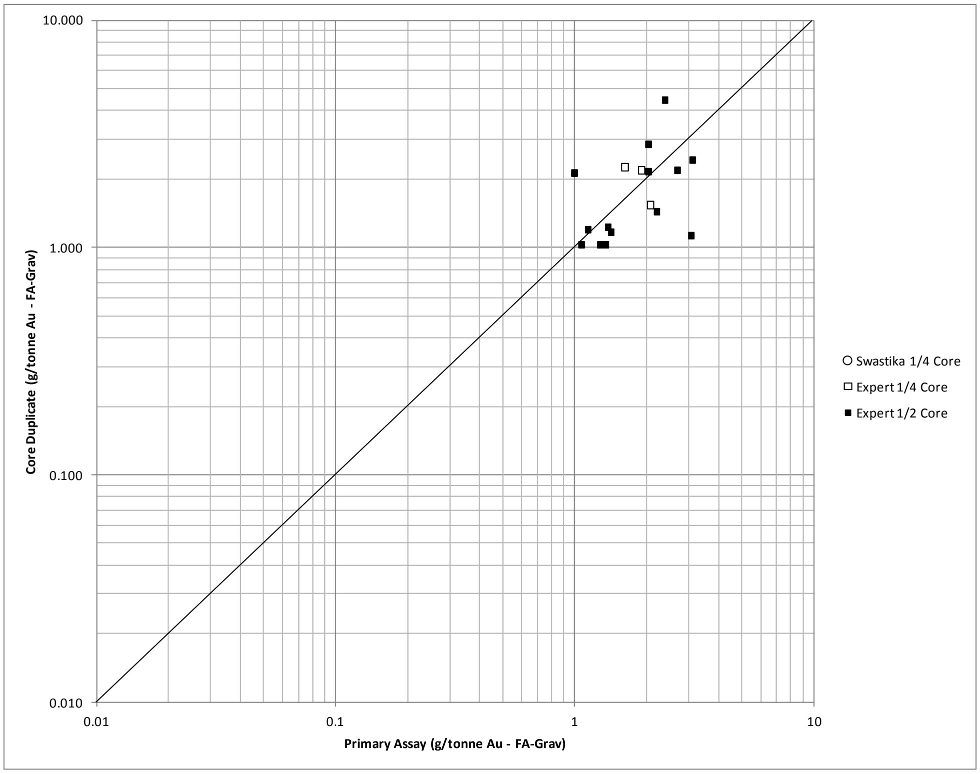


Figure 11-13: Plot of primary assays versus core duplicate assays (FA-Gravimetric)

Preparation Duplicates

Preparation duplicates are split after crushing; so much of the initial geological variability should be eliminated, resulting in better precision overall.

The Company has submitted a total of approximately 2,124 preparation duplicate samples in the 2010 and 2011 programs to date. Original analysis data vs. the preparation duplicate analysis data is plotted in Figure 11-14 and Figure 11-15. Any values that plot significantly away from the correlation line may indicate a potential nugget effect or, less likely sample preparation errors or analytical errors. Overall, the graph shows good correlation between the original samples and preparation duplicates.

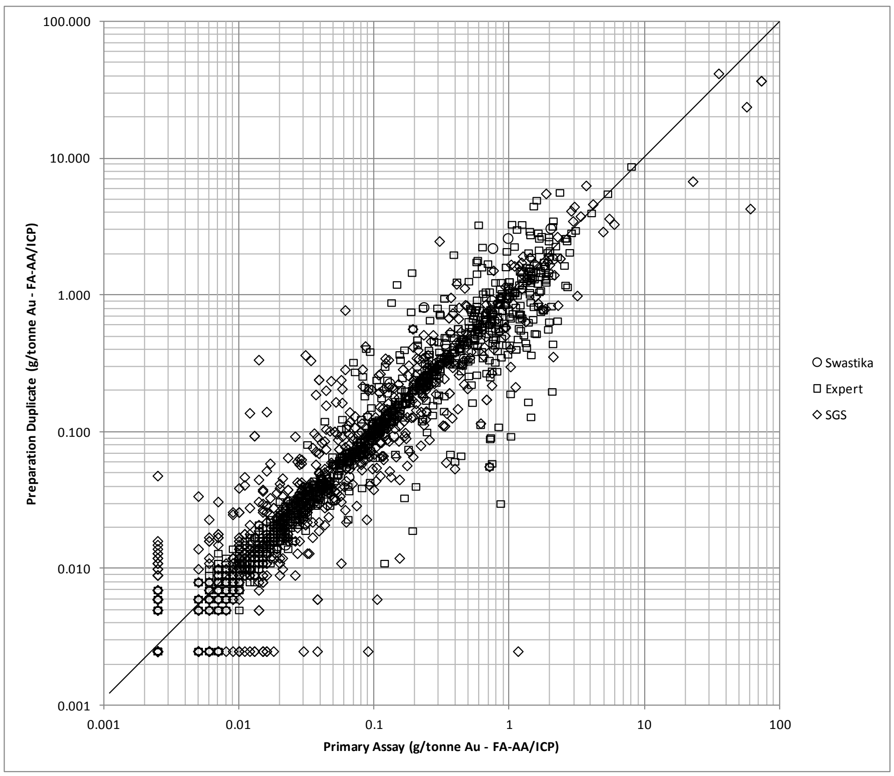


Figure 11-14: Plot of primary assays versus preparation duplicates (FA-AA)

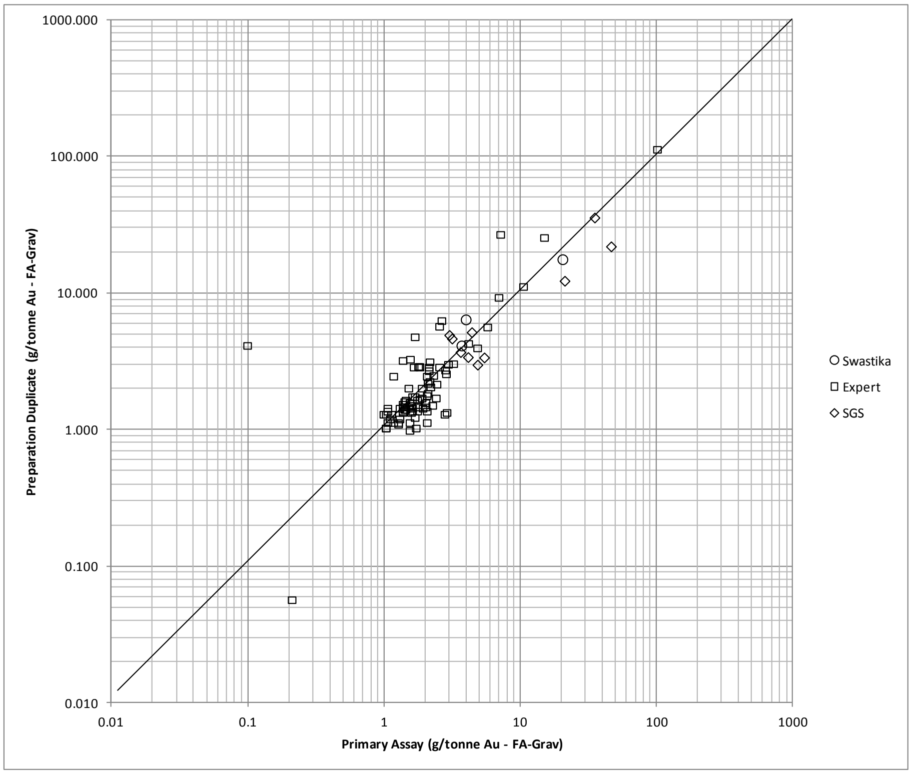


Figure 11-15: Plot of primary assays versus preparation duplicates (FA-GRAV)

Pulp Duplicate Check Analyses

In many QA/QC programs, pulp duplicates are also submitted for external check analyses at another laboratory to provide an independent check of relative bias and accuracy. In a routine quality control program approximately 5% of pulps may be submitted along with standard reference material to a second lab. Pulps are the preferred sample type as it eliminates much of the sampling error and provides a better comparison of the analyses.

Northern Gold has submitted a total of approximately 1,442 check samples (primary sample pulps) to date from the 2010 and 2011 drill programs to secondary labs.

Check (pulp duplicate) results are presented as a scatter plots (Figure 11-16 and Figure 11-17) and absolute relative percent difference (RPD) plot (Figure 11-18). The scatter plot is presented with log scales that provide detail at lower concentrations.

Absolute RPD is a measure of precision, calculated by:

$$RPD(\%) = \left[\frac{|(X_1 - X_2)|}{X_{ave}} \right] \times 100 \text{ where:}$$

X_1 = concentration observed in first analysis;
X_2 = concentration observed duplicate analysis; and
X_{ave} = average concentration = $((X_1 + X_2) / 2)$

A RPD of 0% is an optimum result where both the first and duplicate analyses have identical results and therefore perfect precision. The larger the RPD value, the greater the difference between the two analytical results and the poorer the precision.

Pulp duplicates are split after pulverising; so the initial geological variability in the sample should be eliminated, resulting in the best overall precision in comparison to ¼ or ½ core duplicates and preparation duplicates. Significant differences in pulp duplicate pairs may be an indication of errors in the sample preparation or analysis, a mix-up laboratory sample labeling or coarse gold / nugget effect.

The scatter plot generally shows significant scatter at grades less than approximately 1.0 g/tonne with better clustering about the 1:1 correlation line at higher grades (Figure 11-16). The check samples generally show poorer analytical precision at lower grades closer to the lower detection limit resulting in the large absolute RPD values (Figure 11-18). RPD values range up to greater than 190% at grades less than 0.7 g/tonne Au. At grades greater than 0.7 g/tonne Au the RPD values are less than 60% and with exception to one sample the values are less than 40% at grades greater than 1.4 g/tonne Au (Figure 11-18 and Figure 11-19).

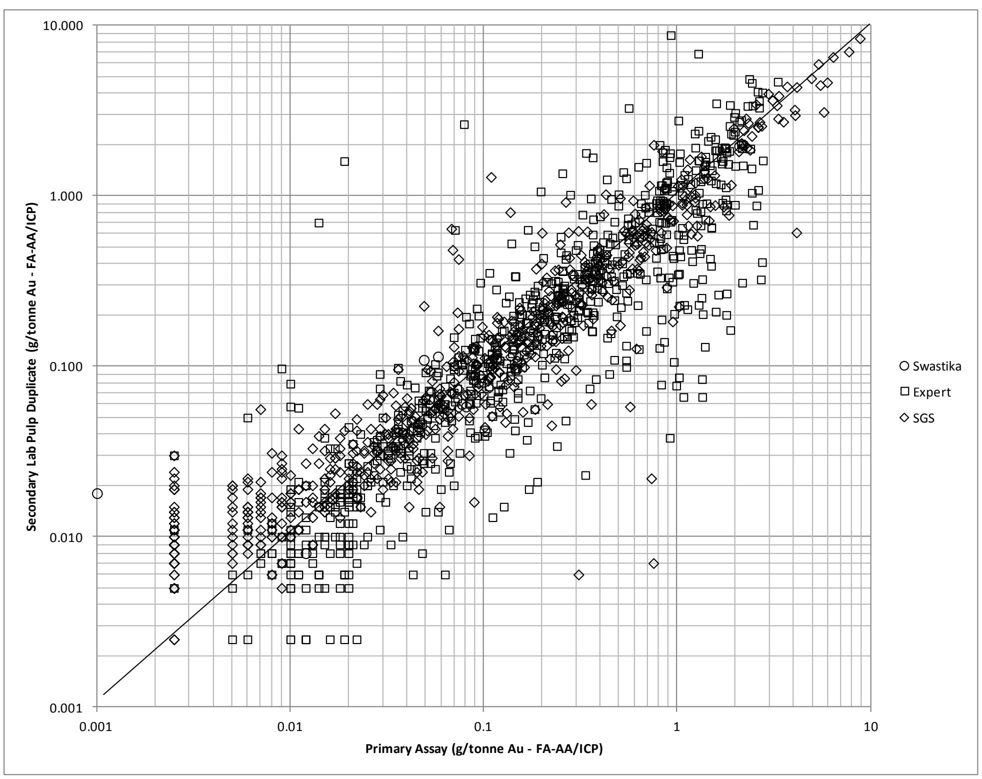


Figure 11-16: Pulp Duplicate Check Assay Scatter plot Comparison (FA-AA)

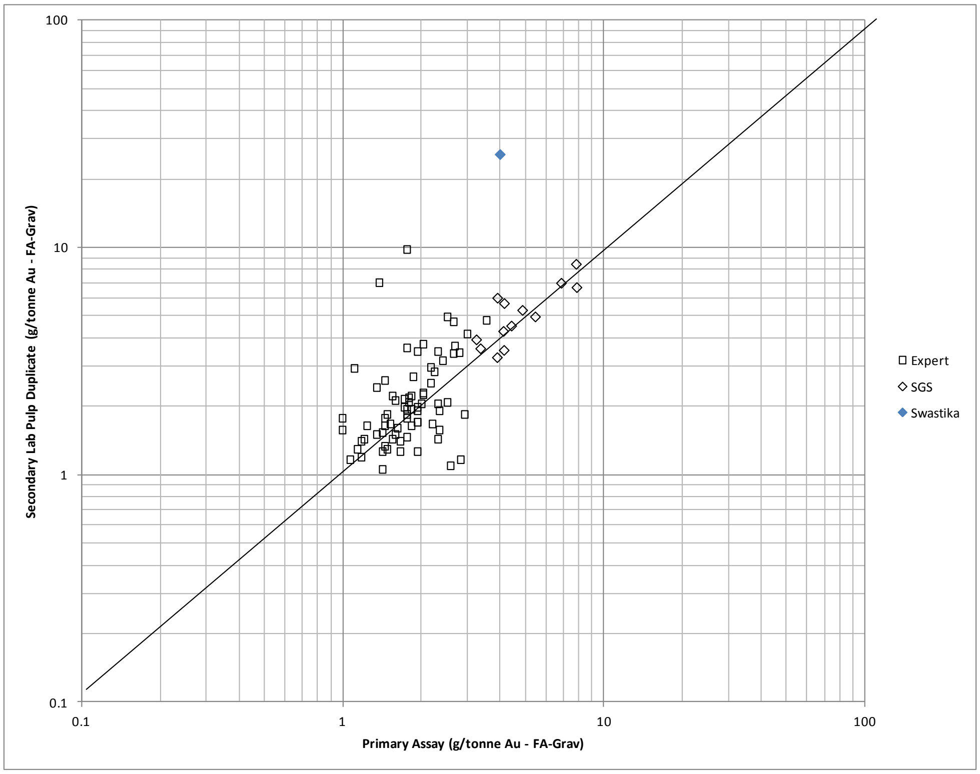


Figure 11-17: Pulp Duplicate Check Assay Scatter plot Comparison (FA-Gravimetric)

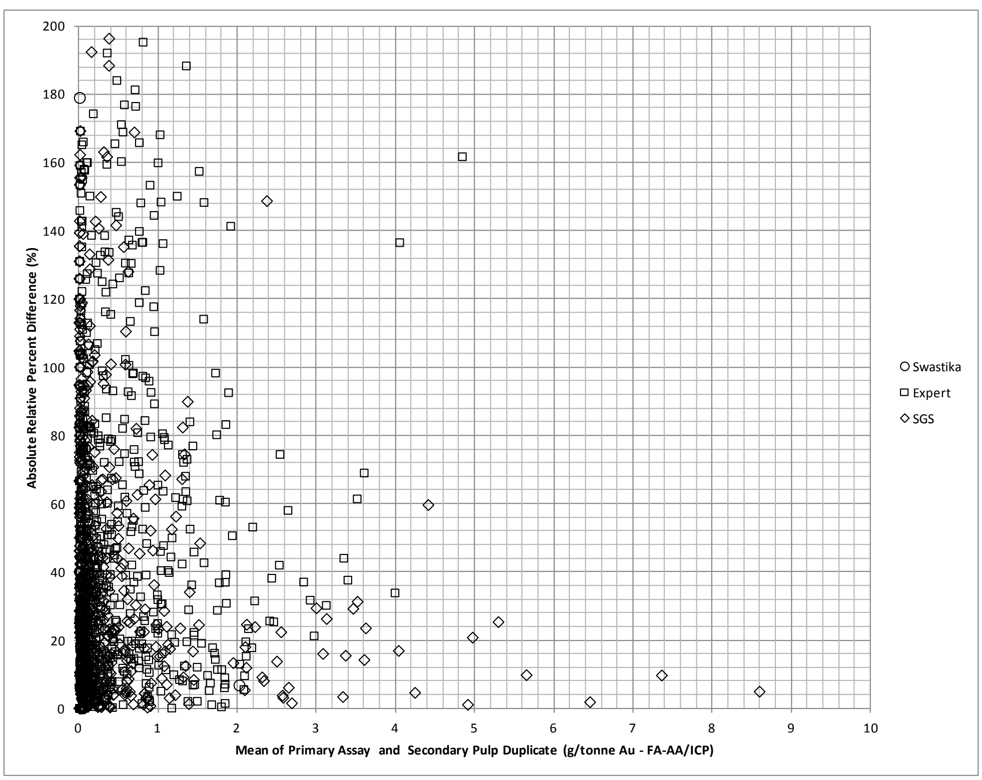


Figure 11-18: FA-AA Check Assay Absolute Relative Percent Difference (RPD) Plot

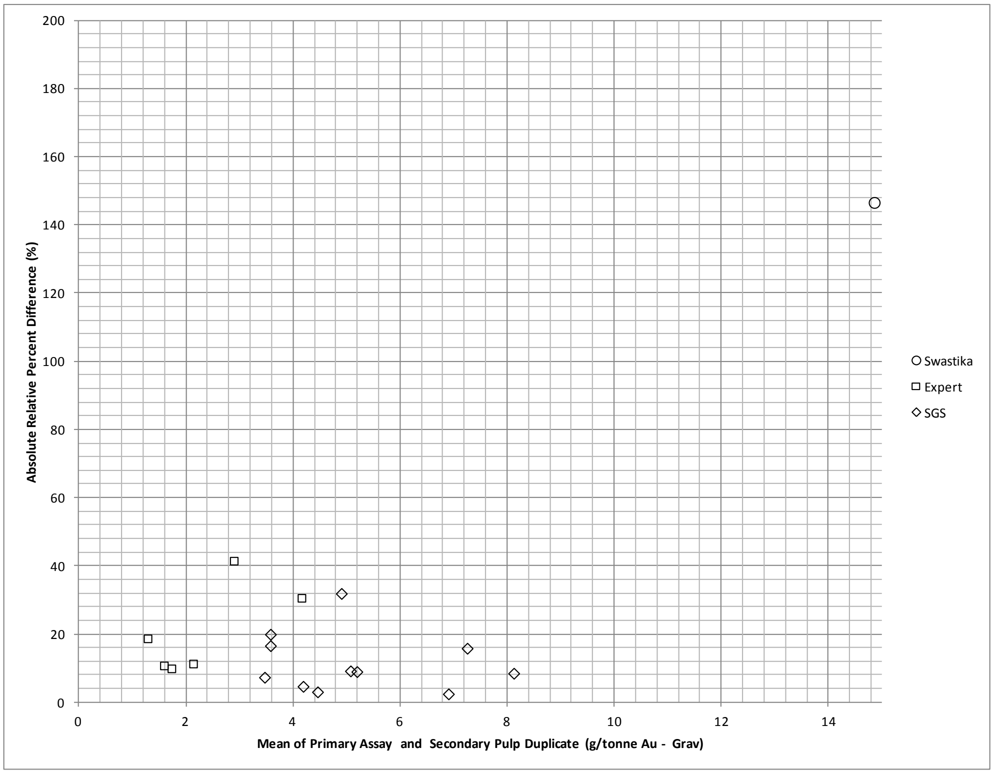


Figure 11-19: FA-Gravimetric Check Assay Absolute Relative Percent Difference (RPD) Plot

12 DATA VERIFICATION

12.1 ACA HOWE 2010 VERIFICATION

12.1.1 ACA Howe Site Visits

Confirmation of the existence of reported work sites was conducted by Howe representative and Co-author Mr. I. Trinder during his visit to the Property on July 12th, 2010 as part of Howe's due diligence in the preparation of its 2010 technical report (Roy and Trinder, 2010). Mr. Trinder completed an inspection of isolated surface outcrops, historic trenches, 2010 stripped areas and selected drill hole collars. The core logging / field office and sample preparation facilities were inspected. The condition of Company's onsite core storage racks and sample storage containers was checked and core from several holes was examined. All of the work sites and technical observations were as reported by the Company.

Mr. I. Trinder revisited the Property on January 21st, 2011 as part of Howe's due diligence in the preparation of Howe's 2011 technical report (Hannon, Roy and Trinder, 2011). Mr. Trinder completed an inspection of the diamond drill rigs and selected drill hole collars. The upgraded core logging / sample preparation facility and field office were inspected. The core from several holes was examined. All of the work sites and technical observations were as reported by the Company.

Mr. I. Trinder made a third visit to the Property on May 20, 2011 to review the results of the Photonic Knowledge's preliminary spectrographic core mapping program.

As part of the property visits, Mr. Trinder met with Mr. Michael Gross, Northern Gold's Vice President Exploration and Mr. Greg Matheson, Northern Gold's Project Geologist on July 12th 2010 at the Property site and on July 13th 2010 at the Company's Kirkland Lake office to discuss and review the Company's exploration activities, methodologies, data, results and interpretations. Further discussions and review were conducted on January 19th, 20th and 22nd, 2011 at the Kirkland Lake office.

Mr. Roy visited the Property site and Northern Gold's Kirkland Lake field office on April 12-14, 2012. During the office visit, Mr. Roy met with Mr. Michael Gross, Northern Gold's Vice President Exploration and Mr. Brian Madill, the Company's Supervisor - Computer Modeling and Lands to discuss the Company's exploration activities, methodologies, findings and interpretations. Mr. Roy completed a review of recent drilling on the Property, the drilling and sampling methodology, quality assurance and quality control procedures, security, etc. Mr. Roy conducted the site visit to the Property accompanied by Mr. Gross and Mr. Greg Matheson, the Company's Project Geologist to examine the Property area and ongoing exploration activities.

12.1.2 ACA Howe Verification Sampling

Howe conducted limited verification sampling during its 2010 site visit which included two rock samples from outcrop and six samples of quarter core from holes GAR-09-01 and GAR-09-06. Results are discussed in Howe's 2010 report (Roy and Trinder, 2010).

Howe conducted additional limited verification sampling during its January 2011 site visit which comprised four samples of half core from holes GAR-10-26 and GAR-10-39.

Mr. Trinder collected and sealed the sample bags with ladder lock ties and maintained possession of all samples until delivery by courier to SGS Canada's geochemistry lab at 1885 Leslie Street, Toronto, Ontario. SGS-Toronto is a reputable, ISO/IEC17025 accredited laboratory qualified for the material analysed. SGS quality control procedures are method specific and include duplicate samples, blanks, replicates, reagent / instrument blanks for the individual methods.

The samples were prepared using SGS sample preparation package PRP89, which consists of conventional drying if required, in 105^{o}C ovens; crushing; splitting and; pulverizing. After drying, the sample was passed through a primary oscillating jaw crusher producing material of 75% passing a 2mm screen. A 250-gram sub-sample was split from the crushed material using a stainless steel riffle splitter. This split was then ground to 85% passing 75 microns or better using a ring pulveriser.

The verification samples were analysed for gold using SGS analytical code FAI323 (Table 12-1).

Table 12-1: ACA Howe Verification Samples – SGS Analytical Method

Method code	**Description**	**Lower Detection Limit**
FAI323	Au fire assay; ICP finish, 30 g nominal sample weight.	>5 ppb Au

As with the 2010 verification samples, the 2011 duplicate core samples provide an independent confirmation of the presence of significant gold mineralisation at the Garrcon Deposit (Table 12-2). Data are too limited however, to make a meaningful comparison of Howe's duplicate sample analytical results with Northern Gold's original analytical results. Howe notes however, that the variations between the original and duplicate assay results are reasonable and are typical for gold exploration projects with coarse visible gold (nugget effect). The results do however confirm difficulty in assaying nugget gold mineralization and the requirement for duplicate samples to check precision/nugget effect.

Table 12-2: ACA Howe Duplicates *vs*. Original Samples

ACA Howe Sample #	ID	From	To	Zone	Sample Type	ACA Howe Au (ppb)	Northern Gold Sample #	Northern Gold Au (ave) (ppb)
ACA61661	GAR-10-26	66.0	67.0	Garrcon	1/2 core	665	61661	652
ACA61662	GAR-10-26	67.0	68.0	Garrcon	1/2 core	1290	61662	1704
ACA85378	GAR-10-39	220.0	221.0	Garrcon	1/2 core	1210	85378	360
ACA85381	GAR-10-39	221.0	222.0	Garrcon	1/2 core	13000	85381	1312
ACA10001	CDN-GS-5D Rec. Value: 5060 ppb Au				Standard	4910		

12.1.3 Database Verification

Howe compiled all of the drill hole information into digital spreadsheet files. The drilling data was imported to Micromine and the database files were validated. No significant errors were detected. All errors were corrected and documented. Unassayed drill hole intervals were assigned a grade of zero g/tonne Au.

Howe is of the opinion that the assay database for the Garrcon Deposit is of sufficient quality to provide the basis for the conclusions and recommendations reached in this Report.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Garrcon Deposit

13.1.1 Preliminary Metallurgical Studies

In late November 2010, Northern Gold submitted two composite samples (Sample A and Sample B) to SGS Mineral Services (SGS), P.O. Box 4300, 185 Concession Street, Lakefield, Ontario to evaluate the processing and recovery characteristics of the Garrcon gold-bearing mineralization at a scoping level. The program incorporated ore characterization tests (head analysis and mineralogy), comminution tests as well as the evaluation of a number of processing options, including gravity separation, flotation and cyanidation.

Northern Gold indicates that the samples were obtained from diamond drill core logged and assayed during its 2009 and 2010 drilling programs. One composite sample (Sample A) was obtained from the mineralized area known as the Shaft Zone and the other (Sample B) was obtained from the mineralized area known as the North Zone. Each sample consisted of approximately 60 kilograms of archived 1/2 drill core splits. Individual sample lengths varied from 0.5 meters to 1.0 meter. The samples were selected from 10 different drill holes, five in each of the mineralized zones. The Shaft Zone composite sample included material from 32 different locations within the five drill holes. The North Zone composite sample included mineralized material from 30 separate sample intervals within the five drill holes sampled. Northern Gold notes that the samples were typical of the lithologies, alteration and mineralization logged and assayed to date.

The following description of test results is extracted from the Executive Summary of SGS' final report dated January 31, 2011 (SGS Mineral Services, 2011).

"The average calculated gold head assay from the testwork for the two samples was 1.06 g/tonne for Sample A and 1.73 g/tonne for Sample B. The sulphur content of the two samples was 0.56% for Sample A and 0.25% for Sample B. The samples were also submitted for Bond ball mill grindability and abrasion index tests. Both samples were characterized as hard to very hard with BWI values of 21.9 and 21.6 kWh/t, respectively. The samples also fell into the abrasive range with abrasion indices (Ai) of 1.161 and 0.878.

The test program included a number of standard gold processing options including; gravity separation, flotation and cyanidation. Gravity separation tests yielded gold recoveries of approximately 32% and 30% for Samples A and B respectively.

Sample A gravity tailing and whole ore flotation testwork achieved gold recoveries of approximately 94% independent of the grind size which was varied from ~131 µm to ~45 µm. Sample B gravity tailing flotation testwork did not achieve as high recoveries with values ranging from approximately 81% to 89%. There was also a direct correlation between increased gold recovery and finer grind size shown in the Sample B gravity tailing flotation testwork.

Cyanidation test results on gravity tailings and whole ore were excellent for both samples. Gold recoveries ranged from ~94% to 97% in the tests conducted on the gravity tailings and ~93% to 98% for the whole ore samples. Given the degree of gravity recoverable gold, inclusion of a gravity circuit within the process flowsheet is recommended even though the whole ore cyanidation results were comparable to gravity tailings results. Single carbon-in-leach tests were performed on both samples and there was no indication of preg-robbing.

Cyanidation tests were also conducted on the flotation concentrate to evaluate the effect of regrinding. The gold recoveries did increase when the flotation concentrate was reground prior to leaching. Overall gold recoveries by flotation and concentrate cyanidation for Samples A and B were lower than the other test options with gold recoveries of 92% and 86%, respectively."

SGS concluded that the results from the study indicated that the process flowsheet should focus on gravity separation and gravity tailing cyanidation. SGS noted that further testwork to optimize the design parameters is required so that an optimum process flowsheet can be developed. Flotation conditions and parameters would need to be studied further in order to increase flotation recovery to include this type of processing in the flowsheet.

13.1.2 Howe Discussion

Howe's 2011 Garrcon PEA is based on limited test work and site knowledge. In addition to the preliminary SGS metallurgical studies, Howe was provided geologic information in the form of drill logs describing the lithologies, alteration, veining and the homogeneity of the mineralized area along with fire assays, multi-element analyses and sulphur analysis. While this geological and analytical information cannot replace metallurgical testing, it can suggest potential processing techniques. This geologic information, along with the limited test work performed to date suggest that the processing scenario outlined in Section 17, or a similar one, may potentially provide a satisfactory method for recovering gold from the deposit. The suggested processing scenario must be verified, with the support of additional test work, for incorporation into a future pre-feasibility study. This PEA study is to be used for initial cost estimations only.

The SGS report indicates good gold recovery with cyanide. Additional test work is necessary to confirm recovery and the optimum mineral processing flow sheet. At this level, Howe is assuming a recovery of 98% for the processing plant based on the SGS testwork. A recovery of 65% for a heap leach facility was assumed as no column tests have yet been conducted to determine recovery rates. Slightly lower recoveries would have an insignificant impact on the overall capital and operating costs of the circuits analyzed.

14 MINERAL RESOURCE ESTIMATE

14.1 INTRODUCTION

The resource estimate was prepared in accordance with CIM Standards on Mineral Resources and Reserves[5] where:

- A *Measured Mineral Resource*, as defined by the CIM Standing Committee is “that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.”

- An *Indicated Mineral Resource* as defined by the CIM Standing Committee is “that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonable assumed.” And,

- An *Inferred Mineral Resource* as defined by the CIM Standing Committee is “that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, working and drill holes.”

A *Mineral Reserve* is “the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study.” This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.

- A *Probable Mineral Reserve* is “the economically mineable part of an Indicated, and in some circumstances a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on

[5] CIM Definition Standards - For Mineral Resources and Mineral Reserves, adopted November 27, 2010

mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified."

- A *Proven Mineral Reserve* is "the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors."

Classification, or assigning a level of confidence to Mineral Resources, has been undertaken in strict adherence to the CIM Definition Standards for Mineral Resources and Mineral Reserves.

Only mineral resources were identified in this report. No economic work that would enable the identification of mineral reserves was carried out. In other words, no mineral reserves were identified.

Howe is unaware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that may materially affect the Garrcon and Jonpol mineral resource estimates.

14.2 GARRCON MINERAL RESOURCE ESTIMATE UPDATE

14.2.1 Introduction

During January-February 2012, ACA Howe International Limited ("Howe") carried out a resource estimate update for Northern Gold's Garrison Project, Garrcon Zone. The resource estimate includes holes up to Hole GAR-11-180, drilled during December 2011.

This resource estimate was prepared by Doug Roy, M.A.Sc., P.Eng., Associate Mining Engineer with Howe. Ian Trinder, M.Sc. P.Geo., Senior Geologist with Howe assisted with the geological interpretation of the deposit. Micromine software (Version 2011) was used to facilitate the resource estimating process.

14.2.2 Data Sources

Howe's previous 2011 resource estimate included drill holes up to GAR-11-74 – the most recently drilled hole for which assay data was available at the time of that mineral resource estimate. For the current resource update, Northern Gold provided data from the remainder of the 2011 drilling program in Excel spreadsheet format. The following files were supplied:

Description	Includes Information for Holes:	Destination Micromine File
Collar survey information.	GAR-11-92 to 126 GAR-11-130 to 138 GAR-11-140 to 152 GAR-11-154 GAR-11-160 to183 GAR-11-190 to191	Collars.dat
Downhole survey information.	GAR-11-91 to 121 GAR-11-123 to125 GAR-11-131 to138 GAR-11-140 to 150 GAR-11-152 GAR-11-160 to 162 GAR-11-164 GAR-11-174 to177 GAR-11-183	Dhsurvey.dat
Lithologic description of the core.	GAR-11-96 to 97 GAR-11-99 to100 GAR-11-102 to126 GAR-11-130 to 138 GAR-11-140 to152 GAR-11-154 GAR-11-160 to 183 GAR-11-190 to191	Lithology.dat
Sample assay intervals and results.	GAR-11-75 to 126 GAR-11-130 to138 GAR-11-140 to152 GAR-11-160 to 167 GAR-11-170 to178 GAR-11-180	Assays.dat

Although collar information was available for 2011 holes up to GAR-11-191 at the time of the cut-off date for the estimate, other information (such as assays) were not yet available/completed for some of the more recently drilled holes. This resource estimate is current up to Hole GAR-11-180, drilled during December 2011 – the most recently drilled hole for which assay data was available at the time of the mineral resource estimate. Note however that assays were not available for four (4) 2011 holes (GAR-11-154, GAR-11-168 to 169 and GAR-11-179) either because the holes were not yet drilled or sampled, or the assays results were not yet received from the laboratory.

The data was imported to Micromine and merged with the existing data files.

The data was validated – checked for logical or transcription errors such as overlapping intervals. There were a few, very minor errors that were corrected.

14.2.3 Site Grid Transformation

Hole collar coordinates were accurately surveyed using a differential GPS instrument in UTM NAD 83 coordinate system. The site grid baseline is 20° counter-clockwise from true east (UTM NAD 83). The site baseline origin (0 m East, 1000 m North) is located at the UTM NAD 83 coordinates (579,771.050 m East, 5,374,368.207 m North).

14.2.4 Mineralised Zone Interpretation

Mineralised zones were outlined to enforce geological control during block modeling.

Because of the larger scale and lower grade nature of the mineralisation, the deposit was modeled with consideration of the use of larger scale, surface mining methods.

The following guidelines were used during the interpretation process:

1. A cut-off grade of 0.1 g/tonne gold was generally used. Cut-off grades are further discussed in Section 14.11.
2. Along strike, zones were extended halfway to the next, under-mineralised cross-section.
3. Zones were extended down-dip by a maximum of 100 metres beyond the last intercept – approximately double the semi-variogram range (refer to Figure 14-7).
4. Zones were allowed to extend through "below cut-off" intercepts so long as there was a "geological reason" to do so.

The main zone was constrained to the south by Porcupine-Destor Fault which is delineated by ultramafic and chlorite talc schists. Similarly there appears to be a smaller more limited ultramafic body bounding the mineralisation to the north.

Within the main Garrcon Zone, the drilling density is now such that higher grade and lower grade areas are apparent. Higher grade areas were outlined and treated as a separate domain.

The Green Zone, not outlined in previous resource estimates, is modeled as a separate domain at the eastern end of the deposit, north of the ultramafics that bound the Garrcon Zone to the north..

Interpretations were accomplished by plotting and interpreting hard-copy cross-sections (refer to Table 14-1 for cross-section definitions; refer to Figure 14-3 for cross-sections). The geological interpretations were digitised and zone intercepts were tagged.

Figure 14-1 shows a plan view of the Garrcon drilling and Figure 14-2 shows a three-dimensional (3-D) view of the interpreted zones.

Table 14-1: Cross-section definitions.

Number	Section (Current Site Grid)	Name	Facing	Towards the Viewer	Away from Viewer	Width	Zone
1	-1550	1550W	West	25	50	75	Garrcon
2	-1500	1500W	West	25	25	50	Garrcon
3	-1450	1450W	West	25	25	50	Garrcon
4	-1400	1400W	West	12.5	25	37.5	Garrcon
5	-1375	1375W	West	12.5	12.5	25	Garrcon
6	-1350	1350W	West	12.5	12.5	25	Garrcon
7	-1325	1325W	West	12.5	12.5	25	Garrcon
8	-1300	1300W	West	12.5	12.5	25	Garrcon
9	-1275	1275W	West	12.5	12.5	25	Garrcon
10	-1250	1250W	West	12.5	12.5	25	Garrcon
11	-1225	1225W	West	12.5	12.5	25	Garrcon
12	-1200	1200W	West	12.5	12.5	25	Garrcon
13	-1175	1175W	West	12.5	12.5	25	Garrcon
14	-1150	1150W	West	25	12.5	37.5	Garrcon
15	-1100	1100W	West	25	25	50	Garrcon
16	-1050	1050W	West	25	25	50	Garrcon
17	-1000	1000W	West	12.5	25	37.5	Garrcon
18	-975	975W	West	12.5	12.5	25	Garrcon
19	-950	950W	West	25	12.5	37.5	Garrcon
20	-900	900W	West	25	25	50	Garrcon
21	-850	850W	West	25	25	50	Garrcon
22	-800	800W	West	25	25	50	Garrcon
23	-750	750W	West	25	25	50	Garrcon
24	-700	700W	West	25	25	50	Garrcon
25	-650	650W	West	25	25	50	Garrcon
26	-600	600W	West	25	25	50	Garrcon
27	-550	550W	West	25	25	50	Garrcon
28	-500	500W	West	25	25	50	Garrcon
29	-450	450W	West	25	25	50	Garrcon
30	-400	400W	West	25	25	50	Garrcon
31	-350	350W	West	25	25	50	Garrcon
32	-300	300W	West	25	25	50	Garrcon
33	-250	250W	West	25	25	50	Garrcon
34	-200	200W	West	25	25	50	Garrcon
35	-150	150W	West	50	25	75	Garrcon

14.2.5 Internal Waste Zones

There were a few small internal waste zones that appeared on Sections 750 West to 850 West. They consisted of south-dipping, relatively narrow dykes.

The zones were outlined on section, then "extruded half-way to the adjacent cross-sections. These wireframes were used to assign "waste" codes to the blank block model.

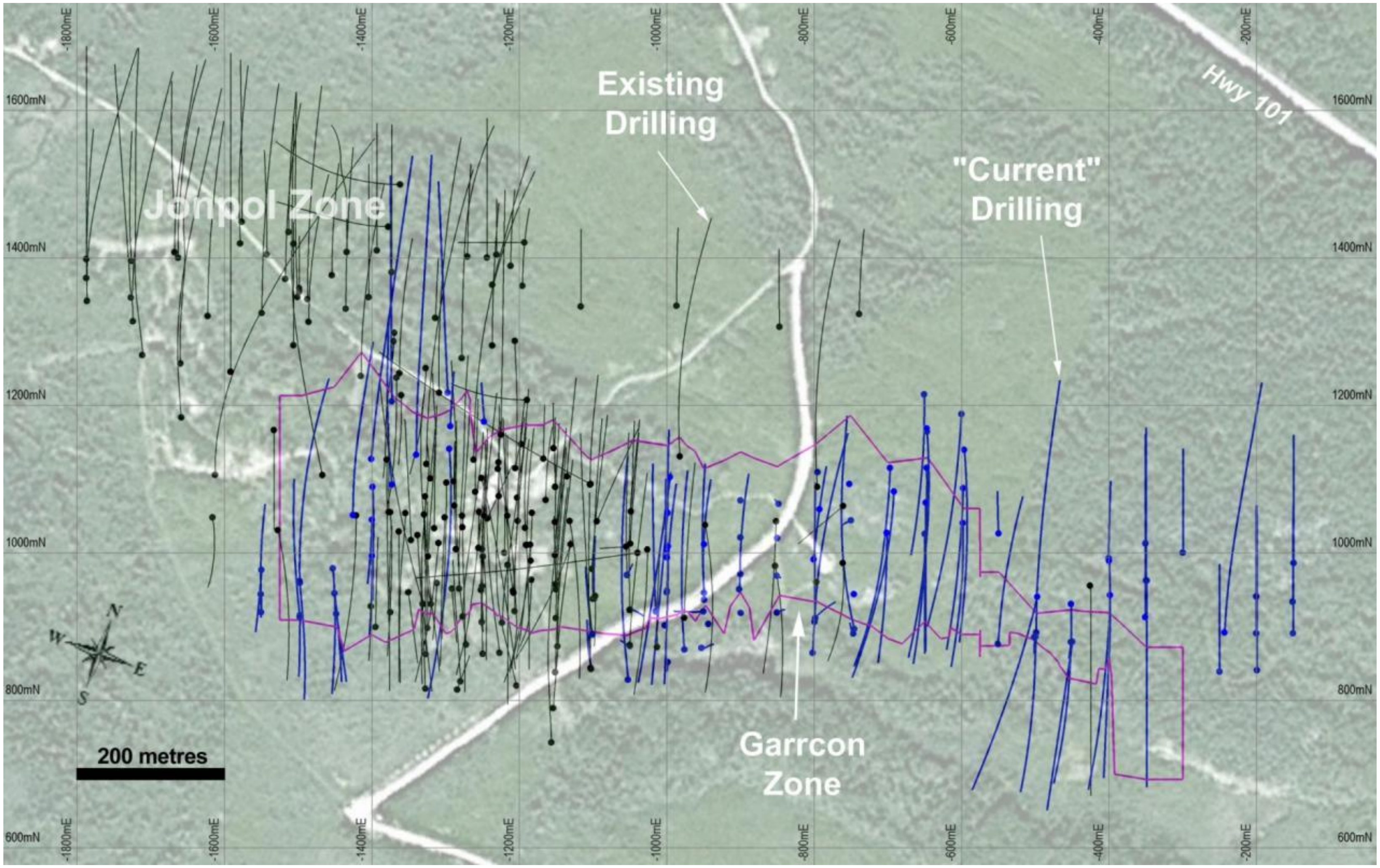


Figure 14-1: Plan view of drilling and mineralised zones (local site grid coordinates)

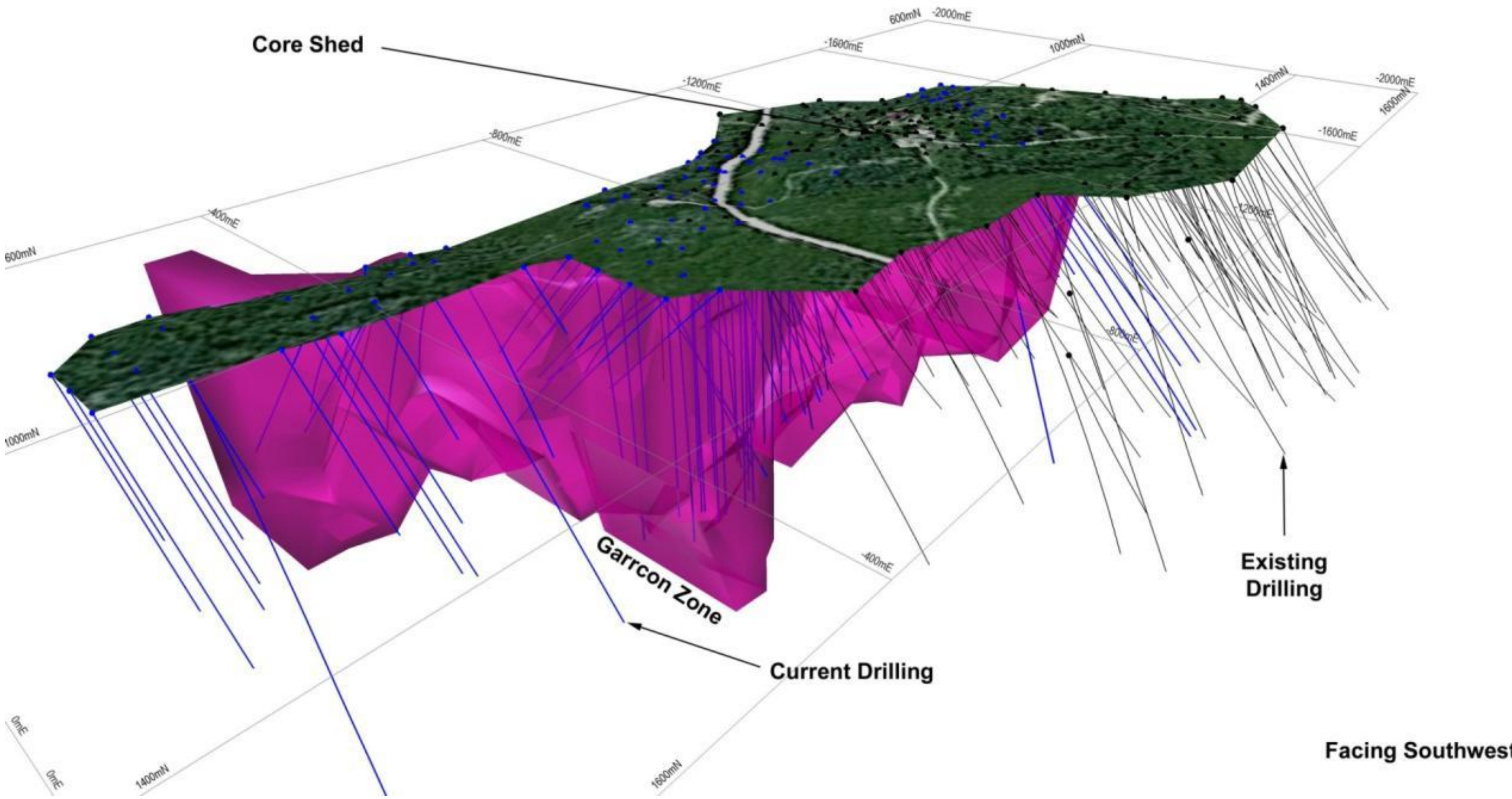


Figure 14-2: 3-D view of the Garrcon zone

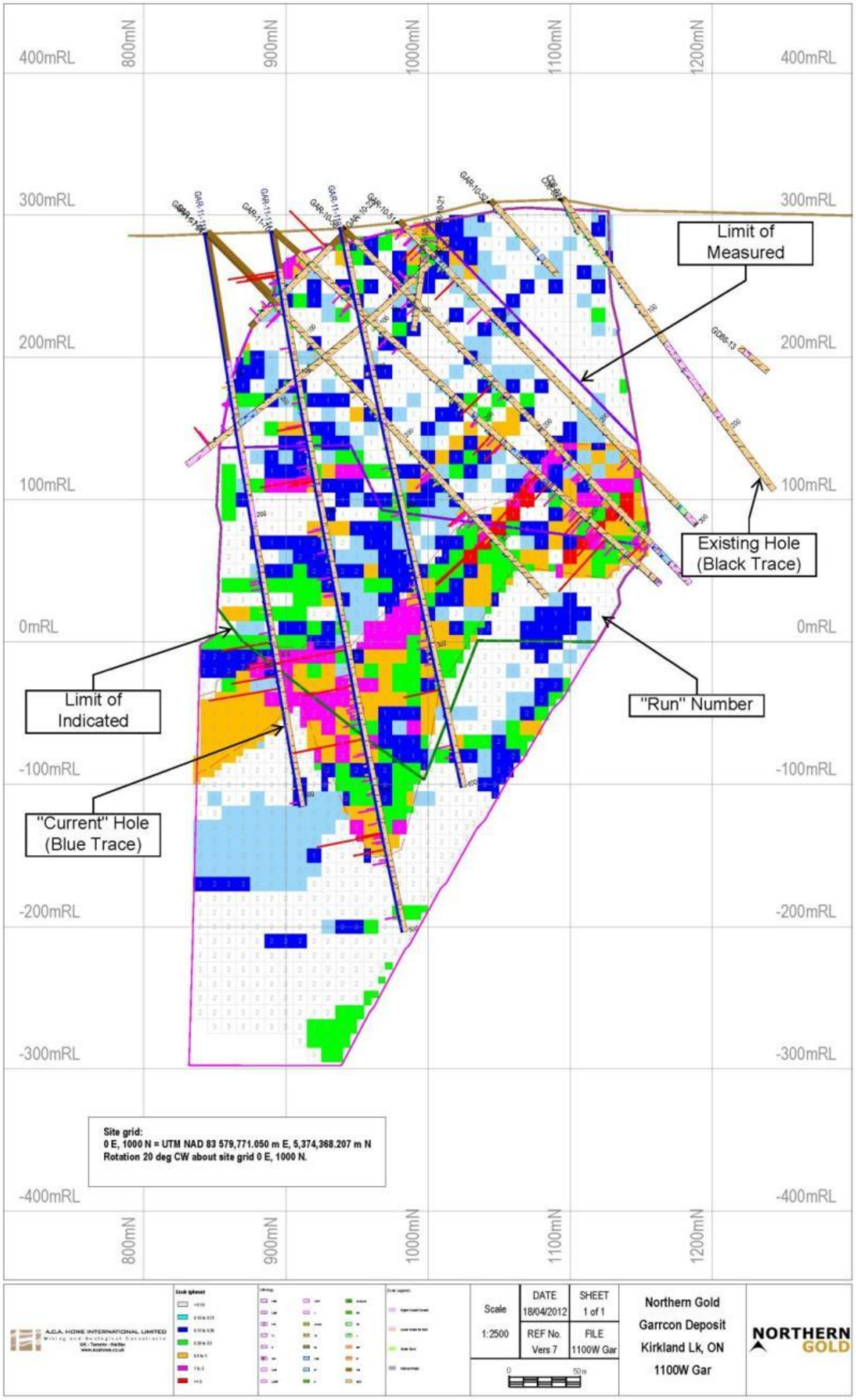


Figure 14-3: Cross-sections.

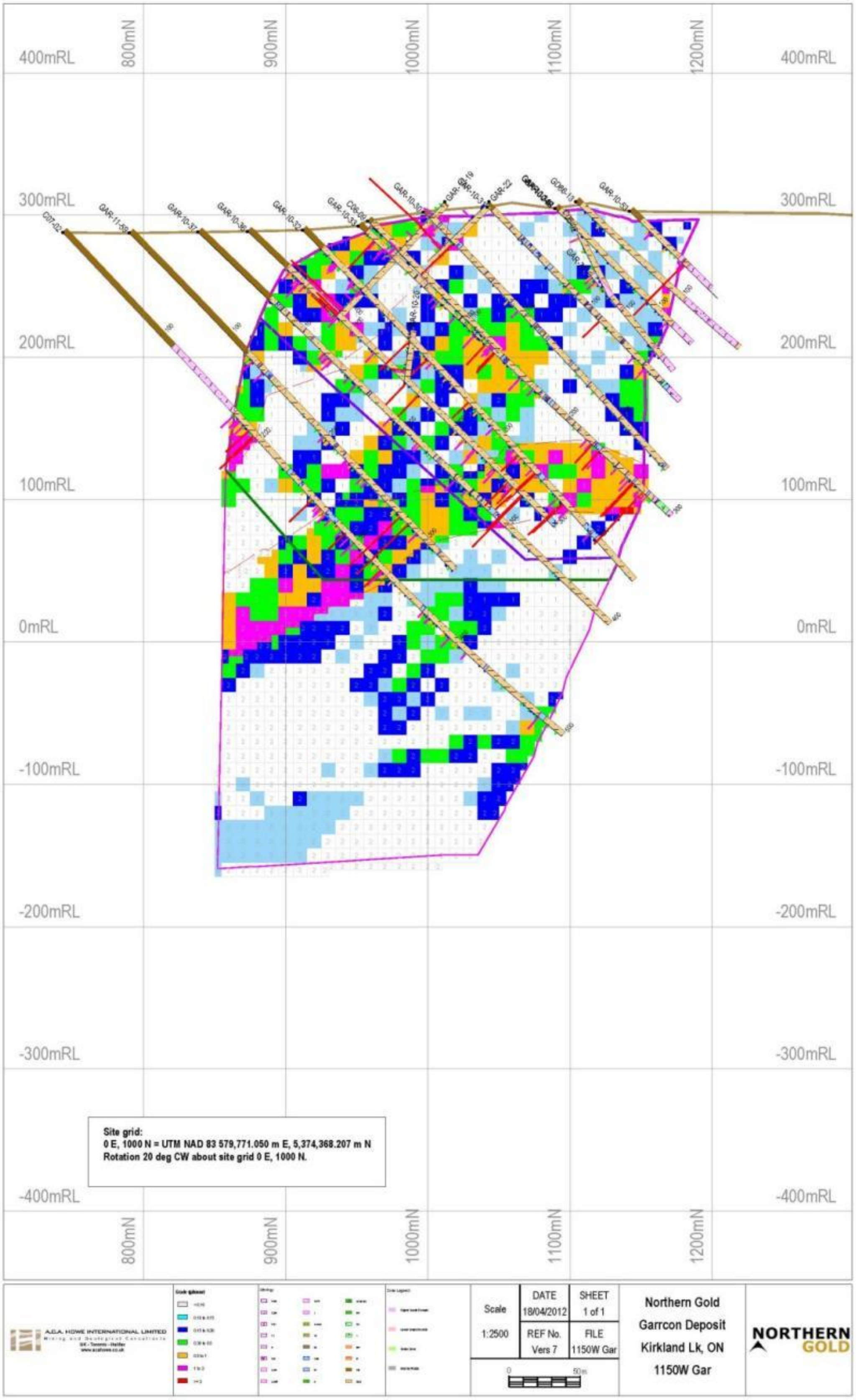


Figure 14-3 continued

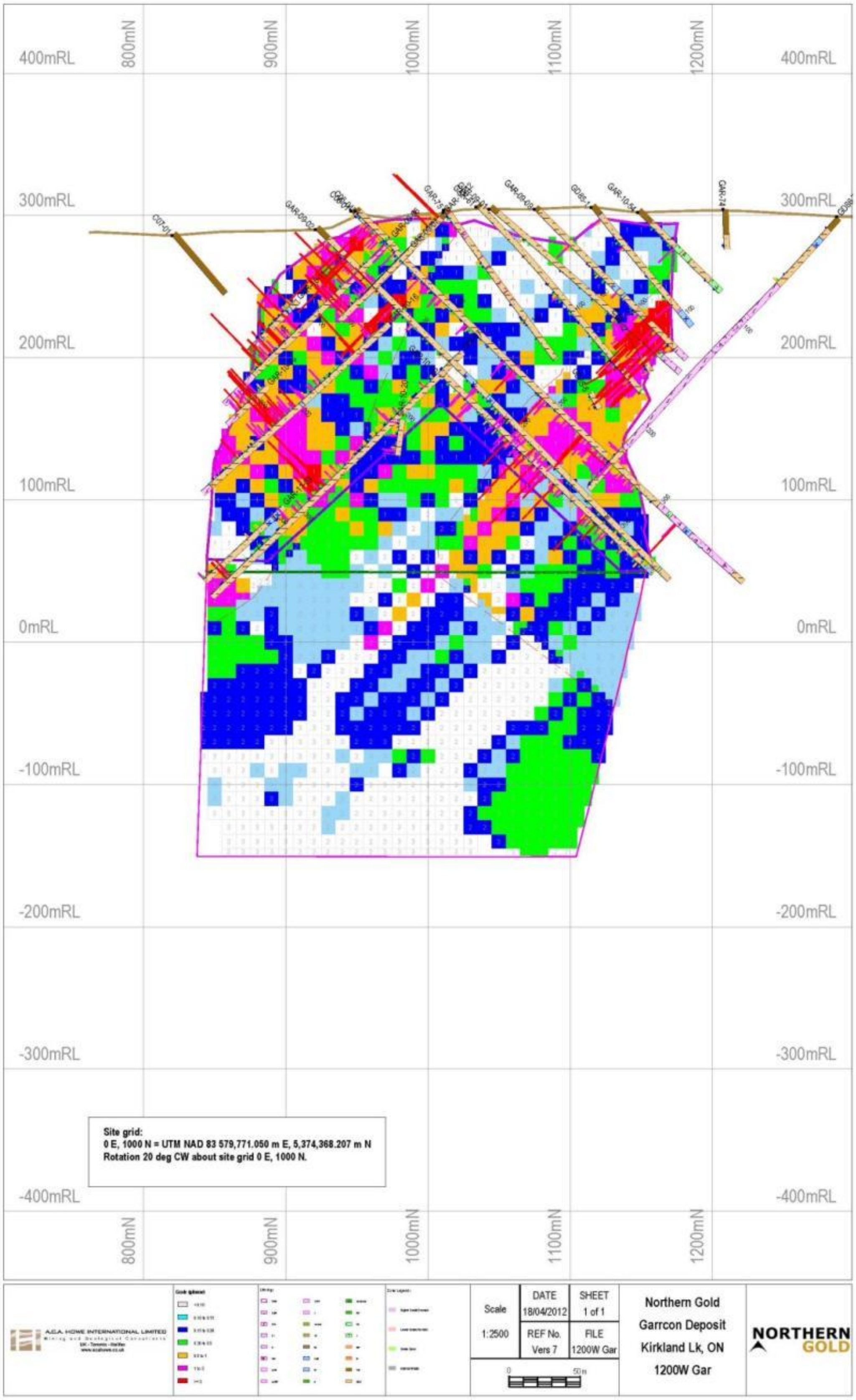


Figure 14-3 continued

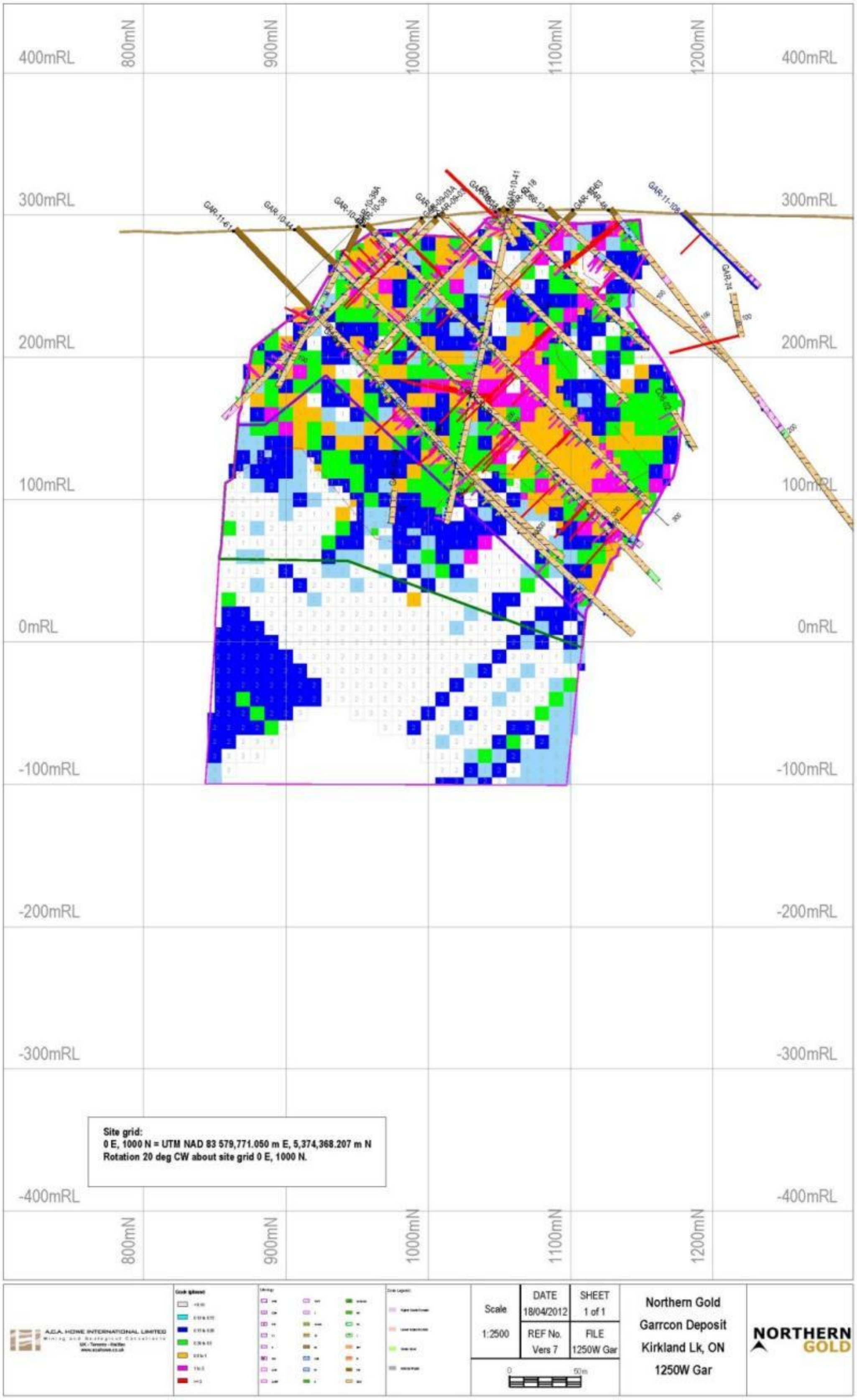


Figure 14-3 continued

14.2.6 Sample Regularising/Compositing

For analysing sample statistics and for grade estimation, sample lengths were regularised over 1 metre intervals.

14.2.7 Sample Statistics

Statistics were calculated for regularised samples within the main mineralised zone (refer to Figure 14-4).

Lower Grade Domain, 1 metre Composites:

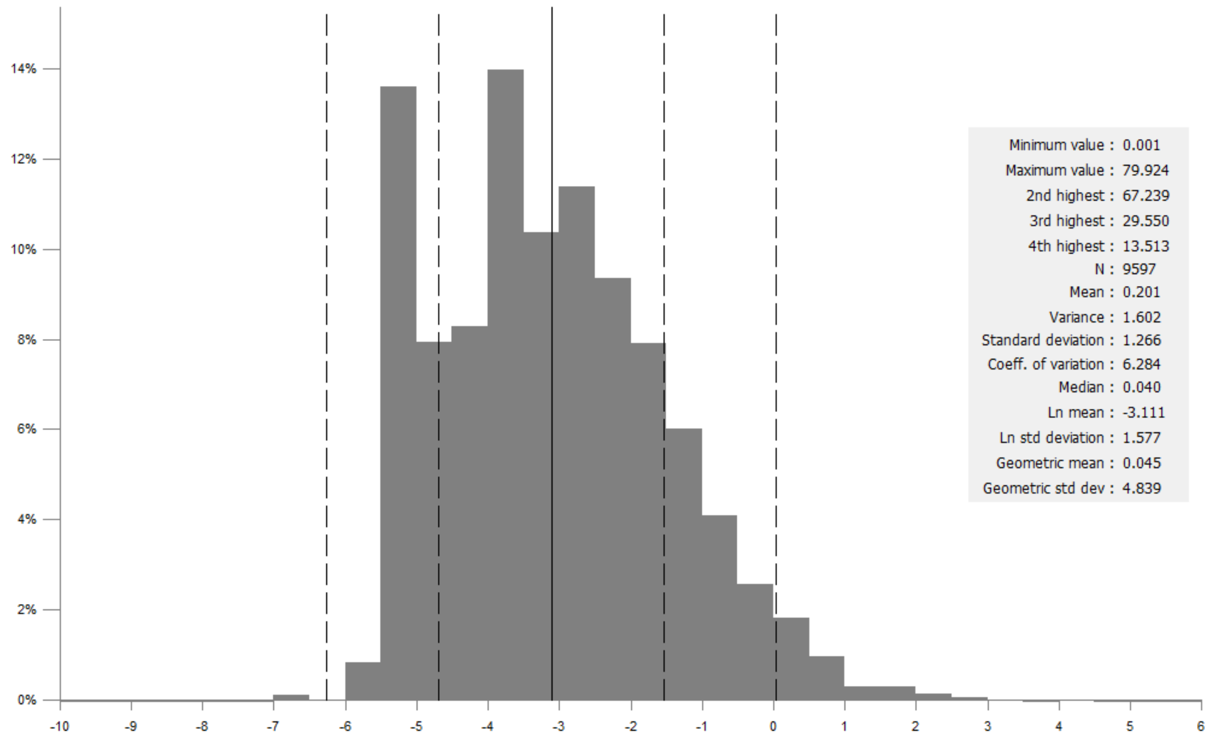


Figure 14-4: Sample statistics for the main mineralised zone (natural log of regularised samples).

Higher Grade Domain, 1 metre Composites:

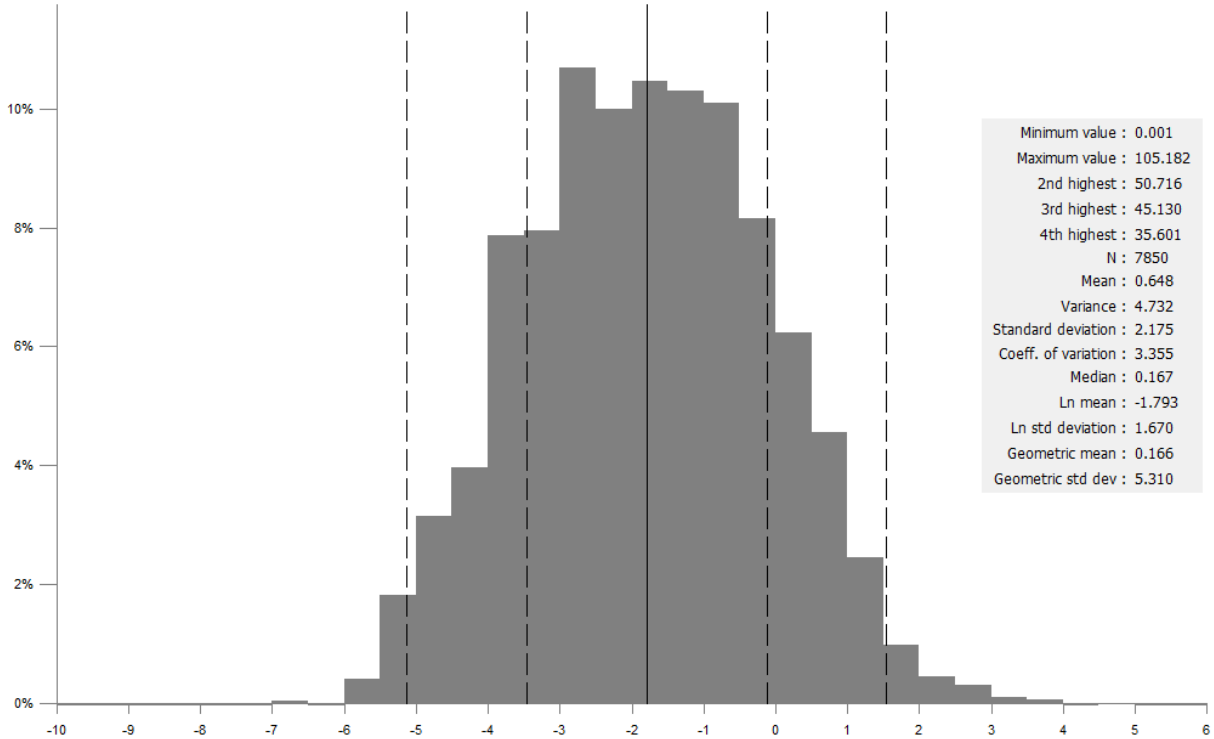
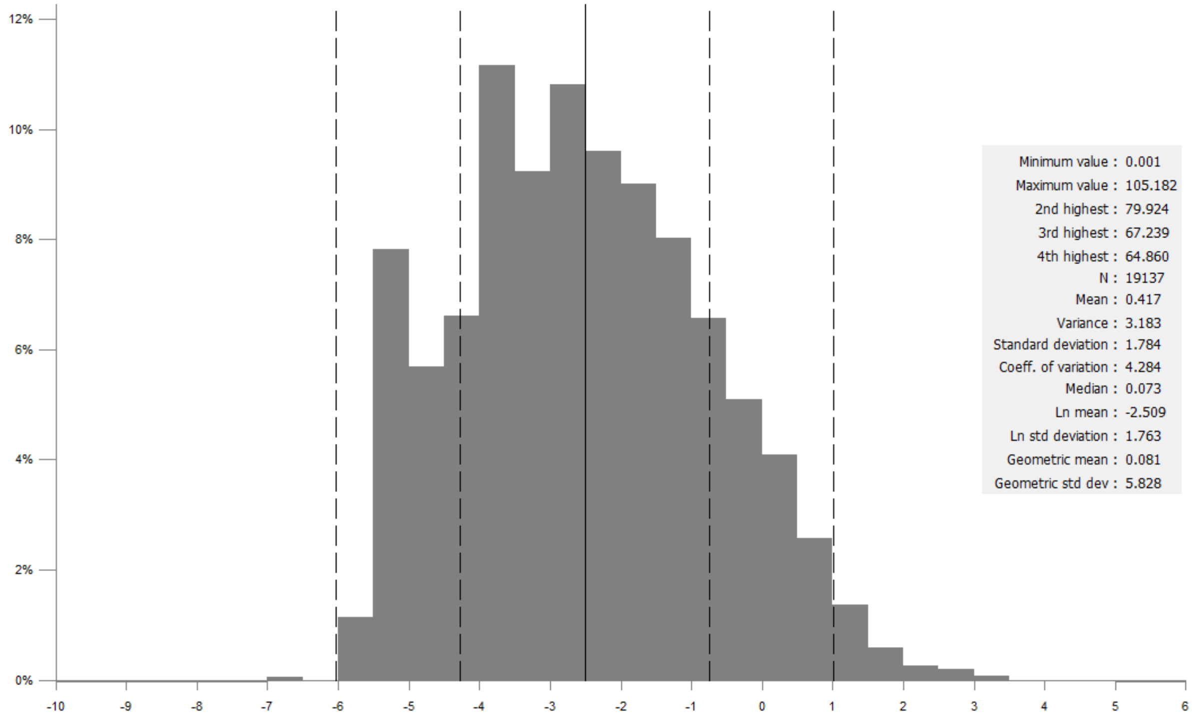


Figure 14-4 **Continued**

Existing Drilling (previously included in 2011 resource estimate):



Current Drilling (new drilling added to 2012 resource estimate update):

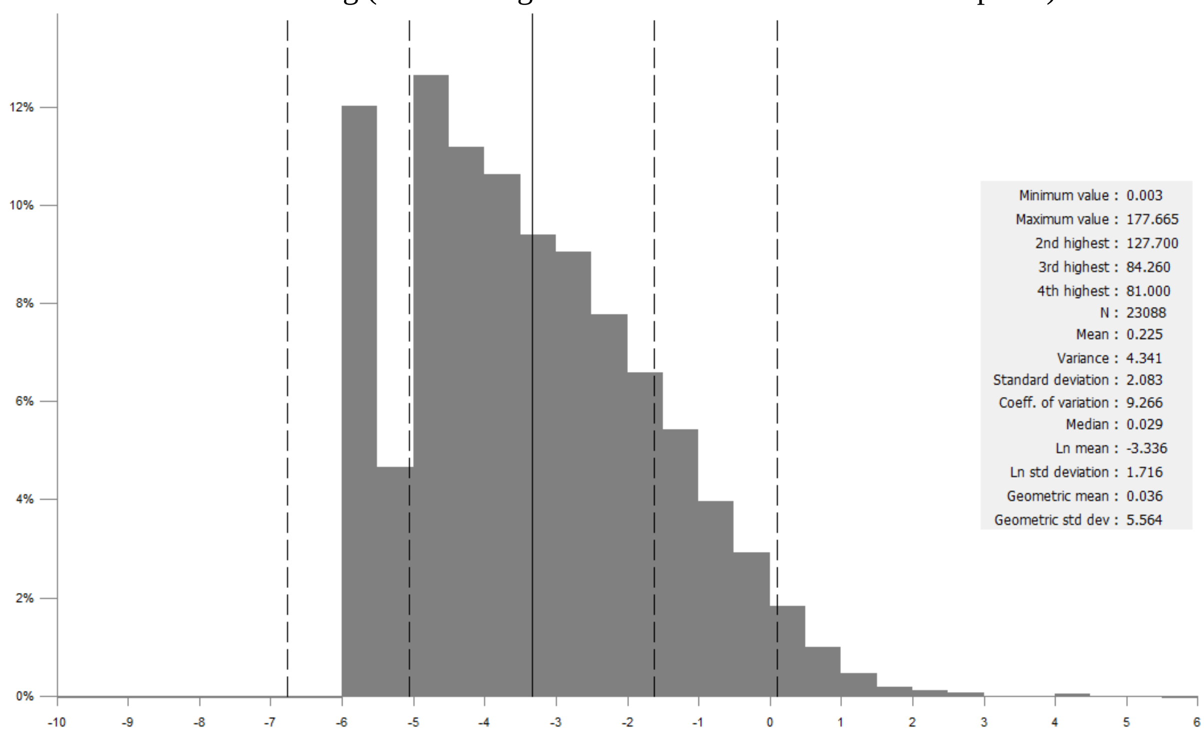


Figure 14-5: Statistical comparison between "current drilling" and "existing drilling."

All Drilling (All drill holes up to GAR11-180):

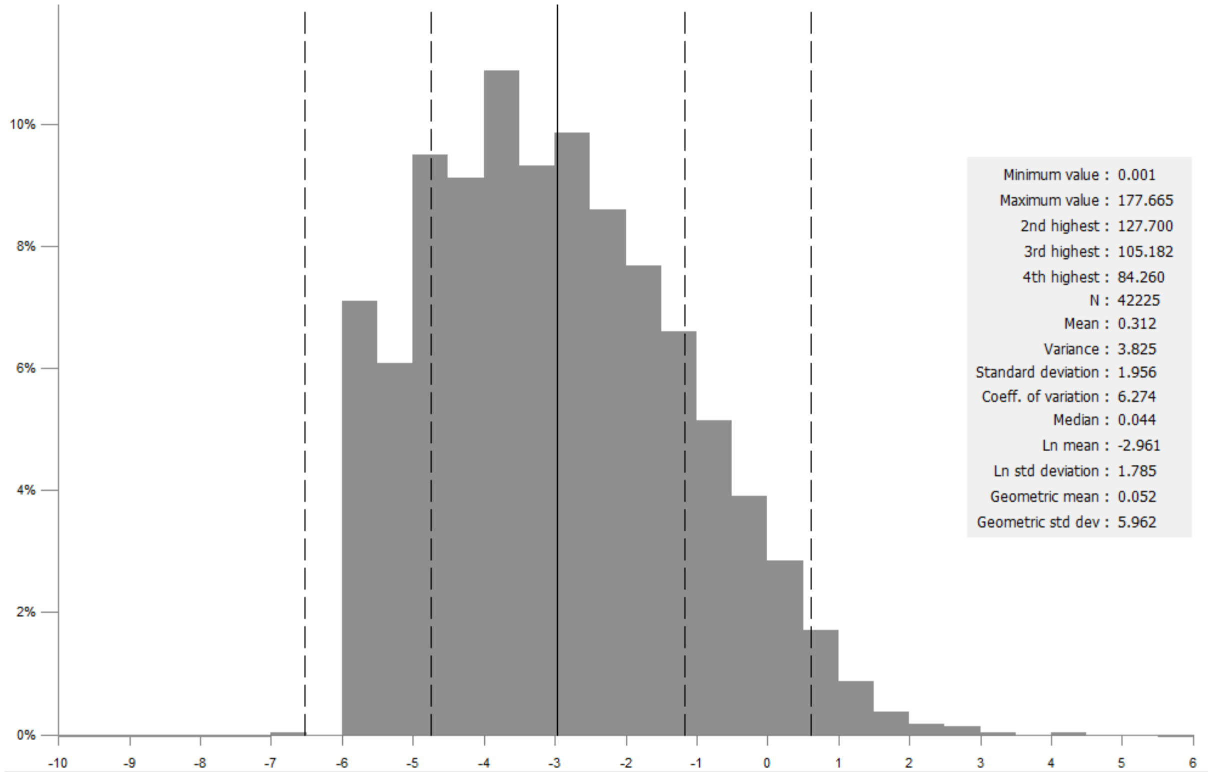


Figure 14-5 Continued: Statistical comparison between "current drilling" and "existing drilling

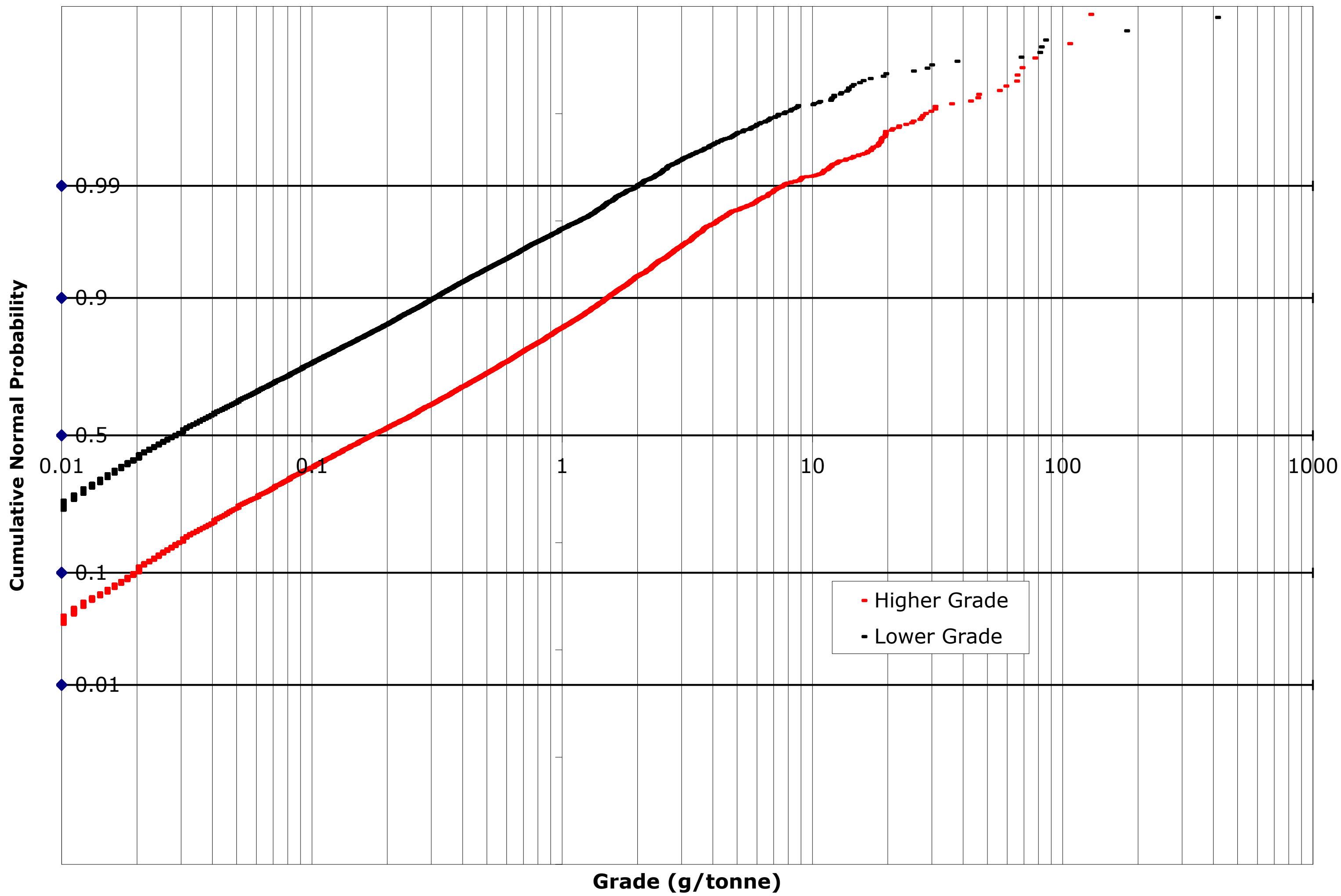


Figure 14-6: Probability plots for the higher grade and lower grade domains.

14.2.8 Specific Gravity

Based on 1,174 measurements, specific gravity ("SG") values for each zone were as follows:

Zone	Specific Gravity	Number of Measurements
Lower Grade	2.79	796
Higher Grade	2.78	144
Green Zone	2.75	13
Internal Waste	2.82	7
Waste Rock	2.79	214
Total	2.79	1,174

By simplified lithology, SG values were:

Zone	Specific Gravity	Number of Measurements
Sedimentary	2.78	1018
Igneous	2.84	63
Total	2.78	1,081

An average SG value of 2.79 was used for the mineralised zone.

14.2.9 Variography

Experimental semi-variograms were constructed using the 1 metre regularised assays. Variography was carried out separately for the higher grade and lower grade domains.

Downhole semi-variograms were constructed to determine the nugget value. The 1 metre composites were used and the lag was 5 metres.

Omni-directional semi-variograms were constructed to determine the sill value.

Directional semi-variograms were constructed in the plane of the deposit.

From the directional data, semi-variogram "surfaces" were created to explore potential anisotropy (refer to Figure 14-8). There appeared to be a more continuous grade trend for samples spaced in an easterly direction with a plunge of 60-70°. This suspected trend was not as apparent in the directional semi-variograms. Therefore, directional semi-variograms were constructed for the along-strike, vertical, and normal-to-strike directions.

Refer to Table 14-2 for the variography results.

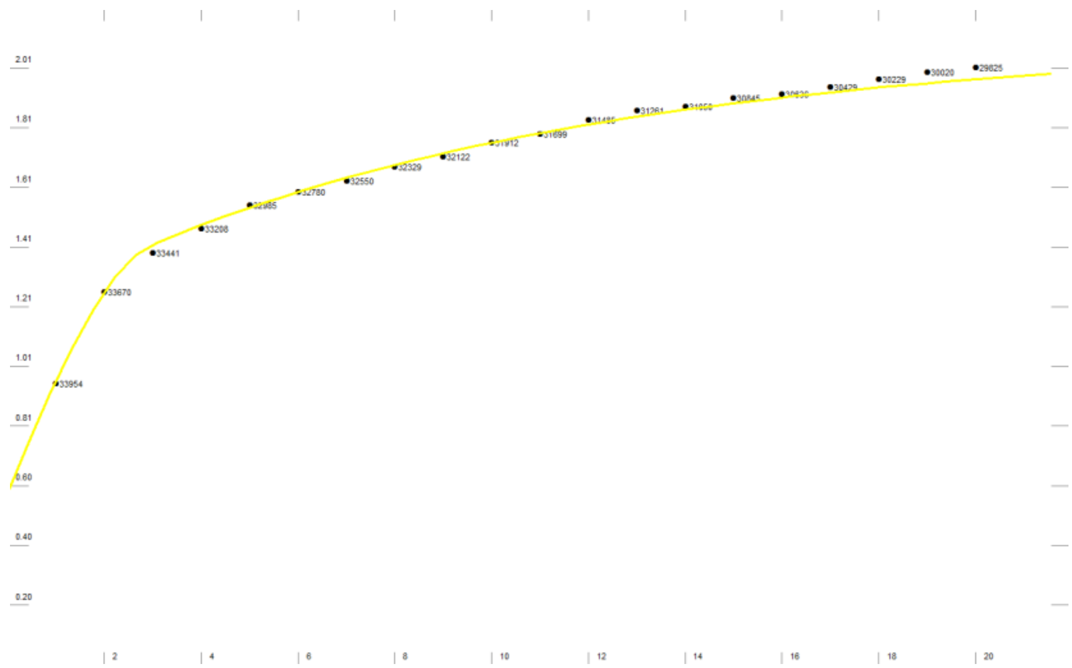
Table 14-2: Semi-variogram exponential model parameters.

Domain	Direction	Azimuth	Dip	Nugget	Range (m)	Partial Sill	"Effective Range" (m)*
Lower Grade	Principal Direction	90	0	0.58			50-60
	1st Component				11	1.10	
	2nd Component				200	0.96	
	Secondary	180	90	0.58			45-50
	1st Component				7	1.10	
	2nd Component				71	0.96	
	Tertiary	0	0	0.58			25-30
	1st Component				8	1.10	
	2nd Component				80	0.96	
Higher Grade	Principal Direction	90	0	0.58			50-60
	1st Component				11	1.10	
	2nd Component				60	0.96	
	Secondary	180	90	0.58			40-45
	1st Component				7	1.10	
	2nd Component				34	0.96	
	Tertiary	0	0	0.58			25-30
	1st Component				7	1.10	
	2nd Component				29	0.96	

* All models are exponential-type.

** Range at which the model more-or-less levels off to the sill value.

Downhole, Lower Grade Domain (2-component model (spherical & exponential, nugget value = 0.58):



Downhole, Higher Grade Domain (2-component model (spherical & exponential, nugget value = 0.58):

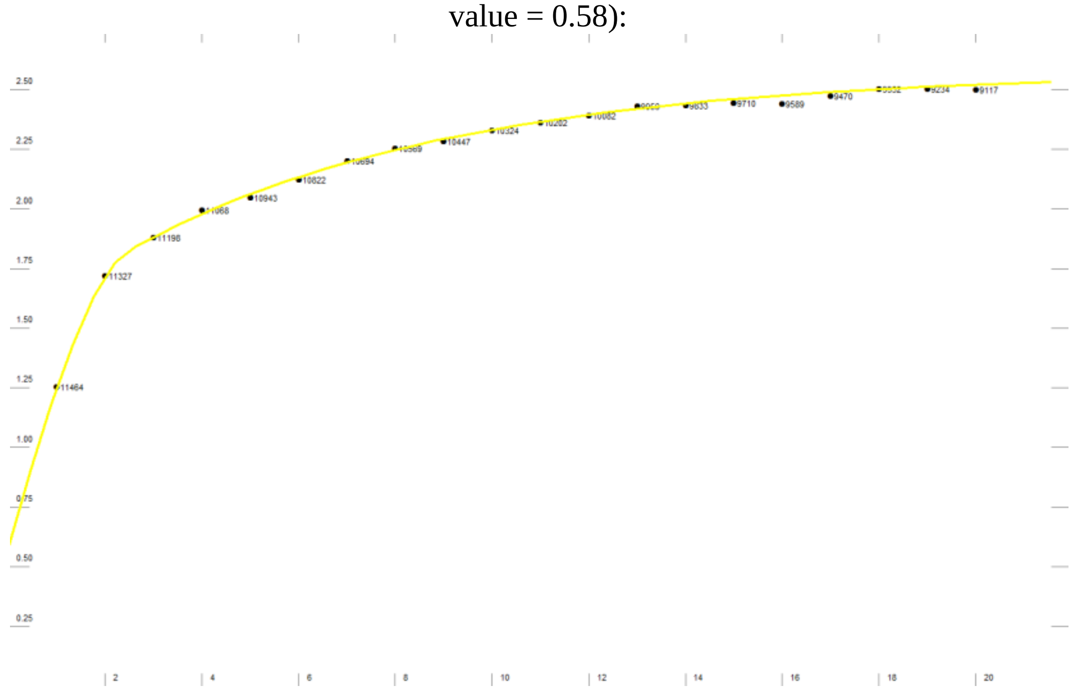


Figure 14-7: Semi-variograms.

Omni-directional, Lower Grade Domain (2-component model (spherical & exponential, total partial sill = 2.06):

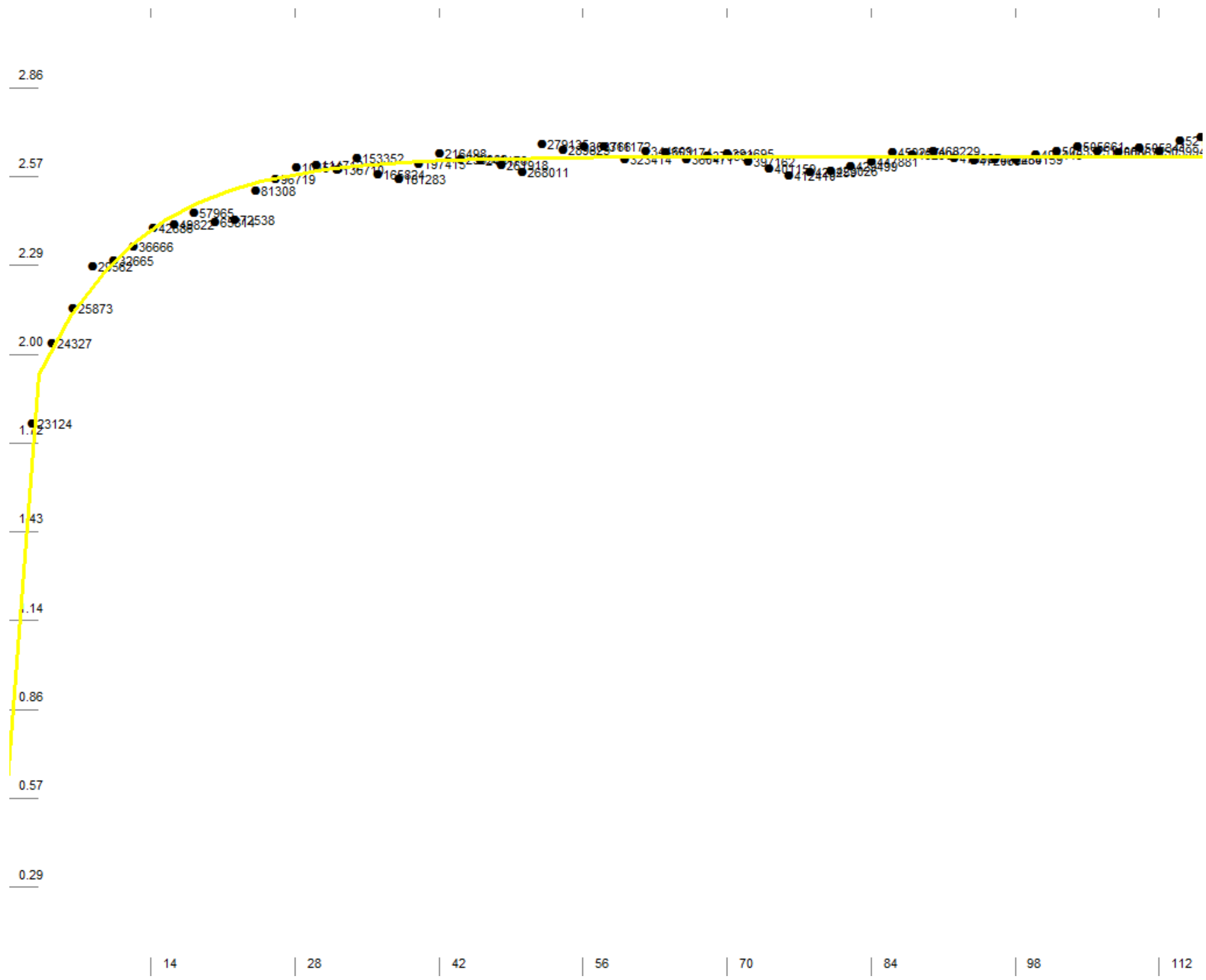


Figure 14-7 **Continued**

Omni-directional, Higher Grade Domain (2-component model (spherical & exponential, total partial sill = 2.06):

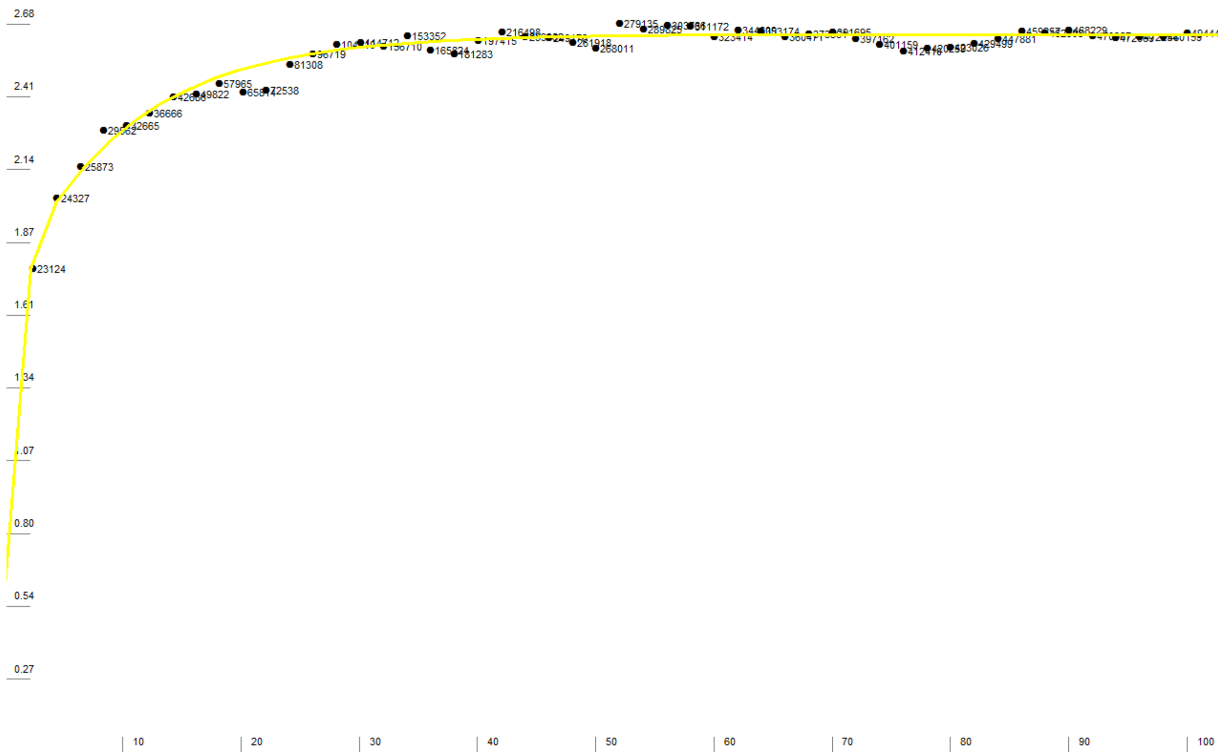
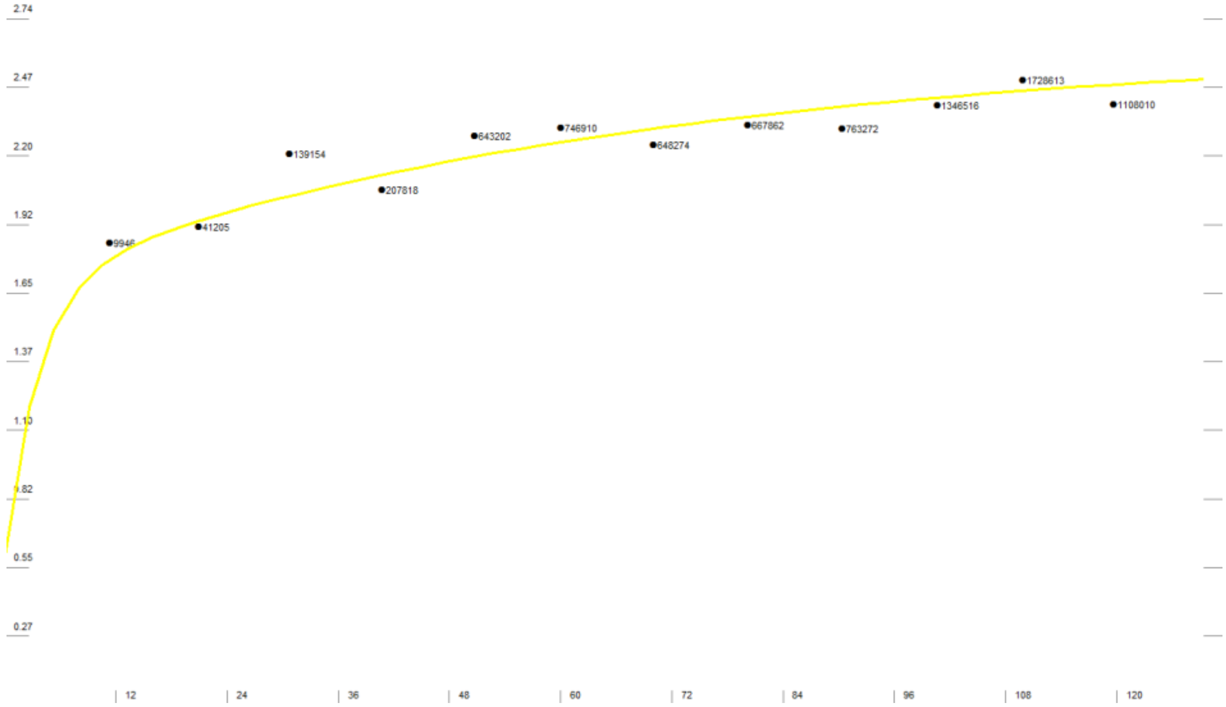


Figure 14-7 **Continued**

Lower Grade Domain, Along Strike (Az 90, Dip 0, range approx. 50-60 m):



Lower Grade Domain, Vertical (Az 0, Dip 90, range approx. 45-50 m):

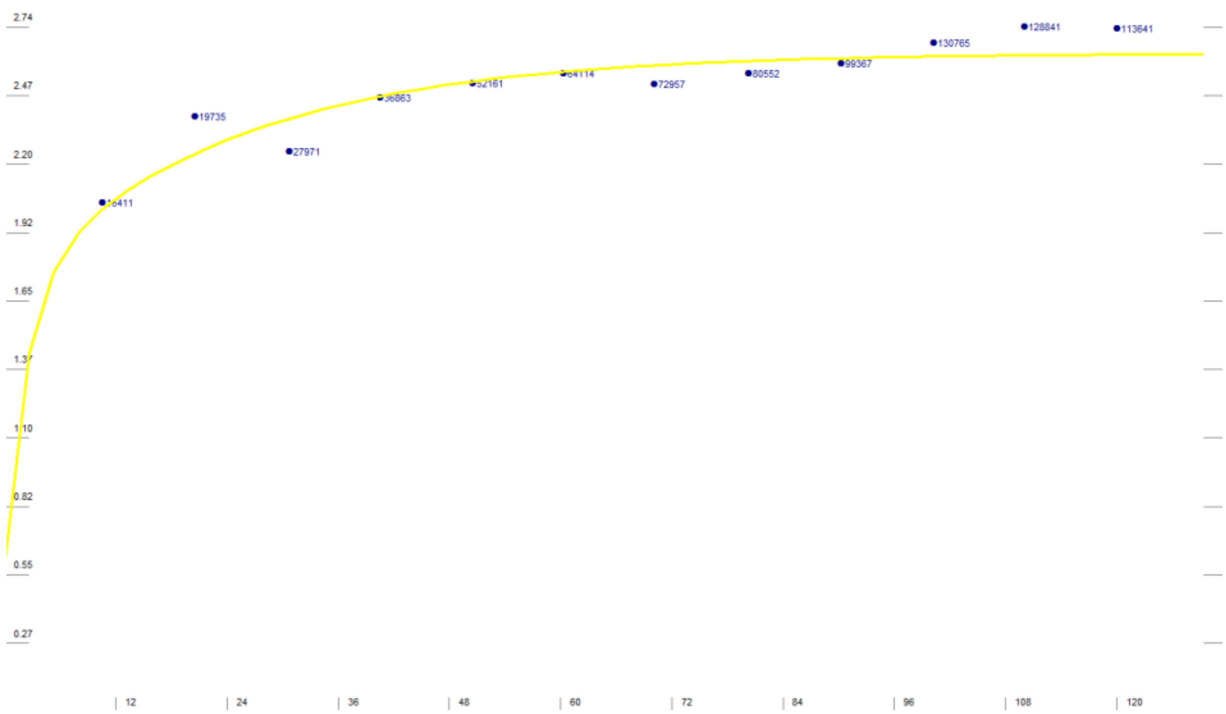


Figure 14-7 **Continued**

Lower Grade Domain, Normal to Deposit (Az 0, Dip 0, range approx. 25-30 m):

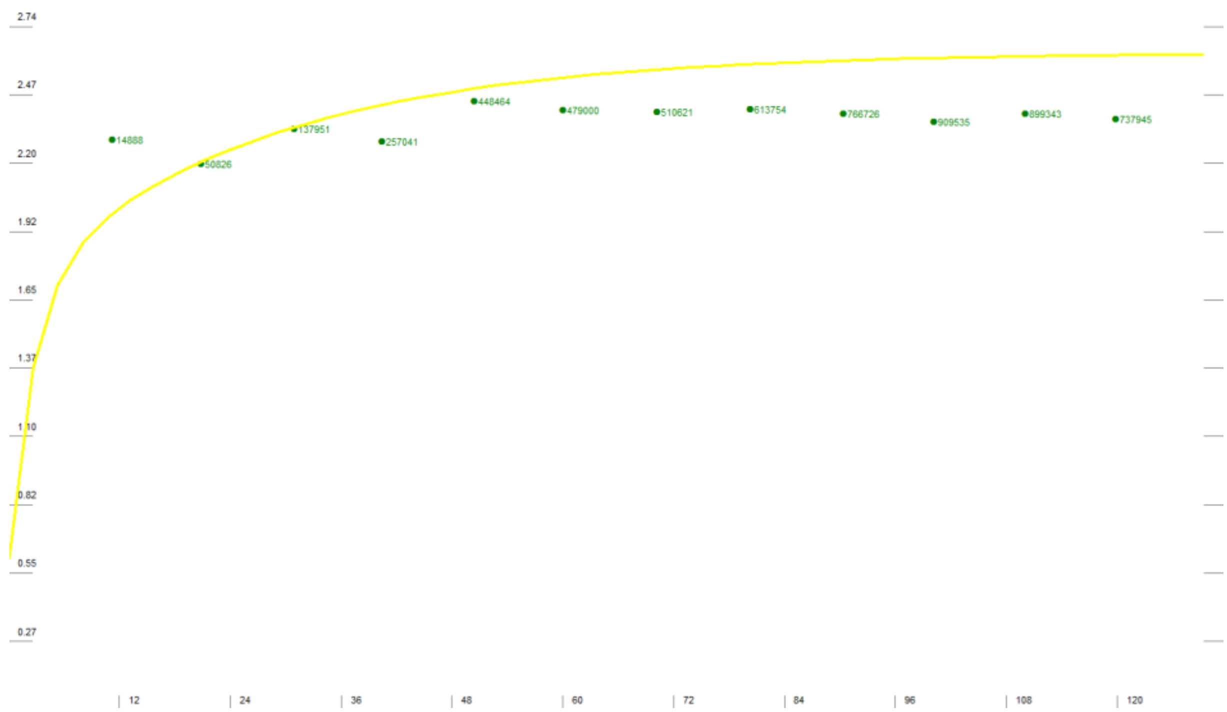
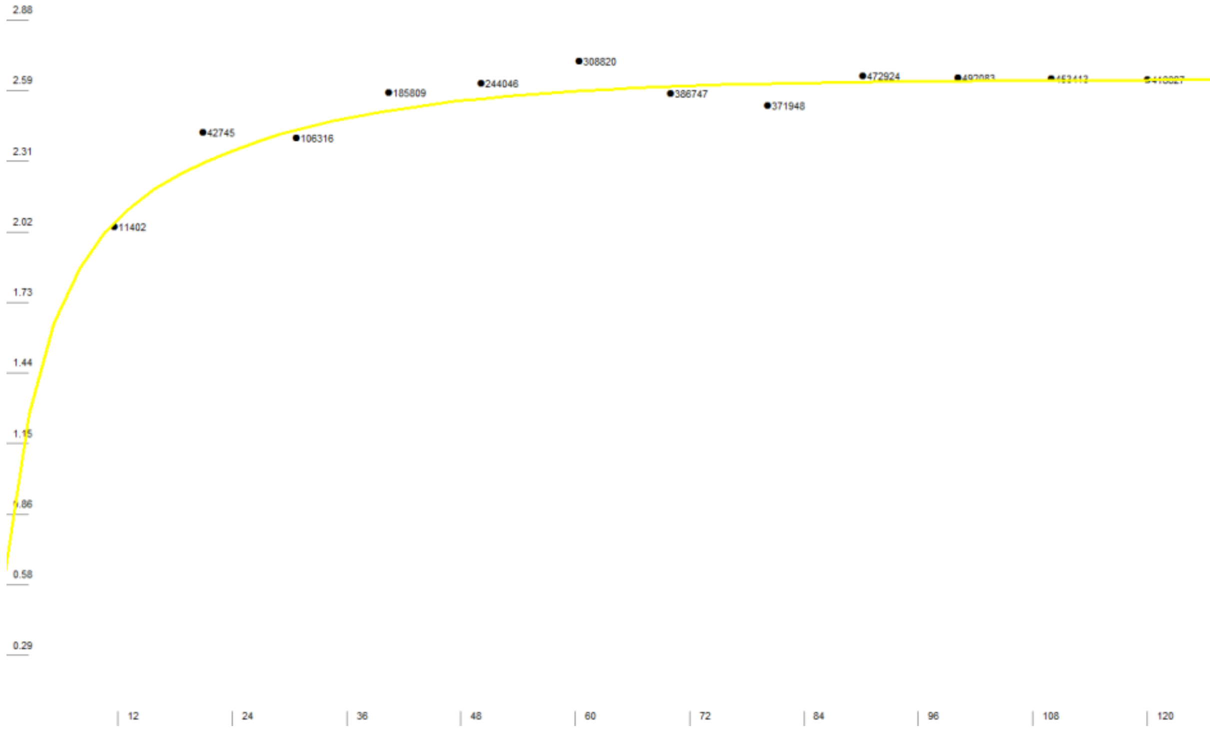


Figure 14-7 **Continued**

Higher Grade Domain, Along Strike (Az 90, Dip 0, overall range approx. 50-60 m):



Higher Grade Domain, Vertical (Az 90, Dip 90, overall range approx. 40-45 m):

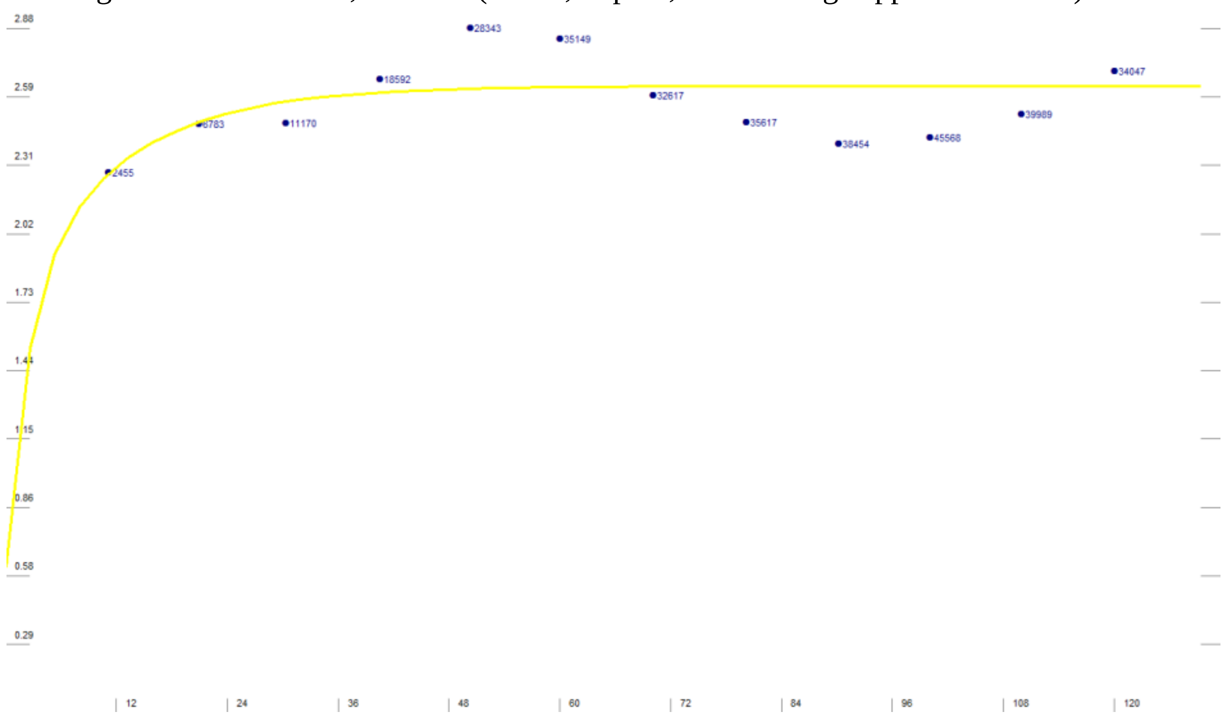


Figure 14-7 **Continued**

Higher Grade Domain, Normal to Deposit (Az 0, Dip 0, overall range approx. 25-30 m):

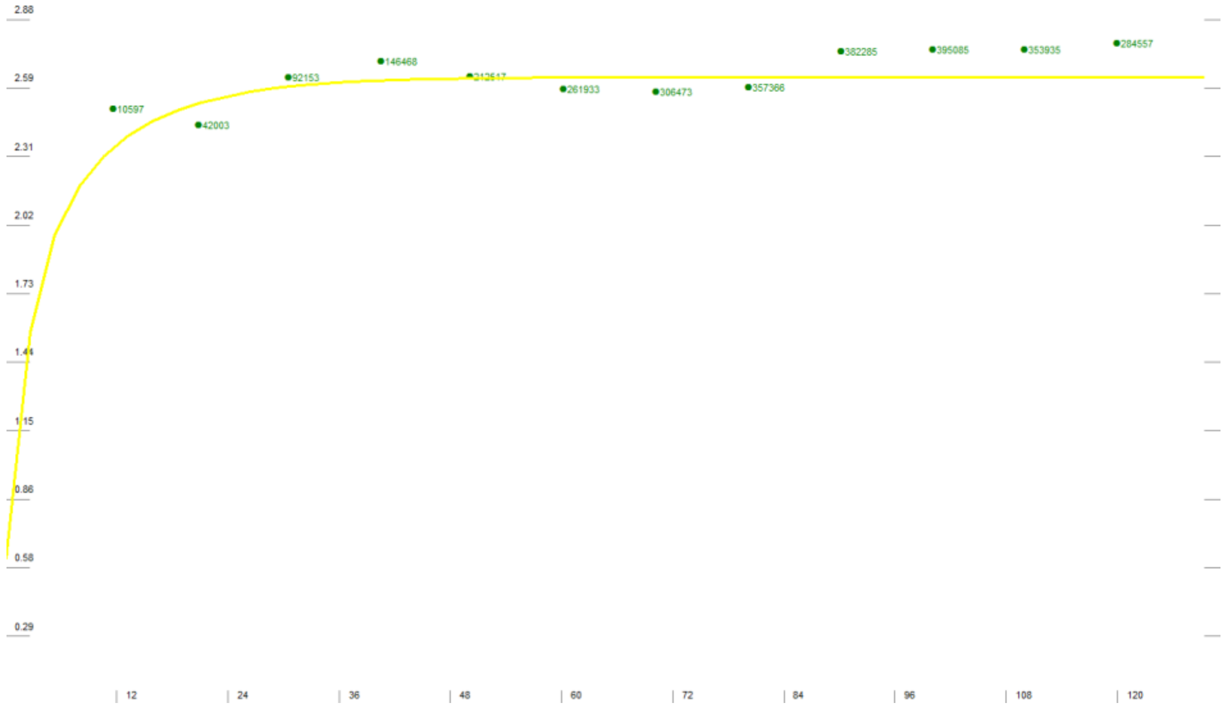
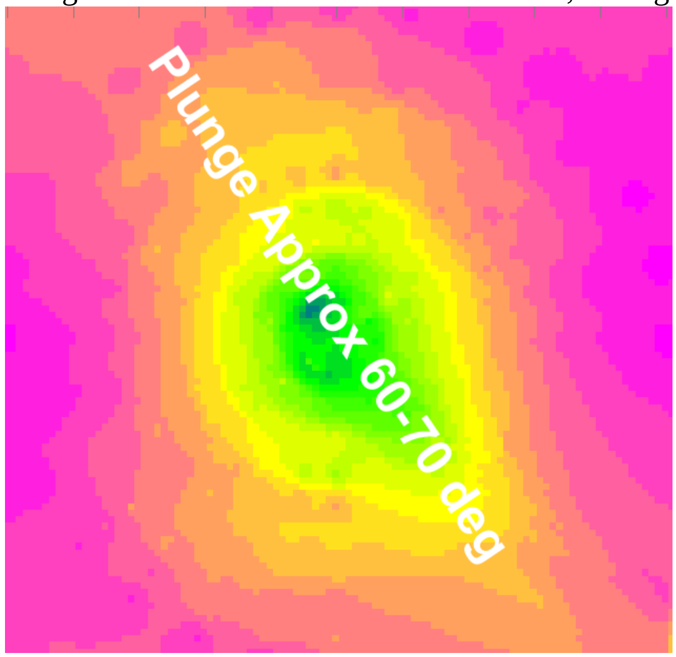


Figure 14-7 **Continued**

Semi-Variogram Surface for Lower Grade Domain, Facing North:



Semi-Variogram Surface for Higher Grade Domain, Facing North:

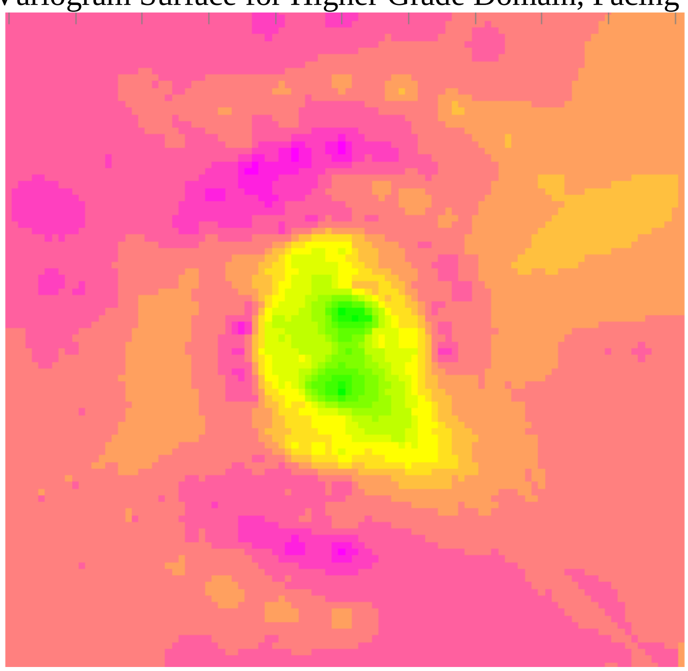
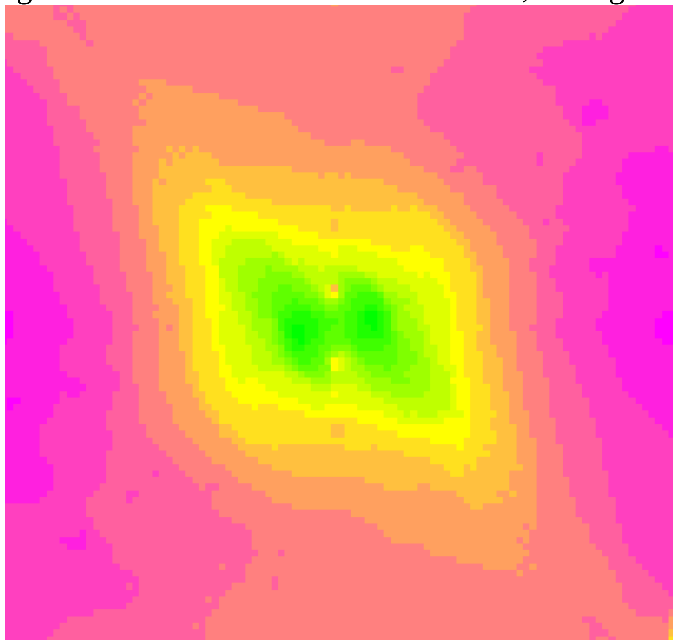


Figure 14-8: Semi-variogram surfaces.

Semi-Variogram Surface for Lower Grade Domain, Facing Along Strike:



Semi-Variogram Surface for Higher Grade Domain, Facing Along Strike:

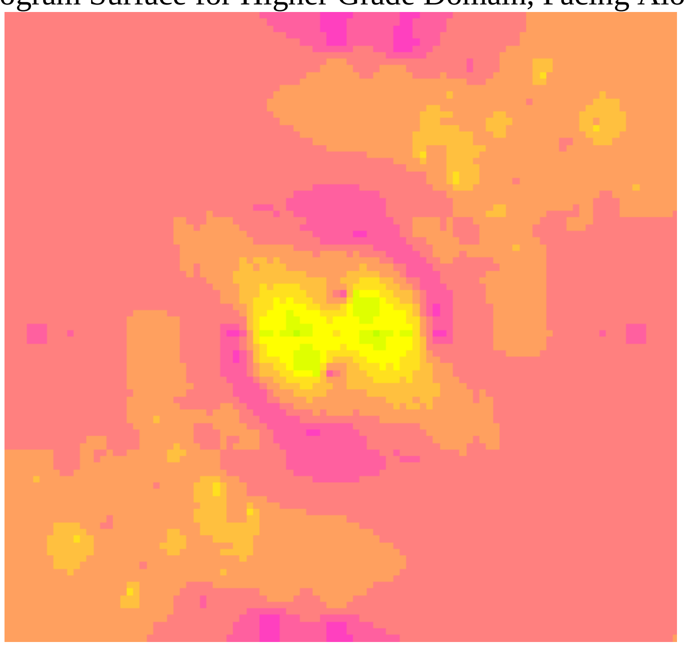


Figure 14-8**: Continued**

Semi-Variogram Surface for Lower Grade Domain, Plan View:

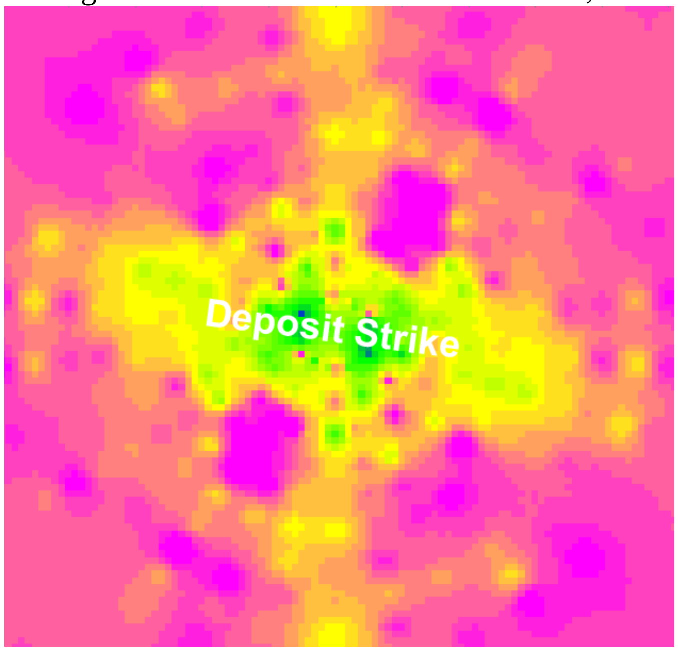


Figure 14-8: Continued

14.2.10 Block Modelling

A blank block model with the file name "Blocks Blank.dat" was created with the parameters that were reported in Table 14-3. The blocks were constrained by the mineralised zone wireframe.

The "parent" block size was 10x10x10 metres (Easting x Northing x Elevation).

There were two sub-blocks in each direction for a geological resolution of 5x5x5 metres (Easting x Northing x Elevation).

The model was a "partial" type model - only the mineralised zone was modeled. In other words, the country rock was not modeled.

The higher grade domain, Green Zone domain, and internal waste zone wireframes were used to assign domain codes to the blocks (to the "Zone" field).

Table 14-3: Block model parameters.

Direction	Model Origin (Grid, m)	Model Limit (Grid, m)	Model Extent (m)	Block Size (m)	Number of Blocks	Number of Sub-blocks
East	-2000	0	2000	10	201	2
North	500	1800	1300	10	131	2
Elevation (RL)	-500	400	900	10	91	2

14.2.11 Cut-off Grades

14.2.11.1 Zone Interpretation

The chosen cut-off grade for mineralised zone interpretation was 0.1 g/tonne of gold. This value was chosen through iteration as the cut-off that, in the author's opinion, when used for outlining the lower grade mineralisation, provided the closest approximation of the continuity of that mineralisation.

14.2.11.2 Mineral Resources

The chosen "block cut-off" [6] grade for defining mineral resources was 0.3 g/tonne. Considering a typical mining recovery of 95%, a typical overall processing recovery of 95%, a typical smelter return of 98% and a gold price of $US 1500 per ounce, rock with that grade would have a revenue of $US 12-14. That was considered to be a reasonable block cut-off grade for conventional surface mining and processing – the most likely mining methods that would be applied to this deposit.

14.2.12 Top-Cut Grade

A top-cut value is normally chosen to prevent the overestimation of block grades by a small number of very high assays or *outliers*.

Examination of the cumulative normal probability curves (refer to Figure 14-6) reveals that there are very few samples above approximately 20 g/tonne in the Lower Grade Domain and 30 g/tonne in the Higher Grade Domain.

Table 14-4 shows the samples that assayed higher than those values. They totaled 33 samples out of an overall sample database of 74,000 samples, or 0.04%.

Because of (a) the number of higher grade samples was so very small, and (b) there was doubt as to whether the higher grade samples were true outliers rather than simply being valid, higher grade components of the domains, to be consistent with previous resource estimates, no top-cut value was used for the current resource estimate.

For future sampling and assaying work, the author recommends that the cumulative normal probability curves (refer to Figure 14-6) be updated. Also, the author recommends

[6] The grade at which it is possible to mine and process and exposed block (*i.e.*: stripping not included).

that several of the blocks that used the higher grade samples from Table 14-4 be drill-targeted to verify the estimated grades.

Table 14-4: Higher grade samples.

Hole	From (m)	To (m)	Length (m)	Assay (g/tonne)
Higher Grade Domain Samples Greater than 30 g/tonne:				
GD86-8	67.71	67.92	0.21	500.48
GAR-11-74	299.00	300.00	1.00	127.70
GD85-4	117.05	117.35	0.30	112.00
GAR-11-71A	291.50	292.50	1.00	87.23
GAR-11-118	467.00	468.00	1.00	76.35
GAR-11-60	118.00	119.00	1.00	67.89
GAR-10-50	277.00	278.00	1.00	64.86
GAR-11-114	313.00	314.00	1.00	64.53
GAR-11-70	319.00	320.00	1.00	58.46
GD86-10	27.36	27.68	0.32	58.00
GAR-11-59	284.00	285.00	1.00	55.10
GD85-4	112.35	112.80	0.45	55.00
GAR-09-01	144.50	145.40	0.90	52.29
GAR-09-02	75.60	76.20	0.60	39.61
GAR-09-09	115.50	116.50	1.00	33.23
GAR-09-02	75.00	75.60	0.60	32.93
GAR-10-13	43.00	43.60	0.60	30.87
GAR-10-42	241.00	242.00	1.00	30.48
Lower Grade Domain Samples Greater than 20 g/tonne:				
GAR-11-76	95.00	96.00	1.00	710.17
GAR-10-46	178.00	179.00	1.00	410.05
GD86-18	89.31	90.01	0.70	210.00
GAR-11-105	228.00	229.00	1.00	177.67
GAR-11-163	497.00	498.00	1.00	95.47
GAR-11-114	194.00	195.00	1.00	84.26
GAR-11-78	86.00	87.00	1.00	81.00
GAR-11-134A	191.00	192.00	1.00	37.33
GAR-11-130	22.75	23.40	0.65	32.53
C07-04	194.00	195.00	1.00	29.55
GAR-11-170	253.50	254.00	0.50	29.43
GAR-11-132	163.00	164.00	1.00	28.32
GAR-11-170	317.00	318.00	1.00	25.00
GAR-11-171	53.00	54.00	1.00	21.95
GD86-16	95.37	96.01	0.64	20.03

14.2.13 Restriction of Certain Samples

Preliminary grade estimation work indicated that there was an intercept in Hole C06-05B (below 400 metres downhole) that was solely responsible for causing a large lens of higher grade blocks that were poorly supported. This intercept occurred in the lower grade domain.

In the author’s opinion, restriction of the influence of the intercept was necessary to avoid overestimating the grade values and metal content of the affected areas. This was accomplished by limiting the influence of the intercept to approximately the semi-variogram range of 50 metres. This limiting process is further described in Section 14.2.14.

14.2.14 Grade Estimation

Because of the good fit of the global semi-variogram models (refer to Figure 14-5), ordinary block kriging was considered to be an acceptable, and appropriate method for estimating block grades in this deposit.

Blocks were discretised twice in each dimension. The grade estimation process was carried out using the parameters that were reported in Table 14-5. A description of the block model file fields was reported in Table 14-6.

For each domain, grade estimation was carried out in three “runs”. The first run had a maximum search radius of 55 metres and required samples from at least three holes. In subsequent runs, the parameters were relaxed.

It was noticed that east of approximately 925 metres West, grades tended to be lower than west of that line. Therefore, east and west of that line the Higher Grade and Lower Grade domains were treated as separate subdomains.

For the main runs, the "problem" interval (refer to Section 14.2.13) was not included in the lower grade domain. In other words, the problem interval was ignored.

A "fourth run" was carried out for only the lower grade domain, using only the "problem" interval and a maximum search radius of 50 metres. The blocks within that sphere were merged into the final block model file.

The resulting block model files were compiled into a single block model titled “Blocks – Kriged - Final.dat”. Run 2’s block grades overprinted Run 3’s grades and Run 1’s grades overprinted Runs 2’s and 3’s grades.

A macro file (Kriging - 1 m composites - Domained - 12 Samples.MCR) was used to facilitate the grade estimation process and to compile the resulting block model files.

Table 14-5: Grade estimation parameters.

Parameter	Run 1	Run 2	Run 3
Variogram Parameters	See Table 14-2	See Table 14-2	See Table 14-2
Min. Number of Holes	3	2	1
Min. Number of Samples Per Hole	3	3	3
Max. Number of Samples Per Hole	4	6	16
Min. Number of Total Samples	9	6	3
Max. Number of Total Samples	12	12	12
Search Ellipsoid Radii (m)	55	110	110

The final compiled block model file was named “Blocks - Kriged - Final April 17, 2012.DAT”.

Table 14-6: Block model fields.

Field	Description
East	Easting (Grid)
_East	Block Dimension, East Direction
North	Northing (Grid)
_North	Block Dimension, North Direction
RL	Reduced Level (Grid)
_RL	Block Dimension, North Direction
Zone	Domain
Resource Category	Resource category.
Assay G/T	Estimated Gold Grade (g/tonne)
Points	Number of Samples Used for Estimate
KR_VAR	Kriging variance.
KR_STDERR	Kriging standard error.
Number of Holes	Number of Holes Used for Estimate
Run Number	Run Number
Average Distance	Average distance from samples to block centroid.

14.2.15 Resource Classification Parameters

Resource classification parameters were chosen based on a combination of variography results and the author’s judgment. The degree of confidence in the reported resources was classified based on the validity and robustness of input data and the proximity of resource blocks to sample locations. Resources were reported, as required by NI 43-101, according to the CIM Standards on Minerals Resources and Reserves.

Inferred resources were identified using the Run 3 parameters (refer to Table 14-5). Essentially, the minimum requirement was blocks had to be within the outlined Garrcon or Green zones and be within 110 metres (approximately double the variogram range) of at least three samples from one hole.

Indicated resources were identified as "Run 1" blocks (refer to Table 14-5) where the average sample distance (recorded as a block parameter during grade estimation) was less than, or equal to, approximately 35-40 metres. That distance was chosen because after approximately that distance, the along-strike semi-variogram model begins to level-off towards the sill value. At least nine samples from three holes (minimum three samples from each hole) were required for this category.

To outline the Indicated resources, the blocks that met those criteria were viewed in cross-section. Polygons were digitised around areas where there were concentrations of blocks that were touching - in other words, where there was Indicated-category-continuity of those blocks. Isolated blocks were not included because the Indicated category continuity was questionable.

Measured resources were identified as Run 1 blocks where the average sample distance (recorded as a block parameter during grade estimation) was less than, or equal to, approximately 25 metres. At least twelve samples from three holes (minimum three samples from each hole) were required for this category.

Similar to outlining the Indicated resources, blocks that met the Measured criteria were viewed in cross-section. Polygons were digitised around areas where there were concentrations of blocks that were touching - in other words, where there was Measured-category-continuity of those blocks. Isolated blocks were not included because the Measured category continuity was questionable.

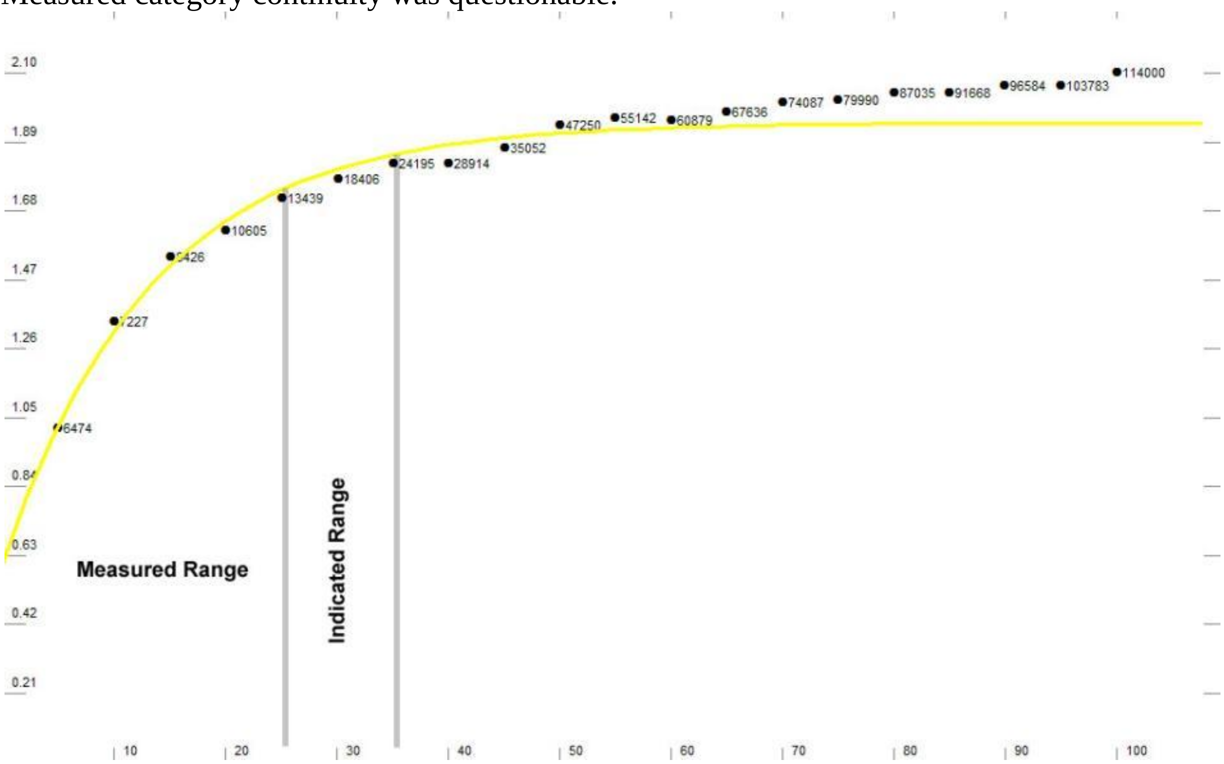


Figure 14-9: Lower-grade, along strike semi-variogram showing Measured and Indicated ranges.

14.2.16 Results

Mineral resources were defined using a block cut-off grade of 0.3 g/tonne (refer to Table 14-7 and Table 14-8).

14.2.16.1 Measured and Indicated Mineral Resources

Non-diluted Measured+Indicated Mineral Resources, less than 200 metres deep totaled 25.6 million tonnes with an average gold grade of 1.0 g/tonne for 822,000 ounces. Non-diluted Measured+Indicated Mineral Resources, more than 200 metres deep totaled 12.8 million tonnes with an average gold grade of 1.09 g/tonne for 450,000 ounces.

The grand total for Measured+Indicated mineral resources was 38.5 million tonnes with an average gold grade of 1.03 g/tonne, for 1,272,000 ounces.

14.2.16.2 Inferred Mineral Resources

Non-diluted Inferred Mineral Resources, less than 200 metres deep totaled 4.4 million tonnes with an average gold grade of 0.67 g/tonne for 95,000 ounces. Non-diluted Inferred Mineral Resources, more than 200 metres deep totaled 11.3 million tonnes with an average gold grade of 0.75 g/tonne for 272,000 ounces.

The grand total for Inferred mineral resources was 15.8 million tonnes with an average gold grade of 0.72 g/tonne, for 367,000 ounces.

Table 14-7: Summary of mineral resources (non-diluted).

Depth	Resource Category	Block Cut-off Grade (g/tonne)	Tonnes	Au Grade (g/tonne)	Ounces Au
Less Than 200m Deep	Measured	0.3	16,400,000	1.04	548,000
	Indicated	0.3	9,230,000	0.92	274,000
	Measured+Indicated	0.3	25,630,000	1.00	822,000
	Inferred	0.3	4,450,000	0.67	95,000
More Than 200m Deep	Measured	0.3	1,240,000	1.41	56,000
	Indicated	0.3	11,600,000	1.06	394,000
	Measured+Indicated	0.3	12,840,000	1.09	450,000
	Inferred	0.3	11,330,000	0.75	272,000
Total	Measured	0.3	17,640,000	1.06	604,000
	Indicated	0.3	20,830,000	1.00	668,000
	Measured+Indicated	**0.3**	**38,470,000**	**1.03**	**1,272,000**
	Inferred	**0.3**	**15,780,000**	**0.72**	**367,000**

Notes on Mineral Resource Estimate:

1. Cut-off grade for mineralised zone interpretation was 0.1 g/tonne.
2. Block cut-off grade for defining Mineral Resources was 0.3 g/tonne.
3. No top-cut grade was used.
4. Gold price was $US 1500 per troy ounce.
5. Zones extended up to 100 metres down-dip from the last intercept. Along strike, zones extended halfway to the next cross-section.
6. Minimum width was 5 metres, though in no place was the zone that narrow.
7. Non-diluted.
8. No mineral reserves were identified. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
9. Resource estimate prepared by Doug Roy, M.A.Sc., P.Eng., ACA Howe International Limited.
10. A specific gravity (bulk density) value of 2.79 was applied to all blocks - a representative value based on 1,174 measurements.
11. Ordinary block kriging ("OBK") was used for estimating block grades.
12. Measured mineral resources were defined where three holes were used to estimate block grades and the average distance to samples was 25 metres or less. Indicated mineral resources were defined where three holes were used to estimate block grades and the average distance to samples was 40 metres or less (based on variography).
13. The volume/tonnes of historical underground exploration workings have not been subtracted from this mineral resource estimate - the amount would not be significant compared with the volume/tonnes of mineral resource.

Table 14-8: Details of mineral resources.

Measured Resources Less Than 200 metres Deep:

Cut-off Grade (g/tonne)	Tonnes Above Cut-off	Average Gold Grade (g/tonne)	Ounces Au
4.00	430,000	11.55	161,000
2.00	1,100,000	6.15	218,000
1.50	1,780,000	4.45	256,000
1.00	3,630,000	2.81	328,000
0.90	4,370,000	2.49	350,000
0.80	5,200,000	2.23	373,000
0.70	6,300,000	1.97	399,000
0.60	7,750,000	1.72	429,000
0.50	9,840,000	1.47	466,000
0.40	12,650,000	1.25	507,000
0.30	**16,400,000**	**1.04**	**548,000**
0.20	*22,510,000*	*0.82*	*597,000*
0.15	*27,020,000*	*0.72*	*622,000*
0.10	*33,800,000*	*0.60*	*649,000*

Measured Resources More Than 200 metres Deep:

Cut-off Grade (g/tonne)	Tonnes Above Cut-off	Average Gold Grade (g/tonne)	Ounces Au
4.00	110,000	8.45	31,000
2.00	150,000	7.04	34,000
1.50	190,000	5.90	36,000
1.00	280,000	4.34	40,000
0.90	320,000	3.94	41,000
0.80	390,000	3.38	43,000
0.70	500,000	2.83	45,000
0.60	610,000	2.44	48,000
0.50	760,000	2.06	50,000
0.40	950,000	1.73	53,000
0.30	**1,240,000**	**1.41**	**56,000**
0.20	*1,810,000*	*1.05*	*61,000*
0.15	*2,220,000*	*0.88*	*63,000*
0.10	*2,860,000*	*0.71*	*66,000*

Note: values for cut-off grades less than 0.3 g/t are not considered to be "mineral resources" and are included for information purposes only.

Indicated Resources Less Than 200 metres Deep:

Cut-off Grade (g/tonne)	Tonnes Above Cut-off	Average Gold Grade (g/tonne)	Ounces Au
4.00	110,000	21.24	76,000
2.00	380,000	7.99	98,000
1.50	660,000	5.37	114,000
1.00	1,370,000	3.22	141,000
0.90	1,730,000	2.73	152,000
0.80	2,260,000	2.29	167,000
0.70	2,990,000	1.92	184,000
0.60	3,710,000	1.67	199,000
0.50	4,910,000	1.40	220,000
0.40	6,580,000	1.15	244,000
0.30	**9,230,000**	**0.92**	**274,000**
0.20	*14,310,000*	*0.68*	*314,000*
0.15	*19,160,000*	*0.55*	*341,000*
0.10	*26,860,000*	*0.43*	*371,000*

Indicated Resources More Than 200 metres Deep:

Cut-off Grade (g/tonne)	Tonnes Above Cut-off	Average Gold Grade (g/tonne)	Ounces Au
4.00	550,000	7.97	141,000
2.00	870,000	6.04	169,000
1.50	1,330,000	4.53	194,000
1.00	2,550,000	2.94	241,000
0.90	2,950,000	2.67	253,000
0.80	3,510,000	2.38	269,000
0.70	4,220,000	2.10	286,000
0.60	5,240,000	1.82	307,000
0.50	6,660,000	1.55	332,000
0.40	8,830,000	1.28	363,000
0.30	**11,600,000**	**1.06**	**394,000**
0.20	*16,780,000*	*0.81*	*435,000*
0.15	*20,420,000*	*0.69*	*455,000*
0.10	*26,070,000*	*0.57*	*478,000*

Note: values for cut-off grades less than 0.3 g/t are not considered to be "mineral resources" and are included for information purposes only.

Inferred Resources Less Than 200 metres Deep:

Cut-off Grade (g/tonne)	Tonnes Above Cut-off	Average Gold Grade (g/tonne)	Ounces Au
4.00	40,000	13.12	17,000
2.00	50,000	11.53	18,000
1.50	90,000	7.15	20,000
1.00	210,000	3.64	24,000
0.90	480,000	2.08	32,000
0.80	690,000	1.71	38,000
0.70	990,000	1.42	45,000
0.60	1,320,000	1.23	52,000
0.50	2,210,000	0.96	68,000
0.40	3,050,000	0.82	80,000
0.30	**4,450,000**	**0.67**	**95,000**
0.20	*6,830,000*	*0.52*	*114,000*
0.15	*9,700,000*	*0.42*	*130,000*
0.10	*14,320,000*	*0.32*	*148,000*

Inferred Resources More Than 200 metres Deep:

Cut-off Grade (g/tonne)	Tonnes Above Cut-off	Average Gold Grade (g/tonne)	Ounces Au
4.00	260,000	8.53	71,000
2.00	470,000	5.75	86,000
1.50	1,010,000	3.61	117,000
1.00	1,460,000	2.88	135,000
0.90	1,610,000	2.70	140,000
0.80	1,770,000	2.53	144,000
0.70	2,230,000	2.16	155,000
0.60	2,740,000	1.88	165,000
0.50	3,560,000	1.57	180,000
0.40	5,600,000	1.16	209,000
0.30	**11,330,000**	**0.75**	**272,000**
0.20	*21,590,000*	*0.51*	*353,000*
0.15	*29,200,000*	*0.42*	*396,000*
0.10	*43,610,000*	*0.32*	*452,000*

Note: values for cut-off grades less than 0.3 g/t are not considered to be "mineral resources" and are included for information purposes only.

14.2.17 Cross-Validation of Results

Block grades were recalculated using nearest neighbour estimation. For all blocks, the average nearest-neighbour grade was 0.213, whilst the average grade from ordinary kriging was 0.218 - nearly identical. Because the results were so close, the author considers the final block model to be successfully cross-validated.

14.2.18 Comparison with Previous Resource Estimate

The current mineral resource estimate results were compared with the results from the previous estimate (Trinder and Roy, 2011) (refer to Table 14-9).

The fill-in drilling that was carried out in 2011 caused a shift of resources from the Inferred category to the Indicated and Measured categories (refer to Table 14-9). Previously, no Measured mineral resources had been identified.

Since 2011, 13.6 million tonnes have been added to the Measured and Indicated categories. The grade of that material also increased slightly for an overall gain of 552,000 ounces.

Because of additional sampling, the average SG has increased from 2.73 in 2011 to its current value 2.79. This accounts for 2% of the increase in tonnes and ounces.

Table 14-9: Comparison with 2011 Garrcon mineral resource estimate.

Resource Category	Change in Tonnes	Change in Grade (g/tonne)	Change in Ounces
Measured	+17,640,000	n/a	+604,000
Indicated	-4,070,000	+0.10	-52,000
Measured+Indicated	**+13,570,000**	**+0.13**	**+552,000**
Inferred	-2,820,000	No Change	-63,000

14.3 2009 Jonpol Deposit Mineral Resource Estimate

The mineral resource estimate for the Jonpol Deposit was prepared and reported on behalf of ValGold by ACA Howe in 2008 (George, P.T., 2008). The resource was re-released and reported on behalf of Northern Gold in 2009 (George, P.T., 2009). A high grade - low tonnage underground mining operation was targeted in the resource estimation.

The Jonpol Mineral Resource estimate was prepared by Mr. Peter George, ACA Howe Associate Geologist. The Qualified Person for the Jonpol Mineral Resource estimate as reported in this Report is Mr. Ian Trinder, M.Sc., P.Geo.

14.3.1 Introduction

Mr. George completed an initial resource estimate for portions of the Jonpol deposit where he was of the opinion that there is sufficient evidence of continuity of vein structure coupled with assay values that could be considered economic.

14.3.2 Resource Estimation Methodology

Mr. George completed the resource estimation utilizing industry-standard, polygonal volumetric estimation methods projected on a vertical longitudinal section, supported by interpretation of mineralized structures on vertical cross sections and level plans at right angles to the longitudinal section.

14.3.2.1 Data Verification

Mr. George reviewed in detail the assay data and cross-checked it against drill logs and assay sheets and no material errors or omissions were noted. All assaying was by a reputable assay laboratory with a long history of quality work.

Swastika Laboratory was the principal assay laboratory during Jonpol's drill program in 1997 and as a standard practice the laboratory re-assayed approximately every 10th

sample as well as frequently carrying out a re-assay of a second pulp as an internal check on its own analyses.

During the period of the completed drill program in 2005 to 2007 ValGold submitted a total of 15,661 core samples to Swastika Laboratory for assay. ValGold systematically inserted blanks and standards into the sample stream; a total of 1,644 blanks and standards were submitted representing approximately 1 blank or standard per 10 core samples. Swastika Laboratory completed 1,334 second assays on the original pulp and 306 assays on a second pulp from the original coarse crushed sample as a cross check of their accuracy and reproducibility.

Mr. George tabulated all of the blank and standard analyses and found no material deviations that would indicate any problems within the Swastika Laboratory accuracy and reproduction.

Mr. George prepared X-Y scatter plots comparing the original assays to the Swastika Laboratory check assays and found no material deviations that would indicate issues with the assay results. The only case of significant deviation between original assays and check assays was in a few high-grade assays. This does not reflect negatively on Swastika Laboratory, as it is a common problem with all gold assaying when there is coarse free gold in a sample.

Mr. George compiled all of the drill hole information into a digital database for use in Geosoft Target software in order to prepare drill sections, level plans, and longitudinal sections for the evaluation of the mineral resource potential of the Jonpol deposit. During the data compilation Mr. George found no material errors or omissions in the numerous sources of information compiled into the current digital database.

Mr. George was of the opinion that the assay database for the Jonpol was of sufficient quality to provide the basis for the conclusions and recommendations reached in the 2008 and 2009 technical reports.

14.3.2.2 Sample Statistics

Statistical analysis of mineralized samples from the Jonpol deposit was not completed.

14.3.2.3 Specific Gravity

Mr. George assumed a Specific Gravity of 2.8 for determination of tonnage from volumetric data. Lakefield Research (1990) reported specific gravity in the range 2.92 to 2.94 for samples on two bulk samples that were deemed to be representative of the JP Zone.

14.3.2.4 Cut-off Grades

While Mr. George did not specifically state a cut-off grade, a minimum grade of 0.5 g/tonne was used for color-coding of assays to outline the extent and continuity of zones of mineralization (see Section 14.3.2.6). The cut-off grade for interpretation of mineralised zones interpretation was therefore approximately 0.5 g/tonne of gold.

14.3.2.5 Top-Cut Grade

A top-cut value is normally chosen to prevent the overestimation of grade by a small number of very high assays or outliers. No top-cut was applied by Mr. George.

14.3.2.6 Preparation of Assay Composites

The complete assay database was compiled in an Excel Spreadsheet. The data was initially sorted in order of descending assay grades (grams per tonne). The assay data was then colour-coded for the ranges 0.5 to 1 grams, 1 to 4 grams, 4 to 8 grams, 8 to 16 grams, and greater than 16 grams. Subsequently the colour-coded assays were re-sorted by hole number and from-to data. The resulting database is easily scanned for contiguous zones of mineralization that were composited and posted on cross-sections and level plans for interpretation and correlation. The Jonpol mineral resource estimate is based upon 196 composited assay intersections.

14.3.2.7 Preparation of Longitudinal Section, Cross Sections and Level Plans

Mr. George utilized Geosoft Target software to create the working drawings that were required to complete the resource estimate.

The vertical longitudinal section is oriented along a bearing of 070^{o} (true) parallel to the trend of the mineralized structures and the orientation of historic grid baselines on the Property. Assay composite pierce-points were plotted on the longitudinal section showing grade, horizontal width in metres and the hole number. The data is viewed looking in a northerly direction.

Cross sections oriented at right angles to the longitudinal section (bearing 340^{o} (true)) and level plans at 50-metre intervals were prepared and reviewed to confirm historic interpretation of the mineralized structure orientation and to identify the numerous zones.

14.3.2.8 Polygonal Areas of Influence on Long Section

Mr. George was of the opinion that the following areas of influence are appropriate for the Jonpol Deposit resource estimation:

- Indicated Resources – maximum 15 metres around the pierce-point or half way to adjacent pierce-points. Maximum area for an "indicated polygon" is 710 square metres.
- Inferred Resources – maximum 25 metres around the pierce-point or half way to adjacent pierce-points. Maximum area for an "inferred polygon" is 1,965 square metres.

14.3.3 Jonpol Desposit Resource Estimate

14.3.3.1 Introduction

Resource estimates were completed for four, laterally contiguous mineralized zones along the Munro Fault, which is a splay from the regional Porcupine-Destor Fault. The mineralization occurs in highly deformed and altered mafic and ultramafic volcanic rocks of the Kidd-Munro Assemblage and is comprised of disseminated sulphides in silica flooded zones within the altered zone.

The mineralized structures strike approximately 070^{o} (true) and dip steeply to the south.

14.3.3.2 Relationship between Drill Hole Length and True Horizontal Width of Composites

Review and analysis of vertical drill sections oriented at 340 degrees (true) indicated that the mineralization dips steeply to the south. For the purpose of calculating the true horizontal width of the mineralization at right angles to the plane of the longitudinal section it was assumed that the mineralization dips at 90 degrees (i.e. vertical dips).
The equation for converting drill hole length to horizontal is as follows:

Horizontal width =
Core length x (cos(zone dip-(90-hole dip at point of intersection)))/sin(zone dip))

14.3.3.3 Jonpol Deposit Resource Estimate Results

The results of the 2009 mineral resource estimate are summarized in Table 14-10 and the distribution of the resource polygons are presented in Figure 14-10.

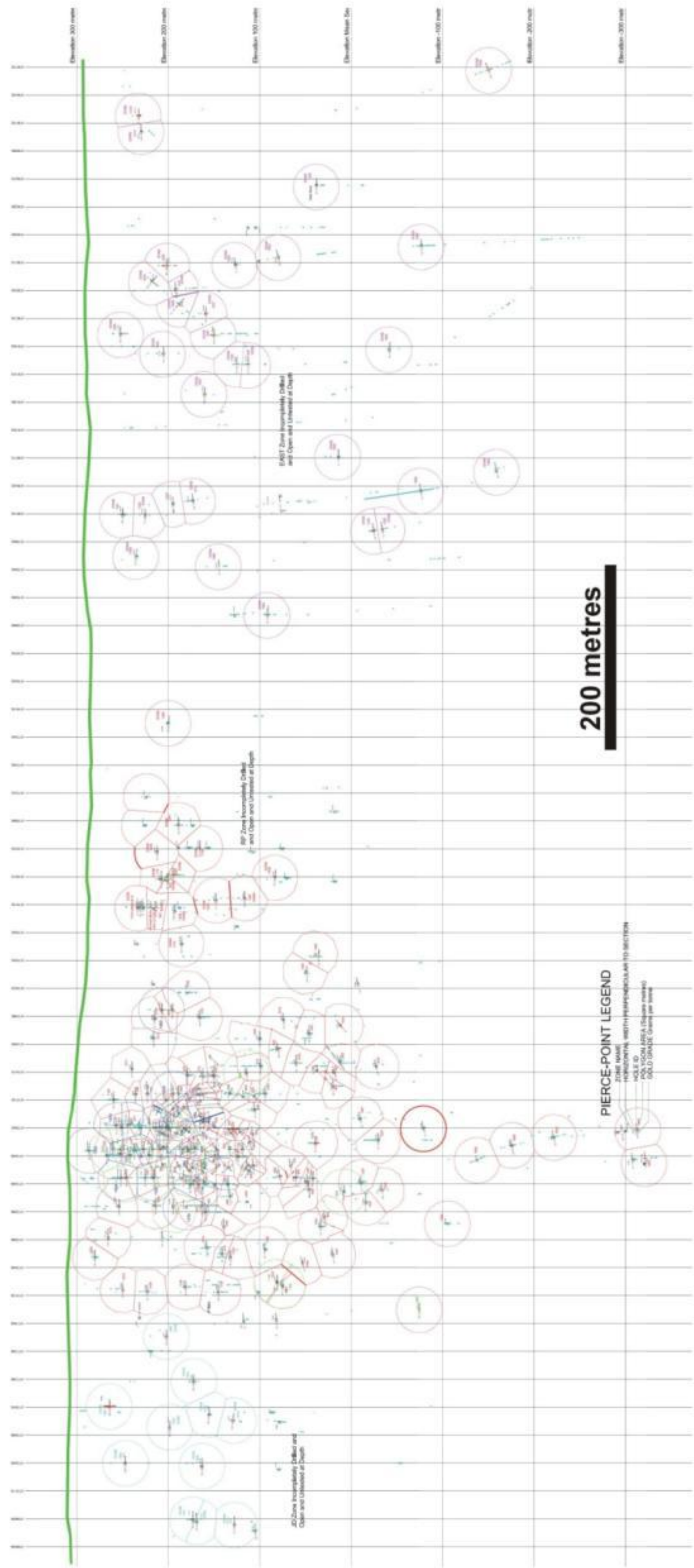


Figure 14-10: Longitudinal Section of Jonpol Polygonal Resource Blocks (looking north)

Table 14-10: 2009 Jonpol Deposit Resource Estimate

Zone	Indicated Resource			Inferred Resource		
	Tonnes	Au g/tonne	Ounces Au	Tonnes	Au g/tonne	Ounces Au
JP Zone	236,100	7.69	58,380	812,400	4.66	121,750
JD Zone				168,000	7.37	39,830
RP Zone	12,100	10.91	4,260	124,300	5.05	20,170
East Zone	4,900	3.58	560	451,100	4.47	64,790
Totals	**253,100**	**7.77**	**63,200**	**1,555,800**	**4.93**	**246,540**

Notes on Jonpol Mineral Resource Estimate:

1. Resource estimate prepared by Peter T. George, P.Geo., Associate, ACA Howe International Limited.
2. The Qualified Person for the Jonpol Mineral Resource estimate as reported in this Report is Mr. Ian Trinder, M.Sc., P.Geo.
3. Cut-off grade for mineralised zone interpretation was approximately 0.5 g/tonne.
4. No top-cut grade was used.
5. A specific gravity (bulk density) value of 2.8 was applied to all zones.
6. Mineral resources were estimated using the polygonal longitudinal section method.
7. Indicated mineral resources were permitted a 15 metre radius of influence around a drill hole pierce-point or half the distance to the adjacent drill hole pierce-point whichever the lesser. Inferred mineral resources were permitted a 25 metre radius of influence around a drill hole pierce-point or half the distance to the adjacent drill hole pierce-point whichever the lesser.
8. Resource is non-diluted.
9. No mineral reserves were identified. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
10. The tonnes extracted from historical underground exploration and bulk sample development workings have not been subtracted from this mineral resource estimate.

Mr. Trinder has examined the Jonpol Deposit resource longitudinal section, cross-sections and spreadsheet generated by Mr. George. Mr. Trinder is of the opinion that the 2009 mineral resource estimate for the Jonpol deposit as generated by Mr. George is a reasonable reflection of the mineral resources at the Jonpol deposit on the Garrison Gold Project and has been completed to industry standards and in accordance to NI 43-101.

Mr. Trinder notes however that Mr. George's 2009 resource estimate is drill indicated, in-situ and undiluted. The volume of the limited historically excavated drifts, crosscuts and stopes have not been deleted from the mineral resource volume (see Section 6.3).

Should Northern Gold undertake future work at the Jonpol deposit, Mr. Trinder recommends that prior to completion of any potential future mineral resource update of the Jonpol Deposit, the Company search for and acquire, if possible, all production records and level plans from the historic underground work completed in 1990 and 1996-1997 in an attempt to accurately determine volumes, tonnages and grades of extracted mineralization. This information, if available, could be incorporated into any future resource update. Use of 3-D modeling software should be considered to accurately locate the underground sublevels with respect to the surface drill holes. Selection of cut-off grade and top-cut should be re-examined and determined on the basis of gold price and economics at that future date.

Howe is not aware of any other material changes to the resource base since the mineral resource was estimated in 2009.

14.4 Garrison Gold Property Mineral Resources Summary

A summary of mineral resources on the Garrison Gold Property follows:

Table 14-11: Garrison Gold Property – Mineral Resources Summary

Deposit	Resource Category	Tonnes	Au Grade (g/tonne)	Ounces Au
Garrcon Deposit	Measured (2012)	17,640,000	1.06	604,000
Garrcon Deposit	Indicated (2012)	20,830,000	1.00	668,000
Jonpol Deposit	Indicated (2009)	253,100	7.77	63,200
	Total Indicated	21,083,000	1.08	731,000
	Measured+Indicated	38,723,000	1.07	1,335,000
Garrcon Deposit	Inferred (2012)	15,780,000	0.72	367,000
Jonpol Deposit	Inferred (2009)	1,555,800	4.93	246,540
	Total Inferred	17,336,000	1.09	614,000

Notes on Mineral Resource Estimate:

1. Columns may not total correctly due to rounding
2. Garrcon mineral resources:
    a. Block cut-off grade for defining Mineral Resources was 0.3 g/tonne.
    b. Ordinary block kriging ("OBK") was used for estimating block grades.
3. Jonpol mineral resources:
    a. Cut-off grade for mineralised zone interpretation was approximately 0.5 g/tonne.
    b. Mineral resources were estimated using the polygonal longitudinal section method.

15 MINERAL RESERVE ESTIMATES

This section is not relevant to the current Garrison Gold Property resource estimate. No mineral reserves have been estimated for the Property.

16 MINING METHODS - PROPOSED

Section 16 has been extracted from Howe's 2011 NI 43-101 technical report and PEA (Hannon, Roy and Trinder, 2011) and repeated in this Report. The reader is cautioned that the 2011 Garrcon PEA is based on Howe's 2011 Garrcon mineral resource estimate which has now been replaced by the 2012 Garrcon mineral resource update presented in this report. The 2011 Garrcon PEA reported in the following subsections has not been updated to reflect the changes in the Garrcon mineral resource.

16.1 CAUTION TO THE READER

The reader is cautioned that this PEA uses Inferred Mineral Resources. NI 43-101 Part 2, Section 2.3(1)(b) and Companion Policy 43-101CP, Part 2, Section 2.3(1) Restricted Disclosure, prohibits the disclosure of the results of an economic analysis that includes or is based on inferred mineral resources, an historical estimate, or an exploration target.

"Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies." (Adopted by CIM Council on December 11, 2005)

Inferred Mineral Resources are based upon widely spaced samples and are speculative in nature. They may never be part of a mineral reserve.

Companion Policy 43-101CP, Part 2, Section 2.3(1), Restricted Disclosure states that "CIM considers the confidence in inferred mineral resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. The Instrument extends this prohibition to exploration targets because such targets are conceptual and have even less confidence than inferred mineral resources. The Instrument also extends the prohibition to historical estimates because they have not been demonstrated or verified to the standards required for mineral resources or mineral reserves and, therefore, cannot be used in an economic analysis suitable for public disclosure."

The Companion Policy 43-101CP, Part 2, Section 2.3(1), on the Use of Term "Ore" states: – *We consider the use of the word "ore" in the context of mineral resource estimates to be potentially misleading because "ore" implies technical feasibility and economic viability that should only be attributed to mineral reserves.*

However, under NI 43-101, Part 2, Section 2.3(3) and Companion Policy 43-101CP, Part 2 section 2.3(3), a Preliminary Economic Assessment is allowed to use inferred mineral resources and to carry out an economic assessment in order to inform investors of the potential of the property. Investors must be informed that the preliminary economic assessment is preliminary in nature, that it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

The next logical step is to follow up the PEA with a pre-feasibility study which requires validation of resources through closer spaced sampling and cost confirmation by obtaining and using detailed quotes from suppliers. A detailed knowledge of the physical conditions at the site and extensive confirmation testing to determine the optimum processing method is also required.

16.2 Introduction

The Mineral Resources outlined to date for the Garrcon deposit indicate a large tonnage-low grade open pit mine. Howe used a circular type of analysis to determine a best case scenario for the deposit:

> "*the approach to solve it is based on a circular analysis combined with certain heuristic tools. ... In order to manage this complex problem, the mine planning process can be conveniently split off in three stages which are conceptual, feasibility and operational planning.*" (Camus and Jarpa, 1996).

Howe examined the open pit mine potential of the Garrcon deposit using processing capacities from 4,000 to 11,300 tonnes per day. In general, the higher the production rate, the lower the operating costs.

16.3 Summary of Relevant Information Available

Data received from Northern Gold and available through public and government sources includes:

- detailed drill hole data;
- mineral and waste inventory as per the 2011 Mineral Resource estimate in Howe's 2011 technical report (Hannon, Roy and Trinder, 2011);
- Rock Quality Data from 46 of the 2010 drill holes included in this resource estimate;
- hydrologic and geotechnical information is sparse but acceptable for an order of magnitude cost study;
- topographic maps, including property boundaries are sufficient for a preliminary mine layout;

- preliminary metallurgical test work; and,
- a property / claim map.

Northern Gold geologists record core recovery and RQD measurements as well as descriptive logs including rock type, structure, alteration, and mineralisation. Drill core and sample information are input into a digital database using portable computer workstations at the workbenches. The core is digitally photographed before sampling (Howe, 2010).

Northern Gold retained N.A.R. Environmental Consultants Inc. (NAR) of Sudbury to conduct environmental baseline studies in 2010 and 2011. Water sampling stations were installed at three sites on and around the Garrison Gold Property on April 28, 2010. Two ground water monitoring wells have been drilled for sampling and these in conjunction with water levels in the Jonpol shaft will establish a three point ground water monitoring system to be used to determine regional ground water movements (Roy and Trinder, 2011, 2010).

The information base is sufficient for an estimate of the capital and operating costs for this PEA. Additional geotechnical, hydrological and social and environmental studies are required as recommended in the Recommendations section.

16.4 PROPOSED MINING AND PROCESSING METHODS

Mining will be by open pit with a stripping ratio of about 2:1. Shovels will be used to load 100 ton haul trucks. Ore will be designated, and the remaining material sent to the waste dumps. If the waste material contains sufficient gold to justify recovery by heap leach, it would be sent to a primary crusher and from there either to the processing plant or a heap leach facility.

A conventional gravity-agitated cyanide leach plant capable of treating 11,300 tonne per day plant is planned for higher grade ore, + 0.3 g/tonne, (average 0.9 g/tonne) and a seasonal heap leach facility is planned for the lower grade material with grades between 0.15 g/tonne and 0.3 g/tonne. The processing plant will operate 365 days per year and the heap leach facility will operate about 274 days per year (9 month operating season), treating 8,000 tonnes per day or about 2.3 million tonnes per year (Figure 16-1).

After mining and crushing, the lower grade material for a heap leach operation will go to a heap leach facility via a conveyor system.

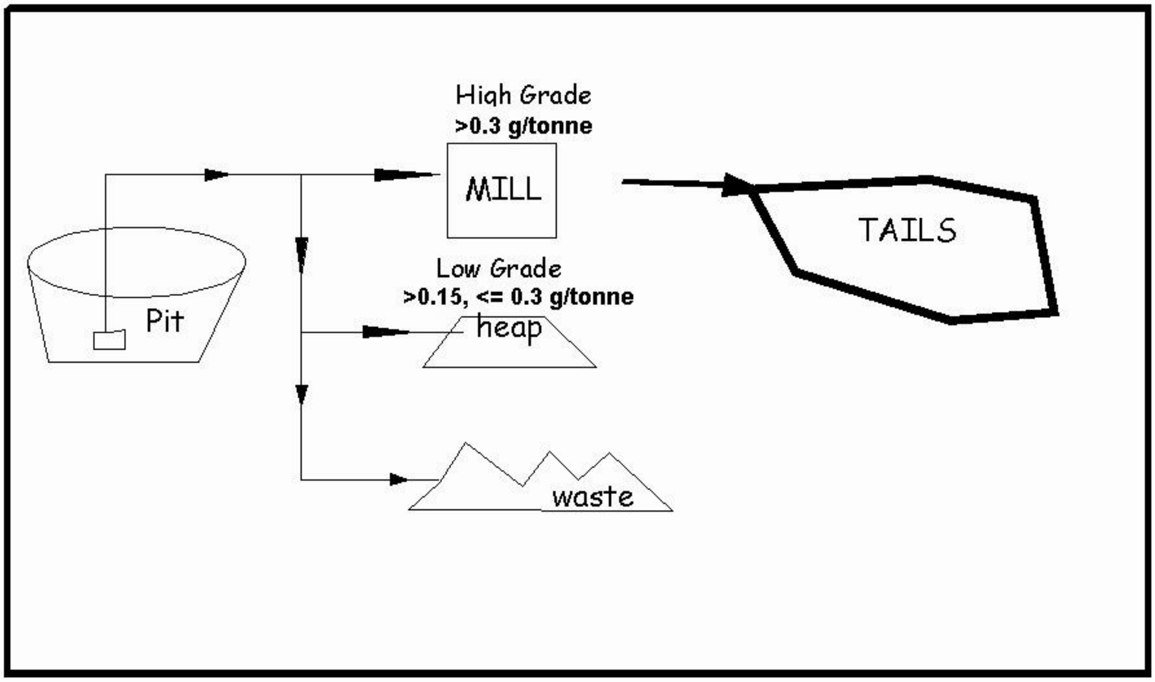


Figure 16-1: Mining and Processing of the Garrcon Gold Deposit

16.5 OPEN PIT MINING

16.5.1 Pit Optimisation

A pit was optimized using the parameters in **Table 16-1**. The pit optimisation was based on the plant milling costs (gravity with CIL/CIP). Revenue from heap leaching was not considered during pit optimisation, as the intent there was to process gold-bearing waste rock.

Table 16-1: Pit optimisation parameters.

Parameter	Value
Mining Cost, Ore or Waste (Drilling, Blasting, Loading & Hauling)	$2.34 per tonne
Rehab Cost	$0.25 per tonne Milled
Dilution	5%
Mining Recovery	95%
Gold Price	$US 1,200 per ounce
Processing Cost (CIL/CIP, Heap Leach)	$5.31 / $4.22, per tonne Processed
Processing Recovery	98%, 65%
Specific Gravity	2.73
Overall Slope Angle (rock, overburden / fault material)	45°, 30°

The proposed open pit mine will be roughly 0.9 km east-west (along strike) by about 700 metres north-south and nearly 300 metres deep with a footprint of 43 hectares (refer to

Figure 16-2). The pit contained 33.0 million non-diluted (Indicated plus Inferred) tonnes of mill feed with an average grade of 0.90 g/tonne. Material that must be mined, that did not meet the 0.30 g/tonne cut-off grade but met the 0.15 g/tonne heap leach cut-off grade, amounted to an additional 18.3 million tonnes with an average grade of 0.20 g/tonne. Almost 90% of the gold would be recovered in the mill.

Waste tonnes, which included zero-grade waste rock and block model material that was below the 0.15 g/tonne heap leach cut-off, amounted to 102 million tonnes for an overall stripping ratio of 2:1.

Table 16-2: Summary of pit optimization results (Indicated plus Inferred mineral resources).

Pit Details	**CIL/CIP**	**Heap Leach**	**Total**
Gold Price ($US per Ounce)	$1,200		
Cut-off Grade (g/tonne):	0.30	0.15	
Non-Diluted Ore (tonnes)	33,000,000	18,300,000	51,300,000
Non-Diluted Ounces	960,000	120,000	1,080,000
Non-Diluted Grade (g/tonne)	0.90	0.20	0.65
Waste Tonnes	102,000,000		
Pit Depth (m)	300		
Footprint (Hectares)	43		
Stripping Ratio (t_{waste}:t_{ore})	2:1		

Table 16-3: In-pit 2011 mineral resources, by cut-off.

Indicated Category

Cut-off Grade (g/tonne)	Tonnes Above Cut-off	Average Gold Grade (g/tonne)	Ounces
10.00	101,000	16.4	53,000
8.00	160,000	13.6	70,000
6.00	277,000	10.7	95,000
4.00	645,000	7.4	150,000
2.00	1,660,000	4.6	240,000
1.50	2,470,000	3.7	290,000
1.00	4,630,000	2.5	370,000
0.90	5,500,000	2.3	400,000
0.80	6,750,000	2.0	430,000
0.70	8,410,000	1.8	470,000
0.60	10,600,000	1.5	520,000
0.50	13,600,000	1.3	570,000
0.40	17,900,000	1.1	630,000
0.30	**24,000,000**	**0.91**	**700,000**
0.20	*32,100,000*	*0.74*	*760,000*
0.15	*37,400,000*	*0.66*	*790,000*
0.10	*43,700,000*	*0.58*	*810,000*

Inferred Category

Cut-off Grade (g/tonne)	Tonnes Above Cut-off	Average Gold Grade (g/tonne)	Ounces
10.00	2,730	12.8	1,100
8.00	21,800	9.1	6,400
6.00	36,900	8.2	9,700
4.00	217,000	5.3	37,000
2.00	818,000	3.5	91,000
1.50	1,100,000	3.0	110,000
1.00	1,930,000	2.3	140,000
0.90	2,140,000	2.1	150,000
0.80	2,520,000	1.9	160,000
0.70	3,220,000	1.7	170,000
0.60	4,070,000	1.5	190,000
0.50	5,280,000	1.3	210,000
0.40	7,030,000	1.1	240,000
0.30	**9,000,000**	**0.9**	**260,000**
0.20	*11,600,000*	*0.8*	*280,000*
0.15	*13,900,000*	*0.7*	*290,000*
0.10	*18,100,000*	*0.5*	*310,000*

Note: Figures in *italics* represents material within the block model that was not considered to be a mineral resource and was included for information puposes onl

Notes:

1. Cut-off grade for mineralised zone interpretation was 0.1 g/tonne.
2. Block cut-off grade for defining Mineral Resources was 0.3 g/tonne.
3. No top-cut grade was used. In the author's opininion, the use of a top cut would not have significantly affected the results.
4. Gold price was $US 1200 per troy ounce.
5. Zones extended up to 100 metres down-dip from last intercept. Along strike, zones extended halfway to the next cross-section.
6. Minimum width was 5 metres, though in no place was the zone that narrow.
7. Non-diluted.
8. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
9. Resource estimate prepared by Doug Roy, M.A.Sc., P.Eng.
10. A specific gravity (bulk density) value of 2.73 was applied to all blocks (a representative value based on a limited number of measurements).
11. Ordinary block kriging ("OBK") was used for estimating block grades.
12. Indicated resources identified where sample intercept spacing was 50 metres or less (based on variography).
13. No Measured Mineral Resources or Mineral Reserves of any category were identified.
14. The volume/tonnage of historic Cominco shaft, drifts and crosscuts have not been deleted from the Howe mineral resource volume/ tonnage. Howe estimates the tonnage extracted from the resource area was less than 0.1% of the total inferred and indicated resource tonnage.

Table 16-4: 2011 Resources by level

Bench Elevation (m)	Up to Elevation (m)	Resource Category	Total Tonnes	Tonnes In-Pit	Total Average Grade (g/tonne)	In-Pit Average Grade	Total Ounces	In-Pit Ounces	Percent of Total Within Pit: Tonnes	Percent of Total Within Pit: Ounces
250	300 (Approx)	Indicated	4,980,000	4,980,000	0.85	0.85	136,000	136,000	100%	100%
250	300 (Approx)	Inferred	2,860,000	2,860,000	0.82	0.82	75,400	75,400	100%	100%
200	250	Indicated	4,770,000	4,770,000	0.75	0.75	115,000	115,000	100%	100%
200	250	Inferred	1,800,000	1,450,000	0.81	0.90	46,900	42,000	81%	90%
150	200	Indicated	5,660,000	5,600,000	0.98	0.98	178,000	176,000	99%	99%
150	200	Inferred	892,000	631,000	0.87	0.99	25,000	20,100	71%	80%
100	150	Indicated	6,020,000	5,660,000	0.77	0.79	149,000	144,000	94%	97%
100	150	Inferred	1,780,000	1,130,000	0.67	0.71	38,300	25,800	63%	67%
50	100	Indicated	3,610,000	2,870,000	1.19	1.36	138,000	126,000	80%	91%
50	100	Inferred	3,740,000	1,770,000	0.64	0.69	77,000	39,300	47%	51%
0	50	Indicated	321,000	112,000	0.98	1.55	10,100	5,580	35%	55%
0	50	Inferred	4,220,000	1,150,000	0.78	1.56	106,000	57,700	27%	54%
-50	0	Indicated	-	-	-	-	-	-	0%	0%
-50	0	Inferred	1,800,000	-	0.59	-	34,100	-	0%	0%
-100	-50	Indicated	-	-	-	-	-	-	0%	0%
-100	-50	Inferred	1,440,000	-	0.54	-	25,000	-	0%	0%
-150	-100	Indicated	-	-	-	-	-	-	0%	0%
-150	-100	Inferred	311,000	-	0.41	-	4,100	-	0%	0%

Table 16-5: Percent of 2011 Resources in the Indicated category, by Level.

Bench	Tonnes	Ounces
250	64%	64%
200	73%	71%
150	86%	88%
100	77%	80%
50	49%	64%
0	7%	9%
-50	0%	0%
-100	0%	0%
-150	0%	0%

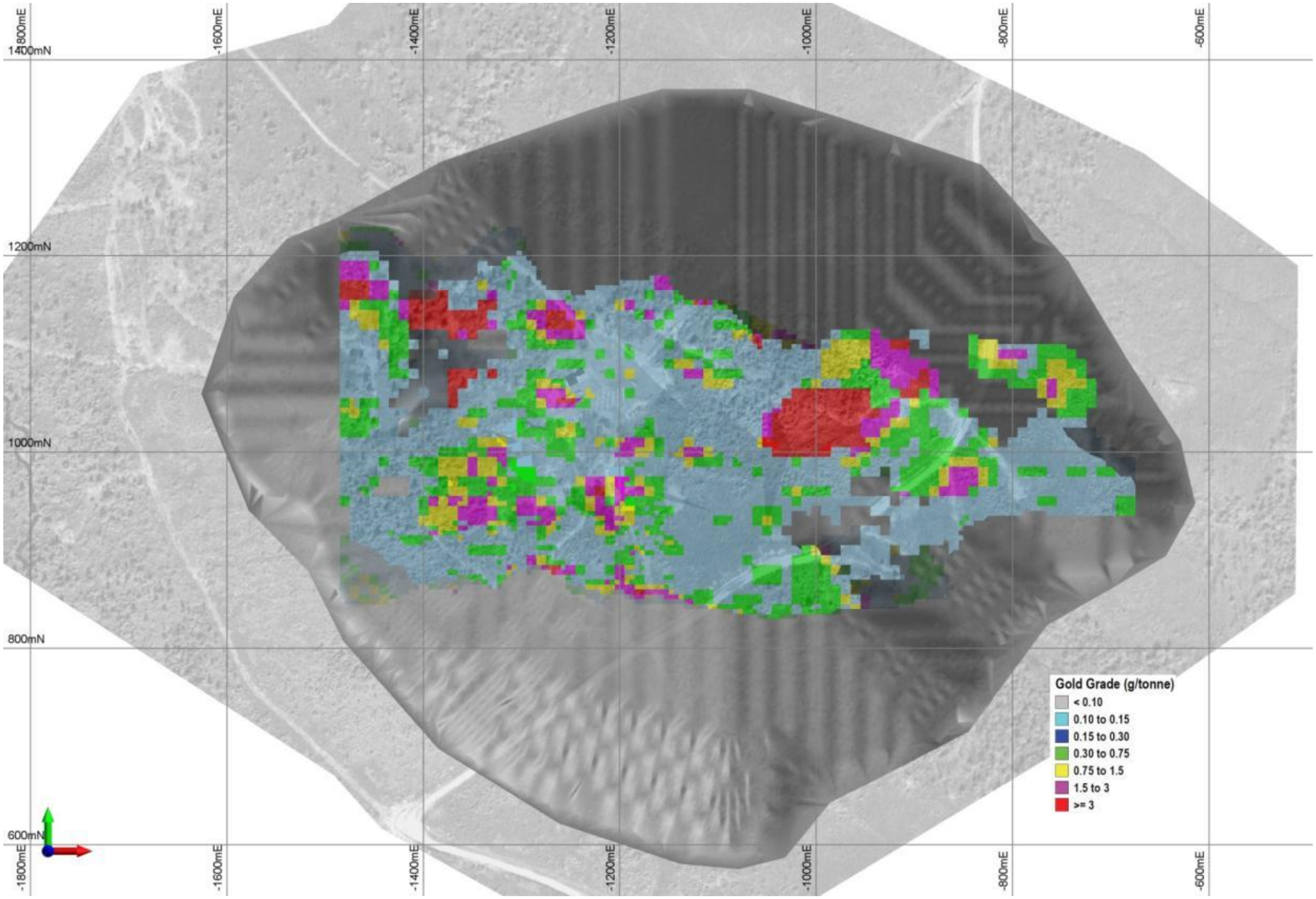


Figure 16-2: Plan view of $1200 pit (optimum pit).

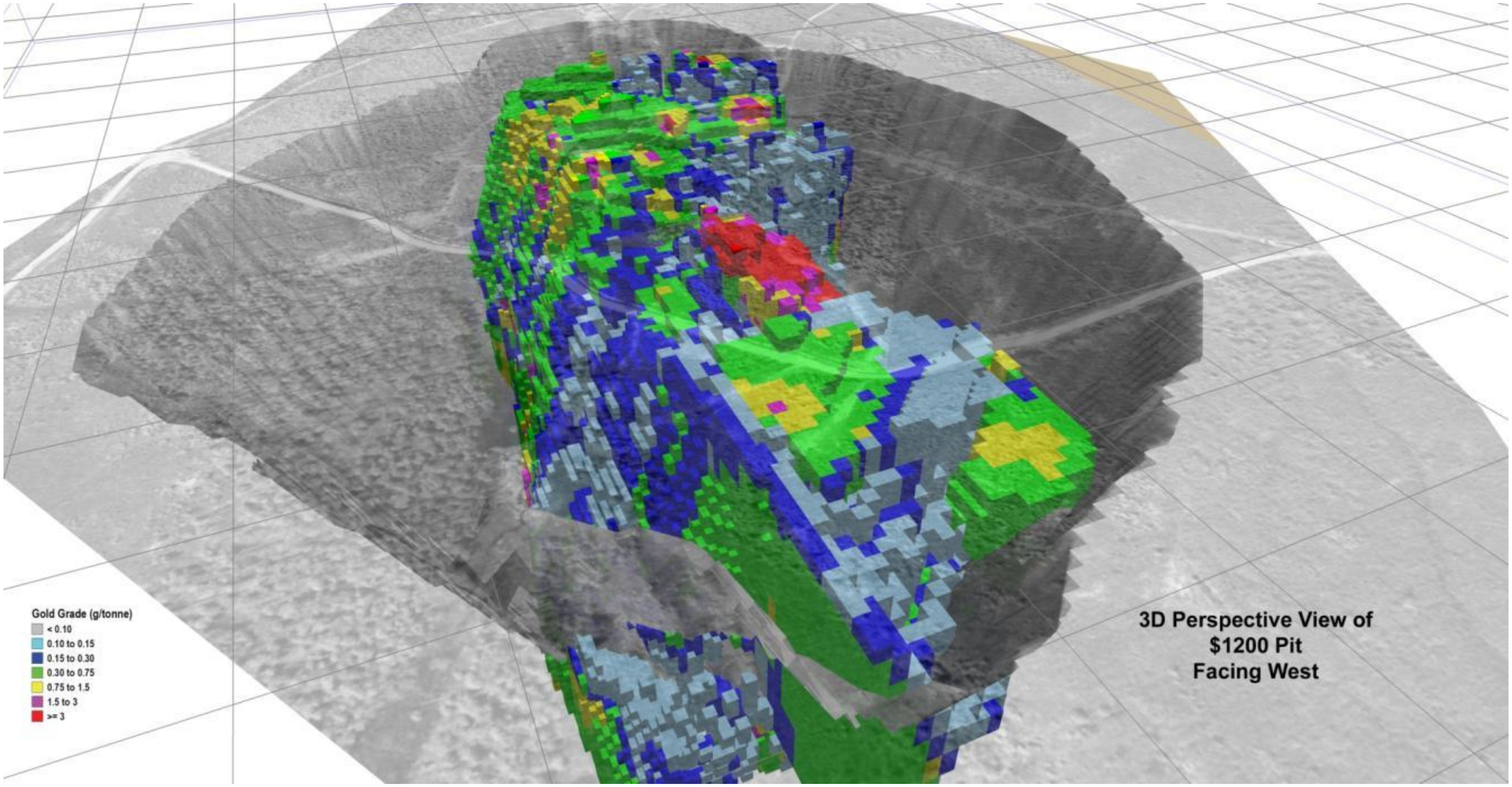


Figure 16-3: Three-dimensional view of the $1200 pit (optimum pit).

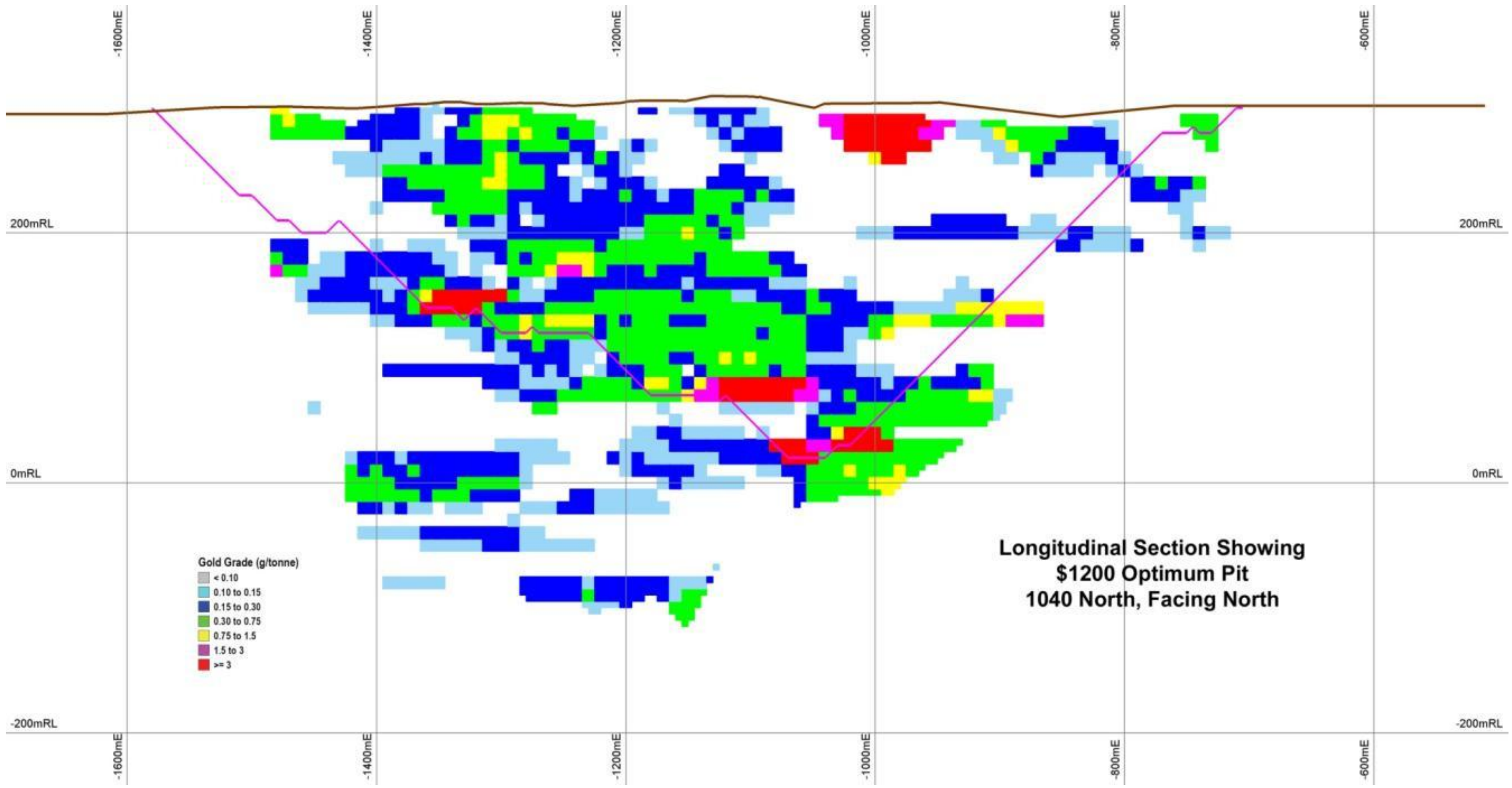


Figure 16-4: Longitudinal section showing the $1200 pit (optimum pit).

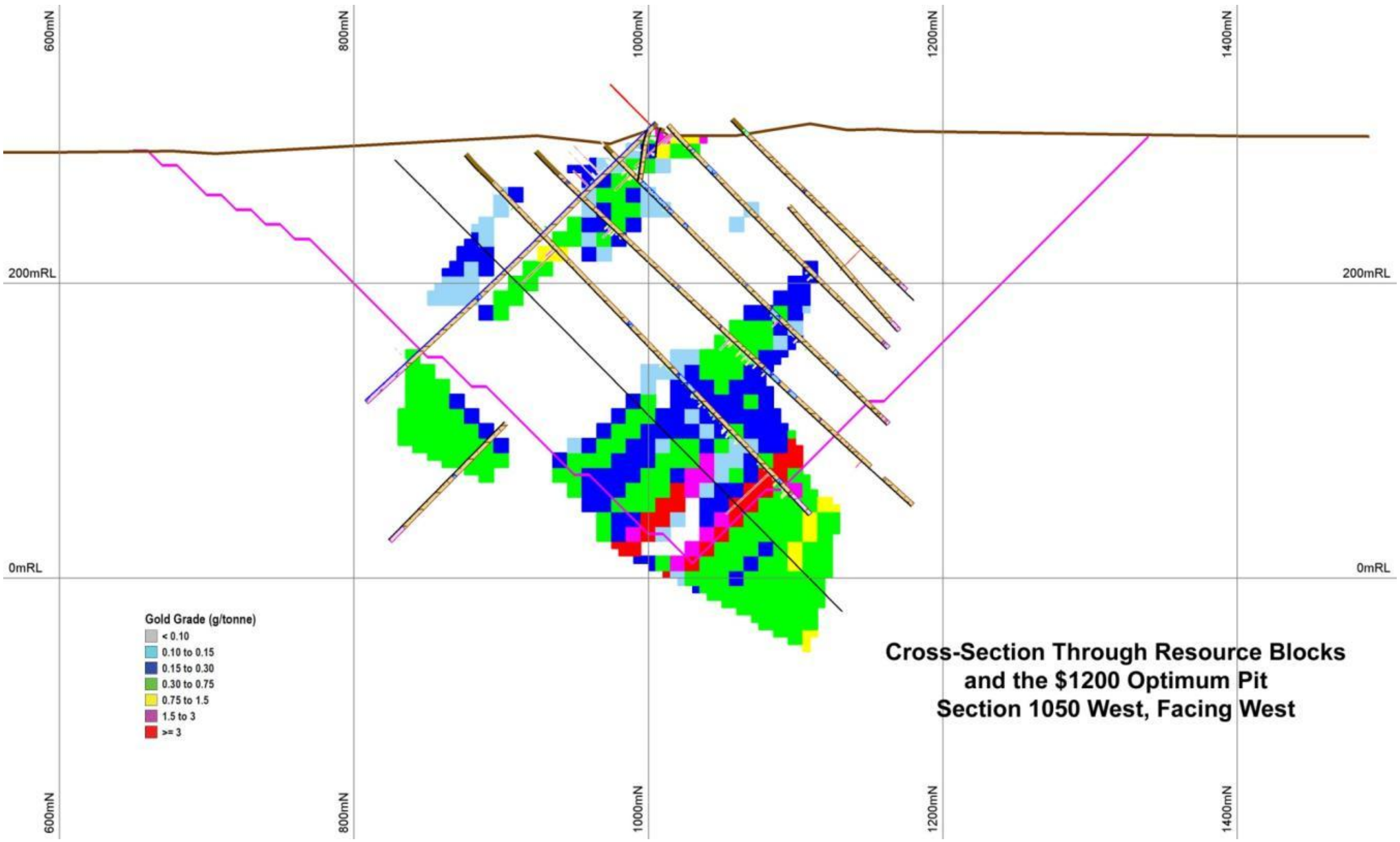


Figure 16-5: Cross-section 1050 West.

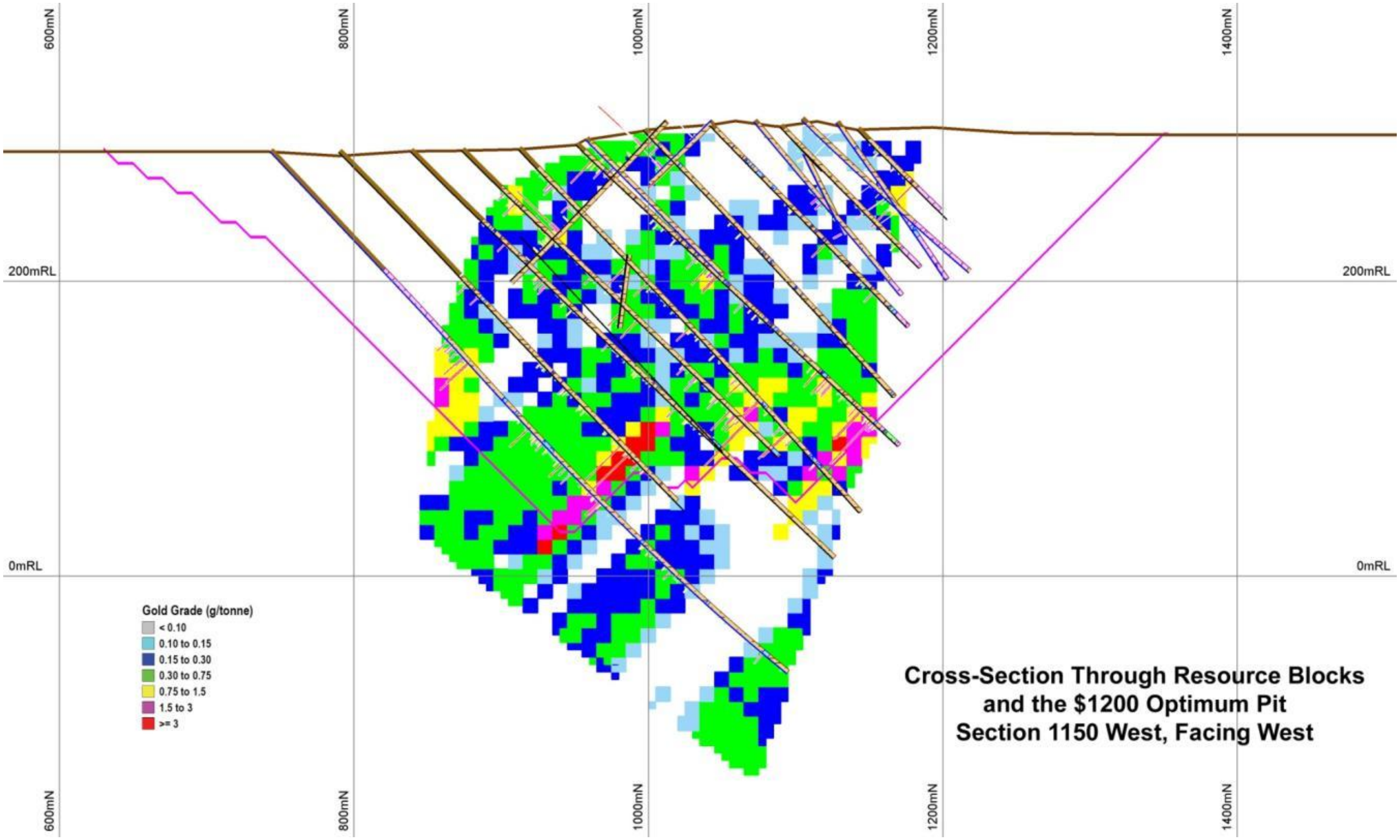


Figure 16-6: Cross-section 1150 West.

16.5.2 Practical Pit Design ("De-optimisation")

Benches and haul roads were added to the base case optimum pit.

The minimum haul road width is 20 metres. A 100 tonne capacity haul truck (a typical size for this deposit type and size) has a 6 metre width. Roads should be 2-3 times the haul truck width. The chosen width (20 metres) allows for a ditch on the "toe" side of the road and a safety berm on the "crest" side (refer to Table 16-6 and Figure 16-7).

Refer to Figure 16-8 and Figure 16-9 for the conceptual, "de-optimised" pit design.

Table 16-6: Pit design parameters ("de-optimisation").

Parameter	Value
Haul Road Width	20 metres (Minimum)
Bench Face Angle	80 deg
Final Bench Height	20 metres (Maximum)
Catch Bench Width	20-25 metres (Varies to Suit Overall Slope)
Overall Slope Angle	45 deg

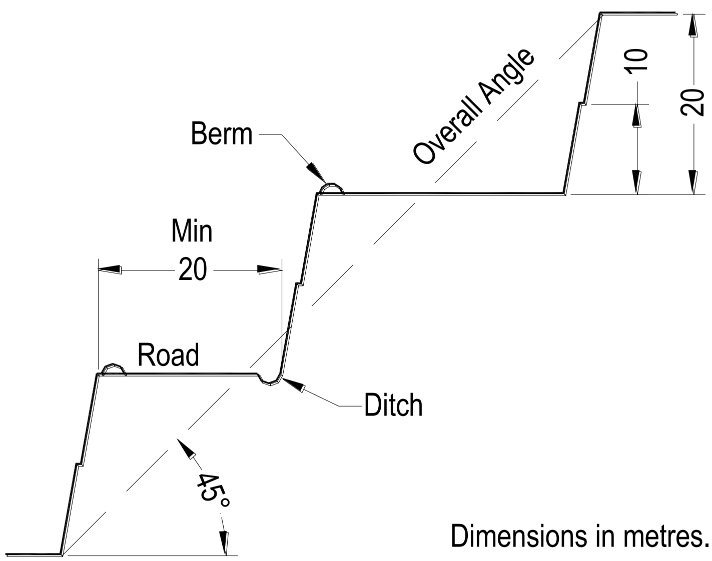


Figure 16-7: Conceptual pit design cross-section.

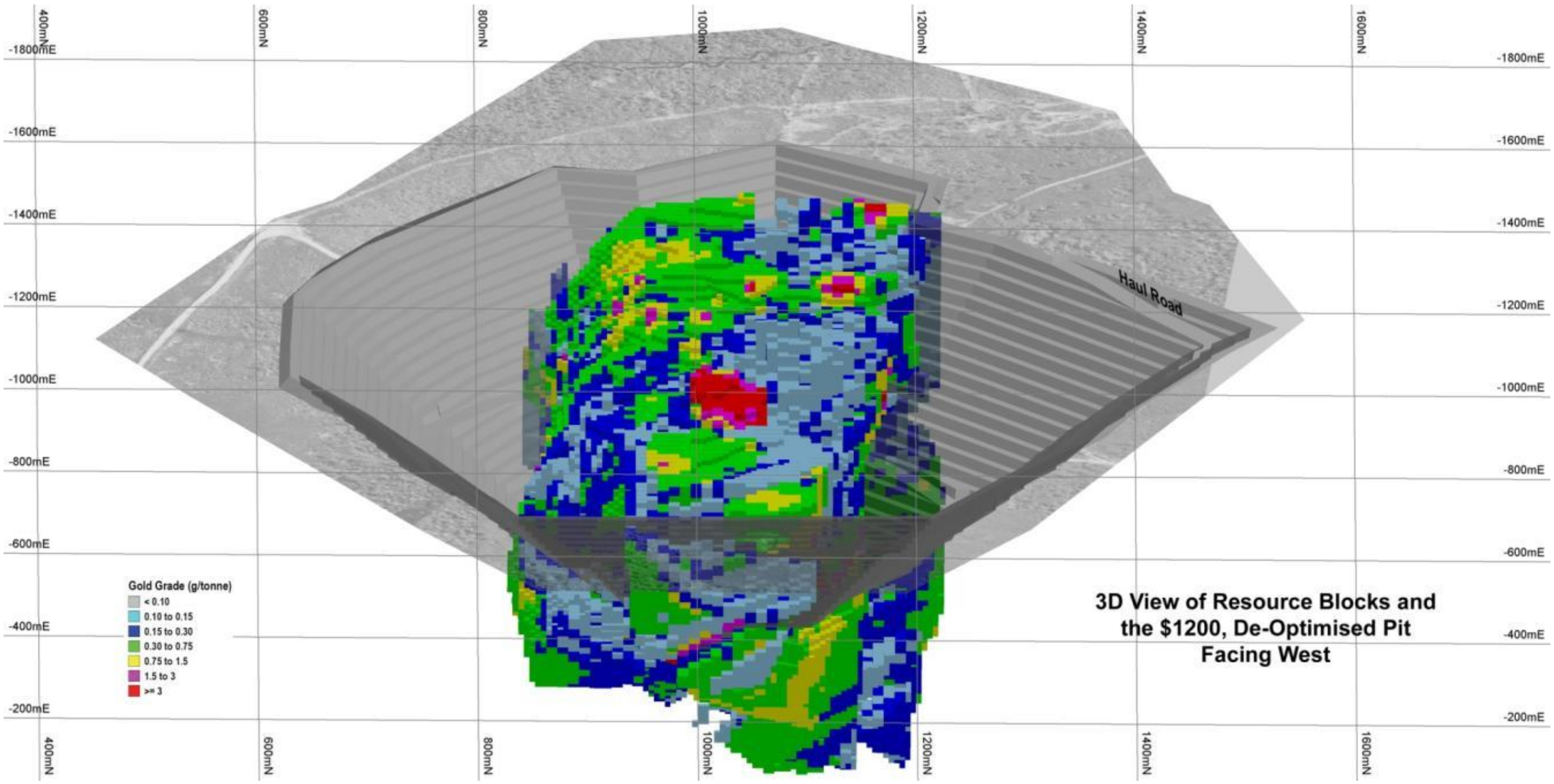


Figure 16-8: 3D view of the de-optimised (benches and haul roads added), $1200 pit, facing west.

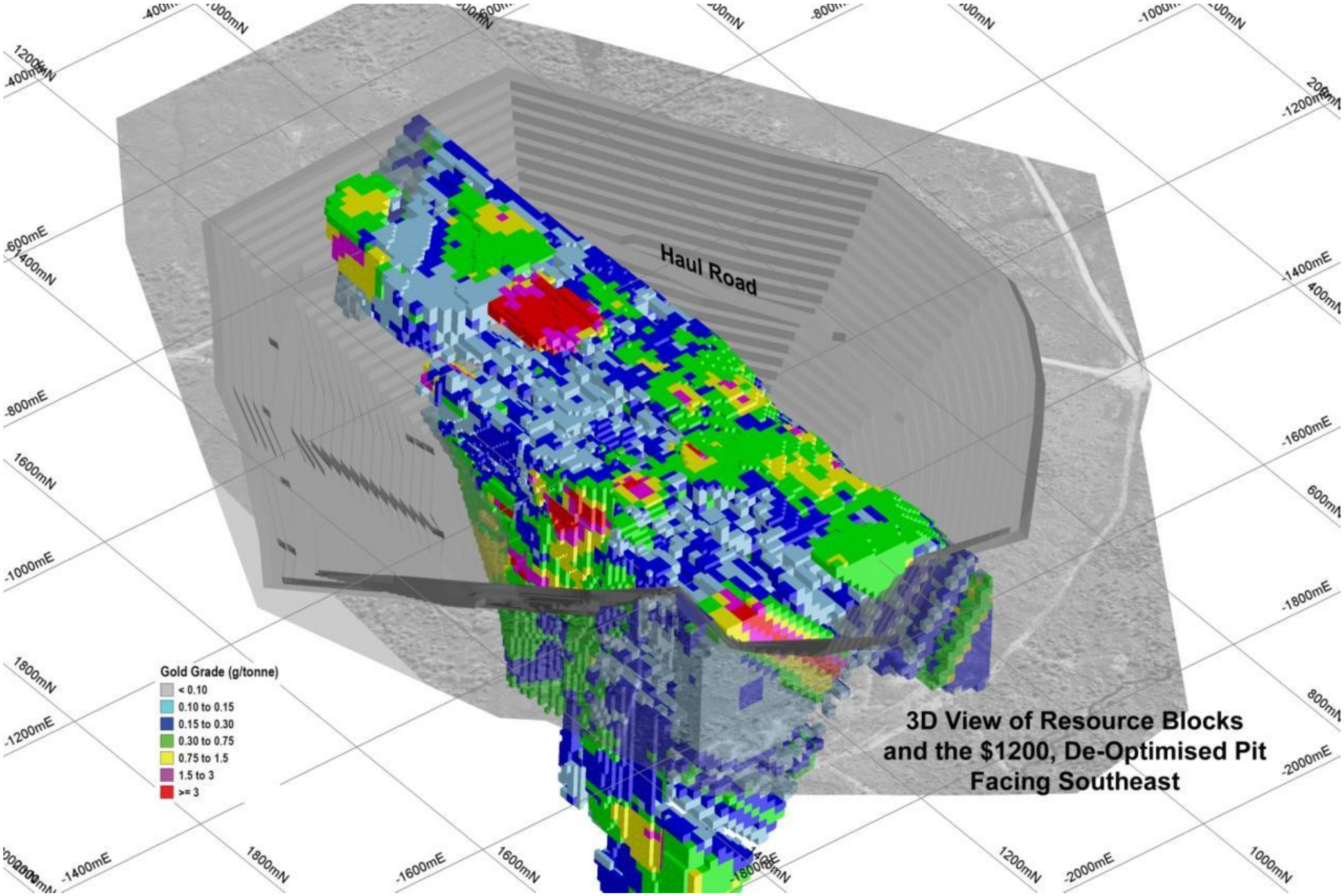


Figure 16-9: 3D view of the de-optimised (benches and haul roads added), $1200 pit, facing southeast.

16.6 PRODUCTION RATE

Howe has created a cash flow model for the Garrcon deposit and this model is used to estimate the net present value of the revenue stream from the mine using production capacities ranging from 1,000 tpd to 12,000 tpd. The optimum tonnage rate, based on this work, is 11,300 tonnes per day giving an 8 year mine life.

16.7 MINE SCHEDULE

Waste stripping will be completed 6 months to a year prior to mining. For the purpose of the PEA, the grade of the ore is treated as being uniform throughout the life of mine. As additional work is done, the schedule should be revised to reflect the actual pit ore grade. After the mill has been commissioned, higher grade material may be mined early, reducing the payback period.

Table 16-7 - Mining Schedule for 10,300 tpd plant (quantities rounded)

	Pre-Production Year 1	Pre-Production Year 2	Year 1	Year 2	Year 3-8
Waste tonnes Mined		6,311,000	12,519,000	12,519,000	6,259,000
LG ore to Crusher then Heap		572,000	2,288,000	2,288,000	1,716,000
H.G. Ore to Crusher the to Mill PAD		1,031,000	4,125,000	4,125,000	3,094,000
Dilution		52,000	206,000	206,000	155,000
Tonnes moved per year		7,966,000	19,138,000	19,138,000	11,223,000
loose m3 moved per year		5,431,000	13,049,000	13,049,000	7,652,000

16.8 MINE PLANNING PARAMETERS

The mine engineering department will be responsible for mine planning and design, production scheduling, surveying, geotechnical design, and performance statistics and any other technical requirements that support the operation. The mine geology department will be responsible deciding which ore goes to the processing plant and which will go to the heap leach. Low and high grade can be mapped and confirmed by blast hole sampling. Processing options are discussed in processing section of the report.

Table 16-8 provides the basic criteria used in the pit design. The mine and mill operate 7 days per week, nominally 365 days per year. In reality however, there will be storm days and other times when it is not possible to work in the mine. The heap leach will operate about 9 months per year, 7 days per week. The mine will move and stockpile about 52,000 tonnes per 24-hr day. Large stockpile areas are required at the mill and at the first crushing station. In practice, more ore will be mined during the summer than during the winter and provisions are to be made for ore stockpiles to supply a minimum of 2 months mill feed (680,000 tonnes, requiring about 5 ha of storage area).

Table 16-8: Pit Quantities, Non-Diluted

Pit Quantities	1.98	tonnes waste/tonnes ore
Tonnes HG ore	***33,000,000***	tonnes
approximate m^3 tailings	***25,384,615***	$m^{3,}$ s.g. = 1.3
tonnes/year to plant	***4,125,000***	per year
Tonnes LG Ore	***18,300,000***	tonnes
tonnes/year to heap leach	***2,287,500***	Seasonal, 9 months/year
approximate m^3 Heap Ore	***11,437,500***	$m^{3,}$ s.g. = 1.6
waste rock, estimated	***101,800,000***	tonnes
approximate loose m^3	***63,625,000***	$m^{3,}$ s.g. = 1.6
Ore plus waste tonnage combined	**153,100,000**	tonnes
INSITU HG Ore, g/t	**0.90**	g/t
Mine recovery	**0.95**	
INSITU LG Ore g/t	**0.20**	g/t

Table 16-9 lists the quantities used in the mine plan. These quantities were determined from the optimum pit at a gold price of $1,200 per ounce. Dilution of the ore to the mill is assumed to be 5% at zero grade. The mining recovery is assumed to be 100% for this PEA as the mineralized zones are wide, in reality however, mining recovery will be less than 100%.

Stripping is scheduled to be done a year ahead of mining in the PEA. This will ensure enough working places to permit a steady production of rock. The ore:waste strip ratio is approximately 2:1.

Table 16-9: Quantities used in the PEA study

GARRCON GOLD PROPERTY Mine Life, years	8.0
BASIC CRITERIA for Garrcon Open Pit Mine Plan	
Total tonnes ore plus waste	153,100,000
Dilution	5%
annual ore tonnes	4,125,000
annual loose cubic metres ore	2,580,000
annual waste tonnes	12,725,000
annual heap leach cubic metres (s.g. = 1.6)	1,430,000
annual heap leach tonnes	2,287,500
annual loose cubic metres waste	7,953,000
Annual tonnes ore and waste combined	19,137,500
Weekends and Annual legal holidays of total shutdown	0
Scheduled operating days per week	7
Annual scheduled operating days	365
Nominal tonnes mined / day	52400
Processing Plant, tonnes per day	11300
Number of shift crews	4
Heap Leach - 6 cells, heap depth, m	3
Heap Cycle, days- stack, leach, wash, prep for next lift,	70
scheduled hours per year	8,760
Average daily tonnage per 24 hour day	52,432
average hourly tonnage	2,185
peak delivery to dumping points	2,913
Overall job efficiency (55 min hour)	92%
Average mechanical availability of scheduled time	85%
Annual outage factor	95%

16.8.1 Required Mining Fleet and Machinery

Mining fleet and machinery requirements for the proposed pit are presented in **Table 16-10**.

Table 16-10: Major Mining Items

Item	Number
Hydraulic large shovel	2
Hydraulic Backhoe, 45 tonne	1
Frontend Loader , 350 kW	2
Haul Truck (New or good used)	13
Water Truck	2
Blast Hole Drills	4
Bull Dozer and ripper, 4.7m maximum blade width	3
Rubber Tired Front end loader, 300 kW	1
Grader, 4.3m blade width	1

16.8.1.1 Drilling and Blasting

A minimum of 4 good used or new rotary drills are required with the capacity to drill at least 10m per hour. Drilling tests should be completed to determine bit wear, drilling speed etc. A blast hole diameter of 223mm (9 inch) will provide a good penetration rate and a good powder distribution. Blast hole specifications and drill requirements are presented in Table 16-11.

Larger diameter drills lower drilling and blasting costs (greater down-hole pressure on the bit, thus drill faster; fewer detonators etc.). The larger 9 inch hole will also provide finer muck and thus lower crushing and grinding costs.

Table 16-11 – Blasthole Specifications and Drill Requirements

Hole Size	0.2286	m
Bench Height	15	
Hole Depth	17	m
Total Hole Volume	0.68	m^3
Percent of hole depth filled with explosives	60%	
volume of explosive	0.41	m^3
bulk density of explosives, average	1000	kg/m^3
Weight of explosive in hole	406	kg
explosive factor, kg/t rock blasted	0.25	
tonnes broken per hole	1625	
total tonnes ore and waste per year	19,137,500	tonnes
total holes per year	11775	
total length of hole	194282	m
drilling rate while drilling the hole	10	m/hr
actual drilling time required	19428	hours
scheduled annual hours	8,760	hr
overall job efficiency	80%	
mechancal availability	80%	
annual outage factor	95%	
production utilization	61%	
actual production hours	5,326	hr
drills required	3.6	
minimum drills in use or available	**4**	

Vertical holes will be drilled 17m deep to provide 15m benches. Holes will be bottom loaded and blasted in rows at least 5 deep. Burden, spacing and blast hole timing will be determined taking geotechnical elements into consideration as well as timing between holes and down holes will be determined for optimal fragmentation in the ore and waste. The ore near the waste contact can be blasted in 5 meter benches for grade control. Cushion blasting near the waste contact and final wall should minimize overbreak and dilution.

The physical properties of the rocks have not been determined but should be close to typical for the area, and from Morrison, 1971.

Table 16-12 - Physical Properties of Rocks

	Unconfined Strength				Elastic Moduli		
					stress/longitudinal strain	lateral strain / long. Strain	Shear Modulus
Physical Properties of Rocks[1]	**Compression, psi**	**Tension, psi**	**Shear, psi**	**Torsion, psi**	**Young's Modulus x 10-6 psi**	**Poisson's Ratio**	**Modulus of Rigitity x 10-6**
Conglomerate, Denison Mine	26,890	1,090	5,745		10.30	0.13	4.50
Conglomerate, Miliken Mine	17,590	1,070		1,658	13.20	0.10	6.30
Porphyry, Lakeshore Mine	36,280	1,900	3,430	3,600	9.40	0.21	3.90
1. from Table 1 (14) Morrison, p.20							
Physical Properties of Rocks	**Compression, Mpa**	**Tension, Mpa**	**Shear, Mpa**	**Torsion, Mpa**	**Young's Modulus x 10-6 Mpa**	**Poisson's Ratio**	**Modulus of Rigitity x 10-6**
Conglomerate, Denison Mine	185	8	40	-	0.0710	0.13	4.50
Conglomerate, Miliken Mine	121	7	-	11	0.0910	0.10	6.30
Porphyry, Lakeshore Mine	250	13	24	25	0.0648	0.21	3.90

16.8.1.2 Truck Fleet and Shovel Requirements

Haulage truck and shovel requirements (Table 16-13, Table 16-14 and Table 16-15) are estimated with the assumption that land for waste dumps, stockpiles, heap leach pads etc. are available close to the mine. A minimum of 13, 100 tonne trucks will be required. The 100-t units are recommended for better overall availability.

Waste rock and ore is assumed to be hauled, on average 3 km (giving a round trip of 6 km) over the life of mine. At a 6 % grade, the haul from the bottom of the pit to the top would be about 3.6 km. If the haul becomes longer than 3 km one way, then, a larger truck may be justified.

A 100 ton capacity haul truck (a typical size for this deposit type and size) has a 6.1 metre operating width and a height of 10 metres at full dump. The overall truck length is 9.8 metres. The truck has a fully loaded top speed of 60 km/hr and a turning radius of about 25 metres. When hauling material, truck speeds are determined by the weight per axel, which in turn depends upon the tires and the condition of the road surface.

Roads should be 2-3 times the haul truck width. The minimum haul road width is 20 metres which allows for a ditch on the "toe" side of the road and a safety berm on the "crest" side. Power lines and maintenance bay doors should be at least 13 metres high at the lowest point.

Table 16-13 - Haulage Truck Cycle Time

Truck Cycle Time		
manuvering for position	1.5	minutes
loading	3.5	minutes
Accelerating loaded truck	1.5	minutes
Haulage to dump point	10	minutes
decelerate and dump	2	minutes
Retrn empty	8	minutes
Total	**26.5**	**minutes**

Table 16-14 - Haulage Truck Requirement

Haulage trucks capacity:	100	tonne
Cycle time (continuous)	26.5	min
trips per hour	2.3	
tonnes per hour	230	
overall job efficiency	92%	
mechancal availability	85%	
annual outage factor	95%	
Scheduled hours/year	8,760	hrs
actual production hours	6,484.23	hr
annual production by truck	1,491,372	tonnes
annual production required	19,137,500	tonnes
	13	**trucks required**

Table 16-15 Shovel Cycle Time & Total Shovels Requirement

Shovel Cycle Time	Minutes		3.85
digging and hoisting	0.2		
Manuvering	0.2	Shovel Size, m^3	16
Backing and Turning Loaded	0.1	Shovel Fill Factor	90%
Traveling Loaded	0.15	Shovel Load, LCM	14.4
Dumping	0.08	Load Cycle time, minutes	3.85
Backing and Turning empty	0.1	Trucks Loaded per hour	14
Traveling Empty	0.08	1 shovel, maximum tonnes per	1429
Truck Exchange	0.45	Tonnes per year	19,137,500
Swinging Loaded	0.08	effective hours per year	7073.7
Swinging Empty	0.03	Shovels Required	2
Site Cleanup	0.5		

16.8.2 Dewatering

Water wells will be installed around the open pit to dewater and to reduce water pressure in the walls. Ground water pumped from the pit area will be used in processing. Water pressure reduces the stability of pit slopes by reducing the shear strength of potential failure surfaces and freezing groundwater during winter can cause wedging in water-filled cracks. Also, freezing surface water on slopes can block drainage paths causing excessive pressure on the walls (MEH, p 1276[7]).

Rock support such as cable bolts and an active wall drainage program will allow the walls to be kept stable.

16.8.3 Waste Management Area

Approximately 33,000,000 tonnes of gold ore will be processed through the mill, equating to about 25 million cubic metres of tailings, assuming a bulk S.G. of 1.3.

Potential land requirements for mine, processing, and waste management facilities are discussed in Section 18.1. The Garrison Gold Property covers an area of 476.1 ha which when combined with adjacent 370.4 ha land area of the recently acquired Plato claim group gives a Northern Gold a total land area of 846.5 ha (Figure 4.4) in the immediate area of the Garrcon deposit. Detailed site engineering is required to confirm the suitability and sufficiency of the current property areas for final mine, processing, and waste management facilities should they be constructed. For the purpose of this PEA, Howe assumes that Northern Gold will be successful in acquiring any additional land in the vicinity of the deposit that may be required to carry out the mining plan.

16.9 HEAP LEACH FACILITY

The heap leach material will be stacked in prepared areas that have a clay base and a double pad liner. The liners will incorporate a leak detection system in the sand layer between the liners.

The time to extract approximately 65% of the gold from the lower grade material is estimated at 70 days. During this period, a second heap leach cell would be established. Both cells would have a working area 100 metres long by about 70 metres wide. The heaps would be established on a slight slope to enhance the movement of leach solution. Water consumption, the sprinkling rate, the time it takes to recover the gold is a function of the overall permeability of the lift and the local permeability. In practice most heap leach operations apply solution to crushed-ore heaps ranging from 7 to 20 litres per hour per square metre with an average of 11 litres/hr/sq. metre (Kappes, 2001).

The heap leach operation would therefore require approximately 125,000 cubic metres of water per 24 hour day (about 1,500 litres/second). Most of the heap leach water would be re-circulated. The heap leach facility is assumed to operate 9 months per year.

[7] MEH – Mining Engineering Handbook, Society for Mining, Metallurgy, and Exploration, Inc. 2nd printing: December 1996

The heap leach facility that operated at The Brewery Creek mine in the Yukon, described in "Yukon Mineral Property Update 2008" provides some guidance to operating in a cold climate (Deklerk and Burke, 2008). The Brewery Creek mine produced gold at about $250/ounce during the late 1990s utilizing a large permanent heap leach pad. As described by Deklerk and Burke (2008): "*The leach pad was divided into seven discrete cells, each nominally 83 m wide and 462 m long, with total capacity of 11.7 million tonnes of ore. The permitted and ultimate pad layout provided space to accommodate 18 million tonnes of stacked, run-of-mine ore.*

"A multiple-layer liner system was installed under the heap to collect process solution and direct it to the recovery plant, as well as prevent leakage to the environment. The possible loss of solution to the ponds and subsequent freezing of the drip-emitter system during an equipment failure was of prime concern because of the severe winter conditions. Temperatures have dipped to as low as minus 43.5°C. The following features were incorporated into the design to prevent this freezing.

- *Emitters were placed into the surface to act as an insulator;*
- *All outside piping was insulated and heat-traced;*
- *Waste heat from the diesel generator engines was used to heat the outgoing barren solutions.*
- *A waste-oil-fired heat exchanger was used to heat circulating solutions*."

It would be beneficial to heat the proposed Garrcon heap leach solution with waste heat or perhaps geothermal heat.

16.9.1 Design Considerations for Reclamation and Closure

Once the heap leaching operation is completed, the facility must be closed in accordance with local environmental requirements. Closure activities are highly variable depending on the environmental sensitivity of the site, and on the regulatory regime. In general, heaps are washed for a short period of time (commonly three years), during which time one tonne of wash water or recycled treated process solution is applied. Heaps are then capped, and ponds are filled and capped.

Kappes (2001) in his paper "Precious Metal Heap Leach Design and Practice" describes the reclamation of heap leach sites

> "the easiest heaps to reclaim are single-lift heaps because the older heaps are abandoned early in the life of the operation and can be washed while production operations continue. In "Valley Fill" heap leaches, nearly all the ore ever placed on the pad is situated directly under active leach areas. Thus, washing of the entire heap must wait until operations are completed. Larger operations may have two or more "Valley Fill" leach areas, and can appropriately schedule closure activities. Environmental regulations usually call for reasonably complete washing of the heap to reduce pH, to remove cyanide, and to partially remove heavy metals. Cyanide is fairly easy to remove since it oxidizes naturally, but pH and heavy metals are more difficult to control. Regulators are recognizing that a better approach is to conduct a "limited" washing program and then to cap the heap with clay and/or an "evapotranspiration" cover of breathable soil with an active growth of biomass. These covers are designed to prevent infiltration of water into the heap. After several years of active closure activities, the flowrate of the heap effluent decreases to a manageable level (or to zero in arid environments)."

SGS metallurgical testwork and ongoing geochemistry find that sulfide sulfur is only about 0.5%, and arsenic varies from slightly above to below its detection limit. The content of heavy metals as a group is very low, especially when compared to other Abitibi Greenstone Belt gold deposits that have been mined. The calcium content of the deposit (SGS metallurgical testwork and geochemistry) is in the range of 20% to 30% which provides an excellent buffer against ARD and heavy metals contamination. The SGS work and geochemistry to date suggest that ARD and heavy metals do not appear to be problem issues for the Garrcon Deposit; pending confirmation by additional testwork.

17 RECOVERY METHODS

Section 17 has been extracted from Howe's 2011 NI 43-101 technical report and PEA (Hannon, Roy and Trinder, 2011) and repeated in this Report. The reader is cautioned that the 2011 Garrcon PEA is based on Howe's 2011 Garrcon mineral resource estimate which has now been replaced by the 2012 Garrcon mineral resource update presented in this report. The 2011 Garrcon PEA reported in the following subsections has not been updated to reflect the changes in the Garrcon mineral resource.

Available information on test work is limited to two small samples (discussed in Section 13).

There are no operating results available relating to the recoverability of the gold at the Garrcon deposit.

The SGS work allows for a standard gold processing method to be tested. The operating philosophy is always to get the gold out of the rock as soon in the process as possible. To accomplish this, a standard gravity – cyanide circuit is proposed for the rock with greater than 0.3 g/tonne gold. Rock with a gold content between 0.15 g/tonne and 0.3 g/tonne would be sent to a heap leach facility.

Energy Requirements are estimated to be in the order of 10 Megawatts.

Water requirements are between 5 and 10 tonnes water per tonne of solids or between 50,000 m3/day and 100,000 m3/day (600 to 1,200 L/s). Essentially all of this is internally recycled.

17.1 INTRODUCTION

The proposed concentrator for this study is based on an annual mineable resource throughput of 4.1Mt, or 11,300 tpd at a 93% plant availability, for the production of a gold product; that being a gravity product, float product or gold bars, depending on the options chosen. The processing plant will operate 24 hours/day, 365 days/year. No assumptions are made on the grade of the material as this has an insignificant impact on capital and operating costs within the range of values analyzed. The tests done to date suggest that this could be on the order of 0.9 g/tonne. The company plans (subject to column test confirmation) to process all material between a grade of 0.15 g/T and 0.3 g/T in the heap leach system and material with a grade greater than or equal to 0.3 g/T will be processed in the gravity/vat leaching process.

In this circuit, it is assumed that sulphide separation requires a finer grind than 2000 micrometers and that essentially half of the crusher product will be ground. It also assumes that the sulphide separation is performed at a size of approximately 75 micrometers. A gravity separation circuit is included, as spirals, however, this may have to be replaced by a flotation circuit. In addition, no waste stream is produced at this point. The sulphide stream is assumed to represent 12% of the initial flow, or 1,360 tpd. This stream is reground and vat leached. The gravity, or flotation, underflow/tailings, is then vat leached.

The processing scenario presented in this report includes various run-of-mine stockpiles, crushing, fine and course ore stockpiles, heap leaching, the loading and unloading of gold onto the carbon, carbon regeneration, cyanide recycling and destruction, electrowinning and gold bar production. This circuit is shown as a block diagram in Figure 17-1.

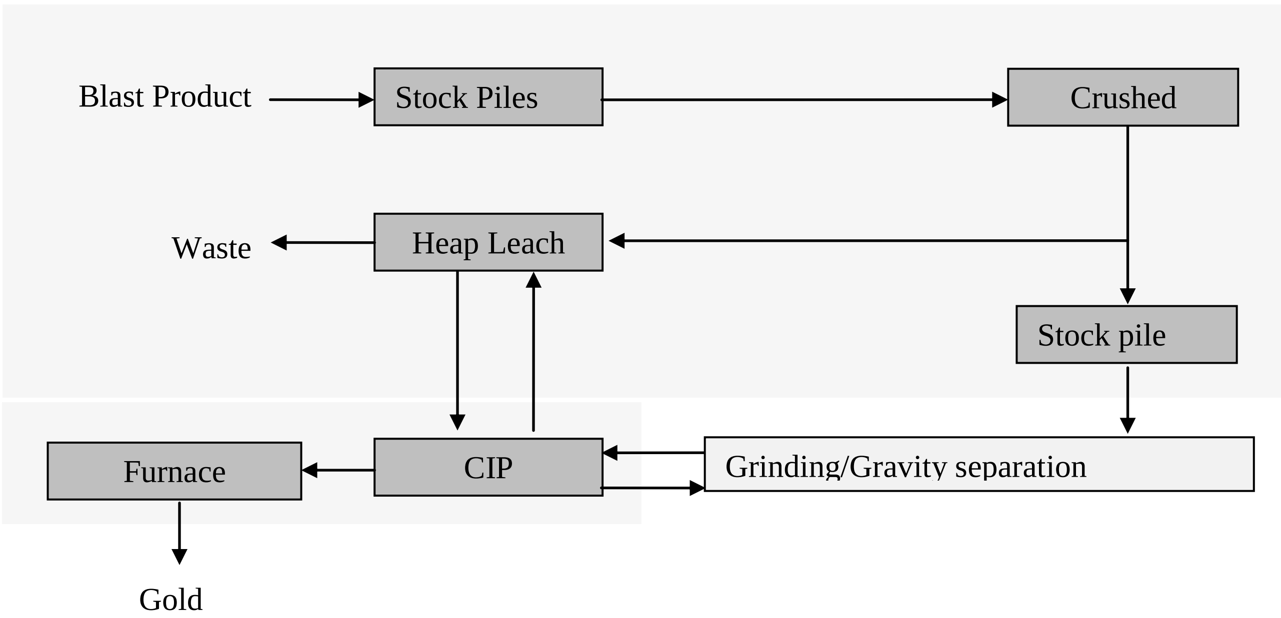


Figure 17-1: Gold processing sub-circuits including crushing, stock piles, heap leach, CIP and furnace as well as carbon regeneration and cyanide recycle and destruction. All processes concerning the tailings have not been included in the processing analysis.

The crushing section assumes a feed material similar to the blast fragmentation size analysis, provided by Northern Gold, as shown in Table 17-1.

Table 17-1: Blast fragmentation size analysis

Size finer than	Fraction	Cumulative
-1/4”	22%	22%
1”	22%	44%
2”	22%	66%
4”	13%	79%
8”	10%	89%
12”	8%	97%
+12”	3%	100%

The suggested crushing circuit is shown in Figure 17-2.

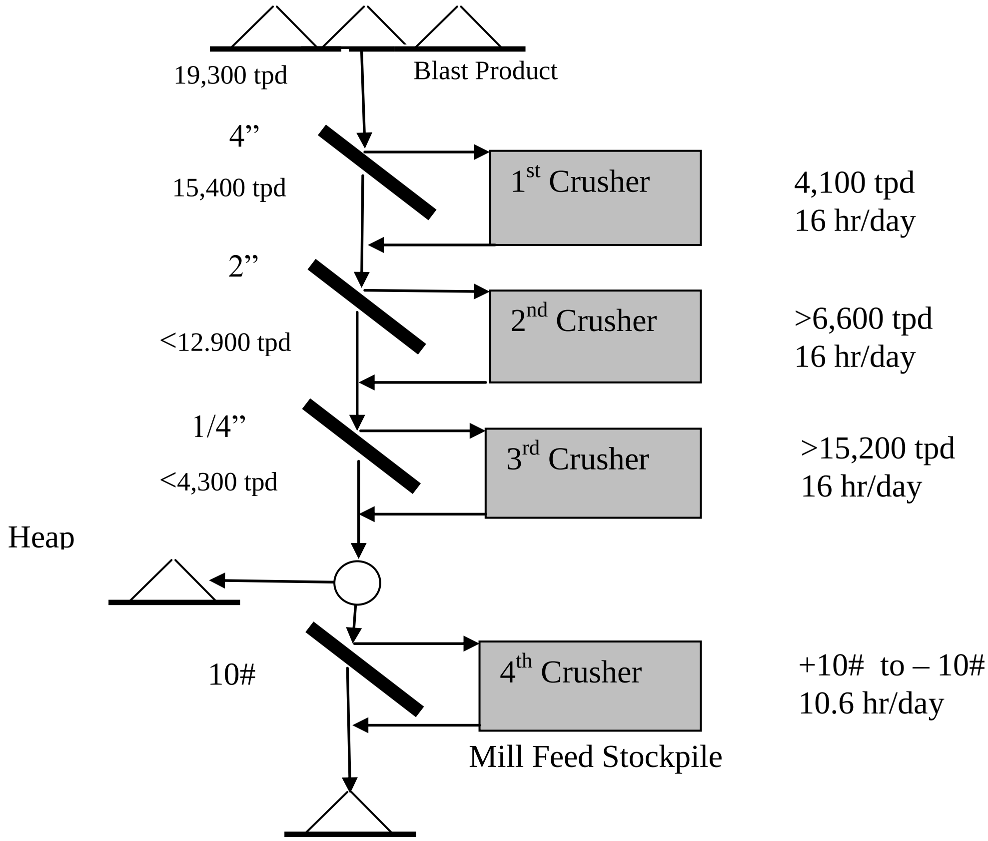


Figure 17-2: Northern Gold Crushing Circuit

The following assumptions are made in the configuration and costing of this circuit:

- 12” top rock size
- 100 metres of conveyors required to feed the crushing plant for the run-of-mine stockpiles
- The suitability of vertical shaft impact crushers
- Stockpile costs are taken as $100,000. This cost is ball-park only as it depends on the location and the size that will be required; Howe is estimating a 2 month supply for the mill, amounting to about 680,000 tonnes and requiring an area of about 5 ha. The coarse ore storage will consist of run-of-mine stockpiles that will be established and maintained in three categories. The main stockpile will be feed for the mill. This stockpile is assumed to have an average grade of 0.9 g/tonne. The second stockpile will be a run-of-mine stockpile for heap leach operations and will consist of rock grading between 0.15 and 0.30 g/tonne. The heap leach stockpile will be available to supplement mill feed if required. The third stockpile will be low grade stockpile whose grade is as yet unknown.
- VSI costs were substituted by Single rotor impact crusher at 400 t/hr, or a 32” by 44” model. Furthermore, it is assumed as there are two stages of this crusher so that two will be required.

The use of VSI must be further investigated and compared to additional stages alternative crushers in terms of effectiveness, capital cost and operating costs.

- That 11,300 tpd of 0.3 g/T, or greater, ore will be processed through the mill.
- The 8,000 tpd (9 months/year) of ore, ranging between 0.15 and 0.3 g/T, will be processed through the heap leach.

17.2 Gravity-Cyanide Circuit Design

The process circuit includes the following assumptions:

- Liberation of crystals within the rock can be achieved at a size of 75 micrometers
- Sulphides, the gold bearing silica and carbonates can be separated using gravity separators:
- Gold associated with the sulphides is exposed either on surface or in cracks, at a size of 75 micrometers; thus can be leached.
- The proper percent solids for the leach must be decreased from the hydrocyclone overflow by using thickeners.

The consumable costs are estimates only as the pumps have not been priced or sized, the exact mill size or grinding media consumption rate has not been determine and the chemical consumption rates have not been determined. The consumables include steel media, activated carbon and cyanide.

17.2.1 Basis of Design

1. That a grind size can be determined that will both liberate the pyrite and expose the gold sufficiently for cyanidation. A two stage grind may be considered at this point if these two sizes are considerably different. This size can be determined using representative mineralogical grain size studies and cyanidation tests.
2. A pyrite separation stage is to be performed if gold is found within the pyrite as small particles capable of being leached on exposure to cyanide solution as opposed to being encapsulated within the sulphide crystal lattice itself.
3. That the size of pyrite liberation is appropriate for gravitational separation techniques. It may be necessary to use a flotation as opposed to a gravitational separation. The selection of the type of gravity separation is also dependent upon this size.
4. That the regrind of the pyrite be performed to reduce the pyrite to a size where the particles of gold are exposed.
5. The silica/carbonate stream does not need to be reground and sufficient gold recovery is achieved at 120 micrometers.

The circuit is presented in Figure **17-3** as a block diagram. There are many other configurations that could result depending on results of future test work.

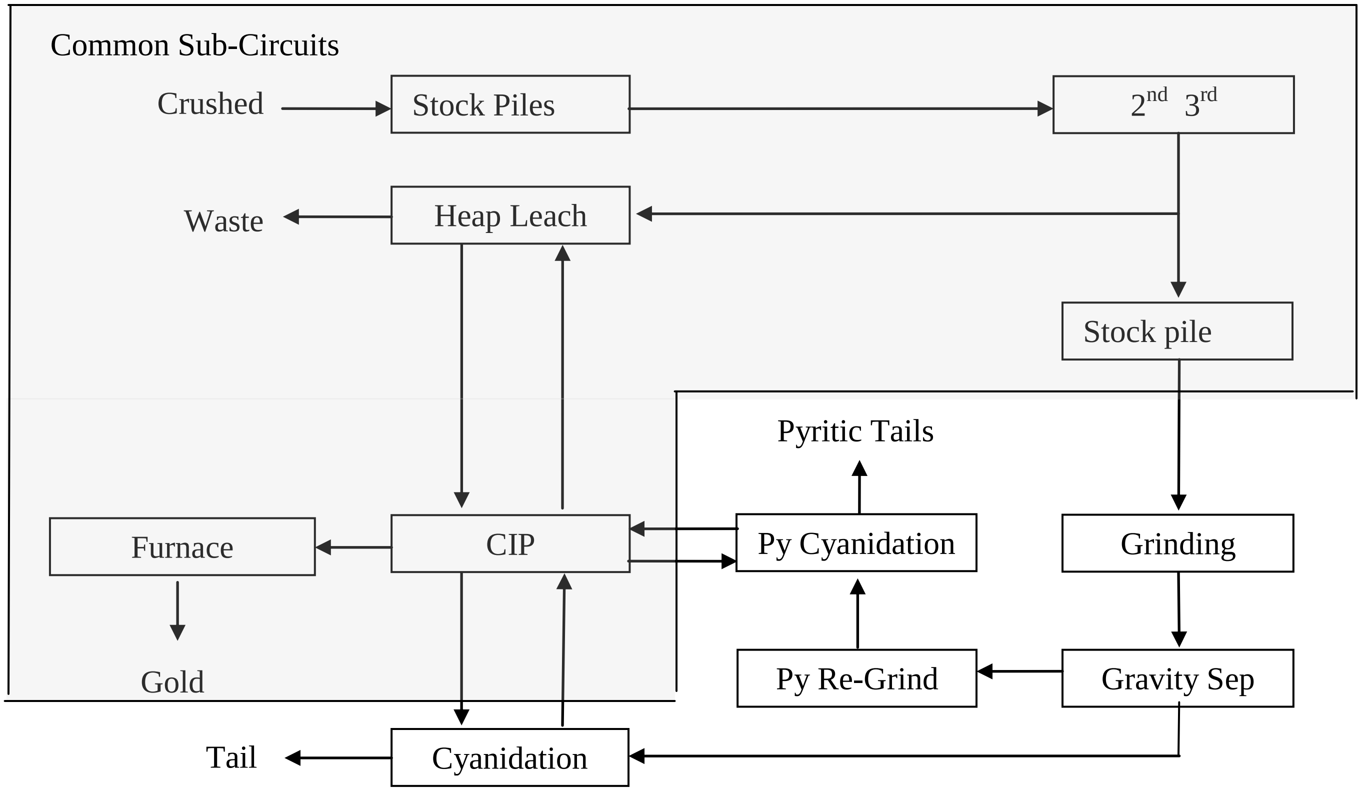


Figure 17-3: Simplified initial flow sheet showing 120 micrometers initial grind.

17.2.2 Grinding

This circuit is used to reduce the particle size from the crushed ore to that required for cyanidation or flotation. The grinding is assumed to be performed using ball mills in closed circuit. The resulting particle size is assumed to be on the order of 120 micrometers.

The consumption of grinding media, or steel balls, has been estimated at approximately 1.5 kg per tonnes of ore, or 17 tonnes per day. This will change depending on the grind size chosen and ore specific characteristics. This does not include any of the capital or consumption of potential regrind circuits. The hourly cost includes overhaul, maintenance and wear in terms of both labour and parts. No accounting is made for operating staff in this calculation.

17.2.3 Regrind

A regrind circuit reduces the particle size of the gravity circuit concentrate (pyrite) to expose the gold within the pyrite. It has been assumed that this circuit will process 12% of the ore, the costs of this regrind will be that of a hydrocyclone acting as a thickener and closing the circuit and one ball mill. The costs of alternatives; that is Knelson/Mozley, jigs or flotation have not been approximated at this time.

17.2.4 Sulphide Concentration

This section describes the circuit used to concentrate the sulphide minerals.

This circuit assumes that the pyrite in the rock will be removed and treated separately from the silicates and carbonates and that the largest grind size possible, to liberate the pyrite, is used in the grinding circuit. The type of separation used to remove the pyrite depends on the particle size. For larger sizes, gravity separation can be used. Two scenarios have been analyzed: (i) spirals and (ii) Knelson and Mozley type separators. Jigs should be considered for larger particle sizes and flotation for smaller sizes.

In case (i) the comminution circuit product is pumped at 25% solids (w/w) to a number of spirals, probably a series of three, that produce a heavy and light component. It is assumed that the heavy component will be composed of 12% of the feed. It is unlikely that this circuit will achieve the recovery of the test work, so, the recovery has been set at approximately 30% of the gold. It is assumed that the spirals have a capacity of 8 tonnes per hour; however, this is just an estimate that depends on the type of spiral, the percent solids, the size of the gold and other particles and other factors.

At 11,300 tonnes per day, 470 tonnes need to be produced per hour, or about 60 spirals in parallel. Assuming a 50% mass recovery in each, 30 will be needed in the second stage and 15 in the third for a total of 105 spirals. Two pumps and an appropriate splitter could feed the first stage, and one pump and splitter feed the second and third stages.

17.2.5 Silicate/Carbonate Leach

In this circuit the feed is assumed to be taken directly from either the grinding circuit cyclone overflow or the gravity circuit underflow to a thickener where the percent solids is adjusted from about 25% to 45%. Depending on the particle size, it may be possible to use screens or cyclones to replace the thickener.

The thickener has not been designed and its eventual size will depend on the grind size and rheology of the resulting slurry. Generally, this is assumed to be in the range of 0.3 to 1.3 m^2 per tonne of ore. The feed thickener is only changing the percent solids from 25% to 45% thus will be on the smaller side of these values. A value of 0.3 m^2/tonne, or 3000 m^2 is used in this estimate. In the 11,300 tonne per day scenario this results in a thickener 62 metres (200') in diameter. This is probably an over estimate of the size required.

The tanks themselves are based on a requirement of a 24 hour residence time, based on 8 tanks in series, in two parallel lines. In the 11,300 tonne per day scenario a volume of approximately 1000 m^3 will be required per tank. Air lift will be required on each tank; this can also be done using oxygen sparging to increase the cyanidation rate. The solids then flow to a series of 16 leaching tanks, two parallel lines of 8, to give a total residence time of about 24 hours. Double the number of tanks is assumed for the 48 hour retention time scenario.

17.2.6 Cyanidation Consumables

The consumables have been estimated for only the whole rock cyanidation scenario. The cyanide consumption may change depending on the iron content. All other consumables are anticipated to remain approximately the same. Lime has been included in this section despite the fact that it is added in the grinding circuit as it is required when cyanidation is performed. The consumables for the refinery have also been included in this section because without cyanidation refining would probably not be performed on site. No cost estimates have been made on transportation or inventory costs. No cost has been included for kiln fuel.

Cyanide consumption is based on a consumption of 0.9 kg/tonne. Heap cyanidation consumables are included in the heap section.

17.3 HEAP LEACHING

It may be possible to use a heap leach to process the rock containing insufficient gold for the conventional leaching processes. The advantage of the heap leach is usually cost; however, this would come with a reduced recovery. The recovery is assumed to be 65% in this costing[8]. This scenario assumes the leached rock will contain between 0.15 and 0.30 g/T gold.

The rock would be removed from the crushing circuit between the tertiary and quaternary crushing stages.

This circuit assumes that the fragmentation from intense blasting along with crushing will develop the necessary cracks to enable cyanide solutions to contact the gold.[9]

The cyanide consumption in the heap has been assumed to be 0.35 kg/tonne of ore. Lime has been included in this section; however the amount of lime that will be required is not yet known as there are known carbonates in the rock itself.

[8] A 65% recovery is based on a number supplied by the company and has not been proven by metallurgical testing.
[9] The optimal size for leaching has yet to be determined

18 PROJECT INFRASTRUCTURE

Section 18 has been extracted from Howe's 2011 NI 43-101 technical report and PEA (Hannon, Roy and Trinder, 2011) and repeated in this Report. The reader is cautioned that the 2011 Garrcon PEA is based on Howe's 2011 Garrcon mineral resource estimate which has now been replaced by the 2012 Garrcon mineral resource update presented in this report. The 2011 Garrcon PEA reported in the following subsections has not been updated to reflect the changes in the Garrcon mineral resource.

There is no modern mining or processing infrastructure on site at this time. All facilities for a 11,300 tpd plant and heap leach facility are required.

Required infrastructure includes:

- Security / first aid building;
- office and administration building with employee parking;
- maintenance shop with doors high enough for the haul trucks,
- water storage ponds,
- fuel and lube storage,
- powder and cap explosives magazines,
- dry storage areas;
- an electrical substation for mine and substations for the processing plant;
- a +/- 10 km power line to the site and power distribution lines;
- a tailings management area;
- waste rock and ore stockpile areas;
- water treatment facility;
- heap leach cells, pregnant and barren solution ponds;
- processing plant; and,
- water and sewage facilities.

18.1 LAND REQUIREMENTS

Table 18-1 presents a range of estimated land area required for the mining plan dependant on the ultimate depths of potential tailings facilities and stacking heights of wastes dump and leach pads. Final land requirements will depend on ultimate mine design and detailed engineering and topographic studies of the property area.

The Garrison Gold Property covers an area of 476.1 ha which when combined with adjacent 370.4 ha land area of the recently acquired Plato claim group gives a Northern Gold a total land area of 846.5 ha (Figure 4.4) in the immediate area of the Garrcon deposit. Detailed site engineering is required to confirm the suitability and sufficiency of the current property areas for final mine, processing, and waste management facilities should they be constructed. For the purpose of this

PEA, Howe assumes that Northern Gold will be successful in acquiring any additional land in the vicinity of the deposit that may be required to carry out the mining plan.

Table 18-1: Estimated land area required for the mining plan based on solids depths.

LAND REQUIREMENTS	
Tailings Area Required (ha) 2X area of solids	Average Solids Depth
1015	5
508	10
338	15
254	20
Waste Rock Area Required (ha)	Average Solids Depth
1914	5
957	10
638	15
478	20
383	25
319	30
Heap Leach Area Required (ha)	Average Solids Depth
381	3
191	6
127	9
95	12
76	15
64	18

19 MARKET STUDIES AND CONTRACTS

Section 19 has been extracted from Howe's 2011 NI 43-101 technical report and PEA (Hannon, Roy and Trinder, 2011) and repeated in this Report. The reader is cautioned that the 2011 Garrcon PEA is based on Howe's 2011 Garrcon mineral resource estimate which has now been replaced by the 2012 Garrcon mineral resource update presented in this report. The 2011 Garrcon PEA reported in the following subsections has not been updated to reflect the changes in the gold price .

19.1 GOLD MARKET

With some fluctuations, the spot price for gold has risen from approximately $US 250 per troy ounce since 2001 to a current spot price at the time of this report of approximately $US1,520 per ounce (Figure 19-1). Howe has elected to use a price of $US 1,200 per ounce ($US 37,324 per kilogram or $US 37.24/gm) as the base case gold price for the economic analysis.

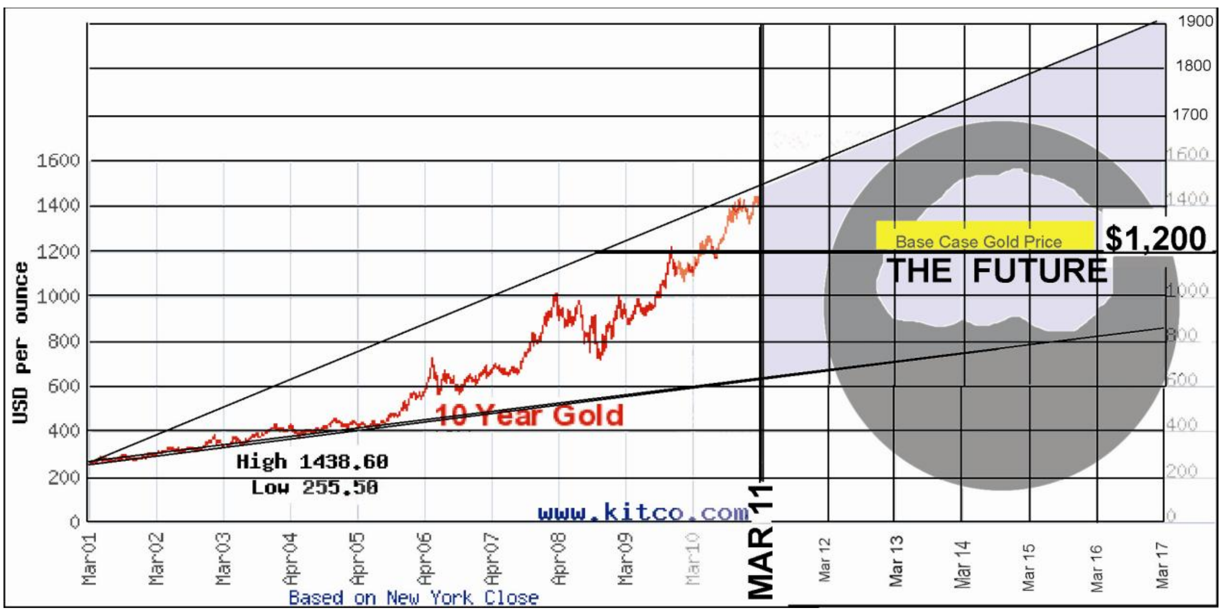


Figure 19-1 - Historical & Projected Gold Price (PEA is based on $1,200 per troy ounce gold)

The Royal Bank of Canada's Capital Market group (RBCCM) forecast for the next few years predicts the rise in gold price outpacing the cost of labour and materials, although these parameters are rising at a faster rate than the early part of the century (Figure 19-2).

> "*While operating cost escalation is seen as becoming a more pressing issue in 2011, gold price gains have been outpacing costs "thereby leaving producers with healthy margins to fund projects and return capital to shareholders; however, we may see contraction in 2011 if the gold price stalls. We forecast EBITDA margins of 51% in 2011 vs. 53% in 2010 for*

our coverage universe, reflecting our gold price assumption of $1,400 minus all-in cash costs" (RBCCM, 2010).

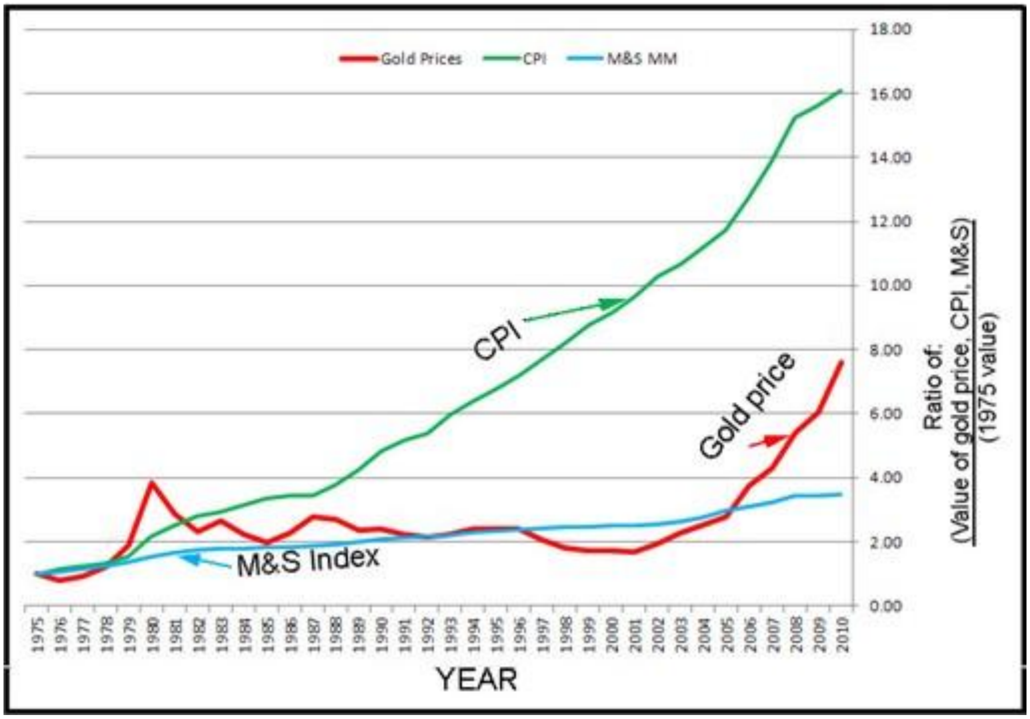


Figure 19-2: Gold price, consumer price index and the M&S Mine-Mill Index plotted against time from 1975 to present. The graph illustrates the value in year x divided by the value in 1975.

20 CAPITAL AND OPERATING COSTS

Section 20 has been extracted from Howe's 2011 NI 43-101 technical report and PEA (Hannon, Roy and Trinder, 2011) and repeated in this Report. The reader is cautioned that the 2011 Garrcon PEA is based on Howe's 2011 Garrcon mineral resource estimate which has now been replaced by the 2012 Garrcon mineral resource update presented in this report. The 2011 Garrcon PEA reported in the following subsections has not been updated to reflect the changes in the Garrcon mineral resource and capital and operating costs.

20.1 ACCURACY OF COST ESTIMATE

The accuracy of this PEA cost estimate is +30%, -20%. Figure 20-1 illustrates the accuracy range for the various classes of estimates.

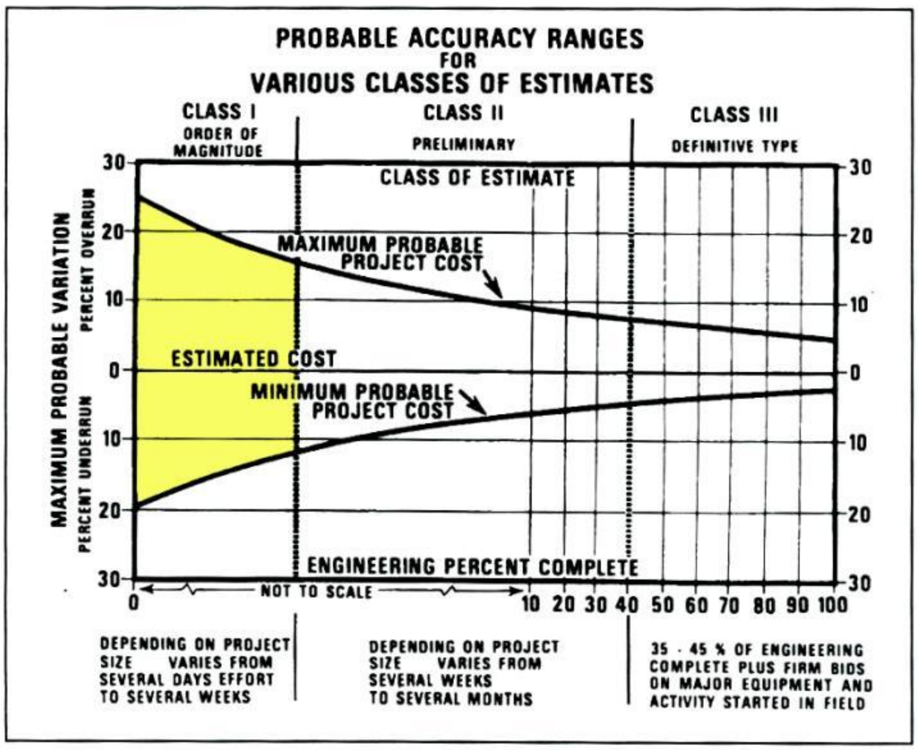


Figure 20-1 - Accuracy of Estimates for Projects (Modified after A.L. Mular, CIM S. Val. 25, 1982)

This cost analysis is based on limited metallurgical test work carried out by a SGS on two composite samples, thus, may not be representative of the entire ore body. Thus, this costing must be considered to be generic in nature and subject to variations that are not known at this time.

Historical capital costs were inflated and adjusted to present dollars using the Marshall and Swift Mine-Mill Index for processing plant costs (Figure 20-2). It is interesting to note that from 1975 to 2010, while the capital costs, as measured by the M&S Mine-Mill Index, have increased 3.5 times and the Consumer Price Index (CPI) has increased 16 times, the price of gold increased about 8.8

times. In 1975 the gold price averaged $160.86 and in 2010, the gold price averaged $1224.53 for a ratio of 1225/161 = 7.6. The Consumer Price Index (CPI) was set at 100 in 1975 and to 1606 in 2010 for a ratio of 1606/100 = 16.06. The Marshall and Swift (M&S) index was 451 in 1975 and grew to 1577 in 2010 for a ratio of 1577/451 = 3.5.

Operating costs for the open pit were derived from Howe personnel's experience with open pits and also from sourcebooks and trade publications. Key consumable prices (fuel, explosives, cyanide and lime) were obtained from operating mines.

One of the risks to the project is inflation of labour and equipment costs; however, in the past few years the gold price has outpaced the rise in capital and labour (RBCCM, 2010).

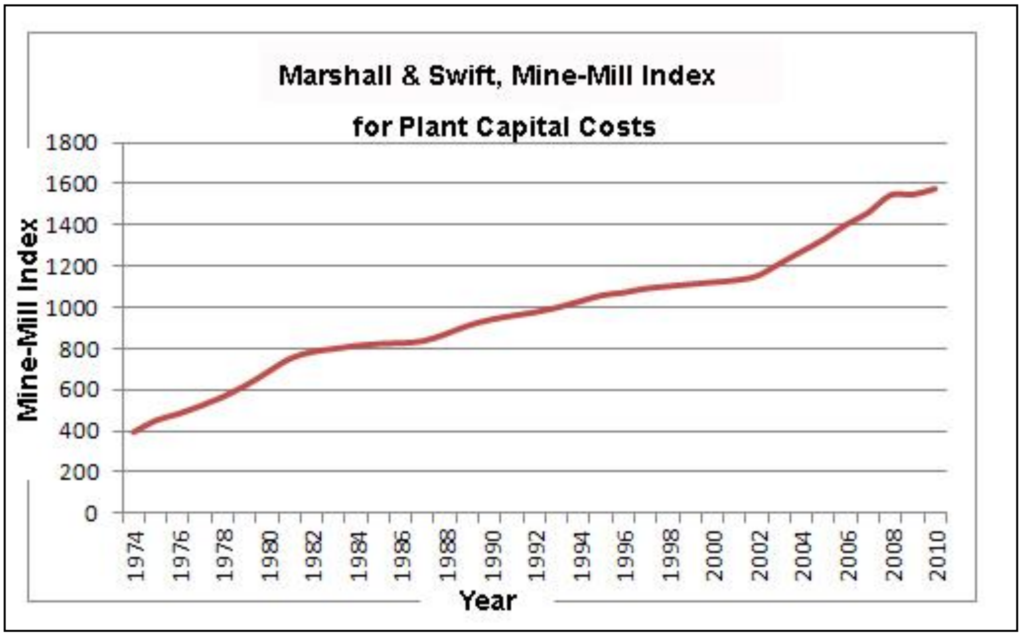


Figure 20-2 - Marshall & Swift Mine-Mill Index, 1974-2010

20.2 Capital Costs

20.2.1 Mining Capital Costs

Mining will be by open pit. Shovels will be used to load 100 ton haul trucks. Ore will be then sent to a primary crusher and from there either to a 11,300 tpd gravity-agitated leach processing plant (365 day year) or a 8,000 tonnes/day heap leach facility (274 day year). Table 20-1 lists the major capital items required for the mining portion of the project.

Table 20-1: Major Mine Equipment Capital Costs

Number	Item	cap cost	total
2	Hydraulic large shovel	2640000	$4,999,661
1	Hydraulic Backhoe, 45 tonne	750000	750,000
2	Frontend Loader , 350 kW	750,000	750,000
13	Haul Truck (New or good used)	1,200,000	15,600,000
2	Water Truck	250000	500,000
4	Blast Hole Drills	200000	800,000
3	Bull Dozer and ripper, 4.7m maximum blade width	536000	1,608,000
1	Rubber Tired Front end loader, 300 kW		500,000
1	Grader, 4.3m blade width	386500	386,500
1	Admin Building, Warehouse & Shop, 3,000 square metres		1,500,000
1	Mine Drainage Pumps, starters, electrical Equipment		350,000
1	Shop and Office Equipment		300,000
1	Haulage Dispatch System, Computerized. Includes installation, 20 units	470000	470,000
1	Water & Sewer		150,000
1	Power Lines		1,000,000
1	Substation		500,000
7	Pick-up Trucks	25000	175,000
1	Personal Safety Equipment		25,000
1	Miscellaneous Equipment		100,000
1	Conveyor distribution system		450,000
1	conveyor magnet, 1.2m long, 65 kg.,		1,200
1	Cyanide neutralization and detoxification plant (0.4 mg/l - 3 total CN, 0.25mg/l Free CN)		200,000
1	Fuel tank, 80,000 Litre, 4.57m diam., 4.87m high, 5.5 tonnes		63,700
1	Plant & Plumbing		50,000
1	Laboratory		200,000
1	Engineering & Constr. Supervision		664,188
1	Waste Management Area		5,000,000
	Subtotal	Subtotal	$37,100,000
			$11,130,000
	Total		$48,230,000

20.2.2 Processing Capital Costs

The processing plant / heap leach capital costs are summarized in Table 20-2 and are subject to change with additional test work that must be conducted before definitive processes can be designed. The estimate is considered to be order-of-magnitude only.

The capital cost for the various processing scenarios was estimated using the cost index ratio:

$$\text{Capital Cost "B"} = \left(\frac{\text{Capacity A}}{\text{Capacity B}}\right)^{\left(\frac{2}{3}\right)} \text{ x Capital Cost "A"}$$

Capital Cost A in this case is the estimated cost of a 10,000 tonne per day conventional gravity – cyanide leach processing plant.

The capital cost table includes equipment capital costs and other items estimated using cost factors - see Section 20.2.2.1.

Table 20-2: Major Mill Equipment Capital Costs

Item	Capital Cost (rounded)
Crushing	$3,549,000
Grinding	$4,721,000
Regrind	$1,194,000
Gravity, Sulfide Concentration	$358,000
Pyrite Leach	$1,020,000
Silica/Carbonate Leach	$3,419,000
CIP	$814,000
Carbon Stip	$434,000
Electrowinning	$260,000
Refining	$109,000
Carbon Regeneration	$543,000
Cyanide destruction	$868,000
Total Equipment	**$17,289,000**
Construction Labor	$6,566,000
Civil/Earthwork	$901,000
Concrete	$1,302,000
Buildings	$2,822,000
Structural Steel	$1,878,000
Piping	$3,744,000
Electrical/Instrumentation	$3,744,000
Painting/Insulation/Sealants	$901,000
Subtotal Direct Mill Costs	$39,000,000
Heap Costs	**$9,877,000**
Subtotal Direct Plant Costs	**$49,024,000**
EPCM @15%	*$7,348,000*
Freight @ 10%	*$4,906,000*
Initial Spares	$705,000
First Fills	$412,000
Vendor Commissioning/Startup	$65,000
Mobile Equipment	$217,000
Contingency @ 30%	*$14,706,000*
Subtotal Plant costs	$28,360,000
Total Capital Cost	**$77,384,000**

20.2.2.1 Estimation method and factors

The processing capital costs were estimated using the Western Mine Engineering, Inc., Mine and Mill Equipment Costs: An Estimators Guide and adjusted for inflation. These will have to be adjusted for local conditions. Factors were used, based on the equipment costs, in order to estimate the building and other costs associated with the final plant. These factors are shown in Table 20-3.

Table 20-3: Processing Capital Cost Estimation Factors

Item	**Factor**	**Comments**
Construction Labor	0.35	
Civil/Earthworks	0.05	
Concrete	0.07	
Buildings	0.15	Could be lower if leach tanks and thickener are outside
Structural Steel	0.10	
Piping	0.20	
Electrical/Instrumentation	0.20	Might be higher as cyanide is used
Painting/Insulation/Sealants	0.05	
EPCM	0.15	Based on the equipment subtotal
Freight	0.10	Based on the equipment subtotal
Initial Spare Parts	0.05	
First Fills	0.035	Initial inventory
Commissioning/Startup	0.04	Does not include plant commissioning
Mobile Equipment	0.015	
Contingency	0.30	

20.2.2.2 Crushing Circuit

The capital cost of the crushing circuit is tabulated Table 20-4.

Table 20-4 Crushing Circuit

Item	Description	Number	Cap Cost
1	High Grade Stockpile	1	$109,000
2	Low Grade Stockpile	1	$109,000
3	Other Stockpile	1	$109,000
4	Conveyors (60m assumed)	1	$315,000
5	Main Grizzly	1	$54,000
6	4" Grizzly	1	$54,000
7	Conveyors (20 m assumed)	3	$466,000
8	Jaw Crusher (22" x 50")	1	$304,000
9	2" Grizzly	1	$54,000
10	Cone Crushers(s) (4.25'd 200 hp)	1	$662,000
11	¼" screen	2	$54,000
12	-¼ VSI crusher (73"x83")	2	$1,150,000
13	Dust and negative pressure system	1	$109,000
	Total		**$3,549,000**

20.2.2.3 Heap Leaching

The estimated capital and operating expense for the heap leach facility as stated in Table 20-2 is detailed below in Table 20-5.

Table 20-5 Heap Leach Capital Costs

Part	Capital
Leach Pad & Ponds	$4,884,000
Conveying & Stacking	$3,473,000
Solution Pumps	$271,000
Heap Leach Piping	$380,000
Clarification	$868,000
Consumables	
Total	**$9,876,000**

The quoted heap leach capital costs must be considered to be low quality order of magnitude only because leach rates, topography and environmental considerations are not currently known and the assumption is made that an appropriate location can be found. Also, the performance of the heaps during the winter months has not been factored into the capital costs, operating costs or performance. The heap leaching will probably be seasonal for eight to nine months each year. In off months the run-of-mine material is stockpiled.

20.2.2.4 Grinding

This section describes the circuit used to reduce the particle size from the crushed ore to that required for cyanidation or flotation. The grinding is assumed to be performed using ball mills in closed circuit. The resulting particle size is assumed to be on the order of 120 micrometers.
The total estimated cost of the grinding section is $4.72 million. Not included in this part of the estimate are the building costs, installation costs, or the cost of any support equipment such as ball loaders, cranes, liner replacement equipment or any equipment associated with maintenance.

Table 20-6: Grinding circuit capital cost summary

Part	Capital	Total Hp
Ball Mill	$3,983,000	2,800
Feed distributor	$54,000	-
Cyclones	$520,000	-
Pumps various	$163,000	200
Total	**$4,720,000**	**3,000**

20.2.3 Reclamation Bonding

A reclamation bond will be required during mine operation. Howe has factored a $5 million bond into its PEA.

20.3 Operating Costs

Summary estimated mine and mill processing costs are presented in Table 20-7.

Table 20-7 – Mine and Mill Operating Costs

Operating Costs		Pre-Production	Year 1	Year 2- 7	Year 8
Haulage, Fuel, lub, Maintenance		$7,492,000	$17,999,000	$17,999,000	$10,555,000
$/tonne (waste & ore)		$0.94	$0.94	$0.94	$0.94
Drilling, explosives		$3,215,000	$7,724,000	$7,723,702	$4,529,371
$/tonne (waste & ore)		$0.40	$0.40	$0.40	$0.40
Mine Personnel Cost		$1,723,000	$9,913,000	$10,082,000	$8,398,000
$/tonne (waste & ore)		$0.22	$0.52	$0.53	$0.75
Total/yr		$12,430,000	$35,636,000	$35,804,702	$23,482,371
Mining cost/tonne moved		$1.56	$1.86	$1.87	$2.09
Mining Cost/tonne HG Ore		$12.05	$8.64	$8.68	$7.59
G&A Personnel Cost		$825,500	$929,500	$929,500	$825,500
G&A Personnel Cost/tonne HG Ore		$0.80	$0.23	$0.23	$0.27
Total G&A Cost		$825,500	$929,500	$929,500	$825,500
Plant Processing Cost		$4,766,912	$15,889,706	$15,889,706	$11,917,279
HG Processing Cost		$4,870,912	$17,644,706	$17,644,706	$13,672,279
Total HG Processing Cost/tonne HG processed		$4.72	$4.28	$4.28	$4.42
Processing personnel cost		$104,000	$1,755,000	$1,755,000	$1,755,000
personnel cost/tonne HG ore processed		$0.10	$0.43	$0.43	$0.57
Heap Leach Processing personnel cost		$135,200	$540,800	$540,800	$182,000
Heap Leach personnel cost/t processed		$0.24	$0.24	$0.24	$0.11
Operating cost for bulldaozer, ripper, pick up trucks		$114,000	$458,000	$458,000	$343,000
Heap Processing consumables & Misc. Cost		$1,739,804	$6,959,217	$6,959,217	$5,219,413
Heap Processing Cost		$1,989,000	$7,958,000	$7,958,000	$5,744,000
Heap Processing Cost, per tonne		$3.48	$3.48	$3.48	$3.35
Overall Total Processing Costs		$6,860,000	$25,603,000	$25,603,000	$19,416,000
total Processing Cost/tonne: (HG+LG Costs)/(HG+LG tonnes)		$4.15	$3.87	$3.87	$3.91
Total Operating Costs		$20,115,500	$62,168,500	$62,337,202	$43,723,871
Operating Cost per tonne HG Ore processed		$19.51	$15.07	$15.11	$14.13
Operating Cost per troy ounce produced, HG & LG		$636.16	$491.36	$492.70	$460.74
Reclamation					$5,000,000

20.3.1 Estimation method and factors

Processing operating costs were determined using the Western Mine Engineering, Inc., Mine and Mill Equipment Costs: An Estimators Guide and adjusted for inflation. These will have to be adjusted for local conditions. Operating costs that are not direct consumables are shown in Table 20-8.

Table 20-8: Indirect operating cost estimation factors excluding electricity, consumables, and process operators.

Item	Factor
Maintenance repair costs $/hr	$50
Diesel Fuel $/L	**$1.00**
Gasoline	$1.00
Natural Gas MCF	$10
Mill liners $/kg	$2.50
Electricity $/MWhr	$150

20.3.2 Mine Explosives

Boosters, detonators and liners for 15 metre blast holes cost approximately $36, plus ANFO. A powder factor of 0.25 kg/tonne was used so approximately 5,000 tonnes will be required per year. ANFO costs $1,500/tonne and is delivered by bulk truck. There will be almost 12,000 holes per year for a total annual drilling and blasting cost of about $8 million, without labour. **Table 20-9** is an estimate of the powder requirements for the site. A higher powder factor may be necessary to assist in fragmentation in the ore. This is one of the necessary research projects recommended for the next phase of economic analysis - a preliminary feasibility study.

Table 20-9 - Explosives Use

Explosives Use				
delivery by ANFO, truck	$1,500	tonne		
		kg	tonnes	Total
explosives, ANFO; truck loaded		4784400	4784.4	$7,177,000
blast holes per year		11775		
Bits and drill consumables,			bits	
bits, 4000m/bit		$2,500	49	$122,500
booster, detonators & liners		$36.0	each hole	$424,000
			total	$7,723,500
			$/tonne	$0.40

20.3.3 Mine/Heap Leach Fuel Use and Storage

Approximately 12 million litres of fuel will be required per year, at the site (approximately 33,000 litres per mine working day). Ten -10,000 litre fuel tanks will be required for the fleet, giving about 3 days supply of fuel. Table 20-10 presents an estimate of fuel and maintenance costs for the mine and heap leach operation.

Table 20-10 - Fuel and Lubricant Use

Number	fuel	litres/hr	hours/yr	total litres	Lub & Maint Op Cost/hr	hours/year	Total op cost
13	Haul Trucks	80	6,500	6,760,000	$ 26.00	6500	$ 8,957,000
3	Excavators/shovels	75	6,500	1,410,733	$ 56.00	6500	$ 2,464,000
2	Water Truck	40	3,250	260,000	$ 25.00	3250	$ 423,000
4	Blasthole Drill	60	6,500	1,560,000	$ 50.00	6500	$ 2,860,000
2	Bull Dozer and ripper	50	6,500	650,000	$ 40.00	6500	$ 1,170,000
3	Rubber Tired Front end loader, 300 kW	50	6,500	975,000	$ 40.00	6500	$ 1,755,000
1	Grader, 4.3m blade width	40	3,200	128,000	$ 40.00	3200	$ 256,000
5	pickup trucks	5	4,333	108,333	$ 0.25	4333	$ 114,000
				11,852,066	$6,146,934		$ 17,999,000
	Diesel Fuel	$1.00	per litre, bulk		Fuel-LubMaint Cost/tonne		$0.94/tonne ore
Heap Leach							
Number	fuel	litres/hr	hours/yr	total litres	Lub & Maint Op Cost/hr	hours/year	Total op cost
1	Bull Dozer and ripper	58	2,190	127,600	$ 50.00	6570	$ 434,000
2	pickup	5	2,190	21,900	$ 0.25	6570	$ 23,500
						total	$ 457,000
					Fuel-LubMaint Cost/tonne		$0.20/tonne

20.3.4 Mine and Mill Personnel

A total of 157 persons are estimated for the mine and mill. Mine personnel should be available throughout the north and good mill personnel will be available in the Timmins / Kirkland Lake area.

Table 20-11 - Mine and Mill Personnel, Salary plus burden

Position	Number (yr3)	Rate, $/yr		Total
General and Administration				
General Mine Manager	1	170000		$170,000
Mill Manager	1	170000		$170,000
Clerical	5	40000		$200,000
Environment Manager	1	90000		$90,000
Human resources	1	85000		$85,000
		Office/Admin sub-total	$715,000	
Processing Plant				
Metallurgist	1	80000		$80,000
Comminution Operator	3	70000		$210,000
Gravity Operator	3	70000		$210,000
Labourer	2	30000		$60,000
Cyanidation Operator	4	70000		$280,000
Laboratory Manager	1	90000		$90,000
Laboratory Techs	4	60000		$240,000
Instrumentation Tech	2	90000		$180,000
		Plant, sub-total	$1,350,000	
Heap Operator	8	52000		$416,000
Mine Sift Foreman	4	85000		$340,000
Geologist	2	85000		$170,000
Surveyor	3	60000		$180,000
planning engineer	2	70000		$140,000
Security	4	60000		$240,000
Equipment Operators	87	65000		$5,655,000
Electrician	3	65000		$195,000
Mechanic	6	65000		$390,000
Welder	2	65000		$130,000
Tire Person	3	65000		$195,000
Casual Labour	4	30000		$120,000
		Mine sub-total	$8,171,000	
			Sub-Total	$10,236,000
		$85,000	*Burden, 30%*	*$3,070,800*
Total Employment	**157**	**157**	Annual Cost	**$13,307,000**

20.3.4.1 Common Processing Operating Costs

The operating costs of the common elements for the processing plant are presented in Table 20-12. Operating costs are presented as dollars per hour and dollars per tonne without the labour element. These numbers include all costs except heap costs. The heap costs are presented separately because they do not incur the same building costs.

Table 20-12: Common sub-circuit Operating costs in dollars per hour and dollars per tonne.

Tonnes crushed and treated in common		6,412,500	tonnes		
Description	**Non-Labour, $/hr**	**hours/year**	**$/YEAR**	**$/tonne**	
Crushing (2 shifts)	$222	5,840	$1,296,480	$0.20	HG+LG
CIP (/24hr)	$78	8,760	$683,280	$0.11	HG+LG
Carbon Stripping	$80	8,760	$700,800	$0.11	HG+LG
Electrowinning	$17	8,760	$148,920	$0.02	HG+LG
Refining					
Carbon Regeneration	$52	8,760	$455,520	$0.07	HG+LG
Cyanide destruction	$50	8,760	$438,000	$0.07	HG
Dewatering					
Common Circuit Total for process plant ore	$499	8,760		**$0.58**	HG
Common Circuit total for Heap Leach ore.	$449	6,480		**$0.51**	LG

Note: costs are based on 19,300 tonnes per day, whereas, the actual processing rate will depend on the time of year as the flows in some of the circuits depend on the heap operation. Where the flows vary the cost per tonne of the highest flow is used.

Note: Heap costs, in $/hr, assume a process rate of 6,000 tpd averaged over the year; this figure will change based on seasonal processing rates, about 8,000 tpd for 9 months and zero for 3 months.

20.3.4.2 Grinding Circuit

The operating costs – without labour – for the processing plant are tabulated below in Table 20-13.

Table 20-13 Estimated Operating Cost for the circuit

Sub-circuit	Op. Cost $/hr	Hours	$/year	Op. Cost $/t
Grinding	$385	8760	$3,372,600	$0.82
Sulfide regrind	$90	8760	$788,400	$0.19
Silica/carbonate regrind	$190	8760	$1,664,400	$0.40
Gravity	$60	8760	$525,600	$0.13
Pyrite Leach	$26	8760	$227,760	$0.06
Silica/Carbonate Leach	$220	8760	$1,927,200	$0.47
Consumables	$380	8760	$3,328,800	$1.03
				$3.09

20.3.4.3 Heap Leaching

The estimated operating expense for the heap leach facility are listed Table 20-14.

Table 20-14 Heap Leach Operating Costs

Heap Leach Operating Cost	
Leach Pad & Ponds	$0.15
Conveying & Stacking	$0.50
Solution Pumps	$0.35
Clarification	$0.20
Consumables	$1.33
Crushing	$0.20
CIP	$0.11
Carbon Stripping	$0.11
Electrowinning/Refining	$0.02
Carbon Regeneration	$0.07
Dozer and pick up trucks	$0.20
Total, less labour	**$3.24**
Heap Leach personnel cost/t processed	$0.24
Total with Labour	**$3.48**

20.3.5 Anticipated Reclamation and Environmental Costs during Closure Phase

Costs relative to environmental considerations during the closure phase consist of the environmental monitoring costs that may post-date the completion of the physical reclamation (removal of buildings, vegetation of stockpiles, etc.). It is typical for monitoring programs to run for 3-5 years after physical reclamation is completed and are in the order of $50,000 to $100,000 per year. We are not able to cost the physical reclamation program as the final mine design and permitted layout and reclamation approach will be developed later. Howe has assumed a $5 million reclamation cost in this PEA.

21 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

The following items categories are identified as potential conditions to permitting the Garrison Project:

1) *Bio-Physical*
2) *Archaeological and Heritage Resources*
3) *Aboriginal Peoples*
4) *Local Residents*
5) *Concurrent Developments*
6) *Public Consultation*

An abbreviated overview of the identified conditions follows.

21.1 BIO-PHYSICAL CONDITIONS

The Project site is immediately south of Highway 101. A 115 kV power transmission line runs along the Highway 672 corridor from Kirkland Lake to St Andrew Goldfield Ltd.'s Holloway mine in Holloway Township, approximately 15 kilometres east of the Property. Surface diamond drilling and some limited underground mineral development activity dates back to 1935 with the most recent phase of surface diamond drill exploration initiated in 2005. A forestry haul road cuts through the Project area. Some disturbance of the site has therefore already occurred.

The Perry Lake North County Lodge is located 12.5 kilometres west of the Project site and provides year-round drive-in recreational activities including fishing, hunting, snowmobiling and ATV and horseback trail riding. The Project site is located 7 kilometres north of Thackery Provincial Nature Reserve. Thackery Provincial Nature Reserve covers an area of 116 hectares and protects a significant sequence of Archean metavolcanic rocks of the Kenojevis Group. The nature reserve is managed to protect its significant bedrock outcroppings. The Project site is located 18 kilometres north-northeast of Esker Lakes Provincial Park. Esker Lakes Provincial Park covers an area of 3,237 ha and straddles the continental divide between Arctic and Atlantic watersheds. The park features dozens of kettle lakes, part of the famous 250 kilometre Munroe esker, undulating hills and sand dunes. Recreational activities in the park include camping, fishing, animal viewing, birding, canoeing/boating, swimming, hiking and cycling.

An Environmental Assessment (EA) evaluates the potential environmental effects of a project and identifies appropriate mitigation and monitoring to minimize these effects. The resulting documentation focuses on the effects of the project on the receiving environment, and to a lesser extent, how the environment affects the project. Bio-physical components that are normally evaluated may include:

- aquatic habitat;
- wetlands;
- ground and surface water resources;
- rare and sensitive flora and fauna;

- air quality; and
- geology and soils.

At the mine planning and permitting stage considerable importance will need to be placed on evaluating the surface water quality, flow volumes and associated aquatic habitats for health and species diversity. If the aquatic habitats are designated as being valuable for specific species or rare/endangered plants or animals then alteration or destruction of the habitat will most likely trigger federal involvement and possibly federal environmental assessment. Where possible, the mine development should avoid causing impacts to aquatic habitats that have been deemed valuable through the baseline environmental studies. Public concern relative to possible effects of the mine development on access to any commonly used recreational locations and surface water quality within the site area will need to be examined and discussed at the public consultation stage.

21.1.1 NAR Environmental Baseline Studies 2010-2011

In Spring 2010, Northern Gold retained the services of N.A.R. Environmental Consultants Inc. (NAR) to facilitate the collection of all environmental baseline data in support of the Provincial and Federal regulatory permitting required for the development and operation of both the Garrcon and Jonpol mine deposits, collectively known as the Garrison Project.

NAR's efforts in 2010 and 2011 focused on the collection of environmental baseline data, as well as the establishment of engineering survey controls on site, topographic mapping, and the tie-in of key physical features, the location of diamond drill holes, monitoring wells, etc. Data collection and studies were designed to assess the Garrcon and Jonpol deposits until a clear plan of development is set based on exploration results and project economics.

The following study components were completed or are still active as of the date of this report:

- meteorological data collection (active)
- continuous hydrologic monitoring - Garrison Creek (active)
- surface water quality monitoring on Garrison and Thackery Creeks; 4 stations (active, monthly sampling)
- benthic community and sediment quality assessments; Garrison and Thackery Creeks (complete)
- fisheries and fish habitat assessment; Garrison and Thackery Creeks (complete)
- Species At Risk and wetland review/assessment; site overview (complete)
- regional ground water assessment; 2 wells plus supplementary measurement point at Jonpol shaft established
- preliminary Acid Base Accounting (ABA) – geochemistry characterization of Garrcon deposit.

Cooperatively, the Company and NAR's staff adapted the Garrcon exploration program to include both geo-technical (e.g. bulk density) and geo-environmental (e.g. fracture logging, ABA - geochemistry sampling) data requirements into day-to-day rock core logging activities in order to provide both a cost-effective and timely delivery of both deposit and regional site-level bedrock characterization data.

The increasing resources and tonnage of the Garrcon deposit and the shift in its proposed development to an open pit facility, potentially with an on-site mill, substantially scaled up the scope of baseline characterization studies required to permit the proposed mining facilities.

The development of a proposed open pit which would possibly extend below the local ground water table expanded the need to develop a much more comprehensive assessment of the local and regional ground water site-setting, potentially including the development of a ground water flow model to characterize and quantify inflows to the pit(s), as well as determination of pumping rates and any engineering controls (and associated costs).

21.1.1 Blue Heron Environmental Baseline Studies 2011-2012

In November 2011, Blue Heron Solutions for Environmental Management Inc. (Blue Heron) of Timmins, Ontario, in conjunction with Golder Associates Ltd. (Golder), were contracted by Northern Gold to conduct a review of baseline study requirements, the existing NAR environmental baseline program, and to provide recommendations to expand upon the program to ensure sufficient and appropriate baseline information was being collected, particularly for the planning, permitting and development of the Company's potential Garrcon open pit. A Phase 1 Environmental Baseline Study Report (Blue Heron, 2012a) was prepared and submitted to Northern Gold. In support of the recommendations outlined in that report, the Blue Heron and Golder subsequently prepared a scope of work plan for a comprehensive Phase 2 Environmental Baseline Study to prepare Northern Gold for permitting of the Garrcon project (Blue Heron, 2012b). Northern Gold retained Blue Heron and Golder in April 2012 to conduct the recommended work. The results of the 2012 studies will be utilized to develop a permitting plan and 2013 work plan to support required permits. Work programs proposed for 2012 include:

- Aquatic Ecology
  - 2012 Aquatic Ecology Field Program:
    A field program is proposed in 2012 for the Unnamed Tributary to Thackery Creek and Thackery Creek. Elements of the field program will consist of a Fish Community and Fish Habitat Assessment and a Benthic Invertebrate Community Assessment. Baseline aquatic ecology work will take place between spring and fall of 2012

- Terrestrial Ecology
  - Desktop Review and Survey Planning:
    Background information collected from regulatory agencies and applicable databases will allow the Project Team to supplement the preliminary description of the ecological environment and associated land use on the Site provided in the report titled Environmental Scan Northern Gold Property (Kershaw 2012). Information collected through the desktop review will also be used for planning of the field surveys described below. The terrestrial baseline studies will be focused within the Garrison Claims and adjacent lands extending to 120 m beyond the boundary of the Garrison Claims.
  - 2012 Terrestrial Ecology Field Program:

The 2012 terrestrial ecology field program will comprise: Plant Community Surveys; Upland Breeding Bird Point Count Surveys; Marsh Bird Surveys; Whip-poor-will and Common Nighthawk Surveys and; Basking Turtle Surveys. Flora and fauna data is subject to seasonal variation, necessitating appropriate lead time and data collection periods in order to establish terrestrial baseline conditions against which future environmental and social impacts can be assessed. All surveys will be conducted during accepted, appropriate periods and suitable weather conditions from May to August, 2012

- Hydrology And Surface Water Quality
  - Amended Surface Water Program Implementation:
    Currently, Northern Gold personnel conduct water quality sampling at approximately monthly intervals. Blue Heron recommends that 2 additional surface water sample locations be added to the existing program (Ghost River (upstream) and Thackeray Creek (downstream). Surface water quality parameters analysed are to be amended.
  - Amended Hydrology Program:
    Northern Gold personnel currently undertake hydrology (streamflow) measurements on approximately a monthly basis. Blue Heron personnel propose to conduct the hydrology monitoring program during 2012. Activities associated with this task include: installation of staff gauge at locations GR-1 and TC-2; conduct streamflow measurements for the duration of 2012 on a monthly basis at locations GR-1 and TC-2; conduct streamflow measurements on location GC-1 until level transducer is re-established; procure and implement software for use for Electronic Level Transducer (location GC-1); and conduct monthly downloads of Electronic Level Transducer for location GC-1.

- Hydrogeology
  The baseline hydrogeology program will include a site reconnaissance by Golder and review of existing data that will guide the development of a program of monitoring well installation. As the mining plan is defined, additional information may be required and additional studies may be proposed. This baseline assessment will be advanced in a staged approach with the first stage being carried out in early 2012 and subsequent stages to follow. The first stage of the assessment will comprise the following components:
  - drilling and installation of one large diameter pumping well;
  - performance testing on the large diameter pumping well;
  - drilling, installation and development of up to four nested groundwater monitoring wells;
  - hydraulic conductivity testing of groundwater monitoring wells;
  - installation of automated water level data loggers in groundwater monitoring wells;
  - quarterly water quality sampling and water level measurements at groundwater monitoring wells;
  - groundwater assessment; and
  - initial hydrogeological screening of deep bedrock.
    The objective of this work program is to conduct subsurface investigations and assessment to better understand the hydraulic characteristics of the deep bedrock and

the overburden in the bedrock trough in the vicinity of the proposed open pit. This investigation will be advanced in a staged approach, beginning with the Initial Hydrogeological Screening Level Testing Program, which will comprise a review of existing data to identify exploration boreholes suitable for hydraulic testing and which intersect stratigraphic and structural features of interest, completion of up to 20 short duration (1 to 2 hour) specific capacity tests in selected exploration boreholes and collection of groundwater quality samples.

- Geochemistry
  Completion of the geochemistry program should be completed in a phased approach, as follows:
  - Data Review and Interpretation:
    A thorough review of the existing data will be carried out in to determine additional sampling requirements in order for the overall Acid Rock Drainage/Metal Leaching program to meet the requirements of the Mine Rehabilitation Code of Ontario.
  - Geochemistry Program Recommendations:
    Based upon the results of the static testing program, the requirement to proceed to laboratory and/or field-based will be determined and a recommendations for a scope of work will be provided.

21.2 Archaeological and Heritage Resources

No specific areas of archaeological or heritage resources are known with respect to the site. However, it is reasonable to assume that there is potential for Aboriginal Peoples sites to exist. Given the history of the regional area, potential also exists for historic resources related to past mining or forestry uses of the site area.

Blue Heron will conduct archaeological potential mapping through literature review, desktop study and a property inspection (ground-truthing) in mid 2012. Based on the property inspection, further archaeological assessment (Stage 2) may be required. This additional work would be limited to lands confirmed to have archaeological potential that are subject to development, such as the proposed pit footprint and associated infrastructure layout. The objectives of the Stage 2 archaeological assessment are to provide an overview of any archaeological resources present on the property and to determine whether any of the resources might be artifacts or archaeological sites with cultural heritage value or interest. The method of survey for the Stage 2 assessment is test pitting. Test pits are excavated at five-metre intervals using a shovel with the dirt screened through a 6 mm mesh. All work would be carried out with monitors from Wahgoshig First Nation working alongside the archaeologists.

21.3 Aboriginal Peoples

The Wahgoshig First Nation community, a political member of the Algonquin Anishinabeg Nation Treaty Council, is located 5 kilometres north-northwest of the proposed project.

Northern Gold has consulted with and informed the Wahgoshig First Nation of its exploration activities. The Company continues to use band services and also employs band members on a regular basis. Given the current state of exploration on the Garrison Gold Property, Northern Gold and the Wahgoshig First Nation have agreed to begin negotiations on an Impact Benefits Agreement (IBA) for the Garrison Gold Property.

21.4 LOCAL RESIDENTS

The Wahgoshig First Nation community, with an estimated population of 250 persons, is located 5 kilometres north-northwest of the proposed project. Area residents also include both full and part time (recreational) cottagers. There are approximately 45 residences located on Perry Lake approximately 12.5 kilometres west of the Project site, of which 7 are full-time. There is one residence located on Harker Lake approximately 10 kilometres east of the Project site.

Typically, issues related to local residents that will need to be considered include concerns such as stockpile locations, placement of entrance roads, trucking schedules, operating hours, blasting schedules and noise levels. As the local residents and lodge at Perry Lake are focused on recreation, there will be a high degree of sensitivity to issues of noise, surface water, fish habitat and visual (including light) impacts. Based on the proximity of the Wahgoshig community there likely will need to be a high level of First Nations involvement.

21.5 OTHER DEVELOPMENTS

There are no other developments being considered, to the best knowledge of Howe, in the vicinity of the project. The Ontario Ministry of Environment has no projects listed under consideration for development near the Project site in their Environmental Assessment summary [Online – accessed April 2012].

21.6 PUBLIC CONSULTATION

Typically, there are significant discussions relative to both the site layout and permitting process that involve the public. These discussions can be "formal", where parties involved document the items discussed and outcomes and these are part of the legislated public consultation requirement or "informal" where there is often follow-up documentation but the process is not necessarily required under any legislation.

21.7 ANTICIPATED PERMITTING TIMETABLE AND COSTS

Based on existing information on the site layout and constraints identified, Howe anticipates that the Garrison Project - Garrcon deposit will require a Provincial Environmental Assessment with potential federal involvement for fisheries issues. Figure 21-1 presents a flow chart outlining the Ontario EA Process and timelines. This process has roughly 40 weeks of mandated requirements in addition to the time required for environmental baseline studies (EBS) and public consultation. It would be reasonable for the EBS stage to take 12-15 months with some overlap with the 40 weeks noted above resulting in a 20-24 month period from initiation of the process to receipt of EA Approval.

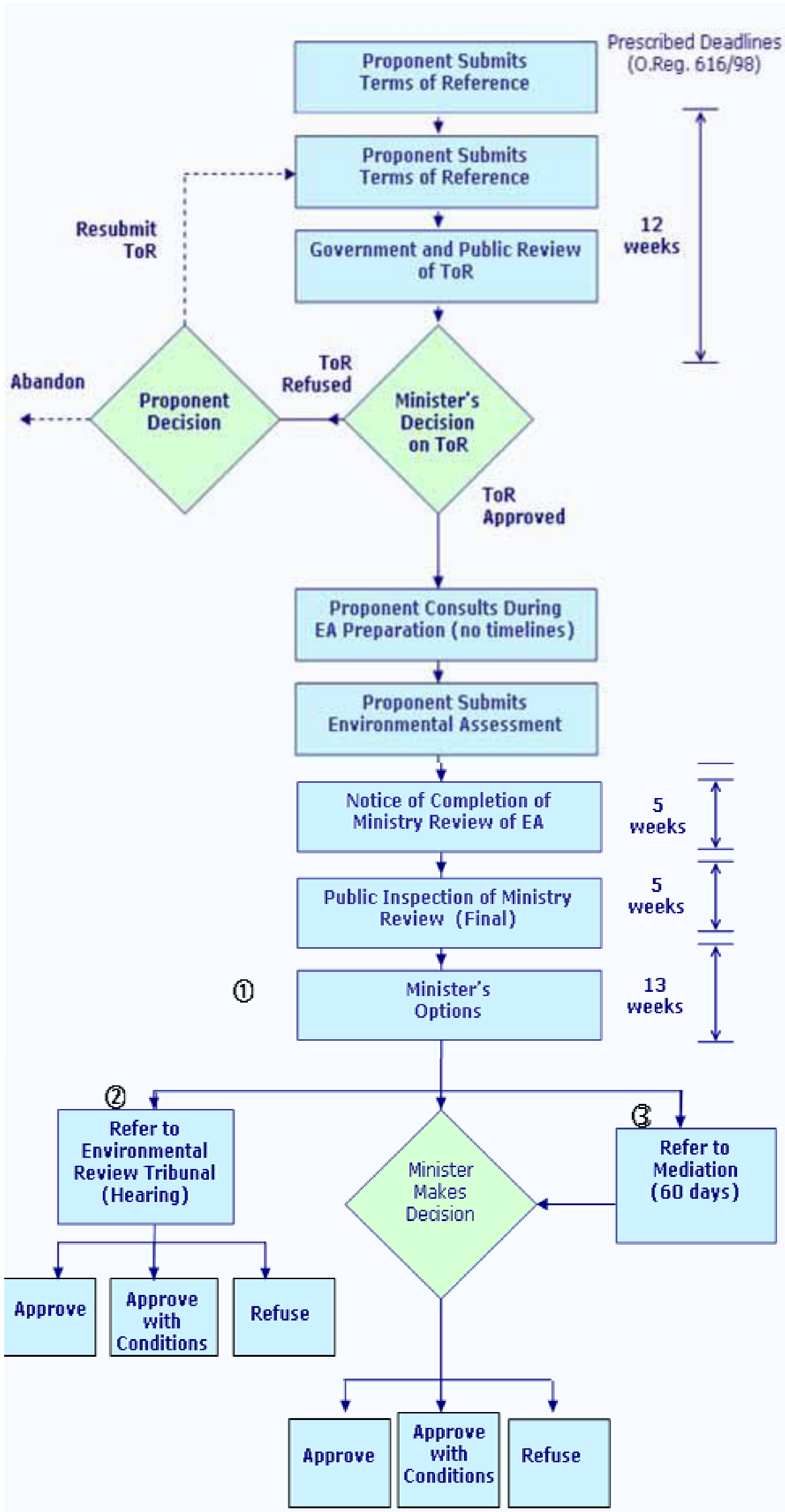
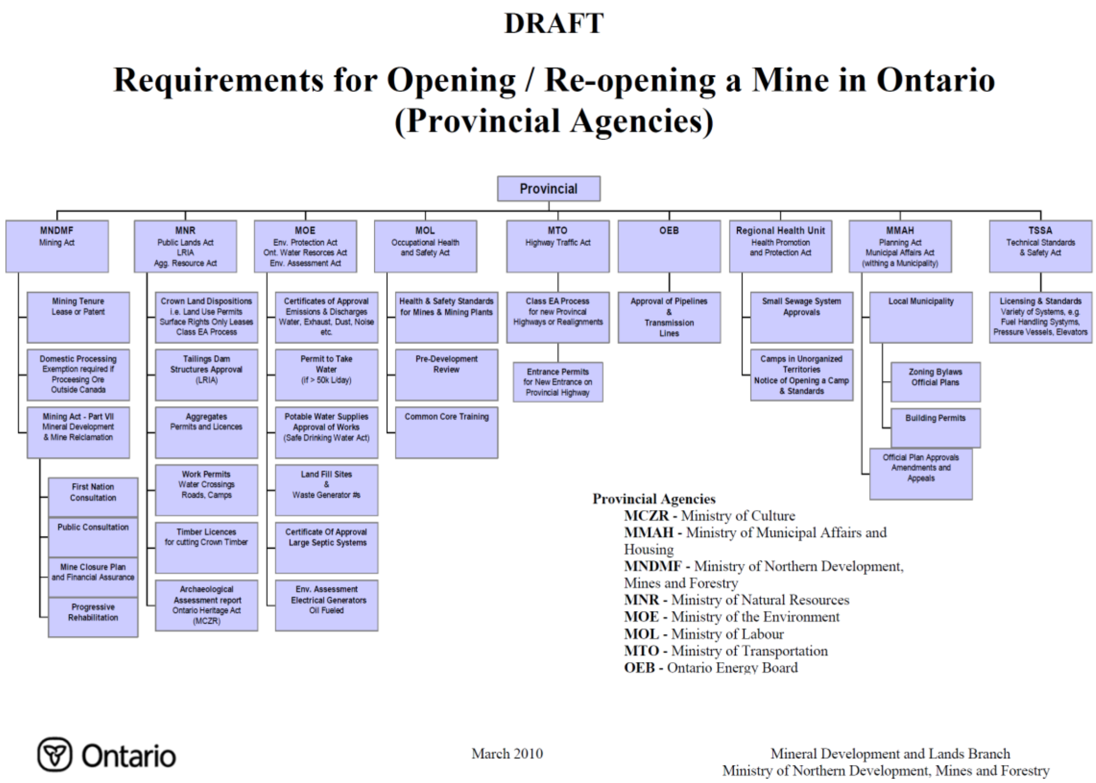


Figure 21-1: Province of Ontario's EA Process

The EBS start date is critical to meeting the 20-24 month EA process schedule, as there are seasonality issues with certain aspects and species (ex. plant surveys in the winter are not valid). It is also critical that the site layout is well defined prior to the EBS and public consultation phases so that impacts can be defined and the project interaction with the environment can be well understood and explained during public consultation. Northern Gold informs Howe that its initial EBS work on the Garrison Gold property is now complete but the study has been expanded in scope as per recommendations from Blue Heron and Golder. That work will require an additional 12 months and is scheduled to start in the near future. Water flow monitoring and water sample analysis on streams is ongoing.

Howe includes as Figure 21-2, organizational charts that highlight various permitting and approvals requirements with respective provincial and federal agencies, which may need to be addressed in the permitting process. Specific permits and approvals to which a mineral project may be subject will depend on the specific features of the proposed project and its location in the social and environmental landscape. A more detailed summary of approvals processes for mining activities including provincial and federal laws, as well as local municipal bylaws that govern, or may govern, mineral development in Ontario is presented in MNDMF's *Practitioner's Guide to Planning for and Permitting a Mineral Development Project in Ontario*.

How the mine, or mines are developed and their tonnage throughputs will ultimately dictate their specific permitting requirements (e.g. Federal Environmental Assessment and/or Provincial), but generically any mine in production in Ontario would require a Permit to Take Water (PTTW) and a Section 53 Approval for an Industrial Sewage Works with supporting Receiving Water Assessment under the requirements of the *Ontario Water Resources Act*, and a Closure Plan under the provisions of the *Mining Act*.



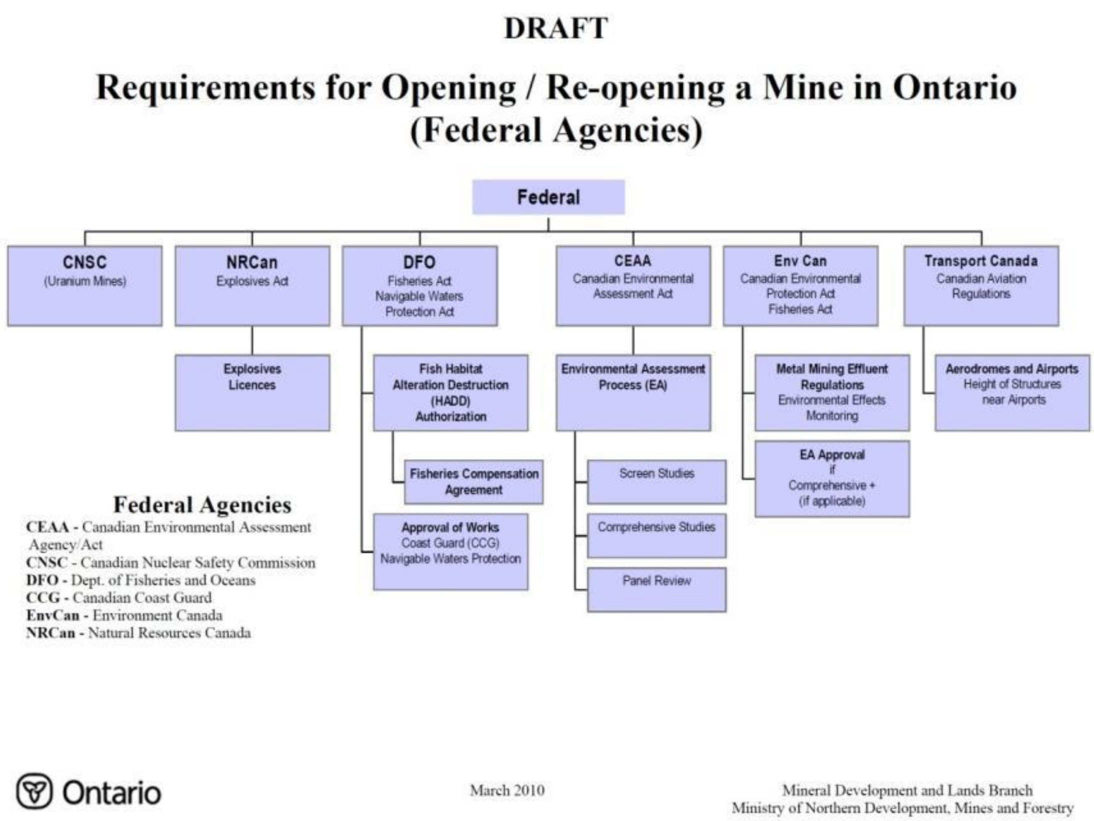


Figure 21-2: Overview Permitting and Approval Requirements that may Potentially Affect a Mine Development in Ontario – (http://www.mndm.gov.on.ca/mines/mg/mindev/permits_e.asp)

Northern Gold has budgeted approximately $850,000 for the EBS, Public Consultation and Permitting phases of the project for 2012 (Table 26-1).

21.8 ANTICIPATED ENVIRONMENTAL COSTS DURING OPERATIONAL PHASE

Environmental costs during the operations phase of typical mining projects consist of compliance monitoring (as outlined in the EA and Operating Permits), effects monitoring (including Metal Mining Effluent Regulations requirements) and other monitoring and stewardship commitments made by the proponent or stipulated by approvals. For this scale of operation a budget of $250,000 per annum should be allocated. Approximately 50% of this relates to analytical costs and equipment requirements such as groundwater monitoring wells and surface water monitoring data loggers and 50% relates to staff and outside consulting for specialized services (benthic invertebrate, breeding bird surveys, etc.). A more detailed budget can be prepared after the EBS and permitting phases are complete because the costs related directly to the stipulations from the Province.

A reclamation bond will be required during mine operation. Howe has factored a $5 million bond into its 2011 PEA. Note that the bond value is typically returned in full after the reclamation program is completed and the company is “released” by the Province, so the net costs are only the interest costs on the bond.

21.9 ANTICIPATED ENVIRONMENTAL COSTS DURING CLOSURE PHASE

Costs relative to environmental considerations during the closure phase consist of the environmental monitoring costs that may post-date the completion of the physical reclamation (removal of buildings, revegetation of stockpiles, etc.). It is typical for these programs to run for 3-5 years after physical reclamation is completed and are in the order of $50,000 to $100,000. We are not able to cost the physical reclamation program as the final mine design and permitted layout and reclamation approach will be developed later.

22 ECONOMIC ANALYSIS

Section 22 has been extracted from Howe's 2011 NI 43-101 technical report and PEA (Hannon, Roy and Trinder, 2011) and repeated in this Report. The reader is cautioned that the 2011 Garrcon PEA is based on Howe's 2011 Garrcon mineral resource estimate which has now been replaced by the 2012 Garrcon mineral resource update presented in this report. The 2011 Garrcon PEA reported in the following subsections has not been updated to reflect the changes in the Garrcon mineral resource, gold price and capital and operating costs.

22.1 PRINCIPAL ASSUMPTIONS

The purpose of the economic analysis is to evaluate the effects of price assumptions and operational and cost factors on the Project's cash flow over the project's life and to calculate internal rate of return ("IRR") and net present values ("NPV") for the project.

This is a preliminary economic assessment (PEA) of the Garrcon deposit. It includes inferred mineral resources which are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty that the preliminary assessment will be realized. Metal prices used have been estimated from in-house and industry sources.

This study uses financial mathematics to determine an optimum path for the company to follow given the mineral resources identified on the property at a point in time, that being, May 2011.

This PEA makes the following assumptions:

- Zero inflation;
- No change in grade or tonnage throughout the mine life;
- No salvage value at the end of mine life;
- Gold price is $1,200 per ounce throughout the mine life;
- Currency exchange of $Cdn 1.00 = $US 1.00;
- No royalties or NSR to other parties;
- No tax loss carryforwards;

These assumptions will be refined in future studies, if the project looks economic under these ideal "rule of thumb" conditions.

22.2 ECONOMIC ANALYSIS

22.2.1 Capital and Operating Costs

Capital and operating costs are detailed in Section 20.

Total capital costs are $156 million (including working capital) (Table 22-1).

Table 22-1: Capital Cost Summary

Capital Item	Cost (Millions)
Mining	$48.2
Processing Plant and Heap Leach	77.4
Pre-Production Stripping	19.3
Working Capital	6.7
Reclamation Bonding (Closure Costs)	5.0
Total Capital (Rounded)	**$156**

Yearly operating costs are summarized in Table 22-2.

Table 22-2: Yearly Operating Cost Summary

Operating Cost/Year	Pre-Production	Year 1	Years 2-7	Year 8
Mining	12,430,000	35,600,000	35,800,000	23,500,000
G&A	825,000	929,0000	929,000	825,000
Processing Plant	4,870,000	17,600,000	17,600,000	13,700,000
Heap Leach	1,990,000	8,000,000	7,960,000	5,740,000
Total Operating (Rounded)	**20,100,000**	**62,200,000**	**62,300,000**	**43,700,00**
Cost per troy oz	636	491	493	461
Reclamation				5,000,000

22.2.2 Projected Revenue

Table 22-3 – Projected Revenue

	Pre-Production		Production		
REVENUE	**Year 1**	**Year 2**	**Year 1**	**Year 2 - 7**	**Year 8**
Waste tonnes Mined		**6,310,938**	**12,518,750**	**12,518,750**	**6,259,375**
LG ore to Crusher then Heap		**571,875**	**2,287,500**	**2,287,500**	**1,715,625**
H.G. Ore to Crusher the to Mill PAD		1,031,250	4,125,000	4,125,000	3,093,750
Dilution		51,563	206,250	206,250	154,687.50
Tonnes moved per year		7,966,000	19,138,000	19,138,000	11,223,000
loose m3 moved per year		5,431,364	13,048,636	13,048,636	7,652,045
Metallurgical Recovery					
Grade of ore to heap leach		0.20	0.20	0.20	0.20
mining days per year		91	270	270	270
recovery, Leach		65.0%	65.0%	65.0%	65.0%
Grade of ore to mill		0.90	0.90	0.90	0.90
tonnes ore mined per day		11,866	11,866	11,866	8,900
mining days per year		91	365	365	365
grams gold in in HG ore to mill		928,100	3,712,500	3,712,500	2,784,400
grams gold in ore to LG heap		114,400	457,500	457,500	343,100
Total Grams in Ore		1,042,500	4,170,000	4,170,000	3,127,500
Total Troy Ounces in Ore		33,500	134,100	134,100	100,600
CIL/CIP		98.0%	98.0%	98.0%	98.0%
gold Recovery from CIL/CIP Plant, grams		909,500	3,638,300	3,638,300	2,728,700
gold Recovery from CIL/CIP Plant, troy ounces		29,200	117,000	117,000	87,700
gold Recovery from Heap Leach, grams		74,000	297,000	297,000	223,000
gold Recovery from Heap Leach, Troy Ounces		2,380	9,550	9,550	7,170
Total Grams gold recovered		983,500	3,935,300	3,935,300	2,951,700
Total Troy ounces gold recovered		31,620	126,523	126,523	94,899
gold value, per troy ounce		$ 1,200	$ 1,200	$ 1,200	$ 1,200
gold value, per gram		$ 38.58	$ 38.58	$ 38.58	$ 38.58
Value of gold Recovered from HEAP LEACH		$ 2,855,000	$ 11,459,000	$ 11,459,000	$ 8,604,000
Value of gold Recovered from CIL/CIP		$35,089,000	$140,369,000	$140,369,000	$105,276,000
Revenue before insurance, freight, refining		$37,944,000	$151,828,000	$151,828,000	$113,880,000
less, insurance, freight, refining		$758,880	$3,036,560	$3,036,560	$2,277,600
Gross Revenue	**$0**	**$37,185,000**	**$148,791,000**	**$148,791,000**	**$111,602,000**

22.2.3 Taxes

The combined Federal income tax and the Ontario Income, Mining and Capital tax on mining production is about 28% of the operating profit. In addition, there will be municipal taxes and fees, so the financial examination of the project uses a 30% overall tax on operating profits.

Details of the Federal taxes that mining operations are subject to can be found at http://www.nrcan.gc.ca/mms-smm/busi-indu/mtr-rdm/mst-rps-eng.htm#lnk6.

22.2.3.1 Ontario Mining Tax

Ontario's mining tax is levied at 10% of taxable profits in excess of $500,000, which are derived from mining operations in Ontario.

Determination of taxable profit:

- Gross Revenue in excess of $500,000

Less

- Cost of production;
- Processing costs;
- Depreciation at prescribed rates;
- Exploration and development expenses;
- Processing allowance at prescribed rates;
- Operating and maintenance costs of certain social assets (e.g., housing, recreational and service facilities); and
- Scientific research conducted in Canada that relates to the output of mines.

22.2.4 Economic Summary

Table 22-4 summarizes the cash flow estimate for the PEA.

Table 22-4 Economic Summary - Income, Taxes and Interest Estimate

	Pre-Production Year 1	Pre-Production Year 2	Year 1	Year 2-7	Year 8
Net Operating Income (Gross Margin)					
Operating Cash Flow		$ 17,069,500	$ 86,622,500	$ 86,453,500	$ 72,878,129
Less Overhead Costs	$ 3,140,000	$ 3,140,000	$ 3,140,000	$ 3,140,000	$ 3,140,000
Net Operating Income (Gross Margin)	*-$ 3,140,000*	*$ 13,929,500*	$ 83,482,500	$ 83,313,500	$ 69,738,129
Per Tonne of Ore		$ 8.69	$ 13.02	$ 12.99	$ 14.50
Taxes and Interest					
Net Operating Income (Gross Margin)	-$3,140,000	$13,929,500	$83,482,500	$83,313,500	$69,738,129
Minus Loss Carried Forward		-$3,140,000	-$45,786,500		
Minus Capital Cost Allowance Deduction		$78,118,000	$78,117,000	$52,079,000	$964,000
Minus Resource Allowance Deduction		-$15,262,000	$2,126,000	$8,594,000	$16,729,000
Minus Interest Expenses		$0	$0	$0	$0
Taxable Income	-$3,140,000	-$45,786,500	$49,026,000	$22,640,500	$52,045,129
Federal Income Tax (18%)	$0	$0	$8,825,000	$4,075,000	$9,368,000
Ontario Mining Tax (10 %)	$0	$0	$4,903,000	$2,264,000	$5,205,000
Total Income Tax Payable	$0	$0	$13,728,000	$6,339,000	$14,573,000
Net Income After Interest and Taxes					
Net Operating Income (Gross Margin)	-$3,140,000	$13,929,500	$83,482,500	$83,313,500	$69,738,129
Add back working capital recovery					$6,705,167
Minus Total Income Tax Payable	$0	$0	$13,728,000	$6,339,000	$14,573,000
Minus Interest on Capital	$0	$0	$0	$0	$0
Net Income After Interest and Taxes	-$3,140,000	$13,929,500	$69,754,500	$76,974,500	$61,870,296

Present Value of Net Income	Pre-Production Year 1	Pre-Production Year 2	Year 1	Year 2	Year 8
Net Income After Interest and Taxes	-$3,140,000	$13,929,500	$69,754,500	$76,974,500	$61,870,296
Minus Capital Costs	$26,039,194	$78,117,583	$52,235,389	$0	$0
Subtotal	-$29,179,194	-$64,188,083	$17,519,111	$76,974,500	$61,870,296
Cumulative	-$29,179,194	-$93,367,278	-$75,848,167	$1,126,333	$394,194,725

$NPV_{5\%}$	$ 266,400,000
$NPV_{8.0\%}$	$ 211,500,000
$NPV_{10.0\%}$	$ 181,500,000
$NPV_{12.5\%}$	$ 150,000,000
$NPV_{15.0\%}$	$ 123,900,000
Internal Rate of Return (IRR)	47%

22.3 Financial Indicators

The Garrcon deposit appears to be viable as a large low grade mining operation as long as the gold price stays strong, above approximately $US 800 / troy ounce.

PEA indicators are presented in Table 22-5:

Table 22-5 - PEA Financial Indicators, Garrcon Deposit

NPV_{05}	$266,000,000
Cumulative Cash Flow	$394,000,000
Taxes Payable	$120,000,000
IRR	47%
Payback from start of production is just under 2 years	
$494 - average operating cost/ounce	
$154 - required capital /oz	
$648 total cost/ounce	
Troy Ounces of Gold produced, just over 1,000,000 - NOTE: with PEA outlined 50% Inferred resources	
PEA - EBITDA Margin 58%	

22.4 PAYBACK

A payback of just under 2 years from the start of production is indicated in this study (Table 22-5). The Income Tax Act states that the start of commercial production is "The first day of the first 90 day period throughout which the mill operated consistently at 60% capacity or more".

The PEA EBITDA margin, ratio of earnings before interest, tax, depreciation and amortization and the total revenue is 58% (Table 22-5), which is above the average for gold producers.

22.5 ROYALTIES

This PEA assumes no royalties.

22.6 SENSITIVITY

A sensitivity analysis was carried out on four key parameters: head grade, gold price, capital costs and operating costs.

Profitability is most sensitive to head grade and metal price which is a typical result. At $840 per ounce, the project's $NPV_{5\%}$ is $50 million and the IRR is 14%. At the average gold price as of the date of this report, approximately $US 1,560 per ounce gold, the $NPV_{5\%}$ is $480 million and the IRR is 79%, assuming all other variables are constant. Even with capital costs at 200% of the PEA value, $NPV_{5\%}$ remains positive at $141 million and the IRR is 18%.

Sensitivities of the various parameters are presented in Table 22-6 and graphically in Figure 22-1.

Table 22-6: Sensitivities Table

	$NPV_{5\%}$			
Change	**Grade**	**Capital**	**Operating**	**Gold Price**
-50%	-$97,000,000	$327,000,000	$418,000,000	-$97,000,000
-40%	-$23,000,000	$315,000,000	$388,000,000	-$23,000,000
-30%	$50,000,000	$303,000,000	$357,000,000	$50,000,000
-20%	$124,000,000	$291,000,000	$327,000,000	$124,000,000
-10%	$195,000,000	$279,000,000	$297,000,000	$195,000,000
PEA case	**$266,000,000**	**$266,000,000**	**$266,000,000**	**$266,000,000**
+10%	$338,000,000	$254,000,000	$236,000,000	$338,000,000
+20%	$409,000,000	$242,000,000	$206,000,000	$409,000,000
+30%	$480,000,000	$230,000,000	$175,000,000	$480,000,000
+40%	$551,000,000	$218,000,000	$145,000,000	$551,000,000
+50%	$622,000,000	$205,000,000	$115,000,000	$622,000,000

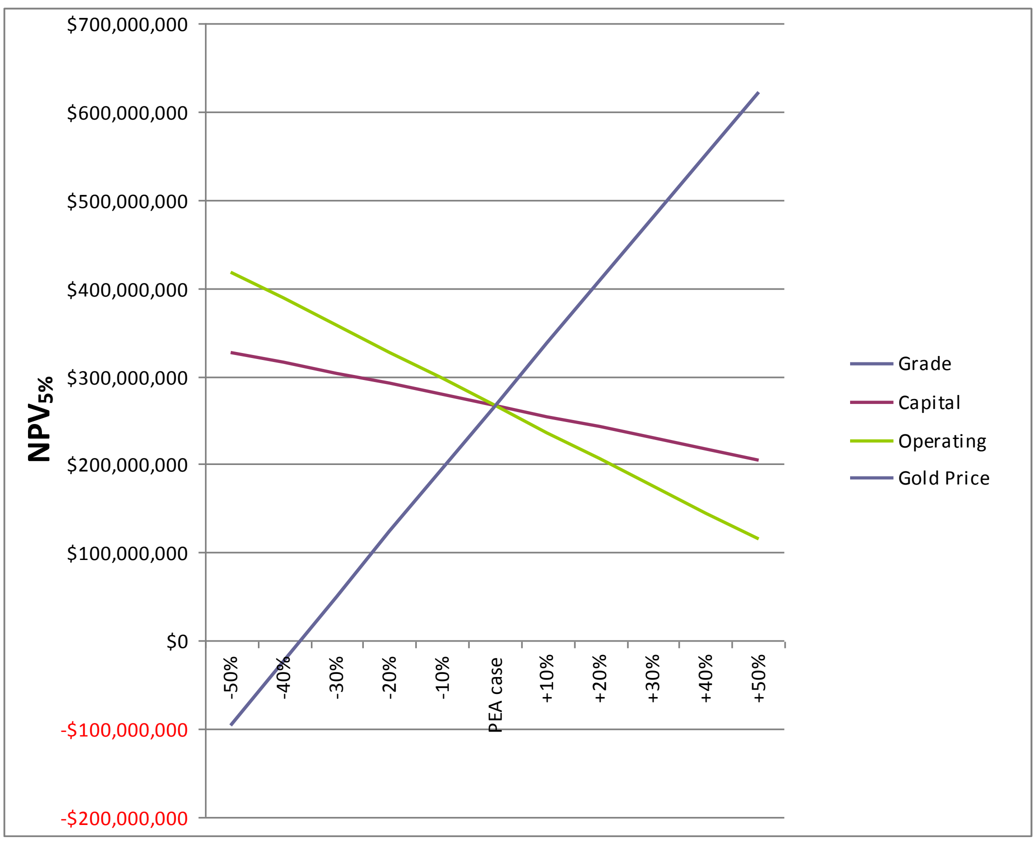


Figure 22-1: Sensitivity Spider diagram (Gold Grade and Gold Price have same trend)

23 ADJACENT PROPERTIES

Howe is unaware of any significant exploration results on immediately adjacent mineral properties.

Gold is extracted from the St Andrew Goldfield Ltd.'s Holloway and Holt mines in Holloway Township, Brigus Gold's Black Fox mine in Hislop Township and St Andrew Goldfield Ltd.'s Hislop mine in Hislop Township (approximately 15 kilometres east, 32 kilometres west and 27 kilometres west of the Property respectively). Several past-producing gold mines are located in Hislop and Garrison townships.

24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant information known to Howe that would make this Report more understandable or if undisclosed would make this Report misleading.

25 INTERPRETATION AND CONCLUSIONS

Howe has reviewed the Garrcon Deposit data provided by Northern Gold, including the drilling database, has visited the site and has reviewed sampling procedures and security. Howe believes that the data presented by the Company are generally an accurate and reasonable representation of the Garrcon Deposit mineralisation. Howe concludes that the database for the Garrcon Deposit is of sufficient quality to provide the basis for the conclusions and recommendations reached in this Report.

Work by the Company at the Garrcon Deposit has confirmed the grade of mineralisation outlined by previous operators, provided further detail on the nature of the mineralised zones and permitted the completion a NI 43-101 compliant updated Mineral Resource Estimate.

Northern Gold's QA/QC results to date indicate that there are no major problems with the accuracy of the analyses. The current sampling and analytical protocols are considered by Howe to be appropriate.

Northern Gold's exploration drilling program during 2009, 2010 and 2011 has confirmed a significant gold resource at the Garrcon Deposit. The 2011 step-out and fill-in drilling added metal content (gold ounces) and caused a shift of resources from the Inferred category to the Indicated and Measured categories. Previously, no Measured mineral resources had been identified. Using a cut-off grade of 0.1 g/tonne for mineralised zone interpretation, a main mineralised zone was outlined that was nearly vertical, over 1200 metres long, 300 metres wide (on average), and up to 650 metres deep.

Using a block cut-off grade of 0.3 g/tonne, Howe has estimated non-diluted Measured mineral resources at Garrcon total 17.6 million tonnes with an average gold grade of 1.06 g/tonne, for 604,000 ounces. Garrcon's Indicated mineral resources total 20.8 million tonnes with an average gold grade of 1.00 g/tonne, for 668,000 ounces. Measured plus Indicated mineral resources at Garrcon total 38.5 million tonnes with an average gold grade of 1.03 g/tonne, for 1,272,000 ounces.

Garrcon's Inferred mineral resources total 15.8 million tonnes with an average gold grade of 0.72 g/tonne, for 367,000 ounces.

George (2008 and 2009), using the polygonal longitudinal section method, has estimated non-diluted Indicated mineral resources at the Jonpol Deposit total 253,100 tonnes with an average grade of 7.77 g/tonne gold for 63,200 ounces gold. Inferred resources at Jonpol total 1,555,800 tonnes grading 4.93 g/tonne for 246,540 ounces.

Mr. Trinder has examined the Jonpol Deposit resource longitudinal section, cross-sections and spreadsheet generated by Mr. George. Mr. Trinder is of the opinion that the 2009 mineral resource estimate for the Jonpol deposit as generated by Mr. George is a reasonable reflection of the mineral resources at the Jonpol deposit on the Garrison Gold Project and has been completed to industry standards and in accordance to NI 43-101.

Mr. Trinder notes however that Mr. George's 2009 resource estimate is drill indicated, in-situ and undiluted. The volume of historically excavated drifts, crosscuts and stopes have not been deleted from the mineral resource volume. For the purpose of this Report, the Mr. Trinder estimates that approximately 44,100 tonnes of mineralization at an average grade of the JP Zone has been extracted from the 2009 resource estimate. This accounts for approximately 18.5% of the 2009 JP zone Indicated resource or approximately 2.5% of the 2009 global Jonpol Deposit resource.

Howe is not aware of any other material changes to the Jonpol resource base since the mineral resource was estimated in 2009.

Howe reviewed the Garrcon Deposit at the level of a Preliminary Economic Assessment (PEA) in 2011 utilizing the previous 2011 Garrcon mineral resources estimate (Hannon, Roy and Trinder, 2011). Howe's 2011 Garrcon mineral resource estimate has now been replaced by the 2012 Garrcon mineral resource update presented in this report. The 2011 Garrcon PEA has not been updated to reflect the changes in the Garrcon mineral resource and current costs however it is still an indication of the project's potential. The following conclusions were made:

- The reader is cautioned that this PEA uses Indicated and Inferred Mineral Resources. NI 43-101 Part 2, Section 2.3(1)(b) and Companion Policy 43-101CP, Part 2, Section 2.3(1) Restricted Disclosure, prohibits the disclosure of the results of an economic analysis that includes or is based on inferred mineral resources, an historical estimate, or an exploration target. However, under NI 43-101, Part 2, Section 2.3(3) and Companion Policy 43-101CP, Part 2 section 2.3(3), the use inferred mineral resources is allowed in a Preliminary Economic Assessment in order to inform investors of the potential of the property.

- This PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

- A mining schedule and economic model has been developed for the operation. The PEA indicates that the mining of the Garrcon gold deposit by open pit mining methods would be feasible today. This PEA has determined that, with the Mineral Resources outlined to date, a combination gravity-agitated leach plant and a heap leach facility would be economic with a base case net present value (5.0% discount rate) of $266 million and an internal rate of return of 47%.

- PEA conditions included $1,200/troy ounce gold, a processing rate of about 11,300 tonnes per day and a heap leach facility processing about 2.3 million tonnes per year.

- The project is most sensitive to grade and the price of gold and least sensitive to capital costs. The 2011 PEA has been completed using order of magnitude costs and rock quality values typical of northern Ontario. The project economics would be even better if the present price of gold (2011 - $1500+) were used; however, at the time of the PEA (2011) the project was still 3 to 5 years from production and it was prudent to use a lower number. As the project advances, a gold price closer to the present price can be used.

Based on the 2012 Garrcon mineral resource update and the 2011 PEA, Howe concludes that the Garrcon Deposit and the Garrison Gold Property warrant additional expenditures to be further developed.

26 RECOMMENDATIONS

Howe recommends that the following work be incorporated into Northern Gold's ongoing project development plans to further refine estimates of costs, recoveries, engineering and mine design to facilitate the development of a Pre-feasibility Study:

1. Continue the advanced exploration permitting currently in progress to be followed by the work necessary for operational permitting.

2. Expand the permitting process to include potential mill sites, heap leach pads and tailings management areas using claims recently acquired by Northern.

3. Continue and expand the current drilling program:
    a. Continue the Garrcon infill drilling program to improve the quality of existing resources.
    b. Emphasis should also be placed on step out drilling beyond the current Garrcon resource footprint to:
        i. test for potential mineralization in meta-sediments between the current Garrcon resource mineralization shell and the Munro Fault Zone/Jonpol East Zone to the north;
        ii. test geophysical anomalies defined by the 2011 IP survey and;
        iii. continue to test beneath meta-sediment outcrops and newly stripped meta-sediments hosting stockwork veining with anomalous gold mineralization.

4. Northern Gold should continue specific gravity measurements of representative samples. Sufficient samples should be tested to be representative of the various mineralized and non-mineralized rock types within the Garrcon Zone along its entire strike length, width and depth. The number of samples will depend on the statistical variance of the measurements.

5. Co-author Roy recommends that when sampling and assaying work is reviewed in the next Garrcon mineral resource update, the cumulative normal probability curves (refer to Figure 14-6) be updated. Co-author Roy also recommends that several of the resource blocks that used the higher grade samples from Table 14-4 be drill-targeted to verify the estimated grades.

6. Further mineral processing work should be carried out to support assumptions that were made in the 2011 PEA. The work that has been carried out thus far is quite preliminary. This work should be expanded by exploring various processing options, determining which options would best suit this particular deposit and optimising the most promising flowsheet. Should that flowsheet consider heap leaching, a bulk sample pilot trial should be carried out to determine the actual, realised processing recovery value as opposed to the laboratory-predicted value. Testwork should include:
    a. Sieve analysis vs. gold grade.

i. For each stage of the rock breakage history, a sieve analysis and grade of gold should be determined. This should be completed for selected bulk sampling sites where at least several hundred tonnes can be blasted on surface. At each stage of crushing, the ore should be sieved and a gold grade determined for each size fraction..

b. Flotation Test Program

i. Test four different grinds from approximately 70% at -200 mesh to 95% at -200 mesh. In these tests use reagent X-523 for 10 minutes followed by a 10-minute float with frother and potassium amyl xanthate.

ii. Take the best of the above conditions and repeat with reagent Aerofloat 208 replacing the X-523. Take the best of the above conditions and jig the flotation feed and remove the coarser gold prior to flotation.

iii. Have all tests that are performed above assayed for gold, silver and sulphur.

iv. Repeat the best test of above and have all flotation floats performed for five 3-minute intervals to establish the flotation rate for the various minerals.

v. Repeat the best tests of above but clean, reclean and re-reclean the two flotation products, and have the final re-reclean concentrate assayed for copper, lead and zinc as well. Also, repeat the best test using reclaimed water from a previous float test.

c. Bottle roll tests to give some indication of the leaching character of the rock.

d. Column leaching tests should be completed to get some idea of percolation rates for the heaps.

e. Determination of solution application rates and solution percolation rates, crushing and agglomeration testing.

7. Continue testing the deposit for any potential Acid Rock Drainage (ARD) and confirmation of the relatively high calcium content, which is expected to neutralize any ARD potential.

8. A study of the structural geology, a map of the jointing system and a report on the geotechnical properties of the potential pit should be completed. The geotechnical properties of the rock types at the Garrcon property (Uniaxial Compressive Strength (UCS), Tensile Strength, Young’s modulus and Poisson’s ratio) should be determined. A suite of samples representing different parts of the deposit and each rock type should be tested at a rock mechanics laboratory.

9. Additional land may be required around the deposit, to store waste rock and tailings facilities. More detailed site engineering is required to confirm the suitability and sufficiency of the current property area for final mine and processing facilities should they be constructed.

10. Approximately 10 kilometres of line will be required to bring 3 phase power to the site. A right of way for this line should be investigated. Northern Gold informs Howe that talks with Ontario Hydro have been initiated.

11. A hydrological study should be completed to determine the amount of water that must be pumped to keep the pit dry. Any water bearing fractures found should be mapped so that they can be grouted off if necessary. A water storage facility will have to be in place to supply mill water, heap leach water as well as fire-fighting water.

12. A rock penetration rate study should be undertaken in order to determine the penetration rate for down the hole hammer type blast hole drills. Drill manufacturers often offer this service. A variety of core or rock samples should be tested so that an accurate penetration rate can be determined.

13. Update of the Garrcon resource estimate to include the results of the ongoing 2012 drill program. The update should be completed after sufficient drilling has been completed along strike of the currently defined mineral resource.

14. Should Northern Gold undertake future work at the Jonpol deposit, Howe recommends that prior to completion of any potential future mineral resource update of the Jonpol Deposit, the Company compile all available production records, level plans and mill and smelter records from the historic underground work completed in 1990 and 1996-1997 in an attempt to accurately determine volumes, tonnages and grades of extracted mineralization and bulk sampling data. This information, should be incorporated into any future resource update. Use of 3-D modeling software should be considered to accurately locate the underground sublevels with respect to the surface drill holes. Selection of cut-off grade and top-cut should be re-examined and determined on the basis of gold price and economics at that future date.

Following Howe's recommendations, Northern Gold has developed a work program and cost estimate totaling $14,000,000 for the balance of 2012 to further advance the project. The proposed program and budget as shown Table 26-1 below will permit Northern Gold to complete 36,000 metres of diamond drilling and approximately 40,000 metres of RC drilling to upgrade and expand the resource and initiate condemnation drilling in addition to EBS and Permitting, metallurgical and engineering studies (as per Table 26-1).

Howe considers Northern Gold's proposed budget reasonable and recommends that the Company proceed with the proposed work program.

Table 26-1: Proposed Budget – May to December 2012

Item #	Property	Activity	Year	Estimated Cost to end of 2012
1	Garrison, Sims, Plato	Environmental Baseline Studies (EBS) - Phase 2 Aquatic ecology Terrestrial ecology Hydrology & Surface Water Quality Geochemistry Hydrogeology Archeology Siting of mill, waste and tailings Mine Closure Plan Project management (permitting)	2012 & 2013	$800,000
2	Garrison	Surface Geology & Structural Mapping	2012	$50,000
3	Garrison	Geotechnical Assessment Desktop analysis Field mapping & core logging Pit slope design Analysis & reporting	2012	$225,000
4	Garrison	Detailed Metallurgical Testwork Obtain and ship samples SAG mill testing Crushing and screening Gravity and gravity recovery testing Heap leach amenability testing Engineered process recovery plant	2012	$1,500,000
5	Garrison, Sims, Plato	Project Description (permitting)	2012	$25,000
6	Garrison, Sims, Plato	Public & First Nation Consultation	2012 & 2013	$50,000
7	Garrison, Sims, Plato	Pre-Feasibility Study	2012 & 2013	$500,000
8	Garrison	Diamond Drilling (17,500m @ $225/m) Garrcon infill drilling Garrcon step-out drilling Jonpol East drilling Other property drilling	2012 only	$4,500,000
9	Garrison, Sims, Plato	Reverse Circulation Drilling (32,000m @ $125/m) Garrcon infill and metallurgical sampling Sims claims condemnation drilling Plato claims condemnation drilling	2012 only	$4,000,000
10	Garrison	Move core shack facility	2012	$500,000
			Subtotal	$12,150,000
		Approx. 15%	Contingency	$1,850,000
			Total	**$14,000,000**

27 REFERENCES

Ayer, J. A. and Trowell, N. F., 2001, Project Unit 95-24, The Abitibi Greenstone Belt: A Program Update. In Summary of Field Work and Other Activities 2001, Ontario Geological Survey, OFR 6070, p. 4-1 to 4-9.

Bath, A.C., 1990, Mineral Occurrences, Deposits, and Mines of the Black River – Matheson Area, Ontario Geological Survey Open File Report 5735, 1883 p.

Berger, B. R., 2002, Geological Synthesis of the Highway 101 Area, East of Matheson, Ontario; Ontario Geological Survey Open File Report 6091, 124 p.

Bradshaw, R.J., 1989, A Report on the Newfield Property Gold Deposits, Garrison Township, Ontario, August 17, 1989, pp. 14.

Card, K. D., Poulsen, K. H., and Robert, F., 1988, The Archean Superior Province of the Canadian Shield and Its Lode Gold Deposits, p. 19-36; in Economic Geology Monograph 6: The Geology of Gold Deposits; the Perspective in 1988, edited by R. R. Keays, W. R. H. Ramsey, and D. I. Groves, Economic Geology Publishing Company, 667p.

Choi, T., 1997, Final Grade and Recovery Analysis of Jonpol Project, memo to G. Vooro, President and CEO, Hillsborough Resources Limited, May 8, 1997, 4 p.

Deklerk, R. and Burke, M. (compilers), 2008. Yukon Mineral Property Update 2008. Yukon Geological Survey, p.3-7, 94 p.

DDH Geomanagement, 1989, unpublished exploration report

George, P.T., 2008, Technical Report, Mineral Resource Estimate and Preliminary Assessment of Garrison Gold Property, Abitibi Greenstone Belt, Garrison Township, Ontario, Canada for ValGold Resources Inc.; A.C.A. Howe International Limited Technical Report.

George, P.T., 2009, Technical Report, Mineral Resource Estimate and Preliminary Assessment of Garrison Gold Property, Abitibi Greenstone Belt, Garrison Township, Ontario, Canada for Northern Gold Mining Inc.; A.C.A. Howe International Limited Technical Report.

Hannon, P., Roy, D. and Trinder, I. 2011, Technical Report and Preliminary Economic Assessment on the Garrcon Deposit - Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada for Northern Gold Mining Inc, ACA Howe International Limited, effective date June 23, 2011, signature date August 5, 2011, 185 p.

Jackson, S. L., and Fyon, J. A., 1991, The Western Abitibi Subprovince in Ontario; in Geology of Ontario, Special Volume 4, Part 1, Chapter 11, p.405-482.

Northern Miner, various

Robert, F., 1996, Quartz-carbonate vein gold; in Geology of Canadian Mineral Deposit Types, edited by O. R. Ekstrand, W. D. Sinclair, and R. I. Thorpe, Geological Survey of Canada, Geology of Canada, No 8, p 350-366.

Robert, F., 1998, An Overview of World Class Archean Gold Deposits; in The First Age of Giant Ore Formation; Stratigraphy, Tectonics, and Mineralisation in the Late Archean and Early Proterozoic; papers presented in a technical session at the Annual Convention and Trade Show of the Prospectors and Developers Association of Canada, Sunday March 8, 1998, p.137-162.

Rogers, D. S., 1982, Drilling as an aid in ore definition at the Dome Mine, Canadian Institute of Mining and Metallurgy, vol. 75, no. 842, June 1982, p. 98-104.

SGS Mineral Services, 2011, An Investigation into the Recovery of Gold from the Garrcon Gold Deposit located on the Garrison Gold Property, prepared for Northern Gold Mining Inc., Project 12566-001 – Final Report January 31, 2011.

Sinclair, D.G., Keely, E.C., Cooper, D.F., Weir, E.B. and Webster, A.R., 1937, Mines of Ontario in 1935; Ontario Department of Mines, Annual Report of 1936, Volume 45, Part 1, p. 77-188.

Sinclair, D.G., Tower, W.O., Bayne, A.S., Cooper, D.F., Weir, E.B. and Webster, A.R., 1938, Mines of Ontario in 1936; Ontario Department of Mines, Annual Report of 1937, Volume 46, Part 1, p. 90-238.

Sinclair, D.G., Tower, W.O., Taylor, J.B., Douglas, D.P., Bayne, A.S., Cave, A.E., Cooper, D.F., Weir, E.B. and Webster, A.R., 1939, Mines of Ontario in 1937; Ontario Department of Mines, Annual Report of 1938, Volume 47, Part 1, p. 80-249.

Satterly, J., 1949, Geology of Garrison Township; Ontario Department of Mines Annual Report, v.58, pt.4, including Map M1949-01, Scale 1:12,000.

Squair, H., 2000, A Report on the Garrison Gold Project, Garrison Township, District of Cochrane, Ontario, for Aurado Exploration Ltd., April 2000, 34 p.

Roy, D. and Trinder, I. 2010, Technical Report and Mineral Resource Estimate on the Garrcon Deposit - Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada for Northern Gold Mining Inc, ACA Howe International Limited, September 23, 2010, 94 p.

Walcott, P.E., 2012, A Report on Induced Polarization Surveying, Garrison Gold Project, Matheson, Ontario, 48^{o} 30'N, 79^{o} 55'E, NTS 32D/12 for Northern Gold Mining Inc., Peter E. Walcott and Associates Limited, 20 p.

Young, A.C., 1937, Statistical Review of the Mineral Industry of Ontario for 1935, Ontario Department of Mines, Annual Report of 1936, Volume 45, Part 1, p. 1-60.

28 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada" for Northern Gold Mining Limited dated April 19, 2012, was prepared and signed by the following authors:

"Signed and Sealed"

Dated at Halifax, Nova Scotia
June 1, 2012

Patrick J. Hannon, M.A.Sc., P.Eng.
Associate Consulting Engineer
A.C.A. Howe International Limited

"Signed and Sealed"

Dated at Halifax, Nova Scotia
June 1, 2012

William D. Roy, M.A.Sc., P.Eng.
Associate Consulting Engineer
A.C.A. Howe International Limited

"Signed and Sealed"

Dated at Toronto, Ontario
June 1, 2012

Ian D. Trinder, M.Sc., P.Geo.
Senior Geologist
A.C.A. Howe International Limited

29 CERTIFICATES OF QUALIFICATIONS

CERTIFICATE of CO-AUTHOR

I, William Douglas Roy, M.A.Sc., P.Eng., do hereby certify that:

1) I am an Associate Mining Engineer of ACA Howe International Limited, whose office is located at 365 Bay St, Toronto, Ontario, Canada.
2) I graduated with a B.Eng. degree in Mining Engineering from the Technical University of Nova Scotia (now Dalhousie University) in 1997 and with a M.A.Sc. degree in Mining Engineering from Dalhousie University in 2000.
3) I am a Professional Engineer (Mining), registered with the Association of Professional Engineers of Nova Scotia (Registered Professional Engineer, No. 7472). I am a member of the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and of the Prospectors and Developers Association of Canada ("PDAC").
4) I have worked as a mining engineer for more than ten years since graduating from university. This work has included the estimation of resources and reserves for precious metals, base metals and industrial minerals, as well as participation in pre-feasibility and feasibility studies.
5) I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43- 101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6) I am co-author of the technical report titled: "Technical Report on the Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada" for Northern Gold Mining Limited dated April 19, 2012 (the "Technical Report"). I am responsible for Sections 14.1 and 14.2: Mineral Resources and Section 16.5: Open Pit Mining.
7) I have read NI 43-101 and Form 43-101 F1. This Technical Report has been prepared in accordance with that Instrument and form.
8) I have visited the Garrison Gold Property.
9) I have prior involvement with the issuer and property as co-author of ACA Howe's 2011 technical report titled: "Technical Report and Preliminary Economic Assessment on the Garrcon Deposit- Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada" for Northern Gold Mining Limited dated June 23, 2011 and ACA Howe's 2010 technical report titled: Technical Report and Mineral Resource Estimate on the Garrcon Deposit- Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada for Northern Gold Mining Limited, dated September 23, 2010.
10) I am not aware of any material fact or material change with respect to the subject matter of this Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.
11) I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
12) As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the report not misleading.
13) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes.

Dated this 1st Day of June 2012.

"Signed and Sealed"

William Douglas Roy, M.A.Sc., P. Eng.
Associate Mining Engineer
ACA Howe International Limited

CERTIFICATE of CO-AUTHOR

Name:	Patrick James Francis Hannon, M.A.Sc., P.Eng.
Address:	MineTech International Limited, 1161 Hollis St., Suite 211, Halifax, Nova Scotia, Canada 83H 2P6. Telephone: 1-902-492-4049; Facsimile: 1-902-492-9302; Email: pat@minetechint.com
Occupation:	Consultant Geological and Mining Engineer

Qualifications

I, Patrick J.F. Hannon, do hereby certify that:

1. I am director and President of:
MineTech International Limited of 1161 Hollis St., Suite 211, Halifax, Nova Scotia, Canada B3H 2P6 and an Associate Consulting (Mining) Engineer with A.C.A. Howe International Limited.

2. I graduated with a Bachelor of Science (Eng.) degree in Geological Engineering from Queen's University at Kingston in 1972. In addition, I have a Sr. Mining Technician Certificate from the Haileybury School of Mines (1968) and I obtained a M.A.Sc. in Mining Engineering from the Dalhousie University, Halifax in 1987.

3. I am a Member of Engineers Nova Scotia, the Professional Engineers and Geoscientists Newfoundland and Labrador and a member of the Association of Professional Engineers in Ontario. I am a Fellow of the Canadian Institution of Mining and Metallurgy and a member of the American Institute of Mining Engineers.

4. I have worked in the mining industry for a total of 39 years since my graduation from university.

5. I have read the definition of "qualified person" and hereby certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I have not personally visited the Garrison property of Northern Gold; however, I am familiar with the terrain having worked on several properties in the Kirkland Lake camp during the 1980s.

7. I am co-author of the technical report titled: "Technical Report on the Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada" for Northern Gold Mining Limited dated April 19, 2012 (the "Technical Report"). I am responsible for sections 13, 16.1 to 16.4, 16.6 to 16.9, 17, 18, 19, 20 and 22, essentially the preparation of the mining engineering and financial analysis for the Preliminary Economic Assessment section of this Technical Report.

8. I am not aware of any material fact or material change with respect to the subject matter of Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.

10. I have prior involvement with the issuer and property as co-author of ACA Howe's 2011 technical report titled: "Technical Report and Preliminary Economic Assessment on the Garrcon Deposit- Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada" for Northern Gold Mining Limited dated June 23, 2011.

11. I have read NI 43-101 and NI 43-101 Form 43-101F1. This Technical Report has been prepared in compliance with those instruments.

Dated this 1st Day of June 2012.

"Signed and Sealed"

Patrick J.F. Hannon, M.A.Sc., P.Eng.

CERTIFICATE of CO-AUTHOR

I, Ian D. Trinder, M.Sc., P.Geo. (ON, MAN), do hereby certify that:

1. I reside at 4185 Taffey Crescent, Mississauga, Ontario, L5L 2A6.

2. I am a self-employed geologist and have been retained since 2007 as an associate consulting geologist with the firm of A.C.A. Howe International Limited, Mining and Geological Consultants located at 365 Bay St., Suite 501, Toronto, Ontario, Canada. M5H 2V1.

3. I graduated with a degree in Bachelor of Science Honours, Geology, from the University of Manitoba in 1983 and a Master of Science, Geology, from the University of Western Ontario in 1989.

4. I am a Professional Geoscientist (P.Geo.) registered with the Association of Professional Engineers and Geoscientists of Manitoba (APEGM, No. 22924) and with the Association of Professional Geoscientists of Ontario (APGO, No. 452). I am a member of the Society of Economic Geologists and of the Prospectors and Developers Association of Canada.

5. I have over 20 years of direct experience with precious and base metals mineral exploration in Canada, USA and the Philippines including project evaluation and management. Additional experience includes the completion of various National Policy 2A and NI 43-101 technical reports for gold and base metal projects.

6. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

7. I am co-author of the technical report titled: "Technical Report on the Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada" for Northern Gold Mining Limited dated April 19, 2012 (the "Technical Report"). I am responsible for Sections 1 to 12, 14.3, 14.4, 15, 21 and 23 to 27 of the report. I have visited the Garrison Gold Property from July 12th to 13th, 2010, January 19 to 22, 2011 and May 20, 2011.

8. I have prior involvement with the issuer and property as co-author of ACA Howe's 2011 technical report titled: "Technical Report and Preliminary Economic Assessment on the Garrcon Deposit- Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada" for Northern Gold Mining Limited dated June 23, 2011 and ACA Howe's 2010 technical report titled: Technical Report and Mineral Resource Estimate on the Garrcon Deposit- Garrison Gold Property, Larder Lake Mining Division, Garrison Township, Ontario, Canada for Northern Gold Mining Limited, dated September 23, 2010.

9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

10. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

11. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 1st Day of June 2012.

"Signed and Sealed"

Ian D. Trinder, M.Sc., P. Geo.

APPENDIX A

Diamond Drill Holes used in 2012 Garrcon Resource Estimate Update

DDH ID	UTM East NAD 83	UTM North NAD 83	Elev m	Azimuth	Dip	Length m	Start	Finish	Company	Core Dia
87-35	579385.9	5374180.4	305.3	152.7	-51.1	460.25			Jonpol	
C06-01	578654.3	5373903.7	302.9	342.2	-44.5	383.00	26/06/2006	??/07/2006	ValGold	NQ
C06-02	578702.0	5374078.3	310.9	277.5	-44.0	461.00	??/07/2006	18/07/2006	ValGold	NQ
C06-03	578701.6	5374077.2	310.9	340.4	-54.4	254.00	18/07/2006	21/07/2006	ValGold	NQ
C06-04	578652.7	5373906.1	303.2	331.3	-45.1	326.35	21/07/2006	26/07/2006	ValGold	NQ
C06-05	578543.8	5373847.5	289.9	334.7	-43.4	45.00	26/07/2006	26/07/2006	ValGold	Failed
C06-05A	578543.8	5373847.5	289.9	330.0	-50.0	47.00	26/07/2006	26/07/2006	ValGold	Failed
C06-05B	578543.8	5373847.5	289.9	324.3	-50.2	497.00	26/07/2006	11/8/2006	ValGold	NQ
C06-06	578583.0	5373884.0	297.9	338.1	-44.9	455.00	13/08/2006	16/08/2006	ValGold	NQ
C06-07	578574.6	5374063.1	304.9	151.4	-44.7	422.00	16/08/2006	??/08/2006	ValGold	NQ
C06-08	578430.8	5374014.5	303.1	159.7	-43.0	422.00	31/08/2006	12/9/2006	ValGold	NQ
C06-09	578703.8	5373934.2	295.9	338.6	-45.1	131.00	13/09/2006	??/09/2006	ValGold	NQ
C07-01	578701.1	5373786.9	285.9	326.5	-48.6	499.00	25/02/2007	12/3/2007	ValGold	BQ
C07-02	578771.9	5373730.9	287.9	337.4	-46.6	500.00	12/3/2007	26/03/2007	ValGold	BQ
C07-03	578617.9	5373815.8	289.9	333.0	-56.1	512.00	26/03/2007	11/4/2007	ValGold	BQ
C07-04	578570.7	5373784.9	287.9	340.0	-57.0	581.00	11/4/2007	26/04/2007	ValGold	NQ
C07-05	579035.0	5374058.1	298.9	340.0	-88.0	269.00	29/06/2007	5/7/2007	ValGold	NQ
GAR-20	578324.9	5373874.6	300.3	148.0	-45.0	275.84	25/11/1986	10/12/1986	Cominco	BQ
GAR-21	578235.7	5373860.2	295.0	152.0	-45.0	142.34	13/12/1987	15/12/1987	Cominco	BQ
GAR-22	578692.6	5374021.2	309.4	150.0	-45.0	282.55	16/12/1986	8/1/1987	Cominco	BQ
GAR-23	578867.2	5374079.4	304.3	150.0	-45.0	303.89	9/1/1987	13/01/1987	Cominco	BQ
GAR-24	578975.7	5374059.4	295.1	150.0	-45.0	233.78	14/01/1987	18/01/1987	Cominco	BQ
GAR-25B	579060.3	5374094.5	301.6	155.0	-45.0	178.92	20/01/1987	25/01/1987	Cominco	BQ
GAR-47	578483.6	5374027.7	301.0	340.0	-52.0	529.86	11/8/1987	22/08/1987	Cominco	BQ
GAR-48	578541.7	5374055.0	303.4	340.0	-52.0	674.43	22/08/1987	10/9/1987	Cominco	BQ
GAR-49	578803.1	5374154.9	304.6	336.0	-50.0	470.06	10/9/1987	21/09/1987	Cominco	BQ
GAR-50	578992.3	5374179.7	301.6	336.0	-50.0	474.88	26/09/1987	1/10/1987	Cominco	BQ
GAR-52	578499.3	5373923.7	303.9	337.0	-45.0	213.94	5/10/1987	17/10/1987	Cominco	BQ
GAR-55	578523.3	5373949.6	301.9	340.0	-45.0	228.94	17/10/1987	23/10/1987	Cominco	BQ
GAR-56	578560.7	5373932.6	301.3	337.0	-45.0	197.57	24/10/1987	30/10/1987	Cominco	BQ
GAR-57	578588.8	5373945.0	300.1	345.0	-45.0	186.96	31/10/1987	6/11/1987	Cominco	BQ
GAR-59	578610.8	5373999.4	300.9	340.0	-45.0	152.95	31/10/1987	6/11/1987	Cominco	BQ
GAR-61	578639.2	5373991.9	306.0	337.0	-45.0	183.95	12/11/1987	17/11/1987	Cominco	BQ
GAR-63	578457.7	5373948.7	304.5	340.0	-45.0	167.98	17/11/1987	23/11/1987	Cominco	BQ
GAR-74	578581.9	5374155.9	304.2	250.0	-50.0	165.96	26/02/1988	29/02/1988	Cominco	BQ
GAR-75	578648.9	5373971.0	303.7	340.0	-55.0	271.42	29/02/1988	10/3/1988	Cominco	BQ
GAR-76	578652.4	5374037.0	308.1	340.0	-50.0	154.96	11/3/1988	13/03/1988	Cominco	BQ
GD85-1	578598.9	5374063.3	305.6	350.0	-50.0	110.05	21/11/1985	24/11/1985	Cominco	BQ
GD85-2	578627.2	5373754.3	288.9	360.0	-58.0	93.88	??/11/1985	??/11/1985	Cominco	BQ
GD85-3	579034.3	5374167.6	301.5	210.0	-45.0	111.00	28/11/1985	30/11/1985	Cominco	BQ
GD85-4	578573.8	5373880.4	298.3	155.0	-60.0	144.30	1/12/1985	4/12/1985	Cominco	BQ
GD85-5	578586.3	5373986.8	302.1	5.0	-61.0	160.00	5/12/1985	10/12/1985	Cominco	BQ
GD86-6	578630.2	5374088.5	307.2	340.0	-56.0	129.95	22/02/1986	24/02/1986	Cominco	BQ
GD86-7	578539.2	5374225.5	299.2	160.0	-49.0	259.08	25/02/1986	2/3/1986	Cominco	BQ
GD86-8	578577.0	5374054.7	304.4	340.0	-50.0	129.54	3/3/1986	6/3/1986	Cominco	BQ
GD86-9	578479.5	5373928.9	301.9	160.0	-45.0	279.98	7/3/1986	14/03/1986	Cominco	BQ
GD86-10	578634.0	5373936.8	299.8	160.0	-45.5	256.85	15/03/1986	24/03/1986	Cominco	BQ

DDH ID	UTM East NAD 83	UTM North NAD 83	Elev m	Azimuth	Dip	Length m	Start	Finish	Company	Core Dia
GD86-11	578273.5	5374000.1	300.7	160.0	-45.5	180.31	24/03/1986	2/4/1986	Cominco	BQ
GD86-12	578558.8	5374014.7	303.3	340.0	-45.0	165.56	2/4/1986	7/4/1986	Cominco	BQ
GD86-13	578668.4	5374077.1	309.4	340.0	-45.0	180.82	8/4/1986	11/4/1986	Cominco	BQ
GD86-14	578417.7	5373929.4	300.3	160.0	-45.0	300.41	12/4/1986	18/04/1986	Cominco	BQ
GD86-15	578804.8	5374021.2	309.4	160.0	-45.0	273.92	19/04/1986	26/04/1986	Cominco	BQ
GD86-16	578538.4	5373987.6	302.3	340.0	-45.0	115.49	27/04/1986	30/04/1986	Cominco	BQ
GD86-17	578438.2	5374149.5	298.5	160.0	-45.0	198.12	1/5/1986	5/5/1986	Cominco	BQ
GD86-18	578419.2	5374103.7	299.4	160.0	-45.0	131.12	5/5/1986	8/5/1986	Cominco	BQ
GD86-19	578495.0	5374011.0	302.4	345.0	-45.0	95.31	9/5/1986	11/5/1986	Cominco	BQ
GAR-09-01	578626.4	5373997.2	304.4	343.5	-40.5	177.00	27/10/2009	29/10/2009	Northern Gold	NQ
GAR-09-02	578664.3	5373880.9	289.9	339.2	-44.6	350.00	29/10/2009	3/11/2009	Northern Gold	NQ
GAR-09-03	578594.2	5373944.9	298.7	159.8	-43.7	79.60	3/11/2009	4/11/2009	Northern Gold	Failed
GAR-09-03A	578598.6	5373936.3	298.0	154.3	-43.7	198.00	24/11/2009	27/11/2009	Northern Gold	NQ
GAR-09-04	578504.0	5373962.4	304.9	156.0	-42.6	291.00	4/11/2009	12/11/2009	Northern Gold	NQ
GAR-09-05	578531.7	5373968.0	304.4	162.5	-45.6	288.00	12/11/2009	17/11/2009	Northern Gold	NQ
GAR-09-06	578661.1	5373952.7	300.8	170.4	-45.3	189.00	17/11/2009	19/11/2009	Northern Gold	NQ
GAR-09-07	578653.3	5373973.0	301.7	165.9	-45.2	83.00	24/11/2009	25/11/2009	Northern Gold	NQ
GAR-09-08	578624.1	5373950.5	298.8	340.8	-45.3	237.00	28/11/2009	30/11/2009	Northern Gold	NQ
GAR-09-09	578614.9	5374026.6	304.1	343.4	-45.4	150.00	30/11/2009	3/12/2009	Northern Gold	NQ
GAR-09-10	578956.0	5374116.7	292.6	162.5	-45.0	293.00	8/12/2009	11/12/2009	Northern Gold	NQ
GAR-10-11	578671.0	5373929.0	295.7	161.6	-44.0	129.00	5/10/2010	5/12/2010	Northern Gold	NQ
GAR-10-12	578648.3	5373970.6	302.1	155.3	-45.4	237.00	5/12/2010	5/14/2010	Northern Gold	NQ
GAR-10-13	578581.0	5373988.2	304.0	346.6	-44.0	231.00	5/17/2010	5/20/2010	Northern Gold	NQ
GAR-10-14	578479.6	5373955.3	304.5	162.6	-45.9	324.00	5/20/2010	5/28/2010	Northern Gold	NQ
GAR-10-15	578590.8	5374020.4	304.1	339.9	-42.8	138.00	5/28/2010	6/1/2010	Northern Gold	NQ
GAR-10-16	578640.9	5374014.2	304.6	162.2	-44.3	297.00	6/1/2010	6/7/2010	Northern Gold	NQ
GAR-10-17	578535.6	5373932.6	306.6	166.2	-45.0	260.00	6/8/2010	6/11/2010	Northern Gold	NQ
GAR-10-18	578573.1	5373990.7	304.0	162.0	-46.5	330.00	6/14/2010	6/17/2010	Northern Gold	NQ
GAR-10-19	578704.6	5373992.2	309.3	179.2	-45.8	231.00	6/18/2010	6/22/2010	Northern Gold	NQ
GAR-10-20	578793.8	5374012.5	305.9	241.9	-44.9	75.00	6/22/2010	6/24/2010	Northern Gold	NQ
GAR-10-21	578776.3	5374015.0	305.5	245.9	-44.7	51.00	6/24/2010	6/25/2010	Northern Gold	NQ
GAR-10-22	578760.1	5373937.6	290.5	160.0	-45.0	96.00	6/28/2010	6/29/2010	Northern Gold	NQ
GAR-10-23	578552.8	5373978.2	304.1	158.8	-44.8	336.00	7/19/2010	7/23/2010	Northern Gold	NQ
GAR-10-24	578526.2	5374018.0	303.7	349.1	-44.5	120.00	7/23/2010	7/26/2010	Northern Gold	NQ
GAR-10-25	578496.9	5373985.6	304.7	161.5	-44.0	354.00	7/27/2010	8/3/2010	Northern Gold	NQ
GAR-10-26	578505.0	5373932.6	304.3	156.6	-43.9	291.00	8/3/2010	8/10/2010	Northern Gold	NQ
GAR-10-27	578506.0	5373822.1	289.2	337.3	-48.5	177.00	8/10/2010	8/12/2010	Northern Gold	NQ
GAR-10-28	578552.2	5373881.0	293.3	164.9	-58.2	150.00	8/12/2010	8/16/2010	Northern Gold	NQ
GAR-10-29	578653.4	5373860.6	289.4	343.5	-44.8	351.00	8/17/2010	8/24/2010	Northern Gold	NQ
GAR-10-30	578689.6	5373970.9	302.0	342.2	-45.8	249.00	9/1/2010	9/7/2010	Northern Gold	NQ
GAR-10-31	578674.4	5374013.3	305.5	340.3	-45.6	192.00	9/8/2010	9/10/2010	Northern Gold	NQ
GAR-10-32	578719.8	5373891.3	289.3	341.3	-45.6	339.00	9/13/2010	9/20/2010	Northern Gold	NQ
GAR-10-33	578706.5	5373928.2	292.3	339.1	-43.4	300.00	9/20/2010	9/24/2010	Northern Gold	NQ
GAR-10-34	578658.2	5374058.1	304.7	340.0	-45.0	42.00	9/24/2010	9/27/2010	Northern Gold	Failed
GAR-10-34B	578658.2	5374058.1	304.7	340.0	-45.0	43.00	9/28/2010	9/28/2010	Northern Gold	Failed
GAR-10-34C	578658.2	5374058.1	304.7	338.2	-45.3	135.00	9/28/2010	9/29/2010	Northern Gold	NQ
GAR-10-35	578564.8	5374099.4	301.6	341.1	-43.3	66.00	9/30/2010	9/30/2010	Northern Gold	NQ

DDH ID	UTM East NAD 83	UTM North NAD 83	Elev m	Azimuth	Dip	Length m	Start	Finish	Company	Core Dia
GAR-10-36	578735.2	5373856.0	288.5	340.9	-44.0	300.00	10/1/2010	10/7/2010	Northern Gold	NQ
GAR-10-37	578744.3	5373822.1	288.0	341.8	-43.8	300.00	10/7/2010	10/15/2010	Northern Gold	NQ
GAR-10-38	578611.5	5373892.6	292.0	160.0	-45.0	70.00	10/15/2010	10/18/2010	Northern Gold	Failed
GAR-10-38A	578611.5	5373892.6	292.0	155.1	-62.9	126.00	10/18/2010	10/19/2010	Northern Gold	NQ
GAR-10-39	578600.5	5373850.0	289.5	342.6	-43.3	300.00	10/19/2010	10/25/2010	Northern Gold	NQ
GAR-10-40	578558.8	5373963.6	303.4	343.4	-44.8	225.00	10/25/2010	10/28/2010	Northern Gold	NQ
GAR-10-41	578572.5	5373991.4	303.9	160.4	-78.1	225.00	10/29/2010	11/1/2010	Northern Gold	NQ
GAR-10-42	578517.5	5374013.1	303.9	159.9	-45.0	300.00	11/3/2010	11/9/2010	Northern Gold	NQ
GAR-10-43	578611.3	5373897.8	292.3	339.8	-44.7	300.00	11/9/2010	11/16/2010	Northern Gold	NQ
GAR-10-44	578627.6	5373851.8	289.7	340.4	-43.3	330.00	11/16/2010	11/23/2010	Northern Gold	NQ
GAR-10-45	578528.2	5373910.7	301.9	348.2	-45.0	351.00	11/24/2010	11/29/2010	Northern Gold	NQ
GAR-10-46	578554.1	5373851.4	289.8	326.8	-44.9	300.00	11/29/2010	12/9/2010	Northern Gold	NQ
GAR-10-47	578405.4	5374124.0	295.6	160.0	-45.0	234.00	12/10/2010	12/13/2010	Northern Gold	NQ
GAR-10-48	578384.8	5374168.8	293.5	160.0	-45.0	249.00	12/13/2010	12/17/2010	Northern Gold	NQ
GAR-10-50	578758.4	5373933.3	290.5	335.3	-45.2	300.00	10/25/2010	11/3/2010	Northern Gold	NQ
GAR-10-51	578742.9	5373970.6	294.6	343.9	-45.4	300.00	11/3/2010	11/10/2010	Northern Gold	NQ
GAR-10-52	578727.4	5374033.4	308.9	2.1	-45.8	198.00	11/10/2010	11/15/2010	Northern Gold	NQ
GAR-10-53	578638.5	5374106.7	302.7	338.5	-44.7	87.00	11/16/2010	11/17/2010	Northern Gold	NQ
GAR-10-54	578594.9	5374096.7	302.2	341.6	-45.2	81.00	11/17/2010	11/19/2010	Northern Gold	NQ
GAR-10-55	578791.0	5373979.0	292.3	336.4	-45.0	270.00	11/23/2010	11/28/2010	Northern Gold	NQ
GAR-10-56	578810.1	5373936.1	288.3	340.0	-45.0	351.00	11/28/2010	12/9/2010	Northern Gold	NQ
GAR-10-57	578780.3	5374020.8	306.1	340.9	-46.8	213.00	12/10/2010	12/13/2010	Northern Gold	NQ
GAR-10-58	578766.3	5374062.0	310.2	340.0	-45.0	175.00	12/13/2010	12/16/2010	Northern Gold	NQ
GAR-10-20X	Extension					351.00	8/24/2010	8/31/2010	Northern Gold	NQ
GAR-11-49	578381.6	5374180.1	293.4	166.5	65.0	75.00	1/4/2011	1/4/2011	Northern Gold	NQ
GAR-11-59	578758.6	5373775.7	287.3	342.1	-45.4	330.00	1/4/2011	1/10/2011	Northern Gold	NQ
GAR-11-60	578627.8	5373766.6	288.2	335.7	-56.0	300.00	1/11/2011	1/20/2011	Northern Gold	NQ
GAR-11-61	578643.4	5373811.9	288.8	337.2	-46.1	327.00	1/21/2011	2/1/2011	Northern Gold	NQ
GAR-11-62	578664.5	5373820.9	288.8	332.4	-47.0	399.00	2/1/2011	2/9/2011	Northern Gold	NQ
GAR-11-63	578560.1	5374035.0	303.7	145.1	-44.3	370.00	2/16/2011	2/24/2011	Northern Gold	NQ
GAR-11-64	578459.9	5373949.8	303.5	157.1	-44.0	278.00	3/1/2011	3/5/2011	Northern Gold	NQ
GAR-11-65	578561.0	5373819.4	288.8	340.0	-55.0	327.00	3/5/2011	3/15/2011	Northern Gold	NQ
GAR-11-66	578586.2	5373741.0	288.1	337.1	-56.4	313.00	3/16/2011	3/23/2011	Northern Gold	NQ
GAR-11-67	578519.8	5373856.0	290.7	151.6	-60.9	195.00	3/23/2011	3/31/2011	Northern Gold	NQ
GAR-11-68	578494.1	5373796.2	288.4	342.3	-48.8	175.00	4/1/2011	4/3/2011	Northern Gold	NQ
GAR-11-69	578478.9	5373820.6	289.1	158.5	-63.1	150.00	4/4/2011	4/14/2011	Northern Gold	NQ
GAR-11-70	578773.8	5373888.2	288.0	332.1	-46.2	300.00	1/5/2011	1/9/2011	Northern Gold	NQ
GAR-11-71	578787.7	5373843.9	286.9	336.5	-45.0	62.00	1/18/2011	1/20/2011	Northern Gold	Failed
GAR-11-71A	578788.2	5373842.8	286.7	336.5	-46.4	348.00	1/21/2011	1/27/2011	Northern Gold	NQ
GAR-11-72	578862.4	5373901.5	285.2	340.1	-46.2	345.00	2/5/2011	2/16/2011	Northern Gold	NQ
GAR-11-73	578883.4	5373951.2	286.3	341.1	-45.8	312.00	2/16/2011	2/21/2011	Northern Gold	NQ
GAR-11-74	578826.5	5373891.4	286.5	342.4	-51.1	318.00	1/9/2011	1/18/2011	Northern Gold	NQ
GAR-11-75	578844.5	5373946.2	287.5	335.9	-47.0	291.00	2/21/2011	3/2/2011	Northern Gold	NQ
GAR-11-76	578898.5	5373910.7	284.9	334.0	-45.9	345.00	3/2/2011	3/8/2011	Northern Gold	NQ
GAR-11-77	578813.8	5374077.5	308.9	338.2	-46.0	162.00	3/8/2011	3/15/2011	Northern Gold	NQ
GAR-11-78	578813.5	5374077.0	308.9	164.6	-45.7	336.00	3/15/2011	3/20/2011	Northern Gold	NQ
GAR-11-79	578829.7	5374034.6	305.7	159.1	-44.8	264.00	3/21/2011	3/24/2011	Northern Gold	NQ

DDH ID	UTM East NAD 83	UTM North NAD 83	Elev m	Azimuth	Dip	Length m	Start	Finish	Company	Core Dia
GAR-11-80	578800.1	5374124.0	307.9	167.2	-44.5	399.00	3/29/2011	4/3/2011	Northern Gold	NQ
GAR-11-81	578840.6	5373846.4	283.5	334.4	-44.9	432.00	4/4/2011	4/15/2011	Northern Gold	NQ
GAR-11-82	579051.6	5374006.7	284.4	341.5	-44.0	258.00	4/18/2011	4/27/2011	Northern Gold	NQ
GAR-11-83	579063.5	5373965.9	282.8	343.7	-45.4	420.00	4/27/2011	5/6/2011	Northern Gold	NQ
GAR-11-84	579021.3	5374085.5	302.2	345.0	-41.6	171.00	5/9/2011	5/11/2011	Northern Gold	NQ
GAR-11-85	578833.6	5374020.3	303.5	336.1	-69.8	306.00	5/11/2011	5/18/2011	Northern Gold	NQ
GAR-11-86	578849.3	5373975.9	288.3	340.3	-65.6	354.00	5/18/2011	5/26/2011	Northern Gold	NQ
GAR-11-87	578897.4	5373992.3	286.5	334.7	-64.4	363.00	5/26/2011	6/6/2011	Northern Gold	NQ
GAR-11-88	578940.4	5374013.3	286.8	346.2	-66.2	352.00	6/6/2011	6/15/2011	Northern Gold	NQ
GAR-11-89	578900.8	5373983.4	286.1	336.9	-60.1	354.00	6/15/2011	6/23/2011	Northern Gold	NQ
GAR-11-90	578426.1	5373820.5	291.2	152.7	-60.0	222.00	4/14/2011	4/17/2011	Northern Gold	NQ
GAR-11-91	578456.5	5373885.4	303.6	159.4	-60.5	219.00	4/17/2011	4/26/2011	Northern Gold	NQ
GAR-11-92	578440.0	5373931.4	303.5	162.2	-58.2	165.00	4/26/2011	4/28/2011	Northern Gold	NQ
GAR-11-93	578466.3	5374034.8	302.4	340.2	-44.8	177.00	4/28/2011	5/3/2011	Northern Gold	NQ
GAR-11-94	578410.9	5374008.3	300.5	344.2	-44.5	201.00	5/4/2011	5/6/2011	Northern Gold	NQ
GAR-11-95	578425.4	5373973.4	302.5	156.9	-59.9	150.00	5/9/2011	5/11/2011	Northern Gold	NQ
GAR-11-96	578413.5	5373928.3	301.5	340.0	-44.9	327.00	11/5/2011	5/20/2011	Northern Gold	NQ
GAR-11-97	578505.5	5374057.2	302.1	156.1	-45.1	480.00	5/20/2011	6/3/2011	Northern Gold	NQ
GAR-11-98	578438.1	5373794.8	289.6	151.3	-61.1	180.00	6/3/2011	6/7/2011	Northern Gold	NQ
GAR-11-99	578412.7	5373851.4	292.9	156.0	-59.4	327.00	6/7/2011	6/14/2011	Northern Gold	NQ
GAR-11-100	578392.9	5373773.9	289.2	155.7	-62.9	159.00	6/14/2011	6/17/2011	Northern Gold	NQ
GAR-11-101	578392.0	5373776.2	289.1	333.3	-49.1	252.00	6/17/2011	6/23/2011	Northern Gold	NQ
GAR-11-102	578332.7	5373785.0	289.2	154.3	-72.6	102.00	6/27/2011	6/28/2011	Northern Gold	NQ
GAR-11-103	578322.4	5373816.2	290.7	164.1	-69.9	240.00	7/28/2011	7/5/2011	Northern Gold	NQ
GAR-11-104	578377.1	5373817.1	290.9	154.2	-60.0	309.00	7/6/2011	7/12/2011	Northern Gold	NQ
GAR-11-105	578449.0	5373985.6	302.4	333.3	-68.9	420.00	7/18/2011	7/28/2011	Northern Gold	NQ
GAR-11-106	578410.5	5374091.5	297.5	338.0	-44.6	93.00	8/2/2011	8/3/2011	Northern Gold	NQ
GAR-11-107	578496.3	5374086.8	300.6	341.8	-44.5	102.00	8/4/2011	8/8/2011	Northern Gold	NQ
GAR-11-108	578537.6	5374108.3	300.8	335.8	-44.9	75.00	8/9/2011	8/10/2011	Northern Gold	NQ
GAR-11-109	578477.6	5374128.3	298.1	336.4	-45.1	51.00	8/11/2011	8/11/2011	Northern Gold	NQ
GAR-11-110	578759.9	5373933.9	290.4	338.2	-79.0	402.00	6/23/2011	7/6/2011	Northern Gold	NQ
GAR-11-111	578774.2	5373887.3	288.1	333.3	-81.6	501.00	7/6/2011	7/19/2011	Northern Gold	NQ
GAR-11-112	578788.5	5373843.1	286.4	329.6	-81.2	408.00	7/20/2011	8/12/2011	Northern Gold	NQ
GAR-11-113	578790.8	5373979.6	292.5	54.4	-89.3	421.71	8/2/2011	8/12/2011	Northern Gold	NQ
GAR-11-114	578810.6	5373936.4	288.2	70.2	-87.1	463.61	8/15/2011	8/24/2011	Northern Gold	NQ
GAR-11-115	578827.3	5373890.2	286.1	245.3	-88.4	462.00	8/24/2011	9/1/2011	Northern Gold	NQ
GAR-11-116	578849.2	5373977.5	288.2	71.5	-89.5	450.00	9/2/2011	9/14/2011	Northern Gold	NQ
GAR-11-117	578862.3	5373932.9	286.0	29.9	-88.7	537.00	9/14/2011	9/28/2011	Northern Gold	NQ
GAR-11-118	578882.8	5373887.2	283.9	158.7	-87.6	504.00	9/28/2011	10/11/2011	Northern Gold	NQ
GAR-11-119	578919.3	5373920.8	284.3	110.4	-89.3	618.00	10/11/2011	10/25/2011	Northern Gold	NQ
GAR-11-120	578341.6	5373762.1	289.0	339.1	-48.3	216.00	8/12/2011	8/18/2011	Northern Gold	NQ
GAR-11-121	578376.2	5373819.5	291.0	338.7	-46.9	378.00	8/18/2011	8/31/2011	Northern Gold	NQ
GAR-11-122	578830.0	5374029.0	304.0	0.0	-90.0	420.00	8/31/2011	9/15/2011	Northern Gold	NQ
GAR-11-123	578874.7	5374054.0	300.6	78.0	-89.8	438.00	9/15/2011	9/26/2011	Northern Gold	NQ
GAR-11-124	578905.0	5373968.2	285.1	357.8	-88.9	534.00	9/26/2011	10/13/2011	Northern Gold	NQ
GAR-11-125	578953.6	5373983.9	285.5	30.0	-89.3	573.00	10/13/2011	11/1/2011	Northern Gold	NQ
GAR-11-126	578935.8	5374032.0	287.8	24.4	-87.3	438.00	10/25/2011	11/3/2011	Northern Gold	NQ

DDH ID	UTM East NAD 83	UTM North NAD 83	Elev m	Azimuth	Dip	Length m	Start	Finish	Company	Core Dia
GAR-11-130	579138.0	5374210.0	301.5	160.0	-45.0	285.00	8/26/2011	8/31/2011	Northern Gold	NQ
GAR-11-131	579194.6	5374201.1	302.5	157.5	-45.6	276.00	8/31/2011	9/3/2011	Northern Gold	NQ
GAR-11-132	579178.8	5374245.9	301.1	161.8	-46.6	309.00	9/3/2011	9/6/2011	Northern Gold	NQ
GAR-11-133	579123.0	5374254.9	300.2	159.1	-43.5	366.00	9/6/2011	9/11/2011	Northern Gold	NQ
GAR-11-134	579105.0	5374305.0	301.5	160.0	-45.0	127.30	9/11/2011	9/14/2011	Northern Gold	Failed
GAR-11-134A	579106.6	5374301.2	299.0	155.7	-45.8	399.00	9/14/2011	9/20/2011	Northern Gold	NQ
GAR-11-135	579162.6	5374295.1	300.4	155.5	-48.4	383.00	9/20/2011	9/26/2011	Northern Gold	NQ
GAR-11-136	579076.3	5374237.9	300.1	161.9	-45.4	393.00	9/26/2011	10/5/2011	Northern Gold	NQ
GAR-11-137	579092.2	5374209.4	304.1	163.2	-44.3	366.00	10/6/2011	10/13/2011	Northern Gold	NQ
GAR-11-138	579102.4	5374153.6	308.1	160.3	-45.0	249.00	10/13/2011	10/15/2011	Northern Gold	NQ
GAR-11-140	579370.4	5374148.2	300.9	158.6	-44.8	342.00	9/7/2011	9/11/2011	Northern Gold	NQ
GAR-11-141	579323.8	5374141.6	302.6	173.5	-44.6	393.00	9/11/2011	9/15/2011	Northern Gold	NQ
GAR-11-142	579415.9	5374177.7	305.8	161.6	-44.6	357.00	9/16/2011	9/19/2011	Northern Gold	NQ
GAR-11-143	579388.0	5374100.0	295.0	160.0	-45.0	33.00	9/20/2011	9/21/2011	Northern Gold	Failed
GAR-11-143A	579389.5	5374100.7	287.4	168.5	-46.1	279.00	9/21/2011	9/24/2011	Northern Gold	NQ
GAR-11-144	579339.0	5374089.0	295.0	160.0	-60.0	42.00	9/24/2011	9/25/2011	Northern Gold	Failed
GAR-11-144A	579340.4	5374090.2	285.9	160.9	-59.0	393.00	9/25/2011	9/29/2011	Northern Gold	NQ
GAR-11-145	579339.2	5374095.7	286.1	339.7	-44.8	459.00	9/30/2011	10/4/2011	Northern Gold	NQ
GAR-11-146	579295.5	5374063.3	284.3	344.9	-45.0	276.00	10/4/2011	10/6/2011	Northern Gold	NQ
GAR-11-147	578964.9	5374095.9	290.8	43.6	-89.2	504.00	10/7/2011	10/15/2011	Northern Gold	NQ
GAR-11-148	578982.3	5374047.7	288.0	82.5	-89.7	459.00	10/16/2011	10/21/2011	Northern Gold	NQ
GAR-11-149	578999.3	5374001.2	285.4	44.3	-89.3	546.00	10/21/2011	10/27/2011	Northern Gold	NQ
GAR-11-150	578951.1	5374140.2	296.7	294.5	-88.9	463.87	11/2/2011	11/13/2011	Northern Gold	NQ
GAR-11-151	578919.8	5374082.8	297.7	130.9	-88.5	483.00	11/13/2011	11/27/2011	Northern Gold	NQ
GAR-11-152	579054.2	5374151.6	308.3	223.8	-88.6	504.00	11/27/2011	12/10/2011	Northern Gold	NQ
GAR-11-160	579050.7	5374011.5	284.6	7.1	-87.0	483.00	10/16/2011	10/22/2011	Northern Gold	NQ
GAR-11-161	579106.4	5374009.8	283.8	303.4	-88.0	416.00	10/22/2011	11/1/2011	Northern Gold	NQ
GAR-11-162	579105.3	5374016.0	283.7	327.0	-43.5	414.00	11/2/2011	11/7/2011	Northern Gold	NQ
GAR-11-163	579089.0	5374059.9	301.4	232.9	-88.9	540.00	11/8/2011	11/18/2011	Northern Gold	NQ
GAR-11-164	579579.1	5374183.3	307.1	343.2	-45.9	486.00	11/19/2011	11/29/2011	Northern Gold	NQ
GAR-11-165	579588.5	5374145.6	306.8	342.6	-46.6	207.00	11/30/2011	12/3/2011	Northern Gold	NQ
GAR-11-166	579622.2	5374198.2	306.8	343.3	-44.9	246.00	12/3/2011	12/6/2011	Northern Gold	NQ
GAR-11-167	579637.9	5374149.9	306.3	347.5	-47.6	300.00	12/7/2011	12/10/2011	Northern Gold	NQ
GAR-11-170	578916.9	5373954.6	284.5	241.8	-88.1	555.00	10/28/2011	11/3/2011	Northern Gold	NQ
GAR-11-171	578985.9	5374198.7	299.8	171.9	-88.8	422.00	11/4/2011	11/8/2011	Northern Gold	NQ
GAR-11-172	579005.8	5374152.3	305.6	28.6	-89.1	478.95	11/8/2011	11/14/2011	Northern Gold	NQ
GAR-11-173	579032.0	5374198.3	301.5	102.2	-89.3	312.00	11/14/2011	11/17/2011	Northern Gold	NQ
GAR-11-174	579085.8	5374347.3	297.5	159.9	-45.6	303.00	11/17/2011	11/21/2011	Northern Gold	NQ
GAR-11-175	579142.4	5374339.7	298.0	163.7	-44.3	399.00	11/21/2011	11/26/2011	Northern Gold	NQ
GAR-11-176	579244.9	5374204.5	303.7	337.3	-46.9	84.00	11/26/2011	11/27/2011	Northern Gold	NQ
GAR-11-177	579398.5	5374221.2	307.3	157.4	-45.4	408.00	11/27/2011	12/1/2011	Northern Gold	NQ
GAR-11-178	579470.9	5374165.9	304.2	340.0	-44.7	321.00	12/2/2011	12/5/2011	Northern Gold	NQ
GAR-11-180	579450.8	5374225.2	310.0	161.1	-46.2	396.00	12/8/2011	12/12/2011	Northern Gold	NQ
GAR-11-24EXT	Extension					114.00	7/28/2011	8/2/2011	Northern Gold	NQ
GAR-11-35EXT	Extension					393.00	11/17/2011	11/26/2011	Northern Gold	NQ
GAR-11-37EXT	Extension					100.00	4/16/2011	4/18/2011	Northern Gold	NQ
GAR-11-39EXT	Extension					57.00	2/9/2011	2/16/2011	Northern Gold	NQ

DDH ID	UTM East NAD 83	UTM North NAD 83	Elev m	Azimuth	Dip	Length m	Start	Finish	Company	Core Dia
GAR-11-50EXT	Extension					51.00	2/1/2011	2/2/2011	Northern Gold	NQ
GAR-11-70EXT	Extension					69.00	2/3/2011	2/5/2011	Northern Gold	NQ
GAR-11-74EXT	Extension					20.75	4/15/2011	4/15/2011	Northern Gold	NQ
GAR-11-93X	Extension					387.00	11/26/2011	12/12/2011	Northern Gold	NQ
GAR-11-94X	Extension					369.00	11/26/2011	12/1/2011	Northern Gold	NQ
GAR-11-95EXT	Extension					165.00	7/13/2011	7/18/2011	Northern Gold	NQ
GAR-11-106EXT	Extension					330.00	11/11/2011	11/16/2011	Northern Gold	NQ
GAR-11-109EXT	Extension					345.00	11/4/2011	11/11/2011	Northern Gold	NQ

APPENDIX B

Northern Gold diamond drill holes completed April 19, 2012 but not used in 2012 Garrcon Resource Estimate Update because data retrieval still in progress

DDH ID	UTM East NAD 83	UTM North NAD 83	Elev m	Azimuth	Dip	Length m	Start	Finish	Company	Core Dia
GAR-11-154	578900.6	5374124.2	303.3	213.2	-89.2	408.00	12/10/2011	12/18/2011	Northern Gold	NQ
GAR-11-168	579663.4	5374214.6	306.3	351.5	-44.4	243.00	12/12/2011	12/14/2011	Northern Gold	NQ
GAR-11-169	579603.7	5374240.1	311.3	163.3	-47.2	174.00	12/11/2011	12/12/2011	Northern Gold	NQ
GAR-11-179	579454.2	5374216.0	309.3	336.5	-43.1	291.00	12/5/2011	12/8/2011	Northern Gold	NQ
GAR-11-181	579437.5	5374259.3	308.1	340.3	-45.4	210.00	12/12/2011	12/14/2011	Northern Gold	NQ
GAR-11-182	579491.5	5374259.3	311.1	339.0	-44.8	199.58	12/15/2011	1/7/2012	Northern Gold	NQ
GAR-11-183	579398.3	5374219.0	307.2	342.1	-45.3	147.00	12/14/2011	12/15/2011	Northern Gold	NQ
GAR-11-190	579652.9	5374253.7	307.1	333.4	-46.7	150.00	12/15/2011	12/16/2011	Northern Gold	NQ
GAR-11-191	579634.8	5374304.2	312.7	336.8	-45.7	246.00	12/16/2011	1/7/2012	Northern Gold	NQ
GAR-11-15EXT	Extension					438.00	12/12/2011	12/18/2011	Northern Gold	NQ
GAR-11-94X	Extension					369.00	11/26/2011	12/1/2011	Northern Gold	NQ
GAR-12-127	578870.8	5374065.2	301.9	335.6	-44.9	198.00	1/18/2012	1/20/2012	Northern Gold	NQ
GAR-12-128	578902.4	5374127.3	303.7	156.9	-44.9	348.00	1/6/2012	1/11/2012	Northern Gold	NQ
GAR-12-129	578885.4	5374022.2	293.6	51.6	-88.1	504.00	1/20/2012	2/2/2012	Northern Gold	NQ
GAR-12-139	579154.4	5374162.2	298.6	157.0	-44.8	276.00	1/7/2012	1/10/2012	Northern Gold	NQ
GAR-12-153	579069.7	5374102.8	306.3	47.5	-88.5	504.00	1/3/2012	1/12/2012	Northern Gold	NQ
GAR-12-155	579018.3	5374101.0	301.5	277.9	-89.2	351.00	1/12/2012	1/21/2012	Northern Gold	NQ
GAR-12-156	578841.2	5373922.2	286.4	118.6	-88.2	561.00	1/21/2012	2/5/2012	Northern Gold	NQ
GAR-12-157	578795.3	5373906.2	287.6	179.0	-88.9	590.00	2/6/2012	2/20/2012	Northern Gold	NQ
GAR-12-158	578784.0	5373935.0	300.0	160.0	-75.0	391.50	2/21/2012	3/3/2012	Northern Gold	NQ
GAR-12-159	578705.0	5374007.0	300.0	0.0	-90.0	501.00	3/19/2012	4/3/2012	Northern Gold	NQ
GAR-12-184	578931.0	5374191.0	300.0	0.0	-90.0	481.50	2/13/2012	2/20/2012	Northern Gold	NQ
GAR-12-185	578852.0	5374114.0	300.0	340.0	-45.0	177.00	2/20/2012	2/22/2012	Northern Gold	NQ
GAR-12-186	578891.6	5374008.8	289.2	338.1	-44.1	234.00	2/22/2012	2/24/2012	Northern Gold	NQ
GAR-12-187	579133.0	5374076.0	300.0	0.0	-90.0	534.00	2/24/2012	3/2/2012	Northern Gold	NQ
GAR-12-188	579187.0	5374075.0	300.0	0.0	-90.0	527.00	3/2/2012	3/9/2012	Northern Gold	NQ
GAR-12-189	578964.0	5374246.0	300.0	0.0	-90.0	523.00	3/9/2012	3/14/2012	Northern Gold	NQ
GAR-12-192	579684.6	5374313.4	308.2	334.3	-45.5	201.00	1/7/2012	1/9/2012	Northern Gold	NQ
GAR-12-193	579761.2	5374250.0	305.7	349.0	-45.9	225.00	1/9/2012	1/12/2012	Northern Gold	NQ
GAR-12-194	579358.5	5374188.1	304.4	161.5	-46.2	462.00	1/12/2012	1/18/2012	Northern Gold	NQ
GAR-12-195	579340.6	5374234.9	304.6	160.2	-44.8	415.50	1/19/2012	1/24/2012	Northern Gold	NQ
GAR-12-196	579254.6	5374183.7	304.2	156.5	-44.2	486.00	1/24/2012	1/30/2012	Northern Gold	NQ
GAR-12-197	579270.8	5374131.5	299.8	154.9	-46.5	342.00	1/31/2012	2/3/2012	Northern Gold	NQ
GAR-12-198	579306.4	5374181.1	303.9	347.9	-43.8	217.00	2/3/2012	2/5/2012	Northern Gold	NQ
GAR-12-200	578966.9	5374095.5	290.7	336.1	-42.8	216.00	1/10/2012	1/12/2012	Northern Gold	NQ
GAR-12-201	578776.3	5374024.0	306.2	262.6	-88.2	436.80	1/12/2012	1/17/2012	Northern Gold	NQ
GAR-12-202	578808.6	5374017.1	305.4	340.0	-79.1	441.00	1/17/2012	1/22/2012	Northern Gold	NQ
GAR-12-203	578808.7	5374016.8	305.6	176.1	-87.7	476.47	1/22/2012	1/28/2012	Northern Gold	NQ
GAR-12-204	578693.2	5373893.6	290.1	321.1	-88.8	666.00	1/28/2012	2/5/2012	Northern Gold	NQ
GAR-12-205	578645.0	5373879.0	300.0	0.0	-90.0	645.00	2/5/2012	2/13/2012	Northern Gold	NQ
GAR-12-206	578658.0	5373989.0	300.0	0.0	-90.0	572.00	2/14/2012	2/20/2012	Northern Gold	NQ
GAR-12-207	578641.0	5374034.0	300.0	0.0	-90.0	537.00	2/20/2012	2/26/2012	Northern Gold	NQ
GAR-12-208	578628.0	5373926.0	300.0	0.0	-90.0	561.00	2/26/2012	3/4/2012	Northern Gold	NQ
GAR-12-209	578607.0	5373838.0	300.0	0.0	-90.0	570.00	3/4/2012	3/11/2012	Northern Gold	NQ
GAR-12-210	578901.0	5374131.2	303.7	341.4	-43.7	156.00	1/12/2012	1/18/2012	Northern Gold	NQ
GAR-12-211	578826.7	5373967.0	289.1	349.2	-89.0	459.00	2/2/2012	2/9/2012	Northern Gold	NQ
GAR-12-212	578722.0	5373960.0	300.0	0.0	-90.0	465.00	2/9/2012	2/20/2012	Northern Gold	NQ

DDH ID	UTM East NAD 83	UTM North NAD 83	Elev m	Azimuth	Dip	Length m	Start	Finish	Company	Core Dia
GAR-12-213	578739.0	5373913.0	300.0	0.0	-90.0	507.00	2/20/2012	3/2/2012	Northern Gold	NQ
GAR-12-214	578362.0	5374072.0	300.0	340.0	-45.0	471.00	3/3/2012	3/14/2012	Northern Gold	NQ
GAR-12-215	578354.0	5373948.0	300.0	340.0	-70.0	492.00	3/14/2012	3/22/2012	Northern Gold	NQ
GAR-12-216	578307.0	5373931.0	300.0	340.0	-70.0	495.00	3/22/2012	4/2/2012	Northern Gold	NQ
GAR-12-217	578260.0	5373914.0	300.0	340.0	-70.0	498.00	4/2/2012	4/13/2013	Northern Gold	NQ
GAR-12-220	578586.8	5373883.2	292.3	259.6	-89.2	471.00	3/11/2012	3/16/2012	Northern Gold	NQ
GAR-12-222	578555.0	5373979.0	300.0	0.0	-90.0	477.00	3/16/2012	3/21/2012	Northern Gold	NQ
GAR-12-223	578543.0	5373868.0	300.0	0.0	-90.0	534.42	3/22/2012	3/28/2012	Northern Gold	NQ
GAR-12-224	578295.0	5374109.0	300.0	340.0	-45.0	459.00	4/12/2012	4/19/2012	Northern Gold	NQ
GAR-12-230	579017.0	5374247.0	300.0	0.0	-90.0	558.00	3/14/2012	3/19/2012	Northern Gold	NQ
GAR-12-231	579064.0	5374265.0	300.0	0.0	-90.0	441.00	3/19/2012	3/23/2012	Northern Gold	NQ
GAR-12-232	578935.0	5374033.0	300.0	160.0	-70.0	465.00	3/23/2012	3/29/2012	Northern Gold	NQ
GAR-12-233	578982.0	5374048.0	300.0	160.0	-70.0	360.00	3/29/2012	4/2/2012	Northern Gold	NQ
GAR-12-46EXT	Extension					225.00	3/28/2012	3/31/2012	Northern Gold	NQ
GAR-12-58EXT	Extension					284.00			Northern Gold	NQ
GAR-12-59EXT	Extension					183.00	3/3/2012	3/8/2012	Northern Gold	NQ
GAR-12-66EXT	Extension					225.00	4/1/2012	4/4/2012	Northern Gold	NQ
GAR-12-71AEXT	Extension					202.00	3/13/2012		Northern Gold	NQ
GAR-12-105X	Extension					194.00	1/3/2012	1/6/2012	Northern Gold	NQ
GAR-12-121EXT	Extension					159.00	4/5/2012	4/12/2012	Northern Gold	NQ
GAR-12-131X	Extension					180.00	2/6/2012	2/8/2012	Northern Gold	NQ
GAR-12-138X	Extension					99.00	2/9/2012	2/10/2012	Northern Gold	NQ
GAR-12-171X	Extension					151.00	2/10/2012	2/13/2012	Northern Gold	NQ