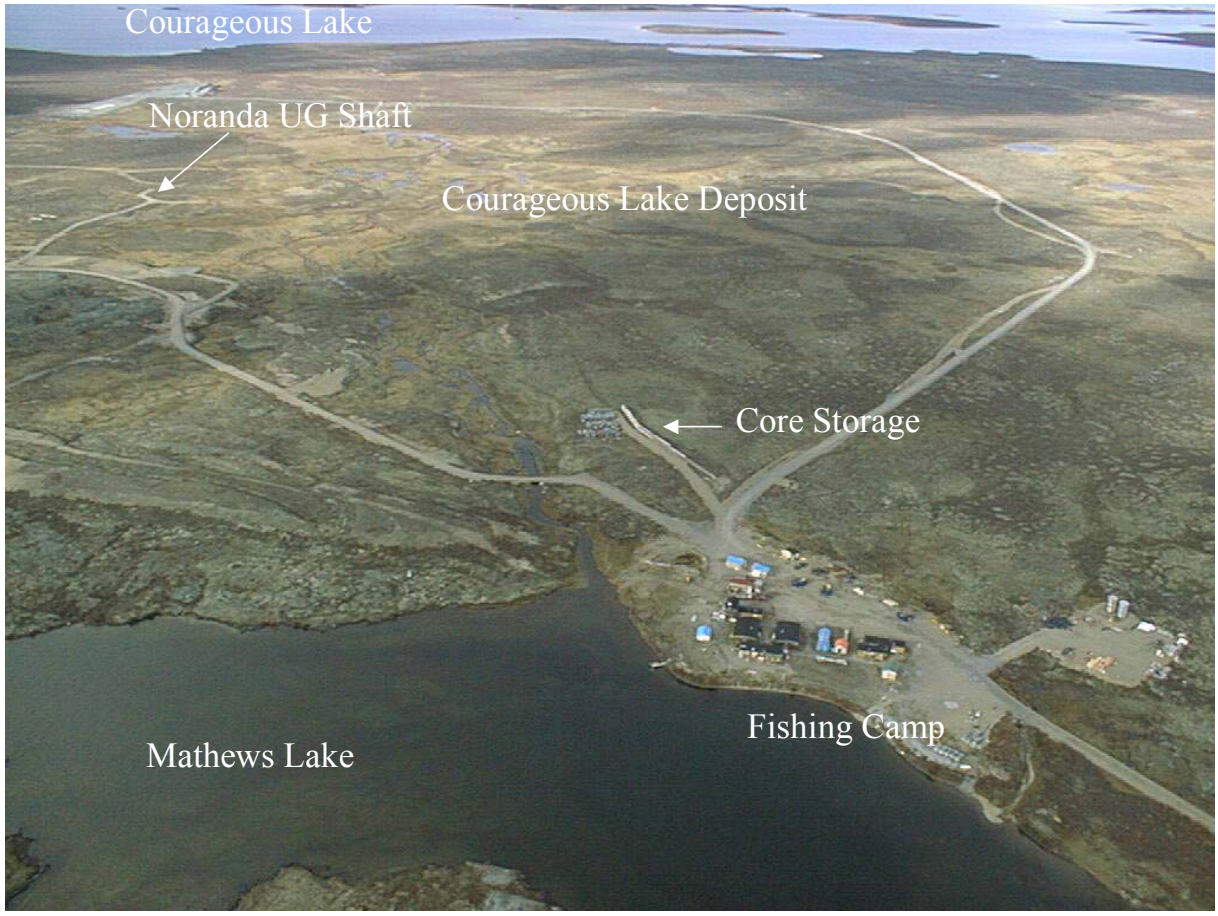
Technical Review of the

Courageous Lake Property

Northwest Territories, Canada



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December 30, 2004

Courageous Lake Project Technical Report

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1.0 Summary

The Courageous Lake property, located approximately 240 kilometers northeast of Yellowknife in the Northwest Territories, Canada, is a large undeveloped gold resource hosted in Archean aged metavolcanic and metasedimentary rocks within the Slave Greenstone Belt. Gold was initially discovered in this area in the early to mid 1940's by Dr. W. Brown. Further exploration in the area eventually led to putting the nearby Tundra Mine into production in 1964. During the 1990's, Royal Oak Mines reopened the Tundra Mine, which ultimately produced 122,000 ounces of gold. Another nearby deposit, the Salmita Mine, produced about 183,000 ounces of gold during a five-year production period in the mid 1980's.

In 1980, Noranda Exploration began exploring in the Courageous Lake area with a modest drilling program. This work resulted in the discovery of two deposits known as the Main Tundra Zone or Fat Zone and the Carbonate Zone. Subsequently, Noranda joint ventured the Property with Getty Canadian Metals Ltd and began to jointly evaluate the deposit. Later, Total Energold purchased Getty Canadian Metals and assumed their 49% interest in the Tundra Joint Venture. During the late 1980's, Noranda sank a 475-meter shaft and completed 1,948 meters of development work in an underground drilling and bulk sampling program. In 1992 Noranda consolidated its Hemlo Gold unit with Battle Mountain Gold and began operating the Tundra Joint Venture as Battle Mountain Gold. In 1996 Battle Mountain Gold merged with Newmont Gold Corporation transferring the ownership of the property to Newmont. In 1997, Placer Dome exercised an exploration option on the property and began a surface drilling program directed towards evaluating the property as an open pit target.

Seabridge Gold Corporation purchased the property from the Newmont-Total Tundra Joint Venture in June 2002, with Newmont retaining a 2% net smelter royalty and the right to receive conditional payments totaling US 3 million dollars, which have now been fully paid. The property consists of 27,262.21 hectares (272.6 km^2) in Canadian Crown mining leases and mining claims. Seabridge retained The Claim Group, an independent consulting firm based in Mississagua, Ontario, to confirm title to the claims (The Claim Group, 2004).

Approximately 449 holes totaling about 115,000 meters have been drilled from the surface and underground by Noranda, Placer Dome, and Seabridge. Most of this drilling was directed at testing two primary target zones, the Tundra Main or Fat and Carbonate Zones. Based on this data, a number of resource estimates were prepared by various companies and consulting firms.

RMI completed an estimate of mineral resources in July 2002 that were subject to a NI-43-101 technical report (*Technical Review of the Courageous Lake Property, Northwest Territories, Canada*). The resources that were summarized in that report closely compared with previous estimates (e.g. 1999 Placer Dome). In late 2004, RMI constructed a new resource model incorporating new drilling results and an updated geologic interpretation that was completed by Seabridge Gold's geologic staff. Block gold grades were estimated

using a series of nested inverse distance cubed interpolation runs that used very tight search ellipsoids that were oriented in the plane of the mineralized trends. The estimated block grades were then classified into measured, indicated, and inferred categories using the distance to drilling data and the number of drill holes that were used in the estimates. The criteria that were chosen provide a measure of confidence in the grade estimation process. Measured resources were defined for blocks that were estimated by two or more drill holes and a requirement that the closest sample was within five meters of the block. Indicated resources were defined for blocks estimated by two or more drill holes and the farthest sample used in the estimate could be no more than 22 meters from the block. Inferred resources were defined for blocks estimated by at least one drill hole and the maximum allowable assay projection distance was set at 60 meters for mineral zones 1 through 8. Table 1-1 summarizes the measured, indicated, and inferred resources for the Courageous Lake deposit at a 1.00 gram per tonne gold cutoff grade. It is the opinion of the authors that the gold resources stated in Table 1-1 satisfy the requirements of National Instrument 43-101.

Table 1-1
Summary of Mineral Resources

Au Cutoff (g/t)	Measured			Indicated			Inferred		
	Tonnes (000)	Au (g/t)	Au Ozs (000)	Tonnes (000)	Au (g/t)	Au Ozs (000)	Tonnes (000)	Au (g/t)	Au Ozs (000)
1.00	3,041	2.74	268	41,161	2.47	3,269	65,501	2.32	4,886

This inventory of tonnes, grade, and contained gold ounces for this property can only be referred to as a mineral resource at this time due to a variety of factors. Approximately 11% of the pre-2004 electronic drill hole database has been checked against certified lab certificates and found to be reasonably accurate. There were an inadequate number of available check assay results for the pre-2004 drilling data from which to properly evaluate the overall QA/QC performance of the historically collected drill hole assays. This data is thought to exist, but was unavailable for this review. The author has no reason to believe that the QA/QC procedures implemented by Noranda and Placer Dome would not meet or exceed industry standards. Based on the check assay results that were available, no bias was detected in the 272 duplicate assay pairs in excess of 0.50 g/mt. Duplicate assays had an equal chance of being lower or higher than the original assays and the means of the two data sets were very similar with the duplicate assays running about 3% higher gold grade than the original samples.

Approximately 33% of Seabridge's 2004 drill hole assays were verified and found to be accurately entered into the electronic database. The QA/QC results for the Seabridge's 2004 drilling program demonstrate that the ACME lab did a reasonable job of preparing and assaying the drill core material.

There were no density analyses available for this property, so the author used the same specific gravity that Placer Dome used in their resource calculations (2.7 g/cm^3 or 2.7 tonnes/m^3), which appears reasonable for the greenstone host rocks.

Seabridge continues to retain EBA Engineering Consultants Ltd., an independent environmental consulting firm with offices in Yellowknife to monitor environmental compliance and other related studies for the Property. EBA had recommended initiating environmental baseline studies with long monitoring cycles during 2004. Seabridge contracted EBA to begin studies in aquatic habitat, lake water monitoring, caribou migration and predator den sites. These studies are ongoing and will be incorporated in the environmental permitting and mitigation activities for any future production decision.

Other issues related to mining, such as mining method, equipment selection, rock mechanics, metallurgical testing, processing method, ultimate metal recovery, facilities siting, operating/capital cost estimates, and permitting issues are being investigated by Hatch Engineering from their Toronto offices. The Hatch studies are ongoing and will incorporate the results of this resource estimation exercise. The studies undertaken by Hatch will need to be concluded before any of the resources can be upgraded into a reserve category.

2.0 Introduction and Terms of Reference

The Courageous Lake gold property is currently owned by Seabridge Gold Corporation (SEA). The property is subject to a net smelter royalty of 2.0%.

This geologic report and resource estimate were prepared at the request of Seabridge Gold Corporation (SEA). The purpose of this report is to comply with disclosure and reporting requirements set forth in the Canadian Venture Exchange (CDNX) Corporate Finance Manual, National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1.

The scope of this study included a review of all available technical reports and data in the possession of SEA relative to the general setting, geology, mineralization, project history, previous exploration activities, drilling results, sampling/assaying methodologies, and quality assurance/quality control.

The author's primary mandate was to review newly acquired data and to perform an independent estimate of mineral resources within the Courageous Lake deposit, which conform to National Instrument 43-101. As part of this review, a site visit was conducted on December 9, 2004 by Mr. Abdullah Arik and a representative from SEA.

Units of measure and various conversion factors used in this report include:

Linear Measure

1inch	=2.54 centimeters	
1 foot	=0.3048 meter	
1 yard	=0.9144 meter	
1 mile	=1.6 kilometers	

Area Measure

1 acre	=0.4047 hectare	
1 square mile	=640 acres	=259 hectares

Weight

1 short ton	=2000 pounds	=0.907 tonne
1 pound	=0.454 kilogram	=14.5833 troy ounces

Assay Values

1 oz per ton	=34.2857 gram/tonne
1 troy ounce	=31.1035 grams
1ppb	=0.0000292 oz per ton

Rounding

Some apparent discrepancies in the calculation of gold ounces may occur due to the rounding of either tonnes and/or gold grades

3.0 Disclaimer

The mineral resource estimate that is summarized in this report was prepared by the author using data that were provided to him by SEA. Most of these data were collected during the 1980's and 1990's by several major mining companies. The assay and geologic data that was provided to SEA by the previous owners of the property were compared to certified assay lab sheets and drill hole logs and found to be accurately entered.

The author requested and received many of the technical reports that were generated by previous mining companies that conducted exploration programs on the property. It is possible that more technical reports and summaries have been prepared over the years for this property, but they were unavailable for this technical review.

In preparing this document, the author did not check title to the claims and hereby disclaims any responsibility for such matters. Seabridge retained The Claim Group, an independent consulting firm based in Mississagua, Ontario, to confirm title to the claims (The Claim Group, 2004).

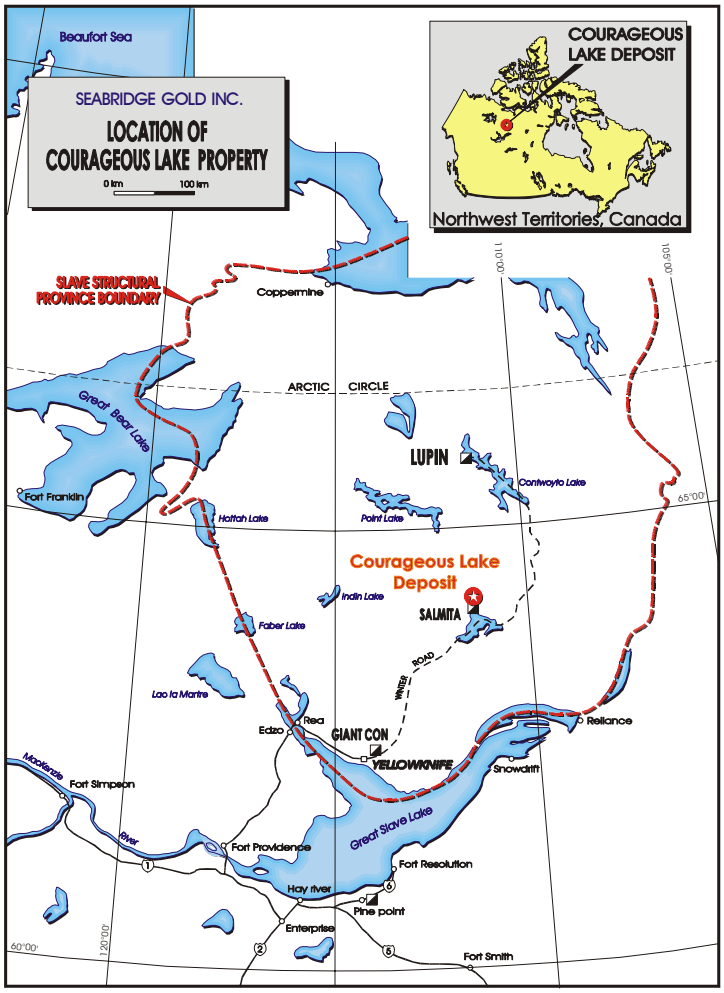
To the best of the author's knowledge there are no environmental liabilities or other liens against the property. Seabridge retained EBA Engineering Consultants Ltd., an independent environmental consulting firm with offices in Yellowknife to review any associated environmental liabilities or other related issues with the Property (EBA, 2004).

This report was prepared for Seabridge by the author and is based on information not within the control of either Seabridge or the author. While it is believed that the information contained herein is reliable under the conditions and subject to the limitations set forth herein, the author cannot guarantee the accuracy thereof. The author is unaware of any existing technical data other than those that were provided to him by SEA. The use of this report, or any information contained herein shall be at the user's sole risk, regardless of any fault or negligence of the author.

4.0 Property Description and Location

The Courageous Lake Property is located 240 kilometers northeast of Yellowknife in the Northwest Territories, Canada (Figure 4-1.) The property is situated within the Courageous Lake greenstone belt in the Slave Structural Province.

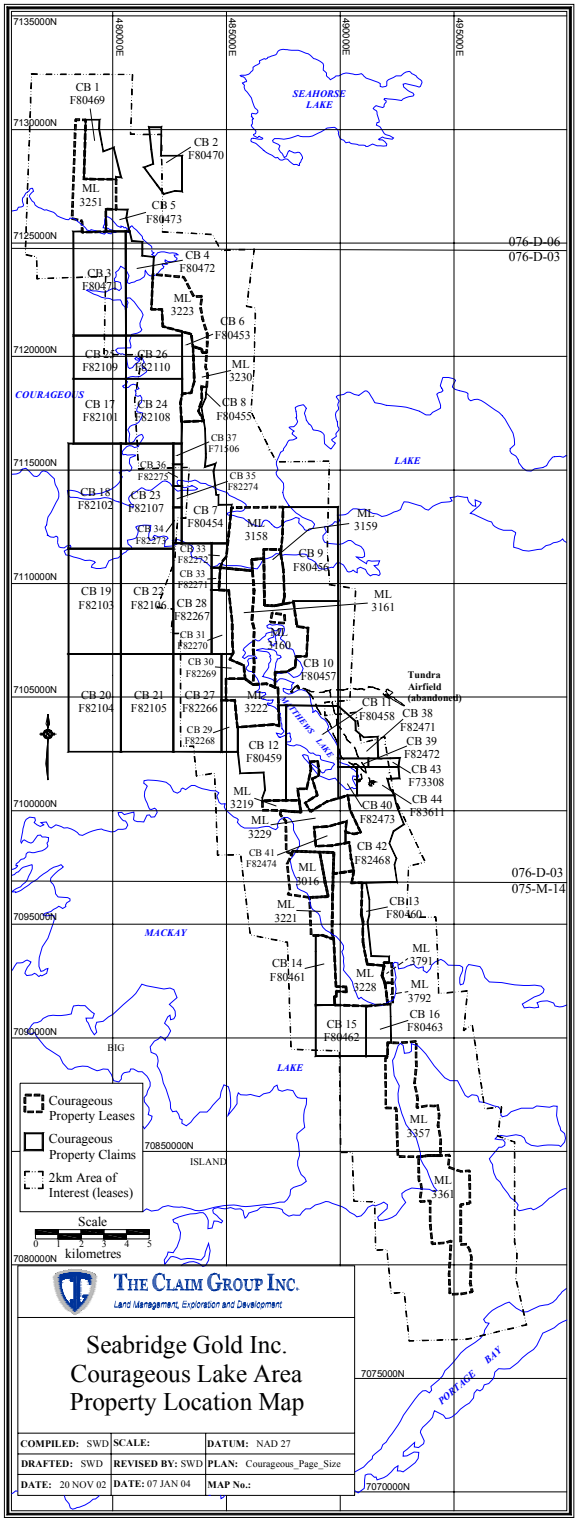
Figure 4-1
General Location Map



The property is a collection of Mineral Leases and Mining Claims that trend north-south along the approximately 54 kilometer length of the Courageous Lake Greenstone Belt. The property includes the past gold producing properties of the Salmita mine operated by Giant Yellowknife Mines, and the Tundra mine, operated by Royal Oak Mines.

In May 2002, Seabridge entered into a purchase agreement with Newmont Canada Limited and Total Resources Canada Limited for the Courageous Lake project, which consisted of 17 mining leases totaling 7356.76 hectares. Under the purchase agreement, Seabridge paid Newmont/Total US$2.5 million in cash and granted them a 2.0% NSR and agreed that it would be liable to make two (2) further payments of US$1.5 million, each subject to the price of gold passing certain thresholds, for a 100% interest in the property. The final contingent payments were made February 5, 2004, giving Seabridge Gold ownership of the property subject to the 2% royalty. Subsequent to this acquisition, Seabridge staked contiguous open ground totaling an additional 19,884.27 hectares in 42 mining claims of which a portion is subject to the terms of the purchase agreement, including the 2% royalty. An additional 22.18 hectare mining claim located in the district was secured by Seabridge on May 24, 2004 under an option to purchase agreement from a third party. Seabridge's final total land position now stands at 27,263.21 hectares (see Figure 4-2). The mineral lease, mining claim, and third party lease information are presented in Tables 4-1, 4-2, and 4-3, respectively.

Figure 4-2
Land Position and Generalized Geology



The surface rights for these mineral properties are held by the Canadian government, but are subject to two existing surface leases. These existing surface leases were granted to tour operators that erect camp facilities on the lands and provide seasonal hunting and fishing guide services. The Courageous Lake property is not subject to any other known surface encumbrances or mineral royalties.

Table 4-1
Mineral Leases

Lease #	Lot #	NTS	Survey #	Area (ac.)	Area (ha.)	Expiry Date
3158	1005	076-D-03	69157MC	1,376.00	556.87	25-Jul-05
3159	1006	076-D-03	69157MC	534.00	216.11	26-Jul-05
3160	1007	076-D-03	69157MC	1,878.00	760.03	27-Jul-05
3161	1008	076-D-03	69157MC	1,135.00	459.33	28-Jul-05
3222	1010	076-D-03	70798MC	907.00	367.06	24-Jun-08
3016*	1001	076-D-03	67090	702.00	284.10	23-Oct-22
3219	1012	076-D-03	70800MC	168.10	68.03	9-Jul-07
3221	1001	075-M-14	70795MC	584.00	236.34	16-Jun-07
3223	1009	076-D-03	70644MC	1,214.00	491.31	23-Jun-08
3228	1002	075-M-14	71197MC	2,357.00	953.88	30-Jun-08
3229	1014	076-D-03	71197MC	1,585.00	641.45	30-Jun-08
3230	1013	076-D-03	71166MC	518.00	209.63	30-Jun-08
3251	1003	076-D-06	70797MC	1,159.00	469.05	30-Jun-08
3357	1003	075-M-14	73932	1,890.00	764.88	26-Apr-11
3361	1004	075-M-14	73932	2,034.00	823.16	26-Apr-11
3791	1008	075-M-14	82540	80.20	32.46	9-Sep-19
3792	1009	075-M-14	82540	57.00	23.07	9-Sep-19
Total				**18,178.30**	**7,356.76**	

Table 4-2
Mining Claims

Claim Name	Tag Number	Area (ac)	Area (ha)	Claim Holder	Beneficial Owner
CB 1	F80469	671.45	271.74	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 2	F80470	671.45	271.74	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 3	F80471	2,582.50	1,045.14	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 4	F80472	1,394.55	564.37	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 5	F80473	232.00	93.89	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 6	F80453	283.00	114.53	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 7	F80454	1,936.50	783.70	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 8	F80455	76.00	30.76	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 9	F80456	2,324.25	940.62	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 10	F80457	2,142.00	866.87	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 11	F80458	2,272.60	919.72	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 12	F80459	1,342.00	543.11	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 13	F80460	335.50	135.78	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 14	F80461	671.45	271.74	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 15	F80462	1,291.25	522.57	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 16	F80463	568.15	229.93	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 17	F82101	1,556.71	630.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 18	F82102	2,582.50	1,045.14	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 19	F82103	2,582.50	1,045.14	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 20	F82104	2,582.50	1,045.14	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 21	F82105	2,582.50	1,045.14	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 22	F82106	2,582.50	1,045.14	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 23	F82107	2,582.50	1,045.14	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 24	F82108	1,556.71	630.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 25	F82109	1,056.34	427.50	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 26	F82110	1,150.23	465.50	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 27	F82266	2,582.50	1,045.14	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 28	F82267	2,179.39	882.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 29	F82268	434.89	176.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 30	F82269	259.45	105.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 31	F82270	481.84	194.98	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 32	F82271	57.30	23.19	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 33	F82272	227.33	92.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 34	F82273	107.49	43.50	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 35	F82274	66.72	27.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 36	F82275	66.72	27.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 37	F82276	44.48	18.00	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 38	F82471	617.28	249.81	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 39	F82472	123.36	49.92	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 40	F82473	135.37	54.78	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 41	F82474	293.75	118.88	5073 N. W. T. Ltd	Seabridge Gold Inc.
CB 42	F82468	1,845.85	747.02	5073 N. W. T. Ltd	Seabridge Gold Inc.
Totals		**49,133.36**	**19,884.27**		

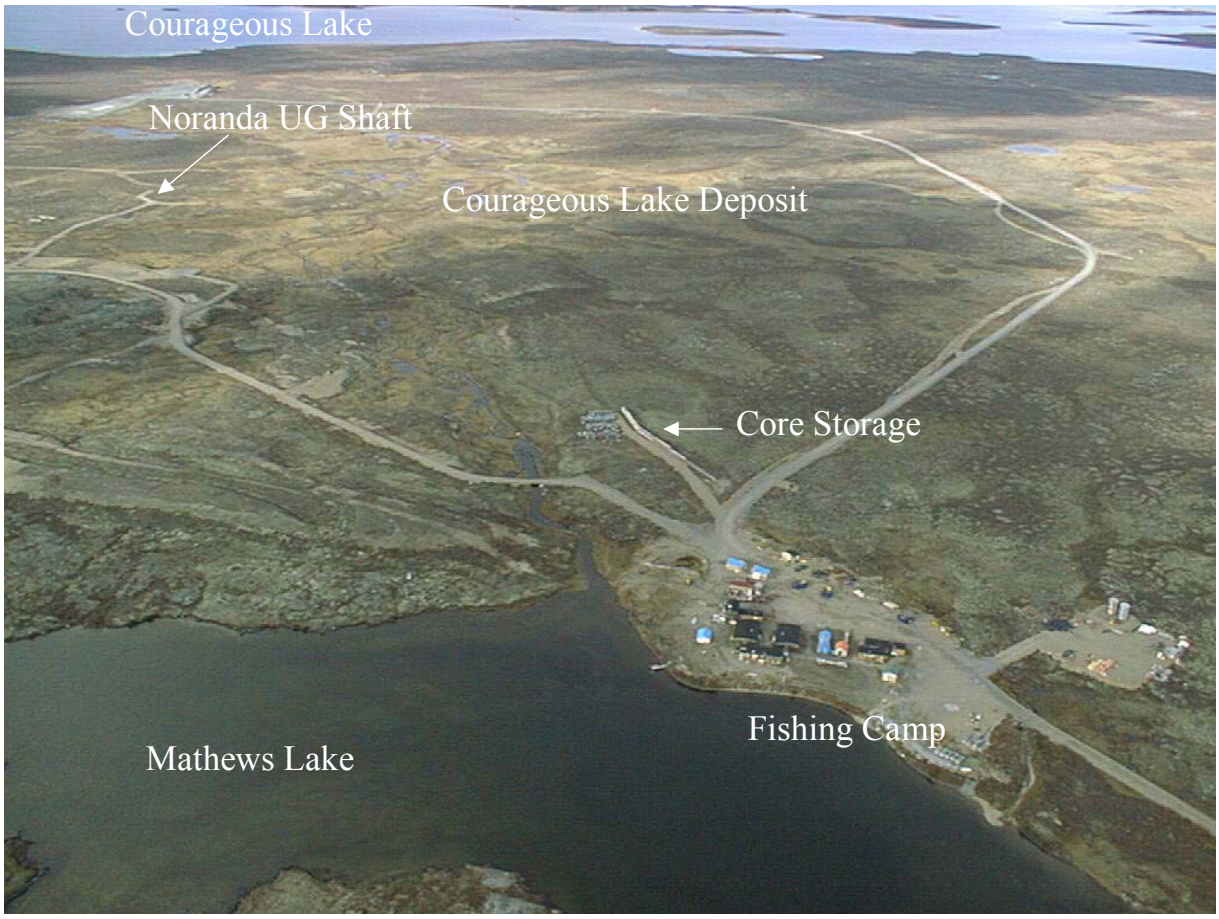
Table 4-3
Third Party Lease

Claim Name	Tag Number	Acres	Area (ha)	Claim Holder	Beneficial Owner
RED 25	F73276	54.82	22.18	Bathurst	Seabridge

5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The overall topography of this area is very gentle and is characterized by rolling hills that range from 418 to 450 meters in elevation above sea level. Typically, the maximum change in elevation is only about 30 meters. Tundra type vegetation and small scrub brush dominate the areas between outcrops, particularly along the ridges in the southern edge of the property. The northern part of the property is dominantly flat with little or no outcrop. Figure 5-1 is an oblique aerial photograph that gives an overview of the Courageous Lake Deposit area.

Figure 5-1
Aerial Photograph of Courageous Lake Property



Year-round access is possible by air only, either by fixed wing aircraft to the airstrip at Salmita, located 6 km to the south, or by fixed wing aircraft equipped with skis or floats to nearby lakes. In addition, access in mid-winter is possible over a 32 kilometer winter road which branches off the main winter road from Yellowknife to the Lupin Mine.

There are no significant population centers outside of Yellowknife near the property. All access and transportation of supplies either need to be brought in by air or by road during the winter months.

6.0 History

Gold was first discovered in the Courageous Lake area in the early 1940's by Dr. W. Brown, who was working for Territorial Exploration Limited. The Tundra deposit was discovered in 1944 and the Salmita deposit in 1947, neither are part of the Courageous Lake property. The Geological Society of Canada carried out regional geological mapping in the area from 1944 to 1980. The Tundra Gold Mine went into production in 1964 and operated about four years. During the 1990's, Royal Oak Mines briefly reopened the Tundra Mine. Total reported production from the Tundra Mine was 122,000 ounces of gold. During 1984 to 1989, the nearby Salmita Mine produced 209,000 tonnes averaging 27.2 grams per metric tonne (183,000 ounces).

In 1980, Noranda Exploration carried out a drilling program to evaluate a frost heaved felsic volcanic unit that was discovered by prospectors working for Noranda. This activity resulted in the discovery of two gold deposits, the Tundra Deposit (Main Zone) or Fat Zone, and the Carbonate Zone, which together form the Courageous Lake property. In 1982, Noranda Exploration Limited entered into a joint venture agreement enabling Getty Canadian Metals Ltd. to earn a 49% interest in the Courageous Lake property by funding exploration and development with Noranda as the operator. In 1987, Total Energold purchased Getty Canadian Metals Ltd. and assumed their 49% interest in the Tundra Joint Venture.

In 1988, Noranda sank a 475-meter shaft on the Main Tundra Zone with the objective of testing the continuity and grade of gold mineralization within the previously identified zone. The results of this program did not meet Noranda's expectations, and no further work was done on the underground development. Noranda estimated a global gold resource of about 3.6 million ounces and an underground resource of about 737,000 ounces. In 1992, Noranda consolidated its Hemlo Gold unit with Battle Mountain Gold and began operating the Tundra Joint Venture as Battle Mountain Gold.

In 1996, Battle Mountain Gold merged with Newmont Gold Corporation thereby transferring the ownership of the Tundra Joint Venture to Newmont. In 1997, Placer Dome Exploration (PDX) optioned the property from Newmont with the concept of developing a bulk mineable surface deposit. PDX completed 13,345 meters of drilling and other basic exploration work. Based on their work along with the previous data collected by Noranda, PDX estimated a global resource for the Courageous Lake property of 5.9 million ounces of gold.

In 2002, Newmont offered the Courageous Lake Property for sale. Seabridge Gold Corporation purchased the property from the Newmont-Total Tundra Joint Venture in June 2002, with Newmont retaining a 2% net smelter royalty and the right to receive conditional payments totaling US 3 million dollars, which have now been fully paid.

During 2003, Seabridge Gold designed and executed a work program on the Courageous Lake property with the goal of evaluating and prioritizing potential gold targets. Four

targets were developed, South FAT Extension, Olsen Lake Target, Walsh Lake Target and Salmita Mine Target. These targets were selected as those that represent the highest probability to develop new resources for the project.

In 2004, drill testing of selected priority targets was undertaken by Seabridge Gold. The program was conceived in 2 stages, initial testing for strataform gold concentrations similar to the FAT Deposit and sectional drilling for potential resource additions. The initial program intended to test 3 target areas, Olsen Lake, Walsh Lake and the South FAT Extension. Ground conditions precluded a test of the Walsh Lake target, but the other targets were tested. Results from the initial stage of the program lead Seabridge to initiate sectional drilling on the South FAT Extension.

The South FAT Extension was a projection of the previous resource model where little work had been completed. Surface and initial drilling results indicated that 300 meters of strike could be added to the FAT Deposit with the completion of sectional drilling. The second stage of the 2004 program completed the sectional drilling on 50 meter section lines across these 300 meters of strike.

7.0 Geological Setting

7.1 Regional Geology

The Courageous-Matthews Lakes belt is characterized by a series of north to northwest trending Archean metavolcanic and metasedimentary rocks, that form a portion of the Slave Structural Province. These rocks are within the Yellowknife Supergroup (YG), and are locally referred to as the Courageous Lake Greenstone Belt (CLGB) as shown in Figure 4.1 a generalized geology map that also shows the property location.

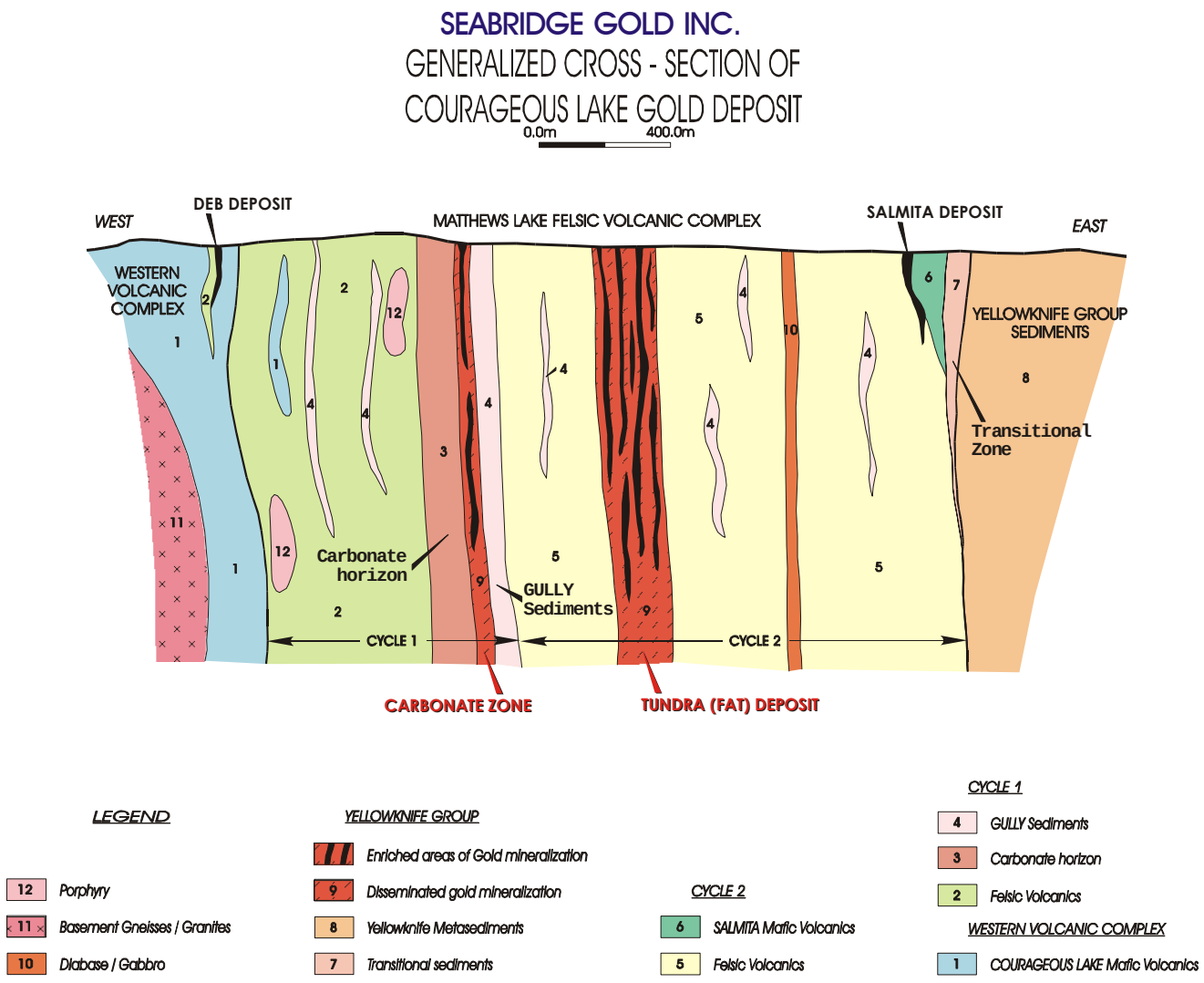
The CLGB is approximately 60 kilometers long, with a maximum east-west width of 5.5 kilometers. The rocks within the CLGB have been metamorphosed to greenschist facies, and have undergone at least two major deformational events. The Mackay Lake and Courageous Lake stocks, which are large granitic intrusions, bound the belt on the east and west.

The CLGB forms a steeply dipping homoclinal sequence of metavolcanic and meteasedimentary that are younger towards the east. Two distinct volcanic cycles have been recognized within the CLGB. The basal cycle is characterized by mafic to intermediate flow and pyroclastic rocks, which for the most part have been assimilated by the Courageous Lake Batholith. The second cycle contains mafic to felsic flow and pyroclastic rocks that are spatially related with felsic intrusives. This second cycle of volcanism is conformably overlain by a thick sequence of metasedimentary rocks that are locally known as the Yellowknife Group Sediments (YGS). The dominant post YGS lithology consists of large granodiorite to diorite plutons that bound the Courageous Lake deposit along it's east and west flanks. Post dating the granite and greenstone rocks in the area, are late Proterozoic gabbroic and diabase dikes, which trend north to northeast or east-west.

7.2 Local Geology

North of Matthews Lake, the Courageous Lake property consists of a sequence of northerly trending, steeply dipping metasedimentary and metavolcanic rocks, with tops to the east as shown in Figure 7-1, a generalized north looking cross section that shows the stratigraphic relationships between the various units

Figure 7-1
Generalized Geologic Cross Section



All of the currently recognized gold occurrences at this property are located within or near the top of the second cycle of volcanism of the CLGB. The thickest part of this second volcanic cycle is located north of Matthews Lake where drag folding has duplicated the section. Generally, the units that make up the second volcanic cycle are about 2 kilometer thick and have been subdivided into 8 distinct map units. These mappable units within the second volcanic cycle are described as:

mafic volcanic unit

The mafic volcanic unit forms the basal member of the second volcanic cycle and is located along the western margin of the project area and crops out as a topographic ridge. These flow units are typically massive, medium to dark green in color, fine grained and often display local pillow structures.

lower felsic volcanic unit

Overlying the mafic volcanic rock units, are a series of lower felsic volcanic units that consist of interbedded mafic to felsic debris and mafic tuff intercalations. Rock fragments in the debris flow units range from intermediate to felsic in composition and are supported by a chlorite matrix. Locally, disseminated pyrite and pyrrhotite can be found in this unit.

carbonate unit (Zone 8)

The carbonate unit is characterized by abundant calcite that appears to be a distinctive alteration product of a felsic volcaniclastic unit. There are two textural varieties within this unit, one of which is carbonate filled fractures within a tuffaceous to massive unit, while the second type consists of rhyolitic lapilli to bomb size fragments in a carbonate matrix. Primary depositional structures are preserved in this unit suggesting that the introduction of carbonate minerals may have taken place shortly after deposition. Near the upper contact of this unit, fracture filling of carbonate minerals increases significantly.

gully sedimentary rocks

The gully sedimentary rocks consist of a thin unit of interbedded argillite and greywacke beds. On the western limit of this unit, adjacent to the carbonate unit, is a distinct graphitic zone that has been interpreted to be within a shear zone.

upper felsic volcanic unit

The upper felsic volcanic unit overlies the gully sedimentary rocks, and is comprised of rhyolite flows, felsic pyroclastic fragmental rocks, and volcaniclastic debris flows. Felsic volcanic fragments range in size from coarse ash to large chaotic blocks indicative of a dynamic depositional environment. The unit is characterized by sericite and chlorite alteration that is typically associated with shearing and contains disseminated sulfide minerals.

mineral zone (Zones 3,4, & 5)

The mineral zone is a distinct subdivision of the upper felsic volcanic unit, and differentiated by the presence of many sub-parallel shear zones that vary in width from a few meters up to 200 meters along strike. The original rocks within this unit were thought to be felsic tuffs, tuff breccias and agglomerates, but they were severely altered and

deformed by shearing. Sericite, ankerite, and silica alteration is closely associated with shearing and is oriented along the shear fabric in the rock. Pyrite and pyrrhotite are common in this unit, but acicular arsenopyrite is the most important indication of gold mineralization.

transitional sedimentary units

The transitional sedimentary units are composed of clastic felsic ash and lapilli beds that are intercalated with greywacke and argillite. The abundance of greywacke and argillite increases up section to the east. The Yellowknife Group Sedimentary rocks that appear to be conformable with the second volcanic cycle overlie this unit.

7.3 Deposit Description

Both the main Tundra and carbonate zones within the Courageous Lake property strike north-south and have a near vertical dip component. The zones are characterized by moderate to intense shearing, sericite-carbonate alteration, and quartz veining. These mineralized zones are very persistent along strike and down dip. The continuity of gold mineralization has been demonstrated to be at least 1,200 meters along strike based on drilling results. Within the area that has been tested by drilling, the continuity of gold mineralization is at least 600 meters in a down dip direction. The limits of gold mineralization have not been fully tested by drilling and the deposit remains open along strike and down dip.

Previous structural studies have been completed on this property indicate that the Courageous-Matthews Lake Belt has been affected by at least two primary phases of ductile deformation. The most important and easily recognizable deformation in the district is the D2 event that resulted from east-west directed sub-horizontal compression. The D2 event is characterized by moderate to intense shear foliation, defined by stretch lineation that overprints the primary stratigraphy in the target zones. This shear foliation generally strikes 005o, dips 80o to 85o west and crosscuts stratigraphy at an acute angle.

Introduction of potassium and silica produced a sericite, orthoclase and quartz alteration assemblage characteristic of the target gold zones. Fluids also carried As, Fe and Au, producing a sulfide mineral assemblage of pyrite, pyrrhotite and arsenopyrite. Ankerite (FeCaCO3) is another common component of gold-bearing zones. These textural and mineralogical indicators of gold concentrations were recognized early in the exploration of the property and have served well in identifying new target zones. Specific characteristics that are used in describing the limits of gold-bearing zones are:

- Abundance of sericite alteration
- Presence of acicular arsenopyrite
- Occurrence of silicic alteration (any relative intensity)
- +/- Intensity of foliation
- +/- Presence of fine grained narrow anatomizing gray-blue quartz veins

8.0 Exploration

Exploration of the Courageous Lake property has under gone several phases since the discovery of gold in the area in 1938. The two most active periods of exploration were Noranda's activities in the 1980's and Placer Dome's programs during the late 1990's.

8.1 Noranda Exploration Ltd.

Starting in 1976, Noranda Exploration Ltd. began exploration activities in the Courageous Lake Volcanic Belt. Activities included geological reconnaissance, airborne EM and magnetic surveys, ground follow up and claim staking. In 1982, Noranda initiated a limited drilling program to evaluate rock units north of Matthews Lake. Detailed geophysics, geological mapping and extensive diamond drilling followed this initial program leading to the discovery of two gold deposits, the Tundra Deposit (Main Zone) or Fat Deposit, and the Carbonate Zone.

From 1982 to 1987, Noranda continued core drilling the property from the surface and also constructed a winter road to the property and began an environmental impact study. In late 1987, Noranda made a decision to sink a vertical shaft to provide access for conducting an underground definition drilling program and to be able to test gold grade continuity and tenor by drifting and raising on ore grade shoots. This also allowed Noranda to extract a bulk sample for metallurgical testing. In conjunction with the development of the shaft, surface core drilling, magnetic, VLF, and HLEM surveys were also completed (Levett, 1998).

8.2 Underground Development

In late 1987, the Tundra Joint Venture was presented with an in-house preliminary resource estimate completed by Noranda (Jarvi, 1988). Using a 3.43 g/mt Au cutoff grade, Jarvi estimated a resource of 29.6 million tonnes at a grade of 6.20 g/mt or 5.8 million gold ounces. Based on this work, the Tundra Joint Venture decided to begin a two-year underground exploration program. The program was designed to develop an underground mining reserve, access material for bulk metallurgical sampling and provide engineering information for mine design and development planning.

In February and March 1988, Thyssen Mining mobilized equipment and personnel to the site. By July 1988, the surface infrastructure was in place and the exploration shaft was collared. A three compartment shaft was designed that provided:

- Two compartments for hoisting (2.02 meter x 2.02 meter opening)
- A ventilation/manway compartment (2.02 meter x 1.75 meter opening)

The shaft was timbered from top to bottom with horizontal cross sets placed vertically every 2.25 meters and stub stations excavated at 45-meter intervals to facilitate future

development. Geology was mapped at 1:50 scale in the shaft. The shaft sinking program was completed at 472.6 meters in April of 1989.

Drifting on the target zone began in May 1989 and was completed in November 1989 with a total development of 1,948.2 meters. Both lateral drifts and sub-vertical raises were developed and provided access to bulk sample locations and diamond drilling stations along the strike of the target zone. All drifts and raises were excavated to nominal 3.0-m by 3.0-meter openings, totaling 64,044 tonnes of material. Development work averaged 9.2 meters/day and contained 46,865 tonnes of waste and 17,179 tonnes of gold-bearing target zone ore material. Survey control was provided by a third-party contractor using gyroscopic survey instruments linking the underground development with the surface mine grid. Geologic mapping, face channel sampling and muck sampling were conducted during the development work.

Conners Drilling was contracted for underground diamond core drilling. Vertically fanned NQ drill holes were collared on 50-meter centers from underground drill stations that were laid out on 50-meter centers. Each underground drill station averaged six holes that were fanned out to provide reasonable data spacing. Approximately 200 vertical meters of the mineralized zone were tested by the underground drill holes. The 50-meter spaced drill stations tested about 750 to 800 meters of strike length. Additional horizontally fanned holes were drilled on 25-meter centers to aid in the interpretation of the target zone. Drilling was completed in November 1989 and totaled 27,459.25 meters in 125 diamond core holes.

8.3 Placer Dome Exploration Inc.

In 1998, Placer Dome Exploration Inc. (PDX) preformed regional lithogeochemical sampling/prospecting and detailed mapping and channel sampling on the Courageous Lake property. PDX completed a small core drilling/sampling program in order to verify Noranda's previous work and to provide infill sample data. Detailed mapping and structural analysis programs were run concurrently by PDX to familiarize their geologists with the property geology and to help design a drilling plan. Most of the results of these studies were not available for this report.

Also in 1998, Placer Dome conducted a ground magnetic survey on the property to define the zone of mineralization and to detect other areas of possible mineralization. This geophysical program allowed PDX to help distinguish the various rock types in the area and locate drill targets.

8.4 Seabridge Gold Inc.

During 2003, Seabridge Gold designed and executed a work program on the Courageous Lake property with the goal of evaluating and prioritizing potential gold targets. Four targets were developed, South FAT Extension, Olsen Lake Target, Walsh Lake Target and Salmita Mine Target. These targets were selected as the highest probability to develop new resources for the project.

In 2004, drill testing of selected priority targets was undertaken by Seabridge Gold. The program was conceived in 2 stages, initial testing for stratiform gold concentrations similar to the FAT Deposit and sectional drilling of potential resource expiations. The initial program intended to test 3 target areas, Olsen Lake, Walsh Lake and the South FAT Extension. Ground conditions precluded a test of the Walsh Lake target, but the other targets were tested. Results from the initial stage of the program lead the company to initiate sectional drilling on the South FAT Extension.

The South FAT Extension was a projection of the previous resource model where little work had been completed. Surface and initial drilling results indicated that 300 meters of strike could be added to the FAT Deposit with the completion of sectional drilling. The second stage of the 2004 program completed the sectional drilling on 50 meter section lines across these 300 meters of strike.

9.0 Drilling

Prior to 1982, Noranda explored the Courageous Lake properties in search of massive base metal sulfide deposits. As a result of that program, a large number of holes were drilled in the area, most of which were unrelated to the Courageous Lake gold system. Noranda did discover the DEB deposit, which contains about 1.0 million tonnes of 0.83% Cu, 2.70% Zn, 0.24% Pb and 22.0 g/mt Ag. In 1982, Noranda initiated exploration in the region for gold. Between 1982 and 1985 a large number of targets were tested with small helicopter supported drill rigs. Based on these programs, a total of 11,239 meters of drilling was completed on the Tundra Main Zone, carbonate zone and surrounding area.

In 1986, Noranda contracted 39,030 meters of NQ core drilling on the Tundra and carbonate zones in 76 drill holes. This program was the initial delineation drilling of the targets and led to several internal resource estimations. In total, Noranda completed 330 drill holes for a total of 85,024 meters in both surface and underground drilling campaigns.

Placer Dome Exploration acquired an option to evaluate the Courageous Lake project and conducted drilling operations in the fall of 1997 and summer 1998. Placer used two NQ diamond drill rigs to provide detailed information on the continuity of the Tundra Main Zone and to confirm the carbonate zone. This program concentrated on completing drill hole fences consisting of five holes per fence on strategically selected east-west sections spaced at 25 to 50 meters. The total diamond drilling completed by Placer was 22,684 meters in 96 drill holes.

In the summer of 2004, Seabridge Gold drilled 23 surface core holes totaling 7,940.7 meters. The majority of these holes were drilled near the southern end of the FAT zone in order to extend the strike length of the deposit.

Figure 9-1 is a drill hole collar map showing most of the 449 holes currently in the Courageous Lake database that were used for estimating gold resources. Seabridge's 2004 drill holes are shown in red, all other holes are shown in black. Figure 9-2 is a perspective view of the Courageous Lake deposit looking N35W showing the density and orientation of the surface and underground core holes.

Figure 9-1
Drill Hole Collar Map

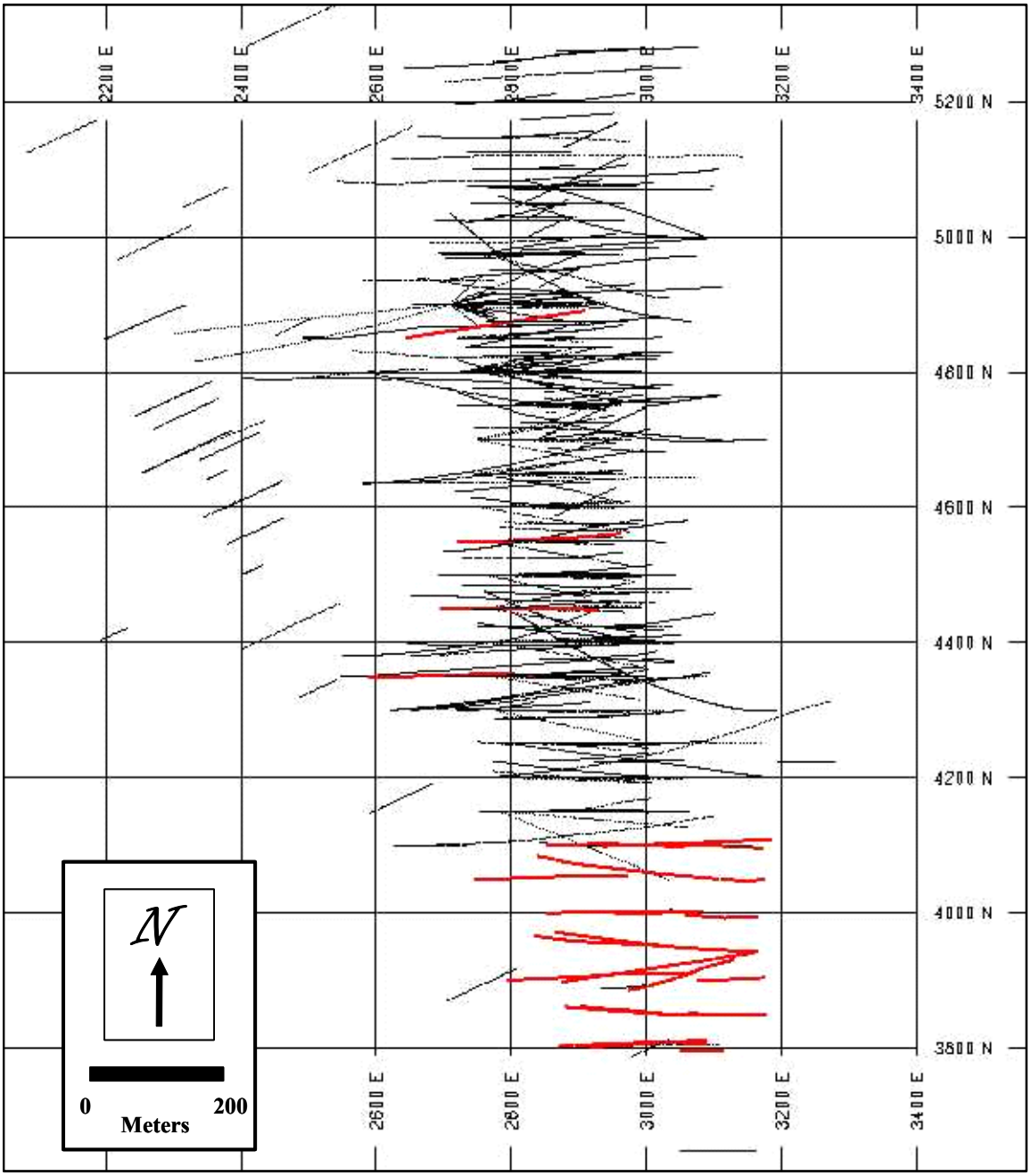
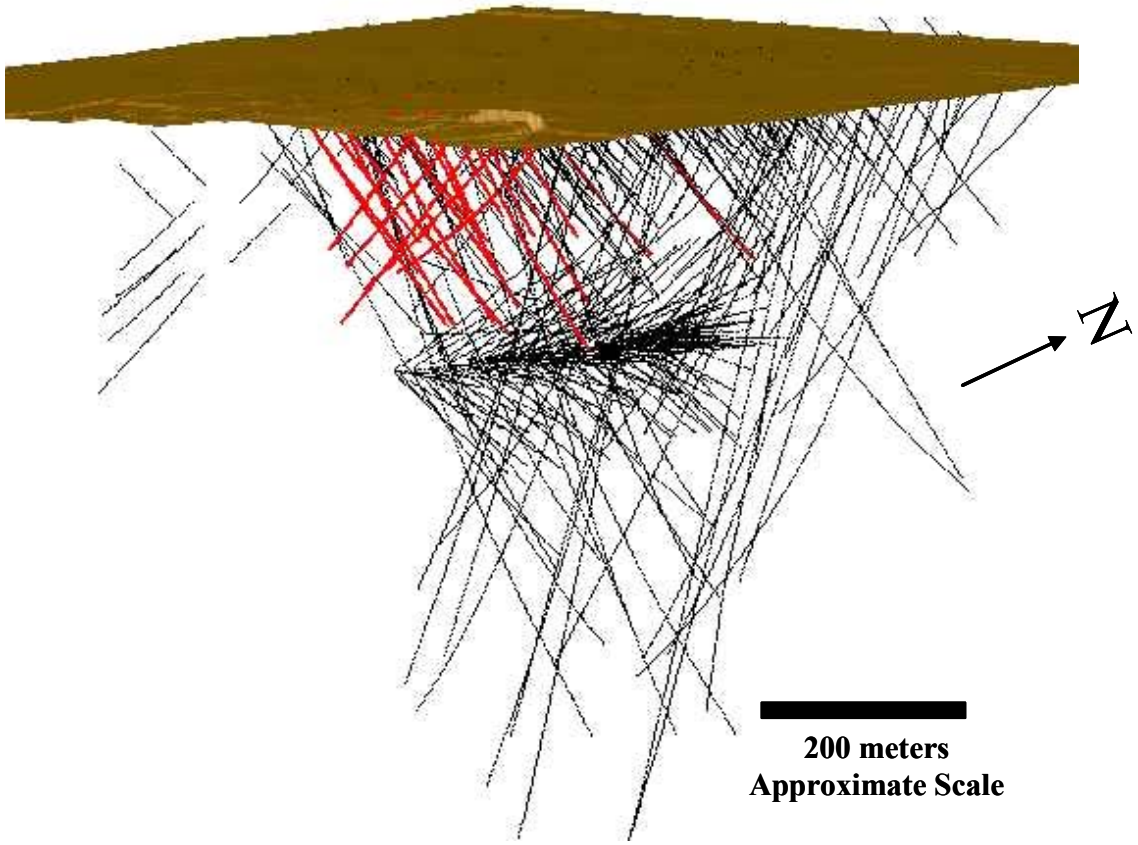


Figure 9-2
Courageous Lake Drill Holes



Seabridge's 2004 drill holes are shown in red and all other previous drill campaigns are shown in black in Figure 9-2. Table 9-1 summarizes historical drilling by company and type (i.e. surface or underground) that has been conducted at Courageous Lake.

Table 9-1
Summary of Drilling Data

Type	Noranda		Placer Dome		Seabridge		Total No.	
	No.	Meters	No.	Meters	No.	Meters	No.	Meters
Surface	156	57,227.9	96	22,684	23	7,940.7	275	87,852.7
U/G	174	27,796.4	0	0	0	0	174	27,796.4
Grand Total	330	85,024.2	96	22,684	23	7,940.7	449	115,649.1

The total drill meterage shown in Table 9-1 includes some overlap due to some wedge holes that were completed by Noranda. These holes share the same collar and down-hole survey information to where the wedge hole departs the original "pilot" hole. The drilling data are also summarized by drilling orientation. Table 9-2 breaks down the drilling by direction and inclination.

Table 9-2
Drilling Orientation

Drilling Orientation	No. Holes	No. Meters	% of Data
Steep Downward Northeasterly Angle Hole	47	6,382.8	5.5%
Steep Downward Easterly Angle Hole	156	46,199.8	39.9%
Steep Downward Southwesterly Angle Hole	15	2,460.2	2.1%
Steep Downward Westerly Angle Hole	60	33,446.1	28.9%
Shallow Downward Easterly Angle Hole	33	7,330.6	6.3%
Flat Northeasterly Hole	1	59.7	0.1%
Flat Easterly Hole	63	7,275.9	6.3%
Flat Southeasterly Hole	1	50.3	0.0%
Flat Westerly Hole	16	615.7	0.5%
Shallow Upward Easterly Angle Hole	50	11,197.2	9.7%
Shallow Upward Westerly Angle Hole	5	551.4	0.5%
Steep Upward Westerly Angle Hole	2	79.6	0.1%
Total	449	115,649.1	100.0%

As the data in Table 9-2 show about 40 percent of the core holes were drilled from west to east in a fairly steep orientation. Approximately 30 percent of the holes were drilled from east to west, also in a steep inclination. All of the flat and upward directed holes were drilled by Noranda in their underground exploration program.

10.0 Sampling Method and Approach

10.1 Noranda Exploration Limited Procedures

Noranda established and documented sampling protocols for both their drill core sampling and underground face sampling programs. During the critical delineation drilling program, Barringer Laboratories setup and operated a sample analysis facility on the Courageous Lake project site.

Drill core samples were taken at geologic breaks and were designed so that sample lengths did not exceed 1.5 meters. Most of their sample lengths were generally about 1.0 meter long. The core was delivered to technicians that sawed the core for sampling and cross-validated the intervals with the geologic logs. When discrepancies between the geologic log intervals and the core splitter intervals were encountered, the sample was discarded and a quarter split of the core was made to reflect the geologic sample logs.

Underground face samples were collected as channel samples within specific geologic units. Channel lengths did not exceed 1.5 meters and channel widths were between 30 and 40 cm. All faces were sampled from the left rib to the right rib after each round in the target zones. The drift cross sectional area of 9 m^2 was advanced 3 meters for each round. A total of 1,816 drift samples were collected to represent 11,211 tonnes of the target zone. Muck samples and jackleg samples were also collected during the underground program. These samples were used to validate the results of the channel samples and were not incorporated into any resource estimation.

Samples collected by the geologic team on site were delivered daily to the Barringer's on-site facility, where they were cataloged and compared with Noranda's transmittal forms. Samples were air-dried and the entire sample was processed through a jaw crusher and cone crusher so that 100% of the material passed through a 10-mesh screen. The sample was then homogenized and split into a 500-gram sub-sample that was then reduced to minus 150-mesh in a ring pulverizer. This pulp was then homogenized and split into several 15 to 30 gram charges. Pulp samples were analyzed by fire assay with an atomic absorption finish. Samples that were identified with abundant arsenopyrite and had an initial fire assay value in excess of 6.0 g/mt Au were re-fired with a gravimetric finish.

A duplicate check analysis was completed for every 10^{th} sample. In addition, a sample standard was inserted as the 20^{th} sample in every sequence of samples. Blind blank samples were provided to the lab facility for every 50^{th} sample, these blind samples were collected from homogenous barren material on site. Duplicate analysis were preformed a Neutron Activation Laboratories on randomly selected samples for every sequence of 50 samples. Excess pulp samples and reject material were stored on site, but have since been discarded.

10.2 Placer Dome Exploration Procedures

A total of 6,276 core samples were assayed by Placer Dome for their drilling program. Their samples averaged 1.46 meters in length and were determined by geological controls. Samples were broken out based on visual clues in the target zone and on two-meter intervals outside the visually identifiable zone. Core was sawed and shipped to Placer Dome's Project Development Division Research Center for assay. Half of the core was retained in the core box for further reference and was stored on site.

Samples were organized in batches of twenty, which included three quality control samples per batch that were placed in a random order by the core logger. Duplicate quality control samples were inserted on site, while a standard and a blank sample were inserted in each batch by the assay lab. The research center also included quality control samples. In every set of 24 samples (one furnace charge), they included an in-house standard, a duplicate sample and a reagent blank sample. On every fifth furnace charge (120 samples) a certified standard was inserted. Five percent of all samples were sent out for third party checks.

Sample preparation was completed at the Placer Dome laboratory or at Min-En Labs of Vancouver, BC. The samples of sawed core were dried and stage crushed to 60% passing 10-mesh. A sub-sample of approximately 250 grams was separated and pulverized in a ring/roll pulverizer to 90% passing 150-mesh.

Gold assays were performed on a 25.0-gram pulp sample by fire assay methods with an atomic absorption finish. The results were reported in grams per tonne. Sample results that exceeded 10.0 g /t Au were re-assayed and completed with a gravimetric finish.

10.3 2004 Seabridge Gold Procedures

A total of 9,729 core samples were assayed by Seabridge for the drilling program. Their samples averaged 1.35 meters in length and were determined by geological controls. Samples were broken on observational characteristics and on 1.5 meter intervals through larger continuous intervals. Core was sawed and shipped to ACME Laboratory facility in Yellowknife, NT for preparation. Half of the core was retained in the core box for further reference and is stored on site.

Initial sample preparation was completed at the Yellowknife facility of ACME Laboratory. The samples of sawed core were dried and crushed to 70% passing 10-mesh. A sub-sample of approximately 250 grams was separated and shipped to ACME Laboratory Vancouver, B. C. The sub-sample was pulverized in a ring/roll pulverizer to 95% passing 150-mesh before analysis.

The standard, duplicate and replicate analyses used in this program are:

- Blind standards inserted by Seabridge Gold Inc into the sample shipments to ACME Laboratory Yellowknife prep facility. There were 397 blind standards randomly inserted into the sample flow at the rate of 1 standard for every 20 samples resulting in about 4% of the total analysis. These blind standards were created from reject material of surface samples collected in 2003.

- Blind duplicate samples inserted by Seabridge Gold Inc, derived from ¼ splits of the core, and shipped to ACME Laboratory Yellowknife prep facility. Quarter splits of 201 sample intervals were made during the program, totaling 2% of the sampling program. These intervals for blind duplicates were randomly selected and inserted at the rate of 1 blind duplicate for every 40 samples.

- Random, multiple re-fire analysis of pulps were conducted by ACME Laboratory Vancouver. A total of 280 samples were randomly re-fired by the lab, 277 of these were analyzed twice. These samples represent 2.8% of assay data for this drilling program. ACME Laboratory organized the samples for each furnace charge to include 23 samples and 1 randomly selected Lab duplicate sample, or about one Lab duplicate in every 25 samples.

- Check gold assays conducted at SGS Lakefield Laboratory from sample reject material that was split and prepared for analysis by SGS Lakefield. Total check samples analyzed by SGS Lakefield are 236 or 2.4% of the samples.

11.0 Data Verification

11.1 Pre-2004 Drill Hole Assay Database Check

In its July 2002 Technical Report, RMI discussed how the previous (Noranda and Placer Dome) drill data were verified. A total of 11,300 meters of certified assays (6,371 samples) were compared to the electronic database. This represented about seven percent of the drill hole database and approximately 11 percent of the meters that had been drilled on the Courageous Lake Property prior to 2002. About 536 meters of the 29 drill holes that were examined were missing certified assay certificates or portions of the drill hole logs with sample numbers that could be referenced back to the assay certificates. Based on that review, the electronic database for the pre-2004 drill hole data appears to be well within acceptable industry standards regarding database integrity. Several inconsistencies were found with several assays, but in general these errors were associated with very low-grade values. Most of those discrepancies were attributed to the manner in which less than detection limit data were entered into the electronic database. The largest difference discovered between the certified assays and the database was a 0.10 g/t discrepancy for hole C56-085 (206.0 to 207.0 meters) for a check assay. Table 11-1 summarizes the drill hole data that were examined.

Table 11-1
Pre-2004 Assay Verification

Drilling Campaign	No. of Holes Examined	No. Meters Examined	Meters Not Available
Noranda Surface Drilling	10	6,315.0	434.0
Noranda Underground Drilling	10	2,360.3	102.1
Placer Dome Surface Drilling	9	3,212.3	51.5
Total Examined	29	11,300.1	536.1
Total - All Drilling	420	107,415.7	n/a
Percentage Examined	7%	11%	n/a

Note: Data not available consisted of missing certified assay sheets and drill hole logs.

11.2 2004 Drill Hole Assay Database Check

RMI verified that the 2004 Seabridge drill hole assays had been correctly entered into the electronic database that was used for the estimation of gold resources. The certified gold assays from ACME were compared with the AcQuire and MineSight databases for nine of Seabridge's 2004 drill holes. One of these holes (CL-007) was outside of the Courageous Lake resource area. A total of 1347 gold assays were examined by RMI. This represents approximately 33% of Seabridge's 2004 drilling program. Three of the drill holes that were verified were examined by RMI during the December 9th site visit (see Section 11.6).

All of the 1347 gold assays in the electronic database that were compared to the certified assay certificates were found to be correctly entered into the electronic database. There were only two inconsistencies that were discovered. One of those inconsistencies concerned a re-assay that was not stored in the AcQuire database. The other discrepancy was a 0.33 meter gap in the "from and to depths" for drill hole CL-023. The gold grades for the samples above and below this gap are 2 ppb.

It is RMI's opinion that the accuracy of gold grades stored in the electronic database for Seabridge's 2004 drilling program exceeds that of the typical North American assay database.

11.3 Geologic Data

Geologic data used in constraining the estimation of block model gold resources consisted of three-dimensional wire frames that subdivided the deposit into similar alteration, sulfide mineralogy and gold grade zones. Seabridge Gold determined through its work that gold distribution in the FAT Deposit can be described by:

- Sericite alteration intensity
- Presence of acicular arsenopyrite
- Presence of silicic alteration
- +/- intensity of foliation
- +/- presence of gray-blue quartz veins

These characteristics were prioritized in Seabridge Gold drill core logging and summarized, where possible, from drill core logging by Placer Dome and Noranda. The parameters listed above were then plotted on cross sections every 50 meters along the strike of the FAT Deposit. The original boundaries of the mineral zones as provided by Placer Dome were then adjusted to insure they fit the limits of the geologic parameters Seabridge Gold defined in its work. The same data was then transferred to 20 meter spacing level plans of the deposit and the limits again confirmed so that the geologic features that define gold distribution were captured within the mineral zones or ore domains.

Based on the work completed by Seabridge Gold, the geometry of the mineralized gold zones, as now defined, accurately reflect the location of gold in the deposit. It is believed that an excellent representation of the FAT Deposit can be obtained by using tight search ellipsoids within these zone envelopes.

Seabridge Gold block model zone codes were checked against the three-dimensional wire frames that were created to make sure that the block model codes accurately depicted the zone wire frame outlines. The codes within the block model appear to match the solids adequately.

11.4 Density

The author was unable to obtain any density measurement data that may have been collected from the property. In discussions with Placer Dome it was related to Seabridge Gold that a significant number of density measurements were conducted during their program. Placer Dome offered to provide that information to Seabridge Gold; however it has not yet been provided.

Noranda and Placer Dome used specific gravities of 2.75 and 2.70 for their resource estimates, respectively. Based on published specific gravity values for various material types, the 2.70 to 2.75 values seem reasonable for these host rocks.

11.5 Topography

Topography was provided to SEA by Placer Dome in the form an ASCII x,y,z grid file that was a part of their resource block model. This surface was compared to the surface drill hole collar elevations and found to be adequate. It should be noted that the provided elevations have had a constant value of 5,000 added to the actual elevations, presumably so that no negative elevations would have to be dealt with regarding underground development.

11.6 Site Visit

A site visit to the Courageous Lake property was conducted to inspect and review the company's current drilling, core logging, sampling practices and QA/QC procedures. The drill cores from 2004 drilling with varying gold intensity were inspected. They were compared to the drill logs in the database.

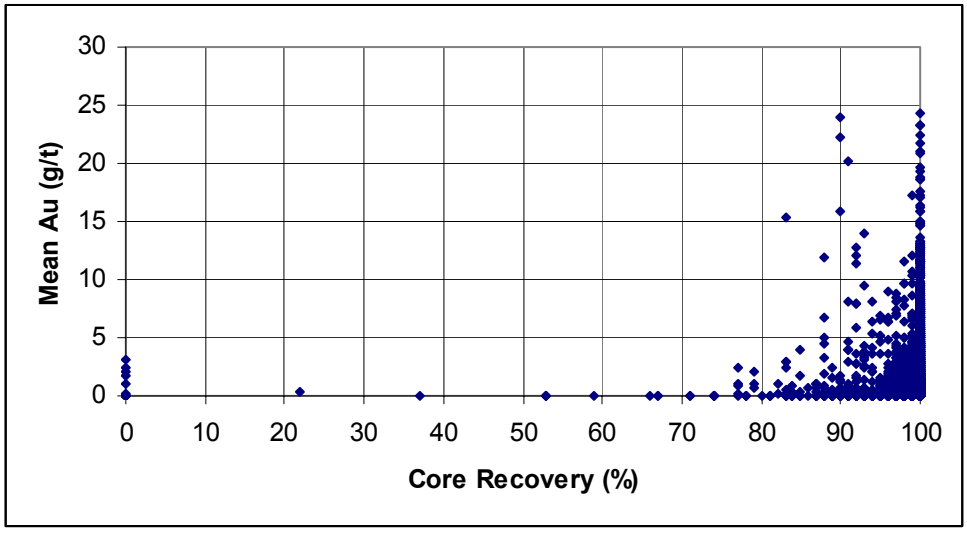
The drill cores were found to be in good condition, with high recovery due to the competent nature of the rocks in the area. The core storage boxes were clearly marked with drill hole numbers and the assay interval lengths. The core boxes were found to be relatively easy to identify and retrieve considering the environment they were stored in.

The practices of SEA regarding their current drilling program, core logging, assaying and handling, as well as the data entry, storage and retrieval procedures are found to be within industry guidelines.

11.7 Core Recovery

Core hole recovery data were obtained for most of Placer Dome's drill holes and for all of Seabridge's 2004 diamond drill holes. Because of the competent nature of the rocks within the CLGB package core recovery was found to be exceptionally high. Core recoveries averaged approximately 99% for the primary mineral zones (i.e. 3, 4, and 5). Gold grades were plotted as a function of core recovery as shown in Figure 11-1.

Figure 11-1
Gold Grade vs. Core Recovery



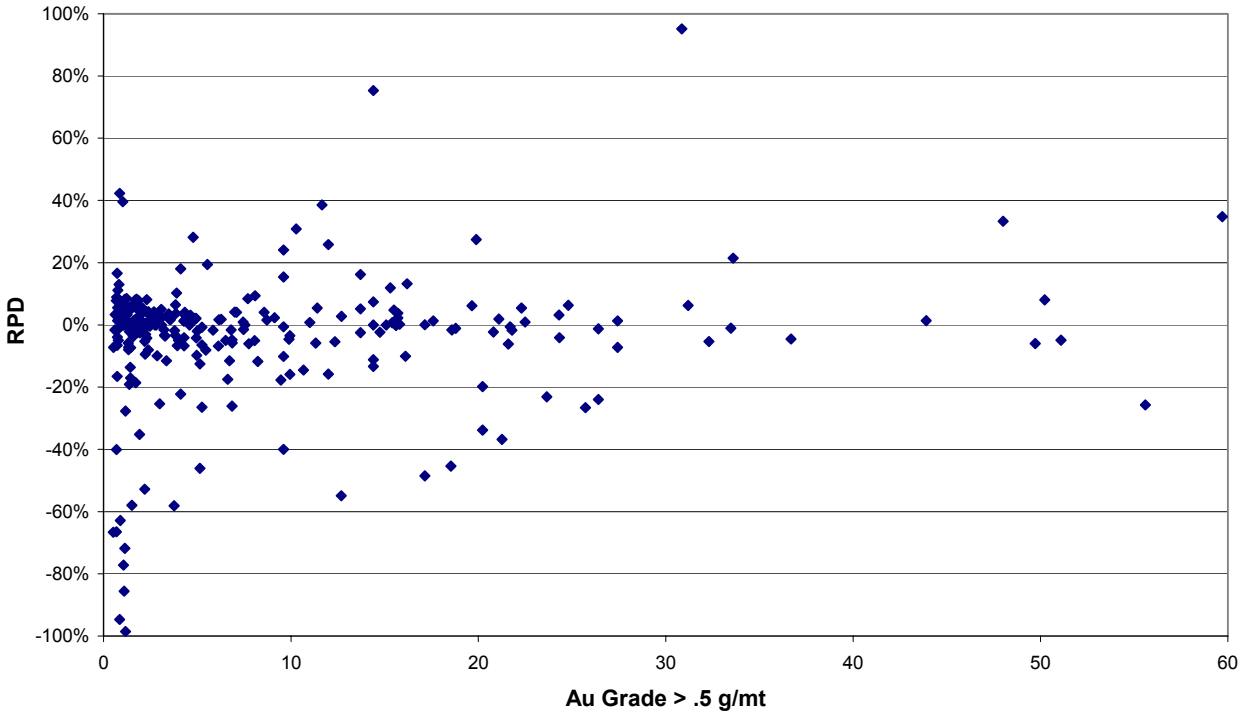
During RMI's 2004 site visit core recovery was visually compared with drill logs and was found to be accurately calculated. Very little rubbilized or low RQD rock was observed.

11.8 Pre-Seabridge Assay QA/QC

In its July 2002 Technical Report, RMI discussed various aspects of Noranda's and Placer Dome's quality assurance – quality control programs. Essentially, there were limited data available for the analysis of standards and blanks from the Placer Dome drilling. The only available check assay data were 572 duplicate pulp assays that were in provided in the electronic drill hole database. These data were filtered to 272 pairs using a cutoff grade of 0.50 g/t based on the original sample grade and then the relative percent difference (RPD) was calculated for each pair. Figure 11-2 plots the RPD for this data set. No definitive bias was detected in the 272 data pairs. Of the 272 pairs, the original value was less than the check assay value 48% of the time, greater than the check assay 47% of the time and

equal to the check 5% of the time. The mean grades of the original and duplicate assays were similar for the entire population of 572 samples and the filtered data set containing 272 pairs. In both data sets the duplicate assay was about 3.5% higher than the original assay. The inability to achieve consistent repeatability when assaying duplicate pulps is usually associated with sample preparation and/or the homogenization of the sample media. These steps are often difficult to achieve with coarse gold and/or abundant sulfide minerals that may contain gold because of differential heavy media separation in the pulps.

Figure 11-2
Placer Dome Duplicate Assays



11.9 2004 Seabridge Chain of Custody

The integrity of drill core samples was established by Seabridge Gold throughout the different phases of the program. Core collected at the drill rig was flown to a Seabridge Gold work facility located on the property. Initially this core was inspected and box numbers, implied recovery and drill hole depths were checked against the information provided by the drill contractor. Discrepancies were immediately presented to the contractors and resolved before moving the core to the logging facility.

In the logging facility, core boxes were numbered with aluminum tape, the core was cleaned and geotechnical measurements conducted under the supervision of Seabridge

Gold geologists. The Seabridge Gold geologist then described the drill core, entered the descriptions into an AcQuire database and selected and numbered the drill core samples. Drill core was then moved to the cutting facility where ½ splits of the core were sawn by a staff member or local laborer. Each sample was provided with a unique bag that was pre-numbered to correspond with the sample interval. The sawing and numbering of sample bags was supervised by a geologic technician and the project manager.

After completing 7 to 10 samples, the individual samples were collected into 1 bushel rice bags, labeled, sealed and weighted. These bags were then stored in a secure place until shipment was arranged via air charter to Yellowknife. The project manager was responsible for the security of the bags while awaiting shipment, principally to insure no changes were made to air weights, but this also precluded tampering. Air shipment weights were randomly checked against predicted shipment weights to control costs and confirm no tampering was indicated.

Upon arrival in Yellowknife, Matrix Logistics took charge of the drill core samples and delivered them to ACME Laboratory's Yellowknife Prep Facility. ACME logged in the samples and weighted them again, reporting results back to the Project Manager. After drying and crushing, a sub-set of the core samples were air freighted to ACME Laboratory in Vancouver, B.C. The final preparation and fire assay was completed by AMCE in Vancouver. Results were distributed electronically and certified copies of the assay sheets were provided to Seabridge Gold's Toronto Office.

11.10 2004 Seabridge QA/QC

11.10.1 Standards Protocol

In order to insure that the 2004 Seabridge drill hole assay results were suitable for resource estimation, several systems were put into place to measure the accuracy and reproducibility of the assays. A total of 9,729 samples were collected for gold analysis from drill holes completed by Seabridge Gold. In addition, Seabridge also collected a series of samples from un-split parts of drill holes that were completed by Noranda on the FAT deposit. All samples of whole core were split with a diamond saw and ½ of the core was bagged for analysis and the remaining core returned to the box, which is stored on site. The split core was shipped to ACME Laboratory's prep facility in Yellowknife. The samples were processed by ACME Laboratory in Yellowknife with a sample sub-set shipped to the ACME Laboratory in Vancouver for pulverization and analysis. The reject material is stored at ACME's Yellowknife facility. The flow sheet for processing and analyzing these samples is shown in Figure 11-3.

The standard, duplicate and replicate analyses used in this program include:

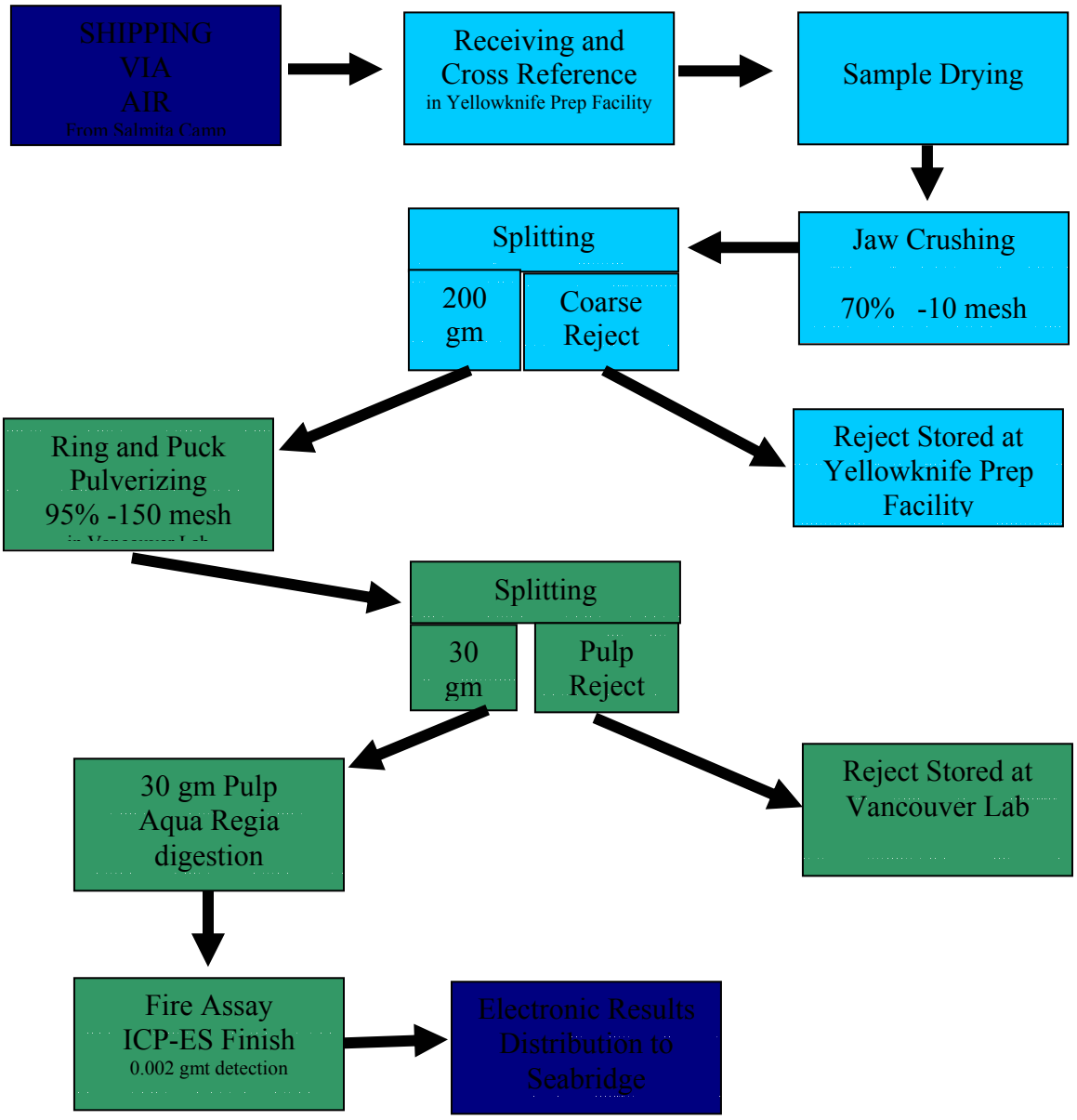
- Blind standards inserted by Seabridge Gold Inc into the sample shipments to ACME Laboratory Yellowknife prep facility. There were 397 blind standards inserted into the sample flow representing 4% of the total analysis.

- Blind duplicate samples inserted by Seabridge Gold Inc, derived from ¼ splits of the core, and shipped to the ACME Laboratory Yellowknife prep facility. Quarter splits of 201 sample intervals were collected during the program, totaling 2% of the sampling program.

- Random, multiple re-fire analysis of pulps were completed by ACME Laboratory Vancouver as a part of their own internal QA/QC program. A total of 280 samples were randomly re-fired by the lab, 277 of these were analyzed twice. These samples represent 2.8% of assay data for this drilling program.

- Check gold assays were submitted to the SGS Lakefield Laboratory from Seabridge's 2004 sample reject material that was split and prepared for analysis by SGS Lakefield. Total check samples analyzed by SGS Lakefield are 236 or 2.4% of the samples.

Figure 11-3
Sample Process and Assay Protocol Flowsheet



11.10.2 Blind Samples

Seabridge Gold Inc inserted blind standards into the sample stream that was sent to ACME's Yellowknife prep facility to insure the laboratory was providing quality assay information. It was not possible to provide material that was identical to the core samples as blind samples, however, no information was provided to the lab about individual samples and the sample numbers did not reveal the source of the sample. Two types of blind samples were used in this program:

- Standard samples were made by blending coarse reject material from samples collected during 2003. These blended samples were then bagged into individual samples of approximately 3 kg and inserted into the sample series randomly at the rate of 1 standard for every 20 core samples. Three separate groups of samples were blended for this purpose:

    - Blank Standard using samples that contained gold concentrations between <0.02 g/t and 0.07 g/t Au.

    - 0.5 g/t Standard using samples that contained gold concentrations between 0.4 g/t and 0.9 g/t Au.

    - 2.0 g/t Standard using samples that contained gold concentrations between 1.2 g/t and 2.5 g/t Au.

- Blind duplicates were also inserted in the sample series. These samples were made by splitting the ½ core that was destined for assay and creating 2 ¼ core splits of the sample. Samples of the blind duplicate were inserted randomly at the rate of 1 for every 40 samples.

The variability of the blank, 0.5 g/t and 2.0 g/t standards is high for the 2004 drilling campaign in an absolute sense, but in general, these standards showed that ACME's prep and assay labs were operating within acceptable limits. Unfortunately, Seabridge did not have an adequate supply of prepared standard reference material for their 2004 drilling program. Consequently, they had to prepare a second set of standard reference material in order to complete their QA/QC program. While the second set of standard reference material was intended to have the same grades as the initial material, the grades were different. The second standard reference material can be readily identified for batches analyzed by ACME after Lab File number A410123. Observations that can be made from these 2 sets of standards are:

- In general, the blanks were within or above the expected mean of that material type for the original standard set and were generally below the expected mean in the second sample set.

- For the 0.5 g/t Standard, the original standard set fell around the expected mean and the latter standard sample set had numerous samples well above the expected mean. This suggests that the second 0.5 g/t was higher-grade than the first standard set or ACME's was reporting higher grades that were too high. Because of the close comparison between check assays sent to SGS, it is believed that the 0.5 g/t standard for the latter portion of the program may not have represented an approximate 0.5 g/t standard.

- The original 2.0 Standard set fell around the expected mean and the second standard sample set seems to fall below the expected mean.

The standard samples from the latter portion of this program are of limited value because no definitive mean was ever established for each reference material. If sufficient standard reference material exists from the latter portion of the 2004 assaying program, additional assays should be completed to establish a more accurate expected value for the material. Then the standard results from Lab Jobs after number A410123 can be compared to the expected value. If discrepancies are seen, then Seabridge should re-assay samples associated with sample jobs with deviant standard results.

The mean for the original and Blind Duplicate sample analysis are nearly identical. This resulted in a very high correlation between samples of 0.994. Figure 11-4 shows the performance of the blindly submitted blanks as a function of ACME job submittals.

Figure 11-4
2004 Blank Assays

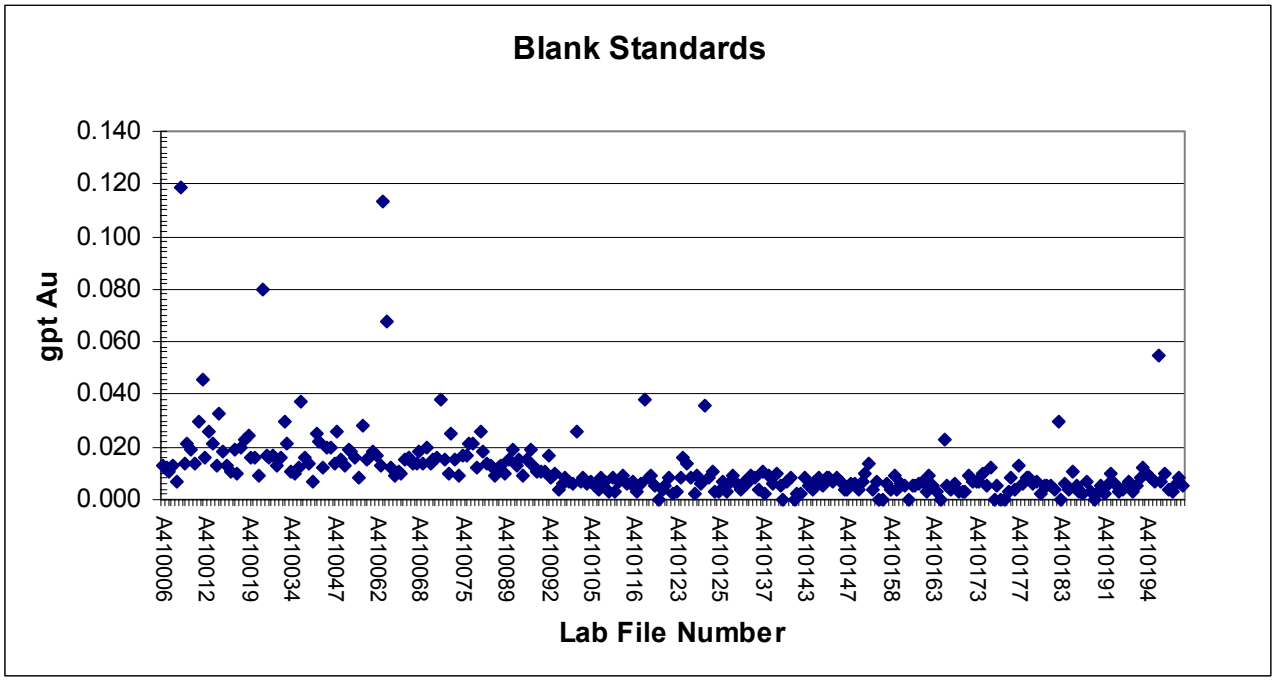
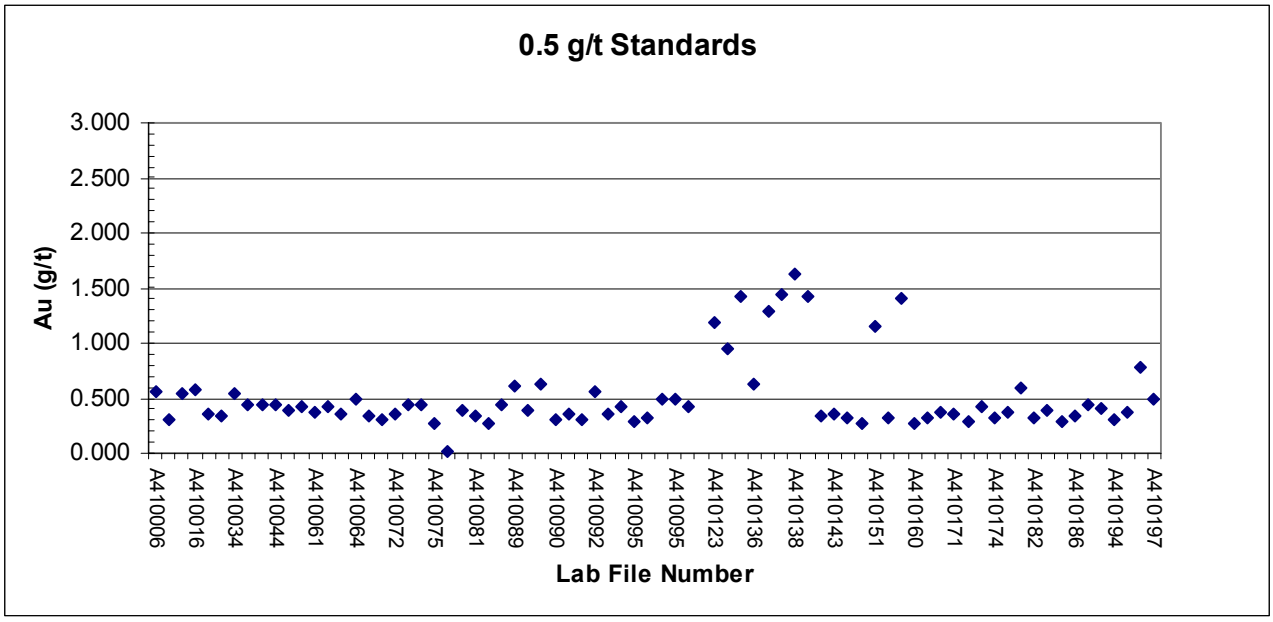


Figure 11-5 shows the performance of ACME Lab's assaying of Seabridge's 0.50 g/t standard.

Figure 11-5
Lab Duplicates vs. Original Assays



11.10.3 Random Duplicate Samples

Random duplicate samples were analyzed by ACME Laboratories as a part of their own internal QA/QC program and presented to Seabridge Gold Inc in the electronic data transfer. The samples were randomly selected by ACME so that one Lab Duplicate was inserted into each furnace charge during the fire assay process. This protocol resulted in one Lab Duplicate sample in every 25 samples; the total number of these samples was 201. The randomly selected samples were prepared from the original pulp as a second and third sample. These samples were then fired in the same furnace charge as the original, analyzed in the same manner as the original, and given the same sample number as the original with an extension denoting a re-fire sample.

Random Lab Duplicate samples showed very close results in the distribution of sample results. The means for the original and the two re-fire compare reasonably well, producing high confidence level correlations, in excess of 0.99. The results show no systematic sample bias and in our opinion these results are reliable.

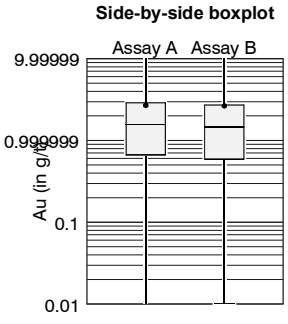
11.10.4 2004 Check Assays

Check assays were submitted to the SGS Lakefield Laboratory, located in Ontario Canada from coarse reject material left from ACME's preparation of the drill samples in Yellowknife. Seabridge selected core samples for check assay analysis by SGS to check ACME's precision and to obtain additional information on various metallurgical characteristics of the defined mineral domains in the southern part of the FAT deposit. Consequently, the bulk of the samples that were submitted to SGS were from mineral zones 3 and 4 with gold concentrations near the average resource grade. Additional random samples were submitted from outside the ore domains to obtain a more representative sample population.

The assay results from the original ACME and SGS Lakefield's results compare reasonably well for samples that were independently prepped and assayed. Figure 11-6 contains boxplots, scattergraphs, QQ plots, and relative percent difference (RPD) graphs that compare the original assay (ACME) with the check assay (SGS). As can be seen in the statistical summary in the upper right hand corner of Figure 11-6, the means are nearly identical for the 235 sample pairs. The scatterplots show that in general the samples cluster about the X=Y line. The QQ plots show that the ACME assays are biased slightly high relative to the ACME assays over some grade ranges. It is RMI's opinion that the close comparison between these two sample sets demonstrate that the 2004 Seabridge assays are reproducible and are suitable for the estimation of mineral resources.

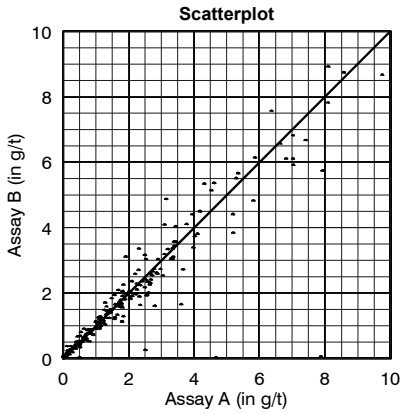
Figure 11-6
Check Assay QQ Plot

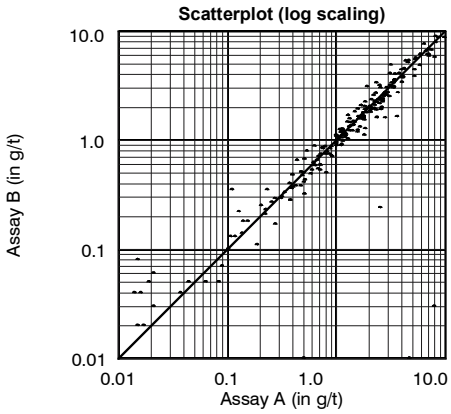
ASSAY A: ACME
ASSAY B: SGS

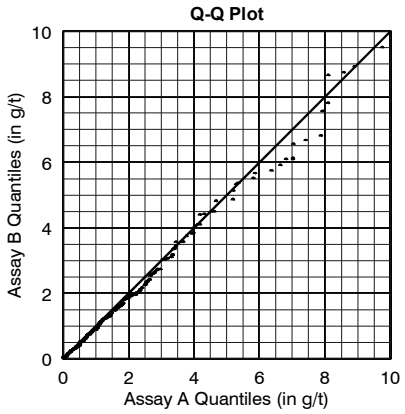


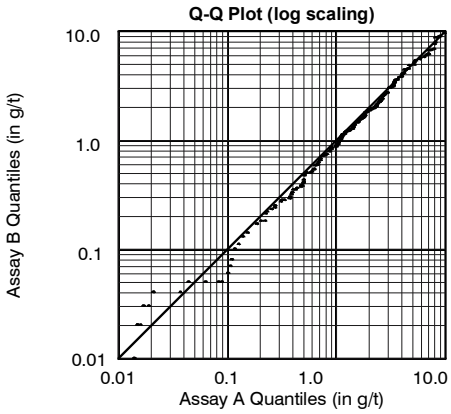
	Assay A	Assay B
Number	235	235
Mean	2.681	2.647
StDev	4.29799	5.201
Maximum	48.5169	66.5999
75th %-ile	2.888	2.71
Median	1.567	1.46
25th %-ile	0.662999	0.589999
Minimum	0.002	0.01

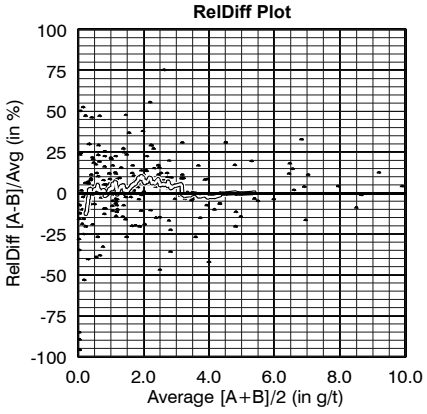
Linear correlation: .970
Linear correlation (log): .890
Rank correlation: .936
T Statistic (mean diff=0): .350

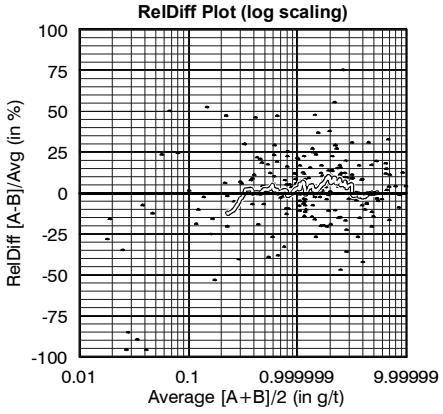












12.0 Mineral Processing and Metallurgical Testing

Hatch Engineering was commissioned by Seabridge to undertake a preliminary economic assessment of the FAT deposit. A key component of the study is to evaluate and recommend processing options for the FAT deposit's refractory ore. During 2003, a 1,000 kilogram metallurgical sample was collected at the site from core that had been drilled during the late 1990's. The sampling, handling, shipment and preparation followed a protocol that was developed by Hatch and Roscoe Postle Associates to ensure that all aspects of procedure followed CIM guidelines. SGS-Lakefield assayed all sample intervals for gold, arsenic, iron and sulphide sulphur as well as documenting sample weights. SGS-Lakefield prepared blended composites that averaged 1.91 grams of gold per tonne from three ore domains representing about 95% of the currently recognized FAT deposit.

During November 2004, SGS-Lakefield performed nine flotation tests on samples from the composite. Flotation parameters such as feed grind size, reagent levels, and pH were investigated. The test results and Hatch's observations are as follows:

- A high gold recovery to concentrate in the range of 93-94% is achievable with conventional bulk sulphide rougher flotation of the composite. With downstream processing of this concentrate it is expected that an overall gold recovery of 90-92% is possible subject to future refractory process testing.

- Ore grind size has a marginal impact on gold recovery; a coarser grind is therefore expected which will support lower power consumption for the project. A higher gold concentrate grade is achievable with a minimal downward pH adjustment.

- A bulk rougher concentrate grade of 18-20 grams of gold per tonne and 6-8% sulphur from an ore feed of 1.9 grams per tonne is achievable. The resulting gold to sulphur ratio is approximately 3-3.5 to 1. This ratio which is desirable is better than some presently operating refractory gold mines. The sulphide grade of the concentrate will support autogenous conditions in the refractory process. This may result in reduced capital and operating costs from heat recuperation and process heat generation.

The preliminary economic assessment being prepared by Hatch is expected to be completed in early 2005.

13.0 PAST MINERAL RESOURCE ESTIMATES

13.1 Noranda Exploration Ltd Estimate

Noranda Exploration Limited developed a resource estimate for the property in May of 1990 that was focused on an underground mining operation. This estimate included drill testing from surface and underground at 100-meter and 50-meter spaced sections, respectively. Included in the development of this estimate were results from underground channel sampling and development muck sampling. Noranda's model consisted of a cross sectional polygonal estimate that was augmented with longitudinal sections to create a three dimensional representation of the target zone. The model for this underground deposit incorporated 800 meters of strike and 100 meter of dip projection within the target zone.

The Noranda resource estimation was divided into two parts, the underground block and a global resource estimate for the property. At a 3.4 g/mt gold cutoff grade, the underground block contained a resource of 3.37 million tonnes at a gold grade of 6.8 g/mt (737,000 ounces) and was classified by Noranda as a measured and indicated resource. Noranda's global resource estimate for the entire property at a 3.4 g/mt gold cutoff grade included 18.59 million tonnes at a gold grade of 6.10 g/mt (3.6 million ounces) and was classified as a measured and indicated resource.

Getty Resources Ltd. prepared a resource estimate of a potential underground mineable deposit (documentation not available) for the property in May of 1988 in an effort to provide information for a decision to fund an underground exploration program. Derry, Michener, Booth and Wahl (DMB&W) reviewed this estimate. They concluded that the information from surface drilling at a nominal 100-meter spacing was adequate to perform a polygonal estimate of the resource based on longitudinal sections with a strike projection of 1500 meters and dip projection of 1160 meters. In the opinion of DMB&W, the best approximation of the global property resource at a 4.00 g/t Au cutoff grade and totaled 29.5 million tonnes at 6.90 g/t Au containing 6.5 million ounces.

13.2 Placer Dome Estimates

After the completion of their drilling program, Placer Dome constructed a three-dimensional block model of the Tundra Main Zone and carbonate zone in order to estimate gold resources. Placer was looking at the Courageous Lake property as an open pit mining target. They subdivided the property into three parallel north-south trending zones, West, Central and East. Within these three zones, Placer modeled sericite-arsenopyrite-quartz alteration assemblages by creating three-dimensional wire frames. These wire frame envelopes enclose a continuous alteration style; however, within these alteration zones high-grade gold mineralization is discontinuous. These wire frame units were used by Placer to constrain the estimation of block gold grades.

Initially, Placer developed a geologic model containing blocks that measured two-meter by 2-meters by ten-meters in the east, north, and vertical dimensions, respectively. This model covered about 2,140 meters of strike length and 990 meters of down-dip extension of the mineralized zones.

Original gold assay results, generally 1-meter in length, were composited to 2-meter long composites. All unassayed intervals in the drill hole database were assigned a value 0.0 g/mt Au prior to compositing. After the assays were composited, the composited zone codes were compared to the wire frames and adjusted to correctly assign the correct geologic codes to the composites for each of the mineralized zones. Statistical analyses were conducted by Placer on the composited assay data in order to establish a grade cutting routine

The 2-meter long composite samples were used to examine the spatial continuity of gold in the mineralized zones by generating and interpreting variograms. Variograms were analyzed for zones 3, 4 and 5 only as the rest of the zones contained too few samples for meaningful variograms to be generated. Placer then used ordinary kriging methods to estimate block gold grades for the main mineralized zones (3, 4, and 5). For composite selection, Placer used a minimum of four, a maximum of 16, and a maximum of four per drill hole to estimate block gold grades. They used an elongated search ellipse that was oriented in the plane of the mineralized zones for selecting which composites were used during the estimation process. Different ranges and maximum projection distances were used for each zone. A maximum projection distance of 243 meters was used for zone 3 blocks. The rest of the geologic zones were estimated by inverse distance squared methodology.

Placer Dome stated a measured, indicated and inferred resource using a 1.5 g/mt gold cutoff grade of 69 million tonnes at an average grade of 2.67 g/mt, or 5.9 million ounces.

Subsequent to Placer Dome terminating their option agreement on the Courageous Lake property, the Tundra Joint Venture conducted a review of Placer Dome's work. The principal conclusion was that Placer Dome's estimate of the in-situ metal in the deposit was consistent with the Tundra Joint Ventures own estimate and is a valid estimation for mineral resources. The Tundra Joint Venture concluded that it could refine Placer's estimate by assigning nominal grade values to unassayed intervals, re-orientating the search ellipsoid consistent with their own internal structural analysis and incorporating more detailed specific gravity measurements from the underground program. The implication in the review by the Tundra Joint Venture was that grade distribution could improve in the target zone.

In July of 2002, RMI was contracted by Seabridge Gold to review Placer Dome's 1998 mineral resource estimate and to prepare an independent estimate of gold resources for the Courageous Lake deposit. RMI was able to closely duplicate Placer Dome's estimate of mineral resources.

RMI built its own resource model using Placer's geologic interpretation and a series of nested ordinary kriging runs. The results from this re-modeling exercise were described in a NI-43-101 technical report that was issued on July 8, 2002 (*Technical Review of the Courageous Lake Property, Northwest Territories, Canada).*

A summary of past mineral resources for the Courageous Lake property are shown in Table 13-1.

Table 13-1
Summary of Past Resource Estimates

Source of Estimate	Year	Au Cutoff (g/t)	Tonnes (000)	Mean Au (g/t)	Contained Au Ozs (000)
Getty Canadian Metals [1]	1988	4.00	29,500	6.90	6,544
Tundra Joint Venture (Jarvi) [2]	1988	3.43	29,600	6.20	5,900
Noranda Underground [3]	1990	3.40	3,370	6.80	737
Noranda Global [4]	1990	3.40	18,569	6.10	3,642
Placer Dome [5]	1999	1.50	69,200	2.67	5,940
RMI [6]	2002	1.50	67,421	2.63	5,701

Explanation

[1] Polygonal estimate generated from longitudinal sections. Results reviewed by DMB&W
[2] In-house preliminary resource estimate prepared by Jarvi, lead to decision to go underground
[3] Polygonal estimative using corss and longitudinal sections
4 Polygonal estimative using corss and longitudinal sections
[5] Ordinary kriging/inverse distance squared 3D block model (measured+indicated+inferred)
[6] Ordinary kriged three-dimensional block model (measured+indicated+inferred)

14.0 Mineral Resource Estimate

14.1 General Discussion

The primary purpose of the updated resource estimate was to incorporate the 23 new Seabridge Gold core holes and an updated geologic interpretation. Previous work by RMI in 2002 was primarily directed at verifying the 1999 Placer Dome estimate of mineral resources.

14.2 Gold Grade Distribution

Basic descriptive gold assay statistics were calculated for each mining company that has conducted drilling programs at Courageous Lake. These results are summarized in Table 14.2. The right portion of table 14-2 summarizes gold statistics after capping the raw assays. Grade capping is discussed in 14.3.

Table 14-2
Gold Assay Statistics by Company

Company	Uncapped Au Statistics Above Cutoff								Capped Au Statistics Above Cutoff				
	Cutoff (g/t)	Total Meters	Inc. Percent	Mean Au (g/t)	grd-thk (g/t-m)	Inc. Percent	Std. Dev.	CV	Mean Au (g/t)	grd-thk (g/t-m)	Inc. Percent	Std. Dev.	CV
All	0.00	71,382	81%	0.74	52,597	5.0%	4.00	5.42	0.70	49,914	5.3%	2.38	3.41
	0.50	13,409	4%	3.72	49,944	4.2%	8.60	2.31	3.52	47,261	4.4%	4.52	1.28
	1.00	10,298	5%	4.64	47,760	9.0%	9.63	2.08	4.38	45,077	9.5%	4.84	1.11
	2.00	6,967	10%	6.18	43,039	81.8%	11.39	1.84	5.79	40,355	80.9%	5.33	0.92
Noranda	0.00	36,631	73%	1.08	39,697	4.2%	4.75	4.38	1.03	37,900	4.4%	2.88	2.79
	0.50	9,870	6%	3.85	38,048	3.9%	8.56	2.22	3.67	36,251	4.0%	4.61	1.26
	1.00	7,666	7%	4.76	36,517	8.5%	9.52	2.00	4.53	34,720	8.9%	4.91	1.08
	2.00	5,273	14%	6.29	33,140	83.5%	11.15	1.77	5.94	31,343	82.7%	5.35	0.90
Placer Dome	0.00	22,110	87%	0.50	11,094	7.1%	3.63	7.23	0.46	10,243	7.7%	1.94	4.20
	0.50	2,904	3%	3.55	10,306	4.5%	9.46	2.67	3.26	9,456	4.9%	4.45	1.37
	1.00	2,208	3%	4.44	9,803	9.9%	10.70	2.41	4.05	8,952	10.7%	4.83	1.19
	2.00	1,446	7%	6.02	8,706	78.5%	12.95	2.15	5.43	7,855	76.7%	5.49	1.01
Seabridge Gold	0.00	12,642	95%	0.14	1,806	12.0%	0.95	6.63	0.14	1,771	12.2%	0.83	5.95
	0.50	634	2%	2.51	1,590	8.2%	3.46	1.38	2.45	1,554	8.4%	2.85	1.17
	1.00	424	1%	3.40	1,441	13.7%	3.93	1.16	3.31	1,405	14.0%	3.15	0.95
	2.00	248	2%	4.80	1,193	66.0%	4.65	0.97	4.66	1,157	65.4%	3.54	0.76

As can be seen in Table 14-2, about 18% of the total assayed intervals were analyzed by Seabridge Gold. This includes 23 of the 2004 core holes and a number of unassayed intervals from holes that initially drilled by Noranda.

Table 14-3 summarizes gold assay statistics by mineral zone.

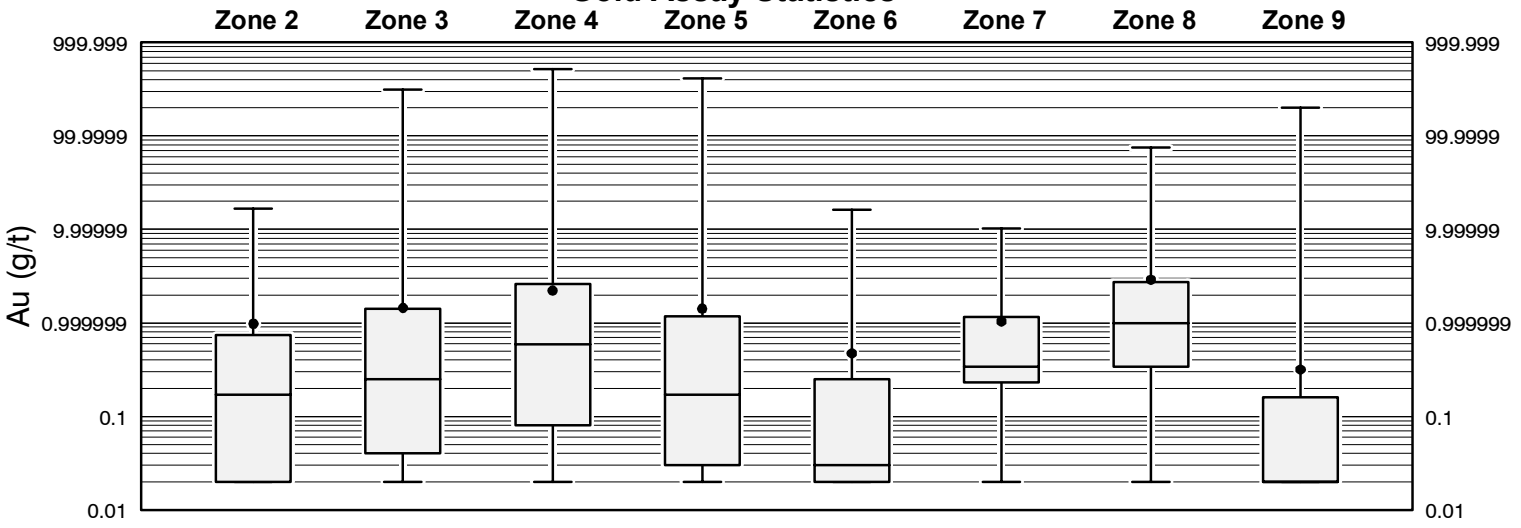
Table 14-3
Gold Assay Statistics by Mineral Zone

Mineral Zone	Uncapped Au Statistics Above Cutoff								Capped Au Statistics Above Cutoff				
	Cutoff (g/t)	Total Meters	Inc. Percent	Mean Au (g/t)	grd-thk (g/t-m)	Inc. Percent	Std. Dev.	CV	Mean Au (g/t)	grd-thk (g/t-m)	Inc. Percent	Std. Dev.	CV
Totals	0.00	71,382	81%	0.74	52,597	5.0%	4.00	5.42	0.70	49,914	5.3%	2.38	3.41
	0.50	13,409	4%	3.72	49,944	4.2%	8.60	2.31	3.52	47,261	4.4%	4.52	1.28
	1.00	10,298	5%	4.64	47,760	9.0%	9.63	2.08	4.38	45,077	9.5%	4.84	1.11
	2.00	6,967	10%	6.18	43,039	81.8%	11.39	1.84	5.79	40,355	80.9%	5.33	0.92
1	0.00	31	81%	0.20	6	18.2%	0.36	1.77	0.20	6	18.2%	0.36	1.77
	0.50	6	15%	0.86	5	49.1%	0.32	0.37	0.86	5	49.1%	0.32	0.37
	1.00	2	5%	1.37	2	32.7%	0.00	0.00	1.37	2	32.7%	0.00	0.00
	2.00	0	0%	0.00	0	0.0%	0.00	0.00	0.00	0	0.0%	0.00	0.00
2	0.00	1,111	82%	0.53	588	7.2%	1.54	2.91	0.52	574	7.3%	1.44	2.78
	0.50	201	6%	2.72	546	6.8%	2.70	0.99	2.64	531	6.9%	2.42	0.92
	1.00	139	4%	3.64	506	11.1%	2.78	0.76	3.53	492	11.3%	2.42	0.69
	2.00	92	8%	4.80	441	75.0%	2.78	0.58	4.64	427	74.4%	2.29	0.49
3	0.00	11,294	76%	0.89	10,018	5.2%	3.34	3.76	0.86	9,674	5.4%	2.27	2.65
	0.50	2,734	6%	3.47	9,498	4.3%	6.10	1.76	3.35	9,154	4.5%	3.62	1.08
	1.00	2,111	6%	4.29	9,063	10.0%	6.72	1.57	4.13	8,719	10.3%	3.78	0.92
	2.00	1,408	12%	5.73	8,066	80.5%	7.85	1.37	5.48	7,722	79.8%	3.99	0.73
4	0.00	19,931	63%	1.56	31,079	3.0%	5.57	3.57	1.50	29,993	3.1%	3.70	2.46
	0.50	7,334	7%	4.11	30,156	3.3%	8.60	2.09	3.96	29,070	3.4%	5.25	1.33
	1.00	5,886	9%	4.95	29,134	7.8%	9.41	1.90	4.77	28,048	8.0%	5.58	1.17
	2.00	4,190	21%	6.38	26,725	86.0%	10.83	1.70	6.12	25,639	85.5%	6.11	1.00
5	0.00	7,136	78%	0.86	6,131	4.9%	6.47	7.53	0.75	5,350	5.6%	2.09	2.78
	0.50	1,593	6%	3.66	5,831	4.9%	13.32	3.64	3.17	5,049	5.7%	3.45	1.09
	1.00	1,177	6%	4.70	5,528	9.6%	15.36	3.27	4.03	4,747	11.0%	3.64	0.90
	2.00	763	11%	6.47	4,939	80.5%	18.84	2.91	5.45	4,157	77.7%	3.84	0.70
6	0.00	800	87%	0.32	255	13.3%	1.09	3.41	0.30	243	14.0%	0.94	3.08
	0.50	101	5%	2.19	221	10.5%	2.31	1.06	2.07	209	11.0%	1.82	0.88
	1.00	63	4%	3.09	194	17.5%	2.54	0.82	2.90	182	18.4%	1.87	0.65
	2.00	31	4%	4.76	150	58.6%	2.69	0.57	4.38	138	56.6%	1.61	0.37
7	0.00	67	80%	0.54	36	15.5%	1.39	2.58	0.50	34	16.6%	1.15	2.30
	0.50	13	4%	2.33	31	4.8%	2.41	1.03	2.14	28	5.1%	1.84	0.86
	1.00	11	10%	2.72	29	25.1%	2.53	0.93	2.48	26	27.0%	1.89	0.76
	2.00	4	6%	5.01	20	54.6%	2.95	0.59	4.39	17	51.3%	1.94	0.44
8	0.00	276	60%	1.80	496	3.4%	5.24	2.91	1.22	337	5.0%	1.99	1.63
	0.50	110	9%	4.35	479	3.4%	7.60	1.75	2.91	320	5.0%	2.28	0.78
	1.00	86	10%	5.39	462	7.3%	8.32	1.54	3.53	303	10.7%	2.21	0.63
	2.00	58	21%	7.31	426	86.0%	9.50	1.30	4.58	267	79.3%	1.94	0.42
9	0.00	30,737	96%	0.13	3,987	20.3%	1.40	10.77	0.12	3,703	21.9%	0.72	5.97
	0.50	1,316	2%	2.41	3,177	8.4%	6.33	2.62	2.20	2,893	9.1%	2.74	1.24
	1.00	824	1%	3.45	2,841	14.3%	7.82	2.27	3.10	2,558	15.4%	3.12	1.01
	2.00	420	1%	5.41	2,272	57.0%	10.58	1.96	4.73	1,989	53.7%	3.69	0.78

The data in Table 14-3 illustrate that most of the gold metal is located in mineral zones 4, 3, and 5. Zone 9 also contains a significant amount of gold metal, but at this juncture, it has been difficult to correlate mineralized intervals in zone 9. For that reason, most of the mineralization in zone 9 was classified as an inferred resource.

Figure 14-1 is a box and whisker plot that compares raw gold assays at a 0.02 g/t cutoff grade for mineral zones 2 through 9.

Figure 14-1
Gold Assay Statistics



	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	
Number of data	687	7618	16152	4468	510	55	253	10570	**Number of data**
Mean	0.977	1.449	2.218	1.421	0.472	1.035	2.892	0.317	**Mean**
Maximum	16.79	313.549	516.34	412.2	16.11	10.3	74.7399	200.0	**Maximum**
Upper quartile	0.74	1.41	2.6	1.17	0.25	1.166	2.74	0.16	**Upper quartile**
Median	0.17	0.25	0.589999	0.17	0.03	0.34	1.001	0.02	**Median**
Lower quartile	0.02	0.04	0.08	0.03	0.02	0.23	0.34	0.02	**Lower quartile**
Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**Minimum**
Variance	3.9816	17.4612	42.7282	68.6514	1.6979	3.22199	40.9539	4.8337	**Variance**
CV	2.042	2.88299	2.947	5.83199	2.763	1.734	2.213	6.945	**CV**
Skewness	3.458	31.134	31.257	39.8849	5.821	3.654	6.46	57.444	**Skewness**

Variable: Au (g/t)
Acceptable range: 0.0 to 1000.0
Weights: var_01

Zone 2 file: zone2.prn
Zone 3 file: zone3.prn
Zone 4 file: zone4.prn
Zone 5 file: zone5.prn
Zone 6 file: zone6.prn
Zone 7 file: zone7.prn
Zone 8 file: zone8.prn
Zone 9 file: zone9.prn

14.3 Assay Grade Capping

As in most precious metal deposits a significant amount of gold is contained in a very small number of samples. Previously, RMI showed that about 14% of the gold metal at Courageous Lake is contained in approximately 1% of the assays. While these sample results may be real, the area of influence of these high-grade outliers may be very limited. Typically, the grade of these outliers is reduced or capped in order to minimize the possibility of over estimating resources with such high-grade data.

RMI examined cumulative probability plots of gold for each of the mineral zones and established grade capping limits. Table 14-4 summarizes the capping limits and affect of capping for each of the zones.

Zones 1, 2, 6, 7, and 8 do not contain very many high-grade assays, but nonetheless were adjusted to consider outlier values. Approximately 3.5% of the gold metal was removed from the zone 4 assays, which contains about two thirds of the measured and indicated ounces. Approximately 5.5% of the grade times thickness product (or gold ounces) were removed by grade capping prior to composting.

Table 14-4
Recommended Gold Assay Capping Limits

Zone	Cap Grade (g/t)	No. Assays Capped	Percent Metal Reduction
1	7	0	0
2	10	7	2.5
3	25	19	3.4
4	60	25	3.5
5	20	20	12.7
6	7	6	4.7
7	7	1	6.8
8	7	27	32.1
9	20	13	7.1

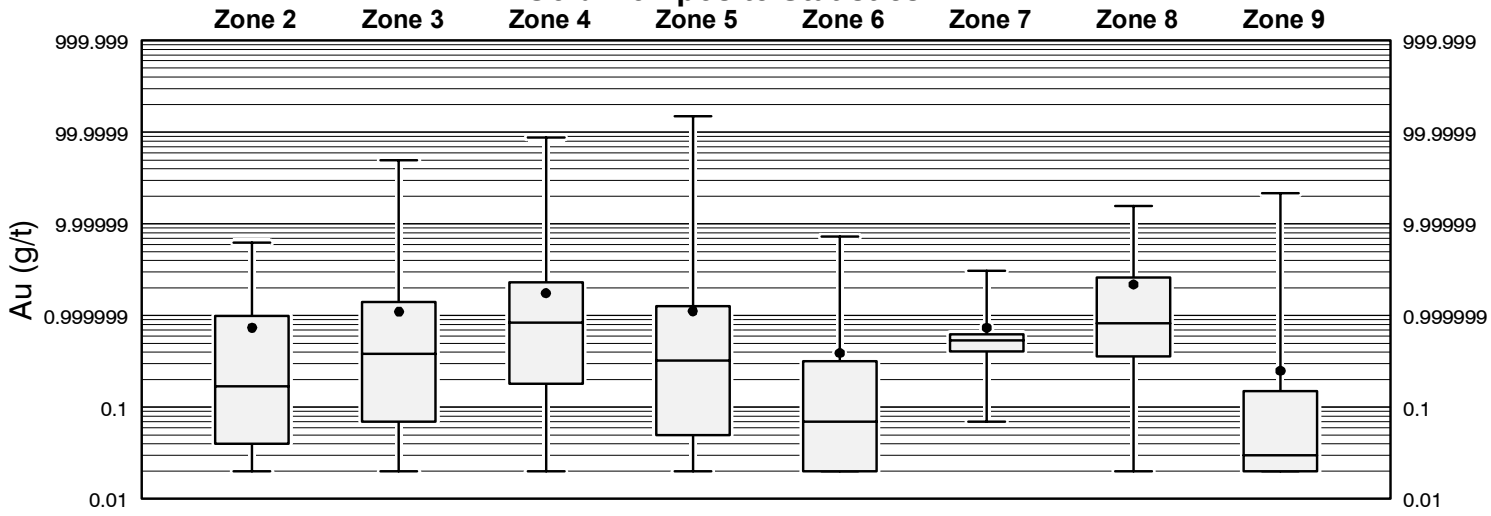
14.4 Drill Hole Composites

The original drill hole assays (both uncapped and capped) were composited into 5.0-meter fixed-lengths starting at the drill hole collar. The 5.0-meter length was selected based on the dimensions of the resource model block (i.e. 5m x 10m x 10m in the east-west, north-south, and vertical dimensions). In the 2002 RMI resource model, unassayed grades were set to zero. In the 2004 RMI model, unassayed intervals were set to -1.0. After compositing the assays, the drill hole composites were coded with the recently updated mineral zone wireframes.

14.5 Composite Statistics

Box plot statistics are shown for the 5.0-meter long gold composites (based on capped assay intervals) and are summarized in Figure 14-2.

Figure 14-2
Gold Composite Statistics



	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	
Number of data	187	2043	3827	1240	144	10	47	3823	Number of data
Mean	0.736999	1.102	1.757	1.117	0.389999	0.736	2.183	0.25	Mean
Maximum	6.29	49.93	87.0299	150.68	7.3	3.09	15.64	21.71	Maximum
Upper quartile	0.986999	1.402	2.3	1.26	0.317999	0.63	2.592	0.15	Upper quartile
Median	0.17	0.38	0.839999	0.322	0.07	0.535	0.825999	0.03	Median
Lower quartile	0.04	0.07	0.18	0.05	0.02	0.41	0.358	0.02	Lower quartile
Minimum	0.02	0.02	0.02	0.02	0.02	0.07	0.02	0.02	Minimum
Variance	1.5136	3.8773	9.85939	22.7305	0.7455	0.643899	9.64719	0.7442	Variance
CV	1.669	1.786	1.787	4.27	2.214	1.09	1.422	3.447	CV
Skewness	2.603	7.335	9.87399	28.297	4.86	2.441	2.65	13.474	Skewness

Variable: Au (g/t)
Acceptable range: 0.0 to 1000.0
Weights: var_01

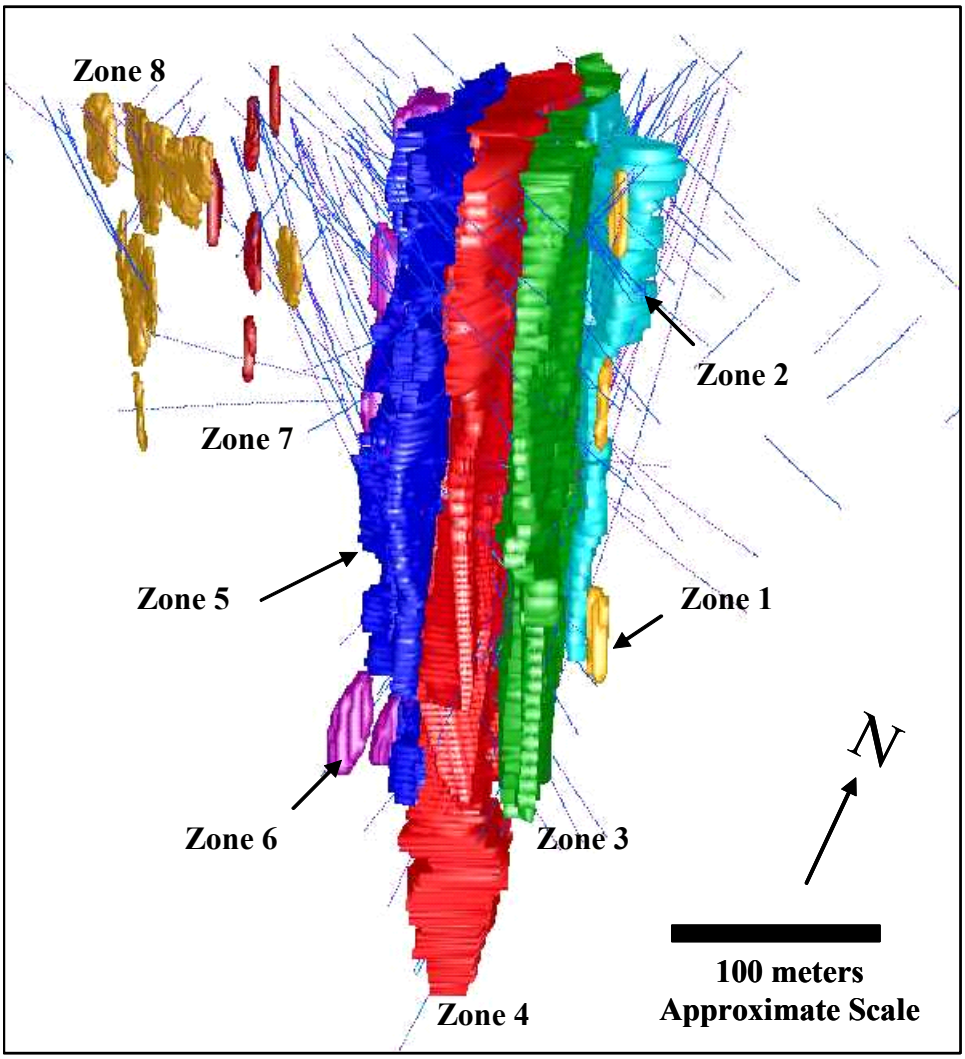
Zone 2 file: z2_rcmps.prn
Zone 3 file: z3_rcmps.prn
Zone 4 file: z4_rcmps.prn
Zone 5 file: z5_rcmps.prn
Zone 6 file: z6_rcmps.prn
Zone 7 file: z7_rcmps.prn
Zone 8 file: z8_rcmps.prn
Zone 9 file: z9_rcmps.prn

14.6 Geologic Constraints

Seabridge's geologic staff updated the mineral zone interpretation that was initially proposed and developed by Placer Dome in the late 1990's. The zones were re-interpreted onto east-west cross sections using gold grades, alteration and mineralogical similarities. Some of the zones were linked into three dimensional wireframes using the sectional polygons. Several of the key mineral zones (e.g. zones 3, 4, and 5) were initially developed from the east-west sections and then sliced and reconciled in plan view. Mid-bench polygonal outlines were then extruded vertically 5 meters in each direction to form a composite wireframe.

The West Zone, Central Zone, and East Zone were subdivided into eight wire frames that define areas with more intense alteration. Based on a review of the distribution of gold grades within these zones, these outlines were used as hard boundaries for estimating gold resources. These wireframes greatly helped to constrain the estimate of block grades with the use of very elongated search ellipses. Figure 14.6-1 is a perspective view showing the 8 mineral zone wireframes that were used to constrain the estimate of gold resources.

Figure 14.6-1
Mineral Zones



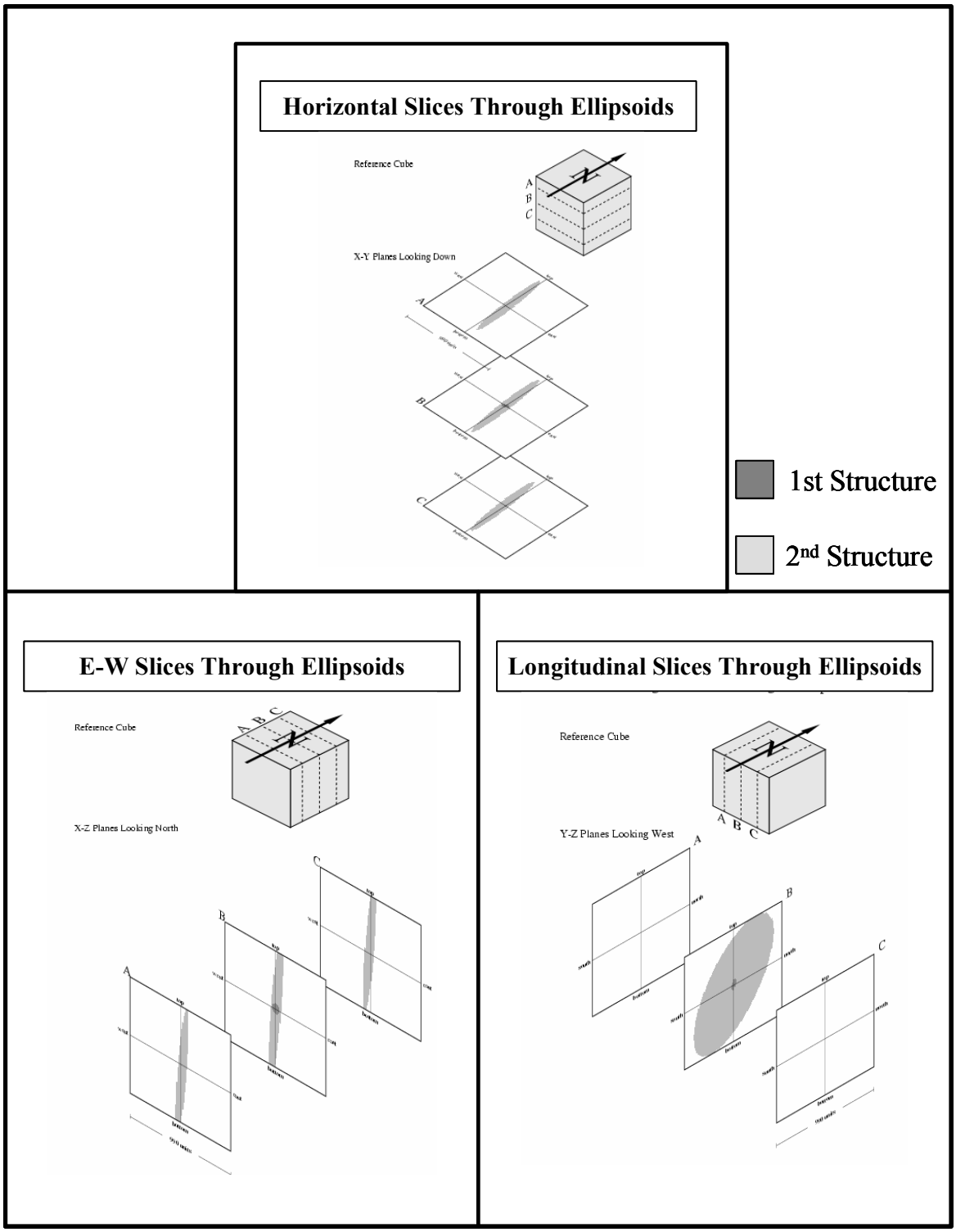
14.7 Variography

Gold correlograms were initially interpreted by RMI in July of 2002 for the primary mineral zones (zones 3, 4, and 5) using uncapped 2.5-meter long gold composites. These composites were selected for variography studies because they better reflected the overall variance in gold grades and provided more samples than the 5.0-meter population. The correlograms were generated and interpreted using Sage2001, a commercial geostatistical software package that also determines anisotropy vectors using an annealing algorithm. Nested exponential models were constructed for each of the primary mineralized zones. The interpreted search ellipses for each of the mineral zones are very consistent with the overall geometry and orientation of gold mineralization at Courageous Lake. Figure 14-5

illustrates the nested search ellipses in a series of three isometric block diagrams for zone 4, the main mineralized zone.

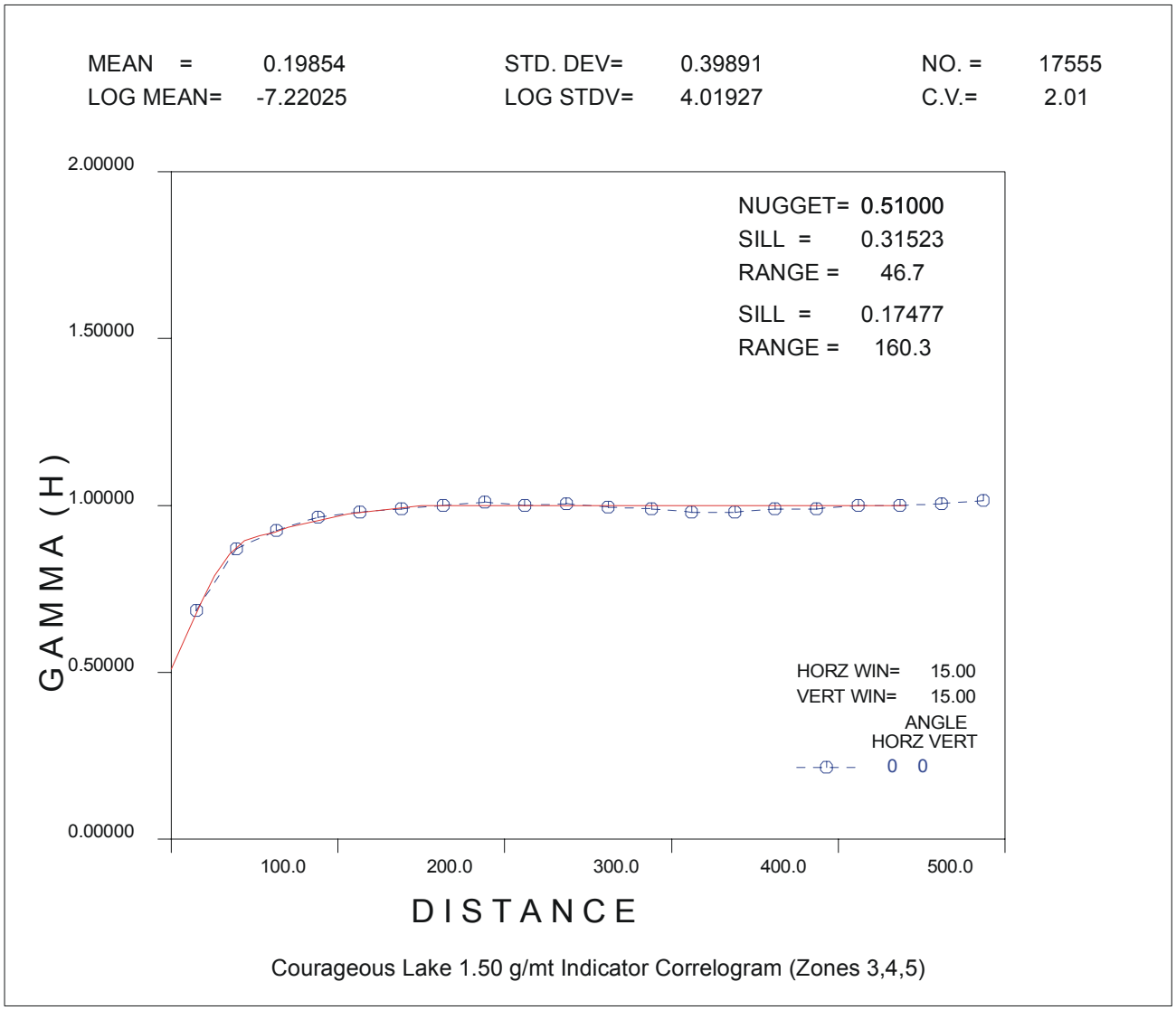
Nested search ellipses were utilized for the estimation of mineral resources for the 2004 resource model. These search ellipses were designed to be oriented within the plane of the mineralized zones.

Figure 14-5
Zone 4 Search Ellipses



In 2002, RMI generated and interpreted a 1.50 g/mt gold indicator correlogram for the combined three main mineralized zones. This correlogram was used to establish the overall spatial continuity of gold mineralization and subsequently used to establish parameters for classifying the block model resources. Figure 14-6 shows the 1.5-meter correlograms for zones 3, 4, and 5 that was constructed by RMI in 2002.

Figure 14-6
1.5 g/mt Gold Indicator Correlogram



14.8 Grade Estimation

A multiple pass estimation strategy was used to estimate block gold grades for each of the mineral zones. An initial 120-meter isotropic search was used to ensure that grades were

estimated for most blocks within each mineral zone. A nested series of tight search ellipses were then used to estimate block gold grades. Increasingly shorter search envelopes were used for each of the three inverse distance cubed estimation runs. Block grades were overwritten by each successive estimation run, provided that the requisite number of drill hole composites was found.

Each zone was estimated using only composites from the same zone. A maximum of six composites were used to estimate block gold grades with a maximum of three from a single drill hole. The last two interpolation runs required a minimum of two drill holes to be used in the estimate of block gold grades.

The block grade estimates were weighted by declustering weights that were assigned to the composites using the cell method (i.e. 5m x 10m x 10m cells). Composites less than 2.5 meters in length were not used to estimate block grades. The number of composites and drill holes used to estimate each block were stored along with the true distance to the closest drill hole composite used to estimate each block. Table 14-5 summarizes the basic interpolation parameters that were used for each mineral zone.

Table 14-5
Interpolation Parameters

Interpolation Run	Mineral Zone	Composite Selection			Search Range (m)			Ellipse Orientation (º)		
		Min	Max	Max/hole	Major	Minor	Vertical	North	North Dip	East Dip
1	1-9 (less 8)	1	6	3	120	120	120	260	-83	0
2	1-9 (less 8)	1	3	1	120	120	20	260	-83	0
3	1-9 (less 8)	3	6	2	60	60	10	260	-83	0
4	1-9 (less 8)	3	6	2	30	30	5	260	-83	0
1	8	1	6	3	120	120	120	240	-83	0
2	8	1	3	1	120	120	20	240	-83	0
3	8	3	6	2	60	60	10	240	-83	0
4	8	3	6	2	30	30	5	240	-83	0

As a further step to minimize the impact of high-grade outlier assays, the maximum allowable projection distance of composites in excess of 10 g/t was set at 30 meters. The resultant block model gold grades were visually compared with the 5.0-meter drill hole composite grades and were found to be reasonable.

A nearest neighbor model was constructed using the 5.0-meter composites. The grade from this model was compared to the inverse distance model at a zero cutoff grade to see if there was any bias in the estimate. Table 14-6 summarizes the results from that test for measured, indicated and inferred resources. The nearest neighbor model grade compares well with the mean grade of the inverse distance model indicating that the estimate is globally unbiased.

Table 14-6
Nearest Neighbor Versus Inverse Distance Model

Model	Mean Au (g/mt)
Nearest Neighbor	0.8621
Inverse Distance	0.8648

Figures 14-7 through 14-15 are snapshots taken from the resource model showing the distribution of estimated gold grades and drill holes. The following list briefly summaries aspects of each of the illustrations:

Figure 14-7 Section 4000 North - showing 2004 drill holes
Figure 14-8 Section 4400 North - typical style of mineralization
Figure 14-9 Section 4500 North - view of multiple high-grade lenses
Figure 14-10 Section 4550 North - view of rare easterly dipping high-grade zone
Figure 14-11 Section 5050 North - close up showing near surface mineralization

Figure 14-12 5000 level - wide view showing about 1,100 meters of strike length
Figure 14-13 5000 level - close up view showing distribution of drilling and grades
Figure 14-14 4950 level - view showing en echelon style of mineralization

Figure 14-15 Longitudinal perspective view showing a steep southerly rake to high-grade

Figure 14-7
Cross section 4000 North – looking north

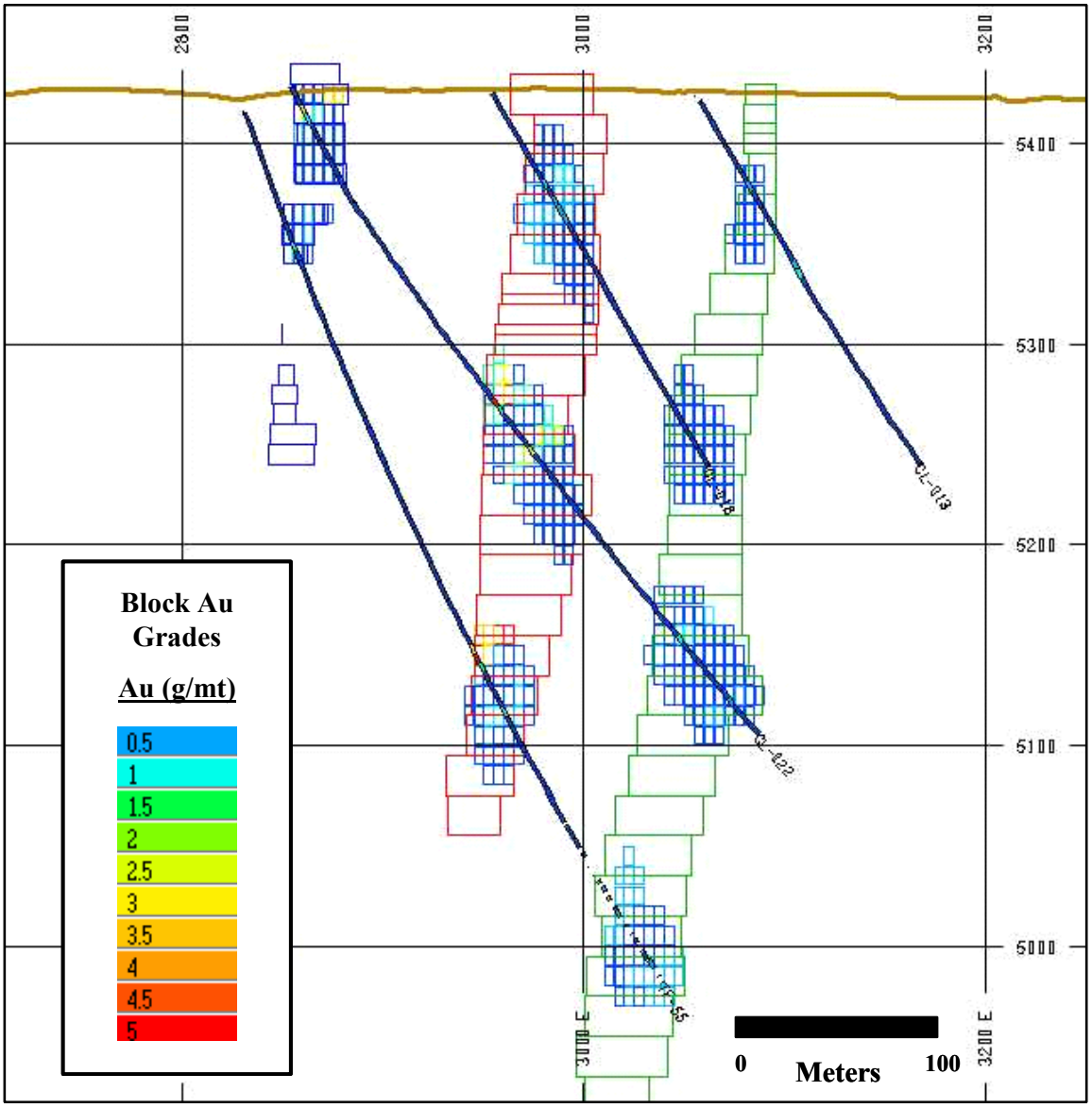


Figure 14-8
Cross section 4400 North – looking north

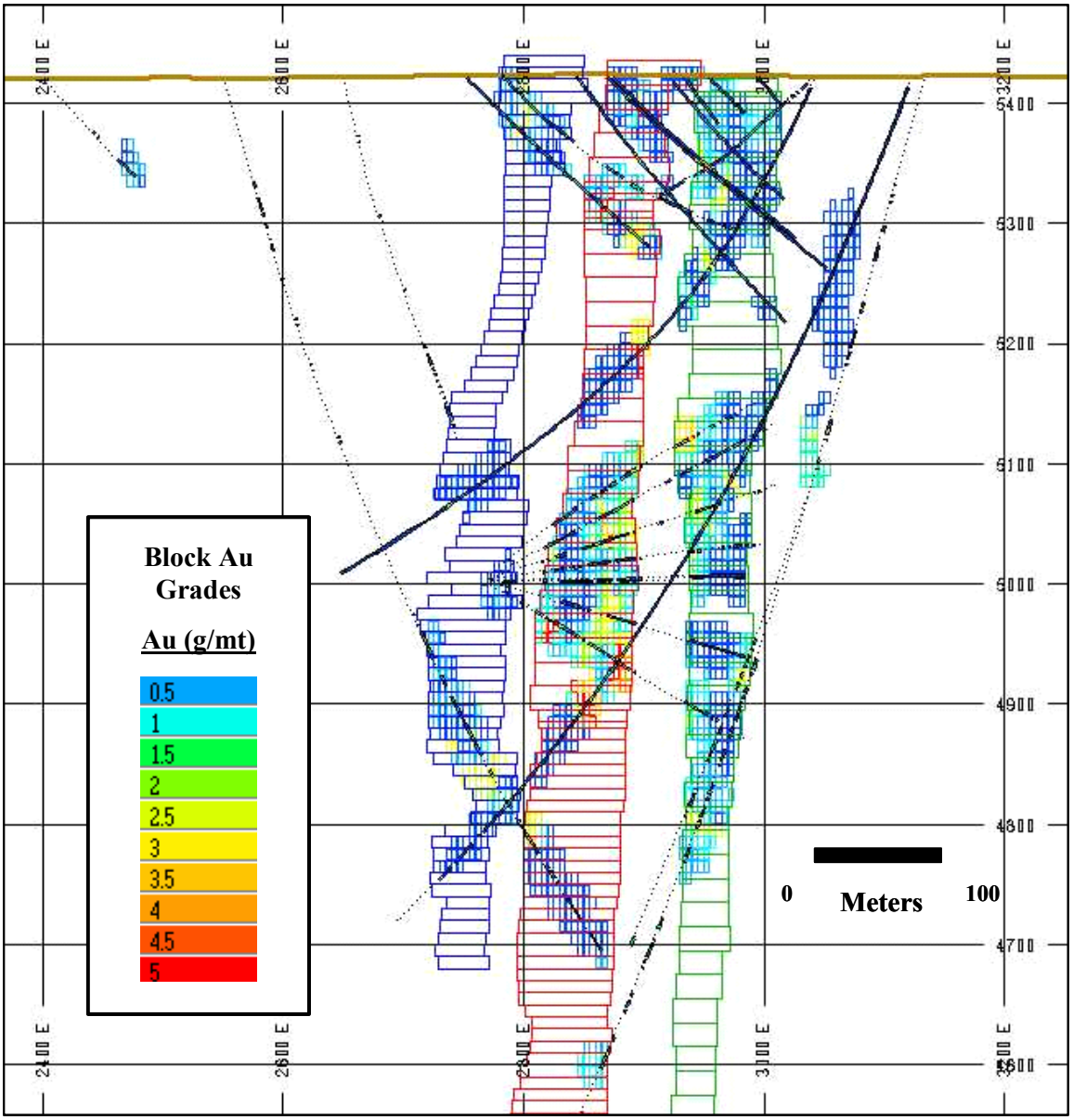


Figure 14-9
Cross section 4500 North – looking north

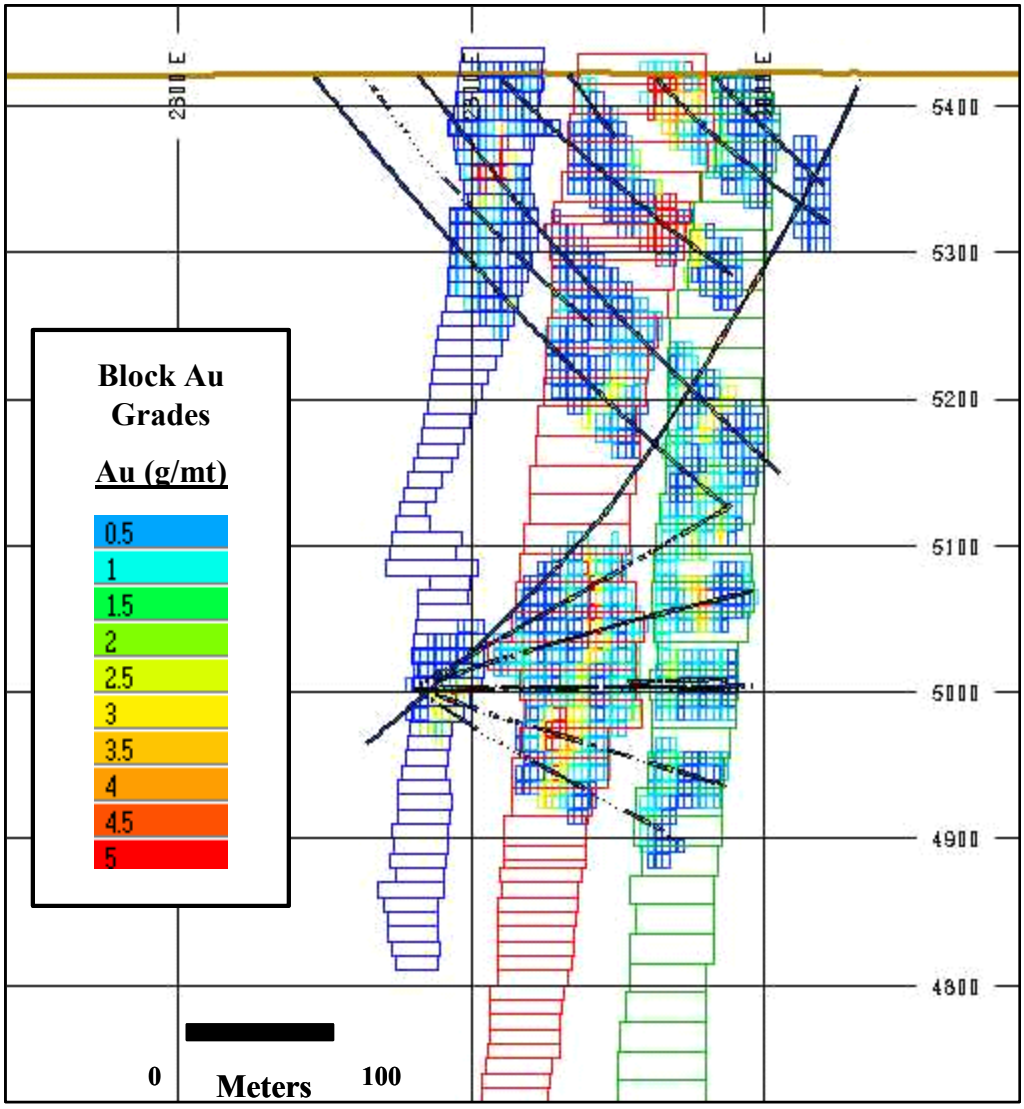


Figure 14-10
Cross Section 4550 North – looking north

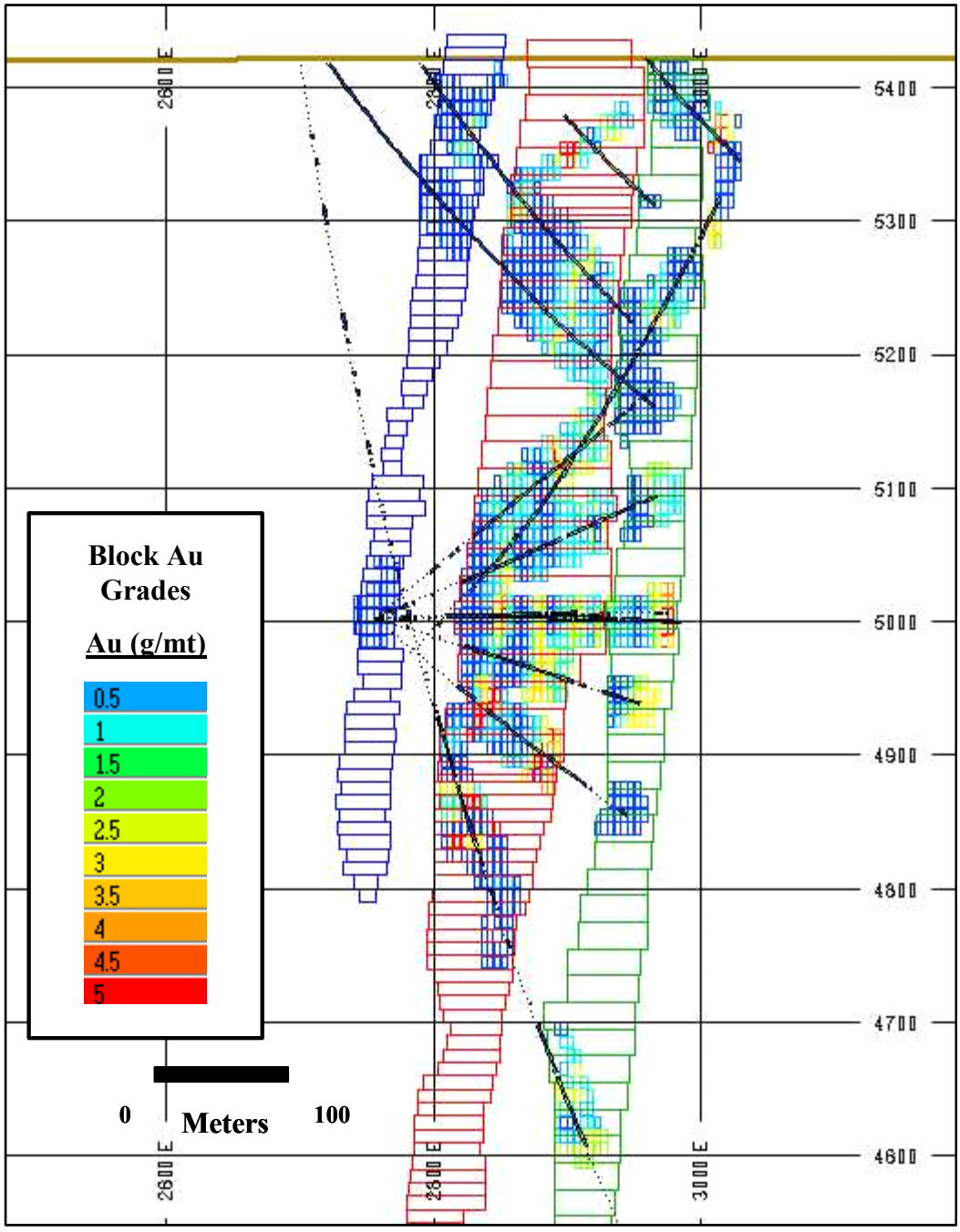


Figure 14-11
Cross section 5050 North – looking north

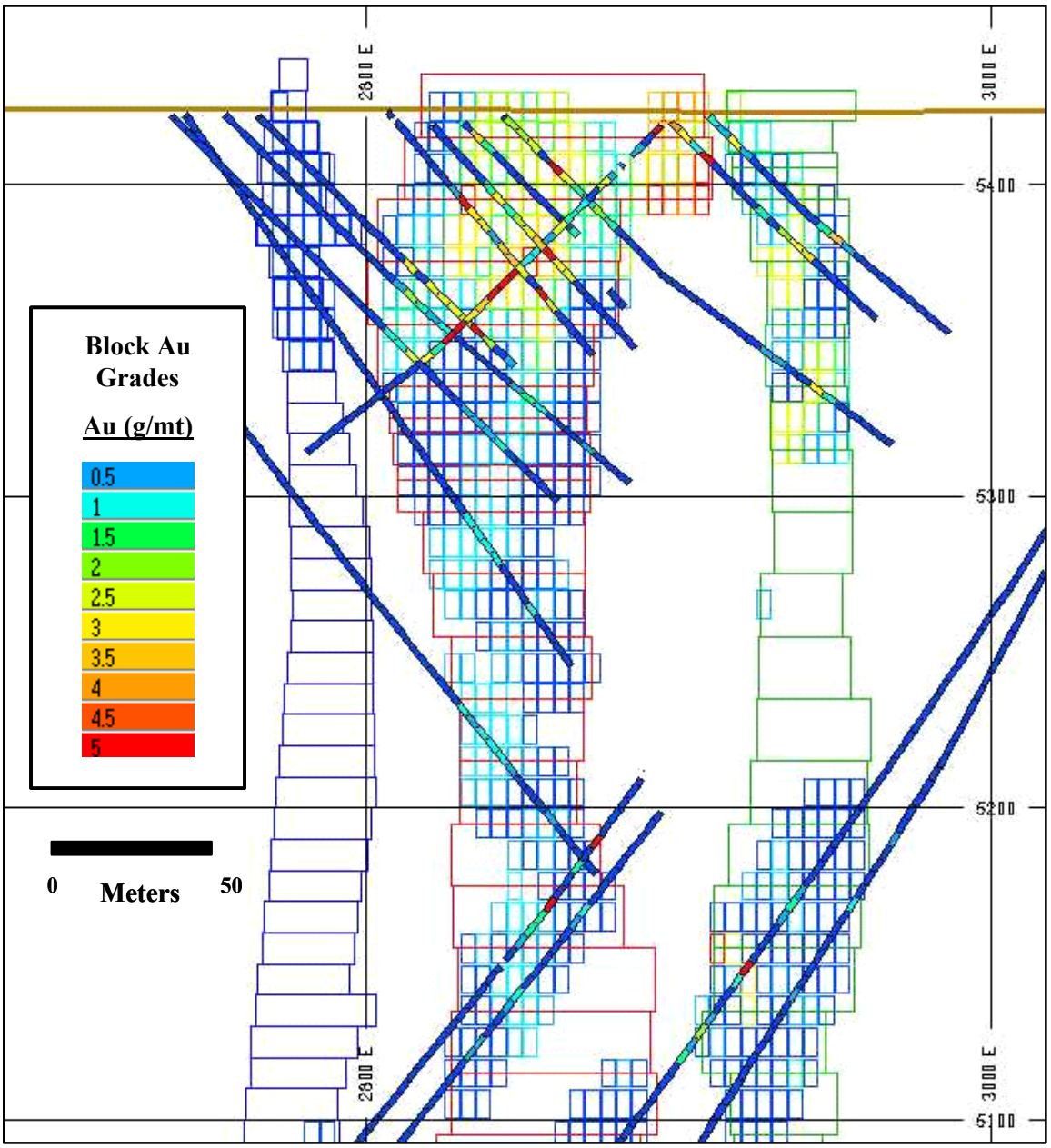


Figure 14-12
5000 Level Block Grades

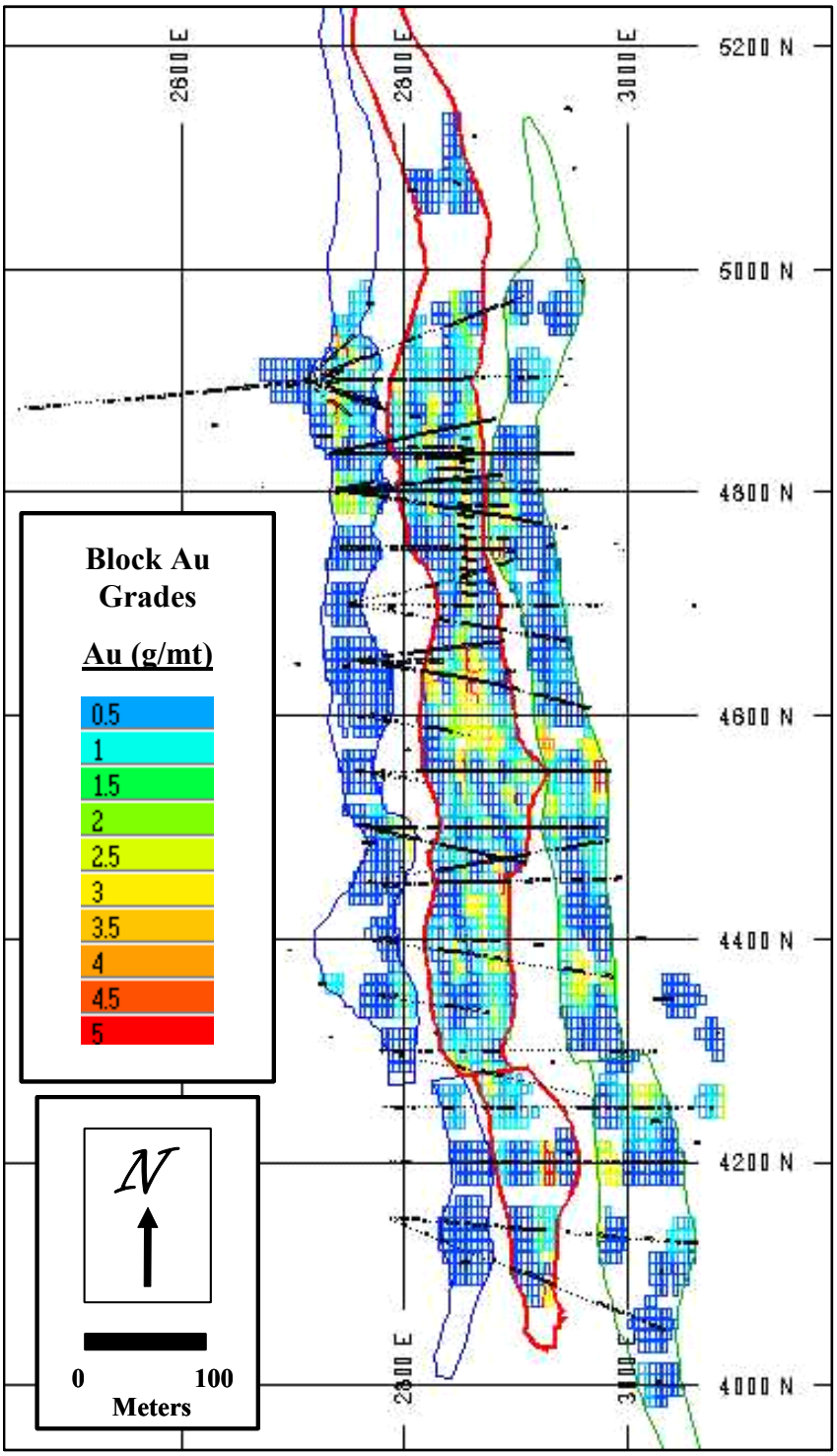


Figure 14-13
Close-up of 5000 Level Block Grades

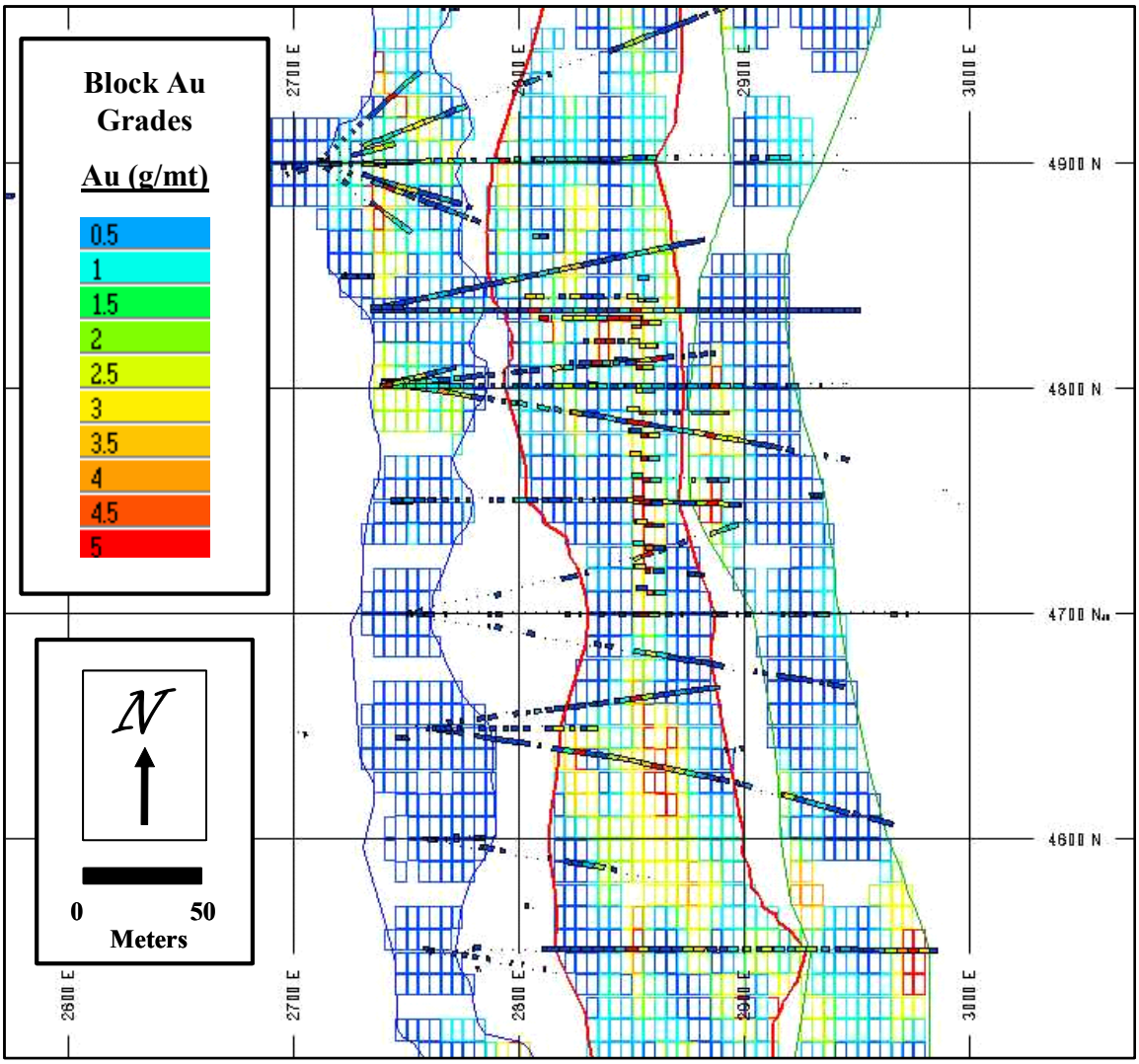


Figure 14-14
4950 Level Block Grades

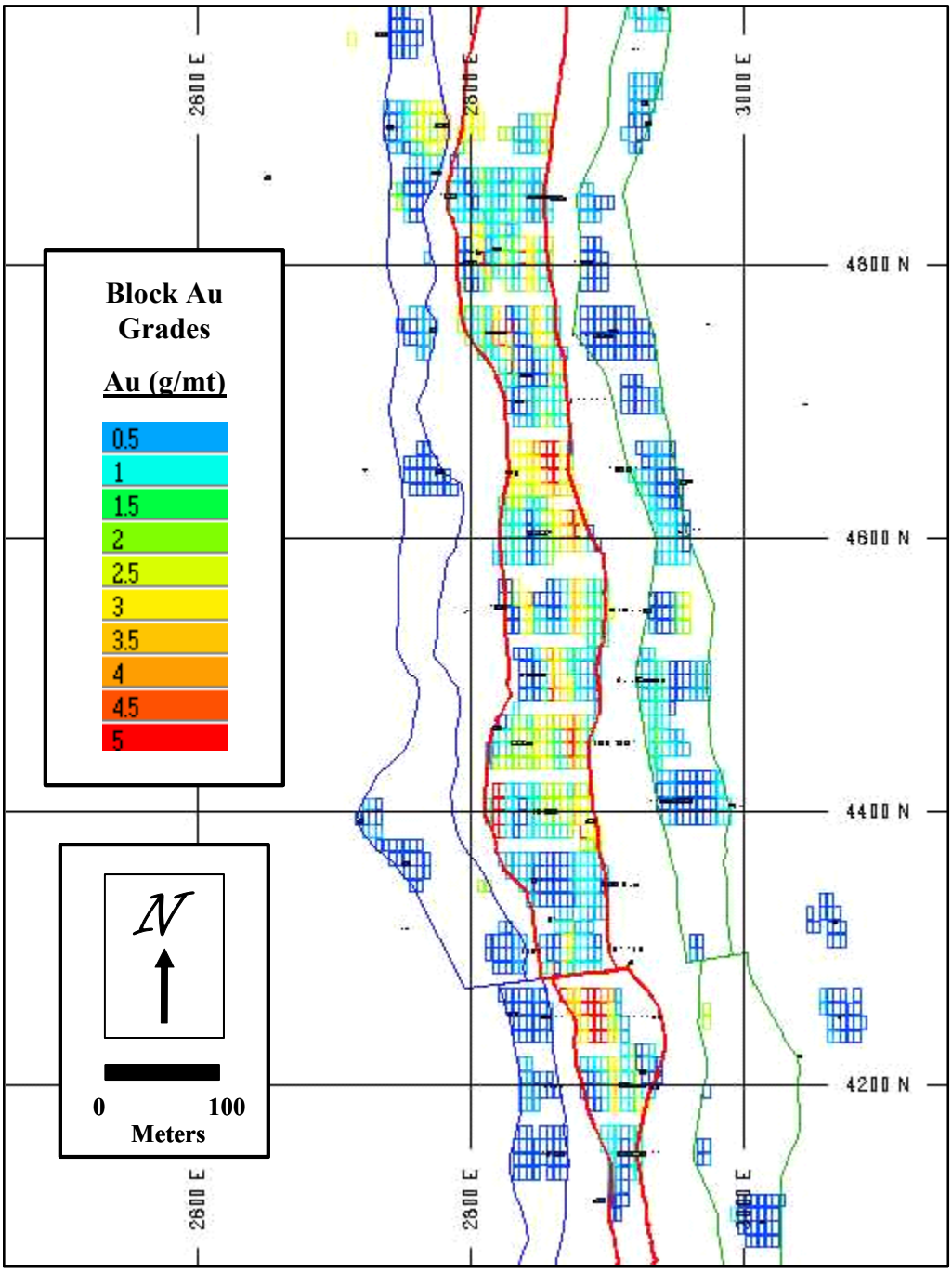
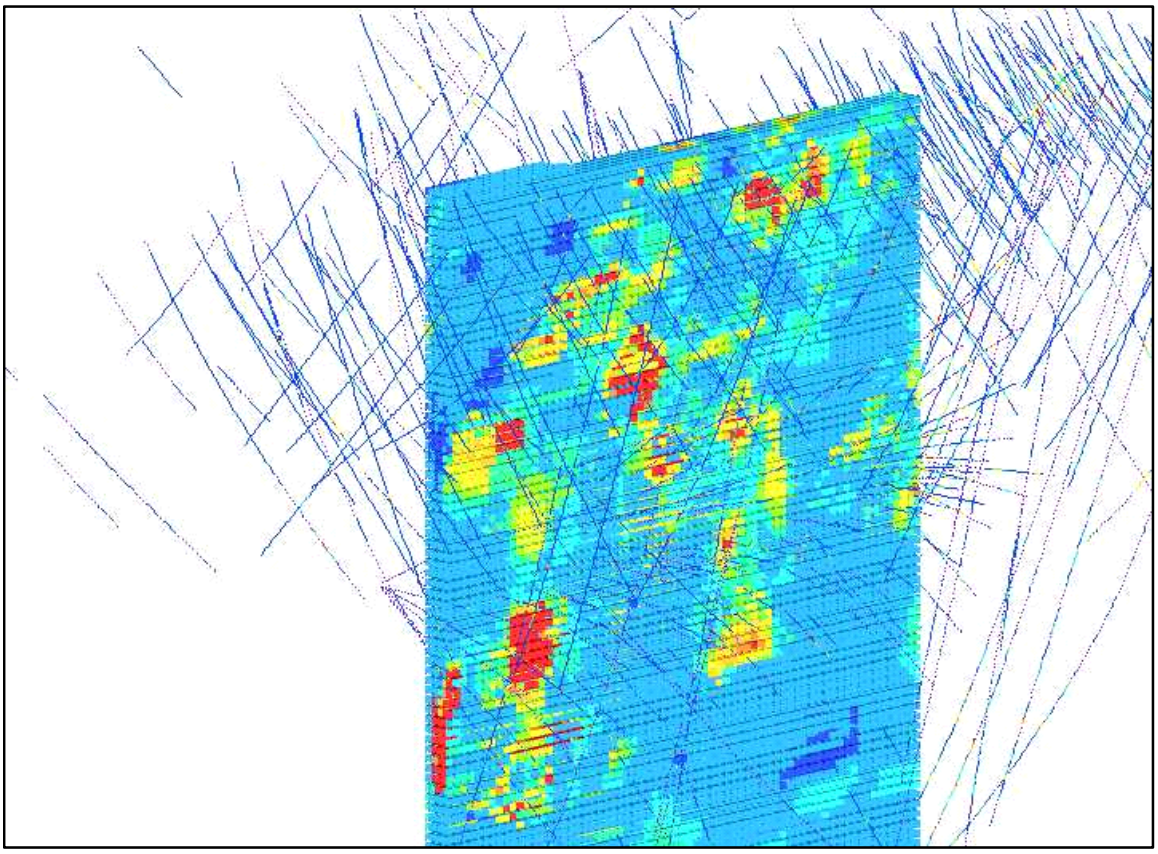


Figure 14-15
Perspective View of Block Grades



14.9 Mineral Resource Classification

The resource model was classified into measured, indicated and inferred categories by using the distance to the closest drill hole composite used to estimate each block along with the number of drill holes that were used in the estimation of grades. Measured resources were defined for blocks that were pierced by a drill hole composite, could have used two or more holes in the estimate and the closest composite had to be within 5 meters of the block centroid. The basis for this classification is that 5 meters is a reasonable spacing for blastholes, which are the ultimate method for determining ore/waste boundaries in an open pit operation. Indicated resources were defined by blocks that were estimated by two or more drill holes and the maximum allowable distance to the closest sample could be no more than 22 meters from the block centroid. This distance was defined by finding the range of the 1.5 g/mt indicator correlogram for the three main mineralized zones corresponding to two-thirds of the residual variance between the nugget and the normalized sill. These criterion were implemented by RMI for the July 2002 Courageous Lake resource estimate. Measured and/or indicated resources were only defined for mineral zones 1 through 8. At this stage of the project, the continuity and

correlation of mineralized intervals within zone 9 (the default mineral zone) are not well understood. Inferred resources were defined for zone 1 through 8 blocks that were estimated by one or more drill holes with the maximum allowable distance from drilling set at 60 meters. Inferred resources were assigned to zone 9 blocks that were estimated by two or more drill holes provided that the closest composite was within 10 meters of the blocks. Table 14-7 summarizes the parameters that were used to classify the mineral resources of the Courageous Lake deposit.

Table 14-7
Resource Classification Parameters

Resource Category	Minimum No. Holes	Distance to Data (m)		Mineral Zone
		Minimum	Maximum	
Measured	2+	0	5	1 - 8
Indicated	2+	6	22	1 - 8
Inferred	1+	22	60	1 - 8
Inferred	2+	0	10	9

14.10 Summary of Mineral Resources

Using the parameters shown in Table 14-7, gold resources were summarized at six cutoff grades. These results are tabulated in Table 14-8 for each resource category and further summarized for the combined measured+indicated categories along with the total resource.

Table 14-8
Summary of Gold Resources

Au Cutoff (g/t)	**Measured**			**Indicated**			**Inferred**		
	Tonnes (000)	Au (g/t)	Au Ozs (000)	Tonnes (000)	Au (g/t)	Au Ozs (000)	Tonnes (000)	Au (g/t)	Au Ozs (000)
0.50	4,196	2.18	294	61,121	1.9	3,734	105,678	1.72	5,844
0.83	3,378	2.55	277	47,002	2.28	3,445	77,442	2.1	5,229
1.00	3,041	2.74	268	41,161	2.47	3,269	65,501	2.32	4,886
1.25	2,522	3.07	249	33,420	2.79	2,998	52,573	2.62	4,428
1.50	2,149	3.36	232	27,582	3.09	2,740	42,603	2.91	3,986
1.75	1,874	3.62	218	22,958	3.39	2,502	35,309	3.18	3,610
2.00	1,609	3.91	202	19,112	3.69	2,267	29,298	3.45	3,250
2.50	1,204	4.47	173	13,644	4.28	1,877	20,702	3.96	2,636
3.00	903	5.05	147	9,838	4.88	1,544	14,428	4.5	2,087

Table 14-9 is a summary of gold resources by mineral zone using a 1.00 g/t gold cutoff grade.

Table 14-9
Mineral Resources by Zone at a 1.0 g/t Cutoff

Mineral Zone	Measured			Indicated			Inferred		
	Tonnes (000)	Au (g/t)	Au Ozs (000)	Tonnes (000)	Au (g/t)	Au Ozs (000)	Tonnes (000)	Au (g/t)	Au Ozs (000)
1	0	0.00	0	0	0.00	0	0	0.00	0
2	39	2.19	3	583	2.15	40	2,509	2.29	185
3	694	2.50	56	10,710	2.12	729	14,715	1.91	903
4	1,959	2.89	182	26,308	2.65	2,240	38,434	2.47	3,048
5	325	2.37	25	3,262	2.28	238	7,556	2.31	561
6	4	1.12	0	53	1.35	2	1,015	3.05	100
7	0	0.00	0	3	1.08	0	0	0.00	0
8	20	2.91	2	242	2.48	19	494	2.54	40
9	0	0.00	0	0	0.00	0	778	1.95	49
Total	3,041	2.74	268	41,161	2.47	3,269	65,501	2.32	4,886

15.0 EXPLORATION POTENTIAL

15.1 Extension Targets

Based on the results of the 2004 exploration program and the updated resource model, Seabridge believes that significant upside still exists to further increase gold resources.

First, in the immediate resource area there are 473 million tonnes of material contained within the wire-frame mineralized zones. Of this material, 363 million tones were assigned grade using the interpolation procedures describe above. The remaining 110 million tonnes did not have data in close enough proximity to be interpolated, and accordingly is now treated as waste. Of the 363 million tonnes that were assigned grade, 30% of this material was classified into measured, indicated or inferred material above a 1.0 gram per tonne cut-off grade. Seabridge geologists believe that the remaining 110 million tonnes of uninterpolated material within the wire-frame mineralized zones should behave similarly to the material that was interpolated. This implies that there is potential to add approximately 30 to 35 million tonnes to resources with additional drilling in these uninterpolated areas.

Second, during the 2004 exploration program, Seabridge added approximately 300 meters of strike length to the south end of the deposit. Although there is limited drilling further to the south, the few holes that have been drilled suggest that the FAT deposit may extend further. One historic hole, located approximately 100 meters south of the existing resource, intersected 20.76 meters at 10.62 grams of gold per tonne. Seabridge geologists believe that there is significant potential to extend the FAT deposit south.

Finally, on the north end of the deposit data essentially stops at the 5450 section line. There is an additional 700 meters of strike length to the north of the deposit before Courageous Lake is encountered. Seabridge geologists believe that additional drilling is warranted to test for the extension of the FAT deposit to the north.

15.2 Regional Targets

The FAT Deposit is one of several gold occurrences located in the CLGB. Other past producing gold deposits include the Salmita Mine (209,000 tonnes at 27.2 g/mt Au) and Tundra Mine (190,000 tonnes at 20 g/mt Au). In addition, several other target areas have been identified in the belt but have not been delineated.

Four styles of gold concentrations have been recognized in the belt. Regional exploration in 2003 evaluated several of these targets but only in the context of reviewing known gold showings. Systematic greenfields-style evaluation of the potential target types has not been completed on Seabridge Gold land holdings. The 4 target styles include:

- FAT-type gold occurrences near the top of the felsic volcanic cycle
- Analogs to the FAT-type gold occurrence in the intermediate volcanic cycle

- Gold concentrations at fold hinges in the sedimentary rock units

- Lateral and basal gold occurrences to the volcanogenic massive sulfide occurrences

Seabridge Gold has completed preliminary evaluation of these target concepts in conjunction with a review of gold showings on the property. Conclusions from that work include:

- FAT-type gold occurrences near the top of the felsic volcanic cycle are best represented in the area between Courageous Lake and Mackay Lake, in an area historically known as the Matthews Lake Gold Belt. The broad alteration zones typical of the FAT Deposit are common in this area and significant gold concentrations have been recognized there in the past. This area remains Seabridge's priority.

- Analogs of the FAT-type gold occurrence in the intermediate volcanic cycle remains a viable target but is now perceived to represent small scale targets. No significant outcrop of intrusive rock has been recognized in these areas which seem to be an important component of the location for the FAT Deposit.

- Gold concentrations in fold hinges within the sedimentary rock units have been eliminated as a potential target. Although minor gold occurrences are present in the sedimentary rocks, large scale folding that could create high-grade gold concentrations do not exist in the CLGB.

- Lateral and basal gold occurrences to the volcanogenic massive sulfide deposits have not been thoroughly investigated and remain a potential target.

16.0 Interpretation and Conclusions

The Courageous Lake gold system is hosted in a steeply dipping Archean greenstone terrain. Several other nearby gold systems within the similar host rocks have produced about 250,000 ounces from high-grade ore shoots. Based on previous resource estimates in conjunction with the author's independent estimate, the Courageous Lake deposit represents a large undeveloped gold resource.

A key recommendation from the July 2002 Technical Report was to evaluate suitable metallurgical processes that could result in acceptable gold recoveries. Subsequent work completed by Lakefield Laboratories under the supervision of Hatch has yielded positive results which suggest that gold recoveries in the 90-92% range may be achievable through commercially available flotation and autoclave technologies.

The next key issue is to determine whether any of the gold resources defined at Courageous Lake can be mined profitably at a reasonable gold price. Seabridge has commissioned Hatch to undertake a preliminary economic assessment of the project including the estimation of capital and operating costs to pre-feasibility levels. Hatch will incorporate the new resource model for Courageous Lake into their analysis. The Hatch study is expected to be completed in the early part of 2005.

If this project were to be developed, there may be some issues regarding disputes between native peoples in the region that apparently have some claim to ancestral lands. These types of issues can usually be resolved with ongoing dialog and discussions with the various parties.

17.0 Recommendations

To advance this project towards production, the following steps are recommended to be taken:

(1) Develop a consistent geologic interpretation to correlate higher grade gold mineralization by lithology and/or alteration type and structure to see if there may be additional targets that can be tested.

(2) Continue exploring the Tundra Main and Carbonate Zones along strike.

(3) Review all available geologic data that has been collected from the Tundra Joint Venture holdings. See if there are similar untested areas that may be underlain by cycle two volcanics.

(4) Closely examine the area between sections 4350 and 4600 North along the Main Tundra Zone for additional drilling targets that could augment the best currently recognized opportunity for a surface deposit. Similarly, examine the Carbonate Zone between 4550 and 4700 North for similar open, yet narrower open pit potential.

(5) Complete the ongoing Hatch study to access the economic viability of the gold resource

18.0 References

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Noranda Exploration Limited; May 1990; Underground Exploration Program Summary Report, Noranda-Total Energold JV Tundra Project, Noranda Exploration Limited Internal Report; 96p.

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The Claim Group; 2002, Independent report for Seabridge Gold; 5073 NWT Ltd./Seabridge Gold Inc., Courageous Lake Property, 2p.

Tyler, P. A.; May 1988; An Audit of the Potential Mineral Inventory for the Noranda-Getty Tundra Deposit (FAT Zone), Prepared for Getty Resources Ltd by Derry, Michener, Booth and Wahl; 7p.

19.0 Certificate of Qualified Person

19.1 Certificate of Abdullah Arik

I, Abdullah Arik, of Tucson, Arizona do hereby certify:

1. That I am a mining consultant and associate of Resource Modeling Incorporated, with my principal residence located at 6440 N Columbus Blvd, Tucson, AZ 85718.

2. That I am a member in good standing of the Australian Institute of Mining and Metallurgy. I am also a member in good standing of the Society for Mining, Metallurgy, and Exploration, a Division of the AIME.

3. That I am a graduate of Middle East Technical University of Ankara, Turkey (1976) with a Bachelor of Science degree in Mining Engineering. I am also a graduate of the University of Arizona (1982) with a Master of Science degree in Geostatistics and Mining.

4. That I have practiced my profession since 1976.

5. That I have worked as a mine planning and project engineer, resource modeler, geostatistician, and consultant on a wide variety of base and precious metal deposits throughout the world.

6. That I, Mr. Abdullah Arik, made a site visit to the Property on December 9th, 2004 with Mr. Tim Dodd, Seabridge Gold's Senior Geologist. A day was spent on the property examining drill core and reviewing the overall layout of the property.

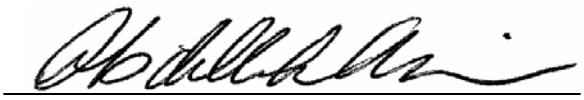
7. Mr. Michael J. Lechner, President of Resource Modeling Inc., a registered professional geologist in the State of Arizona #37753 and Certified Professional Geologist (AIPG # 10690) conducted various aspects of this technical review.

8. That as of the date of this certificate, I am not aware of any material fact or material change with regard to the property that would make the report misleading.

9. I have written this report as an independent consulting mining engineer as an associate working for Resource Modeling Inc. with no affiliation with Seabridge Gold Corporation and have no material interest, direct or indirect, in the property discussed in this report or in the securities of Seabridge Gold Corporation. I have not had any prior involvement with this property prior to writing this report.

10. I have read NI 43-101 and fully believe that this report has been written in complete compliance with that Instrument.

11. This report was prepared for Seabridge Gold Corporation by Mr. Abdullah Arik and Mr. Michael J. Lechner, President of Resource Modeling Inc. It is based almost exclusively on data that were provided to Mr. Abdullah Arik and Resource Modeling Inc. by Seabridge Gold Corporation. Abdullah Arik and Resource Modeling Incorporated disclaims all liability for the underlying data and do not accept responsibility for the interpretations and representation made in this report where they were a result of erroneous, false, or misrepresented data. Abdullah Arik and Resource Modeling Inc. disclaims any and all liability for representations or warranties, expressed or implied, contained in, or for omissions from, this report or any other written or oral communications transmitted or made available to any interested party when done without written permission or when they are inconsistent with the conclusions and statements of this report.



Abdullah Arik

December 30, 2004

19.2 Certificate of Michael J. Lechner

I, Michael J. Lechner, of Tucson, Arizona do hereby certify:

1. That I am an independent consultant and owner of Resource Modeling Incorporated, an Arizona Corporation with it's office located at 1960 West Muirhead Loop, Tucson, AZ 85737

2. That I am a registered professional geologist in the State of Arizona (#37753) and a Certified Professional Geologist with the AIPG (#10690).

3. That I am a graduate of the University of Montana (1979) with a Bachelor of Arts degree in Geology.

4. That I have practiced my profession since 1977.

5. That I have worked as an exploration geologist, mine geologist, Engineering Superintendent, resource modeler, and consultant on a wide variety of base and precious metal deposits throughout the world.

6. That I, Michael J. Lechner, performed various statistical and geostatistical analyses of the drill hole data and independently estimated gold resources for the Courageous Lake deposit. Various descriptions of the site location, geologic setting, property history, and other historical information were prepared by Mr. William Threlkeld and Mr. Tim Dodd from Seabridge Gold.

7. That as of the date of this certificate, I am not aware of any material fact or material change with regard to the property that would make this report to be misleading.

8. That I have written this report as an independent consulting geologist and have no material interest, direct or indirect, in the property discussed in this report and have not had any prior involvement with this property prior to working with Seabridge Gold.

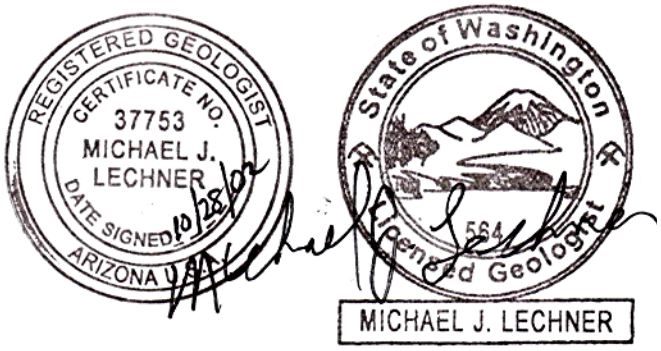
9. I have read NI 43-101 and fully believe that this report has been written in complete compliance with that Instrument.

10. This report was prepared for Seabridge Gold Corporation by Mr. Abdullah Arik, an associate of Resource Modeling Incorporated and Mr. Michael J. Lechner, President of Resource Modeling Incorporated. It is based almost exclusively on data that were provided to Mr. Abdullah Arik and Resource Modeling Inc. by Seabridge Gold Corporation. Abdullah Arik and Resource Modeling Incorporated disclaims all liability for the underlying data and do not accept responsibility for the interpretations and representation made in this report where they were a result of erroneous, false, or misrepresented data. Abdullah Arik and Resource Modeling

Inc. disclaims any and all liability for representations or warranties, expressed or implied, contained in, or for omissions from, this report or any other written or oral communications transmitted or made available to any interested party when done without written permission or when they are inconsistent with the conclusions and statements of this report.

Michael J. Lechner

December 30, 2004



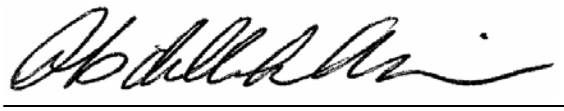
20.0 Consent of Qualified Person

20.1 Consent of Abdullah Arik

To whom it may concern:

I, Abdullah Arik, do hereby consent to Seabridge Gold Corporation using my report entitled "Technical Review of the Courageous Lake Property, Northwest Territories, Canada" and dated December 30, 2004 in a Prospectus or for filing with regulatory bodies as deemed necessary. Excerpts from this report can only be used, however, with the writer's permission.

That Abdullah Arik has read the written disclosure being filed and does not have any reason to believe that there are any misrepresentations in the information derived from the technical report or that the written disclosure contains any misrepresentation of the information contained in the technical report.



Abdullah Arik

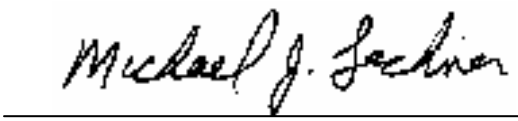
December 30, 2004

20.2 Consent of Michael J. Lechner

To whom it may concern:

I, Michael J. Lechner, do hereby consent to Seabridge Gold Corporation using my report entitled "Technical Review of the Courageous Lake Property, Northwest Territories, Canada" and dated December 30, 2004 in a Prospectus or for filing with regulatory bodies as deemed necessary. Excerpts from this report can only be used, however, with the writer's permission.

That Michael J. Lechner has read the written disclosure being filed and does not have any reason to believe that there are any misrepresentations in the information derived from the technical report or that the written disclosure contains any misrepresentation of the information contained in the technical report.



Michael J. Lechner

December 30, 2004