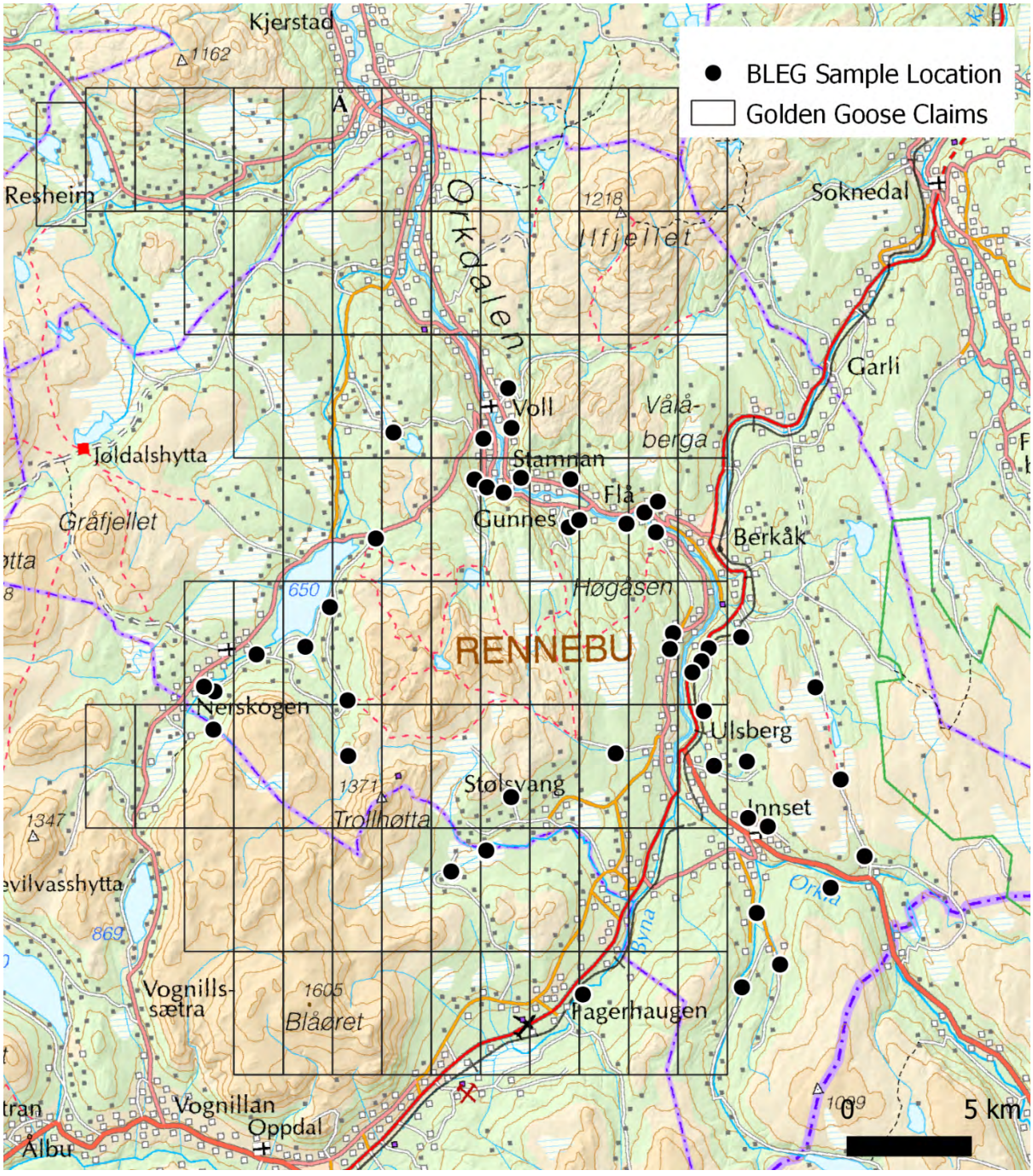
Monday, 27 February 2023

## Data Summary:

**Permit holder:** Eurasian Minerals Sweden AB (now renamed to EMX Scandinavia AB)

**Project Name:** Golden Goose 1-90

### Project Overview:



## Performed Work:

### BLEG

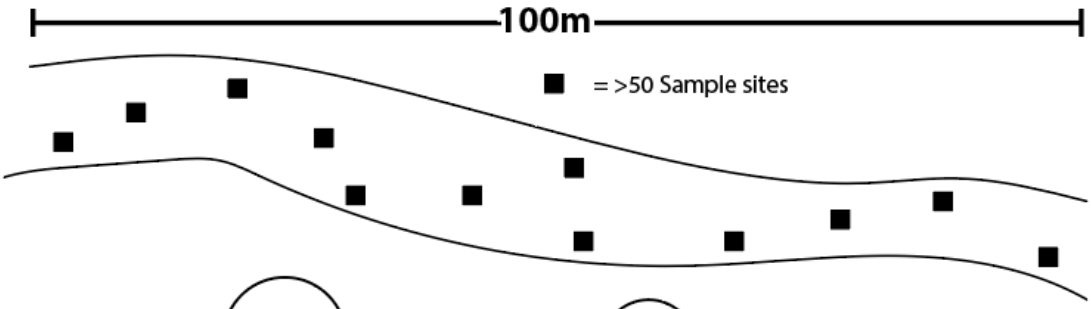
A total of 49 stream sediment samples and 10 duplicates have been collected in the Golden Goose area and analysed as Bulk Leach Extractable Gold samples (BLEG). The samples have therefore been processed in the field to separate the fine fraction for analysis.

#### *BLEG Sampling Protocol:*

1. After arriving at the designated sampling site, all equipment has to be washed downstream of sampling site
2. Sample material is collected over a wide range of points to increase sample homogeneity. >50 spots. (Step 1 in Figure)
3. Sampling has to be done with U-dig-it stainless steel trowels to avoid contamination from paint.
4. After enough material is collected coarse and organic debris is removed by sieving through a 30mesh (<0.6mm) sieve into a new clean bucket. (Step 2 in Figure)
5. The material in the bucket is agitated vigorously and decanted into a new bucket. This step is repeated until agitated water stays clear and only coarse grains remain. This can be difficult in organic rich environments.
6. The fine material in the third bucket is agitated again until all material is in suspension. The material has to settle for 1min (accurate time measure is important for consistency through out the sampling campaign) (Step 3 in Figure)
7. After 1min settling time the remaining material in suspension is carefully decanted into a 4$^{th}$ bucket in one gentle continuous go in order to not stir up fine fraction at the bottom. (Step 4 in Figure)
8. The 4$^{th}$ bucket is stirred again, and a flocculant is added. The flocculant lets the ultra-fine fraction settle quickly at the bottom and after 10min the remaining water can be carefully decanted and discarded. (Step 5 in Figure).
9. During the 10min the sample description has to be filled in the ipad.
10. The ultra-fine fraction is then collected in a micropore bag. (Step 6 in Figure)
11. A sample tag is added in a ziplock bag to the micropore bag. The sample is carefully stored for transportation so no fines can leak out at the seams (bag needs to hang freely).
12. All equipment has to be cleaned again.
13. Around every 20$^{th}$ sample needs to be a field duplicate. Where the process above has to be repeated. It is not acceptable to split the material in step 5 since that is a prep duplicate. The field duplicate can be collected where more fine sediments are present.
14. At the temporary field camp the sample have to be safely stored and regularly massaged to break up the drying lumps.
15. Samples have to be safely stored for final transportation to prep-lab at EMX in Mala.
16. The Samples then have to be analysed at ALS in Ireland using the Au-CN44a method. The mehthod differs from the regular Au-CN44 method that the sample is not agitated (active leach) but only gently stirred every 6h (static leach) to minimize the leaching of larger whole gold grains to avoid nugget effects.

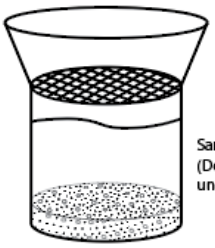
Things to note:

- Stay within 200m of the planned BLEG point
- Don’t take sample from the stream bank
- Both people collect 1/3 of a bucket
- If stream is coarse sand to gravel, more will need to be collected to get enough fines
- Need at least 100g of ultrafine sediment
- Collect metadata on TouchGIS
- For duplicates the whole process must be started over, or preferable a different team does the same site
- Samples must always be hanging and massaged at least once a day



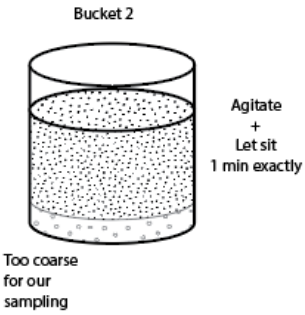

## Step 1:
Collect Sample over several sample sites


## Step 2:
Get rid of large chunks and sieve >30 mesh

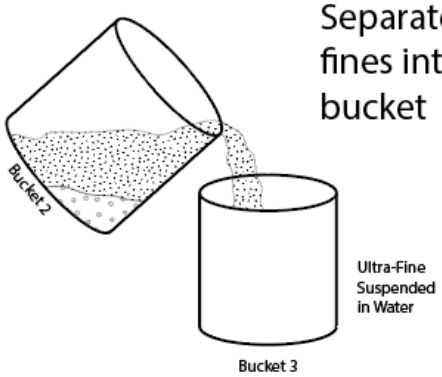



Once Bucket C is full run through step 2-5. Do not split the sample due to fractionation

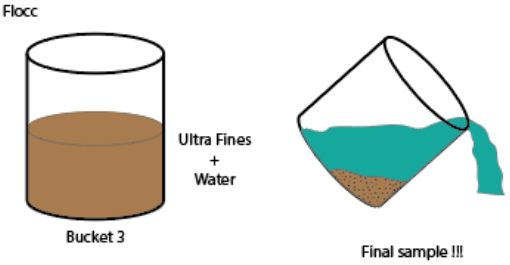
## Step 3:
Seperation by Gravity




## Step 4:
Separate ultra fines into new bucket




## Step 5: Eliminate water by floccing + decanting access water




## Step 6: Bag sampe with tag