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Keywords: KLX10, Geology, Drill core mapping, Boremap, Fractures, BIPS, Simpevarp, Laxemar.

Abstract

KLX10 was mapped between 2005-11-29 and 2006-01-23 and the drill core is c. 900 m long. The borehole was drilled towards W with the inclination –85°.

KLX10 consists of 86% Ävrö granite (501044) and remaining ~ 14% consists of fine-grained granite (511058), fine-grained dioritoid (501030), fine-grained diorite-gabbro (505102) and diorite/gabbro (501033). Quartz monzodiorite (501036) covers the last 15 m of KLX10. Three sections of Ävrö granite are very vuggy and is probably a result of quartz dissolution. The vugs are in some places filled with calcite.

Down to 450 m borehole length, with the exception of 370–390 m, KLX10 is densely fractured. Seven sections, < 50 m long, have been highlighted mostly based on anomalous fracture frequencies. These sections cover the following intervals: 103–118 m, 135–165 m, 175–215 m, 225–275 m, 310–370 m, 385–450 m and 695–715 m. In some cases these sections may be related to the lithology.

The most outstanding structure mapped in KLX10 is a 2.5 m long breccia at 660 m borehole length.

Only 18 fractures filled with gypsum have been mapped in KLX10. These fractures have the same orientation as the fractures filled with gypsum in KLX03 och KLX08, i.e. striking E and with steep dip.

Sammanfattning

KLX10 karterades mellan 2005-11-29 och 2006-01-23. Borrkärnans längd är ca 900 m. Borrhållet borrades mot V med inclinationen –85°.

Ävrögranit (501044) är den dominerande bergarten och utgör 86 % av borrkärnan. Övriga 14 % består av finkornig granit (511058), finkornig dioritoid (501030), finkornig diorit-gabbro (505102) och diorit/gabbro (501033). De nedersta 15 meterna utgörs av kvartsmonzodiorit (501036). Tre sektioner i Ävrögraniten är väldigt porösa och porerna är på vissa ställen fyllda med kalcit. Porositeten kan vara ett resultat av kvartsupplösning.

KLX10 är ned till 450 m mycket sprickigt, med ett undantag vid 370–390 m borrhålslängd. Sju sektioner, < 50 m långa, har lyfts fram på grund av anomal sprickfrekvens. Sektionerna ligger i följande intervall: 103–118 m, 135–165 m, 175–215 m, 225–275 m, 310–370 m, 385–450 m och 695–715 m. Vissa sektioner kan möjligen relateras till litologi.

Den mest framträdande strukturen som karterats i KLX10 är ett 2,5 m långt breccierat intervall vid 660 m borrhålslängd.

Endast 18 gipsfyllda sprickor har karterats i KLX10. Dessa sprickor har samma orientering som de gipsfyllda sprickorna i KLX03 och KLX08, dvs med östlig strykning och brant stupning.

Contents

1 Introduction

This report gives a brief presentation of the data gained by mapping of the telescopic drilled borehole KLX10 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 400-05-099. In Table 1-1 controlling documents for performing this activity are listed. Both Activity Plan and Method Descriptions are SKB's internal controlling documents. Rock type nomenclature that has been used is shown in Table 1-2.

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.*

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

Activity Plan	**Number**	**Version**
Boremapkartering av KLX10	AP PS 400-05-099	1.0
Method Descriptions	**Number**	**Version**
Nomenklatur vid Boremapkartering	SKB MD 143.008	1.0
Method Description for Boremap mapping	SKB MD 143.006	1.0
Mätsystembeskrivning för Boremap	SKB MD 146.005	1.0
Instruktion: Regler för bergarters benämningar vid platsundersökning I Oskarshamn	SKB MD 132.004	1.0
Instruktion för längdkalibrering vid undersökningar i kärnborrhål	SKB MD 620.010	2.0

Table 1-2. Rock type nomenclature for the site investigation at Oskarshamn.

Rock type	**Rock code**	**Rock description**
Dolerite	501027	Dolerite
Fine-grained Götemar granite	531058	Granite, fine-to medium-grained, ("Götemar granite")
Coarse-grained Götemar granite	521058	Granite, coarse-grained, ("Götemar granite")
Fine-grained granite	511058	Granite, fine-to medium-grained
Pegmatite	501061	Pegmatite
Granite	501058	Granite, medium- to coarse-grained
Ävrö granite	501044	Granite to quartz monzodiorite, generally porphyritic
Quartz monzodiorite	501036	Quartz monzonite to monzodiorite, equigranular to weakly porphyritic
Diorite/gabbro	501033	Diorite to gabbro
Fine-grained dioritoid	501030	Intermediate magmatic rock
Fine-grained diorite-gabbro	505102	Mafic rock, fine-grained
Sulphide mineralization	509010	Sulphide mineralization
Sandstone	506007	Sandstone

SKB investigates two potential sites for a deep repository for nuclear waste in the Swedish Precambrian basement at approximately 500 m depth. These places are Forsmark in northern Uppland and Oskarshamn in eastern Småland. In order to make a preliminary evaluation of the rock mass down to a depth of about 1,000 m at these sites, SKB has initiated a drilling program using core drilled boreholes. Every borehole usually starts with a percussion drilled part the first 100 m, where only drill cuttings are examined together with BIPS, followed by core drilling down to 1,000 m depth.

Borehole KLX10 is situated within the Laxemar area (Figure 1-1). KLX10 is a telescopic borehole c. 900 m long and the borehole orientation is 270/–85°. The mapping of the borehole was performed between 2005-11-29 and 2006-01-23.

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.

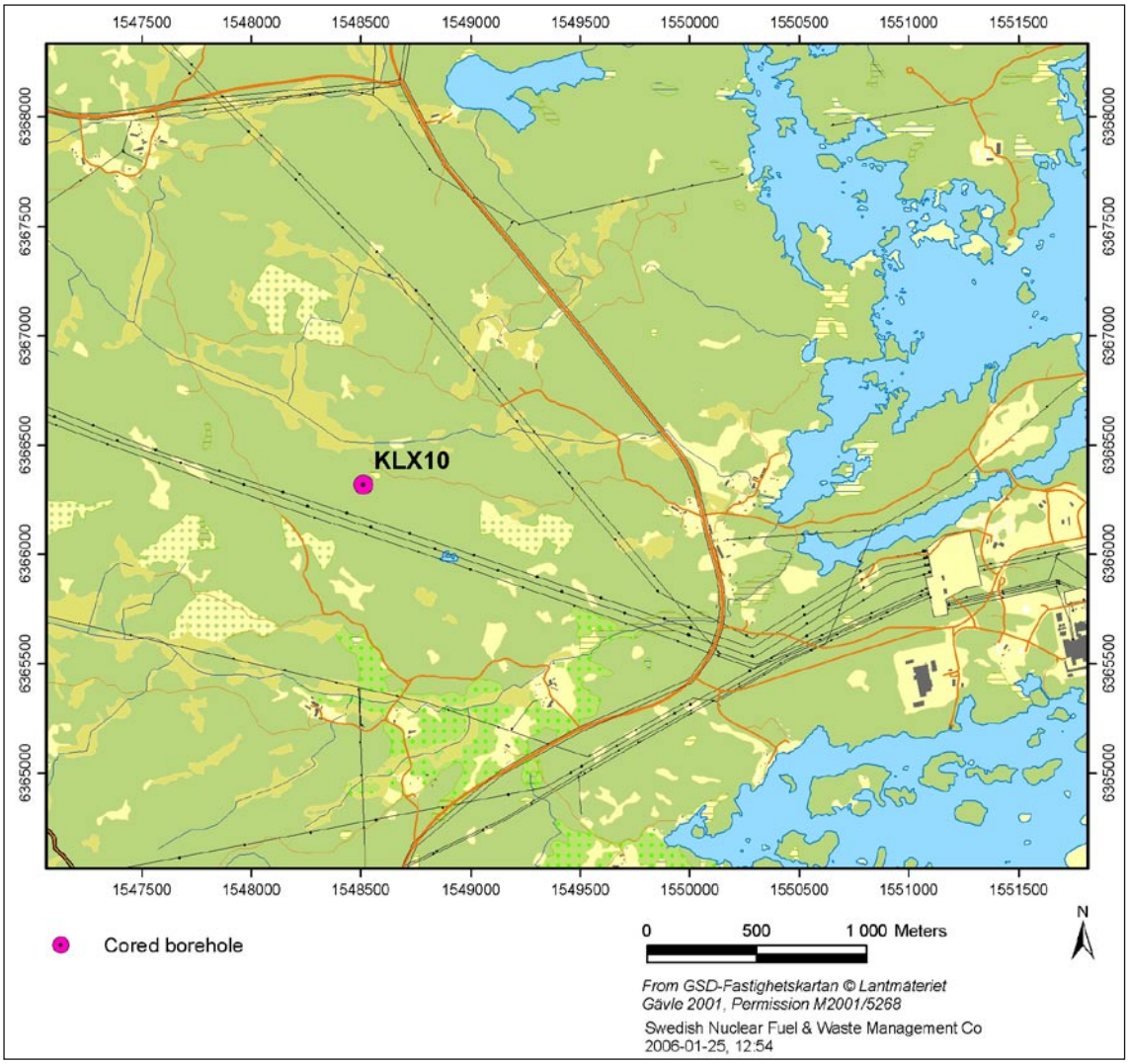


Figure 1-1. *Location of the core drilled borehole KLX10.*

2 Objective and scope

The principal aim of the mapping activities presented in this report is to obtain a documentation of geological structures and lithologies intersecting borehole KLX10. Geological structures will be correctly orientated in space along the borehole with the Boremap system. The result will serve as a platform for forthcoming investigations of the drill core, as well as various site descriptive modelling.

3 Equipment

3.1 Description of software

Software used for the mapping of KLX10 was Boremap v. 3.7, with bedrock and mineral standards of SKB. The data presentation was made using StereoNet, 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 video film sequences

The BIPS-image of KLX10 covers the interval 100.00–992.16 m.

3.4 BIPS-image video film quality

The visibility of thin fractures in BIPS depends on image resolution, image contrast and image quality.

3.4.1 BIPS-image resolution

The 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.

3.4.2 BIPS-image contrast

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. 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.

3.4.3 BIPS-image quality

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. Good quality 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 that 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 is presented in Table 3-1.

KLX10 has a very good BIPS-image quality except for some intervals of 1–5 m (up to 10 m) with an acceptable image quality. The borehole wall is covered with metal sheet in the intervals 224.74–226.72 m, 327.51–329.49 m and 336.15–337.66 m.

Table 3-1. BIPS-image quality in KLX10.

From	To	Interval	Quality
100	105	5	Acceptable
105	118	13	Acceptable – good
118	167	49	Good
167	169	2	Bad
169	174	5	Good
174	176	2	Bad
176	189	13	Good
189	190	1	Acceptable
190	198	8	Good
198	201	3	Acceptable
201	225	24	Good
225	227	2	No image
227	232	5	Acceptable – good
232	320	88	Good
320	328	8	Acceptable
328	330	2	No image
328	332	4	Acceptable
332	336	6	Good
336	338	2	No image
338	346	8	Good
346	349	3	Acceptable – good
349	694	345	Good
694	708	14	Acceptable – good
708	901	193	Good
901	996	95	Acceptable – good

4 Execution

4.1 General

Mapping of the drill core of the telescopic drilled borehole was performed and documented according to Activity Plan AP PS 400-05-099 (SKB, internal document) referring to the *Method Description for Boremap mapping* (SKB MD 143.006, v. 1.0), *Nomenklatur vid Boremapkartering* (SKB MD 143.008, v. 1.0), *Instruktion: Regler för bergarters benämningar vid platsundersökningen i Oskarshamn* (SKB MD 132.004, v. 1.0) and *Instruktion för längdkalibrering vid undersökningar i kärnborrhål* (SKB MD 620.010, v. 2.0), 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 mapping was performed by Peter Dahlin and Karl-Johan Mattsson (Geosigma AB) and Jan Ehrenborg (Mírab Mineral Resurser AB).

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 eliminated by adjusting the depth of the BIPS-image to reference slots cut into the borehole walls every fiftieth meter (Appendix 7). The level for each slot is measured in the BIPS-images and then adjusted to the correct level using the correct depth value from the SICADA database.

Necessary data adjustment is borehole diameter, reference marks, length and deviation; both collected from SICADA database (Appendices 5 and 7). 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 the case where properties and/or minerals are not represented in the mineral list, following mineral codes have been used:

X1 Molybdenite.

X2 Barite.

X3 Apophyllite.

X4 Gypsum.

X5 Bleached fracture walls.

X6 The drill core is broken at a right angle and the broken surfaces have a polished appearance. This is believed to indicate that a sealed fracture broke up during drilling and that the two drill core parts have rotated against each other wearing away the mineral fill.

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

X8 Fractures with epidotized/saussuritized walls.

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 is 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/Foliation < 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/Foliation ≥ 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

KLX10 has a very good BIPS-image quality except for very few intervals of 1–5 m (up to 10 m) with an acceptable image quality. Due to very densely fractured rock and to prevent outfall the borehole wall was covered with a thin steel plate in the the followng intervals: 224.74–226.72 m, 327.51–329.49 m and 336.15–337.66 m.

Core loss was mapped in three intervals: 351.75–351.79 m, 438.61–438.70 m and 568.94–568.98 m.

Clay minerals are more abundant in open fractures but seem almost absent in sealed fractures. This may reflect the fact that it is easier to detect clay minerals on open fracture surfaces than in sealed fractures. Clay filled fractures are not so strong and therefore they may open up in the drilling procedure.

5 Results

5.1 General

Borehole KLX10 has the declination 270° and the inclination –85°. The drill core is c. 900 m long (100.50–1,001.20 m) while the BIPS-image covers the interval 100.00–992.16 m. The last part of the core was not mapped due to lack of BIPS-image.

All results from the mapping are principally found in the appendices. Information from the Boremap database is shown in the geological summary table in Appendix 1 and as a WellCad diagram in Appendix 3. The BIPS-image is presented in Appendix 4. The search paths to geological summary table are presented in Appendix 2 and In-data, such as borehole length, reference marks, deviation data and diameter are presented in Appendices 6–8.

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 400-05-099). 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.

5.2 Lithology

Table 5-1 shows the rock type distribution in KLX10. Ävrö granite (501044) dominates the lithology in KLX10 (86%). Fine-grained granite (511058) occurs in the following intervals: 232–248 m, 279–282 m and 879–881 m. Fine-grained dioritoid (501030) is observed between 397 m and 432 m. Fine-grained diorite-gabbro (505102) is present as c. 3 m long sections around 330 m, 348 m, 770 m, 777 m and 790 m borehole length. The last 15 m of KLX10 consists of quartz monzodiorite (501036). Between 903 m and 981 m a sequence with frequent mixing and mingling between Ävrö granite (501044) and diorite/gabbro (501033) is observed.

On 660 m length a 2.5 m long occurs.

The Ävrö granite is very vuggy in three intervals: 150.28–161.40 m, 333.17–334.40 m and 336.80–337.56 m. These sections have been mapped as quartz dissolution where quartz has been replaced mostly by calcite. The porous appearance can be seen in the BIPS-image (Figure 5-1).

Table 5-1. Lithology distribution in KLX10.

%	Rock types
86	Ävrö granite (501044)
4	Fine-grained dioritoid (501030)
4	Diorite/gabbro (501033)
2	Fine-grained granite (511058)
2	Quartz monzodiorite (501036)
2	Fine-grained diorite-gabbro (505102)

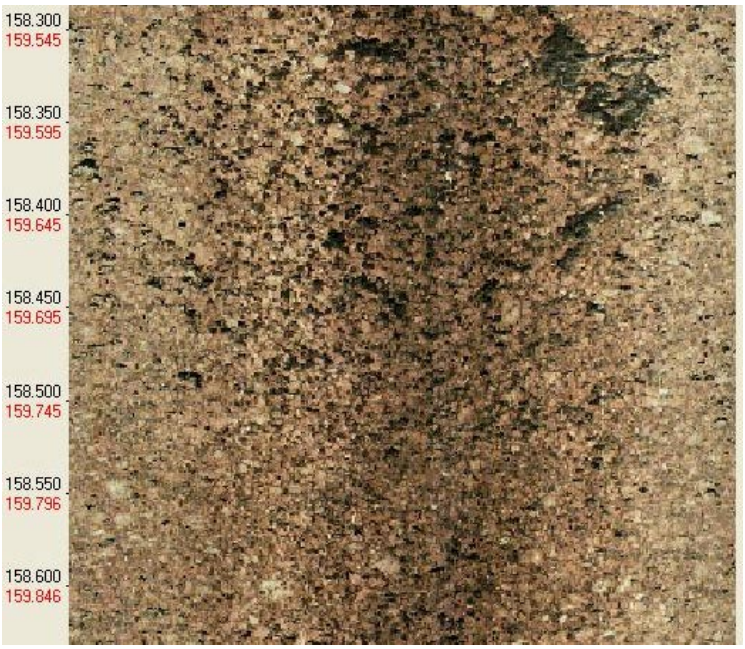


Figure 5-1. *Vuggy Ävrö granite that has been exposed to quartz dissolution.*

5.3 Sections rich in open fractures

Seven sections show anomalies in the frequencies of open fractures and these sections are listed below (Table 5-2).

1. A possibly lithology related anomaly in the frequency of open fracture can be seen in the interval 103–118 m.
2. Between 135 m and 165 m there is increased frequency of open fractures with high J_a-number, sealed fractures and veins/dykes. The same interval has a moderate increase in frequency of open fractures.
3. The interval 175–215 m shows an increase in the frequency of open fractures and fractures with high J_a-number.
4. In the section 225–275 m there is an increase in the frequency of open fractures, fractures with high J_a-number, veins/dykes, breccias/cataclasites and this interval lies close to a crush zone. This section coincide spatially with fine- to medium granied granite (511058).
5. An increase in the frequency of open fractures, open fractures with high J_a-number, numerous thin crush zones and a long crush zone (around 320 m). This section coincides spatially with the fine-grained diorite-gabbro (505102).
6. In the interval between 385 m and 450 m the frequency of open and sealed fractures increase, sealed fracture networks are abundant and on 440 m there is a moderate increase of fractures in shear zones. This interval coincides with a fine-grained dioritoid (about 395–430 m). This rock type has a huge amount of fine-grained granite veins which were not mapped individually.
7. Between 695 m and 715 m there is a c. 2 m long crush zone which coincide spatially with an increase in the frequency of open fractures, sealed fracture network, breccias/cataclasites and increased red staining intensity.

To clarify the sections described above, Table 5-2 shows the average fractures per metre.

Table 5-2. Average fractures per meter in described sections.

Interval	Sealed	Open
100–995 (whole core)	3.3	2.6
103–118	2.1	11.6
135–165	3.9	3.5
175–215	2.9	4.5
225–275	4.0	7.0
310–370	5.1	5.8
385–450	3.8	4.8
695–715	5.2	4.7

5.4 Fracture mineralogy and orientation

The orientation of sealed prehnite filled fractures are scattered but they are roughly striking NW and dipping 15°. The majority of 18 open fractures filled with gypsum that occur in the interval 961–979 m strikes ESE and dips 70° (see Figure 5-2).

38 fractures with zeolite were mapped in KLX10, and they are striking NE and dipping 10–70°. These fracture lies in a plane striking 115/88 and they are concentrated to the interval 318–327m (see Figure 5-3).

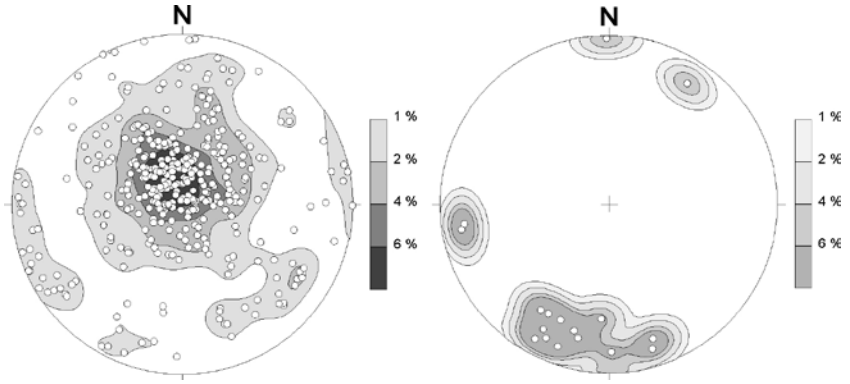


Figure 5-2. *Lower hemisphere stereographic projections showing poles to fracture planes. Left – Prehnite (sealed fractures), n=393. Right – Gypsum (open fractures) n=17.*

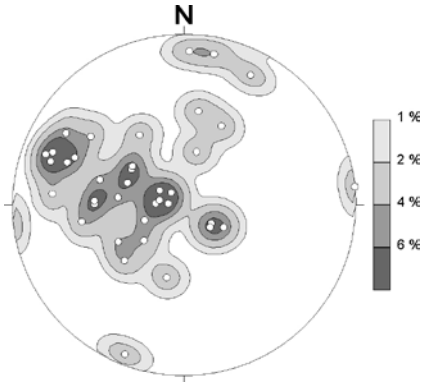


Figure 5-3. *Lower hemisphere stereographic projection showing poles to open fracture planes. Zeolite, n=38.*

Tables 5-3 and 5-4 show the frequency of minerals found in open and sealed fractures in KLX10.

Chlorite and calcite are the most frequent mineral dominate the fillings in both open and sealed fractures. Pyrite and hematite are quite common in open fractures but not so common in sealed fractures. Clay minerals are more abundant in open fractures but seem almost absent in sealed fractures.

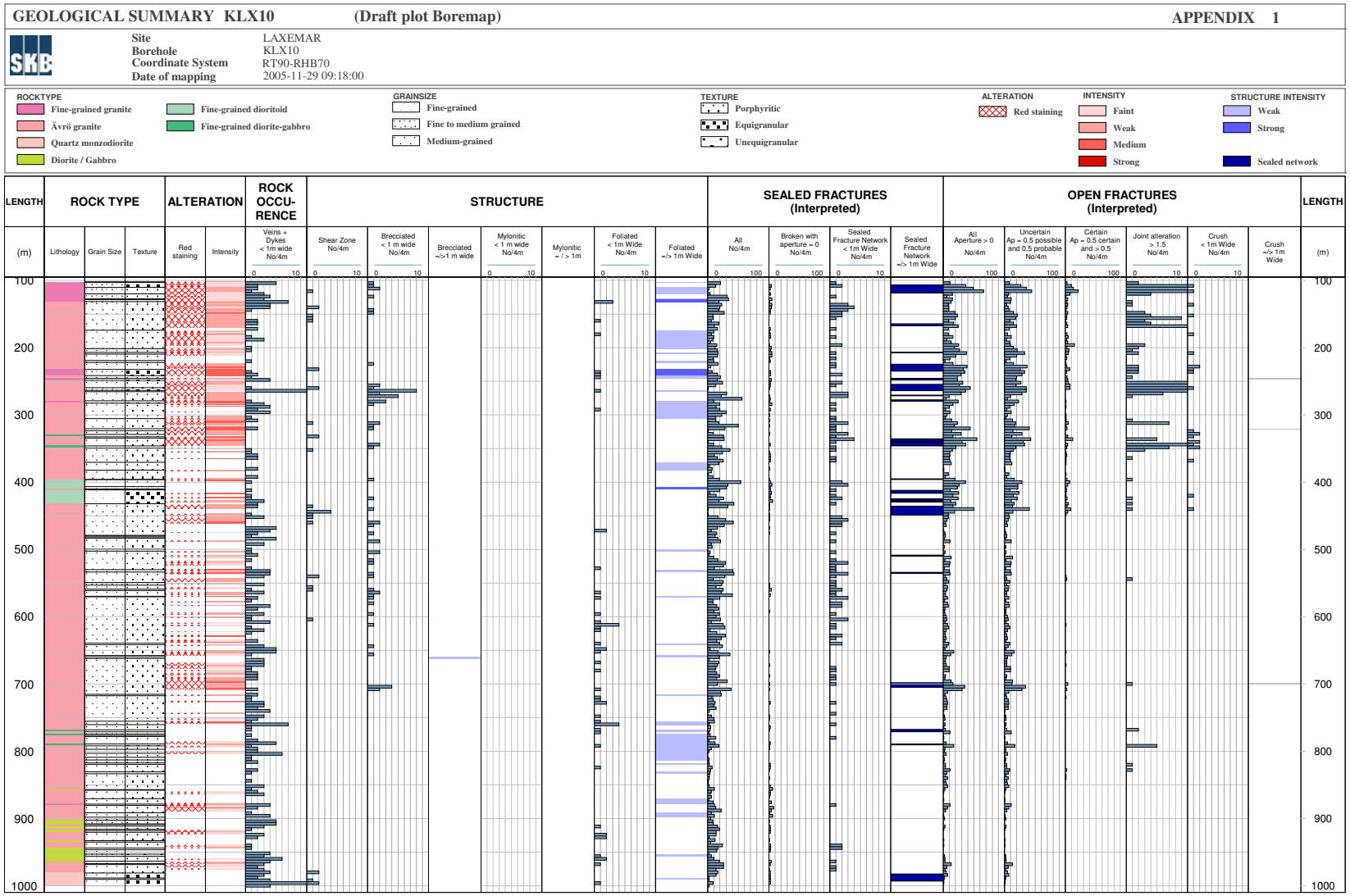
Table 5-3. Minerals and rock wall alteration in open fractures.

%	Mineral
77	Calcite
69	Chlorite
53	Clay Minerals
23	Hematite
14	Pyrite
6	Epidote
4	Oxidized Walls
3	Prehnite
2	No detectable mineral (X7)
2	Quartz
2	Zeolite
1	Adularia
1	Gypsum (X4)
1	Chalcopyrite
1	Muscovite
< 1	Barite (X2), Apophyllite (X3), Unknown Mineral, Laumontite, Fluorite, Iron Hydroxide, Molybdenite (X1)

Table 5-4. Minerals and rock wall alteration in sealed fractures.

%	Mineral
57	Oxidized Walls
46	Calcite
28	Chlorite
12	Quartz
12	Prehnite
7	Epidote
4	Hematite
2	No detectable mineral (X7)
2	Pyrite
2	Adularia
1	Fractures with epidotized / saussuritized walls (X8)
1	Clay Minerals
1	White Feldspar
1	Bleached fracture walls (X5)
< 1	Laumontite, Red Feldspar, Fluorite, Muscovite, Unknown Mineral, Chalcopyrite, Barite (X2), Biotite

Geological summary table KLX10



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	Sub 3 = 7	Sub 4; 101 and 102 = 102	Interval
		5	Sub 3 = 7	Sub 4; 103 and 104 = 104	
	Mylonite, < 1 m wide	31	Sub 4 = 34		Frequence
	Mylonite, >/= 1 m wide	5	Sub 3 = 34	Sub 4; 101 and 102 = 102	Interval
		5	Sub 3 = 34	Sub 4; 103 and 104 = 104	
	Foliated, < 1 m wide	31	Sub 4 = 81		Frequence
	Foliated, >/= 1 m wide	5	Sub 3 = 81	Sub 4; 101 and 102 = 102	Interval
		5	Sub 3 = 81	Sub 4; 103 and 104 = 104	
Sealed fracture	All unbroken fractures	3			Frequence
	and broken fractures	2	SNUM 11= 0		
	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	2 and 3	SNum 11>0	Sub 12 = 3	Frequence
	and 0.5 probable	2 and 3	SNum 11>0	Sub 12 = 2	
	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

BIPS-image of KLX10

Borehole Image Report

Borehole Name: KLX10

Mapping Name: JEPD_KLX10

Mapping Range: 100.000 - 1000.000 m

Diameter: 76.0 mm

Printed Range: 100.000 - 992.160

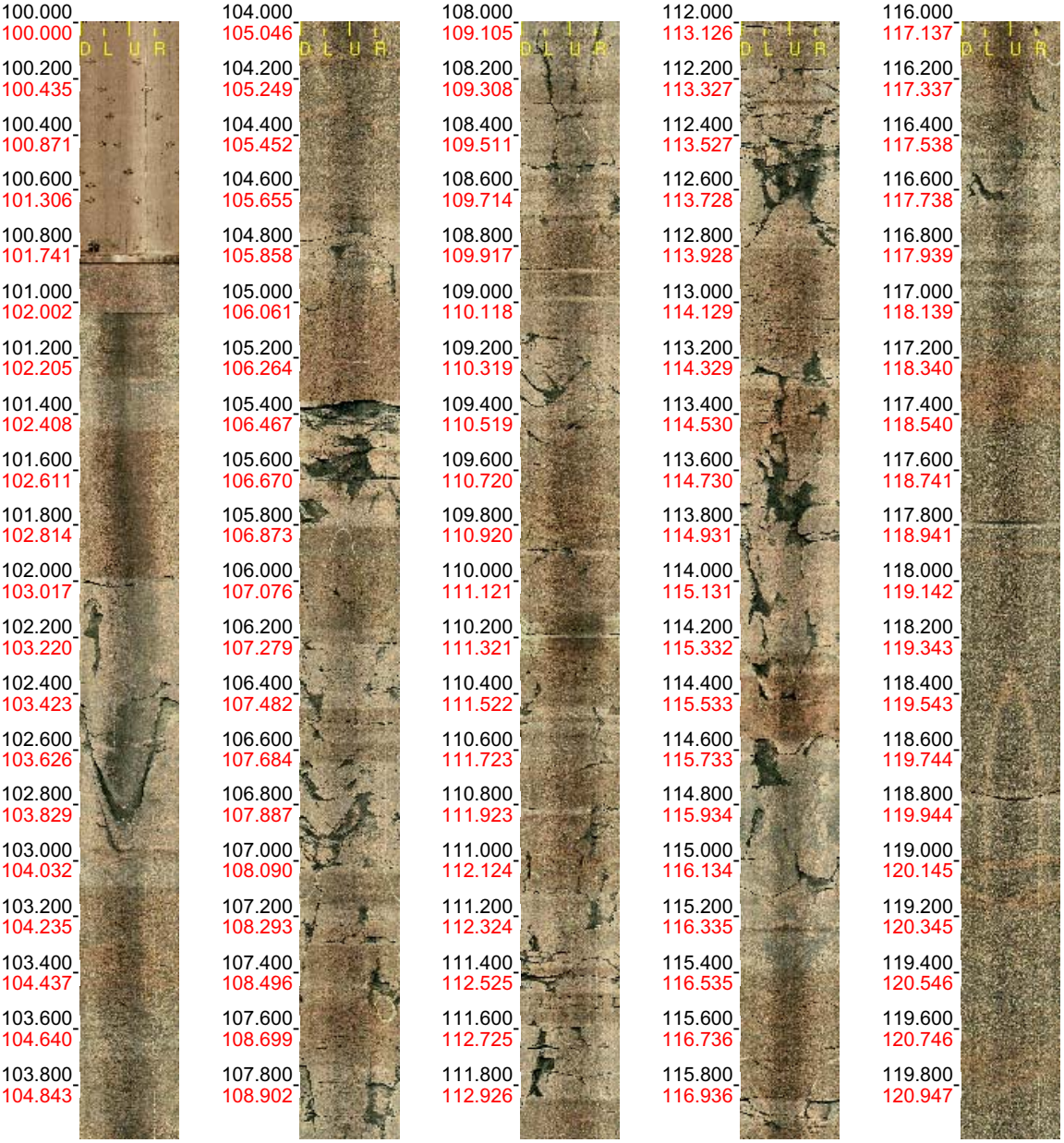
Pages: 46

Image File Information:

File:	D:\BIPSbilder\KLX10\KLX10_100-992m.BIP
Date/Time:	2005-11-22 10:44:00
Start Depth:	100.000 m
End Depth:	992.160 m
Resolution:	1.00 mm/pixel (depth)
Orientation:	Gravmetric
Image height:	892160 pixels
Image width:	360 pixels
BIP Version:	BIP-III
Locality:	LAXEMAR
Borehole:	KLX10
Scan Direction:	Down
Color adjust:	0 0 0 (RGB)

Borehole: KLX10
Mapping: JEPD_KLX10

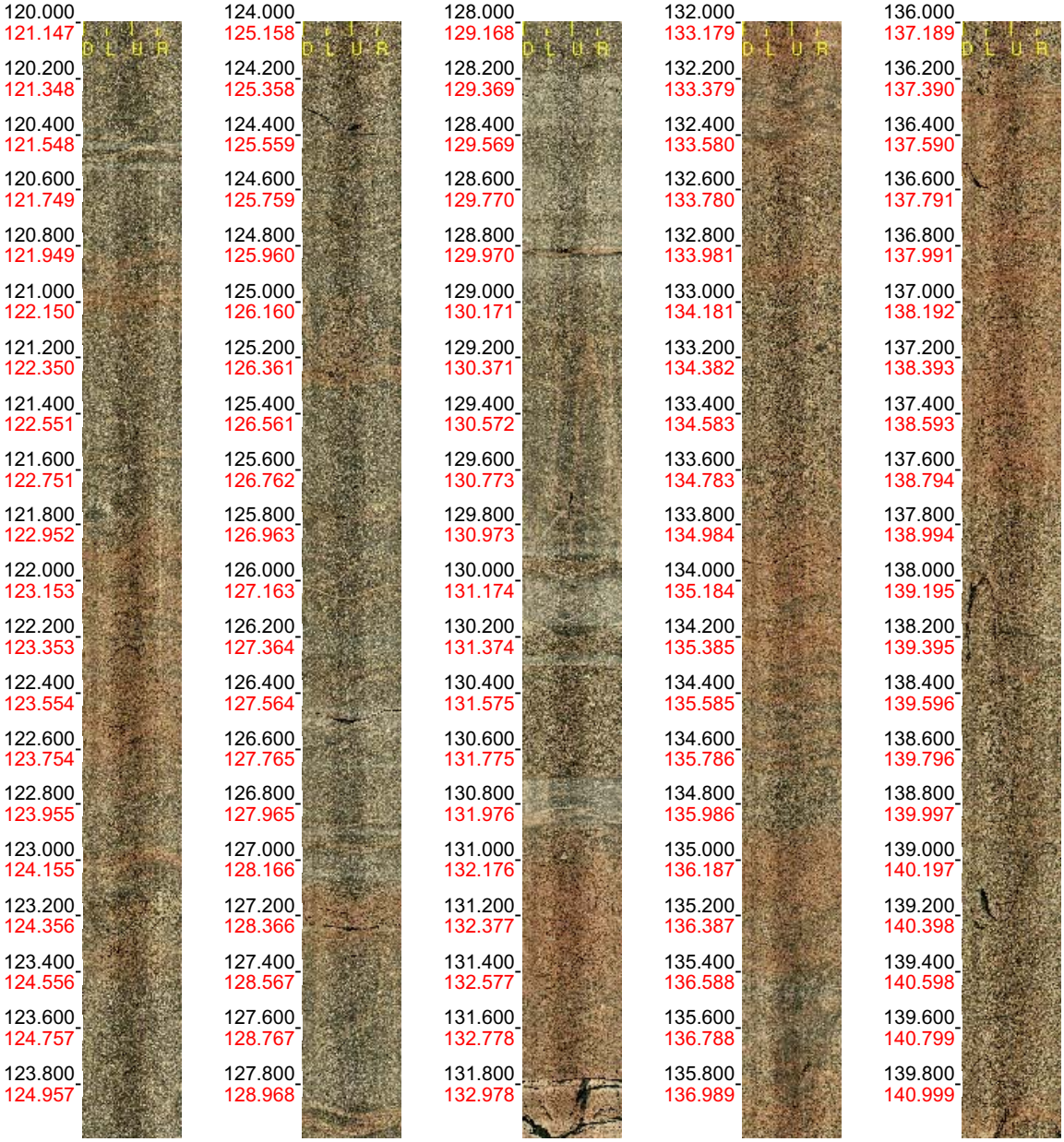
Depth range: 100.000 - 120.000 m
Azimuth: 261.3
Inclination: 82.4



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 2 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 120.000 - 140.000 m
Azimuth: 261.0
Inclination: 82.6



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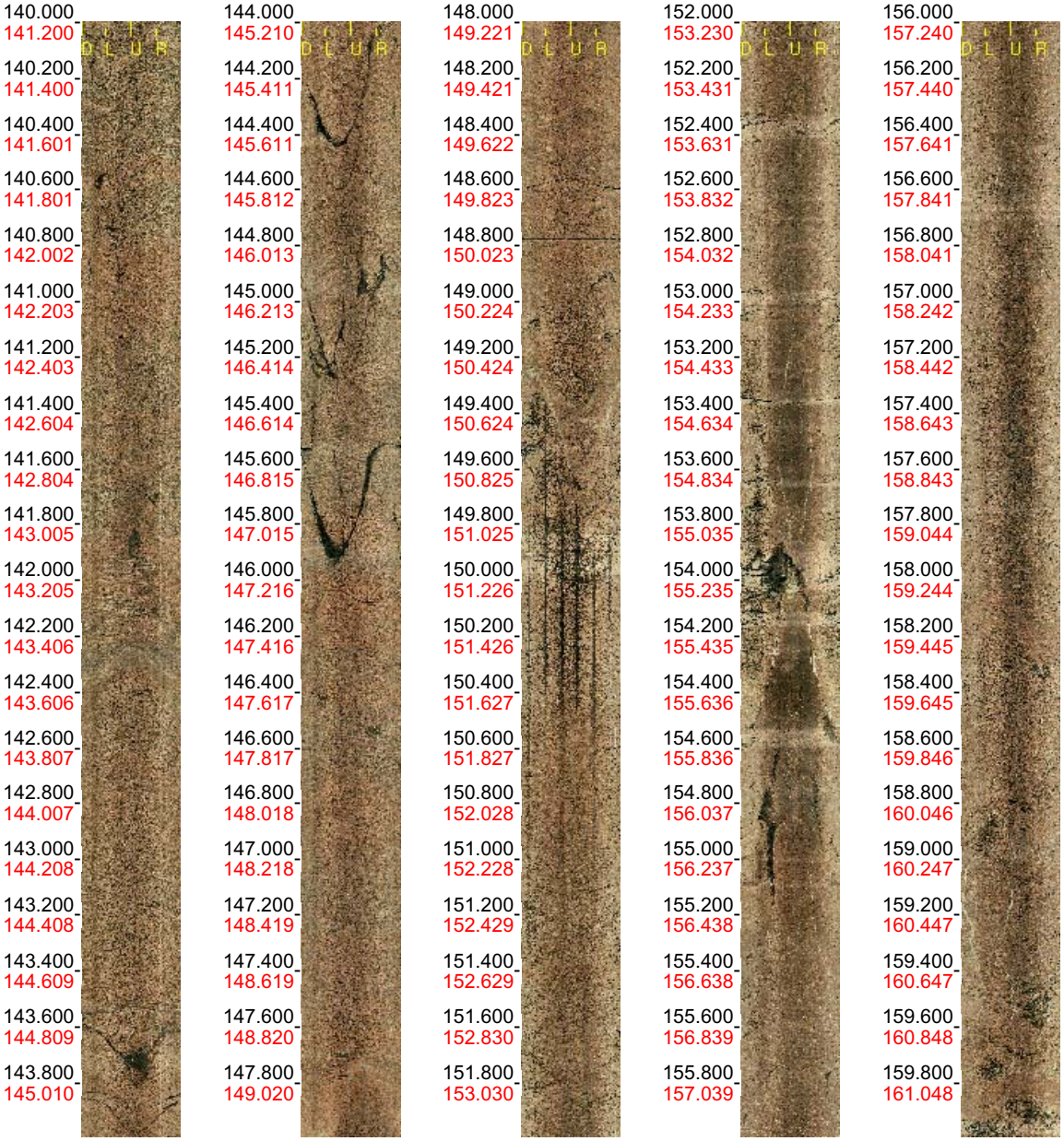
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 140.000 - 160.000 m
Azimuth: 262.7
Inclination: 82.5



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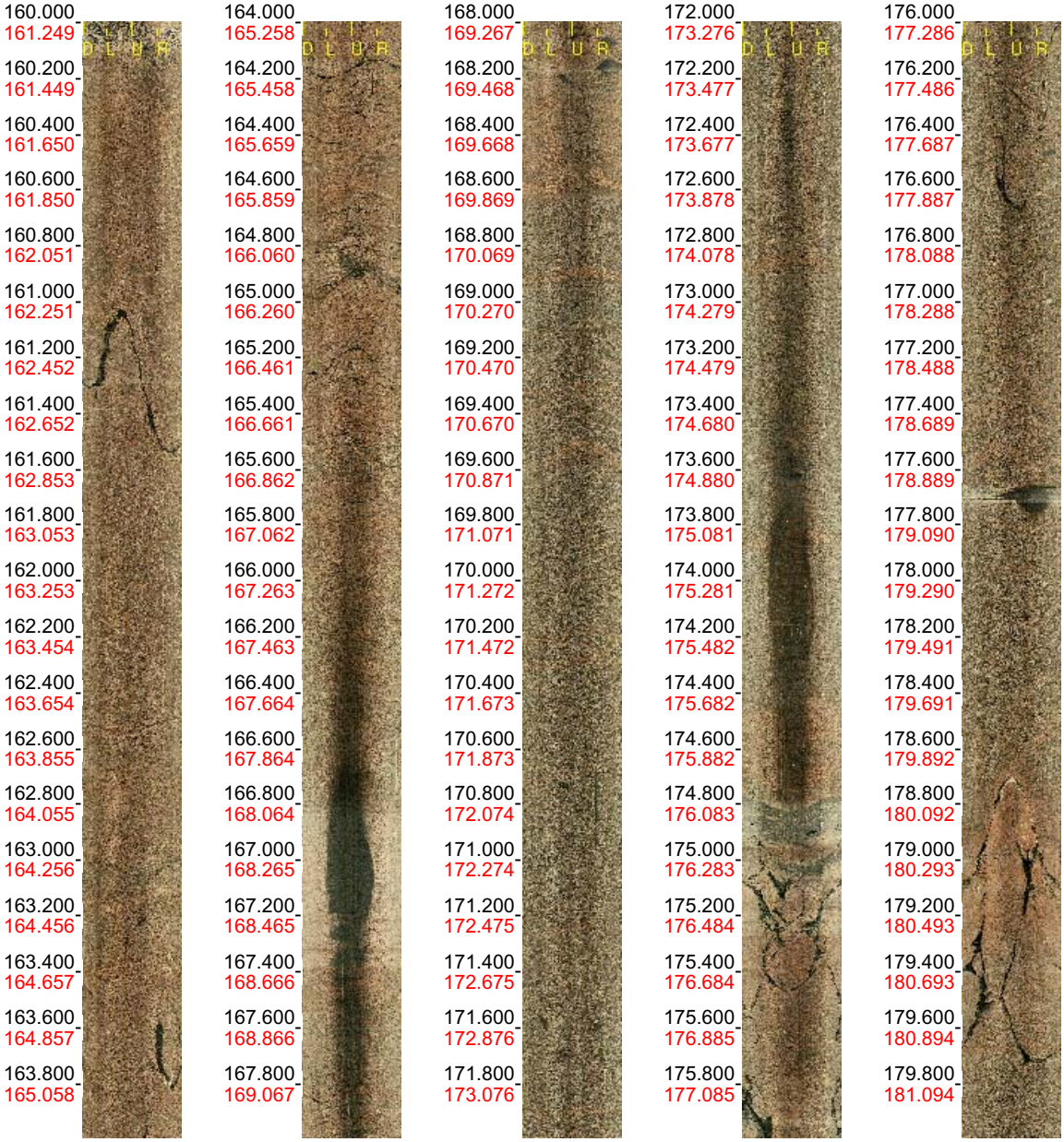
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 160.000 - 180.000 m
Azimuth: 262.3
Inclination: 82.8



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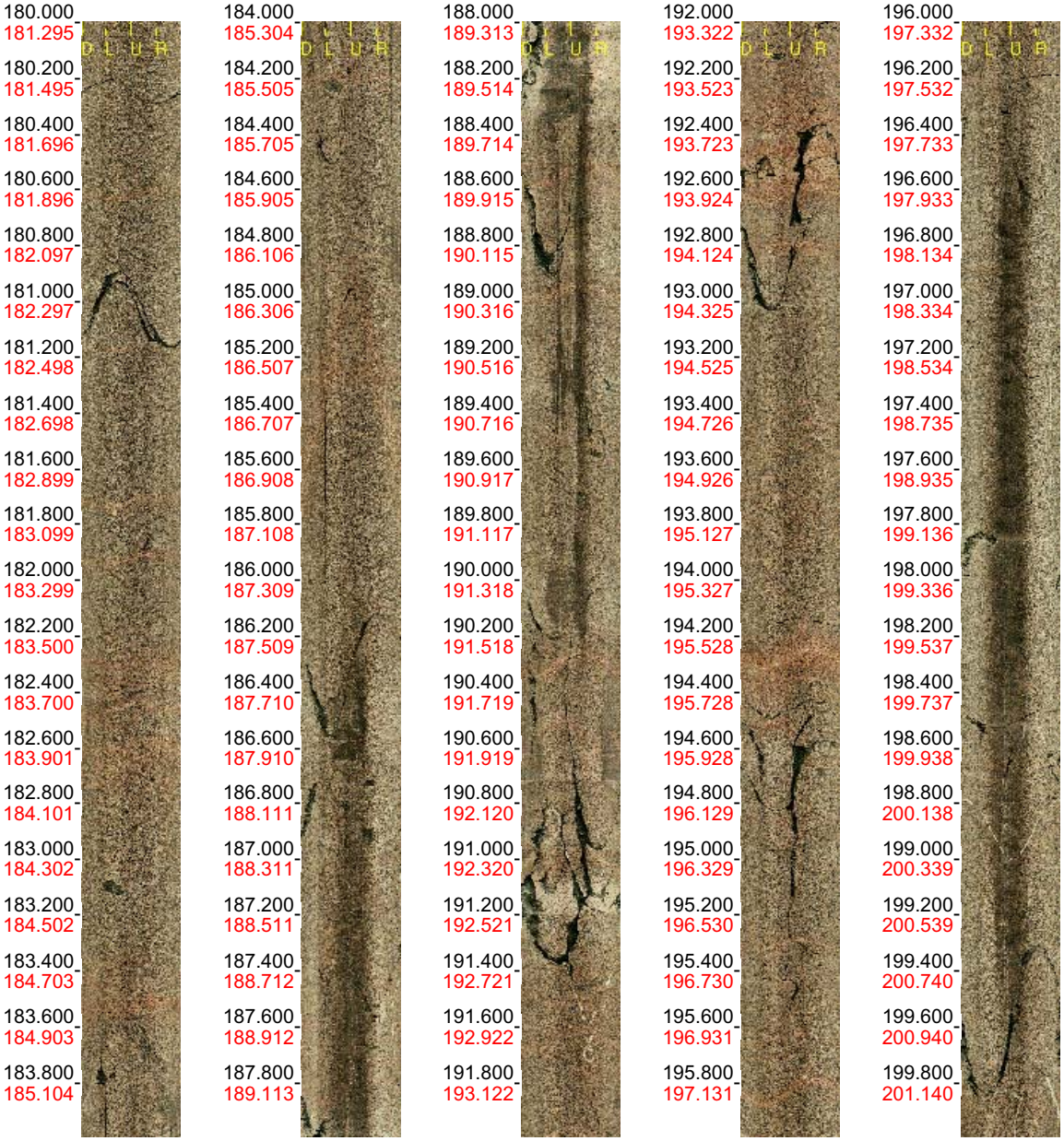
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 180.000 - 200.000 m
Azimuth: 263.7
Inclination: 83.1



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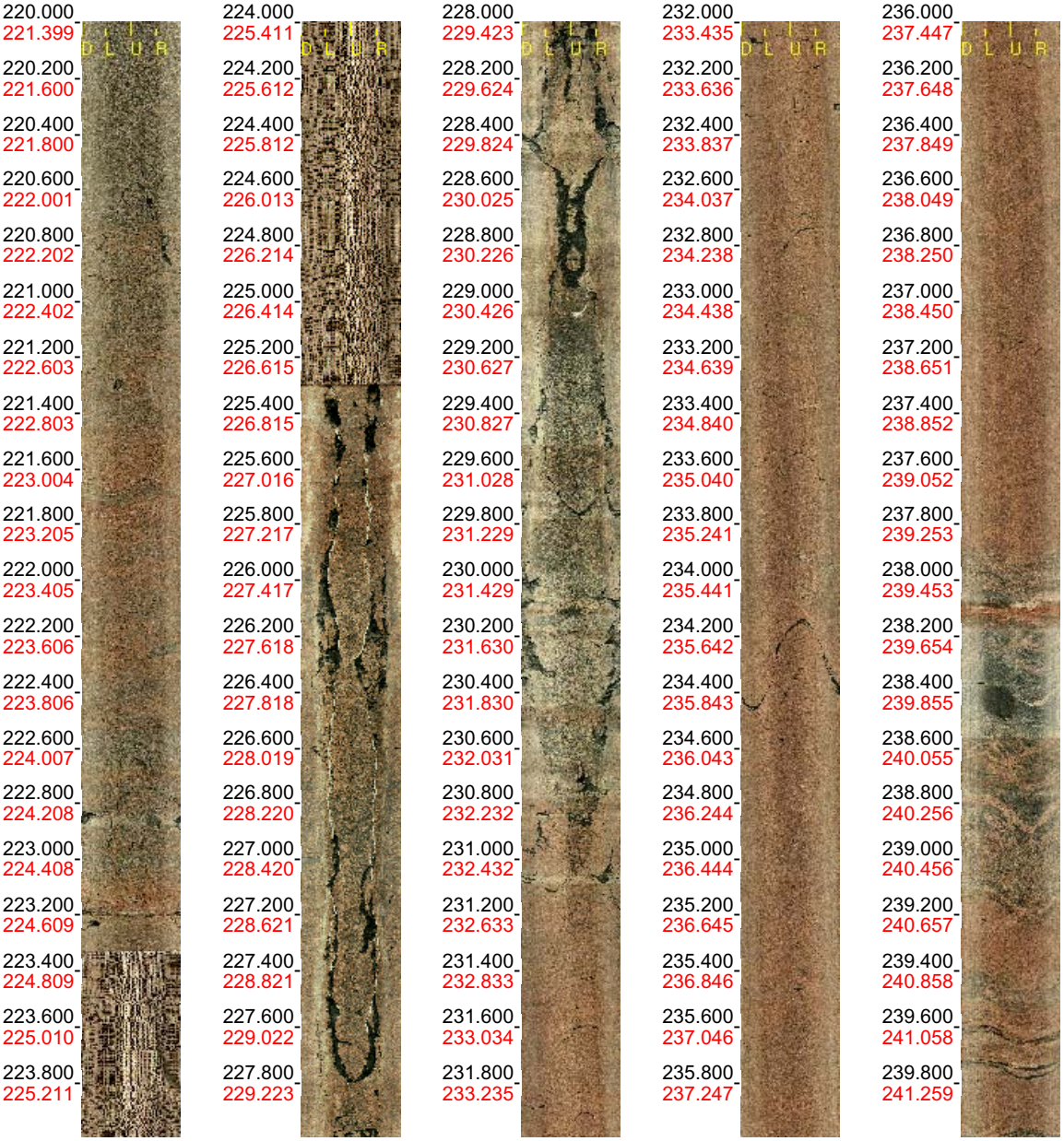
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 200.000 - 220.000 m
Azimuth: 268.2
Inclination: 84.1

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 7 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 220.000 - 240.000 m
Azimuth: 268.2
Inclination: 84.1



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Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 240.000 - 260.000 m
Azimuth: 268.1
Inclination: 84.2

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 9 (46)

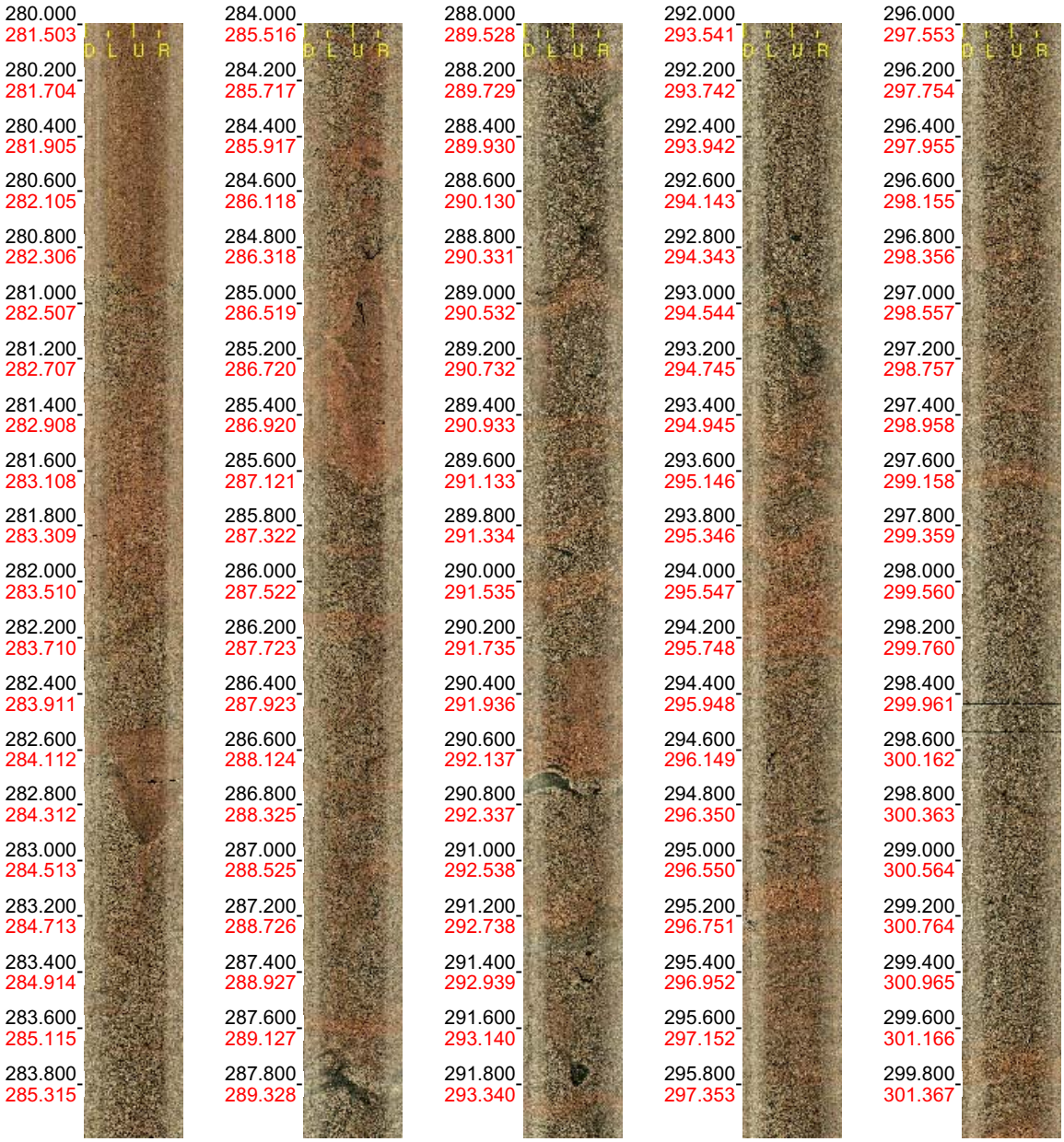
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 260.000 - 280.000 m
Azimuth: 266.2
Inclination: 84.2

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 10 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 280.000 - 300.000 m
Azimuth: 266.2
Inclination: 84.2



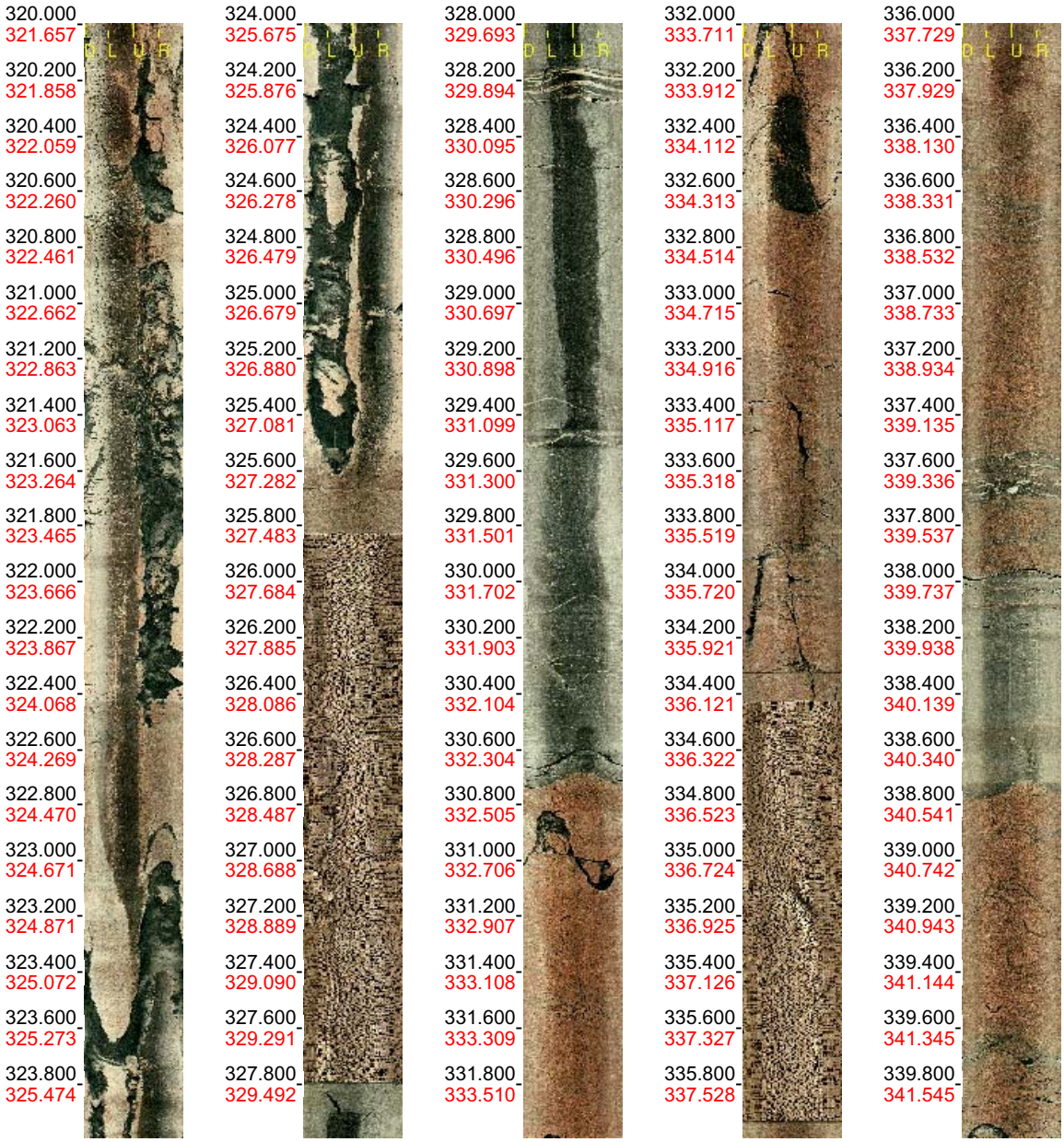
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 300.000 - 320.000 m
Azimuth: 264.3
Inclination: 84.2

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 12 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 320.000 - 340.000 m
Azimuth: 264.3
Inclination: 84.2



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 13 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 340.000 - 360.000 m
Azimuth: 266.2
Inclination: 84.2

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 14 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 360.000 - 380.000 m
Azimuth: 264.3
Inclination: 84.2

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 15 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 380.000 - 400.000 m
Azimuth: 264.3
Inclination: 84.2

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 16 (46)

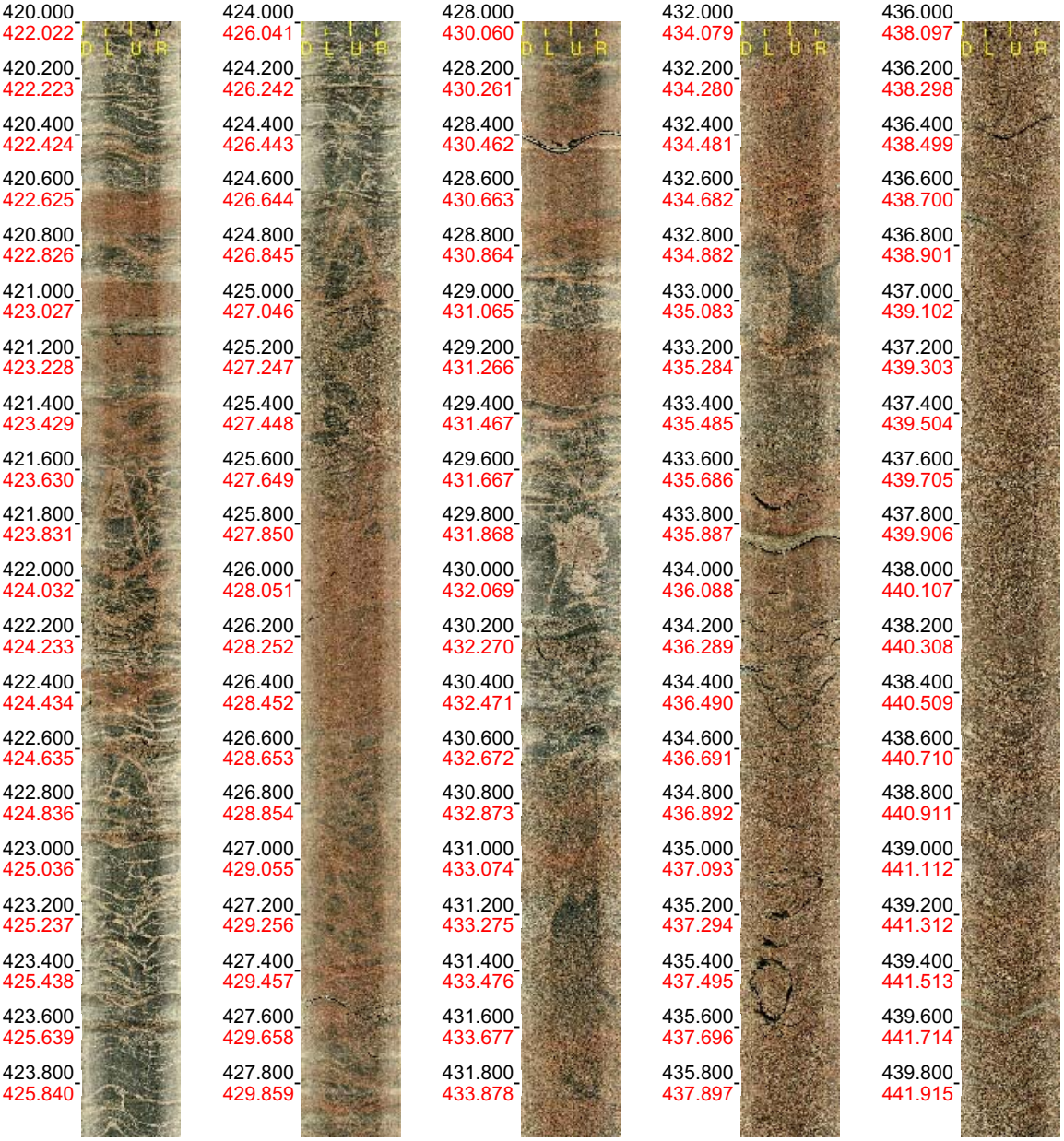
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 400.000 - 420.000 m
Azimuth: 262.1
Inclination: 84.4

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 17 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 420.000 - 440.000 m
Azimuth: 264.1
Inclination: 84.4



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 18 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 440.000 - 460.000 m
Azimuth: 262.1
Inclination: 84.4

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 19 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 460.000 - 480.000 m
Azimuth: 262.1
Inclination: 84.4

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 20 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 480.000 - 500.000 m
Azimuth: 262.4
Inclination: 84.2

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 500.000 - 520.000 m
Azimuth: 262.4
Inclination: 84.2

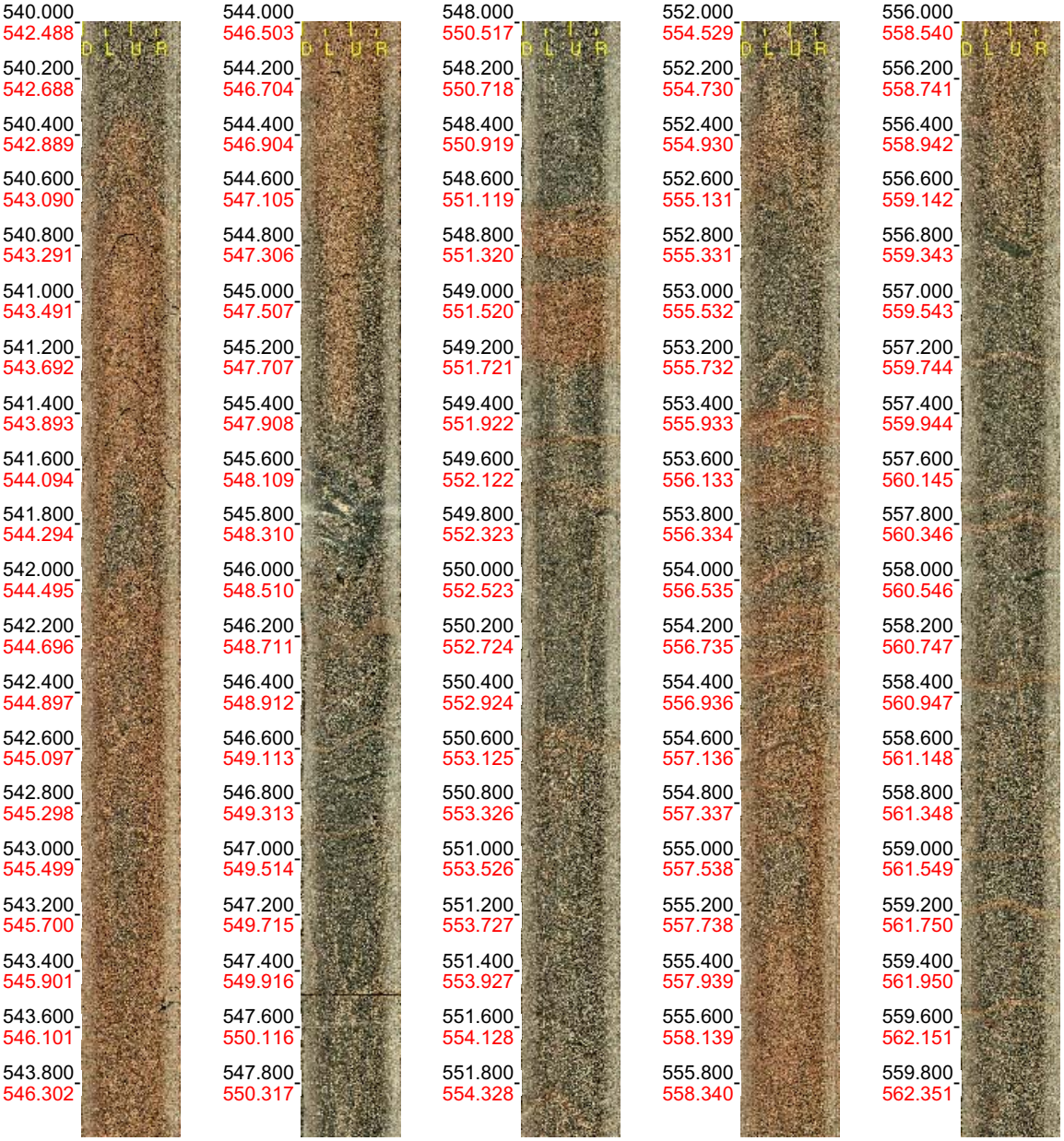
Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 22 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 520.000 - 540.000 m
Azimuth: 262.4
Inclination: 84.2

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 540.000 - 560.000 m
Azimuth: 264.3
Inclination: 84.2



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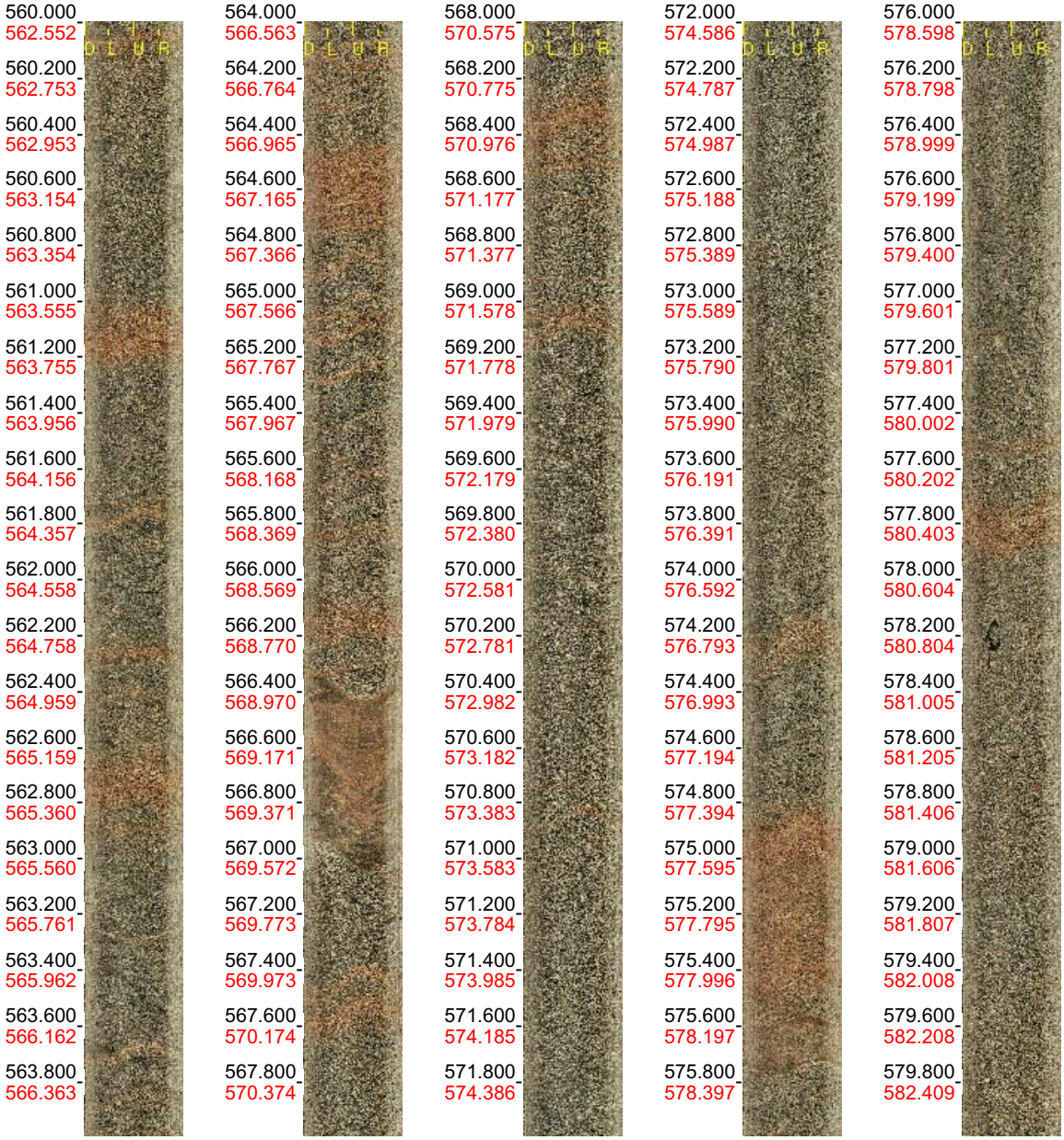
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 560.000 - 580.000 m
Azimuth: 266.2
Inclination: 84.3



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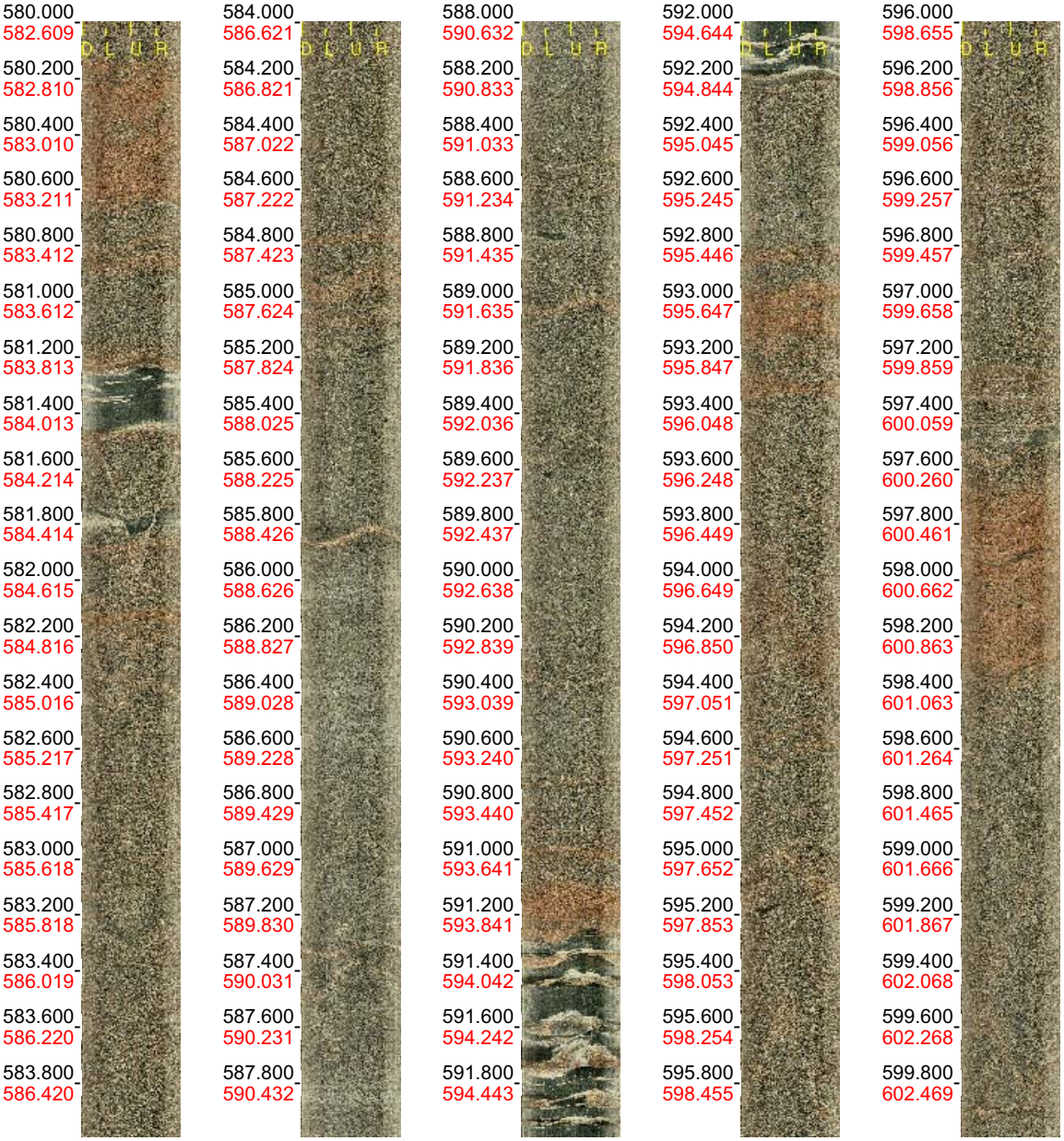
Borehole: KLX10
Mapping: JEPD_KLX10

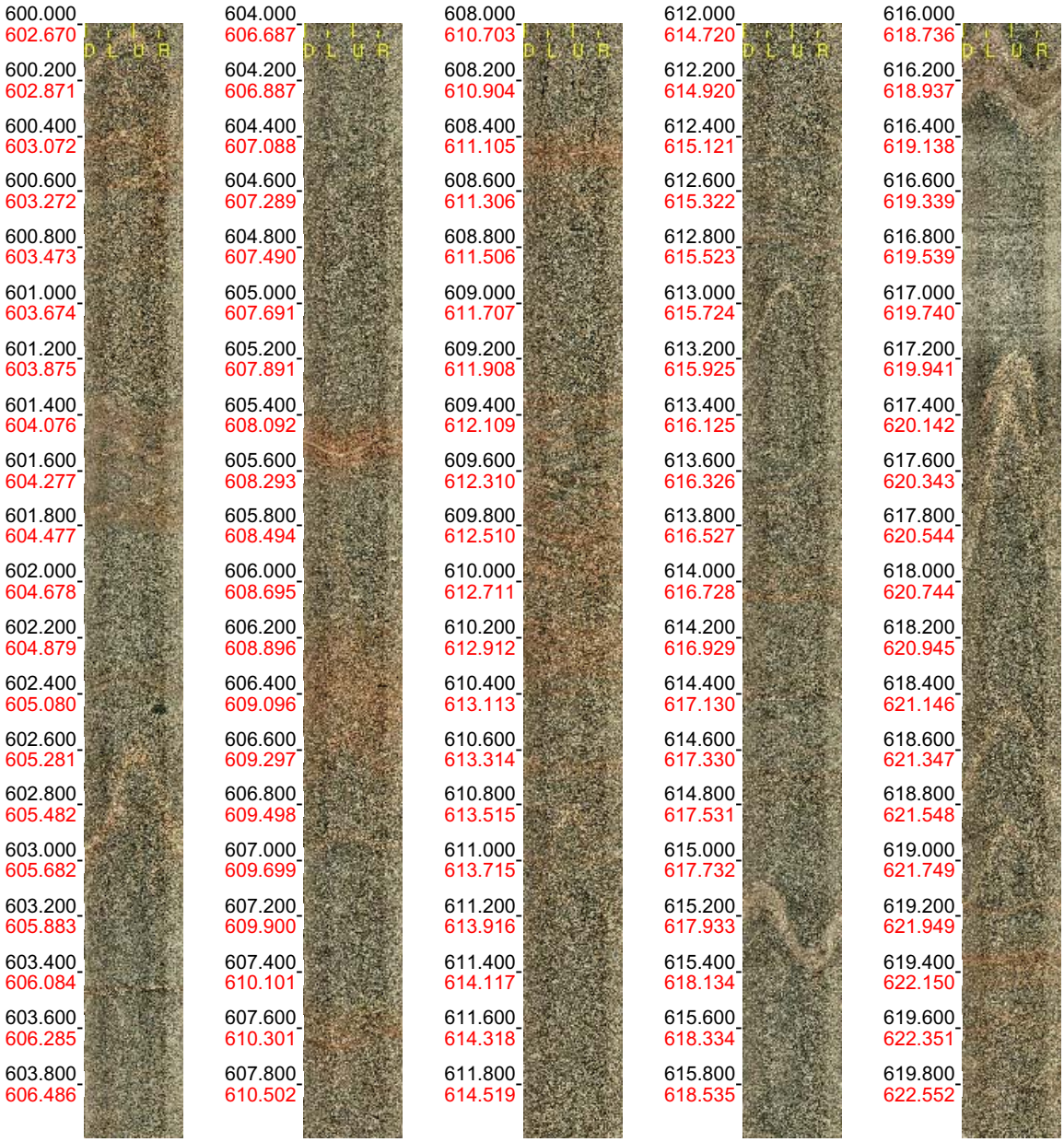
Depth range: 580.000 - 600.000 m
Azimuth: 266.2
Inclination: 84.2



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 26 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

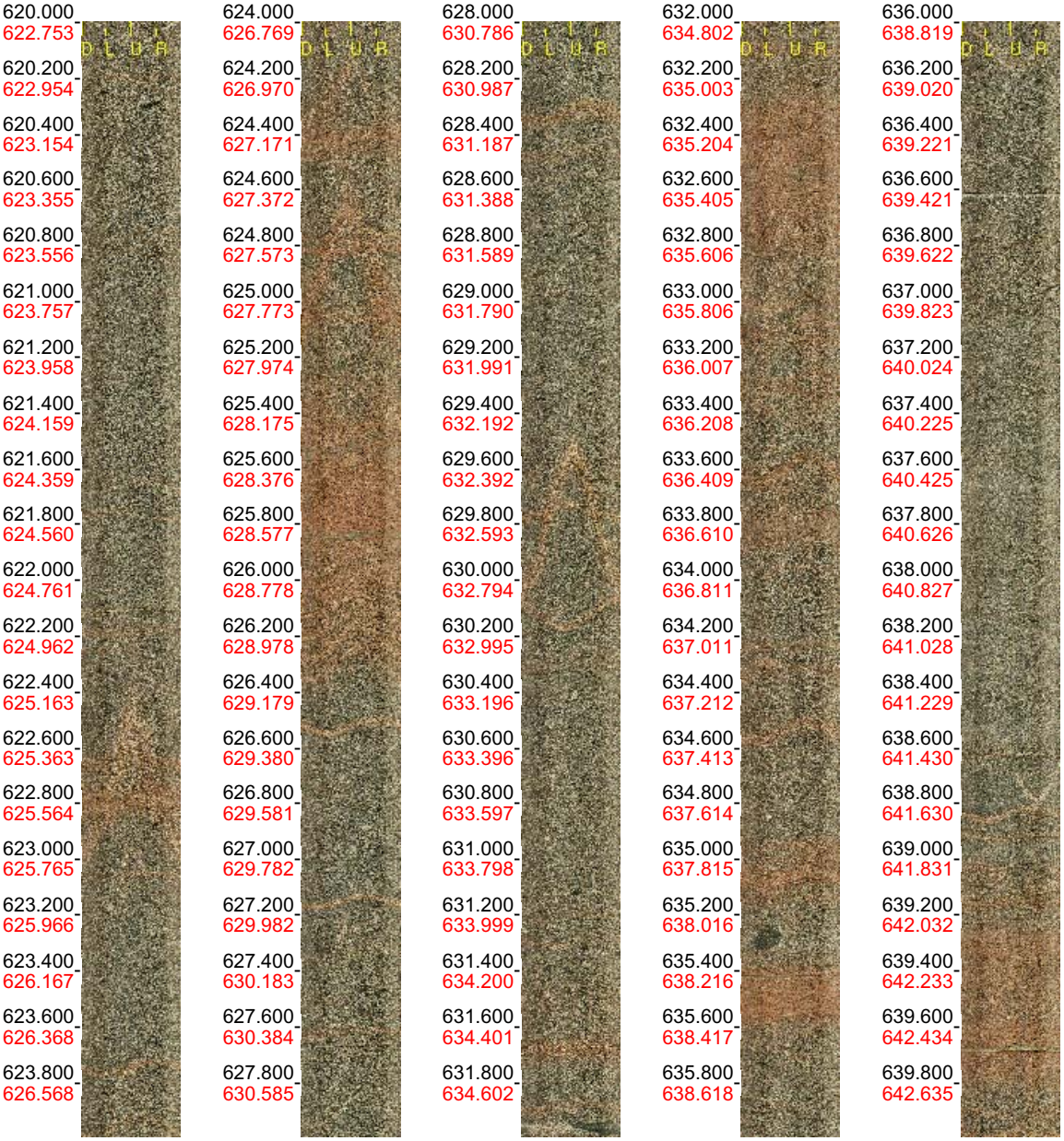
Depth range: 600.000 - 620.000 m
Azimuth: 268.1
Inclination: 84.3



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 27 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

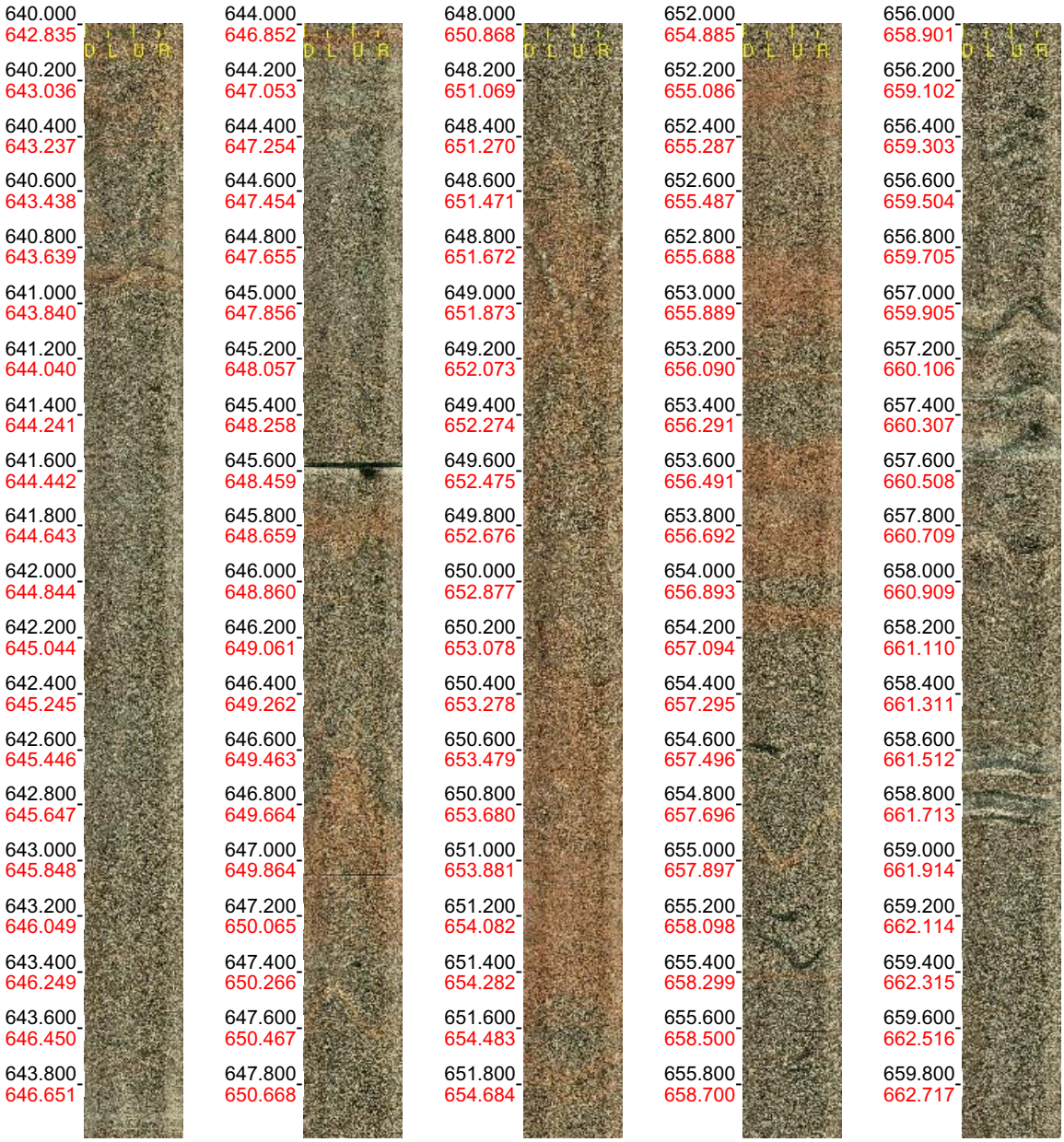
Depth range: 620.000 - 640.000 m
Azimuth: 270.0
Inclination: 84.3



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 28 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

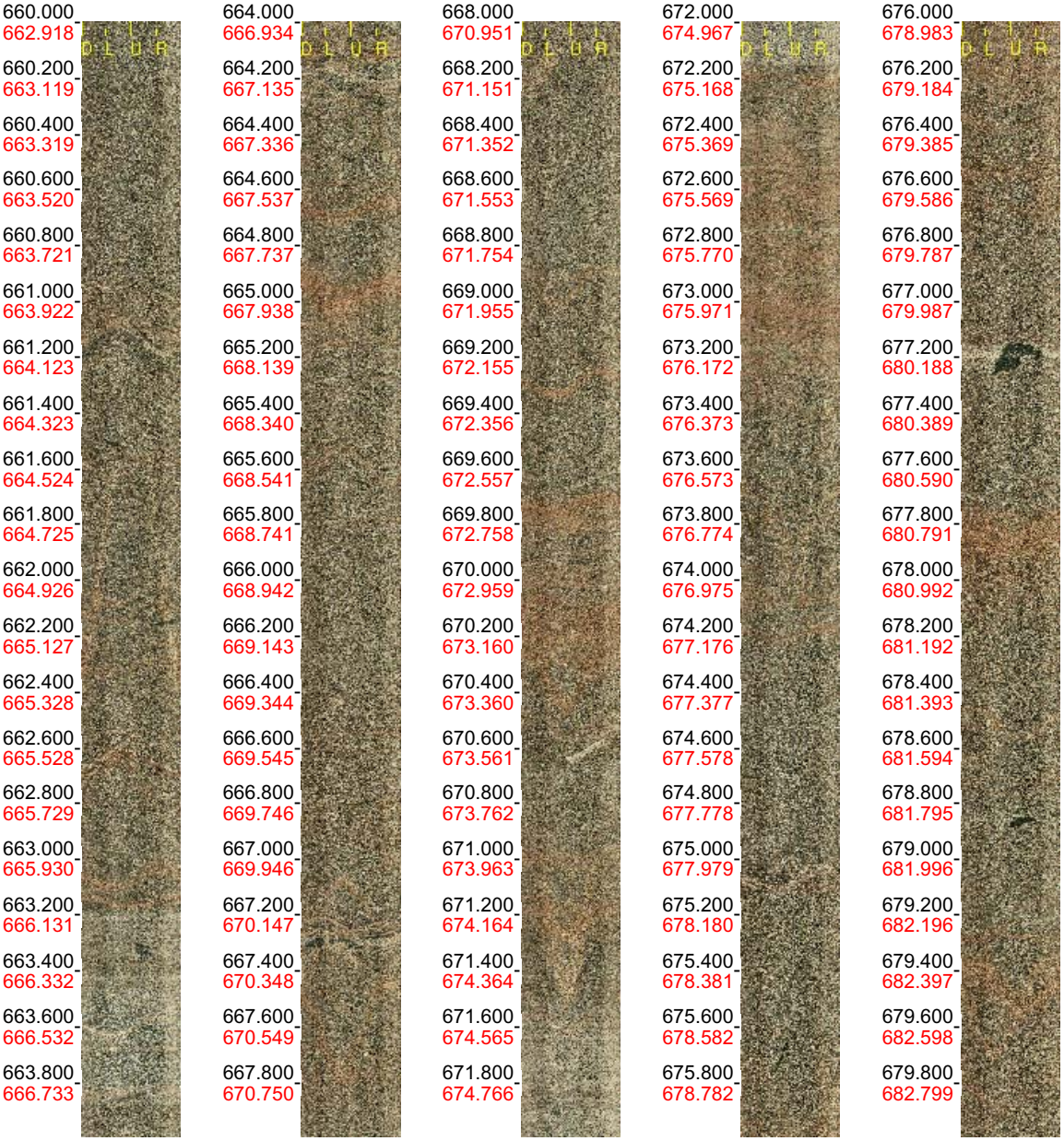
Depth range: 640.000 - 660.000 m
Azimuth: 268.1
Inclination: 84.2



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 29 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

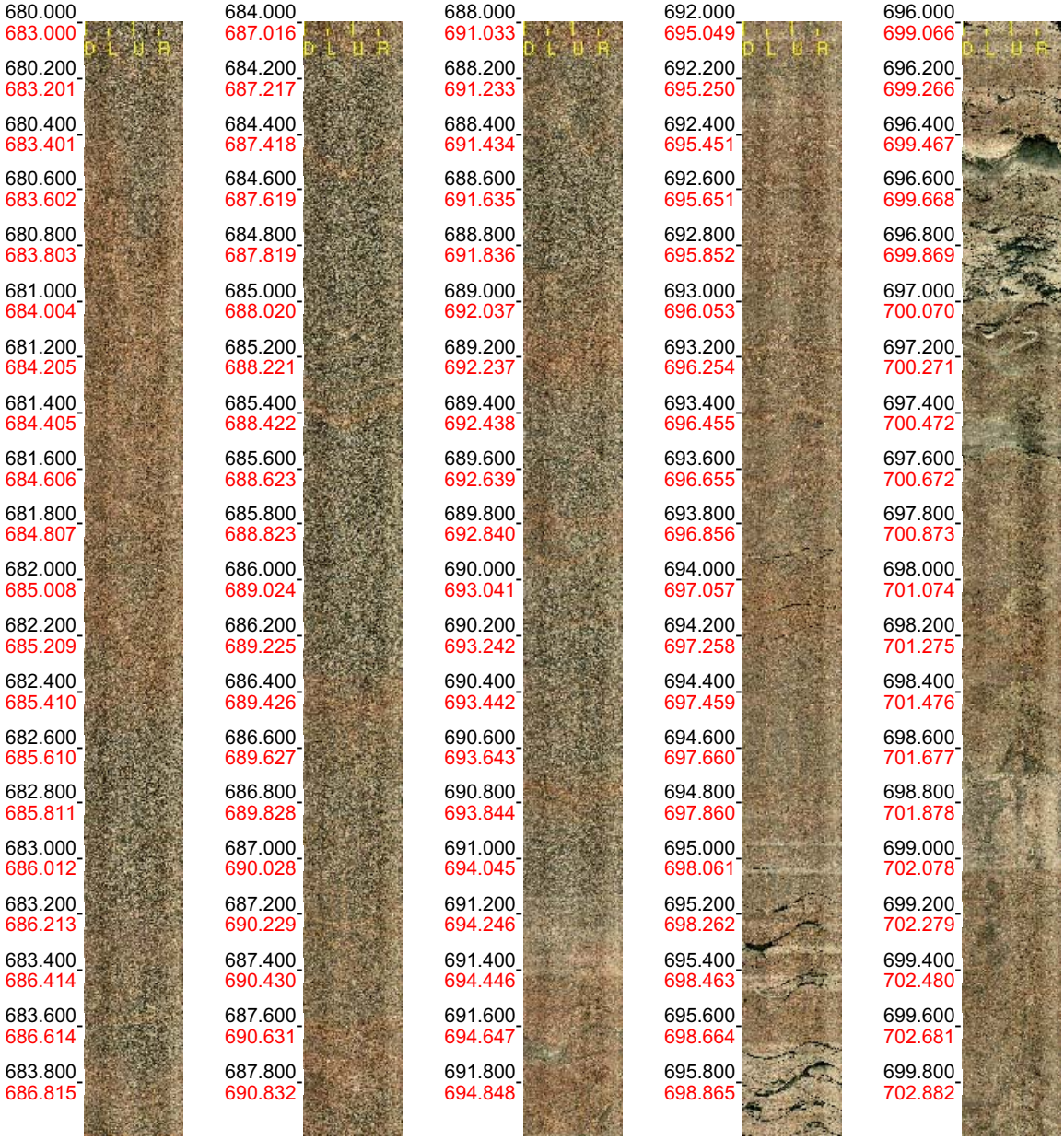
Depth range: 660.000 - 680.000 m
Azimuth: 266.3
Inclination: 84.0



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 30 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 680.000 - 700.000 m
Azimuth: 268.2
Inclination: 84.1



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 31 (46)

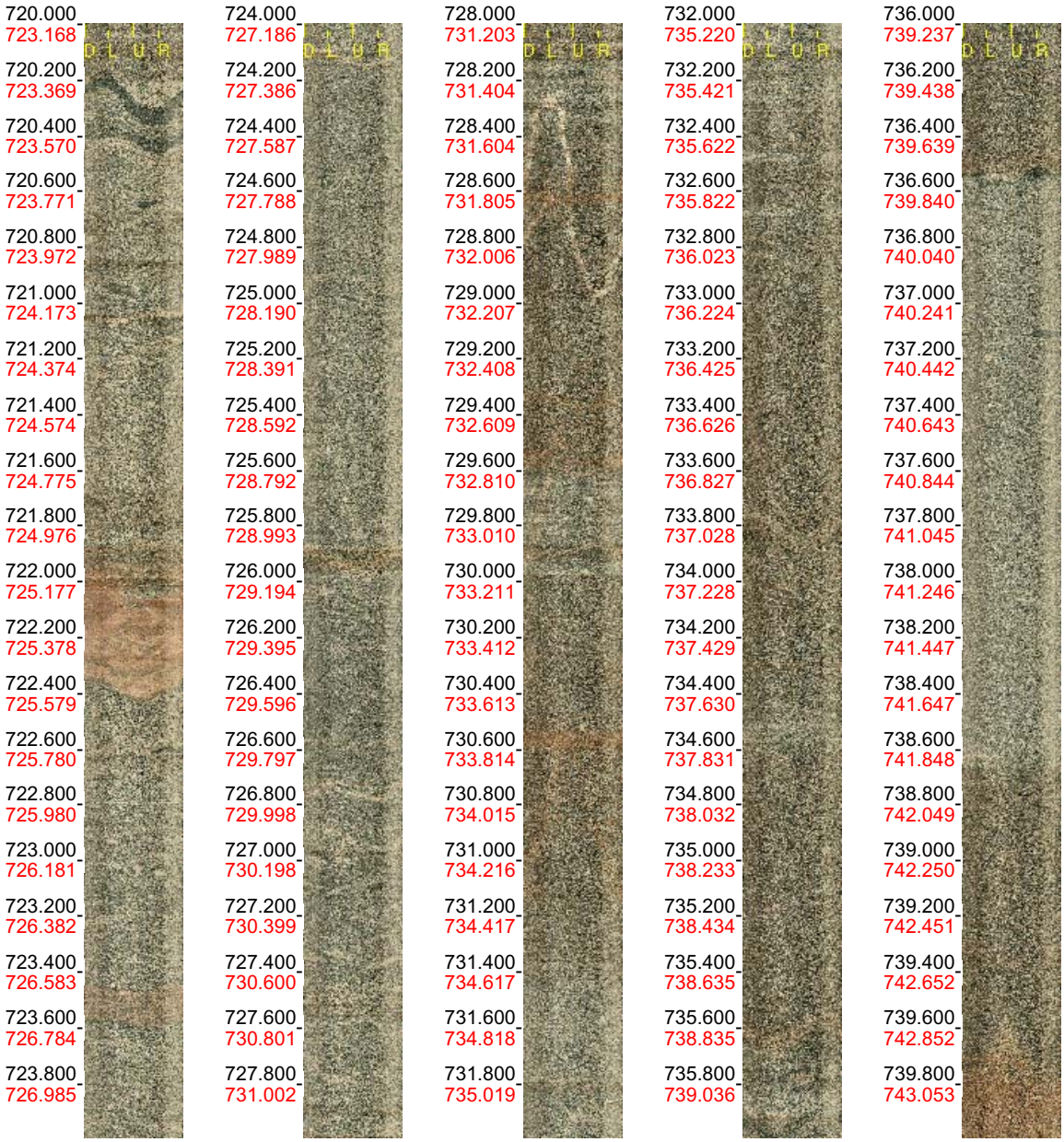
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 700.000 - 720.000 m
Azimuth: 270.0
Inclination: 83.9

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 32 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 720.000 - 740.000 m
Azimuth: 270.0
Inclination: 83.9



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 33 (46)

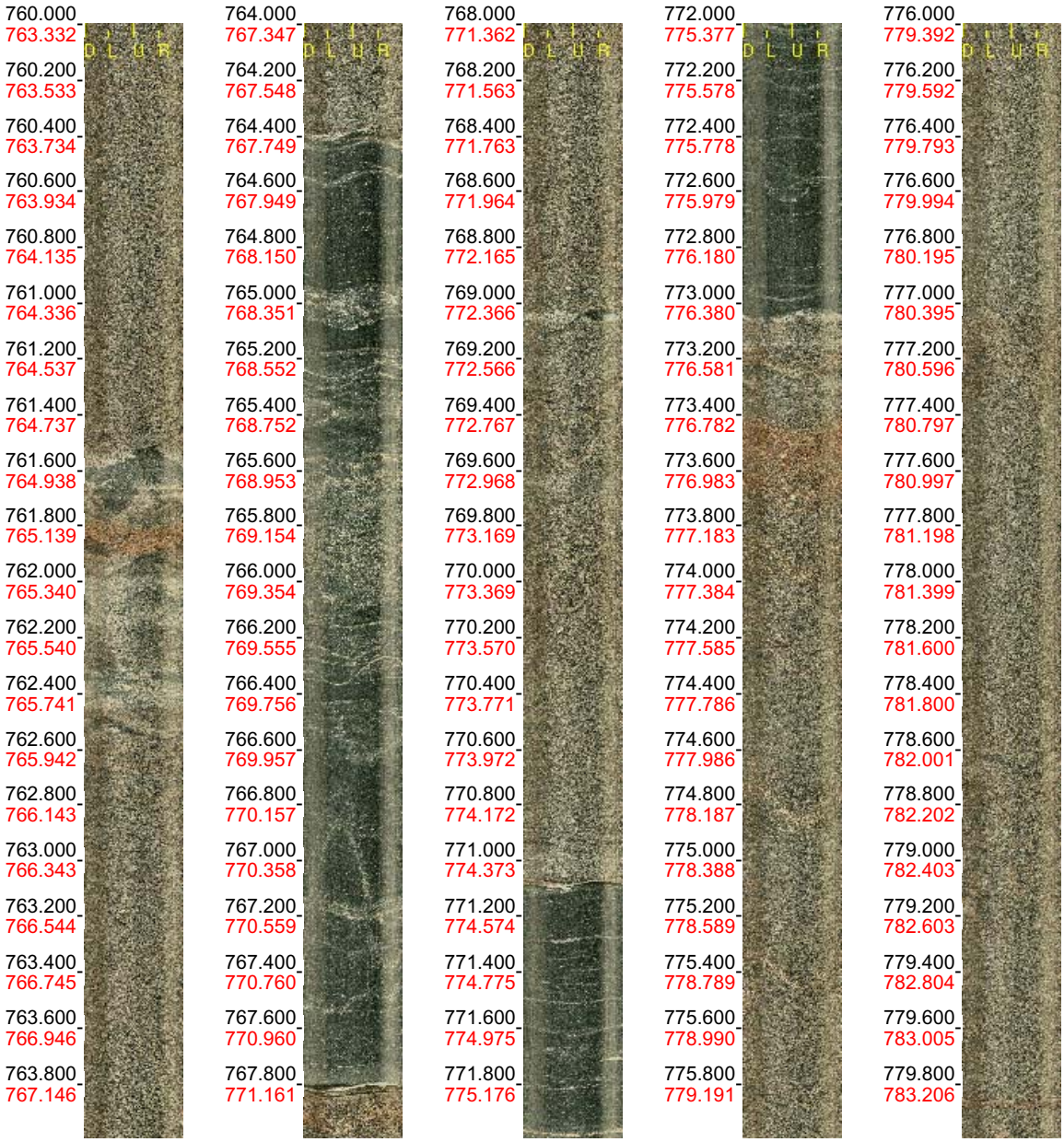
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 740.000 - 760.000 m
Azimuth: 270.0
Inclination: 83.9

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 34 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 760.000 - 780.000 m
Azimuth: 271.7
Inclination: 83.7



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 35 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 780.000 - 800.000 m
Azimuth: 273.5
Inclination: 83.7

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 36 (46)

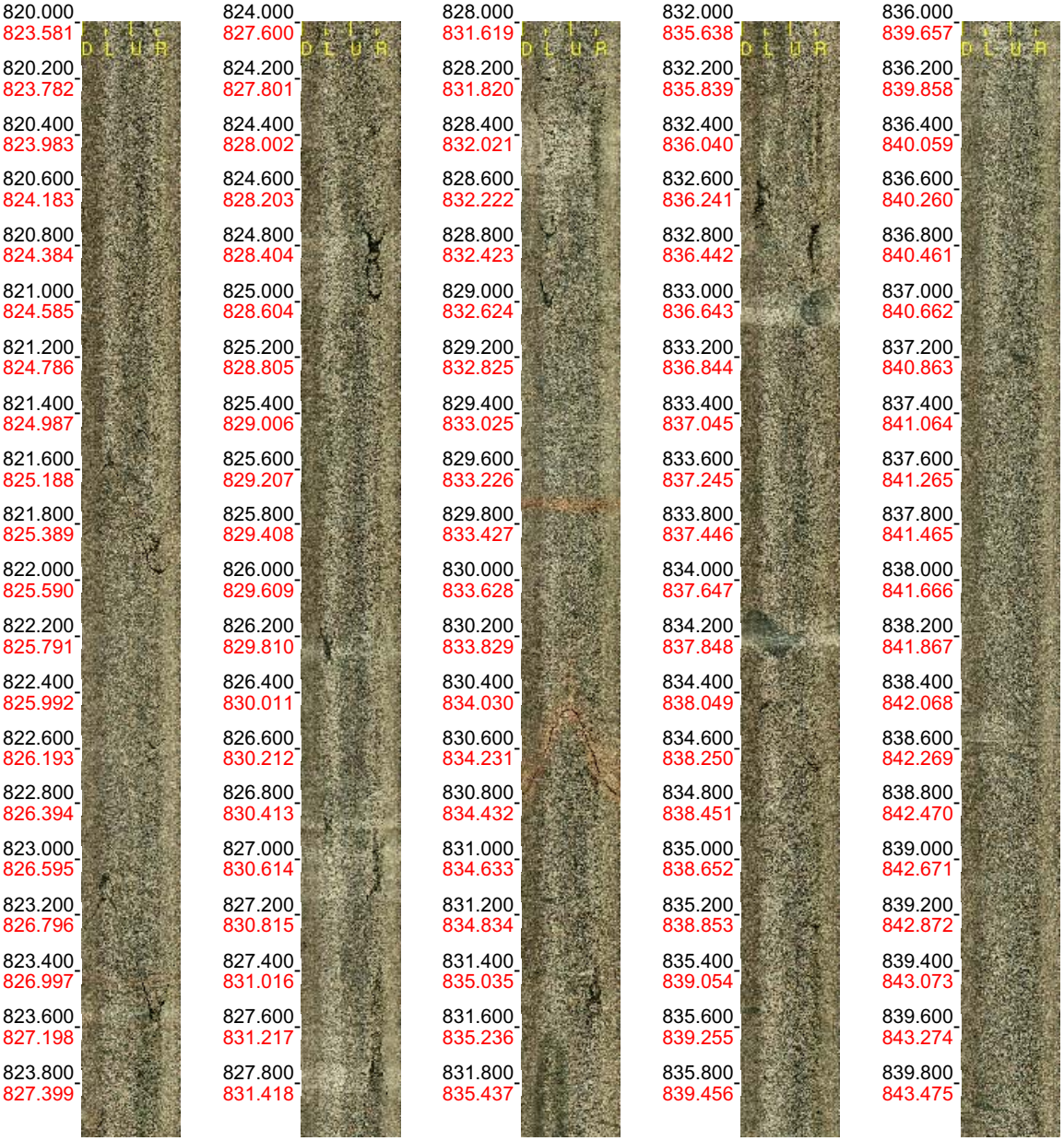
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 800.000 - 820.000 m
Azimuth: 271.7
Inclination: 83.7

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 37 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 820.000 - 840.000 m
Azimuth: 270.0
Inclination: 83.7



Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 840.000 - 860.000 m
Azimuth: 270.0
Inclination: 83.7

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 39 (46)

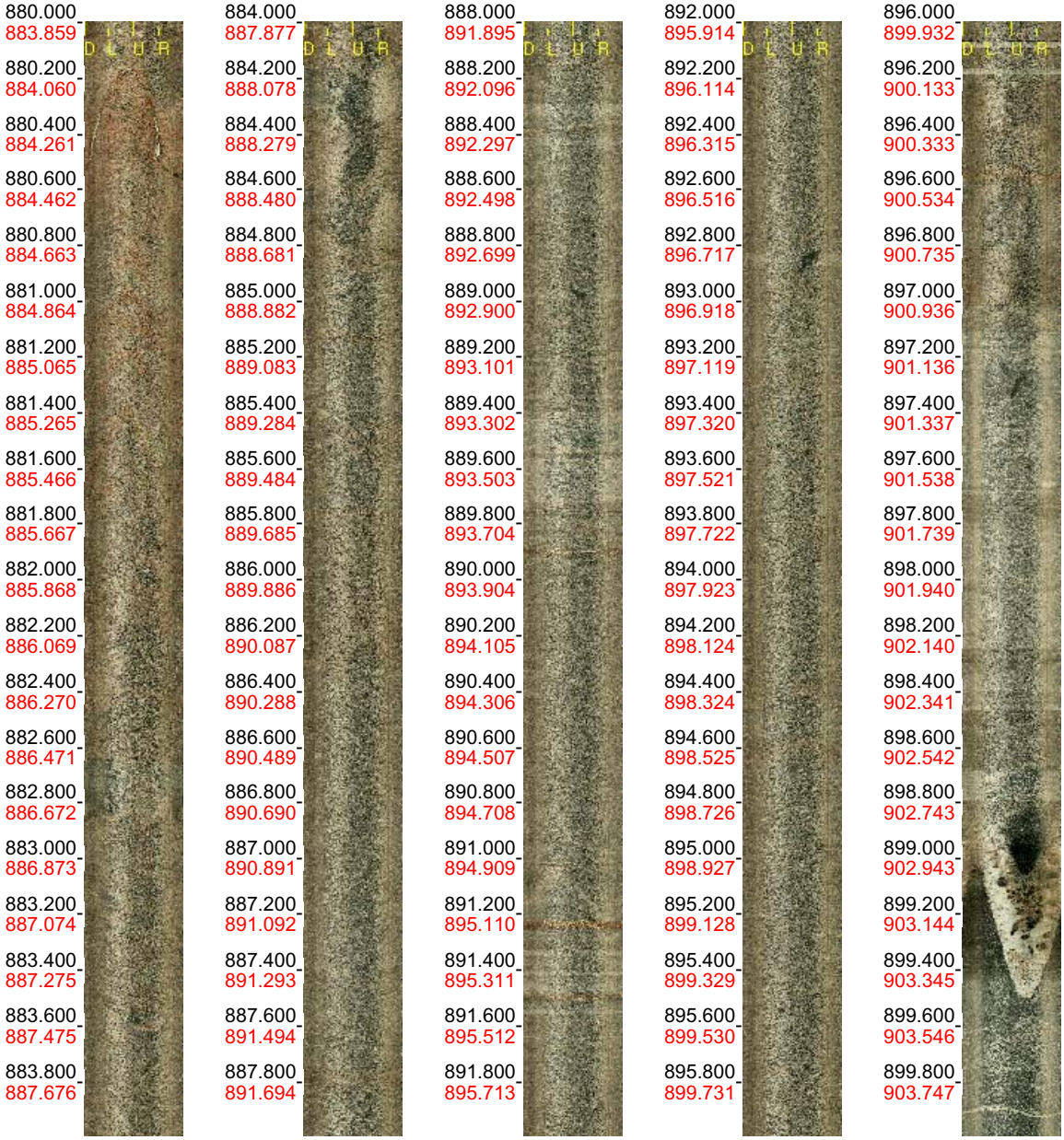
Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 860.000 - 880.000 m
Azimuth: 271.7
Inclination: 83.7

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 40 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

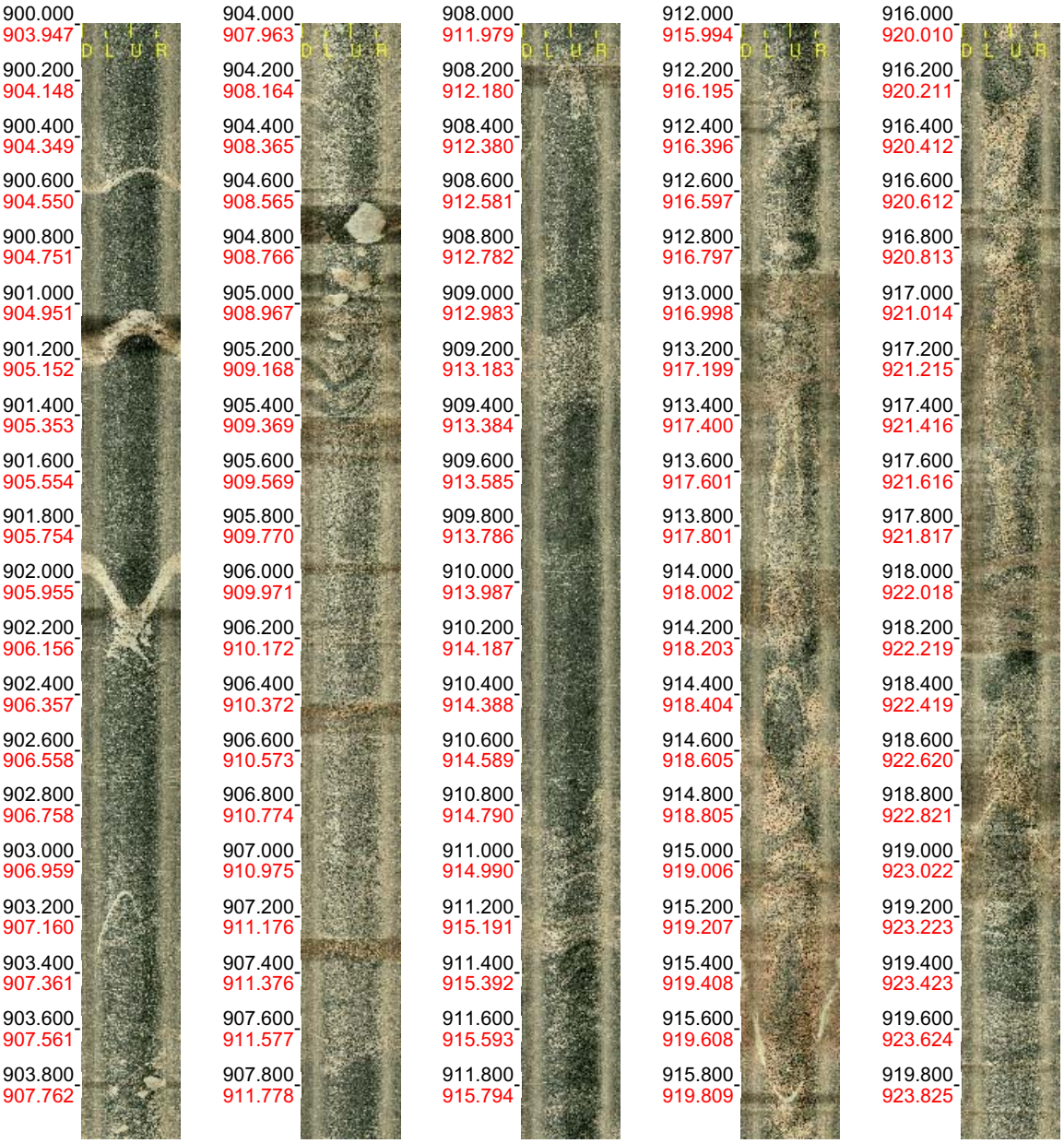
Depth range: 880.000 - 900.000 m
Azimuth: 273.5
Inclination: 83.7



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 41 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

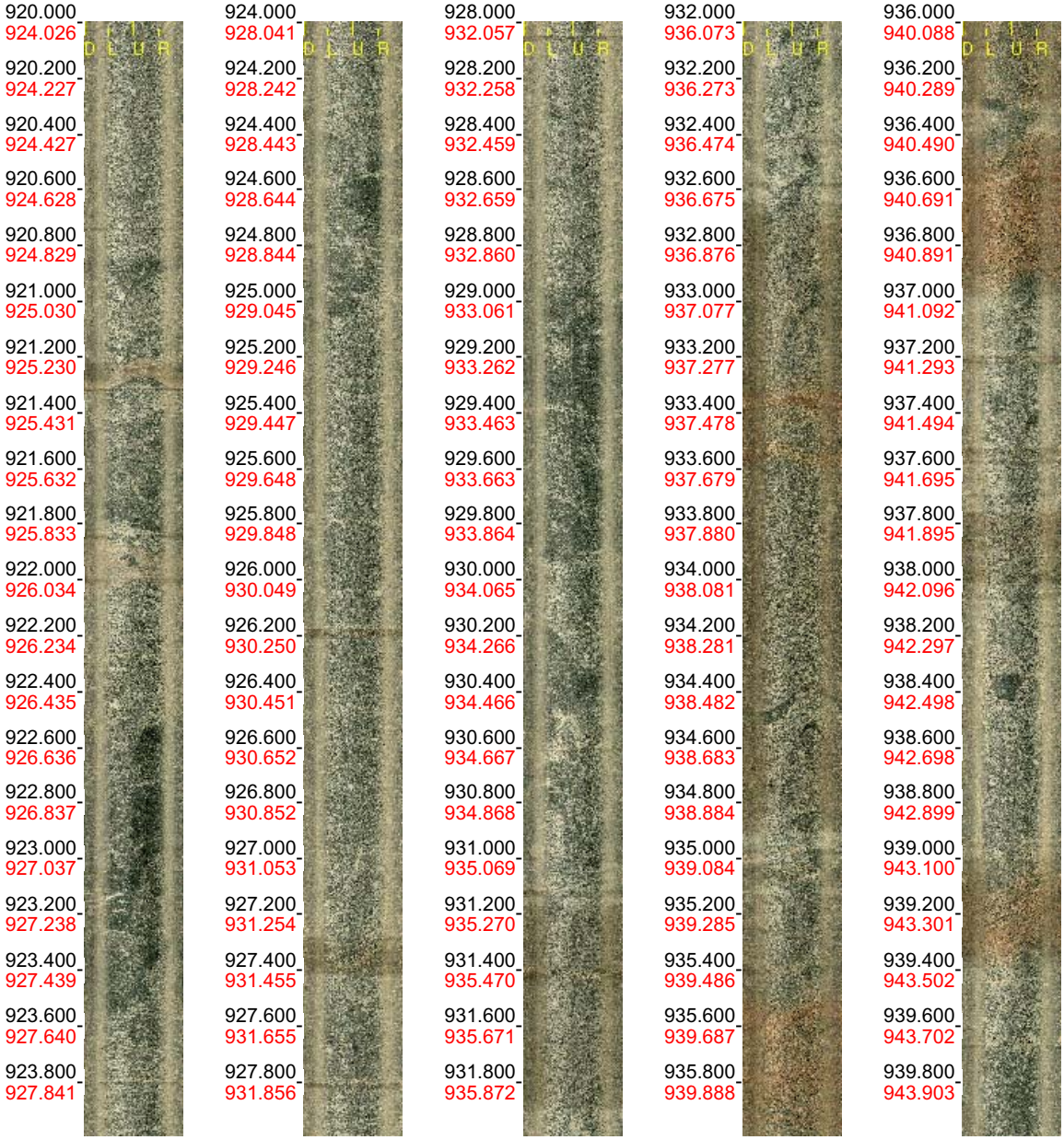
Depth range: 900.000 - 920.000 m
Azimuth: 273.6
Inclination: 83.9



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 42 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

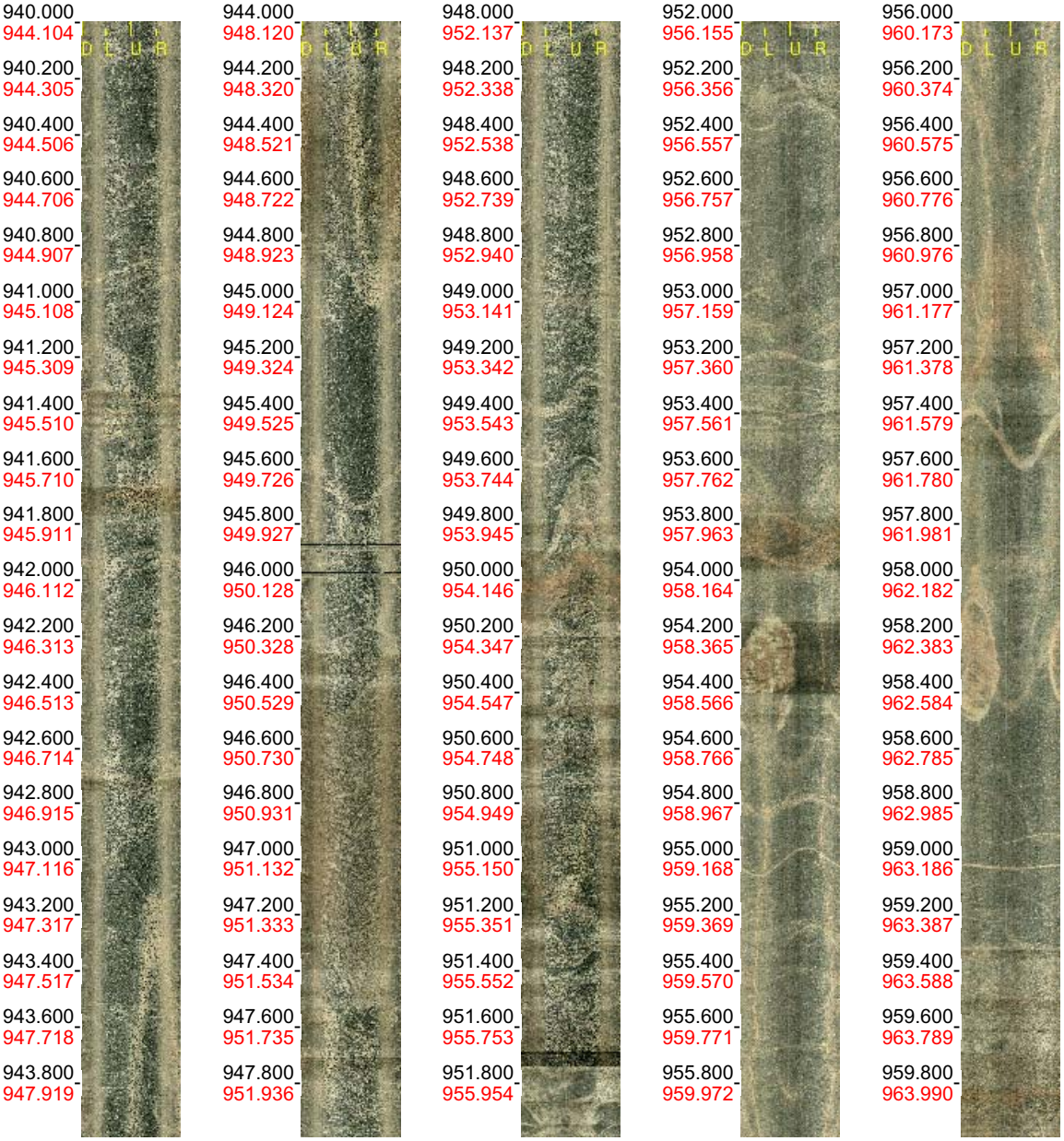
Depth range: 920.000 - 940.000 m
Azimuth: 273.6
Inclination: 83.9



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 43 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

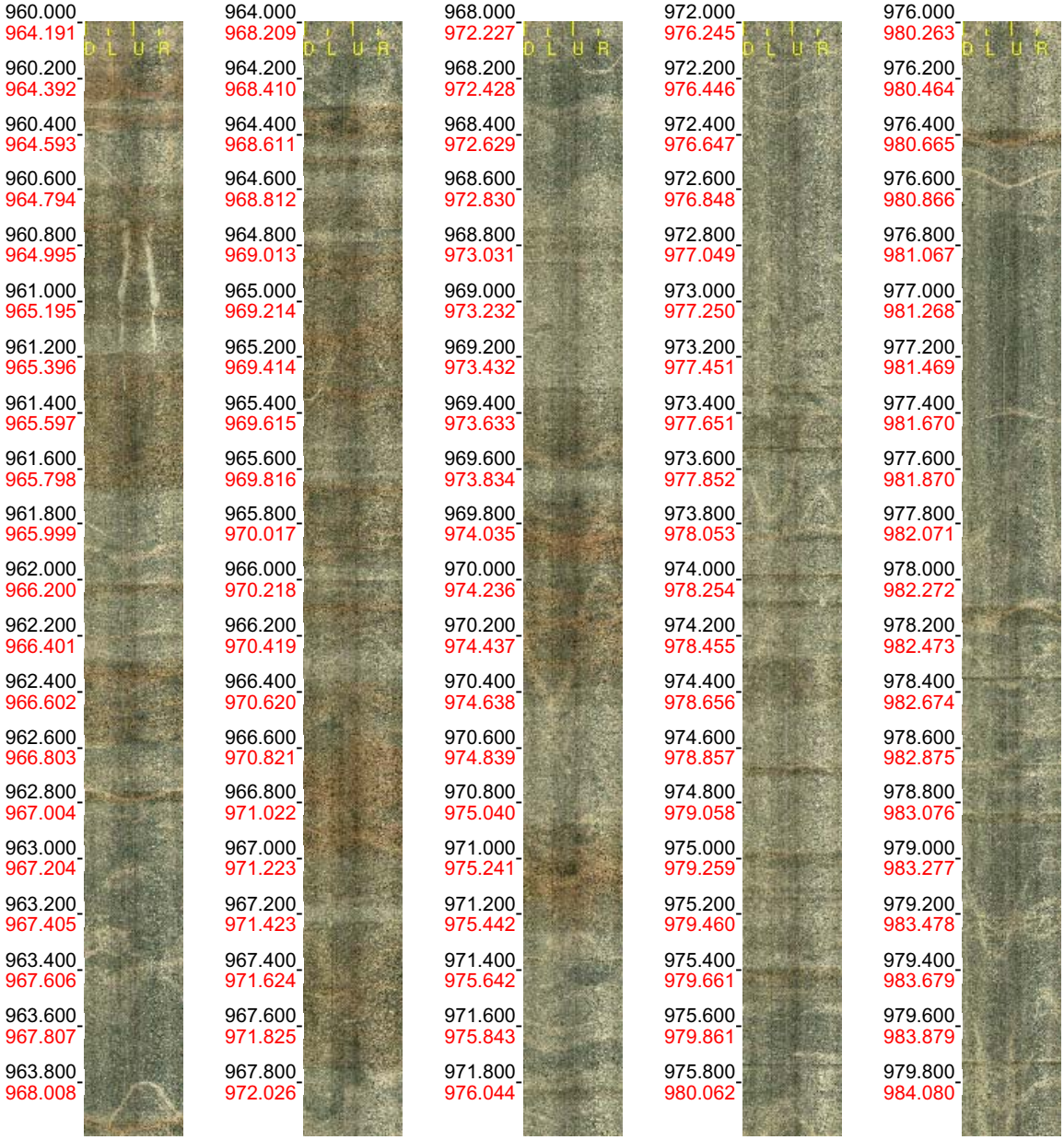
Depth range: 940.000 - 960.000 m
Azimuth: 273.7
Inclination: 84.1



Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 44 (46)

Borehole: KLX10
Mapping: JEPD_KLX10

Depth range: 960.000 - 980.000 m
Azimuth: 273.6
Inclination: 83.9



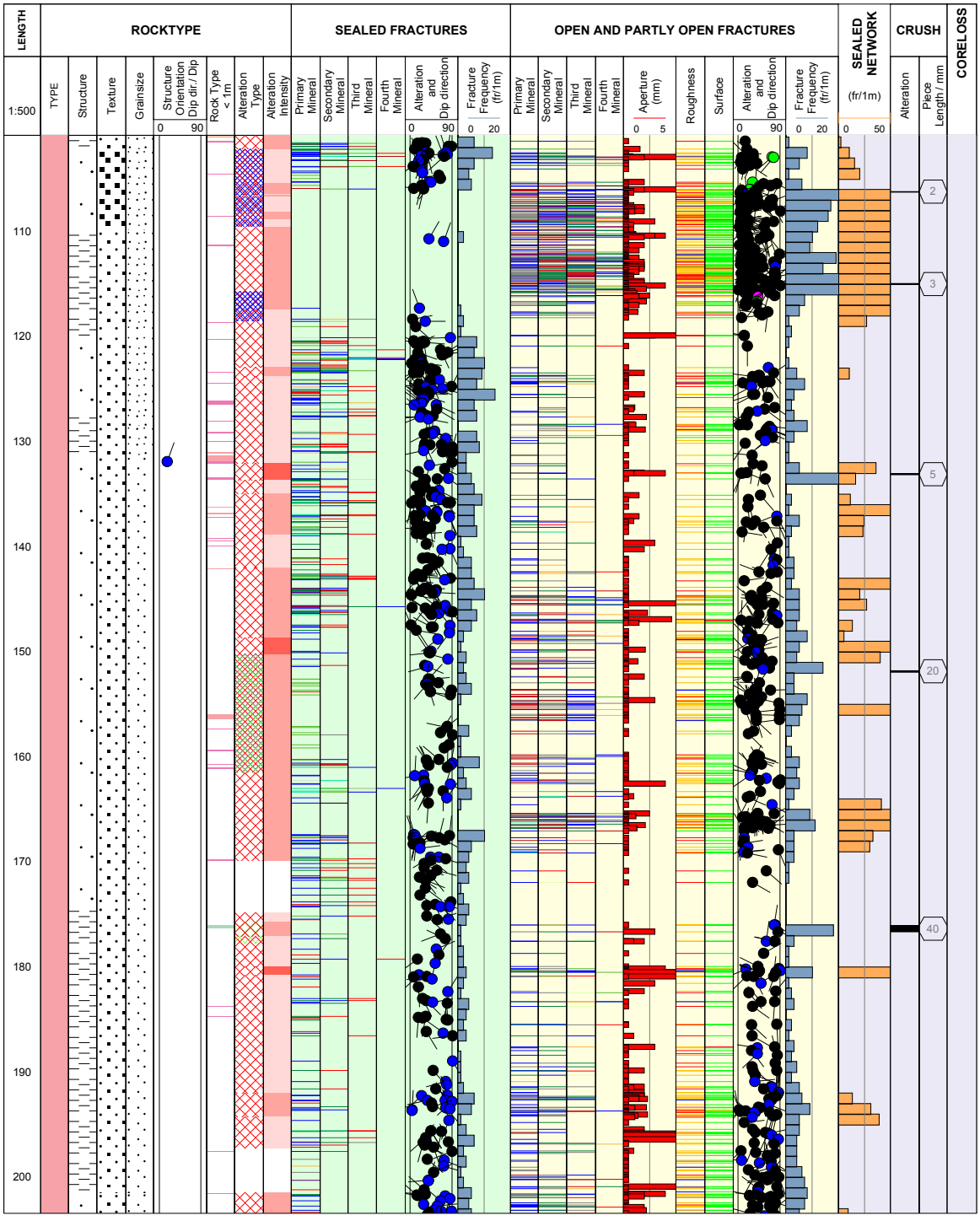
Borehole: KLX10
Mapping: JEPD_KLX10

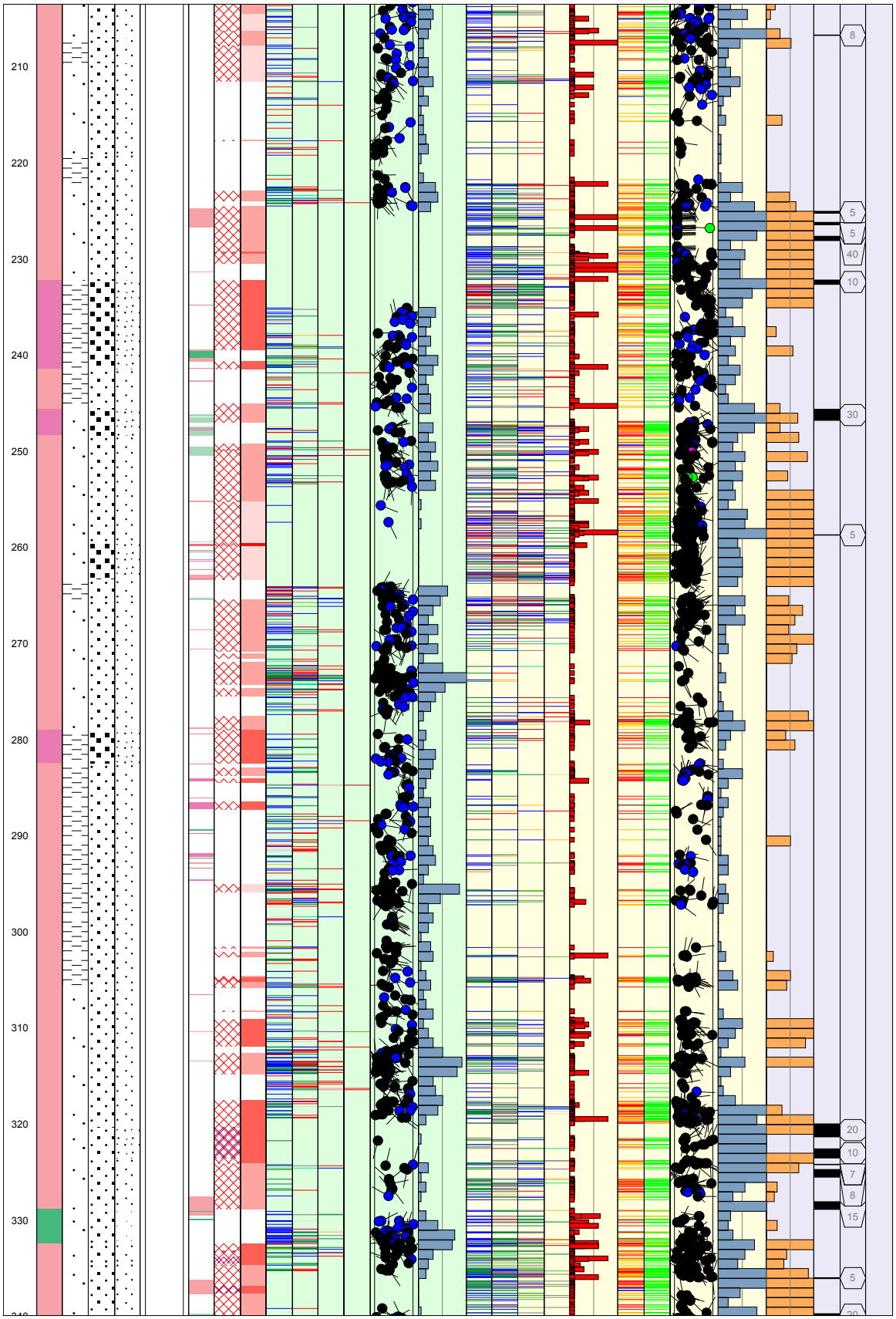
Depth range: 980.000 - 992.160 m
Azimuth: 273.7
Inclination: 84.0

Printed: 2005-12-21 16:06:28 Scale: 1 : 20 Aspect: 150 % 46 (46)

WellCad diagram of KLX10

Title	GEOLOGY IN KLX10		Appendix:
Site	LAXEMAR	Coordinate System	RT90-RHB70
Borehole	KLX10	Northing [m]	6366319.38
Diameter [mm]	76	Easting [m]	1548515.23
Length [m]	1001.200	Elevation [m.a.s.l.]	18.28
Bearing [°]	250.80	Drilling Start Date	2005-06-18 08:00:00
Inclination [°]	-85.18	Drilling Stop Date	2005-10-15 07:40:00
Date of coremapping	2005-11-29 09:18:00	Plot Date	2007-10-25 22:03:45
Rocktype data from	p_rock	Signed data	

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270
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330
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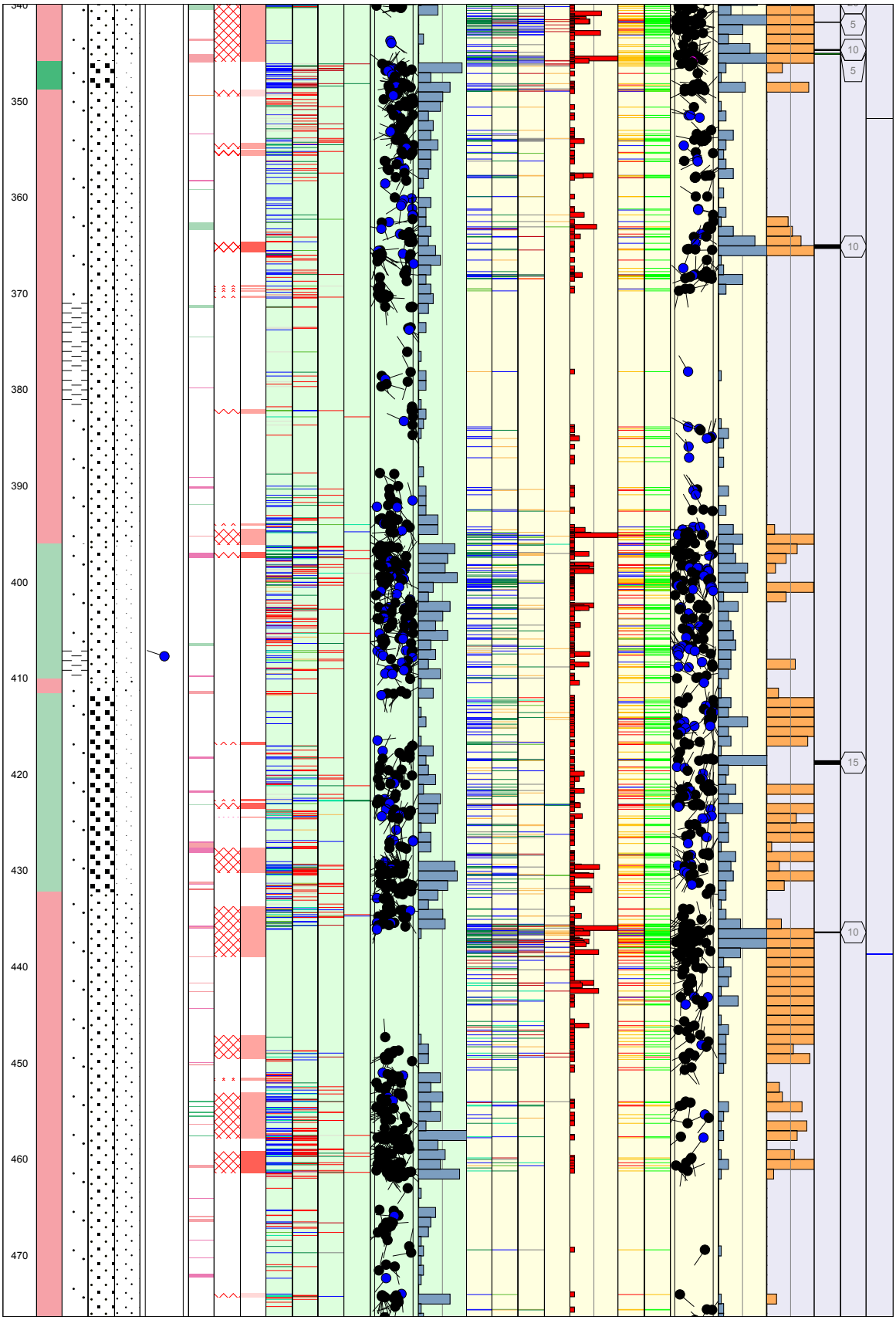
30
5
20
10
7
8
15
5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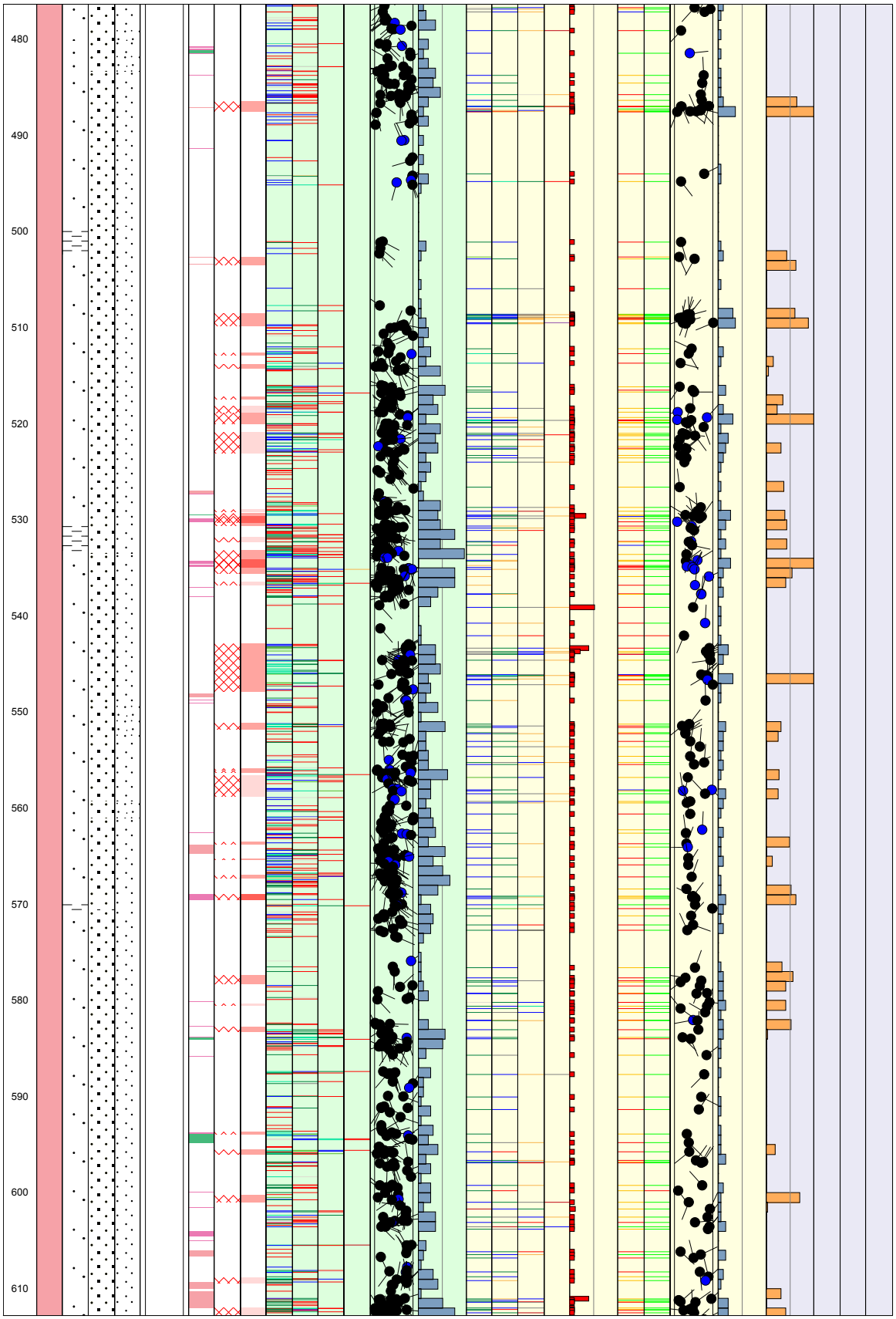
380
390
400
410
420
430
440
450
460
470
5
10
5
10
15
10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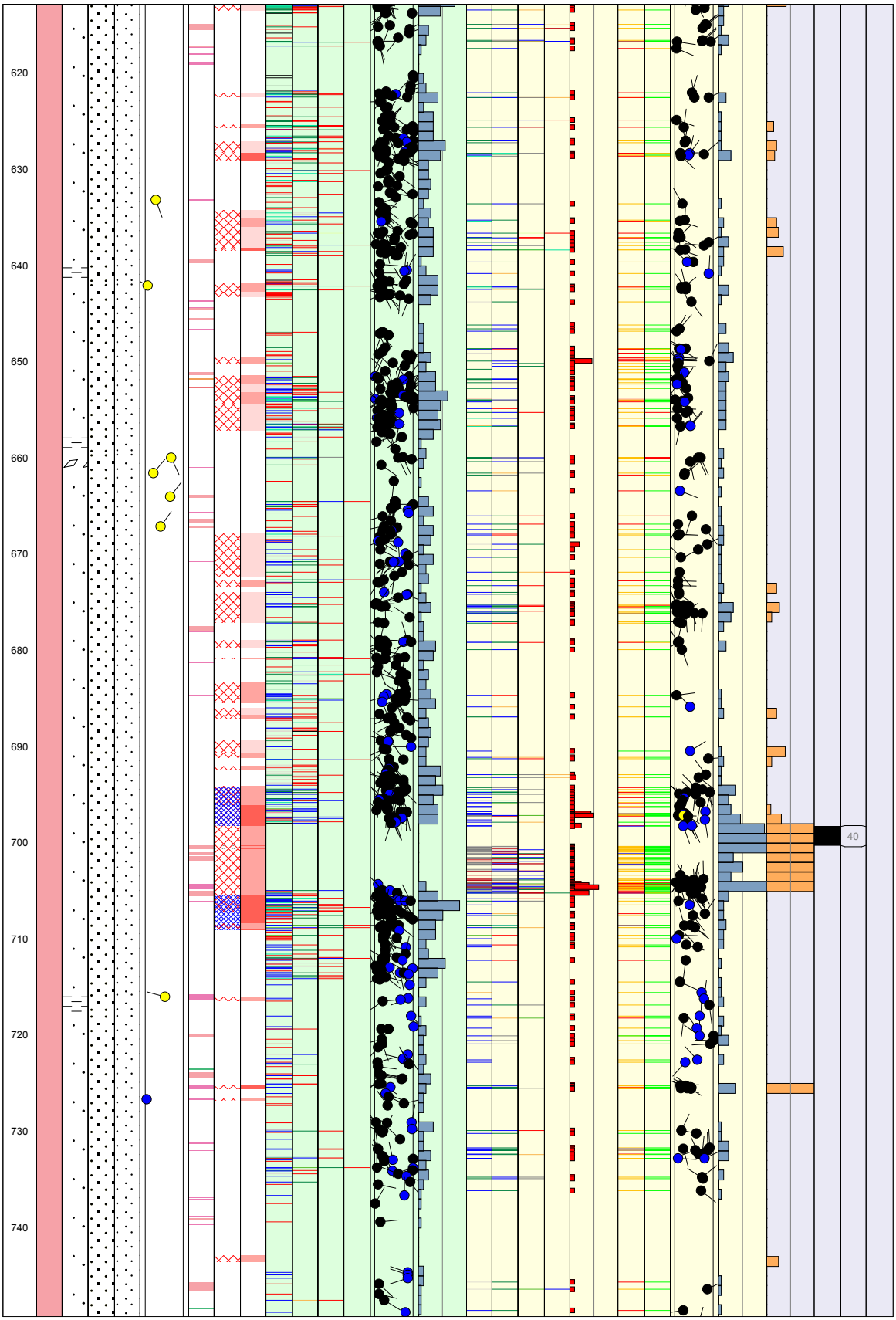
590
600
610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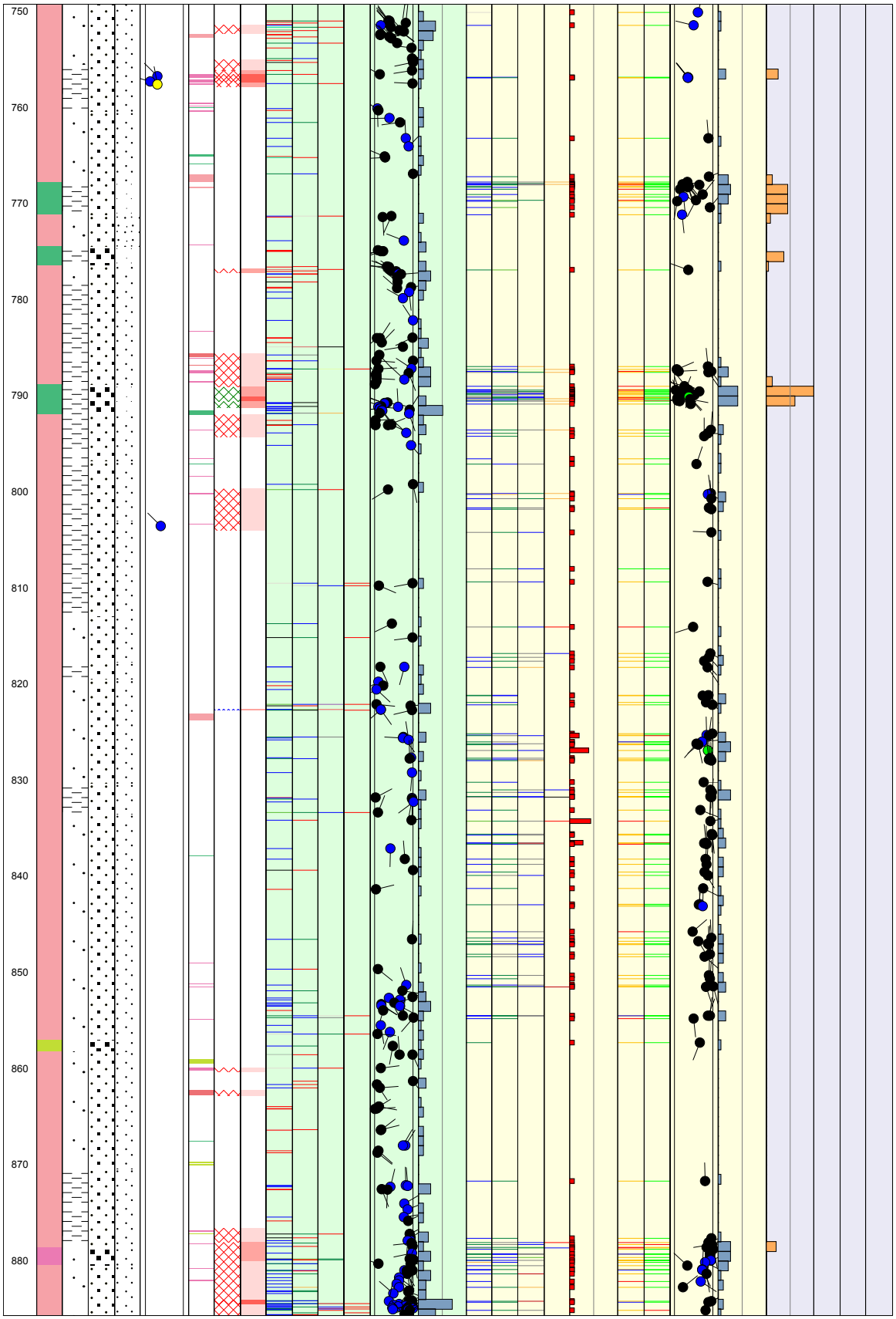
730
740
40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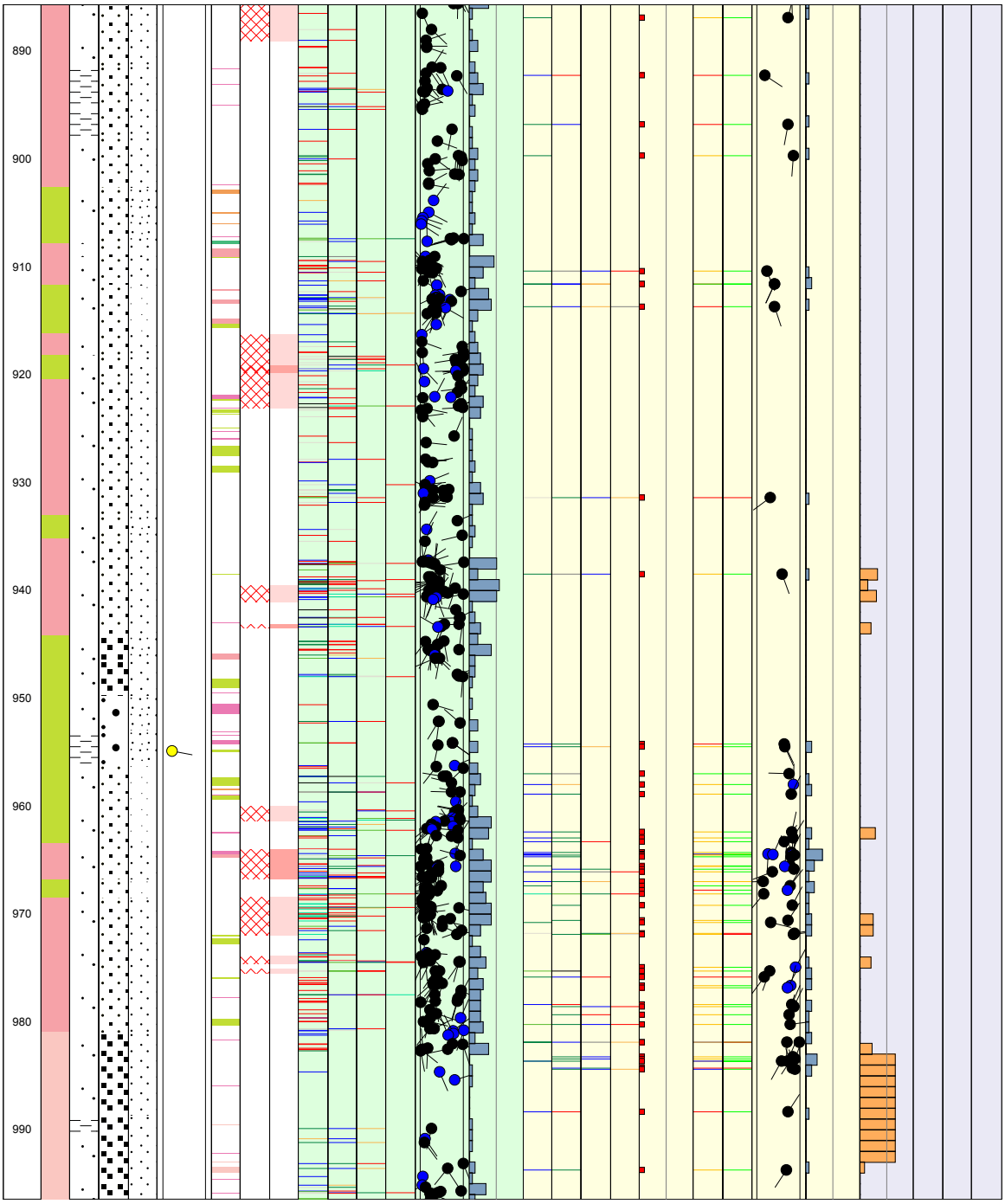
810
820
830
840
850
860
870
880


890
900
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920
930
940
950
960
970
980
990

Legend to WellCad diagram KLX10

Title LEGEND FOR LAXEMAR KLX10

Site LAXEMAR
Borehole KLX10
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

- Biotite
- Epidote
- Hematite
- Calcite
- Chlorite
- Chalcopyrite
- Quartz
- Unknown
- Pyrite
- Clay Minerals
- Zeolite
- 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

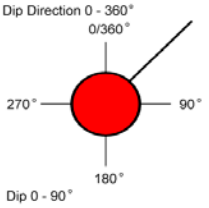
CRUSH ALTERATION

- 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



Appendix 6

In-data: Borehole length and diameter for KLX10

KLX10, 2005-06-18 08:00:00 - 2005-10-15 07:40:00 (100.600 - 1001.200 m)

Sub Secup (m)	Sub Seclow (m)	Hole Diam (m)	Comment
100.600	102.130	0.0860	T-89 Rymning 101.13-102.13
102.130	1001.200	0.0758	Corac N3/N50

Printout from SICADA 2006-01-25 11:39:15.

In-data: Reference marks for depth adjustments for KLX10

KLX10, 2005-10-21 06:00:00 - 2005-10-21 18:00:00 (110.000 - 980.000 m)

Bhlen (m)	Rotation Speed (rpm)	Start Flow (l/min)	Stop Flow (l/min)	Stop Pressure (bar)	Cutter Time (s)	Trace Detectable	Comment
110.00	400.00	100	1000	44.0	84	Yes	Fastnade vid ca 108, vid upptaget av utrustningen men den lossnade med hjälp av handkraft
150.00	400.00	100	1000	44.0	76	Yes	Släppte kulan kl 9:58
204.00	400.00	80	1000	44.0	68	Yes	
251.00	400.00	100	1000	44.0	67	Yes	Svårt att komma förbi partiet 225,00-233,00 m för att jag bara hade 2st korta tyngder, men lyckades efter en stund!!!
300.00	400.00	100	1000	45.0	74	Yes	
350.00	400.00	100	1000	45.0	70	Yes	
402.00	400.00	100	1000	45.0	67	Yes	
450.00	400.00	110	1000	48.0	78	Yes	
500.00	400.00	140	1000	49.0	73	Yes	
550.00	400.00	110	1000	47.0	76	Yes	
600.00	400.00	100	1000	50.0	74	Yes	
651.00	400.00	100	1000	50.0	81	Yes	
698.00	400.00	120	1000	50.0	73	Yes	
750.00	400.00	130	1000	48.0	70	Yes	
799.00	400.00	180	1000	50.0	82	Yes	Släppte kulan kl 9:58
850.00	400.00	120	1000	52.0	82	Yes	
900.00	400.00	220	1000	51.0	76	Yes	
950.00	400.00	120	1000	49.0	78	Yes	
980.00	400.00	240	1000	47.0	78	Yes	

Printout from SICADA 2005-11-24 09:05:13.

Appendix 8

In-data: Borehole deviation data for KLX10

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
KLX10	RT90-RHB70	6366319.38	1548515.23	18.28	0.00	0.00	-85.19	250.80	0.913	6.103	0.00	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366319.30	1548514.99	15.29	3.00	2.99	-85.19	250.81	0.913	6.103	0.05	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366319.22	1548514.75	12.30	6.00	5.98	-85.07	251.35	0.913	6.103	0.10	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366319.14	1548514.50	9.31	9.00	8.97	-84.96	251.50	0.913	6.103	0.14	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366319.05	1548514.25	6.32	12.00	11.96	-84.85	251.70	0.913	6.103	0.19	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.97	1548513.99	3.33	15.00	14.94	-84.74	252.35	0.913	6.103	0.24	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.88	1548513.73	0.35	18.00	17.93	-84.63	252.50	0.913	6.103	0.29	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.80	1548513.46	-2.64	21.00	20.92	-84.52	253.35	0.913	6.103	0.33	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.72	1548513.18	-5.63	24.00	23.90	-84.41	253.85	0.913	6.103	0.38	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.64	1548512.90	-8.61	27.00	26.89	-84.30	254.40	0.913	6.103	0.43	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.56	1548512.60	-11.60	30.00	29.87	-84.19	255.05	0.913	6.103	0.48	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.48	1548512.31	-14.58	33.00	32.86	-84.07	255.40	0.913	6.103	0.53	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.40	1548512.01	-17.56	36.00	35.84	-83.96	255.55	0.913	6.103	0.57	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.32	1548511.70	-20.55	39.00	38.82	-83.85	255.60	0.913	6.103	0.62	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.24	1548511.38	-23.53	42.00	41.81	-83.74	255.70	0.913	6.103	0.67	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.16	1548511.06	-26.51	45.00	44.79	-83.63	255.90	0.913	6.103	0.72	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.08	1548510.74	-29.49	48.00	47.77	-83.52	255.95	0.913	6.103	0.76	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366318.00	1548510.41	-32.47	51.00	50.75	-83.41	256.45	0.913	6.103	0.81	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.92	1548510.07	-35.45	54.00	53.73	-83.30	256.80	0.913	6.103	0.86	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.84	1548509.72	-38.43	57.00	56.71	-83.19	256.95	0.913	6.103	0.91	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.76	1548509.37	-41.41	60.00	59.69	-83.07	257.50	0.913	6.103	0.96	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.68	1548509.02	-44.39	63.00	62.67	-82.96	257.65	0.913	6.103	1.00	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.60	1548508.66	-47.37	66.00	65.64	-82.85	257.65	0.913	6.103	1.05	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.52	1548508.29	-50.34	69.00	68.62	-82.74	257.75	0.913	6.103	1.10	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.44	1548507.92	-53.32	72.00	71.59	-82.63	257.80	0.913	6.103	1.15	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.36	1548507.54	-56.29	75.00	74.57	-82.52	257.80	0.913	6.103	1.20	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.28	1548507.15	-59.27	78.00	77.54	-82.41	258.25	0.913	6.103	1.24	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.20	1548506.76	-62.24	81.00	80.52	-82.30	258.30	0.913	6.103	1.29	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.11	1548506.36	-65.21	84.00	83.49	-82.19	258.30	0.913	6.103	1.34	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366317.03	1548505.96	-68.18	87.00	86.46	-82.08	258.25	0.913	6.103	1.39	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.94	1548505.55	-71.16	90.00	89.43	-81.96	258.20	0.913	6.103	1.43	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.86	1548505.14	-74.13	93.00	92.40	-81.85	258.35	0.913	6.103	1.48	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.77	1548504.72	-77.09	96.00	95.37	-81.74	258.65	0.913	6.103	1.53	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.69	1548504.30	-80.06	99.00	98.34	-81.63	259.15	0.913	6.103	1.58	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.61	1548503.86	-83.03	102.00	101.31	-81.52	259.50	0.913	6.103	1.63	Measured	2007-01-17 09:53

KLX10	RT90-RHB70	6366316.53	1548503.43	-86.00	105.00	104.27	-81.54	259.95	0.913	6.103	1.67	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.45	1548503.00	-88.97	108.00	107.24	-81.56	260.05	0.913	6.103	1.72	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.38	1548502.56	-91.93	111.00	110.21	-81.58	260.15	0.913	6.103	1.77	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.30	1548502.13	-94.90	114.00	113.18	-81.60	260.35	0.913	6.103	1.82	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.23	1548501.70	-97.87	117.00	116.14	-81.61	260.70	0.913	6.103	1.86	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.16	1548501.27	-100.84	120.00	119.11	-81.61	261.05	0.913	6.103	1.91	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.09	1548500.83	-103.80	123.00	122.08	-81.58	261.40	0.913	6.103	1.96	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366316.03	1548500.40	-106.77	126.00	125.05	-81.58	261.70	0.913	6.103	2.01	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.97	1548499.96	-109.74	129.00	128.02	-81.56	262.00	0.913	6.103	2.06	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.91	1548499.52	-112.71	132.00	130.98	-81.53	262.30	0.913	6.103	2.10	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.85	1548499.09	-115.67	135.00	133.95	-81.53	262.50	0.913	6.103	2.15	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.79	1548498.65	-118.64	138.00	136.92	-81.52	262.80	0.913	6.103	2.20	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.74	1548498.21	-121.61	141.00	139.88	-81.51	262.90	0.913	6.103	2.25	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.68	1548497.77	-124.58	144.00	142.85	-81.47	262.90	0.913	6.103	2.29	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.63	1548497.33	-127.54	147.00	145.82	-81.46	263.10	0.913	6.103	2.34	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.57	1548496.88	-130.51	150.00	148.79	-81.46	263.10	0.913	6.103	2.39	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.52	1548496.45	-133.48	153.00	151.75	-81.58	263.10	0.913	6.103	2.44	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.47	1548496.01	-136.44	156.00	154.72	-81.70	263.10	0.913	6.103	2.49	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.42	1548495.58	-139.41	159.00	157.69	-81.70	263.20	0.913	6.103	2.53	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.37	1548495.15	-142.38	162.00	160.66	-81.69	263.30	0.913	6.103	2.58	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.32	1548494.72	-145.35	165.00	163.63	-81.69	263.50	0.913	6.103	2.63	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.27	1548494.29	-148.32	168.00	166.60	-81.80	263.80	0.913	6.103	2.68	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.22	1548493.87	-151.29	171.00	169.56	-81.83	263.90	0.913	6.103	2.72	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.18	1548493.45	-154.26	174.00	172.54	-82.03	264.10	0.913	6.103	2.77	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.14	1548493.04	-157.23	177.00	175.51	-82.03	264.30	0.913	6.103	2.82	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.10	1548492.62	-160.20	180.00	178.48	-81.99	264.30	0.913	6.103	2.87	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.05	1548492.20	-163.17	183.00	181.45	-81.99	264.30	0.913	6.103	2.92	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366315.02	1548491.79	-166.14	186.00	184.42	-82.09	265.50	0.913	6.103	2.96	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.99	1548491.39	-169.12	189.00	187.39	-82.37	266.30	0.913	6.103	3.01	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.96	1548491.00	-172.09	192.00	190.37	-82.76	266.70	0.913	6.103	3.06	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.95	1548490.62	-175.07	195.00	193.34	-82.88	267.80	0.913	6.103	3.11	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.94	1548490.26	-178.04	198.00	196.32	-83.02	268.70	0.913	6.103	3.15	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.93	1548489.90	-181.02	201.00	199.30	-83.22	269.10	0.913	6.103	3.20	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.92	1548489.54	-184.00	204.00	202.28	-83.22	269.10	0.913	6.103	3.25	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.92	1548489.19	-186.98	207.00	205.26	-83.22	269.10	0.913	6.103	3.30	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.91	1548488.83	-189.96	210.00	208.24	-83.22	268.60	0.913	6.103	3.35	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.90	1548488.48	-192.94	213.00	211.21	-83.22	268.20	0.913	6.103	3.39	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.89	1548488.13	-195.92	216.00	214.19	-83.23	268.20	0.913	6.103	3.44	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.88	1548487.77	-198.90	219.00	217.17	-83.24	268.20	0.913	6.103	3.49	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.87	1548487.42	-201.88	222.00	220.15	-83.24	268.20	0.913	6.103	3.54	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.86	1548487.07	-204.85	225.00	223.13	-83.23	268.20	0.913	6.103	3.59	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.85	1548486.71	-207.83	228.00	226.11	-83.17	268.40	0.913	6.103	3.63	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.84	1548486.36	-210.81	231.00	229.09	-83.16	268.40	0.913	6.103	3.68	Measured	2007-01-17 09:53

KLX10	RT90-RHB70	6366314.83	1548486.00	-213.79	234.00	232.07	-83.17	268.20	0.913	6.103	3.73	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.81	1548485.64	-216.77	237.00	235.05	-83.21	267.80	0.913	6.103	3.78	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.80	1548485.29	-219.75	240.00	238.02	-83.21	267.60	0.913	6.103	3.82	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.78	1548484.93	-222.73	243.00	241.00	-83.21	267.10	0.913	6.103	3.87	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.76	1548484.58	-225.71	246.00	243.98	-83.21	266.30	0.913	6.103	3.92	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.74	1548484.23	-228.69	249.00	246.96	-83.21	265.90	0.913	6.103	3.97	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.71	1548483.87	-231.66	252.00	249.94	-83.21	265.90	0.913	6.103	4.02	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.69	1548483.52	-234.64	255.00	252.92	-83.21	266.00	0.913	6.103	4.06	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.66	1548483.17	-237.62	258.00	255.90	-83.21	266.20	0.913	6.103	4.11	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.64	1548482.81	-240.60	261.00	258.88	-83.21	266.30	0.913	6.103	4.16	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.62	1548482.46	-243.58	264.00	261.86	-83.19	266.30	0.913	6.103	4.21	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.59	1548482.10	-246.56	267.00	264.84	-83.19	266.20	0.913	6.103	4.25	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.57	1548481.75	-249.54	270.00	267.81	-83.21	266.20	0.913	6.103	4.30	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.55	1548481.39	-252.52	273.00	270.79	-83.21	265.90	0.913	6.103	4.35	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.52	1548481.04	-255.50	276.00	273.77	-83.22	265.70	0.913	6.103	4.40	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.49	1548480.69	-258.48	279.00	276.75	-83.24	265.50	0.913	6.103	4.45	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.46	1548480.34	-261.45	282.00	279.73	-83.29	265.00	0.913	6.103	4.49	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.43	1548479.99	-264.43	285.00	282.71	-83.30	265.00	0.913	6.103	4.54	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.40	1548479.64	-267.41	288.00	285.69	-83.32	265.00	0.913	6.103	4.59	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.37	1548479.29	-270.39	291.00	288.67	-83.32	264.90	0.913	6.103	4.64	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.34	1548478.94	-273.37	294.00	291.65	-83.31	264.60	0.913	6.103	4.68	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.31	1548478.60	-276.35	297.00	294.63	-83.31	264.60	0.913	6.103	4.73	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.27	1548478.25	-279.33	300.00	297.61	-83.32	264.60	0.913	6.103	4.78	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.24	1548477.90	-282.31	303.00	300.59	-83.32	264.50	0.913	6.103	4.83	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.21	1548477.55	-285.29	306.00	303.57	-83.32	264.50	0.913	6.103	4.88	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.17	1548477.21	-288.27	309.00	306.55	-83.33	264.40	0.913	6.103	4.92	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.14	1548476.86	-291.25	312.00	309.53	-83.39	264.40	0.913	6.103	4.97	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.11	1548476.52	-294.23	315.00	312.51	-83.39	264.40	0.913	6.103	5.02	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.07	1548476.17	-297.21	318.00	315.49	-83.39	264.70	0.913	6.103	5.07	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.04	1548475.83	-300.19	321.00	318.47	-83.39	265.70	0.913	6.103	5.11	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366314.02	1548475.49	-303.17	324.00	321.45	-83.37	265.70	0.913	6.103	5.16	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.99	1548475.14	-306.15	327.00	324.43	-83.33	264.80	0.913	6.103	5.21	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.96	1548474.79	-309.13	330.00	327.41	-83.27	264.00	0.913	6.103	5.26	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.92	1548474.44	-312.11	333.00	330.39	-83.24	264.00	0.913	6.103	5.31	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.88	1548474.09	-315.09	336.00	333.36	-83.24	264.70	0.913	6.103	5.35	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.85	1548473.74	-318.07	339.00	336.34	-83.30	264.70	0.913	6.103	5.40	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.82	1548473.39	-321.05	342.00	339.32	-83.30	264.70	0.913	6.103	5.45	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.79	1548473.04	-324.03	345.00	342.30	-83.30	264.70	0.913	6.103	5.50	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.75	1548472.69	-327.01	348.00	345.28	-83.27	264.60	0.913	6.103	5.55	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.72	1548472.34	-329.99	351.00	348.26	-83.27	264.60	0.913	6.103	5.59	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.69	1548471.99	-332.97	354.00	351.24	-83.28	264.60	0.913	6.103	5.64	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.65	1548471.64	-335.94	357.00	354.22	-83.30	264.40	0.913	6.103	5.69	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.62	1548471.30	-338.92	360.00	357.20	-83.30	264.40	0.913	6.103	5.74	Measured	2007-01-17 09:53

KLX10	RT90-RHB70	6366313.58	1548470.95	-341.90	363.00	360.18	-83.31	263.80	0.913	6.103	5.78	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.55	1548470.60	-344.88	366.00	363.16	-83.31	263.80	0.913	6.103	5.83	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.51	1548470.25	-347.86	369.00	366.14	-83.33	263.70	0.913	6.103	5.88	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.47	1548469.91	-350.84	372.00	369.12	-83.35	263.50	0.913	6.103	5.93	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.43	1548469.56	-353.82	375.00	372.10	-83.37	263.50	0.913	6.103	5.98	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.39	1548469.22	-356.80	378.00	375.08	-83.38	263.30	0.913	6.103	6.02	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.35	1548468.88	-359.78	381.00	378.06	-83.39	263.20	0.913	6.103	6.07	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.31	1548468.53	-362.76	384.00	381.04	-83.39	263.10	0.913	6.103	6.12	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.27	1548468.19	-365.74	387.00	384.02	-83.42	263.10	0.913	6.103	6.17	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.23	1548467.85	-368.72	390.00	387.00	-83.42	263.10	0.913	6.103	6.21	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.18	1548467.51	-371.70	393.00	389.98	-83.43	263.10	0.913	6.103	6.26	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.14	1548467.17	-374.68	396.00	392.96	-83.43	262.90	0.913	6.103	6.31	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.10	1548466.83	-377.66	399.00	395.94	-83.43	262.90	0.913	6.103	6.36	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.06	1548466.49	-380.64	402.00	398.92	-83.43	262.40	0.913	6.103	6.41	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.01	1548466.15	-383.62	405.00	401.90	-83.46	262.40	0.913	6.103	6.45	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.97	1548465.81	-386.60	408.00	404.88	-83.46	262.70	0.913	6.103	6.50	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.92	1548465.47	-389.59	411.00	407.86	-83.51	262.70	0.913	6.103	6.55	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.88	1548465.14	-392.57	414.00	410.84	-83.54	262.60	0.913	6.103	6.60	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.84	1548464.80	-395.55	417.00	413.82	-83.54	262.60	0.913	6.103	6.64	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.79	1548464.47	-398.53	420.00	416.80	-83.55	262.70	0.913	6.103	6.69	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.75	1548464.13	-401.51	423.00	419.79	-83.57	262.70	0.913	6.103	6.74	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.71	1548463.80	-404.49	426.00	422.77	-83.58	262.40	0.913	6.103	6.79	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.66	1548463.47	-407.47	429.00	425.75	-83.58	262.40	0.913	6.103	6.84	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.62	1548463.13	-410.45	432.00	428.73	-83.59	262.80	0.913	6.103	6.88	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.58	1548462.80	-413.43	435.00	431.71	-83.59	262.80	0.913	6.103	6.93	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.54	1548462.47	-416.42	438.00	434.69	-83.58	262.50	0.913	6.103	6.98	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.49	1548462.14	-419.40	441.00	437.67	-83.58	262.50	0.913	6.103	7.03	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.45	1548461.80	-422.38	444.00	440.65	-83.58	262.80	0.913	6.103	7.07	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.41	1548461.47	-425.36	447.00	443.63	-83.58	262.80	0.913	6.103	7.12	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.36	1548461.14	-428.34	450.00	446.62	-83.56	262.80	0.913	6.103	7.17	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.32	1548460.80	-431.32	453.00	449.60	-83.55	262.40	0.913	6.103	7.22	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.28	1548460.47	-434.30	456.00	452.58	-83.54	262.40	0.913	6.103	7.27	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.23	1548460.14	-437.28	459.00	455.56	-83.54	262.40	0.913	6.103	7.31	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.19	1548459.80	-440.26	462.00	458.54	-83.51	262.70	0.913	6.103	7.36	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.15	1548459.46	-443.24	465.00	461.52	-83.51	263.00	0.913	6.103	7.41	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.11	1548459.13	-446.23	468.00	464.50	-83.51	263.20	0.913	6.103	7.46	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.06	1548458.79	-449.21	471.00	467.48	-83.51	263.20	0.913	6.103	7.50	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.02	1548458.45	-452.19	474.00	470.46	-83.50	263.00	0.913	6.103	7.55	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.98	1548458.12	-455.17	477.00	473.44	-83.49	262.70	0.913	6.103	7.60	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.94	1548457.78	-458.15	480.00	476.42	-83.47	262.50	0.913	6.103	7.65	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.89	1548457.44	-461.13	483.00	479.40	-83.45	262.50	0.913	6.103	7.70	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.85	1548457.10	-464.11	486.00	482.39	-83.44	262.80	0.913	6.103	7.74	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.81	1548456.76	-467.09	489.00	485.37	-83.44	263.00	0.913	6.103	7.79	Measured	2007-01-17 09:53

KLX10	RT90-RHB70	6366311.77	1548456.42	-470.07	492.00	488.35	-83.41	263.00	0.913	6.103	7.84	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.72	1548456.08	-473.05	495.00	491.33	-83.40	262.60	0.913	6.103	7.89	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.68	1548455.74	-476.03	498.00	494.31	-83.39	262.40	0.913	6.103	7.94	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.63	1548455.39	-479.01	501.00	497.29	-83.39	262.40	0.913	6.103	7.98	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.59	1548455.05	-481.99	504.00	500.27	-83.37	262.80	0.913	6.103	8.03	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.54	1548454.71	-484.97	507.00	503.25	-83.36	262.80	0.913	6.103	8.08	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.50	1548454.36	-487.95	510.00	506.23	-83.35	262.80	0.913	6.103	8.13	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.46	1548454.02	-490.93	513.00	509.21	-83.35	262.90	0.913	6.103	8.17	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.41	1548453.67	-493.91	516.00	512.19	-83.37	262.90	0.913	6.103	8.22	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.37	1548453.33	-496.89	519.00	515.17	-83.37	263.00	0.913	6.103	8.27	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.33	1548452.98	-499.87	522.00	518.15	-83.36	263.60	0.913	6.103	8.32	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.29	1548452.64	-502.85	525.00	521.13	-83.36	263.80	0.913	6.103	8.37	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.26	1548452.29	-505.83	528.00	524.11	-83.35	264.10	0.913	6.103	8.41	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.22	1548451.95	-508.81	531.00	527.08	-83.35	264.30	0.913	6.103	8.46	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.19	1548451.60	-511.79	534.00	530.06	-83.36	264.60	0.913	6.103	8.51	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.16	1548451.26	-514.77	537.00	533.04	-83.36	264.90	0.913	6.103	8.56	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.13	1548450.91	-517.75	540.00	536.02	-83.36	265.10	0.913	6.103	8.60	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.10	1548450.57	-520.73	543.00	539.00	-83.36	265.40	0.913	6.103	8.65	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.07	1548450.22	-523.71	546.00	541.98	-83.40	265.50	0.913	6.103	8.70	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.04	1548449.88	-526.69	549.00	544.96	-83.41	265.50	0.913	6.103	8.75	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.02	1548449.54	-529.67	552.00	547.94	-83.42	265.80	0.913	6.103	8.80	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.99	1548449.19	-532.65	555.00	550.92	-83.42	266.00	0.913	6.103	8.84	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.97	1548448.85	-535.63	558.00	553.91	-83.42	266.10	0.913	6.103	8.89	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.95	1548448.51	-538.61	561.00	556.89	-83.44	266.40	0.913	6.103	8.94	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.92	1548448.16	-541.59	564.00	559.87	-83.44	266.70	0.913	6.103	8.99	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.91	1548447.82	-544.57	567.00	562.85	-83.48	266.80	0.913	6.103	9.03	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.89	1548447.48	-547.55	570.00	565.83	-83.48	266.90	0.913	6.103	9.08	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.87	1548447.14	-550.53	573.00	568.81	-83.48	266.90	0.913	6.103	9.13	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.85	1548446.80	-553.51	576.00	571.79	-83.50	267.30	0.913	6.103	9.18	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.84	1548446.46	-556.49	579.00	574.77	-83.50	267.60	0.913	6.103	9.23	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.82	1548446.12	-559.47	582.00	577.75	-83.48	267.60	0.913	6.103	9.27	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.81	1548445.78	-562.45	585.00	580.73	-83.46	267.60	0.913	6.103	9.32	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.79	1548445.44	-565.43	588.00	583.71	-83.43	267.80	0.913	6.103	9.37	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.78	1548445.10	-568.41	591.00	586.69	-83.42	267.90	0.913	6.103	9.42	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.77	1548444.75	-571.39	594.00	589.67	-83.42	268.00	0.913	6.103	9.46	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.76	1548444.41	-574.38	597.00	592.65	-83.43	268.10	0.913	6.103	9.51	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.75	1548444.07	-577.36	600.00	595.63	-83.43	268.60	0.913	6.103	9.56	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.74	1548443.73	-580.34	603.00	598.61	-83.43	269.00	0.913	6.103	9.61	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.73	1548443.38	-583.32	606.00	601.59	-83.43	269.20	0.913	6.103	9.66	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.73	1548443.04	-586.30	609.00	604.57	-83.43	269.30	0.913	6.103	9.70	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.73	1548442.70	-589.28	612.00	607.55	-83.42	269.60	0.913	6.103	9.75	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548442.35	-592.26	615.00	610.53	-83.42	269.70	0.913	6.103	9.80	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548442.01	-595.24	618.00	613.51	-83.41	269.70	0.913	6.103	9.85	Measured	2007-01-17 09:53

KLX10	RT90-RHB70	6366310.72	1548441.66	-598.22	621.00	616.49	-83.41	269.70	0.913	6.103	9.90	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548441.32	-601.20	624.00	619.47	-83.40	269.80	0.913	6.103	9.94	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548440.97	-604.18	627.00	622.45	-83.40	269.90	0.913	6.103	9.99	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548440.63	-607.16	630.00	625.43	-83.40	269.90	0.913	6.103	10.04	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548440.28	-610.14	633.00	628.41	-83.41	270.00	0.913	6.103	10.09	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548439.94	-613.12	636.00	631.39	-83.41	270.00	0.913	6.103	10.13	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548439.60	-616.10	639.00	634.37	-83.39	270.10	0.913	6.103	10.18	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548439.25	-619.08	642.00	637.35	-83.39	270.10	0.913	6.103	10.23	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548438.90	-622.06	645.00	640.33	-83.40	270.10	0.913	6.103	10.28	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548438.56	-625.04	648.00	643.31	-83.40	270.20	0.913	6.103	10.33	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548438.22	-628.02	651.00	646.29	-83.40	270.20	0.913	6.103	10.37	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548437.87	-631.00	654.00	649.27	-83.39	270.20	0.913	6.103	10.42	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.72	1548437.52	-633.98	657.00	652.25	-83.39	270.50	0.913	6.103	10.47	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.73	1548437.18	-636.96	660.00	655.23	-83.38	270.50	0.913	6.103	10.52	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.73	1548436.83	-639.94	663.00	658.21	-83.34	270.60	0.913	6.103	10.56	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.74	1548436.48	-642.92	666.00	661.19	-83.34	270.80	0.913	6.103	10.61	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.74	1548436.14	-645.90	669.00	664.17	-83.33	270.90	0.913	6.103	10.66	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.75	1548435.79	-648.88	672.00	667.15	-83.32	271.00	0.913	6.103	10.71	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.75	1548435.44	-651.86	675.00	670.13	-83.31	271.10	0.913	6.103	10.76	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.76	1548435.09	-654.84	678.00	673.11	-83.30	271.10	0.913	6.103	10.80	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.77	1548434.74	-657.82	681.00	676.09	-83.29	271.20	0.913	6.103	10.85	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.77	1548434.39	-660.80	684.00	679.07	-83.25	271.30	0.913	6.103	10.90	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.78	1548434.03	-663.77	687.00	682.05	-83.24	271.30	0.913	6.103	10.95	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.79	1548433.68	-666.75	690.00	685.03	-83.23	271.40	0.913	6.103	10.99	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.80	1548433.33	-669.73	693.00	688.01	-83.22	271.30	0.913	6.103	11.04	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.81	1548432.97	-672.71	696.00	690.99	-83.22	271.20	0.913	6.103	11.09	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.81	1548432.62	-675.69	699.00	693.97	-83.22	271.20	0.913	6.103	11.14	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.82	1548432.27	-678.67	702.00	696.95	-83.22	271.20	0.913	6.103	11.19	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.83	1548431.91	-681.65	705.00	699.93	-83.22	271.20	0.913	6.103	11.23	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.84	1548431.56	-684.63	708.00	702.90	-83.22	271.20	0.913	6.103	11.28	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.84	1548431.20	-687.61	711.00	705.88	-83.23	271.20	0.913	6.103	11.33	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.85	1548430.85	-690.59	714.00	708.86	-83.23	271.30	0.913	6.103	11.38	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.86	1548430.50	-693.57	717.00	711.84	-83.21	271.50	0.913	6.103	11.42	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.87	1548430.14	-696.54	720.00	714.82	-83.20	271.50	0.913	6.103	11.47	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.88	1548429.79	-699.52	723.00	717.80	-83.19	271.70	0.913	6.103	11.52	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.89	1548429.43	-702.50	726.00	720.78	-83.19	271.70	0.913	6.103	11.57	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.90	1548429.07	-705.48	729.00	723.76	-83.19	272.10	0.913	6.103	11.62	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.91	1548428.72	-708.46	732.00	726.74	-83.20	272.30	0.913	6.103	11.66	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.93	1548428.36	-711.44	735.00	729.71	-83.20	272.50	0.913	6.103	11.71	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.95	1548428.01	-714.42	738.00	732.69	-83.22	272.50	0.913	6.103	11.76	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.96	1548427.66	-717.40	741.00	735.67	-83.22	272.70	0.913	6.103	11.81	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366310.98	1548427.30	-720.38	744.00	738.65	-83.22	272.70	0.913	6.103	11.86	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.00	1548426.95	-723.35	747.00	741.63	-83.23	272.80	0.913	6.103	11.90	Measured	2007-01-17 09:53

KLX10	RT90-RHB70	6366311.01	1548426.60	-726.33	750.00	744.61	-83.23	272.90	0.913	6.103	11.95	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.03	1548426.24	-729.31	753.00	747.59	-83.22	273.00	0.913	6.103	12.00	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.05	1548425.89	-732.29	756.00	750.57	-83.21	273.20	0.913	6.103	12.05	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.07	1548425.53	-735.27	759.00	753.55	-83.21	273.20	0.913	6.103	12.09	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.09	1548425.18	-738.25	762.00	756.53	-83.22	273.50	0.913	6.103	12.14	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.11	1548424.83	-741.23	765.00	759.50	-83.22	273.60	0.913	6.103	12.19	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.14	1548424.47	-744.21	768.00	762.48	-83.20	273.80	0.913	6.103	12.24	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.16	1548424.12	-747.19	771.00	765.46	-83.19	274.00	0.913	6.103	12.29	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.18	1548423.76	-750.17	774.00	768.44	-83.19	274.20	0.913	6.103	12.33	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.21	1548423.41	-753.14	777.00	771.42	-83.19	274.20	0.913	6.103	12.38	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.24	1548423.05	-756.12	780.00	774.40	-83.19	274.10	0.913	6.103	12.43	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.26	1548422.70	-759.10	783.00	777.38	-83.19	274.00	0.913	6.103	12.48	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.29	1548422.34	-762.08	786.00	780.36	-83.18	273.70	0.913	6.103	12.52	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.31	1548421.99	-765.06	789.00	783.34	-83.17	273.40	0.913	6.103	12.57	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.33	1548421.63	-768.04	792.00	786.31	-83.14	273.30	0.913	6.103	12.62	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.35	1548421.27	-771.02	795.00	789.29	-83.14	272.80	0.913	6.103	12.67	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.36	1548420.91	-774.00	798.00	792.27	-83.14	272.30	0.913	6.103	12.72	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.38	1548420.56	-776.97	801.00	795.25	-83.12	271.90	0.913	6.103	12.76	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.39	1548420.20	-779.95	804.00	798.23	-83.12	271.30	0.913	6.103	12.81	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.39	1548419.84	-782.93	807.00	801.21	-83.13	271.20	0.913	6.103	12.86	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.40	1548419.48	-785.91	810.00	804.18	-83.14	271.20	0.913	6.103	12.91	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.41	1548419.12	-788.89	813.00	807.16	-83.17	271.30	0.913	6.103	12.95	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.42	1548418.77	-791.87	816.00	810.14	-83.18	271.50	0.913	6.103	13.00	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.43	1548418.41	-794.84	819.00	813.12	-83.18	271.60	0.913	6.103	13.05	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.44	1548418.05	-797.82	822.00	816.10	-83.18	271.60	0.913	6.103	13.10	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.45	1548417.70	-800.80	825.00	819.08	-83.18	271.90	0.913	6.103	13.15	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.46	1548417.34	-803.78	828.00	822.06	-83.18	271.90	0.913	6.103	13.19	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.47	1548416.98	-806.76	831.00	825.04	-83.16	271.80	0.913	6.103	13.24	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.48	1548416.63	-809.74	834.00	828.01	-83.16	271.80	0.913	6.103	13.29	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.50	1548416.27	-812.72	837.00	830.99	-83.17	272.30	0.913	6.103	13.34	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.51	1548415.91	-815.70	840.00	833.97	-83.17	272.40	0.913	6.103	13.38	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.53	1548415.56	-818.67	843.00	836.95	-83.18	272.50	0.913	6.103	13.43	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.54	1548415.20	-821.65	846.00	839.93	-83.19	272.50	0.913	6.103	13.48	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.56	1548414.85	-824.63	849.00	842.91	-83.19	272.60	0.913	6.103	13.53	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.57	1548414.49	-827.61	852.00	845.89	-83.19	272.90	0.913	6.103	13.58	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.59	1548414.14	-830.59	855.00	848.87	-83.15	273.10	0.913	6.103	13.62	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.61	1548413.78	-833.57	858.00	851.84	-83.14	273.20	0.913	6.103	13.67	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.63	1548413.42	-836.55	861.00	854.82	-83.14	273.40	0.913	6.103	13.72	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.66	1548413.06	-839.53	864.00	857.80	-83.13	273.50	0.913	6.103	13.77	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.68	1548412.70	-842.50	867.00	860.78	-83.13	273.60	0.913	6.103	13.81	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.70	1548412.35	-845.48	870.00	863.76	-83.13	273.70	0.913	6.103	13.86	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.72	1548411.99	-848.46	873.00	866.74	-83.14	273.80	0.913	6.103	13.91	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.75	1548411.63	-851.44	876.00	869.72	-83.15	273.80	0.913	6.103	13.96	Measured	2007-01-17 09:53

KLX10	RT90-RHB70	6366311.77	1548411.27	-854.42	879.00	872.69	-83.15	274.10	0.913	6.103	14.01	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.80	1548410.92	-857.40	882.00	875.67	-83.16	274.50	0.913	6.103	14.05	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.83	1548410.56	-860.38	885.00	878.65	-83.16	274.70	0.913	6.103	14.10	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.86	1548410.21	-863.35	888.00	881.63	-83.16	274.70	0.913	6.103	14.15	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.89	1548409.85	-866.33	891.00	884.61	-83.16	274.90	0.913	6.103	14.20	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.92	1548409.49	-869.31	894.00	887.59	-83.16	274.90	0.913	6.103	14.25	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.95	1548409.14	-872.29	897.00	890.57	-83.16	274.90	0.913	6.103	14.29	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366311.98	1548408.78	-875.27	900.00	893.54	-83.17	275.10	0.913	6.103	14.34	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.01	1548408.43	-878.25	903.00	896.52	-83.18	275.10	0.913	6.103	14.39	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.04	1548408.07	-881.23	906.00	899.50	-83.20	275.00	0.913	6.103	14.44	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.07	1548407.72	-884.21	909.00	902.48	-83.20	275.00	0.913	6.103	14.48	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.10	1548407.36	-887.18	912.00	905.46	-83.20	275.10	0.913	6.103	14.53	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.14	1548407.01	-890.16	915.00	908.44	-83.23	275.30	0.913	6.103	14.58	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.17	1548406.66	-893.14	918.00	911.42	-83.30	275.50	0.913	6.103	14.63	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.20	1548406.31	-896.12	921.00	914.40	-83.32	275.50	0.913	6.103	14.68	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.24	1548405.97	-899.10	924.00	917.38	-83.32	275.40	0.913	6.103	14.72	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.27	1548405.62	-902.08	927.00	920.36	-83.32	275.00	0.913	6.103	14.77	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.30	1548405.27	-905.06	930.00	923.34	-83.31	274.80	0.913	6.103	14.82	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.33	1548404.92	-908.04	933.00	926.32	-83.32	274.60	0.913	6.103	14.87	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.35	1548404.57	-911.02	936.00	929.30	-83.34	274.60	0.913	6.103	14.91	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.38	1548404.23	-914.00	939.00	932.28	-83.34	274.60	0.913	6.103	14.96	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.41	1548403.88	-916.98	942.00	935.26	-83.34	274.60	0.913	6.103	15.01	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.44	1548403.53	-919.96	945.00	938.24	-83.35	274.60	0.913	6.103	15.06	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.47	1548403.19	-922.94	948.00	941.22	-83.36	274.70	0.913	6.103	15.11	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.49	1548402.84	-925.92	951.00	944.19	-83.36	274.70	0.913	6.103	15.15	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.52	1548402.50	-928.90	954.00	947.17	-83.36	274.70	0.913	6.103	15.20	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.55	1548402.15	-931.88	957.00	950.15	-83.37	274.90	0.913	6.103	15.25	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.58	1548401.81	-934.86	960.00	953.13	-83.40	275.30	0.913	6.103	15.30	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.62	1548401.46	-937.84	963.00	956.11	-83.40	275.60	0.913	6.103	15.34	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.65	1548401.12	-940.82	966.00	959.10	-83.40	275.70	0.913	6.103	15.39	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.68	1548400.78	-943.80	969.00	962.08	-83.40	275.70	0.913	6.103	15.44	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.72	1548400.44	-946.78	972.00	965.06	-83.40	275.70	0.913	6.103	15.49	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.75	1548400.09	-949.76	975.00	968.04	-83.40	275.70	0.913	6.103	15.54	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.79	1548399.75	-952.74	978.00	971.02	-83.40	275.70	0.913	6.103	15.58	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.82	1548399.41	-955.72	981.00	974.00	-83.41	275.50	0.913	6.103	15.63	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.85	1548399.06	-958.70	984.00	976.98	-83.41	275.30	0.913	6.103	15.68	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.88	1548398.72	-961.68	987.00	979.96	-83.41	275.30	0.913	6.103	15.73	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366312.92	1548398.38	-964.66	990.00	982.94	-83.41	275.30	0.913	6.103	15.77	Measured	2007-01-17 09:53
KLX10	RT90-RHB70	6366313.03	1548397.10	-975.79	1001.20	994.06	-83.41	275.30	0.913	6.103	15.95	Measured	2007-01-17 09:53

Number of rows: 332.
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