



INL Lithologic Core Storage Library

Idaho National Laboratory
Building CFA-663

Operated by the U.S. Geological Survey
for the U.S. Department of Energy

Contact:
Linda C. Davis
PO Box 8072
Pocatello, ID.
83209

Official Name:USGS 126A

Logged By: S.M. Orr, July 2006

Selected Aliases: 132A

USGS Site ID:435529112471301

Contractor Well ID:

Drilling Agency: USGS

Year Drilled: 1996

Names of Drillers: Matson, Daus, Bois

Well Status: Completed

Total Depth of Hole (ft): 647.9

Total Core Recovered (ft):642.3

Beginning Depth (ft): 5.6

Ending Depth (ft): 647.9

☒ Continuous Recovery

☐ Selected Intervals Recovered

Total # of Core Boxes: 78

Notes: The core's marked measurements may not be accurate.

County & State: Butte Co. ID

Quadrangle Name: Richard Butte

Lat / Lng: 43°55'28.75", 112°47'12.90" NAD 27

Tns / Rng / Sec: T7N, R31E, Sec 20 bdb1

UTM Coordinates: N 823515.13, E 336582.93 NAD 27

Altitude (ft): 4988.69 ft, NGVD 29

Core Geological Profile

Lithologic Patterns



Basalts



Rhyolites



Sedimentary Rock

Soil Patterns

(See Unified Soil Classification System.)



Gravels - clean



Gravels with fines



Sands - clean



Sands with fines



Silt and clays

Intervals in Absentia



Surficial material



Natural void



Interval not cored



Missing interval

Igneous and Sedimentary Structure Symbols



Vesicle zone



Large vesicles



Vesicle planes



Mega vesicles



Vesicle Cylinders



Pipe vesicles



Pillows



Vesicle Sheet



Flow/Mold



Spatter feature



Ripple marks



Mud cracks



Imbricated bedding



Graded bedding



Cross bedding

Soil Structure Symbols



Structureless - Single Grained



Structureless - Massive



Platy



Granular



Blocky



Prismatic



Columnar

Depth (feet & tenths)

Core Photo

Igneous, Soil and
Sed Structures

Lithology

Description

Miscellaneous Text

Lithologic Description

Fracture
Frequency

(See fracture
classification on
website.)

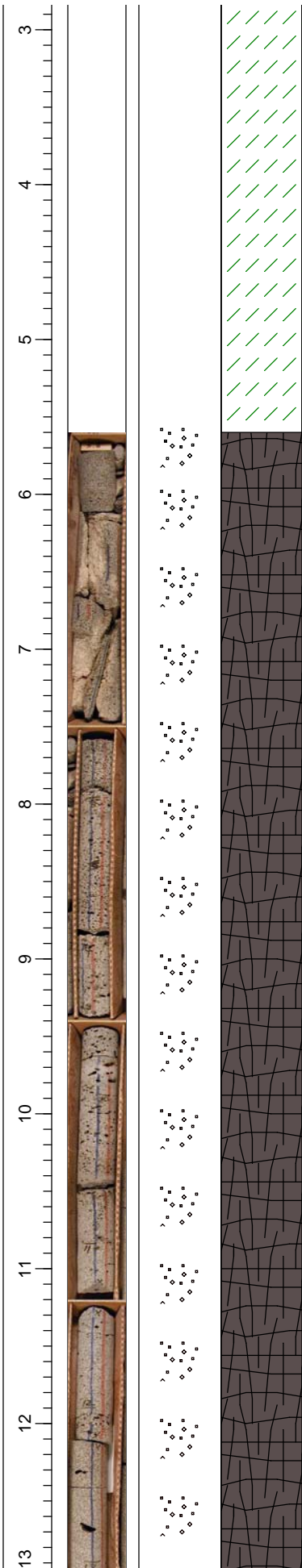
0 1 2 3 4 5

Vesicle Characteristics

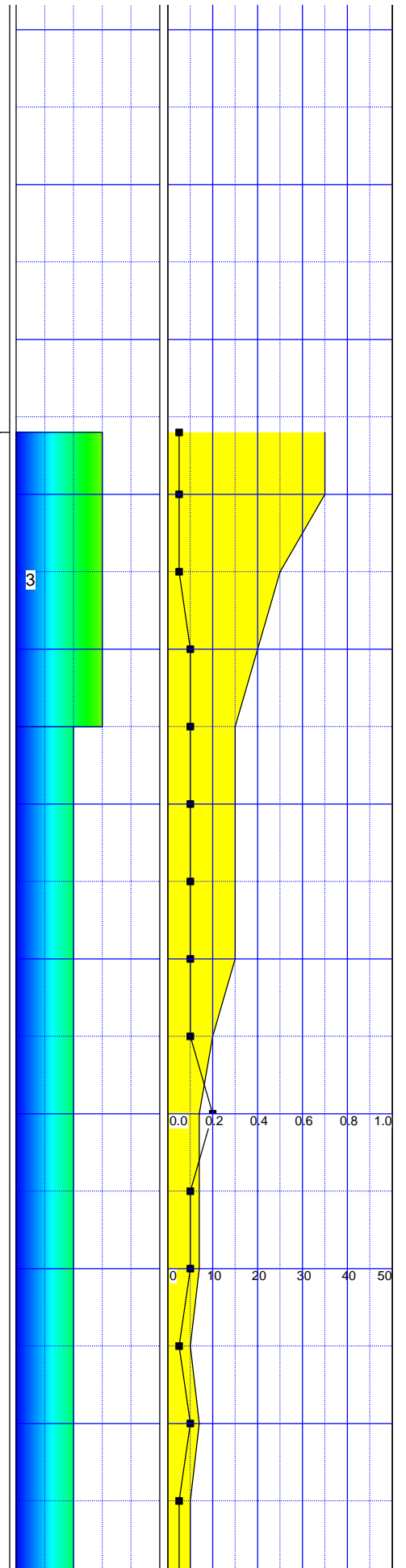
Mean Size (in)
0 0.2 0.4 0.6 0.8 1.0

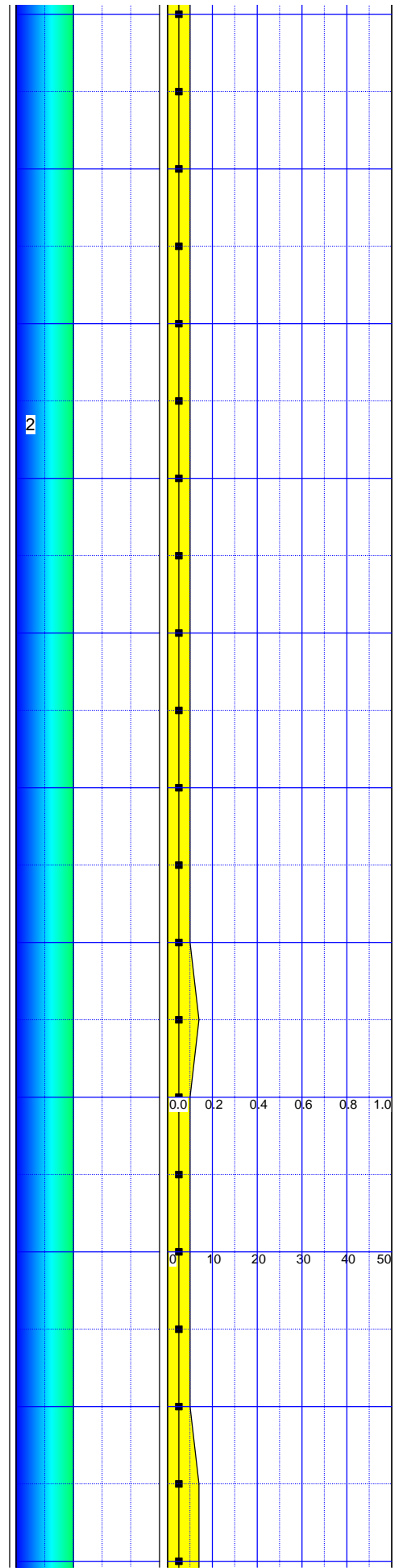
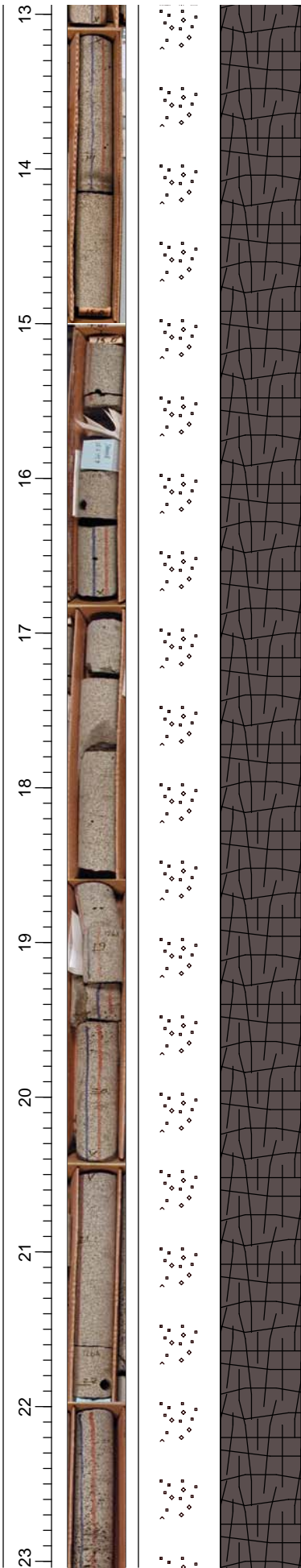
Volume Percentage
0 10 20 30 40 50

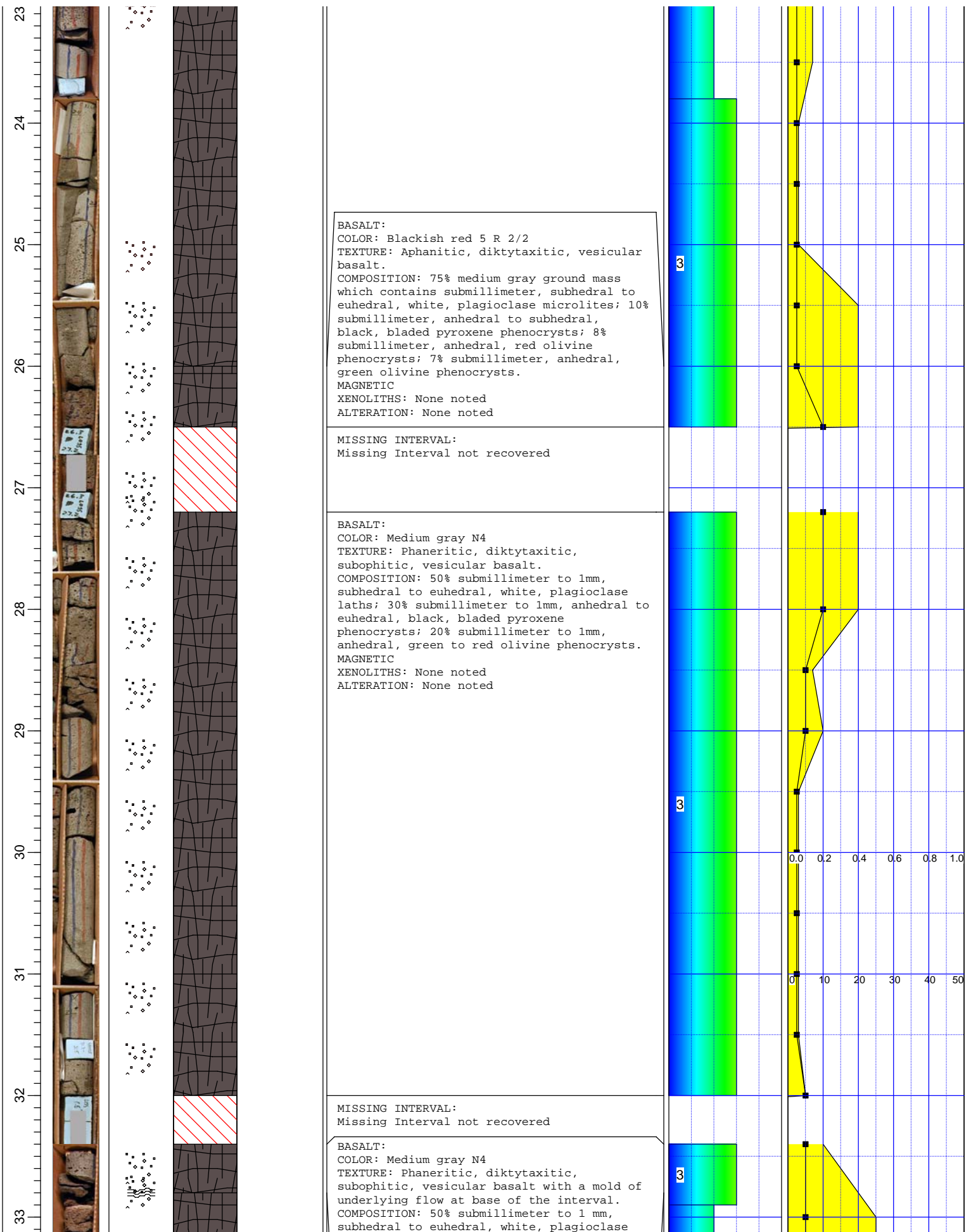
SURFICIAL MATERIAL:
Surficial material not recovered.

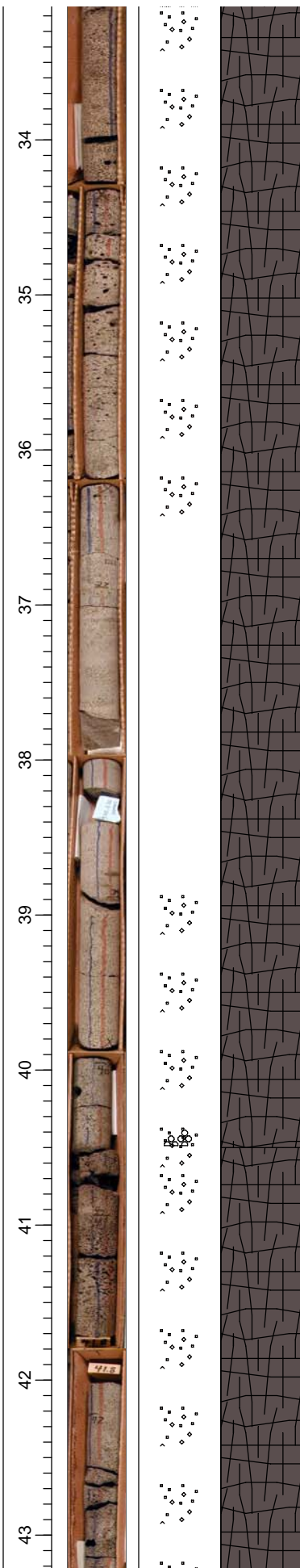


BASALT:
 COLOR: Medium light gray N5
 TEXTURE: Phaneritic, diktytaxitic, subophitic, vesicular basalt. Vesicles decrease in frequency from 5.6 feet to 23.4 feet and increase from 25.1 feet to 26.0 feet.
 COMPOSITION: 40% submillimeter to 1mm, subhedral to euhedral, white, plagioclase laths; 35% submillimeter to 1mm, anhedral to euhedral, black, bladed pyroxene phenocrysts; 25% submillimeter to 1mm, anhedral, green olivine phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Yellowish gray 5 Y 7/2 clay on fractured surfaces.





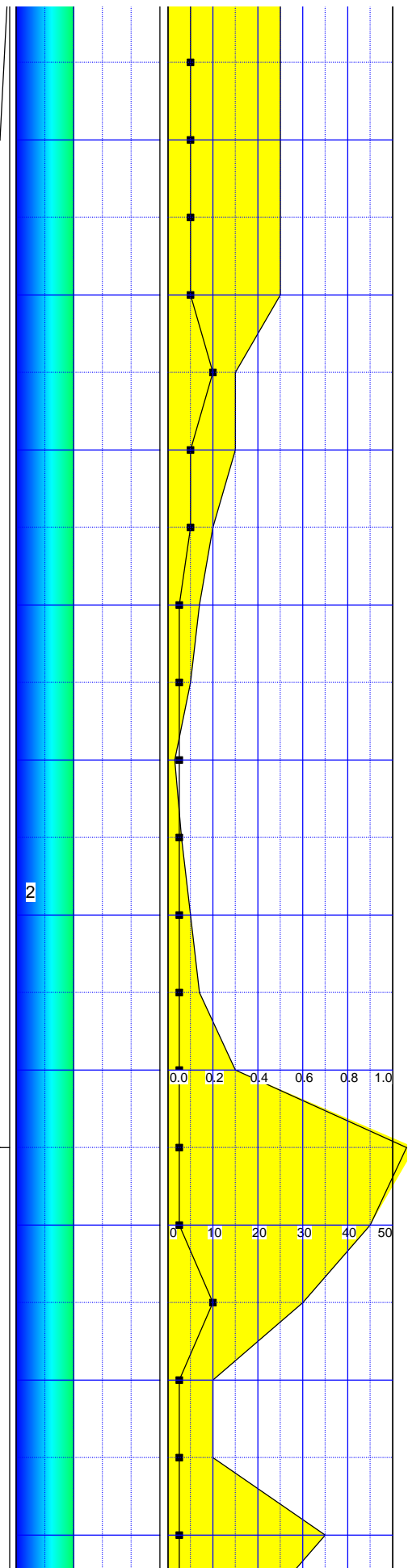


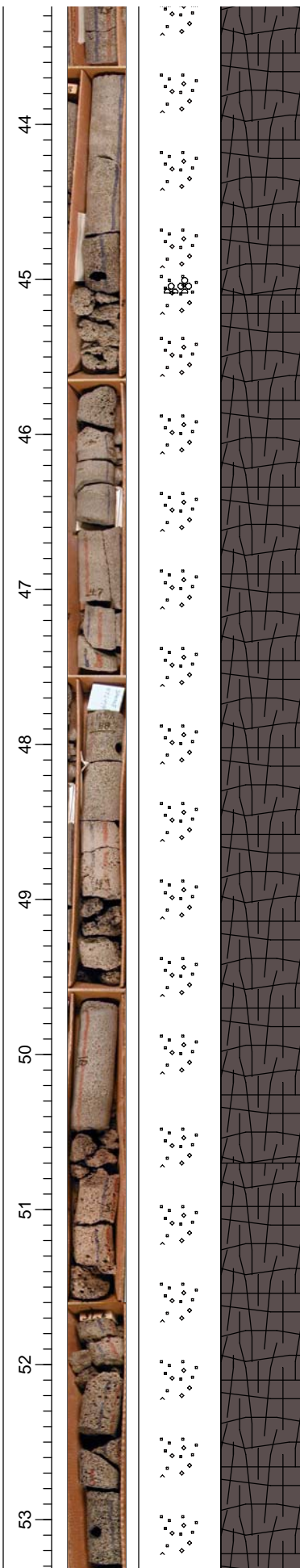


laths; 30% submillimeter to 1mm, anhedral to euhedral, black, bladed pyroxene phenocrysts; 20% submillimeter to 1 mm, anhedral, green to red olivine phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: None noted

BASALT:
 COLOR: Medium gray N4
 TEXTURE: Aphanitic, diktytaxitic, equigranular, vesicular basalt. Vesicles decrease in frequency from 32.8 feet to 36.5 feet and increase from 39.0 feet to 40.5 feet. Scoriaceous at the top and base of the interval. Spatter found at the base of the interval.
 COMPOSITION: 40% medium gray ground mass; 25% submillimeter, anhedral to euhedral, white, plagioclase laths; 15% submillimeter, anhedral to subhedral, black, pyroxene phenocrysts; 10% submillimeter, anhedral to subhedral, reddish brown olivine phenocrysts; 10% submillimeter, anhedral, green olivine phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Olivine is moderately altered to iddingsite.

BASALT:
 COLOR: Medium gray N4
 TEXTURE: Aphanitic, diktytaxitic, equigranular, scoriaceous basalt. Spatter found at the base of the interval.
 COMPOSITION: 70% medium gray ground mass; 20% submillimeter, anhedral to euhedral, white, plagioclase laths; 10% submillimeter, anhedral to euhedral, reddish brown to green olivine glomerocrysts and phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Olivine is weakly altered to iddingsite.

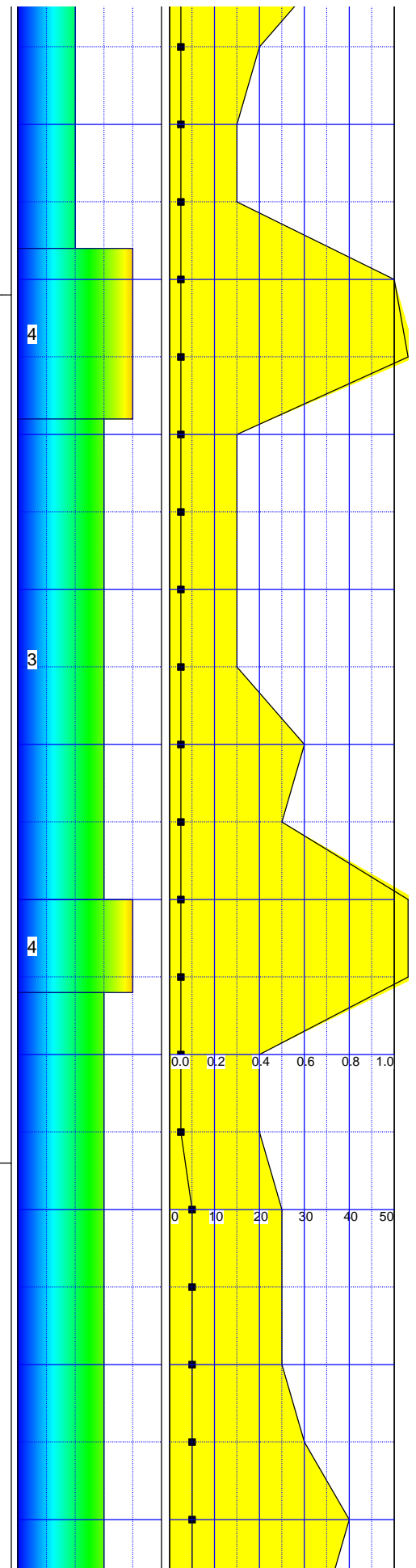


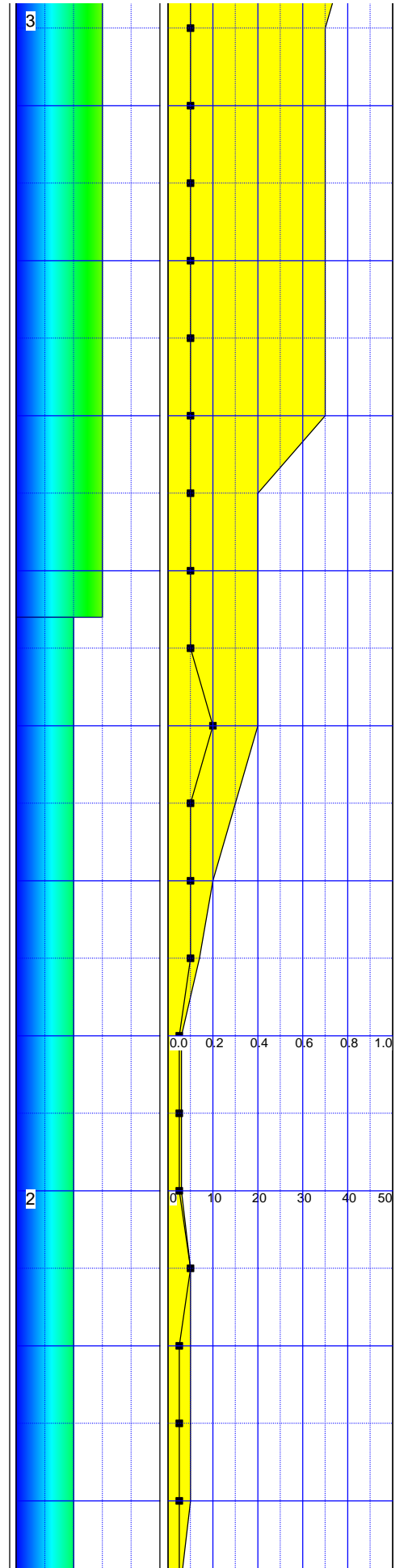
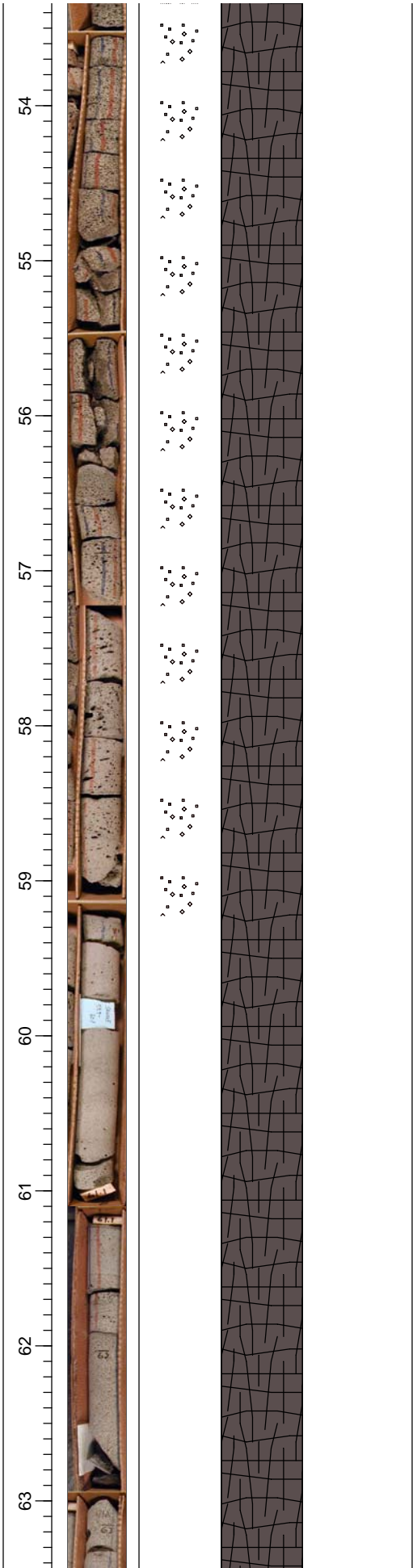


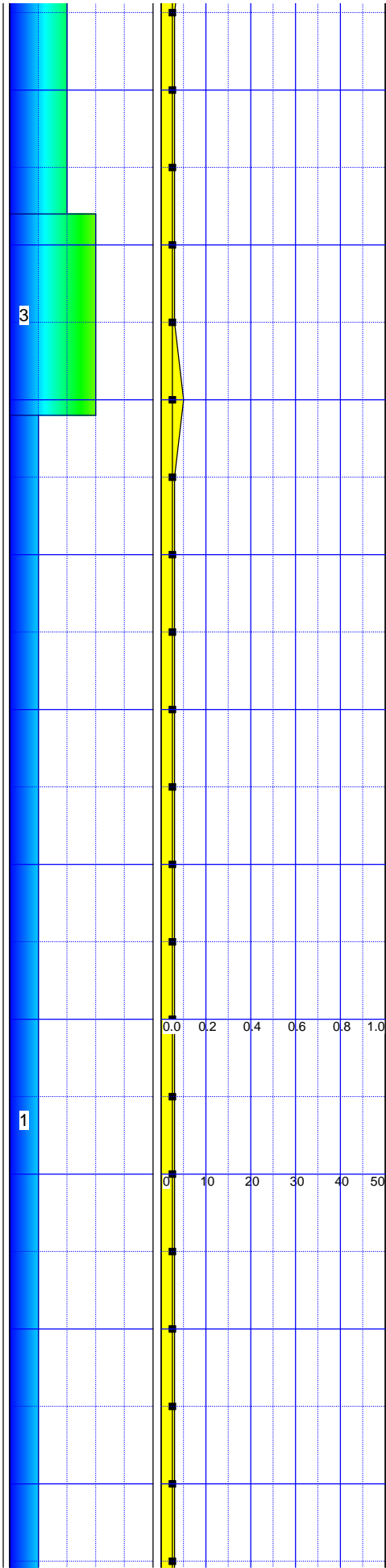
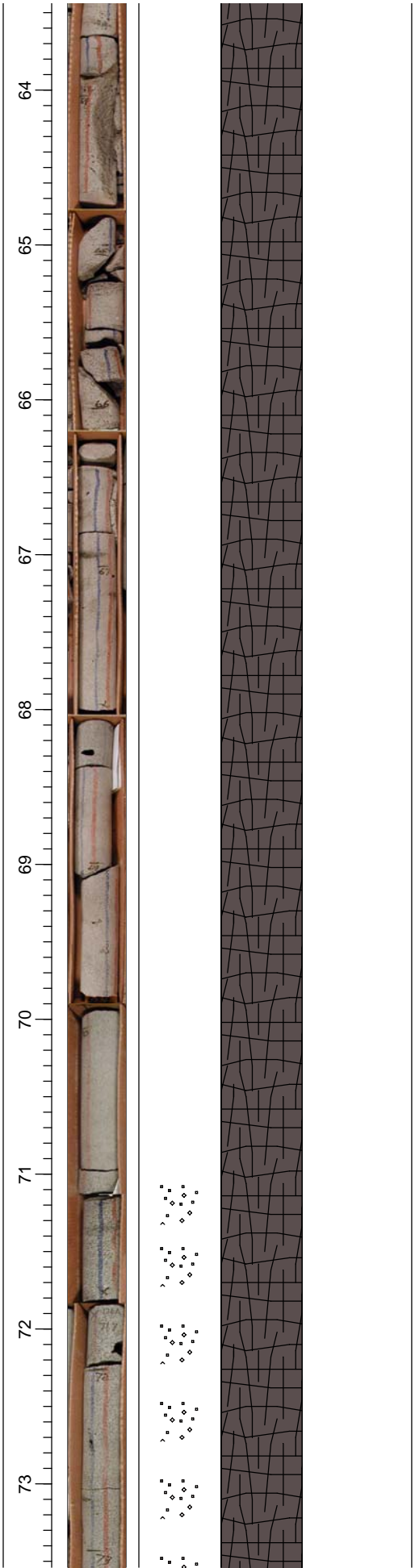
BASALT:
 COLOR: Medium grey N4
 TEXTURE: Aphanitic, diktytaxitic,
 scoriaceous basalt. Spatter found throughout
 the interval
 COMPOSITION: 85% medium gray ground mass
 which contains submillimeter, subhedral to
 euhedral, white, plagioclase microlites; 10%
 submillimeter, anhedral, green olivine
 phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: None noted

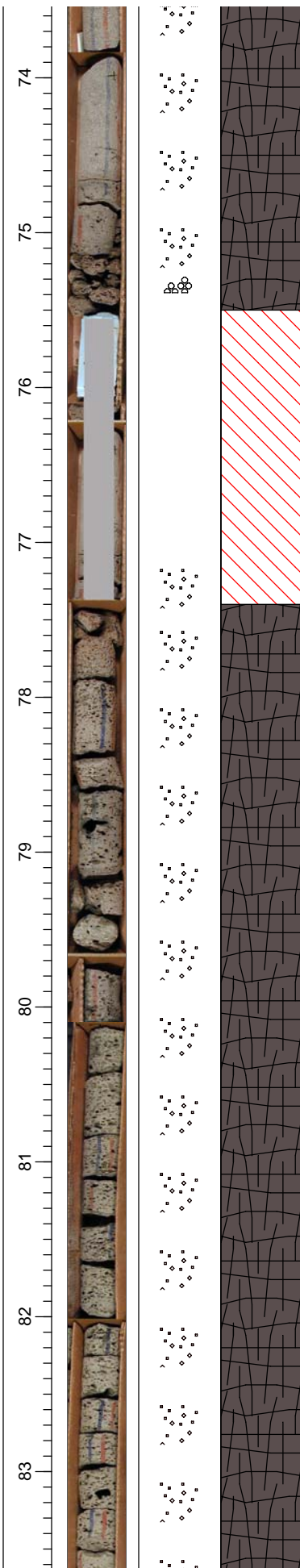
BASALT:
 COLOR: Medium light gray N5
 TEXTURE: Equigranular, phaneritic,
 diktytaxitic, subophitic, vesicular basalt.
 Vesicles decrease in frequency from 50.7
 feet to 59.5 feet and increase from 71.1
 feet to 75.5 feet. Spatter found at the base
 and vesicle planes are located throughout
 the interval.
 COMPOSITION: 40% submillimeter to 1mm,
 subhedral to euhedral, white, plagioclase
 laths; 35% submillimeter to 1mm, anhedral to
 euhedral, black, bladed pyroxene
 phenocrysts; 25% submillimeter to 1mm,
 anhedral to subhedral, green olivine
 phenocrysts and reddish brown glomerocrysts.

MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Olivine weakly altered to
 iddingsite.



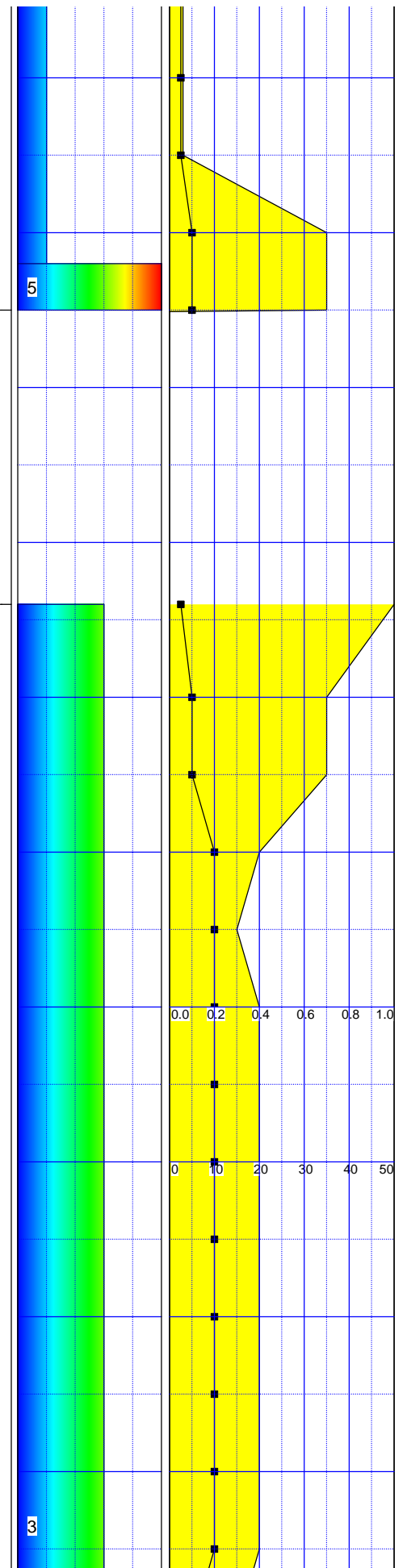


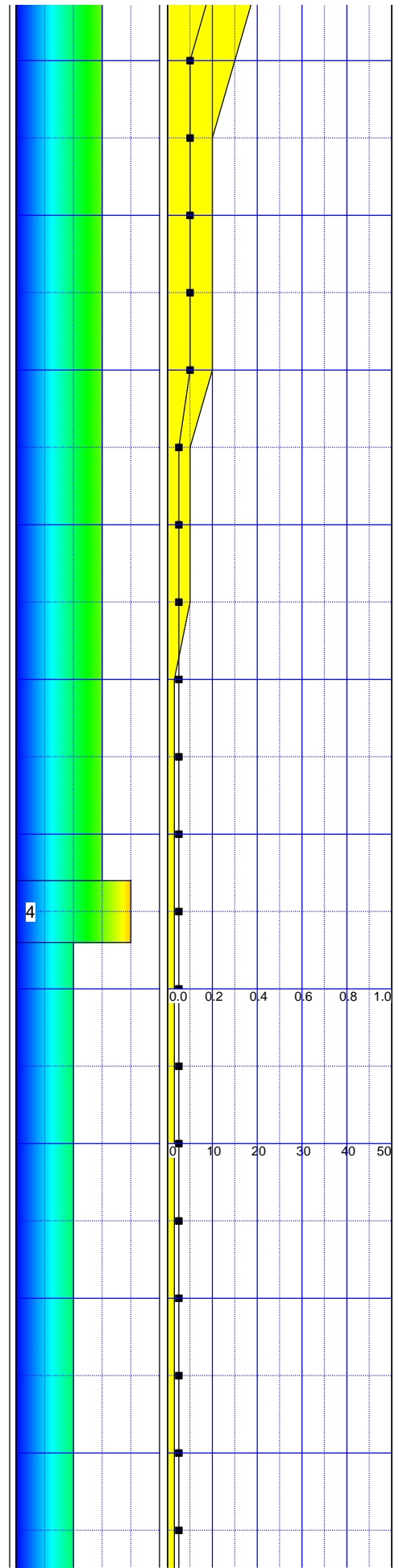
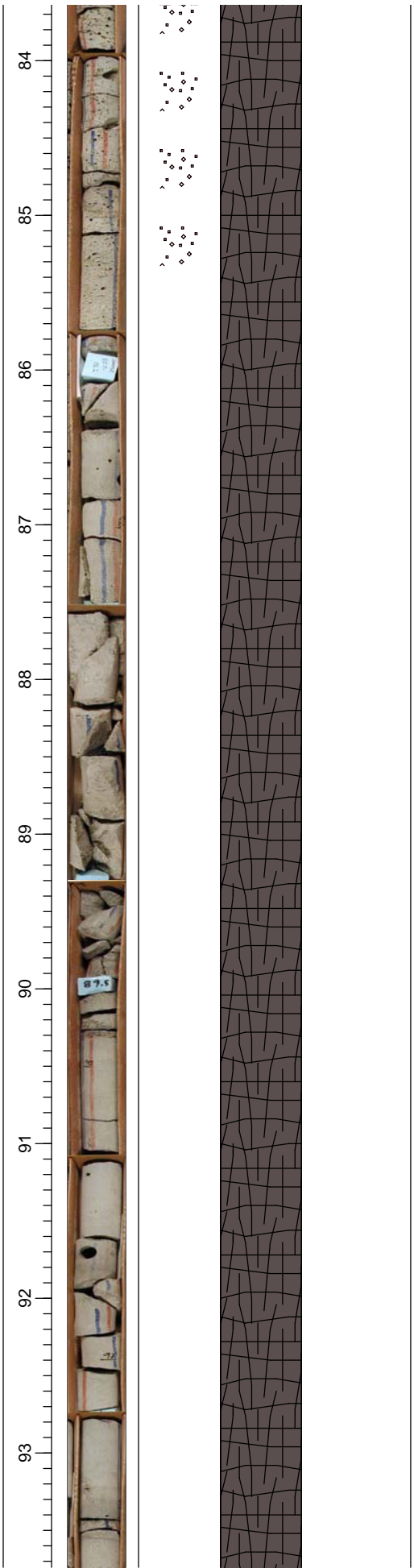


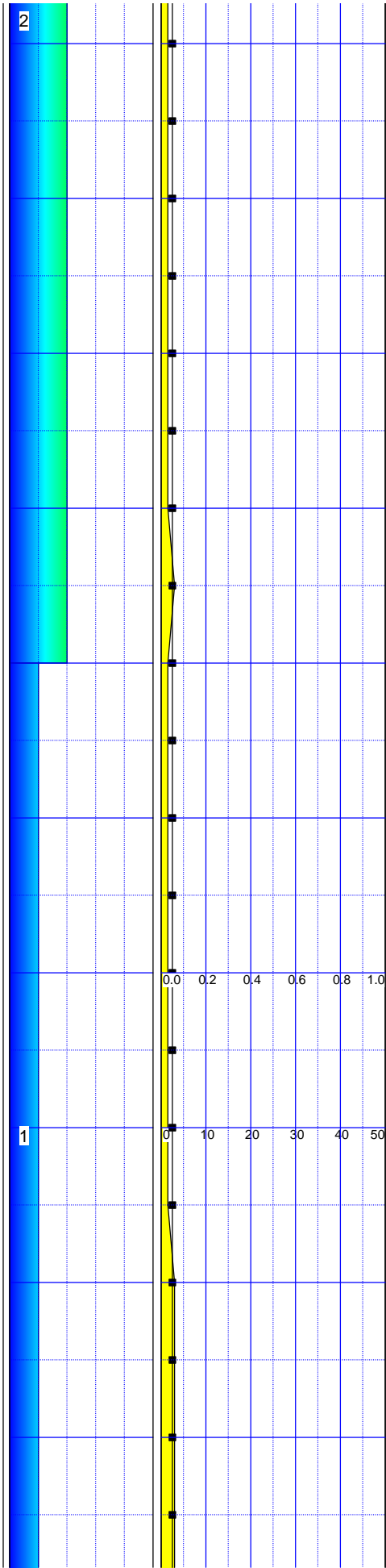
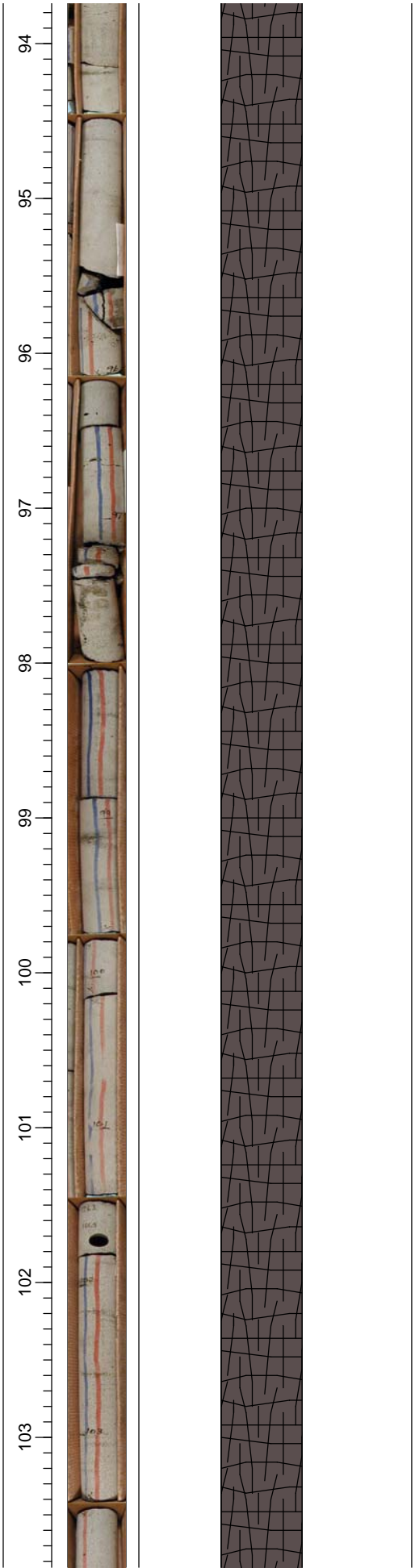


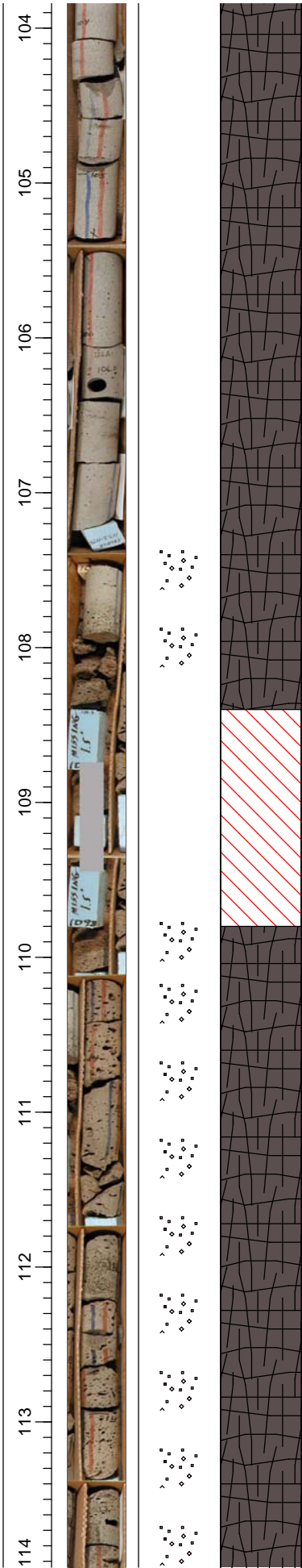
MISSING INTERVAL:
Missing Interval not recovered

BASALT:
COLOR: Medium light gray N5
TEXTURE: Massive, phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 77.4 feet to 85.8 feet and increase from 107.4 feet to 108.4 feet. Vesicle column found at 97.8 feet. Spatter found at the base and vesicle planes are found throughout the interval.
COMPOSITION: 90% medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites; 10% submillimeter to 1mm, subhedral, green olivine phenocrysts and 5mm glomerocrysts.
MAGNETIC
XENOLITHS: None noted
ALTERATION: Very light gray N7 clay on fractured surfaces.



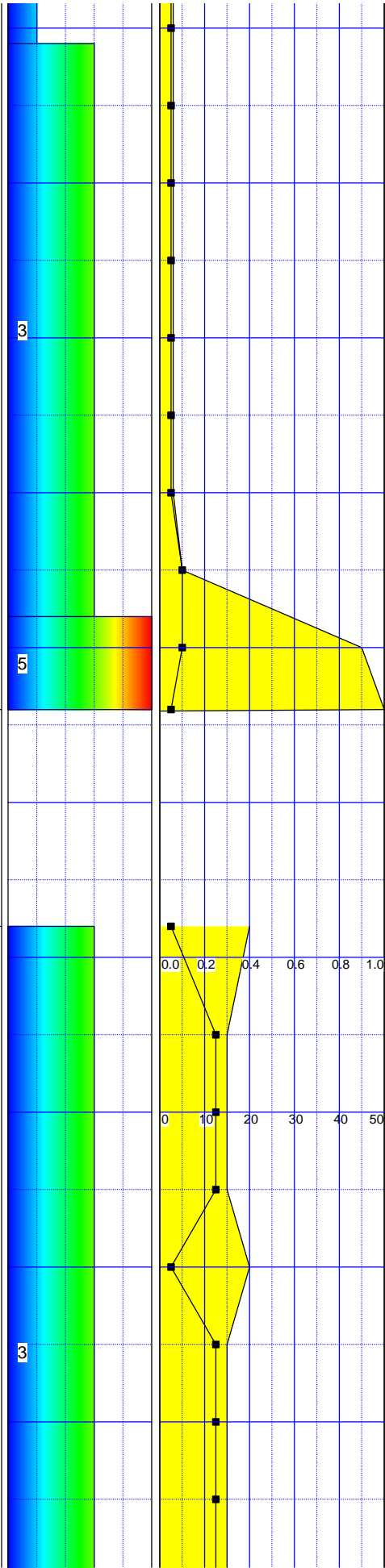


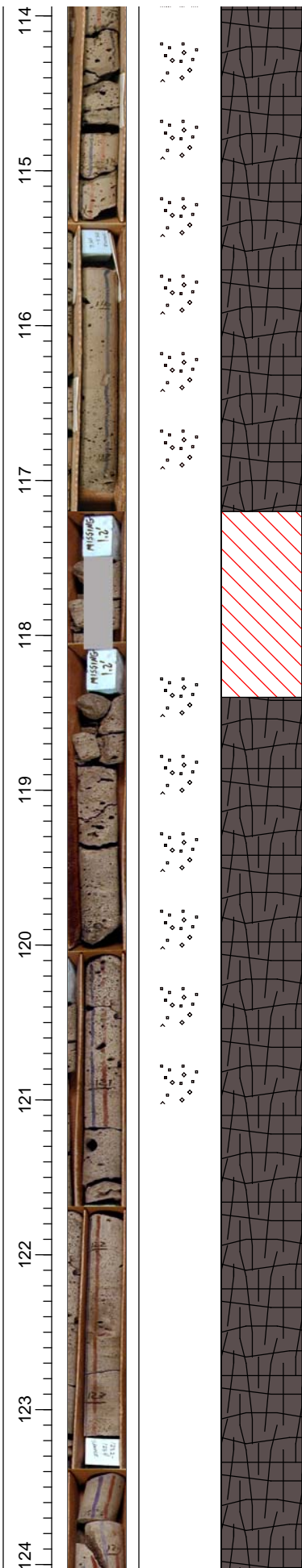




MISSING INTERVAL:
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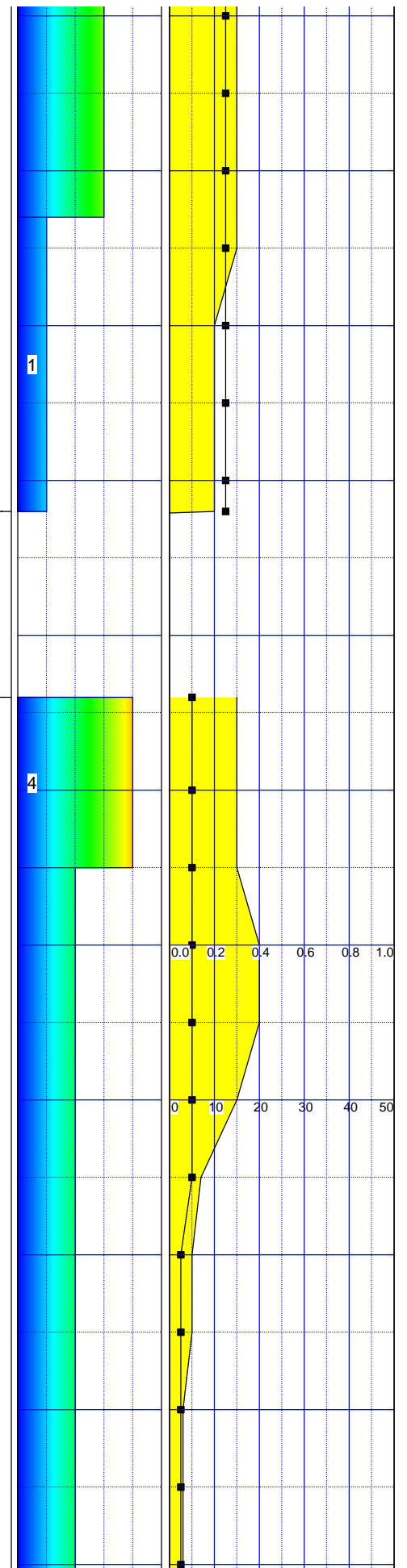
BASALT:
COLOR: Medium gray N4
TEXTURE: Massive, aphanitic, diktytaxitic, vesicular basalt. Autoliths are found throughout the interval.
COMPOSITION: 90% medium gray ground mass which contains submillimeter, anhedral to subhedral, white, plagioclase microlites; 10% submillimeter, subhedral, reddish brown olivine phenocrysts.
MAGNETIC
XENOLITHS: None noted
ALTERATION: Olivine moderately altered to iddingsite.

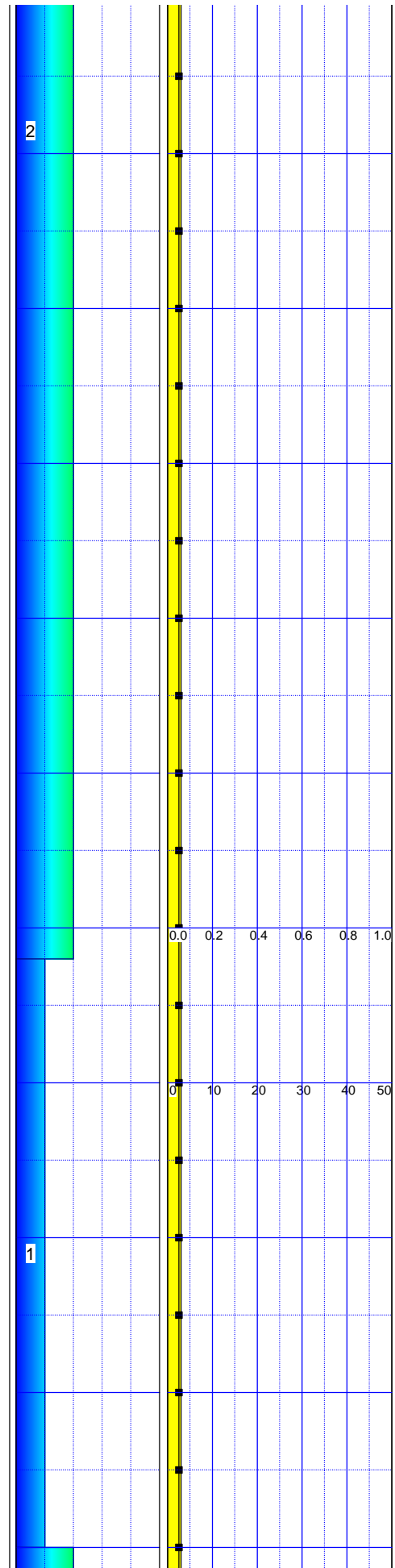


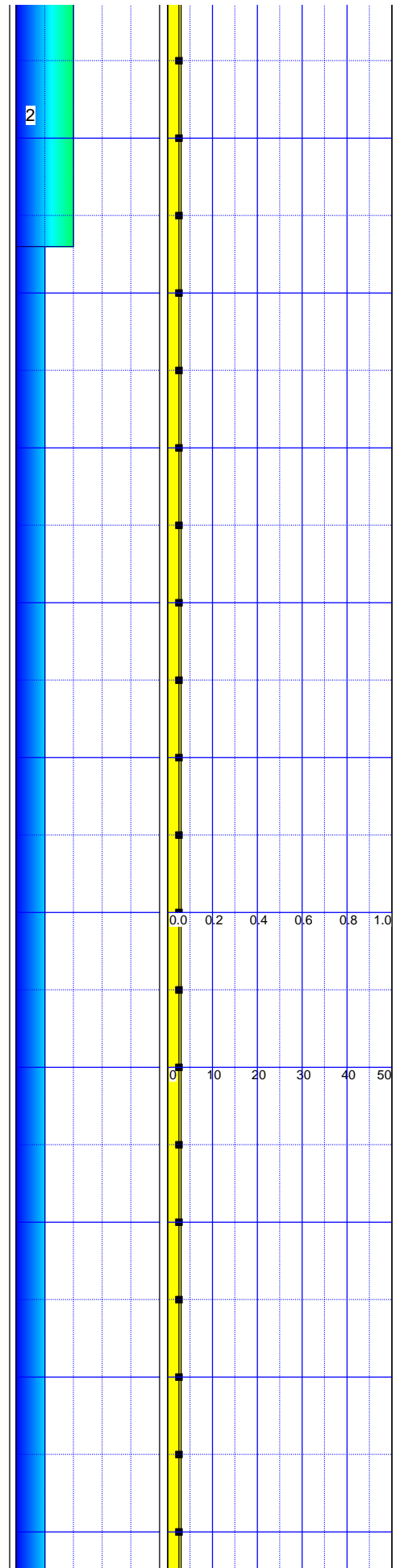
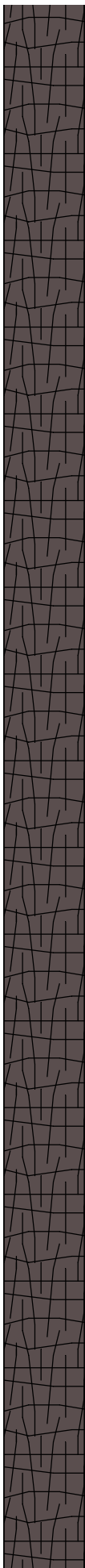
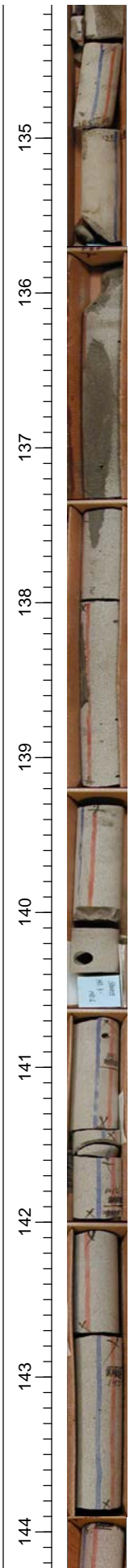


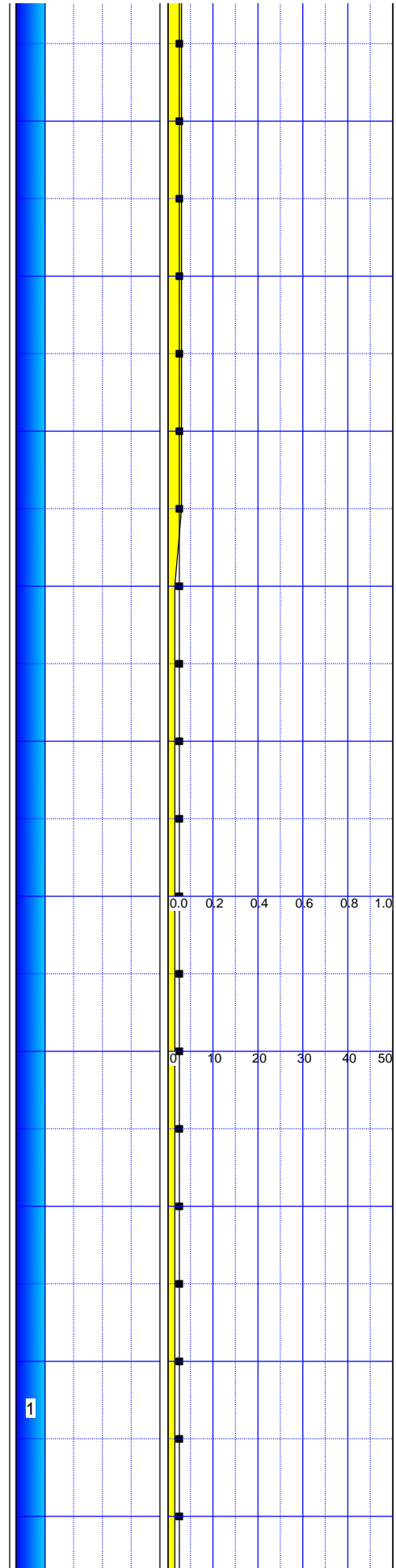
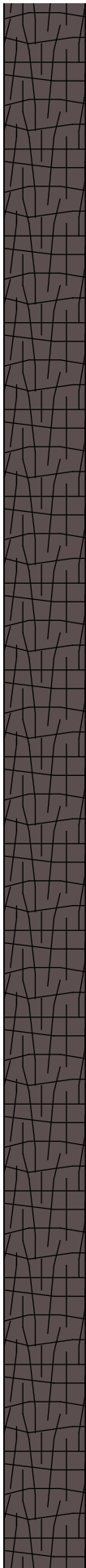
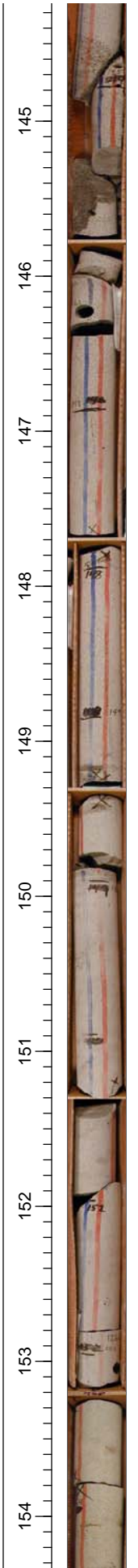
MISSING INTERVAL:
Missing Interval not recovered

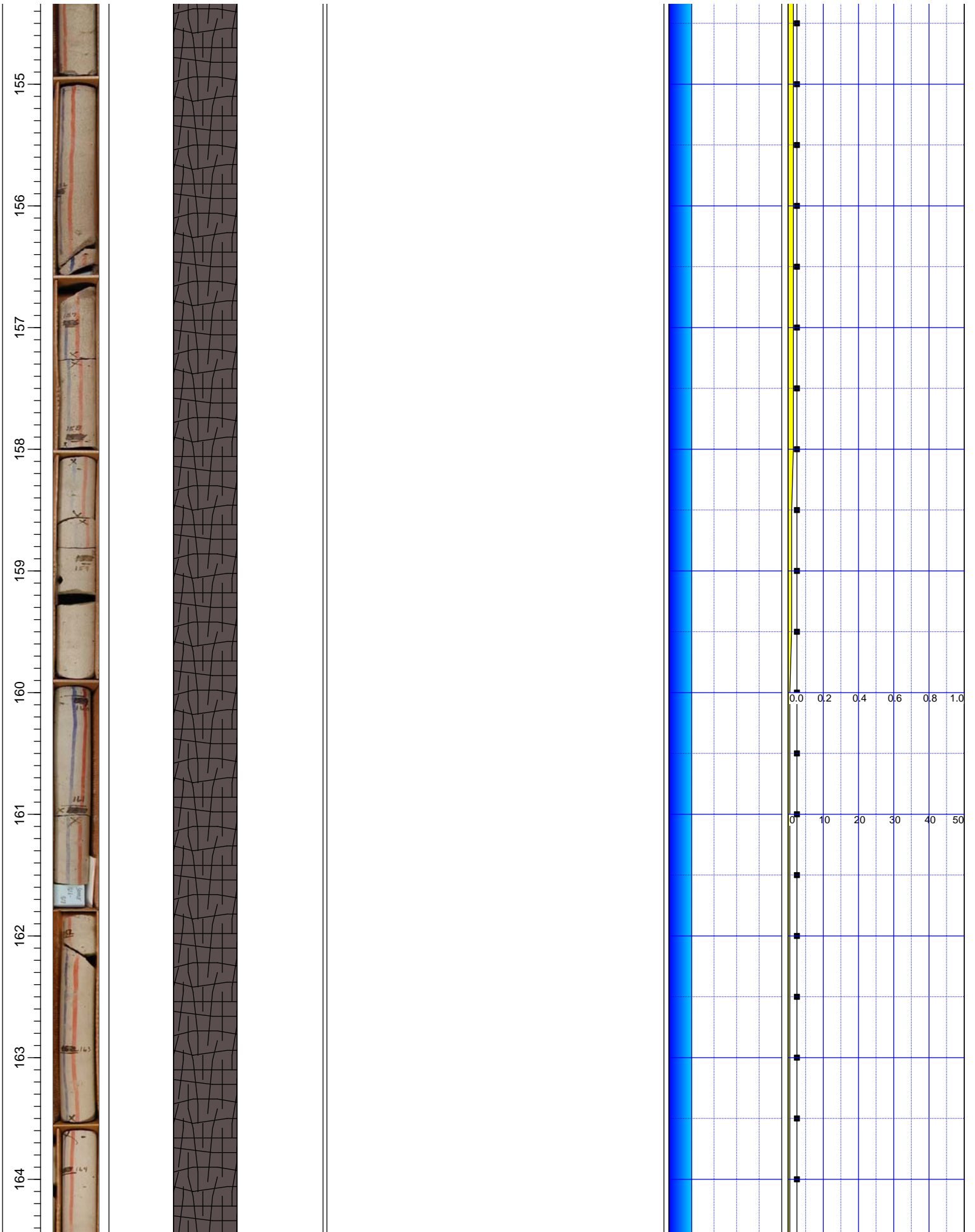
BASALT:
COLOR: Medium light gray N5
TEXTURE: Massive, phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 118.4 feet to 121.0 feet and increase from 171.3 feet to 175.3 feet. Autoliths and vesicle planes are found throughout the interval.
COMPOSITION: 85% medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites; 15% submillimeter to 1 mm, anhedral to subhedral, green olivine phenocrysts and 3mm reddish brown olivine glomerocrysts.
MAGNETIC
XENOLITHS: None noted
ALTERATION: Very light gray N7 clay on fractured surfaces and white N9 sparry calcite found in vesicles at the base of interval.

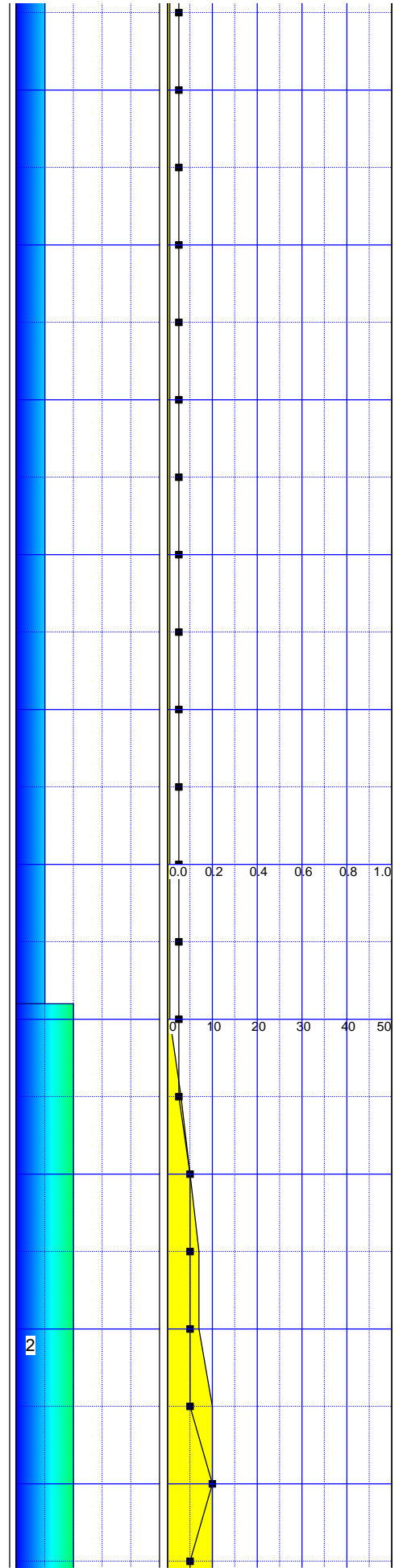
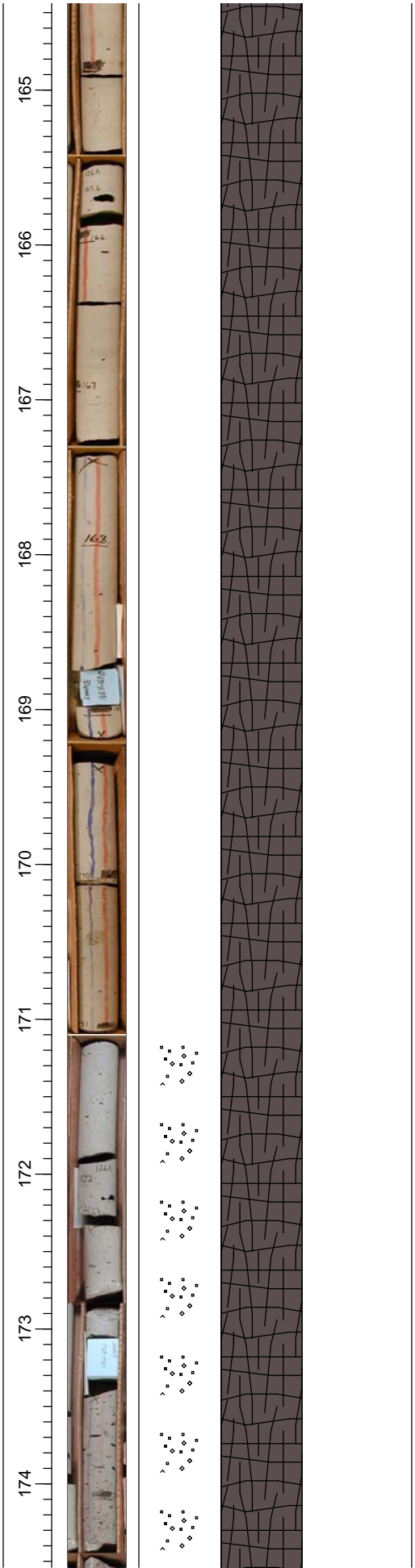


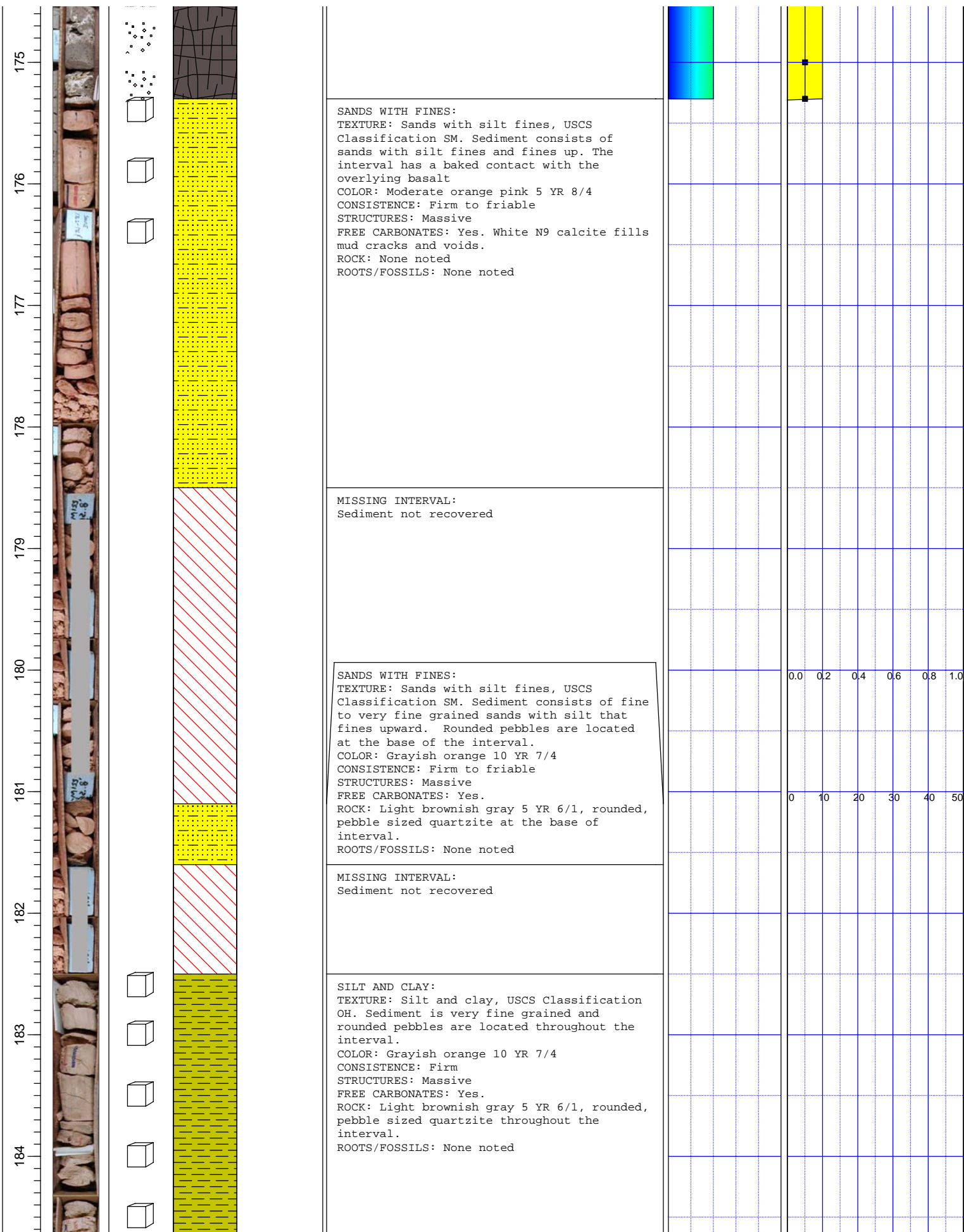


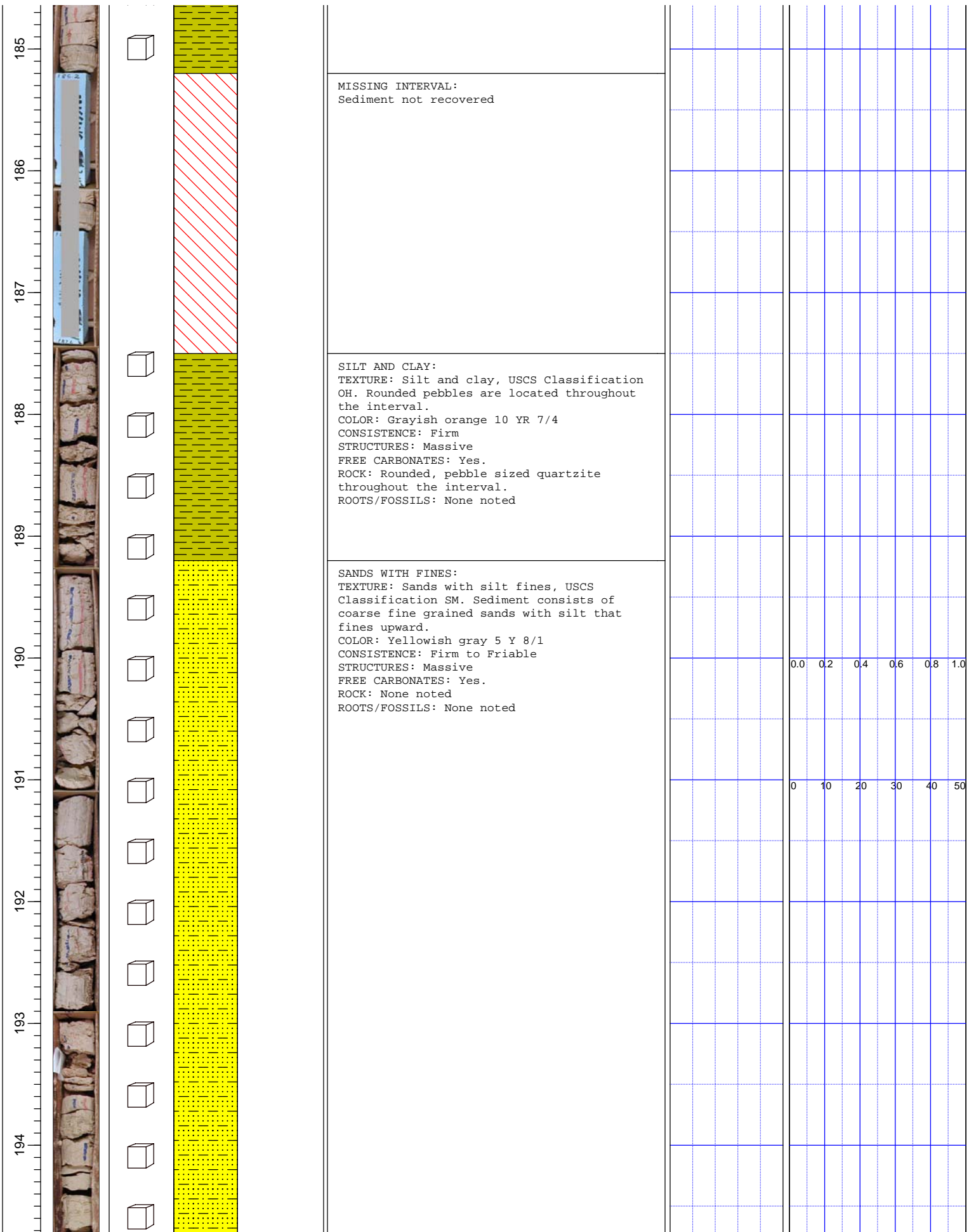


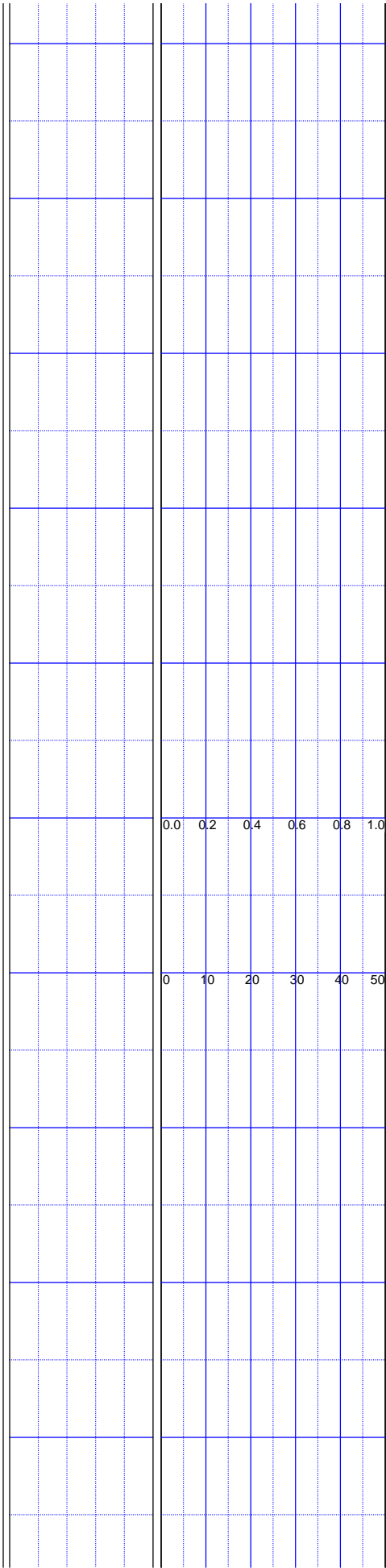
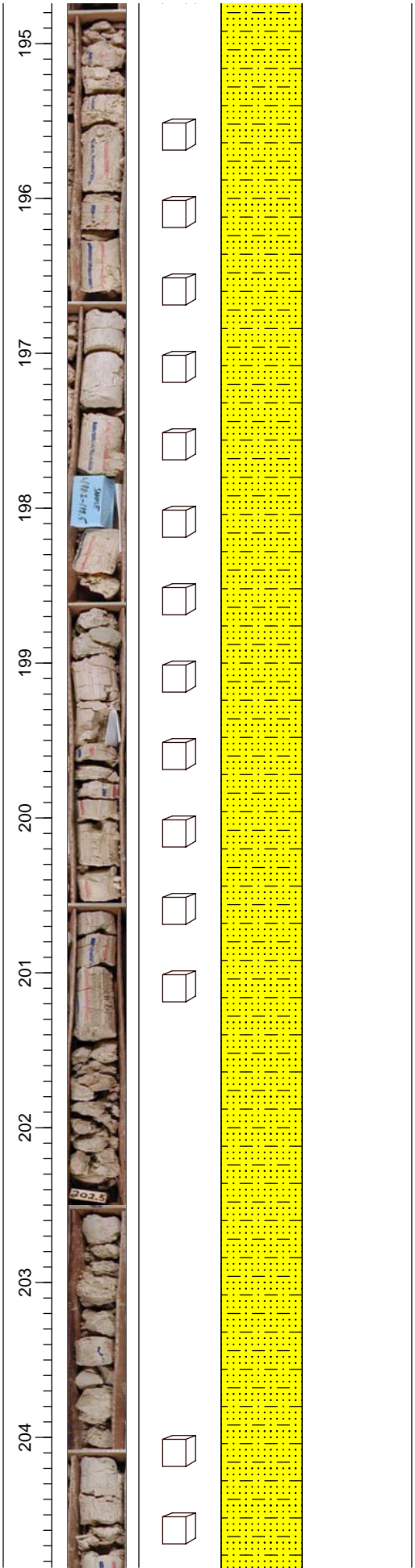


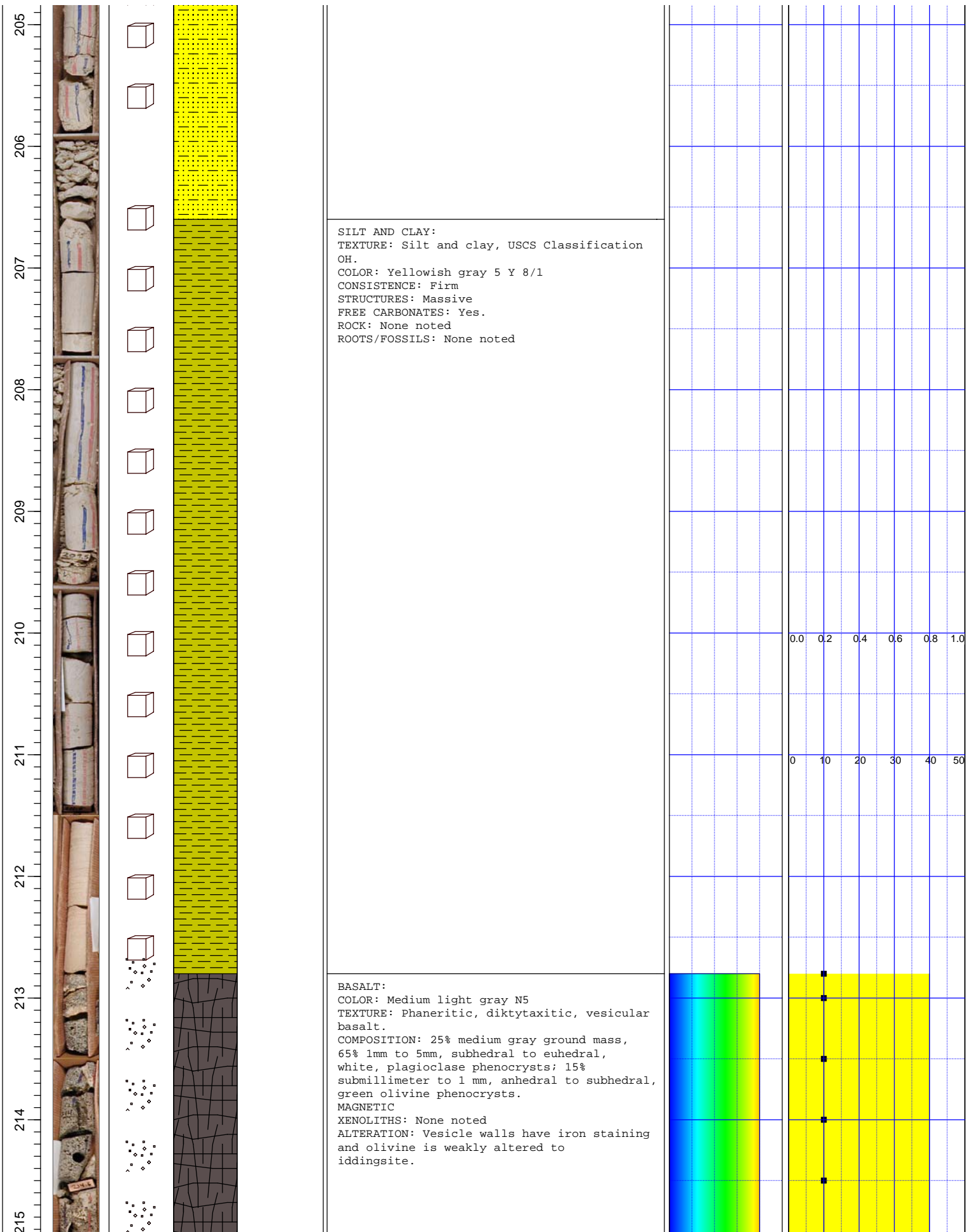


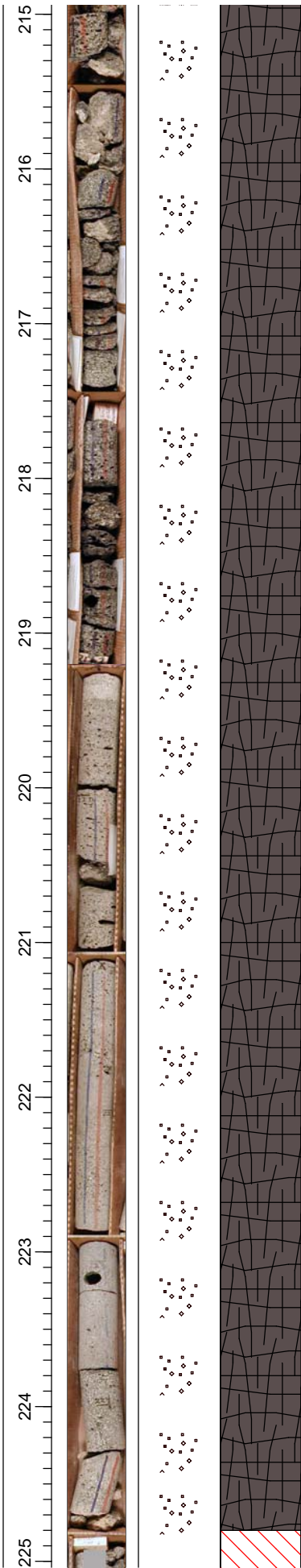




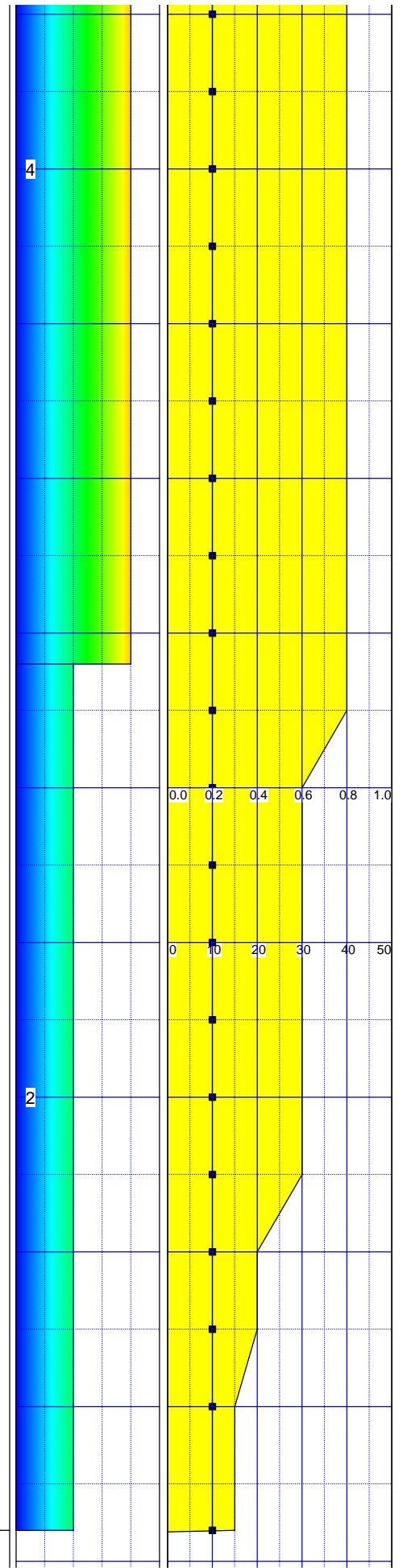


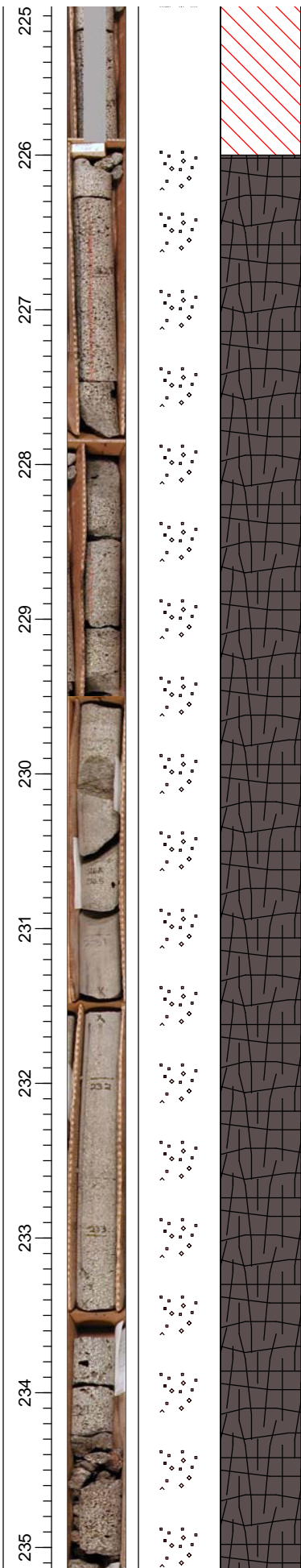




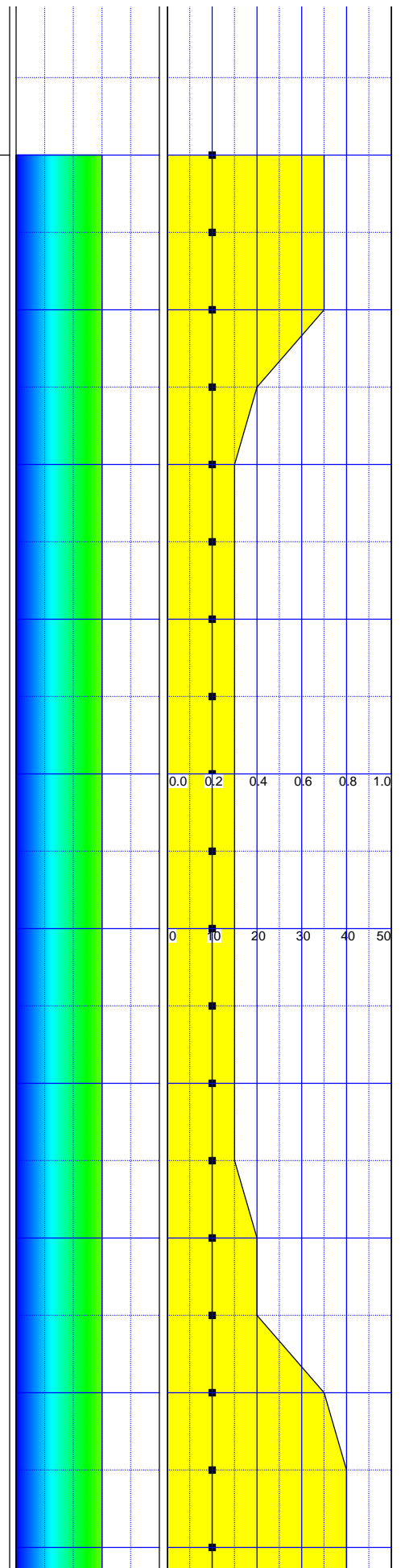


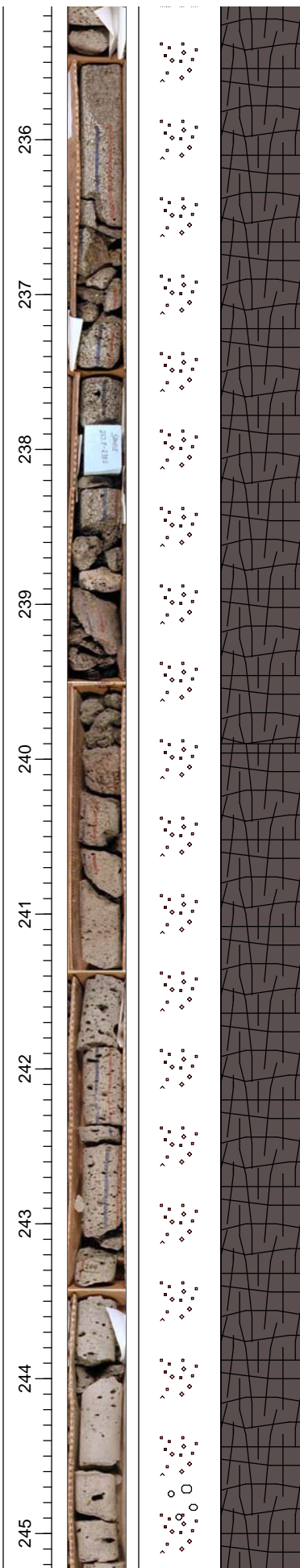
MISSING INTERVAL:
Rubble zone not recovered



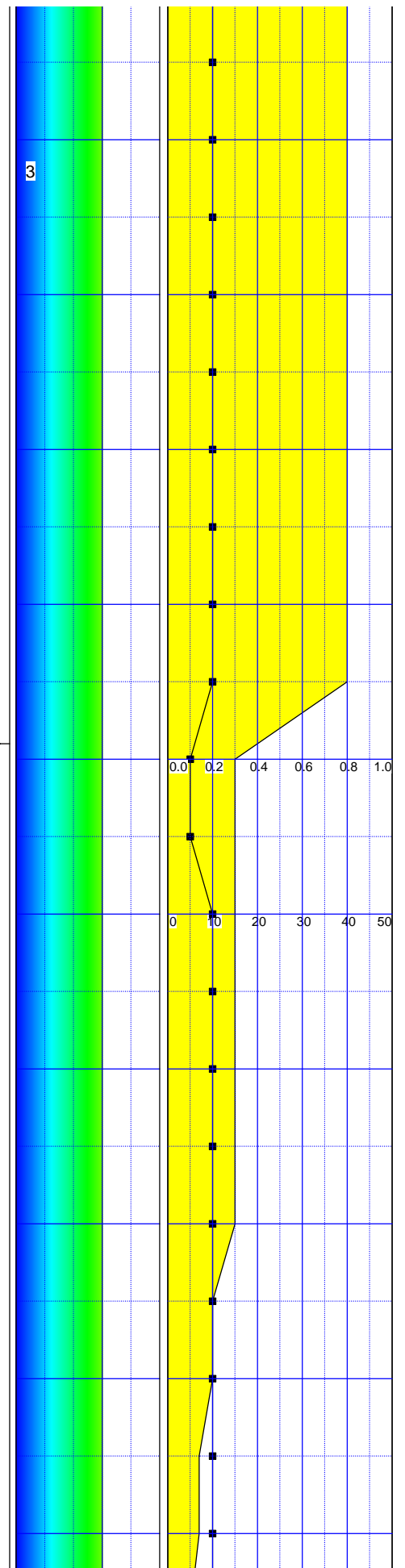


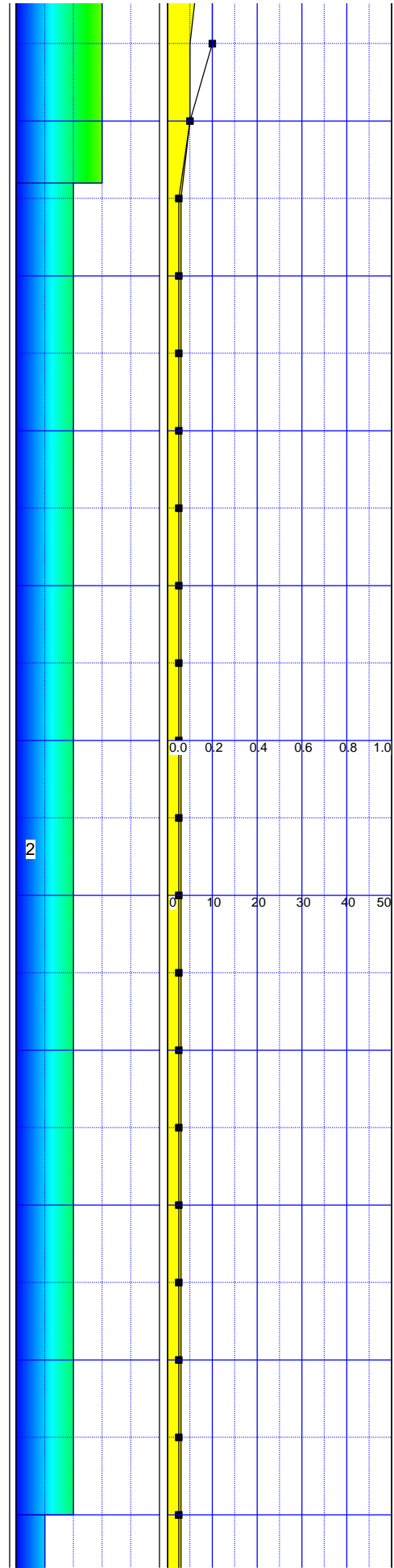
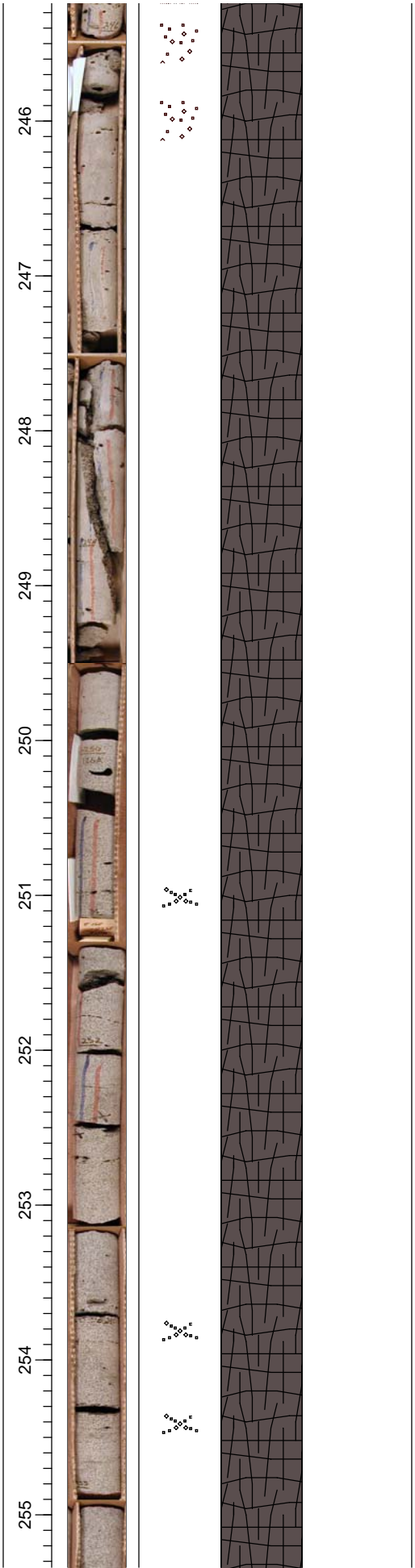
BASALT:
 COLOR: Medium light gray N5
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt.
 COMPOSITION: 25% medium gray ground mass, 65% 1 mm to 5 mm, subhedral to euhedral, white, plagioclase phenocrysts; 15% submillimeter to 1mm, anhedral to subhedral, green olivine phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Vesicle walls have iron staining and olivine is weakly altered to iddingsite.

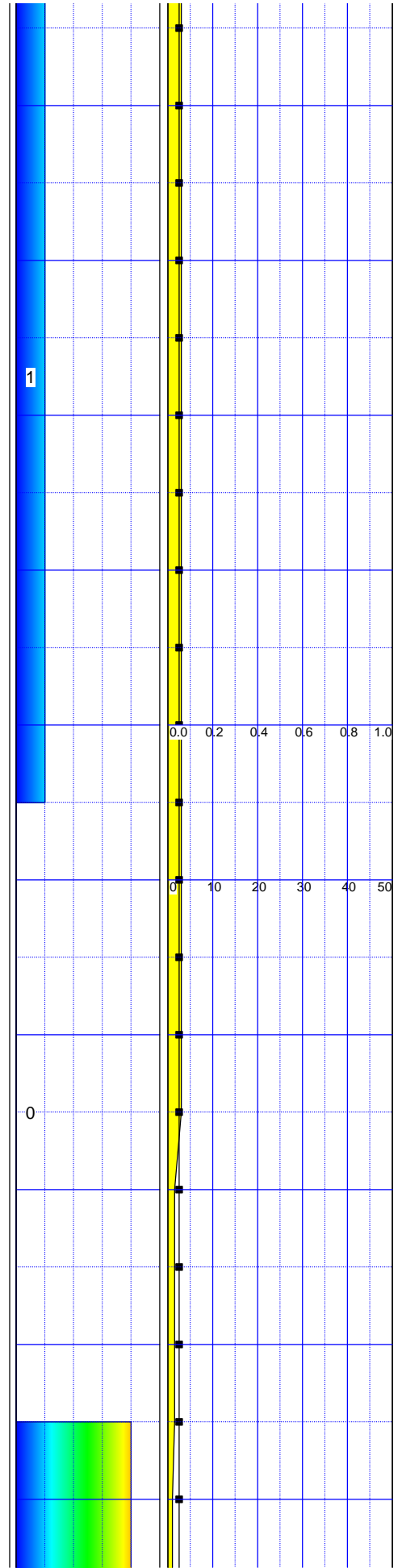
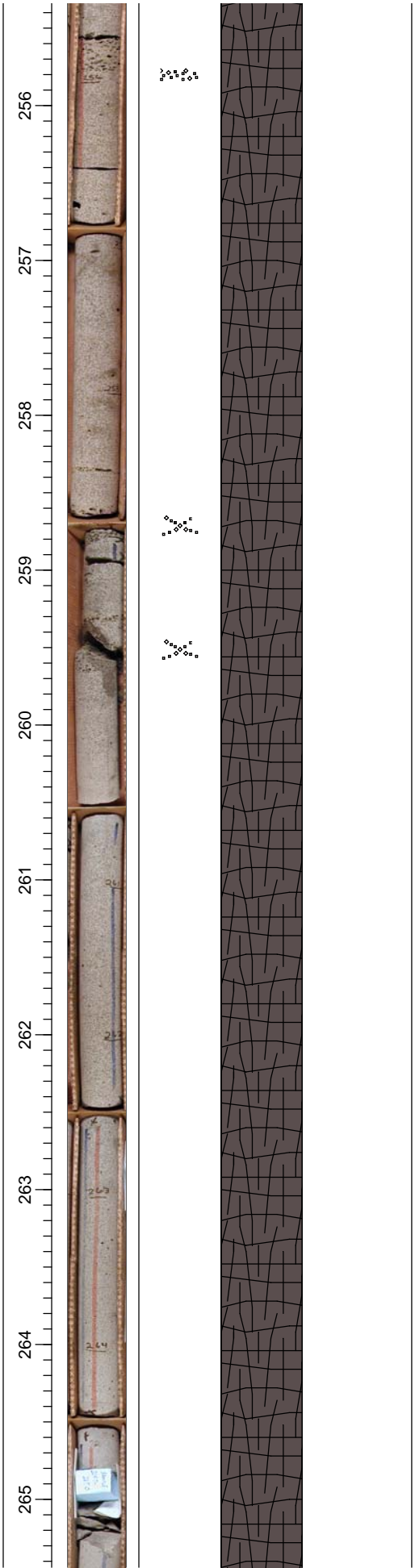


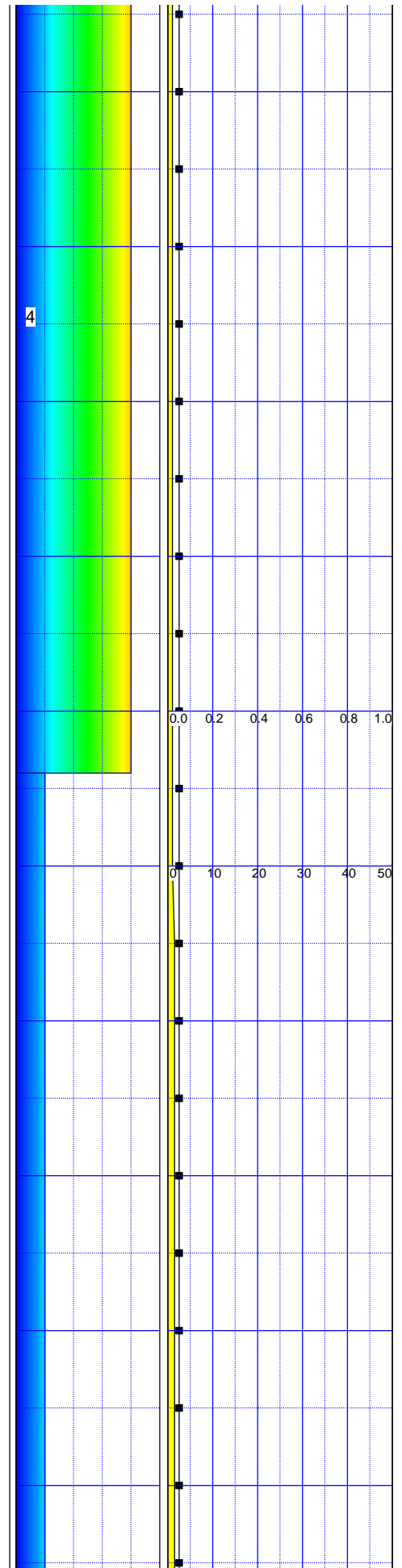


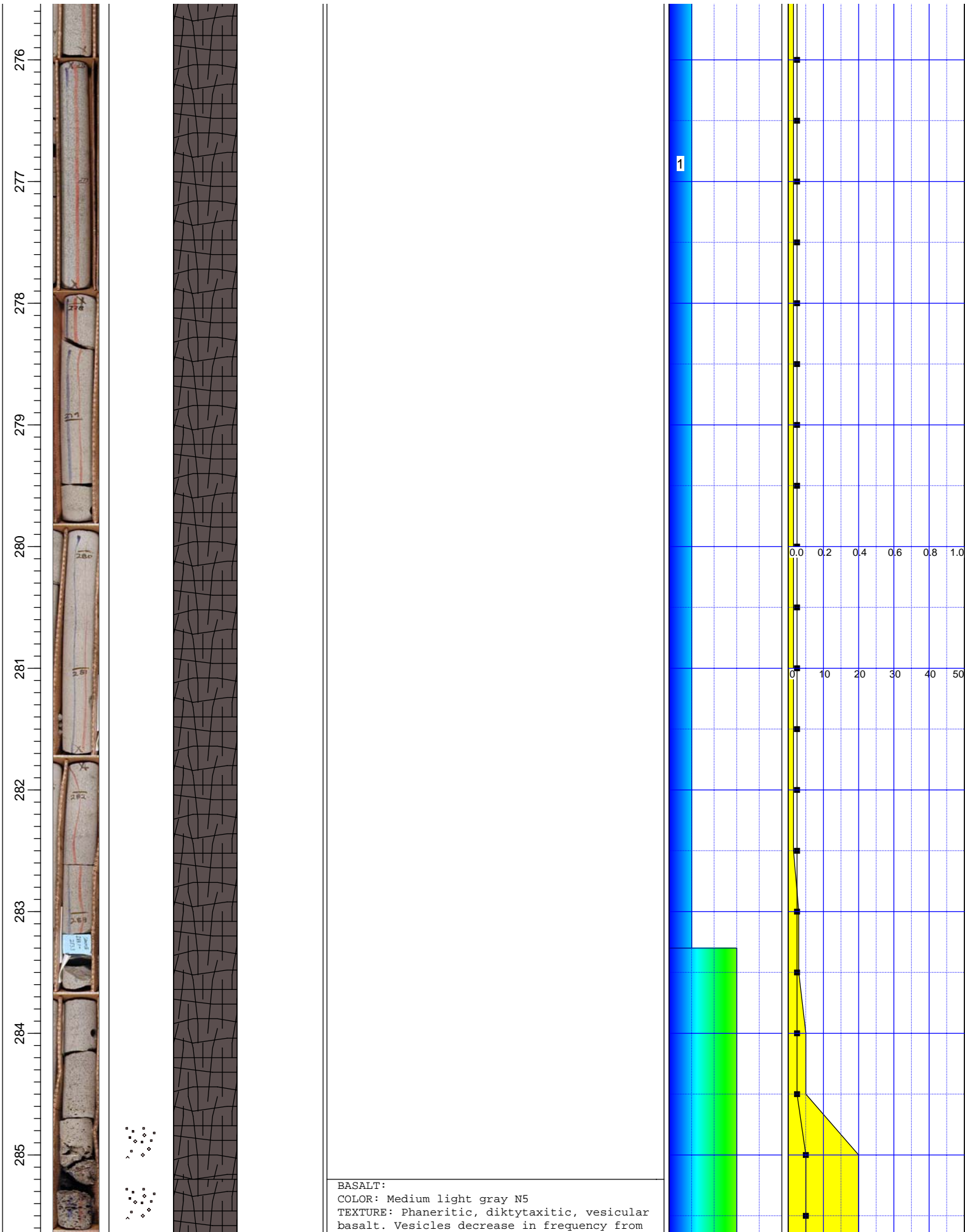
BASALT:
 COLOR: Light gray N6
 TEXTURE: Massive, phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 239.9 feet to 246.3 feet and increase from 284.4 feet to 285.2 feet. Vesicle planes are found throughout the interval.
 COMPOSITION: 30% light gray ground mass, 35% submillimeter, subhedral to euhedral, white, plagioclase microlites; 25% submillimeter to 1 mm, anhedral to subhedral, green olivine phenocrysts; 10% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Olivine is weakly altered to iddingsite.

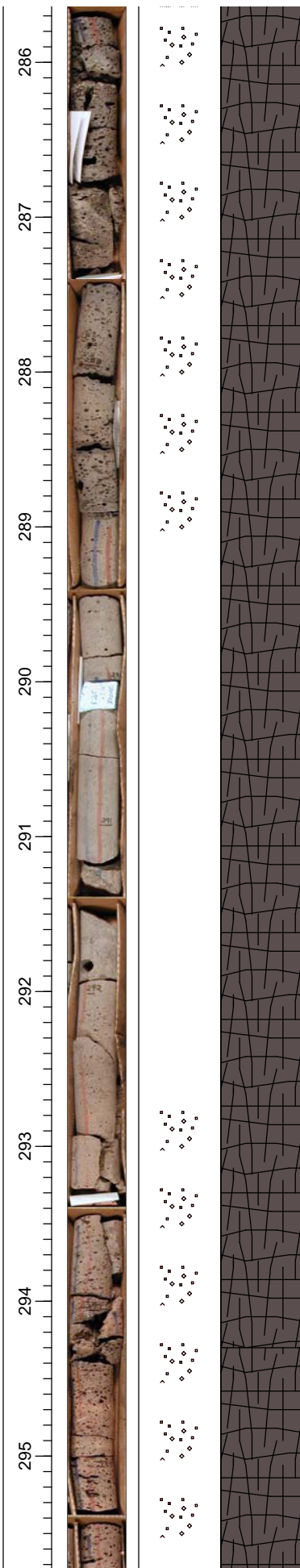






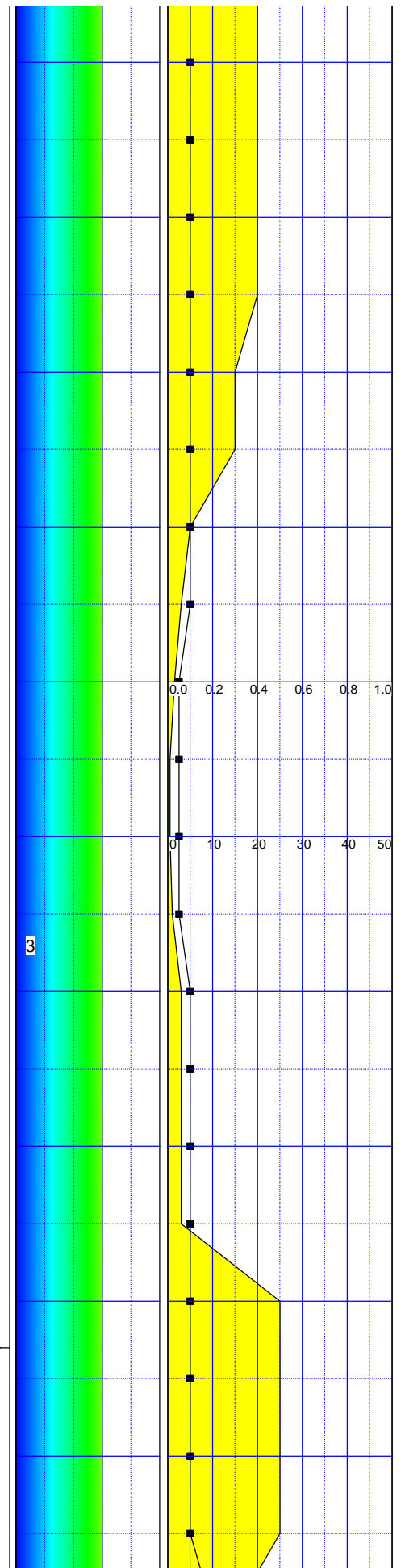


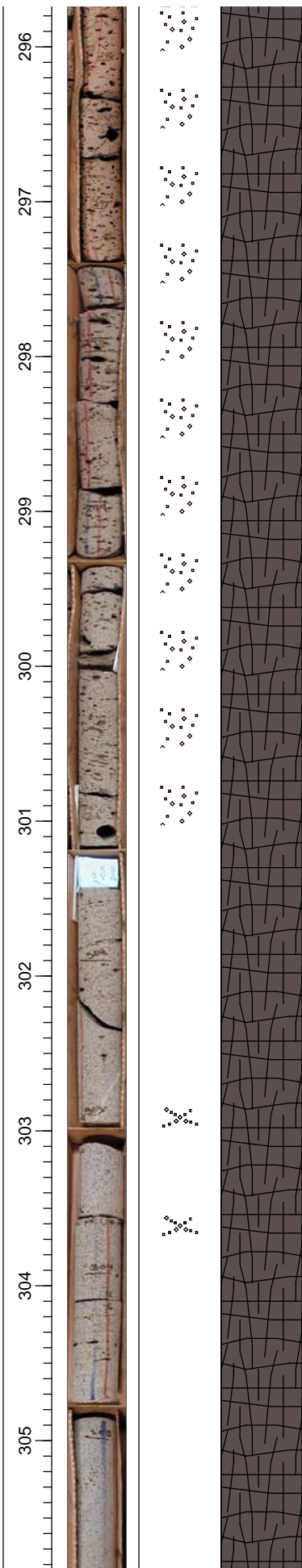




285.2 feet to 289.0 feet and increase from 292.9 feet to 294.3 feet.
 COMPOSITION: 30% light gray ground mass, 30% submillimeter, subhedral to euhedral, white, plagioclase microlites; 25% submillimeter to 1mm, anhedral to subhedral, green olivine phenocrysts; 15% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Vesicle walls have iron staining and olivine is weakly altered to iddingsite.

BASALT:
 COLOR: Medium light gray N5
 TEXTURE: Massive, phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 294.3 feet to 300.9 feet and increase from 357.3 feet to 358.3 feet. Large vesicles are found from 318.2 feet to 323.8 feet and vesicle column located at 349.4 feet. Autoliths and vesicle planes are found throughout the interval.
 COMPOSITION: 35% light gray ground mass, 30% submillimeter, subhedral to euhedral, white, plagioclase microlites; 20%



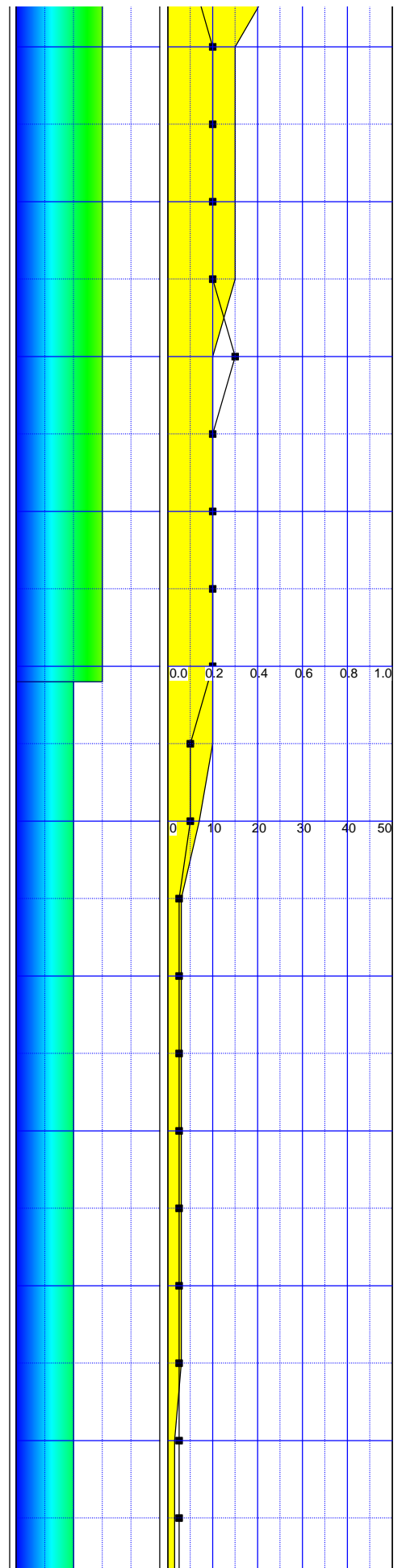


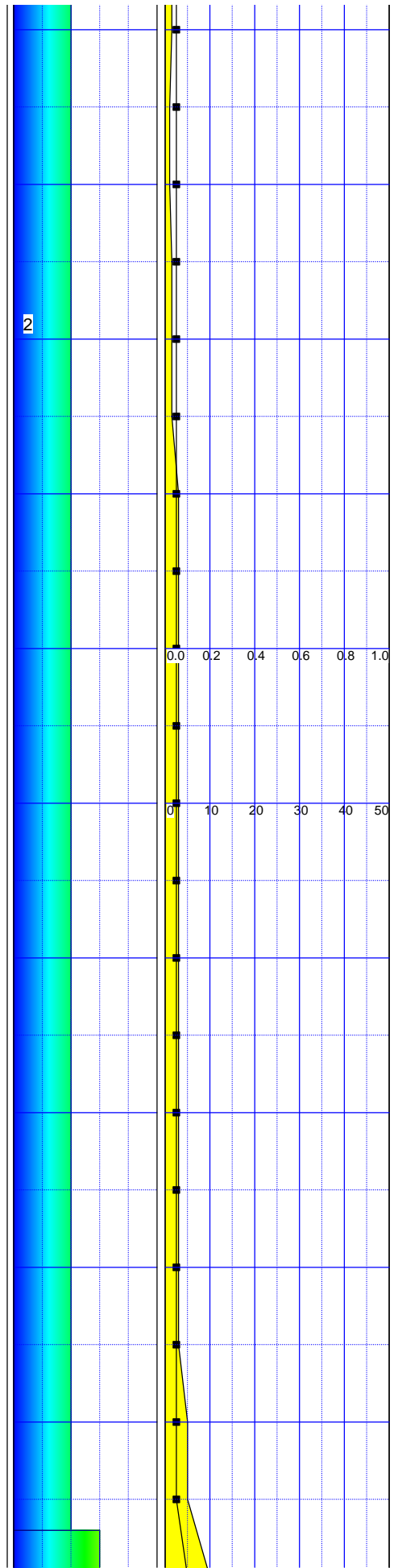
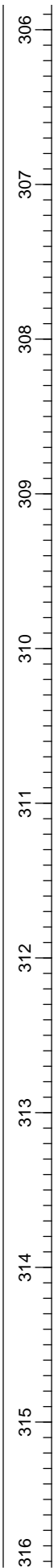
submillimeter to 1mm, anhedral to subhedral, green olivine phenocrysts; 15% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts.

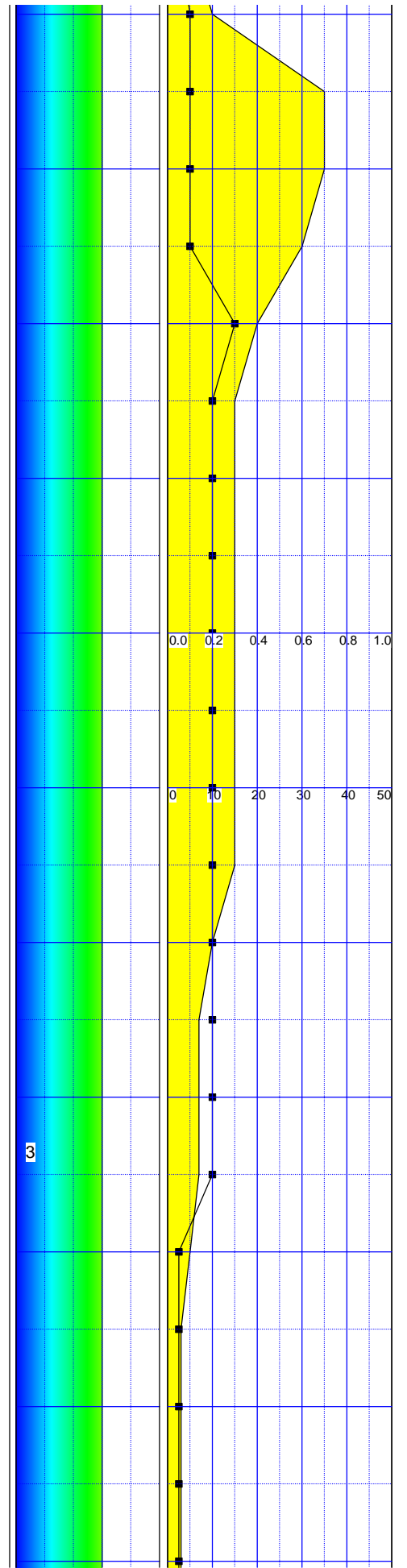
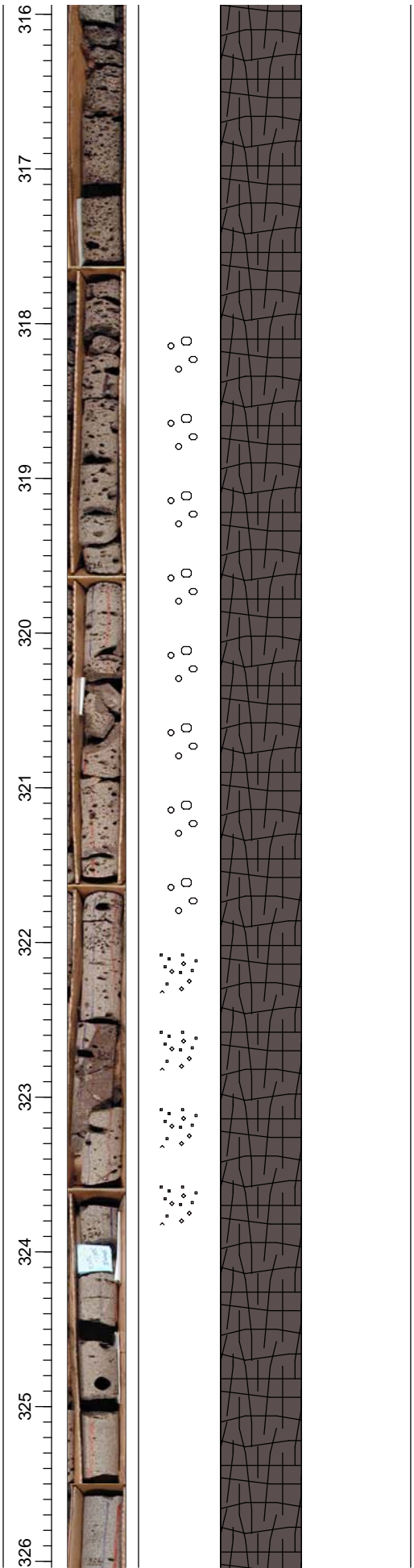
MAGNETIC

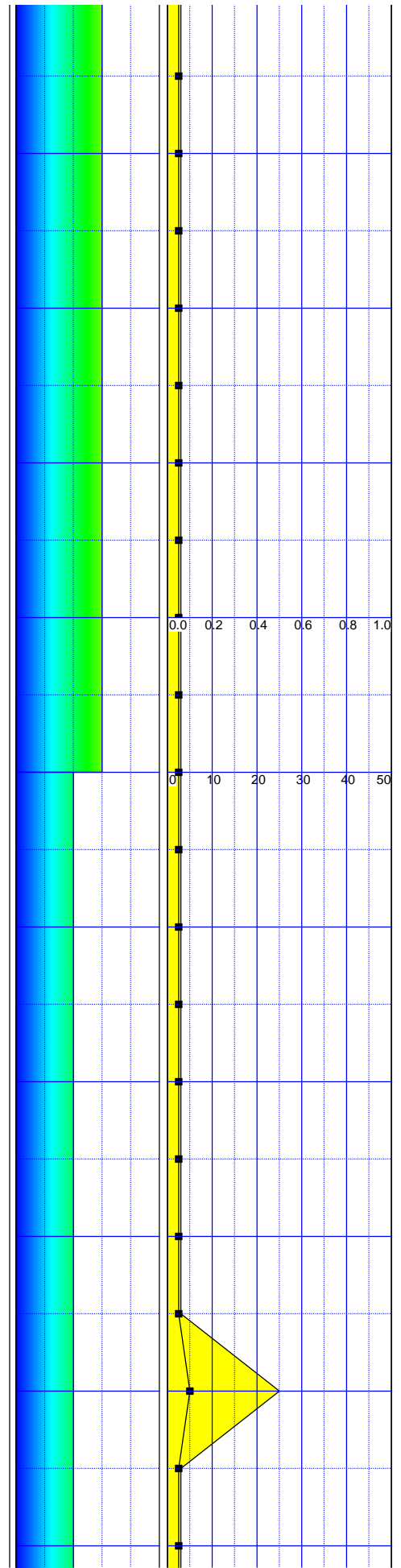
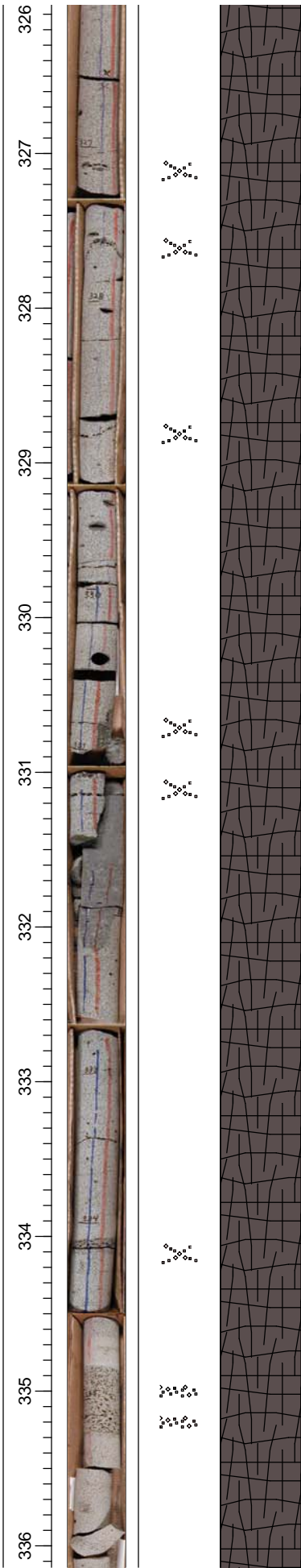
XENOLITHS: None noted

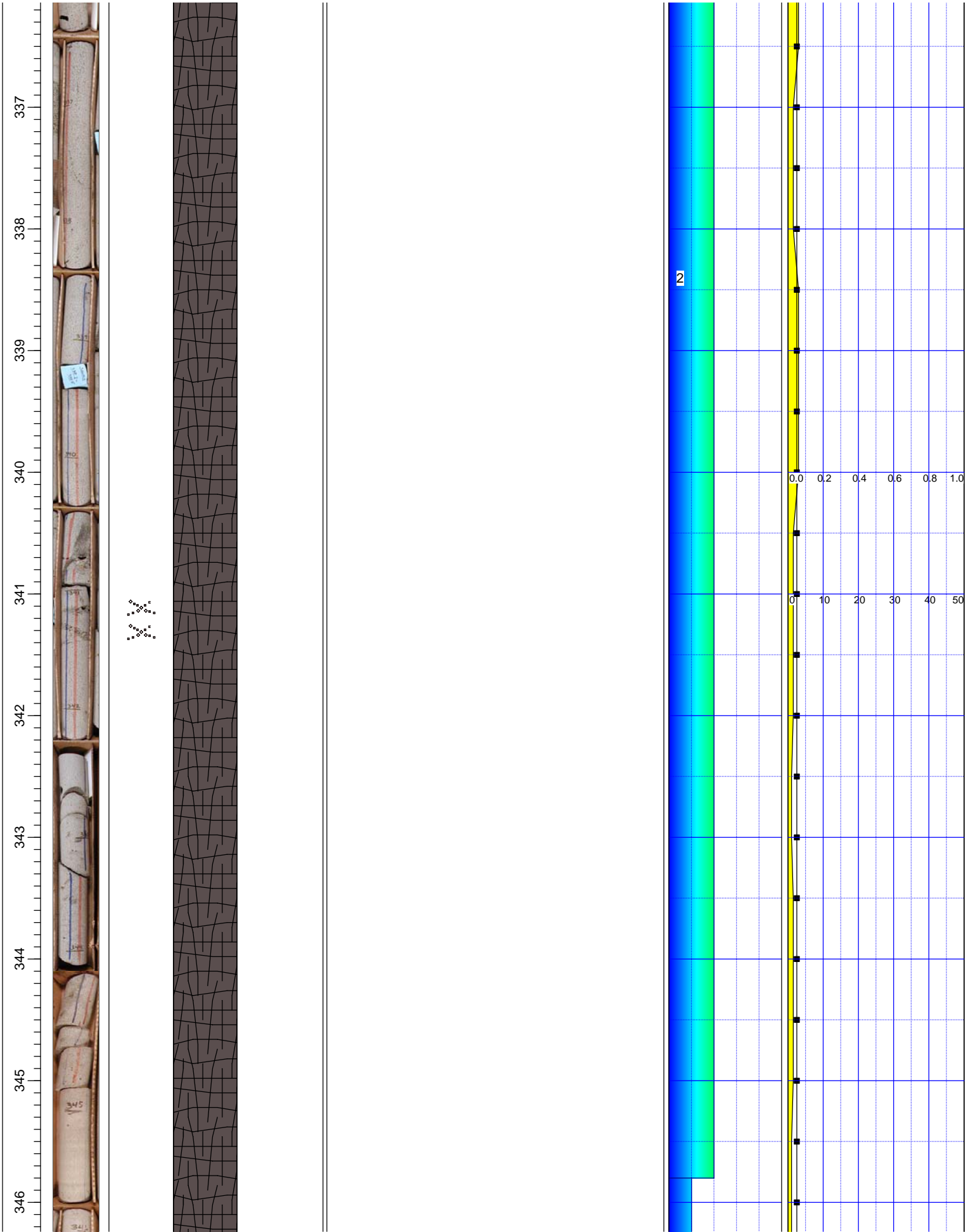
ALTERATION: Olivine is weakly altered to iddingsite.

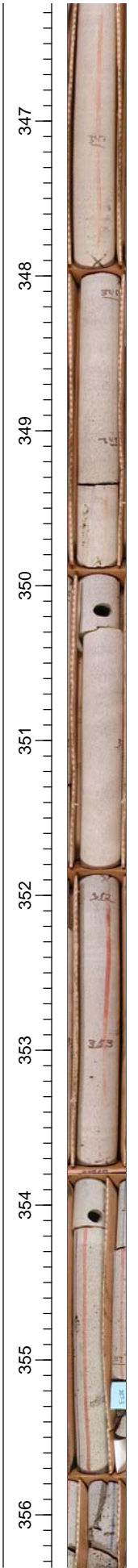




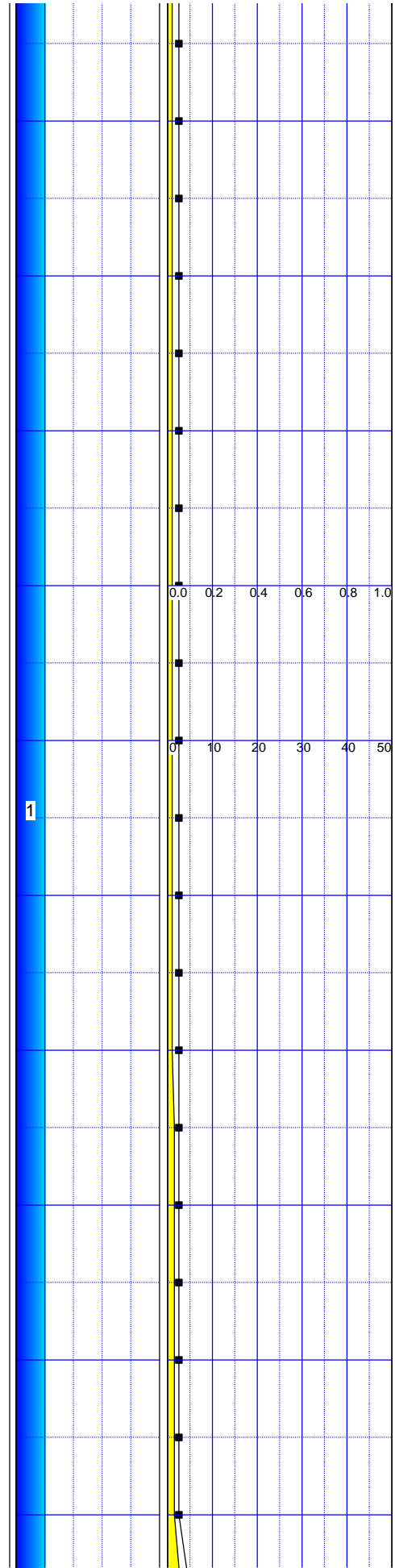


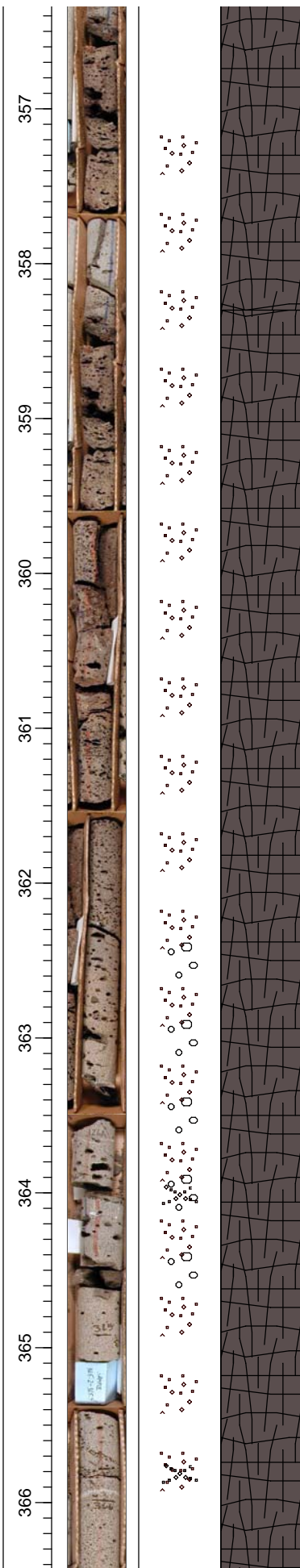






$\alpha_0 \beta_0 \gamma_0 \delta_0$



**BASALT:**

COLOR: Medium gray N4

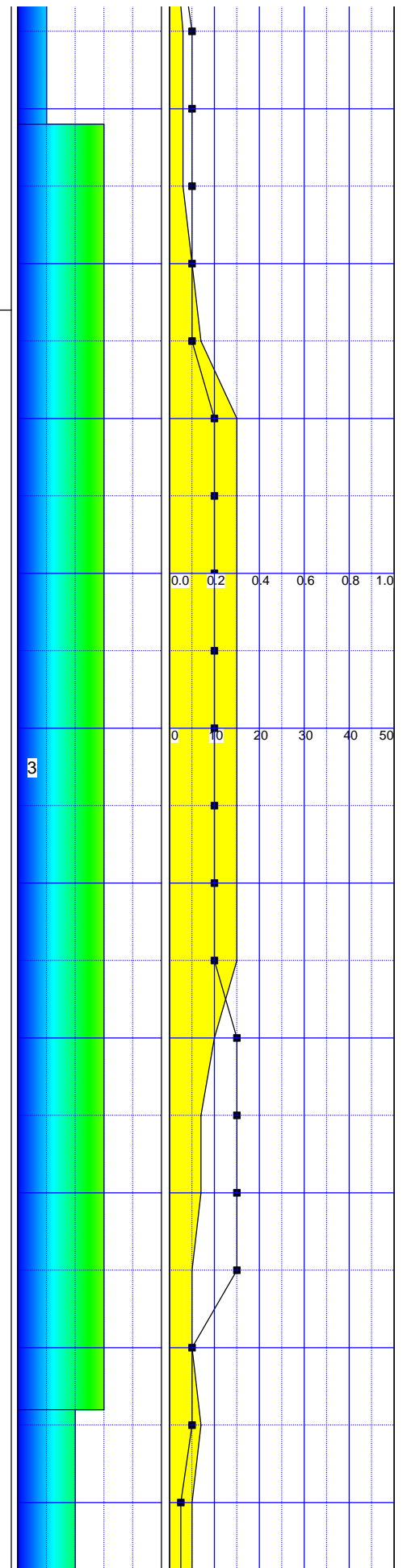
TEXTURE: Massive, phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 358.3 feet to 365.8 feet and increase from 397.3 feet to 398.1 feet. Vesicle Zone found from 385.6 feet to 393.9 feet. Vesicle planes are found throughout the interval.

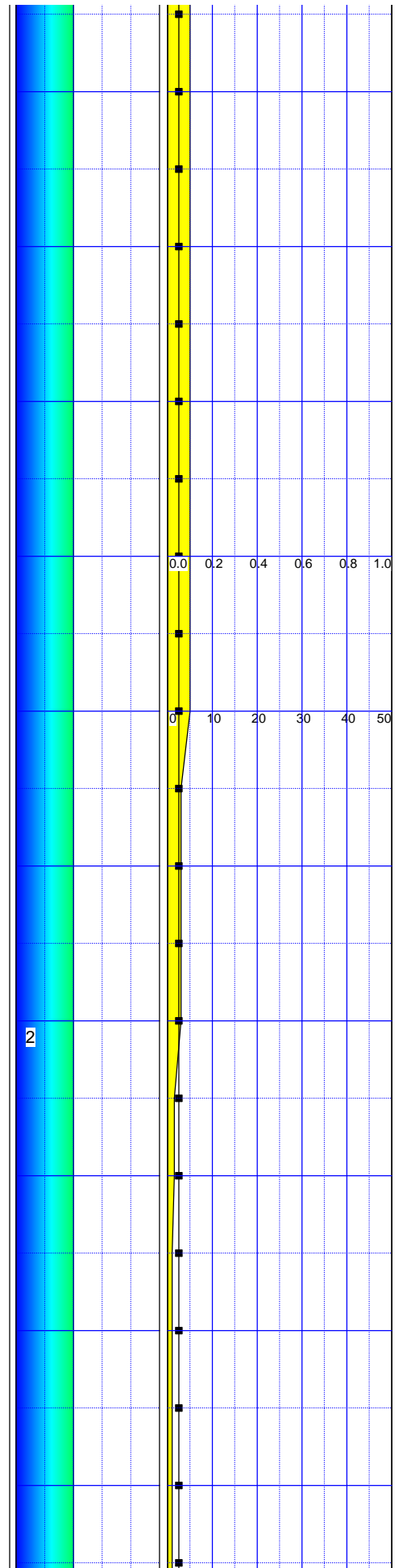
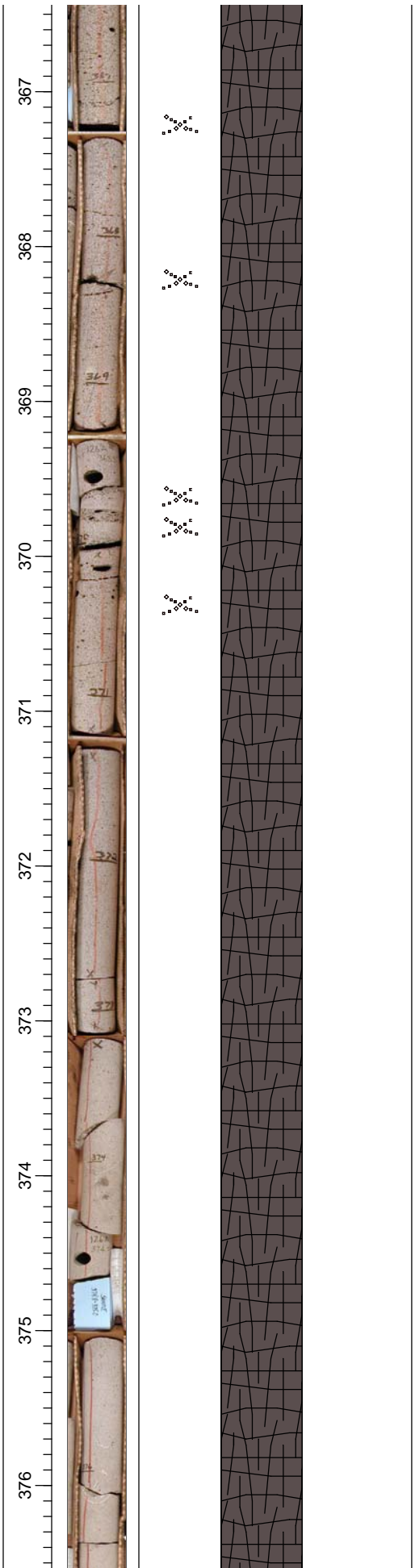
COMPOSITION: 15% medium gray ground mass; 40% submillimeter, subhedral to euhedral, white, plagioclase microlites; 35% submillimeter to 2 mm, subhedral, green olivine phenocrysts and glomerocrysts; 10% submillimeter, anhedral, black, pyroxene .

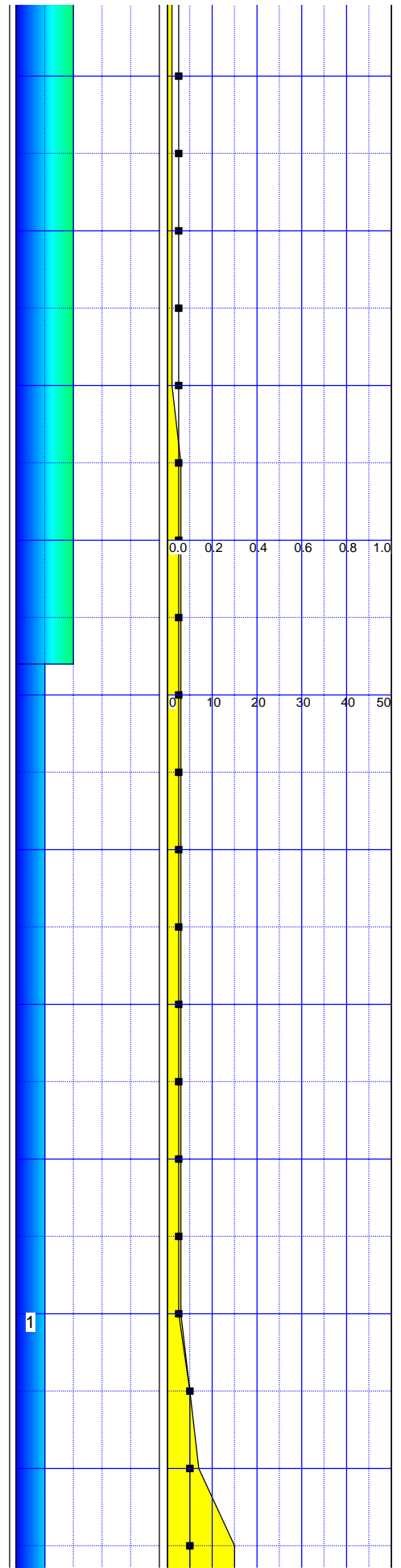
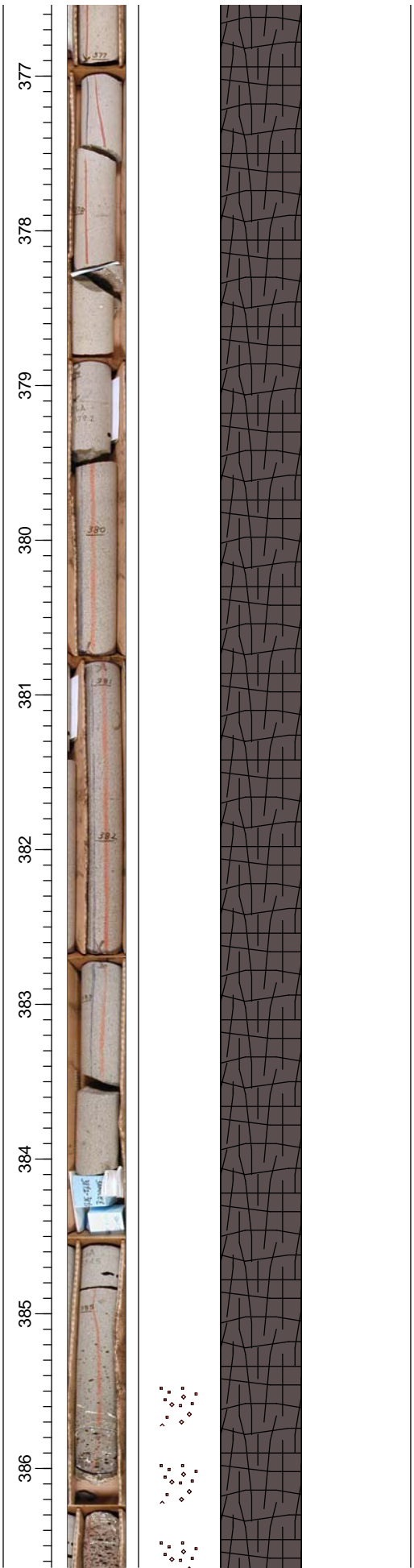
MAGNETIC

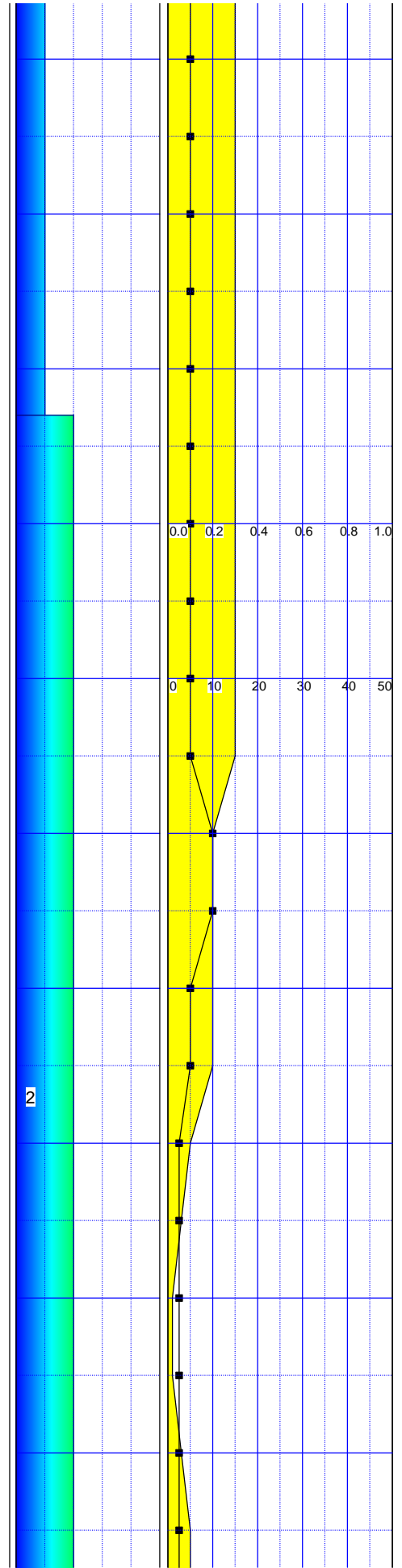
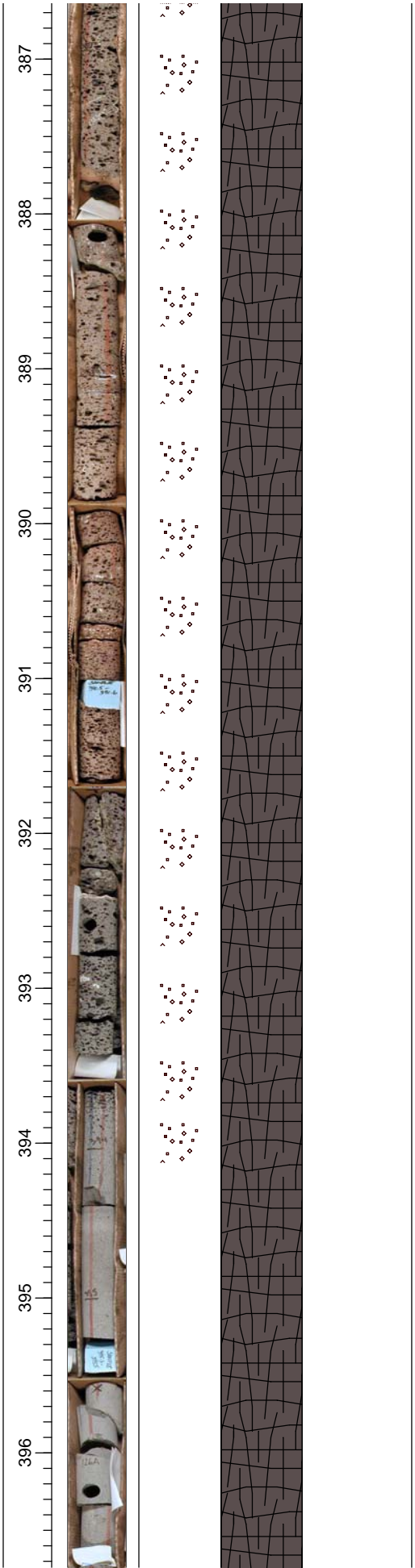
XENOLITHS: None noted

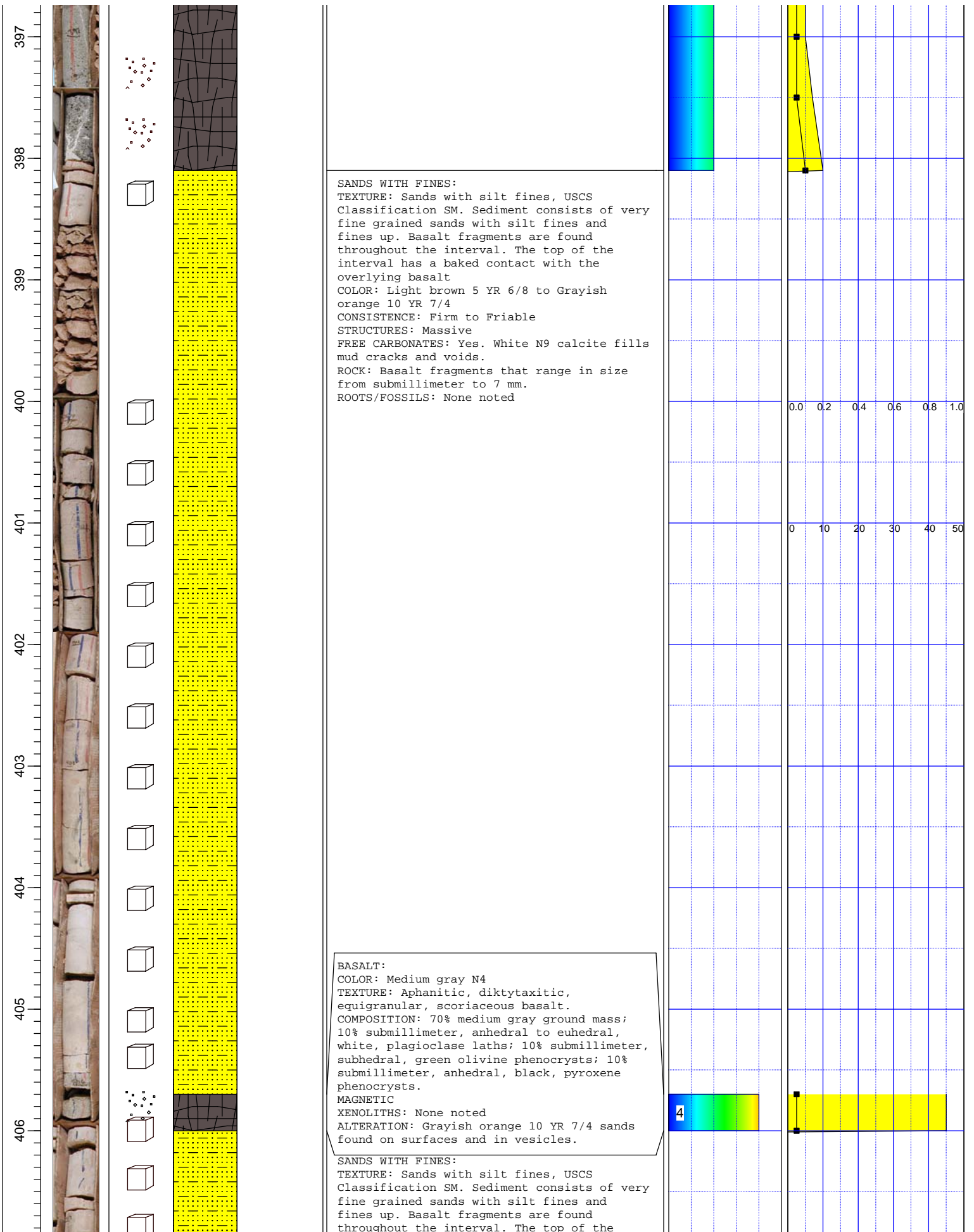
ALTERATION: Olivine is moderately altered to iddingsite. Fractures and vesicles are filled to partially filled with white N9 calcite.

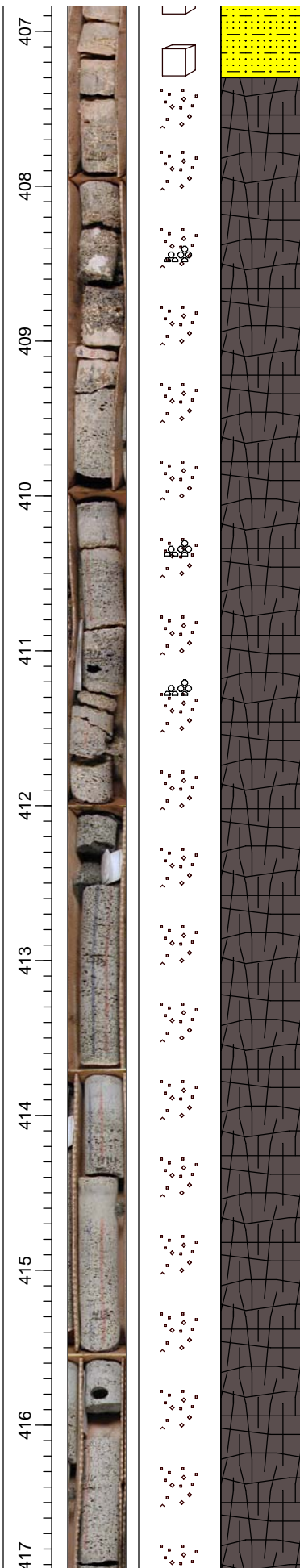






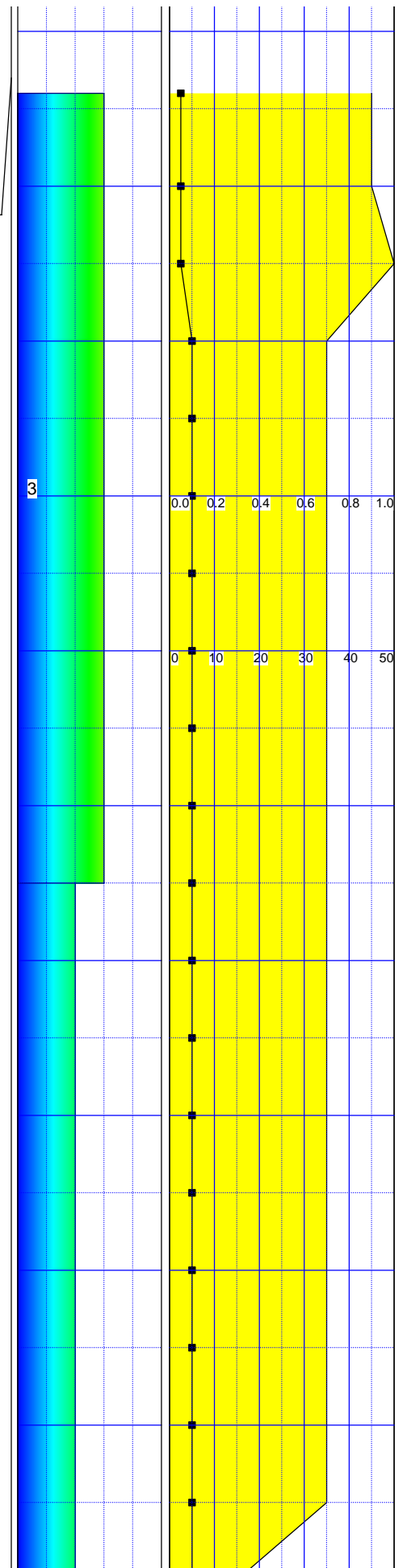


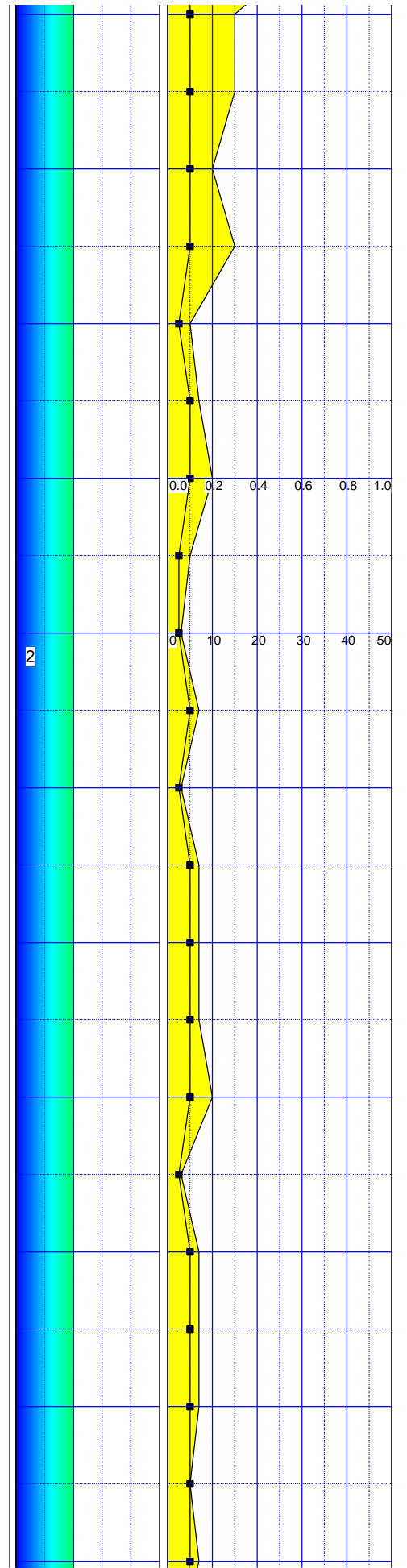
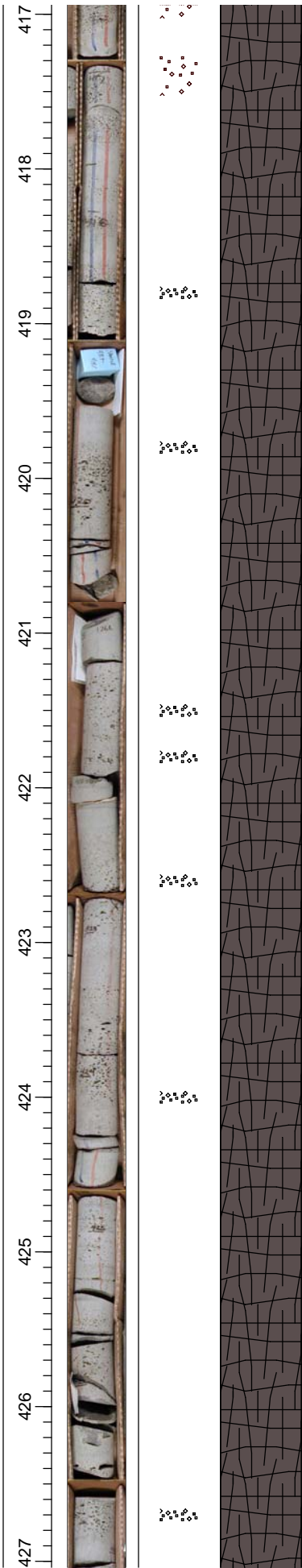


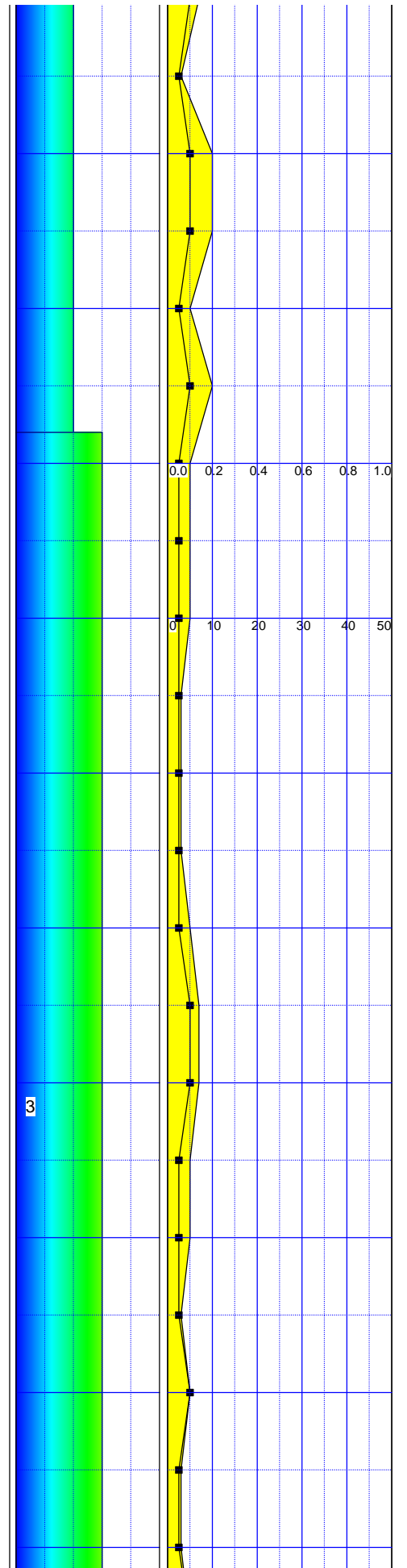
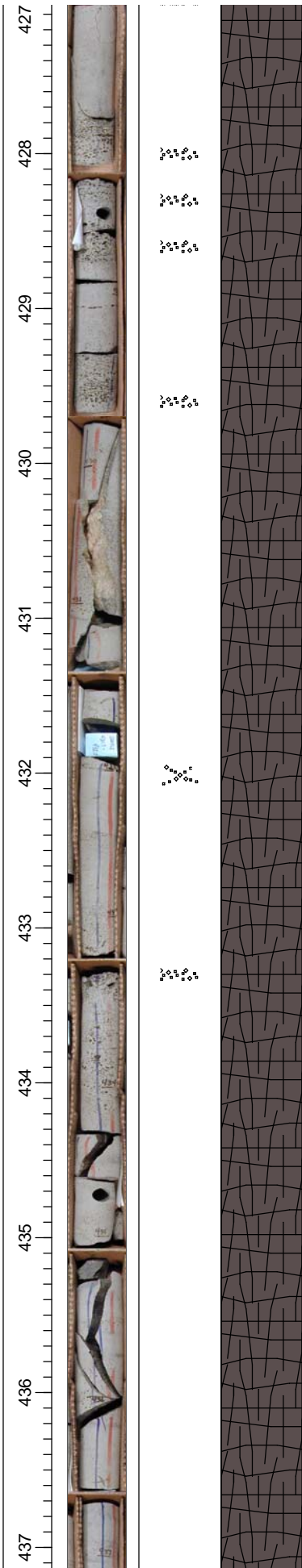


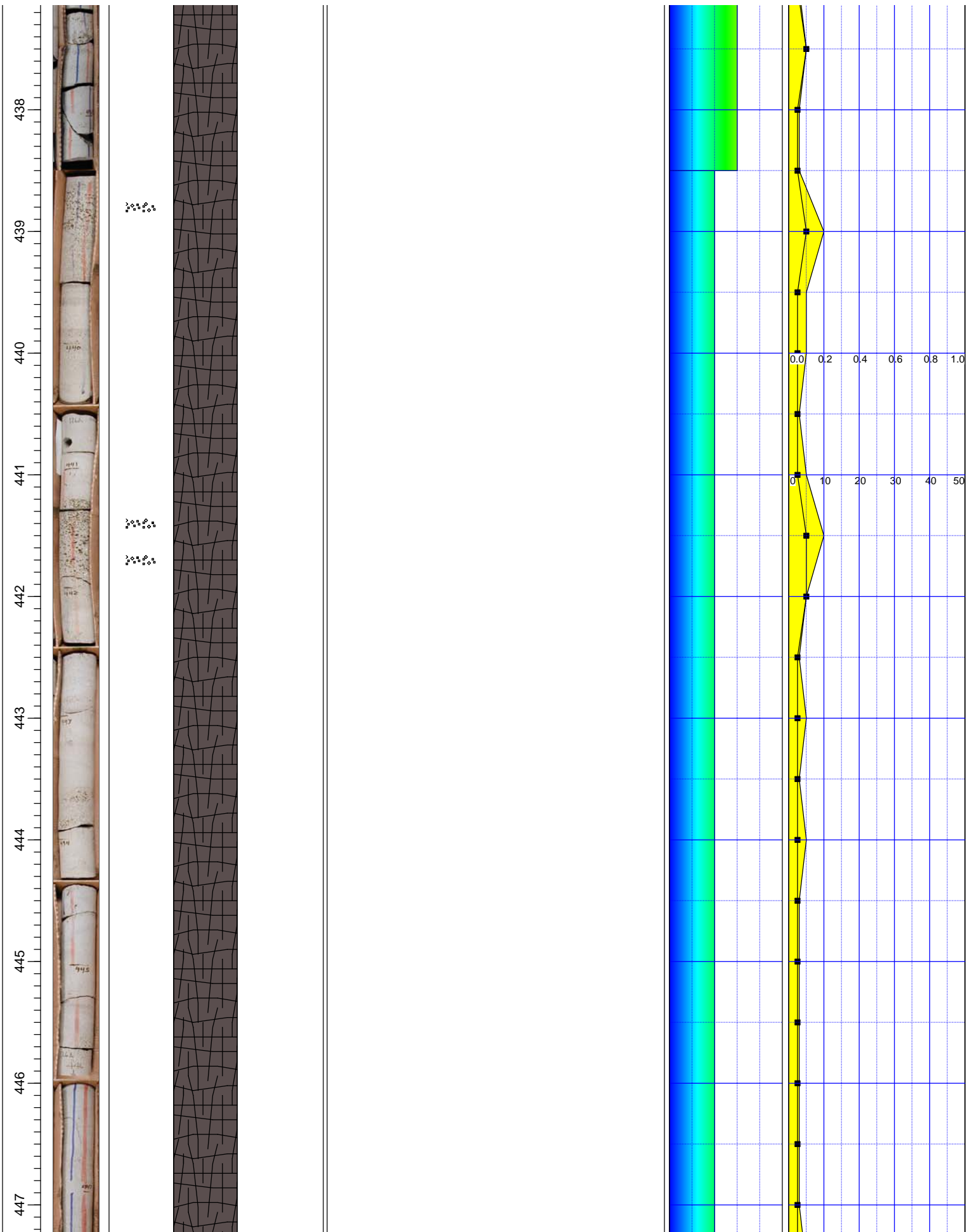
interval has a baked contact with the overlying basalt
 COLOR: Light brown 5 YR 6/8 to Grayish orange 10 YR 7/4
 CONSISTENCE: Firm to Friable
 STRUCTURES: Massive
 FREE CARBONATES: Yes. White N9 calcite fills mud cracks and voids.
 ROCK: Basalt fragments that range in size from submillimeter to 7 mm.
 ROOTS/FOSSILS: None noted

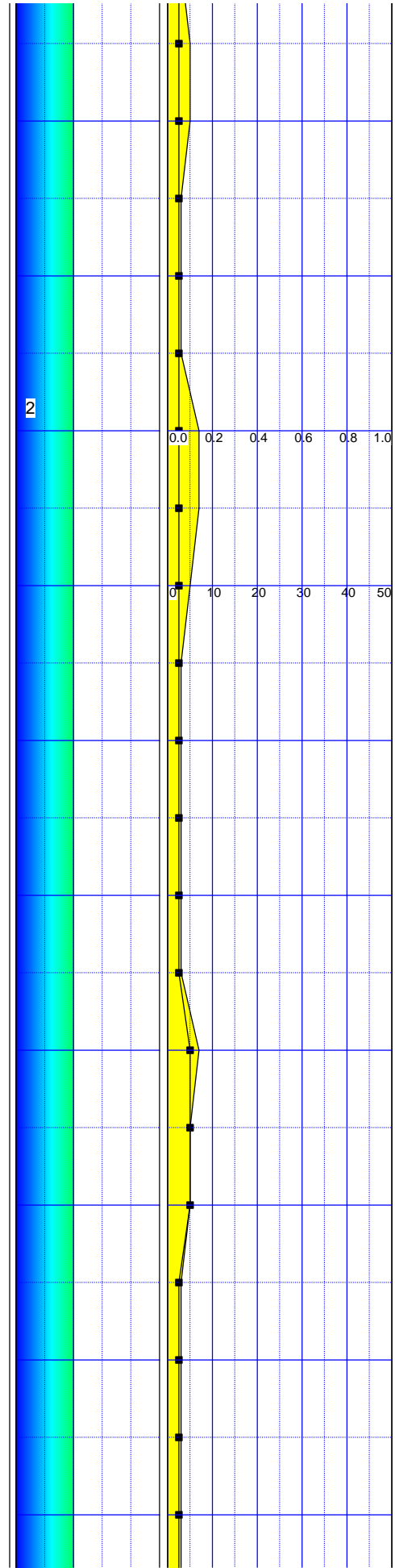
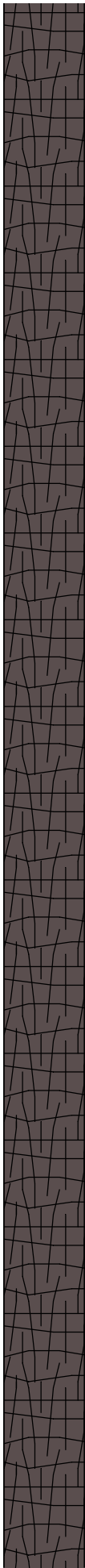
BASALT:
 COLOR: Medium gray N4
 TEXTURE: Aphanitic, diktytaxitic, equigranular, vesicular basalt. Vesicles decrease in frequency from 407.4 feet to 417.5 feet and increase from 471.6 feet to 473.5 feet. Spatter is found near the top of the interval. Vesicle zones and autoliths found throughout the interval.
 COMPOSITION: 55% medium gray ground mass containing submillimeter, subhedral to euhedral, white plagioclase microlites; 20% submillimeter, subhedral to euhedral, white plagioclase phenocrysts; 15% submillimeter, subhedral, green olivine phenocrysts; 10% submillimeter, anhedral to subhedral, black pyroxene phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Yellowish gray 5 Y 7/2 calcareous clay on fractured surfaces and in vesicles

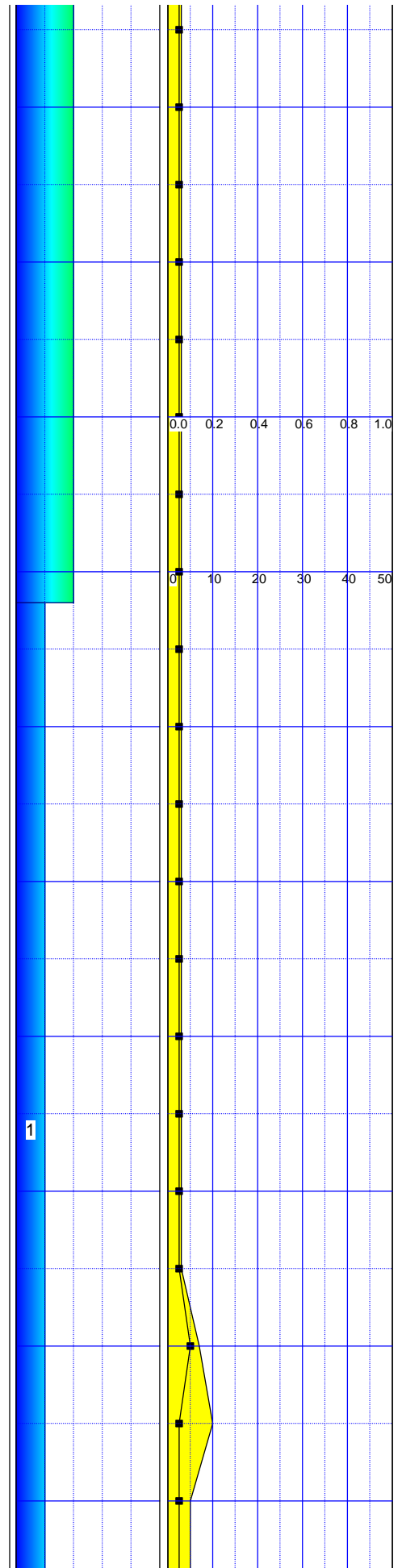
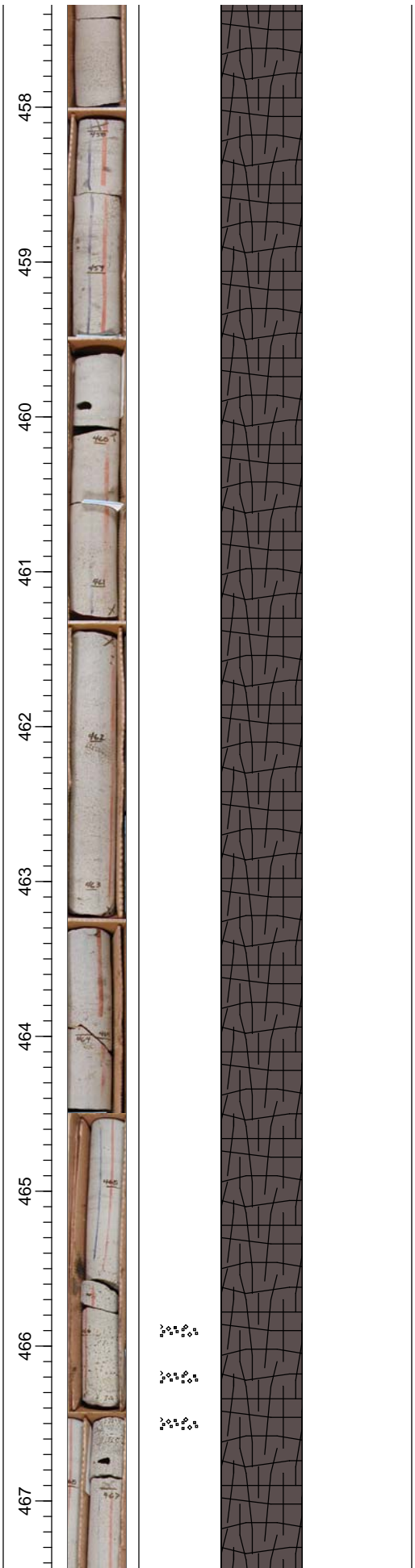


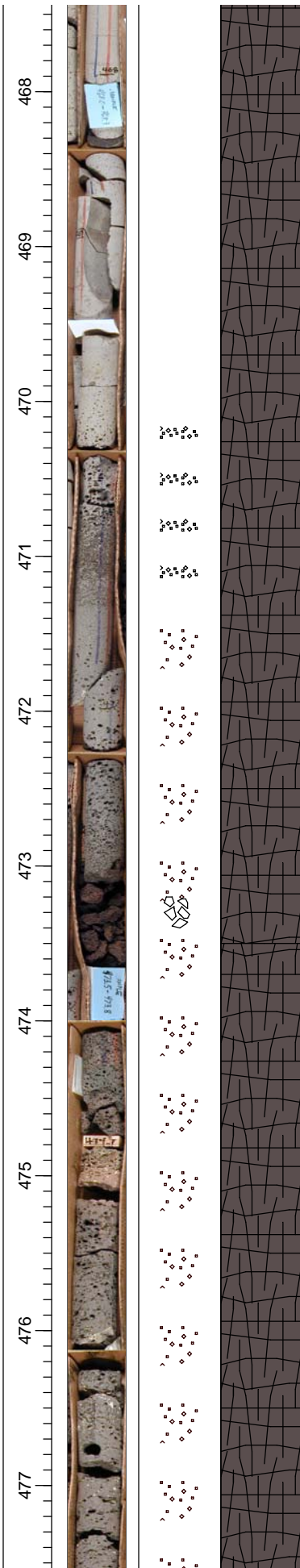




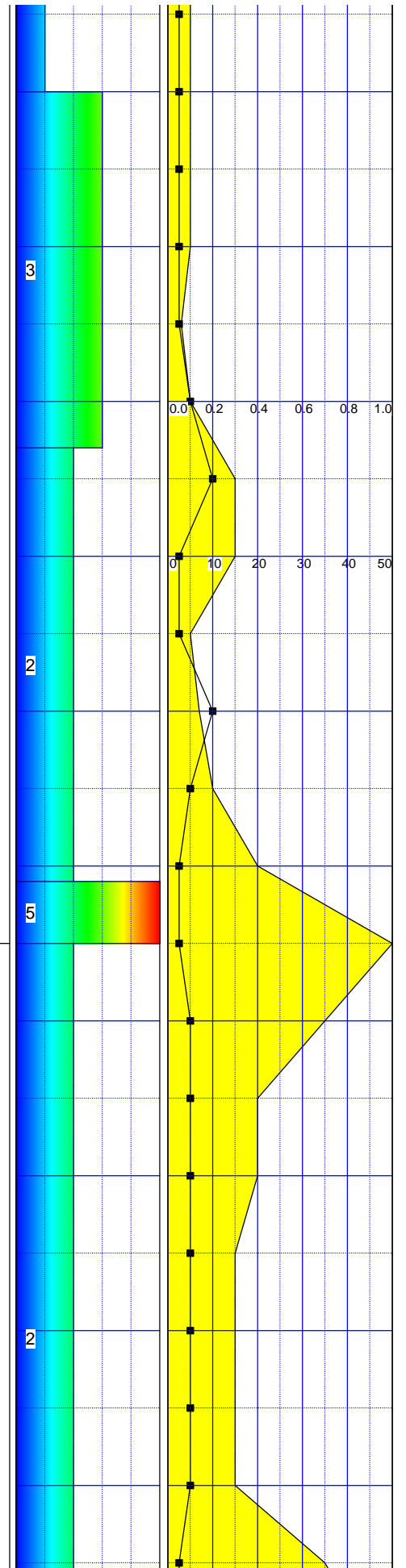


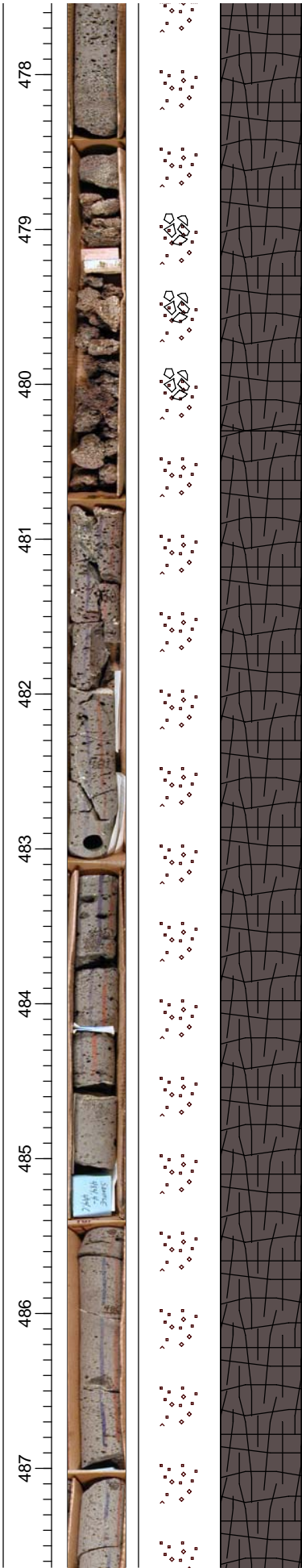




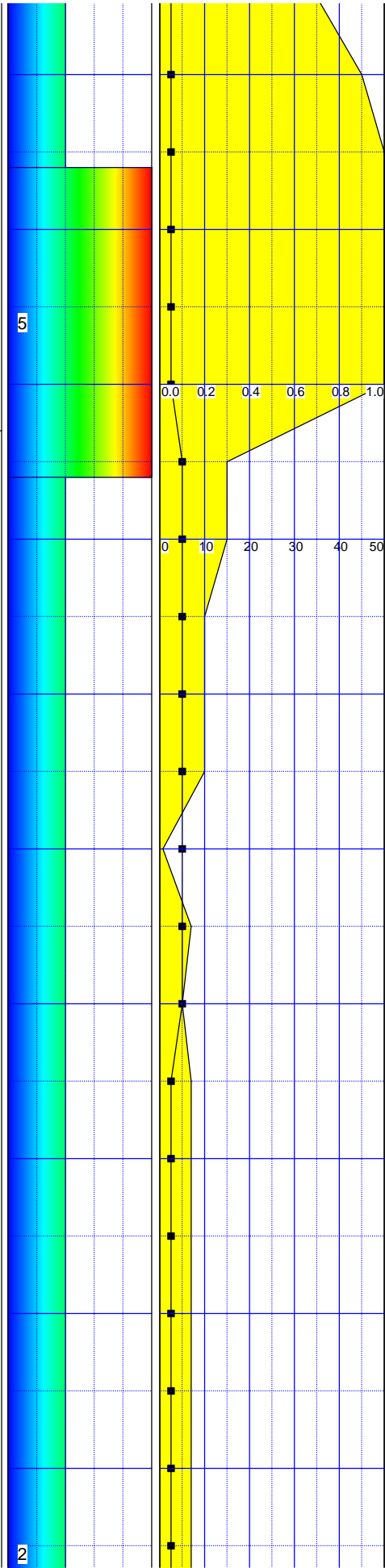


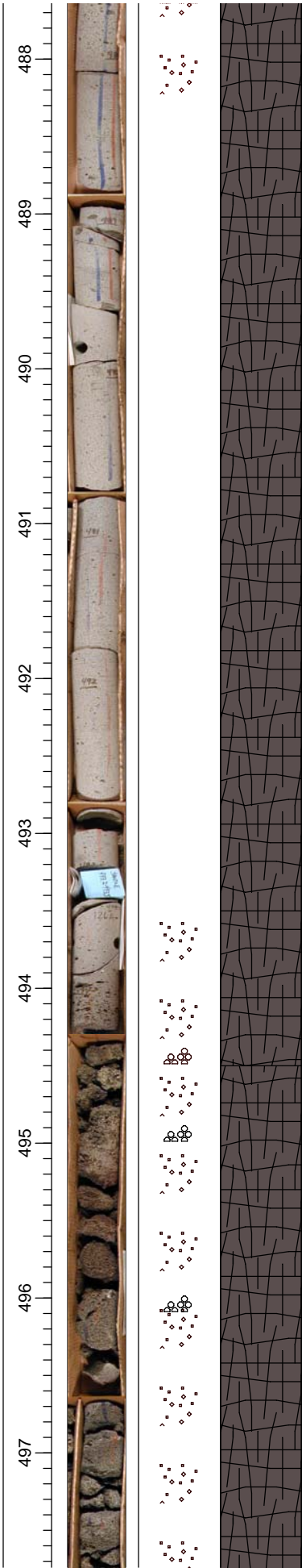
BASALT:
 COLOR: Medium gray N4
 TEXTURE: Aphanitic, diktytaxitic, equigranular, vesicular basalt. Scoriaceous basalt found at the base of the interval.
 COMPOSITION: 70% medium gray ground mass; 15% submillimeter, anhedral to euhedral, white, plagioclase laths; 10% submillimeter, subhedral, red olivine phenocrysts; 5% submillimeter, anhedral to subhedral, green olivine phenocrysts.
 MAGNETIC
 XENOLITHS: None noted
 ALTERATION: Olivine is moderately altered to iddingsite.



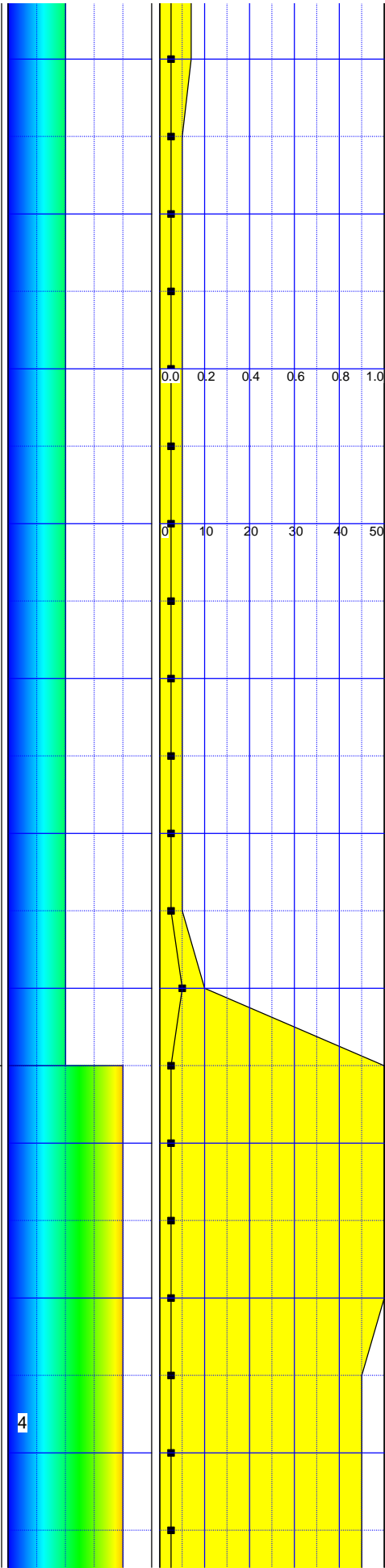


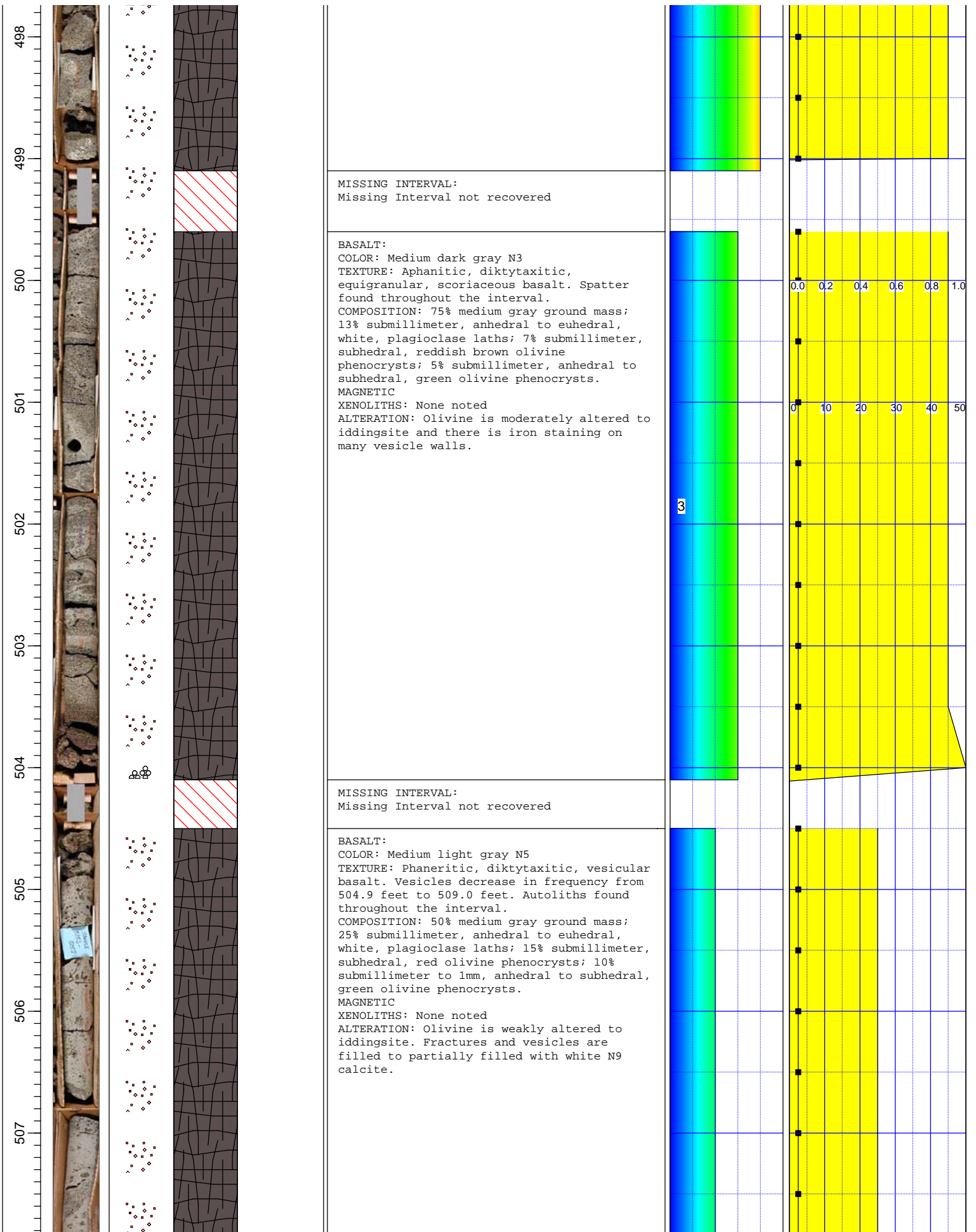
BASALT:
COLOR: Medium gray N4
TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 480.3 feet to 488.0 feet and increase from 493.7 feet to 494.5 feet. Spatter found at the base of the interval.
COMPOSITION: 40% medium gray ground mass; 25% submillimeter, anhedral to euhedral, white, plagioclase laths; 20% submillimeter, subhedral, red olivine phenocrysts; 15% submillimeter to 1mm, anhedral to subhedral, green olivine phenocrysts.
MAGNETIC
XENOLITHS: None noted
ALTERATION: Olivine is weakly altered to iddingsite.

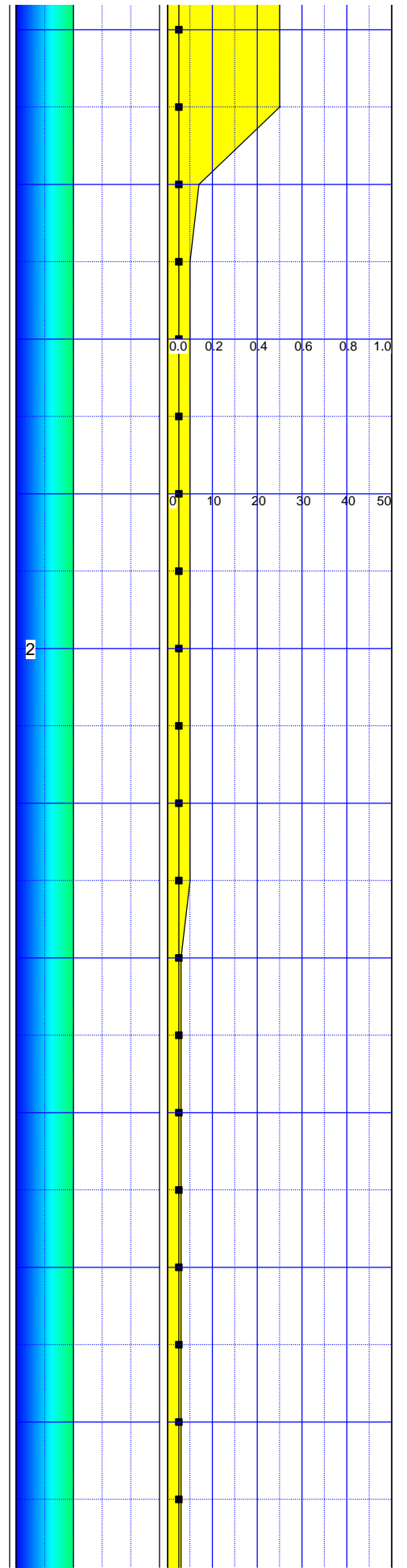
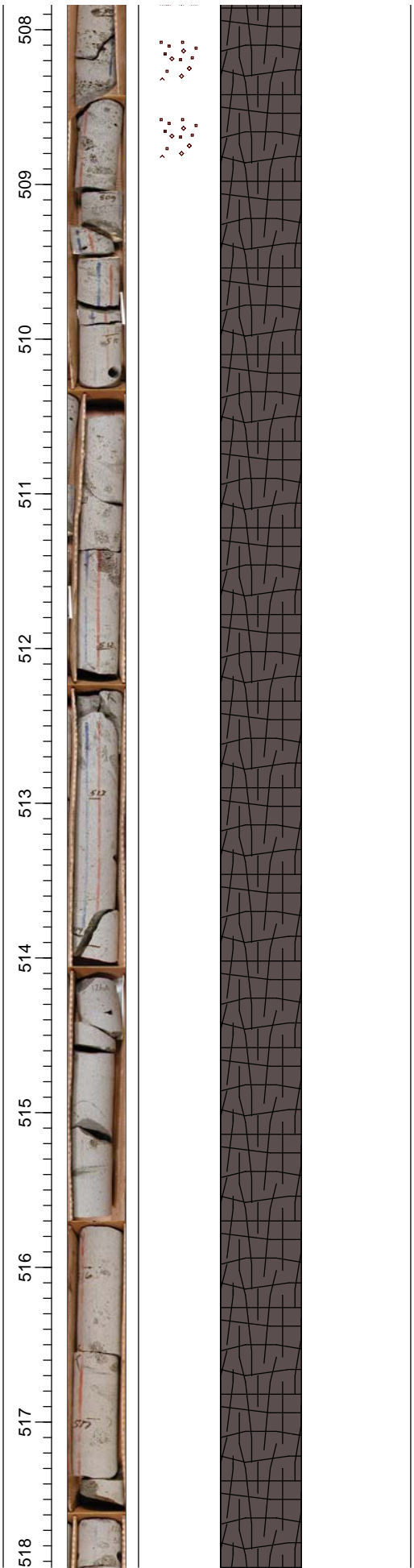


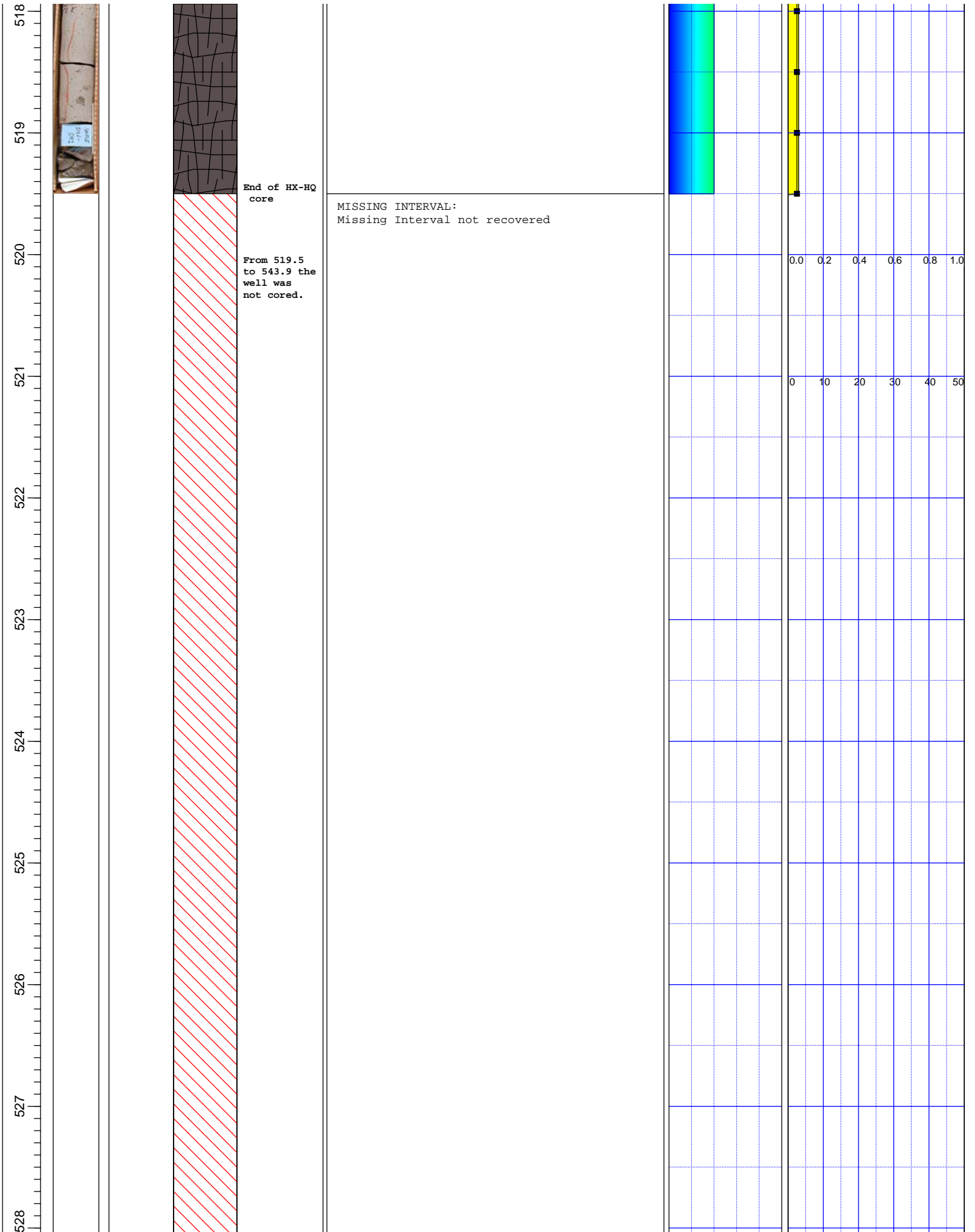


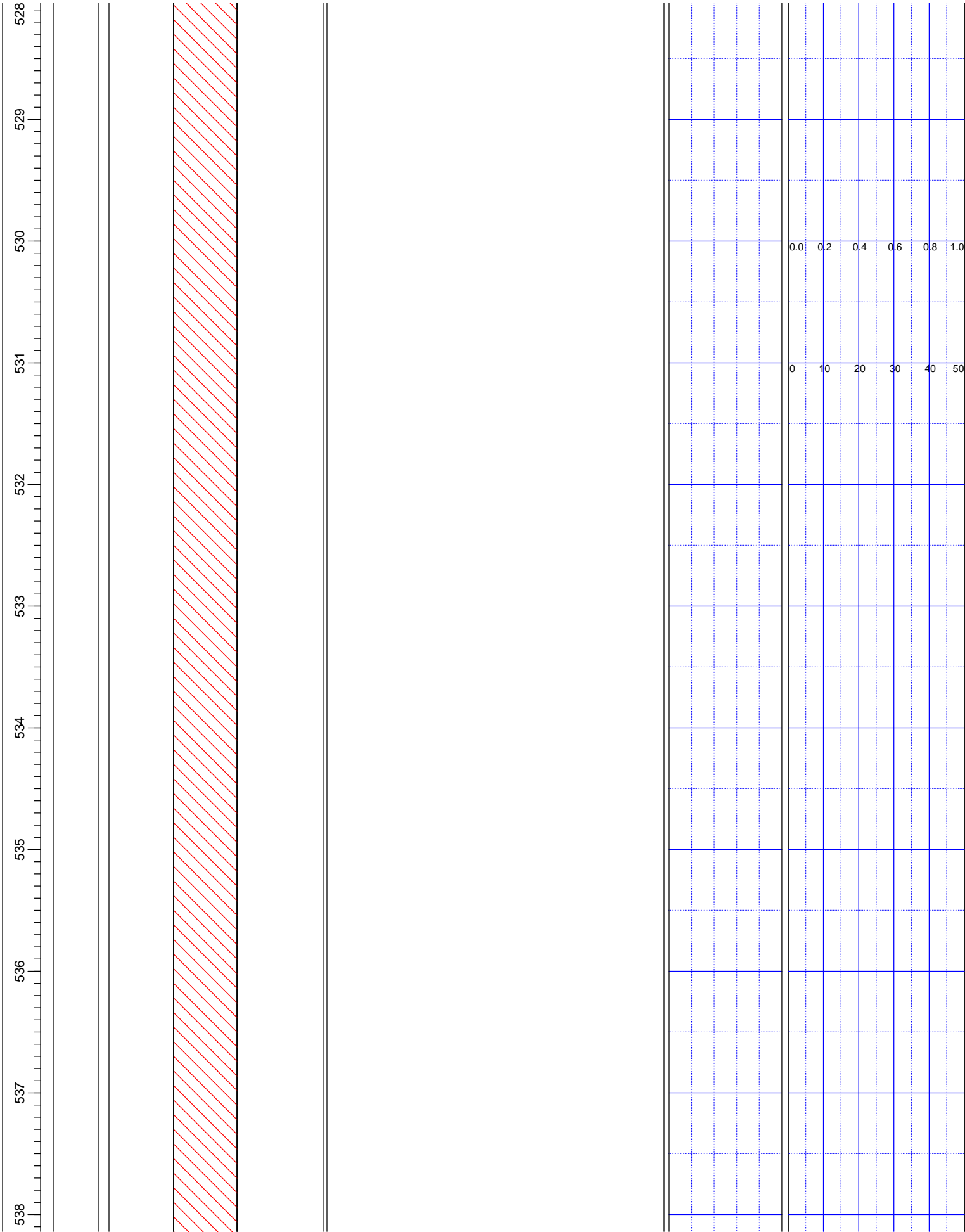
BASALT:
COLOR: Medium dark gray N3
TEXTURE: Aphanitic, diktytaxitic, equigranular, scoriaceous basalt. Spatter found throughout the interval.
COMPOSITION: 75% medium gray ground mass; 13% submillimeter, anhedral to euhedral, white, plagioclase laths; 7% submillimeter, subhedral, reddish brown olivine phenocrysts; 5% submillimeter, anhedral to subhedral, green olivine phenocrysts.
MAGNETIC
XENOLITHS: None noted
ALTERATION: Olivine is moderately altered to iddingsite and there is iron staining on many vesicle walls.

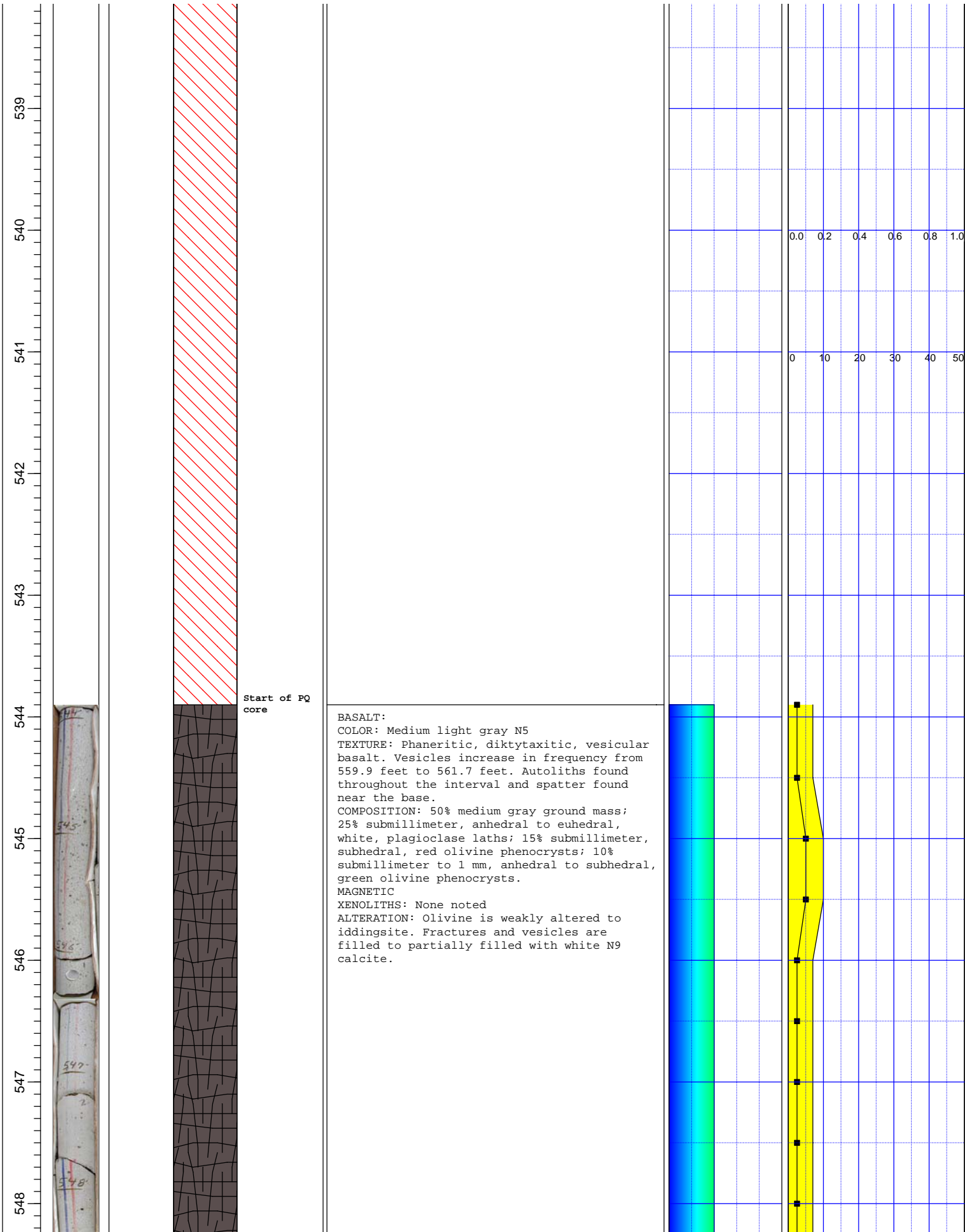


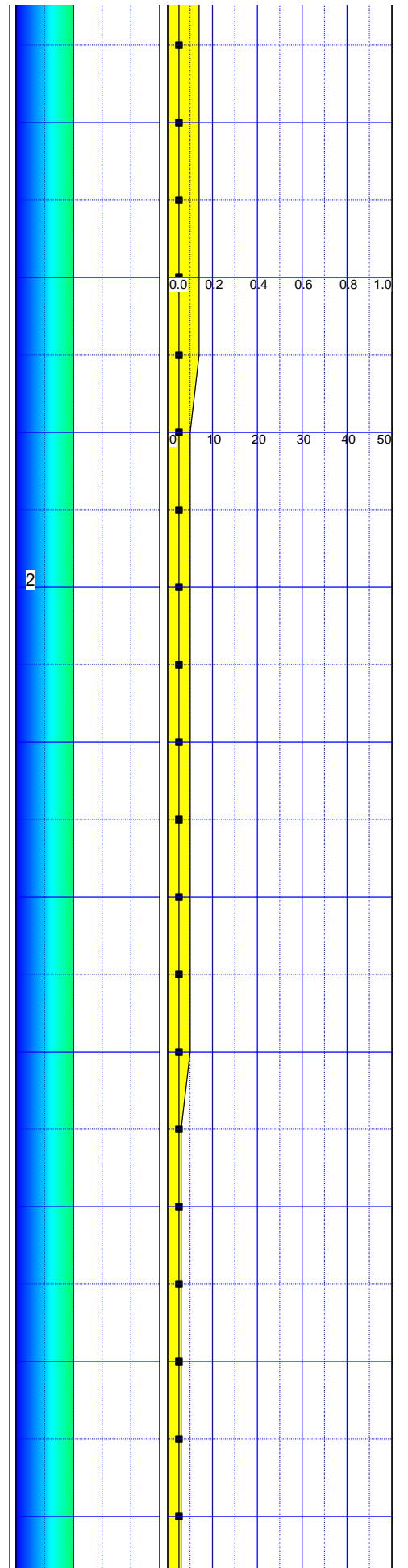


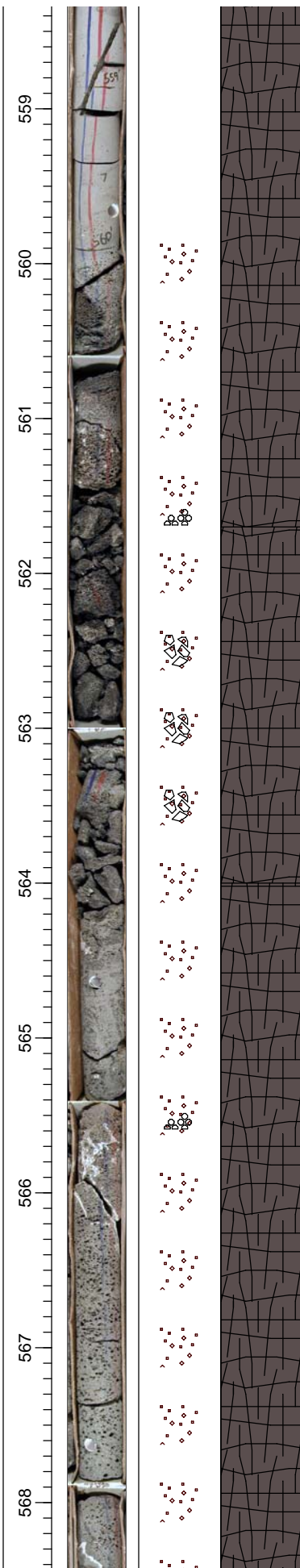












BASALT:
COLOR: Medium light gray N5
TEXTURE: Aphanitic, diktytaxitic, equigranular, subophitic, vesicular basalt. Interval is mostly rubble.
COMPOSITION: 35% medium gray ground mass; 25% submillimeter, anhedral to euhedral, white, plagioclase laths; 20% submillimeter, anhedral to subhedral, green olivine phenocrysts; 20% submillimeter, anhedral to subhedral, black pyroxene phenocrysts.
MAGNETIC
XENOLITHS: None noted
ALTERATION: White N9 calcite fills vesicles near the base of the interval and there is some iron staining on the fractured surfaces.

BASALT:
COLOR: Medium gray N4
TEXTURE: Massive, phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 564.0 feet to 569.0 feet. Pipe vesicles found at 591.3 feet and 629.8 feet. Vesicle zones and vesicle planes are found throughout the interval. Spatter found at the top of the interval.
COMPOSITION: 30% medium gray ground mass; 30% submillimeter to 1mm, subhedral to euhedral, white, plagioclase phenocrysts; 25% submillimeter to 1mm, anhedral to subhedral, black, pyroxene phenocrysts; 15% submillimeter to 2 mm, subhedral, green olivine phenocrysts.
MAGNETIC
XENOLITHS: None noted
ALTERATION: Fractures and vesicles are filled to partially filled with white N9 sparry calcite. Fractures and vesicles near the base of the interval are also filled with grayish orange 10 YR 7/4 calcareous clay.

