

CORE ANALYSIS REPORT

**BHP Petroleum (Americas), Inc.
WN-91-CHA, WN-91-CHA-1, WN-91-CH2, WN-91-CH3
Newfoundland, Canada
CL File No.: 57151-16944**

EL# 91-102-01-ED

Release Date: January 24, 1997

January 24, 1992

BHP Petroleum (Americas), Inc.
5847 San Felipe
Suite 3600
Houston, Texas 77057

Attn: Mr. David Henry

Subject: Core Analysis Data
WN-91-CH1, WN-91-CHA-1, WN-91-CH2, WN-91-CH3
Newfoundland, Canada
File No.: 57151-16944

Dear Mr. Henry:

Conventional codes taken from the subject well were received at the Houston, Texas Advanced Technology Center for analytical testing described on the Procedure Page.

Tabular presentation of the measured physical properties may be found on pages Final Report 1-1 through 1-2 of this report.

All slabbed core was delivered to BHP Petroleum (Americas), Inc. on January 15, 1992. The remaining core (approximately 25 wooden crates) was picked up by Eastway Delivery Service on January 23, 1992, to be delivered to BHP in Canada.

It is a pleasure to have this opportunity to serve you. Should you have any questions regarding this data, please call (713) 460-9600.

Sincerely,

**CORE LABORATORIES
Gulf Coast Advanced Technology Center**

Lynn Antwine
Rock Properties Lab Supervisor

CORE LABORATORIES

Company: BHP Petroleum
Well: WN-91 CH1, CH1A, CH2, CH3

Field:
Formation:

File No.: 57151-16944
Date: 4-DEC-1991

ANALYTICAL PROCEDURES AND QUALITY ASSURANCE

Handling & Cleaning	Analysis
Core Transportation: Delivered Solvent: Toluene - Chloroform-Methanol Extraction Equipment: Dean Stark Apparatus Extraction Time: 2 Weeks Drying Equipment: Convection Oven Drying Time: 48 Hours Drying Temperature: 240 Deg. F.	Pore volume measured by Boyle's Law in a Hassler holder using He Grain volume measured by Boyle's Law in a matrix cup using He Dean Stark grain densities clean, dry solid mineral phase are measured
Remarks	
Cores were vertically slabbed ½ - ½ for future geological study. One set of slabs was photographed under natural light for future reference. One set of slabs was delivered to Mr. David Henry at BHP Petroleum. The other set of slabs will be returned to BHP in Canada via motor freight.	

CORE LABORATORIES

Company: BHP Petroleum
Well: WN-91 CH1, CH1A, CH2, CH3
Location:
Co, State: Newfoundland, Canada

Field:
Formation:
Coring Fluid:
Elevation:

File No.: 57151-16944
Date: 4-DEC-1991
API No.:
Analysts: CD/ML/JW

CORE ANALYSIS RESULTS

Sample Number	Depth ft	Permeability			Porosity (Helium) %	Grain Density gm/cc	Description
		(Maximum) Kair md	(90 DEG) Kair md	(Vertical) Kair md			
Full Diameter analysis							
WN-91 CH1							
1	27.5-28.0	0.03	0.02	0.03	6.2	2.85	Dol dk gry vug sh lam
2	28.3-29.0	6.70	2.30	1.80	12.3	2.84	Dol dk gry vug sh lam styl
3	33.3-34.0	25.0	10.0	0.17	8.8	2.85	Dol gry vug foss styl vert frac
4	47.2-48.0	481	7.10	0.44	11.3	2.84	Dol gry vug foss styl vert frac
5	52.7-53.4	0.10	0.08	<.01	7.6	2.84	Dol gry vug sty
7	53.5-54.3	15.0	2.40	0.12	9.5	2.85	Dol gry vug foss vert frac
7	55.0-55.8	122	24.0	7.60	12.7	2.84	Dol gry vug foss vert frac

8	56.1-56.8	5.70	0.49	<.01	7.0	2.84	Dol gry vug foss vert frac
# 9	57.2-57.9				11.1	2.84	Dol gry vug foss vert frac
10	58.1-58.6	2.30	1.70	1.00	7.5	2.84	Dol gry vug foss vert
11	59.0-59.5	0.69	0.19	1.06	6.5	2.84	Dol gry vug vert frac
12	60.4-61.0	12.0	6.40	1.00	8.7	2.83	Dol gry vug vert frac
13	61.0-61.5	21.0	10.0	0.07	9.8	2.84	Dol gry vug vert frac
14	62.4-63.0	730	27.0	0.29	9.3	2.84	Dol gry p.p. sty
15	63.0-63.5	0.02	0.01	<.01	4.2	2.84	Dol gry vug vert frac
# 16	68.3-69.0				10.6	2.84	Dol gry vug vert frac
17	70.2-70.6	36.0	13.0	12.5	7.2	2.84	Dol gry vug vert frac
18	71.0-71.5	25.0	19.0	<.01	8.8	2.83	Dol gry vug vert frac
19	72.6-73.0	0.01	0.01	<.01	1.7	2.83	Dol dk gry sh lam dse
20	73.0-73.4	0.04	0.01	<.01	1.3	2.83	Dol dk gry sh lam dse
21	74.0-74.7	4.30	3.80	<.01	6.5	2.84	Dol gry vug styl
# 22	75.1-75.6				8.8	2.85	Dol gry vug foss sh lam frac

Denotes Open Fractures - Permeability Exceeds Analytical Capabilities

CORE LABORATORIES

Company: BHP Petroleum
Well: WN-91 CH1, CH1A, CH2, CH3

Field:
Formation:

File No.: 57151-16944
Date: 4-DEC-1991

CORE ANALYSIS RESULTS

Sample Number	Depth ft	Permeability			Porosity (Helium) %	Grain Density gm/cc	Description
		(Maximum) Kair md	(90 DEG) Kair md	(Vertical) Kair md			
WN-91 CH1A No Analysis Requested							
WN-91 CH2							
23	57.2-57.6	0.07	0.04	0.02	7.2	2.86	Dol gry vug foss
24	75.6-76.1	<.01	<.01	<.01	3.7	2.84	Dol gry cal frac dse
WN-91 CH3							
25	46.4-47.1	<.01	<.01	<.01	3.0	2.73	Ls gry styl dse
26	69.9-70.6	<.01	<.01	<.01	2.9	2.85	Dol gry slily vug styl
27	77.7-78.2	<.01	<.01	2.90	11.8	2.83	Dol gry vug styl

1:50,000
70 20 71

C
N
C
B



#1 & #1A

#2

#3

LOCATION MAP FOR BHP
CORING PROGRAM 8130-6058-003E

SUPPLIED BY NLDM&E.
JUNE 1996

INGORNACHOIX

21 ST JOHN

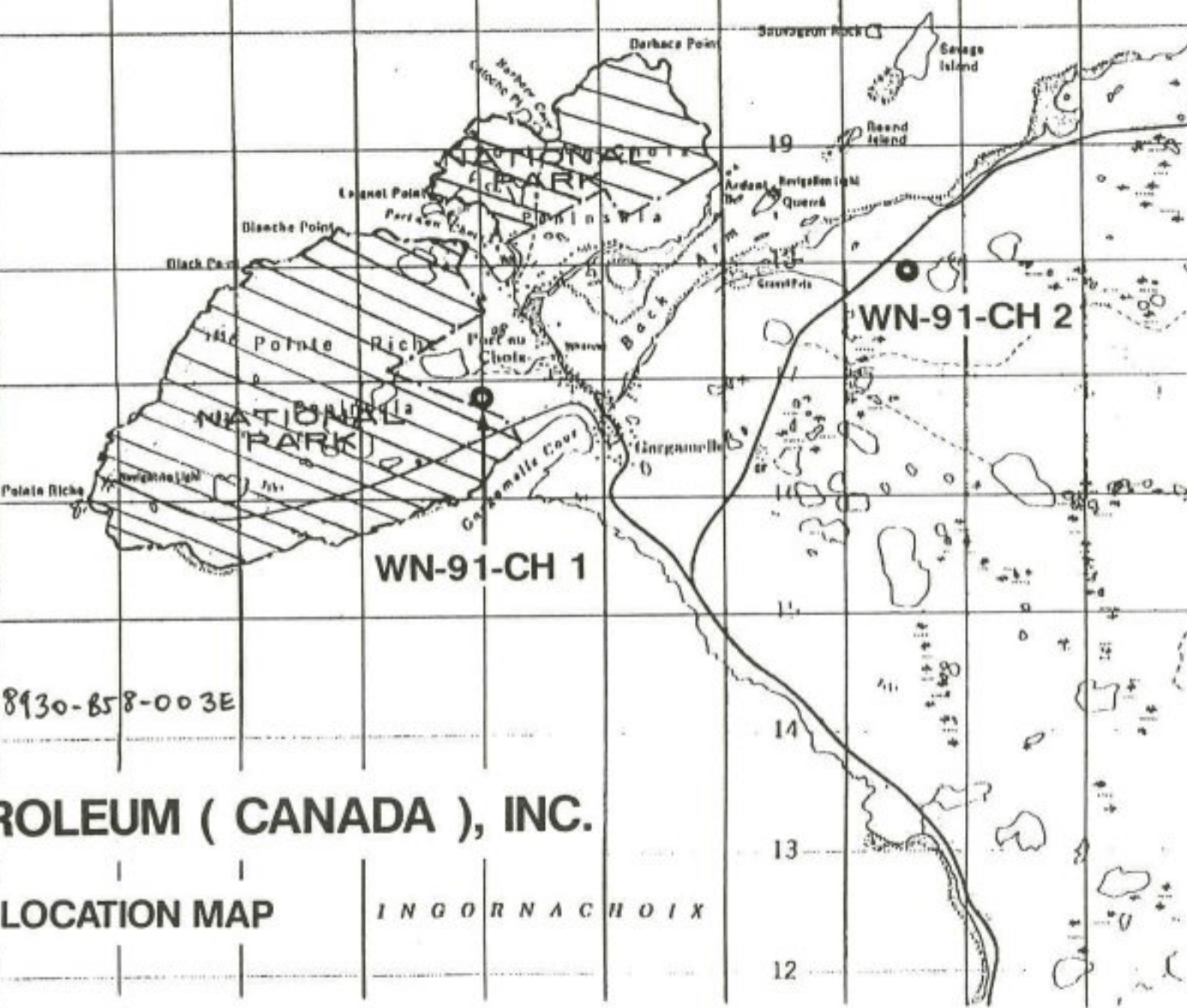
LAWRENCE

8930-858-003E

BHP PETROLEUM (CANADA), INC.

CORE HOLE LOCATION MAP

INGORNACHOIX



BHP PETROLEUM
WN-91-CH1
NEWFOUNDLAND, CANADA
DEPTH: 2-14



0
1
2



BHP PETROLEUM

WN - 91 - CH1

NEWFOUNDLAND, CANADA

DEPTH: 14 - 26

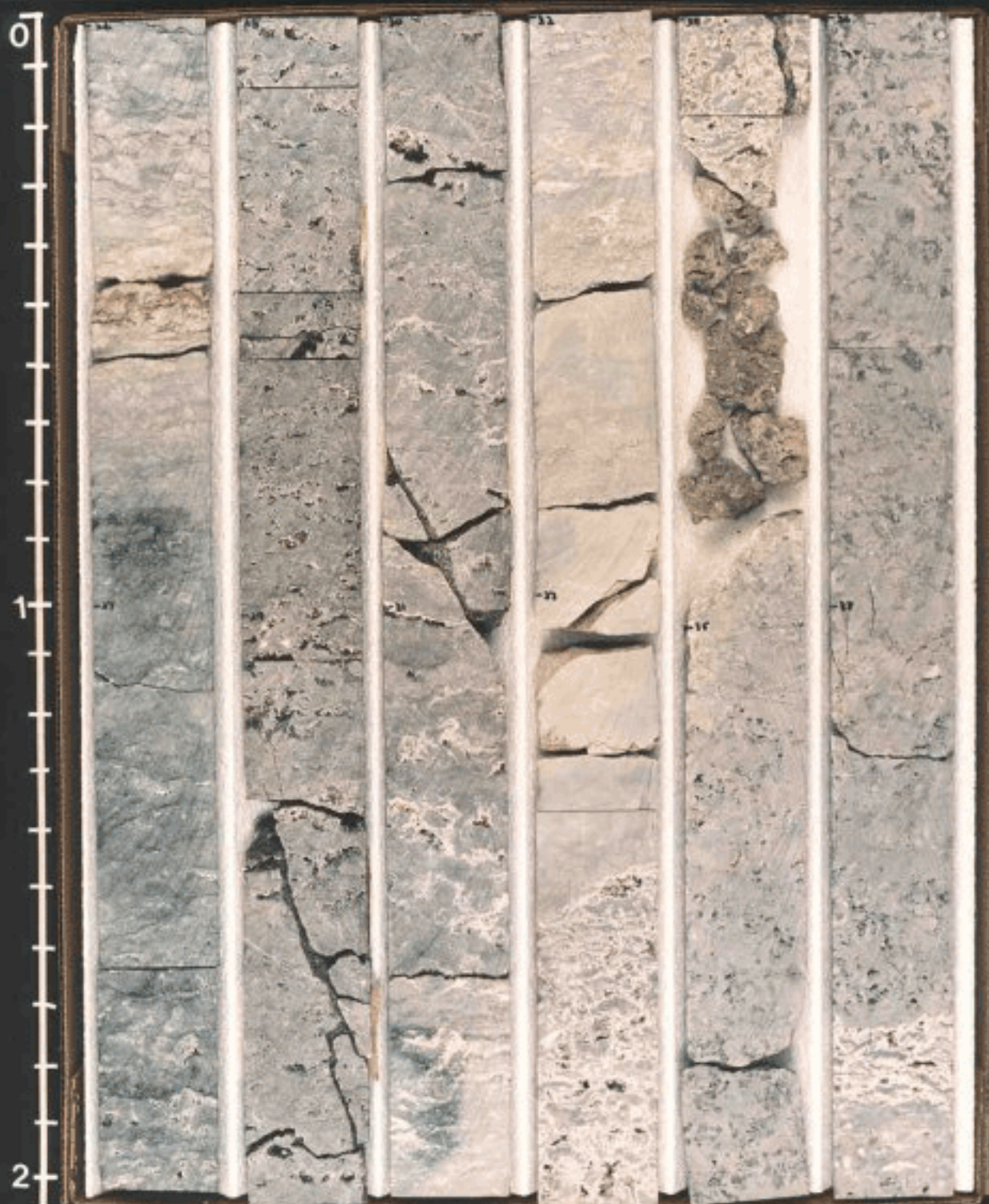


BHP PETROLEUM

WN - 91 - CH 1

NEWFOUNDLAND, CANADA

DEPTH: 26 - 38



BHP PETROLEUM

WN-91-CH1

NEWFOUNDLAND, CANADA

DEPTH: 38-50

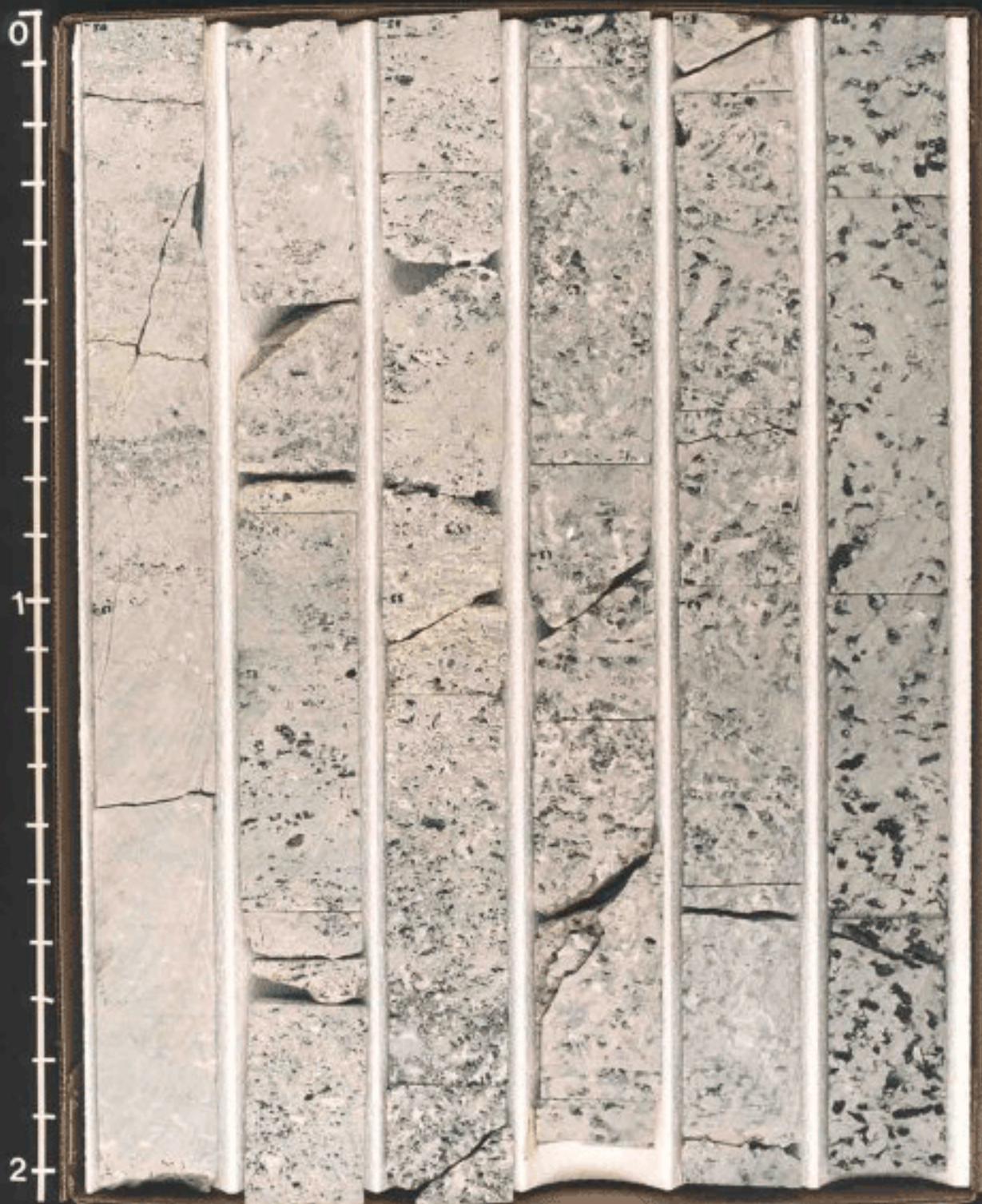


BHP PETROLEUM

WN-91-CH1

NEWFOUNDLAND, CANADA

DEPTH: 50-62

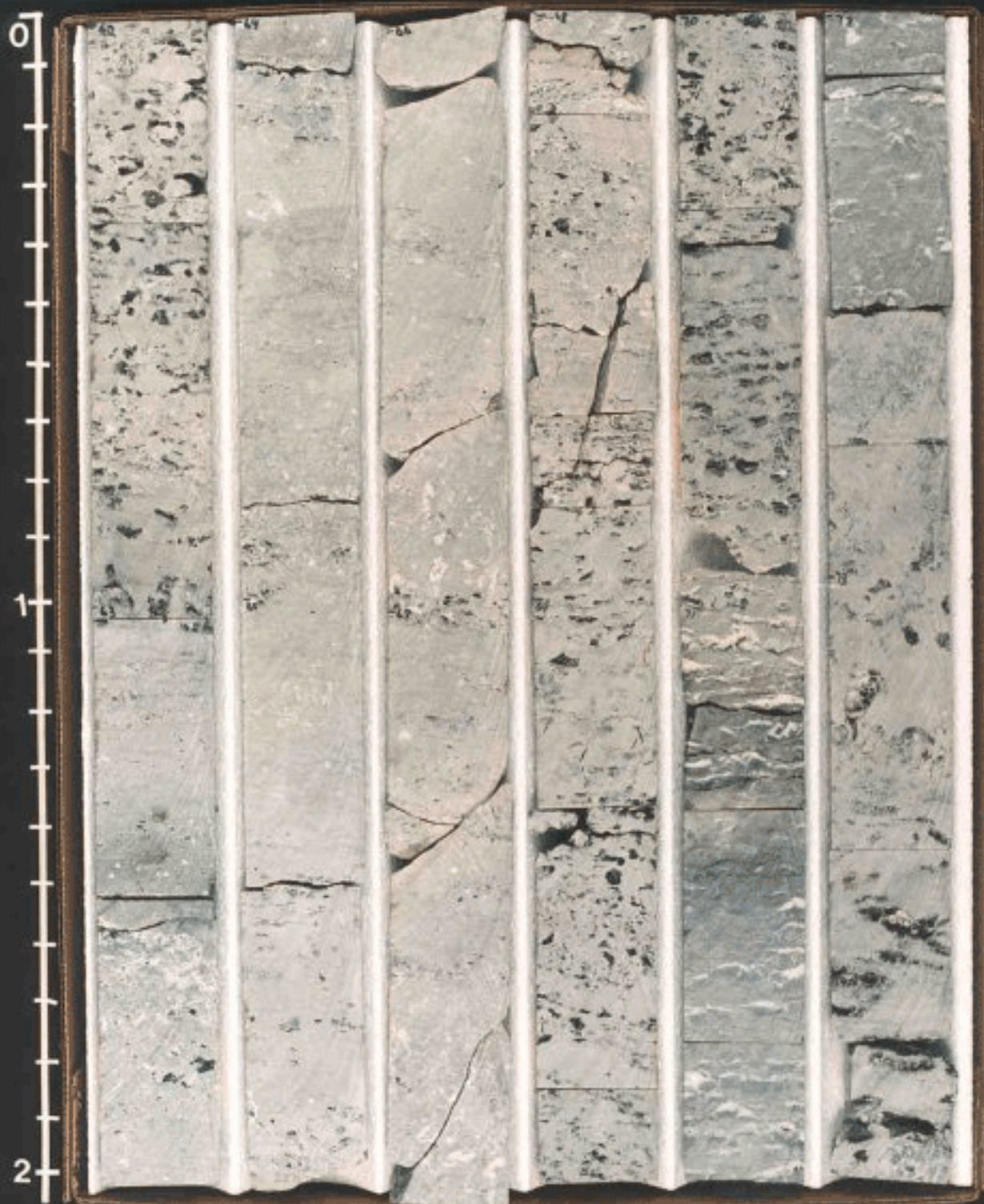


BHP PETROLEUM

WN-91-CH1

NEWFOUNDLAND, CANADA

DEPTH: 62-74



BHP PETROLEUM

WN - 91 - CH1

NEWFOUNDLAND, CANADA

DEPTH: 74-79.4



0
1
2



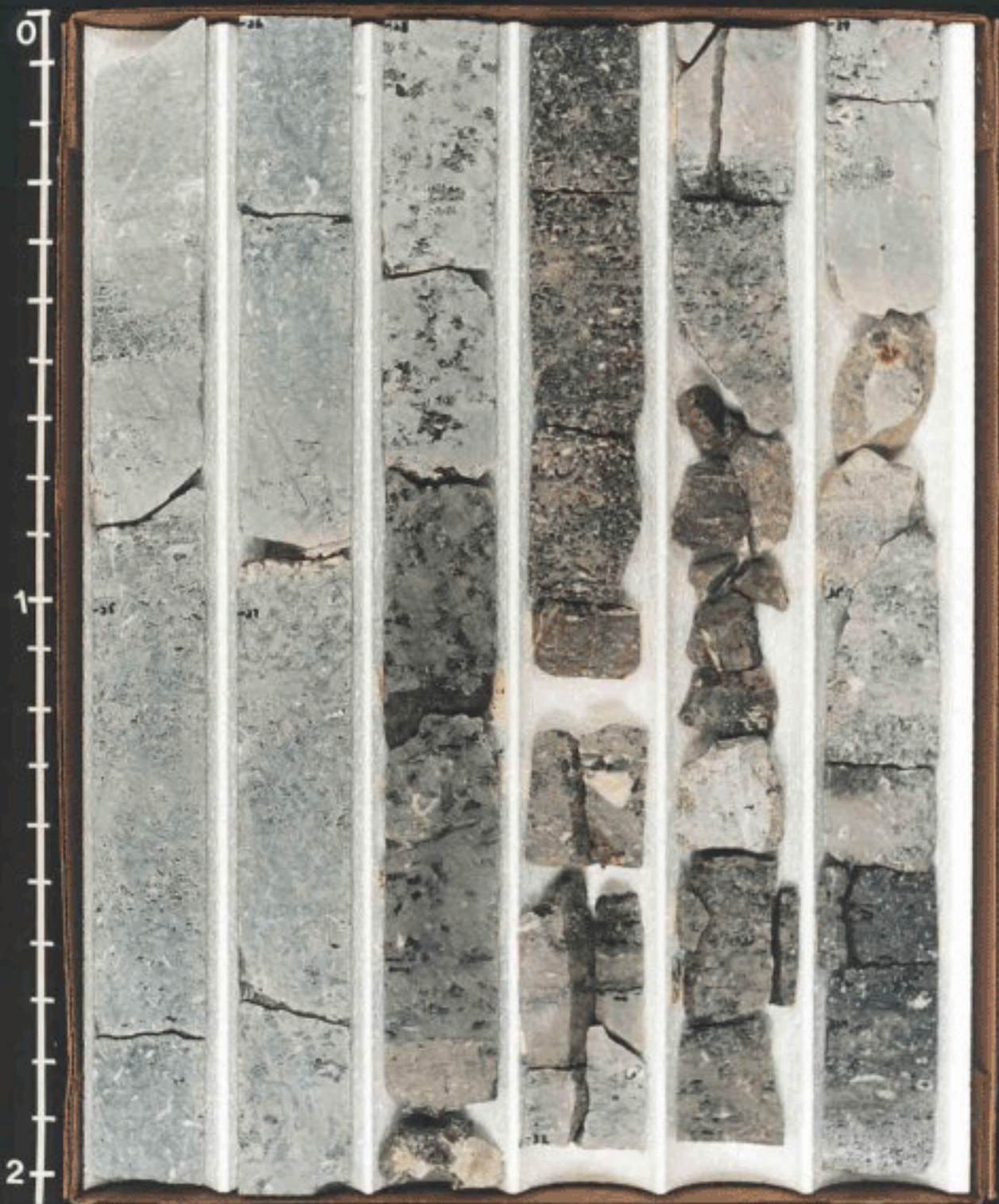
BHP PETROLEUM
WN - 91 - CH1A
NOVA SCOTIA, CANADA
DEPTH: 0 - 12



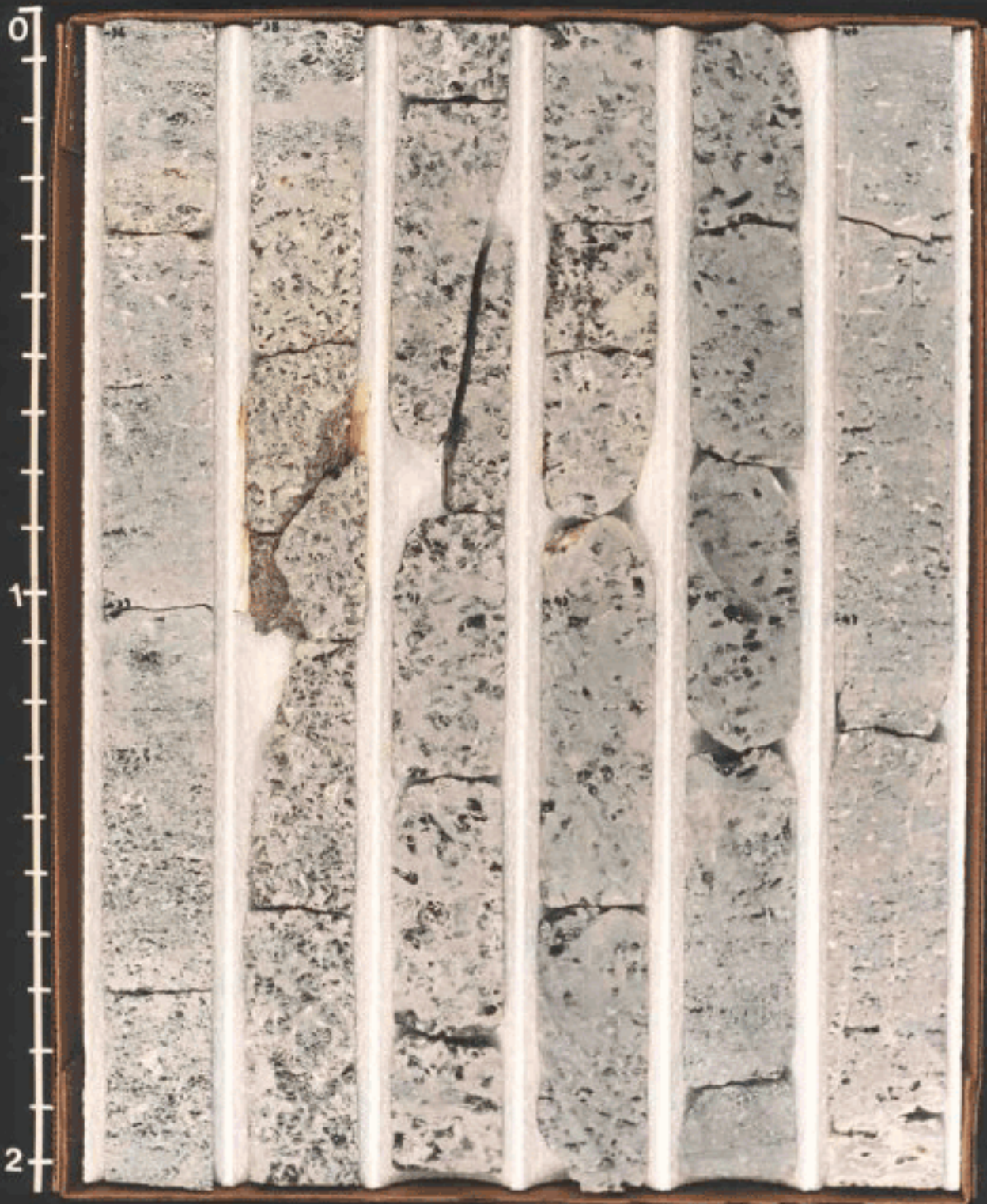
BHP PETROLEUM
WN - 91 - CH1A
NOVA SCOTIA, CANADA
DEPTH: 12 - 24



BHP PETROLEUM
WN - 91 - CH1A
NOVA SCOTIA, CANADA
DEPTH: 24 - 36



BHP PETROLEUM
WN - 91 - CH1A
NOVA SCOTIA, CANADA
DEPTH: 36 - 48



BHP PETROLEUM
WN - 91 - CH1A
NOVA SCOTIA, CANADA
DEPTH: 48-60



BHP PETROLEUM
WN - 91 - CH1A
NOVA SCOTIA, CANADA
DEPTH: 60 - 72



BHP PETROLEUM
WN - 91 - CH1A
NOVA SCOTIA, CANADA
DEPTH: 72 - 84



BHP PETROLEUM
WN - 91 - CH1A
NOVA SCOTIA, CANADA
DEPTH: 84-86



BHP PETROLEUM

WN - 91 - CH2

NEWFOUNDLAND, CANADA

DEPTH: 2 - 14



BHP PETROLEUM
WN - 91 - CH2
NEWFOUNDLAND, CANADA
DEPTH: 14 - 26



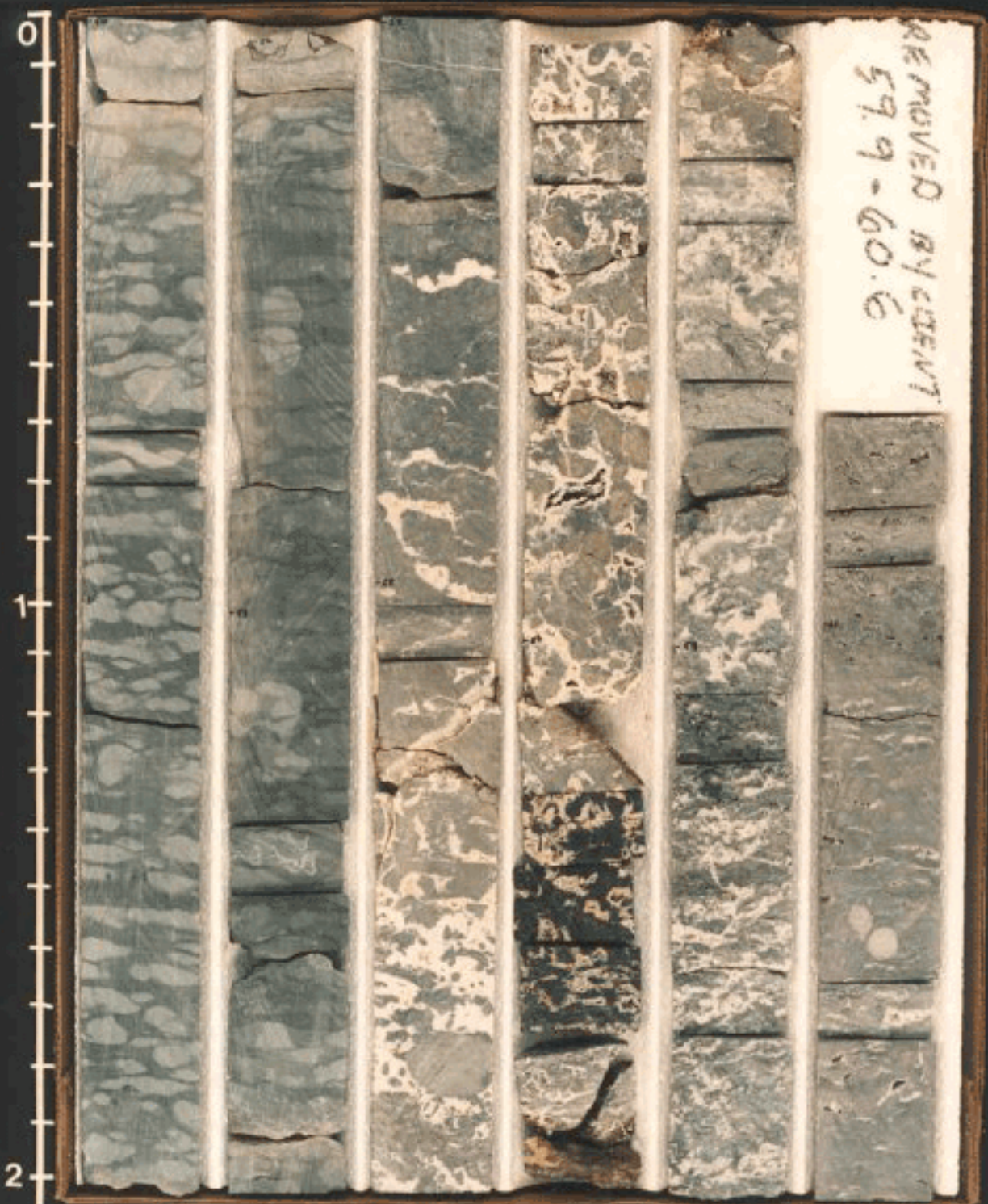
BHP PETROLEUM
WN-91-CH2
NEWFOUNDLAND, CANADA
DEPTH: 26-38



BHP PETROLEUM
WN - 91 - CH2
NEWFOUNDLAND, CANADA
DEPTH: 38 - 50



BHP PETROLEUM
WN - 91 - CH2
NEWFOUNDLAND, CANADA
DEPTH: 50 - 62

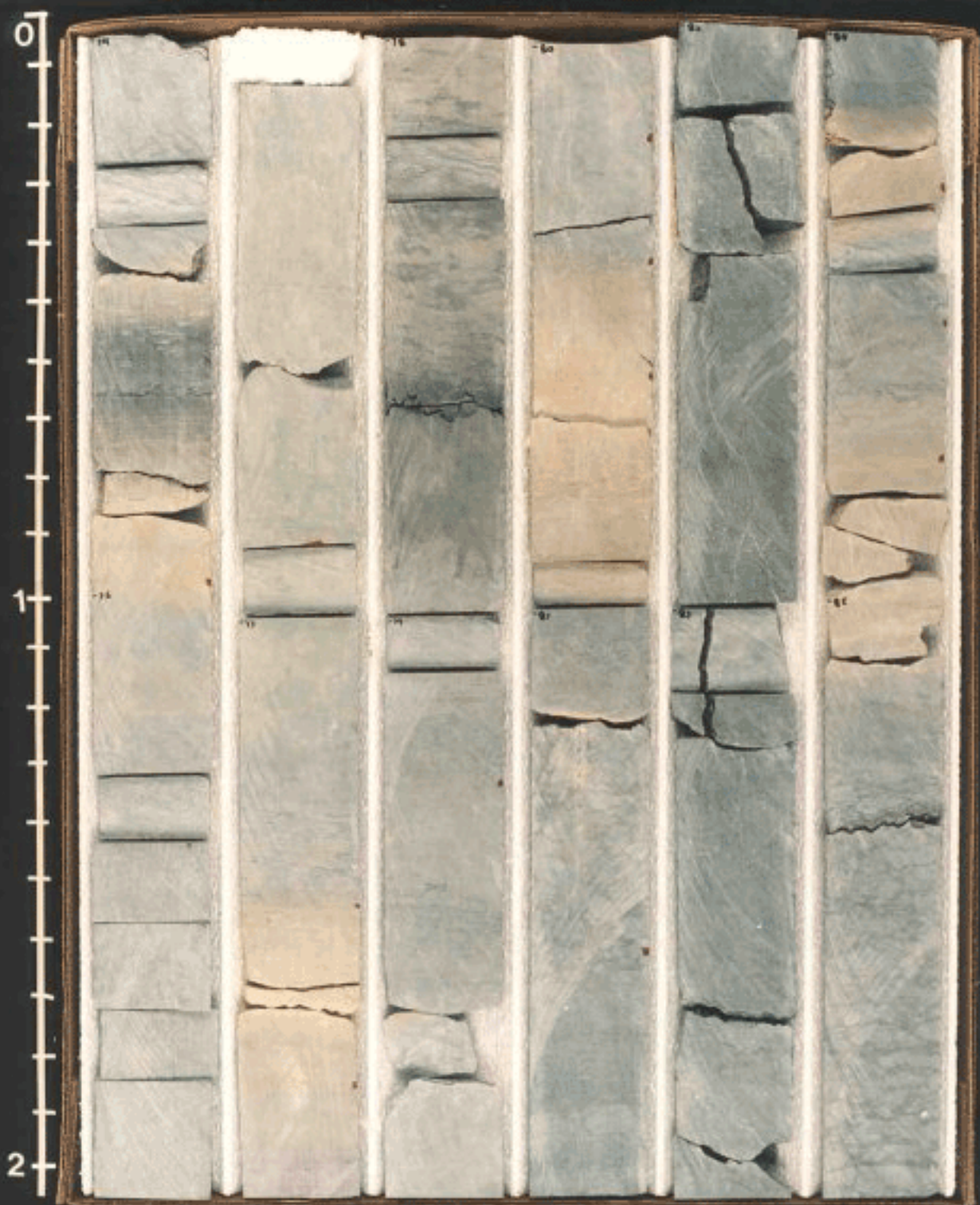


REMOVED BY CEMENT
59.9 - 60.6

BHP PETROLEUM
WN - 91 - CH2
NEWFOUNDLAND, CANADA
DEPTH: 62 - 74



BHP PETROLEUM
WN - 91 - CH2
NEWFOUNDLAND, CANADA
DEPTH: 74 - 86



BHP PETROLEUM
WN-91-CH2
NEWFOUNDLAND, CANADA
DEPTH: 86-91.9



0
1
2



BHP PETROLEUM
WN - 91 - CH3
NEWFOUNDLAND, CANADA
DEPTH: 21-32



BHP PETROLEUM
WN - 91 - CH3
NEWFOUNDLAND, CANADA
DEPTH: 32 - 44

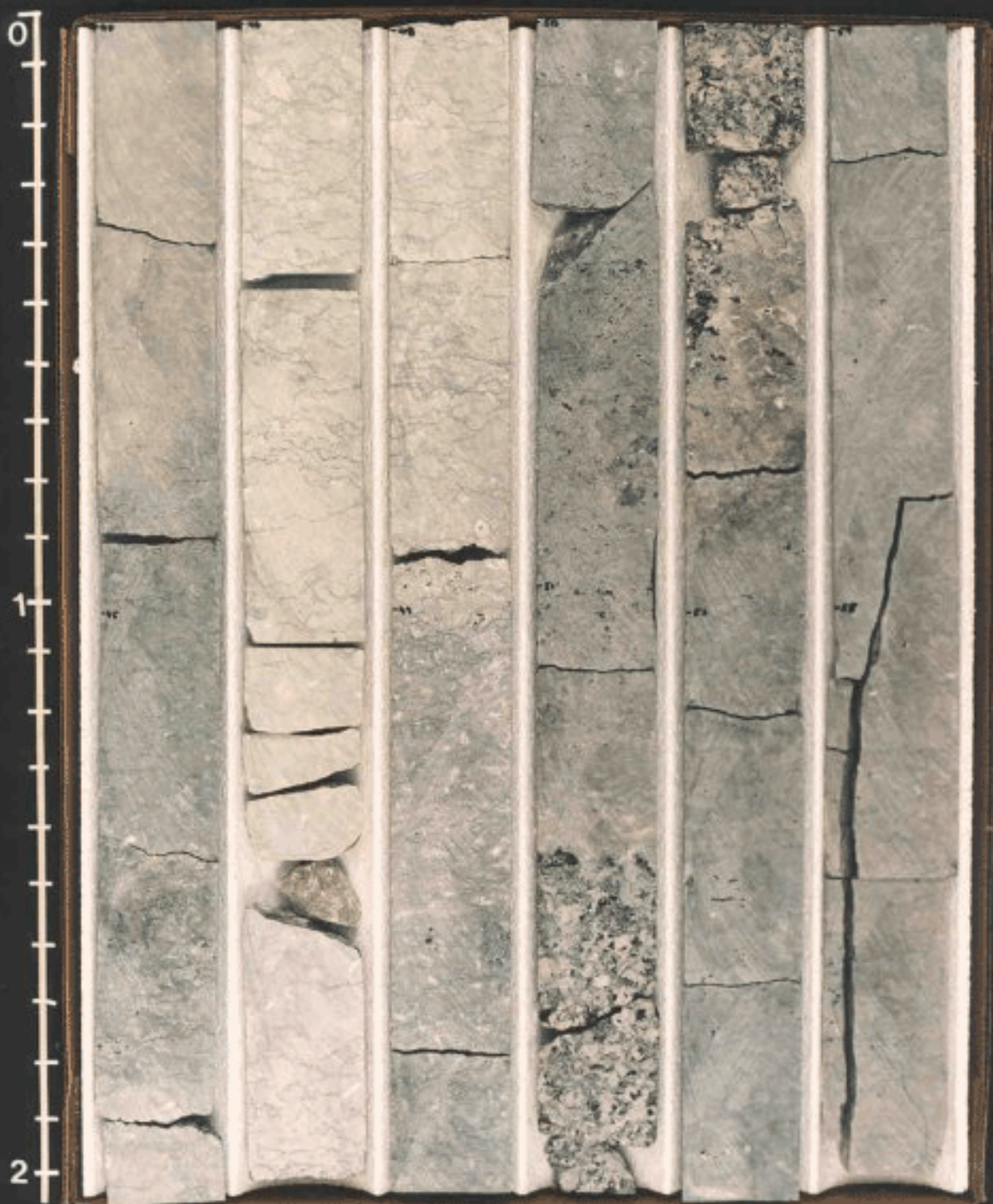


BHP PETROLEUM

WN-91-CH3

NEWFOUNDLAND, CANADA

DEPTH: 44-56



BHP PETROLEUM
WN-91-CH3
NEWFOUNDLAND, CANADA
DEPTH: 56 - 68



BHP PETROLEUM
WN-91-CH3
NEWFOUNDLAND, CANADA
DEPTH: 68 - 80



0
1
2



BHP PETROLEUM

WN - 91 - CH3

NEWFOUNDLAND, CANADA

DEPTH: 80 - 92



BHP PETROLEUM

WN - 91 - CH3

NEWFOUNDLAND, CANADA

DEPTH: 92 - 104



BHP PETROLEUM
WN - 91 - CH3
NEWFOUNDLAND, CANADA
DEPTH: 104 - 116



BHP PETROLEUM
WN - 91 - CH3
NEWFOUNDLAND, CANADA
DEPTH: 116 - 128



BHP PETROLEUM

WN - 91 - CH3

NEWFOUNDLAND, CANADA

DEPTH: 128 - 129



CORE
LABORATORIES

