

# Arctic Geophysics Inc.

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Geophysical Surveys • Prospecting • Consulting

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## **Geophysical Survey with 2D Resistivity Klaza River, Yukon**

FOR

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WORK PERFORMED

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## Table of contents

1. Introduction .....	4
2. Placer Claims .....	4
3. Location.....	4
4. Access.....	4
5. Goal .....	4
6. Geophysical Method .....	5
7. Use of Geophysical Methods.....	6
7.1. Instrumentation .....	6
7.2. Data Acquisition .....	6
7.3. Processing .....	7
7.4. Interpretation.....	7
8. Profile image .....	7
9. Resistivity Survey at Klaza River .....	7
Preliminary Note! .....	7
10. Survey Map .....	7
11. Bedrock Geology Map – Overview .....	9
12. Bedrock Geology Map – Survey Area .....	11
13. Geology .....	12
13.1. Bedrock .....	12
13.2. Physiography / Glaciation / Placer Gold Deposits .....	12
14. Profiles – Interpretation and Recommendation.....	13
15. References .....	21
Literature .....	21
Maps .....	21
16. Qualification .....	22
17. Confirmation .....	22
Addendum .....	23
Cost .....	23
GPS-Data .....	25
Klaza_River 01 .....	25
Klaza_River 02 .....	27
Klaza_River 03 .....	29



## 1. Introduction

This geophysical investigation was done for Canaan Gold Resources Inc.. The survey, using 2D Resistivity, was conducted to prospect the tenures mentioned below for the localisation of possible targets for placer gold. The ground was tested with four 2D measuring lines of lengths between 198 and 400m, the depth of investigation is 40m.

## 2. Placer Claims

Grant Number	Claim Name	Owner
P26997	Jenny 6	Nansen Gold Resources Inc. - 50% Canaan Gold Resources Inc. - 50%
P 62544	Jenny 4	Nansen Gold Resources Inc. - 50% Canaan Gold Resources Inc. - 50%
P 26379	Jenny	Nansen Gold Resources Inc. - 50% Canaan Gold Resources Inc. - 50%

## 3. Location

The claims are located at the headwaters of the Klaza River at the foot of Mount Nansen, map number 115I03.

## 4. Access

The exploration site was accessed via the Mount Nansen gravel road.

## 5. Goal

The survey was focussed on measuring and interpreting following **subsurface characteristics**:

### Placer Prospecting

1. Depth and topography of bedrock
  - Paleochannels
  - Bedrock benches
2. Sedimentary stratification
3. Permafrost conditions
4. Groundwater table
5. Mining/prospecting history

## 6. Geophysical Method

**Resistivity** is not a time domain geophysical method such as Ground Penetrating Radar or Seismic. Resistivity measures a material property. In the Resistivity model the different underground zones are material-dependently differentiated according to their electrical conductivity. Thus, Resistivity promises good chances in respect of measuring the kind and character of the subsurface materials as well as the groundwater distribution, which would be of interest for placer mining. The equipment used (see below) allows for measuring of layer interfaces in depths from 0.5m to 100m by varying the electrode spacing. – Therefore, this prospecting concept is based on the use of 2D Resistivity.



Figure 1: 2D Resistivity measurement, Stefan Ostermaier, Arctic Geophysics Inc., Yukon 2009

## 7. Use of Geophysical Methods

### 7.1. Instrumentation

For this survey a lightweight, custom-built 2D RESISTIVITY and INDUCED POLARIZATION (IP) imaging system with rapid data acquisition was used. The system includes:

- “4 POINT LIGHT” EARTH RESISTIVITY METER<sup>1</sup>
- 100 ELECTRODE CONTROL MODULES<sup>2</sup>
- 100 STAINLESS STEEL ELECTRODES<sup>3</sup>
- 500m MULTICORE CABLE: CONNECTOR SPACING: 5m<sup>4</sup>

This system weighs approximately 120 kg which is about one third of regular standard equipment. It can be run with a 12V lead battery. The equipment facilitates high mobility and rapid data acquisition with a small crew.

### 7.2. Data Acquisition

#### Resistivity

The data acquisition is carried out by the automatic activation of 4-point-electrodes. Thus several thousand measurements are taken, one every 1-2 seconds. The AC transmitter current of 0.26 to 30 Hz is amplified by the electrode control modules, up to a maximum of 100mA and 400V peak to peak. The voltage measured at the receiver electrodes (M, N) is also amplified.

In this geoelectrical survey the **Schlumberger-array** was used. This array is appropriate to image horizontally running layers as is needed for placer prospecting.

The 2D Resistivity imaging system, used for this survey, allows measurements with a depth of up to 100m. With a depth to bedrock of more than 6m, an electrode spacing of 5m can be used for placer surveys. This allows the measuring of large profile lengths in short time with a horizontal measuring resolution of 2.5m. This quantification has proven itself to be reliable in the determination of the bedrock topography and sedimentary arrangement for placer investigation at the most environmental conditions.

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<sup>1</sup> Constructed and produced by LGM (Germany)

<sup>2</sup> Ditto

<sup>3</sup> Constructed and produced by GEOANALYSIS.DE (Germany)

<sup>4</sup> Ditto

## 7.3. Processing

### Resistivity

The measured Resistivity data were processed with the **RES2DINV** inversion program<sup>5</sup>.

The Schlumberger array, used in this geoelectrical survey, is appropriate to measure subsurface conditions predominantly showing a horizontal zoning of the ground materials.

## 7.4. Interpretation

The Resistivity models 01 to 04, run at the tributary of Klaza River (see Survey Map), show high heterogeneity of the data! Thus, the interpretation of these profiles has to be ambivalent sometimes. The interpretation of the profiles should be verified by physical prospecting methods such as digging test holes/trenches or drilling.

## 8. Profile image

In the **Resistivity profile** the interpreted layer interfaces are marked with a black line. The profiles show ground-layers approximately 15% thicker than they are in reality. The thickening of the model layers is caused by the inversion software. The **correction factor** of 0.85 for the determination of the true layer thickness has been established by the Arctic Geophysics Inc. team on the basis of numerous geoelectrical profiles verified by drilling, trenching, and mining done by our customers.<sup>6</sup>

The **graphical markings** showing the interpreted layer interfaces in the profiles (using a black line) are done according to the data structure in the profile itself. This means: the layers there will also show up approximately 15% thicker than they are expected in reality. At the measuring sticks in the profile image as well as in the interpretation text, the layer thicknesses and depths have been recalculated to the expected real values.

## 9. Resistivity Survey at Klaza River

### Preliminary Note!

The subsurface information of this study is an interpretation and cannot be guaranteed.

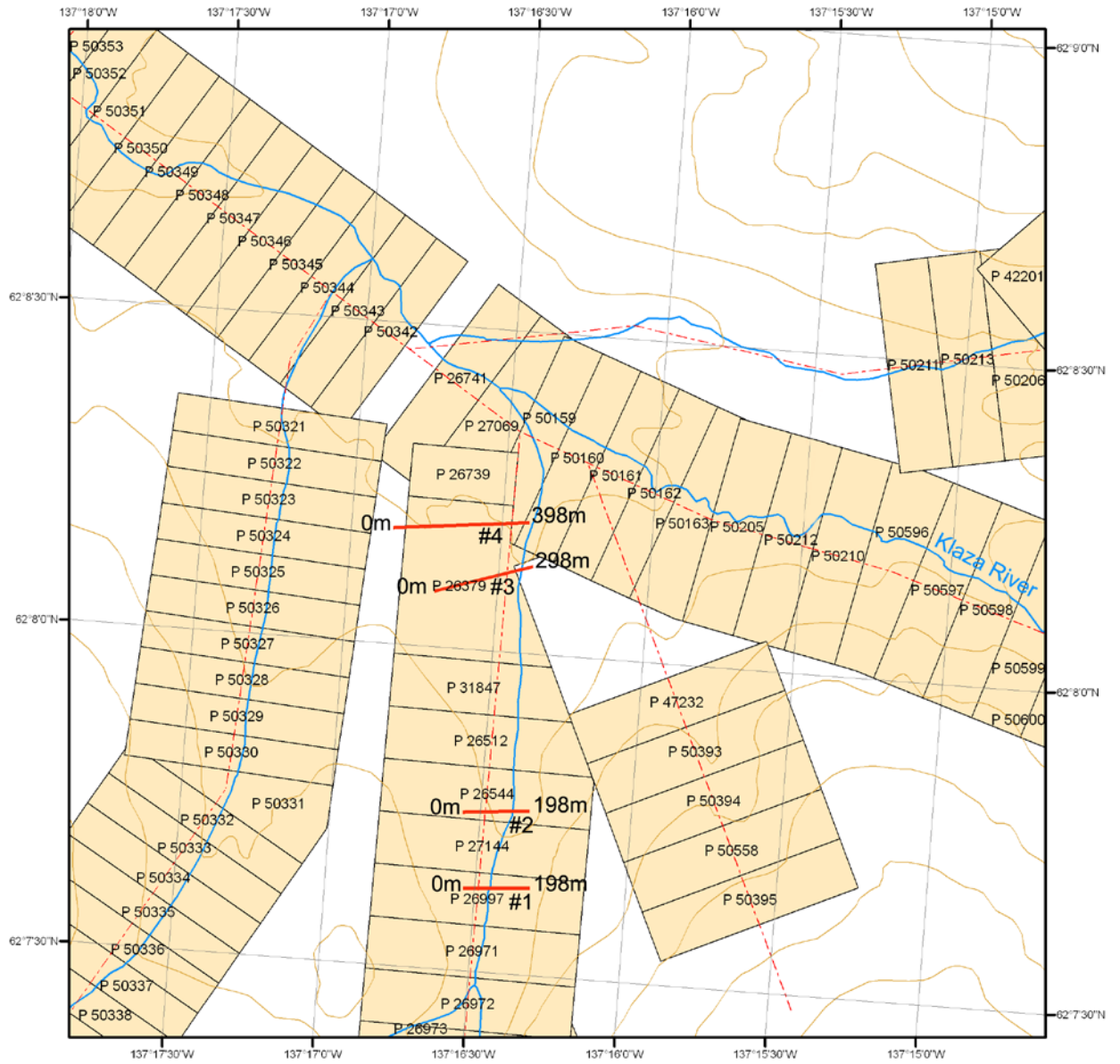
## 10. Survey Map<sup>7</sup>

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<sup>5</sup> Produced by GEOTOMO SOFTWARE (Malaysia)

<sup>6</sup> Program settings in RES2DINV for modifying the layer thickness do frequently not work well for our use and could falsify the profile. That's why this mode was not used.

<sup>7</sup> <http://www.yukonminingrecorder.ca/PDFs: 1150/14>



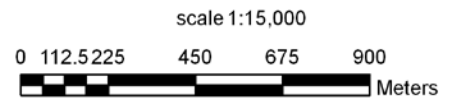
**Legend**

- measuring line
- - - baseline
- contour line
- watercourse
- Claims
- Lease

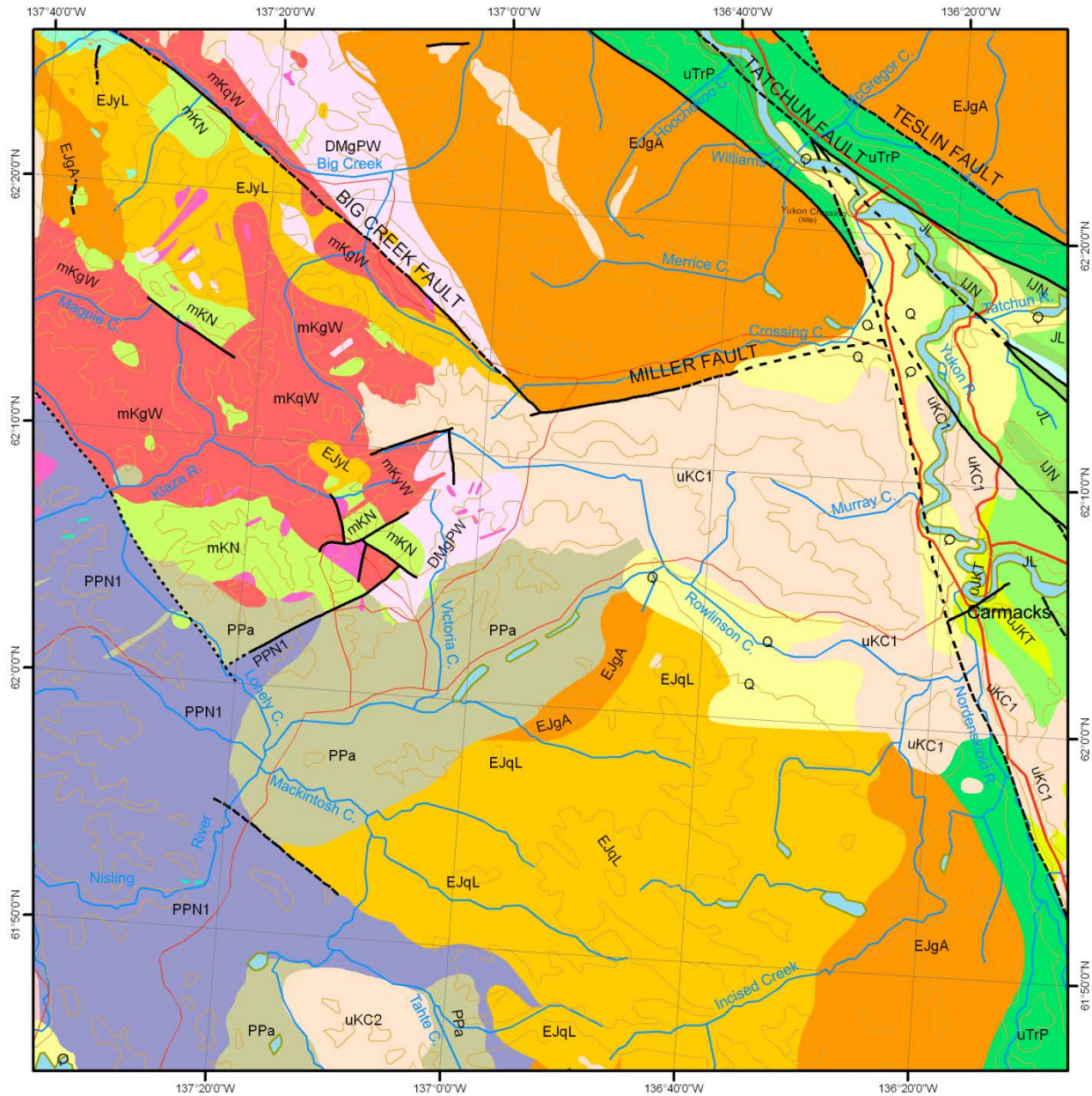
**Survey Map**

115I03 (Klaza Creek)

Universal Transverse Mercator Zone 8  
North American Datum 1983



# 11. Bedrock Geology Map – Overview<sup>8</sup>



## Legend

- Roads**
- paved
  - gravel
  - contour line
  - water course

## Fault Lines

**NORMAL / REVERSE**

- defined
- MOVEMENT UNDEFINED**
- defined
- - - - approximate
- · · · · assumed
- - - - extrapolated

## Carmacks Bedrock Geology

Scale 1:400,000



<sup>8</sup> Gordey, S.P. and Makepeace, A.J. (comp.) 1999: Yukon bedrock geology in Yukon digital geology, S.P. Gordey and A.J. Makepeace (comp.); Geological Survey of Canada Open File D3826 and Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1999-1(D)

# Legend

## QUATERNARY

**Q:** QUATERNARY: unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluvial silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits

## EARLY TERTIARY

**ETfN:** NISLING RANGE SUITE: orange and buff weathering light-coloured feldspar porphyry dyke and flow rocks of intermediate to acid composition

## LATE CRETACEOUS TO TERTIARY

**LKdP:** PROSPECTOR MOUNTAIN SUITE: coarsely crystalline gabbro and diorite

**LKqP:** PROSPECTOR MOUNTAIN SUITE: quartz monzonite, biotite quartz-rich granite; porphyritic alaskite and granite with plagioclase and quartz-eye phenocrysts; biotite and hornblende quartz monzodiorite, granite, and leucocratic granodiorite with local alkali feldspar phenocrysts (Prospector Mountain Suite, Carcross Pluton)

**LKfP:** PROSPECTOR MOUNTAIN SUITE: quartz-feldspar porphyry

## MID-CRETACEOUS

**mKgW:** WHITEHORSE SUITE: biotite-hornblende granodiorite, hornblende quartz diorite and hornblende diorite; leucocratic, biotite hornblende granodiorite locally with sparse grey and pink potassium feldspar phenocrysts (Whitehorse Suite, Casino granodiorite, McClintock granodiorite, Nisling Range granodiorite)

**mKqW:** WHITEHORSE SUITE: biotite quartz-monzonite, biotite granite and leucogranite, pink granophyric quartz monzonite, porphyritic biotite leucogranite, locally porphyritic (K-feldspar) hornblende monzonite to syenite, and locally porphyritic leucocratic quartz monzonite (Mt. McIntyre Suite, Whitehorse Suite, Casino Intrusions, Mt. Ward Granite, Coffee Creek Granite)

**mKyW:** WHITEHORSE SUITE: hornblende syenite, grading to granite or granodiorite (Whitehorse Suite)

**mKN:** MOUNT NANSEN: massive aphyric or feldspar-phyric andesite to dacite flows, breccia and tuff; massive, heterolithic, quartz- and feldspar-phyric, felsic lapilli tuff; flow-banded quartz-phyric rhyolite and quartz-feldspar porphyry plugs, dykes, sills and breccia (Mount Nansen Gp., Byng Creek Volcanics, Hutshi Gp.)

## UPPER CRETACEOUS

**uKc1:** CARMACKS: augite olivine basalt and breccia; hornblende feldspar porphyry andesite and dacite flows; vesicular, augite-phyric andesite and trachyte; minor sandy tuff, granite boulder conglomerate, agglomerate and associated epiclastic rocks (Carmacks Gp., Little Ridge Volcanics, Casino Volcanics)

**uKc2:** CARMACKS: acid vitric crystal tuff, lapilli tuff and welded tuff including feeder plugs and necks; felsic volcanic flow rocks and quartz feldspar porphyries; green and purple massive tuff-breccia with feldspar-phyric fragments (Carmacks Gp., Donjek Volcanics, some rocks formerly mapped as Mt. Nansen Gp.; the felsic part of the Carmacks Gp. is difficult to distinguish from similar Tertiary and mid-Cretaceous (Mt. Nansen) felsic volcanic strata)

## UPPER JURASSIC AND LOWER CRETACEOUS

**uJKT:** TANTALUS: massive to thickly bedded chert pebble conglomerate and gritty quartz-chert-feldspar sandstone; interbedded dark grey shale, argillite, siltstone, arkose and coal; at one locality includes red-weathering dacite to andesite flows at base (Tantalus)

## EARLY JURASSIC

**EJgA:** AISHIHIK SUITE: medium- to coarse-grained, foliated biotite-hornblende granodiorite; biotite-rich screens and gneissic schlieren; foliated hornblende diorite to monzodiorite with local K-feldspar megacrysts; may include unfoliated monzonite of the Long Lake Suite (Aishihik Suite)

**EJyL:** LONG LAKE SUITE: resistant, dark weathering, massive, coarse- to very coarse-grained and porphyritic, mesocratic hornblende syenite; locally sheared, commonly fractured and saussuritized; locally has well developed layering of aligned pink K-feldspar tablets (Big Creek Syenite)

**EJqL:** LONG LAKE SUITE: massive to weakly foliated, fine to coarse grained biotite, biotite-muscovite and biotite-hornblende quartz monzonite to granite, including abundant pegmatite and aplite phases; commonly K-feldspar megacrystic (Long Lake Suite)

## LOWER AND MIDDLE JURASSIC, HETTANGIAN TO BAJOCIAN

**JL:** LABERGE: poorly sorted, medium bedded to massive arkosic sandstone and minor shale with interbeds and thick members of resistant heterolithic pebble and boulder conglomerate; recessive, dark brown weathering, thin bedded, dark brown to greenish, silty shale (Laberge Gp.)

## LOWER JURASSIC, PLEINSBACHIAN TO TOARCIAN

**IJN:** NORDENSKIOLD: resistant, reddish brown weathering, massive, khaki-green dacite tuff with fresh plagioclase, hornblende and biotite; grades locally to pale green, punky weathering, salt and pepper textured, massive sandstone; interbedded conglomerate (Nordenskiold Dacite)

## UPPER TRIASSIC, CARNIAN TO NORIAN

**uTrAK2:** AKSALA: massive to thick bedded limestone; minor thin bedded argillaceous to sooty limestone; coarsely crystalline, massive dolostone; minor laminated chert; massive to poorly bedded, limestone conglomerate debris flows and fanglomerate (Hancock mb. of Aksala)

## UPPER TRIASSIC, CARNIAN AND OLDER (?)

**uTrP:** POVOAS: augite or feldspar-phyric, locally pillowed andesitic basalt flows, breccia, tuff, sandstone and argillite; local dacitic breccia and tuff with minor limestone; greenschist, chlorite schist, chlorite-augite-feldspar gneiss, amphibolite (Povoas)

## PROTEROZOIC AND PALEOZOIC

**PPa:** AMPHIBOLITE: metamorphosed mafic rocks including amphibolite (1) and ultramafic rocks (2) of unknown association; i.e.) may belong in part or entirely to Nisling, Nasina, and Slide Mountain assemblages and (3), mafic-ultramafic intrusions within Nasina assemblage

## LATE DEVONIAN TO MISSISSIPPIAN

DMgPW: PELY GNEISS SUITE - SOUTHWEST: foliated medium grained, homogeneous biotite granite gneiss to biotite or hornblende granodiorite gneiss; massive to strongly foliated dioritic to granodioritic gneiss; includes interfoliated amphibolite, quartz-mica schist and phyllite (Selwyn Gneiss, Pelly Gneiss, N. Fiftymile Batholith, Moose Creek Orthogneiss)

## DEVONIAN, MISSISSIPPIAN AND(?) OLDER

DMN3: NASINA: quartzite, micaceous quartzite, quartz muscovite (chlorite; feldspar augen) schist, and minor metaconglomerate and metagrit as in (1), but may locally include significant Nisling Assemblage

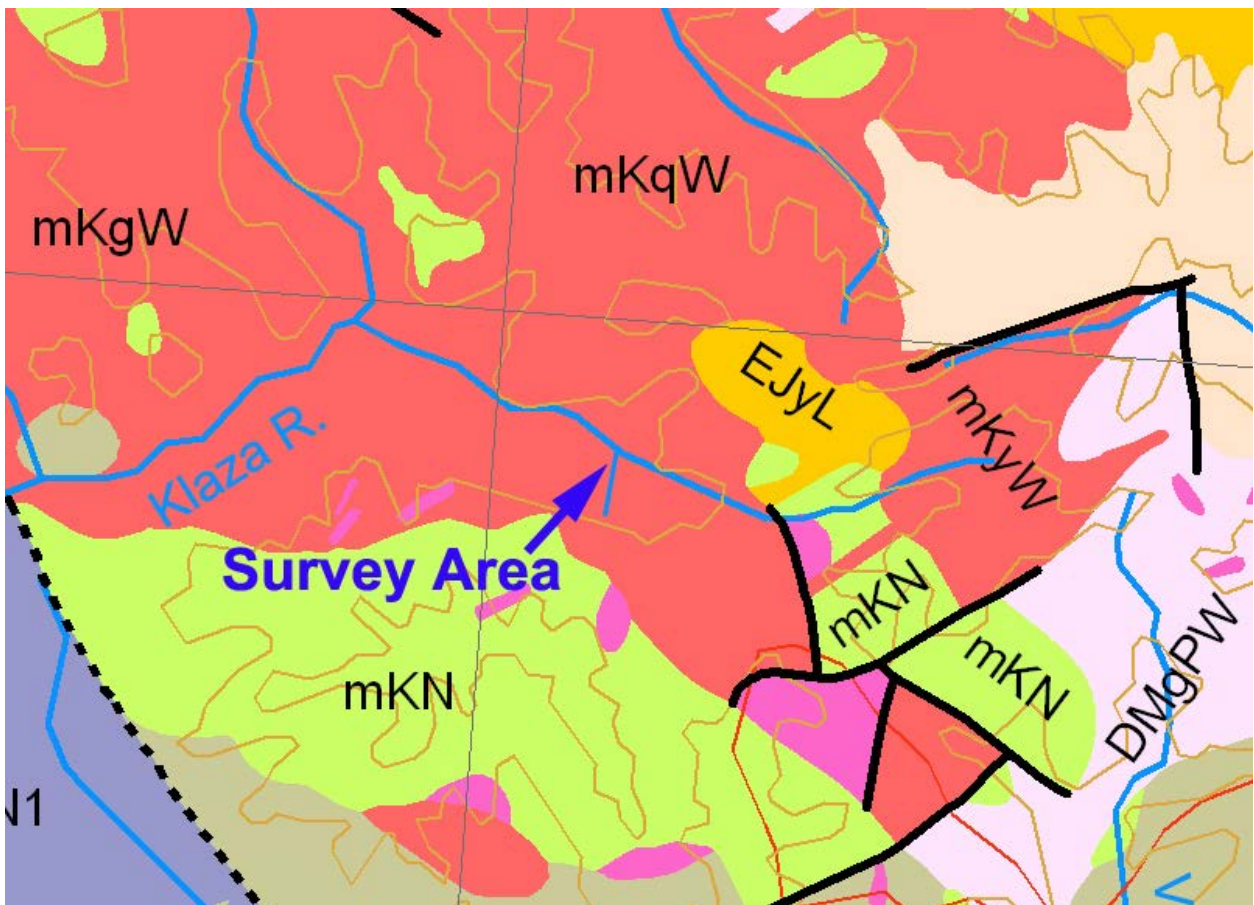
DMN4: NASINA: quartzite, micaceous quartzite, quartz muscovite (chlorite; feldspar augen) schist, and minor metaconglomerate and metagrit as in (1), but may locally include significant Klondike Schist Assemblage

## LATE PROTEROZOIC AND PALEOZOIC

PPN1: NISLING: dark grey to brown, biotite-muscovite-quartz-feldspar schist, quartzite and micaceous quartzite, garnetiferous; felsic chlorite-biotite orthogneiss; rare amphibolite; minor(?) two-mica gneiss and hornblende diorite gneiss; may include Nasina Assem. (Nisling assem.)

PPN2: NISLING: bleached white-weathering, white to grey, coarsely crystalline, flow banded, fetid marble; graphite, chert, metabasite and calc-silicate lamina are common (Nisling assem.)

## 12. Bedrock Geology Map – Survey Area



## 13. Geology

### 13.1. Bedrock

In the survey area of **Klaza River**, the bedrock shows resistivity data between 150-3500 Ohm meters. 95% of the bedrock shows 150-1000 Ohm meters: This data would basically fit with diorite, biotite, and granodiorite.

The bedrock in the profiles shows patterns with highly varying resistivity, which might be caused by changes of the bedrock type and/or mineral composition, and changing amounts of weathering and water saturation in the rock.<sup>9</sup>

### 13.2. Physiography / Glaciation / Placer Gold Deposits

In the survey area, also the overburden shows quite heterogeneous data. The heterogeneity of the data might be caused by different kinds/shapes of the sediments: The overburden, measured in this survey, consists of technogenic and virgin material. The virgin material might be dominated by glacial till in addition to glaciofluvial and possibly glaciolacustrine deposits. Pre-glacial river gravel most likely bearing placer gold was eroded by the glacier. But the pre-glacial placer gold could have been re-concentrated in grooves produced by the movement of the ice. The glacier might have produced large deposits of till. When the ice started thawing, till was transported by melt water creating glaciofluvial deposits. At the Klaza tributary, inspected in this survey, the glaciofluvial streams might have changed their path and velocity frequently – producing a spatially diverse arrangement of overburden: Slow or standing melt water could have produced clay deposits acting as a water barrier or protecting layer against further erosion. Fast flowing water could have produced glaciofluvial gravel deposits potentially creating channels in bedrock.

Targets for placer gold are glaciofluvial channels, as well as clay-rich layers (“false bedrock”), or sediment layers on top of clay-rich layers.

Clay-rich layers do normally have significantly lower resistivity than gravel. Thin clay layers (too thin to be measured in the profiles) can seal pockets of highly saturated gravel on top of gravel showing lower water content.

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<sup>9</sup> Weathering significantly changes the conductivity of rocks. Bedrock gets fractured by frost wedging, faults, and other mechanical influences in the subsurface. The fractures produce cavities which get filled with water. This increases the conductivity and decreases the resistivity. Fractured bedrock starts chemical weathering which increases the pore volume of the rock that is filled with (stationary) water collecting high amounts of dissolved minerals. The resistivity is reduced even more. Larger fractures in the rock can become penetrated by water saturated sediments. – All these factors could have significantly decreased the resistivity of the local bedrock. All these influences might have controlled the varying resistivity in the bedrock measured in the profiles.

# 14. Profiles – Interpretation and Recommendation

## Klaza River\_01

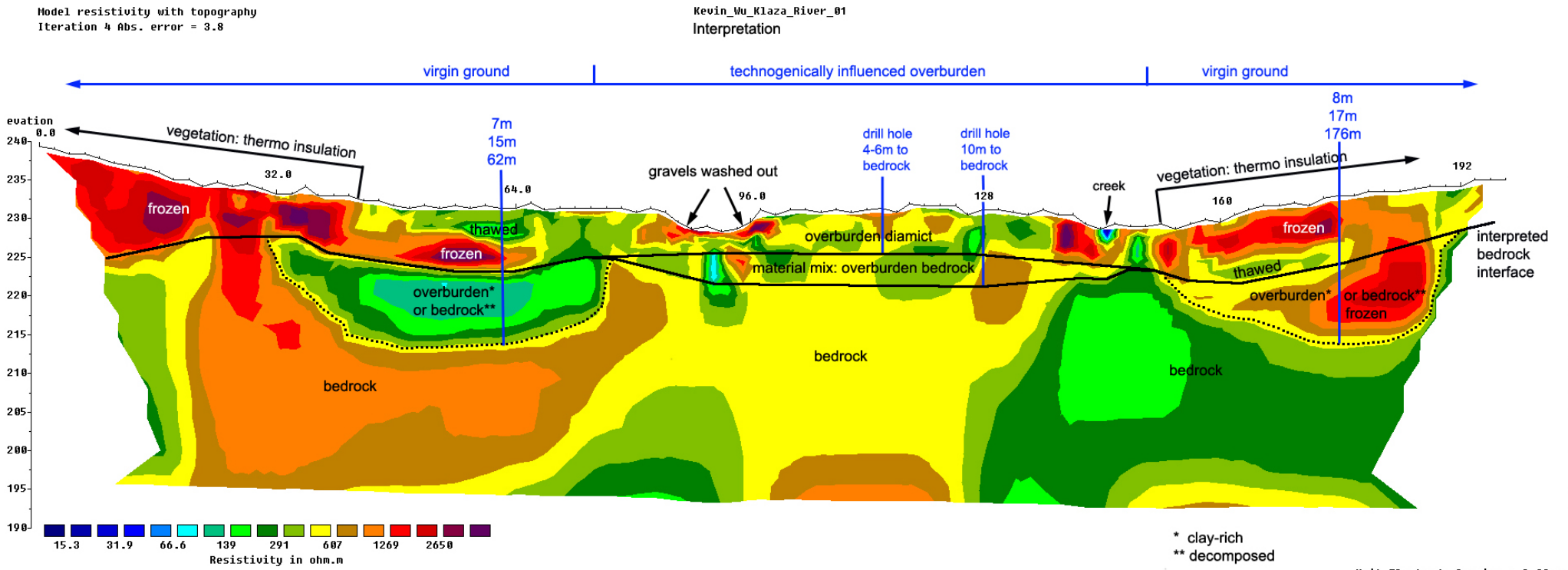
2D Resistivity, Schlumberger array  
 100 Electrodes: spacing 2m, Horizontal resolution 1m  
 Horizontal and vertical measure in [meter], Iteration error in [%]  
 Vertical exaggeration in model section display = 1

Data acquisition: Josy Strunden, 4th July 2011  
 Processing: Philipp Moll, 5th July 2011  
 Profile shows the ground-layers approx. 15% thicker than in reality.  
 Comments to this/these profile/s are interpretation.

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horizontal scale is 18.58 pixels per unit spacing  
 vertical exaggeration in model section display = 1.00  
 first electrode is located at 0.0 m.  
 last electrode is located at 198.0 m.

Unit Electrode Spacing = 2.00 m.

## Interpretation

In this profile the overburden shows a pattern of various resistivity data. This overburden is interpreted to be dominated by glacial till, besides possible glaciofluvial or even glaciolacustrine deposits both characterized by clay and silt. Also we find worked gravel. These sediments have discontinuous amounts of water saturation and permafrost.

The bedrock represents changing resistivity as well, which might be caused by different amounts of weathering in the bedrock likely consisting of diorite and biotite (see Bedrock Geology Map above).

At 0-76m in the profile the ground looks layered. The low conducting (red) material could be frozen or dry.

At 62m the bedrock might be 7m deep: here we see the deepest point of a slight depression in the bedrock. This bedrock depression could indicate a channel produced by stream gravel moved by the melt water flow from the glacier (glaciofluvial deposit). The gravel in this channel as well as the upper portion of the bedrock could bear placer gold deposits. – It is unlikely but possible, that the bedrock would alternatively be 15m deep at 62m in the profile. If this would be the case, rich amounts of placer gold would be expected in the gravel on the bottom of the channel (dashed line). However, this scenario is unlikely since a channel with this shape, deeply cut into bedrock, could hardly be produced in igneous bedrock which is normally solid, also regarding that the valley of this tributary is short.

At 58-64m there is a small light green zone which could be thawed gravel. Alternatively this light green zone could be some fluvial

gravel sitting on top of a thin clay layer acting as a water barrier. This small layer could be some glaciofluvial gravel embedded in till. It is possibly a small target for placer gold.

At 80-96m the surficial topography is drawing a channel. This channel is most likely not natural, it seems to be a water trench from ancient placer mining. The red/brown/violet material seems to be washed gravel.

At 64-150m the interface between overburden and bedrock is quite indistinct. Possibly this overburden and the upper bedrock are completely worked. The bizarre resistivity pattern in this section of the valley fits with the assumption of worked gravel. Alternatively and less likely the lower portions of the overburden could be virgin. If this is the case, the overburden would have sunk into fractures and cavities of weathered bedrock. The two drill profiles confirm this interpretation.

At 150-198m the overburden looks again layered. It seems to be virgin. Again we see some low conducting (red) material which is again interpreted as dry or frozen gravel. The thin green layer is thawed.

At 160m the bedrock could be 6m deep. At this location, placer gold could be deposited in, on, and near bedrock. Less likely the bedrock could be deeper at this section (dashed line). If this is the case, the bedrock would be about 17m deep at 176m in the profile. A deep channel having similar shape like the hypothetical, deep channel on the left side, would exist. However this deep channel is unlikely by the same reasons.

**Klaza River\_02**

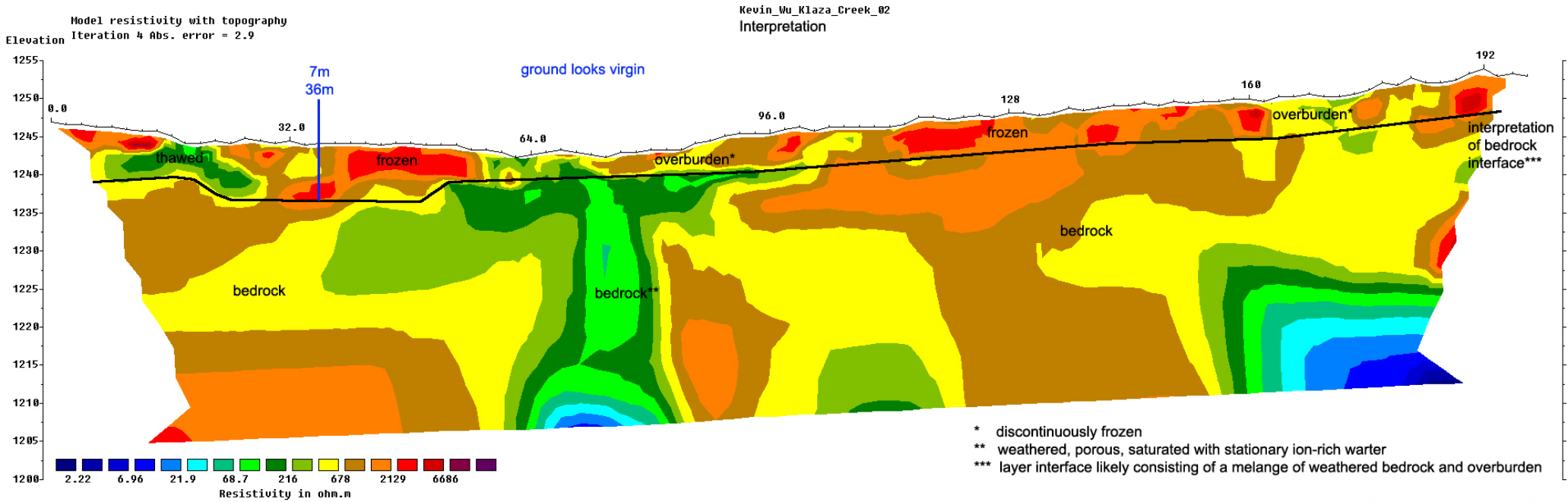
2D Resistivity, Schlumberger array  
 100 Electrodes: spacing 2m, Horizontal resolution 1m  
 Horizontal and vertical measure in [meter], Iteration error in [%]  
 Vertical exaggeration in model section display = 1

Data acquisition: Josy Strunden, 5th July 2011  
 Processing: Philipp Moll, 6th July 2011  
 Profile shows the ground-layers approx. 15% thicker than in reality.  
 Comments to this/these profile/s are interpretation.

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Unit Electrode Spacing = 2.00 m.

Horizontal scale is 18.58 pixels per unit spacing  
 Vertical exaggeration in model section display = 1.00  
 First electrode is located at 0.0 m.  
 Last electrode is located at 198.0 m.

## Interpretation

Resistivity profile\_02 is located approx. 200m downstream from profile\_01. Profile\_02 shows also a mosaic of quite heterogeneous resistivity values in the overburden. In this section of the valley, the overburden seems to be largely dominated by glacial till which might again be discontinuously saturated with water or frozen.

The bedrock represents changing resistivity as well which might be caused by different amounts of weathering in the bedrock likely consisting of diorite and biotite (see Bedrock Geology Map above).

This ground could be fully virgin. The interface between overburden and bedrock is again indistinct because the resistivity of both overburden and bedrock is similar and variable.

This profile is presenting just one possible target for further placer investigation: At 20-60m there could be a shallow channel. At 36m, this channel likely filled with post-glacial stream gravel, could be 7m deep.

In this profile, located near to profile\_01, no indications for deeper channels are seen. Thus, the two deeper channels marked with a dashed line in profile 01\_ appear to be vague again.

### Klaza River\_03

2D Resistivity, Schlumberger array  
 149 Electrodes: spacing 2m, Horizontal resolution 1m  
 Horizontal and vertical measure in [meter], Iteration error in [%]  
 Vertical exaggeration in model section display = 1

Data acquisition: Josy Strunden, 6th July 2011  
 Processing: Philipp Moll, 7th July 2011  
 Profile shows the ground-layers approx. 15% thicker than in reality.  
 Comments to this/these profile/s are interpretation.

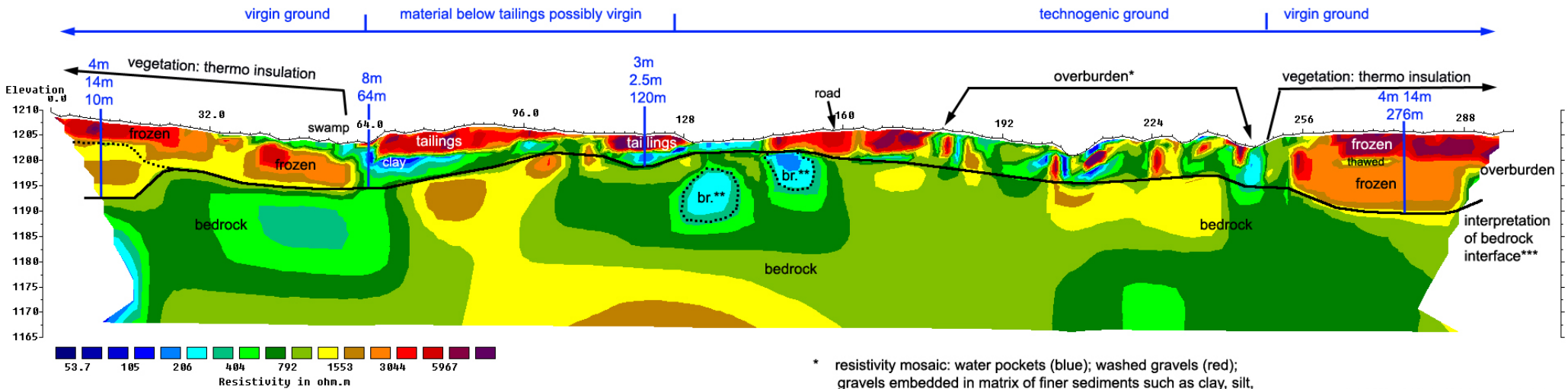
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Model resistivity with topography  
 Iteration 1 Abs. error = 1.9

Kevin\_Wu\_Klaza\_Creek\_03\_combined  
 Interpretation



Horizontal scale is 12.34 pixels per unit spacing  
 Vertical exaggeration in model section display = 1.00  
 First electrode is located at 0.0 m.  
 Last electrode is located at 298.0 m.

\* resistivity mosaic: water pockets (blue); washed gravels (red);  
 gravels embedded in matrix of finer sediments such as clay, silt,  
 sand (green). Clay-rich material likely producing a seal effect  
 creating discontinuous saturation: Overburden might be extensively  
 disturbed by former placer mining activity

\*\* possibly some 1) weathered diorite or biotite, porous, saturated with stationary  
 ion-rich water, or 2) clay-rich material

Unit Electrode Spacing = 2.00 m.

## Interpretation

Resistivity profile\_03 is located more than 600m downstream from profile\_02. The overburden shows significantly changing resistivity which potentially indicates different types of overburden such as possibly till, glaciofluvial/-lacustrine sediments, and technogenic gravel. Water saturation and frost varies again.

The bedrock, likely consisting of diorite and biotite, might again show changing resistivity as being a sign for different amounts of weathering. The turquoise and blue bodies at 130 and 150m should be some water pockets in weathered bedrock.

At 0-20m there could be a channel, filled with till or glaciofluvial deposits being 14m deep at 10m in the profile. The existence of this gravel is vague; but if it exists, it would be an attractive target for advanced placer prospecting. Alternatively the overburden could be just 4m thick consisting of frozen gravel.

At 20-64m the bedrock seems to show a slight trough possibly formed by glacial movement. The bedrock is probably covered with likely frozen pay gravel below swamp.

After 64m some thawed deposit (blue), likely being a clay-rich or water saturated deposit (2.5m thick), sitting below washed tailings (red) (3m thick), is located. The blue material below the tailings could be virgin. If this is the case, placer deposits would be plausible in this material. Alternatively, this overburden could be some worked material all the way down to bedrock.

At 110-128m the same layering is indicated: some clay-rich or water saturated sediment on top of bedrock, below tailings. A small channel with possibly an alluvial origin could be located there. At 120m the possible channel might be filled with 3m of tailings and 2.5m of gravel on top of bedrock. The lower gravel could be glaciofluvial and could bear placer gold. Alternatively, this overburden could be some worked material all the way down to bedrock.

From 128-255m the ground looks pretty much disturbed by former mining activity. The overburden seems to be a melange of different materials: washed gravel (red, violet), moist gravel which was moved by machines (green), and higher saturated material rich in fine sediments such as silt or clay (blue).

After 255m the overburden seems to be virgin. Possibly the bedrock dips down forming a deeper channel.

At 276m this possible channel might be filled with 4m of frozen muck, or gravel with higher amounts of fine sediments (matrix) between the pebbles and cobbles, on top of 10m of frozen gravel possibly having an alluvial nature. If this is the case, the lower gravel would have high potential for placer gold.

## Klaza River\_04

2D Resistivity, Schlumberger array  
 201 Electrodes: spacing 2m, Horizontal resolution 1m  
 Horizontal and vertical measure in [meter], Iteration error in [%]  
 Vertical exaggeration in model section display = 1

Data acquisition: Josy Strunden, 7-8th July 2011  
 Processing: Philipp Moll, 9th July 2011  
 Profile shows the ground-layers approx. 15% thicker than in reality.  
 Comments to this/these profile/s are interpretation.

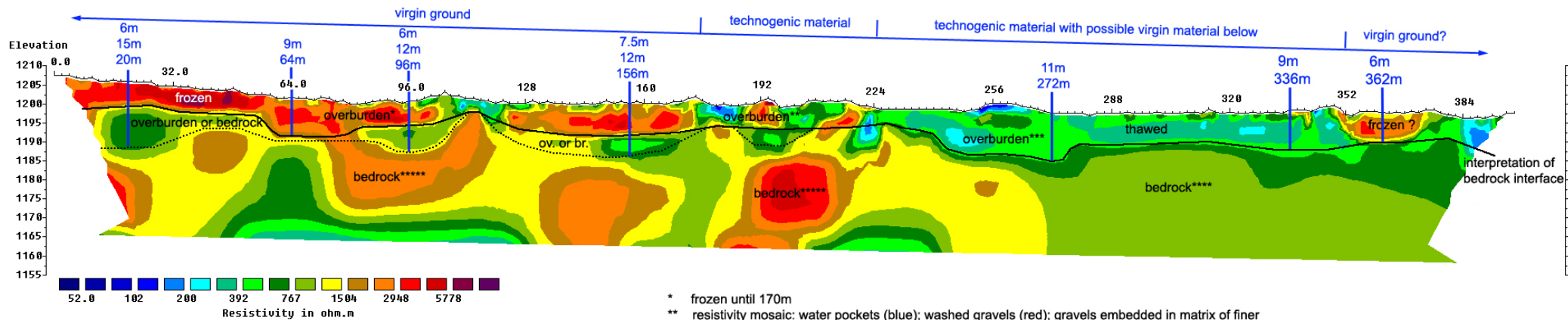
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Model resistivity with topography  
 Iteration 3 Abs. error = 2.3

Kevin\_Wu\_Klaza\_Creek\_04\_combined  
 Interpretation



Horizontal scale is 9.24 pixels per unit spacing  
 Vertical exaggeration in model section display = 1.00  
 First electrode is located at 0.0 m.  
 Last electrode is located at 398.0 m.

- \* frozen until 170m
- \*\* resistivity mosaic: water pockets (blue); washed gravels (red); gravels embedded in matrix of finer sediments such as clay, silt, sand (green). Clay-rich material likely producing a seal effect creating discontinuous saturation: overburden on top could be disturbed by former placer mining activity
- \*\*\* thawed overburden after 225m: on top: technogenic material, underneath: possibly virgin ground or former mining cut + former settling pond
- \*\*\*\* bedrock: possibly diorite or biorite, porous, partly weathered + saturated with stationary ion-rich water
- \*\*\*\*\* bedrock: possibly granodiorite

Unit Electrode Spacing = 2.00 m.

## Interpretation

Resistivity profile\_04 is located about 150m downstream from profile\_03. The overburden shows again various resistivity data in the overburden which potentially indicates different types of overburden such as till, glaciofluvial/-lacustrine sediments, and technogenic gravel. Water saturation and frost is also varying.

At 0-250m the bedrock could consist of granodiorite. The resistivity pattern refers to different amounts of weathering in the possible granodiorite bedrock. After 250m the bedrock is likely consisting of diorite or biotite.

At 0-175m the ground looks virgin. Same as interpreted in the previous profiles, the overburden might be dominated by frozen glacial till. The transition from overburden to bedrock is indistinct likely because the bedrock seems to be weathered, and overburden has sunk into weathered/fractured bedrock zones.

At 20m a frozen or dry gravel layer 6m thick on top of bedrock was measured. At a low chance another 9m of thawed gravel (green) could be deposited at this spot. However, the channel marked with the dashed line is rather unlikely.

At 64m the overburden might be 9m thick. Possibly there is channel which is estimated to be a good target for further gold placer exploration.

At 96m the overburden seems to be 5m thick. At a low chance another 6m of thawed overburden (green) could lie on the bedrock. However, the channel marked with the dashed line is not too likely.

At 175-225m the ground is extensively mined. At 192m a mining pit filled with technogenic gravel is located.

At 225-350m the property shows signs of machine work. The overburden on top of bedrock shows low resistivity and more homogeneous data. In case this section of the ground is virgin in the depth, there must be some thawed gravel with a fine matrix of clay, silt or mud. Depressions in the bedrock could be at 272m (depth 11m) and at 336m (depth 9m). The existence of small pockets carrying placer gold would be possible.

Around 362m some bowl-shaped low conducting overburden (red/orange) was measured. This feature could be some washed gravel or a glaciofluvial "channel" sitting in overburden instead of bedrock. The second case would be a hopeful target for placer gold.

After 384m the bedrock interface could drop into a channel.

## 15. References

### Literature

Chesterman W. Ch. and Lowe K.E. Field Guide to Rocks and Minerals - North America, Chanticleer Press Inc. New York 2007

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Keller, G.V. and Frischknecht, F.C. Electrical methods in geophysical prospecting. Oxford: Pergamon Press Inc. (1966)

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Robb L. Introducing to Ore-Forming Processes, Backwell Science Ltd., 2005

### Maps

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Gordey, S.P. and Makepeace, A.J. (comp.) 1999: Yukon bedrock geology in Yukon digital geology, S.P. Gordey and A.J. Makepeace (comp.); Geological Survey of Canada Open File D3826 and Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1999-1(D)

## 16. Qualification

### Philipp Moll

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01149 (0)781 970 5893 (Germany)

Email: [philipp.moll@arctic-geophysics.com](mailto:philipp.moll@arctic-geophysics.com)

### Certificate of Qualifications

I, Philipp Moll, currently residing at "Am Holderstock 6, 77652 Offenburg, Germany, do hereby certify that:



1. I have studied Geology at the University of Freiburg, Germany.
2. I have visited of geophysical field courses at the University of Karlsruhe in Germany.
3. I have been working for Arctic Geophysics Inc. since June 2007 (foundation). For this company I have carried out geophysical field surveys using 2D Resistivity, Induced Polarization, and Magnetics: Data acquisition, processing, interpretation, documentation.
4. I have done geophysical surveying for mining exploration in the Yukon since 2005, and geological prospecting for precious metals and minerals in the Yukon, NWTs, and Alaska since 1989

5. I have written the following publications/reports:

A) Numerous Assessment Reports about geophysical surveys done for Yukon mining companies, filed at Yukon Mining Recorder, Dawson City and Whitehorse, Yukon.

B) Publication about a geophysical survey (45 field days) for the Yukon Government: Yukon Geological Survey:

<http://www.geology.gov.yk.ca/recent.html> Open Files:

Moll, P., & Ostermaier, S., 2010. 2D Resistivity/IP Data Release for Placer Mining and shallow Quartz Mining - Yukon 2010. Yukon Geological Survey Miscellaneous Report MR-4. [PDF Report](#) [10.3 MB ] & [Data Profiles](#), 45.4 MB  ]

## 17. Confirmation

I have prepared this report entitled 2D Resistivity Survey on the Klaza River Property for assessment credit, and reviewed the data contained in the report titled: "Geophysical Survey with 2D Resistivity, Klaza River, Yukon". The survey was carried out by Arctic Geophysics Inc.

Offenburg, Germany, 14th November 2011

"Signed and Sealed" Philipp Moll



---

Philipp Moll

# Addendum

## Cost

### Arctic Geophysics Inc.



Geophysical Surveys • Prospecting • Consulting

Kevin Wu, Director, CEO  
CANAAN GOLD RESOURCES INC.  
#2616233 – 83<sup>RD</sup> Avenue,  
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info@arctic-geophysics.com  
[www.arctic-geophysics.com](http://www.arctic-geophysics.com)

Survey Location: Klaza River

**Invoice #** 201107101

Date: July 10th, 2011

Services provided:

Quantity	Description	Amount \$CAN
<b>Transportation</b>		
7 days	Vehicle \$ 50.-- / day	350.--
700 Km	\$ 0.45 / km	315.--
1 day	Driving \$ 380.-- / day, operator + assistant	380.--
<b>Geophysical Survey</b>		
6 days	Geoelectrical 2D-Resistivity Survey, run by one operator and one field assistant \$ 880.-- / day	5 280.--
1 day	Documentation \$ 300.-- / day	300.--
190 min	Satellite Phone \$ 1.99 / min	378.10
		<b>NET Amount</b> \$ 7 003.10
<b>GST Number</b> 846363216RT0001		<b>G.S.T. (5%)</b> \$ 350.15
<b>Total Due</b>		<b>\$ 7 353.25</b>

# Arctic Geophysics Inc.



Geophysical Surveys • Prospecting • Consulting

Kevin Wu, Director, CEO  
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Survey Location: Klaza River

**Invoice #** 201111141

Date: November 14th, 2011

Services provided:

Quantity	Description	Amount \$CAN
<b>Documentation</b>		
2 ½ days	Report writing @ \$300,--/day	750.--
	Printing/Binding/Shipping	60.--
	<b>NET Amount</b>	\$ 810.--
<b>GST Number</b> 846363216RT0001	<b>G.S.T. (5%)</b>	\$ 40.50
<b>Total Due</b>		<b>\$ 850.50</b>

# GPS-Data

## Klaza\_River 01

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
1	0	N62 07 44.8 W137 16 33.6	4	*
2	2	N62 07 44.8 W137 16 33.4	4	
3	4	N62 07 44.7 W137 16 33.2	4	
4	6	N62 07 44.8 W137 16 33.1	4	
5	8	N62 07 44.8 W137 16 32.9	4	
6	10	N62 07 44.8 W137 16 32.8	4	
7	12	N62 07 44.8 W137 16 32.7	4	
8	14	N62 07 44.8 W137 16 32.6	4	
9	16	N62 07 44.8 W137 16 32.4	4	
10	18	N62 07 44.9 W137 16 32.3	4	
11	20	N62 07 44.9 W137 16 32.2	4	
12	22	N62 07 44.9 W137 16 32.1	4	
13	24	N62 07 44.9 W137 16 31.9	4	
14	26	N62 07 44.9 W137 16 31.8	4	
15	28	N62 07 44.9 W137 16 31.7	4	
16	30	N62 07 44.9 W137 16 31.5	4	
17	32	N62 07 44.9 W137 16 31.4	4	
18	34	N62 07 44.9 W137 16 31.3	4	
19	36	N62 07 44.9 W137 16 31.1	4	
20	38	N62 07 44.9 W137 16 31.0	4	
21	40	N62 07 44.9 W137 16 30.9	4	
22	42	N62 07 44.9 W137 16 30.7	4	
23	44	N62 07 44.9 W137 16 30.6	4	
24	46	N62 07 44.9 W137 16 30.5	4	
25	48	N62 07 45.0 W137 16 30.3	4	*

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
26	50	N62 07 44.9 W137 16 30.2	4	
27	52	N62 07 45.0 W137 16 30.1	4	
28	54	N62 07 45.0 W137 16 29.9	4	
29	56	N62 07 44.9 W137 16 29.8	4	
30	58	N62 07 45.0 W137 16 29.7	4	
31	60	N62 07 44.9 W137 16 29.5	4	
32	62	N62 07 45.0 W137 16 29.4	4	
33	64	N62 07 45.0 W137 16 29.2	4	
34	66	N62 07 45.0 W137 16 29.1	4	
35	68	N62 07 45.0 W137 16 28.9	4	
36	70	N62 07 45.0 W137 16 28.7	4	
37	72	N62 07 45.0 W137 16 28.7	4	
38	74	N62 07 45.0 W137 16 28.5	4	
39	76	N62 07 45.0 W137 16 28.3	4	
40	78	N62 07 45.0 W137 16 28.2	4	
41	80	N62 07 45.0 W137 16 28.1	4	
42	82	N62 07 45.0 W137 16 27.9	4	
43	84	N62 07 45.0 W137 16 27.8	4	
44	86	N62 07 45.0 W137 16 27.7	4	
45	88	N62 07 45.0 W137 16 27.6	4	
46	90	N62 07 45.0 W137 16 27.5	4	
47	92	N62 07 45.0 W137 16 27.4	4	
48	94	N62 07 45.0 W137 16 27.3	4	
49	96	N62 07 45.0 W137 16 27.1	4	
50	98	N62 07 45.1 W137 16 27.0	4	*

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
51	100	N62 07 45.1 W137 16 26.9	4	
52	102	N62 07 45.1 W137 16 26.8	4	
53	104	N62 07 45.1 W137 16 26.6	4	
54	106	N62 07 45.1 W137 16 26.5	4	
55	108	N62 07 45.1 W137 16 26.4	4	
56	110	N62 07 45.1 W137 16 26.2	4	
57	112	N62 07 45.1 W137 16 26.1	4	
58	114	N62 07 45.1 W137 16 25.9	4	
59	116	N62 07 45.1 W137 16 25.7	4	
60	118	N62 07 45.1 W137 16 25.6	4	
61	120	N62 07 45.1 W137 16 25.5	4	
62	122	N62 07 45.1 W137 16 25.3	4	
63	124	N62 07 45.1 W137 16 25.2	4	
64	126	N62 07 45.1 W137 16 25.1	4	
65	128	N62 07 45.1 W137 16 25.0	4	
66	130	N62 07 45.1 W137 16 24.8	4	
67	132	N62 07 45.2 W137 16 24.7	4	
68	134	N62 07 45.2 W137 16 24.5	4	
69	136	N62 07 45.2 W137 16 24.4	4	
70	138	N62 07 45.2 W137 16 24.3	4	
71	140	N62 07 45.2 W137 16 24.1	4	
72	142	N62 07 45.2 W137 16 23.9	4	
73	144	N62 07 45.2 W137 16 23.7	4	
74	146	N62 07 45.1 W137 16 23.7	4	
75	148	N62 07 45.1 W137 16 23.6	4	*

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
76	150	N62 07 45.2 W137 16 23.5	4	
77	152	N62 07 45.2 W137 16 23.4	4	
78	154	N62 07 45.2 W137 16 23.3	4	
79	156	N62 07 45.1 W137 16 23.0	4	
80	158	N62 07 45.1 W137 16 22.9	4	
81	160	N62 07 45.1 W137 16 22.8	4	
82	162	N62 07 45.2 W137 16 22.7	4	
83	164	N62 07 45.2 W137 16 22.5	4	
84	166	N62 07 45.2 W137 16 22.4	4	
85	168	N62 07 45.2 W137 16 22.3	4	
86	170	N62 07 45.2 W137 16 22.2	4	
87	172	N62 07 45.2 W137 16 22.1	4	
88	174	N62 07 45.2 W137 16 21.9	4	
89	176	N62 07 45.2 W137 16 21.8	4	
90	178	N62 07 45.2 W137 16 21.6	4	
91	180	N62 07 45.3 W137 16 21.5	4	
92	182	N62 07 45.3 W137 16 21.3	4	
93	184	N62 07 45.3 W137 16 21.2	4	
94	186	N62 07 45.3 W137 16 21.1	4	
95	188	N62 07 45.3 W137 16 21.0	4	
96	190	N62 07 45.3 W137 16 20.8	4	
97	192	N62 07 45.3 W137 16 20.7	4	
98	194	N62 07 45.3 W137 16 20.6	4	
99	196	N62 07 45.4 W137 16 20.4	4	
100	198	N62 07 45.4 W137 16 20.3	4	*

## Klaza\_River 02

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
1	0	N62 07 37.7 W137 16 32.3	4	*
2	2	N62 07 37.7 W137 16 32.2	4	
3	4	N62 07 37.7 W137 16 32.1	4	
4	6	N62 07 37.7 W137 16 31.9	4	
5	8	N62 07 37.7 W137 16 31.8	4	
6	10	N62 07 37.8 W137 16 31.6	4	
7	12	N62 07 37.7 W137 16 31.5	4	
8	14	N62 07 37.7 W137 16 31.4	4	
9	16	N62 07 37.7 W137 16 31.3	4	
10	18	N62 07 37.7 W137 16 31.1	4	
11	20	N62 07 37.7 W137 16 31.0	4	
12	22	N62 07 37.7 W137 16 30.9	4	
13	24	N62 07 37.7 W137 16 30.7	4	
14	26	N62 07 37.7 W137 16 30.6	4	
15	28	N62 07 37.7 W137 16 30.5	4	
16	30	N62 07 37.7 W137 16 30.4	4	
17	32	N62 07 37.7 W137 16 30.2	4	
18	34	N62 07 37.7 W137 16 30.1	4	
19	36	N62 07 37.7 W137 16 29.9	4	
20	38	N62 07 37.7 W137 16 29.8	4	
21	40	N62 07 37.7 W137 16 29.6	4	
22	42	N62 07 37.7 W137 16 29.5	4	
23	44	N62 07 37.7 W137 16 29.4	4	
24	46	N62 07 37.7 W137 16 29.2	4	
25	48	N62 07 37.7 W137 16 29.1	4	*
26	50	N62 07 37.7 W137 16 28.9	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
27	52	N62 07 37.7 W137 16 28.8	4	
28	54	N62 07 37.7 W137 16 28.6	4	
29	56	N62 07 37.7 W137 16 28.6	4	
30	58	N62 07 37.8 W137 16 28.4	4	
31	60	N62 07 37.8 W137 16 28.3	4	
32	62	N62 07 37.7 W137 16 28.1	4	
33	64	N62 07 37.8 W137 16 28.0	4	
34	66	N62 07 37.8 W137 16 27.9	4	
35	68	N62 07 37.7 W137 16 27.7	4	
36	70	N62 07 37.7 W137 16 27.6	4	
37	72	N62 07 37.7 W137 16 27.5	4	
38	74	N62 07 37.7 W137 16 27.3	4	
39	76	N62 07 37.7 W137 16 27.2	4	
40	78	N62 07 37.7 W137 16 27.0	4	
41	80	N62 07 37.7 W137 16 26.9	4	
42	82	N62 07 37.7 W137 16 26.7	4	
43	84	N62 07 37.7 W137 16 26.6	4	
44	86	N62 07 37.7 W137 16 26.4	4	
45	88	N62 07 37.7 W137 16 26.3	4	
46	90	N62 07 37.7 W137 16 26.2	4	
47	92	N62 07 37.7 W137 16 26.1	4	
48	94	N62 07 37.7 W137 16 25.9	4	
49	96	N62 07 37.7 W137 16 25.8	4	
50	98	N62 07 37.7 W137 16 25.7	4	*
51	100	N62 07 37.7 W137 16 25.6	4	
52	102	N62 07 37.8 W137 16 25.4	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
53	104	N62 07 37.8 W137 16 25.3	4	
54	106	N62 07 37.8 W137 16 25.1	4	
55	108	N62 07 37.8 W137 16 25.0	4	
56	110	N62 07 37.8 W137 16 24.8	4	
57	112	N62 07 37.8 W137 16 24.7	4	
58	114	N62 07 37.8 W137 16 24.5	4	
59	116	N62 07 37.8 W137 16 24.4	4	
60	118	N62 07 37.8 W137 16 24.3	4	
61	120	N62 07 37.8 W137 16 24.1	4	
62	122	N62 07 37.8 W137 16 24.0	4	
63	124	N62 07 37.8 W137 16 23.8	4	
64	126	N62 07 37.8 W137 16 23.7	4	
65	128	N62 07 37.8 W137 16 23.6	4	
66	130	N62 07 37.8 W137 16 23.4	4	
67	132	N62 07 37.8 W137 16 23.3	4	
68	134	N62 07 37.8 W137 16 23.1	4	
69	136	N62 07 37.8 W137 16 23.0	4	
70	138	N62 07 37.8 W137 16 22.9	4	
71	140	N62 07 37.8 W137 16 22.7	4	
72	142	N62 07 37.8 W137 16 22.6	4	
73	144	N62 07 37.8 W137 16 22.5	4	
74	146	N62 07 37.8 W137 16 22.3	4	
75	148	N62 07 37.8 W137 16 22.2	4	*
76	150	N62 07 37.8 W137 16 22.1	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
77	152	N62 07 37.9 W137 16 21.9	4	
78	154	N62 07 37.9 W137 16 21.8	4	
79	156	N62 07 37.9 W137 16 21.7	4	
80	158	N62 07 37.9 W137 16 21.6	4	
81	160	N62 07 38.0 W137 16 21.4	4	
82	162	N62 07 38.0 W137 16 21.3	4	
83	164	N62 07 38.0 W137 16 21.2	4	
84	166	N62 07 38.0 W137 16 21.1	4	
85	168	N62 07 38.0 W137 16 20.9	4	
86	170	N62 07 38.0 W137 16 20.8	4	
87	172	N62 07 38.0 W137 16 20.6	4	
88	174	N62 07 38.1 W137 16 20.5	4	
89	176	N62 07 38.1 W137 16 20.4	4	
90	178	N62 07 38.1 W137 16 20.3	4	
91	180	N62 07 38.1 W137 16 20.1	4	
92	182	N62 07 38.1 W137 16 20.0	4	
93	184	N62 07 38.1 W137 16 19.9	4	
94	186	N62 07 38.1 W137 16 19.7	4	
95	188	N62 07 38.1 W137 16 19.6	4	
96	190	N62 07 38.1 W137 16 19.5	4	
97	192	N62 07 38.2 W137 16 19.3	4	
98	194	N62 07 38.2 W137 16 19.2	4	
99	196	N62 07 38.2 W137 16 19.1	4	
100	198	N62 07 38.2 W137 16 19.0	4	*

### Klaza\_River 03

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
1	0	N62 08 05.2 W137 16 42.6	4	*
2	2	N62 08 05.2 W137 16 42.5	4	
3	4	N62 08 05.2 W137 16 42.3	4	
4	6	N62 08 05.2 W137 16 42.2	4	
5	8	N62 08 05.2 W137 16 42.0	4	
6	10	N62 08 05.3 W137 16 41.9	4	
7	12	N62 08 05.3 W137 16 41.7	4	
8	14	N62 08 05.3 W137 16 41.6	4	
9	16	N62 08 05.3 W137 16 41.4	4	
10	18	N62 08 05.3 W137 16 41.3	4	
11	20	N62 08 05.4 W137 16 41.2	4	
12	22	N62 08 05.4 W137 16 41.0	4	
13	24	N62 08 05.4 W137 16 40.9	4	
14	26	N62 08 05.4 W137 16 40.8	4	
15	28	N62 08 05.4 W137 16 40.7	4	
16	30	N62 08 05.5 W137 16 40.5	4	
17	32	N62 08 05.5 W137 16 40.4	4	
18	34	N62 08 05.5 W137 16 40.3	4	
19	36	N62 08 05.5 W137 16 40.1	4	
20	38	N62 08 05.5 W137 16 40.0	4	
21	40	N62 08 05.6 W137 16 39.9	4	
22	42	N62 08 05.6 W137 16 39.7	4	
23	44	N62 08 05.6 W137 16 39.6	4	
24	46	N62 08 05.6 W137 16 39.4	4	
25	48	N62 08 05.6 W137 16 39.3	4	*
26	50	N62 08 05.7 W137 16 39.2	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
27	52	N62 08 05.7 W137 16 39.0	4	
28	54	N62 08 05.7 W137 16 38.9	4	
29	56	N62 08 05.7 W137 16 38.8	4	
30	58	N62 08 05.7 W137 16 38.6	4	
31	60	N62 08 05.8 W137 16 38.5	4	
32	62	N62 08 05.8 W137 16 38.4	4	
33	64	N62 08 05.8 W137 16 38.3	4	
34	66	N62 08 05.9 W137 16 38.1	4	
35	68	N62 08 05.9 W137 16 38.0	4	
36	70	N62 08 05.9 W137 16 37.9	4	
37	72	N62 08 05.9 W137 16 37.7	4	
38	74	N62 08 05.9 W137 16 37.6	4	
39	76	N62 08 06.0 W137 16 37.5	4	
40	78	N62 08 06.0 W137 16 37.4	4	
41	80	N62 08 06.0 W137 16 37.2	4	
42	82	N62 08 06.0 W137 16 37.1	4	
43	84	N62 08 06.1 W137 16 36.9	4	
44	86	N62 08 06.1 W137 16 36.8	4	
45	88	N62 08 06.1 W137 16 36.7	4	
46	90	N62 08 06.1 W137 16 36.5	4	
47	92	N62 08 06.2 W137 16 36.4	4	
48	94	N62 08 06.2 W137 16 36.3	4	
49	96	N62 08 06.2 W137 16 36.2	4	
50	98	N62 08 06.2 W137 16 36.1	4	*
51	100	N62 08 06.2 W137 16 35.9	4	
52	102	N62 08 06.3 W137 16 35.8	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
53	104	N62 08 06.3 W137 16 35.6	4	
54	106	N62 08 06.3 W137 16 35.5	4	
55	108	N62 08 06.3 W137 16 35.4	4	
56	110	N62 08 06.3 W137 16 35.2	4	
57	112	N62 08 06.3 W137 16 35.1	4	
58	114	N62 08 06.4 W137 16 35.0	4	
59	116	N62 08 06.4 W137 16 34.9	4	
60	118	N62 08 06.4 W137 16 34.7	4	
61	120	N62 08 06.4 W137 16 34.6	4	
62	122	N62 08 06.4 W137 16 34.5	4	
63	124	N62 08 06.5 W137 16 34.4	4	
64	126	N62 08 06.5 W137 16 34.2	4	
65	128	N62 08 06.5 W137 16 33.9	4	
66	130	N62 08 06.5 W137 16 33.8	4	
67	132	N62 08 06.5 W137 16 33.7	4	
68	134	N62 08 06.5 W137 16 33.6	4	
69	136	N62 08 06.5 W137 16 33.5	4	
70	138	N62 08 06.6 W137 16 33.3	4	
71	140	N62 08 06.6 W137 16 33.2	4	
72	142	N62 08 06.6 W137 16 33.1	4	
73	144	N62 08 06.6 W137 16 32.9	4	
74	146	N62 08 06.6 W137 16 32.8	4	
75	148	N62 08 06.6 W137 16 32.6	4	*
76	150	N62 08 06.7 W137 16 32.5	4	
77	152	N62 08 06.7 W137 16 32.4	4	
78	154	N62 08 06.7 W137 16 32.3	4	
79	156	N62 08 06.7 W137 16 32.1	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
80	158	N62 08 06.7 W137 16 32.0	4	
81	160	N62 08 06.7 W137 16 31.9	4	
82	162	N62 08 06.7 W137 16 31.7	4	
83	164	N62 08 06.8 W137 16 31.6	4	
84	166	N62 08 06.8 W137 16 31.6	4	
85	168	N62 08 06.8 W137 16 31.4	4	
86	170	N62 08 06.8 W137 16 31.3	4	
87	172	N62 08 06.8 W137 16 31.2	4	
88	174	N62 08 06.8 W137 16 31.1	4	
89	176	N62 08 06.8 W137 16 30.9	4	
90	178	N62 08 06.8 W137 16 30.8	4	
91	180	N62 08 06.9 W137 16 30.7	4	
92	182	N62 08 06.9 W137 16 30.6	4	
93	184	N62 08 06.9 W137 16 30.4	4	
94	186	N62 08 06.9 W137 16 30.3	4	
95	188	N62 08 06.9 W137 16 30.1	4	
96	190	N62 08 07.0 W137 16 30.0	4	
97	192	N62 08 07.0 W137 16 29.9	4	
98	194	N62 08 07.0 W137 16 29.8	4	
99	196	N62 08 07.1 W137 16 29.6	4	
100	198	N62 08 07.1 W137 16 29.5	4	*
101	200	N62 08 07.1 W137 16 29.5	4	
102	202	N62 08 07.1 W137 16 29.4	4	
103	204	N62 08 07.2 W137 16 29.2	4	
104	206	N62 08 07.2 W137 16 29.1	4	
105	208	N62 08 07.2 W137 16 29.0	4	
106	210	N62 08 07.2 W137 16 28.8	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
107	212	N62 08 07.3 W137 16 28.6	4	
108	214	N62 08 07.3 W137 16 28.6	4	
109	216	N62 08 07.3 W137 16 28.5	4	
110	218	N62 08 07.3 W137 16 28.4	4	
111	220	N62 08 07.3 W137 16 28.1	4	
112	222	N62 08 07.4 W137 16 28.1	4	
113	224	N62 08 07.4 W137 16 27.9	4	
114	226	N62 08 07.4 W137 16 27.8	4	
115	228	N62 08 07.4 W137 16 27.7	4	
116	230	N62 08 07.4 W137 16 27.6	4	
117	232	N62 08 07.5 W137 16 27.4	4	
118	234	N62 08 07.5 W137 16 27.1	4	
119	236	N62 08 07.5 W137 16 27.1	4	
120	238	N62 08 07.5 W137 16 26.9	4	
121	240	N62 08 07.5 W137 16 26.8	4	
122	242	N62 08 07.5 W137 16 26.7	4	
124	246	N62 08 07.5 W137 16 26.5	4	
125	248	N62 08 07.5 W137 16 26.4	4	*
126	250	N62 08 07.5 W137 16 26.2	4	
127	252	N62 08 07.5 W137 16 26.1	4	
128	254	N62 08 07.6 W137 16 25.9	4	
129	256	N62 08 07.6 W137 16 25.8	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
130	258	N62 08 07.6 W137 16 25.7	4	
131	260	N62 08 07.7 W137 16 25.6	4	
132	262	N62 08 07.7 W137 16 25.4	4	
133	264	N62 08 07.7 W137 16 25.3	4	
134	266	N62 08 07.7 W137 16 25.2	4	
135	268	N62 08 07.7 W137 16 25.1	4	
136	270	N62 08 07.8 W137 16 24.9	4	
137	272	N62 08 07.8 W137 16 24.8	4	
138	274	N62 08 07.8 W137 16 24.7	4	
139	276	N62 08 07.8 W137 16 24.6	4	
140	278	N62 08 07.9 W137 16 24.4	4	
141	280	N62 08 07.9 W137 16 24.3	4	
142	282	N62 08 07.9 W137 16 24.2	4	
143	284	N62 08 08.0 W137 16 24.1	4	
144	286	N62 08 07.9 W137 16 23.9	4	
145	288	N62 08 08.0 W137 16 23.8	4	
146	290	N62 08 08.0 W137 16 23.7	4	
147	292	N62 08 08.0 W137 16 23.5	4	
148	294	N62 08 08.1 W137 16 23.4	4	
149	296	N62 08 08.1 W137 16 23.3	4	
150	298	N62 08 08.1 W137 16 23.2	4	*

## Klaza\_River 04

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
1	0	N62 08 10.8 W137 16 51.6	4	*
2	2	N62 08 10.8 W137 16 51.4	4	
3	4	N62 08 10.9 W137 16 51.3	4	
4	6	N62 08 10.9 W137 16 51.2	4	
5	8	N62 08 10.9 W137 16 51.0	4	
6	10	N62 08 10.9 W137 16 50.9	4	
7	12	N62 08 10.9 W137 16 50.8	4	
8	14	N62 08 10.9 W137 16 50.6	4	
9	16	N62 08 11.0 W137 16 50.5	4	
10	18	N62 08 11.0 W137 16 50.4	4	
11	20	N62 08 11.0 W137 16 50.2	4	
12	22	N62 08 11.0 W137 16 50.1	4	
13	24	N62 08 11.0 W137 16 50.0	4	
14	26	N62 08 11.0 W137 16 49.8	4	
15	28	N62 08 11.0 W137 16 49.6	4	
16	30	N62 08 11.0 W137 16 49.5	4	
17	32	N62 08 11.0 W137 16 49.4	4	
18	34	N62 08 11.0 W137 16 49.3	4	
19	36	N62 08 11.0 W137 16 49.1	4	
20	38	N62 08 11.1 W137 16 49.0	4	
21	40	N62 08 11.1 W137 16 48.9	4	
22	42	N62 08 11.1 W137 16 48.7	4	
23	44	N62 08 11.1 W137 16 48.6	4	
24	46	N62 08 11.1 W137 16 48.4	4	
25	48	N62 08 11.1 W137 16 48.3	4	*
26	50	N62 08 11.1 W137 16 48.2	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
27	52	N62 08 11.1 W137 16 48.1	4	
28	54	N62 08 11.1 W137 16 47.9	4	
29	56	N62 08 11.1 W137 16 47.8	4	
30	58	N62 08 11.1 W137 16 47.7	4	
31	60	N62 08 11.1 W137 16 47.5	4	
32	62	N62 08 11.1 W137 16 47.4	4	
33	64	N62 08 11.1 W137 16 47.3	4	
34	66	N62 08 11.2 W137 16 47.1	4	
35	68	N62 08 11.2 W137 16 47.0	4	
36	70	N62 08 11.2 W137 16 46.8	4	
37	72	N62 08 11.2 W137 16 46.7	4	
38	74	N62 08 11.2 W137 16 46.6	4	
39	76	N62 08 11.2 W137 16 46.4	4	
40	78	N62 08 11.2 W137 16 46.3	4	
41	80	N62 08 11.2 W137 16 46.1	4	
42	82	N62 08 11.2 W137 16 46.0	4	
43	84	N62 08 11.2 W137 16 45.9	4	
44	86	N62 08 11.2 W137 16 45.7	4	
45	88	N62 08 11.2 W137 16 45.6	4	
46	90	N62 08 11.2 W137 16 45.4	4	
47	92	N62 08 11.2 W137 16 45.3	4	
48	94	N62 08 11.2 W137 16 45.1	4	
49	96	N62 08 11.2 W137 16 45.0	4	
50	98	N62 08 11.3 W137 16 45.0	4	*
51	100	N62 08 11.3 W137 16 44.8	4	
52	102	N62 08 11.3 W137 16 44.6	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
53	104	N62 08 11.3 W137 16 44.5	4	
54	106	N62 08 11.3 W137 16 44.4	4	
55	108	N62 08 11.3 W137 16 44.2	4	
56	110	N62 08 11.3 W137 16 44.1	4	
57	112	N62 08 11.3 W137 16 44.0	4	
58	114	N62 08 11.3 W137 16 43.8	4	
59	116	N62 08 11.3 W137 16 43.7	4	
60	118	N62 08 11.4 W137 16 43.5	4	
61	120	N62 08 11.4 W137 16 43.4	4	
62	122	N62 08 11.4 W137 16 43.4	4	
63	124	N62 08 11.4 W137 16 43.2	4	
64	126	N62 08 11.4 W137 16 43.1	4	
65	128	N62 08 11.4 W137 16 42.9	4	
66	130	N62 08 11.4 W137 16 42.8	4	
67	132	N62 08 11.5 W137 16 42.7	4	
68	134	N62 08 11.5 W137 16 42.5	4	
69	136	N62 08 11.5 W137 16 42.4	4	
70	138	N62 08 11.5 W137 16 42.3	4	
71	140	N62 08 11.5 W137 16 42.1	4	
72	142	N62 08 11.5 W137 16 42.0	4	
73	144	N62 08 11.5 W137 16 41.9	4	
74	146	N62 08 11.5 W137 16 41.7	4	
75	148	N62 08 11.5 W137 16 41.6	4	*
76	150	N62 08 11.6 W137 16 41.3	4	
77	152	N62 08 11.6 W137 16 41.1	4	
78	154	N62 08 11.6 W137 16 41.0	4	
79	156	N62 08 11.6 W137 16 41.0	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
80	158	N62 08 11.7 W137 16 40.7	4	
81	160	N62 08 11.7 W137 16 40.6	4	
82	162	N62 08 11.7 W137 16 40.5	4	
83	164	N62 08 11.7 W137 16 40.4	4	
84	166	N62 08 11.7 W137 16 40.2	4	
85	168	N62 08 11.7 W137 16 40.1	4	
86	170	N62 08 11.7 W137 16 39.9	4	
87	172	N62 08 11.7 W137 16 39.8	4	
88	174	N62 08 11.7 W137 16 39.6	4	
89	176	N62 08 11.7 W137 16 39.5	4	
90	178	N62 08 11.7 W137 16 39.4	4	
91	180	N62 08 11.8 W137 16 39.3	4	
92	182	N62 08 11.8 W137 16 39.2	4	
93	184	N62 08 11.8 W137 16 39.1	4	
94	186	N62 08 11.8 W137 16 38.9	4	
95	188	N62 08 11.8 W137 16 38.7	4	
96	190	N62 08 11.8 W137 16 38.6	4	
97	192	N62 08 11.8 W137 16 38.5	4	
98	194	N62 08 11.8 W137 16 38.4	4	
99	196	N62 08 11.8 W137 16 38.2	4	
100	198	N62 08 11.8 W137 16 38.0	4	*
101	200	N62 08 11.8 W137 16 37.9	4	
102	202	N62 08 11.8 W137 16 37.8	4	
103	204	N62 08 11.8 W137 16 37.7	4	
104	206	N62 08 11.8 W137 16 37.5	4	
105	208	N62 08 11.8 W137 16 37.4	4	
106	210	N62 08 11.8 W137 16 37.3	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
107	212	N62 08 11.8 W137 16 37.1	4	
108	214	N62 08 11.8 W137 16 37.0	4	
109	216	N62 08 11.8 W137 16 36.9	4	
110	218	N62 08 11.8 W137 16 36.7	4	
111	220	N62 08 11.8 W137 16 36.6	4	
112	222	N62 08 11.8 W137 16 36.5	4	
113	224	N62 08 11.8 W137 16 36.4	4	
114	226	N62 08 11.8 W137 16 36.3	4	
115	228	N62 08 11.8 W137 16 36.1	4	
116	230	N62 08 11.8 W137 16 36.0	4	
117	232	N62 08 11.9 W137 16 35.8	4	
118	234	N62 08 11.9 W137 16 35.7	4	
119	236	N62 08 11.9 W137 16 35.5	4	
120	238	N62 08 11.9 W137 16 35.4	4	
121	240	N62 08 11.9 W137 16 35.3	4	
122	242	N62 08 11.9 W137 16 35.1	4	
124	246	N62 08 11.9 W137 16 35.0	4	
125	248	N62 08 11.9 W137 16 34.9	4	*
126	250	N62 08 11.9 W137 16 34.8	4	
127	252	N62 08 11.9 W137 16 34.7	4	
128	254	N62 08 11.9 W137 16 34.5	4	
129	256	N62 08 11.9 W137 16 34.4	4	
130	258	N62 08 11.9 W137 16 34.2	4	
131	260	N62 08 11.9 W137 16 34.1	4	
132	262	N62 08 11.9 W137 16 34.0	4	
133	264	N62 08 11.9 W137 16 33.8	4	
134	266	N62 08 11.9 W137 16 33.7	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
135	268	N62 08 11.9 W137 16 33.6	4	
136	270	N62 08 12.0 W137 16 33.4	4	
137	272	N62 08 12.0 W137 16 33.3	4	
138	274	N62 08 12.0 W137 16 33.2	4	
139	276	N62 08 12.0 W137 16 33.1	4	
140	278	N62 08 12.0 W137 16 33.0	4	
141	280	N62 08 12.0 W137 16 32.8	4	
142	282	N62 08 12.0 W137 16 32.7	4	
143	284	N62 08 12.0 W137 16 32.5	4	
144	286	N62 08 12.0 W137 16 32.4	4	
145	288	N62 08 12.0 W137 16 32.3	4	
146	290	N62 08 12.0 W137 16 32.1	4	
147	292	N62 08 12.0 W137 16 31.9	4	
148	294	N62 08 12.1 W137 16 31.8	4	
149	296	N62 08 12.1 W137 16 31.7	4	
150	298	N62 08 12.1 W137 16 31.5	4	*
151	300	N62 08 12.1 W137 16 31.4	4	
152	302	N62 08 12.1 W137 16 31.2	4	
153	304	N62 08 12.1 W137 16 31.1	4	
154	306	N62 08 12.1 W137 16 30.9	4	
155	308	N62 08 12.1 W137 16 30.8	4	
156	310	N62 08 12.1 W137 16 30.6	4	
157	312	N62 08 12.1 W137 16 30.5	4	
158	314	N62 08 12.1 W137 16 30.4	4	
159	316	N62 08 12.1 W137 16 30.2	4	
160	318	N62 08 12.1 W137 16 30.1	4	
161	320	N62 08 12.1 W137 16 29.9	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
162	322	N62 08 12.1 W137 16 29.8	4	
163	324	N62 08 12.1 W137 16 29.7	4	
164	326	N62 08 12.1 W137 16 29.6	4	
165	328	N62 08 12.1 W137 16 29.4	4	
166	330	N62 08 12.1 W137 16 29.3	4	
167	332	N62 08 12.1 W137 16 29.1	4	
168	334	N62 08 12.2 W137 16 29.0	4	
169	336	N62 08 12.2 W137 16 28.9	4	
170	338	N62 08 12.2 W137 16 28.7	4	
171	340	N62 08 12.1 W137 16 28.6	4	
172	342	N62 08 12.2 W137 16 28.5	4	
173	344	N62 08 12.1 W137 16 28.3	4	
174	346	N62 08 12.2 W137 16 28.2	4	
175	348	N62 08 12.1 W137 16 28.1	4	*
176	350	N62 08 12.1 W137 16 27.9	4	
177	352	N62 08 12.2 W137 16 27.8	4	
178	354	N62 08 12.2 W137 16 27.7	4	
179	356	N62 08 12.2 W137 16 27.5	4	
180	358	N62 08 12.2 W137 16 27.4	4	
181	360	N62 08 12.2 W137 16 27.3	4	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/Longitude	GPS-Accuracy [m]	Post [ * ]
182	362	N62 08 12.2 W137 16 27.2	4	
183	364	N62 08 12.2 W137 16 27.0	4	
184	366	N62 08 12.2 W137 16 26.9	4	
185	368	N62 08 12.2 W137 16 26.8	4	
186	370	N62 08 12.2 W137 16 26.7	4	
187	372	N62 08 12.2 W137 16 26.5	4	
188	374	N62 08 12.2 W137 16 26.4	4	
189	376	N62 08 12.2 W137 16 26.2	4	
190	378	N62 08 12.2 W137 16 26.1	4	
191	380	N62 08 12.2 W137 16 26.0	4	
192	382	N62 08 12.2 W137 16 25.8	4	
193	384	N62 08 12.2 W137 16 25.7	4	
194	386	N62 08 12.2 W137 16 25.5	4	
195	388	N62 08 12.2 W137 16 25.4	4	
196	390	N62 08 12.2 W137 16 25.2	4	
197	392	N62 08 12.2 W137 16 25.1	4	
198	394	N62 08 12.2 W137 16 25.0	4	
199	396	N62 08 12.2 W137 16 24.9	4	
200	398	N62 08 12.2 W137 16 24.8	4	*