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Oskarshamn site investigation

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Abstract

This report presents the Boremap mapping of MDZ boreholes KLX22A, KLX22B, KLX23A and KLX23B.

The purpose of the MDZ core drilled boreholes is to obtain enhanced knowledge and understanding for the assessment of hydraulic patterns and physical properties as well as the properties and need of injection, by comparing the relation of existing structures to lithology, orientation, geophysical character, rock stress, ground-water conditions and tectonics in the area of interest.

A total of five sections in KLX22A and KLX22B, and four sections in KLX23A and KLX23B have been highlighted based on anomalous fracture frequencies, alterations and structural features.

The lithology in KLX23A and KLX23B is totally dominated by quartz monzodiorite (501036). KLX22A and KLX22B are also dominated by quartz monzodiorite (501036), with subordinate rock type, fine-grained diorite-gabbro (505102).

Sammanfattning

Denna rapport presenterar boremapkarteringen av MDZ borrhålen KLX22A, KLX22B, KLX23Ao och KLX23B.

Målsättningen med MDZ kärnborrhålen är att erhålla ökad kunskap och förståelse för bedömning av det aktuella områdets hydrauliska mönster, fysikaliska egenskaper och behov av injektering genom att sammanställa befintliga strukturers koppling till litologi, orientering, geofysisk karaktär, bergspänning, grundvattenförhållanden och tektonik.

Totalt fem sektioner i KLX22A och KLX22B samt fyra sektioner i KLX23A och KLX23B kan urskiljas baserat på förhöjd sprickfrekvens, sidobergsomvandlingar och geologiska strukturer.

Litologin i samtliga borrhål domineras av kvartsmonzodiorit (501036), vilket är den totalt dominerande bergarten i KLX23A och KLX23B. Underordnad bergart i KLX22A och KLX22B är finkornig diorit-gabbro (505102).

Contents

1 Introduction

This document reports the data gained from the mapping of MDZ boreholes (Minor Deformation Zone) KLX22A, KLX22B, KLX23A and KLX23B in the Laxemar area, which is one of the activities performed within the site investigation at Oskarshamn The work was carried out in accordance with Activity Plan AP PS 400-06-088. In Table 1-1 controlling documents for performing this activity are listed. Both Activity Plan and Method Descriptions are SKB's internal controlling documents.

The MDZ boreholes are situated within the Laxemar area (Figure 1-1). Mapping of the drill cores was performed between 2006-07-13 and 2006-07-25. Table 1-2 shows the orientation of the boreholes.

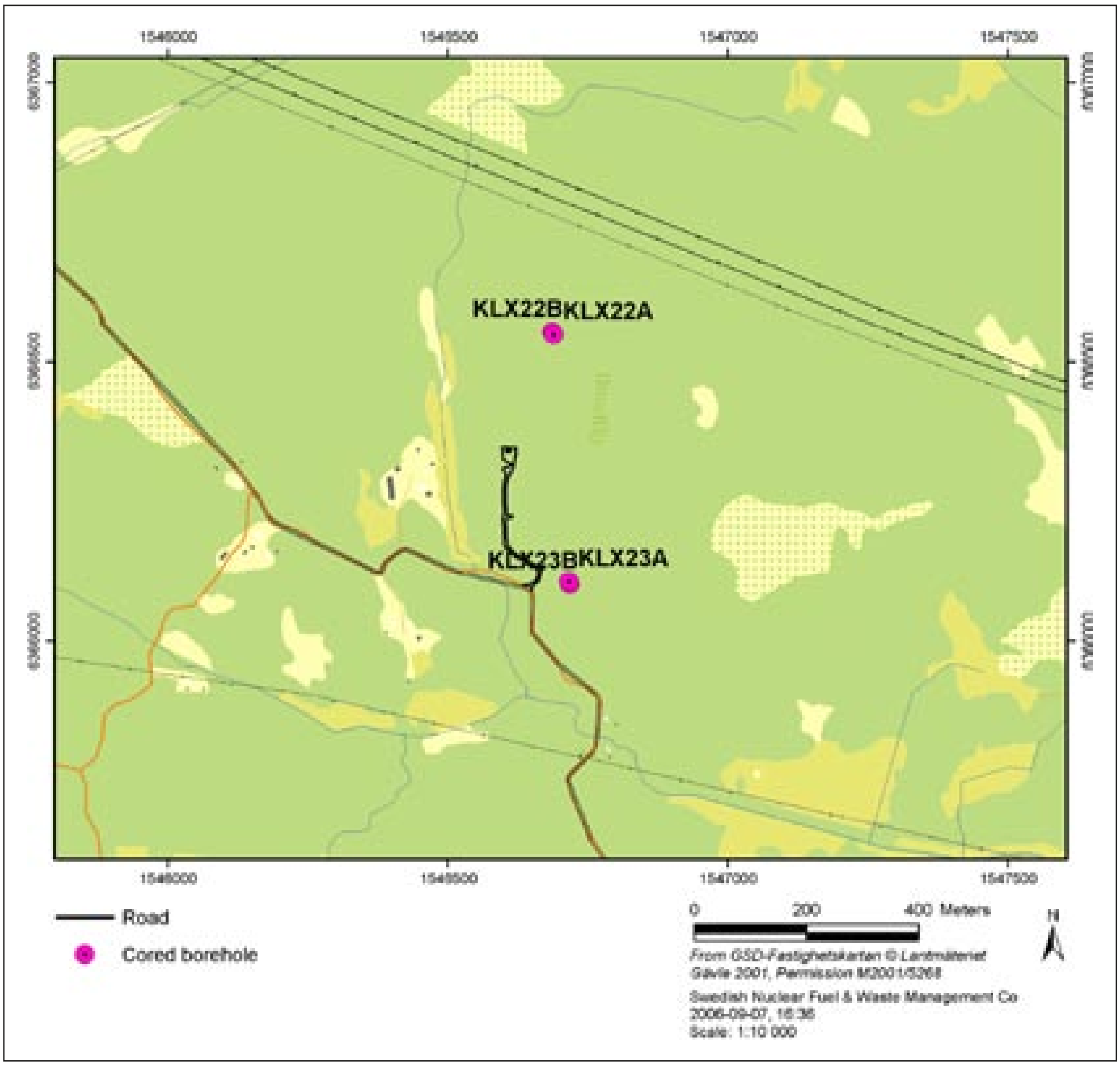


Figure 1-1. *Location of the core drilled MDZ boreholes.*

Table 1-1. Controlling documents for the performance of the activity.

Activity Plan	Number	Version
Boremapkartering av KLX22A, KLX22B, KLX23A and KLX23B	AP PS 400-06-088	1.0
Method Descriptions	**Number**	**Version**
Nomenklatur vid Boremapkartering	SKB MD 143.008	1.0
Method Description for Boremap mapping	SKB MD 143.006	2.0
Mätsystembeskrivning för Boremap	SKB MD 146.005	1.0
Instruktion: Regler för bergarters benämningar vid platsundersökningen i Oskarshamn	SKB MD 132.004	1.0
Instruktion för längdkalibrering vid undersökningar i kärnborrhål	SKB MD 620.010	2.0

Table 1-2. Orientation of the MDZ boreholes.

Borehole	Declination (°)	Inclination (°)	Length (m)
KLX22A	179.19	–59.92	~100.50
KLX22B	343.97	–61.24	~100.00
KLX23A	028.73	–61.23	~100.00
KLX23B	121.36	–60.53	50.00

Detailed mapping of the drill core is essential for a three dimensional modelling of the geology at depth. The mapping is based on the use of BIPS-image (Borehole Image Processing System) of the borehole wall and by the study of the drill core itself. The BIPS-image enables the study of orientations, since the Boremap software calculates strike and dip of planar features such as foliations, rock contacts and fractures.

2 Objective and scope

The core drilled boreholes KLX22A, KLX22B, KLX23A and KLX23B are drilled within the Minor Deformation Zone program (MDZ).

The purpose of the MDZ program is to obtain enhanced knowledge and understanding for the assessment of hydraulic patterns, physical properties and the need of injection by compiling the relation of existing structures to lithology, orientation, geophysical character, rock stress, ground-water conditions and tectonics in the area of interest.

3 Equipment

3.1 Description of software

Software used for the mapping was Boremap v.3.7, with bedrock and mineral standards of SKB. The data presentation was made using WellCad v.4, Microsoft Access and Microsoft Excel. Boremap is the software that unites orthodox core mapping with modern video mapping, where Boremap shows the image from BIPS (Borehole Image Processing System) and extracts the geometrical parameters: length, width, strike and dip from the image.

3.2 Other equipment

The following equipment is used to facilitate the core mapping: folding rule and pen, diluted hydrochloric acid, knife, water-filled atomiser and hand lens.

3.3 BIPS-image sequences

Table 3-1. BIPS-image length.

Borehole	Length (m)
KLX22A	9.30–99.55
KLX22B	4.010–99.985
KLX23A	4.010–99.960
KLX23B	4.000–50.005

3.4 BIPS-image: resolution, contrast and quality

The visibility of thin fractures in BIPS depends on image resolution, image contrast and image quality. Resolution of the BIPS-image is perhaps the principal reason why very thin fractures as well as very thin apertures are not visible in the BIPS-image and the resolution depends on the BIPS video camera pixel size and illumination angle.

Thick fractures are always visible in both drill core and the BIPS-image. However, the visibility of thin fractures depends strongly on the contrast between the fracture and the wall rock. A bright fracture in a dark rock is clearly visible in the BIPS-image. But a bright coloured fracture in a light coloured rock might, however, be clearly visible in the drill core but not visible in the BIPS-image, especially if the fracture and wall rock have the same colour. The opposite is true for dark fractures.

In very rare cases when the BIPS-image contrast between a very thin fracture and the wall rock is very strong the fracture might be visible in the BIPS-image even if it is not visible in the drill core.

BIPS-image quality is sometimes limited due to:

1) blackish coatings probably related to the drilling equipment,
2) vertical bleached bands from the clayey mixture of drill cuttings and water,
3) light and dark bands at high angle to the drill hole related to the automatic aperture of the video camera,
4) vertical enlargements of pixels due to stick-slip movement of the camera probe.

Vertical bleached bands and blackish coatings are usually the main disturbances in the BIPS-image quality.

The image quality is classified into four levels; good, acceptable, bad and very bad. With good quality it means a more or less clear image which is easy to interpret. If the quality is acceptable it means that the image is not good, but the mapping can be performed without any problems. An image of bad quality is somewhat difficult to interpret while an image of very bad quality cannot be interpreted except from very obvious and outstanding features. It should be remembered that even if only 10–20% of the image is visible, this is often enough for an acceptable interpretation. When the BIPS-image quality is so bad that fractures and structures cannot be identified they can still be oriented using the *guide-line method* (Section 4.3.3). The BIPS-image quality for the MDZ boreholes is presented in Table 3-2.

Table 3-2. BIPS-image quality.

Borehole	Interval (m)	Quality
KLX22A	4.0–9.2	Acceptable
	9.2–19.0	Good
	19.0–100.4	Acceptable
KLX22B	4.0–22.0	Good
	22.0–99.9	Acceptable
KLX23A	4.0–15.1	Acceptable
	15.1–83.5	Good
	83.5–95.2	Acceptable
	95.2–100.0	Bad
KLX23B	4.0–38.0	Good
	38.0–45.5	Acceptable
	45.5–50	Bad

4 Execution

4.1 General

Mapping of the drill core of the telescopic drilled boreholes was performed and documented according to Activity Plan AP PS 400-06-088 (SKB, internal document) referring to the *Method Description for Boremap mapping* (SKB MD 143.006, v.2.0) and *Nomenklatur vid Boremapkartering* (SKB MD 143.008, v.1.0), all of them SKB internal documents.

The drill core was displayed on inclined roller tables and mapped in its entire length with the Boremap software. The core mapping was carried out without any detailed geological knowledge of the area but with access to geophysical logs from the borehole and rock samples.

The term *oxidation* has been used as an alteration type until the mapping of KLX05. However, research has shown that the red colour of the bedrock is actually not only a result of oxidation. Since April 2005 the term *red staining* is used instead of the term *oxidation.*

The mapping was performed by Stefan Eklund (Geosigma AB) and Jan Ehrenborg (MIRAB.)

4.2 Preparations

Any depth registered in the BIPS-image deviates from the true depth in the borehole, a deviation which increases with depth, about 0.5 m/100 m. This problem is usually eliminated by adjusting the depth of the BIPS-image to reference slots cut into the borehole walls every fiftieth meter, but the MDZ boreholes lack these reference marks.

Necessary data adjustment is borehole diameter, reference marks, length and deviation; both collected from SICADA database (Appendices 6, 7 and 8). The Boremap software uses all the data extracted from SICADA database to calculate the true orientations of the different observations.

4.3 Execution of measurements

Concepts used during the core mapping, are defined in this chapter.

4.3.1 Fracture definitions

Definitions of different fracture types and aperture crush zones and sealed fracture network are found in *Nomenklatur vid Boremapkartering* (SKB MD 143.008, v.1.0), SKB internal document. Apertures for broken fractures have been mapped in accordance with the definitions in MD 143.008 v.1.0.

Two types of fractures are mapped in Boremap; broken and unbroken. Broken are fractures that split the core while unbroken fractures do not split the core. All fractures are described with their fracture minerals and other characteristics, e.g. width, aperture and roughness. Visible apertures are measured down to 1 mm in the BIPS-image. Smaller apertures, which are impossible to detect in the BIPS-image, are denoted a value of 0.5 mm. If the core pieces don't fit well, the aperture is considered "probable". If the core pieces do fit well, but the fracture surfaces are dull or altered, the aperture is considered "possible".

All fractures with apertures > 0 mm are treated as open in the SICADA database. Only few broken fractures are given the aperture = 0 mm. Unbroken fractures usually have apertures = 0 mm. Unbroken fractures that have apertures > 0 mm are interpreted as partly open and are included in the open-category. Open and sealed fractures are finally frequency calculated and shown in Appendix 1.

4.3.2 Fracture alteration and joint alteration number

Joint alteration number is principally related to the thickness of, and the clay content in a fracture. Thick fractures rich in clay minerals are given joint alteration numbers between 2 and 3. The majority of the broken fractures are very thin to extremely thin and seldom contain clay minerals. These fractures receive joint alteration numbers between 1 and 2.

A subdivision of fractures with joint alteration numbers between 1 and 2 was introduced to facilitate both the evaluation process for fracture alterations and the possibility to compare the alterations between different fractures in the boreholes. The subdivision is based on fracture mineralogy as follows:

a) fracture wall alterations,

b) fracture mineral fillings assumed to have been deposited from circulating water-rich solutions,

c) fracture mineral fillings most likely resulting from altered wall rock material.

Joint alteration number equal to 1: Fractures with or without wall rock alteration, e.g. oxidation or epidotization, and without mineral fillings is considered as fresh. The joint alteration number is thus set to 1.

Minerals such as calcite, quartz, fluorite, zeolites, laumontite and sulphides are regarded as deposited by circulating water-rich solutions and not as true fracture alteration minerals. The joint alteration number is thus set to 1.

Joint alteration number equal to 1.5: Epidote, prehnite, hematite, chlorite and/or clay minerals are regarded as fracture minerals most likely resulting from altered wall rock. A weak alteration is thus assumed and the joint alteration number was set to 1.5. Extra considerations have been given to clay minerals since the occurrence of these minerals often resulted in a higher joint alteration number.

Joint alteration numbers higher than 1.5: When the mineral fillings is thick and contain a few mm of clay minerals, often together with epidote and chlorite, the joint alteration number is set to 2. In rare cases, when a fracture contains 5–10 mm thick clay, together with chlorite, the joint alteration number is set to 3.

When the alteration of a fracture is too thick (and/or intense) to give the fracture the joint alteration number 1.5 and too thin and/or weak to give it a 2, 1.7 and 1.8 is used.

4.3.3 Mapping of fractures not visible in the BIPS-image

Not all fractures are visible in the BIPS-images, and these fractures are orientated by using the *guide-line method*, based on the following data:

- Amplitude (measured along the drill core) which is the interval between fracture extremes along the drill core.
- The relation between the orientations of the fracture trace, measured on the drill core and a well defined structure visible in the BIPS-image.
- Absolute depth.

Orientation of fractures and other structures with the *guide-line method* is done in the following way: The first step is to calculate the amplitude of the fracture trace in the BIPS-image (with 76 mm diameter) from the measured fracture amplitude in the drill core (with 50 mm diameter). The second step is the correction of strike and dip. This is done by rotating the fracture trace in the BIPS-image relative to a feature with known orientation. The fracture trace is then put at the correct depth according to the depth measured on the drill core.

The *guide-line method* can be used to orientate any feature that is not visible in the BIPS-image. It is also a valuable tool to control that the personnel working with the drill core is observing the same feature as the personnel delineating the trace in the BIPS-image, especially in intervals rich in fractures.

The error of orientating fractures using the *guide-line method* is not known but experience and an estimation using stereographic plots indicated that the error is most likely insignificant. Accordingly, the *guide-line method* is so far considered better than mapping lots of non-oriented fractures. The fractures in question are mapped as "non-visible in BIPS" and can therefore be separated from fractures visible in BIPS which probably have a more accurate orientation.

4.3.4 Definition of veins and dikes

Rock occurrence is the way Boremap handles the occurrence of lithology up to 1 meter wide. Chiefly two different rock occurrences are mapped: veins and dikes. These two are separated by their respectively length in the drill core; veins are set to 0–20 cm and dikes are set to 20–100 cm. Rock occurrences that covers more than 100 cm of the drill core are mapped under the feature *rock type.*

4.3.5 Mineral codes

In cases where properties and/or minerals are not represented in the mineral list, the following mineral codes have been used:

X1 Gypsum.

X5 Bleached fracture walls.

X7 Broken fracture with a fresh appearance and no mineral fill.

X8 Fractures with epidotized/saussuritized walls.

X9 Biotite with a weathered appearance.

4.4 Data handling.

Mapping of the drill core is performed on-line on the SKB network, in order to obtain the best possible data security. Before every break (> 15 minutes) a back-up is saved on the local disk. As a regular quality check every working day a Summary report (from Boremap) and a WellCad plot is printed in order to find possible misprints. The mapping is also quality checked by a routine in Boremap before it is exported to and archived in SICADA database. Personnel from SKB also perform spot test controls and regular quality revisions. All primary data is stored in SKB's database SICADA and only these data are later used for interpretation and modelling.

4.5 Geological summary table, general description

A Geological summary table (Appendix 1) is an overview of the features mapped with the Boremap software. It also facilitates comparisons between Boremap information collected from different boreholes and is more objective than a pure descriptive borehole summary. The table is the result of cooperation between Jan Ehrenborg from the mapping personnel and Pär Kinnbom from PO (site investigation, Oskarshamn). The aim was to make a standard form in handy A4-size, where all information is taken directly from the Boremap database using simple and well defined search paths for each geological parameter (Appendix 2).

Data from the Boremap database cannot automatically be extracted into the Geological summary table. First the data has to be sorted out and frequencies in the different column must be calculated in Microsoft Excel. WellCad is used to create the Geological summary table from the frequency calculations of mapped features. From the Boremap database the data to the non-frequency columns are retrieved, i.e. lithology and red staining.

The Geological summary table consists of 23 columns, each one representing a specific geological parameter, presented as either intervals or frequencies (see Section 4.5.1 for column description). Intervals are calculated for parameters with a width ≥ 1 m and frequencies for parameters with a width < 1 m. Frequency information is treated as point observations. It should be noted that parameters with a thickness of only 1 mm get the same "value" as a similar parameter with a thickness of 999 mm since both are treated as point observations and used for frequency calculations.

Parameters are sometimes related in such a way that the mapping of one parameter cause a decrease in the frequency of another parameter. This type of intimate relationship between parameters has been noted for the following cases;

- There is a decrease in the frequency of *unbroken fractures* with oxidised walls and without mineral fillings in intervals mapped with *Alteration – red staining.*
- No *unbroken fractures* are mapped in intervals of *sealed fracture network*.
- No *broken fractures* are mapped in intervals with *crush.*
- Hybrid rock and composite dikes generally include a large amount of fine to medium grained granite veins. These veins are not mapped and the frequency presented for veins + dikes in column 6 (Appendix 1) are lower than the true frequency in composite dike intervals.

4.5.1 Columns in the Geological summary table

The Geological summary table includes the following 23 columns:

Column 1: *Rock type/Lithology*, interval column. Only lithologies longer than 1 m are presented here. Shorter lithologies are presented in column 6. This column is identical with the ordinary WellCad presentation.

Column 2: *Rock type/Grain size*, interval column. Interval limits follows column 1. This column is identical with the ordinary WellCad presentation.

Column 3: *Rock type/Texture*, interval column. Interval limits follows column 1. This column is identical with the ordinary WellCad presentation.

Column 4: *Alteration/Type*, interval column. No frequency column is presented for alteration/type. The alteration/type column are identical with the ordinary WellCad presentation.

Column 5: *Alteration/Intensity*, interval column. This column is identical with the ordinary WellCad presentation.

Column 6: *Rock occurrence/Veins + Dikes < 1 m wide*, frequency column. This rock type column can be seen as the frequency complement to the rock type/lithology interval column. Only rock type sections that are thinner than 1 m can be described as rock occurrences in Boremap. Thicker rock type sections are mapped as rock type.

Column 7: *Structure/Shear zone < 1 m wide*, frequency column. This column includes ductile shear structures as well as brittle-ductile shear structures and these are mapped as rock occurrences in Boremap. Ductile sections in mm – cm scale are mapped as shear structures and in dm – m scale as sections with foliation in column 12.

Column 8: *Structure/Brecciated < 1 m wide*, frequency column. Breccias < 1 m wide are mapped as rock occurrence in Boremap. Very thin micro breccias along sealed/natural fracture planes are generally not considered.

Column 9: *Structure/Brecciated ≥ 1 m wide*, interval column. Breccias > 1 m wide are mapped as rock type/structure in Boremap.

Column 10: *Structure/Mylonite < 1 m wide*, frequency column. Mylonites < 1 m wide are mapped as rock occurrence/structure in Boremap.

Column 11: *Structure/Mylonite ≥ 1 m wide* is an interval column. Mylonites >1 m wide are mapped as rock type/structure in Boremap.

Column 12: *Structure/Folieted < 1 m wide* is a frequency column. Sections with foliation < 1 m wide are mapped as rock occurrence/structure in Boremap. Very thin sections with foliation are called ductile shear structures and presented in column 7.

Column 13: *Structure/Folieted ≥ 1 m wide* is an interval column. Sections with foliation ≥ 1 m wide are mapped as rock type/structure in Boremap.

Column 14: *Sealed fractures/All*, frequency column. This column includes all fractures mapped as unbroken in the Boremap system and this includes unbroken fractures where the drill core is not broken as well as unbroken fractures interpreted to have broken up artificially during/after drilling.

Column 15: *Sealed fractures/Broken fractures with aperture = 0*, frequency column. This column includes unbroken fractures interpreted to have broken up artificially during/after drilling.

Column 16: *Sealed fractures/Sealed fracture network < 1 m wide*, frequency column. The sealed fracture network parameter is the only parameter that is generally evaluated directly from observations of the drill core. These types of sealed fractures can only in rare cases be observed in the BIPS-image.

Column 17: *Sealed fractures/Sealed fracture network ≥ 1 m wide*, interval column.

Column 18: *Open fractures/All Apertures > 0*, frequency column. This column includes all broken fractures, both fractures that with certainty were open before drilling and fractures that probably or possibly were open before drilling.

Column 19: *Open fractures/Uncertain Aperture = 0.5 probable + 0.5 possible*, frequency column. This column includes fractures that probably or possibly open before drilling.

Column 20: *Open fractures/Certain Aperture = 0.5 and > 0.5*, frequency column. This column includes fractures that with certainty were open before drilling.

Column 21: *Open fractures/Joint alteration > 1.5*, frequency column. This column show fractures with stronger joint alteration than normal. This parameter is generally correlated with the location of lithologies with a more weathered appearance.

Column 22: *Open fractures/Crush < 1 m wide*, frequency column. This column includes shorter sections with crush.

Column 23: *Open fractures/Crush ≥ 1 m wide*, interval column. This column includes longer sections with crush.

4.6 Nonconformities

The uppermost part of the boreholes is not covered by a BIPS image. These sections have not been mapped.

Due to the lack of reference marks, in KLX23A and KLX23B recorded length from the BIPS-logging was used.

5 Results

5.1 General

All results from the mapping are principally found in the appendices. Information from the SICADA database is shown in the Geological summary tables in Appendix 1 and as WellCad diagrams in Appendix 4. The BIPS-images are presented in Appendix 3. The search paths to the Geological summary table are presented in Appendix 2 and In-data, such as borehole length, reference marks, deviation data and borehole diameter are presented in Appendices 6, 7 and 8.

The MDZ boreholes KLX22A, KLX22B, KLX23A and KLX23B vary between 50.27 m and 100.45 m in length (Table 5-1)

Original data from the reported activity are stored in the primary database SICADA. Data are traceable in SICADA by the Activity Plan number (AP PS 400-06-088). Only data in databases are accepted for further interpretation and modelling. The data presented in this report are regarded as copies of the original data. Data in the databases may be revised, if needed. Such revisions will not necessarily result in a revision of the P-report, although the normal procedure is that major revisions entail a revision of the P-report. Minor revisions are normally presented as supplements, available at www.skb.se.

Table 5-1. Length of the MDZ drill cores.

Borehole	Length (m)
KLX22A	0.00–100.45
KLX22B	0.30–100.25
KLX23A	0.30–100.15
KLX23B	0.00–50.27

5.2 Lithology and structures

The lithology (Table 5-1) in KLX22A and KLX22B is dominated by quartz monzodiorite (501036). Subordinate rock type is fine-grained diorite-gabbro (505102). KLX23A and KLX23B are completely dominated by quartz monzodiorite (501036).

Five sections in KLX22A and KLX22B and three sections in KLX23A and KLX23B are recognized by anomalous fracture frequencies, alterations and structural features.

Table 5-2. Lithology in the MDZ boreholes.

Rock type	KLX22A (%)	KLX22B (%)	KLX23A (%)	KLX23B (%)
Quartz monzodiorite (501036)	90.2	93.2	100.0	100.0
Fine-grained diorite-gabbro (505102)	9.8	6.8	–	–

Section interval characteristics

KLX22A

1. 64–74 m. Increased frequency of sealed fractures. Moderately increase of open fractures, sealed fracture networks, foliation, red staining occurs within this section. This interval also includes an intrusion of fine-grained diorite-gabbro (505102).
2. 77–83 m. Increased frequency of open fractures with an aperture > 0.5 mm, sealed fracture networks, ductile and brittle-ductile shear zone, saussuritization and red staining occurs within this section.

KLX22B

1. 0–10 m. Increased frequency of open fractures with aperture > 0.5 mm, sealed fracture network.
2. 21–20 m. Increased frequency of open fractures, sealed fracture network, foliation, crush zone, core loss, brittle-ductile shear zone, silification, epidotization, saussuritization and red staining occurs within this section.
3. 57–63 m. Increased frequency of open fractures, sealed fracture network, foliation, and red staining occurs within this section. This interval also includes an intrusion of fine-grained diorite-gabbro (505102).

KLX23A

1. 10–17 m. Increased frequency of open fractures, sealed fracture network, foliation, and red staining occurs within this section.
2. 32–34 m. Increased frequency of open fractures with aperture > 0.5 mm, moderately increased frequency of open fractures, sealed fracture network, brittle-ductile shear zone and saussuritization occurs within this section.
3. 64–67 m. Increased frequency of open fractures with aperture > 0.5 mm, moderately increased frequency of open fractures, sealed fracture network, red staining and saussuritization occurs within this section.

KLX23B

1. 9–19 m. Increased frequency of open fractures with aperture > 0.5 mm, open fractures, sealed fracture network, foliation, brittle-ductile shear zone, saussuritization, epidotization and red staining occurs within this section.

5.3 Fracture mineralogy

The most frequently occurring minerals in sealed fractures are calcite and oxidized walls and to a lesser extent chlorite.

In the uppermost part of the boreholes, down to about 9 m borehole length, open fractures often lack any visible minerals and have a weathered appearance, mapped as X9.

Calcite and chlorite are the most frequently occurring minerals in open fractures, followed by clay minerals, pyrite and oxidized walls. Interesting to mention is the occurrence of gypsum in KLX22A, KLX23A and KLX23B. Table 5-3 and 5-4 show the frequency of minerals and rock wall alteration in sealed fractures and open fractures respectively.

Table 5-3. Frequency of minerals and rock wall alteration in sealed fractures.

Mineral	KLX22A (%)	KLX022B (%)	KLX23A (%)	KLX23B (%)
Calcite	58.2	46.8	42.2	69.4
Oxidized walls	50.0	40.5	66.7	32.3
Chlorite	26.2	30.2	23.7	40.3
Hematite	0.2			4.8
Epidote	5.4	22.1	3.0	9.7
Quartz	11.2	8.4	8.1	9.7
Prehnite	3.7	1.0	8.9	11.3
White feldspar	3.5	2.6	5.2	4.8
Adularia	2.3	2.9	3.7	9.7
Pyrite	4.0	1.7	0.7	
Clay minerals		0.7		
Chalcopyrite	0.2			
Red feldspar	3.5	0.7		1.6
X8	13.3	4.6	1.5	
X7	0.9	3.8	0.7	
X5	3.3	4.3	0.7	
X9	0.2			
Iron hydroxide				1.6

Table 5-4. Frequency of minerals and rock wall alteration in open fractures.

Mineral	KLX22A (%)	KLX22B (%)	KLX23A (%)	KLX23B (%)
Calcite	82.3	85.3	84.7	67.9
Chlorite	75.5	75.4	68.1	62.3
Pyrite	17.0	15.9	4.2	3.8
Hematite	3.8		12.5	15.1
Clay minerals	23.0	19.0	13.9	41.5
Oxidized walls	15.5	21.4	15.3	5.7
Epidote	7.2	6.3	4.2	3.8
Laumontite	0.4	0.4		1.9
Quartz	3.0	2.0	1.4	
Adularia	1.5	4.8	15.3	7.5
Prehnite	2.6	2.8	6.9	1.9
X7	3.0	2.4	1.4	7.5
X1	3.0		4.2	1.9
X9	3.0		5.6	18.9
X8	0.4	0.8	1.4	
X5		0.4		
Unknown mineral	1.1	0.8		1.9
White feldspar	0.8		2.8	
Red feldspar	0.8	0.4		
Iron hydroxide	0.8	3.2	2.8	9.4
Biotite		0.4		

A: Geological summary table KLX22A

GEOLOGICAL SUMMARY KLX22A — **APPENDIX:**

Site	LAXEMAR	**Signed data**
Borehole	KLX22A	
Coordinate System	RT90-RHB70	
Date of mapping	2006-06-29 16:54:00	

ROCKTYPE SIMPEVARP
- Quartz monzodiorite
- Fine-grained diorite-gabbro

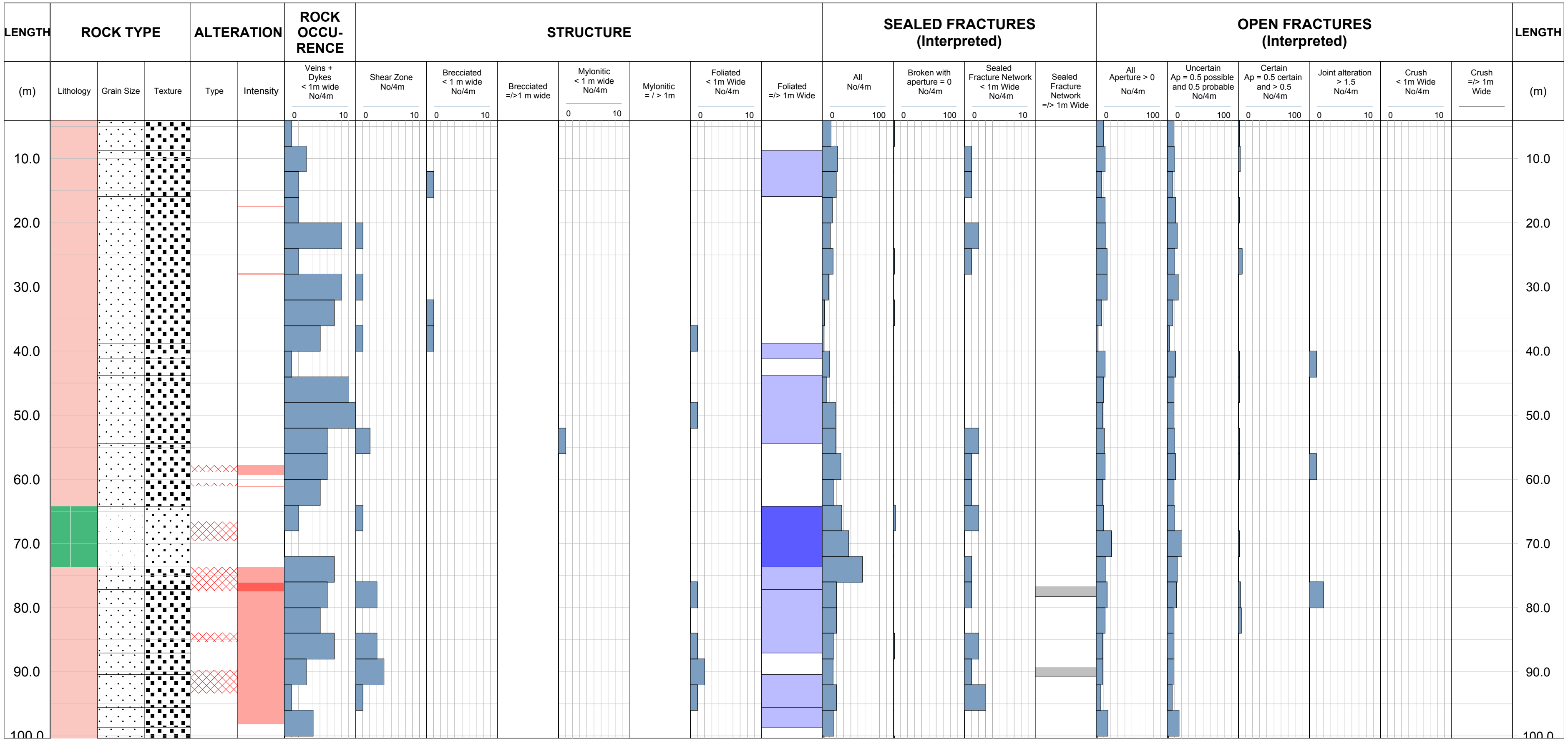
GRAINSIZE
- Fine-grained
- Medium-grained

TEXTURE
- Porphyritic
- Equigranular

ALTERATION TYPE
- Oxidized

ALTRATION INTENSITY
- Weak
- Medium

STRUCTURE INTENSITY
- Weak
- Weak
- Strong



B: Geological summary table KLX22B

GEOLOGICAL SUMMARY KLX22B — **APPENDIX:**

Site	LAXEMAR	**Signed data**
Borehole	KLX22B	
Coordinate System	RT90-RHB70	
Date of mapping	2006-06-29 16:55:00	

ROCKTYPE SIMPEVARP: Quartz monzodiorite; Fine-grained diorite-gabbro

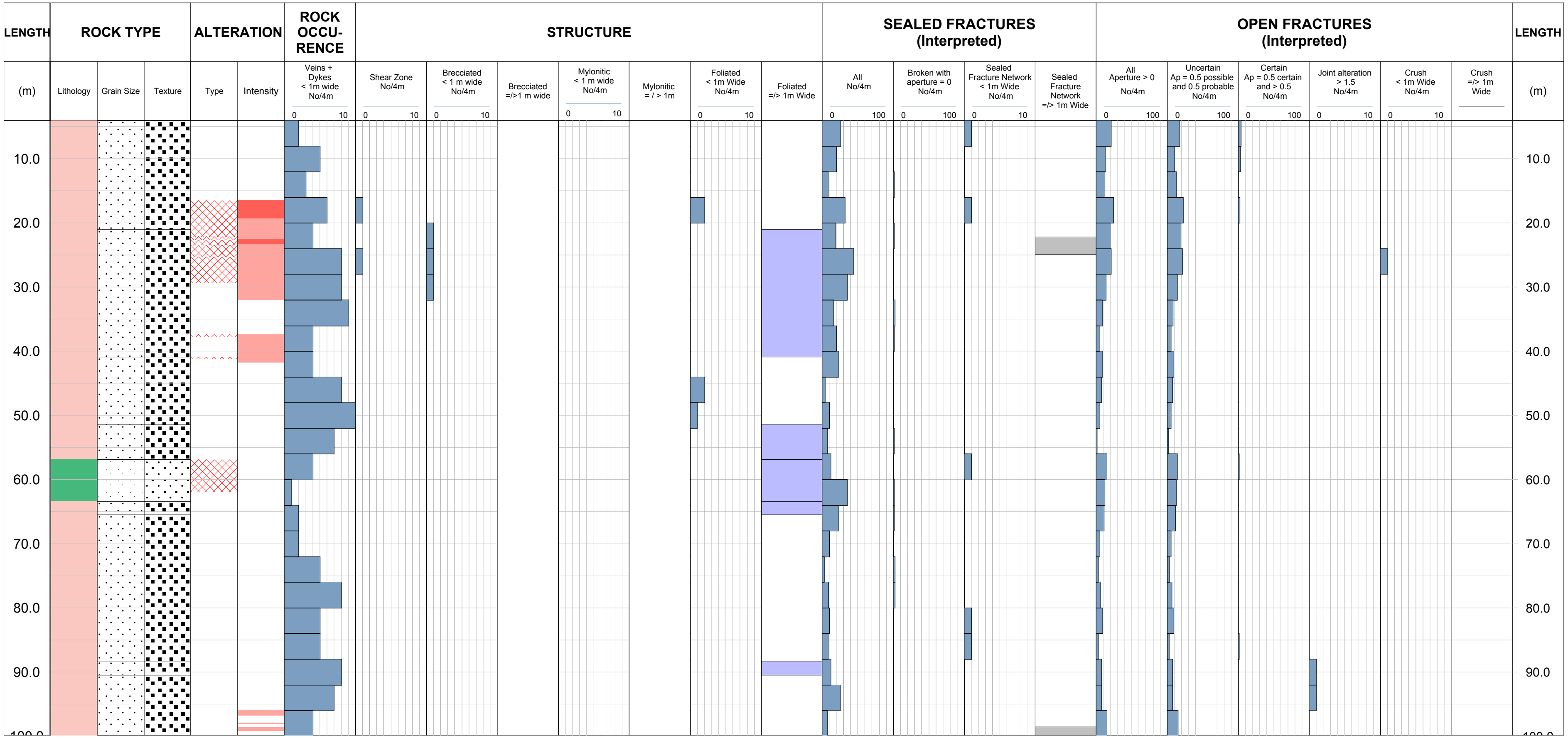
GRAINSIZE: Fine-grained; Medium-grained

TEXTURE: Porphyritic; Equigranular

ALTERATION TYPE: Oxidized

ALTRATION INTENSITY: Weak; Medium

STRUCTURE INTENSITY: Weak; Weak



C: Geological summary table KLX23A

GEOLOGICAL SUMMARY KLX23A

APPENDIX:

SKB

Site: LAXEMAR
Borehole: KLX23A
Coordinate System: RT90-RHB70
Date of mapping: 2006-07-25 07:14:00

Signed data

ROCKTYPE SIMPEVARP: Quartz monzodiorite

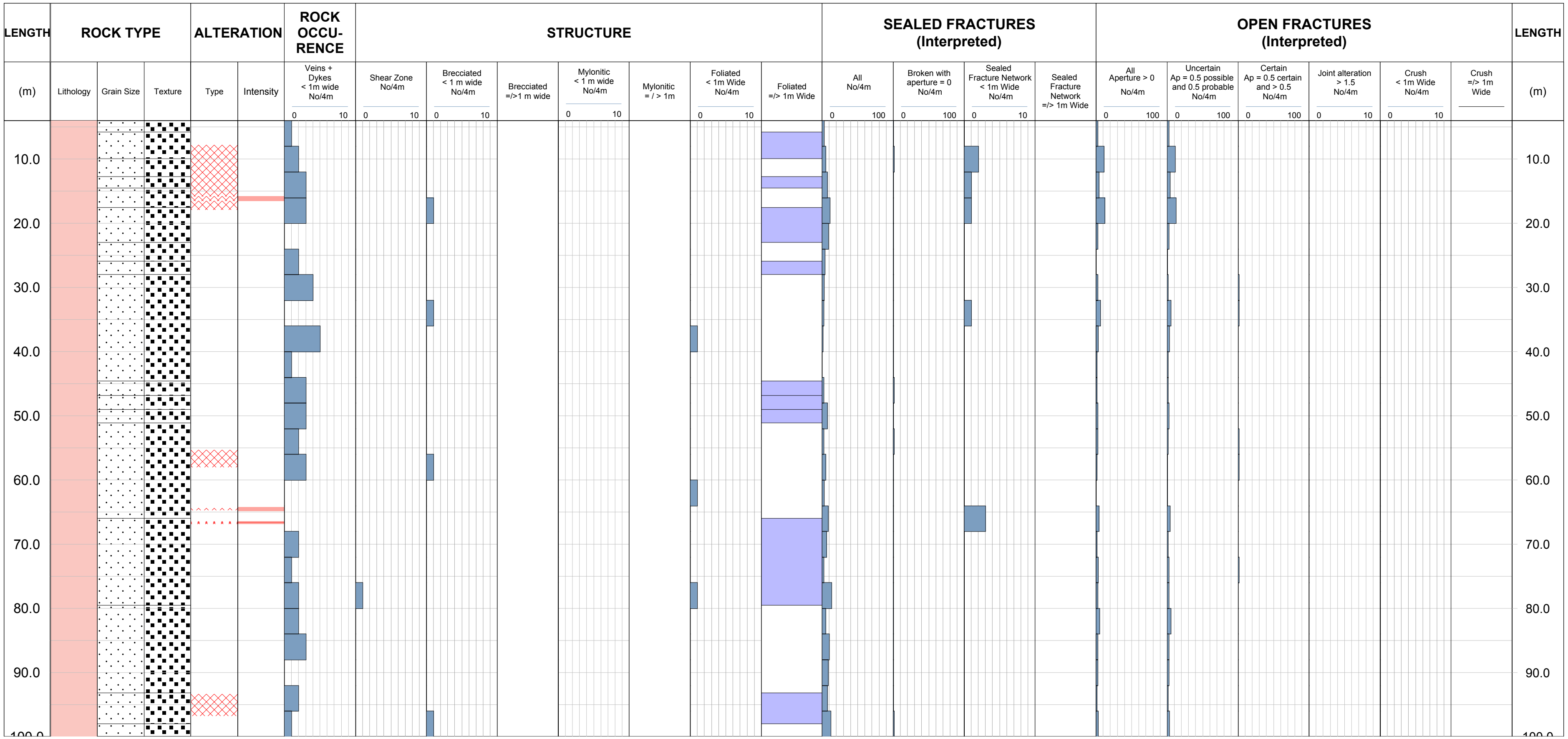
GRAINSIZE: Medium-grained

TEXTURE: Equigranular

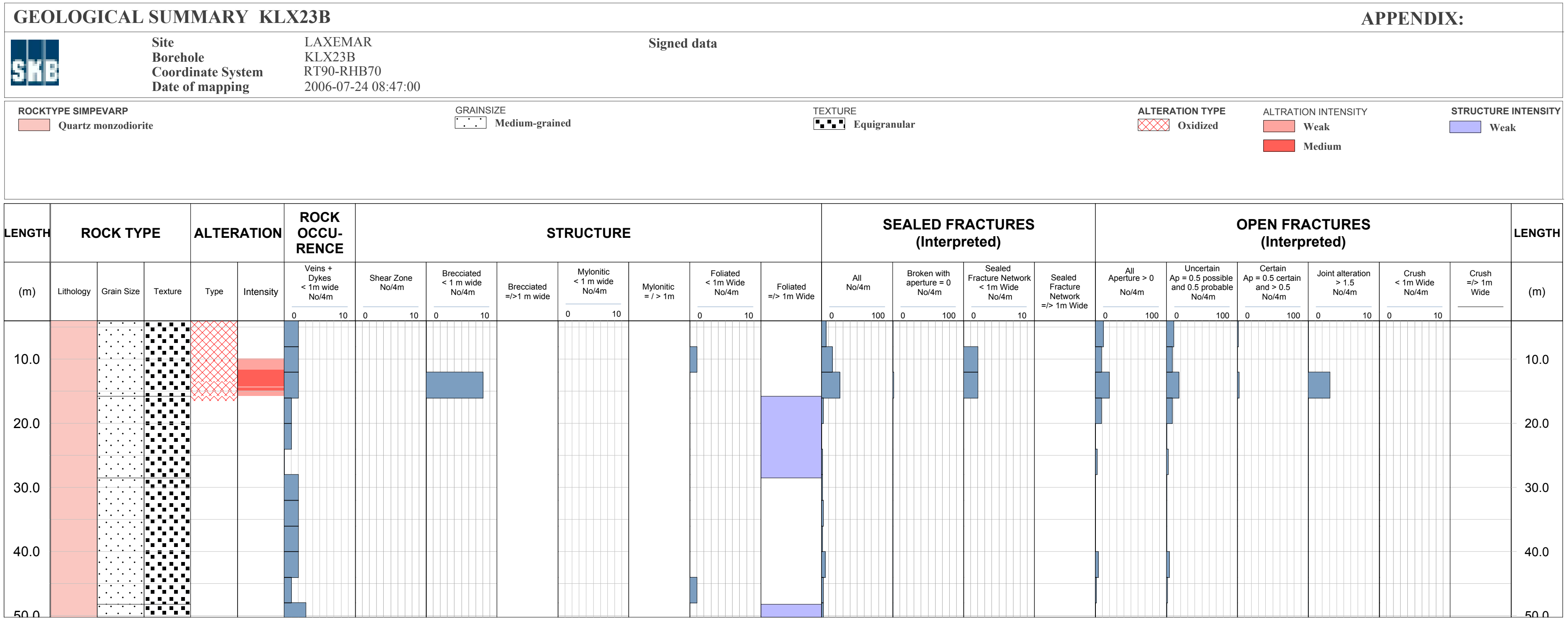
ALTERATION TYPE: Oxidized

ALTRATION INTENSITY: Weak; Medium

STRUCTURE INTENSITY: Weak; Weak



D: Geological summary table KLX23B



Appendix 2

Search paths for the Geological summary table

TABLE HEAD LINES		INFORMATION SOURCE			PRESENTATION
Head lines	**Sub head lines**	**Varcode**	**First suborder**	**Second suborder**	**Interval / frequence**
Rock type	Lithology	5	Sub 1		Interval
	Grain size	5	Sub 5		Interval
	Texture	5	Sub 6		Interval
Alteration	Type	7	Sub 1 = 700		Interval
	Intensity	7	Sub 1 = 700	Sub 2	Interval
Rock occurrence	Vein + dyke	31	Sub 1 = 2 and 18		Frequence
Structure	Shear zone, < 1m wide	31	Sub 4 = 41 and 42		Frequence
	Brecciated, < 1m wide	31	Sub 4 = 7		Frequence
	Brecciated, >/= 1m wide	5 5	Sub 3 = 7 Sub 3 = 7	Sub 4; 101 and 102 = 102 Sub 4; 103 and 104 = 104	Interval
	Mylonite, < 1 m wide	31	Sub 4 = 34		Frequence
	Mylonite, >/= 1 m wide	5 5	Sub 3 = 34 Sub 3 = 34	Sub 4; 101 and 102 = 102 Sub 4; 103 and 104 = 104	Interval
	Foliated, < 1 m wide	31	Sub 4 = 81		Frequence
	Foliated, >/= 1 m wide	5 5	Sub 3 = 81 Sub 3 = 81	Sub 4; 101 and 102 = 102 Sub 4; 103 and 104 = 104	Interval
Sealed fracture	All unbroken fractures and broken fractures	3 2	 SNUM 11= 0		Frequence
	Broken fractures, Aperture = 0	2	SNum 11 = 0		Frequence
	Sealed fracture network < 1 m wide	32			Frequence
	Sealed fracture network>/= 1 m wide	32			Interval
Open fractures	All, Aperture > 0	2 and 3	SNum 11>0		Frequence
	Uncertain, Aperture = 0.5 possible and 0.5 probable	2 and 3 2 and 3	SNum 11>0 SNum 11>0	Sub 12 = 3 Sub 12 = 2	Frequence
	Certain, Aperture = 0.5 and >0.5	2 and 3	SNum 11>0	Sub 12 = 1	Frequence
	Joint alteration > 1.5	2	SNum16 > 1.5		Frequence
	Crush < 1 m wide	4			Frequence
	Crush >/= 1 m wide	4			Interval

Appendix 3

A: BIPS-image of KLX22A

Borehole Image Report

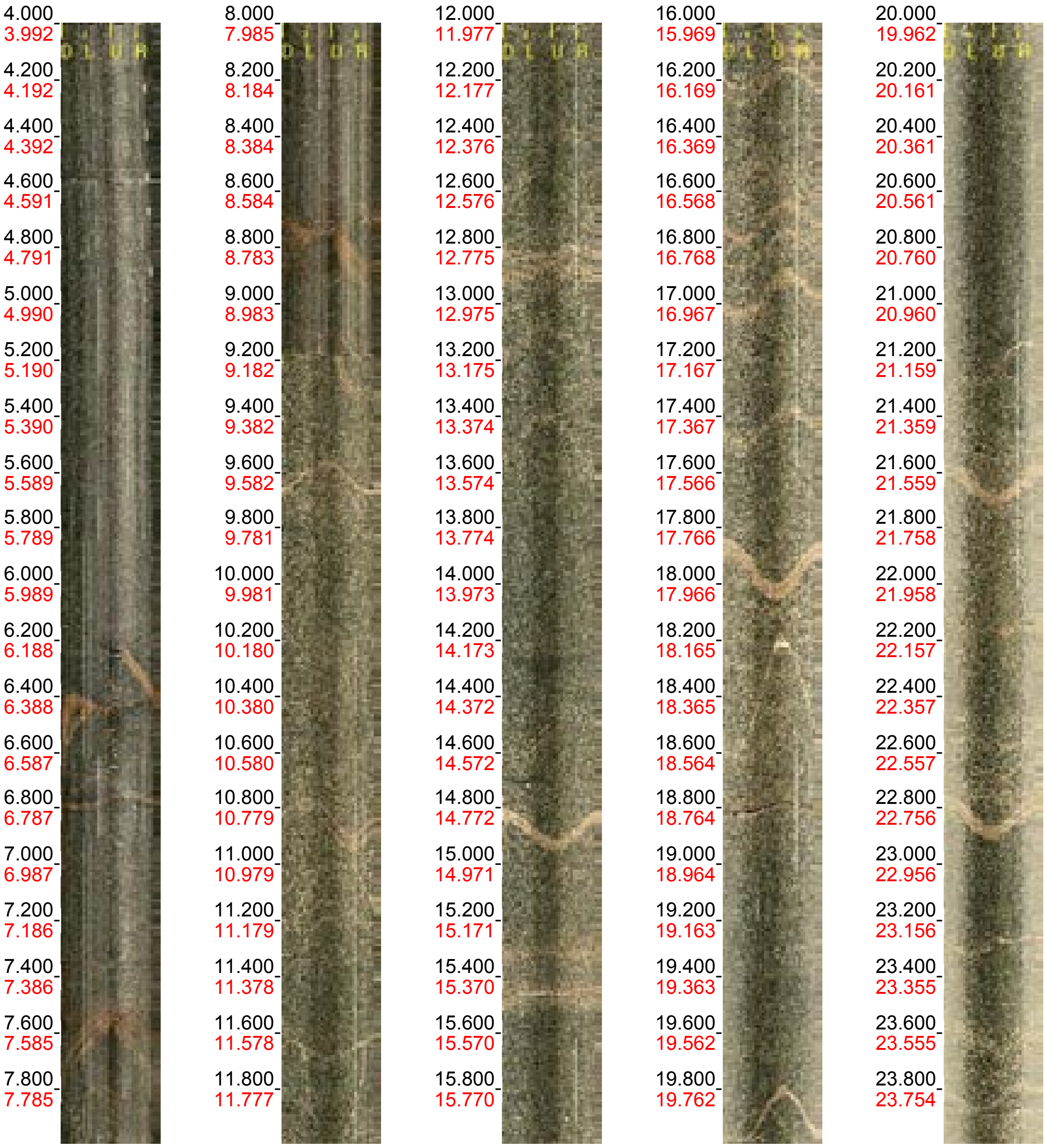
Borehole Name:	KLX22A
Mapping Name:	KLX22A_Geosigma_1
Mapping Range:	0.000 - 100.450 m
Diameter:	76.0 mm
Printed Range:	4.000 - 100.384
Pages:	6

Image File Information:

File:	D:\BIPS_Images\KLX22A\KLX22A.BIP
Date/Time:	2006-07-04 17:00:00
Start Depth:	4.000 m
End Depth:	100.384 m
Resolution:	1.00 mm/pixel (depth)
Orientation:	Gravmetric
Image height:	96384 pixels
Image width:	360 pixels
BIP Version:	BIP-III
Locality:	LAXEMAR
Borehole:	KLX22A
Scan Direction:	Down
Color adjust:	0 0 0 (RGB)

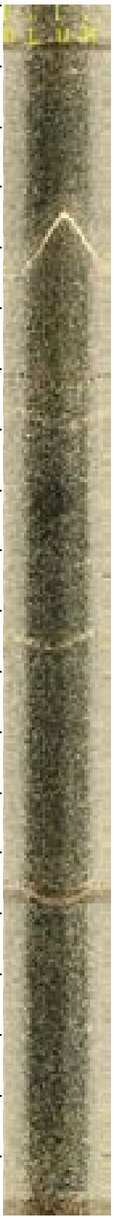
Borehole: KLX22A
Mapping: KLX22A_Geosigma_1

Depth range: 4.000 - 24.000 m
Azimuth: 180.0
Inclination: -60.0

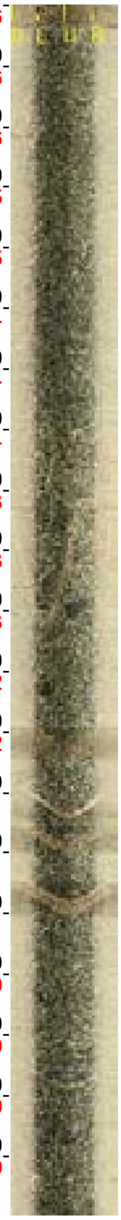


Borehole: KLX22A | Depth range: 24.000 - 44.000 m
Mapping: KLX22A_Geosigma_1 | Azimuth: 180.0
Inclination: -60.0

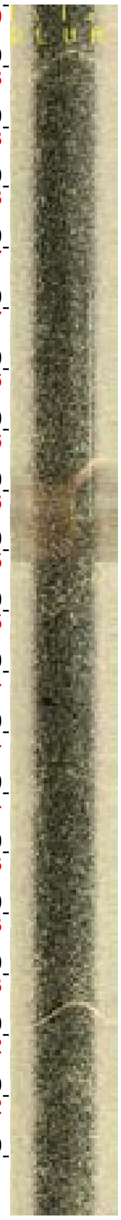
24.000	23.954
24.200	24.154
24.400	24.353
24.600	24.553
24.800	24.752
25.000	24.952
25.200	25.152
25.400	25.351
25.600	25.551
25.800	25.751
26.000	25.950
26.200	26.150
26.400	26.349
26.600	26.549
26.800	26.749
27.000	26.948
27.200	27.148
27.400	27.347
27.600	27.547
27.800	27.747



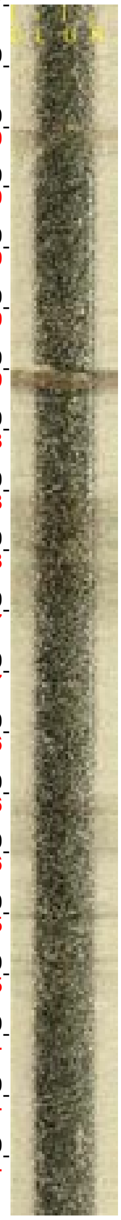
28.000	27.946
28.200	28.146
28.400	28.346
28.600	28.545
28.800	28.745
29.000	28.944
29.200	29.144
29.400	29.344
29.600	29.543
29.800	29.743
30.000	29.943
30.200	30.142
30.400	30.342
30.600	30.541
30.800	30.741
31.000	30.941
31.200	31.140
31.400	31.340
31.600	31.539
31.800	31.739



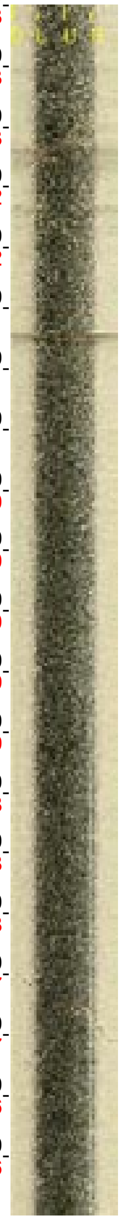
32.000	31.939
32.200	32.138
32.400	32.338
32.600	32.538
32.800	32.737
33.000	32.937
33.200	33.136
33.400	33.336
33.600	33.536
33.800	33.735
34.000	33.935
34.200	34.134
34.400	34.334
34.600	34.534
34.800	34.733
35.000	34.933
35.200	35.133
35.400	35.332
35.600	35.532
35.800	35.731



36.000	35.931
36.200	36.131
36.400	36.330
36.600	36.530
36.800	36.729
37.000	36.929
37.200	37.129
37.400	37.328
37.600	37.528
37.800	37.728
38.000	37.927
38.200	38.127
38.400	38.326
38.600	38.526
38.800	38.726
39.000	38.925
39.200	39.125
39.400	39.324
39.600	39.524
39.800	39.724

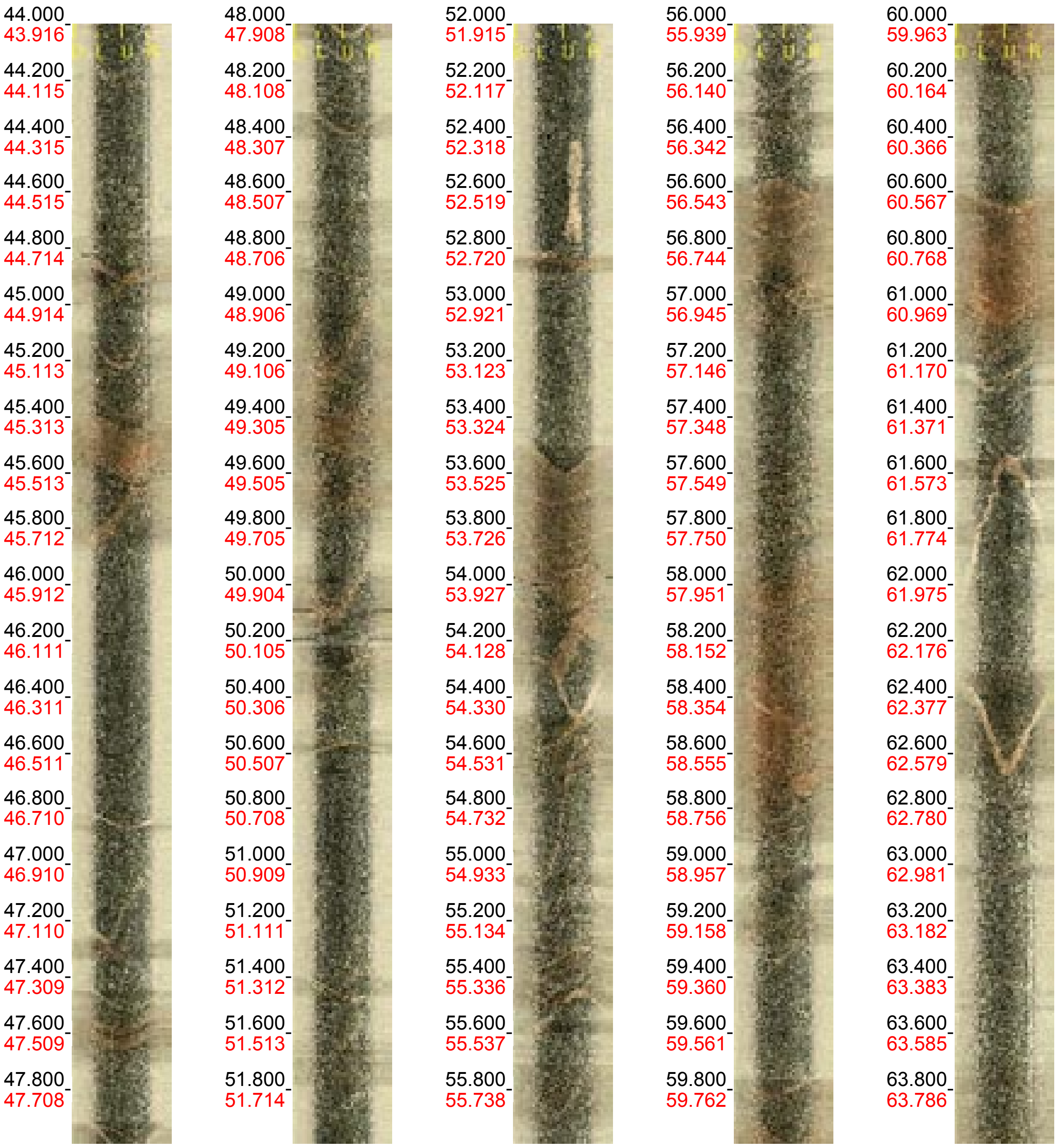


40.000	39.923
40.200	40.123
40.400	40.323
40.600	40.522
40.800	40.722
41.000	40.921
41.200	41.121
41.400	41.321
41.600	41.520
41.800	41.720
42.000	41.920
42.200	42.119
42.400	42.319
42.600	42.518
42.800	42.718
43.000	42.918
43.200	43.117
43.400	43.317
43.600	43.516
43.800	43.716



Borehole: KLX22A
Mapping: KLX22A_Geosigma_1

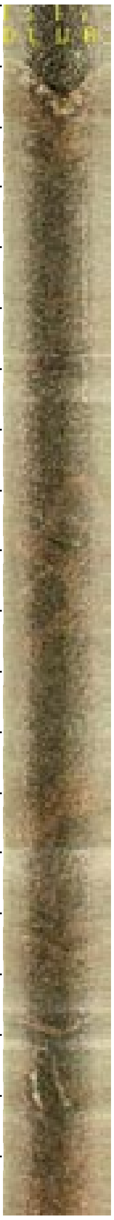
Depth range: 44.000 - 64.000 m
Azimuth: 180.0
Inclination: -60.0



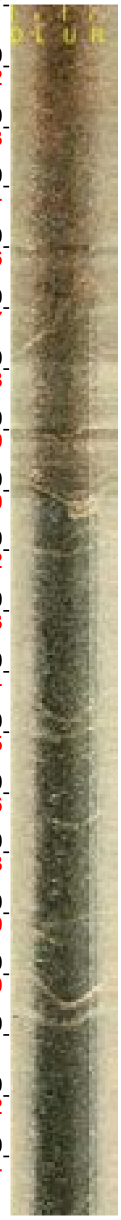
Borehole: KLX22A
Mapping: KLX22A_Geosigma_1

Depth range: 64.000 - 84.000 m
Azimuth: 180.0
Inclination: -60.0

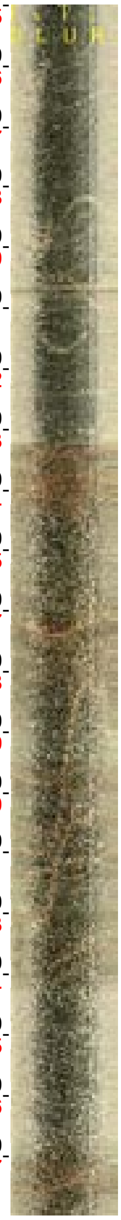
64.000
63.987
64.200
64.188
64.400
64.389
64.600
64.591
64.800
64.792
65.000
64.993
65.200
65.194
65.400
65.395
65.600
65.597
65.800
65.798
66.000
65.999
66.200
66.200
66.400
66.401
66.600
66.603
66.800
66.804
67.000
67.005
67.200
67.206
67.400
67.407
67.600
67.608
67.800
67.810



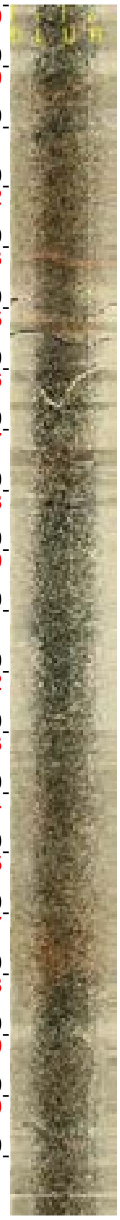
68.000
68.011
68.200
68.212
68.400
68.413
68.600
68.614
68.800
68.816
69.000
69.017
69.200
69.218
69.400
69.419
69.600
69.620
69.800
69.822
70.000
70.023
70.200
70.224
70.400
70.425
70.600
70.626
70.800
70.828
71.000
71.029
71.200
71.230
71.400
71.431
71.600
71.632
71.800
71.834



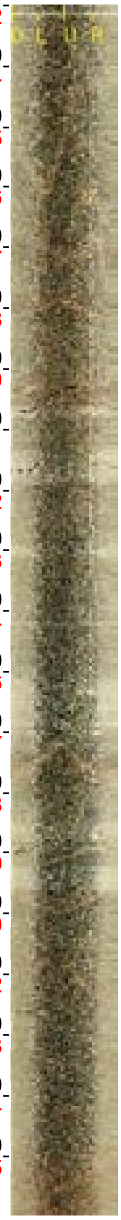
72.000
72.035
72.200
72.236
72.400
72.437
72.600
72.638
72.800
72.840
73.000
73.041
73.200
73.242
73.400
73.443
73.600
73.644
73.800
73.845
74.000
74.047
74.200
74.248
74.400
74.449
74.600
74.650
74.800
74.851
75.000
75.053
75.200
75.254
75.400
75.455
75.600
75.656
75.800
75.857



76.000
76.059
76.200
76.260
76.400
76.461
76.600
76.662
76.800
76.863
77.000
77.065
77.200
77.266
77.400
77.467
77.600
77.668
77.800
77.869
78.000
78.071
78.200
78.272
78.400
78.473
78.600
78.674
78.800
78.875
79.000
79.077
79.200
79.278
79.400
79.479
79.600
79.680
79.800
79.881



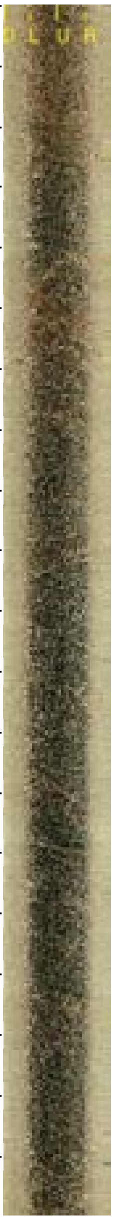
80.000
80.082
80.200
80.284
80.400
80.485
80.600
80.686
80.800
80.887
81.000
81.088
81.200
81.290
81.400
81.491
81.600
81.692
81.800
81.893
82.000
82.094
82.200
82.296
82.400
82.497
82.600
82.698
82.800
82.899
83.000
83.100
83.200
83.302
83.400
83.503
83.600
83.704
83.800
83.905



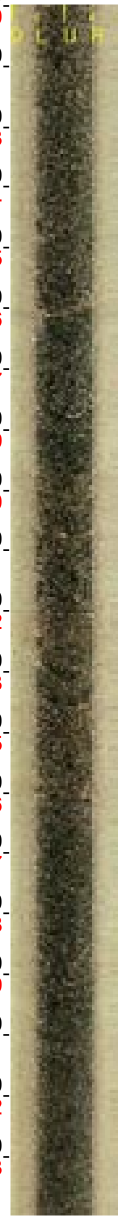
Borehole: KLX22A
Mapping: KLX22A_Geosigma_1

Depth range: 84.000 - 100.384 m
Azimuth: 180.0
Inclination: -60.0

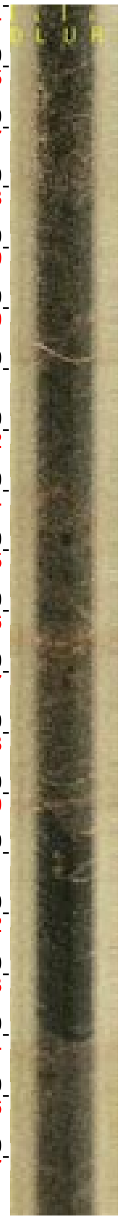
84.000
84.106
84.200
84.308
84.400
84.509
84.600
84.710
84.800
84.911
85.000
85.112
85.200
85.314
85.400
85.515
85.600
85.716
85.800
85.917
86.000
86.118
86.200
86.319
86.400
86.521
86.600
86.722
86.800
86.923
87.000
87.124
87.200
87.325
87.400
87.527
87.600
87.728
87.800
87.929



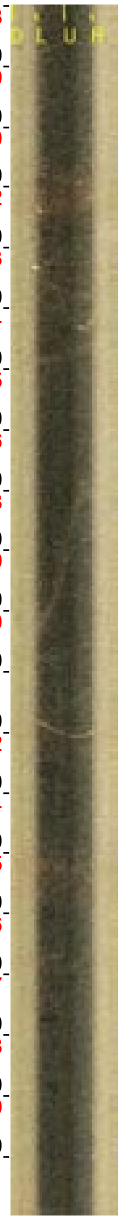
88.000
88.130
88.200
88.331
88.400
88.533
88.600
88.734
88.800
88.935
89.000
89.136
89.200
89.337
89.400
89.539
89.600
89.740
89.800
89.941
90.000
90.142
90.200
90.343
90.400
90.545
90.600
90.746
90.800
90.947
91.000
91.148
91.200
91.349
91.400
91.551
91.600
91.752
91.800
91.953



92.000
92.154
92.200
92.355
92.400
92.557
92.600
92.758
92.800
92.959
93.000
93.160
93.200
93.361
93.400
93.562
93.600
93.764
93.800
93.965
94.000
94.166
94.200
94.367
94.400
94.568
94.600
94.770
94.800
94.971
95.000
95.172
95.200
95.373
95.400
95.574
95.600
95.776
95.800
95.977



96.000
96.178
96.200
96.379
96.400
96.580
96.600
96.782
96.800
96.983
97.000
97.184
97.200
97.385
97.400
97.586
97.600
97.788
97.800
97.989
98.000
98.190
98.200
98.391
98.400
98.592
98.600
98.794
98.800
98.995
99.000
99.196
99.200
99.397
99.400
99.598
99.600
99.799
99.800
100.001



100.000
100.202
100.200
100.403
100.400
100.604
100.600
100.800
101.000
101.200
101.400
101.600
101.800
102.000
102.200
102.400
102.600
102.800
103.000
103.200
103.400
103.600
103.800

B: BIPS-image of KLX22B

Borehole Image Report

Borehole Name:	KLX22B
Mapping Name:	KLX22B_Geosigma_1
Mapping Range:	0.000 - 100.250 m
Diameter:	76.0 mm
Printed Range:	4.000 - 100.000
Pages:	6

Image File Information:

File:	D:\BIPS_Images\KLX22B\KLX22B.BIP
Date/Time:	2006-07-04 18:15:00
Start Depth:	4.000 m
End Depth:	100.000 m
Resolution:	1.00 mm/pixel (depth)
Orientation:	Gravmetric
Image height:	96000 pixels
Image width:	360 pixels
BIP Version:	BIP-III
Locality:	LAXEMAR
Borehole:	KLX22B
Scan Direction:	Down
Color adjust:	0 0 0 (RGB)

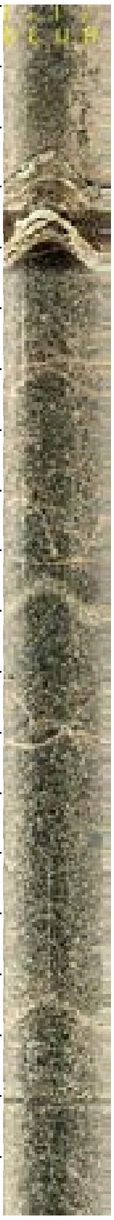
Borehole: KLX22B
Mapping: KLX22B_Geosigma_1

Depth range: 4.000 - 24.000 m
Azimuth: 340.0
Inclination: -60.0

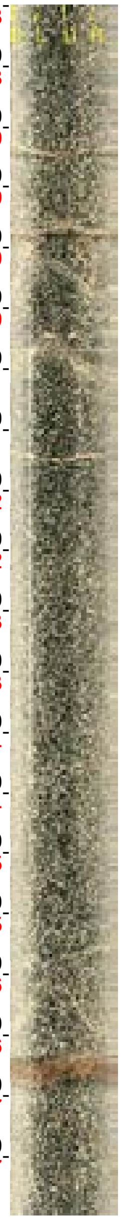
Borehole: KLX22B
Mapping: KLX22B_Geosigma_1

Depth range: 24.000 - 44.000 m
Azimuth: 340.0
Inclination: -60.0

24.000
24.058
24.200
24.259
24.400
24.459
24.600
24.660
24.800
24.860
25.000
25.061
25.200
25.261
25.400
25.462
25.600
25.662
25.800
25.863
26.000
26.063
26.200
26.264
26.400
26.464
26.600
26.665
26.800
26.865
27.000
27.065
27.200
27.266
27.400
27.466
27.600
27.667
27.800
27.867



28.000
28.068
28.200
28.268
28.400
28.469
28.600
28.669
28.800
28.870
29.000
29.070
29.200
29.271
29.400
29.471
29.600
29.672
29.800
29.872
30.000
30.073
30.200
30.273
30.400
30.474
30.600
30.674
30.800
30.875
31.000
31.075
31.200
31.276
31.400
31.476
31.600
31.677
31.800
31.877



32.000
32.078
32.200
32.278
32.400
32.479
32.600
32.679
32.800
32.880
33.000
33.080
33.200
33.281
33.400
33.481
33.600
33.682
33.800
33.882
34.000
34.082
34.200
34.283
34.400
34.483
34.600
34.684
34.800
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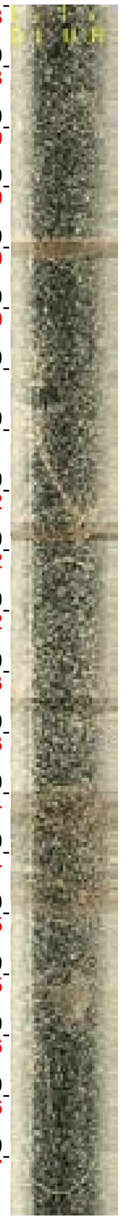
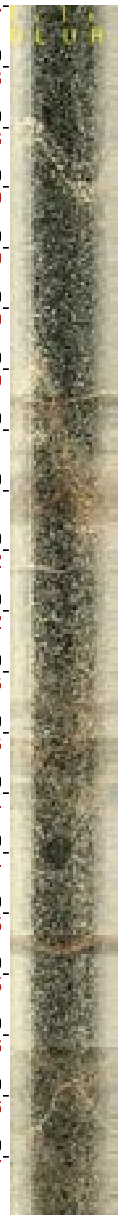
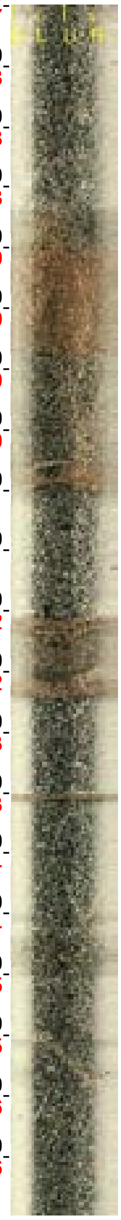
35.600
35.686
35.800
35.887



36.000
36.087
36.200
36.288
36.400
36.488
36.600
36.689
36.800
36.889
37.000
37.090
37.200
37.290
37.400
37.491
37.600
37.691
37.800
37.892
38.000
38.092
38.200
38.293
38.400
38.493
38.600
38.694
38.800
38.894
39.000
39.095
39.200
39.295
39.400
39.496
39.600
39.696
39.800
39.897



40.000
40.097
40.200
40.298
40.400
40.498
40.600
40.698
40.800
40.899
41.000
41.099
41.200
41.300
41.400
41.500
41.600
41.701
41.800
41.901
42.000
42.102
42.200
42.302
42.400
42.503
42.600
42.703
42.800
42.904
43.000
43.104
43.200
43.305
43.400
43.505
43.600
43.706
43.800
43.906

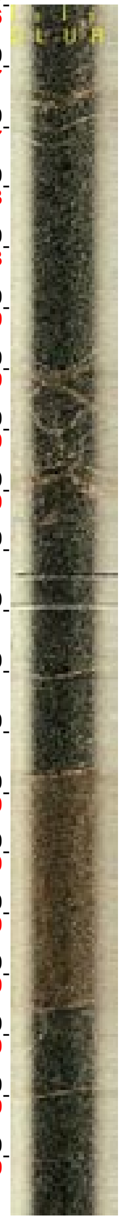


Borehole: KLX22B
Mapping: KLX22B_Geosigma_1

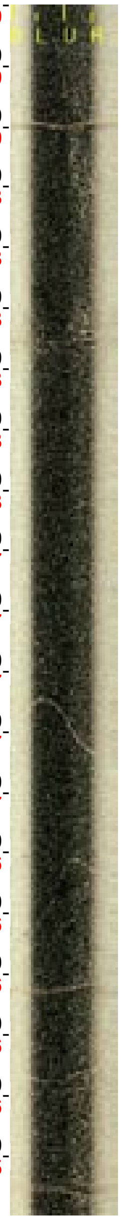
Depth range: 44.000 - 64.000 m
Azimuth: 340.0
Inclination: -60.0

44.000
44.107
44.200
44.307
44.400
44.508
44.600
44.708
44.800
44.909
45.000
45.109
45.200
45.310
45.400
45.510
45.600
45.711
45.800
45.911
46.000
46.112
46.200
46.312
46.400
46.513
46.600
46.713
46.800
46.914
47.000
47.114
47.200
47.314
47.400
47.515
47.600
47.715
47.800
47.916

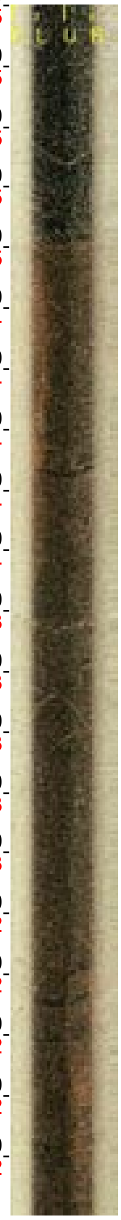
48.000
48.116
48.200
48.317
48.400
48.517
48.600
48.718
48.800
48.918
49.000
49.119
49.200
49.319
49.400
49.520
49.600
49.720
49.800
49.921
50.000
50.121
50.200
50.321
50.400
50.521
50.600
50.720
50.800
50.920
51.000
51.120
51.200
51.320
51.400
51.520
51.600
51.719
51.800
51.919



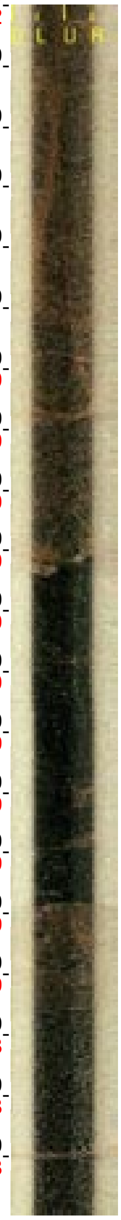
52.000
52.119
52.200
52.319
52.400
52.519
52.600
52.718
52.800
52.918
53.000
53.118
53.200
53.318
53.400
53.518
53.600
53.718
53.800
53.917
54.000
54.117
54.200
54.317
54.400
54.517
54.600
54.717
54.800
54.916
55.000
55.116
55.200
55.316
55.400
55.516
55.600
55.716
55.800
55.915



56.000
56.115
56.200
56.315
56.400
56.515
56.600
56.715
56.800
56.915
57.000
57.114
57.200
57.314
57.400
57.514
57.600
57.714
57.800
57.914
58.000
58.113
58.200
58.313
58.400
58.513
58.600
58.713
58.800
58.913
59.000
59.112
59.200
59.312
59.400
59.512
59.600
59.712
59.800
59.912



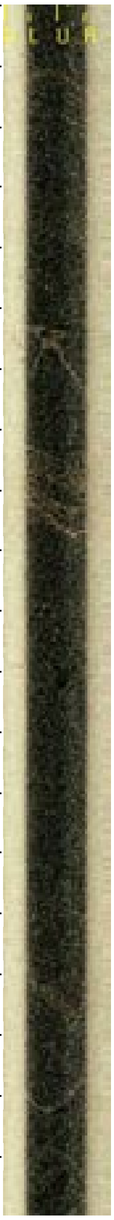
60.000
60.112
60.200
60.311
60.400
60.511
60.600
60.711
60.800
60.911
61.000
61.111
61.200
61.310
61.400
61.510
61.600
61.710
61.800
61.910
62.000
62.110
62.200
62.310
62.400
62.509
62.600
62.709
62.800
62.909
63.000
63.109
63.200
63.309
63.400
63.508
63.600
63.708
63.800
63.908



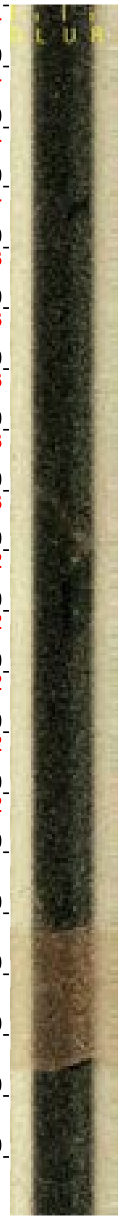
Borehole: KLX22B
Mapping: KLX22B_Geosigma_1

Depth range: 64.000 - 84.000 m
Azimuth: 340.0
Inclination: -60.0

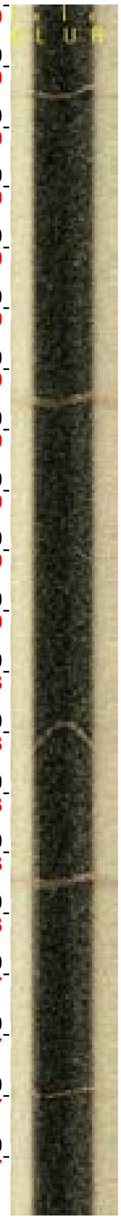
64.000
64.108
64.200
64.308
64.400
64.507
64.600
64.707
64.800
64.907
65.000
65.107
65.200
65.307
65.400
65.507
65.600
65.706
65.800
65.906
66.000
66.106
66.200
66.306
66.400
66.506
66.600
66.705
66.800
66.905
67.000
67.105
67.200
67.305
67.400
67.505
67.600
67.704
67.800
67.904



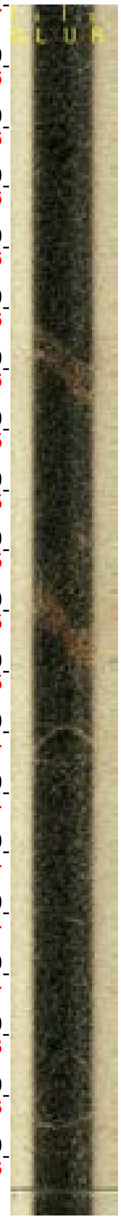
68.000
68.104
68.200
68.304
68.400
68.504
68.600
68.704
68.800
68.903
69.000
69.103
69.200
69.303
69.400
69.503
69.600
69.703
69.800
69.902
70.000
70.102
70.200
70.302
70.400
70.502
70.600
70.702
70.800
70.901
71.000
71.101
71.200
71.301
71.400
71.501
71.600
71.701
71.800
71.901



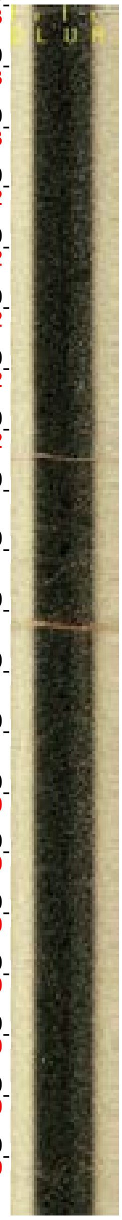
72.000
72.100
72.200
72.300
72.400
72.500
72.600
72.700
72.800
72.900
73.000
73.099
73.200
73.299
73.400
73.499
73.600
73.699
73.800
73.899
74.000
74.099
74.200
74.298
74.400
74.498
74.600
74.698
74.800
74.898
75.000
75.098
75.200
75.297
75.400
75.497
75.600
75.697
75.800
75.897



76.000
76.097
76.200
76.296
76.400
76.496
76.600
76.696
76.800
76.896
77.000
77.096
77.200
77.296
77.400
77.495
77.600
77.695
77.800
77.895
78.000
78.095
78.200
78.295
78.400
78.494
78.600
78.694
78.800
78.894
79.000
79.094
79.200
79.294
79.400
79.493
79.600
79.693
79.800
79.893



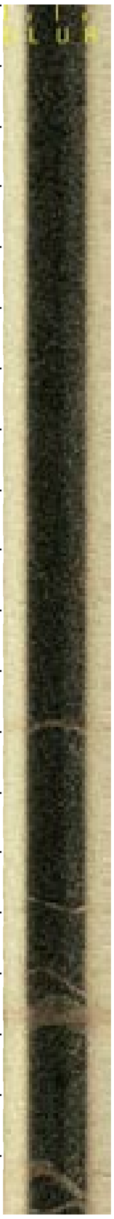
80.000
80.093
80.200
80.293
80.400
80.493
80.600
80.692
80.800
80.892
81.000
81.092
81.200
81.292
81.400
81.492
81.600
81.691
81.800
81.891
82.000
82.091
82.200
82.291
82.400
82.491
82.600
82.690
82.800
82.890
83.000
83.090
83.200
83.290
83.400
83.490
83.600
83.690
83.800
83.889



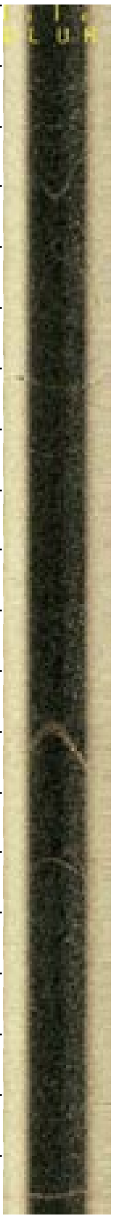
Borehole: KLX22B
Mapping: KLX22B_Geosigma_1

Depth range: 84.000 - 100.000 m
Azimuth: 340.0
Inclination: -60.0

84.000
84.089
84.200
84.289
84.400
84.489
84.600
84.689
84.800
84.888
85.000
85.088
85.200
85.288
85.400
85.488
85.600
85.688
85.800
85.888
86.000
86.087
86.200
86.287
86.400
86.487
86.600
86.687
86.800
86.887
87.000
87.086
87.200
87.286
87.400
87.486
87.600
87.686
87.800
87.886

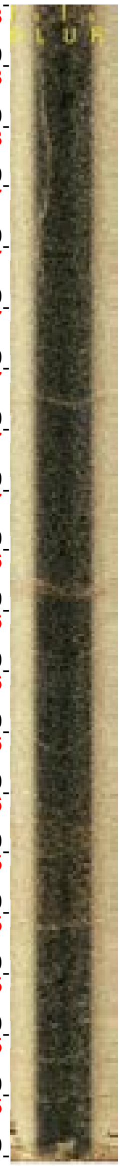


88.000
88.085
88.200
88.285
88.400
88.485
88.600
88.685
88.800
88.885
89.000
89.085
89.200
89.284
89.400
89.484
89.600
89.684
89.800
89.884
90.000
90.084
90.200
90.283
90.400
90.483
90.600
90.683
90.800
90.883
91.000
91.083
91.200
91.282
91.400
91.482
91.600
91.682
91.800
91.882



92.000
92.082
92.200
92.282
92.400
92.481
92.600
92.681
92.800
92.881
93.000
93.081
93.200
93.281
93.400
93.480
93.600
93.680
93.800
93.880
94.000
94.080
94.200
94.280
94.400
94.479
94.600
94.679
94.800
94.879
95.000
95.079
95.200
95.279
95.400
95.479
95.600
95.678
95.800
95.878

96.000
96.078
96.200
96.278
96.400
96.478
96.600
96.677
96.800
96.877
97.000
97.077
97.200
97.277
97.400
97.477
97.600
97.677
97.800
97.876
98.000
98.076
98.200
98.276
98.400
98.476
98.600
98.676
98.800
98.875
99.000
99.075
99.200
99.275
99.400
99.475
99.600
99.675
99.800
99.874



C: BIPS-image of KLX23A

Borehole Image Report

Borehole Name:	KLX23A
Mapping Name:	KLX23A_JESE
Mapping Range:	0.000 - 101.000 m
Diameter:	76.0 mm
Printed Range:	4.000 - 100.000
Pages:	6

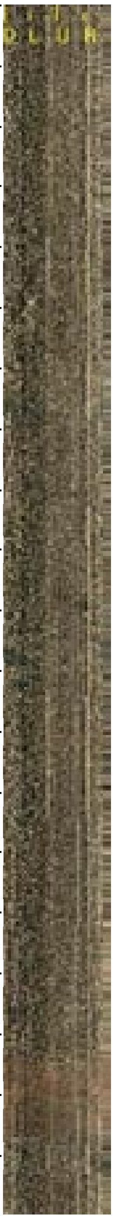
Image File Information:

File:	G:\skb\boremap\simpevarp\detaljkartering\KLX23A-B\KLX23A.BIP
Date/Time:	2006-07-05 16:42:00
Start Depth:	4.000 m
End Depth:	100.000 m
Resolution:	1.00 mm/pixel (depth)
Orientation:	Gravmetric
Image height:	96000 pixels
Image width:	360 pixels
BIP Version:	BIP-III
Locality:	LAXEMAE
Borehole:	KLX23A
Scan Direction:	Down
Color adjust:	0 0 0 (RGB)

Borehole: KLX23A
Mapping: KLX23A_JESE

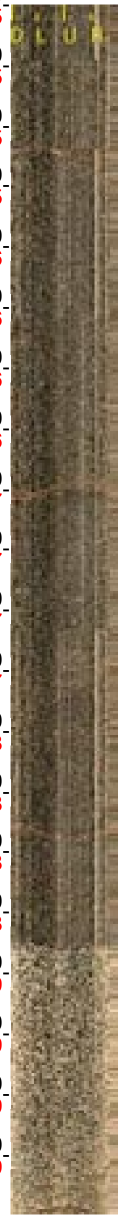
Depth range: 4.000 - 24.000 m
Azimuth: 0.0
Inclination: -90.0

4.000
4.005
4.200
4.205
4.400
4.405
4.600
4.606
4.800
4.806
5.000
5.006
5.200
5.206
5.400
5.407
5.600
5.607
5.800
5.807
6.000
6.007
6.200
6.208
6.400
6.408
6.600
6.608
6.800
6.808
7.000
7.009
7.200
7.209
7.400
7.409
7.600
7.609
7.800
7.810

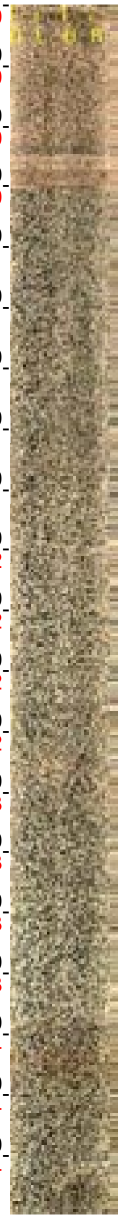


8.000
8.010
8.200
8.210
8.400
8.410
8.600
8.611
8.800
8.811
9.000
9.011
9.200
9.211
9.400
9.411
9.600
9.612
9.800
9.812
10.000
10.012
10.200
10.212
10.400
10.413
10.600
10.613
10.800
10.813
11.000
11.013
11.200
11.214
11.400
11.414
11.600
11.614
11.800
11.814

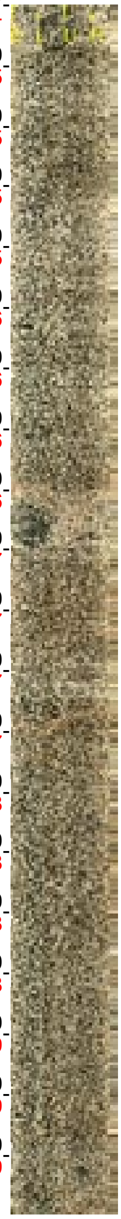
12.000
12.015
12.200
12.215
12.400
12.415
12.600
12.615
12.800
12.816
13.000
13.016
13.200
13.216
13.400
13.416
13.600
13.617
13.800
13.817
14.000
14.017
14.200
14.217
14.400
14.418
14.600
14.618
14.800
14.818
15.000
15.018
15.200
15.219
15.400
15.419
15.600
15.619
15.800
15.819



16.000
16.020
16.200
16.220
16.400
16.420
16.600
16.620
16.800
16.821
17.000
17.021
17.200
17.221
17.400
17.421
17.600
17.621
17.800
17.822
18.000
18.022
18.200
18.222
18.400
18.422
18.600
18.623
18.800
18.823
19.000
19.023
19.200
19.223
19.400
19.424
19.600
19.624
19.800
19.824



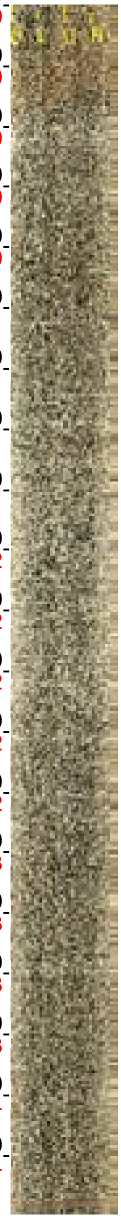
20.000
20.024
20.200
20.225
20.400
20.425
20.600
20.625
20.800
20.825
21.000
21.026
21.200
21.226
21.400
21.426
21.600
21.626
21.800
21.827
22.000
22.027
22.200
22.227
22.400
22.427
22.600
22.628
22.800
22.828
23.000
23.028
23.200
23.228
23.400
23.429
23.600
23.629
23.800
23.829



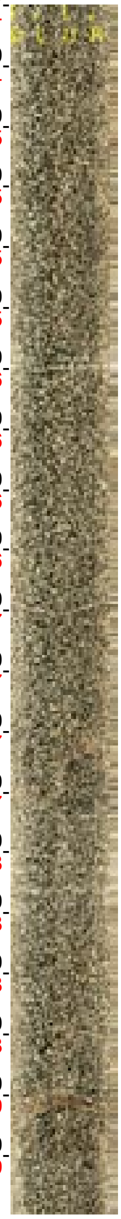
Borehole: KLX23A
Mapping: KLX23A_JESE

Depth range: 24.000 - 44.000 m
Azimuth: 0.0
Inclination: -90.0

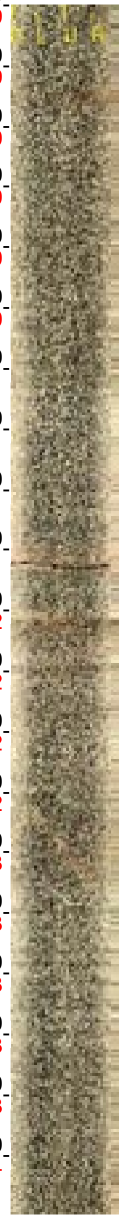
24.000
24.029
24.200
24.230
24.400
24.430
24.600
24.630
24.800
24.830
25.000
25.031
25.200
25.231
25.400
25.431
25.600
25.631
25.800
25.832
26.000
26.032
26.200
26.232
26.400
26.432
26.600
26.632
26.800
26.833
27.000
27.033
27.200
27.233
27.400
27.433
27.600
27.634
27.800
27.834



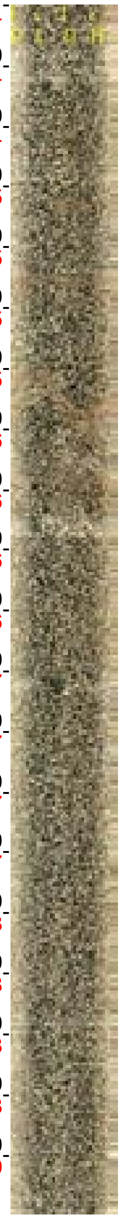
28.000
28.034
28.200
28.234
28.400
28.435
28.600
28.635
28.800
28.835
29.000
29.035
29.200
29.236
29.400
29.436
29.600
29.636
29.800
29.836
30.000
30.037
30.200
30.237
30.400
30.437
30.600
30.637
30.800
30.838
31.000
31.038
31.200
31.238
31.400
31.438
31.600
31.639
31.800
31.839



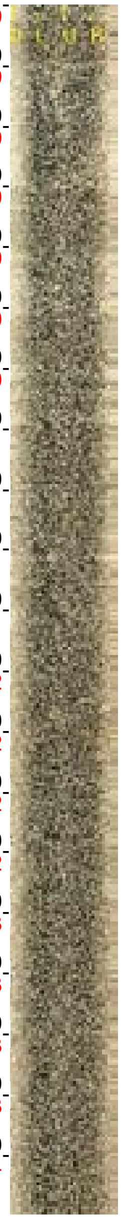
32.000
32.039
32.200
32.239
32.400
32.440
32.600
32.640
32.800
32.840
33.000
33.040
33.200
33.241
33.400
33.441
33.600
33.641
33.800
33.841
34.000
34.042
34.200
34.242
34.400
34.442
34.600
34.642
34.800
34.843
35.000
35.043
35.200
35.243
35.400
35.443
35.600
35.643
35.800
35.844



36.000
36.044
36.200
36.244
36.400
36.444
36.600
36.645
36.800
36.845
37.000
37.045
37.200
37.245
37.400
37.446
37.600
37.646
37.800
37.846
38.000
38.046
38.200
38.247
38.400
38.447
38.600
38.647
38.800
38.847
39.000
39.048
39.200
39.248
39.400
39.448
39.600
39.648
39.800
39.849



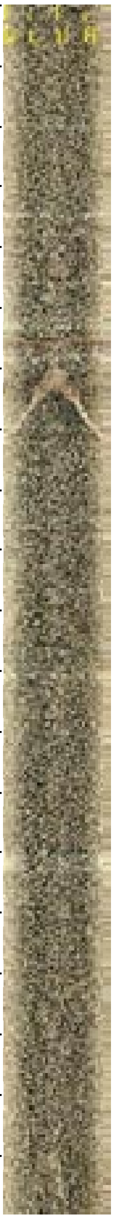
40.000
40.049
40.200
40.249
40.400
40.449
40.600
40.650
40.800
40.850
41.000
41.050
41.200
41.250
41.400
41.451
41.600
41.651
41.800
41.851
42.000
42.051
42.200
42.252
42.400
42.452
42.600
42.652
42.800
42.852
43.000
43.053
43.200
43.253
43.400
43.453
43.600
43.653
43.800
43.854



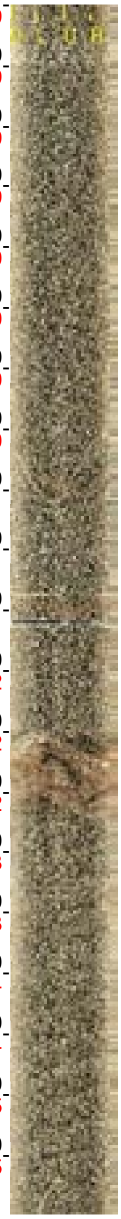
Borehole: KLX23A
Mapping: KLX23A_JESE

Depth range: 44.000 - 64.000 m
Azimuth: 0.0
Inclination: -90.0

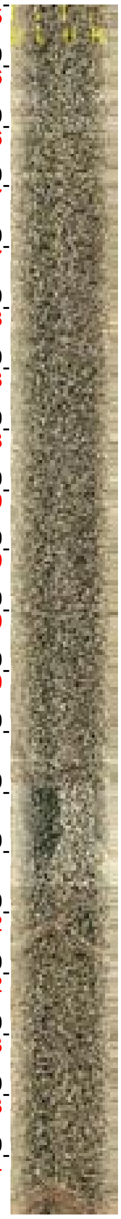
44.000
44.054
44.200
44.254
44.400
44.454
44.600
44.654
44.800
44.855
45.000
45.055
45.200
45.255
45.400
45.455
45.600
45.656
45.800
45.856
46.000
46.056
46.200
46.256
46.400
46.457
46.600
46.657
46.800
46.857
47.000
47.057
47.200
47.258
47.400
47.458
47.600
47.658
47.800
47.858



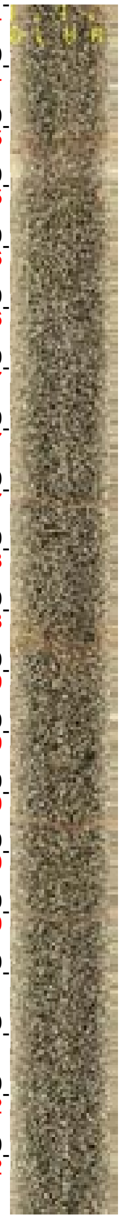
48.000
48.059
48.200
48.259
48.400
48.459
48.600
48.659
48.800
48.860
49.000
49.060
49.200
49.260
49.400
49.460
49.600
49.661
49.800
49.861
50.000
50.061
50.200
50.262
50.400
50.462
50.600
50.662
50.800
50.863
51.000
51.063
51.200
51.264
51.400
51.464
51.600
51.665
51.800
51.865



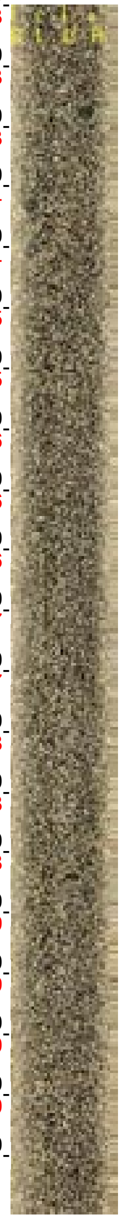
52.000
52.065
52.200
52.266
52.400
52.466
52.600
52.667
52.800
52.867
53.000
53.068
53.200
53.268
53.400
53.468
53.600
53.669
53.800
53.869
54.000
54.070
54.200
54.270
54.400
54.471
54.600
54.671
54.800
54.871
55.000
55.072
55.200
55.272
55.400
55.473
55.600
55.673
55.800
55.874



56.000
56.074
56.200
56.274
56.400
56.475
56.600
56.675
56.800
56.876
57.000
57.076
57.200
57.277
57.400
57.477
57.600
57.677
57.800
57.878
58.000
58.078
58.200
58.279
58.400
58.479
58.600
58.680
58.800
58.880
59.000
59.080
59.200
59.281
59.400
59.481
59.600
59.682
59.800
59.882



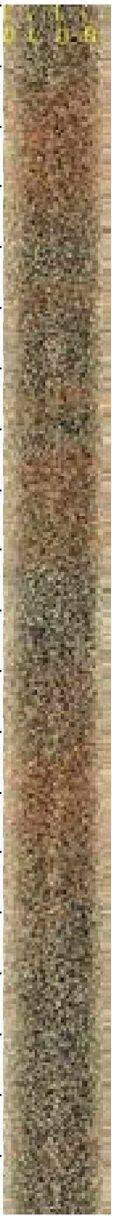
60.000
60.083
60.200
60.283
60.400
60.483
60.600
60.684
60.800
60.884
61.000
61.085
61.200
61.285
61.400
61.486
61.600
61.686
61.800
61.886
62.000
62.087
62.200
62.287
62.400
62.488
62.600
62.688
62.800
62.888
63.000
63.089
63.200
63.289
63.400
63.490
63.600
63.690
63.800
63.891



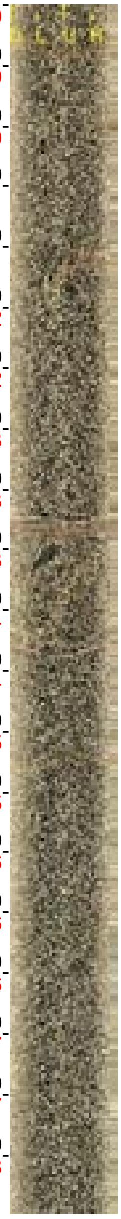
Borehole: KLX23A
Mapping: KLX23A_JESE

Depth range: 64.000 - 84.000 m
Azimuth: 0.0
Inclination: -90.0

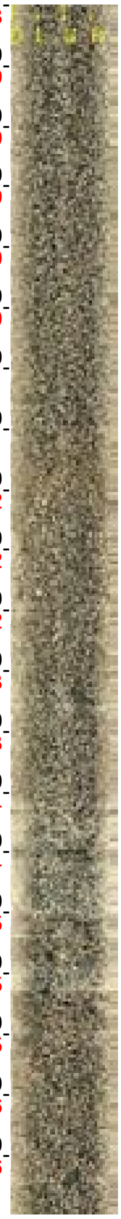
64.000
64.091
64.200
64.291
64.400
64.492
64.600
64.692
64.800
64.893
65.000
65.093
65.200
65.294
65.400
65.494
65.600
65.694
65.800
65.895
66.000
66.095
66.200
66.296
66.400
66.496
66.600
66.697
66.800
66.897
67.000
67.097
67.200
67.298
67.400
67.498
67.600
67.699
67.800
67.899



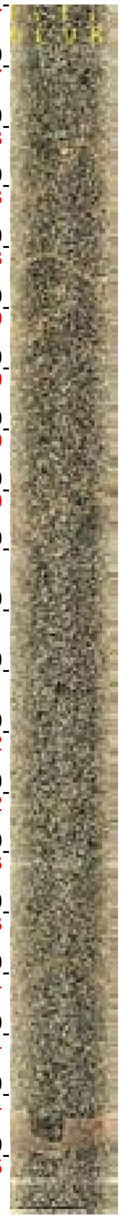
68.000
68.100
68.200
68.300
68.400
68.500
68.600
68.701
68.800
68.901
69.000
69.102
69.200
69.302
69.400
69.503
69.600
69.703
69.800
69.903
70.000
70.104
70.200
70.304
70.400
70.505
70.600
70.705
70.800
70.906
71.000
71.106
71.200
71.306
71.400
71.507
71.600
71.707
71.800
71.908



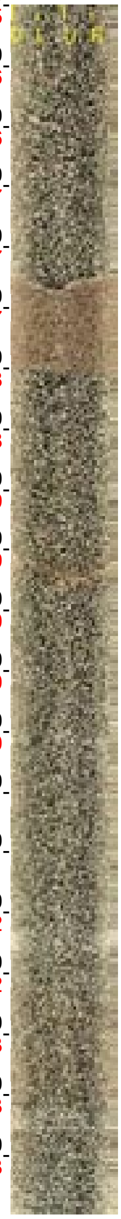
72.000
72.108
72.200
72.309
72.400
72.509
72.600
72.709
72.800
72.910
73.000
73.110
73.200
73.311
73.400
73.511
73.600
73.712
73.800
73.912
74.000
74.112
74.200
74.313
74.400
74.513
74.600
74.714
74.800
74.914
75.000
75.115
75.200
75.315
75.400
75.515
75.600
75.716
75.800
75.916



76.000
76.117
76.200
76.317
76.400
76.518
76.600
76.718
76.800
76.918
77.000
77.119
77.200
77.319
77.400
77.520
77.600
77.720
77.800
77.921
78.000
78.121
78.200
78.321
78.400
78.522
78.600
78.722
78.800
78.923
79.000
79.123
79.200
79.324
79.400
79.524
79.600
79.724
79.800
79.925



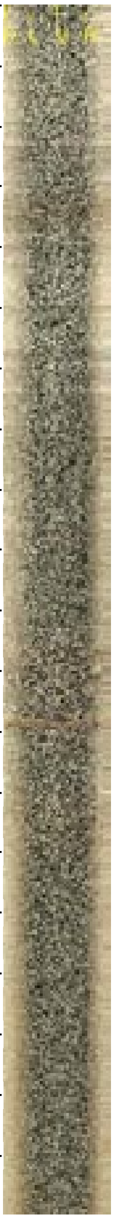
80.000
80.125
80.200
80.326
80.400
80.526
80.600
80.727
80.800
80.927
81.000
81.127
81.200
81.328
81.400
81.528
81.600
81.729
81.800
81.929
82.000
82.130
82.200
82.330
82.400
82.530
82.600
82.731
82.800
82.931
83.000
83.132
83.200
83.332
83.400
83.533
83.600
83.733
83.800
83.933



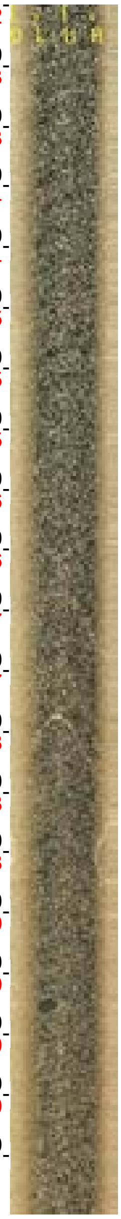
Borehole: KLX23A
Mapping: KLX23A_JESE

Depth range: 84.000 - 100.000 m
Azimuth: 0.0
Inclination: -90.0

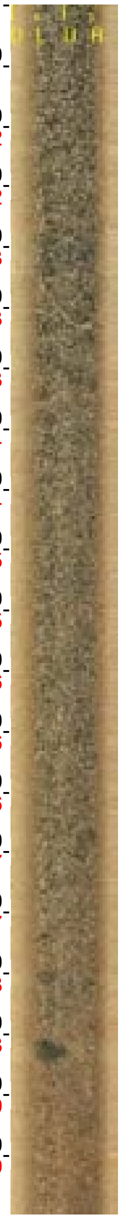
84.000
84.134
84.200
84.334
84.400
84.535
84.600
84.735
84.800
84.936
85.000
85.136
85.200
85.336
85.400
85.537
85.600
85.737
85.800
85.938
86.000
86.138
86.200
86.339
86.400
86.539
86.600
86.739
86.800
86.940
87.000
87.140
87.200
87.341
87.400
87.541
87.600
87.742
87.800
87.942



88.000
88.142
88.200
88.343
88.400
88.543
88.600
88.744
88.800
88.944
89.000
89.145
89.200
89.345
89.400
89.545
89.600
89.746
89.800
89.946
90.000
90.147
90.200
90.347
90.400
90.548
90.600
90.748
90.800
90.948
91.000
91.149
91.200
91.349
91.400
91.550
91.600
91.750
91.800
91.951



92.000
92.151
92.200
92.351
92.400
92.552
92.600
92.752
92.800
92.953
93.000
93.153
93.200
93.353
93.400
93.554
93.600
93.754
93.800
93.955
94.000
94.155
94.200
94.356
94.400
94.556
94.600
94.756
94.800
94.957
95.000
95.157
95.200
95.358
95.400
95.558
95.600
95.759
95.800
95.959



96.000
96.159
96.200
96.360
96.400
96.560
96.600
96.761
96.800
96.961
97.000
97.162
97.200
97.362
97.400
97.562
97.600
97.763
97.800
97.963
98.000
98.164
98.200
98.364
98.400
98.565
98.600
98.765
98.800
98.965
99.000
99.166
99.200
99.366
99.400
99.567
99.600
99.767
99.800
99.968

D: BIPS-image of KLX23B

Borehole Image Report

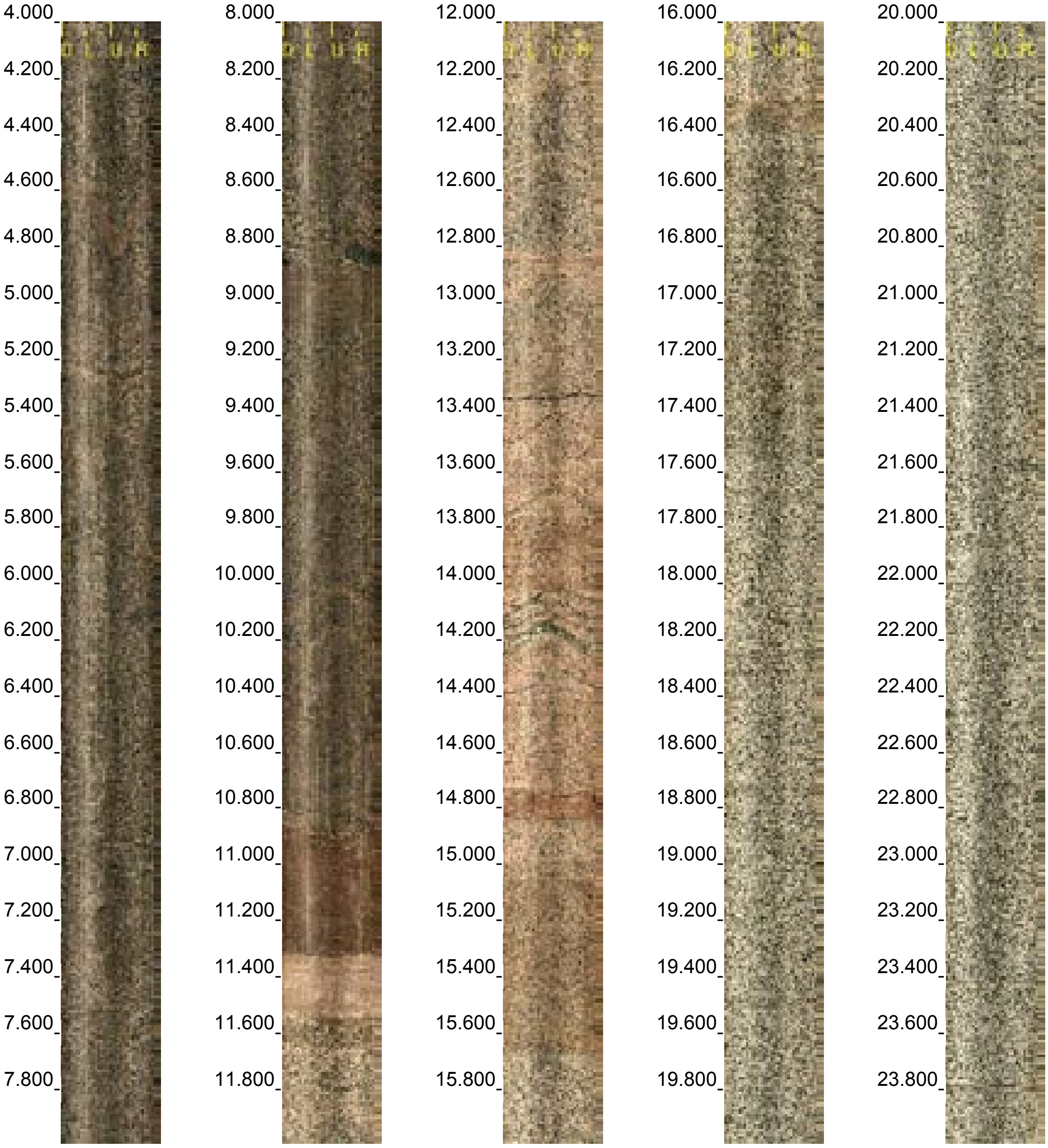
Borehole Name:	KLX23B
Mapping Name:	KLX23B_JESE
Mapping Range:	0.000 - 51.000 m
Diameter:	76.0 mm
Printed Range:	4.000 - 50.208
Pages:	4

Image File Information:

File:	G:\skb\boremap\simpevarp\detaljkartering\KLX23A-B\KLX23B.BIP
Date/Time:	2006-07-05 15:59:00
Start Depth:	4.000 m
End Depth:	50.208 m
Resolution:	1.00 mm/pixel (depth)
Orientation:	Gravmetric
Image height:	46208 pixels
Image width:	360 pixels
BIP Version:	BIP-III
Locality:	LAXEMAE
Borehole:	KLX23B
Scan Direction:	Down
Color adjust:	0 0 0 (RGB)

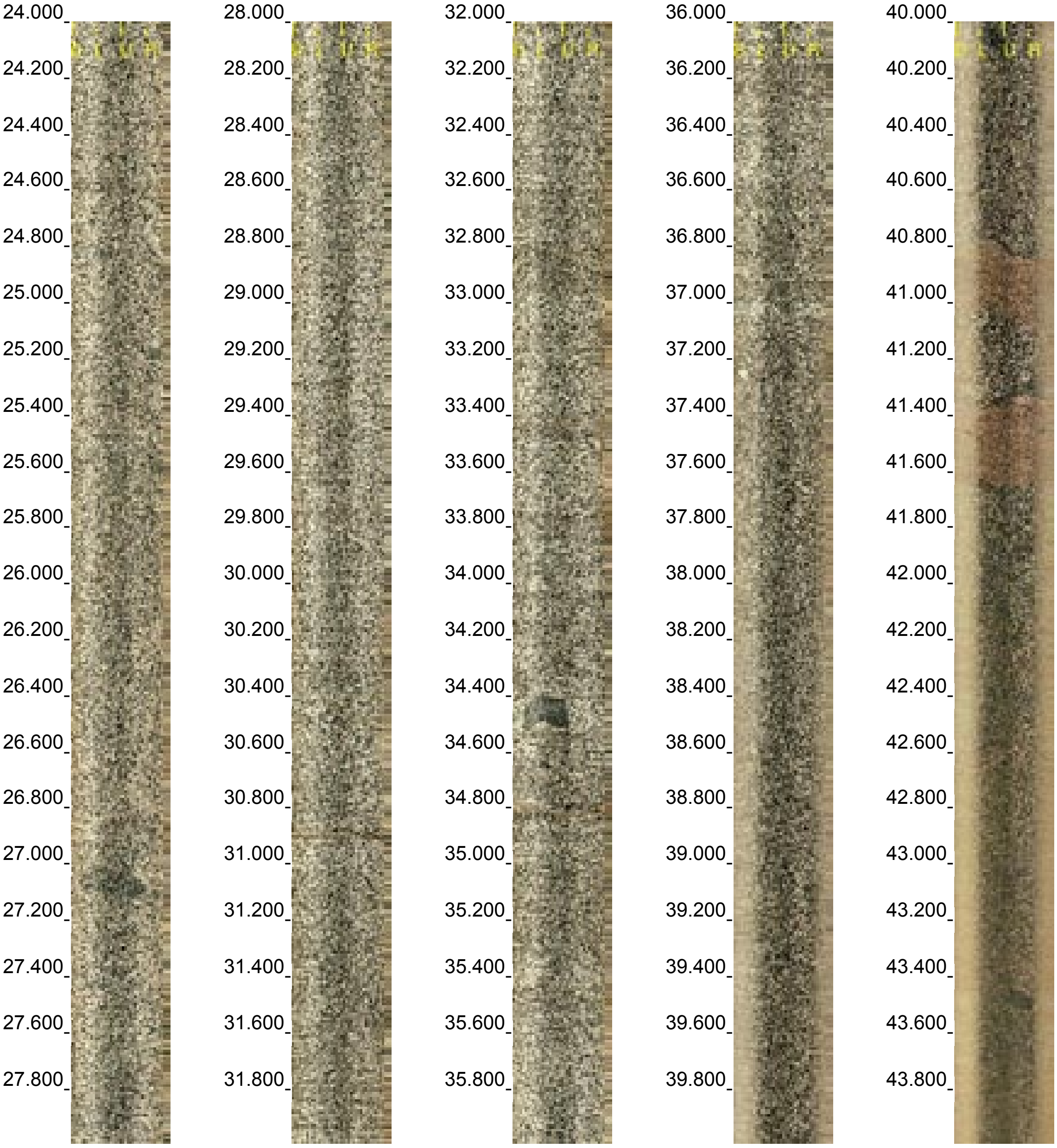
Borehole: KLX23B
Mapping: KLX23B_JESE

Depth range: 4.000 - 24.000 m
Azimuth: 0.0
Inclination: -90.0



Borehole: KLX23B
Mapping: KLX23B_JESE

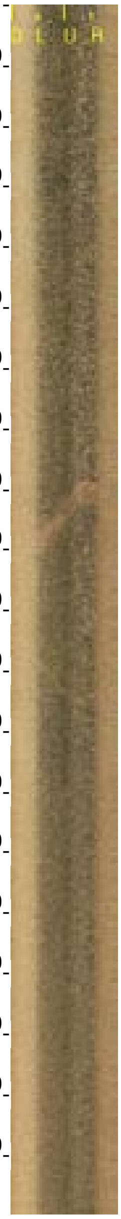
Depth range: 24.000 - 44.000 m
Azimuth: 0.0
Inclination: -90.0



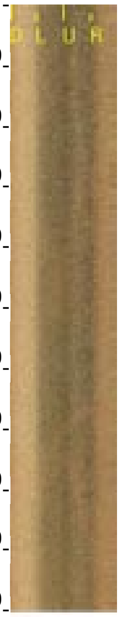
Borehole: KLX23B
Mapping: KLX23B_JESE

Depth range: 44.000 - 50.208 m
Azimuth: 0.0
Inclination: -90.0

44.000_
44.200_
44.400_
44.600_
44.800_
45.000_
45.200_
45.400_
45.600_
45.800_
46.000_
46.200_
46.400_
46.600_
46.800_
47.000_
47.200_
47.400_
47.600_
47.800_

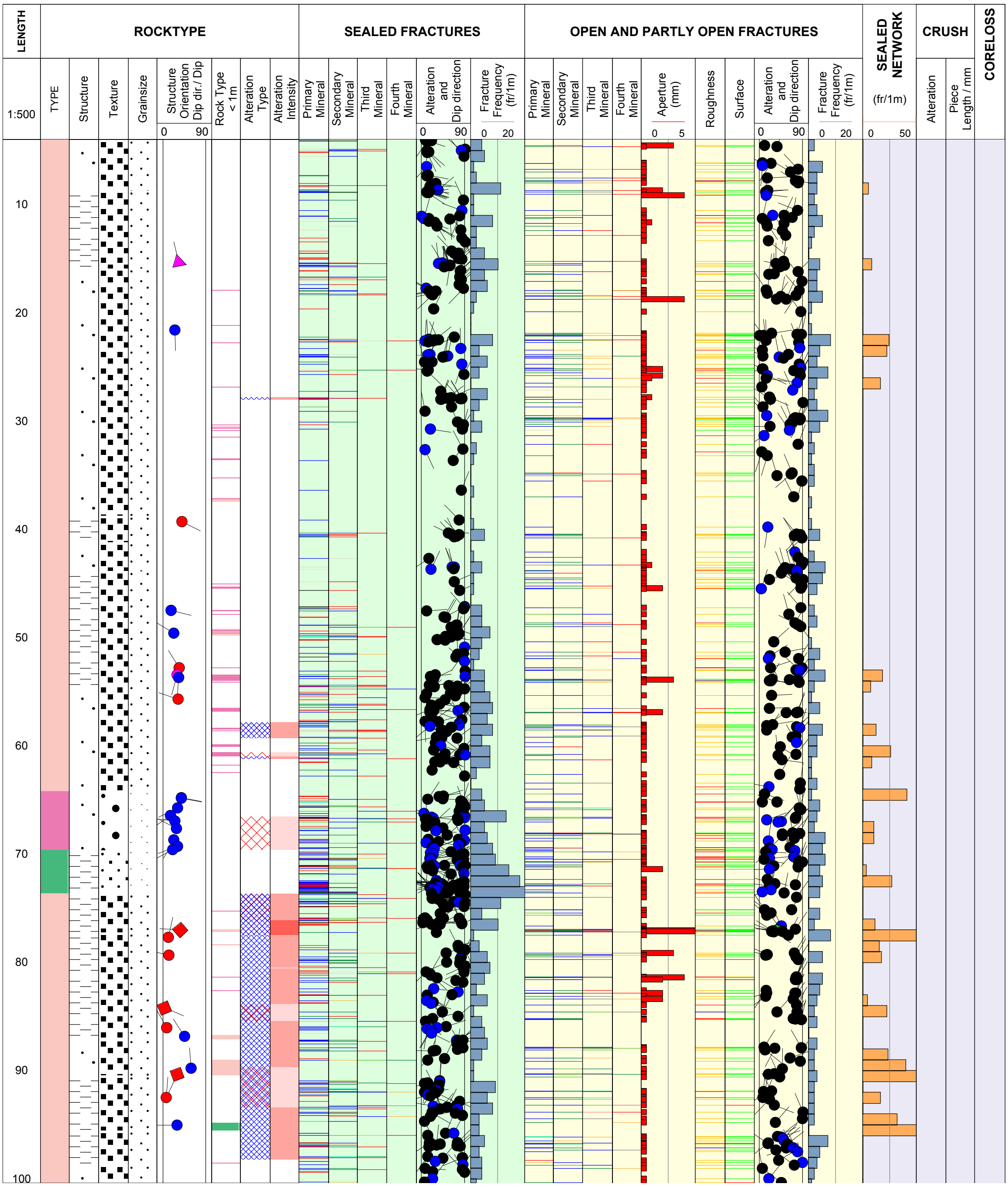


48.000_
48.200_
48.400_
48.600_
48.800_
49.000_
49.200_
49.400_
49.600_
49.800_
50.000_
50.200_
50.400_
50.600_
50.800_
51.000_
51.200_
51.400_
51.600_
51.800_



A: WellCad diagram of KLX22A

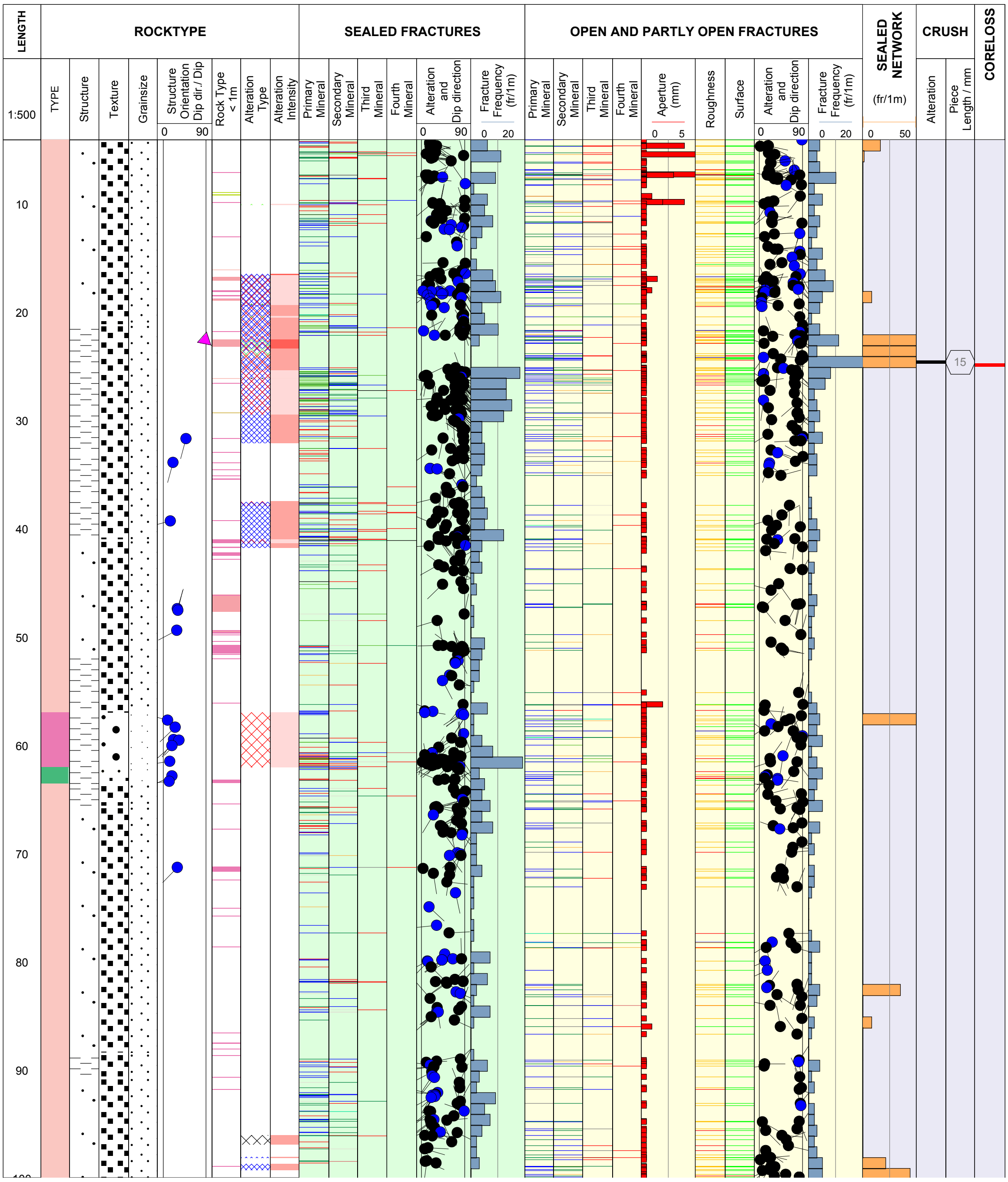
Title	GEOLOGY IN KLX22A			Appendix:
Site	LAXEMAR	Coordinate System	RT90-RHB70	
Borehole	KLX22A	Northing [m]	6366548.35	
Diameter [mm]	76	Easting [m]	1546688.60	
Length [m]	100.450	Elevation [m.a.s.l.]	21.97	
Bearing [°]	179.19	Drilling Start Date	2006-05-05 12:00:00	
Inclination [°]	-60.33	Drilling Stop Date	2006-05-12 13:40:00	
Date of coremapping	2006-06-29 16:54:00	Plot Date	2007-10-25 22:03:45	
Rocktype data from	p_rock	Signed data		



B: WellCad diagram of KLX22B

Title GEOLOGY IN KLX22B **Appendix:**

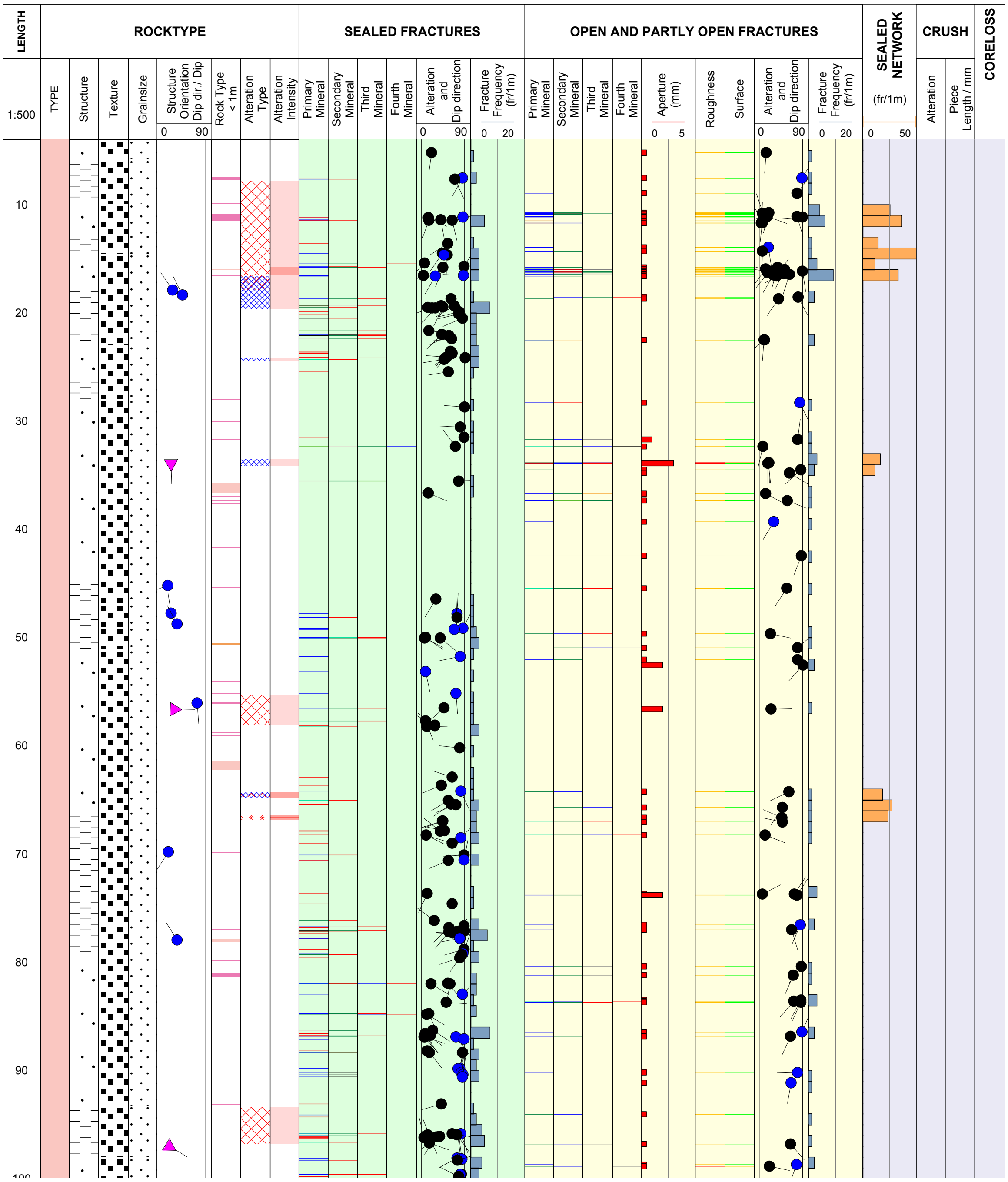
Site	LAXEMAR	**Coordinate System**	RT90-RHB70
Borehole	KLX22B	**Northing [m]**	6366553.13
Diameter [mm]	76	**Easting [m]**	1546685.41
Length [m]	100.250	**Elevation [m.a.s.l.]**	21.58
Bearing [°]	343.97	**Drilling Start Date**	2006-05-13 09:13:00
Inclination [°]	-61.24	**Drilling Stop Date**	2006-05-18 13:03:00
Date of coremapping	2006-06-29 16:55:00	**Plot Date**	2007-10-25 22:03:45
Rocktype data from	p_rock	**Signed data**	



C: WellCad diagram of KLX23A

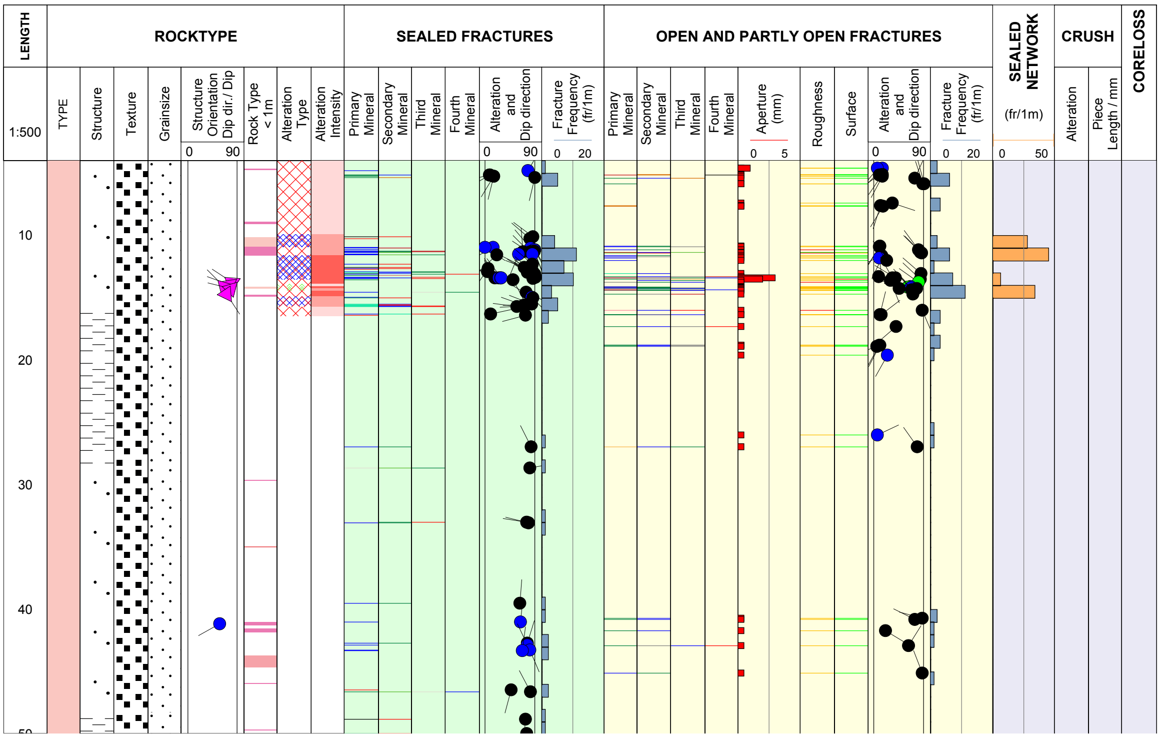
Title GEOLOGY IN KLX23A **Appendix:**

Site	LAXEMAR	**Coordinate System**	RT90-RHB70
Borehole	KLX23A	**Northing [m]**	6366106.89
Diameter [mm]	76	**Easting [m]**	1546715.74
Length [m]	100.150	**Elevation [m.a.s.l.]**	22.26
Bearing [°]	28.73	**Drilling Start Date**	2006-05-21 10:27:00
Inclination [°]	-61.35	**Drilling Stop Date**	2006-05-27 07:45:00
Date of coremapping	2006-07-25 07:14:00	**Plot Date**	2007-10-25 22:03:45
Rocktype data from	p_rock	**Signed data**	



D: WellCad diagram of KLX23B

Title	GEOLOGY IN KLX23B		Appendix:
Site	LAXEMAR	Coordinate System	RT90-RHB70
Borehole	KLX23B	Northing [m]	6366101.90
Diameter [mm]	76	Easting [m]	1546717.33
Length [m]	50.270	Elevation [m.a.s.l.]	22.32
Bearing [°]	121.36	Drilling Start Date	2006-05-28 13:55:00
Inclination [°]	-60.84	Drilling Stop Date	2006-05-31 11:15:00
Date of coremapping	2006-07-24 08:47:00	Plot Date	2007-10-25 22:03:45
Rocktype data from	p_rock	Signed data	



Legend to WellCad diagram

Title **LEGEND FOR LAXEMAR** **KLX22A**

Site	LAXEMAR
Borehole	KLX22A
Plot Date	2007-10-25 22:03:45
Signed data	

ROCKTYPE LAXEMAR

- **Äspö Diorite**
- **Dolerite**
- **Fine-grained Götemargranite**
- **Coarse-grained Götemargranite**
- **Fine-grained granite**
- **Pegmatite**
- **Granite**
- **Ävrö granite**
- **Quartz monzodiorite**
- **Diorite / Gabbro**
- **Fine-grained dioritoid**
- **Fine-grained diorite-gabbro**
- **Sulphide mineralization**
- **Sandstone**
- **Soil**
- **Ävrö quartz monzodiorite**
- **Ävrö granodiorite**

ROCK ALTERATION TYPE

- **Oxidized**
- **Chloritisized**
- **Epidotisized**
- **Weathered**
- **Tectonized**
- **Sericitisized**
- **Quartz dissolution**
- **Silicification**
- **Argillization**
- **Albitization**
- **Carbonatization**
- **Saussuritization**
- **Steatitization**
- **Uralitization**
- **Laumontitization**
- **Fract zone alteration**

MINERAL

- **Epidote**
- **Hematite**
- **Calcite**
- **Chlorite**
- **Quartz**
- **Unknown**
- **Pyrite**
- **Clay Minerals**
- **Prehnite**
- **Oxidized Walls**

STRUCTURE

- **Cataclastic**
- **Schistose**
- **Gneissic**
- **Mylonitic**
- **Ductile Shear Zone**
- **Brittle-Ductile Zone**
- **Veined**
- **Banded**
- **Massive**
- **Foliated**
- **Brecciated**
- **Lineated**

TEXTURE

- **Hornfelsed**
- **Porphyritic**
- **Ophitic**
- **Equigranular**
- **Augen-Bearing**
- **Unequigranular**
- **Metamorphic**

GRAINSIZE

- **Aphanitic**
- **Fine-grained**
- **Fine to medium grained**
- **Medium to coarse grained**
- **Coarse-grained**
- **Medium-grained**

STRUCTURE ORIENTATION

- **Cataclastic**
- **Bedded**
- **Gneissic**
- **Schistose**
- **Brittle-Ductile Shear Zone**
- **Ductile Shear Zone**
- **Lineated**
- **Banded**
- **Veined**
- **Brecciated**
- **Foliated**
- **Mylonitic**

ROCK ALTERATION INTENSITY

- **No intensity**
- **Faint**
- **Weak**
- **Medium**
- **Strong**

ROUGHNESS

- **Planar**
- **Undulating**
- **Stepped**
- **Irregular**

SURFACE

- **Rough**
- **Smooth**
- **Slickensided**

CRUSH ALTERATION

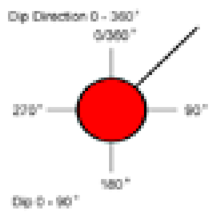
- **Slightly Altered**
- **Moderately Altered**
- **Highly Altered**
- **Completley Altered**
- **Gouge**
- **Fresh**

FRACTURE ALTERATION

- **Slightly Altered**
- **Moderately Altered**
- **Highly Altered**
- **Completely Altered**
- **Gouge**
- **Fresh**

FRACTURE DIRECTION

STRUKTURE ORIENTATION



Title LEGEND FOR LAXEMAR KLX22B

Site LAXEMAR
Borehole KLX22B
Plot Date 2007-11-15 22:03:08
Signed data

ROCKTYPE LAXEMAR

- Äspö Diorite
- Dolerite
- Fine-grained Götemargranite
- Coarse-grained Götemargranite
- Fine-grained granite
- Pegmatite
- Granite
- Ävrö granite
- Quartz monzodiorite
- Diorite / Gabbro
- Fine-grained dioritoid
- Fine-grained diorite-gabbro
- Sulphide mineralization
- Sandstone
- Soil
- Ävrö quartz monzodiorite
- Ävrö granodiorite

ROCK ALTERATION TYPE

- Oxidized
- Chloritisized
- Epidotisized
- Weathered
- Tectonized
- Sericitisized
- Quartz dissolution
- Silicification
- Argillization
- Albitization
- Carbonatization
- Saussuritization
- Steatitization
- Uralitization
- Laumontitization
- Fract zone alteration

MINERAL

- Epidote
- Calcite
- Chlorite
- Quartz
- Pyrite
- Clay Minerals
- Laumontite
- Prehnite
- Iron Hydroxide

STRUCTURE

- Cataclastic
- Schistose
- Gneissic
- Mylonitic
- Ductile Shear Zone
- Brittle-Ductile Zone
- Veined
- Banded
- Massive
- Foliated
- Brecciated
- Lineated

TEXTURE

- Hornfelsed
- Porphyritic
- Ophitic
- Equigranular
- Augen-Bearing
- Unequigranular
- Metamorphic

GRAINSIZE

- Aphanitic
- Fine-grained
- Fine to medium grained
- Medium to coarse grained
- Coarse-grained
- Medium-grained

STRUCTURE ORIENTATION

- Cataclastic
- Bedded
- Gneissic
- Schistose
- Brittle-Ductile Shear Zone
- Ductile Shear Zone
- Lineated
- Banded
- Veined
- Brecciated
- Foliated
- Mylonitic

ROCK ALTERATION INTENSITY

- No intensity
- Faint
- Weak
- Medium
- Strong

ROUGHNESS

- Planar
- Undulating
- Stepped
- Irregular

SURFACE

- Rough
- Smooth
- Slickensided

CRUSH ALTERATION

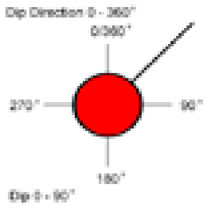
- Slightly Altered
- Moderately Altered
- Highly Altered
- Completley Altered
- Gouge
- Fresh

FRACTURE ALTERATION

- Slightly Altered
- Moderately Altered
- Highly Altered
- Completely Altered
- Gouge
- Fresh

FRACTURE DIRECTION

STRUKTURE ORIENTATION



Title **LEGEND FOR LAXEMAR** **KLX23A**

Site	LAXEMAR
Borehole	KLX23A
Plot Date	2007-10-25 22:03:45
Signed data	

ROCKTYPE LAXEMAR

- **Äspö Diorite**
- **Dolerite**
- **Fine-grained Götemargranite**
- **Coarse-grained Götemargranite**
- **Fine-grained granite**
- **Pegmatite**
- **Granite**
- **Ävrö granite**
- **Quartz monzodiorite**
- **Diorite / Gabbro**
- **Fine-grained dioritoid**
- **Fine-grained diorite-gabbro**
- **Sulphide mineralization**
- **Sandstone**
- **Soil**
- **Ävrö quartz monzodiorite**
- **Ävrö granodiorite**

ROCK ALTERATION TYPE

- **Oxidized**
- **Chloritisized**
- **Epidotisized**
- **Weathered**
- **Tectonized**
- **Sericitisized**
- **Quartz dissolution**
- **Silicification**
- **Argillization**
- **Albitization**
- **Carbonatization**
- **Saussuritization**
- **Steatitization**
- **Uralitization**
- **Laumontitization**
- **Fract zone alteration**

MINERAL

- **Hematite**
- **Calcite**
- **Chlorite**
- **Prehnite**
- **Iron Hydroxide**

STRUCTURE

- **Cataclastic**
- **Schistose**
- **Gneissic**
- **Mylonitic**
- **Ductile Shear Zone**
- **Brittle-Ductile Zone**
- **Veined**
- **Banded**
- **Massive**
- **Foliated**
- **Brecciated**
- **Lineated**

TEXTURE

- **Hornfelsed**
- **Porphyritic**
- **Ophitic**
- **Equigranular**
- **Augen-Bearing**
- **Unequigranular**
- **Metamorphic**

GRAINSIZE

- **Aphanitic**
- **Fine-grained**
- **Fine to medium grained**
- **Medium to coarse grained**
- **Coarse-grained**
- **Medium-grained**

STRUCTURE ORIENTATION

- **Cataclastic**
- **Bedded**
- **Gneissic**
- **Schistose**
- **Brittle-Ductile Shear Zone**
- **Ductile Shear Zone**
- **Lineated**
- **Banded**
- **Veined**
- **Brecciated**
- **Foliated**
- **Mylonitic**

ROCK ALTERATION INTENSITY

- **No intensity**
- **Faint**
- **Weak**
- **Medium**
- **Strong**

ROUGHNESS

- **Planar**
- **Undulating**
- **Stepped**
- **Irregular**

SURFACE

- **Rough**
- **Smooth**
- **Slickensided**

CRUSH ALTERATION

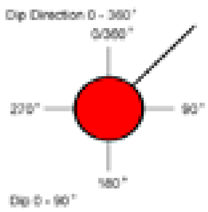
- **Slightly Altered**
- **Moderately Altered**
- **Highly Altered**
- **Completley Altered**
- **Gouge**
- **Fresh**

FRACTURE ALTERATION

- **Slightly Altered**
- **Moderately Altered**
- **Highly Altered**
- **Completely Altered**
- **Gouge**
- **Fresh**

FRACTURE DIRECTION

STRUKTURE ORIENTATION



Title	LEGEND FOR LAXEMAR	KLX23B

Site	LAXEMAR
Borehole	KLX23B
Plot Date	2007-10-25 22:03:45
Signed data	

ROCKTYPE LAXEMAR

- Äspö Diorite
- Dolerite
- Fine-grained Götemargranite
- Coarse-grained Götemargranite
- Fine-grained granite
- Pegmatite
- Granite
- Ävrö granite
- Quartz monzodiorite
- Diorite / Gabbro
- Fine-grained dioritoid
- Fine-grained diorite-gabbro
- Sulphide mineralization
- Sandstone
- Soil
- Ävrö quartz monzodiorite
- Ävrö granodiorite

ROCK ALTERATION TYPE

- Oxidized
- Chloritisized
- Epidotisized
- Weathered
- Tectonized
- Sericitisized
- Quartz dissolution
- Silicification
- Argillization
- Albitization
- Carbonatization
- Saussuritization
- Steatitization
- Uralitization
- Laumontitization
- Fract zone alteration

MINERAL

- Epidote
- Hematite
- Calcite
- Chlorite
- Pyrite
- Clay Minerals
- Laumontite
- Prehnite
- Iron Hydroxide

STRUCTURE

- Cataclastic
- Schistose
- Gneissic
- Mylonitic
- Ductile Shear Zone
- Brittle-Ductile Zone
- Veined
- Banded
- Massive
- Foliated
- Brecciated
- Lineated

TEXTURE

- Hornfelsed
- Porphyritic
- Ophitic
- Equigranular
- Augen-Bearing
- Unequigranular
- Metamorphic

GRAINSIZE

- Aphanitic
- Fine-grained
- Fine to medium grained
- Medium to coarse grained
- Coarse-grained
- Medium-grained

STRUCTURE ORIENTATION

- Cataclastic
- Bedded
- Gneissic
- Schistose
- Brittle-Ductile Shear Zone
- Ductile Shear Zone
- Lineated
- Banded
- Veined
- Brecciated
- Foliated
- Mylonitic

ROCK ALTERATION INTENSITY

- No intensity
- Faint
- Weak
- Medium
- Strong

ROUGHNESS

- Planar
- Undulating
- Stepped
- Irregular

SURFACE

- Rough
- Smooth
- Slickensided

CRUSH ALTERATION

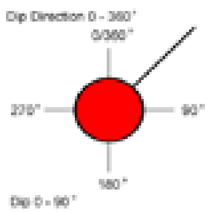
- Slightly Altered
- Moderately Altered
- Highly Altered
- Completley Altered
- Gouge
- Fresh

FRACTURE ALTERATION

- Slightly Altered
- Moderately Altered
- Highly Altered
- Completely Altered
- Gouge
- Fresh

FRACTURE DIRECTION

STRUKTURE ORIENTATION



A: In-data: Borehole length and diameter for KLX22A

KLX22A, 2006-05-05 12:00:00 - 2006-05-12 13:40:00 (0.300 - 100.450 m)

Sub Secup (m)	Sub Seclow (m)	Hole Diam (m)	Comment
0.300	2.000	0.0960	HQ
2.000	100.450	0.0758	Corac N/3

Printout from SICADA 2006-06-29 11:11:15.

B: In-data: Borehole length and diameter for KLX22B

KLX22B, 2006-05-13 09:13:00 - 2006-05-18 13:03:00 (0.300 - 100.250 m)

Sub Secup (m)	Sub Seclow (m)	Hole Diam (m)	Comment
0.300	2.000	0.0960	HQ
2.000	100.250	0.0758	Corac N/3

Printout from SICADA 2006-06-29 11:12:53.

C: In-data: Borehole length and diameter for KLX23A

KLX23A, 2006-05-21 10:27:00 - 2006-05-27 07:45:00 (0.300 - 100.150 m)

Sub Secup (m)	Sub Seclow (m)	Hole Diam (m)	Comment
0.300	2.350	0.0960	HQ
2.350	100.150	0.0758	Corac N3

Printout from SICADA 2006-06-29 11:14:24.

D: In-data: Borehole length and diameter for KLX23B

KLX23B, 2006-05-28 13:55:00 - 2006-05-31 11:15:00 (0.300 - 50.270 m)

Sub Secup (m)	Sub Seclow (m)	Hole Diam (m)	Comment
0.300	2.300	0.0960	HQ
2.300	50.270	0.0758	Corac

Printout from SICADA 2006-06-29 11:15:58.

A: In-data: Reference marks for length adjustment for KLX22A

KLX22A, 2006-05-19 15:30:00 - 2006-05-19 17:30:00 (50.000 - 80.000 m)

Bhlen (m)	Rotation Speed (rpm)	Start Flow (l/h)	Stop Flow (l/h)	Stop Pressure (bar)	Cutter Time (s)	Trace Detectable	Cutter Diameter (mm)	Comment	QC
50.00	400.00	450.000	1000.000	55.0	120.00			Ingen klar indikation utslag	*
80.00	400.00	400.000	1000.000	50.0	120.00			Ingen klar indikation utslag, släppte kulan 17:45	*

Printout from SICADA 2007-12-03 08:37:02.

B: In-data: Reference marks for length adjustment for KLX22B

KLX22B, 2006-05-19 09:13:00 - 2006-05-19 13:00:00 (50.000 - 80.000 m)

Bhlen (m)	Rotation Speed (rpm)	Start Flow (l/h)	Stop Flow (l/h)	Stop Pressure (bar)	Cutter Time (s)	Trace Detectable	Cutter Diameter (mm)	Comment	QC
50.00	400.00	350.000	1000.000	45.0	120.00				*
80.00	400.00	320.000	1000.000	42.0	120.00			Släppte kulan 13:15	*

Printout from SICADA 2007-12-03 08:39:07.

C: In-data: Reference marks for length adjustment for KLX23A

KLX23A, 2006-05-28 07:00:00 - 2006-05-28 10:30:00 (50.000 - 80.000 m)

Bhlen (m)	Rotation Speed (rpm)	Start Flow (l/h)	Stop Flow (l/h)	Stop Pressure (bar)	Cutter Time (s)	Trace Detectable	Cutter Diameter (mm)	Comment	QC
50.00	400.00	250.000	1000.000	38.0	87.00				*
80.00	400.00	300.000	1000.000	35.0	84.00			Släppte kulan 9:25	*

Printout from SICADA 2007-12-03 08:40:15.

A: In-data: Borehole deviation data for KLX22A

SICADA - object_location

Idcode	Coord System	Northing (m)	Easting (m)	Elevation (m.a.s.l.)	Length (m)	Vertical Depth (m)	Inclination (degrees)	Bearing (degrees)	Inclination Uncert (degrees)	Bearing Uncert (degrees)	Radius Uncert (m)	Origin	Indat
KLX22A	RT90-RHB70	6366548.35	1546688.60	21.97	0.00	0.00	-60.34	179.19	0.151	0.666	0.00	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366546.86	1546688.62	19.36	3.00	2.61	-60.32	179.19	0.151	0.666	0.02	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366545.38	1546688.64	16.75	6.00	5.21	-60.26	179.22	0.151	0.666	0.03	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366543.89	1546688.66	14.15	9.00	7.82	-60.13	179.25	0.151	0.666	0.05	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366542.39	1546688.68	11.55	12.00	10.41	-59.91	179.28	0.151	0.666	0.07	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366540.88	1546688.69	8.96	15.00	13.01	-59.83	179.31	0.151	0.666	0.09	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366539.37	1546688.71	6.37	18.00	15.60	-59.78	179.39	0.151	0.666	0.10	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366537.86	1546688.72	3.77	21.00	18.19	-59.70	179.82	0.151	0.666	0.12	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366536.34	1546688.72	1.18	24.00	20.78	-59.63	180.30	0.151	0.666	0.14	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366534.83	1546688.71	-1.40	27.00	23.37	-59.55	180.82	0.151	0.666	0.16	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366533.30	1546688.68	-3.99	30.00	25.95	-59.47	180.94	0.151	0.666	0.18	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366531.78	1546688.65	-6.57	33.00	28.54	-59.41	181.26	0.151	0.666	0.19	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366530.25	1546688.62	-9.15	36.00	31.12	-59.37	181.44	0.151	0.666	0.21	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366528.72	1546688.58	-11.73	39.00	33.70	-59.30	181.60	0.151	0.666	0.23	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366527.19	1546688.53	-14.31	42.00	36.28	-59.23	181.58	0.151	0.666	0.25	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366525.66	1546688.49	-16.89	45.00	38.86	-59.22	181.68	0.151	0.666	0.26	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366524.12	1546688.44	-19.47	48.00	41.43	-59.14	181.81	0.151	0.666	0.28	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366522.58	1546688.39	-22.04	51.00	44.01	-59.12	181.96	0.151	0.666	0.30	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366521.04	1546688.34	-24.62	54.00	46.58	-59.09	182.06	0.151	0.666	0.32	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366519.50	1546688.28	-27.19	57.00	49.16	-59.09	182.08	0.151	0.666	0.34	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366517.96	1546688.22	-29.76	60.00	51.73	-59.09	182.35	0.151	0.666	0.35	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366516.42	1546688.16	-32.34	63.00	54.30	-59.08	182.35	0.151	0.666	0.37	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366514.88	1546688.10	-34.91	66.00	56.88	-59.08	182.55	0.151	0.666	0.39	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366513.34	1546688.02	-37.48	69.00	59.45	-59.08	182.67	0.151	0.666	0.41	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366511.80	1546687.95	-40.06	72.00	62.02	-59.06	182.89	0.151	0.666	0.43	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366510.26	1546687.87	-42.63	75.00	64.60	-59.01	183.25	0.151	0.666	0.44	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366508.72	1546687.77	-45.20	78.00	67.17	-59.00	184.18	0.151	0.666	0.46	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366507.18	1546687.65	-47.77	81.00	69.74	-58.98	184.26	0.151	0.666	0.48	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366505.64	1546687.54	-50.34	84.00	72.31	-58.97	184.29	0.151	0.666	0.50	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366504.09	1546687.42	-52.91	87.00	74.88	-58.95	184.54	0.151	0.666	0.52	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366502.55	1546687.30	-55.49	90.00	77.45	-58.97	184.54	0.151	0.666	0.53	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366501.01	1546687.17	-58.06	93.00	80.02	-58.96	185.14	0.151	0.666	0.55	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366499.47	1546687.02	-60.63	96.00	82.59	-58.95	185.61	0.151	0.666	0.57	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366497.93	1546686.87	-63.20	99.00	85.16	-58.95	185.80	0.151	0.666	0.59	Measured	2007-02-06 08:35
KLX22A	RT90-RHB70	6366497.19	1546686.79	-64.44	100.45	86.41	-58.95	185.80	0.151	0.666	0.60	Measured	2007-02-06 08:35

Number of rows: 35.
Printout from SICADA 2007-10-26 12:59:21.

B: In-data: Borehole deviation data for KLX22B

SICADA - object_location

Idcode	Coord System	Northing (m)	Easting (m)	Elevation (m.a.s.l.)	Length (m)	Vertical Depth (m)	Inclination (degrees)	Bearing (degrees)	Inclination Uncert (degrees)	Bearing Uncert (degrees)	Radius Uncert (m)	Origin	Indat
KLX22B	RT90-RHB70	6366553.13	1546685.41	21.57	0.00	0.00	-61.25	343.97	0.101	1.370	0.00	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366554.51	1546685.01	18.94	3.00	2.63	-61.25	343.97	0.101	1.370	0.03	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366555.90	1546684.61	16.32	6.00	5.26	-61.20	344.04	0.101	1.370	0.07	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366557.29	1546684.21	13.69	9.00	7.89	-61.17	344.11	0.101	1.370	0.10	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366558.68	1546683.82	11.06	12.00	10.52	-61.17	344.18	0.101	1.370	0.14	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366560.08	1546683.42	8.43	15.00	13.14	-61.14	344.26	0.101	1.370	0.17	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366561.47	1546683.03	5.80	18.00	15.77	-61.11	344.38	0.101	1.370	0.21	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366562.87	1546682.64	3.18	21.00	18.40	-61.06	344.47	0.101	1.370	0.24	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366564.27	1546682.26	0.55	24.00	21.02	-61.03	344.85	0.101	1.370	0.28	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366565.67	1546681.88	-2.07	27.00	23.65	-60.95	345.03	0.101	1.370	0.31	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366567.08	1546681.50	-4.69	30.00	26.27	-60.86	344.96	0.101	1.370	0.35	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366568.50	1546681.12	-7.31	33.00	28.89	-60.79	345.05	0.101	1.370	0.38	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366569.91	1546680.75	-9.93	36.00	31.50	-60.71	345.22	0.101	1.370	0.42	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366571.33	1546680.37	-12.54	39.00	34.12	-60.62	345.39	0.101	1.370	0.45	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366572.76	1546680.00	-15.16	42.00	36.73	-60.49	345.50	0.101	1.370	0.49	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366574.20	1546679.64	-17.77	45.00	39.34	-60.36	345.70	0.101	1.370	0.52	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366575.64	1546679.27	-20.37	48.00	41.95	-60.26	345.74	0.101	1.370	0.56	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366577.08	1546678.90	-22.98	51.00	44.55	-60.16	345.79	0.101	1.370	0.59	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366578.53	1546678.54	-25.58	54.00	47.15	-60.09	346.30	0.101	1.370	0.63	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366579.99	1546678.20	-28.18	57.00	49.75	-59.97	347.33	0.101	1.370	0.67	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366581.46	1546677.87	-30.77	60.00	52.35	-59.93	347.40	0.101	1.370	0.70	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366582.93	1546677.55	-33.37	63.00	54.94	-59.86	348.05	0.101	1.370	0.74	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366584.40	1546677.24	-35.96	66.00	57.54	-59.75	348.12	0.101	1.370	0.77	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366585.89	1546676.93	-38.55	69.00	60.13	-59.62	348.35	0.101	1.370	0.81	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366587.37	1546676.62	-41.14	72.00	62.71	-59.50	348.47	0.101	1.370	0.85	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366588.87	1546676.33	-43.72	75.00	65.30	-59.39	349.13	0.101	1.370	0.88	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366590.37	1546676.04	-46.30	78.00	67.88	-59.28	349.18	0.101	1.370	0.92	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366591.88	1546675.76	-48.88	81.00	70.45	-59.17	349.48	0.101	1.370	0.96	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366593.40	1546675.48	-51.45	84.00	73.03	-59.04	349.51	0.101	1.370	0.99	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366594.92	1546675.20	-54.02	87.00	75.60	-58.96	350.08	0.101	1.370	1.03	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366596.44	1546674.94	-56.59	90.00	78.17	-58.86	350.19	0.101	1.370	1.07	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366597.97	1546674.68	-59.16	93.00	80.74	-58.78	350.87	0.101	1.370	1.10	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366599.51	1546674.43	-61.72	96.00	83.30	-58.66	350.87	0.101	1.370	1.14	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366601.05	1546674.19	-64.29	99.00	85.86	-58.63	351.15	0.101	1.370	1.18	Measured	2007-02-06 08:35
KLX22B	RT90-RHB70	6366601.70	1546674.09	-65.35	100.25	86.93	-58.63	351.15	0.101	1.370	1.20	Measured	2007-02-06 08:35

Number of rows: 35.
Printout from SICADA 2007-10-26 13:00:37.

C: In-data: Borehole deviation data for KLX23A

SICADA - object_location

Idcode	Coord System	Northing (m)	Easting (m)	Elevation (m.a.s.l.)	Length (m)	Vertical Depth (m)	Inclination (degrees)	Bearing (degrees)	Inclination Uncert (degrees)	Bearing Uncert (degrees)	Radius Uncert (m)	Origin	Indat
KLX23A	RT90-RHB70	6366106.89	1546715.74	22.26	0.00	0.00	-61.36	28.73	0.080	0.482	0.00	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366108.16	1546716.44	19.63	3.00	2.63	-61.24	28.73	0.080	0.482	0.01	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366109.42	1546717.13	17.00	6.00	5.26	-61.24	28.96	0.080	0.482	0.02	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366110.68	1546717.83	14.37	9.00	7.89	-61.16	29.20	0.080	0.482	0.04	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366111.95	1546718.54	11.75	12.00	10.52	-61.11	29.44	0.080	0.482	0.05	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366113.21	1546719.26	9.12	15.00	13.14	-61.03	29.68	0.080	0.482	0.06	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366114.47	1546719.98	6.50	18.00	15.77	-60.95	30.11	0.080	0.482	0.07	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366115.73	1546720.72	3.87	21.00	18.39	-60.88	30.15	0.080	0.482	0.09	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366116.99	1546721.45	1.25	24.00	21.01	-60.84	30.12	0.080	0.482	0.10	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366118.26	1546722.18	-1.36	27.00	23.63	-60.73	30.16	0.080	0.482	0.11	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366119.53	1546722.92	-3.98	30.00	26.24	-60.70	30.17	0.080	0.482	0.12	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366120.80	1546723.66	-6.60	33.00	28.86	-60.63	30.54	0.080	0.482	0.13	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366122.07	1546724.42	-9.21	36.00	31.47	-60.48	30.66	0.080	0.482	0.15	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366123.34	1546725.17	-11.82	39.00	34.08	-60.42	30.73	0.080	0.482	0.16	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366124.61	1546725.93	-14.43	42.00	36.69	-60.36	31.00	0.080	0.482	0.17	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366125.88	1546726.70	-17.03	45.00	39.30	-60.25	31.10	0.080	0.482	0.18	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366127.16	1546727.47	-19.64	48.00	41.90	-60.17	31.52	0.080	0.482	0.20	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366128.43	1546728.26	-22.24	51.00	44.50	-60.08	31.95	0.080	0.482	0.21	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366129.70	1546729.05	-24.84	54.00	47.10	-60.01	32.07	0.080	0.482	0.22	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366130.97	1546729.85	-27.43	57.00	49.70	-59.87	32.24	0.080	0.482	0.24	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366132.25	1546730.66	-30.03	60.00	52.29	-59.72	32.36	0.080	0.482	0.25	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366133.53	1546731.47	-32.61	63.00	54.88	-59.61	32.31	0.080	0.482	0.26	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366134.81	1546732.28	-35.20	66.00	57.46	-59.50	32.32	0.080	0.482	0.27	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366136.10	1546733.10	-37.78	69.00	60.05	-59.36	32.41	0.080	0.482	0.29	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366137.39	1546733.92	-40.36	72.00	62.63	-59.31	32.65	0.080	0.482	0.30	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366138.68	1546734.75	-42.94	75.00	65.21	-59.19	32.76	0.080	0.482	0.31	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366139.97	1546735.59	-45.52	78.00	67.78	-59.09	33.10	0.080	0.482	0.33	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366141.27	1546736.43	-48.09	81.00	70.35	-59.02	33.01	0.080	0.482	0.34	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366142.56	1546737.27	-50.66	84.00	72.92	-58.91	33.28	0.080	0.482	0.35	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366143.86	1546738.13	-53.23	87.00	75.49	-58.83	33.42	0.080	0.482	0.36	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366145.15	1546738.99	-55.79	90.00	78.06	-58.72	33.59	0.080	0.482	0.38	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366146.45	1546739.85	-58.36	93.00	80.62	-58.66	33.59	0.080	0.482	0.39	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366147.76	1546740.71	-60.92	96.00	83.18	-58.51	33.68	0.080	0.482	0.40	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366149.06	1546741.58	-63.48	99.00	85.74	-58.47	33.73	0.080	0.482	0.42	Measured	2007-02-06 08:36
KLX23A	RT90-RHB70	6366149.56	1546741.92	-64.46	100.15	86.72	-58.47	33.73	0.080	0.482	0.42	Measured	2007-02-06 08:36

Number of rows: 35.
Printout from SICADA 2007-10-26 13:02:19.

D: In-data: Borehole deviation data for KLX23B

SICADA - object_location

Idcode	Coord System	Northing (m)	Easting (m)	Elevation (m.a.s.l.)	Length (m)	Vertical Depth (m)	Inclination (degrees)	Bearing (degrees)	Inclination Uncert (degrees)	Bearing Uncert (degrees)	Radius Uncert (m)	Origin	Indat
KLX23B	RT90-RHB70	6366101.90	1546717.33	22.32	0.00	0.00	-60.85	121.36	0.130	0.552	0.00	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366101.14	1546718.58	19.70	3.00	2.62	-60.72	121.36	0.130	0.552	0.01	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366100.37	1546719.83	17.08	6.00	5.23	-60.71	121.54	0.130	0.552	0.03	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366099.60	1546721.09	14.47	9.00	7.85	-60.63	121.71	0.130	0.552	0.04	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366098.83	1546722.34	11.85	12.00	10.46	-60.56	121.89	0.130	0.552	0.06	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366098.04	1546723.59	9.24	15.00	13.08	-60.51	122.07	0.130	0.552	0.07	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366097.26	1546724.84	6.63	18.00	15.69	-60.40	122.01	0.130	0.552	0.09	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366096.47	1546726.10	4.02	21.00	18.29	-60.33	122.01	0.130	0.552	0.10	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366095.69	1546727.36	1.42	24.00	20.90	-60.20	121.94	0.130	0.552	0.11	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366094.89	1546728.63	-1.18	27.00	23.50	-60.09	122.01	0.130	0.552	0.13	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366094.10	1546729.90	-3.78	30.00	26.10	-60.00	121.85	0.130	0.552	0.14	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366093.31	1546731.17	-6.38	33.00	28.70	-59.93	122.13	0.130	0.552	0.16	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366092.50	1546732.45	-8.97	36.00	31.29	-59.82	122.22	0.130	0.552	0.17	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366091.70	1546733.73	-11.57	39.00	33.88	-59.76	122.22	0.130	0.552	0.19	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366090.90	1546735.01	-14.16	42.00	36.47	-59.66	121.40	0.130	0.552	0.20	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366090.11	1546736.31	-16.74	45.00	39.06	-59.50	121.40	0.130	0.552	0.22	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366089.31	1546737.61	-19.33	48.00	41.65	-59.45	121.94	0.130	0.552	0.23	Measured	2007-02-06 08:36
KLX23B	RT90-RHB70	6366088.70	1546738.58	-21.28	50.27	43.60	-59.45	121.94	0.130	0.552	0.24	Measured	2007-02-06 08:36

Number of rows: 18.
Printout from SICADA 2007-10-26 13:06:52.