

**ASSESSMENT REPORT, 2011 STREAM SEDIMENT SAMPLING
PROGRAM
MRB PROPERTY**

MAYO MINING DIVISION, YUKON, CANADA
NTSMAP SHEETS: 105N/08
UTM-NAD83-Zone 8N-Property Centered-645000E, 7026200N

Claims and Owners:

Claim Name	Claim No.	Grant Number	Registered Owner
MRB	1-120	YD86301-420	Golden Predator Canada Corp.

Total of 120 Claims

PERIOD OF WORK: July 18-August 31, 2011.

OPERATOR:

GOLDEN PREDATOR CANADA CORP.
1Lindeman Road
Whitehorse, Yukon
Y1A 5Z7

November 13th, 2012.

Prepared by:

Golden Predator Canada

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1.0 INTRODUCTION

The MRB quartz claims form a contiguous block covering an area of 2, 505 hectares, located in the Selwyn Basin in East-Central Yukon. Golden Predator Canada Corp. (Golden Predator) has a 100% undivided interest in the property and is targeting intrusion-related gold systems, and possible skarn and /or Carlin-style gold systems.

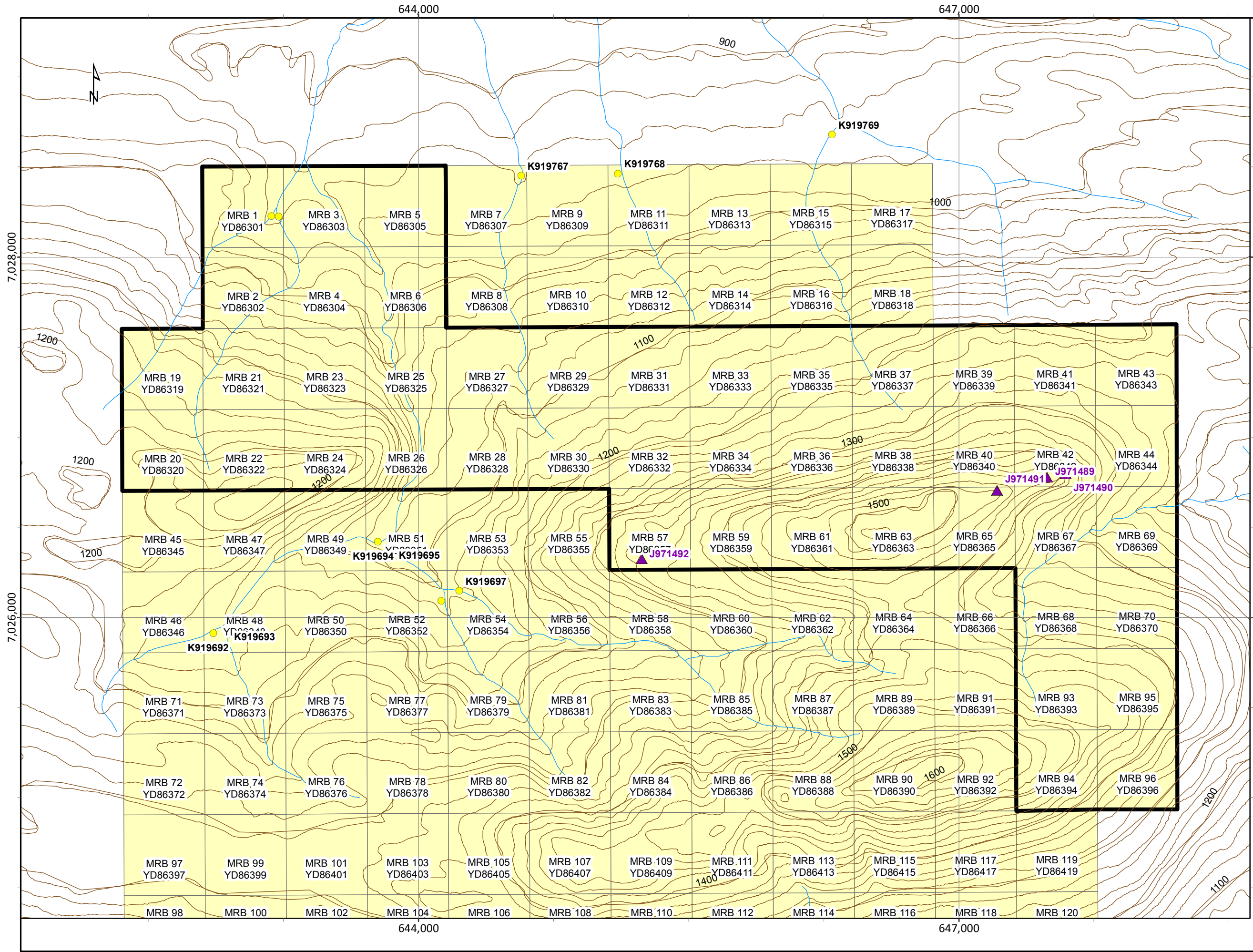
This report describes work completed in the 2011 field season on July 23rd and on August 19th which included stream sediment and rock ‘grab’ sampling. The program was designed to follow up on regional government stream geochemical anomalies as a first pass exploration tool to assess the prospective claims.

2.0 PROPERTY LOCATION AND DESCRIPTION



Figure 2-1. MRB Property Location, Yukon Territory

The claim group lies in East-Central Yukon, 139 kilometers North-Northeast, of the town of Faro, Yukon, (Figure 2-1). The property consists of 119 quartz claims covering an area of 2, 505 hectares (Figure 2-2) and is located in the Mayo Mining District. The property can be reached by approximately 70 minutes of helicopter flight from the town of Ross River and the property is about 110 kilometers from the nearest portion of the North Canol Road.



Legend

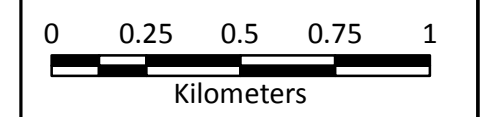
Au_2011_Silts

Au_ppb

- 0.05 - 16
- 16.01 - 40
- 40.01 - 101
- 101.01 - 410
- ▲ SEL_Z8_Rock_20111207
- ▭ Claim Outline (work applied)



MRB PROPERTY
Claim Map and
Sample Locations



Scale:	1:20,000	Map ID:	--
Draw Date:	2012/04/02	Rev. Date:	--
Version:	1	Figure:	2--2
Author:	S. Carlos	Office:	Whitehorse
Location:	139 km NNE of Faro, Yukon Territory		
Projection:	NAD 1983 UTM Zone 8N		
Filename:	MRB_20120417_11x17_ClaimMap		

Table 2-1, below summarizes claim data and lists updated expiry dates dependent upon the acceptance of this report.

Table 2-1. MRB claim information

Claim Name	Claim No.	Grant Number	Registered Owner	Requested New Expiry Date
MRB	1-7	YD86301-7	Golden Predator Canada Corp.	2013/04/14
MRB	8	YD86308	Golden Predator Canada Corp.	2012/07/14
MRB	9	YD86309	Golden Predator Canada Corp.	2013/04/14
MRB	10	YD86310	Golden Predator Canada Corp.	2012/07/14
MRB	11	YD86311	Golden Predator Canada Corp.	2013/04/14
MRB	12-18	YD86312-18	Golden Predator Canada Corp.	2012/07/14
MRB	19-44	YD86319-44	Golden Predator Canada Corp.	2013/04/14
MRB	45-47	YD86345-47	Golden Predator Canada Corp.	2012/07/14
MRB	48	YD86348	Golden Predator Canada Corp.	2013/04/14
MRB	49	YD86349	Golden Predator Canada Corp.	2012/07/14
MRB	50-52	YD86350-52	Golden Predator Canada Corp.	2013/04/14
MRB	53	YD86353	Golden Predator Canada Corp.	2012/07/14
MRB	54	YD86354	Golden Predator Canada Corp.	2013/04/14
MRB	55-56	YD86355-56	Golden Predator Canada Corp.	2012/07/14
MRB	57	YD86357	Golden Predator Canada Corp.	2013/04/14
MRB	58	YD86358	Golden Predator Canada Corp.	2012/07/14
MRB	59	YD86359	Golden Predator Canada Corp.	2013/04/14
MRB	60	YD86360	Golden Predator Canada Corp.	2012/07/14
MRB	61	YD86361	Golden Predator Canada Corp.	2013/04/14
MRB	62	YD86362	Golden Predator Canada Corp.	2012/07/14
MRB	63	YD86363	Golden Predator Canada Corp.	2013/04/14
MRB	64	YD86364	Golden Predator Canada Corp.	2012/07/14
MRB	65-70	YD86365-70	Golden Predator Canada Corp.	2013/04/14
MRB	71-90	YD86371-90	Golden Predator Canada Corp.	2012/07/14
MRB	91-96	YD86391-96	Golden Predator Canada Corp.	2013/04/14
MRB	97-116	YD86397-416	Golden Predator Canada Corp.	2012/07/14

MRB	117	YD86417	Golden Predator Canada Corp.	2013/04/14
MRB	118	YD86418	Golden Predator Canada Corp.	2012/07/14
MRB	119	YD86419	Golden Predator Canada Corp.	2013/04/14
MRB	120	YD86420	Golden Predator Canada Corp.	2012/07/14

3.0 INFRASTRUCTURE

The centre of the property is located at 644500E, 7026400N (NAD83, zone 8). The nearest main road is the North Canol located 110 km to the Southeast with access to the nearest town of Ross River, 174 km Southwest. The road is maintained by the Yukon government in the summer months. There also appears to be a bush road that could possibly be used for getting closer access to the property from the Canol at the ~174 km point from Ross River. The Plata airstrip is also a good base located at 646661E, 7045398N (NAD83Zone8N), being about 18 km North-East of the center of the MRB property.

4.0 EXPLORATION HISTORY

Exploration History of the MRB Property

The following exploration history of the MRB property has been compiled from the Yukon Energy and Mines and Resources Library and Yukon Geological Survey MINFILE database.

Assessment report 094054, on the Bourya Property describes a 74 soil, 54 rock and 79 stream sediment program by Viceroy Exploration Inc. The area covers the western portion of the MRB claims and a few kilometers off claims to the west. A 30ppb gold in silt and a 20—49ppb Au in soil occur on the MRB claims but the 1998 assessment report recommended following up an 80 ppb Au in silt anomaly. The 80 ppb Au anomaly is about 3km to the west from the western most edge of the MRB claim block.

Government regional stream sampling in the immediate area shows weak gold values up to 14 ppb. The DOG showing as listed on Minfile occurrences is described as ‘barite veins,’ see figure 5-2.

5.0 GEOLOGY

5.1 Regional Geology

The property is located in the Selwyn Basin, which is bound on the south by the Tintina Fault (and the Intermontane Superterrane) and bound on the north by the Dawson Thrust Fault and the North American Shelf (Figure 5-1). The Teslin Suture is the zone of deformation between the accreted terrane and the ancient shelf.

The Selwyn Basin stratigraphy consists of late Proterozoic to Palaeozoic marginal basinal and platformal clastic and pelitic sediments from ancient North America. Various aged volcanic piles are stratabound within the sediments. The basin was subjected to rifting during the Proterozoic and again in the late Devonian. During periods of rifting, contemporaneous magmatic rocks were emplaced as volcanics and as thick sill sequences.

By late Jurassic, the rocks of the Intermontane Belt of the Cordillera collided with the passive margin of the North America Shelf, causing compressive tectonics (Murphy, 1997). This resulted in crustal shortening, tight folding, and failure along hinges. Three regionally stacked thrust panels were formed: the Robert Service, Tombstone and Dawson thrust sheets (from oldest to youngest; Murphy, 1997).

The Selwyn Basin is intruded by northwest-trending post-accretionary plutonic mid-Cretaceous suites including the Tungsten, Mayo and Tombstone. The Tungsten suite (97-94 Ma) consists of granitoids with associated sheelite skarn deposits including Mactung and Cantung. The granitoid Mayo Suite occurs northwest of the Tungsten suite and is associated with the intrusion-related gold systems of Dublin Gulch and Clear Creek. Tombstone plutonic suite (92-90 Ma) lies further to the west and closely to the Tintina Fault (Lang et al., 2000). The Tombstone rocks are more alkalic with monzonites and syenites and are associated with U-Th-REE mineralization and intrusion-related gold deposits (Israel et al., 2011).

Mineralization associated with the mid-Cretaceous plutonic suite intrusions includes veins, skarns, stockworks and breccias within, proximal or distal to the intrusions. The most predominant form of mineralization however, is sheeted quartz veins in the intrusions. More often than not, more than one style of mineralization will exist proximal to these intrusions (Abbott et al., 1986).

More recently discovered styles of mineralization include Carlin-style gold mineralization in Bouvette Formation shallow water limestone, dolomite, and calcareous siltstone of Cambrian to Devonian age, (sourced from ATAC Resources webpage). This occurrence is found 55km north of the town of Mayo.

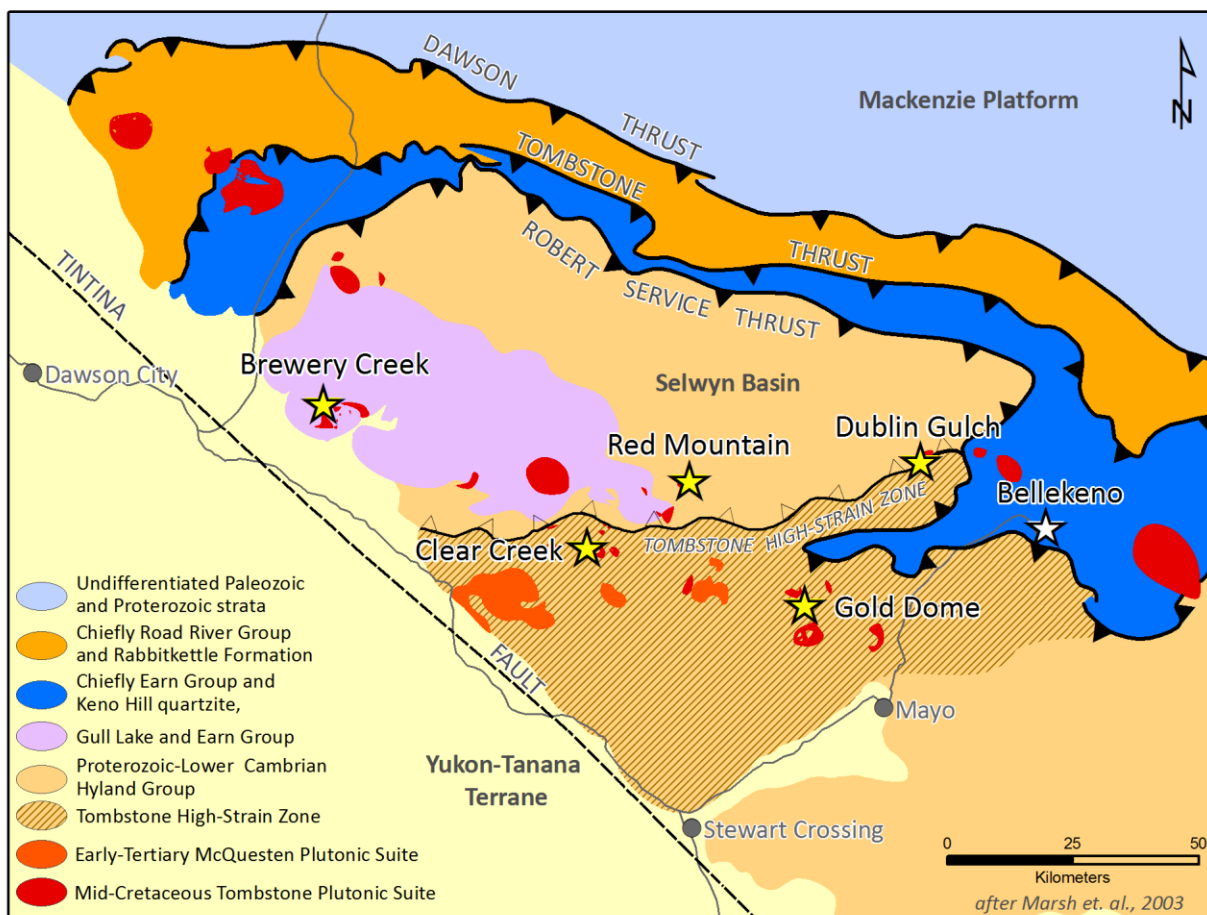
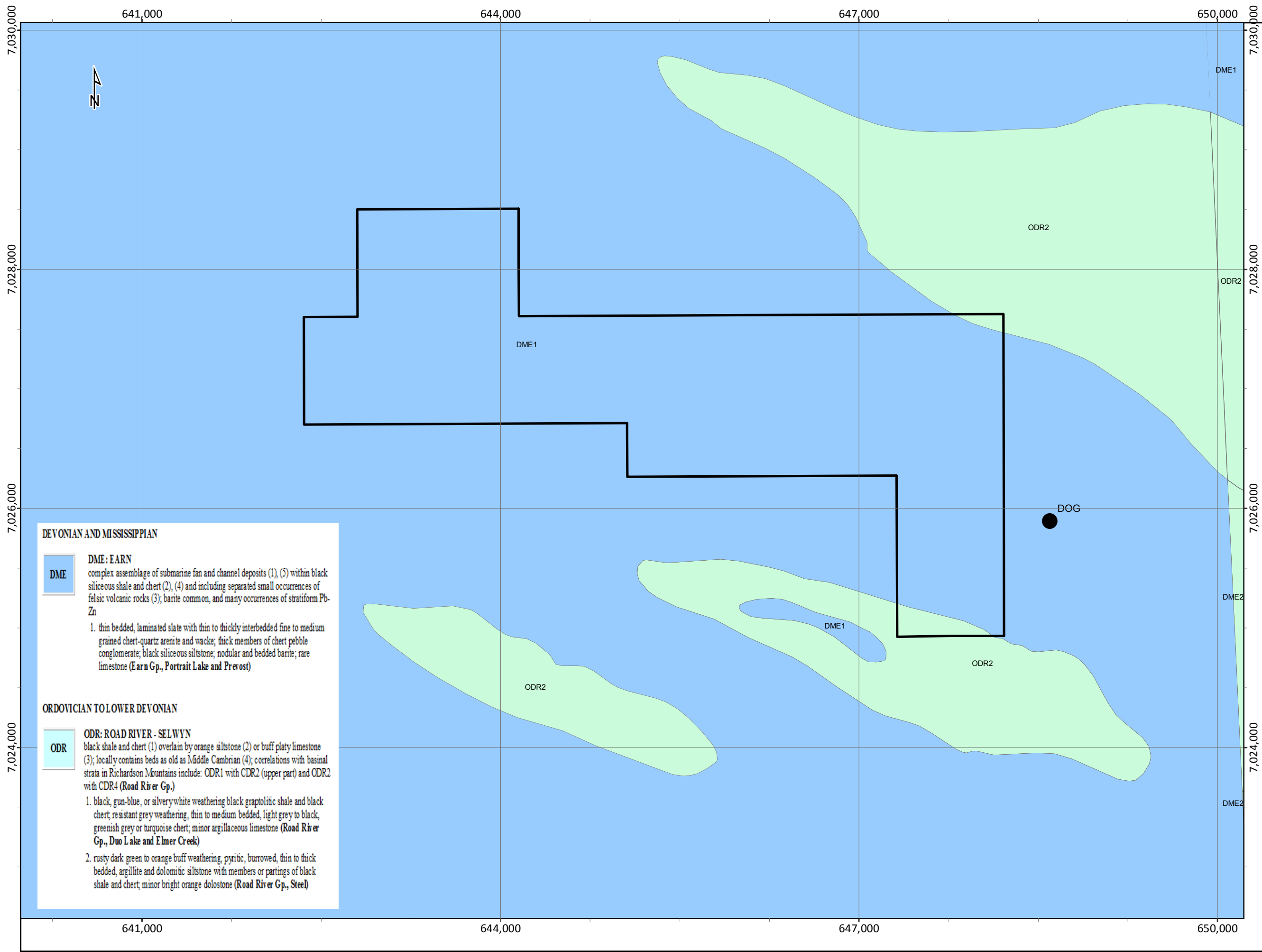


Figure 5-1. Regional Geology of the Selwyn Basin.

5.2 Property Geology

The property covers Devonian and Mississippian Earn Group and Portrait Lake/Prevost Group sediments. Sediments include thin bedded, laminated slate, chert-quartz arenite, wacke, thick members of chert-pebble conglomerate, black siliceous siltstone, nodular and bedded barite and rare limestone, (Roots, 1995).

More detailed mapping by Viceroy in 1998 shows a biotite-granite stock with quartz monzonite dykes just off claim to the west on the expired Bourya claims. One quartz monzonite dyke was mapped on the north-west corner of the MRB claims. These intrusions are not included in the geological map (Fig. 5-2) for this report.



DEVONIAN AND MISSISSIPPIAN

DME **DME: EARN**
 complex assemblage of submarine fan and channel deposits (1), (5) within black siliceous shale and chert (2), (4) and including separated small occurrences of felsic volcanic rocks (3); barite common, and many occurrences of stratiform Pb-Zn

- thin bedded, laminated slate with thin to thickly interbedded fine to medium grained chert-quartz arenite and wacke; thick members of chert pebble conglomerate; black siliceous siltstone; nodular and bedded barite; rare limestone (Earn Gp., Portrait Lake and Prevost)

ORDOVICIAN TO LOWER DEVONIAN

ODR **ODR: ROAD RIVER - SELWYN**
 black shale and chert (1) overlain by orange siltstone (2) or buff platy limestone (3); locally contains beds as old as Middle Cambrian (4); correlations with basal strata in Richardson Mountains include: ODR1 with CDR2 (upper part) and ODR2 with CDR4 (Road River Gp.)

- black, gun-blue, or silvery white weathering black graptolitic shale and black chert; resistant grey weathering, thin to medium bedded, light grey to black, greenish grey or turquoise chert; minor argillaceous limestone (Road River Gp., Duo Lake and Elmer Creek)
- rusty dark green to orange buff weathering, pyritic, burrowed, thin to thick bedded, argillite and dolomitic siltstone with members or partings of black shale and chert; minor bright orange dolostone (Road River Gp., Steel)

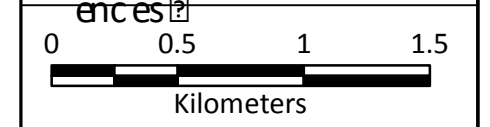


Legend

- GPD Property Outline
- Minfile Occurrence



MRB PROPERTY
 Local Geology and
 Minfile Occurrences



Scale:	1:30,000	Map ID:	--
Draw Date:	2012/04/02	Rev. Date:	--
Version:	1	Figure:	5--2
Author:	S. Carlos	Office:	Whitehorse
Location:	139 km NNE of Faro, Yukon Territory		
Projection:	NAD 1983 UTM Zone 8N		
Filename:	MRB_20120417_11x17_Geology		

5.3 Mineralization

The Tintina Gold Belt is a metallogenic region extending from the Yukon into Alaska which hosts several intrusion-related gold deposits including Dublin Gulch, Brewery Creek and Fort Knox. Gold deposits that are spatially and temporally associated with the mid-

Cretaceous plutonic suite intrusions, and in the Yukon, form the Tombstone Gold Belt (Goldfarb et al., 2000).

The Selwyn Basin is also host to world class sedimentary exhalative districts such as the Anvil District, Macmillan Pass and Howards Pass, (Heon, 2003).

Weak gold mineralization related to quartz monzonite dykes and gossanous Earn Group sediments (Diment, 1999) is reported on the expired(?) Bourya claims, adjacent to MRB.

6.0 EXPLORATION

6.1 Exploration Program

The 2011 sampling program was carried out in two stages; the first stage based out of the Rogue Camp, located at the Plata Air strip from July 18 – 24, 2011. The second stage of exploration was carried out from August 6 – 31, 2011, and centered around the camp constructed on the North Canal Road (Jeff Creek Camp). Golden Predator collected 11 silt samples from active stream- beds and 4 rock samples at the later date, part of a regional sampling program. Crews of between 9 to 12 samplers, plus a cook and helicopter pilot were based in the Jeff Creek camp constructed by Golden Predator on the North Canal Road. All the work was helicopter assisted using a NOTAR supplied by Fireweed Helicopters of Whitehorse, YT, with daily flight times averaging about 4.6 hours/day for the program.

6.2 Sampling Methodology and Protocols

Stream Geochemical Program

Eleven stream sediment samples were collected at intervals of approximately 750 m along first, second and third order streams, and immediately upstream of confluences. Samples were also collected in the vicinity of historical RGS stream anomalies, to test repeatability.

Each sample was collected from several points along the active stream bed to produce a representative composite sample. The uppermost sediment was discarded to avoid spurious high content of Fe and Mn oxide coating. The active silt and fine to medium sand that has been recently transported by the stream was the target sediment. This type of sediment was generally located: 1) in the lee of large boulders or logs; 2) in low energy pools at the tail-end of bars; and 3) infilling voids below the surface of cobble-gravel bars.

Samples were sieved in the field to a fraction of less than one-eighth inch (<1/8" or 3.36 mm) and placed in labelled, double layered plastic sample bags. Each sample site was flagged

and photographed. The sample weights varied between 4-12 kg. Large sample sizes were required to obtain sufficient fine material for the selected assay techniques.

If the drainage contained seasonal stream sediment deposition, but was currently dry, a sediment sample was collected by dry sieving the material. Occasionally the south-facing slopes had underground drainage that sporadically comes to surface, in which case sample spacing sometimes varied.

Sample data was recorded on data cards and included the following: geographic location, sample color, angularity of the clasts, sediment composition (percentage of gravel, sand, silt, clay and organics), slope direction, slope angle, stream flow, vegetation type and comments.

Samples were transported by air from Jeff Creek camp to Whitehorse by Alkan Air. Samples were delivered by in-house personnel or insured professional expeditors to ALS Chemex's ISO 9001 certified preparation facility in Whitehorse. Samples were dried and screened to 180 microns (80 mesh).

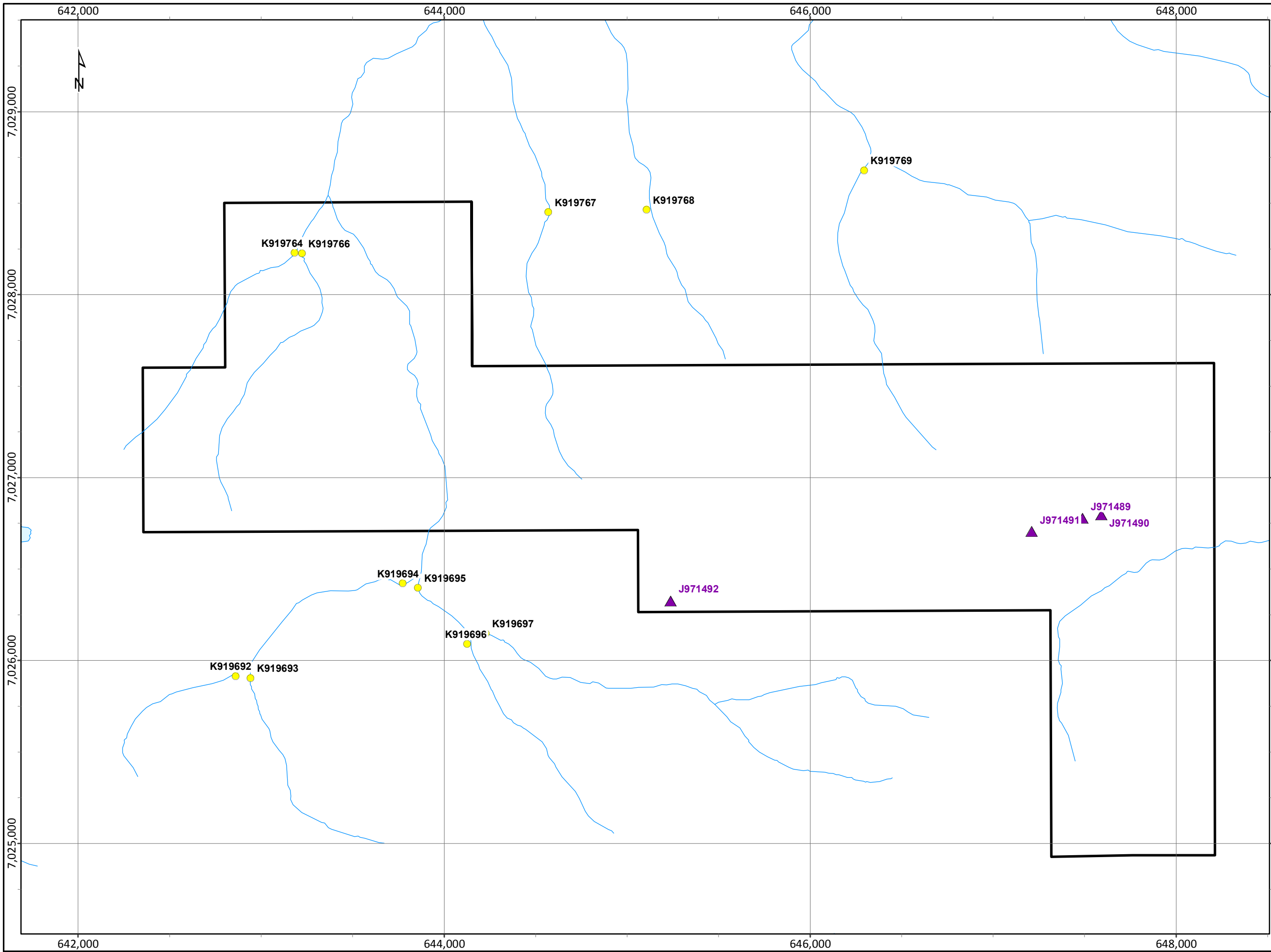
The pulps were analyzed at ALS Chemex's ISO 9001 certified laboratory in North Vancouver using the ultra-trace ME-MS41 package. A 0.5 g sample is digested by aqua regia techniques and 51 elements are analyzed through a combination of ICP-AES and ICP-MS.

The Au-ST44 method was used to analyze gold using a 50 g sample of <80 micron material. This method provides the lowest possible detection limit for gold of 0.0001 – 0.1 ppm, using aqua regia digestion with analysis by ICP-MS. The larger sample size for the gold analysis is used in an effort to reduce potential nugget effects. Samples exceeding the upper limit of Au detection (0.1 ppm) were re-analyzed using Au-OG44, an ore grade assay technique. A 50 g sample of 180 microns sediment is digested in an aqua regia solution and finished with ICP-MS methods to provide an Au detection range between 0.01 – 100 ppm.

ALS completes quality assurance/ quality control (QA/QC) data verification of their assays through internally inserted duplicates, standards and blanks. In addition, Golden Predator's QA/QC program included the insertion of field duplicates, blanks and standard reference material obtained from CDN Resource Laboratories of Langley, BC. Assay certificates are compiled in Appendix 3 and the detailed methodology and detection limits are in Appendix 4. See Figure 6-1 for sample locations and gold geochemical plots from stream sediment samples collected by Golden Predator in 2011.

Rock Samples

A total of 4 rock samples were collected in conjunction with the stream sediment sampling program. The geographic locations and a description of the rock sample were recorded. See Figure 6-1 for sample locations and Appendix 2 for sample descriptions.



Legend

- ◊ GPD Property Outline

Au₂₀₁₁_Silts

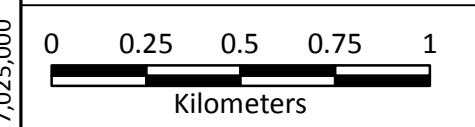
Au_{ppb}

- 0.05 - 16
- 16.01 - 40
- 40.01 - 101
- 101.01 - 410

▲ SEL_Z8_Rock_20111207



MRB PROPERTY
 Sample Location Map
 and Gold in Silt Plots



Scale:	1:20,000	Map ID:	--
Draw Date:	2012/04/02	Rev. Date:	--
Version:	1	Figure:	6--1
Author:	S. Carlos	Office:	Whitehorse
Location:	170 km NNE of Faro, Yukon Territory		
Projection:	NAD 1983 UTM Zone 8N		
Filename:	MRB_20120417_11x17LandscapeSampleLoc		

6.3 Results

Stream Sediments

Eleven stream sediment samples were collected over multiple drainages on the property as shown in Figure 6-1. The samples have low values of gold, being less than 3 ppb except one value at 10.9ppb Au. Multi-element analysis does not show any pronounced anomalies, except perhaps vanadium and barium but the barium may not be regionally anomalous, with values of a few thousand ppm.

Rock Samples

The four rock samples taken returned gold values less than 2.5 ppb and no other strongly anomalous elements, (see Appendix 2 for sample description and Appendix 3 for assay results).

7.0 CONCLUSIONS AND RECOMMENDATIONS

The 1998 Viceroy program and the 2011 Golden Predator program have not returned an obvious gold target. Weakly anomalous gold values in silts and soils could be followed up with mapping and rock sampling. Weak gold mineralization in quartz monzonite dykes could be followed up with more sampling and mapping as well.

8.0 2011 EXPENDITURES

Expenditures for the 2011 exploration program were \$10,693.10 as summarized in Table 8-1.

Table 8-1. 2011 Expenditures

Phase 1 - July 23, 2011				
Expenditure	Units	Unit Cost	Per	Cost
Wages		0.35 \$	3,750.00	day \$ 1,312.50
Golden Predator Canada Corp.				
Management and report writing	2	\$	500.00	day \$ 1,000.00
Transportation		2.4 \$	1,100.00	hour \$ 2,640.00
Helicopter July 23 (35% of 6.7 hr = 2.4)				
Fuel July 23 (35% of 6.7 hr = 2.4)	2.4	\$	300.00	hour \$ 720.00

10.0 REFERENCES

- Abbott, J.G., Gordey, S.P., & Tempelman-Kluit, D.J., 1986. Setting of stratiform, sediment hosted lead-zinc deposits in the Yukon and Northeastern British Columbia; Mineral Deposits of Northern Cordillera, ed. J.A. Morin, The Canadian Institute of Mining and Metallurgy, Special Volume 37, p. 1-18.
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- Gordey, S.P. and A.J. Makepeace (compilers), 2001. Bedrock Geology, Yukon Territory; Geological Survey of Canada. Open File 3754 and Exploration, Exploration and Geological Services Division, Yukon and Northern Affairs Canada, Open File 2001-1, scale 1: 1,000,000.
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- Israel, S., Colpron, M. and T. Fraser, 2011. Overview of Yukon Geology.
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- Murphy, D., 1997. Geology of the McQuesten River Region, Northern McQuesten and Mayo Map Area, Yukon Territory (115P/14, 15, 16; 105M/13, 14). Bulletin 6, Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada.
- Roots, C.F., Abbott, J.G., Cecile, M.P. and Gordey, S.P., 1995. Bedrock geology of Lansing Range map area (105N) east half, Hess Mountains, Yukon. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1995-7(G). Map, scale: 1:125,000.
- Schulze, 1998. Geological and Geochemical Assessment Report on the Bach Property. Assessment Report #093970

APPENDIX 1
CERTIFICATE OF AUTHOR

Shane Allen Carlos
1Lindeman Road
Whitehorse, Yukon Territory
Canada Y1A 5Z7
E-mail: scarlos@goldenpredator.com

Certificate of Author

I, Shane Allen Carlos of, Whitehorse, Yukon Territory, certify that:

1. I graduated from the University of British Columbia with a Bachelor of Science in Earth and Ocean Sciences, in 2009.
2. I have worked in the mineral exploration business for the last 15 years on diamond drill rigs, as a line cutter, soil sampler, claim staker and core logger, with the last 2 years as a geologist for Golden Predator Canada Corp.
3. I have not visited the Property in person.

Shane Allen Carlos

Whitehorse, Yukon Territory

Dated this 13th day of November, 2012.

APPENDIX 2
SUMMARY
STREAM SEDIMENT/ROCK SAMPLE
DESCRIPTIONS

MRB Sample Descriptions

Stream Sediment Samples

Sample	Au ppb	Claim	2011 Date	GRID	Easting	Northing	Elevation (m)	Angularity	Color	% Gravel	% Sand	% Silt	% Clay	% Organics	Slope Direction	Slope Angle	Stream Flow	Comments
K919764	10.9	MRB	2011_07_23	UTM83-8	643183.2	7028228	929	SR	GY	2	6	1	1		E	1	3	old burn
K919766	2.7	MRB	2011_07_23	UTM83-8	643224.2	7028225	934	SR	GYD	1	7	1		1	NE	1	3	old burn
K919767	1.4	MRB	2011_07_23	UTM83-8	644570.8	7028452	939	SR	GYD	1	6	2		1	N	1	3	
K919768	0.9	MRB	2011_07_23	UTM83-8	645106.8	7028464	958	SR	BRD	1	3	4		2	N	1	3	
K919769	2.6	MRB	2011_07_23	UTM83-8	646296.4	7028680	949	SR	BR		1	6		3	N	1	3	
K919692	0.7	MRB	2011_07_23	UTM83-8	642861.9	7025914	1142	SA	GYD	3	2	1		4	N	2	3	carboniferous mudstone
K919693	0.6	MRB	2011_07_23	UTM83-8	642942.2	7025905	1142	SA	GYD	4	5	1			N	2	3	shale
K919694	0.2	MRB	2011_07_23	UTM83-8	643774.4	7026422	1069	SR	GYD	6	3	1			NE	3	4	carboniferous shale
K919695	0.6	MRB	2011_07_23	UTM83-8	643856.9	7026397	1068	SR	BK	7	3				N	3	4	metaseds ,conglomerate
K919696	0.7	MRB	2011_07_23	UTM83-8	644126.2	7026091	1102	SR	BRD	7	3				N	3	4	carboniferous shale
K919697	0.8	MRB	2011_07_23	UTM83-8	644227.5	7026148	1114	SR	GYD	3	7				W	3	3	metaseds

ANGULARITY WR well rounded R rounded SR subrounded SA subangular A angular	SLOPE ANGLE 1 flat (<5°) 2 gentle (<5°-15°) 3 moderate (<15°-25°) 4 steep (>25°)	STREAM FLOW 1 dry 2 stagnant 3 slow 4 moderate 5 fast	SEDIMENT COMP must add to 10 or 100% >2mm gravel >0.16mm sand
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MRB Sample Descriptions

Rock Samples

Sample	Au ppb	Claim	Date 2011	GRID	Easting	Northing	Elevation (m)	Sample Source	LithoDesc	Comments
J971490	2.5	MRB	July 23 2011	UTM83-8	647592.3	7026797	1436	Subcrop	siltstone	Grey, irregular platy weathering, orange and yellow limonite oxide stain along fractures. Dark grey to black carbonaceous, fine grained with 2-3% sub parallel quartz stringers, sometimes fuggy with oxide coating. Trace pyrite in host Rock. GPS point LL2011-07
J971489	2.5	MRB	July 23 2011	UTM83-8	647490.1	7026778	1435	Subcrop	quartz vein	Quartz veining in siltstone from previous sample. Trend approximately 270, steeply dipping. Not just one vein but multiple cross-cutting stringers and then several larger quartz veins to 25 cm wide. Very sparse sulphides in vein. Trace platy apple green mineral to 1mm. GPS point LL2011-08
J971491	2.5	MRB	July 23 2011	UTM83-8	647212.4	7026705	1482	Outcrop	siltstone	Quartz veined carbonaceous siltstone, 2 main orientations of veining about 55 and 180 degrees, steeply dipping, white, coarse grained, moderate to strongly oxidized on fractures; vuggy, trace unoxidized sulphides. Some qv looks early as it is folded along with the siltstone. GPS point LL2011-09
J971492	2.5	MRB	July 23 2011	UTM83-8	645238.6	7026326	1346	Subcrop	quartz vein	Quartz vein, white, coarse grained with frequent limonite on fractures, sparse vugs, 10% inclusions of siltstone. No visible sulphides. Hosted in weakly sheared siltstone. Vein is cross-cutting bedding and trends roughly 170 degrees, dipping steeply. GPS point LL2011-10

APPENDIX 3
ASSAY CERTIFICATES

See Data Folder for Secured Assay Certificates

APPENDIX 4
ANALYTICAL METHODS AND
DETECTION LIMITS



Sample Preparation Package

PREP- 41

Standard Preparation: Dry sample and dry- sieve to -180 micron

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

An entire sample is dried and then dry-sieved using a 180 micron (Tyler 80 mesh) screen. The plus fraction is retained unless disposal is requested. This method is appropriate for soil or sediment samples up to 1 kg in weight.

Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
DRY-22	Low temperature drying of excessively wet samples where the oven temperature is not to exceed 60°C. This method is suitable for more soil and sediment samples that are analyzed for volatile elements.
SCR-41	Sample is dry-sieved to - 180 micron and both the plus and minus fractions are retained.

Revision 02.01
Feb 22, 2010

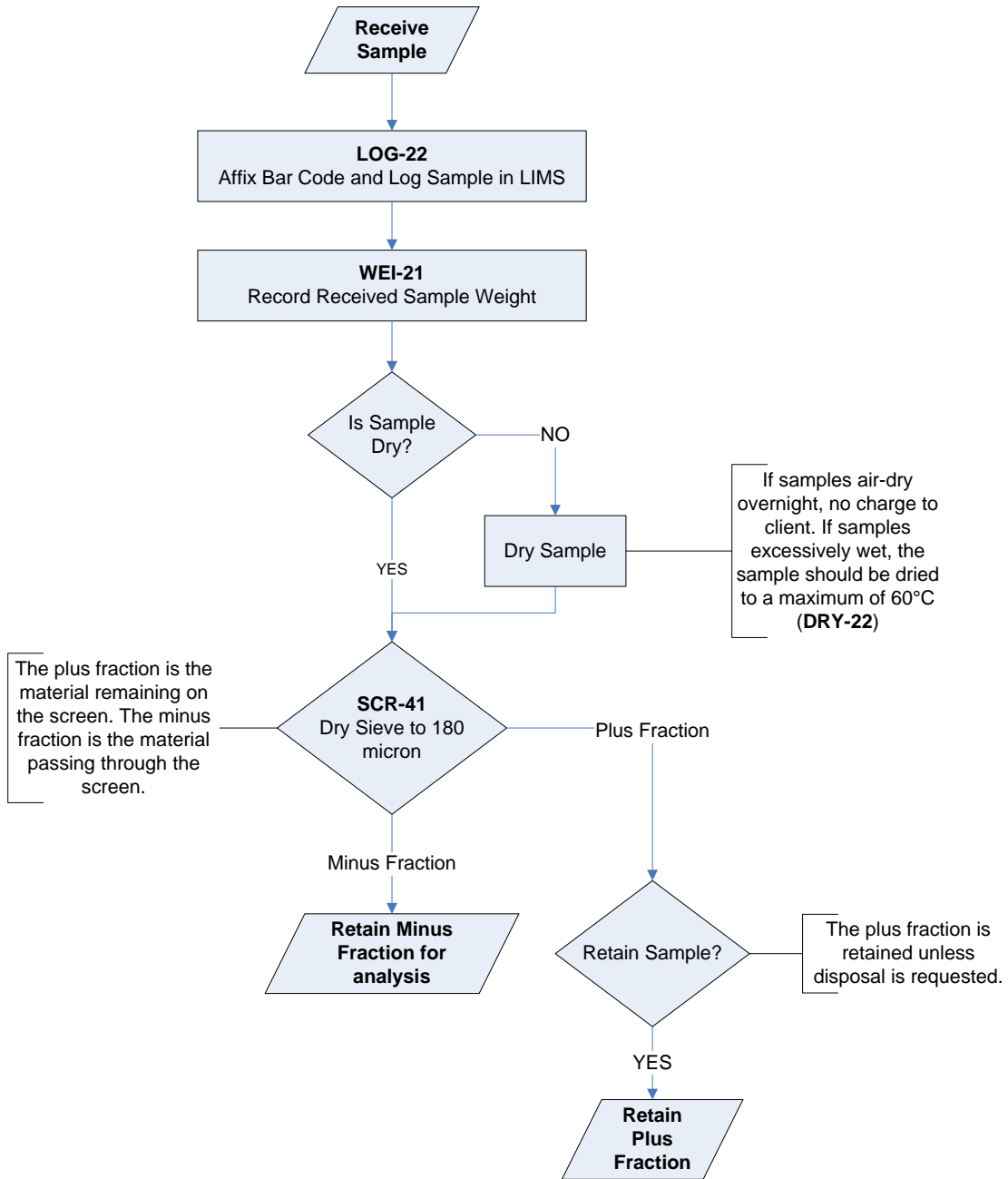
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Sample Preparation Package

Sample Preparation Flowchart Package -PREP- 41



Revision 02.01
Feb 22, 2010



Geochemical Procedure

ME- MS41

Ultra- Trace Level Methods Using ICP- MS and ICP- AES

Sample Decomposition:

Aqua Regia Digestion (GEO-AR01)

Analytical Method:

Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)

A prepared sample (0.50 g) is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, silver and tungsten and diluted accordingly. Samples are then analysed by ICP-MS for the remaining suite of elements. The analytical results are corrected for inter-element spectral interferences.

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	0.01	100
Aluminum	Al	%	0.01	25
Arsenic	As	ppm	0.1	10 000
Gold	Au	ppm	0.2	25
Boron	B	ppm	10	10 000
Barium	Ba	ppm	10	10 000
Beryllium	Be	ppm	0.05	1 000
Bismuth	Bi	ppm	0.01	10 000
Calcium	Ca	%	0.01	25
Cadmium	Cd	ppm	0.01	1 000
Cerium	Ce	ppm	0.02	500
Cobalt	Co	ppm	0.1	10 000
Chromium	Cr	ppm	1	10 000

Revision 04.00
Sep 20, 2006

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Geochemical Procedure

Element	Symbol	Units	Lower Limit	Upper Limit
Cesium	Cs	ppm	0.05	500
Copper	Cu	ppm	0.2	10 000
Iron	Fe	%	0.01	50
Gallium	Ga	ppm	0.05	10 000
Germanium	Ge	ppm	0.05	500
Hafnium	Hf	ppm	0.02	500
Mercury	Hg	ppm	0.01	10 000
Indium	In	ppm	0.005	500
Potassium	K	%	0.01	10
Lanthanum	La	ppm	0.2	10 000
Lithium	Li	ppm	0.1	10 000
Magnesium	Mg	%	0.01	25
Manganese	Mn	ppm	5	50 000
Molybdenum	Mo	ppm	0.05	10 000
Sodium	Na	%	0.01	10
Niobium	Nb	ppm	0.05	500
Nickel	Ni	ppm	0.2	10 000
Phosphorus	P	ppm	10	10 000
Lead	Pb	ppm	0.2	10 000
Rubidium	Rb	ppm	0.1	10 000
Rhenium	Re	ppm	0.001	50
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	0.05	10 000
Scandium	Sc	ppm	0.1	10 000
Selenium	Se	ppm	0.2	1 000
Tin	Sn	ppm	0.2	500
Strontium	Sr	ppm	0.2	10 000

Revision 04.00
Sep 20, 2006

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Geochemical Procedure

Element	Symbol	Units	Lower Limit	Upper Limit
Tantalum	Ta	ppm	0.01	500
Tellurium	Te	ppm	0.01	500
Thorium	Th	ppm	0.2	10000
Titanium	Ti	%	0.005	10
Thallium	Tl	ppm	0.02	10 000
Uranium	U	ppm	0.05	10 000
Vanadium	V	ppm	1	10 000
Tungsten	W	ppm	0.05	10 000
Yttrium	Y	ppm	0.05	500
Zinc	Zn	ppm	2	10 000
Zirconium	Zr	ppm	0.5	500

NOTE: In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.



Geochemical Procedure

Au- OG43, Au- OG44

Determination of Gold by Aqua Regia Digestion / Solvent Extraction - Flame AAS or ICPMS finish

Sample Decomposition:

Aqua regia gold digestion (GEO-AuAR01/02)

Analytical Method:

Inductively coupled mass spectrometry (ICPMS) or Atomic absorption spectrometry (AAS)

A finely pulverised sample (25 – 50 g) is digested in a mixture of 3 parts hydrochloric acid and 1 part nitric acid (aqua regia). This acid mixture generates nascent chlorine and nitrosyl chloride, which will dissolve free gold and gold compounds such as calaverite (AuTe₂).

The dissolved gold is complexed and extracted into Aliquat 336/DIBK and determined by Flame AAS. Alternatively gold is determined by ICPMS directly from the digestion liquor. This method allows for the simple and economical addition of extra elements by running the digestion liquor through the ICPAES or ICPMS.

Note: Samples high in sulphide or carbon content may lead to low gold recoveries unless they are roasted prior to digestion.

Method	Element	Sample Mass	Units	Lower Limit	Upper Limit
Au-OG43	Gold	25 g	ppm	0.01	100
Au-OG44	Gold	50 g	ppm	0.01	100

Revision 01.01
Jun 2, 2005

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Geochemical Procedure

Au- TL43, Au- TL44 Determination of Trace Level Gold by Solvent Extraction – Graphite furnace AAS or ICPMS finish

Sample Decomposition:

Aqua regia gold digestion (GEO-AuAR01/02)

Analytical Method:

Inductively coupled mass spectrometry (ICPMS) or Atomic absorption spectrometry (AAS)

A finely pulverised sample (25 – 50 g) is digested in a mixture of 3 parts hydrochloric acid and 1 part nitric acid (aqua regia). This acid mixture generates nascent chlorine and nitrosyl chloride, which will dissolve free gold and gold compounds such as calaverite, AuTe₂.

The dissolved gold is complexed and extracted either with diisobutyl ketone (DIBK) or Kerosene/DBS and determined by graphite furnace AAS. Alternatively gold is determined by ICPMS directly from the digestion liquor. This method allows for the simple and economical addition of extra elements by running the digestion liquor through the ICPAES or ICPMS.

Note: Samples high in sulphide or carbon content may lead to low gold recoveries unless they are roasted prior to digestion.

Method	Element	Sample Mass	Units	Lower Limit	Upper Limit	Default Overlimit Method
Au-TL43m	Gold	25 g	ppm	0.005	2	Au-OG43
Au-TL44m	Gold	50 g	ppm	0.005	2	Au-OG44

Revision 01.00
Jun 13, 2007

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Sample Preparation Package

PREP- 31

Standard Sample Preparation: Dry, Crush, Split and Pulverize

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

The sample is logged in the tracking system, weighed, dried and finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen. A split of up to 250 g is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh, US Std. No. 200) screen. This method is appropriate for rock chip or drill samples.

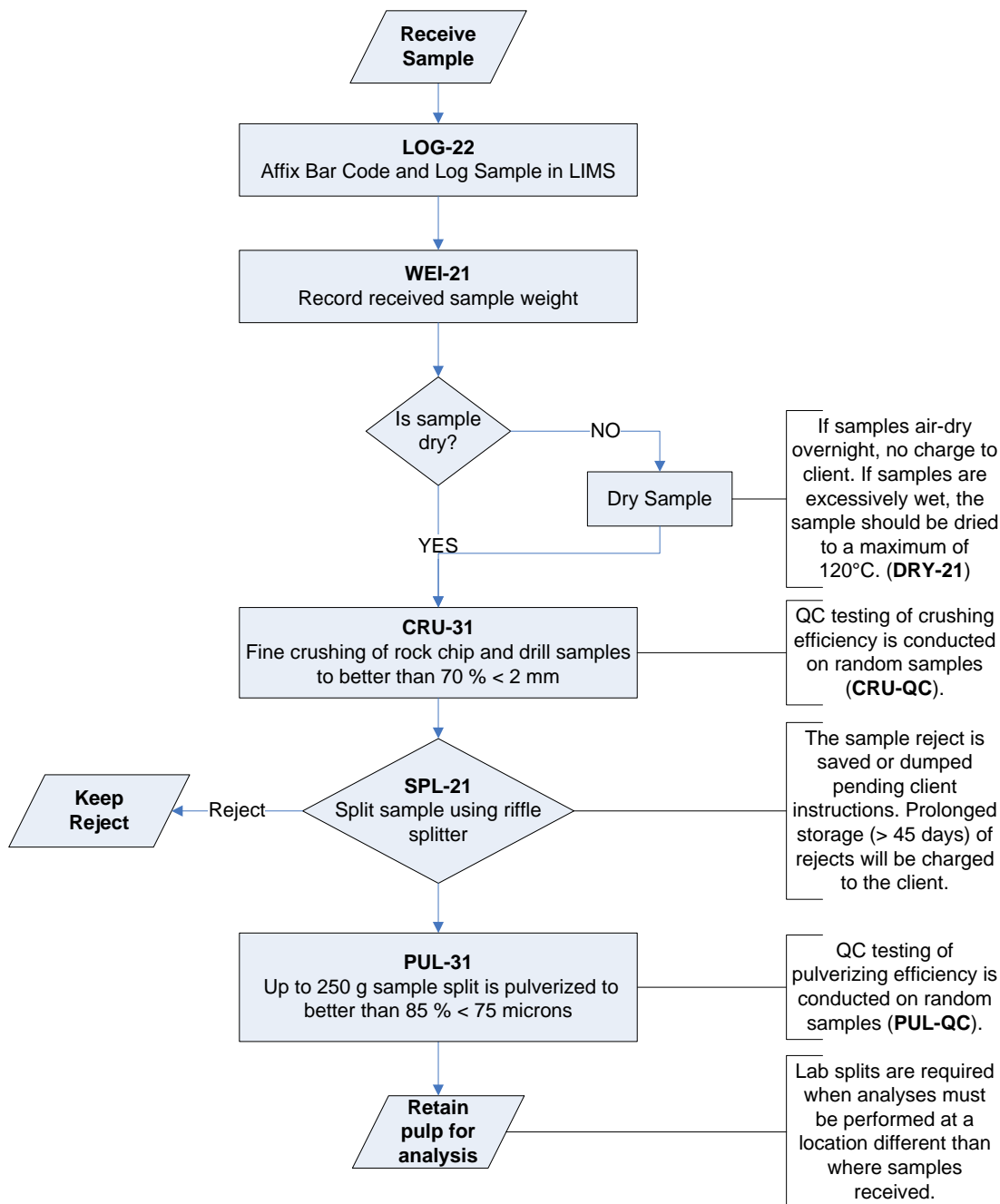
Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
DRY-21	Drying of excessively wet samples in drying ovens. This is the default drying procedure for most rock chip and drill samples.
CRU-31	Fine crushing of rock chip and drill samples to better than 70 % of the sample passing 2 mm.
SPL-21	Split sample using riffle splitter.
PUL-31	A sample split of up to 250 g is pulverized to better than 85 % of the sample passing 75 microns.

Revision 02.03
Feb 22, 2010



Sample Preparation Package

Flow Chart - Sample Preparation Package - PREP- 31 Standard Sample Preparation: Dry, Crush, Split and Pulverize



Revision 02.03
Feb 22, 2010



Geochemical Procedure

ME- ICP41

Trace Level Methods Using Conventional ICP- AES Analysis

Sample Decomposition:

Nitric Aqua Regia Digestion (GEO-AR01)

Analytical Method:

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 mL with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter-element spectral interferences.

NOTE: In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Silver	Ag	ppm	0.2	100	Ag-OG46
Aluminum	Al	%	0.01	25	
Arsenic	As	ppm	2	10000	
Boron	B	ppm	10	10000	
Barium	Ba	ppm	10	10000	
Beryllium	Be	ppm	0.5	1000	
Bismuth	Bi	ppm	2	10000	
Calcium	Ca	%	0.01	25	
Cadmium	Cd	ppm	0.5	1000	
Cobalt	Co	ppm	1	10000	
Chromium	Cr	ppm	1	10000	

Revision 06.02
Apr 20, 2009

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Geochemical Procedure

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Copper	Cu	ppm	1	10000	Cu-OG46
Iron	Fe	%	0.01	50	
Gallium	Ga	ppm	10	10000	
Mercury	Hg	ppm	1	10000	
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10000	
Magnesium	Mg	%	0.01	25	
Manganese	Mn	ppm	5	50000	
Molybdenum	Mo	ppm	1	10000	
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	10000	
Phosphorus	P	ppm	10	10000	
Lead	Pb	ppm	2	10000	Pb-OG46
Sulfur	S	%	0.01	10	
Antimony	Sb	ppm	2	10000	
Scandium	Sc	ppm	1	10000	
Strontium	Sr	ppm	1	10000	
Thorium	Th	ppm	20	10000	
Titanium	Ti	%	0.01	10	
Thallium	Tl	ppm	10	10000	
Uranium	U	ppm	10	10000	
Vanadium	V	ppm	1	10000	
Tungsten	W	ppm	10	10000	
Zinc	Zn	ppm	2	10000	Zn-OG46

Revision 06.02
Apr 20, 2009

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Geochemical Procedure

Elements listed
below are available upon request

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Cerium	Ce	ppm	10	10000	
Hafnium	Hf	ppm	10	10000	
Indium	In	ppm	10	10000	
Lithium	Li	ppm	10	10000	
Niobium	Nb	ppm	10	10000	
Rubidium	Rb	ppm	10	10000	
Selenium	Se	ppm	10	10000	
Silicon	Si	ppm	10	10000	
Tin	Sn	ppm	10	10000	
Tantalum	Ta	ppm	10	10000	
Tellurium	Te	ppm	10	10000	
Yttrium	Y	ppm	10	10000	
Zirconium	Zr	ppm	5	10000	

Revision 06.02
Apr 20, 2009

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Fire Assay Procedure

Au- AA23 & Au- AA24 Fire Assay Fusion, AAS Finish

Sample Decomposition:

Fire Assay Fusion (FA-FUS01 & FA-FUS02)

Analytical Method:

Atomic Absorption Spectroscopy (AAS)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven, 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

Method Code	Element	Symbol	Units	Sample Weight (g)	Lower Limit	Upper Limit	Default Overlimit Method
Au-AA23	Gold	Au	ppm	30	0.005	10.0	Au- GRA21
Au-AA24	Gold	Au	ppm	50	0.005	10.0	Au- GRA22

Revision 04.00
Aug 17, 2005

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Fire Assay Procedure

Ag-GRA21, Ag-GRA22, Au-GRA21 and Au-GRA22 Precious Metals Gravimetric Analysis Methods

Sample Decomposition:

Fire Assay Fusion (FA-FUSAG1, FA-FUSAG2, FA-FUSGV1 and FA-FUSGV2)

Analytical Method:

Gravimetric

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents in order to produce a lead button. The lead button containing the precious metals is cupelled to remove the lead. The remaining gold and silver bead is parted in dilute nitric acid, annealed and weighed as gold. Silver, if requested, is then determined by the difference in weights.

Method Code	Element	Symbol	Units	Sample Weight (g)	Detection Limit	Upper Limit
Ag-GRA21	Silver	Ag	ppm	30	5	10,000
Ag-GRA22	Silver	Ag	ppm	50	5	10,000
Au-GRA21	Gold	Au	ppm	30	0.05	1000
Au-GRA22	Gold	Au	ppm	50	0.05	1000

Revision 03.01
Aug 17, 2005

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