COLUMBIA	T COLOR
Ministry of Energy & Mines	
Energy & Minerals Division	ASSESSMENT REPORT
Geological Survey Branch	TITLE PAGE AND SUMMARY
	TOTAL COST
GEOCHEMICAL, GEOLOGICAL & PROSPECTING REPORT	D , 2008.09
AUTHOR(S) LINDINGER SIGNATURE(S)	for
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S)	YEAR OF WORK_2010
STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 480582	7
PROPERTY NAME SUNRISE EAST	
CLAIM NAME(S) (on which work was done) <u>SUNRISEERS7 6629</u> 662963	43, SUNRISEENE
COMMODITIES SOUGHT <u>2IMC, LEDD</u> , <u>COPPER, SILVER</u> , MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN MINING DIVISION <u>KAM LOOPS</u> NTS <u>082M</u> / LATITUDE <u>5/</u> ° <u>37</u> <u>27</u> LONGITUDE <u>1/9</u> ° <u>48</u> <u>COMMER(S)</u> 1) <u>LEO LINOINGER</u> 2) MAILING ADDRESS <u>6BO DAIRY ROAD</u> <u>KAMLOOPS</u> <u>B.C. VZBZNS</u>	2* (at centre of work)
OPERATOR(S) [who paid for the work]	
$1) \_ \angle E 0 \angle INDINGET( 2) \_ 2)$	
milling Addites	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size an CAMBRIAN OR DER METASEDIMENTS AND META U	nd attitude): IOLCANCS OF THE
EAGLE BAY FORMATION HOST POLYMETALLIC	MASSIVE AND
SEMI - MASSIVE SULAHIDE DEPOSITS. THE	PROPERTY IS
TRUSPECIJUE TOR TRESE DEPOSITS	1 11.001 11.00
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS 6931	, 12080, 13463
10-11 10011 2005	

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS) / Km 2	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Ground, mapping	1 Km 2	662943, 662963	300
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			and the second
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL			
(number of samples analysed for)		a de la composición de	-
Soil	2	662943	200
Silt			
Rock	6	662943	500
Other			
DRILLING			
(total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			1
Sampling/assaying			350
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			150
PREPARATORY/PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			and the
Road, local access (kilometres)/trail			
Trench (metres)	Construction of the		
Underground dev. (metres)	12200		
Other PAC WITH AR	RAWAL		508.09

BC Geological Survey Assessment Report 32037

# **GEOCHEMICAL, GEOLOGICAL AND PROSPECTING**

# **ASSESSMENT REPORT**

# **ON THE**

# SUNRISE EAST PROPERTY

# East Mount McClennan Area

# **Kamloops Mining Division**

51<sup>o</sup> 37' 27" N, 119<sup>o</sup> 48' 05" W

NTS map sheet 082M12W

Tenure No's 662943, 662963, 662971

By

Leopold J. Lindinger, P.Geo.

February 13, 2011

# **INDEX**

SUMMARY	1
INTRODUCTION	2
LOCATION AND ACCESS	2
PHYSIOGRAPHY	2
HISTORY	5
REGIONAL GEOLOGY	5
LOCAL GEOLOGY	9
MINERALIZATION	17
2010 RECONAISSANCE MAPPING, ROCK AND SOIL SAMPLING PROGRAM	18
RESULTS	18
RECOMMENDATIONS	21
REFERENCES	22
STATEMENT OF QUALIFICATIONS	23

# LIST OF FIGURES

FIGURE 1 – LOCATION PLAN	
FIGURE 2 – MINERAL TENURE	
FIGURE 3 – REGIONAL GEOLOGY	
FIGURE 4A – LOCAL GEOLOGY	
FIGURE 4B – STRUCTURAL CROSS SECTION FACING WEST	
FIGURE 5 – ROADS AND INDEX PLAN	
FIGURE 6 – GEOLOGY AND SAMPLE LOCATION PLAN	

## LIST OF TABLES

TABLE 1 – MINERAL TENURE DETAILS	2
TABLE 2 SUNRISE EAST PROJECT STATEMENT OF EXPENDITURES	18
TABLE 3 -RECOMMENDED EXPENDITURES	21

# LIST OF APPENDICES

APPENDIX 1 – ANALYSES	a
<b>APPENDIX II – ROCK AND SOIL SAMPLE DESCRIPTIONS</b>	i

### SUMMARY

The Sunrise East Property covers the a portion of the up dip lithologies that overlie to the west off the property the SUNRISE (Minfile #082M046), SNOW (Minfile #082M045) and REDTOP (Minfile #082M044) zinc-lead-silver-copper-gold Prospects, and West Redtop zinc-lead-silver-gold showing. The property is located on BCGS map sheet 082M083 at 51" 37' 45" N., 119"48' W. in the Kamloops Mining Division 18 km east of Clearwater, east of the summit of Mr. McClennan.

The property covers moderately metamorphosed and deformed subaqueous sediments and volcanics of the early Palaeozoic to Proterozoic portion Eagle Bay Group portion of the Kootenay Terrane, a west facing sequence of interbedded sediments and volcanics off the former coast line of ancestral North America. The closest significant intrusive body is the Cretaceous Raft Batholith underlying part of the north part of the property.

The SUNRISE, SNOW, REDTOP and West Redtop occurrences and showings are four Kuroko style volcanogenic massive sulphide zones, deposits or showings located from east to west respectively on the north limb of a shallowly east plunging antiform of a mixed subaqueous assemblage of early Eagle Bay Group sediments and felsic fragmental volcanics. The occurrences are separated by 1 to 1.5 kilometres over a 5 kilometre strike length. The Sunrise east property overlies a multielement gold, copper lead zinc and silver anomaly with a ground magnetometer anomaly that may represent the signature to a buried massive sulphide deposit which would be the next in line east of the nearby Sunrise Occurrence.

Surface rock sampling in 2005 confirmed medium to high grade zinc and lead accompanied by weakly to moderately anomalous copper, silver, gold and cadmium results from massive and semi massive sulphide exposures.

Many new logging roads allowed much better access to the eastern parts of the claims and these were briefly examined on October 15, 2010. A new exposure of siliceous sulphidic rhyolite fragmental overlain by argillaceous rocks was located some 800 metres due east of the Sunrise showing. The showing lies near the expected stratigraphic position of the sulphide horizon however not at an expected position to host economic sulphide deposits. No significantly anomalous metal values were returned from several chip, float and soil samples. Reconnaissance geological observations indicate that the sediment extend further northeast than government mapping indicates. The 2010 work program cost \$2008.09.

The prime target area remains to be tested.

A \$60,000 dollar Stage 1 multiphased program including grid construction, geological mapping, Induced polarization geophysics, and diamond drilling is recommended. Additional exploration expenditures are dependent on exploration success.

### **INTRODUCTION**

This report documents the results of a prospecting, reconnaissance geological, and rock and soil geochemical sampling program completed on the Sunrise East Property completed on October 15, 2010.

### LOCATION AND ACCESS

The Sunrise East Property is located 20 kilometres due east of Clearwater east of the summit of Mt. McClennan and centered at 51<sup>o</sup> 37' 27" North, 119<sup>o</sup> 48' 05" West on NTS map sheet 082M12W. Road access from Clearwater is east on the Yellowhead Highway 5 for 16 kilometres then north onto the Corbie Lake Forest Service (1000) Road 3 kilometres east of the Birch Island turnoff for 13.7 kilometres, then west onto the 10.22 forest service road for 0.95 kilometres then north onto local logging road 5085B which accesses the east end of the old mine road to the Sunrise Occurrence 400 M east of the Sunrise east property Boundary. Road R194A which begins at about the 1 km point on 5085B extends to the NE into newly logged areas. Access to the east and north parts of the property is via Road 164 which begins at the 12.5 km on the McCorvie road. Spurs R194B and R194F extend in to the east and north parts of the property respectively.

The town of Clearwater has good accommodation and logistical support including helicopters and a hospital.

Road access to the property is available from mid May to mid November. However with clear cutting, accessing the south portions can be completed as early as mid April with a warm spring.

### PHYSIOGRAPHY

The Sunrise Property is located in the south-eastern end of the Caribou Plateau. Rainfall is about 1 meter per year. The area covered by the claims covers the east slopes of the summit of Mt. McClennan at 1680 meters. The lowest point is at about 1400 meters along the south property perimeter. Vegetation is dominantly lodgepole pine interspersed with spruce and balsam at the summit, and upper elevation marshy areas.

#### PROPERTY

The sunrise property comprises the following mineral tenure claims located in the Kamloops, Mining Division on NTS map sheet 082M/12 in the Clearwater-Vavenby area.

Tenure Number	Claim Name	Owner	Good To Date*	Area (ha)			
662943	SUNRISEEAST	115758 (100%)	2012/Dec/01	120.39			
662963	SUNRISENE	115758 (100%)	2012/Dec/01	60.19			
662971	SUNRISEE	115758 (100%)	2012/Dec/01	60.21			
		Total a	240.8				

### TABLE 1 – MINERAL TENURE DETAILS

\*Good to date is pending acceptance for assessment credit of the exploration work in event# 4805827 that this report documents.



FIGURE 1 – LOCATION PLAN



FIGURE 2 – MINERAL TENURE

## HISTORY

The known history of the area is briefly summarized below.

- Redtop and Sunrise prospects discovered and staked prior to 1922 and the Snow shortly thereafter (Schiarizza & Preto, 1987 P. 72).
- Activity picked up in the 1960's with the building of the Yellowhead highway (Kerr, Dawson and Associates Ltd., 1978).
- Crowpat mines in the mid 1960's completed test mining at all three prospects. Calbay Mining Ltd., Castlemaine Explorations Ltd. and Craigmont Mines Ltd. also completed exploration work including diamond drilling (Craigmont).
- Kerr-Dawson in 1976 staked the Sunrise and Snow showings and were the first to recognize of Volcanogenic hosted i.e. "syngenetic" massive sulphide mineralization. They and other completed several soil geochemical surveys, and limited magnetometer surveys. The claims were allowed to lapse.
- Placer dome acquired the property by staking in 1980 as the Noble project and completed extensive soil, rock sampling, ground magnetometer, and a UTEM surveys on several grids. They also completed at least two geological mapping programs. In 1988 they drilled 4 deep NQ diamond drill holes two at the Red Top and one each at the Sunrise and Snow prospects.
  - In 1994 they optioned the claims to a junior mining company as a listing property and 4 additional drill holes were completed in the area between the Snow and Sunrise areas.
  - Placer dome allowed the claims to lapse in 2000.
- Leo Lindinger acquired the Sunrise, Snow and redtop property by staking beginning in May 2001. The old mineral tenures were converted to new MTO tenures early in 2005. The Claims lapsed in 2008.
- Also in 2008 the Sunrise east property was re-acquired by Lindinger.

## **REGIONAL GEOLOGY**

The following regional geological description is excerpted from Schiarizza and Preto, 1987, pages 13-25.

"...The name "Eagle Bay" was first proposed by Jones (1959) for a series of lowgrade metasedimentary and metavolcanic rocks that outcrop between Shuswap and Adams lakes in the Vernon map area. They comprised the uppermost formation of his Mount Ida Group, which he assigned an "Archean or Younger" age. Campbell (1963) mapped the Adams Lake sheet and recognized that rocks equivalent to the Eagle Bay Formation extended as far north as the Clearwater – Vavenby area. He collected Late Palaeozoic fossils from a single limestone unit within the succession and suggested that this might be the age of the entire package. Further work by Campbell and Tipper (1971) in the Bonaparte Lake map area established that Eagle Bay rocks along Adams Lake extended northwestward to the Barriere River. Following these correlations, the name Eagle Bay Formation came to be used for the rocks underlying a broad area lying west of the Shuswap metamorphic complex from Clearwater southeast to Shuswap Lake (Campbell et al., 1976) (Figure 3).

More recently, Okulitch (1979) revised the geology of the region and correlated the Eagle Bay succession with the stratigraphy of the Kootenay Arc, on the east side of the Shuswap Complex. He correlated part of the Eagle Bay succession with the Lower Palaeozoic Lardeau Group, and part (mainly Unit EBP of this report) with the Carboniferous Milford Group which, in the arc, overlies the Lardeau Group with angular unconformity. He allowed that sub-Lardeau Group correlatives might also be present within the Eagle Bay succession and, specifically, was correct in correlating the Tshinakin limestone member (EBGt) of the Eagle Bay Formation with the Lower Cambrian Badshot Formation of the Kootenay Arc."...

..."the Eagle Bay Assemblage comprises four Stratigraphic units can be matched from one sheet to another, suggesting that the bounding faults are not the loci of extremely large displacements. Although many lithologic units within the assemblage remain undated, it has been established that the Eagle Bay includes a Lower Palaeozoic (and older?) succession of clastic metasediments, carbonate and mafic metavolcanic rocks, and an overlying Devono-Mississippian succession of felsic to intermediate metavolcanic rocks and clastic metasediments."...

... "The Adams Plateau-Clearwater-Vavenby map area is underlain mainly by Palaeozoic rocks of the Eagle Bay Assemblage and Fennell Formation. The Eagle Bay Assemblage comprises Early Cambrian to Mississippian metasedimentary and metavolcanic rocks that are locally intruded by Devonian orthogneiss. They resemble, in part, North American miogeoclinal strata to the east, and are included within the parautochthonous or "pericratonic" Kootenay terrane of Price et al. (1985). The Fennell Formation comprises Devonian to Permian oceanic rocks of the Slide Mountain terrane which were tectonically emplaced over Mississippian rocks of the Eagle Bay Assemblage in early Mesozoic time. The Fennell and Eagle Bay rocks were deformed and metamorphosed together during the Jura-Cretaceous Columbian orogeny; the metamorphic grade is lower greenschist through most of the area, but increases sharply to amphibolite facies in places along the eastern and northeastern margins. The Fennell and Eagle Bay successions are cut by mid-Cretaceous granitic rocks of the Raft and Baldy batholiths, and by Early Tertiary quartz feldspar porphyry, basalt and lamprophyre dykes. They are locally overlain by Eocene sedimentary and volcanic rocks of the Kamloops Group and by Miocene plateau lavas.

Palaeozoic rocks in the study area occur in four"... ..."north-west-dipping thrust sheets"... ..."separated by southwesterly directed thrust faults (Figure 6, in

pocket, and Figure 7). The upper three fault slices contain only Eagle Bay rocks, while the lowest slice comprises Eagle Bay strata structurally overlain by rocks of the Fennell Formation."...

..."The fourth (upper) Eagle Bay fault slice consists of an inverted sequence of mafic metavolcanic rocks and limestone of Unit EBG, structurally overlain by quartzites, grits and quartz mica schists of Unit EBH. Rocks within this fault slice are dated as Early Cambrian and (?) older on the basis of fossil archaeocyathids collected from the Tshinakin limestone member of Unit EBG.

At the base of the third Eagle Bay fault slice is a succession consisting dominantly of quartzites, grits and quartz mica schists (Unit EBQ) intruded by a large sheet of Devonian granitic orthogneiss. Unit EBQ is not dated, but is tentatively correlated with the lithologically similar Early Cambrian and/or older rocks of Unit EBH. The upper part of Unit EBQ locally includes significant proportions of chlorite schist and limestone and may correlate with Unit EBG. Throughout most of the third fault slice, Unit EBQ is overlain by a Devono-Mississippian succession comprising felsic to intermediate metavolcanic rocks (Units EBA and EBF) intercalated with and overlain by dark grey phyllite, sandstone and grit (Unit EBP). These rocks were not dated within the third fault slice, but are correlated with an identical sequence within the first fault slice. In the lower slice, Unit EBA yielded a Middle Devonian radiometric age, and several collections of Mississippian conodonts were made from Unit EBP. Locally within the third fault slice, Units EBA and EBF are absent, and Units EBQ and EBP are separated by a succession of schistose sandstones and grits that are assigned to Unit EBS. The second Eagle Bay fault slice consists of mafic metavolcanics, limestone (including the prominent Tshinakin limestone member) and related rocks of Unit EBG. These rocks are not dated within this slice, but are readily correlated with lithologically identical rocks of the uppermost fault slice, within which the Tshinakin limestone member has yielded Early Cambrian archaeocyathids. The second fault slice is not recognized north of the Barriere River strike-slip fault, where rocks of the third slice lie directly above the first. The first and lowest fault slice comprises a succession of Eagle Bay rocks structurally overlain by rocks of the Fennell Formation. The base of the Eagle Bay succession is a heterogeneous assemblage of phyllitic sandstone and grit, intercalated with carbonate and mafic to felsic volcanic and volcaniclastic rocks. The age of these rocks is unknown; they are assigned to Unit EBS and correlated with lithologically similar rocks which locally lie above Unit EBO in the third fault slice. Within the first fault slice, Unit EBS is overlain by Devono-Mississippian rocks of Units EBA, EBF and EBP, but is locally separated from them by either limestone, calc-silicate schist and skarn of Units EBL and EBK, or by mafic metavolcanic rocks of Unit EBM. The Fennell Formation is an internally imbricated oceanic assemblage consisting mainly of basalt, chert and gabbro, intercalated with lesser amounts of quartz-feldspar-porphyry rhyolite, sandstone, metatuff, limestone, and intraformational conglomerate. It comprises the upper part of the first structural slice, but is separated from Mississippian

119° 20  $\mathcal{S}$ ょ 0 S 4 1 Fennell Formation 0 RAFT BATHOLITH SUNRISE EAS ROPER Eagle Bay Assemblage Mt. Ida Group Clear venby Z m Ъ 20 3 0 km Z BALDY BATHOLITH -P Z m  $\mathcal{O}$ STUDY AREA Barriere <u>ś</u>1 51°  $\geq$ G icamou C Ó 2 0 KAMLOOPS

Eagle Bay rocks of Unit EBP by an early, easterly directed thrust fault; this thrust formed prior to the southwesterly directed structures which dominate the structural pattern of the area."...

Figure 3. Geologic setting of the Adams Plateau – Clearwater – Vavenby area, modified after Okulitch and Cameron (1976). Not shown are Tertiary volcanics and numerous granitic plutons of Mesozoic and Paleozoic age. Potentially correlative rocks north of the Raft batholith are included within the Eagle Bay Assemblage.

FIGURE 3 - REGIONAL GEOLOGY - From Schiarizza and Preto 1987, page 12.

52

#### LOCAL GEOLOGY

The following descriptions of the rocks underlying and surrounding the Sunrise property are excerpted from Schiarizza and Preto, 1987 pages 15-32.

In the Vavenby area Unit EBG rocks outcrop in the fourth fault slice between the Raft and Baldy batholiths. The unit outcrops most extensively on the south side of the North Thompson River, where it occurs in a number of fault blocks separated by late northerly trending faults; it also outcrops on the north side of the river, south and east of the McCorvie Lakes. Unit EBG occurs at the base of the upper slice; in eastern exposures it is structurally overlain by Unit EBH. The succession is overturned and is inferred to comprise the lower limb of a large nappe structure (Figure 5, section H-H'). Unit EBG is separated from underlying rocks of the third fault slice by the Vavenby thrust fault (Figure 6).

Within the fourth fault slice Unit EBG is dominated by calcareous chlorite schists and limestones identical to those which characterize the unit within the second fault slice. The chlorite schist is typically medium to dark green, fine grained, and moderately to strongly fissile. Local intervals within the unit are dolomitic and weather brown or rust coloured. Relatively coarse fragmental rocks are present locally (Plate 4), as is massive greenstone that was probably derived from massive flows. Feldspar and/or hornblende crystals are conspicuous in places and may be accompanied by quartz crystals and abundant sericite where the rocks are derived from relatively more felsic volcanics. Hornblende-feldspar-quartz-sericitechlorite schist is most abundant in the vicinity of Chuck Creek where it is intercalated with light to medium grey phyllite, fine-grained quartzite and limestone; this interval has been distinguished on the map as Unit EBGt:

Light grey to greenish grey quartzite, grit and chlorite-sericite-quartz schist occur locally within Unit EBG of the fourth fault slice, but are not common. These rocks resemble rocks which characterize Unit EBH and occur mainly in close proximity to the contact with Unit EBH.

Light grey, finely crystalline limestone occurs, at least locally, throughout most of the Unit EBG succession in the fourth fault slice, but rarely constitutes mappable horizons. However, a thick, well-exposed limestone unit, which outcrops on both sides of the North Thompson River near Vavenby (Plate 5), is comparable in thickness to the Tshinakin limestone member of the second fault slice, and is correlated with it (Unit EBGt, Figure 4). Fossil archaeocyathids (Plate 6) were found within this unit 4 kilometres northwest of Vavenby, indicating an Early Cambrian age (Appendix 1). This is the only age control currently known for Unit EBG and the stratigraphically underlying rocks of Unit EBH."...



#### **LEGEND to accompany Figure 4**

Tertiary

Plbs – Basalt (Clearwater volcanics)

Cretaceous

**Kg** – granite (Raft Batholith)

Kootenay Terrane Upper Palaeozoic

EBP-dark grey phyllite, sandstone, minor volcanics and limestone.

Devonian

EBA Intermediate subaqueous? volcanic derived sediments. In part exhalative (pyritic chert).

### Lower Palaeozoic

**EBG** – Intermediate and mafic volcanics and derived sediments. Includes Tshinakin limestone. **EBS-** Phyllite with minor limestone

#### Cambrian to Hadrynian

**EBQ** Quartzite, calcareous phyllite, muscovite-chlorite quartz schist. (felsic volcanic and intrusive in part) **\*stratabound massive sulphide host** 

EBQI – thinly banded to massive limestone

#### Hadrynian and older

PrPzog, HaPzgs Shuswap complex rocks



### FIGURE 4B - STRUCTURAL CROSS SECTION FACING WEST

### ..."UNIT EBQ

Unit EBQ consists of micaceous quartzite, grit, phyllite and quartz mica schist, accompanied by minor amounts of chlorite schist, limestone, calcareous phyllite, calc-silicate schist and amphibolite."... ..." North of the Barriere River fault, Unit EBQ occurs mainly on the north and south limbs of a composite east-trending synformal structure between the Raft and Baldy batholiths (Figure 5, sections H-H' and 1-1'). It is stratigraphically overlain by Devono-Mississippian Eagle Bay rocks, and locally by Unit EBS of uncertain age. East of the Chuck Creek fault, however, it is locally structurally overlain by Unit EBG of the fourth Eagle Bay fault slice. Unit EBO is underlain by Devonian orthogneiss (Unit Dgn) on the south limb of the synformal structure, north of the Baldy Batholith (Figure 4). Between Granite Mountain and Barriere River (where it is designated as Unit EBQgn) it is intruded by bodies of orthogneiss and by sills (?) of quartzeve sericite schist (quartz porphyry) that may be directly related to overlying felsic volcanic rocks of Unit EBA. North of North Thompson River, Unit EBQ rocks are juxtaposed directly above Fennell Formation rocks of the first fault slice.

In most areas Unit EBQ rocks contain greenschist facies metamorphic mineral assemblages, as do other Palaeozoic rocks throughout the map area (with the exception of the contact aureoles around the Raft and Baldy batholiths)."...

The dominant rock type within Unit EBQ is light to medium (rarely dark) grey to brownish grey, fine to medium-grained micaceous quartzite. It is generally well foliated, with a platy aspect due to more or less regularly spaced micaceous partings between plates and lenses of quartz-rich rock that are several millimetres to several centimetres thick. The mica is typically muscovite with minor amounts of chlorite, but includes biotite in higher metamorphic grade exposures where garnet porphyroblasts may also be present. The quartz and mica are generally accompanied by minor amounts of plagioclase (albite or oligoclase), opaque oxides, tourmaline and apatite. The quartzites are locally calcareous, in which case they contain calcite as evenly scattered microscopic grains or aggregates, or as pods and lenses oriented parallel to the foliation.

Light grey to white, massive quartzite occurs locally within Unit EBQ, but is not common. Where present it comprises intervals ranging up to several metres thick which are enclosed within typical platy quartzites and quartz mica schists."...

..."Limestone, marble, calc-silicate schist and calcareous phyllite, together with chlorite schist of mafic metavolcanic origin, dominate the upper part of Unit EBQ where it is exposed along the north side of the Baldy Batholith, between Granite Mountain and the Barriere River, and along the slopes south of Mount McLennan. These rocks are intercalated with quartzite and quartz mica schist typical of Unit EBQ and are overlain by either Unit EBA or Unit EBS (Figure 4). They bear a strong lithologic resemblance to unit EBG with which they may be correlative

(Figure 7). Chlorite schist, limestone and calcareous metasediments occur locally elsewhere within Unit EBQ, but are not common."...

The age of Unit EBQ is unknown, other than that it must be older than the mid to late Devonian granitic and volcanic rocks which respectively intrude and overlie it. It is, however, lithologically very similar to Unit EBH, of Early Cambrian and/or older age, with which it is tentatively correlated (Figure 7). This correlation suggests that the mafic metavolcanics, limestone and related rocks which comprise the upper part of Unit EBQ in the vicinity of Mount McClennan and to the northeast of Granite Mountain may be correlative with the lithologically similar Early Cambrian rocks of Unit EBG. Unit EBQ is probably equivalent to map unit I of Campbell and Tipper (1971), which outcrops north of the Raft Batholith in the vicinity of Mahood Lake. Their map unit I, comprised largely of quartz mica schist and quartzite, is inferred to be in thrust contact with underlying Fennell Formation rocks, and thus occupies a similar structural position to northwestern EBQ exposures within this study area (Figure 4)."...

### ..."UNIT EBS

Unit EBS is a heterogeneous package of rocks dominated by fine to coarsegrained clastic metasediments which are The dominant economic mineralization styles on the Sunrise property are intercalated with carbonate and mafic to felsic volcanic and volcaniclastic horizons. Rocks assigned to this unit occur mainly at the base of the first fault slice, but also locally within the third fault slice where they overlie Unit EBQ (Figures 6 and 7)."...

..."Rocks assigned to Unit EBS within the third Eagle Bay fault slice consist mainly of schistose chlorite-sericite grit and sandstone, together with chloritesericite-quartz schist and relatively pure quartzite. These rocks are intercalated with minor amounts of dark grey phyllite, dark green chlorite schist of probable mafic volcanic origin, and rare thin horizons of limestone and dolostone. They outcrop on the slopes south of Mount McClennan on the north side of the North Thompson River, and south of the river east of Jones Creek. They are apparently restricted to a single fault block, within which they are underlain by Unit EBQ and overlain by Unit EBP.

The age of Unit EBS is not known. It is presumed to be Early Cambrian and/or younger as it locally lies above Unit EBQ and Middle Devonian and/or older since it lies beneath the Middle Devonian felsic phyllites of Unit EBA. It is lithologically similar to parts of the Lardeau Group in the Kootenay Arc, which is inferred to be Cambro-Ordovician in age (Read and Wheeler, 1976; Read in Brown et al., 1981, pages 351-352). It is also similar to Palaeozoic grit and associated rocks within the Snowshoe Formation of the Barkerville terrane (Struik, 1985)."...

..." EBA

Unit EBA is dominated by light grey chlorite-sericite-quartz phyllite and schist derived mainly from felsic to intermediate volcanic and volcaniclastic rocks. Green chlorite schist derived from mafic volcanic rocks is present locally. Bands of dark grey phyllite and siltstone comprise approximately 10 per cent of the unit. Unit EBA is host to numerous polymetallic base and precious metal showings within the map area (see Table 1).

The most abundant and characteristic rock type within the unit is fine-grained, light silvery grey to greenish grey sericite quartz phyllite, grading in places to slightly coarser grained muscovite quartz schist. Chlorite is generally present in amounts subordinate to the sericite, but may be absent. Weathered surfaces are light to medium shades of yellowish brown, reddish brown or grey, but may be dark rusty brown or bright yellow in areas of relatively intense pyrite mineralization. The rocks typically display a very fine and well developed papery fissility, although more platy varieties, comprising millimetre to centimetre-thick siliceous lenses and layers separated by thin sericite partings, also occur.

Roundish "eyes" of clear quartz are commonly present and grains of chalky white feldspar are locally evident. In places the phyllite has a spotted appearance due to the presence of porphyroblasts of rusty brown-weathering siderite, or less commonly chlorite or chloritoid.

Thin veins and lenses of quartz or quartz-carbonate often occur parallel to the schistosity. The phyllites are typically quite homogeneous over large intervals and contacts between individual volcanic or volcaniclastic horizons are not commonly evident. Locally the phyllite is coarsely fragmental and probably derived from coarse pyroclastic rocks (Plate 8) although fragmental units are not as common as in overlying Unit EBF. The clasts, comprising sericitic and/or chloritic siliceous lithic fragments, range from less than 1 centimetre to several tens of centimetres in size; they are generally flattened and foliated within the plane of the matrix schistosity but have a higher proportion of chlorite relative to sericite and are usually less quartzose and more feldspathic than their lighter coloured counterparts.

Distinctly more mafic, medium to dark green schists consisting of chlorite, albite, epidote and actinolite or green biotite are also present; these have little or no quartz and sericite. A band of dark green fragmental schist 10 metres thick, exposed along lower Foghorn Creek, contains coarse fragments of both dark green chloritic schist and light grey sericite quartz schist.

Metasedimentary intervals of medium to dark grey phyllite, siliceous phyllite, slate and siltstone are present throughout Unit EBA and are estimated to comprise about 10 per cent of the succession. Individual bands range from a few metres to a few tens of metres in thickness. Contacts with adjacent light-coloured sericite quartz phyllite are generally sharp but locally are gradational and indistinct. The

dark grey phyllite and siltstone are usually pyritic and may contain concordant lenses of pyritic quartz or quartz and rusty carbonate. These dark metasediments are very similar in appearance and composition to the slate, phyllite and siltstone which characterize Unit EBP.

Medium-grained, light to medium greenish grey quartzofeldspathic orthogneiss of Unit Dgn intrudes Unit EBA in the southern part of the map area, on both sides of Adams Lake. It occurs as a number of sill-like bodies within the central and lower parts of the exposed EBA succession.

Similar orthogneiss locally cuts Unit EBA rocks of the third fault slice in the vicinity of Harper Creek, Avery Lake and Reg Christie Creek. In this area, however, orthogneiss is more common within the underlying rocks of Unit EBQ. The orthogneiss is Devonian in age and presumed to be genetically related to the volcanic and volcaniclastic rocks of Unit EBA.

Three zircon separates from Unit EBA metavolcanic rocks on the east shore of Adams Lake yielded lead-uranium points which define a discordia line with an upper concordia intercept of 387 million years (Ma) (Preto, 1981; Preto and Schiarizza, 1985). This indicates a Middle Devonian age for this part of the EBA succession. This Middle Devonian age fits well with geological relationships established within the area, as Unit EBA and the overlying rocks of Unit EBF lie beneath Unit EBP metasediments which contain early and late Mississippian conodonts. Dark grey phyllite and siltstone of Units EBA and EBF are similar to those which characterize Unit EBP, while volcaniclastic rocks intercalated with Unit EBP metasediments are similar to those within Unit EBF. The three units are therefore inferred to comprise, at least in part, a more or less continuous volcanicsedimentary succession of Middle Devonian to Late Mississippian age.

The contact relationships between Unit EBA and underlying rocks, none of which are dated, are not clear. Within the third fault slice Unit EBA is underlain by Unit EBQ. The contact is thought to be stratigraphic because Unit EBQ is intruded by Devonian orthogneiss and quartz porphyry sills which may be related to the overlying EBA volcanics. The early Cambrian age which is tentatively inferred for Unit EBO suggests that the contact is an unconformity within the first fault slice, Unit EBA sits above the clastic metasediments of Unit EES, but is locally separated from them by Units EBK and EBL. Along the northwest end of the belt, Unit EBA itself pinches out and Unit EBS sits directly beneath Unit EBF. None of the contacts is well exposed and it is not known whether they are conformable. unconformable, or structural. The number of units which pinch out at or near the basal EB contact (such as Units EB, EBK and EBM) suggests that the relationship may be unconformable. On the other hand, the presence of felsic to intermediate volcanic and volcaniclastic rocks within the upper part of Unit EBS (for example, Units EBSa and EBSt) is suggestive of a gradation into overlying EBA felsic volcanic rocks."...

..." UNIT EBP

Unit EBP, of Mississippian age, is the youngest unit of the Eagle Bay Assemblage exposed within the study area. It is comprised mainly of dark grey slate, phyllite and siltstone, together with sandstone, granule to pebble conglomerate, limestone, dolostone and intermediate to felsic volcaniclastic rocks. The unit occurs within the first and third Eagle Bay fault slices (Figure 7)."...

..." Unit EBP rocks of the third fault slice outcrop within several fault blocks in the vicinity of Vavenby: Good exposures in this area are mainly in the lower reaches of Jones and Avery creeks.

Slate, phyllite and siltstone are the most abundant rock types within Unit EBP. These rocks are typically dark grey to black in colour, although light greenish grey phyllite is presentlocally: Siltstone may be somewhat lighter in colour than the associated slaty rocks and, in places, has a greenish or reddish cast. Cubes of pyrite and/or siderite or ankerite porphyroblasts are commonly present and may cause the rocks to become rusty; elsewhere the rocks are medium to dark grey on weathered surfaces. Siltstone is generally subordinate to slate or phyllite and occurs as horizons ranging up to a few centimetres in thickness. These may comprise persistent tabular layers (on the scale of an individual outcrop) or they may be markedly lenticular in nature. Rare grading, small-scale channels, flame structures and vague crossbedding were observed within the siltstone/slate sequences.

Slate and phyllite typically display a well-defined papery splitting habit; commonly, however, the slaty cleavage is cut by a strongly developed crenulation cleavage. The slaty rocks consist mainly of a fine-grained (0.04 millimetre), well foliated intergrowth of quartz, sericite and chlorite. Trains of fine, dark carbonaceous material may also be present; grains of tourmaline, apatite, plagioclase and zircon are also rarely evident. The coarser grained, less fissile siltstone horizons are similar in composition, but generally display relict clastic textures.

Approximately 30 per cent of the Unit EBP exposures contain horizons of sandstone and/or granule to pebble conglomerate, in addition to slate and siltstone. These coarser grained rocks occur in groups of beds intercalated with slate and phyllite over intervals of several tens of metres or more. They comprise mainly fine to coarse-grained sandstone which occurs in beds ranging from several centimetres to more than 1 metre thick (Plate 12). In general, the thicker beds are coarser grained and often include granule-size clasts. The sandstone beds are commonly graded and rare channels, ripups and sole markings were observed at their bases. These features suggest that much of the sandstone was deposited by turbidity currents (Bouma, 1962; Walker, 1979) although only the A-E divisions of the classic Bouma sequence are recognized.

The metasandstones of Unit EBP were derived mainly from moderately to poorly sorted quartz-rich wackes. Somewhat flattened grains of monocrystalline and polycrystalline quartz, together with a much smaller amount of chert, plagioclase, lithic grains, and accessory muscovite, tourmaline and zircon, occur within a fine-grained recrystallized and foliated matrix. The matrix typically comprises from 10 to 40 per cent of the rock and consists mainly of quartz, sericite and chlorite; carbonate, opaque oxides and pyrite are minor constituents which may be intergrown with the matrix minerals or occur as relatively large porphyroblasts. The lithic component of the sandstones is largely fine-grained slate and siltstone, possibly derived from underlying beds, but also includes sericitic quartz phyllite or schist.

Foliation within the lithic fragments is, in most cases, continuous with that of the matrix. Rarely, however, lithic grains display a discordant foliation which predates the matrix cleavage. Detrital muscovite grains are invariably present in accessory amounts within the sandstone; these grains are much coarser than the fine-grained foliated sericite of the matrix and are often bent and fractured.

Quartz-pebble conglomerate was noted rarely within Unit EBP and is similar in composition to the finer grained sandstone and granule conglomerate with which it is associated. Clasts range up to 2 centimetres in size and are set within a dark grey silty or sandy phyllitic matrix."...

..."Bands of rusty weathering light to medium greenish grey metatuff and metavolcanic breccia, similar to those in Unit EBF, are intercalated with phyllite and siltstone of Unit EBP at a number of places within the area. These metavolcanic layers are typically a few metres or less in thickness and most cannot be traced for any substantial distance."

Pale greenish grey schistose chlorite sericite dolostone was slice. It outcrops along Avery Creek and to a lesser extent along Jones Creek and on the lower slopes of the North Thompson River valley east of Peavine Creek. The dolostone is intercalated with dark grey phyllite, granule to pebble conglomerate and rarely, thin lenses of dark grey limestone.

Exposures along Avery Creek indicate that the dolostone locally occurs over intervals that are many tens of metres thick.

Unit EBP rocks exposed in the Vavenby area occur at the top of the third Eagle Bay fault slice. Within this area, which is transected by a number of late, northerly trending faults, the

unit is generally thin; it is gradationally underlain by Unit EBA and structurally overlain by Unit EBG of the overlying fault slice. However, within one fault block which is drained

by Jones Creek on the south side of the North Thompson River and by Crossing Creek to the north, Unit EBP is substantially thicker and is underlain by schistose grit and related rocks of Unit EBS. The abrupt change in Eagle Bay stratigraphy across the bounding faults suggests that they may follow the loci of earlier faults which were active during deposition of the Devono-Mississippian section of the Eagle Bay succession."...

#### MINERALIZATION

The Property protects no known mineral deposits. The property is most prospective for hosting buried Kuroko style massive and disseminated sulphide deposits hosted by felsic subaqueous tuffs of the lower Cambrian-Hadrynian (unit EBQ) member of the Eagle Bay Assemblage part of the Kootenay Terrain (ancestral north America), and carbonate hosted Syngenetic? and remobilized zinc-lead-copper sulphide mineralization in calcareous "exhalative"? rocks. The central part of the claims cover the top of a shallowly east plunging antiform that to the west in more deeply eroded felsic volcanics hosts several 1.5 km spaced semi massive and massive sulphide deposits.

Weak multielement gold, silver copper lead and zinc in soil geochemical anomalies occur 1 to 3 hundred meters west of McCorvie Lake. These anomalies also coincide with a magnetic anomaly Pinsent 1984, 1988). It is the authors' opinion that these anomalies based on its location may be the signature to a buried massive sulphide deposit similar to the now largely eroded Snow and Sunrise occurrences 1.5 and 3 km WNW respectively.

Placer Dome personnel sampled a small quartz vein in a small quarry on Road 564 at about the 14 km board east of McCorvie Lake. They reported multigram gold (Pinsent, 1988). However subsequent sampling by HD geologist Jim Oliver failed to return any values (Lindinger, 2006)

### 2010 RECONAISSANCE MAPPING, ROCK AND SOIL SAMPLING PROGRAM

On 20 October Leo Lindinger, P.Geo., visited the Sunrise East property. Rock samples and select soil samples were taken from sites and exposures exposed by recent logging activity on the property.

8 samples were taken in all. The samples were taken by Leo Lindinger and delivered by him to Ecotech Analytical Laboratories Ltd. in Kamloops for gold and 34 element multielement analyses using Aqua Regia digestion with ICP-mass spectrometer finish.

### RESULTS

For details on the analytical results and brief rock descriptions please refer to Appendix 2 attached.

The results of the rock and soil sampling program produced only very weak sporadic anomalies. Soil Sample 10-03 returned 120 ppm Ce, 212 ppm Cu, 6,15% Fe, 134% Ni, and 387 ppm Zn. Rock sample 10-01 returned 207 ppm Cr, 10-04 119 ppm Zn, 10-05 100 ppm Cu, 10-07 3 ppm Bi and 10-08r 115 ppm Cu, 13% Fe and 119% Zn.

Reconnaissance geological observations indicate that the contact with the Raft Batholith in the NE part of the property is further north than previously mapped. All lithologies mapped are thought to belong to unit EBQ described in "Local Geology"

TABLE 2 - SUNRISE EAST PROJECT STATEMENT OF EXPENDITURES

2010 Sunrise East Expenses								
Date 15, Oct. 2010								
Geology and Prospecting 1/2 day @ \$800 per day	\$ 400.00							
Vehicle 320 Km @ \$1 per km	\$ 320.00							
Assay and Analyses	\$ 288.57							
Supplies	\$ 10.00							
Report	\$1,000.00							
TOTAL Field Work and Report	\$2,018.57							
PAC withdrawal (30%) of work	\$ 605.57							
Total program and PAC	\$2,624.14							
Filed for Assessment pursuant to SOW event# 4805827	\$2,809.75							



FIGURE 5 – ROADS AND INDEX PLAN



FIGURE 6 – GEOLOGY AND SAMPLE LOCATION PLAN

#### RECOMMENDATIONS

Earlier work, mostly by Placer Dome Inc. produced many, still untested geophysical anomalies including on the Sunrise east property in favourable geological environments that require exploration.

A \$60,000 stage one multiphased program is recommended. Additional exploration expenditures are partially contingent on exploration of the tested targets, however additional currently lower priority targets are present that would remain untested by the Stage 1 program.

Grid preparation. An east-west trending baseline with north south grid lines covering the central portion of claim 662943. Grid lines would be spaced at 50 metre intervals.

Induced polarization; The sunrise east property has never been tested by this type of ground geophysics.

Recommended is an IP survey of the central part of the claims directly east of the Sunrise occurrence. This would test the prospective area where the sulphide bearing host stratigraphy is buried due to east plunging antiform.

Upon receipt of favourable results drill testing of the magnetic and IP anomalies aided by soil results would be recommended.

Sunrise East Property - Recommended	I Expenditures
Grid establishment 20 km @ 600 /km	\$ 12,000
Mapping	\$ 3,000
Rock analyses	\$ 2,000
Soil sampling	\$ 8,000
Soil analyses	\$ 10,000
IP survey - 5 km @ 2000/ km	\$ 10,000
Ground mag survey	\$ 4,000
Report	\$ 6,000
contingency	\$ 5,000
Total	\$ 60,000

## TABLE 3 - RECOMMENDED EXPENDITURES

- Dawson, J. M. 1975: Geological and Geochemical Report on the Nimsic Claim Group, Birch Island area, 41 Pages. Ministry of Energy and Mines Assessment Report 5813.
- Galley, A. 2001: A Review of the Characteristics of Volcanogenic Massive Sulphide (VMS) Deposits. 35pages, plus attachments. In Alldrick, et al., 2001: Massive Sulphides -A Practical Review. Kamloops Exploration Group Short Course.
- Cannon, R.W.; Warner, L. 1990: Geological, Geophysical and Geochemical Report of the Nobel 1-12 Claims for Placer Dome Inc., 25 pages plus attachments. Ministry of Energy, Mines and Petroleum Resources Assessment Report 2001 9.
- Lindinger, L. J. 2006: Geochemical Assessment Report On The Sunrise, Snow And Redtop Zinc-Lead-Silver-Gold-Copper Prospects. 23 pages plus attachments. Ministry of Energy and Mines Assessment Report 28345.
- Pinsent, R. 1988: Geological, Geochemical and Geophysical Report of the Noble Claims for Placer Development Ltd., 16 pages plus attachments. Ministry of Energy and Mines Assessment Report 15817.
- Pinsent, R. 1984: Geological, Geochemical and Geophysical Assessment Report of the Noble Claims for Placer Development Ltd., 16 pages plus attachments. Ministry of Energy and Mines Assessment Report 12080.
- Schiarizza P., and Preto, V.A. 1987: Geology of the Adams Plateau-Clearwater-Vavenby Area, 88 pages plus attachments. Ministry of Energy, Mines and Petroleum Resources Paper 1987-2.
- Thorton, J. M. 1985: Geophysical Assessment Report of the Nobel 1-6 Claims for Placer Development Ltd., 7 pages plus attachments. Ministry of Energy Mines and Petroleum Resources Assessment Report 13463.
- Vollo, N., 1978: Diamond Drilling Report on the Nimsic Claims, 5 pages plus attachments. Ministry of Energy and Mines Assessment Report 06931.
- Warner, L. 1989: Geological, Geochemical, Geophysical and Diamond Drilling Report of the Nobel 1-12 Claims for Placer Dome Inc., 26 pages plus attachments. Ministry of Energy Mines and Petroleum Resources Assessment Report 18647.

## STATEMENT OF QUALIFICATIONS

I, J E. L. (Leo) Lindinger, hereby do certify that:

I am a graduate of the University of Waterloo (1980) and hold a BSc. degree in honours Earth Sciences.

I have been practicing my profession as a mineral exploration and mine geologist continually for the past 30 years.

I am a registered member, in good standing as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (1992).

I completed the 2010 work program described in this report.

I own the mineral property described as the SUNRISE East Claims.

'Leopold J. Lindinger, P.Geo.'

Leopold J. Lindinger, P.Geo. February 13, 2011

# APPENDIX 1 – ANALYSES

EcorTech Laboratory Ltd. 2953 Shuswap Road Kamloops, BC V2H 1S9 Canada Tel + 1 250 573 5700 Fax + 1 250 573 4557 Toll Free + 1 877 573 5755 www.stewartgroupglobal.com



## CERTIFICATE OF ANALYSIS AK 2010- 1201

Leo Lindinger 680 Dairy Rd Kamloops, BC V2B 8N5

No. of samples received: 6 Sample Type: Rock **Project: Sunrise East Shipment #: 10-01** Submitted by: Leo Lindinger

		Au	
ET #.	Tag #	(ppb)	
1	SUN-10-1	<5	_
2	SUN-10-4	<5	
3	SUN-10-5	<5	
4	SUN-10-6	<5	
5	SUN-10-7	5	
6	SUN-10-8R	<5	
QC DAT	Г <u>А:</u>		
1	SUN-10-1	<5	
Resplit			
1	SUN-10-1	<5	121
Standa	rd:		
OXE74		620	

FA Geochem/AA Finish

NM/sa XLS/10

ECO TECH LABORATORY LTD.

16-Dec-10

Norman Monteith B.C. Certified Assayer

All business is undertaken subject to the Company's General Conditions of Business which are available on request. Registered Office: Eco Tech Laboratory Ltd, 2953 Shuswap Road, Karnloopt, BC. V2H 159 Canada. Page 1 of 1 b

16-Dec-10 Stewart Group ECO TECH LABORATORY LTD. 10041 Dallas Drive KAMLOOPS, B.C. V2C 6T4

#### ICP CERTIFICATE OF ANALYSIS AK 2010- 1201

Phone: 250-573-5700 Fax : 250-573-4557

#### Values in ppm unless otherwise reported

		Ag	AI	As	Ba	Be	BI	Ca	Cd	Ce	Co	Cr	Cu	Fe	Ga	Ge	Ha	K	La	Li	Ma	Mn	Mo	Na	Nb	NI	P	
Et #	Tag #	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm		ppb	%	ppm	ppm	%	mag	DDM	%	mag	mag	maa	D
1	SUN-10-1	0.1	0.65	6.6	42.0	<0.1	0.40	2.63	0.07	8.93	4.9	206.5	22.7	1.71	2.3	0.8	<5	0.15	4.5	3.7	0.47	975	0.62	0.038	0.26	13.6	384	- E
2	SUN-10-4	0.1	1.74	6.2	56.5	0.5	0.16	0.21	0.09	61.99	18.5	95.0	58.0	5.05	8.3	3.4	<5	0.22	30.5	23.1	1.04	605	1.40	0.044	0.20	40.2	763	16
3	SUN-10-5	0.3	0.43	4.8	40.5	<0.1	0.36	0.21	0.21	11.78	34.1	134.0	100.8	7.34	2.1	2.4	<5	0.10	6.5	1.8	0.27	535	3.12	0.031	0.38	66.7	145	e
4	SUN-10-6	<0.2	0.86	4.4	37.5	0.2	0.42	0.08	0.07	33.94	10.4	47.0	57.5	5.63	5.0	2.6	<5	0.17	20.0	5.7	0.40	166	2 56	0.032	0.20	32.2	396	2
5	SUN-10-7	0.1	2.15	9.9	96.0	0.3	3.18	0.39	0.06	16.88	12.5	86.0	57.9	7.75	11.0	2.6	<5	0.46	10.5	15.8	1.42	271	2.54	0.117	0.24	23.3	1676	18
6	SUN-10-8R	0.4	2.21	6.8	30.5	0.2	2.12	0.11	0.19	36.72	32.7	110.0	114.8	13.30	9.2	4.6	<5	0.17	20.0	12.0	1.12	1413	1.85	0.033	0.12	28.3	400	12

#### QC DATA: Repeat:

1 SUN-10-1 <0.2 0.65 6.4 41.5 0.2 0.18 2.60 0.09 9.07 4.7 205.5 22.1 1.72 2.2 0.8 <5 0.16 4.5 3.7 0.48 980 0.63 0.041 0.22 13.3 384 5

Resplit:

1 SUN-10-1 <0.2 0.66 5.9 41.5 0.2 0.10 2.54 0.09 9.14 4.8 219.0 22.1 1.73 2.2 0.8 <5 0.16 4.5 3.7 0.49 971 0.65 0.041 0.24 14.0 399 5 Standard:

Till3 1.4 1.15 86.3 41.0 0.4 2.80 0.55 0.11 33.32 11.2 70.0 22.6 2.00 5.2 1.7 105 0.05 15.5 17.7 0.63 316 0.75 0.038 1.06 33.2 455 18

#### Aqua Regia Digest/ICPMS Finish

ECO TECH DABORATORY LTD.

ECO TECH CASCIDEATORY LT Norman Monteith B.C. Certified Assayer

NM/sa dl/msr1201S XLS/10

Leo Lindinger 680 Dairy Rd Kamloops, BC V2B 8N5

No. of samples received: 6 Sample Type: Rock Project: Sunrise East Shipment #: 10-01 Submitted by: Leo Lindinger

3	Mn	Mo	Na %	Nb	NI.	P	Pb	Rb	S %	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	TI %	TI	U	V	W	Y	Zn	Zr
7	075	0.60	0.000	0.00	12.0	204	0.40	0.0	0.00	0.00			- PP-III	-	Ppin	Ppin	ppin	19	ppin	ppm	ppm	ppm	ppm	ppm	ppm
	915	0.02	0.036	0.20	13.0	384	0.10	9.3	0.20	0.28	1.0	0.3	0,4	53.5	<0.05	0.04	3.0	0.029	0.08	0.3	8	0.1	3.10	27.2	0.69
14	605	1.40	0.044	0.20	40.2	763	16.31	13.9	0.92	0.32	2.6	1.9	0.3	17.0	<0.05	0.06	13.4	0.030	0.14	2.0	22	<0.1	6.06	118.5	1.42
27	535	3.12	0.031	0.38	66.7	145	6.07	4.7	0.12	0.30	1.1	0.9	0.3	14.0	<0.05	0.18	2.5	0.019	0.06	0.9	10	01	5.02	34 5	0.75
0	166	2.58	0.032	0.20	32.2	396	4.04	8.1	0.04	0.20	1.4	1.0	0.3	4.5	<0.05	0.36	14.6	0.009	0.08	1.8	10	-01	8.00	20 4	0.01
2	271	2.54	0.117	0.24	23.3	1676	18.57	25.6	1.16	0.18	5.0	2.7	0.7	47.0	<0.05	1.68	5.8	0.059	0.28	1.0	58	<0.1	6.15	37.8	0.95
2	1413	1.85	0.033	0.12	28.3	400	12.53	9.9	3.48	0.22	3.2	1.4	0.6	14.0	<0.05	0.44	8.5	0.017	0.12	1.5	34	<0.1	8.50	118.7	0.78

 8
 980
 0.63
 0.041
 0.22
 13.3
 384
 5.72
 9.2
 0.26
 0.28
 1.0
 0.3
 0.4
 53.0
 <0.05</td>
 0.04
 3.1
 0.029
 0.06
 0.3
 8
 0.1
 3.12
 25.9
 0.63

 9
 971
 0.65
 0.041
 0.24
 14.0
 399
 5.56
 9.1
 0.26
 0.22
 1.0
 0.2
 0.4
 51.0
 <0.05</td>
 0.02
 3.2
 0.029
 0.06
 0.3
 8
 0.1
 3.12
 25.6
 0.64

 3
 316
 0.75
 0.038
 1.06
 33.2
 455
 18.43
 9.0
 0.04
 0.50
 3.7
 0.7
 1.4
 18.5
 <0.05</td>
 0.04
 2.8
 0.058
 0.06
 1.1
 38
 0.1
 6.33
 40.6
 1.24

ECO TECH DABOBATORY LTD. Norman Monteith B.C. Certified Assayer

þ

Eco Tech Laboratory Ltd. 2953 Shuswap Road Kamloops, BC V2H 1S9 Canada Tel + 1 250 573 5700 Fax + 1 250 573 4557 Toll Free + 1 877 573 5755 www.stewartgroupglobal.com



### CERTIFICATE OF ANALYSIS AK 2010- 1202

Leo Line 680 Dair Kamloo V2B 8N5	dinger y Rd ps, BC 5	21-Dec-10	
No. of sa Sample <b>Project:</b> Shipme Submitte	amples received: 2 Type: Soil : <b>Sunrise East</b> <b>nt #: 10-01</b> ed by: Not Indicated		
ET #.	Tag #	Au (ppb)	
1	SUN-10-02	<5	
2	SUN-10-03	5	
QC DAT Repeat:	<u>[A:</u>		
1	SUN-10-02	5	
2	SUN-10-03	5	
Standar	rd:		
OXF65		795	

FA Geochem/AA Finish

ECO TECH LABORATORY LTD.

NM/ap XLS/10 Norman Monteith B.C. Certified Assayer

All butliness is undertaken subject to the Company's General Conditions of Business which are available on request. Registered Office: Eco Tech Laboratory Ltd., 2953 Shuswap Road, Kamloops, BC V2H 159 CPage 1 of 1 21-Dec-10 Stewart Group ECO TECH LABORATORY LTD. 10041 Dallas Drive KAMLOOPS, B.C. V2C 6T4

ICP CERTIFICATE OF ANALYSIS AK 2010- 1202

Phone: 250-573-5700 Fax : 250-573-4557

Values in ppm unless otherwise reported

Et #.	Tao #	Ag	AI %	As	Ba	Be	Bi	Ca %	Cd	Ce	Co	Cr	Cu	Fe %	Ga	Ge	Hg	K %	La	LI	Mg %	Mn	Mo	Na %	Nb	
1	SUN-10-02	0.3	2.64	7.0	154.5	0.7	0.34	0.54	0.30	39.53	17.4	43.0	36.4	3.65	9.4	2.1	25	0.18	18.5	26.1	0.72	434	1.28	0.050	2.46	7
2	SUN-10-03	0.2	3.74	11.1	157.0	1.2	0.50	0.52	0.70	120.10	49.4	75.5	212.5	6.19	12.4	3.0	25	0.17	25.0	25.9	1.16	572	1.55	0.045	1.78	•
OC D lepea 1	ATA: t: SUN-10-02	0.2	2.59	6.8	149.5	0.6	0.32	0.52	0.27	37.99	16.5	41.0	34.7	3.50	9.0	2.1	20	0.17	18.0	25.6	0.70	414	1.21	0.048	2.46	

Standard:

Till-3 1.7 1.05 86.3 41.0 0.4 0.30 0.55 0.11 33.32 11.2 70.0 22.6 2.00 5.0 1.7 105 0.04 15.5 17.7 0.60 316 0.70 0.038 1.06

Aqua Regia Digest/ICPMS Finish

ECO TECH LABORATORY LTD. Norman Monteith B.C. Certified Assayer

NM/ap dl/msr1201S XLS/10

															Leo Li 680 Da Kamic V2B 8	inding airy Ro pops, I N5	ler 1 BC								6
															No. of Samp <b>Proje</b> Subm	samp le Typ ct: Su itted b	les rec e: Soil I <b>nrise</b> y: Noi	ceived: : East t Indical	2 led						
Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S %	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	ТІ %	TI	U	V	W	Y	Zn	Zr
.72	434 572	1.28 1.55	0.050 0.045	2.46 1.78	42.5 134.0	664 1184	35.36 36.08	18.4 19.8	0.02	0.24	4.6 7.8	0.9 1.4	0.7	34.0 30.0	<0.05 <0.05	0.08	5.1 18.0	0.142 0.138	0.12	1.0 4.8	64 86	0.2 0.2	9.28 13.09	138.3 387.1	5.01 8.06
.70	414	1.21	0.048	2.46	39.6	642	33.70	18.0	0.02	0.26	4.4	0.9	0.7	33.0	<0.05	0.08	5.0	0.137	0.12	1.0	60	0.2	8.94	134.9	4.90
	316	0 70	0.038	1.06	33.2	455	18 43	9.0	0.04	0.50	3.7	0.7	1.4	10.5	<0.05	0.04	2.5	0.058	0.06	1.1	38	0.2	6.33	40.1	1.24

ABORATORY LTD. aith Assayer

ad

APPENDIX II – ROCK AND SOIL SAMPLE DESCRIPTIONS

2010 SUNRISE SAMPLE RESULTS TABLE													
SAMP#	UTM E	DESCRIPTION											
SUN10-01	305818	5723319	FLOAT	207 ppm Cr	53 ppm Sr		Pale cherty exhalative looking rock						
SUN10-02	305800	5723315	soil				dark orange oxidized till						
SUN10-03	305772	5733289	soil	120 ppm Ce	213 ppm Cu	387 ppm Zn	bright orange oxidized clayey till						
SUN10-04	311950	5739275	float	62 ppm Ce	23 ppm Li	118 ppm Zn	grey contorted phyllite						
SUN10-05	311950	5739300	float	134 ppm Cr	101 ppm Cu		15 by 15 by 5 cm Sulphidic felsic tuff with quartz zone.						
SUN10-06	305747	5723614	chip				Massive ferricrete with sulphidic felsic tuff fragments.						
SUN10-07	305775	5723640	40 m channel	10 ppm As	58 ppm Va		Strongly disseminated to semi massive sulphidic felsic tuff in core of anticline.						
SUN10-08R	311960	5739275	float	110 ppm Cr	115 ppm Cu	119 pm Zn	14 by 8 by 12 cm fragment of oxidized semi massive sulphide - 400 m NE of sunrise zinc occurrence.						