BC Geological Survey
Assessment Report
32373

2010 DIAMOND DRILLING
SOUTH SHOWING AREA
ELK PROPERTY

Similkameen Mining Division
Siwash Lake Area, British Columbia
NTS: 92H/16W;
Lat. 49°50'N, Long. 120°19'W

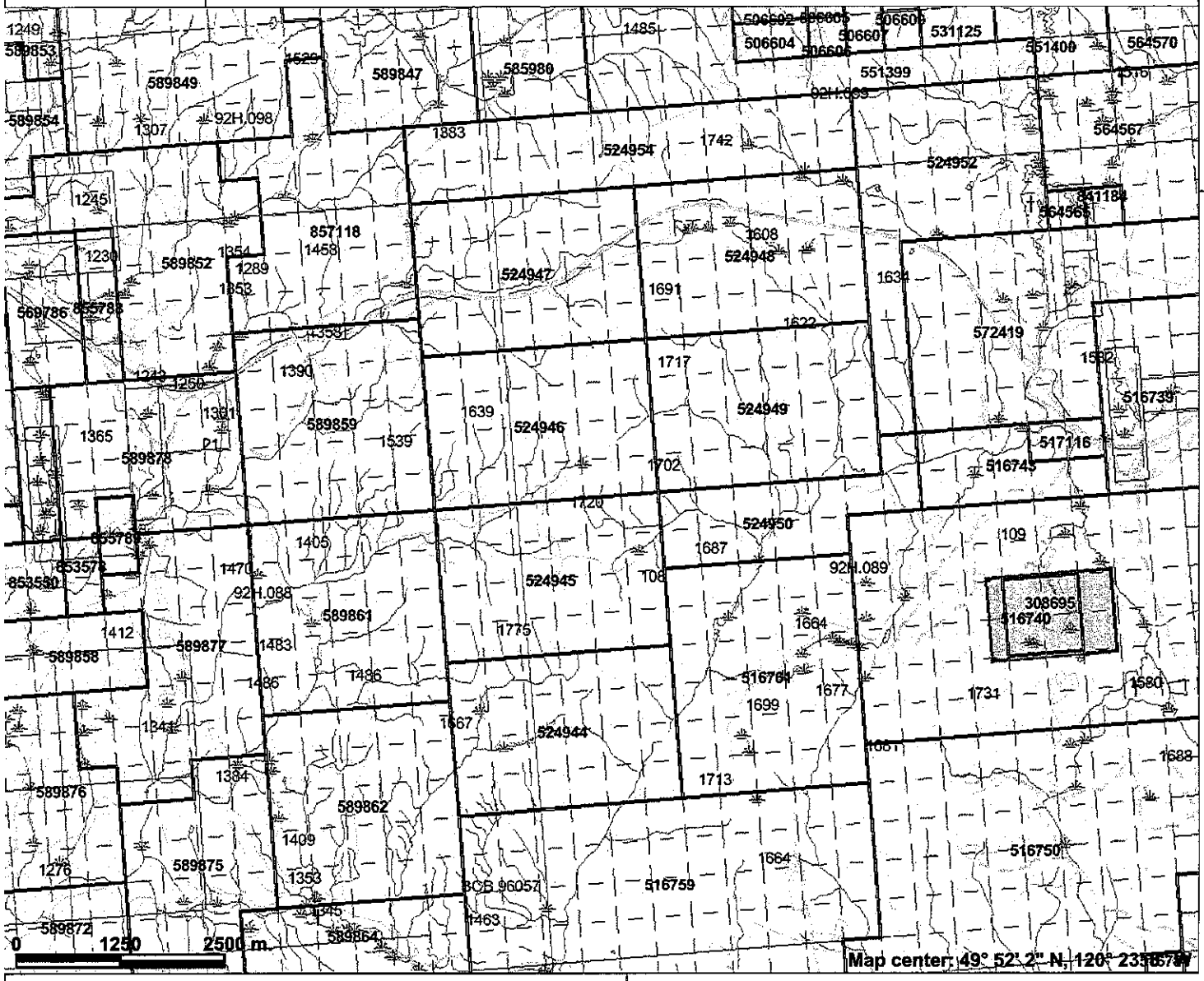
MTO Claim #516750
NAD83 Zone 10 5522450mN; 692700mE

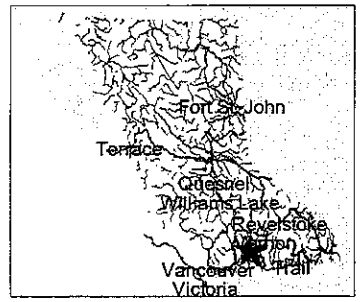
Claims Owned and Operated
and Report By

Almaden Minerals Ltd.
1103 – 750 West Pender St.
Vancouver, B.C. V6C 2T8

R.Brian Alexander, P.Geo.
July 5, 2011

Internet Mapping Framework





Legend

- Indian Reserves
- National Parks
- Conservancy Areas
- Parks
- MTO Grid (MTO)
- Blocked by MEM
- Other
- Mineral Tenure (current)
- Mineral Claim
- Mineral Lease
- Mineral Reserves (current)
- Placer Claim Designation
- Placer Lease Designation
- No Staking Reserve
- Conditional Reserve
- Release Required Reserve
- Surface Restriction
- Recreation Area
- Others
- Survey Parcels
- BCGS Grid
- Contours (1:250K)
- Contour - Index
- Contour - Intermediate
- Area of Exclusion
- Area of Indefinite Contours
- Transportation - Points (TRIM)
- Helipad
- Transportation - Lines (TRIM)
- Airfield
- Airport
- Airstrip

Scale: 1:71,835

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

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1.0 Introduction

A four hole diamond drill program conducted on the Elk Property Southern Showing between July 1 and July 20 was designed to test down-dip projections of historical trench results. Drill holes SSD1-001 and 002 returned no significant values but appear to have been incorrectly sited to test the intended target due to inaccurate conversions of Mine Grid to UTM Grid map datum. SSD10-003 returned composite assay values of 1.14 g/t over 3.2 meters (11.8 to 15.0m); 0.94 g/t over 4.5 meters (46.5 to 51.0m); and 1.0 g/t over 1.1 meters (54.7 to 55.8m). SSD10-004 returned composite assay values of 0.35 g/t over 3.0 meters (32.0 to 35.0m) and 1.04 g/t over 7.8 meters (39.0 to 46.8m).

Further drilling is recommended in this area as drillholes SSD10-003 and 004 are on sections spaced 120m apart and are interpreted to have tested the same structure. Further surveying to establish a correct conversion between Mine and UTM grid datums will be necessary to accurately plot historical exploration data and thus locate new drill sites.

1.1 Location and Claims

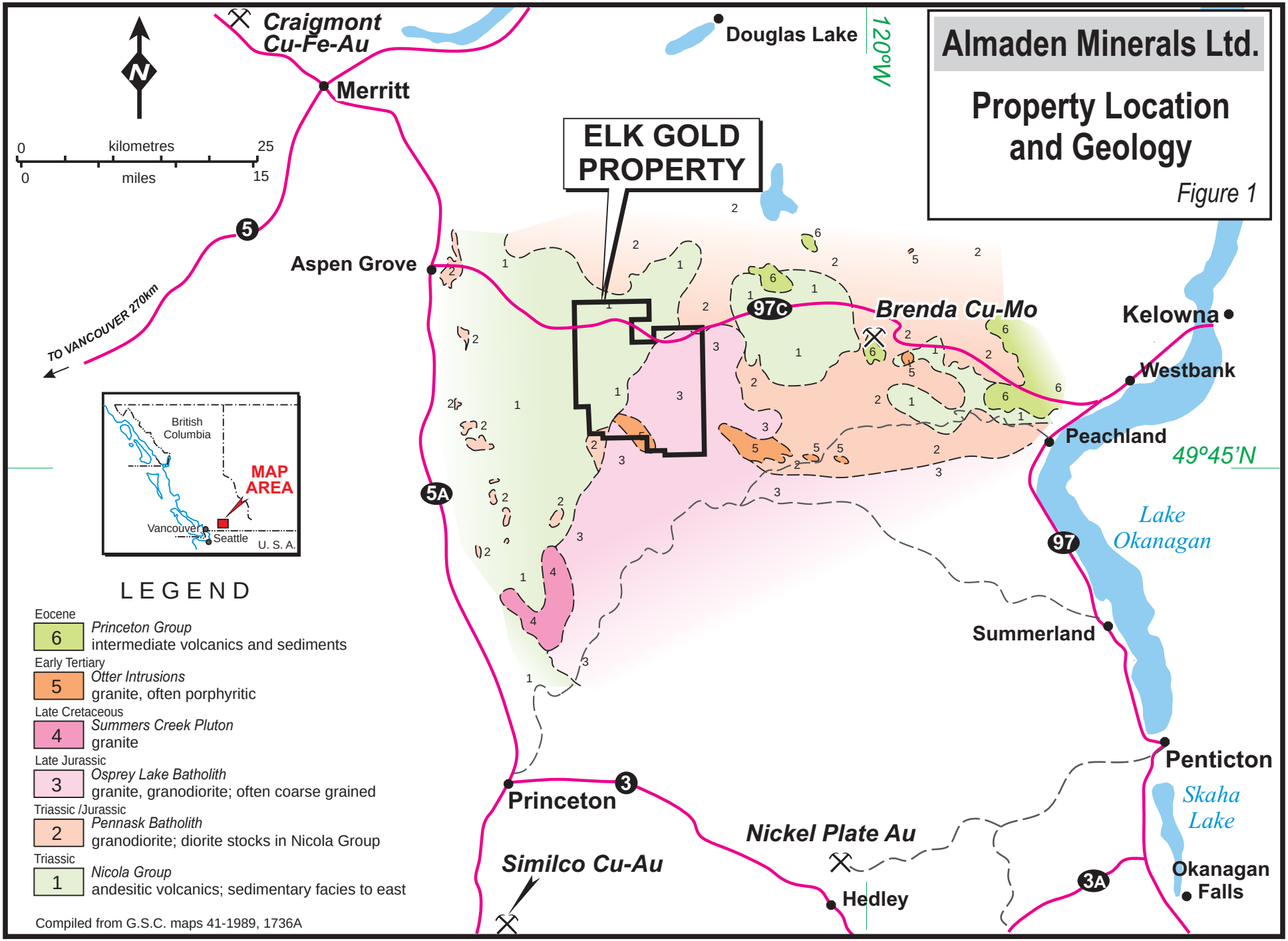
The Elk Property is located in southern British Columbia, Canada approximately 325 km northeast of Vancouver and 55 km west of Okanagan Lake, approximately midway between the towns of Merritt and Peachland (figure 1).

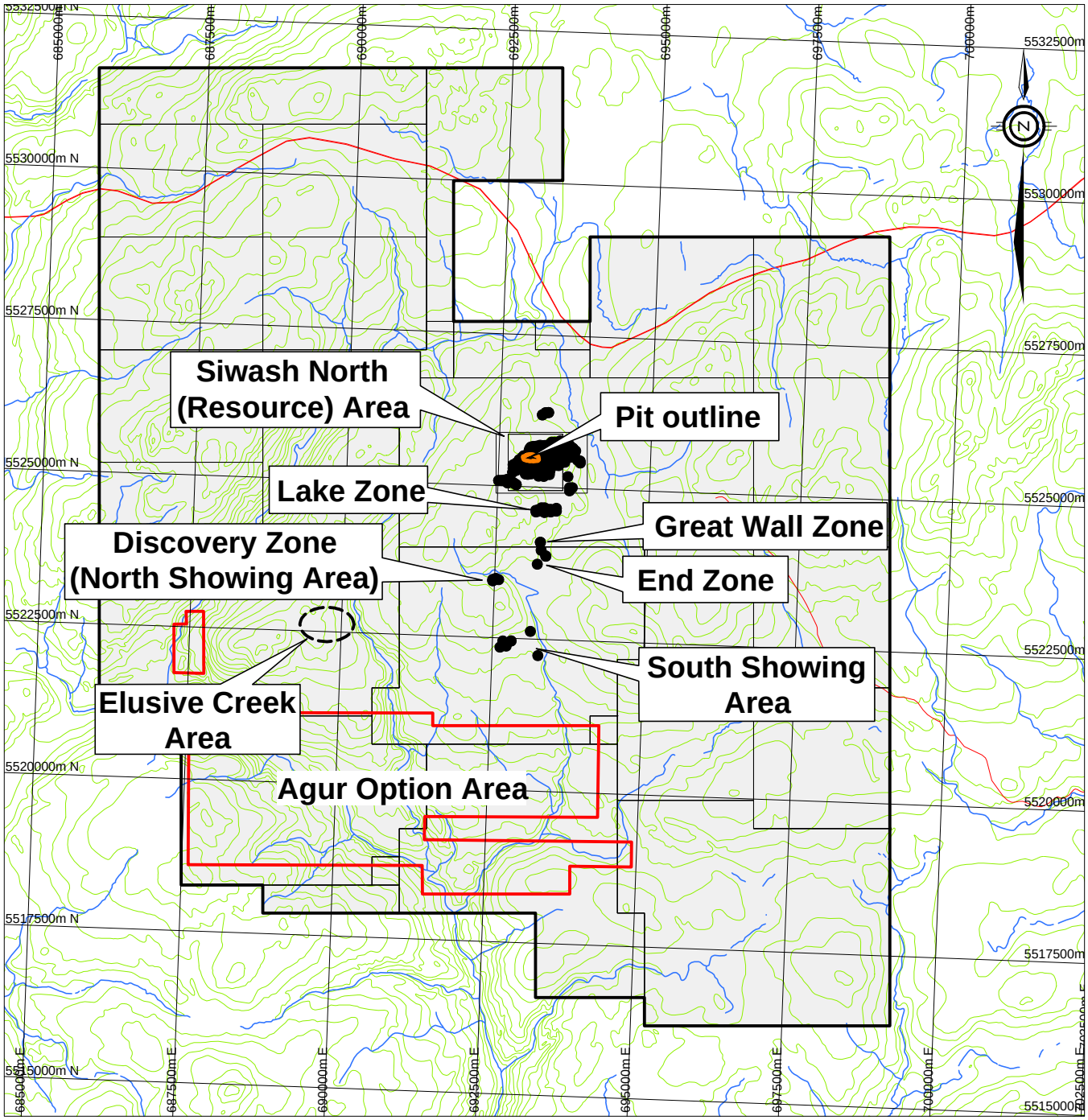
The property is within the Similkameen Mining District and consists of 27 contiguous MTO mineral claims and one mining lease covering 16,566 hectares, Table 1 and Figures 2 & 3. Conversion 2 and 4 post claims to MTO cell claims occurred in 2005. Except for the Augur Option block, Almaden has a 100% interest in all claims. A 1% NSR production royalty is payable on production from the Agur Option block, located approximately 4 km south of the area of estimated resources and not subject to this report.

1.2 Accessibility and Logistics

Access to the claims is excellent, by following the Okanagan Connector (HWY 97C) east from Merritt for 50 km to the Elkhart Road interchange. If approaching from the east, the same highway would be followed 50 km west from Peachland. This highway passes through the property's northernmost claims. From the Elkhart Road interchange, gravel roads and trails provide access to most parts of the property. Figure 4 shows the location of core storage.

Another 10 kilometers northeast of Peachland is the community of Westbank, a suburb of Kelowna. Westbank is the current location for rented equipment storage space for the Elk Project and together with the city of Kelowna provides a majority of the suppliers used for the project.


Almaden Minerals Ltd.
Property Location and Geology
Figure 1
ELK GOLD PROPERTY
Craigmont Cu-Fe-Au
Merritt
Douglas Lake
120°W
Aspen Grove
TO VANCOUVER 270km
Brenda Cu-Mo
Kelowna
Westbank
Peachland
49°45'N
Lake Okanagan
Summerland
Penticton
Skaha Lake
Okanagan Falls
Princeton
Similco Cu-Au
Nickel Plate Au
Hedley
0 kilometres 25
0 miles 15
British Columbia
MAP AREA
Vancouver
Seattle
U. S. A.
LEGEND
Eocene
6 Princeton Group
intermediate volcanics and sediments
Early Tertiary
5 Otter Intrusions
granite, often porphyritic
Late Cretaceous
4 Summers Creek Pluton
granite
Late Jurassic
3 Osprey Lake Batholith
granite, granodiorite; often coarse grained
Triassic /Jurassic
2 Pennask Batholith
granodiorite; diorite stocks in Nicola Group
Triassic
1 Nicola Group
andesitic volcanics; sedimentary facies to east
Compiled from G.S.C. maps 41-1989, 1736A



Agur Option Area

The Agur Option area, 3.7 km south of Siwash North, is an extensive gold soil geochemical anomaly which has yet to be evaluated by trenching or follow-up work. Minimal exploration has been conducted on these six targets outside the Siwash North area and very good potential exists for discovery of new ore reserves by exploration drilling.

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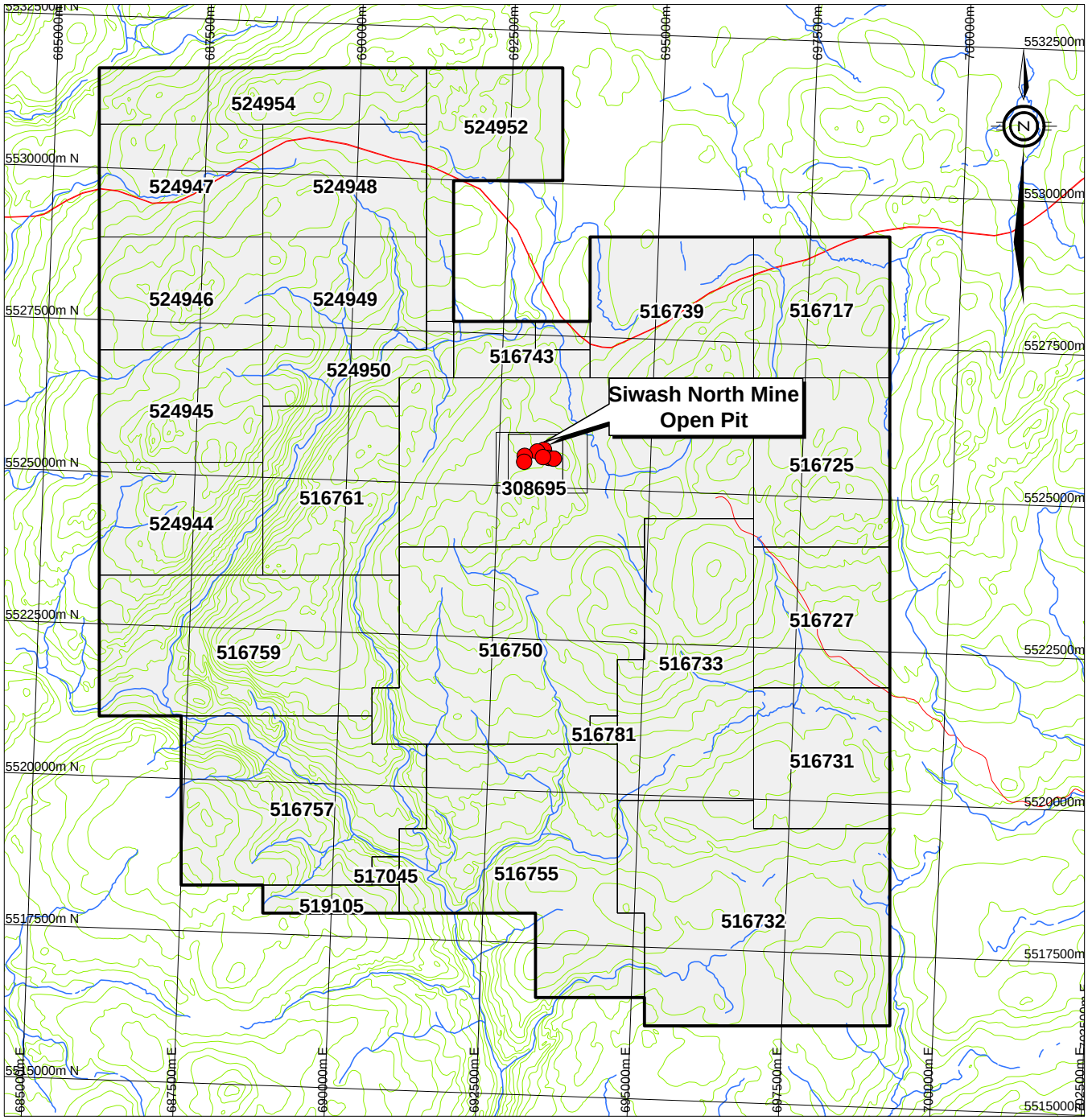
Elk Property Location and Prospective Zones

Date	Mar 16, 2011	*Scale*	1:100,000	*Figure*
Projection	UTM Zone 10 - NAD83	*State/Province*	BC	2
BCGS	092H.089	*NTS*	092H/16	
Author	MB	*File*	ElkProspZones	



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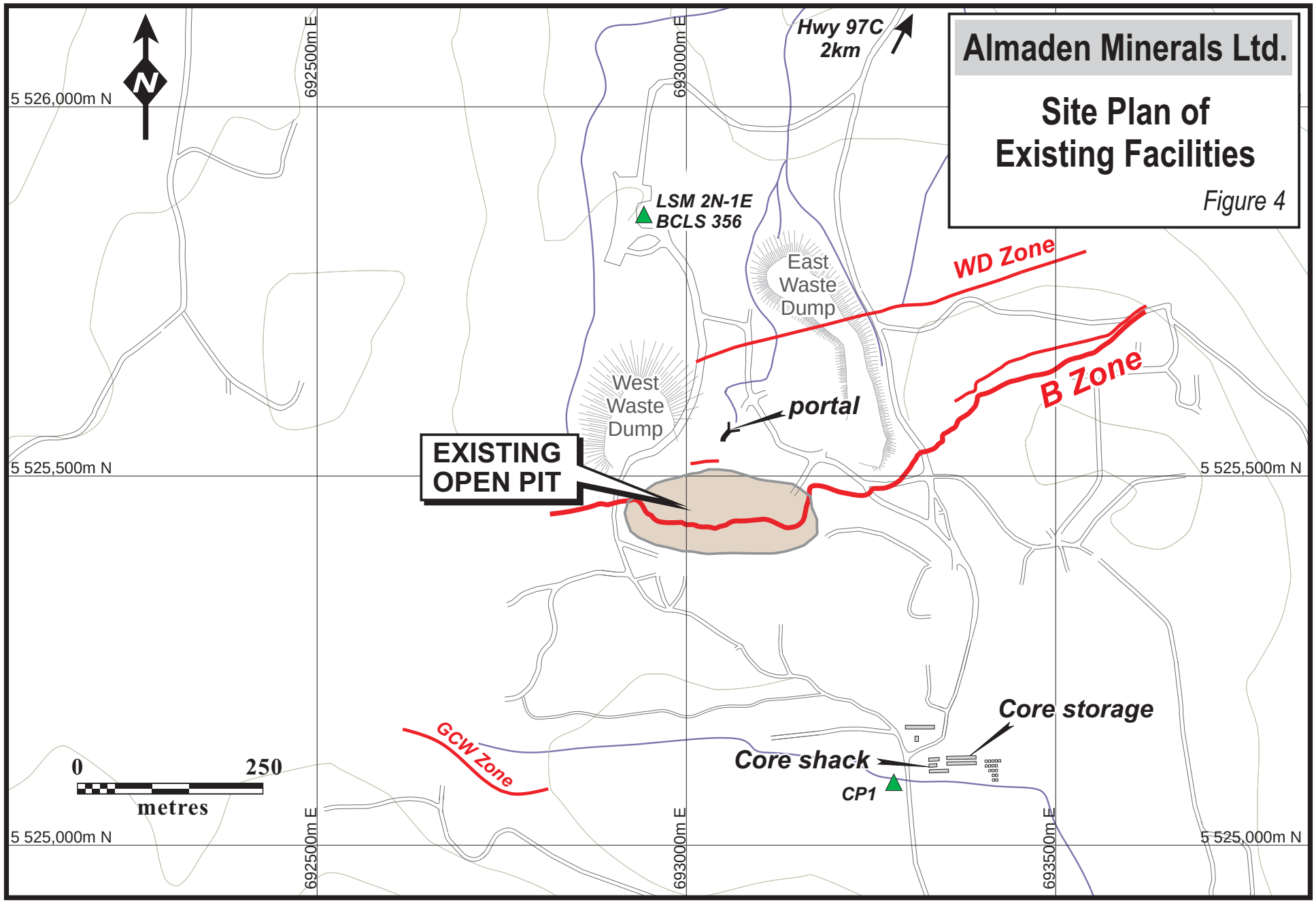
Elk Property
Claim Map

Date	Mar 16, 2011	Scale	1:100,000	Figure
Projection	UTM Zone 10 - NAD83	State/Province	BC	3
BCGS	092H.089	NTS	092H/16	
Author	MB	File	Elk11_Claim	

Table 1: List of claims & Mineral Lease as of Jan. 15, 2011

Claim	Type	No units	Record no	Expiry date	BCGS	Hectares
ELK06A	MCX	24	524944	11-Jul-2011	092H089/88	500.07
ELK06B	MCX	24	524945	11-Jul-2011	092H089/88	499.9
ELK06C	MCX	24	524946	11-Jul-2011	092H089/88	499.73
ELK06D	MCX	24	524947	11-Jul-2011	092H089/88	499.56
ELK06E	MCX	24	524948	11-Jul-2011	092H089	499.56
ELK06F	MCX	24	524949	11-Jul-2011	092H089	499.73
ELK06G	MCX	13	524950	11-Jul-2011	092H089	270.75
ELK06H	MCX	13	524952	11-Jul-2011	092H089/99	520.33
ELK06I	MCX	24	524954	11-Jul-2011	092H099/98	499.43
ELK05A	MCX	1	516781	12-Jan-2016	092H089	20.85
ELK05B	MCX	2	517116	12-Jan-2016	092H089	41.65
No Name	MCX	1	517045	12-Jan-2016	092H079	20.86
No Name	MCX	25	516717	12-Jan-2016	092H089	520.57
No Name	MCX	30	516725	12-Jan-2016	092H089	624.98
No Name	MCX	25	516727	12-Jan-2016	092H089	521.05
No Name	MCX	25	516731	12-Jan-2016	092H089/79	521.26
No Name	MCX	71	516732	12-Jan-2016	092H079	1,481.07
No Name	MCX	45	516733	12-Jan-2016	092H089	938.03
No Name	MCX	30	516739	12-Jan-2016	092H089	624.69
No Name	MCX	70	516740	12-Jan-2016	092H089	1,458.28
No Name	MCX	8	516743	12-Jan-2016	092H089	166.61
No Name	MCX	61	516750	12-Jan-2016	092H089	1,271.49
No Name	MCX	57	516755	12-Jan-2016	092H079/89	1,188.84
No Name	MCX	49	516757	12-Jan-2016	092H079/89	1,021.84
No Name	MCX	54	516759	12-Jan-2016	092H089/88	1,125.59
No Name	MCX	30	516761	12-Jan-2016	092H089	625.03
No Name	MCX	5	519105	12-Jan-2016	092H079	104.3
Siwash North	ML*	1	308695	14-Sep-2027	092H089	150.00
Total Area						16716.05
	*mining lease renewable yearly on Sept. 14					


Almaden Minerals Ltd.
Site Plan of Existing Facilities
Figure 4
N
Hwy 97C
2km
LSM 2N-1E
BCLS 356
East Waste Dump
West Waste Dump
portal
WD Zone
B Zone
EXISTING OPEN PIT
GCW Zone
Core storage
Core shack
CP1
0
250
metres
5 526,000m N
5 525,500m N
5 525,000m N
692500m E
693000m E
693500m E

1.3 Climate and Terrain

The Elk property is located within the Thompson Plateau eastern section known as the Trepanege Plateau highland, figure 5. Elevations range from 1,300 to 1,750 m above sea level. The area is blanketed by a layer of glacial till of varying thicknesses, and as a result, outcrop is scarce. A heavily forested hilly terrain, the property tree cover consists mainly of lodge pole pine with some balsam, sub-alpine fir and spruce. Alders are found along streams and in marshes.

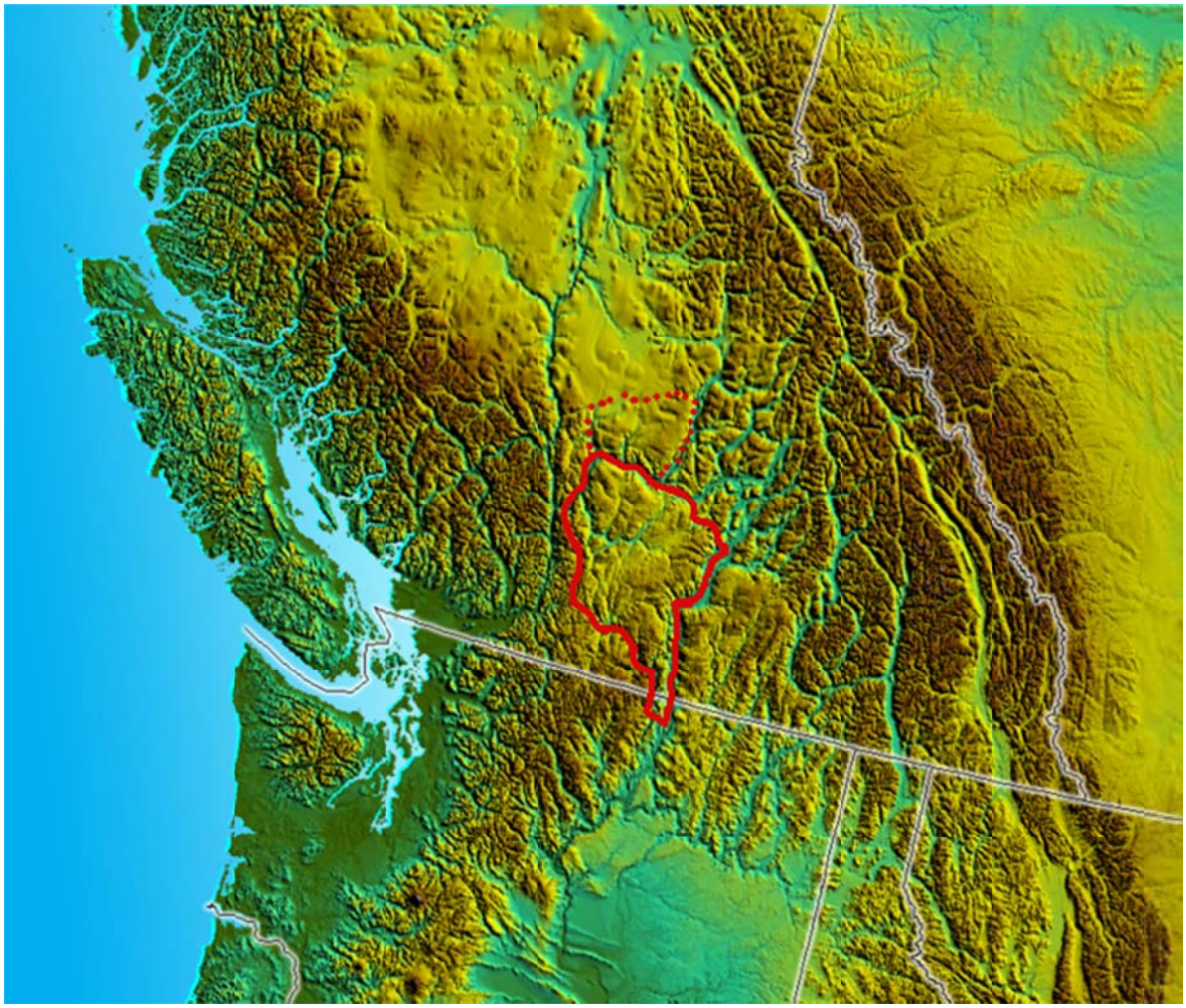


Figure 5: Thompson Plateau (red outline)
(diagram from Wikipedia)

The property has relatively short, warm summers and cold winters. Average daily temperatures for May through September are 12º to 18ºC, with extremes ranging from 5º to 39ºC. Average daily temperatures during the winter months of November to February are 0º to -5ºC, with extremes ranging from 14º to -9ºC. The average yearly rainfall is 235 mm, with most of it falling from May to October. Monthly rainfall averages are between 20 and 25 mm with June being the wettest month with an average rainfall of 34 mm. The yearly snowfall average is 83 cm with most of it falling between December and February. The source of the climatic data noted here is Environment Canada data collected over the last 30 years.

Cattle ranching and logging are the main industries within the area while recreational fishing is available on local small lakes. The dense forest cover also supports hunting of deer, moose and game birds.

2.0 Exploration History

Prospecting activities date back to the early 1900s but detailed work in the area began in the 1960s and 1970s by several companies who focused on copper and molybdenum. Fairfield Minerals investigated the area for gold in 1986. Approximately 51,500 ounces of gold were produced between 1992 and 1995 from a test pit and underground mining exploration. Almaden Resources Ltd. amalgamated with Fairfield Minerals in 2002 to form Almaden Minerals (Almaden), which thereby became the sole owner of the Elk gold property and has continued exploration activity on the project since that time.

The work completed throughout the property area (until 2007) includes 17,400 soil surveys, 5,728 litho-geochemical samples, geological mapping of 4,110 hectares, more 8,000m of trenching, about 16 km of road building, 1,824 km of legal surveys, 121 km of magnetic surveys, 4.5 km of IP surveys and 1.8 km of UTEM surveys (Jabukowski, 2003 - 2007). Over 81,820m of diamond drilling in 733 holes including 12,623m in 301 underground holes were completed from 1989 to 2007. An additional 90 reverse circulation holes were drilled in the resource area.

Almaden completed a diamond drill program in November 2010 that consisted of 87 drill holes in the Siwash North Resource Area, for a total of 12,749 m. The purpose of the program was primarily to provide infill drill holes to increase the drill hole spacing in the areas of Inferred Mineral Resources.

There are 10 identified exploration targets beyond the main North B and WD veins including Bullion Creek, Siwash East, Lake Zone, Great Wall Zone, End Zone, Gold Creek West, Discovery Showing (North Showing), South Showing, Elusive Creek and Agur Option. While the Siwash North Resource Area has been extensively drilled and mined via a small open pit, the exploration targets have had varying levels of work done on them from geophysical surveys to wide spaced drilling of 47 diamond drill holes (4,120 m) (LGGC, 2009). Positive results from the existing work suggest potential to find additional resources beyond the North and WD veins in the project area.

3.0 Geology

The Elk property lies within the intermontane tectonic belt of south-central British Columbia. Triassic age Nicola Group volcanic-sedimentary rocks underlie the western third of the property and are intruded by Jurassic age granitic rocks comprising the Osprey Lake Batholith, which underlies the eastern portion of the property, figure 1. Feldspar-porphyry stocks and dikes of the Upper Cretaceous Otter Lake Intrusion cut volcanic-meta-sediments and granitic rocks. Tertiary andesite dikes intrude all of the above. The Siwash North gold bearing, mesothermal quartz-sulphide veins strike ENE and dip moderately to steeply south. Veins cut shallowly across the intrusive contact between Osprey Lake Batholith and Nicola Group volcanic.

3.1 Local Geology

Nicola Group volcanic lithologies mapped on the Elk Property comprise massive, locally porphyritic basaltic andesite; pale grey-green, siliceous layered tuff and green to pale green

agglomerates. In places the volcanic rocks are silicified and subject to carbonate or epidote alteration. Disseminated pyrite is common.

Osprey Lake granitic rocks vary from quartz monzonitic to granodioritic in composition. The granodioritic rock has been predominantly found on the margin of the intrusive, and has been historically described as a granodioritic chill margin. The rocks are pinkish grey in colour, medium to coarse grain and equigranular to locally porphyritic. Aplitic and andesitic dikes are present. Rare quartz diorite stocks cut the quartz monzonite, according to the regional geology.

The Otter Lake Intrusions consist of quartz-feldspar porphyry, feldspar porphyry and quartz-biotie-feldspar porphyry dikes and stocks. The quartz-feldspar porphyry is locally extensively clay altered.

Andesite dikes are dark grey-green, fine grain and vary in thickness from 30 cm to 5 meters. They are thought to be associated with a later phase of the Otter Lake Intrusions.

Propyllitic, argillic, phyllic and silic alteration assemblages are associated with veining exposed by trenching (Jakubowski, W J, 2006). Propyllitic and argillic alteration may only spatially associated with mineralization (Alexander, R.B., 2010).

The B and WD Vein Complex (historically called the Siwash Vein) is emplaced within a fault / fracture zone that strikes east-northeast and dips moderately to steeply southward (Jakubowski, W. J., 2006).

Gold mineralization occurs within quartz-sulphide veins and stringers most often within phyllic and silic altered granite and the adjacent phyllic and silic altered mafic meta-volcanics. Pyrite is the most common sulphide (Conroy, 1994), ranging from 5 to 80% with higher grades associated with chalcopyrite and tetrahedrite. Mineralization occurs as fine grained native gold (typically less than 50 microns) in quartz, in quartz-pyrite boxwork, and in fractures within veins (King, 2001). Gangue minerals include quartz and altered wall rock clasts, with minor amounts of ankerite, calcite, barite and fluorite.

Most of the previous mine production occurs within the granodiorite border phase of the batholiths (Lewis, 2000).

3.2 Structural Geology

The Nicola Group (west side) generally dips 60 degrees west, forming the east limb of a syncline that trends north-south. The contact between the Nicola volcanic rocks and the Osprey Lake granodoirite trends north-east; and dips irregularly and moderately to the east. Subtle east-northeast lineaments in aerial photos, define vein structures that occur in granitic rocks.

The Siwash North gold bearing, mesothermal quartz-sulphide veins strikes ENE and dip moderately to steeply south. Veins cut shallowly across the intrusive contact between Osprey Lake Batholith and Nicola Group volcanic.

A fracture-fault system trending 060 to 080 degrees and dipping to the southeast at 20 to 75 degrees controls the Siwash North vein system (Jakubowski, W. J., 2006). A secondary fracture set, trending 110 to 160 degrees and dipping 45 to 60 degrees southwest, hosts the Gold Creek West Zone. Gold Creek West is located 400 meters southwest of the Siwash North Vein System. It has been postulated that the B Vein Complex, renamed 1000 series (LGGC,

2009) and the WD Vein Complex, renamed 2000 series (LGGC, 2009) could be part of an anastamosing vein system that could have similarities in geometry to a Reidel shear system (Alexander, R.B., 2010).

The exposure of veins in the Siwash open pit show that they vary in structural style and may be divided into three segments (Lewis, 2000). See notes as follows:

Vein exposures in the open pit vary in structural style along strike. The western segment is a system of sub-parallel, southeast dipping en-echelon veins that are concentrated in a zone approximately 10 meters wide. The central segment is a single discrete, south dipping structure. The eastern segment is where the vein splits into several sub-parallel splays (sub-parallel to spaced joints in the host rock). The western and central segments have a shallow to moderate dip but bend abruptly to a steeper dip at depth.

The geometry of the en-echelon veins indicates oblique, sinistral and minor normal movement. The spaced fractures commonly have altered envelopes. Oriented parallel magmatic fabric defined by grain orientation, zenolith orientation and mineralogical banding implies the vein system exploited a pre-existing structural fabric.

Previous production records indicate the presence of thick high grade shoots plunging moderately to the southeast that were exploited during mining.

Most of the mine production has been from the portion of the vein in the outer-most portion of the batholiths, where a granodioritic phase lies between the quartz monzonite core of the pluton and the surrounding volcanic rocks.

Alignment of soil geochemical anomalies with weak topographic lineaments provide evidence of north-south primary structures. Preferred exploration targets occur at the intersection of the north-south lineaments and east-northeast structures; and where east-northeast structures cross the margin of the batholith.

3.3 Alteration

Nicola volcanic rocks are locally silicified with associated sericitic alteration and subject to carbonate and epidote alteration. Disseminated pyrite is common (Jakubowski, W J, 2006). In the SND89 Series of 15 samples submitted for petrographic study a sample of metamorphosed andesite is dominated by plagioclase with much less hornblende. It contains replacement patches of K-feldspar with much less plagioclase and hornblende (Payne, John G., 1990). A second sample is of a strongly altered, slightly porphyritic andesite dike, in which plagioclase phenocrysts are replaced by sericite-quartz, and the groundmass contains moderately abundant secondary K-feldspar (Payne, John G., 1990). Contradictory evidence of the existence of secondary K-feldspar alteration associated with gold mineralization seems to be presented in 2010 by another petrographic study (Leitch, C., 2010).

Osprey Lake granitic rocks, where quartz veins are present and exposed by trenching, are characterized by propyllitic, argillic, phyllic, sericitic and silic alteration assemblages (Jakubowski, W J, 2006). Strong sericitic and silic alteration generally occurs marginal to the veins and associated gold mineralization. There is symmetrical zoning outward from the quartz veins in the following sequence: advanced argillic, then phyllic, K-feldspar stable phyllic, argillic and furthest from the vein is propyllitic (Jakubowski, W J, 2006). All alteration assemblages are not always present. Propyllitic and argillic alteration may be only spatially associated with mineralization.

Plutonic rocks show weak to strong phyllic alteration, with plagioclase altered to sericite (and

locally ankerite), and biotite mainly replaced by pseudomorphic muscovite with Ti-oxide lenses along cleavage (Payne, John G., 1990). In more strongly altered rocks the stable assemblage is quartz-muscovite-pyrite: plagioclase and K-feldspar are altered completely to muscovite/sericite with patches of ankerite (Payne, John G., 1990). Biotite is altered to pseudomorphic muscovite in part with patches of sericite, ankerite and quartz. Hornblende is altered completely, mainly to carbonate and chlorite or carbonate and sericite. Younger quartz-feldspar porphyry is commonly extensively clay altered (Jakubowski, W J, 2006).

Veins are dominated by quartz with patches of sulfides, muscovite and ankerite (Payne, John G., 1990). In most of the SND89 Series of the 15 samples submitted for petrographic study, sulfides are dominated by pyrite, and in one sample pyrrhotite/marcasite is abundant; and arsenopyrite and chalcopyrite are minor phases. Sphalerite is moderately abundant in one sample.

3.4 Deposit Type

The gold and silver bearing quartz veins are characterized as mesothermal. Fluid inclusion studies indicate gold mineralization formed at a minimum temperature of 250 degrees Celsius and a pressure of 2.5 kilobars; corresponding to lithostatic pressure at a depth of seven kilometers (Geiger, 2000). The vein system consists of structurally controlled, narrow, pyritic quartz veins hosted in granitic rocks near the contact with the mafic volcanic rocks.

3.5 Mineralization

Mineralization is thought to be Tertiary in age and associated with the intrusion of the Otter dikes and stocks (Jakubowski, W J, 2006). Gold occurs primarily in native form, in places as aggregates of fine flakes in quartz, in quartz-pyrite boxwork and in fractures within the veins. Individual veins are narrow, generally less than 0.5 meters.

Native gold also occurs in some quartz-sulfide veins, mainly in fractures in pyrite grains (Payne, John G., 1990). In the SND89 Series of 15 samples submitted for petrographic study: most native gold grains are not associated with base metal sulfides. In a few samples it is intergrown coarsely with galena (in blebs in pyrite) and with galena-tetrahedrite (in a fracture in pyrite). Native gold grains are mainly from 0.03 to 0.10 mm in size.

At surface, most of the sulphides are leached out, leaving only minor pyrite and chalcopyrite in quartz (Jakubowski, W J, 2006). Gold is closely associated with pyrite and a blue mineral (possibly a gold-bismuth alloy called maldonite) or a copper-bismuth-antimony sulfosalt. Metallic minerals in the vein (listed in decreasing abundance) are pyrite, chalcopyrite, sphalerite, galena, tetrahedrite, maldonite(?), phyrrhotite and gold (Jakubowski, W J, 2006). Gangue minerals consist primarily of quartz and altered wall rock clasts. Ankerite and lesser amounts of calcite, minor barite and fluorite occur locally.

3.6 Mineralization Outlined in Previous Programs

Gold and silver bearing quartz vein structures have been located in eight areas of the Elk property. They are Siwash North, Siwash East, South Showing, Discovery (North) Showing, Lake Zone, End Zone, Great Wall Zone, Elusive Creek and Gold Creek West. Of these only the South Showing was drilled outside of the Mining Lease in 2010 and the results of which is the subject of this report.

South Showing

The South Showing area is located 2.7 km south of the Siwash North Resource area, and is centered on a strong gold in soil anomaly 400m by 300m in size. Gold mineralization occurs mainly in quartz stringers in altered quartz monzonite in association with breccia or with intensely argillic altered, andesite dykes. Gold is rarely visible and is associated with pyrite and base-metal sulphides. The highest grade sample interval is from a zone of quartz stringers paralleling the breccia, within weak sericitic alteration. A strong, consistent shear structure hosting the local veining and breccia has been traced by trenching over a length of 800 m. Chip samples across the quartz veins exposed by trenching returned best values of 20.71 g/t over 0.5m, 18.93 g/t over 0.3m, and 23.35 g/t over 1m.

During 1987, widespread and detailed grid soil sampling programs were undertaken to define areas anomalous in gold. Five trenches orientated 315 degrees tested an area known as the South Showing exposed narrow quartz veins, variably altered andesite dykes and a breccias hosted in quartz monzonite of the Osprey Lake Intrusion over a strike length of 600 meters. The trenches were excavated to test soil geochemical targets. Other geophysical surveys including IP, magnetometer and VLF-EM were carried out over the trenched areas.

Trenches SS87-2 and SS87-3 were excavated to expose the source of coincident anomalous soil geochemical results and IP response. SS87-2 exposed granite, cut by moderately altered andesite dykes and diatreme breccias were exposed. The breccias and the adjacent granite to the south showed strong argillic alteration with locally disseminated pyrite. Three samples taken across the alteration zone averaged 0.182 oz/t Au, 0.167 oz/t Ag over 3.3 meters.

Trench SS87-3 exposed a 45 meter wide zone of moderate to strong alteration and patches containing 1-5% disseminated pyrite. Sampling generally returned low gold values. Three 1 cm wide quartz veins were noted, and one at grid coordinate 371N returned a value of 0.552 oz/t Au over 0.3m.

In 1989, nine additional trenches were excavated in the South Showing to test the continuity of results from the 1987 season. Narrow quartz veins were found within a few meters of a breccias dike and andesite dike system trending at 60 degrees. Trench SS89-7 was excavated to test the eastward extent of gold mineralization intercepted in trench SS87-2. SS89-7 encountered quartz vein hosted gold mineralization, paralleling a breccia trending 060 degrees. The mineralization grades an average 3.36 g/t over a true width of 2.0 meters along a strike length of 34.0m. A series of 9 chip and panel sample strings taken from a stripped area over a strike length of 25 meters returned an average of 3.81 g/t over 2.0m.

In 1995, two test pits were dug in the South Showing area to determine the source of anomalous soil geochemistry and to locate the source of a quartz vein float. The pits were dug at mine grid locations 1800E/125N and 2250E/100N to depths of seven and two meters, respectively. Pit wall soil samples were taken at 1 m intervals. Featureless quartz monzonite bedrock was exposed at the bottom of the pit at 2250E. No significant features were intersected and both pits were backfilled.

Also in 1995, eight drill holes (481m) were completed on three sections (Az. 330 degrees) spaced 75 and 100m meters apart. These holes tested mineralization encountered in the 1987 and 1989 trenching programs. A ninth hole was drilled at 330° at the southern end of the

showing area, and tested a geochemical anomaly associated with an east-west trending gully. A total 481 m were drilled.

Drill holes SSD95-166 and 167 were drilled under trench SS87-2. These holes returned variable results over narrow widths, ranging from 15.46 g/t to 1.13 g/t. Drill holes SSD95-168, 169 and 202 were drilled under trench SS87-3. These holes also intersected pyritic quartz veining associated with a breccia cutting quartz monzonite. Assay results were variable over narrow widths and ranged from 32.12 g/t to 3.81 g/t. No significant results were found in the other holes.

4.0 2010 Program

In 2010 a new camp was permitted and constructed in the period from May to June 2010. The new camp facility includes a kitchen/dining building, a dry, first aid building, generator shack and a water system building that contains a water storage tank with treatment system. Tent floors were built to allow for four 14'x16' tents and two separate 8'x10' tents. The camp was designed to accommodate a maximum 18 people, and will meet industry standards for the electrical and water systems. The old camp was torn down and the area cleaned up over the course of the season.

Almaden completed an exploration drill program on the South Showing in July 2010. The program completed 4 drill holes for a total of 300 meters on MTO claim #516750 with the objective to verify the mineralization reported in earlier drilling and trench results.

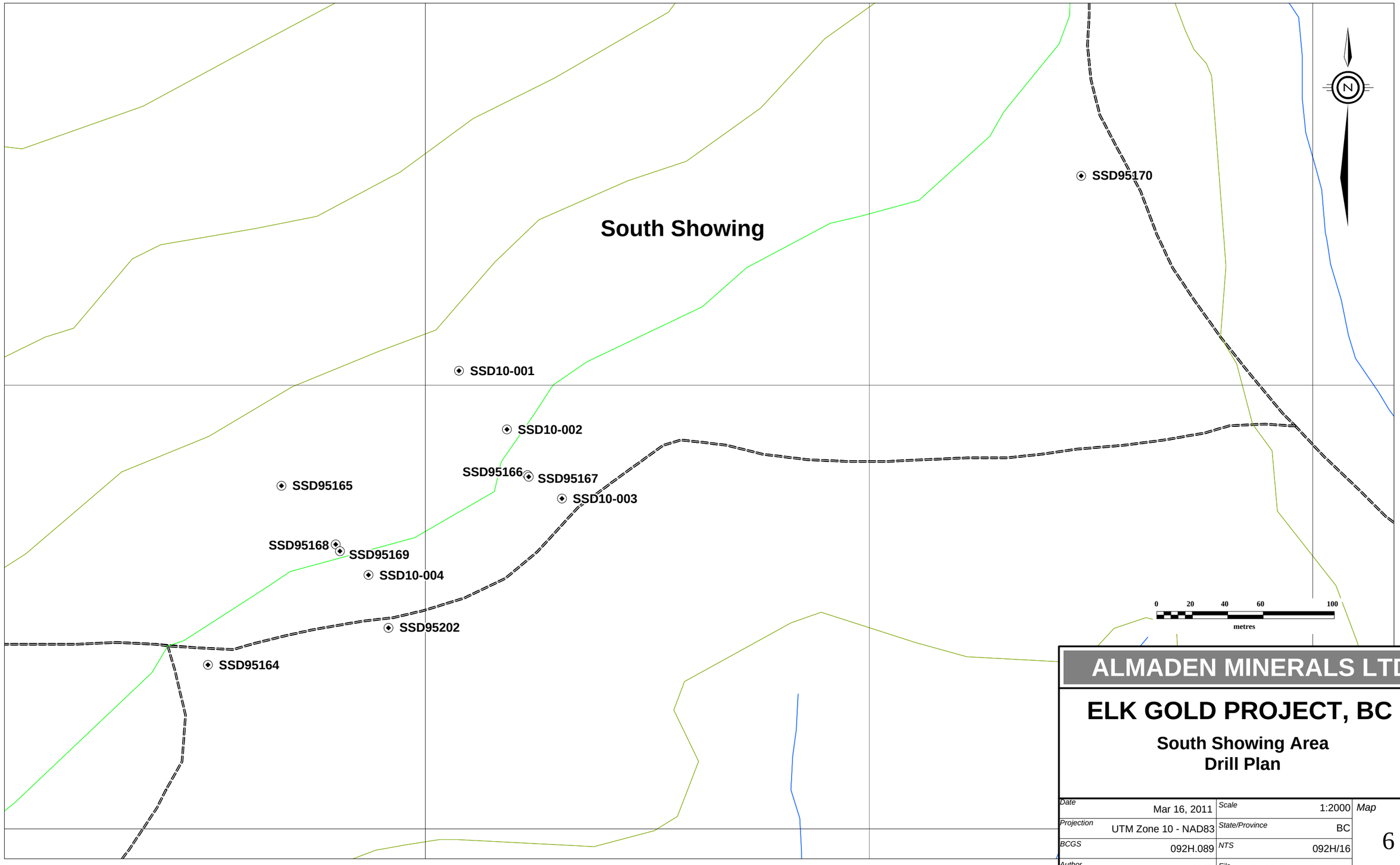
4.1 South Showing Exploration Drill Program

Four holes were drilled in 2010 for a total of 300 m. Drill hole locations are given in UTM co-ordinates (NAD83, Zone 10) in Table 2 and plotted on Figure 6, South Showing Drill Hole Location Map. The surrounding historic drill collar elevations must be corrected by a factor of minus 10.2 meters to normalize Mine Grid locations to a UTM map datum. The purpose of the 2010 holes was to verify the 1995 anomalous assays on two separate profiles. Appendix 1 contains the drillhole logs including geology and geothechnical logs plus assay and geochem results of the drill core samples. Assay certificates are contained within Appendix 2. Drill Cross Sections (1:250 scale) are presented in Appendix 3.

Table 2: South Showing 2010 Drill Hole Summary

HOLE	LOCATION			DIP	AZ	DATE		CASING	HOLE	No.	Detailed
#	N	E	ELEV			START	END	(m)	(m)	Samples	Geotech
SSD10-001	5,522,508	692,769	1614	-50	320	6-Jul-10	8-Jul-10	4.27	50.60	10	x
SSD10-002	5,522,475	692,796	1600	-50	320	8-Jul-10	11-Jul-10	5.79	102.72	16	x
SSD10-003	5,522,436	692,827	1592	-50	320	11-Jul-10	12-Jul-10	4.57	74.98	34	x
SSD10-004	5,522,393	692,718	1598	-50	320	12-Jul-10	13-Jul-10	4.57	71.93	38	x
								TOTAL=	300		

The first drill section was targeted to test along and below Trench SS87-2. SSD10-001 and 002 were supposed to be drilled to undercut mineralization in Trench SS87-2 and the east extension of the same mineralized trend in Trench SS89-7. No significant assay results and no correlation with geology in either Trench SS87-2 or SS89-7 resulted in the discovery that the plotted location of the now filled and reclaimed trenches in relation to the drill holes was incorrect.



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ELK GOLD PROJECT, BC

South Showing Area
Drill Plan

Date	Mar 16, 2011	Scale	1:2000	Map
Projection	UTM Zone 10 - NAD83	State/Province	BC	6
BCGS	092H.089	NTS	092H/16	
Author	MJD	File	Elk11-SouthShowPlan	

Upon discovery of the error SSD10-003 was stepped back from 001 & 002 on the same section and was targeted to intersect the mineralization between holes SSD95-166 and 167. The geology and assay results correlate with the historic drill holes with the interpretation being a steeply (50-80 degree) south dipping mineralized zone. SSD10-003 returned three composite assay values of 1.14 g/t over 3.2 meters (11.8 to 15.0 meters), 0.94 g/t over 4.5 meters (46.5 to 51.0 meters) and 1.0 g/t over 1.1 meters (54.7 to 55.8 meters).

The anomalous assays were reported as hosted in silicified quartz monzonite containing narrow quartz veins and variable pyrite contents locally up to 10%, including trace amounts of galena and chalcopyrite. Local "breccia" was documented as containing fragments of andesitic dyke and sulphides. The up-dip extension of the zone (46.5 to 51.0 meters) is thought be the mineralization encountered in Trenches SS87-2 and SS89-7. An error of approximately 56 meters is necessary to account for the difference meaning the trenches are incorrectly plotted approximately 56 meters north along a 320 degree azimuth.

The second drill section was along Trench SS87-3. SSD10-004 was targeted to undercut mineralization intersected in SSD95-168 and 169, and determine a cutoff with the non-mineralized SSD95-202 below. SSD10-004 returned composite assay values of 0.35 g/t over 3.0 meters (32.0 to 35.0 meters) and 1.04 g/t over 7.8 meters (39.0 to 46.8 meters). The anomalous assays were reported as hosted in silicified quartz monzonite containing quartz stringers and variable pyrite contents locally up to 5%. This mineralized zone is interpreted to be the same as intersected in SSD10-003, located approximately 120 meters to the southeast on a parallel drill section.

NOTE: The GIS database was produced from the original survey results using the Mine Grid and surveyed by transit. The original results were converted by mathematical translation to UTM Grid (Nad 83, Zone 10). GPS surveyed drill hole co-ordinates do not correlate with the trench locations due to a possible error in the mathematical translation utilized. A qualified surveyor must be obtained to calculate an accurate translation.

4.2 Sampling Method and Approach

Drilling and sampling on the Elk property in 2010 were completed under the supervision of Mr Robert Brian Alexander, P.Geo. and Qualified Person as defined in NI 43-101 under the executive supervision of Mr Morgan Poloquin, P.Geo. The same procedures as described from Jakubowski (2000) and Giroux (2007) were used in 2010.

4.3 Sample Preparation, Analysis and Security

In 2010, drill core was sent for analysis at ALS Laboratory Group, Minerals Division, in Vancouver, B.C. Analysis was done using 50g fire assay with AA finish for Au (0.005-10ppm) and 50g fire assay with gravimetric finish for Au (0.05-1000ppm). ICP (Inductively Coupled Plasma) analyses for 33 elements were also performed on all samples.

One un-mineralized core (blank) and one gold standard pulps (from CDN Resource Laboratories Ltd.) were inserted into the sample stream in every thirty samples as a check of lab procedures. A duplicate sample was also taken in every thirty samples. Due to the high degree of nugget effect in the duplicate samples it was decided to send the entire second half of the drill core, instead of using a quarter split as done previously in the early portion of the 2010 program. Pieces of wood, labeled with the sample interval data, were placed in the core box in place of the missing core. Metal tags, labeled with the sample number, were stapled into the core boxes

to mark the start of each sample interval. All split samples were shipped to ALS for preparation and assaying.

4.4 QA/QC Data and Review

The analyses reported were carried out at ALS Chemex Laboratories of North Vancouver using industry standard aqua regia, ICP and fire assay techniques. Blanks, field duplicates and certified standards were inserted into the sample stream as part of Almaden's quality assurance and control program which complies with National Instrument 43-101 requirements. Intervals that returned assays below detection were assigned zero values. Composites were calculated using a cut-off grade of 0.25 g/t gold and with a maximum of 5 meters internal dilution (values below 0.25 g/t). Reported widths are intersection and not true widths unless otherwise stated. A significantly larger drill program during 2010 occurred on the Mining Lease and is not part of this assessment report however the QA/QC review includes results from that program to document issues that were experienced.

Starting in 2010, Almaden began using ALS-Chemex Laboratory (ALS) in North Vancouver as their primary laboratory. The fire assay oven had space to accommodate thirty client samples in one batch, therefore a standard, blank and duplicate were taken one in every 30 samples. Additional QA/QC procedures were as follows:

<u>Chain of Custody</u>
All samples regardless of type including rock, drill cuttings, drill core, soil and stream sediment must be sealed with a plastic zap strap and stored in a secure area before shipping. Samples should only be submitted to the lab personally or through a reliable commercial courier or shipping service. Waybills of the shipments must be kept with waybill numbers sent directly to the lab and the Company at the time of shipping. Rock and drill core samples are sealed by the sampler and kept under control of a qualified person until they are shipped to a laboratory.

<u>Sample Handling</u>
Samplers are required to not wear any jewelry or clothing or use equipment which may contaminate the sample. All sample locations are to be geographically located at the time of sampling using the Global Positioning System with coordinates recorded according to the DATUM previously agreed upon to be used. Almaden has prepared standardized sample information cards for samplers to record information concerning the sample location, type and medium.

<u>Blank Samples</u>
Blanks were submitted into the sample stream starting in the year 2000 on a one in twenty basis and were sourced from unaltered granodiorite and quartz monzonite core pieces with no quartz veining. There are a few samples that exceed the accepted fail limit of 0.05 g/t Au but they do not appear systematic and are scattered throughout the history of the drilling campaigns. There does not appear to be any contamination problems during the sample preparation process.

In 2010 the blank material, a sample of split core known to contain very low or non-detectable concentration of gold, is inserted into the sample stream on an interval of one every 30 samples. Blanks are intended to detect possible contamination during the sample preparation phase or during the fire assay.

Figure 7 shows the assay results on blank samples that exceeded the tolerance limit of 0.050 g/t gold. There are a few samples that exceed the accepted fail limit of 0.05 g/t Au but they do

not appear systematic and are scattered throughout the history of the drilling campaigns. There does not appear to be any contamination problems during the sample preparation process in general. An exception to this statement occurs with sample numbers 25646 and 25736, where two samples in relatively close numeric order were returned with assay values ranging between 0.245 and 0.278 g/t gold. The laboratory was contacted and reminded to be sure the equipment was adequately cleaned after each sample during the sample preparation process.

Figure 8 illustrates a blank sample (26116) that returned an anomalously high gold value of 3.92 g/t. The corresponding group of 30 sample was re-assayed. The same or similar numbers were returned. It was concluded that the problem was due to error in the selection of the field blank from the old core. The sample must have contained a small quartz veinlet that was gold bearing.

Core Duplicates

From 2000 to 2005, core duplicates were collected every 20th sample by taking a ¼ split of the remaining ½ core and assigning it the sequential sample number to the original sample. In 2006, Almaden began sending the other half of the cut core for duplicate analysis instead of a ¼ cut of the remaining half core in the box. The frequency of insertion changed from every 20th to every 30th sample. The ¼ core to ½ core duplicates show an apparent high bias in the results of the ¼ core samples over the ½ core samples. Results for the ½ core duplicate data compare well and do not appear to show any bias between the duplicate pair analysis results.

During the 2010 drill program the company routinely included a field duplicate into the sample stream, spaced at 30 sample intervals. The resulting two field duplicate samples are submitted with separate sample numbers “blind” to the assay lab and separately treated as normal samples. The samples are taken randomly with no regard to rock type, geographic position or degree of alteration or mineralization. These field duplicates are then used to detect the cumulative uncertainties associated with the entire sampling and analytical process.

At the start of the 2010 season core duplicates were submitted as quarter split core. This error was corrected part way through the season, and the second half of the split core was submitted as the duplicate sample. Wooden lathe was put in the core box and labeled as a duplicate sample. A record of the core exists in the photographs routinely taken of all drill core prior to being sampled. Figure 9 shows a more detailed view of the duplicate samples, since most duplicates returned very low assay values. The samples are labeled with the first value (half core) followed by the second value (quarter or half core). The first value was plotted on the horizontal axis of the graph. It is significant to take note that a greater number of samples are skewed to the right of the graph, reflecting the presence of quarter split core with lower assay values than the half core.

Figure 10 shows two unusually high grade gold values that were returned as part of the random duplicate sampling. Sample numbers 18776 and 18777 returned assay values of 15.05 and 7.35 g/t respectively from SSD10-004. Sample numbers 28545 and 28546 returned assay values of 19.30 and 1.035 g/t respectively from SND10-004. Hole numbers SSD10-004 (South Showing) and SND10-004 (Siwash North) were drilled early in the season when the duplicate samples were composed of the first split as half core and the second split as quarter core. These samples illustrate the skewed location to the right as mentioned above.

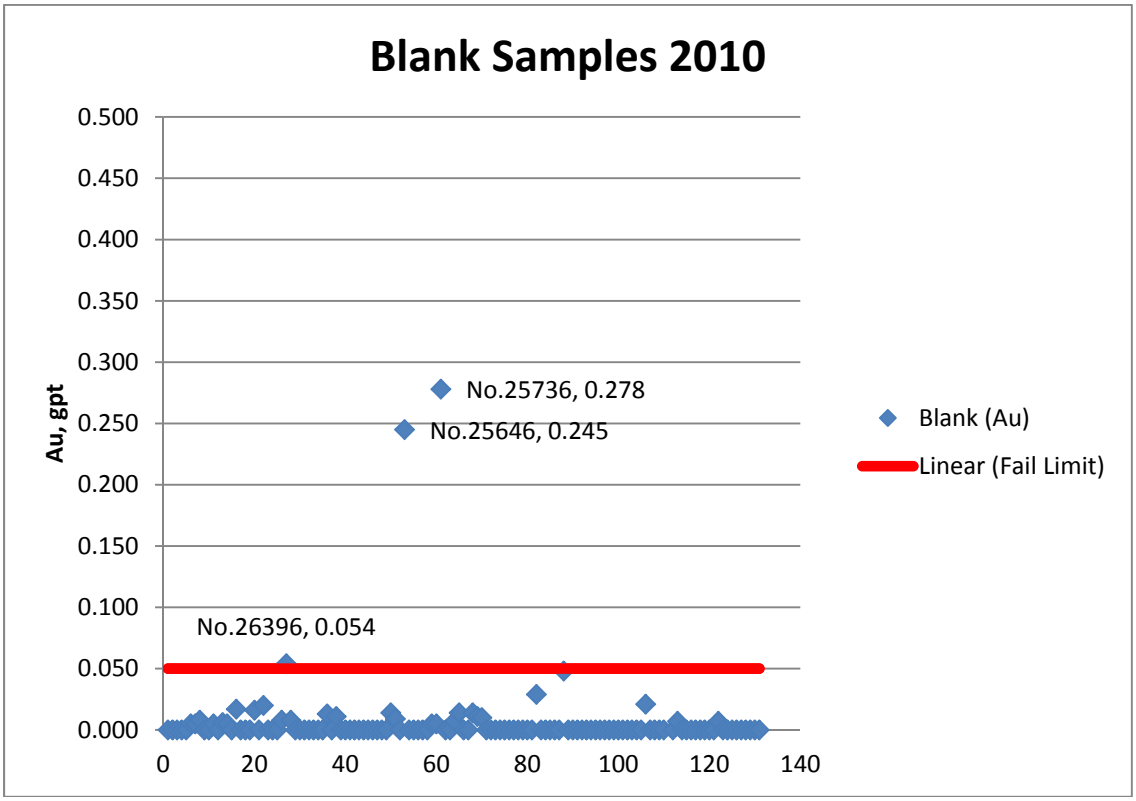

Figure 7: Blank Samples 2010

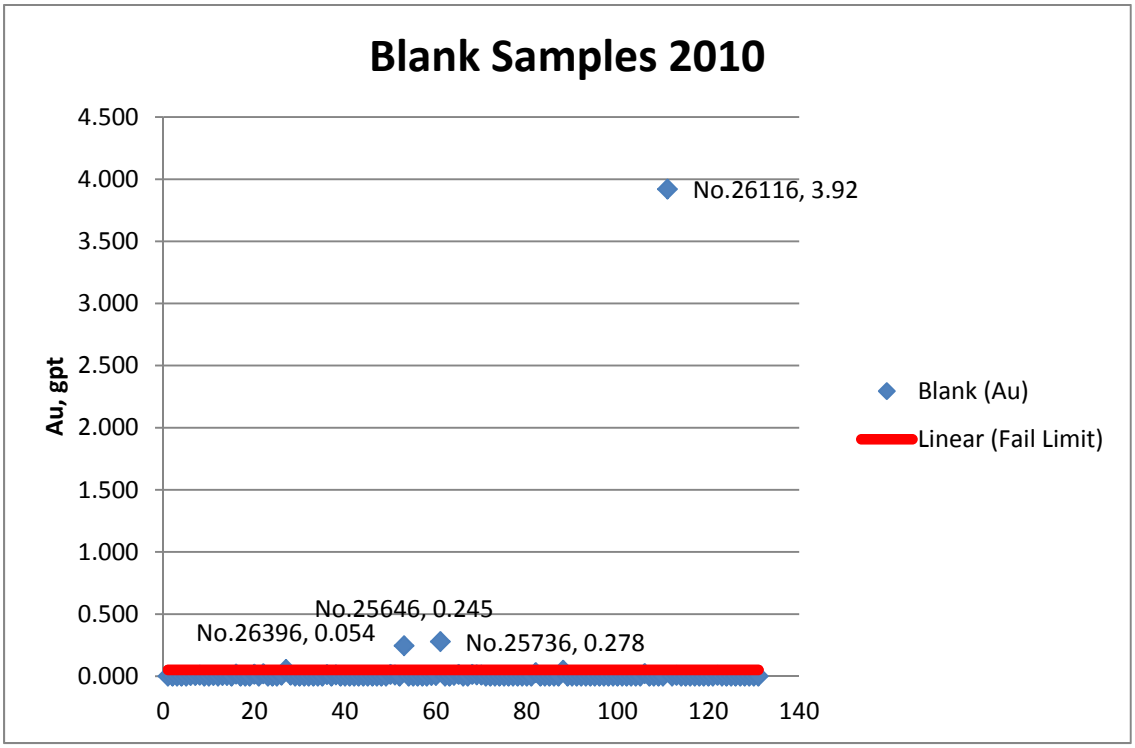

Figure 8: Blank Samples 2010

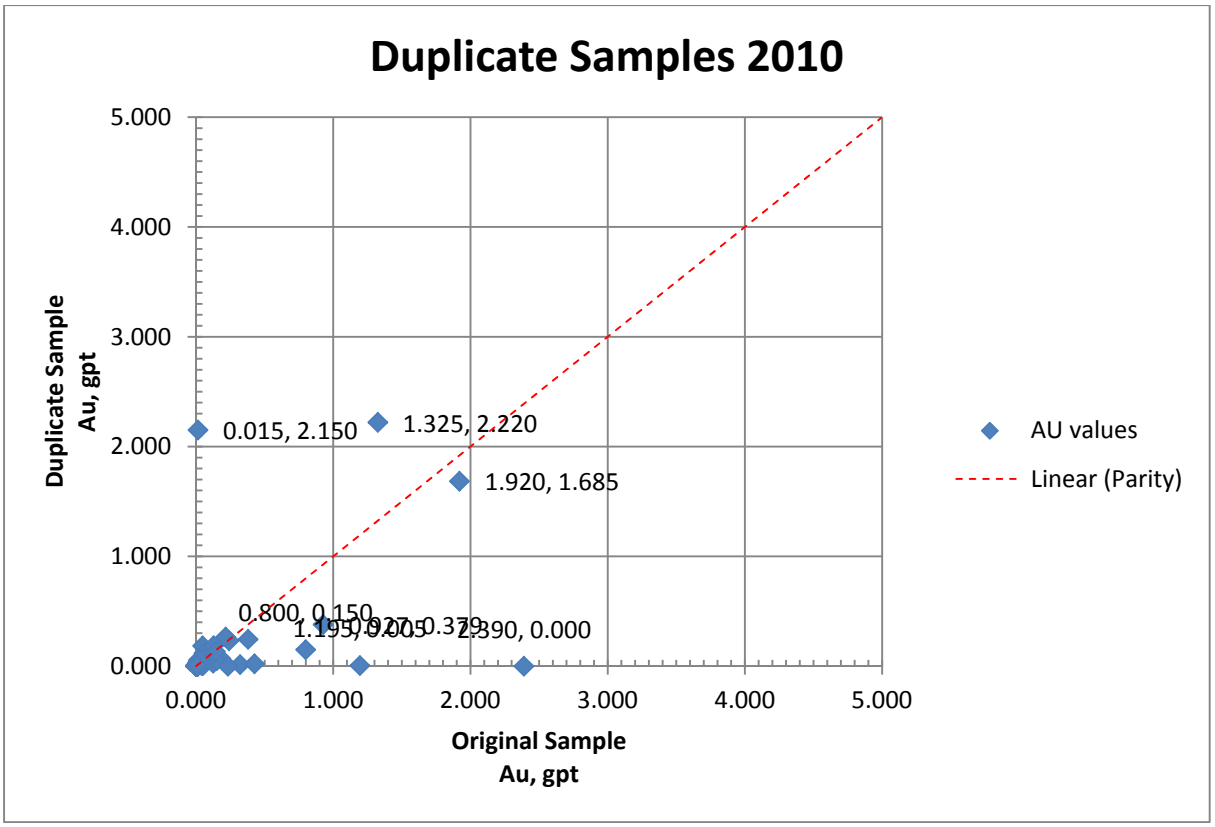

Figure 9: Duplicate Samples 2010

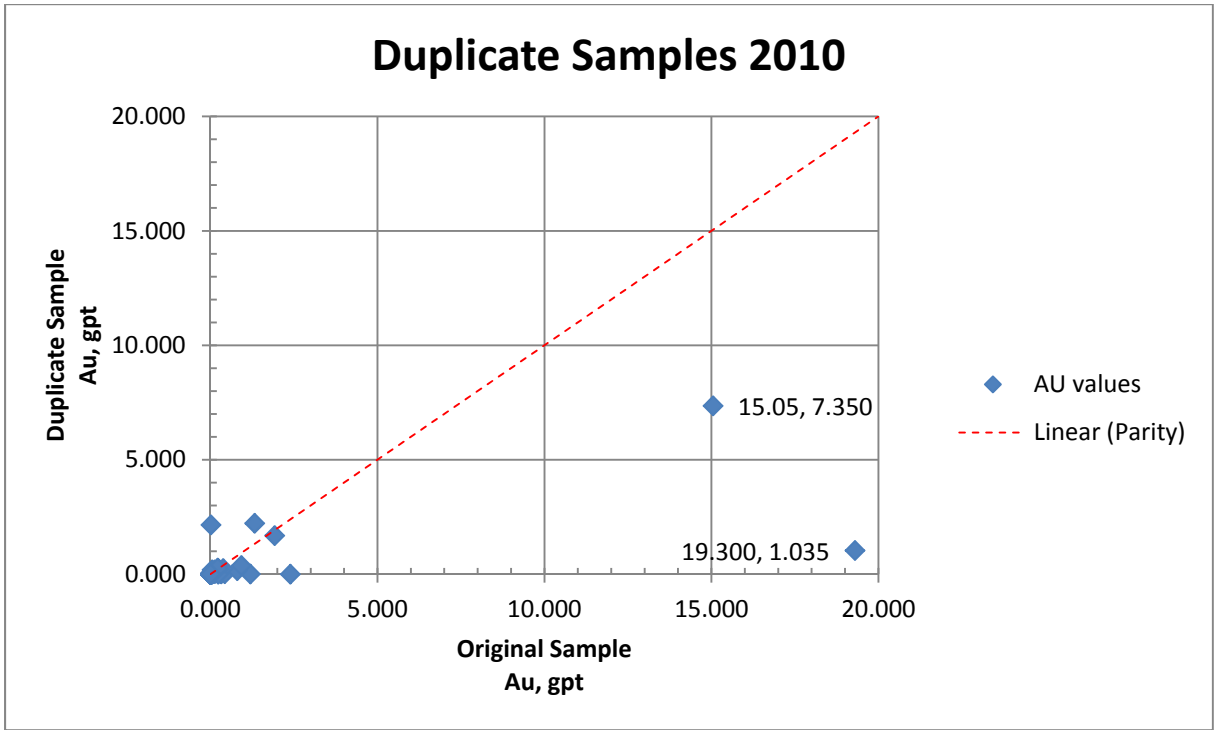

Figure 10: Duplicate Samples 2010

Standards

Standards are purchased from CDN Resource Labs of Vancouver and are prepared by this professional third party lab according to industry standard and accepted methodologies. Standards are utilized to monitor the accuracy of the laboratory work. The amount of Standard Reference Material (SRM) submitted was originally 50 gram packages, which was used part way through the program. It was discovered that 100 grams should be submitted to be sure that multiple analysis of the same sample could be obtained when necessary. SRM CDN-GS-P2 was added part way through the 2010 season to fulfill a recommendation to have a low grade standard in use. A low grade standard was recommended since the cutoff grade used in calculating composites for press releases was 0.25 g/t gold.

The following table lists the Standard Reference Materials used during the 2010 program.

Standard Reference Material Label	Au Value +/- 3 Stnd Deviations	Upper Limit Au (g/t)	Lower Limit Au (g/t)
CDN-GS-30B	29.21+/-1.85	31.06	27.36
CDN-ME-2	2.10+/-0.165g/t	2.265	1.935
CDN-GS-5F	5.27+/-0.51	5.78	4.76
CDN-GS-2F	2.16+/-0.36g/t	2.52	1.8
CDN-GS-13A	13.2+/-1.08	14.28	12.12
CDN-GS-P2	0.214 +/- 0.03	0.244	0.184

Figures 11, 12, 13, 14, 15 and 16 show the assay results from the standards CDN-GS-30B, CDN-ME-2, CDN-GS-5F, CDN-GS-2F, CDN-GS-13A and CDN-GS-P2 respectively. The figures are graphs showing the failure limits for each standard based on 3 standard deviations above or below the average expected gold value, as listed above.

Figure 15 (CDN-GS-13A) shows the assay value for sample number 26356 falls well below the lower failure limit. This was a case where there was insufficient sample left to do an additional gravimetric assay to check the result. There was no way to fix the problem. It was decided to let the results pass, after consultation with Barry Smee. In the future, all standard reference material should be submitted in packages weighing a minimum of 150 g, so that at least three gravimetric assays can be performed. In the remainder of the 2010 program either 2 packages of 100 grams each were submitted or one package of 150 grams after standards were re-ordered.

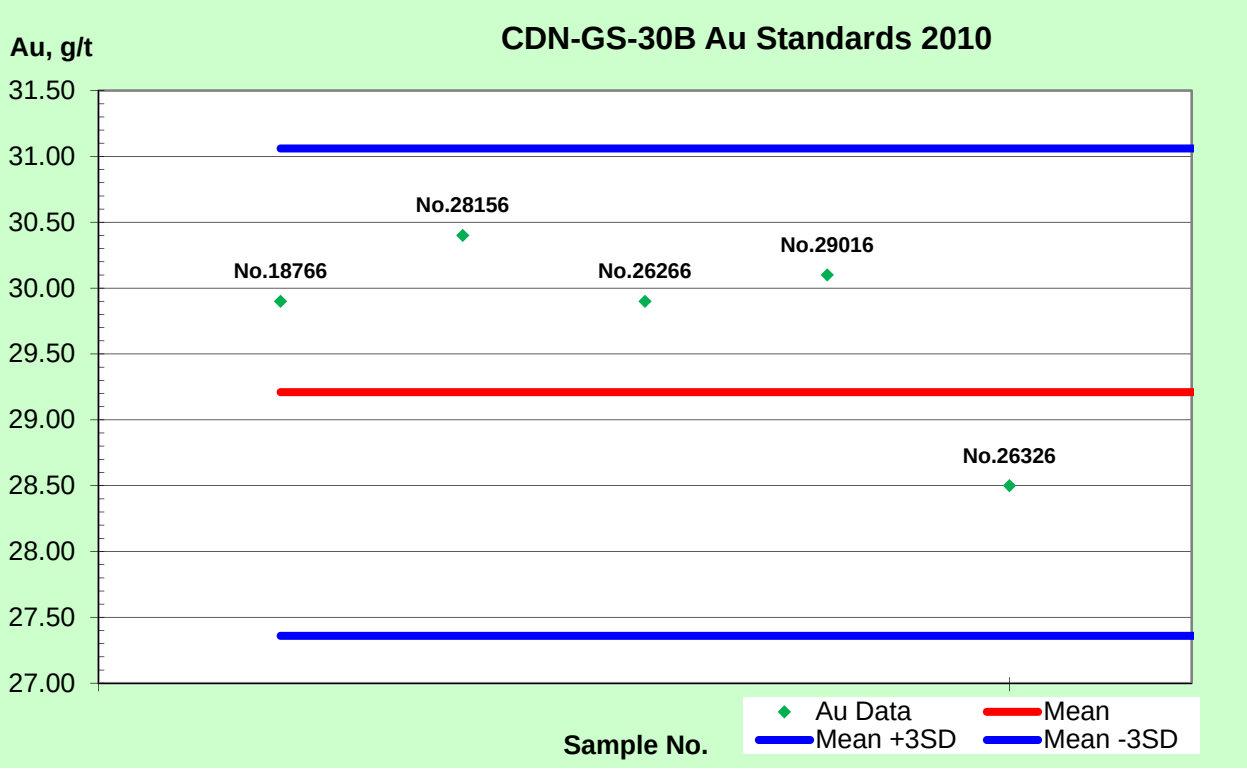

Figure 11: CDN-GS-30B Standards

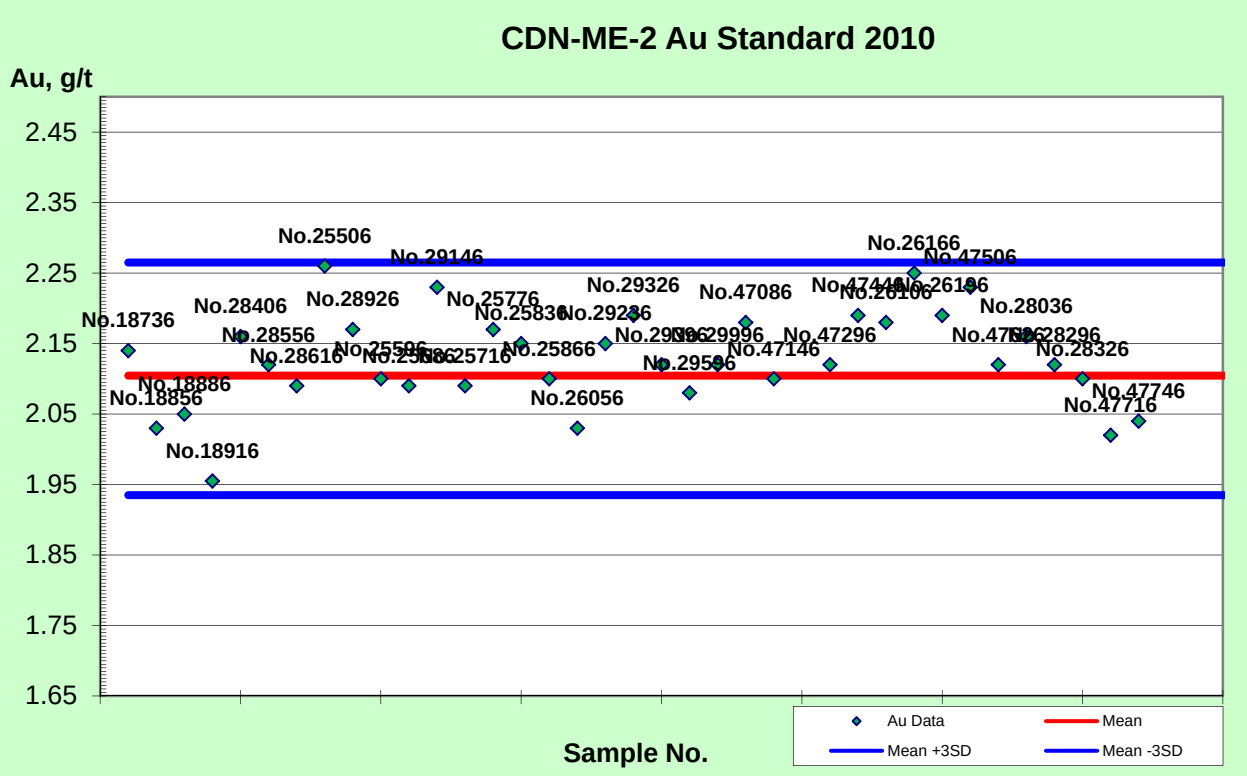

Figure 12: CND-ME-2 Standards

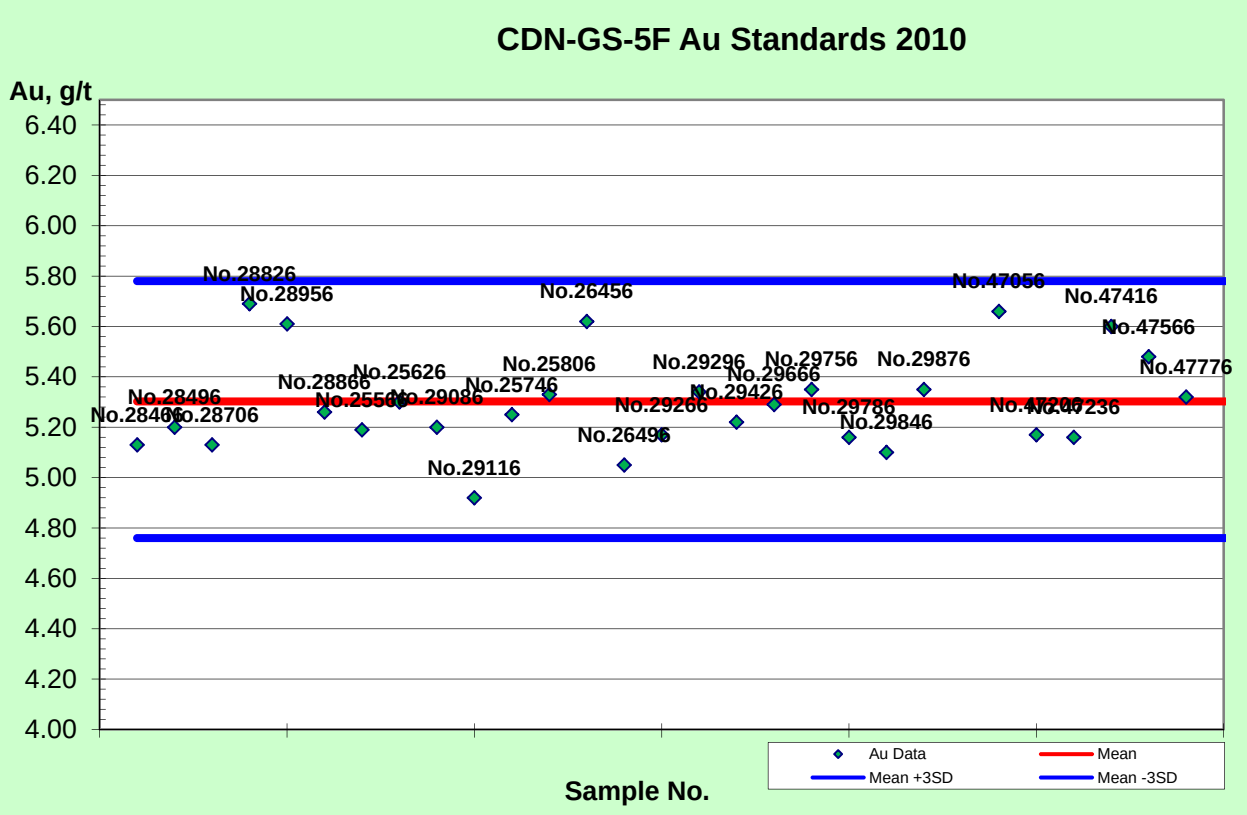

Figure 13: CDN-GS-5F Standard

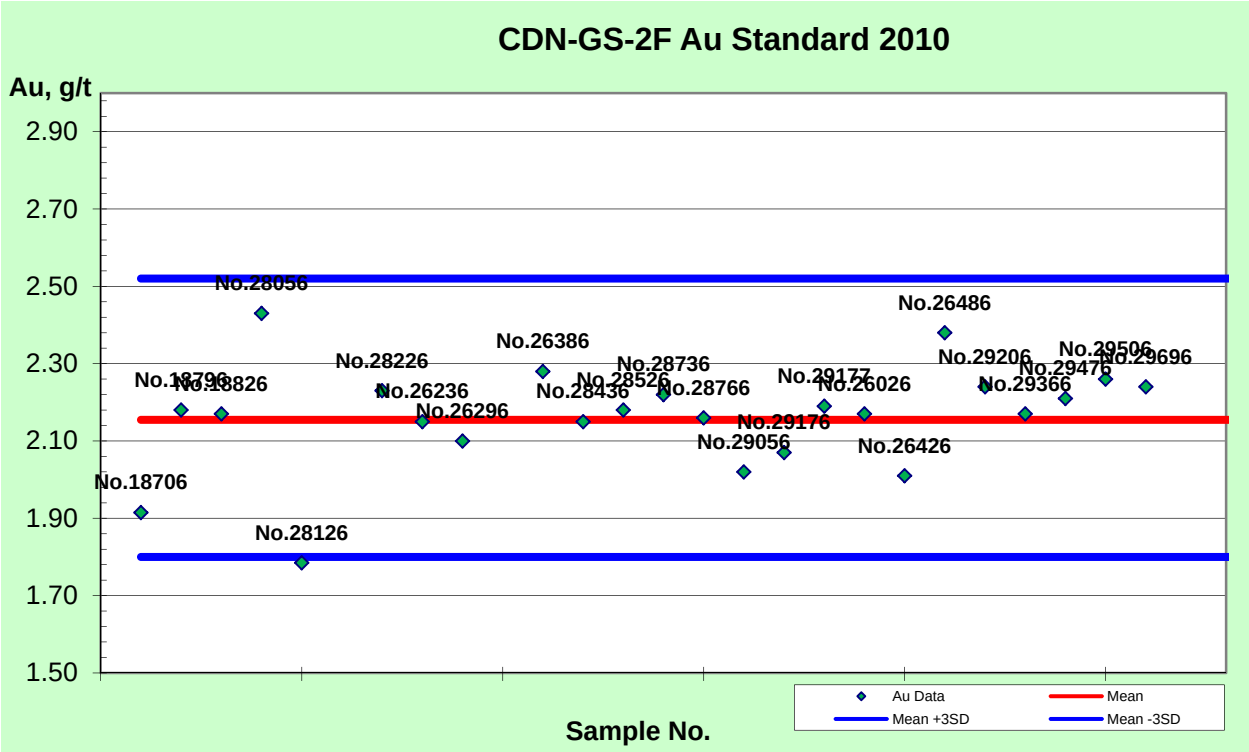

Figure 14: CDN-GS-2F Standard

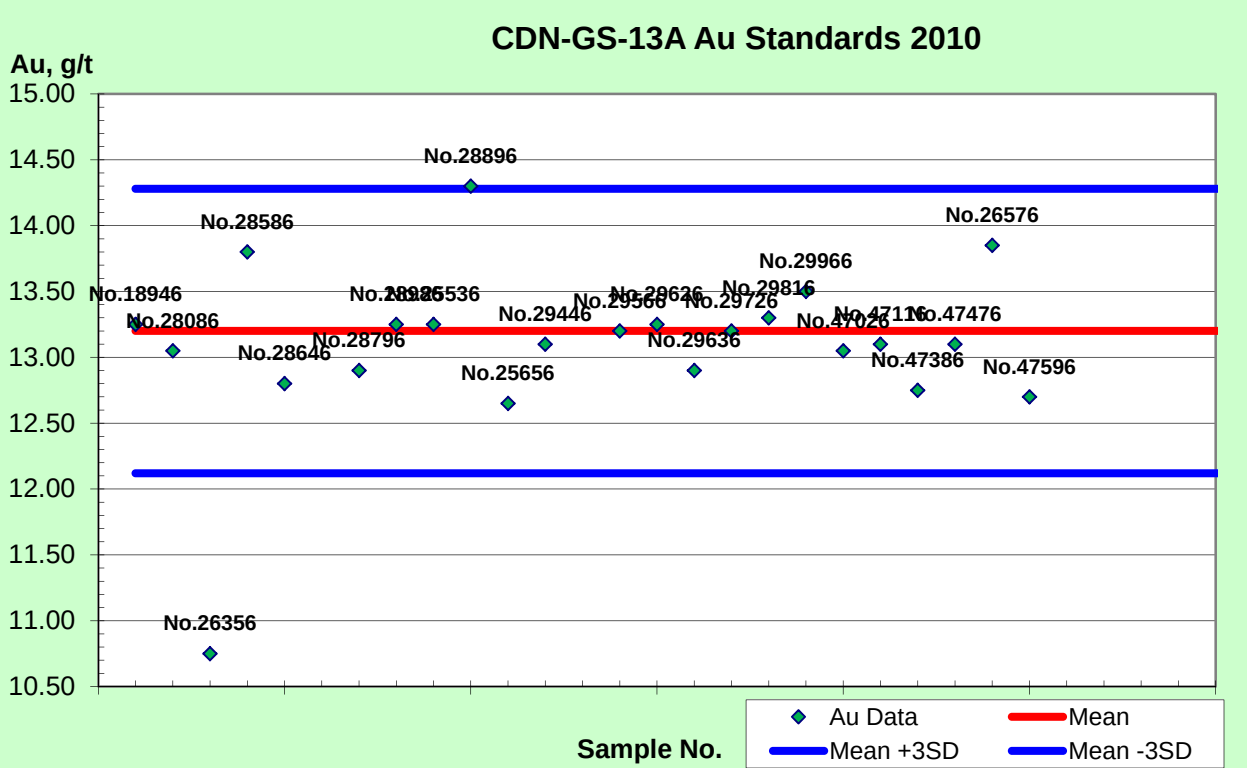

Figure 15: CDN-GS-13A Standard

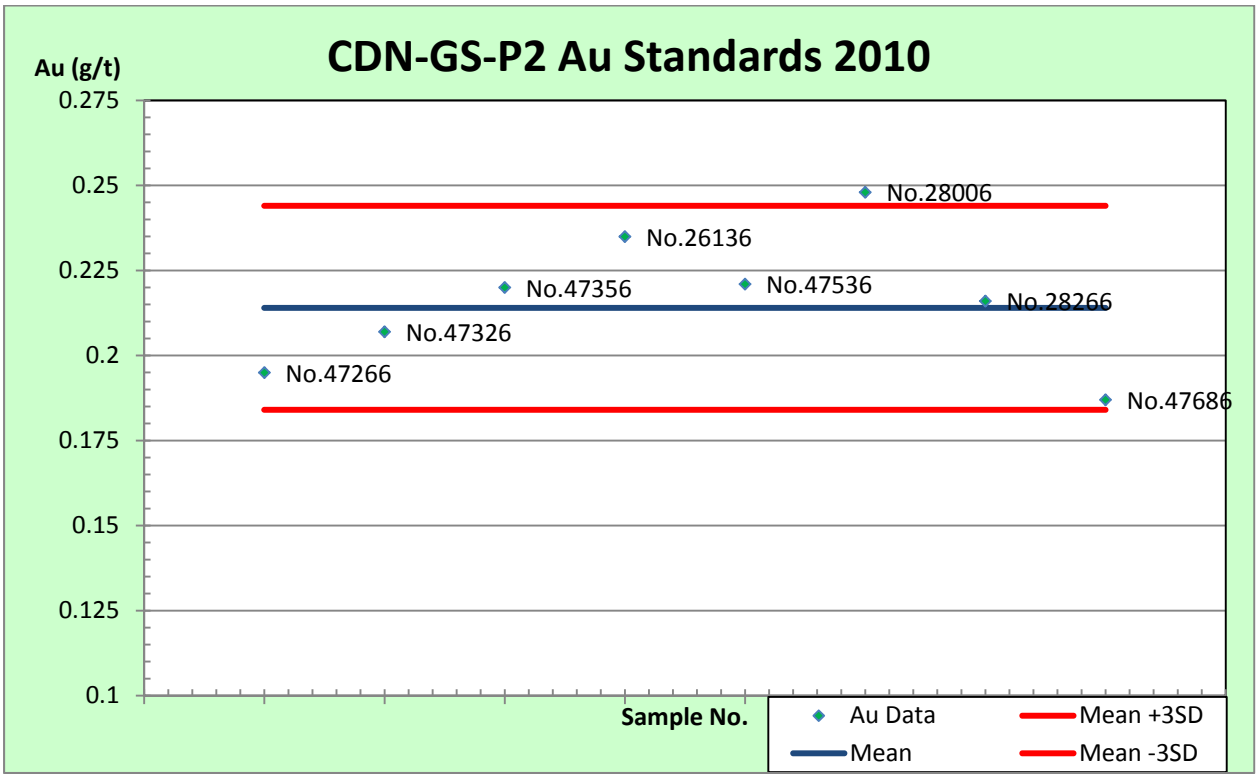

Figure 16: CDN-GS-P2 Standard

5.0 References

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Appendix 1

Itemized Cost Statement

Appendix 1: Itemized Cost Statement

Elk Property 2010 Diamond Drill Program Cost Summary

DIAMOND DRILLING		Rate $	Total	
Mob Demob (Prorated)	0.1 %	$5,000.00	$500	
Drill Site Prep and Reclamation	15 hr@	$150.00	$2,250	
Diamond Drill Holes (Atlas Drilling)	300 m@	$95.23	$28,570	
Downhole Survey Equip (prorated)	0.258 mo@	$2,150.00	$555	$31,875
SAMPLE ASSAY AND ANALYSIS		Rate $	Total	
Drill Core Au, AA24	98 smp@	$18.20	$1,784	
Drill Core ME ICP 61	98 smp@	$26.55	$2,602	
Sample Prep	98 smp@	$11.75	$1,152	$5,537
PERSONNEL		Rate $	Total	
Geologist - Supervisor July 5 to 13	9 days@	$650.00	$5,850	
Geologist - Core logger July 7 to 14	8 days@	$320.00	$2,560	
Drill Technician (Core splitter) July 8 - 15	8 days@	$200.00	$1,600	
Cook / First Aid	8 days@	$400.00	$3,200	$13,210
GENERAL EXPENSES		Rate $	Total	
Equipment and supplies			$2,000	
Accomodation	54 manday@	$30.00	$1,620	
Food	54 days@	$35.00	$1,890	
Truck rental	9 days@	$75.00	$675	
Fuel			$100	
Freight			$250	
REPORT		Rate $	Total	
Report preparation			$2,000	$2,000
			TOTAL:	**$59,157**

Appendix 3

Statement of Author's Qualifications

CERTIFICATE OF QUALIFIED PERSON

R. BRIAN ALEXANDER, P.GEO.
2185 Martha Avenue
Ottawa, Ontario, Canada, K1G 1K6

I, Robert Brian Alexander am a Professional Geoscientist and am a self-employed consulting geologist

This certificate applies to the technical report titled 2010 Diamond Drilling, South Showing Area, Elk Property dated July 5, 2011 (the Technical Report).

I graduated from the University of New Brunswick in Fredericton, NB, Canada, in 1979 with a B.Sc. in Geological Sciences and I have practiced my profession continuously since then for a total of 31 years in Canada and internationally. I worked exclusively on gold exploration projects in the Abitibi area of Ontario and in the Woodburn Group in Nunavut, Canada during 1985-1993, and 1997-2003. In the period of 1999 to 2004, I provided QP services on gold projects in Nunavut.

I am a Practicing Member of the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories and Nunavut (Registration #L1093). I am also a Practicing Member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (Registration #34713). I am also a member of the Prospectors and Developers Association of Canada.

I have read the definition of "Qualified Person" in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

I was on the project site and supervised the 2010 Drill Program for Almaden Minerals Ltd, Elk Project in southeastern BC during the period July to November, 2010, during which I reviewed data, drill site locations, and drill core.

I am responsible for all the sections concerning the reporting of the 2010 drilling program contained herein this report.

I have read National Instrument 43-101 and this Technical Report has been prepared in compliance with that Instrument.

As of the date of the certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

R. Brian Alexander.

Robert Brian Alexander, P.Geo.
5 July, 2011

PROFESSIONAL
PROVINCE OF
R. B. ALEXANDER
34713
BRITISH COLUMBIA
GEOSCIENTIST

Appendix 3

Diamond Drill Logs

ALMADEN MINERALS LTD.

ELK PROJECT

			Collar Az: 320	Casing	4.27	(m)	Test:	Reading			Depth	Type		Reading		Depth	Type					DIAMOND DRILL HOLE:				SSD 10-1						
		Grid Co-ordinates:	Collar Dip: -50	EOH	50.6	(m)	1)	N 32°W			8.53m	S.S.	6)						PAGE 1 OF 2														
Comments:			Collar Elev: 1614				2)	Not visible			54.5m	S.S.	7)						Logged by:	Avh	C. Mcknight												
		UTM NAD 83 GPS CO-ORDINATES					3)						8)						Date Started:	7/10/2010													
		EASTING: 692769 NORTHING: 5522508					4)						9)						Date Completed:	7/11/2010													
							5)						10)																				
METERAGE							STRUCTURE						ALTERATION									MINERALS							GEOCHEMISTRY				
FROM	TO	ROCK DESCRIPTION	FROM	TO	ROCK	CT-A	BD-A	FOL1	FOL2	SH-A	SH-I	VN-T	VN%	Ax	Cx	FK	Kx	Px	Sx	Xx	Cx	Bx	AS	AU	PY	CP	GL	ZNS	SAMPLE #	INT (m)	Au (AA)	Au (grav)	Au (gm/t)
0.00	4.27	Casing	0.00	4.27	CS																												
4.27	7.01	Quartz monzonite, QM, Weathered with Potassium alteration			QM																												
		Weakly magnetic where oxidized.	4.27	6.40																													
			6.40	7.01														2															
7.01	8.12	Andesite Dike, partly healed gouge from 7.01 to 7.28m																															
		7.01 to 7.28m gouge becoming most competent from 7.19 to 7.28m	7.01	7.28	HG	73																											
		8.12m lower contact sharp with 2cm of chill margin. Contact at 73 dca																															
		Weakly magnetic.																															
8.12	9.13	Quartz Monzonite, Some K alteration			QM																												
9.13	9.23	9.13 to 10.21 Andesite Dike			AD																												
		Sharp upper contact at 36dca.																															
9.23	9.25	9.23 to 9.25 partly healed gouge at 65 degrees to core axis. Strong Chlorite a	9.23	9.25	GG	65																											
		Weakly magnetic.																															
		Gouged lower contact																															
9.25	10.21	9.13 to 10.21 Andesite Dike			AD																												
		Sharp upper contact at 36dca.																															
10.21	11.33	Quartz Monzonite	10.21	11.33	QM	47																											
		Sharp lower contact with andesite dyke at 47dca Chlorite along contact.																															
		Fractures at																															
11.33	12.27	11.33 to 12.27 Andesite dyke																															
		Gouged lower contact from 12.26 to 12.27 , contact angle 55 dca, but	12.26	12.27	GG																												
		uncertain.																															
12.27	13.05	Quartz Monzonite	12.27	13.05	QM	80																											
13.05	14.35	Andesite dyke			AD							CBST	<1																				
		Carbonate Stringers 2 sets concurrent 1 at 35dca and at -10 to -15 dca																															
		Gouge for last 3cm near lower contact																															
14.35	15.55	Quartz Monzonite	14.35	50.60	QM			60	60	20																							
		3 fracture sets																															
		Low angle fracture set F3, at 15 to 25 dca least frequent																															
		F3 has strong sericite alteration with green colouring.																															
		F1 and F2 range from 50 70 dca in opposing directions																															
15.55	15.73	15.55 to 15.73 Gouged and faulted	15.55	15.73	GG	72																											
		24.73 to 25.30 (p1qm) weak propylitic alteration	24.73	25.30														1															
15.73	26.10	Quartz Monzonite	14.35	50.60	QM			60	60	20																							
		3 fracture sets																															
		Low angle fracture set F3, at 15 to 25 dca least frequent																															
		F3 has strong sericite alteration with green colouring.																															
		F1 and F2 range from 50 70 dca in opposing directions																															
		Minor fine black acicular mineral grains presumed actinolite.																1															
		Surronding fault from 25.30 to 27.05 trace red hemitite.	25.30	27.05																													
26.10	26.89	Fault zone w/ gouge from 26.10-26.89 w/ sericite alt on fracs	26.10	26.89	FT	62													3														
		Partly healed gouge at 26.10 to 26.14m	26.10	26.14																													
		25.30 to 27.05 p3qm																3															
26.89	26.89	Quartz Monzonite	14.35	50.60	QM																												
		3 fracture sets																															
		Low angle fracture set F3, at 15 to 25 dca least frequent																															
		F3 has strong sericite alteration with green colouring.																															
		F1 and F2 range from 50 70 dca in opposing directions																															
		Persumed actinilite in the form of fine acicular hard black																															
		clasts, roughly replacing biotite. Often associated with																															
		chloritized biotite.																															
		27.07 to 27.38 p1qm, weak propylitic alteration, minor	27.07	27.38														1															
		possible acctinilite. Some surviving unaltered biotite.																															
		Altn zone. Propylitic p3qm complete alteration of most mafics	28.83	29.09														3															

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ELK PROJECT

GEOTECHNICAL LOG | **DRILL HOLE #:** **SSD 10-1**

LOGGED BY: C. McKnight, A. Van Houten

	BOX CONTENTS		meters		Run					
Bx #	**FROM (m)**	**TO (m)**	**Run (Fr.)**	**Run (To)**	**Length**	**Rcvry (%)**	**RQD(m)**	**RQD (%)**	**# FRAC**	**COMMENTS**
1	4.27	10.21	4.27	7.01	2.55	93.07	0.54	19.71	25	some gouge, highly weathered core first run
			7.01	7.92	0.53	58.24	0.12	13.19	3	partlyhealed gouge contact at 7.40m,
										Driller said they lost 2 feet in the first box
			7.92	10.21	2.06	89.96	0.88	38.43	17	Lower dyke contact 8.13
2	10.21	15.95	10.21	10.97	0.63	82.89	0.19	25.00	8	Gouged Contact at 10.21
			10.97	14.02	3.05	100.00	0.90	29.51	16	Dyke contact at 13.05
			14.02	17.07	2.78	91.15	1.16	38.03	22	contact healed gouge at 14.31
3	15.95	21.72	17.07	20.12	3.04	99.67	2.67	87.54	24	sulfides in fractures near end of run
4	21.72	27.27	20.12	23.16	3.05	100.33	2.76	90.79	16	
			23.16	26.21	3.01	98.69	1.87	61.31	27	Partly healed gouge at 26.11m
5	27.27	32.61	26.21	29.26	2.99	98.03	2.18	71.48	17	unhealed gouge 26.52m. fault zone 26.10 - 26.88m
			29.26	32.31	2.89	94.75	2.51	82.30	17	
6	32.61	38.2	32.31	35.36	2.96	97.05	1.92	62.95	17	gouge unhealed at 33.54m
			35.36	38.4	2.89	95.07	1.35	44.41	27	healed gouge 36.88 to 36.91 and at 37.86 to 37.90
7	38.2	43.65	38.4	40.39	1.95	97.99	1.49	74.87	13	
			40.39	41.45	1.04	98.11	0.94	88.68	3	
8	43.65	49.33	41.45	44.5	3.02	99.02	2.79	91.48	7	
			44.5	47.55	3.05	100	2.63	86.23	11	
9	49.33	50.6	47.55	50.6	2.85	93.44	2.43	79.67	9	EOH

Hole No.	From m.	To m.	Width m.	Certificate No.	Sample No.	Au1 gpt	Au2 gpt	Au(PCX) gpt	Au(Final) gpt	Grade x Width	Comments 0.25 g/t cut-off & max 5 m internal dilution	Comments 1 g/t cut-off & max 2 m internal dilution	Comments
SSD 10-001	5.72	7.01	1.29	VA10108224	18701	<0.005		<0.005	0.000				Bag1 18701-18710 50lbs
SSD 10-001	7.01	8.12	1.11	VA10108224	18702	0.012		0.012	0.012				
SSD 10-001	8.12	9.13	1.01	VA10108224	18703	0.006		0.006	0.006				
SSD 10-001	9.13	10.21	1.08	VA10108224	18704	<0.005		<0.005	0.000				
SSD 10-001	10.21	11.33	1.12	VA10108224	18705	0.011		0.011	0.011				
SSD 10-001	STANDARD			VA10108224	18706	1.915		1.915	1.915				CDN-GS-2F=2.16+/-0.36g/t
SSD 10-001	11.33	12.27	0.94	VA10108224	18707	<0.005		<0.005	0.000				
SSD 10-001	12.27	13.05	0.78	VA10108224	18708	<0.005		<0.005	0.000				
SSD 10-001	13.05	14.35	1.30	VA10108224	18709	0.007		0.007	0.007				
SSD 10-001	14.35	15.00	0.65	VA10108224	18710	<0.005		<0.005	0.000				

Hole No.	From m.	To m.	SAMPLE NUMBER	Au ppm	Au ppm	Au Check ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zn %
SSD 10-001	5.72	7.01	18701	<0.005			<0.5	6.73	<5	1060	1.5	<2	0.38	0.5	3	26	7	1.37	20	3.63	30	0.11	602	2	2.63	2	280	17	0.13	6	2	113	<20	0.09	<10	10	13	<10	59	
SSD 10-001	7.01	8.12	18702	0.012			1.9	7.51	11	2170	2.1	<2	2.61	14.7	39	163	83	7.01	20	3.5	80	2.59	4180	1	1.71	115	7690	747	0.21	<5	21	1005	<20	0.96	<10	<10	226	10	970	
SSD 10-001	8.12	9.13	18703	0.006			<0.5	6.63	6	1230	1.5	<2	0.79	<0.5	2	26	2	1.38	20	3.48	30	0.27	571	1	2.83	2	380	18	0.02	5	3	172	<20	0.12	<10	10	18	<10	34	
SSD 10-001	9.13	10.21	18704	<0.005			<0.5	7.17	12	2960	1.7	<2	6.89	<0.5	33	169	63	5.97	20	2.82	70	4.47	1320	1	2.28	106	6610	28	0.08	<5	21	1275	<20	0.85	<10	<10	213	<10	112	
SSD 10-001	10.21	11.33	18705	0.011			<0.5	6.87	<5	1150	1.5	<2	1.04	<0.5	2	24	<1	1.39	20	3.48	30	0.3	661	1	2.94	1	300	12	0.04	<5	3	147	<20	0.1	<10	10	16	<10	27	
SSD 10-001	STANDARD		18706	1.915			<0.5	7.19	63	3190	0.9	<2	2.19	<0.5	10	49	126	4.29	20	1.3	20	1.1	754	242	2.39	33	620	12	0.39	6	14	296	<20	0.33	<10	10	149	10	69	
SSD 10-001	11.33	12.27	18707	<0.005			<0.5	7.5	<5	1110	1.4	<2	4.97	<0.5	27	194	45	4.94	20	2.49	30	4.06	1190	1	2.18	54	2300	23	0.19	<5	20	606	<20	0.58	<10	<10	162	10	95	
SSD 10-001	12.27	13.05	18708	<0.005			<0.5	6.54	5	980	1.4	<2	1.06	<0.5	2	22	2	1.29	10	3.35	30	0.36	558	1	2.75	<1	260	13	0.09	<5	2	141	<20	0.1	<10	10	15	<10	32	
SSD 10-001	13.05	14.35	18709	0.007			<0.5	7.58	<5	1850	1.5	<2	5.46	<0.5	28	198	28	5.24	20	2.43	30	4.05	1335	1	1.99	61	2460	25	0.42	<5	21	662	<20	0.62	<10	<10	173	<10	97	
SSD 10-001	14.35	15	18710	<0.005			<0.5	6.73	<5	1040	1.6	<2	0.68	<0.5	3	26	<1	1.33	20	3.32	30	0.21	460	1	2.83	<1	290	10	0.02	<5	2	133	<20	0.11	<10	10	14	<10	27	

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ELK PROJECT

																				DIAMOND DRILL HOLE:		SSD 10-002									
			Collar Az: 320	Casing	5.79	(m)	Test:	Reading			Depth	Type		Reading			Depth	Type													
		Grid Co-ordinates:	Collar Dip: -50	EOH	102.72	(m)	1)						6)							PAGE 1 OF											
Comments:		Hole drilled to test dip of	Collar Elev: 320				2)						7)							Logged by:		Avh	C. Mcknight								
		UTM NAD 83 GPS CO-ORDINATES					3)						8)							Date Started:		7/8/2010									
		EASTING: 692796 NORTHING: 5522475					4)						9)							Date Completed:		7/11/2010									
							5)						10)																		

METERAGE								STRUCTURE						ALTERATION									MINERALS						GEOCHEMISTRY			
FROM	TO	ROCK DESCRIPTION	FROM	TO	ROCK	CT-A	BD-A	FOL1	FOL2	SH-A	SH-I	VN-T	VN%	Ax	Fx	FK	Kx	Px	Sx	Xx	Cx	Bx	AS	AU	PY	CP	GL	ZNS	AMPLE	INT (m)	Au (AA)	Au (grav)	Au (gm/t)
0.00	5.79	Casing	0.00	5.79	CS																												
5.95	6.53	Brecciated material. Strong propylitic altn in granite clasts. Andesite Dyke			BR																				3								
		frags (highly angular) as well? Some carbonate may be present in matrix																															
6.53	11.57	Highly faulted.			QM																												
		Weakly propylitic 7.62 - 10.02. Looks to be associated with gouges.	7.38	10.02														1							1								
		Healed gouge material	7.66	8.03	GG																												
		Healed gouge material	8.85	9.35	GG																												
		Weakly propylitic 10.50 - 10.97. Looks to be associated with gouges.	10.50	10.97														1															
		Sericite on fracture faces.																															
		Composed primarily of QM. Partly healed. strongly clay altered.	10.97	11.57	GG																												
11.57	12.19	Last 5cm moderately clay altered.			AD	35																											
		Partly healed gouge. Strongly clay altered.	11.57	11.87	GG																												
12.19	14.35	weakly propylitically altered. trace pyrite.			QM	35												1							<1								
14.35	14.58	Chilled margin on contacts for ~ 2cm.			AD	73		55																									
		Parallel fractures at 55° contain clay mineralization																															
14.58	42.45				QM	45																											
		Propylitically altered, associated with clay gouge at 15.35	15.13	15.49														3															
		Clay alteration obliterates everything	15.30	15.35																													
		Clay gouge	15.35	15.36	GG	70																											
		QM Gouge	16.26	16.33	GG	40																											
		Moderately clay altered healed gouge	19.17	19.60	GG	60																											
		Clay gouge at 21.78	21.78		GG	80																											
		Heavily clay altered, moderately propylitically altered	26.73	27.77														3															
		Healed gouge	27.23		GG																												
		weakly clay and propylitically altered.	27.77	28.58														1															
		Moderately propylitically altered. ~1% disseminated sulfides along fracs.	33.96	34.70				70										3							<1								
		Weakly propylitically altered	37.86	38.40														1															
		Moderately Propylitically altered	38.40	38.95														3															
		Moderate Silicification.	38.50	38.59																3													
		Faultw/Qtz vein - Moderate sulfide presence - Py and Gl	38.52	38.55	VN	65																			5								
		Sulfide veinlet - Py - with strong sericite altn. Halo.	38.70		VN														5														
		Minor sulfide stringer zone	39.71	39.91																					<1								
42.45	43.46				AD	65																											
43.46	43.54	Unaltered QM in between two andesite dykes			QM	60												1															
43.54	46.26				AD																												
		Strong gradational clay alteration associated with fault gouging	44.58	46.26	AD																												
			45.28	45.96	GG																												
46.26	46.52				QM	43																											
46.52	47.20				AD																												

ALMADEN MINERALS LTD.

ELK PROJECT

	GEOTECHNICAL LOG							DRILL HOLE #:		SSD01-002
								LOGGED BY:		
	BOX CONTENTS									
Bx #	FROM (m)	TO (m)	Run (Fr.)	Run (To)	Run Length	Rcvry (%)	RQD(m)	RQD (%)	# FRAC	COMMENTS
1	5.79	10.87	5.79	7.92	2.03	95.31	0.99	46.48	17	Gouge at lower block
			7.92	10.97	2.7	88.52	0.78	25.57	26	50cm of gouge around 9m mark
2	10.87	16.25	10.97	14.02	2.61	85.57	1.18	38.69	23	1m of gouge from 11m to 12m.
			14.02	17.07	2.95	96.72	1.89	61.97	29	minor gouge
3	16.25	21.76	17.07	20.12	2.8	91.80	1.67	54.75	26	
4	21.76	27.67	20.12	23.16	3.06	100.66	1.84	60.53	33	
			23.16	26.21	3.04	99.67	1.45	47.54	20	
5	27.67	33.35	26.21	29.26	2.52	82.62	1.71	56.07	20	
			29.26	32.31	3.02	99.02	1.87	61.31	15	
6	33.35	39	32.31	35.36	3	98.36	1.88	61.64	19	
			35.36	38.4	3.07	100.99	1.70	55.92	23	
7	39	44.71	38.4	41.45	3.07	100.66	2.48	81.31	24	
			41.45	44.5	2.88	94.43	2.44	80.00	14	
8	44.71	50.27	44.5	47.55	3.05	100.00	0.86	28.20	22	Gouge
			47.55	50.6	2.92	95.74	1.40	45.90	18	Box 9 dropped
9	50.27	55.98	50.6	53.64	3.08	101.32	1.57	51.64	12	dropped core hard to be certain of fractures
			53.64	56.69	2.92	95.74	1.87	61.31	9	
10	55.98	61.55	56.69	59.74	3.05	100.00	2.62	85.90	13	
			59.74	62.79	3.06	100.33	2.2	72.13	14	
11	61.55	67.19	62.79	65.84	2.96	97.05	2.17	71.15	9	
12	67.19	72.41	65.84	68.88	3.06	100.66	2.07	68.09	16	
			68.88	71.93	3.1	101.64	1.26	41.31	10	
13	72.41	77.84	71.93	74.98	2.98	97.70	0.59	19.34	22	faulting at 72.40m
			74.98	78.03	2.94	96.39	1.43	46.89	16	
14	77.84	83.1	78.03	81.08	2.94	96.39	0.18	5.90	50	with gouge and very broken core.
15	83.1	89.12	81.08	84.43	2.93	87.46	1.23	36.72	28	small fault
			84.43	87.48	2.9	95.08	2.02	66.23	16	
16	89.12	94.64	87.48	90.53	3.01	98.69	2.55	83.61	14	
			90.53	93.57	3.09	101.64	2.3	75.66	18	
17	94.64	99.86	93.57	96.62	3.06	100.33	1.28	41.97	34	
			96.62	99.67	3.01	98.69	0.97	31.80	35	
18	99.86	102.71	99.67	102.71	2.99	98.36	2.33	76.64	15	

Hole No.	From m.	To m.	Width m.	Certificate No.	Sample No.	Au1 gpt	Au2 gpt	Au(PCX) gpt	Au(Final) gpt	Grade x Width	Comments 0.25 g/t cut-off & max 5 m internal dilution	Comments 1 g/t cut-off & max 2 m internal dilution	Comments
SSD 10-002	5.94	6.99	1.05	VA10108224	18711	0.757		0.757	0.757		5.94-6.99m: 0.76 g/t over 1.05m		Bag2 18711-18718 40lbs
SSD 10-002	6.99	7.62	0.63	VA10108224	18712	0.129		0.129	0.129				
SSD 10-002	7.62	8.85	1.23	VA10108224	18713	0.047		0.047	0.047				
SSD 10-002	8.85	9.87	1.02	VA10108224	18714	0.061		0.061	0.061				
SSD 10-002	9.87	10.97	1.10	VA10108224	18715	0.125		0.125	0.125				
SSD 10-002	10.97	11.57	0.60	VA10108224	18716	0.013		0.013	0.013				
SSD 10-002	10.97	11.57	0.60	VA10108224	18717	0.023		0.023	0.023				DUPLICATE
SSD 10-002	11.57	12.19	0.62	VA10108224	18718	0.008		0.008	0.008				
SSD 10-002	12.19	13.00	0.81	VA10108224	18719	0.016		0.016	0.016				Bag3 18719-18727 37lbs
SSD 10-002	37.88	38.40	0.52	VA10108224	18720	0.173		0.173	0.173				
SSD 10-002	38.40	38.95	0.55	VA10108224	18721	1.285		1.285	1.285		38.40-38.95m: 1.29 g/t over 0.55m	38.40-38.95m: 1.29 g/t over 0.55m	
SSD 10-002	38.95	39.40	0.45	VA10108224	18722	0.013		0.013	0.013				
SSD 10-002	74.62	74.98	0.36	VA10108224	18723	0.168		0.168	0.168				
SSD 10-002	74.98	75.40	0.42	VA10108224	18724	5.660	5.060	5.060	5.060	2.125	74.98-75.82m: 3.00 g/t over 0.84m	74.98-75.82m: 3.00 g/t over 0.84m	
SSD 10-002	75.40	75.82	0.42	VA10108224	18725	0.947		0.947	0.947	0.398		3.00	
SSD 10-002	BLANK			VA10108224	18726	<0.005		<0.005	0.000			0.84	BLANK

Hole No.	From m.	To m.	SAMPLE NUMBER	Au-AA24 Au ppm	Au-GRA22 Au ppm	Au-GRA22 Au Check ppm	ME-ICP61 Ag ppm	ME-ICP61 Al %	ME-ICP61 As ppm	ME-ICP61 Ba ppm	ME-ICP61 Be ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 Ga ppm	ME-ICP61 K %	ME-ICP61 La ppm	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 S %	ME-ICP61 Sb ppm	ME-ICP61 Sc ppm	ME-ICP61 Sr ppm	ME-ICP61 Th ppm	ME-ICP61 Ti %	ME-ICP61 Tl ppm	ME-ICP61 U ppm	ME-ICP61 V ppm	ME-ICP61 W ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %
SSD 10-002	5.94	6.99	18711	0.757			0.8	6.98	12	1370	1.6	<2	1.89	0.9	6	47	4	2.9	20	3.83	30	0.71	3260	2	1.77	20	1100	89	1.19	<5	7	135	<20	0.23	<10	10	50	20	102	
SSD 10-002	6.99	7.62	18712	0.129			<0.5	6.73	6	1600	1.7	<2	0.54	2.8	1	27	21	1.41	10	3.56	30	0.17	695	1	2.38	3	270	26	0.3	<5	2	144	<20	0.1	<10	10	15	10	183	
SSD 10-002	7.62	8.85	18713	0.047			<0.5	6.91	<5	1220	1.6	<2	0.56	0.7	2	5	10	1.24	20	3.55	30	0.15	651	1	2.49	<1	270	18	0.14	<5	2	125	20	0.1	<10	10	12	<10	55	
SSD 10-002	8.85	9.87	18714	0.061			<0.5	6.73	5	1180	1.5	<2	0.51	<0.5	2	24	4	1.17	10	3.59	30	0.12	680	1	2.58	<1	250	10	0.09	<5	2	121	<20	0.1	<10	10	13	<10	27	
SSD 10-002	9.87	10.97	18715	0.125			<0.5	6.58	5	1060	1.6	<2	0.52	<0.5	1	7	1	1.29	20	3.37	30	0.15	589	1	2.52	<1	260	11	0.21	<5	2	115	<20	0.1	<10	10	13	<10	44	
SSD 10-002	10.97	11.57	18716	0.013			<0.5	6.64	<5	1050	1.6	<2	0.54	<0.5	2	21	<1	1.5	20	3.26	30	0.22	558	1	2.26	<1	250	8	0.04	<5	2	111	<20	0.1	<10	10	13	<10	32	
SSD 10-002	10.97	11.57	18717	0.023			<0.5	6.68	10	1090	1.6	4	0.54	<0.5	3	2	<1	1.56	10	3.43	30	0.25	602	1	2.2	<1	260	10	0.06	<5	2	109	<20	0.1	<10	10	13	<10	37	
SSD 10-002	11.57	12.19	18718	0.008			<0.5	6.29	<5	3020	2.2	<2	1.01	<0.5	18	18	70	3.44	10	2.57	30	1.04	1230	2	1.22	15	1990	19	0.08	<5	13	336	<20	0.6	<10	<10	192	<10	102	
SSD 10-002	12.19	13	18719	0.016			<0.5	6.74	<5	1140	1.7	<2	0.75	<0.5	2	9	2	1.47	20	3.44	30	0.19	712	1	2.89	1	300	11	0.07	<5	3	136	<20	0.12	<10	10	15	<10	33	
SSD 10-002	37.88	38.4	18720	0.173			<0.5	7.04	<5	1070	2.1	<2	0.54	0.9	2	27	1	1.35	10	3.61	30	0.13	639	1	2.7	1	270	14	0.11	<5	2	125	<20	0.1	10	10	14	<10	79	
SSD 10-002	38.4	38.95	18721	1.285			8.9	6.64	45	980	1.7	3	0.48	43.8	3	9	111	2.81	20	4.04	30	0.22	971	17	1.79	2	250	4230	1.88	<5	2	89	<20	0.09	<10	10	14	10	2780	
SSD 10-002	38.95	39.4	18722	0.013			<0.5	6.85	<5	1030	1.8	<2	0.91	<0.5	1	31	1	1.36	20	3.39	30	0.18	620	1	2.84	<1	270	20	0.03	<5	2	135	<20	0.1	<10	10	14	10	42	
SSD 10-002	74.62	74.98	18723	0.168			<0.5	6.67	5	860	1.3	2	0.78	0.5	1	8	1	1.41	20	3.52	30	0.29	847	<1	2.11	<1	240	23	0.19	<5	2	120	<20	0.09	<10	10	12	10	74	
SSD 10-002	74.98	75.4	18724	5.66	5.06		8.6	6.46	8	710	1.5	14	0.77	31.4	2	33	174	1.7	10	3.08	30	0.27	816	1	1.96	<1	260	783	0.57	<5	2	103	20	0.09	<10	10	14	10	1795	
SSD 10-002	75.4	75.82	18725	0.947			0.8	6.94	5	1080	1.6	<2	0.76	2.3	1	6	13	1.3	20	3.52	30	0.16	591	1	2.72	<1	250	96	0.03	<5	2	121	<20	0.09	<10	10	12	<10	167	
SSD 10-002	BLANK		18726	<0.005			<0.5	6.93	17	1160	1.8	<2	0.9	<0.5	2	9	<1	1.35	20	3.46	30	0.2	594	<1	2.98	<1	270	12	<0.01	<5	2	141	<20	0.11	<10	10	13	<10	30	

ALMADEN MINERALS LTD.

ELK PROJECT

DIAMOND DRILL HOLE: SSD10-003

			Collar Az: 320	Casing	4.57	(m)	Test:	Reading			Depth	Type		Reading			Depth	Type														
		Grid Co-ordinates:	Collar Dip: -50	EOH	74.98	(m)	1)						6)							PAGE 1 OF 2												
Comments:			Collar Elev: 1592				2)						7)							Logged by:	Avh	C. Mcknight										
		UTM NAD 83 GPS CO-ORDINATES					3)						8)							Date Started	7/11/2010											
		EASTING: 692827 NORTHING: 5522436					4)						9)							Date Compl	7/12/2010											
							5)						10)																			
METERAGE								STRUCTURE						ALTERATION									MINERALS							GEOCHEMISTRY		
FROM	TO	ROCK DESCRIPTION	FROM	TO	ROCK	CT-A	BD-A	FOL1	FOL2	SH-A	SH-I	VN-T	VN%	Ax	Fx	FK	Kx	Px	Sx	Xx	Cx	Bx	AS	AU	PY	CP	GL	ZNS	AMPLE	NT (m)	Au (AA)	Au (grav	Au (gm/t)
0.00	4.57	Casing	0.00	4.57	CS																												
4.57	13.05	Quartz monzonite			QM																												
			4.57	5.39	QM													3	3														
		healed clay gouge	4.98	5.00	GG	30																											
		Clay alteration.	8.40	11.80																													
		no surviving mafics for interval.	8.40	13.05	QM													5															
		partly healed gouge	9.58	9.60	GG	60																											
		unhealed gouge with quartz fragments	9.72	9.74	GG	65																											
		Silicified	11.80	12.78	QM															1													
		White quartz vien with coarse Py. Partly broken.	12.22	12.28		50						QV													10		5						
		Strongly silcified	12.78	13.05	QM															3					1								
		1cm quartz vien.	12.84	12.85		68						QV													15								
13.05	13.18	Andesite dyke extremely faulted and brecciated.			AD																				15		1						
		unhealed gouge with quartz and dyke fragments	13.05	13.12	GG	86																			10		1						
		Strong sulfides brecciated	13.12	13.18	BR	78																											
13.18	13.58	Breccia, highly angular fragments. Quartz monzinite matrix with			BR	80														1					2								
		andesite dyke fragments. Chunks of Pyrite																															
13.58	33.23	Moderate to highly altered quartz monzonite.			QM													5	5														
		Types of alterations are highly localized and do not seem to be associated																															
		with mineralization.																															
		One type of alteration, so far unidentifiable, has completely eliminated																															
		K-Spar. This is not a micaceous alteration. Albitic?																															
		Clay gouge with chlorite ateration halo	17.69		GG	50																											
		Vuggy clay and carbonate vienlet Associated with obliterated Kspar	19.01			20						CV																					
		Carbonate and clay vienlet Associated with Obliterated Kspar	19.56			20						CV																					
		Quartz stringer assocated with shearing. Less then 1cm wide.	26.01			64						QV															<1						
		Gouge Highly chloritized mostly healed	26.56	26.59	GG	80																											
		Silicifed region with quartz and carbonate stringers	28.03	28.24	QM															3													
		carbonate cuts quarts.																															
		Quartz stringer.	28.24			67						QV																					
		Carbonate stringer	28.24			20						CV																					
		Quartz stringers associated with possible shearing in silicifed QM.	28.60	28.65	Qm	60														3													
		Quartz veinlet	29.66	29.67		70						QV																					
		Silicifed Zone.	30.74	30.77	QM	60						QV								5													
		aplite dykelet Altered, chloritic? Silicified?	30.77	30.79	Ap	60																											
		Healed fault zone	30.79	31.31	FT	73																											
33.23	33.28	Aplite dykelet with silcified halo.	33.23	33.28	AP	65																											
33.28	40.24	Quartz monzonite			QM																												
		healed clay gouge, silicification halo	34.28	34.29	HG																												
		Gouge with quartz vien fragments. Weak silificfication halo for 10 up and dh	35.80	35.83	GG																												
40.24	40.63	Andesite dyke			AD	60																											
		3cm healed gouge along lower contact.																															
40.63	42.99	Quartz monzonite.			QM													3															

ALMADEN MINERALS LTD.

ELK PROJECT

	GEOTECHNICAL LOG							DRILL HOLE #:		SSD01-003
								LOGGED BY: CM, AVH		
	BOX CONTENTS									
Bx #	FROM (m)	TO (m)	Run (Fr.)	Run (To)	Run Length	Rcvry (%)	RQD(m)	RQD (%)	# FRAC	COMMENTS
1	4.57	9.93	4.57	6.40	1.81	98.91	1.05	57.38	14	
			6.40	7.92	1.51	99.34	0.62	40.79	13	
			7.92	10.97	3.03	99.34	1.31	42.95	27	Some gouge
2	9.93	15.47	10.97	14.02	2.99	98.03	0.29	9.51	29	Strong faulting with gouge
3	15.47	21.18	14.02	17.07	3.02	99.02	2.08	68.20	21	
			17.07	20.12	3.05	100.00	2.06	67.54	23	
4	21.18	26.94	20.12	23.16	3.00	98.68	2.15	70.72	14	
			23.16	26.21	3.05	100.00	2.44	80.00	18	
5	26.94	32.49	26.21	29.26	3.00	98.36	2.34	76.72	25	
			29.26	32.31	3.08	100.98	1.28	41.97	23	
6	32.49	37.97	32.31	35.36	3.07	100.66	2.17	71.15	22	
			35.36	38.40	3.07	100.99	1.74	57.24	19	gouge
7	37.97	43.43	38.40	41.45	2.96	97.05	1.29	42.30	21	gouge
			41.45	44.50	3.07	100.66	1.63	53.44	28	gouge
8	43.43	48.88	44.50	47.55	2.99	98.03	0.83	27.21	21	gouge
			47.55	50.60	2.92	95.74	1.14	37.38	26	
9	48.88	54.42	50.60	53.64	3.08	101.32	1.86	61.18	24	
10	54.42	59.79	53.64	56.69	3.03	99.34	1.31	42.95	22	Busted core
			56.69	59.74	3.20	104.92	1.89	61.97	21	gouge 30cm along upper part of run
11	59.79	65.58	59.74	62.79	2.87	94.10	1.56	51.15	27	
			62.79	65.84	2.94	96.39	1.64	53.77	21	
12	65.68	71.04	65.84	68.88	3.03	99.67	1.76	57.89	23	
			68.88	71.93	3.03	99.34	2.28	74.75	14	
13	71.04	74.98	71.93	74.98	2.96	97.05	2.25	73.77	11	
EOH										

Hole No.	From m.	To m.	Width m.	Certificate No.	Sample No.	Au1 gpt	Au2 gpt	Au(PCX) gpt	Au(Final) gpt	Grade x Width	Comments 0.25 g/t cut-off & max 5 m internal dilution	Comments 1 g/t cut-off & max 2 m internal dilution	Comments
SSD 10-003	10.97	11.80	0.83	VA10108224	18727	0.025		0.025	0.025				
SSD 10-003	11.80	12.11	0.31	VA10108224	18728	0.372		0.372	0.372	0.115	11.80-15.00m: 1.14 g/t over 3.20m		Bag4 18728-18738 35lbs
SSD 10-003	12.11	12.41	0.30	VA10108224	18729	1.460		1.460	1.460	0.438	1.14	12.11-13.18m: 3.01 g/t over 1.07m	
SSD 10-003	12.41	12.80	0.39	VA10108224	18730	0.042		0.042	0.042	0.016	3.20	3.01	
SSD 10-003	12.80	13.18	0.38	VA10108224	18731	7.420	7.280	7.280	7.280	2.766		1.07	
SSD 10-003	13.18	13.58	0.40	VA10108224	18732	0.335		0.335	0.335	0.134			
SSD 10-003	13.58	14.02	0.44	VA10108224	18733	0.037		0.037	0.037	0.016			
SSD 10-003	14.02	14.50	0.48	VA10108224	18734	0.050		0.050	0.050	0.024			
SSD 10-003	14.50	15.00	0.50	VA10108224	18735	0.271		0.271	0.271	0.136			
SSD 10-003	STANDARD			VA10108224	18736	2.140		2.140	2.140				CDN-ME-2=2.10+/-0.165g/t
SSD 10-003	42.44	42.99	0.55	VA10108224	18737	0.028		0.028	0.028				
SSD 10-003	42.99	43.38	0.39	VA10108224	18738	0.017		0.017	0.017				
SSD 10-003	43.38	43.90	0.52	VA10108224	18739	0.109		0.109	0.109				Bag5 18739-18748 47lbs
SSD 10-003	43.90	44.50	0.60	VA10108224	18740	0.159		0.159	0.159				
SSD 10-003	44.50	45.41	0.91	VA10108224	18741	0.065		0.065	0.065				
SSD 10-003	45.41	46.50	1.09	VA10108224	18742	0.013		0.013	0.013				
SSD 10-003	46.50	47.91	1.41	VA10108224	18743	0.245		0.245	0.245	0.345	46.50-55.79m: 0.61 g/t over 9.29m		
SSD 10-003	47.91	48.76	0.85	VA10108224	18744	0.495		0.495	0.495	0.421	0.61		
SSD 10-003	48.76	49.66	0.90	VA10108224	18745	2.240		2.240	2.240	2.016	9.29	48.76-51.00m: 1.42 g/t over 2.24m	
SSD 10-003	49.66	49.96	0.30	VA10108224	18746	0.123		0.123	0.123	0.037		1.42	
SSD 10-003	49.66	49.96	0.30	VA10108224	18747	0.116				0.000		2.24	DUPLICATE
SSD 10-003	49.66	50.55	0.89	VA10108224	18748	1.300		1.300	1.300	1.157			
SSD 10-003	50.55	51.00	0.45	VA10108224	18749	1.825		1.825	1.825	0.821			Bag6 18749-18755 38lbs
SSD 10-003	51.00	52.00	1.00	VA10108224	18750	0.053		0.053	0.053	0.053			
SSD 10-003	52.00	53.00	1.00	VA10108224	18751	0.081		0.081	0.081	0.081			
SSD 10-003	53.00	54.00	1.00	VA10108224	18752	0.010		0.010	0.010	0.010			
SSD 10-003	54.00	54.68	0.68	VA10108224	18753	0.020		0.020	0.020	0.014			
SSD 10-003	54.68	55.02	0.34	VA10108224	18754	0.757		0.757	0.757	0.257			
SSD 10-003	55.02	55.60	0.58	VA10108224	18755	0.178		0.178	0.178	0.103			
SSD 10-003	BLANK			VA10108224	18756	<0.005		<0.005	0.000	0.000			BLANK
SSD 10-003	55.60	55.79	0.19	VA10108224	18757	3.970		3.970	3.970	0.754		55.60-55.79m: 3.97 g/t over 0.19m	Bag7 18756-18766 40lbs
SSD 10-003	55.79	56.60	0.81	VA10108224	18758	0.052		0.052	0.052				
SSD 10-003	56.60	57.04	0.44	VA10108224	18759	0.037		0.037	0.037				
SSD 10-003	57.04	58.00	0.96	VA10108224	18760	0.201		0.201	0.201				

Hole No.	From m.	To m.	SAMPLE NUMBER	Au-AA24 Au ppm	Au-GRA22 Au ppm	Au-GRA22 Au Check ppm	ME-ICP61 Ag ppm	ME-ICP61 Al %	ME-ICP61 As ppm	ME-ICP61 Ba ppm	ME-ICP61 Be ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 Ga ppm	ME-ICP61 K %	ME-ICP61 La ppm	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 S %	ME-ICP61 Sb ppm	ME-ICP61 Sc ppm	ME-ICP61 Sr ppm	ME-ICP61 Th ppm	ME-ICP61 Ti %	ME-ICP61 Tl ppm	ME-ICP61 U ppm	ME-ICP61 V ppm	ME-ICP61 W ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %
SSD 10-003	10.97	11.8	18727	0.025			<0.5	6.64	<5	890	1.2	2	0.23	1.9	1	8	9	1.28	10	3.49	30	0.19	967	1	1.47	<1	260	32	0.13	<5	2	134	<20	0.1	<10	<10	14	<10	119	
SSD 10-003	11.8	12.11	18728	0.372			1.8	6.77	30	740	1.4	<2	0.11	41.5	1	3	124	1.72	20	4.41	30	0.2	1405	2	0.15	<1	250	446	0.77	8	2	76	<20	0.09	<10	<10	14	10	2770	
SSD 10-003	12.11	12.41	18729	1.46			2.9	6.03	116	700	1.3	2	0.09	145	2	30	267	3.11	20	4.09	30	0.2	749	2	0.17	<1	210	258	2.8	6	2	56	<20	0.08	<10	<10	14	30	8930	
SSD 10-003	12.41	12.8	18730	0.042			<0.5	7.02	5	830	1.2	<2	0.15	9.1	1	4	12	1.35	10	4.08	30	0.17	1540	1	0.27	<1	290	156	0.32	8	2	131	<20	0.1	<10	<10	12	10	601	
SSD 10-003	12.8	13.18	18731	7.42	7.28		21.4	4.25	137	200	1.1	8	0.54	>1000	5	21	1675	5.23	20	2.64	20	0.3	6570	<1	0.05	14	440	4110	8.46	15	2	45	<20	0.1	<10	<10	21	20	>10000	9.77
SSD 10-003	13.18	13.58	18732	0.335			8.4	7.37	27	680	1.8	3	2.1	15.4	8	55	85	3.55	20	3.85	30	0.86	3370	3	0.22	25	1330	263	2.27	9	7	110	<20	0.26	<10	<10	58	30	958	
SSD 10-003	13.58	14.02	18733	0.037			<0.5	6.77	<5	890	1.2	<2	0.47	2.2	1	24	12	1.4	20	3.65	30	0.26	855	1	1.46	<1	270	21	0.3	6	2	121	<20	0.1	<10	<10	13	10	168	
SSD 10-003	14.02	14.5	18734	0.05			<0.5	6.68	<5	870	1.2	<2	0.49	<0.5	1	5	3	1.41	10	3.72	30	0.25	823	<1	1.78	<1	250	13	0.59	<5	2	106	<20	0.09	10	10	12	10	44	
SSD 10-003	14.5	15	18735	0.271			0.7	7.01	<5	980	1.3	<2	0.29	14.3	2	6	31	1.65	20	4.29	30	0.21	935	3	1.12	<1	260	554	0.75	9	3	104	<20	0.1	<10	10	14	10	1115	
SSD 10-003	STANDARD		18736	2.14			13	5.33	29	470	<0.5	5	0.36	54.5	11	58	4670	9.3	20	1.69	<10	1.49	427	14	0.67	20	110	233	9.14	<5	14	29	<20	0.13	<10	<10	66	20	>10000	1.33
SSD 10-003	42.44	42.99	18737	0.028			<0.5	6.81	<5	1040	1.7	2	0.6	<0.5	2	6	7	1.41	20	3.58	30	0.15	558	1	2.56	7	250	17	0.19	<5	2	125	20	0.1	<10	10	13	10	35	
SSD 10-003	42.99	43.38	18738	0.017			<0.5	7.79	18	810	2.3	<2	2.5	0.8	25	200	8	6.03	20	3.12	50	1.66	3720	2	0.38	100	3650	48	1.21	<5	18	153	<20	0.56	<10	<10	154	10	326	
SSD 10-003	43.38	43.9	18739	0.109			<0.5	6.95	<5	1010	1.4	<2	0.42	<0.5	3	4	3	1.64	20	3.86	30	0.28	557	2	1.57	5	270	15	0.72	<5	2	136	20	0.09	<10	10	13	10	34	
SSD 10-003	43.9	44.5	18740	0.159			<0.5	6.86	7	750	1.5	<2	0.46	8.9	2	4	16	1.57	20	3.84	30	0.28	744	1	1.09	1	230	264	0.47	<5	2	77	<20	0.09	<10	<10	13	10	610	
SSD 10-003	44.5	45.41	18741	0.065			<0.5	6.88	5	1000	1.4	<2	0.58	<0.5	2	5	<1	1.34	20	3.65	30	0.21	777	2	2.2	<1	270	15	0.31	<5	2	123	<20	0.09	<10	10	14	10	29	
SSD 10-003	45.41	46.5	18742	0.013			<0.5	6.92	<5	840	1.5	<2	0.57	<0.5	2	26	2	1.35	20	3.35	30	0.21	679	1	2.04	<1	270	15	0.18	<5	2	119	20	0.09	<10	10	13	10	39	
SSD 10-003	46.5	47.91	18743	0.245			1.3	6.93	16	1230	1.3	3	0.42	5.7	1	6	42	1.41	20	4.03	30	0.24	534	1	1.63	<1	270	59	0.55	<5	2	127	<20	0.09	<10	10	12	10	196	
SSD 10-003	47.91	48.76	18744	0.495			6.5	6.88	26	1470	1.5	14	1.3	20.9	11	86	294	3.45	20	3.37	30	0.9	1125	5	1.55	46	1520	366	1.38	<5	8	189	<20	0.27	<10	<10	77	30	946	
SSD 10-003	48.76	49.66	18745	2.24			2.3	6.56	27	1150	1.4	<2	0.66	0.5	3	10	85	1.6	20	4.3	30	0.26	534	2	1.55	<1	260	24	0.89	<5	2	86	<20	0.09	<10	10	14	10	32	
SSD 10-003	49.66	49.96	18746	0.123			<0.5	6.88	11	1300	1.4	<2	0.69	<0.5	1	6	31	1.26	10	4.13	30	0.25	621	1	2.18	<1	260	15	0.55	<5	2	124	<20	0.1	<10	10	12	10	14	
SSD 10-003	49.66	49.96	18747	0.116			<0.5	6.75	15	1340	1.3	2	0.63	<0.5	1	9	21	1.34	20	4.36	30	0.24	567	1	2.01	<1	240	14	0.57	<5	2	120	<20	0.09	<10	<10	12	10	17	
SSD 10-003	49.66	50.55	18748	1.3			1.9	6.73	36	1150	1.4	2	0.65	<0.5	2	8	84	1.83	20	4.16	30	0.3	757	3	1.31	<1	270	40	0.91	<5	3	116	<20	0.1	<10	10	16	10	36	
SSD 10-003	50.55	51	18749	1.825			2.1	6.91	25	1150	1.5	6	0.66	0.5	3	8	82	1.73	20	4.33	30	0.3	773	3	1.39	<1	290	36	0.96	<5	3	115	20	0.1	<10	10	16	10	28	
SSD 10-003	51	52	18750	0.053			<0.5	7.24	7	1200	1.4	<2	0.71	<0.5	1	8	5	1.39	20	3.85	30	0.22	901	1	2.12	<1	270	30	0.45	<5	2	122	<20	0.1	<10	10	12	10	43	
SSD 10-003	52	53	18751	0.081			<0.5	6.63	21	1210	1.2	2	0.45	<0.5	2	10	<1	1.27	10	3.36	30	0.17	636	1	1.81	<1	270	11	0.25	7	2	145	<20	0.09	<10	10	13	10	25	
SSD 10-003	53	54	18752	0.01			<0.5	6.78	8	1060	1.5	<2	0.67	<0.5	2	8	<1	1.24	20	3.32	30	0.18	676	<1	2.24	<1	250	9	0.14	<5	2	125	<20	0.09	<10	10	13	<10	33	
SSD 10-003	54	54.68	18753	0.02			<0.5	7.23	<5	1060	1.6	<2	0.6	<0.5	2	5	<1	1.34	20	3.55	30	0.2	704	1	2.1	<1	260	13	0.19	<5	2	116	20	0.09	<10	10	13	<10	42	
SSD 10-003	54.68	55.02	18754	0.757			2.4	6.54	32	1080	1.2	<2	0.6	6.3	2	8	107	1.73	20	3.43	30	0.3	733	2	1.13	1	270	393	0.51	7	2	130	20	0.09	<10	<10	14	10	256	
SSD 10-003	55.02	55.6	18755	0.178			0.5	7.17	14	970	1.6	<2	0.66	1.4	2	5	19	1.64	20	3.61	30	0.24	806	1	2.11	2	290	121	0.29	<5	3	113	<20	0.1	<10	10	14	<10	158	
SSD 10-003	BLANK		18756	<0.005			<0.5	6.77	7	1100	1.7	<2	0.89	<0.5	2	6	1	1.35	20	3.4	30	0.2	574	2	2.9	2	250	13	0.01	<5	2	137	<20	0.11	<10	10	13	<10	29	
SSD 10-003	55.6	55.79	18757	3.97			6.4	6.81	81	1220	1.3	8	1.2	21.1	7	27	710	3.22	20	3.38	30	0.49	1225	3	1.42	11	750	496	1.9	<5	5	145	<20	0.15	<10	<10	36	20	1065	
SSD 10-003	55.79	56.6	18758	0.052			<0.5	6.87	13	850	1.2	3	0.65	2.4	2	8	23	1.43	20	3.48	30	0.29	756	1	1.98	<1	260	81	0.18	<5	2	152	<20	0.08	<10	10	13	<10	179	
SSD 10-003	56.6	57.04	18759	0.037			1	6.79	10	730	1.5	<2	0.51	15.2	2	3	39	1.63	20	3.76	30	0.32	619	1	1.25	<1	250	430	0.53	<5	2	102	<20	0.09	10	10	15	10	1020	
SSD 10-003	57.04	58	18760	0.201			<0.5	6.64	<5	1520	1.5	<2	0.64	2.8	1	6	22	1.36	20	3.56	30	0.18	664	1	2.38	<1	260	23	0.29	<5	2	113	<20	0.1	<10	10	12	10	180	

ALMADEN MINERALS LTD.

ELK PROJECT

			Collar Az: 320	Casing	4.57	(m)	Test:	Reading			Depth	Type		Reading			Depth	Type														
		Grid Co-ordinates:	Collar Dip: -50	EOH	71.93	(m)	1)						6)																			
Comments:		Hole drilled to test dip of	Collar Elev: 1598				2)						7)																			
		UTM NAD 83 GPS CO-ORDINATES					3)						8)																			
		EASTING: 692718 NORTHING: 5522393					4)						9)																			
							5)						10)																			

METERAGE								STRUCTURE						ALTERATION									MINERALS							GEOCHEMISTRY			
FROM	TO	ROCK DESCRIPTION	FROM	TO	ROCK	CT-A	BD-A	FOL1	FOL2	SH-A	SH-I	VN-T	VN%	Ax	Fx	FK	Kx	Px	Sx	Xx	Cx	Bx	AS	AU	PY	CP	GL	ZNS	AMPLE	INT (m)	Au (AA)	Au (grav)	Au (gm/t)
0.00	4.57	Casing	0.00	4.57	CS																												
4.57	23.47	Quartz monzonite - heavily faulted, fractured and at times altered.	4.57	5.18	QM													1															
		1 fracture set measurable at 40dca. Other sets uncertain in orientation.																															
		Alterations - variable oxide weathering, heavy clay alteration	5.18	10.17																													
			5.55	5.59	HG																												
		Highly oxidized.	7.04	7.06	HG	64																											
		light silicification halo.	8.23	9.30																1													
		Looks gouged, ~30% clay/70% qtz.	8.39	8.44	QV																			3									
		Unhealed gouge.	9.30	9.38	GG	68																											
		Unhealed gouge.	9.98	10.00	GG																												
		Gouge, with 1% pyrite concentrated towards upper contact.	12.30	12.50	HG	42																		1		tr		tr					
		Upper contact at 70dca lower at 42																															
		Healed gouge with clay	15.14	15.18	HG	70																		tr									
		Mostly healed gouge moderate chloritization	20.04	20.12	HG	50																		tr									
		Upper contact at 50dca lower																															
		Heavely fractured and faulted	22.98	23.47	GG	50																											
23.47	26.05	Andesite dyke. Highly fractured and strongly chewed up by drill.			AD																												
		andesite. Local alteration not desernable																															
26.05	26.52	Buttery soft gouge with local healed portions. Appears to be composed			GG																												
		of Quartz monzonite. Clay alteration.																															
26.52	26.76	Andesite dyke strongly chewed up by drill.			AD																												
26.76	40.01	Quartz monzonite			QM	52																		tr									
		Buttery soft gouge with local healed portions. Appears to be composed	26.76	26.97	GG	40																											
		Quartz monzinite.																															
		unhealed gouge	27.13	27.45	GG	65																		tr									
		Partly healed gouge	29.01	29.04	HG	55																											
		Badly fractured andesite dyke	29.90	29.96	AD	50																											
		Quartz monzonite, Highly altered highly faulted zone with fracture set from	32.61	33.92	QM	60												5	3					tr									
		50 to 60 dca																															
		Lower contact unmeasurable, tr Py up to 2 % in faulted areas																															
		Silicified unit with dark green unidentifiable dark green alteration of plag	33.92	40.01	QM			20										5		1													
		Alteration seems associated with clay(w/ graphite?) -filled frac. set 20°																															
		High potassic alteration	35.98	36.60													5			1													
40.01	40.55	Andesite dyke			AD	55																											
		Silicified zone	40.38	40.50																3													
		Quartz vein. Moderate sulfide presence.	40.50	40.53	QV																			12		2		2					
40.55	46.81	Varibly altered, Quartz monzoninte, No serviving mafics			QM													5	3														
		Clay gouge	41.85	41.91	GG	50																		tr									

ALMADEN MINERALS LTD.

ELK PROJECT

	GEOTECHNICAL LOG							DRILL HOLE #:	SSD-10-004	
								LOGGED BY: CM, AVH		
	BOX CONTENTS									
Bx #	FROM (m)	TO (m)	Run (Fr.)	Run (To)	Run Length	Rcvry (%)	RQD(m)	RQD (%)	# FRAC	COMMENTS
1	4.57	10.34	4.57	6.71	2.12	99.07	0.74	34.58	11	
			6.71	8.23	1.43	94.08	0.84	55.26	7	
			8.23	11.28	2.61	85.57	0.37	12.13	21	rubble
2	10.34	15.8	11.28	14.33	3.03	99.34	1.19	39.02	30	
			14.33	17.37	2.94	96.71	0.94	30.92	20	rubble
3	15.8	21.36	17.37	20.42	2.91	95.41	1.00	32.79	32	Gouge
4	21.36	26.76	20.42	23.47	2.95	96.72	0.37	12.13	32	40cm gouge at 23m
			23.47	26.52	2.51	82.30	0.08	2.62	50	Rubble and gouge
5	26.76	32.61	26.52	29.57	2.56	83.93	0.46	15.08	28	Gouge and rubble to27.5m
			29.57	32.61	2.77	91.12	0.80	26.32	27	Rubble
6	32.61	38.58	32.61	35.66	2.76	90.49	1.54	50.49	11	Rubble
			35.66	38.71	2.93	96.07	2.10	68.85	28	
7	38.58	44.04	38.71	41.76	3.00	98.36	1.46	47.87	22	
			41.76	44.81	3.08	100.98	1.25	40.98	32	
8	44.04	49.59	44.81	47.85	3.02	99.34	0.95	31.25	40	
			47.85	50.90	3.05	100.00	1.40	45.90	28	
9	49.59	55.35	50.90	53.95	2.95	96.72	1.35	44.26	22	Rubble
10	55.35	60.9	53.95	57.00	3.09	101.31	1.73	56.72	19	
			57.00	60.05	3.08	100.98	1.81	59.34	19	
11	60.9	66.28	60.05	63.09	3.04	99.67	1.77	58.22	24	
			63.09	66.14	3.04	99.67	1.81	59.34	30	
12	66.28	71.93	66.14	69.19	3.07	100.66	1.90	62.30	19	
			69.19	71.93	2.64	96.35	1.19	43.43	15	
						EOH		EOH		

Hole No.	From m.	To m.	Width m.	Certificate No.	Sample No.	Au1 gpt	Au2 gpt	Au(PCX) gpt	Au(Final) gpt	Grade x Width	Comments 0.25 g/t cut-off & max 5 m internal dilution	Comments 1 g/t cut-off & max 2 m internal dilution	Comments
SSD 10-004	7.65	8.23	0.58	VA10108224	18761	0.011		0.011	0.011				
SSD 10-004	8.23	8.53	0.30	VA10108224	18762	7.840	8.600	8.600	8.600		8.23-8.53m: 8.60 g/t over 0.30m	8.23-8.53m: 8.60 g/t over 0.30m	
SSD 10-004	8.53	9.38	0.85	VA10108224	18763	0.032		0.032	0.032				
SSD 10-004	9.38	10.19	0.81	VA10108224	18764	<0.005		<0.005	0.000				
SSD 10-004	32.00	32.61	0.61	VA10108224	18765	0.626		0.626	0.626	0.382	32.00-35.00m: 0.35 g/t over 3.0m		
SSD 10-004	STANDARD			VA10108224	18766	>10.0		29.900	29.900	0.000	0.35		CDN-GS-30B=29.21+/-1.85
SSD 10-004	32.61	33.90	1.29	VA10108224	18767	0.187		0.187	0.187	0.241	3.00		Bag8 18767-18777 51lbs
SSD 10-004	33.90	35.00	1.10	VA10108224	18768	0.379		0.379	0.379	0.417			
SSD 10-004	35.00	35.98	0.98	VA10108224	18769	0.020		0.020	0.020				
SSD 10-004	35.98	36.60	0.62	VA10108224	18770	0.027		0.027	0.027				
SSD 10-004	36.60	37.00	0.40	VA10108224	18771	0.034		0.034	0.034				
SSD 10-004	37.00	38.00	1.00	VA10108224	18772	0.024		0.024	0.024				
SSD 10-004	38.00	39.00	1.00	VA10108224	18773	0.052		0.052	0.052				
SSD 10-004	39.00	40.01	1.01	VA10108224	18774	0.418		0.418	0.418	0.422	39.00-46.81m: 1.04 g/t over 7.81m		
SSD 10-004	40.01	40.38	0.37	VA10108224	18775	0.014		0.014	0.014	0.005	1.04		
SSD 10-004	40.38	40.65	0.27	VA10108224	18776	>10.0	15.050	15.05	15.05	4.063	7.81	40.38-43.45m: 1.96 g/t over 3.07m	
SSD 10-004	40.38	40.65		VA10108224	18777	7.350	7.220			0.000		1.96	DUPLICATE
SSD 10-004	40.65	41.76	1.11	VA10108224	18778	0.094		0.094	0.094	0.104		3.07	Bag9 18778-18786 40lbs
SSD 10-004	41.76	42.00	0.24	VA10108224	18779	1.820		1.820	1.820	0.437			
SSD 10-004	42.00	42.90	0.90	VA10108224	18780	0.131		0.131	0.131	0.118			
SSD 10-004	42.90	43.17	0.27	VA10108224	18781	1.635		1.635	1.635	0.441			
SSD 10-004	43.17	43.45	0.28	VA10108224	18782	3.100		3.100	3.100	0.868			
SSD 10-004	43.45	44.00	0.55	VA10108224	18783	0.280		0.280	0.280	0.154			
SSD 10-004	44.00	44.81	0.81	VA10108224	18784	0.173		0.173	0.173	0.140			
SSD 10-004	44.81	45.48	0.67	VA10108224	18785	0.090		0.090	0.090	0.060			
SSD 10-004	BLANK			VA10108224	18786	<0.005		<0.005	0	0.000			BLANK
SSD 10-004	45.48	46.00	0.52	VA10108224	18787	1.345		1.345	1.345	0.699		45.48-46.00m: 1.35 g/t over 0.52m	Bag10 18787-18790 20lbs
SSD 10-004	46.00	46.81	0.81	VA10108224	18788	0.756		0.756	0.756	0.612			
SSD 10-004	46.81	47.25	0.44	VA10108224	18789	0.179		0.179	0.179				
SSD 10-004	47.25	47.85	0.60	VA10108224	18790	0.008		0.008	0.008				
SSD 10-004	47.85	49.00	1.15	VA10109968	18791	0.016		0.016	0.016				Bag 1 18791-18799 36lbs
SSD 10-004	56.34	56.80	0.46	VA10109968	18792	0.078		0.078	0.078				
SSD 10-004	56.80	57.62	0.82	VA10109968	18793	0.149		0.149	0.149				
SSD 10-004	57.62	58.00	0.38	VA10109968	18794	0.005		0.005	0.005				
SSD 10-004	58.00	59.00	1.00	VA10109968	18795	0.011		0.011	0.011				
SSD 10-004	STANDARD			VA10109968	18796	2.18		2.18	2.180				CDN-GS-2F=2.16+/-0.36g/t
SSD 10-004	59.00	59.25	0.25	VA10109968	18797	3.39		3.390	3.390		59.00-59.25m: 3.39 g/t over 0.25m	59.00-59.25m: 3.39 g/t over 0.25m	
SSD 10-004	59.25	60.00	0.75	VA10109968	18798	0.019		0.019	0.019				

Hole No.	From m.	To m.	SAMPLE NUMBER	Au-AA24 Au ppm	Au-GRA22 Au ppm	Au-GRA22 Au Check ppm	ME-ICP61 Ag ppm	ME-ICP61 Al %	ME-ICP61 As ppm	ME-ICP61 Ba ppm	ME-ICP61 Be ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 Ga ppm	ME-ICP61 K %	ME-ICP61 La ppm	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 S %	ME-ICP61 Sb ppm	ME-ICP61 Sc ppm	ME-ICP61 Sr ppm	ME-ICP61 Th ppm	ME-ICP61 Ti %	ME-ICP61 Tl ppm	ME-ICP61 U ppm	ME-ICP61 V ppm	ME-ICP61 W ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %
SSD 10-004	7.65	8.23	18761	0.011			<0.5	7.3	5	1000	1.6	<2	0.42	<0.5	2	5	4	1.44	20	3.31	30	0.13	817	<1	2.21	<1	310	14	0.06	<5	3	131	20	0.11	<10	10	14	<10	66	
SSD 10-004	8.23	8.53	18762	7.84	8.6		8.2	6.08	90	760	1.6	4	0.11	3.3	3	11	278	2.67	10	3.44	30	0.18	1070	7	0.17	<1	230	293	1.63	<5	2	79	<20	0.07	<10	10	12	10	205	
SSD 10-004	8.53	9.38	18763	0.032			<0.5	7.3	6	770	1.5	3	0.21	<0.5	1	5	2	1.82	20	3.46	30	0.16	1985	1	0.74	<1	280	15	0.07	<5	2	126	20	0.1	<10	<10	13	10	116	
SSD 10-004	9.38	10.19	18764	<0.005			<0.5	7.35	<5	1000	1.5	<2	0.32	<0.5	2	4	<1	1.37	20	3.51	30	0.13	824	1	2.2	<1	270	10	0.03	<5	2	131	<20	0.1	<10	10	13	<10	42	
SSD 10-004	32	32.61	18765	0.626			<0.5	7.04	25	710	1.5	<2	0.21	15.1	2	4	38	1.65	20	3.73	30	0.18	871	2	1.48	<1	320	90	0.43	5	3	95	<20	0.11	<10	10	17	10	935	
SSD 10-004	STANDARD		18766	>10.0	29.9		4.2	6.05	56	720	1.3	<2	0.57	<0.5	11	26	60	4.65	20	3.91	10	0.33	193	3530	0.53	17	230	17	3.76	90	6	296	<20	0.17	20	<10	766	40	113	
SSD 10-004	32.61	33.9	18767	0.187			<0.5	6.9	12	770	1.4	3	0.18	2.7	1	5	23	1.44	20	3.67	30	0.15	735	5	1.85	<1	250	89	0.39	<5	2	95	<20	0.09	<10	10	14	10	170	
SSD 10-004	33.9	35	18768	0.379			<0.5	7.12	<5	960	1.5	<2	0.27	2.9	1	7	9	1.46	20	3.87	30	0.14	683	2	2.02	<1	240	83	0.31	<5	2	100	20	0.09	<10	10	13	10	176	
SSD 10-004	35	35.98	18769	0.02			<0.5	7.11	8	1070	1.8	<2	0.56	<0.5	1	6	<1	1.41	20	3.67	30	0.17	578	1	2.72	<1	250	11	0.03	8	2	129	20	0.1	<10	10	13	<10	28	
SSD 10-004	35.98	36.6	18770	0.027			<0.5	6.75	<5	610	1.3	<2	0.21	<0.5	1	5	<1	1.58	20	3.34	30	0.23	597	1	2.19	<1	230	8	0.08	<5	2	85	<20	0.09	<10	10	12	<10	49	
SSD 10-004	36.6	37	18771	0.034			<0.5	7.16	8	990	1.9	<2	0.41	<0.5	1	4	3	1.21	20	3.57	30	0.14	539	2	2.59	<1	250	9	0.07	<5	2	118	<20	0.09	<10	10	12	<10	27	
SSD 10-004	37	38	18772	0.024			<0.5	6.98	<5	1090	2	<2	0.56	0.5	1	6	<1	1.39	20	3.52	30	0.14	627	1	2.65	<1	270	21	0.14	<5	3	123	<20	0.11	<10	10	13	<10	47	
SSD 10-004	38	39	18773	0.052			<0.5	7.11	7	1110	1.7	2	0.41	<0.5	<1	5	4	1.36	20	3.86	30	0.14	554	1	2.47	2	260	44	0.24	<5	2	137	<20	0.1	<10	20	13	<10	41	
SSD 10-004	39	40.01	18774	0.418			0.6	6.86	6	1040	1.5	<2	0.41	0.5	2	4	6	1.37	20	3.59	30	0.17	540	1	2.4	4	250	50	0.32	<5	2	142	<20	0.09	<10	20	12	<10	50	
SSD 10-004	40.01	40.38	18775	0.014			0.7	8.13	<5	1410	1.8	2	1.8	<0.5	27	218	33	6.15	20	3.25	50	3.61	1650	<1	1.51	141	4080	51	0.46	6	18	483	<20	0.65	<10	10	168	10	260	
SSD 10-004	40.38	40.65	18776	>10.0	15.05		16.2	6.43	64	280	2	15	2.69	152.5	15	129	102	7.06	20	3.41	40	1.38	3290	2	0.06	83	2600	1975	6.84	5	13	117	<20	0.4	<10	<10	107	60	8140	
SSD 10-004	40.38	40.65	18777	7.35	7.22		10.9	6.07	52	300	1.9	13	2.38	68.4	16	132	46	6.61	20	3.04	30	1.37	3170	3	0.05	82	2610	1555	5.6	<5	13	109	<20	0.32	<10	<10	107	40	3920	
SSD 10-004	40.65	41.76	18778	0.094			<0.5	6.82	<5	1090	1.4	<2	0.46	0.5	1	4	1	1.43	20	3.86	30	0.23	624	1	2.03	3	260	41	0.31	<5	2	127	<20	0.1	<10	10	13	10	52	
SSD 10-004	41.76	42	18779	1.82			3	6.56	12	780	1.9	2	0.26	8.9	2	3	23	2.16	20	3.8	30	0.26	651	3	0.58	3	270	352	1.36	<5	2	83	<20	0.1	<10	10	14	10	505	
SSD 10-004	42	42.9	18780	0.131			0.6	6.95	<5	980	1.5	<2	0.29	0.5	<1	5	10	1.22	20	3.66	30	0.15	684	<1	1.74	3	270	15	0.13	<5	2	129	<20	0.09	<10	10	12	10	52	
SSD 10-004	42.9	43.17	18781	1.635			1.6	7	11	950	1.5	4	0.22	3.7	1	7	32	1.44	20	4.23	30	0.19	694	<1	1.27	1	270	69	0.45	<5	2	104	<20	0.1	<10	10	13	10	297	
SSD 10-004	43.17	43.45	18782	3.1			2.4	6.53	16	870	1.6	3	0.18	8.6	1	6	53	2.15	20	3.93	30	0.21	802	2	1.05	3	240	228	1.34	<5	2	82	<20	0.09	<10	10	14	10	525	
SSD 10-004	43.45	44	18783	0.28			0.9	6.86	<5	950	1.3	2	0.35	1.6	1	9	15	1.42	20	4.08	30	0.2	754	<1	1.52	3	260	65	0.54	<5	2	130	<20	0.1	<10	20	13	10	109	
SSD 10-004	44	44.81	18784	0.173			0.7	7.01	<5	1100	1.5	<2	0.29	0.6	2	5	8	1.51	20	3.85	30	0.17	742	<1	1.74	3	260	56	0.44	5	3	132	<20	0.1	<10	10	14	<10	64	
SSD 10-004	44.81	45.48	18785	0.09			<0.5	6.92	<5	1200	1.6	<2	0.48	<0.5	1	4	5	1.36	20	3.85	30	0.14	608	1	2.32	1	260	22	0.19	<5	3	124	<20	0.11	<10	20	13	<10	41	
SSD 10-004	BLANK		18786	<0.005			<0.5	6.72	<5	1190	1.5	<2	0.65	<0.5	1	6	2	1.61	20	3.46	10	0.18	778	<1	2.97	2	280	9	<0.01	<5	2	141	<20	0.12	<10	20	14	<10	35	
SSD 10-004	45.48	46	18787	1.345			1	6.89	7	1090	1.5	2	0.3	0.5	1	4	87	1.62	20	3.97	30	0.17	877	<1	1.79	3	260	29	0.37	<5	3	103	<20	0.1	<10	10	15	10	46	
SSD 10-004	46	46.81	18788	0.756			1.6	6.74	6	1120	1.5	<2	0.76	<0.5	3	15	16	1.57	20	3.75	30	0.29	730	1	2.38	9	370	12	0.57	<5	3	131	<20	0.11	<10	20	18	10	27	
SSD 10-004	46.81	47.25	18789	0.179			1.5	7.48	12	1330	1.8	3	1.87	3.5	13	105	35	3.78	20	3.19	30	0.73	2280	5	1.55	42	2090	131	1.64	<5	10	248	<20	0.39	<10	10	90	20	305	
SSD 10-004	47.25	47.85	18790	0.008			<0.5	7.21	6	1160	1.6	<2	0.54	<0.5	2	7	2	1.33	20	3.57	30	0.19	724	<1	2.16	9	280	17	0.13	<5	3	133	<20	0.11	<10	10	14	10	55	
SSD 10-004	47.85	49	18791	0.016				<0.5	7.04	<5	1080	1.6	<2	0.54	0.5	3	11	4	1.38	20	3.51	30	0.17	783	1	2.16	2	280	42	0.23	<5	2	118	<20	0.11	<10	10	14	<10	57	
SSD 10-004	56.34	56.8	18792	0.078				<0.5	6.75	12	1050	1.1	<2	0.37	0.8	3	8	8	1.34	10	3.59	30	0.17	905	1	0.53	<1	300	29	0.26	8	2	241	<20	0.1	<10	<10	14	10	79	
SSD 10-004	56.8	57.62	18793	0.149				<0.5	6.58	9	1000	0.9	<2	0.59	0.9	3	13	8	1.3	10	3.35	30	0.23	831	<1	0.42	1	270	31	0.17	6	2	178	<20	0.1	<10	<10	13	10	86	
SSD 10-004	57.62	58	18794	0.005				<0.5	7.68	9	1160	1	<2	0.33	0.7	2	6	1	1.49	20	3.64	30	0.16	1180	<1	0.58	2	270	28	0.13	<5	2	108	20	0.12	<10	<10	14	<10	95	
SSD 10-004	58	59	18795	0.011				<0.5	7.39	13	1140	1.4	<2	0.55	<0.5	2	8	2	1.39	20	3.55	30	0.16	849	<1	1.7	1	290	20	0.11	<5	2	161	20	0.13	<10	10	14	10	49	
SSD 10-004	STANDARD		18796	2.18				<0.5	7.62	69	3220	0.9	<2	2.16	<0.5	11	50	142	4.32	10	1.31	10	1.09	791	258	2.39	38	610	14	0.41	<5	14	312	<20	0.35	<10	<10	156	<10	73	
SSD 10-004	59	59.25	18797	3.39				3.2	7.3	30	1070	1.6	<2	0.33	4	3	10	23	2.22	20	4.09	30	0.2	693	1	1.58	<1	290	619	1.27	<5	2	126	<20	0.11	<10	10	15	10	219	
SSD 10-004	59.25	60	18798	0.019				<0.5	7.3	<5	2160	1.4	<2	0.55	0.6	3	8	4	1.41	20	3.63	30	0.17	879	<1	1.78	1	270	21	0.16	5	2	168	20	0.12	<10	10	13	<10	71	

Appendix 4

Assay Certificates

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: ALMADEN MINERALS LTD.
1103- 750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 29- AUG- 2010
Account: PFM

CERTIFICATE VA10108224

Project: Elk
P.O. No.:
This report is for 90 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 6- AUG- 2010.
The following have access to data associated with this certificate:

ROBERT ALEXANDER	MORGAN POLIQUIN	ELK PROJECT WEBTRIEVE

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Zn- OG62	Ore Grade Zn - Four Acid	VARIABLE
Au- GRA22	Au 50 g FA- GRAV finish	WST- SIM
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: ALMADEN MINERALS LTD.
ATTN: MORGAN POLIQUIN
1103- 750 W PENDER ST
VANCOUVER BC V6C 2T8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: ALMADEN MINERALS LTD.
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VANCOUVER BC V6C 2T8

Finalized Date: 29- AUG- 2010
Account: PFM

Project: Elk

CERTIFICATE OF ANALYSIS VA10108224

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA24 Au ppm 0.005	Au-GRA22 Au ppm 0.05	ME-ICP61 Ag ppm 0.5	ME-ICP61 Al % 0.01	ME-ICP61 As ppm 5	ME-ICP61 Ba ppm 10	ME-ICP61 Be ppm 0.5	ME-ICP61 Bi ppm 2	ME-ICP61 Ca % 0.01	ME-ICP61 Cd ppm 0.5	ME-ICP61 Co ppm 1	ME-ICP61 Cr ppm 1	ME-ICP61 Cu ppm 1	ME-ICP61 Fe % 0.01
18701		0.86	<0.005		<0.5	6.73	<5	1060	1.5	<2	0.38	0.5	3	26	7	1.37
18702		1.50	0.012		1.9	7.51	11	2170	2.1	<2	2.61	14.7	39	163	83	7.01
18703		2.28	0.006		<0.5	6.63	6	1230	1.5	<2	0.79	<0.5	2	26	2	1.38
18704		2.84	<0.005		<0.5	7.17	12	2960	1.7	<2	6.89	<0.5	33	169	63	5.97
18705		2.72	0.011		<0.5	6.87	<5	1150	1.5	<2	1.04	<0.5	2	24	<1	1.39
18706		0.20	1.915		<0.5	7.19	63	3190	0.9	<2	2.19	<0.5	10	49	126	4.29
18707		2.52	<0.005		<0.5	7.50	<5	1110	1.4	<2	4.97	<0.5	27	194	45	4.94
18708		1.98	<0.005		<0.5	6.54	5	980	1.4	<2	1.06	<0.5	2	22	2	1.29
18709		3.50	0.007		<0.5	7.58	<5	1850	1.5	<2	5.46	<0.5	28	198	28	5.24
18710		1.46	<0.005		<0.5	6.73	<5	1040	1.6	<2	0.68	<0.5	3	26	<1	1.33
18711		2.40	0.757		0.8	6.98	12	1370	1.6	<2	1.89	0.9	6	47	4	2.90
18712		1.72	0.129		<0.5	6.73	6	1600	1.7	<2	0.54	2.8	1	27	21	1.41
18713		2.72	0.047		<0.5	6.91	<5	1220	1.6	<2	0.56	0.7	2	5	10	1.24
18714		2.44	0.061		<0.5	6.73	5	1180	1.5	<2	0.51	<0.5	2	24	4	1.17
18715		2.74	0.125		<0.5	6.58	5	1060	1.6	<2	0.52	<0.5	1	7	1	1.29
18716		1.00	0.013		<0.5	6.64	<5	1050	1.6	<2	0.54	<0.5	2	21	<1	1.50
18717		0.92	0.023		<0.5	6.68	10	1090	1.6	4	0.54	<0.5	3	2	<1	1.56
18718		1.42	0.008		<0.5	6.29	<5	3020	2.2	<2	1.01	<0.5	18	18	70	3.44
18719		2.16	0.016		<0.5	6.74	<5	1140	1.7	<2	0.75	<0.5	2	9	2	1.47
18720		1.54	0.173		<0.5	7.04	<5	1070	2.1	<2	0.54	0.9	2	27	1	1.35
18721		1.64	1.285		8.9	6.64	45	980	1.7	3	0.48	43.8	3	9	111	2.81
18722		1.18	0.013		<0.5	6.85	<5	1030	1.8	<2	0.91	<0.5	1	31	1	1.36
18723		1.18	0.168		<0.5	6.67	5	860	1.3	2	0.78	0.5	1	8	1	1.41
18724		0.94	5.66	5.06	8.6	6.46	8	710	1.5	14	0.77	31.4	2	33	174	1.70
18725		1.02	0.947		0.8	6.94	5	1080	1.6	<2	0.76	2.3	1	6	13	1.30
18726		1.66	<0.005		<0.5	6.93	17	1160	1.8	<2	0.90	<0.5	2	9	<1	1.35
18727		1.76	0.025		<0.5	6.64	<5	890	1.2	2	0.23	1.9	1	8	9	1.28
18728		0.76	0.372		1.8	6.77	30	740	1.4	<2	0.11	41.5	1	3	124	1.72
18729		0.98	1.460		2.9	6.03	116	700	1.3	2	0.09	145.0	2	30	267	3.11
18730		0.96	0.042		<0.5	7.02	5	830	1.2	<2	0.15	9.1	1	4	12	1.35
18731		1.18	7.42	7.28	21.4	4.25	137	200	1.1	8	0.54	>1000	5	21	1675	5.23
18732		1.10	0.335		8.4	7.37	27	680	1.8	3	2.10	15.4	8	55	85	3.55
18733		1.34	0.037		<0.5	6.77	<5	890	1.2	<2	0.47	2.2	1	24	12	1.40
18734		1.34	0.050		<0.5	6.68	<5	870	1.2	<2	0.49	<0.5	1	5	3	1.41
18735		1.44	0.271		0.7	7.01	<5	980	1.3	<2	0.29	14.3	2	6	31	1.65
18736		0.20	2.14		13.0	5.33	29	470	<0.5	5	0.36	54.5	11	58	4670	9.30
18737		1.58	0.028		<0.5	6.81	<5	1040	1.7	2	0.60	<0.5	2	6	7	1.41
18738		1.04	0.017		<0.5	7.79	18	810	2.3	<2	2.50	0.8	25	200	8	6.03
18739		1.36	0.109		<0.5	6.95	<5	1010	1.4	<2	0.42	<0.5	3	4	3	1.64
18740		1.26	0.159		<0.5	6.86	7	750	1.5	<2	0.46	8.9	2	4	16	1.57

ALS Canada Ltd.
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To: ALMADEN MINERALS LTD.
1103- 750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 29- AUG- 2010
Account: PFM

Project: Elk

CERTIFICATE OF ANALYSIS VA10108224

Sample Description	Method / Analyte / Units / LOR	ME- ICP61 Ga ppm 10	ME- ICP61 K % 0.01	ME- ICP61 La ppm 10	ME- ICP61 Mg % 0.01	ME- ICP61 Mn ppm 5	ME- ICP61 Mo ppm 1	ME- ICP61 Na % 0.01	ME- ICP61 Ni ppm 1	ME- ICP61 P ppm 10	ME- ICP61 Pb ppm 2	ME- ICP61 S % 0.01	ME- ICP61 Sb ppm 5	ME- ICP61 Sc ppm 1	ME- ICP61 Sr ppm 1	ME- ICP61 Th ppm 20
18701		20	3.63	30	0.11	602	2	2.63	2	280	17	0.13	6	2	113	<20
18702		20	3.50	80	2.59	4180	1	1.71	115	7690	747	0.21	<5	21	1005	<20
18703		20	3.48	30	0.27	571	1	2.83	2	380	18	0.02	5	3	172	<20
18704		20	2.82	70	4.47	1320	1	2.28	106	6610	28	0.08	<5	21	1275	<20
18705		20	3.48	30	0.30	661	1	2.94	1	300	12	0.04	<5	3	147	<20
18706		20	1.30	20	1.10	754	242	2.39	33	620	12	0.39	6	14	296	<20
18707		20	2.49	30	4.06	1190	1	2.18	54	2300	23	0.19	<5	20	606	<20
18708		10	3.35	30	0.36	558	1	2.75	<1	260	13	0.09	<5	2	141	<20
18709		20	2.43	30	4.05	1335	1	1.99	61	2460	25	0.42	<5	21	662	<20
18710		20	3.32	30	0.21	460	1	2.83	<1	290	10	0.02	<5	2	133	<20
18711		20	3.83	30	0.71	3260	2	1.77	20	1100	89	1.19	<5	7	135	<20
18712		10	3.56	30	0.17	695	1	2.38	3	270	26	0.30	<5	2	144	<20
18713		20	3.55	30	0.15	651	1	2.49	<1	270	18	0.14	<5	2	125	20
18714		10	3.59	30	0.12	680	1	2.58	<1	250	10	0.09	<5	2	121	<20
18715		20	3.37	30	0.15	589	1	2.52	<1	260	11	0.21	<5	2	115	<20
18716		20	3.26	30	0.22	558	1	2.26	<1	250	8	0.04	<5	2	111	<20
18717		10	3.43	30	0.25	602	1	2.20	<1	260	10	0.06	<5	2	109	<20
18718		10	2.57	30	1.04	1230	2	1.22	15	1990	19	0.08	<5	13	336	<20
18719		20	3.44	30	0.19	712	1	2.89	1	300	11	0.07	<5	3	136	<20
18720		10	3.61	30	0.13	639	1	2.70	1	270	14	0.11	<5	2	125	<20
18721		20	4.04	30	0.22	971	17	1.79	2	250	4230	1.88	<5	2	89	<20
18722		20	3.39	30	0.18	620	1	2.84	<1	270	20	0.03	<5	2	135	<20
18723		20	3.52	30	0.29	847	<1	2.11	<1	240	23	0.19	<5	2	120	<20
18724		10	3.08	30	0.27	816	1	1.96	<1	260	783	0.57	<5	2	103	20
18725		20	3.52	30	0.16	591	1	2.72	<1	250	96	0.03	<5	2	121	<20
18726		20	3.46	30	0.20	594	<1	2.98	<1	270	12	<0.01	<5	2	141	<20
18727		10	3.49	30	0.19	967	1	1.47	<1	260	32	0.13	<5	2	134	<20
18728		20	4.41	30	0.20	1405	2	0.15	<1	250	446	0.77	8	2	76	<20
18729		20	4.09	30	0.20	749	2	0.17	<1	210	258	2.80	6	2	56	<20
18730		10	4.08	30	0.17	1540	1	0.27	<1	290	156	0.32	8	2	131	<20
18731		20	2.64	20	0.30	6570	<1	0.05	14	440	4110	8.46	15	2	45	<20
18732		20	3.85	30	0.86	3370	3	0.22	25	1330	263	2.27	9	7	110	<20
18733		20	3.65	30	0.26	855	1	1.46	<1	270	21	0.30	6	2	121	<20
18734		10	3.72	30	0.25	823	<1	1.78	<1	250	13	0.59	<5	2	106	<20
18735		20	4.29	30	0.21	935	3	1.12	<1	260	554	0.75	9	3	104	<20
18736		20	1.69	<10	1.49	427	14	0.67	20	110	233	9.14	<5	14	29	<20
18737		20	3.58	30	0.15	558	1	2.56	7	250	17	0.19	<5	2	125	20
18738		20	3.12	50	1.66	3720	2	0.38	100	3650	48	1.21	<5	18	153	<20
18739		20	3.86	30	0.28	557	2	1.57	5	270	15	0.72	<5	2	136	20
18740		20	3.84	30	0.28	744	1	1.09	1	230	264	0.47	<5	2	77	<20

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VANCOUVER BC V6C 2T8

Finalized Date: 29- AUG- 2010
Account: PFM

Project: Elk

CERTIFICATE OF ANALYSIS VA10108224

Sample Description	Method / Analyte / Units / LOR	ME- ICP61 Ti % 0.01	ME- ICP61 Tl ppm 10	ME- ICP61 U ppm 10	ME- ICP61 V ppm 1	ME- ICP61 W ppm 10	ME- ICP61 Zn ppm 2	Zn- OG62 Zn % 0.001
18701		0.09	<10	10	13	<10	59	
18702		0.96	<10	<10	226	10	970	
18703		0.12	<10	10	18	<10	34	
18704		0.85	<10	<10	213	<10	112	
18705		0.10	<10	10	16	<10	27	
18706		0.33	<10	10	149	10	69	
18707		0.58	<10	<10	162	10	95	
18708		0.10	<10	10	15	<10	32	
18709		0.62	<10	<10	173	<10	97	
18710		0.11	<10	10	14	<10	27	
18711		0.23	<10	10	50	20	102	
18712		0.10	<10	10	15	10	183	
18713		0.10	<10	10	12	<10	55	
18714		0.10	<10	10	13	<10	27	
18715		0.10	<10	10	13	<10	44	
18716		0.10	<10	10	13	<10	32	
18717		0.10	<10	10	13	<10	37	
18718		0.60	<10	<10	192	<10	102	
18719		0.12	<10	10	15	<10	33	
18720		0.10	10	10	14	<10	79	
18721		0.09	<10	10	14	10	2780	
18722		0.10	<10	10	14	10	42	
18723		0.09	<10	10	12	10	74	
18724		0.09	<10	10	14	10	1795	
18725		0.09	<10	10	12	<10	167	
18726		0.11	<10	10	13	<10	30	
18727		0.10	<10	<10	14	<10	119	
18728		0.09	<10	<10	14	10	2770	
18729		0.08	<10	<10	14	30	8930	
18730		0.10	<10	<10	12	10	601	
18731		0.10	<10	<10	21	20	>10000	9.77
18732		0.26	<10	<10	58	30	958	
18733		0.10	<10	<10	13	10	168	
18734		0.09	10	10	12	10	44	
18735		0.10	<10	10	14	10	1115	
18736		0.13	<10	<10	66	20	>10000	1.330
18737		0.10	<10	10	13	10	35	
18738		0.56	<10	<10	154	10	326	
18739		0.09	<10	10	13	10	34	
18740		0.09	<10	<10	13	10	610	

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Project: Elk

CERTIFICATE OF ANALYSIS VA10108224

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	Au- GRA22 Au ppm 0.05	ME- ICP61 Ag ppm 0.5	ME- ICP61 Al % 0.01	ME- ICP61 As ppm 5	ME- ICP61 Ba ppm 10	ME- ICP61 Be ppm 0.5	ME- ICP61 Bi ppm 2	ME- ICP61 Ca % 0.01	ME- ICP61 Cd ppm 0.5	ME- ICP61 Co ppm 1	ME- ICP61 Cr ppm 1	ME- ICP61 Cu ppm 1	ME- ICP61 Fe % 0.01
18741		2.38	0.065		<0.5	6.88	5	1000	1.4	<2	0.58	<0.5	2	5	<1	1.34
18742		2.74	0.013		<0.5	6.92	<5	840	1.5	<2	0.57	<0.5	2	26	2	1.35
18743		3.58	0.245		1.3	6.93	16	1230	1.3	3	0.42	5.7	1	6	42	1.41
18744		1.82	0.495		6.5	6.88	26	1470	1.5	14	1.30	20.9	11	86	294	3.45
18745		2.32	2.24		2.3	6.56	27	1150	1.4	<2	0.66	0.5	3	10	85	1.60
18746		0.62	0.123		<0.5	6.88	11	1300	1.4	<2	0.69	<0.5	1	6	31	1.26
18747		0.36	0.116		<0.5	6.75	15	1340	1.3	2	0.63	<0.5	1	9	21	1.34
18748		1.42	1.300		1.9	6.73	36	1150	1.4	2	0.65	<0.5	2	8	84	1.83
18749		1.28	1.825		2.1	6.91	25	1150	1.5	6	0.66	0.5	3	8	82	1.73
18750		2.72	0.053		<0.5	7.24	7	1200	1.4	<2	0.71	<0.5	1	8	5	1.39
18751		2.56	0.081		<0.5	6.63	21	1210	1.2	2	0.45	<0.5	2	10	<1	1.27
18752		2.78	0.010		<0.5	6.78	8	1060	1.5	<2	0.67	<0.5	2	8	<1	1.24
18753		1.86	0.020		<0.5	7.23	<5	1060	1.6	<2	0.60	<0.5	2	5	<1	1.34
18754		0.88	0.757		2.4	6.54	32	1080	1.2	<2	0.60	6.3	2	8	107	1.73
18755		1.84	0.178		0.5	7.17	14	970	1.6	<2	0.66	1.4	2	5	19	1.64
18756		2.04	<0.005		<0.5	6.77	7	1100	1.7	<2	0.89	<0.5	2	6	1	1.35
18757		0.48	3.97		6.4	6.81	81	1220	1.3	8	1.20	21.1	7	27	710	3.22
18758		2.10	0.052		<0.5	6.87	13	850	1.2	3	0.65	2.4	2	8	23	1.43
18759		1.02	0.037		1.0	6.79	10	730	1.5	<2	0.51	15.2	2	3	39	1.63
18760		2.54	0.201		<0.5	6.64	<5	1520	1.5	<2	0.64	2.8	1	6	22	1.36
18761		1.46	0.011		<0.5	7.30	5	1000	1.6	<2	0.42	<0.5	2	5	4	1.44
18762		0.74	7.84	8.60	8.2	6.08	90	760	1.6	4	0.11	3.3	3	11	278	2.67
18763		1.16	0.032		<0.5	7.30	6	770	1.5	3	0.21	<0.5	1	5	2	1.82
18764		1.76	<0.005		<0.5	7.35	<5	1000	1.5	<2	0.32	<0.5	2	4	<1	1.37
18765		1.66	0.626		<0.5	7.04	25	710	1.5	<2	0.21	15.1	2	4	38	1.65
18766		0.20	>10.0	29.9	4.2	6.05	56	720	1.3	<2	0.57	<0.5	11	26	60	4.65
18767		2.90	0.187		<0.5	6.90	12	770	1.4	3	0.18	2.7	1	5	23	1.44
18768		2.40	0.379		<0.5	7.12	<5	960	1.5	<2	0.27	2.9	1	7	9	1.46
18769		2.86	0.020		<0.5	7.11	8	1070	1.8	<2	0.56	<0.5	1	6	<1	1.41
18770		1.34	0.027		<0.5	6.75	<5	610	1.3	<2	0.21	<0.5	1	5	<1	1.58
18771		0.74	0.034		<0.5	7.16	8	990	1.9	<2	0.41	<0.5	1	4	3	1.21
18772		2.50	0.024		<0.5	6.98	<5	1090	2.0	<2	0.56	0.5	1	6	<1	1.39
18773		2.88	0.052		<0.5	7.11	7	1110	1.7	2	0.41	<0.5	<1	5	4	1.36
18774		2.66	0.418		0.6	6.86	6	1040	1.5	<2	0.41	0.5	2	4	6	1.37
18775		1.04	0.014		0.7	8.13	<5	1410	1.8	2	1.80	<0.5	27	218	33	6.15
18776		0.56	>10.0	15.05	16.2	6.43	64	280	2.0	15	2.69	152.5	15	129	102	7.06
18777		0.46	7.35	7.22	10.9	6.07	52	300	1.9	13	2.38	68.4	16	132	46	6.61
18778		3.08	0.094		<0.5	6.82	<5	1090	1.4	<2	0.46	0.5	1	4	1	1.43
18779		0.82	1.820		3.0	6.56	12	780	1.9	2	0.26	8.9	2	3	23	2.16
18780		2.64	0.131		0.6	6.95	<5	980	1.5	<2	0.29	0.5	<1	5	10	1.22

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Account: PFM

Project: Elk

CERTIFICATE OF ANALYSIS VA10108224

Sample Description	Method / Analyte / Units / LOR	ME- ICP61 Ga ppm 10	ME- ICP61 K % 0.01	ME- ICP61 La ppm 10	ME- ICP61 Mg % 0.01	ME- ICP61 Mn ppm 5	ME- ICP61 Mo ppm 1	ME- ICP61 Na % 0.01	ME- ICP61 Ni ppm 1	ME- ICP61 P ppm 10	ME- ICP61 Pb ppm 2	ME- ICP61 S % 0.01	ME- ICP61 Sb ppm 5	ME- ICP61 Sc ppm 1	ME- ICP61 Sr ppm 1	ME- ICP61 Th ppm 20
18741		20	3.65	30	0.21	777	2	2.20	<1	270	15	0.31	<5	2	123	<20
18742		20	3.35	30	0.21	679	1	2.04	<1	270	15	0.18	<5	2	119	20
18743		20	4.03	30	0.24	534	1	1.63	<1	270	59	0.55	<5	2	127	<20
18744		20	3.37	30	0.90	1125	5	1.55	46	1520	366	1.38	<5	8	189	<20
18745		20	4.30	30	0.26	534	2	1.55	<1	260	24	0.89	<5	2	86	<20
18746		10	4.13	30	0.25	621	1	2.18	<1	260	15	0.55	<5	2	124	<20
18747		20	4.36	30	0.24	567	1	2.01	<1	240	14	0.57	<5	2	120	<20
18748		20	4.16	30	0.30	757	3	1.31	<1	270	40	0.91	<5	3	116	<20
18749		20	4.33	30	0.30	773	3	1.39	<1	290	36	0.96	<5	3	115	20
18750		20	3.85	30	0.22	901	1	2.12	<1	270	30	0.45	<5	2	122	<20
18751		10	3.36	30	0.17	636	1	1.81	<1	270	11	0.25	7	2	145	<20
18752		20	3.32	30	0.18	676	<1	2.24	<1	250	9	0.14	<5	2	125	<20
18753		20	3.55	30	0.20	704	1	2.10	<1	260	13	0.19	<5	2	116	20
18754		20	3.43	30	0.30	733	2	1.13	1	270	393	0.51	7	2	130	20
18755		20	3.61	30	0.24	806	1	2.11	2	290	121	0.29	<5	3	113	<20
18756		20	3.40	30	0.20	574	2	2.90	2	250	13	0.01	<5	2	137	<20
18757		20	3.38	30	0.49	1225	3	1.42	11	750	496	1.90	<5	5	145	<20
18758		20	3.48	30	0.29	756	1	1.98	<1	260	81	0.18	<5	2	152	<20
18759		20	3.76	30	0.32	619	1	1.25	<1	250	430	0.53	<5	2	102	<20
18760		20	3.56	30	0.18	664	1	2.38	<1	260	23	0.29	<5	2	113	<20
18761		20	3.31	30	0.13	817	<1	2.21	<1	310	14	0.06	<5	3	131	20
18762		10	3.44	30	0.18	1070	7	0.17	<1	230	293	1.63	<5	2	79	<20
18763		20	3.46	30	0.16	1985	1	0.74	<1	280	15	0.07	<5	2	126	20
18764		20	3.51	30	0.13	824	1	2.20	<1	270	10	0.03	<5	2	131	<20
18765		20	3.73	30	0.18	871	2	1.48	<1	320	90	0.43	5	3	95	<20
18766		20	3.91	10	0.33	193	3530	0.53	17	230	17	3.76	90	6	296	<20
18767		20	3.67	30	0.15	735	5	1.85	<1	250	89	0.39	<5	2	95	<20
18768		20	3.87	30	0.14	683	2	2.02	<1	240	83	0.31	<5	2	100	20
18769		20	3.67	30	0.17	578	1	2.72	<1	250	11	0.03	8	2	129	20
18770		20	3.34	30	0.23	597	1	2.19	<1	230	8	0.08	<5	2	85	<20
18771		20	3.57	30	0.14	539	2	2.59	<1	250	9	0.07	<5	2	118	<20
18772		20	3.52	30	0.14	627	1	2.65	<1	270	21	0.14	<5	3	123	<20
18773		20	3.86	30	0.14	554	1	2.47	2	260	44	0.24	<5	2	137	<20
18774		20	3.59	30	0.17	540	1	2.40	4	250	50	0.32	<5	2	142	<20
18775		20	3.25	50	3.61	1650	<1	1.51	141	4080	51	0.46	6	18	483	<20
18776		20	3.41	40	1.38	3290	2	0.06	83	2600	1975	6.84	5	13	117	<20
18777		20	3.04	30	1.37	3170	3	0.05	82	2610	1555	5.60	<5	13	109	<20
18778		20	3.86	30	0.23	624	1	2.03	3	260	41	0.31	<5	2	127	<20
18779		20	3.80	30	0.26	651	3	0.58	3	270	352	1.36	<5	2	83	<20
18780		20	3.66	30	0.15	684	<1	1.74	3	270	15	0.13	<5	2	129	<20

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Sample Description	Method / Analyte / Units / LOR	ME- ICP61 Ti % 0.01	ME- ICP61 Tl ppm 10	ME- ICP61 U ppm 10	ME- ICP61 V ppm 1	ME- ICP61 W ppm 10	ME- ICP61 Zn ppm 2	Zn- OG62 Zn % 0.001
18741		0.09	<10	10	14	10	29	
18742		0.09	<10	10	13	10	39	
18743		0.09	<10	10	12	10	196	
18744		0.27	<10	<10	77	30	946	
18745		0.09	<10	10	14	10	32	
18746		0.10	<10	10	12	10	14	
18747		0.09	<10	<10	12	10	17	
18748		0.10	<10	10	16	10	36	
18749		0.10	<10	10	16	10	28	
18750		0.10	<10	10	12	10	43	
18751		0.09	<10	10	13	10	25	
18752		0.09	<10	10	13	<10	33	
18753		0.09	<10	10	13	<10	42	
18754		0.09	<10	<10	14	10	256	
18755		0.10	<10	10	14	<10	158	
18756		0.11	<10	10	13	<10	29	
18757		0.15	<10	<10	36	20	1065	
18758		0.08	<10	10	13	<10	179	
18759		0.09	10	10	15	10	1020	
18760		0.10	<10	10	12	10	180	
18761		0.11	<10	10	14	<10	66	
18762		0.07	<10	10	12	10	205	
18763		0.10	<10	<10	13	10	116	
18764		0.10	<10	10	13	<10	42	
18765		0.11	<10	10	17	10	935	
18766		0.17	20	<10	766	40	113	
18767		0.09	<10	10	14	10	170	
18768		0.09	<10	10	13	10	176	
18769		0.10	<10	10	13	<10	28	
18770		0.09	<10	10	12	<10	49	
18771		0.09	<10	10	12	<10	27	
18772		0.11	<10	10	13	<10	47	
18773		0.10	<10	20	13	<10	41	
18774		0.09	<10	20	12	<10	50	
18775		0.65	<10	10	168	10	260	
18776		0.40	<10	<10	107	60	8140	
18777		0.32	<10	<10	107	40	3920	
18778		0.10	<10	10	13	10	52	
18779		0.10	<10	10	14	10	505	
18780		0.09	<10	10	12	10	52	

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CERTIFICATE OF ANALYSIS VA10108224

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	Au- GRA22 Au ppm 0.05	ME- ICP61 Ag ppm 0.5	ME- ICP61 Al % 0.01	ME- ICP61 As ppm 5	ME- ICP61 Ba ppm 10	ME- ICP61 Be ppm 0.5	ME- ICP61 Bi ppm 2	ME- ICP61 Ca % 0.01	ME- ICP61 Cd ppm 0.5	ME- ICP61 Co ppm 1	ME- ICP61 Cr ppm 1	ME- ICP61 Cu ppm 1	ME- ICP61 Fe % 0.01
18781		0.64	1.635		1.6	7.00	11	950	1.5	4	0.22	3.7	1	7	32	1.44
18782		0.82	3.10		2.4	6.53	16	870	1.6	3	0.18	8.6	1	6	53	2.15
18783		1.58	0.280		0.9	6.86	<5	950	1.3	2	0.35	1.6	1	9	15	1.42
18784		2.34	0.173		0.7	7.01	<5	1100	1.5	<2	0.29	0.6	2	5	8	1.51
18785		2.10	0.090		<0.5	6.92	<5	1200	1.6	<2	0.48	<0.5	1	4	5	1.36
18786		1.52	<0.005		<0.5	6.72	<5	1190	1.5	<2	0.65	<0.5	1	6	2	1.61
18787		1.50	1.345		1.0	6.89	7	1090	1.5	2	0.30	0.5	1	4	87	1.62
18788		2.36	0.756		1.6	6.74	6	1120	1.5	<2	0.76	<0.5	3	15	16	1.57
18789		1.32	0.179		1.5	7.48	12	1330	1.8	3	1.87	3.5	13	105	35	3.78
18790		1.60	0.008		<0.5	7.21	6	1160	1.6	<2	0.54	<0.5	2	7	2	1.33

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VANCOUVER BC V6C 2T8

Finalized Date: 29- AUG- 2010
Account: PFM

Project: Elk

CERTIFICATE OF ANALYSIS VA10108224

Sample Description	Method / Analyte / Units / LOR	ME-ICP61 Ga ppm 10	ME-ICP61 K % 0.01	ME-ICP61 La ppm 10	ME-ICP61 Mg % 0.01	ME-ICP61 Mn ppm 5	ME-ICP61 Mo ppm 1	ME-ICP61 Na % 0.01	ME-ICP61 Ni ppm 1	ME-ICP61 P ppm 10	ME-ICP61 Pb ppm 2	ME-ICP61 S % 0.01	ME-ICP61 Sb ppm 5	ME-ICP61 Sc ppm 1	ME-ICP61 Sr ppm 1	ME-ICP61 Th ppm 20
18781		20	4.23	30	0.19	694	<1	1.27	1	270	69	0.45	<5	2	104	<20
18782		20	3.93	30	0.21	802	2	1.05	3	240	228	1.34	<5	2	82	<20
18783		20	4.08	30	0.20	754	<1	1.52	3	260	65	0.54	<5	2	130	<20
18784		20	3.85	30	0.17	742	<1	1.74	3	260	56	0.44	5	3	132	<20
18785		20	3.85	30	0.14	608	1	2.32	1	260	22	0.19	<5	3	124	<20
18786		20	3.46	10	0.18	778	<1	2.97	2	280	9	<0.01	<5	2	141	<20
18787		20	3.97	30	0.17	877	<1	1.79	3	260	29	0.37	<5	3	103	<20
18788		20	3.75	30	0.29	730	1	2.38	9	370	12	0.57	<5	3	131	<20
18789		20	3.19	30	0.73	2280	5	1.55	42	2090	131	1.64	<5	10	248	<20
18790		20	3.57	30	0.19	724	<1	2.16	9	280	17	0.13	<5	3	133	<20

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To: ALMADEN MINERALS LTD.
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Sample Description	Method / Analyte / Units / LOR	ME- ICP61 Ti % 0.01	ME- ICP61 Tl ppm 10	ME- ICP61 U ppm 10	ME- ICP61 V ppm 1	ME- ICP61 W ppm 10	ME- ICP61 Zn ppm 2	Zn- OG62 Zn % 0.001
18781		0.10	<10	10	13	10	297	
18782		0.09	<10	10	14	10	525	
18783		0.10	<10	20	13	10	109	
18784		0.10	<10	10	14	<10	64	
18785		0.11	<10	20	13	<10	41	
18786		0.12	<10	20	14	<10	35	
18787		0.10	<10	10	15	10	46	
18788		0.11	<10	20	18	10	27	
18789		0.39	<10	10	90	20	305	
18790		0.11	<10	10	14	10	55	

Appendix 5

Drill Sections

ALMADEN MINERALS LTD.
ELK PROJECT

KEY FOR GEOLOGICAL CORE LOGS

1 MAIN ROCK TYPE
MINOR ROCK TYPE

ROCK TYPE CODE:

AD	andesite dyke	GR	granite
AV	andesitic volcanic	MI	missing core
AP	aplite	OB	overburden
BR	breccia	PV	porphyritic volcanic
CS	casing+overburden	QM	quartz monzonite
DB	diatreme breccia		
FP	feldspar porphyry	QV	quartz vein
		ST	quartz stringer
GD	granodiorite	CV	carbonate vein
		CBST	carbonate stringer
		VB	volcanic breccia
GG	gouge (fault, shear)	HG	healed gouge
PG	pegmatite	SD	sand

ALTERATION CODES: prefix to rock type code (eg K2GR)

Ax	argillic	Px	propylitic	Bx	albitic
Fx	phyllic	Sx	sericitic		
FK	K-spar stable phyllic	Xx	silicification		
Kx	potassic	Cx	carbonate		

x = 1 to 5 (weak to intense)

Note: no qualifier for K-spar stable phyllic alteration, as it is considered moderate alteration (x = 2 to 3).

VEIN DESCRIPTORS ie Y2QV

Y1	- 1-5% sulphide - assumed to be pyrite unless specified in Sulp columns
Y2	- 5-10%sulphide
Y3	- 10-20% sulphide
Y4	- 20-30% sulphide
Y5	- >30% sulphide
VGQV	- visible gold noted in vein

MAIN ROCK TYPE: structure >= 20cm thick or >= 50% of the interval. The main quartz vein(s) are logged under this heading, whatever the thickness. Main rock type intervals must be contiguous. Only minor rock type intervals can be nested. As a general rule try to keep main rock types to greater than 1.5m.

MINOR ROCK TYPE: structure < 20cm thick or < 50% of the interval; eg., narrow dyke, vein, groups of alteration bands, etc. Minor rock type intervals are nested within main rock type intervals and can also be nested within minor rock type intervals.

2 STRUCTURE

CORE ANGLE

All core angles are measured relative to core axis with the axis being 0 degrees.

-if structures are known to have opposite sense, eg. conjugate fractures, then label one angle as negative.

STRUCTURE CODES

BN	band (eg alteration)	FT	fault
CT	contact	SH	shear
DK	dyke	ST	stringer
FR	fracture	VN	vein

3 MINERALOGY

A ALTERATION

-listed in decreasing amount

AD adularia	CY clay	PH phlogopite	SI silica
AK ankerite	EP epidote	QZ quartz 2	
BI biotite 2	HE hematite	SE sericite	
CB carbonate	KF K-spar 2	SS saussurite	
CL chlorite	OX oxides (Fe Mn)	CA calcite	

("2" after mineral name indicates secondary origin)

B SULFIDE

- listed in decreasing amount

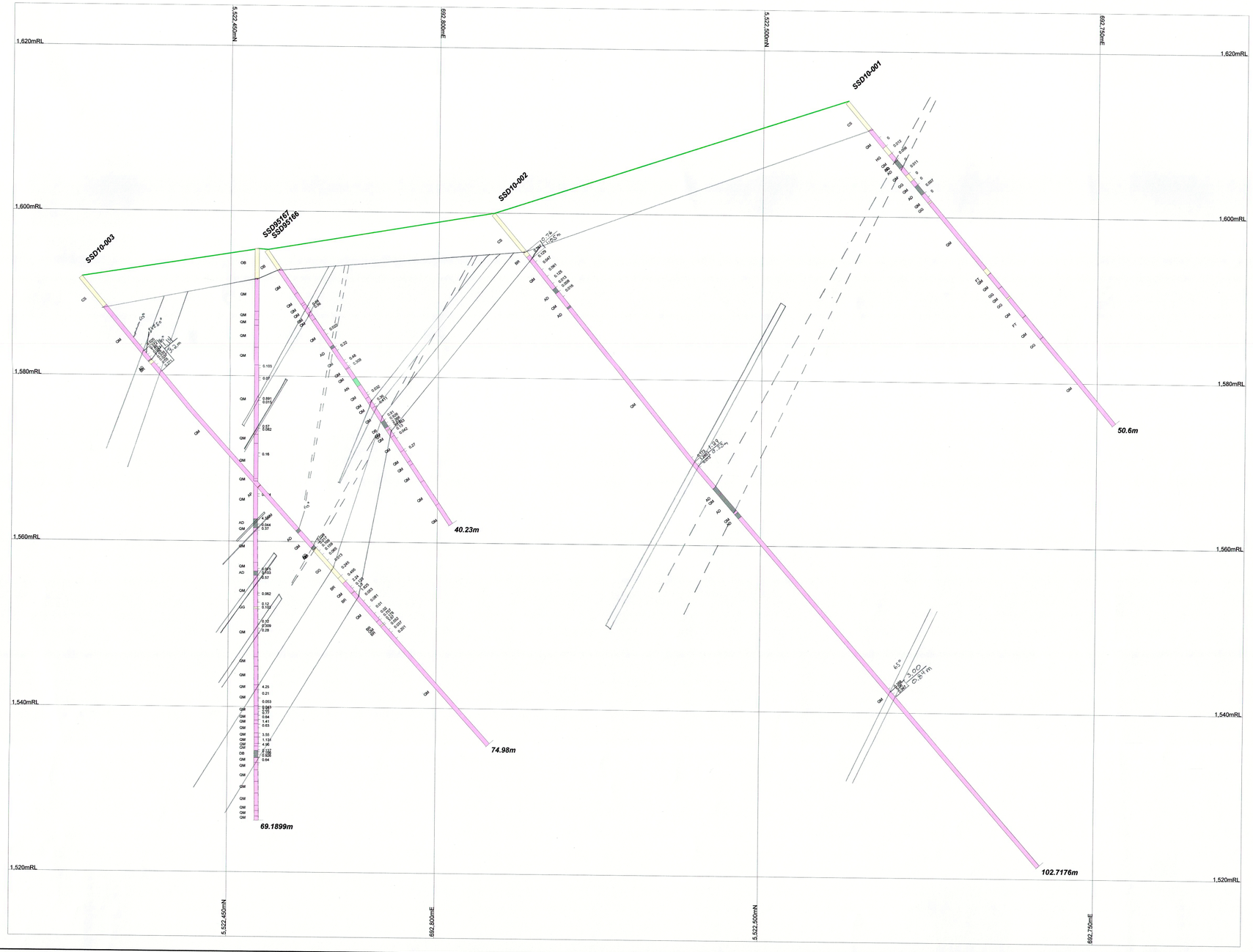
AS arsenopyrite	HE hematite
AU native gold	MO molybdenite
BN bornite	PO pyrrhotite
CP chalcopyrite	PY pyrite
EL electrum	SL sphalerite
GL galena	TT tetrahedrite

C GANGUE

-listed in decreasing amount

AK ankerite	KF K-feldspar
CA calcite	GG gouge
CB carbonate	QZ quartz
CL chlorite	SE sericite
FL fluorite	WR wall rock fragments

NOTE:-standard GEOLOG codes used.



CS
QM
HG
AD
GG
FT
BR
AP
OB
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DB
QV

0 5 10
metres

ALMADEN MINERALS LTD.

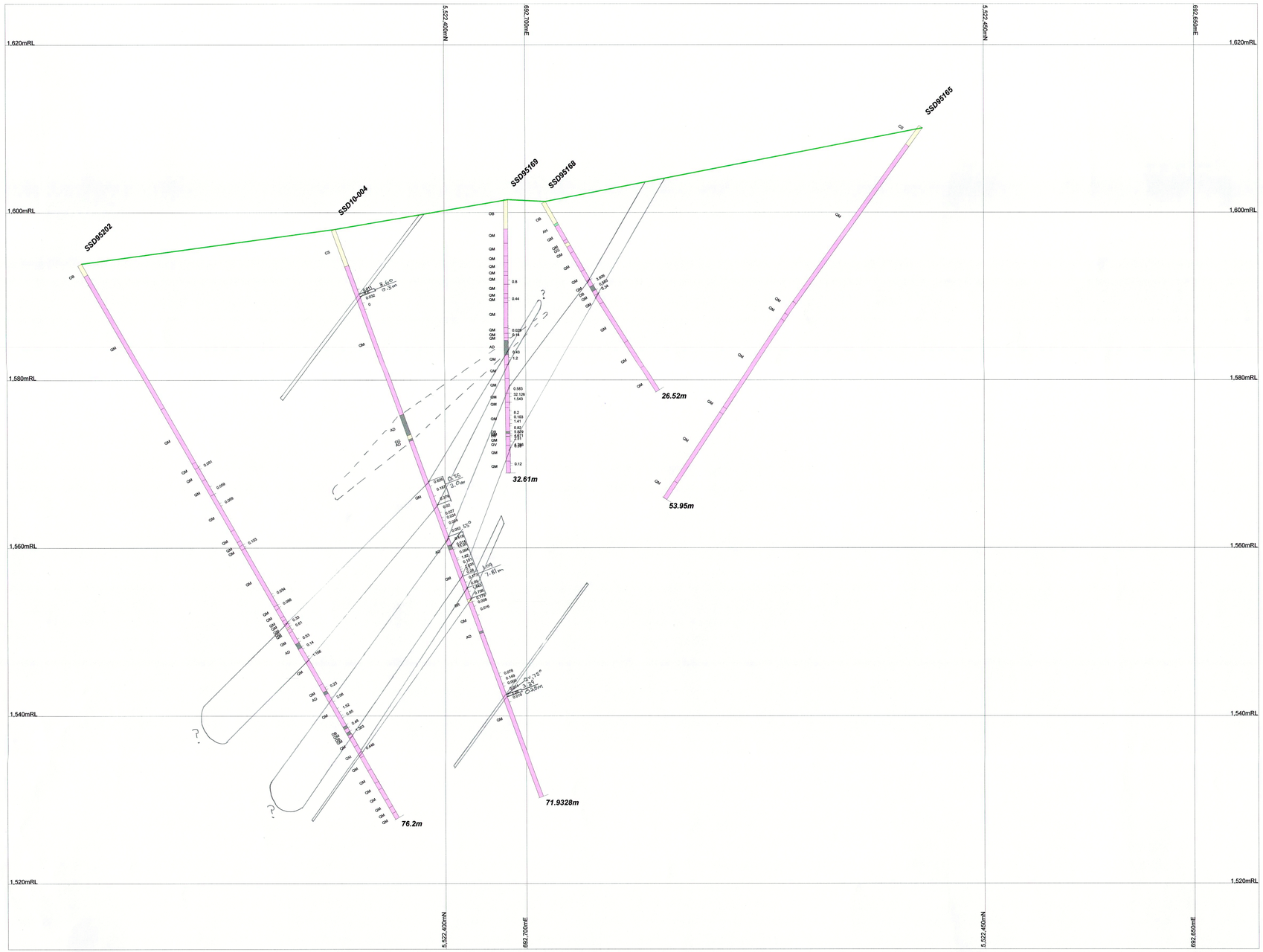
ELK GOLD PROJECT, BC

SOUTH SHOWING

Section Along Trench SS87-2

Looking Southwest

Date	Mar 16, 2011	Scale	1:250	Figure
Projection	UTM zone 10 - NAD83	State/Province	BC	-
BCGS	092H.089	NTS	092H/16	
Author	MJD	File	MJD_SouthShow_Sects	



CS
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QV

0 5 10
metres

ALMADEN MINERALS LTD.

ELK GOLD PROJECT, BC

SOUTH SHOWING
Section Along Trench SS87-3
Looking Southwest

Date	Mar 16, 2011	Scale	1:250	Figure
Projection	UTM zone 10 - NAD83	State/Province	BC	
BCGS	092H.089	NTS	092H/16	-
Author	MJD	File	MJD_SouthShow_Sects	