CBM 027

DRAFT FINAL REPORT

VOLUME II
APPENDIX 2 AND APPENDIX 3

VARIATION IN THE QUANTITY OF METHANE ADSORBED BY SELECTED COALS AS A FUNCTION OF COAL PETROLOGY AND COAL CHEMISTRY

DE-AC21-80MC14219

Prepared for

U.S. Department of Energy
Morgantown Energy Technology Center

GEOCHEM RESEARCH INCORPORATED
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Appendix 2 Vitrinite Reflectance Histograms

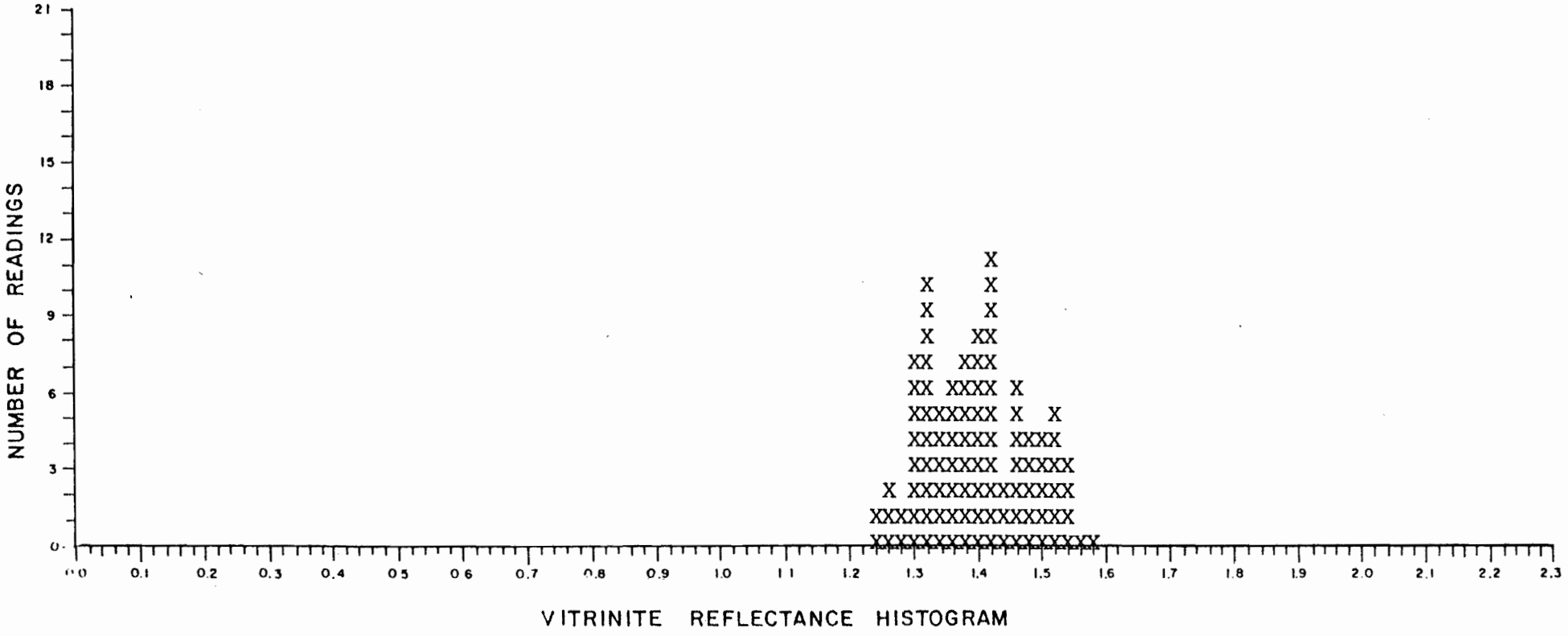
GEOCHEM NO. R769-001 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME D.O.E. WELL NAME _____

(NO. OF READINGS =100)

1.24	1.25	1.26	1.27	1.27	1.28	1.29	1.30	1.30	1.30	1.30	1.30	1.30	1.31			
1.31	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.33	1.33	1.33	1.33	1.34	1.34	1.34	1.34	1.35	1.35
1.36	1.36	1.36	1.36	1.37	1.37	1.37	1.38	1.38	1.38	1.38	1.39	1.39	1.39	1.39	1.40	1.40	1.40
1.41	1.41	1.41	1.41	1.41	1.41	1.42	1.42	1.42	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43
1.44	1.45	1.45	1.46	1.46	1.47	1.47	1.47	1.47	1.47	1.48	1.48	1.48	1.48	1.48	1.50	1.50	1.51
1.51	1.51	1.52	1.52	1.52	1.52	1.52	1.53	1.54	1.55	1.55	1.55	1.56	1.58				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.24	1.58	1.40	0.082	

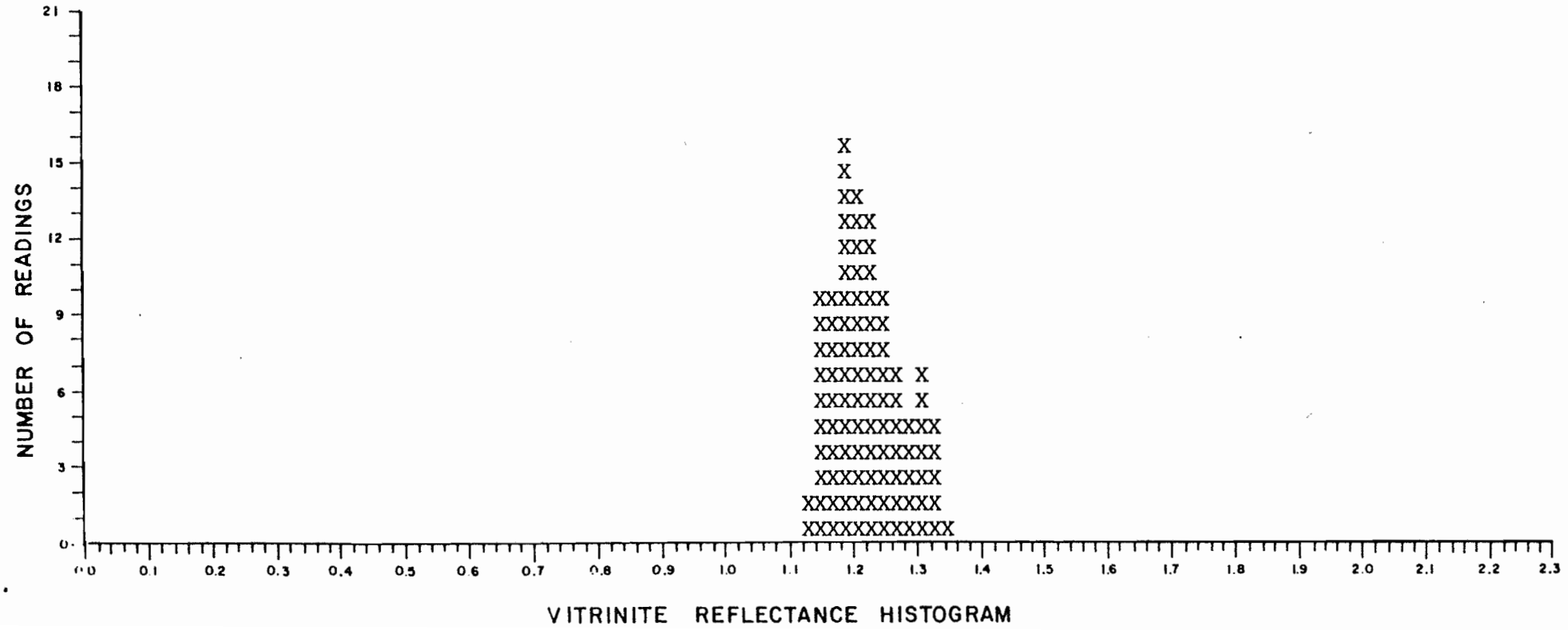


GEOCHEM NO. R769-007 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME D.O.E. WELL NAME _____

(NO. OF READINGS =100) 1.13 1.13 1.14 1.14 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.16 1.16
1.16 1.16 1.16 1.16 1.16 1.16 1.17 1.17 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.19
1.19 1.19 1.19 1.19 1.19 1.19 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.21 1.21 1.21 1.21
1.21 1.21 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.23 1.23 1.23 1.23 1.24 1.24 1.24
1.24 1.24 1.25 1.25 1.25 1.25 1.25 1.26 1.26 1.26 1.27 1.27 1.27 1.27 1.28 1.28 1.28 1.29
1.29 1.30 1.30 1.30 1.30 1.30 1.31 1.31 1.32 1.32 1.32 1.33 1.33 1.34

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.13	1.34	1.22	0.054	

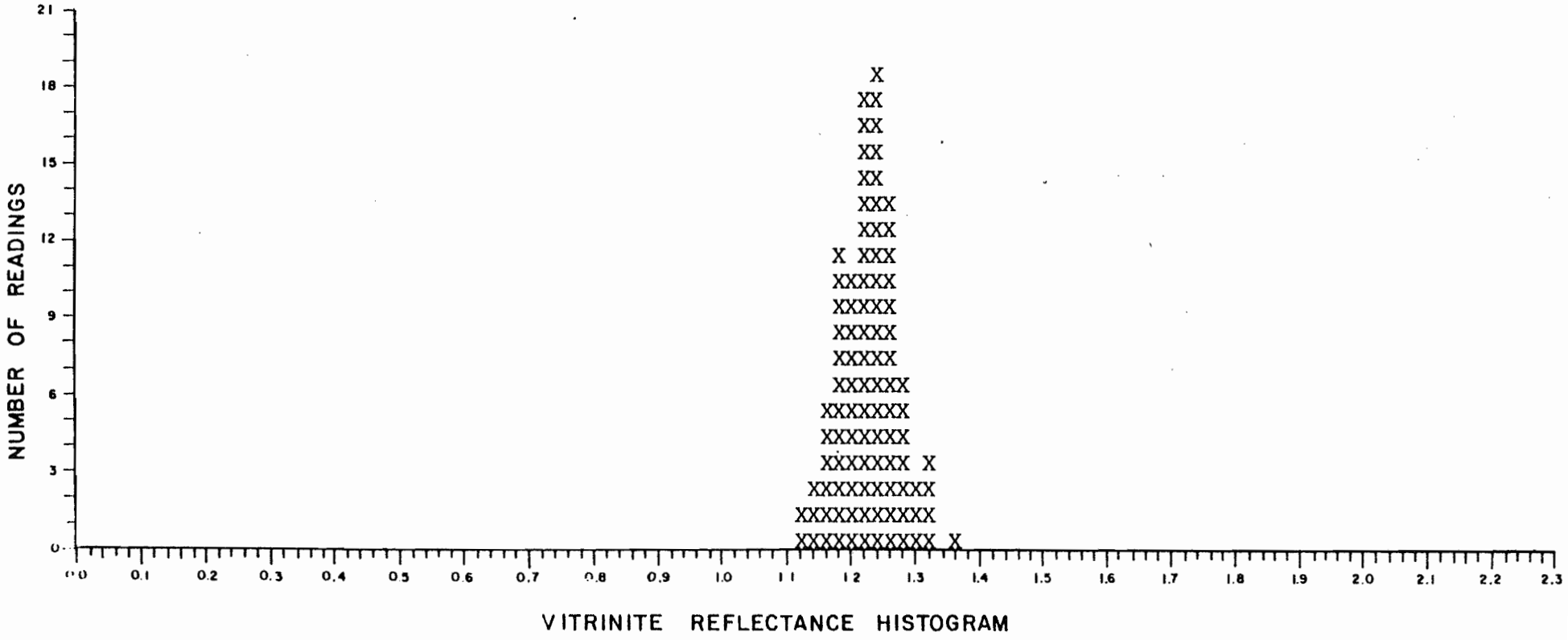


GEOCHEM NO. R769-008 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME D.O.E. WELL NAME _____

(NO. OF READINGS =100) 1.12 1.13 1.15 1.15 1.15 1.16 1.16 1.16 1.16 1.17 1.17 1.18 1.18 1.18
1.18 1.18 1.18 1.19 1.19 1.19 1.19 1.19 1.19 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.21 1.21
1.21 1.21 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.23 1.23 1.23 1.23 1.23 1.23
1.23 1.23 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.25 1.25 1.25 1.25 1.25 1.25 1.25
1.25 1.25 1.25 1.26 1.26 1.26 1.26 1.26 1.26 1.26 1.26 1.26 1.27 1.27 1.27 1.27 1.27 1.28
1.28 1.28 1.29 1.29 1.29 1.29 1.30 1.30 1.31 1.32 1.32 1.33 1.33 1.36

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.12	1.36	1.23	0.046	

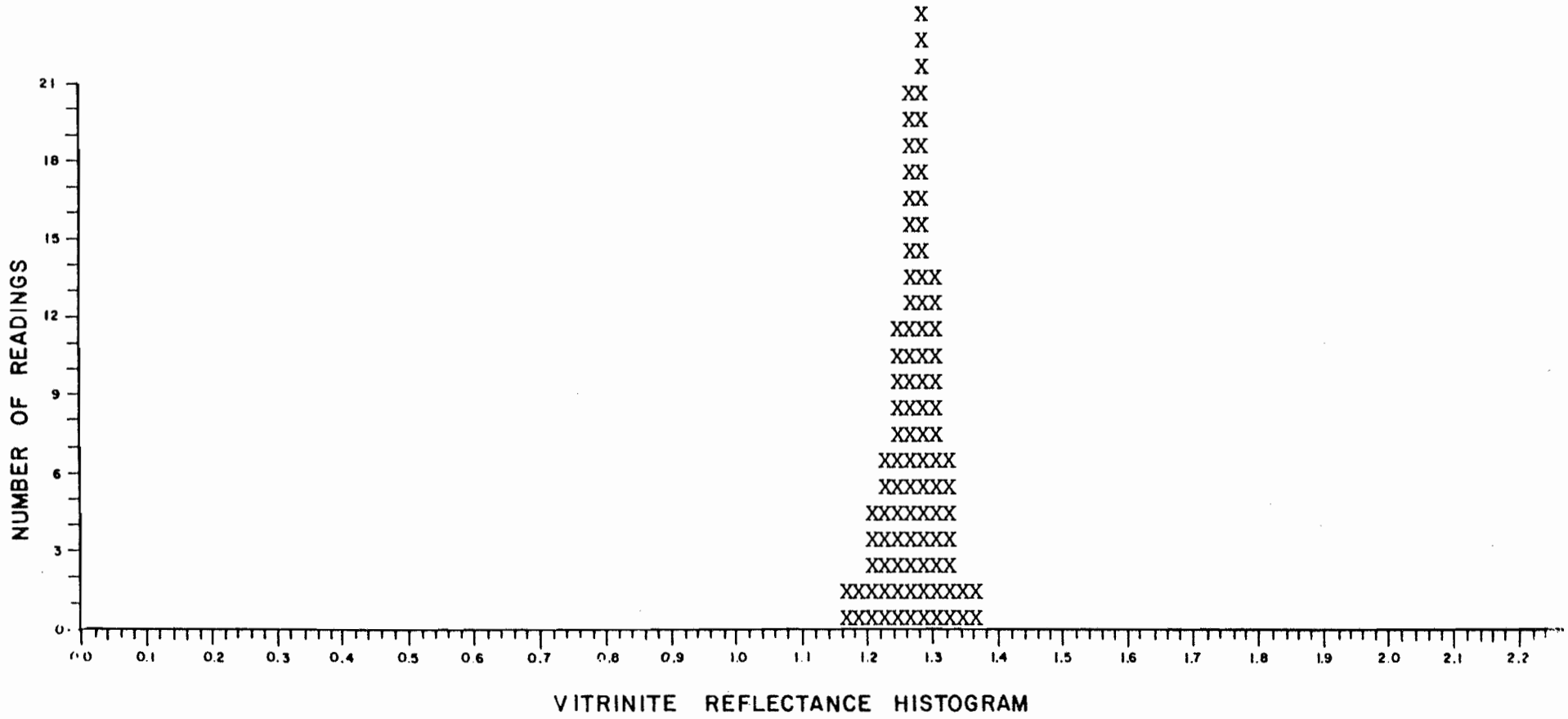


GEOCHEM NO. R769-009 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO.

CLIENT'S NAME D.O.E. WELL NAME

(NO. OF READINGS =100) 1.16 1.16 1.19 1.19 1.21 1.21 1.21 1.21 1.21 1.22 1.22 1.23 1.23 1.23
1.23 1.23 1.24 1.24 1.24 1.24 1.24 1.24 1.25 1.25 1.25 1.25 1.25 1.25 1.26 1.26 1.26 1.26
1.26 1.26 1.26 1.26 1.26 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.28
1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.29 1.29 1.29
1.29 1.29 1.29 1.29 1.29 1.29 1.29 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.31 1.31 1.31
1.31 1.31 1.31 1.32 1.32 1.33 1.33 1.33 1.33 1.33 1.34 1.34 1.36 1.37

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.16	1.37	1.27	0.039	



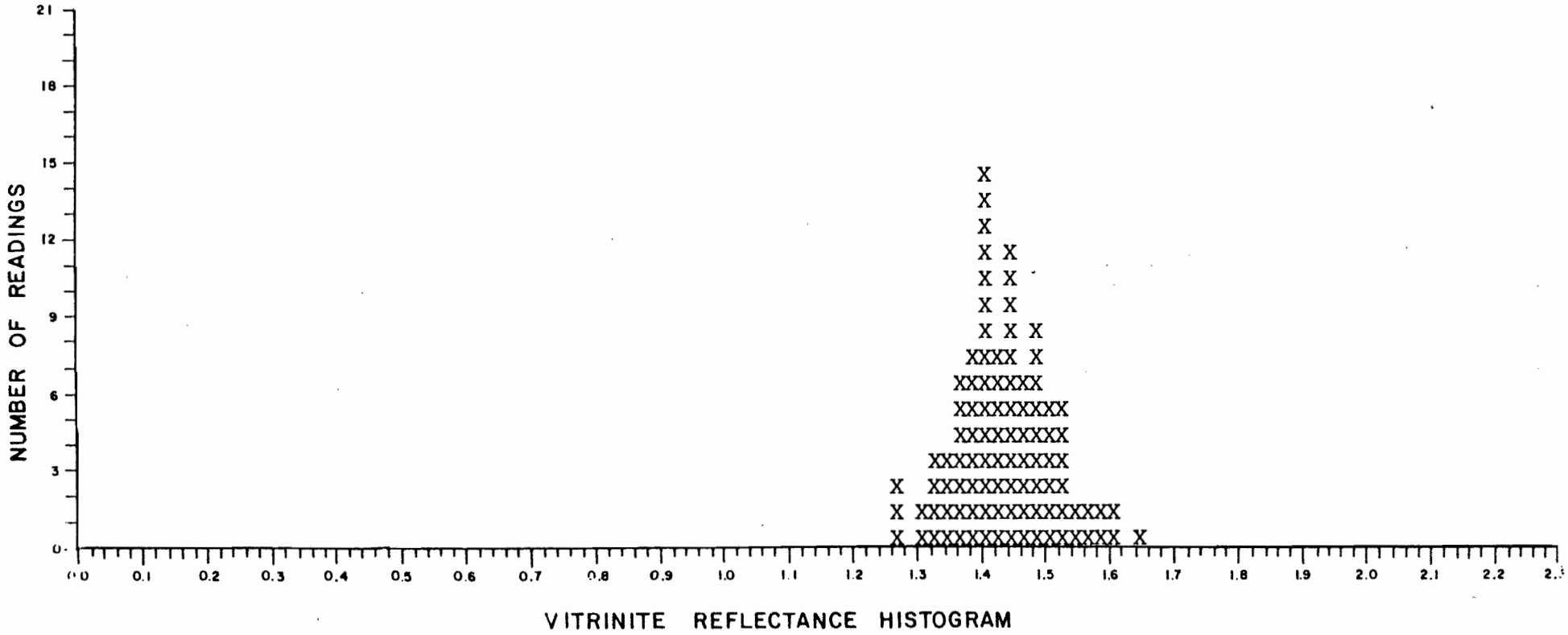
VITRINITE REFLECTANCE HISTOGRAM

GEOCHEM NO. R769-010 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME D.O.E. WELL NAME _____

(NO. OF READINGS =100)																	
1.26	1.26	1.27	1.30	1.30	1.32	1.32	1.33	1.33	1.34	1.34	1.35	1.35	1.36	1.36	1.36	1.36	1.36
1.36	1.37	1.38	1.38	1.38	1.39	1.39	1.39	1.39	1.39	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.41
1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.42	1.42	1.43	1.43	1.43	1.43	1.43	1.43	1.44	1.44	1.44
1.44	1.44	1.44	1.45	1.45	1.45	1.45	1.45	1.45	1.46	1.46	1.46	1.46	1.46	1.47	1.47	1.48	1.48
1.48	1.48	1.49	1.49	1.49	1.49	1.49	1.50	1.50	1.50	1.50	1.51	1.51	1.52	1.52	1.53	1.53	1.53
1.53	1.55	1.55	1.56	1.57	1.58	1.58	1.60	1.61	1.65								

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.26	1.65	1.44	0.077	

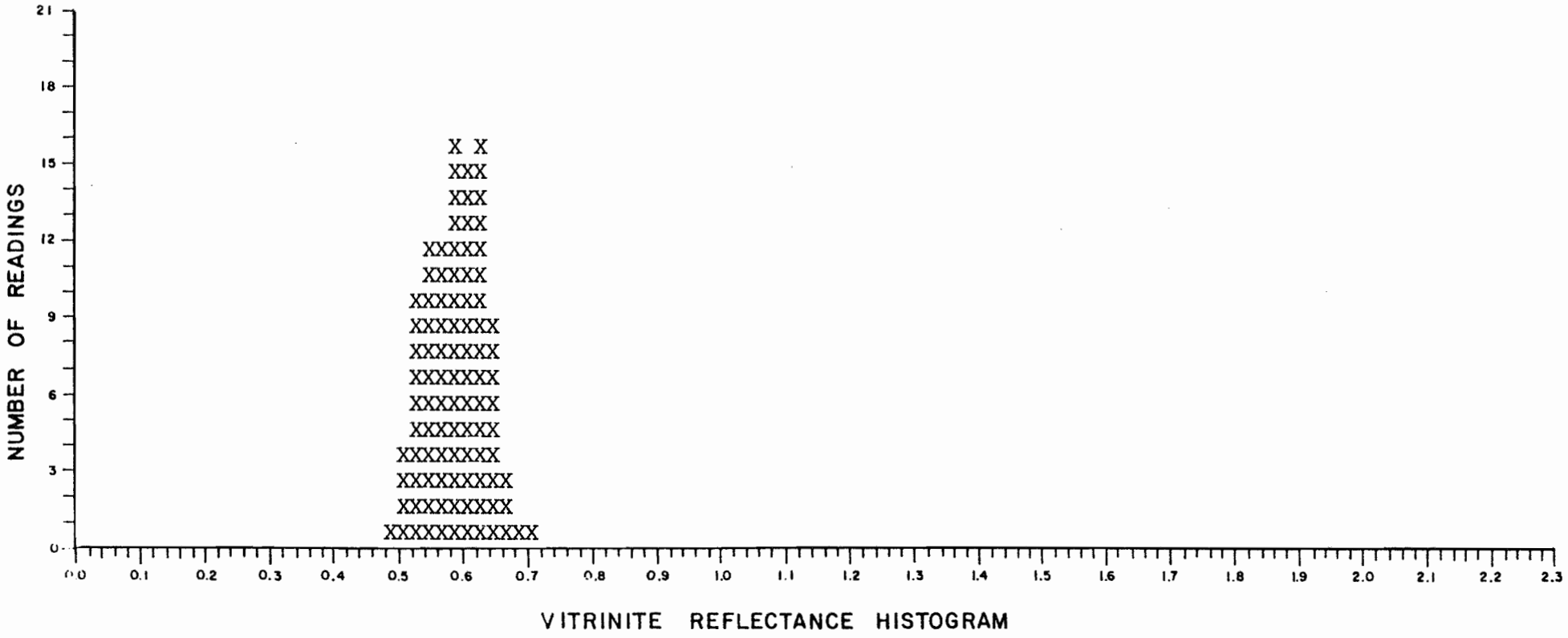


GEOCHEM NO. R769-011 TYPE OF SAMPLE: _____ DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.48 0.51 0.51 0.51 0.51 0.52 0.52 0.52 0.53 0.53 0.53 0.53 0.53 0.53
0.53 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.57
0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58
0.58 0.58 0.58 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61
0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63
0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.66 0.66 0.67 0.69 0.70

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.48	0.70	0.59	0.044	

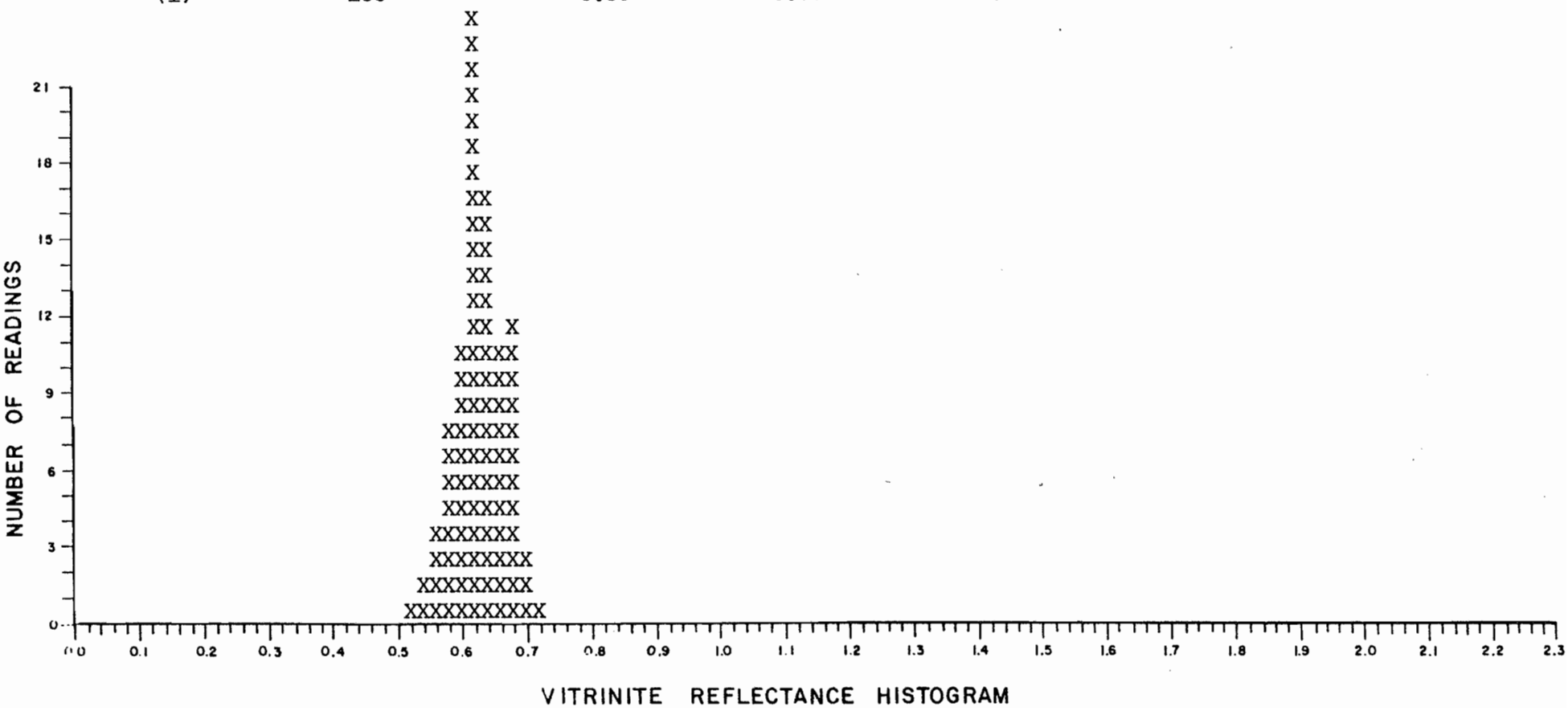


GEOCHEM NO. R769-012 TYPE OF SAMPLE: _____ DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.50 0.52 0.52 0.54 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.57 0.57
0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60
0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.61 0.61
0.61 0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63
0.63 0.63 0.63 0.63 0.63 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.66 0.66
0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.67 0.67 0.67 0.68 0.68 0.69 0.70

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.50	0.70	0.61	0.039	

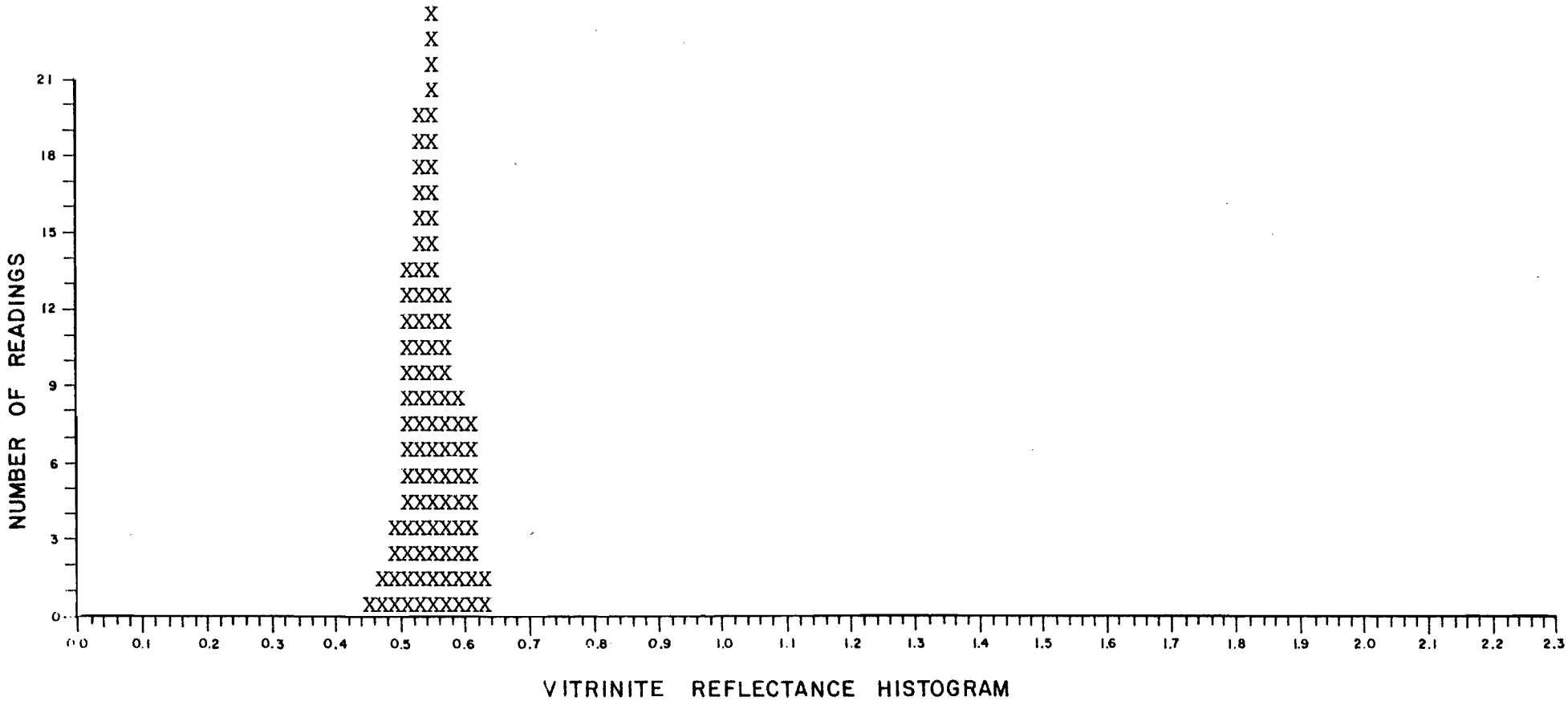


GEOCHEM NO. R769-013 TYPE OF SAMPLE: _____ DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.45 0.47 0.47 0.48 0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.50 0.50 0.50
0.50 0.50 0.51 0.51 0.51 0.51 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53
0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54
0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55
0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.59
0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.63 0.63

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.45	0.63	0.54	0.036	

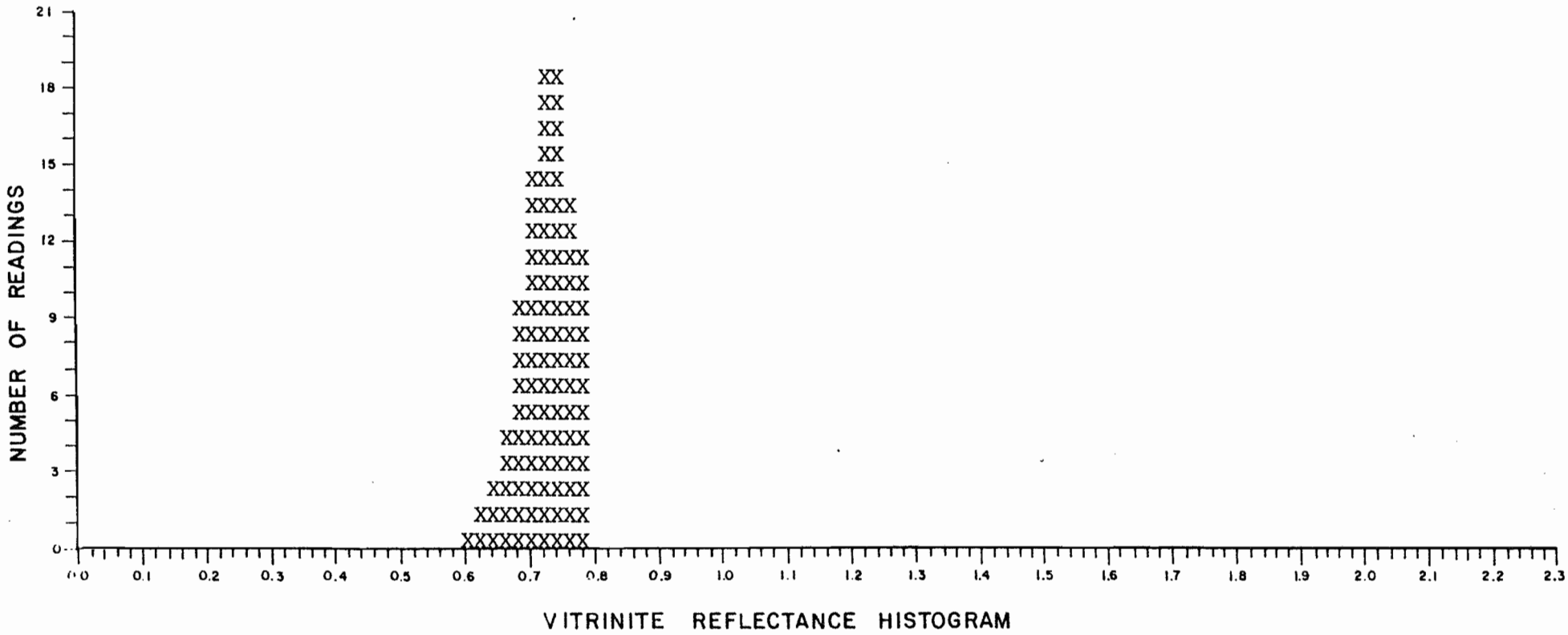


GEOCHEM NO. R769-014 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.61 0.62 0.62 0.64 0.65 0.65 0.66 0.66 0.66 0.66 0.67 0.68 0.68 0.68
0.68 0.68 0.69 0.69 0.69 0.69 0.69 0.70 0.70 0.70 0.70 0.70 0.71 0.71 0.71 0.71 0.71 0.71
0.71 0.71 0.71 0.71 0.72 0.72 0.72 0.72 0.72 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73
0.73 0.73 0.73 0.73 0.73 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.75 0.75 0.75 0.75
0.75 0.75 0.75 0.75 0.75 0.75 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.77 0.77
0.77 0.77 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.79

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.61	0.79	0.73	0.040	

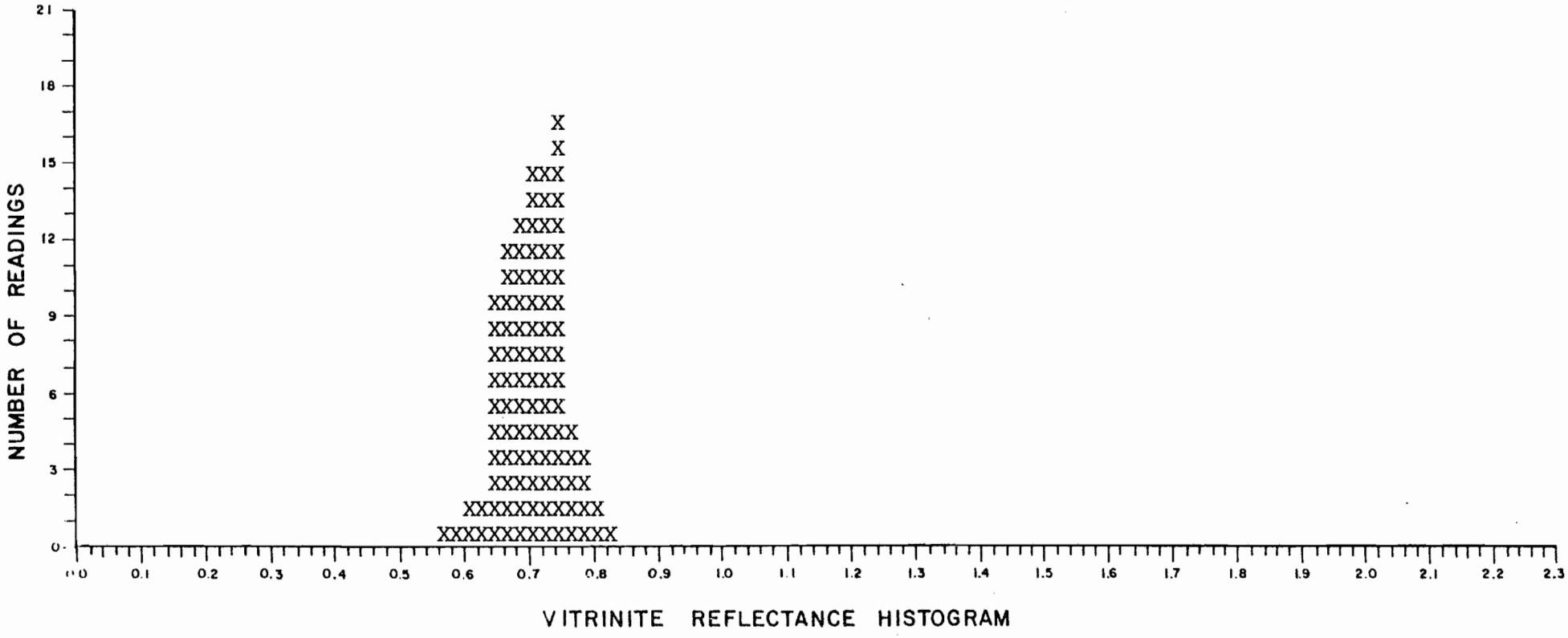


GEOCHEM NO. R769-015 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.57 0.59 0.61 0.61 0.63 0.63 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65
0.65 0.65 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.67 0.67 0.68 0.68 0.68 0.68
0.68 0.68 0.68 0.69 0.69 0.69 0.69 0.69 0.69 0.70 0.70 0.70 0.70 0.70 0.70 0.70 0.71 0.71
0.71 0.71 0.71 0.71 0.71 0.71 0.72 0.72 0.72 0.72 0.72 0.72 0.72 0.72 0.72 0.72 0.73 0.73
0.73 0.73 0.73 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.75 0.75 0.75 0.75 0.75 0.75 0.75
0.75 0.75 0.76 0.76 0.76 0.77 0.77 0.78 0.78 0.78 0.79 0.80 0.81 0.82

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.57	0.82	0.70	0.048	

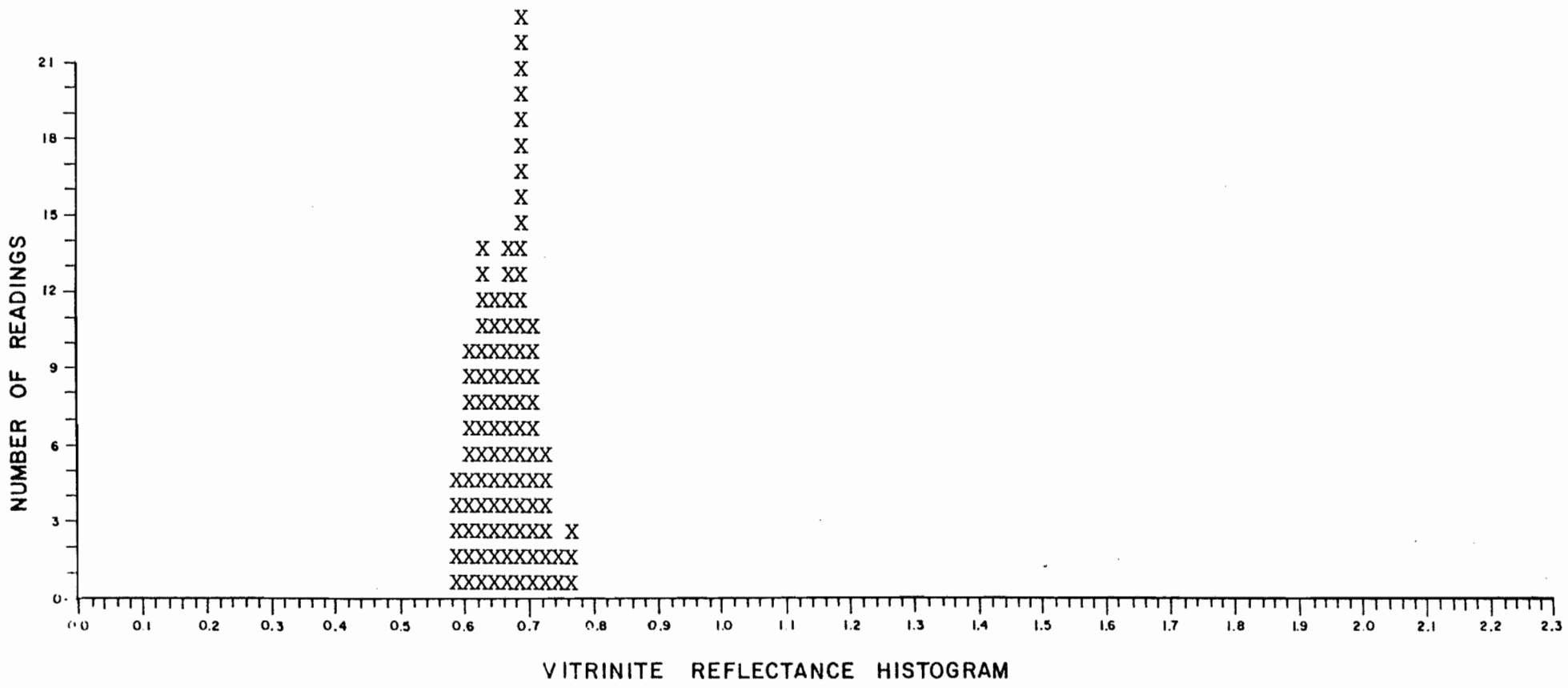


GEOCHEM NO. R769-016 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.58 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61
0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.64 0.64 0.64
0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.67 0.67
0.67 0.67 0.67 0.67 0.67 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68
0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.70 0.70 0.70 0.70 0.70 0.71 0.71 0.71
0.71 0.71 0.71 0.72 0.72 0.72 0.73 0.73 0.73 0.75 0.75 0.76 0.77 0.77

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.58	0.77	0.66	0.044	

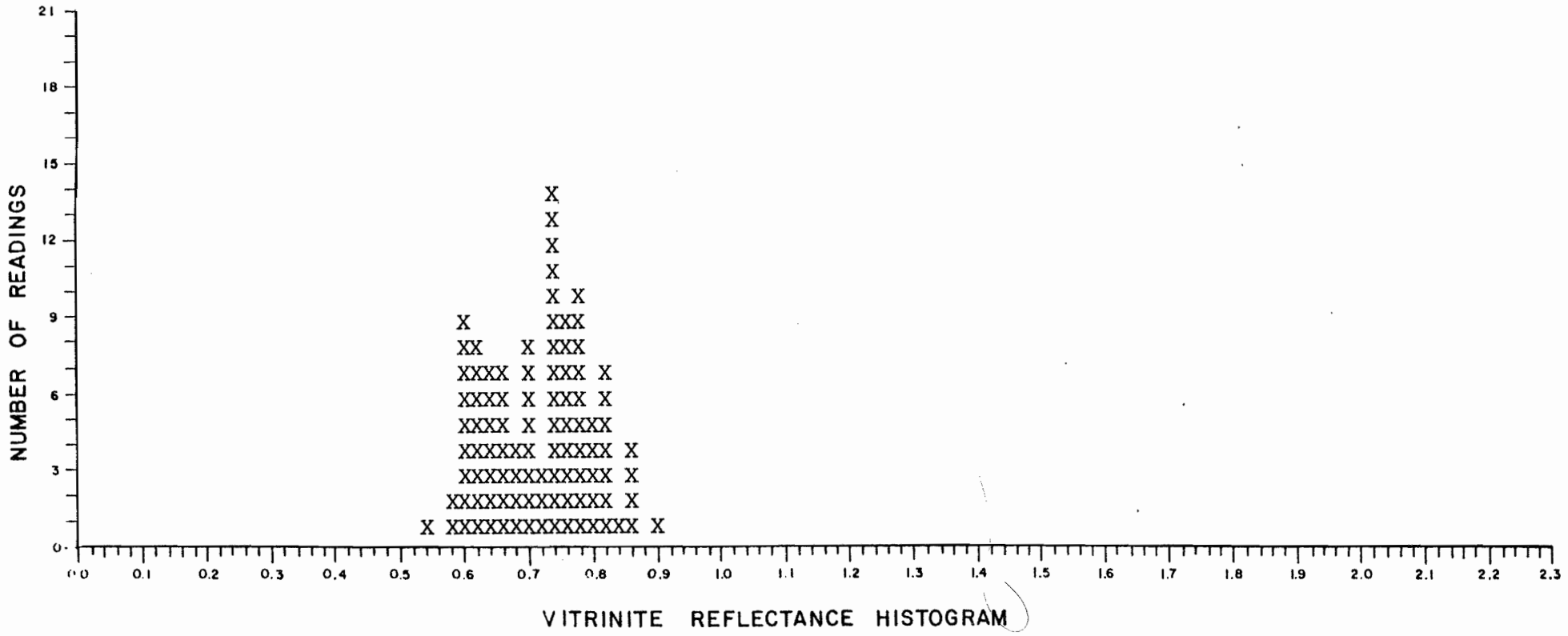


GEOCHEM NO. R769-017 TYPE OF SAMPLE: SHALE DEPTH/SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100)				0.53	0.56	0.57	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.59	0.60	0.60
0.60	0.60	0.60	0.61	0.61	0.61	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.64	0.64	0.64	0.64	0.64
0.65	0.65	0.66	0.67	0.67	0.67	0.68	0.68	0.69	0.69	0.69	0.69	0.69	0.69	0.70	0.70	0.71	0.72
0.72	0.72	0.72	0.72	0.72	0.72	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.74	0.74	0.74	0.74	0.74
0.75	0.75	0.75	0.75	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.77	0.77	0.78	0.78	0.78	0.78
0.79	0.80	0.80	0.80	0.80	0.81	0.81	0.81	0.82	0.84	0.84	0.85	0.85	0.88				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.53	0.88	0.70	0.080	

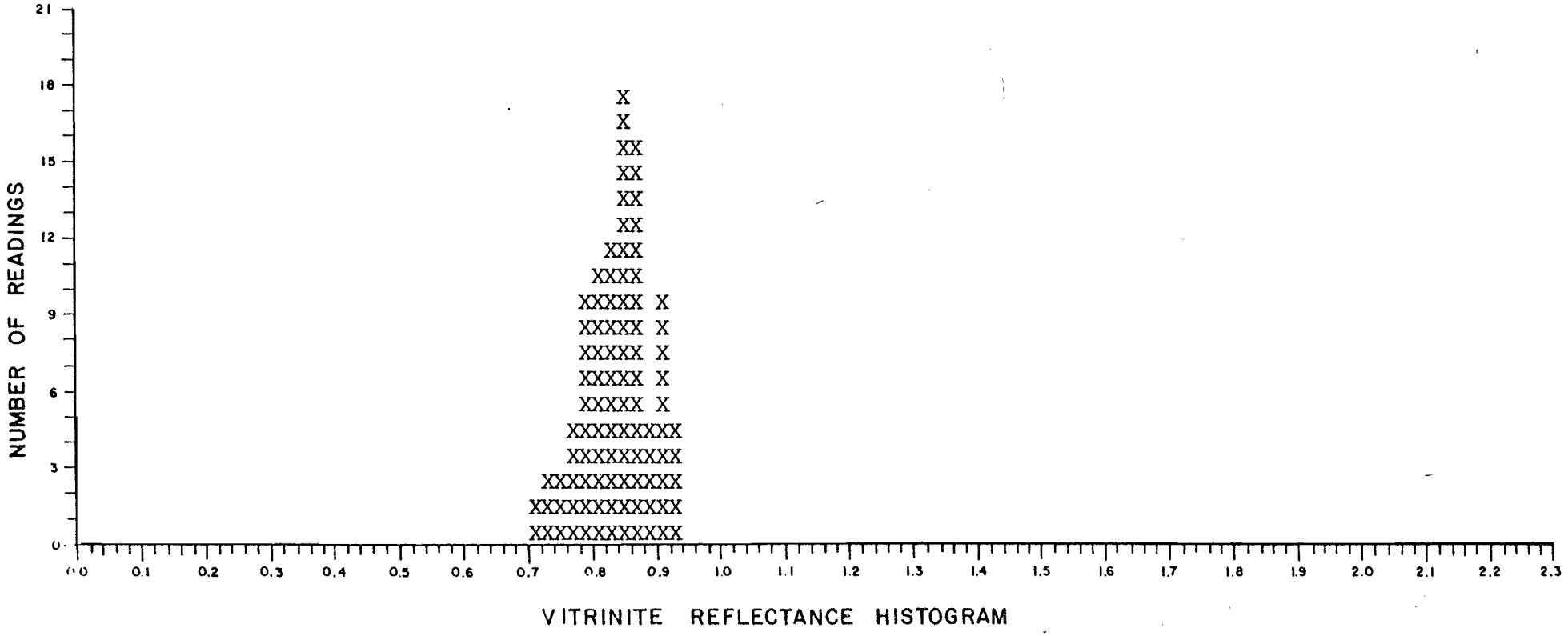


GEOCHEM NO. R769-019 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.70 0.71 0.72 0.73 0.73 0.74 0.75 0.75 0.76 0.76 0.77 0.77 0.77 0.78
0.78 0.78 0.78 0.78 0.78 0.78 0.79 0.79 0.79 0.80 0.80 0.80 0.80 0.81 0.81 0.81 0.81 0.81
0.81 0.81 0.82 0.82 0.82 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.84 0.84 0.84 0.84
0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.86 0.86 0.86 0.86
0.86 0.86 0.86 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.88 0.88 0.88 0.89 0.89 0.90
0.90 0.90 0.90 0.91 0.91 0.91 0.91 0.91 0.91 0.92 0.92 0.92 0.93 0.93

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.70	0.93	0.83	0.053	

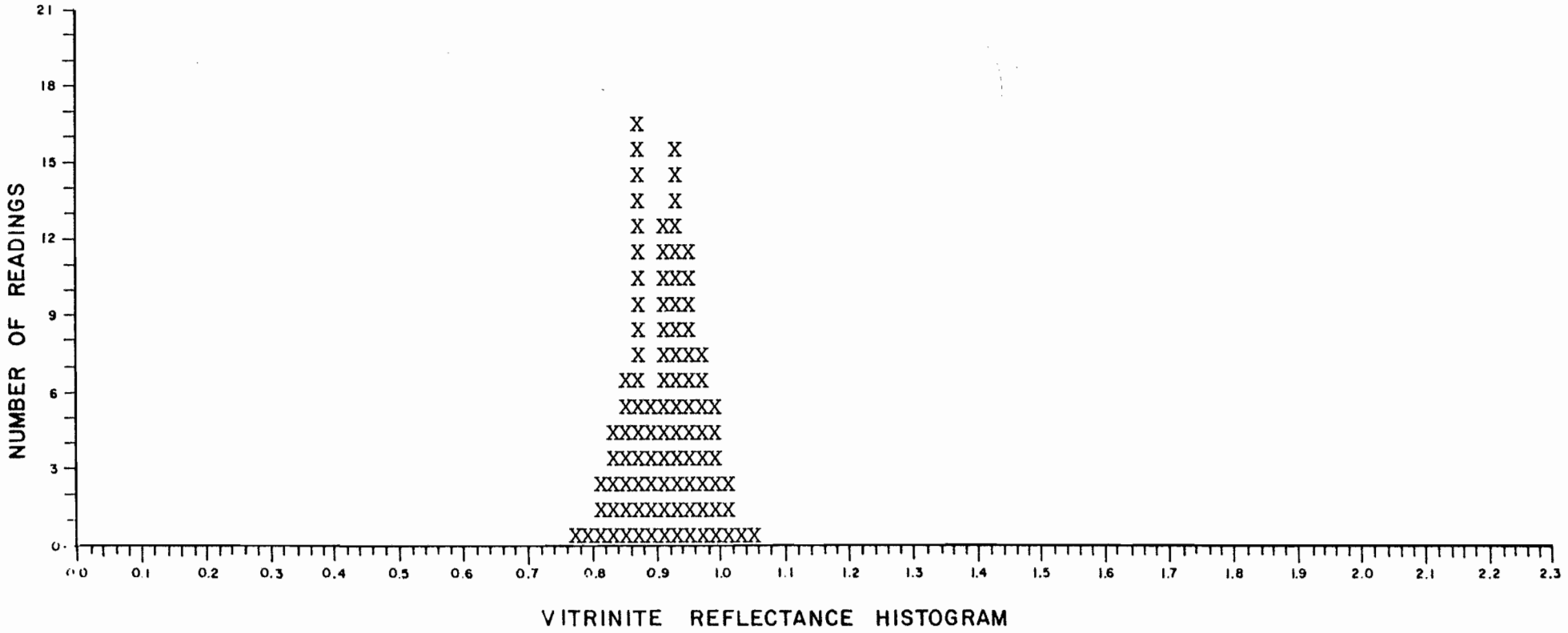


GEOCHEM NO. R769-020 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.77 0.79 0.80 0.81 0.81 0.82 0.82 0.83 0.83 0.83 0.84 0.84 0.85 0.85
0.85 0.85 0.85 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.87 0.87 0.87 0.87 0.87
0.87 0.87 0.88 0.89 0.89 0.89 0.89 0.89 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.91
0.91 0.91 0.91 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
0.93 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.95 0.95 0.95 0.95 0.95 0.96 0.96 0.96 0.97 0.97
0.97 0.97 0.97 0.98 0.98 0.98 0.98 0.98 0.99 1.00 1.00 1.00 1.03 1.04

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.77	1.04	0.91	0.055	

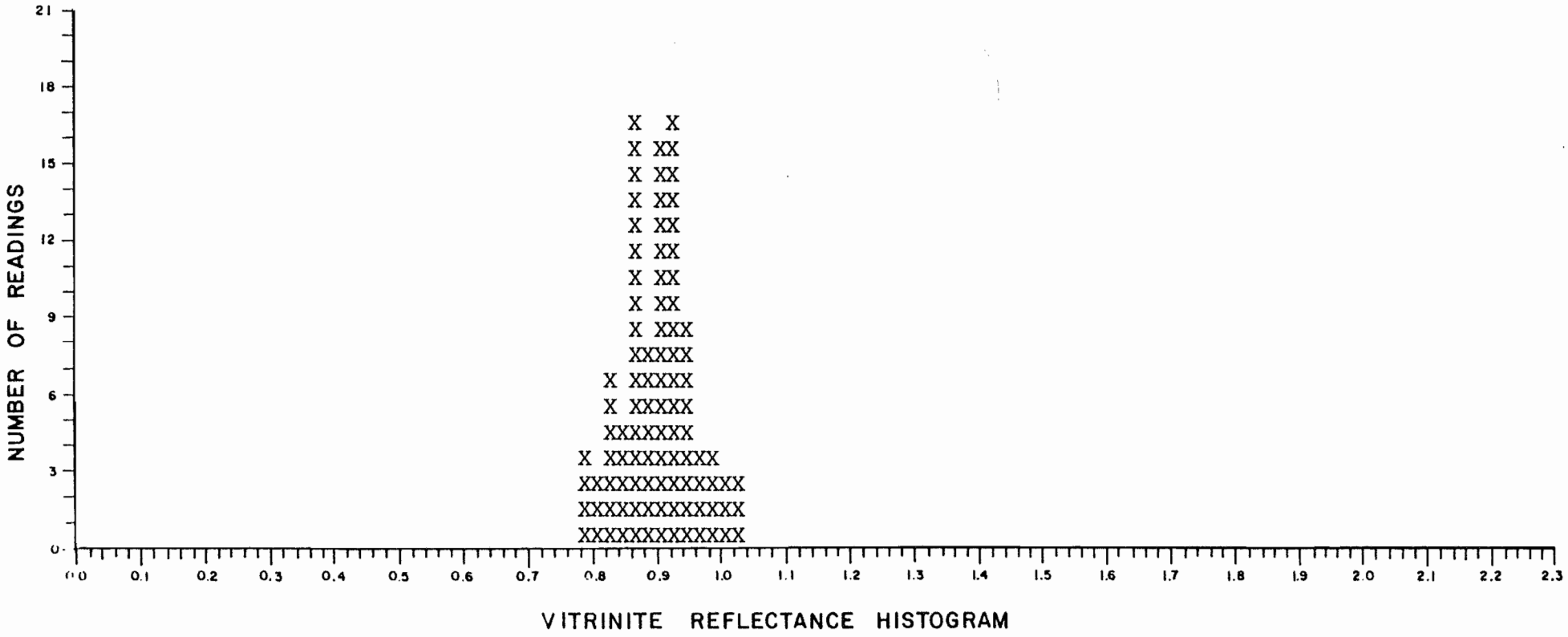


GEOCHEM NO. R769-021 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.78 0.78 0.79 0.79 0.80 0.81 0.81 0.82 0.83 0.83 0.83 0.83 0.83 0.83
0.84 0.84 0.84 0.85 0.85 0.86 0.86 0.86 0.86 0.86 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
0.87 0.87 0.87 0.87 0.88 0.88 0.88 0.88 0.88 0.89 0.89 0.89 0.90 0.90 0.90 0.90 0.90 0.90
0.90 0.90 0.90 0.90 0.91 0.91 0.91 0.91 0.91 0.91 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
0.92 0.92 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.94 0.94 0.94 0.94 0.94 0.94 0.95 0.95 0.95
0.96 0.96 0.97 0.97 0.98 0.98 0.98 0.98 1.00 1.01 1.01 1.02 1.02 1.03

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.78	1.03	0.90	0.055	

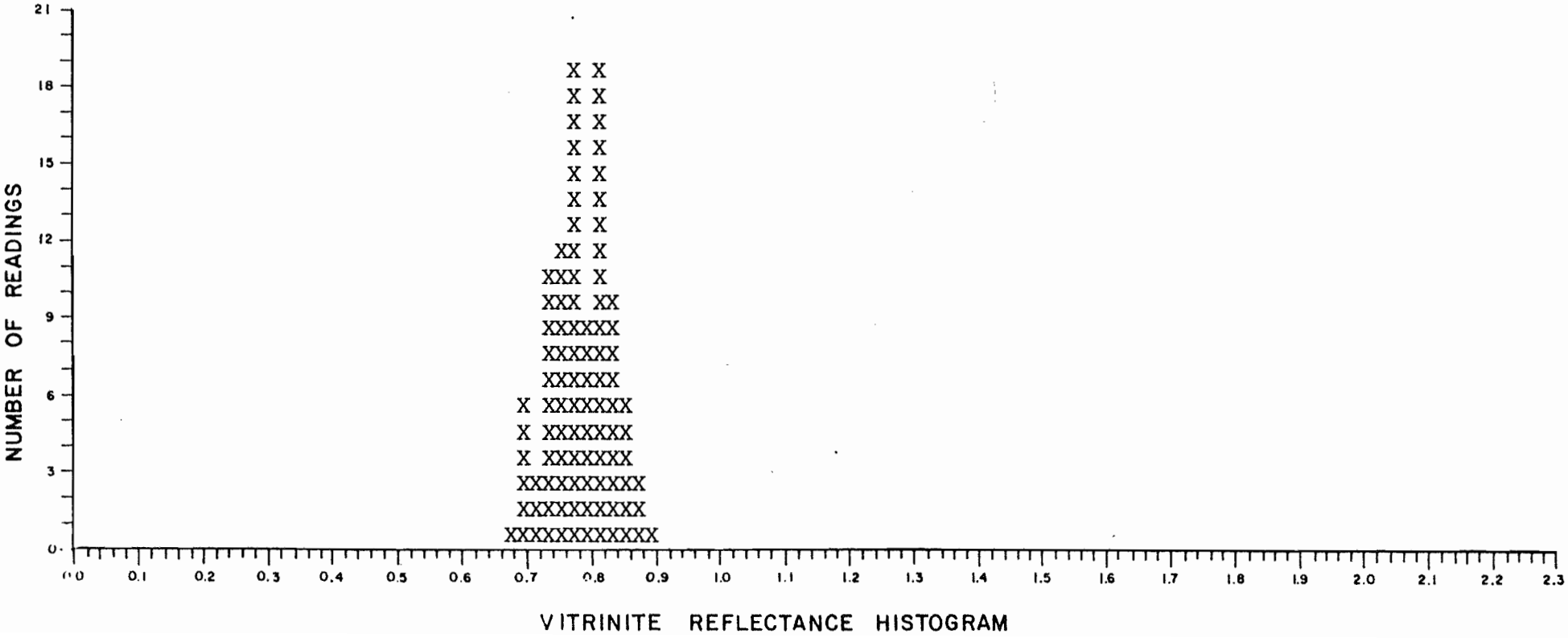


GEOCHEM NO. R769-022 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.67 0.68 0.68 0.68 0.69 0.69 0.69 0.70 0.71 0.71 0.72 0.72 0.72 0.72
0.72 0.72 0.72 0.73 0.73 0.73 0.73 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.75 0.75
0.75 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0.77
0.77 0.77 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.79 0.79 0.80 0.80 0.80 0.80 0.80 0.80 0.80
0.80 0.80 0.80 0.80 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.82 0.82 0.82 0.82 0.82 0.83
0.83 0.83 0.83 0.83 0.84 0.84 0.84 0.85 0.85 0.85 0.86 0.86 0.87 0.89

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.67	0.89	0.77	0.048	

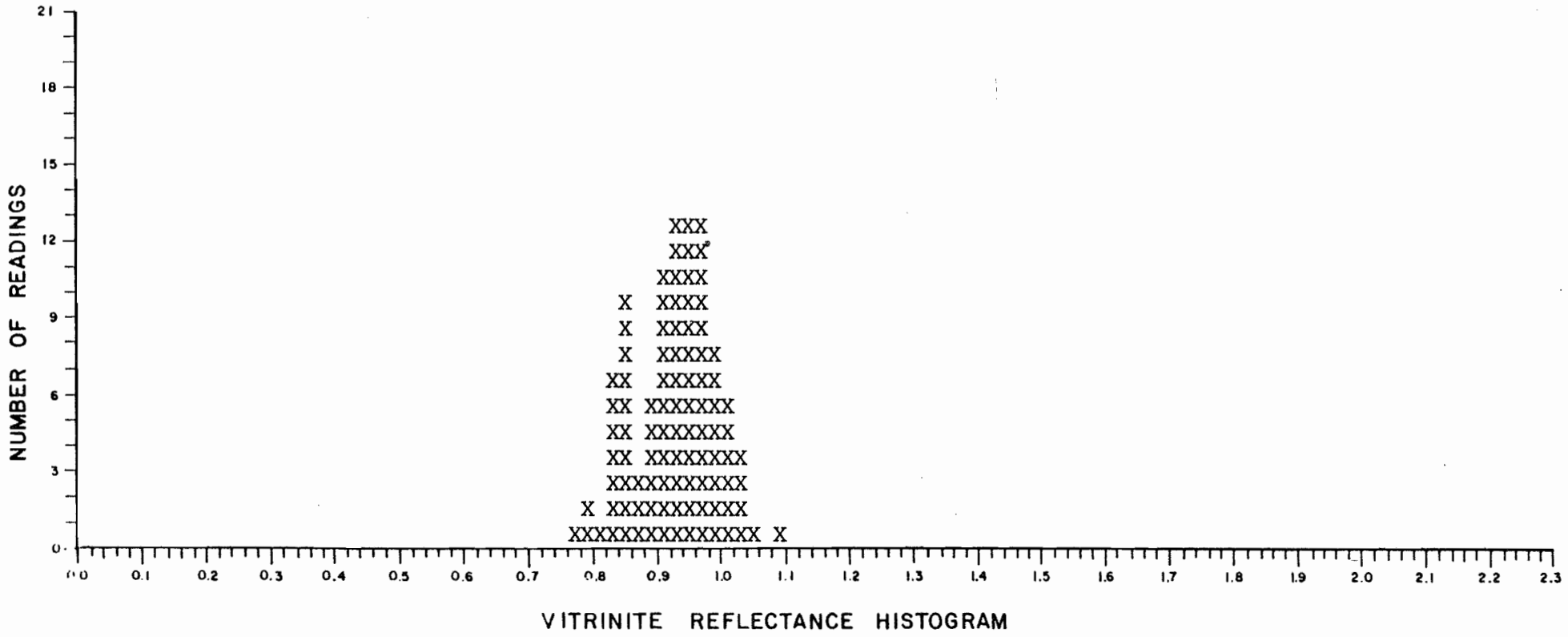


GEOCHEM NO. R769-023 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)																	
0.77	0.79	0.79	0.81	0.82	0.82	0.82	0.83	0.83	0.83	0.84	0.84	0.84	0.84	0.84	0.85	0.85	0.85
0.85	0.85	0.86	0.87	0.87	0.88	0.88	0.88	0.88	0.89	0.89	0.90	0.90	0.90	0.90	0.90	0.90	0.90
0.90	0.90	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.93	0.94	0.94
0.94	0.94	0.94	0.94	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.97	0.97
0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.98	0.98	0.98	0.98	0.98	0.98	0.99	1.00	1.00	1.00	1.01
1.01	1.01	1.02	1.02	1.03	1.03	1.05	1.08										

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.77	1.08	0.92	0.064	

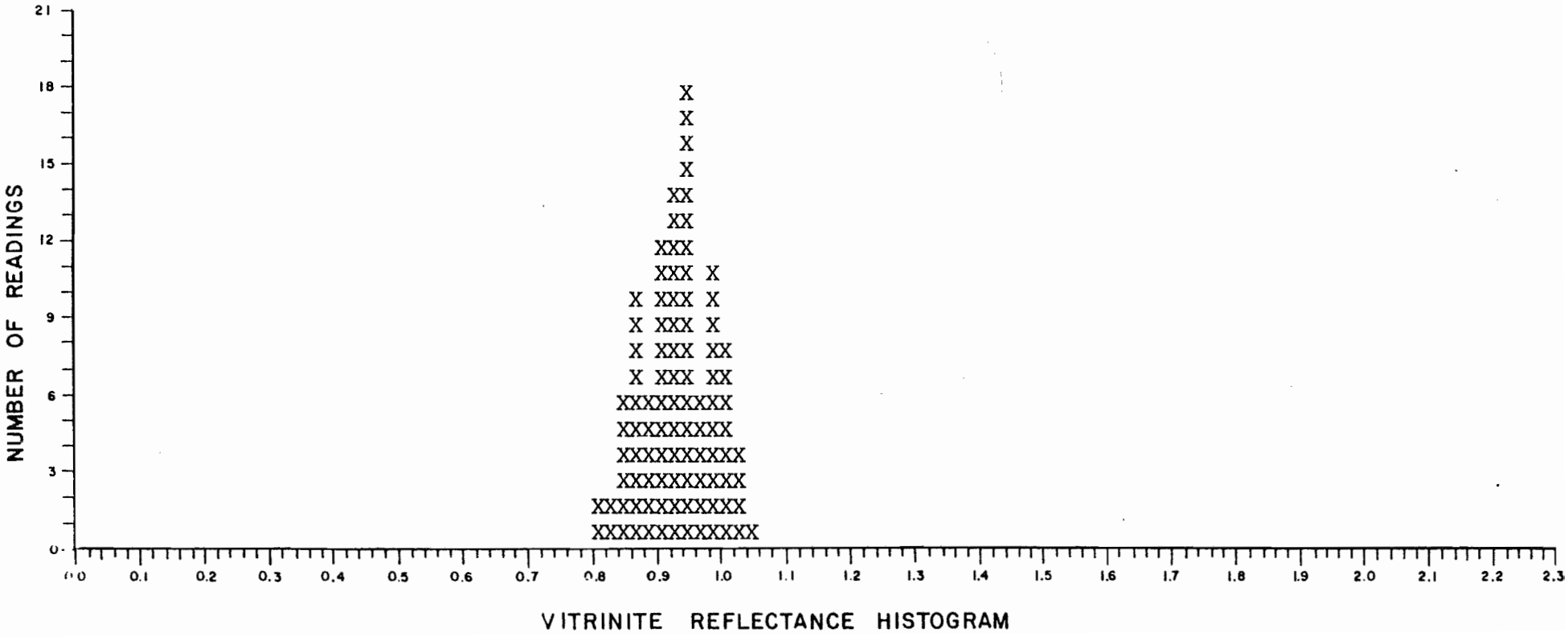


GEOCHEM NO. R769-024 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.80 0.81 0.82 0.83 0.84 0.85 0.85 0.85 0.85 0.86 0.86 0.87 0.87
0.87 0.87 0.87 0.87 0.87 0.87 0.89 0.89 0.89 0.89 0.89 0.89 0.90 0.90 0.90 0.90 0.90 0.90
0.91 0.91 0.91 0.91 0.91 0.91 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.93 0.93 0.93 0.93
0.93 0.93 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.95 0.95 0.95 0.95 0.95 0.95
0.95 0.95 0.96 0.96 0.96 0.97 0.97 0.97 0.98 0.98 0.98 0.98 0.98 0.99 0.99 0.99 0.99 0.99
0.99 1.00 1.00 1.00 1.00 1.00 1.01 1.01 1.01 1.02 1.02 1.02 1.02 1.04

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.80	1.04	0.93	0.054	

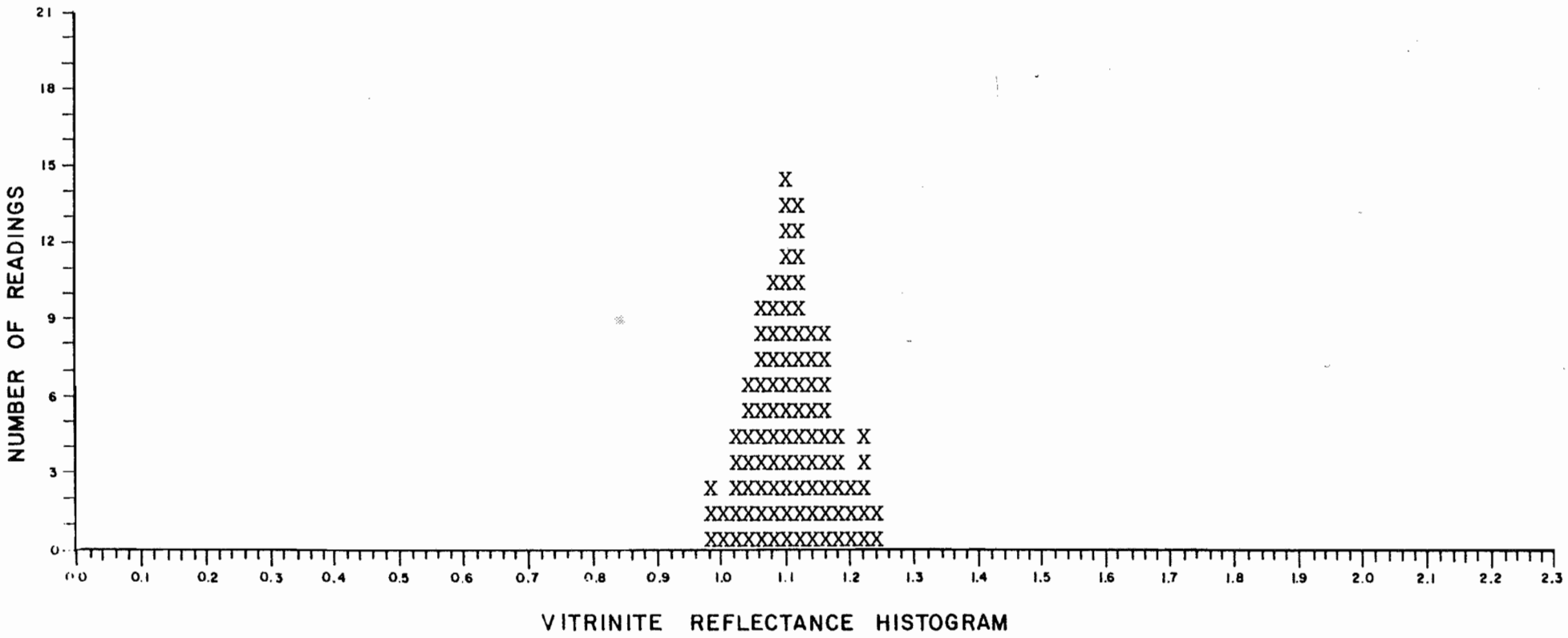


GEOCHEM NO. R769-025 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.98 0.98 0.99 1.00 1.01 1.02 1.03 1.03 1.03 1.03 1.04 1.04 1.04 1.04
1.04 1.04 1.05 1.06 1.06 1.06 1.06 1.06 1.06 1.07 1.07 1.07 1.07 1.08 1.08 1.08 1.08 1.08
1.08 1.08 1.09 1.09 1.09 1.09 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.11 1.11 1.11
1.11 1.11 1.11 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.13 1.13 1.13 1.13 1.13 1.13 1.14
1.14 1.14 1.15 1.15 1.15 1.15 1.15 1.15 1.16 1.16 1.16 1.16 1.16 1.17 1.17 1.17 1.17 1.18
1.18 1.18 1.18 1.19 1.20 1.20 1.20 1.22 1.22 1.23 1.23 1.23 1.24 1.24

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.98	1.24	1.11	0.060	

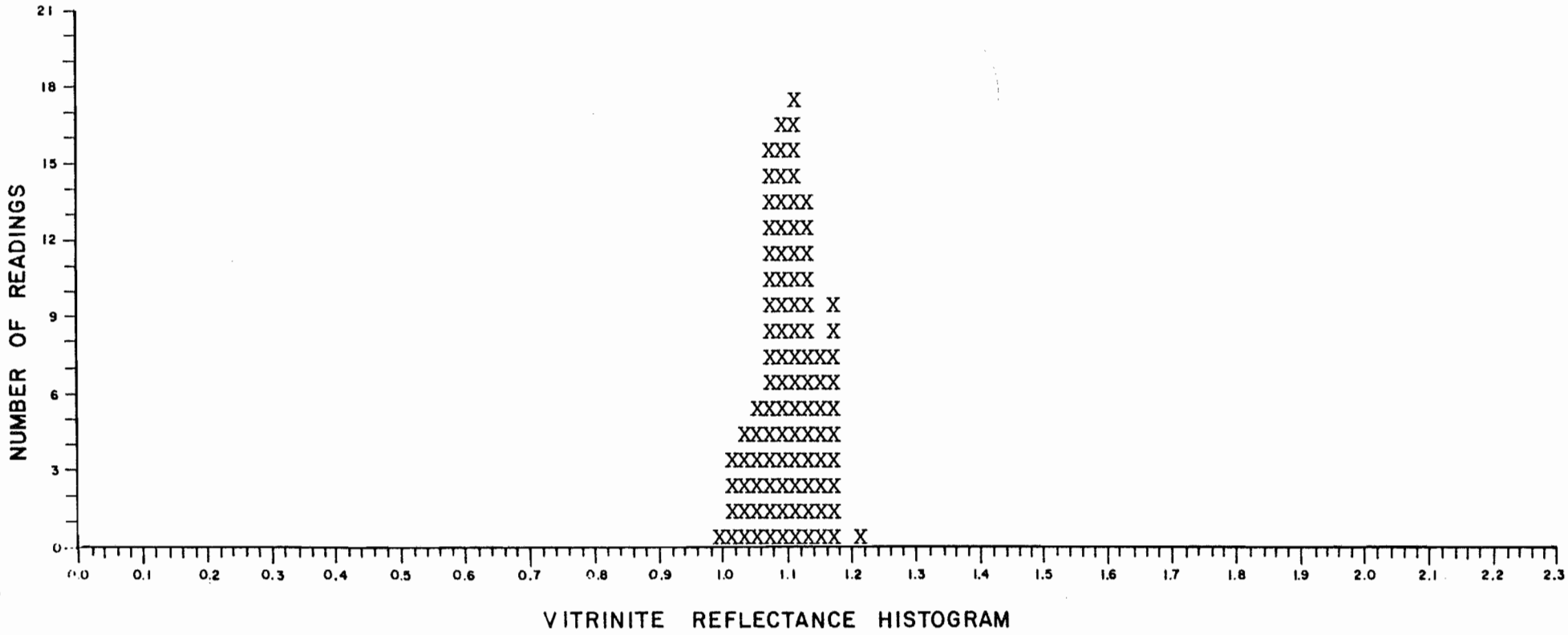


GEOCHEM NO. R769-026 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)																	
0.98	1.00	1.01	1.01	1.01	1.02	1.03	1.03	1.03	1.03	1.04	1.04	1.04	1.05	1.05	1.05	1.06	1.06
1.06	1.06	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.08	1.08	1.08	1.08
1.08	1.08	1.08	1.08	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.10	1.10	1.10	1.10	1.10
1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.11	1.11	1.11	1.11	1.12	1.12	1.12	1.12	1.12
1.12	1.12	1.12	1.12	1.12	1.13	1.13	1.13	1.13	1.14	1.14	1.15	1.15	1.15	1.15	1.15	1.16	1.16
1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.20									

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.98	1.20	1.10	0.044	



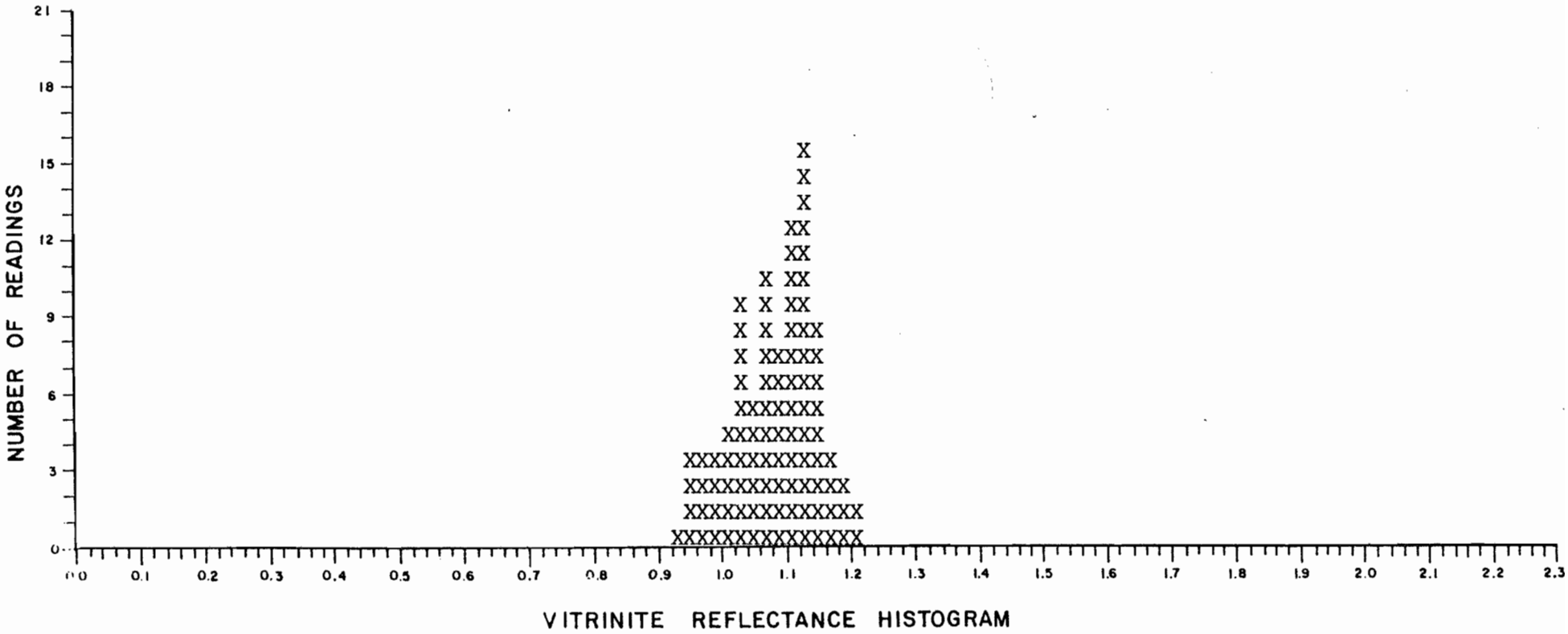
VITRINITE REFLECTANCE HISTOGRAM

GEOCHEM NO. R769-027 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.93 0.94 0.94 0.95 0.95 0.97 0.97 0.97 0.97 0.98 0.98 0.98 0.98 1.00
1.00 1.00 1.01 1.01 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.03 1.03 1.03 1.04 1.04 1.04 1.05
1.05 1.05 1.06 1.06 1.06 1.06 1.06 1.06 1.07 1.07 1.07 1.07 1.07 1.08 1.08 1.08 1.08 1.09
1.09 1.09 1.09 1.10 1.10 1.10 1.10 1.10 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.12 1.12
1.12 1.12 1.12 1.12 1.12 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.14 1.14 1.14 1.15
1.15 1.15 1.15 1.15 1.15 1.16 1.16 1.16 1.16 1.18 1.18 1.19 1.20 1.20

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.93	1.20	1.08	0.066	

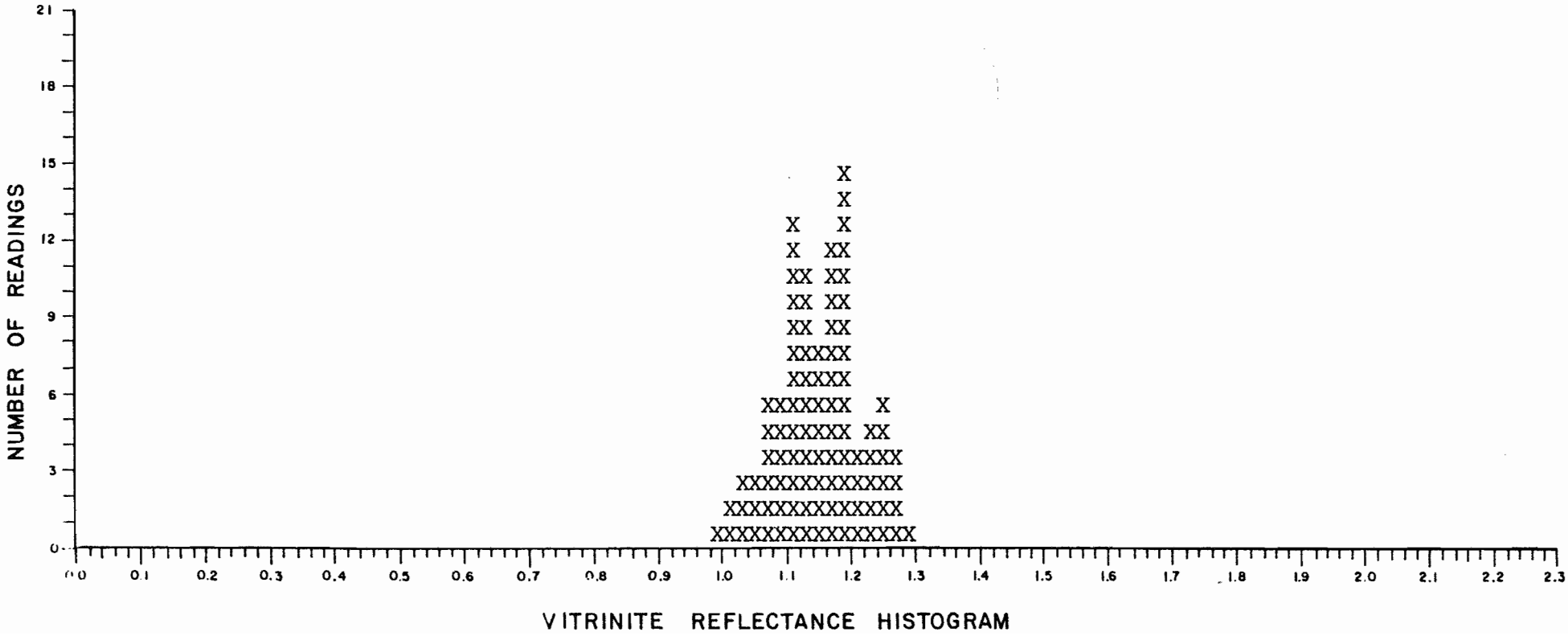


GEOCHEM NO. R769-028 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.99 1.00 1.01 1.02 1.03 1.03 1.04 1.04 1.05 1.06 1.06 1.06 1.07 1.07
1.07 1.08 1.08 1.09 1.09 1.09 1.09 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.11 1.11 1.11 1.11
1.11 1.11 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.13 1.13 1.13 1.14 1.14 1.14 1.15 1.15
1.15 1.15 1.15 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.17 1.17 1.18 1.18 1.18
1.18 1.18 1.18 1.18 1.19 1.19 1.19 1.19 1.19 1.19 1.19 1.19 1.20 1.21 1.21 1.21 1.22 1.22
1.22 1.22 1.23 1.24 1.24 1.24 1.24 1.25 1.25 1.26 1.26 1.26 1.27 1.28

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.99	1.28	1.14	0.066	

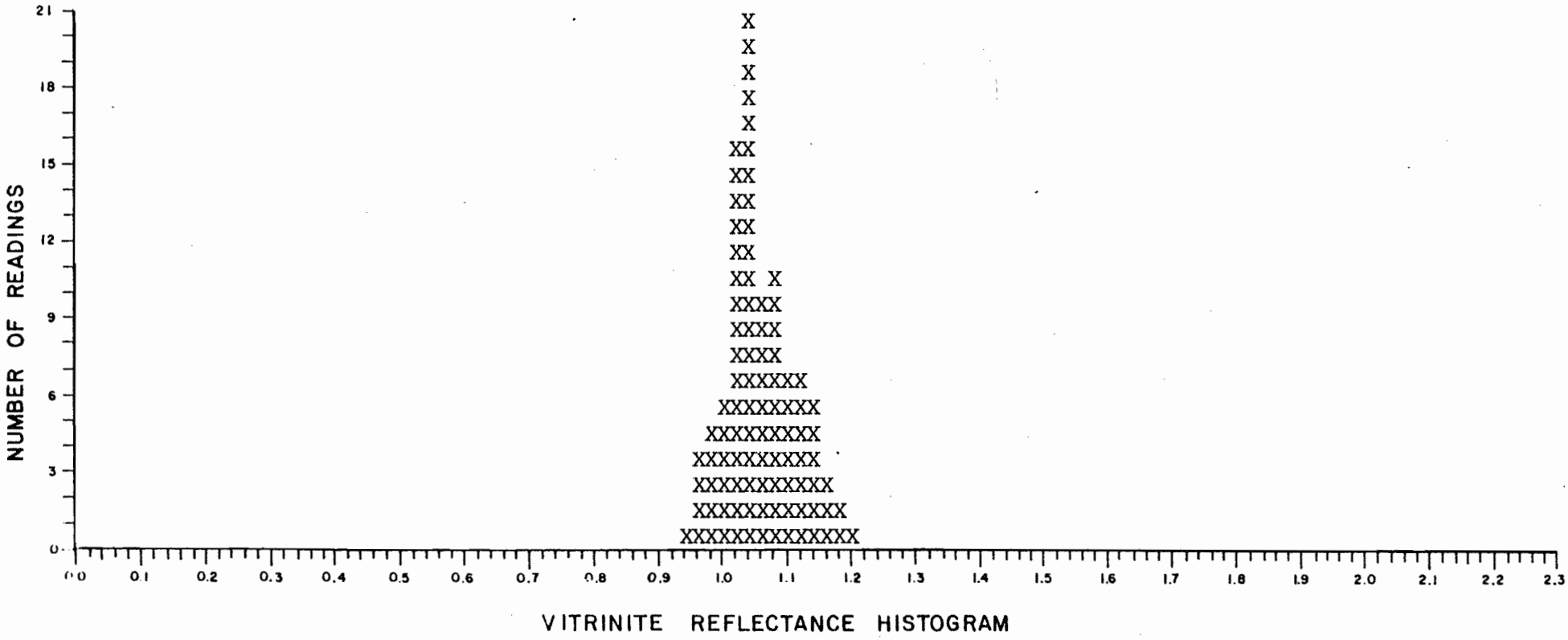


GEOCHEM NO. R769-029 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)																	
0.94	0.96	0.97	0.97	0.97	0.98	0.98	0.98	0.98	0.99	1.00	1.00	1.00	1.01				
1.01	1.01	1.02	1.02	1.02	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
1.05	1.05	1.05	1.06	1.06	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.08	1.08	1.08	1.08	1.08
1.08	1.08	1.09	1.09	1.09	1.09	1.10	1.10	1.10	1.10	1.11	1.11	1.11	1.12	1.12	1.12	1.12	1.12
1.13	1.13	1.14	1.14	1.14	1.14	1.14	1.15	1.16	1.16	1.17	1.19	1.19	1.21				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.94	1.21	1.06	0.055	

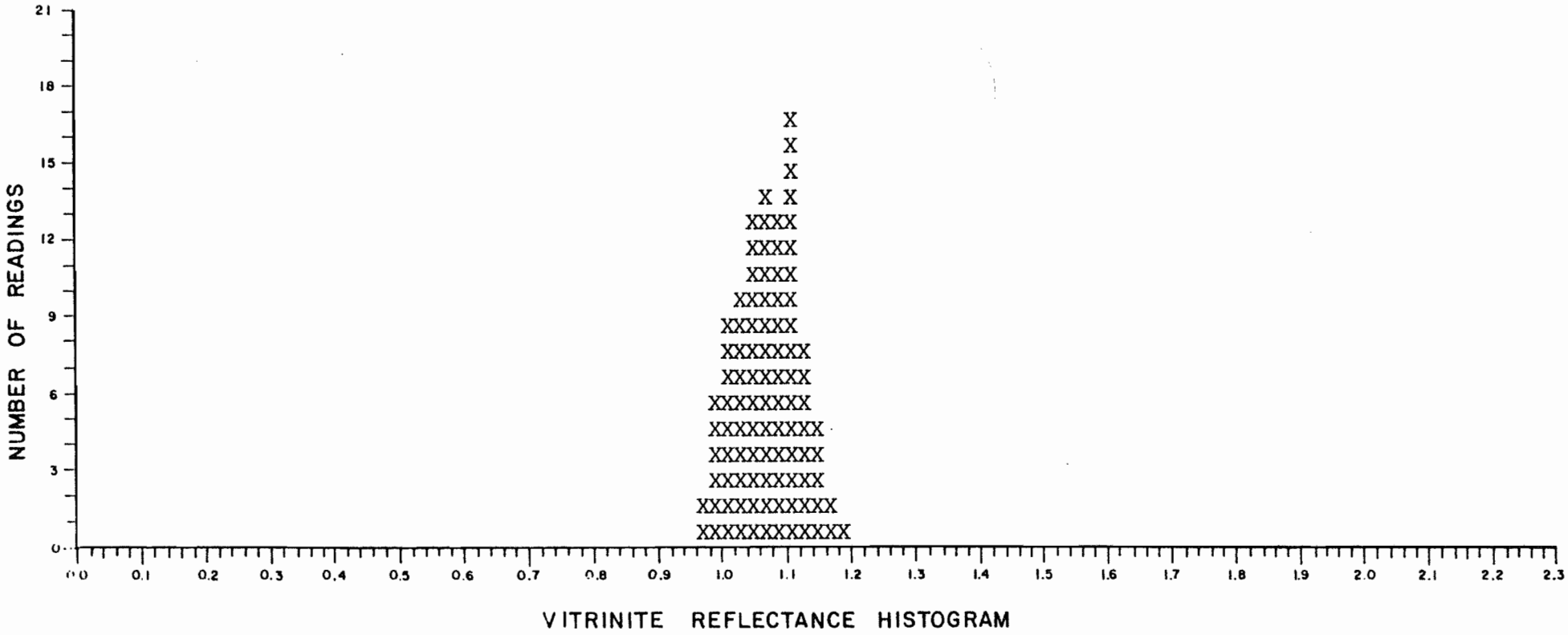


GEOCHEM NO. R769-030 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.97 0.97 0.98 0.99 0.99 0.99 0.99 0.99 1.00 1.00 1.00 1.00 1.00 1.01
1.01 1.01 1.01 1.02 1.02 1.02 1.02 1.02 1.02 1.03 1.03 1.03 1.03 1.04 1.04 1.04 1.04 1.04
1.04 1.04 1.05 1.05 1.05 1.05 1.05 1.05 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.07 1.07 1.07
1.07 1.07 1.07 1.07 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.09 1.09 1.09 1.09 1.10
1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.12 1.12
1.12 1.12 1.12 1.12 1.13 1.13 1.14 1.14 1.15 1.15 1.15 1.16 1.17 1.19

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.97	1.19	1.07	0.049	



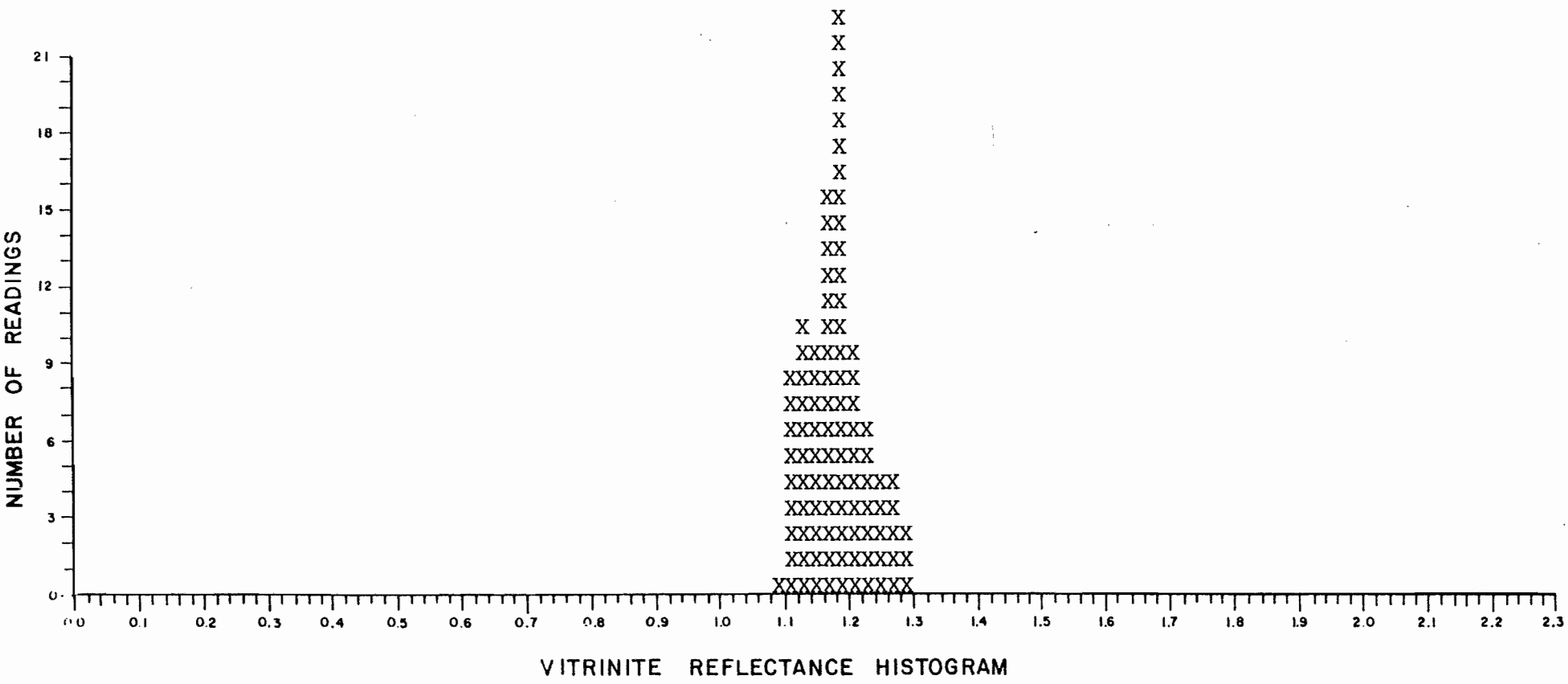
VITRINITE REFLECTANCE HISTOGRAM

GEOCHEM NO. R769-031 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.08 1.10 1.10 1.10 1.10 1.11 1.11 1.11 1.11 1.11 1.12 1.12 1.12 1.13
1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.14 1.14 1.14 1.14 1.15 1.15 1.15 1.15 1.15 1.15 1.16
1.16 1.16 1.16 1.16 1.16 1.16 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.18 1.18 1.18
1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.19 1.19 1.19 1.19 1.19 1.19 1.19 1.19 1.19 1.19
1.19 1.19 1.20 1.20 1.20 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.22 1.22 1.22 1.22 1.22 1.22
1.23 1.24 1.24 1.25 1.25 1.25 1.26 1.26 1.26 1.27 1.27 1.28 1.28 1.29

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.08	1.29	1.18	0.047	

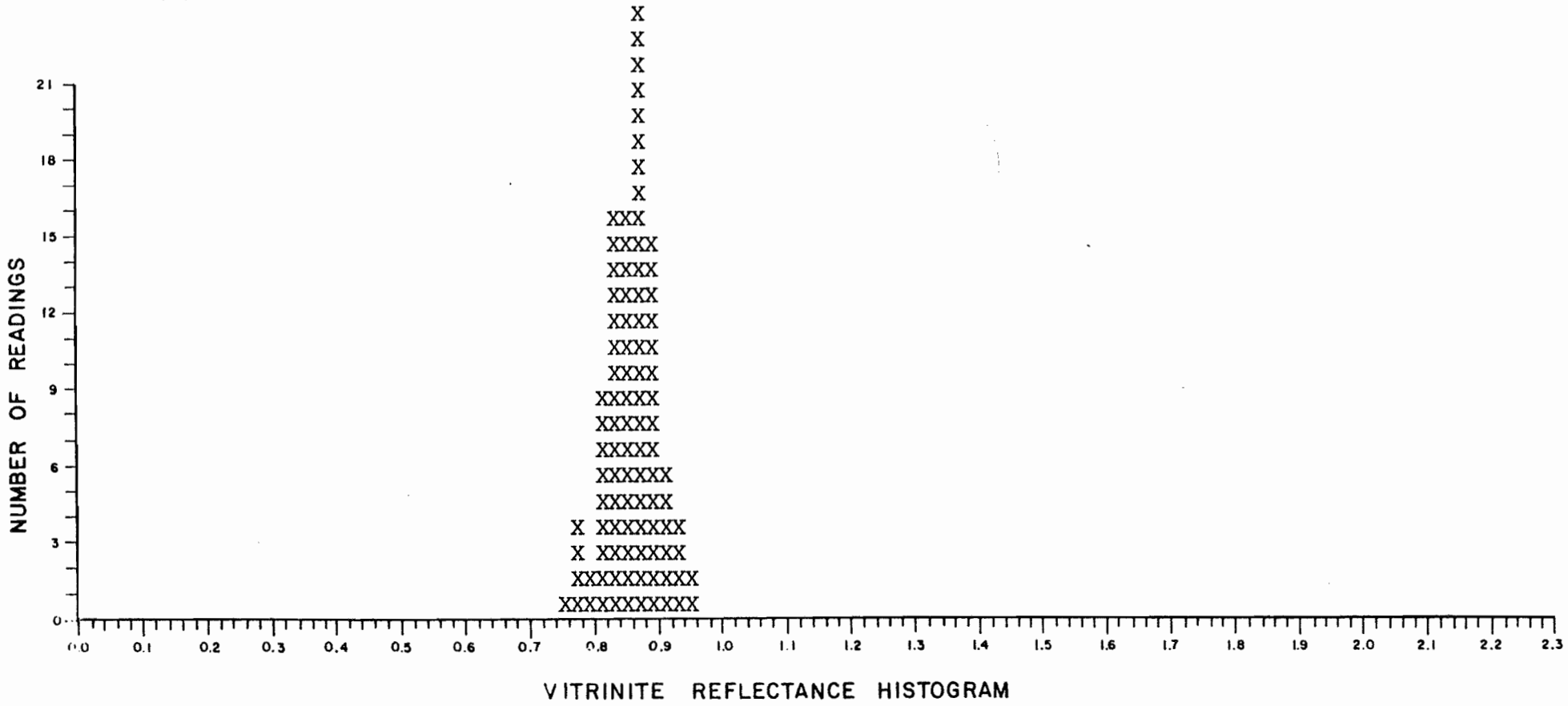


GEOCHEM NO. R769-032 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.75 0.76 0.76 0.77 0.77 0.78 0.79 0.80 0.80 0.81 0.81 0.81 0.81 0.81
0.81 0.81 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83
0.84 0.84 0.84 0.84 0.84 0.84 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.86 0.86
0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.87 0.87 0.87 0.87 0.87 0.87 0.87
0.87 0.87 0.87 0.87 0.87 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
0.89 0.89 0.90 0.90 0.90 0.90 0.90 0.91 0.92 0.92 0.93 0.93 0.94 0.95

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.75	0.95	0.85	0.039	

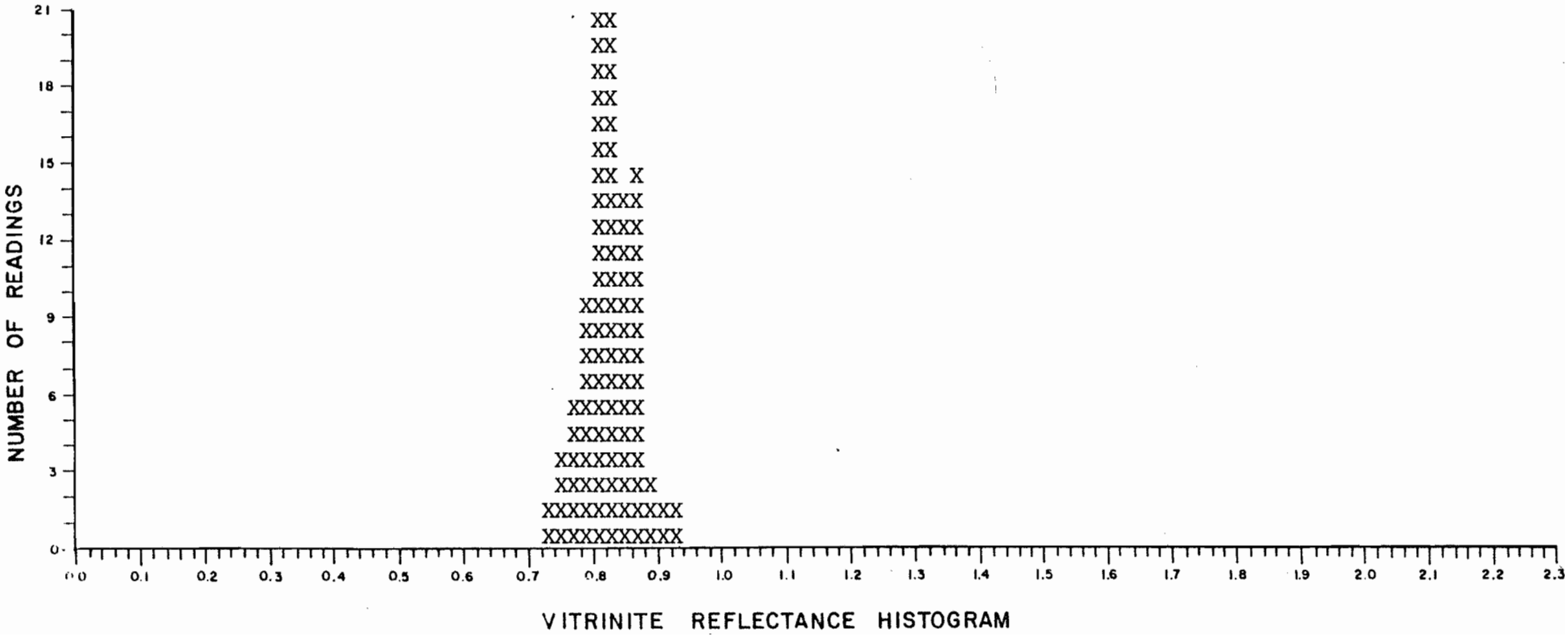


GEOCHEM NO. R769-033 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.73 0.73 0.74 0.75 0.75 0.75 0.76 0.76 0.76 0.76 0.77 0.77 0.78 0.78
0.78 0.78 0.78 0.79 0.79 0.79 0.79 0.79 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80
0.80 0.80 0.80 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.82 0.82 0.82 0.82 0.82 0.82 0.82
0.82 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.84 0.84 0.84 0.84
0.84 0.84 0.84 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.86 0.86 0.86 0.86 0.86 0.86 0.87 0.87
0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.88 0.89 0.89 0.90 0.90 0.92 0.93

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.73	0.93	0.82	0.041	

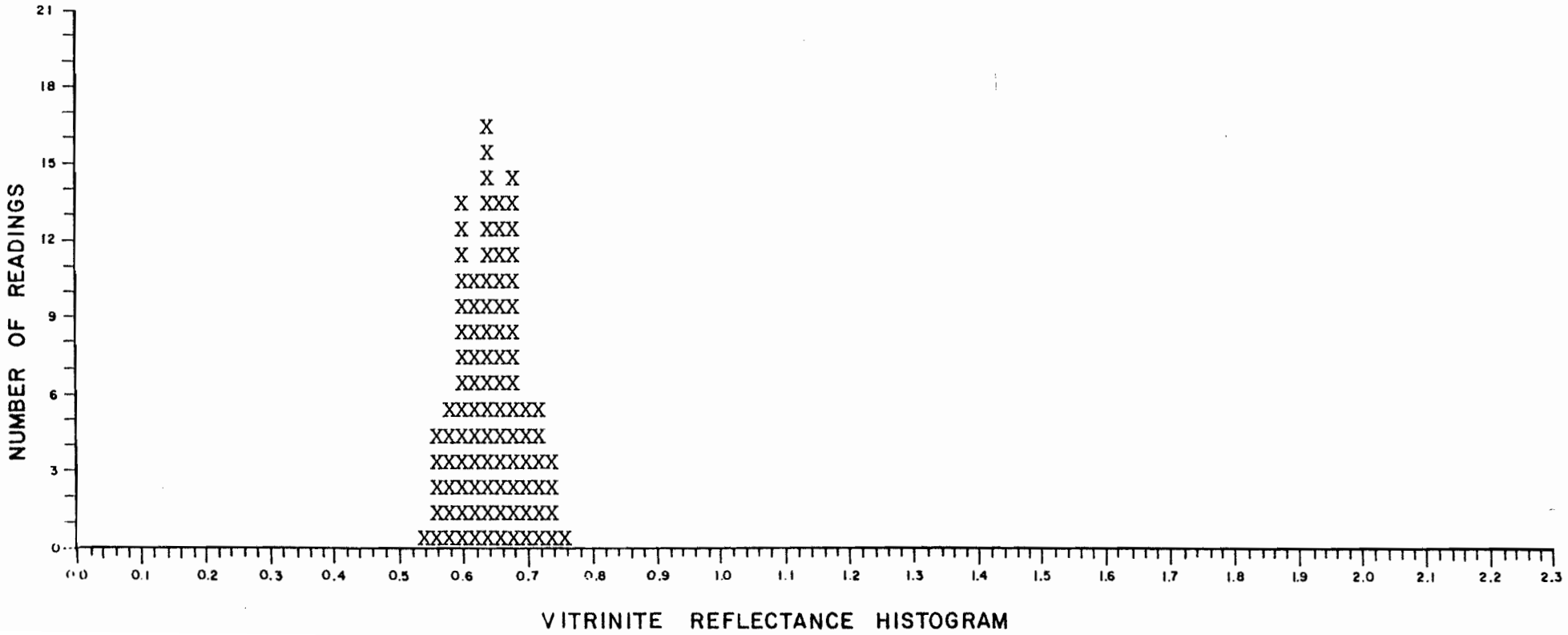


GEOCHEM NO. R769-034 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.53 0.54 0.54 0.54 0.55 0.55 0.56 0.56 0.56 0.57 0.57 0.57 0.58 0.58
0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60
0.60 0.60 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63
0.63 0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65
0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.67 0.67 0.67 0.67 0.67 0.68 0.68 0.69
0.69 0.69 0.69 0.70 0.70 0.71 0.71 0.71 0.71 0.72 0.72 0.72 0.73 0.74

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.53	0.74	0.63	0.049	

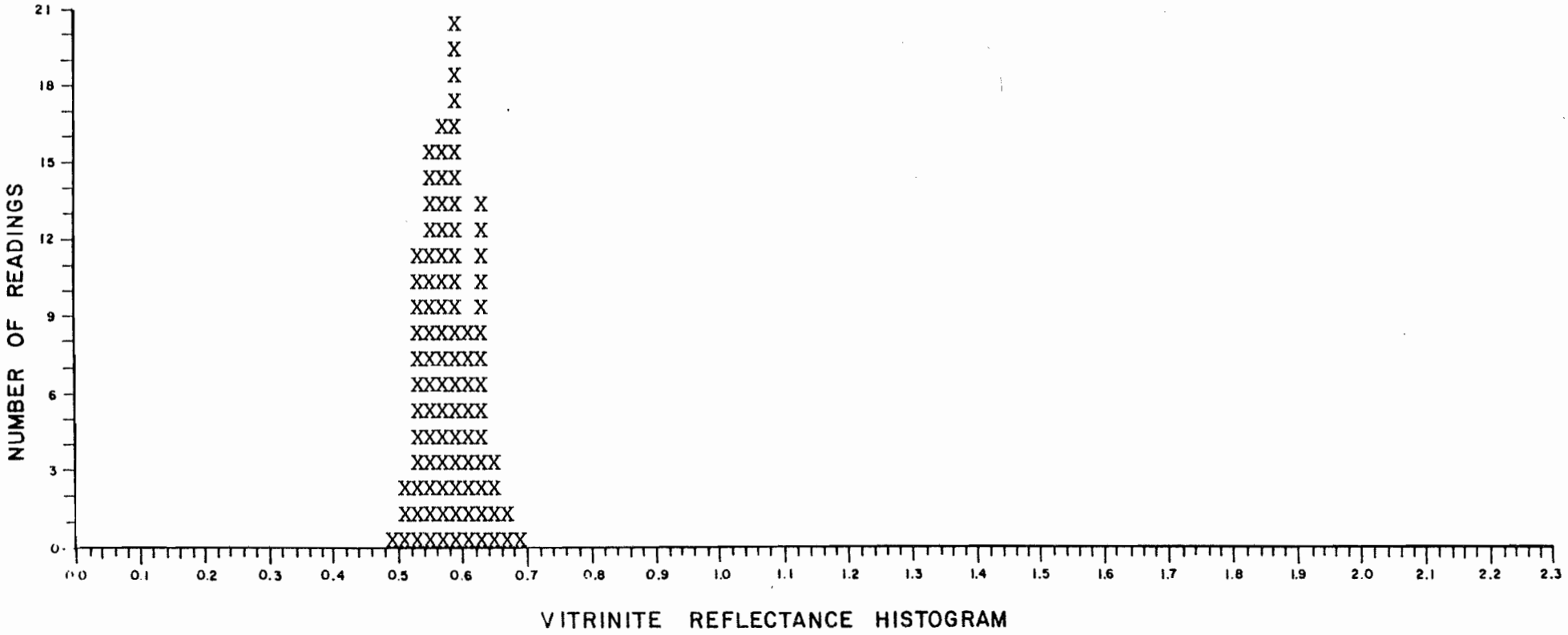


GEOCHEM NO. R769-035 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.48 0.51 0.51 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53
0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55
0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.57 0.57 0.57 0.58
0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.59
0.59 0.59 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62
0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.64 0.64 0.65 0.65 0.66 0.66 0.68

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.48	0.68	0.58	0.040	

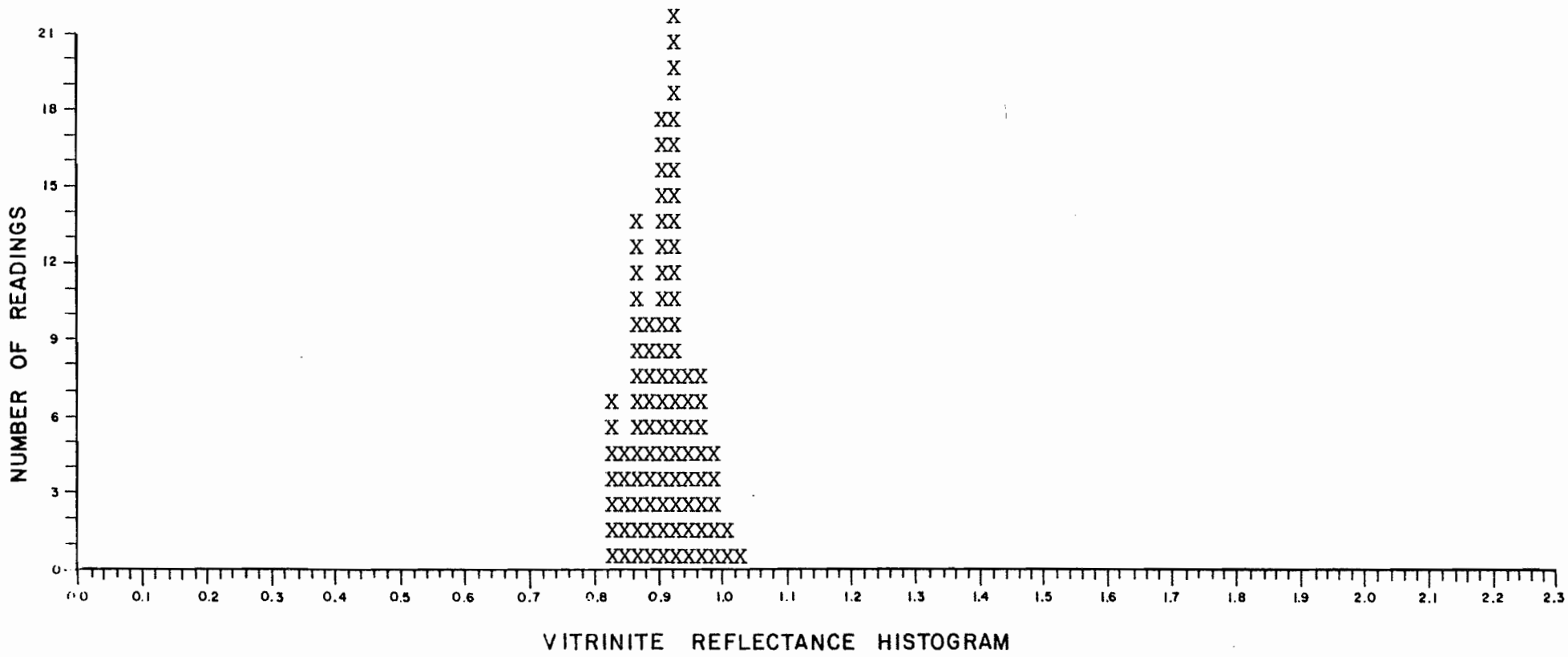


GEOCHEM NO. R769-036 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.82 0.82 0.82 0.83 0.83 0.83 0.83 0.84 0.84 0.85 0.85 0.85 0.86 0.86
0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.87 0.87 0.87 0.87 0.87 0.88 0.88 0.88 0.89 0.89 0.89
0.89 0.89 0.89 0.89 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.91 0.91 0.91 0.91
0.91 0.91 0.91 0.91 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.93 0.93 0.93
0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.94 0.94 0.94 0.94 0.95 0.95 0.95 0.95 0.96 0.96
0.96 0.96 0.96 0.96 0.96 0.97 0.98 0.98 0.98 0.99 0.99 1.00 1.00 1.02

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.82	1.02	0.91	0.045	

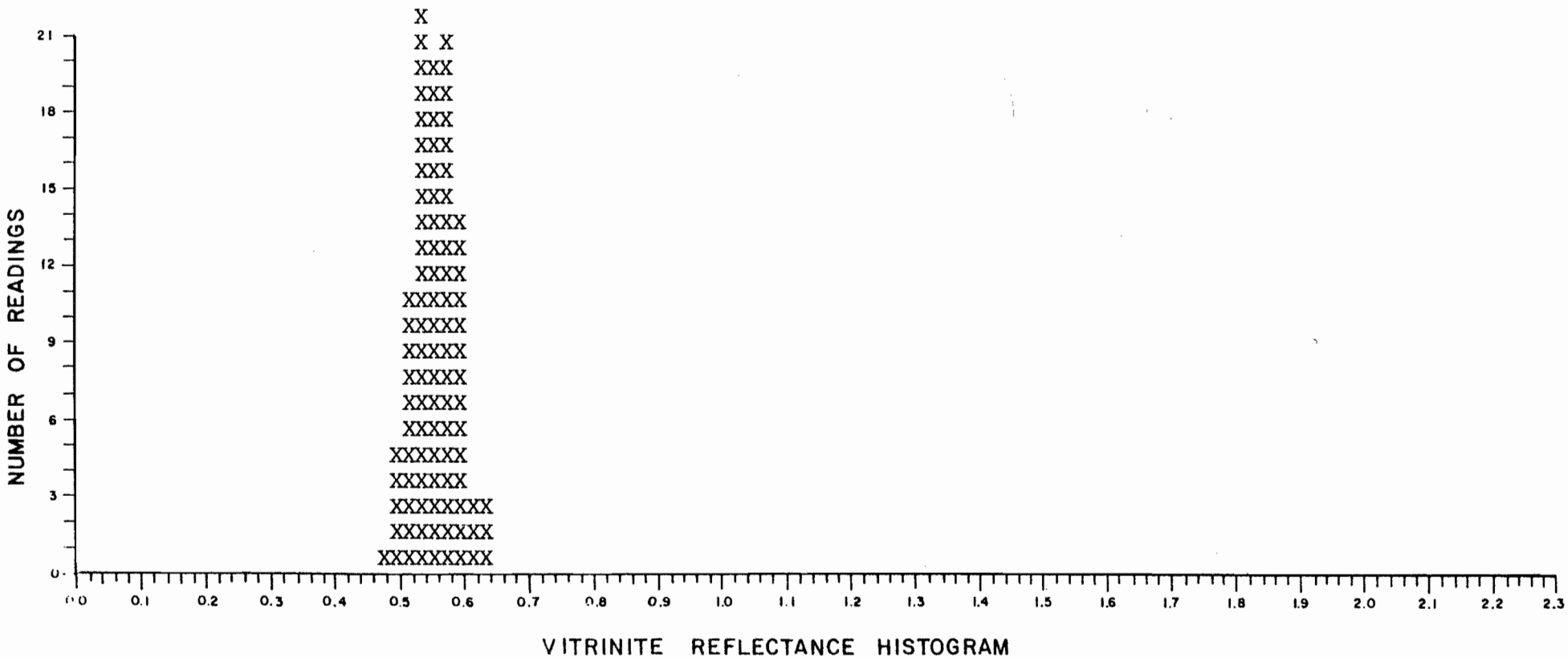


GEOCHEM NO. R769-037 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.47 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.50 0.50 0.51 0.51
0.51 0.51 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53
0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54
0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56
0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58
0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.61 0.61 0.61 0.62 0.62 0.62

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.47	0.62	0.55	0.033	

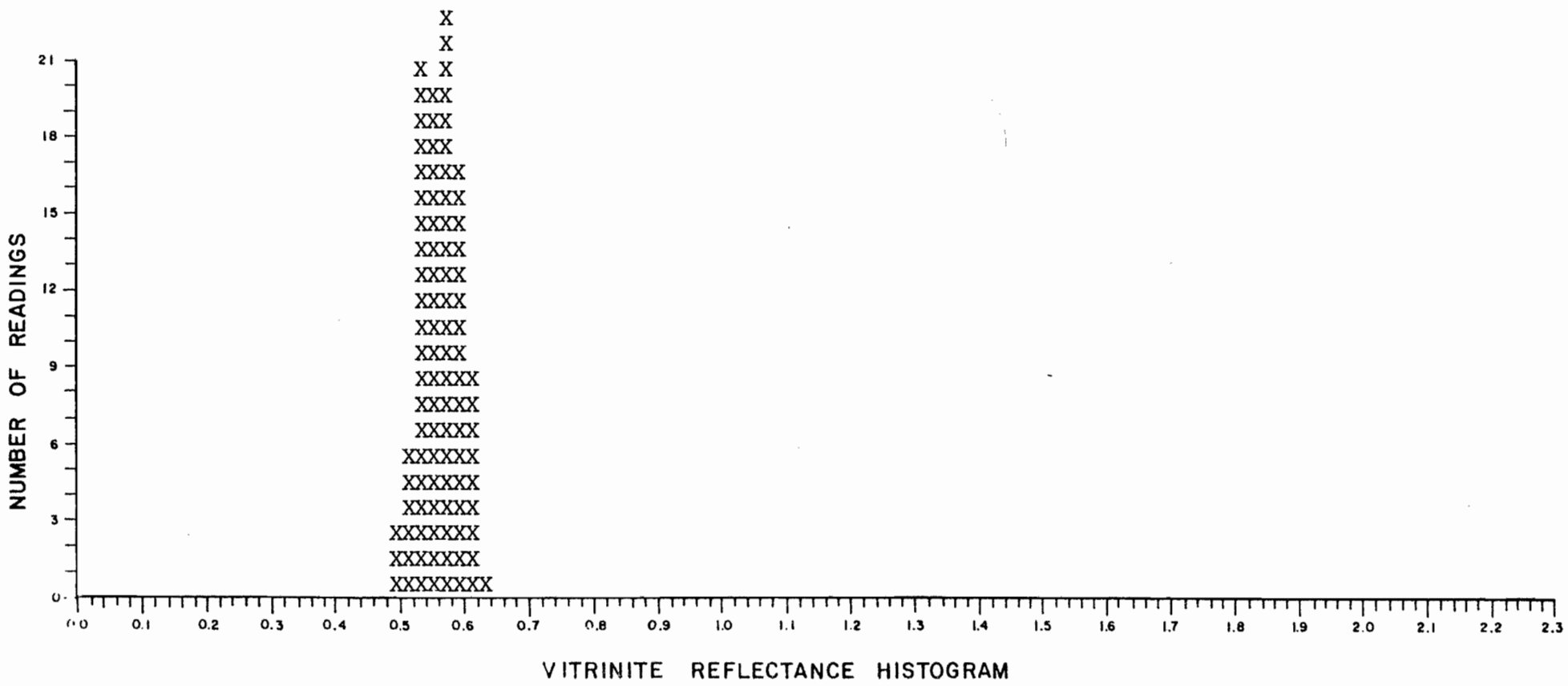


GEOCHEM NO. R769-038 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.48 0.48 0.49 0.50 0.50 0.50 0.51 0.51 0.51 0.52 0.52 0.52 0.52 0.52
0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53 0.54 0.54
0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55
0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.57 0.57
0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59 0.59 0.59
0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.62

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.48	0.62	0.55	0.032	

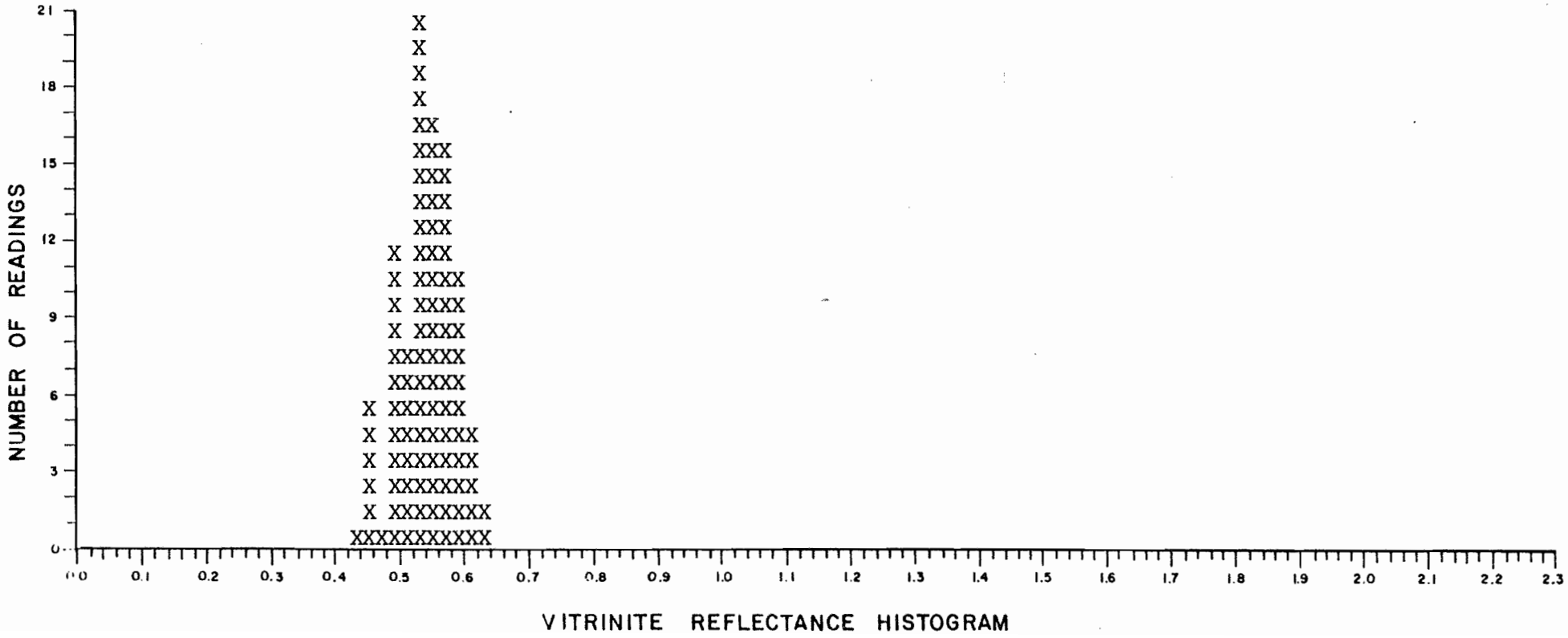


GEOCHEM NO. R769-039 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.43 0.45 0.45 0.45 0.45 0.45 0.45 0.47 0.48 0.48 0.48 0.48 0.48 0.48
0.49 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.51 0.51 0.51 0.51 0.52 0.52 0.52 0.52
0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.54
0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.56 0.56
0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58
0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.61 0.62 0.63

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.43	0.63	0.53	0.043	

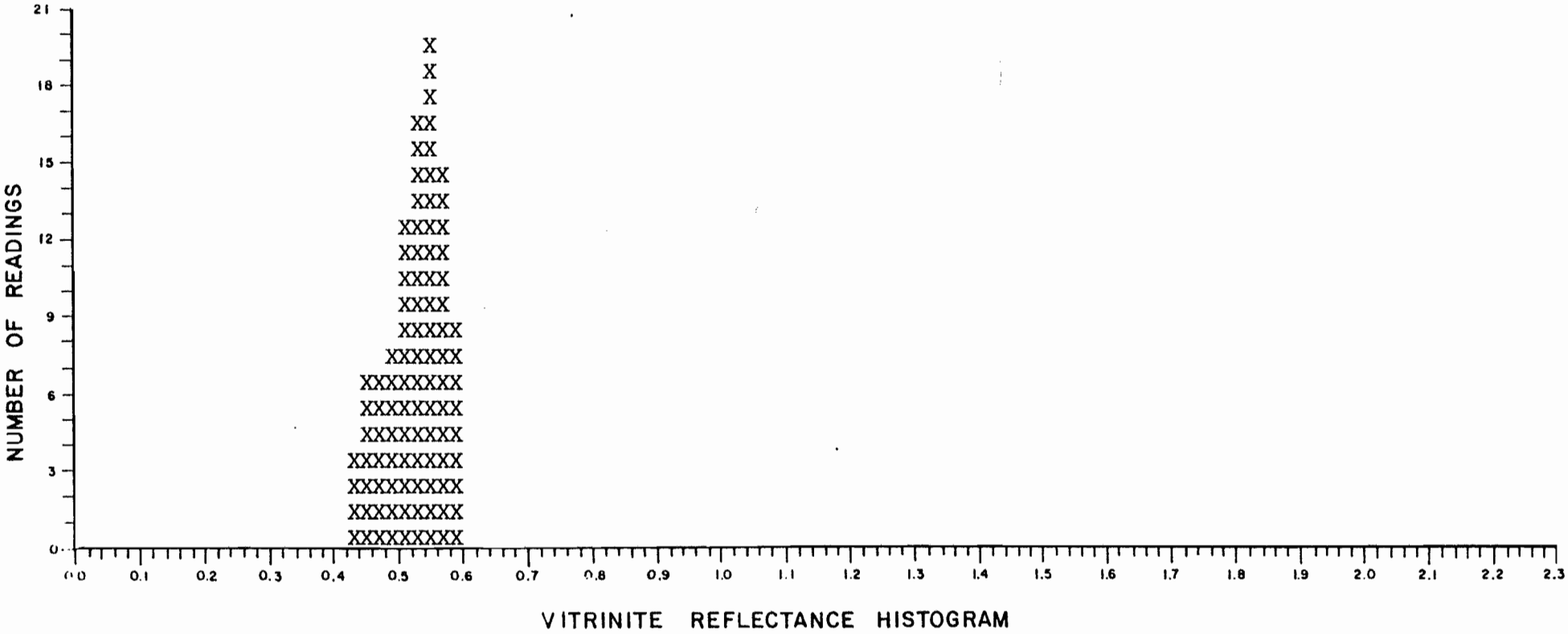


GEOCHEM NO. R769-040 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.42 0.43 0.43 0.43 0.44 0.44 0.44 0.45 0.45 0.45 0.45 0.46 0.46 0.46
0.46 0.47 0.47 0.47 0.48 0.48 0.48 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.50 0.50
0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53
0.53 0.53 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.55
0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56
0.56 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.42	0.59	0.52	0.043	

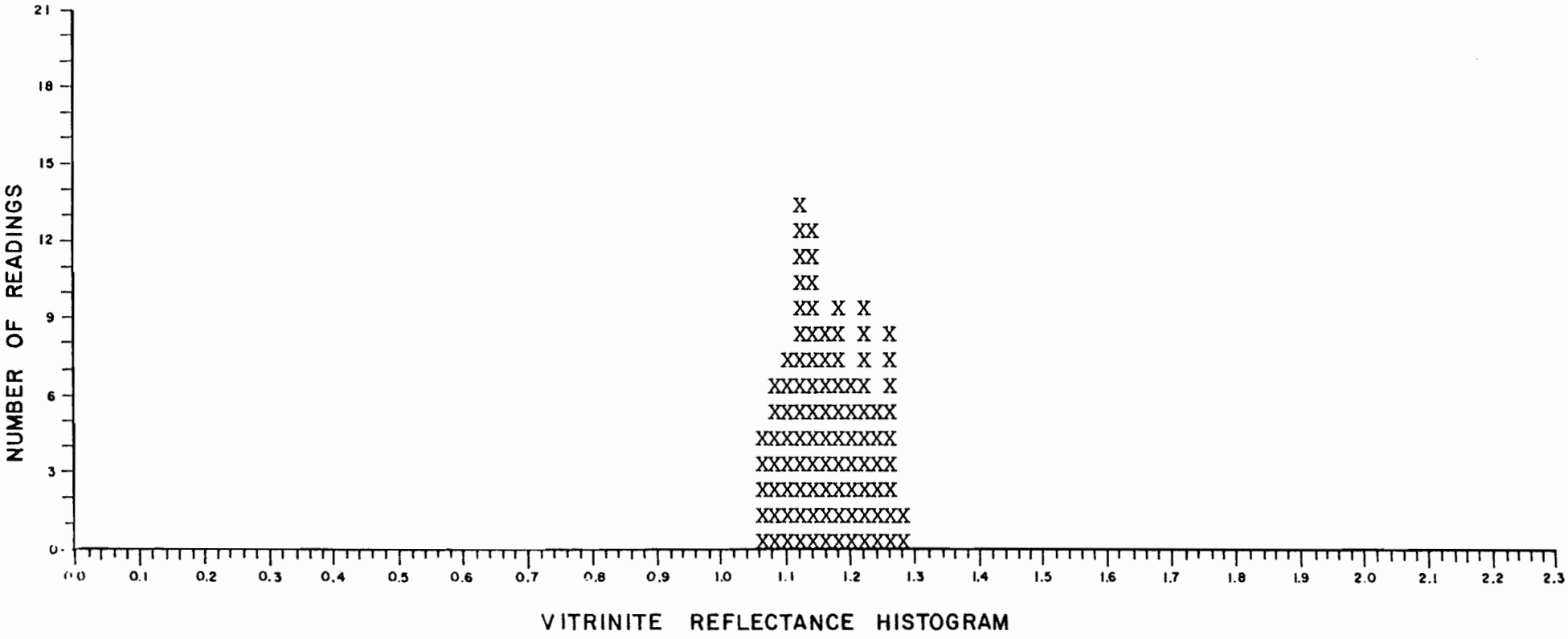


GEOCHEM NO. R769-041 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)				1.07	1.07	1.07	1.07	1.07	1.08	1.08	1.08	1.09	1.09	1.09	1.09	1.10	1.11
1.11	1.11	1.11	1.11	1.11	1.11	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.13
1.13	1.13	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.15	1.15	1.16	1.16	1.16
1.16	1.16	1.16	1.17	1.17	1.17	1.18	1.18	1.18	1.18	1.19	1.19	1.19	1.19	1.19	1.19	1.20	1.20
1.20	1.20	1.20	1.21	1.21	1.22	1.22	1.22	1.22	1.22	1.23	1.23	1.23	1.23	1.23	1.24	1.24	1.24
1.24	1.25	1.25	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.27	1.27	1.28	1.28				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.07	1.28	1.17	0.059	

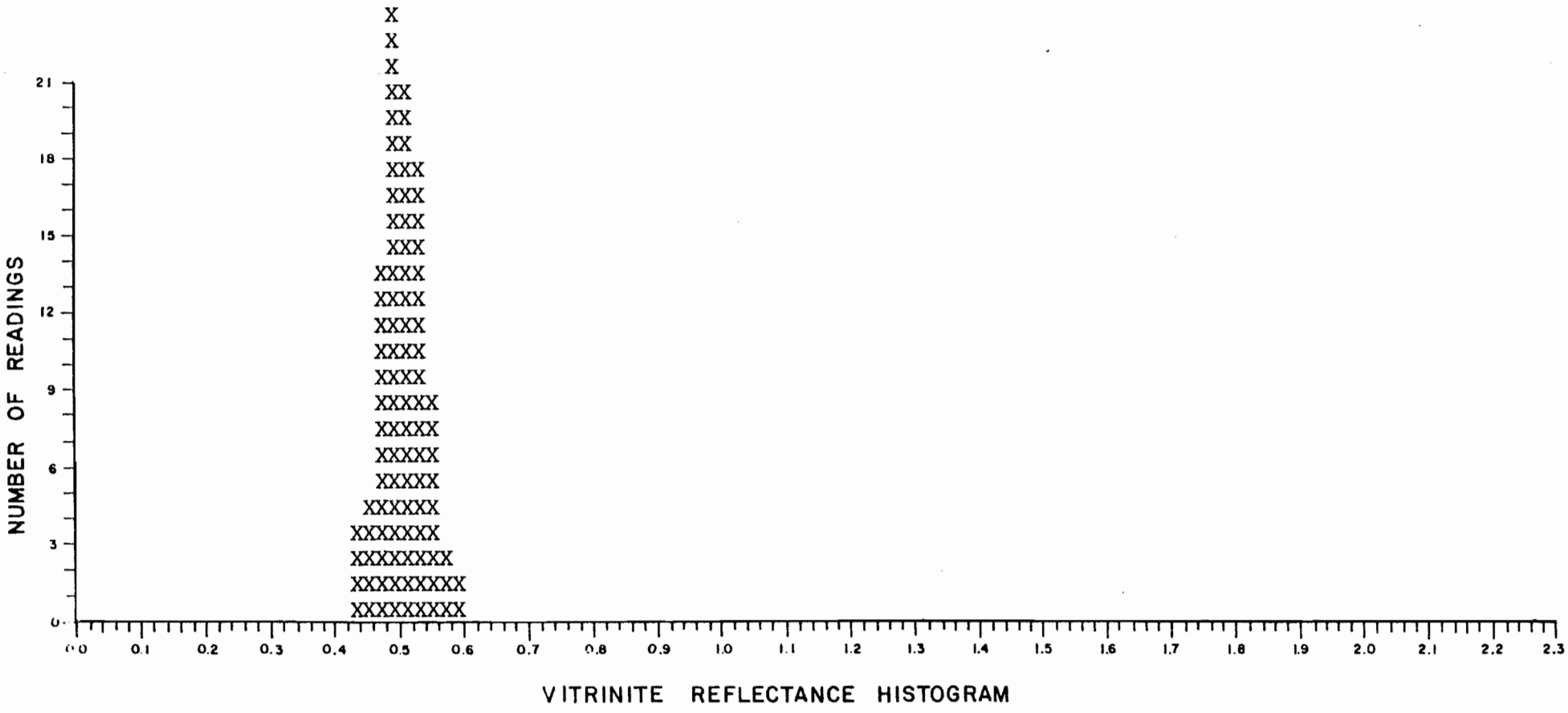


GEOCHEM NO. R769-042 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.42 0.42 0.42 0.43 0.44 0.44 0.44 0.44 0.45 0.46 0.46 0.46 0.46 0.47
0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48
0.48 0.48 0.48 0.48 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50
0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51
0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53
0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.56 0.56 0.57 0.58 0.59

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.42	0.59	0.50	0.035	

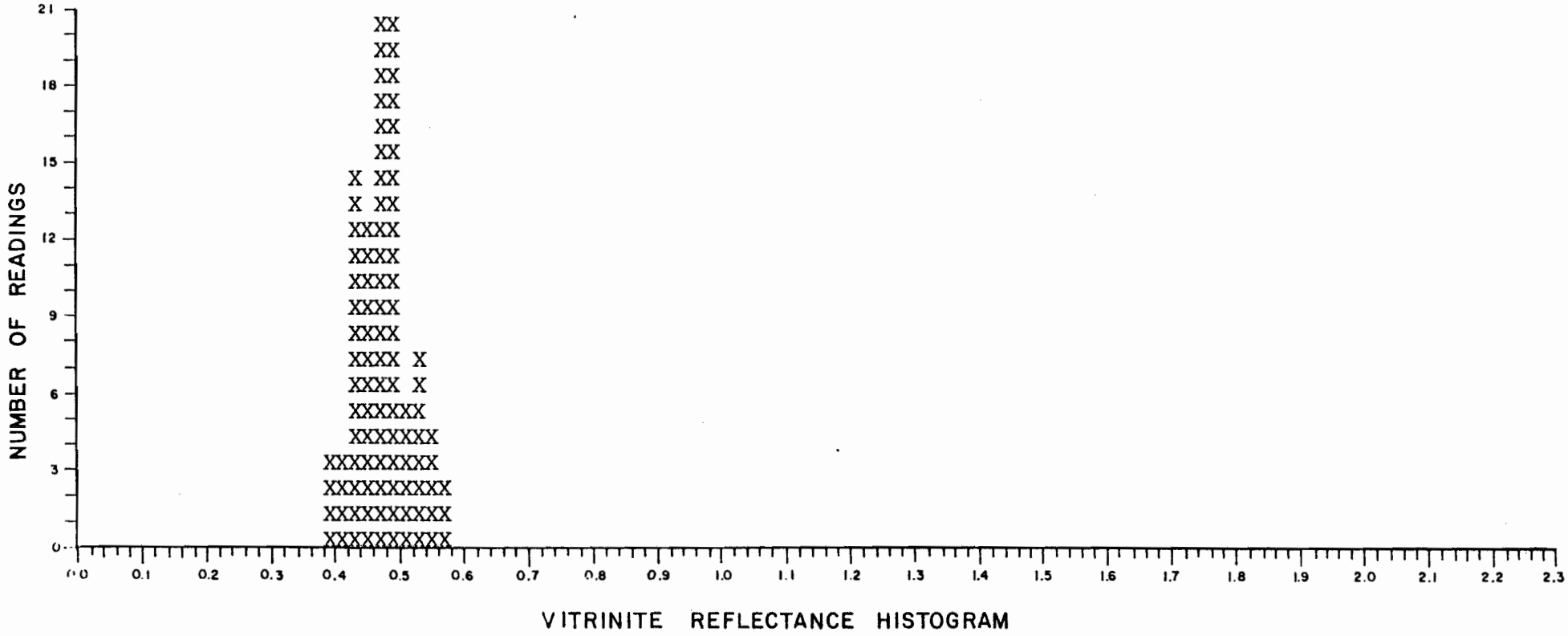


GEOCHEM NO. R769-043 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.38 0.39 0.39 0.39 0.40 0.40 0.41 0.41 0.42 0.42 0.42 0.42 0.42 0.42
0.42 0.42 0.43 0.43 0.43 0.43 0.43 0.43 0.43 0.44 0.44 0.44 0.44 0.45 0.45 0.45 0.45 0.45
0.45 0.45 0.45 0.45 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.47 0.47
0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48
0.48 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.51 0.51 0.52 0.52
0.53 0.53 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.55 0.55 0.56 0.56 0.57

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.38	0.57	0.47	0.042	

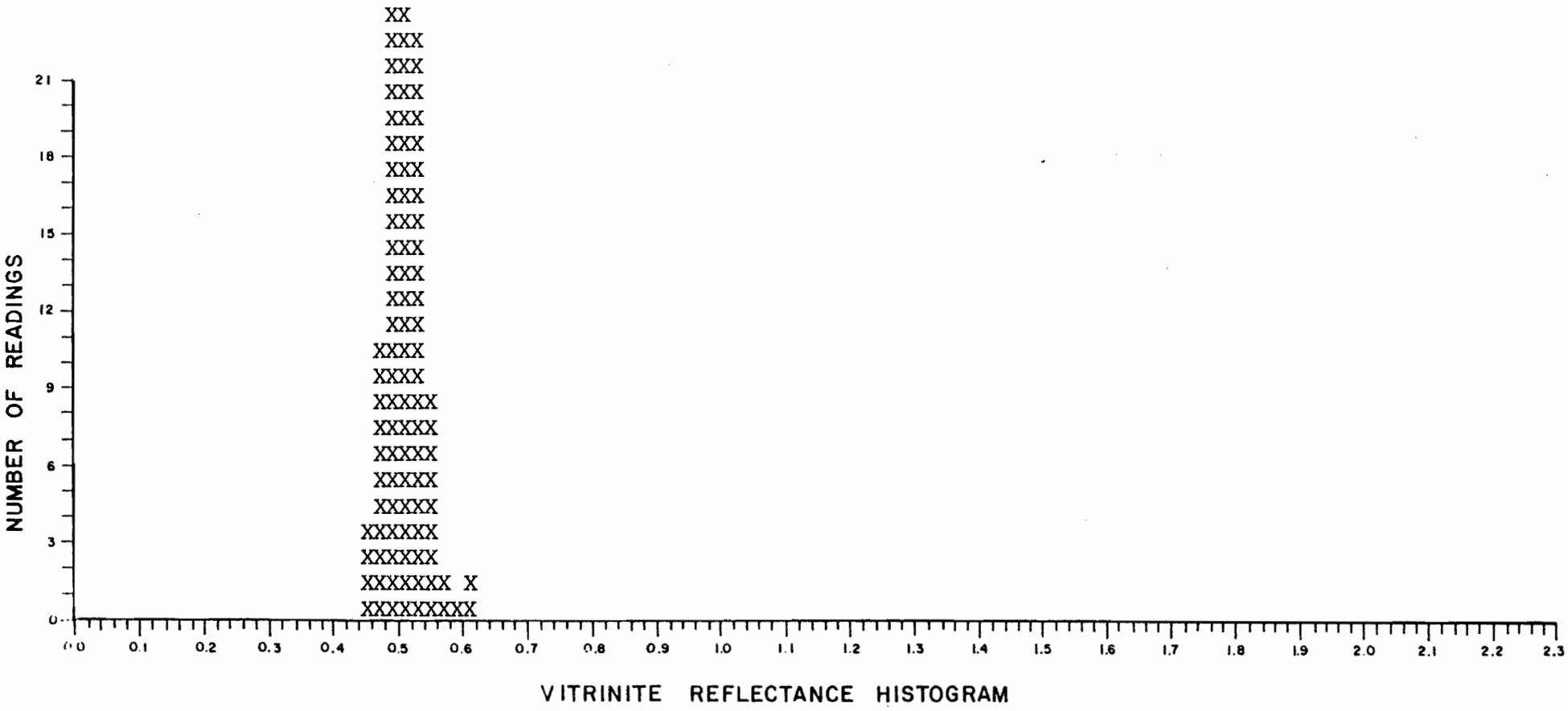


GEOCHEM NO. R769-044 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.44 0.44 0.45 0.45 0.46 0.46 0.46 0.46 0.46 0.47 0.47 0.47 0.47 0.47
0.47 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.49 0.49 0.49 0.49 0.49
0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50
0.50 0.50 0.50 0.50 0.50 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.52 0.52 0.52 0.52 0.52
0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53
0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.56 0.56 0.59 0.60 0.60

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.44	0.60	0.50	0.031	

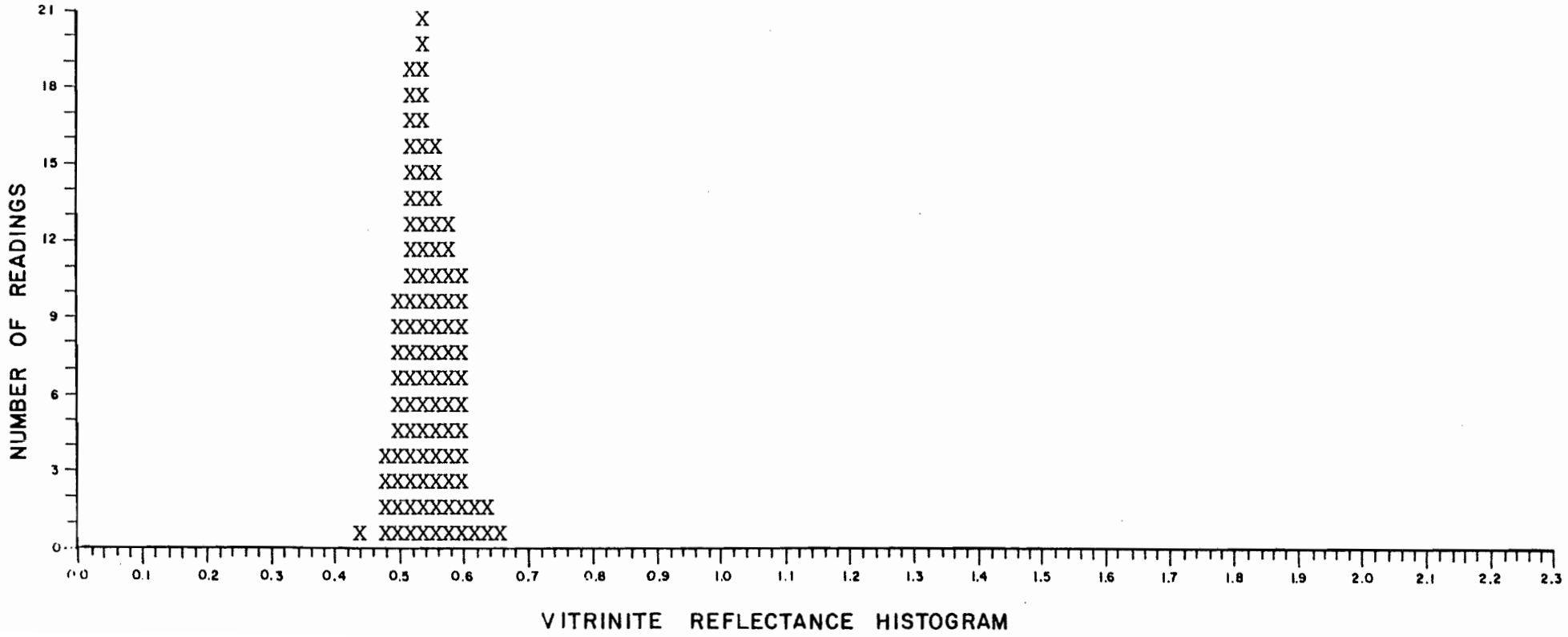


GEOCHEM NO. R769-045 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100) 0.42 0.46 0.46 0.47 0.47 0.48 0.48 0.49 0.49 0.49 0.49 0.49 0.49
0.49 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51
0.51 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53
0.53 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55
0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.57 0.57 0.58 0.58
0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.61 0.62 0.62 0.65

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.42	0.65	0.53	0.039	

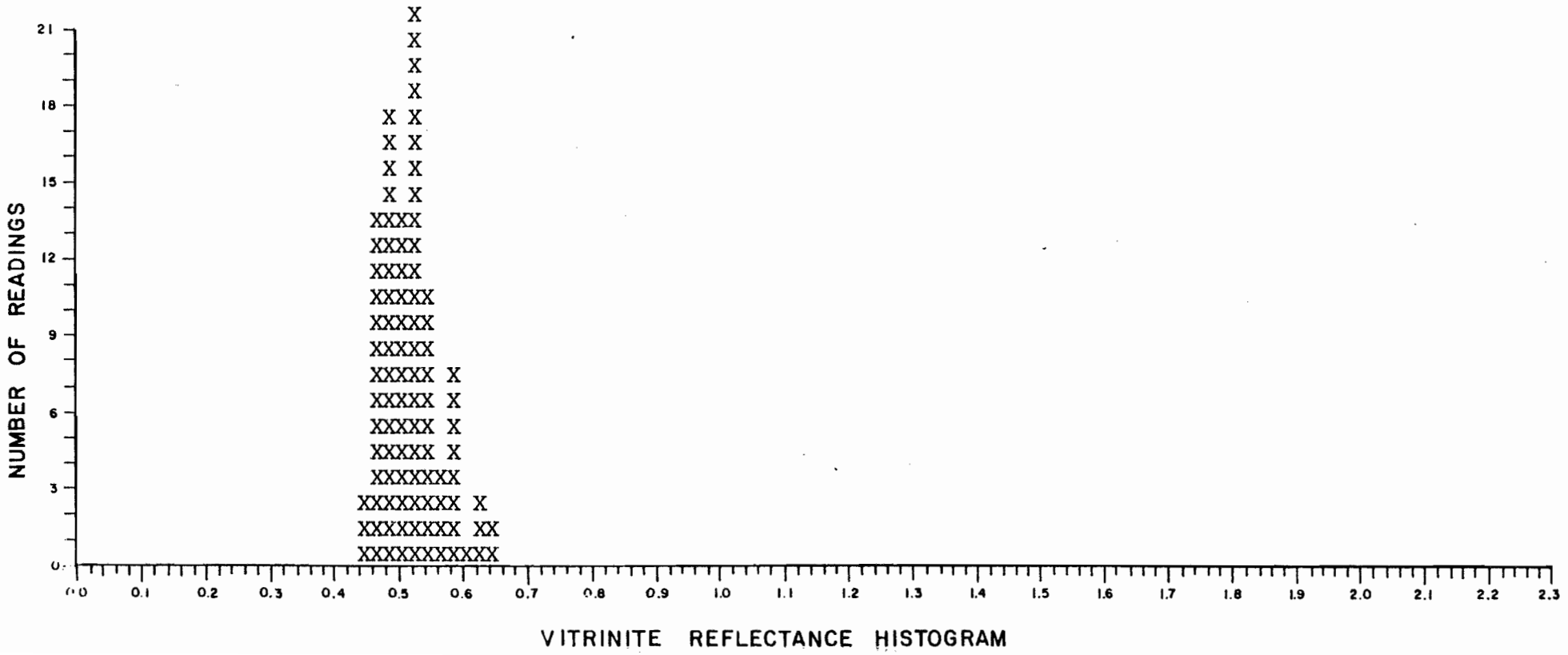


GEOCHEM NO. R769-046 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.45 0.45 0.45 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.47 0.47 0.47
0.47 0.47 0.47 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.49 0.49 0.49 0.49 0.49
0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.50 0.50 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.52
0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53
0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.57
0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.60 0.62 0.63 0.63 0.64 0.65

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.45	0.65	0.52	0.046	



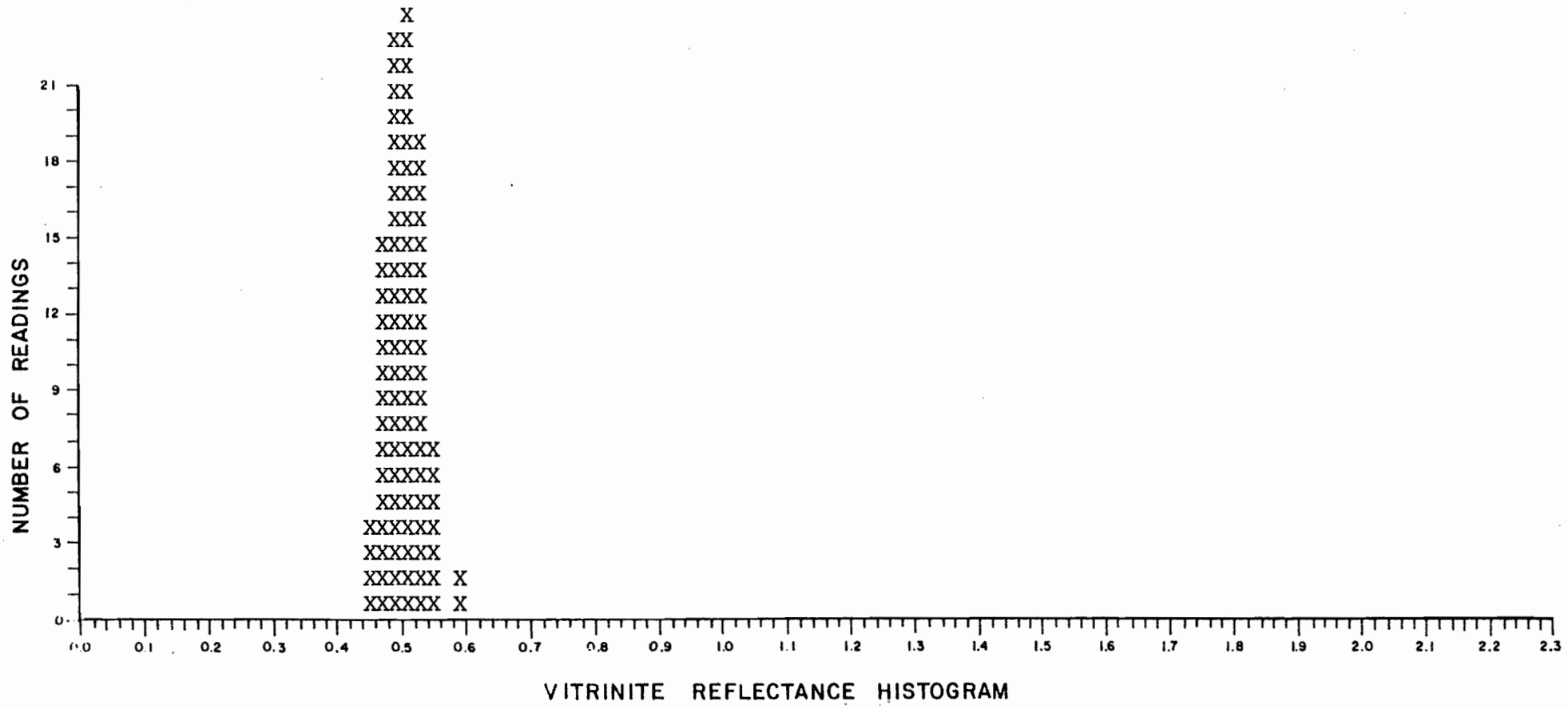
GEOCHEM NO. R769-047 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)

0.44	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
0.47	0.47	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49
0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.51	0.51	0.51	0.51	0.51	0.51	0.51
0.51	0.51	0.51	0.51	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53
0.53	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54	0.55	0.58	0.59				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.44	0.59	0.50	0.028	



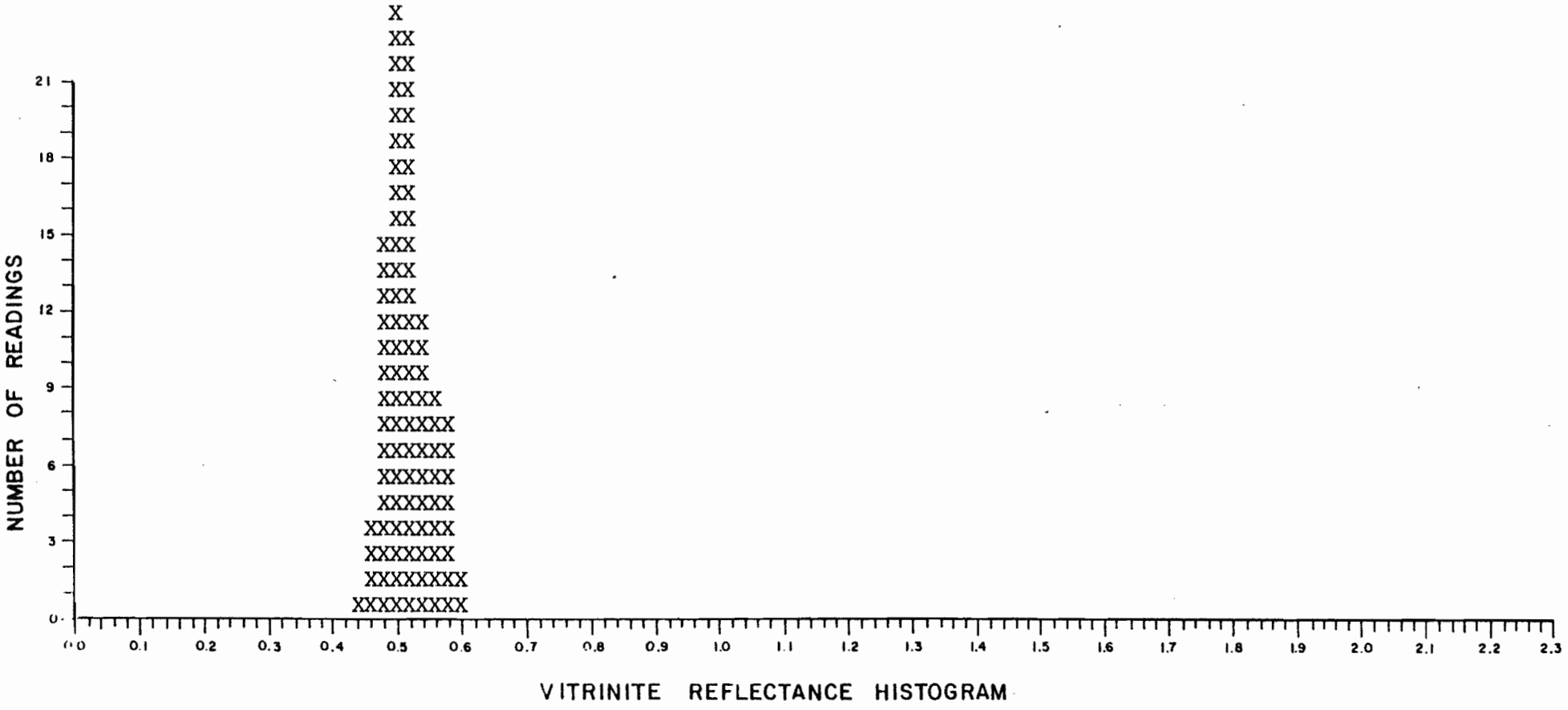
VITRINITE REFLECTANCE HISTOGRAM

GEOCHEM NO. 769-048 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100) 0.43 0.44 0.45 0.45 0.45 0.46 0.46 0.46 0.46 0.46 0.47 0.47 0.47 0.47
0.47 0.47 0.47 0.47 0.47 0.47 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.49
0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50 0.50
0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51
0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.55
0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.59 0.59

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.43	0.59	0.50	0.034	

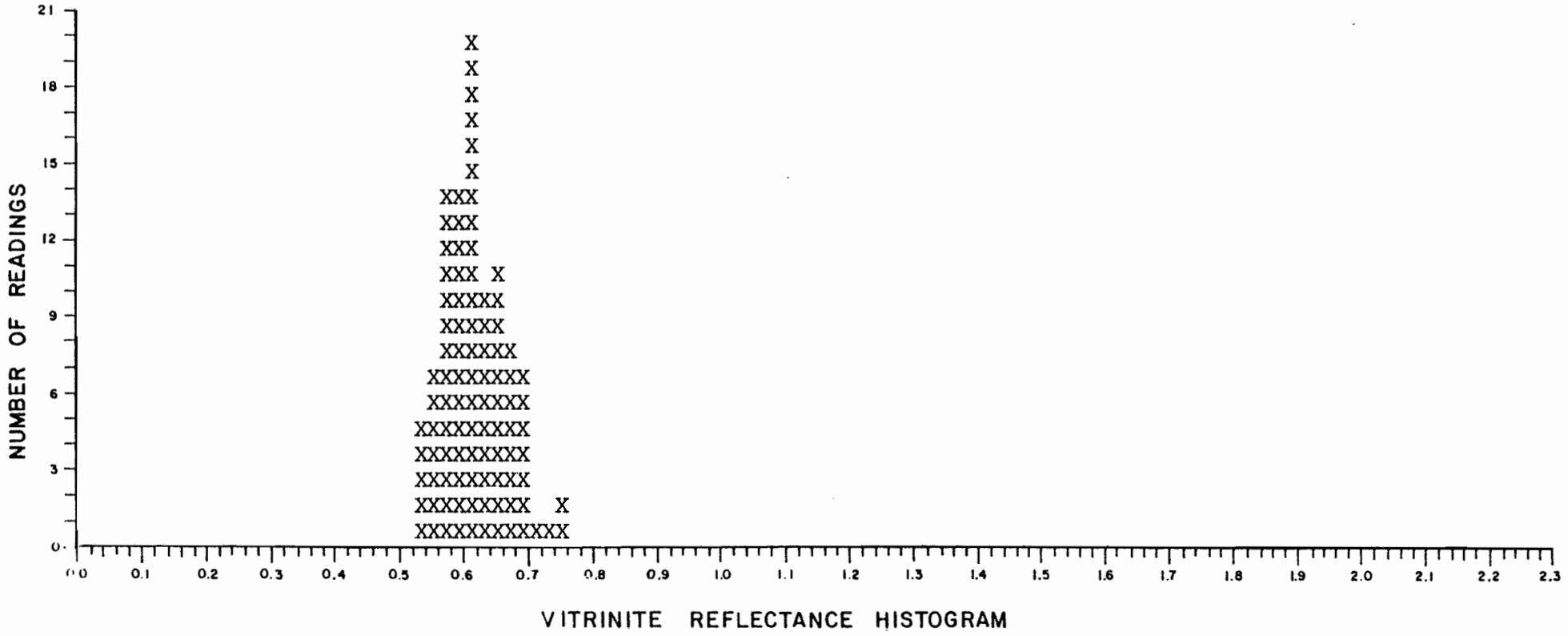


GEOCHEM NO. R769-049 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.52 0.52 0.53 0.53 0.53 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.56 0.56
0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58
0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60
0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63
0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.66 0.66 0.66 0.66 0.67
0.67 0.67 0.67 0.68 0.68 0.68 0.68 0.68 0.68 0.69 0.70 0.72 0.74 0.74

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.52	0.74	0.61	0.048	

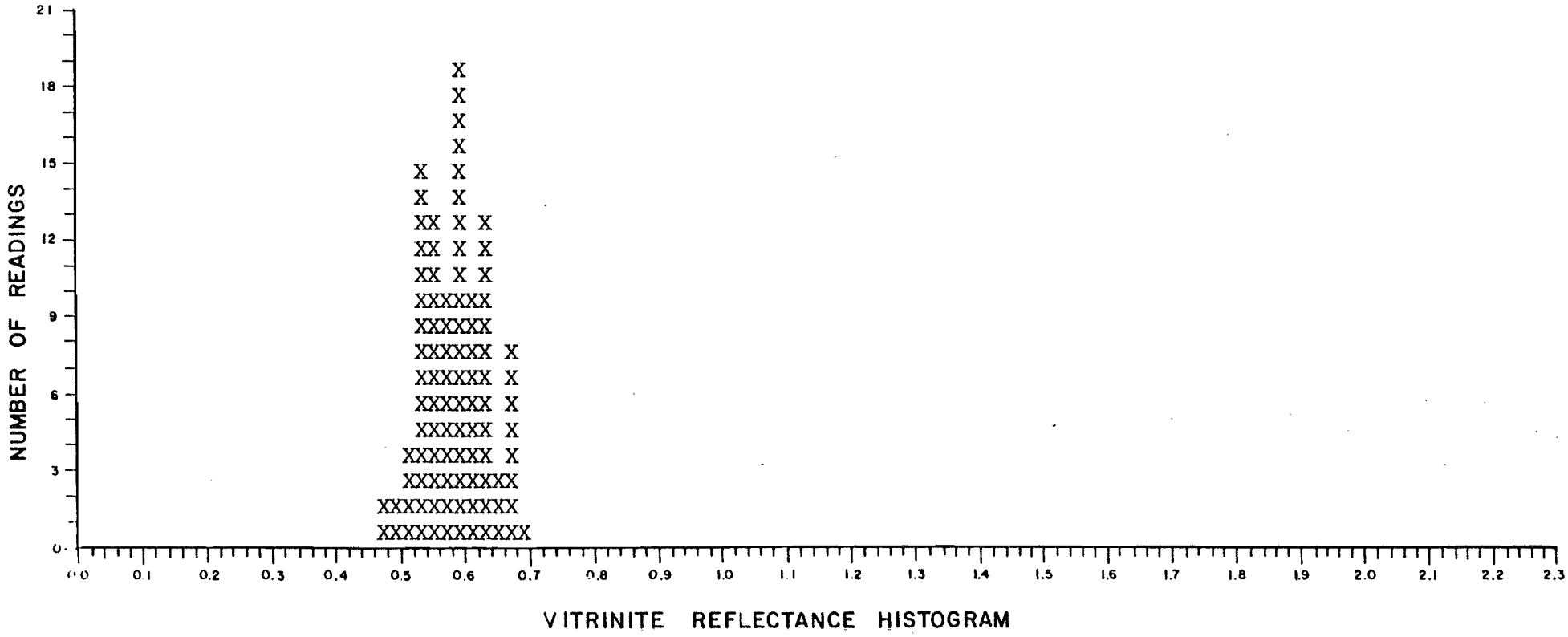


GEOCHEM NO. R769-050 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.46 0.47 0.49 0.49 0.50 0.50 0.50 0.51 0.52 0.52 0.52 0.52 0.52 0.52
0.52 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55
0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58
0.58 0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60
0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.63
0.63 0.63 0.64 0.64 0.65 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.68

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.46	0.68	0.58	0.050	

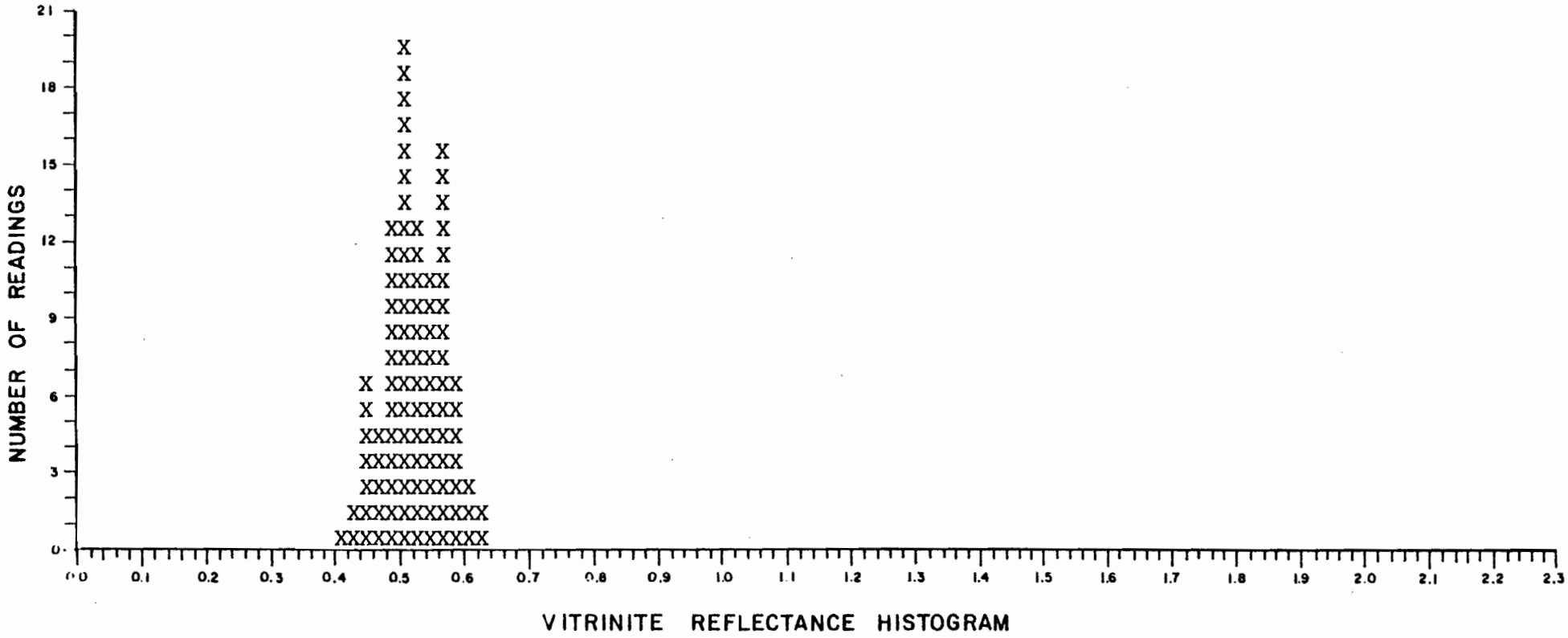


GEOCHEM NO. R769-051 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)																	
0.41	0.43	0.43	0.44	0.44	0.44	0.45	0.45	0.45	0.45	0.46	0.46	0.47	0.47				
0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.52	0.52
0.52	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.55	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.57	0.57	0.57	0.57	0.57	0.57	0.57
0.57	0.57	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.60	0.60	0.61	0.62	0.63				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.41	0.63	0.52	0.047	

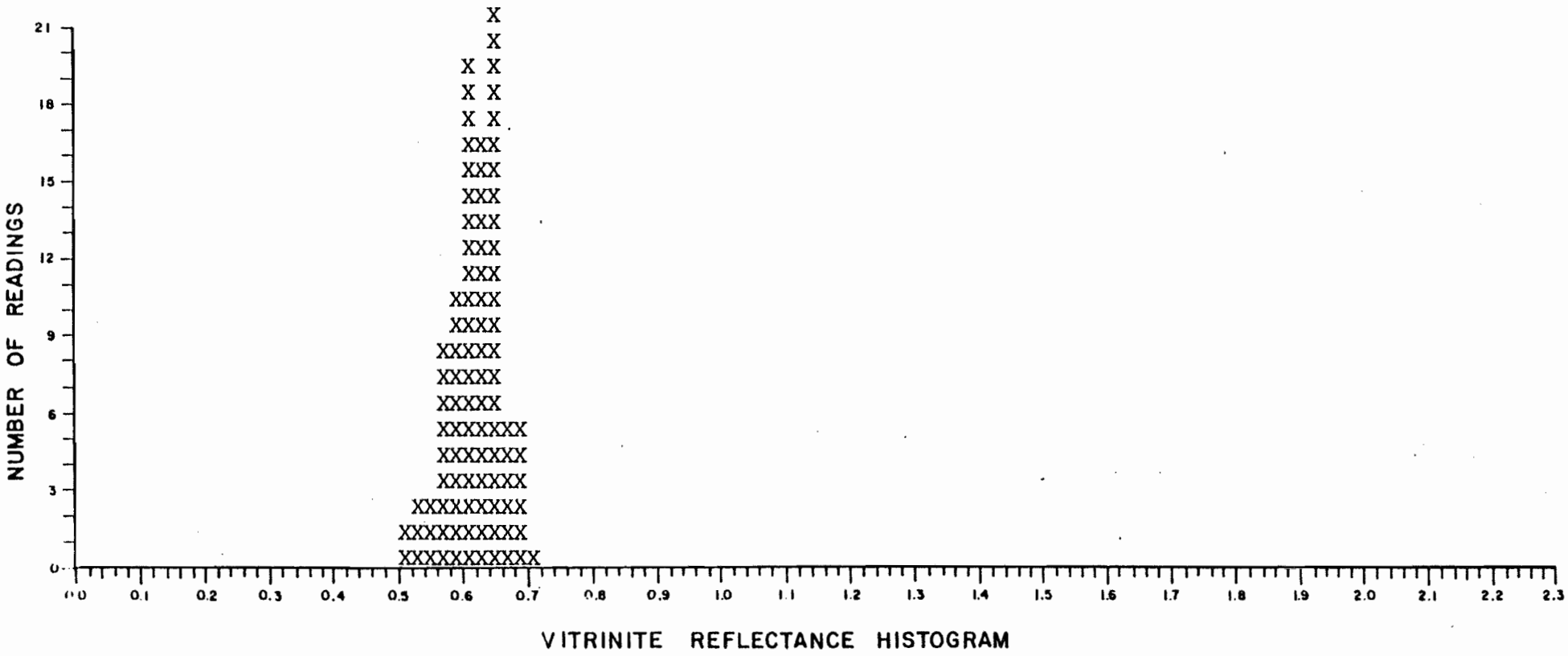


GEOCHEM NO. R769-052 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.51 0.51 0.52 0.53 0.53 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56
0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59 0.60 0.60 0.60 0.60
0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.62 0.62
0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.64 0.64 0.64
0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65
0.65 0.66 0.66 0.66 0.66 0.67 0.67 0.68 0.68 0.68 0.68 0.68 0.69 0.70

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.51	0.70	0.61	0.041	

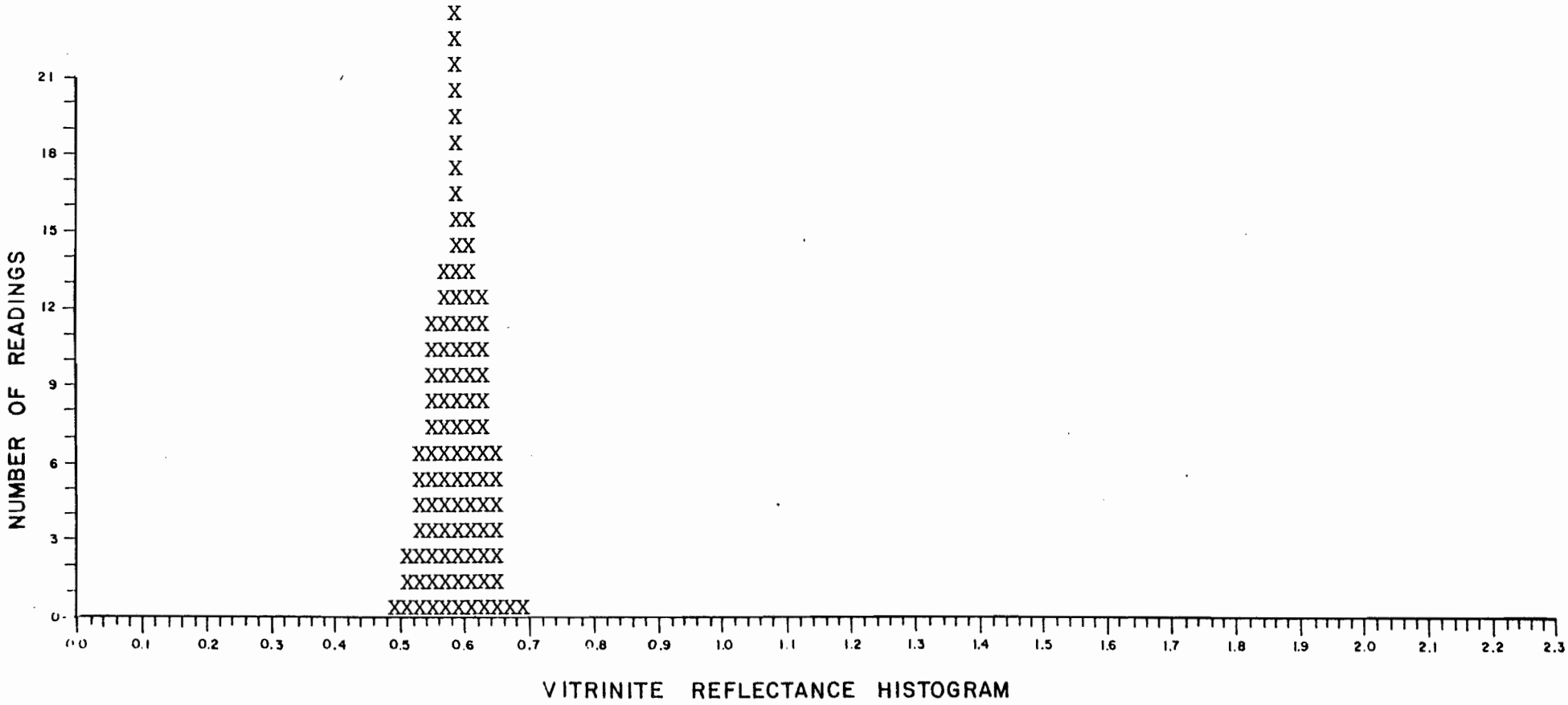


GEOCHEM NO. R769-053 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.49 0.50 0.51 0.51 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.54 0.54 0.54
0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57
0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58
0.58 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60
0.60 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63
0.63 0.63 0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.67 0.68

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.49	0.68	0.58	0.039	

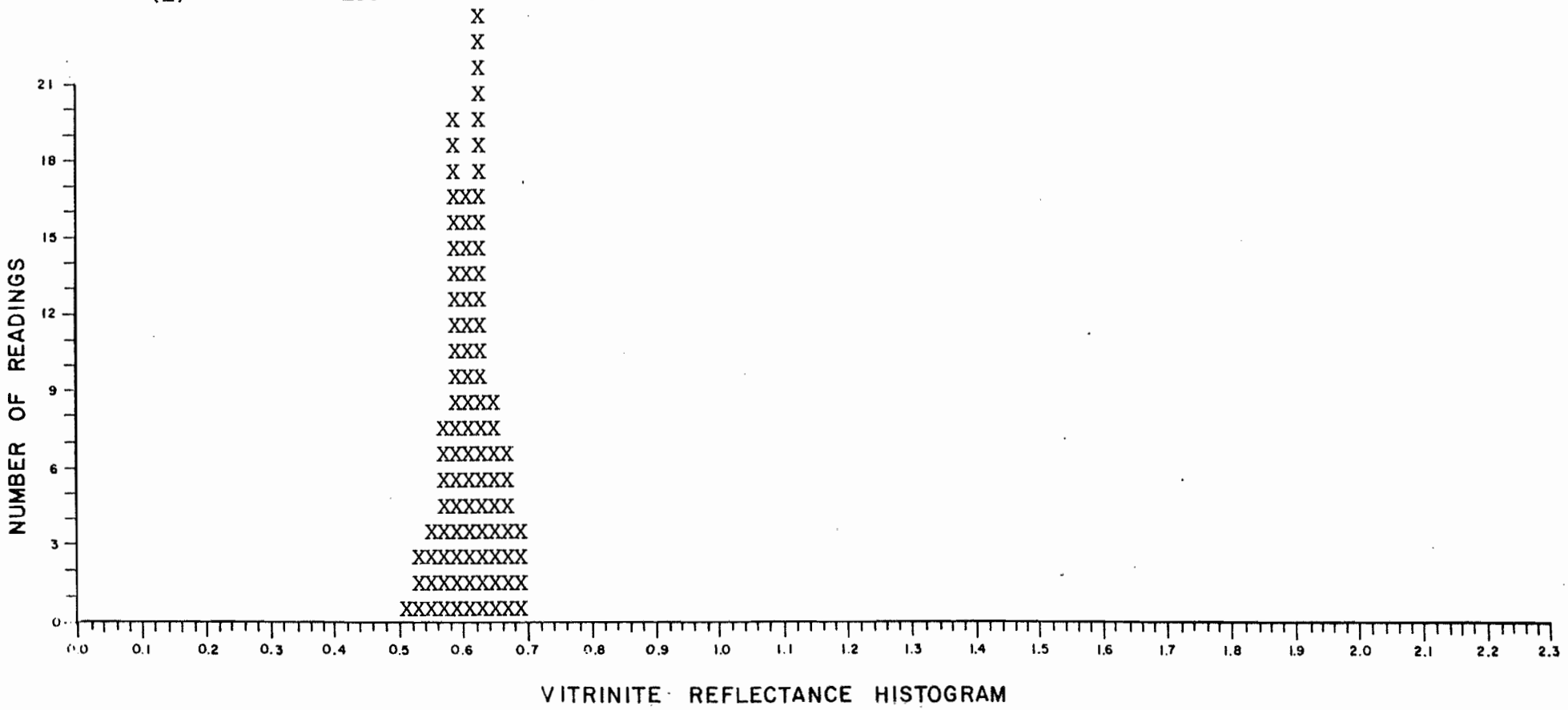


GEOCHEM NO. R769-054 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.51 0.53 0.53 0.53 0.54 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.57
0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59
0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.61
0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63
0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.65
0.65 0.65 0.65 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.68 0.68 0.68 0.69

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.51	0.69	0.61	0.037	

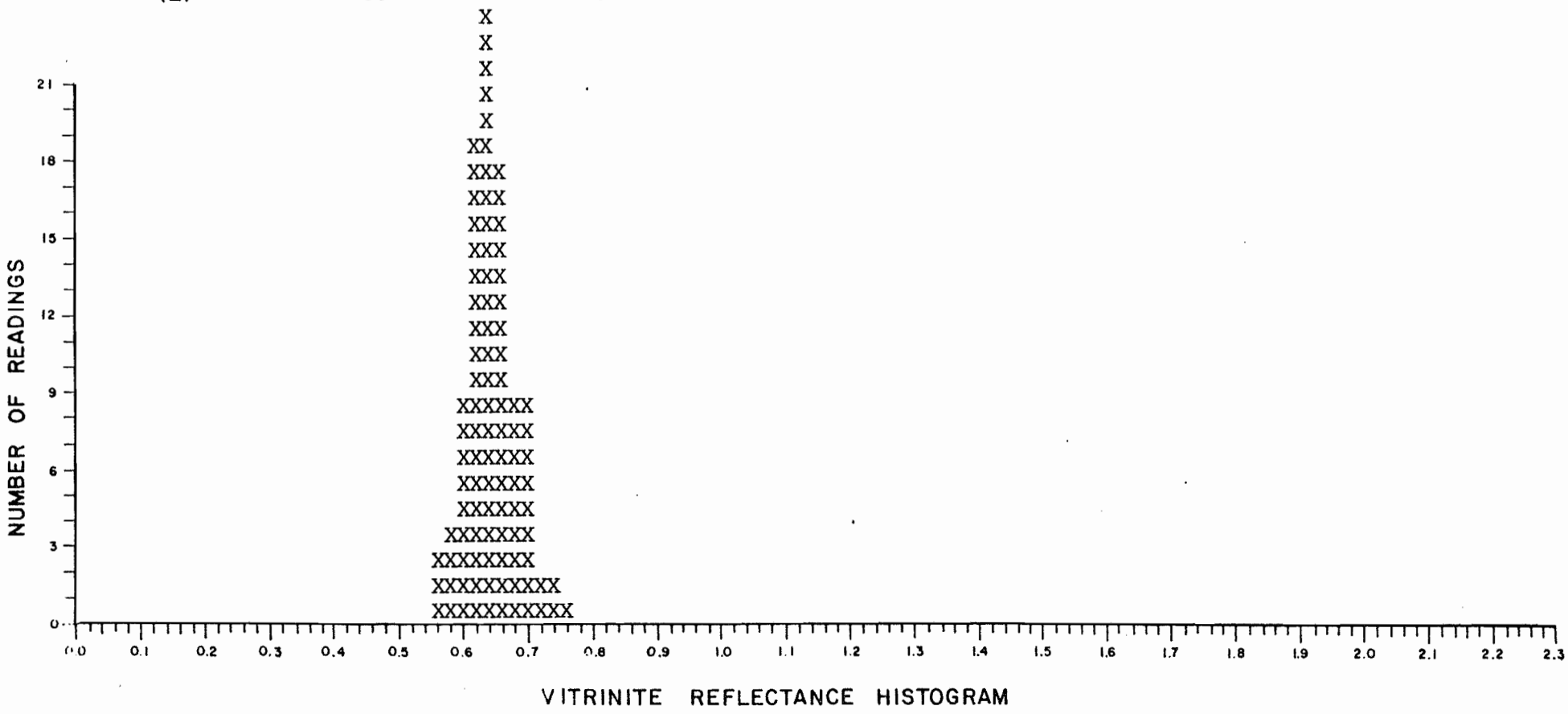


GEOCHEM NO. R769-055 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100)																
0.54	0.55	0.55	0.56	0.56	0.57	0.57	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.59	0.59	0.59
0.59	0.59	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61
0.61	0.61	0.61	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64	0.64	0.65	0.65	0.65	0.66	0.66	0.66	0.66	0.66	0.67	0.67	0.67	0.67
0.68	0.68	0.68	0.68	0.69	0.69	0.69	0.69	0.69	0.70	0.70	0.72	0.73	0.75				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.54	0.75	0.63	0.039	

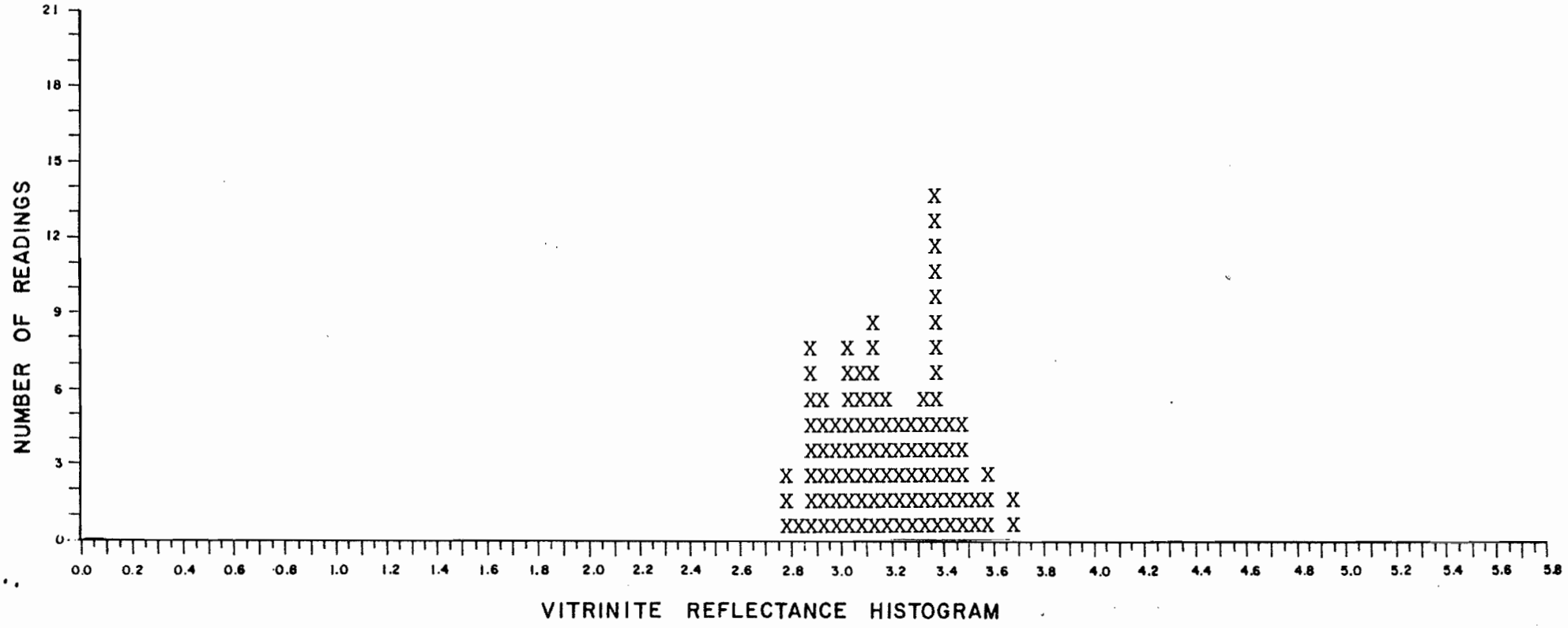


GEOCHEM NO. R769-056 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)				2.75	2.75	2.77	2.84	2.85	2.85	2.85	2.85	2.86	2.86	2.87	2.88	2.90	2.90
2.91	2.92	2.93	2.94	2.95	2.97	2.98	2.99	2.99	3.00	3.01	3.01	3.01	3.03	3.03	3.03	3.03	3.05
3.05	3.06	3.07	3.07	3.08	3.09	3.10	3.10	3.10	3.11	3.12	3.13	3.13	3.13	3.14	3.15	3.15	3.16
3.16	3.19	3.19	3.20	3.20	3.20	3.22	3.22	3.27	3.28	3.28	3.29	3.29	3.31	3.32	3.32	3.34	3.34
3.34	3.35	3.35	3.35	3.35	3.36	3.36	3.36	3.37	3.37	3.37	3.38	3.38	3.39	3.39	3.40	3.40	3.40
3.43	3.43	3.46	3.46	3.46	3.48	3.49	3.51	3.51	3.59	3.59	3.59	3.65	3.68				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	2.75	3.68	3.18	0.225	

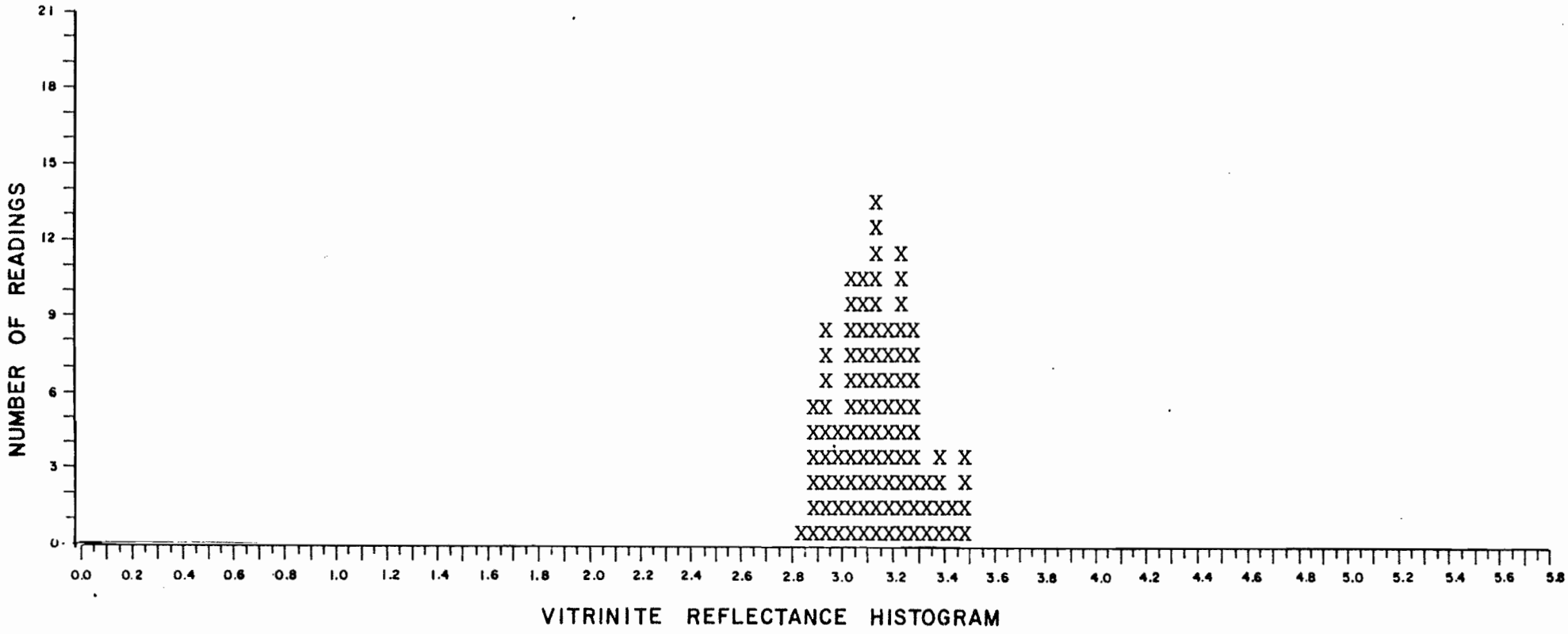


GEOCHEM NO. R769-057 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 2.80 2.85 2.86 2.87 2.87 2.88 2.89 2.90 2.90 2.91 2.92 2.93 2.93 2.94
2.94 2.94 2.95 2.95 2.96 2.96 2.96 3.00 3.00 3.00 3.01 3.02 3.02 3.03 3.03 3.03 3.03 3.04
3.05 3.06 3.07 3.07 3.08 3.08 3.08 3.08 3.09 3.09 3.09 3.10 3.10 3.12 3.12 3.12 3.12 3.13
3.13 3.13 3.13 3.13 3.13 3.13 3.14 3.15 3.15 3.15 3.16 3.16 3.17 3.18 3.19 3.19 3.20 3.20
3.20 3.20 3.20 3.21 3.21 3.22 3.23 3.23 3.24 3.24 3.26 3.26 3.27 3.27 3.28 3.28 3.29 3.29
3.29 3.30 3.32 3.32 3.37 3.37 3.38 3.39 3.41 3.42 3.45 3.46 3.46 3.47

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	2.80	3.47	3.13	0.158	

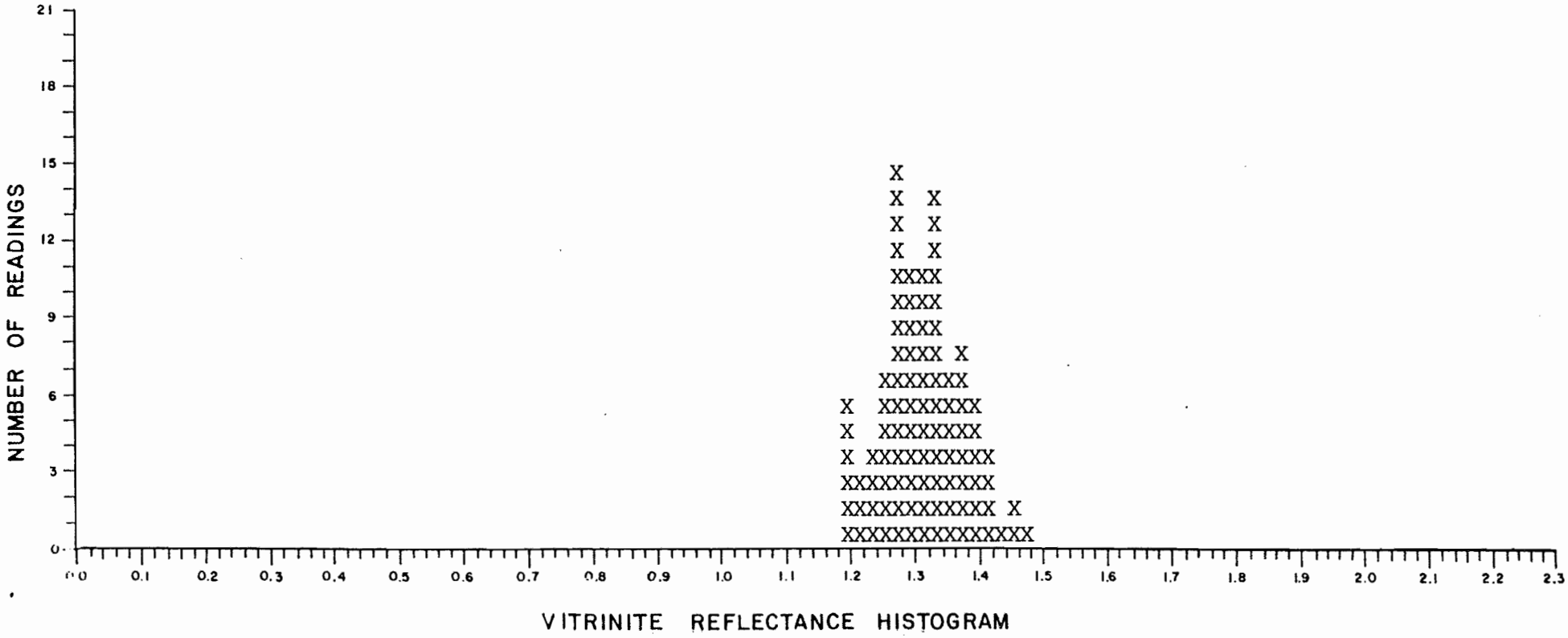


GEOCHEM NO. R769-058 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.18 1.18 1.19 1.19 1.19 1.19 1.20 1.21 1.21 1.23 1.23 1.23 1.23 1.24
1.24 1.24 1.24 1.24 1.25 1.25 1.26 1.26 1.26 1.26 1.26 1.26 1.26 1.27 1.27 1.27 1.27 1.27
1.27 1.27 1.27 1.28 1.28 1.28 1.28 1.29 1.29 1.29 1.29 1.29 1.29 1.29 1.30 1.30 1.30 1.30
1.30 1.30 1.30 1.30 1.31 1.31 1.31 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.33 1.33 1.33 1.33
1.33 1.33 1.33 1.34 1.34 1.34 1.34 1.34 1.35 1.35 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.37
1.38 1.38 1.38 1.38 1.38 1.39 1.40 1.40 1.40 1.41 1.42 1.44 1.45 1.47

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.18	1.47	1.30	0.062	

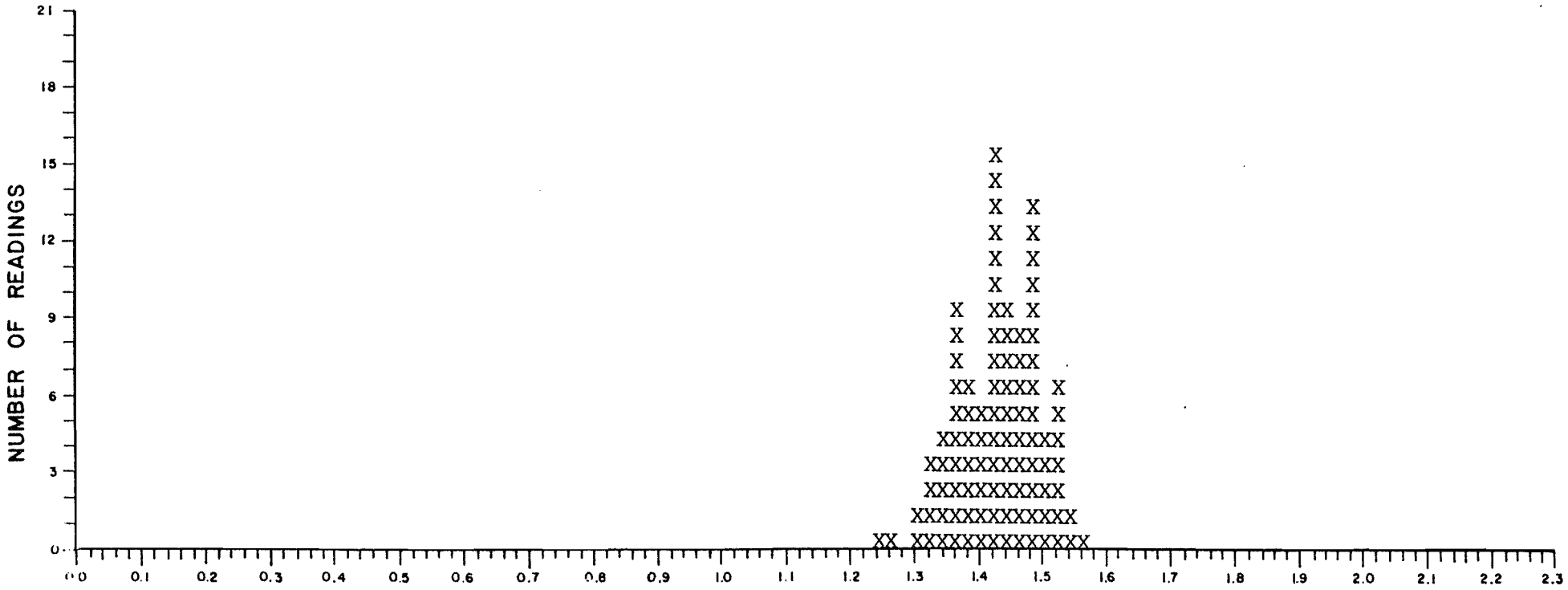


GEOCHEM NO. R769-059 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.25 1.27 1.30 1.31 1.32 1.33 1.33 1.33 1.34 1.35 1.35 1.35 1.35 1.36
1.36 1.36 1.36 1.36 1.36 1.37 1.37 1.37 1.37 1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.40 1.41
1.41 1.41 1.41 1.41 1.42 1.42 1.42 1.42 1.42 1.42 1.42 1.42 1.42 1.43 1.43 1.43 1.43 1.43
1.43 1.43 1.44 1.44 1.44 1.44 1.44 1.44 1.45 1.45 1.45 1.45 1.46 1.46 1.46 1.47 1.47 1.47
1.47 1.47 1.47 1.48 1.48 1.48 1.48 1.48 1.48 1.48 1.48 1.49 1.49 1.49 1.49 1.49 1.49 1.50
1.50 1.51 1.51 1.51 1.52 1.52 1.52 1.52 1.52 1.52 1.53 1.54 1.55 1.56

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.25	1.56	1.43	0.065	

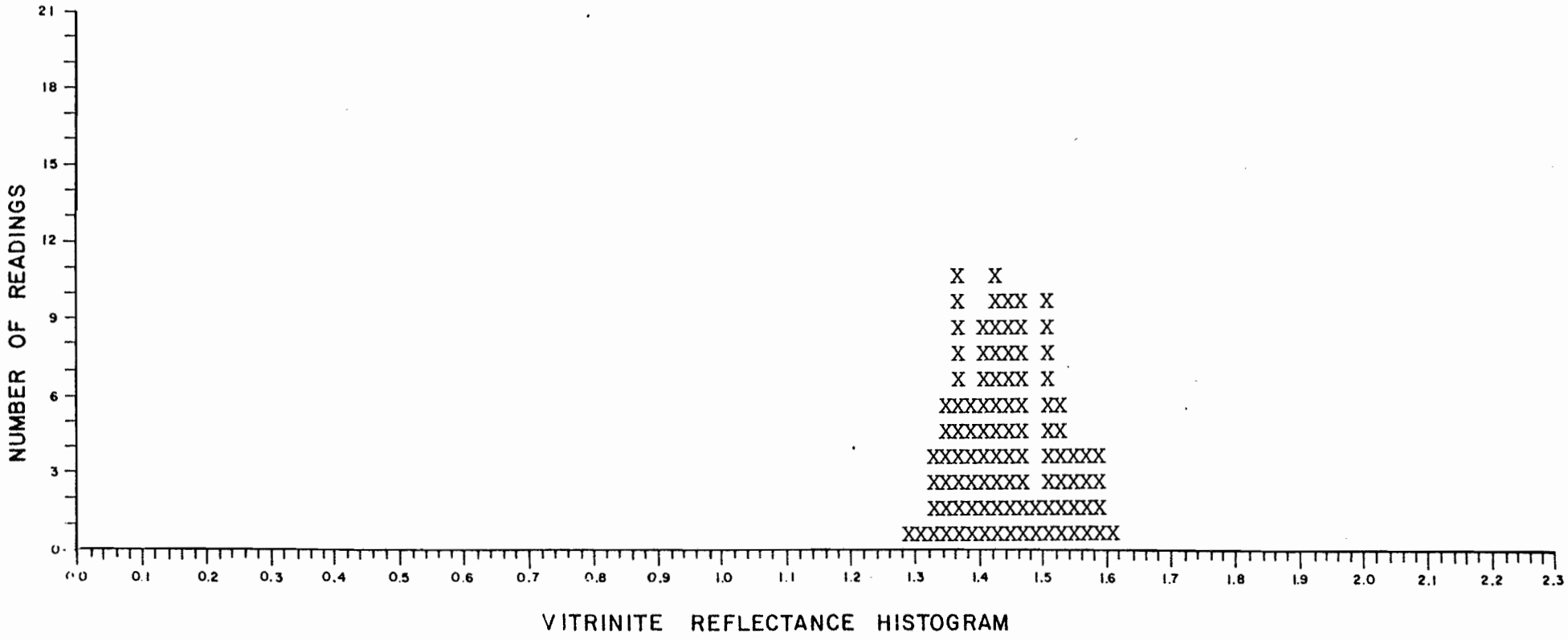


GEOCHEM NO. R769-060 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.28 1.31 1.32 1.33 1.33 1.33 1.34 1.34 1.34 1.34 1.34 1.34 1.36 1.36
1.36 1.36 1.36 1.36 1.36 1.37 1.37 1.37 1.37 1.38 1.38 1.38 1.38 1.38 1.39 1.40 1.40 1.40
1.40 1.40 1.40 1.40 1.40 1.41 1.42 1.42 1.42 1.42 1.43 1.43 1.43 1.43 1.43 1.43 1.43 1.44
1.44 1.44 1.44 1.44 1.44 1.44 1.44 1.45 1.45 1.46 1.46 1.46 1.47 1.47 1.47 1.47 1.47 1.47
1.47 1.49 1.49 1.50 1.50 1.50 1.50 1.50 1.51 1.51 1.51 1.51 1.51 1.52 1.52 1.52 1.52 1.53
1.53 1.54 1.54 1.54 1.54 1.57 1.57 1.57 1.57 1.58 1.59 1.59 1.59 1.61

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.28	1.61	1.44	0.076	

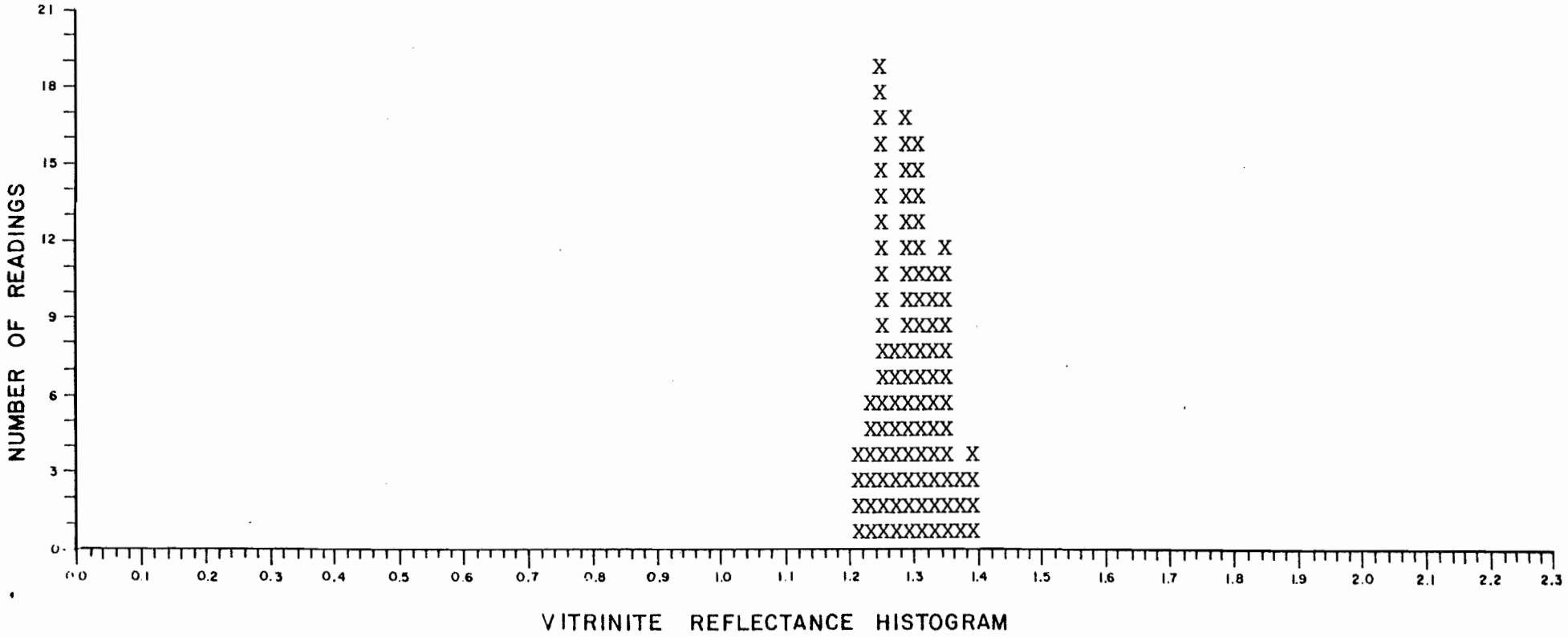


GEOCHEM NO. R769-061 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.20 1.20 1.21 1.21 1.22 1.22 1.22 1.23 1.23 1.23 1.24 1.24 1.24 1.24
1.24 1.24 1.24 1.24 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.26 1.27 1.27
1.27 1.27 1.27 1.27 1.27 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.29 1.29 1.29 1.29 1.29
1.29 1.29 1.29 1.29 1.30 1.30 1.30 1.30 1.30 1.30 1.31 1.31 1.31 1.31 1.31 1.31 1.31 1.31
1.31 1.31 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.33 1.33 1.33 1.34 1.34 1.34 1.34 1.35
1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.36 1.36 1.37 1.38 1.38 1.38 1.39

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.20	1.39	1.29	0.045	

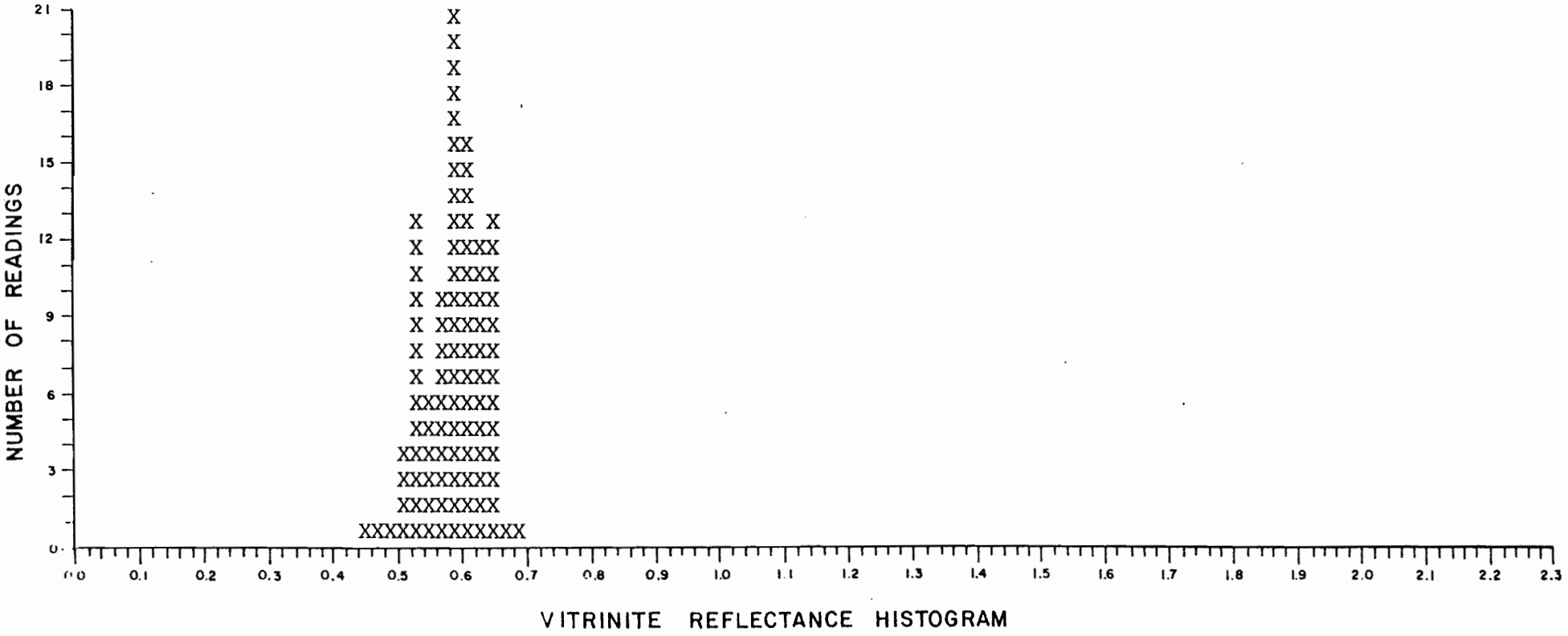


GEOCHEM NO. R769-062 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.44 0.47 0.48 0.50 0.51 0.51 0.51 0.52 0.52 0.52 0.53 0.53 0.53 0.53
0.53 0.53 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.57
0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59
0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61
0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.64
0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.66 0.68

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.44	0.68	0.58	0.046	



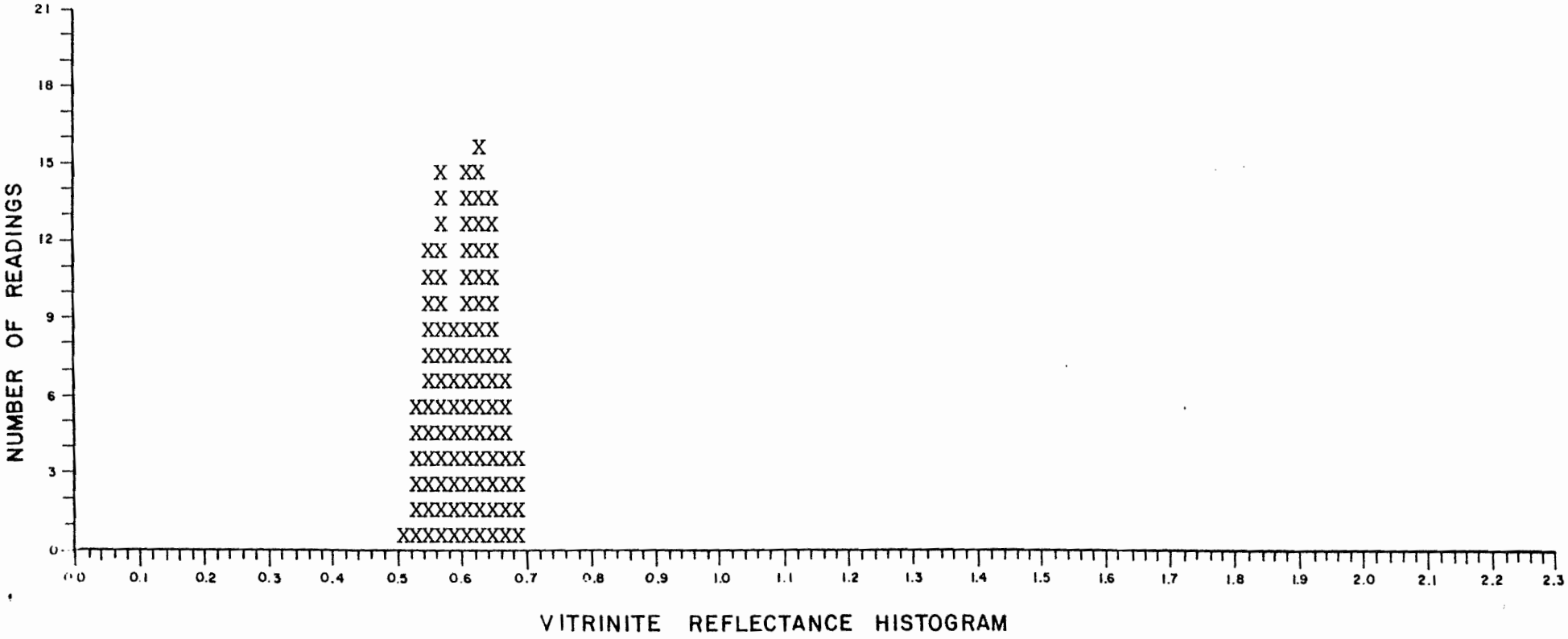
GEOCHEM NO. R769-063 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)

0.51	0.52	0.52	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.55	0.55	0.55
0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.57	0.57	0.57	0.57	0.57	0.57	0.57
0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.61	0.61	0.61	0.61	0.61	0.61	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63
0.63	0.63	0.63	0.63	0.64	0.64	0.64	0.64	0.64	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
0.66	0.66	0.66	0.66	0.66	0.66	0.67	0.68	0.68	0.68	0.68							

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.51	0.68	0.60	0.044	

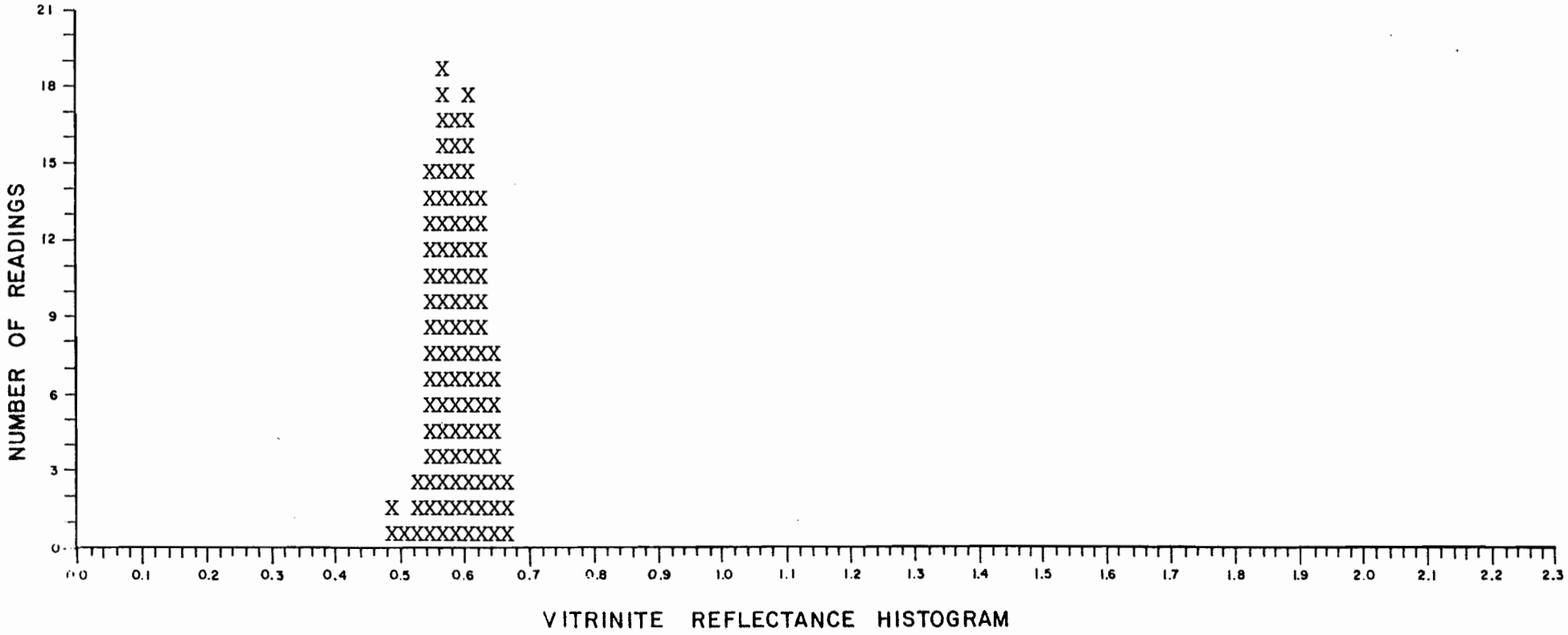


GEOCHEM NO. R769-064 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.48 0.49 0.51 0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54
0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.57
0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58
0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60
0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63
0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.66 0.67 0.67

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.48	0.67	0.59	0.038	

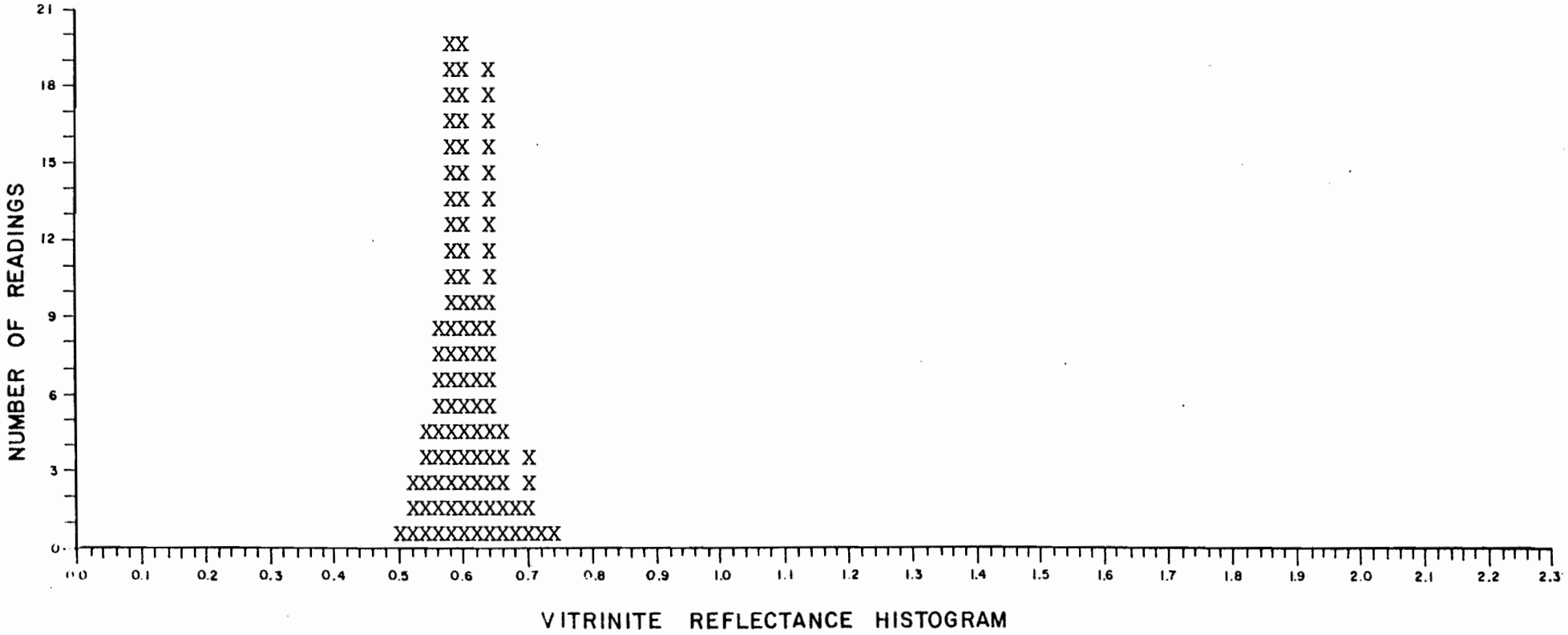


GEOCHEM NO. R769-065 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.51 0.52 0.52 0.53 0.54 0.54 0.54 0.55 0.55 0.56 0.56 0.56 0.56 0.56
0.56 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59 0.59 0.59
0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60
0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63
0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65
0.65 0.66 0.66 0.66 0.67 0.67 0.68 0.69 0.70 0.70 0.71 0.71 0.73 0.74

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.51	0.74	0.61	0.046	

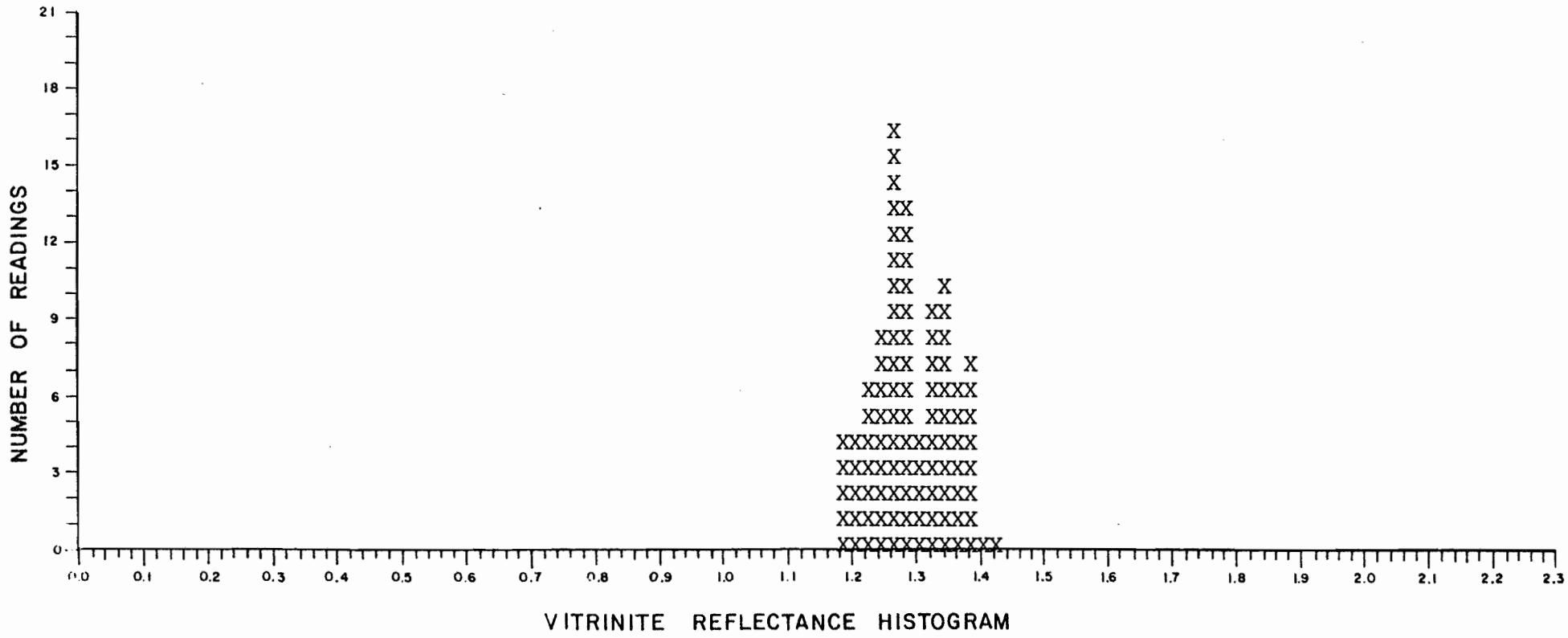


GEOCHEM NO. R769-066 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.18 1.18 1.19 1.19 1.19 1.21 1.21 1.21 1.21 1.21 1.22 1.22 1.23 1.23
1.23 1.23 1.23 1.24 1.24 1.24 1.25 1.25 1.25 1.25 1.25 1.25 1.26 1.26 1.26 1.26 1.26 1.27
1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.27 1.28 1.28 1.28 1.28 1.28 1.28 1.28
1.29 1.29 1.29 1.29 1.29 1.29 1.29 1.30 1.30 1.30 1.30 1.31 1.32 1.32 1.32 1.32 1.33 1.33
1.33 1.33 1.33 1.33 1.34 1.34 1.34 1.34 1.34 1.34 1.34 1.34 1.34 1.35 1.35 1.36 1.36 1.36
1.36 1.37 1.37 1.37 1.38 1.38 1.38 1.38 1.39 1.39 1.39 1.39 1.40 1.42

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.18	1.42	1.29	0.057	

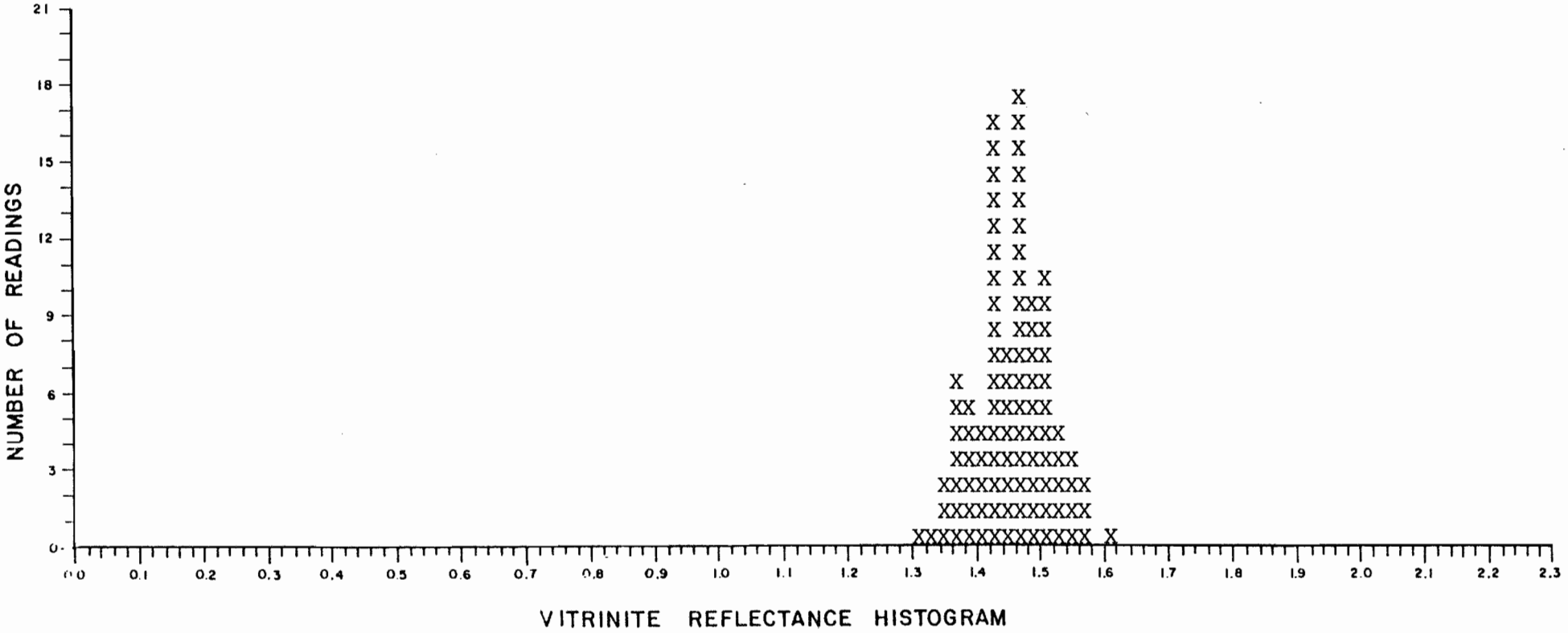


GEOCHEM NO. R769-067 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)			1.31	1.33	1.34	1.35	1.35	1.36	1.37	1.37	1.37	1.37	1.37	1.37	1.38	1.38
1.39	1.39	1.39	1.39	1.40	1.40	1.40	1.41	1.41	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
1.42	1.42	1.42	1.43	1.43	1.43	1.43	1.43	1.44	1.44	1.44	1.44	1.45	1.45	1.45	1.45	1.46	1.46
1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.47	1.47	1.47	1.47	1.47	1.48	1.48
1.48	1.48	1.48	1.49	1.49	1.49	1.49	1.49	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.51	1.51
1.51	1.52	1.52	1.52	1.52	1.53	1.54	1.54	1.54	1.55	1.56	1.56	1.57	1.60				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.31	1.60	1.45	0.058	

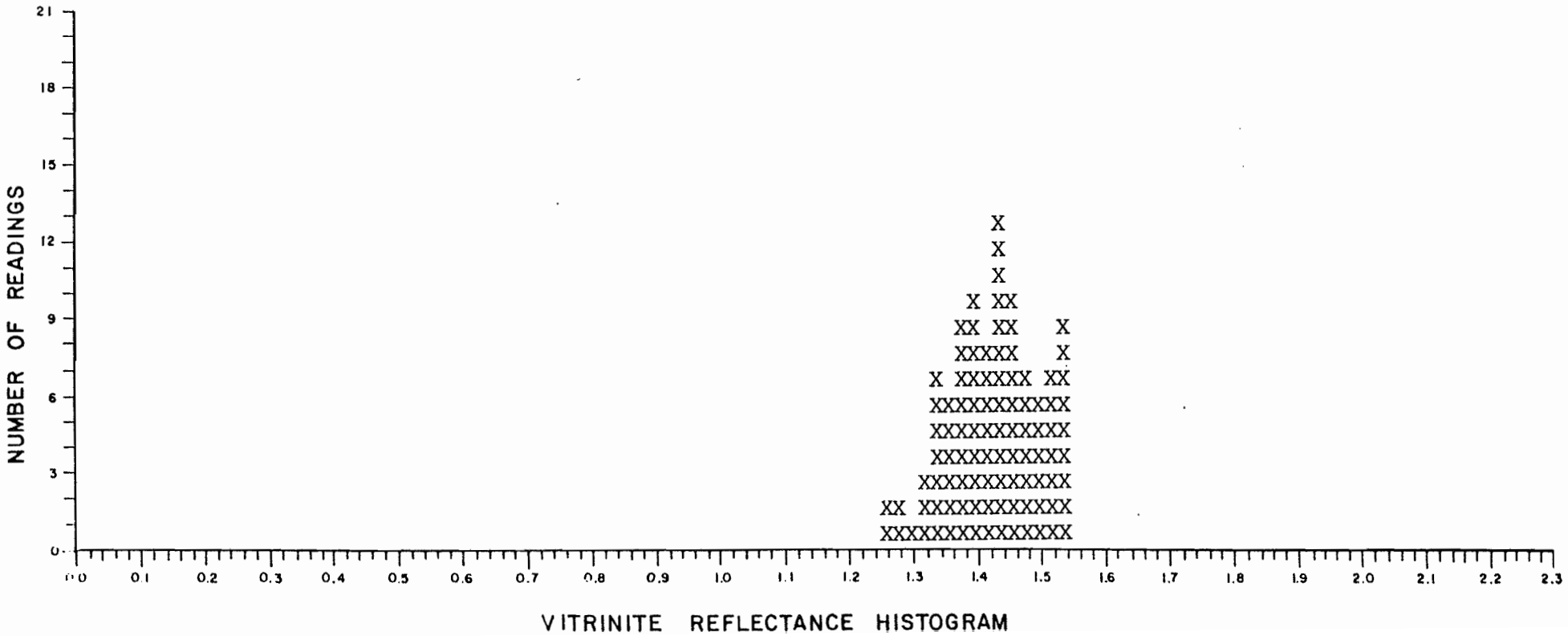


GEOCHEM NO. R769-068 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100) 1.25 1.25 1.26 1.27 1.28 1.30 1.31 1.31 1.32 1.32 1.33 1.33 1.33 1.33
1.33 1.34 1.34 1.35 1.35 1.35 1.35 1.36 1.36 1.36 1.36 1.37 1.37 1.37 1.37 1.37 1.38 1.38
1.38 1.38 1.38 1.38 1.39 1.39 1.39 1.39 1.40 1.40 1.40 1.40 1.41 1.41 1.41 1.41 1.42 1.42
1.42 1.42 1.42 1.43 1.43 1.43 1.43 1.43 1.43 1.43 1.43 1.44 1.44 1.44 1.44 1.45 1.45 1.45
1.45 1.45 1.45 1.46 1.46 1.46 1.46 1.46 1.47 1.47 1.48 1.48 1.48 1.48 1.49 1.49 1.50 1.50
1.50 1.50 1.50 1.51 1.51 1.52 1.52 1.52 1.52 1.53 1.53 1.53 1.53 1.53

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.25	1.53	1.41	0.070	

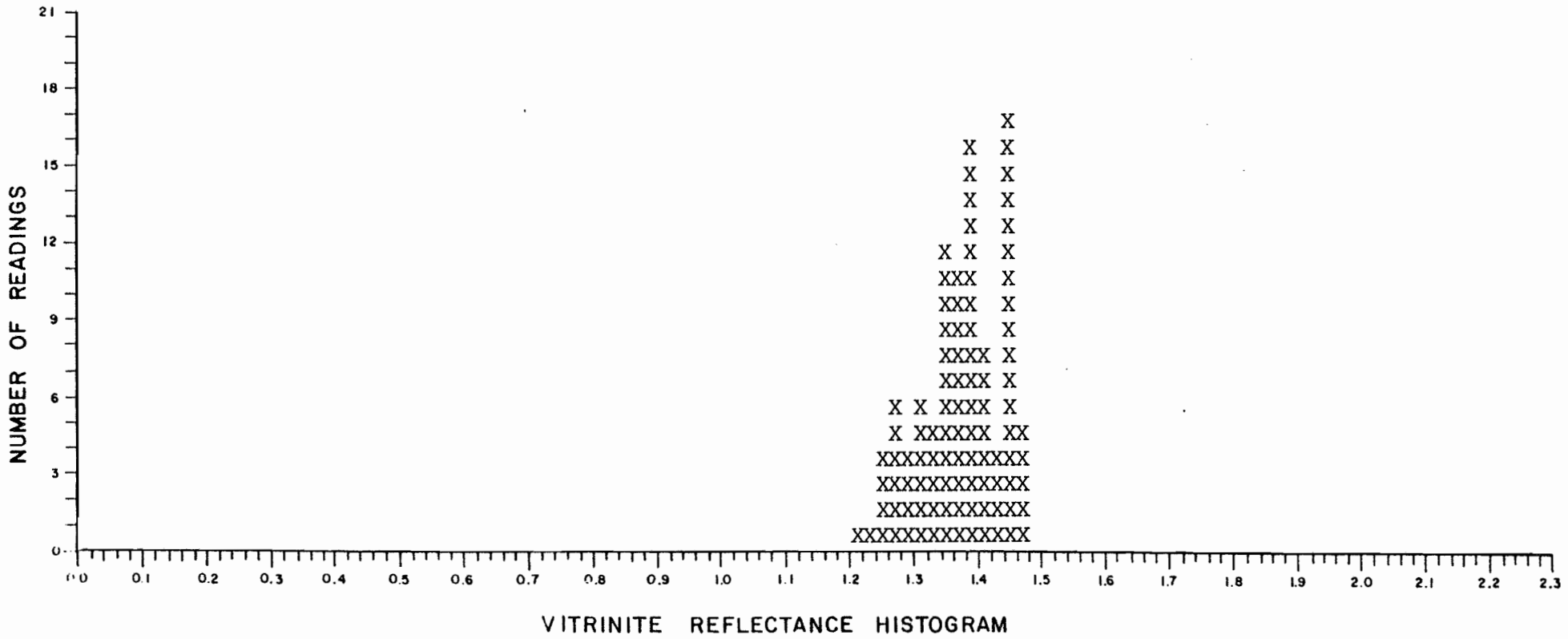


GEOCHEM NO. R769-069 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.21 1.23 1.24 1.24 1.24 1.25 1.26 1.27 1.27 1.27 1.27 1.27 1.28 1.28
1.29 1.29 1.30 1.30 1.31 1.31 1.31 1.31 1.32 1.32 1.33 1.33 1.33 1.34 1.34 1.34 1.34 1.35
1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.36 1.36 1.36 1.36 1.36 1.36 1.37 1.37 1.37 1.37 1.37
1.38 1.38 1.38 1.38 1.38 1.38 1.39 1.39 1.39 1.39 1.39 1.39 1.39 1.39 1.39 1.39 1.40 1.40
1.40 1.40 1.41 1.41 1.41 1.41 1.42 1.42 1.42 1.43 1.44 1.44 1.44 1.44 1.44 1.44 1.44 1.44
1.44 1.44 1.44 1.44 1.44 1.44 1.44 1.45 1.45 1.46 1.46 1.46 1.46 1.46

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.21	1.46	1.37	0.063	

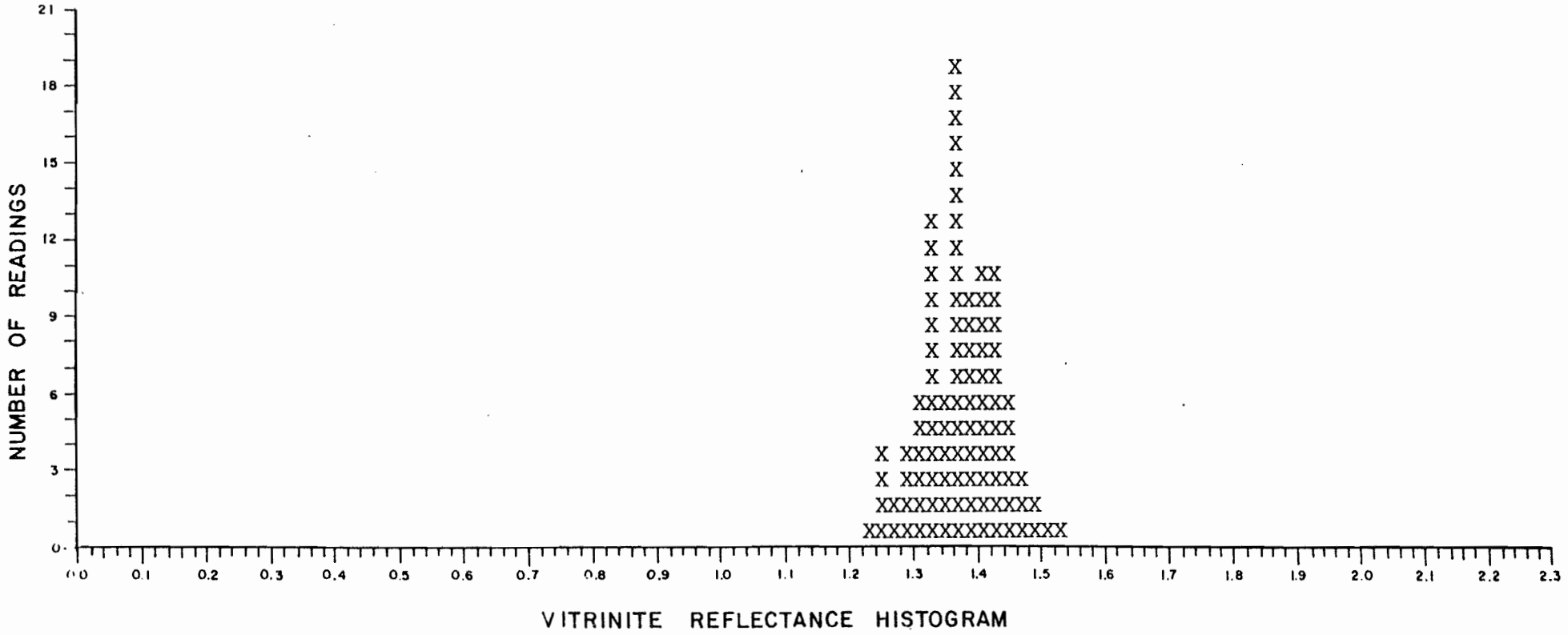


GEOCHEM NO. R769-070 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.22 1.24 1.25 1.25 1.25 1.26 1.26 1.28 1.29 1.29 1.29 1.30 1.30 1.30
1.30 1.31 1.31 1.32 1.32 1.32 1.32 1.33 1.33 1.33 1.33 1.33 1.33 1.33 1.33 1.34 1.34
1.34 1.34 1.35 1.35 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.37 1.37
1.37 1.37 1.37 1.37 1.37 1.38 1.38 1.38 1.38 1.39 1.39 1.39 1.39 1.39 1.39 1.40 1.40 1.40
1.40 1.40 1.40 1.41 1.41 1.41 1.41 1.41 1.42 1.42 1.42 1.42 1.42 1.42 1.42 1.43 1.43 1.43
1.43 1.44 1.44 1.44 1.44 1.44 1.45 1.46 1.46 1.47 1.49 1.49 1.51 1.52

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.22	1.52	1.37	0.061	

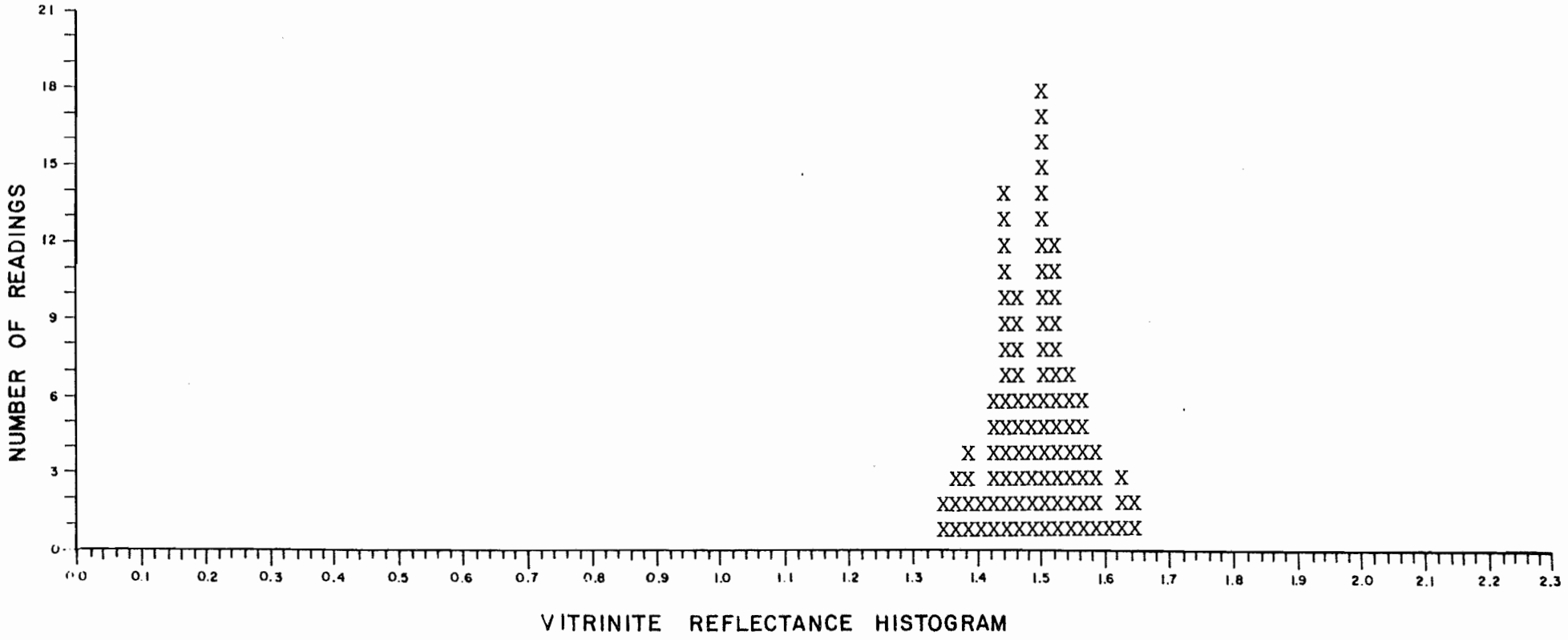


GEOCHEM NO. R769-071 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)																
1.34	1.35	1.36	1.37	1.37	1.38	1.39	1.39	1.39	1.40	1.41	1.42	1.42	1.42	1.42	1.43	1.43
1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.45	1.45	1.45	1.45	1.45	1.46	1.46	1.46	1.46
1.46	1.47	1.47	1.47	1.47	1.48	1.48	1.48	1.48	1.49	1.49	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.51	1.51	1.51	1.51	1.51	1.51	1.52	1.52	1.52	1.52	1.52	1.53	1.53
1.53	1.53	1.53	1.54	1.54	1.54	1.54	1.55	1.55	1.55	1.56	1.56	1.56	1.57	1.57	1.57	1.58
1.59	1.59	1.59	1.60	1.62	1.62	1.62	1.64	1.64								

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.34	1.64	1.49	0.066	

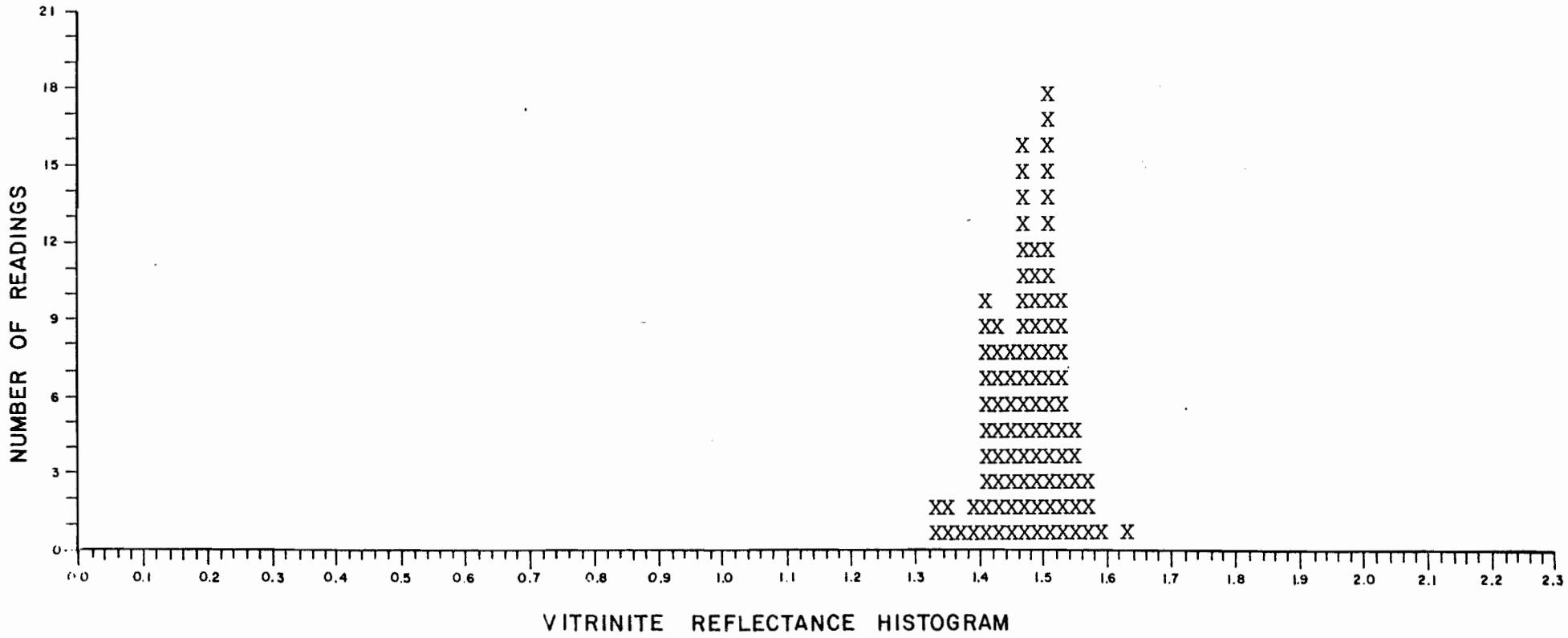


GEOCHEM NO. R769-072 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100)	1.32	1.33	1.34	1.35	1.37	1.39	1.39	1.40	1.40	1.40	1.40	1.40	1.41	1.41		
1.41	1.41	1.41	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.43	1.43	1.44	1.44	1.44	1.44	1.45	1.45
1.45	1.45	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.47	1.47	1.47	1.47	1.47	1.47
1.48	1.48	1.48	1.48	1.48	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.52	1.52	1.52	1.52	1.52	1.53
1.53	1.53	1.53	1.53	1.54	1.54	1.54	1.54	1.54	1.56	1.56	1.57	1.59	1.62				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.32	1.62	1.47	0.056	

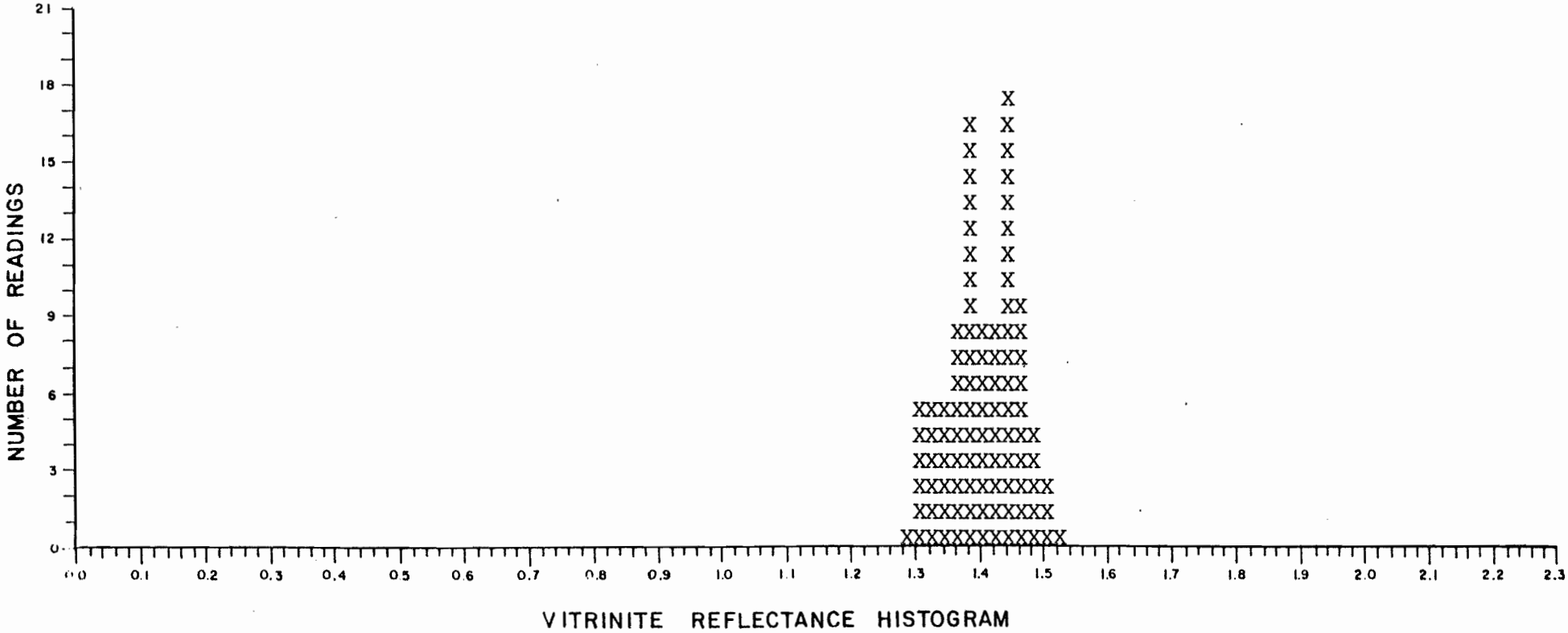


GEOCHEM NO. R769-073 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.29 1.30 1.30 1.30 1.30 1.31 1.31 1.32 1.32 1.32 1.32 1.32 1.32 1.34
1.34 1.35 1.35 1.35 1.35 1.36 1.36 1.36 1.36 1.36 1.36 1.37 1.37 1.37 1.38 1.38 1.38 1.38
1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.39 1.39 1.39 1.39 1.39 1.39 1.40 1.40 1.40 1.40 1.41
1.41 1.41 1.41 1.41 1.42 1.42 1.42 1.42 1.42 1.42 1.43 1.43 1.43 1.44 1.44 1.44 1.44 1.44
1.44 1.44 1.44 1.44 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.46 1.46 1.46 1.47 1.47
1.47 1.47 1.47 1.47 1.47 1.48 1.48 1.49 1.49 1.49 1.50 1.51 1.51 1.52

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.29	1.52	1.41	0.056	

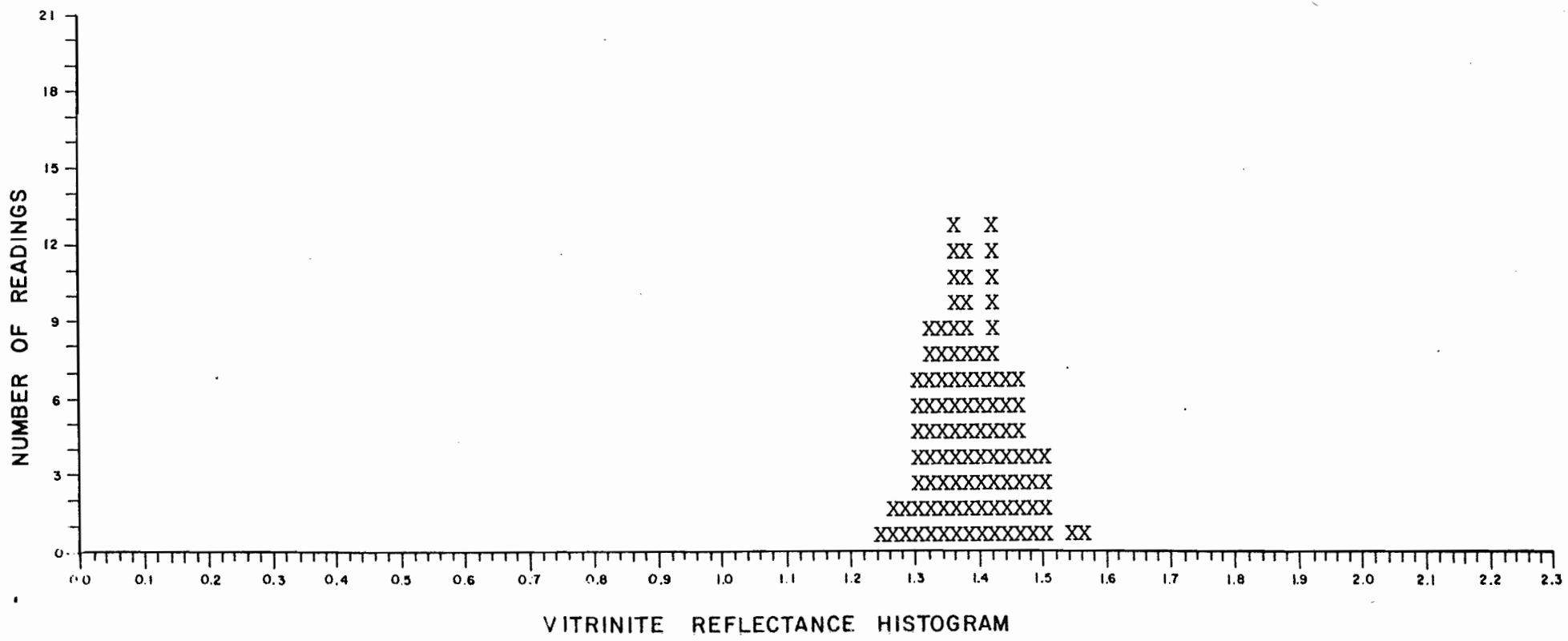


GEOCHEM NO. R769-074 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100) 1.25 1.26 1.26 1.29 1.29 1.30 1.30 1.30 1.30 1.31 1.31 1.31 1.32 1.32
1.32 1.32 1.32 1.32 1.32 1.33 1.33 1.34 1.34 1.34 1.34 1.34 1.34 1.35 1.35 1.35 1.36 1.36
1.36 1.36 1.36 1.36 1.36 1.37 1.37 1.37 1.37 1.37 1.37 1.38 1.38 1.38 1.38 1.38 1.38 1.38
1.38 1.39 1.39 1.39 1.39 1.40 1.41 1.41 1.41 1.41 1.41 1.41 1.41 1.42 1.42 1.42 1.42 1.42
1.42 1.42 1.42 1.42 1.43 1.43 1.43 1.43 1.44 1.44 1.44 1.44 1.44 1.44 1.45 1.46 1.46 1.46
1.46 1.46 1.46 1.47 1.48 1.48 1.48 1.49 1.50 1.50 1.51 1.51 1.54 1.56

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.25	1.56	1.39	0.064	

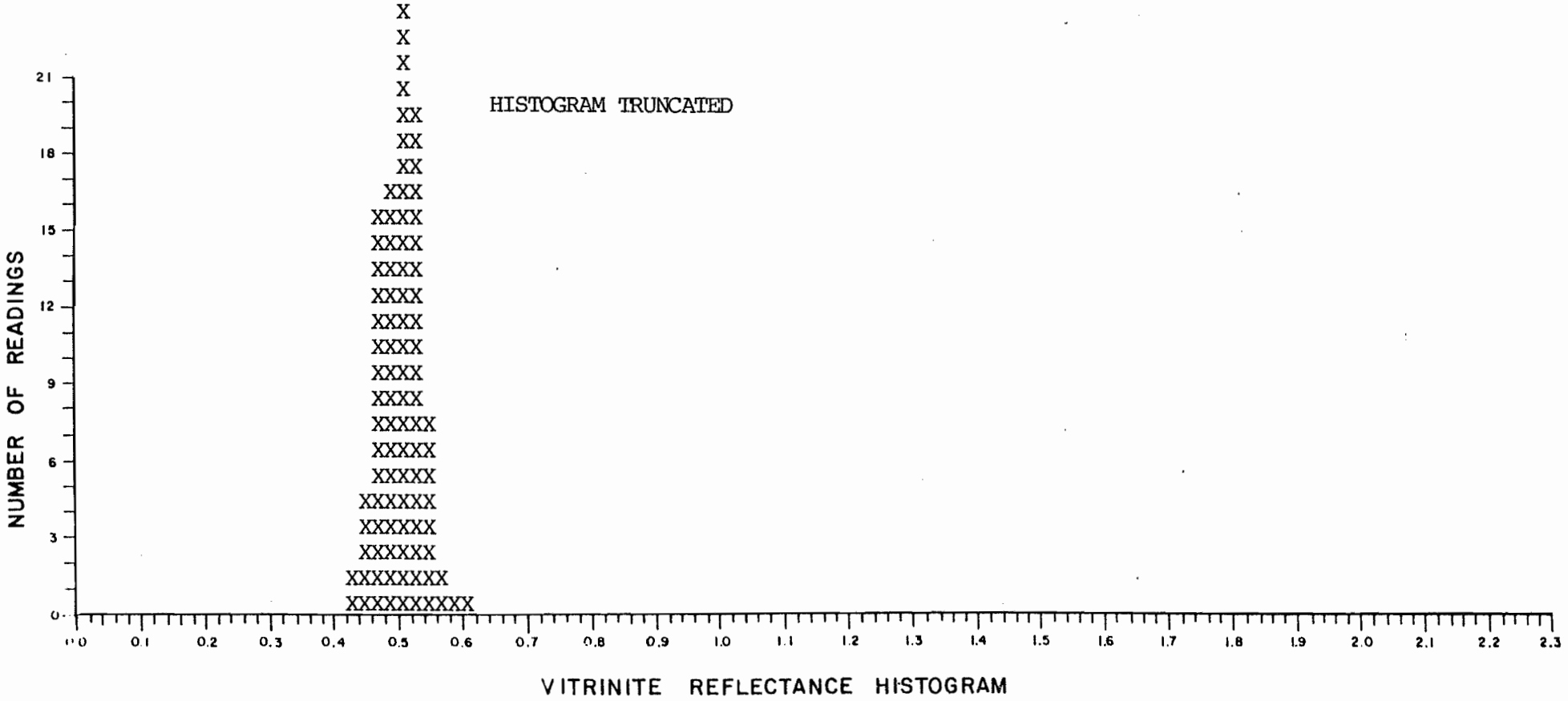


GEOCHEM NO. R769-075 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.43 0.43 0.45 0.45 0.45 0.45 0.45 0.46 0.46 0.46 0.46 0.46 0.46 0.47
0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48
0.48 0.48 0.49 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50
0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51
0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53 0.53 0.53
0.53 0.53 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.56 0.56 0.59 0.60

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.43	0.60	0.50	0.032	

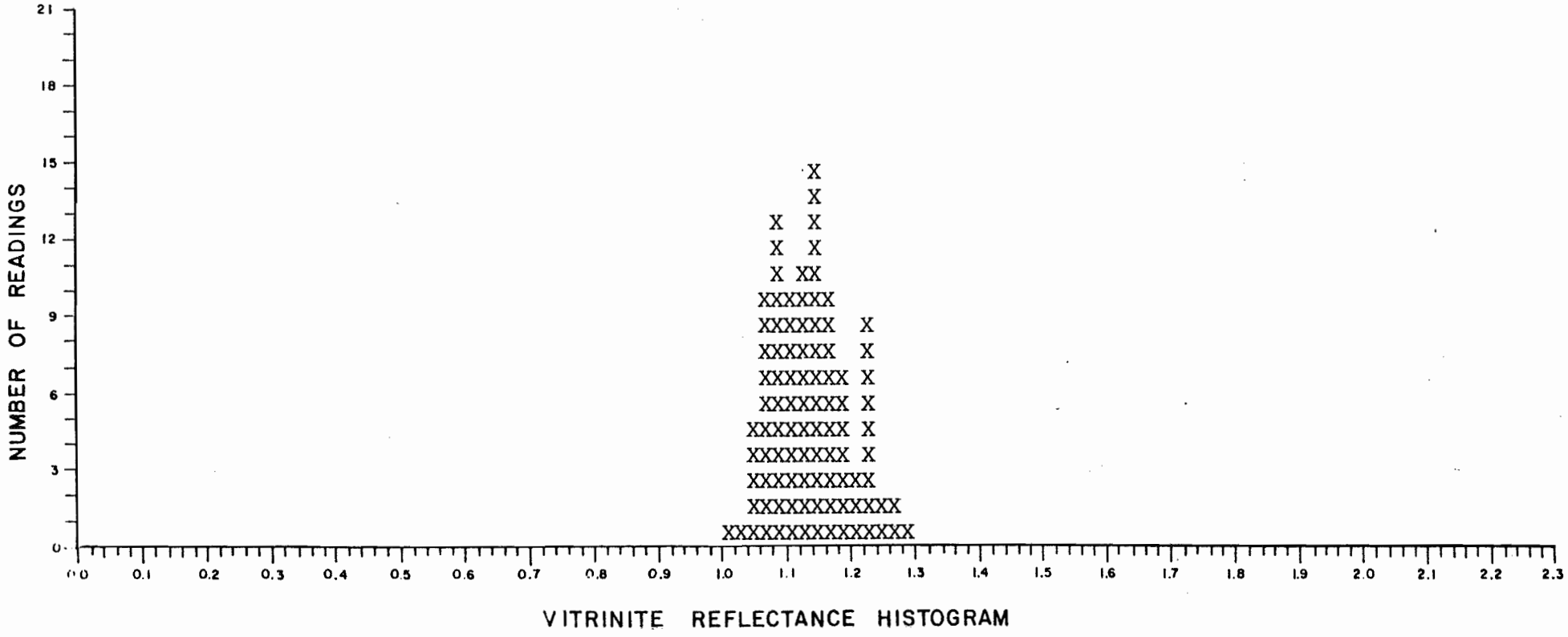


GEOCHEM NO. R769-076 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.01 1.03 1.04 1.04 1.04 1.05 1.05 1.06 1.06 1.07 1.07 1.07 1.07 1.07
1.07 1.07 1.07 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.09 1.09 1.09 1.09 1.09 1.09 1.10 1.10
1.10 1.10 1.10 1.10 1.10 1.11 1.11 1.11 1.12 1.12 1.12 1.12 1.12 1.13 1.13 1.13 1.13 1.13
1.13 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.16 1.16
1.16 1.16 1.17 1.17 1.17 1.17 1.17 1.17 1.18 1.18 1.18 1.18 1.19 1.19 1.19 1.20 1.20 1.21
1.22 1.22 1.22 1.22 1.22 1.22 1.23 1.23 1.23 1.24 1.24 1.26 1.26 1.28

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.01	1.28	1.13	0.059	



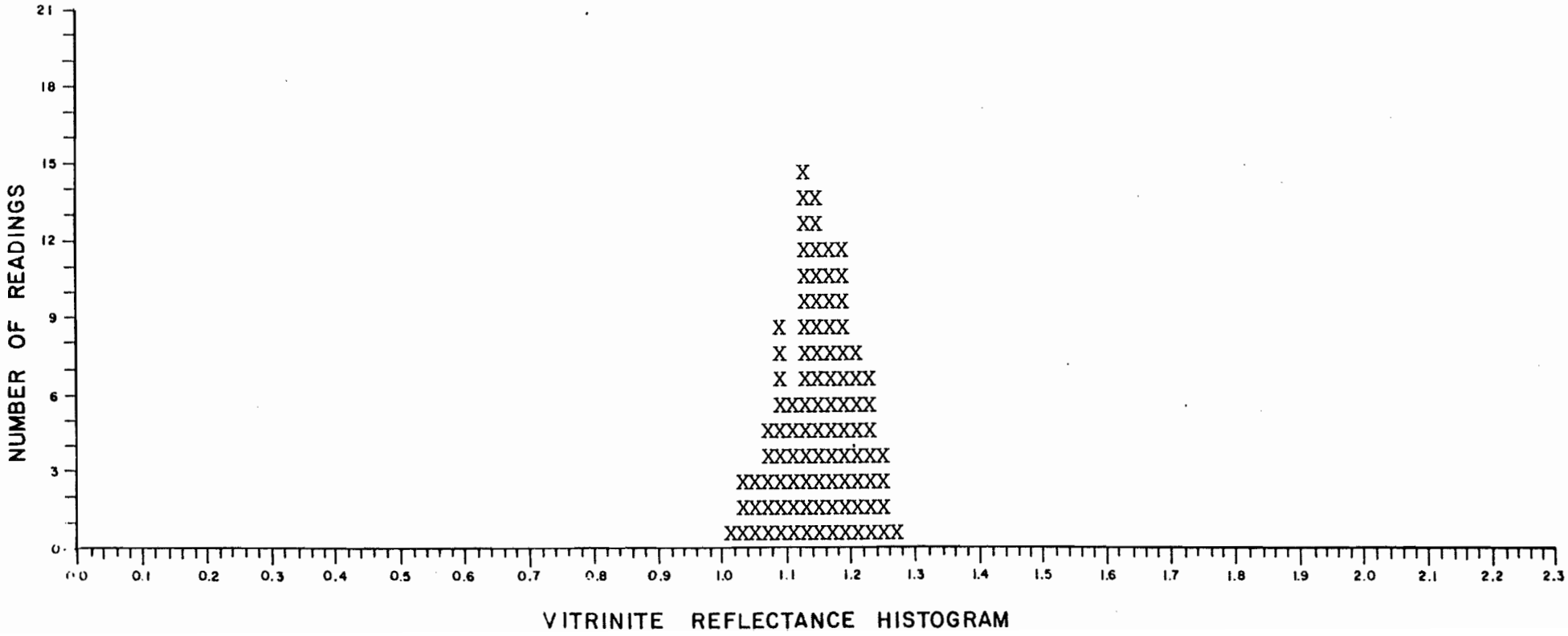
VITRINITE REFLECTANCE HISTOGRAM

GEOCHEM NO. R769-077 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.01 1.02 1.03 1.03 1.04 1.04 1.05 1.06 1.06 1.06 1.06 1.07 1.08 1.08
1.08 1.08 1.09 1.09 1.09 1.09 1.09 1.10 1.10 1.10 1.11 1.11 1.11 1.12 1.12 1.12 1.12 1.12
1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.14 1.14 1.14 1.15 1.15 1.15 1.15 1.15
1.15 1.15 1.15 1.15 1.15 1.15 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.17 1.17 1.17 1.17 1.17
1.18 1.18 1.18 1.18 1.18 1.18 1.19 1.19 1.19 1.19 1.19 1.19 1.20 1.20 1.20 1.20 1.20 1.20
1.20 1.21 1.22 1.22 1.22 1.22 1.23 1.23 1.23 1.24 1.24 1.25 1.25 1.26

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.01	1.26	1.15	0.057	

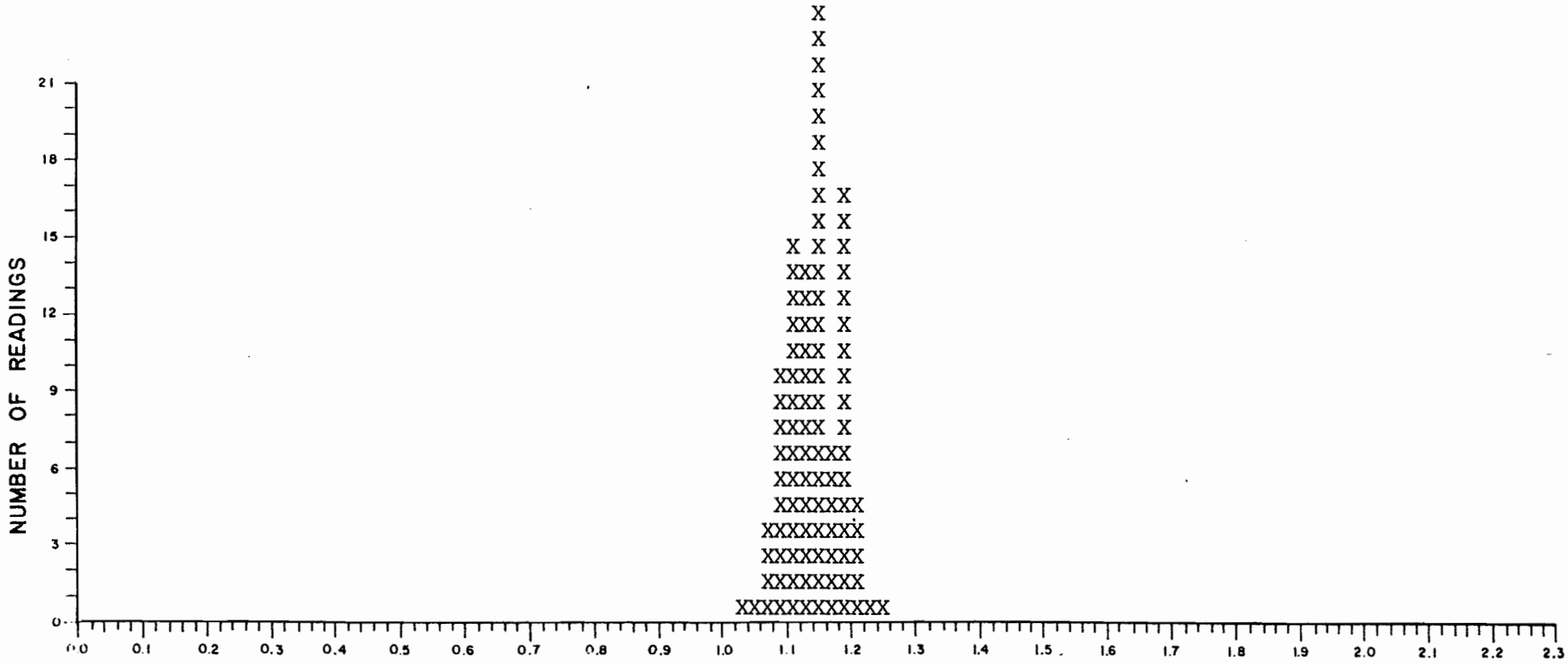


GEOCHEM NO. R769-078 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.03 1.05 1.06 1.07 1.07 1.07 1.08 1.08 1.08 1.08 1.08 1.09 1.09 1.09
1.09 1.09 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.11 1.11 1.11 1.11 1.11 1.11 1.12
1.12 1.12 1.12 1.12 1.12 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.14 1.14 1.14 1.14 1.14
1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15
1.15 1.16 1.16 1.16 1.16 1.17 1.17 1.17 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.18
1.18 1.18 1.18 1.19 1.19 1.19 1.19 1.20 1.20 1.20 1.21 1.21 1.22 1.24

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.03	1.24	1.14	0.041	

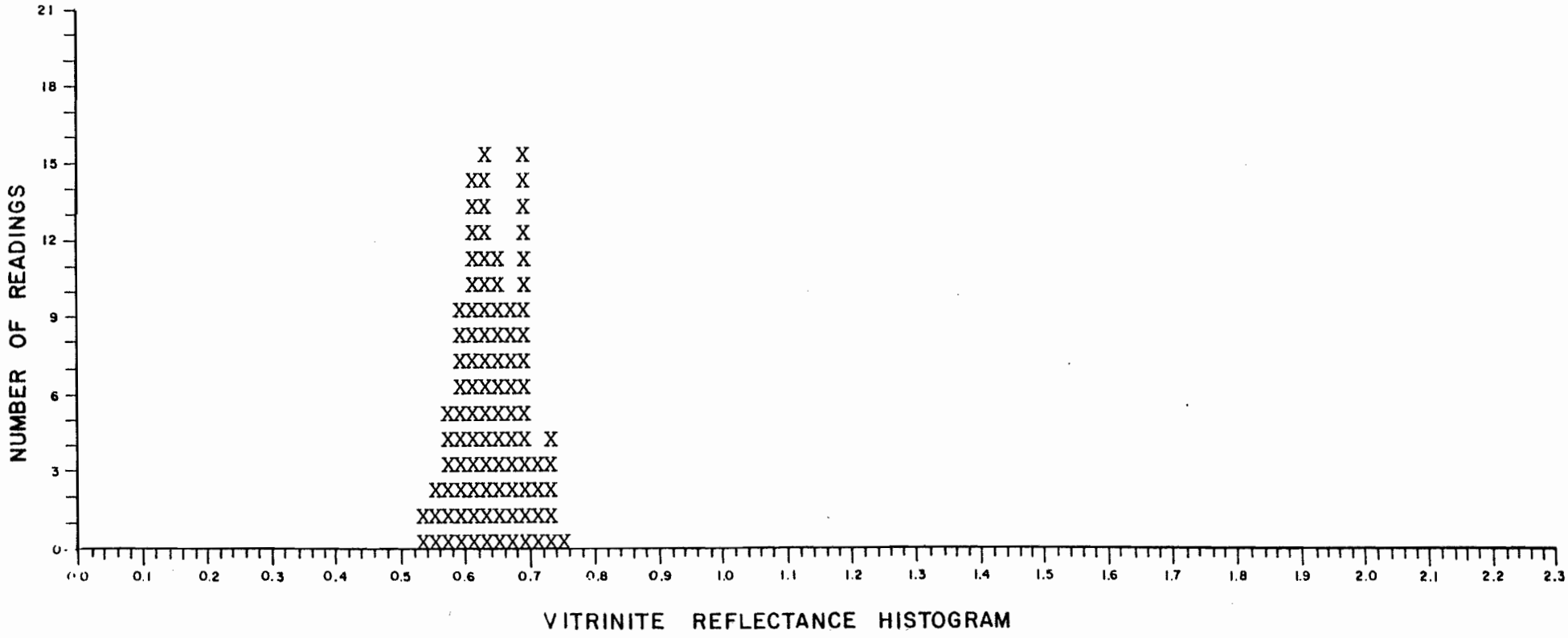


GEOCHEM NO. R769-079 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.53 0.53 0.54 0.55 0.55 0.56 0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58
0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60
0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63
0.63 0.63 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.66 0.66 0.66 0.66
0.66 0.66 0.66 0.67 0.67 0.67 0.68 0.68 0.68 0.68 0.68 0.68 0.69 0.69 0.69 0.69 0.69 0.69
0.69 0.69 0.69 0.69 0.70 0.70 0.70 0.71 0.72 0.72 0.72 0.72 0.72 0.74

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.53	0.74	0.64	0.048	

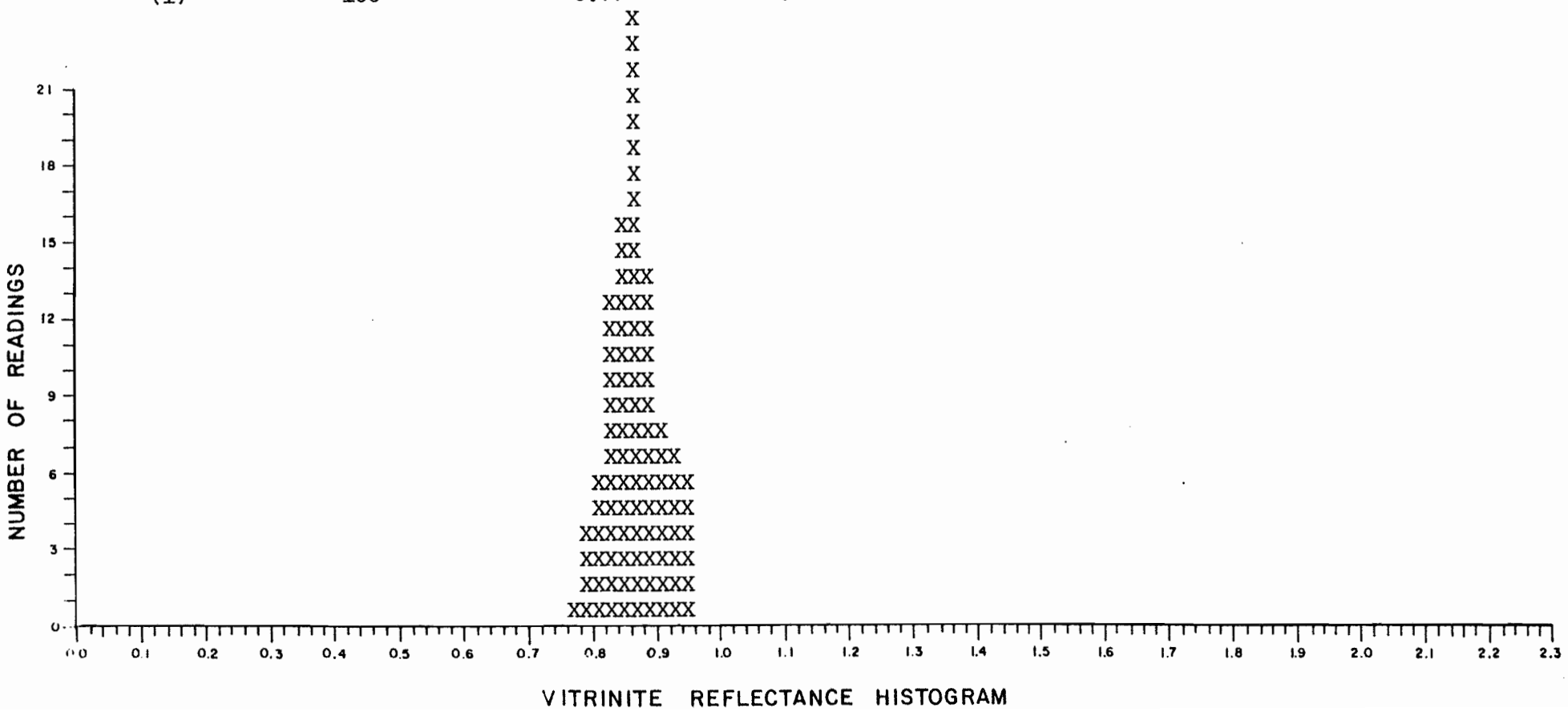


GEOCHEM NO. R769-080 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.77 0.78 0.78 0.78 0.79 0.80 0.80 0.81 0.81 0.81 0.81 0.82 0.82 0.82
0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.84 0.84 0.84 0.84 0.84 0.85 0.85 0.85
0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86
0.86 0.86 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.88 0.88 0.88
0.88 0.88 0.88 0.88 0.88 0.88 0.89 0.89 0.89 0.89 0.89 0.90 0.90 0.90 0.90 0.91 0.91 0.91
0.91 0.92 0.92 0.92 0.92 0.92 0.93 0.93 0.94 0.94 0.94 0.94 0.95 0.95

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.77	0.95	0.86	0.040	

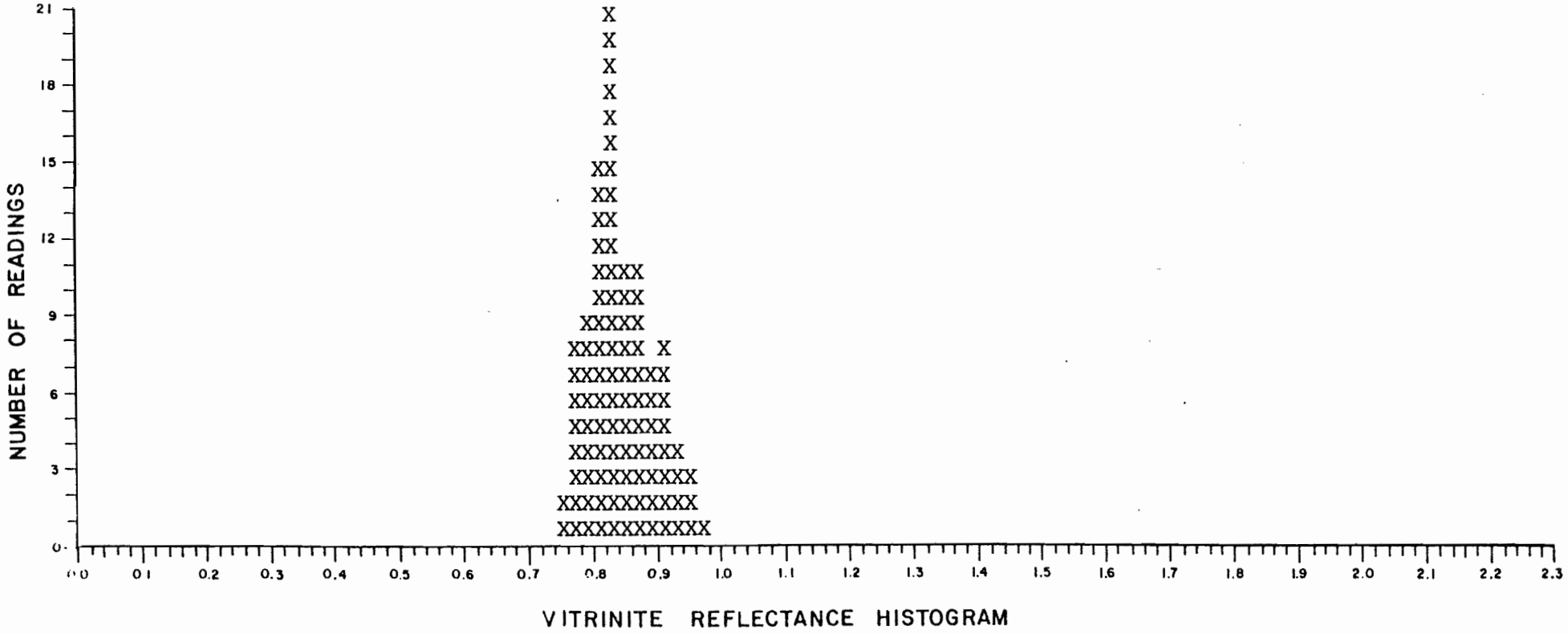


GEOCHEM NO. R769-081 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.75 0.75 0.76 0.76 0.76 0.77 0.77 0.77 0.77 0.77 0.78 0.78 0.78 0.78
0.78 0.79 0.79 0.79 0.79 0.80 0.80 0.80 0.80 0.80 0.80 0.81 0.81 0.81 0.81 0.81 0.81 0.81
0.81 0.81 0.82 0.82 0.82 0.82 0.82 0.82 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83
0.83 0.83 0.83 0.83 0.83 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.85 0.85 0.85 0.85 0.86 0.86
0.86 0.86 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.88 0.88 0.88 0.89 0.89 0.89 0.89 0.90 0.90
0.90 0.90 0.91 0.91 0.91 0.91 0.92 0.92 0.93 0.93 0.94 0.94 0.95 0.96

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.75	0.96	0.84	0.049	

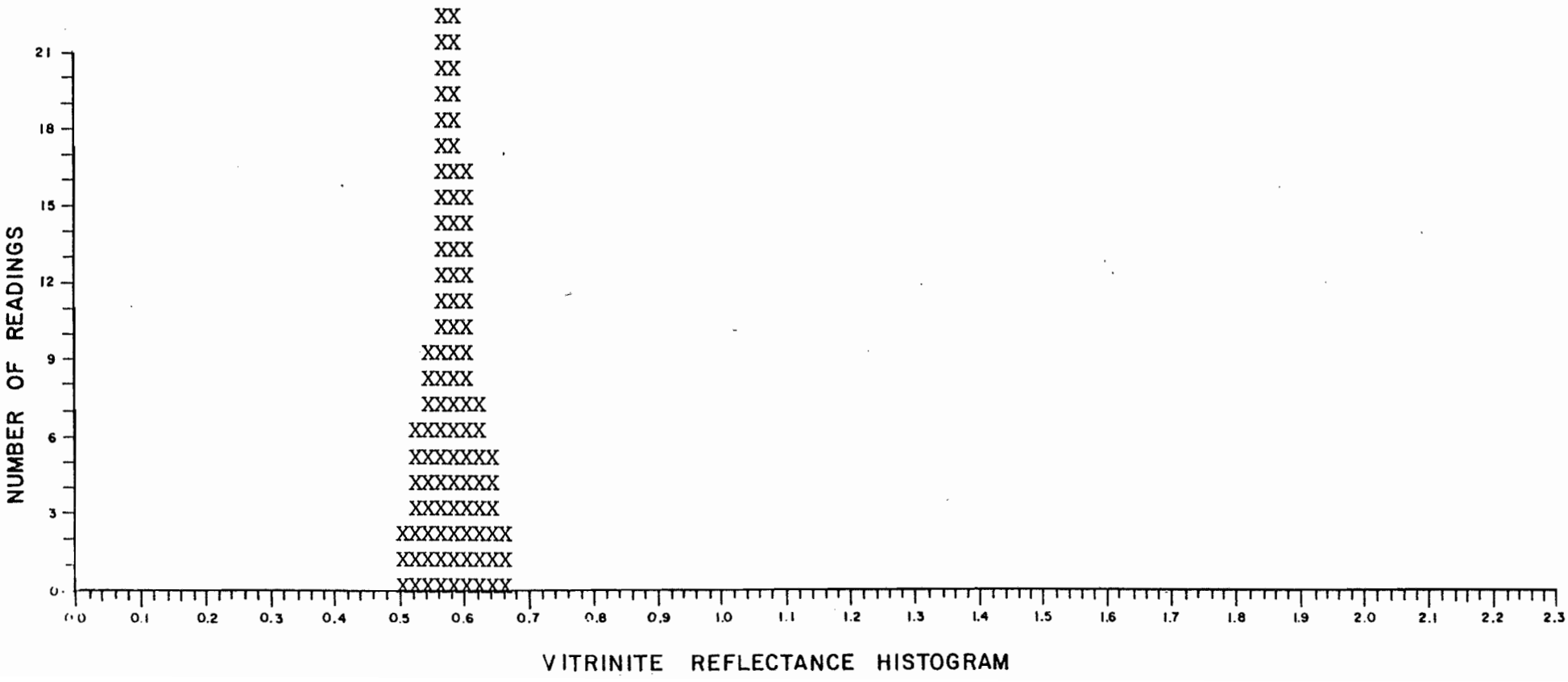


GEOCHEM NO. R769-082 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)				0.50	0.50	0.51	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.54	0.54	0.54	0.55
0.55	0.55	0.55	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.57	0.57
0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.58	0.58	0.58
0.58	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.60	0.60
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.62	0.62	0.62
0.63	0.63	0.63	0.63	0.63	0.64	0.64	0.64	0.65	0.65	0.65	0.66	0.66	0.66				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.50	0.66	0.58	0.036	

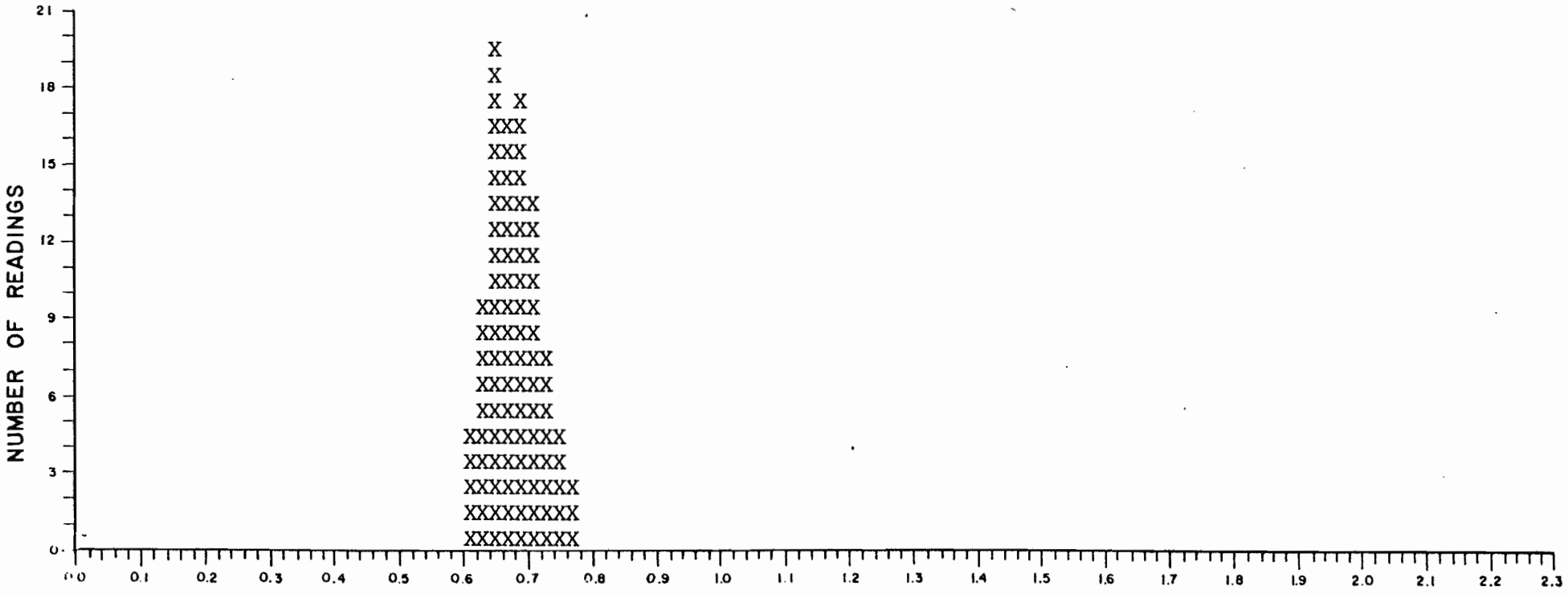


GEOCHEM NO. R769-083 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100) 0.60 0.60 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63
0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65
0.65 0.65 0.65 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.67 0.67 0.67
0.67 0.67 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.69 0.69 0.69 0.69 0.69 0.69 0.69
0.69 0.69 0.70 0.70 0.70 0.70 0.70 0.70 0.70 0.71 0.71 0.71 0.71 0.71 0.71 0.71 0.72 0.72
0.72 0.72 0.72 0.73 0.73 0.73 0.74 0.74 0.74 0.75 0.75 0.76 0.76 0.77

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.60	0.77	0.67	0.039	

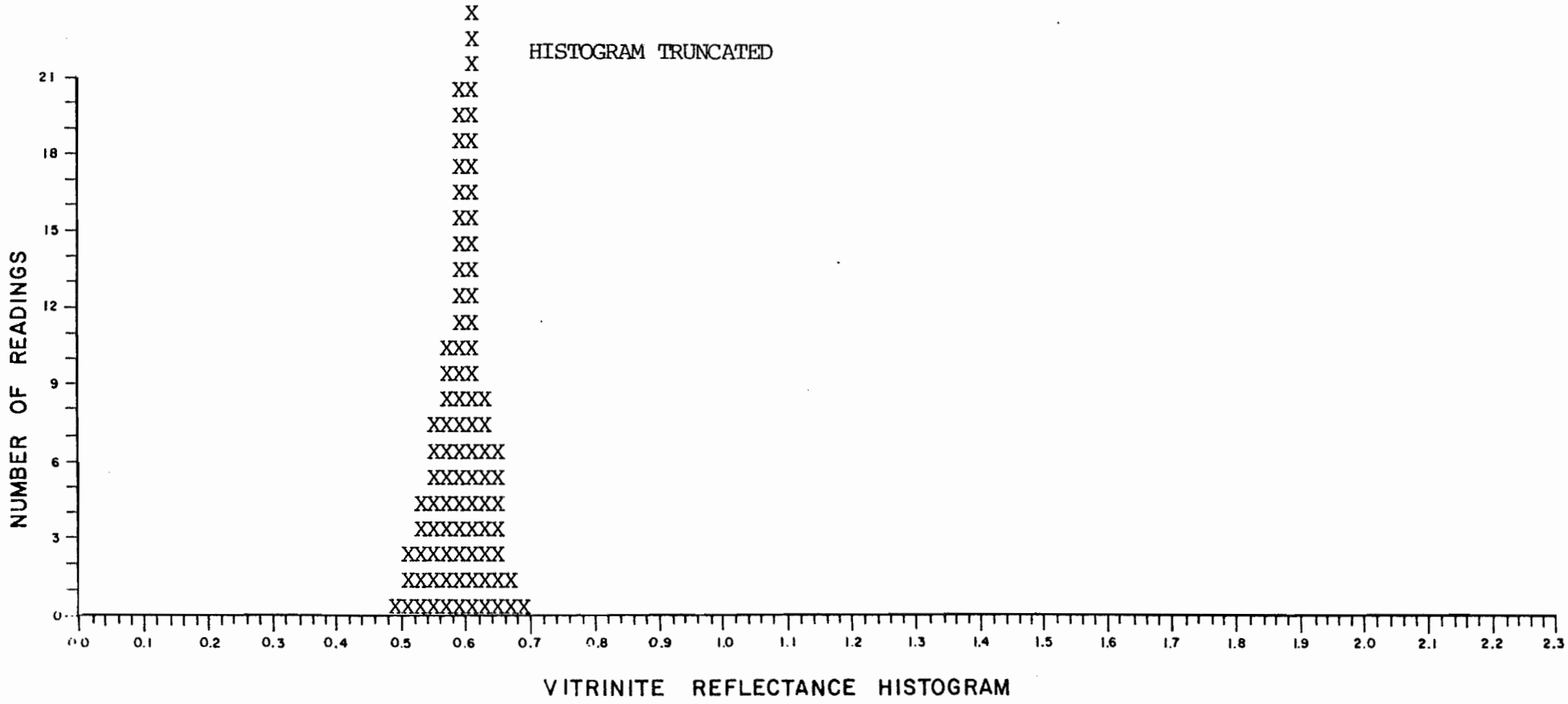


GEOCHEM NO. R769-084 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.48 0.50 0.50 0.51 0.52 0.53 0.53 0.53 0.53 0.54 0.55 0.55 0.55 0.55
0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58
0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.60
0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.61 0.61
0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62
0.62 0.63 0.63 0.63 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.66 0.66 0.68

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.48	0.68	0.59	0.037	

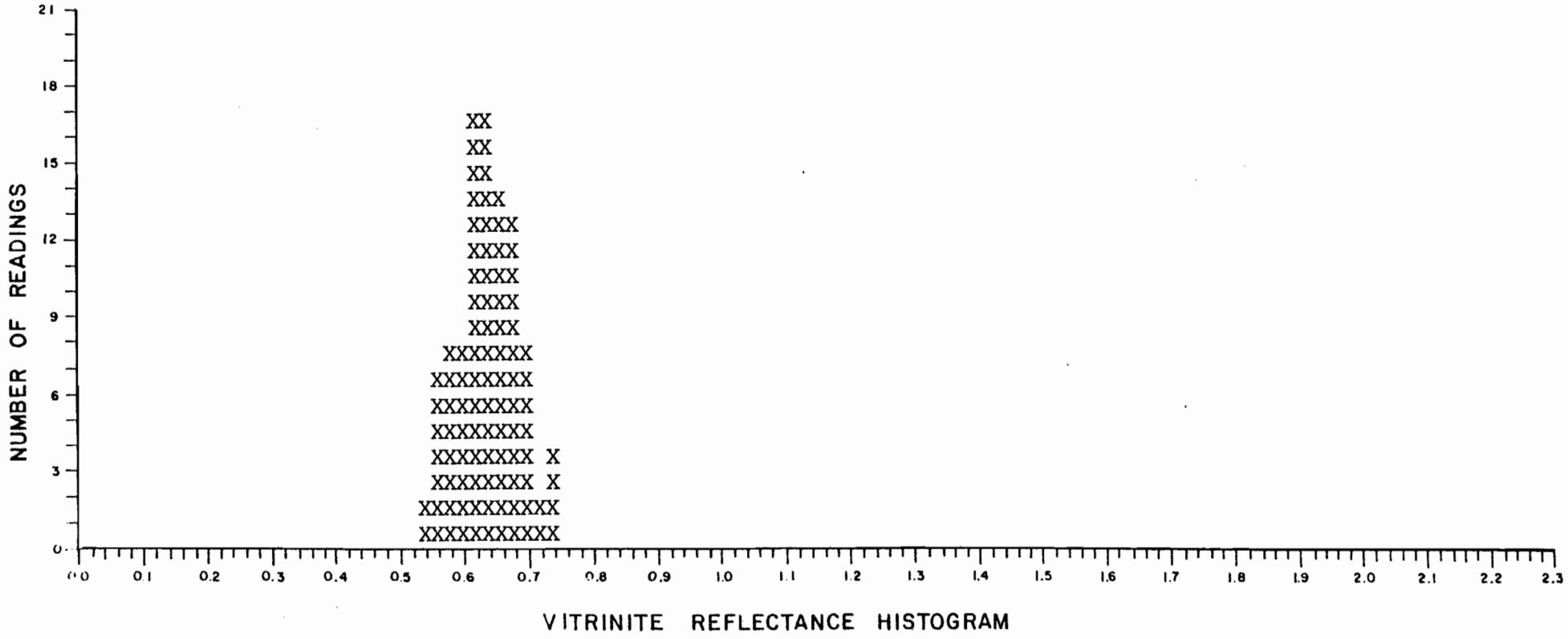


GEOCHEM NO. R769-085 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.53 0.53 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.56 0.56 0.57 0.57 0.57
0.57 0.57 0.57 0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60
0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62
0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65
0.65 0.65 0.65 0.65 0.65 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.67 0.67
0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.69 0.70 0.71 0.72 0.72 0.72 0.72

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.53	0.72	0.62	0.046	

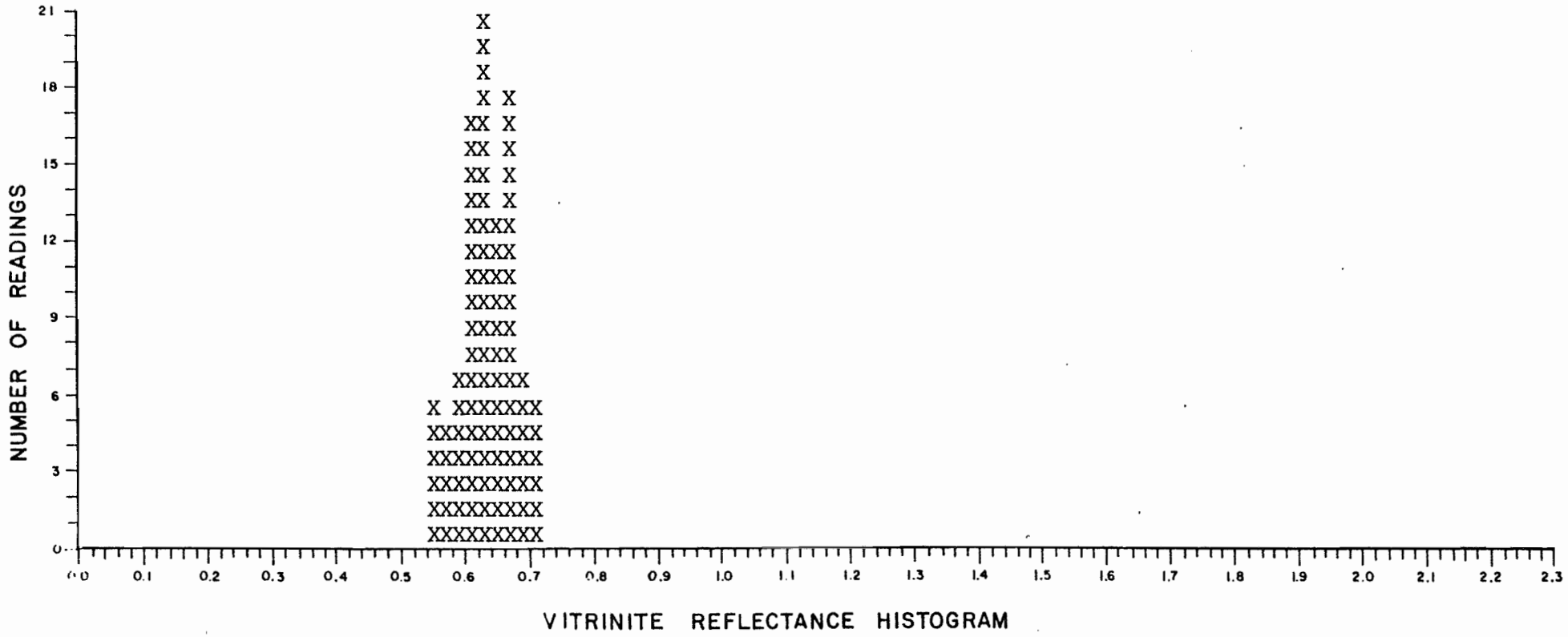


GEOCHEM NO. R769-086 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.54 0.54 0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.57 0.57 0.58 0.58 0.58
0.58 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.61 0.61
0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.63
0.63 0.63 0.63 0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65
0.65 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.67 0.67 0.67 0.67 0.67 0.67
0.67 0.68 0.68 0.68 0.68 0.68 0.69 0.69 0.70 0.70 0.70 0.70 0.71 0.71

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.54	0.71	0.63	0.041	

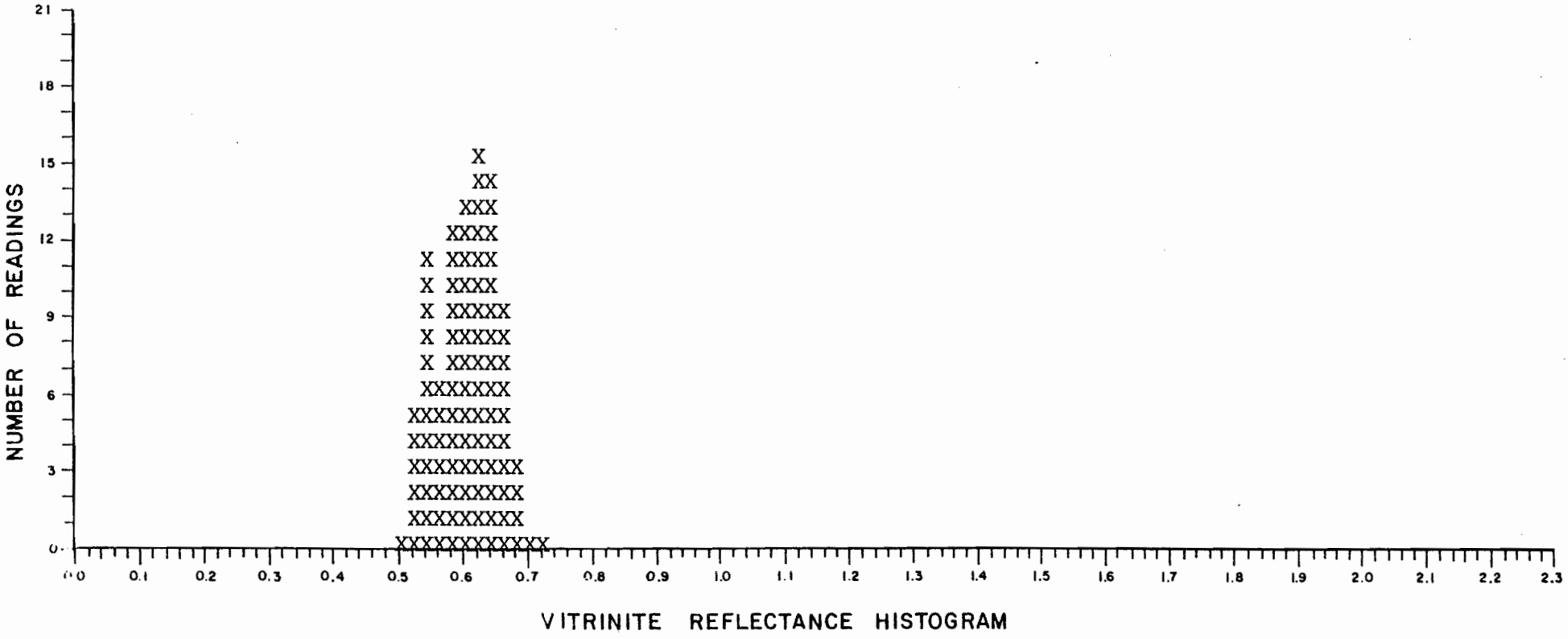


GEOCHEM NO. R769-087 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.51 0.52 0.52 0.53 0.53 0.53 0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54
0.54 0.55 0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.57 0.57 0.58 0.58 0.59 0.59 0.59 0.59
0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61
0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63
0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.66 0.66
0.66 0.66 0.66 0.67 0.67 0.67 0.67 0.67 0.68 0.68 0.68 0.69 0.70 0.72

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.51	0.72	0.61	0.047	

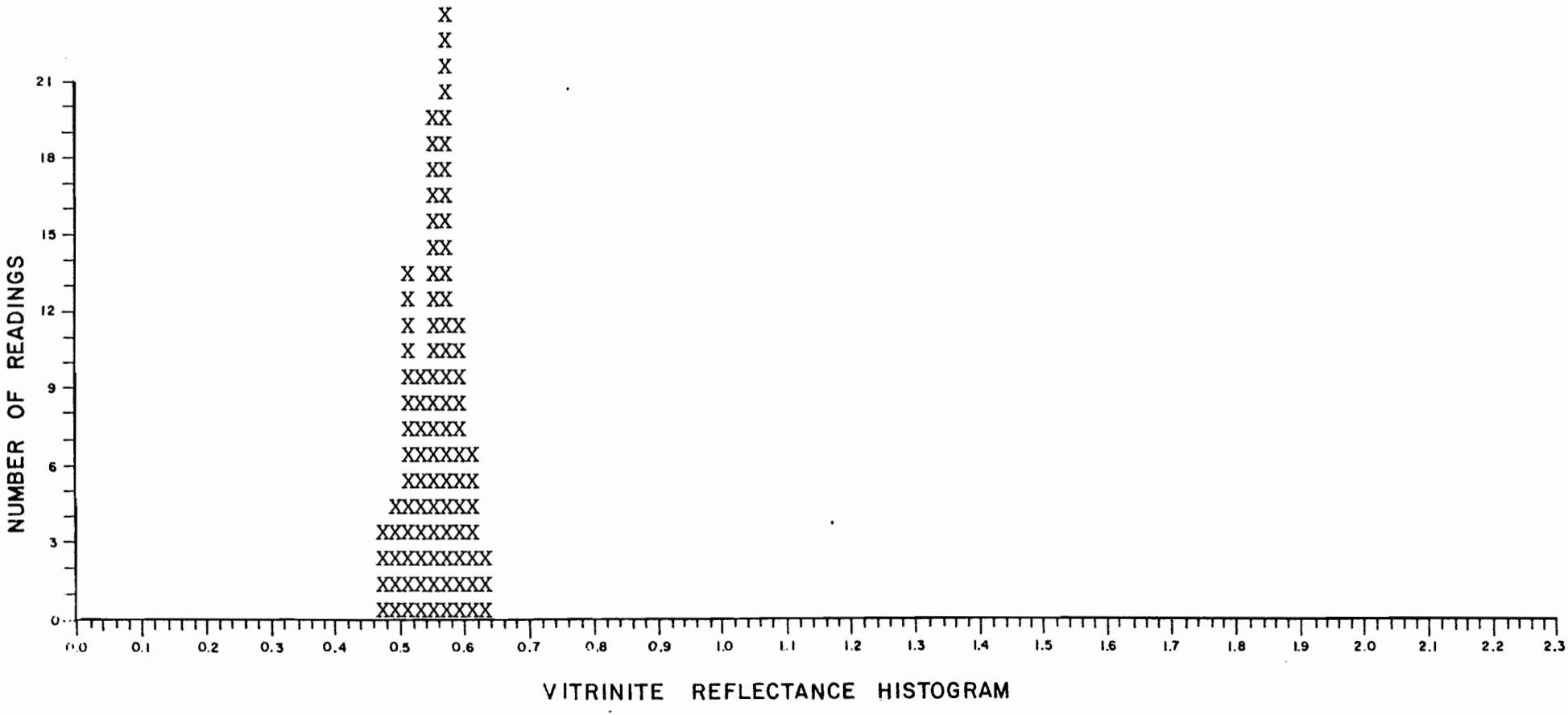


GEOCHEM NO. R769-088 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.46 0.46 0.47 0.47 0.48 0.48 0.48 0.48 0.49 0.50 0.50 0.50 0.50 0.50
0.50 0.50 0.50 0.50 0.50 0.50 0.51 0.51 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.53 0.53 0.53
0.53 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.54 0.55 0.55 0.55 0.55 0.55 0.55 0.55
0.55 0.55 0.55 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56 0.56
0.56 0.56 0.56 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.58 0.58 0.58 0.58 0.58 0.58 0.58 0.58
0.59 0.59 0.59 0.59 0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.62 0.63 0.63

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.46	0.63	0.55	0.039	



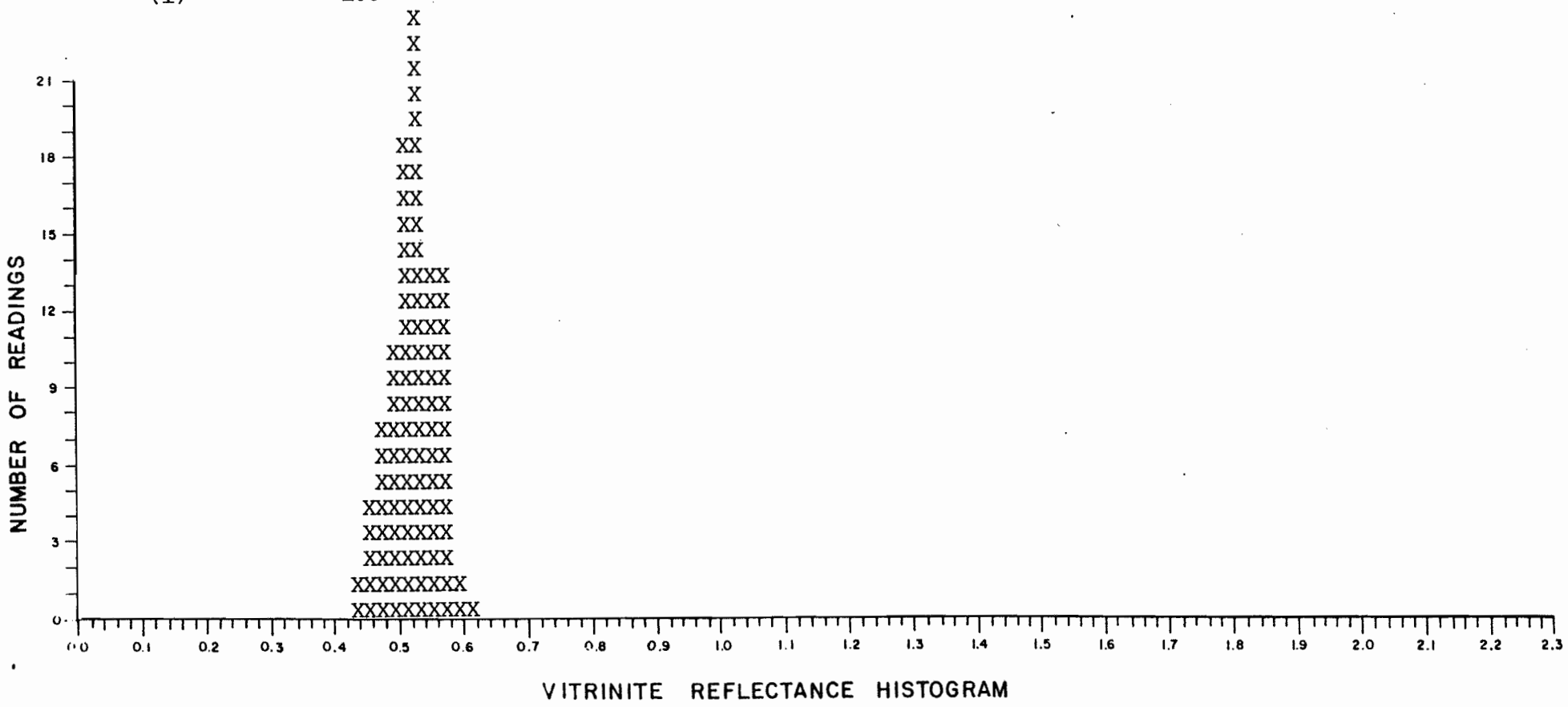
GEOCHEM NO. R769-089 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)

0.43	0.43	0.44	0.44	0.44	0.45	0.45	0.46	0.46	0.47	0.47	0.47	0.47	0.47		
0.47	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.50	0.51	
0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.52	0.52	0.52	0.52	0.52	
0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	
0.53	0.54	0.54	0.54	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.56	0.56	0.56
0.56	0.56	0.56	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.58	0.58	0.60				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.43	0.60	0.52	0.037	

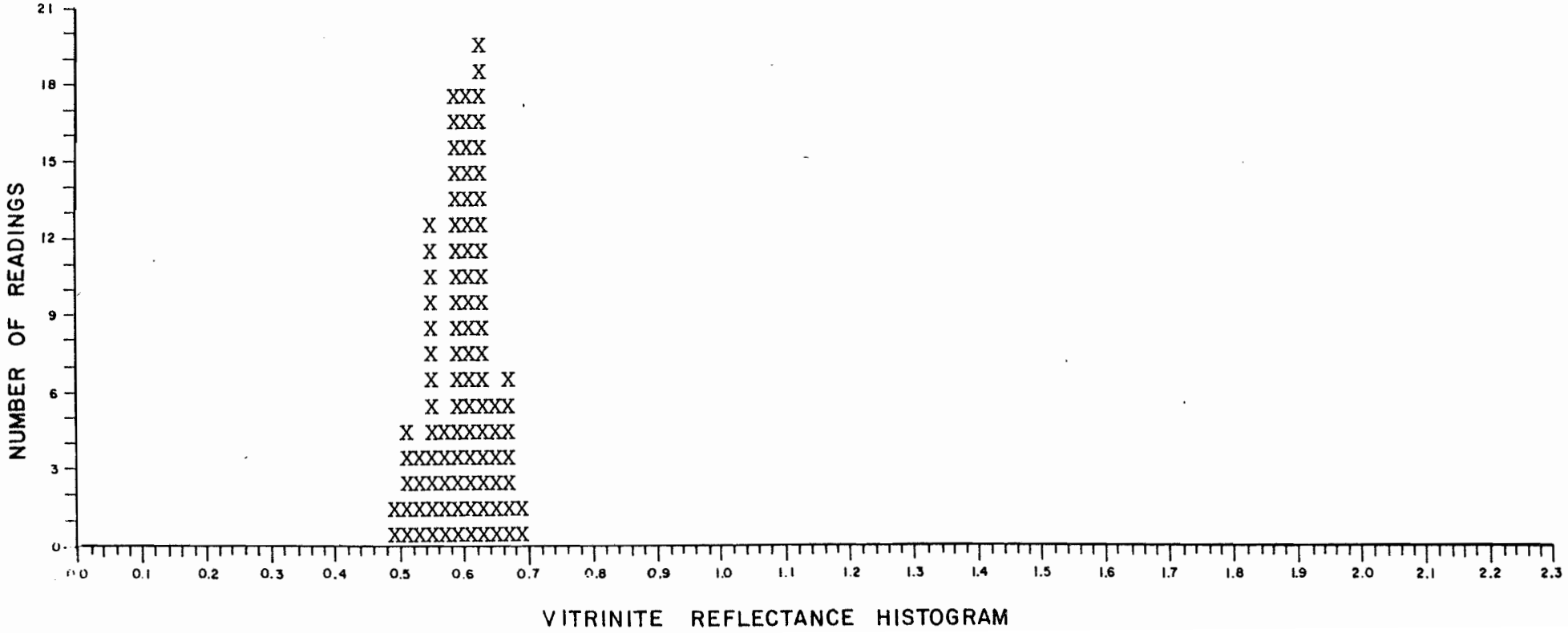


GEOCHEM NO. R769-090 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)			0.48	0.49	0.50	0.50	0.51	0.51	0.51	0.52	0.53	0.53	0.53	0.54	0.54	0.54	
0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.56	0.56	0.57	0.57	0.57	0.58	0.58	0.58
0.58	0.58	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.60	0.60	0.60
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.62	0.62	0.62
0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.64
0.64	0.64	0.64	0.64	0.65	0.66	0.66	0.66	0.67	0.67	0.67	0.67	0.69	0.69				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.48	0.69	0.59	0.045	

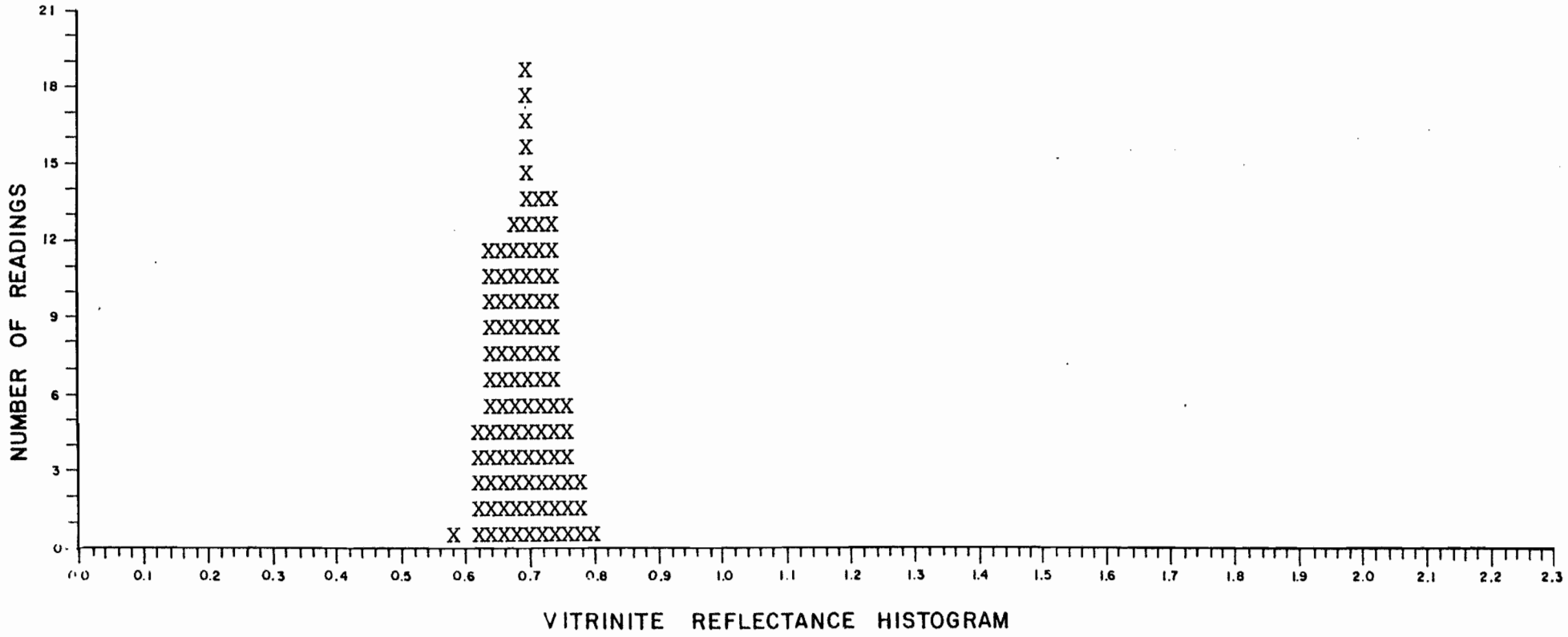


GEOCHEM NO. R769-091 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.57 0.60 0.60 0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63
0.63 0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.66 0.66
0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.67 0.67 0.67 0.68 0.68 0.68 0.68 0.68 0.68 0.68
0.68 0.68 0.68 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.70 0.70 0.70 0.70 0.70 0.70
0.70 0.70 0.70 0.71 0.71 0.71 0.71 0.71 0.72 0.72 0.72 0.72 0.72 0.72 0.72 0.73 0.73 0.73
0.73 0.73 0.73 0.73 0.74 0.74 0.74 0.74 0.74 0.75 0.76 0.76 0.76 0.78

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.57	0.78	0.68	0.043	

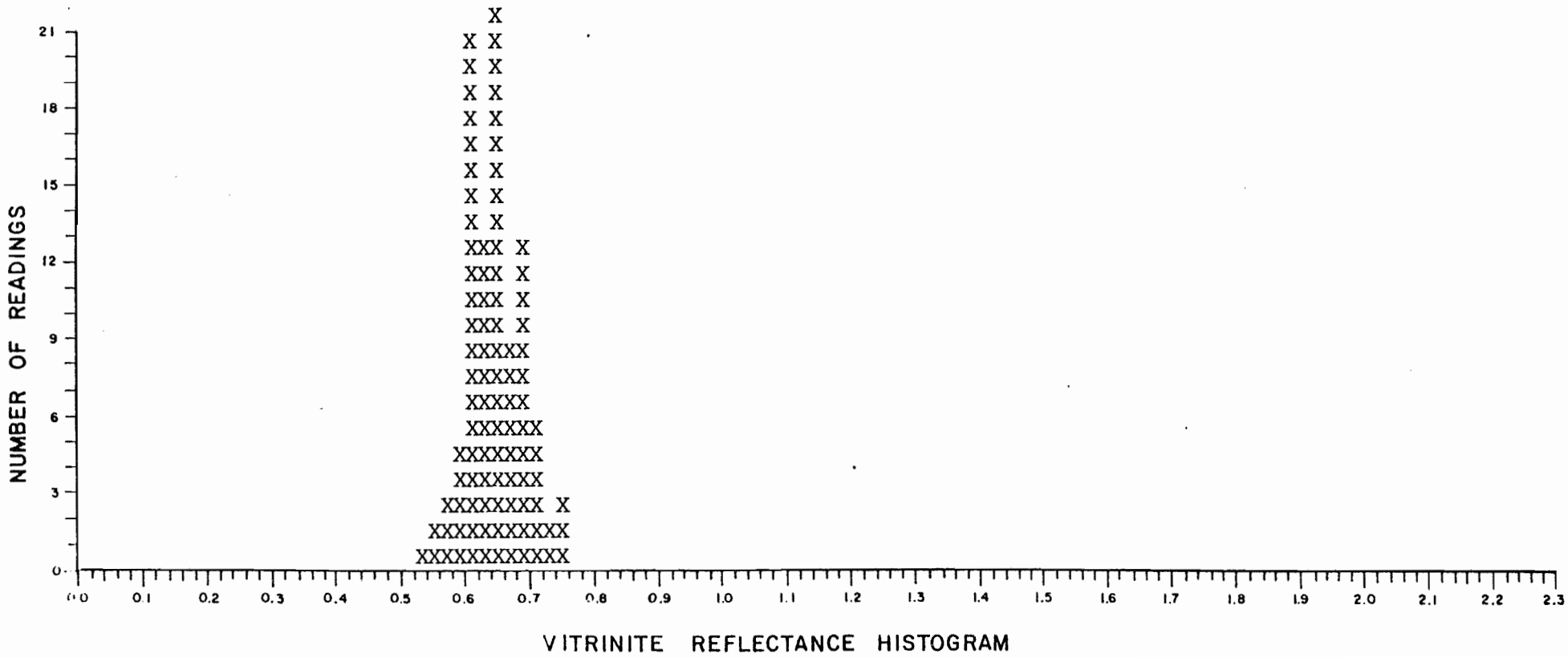


GEOCHEM NO. R769-092 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100) 0.53 0.55 0.55 0.56 0.57 0.57 0.58 0.59 0.59 0.59 0.59 0.60 0.60 0.60
0.60 0.60 0.60 0.60 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61
0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.64
0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.66
0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.69
0.69 0.69 0.69 0.70 0.70 0.70 0.70 0.70 0.71 0.72 0.73 0.74 0.74 0.74

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.53	0.74	0.64	0.043	

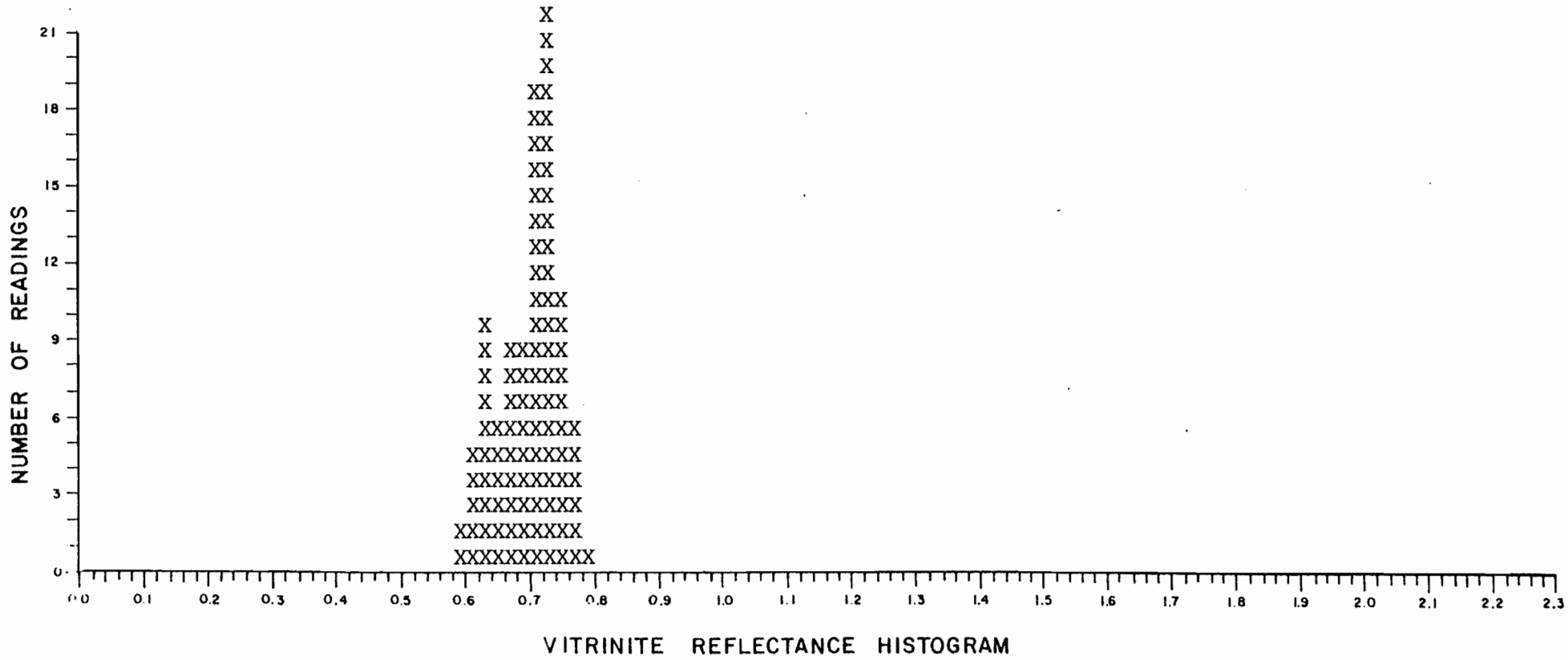


GEOCHEM NO. R769-093 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO.

CLIENT'S NAME WELL NAME

(NO. OF READINGS =100) 0.59 0.59 0.60 0.60 0.61 0.61 0.61 0.62 0.62 0.62 0.63 0.63 0.63 0.63
0.63 0.63 0.63 0.64 0.64 0.64 0.64 0.65 0.65 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67 0.67
0.68 0.68 0.68 0.69 0.69 0.69 0.69 0.69 0.69 0.70 0.70 0.70 0.70 0.70 0.70 0.70 0.70 0.71
0.71 0.71 0.71 0.71 0.71 0.71 0.71 0.71 0.71 0.71 0.72 0.72 0.72 0.72 0.72 0.72 0.72 0.72
0.72 0.72 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.74 0.74 0.74 0.74
0.74 0.75 0.75 0.75 0.75 0.75 0.75 0.76 0.76 0.76 0.76 0.77 0.77 0.78

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.59	0.78	0.69	0.047	

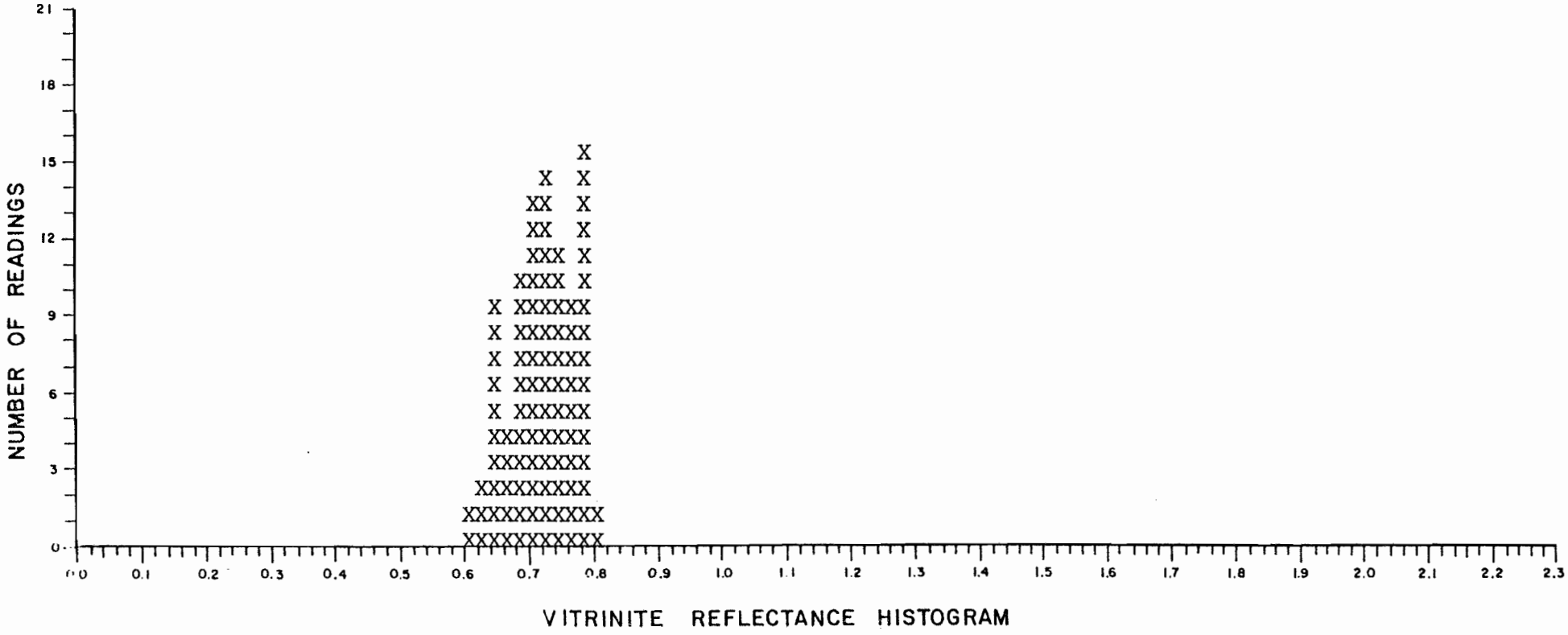


GEOCHEM NO. R769-094 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.60 0.61 0.62 0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65
0.65 0.66 0.66 0.67 0.67 0.67 0.68 0.68 0.68 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.70
0.70 0.70 0.70 0.70 0.70 0.70 0.70 0.71 0.71 0.71 0.71 0.71 0.71 0.72 0.72 0.72 0.72 0.72
0.72 0.72 0.72 0.72 0.72 0.73 0.73 0.73 0.73 0.73 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.75
0.75 0.75 0.75 0.75 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.77 0.77 0.78 0.78 0.78 0.78
0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.79 0.79 0.79 0.80 0.80

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.60	0.80	0.72	0.049	

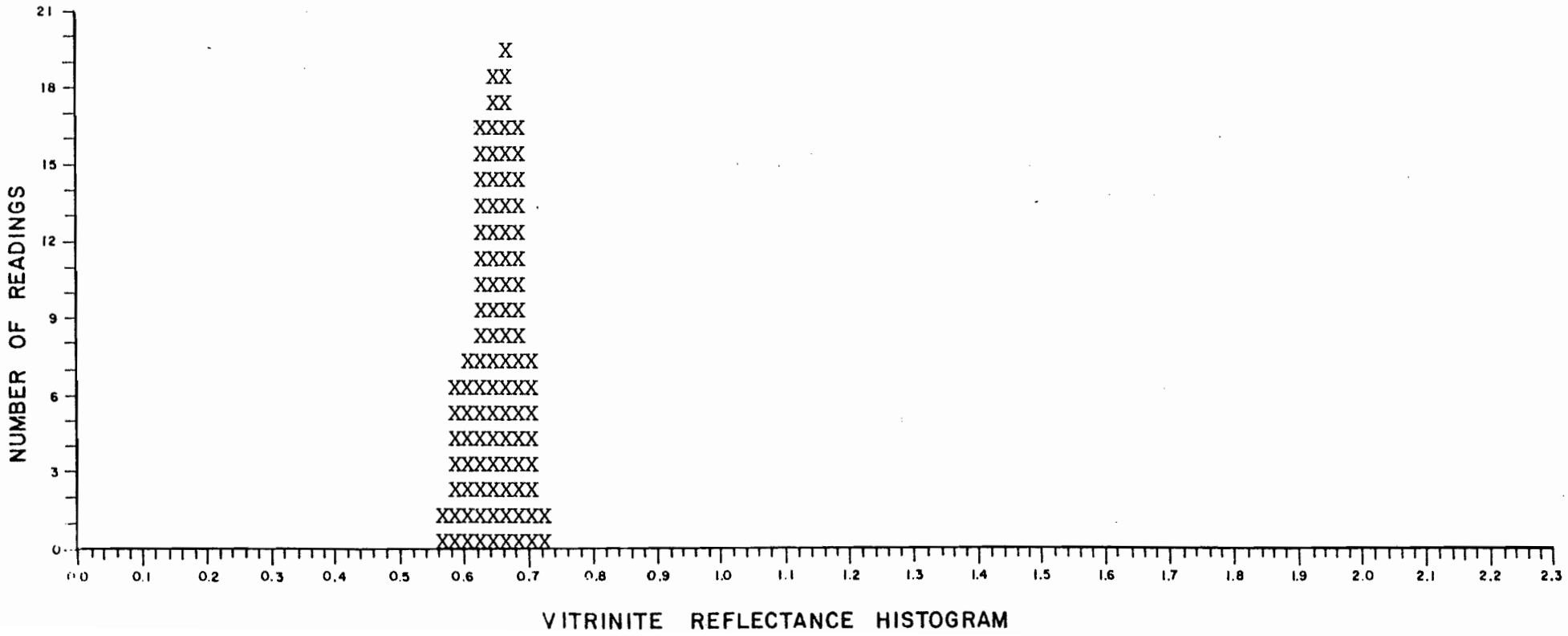


GEOCHEM NO. R769-095 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 0.57 0.57 0.58 0.58 0.58 0.59 0.59 0.59 0.59 0.60 0.60 0.60 0.61 0.61
0.61 0.61 0.61 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.63
0.63 0.63 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.64 0.65 0.65 0.65 0.65 0.65 0.65 0.65
0.65 0.65 0.65 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.67 0.67 0.67
0.67 0.67 0.67 0.67 0.67 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.69 0.69 0.69 0.69 0.69 0.69
0.69 0.69 0.69 0.69 0.70 0.70 0.70 0.70 0.71 0.71 0.71 0.71 0.72 0.73

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.57	0.73	0.65	0.036	

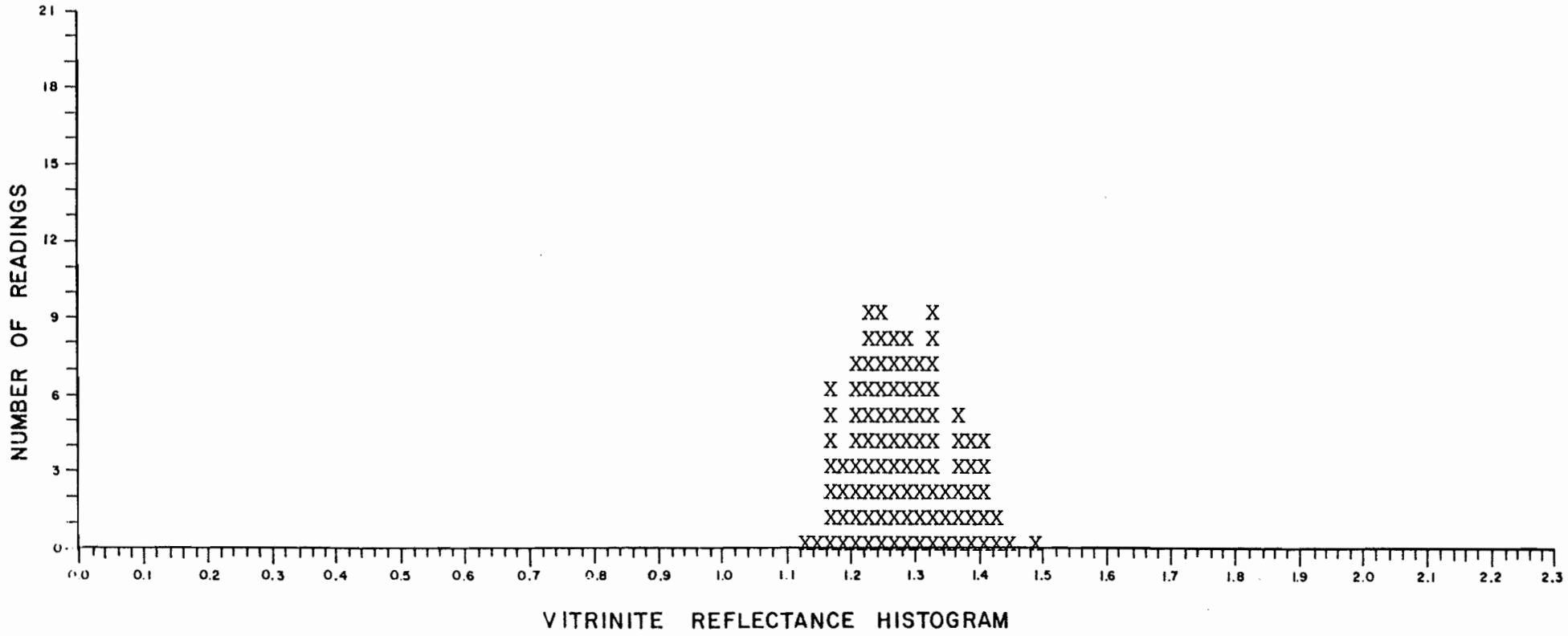


GEOCHEM NO. R769-096 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.13 1.14 1.16 1.16 1.16 1.17 1.17 1.17 1.17 1.18 1.18 1.18 1.19 1.20
1.20 1.21 1.21 1.21 1.21 1.21 1.21 1.22 1.22 1.22 1.22 1.22 1.22 1.23 1.23 1.23 1.23 1.24
1.24 1.24 1.24 1.25 1.25 1.25 1.25 1.25 1.25 1.26 1.26 1.26 1.26 1.27 1.27 1.27 1.27 1.27
1.28 1.28 1.28 1.28 1.28 1.29 1.29 1.29 1.29 1.30 1.30 1.30 1.31 1.31 1.31 1.31 1.31 1.32
1.32 1.32 1.32 1.33 1.33 1.33 1.33 1.33 1.33 1.35 1.35 1.35 1.36 1.36 1.36 1.37 1.37 1.37
1.38 1.38 1.39 1.39 1.39 1.40 1.40 1.41 1.41 1.41 1.42 1.42 1.45 1.48

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.13	1.48	1.28	0.077	

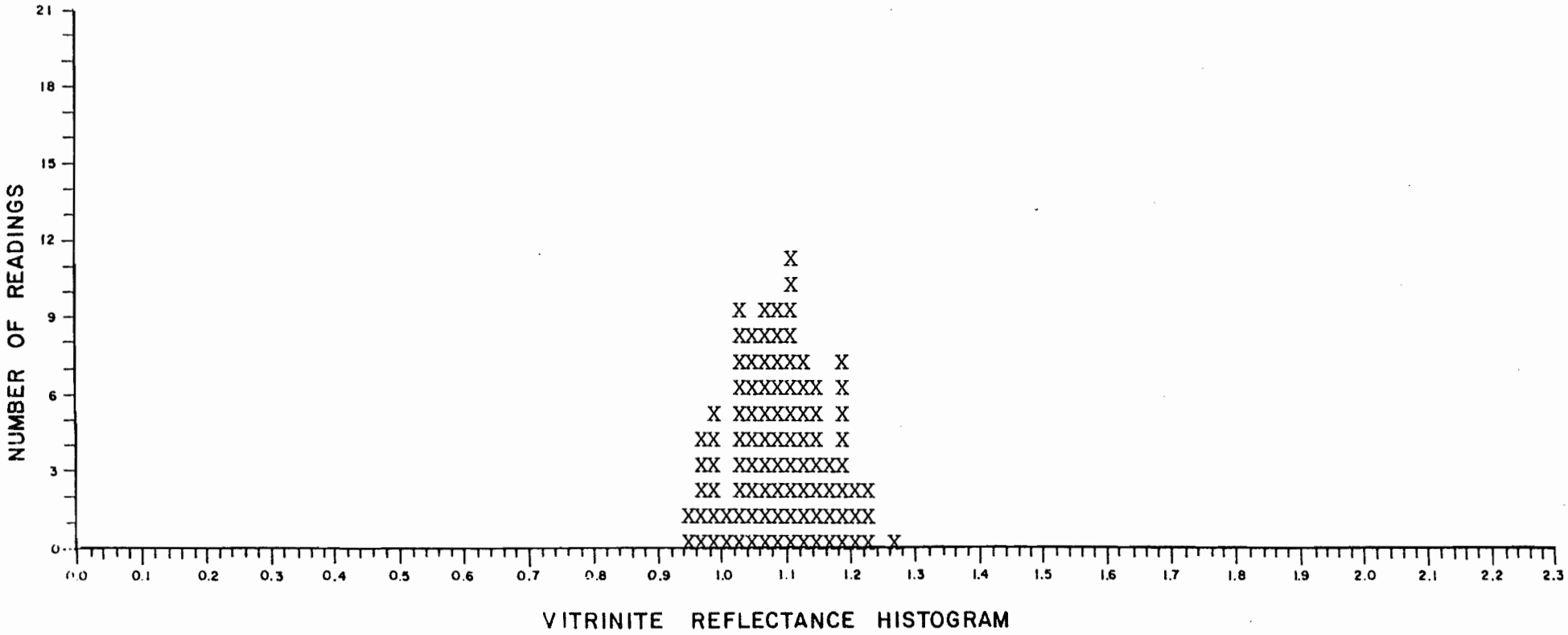


GEOCHEM NO. R769-097 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)															
0.94	0.95	0.96	0.96	0.96	0.96	0.97	0.98	0.98	0.98	0.98	0.99	0.99	1.01		
1.01	1.02	1.02	1.02	1.02	1.02	1.02	1.03	1.03	1.03	1.03	1.04	1.04	1.04	1.05	1.05	1.05	1.05
1.05	1.05	1.06	1.06	1.06	1.06	1.07	1.07	1.07	1.07	1.07	1.07	1.08	1.08	1.08	1.08	1.08	1.08
1.08	1.08	1.09	1.09	1.10	1.10	1.10	1.10	1.10	1.10	1.11	1.11	1.11	1.11	1.11	1.11	1.12	1.12
1.12	1.12	1.12	1.12	1.12	1.13	1.14	1.14	1.14	1.15	1.15	1.15	1.15	1.16	1.16	1.16	1.16	1.18
1.18	1.18	1.18	1.18	1.19	1.19	1.19	1.20	1.21	1.21	1.22	1.22	1.22	1.26				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.94	1.26	1.09	0.072	

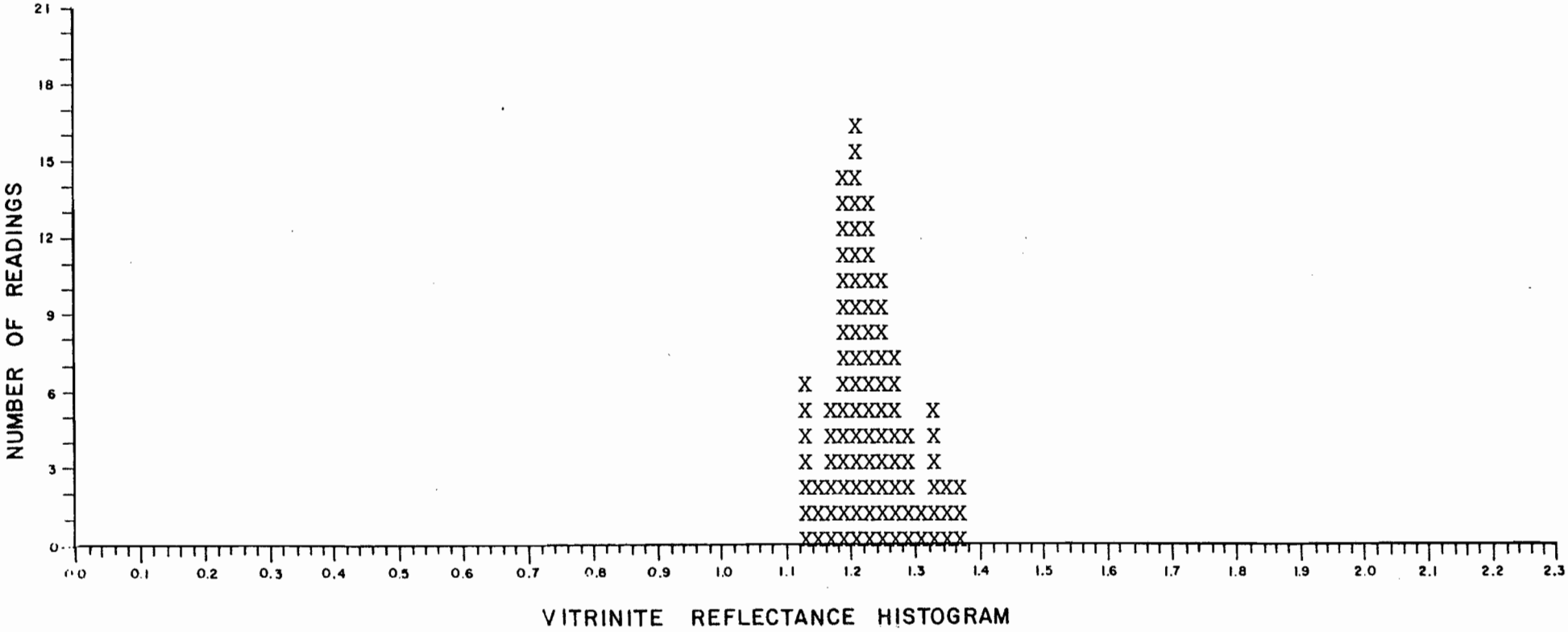


GEOCHEM NO. R769-098 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100) 1.12 1.12 1.12 1.13 1.13 1.13 1.13 1.15 1.15 1.15 1.17 1.17 1.17 1.17
1.17 1.17 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.18 1.19 1.19 1.19 1.19 1.19 1.19 1.19 1.20
1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.22 1.22
1.22 1.22 1.22 1.22 1.22 1.23 1.23 1.23 1.23 1.23 1.23 1.23 1.24 1.24 1.24 1.24 1.24 1.24
1.25 1.25 1.25 1.25 1.25 1.26 1.26 1.26 1.26 1.27 1.27 1.27 1.27 1.28 1.28 1.29 1.29 1.29
1.30 1.31 1.32 1.32 1.32 1.32 1.33 1.33 1.34 1.34 1.35 1.36 1.36 1.36

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	1.12	1.36	1.23	0.059	

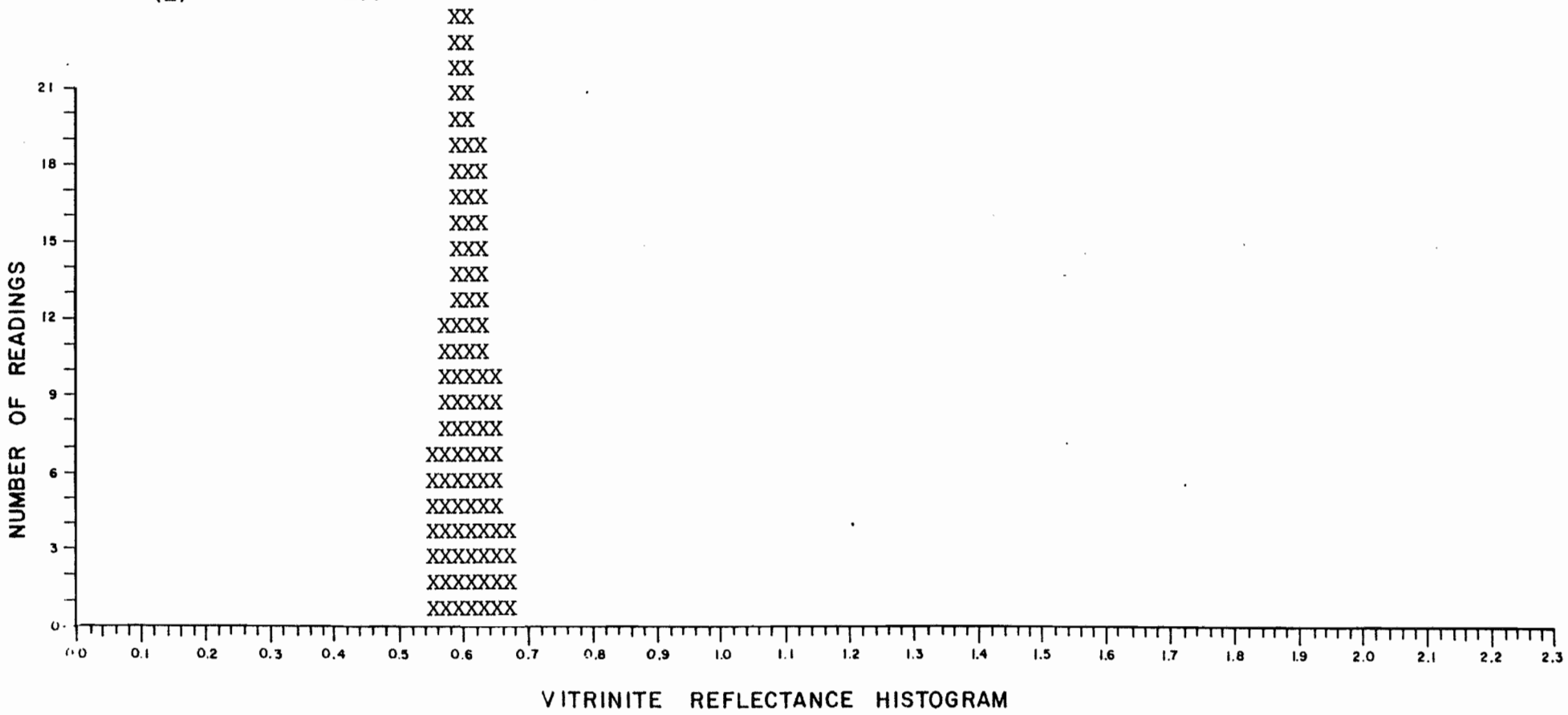


GEOCHEM NO. R769-099 TYPE OF SAMPLE: COAL DEPTH/SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)				0.54	0.54	0.54	0.55	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.57
0.57	0.57	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.59
0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.62
0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
0.64	0.64	0.64	0.64	0.64	0.65	0.65	0.65	0.65	0.65	0.66	0.66	0.66	0.67				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.54	0.67	0.60	0.030	



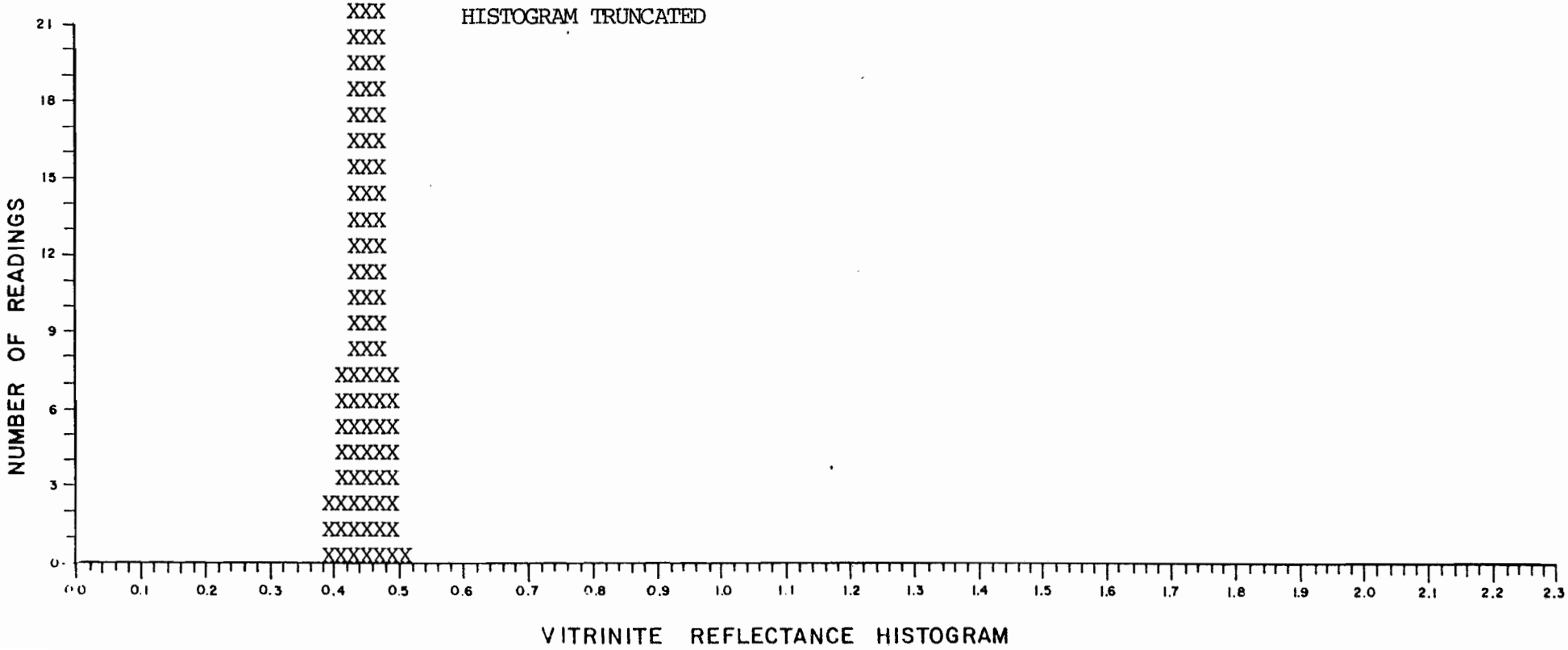
GEOCHEM NO. R769-100 TYPE OF SAMPLE: COAL DEPTH / SAMPLE NO. _____

CLIENT'S NAME _____ WELL NAME _____

(NO. OF READINGS =100)			0.38	0.39	0.39	0.40	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.42	0.42	0.42
0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
0.43	0.43	0.43	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
0.44	0.44	0.44	0.44	0.44	0.44	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47
0.47	0.47	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.50				

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	100	0.38	0.50	0.44	0.024	

HISTOGRAM TRUNCATED



Appendix 3 Methane Adsorption Isotherms

U.S. Bureau of Mines
Pittsburgh
Sample No. 1437 Washington

Isotherm Temperature: 23°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
4.9	2.8
10.1	5.4
20.1	7.8
40.6	12.2
50.2	17.8

U.S. Bureau of Mines
Pittsburg
Sample No. 1438 Waynesburg
(769-083)

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.3	4.5
10.2	6.6
20.3	10.8
39.7	16.0
50.7	20.4

U.S. Bureau of Mines
Pittsburgh
Sample No. 1439 Upriver

Isotherm Temperature: 23°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
5.2	2.6
9.8	4.2
20.3	6.3
40.4	12.8
49.8	18.2

U.S. Bureau of Mines
Pittsburg
Sample No. 1440 Uniontown

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.0	2.9
10.3	5.3
20.3	6.7
40.1	9.1
50.3	11.8

U.S. Bureau of Mines
Pittsburgh
Sample No. 1441 Union Town

Isotherm Temperature: 23°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
5.2	3.9
9.8	5.5
20.4	8.3
40.2	13.4
51.1	16.5

U.S. Bureau of Mines
Pittsburgh
Sample No. 1442 Sewickley

Isotherm Temperature: 23°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
5.0	2.0
10.2	3.0
19.9	4.3
40.2	7.3
51.8	8.2

U.S. Bureau of Mines
Pittsburgh
Sample No. 1443 Fishpot

Isotherm Temperature: 23°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
5.1	2.0
10.1	3.1
19.8	4.5
40.1	9.6
51.3	13.5

U.S. Bureau of Mines
Pittsburg
Sample No. 1446 Waynesburg

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.0	3.1
9.9	4.9
19.6	9.9
40.1	16.2
50.2	21.3

U.S. Bureau of Mines
Pittsburg
Sample No. 1447 Waynesburg

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Psi	Volume of Methane Adsorbed (STP cm^3/g coal)	
5.4	80	4.5	5.58
9.7	142	5.7	7.068
19.3	283	11.7	14.5
40.4	593	21.8	27.03
50.3		26.9	

U.S. Bureau of Mines
Pittsburgh
Sample No. 1448 Waynesburg

Isotherm Temperature: 23°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
5.6	3.0
9.8	4.3
21.1	7.9
40.6	14.6
50.3	26.4

U.S. Bureau of Mines
Pittsburg
Sample No. 1449 Uniontown

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.3	3.3
10.2	4.5
20.1	9.4
40.3	15.5
50.3	19.9

U.S. Bureau of Mines
Pittsburg
Sample No. 1454 Seward

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.2	3.7
10.0	5.6
20.2	8.4
40.1	13.6
50.1	17.0

U.S. Bureau of Mines
Pittsburg
Sample No. 1485

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.0	2.9
10.1	5.5
20.0	10.3
40.2	22.1
50.5	29.2

U.S. Bureau of Mines
Pittsburg
Sample No. 1494

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.5	4.3
9.9	5.9
20.0	11.7
39.9	18.8
50.4	24.5

U.S. Bureau of Mines
Pittsburg
Sample No. 1511
(769-096)

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.2	2.8
10.1	4.7
20.2	7.3
39.8	13.3
50.1	18.1

U.S. Bureau of Mines
Pittsburg
Sample No. 1512
(769-097)

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
4.6	3.2
10.1	5.0
20.1	7.4
40.3	14.2
50.7	16.2

U.S. Bureau of Mines
Pittsburgh
Sample No. 1595-A

Isotherm Temperature: 21.5°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
5.0	6.9
10.0	10.4
20.0	14.3
40.1	20.3
50.8	25.2

U.S. Bureau of Mines
Pittsburgh
Sample No. 1595-B

Isotherm Temperature: 21°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
5.2	7.3
10.1	11.3
19.6	13.1
40.6	20.6
49.9	25.2

U.S. Bureau of Mines
Pittsburg
Sample No. 1605
(769-080)

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.7	4.3
10.3	6.1
20.0	10.3
39.8	14.9
49.9	20.1

U.S. Bureau of Mines
Pittsburg
Sample No. 1610

Isotherm Temperature:
Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (ATM)	Volume of Methane Adsorbed (STP cm^3/g coal)
5.6	2.8
9.9	3.9
20.2	4.8
40.1	8.1
50.3	10.9

U. S. Bureau of Mines
Pittsburgh
Sample No. 1615

Isotherm Temperature: 23°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
5.6	5.9
10.1	8.1
20.1	11.6
40.7	19.3
50.0	28.2

U. S. Bureau of Mines
Pittsburgh
Sample No. 1616

Isotherm Temperature: 23°C

Particle Size: 35 x 60 mesh (ASTM)

Absolute Pressure (atm)	Volume of Methane Adsorbed (STP cu^3/g coal)
4.4	2.5
10.5	6.5
22.1	12.8
41.5	32.1
51.6	45.0