



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 103

Logged By: Stephanie M. Orr

Selected Aliases: none

USGS Site ID: 43274112560701

Contractor Well ID: NA

Drilling Agency: USGS

Year Drilled: 1980, 2006

Names of Drillers: Denning, M. Gilbert and M. Vance

Well Status: Complete

Total Depth of Hole (ft): 1,307.2

Total Core Recovered (ft): 548

Beginning Depth (ft): 759.2

Ending Depth (ft): 1,307.2

Continuous Recovery

Selected Intervals Recovered

Notes:

County & State: Butte Co. ID

Quadrangle Name: Scoville

Lat / Lng: N432713.57, W1125606.63 NAD 27

Tns/ Rng / Sec: T02N R30E S31

UTM Coordinates: 343426.641 4812810.490

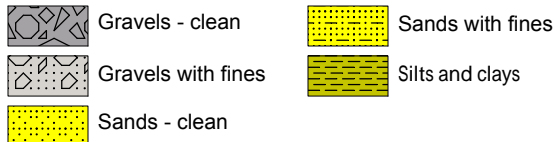
Surface Elevation (ft): 5,007.42

Core Geological Profile

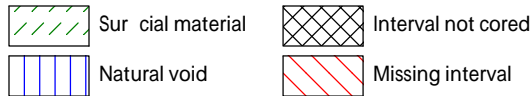
Lithologic Patterns



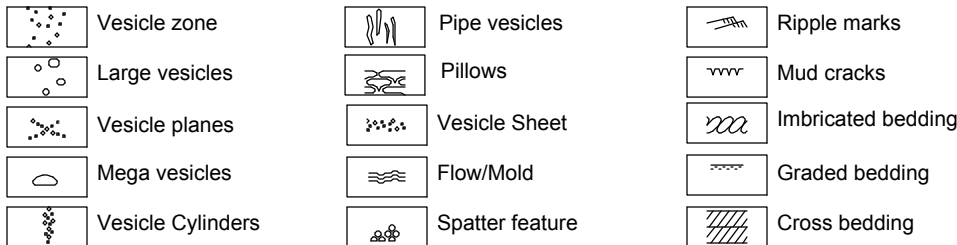
Soil Patterns (See Unified Soil Classification System.)



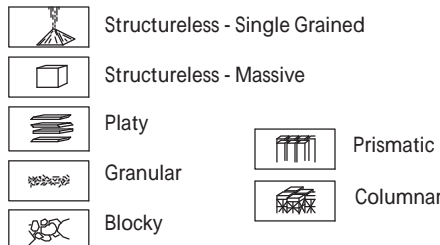
Intervals in Absentia



Igneous and Sedimentary Structure Symbols

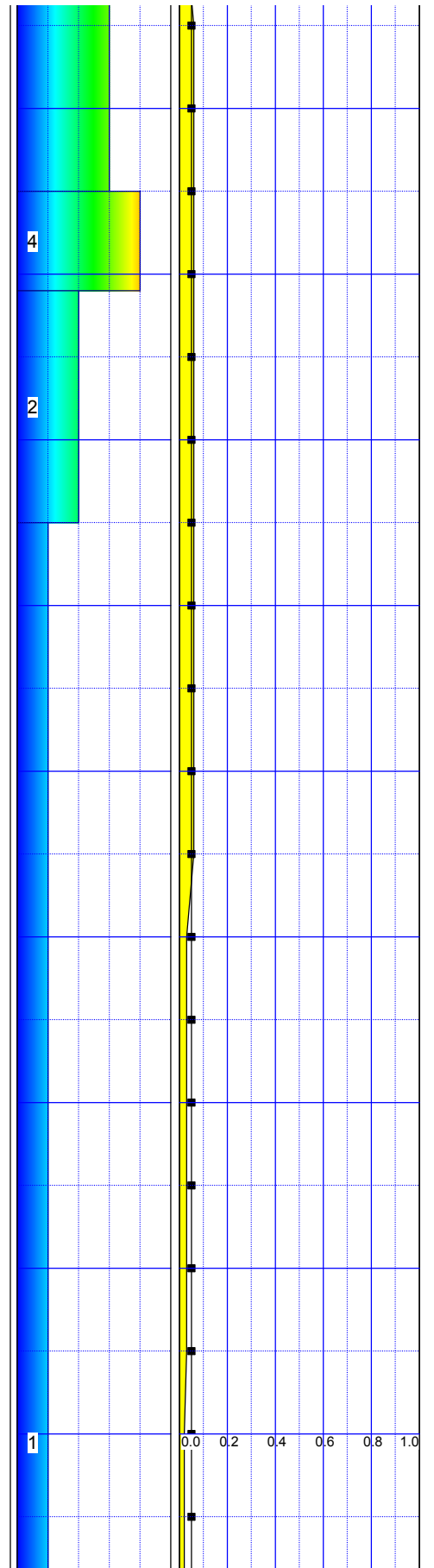
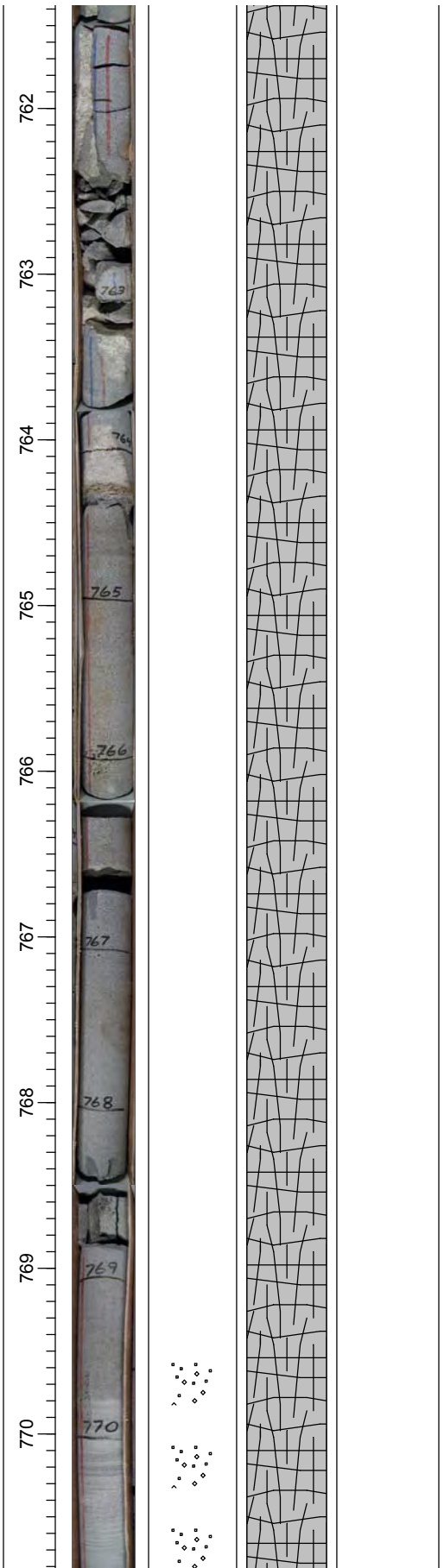


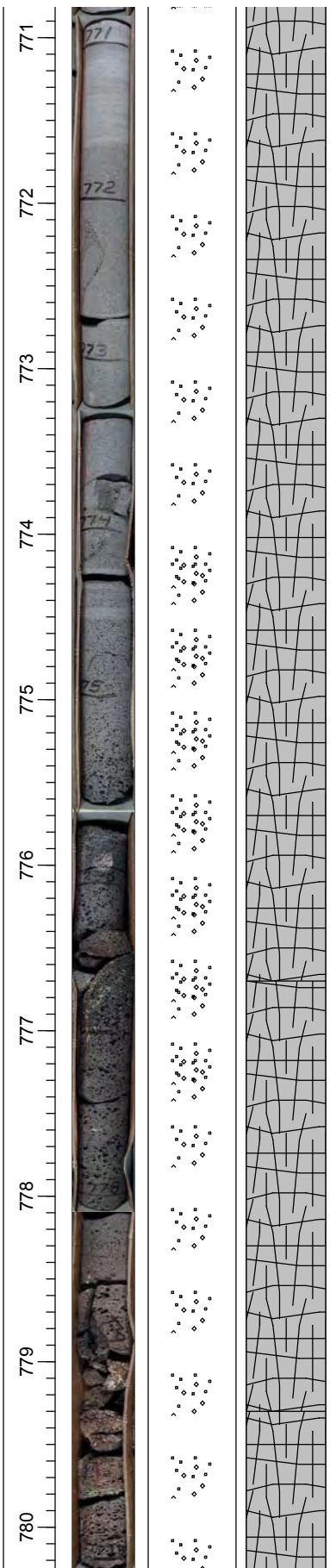
Soil Structure Symbols



Depth (feet & tenths)	Core Photo	Igneous, Soil and Sed Structures	Lithology	Description	Fracture Frequency (See fracture classification on website.)	Vesicle Characteristics —■— Mean Size (in) 0 0.2 0.4 0.6 0.8 1.0 Volume Percentage 0 10 20 30 40 50
				Miscellaneous Text Lithologic Description	0 1 2 3 4 5	0 10 20 30 40 50

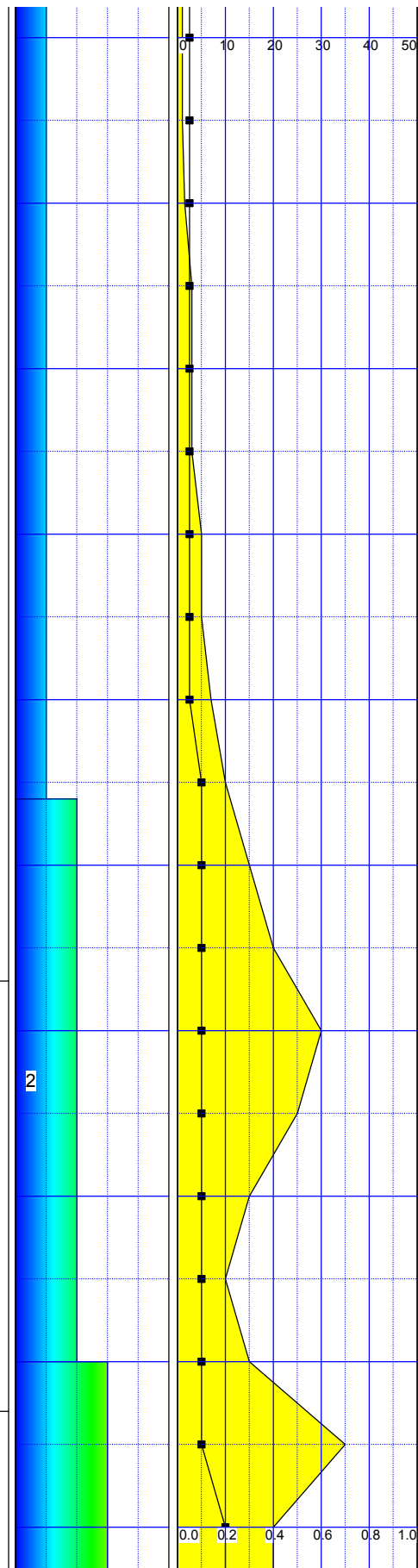
760	761	760	761	<p>COLOR: Medium light gray N5 TEXTURE: Aphanitic, diktytaxitic, equigranular, vesicular basalt. Vesicles increase from 774.3 feet to 776.7 feet. Scoriaceous at the top and base of the interval. Vesicle columns found at 769.7 feet and 772.2 feet. COMPOSITION: 20% medium gray ground mass; 45% submillimeter, anhedral to euhedral, white, plagioclase laths; 20% submillimeter, anhedral to subhedral, reddish brown olivine phenocrysts; 10% submillimeter, anhedral, green olivine phenocrysts; 5% submillimeter, anhedral to subhedral, black pyroxene phenocrysts. XENOLITHS: None noted ALTERATION: Fractures are filled with yellowish gray 5 Y 7/2 clay.</p>	0.0 0.2 0.4 0.6 0.8 1.0	0 10 20 30 40 50
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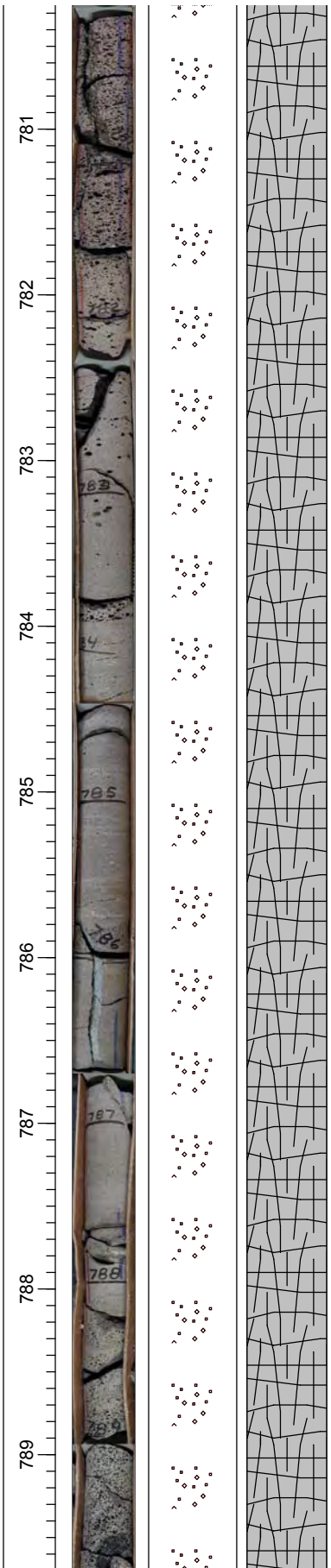




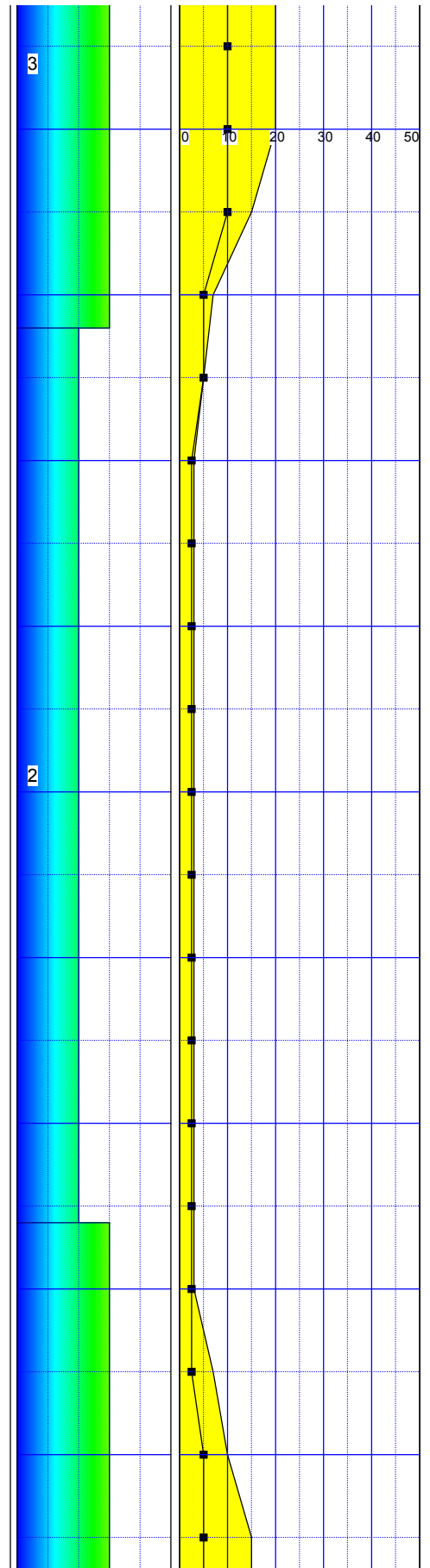
BASALT:
 COLOR: Blackish red 5 R 2/2
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Autoliths are found throughout the interval.
 COMPOSITION: 65% blackish red ground mass, 25% submillimeter to 2 mm, anhedral to subhedral, white, plagioclase phenocrysts; 10% submillimeter to 1 mm, subhedral, reddish brown olivine phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Yellowish gray 5 Y 7/2 clay found on fractured surfaces.

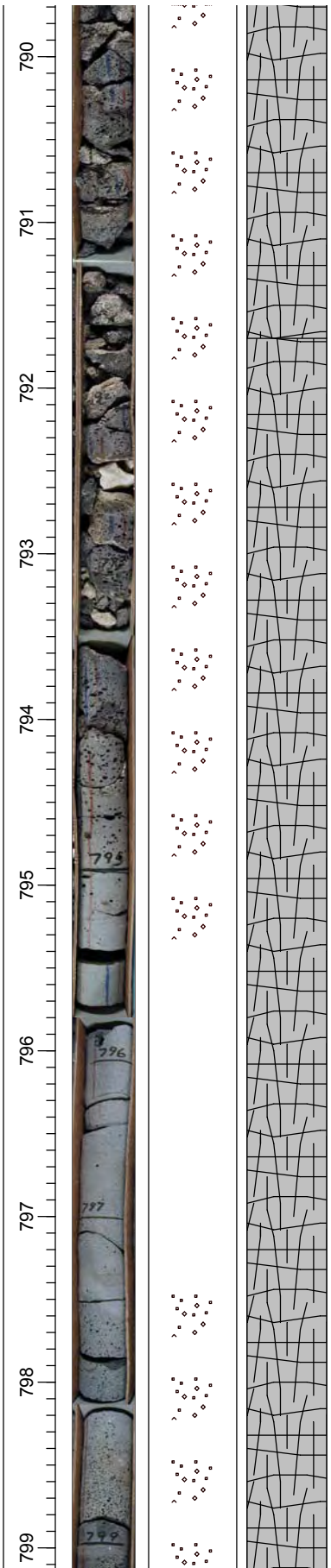
BASALT:
 COLOR: Grayish red 10 R 4/2
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt.
 COMPOSITION: 55% grayish red ground mass containing submillimeter, subhedral to euhedral, white plagioclase microlites; 25% submillimeter, anhedral to subhedral, reddish brown olivine phenocrysts: 10% 1 mm



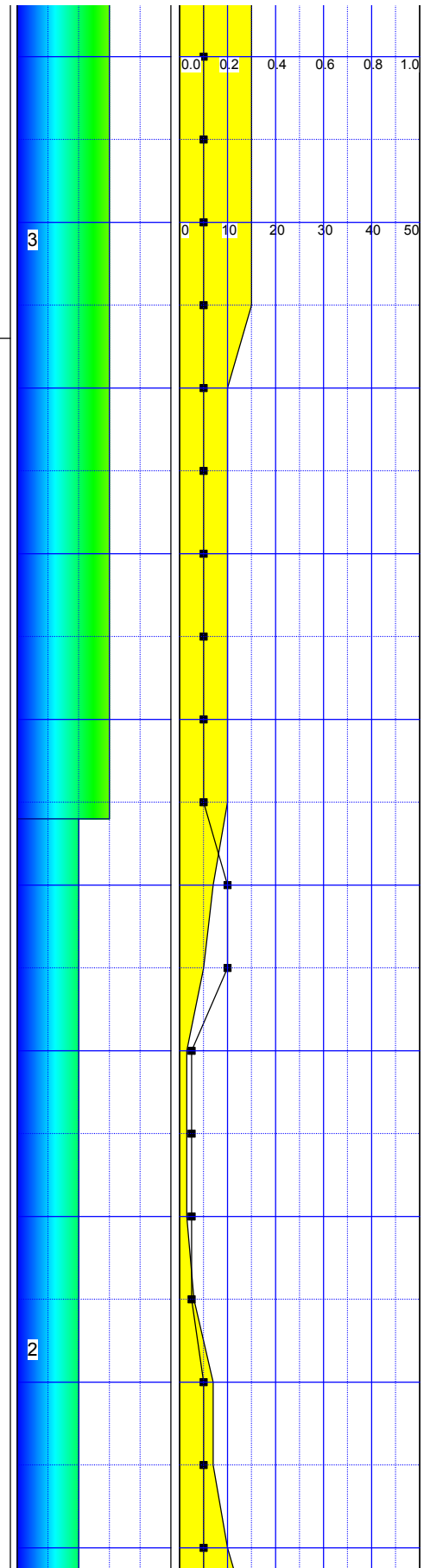


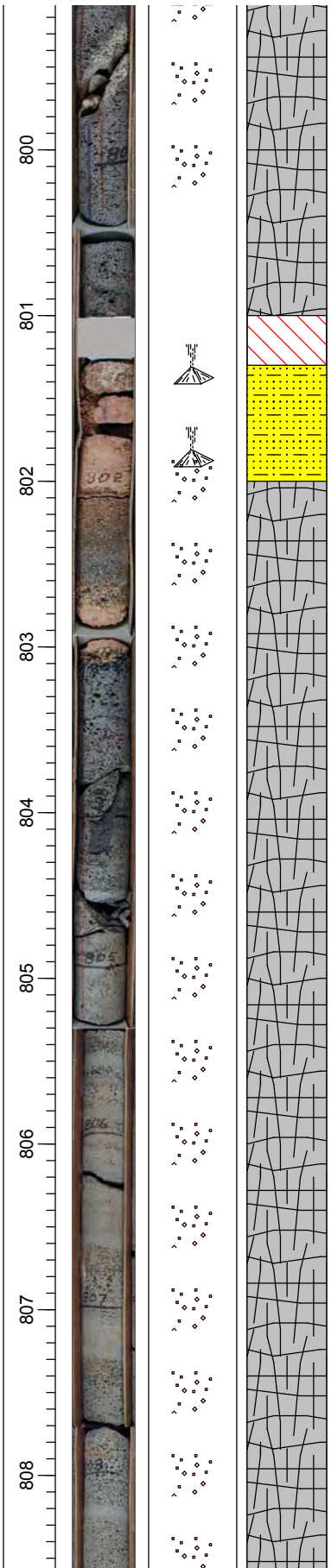
to 5 mm, subhedral to euhedral, white plagioclase phenocrysts; 10% submillimeter, subhedral, green olivine phenocrysts. XENOLITHS: None noted ALTERATION: Grayish yellow 5 Y 8/4 calcareous clay in vesicles throughout the interval.





BASALT:
 COLOR: Medium gray N4
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 791.7 feet to 795.3 feet and increase from 797.6 feet to 800.2 feet
 COMPOSITION: 55% medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites; 20% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts; 15% submillimeter to 1 mm, anhedral to subhedral, green olivine phenocrysts and 5 mm glomerocrysts; 10% 1 mm, subhedral to euhedral, white, plagioclase phenocrysts.
 XENOLITHS: None noted
 ALTERATION: None noted

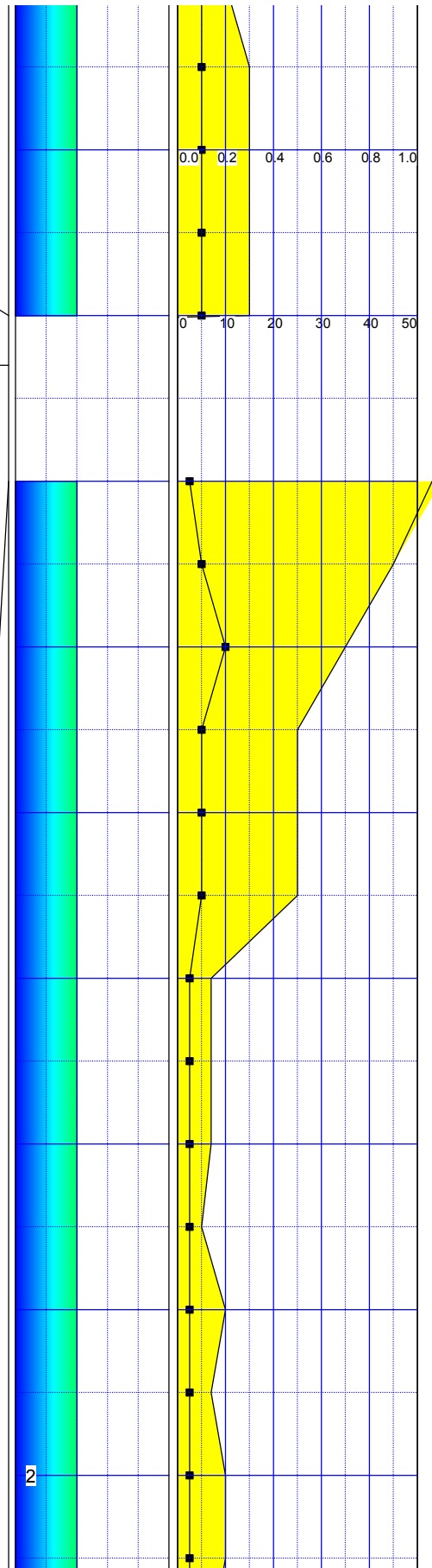


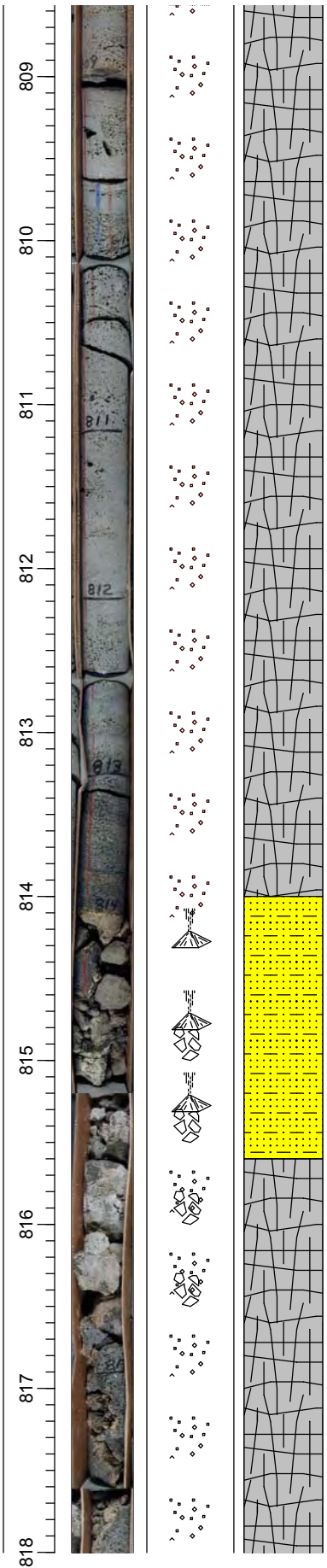


MISSING INTERVAL:
Missing Interval not recovered

SANDS WITH FINES:
TEXTURE: Sands with silt fines, USCS Classification SM. Sediment consists of fine grained sands with silt fines. Basalt fragments are found throughout the interval. The top of the interval has a baked contact with the overlying basalt
COLOR: Light brown 5 YR 6/8 to moderate yellowish brown 10 YR 5/4
CONSISTENCE: Friable
STRUCTURES: Structureless
FREE CARBONATES: No
ROCK: Basalt fragments that range in size from submillimeter to 7 mm.
ROOTS/FOSSILS: None noted

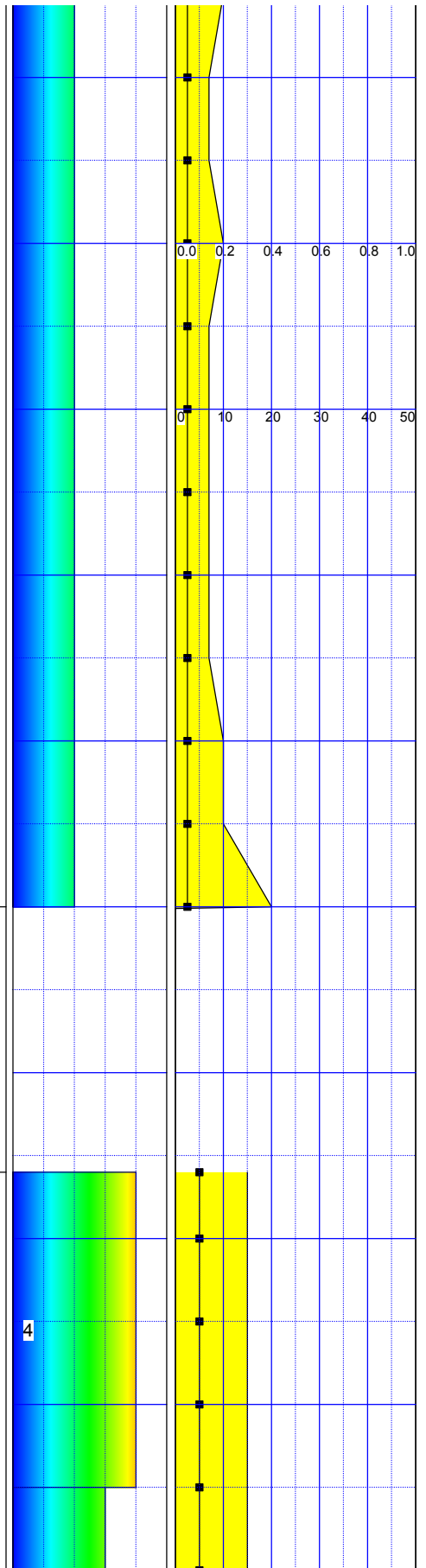
BASALT:
COLOR: Medium gray N4
TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Scoriaceous basalt is found at the top and base of the interval.
COMPOSITION: 55% medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites; 20% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts; 15% submillimeter to 1 mm, anhedral to subhedral, green olivine phenocrysts and 5 mm glomerocrysts; 10% 1 mm to 7 mm, subhedral to euhedral, white, plagioclase phenocrysts.
XENOLITHS: None noted
ALTERATION: Olivine is slightly altered to iddingsite and some iron staining is in vesicle planes.



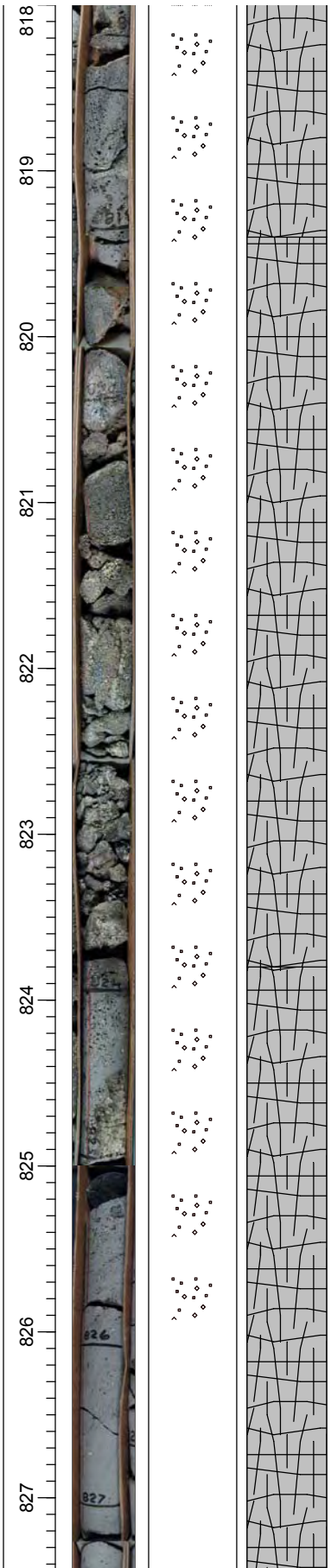


SANDS WITH FINES:
 TEXTURE: Sands with silt fines, USCS Classification SM. Sediment consists of rounded, moderately sorted, medium grained sands with silt fines.
 COLOR: Light olive gray 5 Y 6/1
 CONSISTENCE: Firm to friable
 STRUCTURES: Structureless
 FREE CARBONATES: No
 ROCK: None noted
 ROOTS/FOSSILS: None noted

BASALT:
 COLOR: Medium dark gray N3
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Interval is mostly rubble.
 COMPOSITION: 70% medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites; 15% submillimeter to 1 mm, anhedral to subhedral, reddish green olivine phenocrysts and 3 mm glomerocrysts; 10% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts; 5% 3 mm to 8 mm, subhedral to euhedral, white, plagioclase phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Very pale orange 10 YR 8/2 to grayish orange 10 YR 7/4 clay found on fractured surfaces and occasional iron staining in vesicle planes.

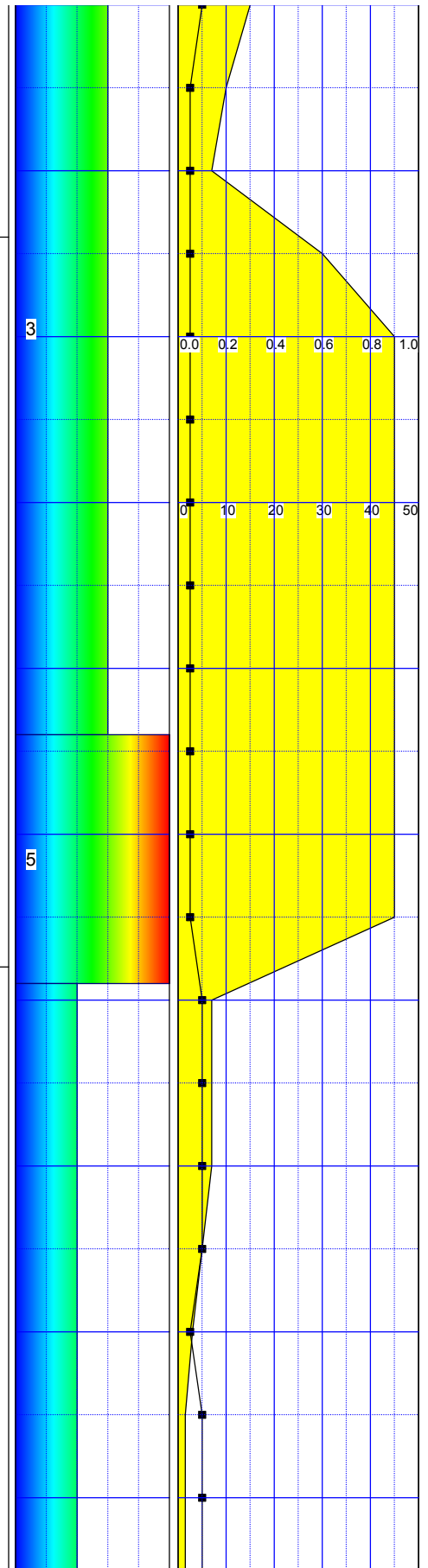


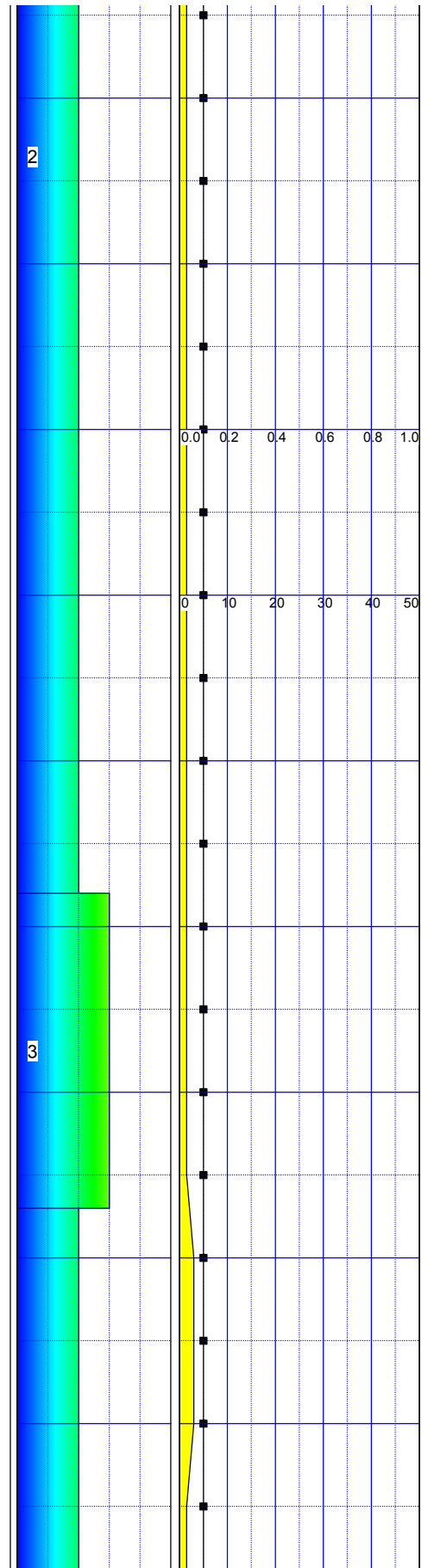
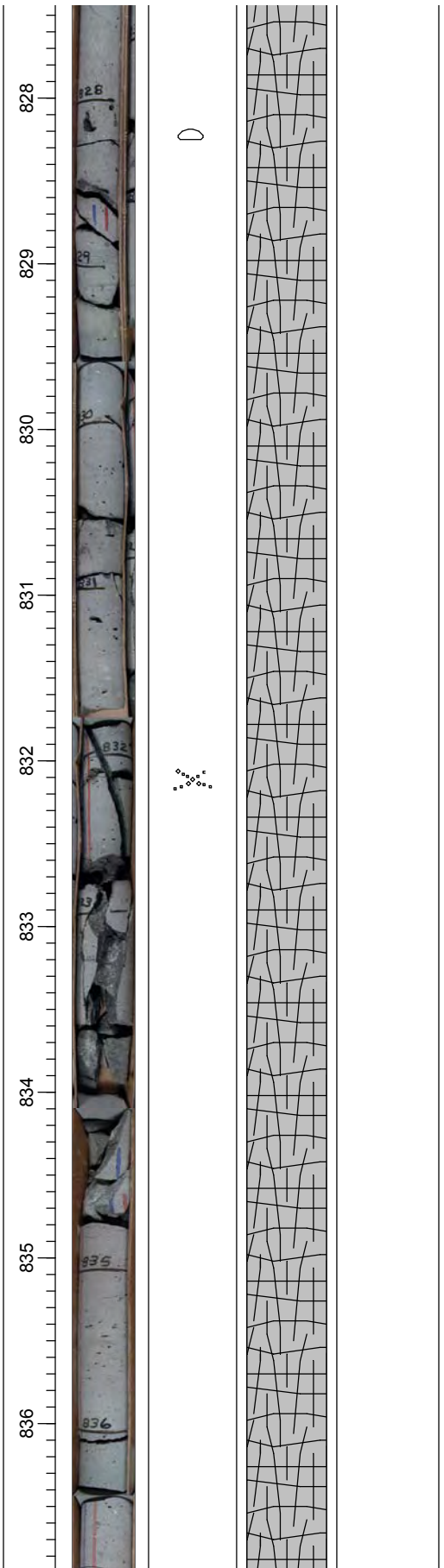
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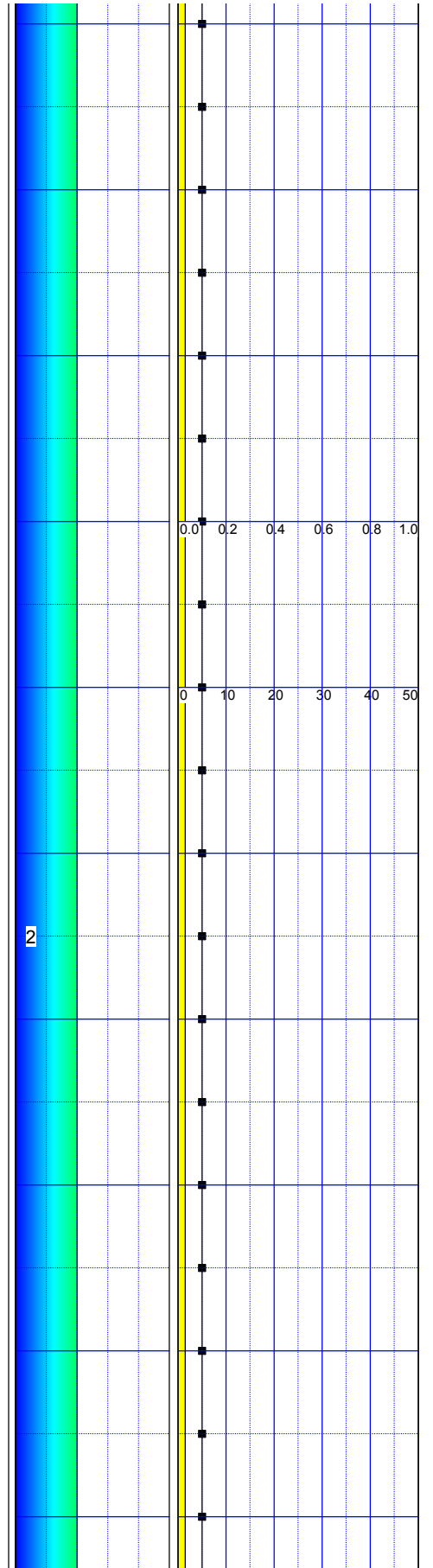
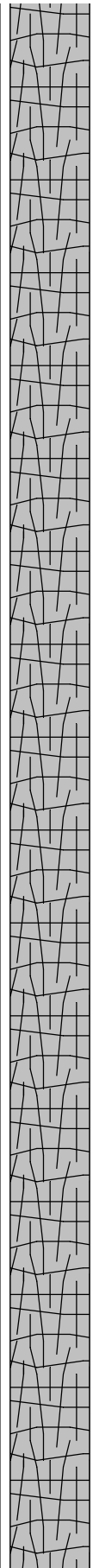
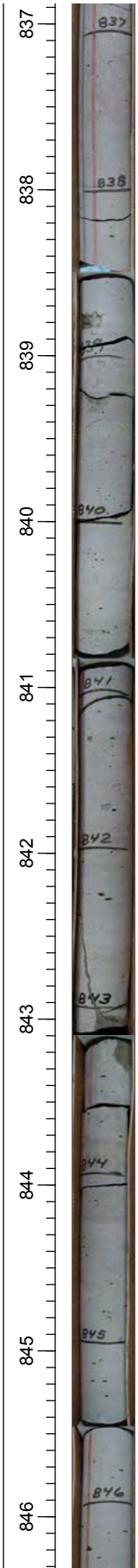


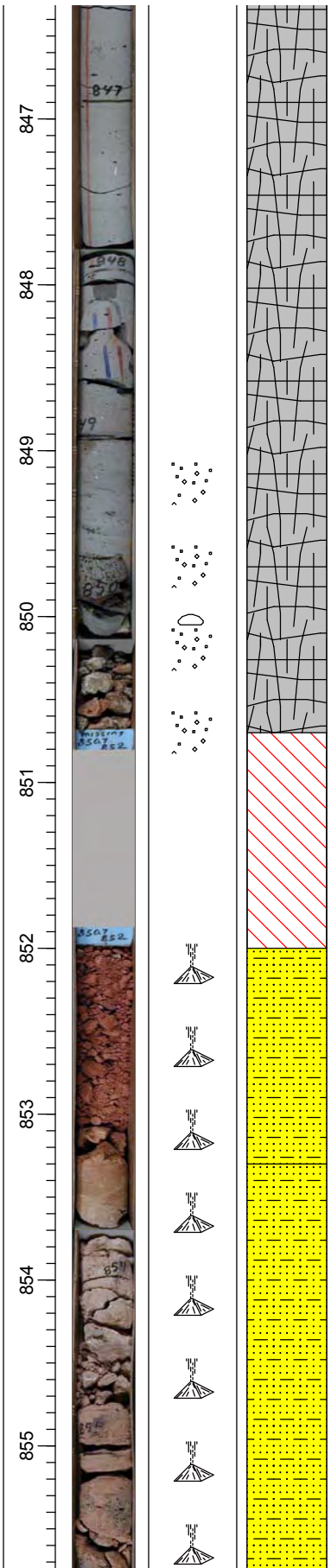
BASALT:
COLOR: Medium grey N4
TEXTURE: Aphanitic, diktytaxitic, scoriaceous basalt. Spatter found throughout the interval
COMPOSITION: Medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites.
XENOLITHS: None noted
ALTERATION: Grayish yellow 5 Y 8/4 calcareous clay in vesicles and on fractured surfaces.

BASALT:
COLOR: Medium light gray N5
TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 823.8 feet to 826.0 feet and increase from 849.7 feet to 850.7 feet. Megavesicle found at 828.2 feet.
COMPOSITION: 70% medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites; 15% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts; 10% submillimeter to 1 mm, anhedral to subhedral, reddish green olivine phenocrysts and glomerocrysts; 5% 3 mm to 8 mm, subhedral to euhedral, white, plagioclase phenocrysts.
XENOLITHS: None noted
ALTERATION: Olivine is weakly altered to iddingsite and occasional iron staining in vesicle planes.





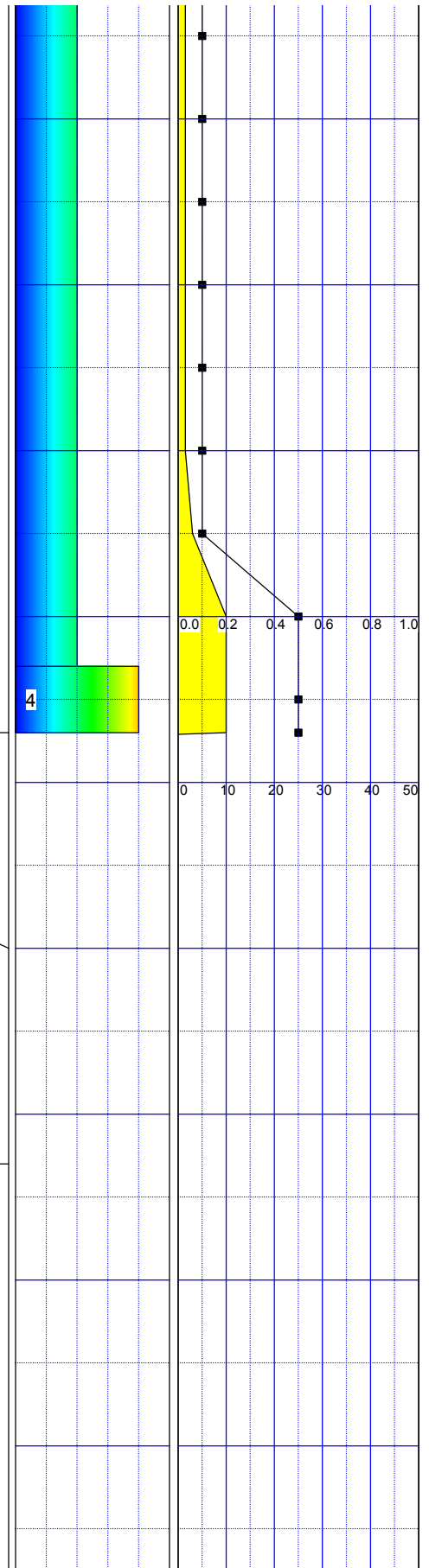


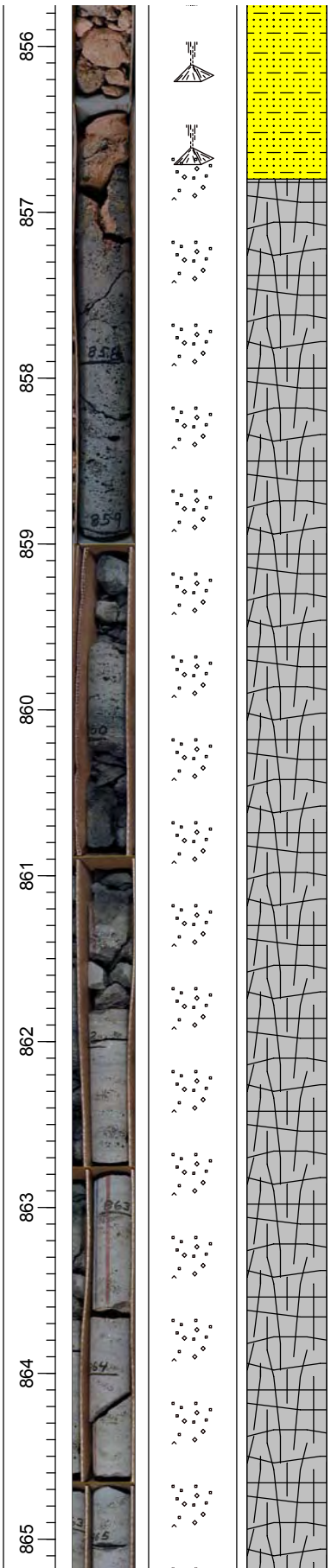


MISSING INTERVAL:
Interval not recovered

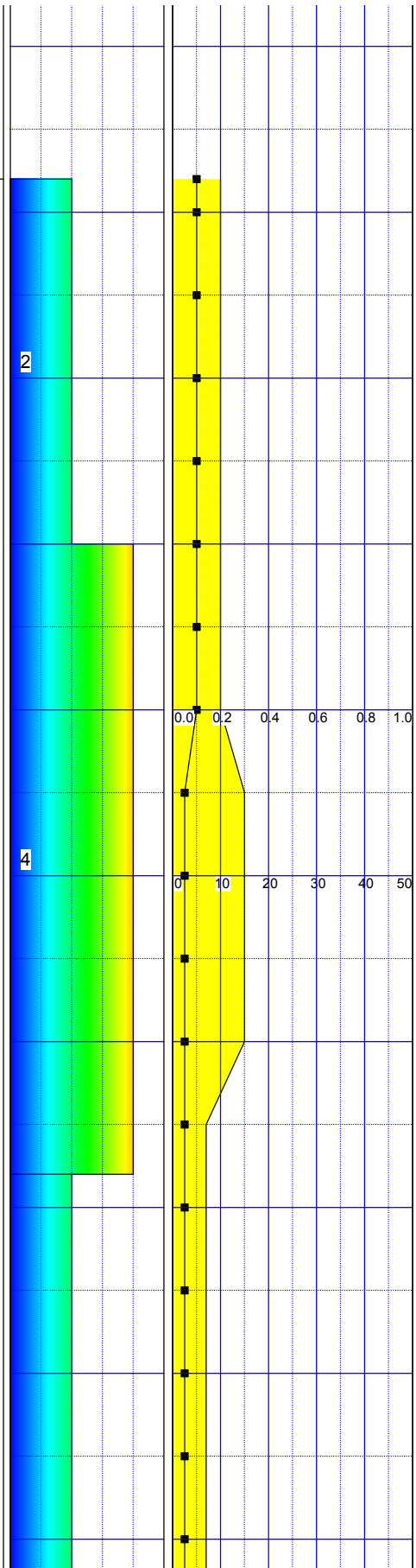
SANDS WITH FINES:
TEXTURE: Sands with silt fines, USCS Classification SM. Sediment consists of very fine grained sands with silt fines.
COLOR: Light brown 5 YR 6/8 to moderate reddish orange 10 R 6/6
CONSISTENCY: Friable to firm
STRUCTURES: Structureless
FREE CARBONATES: No
ROCK: Basalt fragments.
ROOTS/FOSSILS: None noted

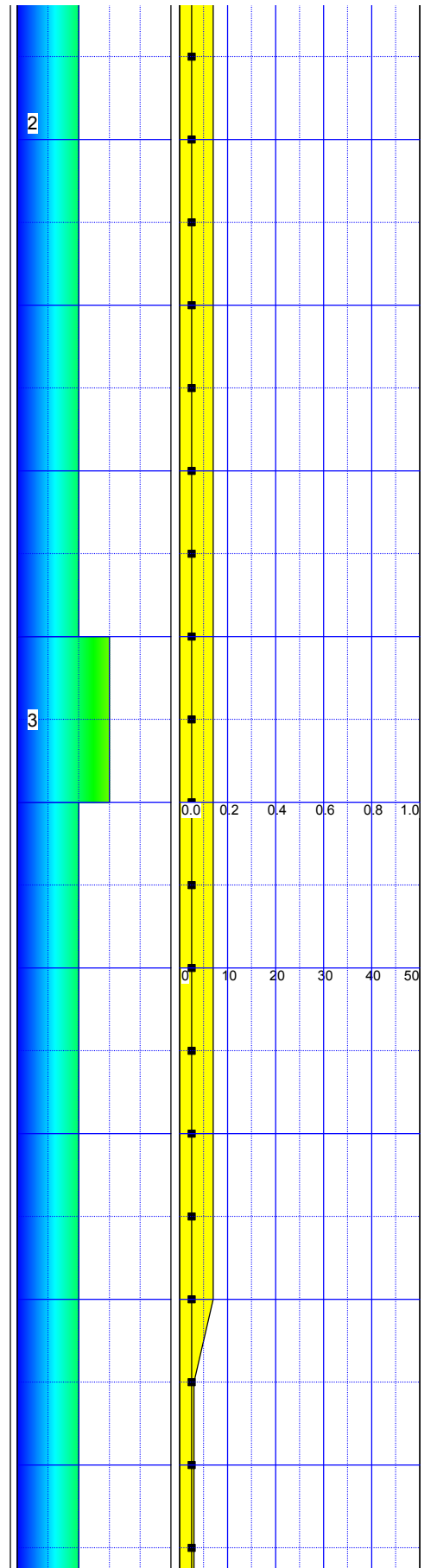
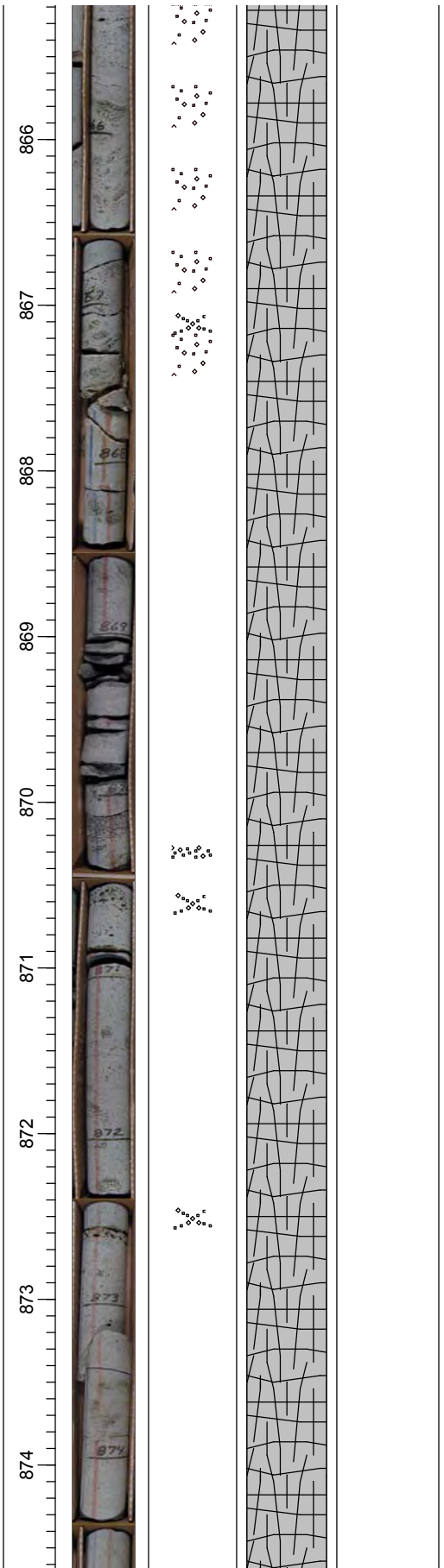
SANDS WITH FINES:
TEXTURE: Sands with silt fines, USCS Classification SM. Sediment consists of very fine grained sands with silt fines. Basalt fragments are found throughout the interval.
COLOR: Light brown 5 YR 6/8 to moderate yellowish brown 10 YR 5/4
CONSISTENCY: Friable
STRUCTURES: Structureless
FREE CARBONATES: White N9 calcite fills mud cracks and voids.
ROCK: Basalt fragments that range in size from submillimeter to 7 mm.
ROOTS/FOSSILS: Burrows and tubules are present.

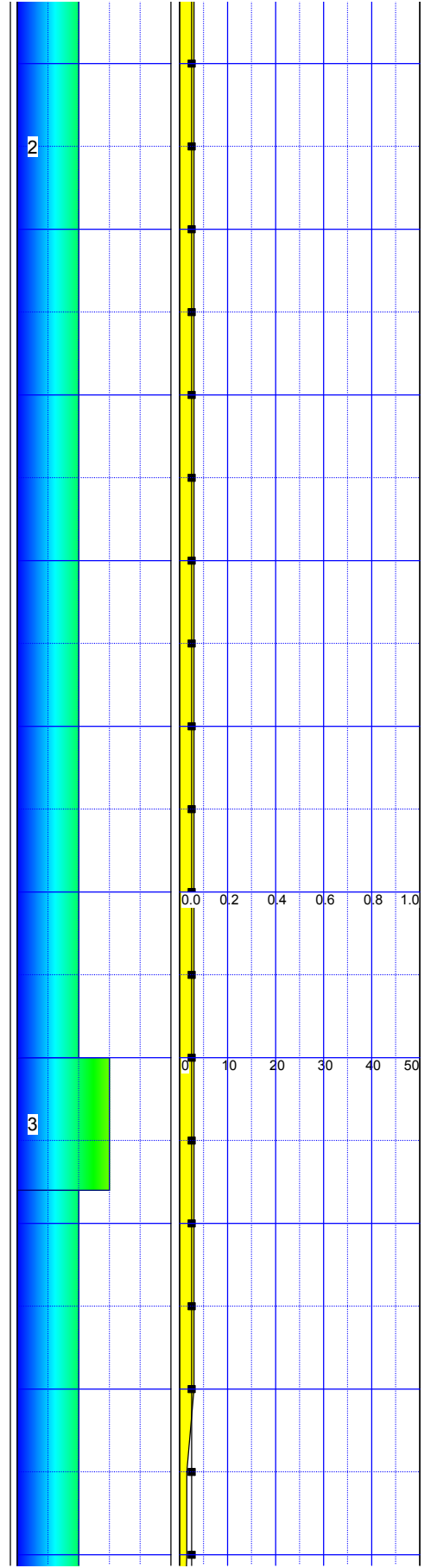
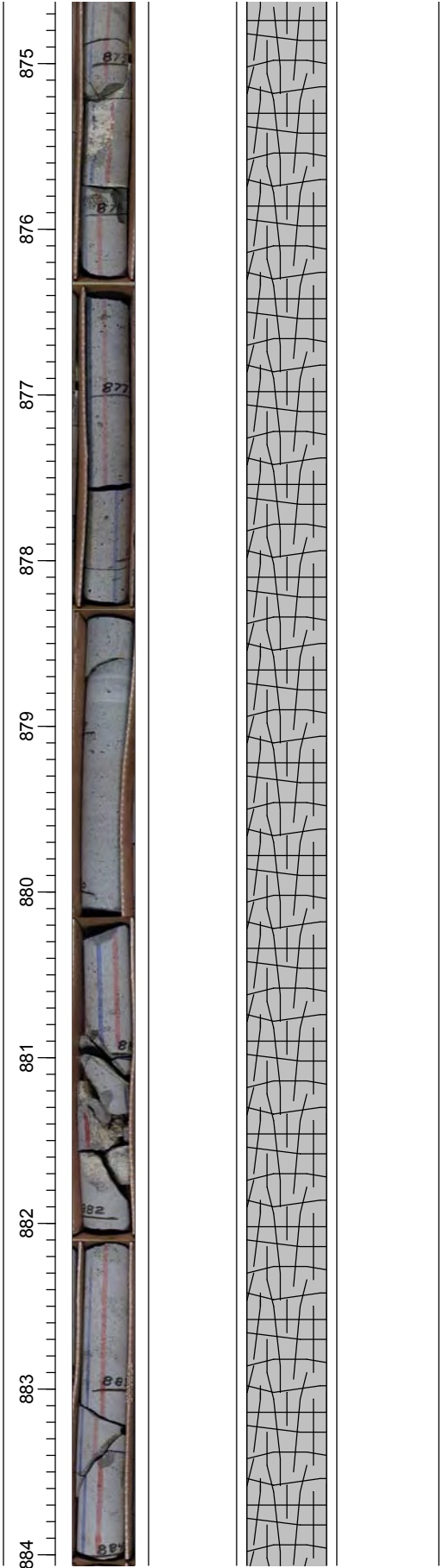


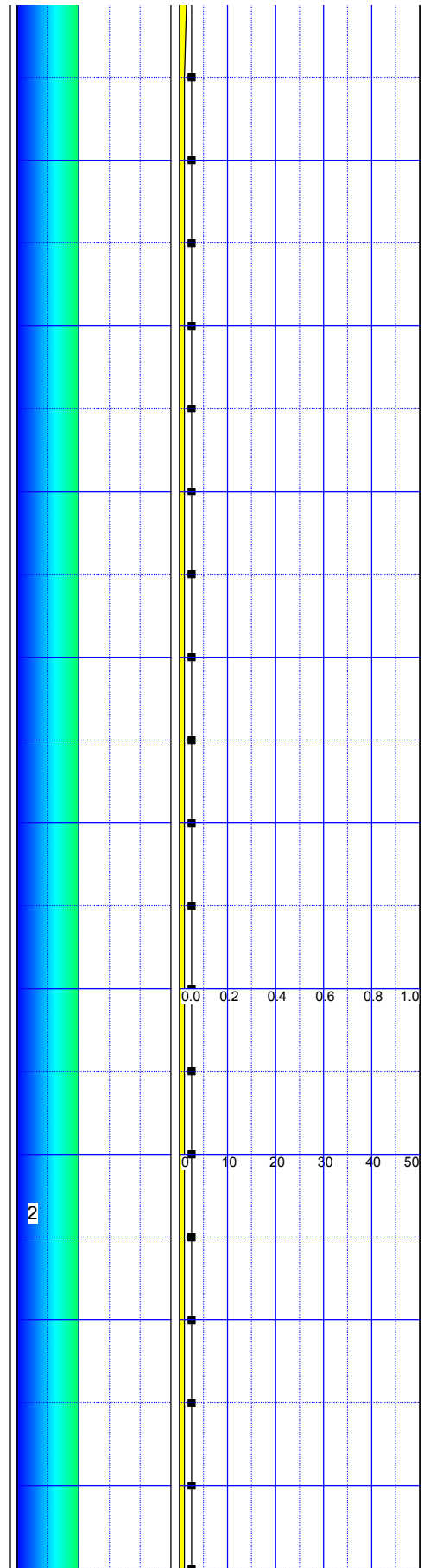
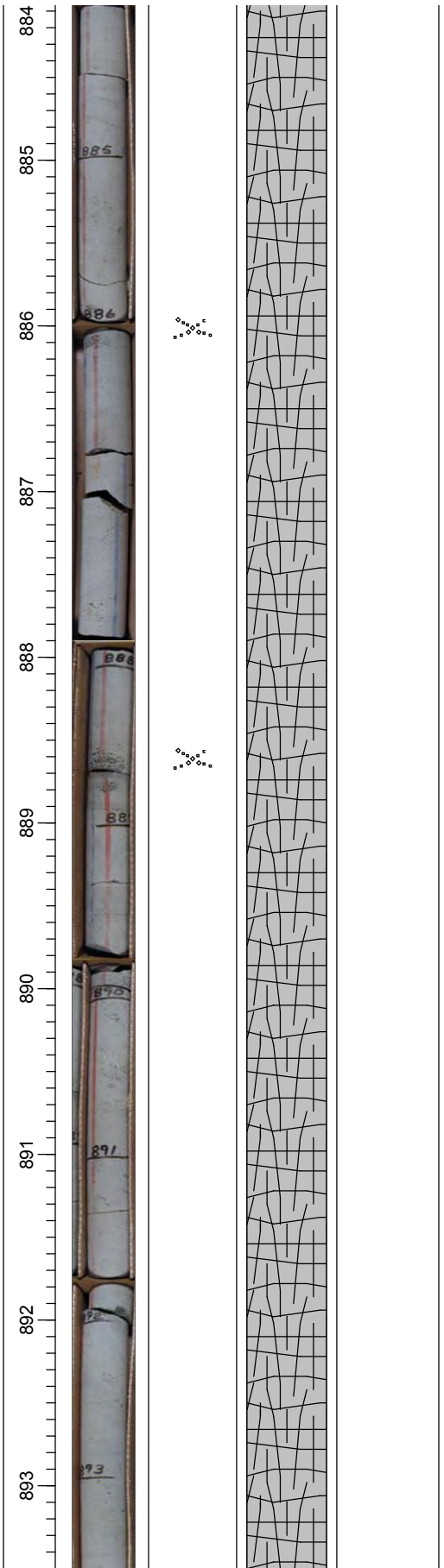


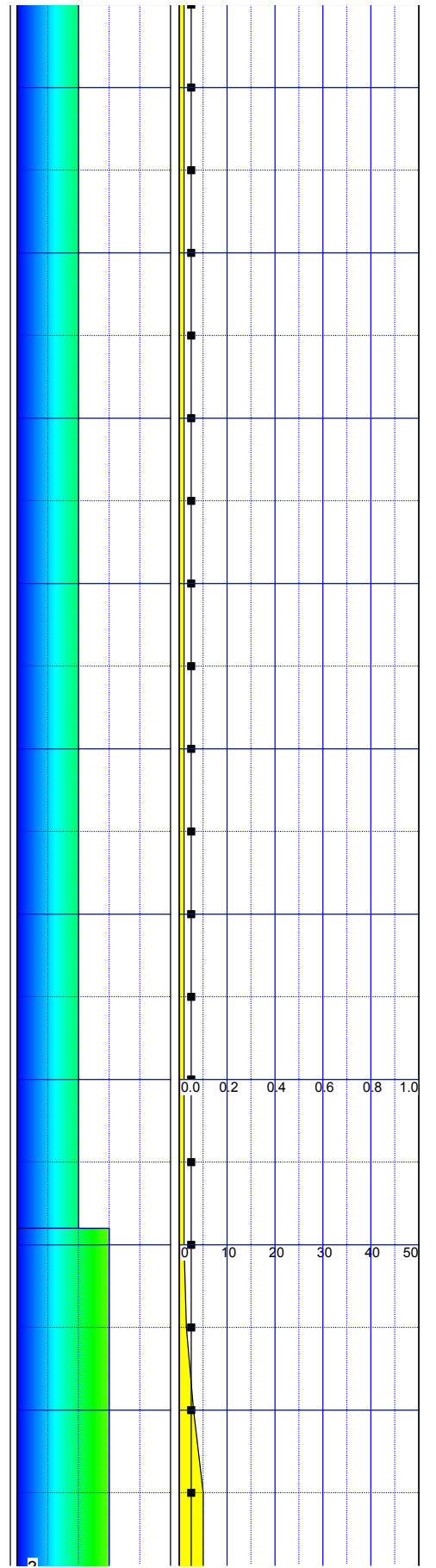
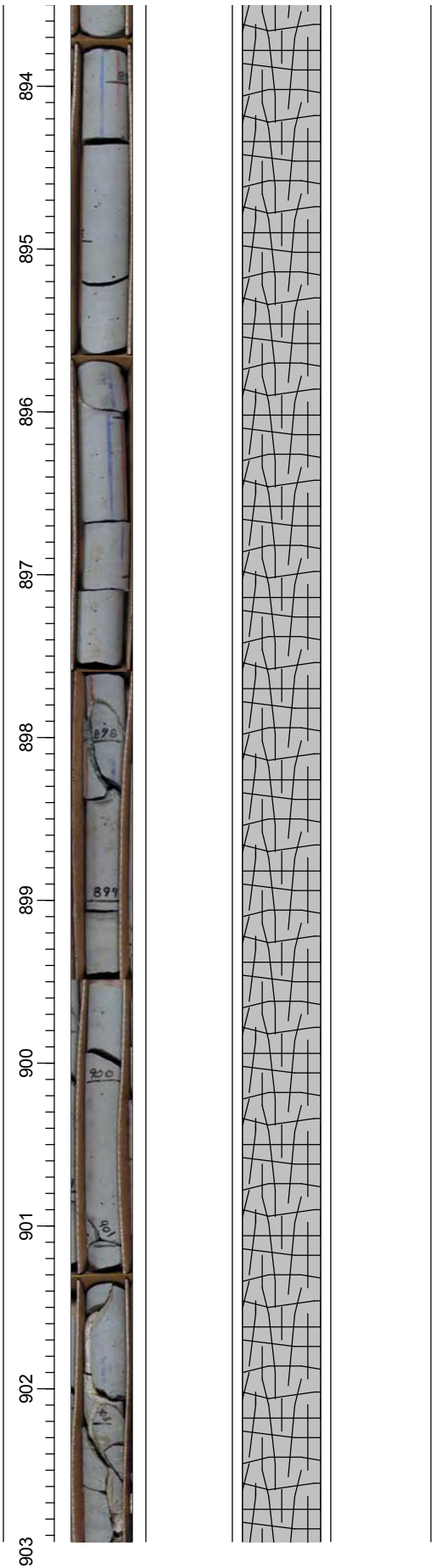
BASALT:
COLOR: Medium light gray N5
TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 856.8 feet to 867.6 feet and increase in frequency from 903.7 feet to 907.1 feet. Vesicle planes and autoliths found throughout the interval. Scoriaceous basalt and spatter found near the base of the interval
COMPOSITION: 60% medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites; 20% submillimeter, anhedral to subhedral, reddish green olivine phenocrysts; 15% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts; 5% 1 mm to 3 mm, subhedral to euhedral, white, plagioclase phenocrysts.
XENOLITHS: 2 mm to 5 mm, white N9 granitic xenoliths.
ALTERATION: Olivine is moderately altered to iddingsite.

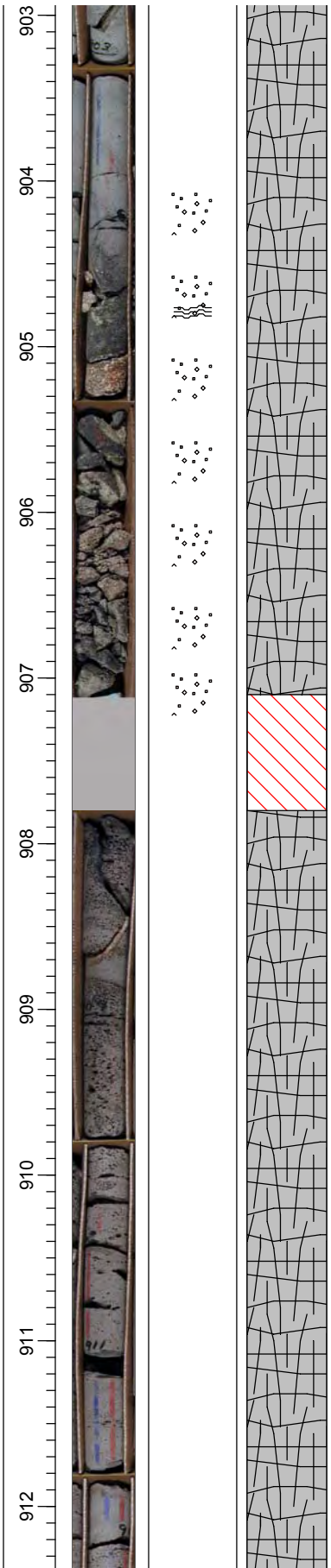






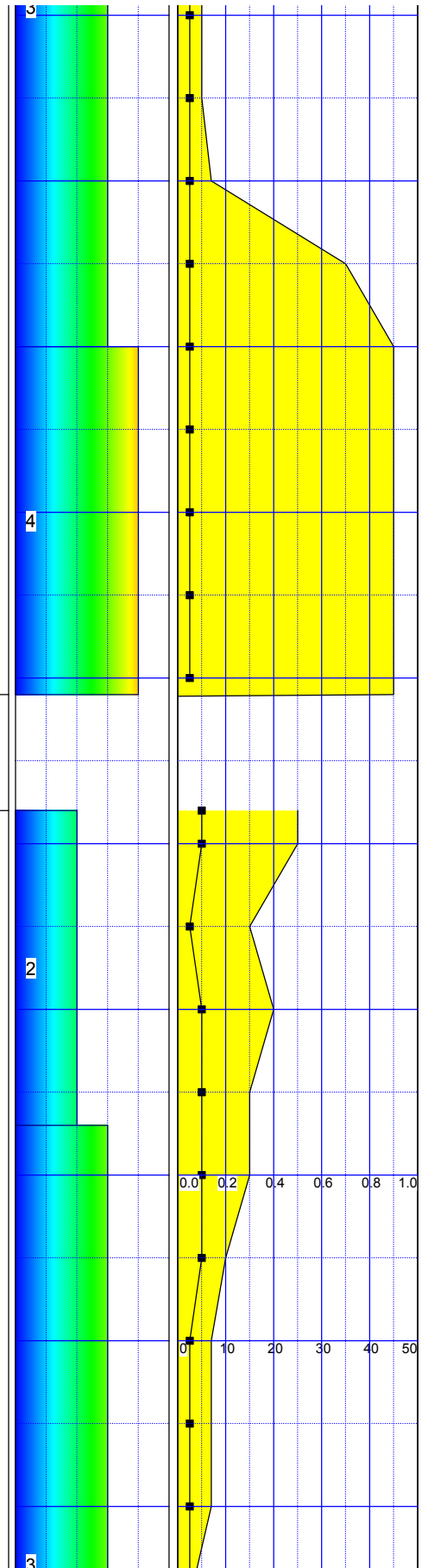


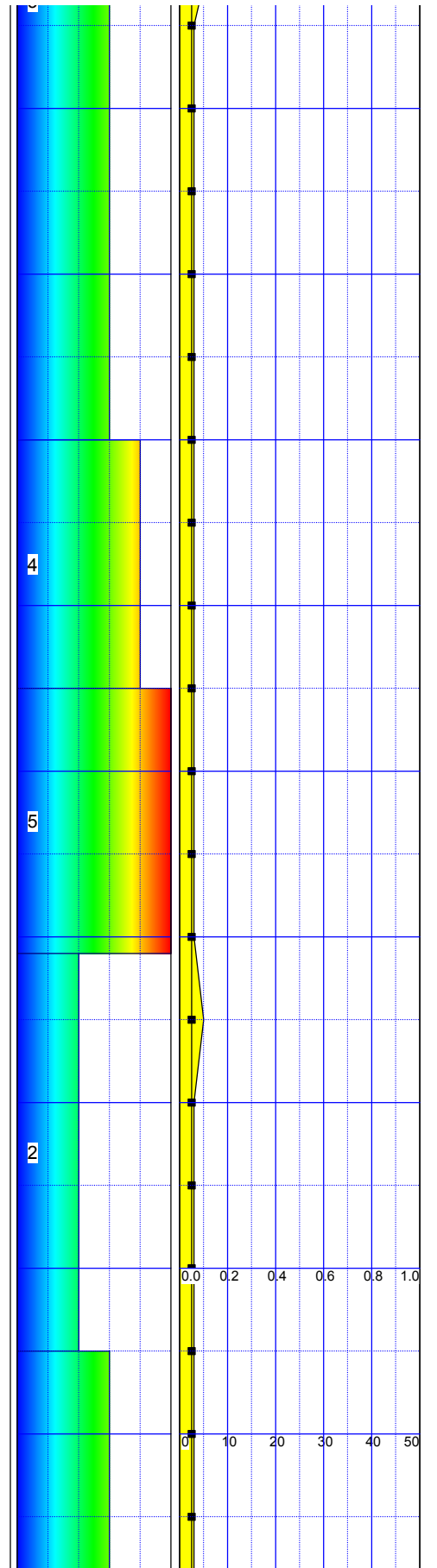
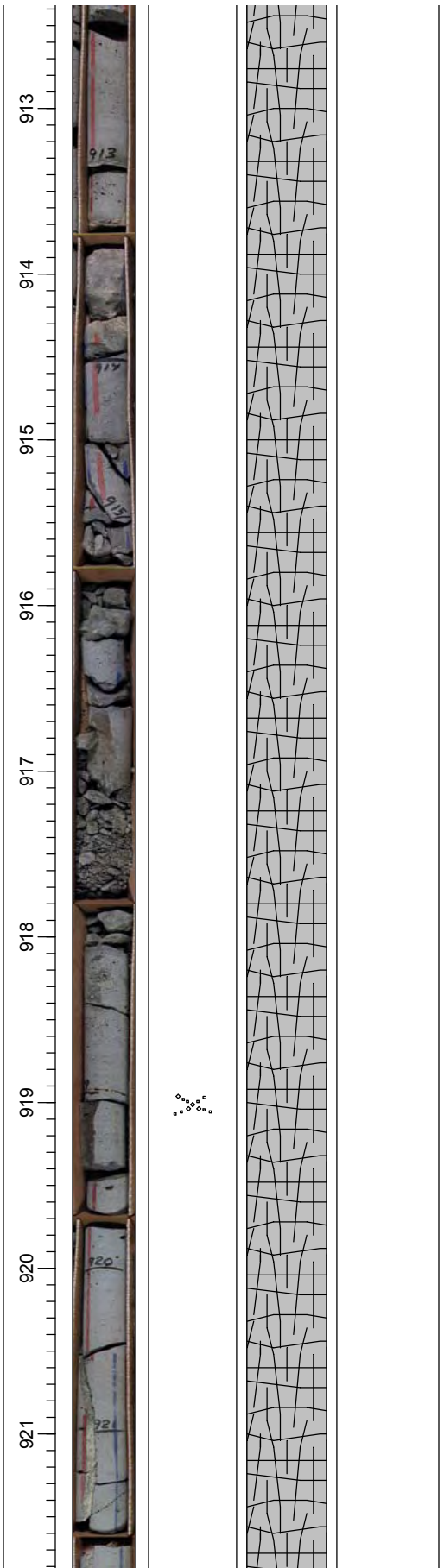


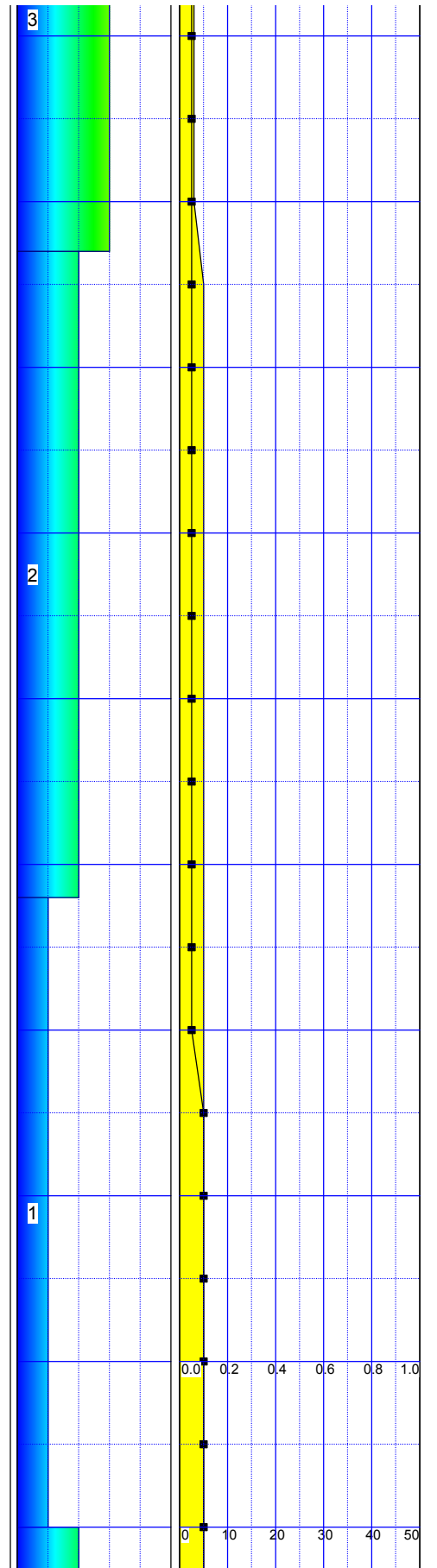
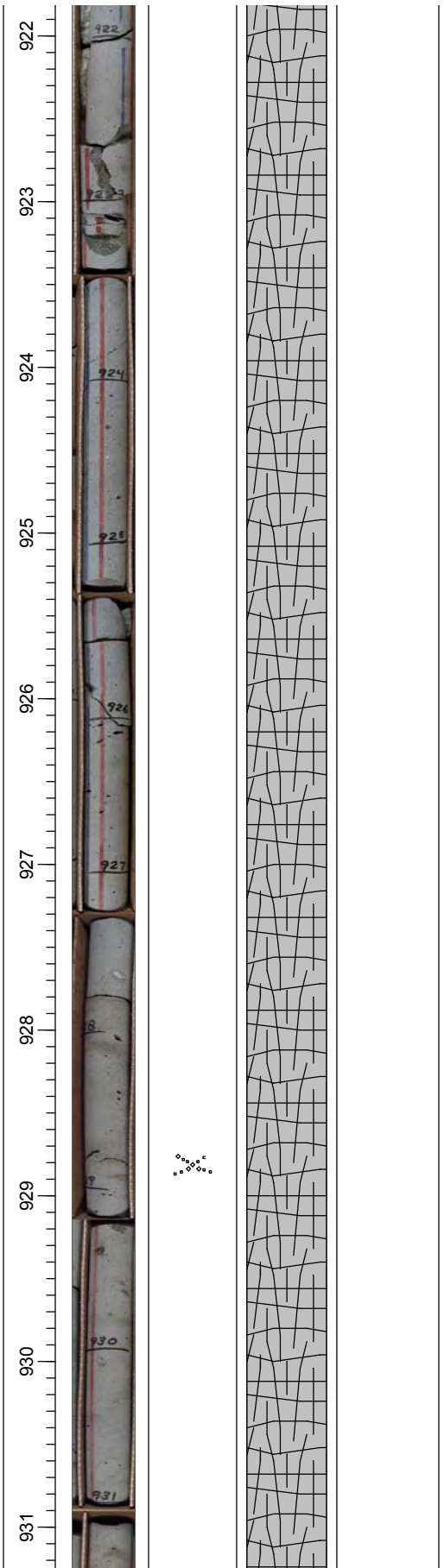


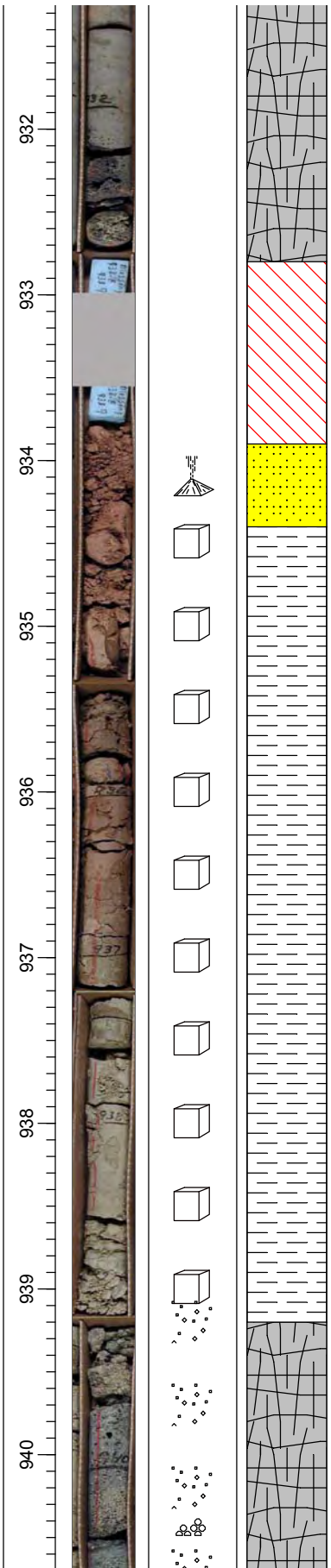
MISSING INTERVAL:
Interval not recovered

BASALT:
COLOR: Medium light gray N5
TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 856.8 feet to 867.6 feet and increase from 903.7 feet to 904.8 feet. Vesicle planes and autoliths found throughout the interval.
COMPOSITION: 60% medium gray ground mass which contains submillimeter, subhedral to euhedral, white, plagioclase microlites; 20% submillimeter, anhedral to subhedral, reddish green olivine phenocrysts; 15% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts; 5% 1 mm to 3 mm, subhedral to euhedral, white, plagioclase phenocrysts.
XENOLITHS: 2 mm to 15 mm, white N9 granitic xenoliths.
ALTERATION: Olivine is moderately altered to iddingsite and occasional iron staining in vesicle zones







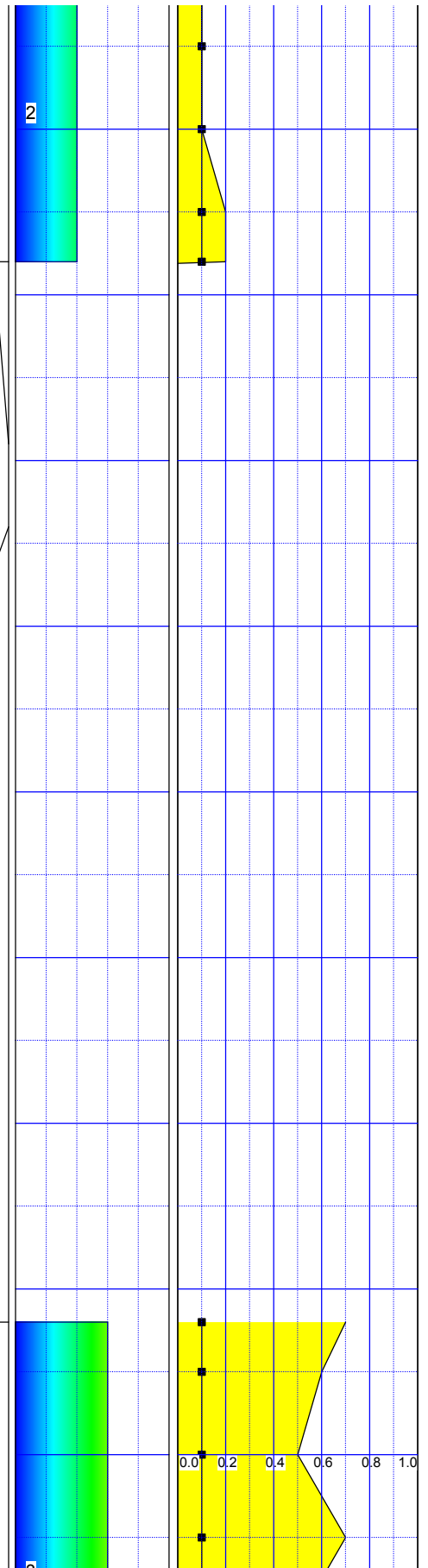


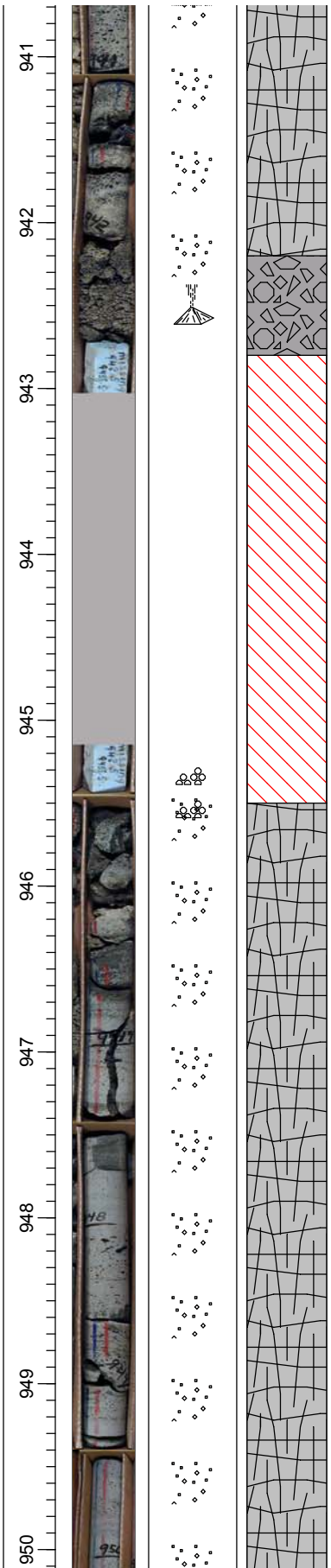
MISSING INTERVAL:
Interval not recovered

SANDS - CLEAN:
 TEXTURE: Sands, USCS Classification SW.
 Sediment consists of medium grained, subangular sands. Basalt fragments are found throughout the interval.
 COLOR: Moderate reddish orange 10 R 6/6
 CONSISTENCY: Loose
 STRUCTURES: Structureless
 FREE CARBONATES: No
 ROCK: Basalt fragments that range in size from 1 mm to 2 mm.
 ROOTS/FOSSILS: None noted

CLAY:
 TEXTURE: Clay, USCS classification CL
 COLOR: Moderate reddish orange 10 R 6/6, at the top of the interval, that fades to grayish orange 10 YR 7/4.
 CONSISTENCY: Firm
 STRUCTURES: Massive
 FREE CARBONATES: No
 ROCK: Occasional basalt fragments near the top of the interval.
 ROOTS OR FOSSILS: None noted

BASALT:
 COLOR: Medium gray N4
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt.
 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 1 mm to 2 mm green olivine glomerocrysts; 15% submillimeter to 1 mm, anhedral to subhedral, reddish brown olivine phenocrysts and 1 mm reddish brown olivine glomerocrysts.



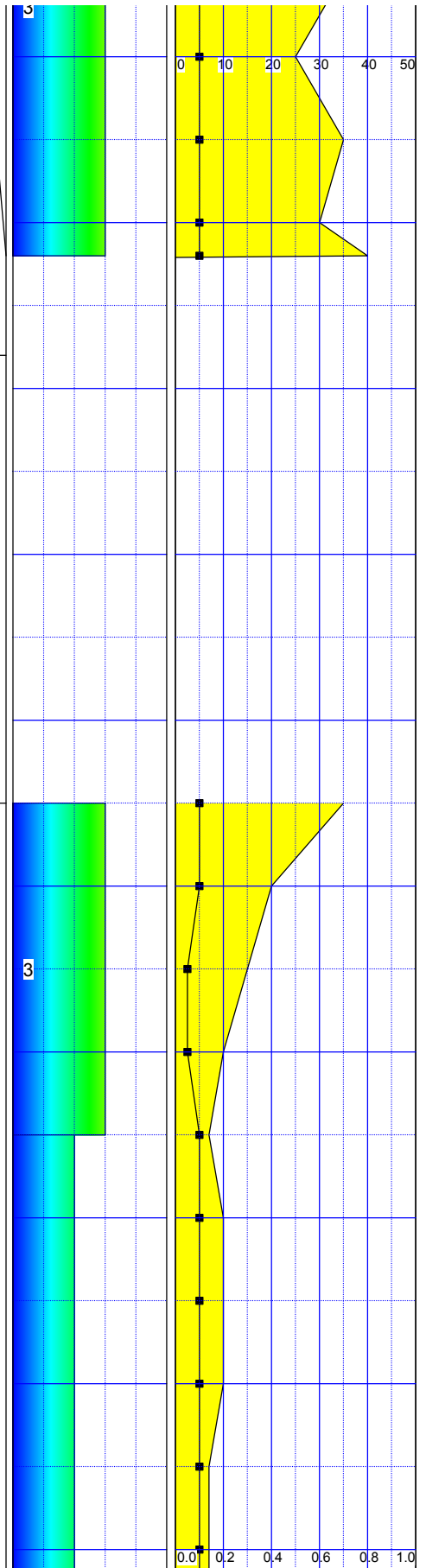


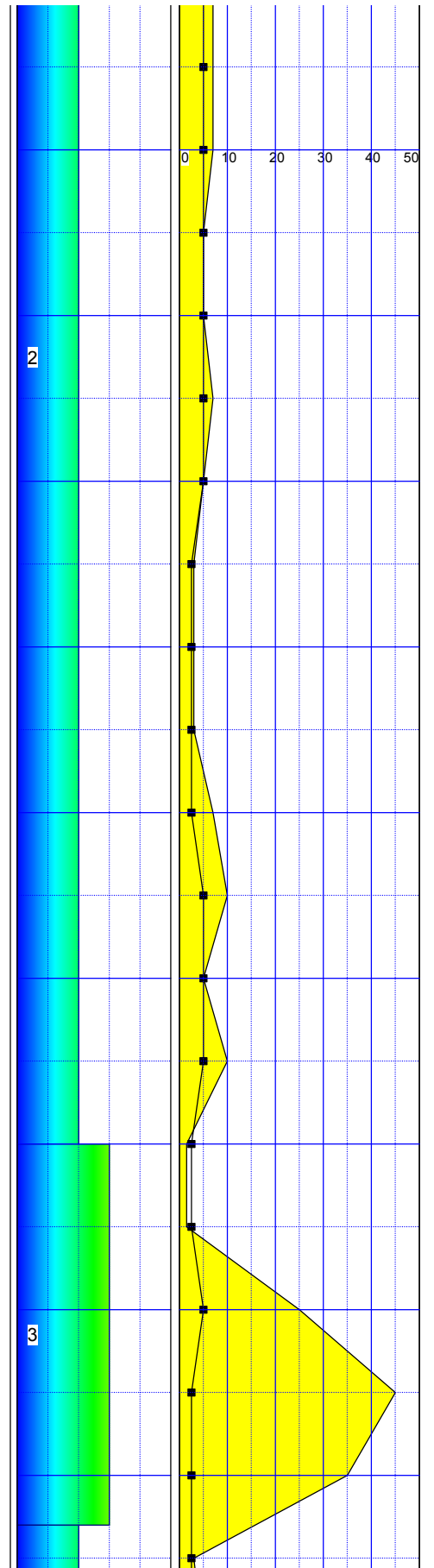
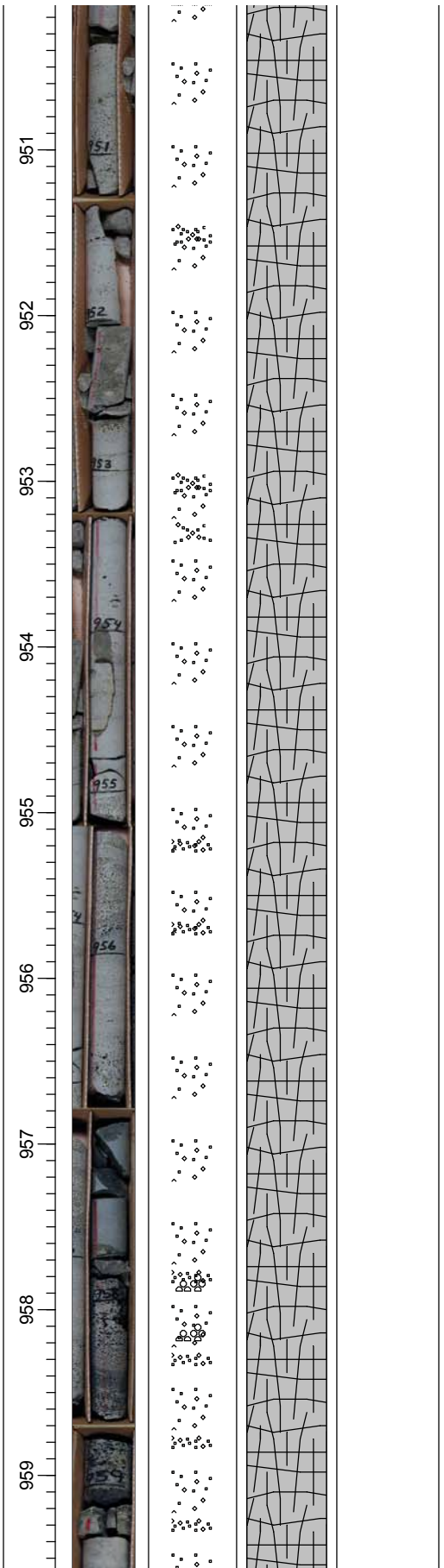
XENOLITHS: None noted
 ALTERATION: Yellowish gray 5 Y 7/2
 calcareous clay in vesicles and on fractured surfaces.

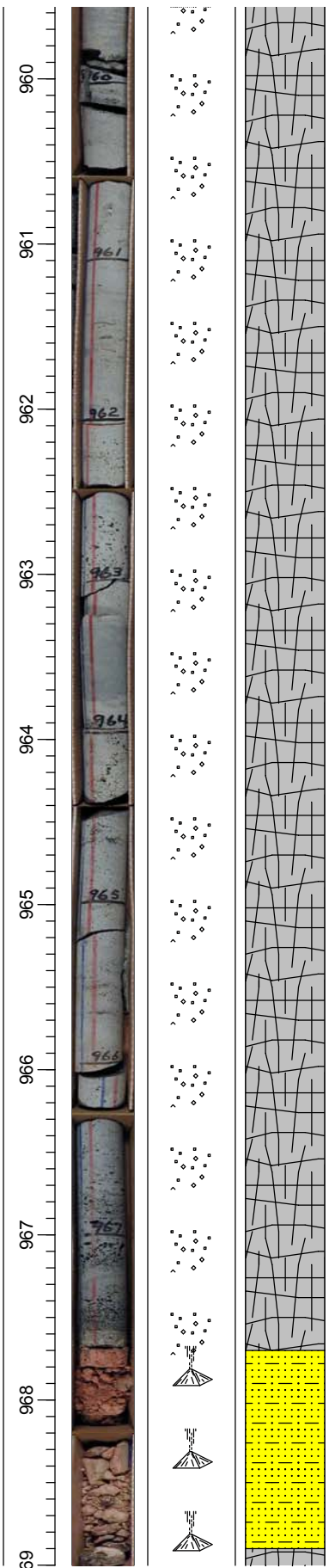
GRAVELS - CLEAN:
 TEXTURE: Gravels, USCS classification GP.
 Sediment consist of pebble to granule,
 poorly sorted, subangular gravels, mostly
 composed of basalt fragments.
 COLOR: Medium light gray N5
 CONSISTENCY: Loose
 Structures: Structureless
 FREE CARBONATES: Highly reactive
 ROCK: None noted
 ROOTS OR FOSSILS: None noted

MISSING INTERVAL:
 Interval not recovered

BASALT:
 COLOR: Medium gray N4
 TEXTURE: Equigranular, phaneritic,
 diktytaxitic, subophitic, vesicular basalt.
 Spatter and vesicle planes are located
 throughout the interval.
 COMPOSITION: 30% medium gray ground mass;
 30% submillimeter to 1 mm, subhedral to
 euhedral, white, plagioclase laths; 25%
 submillimeter to 1 mm, anhedral to euhedral,
 black, bladed pyroxene phenocrysts; 15%
 submillimeter to 1 mm, anhedral to subhedral,
 green to reddish green olivine phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Occasional iron staining in
 vesicle zones.

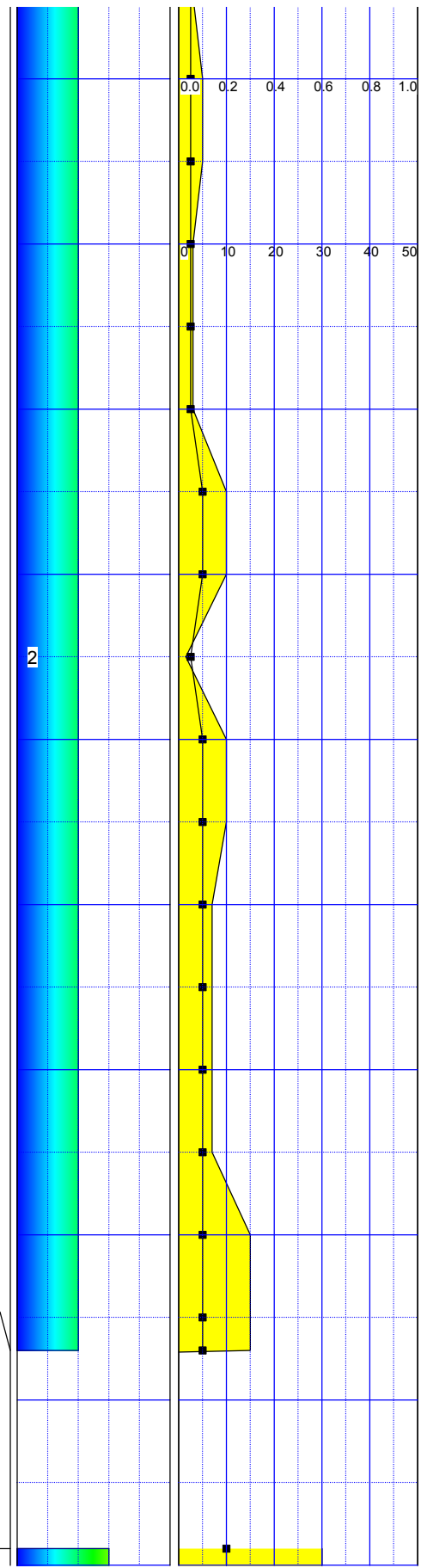


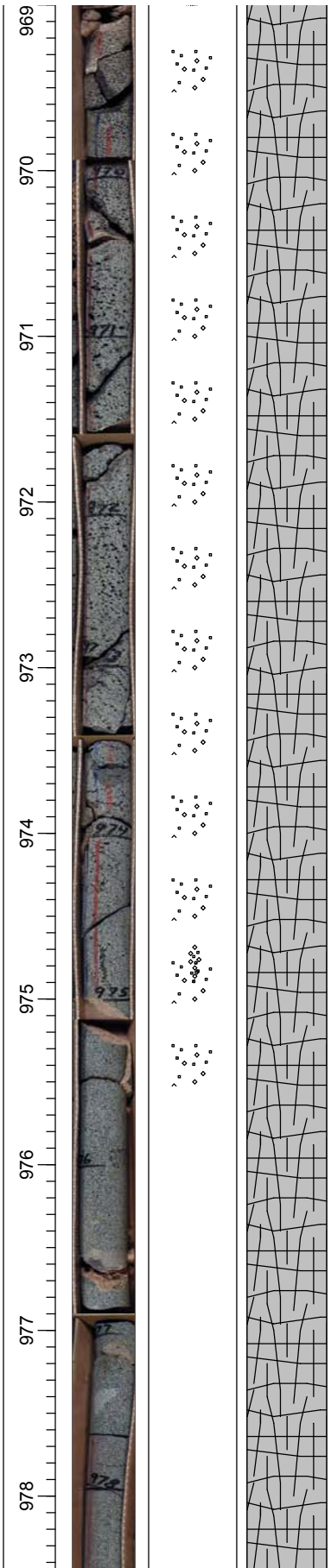




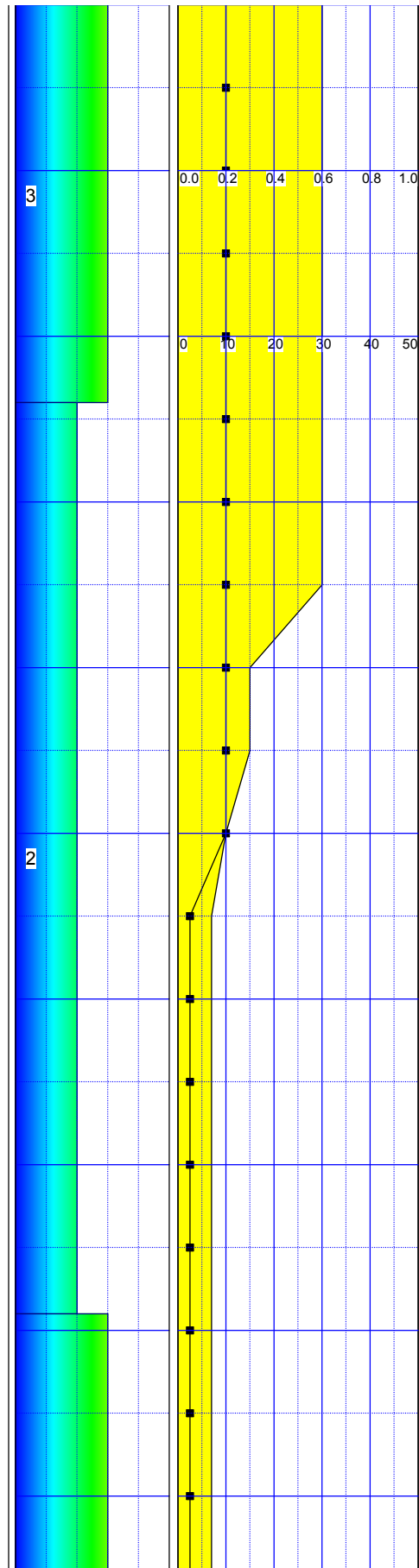
SANDS WITH FINES:
 TEXTURE: Sands with silt fines, USCS Classification SM. Sediment consists of very fine grained, subrounded sands with silt fines.
 COLOR: Moderate reddish orange 10 R 6/6 that fades to grayish orange 10 YR 7/4.
 CONSISTENCY: Loose to friable
 STRUCTURES: Structureless
 FREE CARBONATES: No
 ROCK: None noted
 ROOTS/FOSSILS: None noted

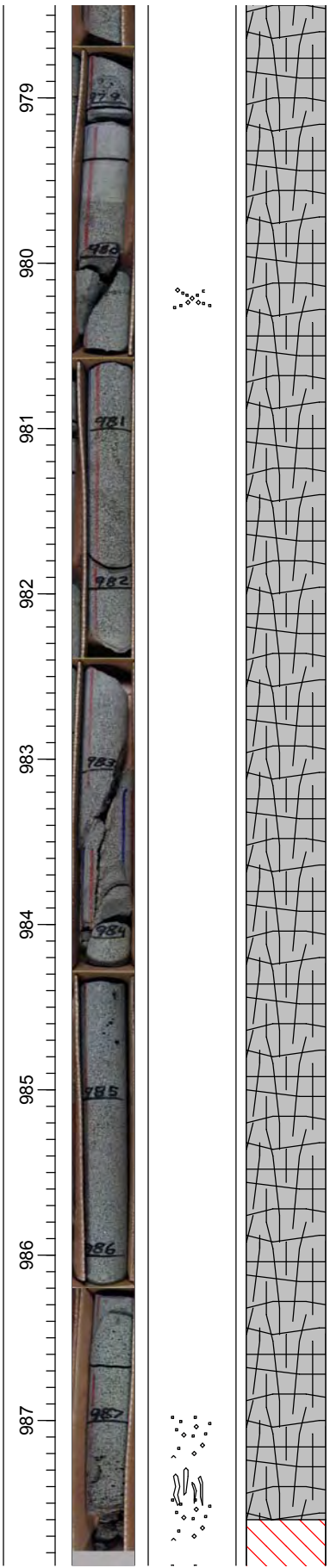
BASALT:



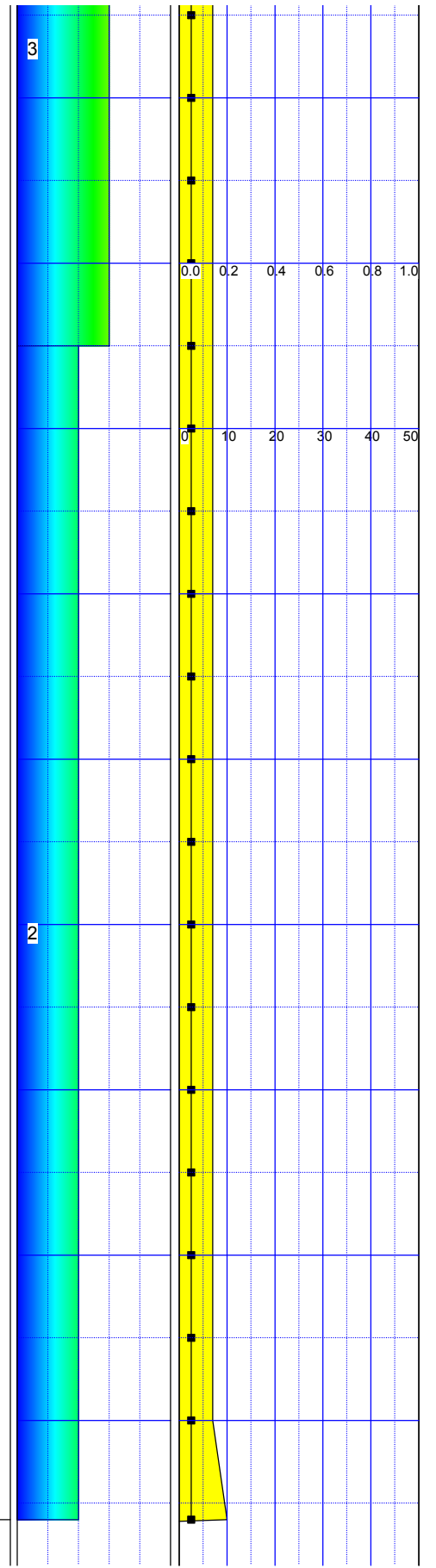


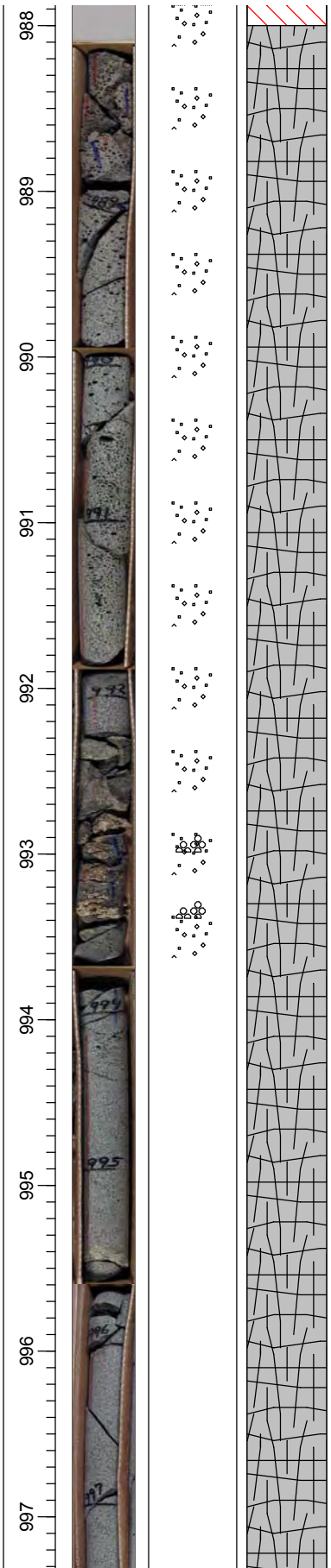
COLOR: Medium dark gray N3
 TEXTURE: Phaneritic, diktytaxitic, ophitic, vesicular basalt. Vesicles decrease in frequency from 968.9 feet to 975.0 feet and increase from 987.1 feet to 987.6 feet.
 COMPOSITION: 15% medium gray ground mass; 35% submillimeter to 1 mm, anhedral to euhedral, black, bladed pyroxene phenocrysts; 30% submillimeter to 4 mm, subhedral to euhedral, white, plagioclase laths; 20% submillimeter to 1 mm, anhedral to subhedral, green to reddish green olivine phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Grayish orange 10 Yr 7/4 calcareous clay in vesicles and on fractured surfaces.



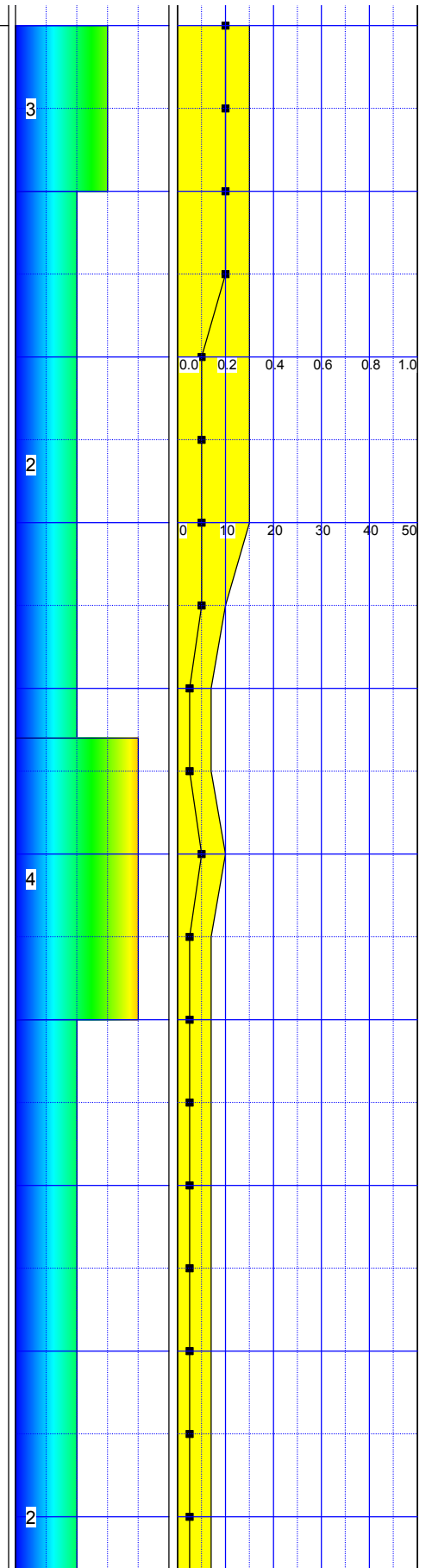


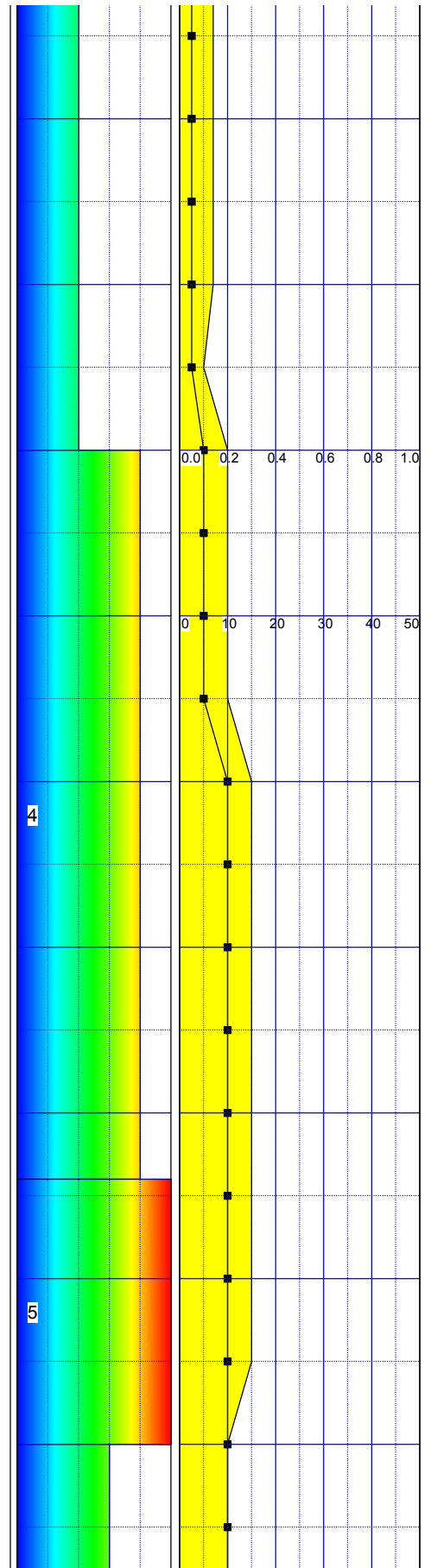
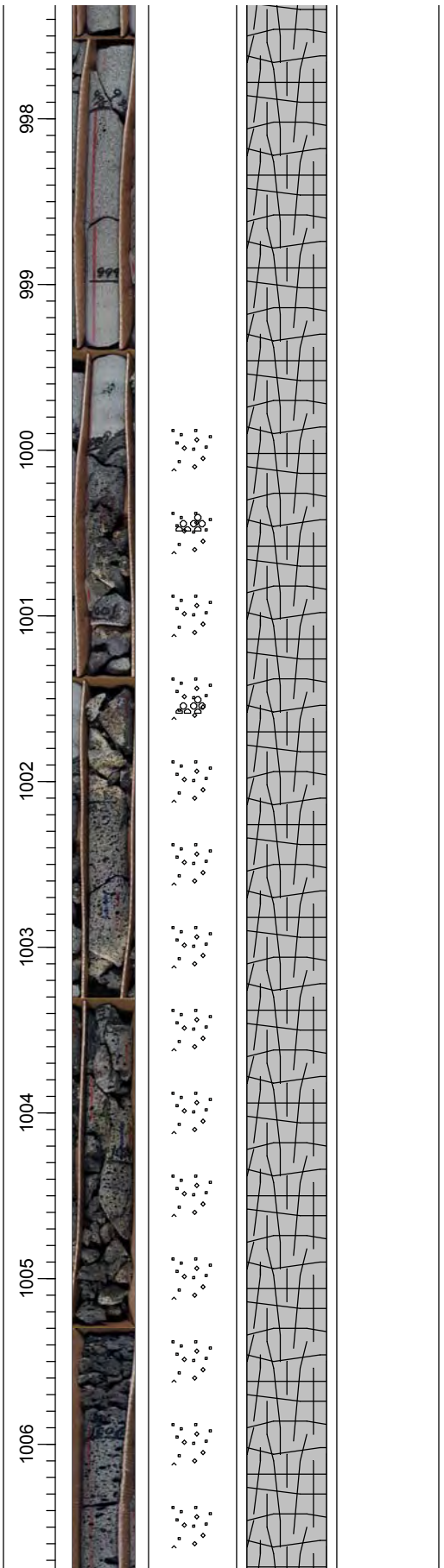
MISSING INTERVAL:
Interval not recovered

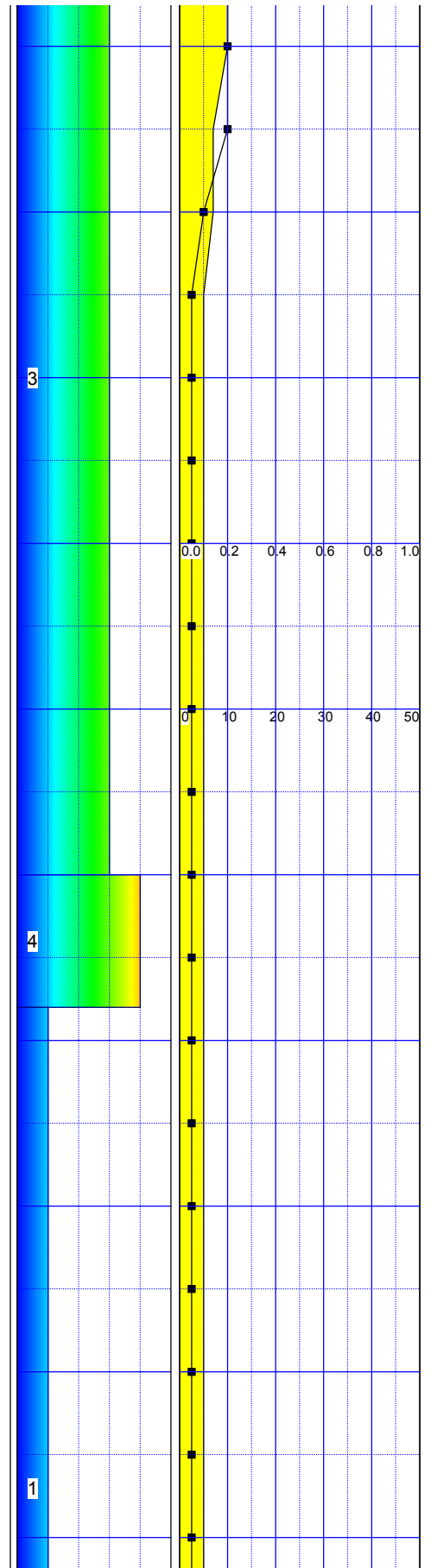
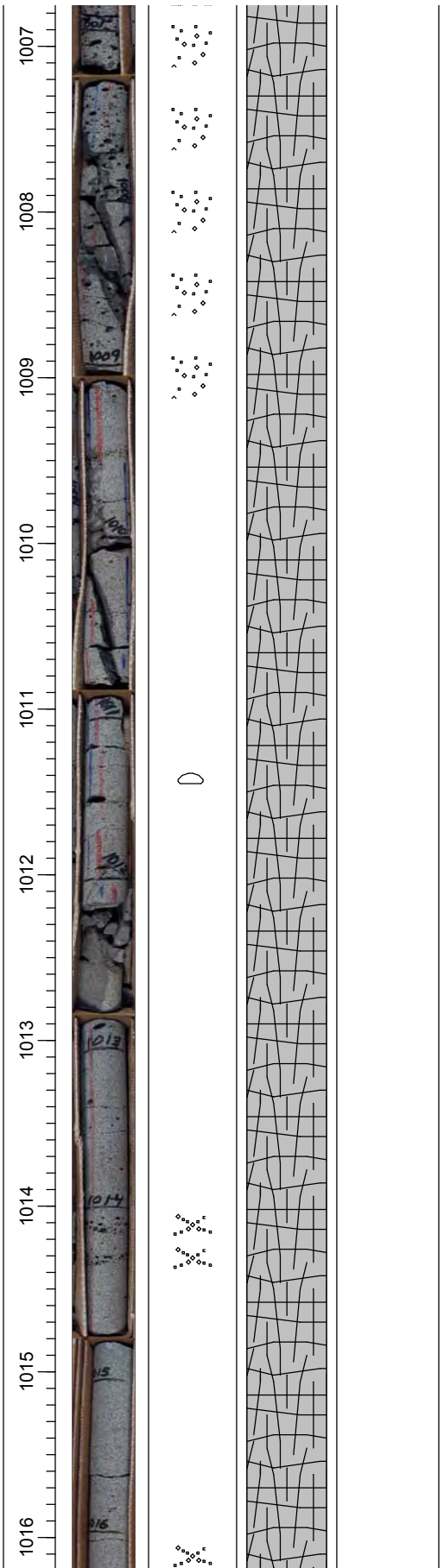


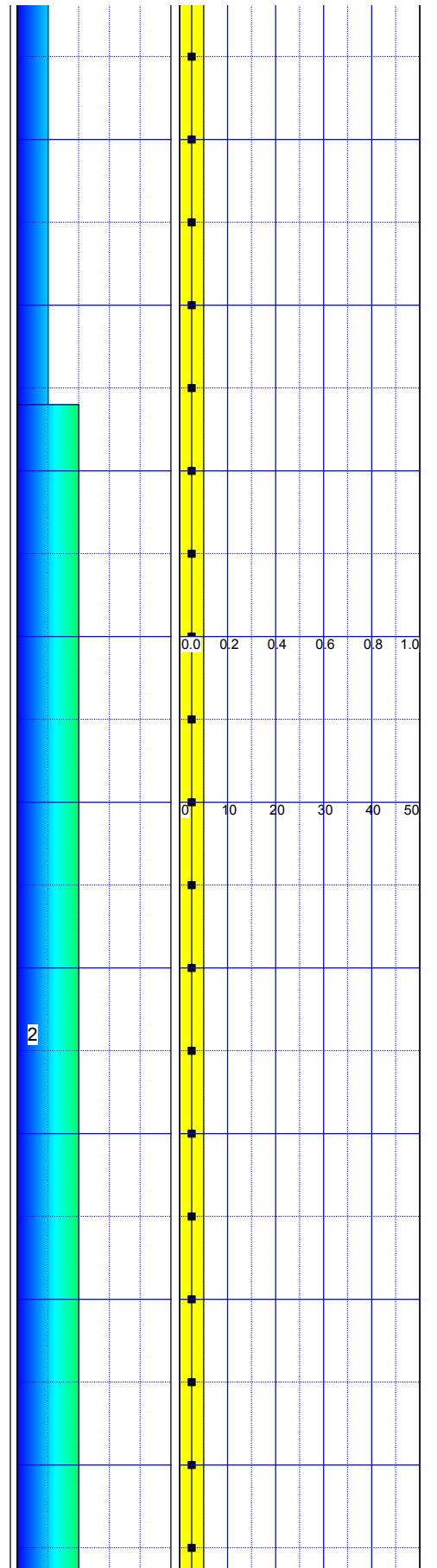
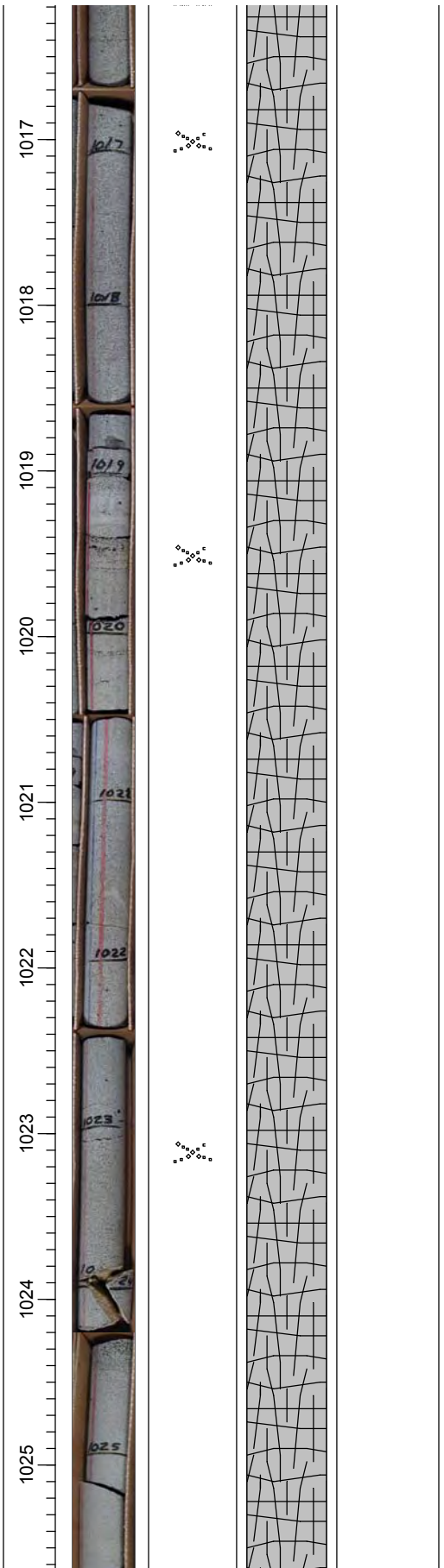


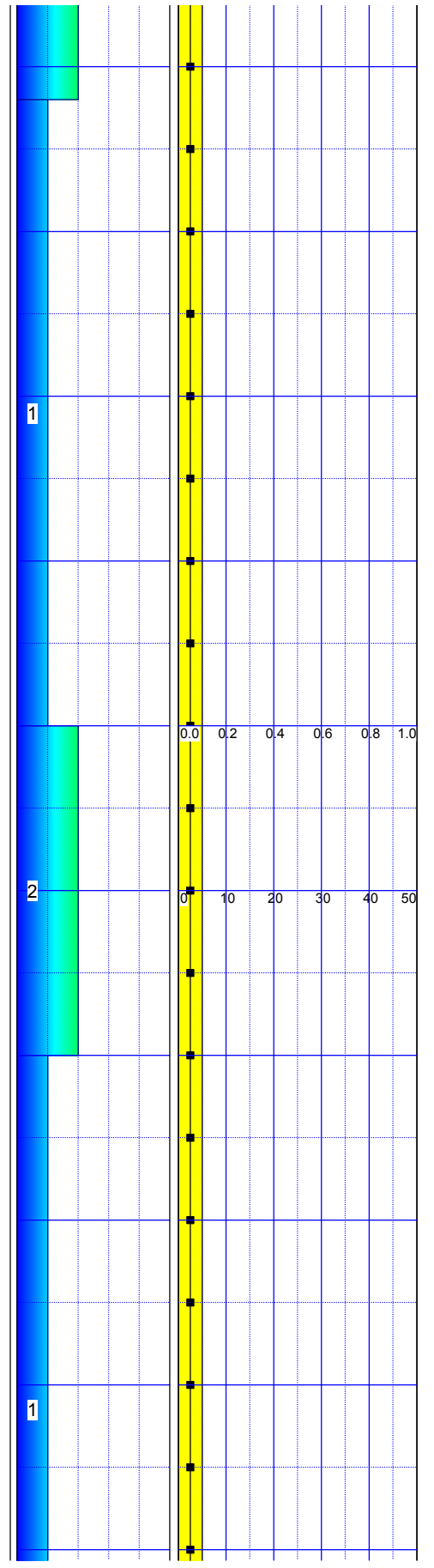
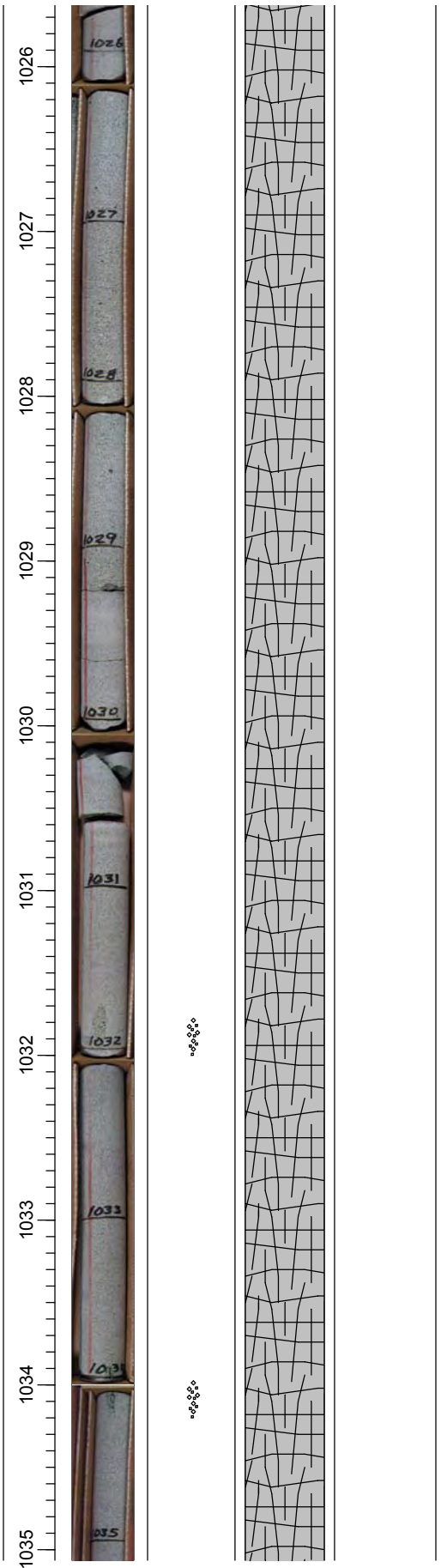
BASALT:
COLOR: Medium gray N4
TEXTURE: Phaneritic, diktytaxitic, ophitic, vesicular basalt. Vesicles decrease in frequency from 988.0 feet to 993.6 feet and increase from 1,036.0 feet to 1,036.3 feet. A vesicle zone is located at 1,000.0 feet to 1,009.0 feet. Spatter and vesicle planes are located throughout the interval.
COMPOSITION: 35% medium gray ground mass; 30% submillimeter to 4 mm, subhedral to euhedral, white, plagioclase laths; 20% submillimeter to 2 mm, anhedral to euhedral, black, bladed pyroxene phenocrysts; 20% submillimeter, anhedral to subhedral, green to reddish green olivine phenocrysts.
XENOLITHS: None noted
ALTERATION: Olivine is moderately altered to iddingsite and yellowish gray 5 Y 7/2 clay in vesicles and on fractured surfaces.

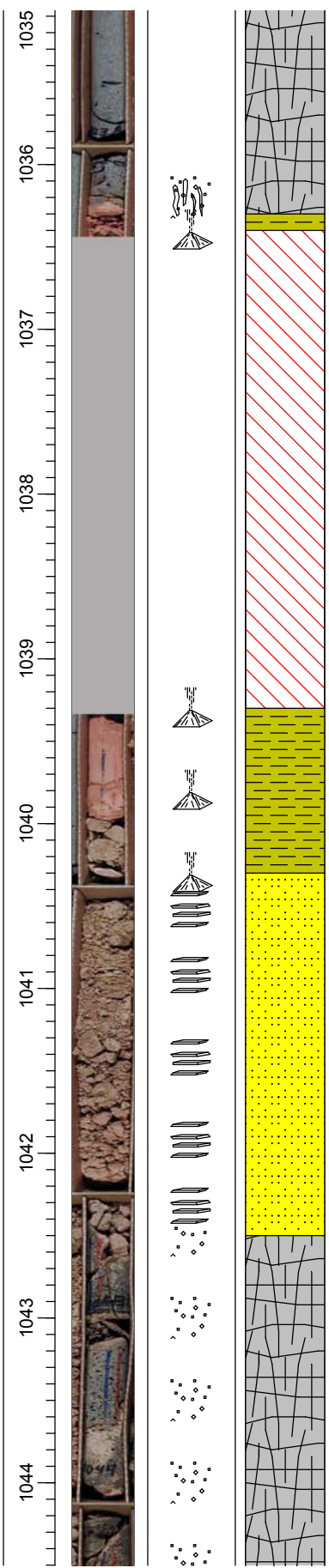












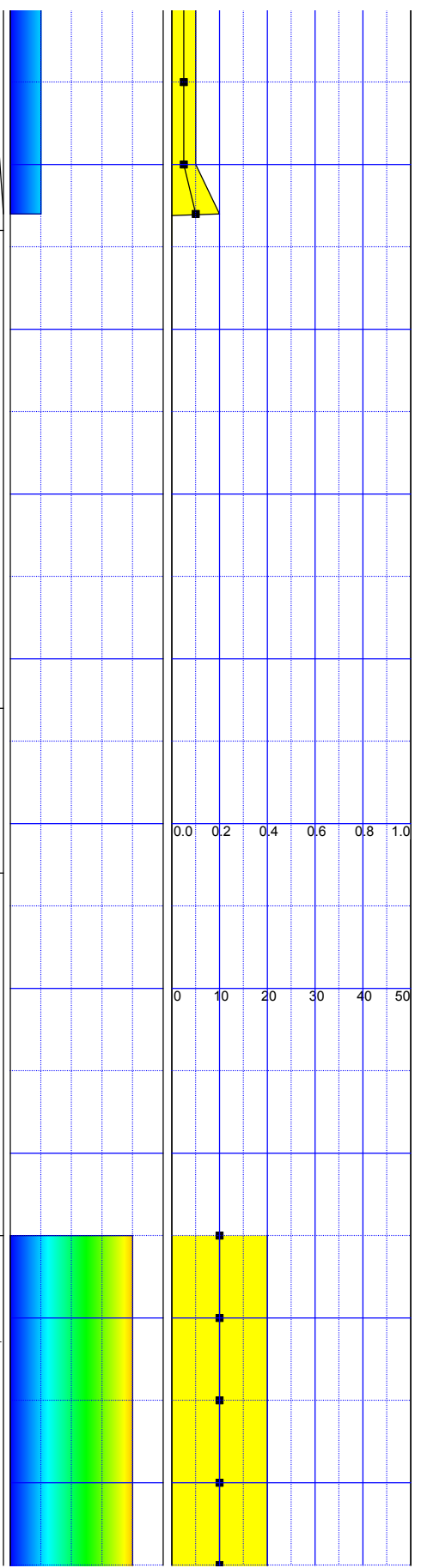
SILT AND CLAY:
 Texture: Silt, USCS soil classification ML
 Color: Moderate reddish orange 10 R 6/6
 Consistence: Friable
 Structures: Structureless
 Free Carbonates: No
 Rocks: None noted
 Roots/Fossils: None noted

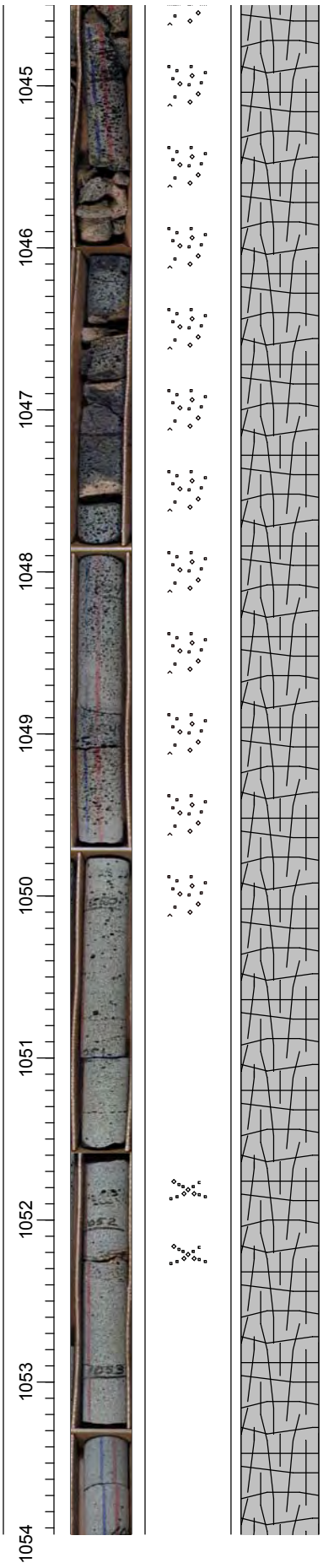
MISSING INTERVAL:
 Missing Interval not recovered

SILT AND CLAY:
 Texture: Silt, USCS soil classification ML
 Color: Moderate reddish orange 10 R 6/6
 Consistency: Friable
 Structures: Structureless
 Free Carbonates: No
 Rocks: None noted
 Roots/Fossils: None noted

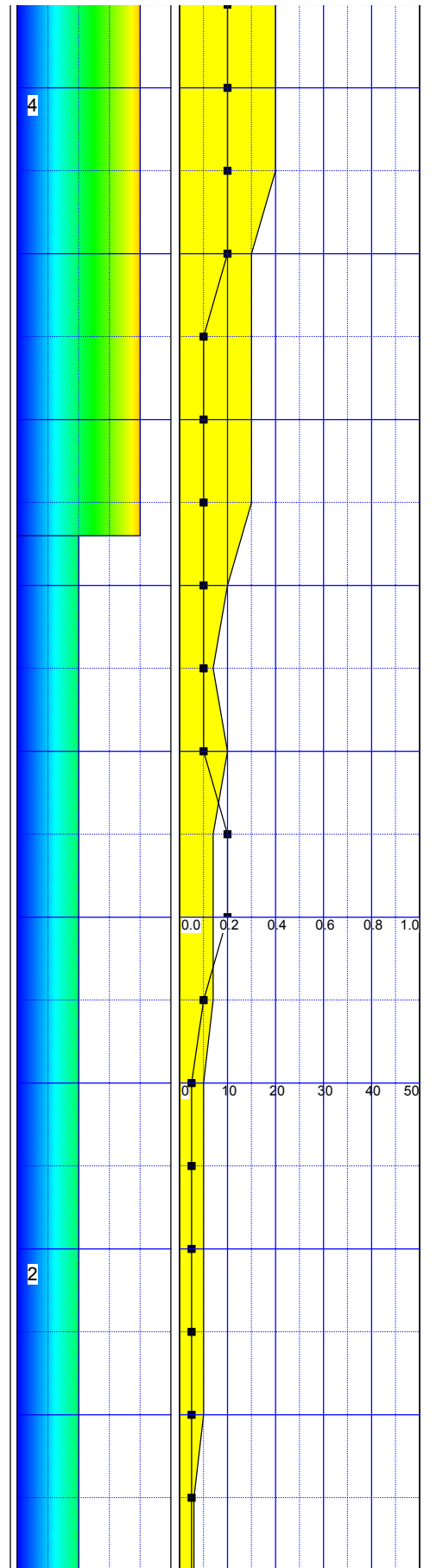
SANDS - CLEAN:
 TEXTURE: Sands with silt fines, USCS Classification SM. Sediment consists of fine to very fine grained, subrounded sands with silt fines. Sands fine upward into silt.
 COLOR: Moderate yellowish brown 10 YR 5/4
 CONSISTENCY: Loose to friable
 STRUCTURES: Platy
 FREE CARBONATES: White N9 calcite fills cracks and voids.
 ROCK: None noted
 ROOTS/FOSSILS: Burrows and tubules are present.

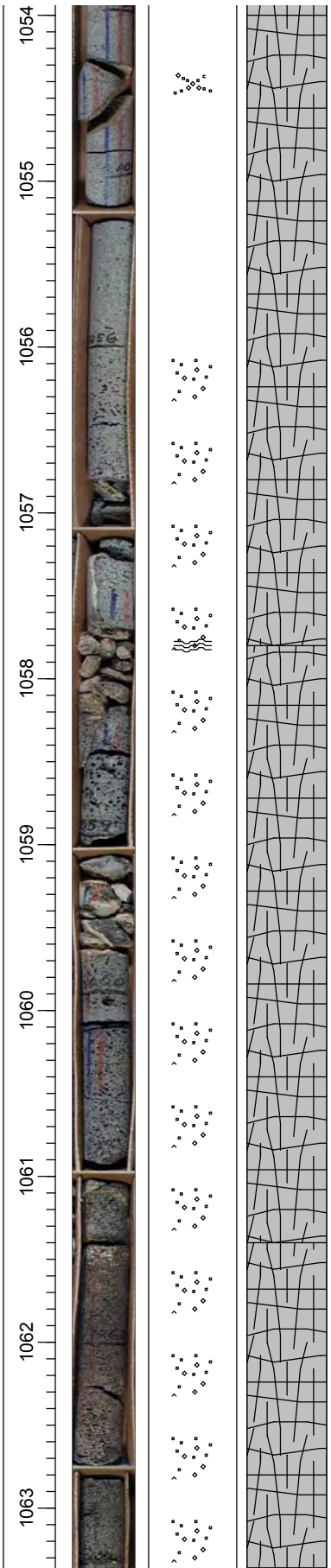
BASALT:
 COLOR: Medium gray N4
 TEXTURE: Equigranular, phaneritic, diktytaxitic, subophitic, vesicular basalt. Vesicles decrease in frequency from 1,042.5 feet to 1,050.0 feet and increase from 1,056.1 feet to 1,057.8 feet. Vesicle planes are located throughout the interval.
 COMPOSITION: 30% medium gray ground mass; 35% submillimeter to 1 mm, subhedral to euhedral, white, plagioclase laths; 20% submillimeter to 1 mm, anhedral to euhedral, black, bladed pyroxene phenocrysts; 15% submillimeter to 1 mm, anhedral to subhedral, green to reddish green olivine phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Occasional iron staining in





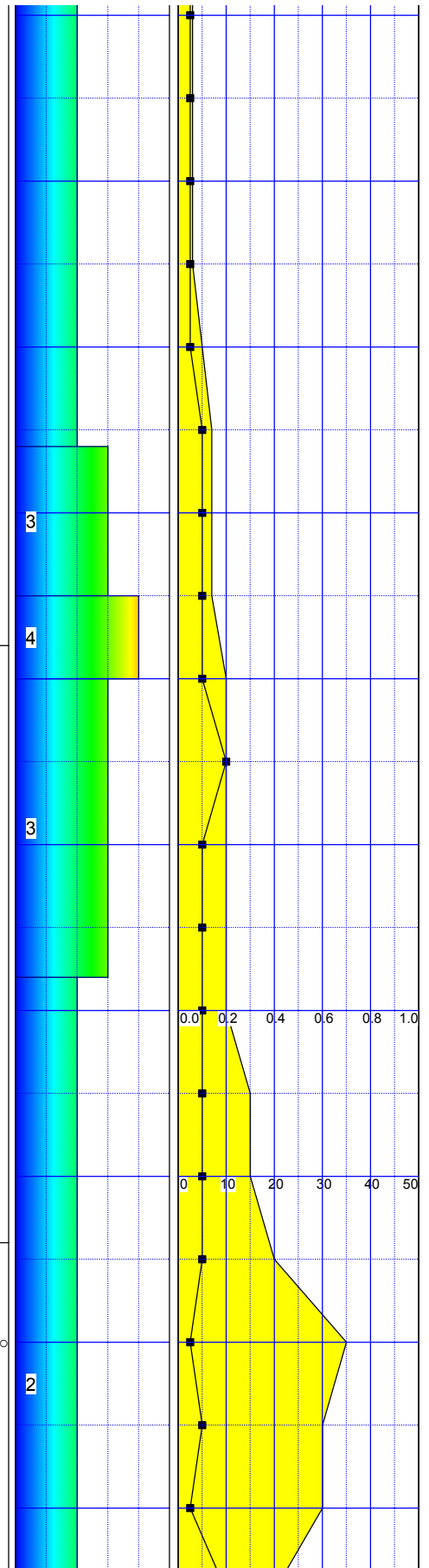
vesicle zones and vesicle planes.

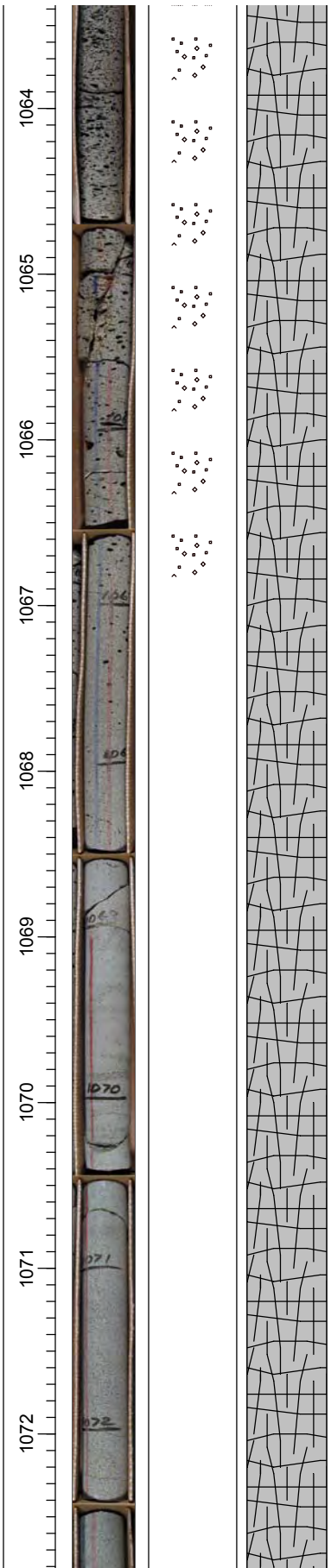




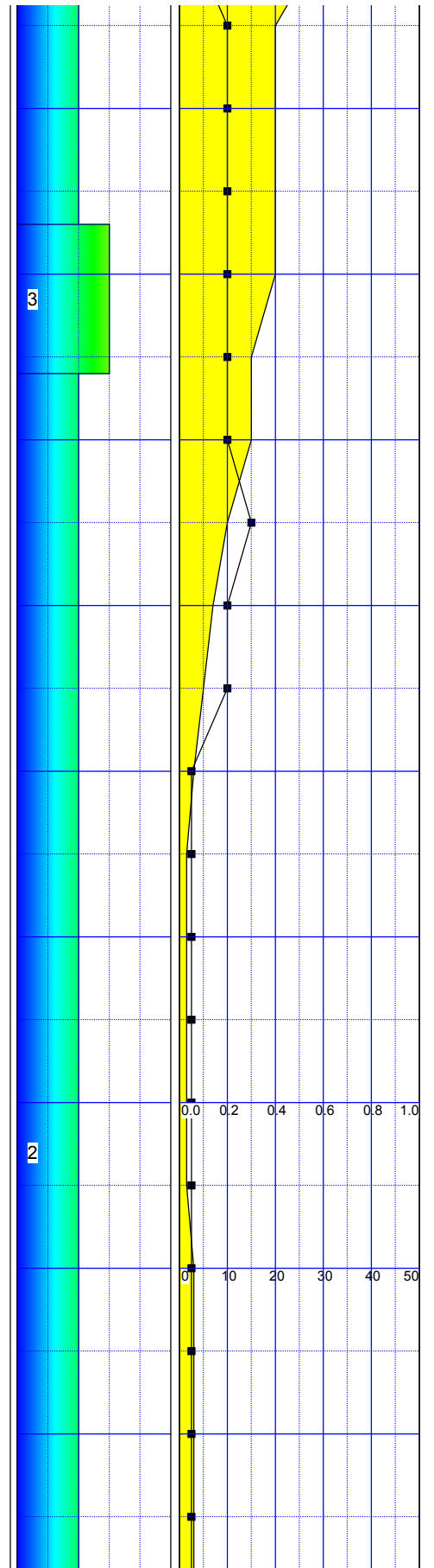
BASALT:
 COLOR: Very dusky red 10 R 2/2
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt.
 COMPOSITION: 45% very dusky red ground mass, 35% submillimeter to 1 mm, subhedral to euhedral, white, plagioclase phenocrysts; 15% submillimeter to 1 mm, anhedral to subhedral, green to reddish brown olivine phenocrysts and 1 mm to 4 mm reddish green olivine glomerocrysts; 5% submillimeter, anhedral, black, pyroxene phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Olivine is moderately altered to iddingsite and iron staining in vesicle zones.

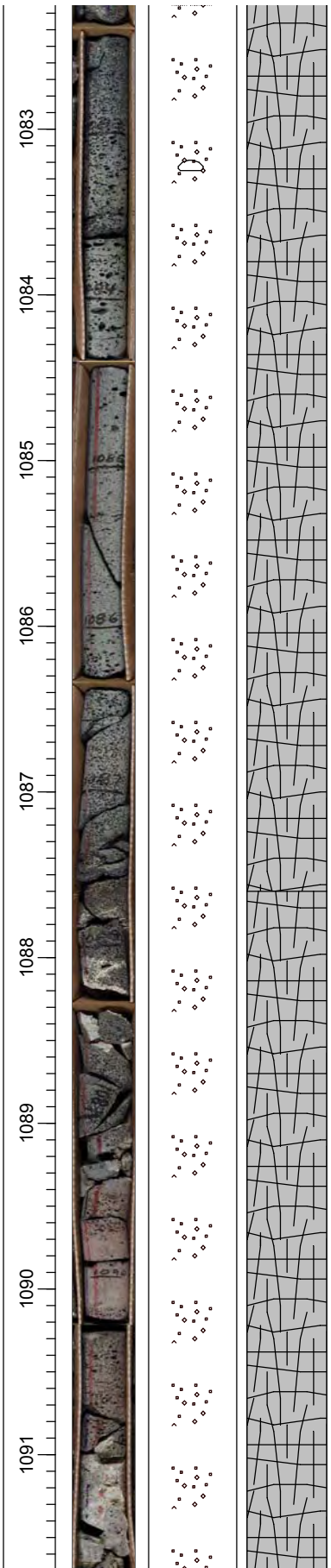
BASALT:
 COLOR: Medium light gray N5
 TEXTURE: Phaneritic, diktytaxitic, subophitic, vesicular basalt. Vesicles decrease in frequency from 1,061.4 feet to 1,066.8 feet and increase from 1,073.7 feet to 1,075.0 feet.
 COMPOSITION: 35% medium light gray ground mass, 35% submillimeter to 1 mm, subhedral to euhedral, white, plagioclase phenocrysts; 20% submillimeter to 1 mm, anhedral to subhedral, green olivine phenocrysts and 1 mm to 4 mm reddish green olivine glomerocrysts; 10% submillimeter to 1 mm, anhedral to euhedral, black, bladed pyroxene phenocrysts.
 XENOLITHS: None noted





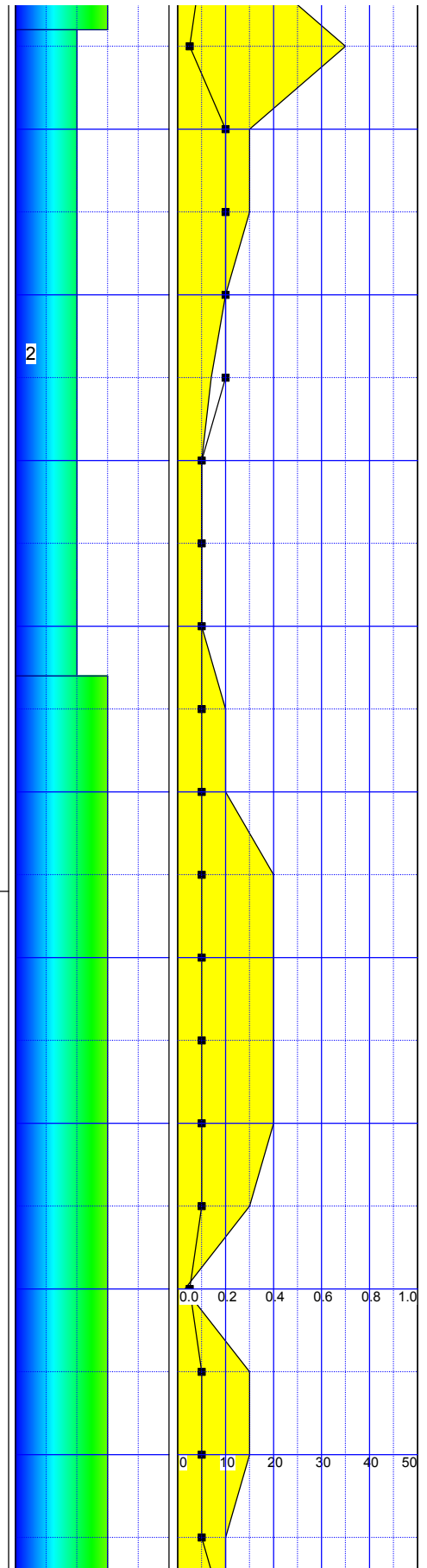
ALTERATION: Yellowish gray 5 Y 7/2 calcareous clay in vesicles and on fractured surfaces and white N9 calcite fills vesicles near the top of the interval.

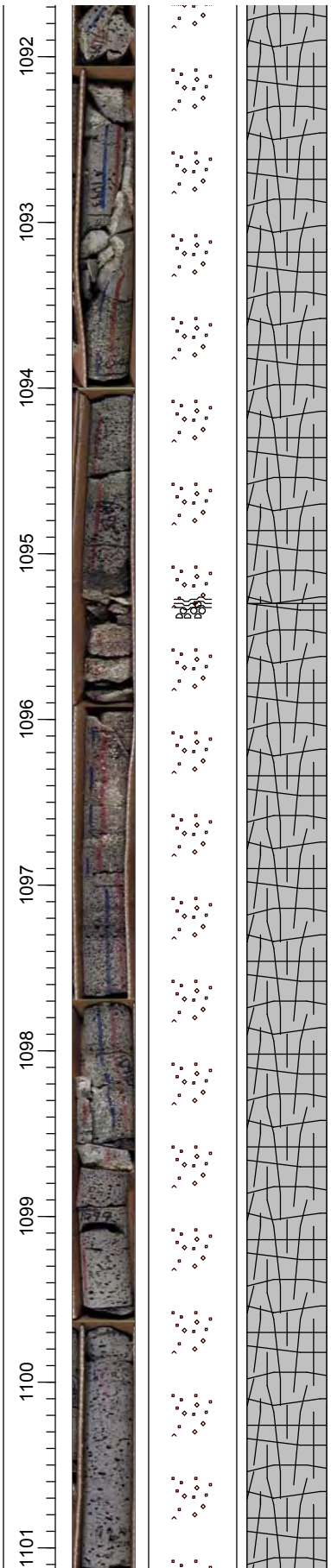




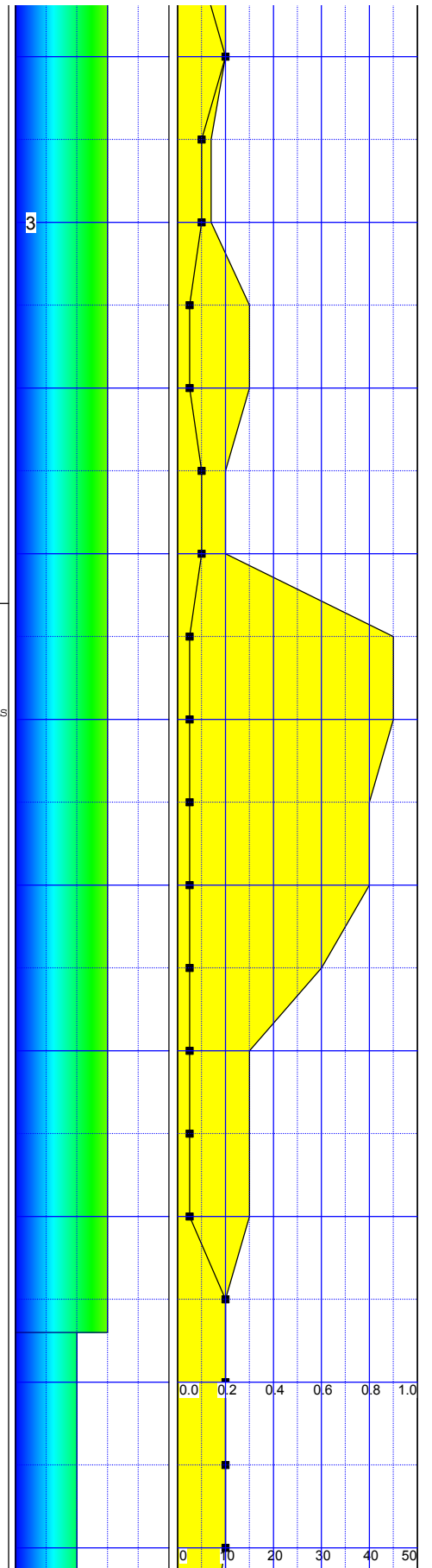
COLOR: Medium gray N4
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt.
 COMPOSITION: 45% medium gray ground mass, 35% submillimeter, subhedral to euhedral, white, plagioclase phenocrysts; 25% submillimeter to 1 mm, anhedral to subhedral, green to reddish green olivine phenocrysts and 1 mm to 5 mm green olivine glomerocrysts; 5% submillimeter, anhedral, black, pyroxene phenocrysts.
 XENOLITHS: None noted
 ALTERATION: None noted

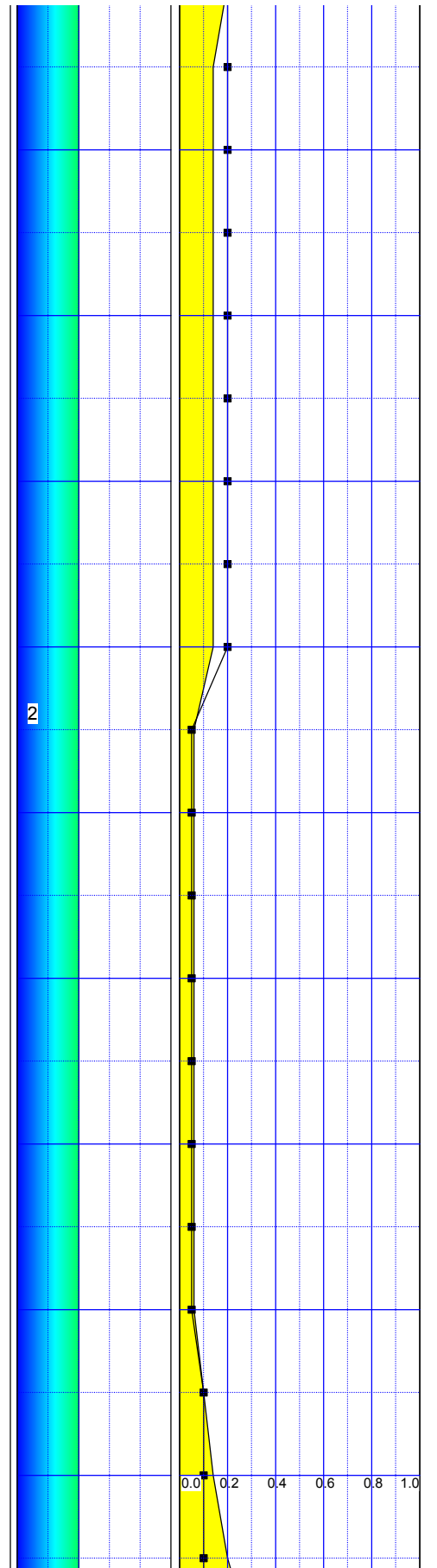
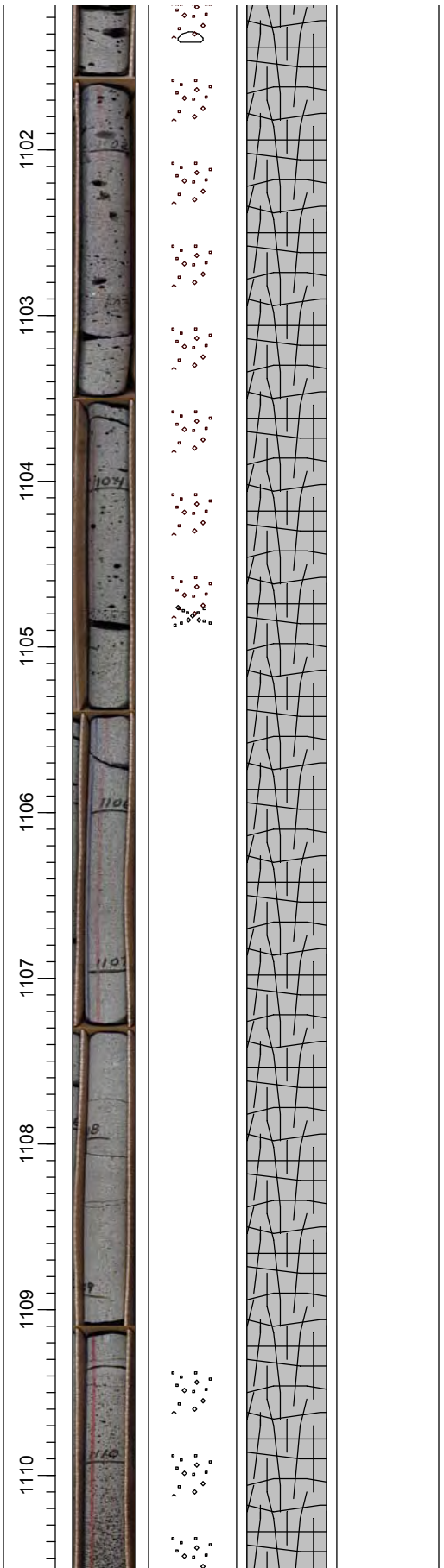
BASALT:
 COLOR: Grayish red 5 R 4/2 to medium gray N4
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt.
 COMPOSITION: 50% ground mass, 35% submillimeter, subhedral to euhedral, white, plagioclase phenocrysts; 15% submillimeter to 1 mm, anhedral to subhedral, green to reddish green olivine phenocrysts and 1 mm to 3 mm green olivine glomerocrysts.
 XENOLITHS: None noted
 ALTERATION: Grayish yellow 5 Y 8/4 calcareous clay on fractures and in vesicles, and olivine is weakly altered to iddingsite.

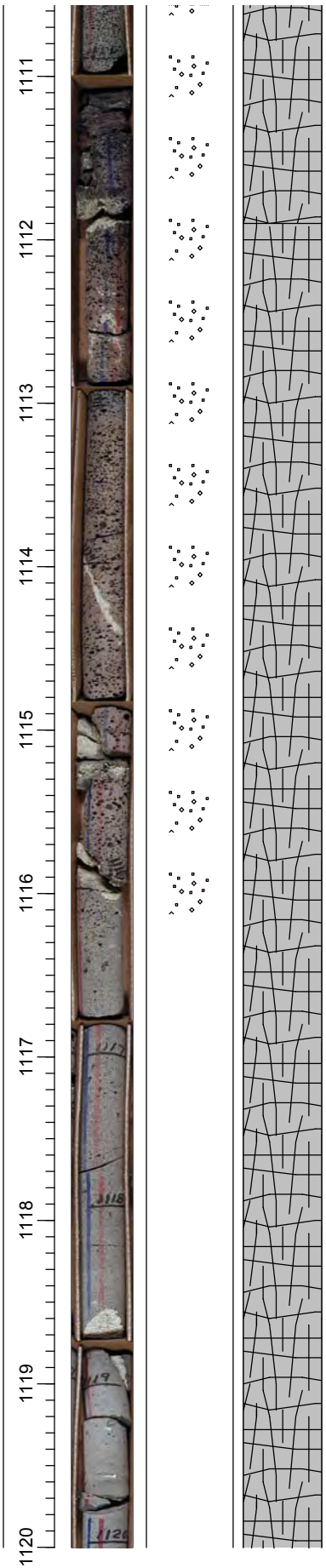




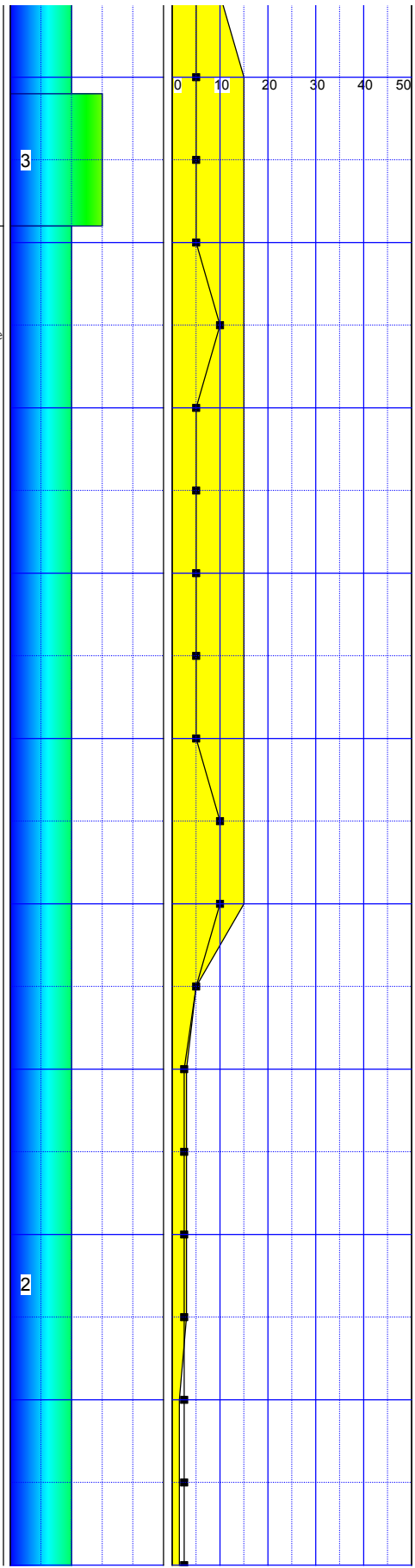
BASALT:
COLOR: Grayish red 10 R 4/2
TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 1,095.3 feet to 1,104.8 feet and increase from 1,109.5 feet to 1,111.9 feet. Scoriaceous at the top of the interval.
COMPOSITION: 35% grayish red ground mass; 30% submillimeter, anhedral to euhedral, white, plagioclase laths; 23% submillimeter, anhedral to subhedral, reddish brown olivine phenocrysts; 7% submillimeter, anhedral to subhedral, black, pyroxene phenocrysts; 5% 1 mm to 2 mm, anhedral, green olivine phenocrysts.
XENOLITHS: None noted
ALTERATION: Grayish yellow 5 Y 8/4 calcareous clay on fractures and in vesicles, and olivine is moderately altered to iddingsite.

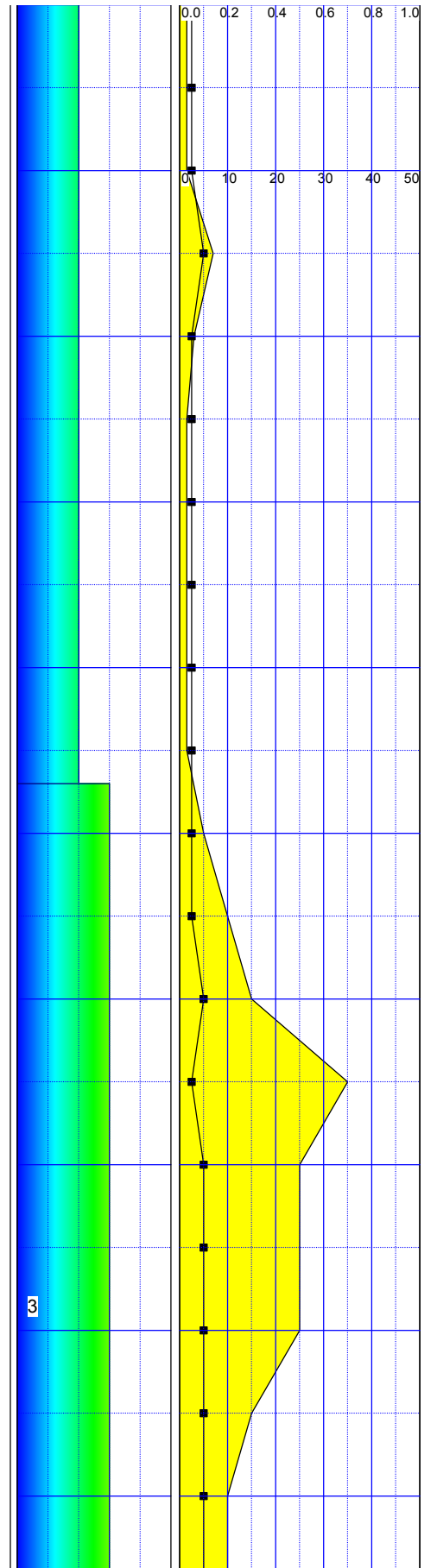
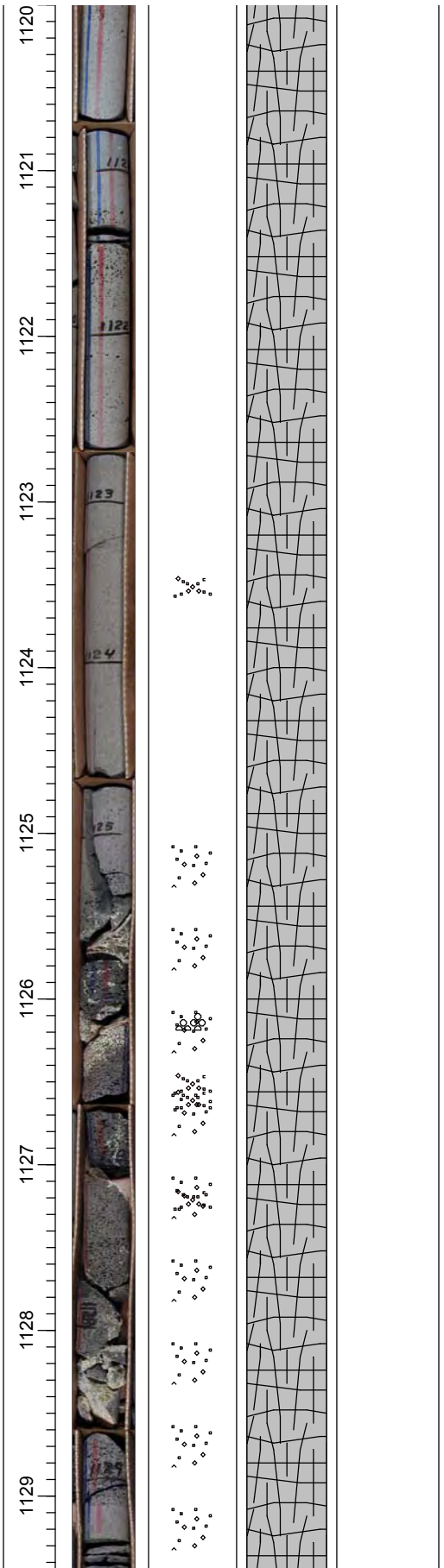


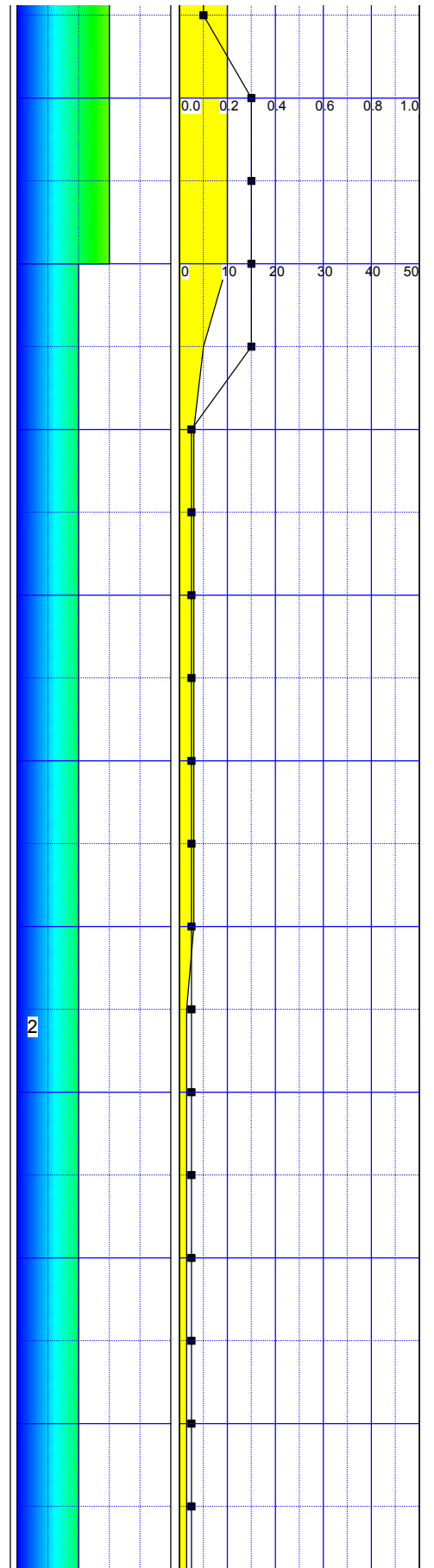
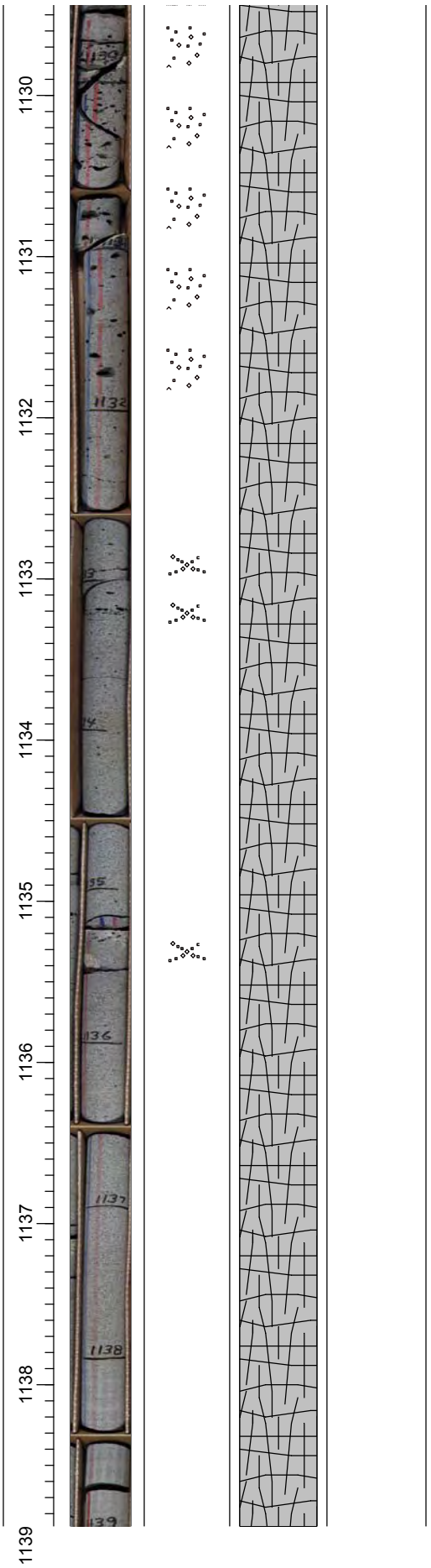


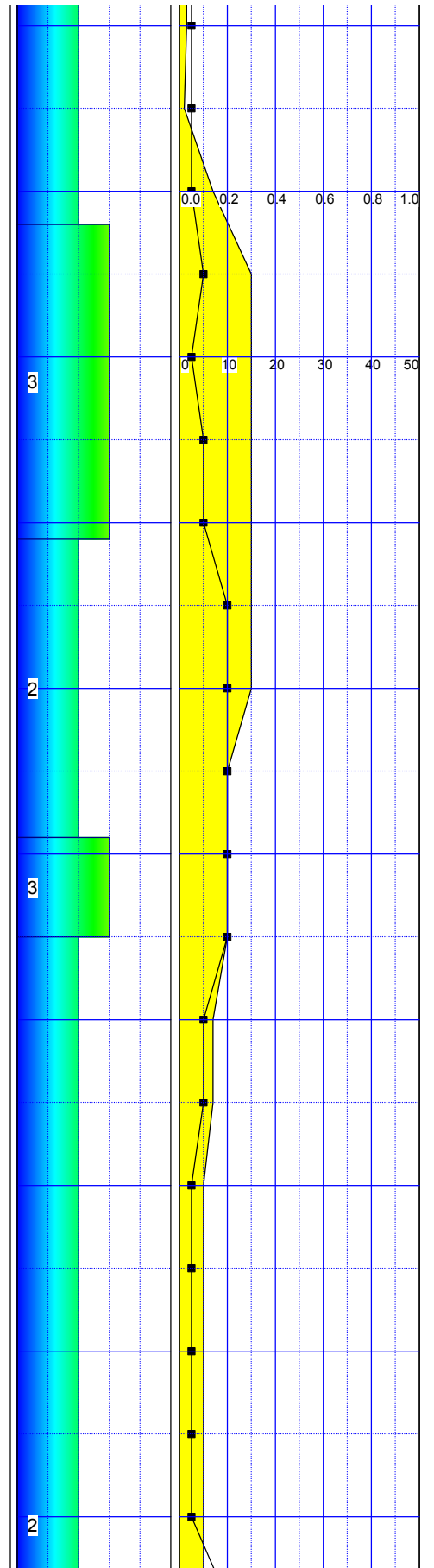
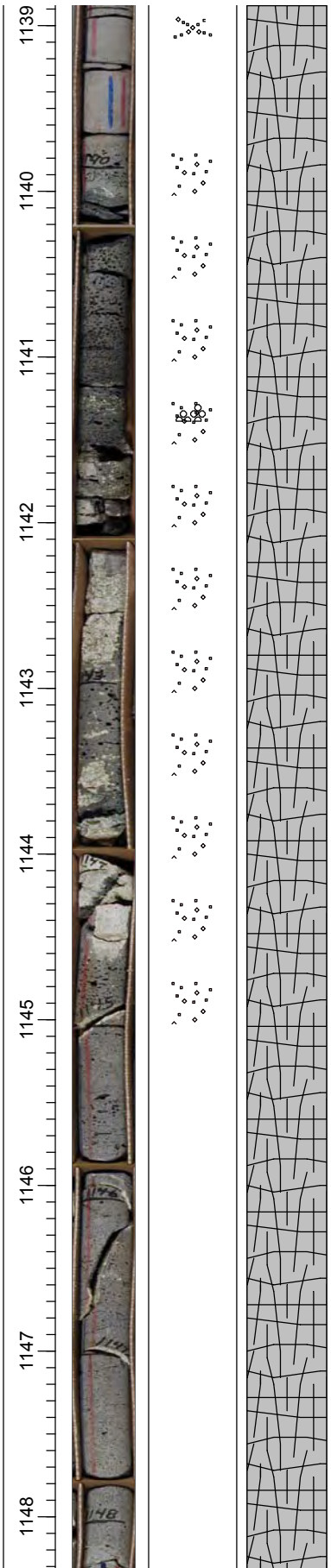


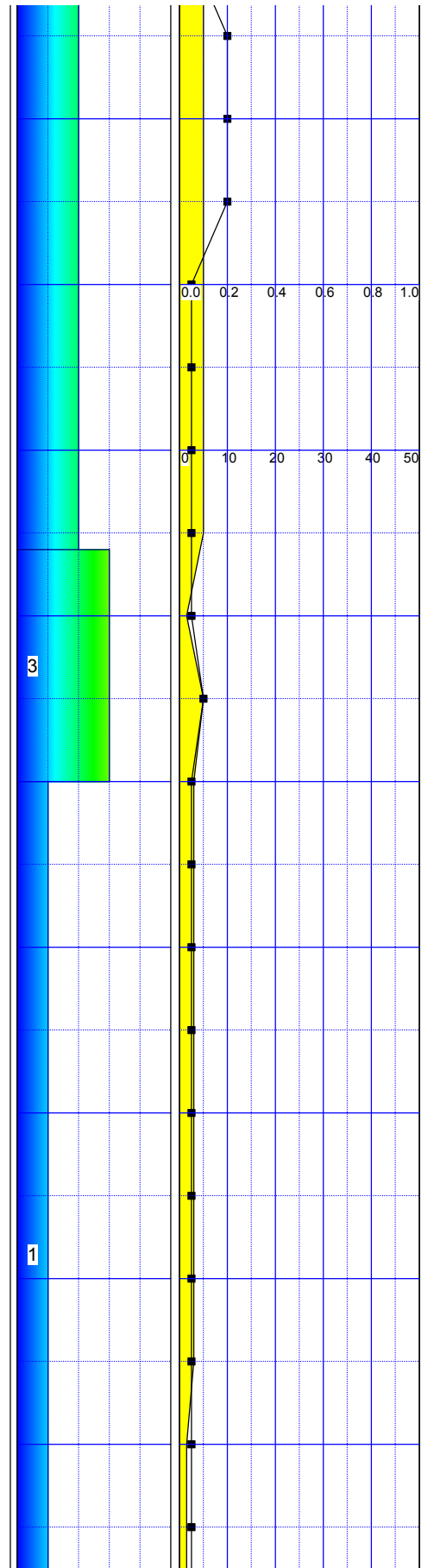
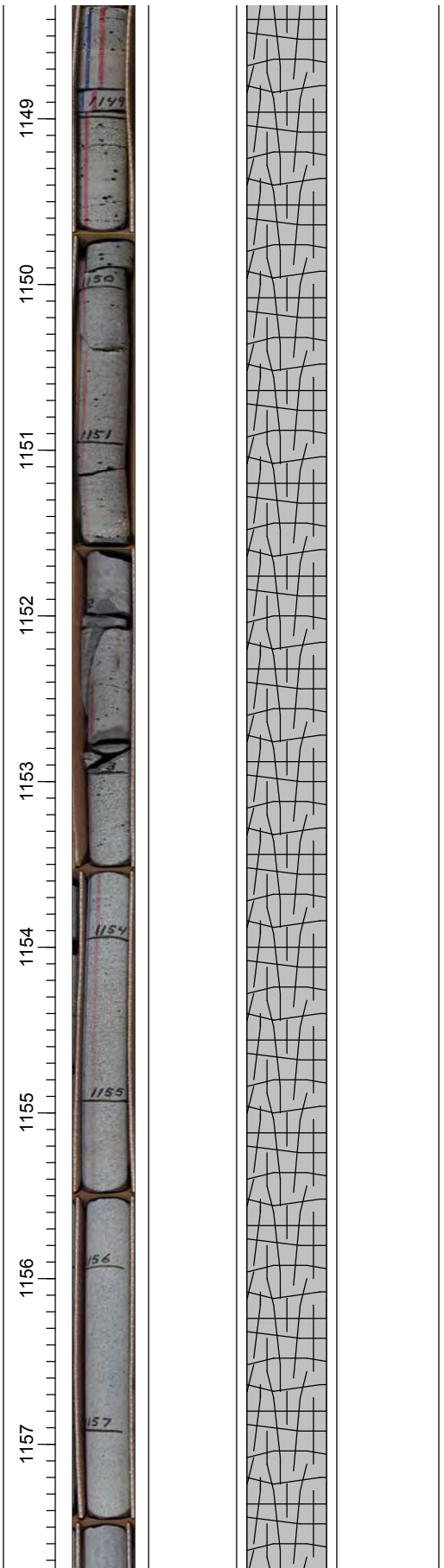
BASALT:
COLOR: Medium light gray N5
TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 1,111.9 feet to 1,116.2 feet and increase from 1,176.4 feet to 1,177.4 feet with vesicle zones from 1,125.2 feet to 1,132.0 feet and 1,139.9 feet to 1,145.0 feet. Spatter and vesicle planes are found throughout the interval.
COMPOSITION: 40% medium light gray ground mass; 35% submillimeter, anhedral to euhedral, white, plagioclase laths; 20% submillimeter, anhedral to subhedral, reddish brown olivine phenocrysts; 5% 1 mm to 2 mm, anhedral, green olivine phenocrysts.
XENOLITHS: None noted
ALTERATION: Grayish yellow 5 Y 8/4 calcareous clay and white N9 sparry calcite on fractures and in vesicles, and olivine is weakly altered to iddingsite.

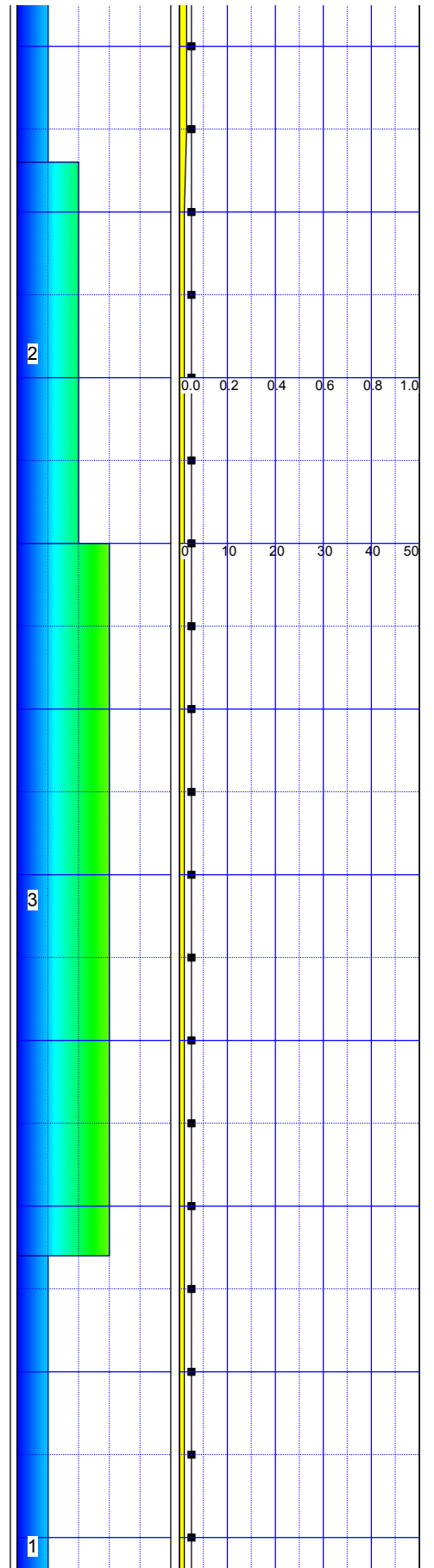
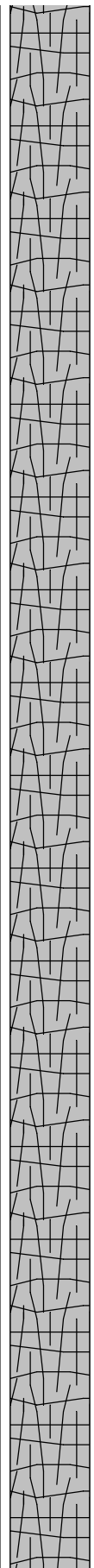


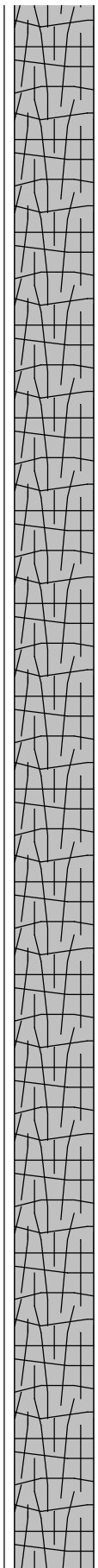




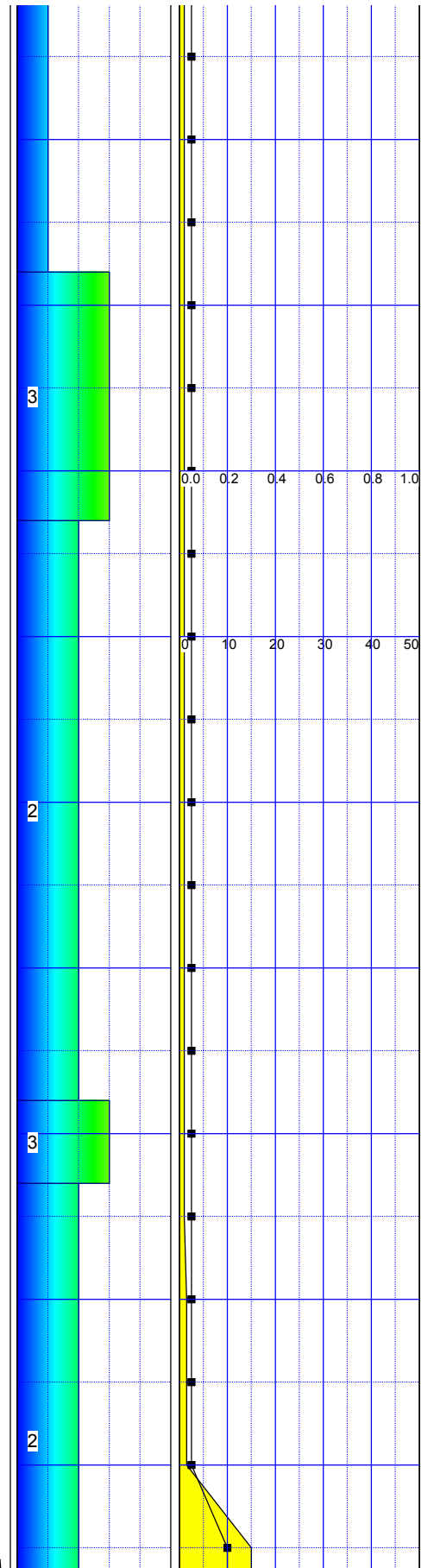


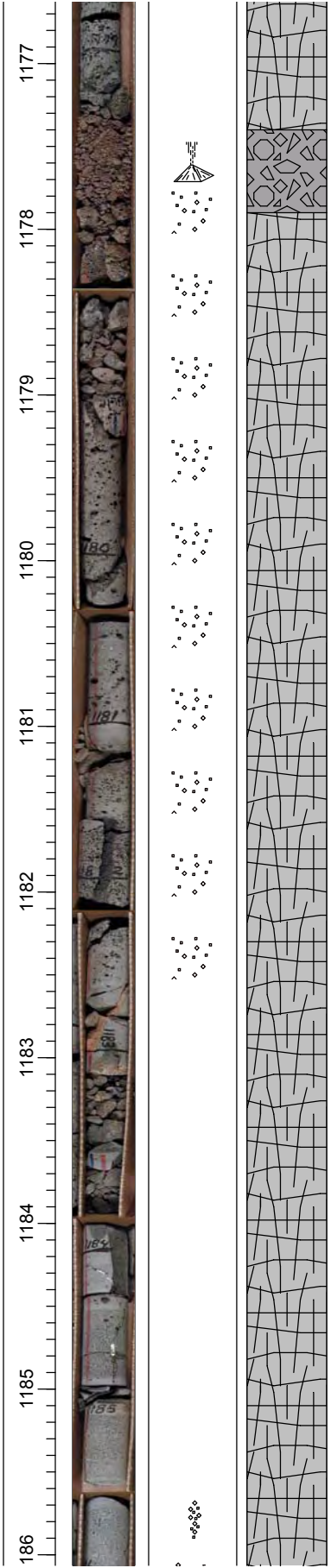






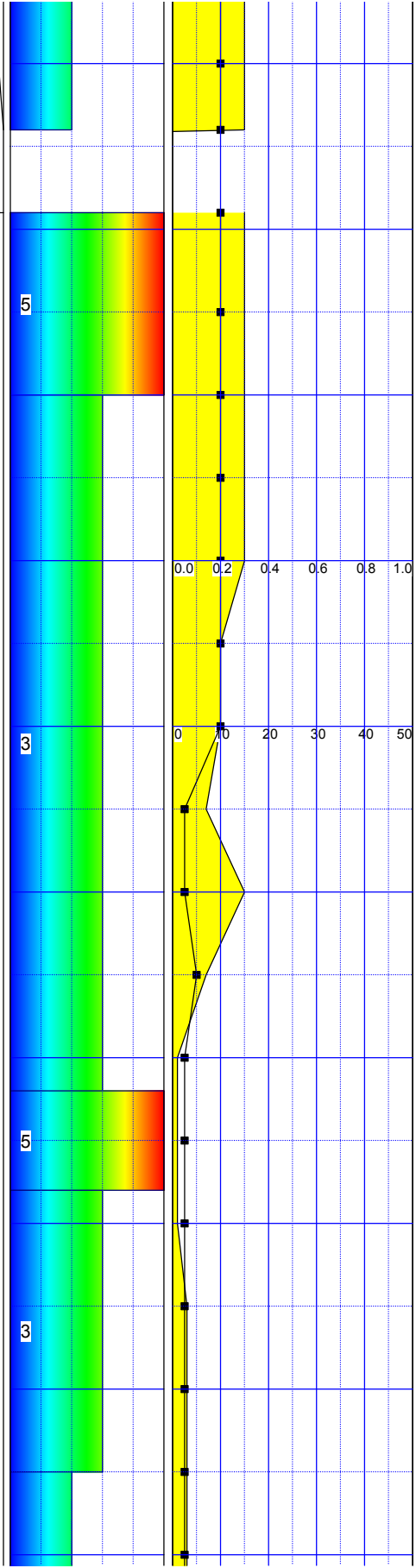
GRAVELS - CLEAN:

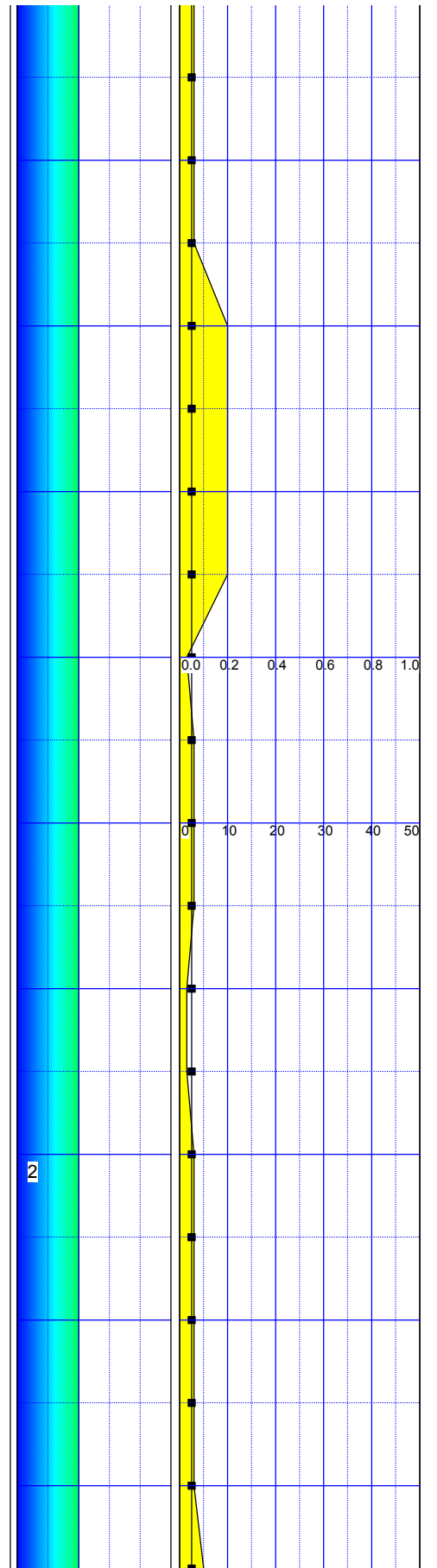
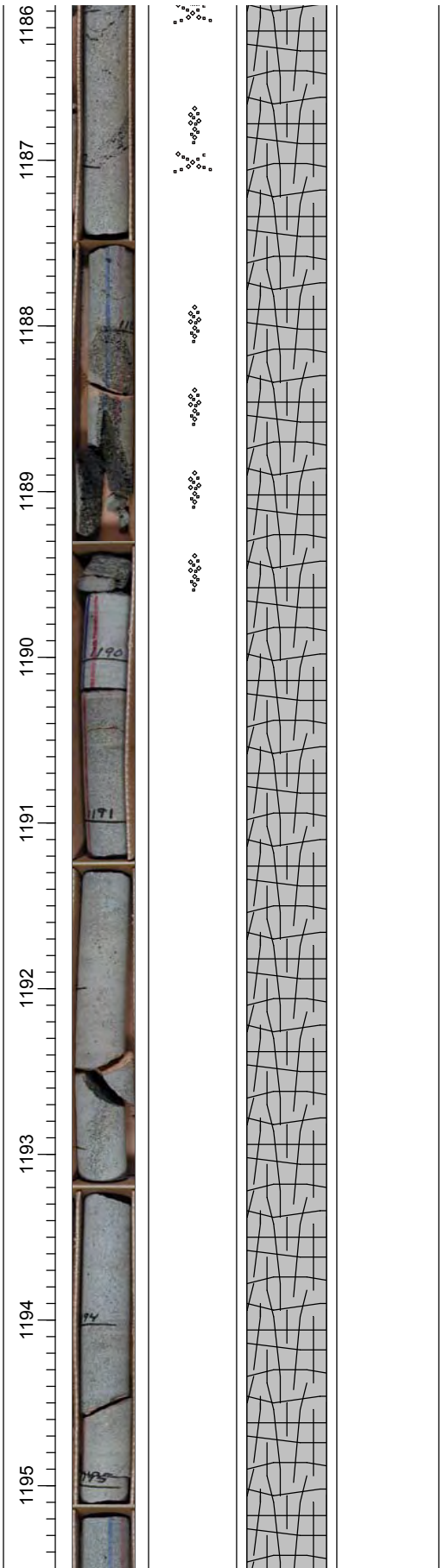


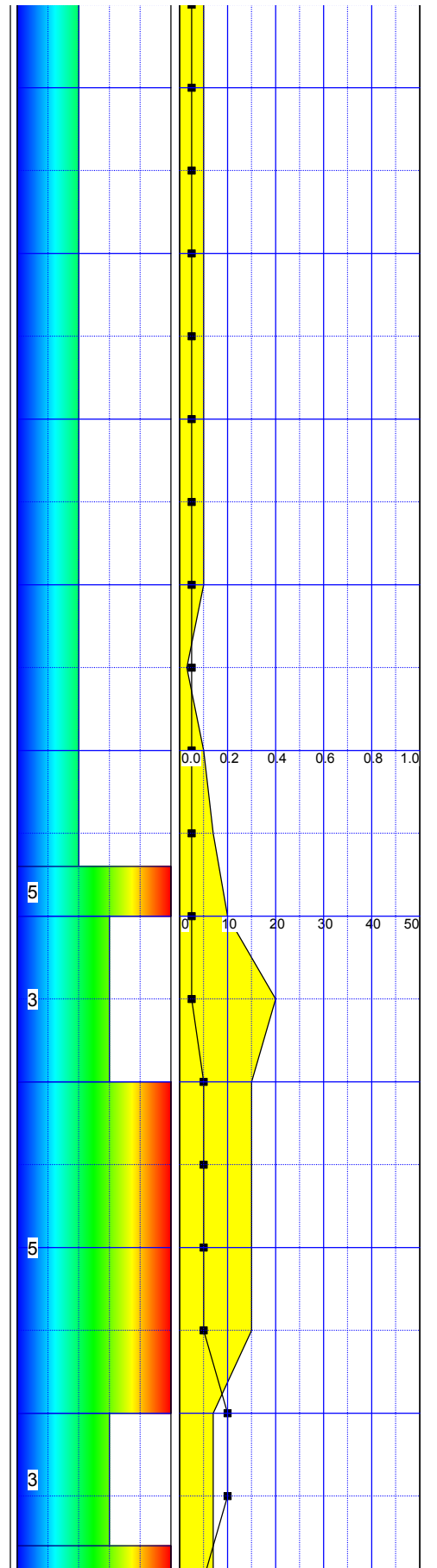
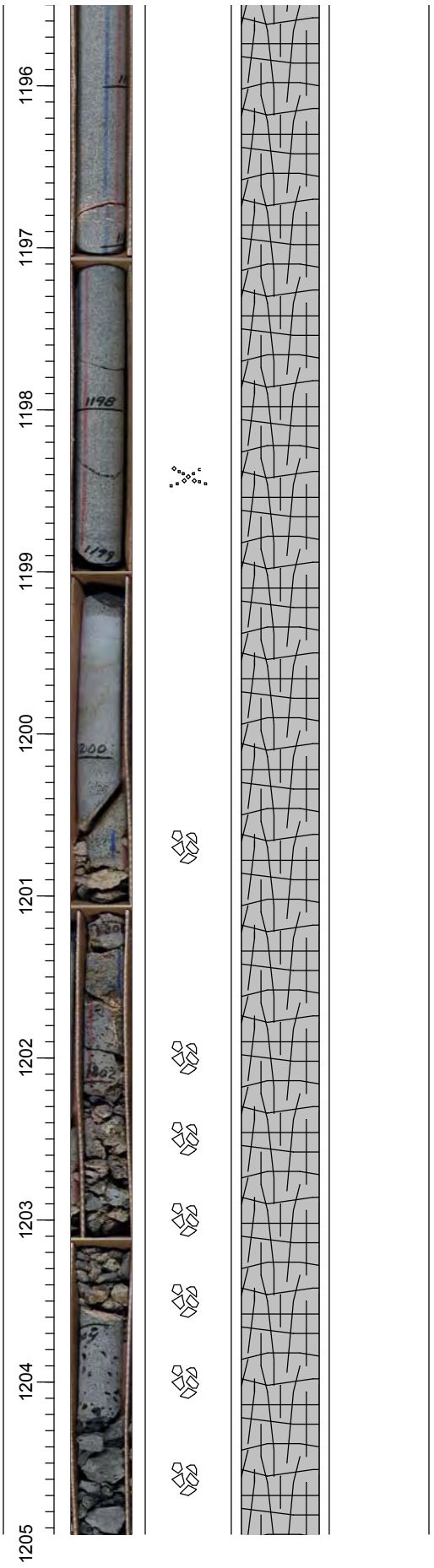


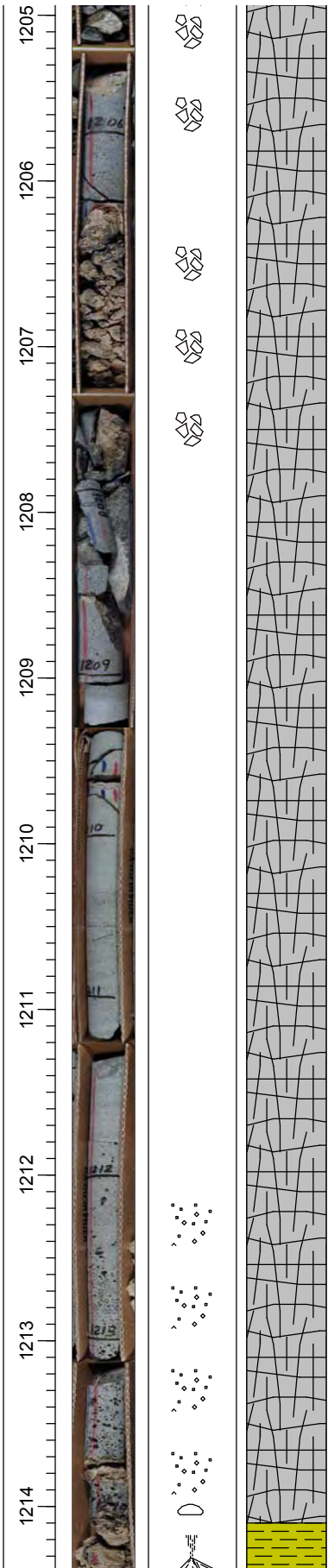
TEXTURE: Gravels, USCS classification GP. Sediment consist of pebble to granule, poorly sorted, angular gravels, mostly composed of basalt fragments.
 COLOR: Pale brown 5 YR 5/2
 CONSISTENCY: Loose
 Structures: Structureless
 FREE CARBONATES: No
 ROCK: None noted
 ROOTS OR FOSSILS: None noted

BASALT:
 COLOR: Medium gray N4
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 1,177.9 feet to 1,182.6 feet and increase from 1,212.2 feet to 1,214.1 feet. Vesicle columns, vesicle planes, and rubble zones are found throughout the interval.
 COMPOSITION: 45% medium gray ground mass; 30% submillimeter to 1 mm, anhedral to euhedral, white, plagioclase laths; 20% submillimeter, anhedral to subhedral, green olivine phenocrysts and 1 mm to 4 mm green olivine glomerocrysts; 5% submillimeter, anhedral, black, pyroxene phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Grayish orange 10 YR 7/4 calcareous clay and white N9 calcite in vesicles.

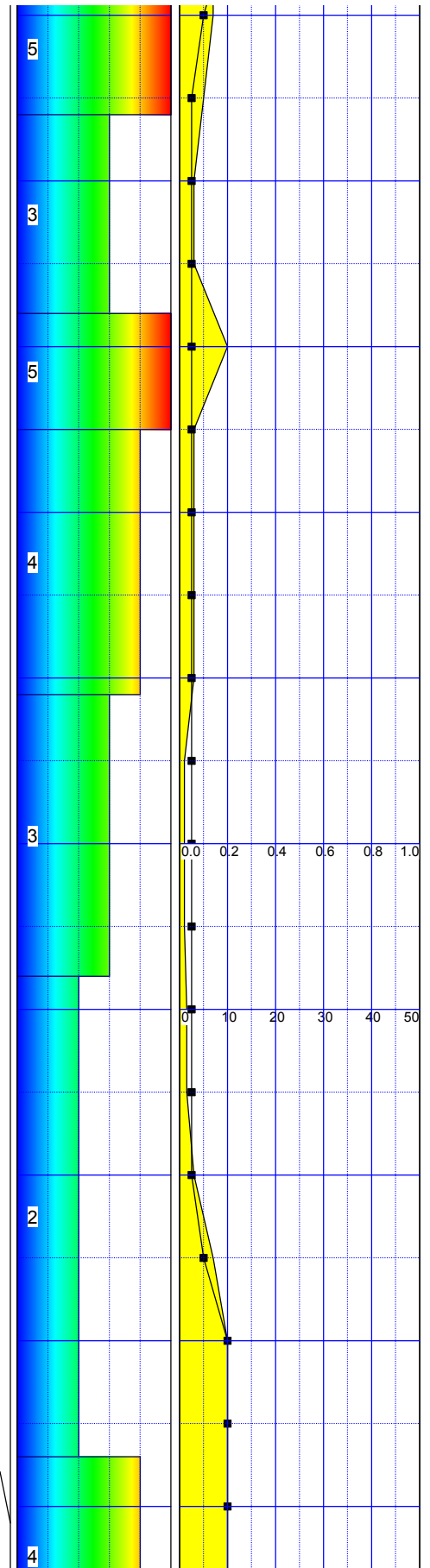


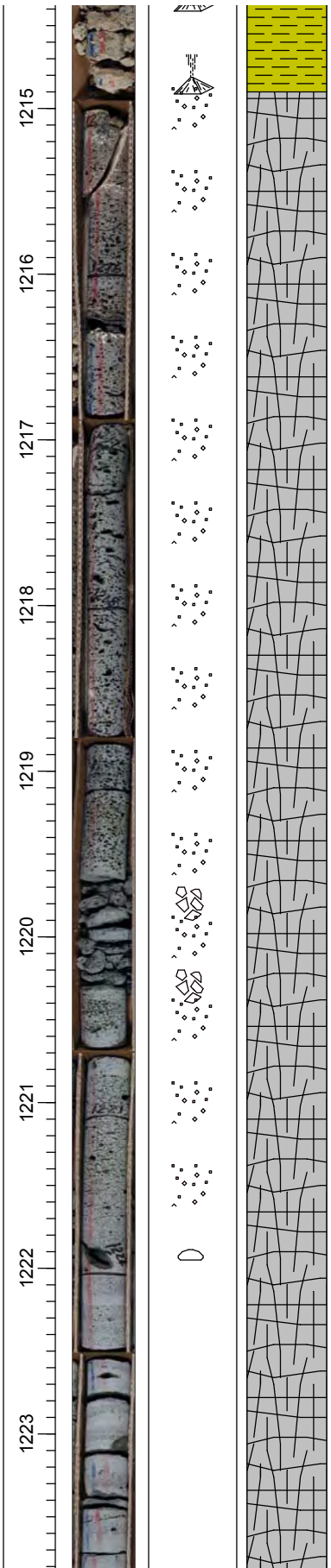






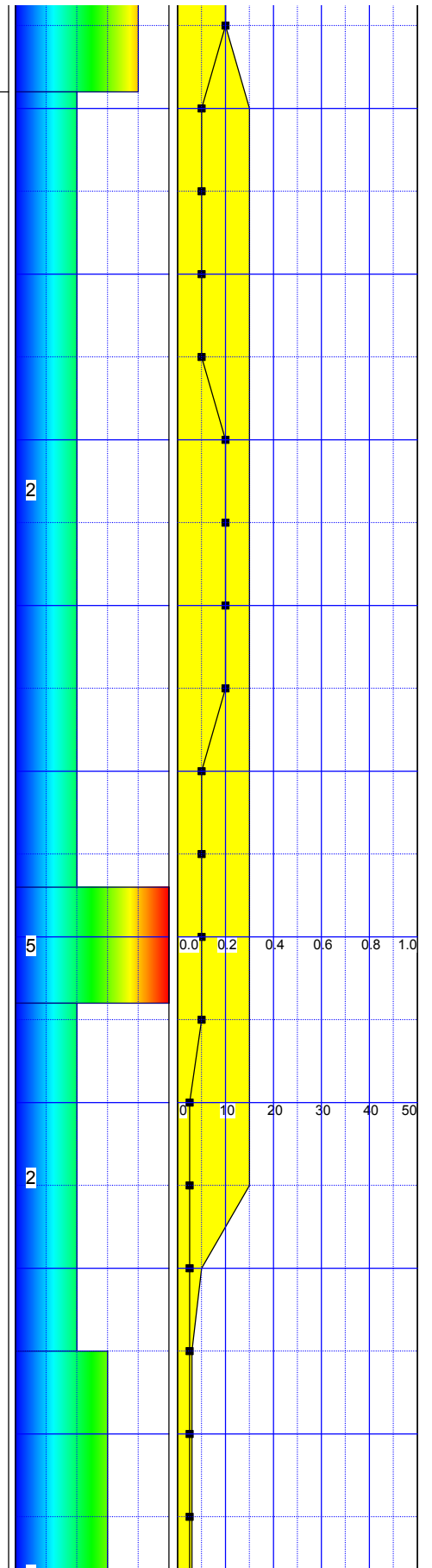
SILT AND CLAY:
Texture: Silt, USCS soil classification ML
Color: Grayish orange 10 YR 7/4
Consistency: Friable
Structures: Structureless

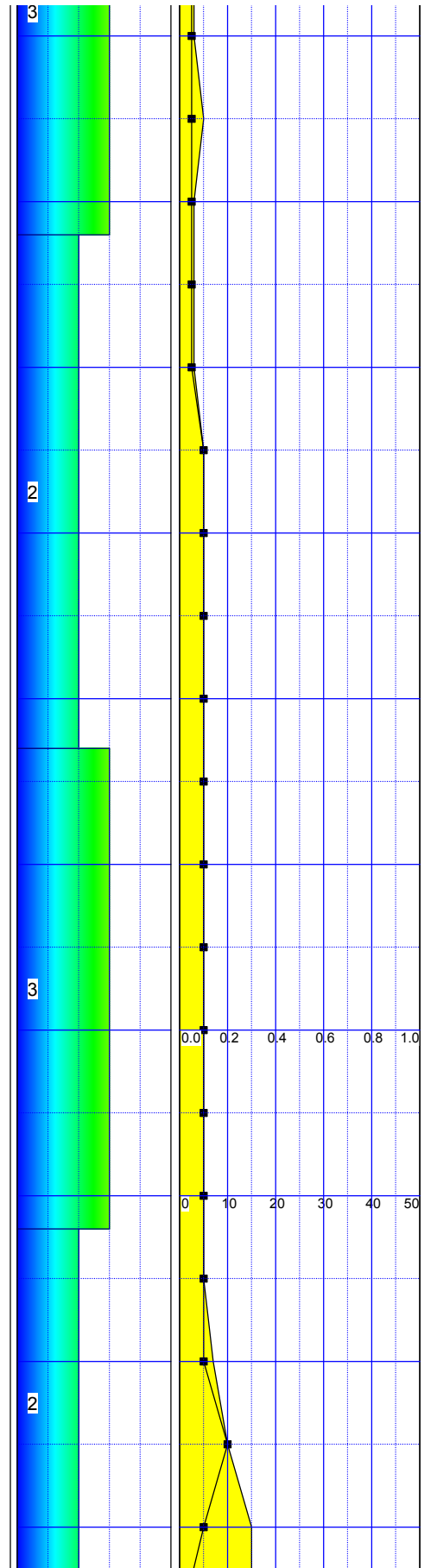
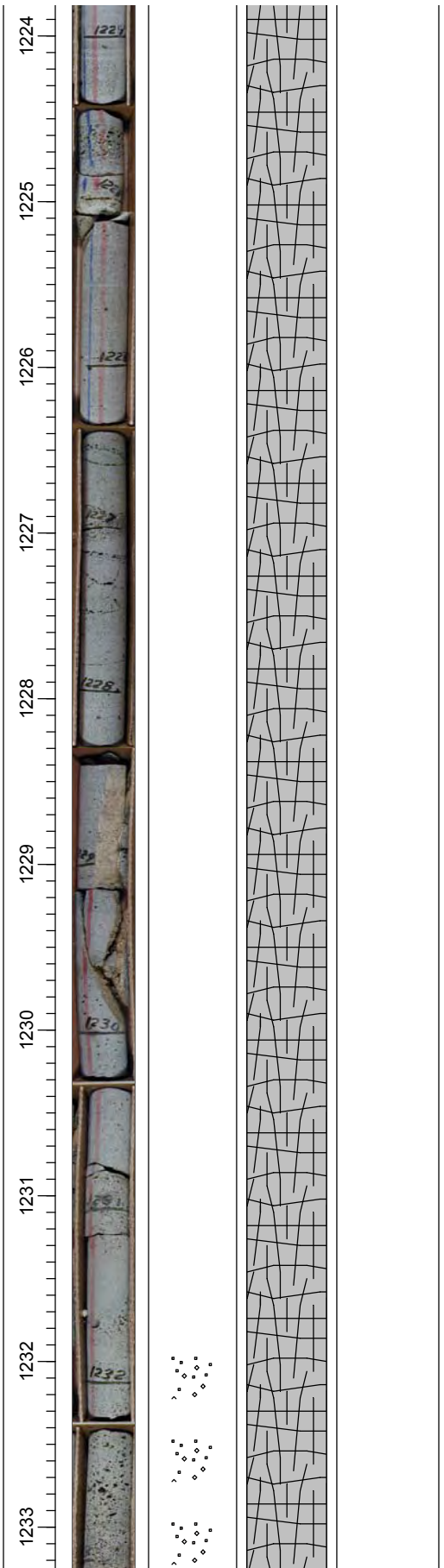


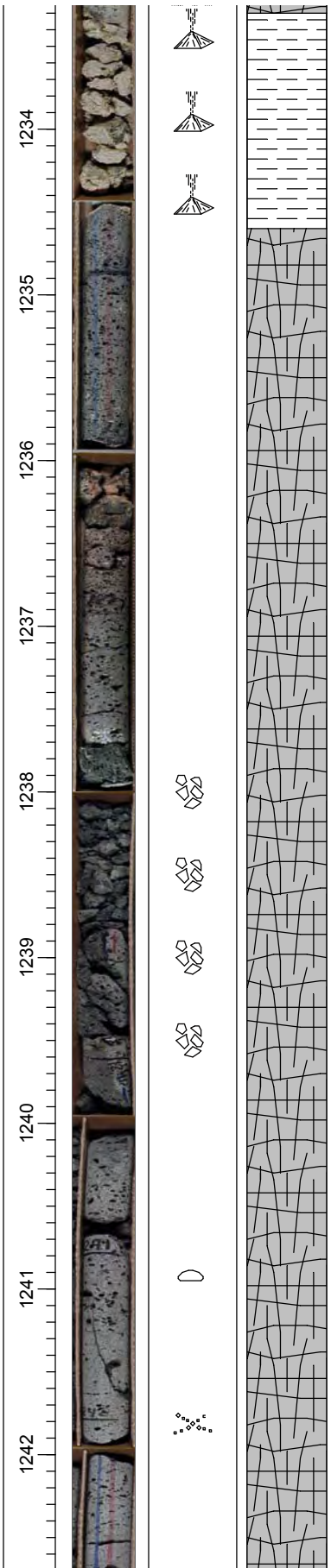


Free Carbonates: No
 Rocks: Basalt fragments are found throughout the interval.
 Roots/Fossils: None noted

BASALT:
 COLOR: Medium gray N4
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 1,214.9 feet to 1,221.7 feet and increase from 1,232.0 feet to 1,233.3 feet. Vesicle planes are found throughout the interval.
 COMPOSITION: 40% medium gray ground mass; 35% submillimeter, anhedral to euhedral, white, plagioclase laths; 20% submillimeter to 2 mm, anhedral to subhedral, green olivine phenocrysts; 5% 1 mm to 2 mm, anhedral, reddish brown olivine phenocrysts.
 XENOLITHS: None noted
 ALTERATION: White N9 sparry calcite on fractures and in vesicles.

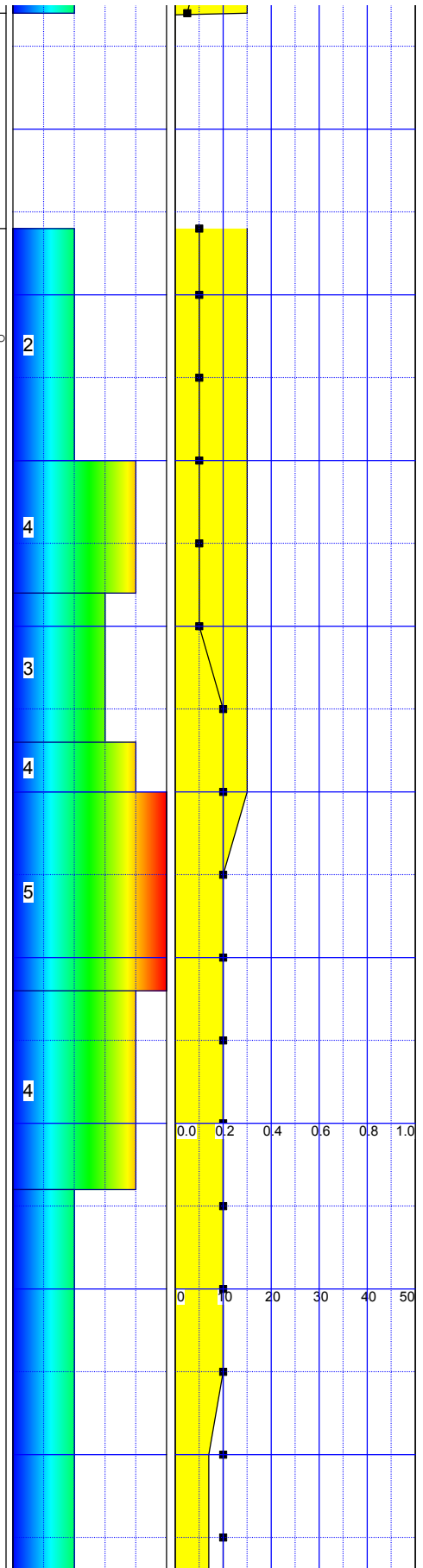


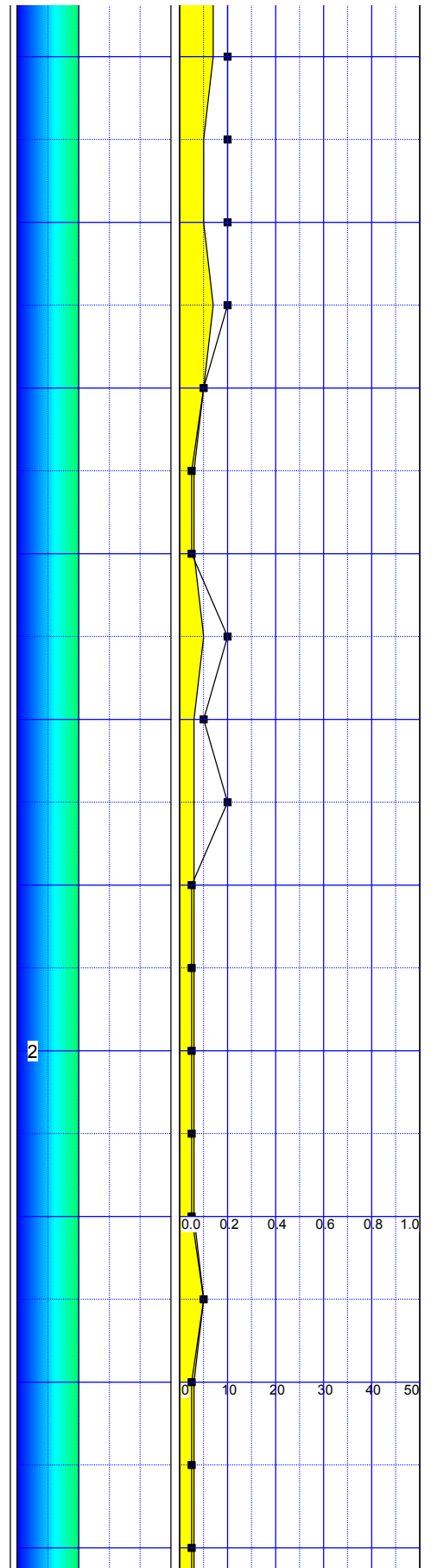
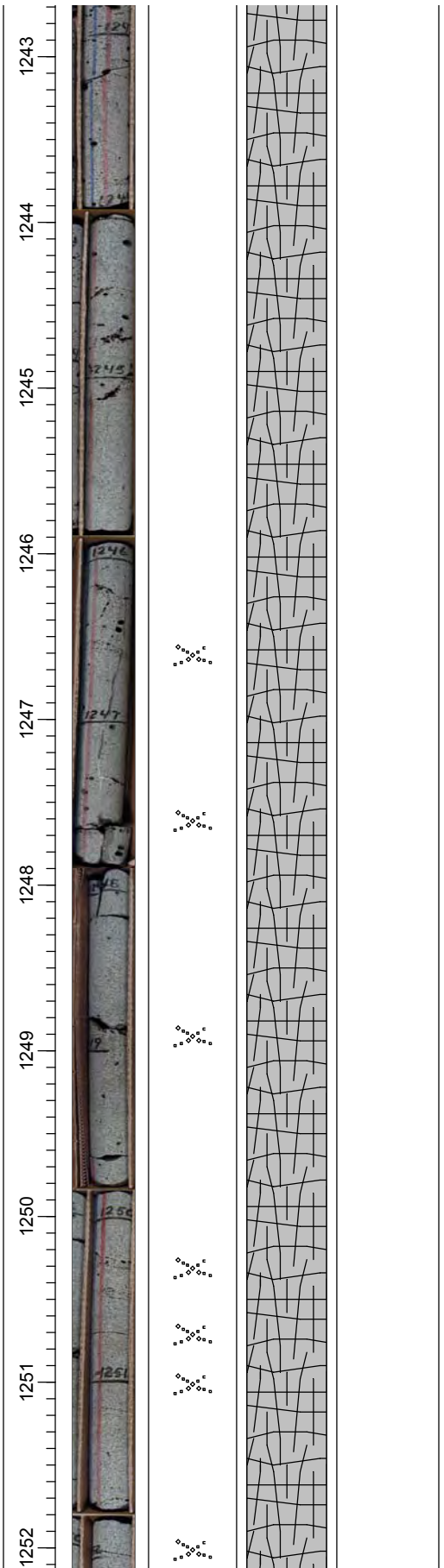


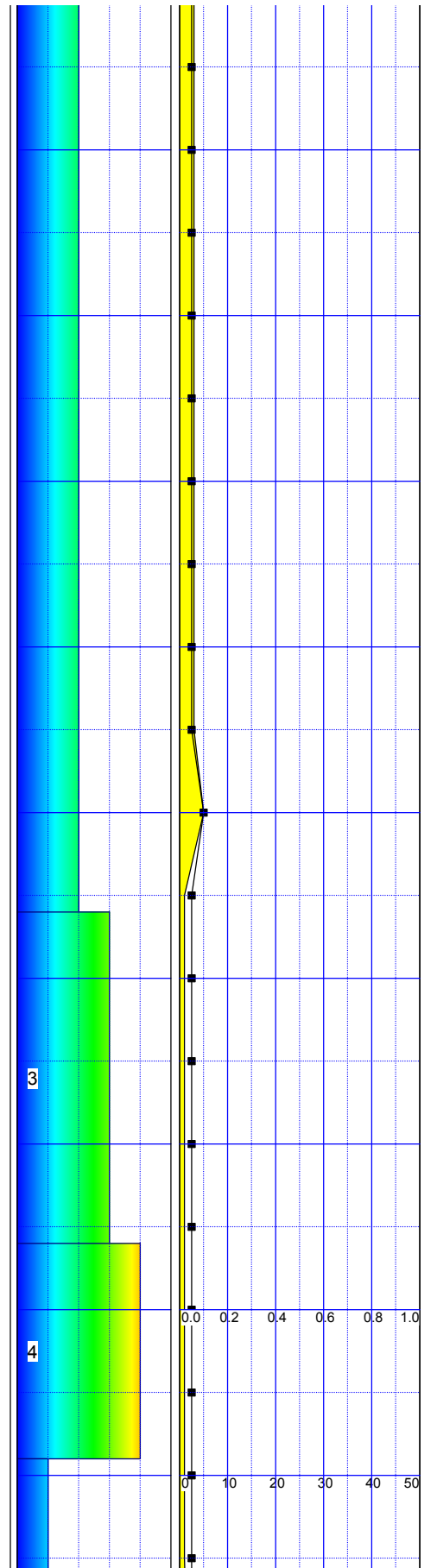
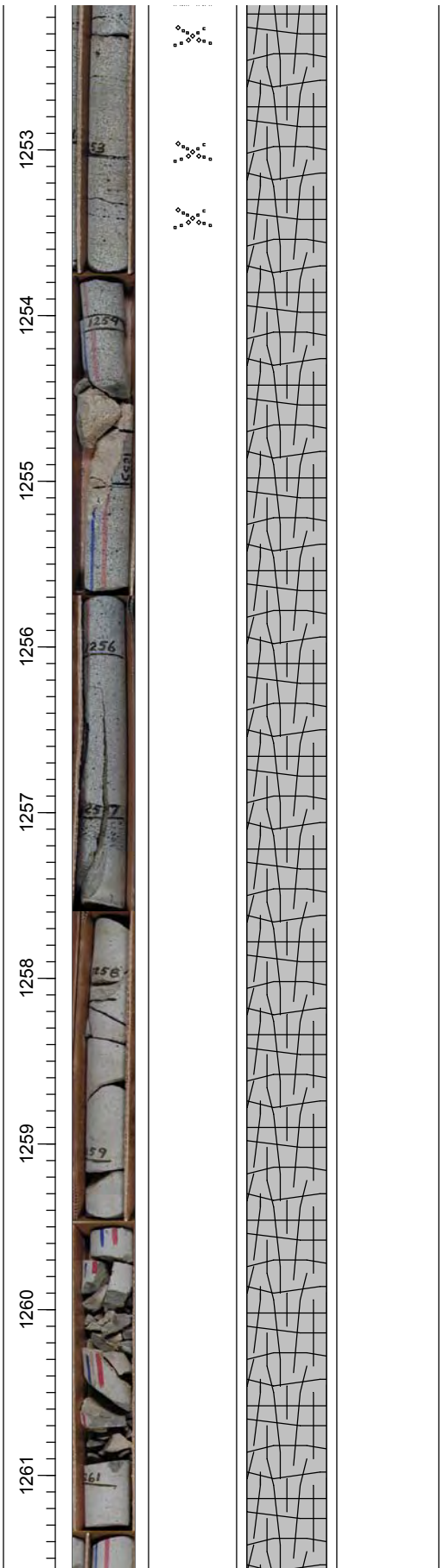


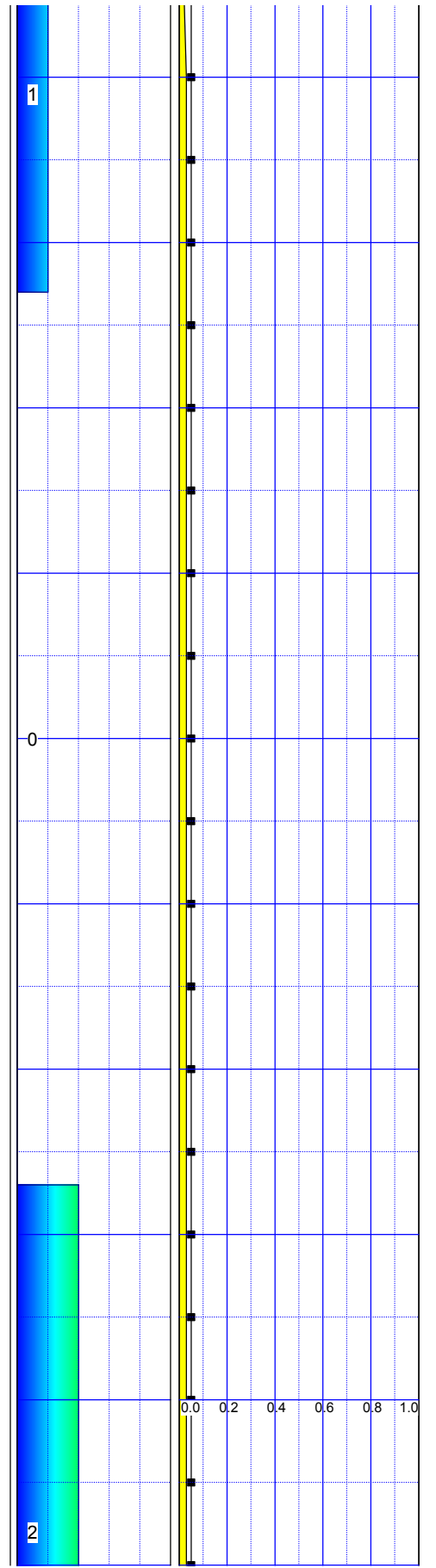
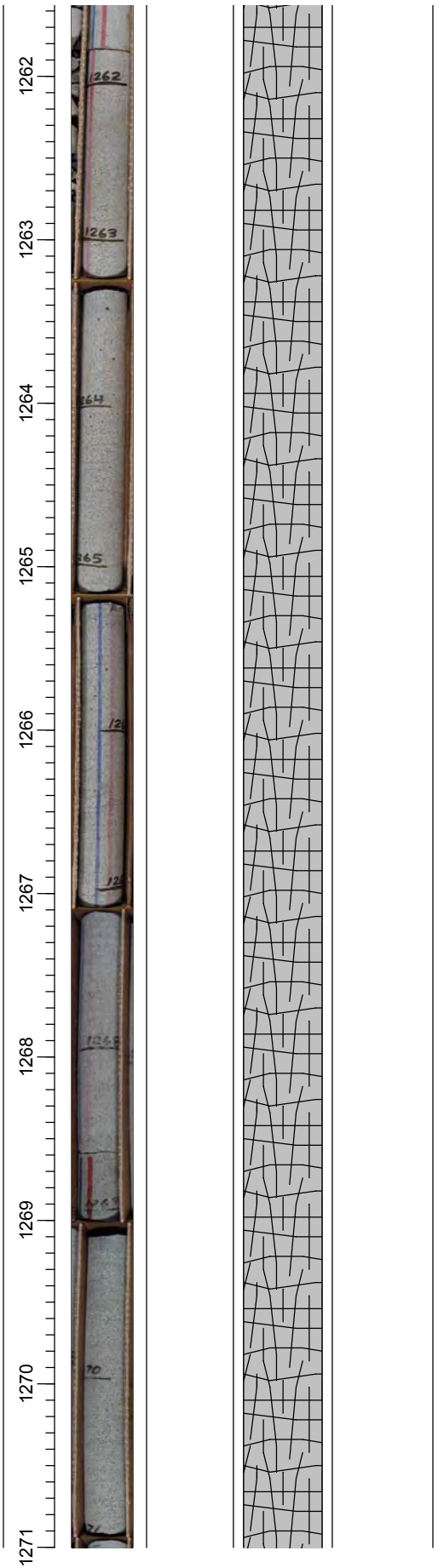
CLAY:
 TEXTURE: Clay, USCS classification CL
 COLOR: Grayish orange 10 YR 7/4.
 CONSISTENCY: Friable
 STRUCTURES: Structureless
 FREE CARBONATES: No
 ROCK: Basalt fragments are found throughout the interval.
 ROOTS OR FOSSILS: None noted

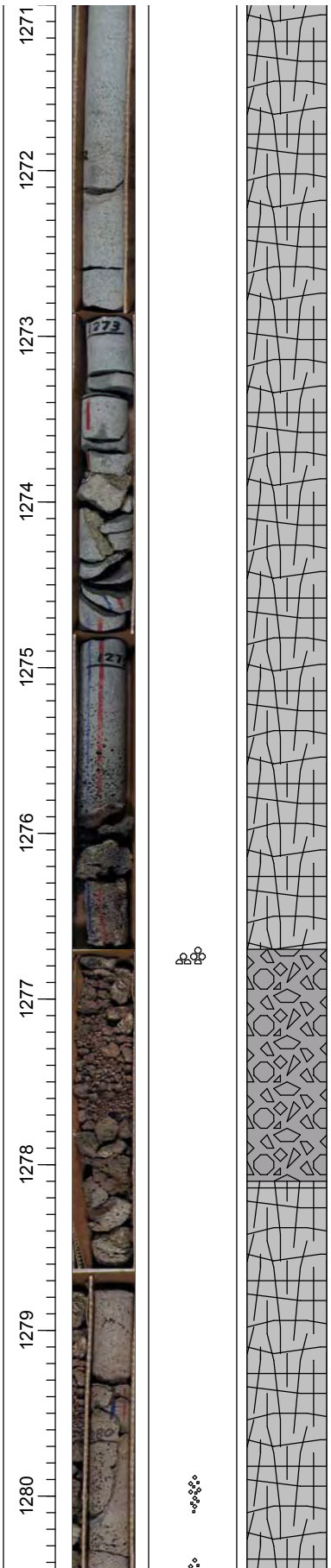
BASALT:
 COLOR: Medium light gray N5
 TEXTURE: Phaneritic, diktytaxitic, subophitic, vesicular basalt. Vesicles decrease in frequency from 1,234.6 feet to 1,243.0 feet and increase from 1,275.3 feet to 1,276.7 feet. Vesicle planes and verticle fractures are present throughout the interval.
 COMPOSITION: 40% medium light gray ground mass, 35% submillimeter, subhedral to euhedral, white, plagioclase phenocrysts; 15% submillimeter to 1 mm, anhedral to subhedral, green olivine phenocrysts and 1 mm to 3 mm reddish green olivine glomerocrysts; 10% submillimeter, anhedral to euhedral, black, bladed pyroxene phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Moderate reddish orange 10 R 6/6 grayish yellow 5 Y 8/4 clay on fractured surfaces and white N9 sparry calcite in vesicles. Olivine is moderately altered to iddingsite and iron staining in vesicle zones.





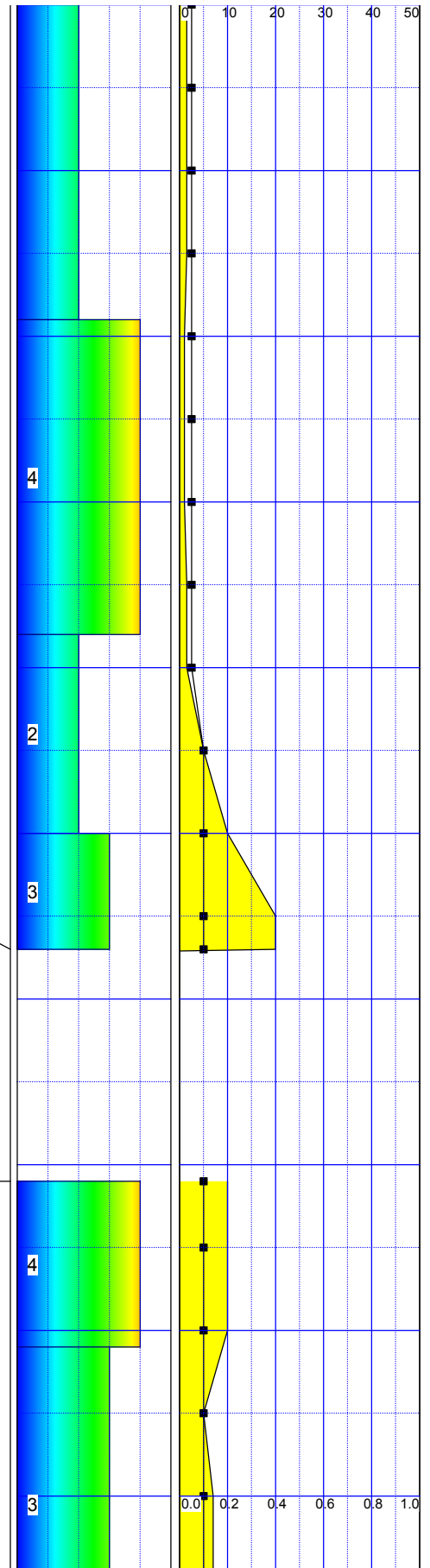


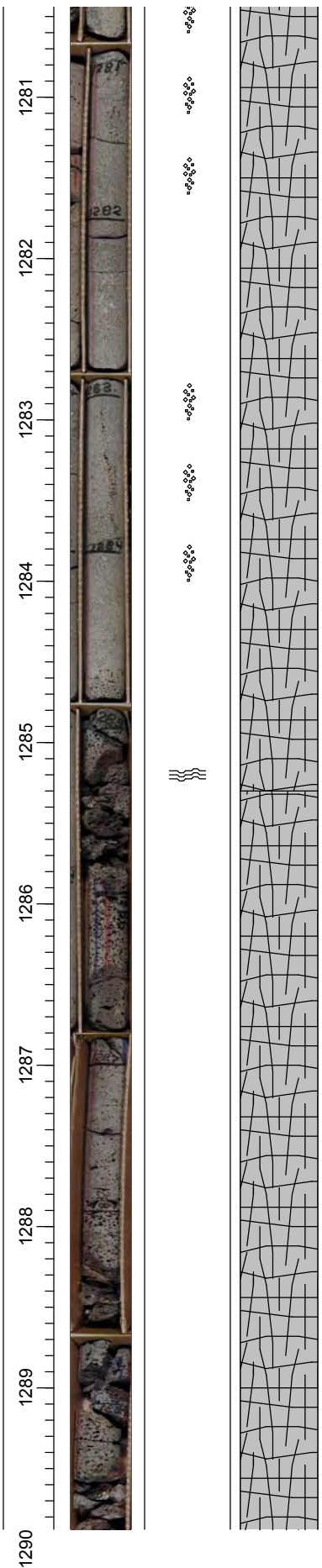




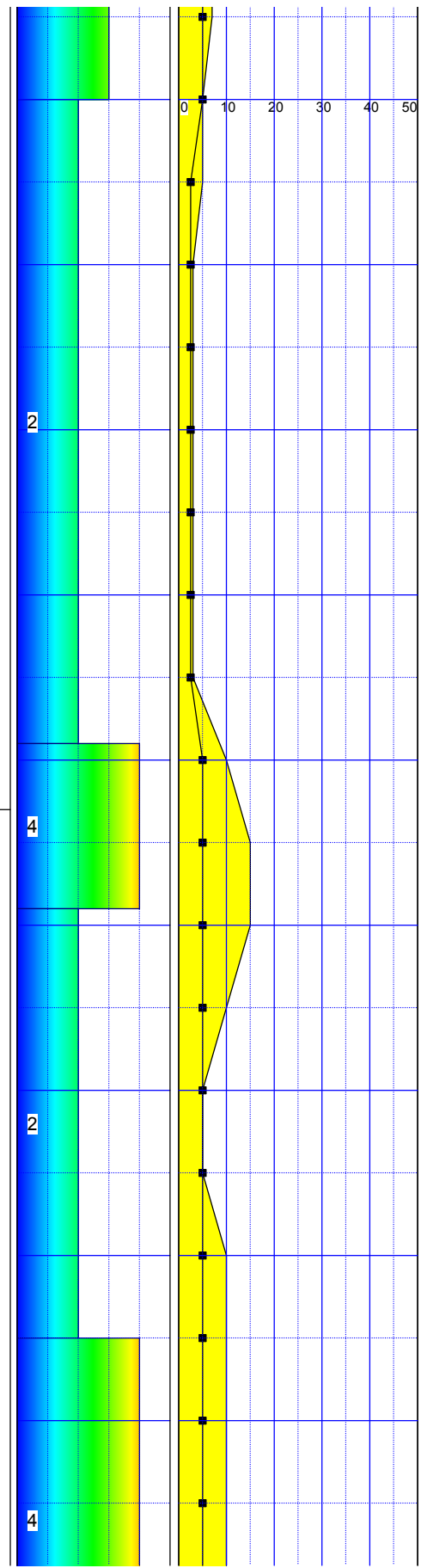
GRAVELS - CLEAN:
 TEXTURE: Gravels, USCS classification GP. Sediment consist of course pebble to fine pebble, poorly sorted, angular to subrounded gravels, composed of basalt fragments.
 COLOR: Grayish red 5 R 4/2
 CONSISTENCY: Loose
 Structures: Structureless
 FREE CARBONATES: No
 ROCK: None noted
 ROOTS OR FOSSILS: None noted

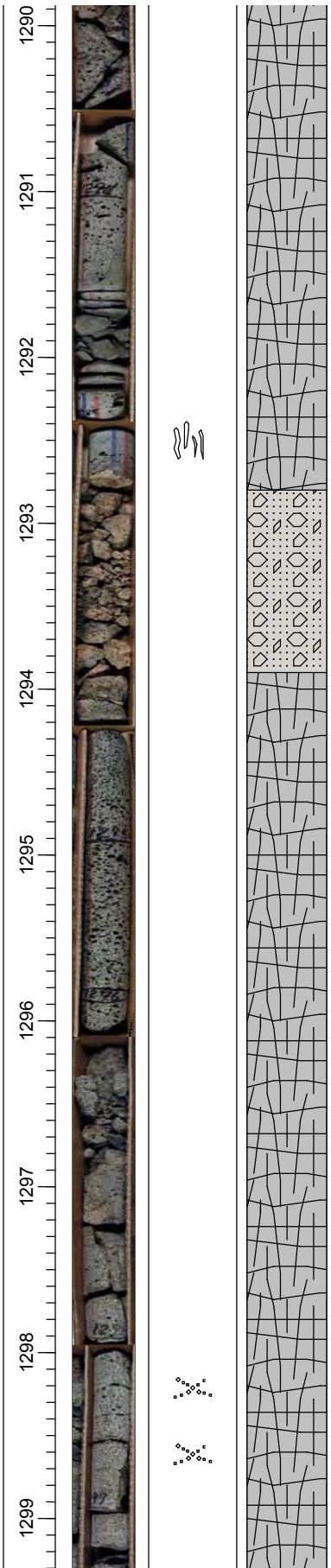
BASALT:
 COLOR: Brownish gray 5 YR 4/1
 TEXTURE: Phaneritic, diktytaxitic, vesicular basalt. Vesicles decrease in frequency from 1,278.1 feet to 1,279.3 feet and increase from 1,284.8 feet to 1,285.3 feet.
 COMPOSITION: 30% brownish gray ground mass; 35% submillimeter to 1 mm, anhedral to euhedral, white, plagioclase phenocrysts; 20% submillimeter, anhedral to subhedral, reddish brown olivine phenocrysts; 10% submillimeter, anhedral, black, pyroxene phenocrysts; 5% 1 mm to 3 mm, subhedral to euhedral, green olivine glomerocrysts.
 XENOLITHS: None noted
 ALTERATION: Olivine is weakly altered to iddingsite and white N9 sparry calcite found in vesicles.





BASALT:
COLOR: Blackish red 5 R 2/2
TEXTURE: Phaneritic, diktytaxitic, subophitic, vesicular basalt. Vesicles decrease in frequency from 1,285.3 feet to 1,287.0 feet and increase from 1,287.9 feet to 1,292.8 feet.
COMPOSITION: 60% blackish ground mass, 20% submillimeter, subhedral to euhedral, white, plagioclase phenocrysts; 10% submillimeter, anhedral to subhedral, reddish green olivine phenocrysts and 1 mm to 3 mm green olivine glomerocrysts; 10% submillimeter, anhedral, black, pyroxene phenocrysts.
XENOLITHS: None noted
ALTERATION: Olivine is moderately altered to iddingsite and iron staining in vesicle zones.





GRAVELS WITH FINES:
 TEXTURE: Gravels, USCS classification GM.
 Sediment consist of pebble to granule, poorly sorted, angular gravels, composed of basalt fragments and fine silts.
 COLOR: Medium gray N4 basalt fragments and grayish orange 10 YR 7/4 silts
 CONSISTENCY: Loose
 Structures: Structureless
 FREE CARBONATES: Silts are highly reactive.
 ROCK: None noted
 ROOTS OR FOSSILS: None noted

BASALT:
 COLOR: Medium gray N4
 TEXTURE: Phaneritic, diktytaxitic, ophitic, vesicular basalt. Vesicles decrease in frequency from 1,293.9 feet to 1,296.8 feet. Vesicle planes are present throughout the interval.
 COMPOSITION: 25% medium gray ground mass; 40% submillimeter to 3 mm, subhedral to euhedral, white, plagioclase phenocrysts; 20% submillimeter, anhedral to subhedral, black, bladed pyroxene phenocrysts; 15% submillimeter to 2 mm, anhedral to subhedral, green to reddish green olivine phenocrysts.
 XENOLITHS: None noted
 ALTERATION: Yellowish gray 5 Y 7/2 to yellowish gray 5 Y 8/4 clay on fractured surfaces.

