LAMONT GEOLOGICAL OBSERVATORY OF
COLUMBIA UNIVERSITY

Palisades, New York

SONIC PROPERTIES OF DEEP-SEA CORES FROM THE NORTH PACIFIC BASIN AND THEIR BEARING ON THE ACOUSTIC PROVINCES OF THE NORTH PACIFIC

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D. R. Horn, B. M. Horn and M. N. Delach

TECHNICAL REPORT NO. 10

CU-10-68 NAVSHIPS N00024-67-C-1186

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PREFACE

This report has been compiled and written by deep-sea sedimentologists, not acousticians. It is an attempt to aid acousticians in their complex task of interpreting and predicting performance levels of bottom bounce sonar. Conclusions should be considered tentative. The investigation was undertaken because of the writers' confidence in the thesis that acoustic and sedimentary provinces of the ocean floor are strongly related.

David R. Horn

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INTRODUCTION

There are two fundamental properties of the sea floor: roughness and bottom material. Both play critical roles in the performance of bottom bounce sonar because such systems employ the sea floor as an acoustic interface. An understanding of the properties of surface and near surface ocean sediments, which may either reflect or absorb sound, remains at an almost elementary level. The purpose of this report is to describe the materials comprising the floor of the North Pacific Ocean. In so doing, it is hoped that the data will serve system analysts in their tasks of interpreting and predicting performance levels of sonar equipment within this deepest and largest of ocean basins.

During the past two years, sedimentologists at Lamont have amassed a large amount of data on the acoustical properties of deep-sea cores. This work was part of the Marine Geophysical Survey Project of the U.S. Naval Oceanographic Office. Knowledge gained from the investigations has made it possible to predict the sonic properties of sediment accumulating on the ocean floor. The U. S. Naval Ship Systems Command contracted Lamont Geological Observatory to apply this knowledge to cores from the North Pacific (Fig. 1).

FIGURE 1

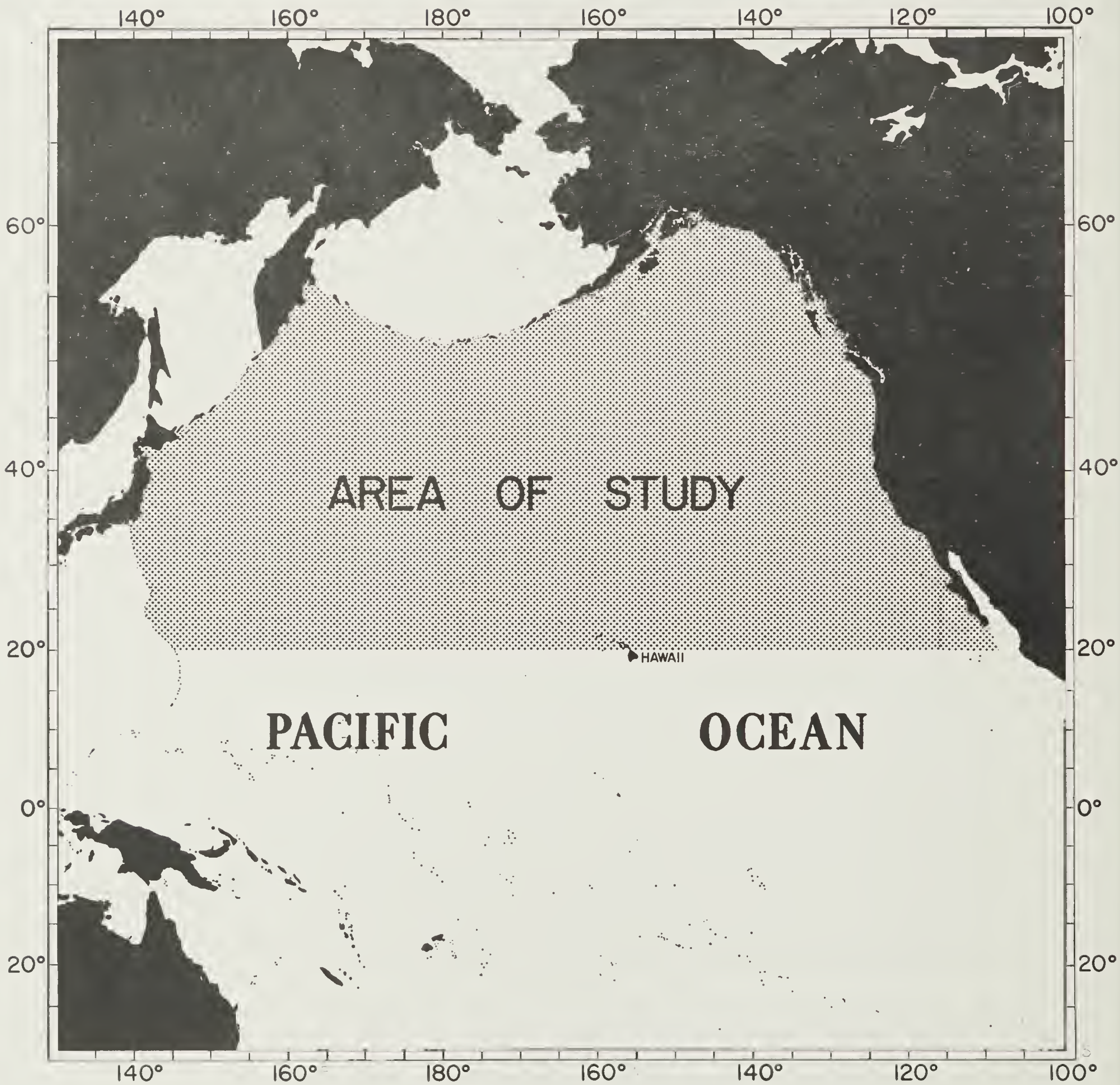

Figure 1. Location of study area. Cores taken north of 20° N. latitude were analyzed.

All sediment cores taken north of a line that passes east-west through Hawaii (20° N. latitude) have been described and analyzed. Included in the report are maps depicting submarine physiography of the North Pacific, regional distribution of sub-bottom reflecting horizons (turbidity current deposits and volcanic ash layers), and predicted sonic properties of the sea floor at Lamont coring sites.

It is postulated that the distribution of surface and near surface reflecting horizons on the floor of the North Pacific (i. e. reflectivity of the ocean bottom) is directly related to the framework of deep-sea sedimentation within the North Pacific Basin. Research on the performance of bottom bounce sonar will be greatly hampered if similar studies are not conducted in other parts of the world's oceans.

METHODS

General statement

The cores were collected by scientists and crews aboard the research vessels VEMA and ROBERT D. CONRAD. A Ewing piston corer was employed to recover the cores. They are 2 1/2 inches (6.4 cm) in diameter and range in length from a few inches to 56 feet (17.1 m). The average length of the cores from the North Pacific is 25 feet (7.6 m). A complete description of the coring procedure and methods of storage at Lamont has been given by Ericson and others (1961).

The use of textural and bulk properties of cores as indicies to their acoustical character is discussed at length in the next section of the report. Sound velocity data on which these predictions are based were determined using a sediment velocimeter (Underwater Systems, Inc. - Model 201 A). Bulk properties of cores were measured on samples taken from freshly extruded or split cores employing air comparison pycnometers (Beckman Instruments, Inc. - Model 930). Complete textural analyses of 1500 samples were carried out following the procedure of sieving and pipetting outlined by Folk (1961).

Prediction of the acoustical properties of sediment cores

Under the Marine Geophysical Survey Project of the U. S. Naval Oceanographic Office, Lamont personnel measured 50, 000 sound speeds through ocean sediment cores. These velocities were then compared with bulk, textural and chemical properties of the cores (Horn, 1967; Horn and others, 1967a, 1967b, 1968a, 1968b, 1968c). The results supported the findings of other workers and confirmed that certain bulk and textural properties have a definite bearing on the speed at which sound travels through unconsolidated sediments (Hamilton and others, 1956; Sutton and others, 1957; Nafe and Drake, 1957, 1961, 1963; Shumway, 1960a, 1960b; Schreiber, 1966, 1967a, 1967b, 1967c, 1967d, 1968a, 1968b).

Although bulk properties (wet density, porosity, moisture content and void ratio) and mean grain size correlate well with sound speed, only mean grain size shows a consistent relationship (Fig. 2). Plots of velocity versus bulk properties exhibit considerable scatter. An example is shown in Figure 3 where sound velocity is plotted against wet density. Careful inspection of the samples revealed that correlation between sonic and bulk properties broke down when sediments exhibited 1) secondary compaction effects produced by loading, 2) post-depositional alteration of volcanic constituents that resulted in changes of primary properties and 3) layers containing significant amounts of hollow particulate material (e.g. foraminiferal tests, pumice fragments). In Figure 4 such sediments have been deleted from the plot and the correlation between wet density and sound velocity is greatly enhanced.

Curves were fitted to plots of mean size versus velocity and wet density versus velocity (Figs. 2, 3, 4) using the method of least squares. The evidence indicates that these properties are interdependent and serve as indicies of each other. A series of statistical tests are being applied to the data and results will be presented in a later report. To date, when all data are grouped together regardless of sediment type, the absolute deviation from the least squares curve for mean size versus velocity is 27.9 m/sec, whereas for wet density versus velocity it is 29.3 m/sec. Until further tests are completed, the data indicate that mean grain size is the best over-all index of the sonic properties of a sediment.

Mean grain size was adopted as an index of the acoustical properties of sediment cores from the North Pacific. Computer programs

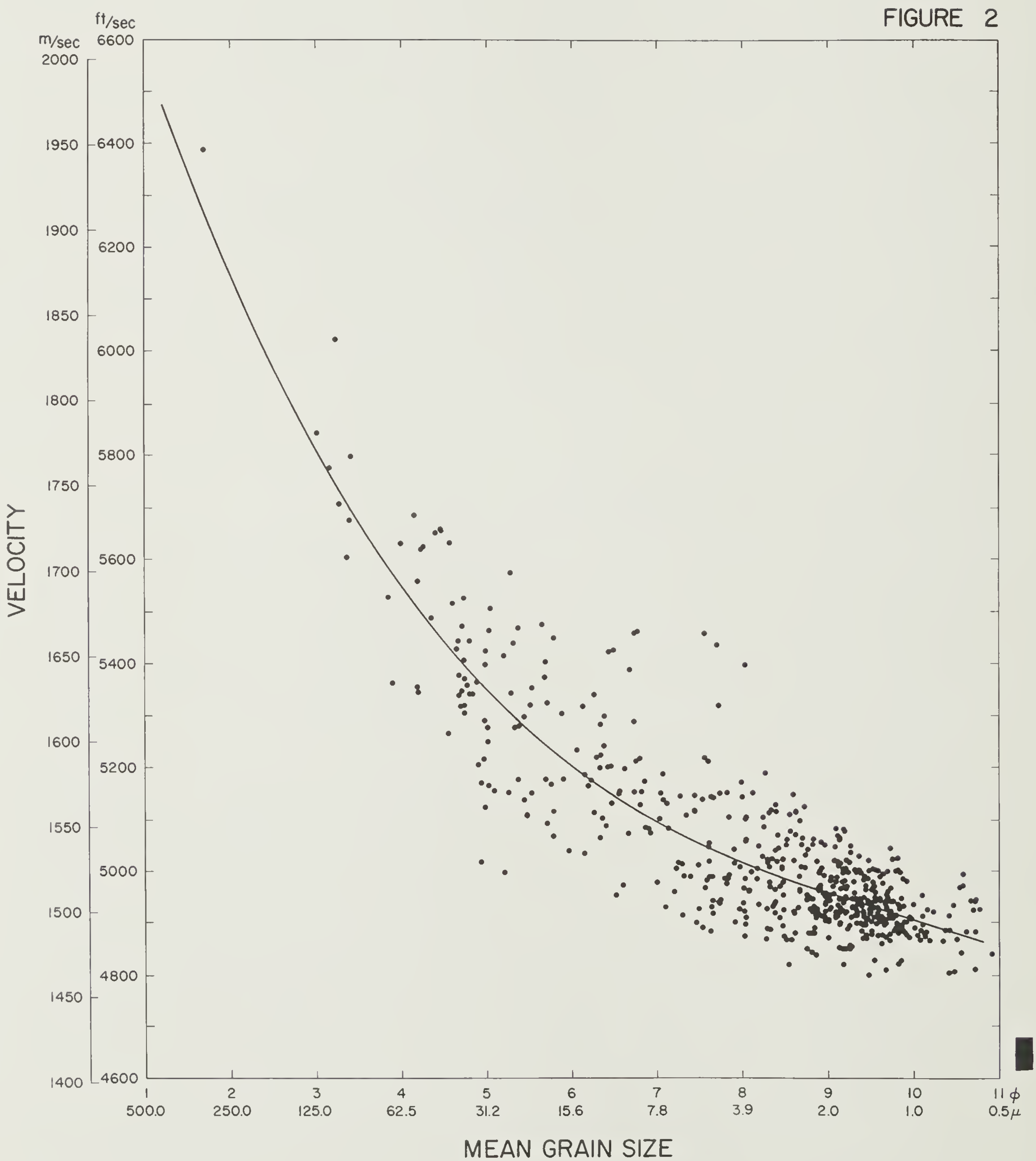

Figure 2. Mean grain size versus velocity. Trend line on this and subsequent figures is least squares curve drawn to third power.

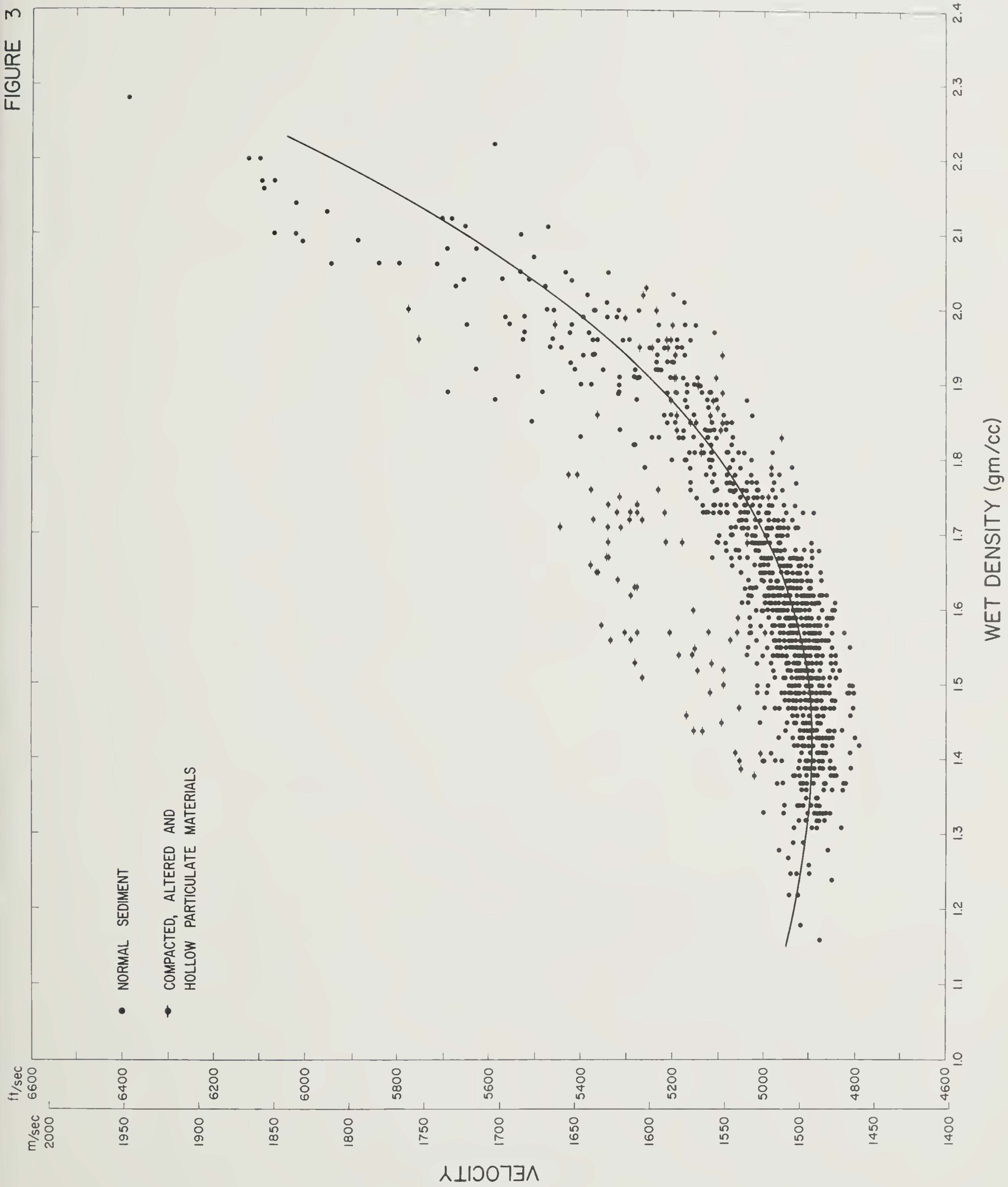

Figure 3. Wet density versus velocity, total data. Plot includes 1) normal sediment and 2) compacted, altered, and hollow particulate materials. Note that the latter have higher than normal velocities.

FIGURE 4

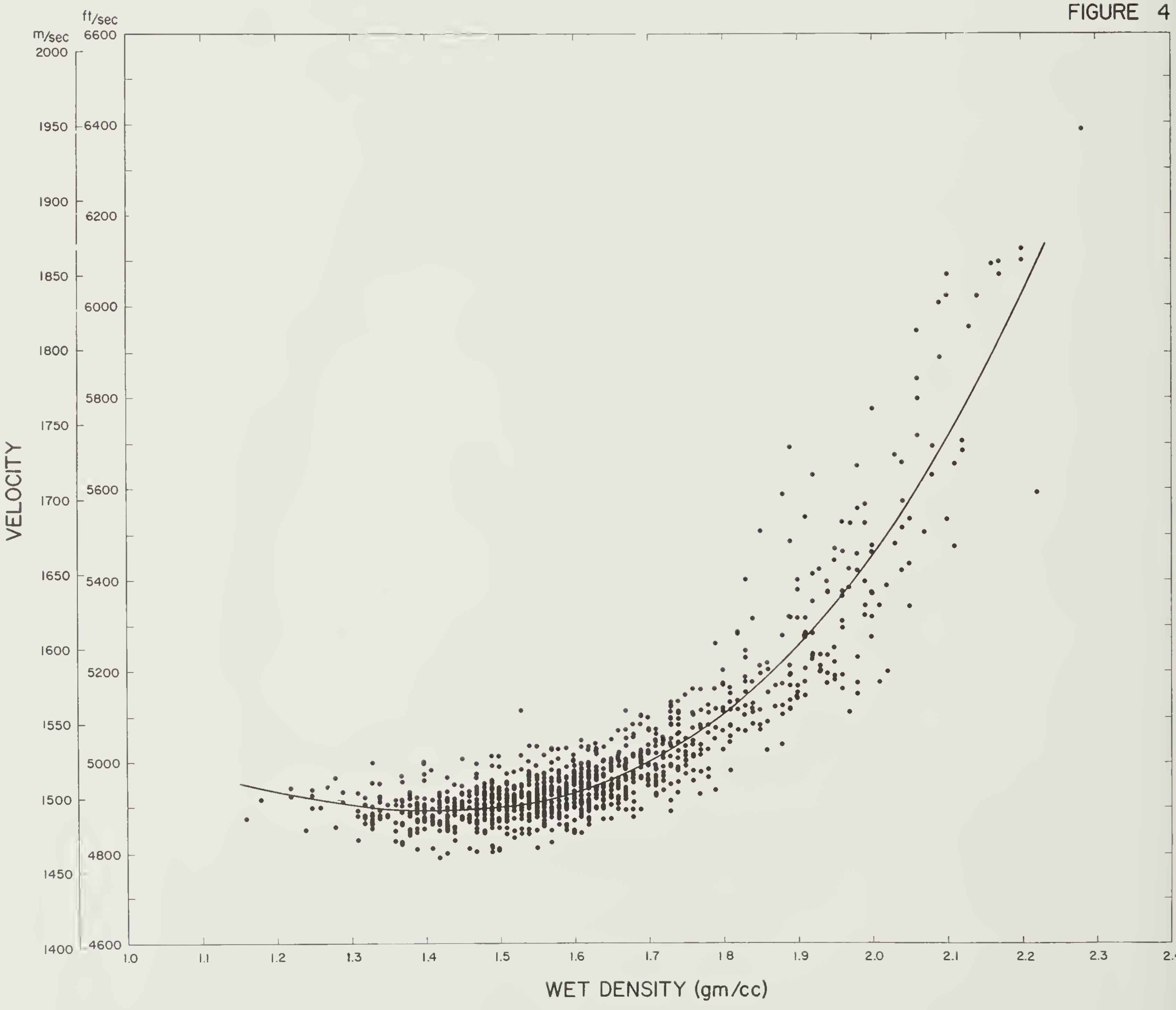

Figure 4. Wet density versus velocity, cleaned data. There is a strong correlation between these properties when compacted, altered and hollow particulate materials are removed from plot.

designed specifically to predict wet density and sound velocity of deep-sea sediments were executed. Appendix B provides a listing of the samples which were analyzed for texture and they serve as the basis for predicting sound velocity and wet density of sediments from the North Pacific. A table of sound velocities and wet densities with their equivalent mean grain sizes is presented in Appendix C. This information is plotted in Appendix D with the position and thickness of surface and near surface reflecting horizons. The method of presenting the data is such that the reader can locate a core closest to his point of interest in the North Pacific using the large maps (Figs. 6, 7, 8); then refer to Appendix D for details of the sonic and other physical properties of the sea floor at the coring site. The acoustic data should be corrected for depth and temperature as outlined by Hamilton (1963).

DISTRIBUTION OF SUB-BOTTOM REFLECTING HORIZONS IN THE NORTH PACIFIC

Coincidence of sedimentary and acoustic provinces

Sub-bottom reflecting horizons described in this report are layers of sediment at least 10 cm thick, coarse-grained, characterized by intermediate to high sediment sound velocities, and reflect sound. In the North Pacific only two types of sediment comply with this definition and have widespread distribution. They are volcanic ashes and turbidity current deposits.

Volcanic ash and turbidites occur within definite sedimentary provinces. Therefore, the reflectivity of the sea floor based upon bottom materials should prove to be a direct function of the distribution of these sediments in the North Pacific. Because ash and turbidites offer the only reliable reflecting horizons, the emphasis of this report has been placed on mapping their distribution and defining their acoustic properties (Figs. 5, 6, 7, 8 and Appendix D).

It is predicted that best performance of bottom bounce sonar will occur in areas of turbidity current activity (see Fig. 5). It is here that coarse-grained, closely spaced, high velocity layers occur; and reflectivity will be at a maximum. Areas of turbidite deposition are characteristically flat (i. e. abyssal plains), further enhancing sound reflection at the sea floor.

Intermediate bottom reflectivity should be a trait of areas where volcanic ash horizons are present (Fig. 5). The ash generally is in thin layers of silt and sandy silt with sound velocities of 1625-1650 m/sec or 5331 - 5413 ft/sec. In the cores they are separated from one another by thick sections of uniform brown mud. Because these deposits are the products of aerial and subsequent submarine dispersal, they occur over wide areas of the sea floor. Their distribution is not restricted by submarine physiography.

It is predicted that poorest performance of bottom bounce sonar will coincide with central areas of the North Pacific (Fig. 5). For millions

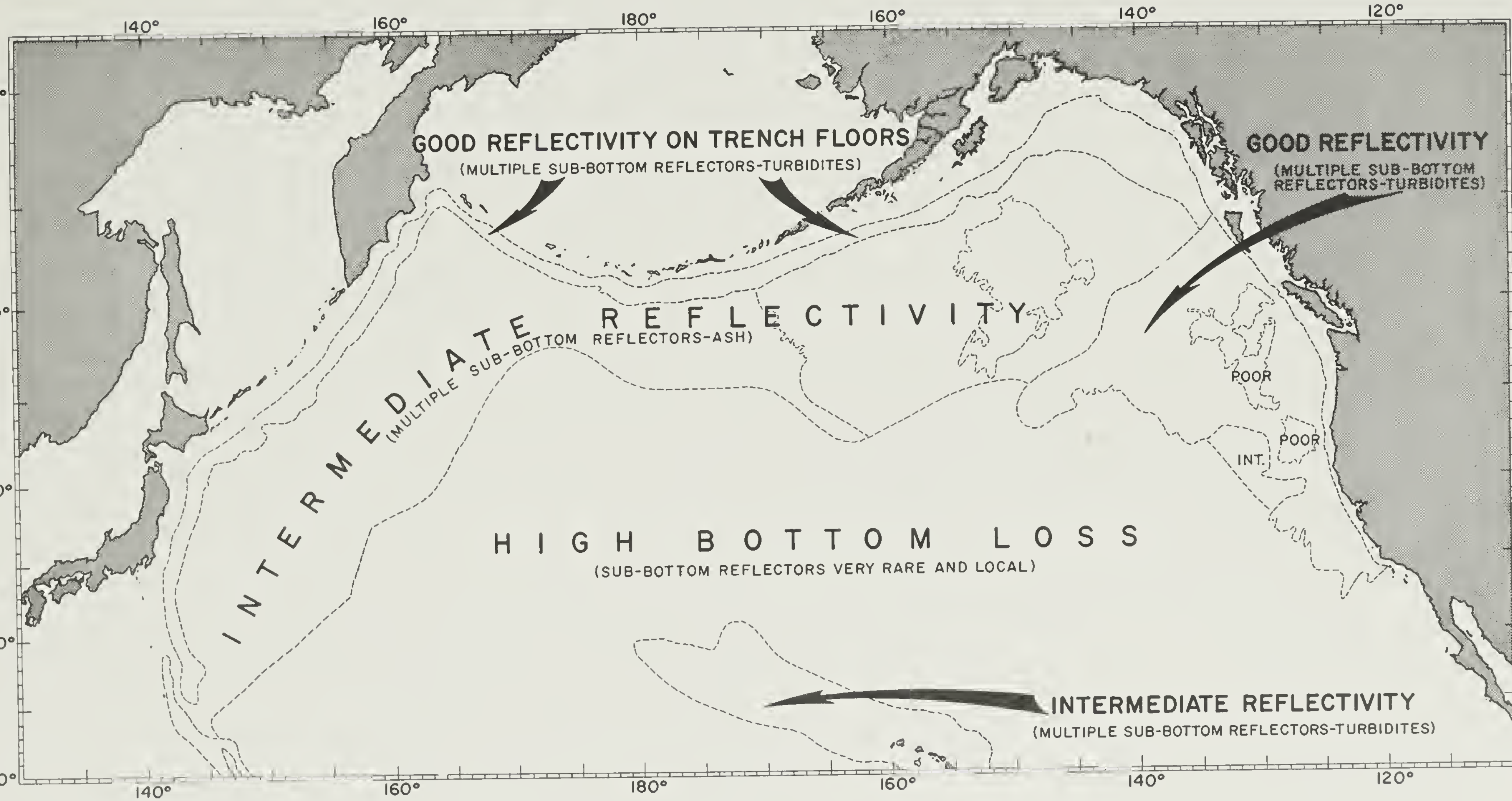

FIGURE 5

Figure 5. Reflectivity of the floor of the North Pacific based on deep-sea cores.

of years these have been and still are sites of clay deposition. Bottom loss will be either very high or erratic and unpredictable. The former is due to thick sections of clay, whereas the latter results from patchy distribution of manganese nodules at the surface or coarse detritus produced by local submarine volcanism.

Northeast Pacific - Gulf of Alaska

Core data at Lamont indicate that latest turbidity current activity in the northeast Pacific is confined to the Alaskan Plain immediately adjacent to the continental terrace, the eastern and southern Tufts Plain, and are the prevalent sediment of the Cascadia Plain. No cores are available from the western half of the Tufts Plain or from much of the Alaskan Plain. Off the west coast of North America at 40° N. latitude turbidites extend at least 165 miles seaward; at 45° N. they have their maximum extension into the North Pacific Basin and occur in cores 1100 miles from shore; and at 50° N. they are present in cores taken 570 miles west of Vancouver Island (Figs. 5, 8). Areas of the northeast Pacific that have received turbidites during the Pleistocene should be marked by good reflection of sound at the sea floor.

The northeast corner of the Pacific Ocean includes numerous seamounts and abyssal hills. Both are features of positive relief, yet they have different sediment covering them. The summits of the seamounts are sites of either extremely coarse sand and gravel or have no sediment cover and rock crops out at the surface. This is true of all coring sites at depths of less than 885 fathoms. Where coarse deposits occur, they are either products of in place weathering of volcanic rock constituting the seamount or they are lag deposits. The latter are common at the summits of seamounts. They are attributed to winnowing over long periods of time of fine sediment fractions with gradual concentration of sand and gravel.

Local bottom sediment transfer of silt-size material occurs on the flanks of seamounts. This results in a zone of silt around the base of these features. Core data suggest that the summits of the higher seamounts are characterized by highly reflective materials. In addition, their lower slopes receive relatively coarse sediment through local processes of submarine weathering of the seamounts themselves. Therefore, bottom reflectivity should be quite good at the bases of submarine mountains.

Crestal portions of the Ridge and Trough Province off Washington and Oregon are covered by pelagic clay interlayered with biogenic chalk. These hills are generally above the compensation level for $CaCO_3$ and lie above the upper level of turdibity current activity. Sediments covering the Ridge and Trough Province are clay and chalk throughout. These abyssal hills are the sites of pure pelagic sedimentation of fine-grained materials and bottom reflectivity presumably will be low.

Abyssal hills of the Gulf of Alaska, although similar in aspect to the hills to the east, lie within the fallout zone of ash released by volcanoes on the Aleutian Islands and the Alaskan Peninsula. The presence of ash horizons in sediments covering the hills may result in better system performance in this area than experienced over the Ridge and Trough Province.

In summary, much of the northeast Pacific is a site of turbidite deposition. Floors of the Alaskan, Tufts and Cascadia Abyssal Plains should be marked by good performance of bottom bounce sonar. The combination of multiple, closely spaced, sub-bottom reflecting horizons and lack of relief provide ideal conditions for efficient system performance. Submarine topographic highs within this turbidite province may either provide poor or intermediate system operation. Summits of the highest seamounts possess highly reflective materials but ruggedness of relief may result in poor performance. The Ridge and Trough Province should be an area of poor performance, whereas the central abyssal hills of the Gulf of Alaska are likely to provide intermediate levels of operation.

Aleutian Trench and Abyssal Plain

Cores from the floor of the Aleutian Trench and the bases of its walls contain turbidites. In fact, all cores from these parts of the trenches penetrate turbidite sequences (Fig. 8). The steep insular walls of the trenches are free of graded units and it appears that these are areas of sediment bypass rather than deposition.

A common feature of the rugged landward walls of dea-sea trenches is a submarine terrace. Such benches occur at various levels on the steep trench slopes. A large submarine terrace or bench is present on the north wall of the Aleutian Trench (Figs. 6, 7, 8). Cores from this terrace contain turbidite sequences similar to those encountered on the floor of the trench.

Reflectivity of the Aleutian Trench and associated submarine benches should be good. Both contain multiple sub-bottom reflectors and they have level floors. Steep portions of the north wall do not have a cover of coarse sediment. Turbidites bypass this part of the trench, slopes are relatively great, and a combination of these factors critical to sonar performance should result in poor functioning of equipment.

No turbidites occur in cores taken from the Aleutian Abyssal Plain. This feature is a good example of why abyssal plains cannot be equated with good reflectivity. The Aleutian Plain is a product of an ancient sedimentary regime and turbidites that leveled the sea bottom south of the Trench are now covered by a thick section of pelagic mud. Hamilton (1967) reports that 96 meters of pelagic sediment overlie turbidites at the center of the Plain.

The reflectivity of the Aleutian Abyssal Plain presumably is intermediate, not because turbidites occur deep below the surface, but rather because ash horizons cover all but the southernmost part of the Plain. Ash derived from the Aleutian Islands has been transported great distances in a southerly direction into the North Pacific (Fig. 7). It occurs as distinct layers as far south as 680 miles from the Fox Islands, 440 miles south of the Andreanof Islands, and 540 miles seaward of Rat Island. More important to acousticians is the ash which is in layers thick enough to reflect sound. Sub-bottom reflectors consisting of ash extend across much of the Aleutian Abyssal Plain. They occur in cores 690 miles south of Unimak Island immediately west of the Alaskan Peninsula (Figs. 5, 6). Ash reflectors extend 400 miles south of the central islands of the Aleutian Island arc. These relatively coarse sediments result in a belt at the northern limits of the North Pacific Basin which should be characterized by intermediate performance levels. Reflectivity may increase over the floor of the Aleutian Abyssal Plain where the sea bed is flat.

Japan - Kamchatka

The situation seaward of Japan, the Kurils, and Kamchatka is much the same as that described for the sea floor south of the Aleutian Islands (Fig. 5). Deep trenches lie immediately oceanward of land areas, but abyssal plains are absent. Sedimentation beyond the trenches is predominantly pelagic and has occasionally been interrupted by rapid accumulation of volcanic ash.

Turbidites cover submarine terraces on the insular walls of the trenches and are the principal sediment along axes of trenches.

Sound reflection should be good in these areas, but should drop off over the steep walls of these submarine deeps.

Seaward of the trenches, sub-bottom reflecting horizons are predominantly the product of volcanism. Ash derived from vents located along the Asiatic coast constitute the reflectors. Very distinctive layers of white ash occur within a broad zone due east of Japan, the Kurils, and the Kamchatka Peninsula (Fig. 7). These beds are in cores as much as 780 miles southeast of Kamchatka and extend as far as 1100 miles due east of the northern end of Honshu Island, Japan.

All ash horizons are not thick enough to serve as reflectors of sound. However, within a zone 600 miles wide that follows the northwest edge of the North Pacific Ocean (Fig. 6), these silts and sandy silts represent very reliable reflectors. They are consistently present in the cores taken within this region.

Reflectivity of the sea bed within the ash zone should be intermediate. The reflecting horizons are more widely separated in the sediment column than is true of the turbidites in the North Pacific. In addition, there are no abyssal plains here and relief is often rugged. Yet confidence that the layers are there, along with the knowledge that they reflect sound, suggest performance levels should be at least intermediate.

Hawaii - Midway Island Chain

Submarine slides and turbidity currents are active in the vicinity of the Hawaiian Ridge (Hamilton, 1956; Moore, 1964; Schreiber, 1968a; and others). The few cores available from the archipelagic apron surrounding the islands contain turbidites. The latter occur within a narrow zone encircling the islands and extend seaward at least 80 to 140 miles from the nearest island (Fig. 8). Reflectivity should be intermediate over the Hawaiian Deep and other areas of turbidite fill (Figs. 5, 6). Presumably this will hold true for areas of the North Pacific adjacent to major seamounts and seamount chains (e.g. Emperor Seamount Chain). Performance of systems may deteriorate toward the islands as the slopes of the sea floor increase.

Central North Pacific

Except for the sea floor near the Hawaiian Islands, the great central area of the North Pacific Ocean has been the site of continuous and uniform clay deposition for millions of years. Thick sections of sound absorbing, very fine-grained sediment blanket the ocean bottom (Figs. 7, 8). Reflectivity here should be minimal (Fig. 5).

The central North Pacific does contain occasional reflecting horizons which are concentrations of manganese nodules, basaltic gravel, and thin partially indurated clays that are alteration products of volcanic detritus. The latter two occur within the Baja California Seamount Province and appear to result from local volcanism on the sea floor. The distribution of manganese nodules and volcanic debris is erratic and may hamper the prediction of system performance in the central North Pacific.

CONCLUSIONS

Acoustic provinces of the world's oceans are strongly related to submarine physiography and bottom materials. An understanding of bottom roughness by itself does not provide the complete answer to problems of system performance. For example, parts of the Alaskan and Tufts Plains, and the entire Cascadia Plain are smooth and covered by highly reflective materials. However, the neighboring Aleutian Abyssal Plain offers an equally smooth surface yet may show lower levels of performance. This can be explained by both an absence of turbidites near the surface and the fineness of texture of pelagic sediments that cover the Plain. In addition, higher seamounts of the Gulf of Alaska have summits of bare rock or highly reflective lag gravels and sands. Yet seamounts of less relief are characterized by thick sections of pelagic clay and chalk. System performance over these features will be greatly dependent on the type of sediment that covers them.

Studies of over-all reflectivity of the world's oceans should follow a double-barreled approach: Bottom roughness surveys in conjunction with mapping of sediment distribution in the oceans offer the best means of evaluating sound reflection an/or absorption by the sea floor. The main conclusion of this investigation is that without maps showing surface and near surface sediment distribution on the ocean floors acousticians will have difficulty interpreting and predicting reflectivity of the sea bottom.

Within the North Pacific Basin the following conclusions have been arrived at solely on the basis of materials contained in sediment cores:

1. Highest reflectivity should occur in the northeast corner of the Pacific. Much of the Gulf of Alaska, and the abyssal sea floor off British Columbia, Washington, Oregon and northern California is covered with multiple sub-bottom reflectors (turbidites).

2. Bottom reflectivity will be good along axial portions of the circum-Pacific trench system and over benches on the insular walls of the trenches. Steep walls of these deeps are areas of sediment bypass which may result in their being sites of poor performance.

3. Seaward of Japan, the Kurils, Kamchatka Peninsula and the Aleutian Islands is a broad zone of intermediate reflectivity. Here volcanic ash horizons constitute the only sub-bottom reflectors. In addition, intervening hemipelagic sediments which are also slightly coarser may enhance sound reflection.

4. A zone of turbidites surrounds the Hawaii-Midway Island Chain. Reflectivity should be at least intermediate over these areas of turbidite fill.

5. The central North Pacific should be characterized by either high bottom loss or erratic performance of systems.

ACKNOWLEDGMENTS

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APPENDIX A

CORE NUMBER, LOCATION, WATER DEPTH AND LENGTH OF CORE

Location, Depths and Lengths of Cores

Core No.	Location Latitude	Location Longitude	Water Depth Fathoms	Water Depth Meters	Core Length Feet	Core Length Cm.
RC10-156	22° 20.5'N	157° 49' E	2954	5402	27.66	843
RC10-157	24° 46.5'N	159° 03' E	3107	5682	31.56	962
RC10-158	28° 07' N	160° 36' E	3222	5892	32.15	980
RC10-159	31° 13' N	162° 18.5'E	3223	5894	35.70	1088
RC10-160	32° 28.5'N	159° 50' E	2527	4621	39.67	1209
RC10-161	33° 05' N	158° 00' E	1961	3587	34.78	1060
RC10-162	31° 25' N	158° 48' E	2140	3913	30.81	939
RC10-163	32° 43' N	157° 30' E	1941	3550	35.93	1095
RC10-164	31° 43.5'N	157° 30' E	2059	3766	31.79	969
RC10-166	31° 49.5'N	157° 20' E	2039	3729	17.22	525
RC10-167	33° 24' N	150° 23' E	3331	6092	58.30	1777
RC10-168	32° 23' N	148° 25.5'E	3145	5751	32.94	1004
RC10-169	32° 30.5'N	151° 04' E	3139	5740	35.96	1096
RC10-170	32° 29' N	152° 13.5'E	3074	5621	20.50	625
RC10-171	32° 28.5'N	153° 01.5'E	3032	5544	39.07	1191
RC10-172	32° 06' N	154° 37.5'E	2399	4387	21.95	669
RC10-173	31° 41' N	156° 27' E	2218	4056	19.36	590
RC10-174	32° 04' N	157° 35' E	1745	3191	28.41	866
RC10-175	34° 35' N	159° 10' E	2195	4014	28.48	868
RC10-176	34° 47' N	160° 40' E	2311	4226	24.67	752
RC10-177	37° 12' N	170° 51' E	2899	5302	32.15	980
RC10-178	37° 48' N	172° 20' E	3176	5808	34.12	1040
RC10-179	39° 38' N	173° 43' E	2358	4312	24.84	757
RC10-181	44° 05' N	176° 50' E	3116	5698	38.09	1161
RC10-182	45° 37' N	177° 52' E	3041	5561	37.07	1130
RC10-184	49° 31' N	179° 04' W	2726	4986	37.83	1153

Location, Depths and Lengths of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
RC10-186	50° 12' N	177° 11' W	3604	6591	28.61	872
RC10-187	50° 39.5'N	175° 40' W	3399	6216	23.65	721
RC10-199	51° 19' N	174° 01' W	2569	4698	14.21	433
RC10-200	50° 44' N	173° 56' W	4001	7317	0.85	26
RC10-201	48° 32' N	173° 13' W	2820	5158	37.96	1157
RC10-202	45° 37' N	173° 00' W	3120	5523	38.06	1160
RC10-203	41° 42' N	171° 57' W	3217	5883	37.07	1130
RC10-205	44° 37' N	170° 03' W	3325	6081	37.73	1150
RC10-206	47° 13' N	170° 26' W	3006	5497	37.80	1152
RC10-207	50° 55' N	171° 33' W	3972	7264	9.91	302
RC10-208	51° 38' N	171° 46' W	2043	3737	16.08	490
RC10-210	50° 48' N	172° 38' W	3983	7284	16.08	490
RC10-211	50° 03' N	171° 45' W	2809	5137	17.75	541
RC10-212	51° 06' N	170° 08' W	3954	7231	19.13	583
RC10-213	51° 49' N	167° 45' W	3935	7196	12.96	395
RC10-214	50° 59' N	164° 08' W	2587	4731	24.08	734
RC10-215	51° 01' N	158° 06' W	2672	4887	19.03	580
RC10-216	50° 58' N	151° 10' W	2728	4989	28.64	873
RC10-217	50° 57' N	146° 05' W	2372	4338	15.75	480
RC10-218	50° 55' N	143° 15' W	497	909	2.62	80
RC10-219	51° 03' N	139° 33' W	2070	3786	16.40	500
RC10-220	51° 03' N	133° 44' W	1726	3157	37.60	1146
RC10-221	50° 33' N	131° 37' W	1550	2834	33.46	1020
RC10-222	49° 57' N	135° 14' W	1946	3559	24.67	752

Location, Depths and Lengths of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
RC10-223	49° 18' N	134° 39' W	1993	3645	35.50	1082
RC10-224	49° 03.5'N	130° 57' W	634	1159	1.64	50
RC10-225	48° 45' N	127° 45' W	1387	2536	16.63	507
RC10-226	47° 27' N	127° 16' W	1386	2534	35.83	1092
RC10-227	46° 18' N	128° 00' W	1517	2774	30.87	941
RC10-228	45° 56' N	127° 00' W	1512	2765	12.50	381
RC10-229	45° 35' N	126° 09' W	1412	2582	10.79	329
RC10-230	40° 28' N	128° 25' W	1750	3200	35.04	1068
RC10-231	37° 58' N	128° 34' W	2584	4726	37.17	1133
RC10-232	35° 35' N	128° 39' W	2556	4674	31.79	969
RC10-234	28° 38' N	129° 06' W	2341	4281	14.60	445
RC10-235	25° 50' N	129° 25' W	2590	4737	15.09	460
RC10-236	22° 58' N	128° 17' W	2456	4491	14.30	436
RC10-237	21° 15' N	125° 07' W	2443	4468	21.49	655

Location, Depths and Lengths of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
RC11-158	20° 55' N	149° 54.5'E	1737	3177	31.92	973
RC11-159	23° 34' N	148° 35' E	3037	5554	7.71	235
RC11-160	26° 48' N	142° 54' E	2201	4025	12.96	395
RC11-163	39° 32' N	152° 42' E	3040	5559	34.61	1055
RC11-164	35° 19.5'N	162° 38' E	2820	5158	12.89	393
RC11-165	37° 03' N	166° 34' E	2722	4978	4.07	124
RC11-166	43° 46' N	171° 14' E	3194	5841	36.09	1100
RC11-167	50° 50' N	176° 15' W	2665	4874	19.36	590
RC11-168	45° 30' N	174° 35' W	3185	5824	1.18	36
RC11-169	42° 10' N	170° 14' W	3098	5665	34.68	1057
RC11-170	44° 29.4'N	163° 21.1'W	2981	5451	33.20	1012
RC11-171	46° 36.2'N	159° 39.7'W	2825	5167	38.09	1161
RC11-172	51° 15.3'N	164° 52.6'W	2629	4808	33.96	1035
RC11-173	53° 11.5'N	164° 58.5'W	1972	3607	39.53	1205
RC11-174	52° 34.6'N	151° 21' W	885	1618	11.68	356
RC11-175	54° 32.2'N	150° 22.1'W	532	972	8.53	260
RC11-176	56° 57' N	144° 44' W	2088	3819	33.96	1035
RC11-177	57° 00' N	138° 08.9'W	1617	2957	23.23	708
RC11-178	55° 11' N	140° 15' W	846	1547	2.85	87
RC11-179	53° 30' N	145° 39.4'W	2224	4067	25.98	792
RC11-180	53° 09.1'N	142° 53.7'W	2111	3860	34.32	1046
RC11-181	53° 17.5'N	135° 41' W	705	1298	.33	397

Location, Depths and Lengths of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
RC11-183	51° 29' N	136° 58.7'W	1988	3636	29.69	905
RC11-184	49° 43.2'N	140° 30.9'W	2165	3959	35.30	1076
RC11-185	47° 59.5'N	143° 24.5'W	2427	4438	29.46	898
RC11-186	47° 54' N	127° 12' W	1412	2582	40.19	1225
RC11-187	47° 08.7'N	130° 06.7'W	1460	2670	35.43	1080
RC11-188	46° 44.3'N	131° 35.1'W	1815	3319	37.17	1133
RC11-189	45° 58' N	134° 25' W	2145	3922	31.89	972
RC11-190	44° 57' N	138° 22' W	2326	4254	32.32	985
RC11-191	44° 31' N	139° 56.5'W	2399	4387	33.46	1020
RC11-192	42° 02' N	139° 57' W	2251	4116	8.04	245
RC11-193	39° 56.5'N	140° 02.5'W	2596	4748	33.46	1020
RC11-194	34° 59.5'N	139° 57' W	2900	5303	32.02	976
RC11-195	31° 51' N	139° 58.5'W	2698	4934	31.82	970
RC11-196	29° 10.5'N	139° 55.2'W	2694	4927	17.45	532
RC11-197	26° 23.6'N	139° 58.7'W	2413	4413	3.94	120
RC11-198	21° 30.5'N	139° 59.8'W	2941	5378	27.92	851

Location, Depths and Lengths of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
V20-64	23° 21' N	155° 52' W	2298	4204	15.09	460
V20-65	25° 51' N	153° 12' W	2933	5363	12.50	381
V20-66	28° 00' N	151° 10' W	2919	5338	23.69	722
V20-67	30° 33' N	148° 12' W	2757	5042	10.53	321
V20-68	30° 58' N	146° 48' W	3165	5788	16.27	496
V20-69	33° 16' N	144° 03' W	2926	5351	18.86	575
V20-70	35° 42' N	140° 51' W	2847	5207	18.44	562
V20-71	37° 41.5'N	137° 51' W	2899	5302	19.03	580
V20-72	39° 38' N	135° 06' W	2619	4790	15.09	460
V20-73	39° 38' N	133° 41' W	2610	4773	2.33	71
V20-74	41° 04' N	132° 22' W	2050	3749	25.46	776
V20-75	48° 12' N	126° 10' W	906	1657	14.01	427
V20-76	47° 54' N	127° 39' W	1437	2628	11.78	359
V20-77	47° 42' N	128° 40' W	1454	2659	9.51	290
V20-78	47° 15' N	131° 02' W	1631	2983	30.51	930
V20-79	46° 50' N	133° 18' W	2029	3711	24.48	746
V20-80	46° 30' N	135° 00' W	2079	3801	23.13	705
V20-81	46° 14' N	136° 30' W	2314	4232	9.28	283
V20-82	45° 56' N	138° 14' W	2348	4294	6.07	185
V20-83	45° 45' N	139° 24' W	2376	4345	4.82	147
V20-84	45° 27' N	141° 11' W	2437	4457	12.53	382
V20-85	44° 54' N	143° 37' W	2087	3817	22.87	697
V20-86	43° 37' N	148° 06' W	2809	5138	32.68	996
V20-87	41° 48' N	149° 55' W	2635	4819	21.88	667

Location, Depths and Length of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
V20-88	40° 11' N	151° 39' W	2778	5081	27.89	850
V20-89	38° 12' N	153° 35' W	3120	5706	27.66	843
V20-90	38° 48' N	155° 37' W	3276	5991	25.62	781
V20-91	37° 18' N	157° 42' W	3206	5863	14.63	446
V20-92	36° 18' N	159° 38' W	3152	5764	27.03	824
V20-93	35° 27' N	161° 28' W	3170	5797	20.80	634
V20-94	34° 36' N	163° 14' W	3277	5993	24.74	754
V20-95	33° 53' N	164° 47' W	3174	5804	29.79	908
V20-96	33° 01.5'N	166° 42' W	3156	5771	19.82	604
V20-97	32° 04' N	168° 44' W	3194	5841	26.61	811
V20-98	31° 10' N	170° 35' W	3102	5673	31.82	970
V20-99	30° 21' N	172° 17' W	3000	5486	8.04	245
V20-100	29° 05' N	174° 35' W	2920	5340	29.20	890
V20-101	28° 18' N	176° 57' W	2439	4460	26.51	808
V20-102	31° 11' N	177° 49' W	2852	5216	37.96	1157
V20-103	33° 59' N	177° 50' W	1882	3442	12.66	386
V20-104	37° 18' N	178° 10' W	2980	5449	38.19	1164
V20-105	39° 00' N	178° 17' W	2918	5336	40.58	1237
V20-107	43° 24' N	178° 52' W	3211	5872	42.06	1282
V20-108	45° 27' N	179° 14.5'W	3076	5625	56.10	1710
V20-109	47° 19' N	179° 39' W	3078	5629	47.64	1452
V20-110	49° 14' N	180° 00' W	2370	4334	15.92	485
V20-111	51° 01' N	179° 58' W	2106	3851	26.01	793

Location, Depths, and Lengths of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
V20-118	50° 22' N	172° 43' E	2931	5360	31.43	958
V20-119	47° 57' N	168° 47' E	1498	2739	38.39	1170
V20-120	47° 24' N	167° 45' E	3399	6216	53.44	1629
V20-121	46° 58' N	164° 16' E	3204	5859	52.62	1604
V20-122	46° 34' N	161° 41' E	3042	5563	51.61	1573
V20-123	46° 15' N	157° 55' E	2681	4903	44.62	1360
V20-124	45° 50' N	154° 30' E	3026	5534	28.12	857
V20-125	43° 29' N	154° 22' E	3032	5545	31.10	948
V20-126	42° 09' N	155° 52' E	3016	5515	34.45	1050
V20-127	40° 17' N	156° 55' E	3053	5583	37.73	1150
V20-128	38° 47' N	157° 24' E	3069	5612	34.88	1063
V20-129	37° 41' N	156° 35' E	3153	5766	41.90	1277
V20-131	36° 20' N	151° 00' E	3203	5858	33.99	1036
V20-133	32° 58' N	140° 34' E	822	1503	5.77	176
V20-135	34° 43' N	139° 55' E	1421	2598	25.69	783
V20-136	32° 55' N	142° 32' E	3448	6306	13.02	397

Location, Depths and Lengths of Cores

Core No.	Location Latitude	Longitude	Water Depth Fathoms	Meters	Core Length Feet	Cm.
V21-59	20° 55' N	158° 06' W	1636	2992	12.47	380
V21-60	20° 51' N	158° 09' W	2051	3751	11.22	342
V21-61	21° 36' N	161° 26' W	2506	4583	19.46	593
V21-62	22° 14' N	165° 14' W	2529	4625	19.36	590
V21-63	22° 51' N	169° 41' W	2556	4674	16.63	507
V21-64	23° 27' N	173° 13' W	2661	4867	21.49	655
V21-65	23° 58' N	176° 51' W	2934	5365	27.23	830
V21-66	24° 31' N	179° 21' E	3063	5601	25.13	766
V21-67	24° 58' N	176° 16' E	3215	5879	19.85	605
V21-68	25° 31' N	172° 45' E	3261	5953	19.75	602
V21-69	26° 26' N	169° 02' E	3271	5982	19.55	596
V21-70	27° 05' N	166° 04' E	3256	5954	21.33	650
V21-71	27° 54' N	162° 31' E	3256	5954	25.10	765
V21-72	28° 47' N	158° 50' E	2936	5369	5.91	180
V21-73	29° 28' N	154° 36' E	3211	5872	31.07	947
V21-74	29° 51' N	150° 50' E	3289	6015	35.47	1081
V21-75	30° 04' N	147° 41' E	3346	6119	27.89	850
V21-76	30° 25' N	144° 30' E	3235	5916	29.72	906
V21-77	30° 49' N	141° 59' E	3713	6790	13.78	420
V21-78	33° 05' N	140° 25' E	605	1106	31.17	950

Location, Depths and Lengths of Cores

Core No.	Location Latitude	Location Longitude	Water Depth Fathoms	Water Depth Meters	Core Length Feet	Core Length Cm.
V21-85	27° 58' N	142° 30' E	921	1684	9.35	285
V21-86	27° 53' N	145° 03' E	3126	5717	23.92	729
V21-87	27° 53' N	146° 35' E	3215	5879	29.53	900
V21-88	25° 28' N	146° 30' E	3148	5757	1.18	36
V21-89	23° 35' N	145° 39' E	3183	5821	8.56	261
V21-90	23° 57' N	144° 23' E	3194	5841	7.84	239
V21-91	23° 25' N	143° 23' E	2804	5128	12.43	379
V21-92	23° 00' N	143° 10' E	2342	4283	.69	21
V21-93	24° 37' N	142° 28' E	1574	2878	9.02	275
V21-139	27° 47' N	144° 18' E	3286	6009	37.89	1155
V21-140	28° 33' N	146° 53' E	3253	5949	15.65	477
V21-141	30° 48' N	154° 04' E	3183	5821	20.47	624
V21-142	31° 35' N	156° 25' E	2319	4241	29.92	912
V21-143	31° 51' N	157° 20' E	1964	3592	2.53	77
V21-144	32° 41' N	160° 01' E	2696	4931	40.19	1225
V21-145	34° 03' N	164° 50' E	3329	6088	40.19	1225
V21-146	37° 41' N	163° 02' E	2170	3968	38.55	1175
V21-147	39° 33' N	162° 05' E	2874	5256	40.81	1244
V21-148	42° 05' N	160° 36' E	2995	5477	47.51	1448
V21-149	45° 08' N	160° 28' E	3098	5665	39.40	1201
V21-150	48° 00' N	162° 01' E	2962	5416	39.76	1212
V21-151	52° 16' N	163° 38' E	2764	5055	18.96	578

Location, Depths and Lengths of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
V21-166	51° 25' N	169° 12' W	3884	7103	17.59	536
V21-167	52° 52' N	163° 45' W	3778	6909	3.94	120
V21-170	52° 21' N	165° 35' W	3834	7011	8.60	262
V21-171	49° 53' N	164° 57' W	2741	5013	28.38	865
V21-172	47° 40' N	164° 21' W	2842	5198	35.56	1084
V21-173	44° 22' N	163° 33' W	3004	5493	39.96	1218
V21-174	40° 08' N	162° 30' W	3112	5691	33.43	1019
V21-175	38° 22' N	161° 06' W	3092	5654	36.38	1109
V21-176	34° 54' N	160° 19' W	3074	5621	24.67	752
V21-177	33° 52' N	160° 08' W	3293	6022	33.79	1030
V21-178	31° 31' N	159° 42' W	3128	5720	28.25	861
V21-179	30° 43' N	159° 34' W	3156	5771	23.00	701
V21-180	28° 24' N	159° 11' W	3104	5676	31.27	953
V21-181	28° 51' N	158° 21' W	2899	5302	28.22	860
V21-182	29° 51' N	157° 02' W	3185	5824	29.17	889
V21-183	27° 15' N	157° 00' W	3123	5711	22.44	684
V21-184	25° 03' N	157° 54' W	2627	4804	10.50	320
V21-185	23° 01' N	159° 21' W	2656	4857	3.25	99
V21-187	20° 52' N	158° 09' W	2057	3762	31.73	967

Location, Depths and Lengths of Cores

Core No.	Location		Water Depth		Core Length	
	Latitude	Longitude	Fathoms	Meters	Feet	Cm.
V24-89	20° 52' N	165° 07' E	3022	5544	15.58	475
V24-90	22° 12' N	168° 02' E	3055	5587	.59	18
V24-91	23° 39' N	170° 52' E	3246	5936	23.82	726
V24-92	24° 57' N	174° 00' E	3231	5909	26.74	815
V24-93	25° 48' N	176° 13' E	3162	5782	21.85	666
V24-94	26° 34' N	177° 46' E	3117	5700	29.07	886
V24-95	27° 36' N	177° 46' E	2891	5287	21.39	652
V24-96	27° 40' N	177° 59' W	1807	3305	23.62	720
V24-97	24° 48' N	178° 04' W	2979	5447	23.95	730
V24-98	21° 47' N	178° 47' W	2977	5444	25.85	788

APPENDIX B

GRAIN SIZE DATA USED TO PREDICT SOUND VELOCITIES AND WET DENSITIES OF SEDIMENT LAYERS

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-156	5402	0	0.00	0.04	38.57	61.39	0.39	9.74	1.17	2.39	+.10	.49
		55	0.00	0.01	19.79	80.20	0.20	9.99	0.98	2.26	+.13	.45
		750	0.00	0.00	16.94	83.06	0.17	10.44	0.72	2.33	-.08	.44
RC10-157	5682	0	0.00	0.08	25.27	74.65	0.25	9.61	1.27	2.38	+.21	.48
		923	0.00	0.95	24.74	74.31	0.25	9.80	1.12	2.78	-.09	.47
RC10-158	5892	0	0.00	0.05	20.77	79.18	0.21	9.84	1.09	2.29	+.-15	.45
		945	0.00	0.02	10.17	89.81	0.10	10.82	0.55	2.16	-.12	.45
RC10-159	5894	0	0.00	0.12	26.04	73.84	0.26	9.68	1.22	2.38	+.19	.45
		1101	0.00	0.02	20.80	79.18	0.21	9.93	1.03	2.31	+.10	.45
RC10-160	4621	0	0.00	0.43	28.98	70.59	0.29	9.51	1.37	2.57	+.10	.47
		1161	0.00	0.96	34.31	64.73	0.35	9.02	1.93	2.51	+.16	.50
RC10-161	3587	0	0.00	0.58	36.23	63.19	0.36	8.80	2.23	2.83	+.11	.49
		52	0.00	0.13	44.37	55.50	0.44	8.57	2.63	2.74	+.08	.53
		1045	0.00	1.53	31.30	67.17	0.32	9.09	1.83	2.36	+.13	.57

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC10-162	3913	0	0.00	1.66	39.36	58.98	0.40	8.74	2.33	2.76	+.08	.52
		54	0.00	0.65	36.32	63.03	0.36	8.36	3.04	2.16	-.02	.61
		351	0.00	0.08	23.83	76.09	0.24	9.29	1.59	2.02	+.07	.62
		922	0.00	0.23	28.43	71.34	0.28	9.63	1.26	2.73	-.01	.48
RC10-163	3550	0	0.00	1.70	51.63	46.67	0.53	7.90	4.16	3.01	+.14	.44
		455	0.00	1.42	34.07	64.51	0.34	8.89	2.09	2.43	+.08	.59
		555	0.00	0.48	47.12	52.40	0.47	7.81	4.43	2.16	-.03	.57
		1071	0.00	1.04	34.69	64.27	0.35	8.83	2.19	2.39	+.15	.56
RC10-164	3766	0	0.00	1.58	44.31	54.11	0.45	8.51	2.73	2.92	+.09	.50
		41	0.00	1.81	25.75	72.44	0.26	9.05	1.88	2.22	+.08	.63
		150	0.00	0.57	45.95	53.48	0.46	8.25	3.28	2.87	+.08	.48
		875	0.00	1.20	37.09	61.71	0.38	8.86	2.15	2.38	+.08	.61
RC10-166	3729	0	0.00	1.00	46.62	52.38	0.47	8.38	2.99	3.00	+.12	.45
		500	0.00	2.39	41.71	55.90	0.43	7.99	3.91	2.38	-.02	.54

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	z/(z+c)	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-167	6092	0	0.00	1.57	46.66	51.77	0.47	8.39	2.97	2.50	+.19	.53
		69	0.00	38.01	53.79	8.20	0.87	4.71	38.10	1.77	+.36	.54
		389	0.00	52.38	40.43	7.19	0.85	4.28	51.40	1.71	+.53	.58
		764	0.00	0.63	43.42	55.95	0.44	8.79	2.25	2.72	+.18	.47
		1154	0.00	8.88	78.58	12.54	0.86	5.71	19.10	1.68	+.41	.59
		1228	0.00	9.86	84.81	5.33	0.94	5.19	27.26	1.24	+.40	.54
		1616	0.00	6.95	79.87	13.18	0.86	5.86	17.09	1.68	+.47	.58
		1626	0.00	31.22	61.38	7.40	0.89	4.85	34.50	1.58	+.35	.54
		1676	0.00	1.44	38.74	59.82	0.39	8.98	1.98	2.75	+.11	.47
RC10-168	5751	0	0.00	2.69	48.81	48.50	0.50	7.86	4.27	2.81	+.06	.50
		973	0.00	19.24	40.59	40.17	0.50	7.13	7.13	3.26	+.01	.48
RC10-169	5740	0	0.00	1.43	45.24	53.33	0.46	8.76	2.30	2.74	+.19	.47
		165	0.00	32.47	55.95	11.58	0.83	5.15	28.16	2.05	+.19	.54
		321	0.00	14.53	75.36	10.11	0.88	5.66	19.68	1.76	+.20	.56

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC10-169	5740	931	0.00	36.12	56.85	7.03	0.89	4.74	37.20	1.55	+.38	.53
		985	0.00	11.25	83.07	5.68	0.93	5.26	25.97	1.31	+.33	.52
		1074	0.00	0.55	33.53	65.92	0.34	9.22	1.67	2.73	+.09	.48
RC10-170	5621	0	0.00	0.76	33.54	65.70	0.34	9.19	1.71	2.79	+.03	.47
		581	0.01	1.94	32.91	65.14	0.34	9.18	1.72	2.86	+.07	.46
RC10-171	5544	0	0.00	1.11	33.64	65.25	0.34	9.16	1.74	2.67	+.09	.47
		1170	0.00	5.99	45.81	48.20	0.49	7.93	4.09	3.11	+.07	.44
RC10-172	4387	0	0.00	2.91	32.41	64.68	0.33	9.07	1.86	2.82	+.13	.47
		480	0.00	33.43	65.51	1.06	0.98	4.19	54.70	0.61	+.04	.55
		495	0.00	51.99	44.31	3.70	0.92	4.00	62.30	0.88	+.38	.68
		523	0.00	18.51	76.90	4.59	0.94	4.71	38.10	1.07	+.34	.64
		538	0.00	47.95	49.74	2.31	0.96	4.19	54.60	1.03	+.38	.59
		548	0.07	44.09	53.50	2.34	0.96	4.21	54.00	0.98	+.18	.52
		595	0.07	6.25	60.29	33.39	0.64	6.90	8.37	2.60	+.26	.48
		643	0.00	21.75	75.92	2.33	0.97	4.77	36.60	1.03	+.15	.56

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-173	4056	0	0.00	2.47	35.86	61.67	0.37	9.05	1.89	2.81	+.16	.46
		115	0.00	1.49	20.21	78.30	0.20	9.44	1.44	2.15	+.15	.61
		420	0.00	0.37	48.60	51.03	0.49	8.27	3.23	2.62	+.16	.51
		540	0.00	0.07	25.35	74.58	0.25	9.59	1.29	2.37	+.17	.48
RC10-174	3191	0	0.00	1.98	34.90	63.12	0.36	9.03	1.91	2.85	+.06	.49
		262	0.00	0.77	40.64	58.59	0.41	8.73	2.34	3.05	+.04	.44
		842	0.00	0.69	27.01	72.30	0.27	10.08	0.92	2.74	-.21	.44
RC10-175	4014	0	0.00	1.47	35.03	63.50	0.36	9.23	1.65	2.76	+.04	.46
		75	0.00	0.87	36.76	62.37	0.37	9.04	1.90	2.72	+.08	.49
		661	0.00	0.87	18.65	80.48	0.19	9.68	1.22	2.30	+.07	.61
		830	0.00	0.62	37.23	62.15	0.37	8.98	1.98	2.68	+.08	.49
RC10-176	4226	0	0.00	1.36	36.70	61.94	0.37	8.96	2.00	2.82	+.01	.52
		210	0.00	0.84	36.39	62.77	0.37	8.86	2.14	2.40	+.19	.54
		700	0.00	0.52	45.52	53.96	0.46	8.35	3.05	1.59	+.32	.63

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-177	5302	0	0.00	0.00	27.16	72.84	0.27	9.68	1.22	2.42	+.17	.46
		400	0.00	0.07	32.15	67.78	0.32	9.38	1.50	2.43	+.17	.47
		852	0.00	0.02	30.29	69.69	0.30	9.45	1.43	2.41	+.18	.46
		970	0.00	0.18	20.03	79.79	0.20	9.61	1.28	2.12	+.18	.46
RC10-178	5808	0	0.00	0.00	25.87	74.13	0.26	10.54	0.67	2.15	+.12	.44
		915	0.00	0.00	23.30	76.70	0.23	9.82	1.11	2.33	+.16	.46
RC10-179	4312	0	0.00	0.11	31.08	68.81	0.31	9.41	1.47	2.57	+.14	.48
		450	0.00	1.46	24.33	74.21	0.25	9.50	1.38	2.24	+.24	.54
		670	0.00	2.10	25.54	72.36	0.26	9.61	1.27	3.06	-.21	.46
RC10-181	5698	0	3.19	0.24	29.58	66.99	0.31	9.35	1.53	2.73	+.05	.49
		146	0.00	13.46	68.51	18.03	0.79	6.03	15.26	2.12	+.27	.53
		1132	0.34	0.37	29.75	69.54	0.30	9.51	1.37	2.43	+.18	.47
RC10-182	5561	0	0.00	1.97	31.11	66.92	0.32	9.38	1.50	2.69	+.08	.47
		185	9.23	8.57	69.06	13.14	0.84	5.64	20.05	3.05	-.08	.71
		1102	0.00	1.09	35.68	63.23	0.36	9.27	1.62	2.67	+.11	.47

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-184	4986	0	0.00	0.69	37.97	61.34	0.38	8.98	1.98	2.82	+.14	.48
		270	0.00	0.70	82.90	16.40	0.83	6.67	9.79	1.31	+.28	.54
		325	0.00	1.81	50.74	47.45	0.52	8.28	3.20	2.70	+.28	.52
		766	0.00	1.23	86.49	12.28	0.88	6.02	15.33	1.52	+.29	.53
		1121	0.00	0.34	42.79	56.87	0.43	8.76	2.30	2.85	+.13	.47
RC10-186	6591	0	0.00	1.30	33.99	64.71	0.34	9.16	1.74	2.63	+.12	.51
		696	0.00	1.48	33.29	65.23	0.34	9.31	1.57	2.68	+.11	.46
		860	0.00	1.90	24.13	73.97	0.25	9.76	1.15	2.64	+.04	.49
RC10-187	6216	0	0.00	2.92	38.36	58.72	0.40	8.62	2.53	2.89	+.05	.48
		371	0.00	1.68	70.99	27.33	0.72	6.64	9.98	2.81	+.70	.48
		660	3.02	10.55	30.33	56.10	0.35	8.34	3.08	3.76	-.15	.50
		718	0.00	1.04	88.08	10.88	0.89	6.18	13.76	1.28	+.34	.53

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-188	3673	0	0.00	1.59	40.41	58.00	0.41	8.62	2.52	3.04	+.02	.46
		385	0.00	1.53	53.55	44.92	0.54	8.11	3.61	2.81	+.27	.47
		554	0.00	0.40	63.10	36.50	0.63	7.11	7.22	2.84	+.21	.43
		690	0.00	1.44	49.35	49.21	0.50	8.33	3.09	2.88	+.18	.49
RC10-189	3422	0	0.00	22.62	54.08	23.30	0.70	5.91	16.63	3.22	+.05	.54
		74	0.00	97.59	2.41	0.00	1.00	2.76	146.90	0.51	+.12	.51
		324	0.00	93.15	6.44	0.41	0.94	2.72	151.40	0.93	-.20	.56
		440	0.00	2.09	67.19	30.72	0.69	7.34	6.14	2.58	+.35	.54
RC10-190	3733	0	0.00	1.68	50.55	47.77	0.51	8.31	3.15	2.76	+.24	.52
		53	0.00	47.68	51.11	1.21	0.98	3.96	63.90	0.64	+.04	.58
		110	0.00	1.46	56.18	42.36	0.57	7.79	4.48	2.99	+.25	.45
		142	0.00	57.46	40.68	1.86	0.96	3.79	72.20	0.62	+.01	.55
		213	0.00	24.53	74.80	0.67	0.99	4.29	51.11	0.62	+.16	.65
		260	0.00	0.07	42.85	57.08	0.43	8.86	2.14	2.46	+.24	.48

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-191	3025	0	0.00	1.49	51.52	46.99	0.52	8.29	3.18	2.59	+.31	.50
		96	0.00	1.67	86.55	11.78	0.88	5.74	18.62	1.79	+.46	.57
		200	0.00	0.47	54.53	45.00	0.55	8.30	3.16	2.44	+.35	.52
RC10-192	3684	0	0.00	1.09	46.57	52.34	0.47	8.62	2.53	2.45	+.29	.51
		21	0.00	0.50	43.60	55.90	0.44	8.82	2.21	2.44	+.25	.49
		220	0.00	1.30	34.25	62.45	0.35	9.24	1.65	2.80	+.08	.46
RC10-193	137	0	0.24	95.89	2.72	1.15	0.70	2.21	215.60	0.79	-.12	.56
RC10-194	3801	0	0.00	0.00	31.65	68.35	0.32	9.59	1.30	2.42	+.27	.43
		110	0.00	0.29	38.83	60.88	0.39	9.12	1.80	2.41	+.26	.47
		424	0.00	0.02	29.96	70.02	0.30	9.04	1.90	2.43	+.76	.42
RC10-195	3835	0	0.00	0.16	31.61	68.23	0.32	9.58	1.30	2.48	+.20	.45
		457	0.00	0.03	36.02	63.95	0.36	9.69	1.21	2.60	+.03	.43
		547	0.00	0.06	93.00	6.94	0.93	6.05	15.05	1.14	+.46	.63
		772	0.00	0.29	95.10	4.61	0.95	5.79	18.03	0.92	+.18	.55
		781	0.00	80.08	16.25	3.67	0.82	3.42	93.20	1.08	+.44	.73

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-196	1007	0	0.00	17.88	53.09	29.03	0.65	6.36	12.09	2.98	+.26	.50
		341	0.00	12.86	56.69	30.45	0.65	7.25	6.55	3.14	+.27	.45
RC10-197	397	0	0.40	95.33	2.42	1.85	0.57	2.50	175.90	0.57	-.01	.57
		200	0.00	36.31	40.07	23.62	0.63	5.76	18.41	3.21	+.55	.49
		462	26.55	62.11	5.54	5.80	0.49	0.99	501.00	3.14	-.17	.56
RC10-198	3728	0	0.00	3.33	54.34	42.33	0.56	7.96	4.01	2.72	+.23	.55
		200	0.00	87.93	10.66	1.41	0.88	3.01	123.50	0.68	+.29	.51
		233	0.20	94.06	4.36	1.38	0.76	2.11	230.00	0.90	+.42	.53
RC10-199	4698	0	0.00	2.37	50.11	47.52	0.51	7.99	3.92	2.79	+.14	.51
		104	0.00	27.93	45.89	26.18	0.64	5.90	16.66	2.90	+.74	.47
		280	0.00	19.03	67.69	13.28	0.84	5.78	18.11	2.01	-.03	.49
		380	0.00	1.74	44.81	53.45	0.46	8.74	2.32	2.87	+.22	.45
		430	0.00	60.37	35.24	4.39	0.88	3.76	73.60	0.97	+.31	.64
RC10-200	7317	0	0.00	0.09	33.93	65.98	0.34	9.51	1.37	2.62	+.12	.44

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K_G'
								ϕ	μ			
RC10-201	5158	0	4.89	3.84	31.92	59.35	0.35	8.78	2.27	3.66	-.12	.62
		310	0.00	1.43	58.01	40.56	0.59	7.48	5.58	2.96	+.19	.42
		522	0.00	1.35	82.13	16.52	0.83	6.41	11.75	1.63	+.28	.54
		960	0.00	1.65	55.81	42.54	0.57	8.13	3.56	2.54	+.30	.53
		1079	0.00	2.15	85.71	12.14	0.88	6.03	15.26	1.51	+.21	.49
RC10-202	5523	0	0.00	1.02	29.76	69.22	0.30	9.39	1.49	2.50	+.12	.48
		161	0.00	1.39	87.73	10.88	0.89	6.16	13.92	1.25	+.25	.51
		672	0.00	1.30	85.38	13.32	0.87	6.32	12.48	1.42	+.27	.53
		905	0.00	0.08	59.17	40.75	0.59	8.04	3.79	1.94	+.37	.58
		1145	0.00	1.06	51.78	47.16	0.52	8.33	3.09	2.21	+.35	.54
RC10-203	5883	0	0.00	0.07	22.92	77.01	0.23	9.89	1.05	2.21	+.12	.45
		700	0.00	0.77	22.41	76.82	0.23	9.94	1.01	2.46	+.04	.45
		960	0.00	0.07	28.40	71.53	0.28	9.65	1.24	2.41	+.17	.45
		1100	0.00	0.85	40.43	58.72	0.41	9.13	1.78	2.47	+.28	.47

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC10-205	6081	0	6.18	0.63	24.97	68.22	0.27	9.37	1.50	3.91	-.19	.64
		543	0.00	0.49	26.49	73.02	0.27	9.76	1.15	2.42	+.16	.44
		571	0.00	0.00	29.77	70.23	0.30	9.60	1.29	2.84	+.30	.46
		1110	0.00	0.00	41.15	58.85	0.41	9.11	1.81	2.47	+.32	.44
RC10-206	5497	0	0.00	1.97	34.07	63.96	0.35	9.09	1.84	2.82	+.02	.47
		245	0.00	10.38	83.09	6.53	0.93	5.54	21.49	1.42	+.28	.49
		703	0.00	9.97	81.87	8.16	0.91	5.73	18.75	1.47	+.13	.49
		1132	0.00	6.80	39.19	54.01	0.42	8.45	2.85	3.15	+.05	.48
RC10-207	7264	0	0.00	1.14	40.45	58.41	0.41	8.70	2.40	2.81	+.04	.50
		86	0.00	0.87	93.30	5.83	0.94	5.48	22.25	0.99	+.29	.62
		130	0.00	0.91	24.89	74.20	0.25	10.17	0.87	2.42	-.05	.42
		181	0.00	0.00	88.98	11.02	0.89	6.69	9.68	1.33	+.34	.65
		265	0.00	1.22	84.64	14.14	0.86	5.90	16.74	1.88	+.63	.64
		299	0.00	6.56	89.96	3.48	0.96	4.37	48.10	0.56	+.61	.73

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC10-208	3737	0	0.00	1.45	52.47	46.08	0.53	7.64	5.00	3.03	+.13	.42
		190	1.03	52.28	27.57	19.12	0.59	4.54	42.70	3.54	+.44	.48
		300	0.00	1.54	46.69	51.77	0.47	8.43	2.88	2.78	+.16	.47
		410	4.96	69.75	17.79	7.50	0.70	2.51	174.70	3.07	+.16	.55
RC10-210	7284	0	0.00	1.68	38.57	59.75	0.39	8.84	2.17	2.85	+.10	.48
		250	0.00	0.00	23.65	76.35	0.24	10.26	0.82	2.36	-.04	.41
		446	0.00	0.04	55.34	44.62	0.55	8.34	3.08	2.86	+.35	.43
		479	0.00	1.46	84.91	13.63	0.86	5.80	17.90	1.90	+.61	.67
RC10-211	5137	0	0.00	2.00	46.38	51.62	0.47	7.96	3.98	2.81	+.03	.49
		508	0.00	1.49	37.25	61.26	0.38	8.93	2.05	2.78	+.09	.47
RC10-212	7231	0	0.00	0.21	35.43	64.36	0.36	9.13	1.78	2.56	+.15	.47
		192	0.00	8.86	90.62	0.52	0.99	4.65	39.80	0.70	+.49	.60
		296	0.00	86.86	11.91	1.23	0.91	3.26	104.10	0.61	+.07	.53
		380	0.00	72.49	20.59	6.91	0.75	3.58	83.40	1.44	+.45	.74
		516	0.00	1.14	96.73	2.13	0.98	4.79	36.10	0.58	+.46	.58

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-213	7196	0	0.00	0.81	54.23	44.96	0.55	8.07	3.72	2.97	+.24	.45
		342	0.00	1.99	90.91	7.10	0.93	5.42	23.35	1.42	+.43	.60
		351	0.00	0.27	67.52	32.21	0.68	7.50	5.49	2.59	+.53	.49
		367	0.00	1.60	92.43	5.97	0.94	4.88	33.80	1.05	+.60	.70
		390	0.00	2.04	62.38	35.58	0.64	7.44	5.74	3.00	+.42	.45
RC10-214	4731	0	0.19	19.18	30.62	50.01	0.38	7.86	4.30	3.97	-.06	.43
		211	0.00	20.63	71.50	7.87	0.90	5.24	26.33	1.58	+.18	.53
		273	0.00	20.87	70.33	8.80	0.89	5.53	21.54	1.89	-.11	.52
		319	0.00	26.27	69.05	4.68	0.94	4.91	33.10	1.47	+.34	.49
		430	0.00	1.55	38.18	60.27	0.39	8.98	1.98	2.72	+.16	.46
		725	0.00	29.56	67.04	3.40	0.95	4.75	37.10	1.48	+.24	.49
RC10-215	4887	0	17.00	0.30	47.14	35.56	0.57	5.85	17.33	4.88	-.15	.54
		56	0.00	0.84	44.44	54.72	0.45	8.65	2.48	2.47	+.29	.49
		217	0.00	27.66	66.44	5.90	0.92	5.09	29.36	1.67	+.08	.48

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC10-215	4887	498	0.00	0.84	87.01	12.15	0.88	6.17	13.85	1.29	+.30	.51
		550	0.00	1.88	42.05	56.07	0.43	8.66	2.46	2.81	+.09	.50
RC10-216	4989	0	0.00	2.25	71.01	26.74	0.73	6.38	11.97	2.38	+.44	.50
		13	0.00	2.42	93.86	3.72	0.96	5.92	16.43	1.16	±.00	.48
		401	0.00	1.11	51.35	47.54	0.52	8.11	3.61	3.00	+.18	.47
		822	0.00	1.70	49.15	49.15	0.50	8.26	3.26	3.03	+.16	.44
RC10-217	4338	0	2.75	5.33	36.59	55.33	0.40	8.39	2.96	3.60	-.09	.55
		28	0.00	2.04	88.62	9.34	0.90	5.93	16.40	1.39	+.37	.57
		120	0.00	1.87	45.08	53.05	0.46	8.49	2.76	2.97	+.12	.46
		173	0.00	1.65	64.78	33.57	0.66	7.31	6.28	2.35	+.42	.60
		187	0.00	30.46	60.61	8.93	0.87	5.06	29.83	1.98	+.36	.57
RC10-218	909	0	4.67	86.63	5.89	2.81	0.51	1.92	264.00	1.62	-.03	.60
		40	39.88	50.28	5.39	4.45	0.55	-.43	1347.00	3.25	+.13	.54
		65	88.72	9.07	1.52	0.69	0.69	-3.24	9490.00	1.61	+.56	.61

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC10-219	3786	0	0.00	2.34	44.99	52.67	0.46	8.66	2.46	2.76	+.19	.50
		16	0.00	90.27	9.73	0.00	1.00	3.03	122.40	0.67	+.04	.53
		151	0.00	0.27	37.96	61.77	0.38	9.12	1.79	2.73	+.14	.46
		164	0.00	61.38	25.43	13.19	0.66	4.21	53.70	2.70	+.67	.56
		333	0.00	0.01	26.23	73.76	0.26	9.85	1.08	2.40	+.10	.43
		353	0.00	0.01	93.57	6.42	0.94	5.67	19.59	0.95	+.36	.64
		498	0.00	76.03	22.44	1.53	0.94	3.42	93.20	0.83	+.20	.53
RC10-220	3157	0	0.00	1.03	29.70	69.27	0.30	9.55	1.33	2.61	+.07	.46
		192	0.00	0.47	96.93	2.60	0.97	5.40	23.62	0.62	+.08	.54
		315	0.00	0.21	49.29	50.50	0.49	8.65	2.48	2.76	+.31	.42
		924	0.00	1.14	31.61	67.25	0.32	9.49	1.38	2.70	+.08	.44
		1125	0.00	0.41	37.25	62.34	0.37	9.41	1.46	2.62	+.11	.43
RC10-221	2834	0	0.00	0.10	33.20	66.70	0.33	9.31	1.57	2.74	+.03	.45
		206	0.00	1.71	94.55	3.74	0.96	4.93	32.80	0.95	+.27	.51

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-221	2834	554	0.00	0.00	39.80	60.20	0.40	9.32	1.56	2.74	+.01	.45
		900	0.00	1.54	94.16	4.30	0.96	4.95	32.20	0.90	+.38	.58
RC10-222	3559	0	0.00	0.07	38.37	61.56	0.38	9.05	1.88	2.78	+.18	.42
		180	0.00	0.00	38.39	61.61	0.38	9.18	1.72	2.67	+.14	.42
		350	0.00	1.90	95.21	2.89	0.97	4.63	40.10	0.62	+.55	.64
		371	0.00	0.34	90.97	8.69	0.91	5.16	27.96	1.38	+.65	.72
		703	0.00	0.21	92.78	7.01	0.93	5.25	26.27	1.19	+.55	.69
		720	0.00	0.28	89.58	10.14	0.90	5.17	27.77	1.38	+.49	.74
		738	0.00	0.81	92.67	6.52	0.93	4.91	33.20	1.13	+.53	.74
RC10-223	3645	0	0.00	0.00	32.53	67.47	0.33	9.57	1.31	2.62	+.03	.44
		400	0.00	0.06	28.00	71.94	0.28	9.79	1.13	2.59	+.00	.44
		535	0.00	0.36	47.80	51.84	0.48	8.34	3.07	2.63	+.16	.47
		861	0.00	0.04	21.93	78.03	0.22	10.08	0.92	2.36	+.02	.44
		967	0.00	0.06	97.99	1.95	0.98	5.17	27.71	0.61	+.32	.53
		1078	0.00	0.12	96.20	3.68	0.96	5.39	23.79	0.61	+.18	.70

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC10-224	1159	Jar	63.09	32.82	2.36	1.73	0.58	-1.70	3249.00	2.92	+.40	.37
RC10-225	2536	0	0.00	0.20	24.13	75.67	0.24	9.75	1.16	2.48	+.10	.45
		193	0.00	0.09	29.76	70.15	0.30	9.65	1.24	2.46	+.14	.45
		341	0.00	12.18	81.82	6.00	0.93	4.51	43.60	1.00	+.55	.83
		413	0.00	3.26	89.12	7.62	0.92	4.75	37.10	1.33	+.81	.83
		438	0.00	22.58	71.12	6.30	0.92	4.51	43.70	1.32	+.51	.73
		493	0.00	0.53	92.27	7.20	0.93	5.21	26.95	1.25	+.61	.62
		506	0.00	74.46	24.88	0.66	0.97	3.66	78.70	0.43	+.23	.47
RC10-226	2534	0	0.00	0.11	29.18	70.71	0.48	9.68	1.22	2.61	+.01	.46
		513	0.00	0.12	76.48	23.40	0.77	6.67	9.79	2.49	+.72	.55
		766	0.00	1.34	79.18	19.48	0.80	6.04	15.16	2.26	+.73	.55
		951	0.00	0.04	48.29	51.71	0.48	8.62	2.52	2.77	+.25	.45
		960	0.00	0.80	93.06	6.04	0.94	5.27	25.79	1.13	+.39	.66
		1005	0.00	0.08	81.18	18.74	0.81	6.47	11.25	2.05	+.58	.63

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-227	2774	0	0.00	0.08	15.57	84.35	0.16	10.13	0.89	2.14	+.19	.46
		336	0.00	90.17	9.68	0.15	0.98	2.35	195.60	0.91	+.36	.72
		716	0.00	0.02	92.64	7.34	0.93	6.33	12.40	0.87	+.35	.59
		931	0.00	0.05	33.09	66.86	0.33	9.59	1.29	2.52	+.11	.43
RC10-228	2765	0	0.00	0.12	22.51	77.37	0.23	9.70	1.20	2.47	+.13	.48
		42	0.00	0.34	94.59	5.07	0.95	5.69	19.32	0.88	+.24	.59
		65	0.00	0.50	44.92	54.58	0.45	8.72	2.36	2.79	+.20	.44
		103	0.00	1.08	96.30	2.62	0.97	5.41	23.41	0.90	+.15	.50
		165	0.00	2.06	87.16	10.78	0.89	5.19	27.33	1.70	+.71	.72
		180	0.00	90.79	7.72	1.49	0.84	3.07	119.00	0.54	+.32	.57
		237	0.00	0.66	90.74	8.60	0.91	5.40	23.57	1.18	+.40	.67
		266	0.00	58.94	36.27	4.79	0.88	3.86	68.70	0.98	+.45	.70
		320	0.00	91.62	6.27	2.11	0.75	2.68	156.00	0.73	+.31	.59
		349	0.00	95.06	4.17	0.77	0.84	2.31	200.70	0.71	+.21	.55
		380	0.00	83.67	13.62	2.71	0.83	2.95	129.10	1.11	+.31	.58

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-229	2582	0	0.00	0.53	20.67	78.80	0.21	10.03	0.96	2.29	+.12	.45
		172	0.00	1.49	82.46	16.05	0.84	5.70	19.14	1.82	+.72	.58
		203	0.00	79.81	19.71	0.48	0.98	3.55	85.10	0.63	+.33	.57
		247	0.00	94.70	3.40	1.90	0.64	2.56	169.10	0.71	+.22	.52
		292	0.00	0.60	32.55	66.85	0.33	9.48	1.39	2.78	+.01	.44
RC10-230	3200	0	0.00	1.90	37.29	62.52	0.37	9.22	1.67	2.69	+.10	.46
		41	0.00	0.13	81.09	18.78	0.81	6.50	11.02	2.05	+.57	.61
		63	0.00	0.09	30.41	69.50	0.30	9.68	1.22	2.42	+.17	.44
		101	0.00	1.52	86.52	15.96	0.84	6.17	13.82	1.91	+.57	.62
		151	0.00	0.84	82.09	17.07	0.83	6.45	11.38	1.93	+.59	.65
		183	0.00	0.02	93.76	6.22	0.94	5.68	19.46	0.97	+.33	.67
		191	0.00	0.52	34.58	64.90	0.35	9.39	1.49	2.65	+.13	.46
		251	0.00	0.54	79.84	19.62	0.80	6.78	9.09	1.94	+.56	.63
		301	0.00	2.40	93.74	3.86	0.96	5.06	29.83	0.83	+.33	.64

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-230	3200	340	0.00	0.85	95.66	3.49	0.96	5.00	31.20	0.76	+.38	.58
		345	0.00	3.29	32.30	64.41	0.33	9.37	1.50	2.64	+.11	.47
		401	0.00	0.18	51.78	48.04	0.52	8.61	2.54	2.40	+.45	.46
		501	0.00	0.33	40.06	59.61	0.40	9.27	1.61	2.41	+.31	.43
		602	0.00	2.43	26.74	70.83	0.27	9.73	1.17	2.63	+.00	.45
		701	0.00	0.92	29.22	69.86	0.29	9.71	1.19	2.53	+.09	.44
		805	0.00	0.00	90.88	9.12	0.91	6.32	12.51	1.25	+.20	.72
		901	0.00	0.13	26.29	73.58	0.26	9.91	1.04	2.50	+.04	.43
		985	0.00	0.01	77.17	22.82	0.77	7.27	6.47	2.03	+.60	.62
		1021	0.00	1.77	32.28	65.95	0.33	9.58	1.30	2.64	+.07	.46
		1061	0.00	0.23	84.66	15.11	0.85	6.54	10.74	1.66	+.53	.68

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-231	4726	0	0.00	0.00	33.19	66.81	0.33	9.56	1.32	2.53	+.14	.43
		65	0.00	0.00	52.09	47.91	0.52	8.42	2.90	2.96	+.29	.40
		92	0.00	1.39	82.26	16.35	0.83	5.72	18.97	2.20	+.78	.67
		152	0.00	0.00	54.46	45.54	0.55	7.84	4.35	3.33	+.22	.37
		240	0.00	0.70	80.87	18.43	0.81	5.97	15.95	2.33	+.79	.63
		261	0.00	0.01	17.68	82.31	0.18	10.14	0.88	2.22	+.12	.45
		324	0.00	0.00	35.83	64.17	0.36	9.53	1.35	2.70	+.07	.42
		382	0.00	0.44	58.54	41.02	0.59	7.41	5.85	2.61	+.29	.48
		398	0.00	1.22	84.71	14.07	0.86	5.41	23.51	1.82	+.72	.70
		420	0.00	0.00	34.85	65.15	0.35	9.50	1.38	2.69	+.03	.42
		471	0.00	0.00	40.47	59.53	0.41	9.18	1.72	2.81	+.07	.43
		502	0.00	0.00	25.90	74.10	0.26	9.86	1.07	2.66	-.00	.48
		595	0.00	0.00	35.59	64.41	0.36	9.51	1.37	2.61	+.11	.44
		647	0.00	0.00	59.85	40.15	0.60	8.02	3.85	2.82	+.45	.44

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-231	4726	662	0.00	0.83	86.84	12.33	0.88	5.55	21.34	1.69	+.63	.71
		692	0.00	0.01	21.46	78.53	0.22	10.03	0.96	2.30	+.11	.44
		817	0.00	0.00	50.29	49.71	0.50	8.00	3.89	3.31	+.09	.38
		855	0.00	0.00	53.76	46.24	0.54	8.35	3.06	2.82	+.34	.42
		898	0.00	0.00	13.98	86.02	0.14	10.47	0.70	2.16	-.01	.43
		921	0.00	0.00	27.82	72.18	0.28	9.84	1.09	2.56	+.00	.42
		1013	0.00	0.57	67.78	31.65	0.68	7.09	7.34	2.82	+.68	.45
		1030	0.00	0.90	80.94	18.16	0.82	5.99	15.69	2.31	+.80	.65
		1061	0.00	0.01	22.55	77.44	0.23	10.33	0.78	2.53	-.19	.44
		1121	0.00	0.00	40.72	59.28	0.41	9.17	1.73	2.76	+.13	.41
RC10-232	4674	0	0.00	0.25	13.33	86.42	0.13	10.41	0.73	2.17	+.06	.46
		181	0.00	0.11	14.45	85.44	0.15	10.35	0.76	2.15	+.06	.44
		301	0.00	0.20	13.23	86.57	0.13	10.07	0.93	2.04	+.26	.50
		401	0.00	0.24	16.51	83.25	0.17	10.27	0.81	2.22	+.09	.45

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC10-232	4674	492	0.00	0.16	17.52	82.32	0.18	10.66	0.62	1.96	+.21	.42
		601	0.00	0.16	11.34	88.50	0.11	10.52	0.68	2.12	+.06	.44
		701	0.00	0.01	12.16	87.83	0.12	10.52	0.68	2.15	+.04	.44
		778	0.00	0.09	45.53	54.38	0.46	8.57	2.63	2.63	+.15	.49
		821	0.00	0.35	9.93	89.72	0.10	8.92	2.05	1.28	+.42	.71
RC10-234	4281	0	0.00	0.17	18.08	81.75	0.18	10.02	0.96	2.23	+.15	.46
		104	0.00	0.10	17.63	82.27	0.18	9.81	1.11	2.12	+.26	.49
		197	0.00	0.38	26.21	73.41	0.26	9.78	1.13	2.80	-.06	.48
		220	0.00	0.56	39.45	59.99	0.40	8.99	1.96	2.57	+.18	.48
		287	0.00	0.28	44.55	55.17	0.45	8.80	2.23	2.69	+.23	.46
		411	0.00	0.50	40.76	58.74	0.41	9.04	1.90	2.50	+.23	.49

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC10-235	4737	3	0.00	0.00	17.67	82.33	0.18	10.05	0.94	2.26	+.14	.46
		97	0.00	0.06	18.05	81.89	0.18	10.06	0.93	2.42	+.09	.50
		201	0.00	0.10	19.49	80.41	0.19	10.14	0.89	2.19	+.17	.43
		296	0.00	0.19	19.90	79.91	0.20	10.11	0.90	2.34	+.06	.45
		397	0.00	0.19	21.54	78.27	0.22	9.19	1.71	2.52	+.18	.48
		453	0.00	0.26	39.07	60.67	0.39	10.01	0.97	2.39	+.04	.46
RC10-236	4491	0	0.00	0.00	12.49	87.51	0.12	10.23	0.83	2.17	+.21	.46
		51	0.00	0.01	19.48	80.51	0.19	10.12	0.90	2.28	+.09	.44
		101	0.00	0.05	21.37	78.58	0.21	10.07	0.93	2.24	+.10	.44
		201	0.00	0.09	19.59	80.32	0.20	9.96	1.00	2.32	+.14	.46
		301	0.00	0.15	30.27	69.58	0.30	9.69	1.21	2.52	+.11	.43
		401	0.00	0.28	34.68	65.04	0.35	9.45	1.42	2.56	+.19	.43

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K_G'
RC10-237	4468	0	0.00	0.01	21.27	78.72	0.21	9.96	1.00	2.26	+.15	.45
		105	0.00	0.00	20.56	79.44	0.21	10.07	0.93	2.25	+.13	.43
		245	0.00	0.17	28.96	70.87	0.29	9.63	1.26	2.46	+.18	.44
		401	0.00	0.12	38.84	61.04	0.39	9.24	1.65	2.59	+.22	.46
		412	0.00	0.25	38.31	61.44	0.38	9.06	1.86	2.47	+.19	.48
		460	0.00	0.15	64.44	35.41	0.65	6.89	8.39	2.60	+.31	.43
		535	0.00	0.11	48.58	51.31	0.49	8.22	3.33	2.04	+.19	.50
		612	0.00	0.43	42.08	57.49	0.42	8.66	2.47	2.78	+.10	.49

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K_G'
								ϕ	μ			
RC11-158	3177	0	0.00	1.78	63.70	34.52	0.65	7.40	5.90	2.85	+.45	.46
		940	0.00	0.01	56.37	43.62	0.56	7.72	4.74	1.37	+.24	.66
RC11-160	4025	0	0.00	2.17	43.77	54.06	0.45	8.61	2.54	2.86	+.15	.45
		58	0.00	0.62	55.24	44.14	0.55	7.92	4.12	2.92	+.32	.44
		84	0.00	2.77	63.48	33.75	0.65	7.16	6.96	2.86	+.50	.45
		100	0.00	47.53	41.14	11.33	0.78	4.47	44.90	1.93	+.51	.66
		162	0.00	95.30	2.55	2.15	0.54	2.17	221.60	0.73	+.20	.55
		213	0.00	71.11	22.51	6.38	0.78	3.55	84.90	1.52	+.45	.71
		216	0.00	1.99	49.47	48.54	0.50	8.14	3.52	2.95	+.16	.46
		230	0.00	57.61	31.11	11.28	0.73	4.39	47.40	2.15	+.66	.70
		261	0.00	91.36	6.24	2.40	0.72	2.78	144.90	0.89	+.25	.62
		315	0.00	89.07	9.13	1.80	0.84	2.40	189.40	0.79	+.31	.55
		320	0.00	2.32	39.89	57.79	0.41	8.66	2.47	0.74	+.15	.49

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC11-163	5559	0	0.00	1.44	31.09	67.47	0.32	9.33	1.55	2.60	+.10	.47
		191	0.00	1.92	41.52	56.56	0.42	8.75	2.31	2.77	+.15	.48
		214	0.00	37.26	58.54	4.20	0.93	4.42	46.60	1.13	+.31	.51
		350	0.00	45.32	50.48	4.20	0.92	4.51	43.60	1.50	+.38	.50
		420	0.00	1.48	46.07	52.45	0.47	8.62	2.54	2.80	+.19	.46
		784	0.00	3.65	83.46	12.89	0.87	6.14	14.11	1.82	+.40	.63
		950	0.00	0.24	28.24	71.52	0.28	9.64	1.25	2.39	+.18	.45
		1035	0.00	1.15	93.69	5.16	0.95	5.78	18.11	1.16	+.32	.49
RC11-164	5158	0	44.15	0.49	16.30	39.06	0.29	4.33	49.70	6.53	-.33	.35
		15	0.00	0.04	29.79	70.17	0.30	9.66	1.24	2.42	+.16	.45
		297	0.77	0.81	30.87	67.55	0.31	9.43	1.44	2.55	+.13	.47
		364	0.00	0.08	12.72	87.20	0.13	10.69	0.60	2.24	-.14	.47
RC11-165	4978	0	31.18	0.79	19.95	48.08	0.29	4.73	37.60	6.69	-.49	.33
		92	0.00	0.32	17.35	82.33	0.17	10.31	0.79	2.37	-.06	.45

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC11-166	5841	0	0.00	0.74	45.51	53.75	0.46	8.52	2.71	2.82	+.16	.46
		503	0.50	1.45	36.13	61.92	0.37	9.06	1.87	2.79	+.11	.46
		1080	0.00	1.92	32.89	65.19	0.34	9.22	1.67	2.82	+.04	.46
RC11-167	4874	0	0.00	2.17	60.41	37.42	0.62	7.54	5.37	2.81	+.36	.52
		59	0.00	3.01	47.44	49.55	0.49	8.42	2.91	2.89	+.20	.48
		296	0.00	2.38	87.35	10.27	0.89	5.68	19.50	1.55	+.42	.53
		570	0.00	1.99	39.42	58.59	0.40	8.74	2.33	3.00	+.05	.42
RC11-168	5824	0	0.00	1.58	27.74	70.68	0.28	9.58	1.31	2.49	+.14	.47
		30	0.00	2.25	88.91	8.84	0.91	5.66	19.68	1.42	+.42	.51
RC11-169	5665	0	0.00	0.04	22.59	77.37	0.23	9.66	1.23	2.66	+.05	.50
		373	0.00	0.05	47.31	52.64	0.47	7.93	4.10	3.05	-.01	.39
		460	0.00	0.99	21.17	77.84	0.21	9.43	1.45	2.04	+.04	.64
		697	0.00	0.09	66.79	33.12	0.67	7.20	6.78	2.87	+.33	.50
		1030	0.00	0.00	27.43	72.57	0.27	9.62	1.26	2.25	+.27	.46

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC11-170	5451	0	0.00	0.56	24.61	74.83	0.25	9.68	1.21	2.39	+.15	.46
		617	0.00	30.24	66.09	3.67	0.95	4.65	39.60	1.38	+.26	.52
		680	0.00	20.44	76.34	3.22	0.96	4.88	33.80	1.24	+.31	.53
		710	0.00	0.83	91.03	8.14	0.92	5.68	19.41	1.36	+.45	.49
		965	0.00	0.53	49.48	49.99	0.50	8.73	2.35	2.69	+.31	.48
RC11-171	5167	0	8.87	1.58	39.57	49.98	0.40	8.05	3.76	4.05	-.17	.64
		265	0.00	0.85	96.20	2.95	0.97	5.66	19.68	1.05	+.27	.47
		672	0.00	0.87	83.17	15.96	0.84	6.41	11.70	1.59	+.37	.56
		789	0.00	18.05	77.18	4.77	0.94	5.02	30.74	1.32	+.45	.55
		822	0.00	2.43	82.88	14.69	0.85	6.16	13.95	1.60	+.38	.55
RC11-172	4808	0	0.00	2.16	38.81	59.03	0.40	8.91	2.06	2.68	+.15	.48
		110	0.00	2.55	29.71	67.74	0.30	9.45	1.43	2.81	-.02	.45
		442	0.00	0.88	88.23	10.89	0.89	6.14	14.11	1.27	+.34	.55
		695	0.00	19.59	72.58	7.83	0.90	5.37	24.06	1.62	+.18	.51
		970	0.00	2.24	41.27	56.49	0.42	8.63	2.52	3.07	+.08	.44

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K_G'
RC11-173	3607	0	0.00	2.25	34.22	63.53	0.35	9.08	1.85	2.81	+.07	.45
		1150	2.96	1.74	36.48	58.82	0.38	8.97	1.99	3.06	+.03	.45
RC11-174	1618	0	50.75	31.89	12.42	4.94	0.72	-1.14	2214.00	3.97	+.81	.40
RC11-175	972	0	42.84	47.93	5.04	4.19	0.55	-0.27	1208.00	3.37	+.08	.46
		200	7.68	46.96	25.81	19.55	0.57	4.78	36.20	3.93	+.35	.56
RC11-176	3819	0	0.00	0.62	38.12	61.26	0.38	9.08	1.84	2.67	+.13	.48
		90	0.00	0.60	29.23	70.17	0.29	9.62	1.26	2.50	+.10	.44
		217	0.00	0.10	23.57	66.33	0.34	9.53	1.35	2.55	+.13	.43
		340	0.00	0.06	37.67	62.27	0.38	9.35	1.53	2.55	+.14	.43
		810	0.00	0.12	21.46	78.42	0.21	10.13	0.89	2.32	+.03	.43
		1000	0.35	2.79	25.08	71.78	0.26	9.68	1.21	2.60	+.05	.46
RC11-177	2957	0	0.00	0.31	30.88	68.81	0.31	9.48	1.39	2.49	+.15	.45
		393	0.00	97.40	1.56	1.04	0.60	2.16	223.70	0.53	+.27	.53
		457	0.00	94.50	3.27	2.23	0.59	2.09	233.70	0.81	+.12	.62
		665	0.00	2.31	41.48	56.21	0.42	8.74	2.33	3.01	+.11	.44
		690	0.00	2.22	95.27	2.51	0.97	4.56	42.20	0.57	+.55	.60

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC11-178	1547	0	0.72	71.15	20.16	7.97	0.72	3.35	97.60	2.06	+.35	.68
		55	13.61	80.31	2.82	3.28	0.46	0.95	514.00	1.85	-.06	.56
		75	67.24	30.06	1.58	1.12	0.59	-1.77	3418.00	2.34	+.62	.40
RC11-179	4067	2	0.00	2.51	36.07	61.42	0.37	8.74	2.32	2.93	+.05	.48
		100	0.00	11.52	33.66	54.82	0.38	8.23	3.33	3.44	-.05	.48
		236	0.00	2.95	47.22	49.83	0.49	8.49	2.78	2.45	+.30	.53
		310	0.00	2.39	30.56	67.05	0.31	9.29	1.59	2.76	+.04	.46
		334	0.00	1.53	92.57	5.90	0.94	5.93	16.32	1.05	+.21	.53
RC11-180	3860	0	14.52	1.45	29.48	54.55	0.35	7.14	7.07	4.55	-.28	.53
		60	0.00	11.73	38.82	49.45	0.44	8.11	3.61	3.43	+.04	.48
		134	0.00	1.05	70.67	28.28	0.71	6.57	10.50	1.77	+.10	.40
		691	0.00	2.18	89.22	8.60	0.91	5.92	16.47	1.29	+.24	.52
		965	0.00	1.92	25.14	72.94	0.26	9.56	1.32	2.66	+.05	.48
		1011	0.00	16.98	37.25	45.77	0.45	7.68	4.85	3.74	+.14	.42

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC11-181	1289	0	1.38	90.83	6.17	3.00	0.67	1.50	351.00	1.54	+.32	.63
		44	25.38	71.26	1.95	1.41	0.58	-0.21	1162.00	1.26	+.13	.54
		128	66.40	32.58	0.75	0.27	0.74	-1.55	2941.00	1.43	+.17	.50
RC11-183	3636	0	0.00	0.22	30.28	69.50	0.30	9.61	1.28	2.51	+.09	.43
		48	0.00	0.06	92.15	7.79	0.92	6.33	12.37	1.13	+.43	.68
		148	0.00	0.06	91.78	8.16	0.92	6.16	13.98	1.00	+.53	.69
		156	0.00	50.57	46.66	2.77	0.94	3.94	65.10	0.79	+.07	.54
		194	0.00	69.18	28.94	1.88	0.94	3.31	100.30	1.08	+.11	.47
		877	0.00	1.51	31.06	67.43	0.32	9.50	1.38	2.64	+.08	.44
RC11-184	3959	0	0.00	1.50	32.98	65.52	0.33	9.42	1.46	2.65	+.10	.43
		170	0.00	1.28	87.90	10.82	0.89	5.85	17.29	1.44	+.39	.62
		210	0.00	1.97	53.13	44.90	0.54	7.66	4.93	2.49	+.11	.49
		274	0.00	0.45	95.33	4.22	0.96	5.31	25.09	0.77	+.37	.56
		1049	0.00	0.00	29.01	70.99	0.29	9.76	1.15	2.41	+.13	.41

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC11-185	4438	0	0.00	1.11	34.68	64.21	0.35	9.30	1.58	2.49	+.21	.43
		55	0.00	1.51	58.17	40.32	0.59	7.86	4.28	2.66	+.39	.47
		64	0.00	2.30	88.18	9.52	0.90	5.94	16.25	1.30	+.44	.53
		85	0.00	1.78	50.85	47.37	0.52	8.03	3.82	2.59	+.18	.50
		322	0.00	1.09	35.89	63.02	0.36	9.14	1.77	2.64	+.13	.48
		552	0.00	0.04	26.79	73.17	0.27	9.85	1.08	2.39	+.16	.43
		670	0.00	0.23	12.48	87.29	0.13	10.52	0.68	2.12	+.02	.43
		736	0.00	1.38	88.73	9.89	0.90	5.93	16.40	1.39	+.39	.56
RC11-186	2582	0	0.00	0.13	22.18	77.69	0.22	9.88	1.06	2.33	+.14	.45
		173	0.00	46.45	48.30	5.25	0.90	4.04	60.70	1.21	+.14	.77
		371	0.00	0.07	42.43	57.50	0.42	8.87	2.13	2.50	+.18	.50
		464	0.00	2.68	92.04	5.28	0.95	4.89	33.60	0.99	+.64	.64
		562	0.00	2.15	90.15	7.70	0.92	4.93	32.80	1.38	+.72	.74
		712	0.00	0.33	91.48	8.19	0.92	5.78	18.11	1.39	+.09	.66

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC11-186	2582	727	0.00	94.58	4.48	0.94	0.83	2.76	147.20	0.57	+.30	.55
		805	0.00	0.05	38.82	61.13	0.39	9.11	1.81	2.76	+.17	.44
		1161	0.00	3.12	87.55	9.33	0.90	4.50	44.10	1.10	+.67	.82
RC11-187	2670	0	0.00	0.30	22.72	66.98	0.34	9.35	1.53	2.53	+.14	.46
		100	0.00	0.75	44.26	54.99	0.45	8.60	2.56	2.54	+.18	.54
		258	0.00	0.51	50.14	49.35	0.50	8.16	3.48	2.97	+.15	.45
		340	0.00	1.02	23.29	75.69	0.24	9.67	1.23	2.36	+.14	.47
		514	0.00	0.98	58.82	40.20	0.59	7.89	4.20	2.50	+.36	.50
		631	0.00	1.95	35.79	62.26	0.37	8.94	2.03	2.71	+.07	.53
		903	0.00	0.84	27.06	72.10	0.27	9.89	1.05	3.27	-.45	.44
		930	0.00	3.26	24.96	71.78	0.26	9.90	1.04	3.28	-.45	.44
RC11-188	3319	0	0.00	0.36	26.27	73.37	0.26	9.39	1.48	2.24	+.14	.55
		83	0.00	1.13	45.76	53.11	0.46	8.43	2.89	2.51	+.17	.55
		316	0.00	2.57	50.37	47.06	0.52	8.05	3.75	2.80	+.16	.50

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
RC11-188	3319	558	0.00	0.24	24.79	74.97	0.25	9.42	1.46	2.32	+.21	.50
		1115	0.00	1.80	53.47	44.73	0.54	7.92	4.11	2.75	+.17	.51
RC11-189	3922	0	0.00	0.00	50.95	49.05	0.51	8.72	2.36	2.58	+.37	.46
		359	0.00	0.96	43.18	55.86	0.44	8.69	2.41	2.78	+.09	.50
		472	0.00	0.00	91.24	8.76	0.91	6.42	11.62	1.09	+.37	.60
		666	0.00	0.01	37.81	62.18	0.38	9.01	1.94	2.15	+.29	.54
		789	0.00	0.00	86.20	13.80	0.86	6.63	10.09	1.29	+.42	.64
		897	0.00	1.20	49.32	49.48	0.50	8.30	3.15	2.91	+.19	.48
RC11-190	4254	0	0.00	0.00	21.58	78.42	0.22	9.96	1.00	2.27	+.20	.44
		53	0.00	0.00	27.19	72.19	0.27	9.86	1.08	2.33	+.14	.41
		71	0.00	0.00	87.10	12.90	0.87	6.81	8.91	1.25	+.39	.67
		94	0.00	0.04	17.11	82.85	0.17	10.29	0.80	2.21	+.04	.42
		110	0.00	0.06	90.32	9.62	0.90	6.47	11.28	1.20	+.41	.69
		130	0.00	1.92	95.27	2.81	0.97	5.09	29.22	0.71	+.19	.50

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC11-190	4254	133	0.00	0.04	23.39	76.57	0.23	9.96	1.00	2.70	+.12	.42
		145	0.00	0.00	36.56	63.44	0.37	9.42	1.46	2.42	+.21	.42
		166	0.00	0.00	19.55	80.45	0.20	10.19	0.85	2.27	+.07	.43
		175	0.00	0.00	21.26	78.74	0.21	9.97	0.99	2.34	+.11	.43
		185	0.00	0.00	74.17	25.83	0.74	7.44	5.74	2.13	+.60	.60
		198	0.00	0.28	95.57	4.15	0.96	5.46	22.66	0.67	+.48	.56
		231	0.00	0.13	87.20	12.67	0.87	6.44	11.51	1.40	+.47	.67
		247	0.00	0.91	90.75	8.34	0.92	5.46	22.61	1.31	+.48	.67
RC11-190	4254	320	0.00	0.00	28.55	71.45	0.29	9.71	1.19	2.30	+.22	.43
		786	0.00	0.02	25.73	74.25	0.26	9.76	1.15	2.27	+.23	.44
		911	0.00	0.13	95.92	3.95	0.96	6.33	12.43	0.56	+.03	.81

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC11-191	4387	0	0.00	0.00	16.75	83.27	0.17	10.24	0.82	2.16	+.12	.44
		377	0.00	0.07	97.58	2.35	0.98	5.60	20.56	0.44	+.67	.63
		453	0.00	76.40	21.65	1.95	0.92	3.28	102.70	1.04	+.15	.54
		540	0.00	0.02	22.18	77.80	0.22	10.01	0.97	2.20	+.17	.43
		682	0.00	1.63	84.44	13.93	0.86	5.54	21.49	1.94	+.80	.69
		800	0.53	57.05	32.91	9.51	0.76	4.01	61.70	2.44	+.46	.55
		866	0.00	62.30	29.16	8.54	0.77	3.78	72.60	1.92	+.50	.65
RC11-192	4116	4	0.00	1.38	34.83	63.79	0.35	9.17	1.73	2.55	+.12	.52
		210	0.00	0.77	31.38	67.85	0.32	9.50	1.37	2.49	+.11	.46
RC11-193	4748	7	0.00	0.01	16.86	83.13	0.17	10.09	0.92	2.17	+.19	.46
		1000	0.00	0.01	15.81	84.18	0.16	10.33	0.78	2.20	+.07	.42
RC11-194	5303	0	0.00	0.00	15.14	84.86	0.15	10.17	0.87	2.12	+.17	.45
		474	0.00	0.01	18.50	81.49	0.19	10.04	0.95	2.20	+.14	.46
		846	0.00	0.05	19.83	80.02	0.20	9.82	1.11	2.30	+.11	.51

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
RC11-195	4934	4	0.00	0.00	14.59	85.41	0.15	10.18	0.86	2.12	+.20	.45
RC11-196	4927	0	0.00	0.00	15.50	84.50	0.16	10.20	0.85	2.15	+.15	.45
		120	0.00	0.03	12.22	87.75	0.12	10.32	0.78	2.19	+.11	.45
		297	0.00	0.68	25.88	73.44	0.26	9.83	1.10	2.69	-.07	.45
RC11-197	4413	0	7.32	0.54	15.51	76.63	0.17	9.87	1.07	3.80	-.18	.66
		38	0.00	0.56	53.38	46.06	0.54	8.37	3.01	2.80	+.34	.47
		115	52.84	20.68	15.27	11.21	0.58	0.37	770.00	4.93	+.61	.45
RC11-198	5378	0	0.00	0.15	13.81	86.04	0.14	10.01	0.97	2.00	+.26	.50
		678	0.00	0.00	20.93	79.07	0.21	10.10	0.91	2.36	+.04	.45
		725	0.00	1.30	29.78	68.92	0.30	9.54	1.34	2.56	+.09	.46
		766	0.00	0.01	56.64	43.35	0.57	8.27	3.23	2.42	+.44	.50
		820	0.00	0.09	48.27	51.64	0.48	8.51	2.74	2.42	+.30	.48

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V20-64	4205	0	0.00	0.66	31.35	67.99	0.32	9.38	1.50	2.63	+.09	.46
		86	0.00	1.00	42.33	56.67	0.43	8.23	3.30	2.15	+.03	.56
		215	0.00	0.83	31.31	67.86	0.32	9.51	1.37	2.61	+.07	.45
		410	0.00	34.36	61.46	4.18	0.94	4.15	56.00	0.96	+.24	.70
		454	0.00	2.81	82.01	15.18	0.84	5.60	20.61	2.00	+.80	.59
V20-65	5363	0	0.00	0.04	18.76	81.20	0.19	9.99	0.98	2.17	+.17	.46
		160	0.00	0.05	23.75	76.20	0.24	9.90	1.04	2.31	+.14	.44
		360	0.00	0.01	15.76	84.23	0.16	10.21	0.84	2.19	+.14	.45
V20-66	5338	0	0.00	0.01	15.05	84.94	0.15	10.22	0.83	2.14	+.15	.45
		183	0.00	0.03	14.38	85.59	0.14	10.33	0.78	2.15	+.12	.44
		421	0.00	0.00	17.46	82.54	0.17	8.53	2.69	0.71	-.46	.64
		685	0.00	0.00	43.27	56.73	0.43	8.22	3.34	3.36	-.05	.36
V20-67	5042	0	0.00	1.55	15.63	82.82	0.16	10.05	0.94	2.30	+.10	.49

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-68	5788	0	0.00	0.00	19.49	80.51	0.19	10.09	0.92	2.20	+.15	.45
		330	0.00	0.00	14.99	85.01	0.15	10.19	0.86	2.10	+.19	.44
V20-69	5351	36	0.27	0.95	43.85	55.93	0.44	8.39	2.98	2.41	+.14	.55
		560	0.00	0.26	26.45	73.29	0.27	9.06	1.86	1.76	+.10	.60
V20-70	5207	0	0.00	1.00	17.75	81.25	0.18	10.13	0.89	2.31	+.09	.47
		335	0.00	0.38	11.42	88.20	0.11	10.59	0.65	2.29	-.06	.48
V20-71	5302	0	0.00	0.01	17.16	82.83	0.17	10.20	0.85	2.45	-.01	.49
		20	0.00	0.10	12.69	87.21	0.13	10.50	0.69	2.14	+.04	.43
		460	0.00	0.28	12.20	87.52	0.12	10.63	0.63	2.15	-.04	.47
V20-72	4790	5	0.00	0.14	16.38	83.48	0.16	10.11	0.90	2.18	+.14	.46
		130	0.00	0.02	15.49	84.49	0.15	10.27	0.81	2.16	+.09	.44
		390	0.00	1.07	31.88	67.05	0.32	8.93	2.04	2.61	+.01	.53
V20-73	4773	0	0.00	1.45	14.64	83.91	0.15	10.22	0.83	2.14	-.02	.44
		55	0.00	1.30	31.40	67.30	0.32	9.20	1.70	2.60	+.10	.52

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-74	3749	0	0.00	0.12	27.85	72.03	0.28	9.69	1.21	2.40	+.14	.45
		620	0.00	18.73	75.40	5.87	0.93	5.22	26.83	1.50	+.13	.56
		700	0.00	0.02	19.90	80.08	0.20	10.07	0.93	2.41	+.07	.48
V20-75	1657	0	0.00	0.37	38.87	60.76	0.39	9.11	1.81	2.66	+.16	.44
		420	0.00	0.13	39.90	59.97	0.40	9.02	1.92	2.78	+.15	.43
V20-76	2628	0	0.00	0.01	24.82	75.17	0.25	9.79	1.13	2.43	+.10	.47
		61	0.00	0.01	24.37	75.62	0.24	9.96	1.00	2.49	+.04	.45
		83	0.00	0.03	77.48	22.49	0.78	6.69	9.68	1.81	+.50	.54
		122	0.00	0.05	72.91	27.04	0.73	7.33	6.20	2.32	+.63	.55
		145	0.00	2.66	91.89	5.45	0.94	4.83	34.90	0.97	+.67	.70
		210	0.00	23.49	72.03	4.48	0.94	4.48	44.80	1.26	+.43	.78
		296	0.00	0.79	91.01	8.20	0.92	5.33	24.80	1.29	+.55	.65
		322	0.00	32.04	52.46	15.50	0.77	5.17	27.21	2.49	+.64	.65
		356	0.00	91.12	6.01	2.87	0.68	2.89	134.90	0.92	+.00	.63

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V20-77	2659	0	0.00	2.32	24.68	73.00	0.25	9.50	1.38	2.73	+.07	.51
		101	0.00	0.02	92.45	7.53	0.92	6.16	13.95	1.14	+.38	.65
		118	0.00	0.07	90.83	9.10	0.91	6.10	14.47	1.37	+.31	.66
		130	0.00	1.05	95.73	3.22	0.97	5.01	31.00	0.80	+.42	.60
		185	0.00	0.19	95.91	3.90	0.96	6.26	13.01	0.81	+.04	.54
		209	0.00	53.34	43.47	3.19	0.58	3.83	70.30	1.01	+.18	.54
		221	0.00	0.07	29.39	70.54	0.29	9.73	1.17	2.39	+.13	.42
		246	0.00	51.41	46.76	1.83	0.96	3.86	68.30	0.82	-.02	.47
V20-78	2983	15	0.00	0.17	33.06	66.77	0.33	9.22	1.67	2.36	+.19	.50
		120	0.00	0.84	38.92	60.24	0.39	8.82	2.21	2.52	+.15	.55
		530	0.00	0.01	22.88	77.11	0.23	9.98	0.99	2.36	+.11	.45
		870	0.00	1.55	38.06	60.39	0.39	9.01	1.94	2.52	+.13	.54

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K_G'
V20-79	3711	0	0.00	0.10	29.33	70.57	0.29	9.46	1.41	2.46	+.14	.49
		219	0.00	0.06	35.24	64.70	0.35	9.22	1.67	2.46	+.24	.43
		228	0.00	0.00	46.02	53.98	0.46	8.92	2.06	2.50	+.33	.45
		260	0.00	1.70	45.27	53.03	0.46	8.60	2.57	2.59	+.22	.54
		666	0.00	0.00	58.56	41.44	0.59	8.19	3.40	2.62	+.44	.49
V20-80	3801	0	0.00	0.83	48.64	50.53	0.49	8.29	3.18	2.73	+.14	.52
		390	0.00	0.97	43.51	55.52	0.44	8.58	2.60	2.73	+.13	.51
		620	0.00	0.38	33.77	65.85	0.34	9.14	1.77	2.73	+.05	.46
V20-81	4232	0	0.00	1.15	36.70	62.15	0.37	9.33	1.55	2.61	+.13	.43
		33	0.00	0.01	84.80	15.19	0.85	6.99	7.83	1.32	+.41	.68
		42	0.00	0.23	92.82	6.95	0.93	5.83	17.53	1.22	+.36	.60
		78	0.00	0.08	91.03	8.89	0.91	5.85	17.29	1.35	+.24	.73
		85	0.00	0.25	91.41	8.34	0.92	6.29	12.72	1.40	+.16	.66
		119	0.00	0.33	90.40	9.27	0.91	5.39	23.73	1.37	+.59	.76

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	z/(z+c)	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-81	4232	153	0.00	0.00	94.36	5.64	0.94	6.11	14.41	0.85	+.27	.59
		190	0.00	0.04	25.62	74.34	0.26	9.88	1.06	2.29	+.16	.45
		197	0.00	0.30	90.04	9.66	0.90	6.36	12.14	1.45	+.07	.64
		232	0.00	0.76	92.87	6.37	0.94	5.24	26.33	1.00	+.62	.69
V20-82	4294	0	0.00	2.52	30.87	66.61	0.32	9.59	1.30	2.58	+.14	.45
		36	0.00	73.28	24.67	2.05	0.92	3.61	81.80	1.73	+.70	.52
		50	0.00	0.59	35.06	64.35	0.35	9.46	1.42	2.46	+.27	.46
		68	0.00	84.00	13.23	2.77	0.83	2.72	151.40	1.35	+.74	.78
		75	0.00	0.13	21.31	78.56	0.21	10.15	0.88	2.38	+.04	.44
		140	0.00	2.58	59.45	37.97	0.61	7.52	5.42	3.12	+.39	.42
		168	0.00	48 35	42.44	9.21	0.82	4.09	58.70	2.07	+.27	.68
		180	0.00	63.75	33.46	2.79	0.92	3.41	93.80	1.12	+.09	.47

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-83	4345	0	0.00	0.32	23.28	76.40	0.23	9.95	1.01	2.46	+.05	.46
		43	0.00	0.60	65.03	34.37	0.65	7.72	4.71	2.62	+.59	.50
		94	0.00	0.06	12.83	87.11	0.13	10.65	0.62	2.16	-.07	.44
		114	0.00	0.08	42.31	57.61	0.42	9.18	1.72	2.54	+.27	.44
		143	0.00	77.96	19.78	2.26	0.87	3.02	123.20	1.07	+.16	.49
V20-84	4457	0	0.00	0.17	27.30	72.53	0.27	9.76	1.15	2.34	+.15	.43
		115	0.00	0.04	86.43	13.53	0.86	6.97	7.95	1.00	+.32	.60
		272	0.00	0.04	23.42	76.54	0.23	9.85	1.08	2.37	+.11	.44
		292	0.00	0.01	68.48	31.51	0.68	7.94	4.06	2.03	+.45	.61
		297	0.00	1.11	81.05	17.84	0.82	6.35	12.23	1.67	+.44	.56
V20-85	3817	0	0.00	0.71	22.01	77.28	0.22	9.89	1.05	2.40	+.08	.47
		350	0.00	0.48	20.06	79.46	0.20	10.04	0.95	2.35	+.09	.45
		586	0.00	0.09	25.39	74.52	0.25	9.59	1.29	2.62	+.10	.52
		650	0.00	0.45	15.49	84.06	0.16	9.55	1.33	1.92	+.14	.67

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V20-86	5138	0	0.00	0.07	15.91	84.02	0.16	10.26	0.81	2.23	+.08	.45
		45	0.00	0.00	58.48	41.52	0.58	8.35	3.05	2.56	+.52	.45
		57	0.00	0.32	96.38	3.30	0.97	5.50	22.04	0.62	+.15	.51
		70	0.00	0.05	16.73	83.22	0.17	10.31	0.79	2.21	+.06	.43
		82	0.00	2.26	60.54	37.20	0.62	7.07	7.40	3.13	+.72	.41
		100	0.00	0.09	95.21	4.70	0.95	4.80	35.80	0.80	+.52	.68
		107	0.00	0.00	15.71	84.29	0.16	10.25	0.82	2.15	+.16	.43
		271	0.00	0.00	20.23	79.77	0.20	10.06	0.93	2.19	+.15	.43
		761	0.00	0.01	50.64	49.36	0.51	8.84	2.17	2.15	+.54	.50
		920	0.00	0.00	16.94	83.06	0.17	10.20	0.85	2.14	+.14	.42
V20-87	4819	0	0.00	0.08	20.83	79.09	0.21	10.00	0.98	2.21	+.14	.45
		340	0.00	0.01	17.80	82.19	0.22	9.22	1.67	2.34	+.09	.46
		380	0.00	0.02	16.81	83.17	0.17	10.20	0.85	2.24	+.12	.45
		639	2.73	2.79	36.48	58.00	0.39	9.08	1.84	3.19	+.00	.46

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V20-88	5081	0	0.00	0.44	23.63	75.93	0.24	9.70	1.20	2.54	+.06	.50
		835	0.00	0.00	36.30	63.70	0.36	8.54	2.68	3.34	-.11	.36
V20-89	5706	0	0.00	0.12	17.32	82.56	0.17	10.17	0.87	2.16	+.16	.43
		780	0.00	0.00	15.42	84.58	0.15	10.52	0.68	2.52	-.17	.48
V20-90	5991	0	0.00	0.05	19.57	80.38	0.20	10.01	0.97	2.32	+.10	.48
		390	0.00	0.02	17.62	82.36	0.18	10.29	0.80	2.35	+.00	.45
		760	0.00	0.00	15.74	84.26	0.16	10.45	0.71	2.30	-.04	.40
V20-91	5863	0	0.00	0.01	20.44	79.55	0.20	9.97	0.99	2.24	+.14	.46
		410	0.32	0.72	15.03	83.93	0.15	10.10	0.91	2.30	+.13	.48
V20-92	5764	0	0.00	0.27	19.63	88.10	0.20	9.99	0.98	2.27	+.14	.46
		417	0.00	0.01	20.05	79.94	0.20	10.12	0.90	2.37	+.05	.45
		660	0.00	0.56	15.96	83.48	0.16	10.46	0.71	2.45	-.14	.47
V20-93	5797	0	0.00	0.03	21.95	78.02	0.22	9.92	1.03	2.33	+.10	.46
		605	0.00	0.10	15.54	84.36	0.16	10.36	0.76	2.41	-.07	.50

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-94	5993	0	0.00	0.09	24.12	75.79	0.25	9.89	1.05	2.33	+.09	.45
		695	0.00	0.24	15.28	84.48	0.15	10.35	0.77	2.28	+.02	.47
V20-95	5804	0	0.00	0.05	16.61	83.34	0.17	10.27	0.81	2.34	+.03	.46
		650	0.00	0.14	16.61	83.25	0.17	10.22	0.83	2.26	+.07	.45
		900	0.00	0.15	15.08	84.77	0.15	10.61	0.64	2.37	-.16	.47
V20-96	5771	0	0.00	0.05	31.62	68.33	0.32	9.18	1.72	2.67	+.05	.54
		570	0.00	0.09	15.61	84.30	0.16	10.42	0.73	2.29	-.04	.46
V20-97	5841	0	0.00	0.04	17.87	82.09	0.18	10.03	0.95	2.38	+.07	.51
		800	0.00	0.01	15.12	84.87	0.15	10.48	0.70	2.21	-.02	.44
V20-98	5673	0	0.00	0.03	20.45	79.52	0.20	9.98	0.99	2.32	+.10	.47
		292	0.00	0.00	16.10	83.90	0.16	10.17	0.87	2.23	+.17	.44
		940	0.00	0.14	40.40	59.46	0.40	8.68	2.43	2.24	+.21	.58

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-99	5486	0	0.00	0.02	19.91	80.07	0.20	9.97	0.99	2.30	+.14	.47
		17	0.00	0.00	90.23	9.77	0.90	5.59	20.66	1.61	+.59	.69
		64	0.00	0.09	41.34	58.57	0.41	8.81	2.21	2.51	+.25	.50
		112	0.00	0.01	77.29	22.70	0.77	6.92	8.20	1.84	+.54	.60
		132	0.00	0.76	67.05	32.19	0.68	6.96	7.99	2.39	+.23	.50
V20-100	5340	0	0.00	0.01	22.00	77.99	0.22	9.86	1.07	2.37	+.10	.46
		816	0.00	1.45	59.79	38.76	0.61	7.74	4.65	3.14	+.40	.41
		880	0.00	0.09	33.67	66.24	0.34	9.44	1.44	2.62	+.12	.42
V20-101	4460	0	0.00	0.16	42.95	56.89	0.43	8.59	2.58	3.05	+.02	.43
		87	0.00	3.48	69.12	27.40	0.72	6.93	8.16	2.51	+.54	.51
		141	0.00	74.28	17.28	8.44	0.67	3.51	87.30	2.32	+.69	.59
		360	16.09	71.61	7.73	4.57	0.63	0.55	681.00	2.40	+.21	.68
		770	0.00	2.06	25.12	72.82	0.26	9.63	1.26	3.02	-.14	.47

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-102	5216	10	0.00	0.02	26.65	73.33	0.27	7.77	4.57	2.30	+.14	.55
		942	0.00	0.13	23.19	76.68	0.23	10.17	0.86	2.68	-.14	.47
V20-103	3442	0	0.00	1.37	41.13	57.50	0.42	8.71	2.37	2.86	+.11	.48
		180	0.00	0.11	41.53	58.36	0.42	8.80	2.23	3.12	+.03	.41
V20-104	5449	0	0.00	0.02	77.44	22.54	0.77	7.00	7.77	1.72	+.37	.57
		100	0.00	0.08	28.87	77.05	0.23	10.26	0.82	2.37	-.05	.42
		1122	0.00	0.12	22.20	77.68	0.22	9.82	1.10	2.30	+.16	.46
V20-105	5336	0	0.00	0.86	37.89	61.25	0.38	9.55	1.33	2.16	+.27	.44
		40	0.00	0.01	28.26	71.73	0.28	9.47	1.40	2.39	+.18	.47
		1181	0.00	0.06	26.22	73.72	0.26	9.52	1.36	2.41	+.20	.48
V20-107	5872	0	0.00	1.15	27.20	71.65	0.28	9.65	1.24	2.49	+.09	.47
		70	0.00	0.55	27.28	72.17	0.27	9.62	1.27	2.47	+.10	.49
		895	0.00	0.35	94.54	5.11	0.95	5.45	22.82	1.11	+.46	.53
		1270	0.00	0.16	35.62	64.22	0.36	9.37	1.51	2.47	+.23	.45

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K_G'
V20-108	5625	0	16.99	0.16	23.31	59.54	0.28	7.19	6.83	5.38	-.43	.61
		90	0.00	1.34	40.15	58.51	0.41	8.65	2.48	2.62	+.14	.48
		1295	0.00	0.92	92.42	6.66	0.93	5.34	24.68	1.21	+.58	.52
		1660	0.00	0.84	33.16	66.00	0.33	9.25	1.64	2.62	+.11	.51
V20-109	5629	0	0.00	1.26	34.52	64.22	0.35	8.99	1.96	2.52	+.10	.54
		540	0.00	1.20	85.55	13.25	0.87	6.36	12.17	1.41	+.27	.56
		1440	0.00	0.14	64.79	35.07	0.65	7.54	5.37	2.03	+.42	.54
V20-110	4334	0	5.83	12.14	34.14	47.79	0.42	7.60	5.11	4.41	-.21	.55
		240	0.00	0.80	68.01	31.19	0.69	6.73	9.39	2.42	+.08	.42
V20-111	3851	0	0.00	0.83	53.98	45.19	0.54	7.98	3.96	2.45	+.24	.48
		188	0.00	1.54	88.56	9.90	0.90	5.82	17.61	1.40	+.28	.51
		731	0.00	79.40	16.50	4.10	0.80	3.45	91.00	1.96	+.49	.74
		770	0.00	1.27	51.93	46.80	0.53	7.97	3.96	2.74	+.23	.49

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K_G'
V20-118	5360	0	0.00	1.27	38.25	60.48	0.39	8.89	2.10	2.70	+.10	.53
		82	0.00	2.36	35.59	62.05	0.36	9.11	1.81	2.88	+.06	.48
		150	0.00	1.37	30.01	68.62	0.30	9.45	1.43	2.71	+.08	.47
		920	0.00	0.23	17.79	81.98	0.18	10.35	0.76	2.25	+.00	.43
V20-119	2739	0	0.00	2.54	67.37	30.09	0.69	6.73	9.35	2.30	+.42	.50
		230	0.00	1.80	33.03	65.17	0.34	9.20	1.70	2.81	+.04	.46
		657	0.00	1.89	65.19	32.92	0.66	6.95	8.05	2.96	+.48	.45
		746	0.00	2.02	84.30	13.68	0.86	6.19	13.67	1.54	+.25	.55
		947	0.00	1.98	58.93	39.09	0.60	7.14	7.07	2.02	+.04	.48
		986	2.08	29.82	49.93	18.17	0.73	5.37	24.06	2.98	+.34	.54
		1120	0.00	6.94	42.69	50.37	0.46	8.10	3.65	2.58	+.06	.54
V20-120	6216	0	0.00	0.93	38.37	60.70	0.39	8.86	2.15	2.63	+.16	.49
		300	0.00	1.21	48.84	49.95	0.49	7.95	4.05	3.08	+.10	.47
		450	0.17	12.72	83.25	3.86	0.96	4.75	37.10	0.92	+.22	.69

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V20-120	6216	484	0.00	29.04	64.77	6.19	0.91	5.08	29.49	1.71	+.06	.48
		650	0.00	1.67	45.34	52.99	0.46	8.60	2.58	2.91	+.15	.46
		867	0.00	0.75	85.16	14.09	0.86	6.32	12.45	1.45	+.39	.56
		1105	0.00	0.60	89.39	10.01	0.90	6.17	13.92	1.35	+.22	.55
		1480	0.00	30.85	65.56	3.59	0.95	4.83	34.90	1.48	+.14	.48
		1590	0.00	1.00	32.39	66.61	0.34	9.27	1.62	2.89	-.06	.49
V20-121	5859	0	0.00	1.08	42.59	57.33	0.43	8.62	2.52	2.63	+.15	.49
		535	0.00	26.85	66.67	6.48	0.91	5.15	28.03	1.65	+.12	.48
		760	0.00	1.12	87.18	11.70	0.88	6.07	14.88	1.37	+.49	.55
		945	0.00	5.90	84.71	9.39	0.90	5.76	18.36	1.45	+.32	.55
		950	0.00	30.43	63.67	5.90	0.92	4.94	32.40	1.54	+.20	.49
		1570	0.00	8.64	36.35	55.01	0.40	8.53	2.70	3.11	+.05	.49

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V20-122	5563	0	0.00	0.24	40.58	59.18	0.41	8.83	2.19	2.58	+.12	.54
		1053	0.00	30.36	59.97	9.67	0.86	4.99	31.30	1.69	+.54	.53
		1297	0.00	42.23	51.47	6.30	0.89	4.69	38.70	1.64	+.42	.52
		1420	0.00	1.12	46.30	52.58	0.47	8.47	2.82	2.85	+.13	.48
		1525	0.00	1.60	85.88	12.52	0.87	6.04	15.19	1.42	+.41	.56
V20-123	4903	0	0.00	0.74	44.57	54.69	0.45	8.61	2.55	2.52	+.15	.52
		686	0.00	6.23	84.75	9.02	0.90	5.92	16.43	1.41	+.22	.53
		779	0.00	15.99	76.15	7.86	0.91	5.54	21.49	1.58	+.13	.50
		1121	0.00	1.84	90.41	7.75	0.92	6.20	13.53	1.33	+.15	.55
		1320	0.00	1.36	39.92	58.72	0.40	8.27	3.22	2.21	+.05	.57
		1340	0.00	37.04	59.14	3.82	0.94	4.56	42.30	1.34	+.26	.51
V20-124	5534	0	0.00	2.38	45.43	52.19	0.47	8.49	2.77	2.79	+.17	.49
		646	0.00	15.01	80.24	4.75	0.94	4.98	31.50	1.17	+.28	.60
		830	0.00	1.21	48.42	50.37	0.49	8.30	3.17	2.82	+.14	.49

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-125	5545	0	0.00	0.14	43.75	56.11	0.44	8.64	2.50	2.36	+.18	.54
		433	0.00	22.03	71.55	6.42	0.92	5.38	24.01	1.85	-.23	.54
		726	0.00	2.85	86.39	10.76	0.89	6.11	14.41	1.35	+.27	.55
		750	0.00	21.12	72.46	6.42	0.92	5.11	28.90	1.67	+.26	.60
		928	0.00	1.68	42.37	55.95	0.43	8.74	2.32	2.87	+.14	.45
V20-126	5515	0	0.00	0.57	37.30	62.13	0.38	8.94	2.03	2.46	+.17	.51
		80	0.00	15.23	73.31	11.46	0.86	5.83	17.57	1.76	+.06	.51
		573	0.00	0.82	84.19	14.99	0.85	6.31	12.57	1.60	+.30	.56
		596	0.00	30.22	64.86	4.92	0.93	4.83	34.90	1.39	+.24	.52
		763	0.00	53.54	39.92	6.54	0.86	4.31	50.10	1.69	+.52	.54
		1020	0.00	1.22	45.21	53.57	0.46	8.48	2.78	2.84	+.14	.50
V20-127	5583	0	0.00	0.36	38.28	61.36	0.38	9.08	1.84	2.61	+.13	.53
		537	0.00	47.22	48.27	4.51	0.91	4.40	47.20	1.47	+.38	.51
		661	0.00	23.52	68.46	8.02	0.90	5.31	25.09	1.71	+.03	.53
		1130	0.00	0.17	30.63	69.20	0.31	9.49	1.39	2.43	+.18	.48

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-128	5612	0	0.00	0.16	28.96	70.88	0.29	9.44	1.43	2.47	+.20	.45
		445	0.00	24.60	65.64	9.76	0.87	5.21	26.89	1.83	+.26	.53
		948	0.00	9.34	75.71	14.95	0.84	6.12	14.34	1.77	+.32	.56
		1010	0.00	0.04	28.26	71.70	0.28	9.64	1.25	2.44	+.14	.46
V20-129	5766	0	0.00	0.24	38.46	61.30	0.39	9.17	1.73	2.46	+.19	.48
		312	0.00	0.90	87.95	11.15	0.89	5.94	16.25	1.46	+.45	.53
		527	0.00	24.69	68.05	7.26	0.90	5.11	28.82	1.70	+.23	.56
		1250	0.00	21.98	68.26	9.76	0.88	5.28	25.74	1.78	+.25	.55
		1260	0.00	0.82	38.43	60.75	0.39	9.01	1.93	2.63	+.15	.46
V20-131	5858	0	0.00	6.88	35.45	57.67	0.38	8.62	2.52	3.13	.00	.48
		852	0.00	56.13	37.72	6.15	0.85	4.07	59.40	1.38	+.47	.54
		958	0.00	29.54	62.93	7.53	0.89	4.98	31.40	1.76	+.28	.55
		971	0.00	1.10	45.00	53.90	0.46	8.57	2.63	2.82	+.15	.47

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V20-133	1503	0	0.00	44.25	36.15	19.60	0.65	4.62	40.50	2.98	+.31	.52
		140	0.85	65.24	24.02	9.89	0.71	3.54	85.90	2.69	+.52	.56
V20-135	2598	0	0.00	0.62	53.63	45.75	0.54	8.09	3.65	2.85	+.32	.46
		160	0.00	3.88	54.50	41.62	0.57	7.71	4.75	2.86	+.26	.49
		212	0.00	91.98	6.80	1.22	0.85	2.88	135.50	0.60	+.31	.58
		412	0.00	38.07	55.21	6.72	0.89	4.31	50.40	1.52	+.42	.70
		428	0.00	84.06	11.47	4.27	0.72	3.16	111.80	1.16	+.39	.70
		635	0.00	82.92	13.08	4.00	0.76	3.28	102.40	1.10	+.30	.70
V20-136	6306	0	0.00	10.40	41.60	48.00	0.46	8.08	3.68	3.06	+.08	.51
		141	0.00	64.30	30.07	5.63	0.84	3.68	77.80	1.65	+.43	.52
		340	0.00	32.55	56.37	11.08	0.84	5.12	28.62	2.01	+.35	.52
		352	0.00	22.76	41.04	36.20	0.53	6.80	8.93	3.23	+.14	.45

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V21-59	2992	0	0.00	1.96	43.82	54.22	0.45	8.87	2.13	2.89	+.10	.42
		160	0.00	.49	63.92	35.59	0.64	6.90	8.35	2.59	+.46	.45
		180	0.00	29.34	51.98	18.68	0.74	5.32	24.97	2.97	+.31	.56
		367	0.00	1.63	68.02	30.35	0.69	7.00	7.81	2.47	+.36	.52
V21-60	3751	0	0.00	1.52	51.14	47.34	0.52	8.35	3.05	2.84	+.25	.46
		62	0.00	1.14	48.88	49.98	0.49	8.28	3.20	2.86	+.19	.47
		84	0.00	36.14	47.31	16.55	0.74	5.25	26.15	2.82	+.50	.57
		134	0.00	2.76	58.21	39.03	0.60	7.59	5.19	2.73	+.35	.47
		188	0.00	0.75	59.78	39.47	0.60	7.55	5.32	2.81	+.42	.47
		211	0.00	73.04	18.58	8.38	0.69	3.48	89.20	1.94	+.47	.74
		295	0.00	0.44	57.78	41.78	0.58	7.89	4.20	2.64	+.31	.48
V21-61	4583	0	0.00	0.39	37.24	62.37	0.37	9.02	1.92	2.70	+.13	.45
		100	0.00	0.22	38.12	61.66	0.38	9.02	1.92	2.74	+.09	.47
		220	0.00	0.05	64.49	35.46	0.65	7.30	6.33	2.18	+.20	.55

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-61	4583	274	2.18	83.25	12.83	1.74	0.88	2.35	196.10	1.60	+.26	.64
		312	0.00	0.21	45.29	54.50	0.45	8.56	2.63	2.46	+.19	.52
		400	0.00	0.09	49.35	50.38	0.50	8.10	3.64	2.29	+.14	.53
		478	0.00	0.09	65.11	34.80	0.65	7.52	5.42	1.81	+.32	.56
		519	0.00	2.14	96.24	1.62	0.98	4.81	35.40	0.43	+.35	.68
		545	0.00	0.08	69.96	29.96	0.70	7.30	6.31	2.03	+.37	.58
		553	0.00	1.03	92.64	6.33	0.94	5.37	24.06	1.14	+.46	.57
		581	0.00	0.08	64.19	35.73	0.64	7.48	5.58	1.97	+.27	.53
V21-62	4625	0	0.00	0.02	48.56	51.42	0.49	8.90	2.08	2.74	+.46	.45
		54	0.00	41.57	43.86	14.57	0.75	5.07	29.76	2.49	+.39	.49
		248	0.00	22.71	52.18	25.11	0.68	6.08	14.78	2.92	+.56	.50
		500	0.00	0.13	47.92	51.95	0.48	8.61	2.55	2.64	+.26	.47
V21-63	4674	0	0.00	0.02	16.91	83.07	0.17	9.98	0.99	2.20	+.22	.47
		495	0.00	0.14	17.65	82.21	0.18	9.86	1.08	2.10	+.23	.48

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V21-64	4867	0	0.00	0.00	20.61	79.39	0.21	9.73	1.17	2.03	+.30	.48
		653	0.00	0.07	13.11	86.82	0.13	9.89	1.05	1.95	+.29	.52
V21-65	5365	10	0.00	0.00	16.57	83.43	0.17	10.15	0.88	2.20	+.15	.45
		810	0.00	0.06	9.54	90.40	0.10	10.72	0.59	2.00	-.03	.45
V21-66	5601	0	0.00	0.02	19.12	80.86	0.19	10.04	0.95	2.36	+.60	.47
		695	0.00	0.00	9.13	90.87	0.09	8.67	2.45	0.90	+.30	.80
V21-67	5879	0	0.00	0.00	11.28	88.72	0.11	10.21	0.84	2.36	+.14	.53
		425	0.00	0.23	41.89	57.88	0.42	8.52	2.71	1.79	+.29	.57
		591	0.00	0.08	15.70	84.22	0.16	10.15	0.88	2.15	+.19	.49
V21-68	5953	0	0.00	0.00	19.05	80.95	0.19	10.00	0.97	2.92	+.11	.45
		550	0.00	0.04	13.58	86.38	0.14	10.47	0.71	2.16	+.01	.44
V21-69	5982	0	0.00	0.00	23.72	76.28	0.24	9.78	1.13	2.38	+.14	.47
		573	0.00	0.04	10.58	89.38	0.11	10.54	0.67	2.02	+.13	.44

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-70	5954	0	0.00	0.00	20.36	79.64	0.20	9.89	1.05	2.35	+.11	.45
		640	0.00	0.08	8.56	91.36	0.09	10.96	0.50	2.11	-.16	.48
V21-71	5954	0	0.43	0.03	25.10	74.44	0.25	9.67	1.22	2.49	+.10	.48
V21-72	5369	12	0.38	0.31	30.24	69.07	0.30	9.49	1.39	2.77	-.02	.47
		174	0.00	0.29	17.35	82.36	0.17	10.12	0.89	2.50	.00	.51
V21-73	5872	0	0.00	0.21	25.51	74.28	0.26	9.70	1.20	2.39	+.16	.46
		933	0.00	0.12	19.60	80.28	0.20	10.13	0.89	2.33	+.08	.44
V21-74	6015	0	0.00	0.44	27.26	72.30	0.27	9.54	1.34	2.42	+.13	.47
		446	0.00	11.40	80.36	8.24	0.91	5.43	23.08	1.45	+.30	.51
		893	0.00	0.53	27.57	71.90	0.28	9.61	1.28	2.55	+.12	.47
V21-75	6119	0	0.00	0.62	30.21	69.17	0.30	9.33	1.55	2.53	+.18	.48
		137	0.00	0.66	64.09	35.25	0.65	7.33	6.21	2.55	+.36	.50
		357	0.00	1.47	87.45	11.08	0.89	6.02	15.40	1.39	+.45	.54
		805	0.00	0.10	24.90	75.00	0.25	9.79	1.13	2.42	+.10	.44

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-76	5916	0	0.00	1.26	45.66	53.08	0.46	8.55	2.66	2.84	+.16	.48
		130	0.00	8.98	77.50	13.52	0.85	6.03	15.30	1.77	+.21	.55
		458	0.00	0.88	85.36	13.76	0.86	6.43	11.57	1.35	+.17	.55
		628	0.00	9.76	68.38	21.86	0.76	6.30	12.63	1.90	+.15	.47
		860	0.00	0.11	32.60	67.29	0.33	9.35	1.53	2.46	+.22	.47
V21-78	1106	0	0.66	88.07	7.47	3.80	0.66	0.80	571.00	1.62	+.49	.76
		450	7.69	92.31	0.00	0.00	0.00	0.53	689.00	0.86	-.29	.60
		900	6.73	91.62	0.57	1.08	0.35	0.35	782.00	0.86	-.06	.55
V21-85	1684	17	0.00	73.16	15.41	11.43	0.57	3.51	87.70	2.37	+.61	.63
		270	0.00	70.26	16.27	13.47	0.55	3.74	74.40	2.68	+.59	.66
V21-86	5717	0	0.00	2.28	26.36	71.36	0.27	8.88	2.11	2.83	+.14	.49
		370	0.00	30.45	62.49	7.06	0.90	4.87	34.00	1.63	+.36	.52
		380	0.00	12.77	77.25	9.98	0.88	5.66	19.77	1.64	+.21	.52
		560	0.00	19.98	71.35	8.67	0.89	5.25	26.15	1.70	+.36	.55
		661	0.00	3.61	36.55	59.84	0.38	8.94	2.03	2.92	+.04	.47

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-87	5879	0	0.00	2.87	36.55	60.58	0.38	8.85	2.16	2.64	+.09	.50
		78	0.00	2.50	39.17	58.33	0.40	8.74	2.33	2.64	+.12	.51
		538	0.00	6.22	76.56	17.22	0.82	5.93	16.40	2.08	+.63	.67
		600	0.00	4.44	85.09	10.47	0.89	5.83	17.57	1.38	+.40	.56
		611	0.00	25.11	69.27	5.62	0.92	5.02	30.81	1.51	+.35	.54
		891	0.00	19.55	72.59	7.86	0.90	5.52	21.74	1.69	+.01	.48
V21-88	5757	0	0.00	1.34	56.95	41.71	0.58	7.83	4.39	2.83	+.35	.48
		20	0.00	9.54	77.26	13.20	0.85	5.86	17.21	1.76	+.33	.56
V21-89	5821	0	0.00	0.96	57.57	41.47	0.58	7.17	6.91	2.30	+.49	.49
		220	0.00	1.54	31.93	66.53	0.32	9.22	1.67	2.63	+.13	.48
V21-90	5841	0	0.00	21.33	42.85	35.82	0.55	6.67	9.82	3.26	+.04	.47
		100	0.67	39.95	37.66	21.72	0.63	5.48	22.35	3.02	+.30	.47

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-91	5128	0	0.00	0.88	73.51	25.61	0.74	6.90	8.33	2.13	+.40	.56
		13	0.00	0.48	86.19	13.33	0.87	5.82	17.70	1.60	+.52	.57
		165	0.00	1.26	56.29	42.45	0.57	7.69	4.82	2.40	+.24	.51
		215	0.00	0.87	78.88	20.25	0.80	6.91	8.31	1.55	+.36	.59
		222	0.00	0.50	83.61	15.89	0.84	6.29	12.77	1.54	+.32	.51
		360	0.00	0.70	50.18	49.12	0.50	8.02	3.84	2.34	+.14	.51
V21-92	4283	0	0.00	1.93	61.49	36.58	0.63	7.52	5.44	2.51	+.31	.53
V21-93	2878	0	0.00	42.11	52.13	5.76	0.90	4.15	56.30	1.37	+.29	.71
		70	0.00	71.00	25.73	3.27	0.89	3.51	87.50	0.97	+.17	.56
		100	0.00	51.33	30.74	17.93	0.63	4.45	45.60	3.48	+.34	.47
		126	0.00	0.63	61.03	38.34	0.61	7.51	5.47	2.74	+.39	.48
V21-139	6009	0	0.00	0.60	50.76	48.64	0.51	8.30	3.17	2.57	+.29	.44
		60	0.00	0.15	27.86	71.99	0.28	9.44	1.43	2.50	+.14	.48
		309	0.59	78.53	12.94	7.94	0.60	3.06	119.60	2.02	+.51	.68

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-139	6009	637	0.00	0.01	67.39	32.60	0.67	7.46	5.67	1.92	+.46	.56
		647	0.02	1.23	69.75	29.00	0.71	7.14	7.05	2.11	+.48	.54
		1135	0.00	0.19	31.32	68.49	0.31	9.39	1.49	2.38	+.20	.48
V21-140	5949	0	0.00	0.70	34.62	64.68	0.35	9.13	1.78	2.71	+.12	.47
		160	0.00	0.39	82.35	17.26	0.83	6.38	11.97	1.72	+.44	.56
		397	0.00	20.71	64.08	15.21	0.81	5.65	19.82	2.35	+.28	.63
		421	0.00	0.67	27.01	72.32	0.27	9.44	1.43	2.68	+.03	.48
V21-141	5821	0	0.00	1.97	44.18	53.85	0.45	8.10	3.62	3.28	+.01	.44
		555	0.00	0.42	40.91	58.67	0.41	8.85	2.15	2.47	+.26	.48
V21-142	4241	0	0.00	0.63	34.44	64.93	0.35	9.31	1.58	2.69	+.11	.46
		471	0.00	0.93	89.37	9.70	0.90	5.51	21.84	1.37	+.64	.61
		870	0.00	0.94	50.20	48.86	0.51	8.16	3.48	2.69	+.19	.49
V21-143	3592	0	0.39	29.01	36.39	34.21	0.51	6.34	12.28	3.34	-.04	.46
		32	3.29	6.47	42.16	48.08	0.47	7.45	5.70	2.60	-.26	.67

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-144	4931	0	0.00	0.05	23.37	76.58	0.23	9.62	1.26	2.51	+.18	.48
V21-145	6088	0	0.18	0.06	30.27	69.49	0.30	9.21	1.68	2.39	+.17	.53
		812	0.00	2.38	89.00	8.62	0.91	5.58	20.90	1.43	+.47	.49
		1200	0.00	0.46	27.66	71.88	0.28	9.65	1.24	2.65	+.05	.46
V21-146	3968	0	0.00	0.95	33.93	65.12	0.34	8.97	1.98	2.68	+.04	.50
		92	0.00	7.21	33.98	58.81	0.37	8.84	2.17	2.91	+.04	.49
		308	0.00	1.48	44.63	53.89	0.45	8.58	2.61	2.68	+.14	.55
		825	0.00	1.27	43.40	55.33	0.44	8.64	2.50	2.86	+.09	.47
		1175	0.00	1.69	26.41	71.90	0.43	9.23	1.65	2.31	+.15	.55
V21-147	5256	0	0.00	0.08	32.10	69.82	0.32	9.45	1.42	2.43	+.17	.49
		180	0.00	30.18	62.93	6.89	0.68	4.91	33.20	1.63	+.41	.50
		251	0.00	0.50	26.21	73.29	0.26	9.67	1.22	2.47	+.15	.47
		500	0.00	0.45	26.27	73.28	0.26	9.66	1.24	2.50	+.07	.45
		751	0.00	0.17	24.03	75.80	0.24	9.89	1.05	2.43	+.11	.45

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-147	5256	1000	0.00	0.20	24.69	75.11	0.25	9.67	1.23	2.47	+.14	.45
		1213	0.00	0.05	32.44	67.51	0.32	9.26	1.63	2.32	+.28	.47
V21-148	5477	0	0.00	2.25	33.79	63.96	0.35	9.12	1.80	2.76	+.09	.48
		498	0.00	1.84	28.96	69.20	0.30	9.44	1.43	2.72	+.04	.49
		905	0.00	1.35	37.16	61.49	0.38	9.02	1.92	2.82	+.07	.47
		1402	0.00	0.12	7.23	92.65	0.07	10.98	0.49	2.00	-.10	.45
V21-149	5665	0	0.00	2.81	58.49	38.70	0.60	7.34	6.17	2.57	+.28	.49
		465	0.00	1.07	88.23	10.70	0.89	5.91	16.63	1.34	+.53	.60
		610	0.00	1.10	41.38	57.52	0.42	8.78	2.26	2.79	+.12	.46
		740	0.00	1.94	85.78	12.28	0.87	6.21	13.44	1.41	+.25	.51
		945	0.00	0.41	81.88	17.71	0.82	6.77	9.12	1.34	+.38	.54
		965	0.00	2.32	81.38	16.30	0.83	6.07	14.81	1.83	+.48	.55
		1175	0.00	1.42	33.96	64.62	0.34	9.23	1.66	2.65	+.10	.48

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-150	5416	0	0.00	1.88	34.77	63.35	0.35	8.85	2.16	2.55	+.07	.55
		481	0.00	1.85	56.44	41.71	0.58	7.51	5.46	2.23	+.05	.54
		504	0.00	2.23	76.44	21.33	0.78	6.56	10.57	1.92	+.29	.53
		1140	0.00	1.82	51.03	47.15	0.52	8.10	3.63	2.66	+.21	.50
V21-151	5055	0	0.00	2.06	47.58	50.36	0.49	8.26	3.24	3.05	+.13	.45
		142	12.37	31.15	41.34	15.14	0.73	4.78	36.30	3.76	+.09	.64
		254	0.00	0.36	83.19	16.45	0.83	6.44	11.46	1.63	+.32	.56
		545	0.00	1.71	82.45	15.84	0.84	6.62	10.14	1.40	+.21	.55
V21-166	7103	0	0.00	0.24	37.87	61.89	0.38	9.20	1.70	2.68	+.12	.45
		152	0.00	0.01	30.72	69.27	0.31	9.60	1.29	2.52	+.09	.43
		216	0.00	0.21	82.42	17.37	0.83	6.35	12.25	1.85	+.73	.59
		349	0.00	83.43	8.74	7.83	0.53	3.17	110.30	1.76	+.45	.76
		460	0.05	75.77	19.07	5.11	0.79	3.01	123.50	1.59	+.45	.59
		505	0.10	48.31	31.33	20.26	0.61	5.16	27.84	3.35	+.34	.46

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V21-167	6909	0	0.00	27.08	63.79	9.13	0.87	4.81	35.60	1.73	+.70	.73
		37	0.00	4.93	88.58	6.49	0.93	5.33	24.80	1.23	+.43	.49
		63	0.00	45.22	29.56	25.22	0.54	5.84	17.41	3.13	+.06	.44
		78	0.00	27.91	67.57	4.52	0.94	4.32	49.90	1.05	+.21	.68
V21-170	7011	0	0.00	1.54	42.45	56.01	0.43	8.93	2.05	2.79	+.13	.48
		28	0.00	42.41	55.92	1.67	0.97	4.00	62.50	0.69	-.13	.55
		158	0.00	16.37	79.18	4.45	0.95	4.74	37.40	1.30	+.37	.75
		179	0.00	0.04	19.52	80.44	0.20	10.16	0.87	2.25	+.10	.43
		238	0.00	47.37	51.61	1.02	0.98	3.95	64.40	0.58	-.08	.53
V21-171	5013	0	0.00	0.71	72.78	26.51	0.73	6.99	7.84	2.21	+.47	.57
		10	0.00	34.59	51.25	14.16	0.78	5.34	24.68	2.38	+.33	.51
		190	0.00	1.74	45.16	53.10	0.46	8.32	3.12	2.95	+.09	.47
		253	0.00	26.01	66.38	7.61	0.90	5.01	31.00	1.91	+.50	.61
		412	0.00	21.77	70.79	7.44	0.90	4.86	34.40	1.47	+.43	.61

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-171	5013	596	21.97	72.74	4.28	1.01	0.81	0.07	950.00	2.72	-.51	.58
		711	0.00	2.11	54.35	43.54	0.56	6.13	14.27	1.55	+.42	.62
		822	0.00	0.59	87.11	12.30	0.88	8.02	3.85	2.77	+.25	.45
		838	0.00	38.04	55.35	6.61	0.89	4.41	47.00	1.50	+.33	.70
		846	0.00	36.79	47.74	15.47	0.76	5.25	26.27	2.61	+.40	.55
V21-172	5198	0	0.00	12.24	66.40	21.36	0.76	6.24	13.16	2.17	+.26	.50
		50	0.00	1.89	44.31	53.80	0.45	8.74	2.32	2.91	+.06	.47
		268	0.00	1.90	85.80	12.30	0.87	6.11	14.47	1.36	+.46	.52
		278	0.00	35.37	58.86	5.77	0.91	4.78	36.20	1.61	+.35	.48
		579	0.00	29.38	65.29	5.33	0.92	4.77	36.60	1.43	+.40	.53
		602	0.00	1.63	32.27	66.10	0.33	9.03	1.90	2.84	+.01	.51
		1032	0.00	1.21	63.54	35.25	0.64	7.32	6.25	2.57	+.32	.49
		1069	0.00	53.63	42.39	3.98	0.91	4.08	58.90	1.43	+.33	.55
		1080	0.00	53.25	41.38	5.37	0.89	4.25	52.30	1.65	+.48	.51

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V21-173	5493	0	0.00	1.40	25.51	73.09	0.26	8.64	2.50	2.51	+.14	.46
		210	0.00	1.73	88.70	9.57	0.90	5.89	16.78	1.45	+.32	.54
		724	0.00	19.46	73.69	6.85	0.91	5.36	24.29	1.69	+.16	.55
		812	0.00	22.76	73.48	3.76	0.95	4.76	36.90	1.25	+.34	.54
		1182	0.00	1.19	48.18	50.63	0.49	8.58	2.61	2.46	+.31	.50
V21-174	5691	0	0.00	0.09	20.23	79.68	0.20	10.03	0.95	2.35	+.09	.45
		1001	0.00	0.19	17.27	82.54	0.17	9.06	1.87	1.51	+.12	.65
V21-175	5654	10	0.00	0.01	21.96	78.03	0.22	9.78	1.14	2.28	+.15	.48
		102	0.00	0.02	19.09	80.89	0.19	9.92	1.03	2.19	+.22	.45
		201	0.00	0.13	22.85	77.02	0.23	9.77	1.14	2.26	+.17	.48
		301	0.00	0.00	19.71	80.92	0.20	9.88	1.06	2.19	+.23	.47
		400	0.00	0.00	16.88	83.12	0.17	10.10	0.91	2.20	+.17	.45
		497	0.00	0.00	17.64	82.36	0.18	9.98	0.99	2.31	+.13	.43
		579	0.00	0.08	17.86	82.06	0.18	10.07	0.93	2.22	+.16	.46

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-175	5654	648	0.00	0.00	17.23	82.77	0.17	10.02	0.96	2.27	+.17	.48
		699	0.00	0.00	17.05	82.95	0.17	10.15	0.88	2.29	+.09	.46
		801	0.00	0.02	16.38	83.60	0.16	10.15	0.88	2.27	+.10	.46
		901	0.00	0.07	22.62	77.31	0.23	9.69	1.21	2.72	+.01	.53
		998	0.00	0.00	21.85	78.15	0.22	9.69	1.21	2.21	+.22	.49
		1098	0.00	0.03	16.81	83.16	0.17	10.06	0.94	2.22	+.16	.49
V21-176	5621	0	0.00	0.03	18.03	81.94	0.18	10.03	0.96	2.34	+.11	.48
		670	0.00	2.59	12.75	84.66	0.13	10.56	0.66	2.53	-.20	.50
		727	0.00	1.36	34.77	63.87	0.35	9.63	1.26	3.07	-.24	.40
V21-177	6022	5	0.00	0.00	16.44	83.56	0.16	10.00	0.97	2.11	+.27	.45
		101	0.00	0.00	17.52	82.48	0.18	10.01	0.97	2.23	+.17	.47
		201	0.00	0.01	16.81	83.18	0.17	10.18	0.86	2.21	+.14	.44
		301	0.00	0.05	15.54	84.41	0.16	10.22	0.83	2.18	+.13	.45
		401	0.00	0.34	18.69	80.97	0.19	10.10	0.91	2.65	-.06	.52

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-177	6022	501	0.00	0.72	10.25	89.03	0.10	10.50	0.69	2.16	+.01	.44
		601	0.00	0.13	16.29	83.71	0.16	10.25	0.82	2.31	+.01	.49
		701	0.00	0.15	19.94	79.91	0.20	9.74	1.17	2.28	+.26	.48
		801	0.00	0.13	21.28	78.59	0.21	10.11	0.90	2.49	-.05	.46
		901	0.00	0.17	27.60	72.23	0.28	9.34	1.54	2.33	+.19	.50
		1001	0.00	0.05	12.35	87.60	0.12	10.74	0.58	2.18	-.11	.47
V21-178	5720	0	0.00	0.27	24.85	74.88	0.25	9.64	1.25	2.41	+.17	.46
		11	0.00	0.00	20.63	79.37	0.21	9.89	1.05	2.31	+.16	.48
		101	0.00	0.00	18.37	81.63	0.18	10.00	0.97	2.26	+.18	.47
		201	0.00	0.01	17.77	82.22	0.18	10.03	0.96	2.23	+.18	.46
		304	0.00	0.03	26.51	73.46	0.27	9.54	1.34	2.86	-.03	.50
		401	0.00	0.19	15.76	84.05	0.16	10.21	0.84	2.21	+.13	.45
		504	0.00	0.18	12.95	86.87	0.13	10.44	0.72	2.29	+.04	.47
		601	0.00	0.10	17.93	81.97	0.18	9.96	1.00	2.45	+.04	.53

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-178	5720	701	0.00	0.24	29.52	70.24	0.30	9.14	1.76	2.66	+.12	.46
		780	0.00	0.00	17.11	82.89	0.17	10.38	0.75	2.42	-.08	.49
V21-179	5771	0	0.00	0.03	16.59	83.38	0.17	10.16	0.87	2.35	+.08	.48
		650	0.00	0.00	16.92	83.08	0.17	10.02	0.96	2.20	+.12	.53
V21-180	5676	0	0.00	0.01	15.46	84.47	0.15	10.30	0.79	2.22	+.10	.44
		940	0.00	0.02	11.22	88.76	0.11	10.58	0.65	2.12	+.03	.46
V21-181	5302	0	3.97	0.06	15.00	80.97	0.16	10.07	0.93	2.37	+.06	.47
		800	0.00	2.26	15.93	81.81	0.16	10.35	0.76	2.42	-.12	.47
V21-182	5824	4	0.00	0.03	15.59	84.38	0.16	10.06	0.93	2.14	+.19	.45
		81	0.00	0.01	15.27	84.72	0.15	10.14	0.88	2.13	+.18	.46
		161	0.00	0.01	13.88	86.11	0.14	10.19	0.86	2.06	+.23	.44
		261	0.00	0.02	15.60	84.38	0.16	10.13	0.89	2.09	+.20	.45
		361	0.00	0.08	13.73	86.19	0.14	10.17	0.87	2.08	+.21	.46
		461	0.00	0.01	13.41	86.58	0.13	10.25	0.82	2.07	+.18	.44

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V21-182	5824	561	0.00	0.11	12.31	87.58	0.12	10.29	0.80	2.07	+.18	.45
		661	0.00	0.22	13.07	86.71	0.13	10.30	0.79	2.12	+.15	.44
		761	0.00	0.01	17.89	82.10	0.18	10.23	0.83	2.17	+.11	.44
		831	0.00	0.08	8.10	91.82	0.08	10.58	0.65	2.03	+.07	.42
		881	0.00	0.03	18.48	81.49	0.18	10.25	0.82	2.29	.00	.44
V21-183	5711	5	0.00	0.00	20.13	79.87	0.20	9.84	1.09	2.29	+.12	.51
		100	0.00	0.28	14.08	85.64	0.14	10.35	0.76	2.28	+.04	.46
		225	0.00	0.94	17.19	81.87	0.17	10.16	0.87	2.56	-.03	.50
		300	0.00	0.16	22.43	77.41	0.22	10.05	0.94	2.43	+.02	.44
		400	0.00	0.11	22.60	77.29	0.23	9.92	1.03	2.41	+.07	.45
		515	0.00	0.11	18.81	81.08	0.19	10.16	0.87	2.28	+.10	.44
		650	0.00	0.04	15.56	84.40	0.16	10.22	0.84	2.21	+.12	.47

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V21-184	4804	0	0.00	0.05	22.17	77.78	0.22	9.88	1.06	2.34	+.13	.46
		92	0.00	0.05	22.69	77.26	0.23	9.88	1.06	2.35	+.11	.45
		121	1.45	3.39	18.38	76.78	0.19	9.73	1.17	2.56	+.05	.51
		191	6.93	7.40	15.43	70.24	0.18	9.12	1.79	3.93	-.24	.62
		302	0.00	0.21	18.22	81.57	0.18	10.09	0.92	2.16	+.18	.45
V21-185	4857	0	0.00	1.46	74.10	24.44	0.75	6.75	9.24	2.14	+.50	.55
		20	0.00	0.87	85.59	13.54	0.86	6.00	15.62	1.67	+.45	.61
		35	0.00	0.11	53.22	46.67	0.53	8.01	3.86	1.75	+.17	.53
		50	0.00	0.30	64.28	35.42	0.64	7.42	5.82	2.08	+.32	.52
		66	0.00	0.53	81.99	17.48	0.82	6.38	12.00	1.76	+.48	.54
		80	0,00	0.29	84.75	14.96	0.85	6.16	13.92	1.86	+.45	.65
V21-187	3762	0	0.00	1.58	50.84	47.58	0.52	8.45	2.84	2.88	+.28	.44
		94	0.00	0.53	57.00	42.47	0.57	8.12	3.57	2.77	+.33	.47
		108	0.00	16.24	62.90	20.86	0.75	6.08	14.74	2.74	+.67	.58

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V21-187	3762	122	0.00	38.16	46.43	15.41	0.75	5.08	29.42	2.76	+.51	.55
		128	0.00	0.55	57.23	42.22	0.58	8.01	3.87	2.78	+.30	.48
		201	0.00	2.61	37.74	59.65	0.39	7.95	4.04	2.86	+.25	.46
		247	0.00	0.35	55.78	43.87	0.56	8.09	3.66	2.55	+.31	.50
		265	0.00	4.11	64.71	31.18	0.67	6.93	8.18	2.93	+.60	.45
		290	0.00	57.20	30.97	11.83	0.72	4.20	54.20	2.48	+.51	.66
		294	0.00	0.84	60.78	38.38	0.61	7.93	4.08	2.75	+.35	.46
		400	0.00	0.77	50.32	48.91	0.51	8.54	2.68	3.02	+.16	.42
		500	0.00	2.76	46.32	50.92	0.48	8.49	2.77	3.12	+.29	.42
		600	0.00	3.25	47.77	48.98	0.49	8.08	3.68	2.73	+.18	.48
		700	0.00	8.43	49.08	42.49	0.54	7.60	5.15	3.17	+.16	.50
V21-187	3762	800	0.00	2.19	63.20	34.61	0.65	7.09	7.30	2.75	+.31	.47
		902	0.08	4.60	69.96	25.36	0.73	6.71	9.48	2.56	+.52	.53
		930	0.98	3.73	68.91	26.38	0.72	6.76	9.22	2.60	+.45	.51

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz		σ_I	Sk_I	K'_G
								ϕ	μ			
V24-95	5287	0	0.00	0.00	21.89	78.11	0.22	9.87	1.07	2.30	+.18	.46
		630	0.00	0.01	14.92	85.07	0.15	10.54	0.67	2.25	-.06	.45
V24-96	3305	0	0.00	1.35	40.40	58.25	0.41	8.77	2.28	3.02	+.01	.42
		100	3.07	96.93	0.00	0.00	0.00	0.52	695.00	0.72	+ 02	.54
		200	12.94	87.06	0.00	0.00	0.00	-.33	1262.00	0.46	-.68	.60
		415	38.97	61.03	0.00	0.00	0.00	-.64	1565.00	1.34	-.19	.46
		700	9.62	88.46	0.50	1.42	0.26	0.38	764.00	1.05	-.02	.58
V24-97	5447	0	0.00	0.01	16.48	83.51	0.16	10.11	0.90	2.17	+.17	.45
		711	0.00	0.03	20.30	79.67	0.20	10.33	0.78	2.54	-.14	.46

GRAIN SIZE DATA

Core No.	Depth (m)	Depth in Core(cm)	% Gravel	% Sand	% Silt	% Clay	$\frac{z}{z+c}$	Mz ϕ	Mz μ	σ_I	Sk_I	K'_G
V24-95	652	0	0.00	0.00	21.89	78.11	0.22	9.87	1.07	2.30	+.18	.46
		630	0.00	0.01	14.92	85.07	0.15	10.54	0.67	2.25	-.06	.45
V24-96	720	0	0.00	1.35	40.40	58.25	0.41	8.77	2.28	3.02	+.01	.42
		100	3.07	96.93	0.00	0.00	0.00	0.52	695.00	0.72	+.02	.54
		200	12.94	87.06	0.00	0.00	0.00	-0.33	1262.00	0.46	-.68	.60
		415	38.97	61.03	0.00	0.00	0.00	-0.64	1565.00	1.34	-.19	.46
		700	9.62	88.46	0.50	1.42	0.26	0.38	764.00	1.05	-.02	.58
V24-97	730	0	0.00	0.01	16.48	83.51	0.16	10.11	0.90	2.17	+.17	.45
		711	0.00	0.03	20.30	79.67	0.20	10.33	0.78	2.54	-.14	.46

APPENDIX C

TABLE USED TO PREDICT SOUND VELOCITY AND WET DENSITY OF LAYERS FROM MEAN GRAIN SIZE OF SEDIMENT

MEAN GRAIN SIZE WET DENSITY AND EQUIVALENT SOUND VELOCITIES

Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc	Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc
>1487.6	>4881	>.75	1.16-1.42	1601.2	5253	21.0	1.90
1487.6	4881	.75	1.42-1.45	1604.1	5263	22.0	1.91
1494.1	4902	1.0	1.52	1607.1	5273	23.0	1.91
1499.0	4918	1.25	1.57	1609.9	5282	24.0	1.91
1503.0	4931	1.50	1.60	1612.7	5291	25.0	1.92
1506.5	4943	1.75	1.62	1615.4	5300	26.0	1.93
1509.6	4953	2.0	1.64	1618.1	5309	27.0	1.93
1515.0	4970	2.50	1.67	1620.7	5317	28.0	1.93
1519.7	4986	3.0	1.68	1623.2	5325	29.0	1.94
1523.9	5000	3.50	1.70	1625.8	5334	30.0	1.94
1527.7	5012	4.0	1.72	1628.2	5342	31.0	1.95
1534.6	5035	5.0	1.74	1630.6	5350	32.0	1.95
1540.8	5055	6.0	1.76	1633.0	5358	33.0	1.96
1546.4	5073	7.0	1.77	1635.3	5365	34.0	1.96
1551.7	5091	8.0	1.79	1637.6	5373	35.0	1.96
1556.6	5107	9.0	1.80	1639.9	5380	36.0	1.97
1561.2	5122	10.0	1.81	1642.1	5387	37.0	1.97
1565.6	5136	11.0	1.82	1644.3	5395	38.0	1.97
1569.8	5150	12.0	1.83	1646.5	5402	39.0	1.98
1573.8	5163	13.0	1.84	1648.6	5409	40.0	1.98
1577.6	5176	14.0	1.85	1650.7	5416	41.0	1.98
1581.3	5188	15.0	1.86	1652.7	5422	42.0	1.98
1584.9	5200	16.0	1.87	1654.8	5429	43.0	1.99
1588.3	5211	17.0	1.88	1656.8	5436	44.0	1.99
1591.7	5222	18.0	1.88	1658.8	5442	45.0	1.99
1594.2	5230	19.0	1.89	1660.7	5448	46.0	2.00
1598.1	5243	20.0	1.90	1662.7	5455	47.0	2.00

Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc
1664.6	5461	48.0	2.00
1666.4	5467	49.0	2.01
1668.3	5473	50.0	2.01
1670.1	5479	51.0	2.01
1672.0	5486	52.0	2.01
1673.7	5491	53.0	2.01
1675.5	5497	54.0	2.02
1677.3	5503	55.0	2.02
1679.0	5509	56.0	2.02
1680.7	5514	57.0	2.03
1682.4	5520	58.0	2.03
1684.1	5525	59.0	2.03
1685.8	5531	60.0	2.03
1687.4	5536	61.0	2.03
1689.1	5542	62.0	2.04
1690.7	5547	63.0	2.04
1692.3	5552	64.0	2.04
1693.9	5557	65.0	2.04
1695.4	5562	66.0	2.04
1697.0	5568	67.0	2.05
1698.5	5573	68.0	2.05
1700.1	5578	69.0	2.05
1701.6	5583	70.0	2.05
1703.1	5588	71.0	2.06
1704.6	5593	72.0	2.06
1706.1	5597	73.0	2.06
1707.5	5602	74.0	2.06
1709.0	5607	75.0	2.06
1710.4	5612	76.0	2.06

Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc
1711.8	5616	77.0	2.07
1713.3	5621	78.0	2.07
1714.7	5626	79.0	2.07
1716.1	5630	80.0	2.07
1717.4	5635	81.0	2.07
1718.8	5639	82.0	2.07
1720.2	5644	83.0	2.08
1721.5	5648	84.0	2.08
1722.9	5653	85.0	2.08
1724.2	5657	86.0	2.08
1725.5	5661	87.0	2.08
1726.8	5665	88.0	2.09
1728.2	5670	89.0	2.09
1729.5	5674	90.0	2.09
1730.7	5678	91.0	2.09
1732.0	5682	92.0	2.09
1733.3	5687	93.0	2.09
1734.5	5691	94.0	2.09
1735.8	5695	95.0	2.10
1737.0	5699	96.0	2.10
1738.3	5703	97.0	2.10
1739.5	5707	98.0	2.10
1740.7	5711	99.0	2.10
1741.9	5715	100.0	2.10
1743.1	5719	101.0	2.10
1744.3	5723	102.0	2.10
1745.5	5727	103.0	2.10
1746.7	5731	104.0	2.11
1747.9	5735	105.0	2.11

Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc	Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc
1749.1	5739	106.0	2.11	1780.3	5841	135.0	2.14
1750.2	5742	107.0	2.11	1781.3	5844	136.0	2.14
1751.4	5746	108.0	2.11	1782.2	5847	137.0	2.15
1752.5	5750	109.0	2.11	1783.2	5850	138.0	2.15
1753.7	5754	110.0	2.11	1784.2	5854	139.0	2.15
1754.8	5757	111.0	2.12	1785.2	5857	140.0	2.15
1755.9	5761	112.0	2.12	1786.2	5860	141.0	2.15
1757.0	5764	113.0	2.12	1787.1	5863	142.0	2.15
1758.2	5768	114.0	2.12	1788.1	5866	143.0	2.15
1759.3	5772	115.0	2.12	1789.0	5869	144.0	2.15
1760.4	5776	116.0	2.12	1790.0	5873	145.0	2.15
1761.5	5779	117.0	2.12	1791.0	5876	146.0	2.16
1762.6	5783	118.0	2.12	1791.9	5879	147.0	2.16
1763.6	5786	119.0	2.13	1792.8	5882	148.0	2.16
1764.7	5790	120.0	2.13	1793.8	5885	149.0	2.16
1765.8	5793	121.0	2.13	1794.7	5888	150.0	2.16
1766.9	5797	122.0	2.13	1795.6	5891	151.0	2.16
1767.9	5800	123.0	2.13	1796.6	5894	152.0	2.16
1769.0	5804	124.0	2.13	1797.5	5897	153.0	2.16
1770.0	5807	125.0	2.13	1798.4	5900	154.0	2.16
1771.1	5811	126.0	2.13	1799.3	5903	155.0	2.16
1772.1	5814	127.0	2.13	1800.2	5906	156.0	2.16
1773.2	5818	128.0	2.14	1801.1	5909	157.0	2.16
1774.2	5821	129.0	2.14	1802.0	5912	158.0	2.17
1775.2	5824	130.0	2.14	1802.9	5915	159.0	2.17
1776.2	5827	131.0	2.14	1803.8	5918	160.0	2.17
1777.2	5831	132.0	2.14	1804.7	5921	161.0	2.17
1778.3	5834	133.0	2.14	1805.6	5924	162.0	2.17
1779.3	5838	134.0	2.14	1806.5	1527	163.0	2.17

Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc	Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc
1807.4	5930	164.0	2.17	1831.5	6009	193.0	2.19
1808.2	5933	165.0	2.17	1832.3	6011	194.0	2.19
1809.1	5935	166.0	2.17	1833.1	6014	195.0	2.20
1810.0	5938	167.0	2.17	1833.8	6017	196.0	2.20
1810.9	5941	168.0	2.17	1834.6	6019	197.0	2.20
1811.7	5944	169.0	2.18	1835.4	6022	198.0	2.20
1812.6	5947	170.0	2.18	1836.2	6024	199.0	2.20
1813.4	5950	171.0	2.18	1837.0	6027	200.0	2.20
1814.3	5952	172.0	2.18	1837.7	6029	201.0	2.20
1815.1	5955	173.0	2.18	1838.5	6032	202.0	2.20
1816.0	5958	174.0	2.18	1839.3	6034	203.0	2.20
1816.8	5961	175.0	2.18	1840.0	6037	204.0	2.20
1817.7	5963	176.0	2.18	1840.8	6039	205.0	2.20
1818.5	5966	177.0	2.18	1841.5	6042	206.0	2.20
1819.3	5969	178.0	2.18	1842.3	6044	207.0	2.20
1820.2	5972	179.0	2.18	1843.0	6047	208.0	2.20
1821.0	5974	180.0	2.18	1843.8	6049	209.0	2.21
1821.8	5977	181.0	2.19	1844.5	6052	210.0	2.21
1822.6	5980	182.0	2.19	1845.3	6054	211.0	2.21
1823.5	5982	183.0	2.19	1846.0	6056	212.0	2.21
1824.3	5985	184.0	2.19	1846.8	6059	213.0	2.21
1825.1	5988	185.0	2.19	1847.5	6061	214.0	2.21
1825.9	5990	186.0	2.19	1848.2	6064	215.0	2.21
1827.5	5996	187.0	2.19	1849.0	6066	216.0	2.21
1827.5	5996	188.0	2.19	1849.7	6069	217.0	2.21
1828.3	5998	189.0	2.19	1850.4	6071	218.0	2.21
1829.1	6001	190.0	2.19	1851.1	6073	219.0	2.21
1829.9	6004	191.0	2.19	1851.9	6076	220.0	2.21
1830.7	6006	192.0	2.19	1852.6	6078	221.0	2.21

Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc	Velocity m/sec	Velocity ft/sec	Mean Size μ	Wet Density g/cc
1853.3	6080	222.0	2.21	1875.9	6155	255.0	2.23
1854.0	6083	223.0	2.21	1879.2	6165	260.0	2.24
1854.7	6085	224.0	2.22	1882.4	6176	265.0	2.24
1855.5	6087	225.0	2.22	1885.6	6186	270.0	2.24
1856.2	6090	226.0	2.22	1888.7	6196	275.0	2.25
1856.9	6092	227.0	2.22	1891.8	6207	280.0	2.25
1857.6	6094	228.0	2.22	1894.8	6217	285.0	2.25
1858.3	6097	229.0	2.22	1897.8	6227	290.0	2.25
1859.0	6099	230.0	2.22	1900.8	6236	295.0	2.26
1859.7	6101	231.0	2.22	1903.8	6246	300.0	2.26
1860.4	6104	232.0	2.22	1906.7	6256	305.0	2.26
1861.1	6106	233.0	2.22	1909.6	6265	310.0	2.26
1861.8	6108	234.0	2.22	1912.4	6274	315.0	2.27
1862.5	6110	235.0	2.22	1915.2	6284	320.0	2.27
1863.2	6113	236.0	2.22	1918.0	6293	325.0	2.27
1863.9	6115	237.0	2.22	1920.8	6302	330.0	2.27
1864.5	6117	238.0	2.22	1923.5	6311	335.0	2.27
1865.2	6119	239.0	2.22	1926.2	6320	340.0	2.28
1865.9	6122	240.0	2.23	1928.9	6328	345.0	2.28
1866.6	6124	241.0	2.23	1931.5	6337	350.0	2.28
1867.3	6126	242.0	2.23	1934.1	6346	355.0	2.28
1867.9	6128	243.0	2.23	1936.7	6354	360.0	2.28
1868.6	6130	244.0	2.23	1939.3	6363	365.0	2.29
1869.3	6133	245.0	2.23	1941.9	6371	370.0	2.29
1870.0	6135	246.0	2.23	1944.4	6379	375.0	2.29
1870.6	6137	247.0	2.23	1946.9	6387	380.0	2.29
1871.3	6139	248.0	2.23	1949.4	6396	385.0	2.29
1872.0	6142	249.0	2.23	1951.8	6404	390.0	2.30
1872.6	6144	250.0	2.23	1954.3	6412	395.0	2.30

Velocity		Mean Size	Wet Density
m/sec	ft/sec	μ	g/cc
1956.7	6419	400.0	2.30
1959.1	6427	405.0	2.30
1961.4	6435	410.0	2.30
1963.8	6443	415.0	2.30
1966.1	6450	420.0	2.31
1968.4	6458	425.0	2.31
1970.7	6466	430.0	2.31
1973.0	6473	435.0	2.31
1975.2	6480	440.0	2.31
1977.5	6488	445.0	2.32
1979.7	6495	450.0	2.32
1981.9	6502	455.0	2.32
1984.1	6509	460.0	2.32
1986.3	6517	465.0	2.32
1988.4	6524	470.0	2.32
1990.6	6531	475.0	2.33
1992.7	6538	480.0	2.33
1994.8	6545	485.0	2.33
1996.9	6551	490.0	2.33
1999.0	6558	495.0	2.33
2001.0	6565	500.0	2.33

APPENDIX D

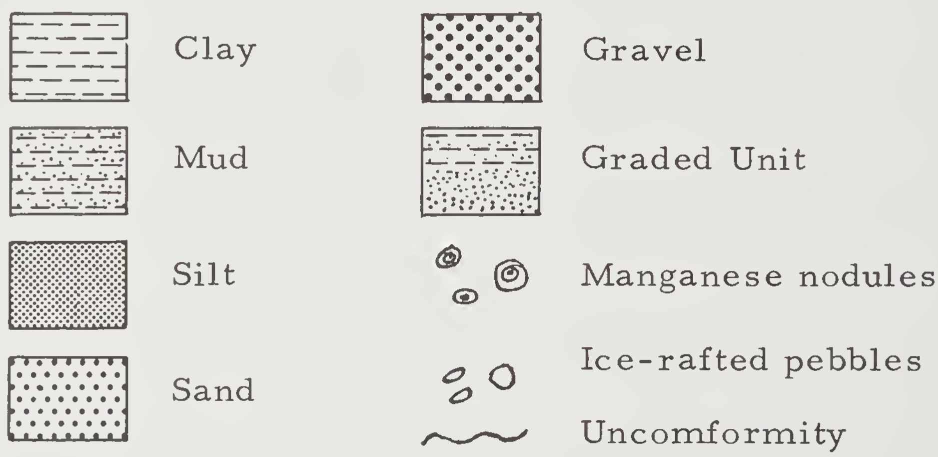
CORES TAKEN BY R/V ROBERT D. CONRAD AND R/V VEMA

Core lithology, reflectors, predicted sound velocity predicted wet density and mean grain size of sediment layers.

Legend

The uniformity of texture shown by various types of deep-sea deposits makes it possible to predict sonic properties of layers without actual measurement. For this reason the predicted wet density and velocity profiles of the cores are far more complete and detailed than those of actual laboratory measurements given under the mean size column. For example, all ash horizons off Japan have similar textures. Therefore, three or four samples of say ten ash layers in a given core will provide sufficient data to draw velocity and wet density profiles of all ashes in the core.

Lithology column symbols:



Reflectors column: Solid bars in columns represent position and thickness of sub-bottom reflecting horizons. A qualitative breakdown of the horizons as good, intermediate, poor and questionable is given based on thickness and texture of the horizons.

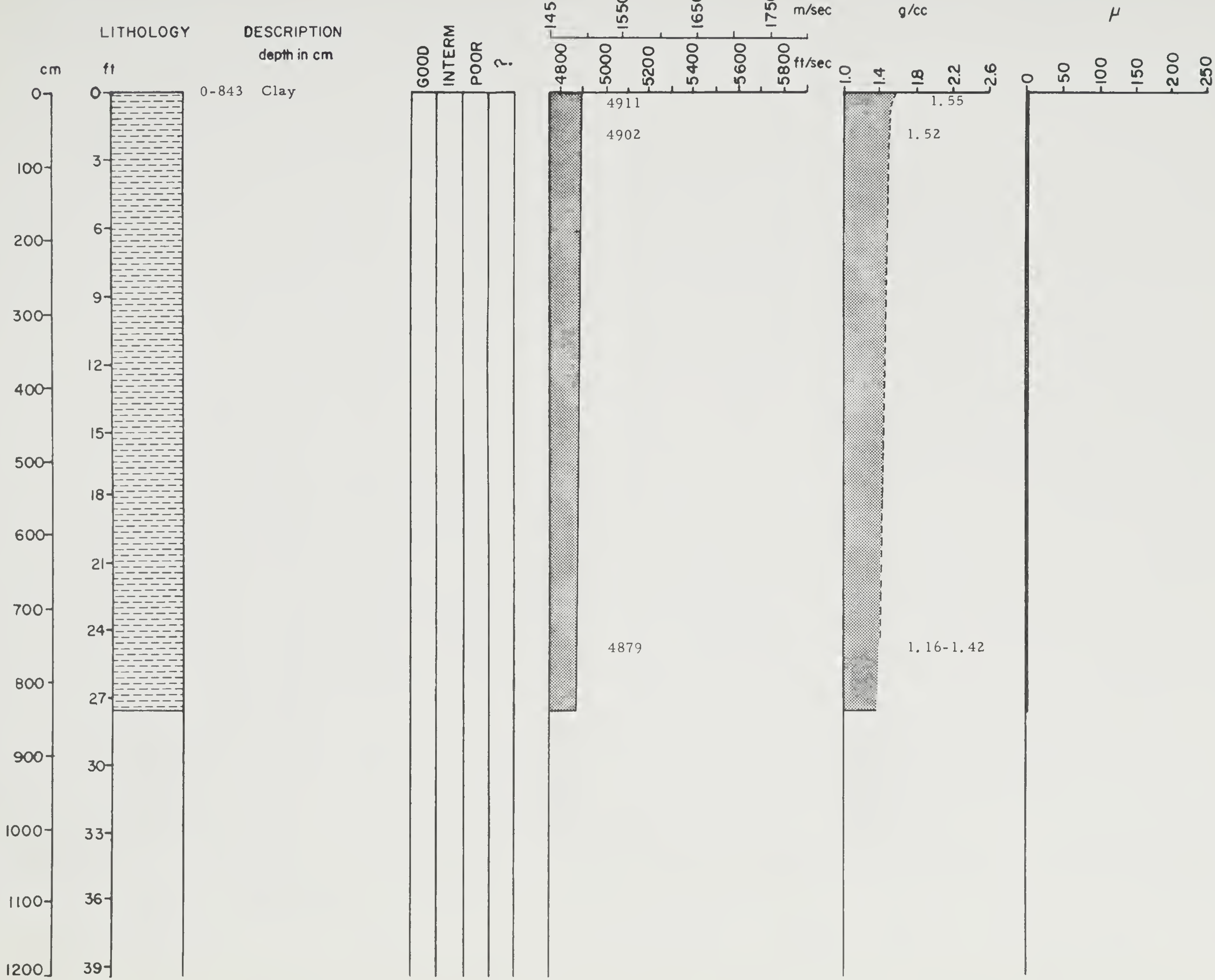
Predicted velocity column: Solid line on velocity profile of core represents predictions from table in Appendix C and are based on analytical measurement of mean grain size of sediment layer.

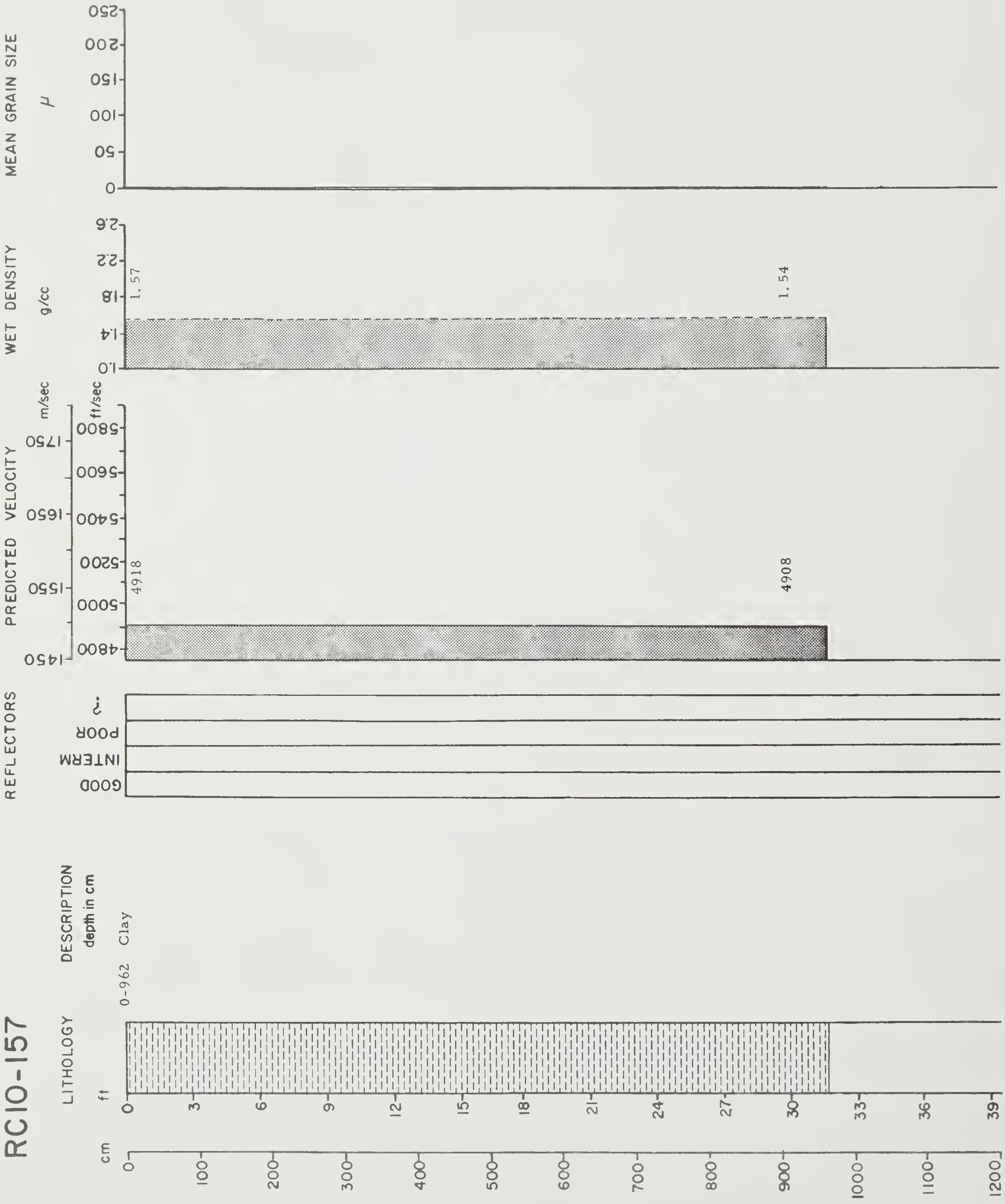
Dashed line on velocity profile of core represents sound velocity predicted from mean grain sizes estimated from similar sediment layers within core.

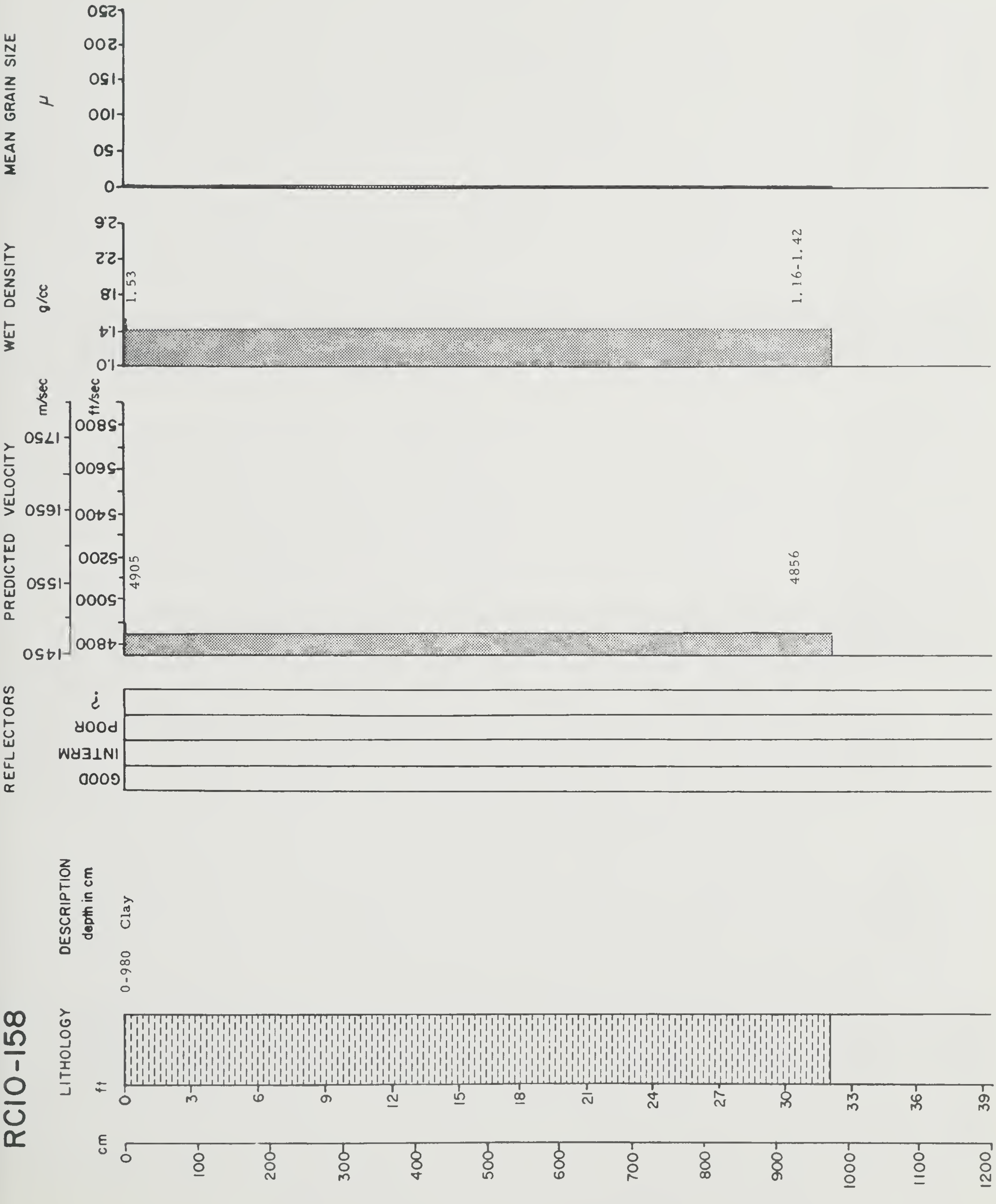
Wet density column: Dashed line used throughout because wet densities are predictions based on measured mean grain sizes of sediments. Wet densities are from Appendix C.

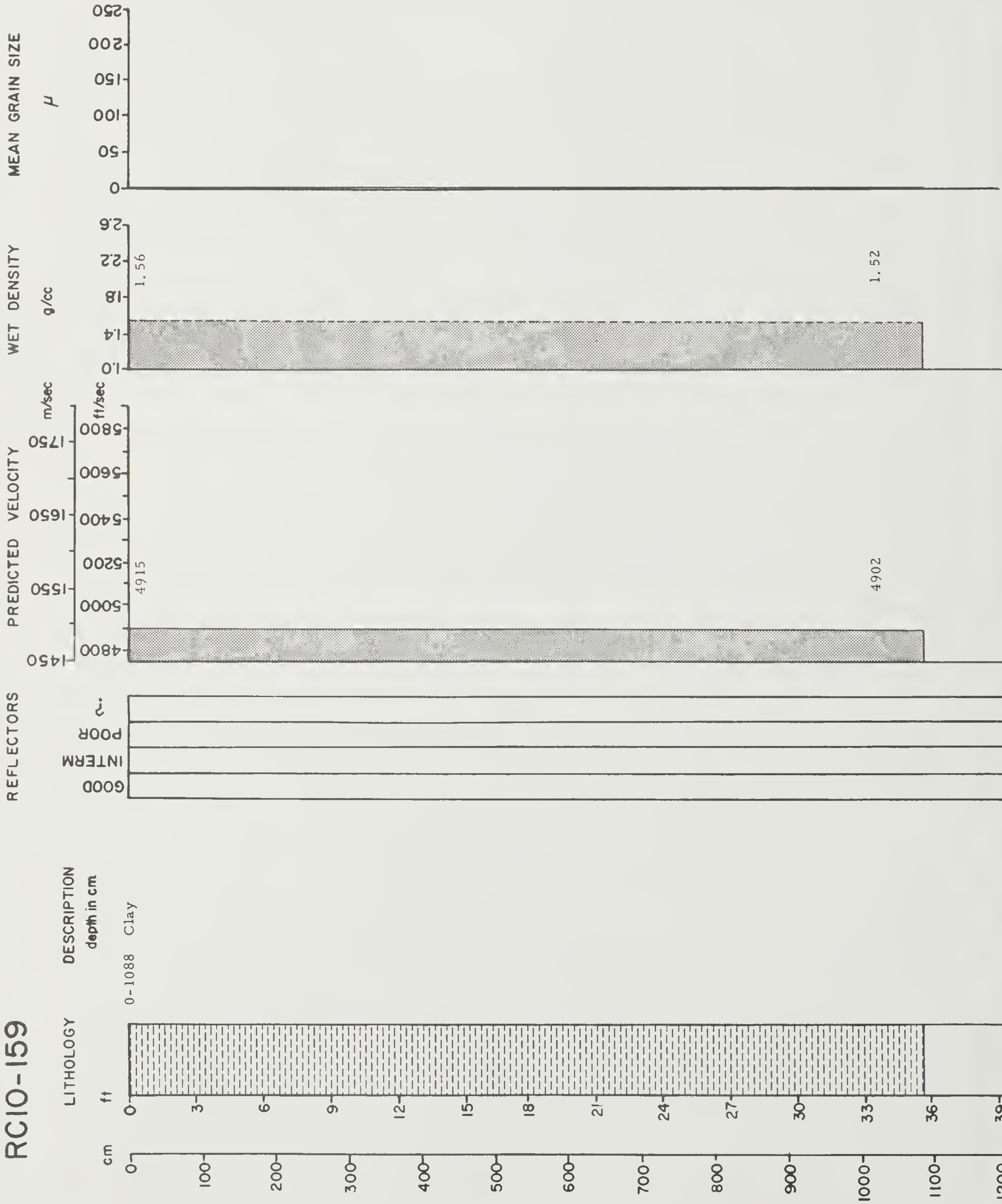
Mean grain size column: Solid line connects points where actual determinations of grain size were made in the laboratory.

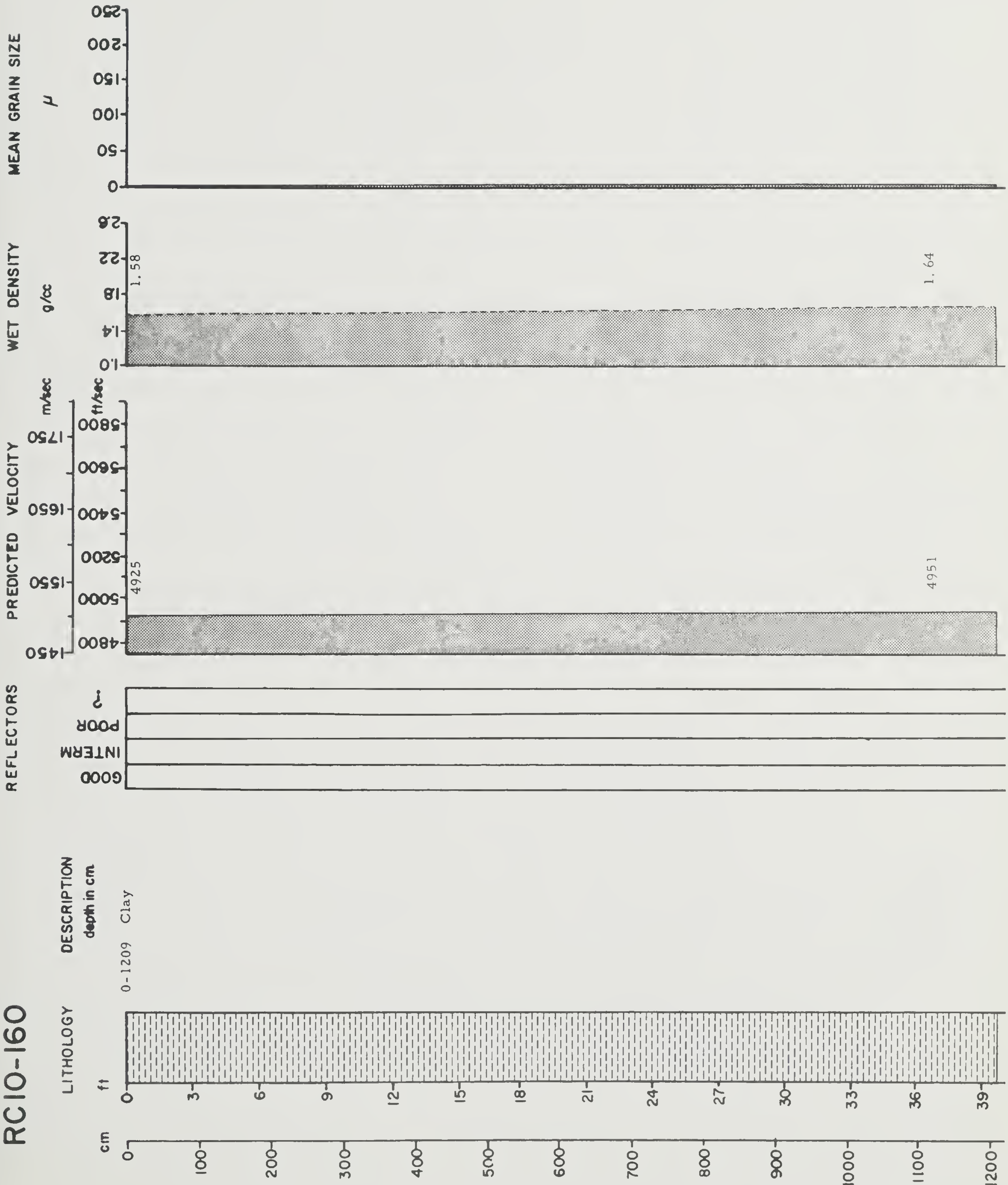
RC10-156

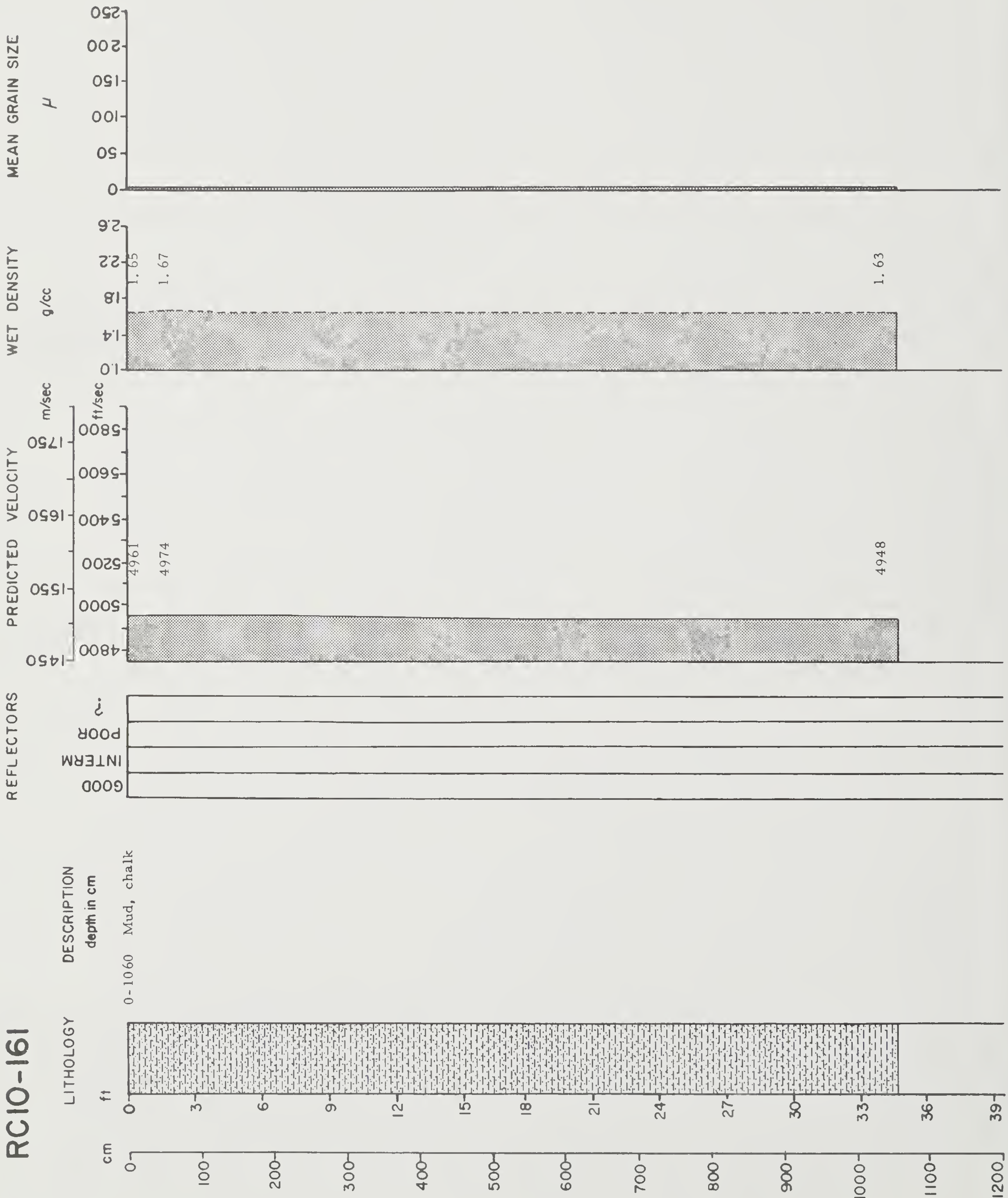

LITHOLOGY
DESCRIPTION depth in cm
cm
ft
0-843 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
1450
1550
1650
1750
m/sec
4800
5000
5200
5400
5600
5800
ft/sec
4911
4902
4879
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.55
1.52
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39

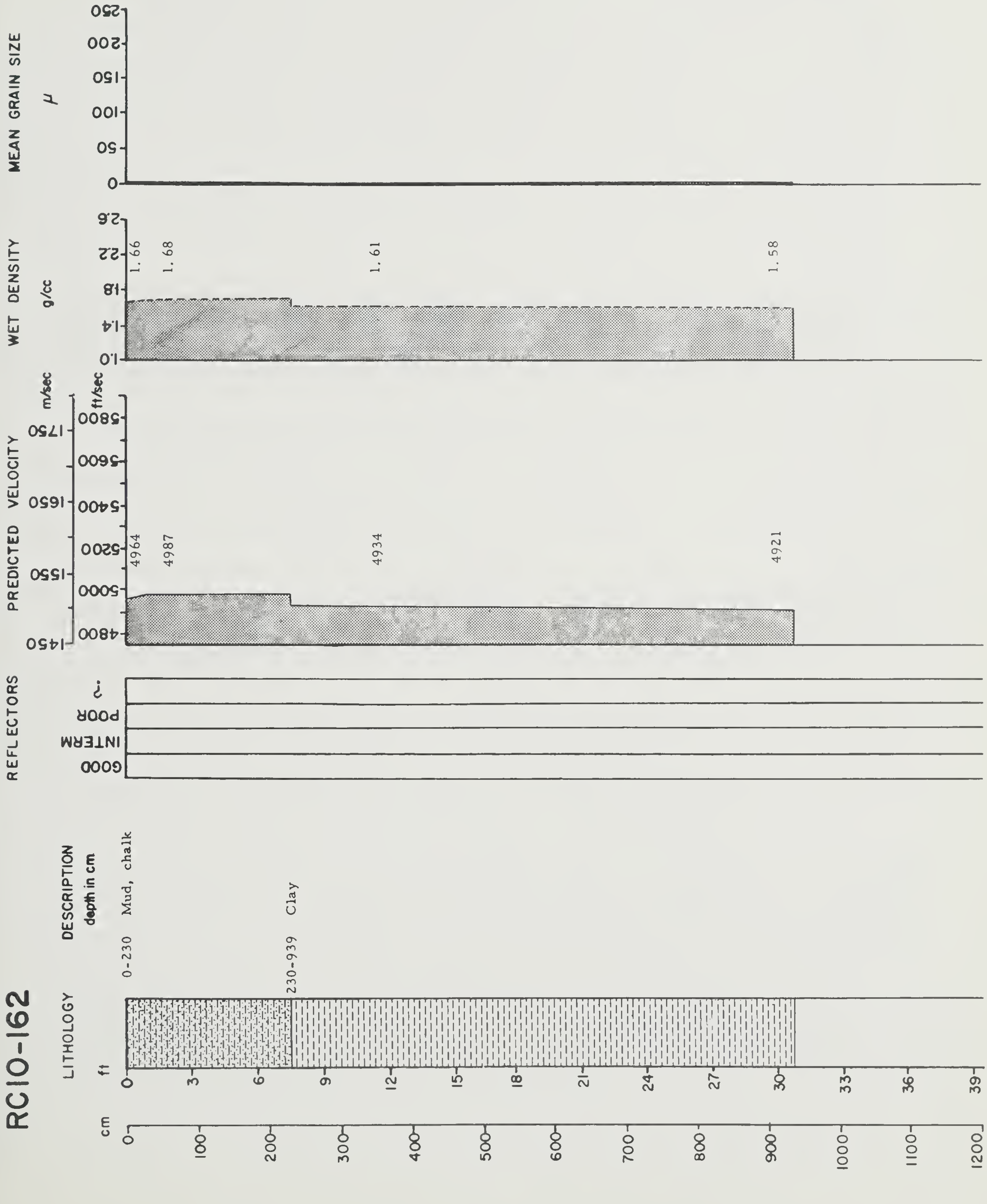

RC10-157
LITHOLOGY
DESCRIPTION depth in cm
0-962 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4918
4908
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.57
1.54
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

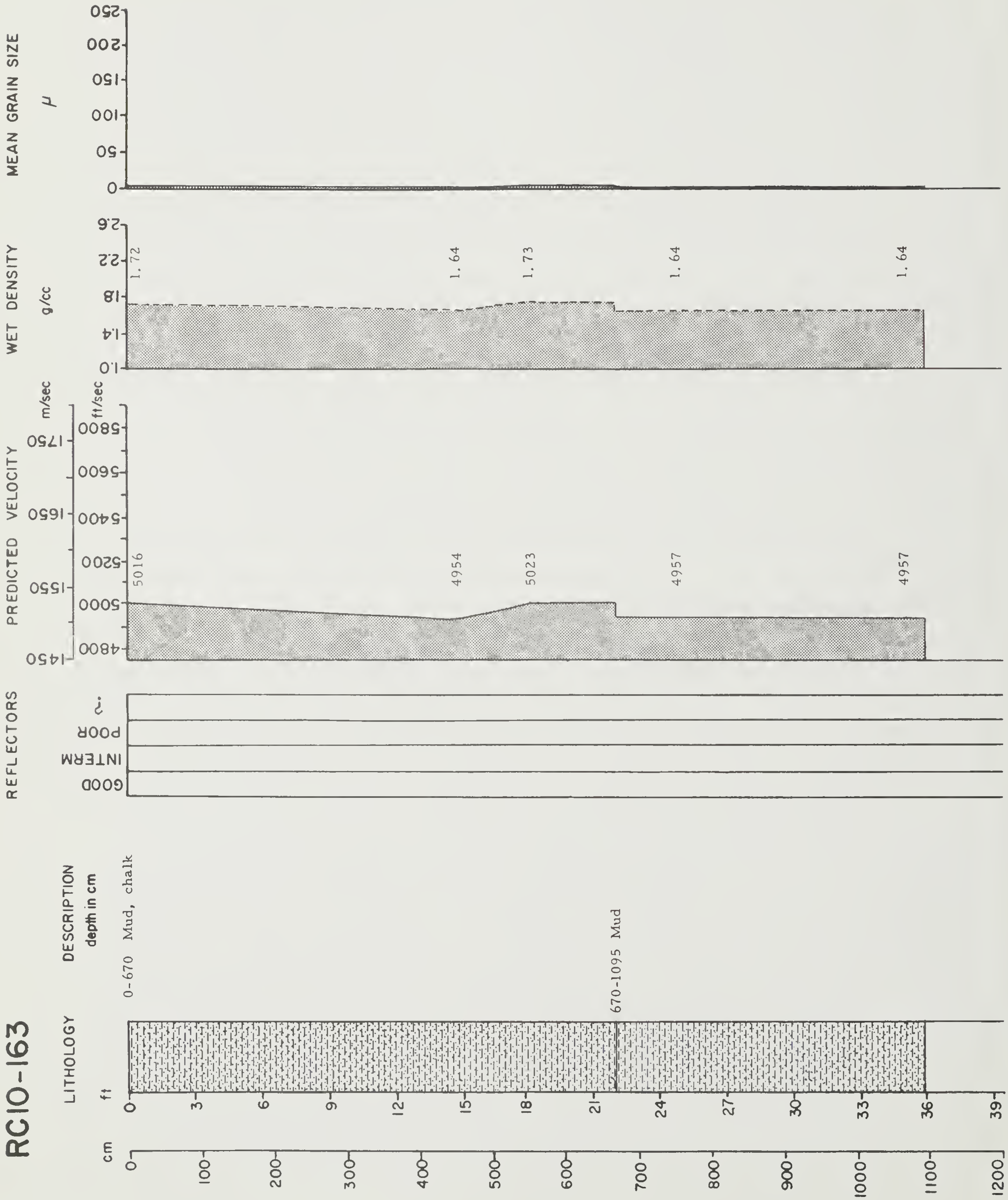

RC10-158
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-980 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4905
4856
WET DENSITY
g/cc
1.53
1.16-1.42
MEAN GRAIN SIZE
μ


RC10-159
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.56
1.52
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4915
4902
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-1088 Clay
LITHOLOGY
ft
cm
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

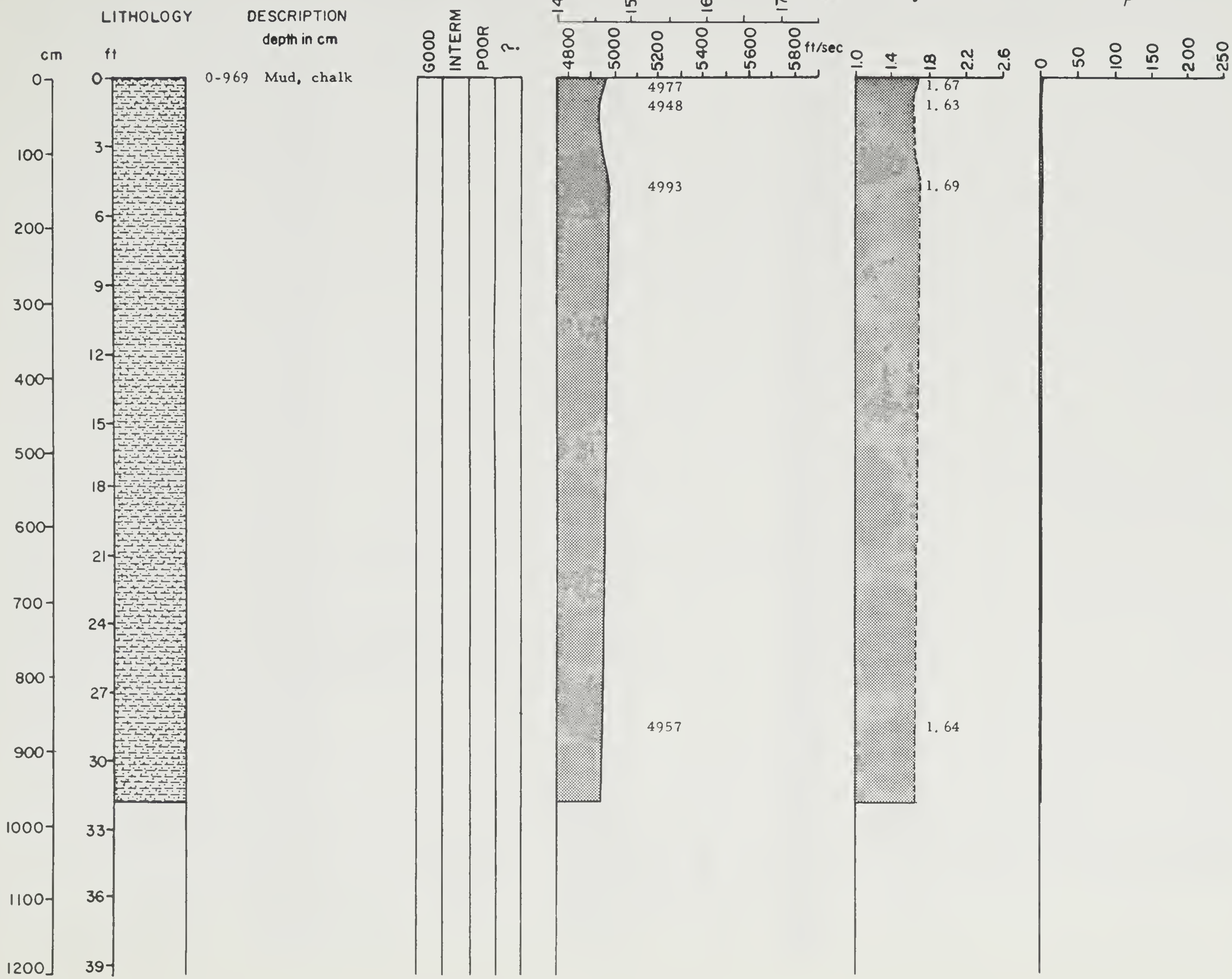

RC10-160
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
LITHOLOGY
DESCRIPTION
depth in cm.
0-1209 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4925
4951
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.58
1.64
MEAN GRAIN SIZE
μ
0
50
100
150
200
250


RC10-161
LITHOLOGY
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
DESCRIPTION
depth in cm
0-1060 Mud, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4961
4974
4948
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.65
1.67
1.63
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

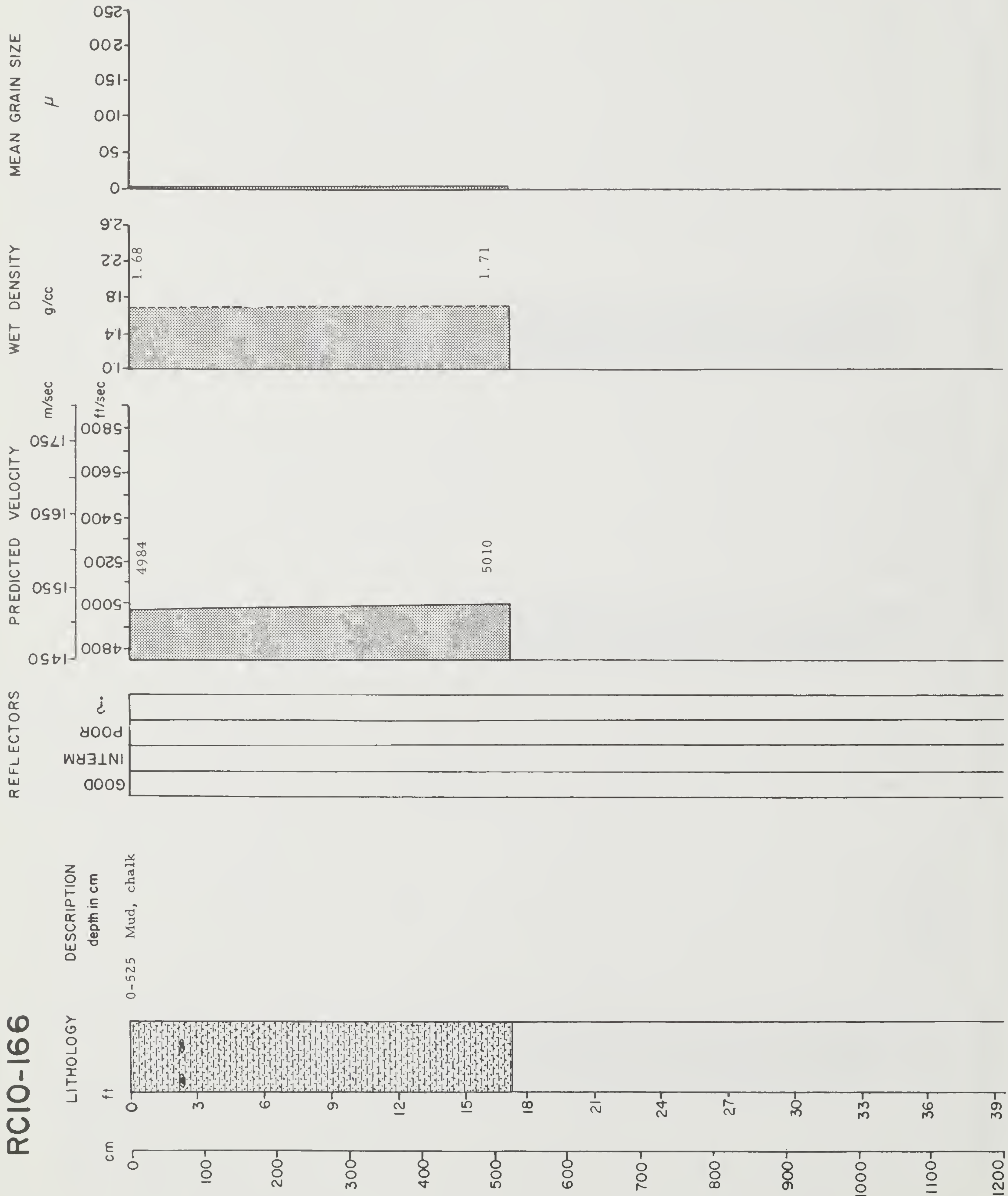

RC10-162
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-230 Mud, chalk
230-939 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4964
4987
4934
4921
WET DENSITY
g/cc
1.66
1.68
1.61
1.58
MEAN GRAIN SIZE
μ


RC10-163
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.72
1.64
1.73
1.64
1.64
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5016
4954
5023
4957
4957
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-670 Mud, chalk
670-1095 Mud
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

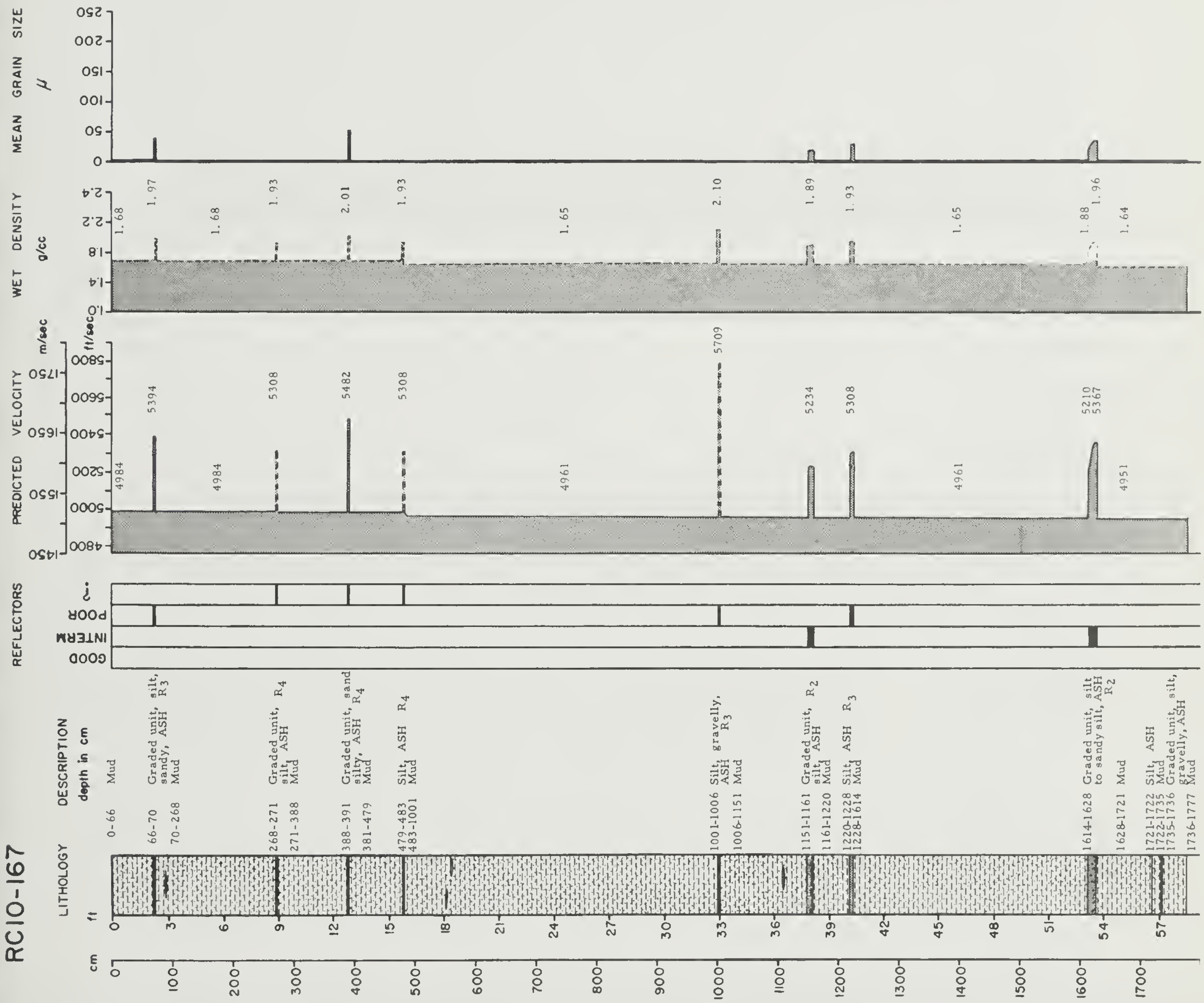
RC10-164

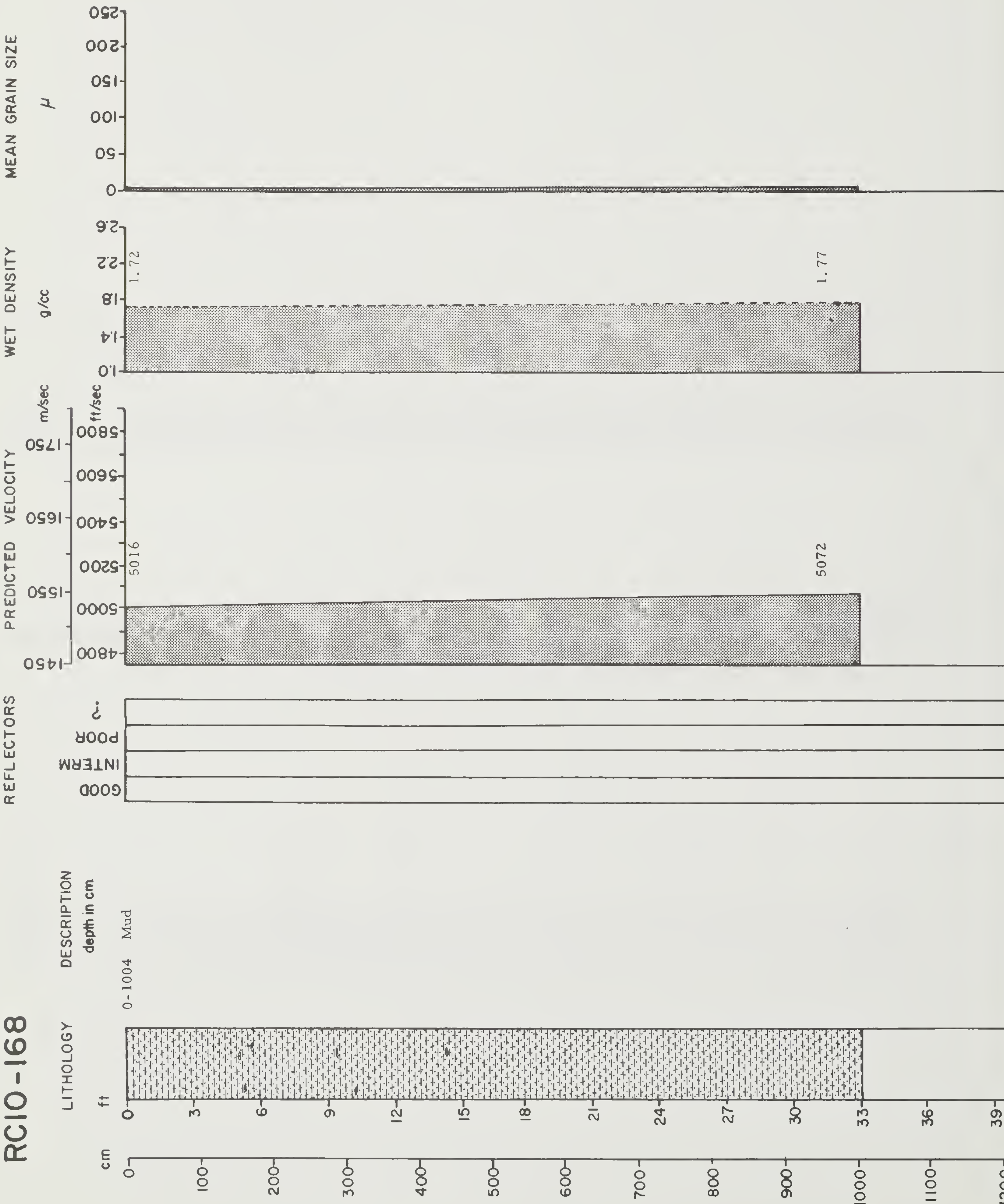


LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-969 Mud, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4977
4948
4993
4957
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.67
1.63
1.69
1.64
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
3
6
9
12
15
18
21
24
27
30
33
36
39

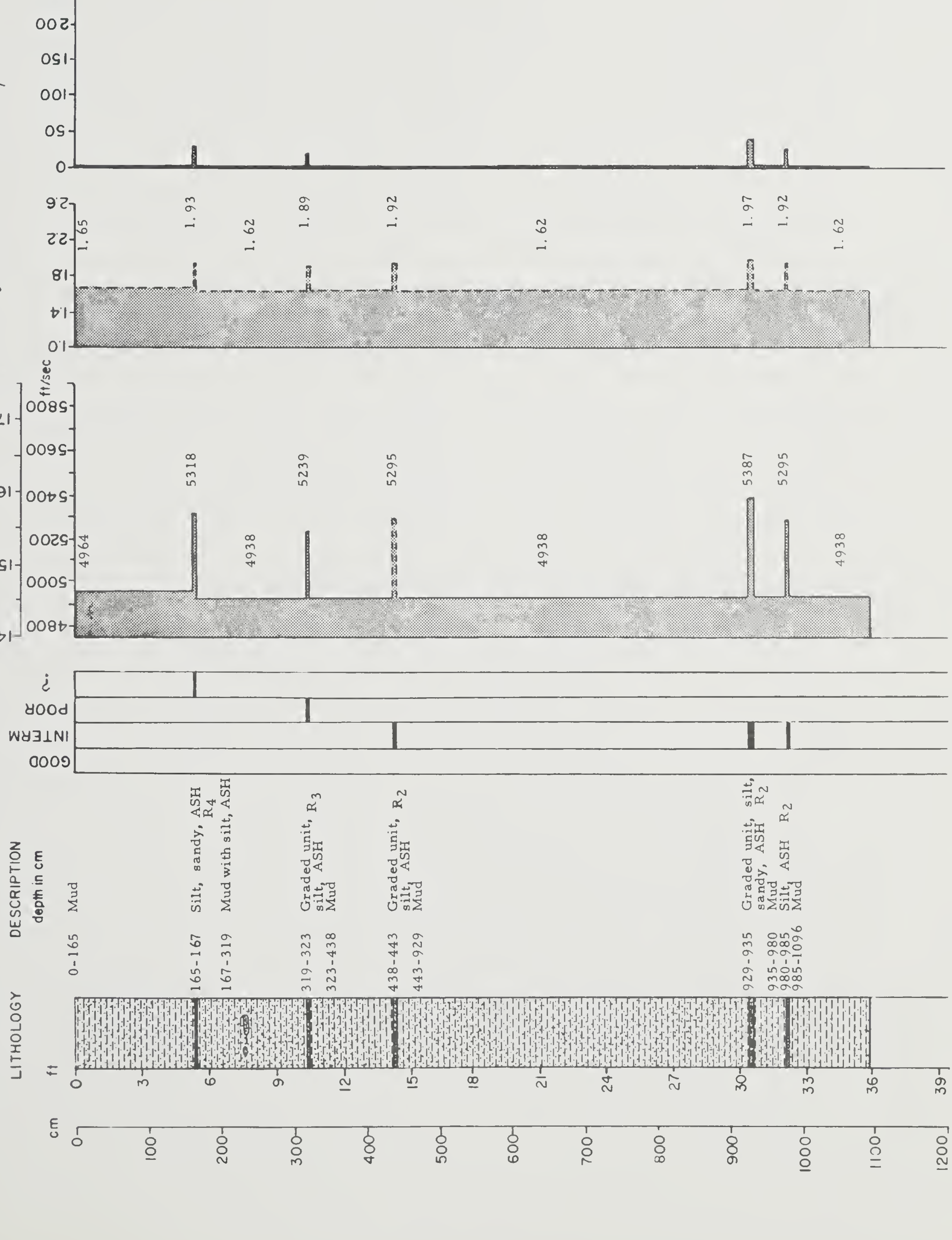


RC10-166
LITHOLOGY
DESCRIPTION
depth in cm
0-525 Mud, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4984
5010
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.68
1.71
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

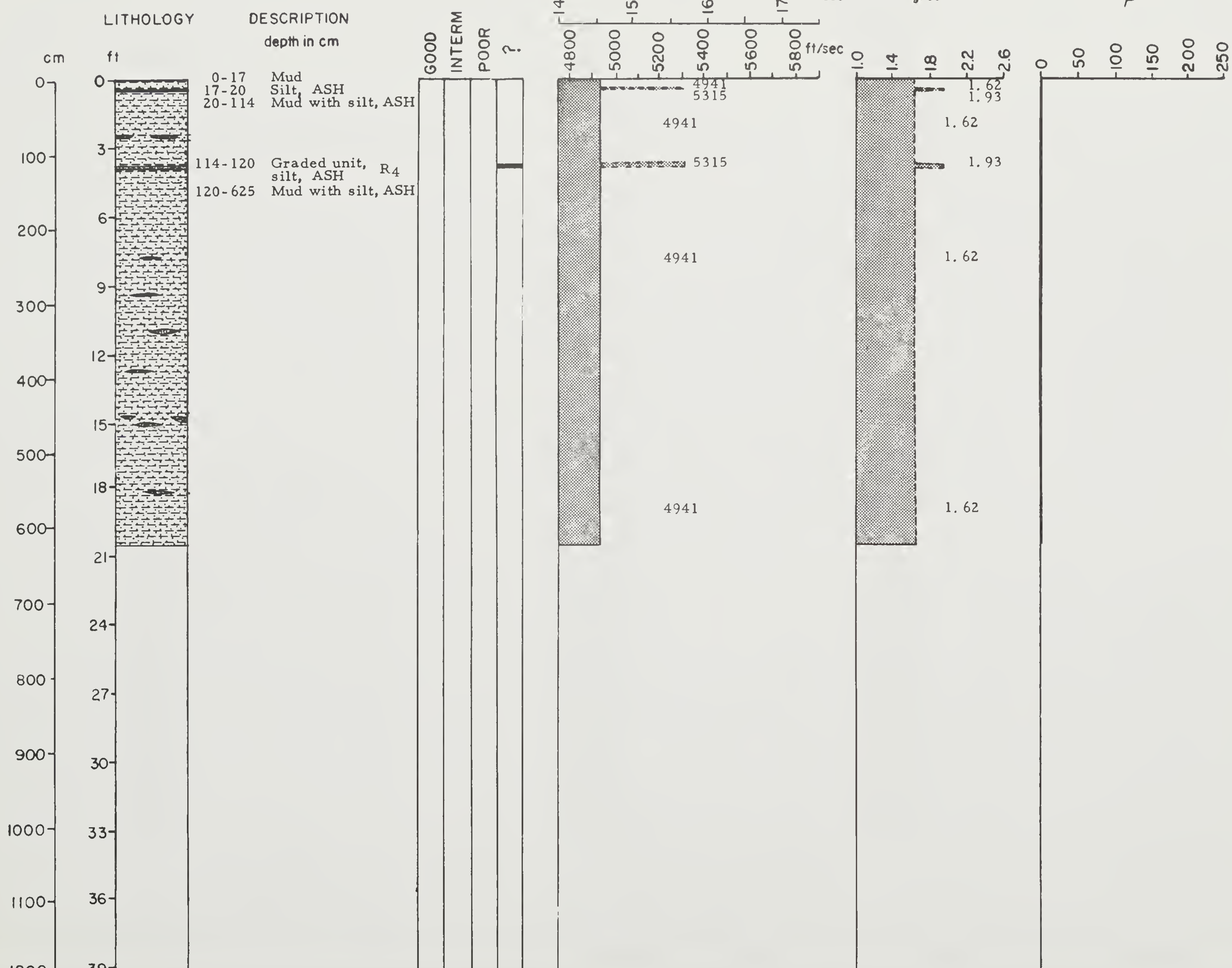

RC10-167
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-66 Mud
66-70 Graded unit, silt, sandy, ASH R3
70-268 Mud
268-271 Graded unit, silt, ASH R4
271-388 Mud
388-391 Graded unit, sand silty, ASH R4
381-479 Mud
479-483 Silt, ASH R4
483-1001 Mud
1001-1006 Silt, gravelly, ASH R3
1006-1151 Mud
1151-1161 Graded unit, silt, ASH R2
1161-1220 Mud
1220-1228 Silt, ASH R3
1228-1614 Mud
1614-1628 Graded unit, silt to sandy silt, ASH R2
1628-1721 Mud
1721-1722 Silt, ASH
1722-1735 Mud
1735-1736 Graded unit, silt, gravelly, ASH
1736-1777 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ
4984
5394
4984
5308
5482
5308
4961
5709
5234
5308
4961
5210
5367
4951
1.68
1.97
1.68
1.93
2.01
1.93
1.65
2.10
1.89
1.93
1.65
1.88
1.96
1.64

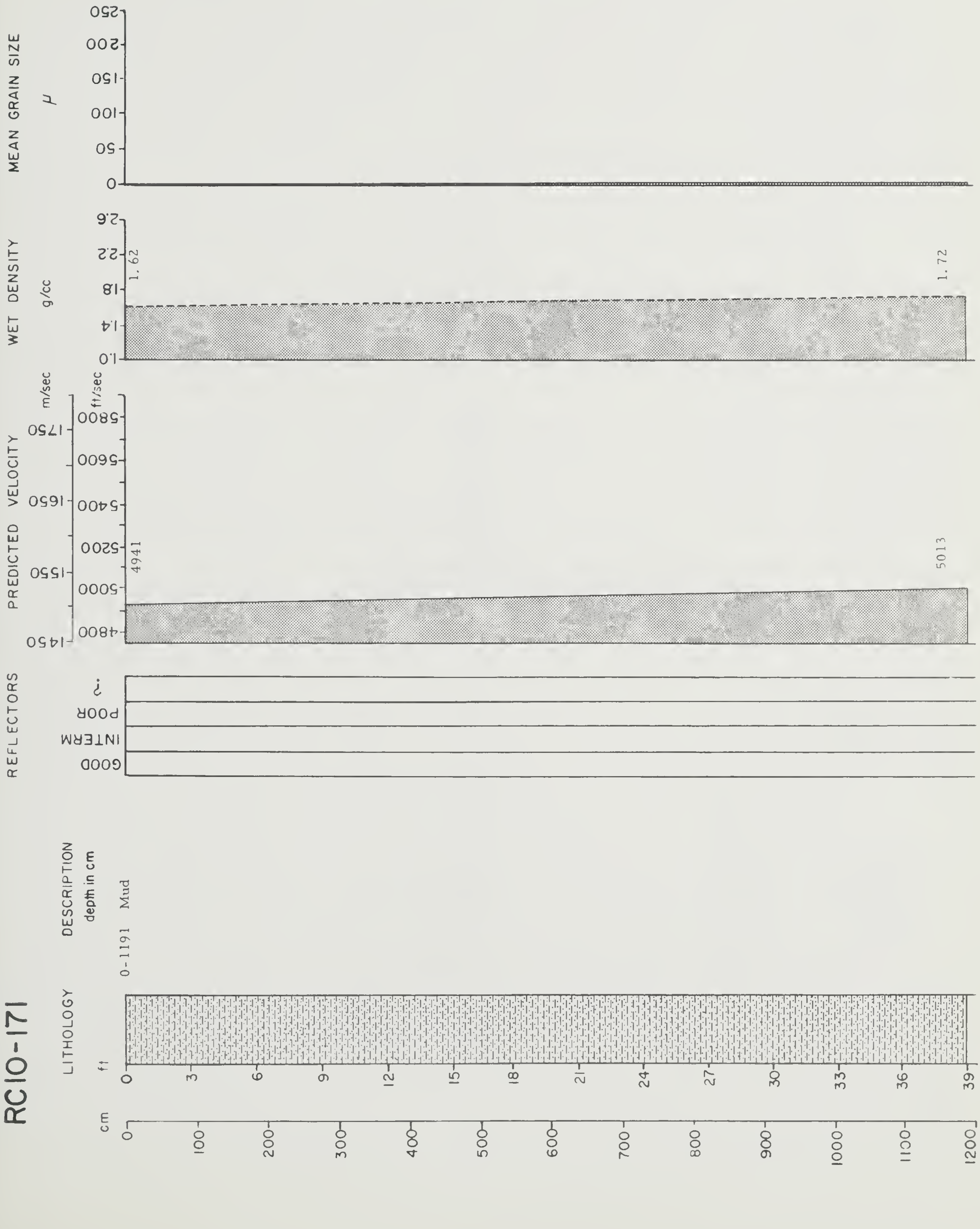

RC10-168
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
DESCRIPTION
depth in cm
0-1004 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5016
5072
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.72
1.77
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

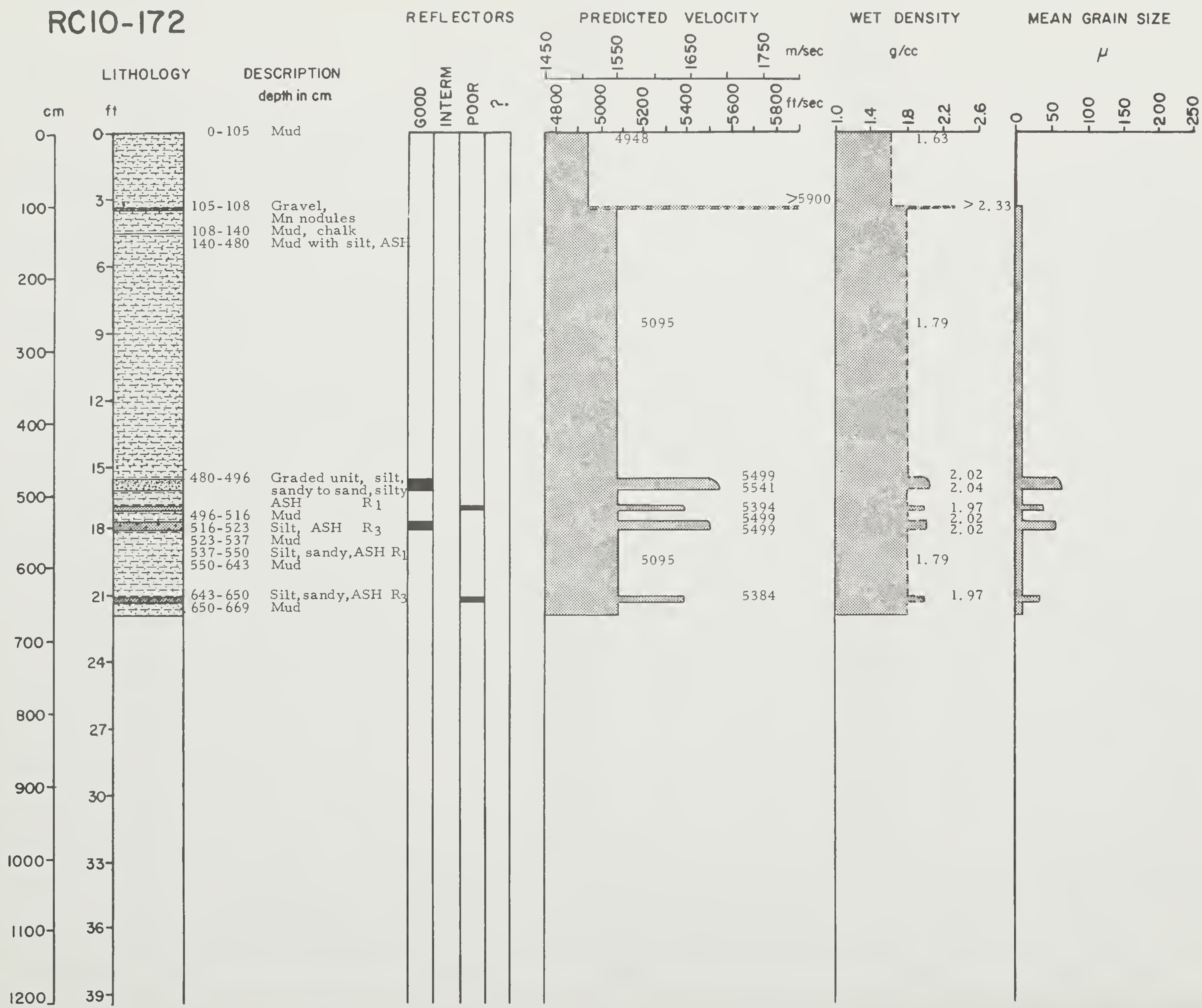
RC10-169

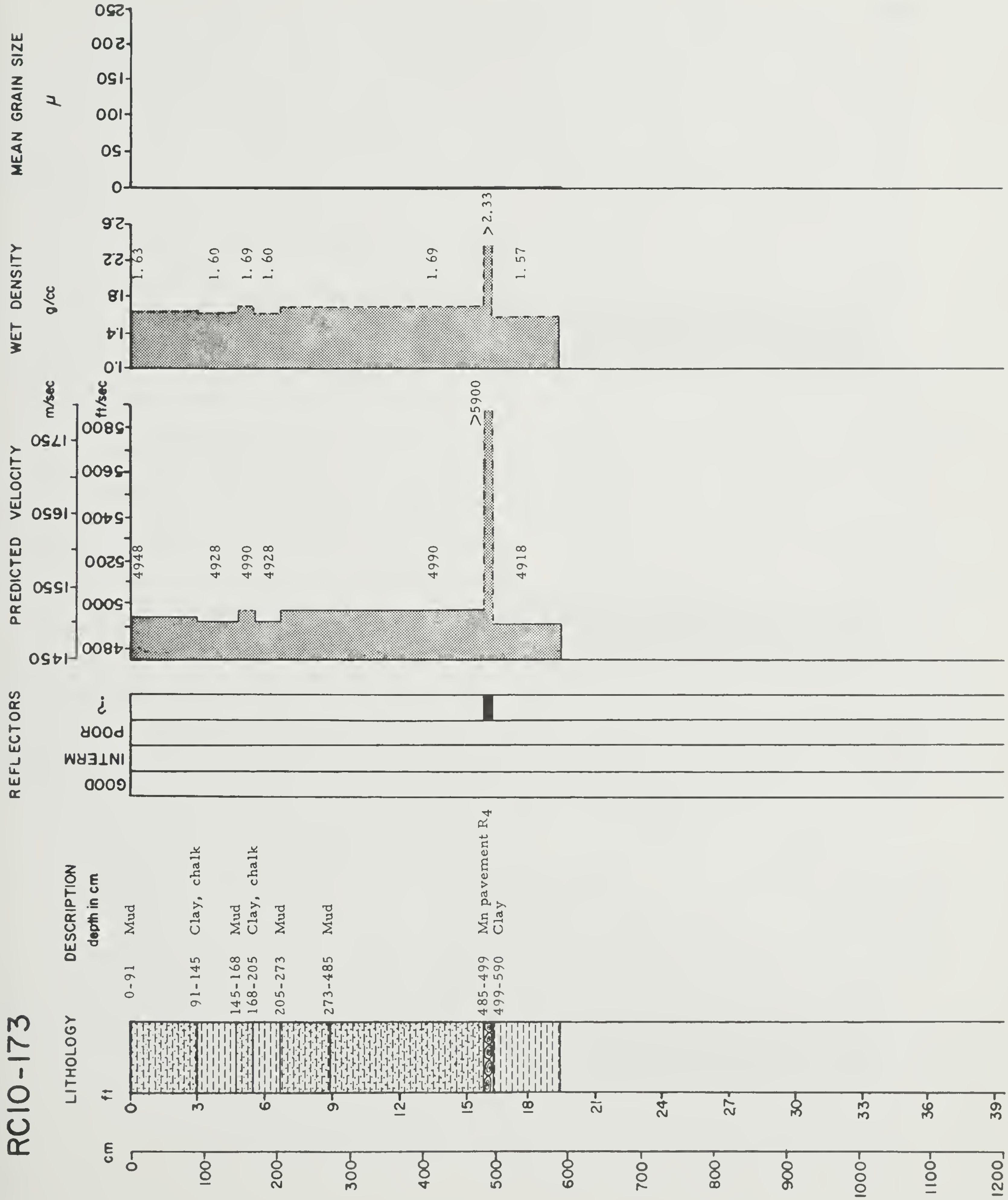

MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.65
1.93
1.62
1.89
1.92
1.62
1.97
1.92
1.62
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4964
5318
4938
5239
5295
4938
5387
5295
4938
REFLECTORS
?
POOR
INTERM
GOOD
DESCRIPTION
depth in cm
0-165 Mud
165-167 Silt, sandy, ASH R_4
167-319 Mud with silt, ASH
319-323 Graded unit, silt, ASH R_3
323-438 Mud
438-443 Graded unit, silt, ASH R_2
443-929 Mud
929-935 Graded unit, silt, sandy, ASH R_2
935-980 Mud
980-985 Silt, ASH R_2
985-1096 Mud
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

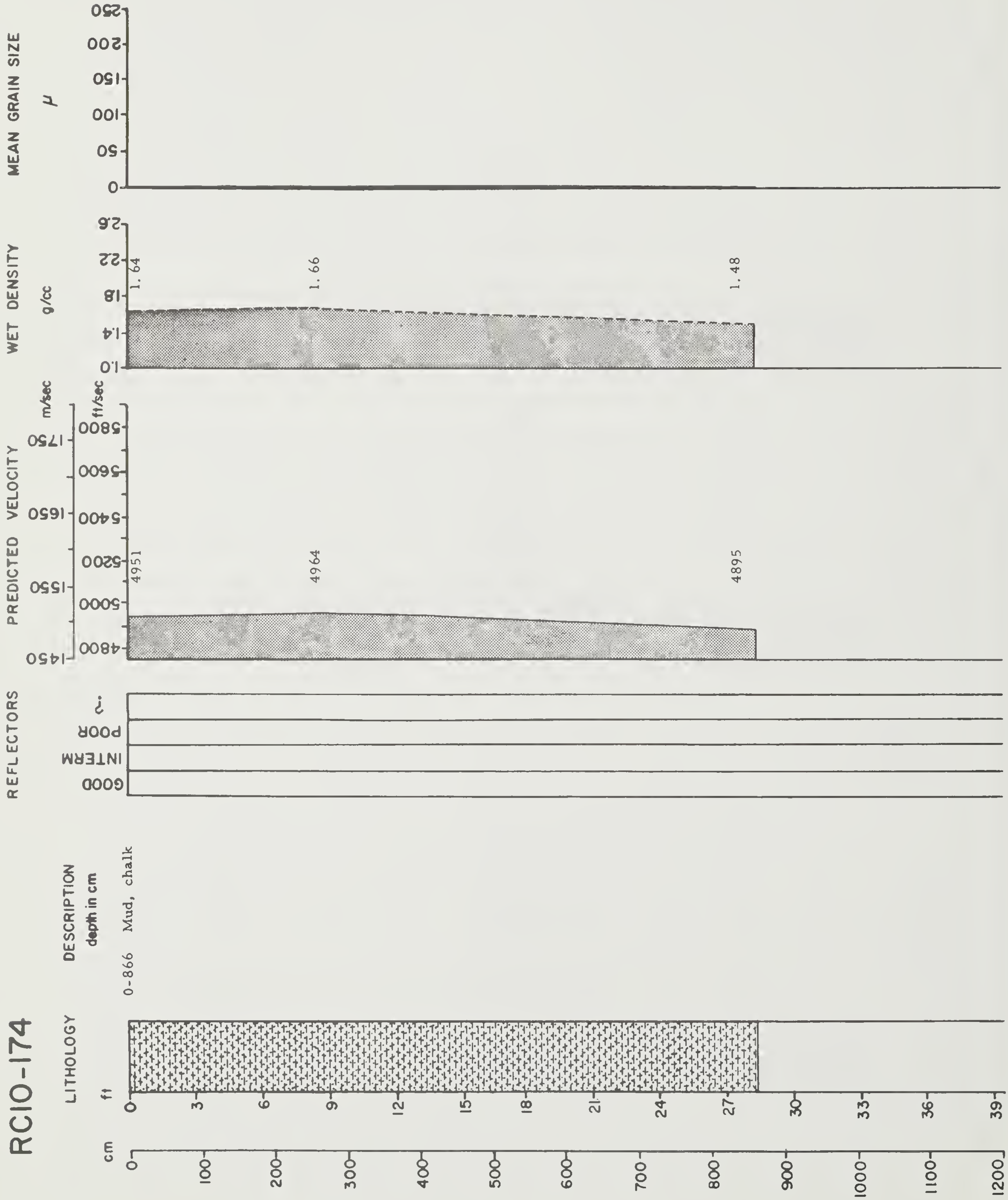
RC10-170

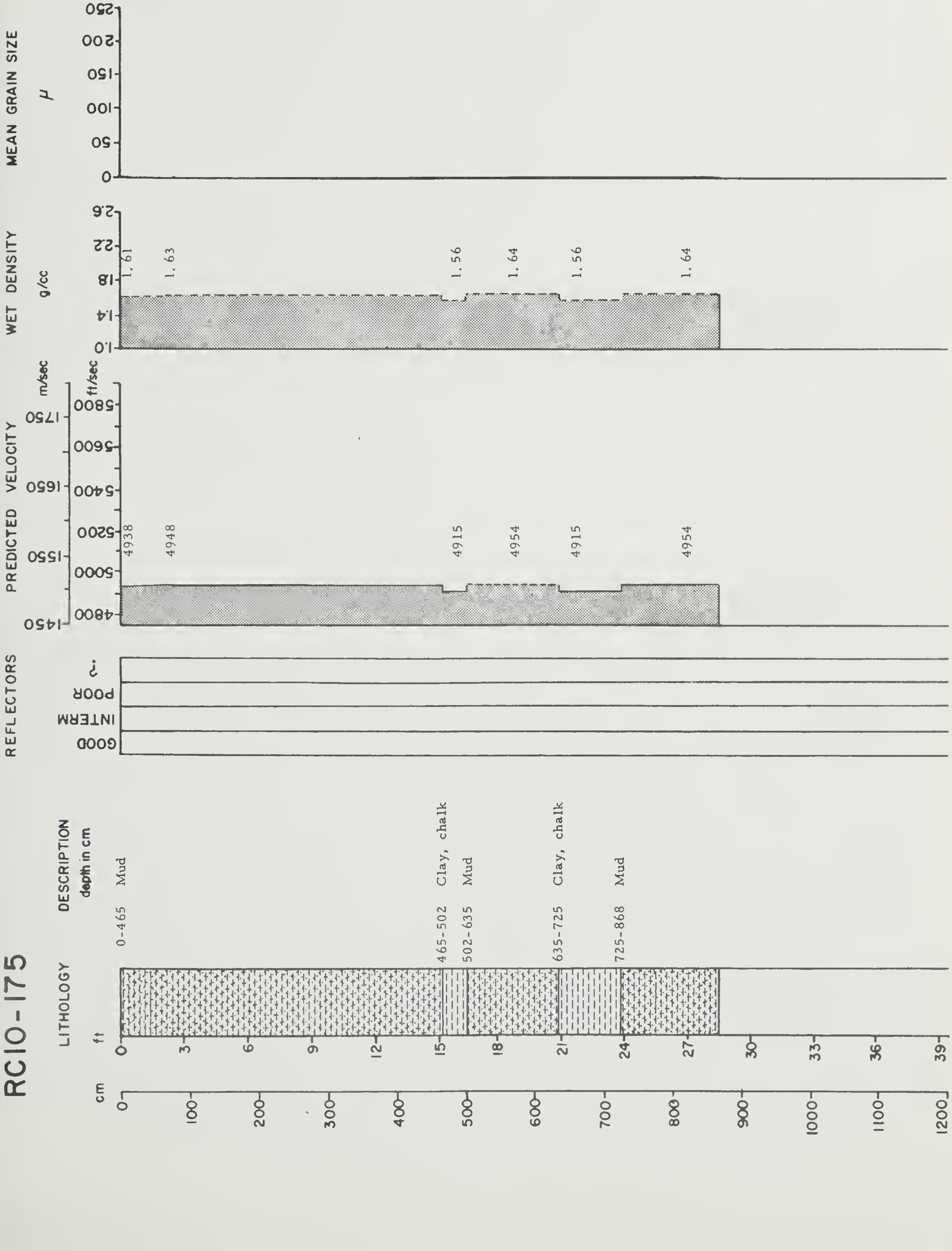

LITHOLOGY
DESCRIPTION
depth in cm
0-17 Mud
17-20 Silt, ASH
20-114 Mud with silt, ASH
114-120 Graded unit, silt, ASH
R4
120-625 Mud with silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4941
5315
4941
5315
4941
4941
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.62
1.93
1.62
1.93
1.62
1.62
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39


RC10-171
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.62
1.72
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4941
5013
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-1191 Mud
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

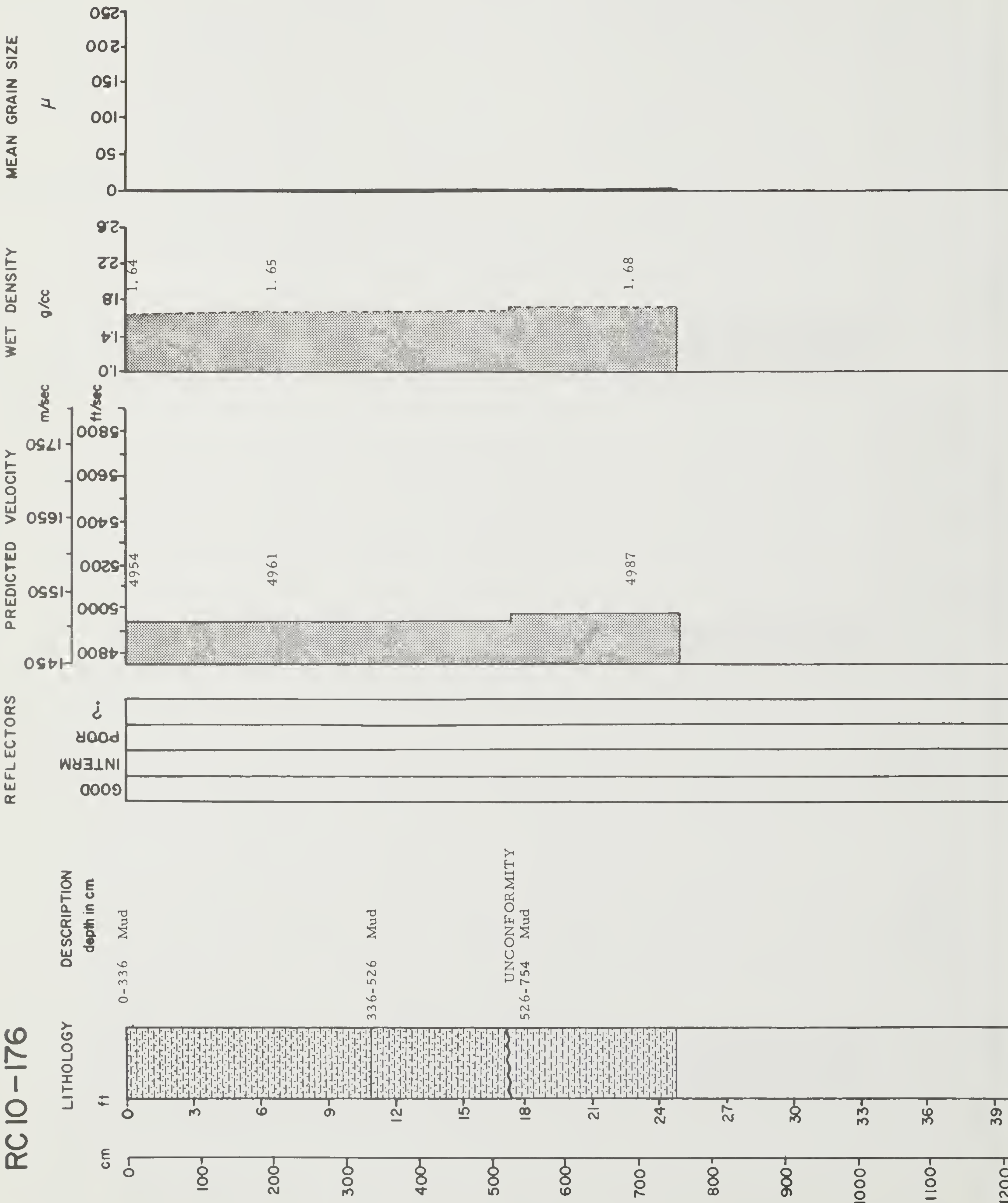

RC10-172
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-105 Mud
105-108 Gravel, Mn nodules
108-140 Mud, chalk
140-480 Mud with silt, ASH
480-496 Graded unit, silt, sandy to sand, silty ASH R1
496-516 Mud
516-523 Silt, ASH R3
523-537 Mud
537-550 Silt, sandy, ASH R1
550-643 Mud
643-650 Silt, sandy, ASH R3
650-669 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4948
>5900
5095
5499
5541
5394
5499
5499
5095
5384
WET DENSITY
g/cc
1.63
>2.33
1.79
2.02
2.04
1.97
2.02
2.02
1.79
1.97
MEAN GRAIN SIZE
μ

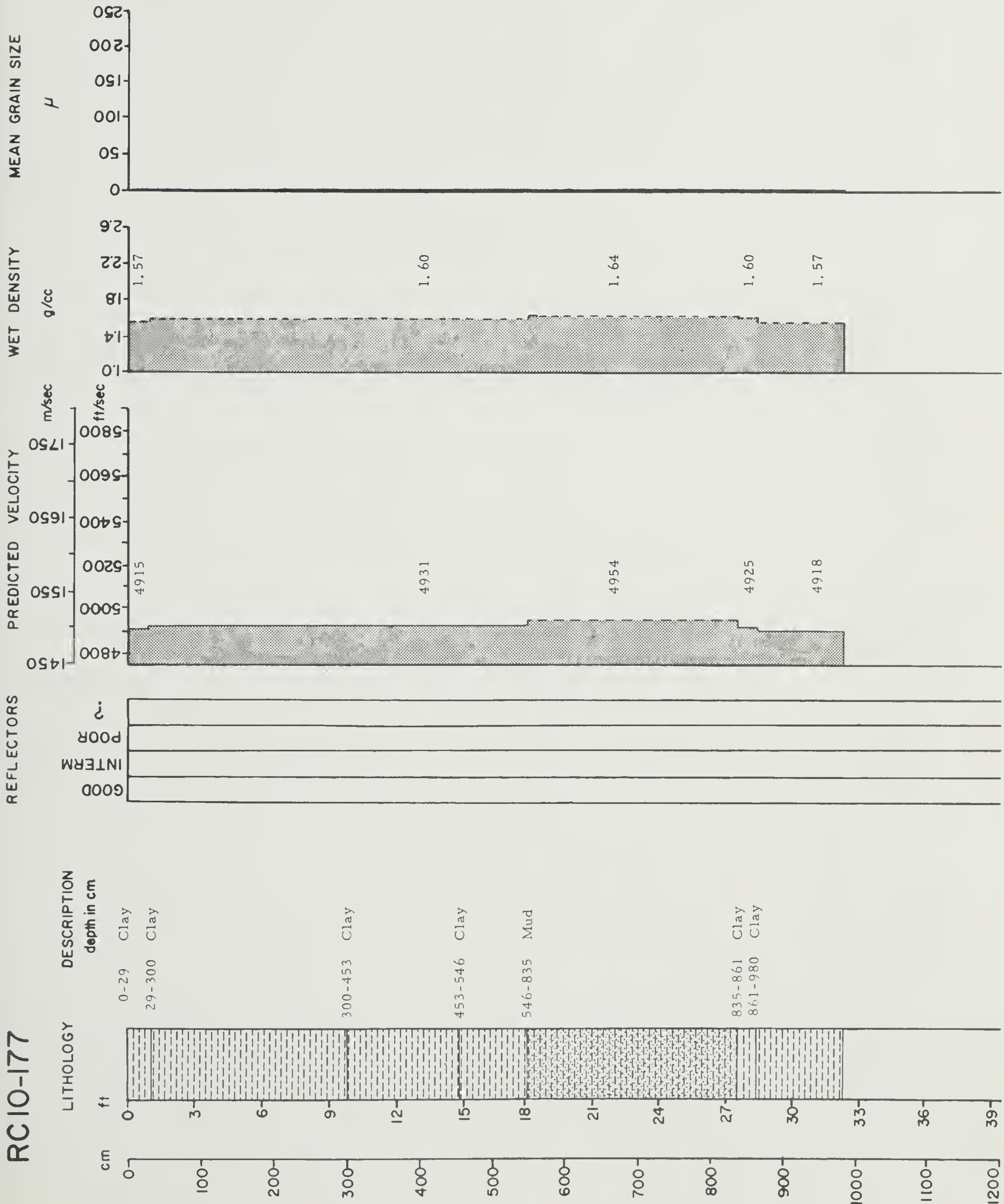

RC10-173
LITHOLOGY
DESCRIPTION
depth in cm
0-91 Mud
91-145 Clay, chalk
145-168 Mud
168-205 Clay, chalk
205-273 Mud
273-485 Mud
485-499 Mn pavement R4
499-590 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4948
4928
4990
4928
4990
>5900
4918
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.63
1.60
1.69
1.60
1.69
>2.33
1.57
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200


RCIO-174
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-866 Mud, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4951
4964
4895
WET DENSITY
g/cc
1.64
1.66
1.48
MEAN GRAIN SIZE
μ

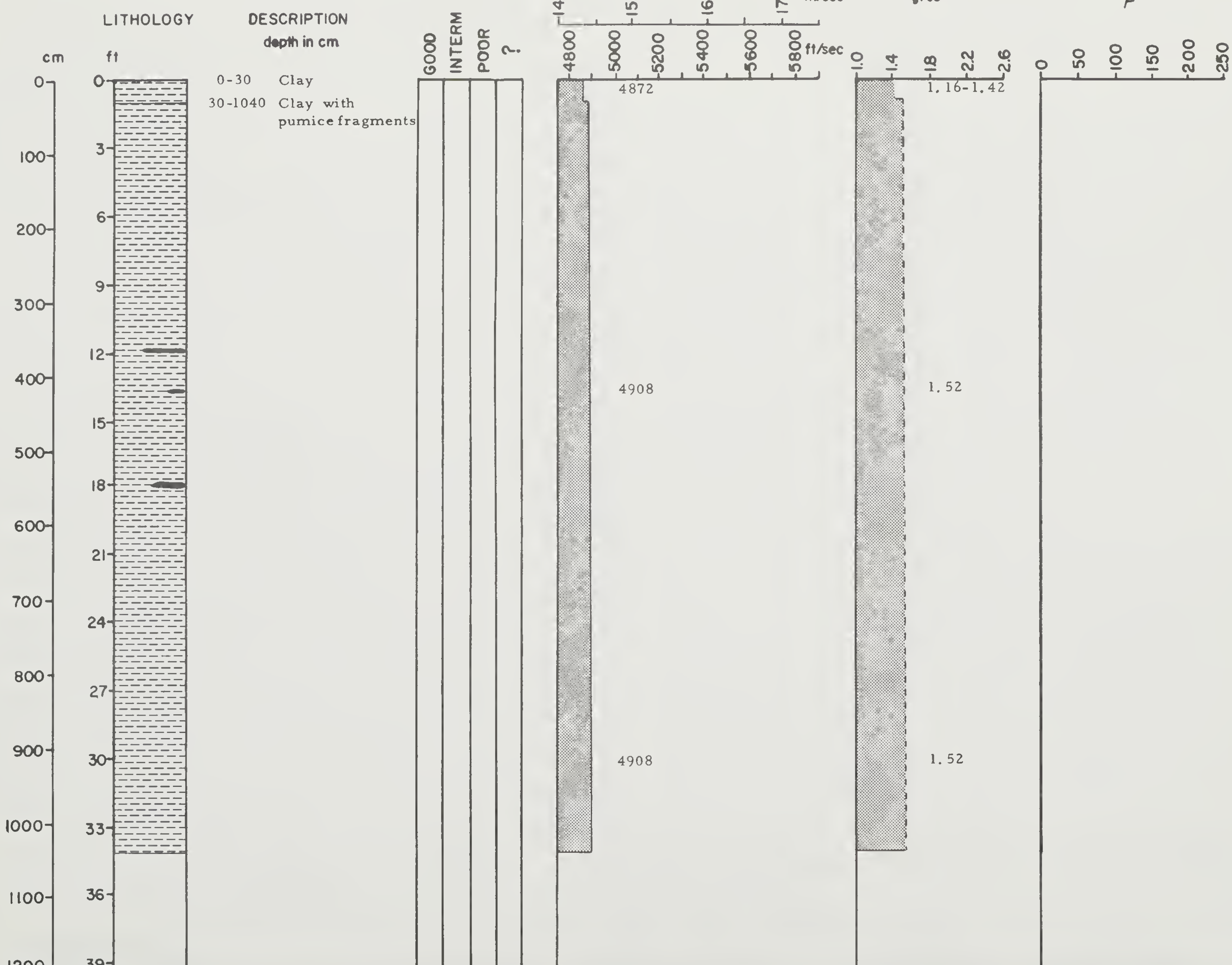


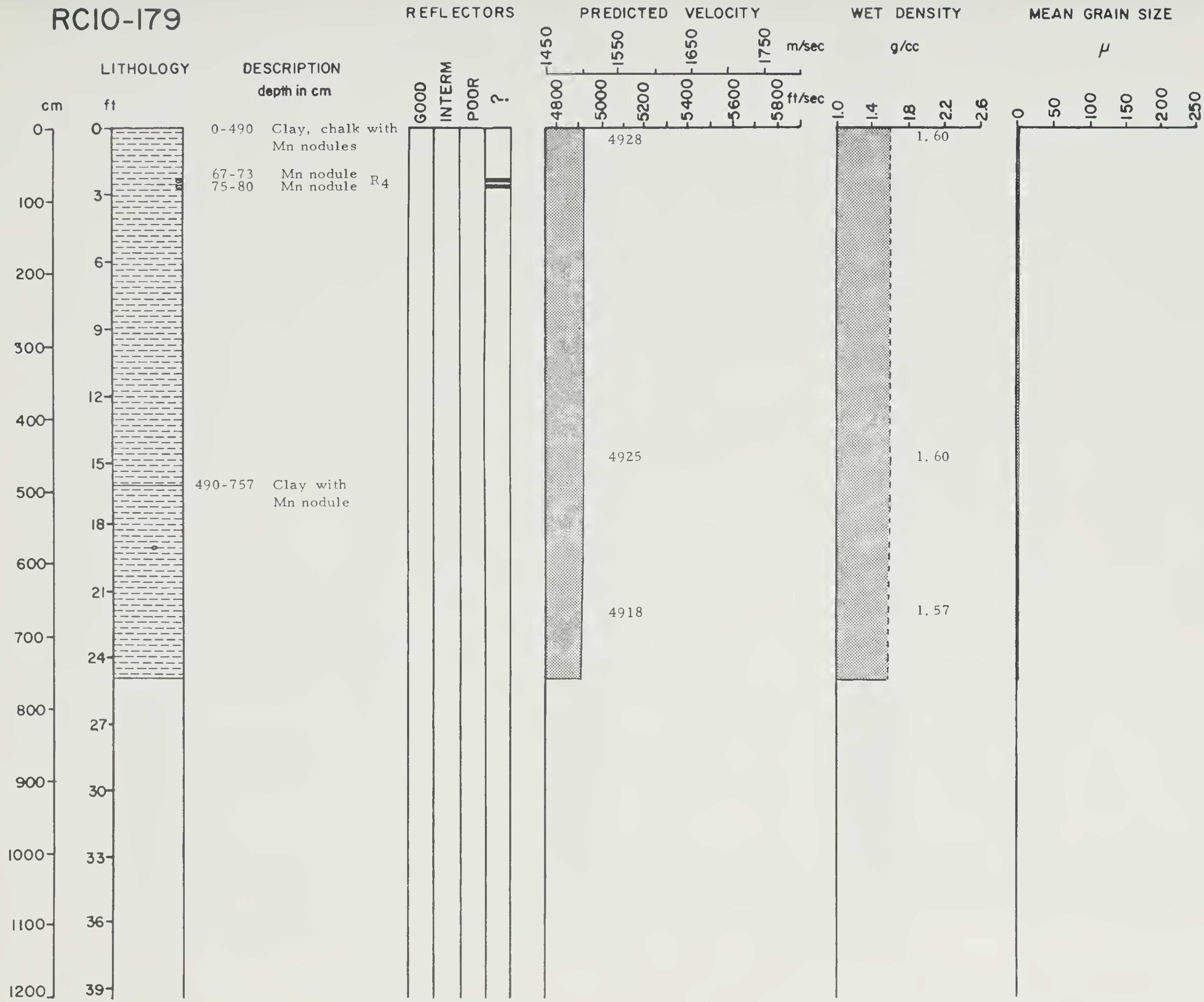
RC10-175
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-465 Mud
465-502 Clay, chalk
502-635 Mud
635-725 Clay, chalk
725-868 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4938
4948
4915
4954
4915
4954
WET DENSITY
g/cc
1.61
1.63
1.56
1.64
1.56
1.64
MEAN GRAIN SIZE
μ

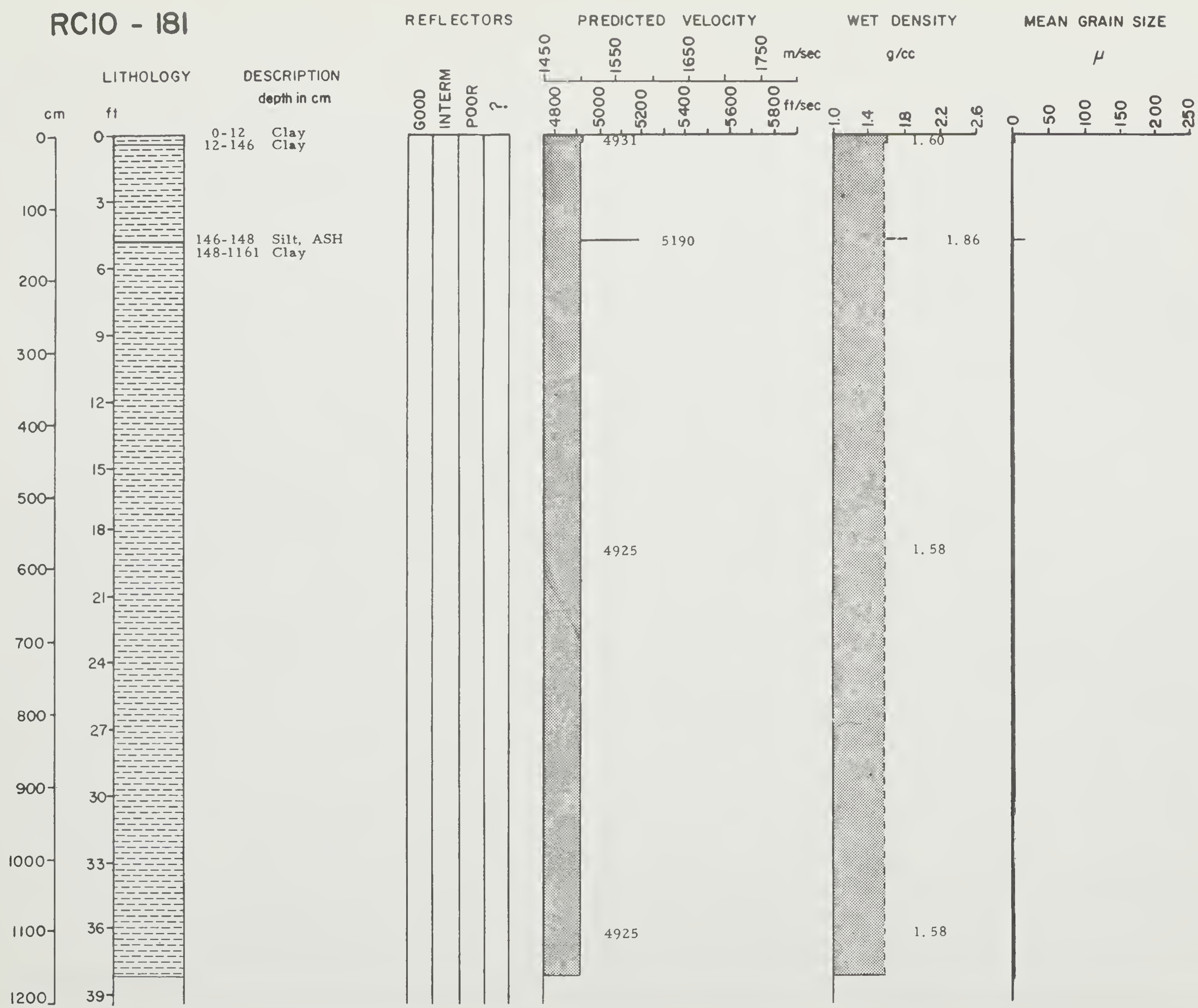

RC10-176
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-336 Mud
336-526 Mud
UNCONFORMITY
526-754 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4954
4961
4987
WET DENSITY
g/cc
1.64
1.65
1.68
MEAN GRAIN SIZE
μ

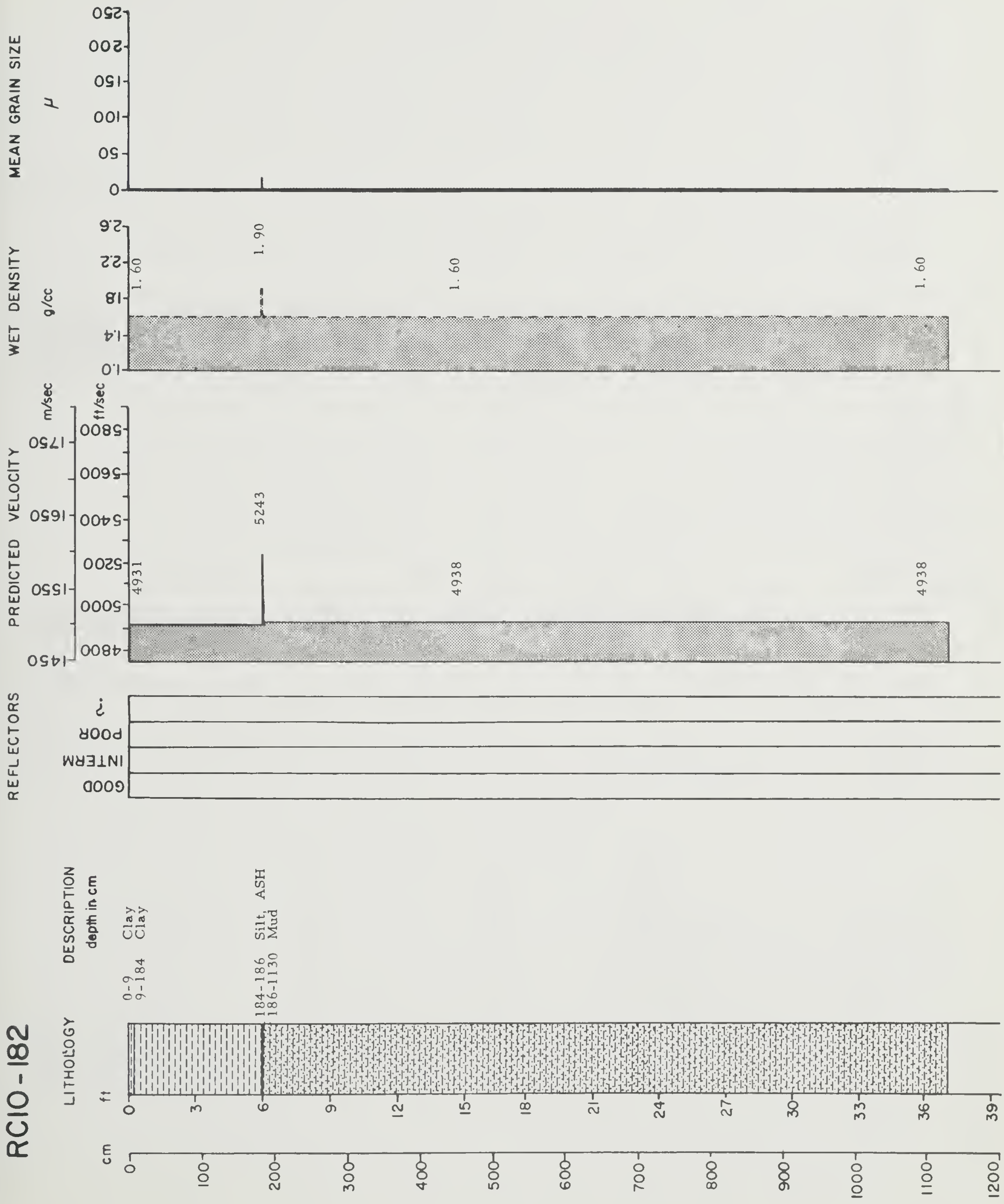

RC10-177
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-29 Clay
29-300 Clay
300-453 Clay
453-546 Clay
546-835 Mud
835-861 Clay
861-980 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4915
4931
4954
4925
4918
WET DENSITY
g/cc
1.57
1.60
1.64
1.60
1.57
MEAN GRAIN SIZE
μ

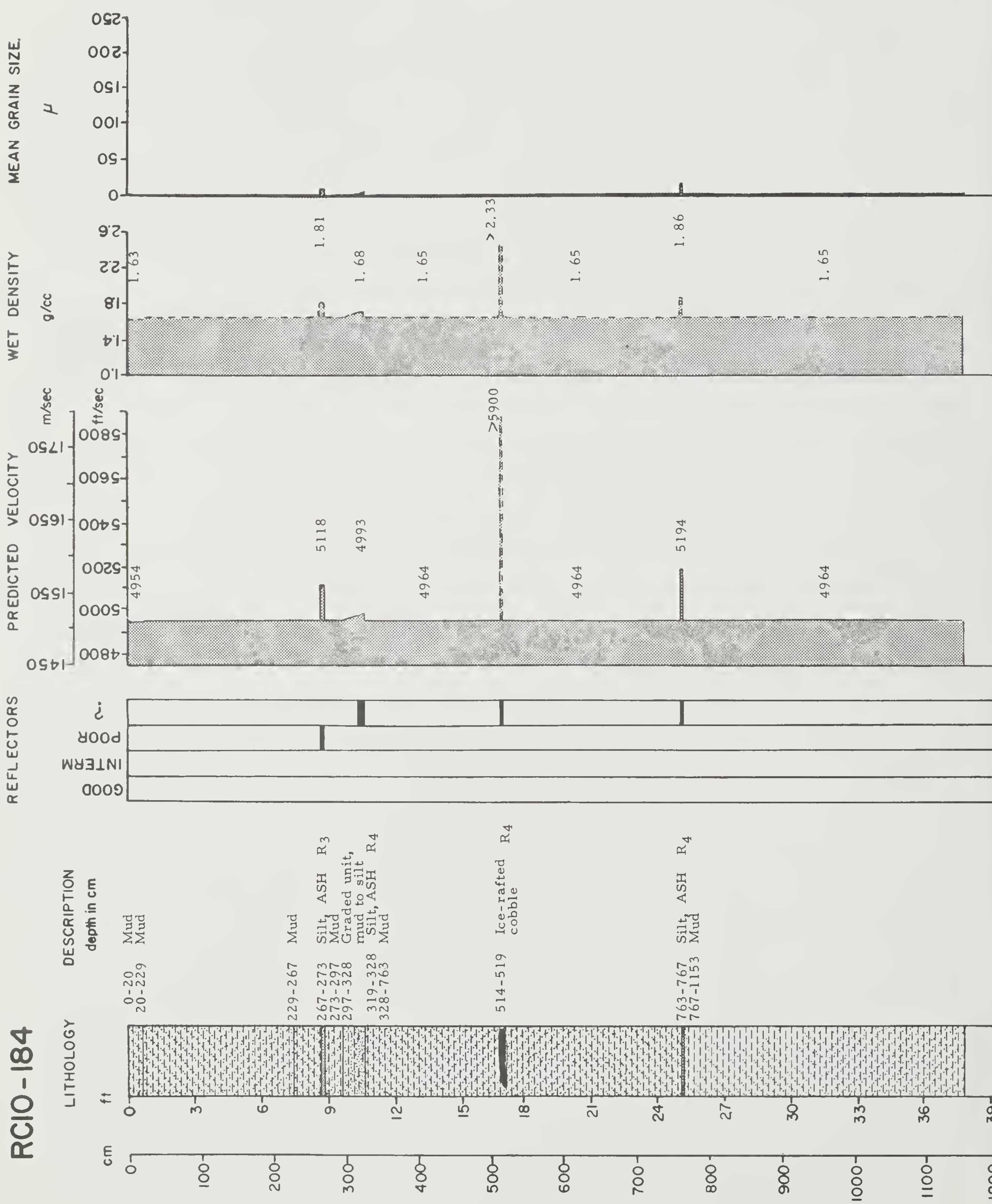
RC10-178

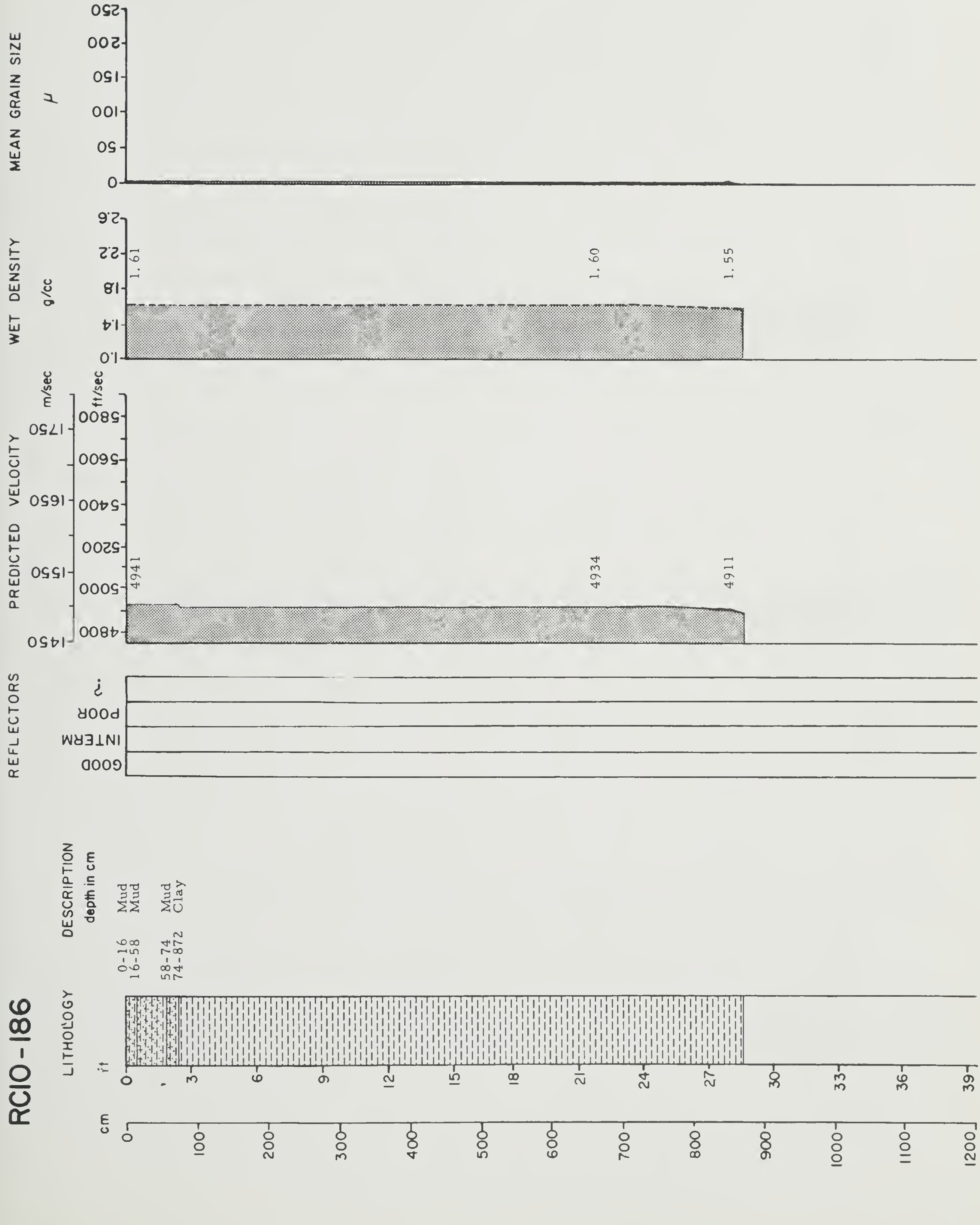

LITHOLOGY
DESCRIPTION
depth in cm
0-30 Clay
30-1040 Clay with pumice fragments
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4872
4908
4908
WET DENSITY
g/cc
1.16-1.42
1.52
1.52
MEAN GRAIN SIZE
μ
cm
ft


RC10-179
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-490 Clay, chalk with Mn nodules
67-73 Mn nodule
75-80 Mn nodule
R4
490-757 Clay with Mn nodule
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
1450
1550
1650
1750
m/sec
4800
5000
5200
5400
5600
5800
ft/sec
4928
4925
4918
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.60
1.60
1.57
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

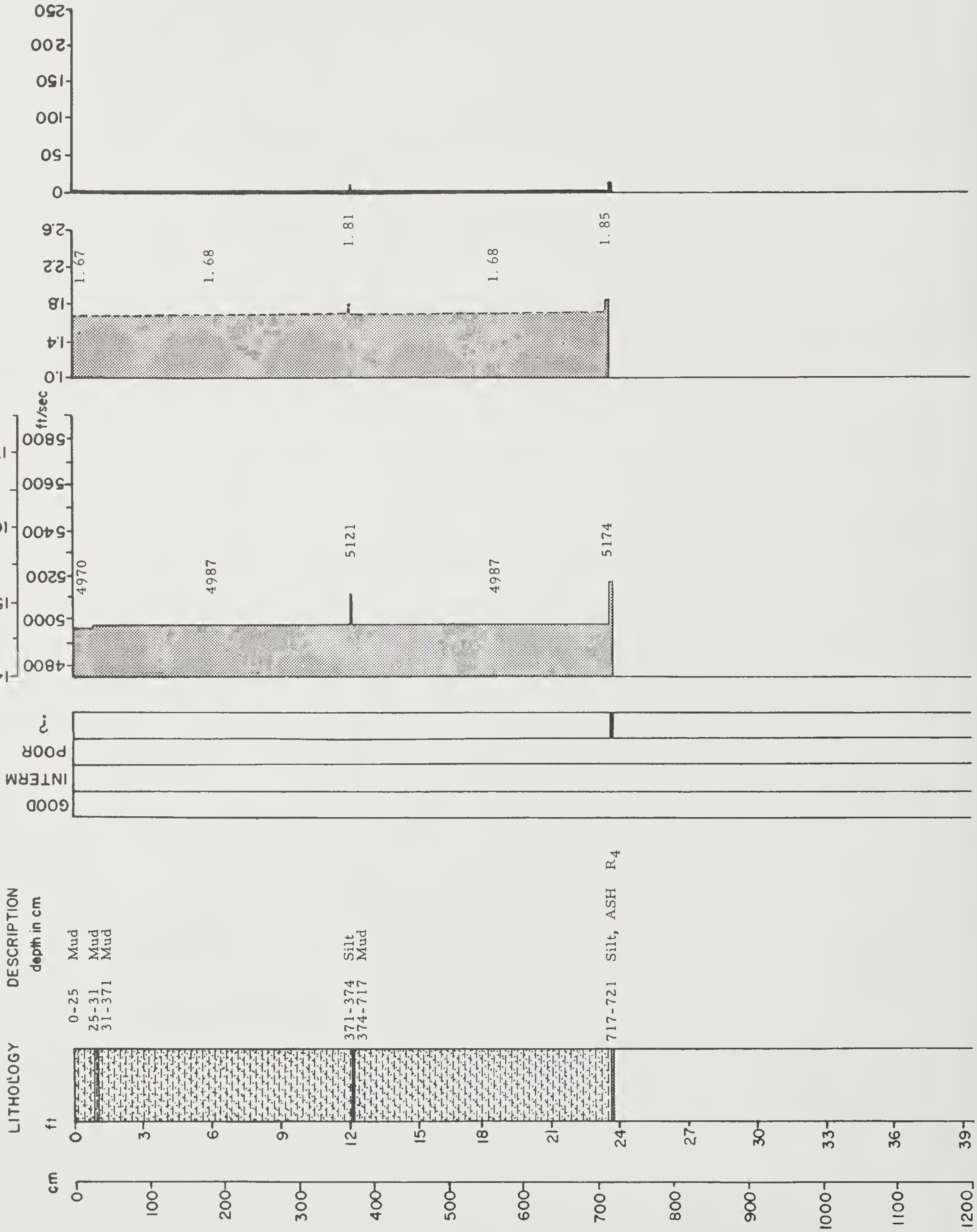

RC10 - 181
LITHOLOGY
DESCRIPTION
depth in cm
0-12 Clay
12-146 Clay
146-148 Silt, ASH
148-1161 Clay
cm
ft
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4931
5190
4925
4925
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.60
1.86
1.58
1.58
MEAN GRAIN SIZE
μ
0
50
100
150
200
250


RC10-182
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
LITHOLOGY
DESCRIPTION
depth in cm
0-9 Clay
9-184 Clay
184-186 Silt, ASH
186-1130 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4931
5243
4938
4938
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.60
1.90
1.60
1.60
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

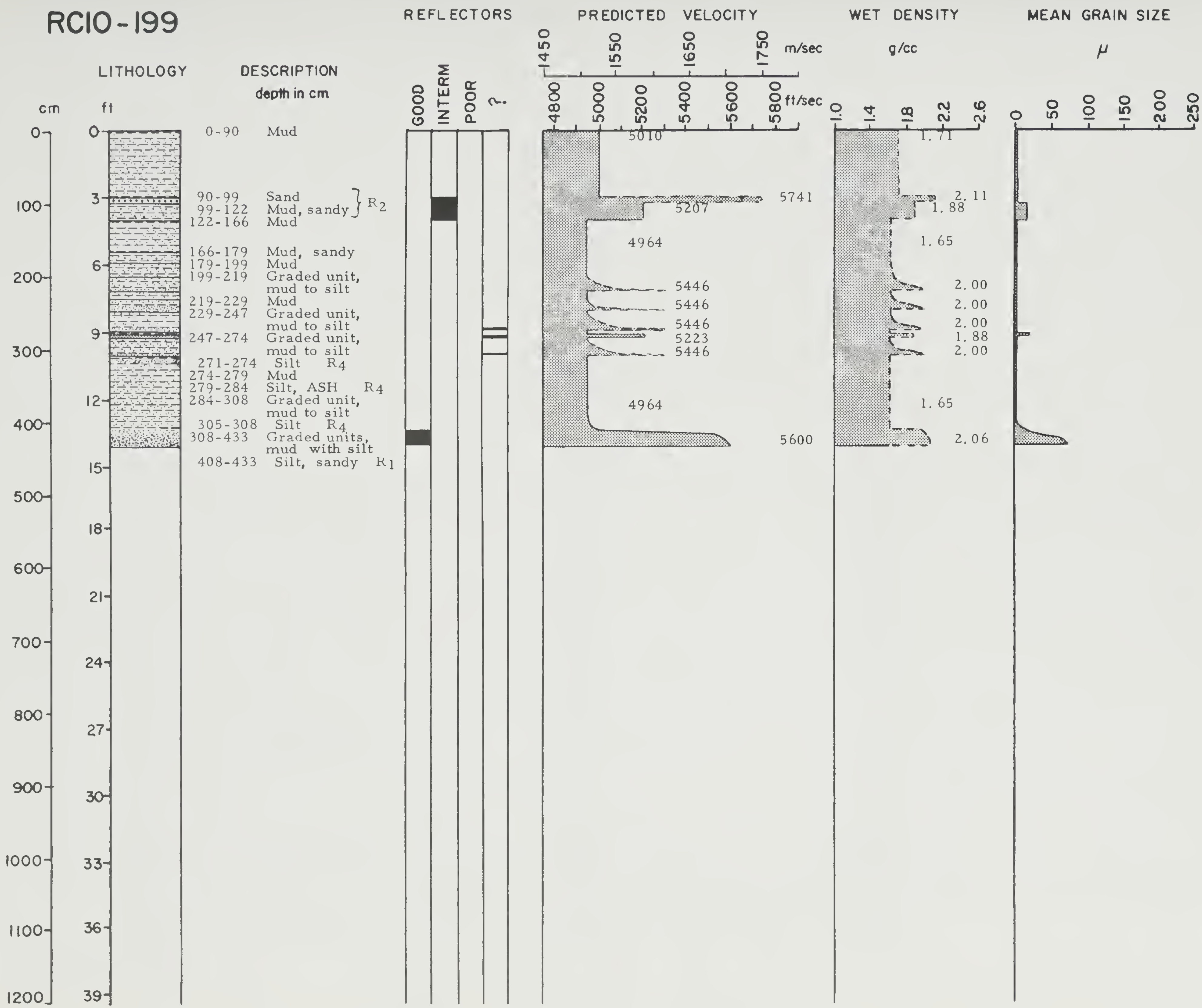

RC10-184
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-20 Mud
20-229 Mud
229-267 Mud
267-273 Silt, ASH R3
273-297 Mud
297-328 Graded unit, mud to silt
319-328 Silt, ASH R4
328-763 Mud
514-519 Ice-rafted cobble R4
763-767 Silt, ASH R4
767-1153 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4954
5118
4993
4964
>5900
4964
5194
4964
WET DENSITY
g/cc
1.63
1.81
1.68
1.65
> 2.33
1.65
1.86
1.65
MEAN GRAIN SIZE
μ

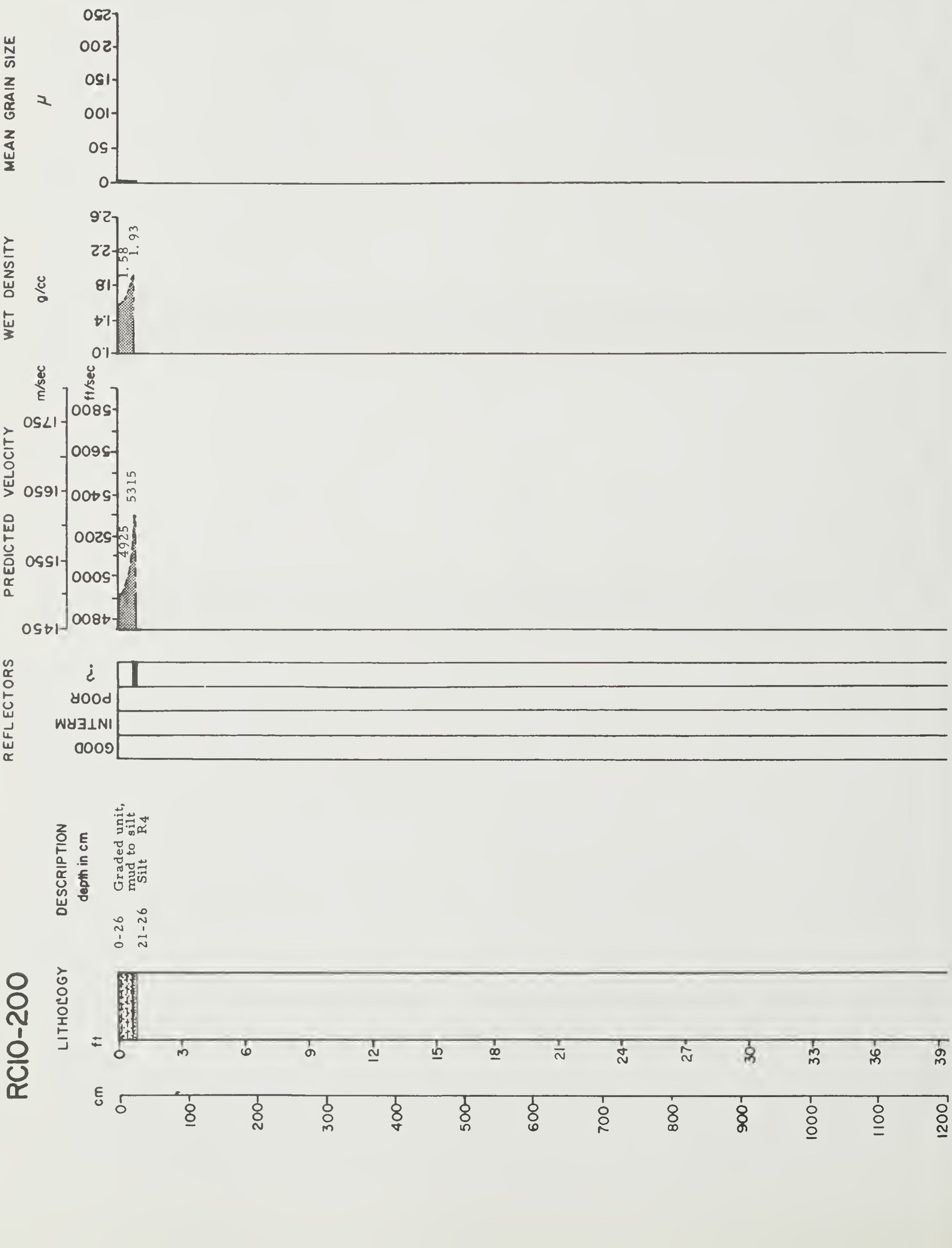

RC10-186
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
LITHOLOGY
DESCRIPTION
depth in cm
0-16 Mud
16-58 Mud
58-74 Mud
74-872 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4941
4934
4911
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.61
1.60
1.55
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

RC10-187

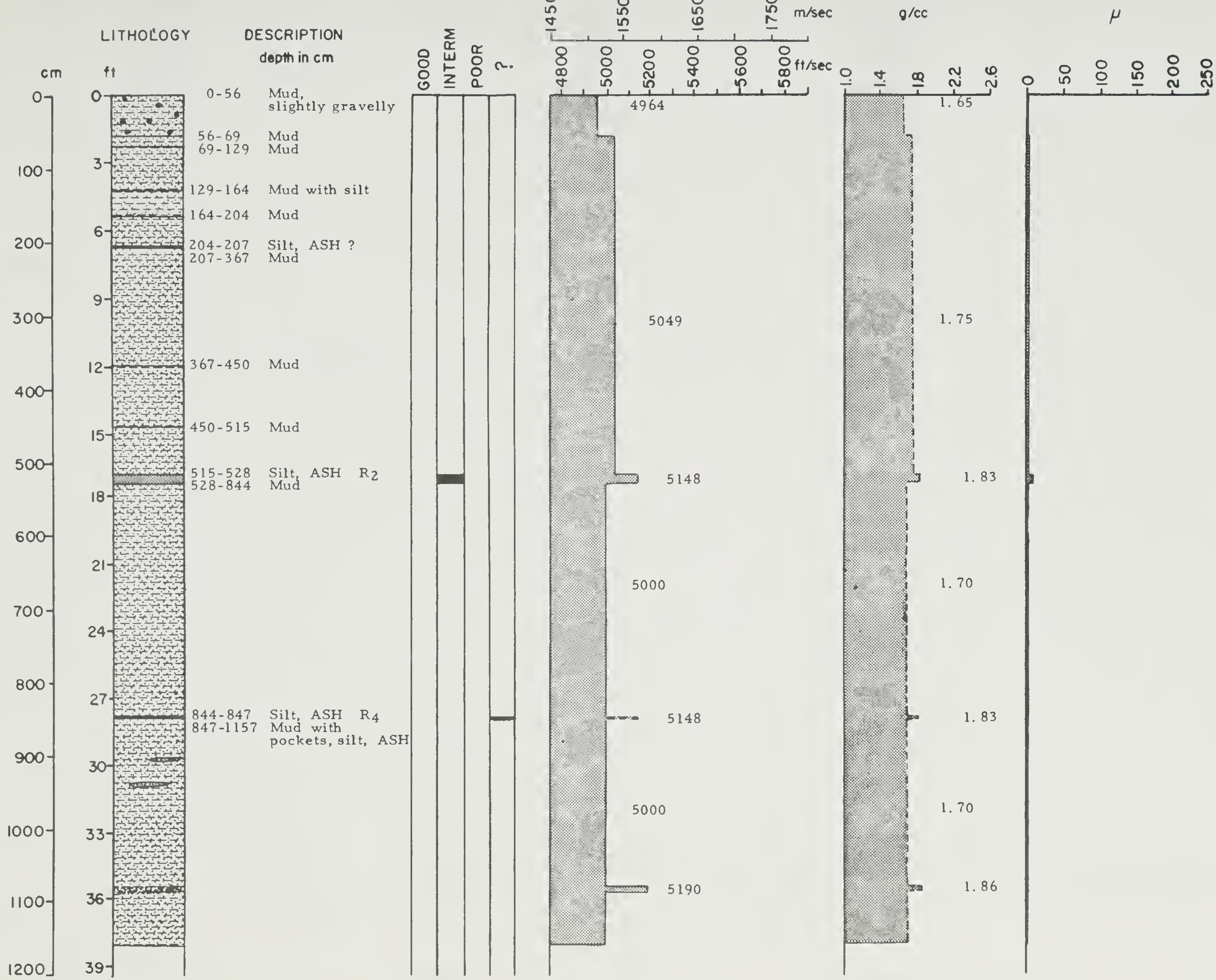


LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-25 Mud
25-31 Mud
31-371 Mud
371-374 Silt
374-717 Mud
717-721 Silt, ASH R_4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
4970
4987
5121
4987
5174
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.67
1.68
1.81
1.68
1.85
MEAN GRAIN SIZE
μ
0 50 100 150 200 250

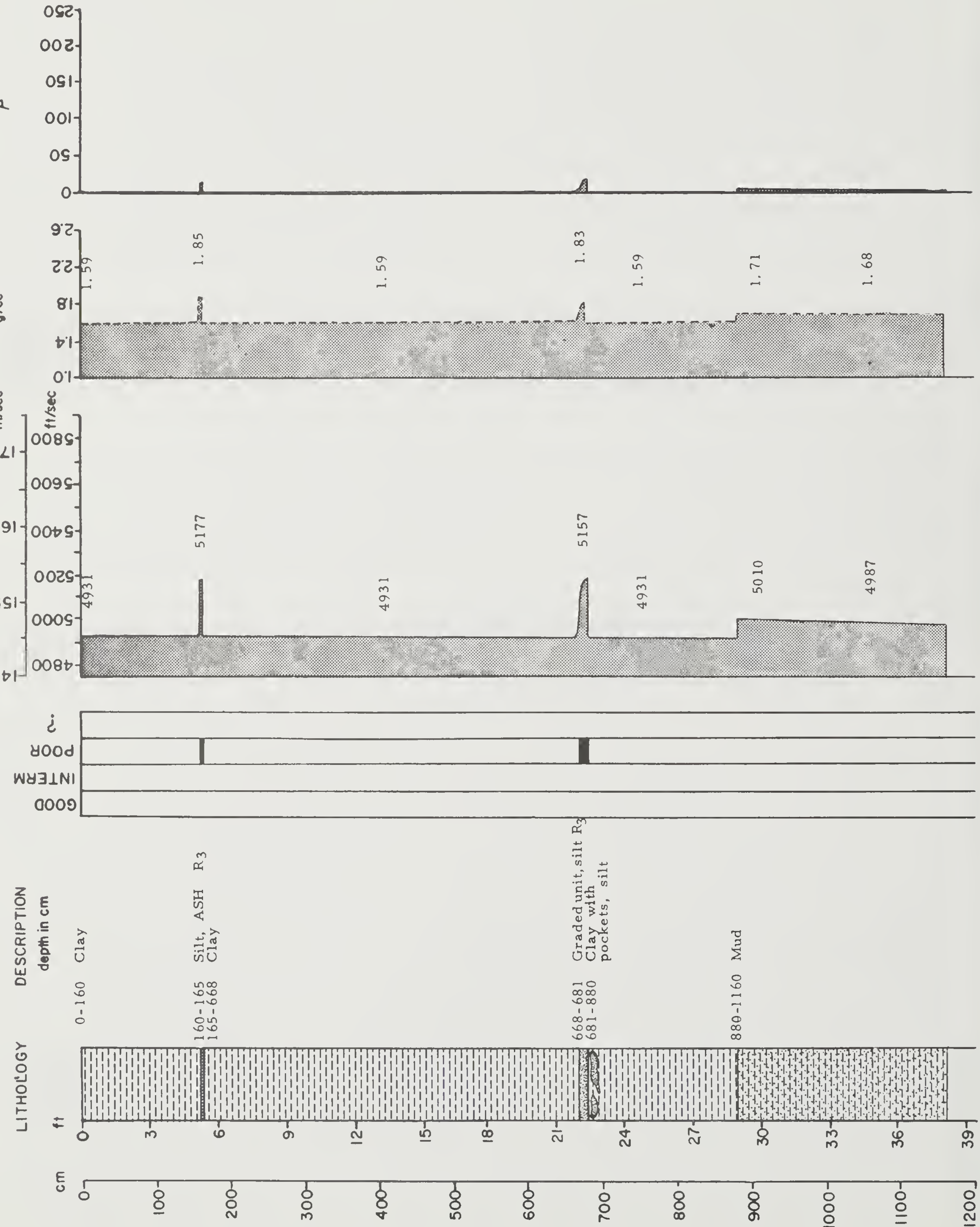

RC10-199
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-90 Mud
90-99 Sand
99-122 Mud, sandy
R2
122-166 Mud
166-179 Mud, sandy
179-199 Mud
199-219 Graded unit, mud to silt
219-229 Mud
229-247 Graded unit, mud to silt
247-274 Graded unit, mud to silt
271-274 Silt R4
274-279 Mud
279-284 Silt, ASH R4
284-308 Graded unit, mud to silt
305-308 Silt R4
308-433 Graded units, mud with silt
408-433 Silt, sandy R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5010
5741
5207
4964
5446
5446
5446
5223
5446
4964
5600
WET DENSITY
g/cc
1.71
2.11
1.88
1.65
2.00
2.00
2.00
1.88
2.00
1.65
2.06
MEAN GRAIN SIZE
μ

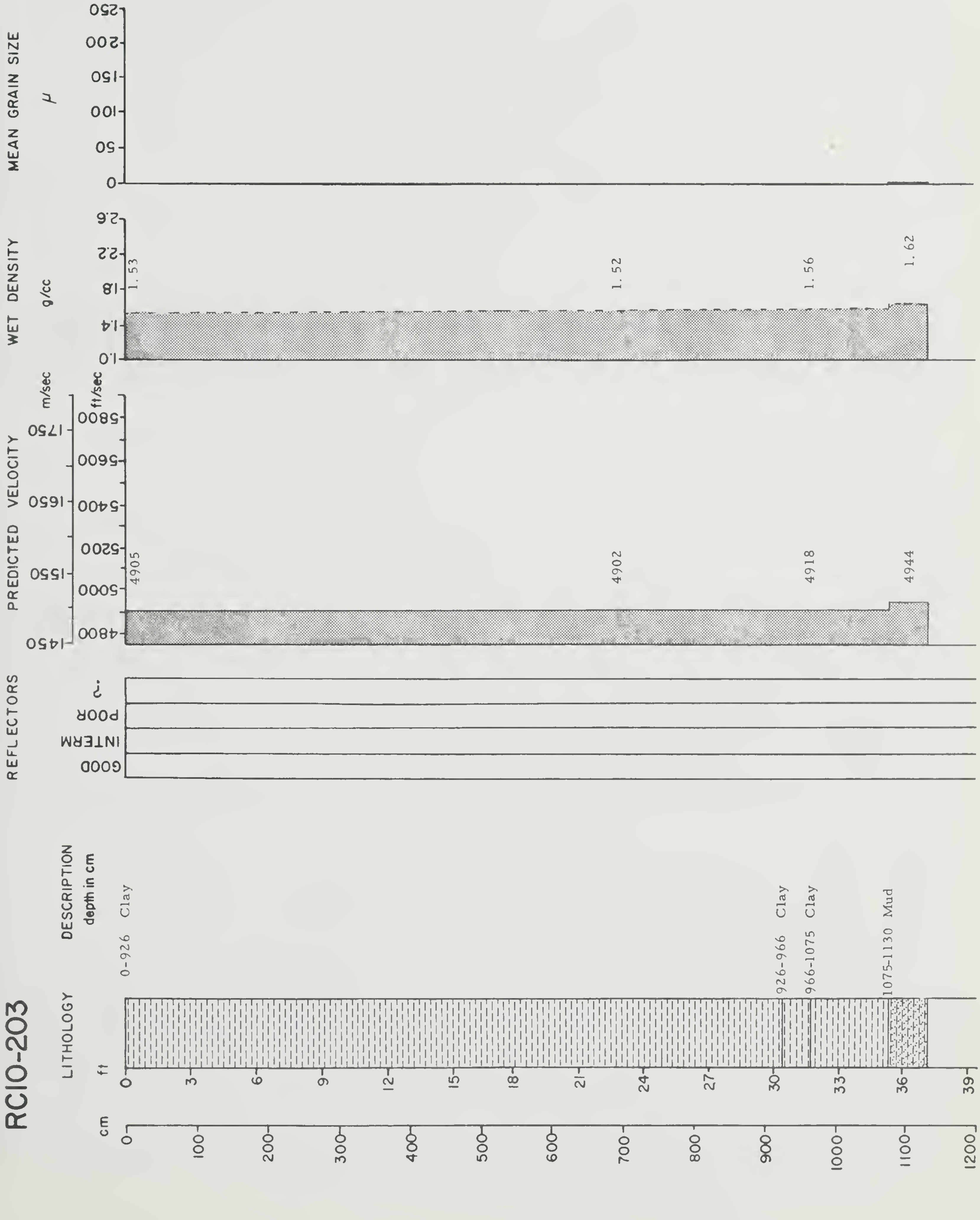

RC10-200
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.58
1.93
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4925
5315
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-26 Graded unit, mud to silt
21-26 Silt R4
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

RC10-201

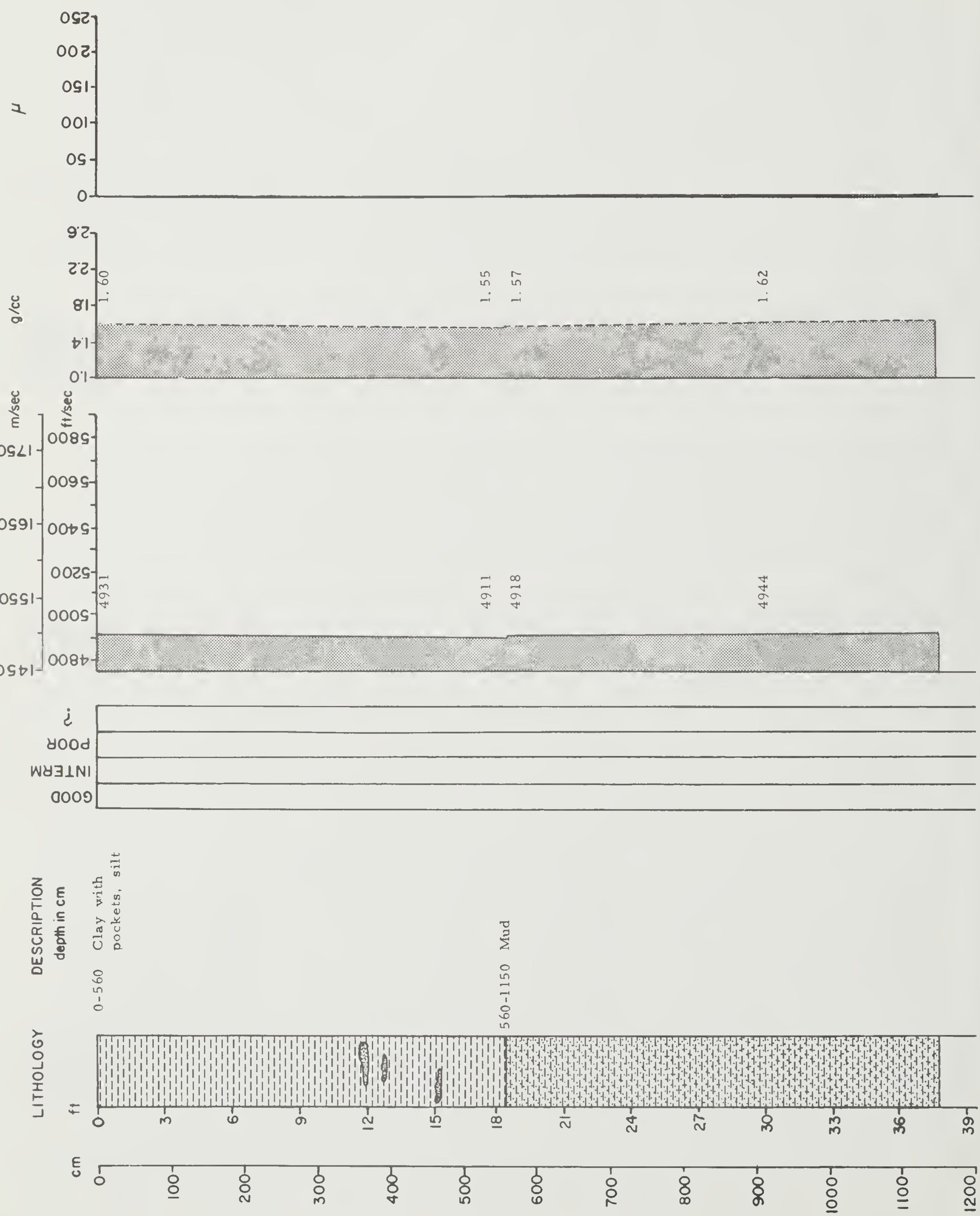

cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-56 Mud, slightly gravelly
56-69 Mud
69-129 Mud
129-164 Mud with silt
164-204 Mud
204-207 Silt, ASH ?
207-367 Mud
367-450 Mud
450-515 Mud
515-528 Silt, ASH R2
528-844 Mud
844-847 Silt, ASH R4
847-1157 Mud with pockets, silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4964
5049
5148
5000
5148
5000
5190
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.65
1.75
1.83
1.70
1.83
1.70
1.86
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

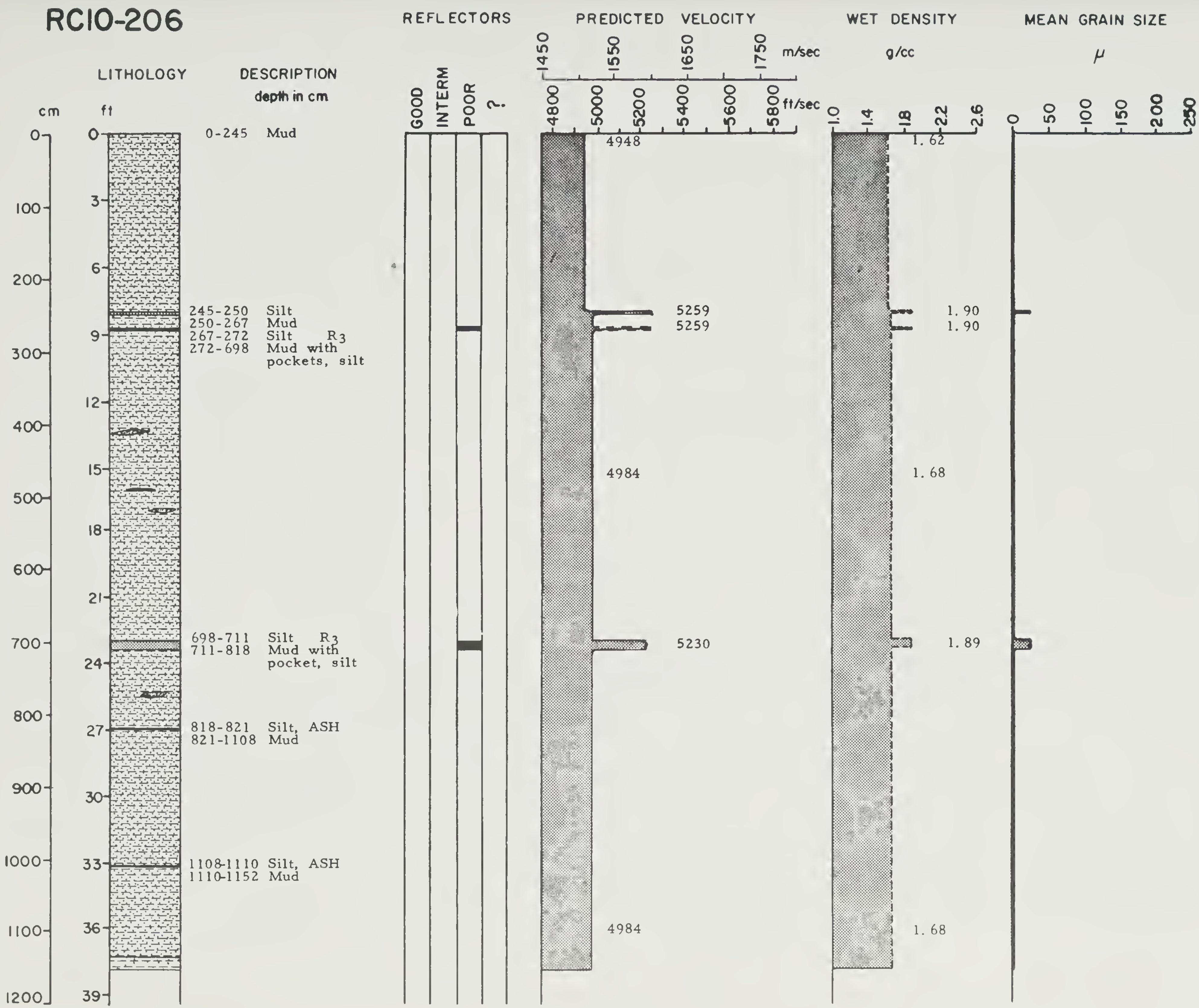
RC10-202

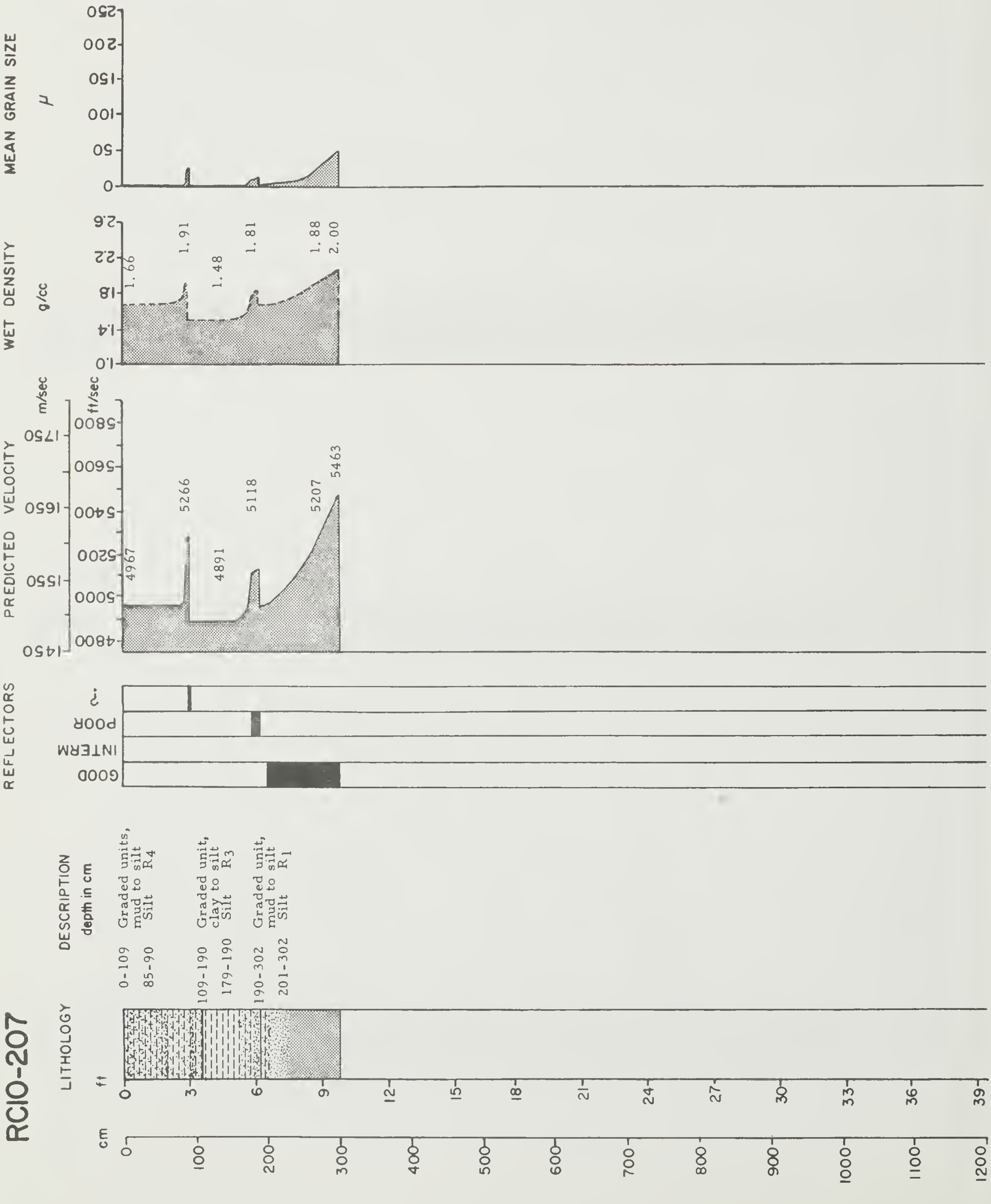

LITHOLOGY
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
DESCRIPTION
depth in cm
0-160 Clay
160-165 Silt, ASH R3
165-668 Clay
668-681 Graded unit, silt R3
681-880 Clay with pockets, silt
880-1160 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4931
5177
4931
5157
4931
5010
4987
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.59
1.85
1.59
1.83
1.59
1.71
1.68
MEAN GRAIN SIZE
μ
0
50
100
150
200
250


RC10-203
MEAN GRAIN SIZE
μ
0 50 100 150 200 250
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.53
1.52
1.56
1.62
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
4905
4902
4918
4944
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-926 Clay
926-966 Clay
966-1075 Clay
1075-1130 Mud
LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200

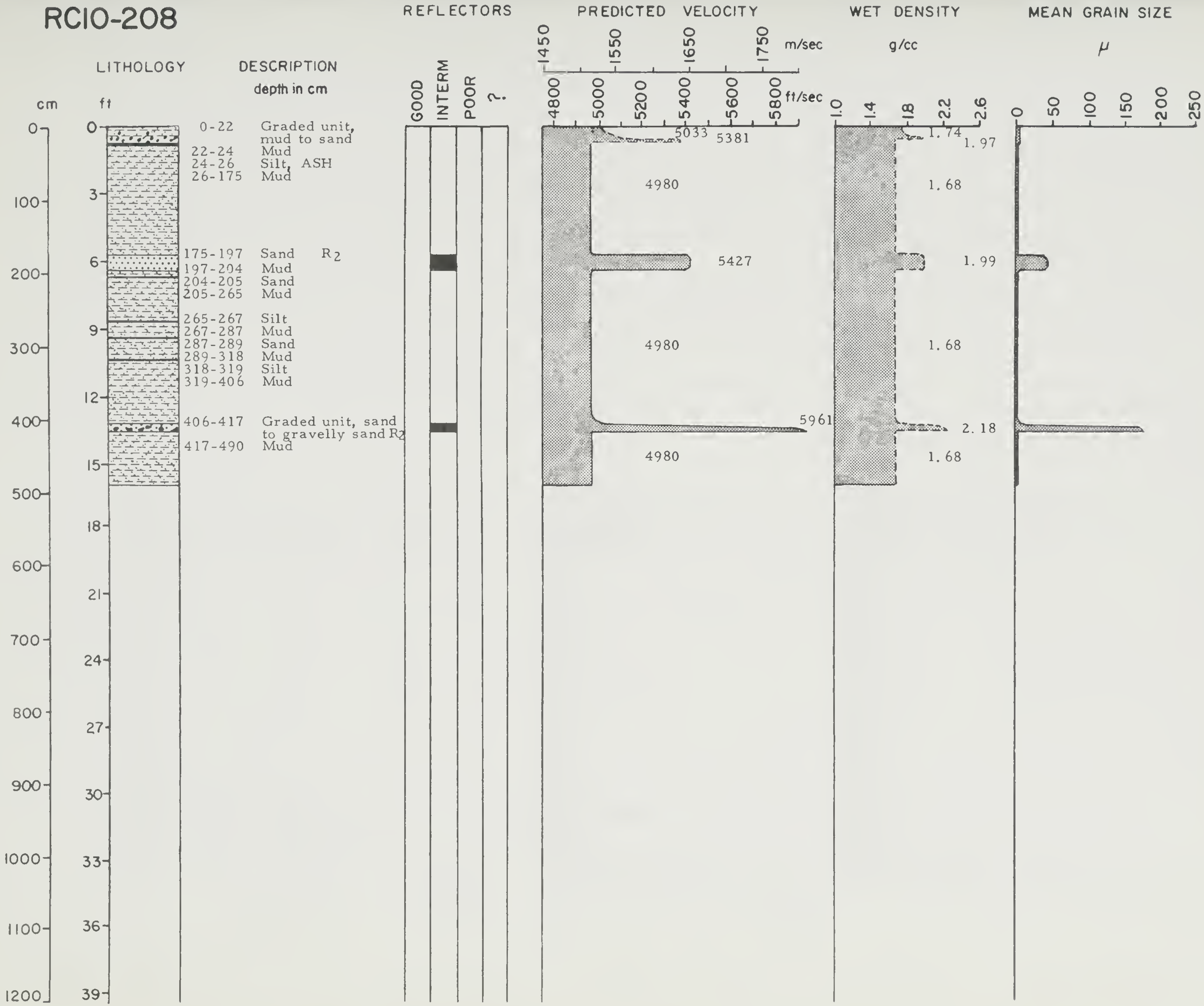
RC10-205

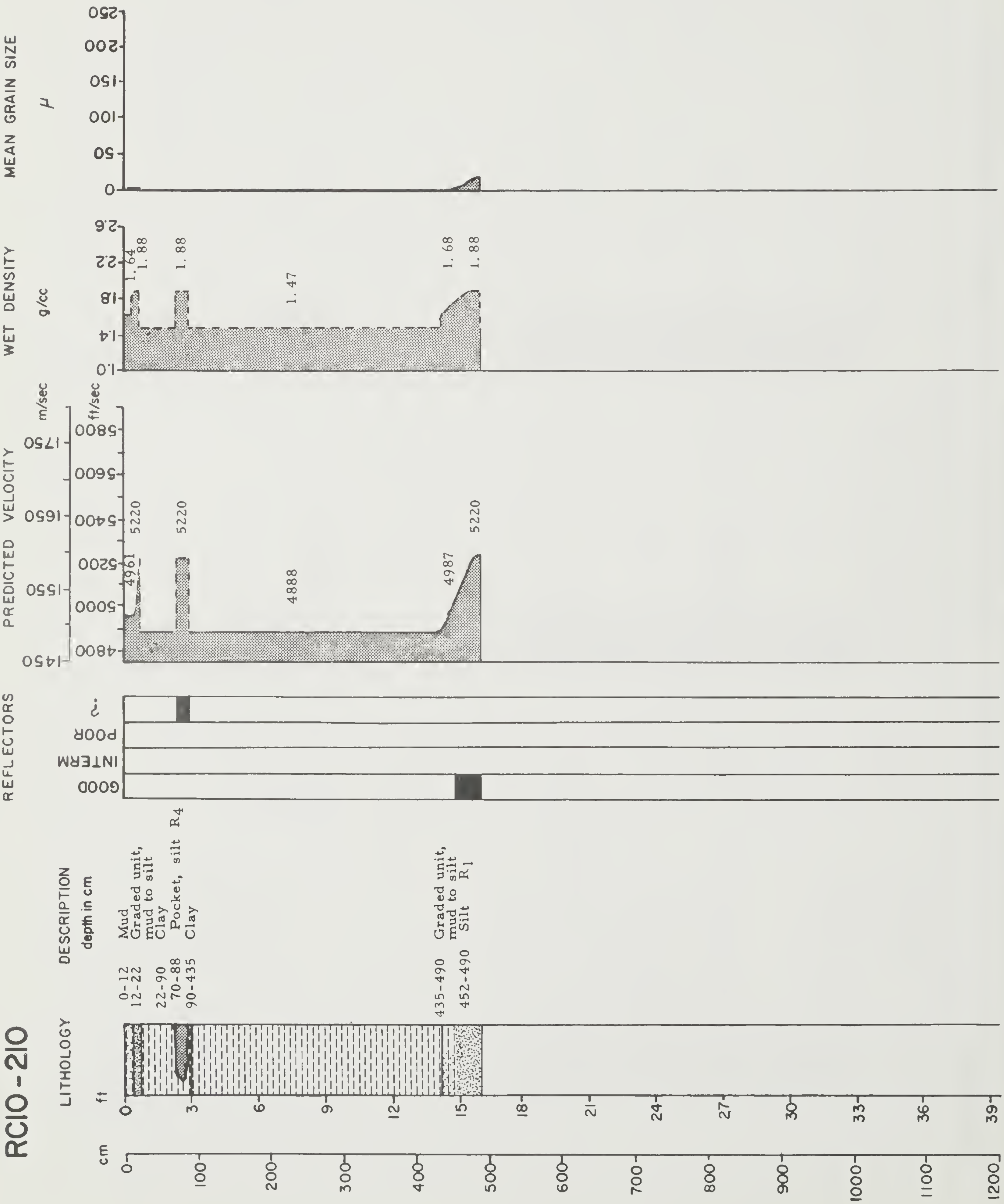

MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.60
1.55
1.57
1.62
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4931
4911
4918
4944
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-560 Clay with pockets, silt
560-1150 Mud
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200


RC10-206
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-245 Mud
245-250 Silt
250-267 Mud
267-272 Silt R3
272-698 Mud with pockets, silt
698-711 Silt R3
711-818 Mud with pocket, silt
818-821 Silt, ASH
821-1108 Mud
1108-1110 Silt, ASH
1110-1152 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4948
5259
5259
4984
5230
4984
WET DENSITY
g/cc
1.62
1.90
1.90
1.68
1.89
1.68
MEAN GRAIN SIZE
μ

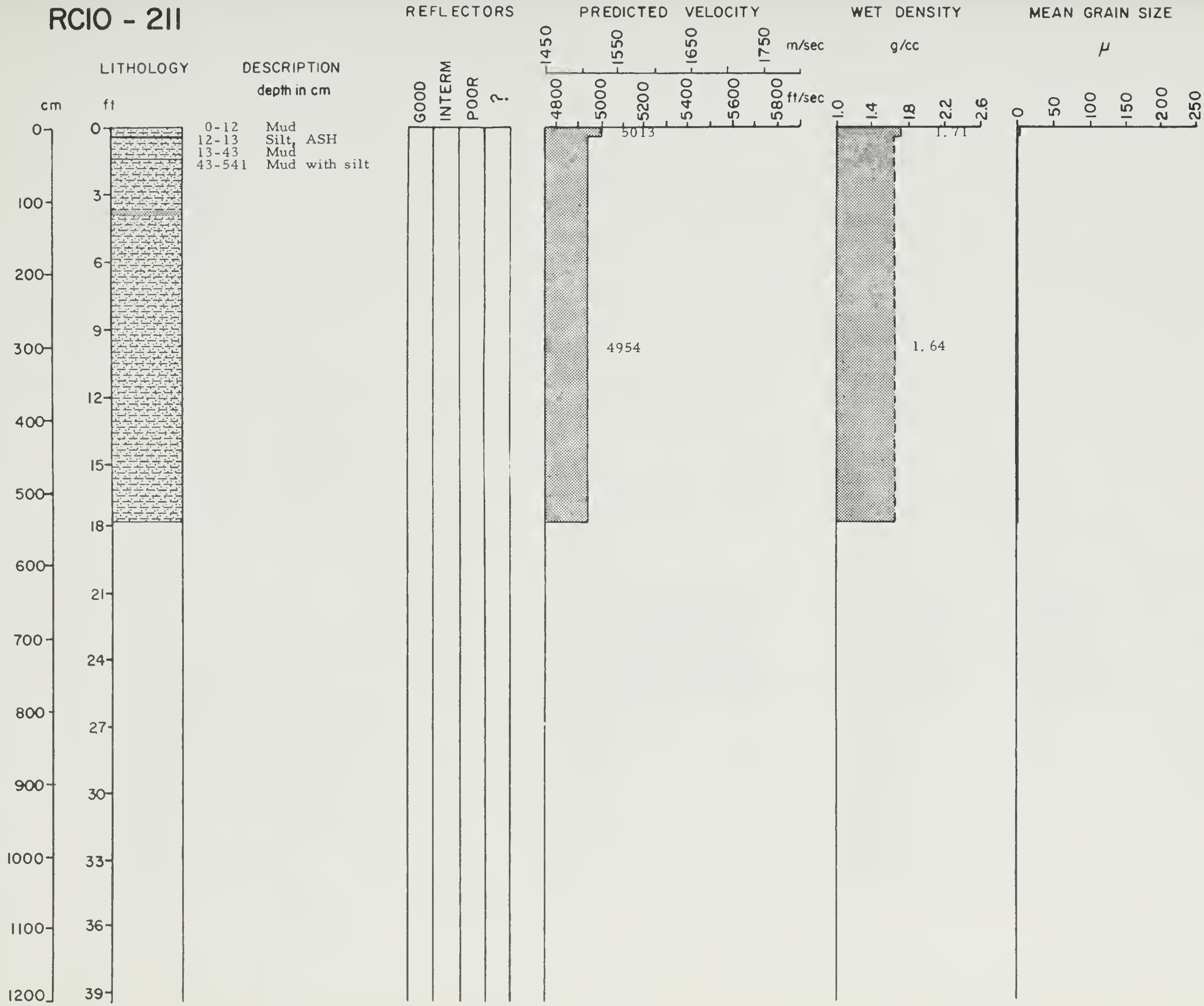

RC10-207
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-109 Graded units, mud to silt
85-90 Silt R4
109-190 Graded unit, clay to silt
179-190 Silt R3
190-302 Graded unit, mud to silt
201-302 Silt R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4967
5266
4891
5118
5207
5463
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.66
1.91
1.48
1.81
1.88
2.00
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

RC10-208

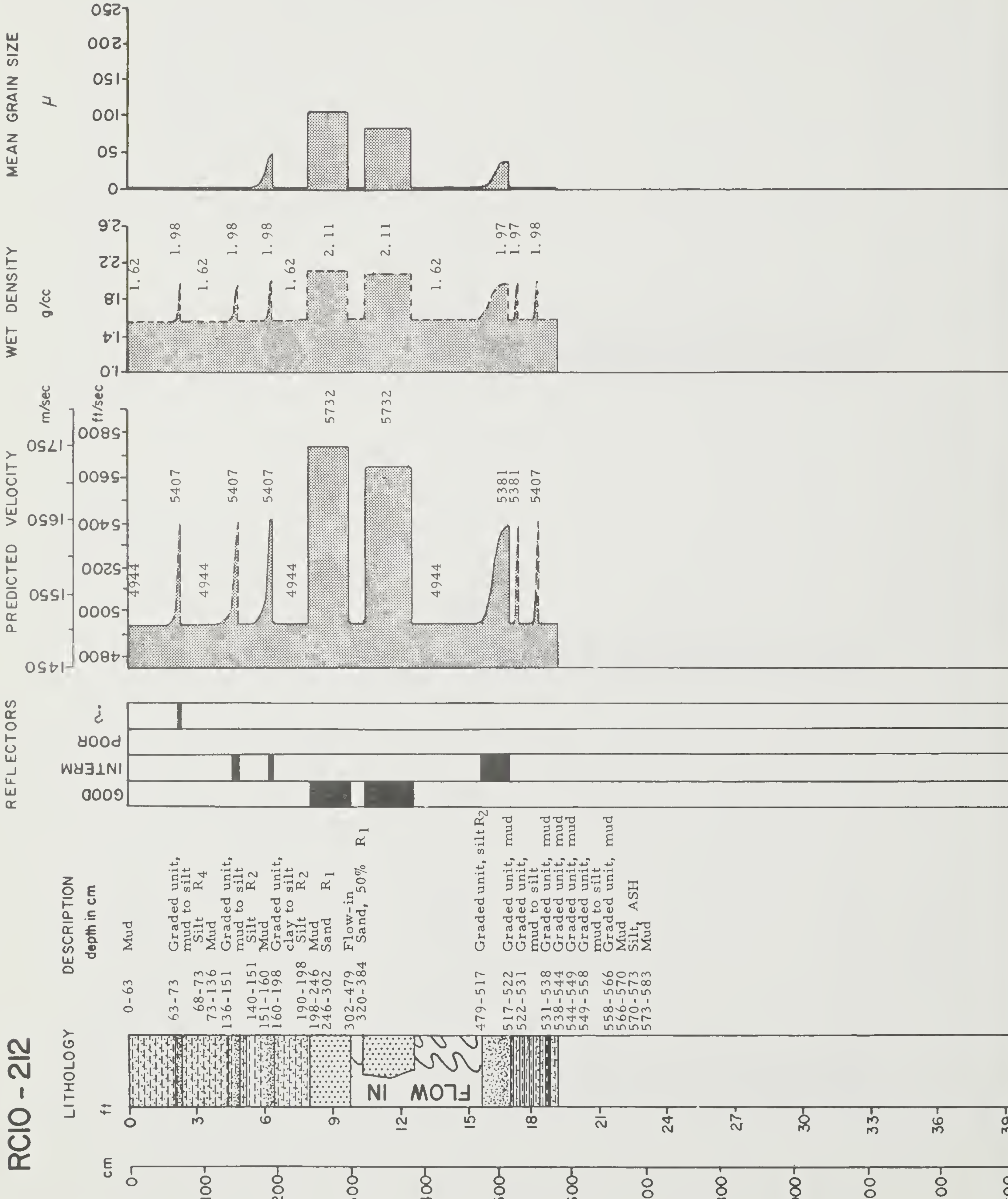

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-22 Graded unit, mud to sand
22-24 Mud
24-26 Silt, ASH
26-175 Mud
175-197 Sand R2
197-204 Mud
204-205 Sand
205-265 Mud
265-267 Silt
267-287 Mud
287-289 Sand
289-318 Mud
318-319 Silt
319-406 Mud
406-417 Graded unit, sand to gravelly sand R2
417-490 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5033
5381
4980
5427
4980
5961
4980
WET DENSITY
g/cc
1.74
1.97
1.68
1.99
1.68
2.18
1.68
MEAN GRAIN SIZE
μ

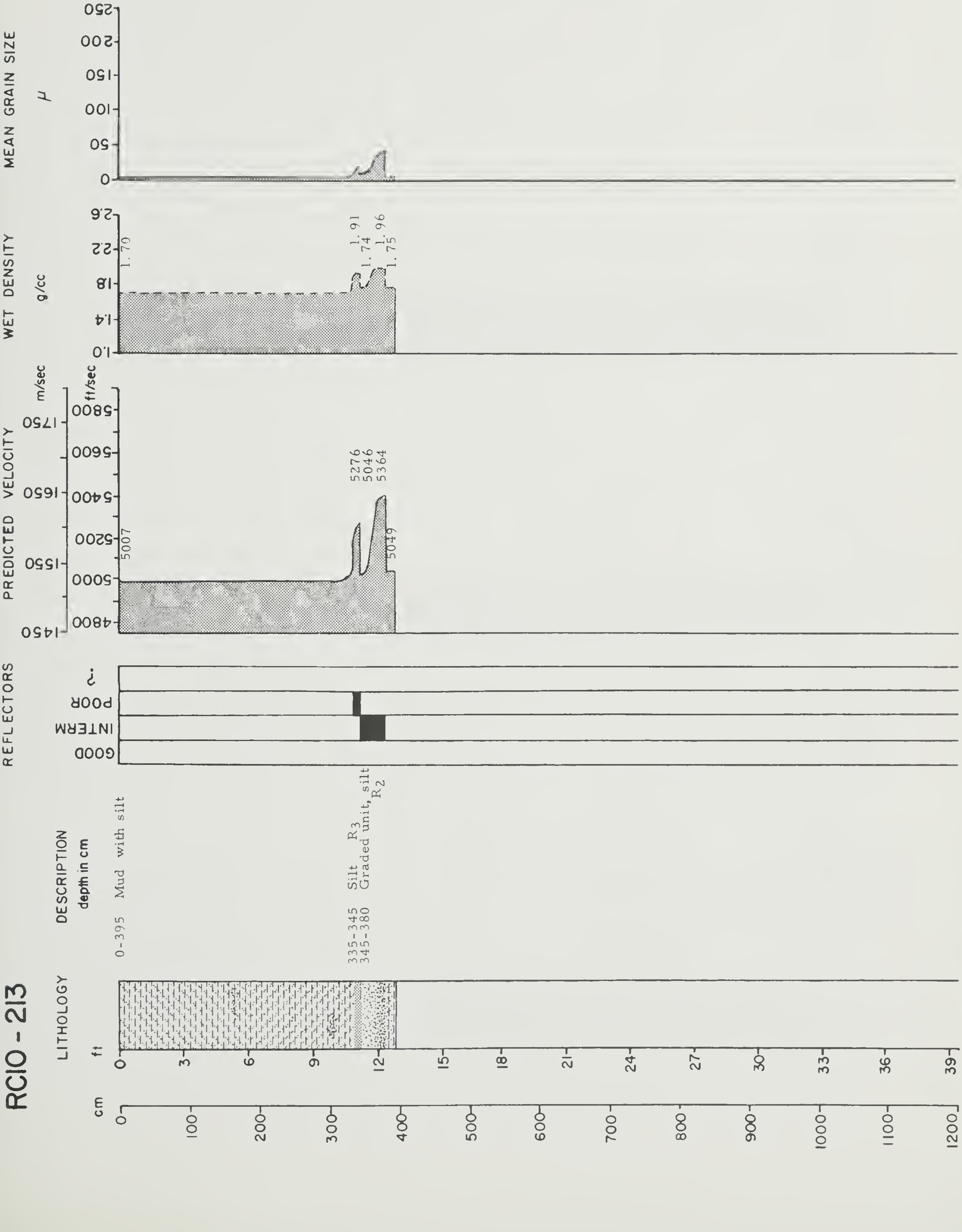

RC10-210
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-12 Mud
12-22 Graded unit, mud to silt
22-90 Clay
70-88 Pocket, silt R4
90-435 Clay
435-490 Graded unit, mud to silt
452-490 Silt R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4961
5220
5220
4888
4987
5220
WET DENSITY
g/cc
1.64
1.88
1.88
1.47
1.68
1.88
MEAN GRAIN SIZE
μ

RCIO - 211

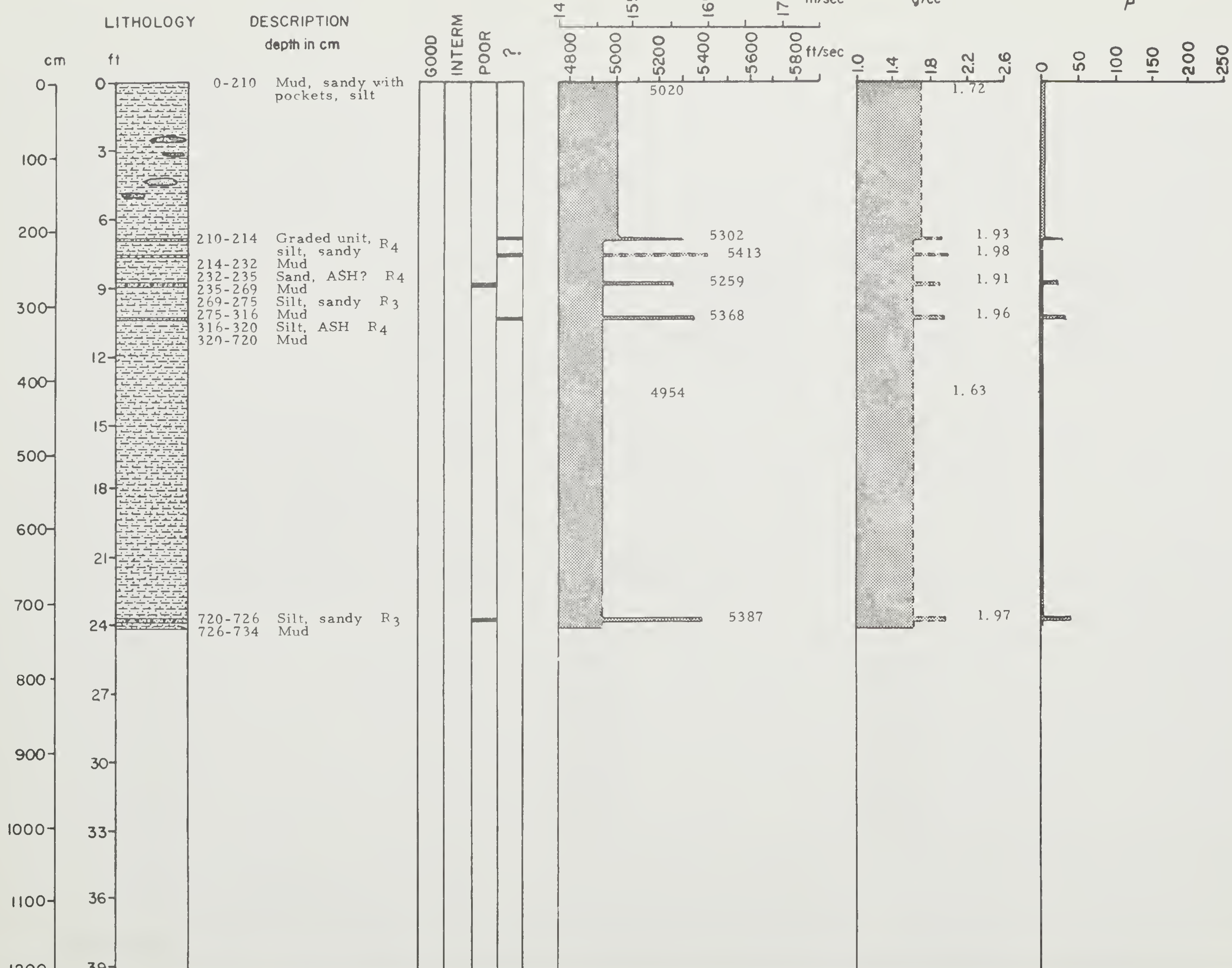


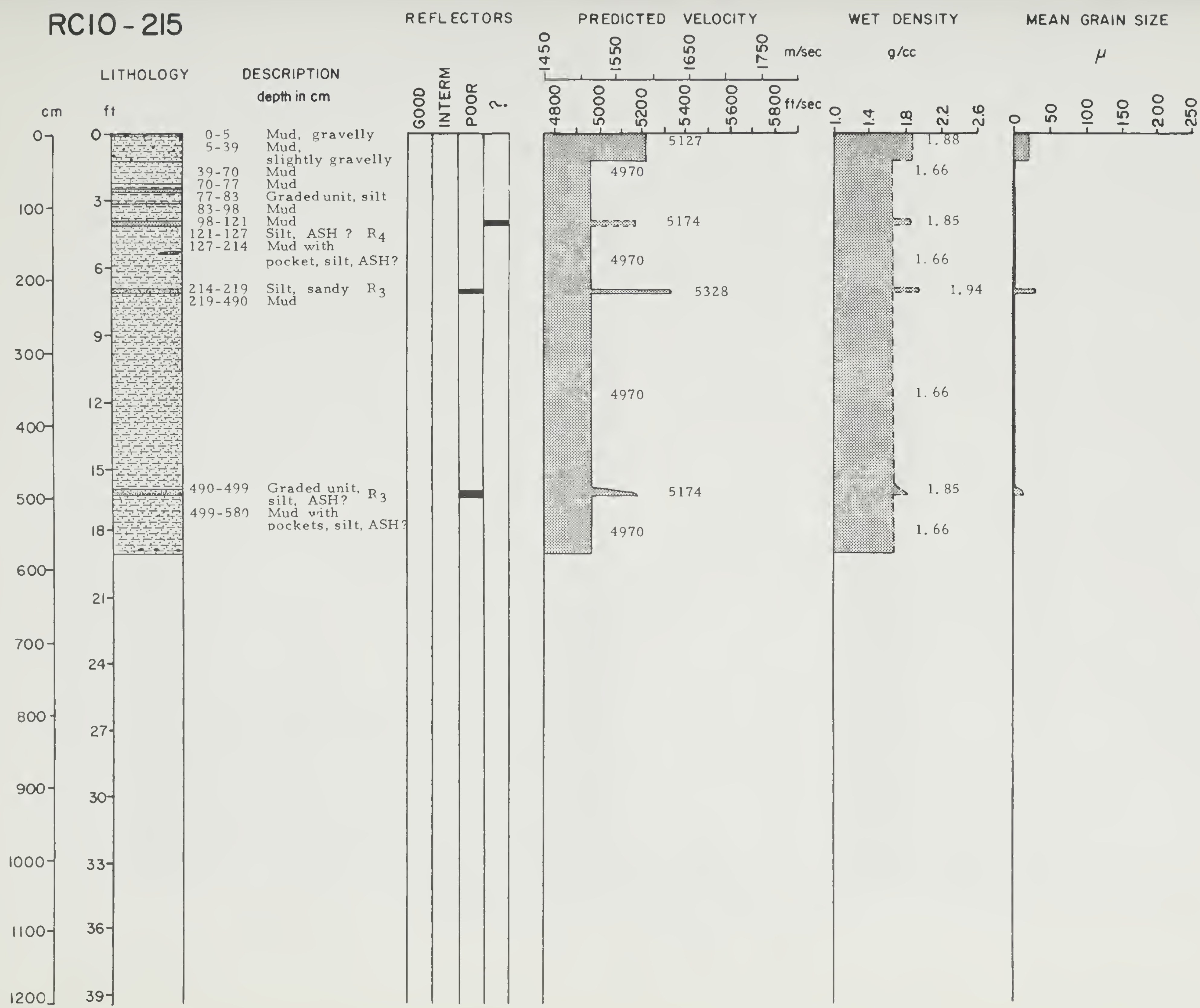
LITHOLOGY
DESCRIPTION
depth in cm
0-12 Mud
12-13 Silt, ASH
13-43 Mud
43-541 Mud with silt
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5013
4954
WET DENSITY
g/cc
1.71
1.64
MEAN GRAIN SIZE
μ
cm
ft

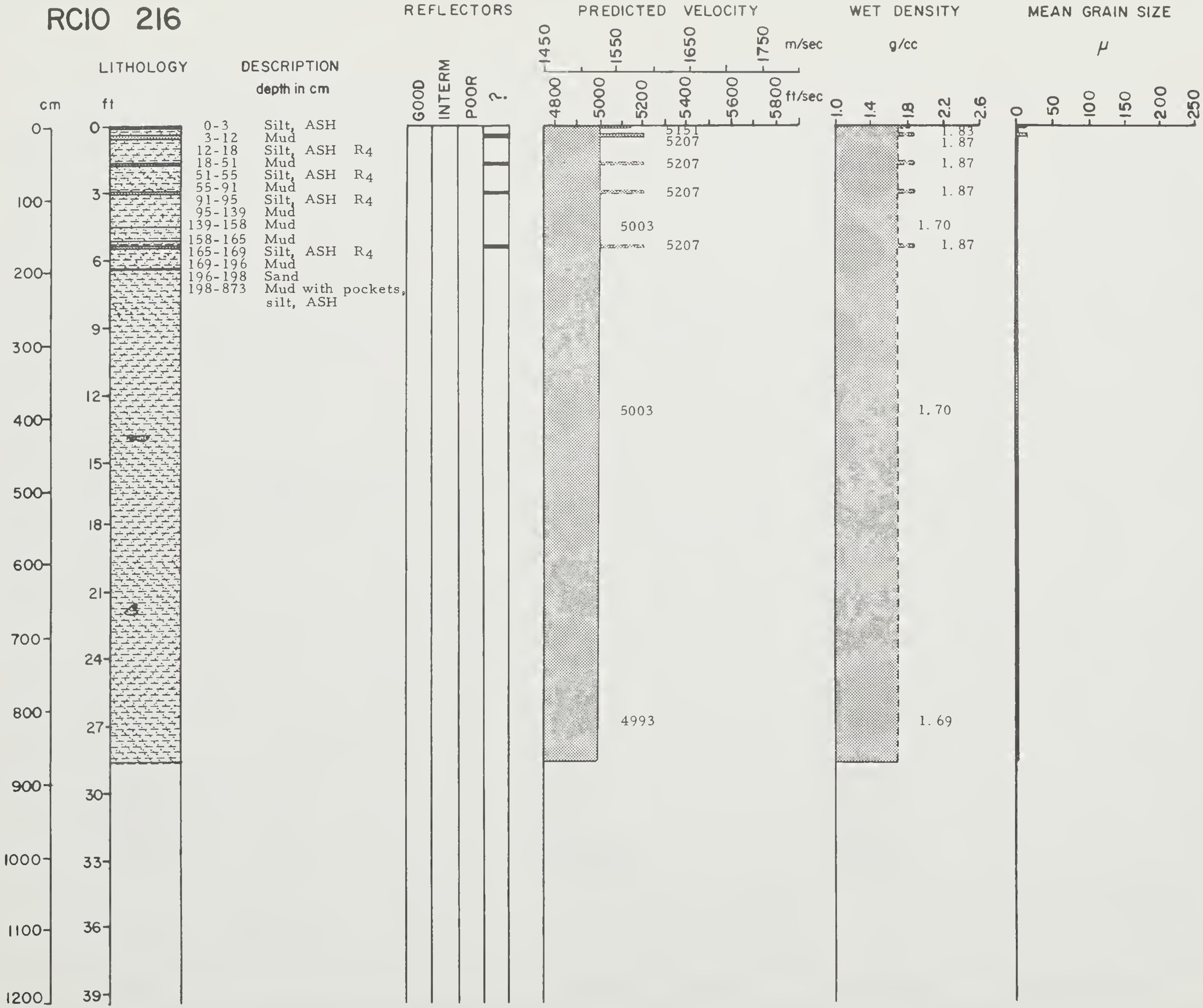

RC10 - 212
cm
ft
LITHOLOGY
FLOW IN
DESCRIPTION
depth in cm
0-63 Mud
63-73 Graded unit, mud to silt R4
68-73 Silt
73-136 Mud
136-151 Graded unit, mud to silt R2
140-151 Silt
151-160 Mud
160-198 Graded unit, clay to silt R2
190-198 Silt
198-246 Mud
246-302 Sand R1
302-479 Flow-in
320-384 Sand, 50% R1
479-517 Graded unit, silt R2
517-522 Graded unit, mud
522-531 Graded unit, mud to silt
531-538 Graded unit, mud
538-544 Graded unit, mud
544-549 Graded unit, mud
549-558 Graded unit, mud to silt
558-566 Graded unit, mud
566-570 Mud
570-573 Silt, ASH
573-583 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ


RC10 - 213
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-395 Mud with silt
335-345 Silt R3
345-380 Graded unit, silt R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5007
5276
5046
5364
5049
WET DENSITY
g/cc
1.70
1.91
1.74
1.96
1.75
MEAN GRAIN SIZE
μ

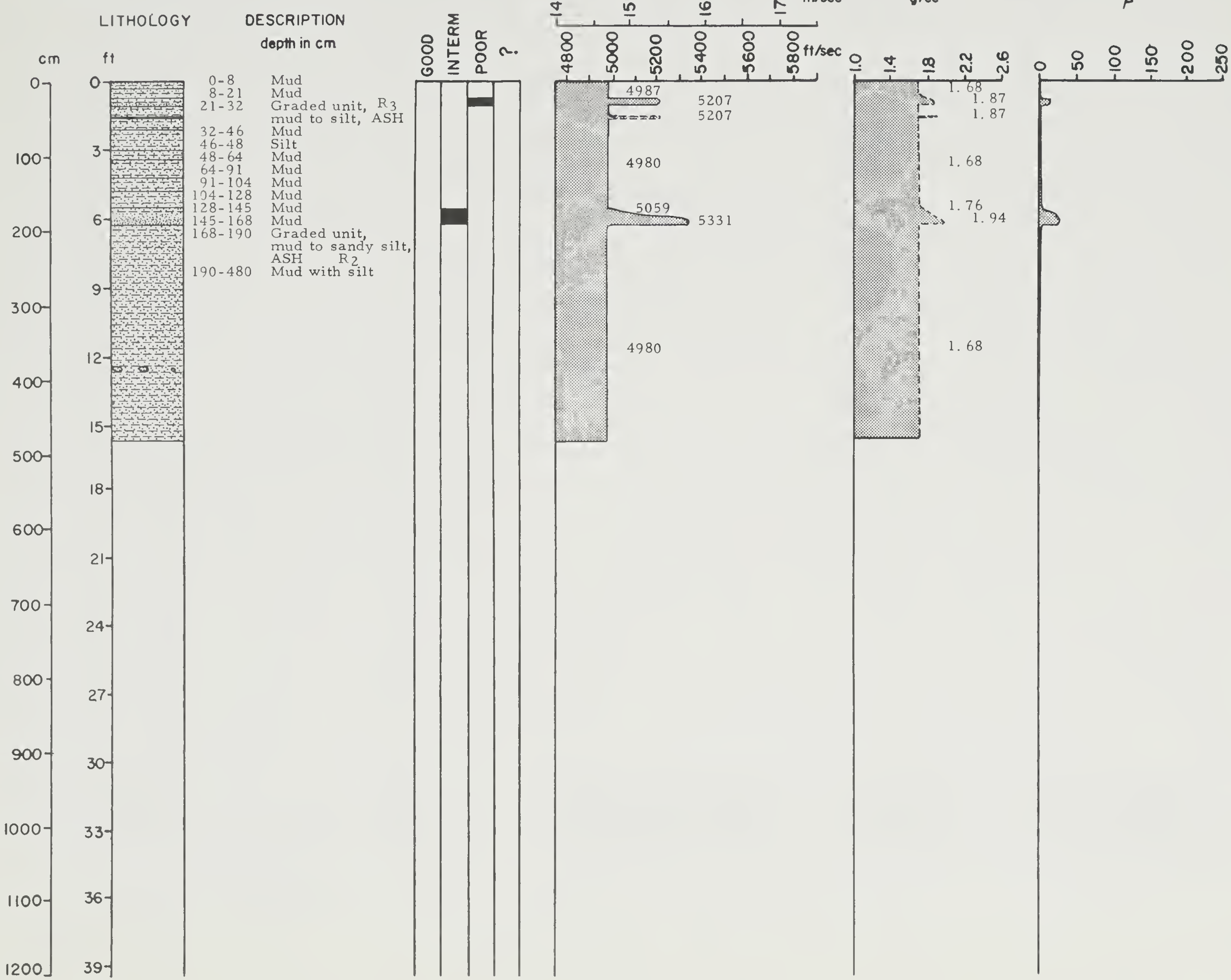
RC10 - 214


LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-210 Mud, sandy with pockets, silt
210-214 Graded unit, silt, sandy R4
214-232 Mud
232-235 Sand, ASH? R4
235-269 Mud
269-275 Silt, sandy R3
275-316 Mud
316-320 Silt, ASH R4
320-720 Mud
720-726 Silt, sandy R3
726-734 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5020
5302
5413
5259
5368
4954
5387
WET DENSITY
g/cc
1.72
1.93
1.98
1.91
1.96
1.63
1.97
MEAN GRAIN SIZE
μ

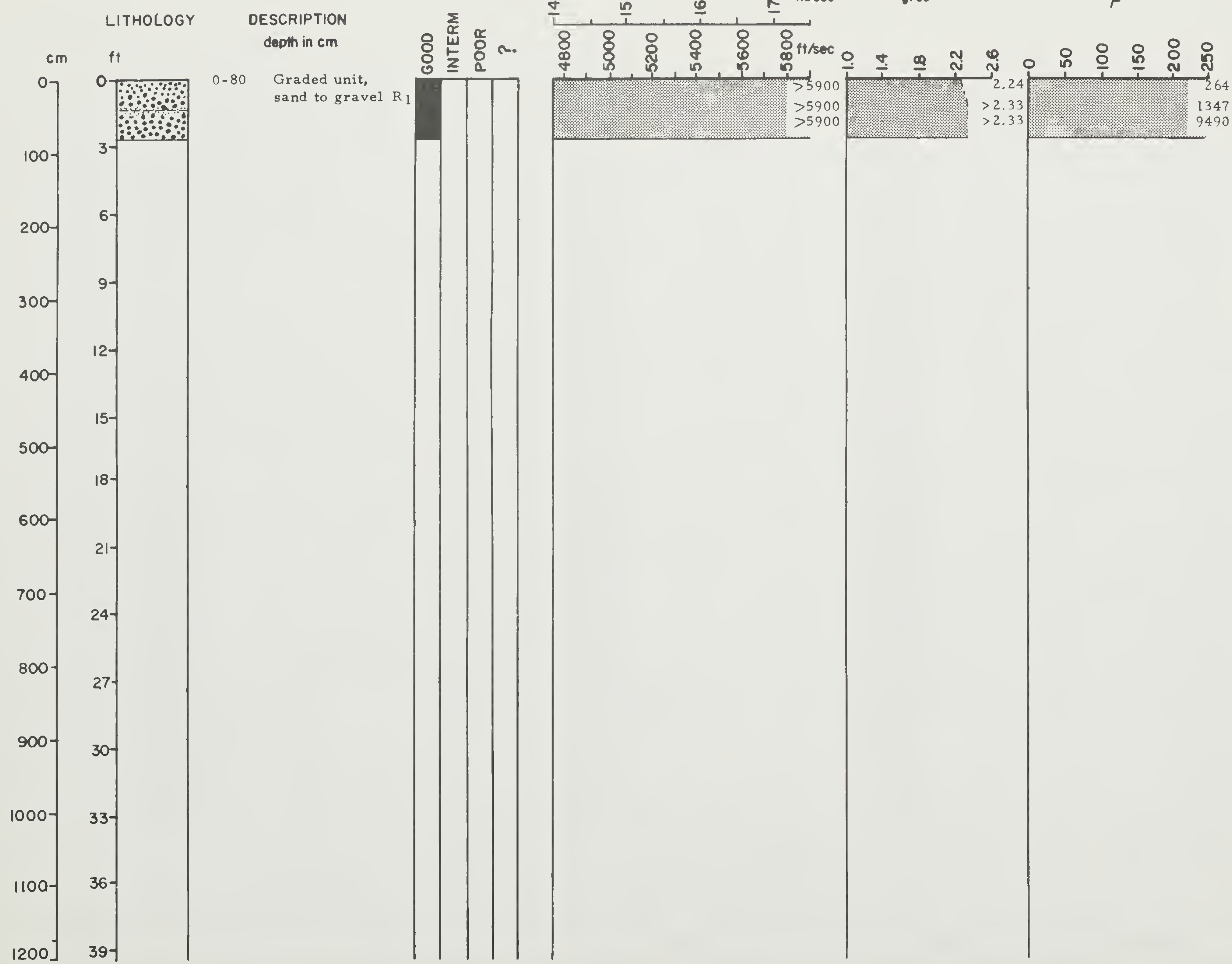

RC10-215
LITHOLOGY
DESCRIPTION
depth in cm
0-5 Mud, gravelly
5-39 Mud, slightly gravelly
39-70 Mud
70-77 Mud
77-83 Graded unit, silt
83-98 Mud
98-121 Mud
121-127 Silt, ASH ? R4
127-214 Mud with pocket, silt, ASH?
214-219 Silt, sandy R3
219-490 Mud
490-499 Graded unit, silt, ASH? R3
499-580 Mud with pockets, silt, ASH?
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
5127
4970
5174
4970
5328
4970
5174
4970
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.88
1.66
1.85
1.66
1.94
1.66
1.85
1.66
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39


RCIO 216
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-3 Silt, ASH
3-12 Mud
12-18 Silt, ASH R4
18-51 Mud
51-55 Silt, ASH R4
55-91 Mud
91-95 Silt, ASH R4
95-139 Mud
139-158 Mud
158-165 Mud
165-169 Silt, ASH R4
169-196 Mud
196-198 Sand
198-873 Mud with pockets, silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5151
5207
5207
5207
5003
5207
5003
4993
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.83
1.87
1.87
1.87
1.70
1.87
1.70
1.69
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39

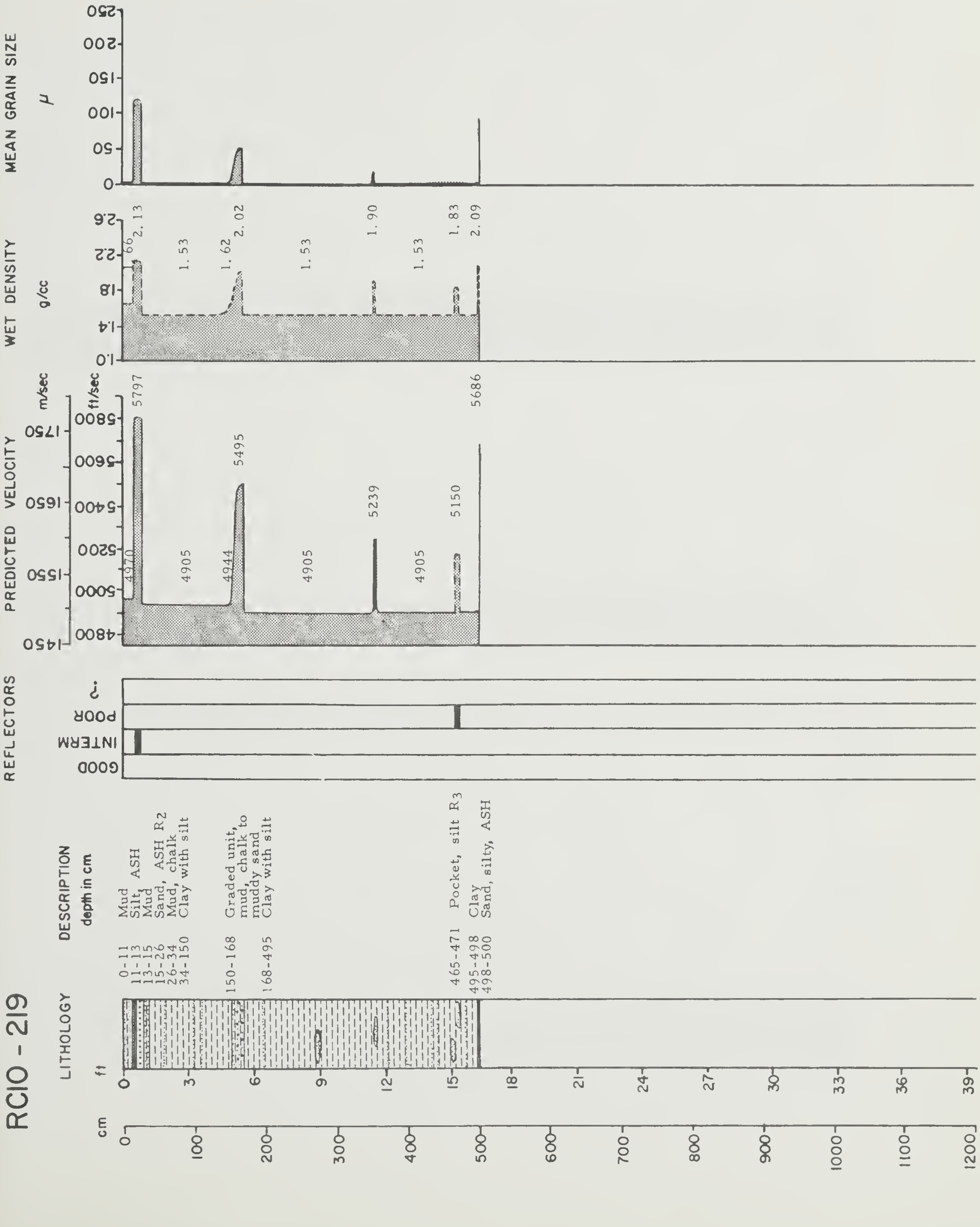
RC10 - 217

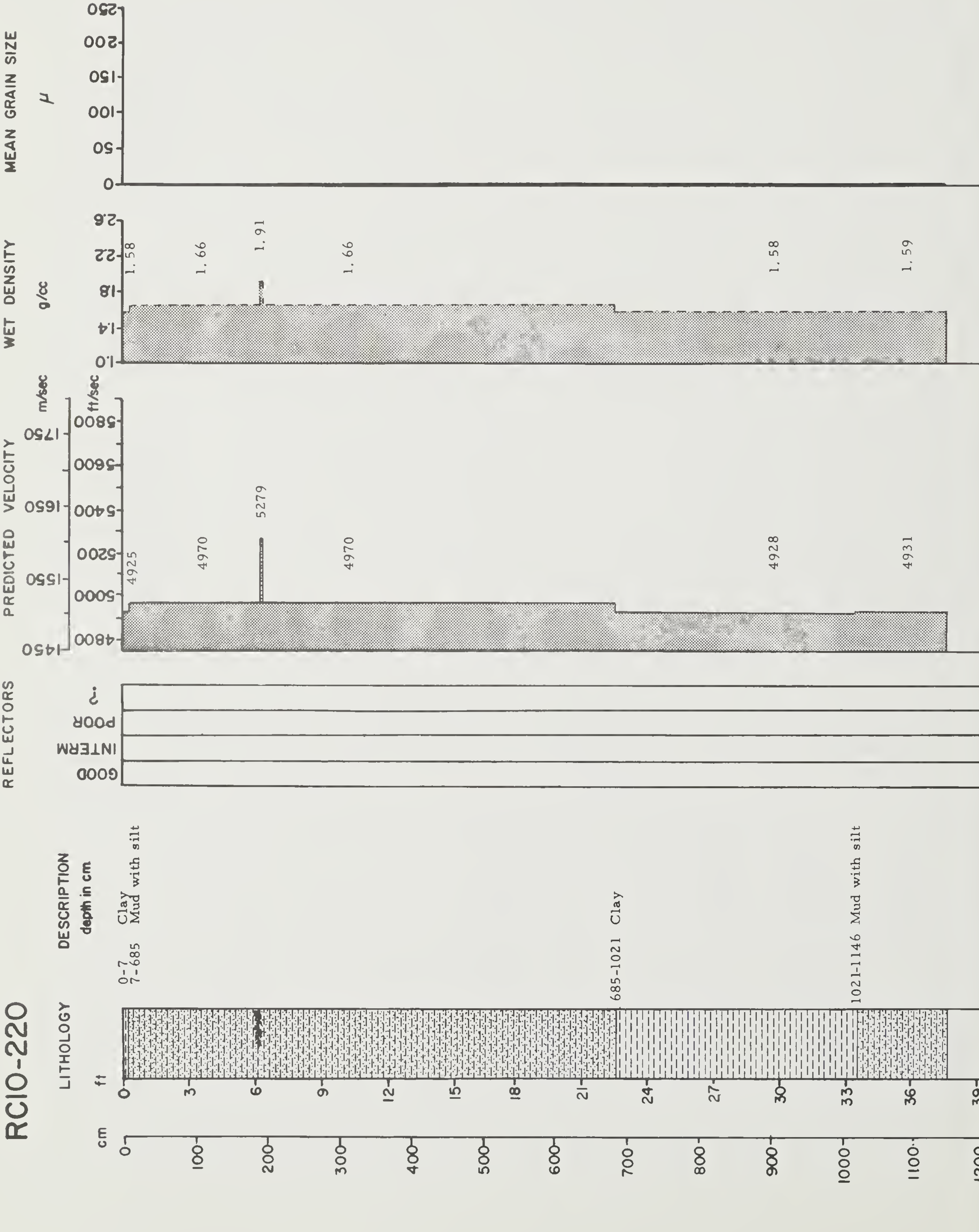

LITHOLOGY
DESCRIPTION
depth in cm
0-8 Mud
8-21 Mud
21-32 Graded unit, R3 mud to silt, ASH
32-46 Mud
46-48 Silt
48-64 Mud
64-91 Mud
91-104 Mud
104-128 Mud
128-145 Mud
145-168 Mud
168-190 Graded unit, mud to sandy silt, ASH R2
190-480 Mud with silt
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4987
5207
5207
4980
5059
5331
4980
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1. 68
1. 87
1. 87
1. 68
1. 76
1. 94
1. 68
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

RC10 - 218



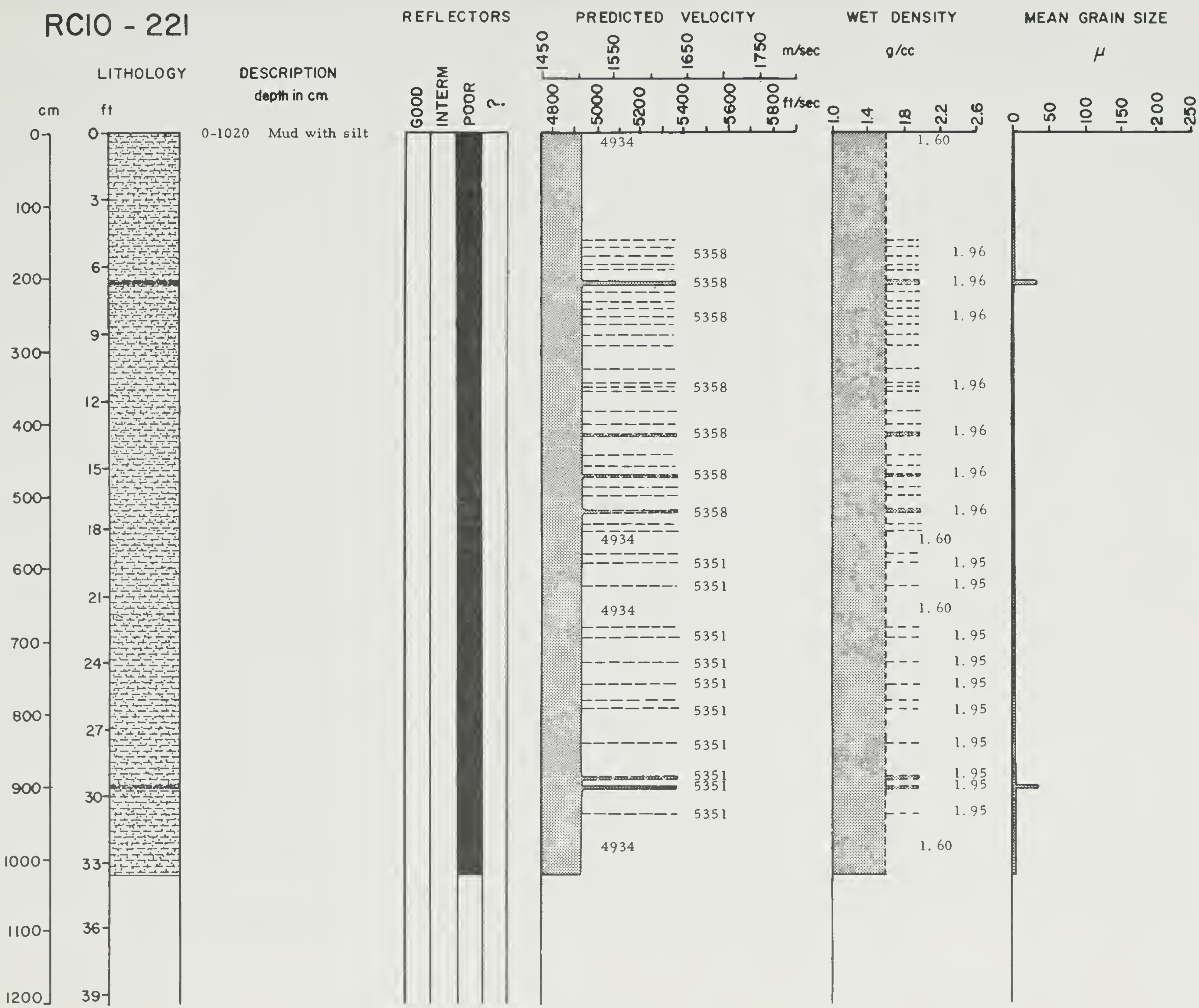
LITHOLOGY
DESCRIPTION
depth in cm
0-80 Graded unit, sand to gravel R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
>5900
>5900
>5900
WET DENSITY
g/cc
2.24
>2.33
>2.33
MEAN GRAIN SIZE
μ
264
1347
9490
cm
ft

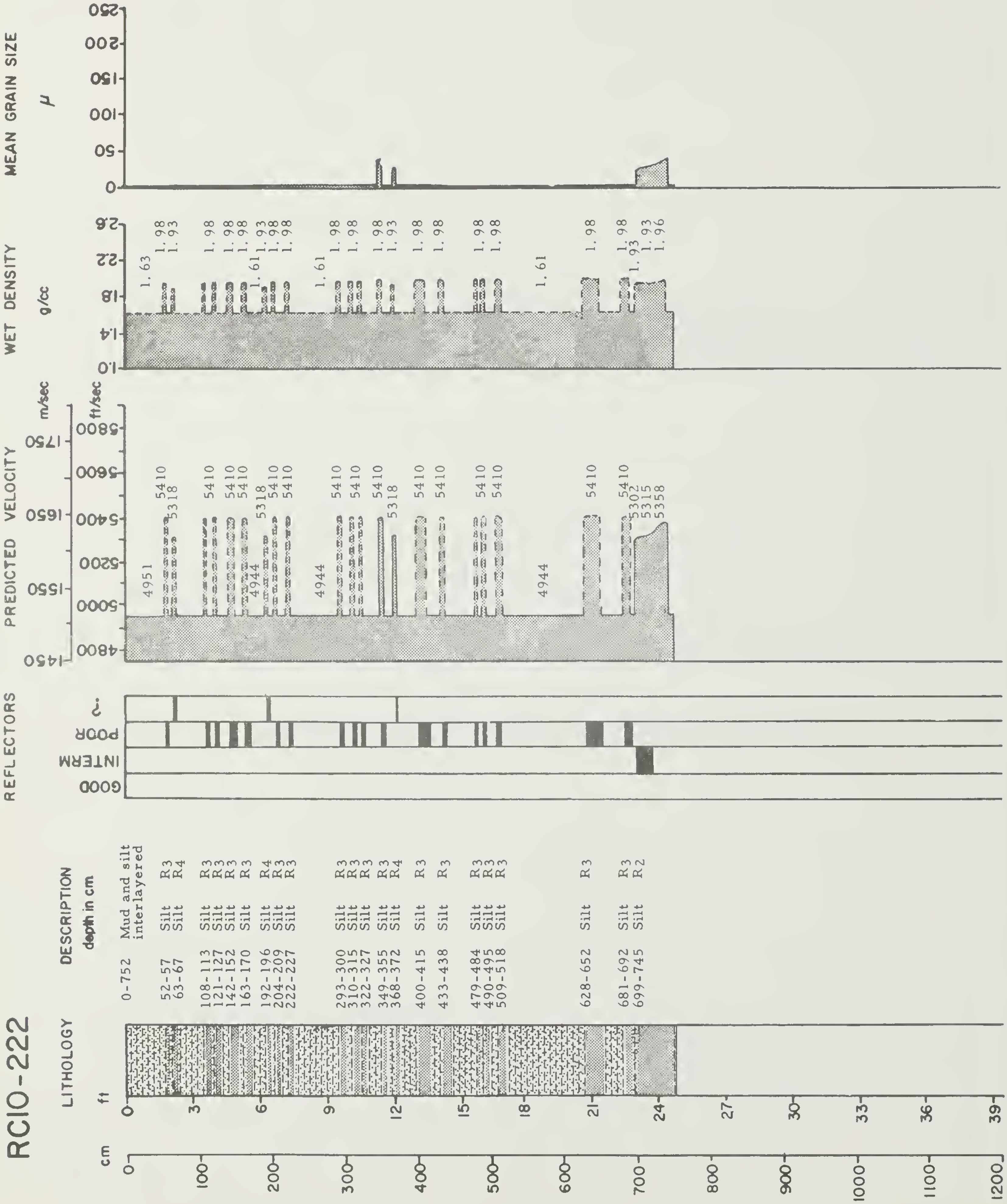

RC10 - 219
LITHOLOGY
DESCRIPTION
depth in cm
0-11 Mud
11-13 Silt, ASH
13-15 Mud
15-26 Sand, ASH R2
26-34 Mud, chalk
34-150 Clay with silt
150-168 Graded unit, mud, chalk to muddy sand
168-495 Clay with silt
465-471 Pocket, silt R3
495-498 Clay
498-500 Sand, silty, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4970
5797
4905
4944
5495
4905
5239
4905
5150
5686
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.66
2.13
1.53
1.62
2.02
1.53
1.90
1.53
1.83
2.09
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

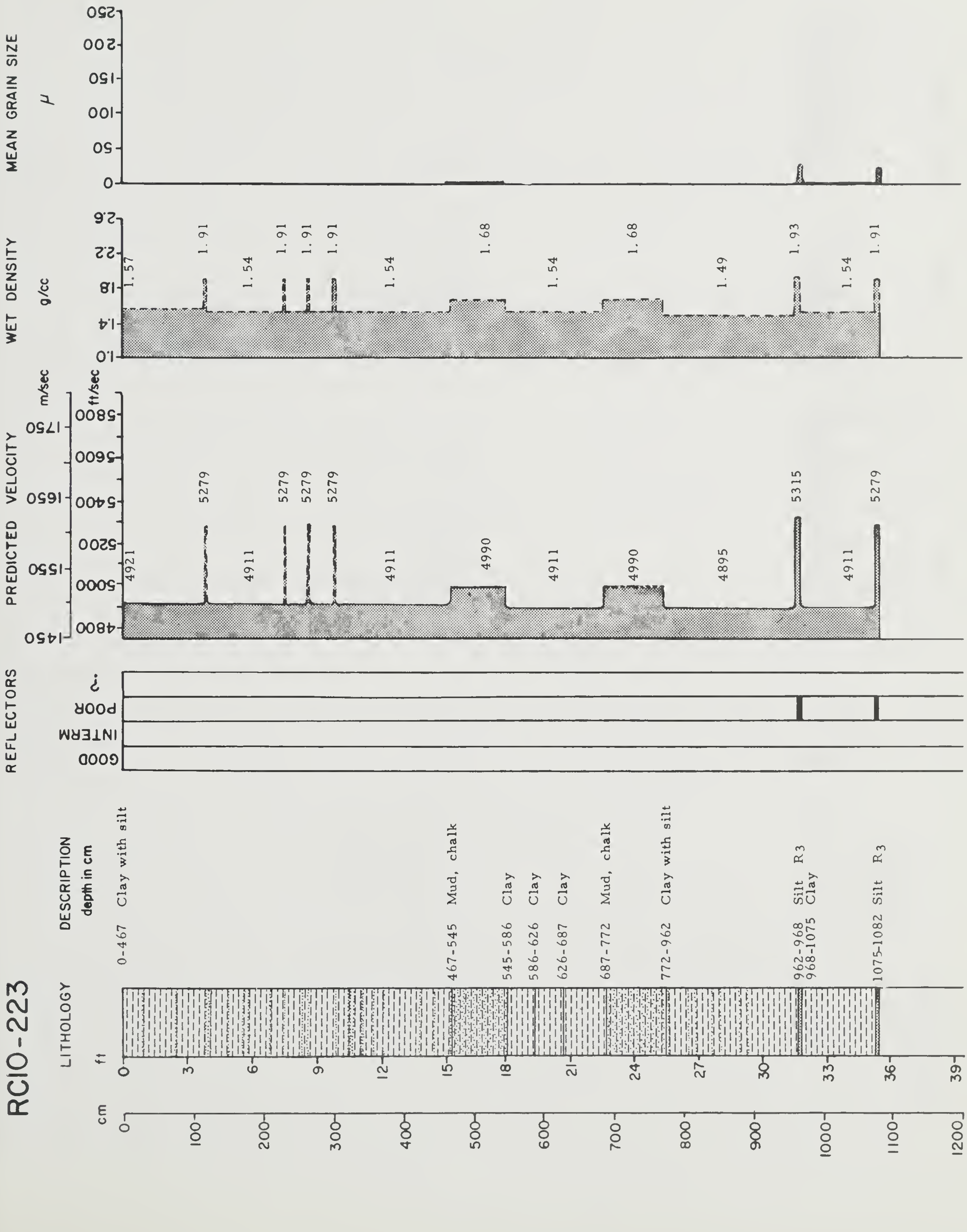


RC10-220
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-7 Clay
7-685 Mud with silt
685-1021 Clay
1021-1146 Mud with silt
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4925
4970
5279
4970
4928
4931
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.58
1.66
1.91
1.66
1.58
1.59
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

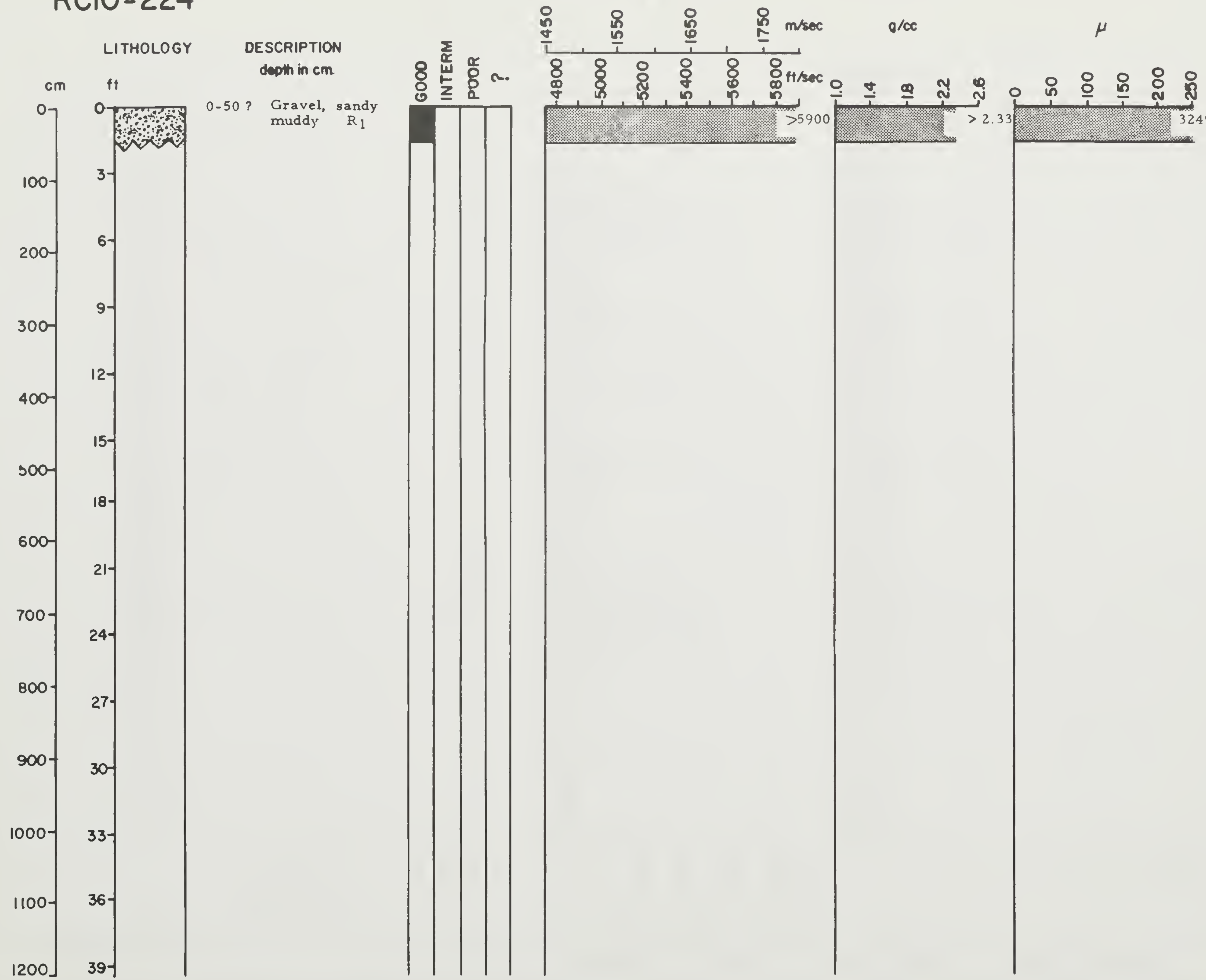
RC10 - 221


LITHOLOGY
DESCRIPTION
depth in cm
0-1020 Mud with silt
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
1450
1550
1650
1750
m/sec
4800
5000
5200
5400
5600
5800
ft/sec
4934
5358
5351
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.60
1.96
1.95
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

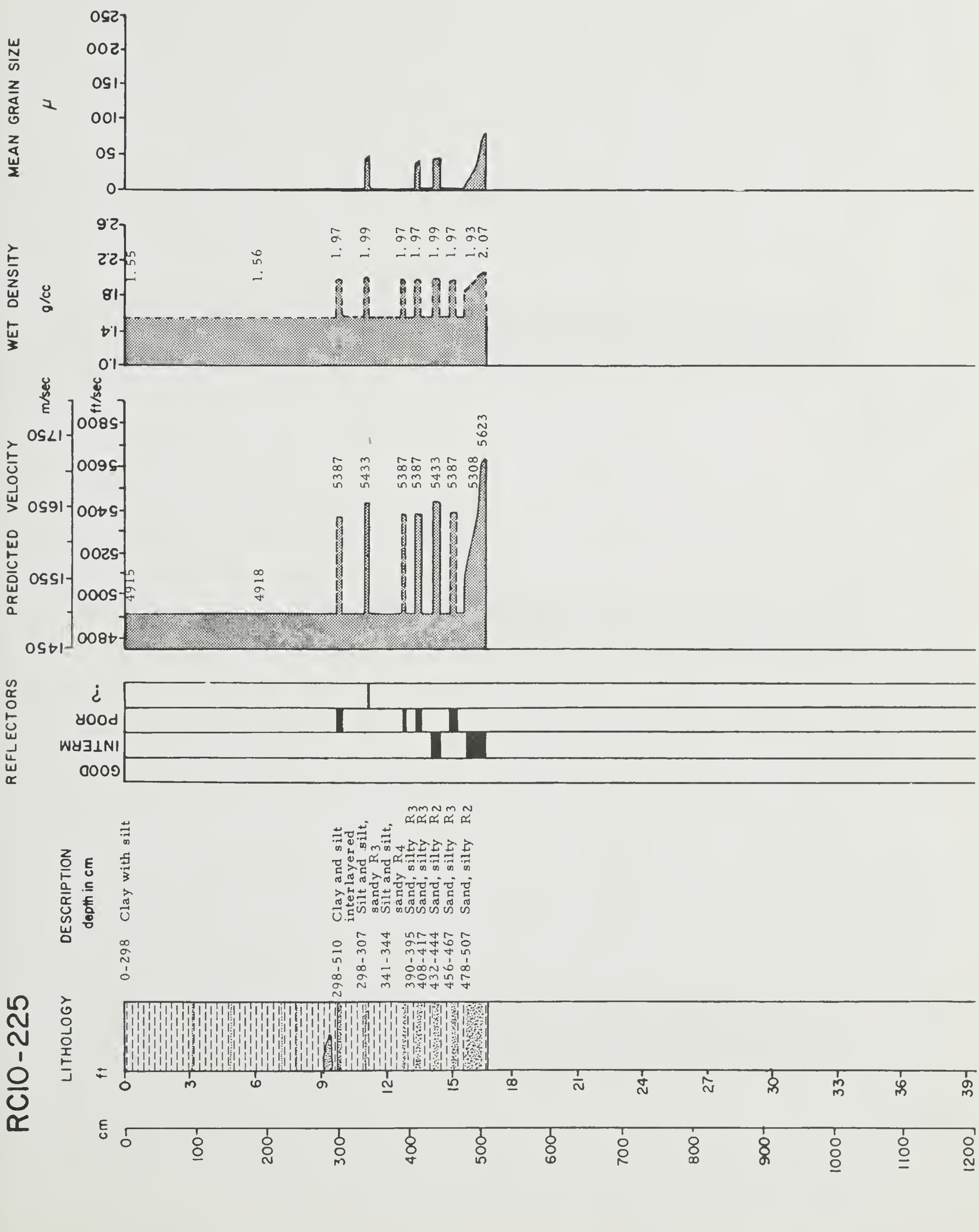

RC10-222
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-752 Mud and silt interlayered
52-57 Silt R3
63-67 Silt R4
108-113 Silt R3
121-127 Silt R3
142-152 Silt R3
163-170 Silt R3
192-196 Silt R4
204-209 Silt R3
222-227 Silt R3
293-300 Silt R3
310-315 Silt R3
322-327 Silt R3
349-355 Silt R3
368-372 Silt R4
400-415 Silt R3
433-438 Silt R3
479-484 Silt R3
490-495 Silt R3
509-518 Silt R3
628-652 Silt R3
681-692 Silt R3
699-745 Silt R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4951
4944
4944
4944
5410
5318
5302
5315
5358
WET DENSITY
g/cc
1.63
1.61
1.61
1.61
1.98
1.93
1.96
MEAN GRAIN SIZE
μ

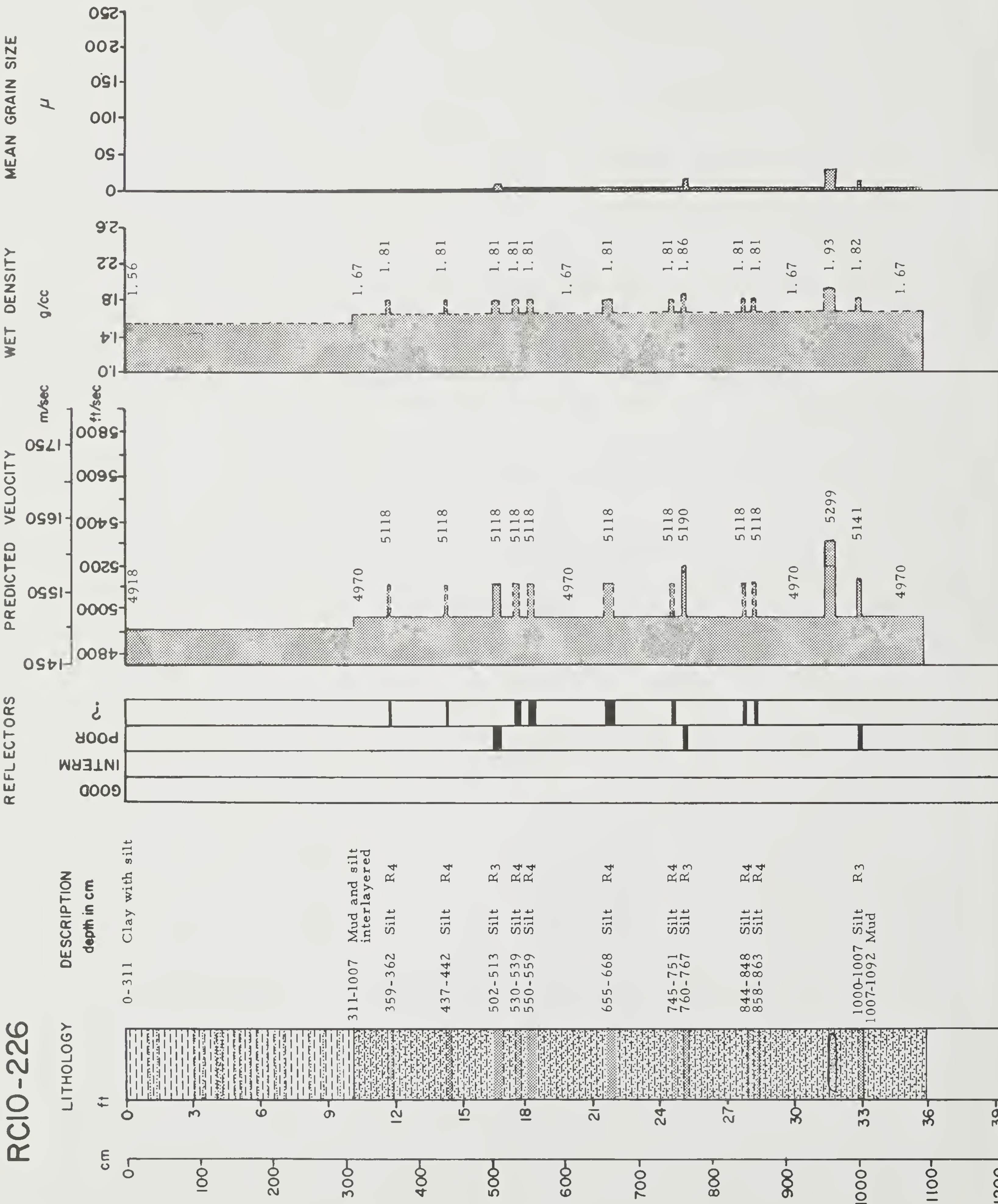

RC10-223
LITHOLOGY
DESCRIPTION
depth in cm
0-467 Clay with silt
467-545 Mud, chalk
545-586 Clay
586-626 Clay
626-687 Clay
687-772 Mud, chalk
772-962 Clay with silt
962-968 Silt R3
968-1075 Clay
1075-1082 Silt R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ
cm
ft

RCIO-224

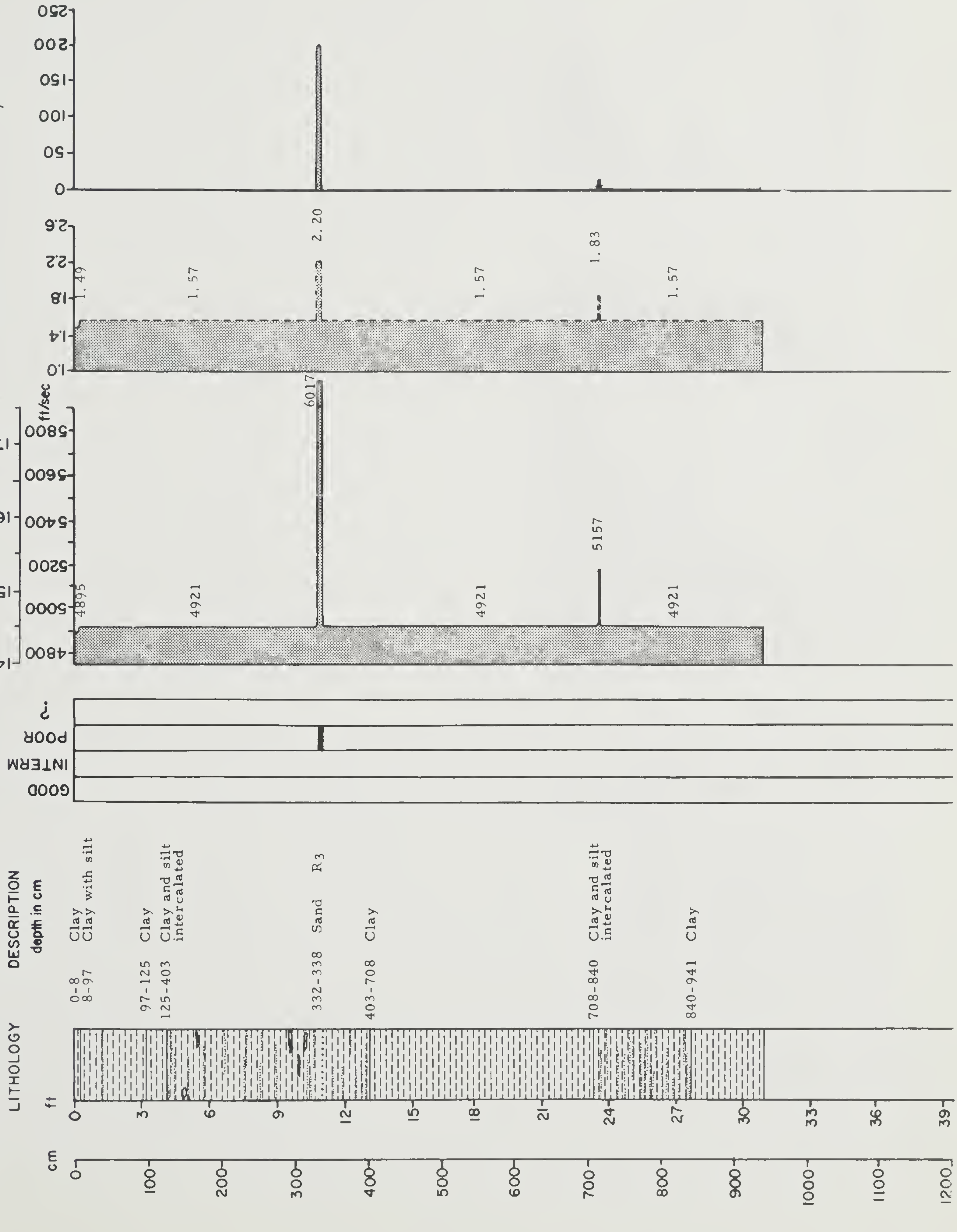


LITHOLOGY
DESCRIPTION
depth in cm
0-50 ? Gravel, sandy muddy R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
> 2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
3249
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

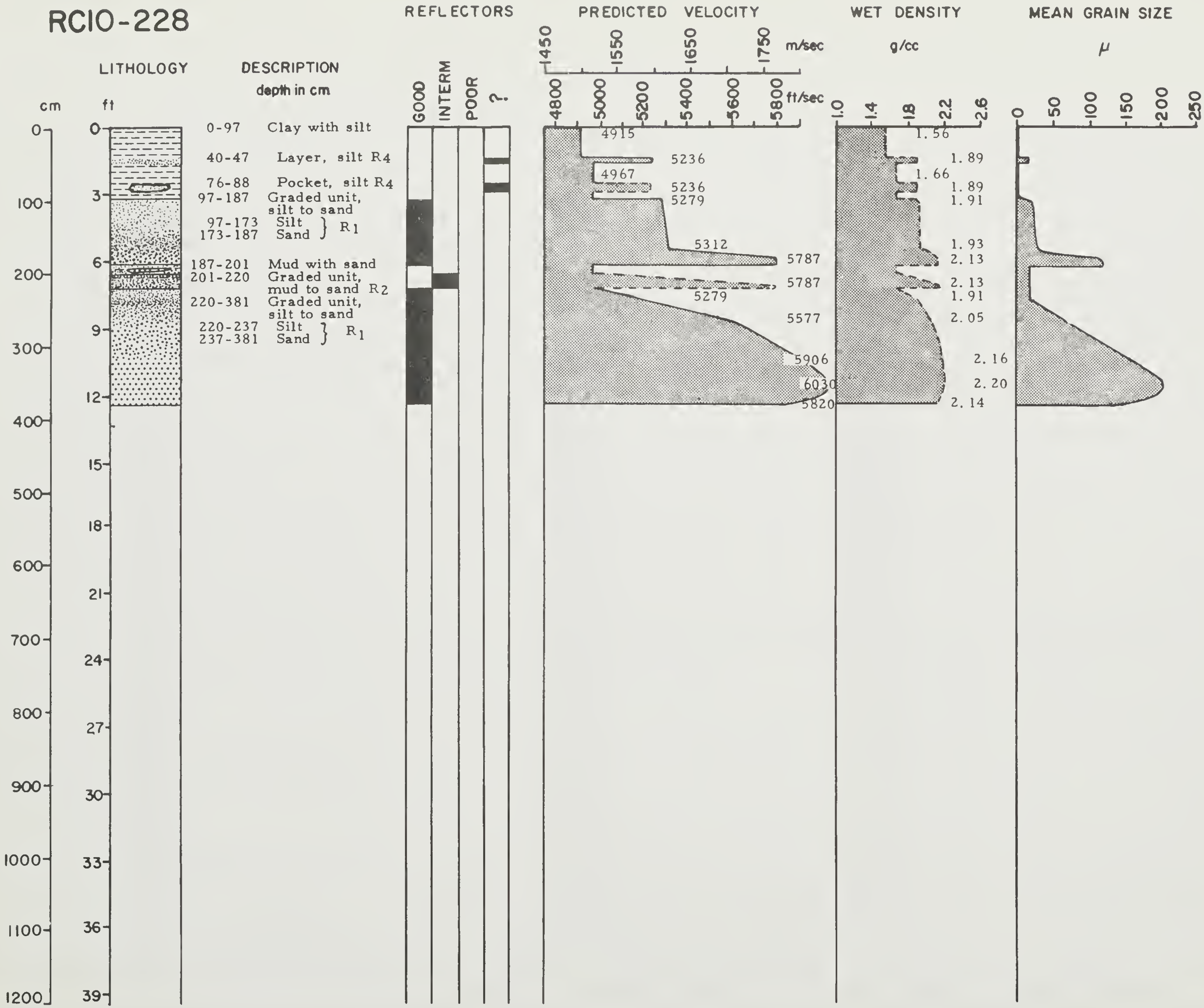

RC10-225
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-298 Clay with silt
298-510 Clay and silt interlayered
298-307 Silt and silt, sandy R3
341-344 Silt and silt, sandy R4
390-395 Sand, silty R3
408-417 Sand, silty R3
432-444 Sand, silty R2
456-467 Sand, silty R3
478-507 Sand, silty R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4915
4918
5387
5433
5387
5387
5433
5387
5308
5623
WET DENSITY
g/cc
1.55
1.56
1.97
1.99
1.97
1.97
1.99
1.97
1.93
2.07
MEAN GRAIN SIZE
μ


RC10-226
LITHOLOGY
ft
cm
0 3 6 9 12 15 18 21 24 27 30 33 36 39
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-311 Clay with silt
311-1007 Mud and silt interlayered
359-362 Silt R4
437-442 Silt R4
502-513 Silt R3
530-539 Silt R4
550-559 Silt R4
655-668 Silt R4
745-751 Silt R4
760-767 Silt R3
844-848 Silt R4
858-863 Silt R4
1000-1007 Silt R3
1007-1092 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450 1550 1650 1750
4800 5000 5200 5400 5600 5800
4918
4970
5118
5118
5118
5118
5118
4970
5118
5118
5190
5118
5118
4970
5299
5141
4970
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.56
1.67
1.81
1.81
1.81
1.81
1.81
1.67
1.81
1.81
1.86
1.81
1.81
1.67
1.93
1.82
1.67
MEAN GRAIN SIZE
μ
0 50 100 150 200 250

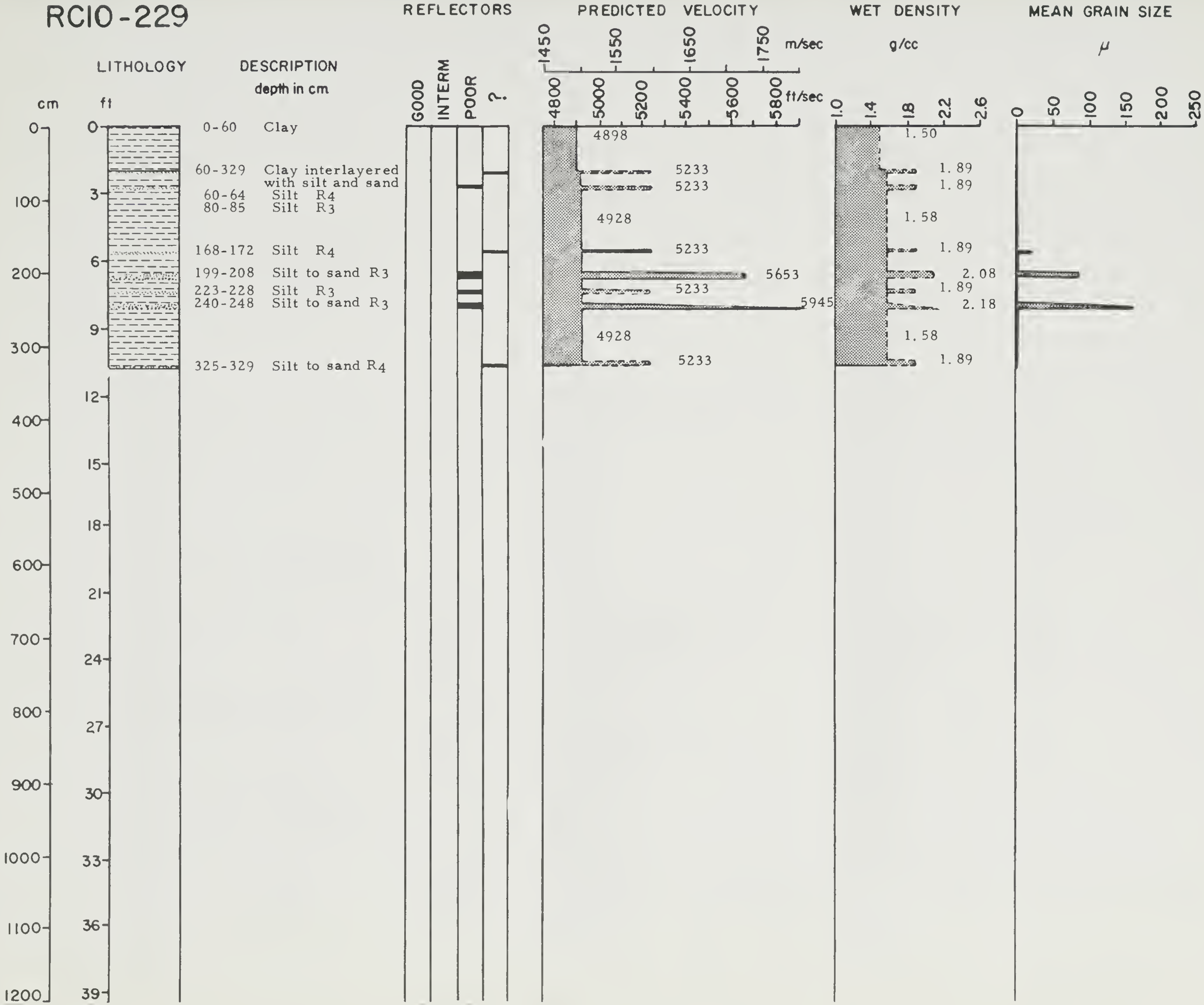
RC10-227



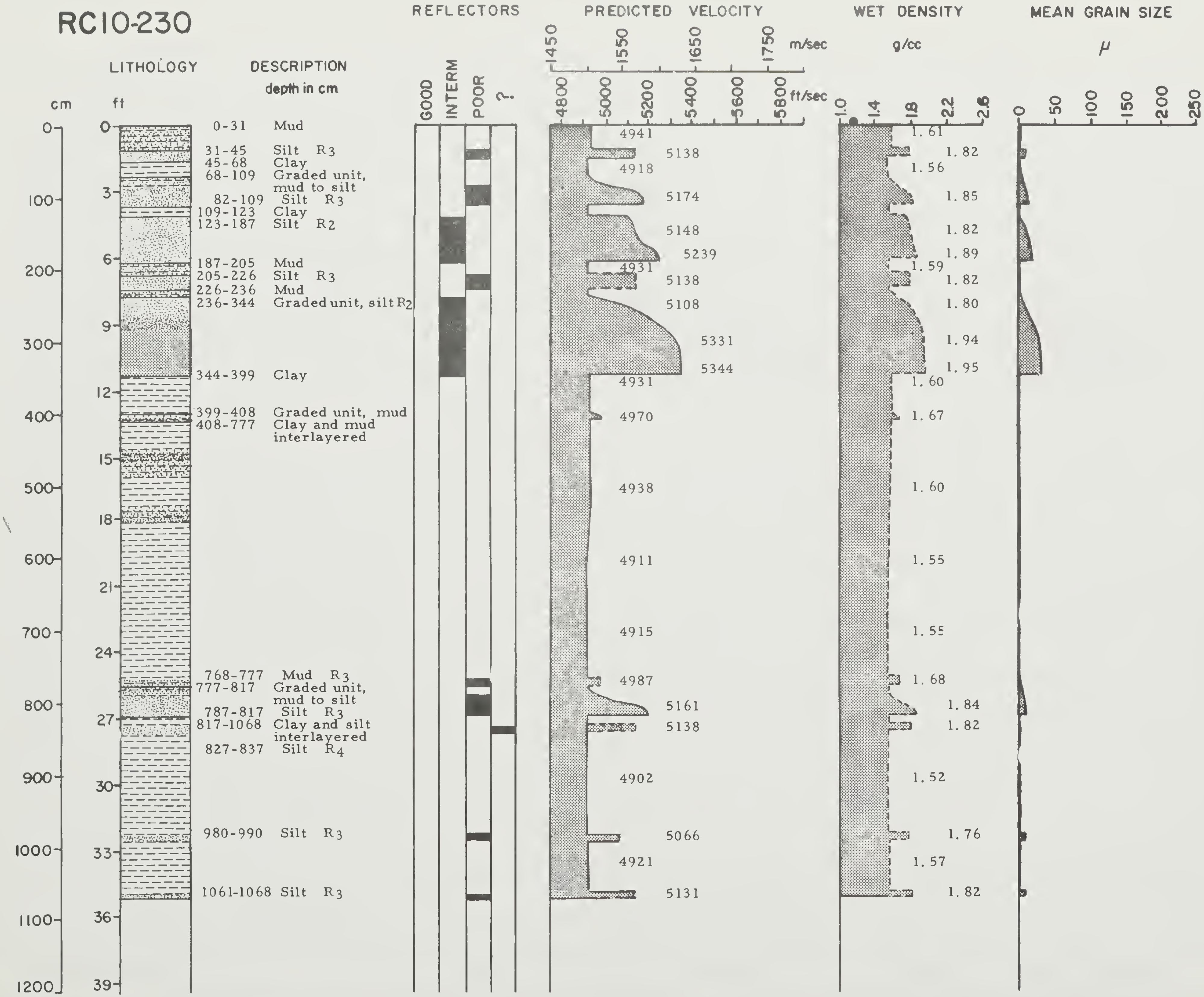
LITHOLOGY
DESCRIPTION
depth in cm
0-8 Clay
8-97 Clay with silt
97-125 Clay
125-403 Clay and silt intercalated
332-338 Sand R3
403-708 Clay
708-840 Clay and silt intercalated
840-941 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4895
4921
6017
4921
5157
4921
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.49
1.57
2.20
1.57
1.83
1.57
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

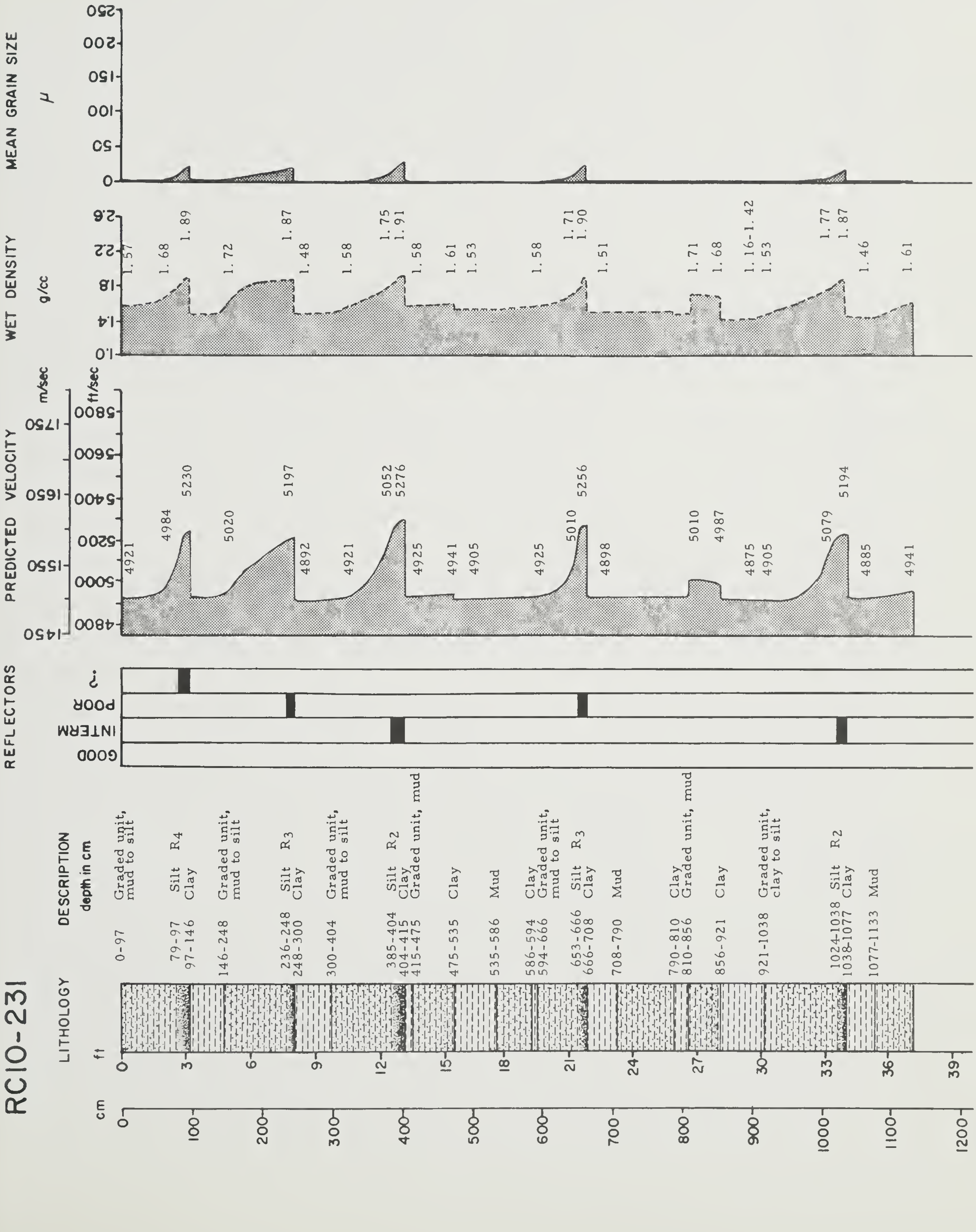

RCIO-228
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-97 Clay with silt
40-47 Layer, silt R4
76-88 Pocket, silt R4
97-187 Graded unit, silt to sand
97-173 Silt
173-187 Sand
R1
187-201 Mud with sand
201-220 Graded unit, mud to sand R2
220-381 Graded unit, silt to sand
220-237 Silt
237-381 Sand
R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4915
5236
4967
5236
5279
5312
5787
5787
5279
5577
5906
6030
5820
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.56
1.89
1.66
1.89
1.91
1.93
2.13
2.13
1.91
2.05
2.16
2.20
2.14
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

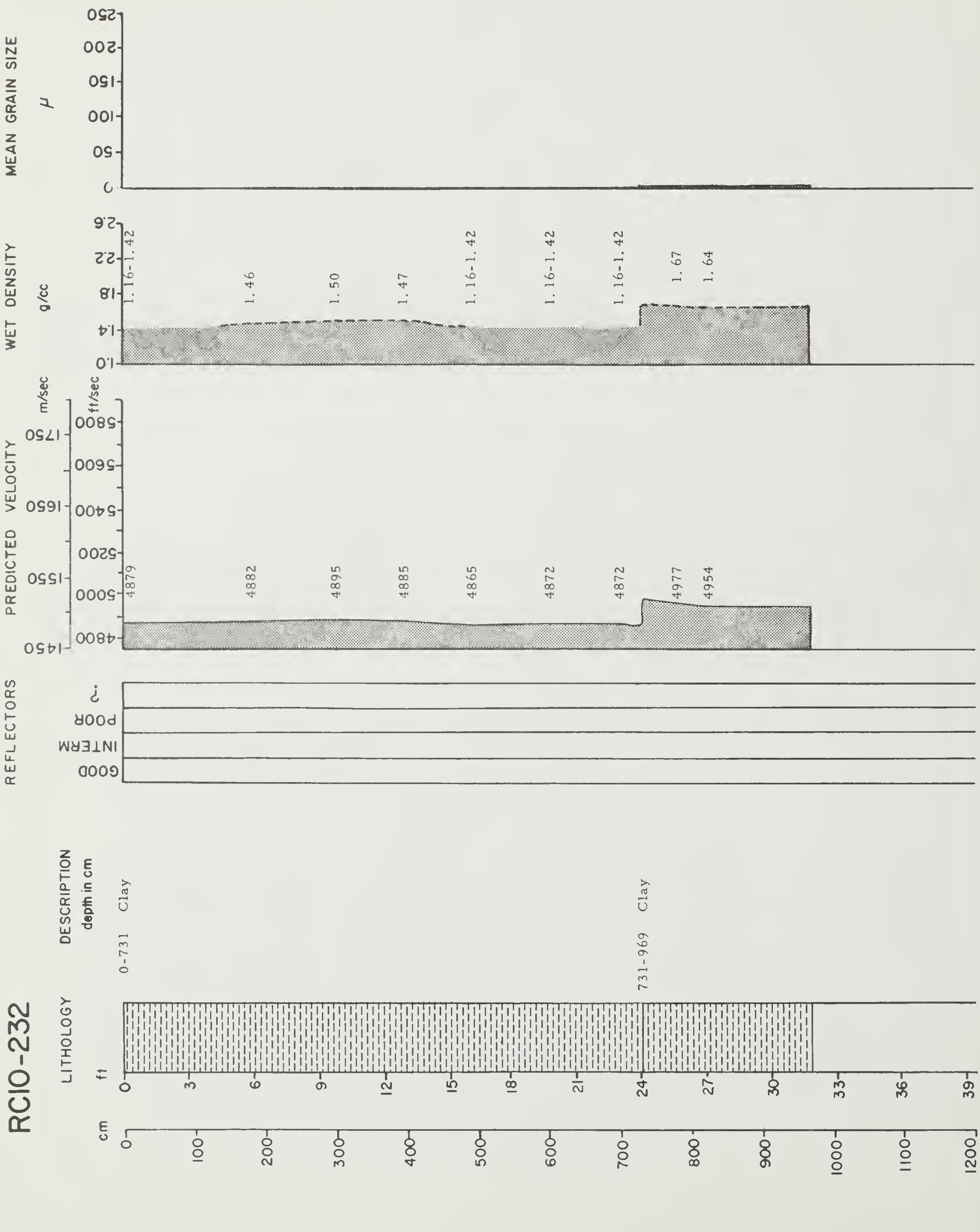
RC10-229

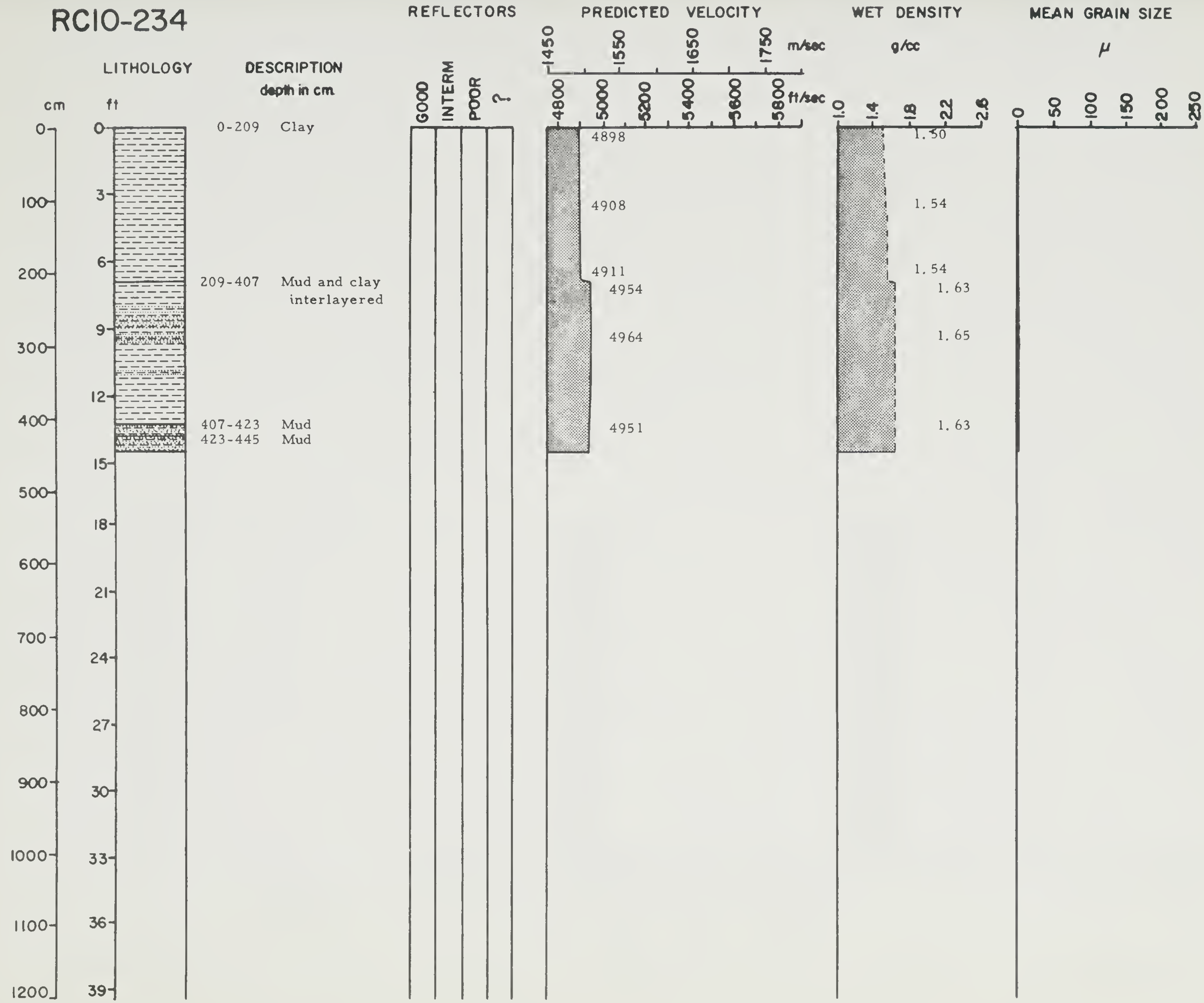


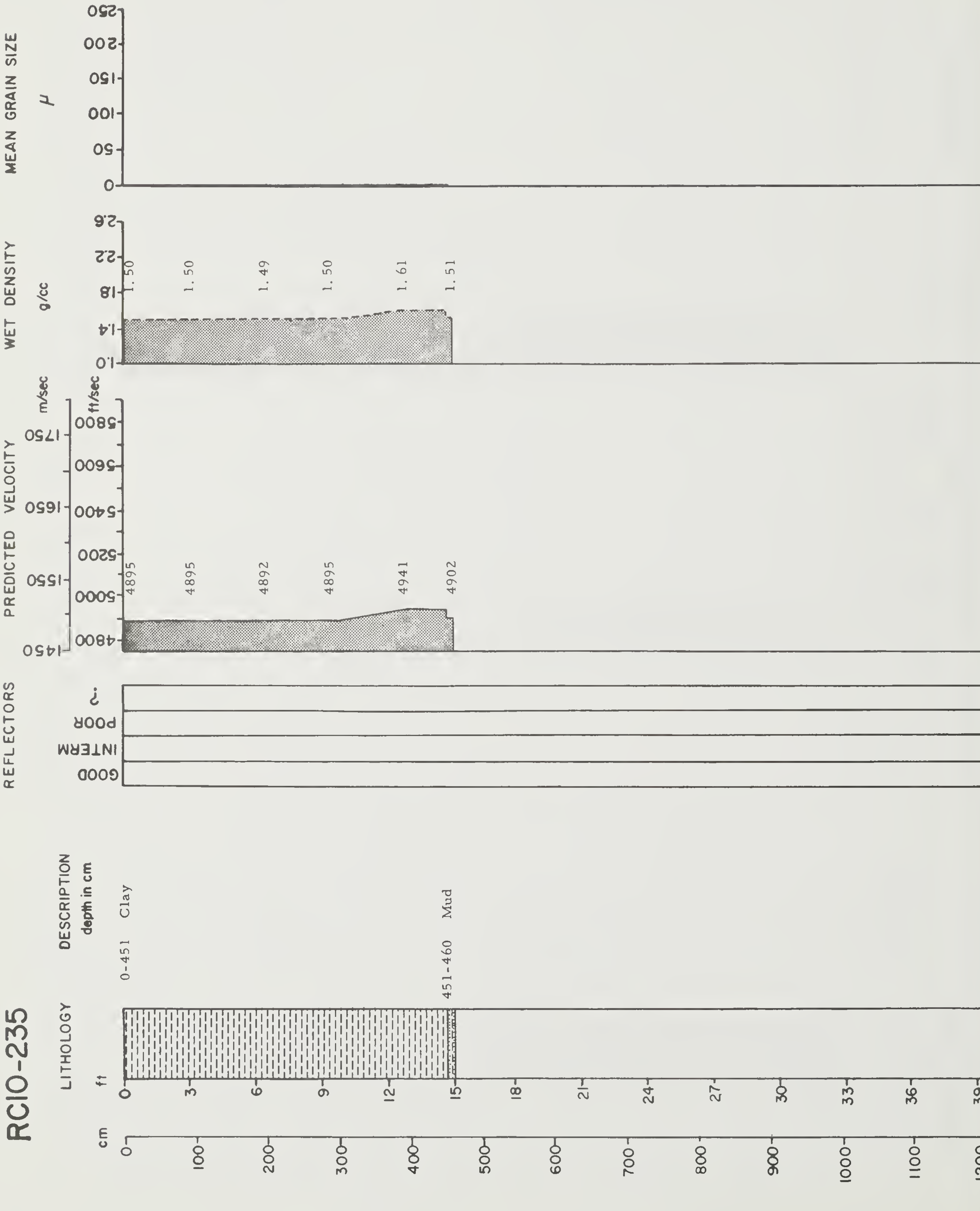
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-60 Clay
60-329 Clay interlayered with silt and sand
60-64 Silt R4
80-85 Silt R3
168-172 Silt R4
199-208 Silt to sand R3
223-228 Silt R3
240-248 Silt to sand R3
325-329 Silt to sand R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4898
5233
5233
4928
5233
5653
5233
5945
4928
5233
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.50
1.89
1.89
1.58
1.89
2.08
1.89
2.18
1.58
1.89
MEAN GRAIN SIZE
μ
0
50
100
150
200
250


RC10-230
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-31 Mud
31-45 Silt R3
45-68 Clay
68-109 Graded unit, mud to silt
82-109 Silt R3
109-123 Clay
123-187 Silt R2
187-205 Mud
205-226 Silt R3
226-236 Mud
236-344 Graded unit, silt R2
344-399 Clay
399-408 Graded unit, mud
408-777 Clay and mud interlayered
768-777 Mud R3
777-817 Graded unit, mud to silt
787-817 Silt R3
817-1068 Clay and silt interlayered
827-837 Silt R4
980-990 Silt R3
1061-1068 Silt R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ

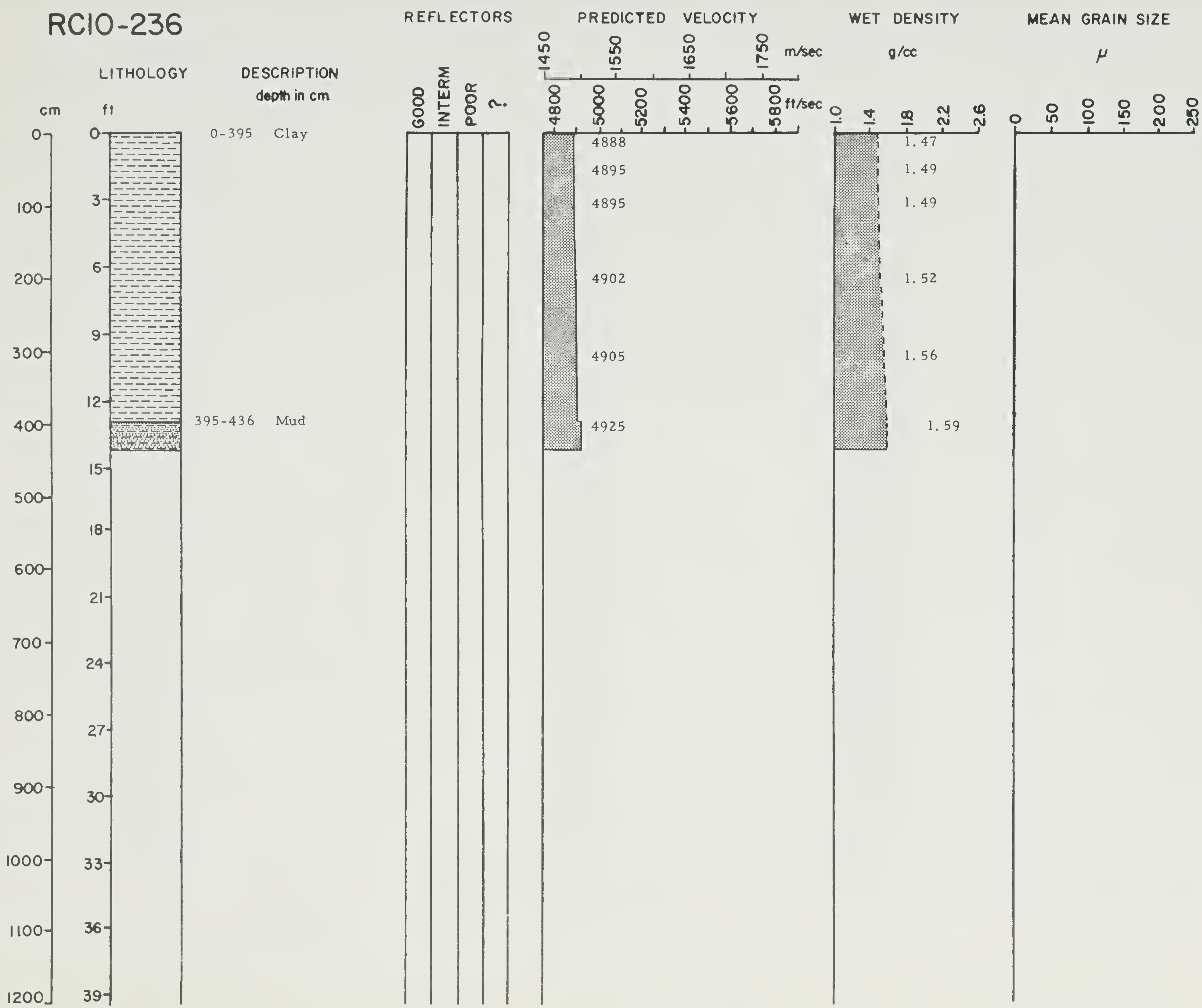

RC10-231
LITHOLOGY
DESCRIPTION
depth in cm
0-97 Graded unit, mud to silt
79-97 Silt R4
97-146 Clay
146-248 Graded unit, mud to silt
236-248 Silt R3
248-300 Clay
300-404 Graded unit, mud to silt
385-404 Silt R2
404-415 Clay
415-475 Graded unit, mud
475-535 Clay
535-586 Mud
586-594 Clay
594-666 Graded unit, mud to silt
653-666 Silt R3
666-708 Clay
708-790 Mud
790-810 Clay
810-856 Graded unit, mud
856-921 Clay
921-1038 Graded unit, clay to silt
1024-1038 Silt R2
1038-1077 Clay
1077-1133 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450 1550 1650 1750
4800 5000 5200 5400 5600 5800
4921 4984 5230 5020 5197 4892 4921 5052 5276 4925 4941 4905 4925 5010 5256 4898 5010 4987 4875 4905 5079 5194 4885 4941
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.57 1.68 1.89 1.72 1.87 1.48 1.58 1.75 1.91 1.58 1.61 1.53 1.58 1.71 1.90 1.51 1.71 1.68 1.16-1.42 1.53 1.77 1.87 1.46 1.61
MEAN GRAIN SIZE
μ
0 50 100 150 200 250
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39

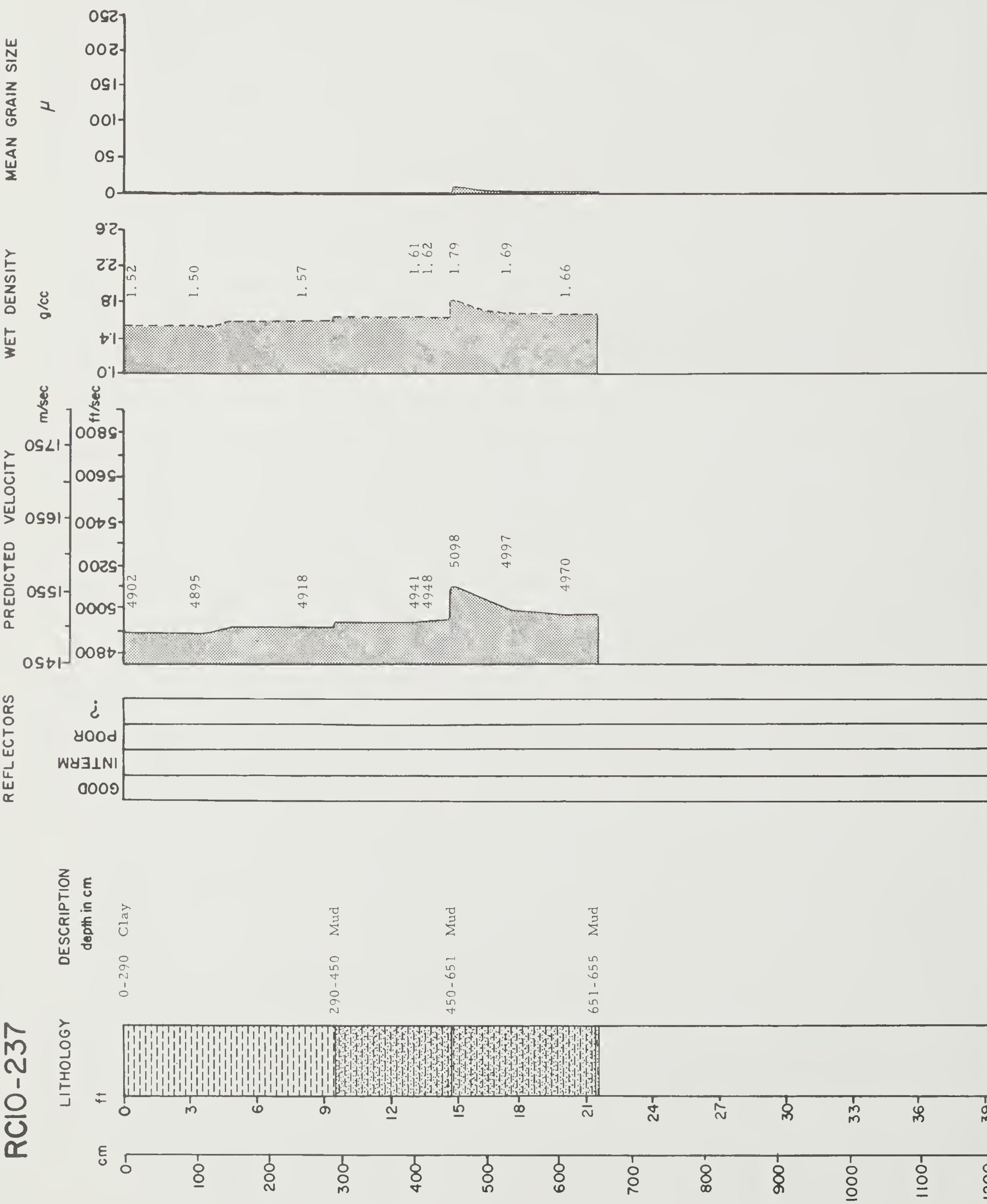

RCIO-232
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.16-1.42
1.46
1.50
1.47
1.16-1.42
1.16-1.42
1.16-1.42
1.67
1.64
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4879
4882
4895
4885
4865
4872
4872
4977
4954
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-731 Clay
731-969 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

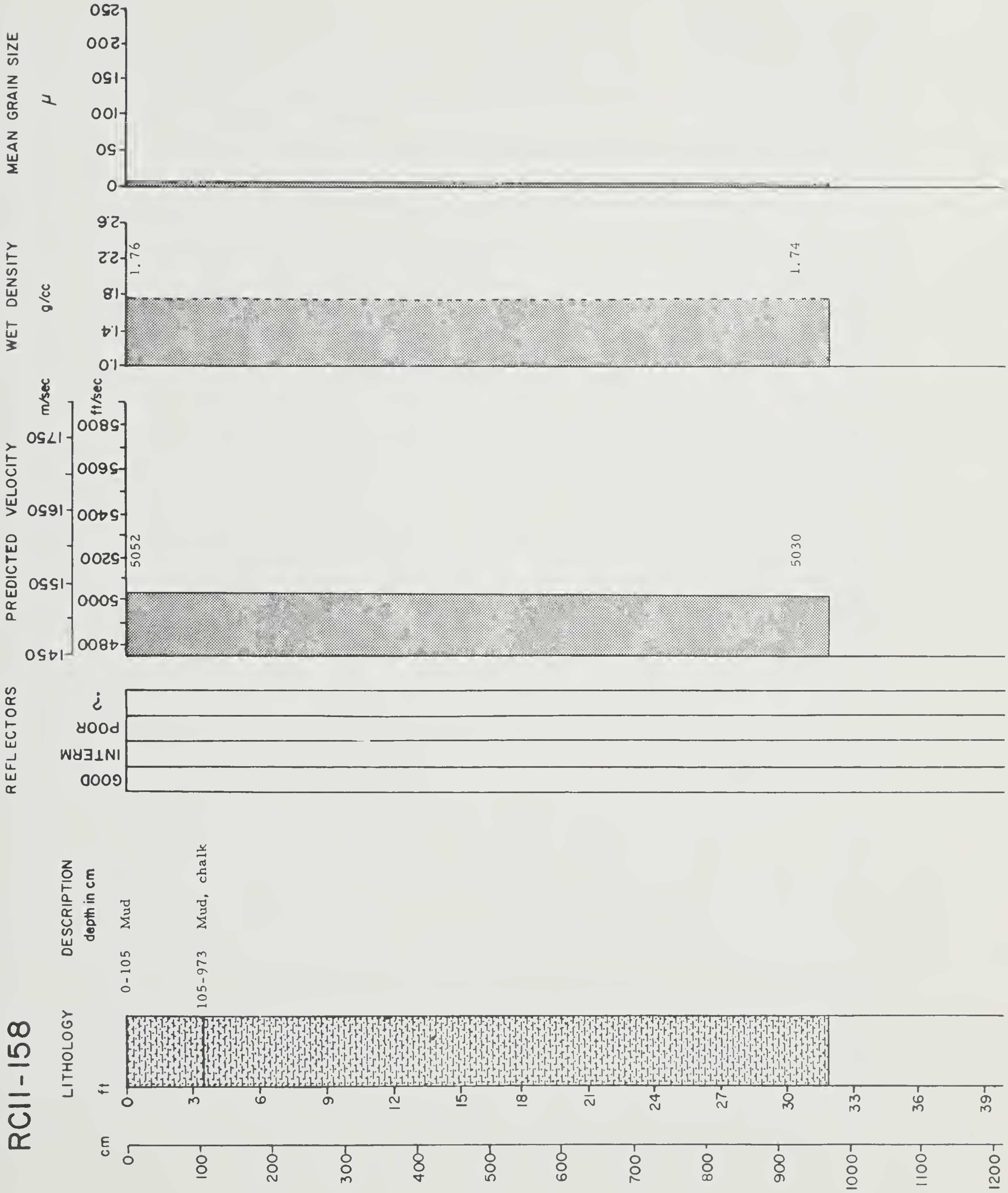

RC10-234
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-209 Clay
209-407 Mud and clay interlayered
407-423 Mud
423-445 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
1450
1550
1650
1750
m/sec
4800
5000
5200
5400
5600
5800
ft/sec
4898
4908
4911
4954
4964
4951
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.50
1.54
1.54
1.63
1.65
1.63
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

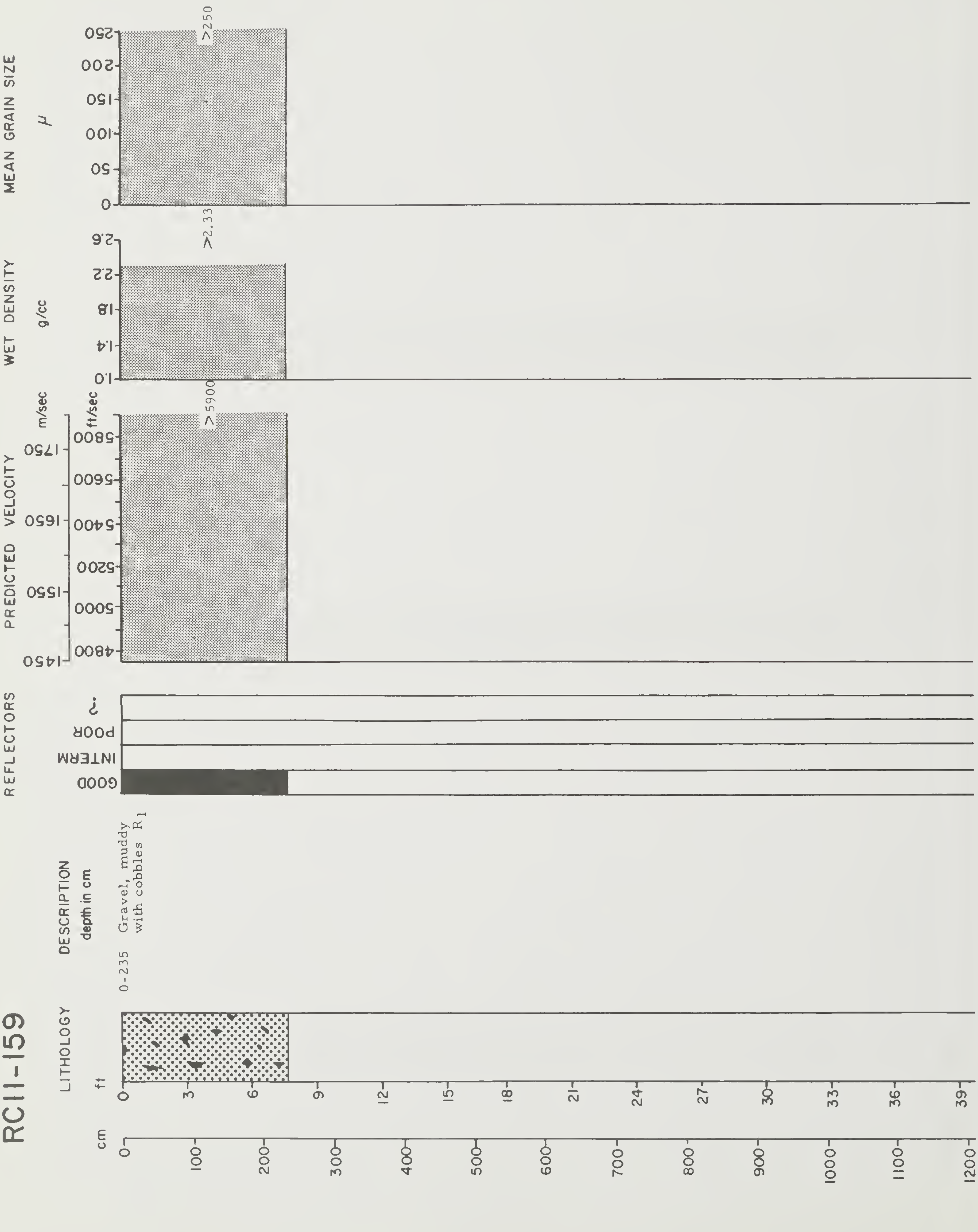


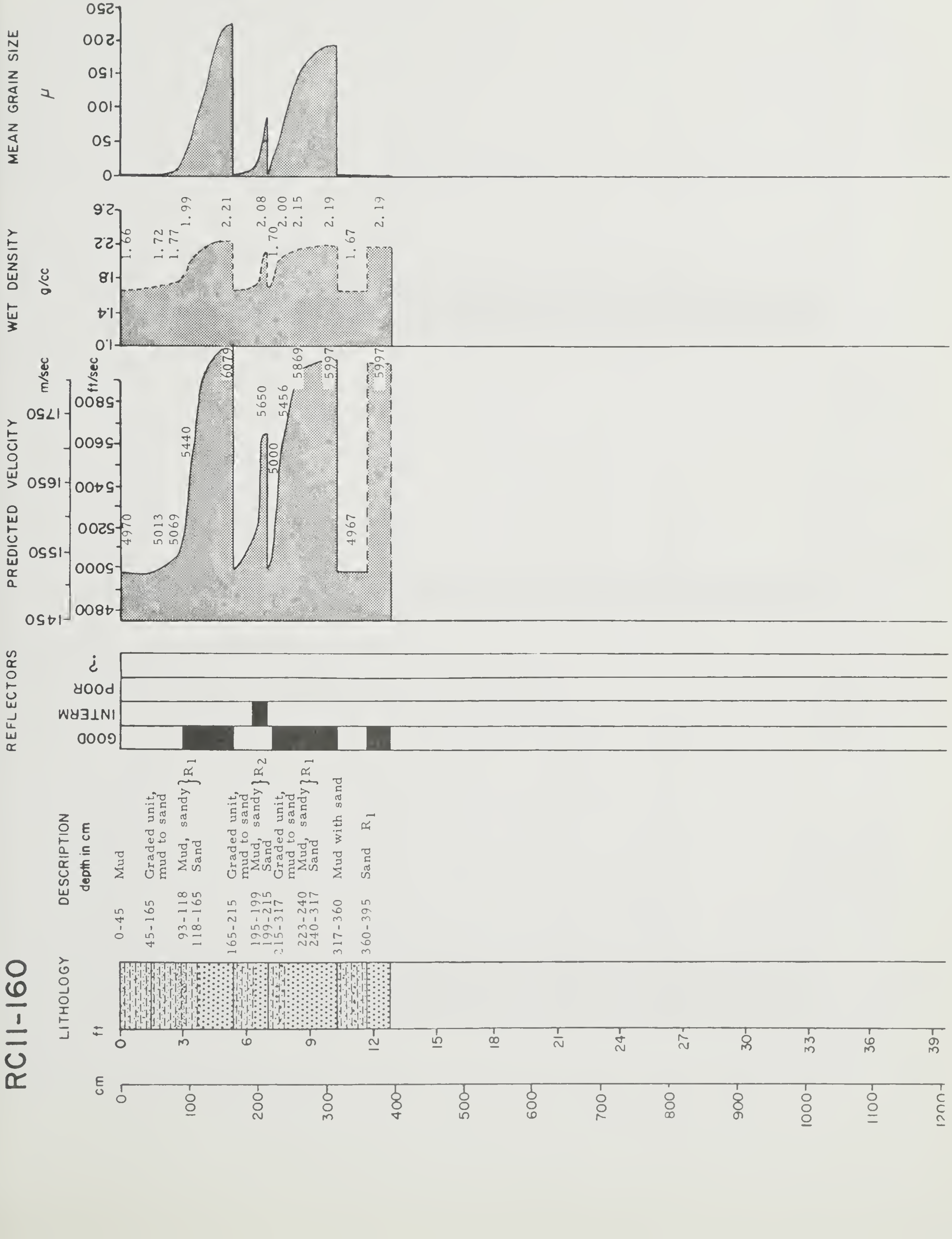
RC10-235
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
LITHOLOGY
DESCRIPTION
depth in cm
0-451 Clay
451-460 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4895
4895
4892
4895
4941
4902
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.50
1.50
1.49
1.50
1.61
1.51
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

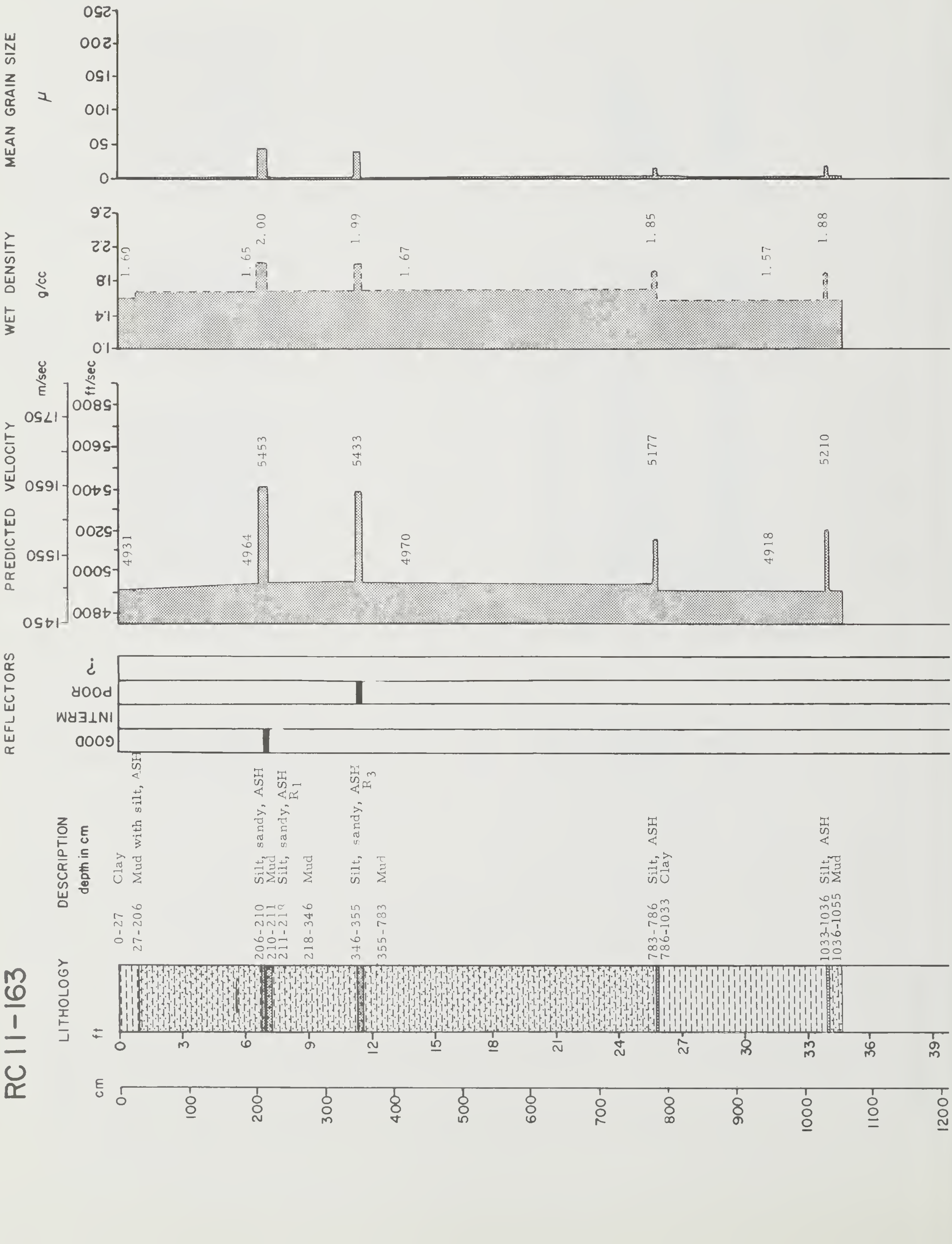

RC10-236
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-395 Clay
395-436 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4888
4895
4895
4902
4905
4925
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.47
1.49
1.49
1.52
1.56
1.59
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

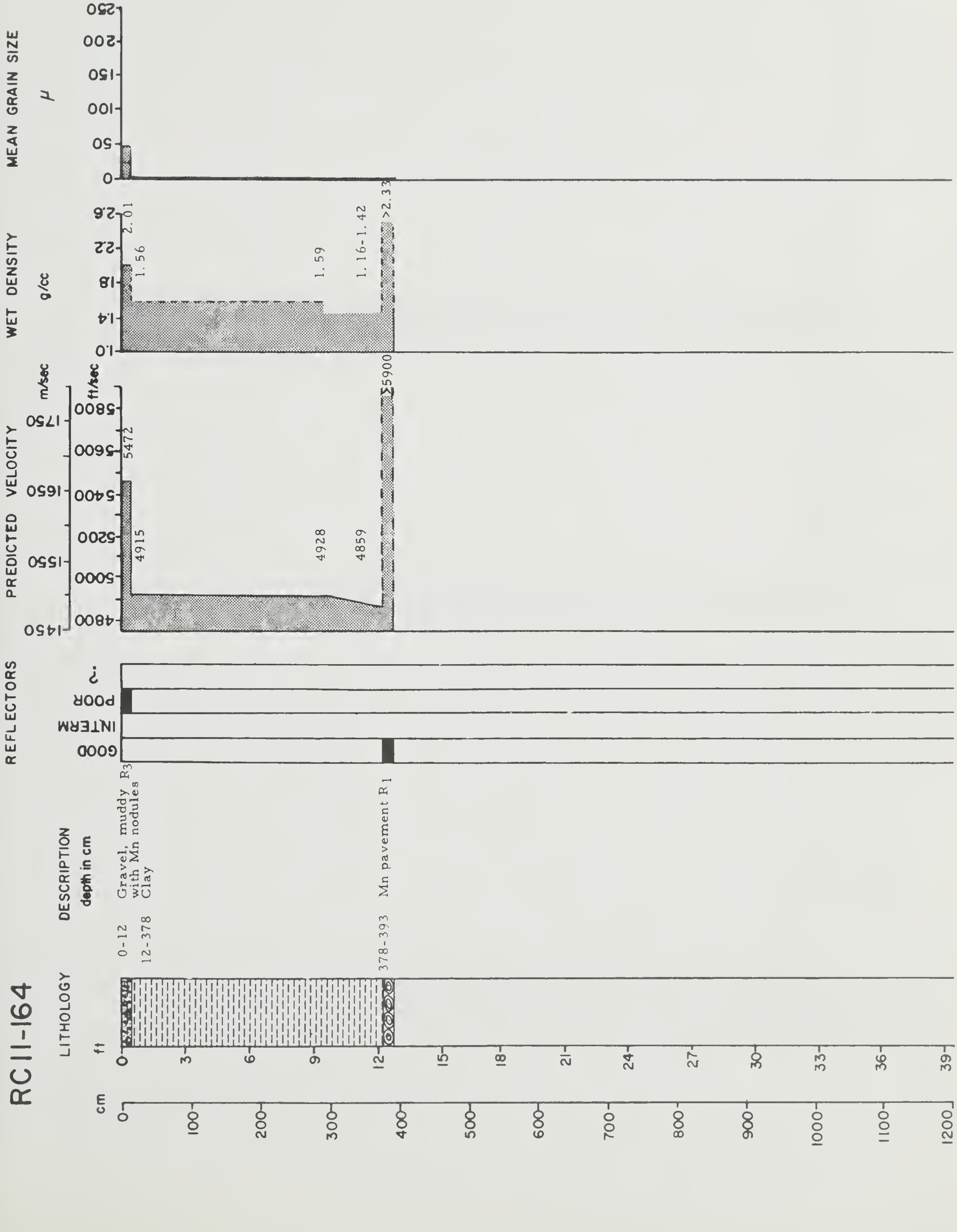

RCIO-237
LITHOLOGY
DESCRIPTION depth in cm
0-290 Clay
290-450 Mud
450-651 Mud
651-655 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4902
4895
4918
4941
4948
5098
4997
4970
WET DENSITY
g/cc
1.52
1.50
1.57
1.61
1.62
1.79
1.69
1.66
MEAN GRAIN SIZE
μ
cm
ft

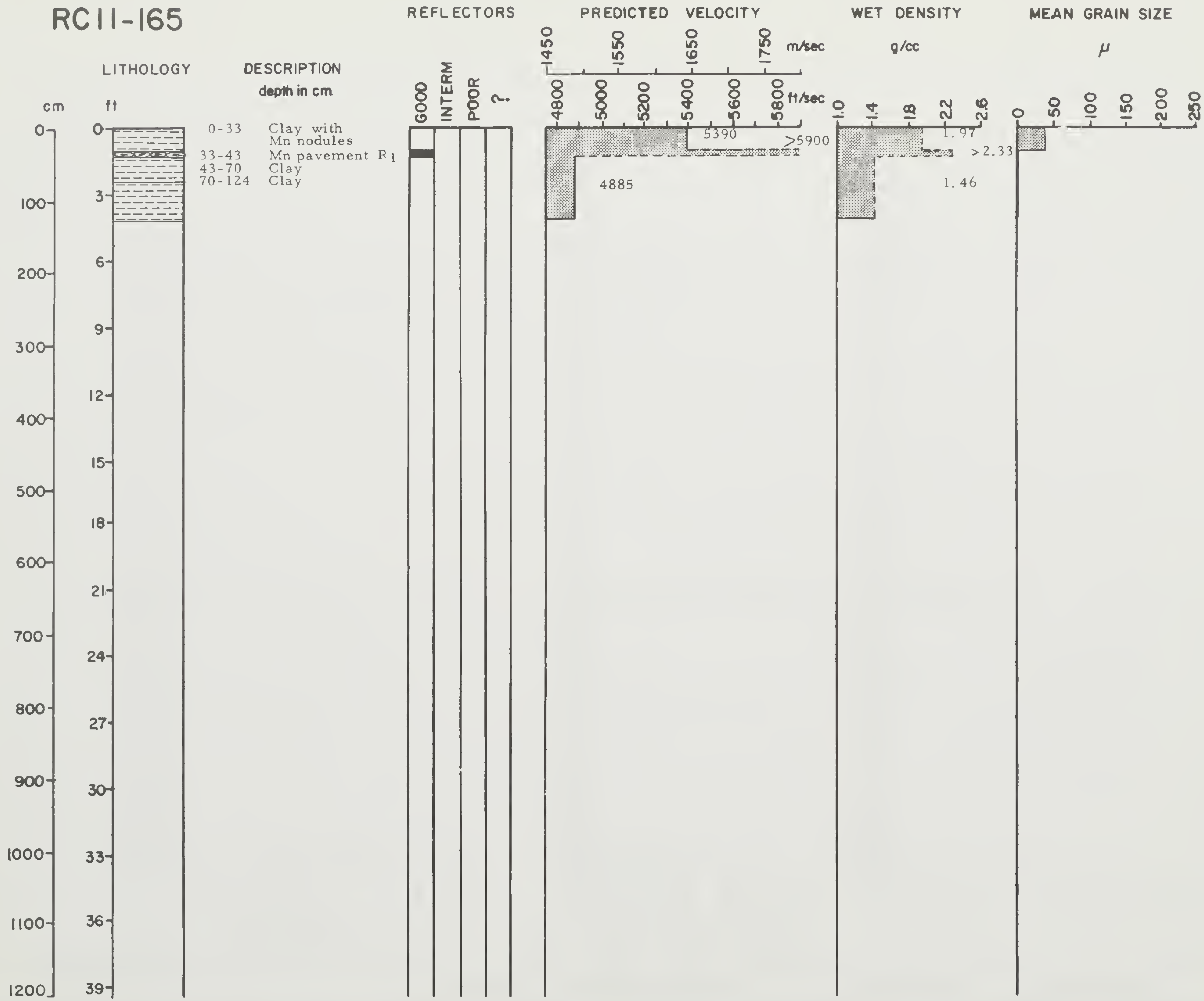

RC11-158
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-105 Mud
105-973 Mud, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5052
5030
WET DENSITY
g/cc
1.76
1.74
MEAN GRAIN SIZE
μ

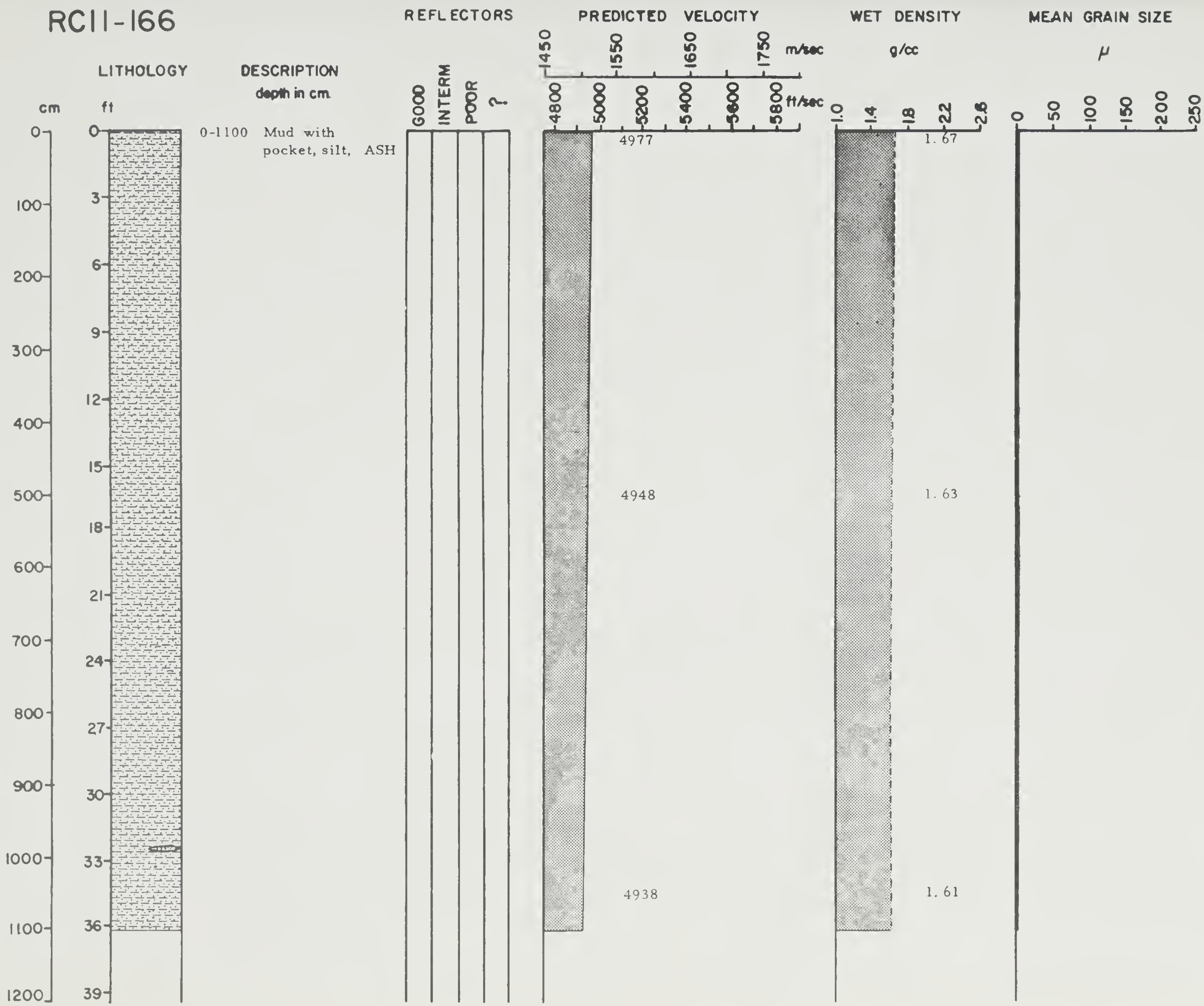

RC11-159
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-235
Gravel, muddy
with cobbles R_1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
>250
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

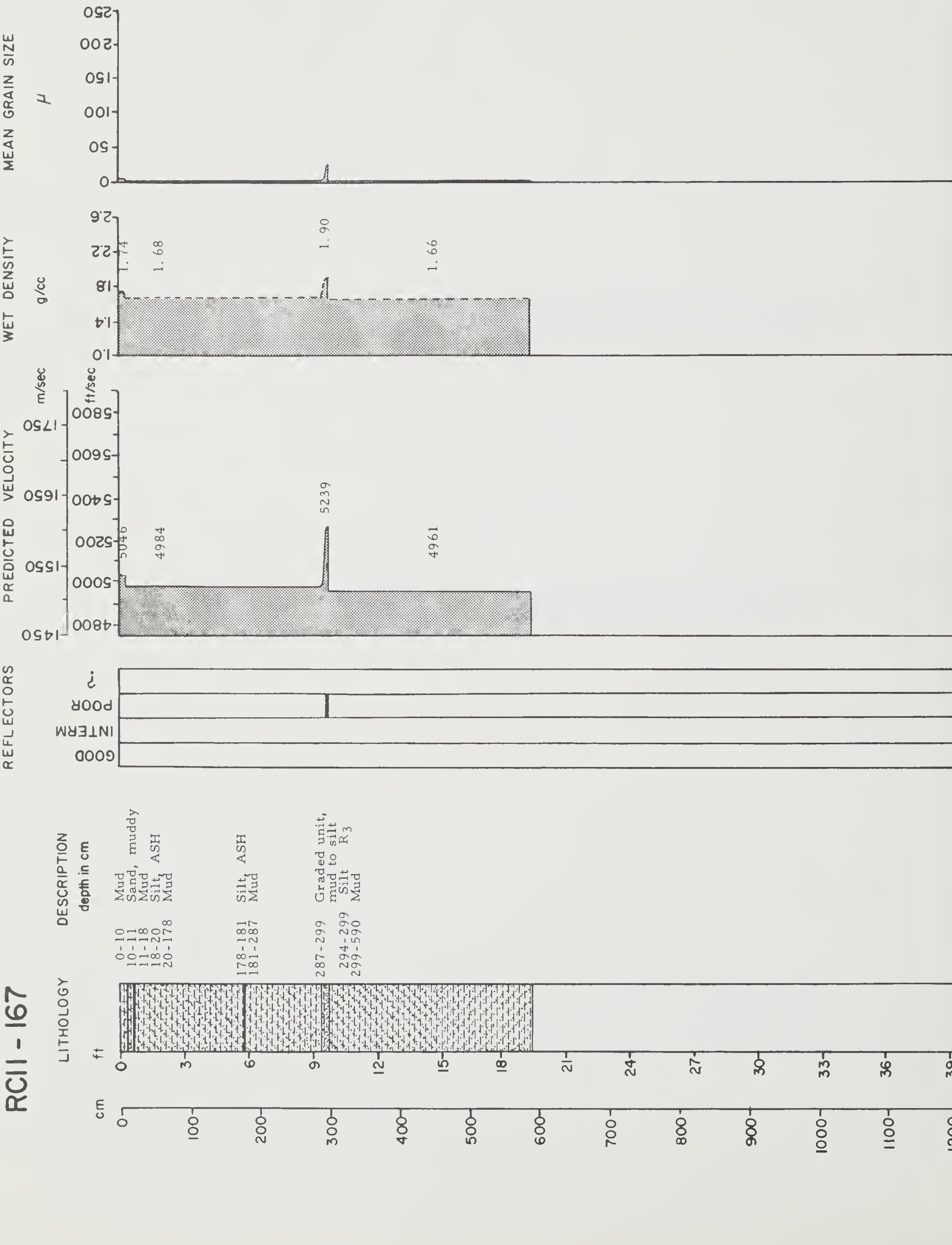

RC11-160
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-45 Mud
45-165 Graded unit, mud to sand
93-118 Mud, sandy } R1
118-165 Sand
165-215 Graded unit, mud to sand
195-199 Mud, sandy } R2
199-215 Sand
215-317 Graded unit, mud to sand
223-240 Mud, sandy } R1
240-317 Sand
317-360 Mud with sand
360-395 Sand R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4970
5013
5069
5440
6072
5650
5000
5456
5869
5997
4967
5997
WET DENSITY
g/cc
1.66
1.72
1.77
1.99
2.21
2.08
1.70
2.00
2.15
2.19
1.67
2.19
MEAN GRAIN SIZE
μ

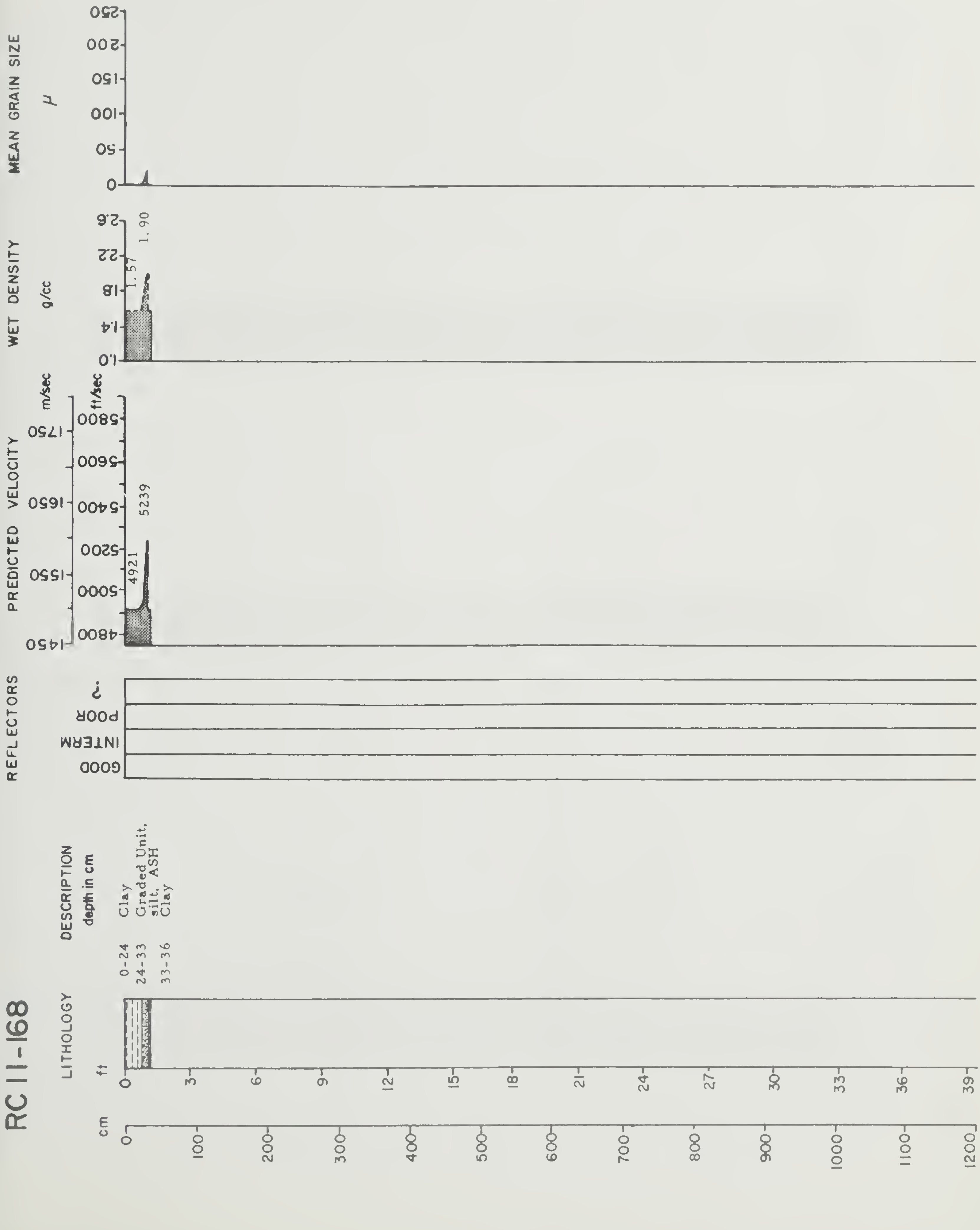

RC11-163
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-27 Clay
27-206 Mud with silt, ASH
206-210 Silt, sandy, ASH
210-211 Mud
211-218 Silt, sandy, ASH
R1
218-346 Mud
346-355 Silt, sandy, ASH
R3
355-783 Mud
783-786 Silt, ASH
786-1033 Clay
1033-1036 Silt, ASH
1036-1055 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4931
4964
5453
5433
4970
5177
4918
5210
WET DENSITY
g/cc
1.60
1.65
2.00
1.99
1.67
1.85
1.57
1.88
MEAN GRAIN SIZE
μ

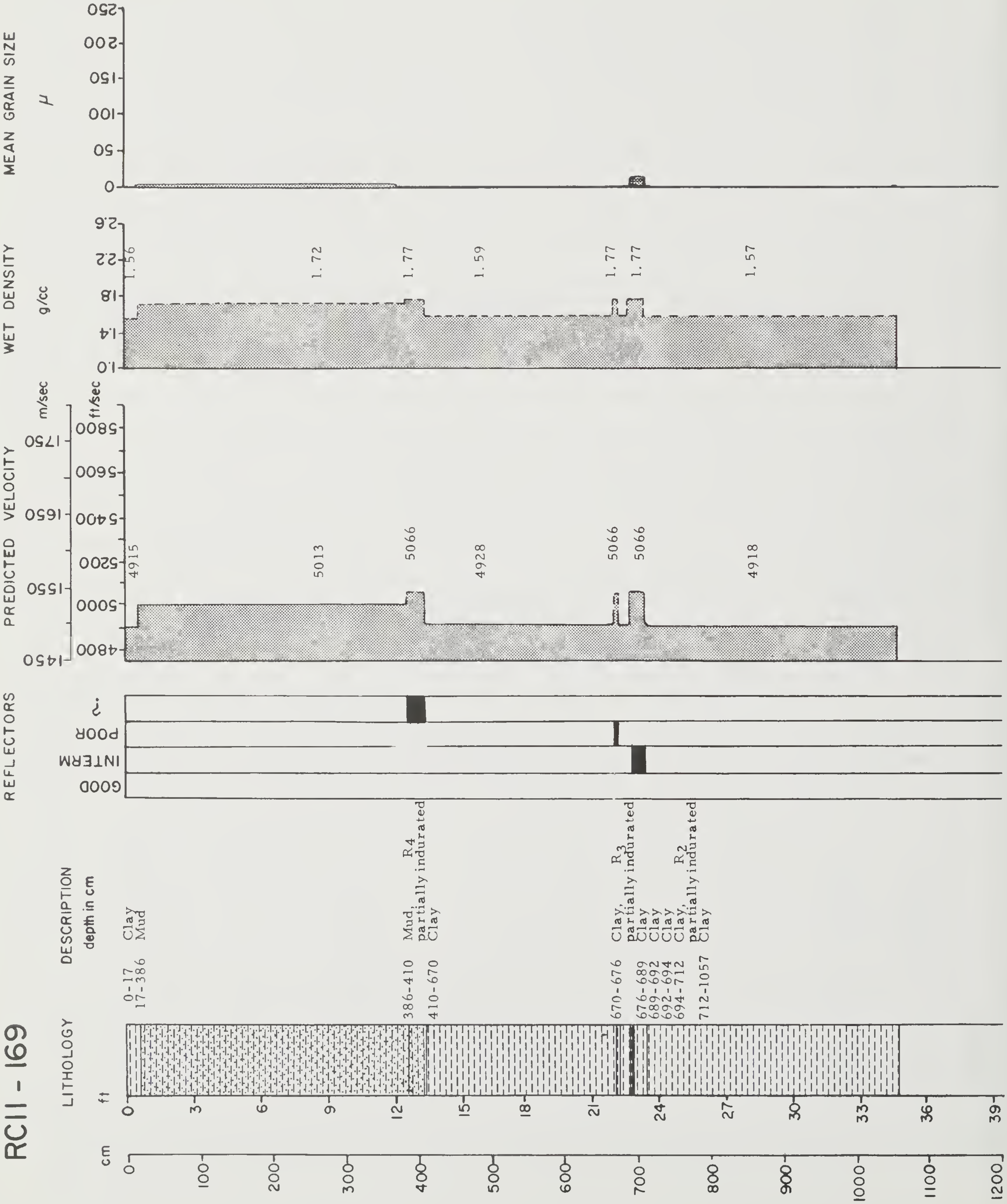

RC11-164
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-12 Gravel, muddy with Mn nodules R3
12-378 Clay
378-393 Mn pavement R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4915
5472
4928
4859
≥5900
WET DENSITY
g/cc
1.56
2.01
1.59
1.16-1.42
>2.33
MEAN GRAIN SIZE
μ


RC11-165
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-33 Clay with Mn nodules
33-43 Mn pavement R1
43-70 Clay
70-124 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5390
>5900
4885
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.97
> 2.33
1.46
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
3
6
9
12
15
18
21
24
27
30
33
36
39

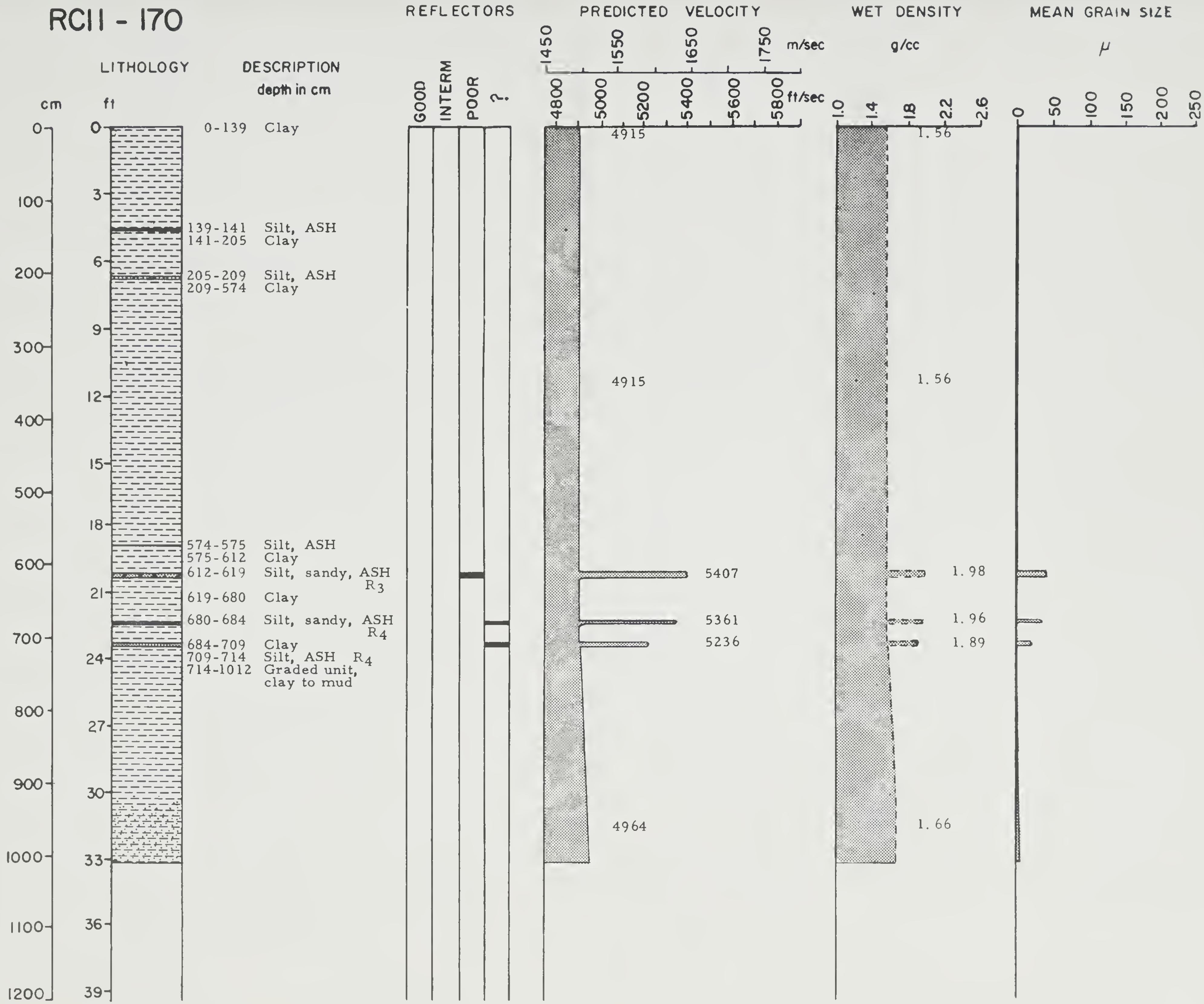

RC11-166
LITHOLOGY
DESCRIPTION
depth in cm
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0-1100 Mud with pocket, silt, ASH
4977
4948
4938
1.67
1.63
1.61


RC11 - 167
LITHOLOGY
DESCRIPTION
depth in cm
0-10 Mud
10-11 Sand, muddy
11-18 Mud
18-20 Silt, ASH
20-178 Mud
178-181 Silt, ASH
181-287 Mud
287-299 Graded unit, mud to silt
294-299 Silt R3
299-590 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5046
4984
5239
4961
WET DENSITY
g/cc
1.74
1.68
1.90
1.66
MEAN GRAIN SIZE
μ
ft
cm

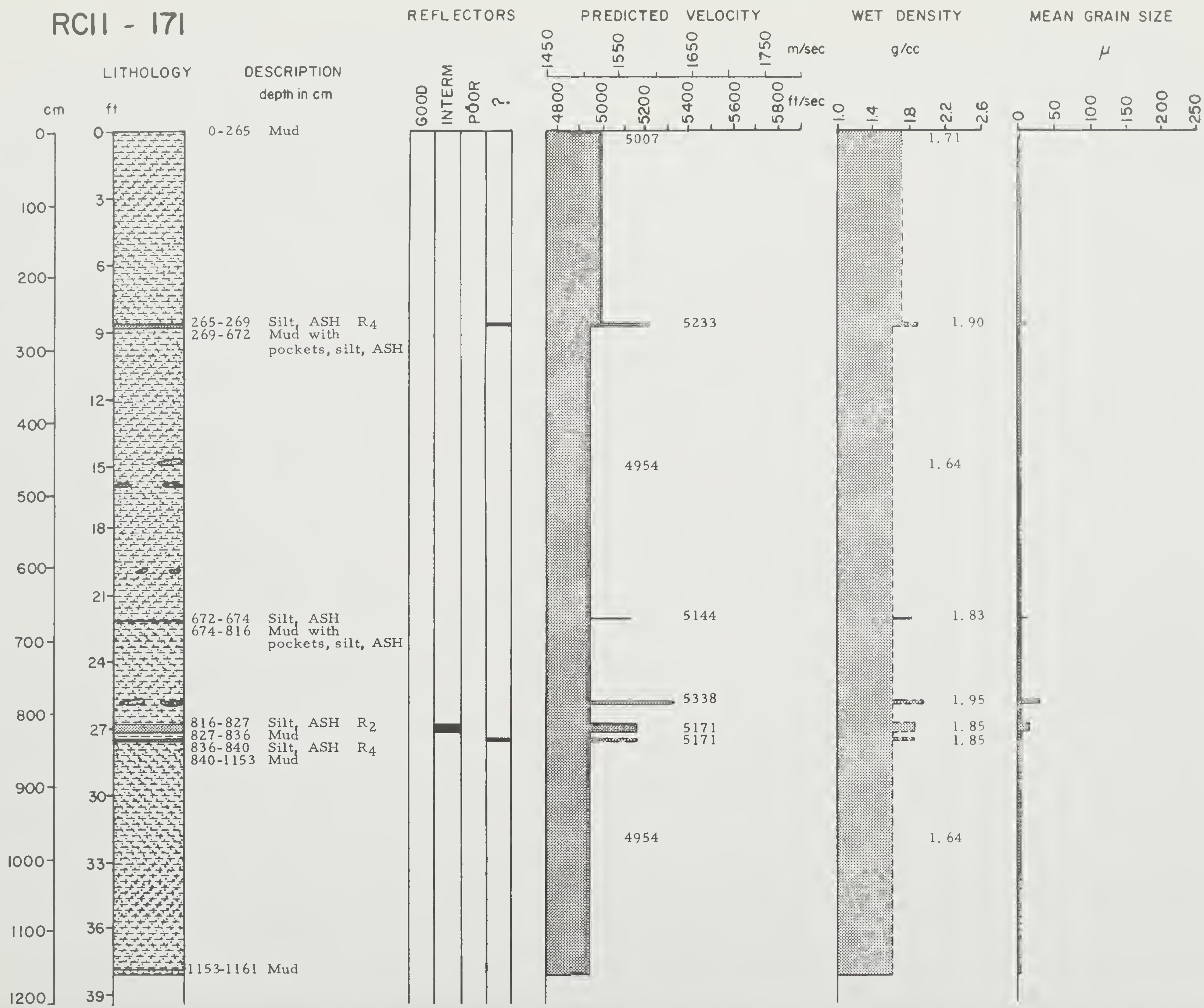

RC 11-168
LITHOLOGY
DESCRIPTION
depth in cm
0-24 Clay
24-33 Graded Unit, silt, ASH
33-36 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4921
5239
WET DENSITY
g/cc
1.57
1.90
MEAN GRAIN SIZE
μ
cm
ft

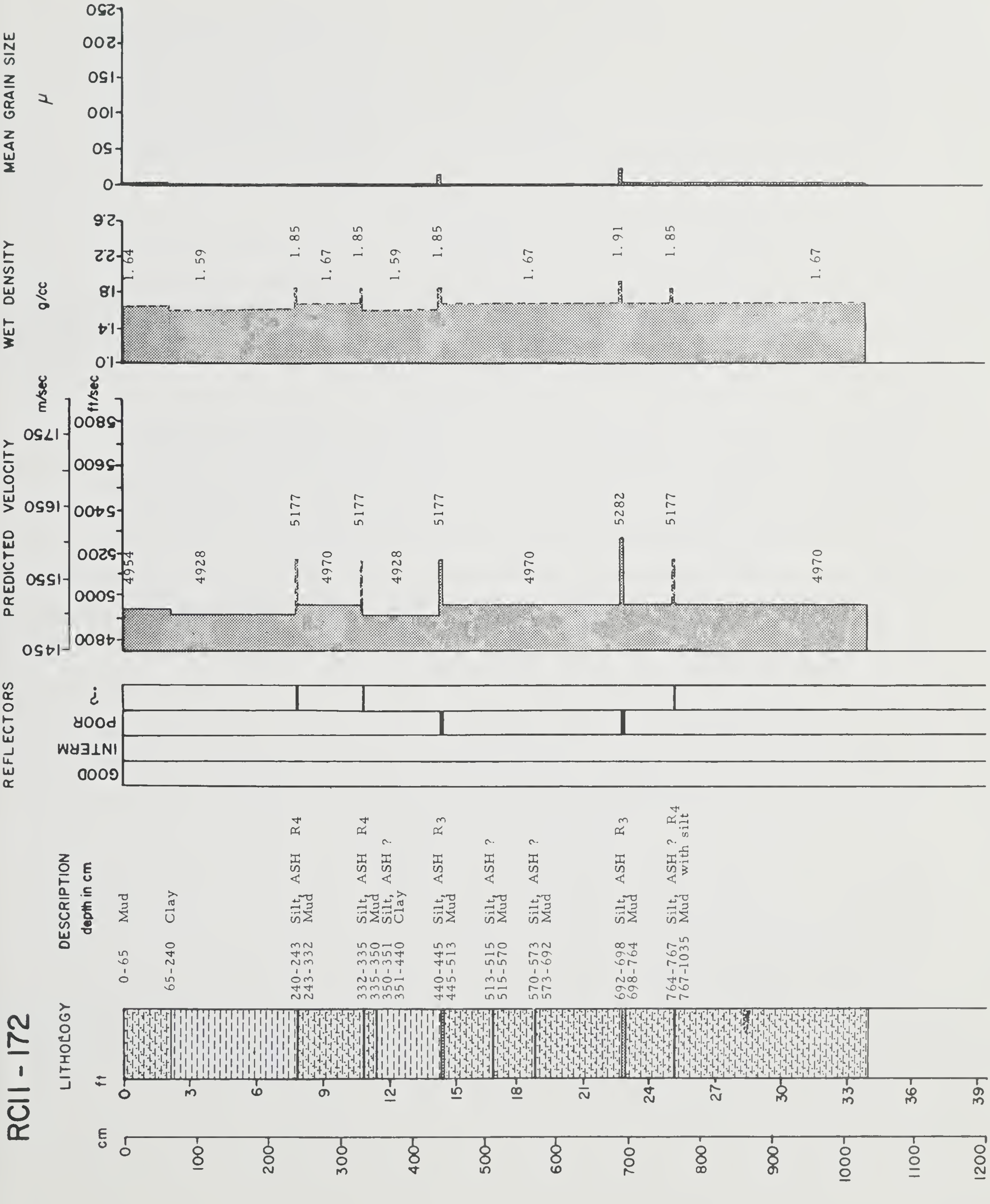

RC11 - 169
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-17 Clay
17-386 Mud
386-410 Mud, partially indurated R4
410-670 Clay
670-676 Clay, partially indurated R3
676-689 Clay
689-692 Clay
692-694 Clay
694-712 Clay, partially indurated R2
712-1057 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4915
5013
5066
4928
5066
5066
4918
WET DENSITY
g/cc
1.56
1.72
1.77
1.59
1.77
1.77
1.57
MEAN GRAIN SIZE
μ

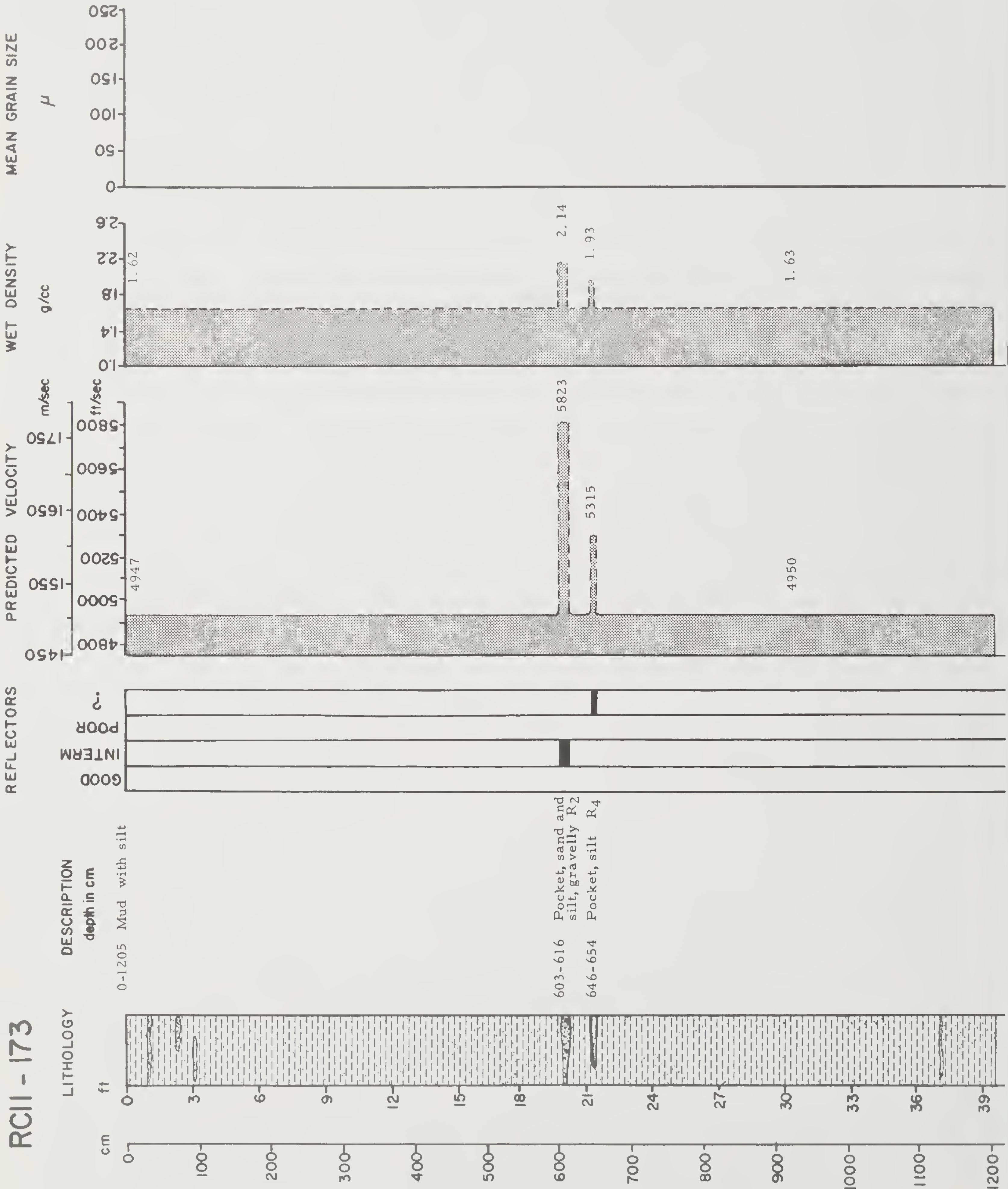
RC11 - 170

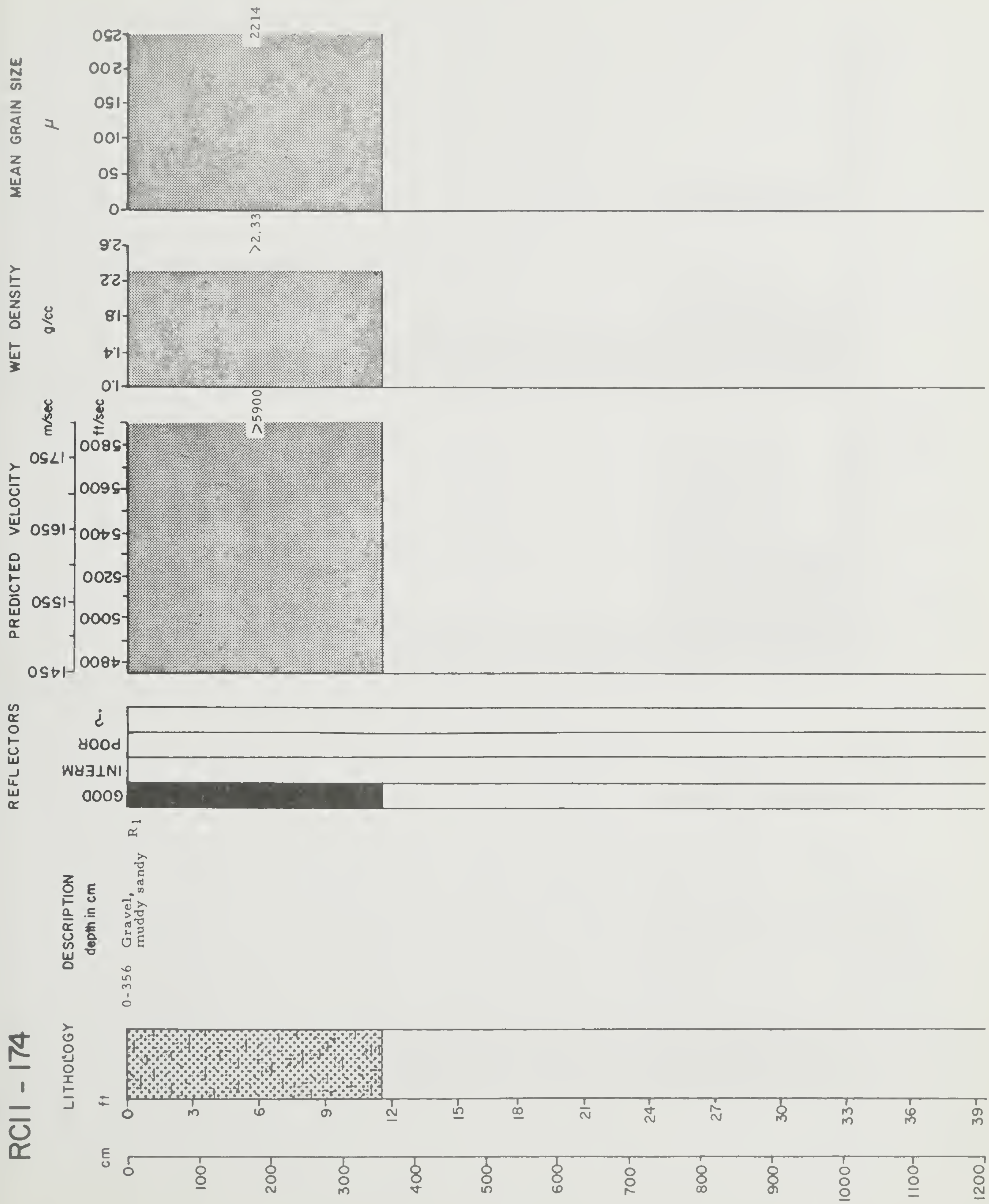

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-139 Clay
139-141 Silt, ASH
141-205 Clay
205-209 Silt, ASH
209-574 Clay
574-575 Silt, ASH
575-612 Clay
612-619 Silt, sandy, ASH R3
619-680 Clay
680-684 Silt, sandy, ASH R4
684-709 Clay
709-714 Silt, ASH R4
714-1012 Graded unit, clay to mud
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
1450
1550
1650
1750
m/sec
4800
5000
5200
5400
5600
5800
ft/sec
4915
4915
5407
5361
5236
4964
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.56
1.56
1.98
1.96
1.89
1.66
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

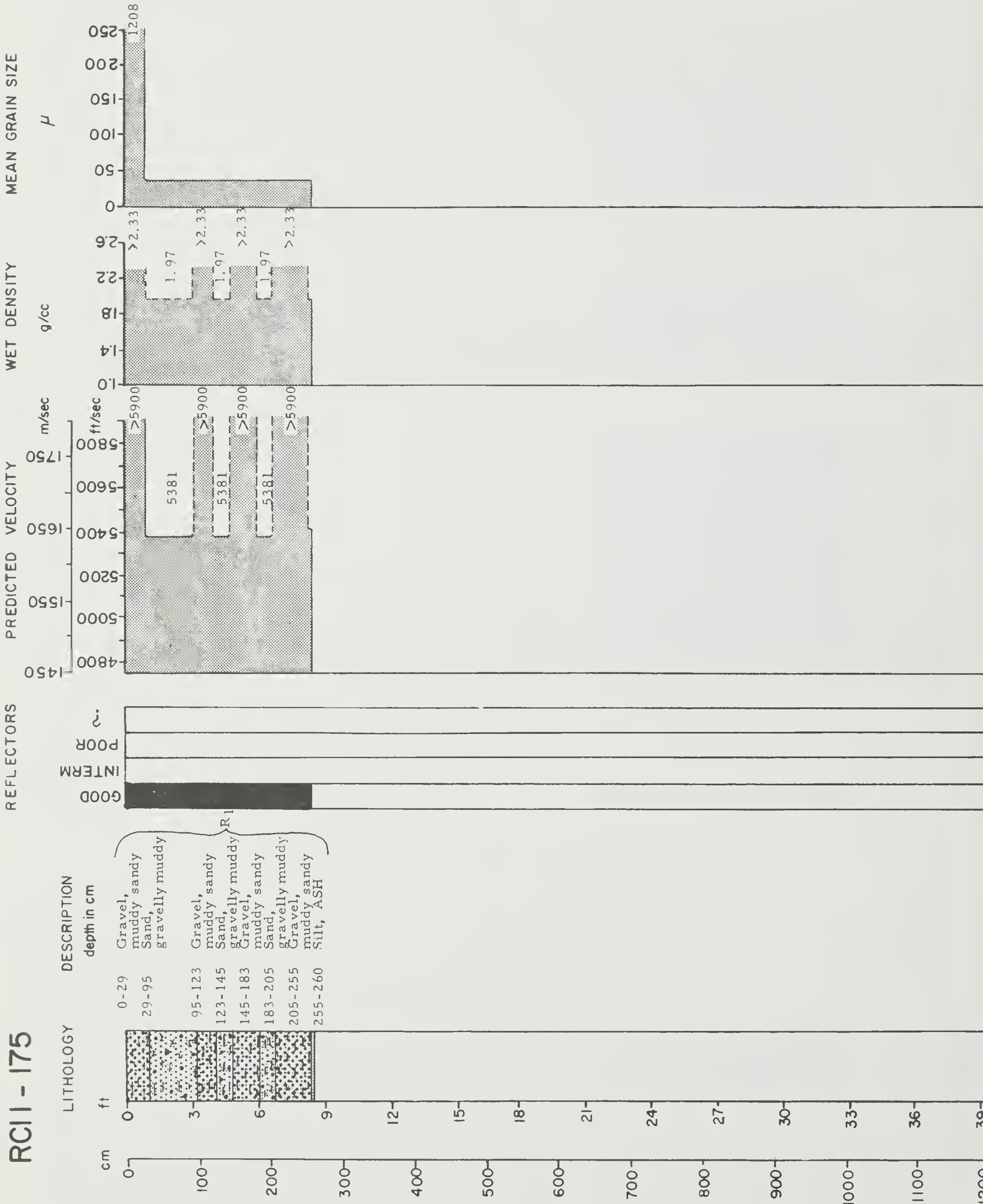
RC11 - 171

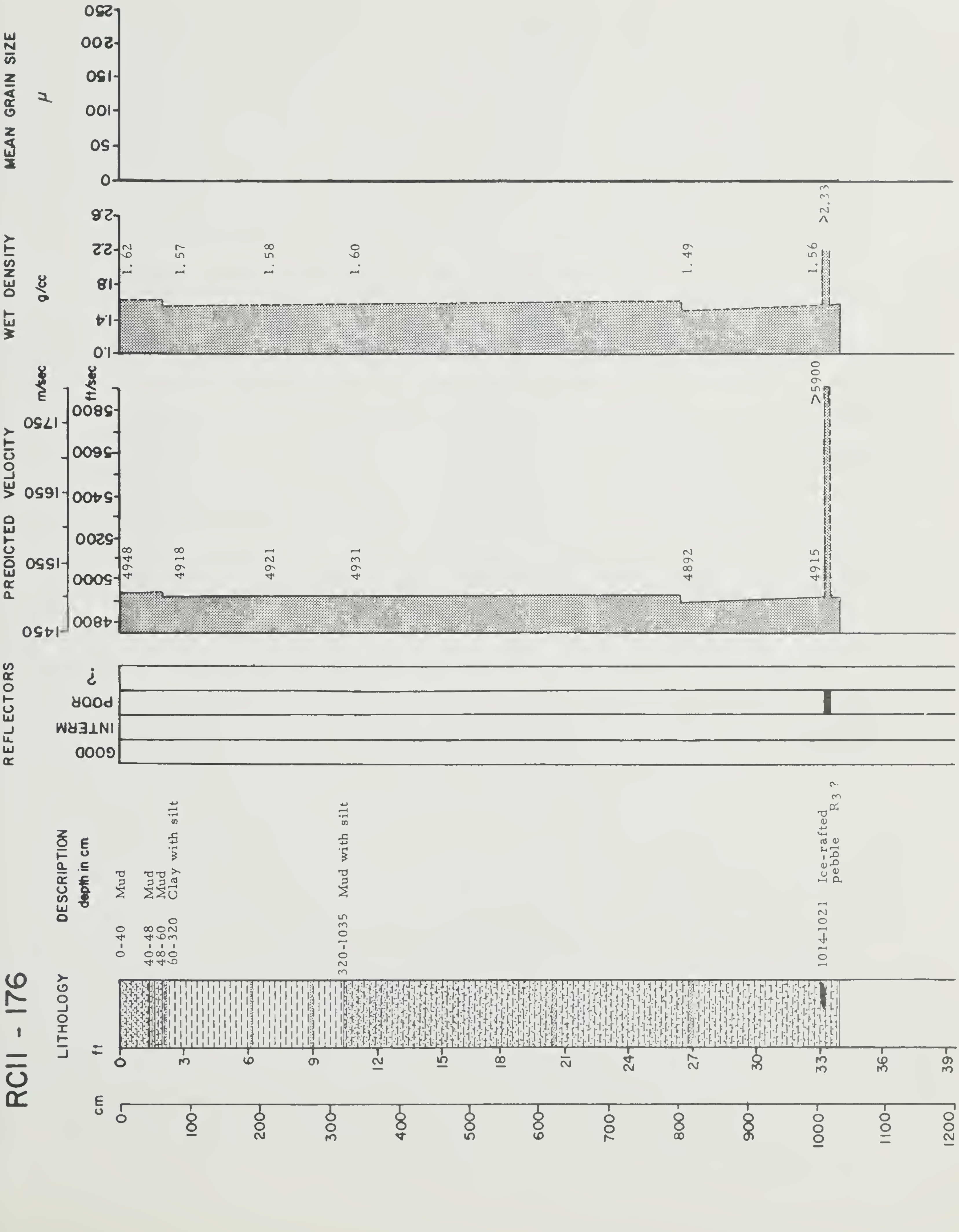

RC11 - 171
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-265 Mud
265-269 Silt, ASH R_4
269-672 Mud with pockets, silt, ASH
672-674 Silt, ASH
674-816 Mud with pockets, silt, ASH
816-827 Silt, ASH R_2
827-836 Mud
836-840 Silt, ASH R_4
840-1153 Mud
1153-1161 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5007
5233
4954
5144
5338
5171
5171
4954
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.71
1.90
1.64
1.83
1.95
1.85
1.85
1.64
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

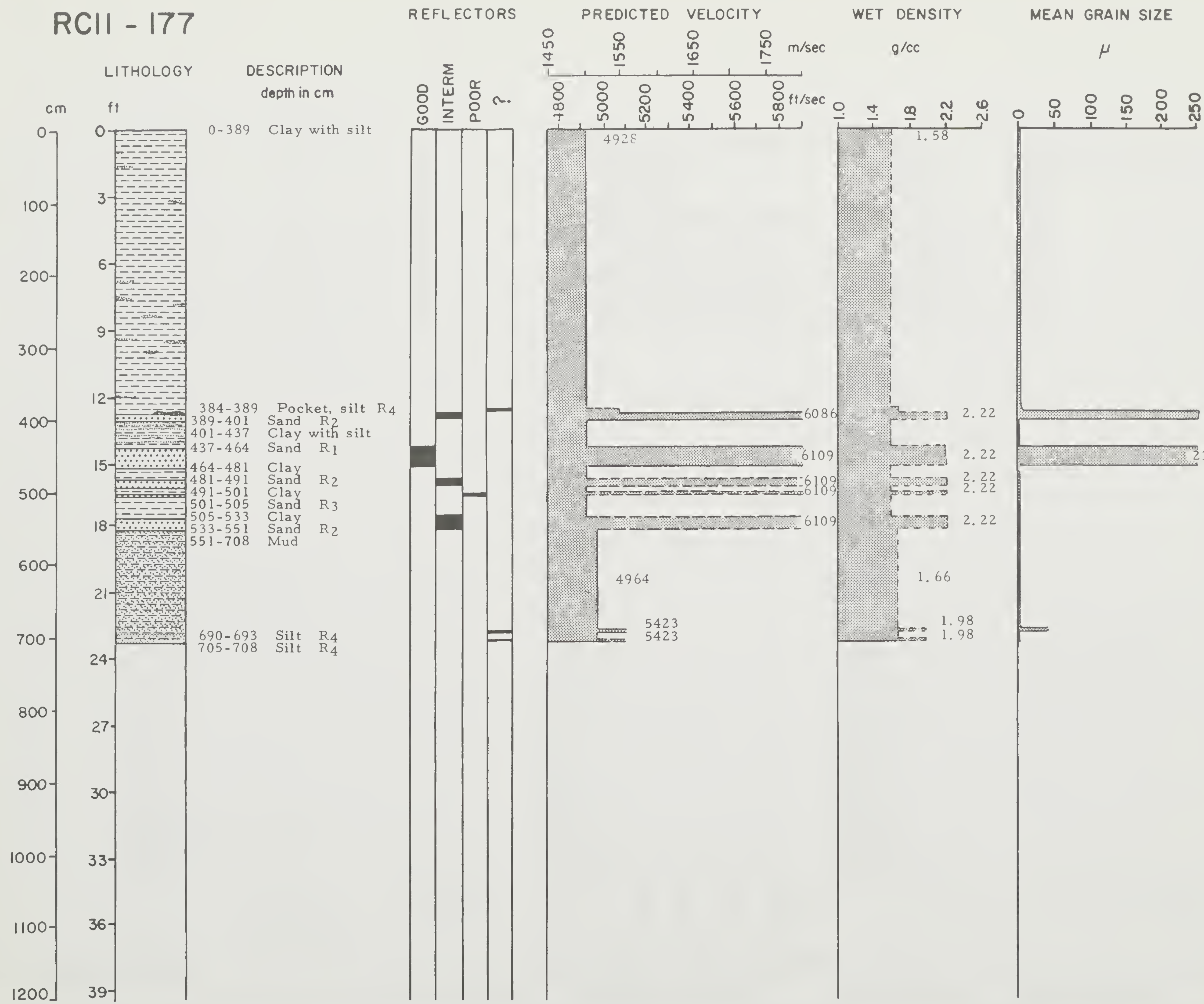

RC11 - 172
LITHOLOGY
DESCRIPTION depth in cm
0-65 Mud
65-240 Clay
240-243 Silt, ASH R4
243-332 Mud
332-335 Silt, ASH R4
335-350 Mud
350-351 Silt, ASH ?
351-440 Clay
440-445 Silt, ASH R3
445-513 Mud
513-515 Silt, ASH ?
515-570 Mud
570-573 Silt, ASH ?
573-692 Mud
692-698 Silt, ASH R3
698-764 Mud
764-767 Silt, ASH ? R4
767-1035 Mud with silt
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4954
4928
5177
4970
5177
4928
5177
4970
5282
5177
4970
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.64
1.59
1.85
1.67
1.85
1.59
1.85
1.67
1.91
1.85
1.67
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

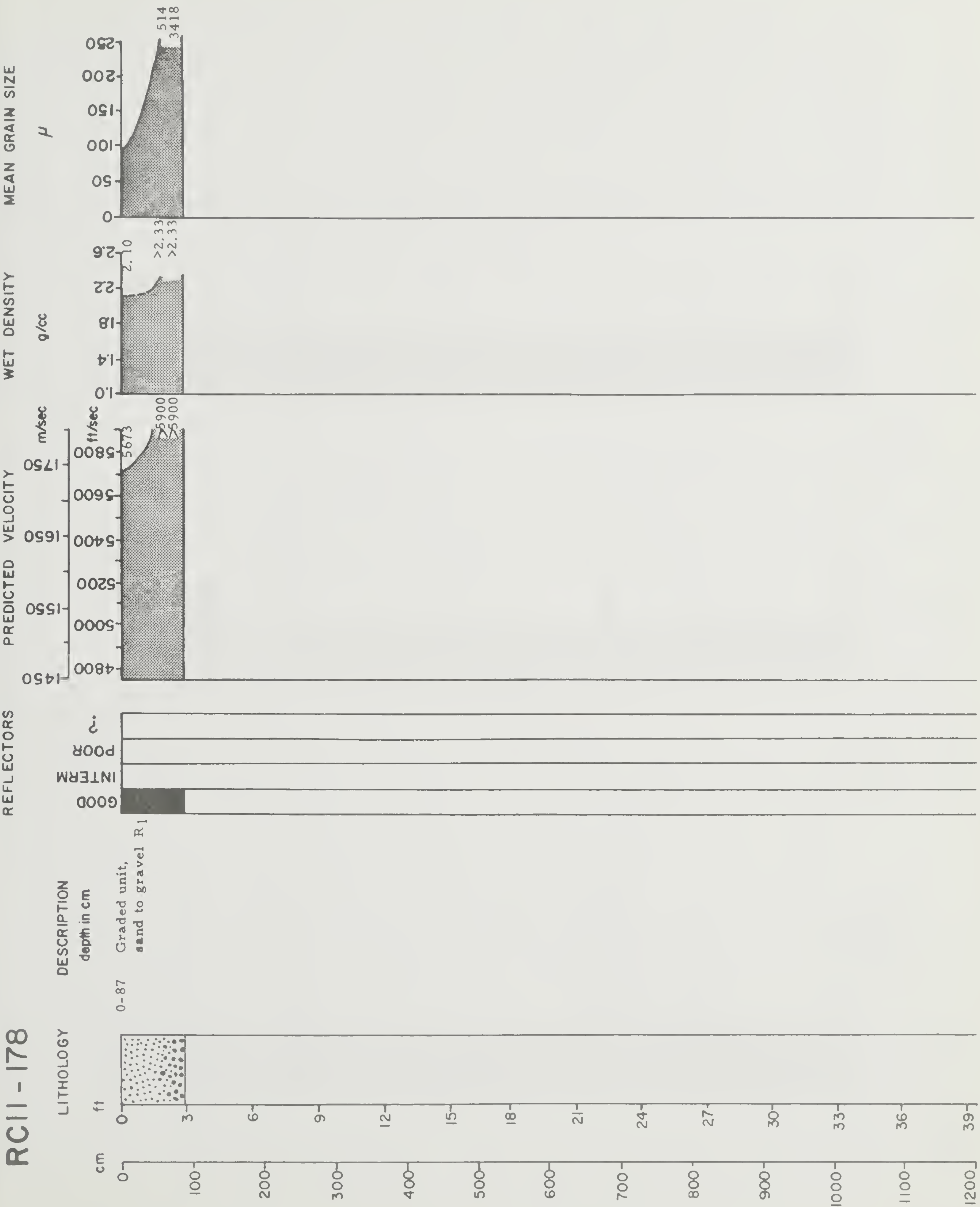

RC11 - 173
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-1205 Mud with silt
603-616 Pocket, sand and silt, gravelly R_2
646-654 Pocket, silt R_4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4947
5823
5315
4950
WET DENSITY
g/cc
1.62
2.14
1.93
1.63
MEAN GRAIN SIZE
μ


RC11 - 174
LITHOLOGY
DESCRIPTION
depth in cm
0-356 Gravel, muddy sandy
R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
2214
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

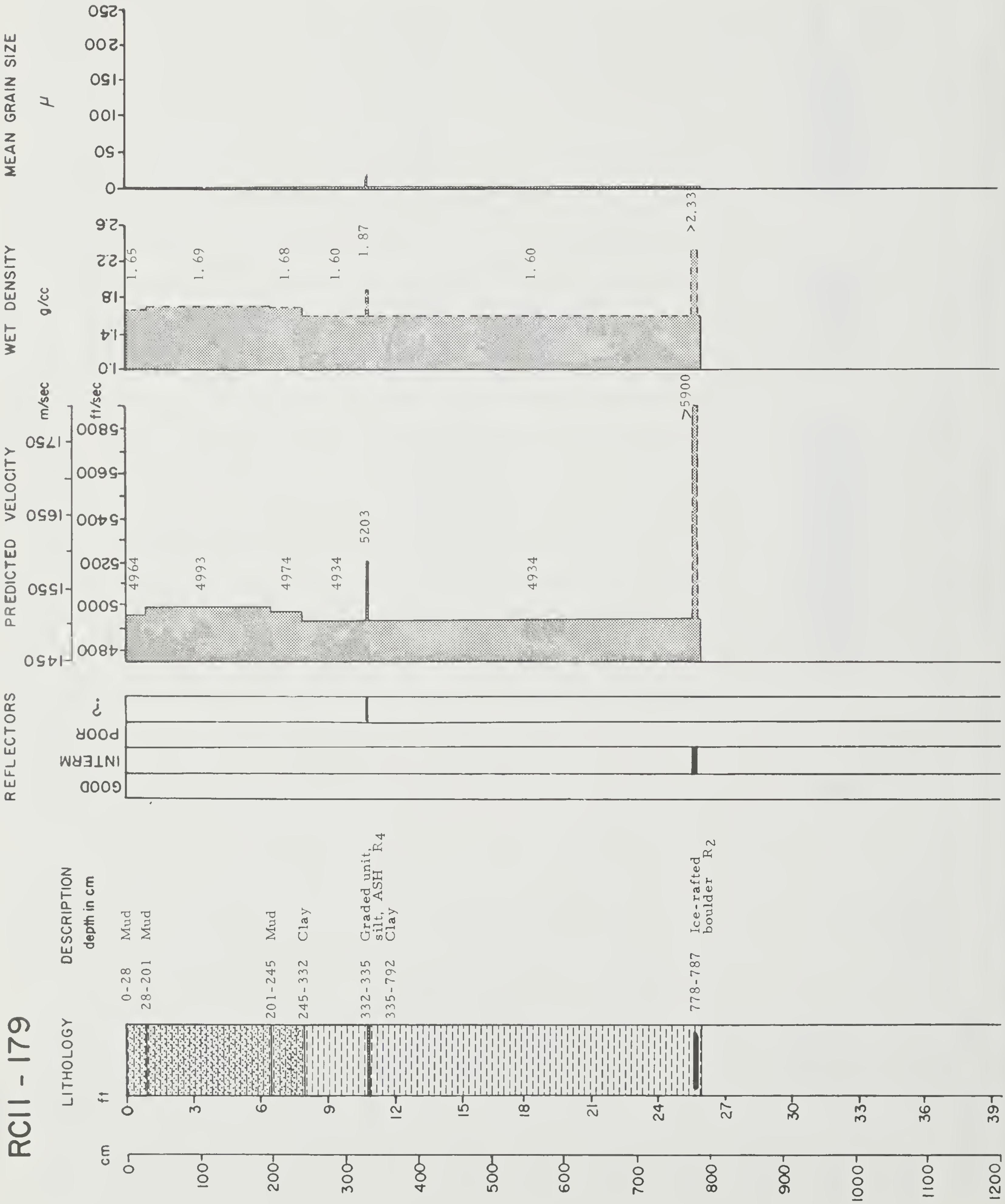

RC11 - 175
LITHOLOGY
DESCRIPTION depth in cm
0-29 Gravel, muddy sandy
29-95 Sand, gravelly muddy
95-123 Gravel, muddy sandy
123-145 Sand, gravelly muddy
145-183 Gravel, muddy sandy
183-205 Sand, gravelly muddy
205-255 Gravel, muddy sandy
255-260 Silt, ASH
R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5381
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.97
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
1208
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

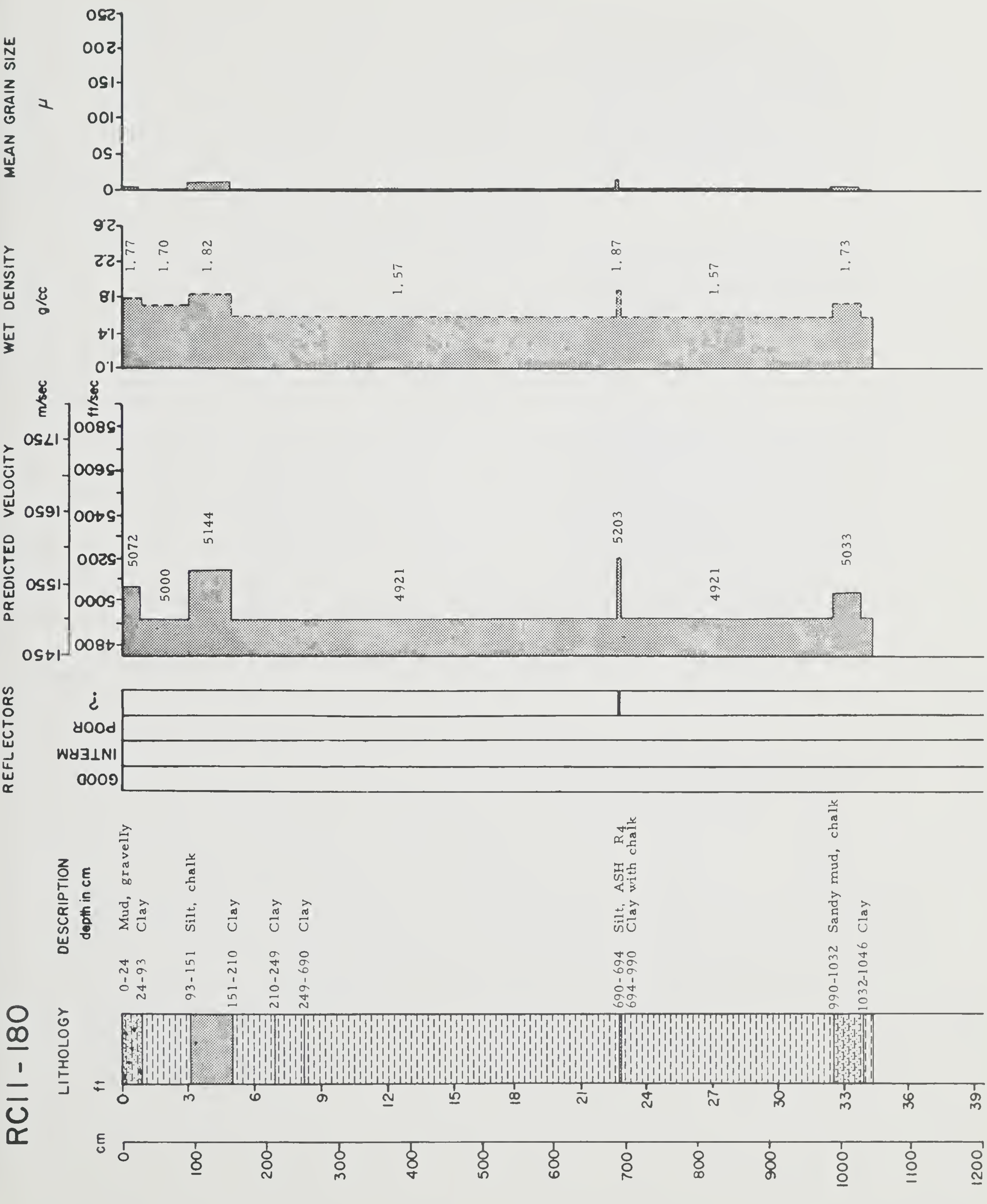

RC11 - 176
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-40 Mud
40-48 Mud
48-60 Mud
60-320 Clay with silt
320-1035 Mud with silt
1014-1021 Ice-rafted pebble
R3 ?
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4948
4918
4921
4931
4892
4915
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.62
1.57
1.58
1.60
1.49
1.56
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39


RCII - 177
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-389 Clay with silt
384-389 Pocket, silt R4
389-401 Sand R2
401-437 Clay with silt
437-464 Sand R1
464-481 Clay
481-491 Sand R2
491-501 Clay
501-505 Sand R3
505-533 Clay
533-551 Sand R2
551-708 Mud
690-693 Silt R4
705-708 Silt R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4928
6086
6109
6109
6109
6109
4964
5423
5423
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.58
2.22
2.22
2.22
2.22
2.22
1.66
1.98
1.98
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
234



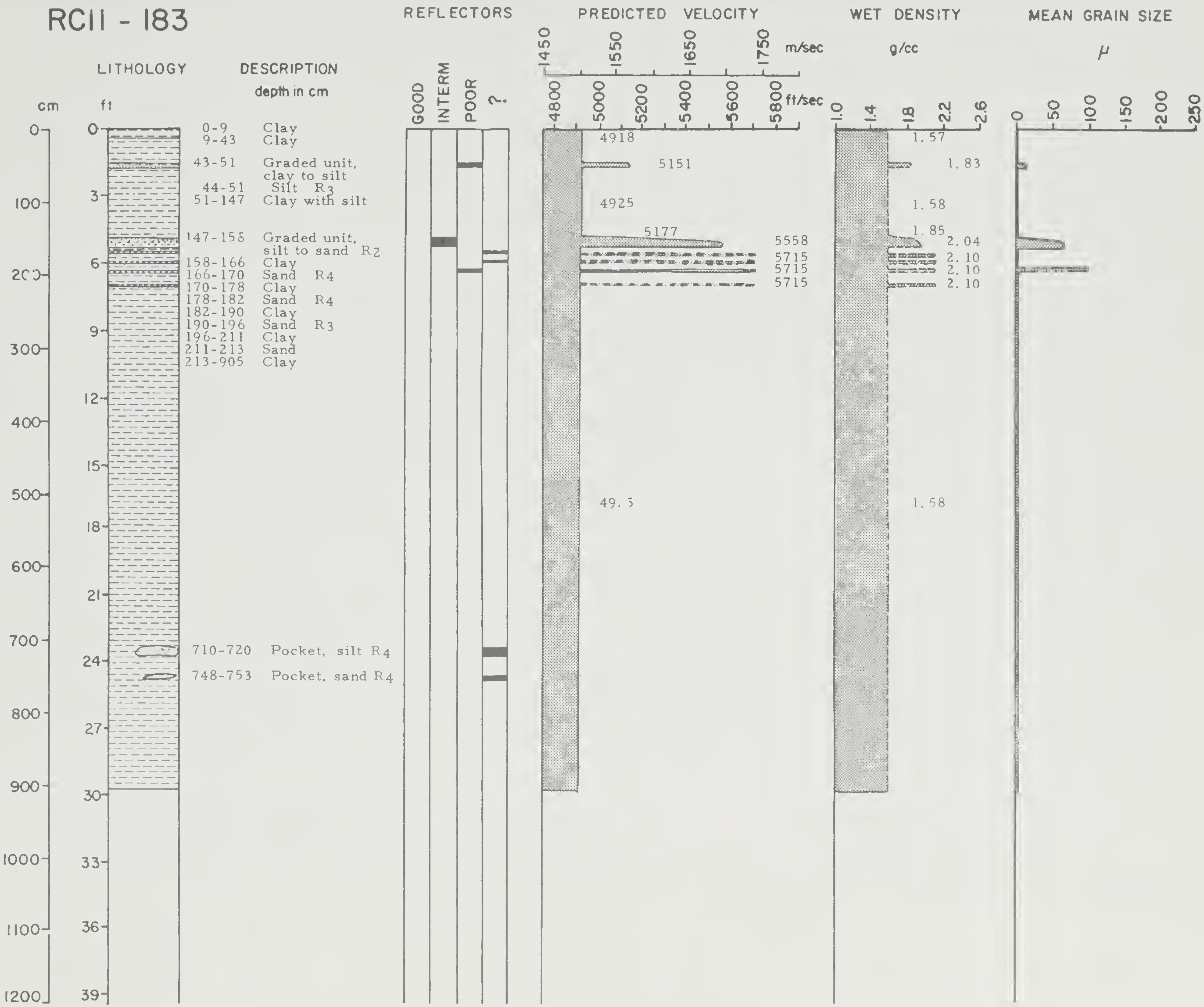
RC11 - 178
LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-87 Graded unit, sand to gravel R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
5673
>5900
>5900
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
2.10
>2.33
>2.33
MEAN GRAIN SIZE
μ
0 50 100 150 200 250
514
3418


RC11 - 179
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
DESCRIPTION
depth in cm
0-28 Mud
28-201 Mud
201-245 Mud
245-332 Clay
332-335 Graded unit, silt, ASH R4
335-792 Clay
778-787 Ice-rafted boulder R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4964
4993
4974
4934
5203
4934
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.65
1.69
1.68
1.60
1.87
1.60
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

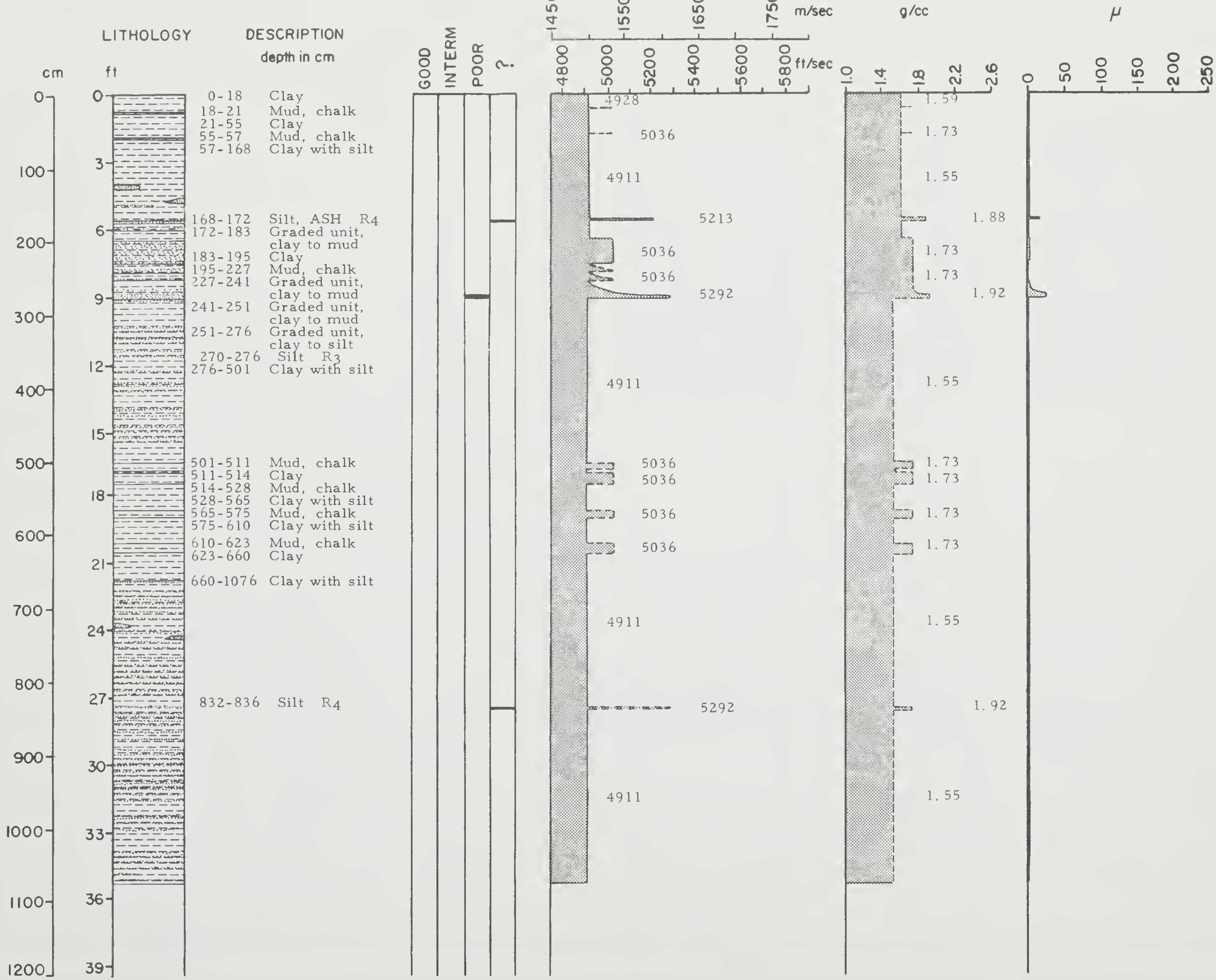

RC11-180
LITHOLOGY
DESCRIPTION
depth in cm
0-24 Mud, gravelly
24-93 Clay
93-151 Silt, chalk
151-210 Clay
210-249 Clay
249-690 Clay
690-694 Silt, ASH R4
694-990 Clay with chalk
990-1032 Sandy mud, chalk
1032-1046 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450 1550 1650 1750
4800 5000 5200 5400 5600 5800
5072
5000
5144
4921
5203
4921
5033
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.77
1.70
1.82
1.57
1.87
1.57
1.73
MEAN GRAIN SIZE
μ
0 50 100 150 200 250
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39

RC11 - 181

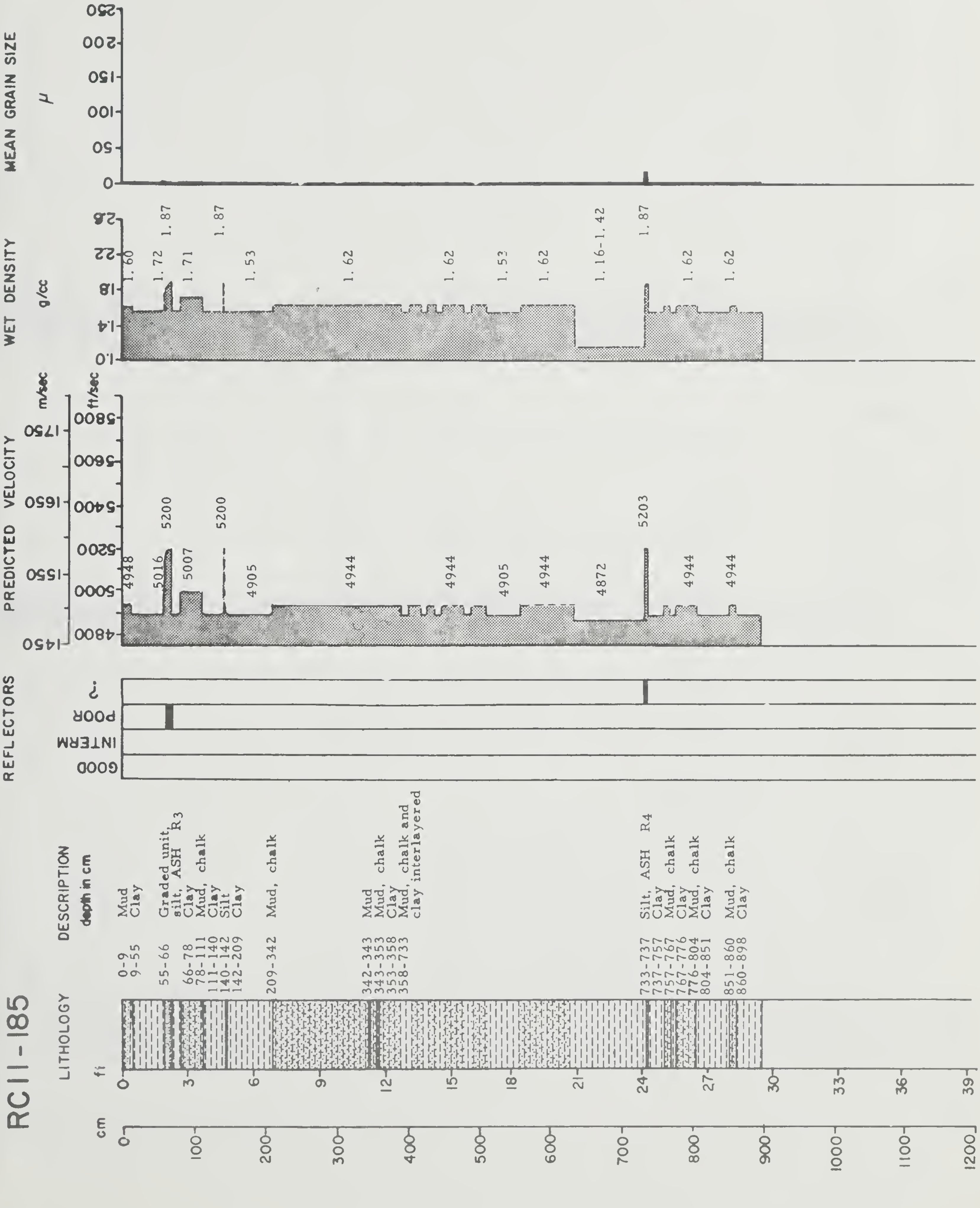

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-22 Sand, slightly R1 muddy gravelly fine
22-64 Sand, slightly R1 gravelly very coarse
64-397 Gravel, sandy R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
>5900
>5900
>5900
WET DENSITY
g/cc
2.28
>2.33
>2.33
MEAN GRAIN SIZE
μ
351
1162
2941

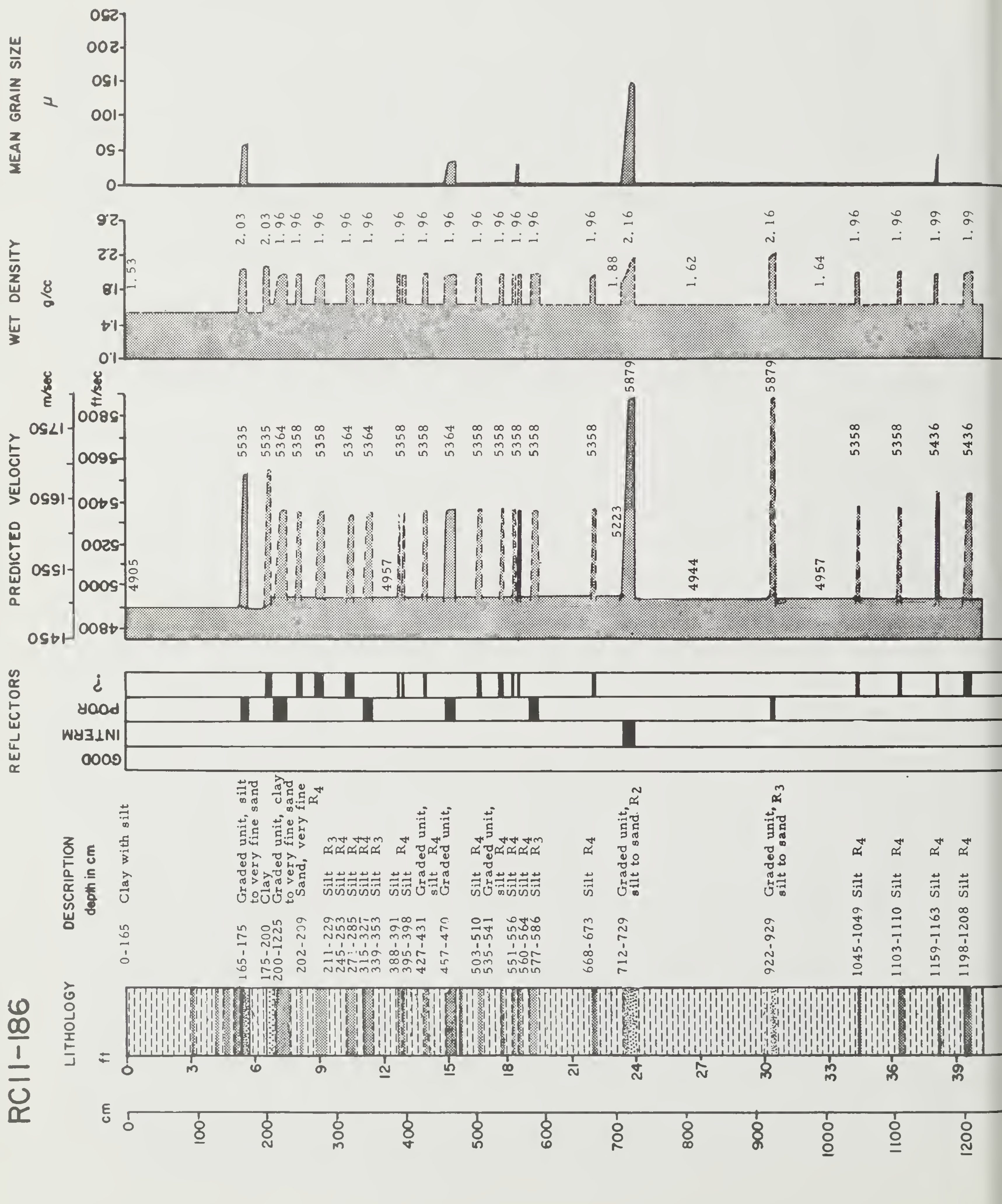

RC11 - 183
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-9 Clay
9-43 Clay
43-51 Graded unit, clay to silt
44-51 Silt R3
51-147 Clay with silt
147-158 Graded unit, silt to sand R2
158-166 Clay
166-170 Sand R4
170-178 Clay
178-182 Sand R4
182-190 Clay
190-196 Sand R3
196-211 Clay
211-213 Sand
213-905 Clay
710-720 Pocket, silt R4
748-753 Pocket, sand R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4918
5151
4925
5177
5558
5715
5715
5715
49.5
WET DENSITY
g/cc
1.57
1.83
1.58
1.85
2.04
2.10
2.10
2.10
1.58
MEAN GRAIN SIZE
μ

RC11 - 184

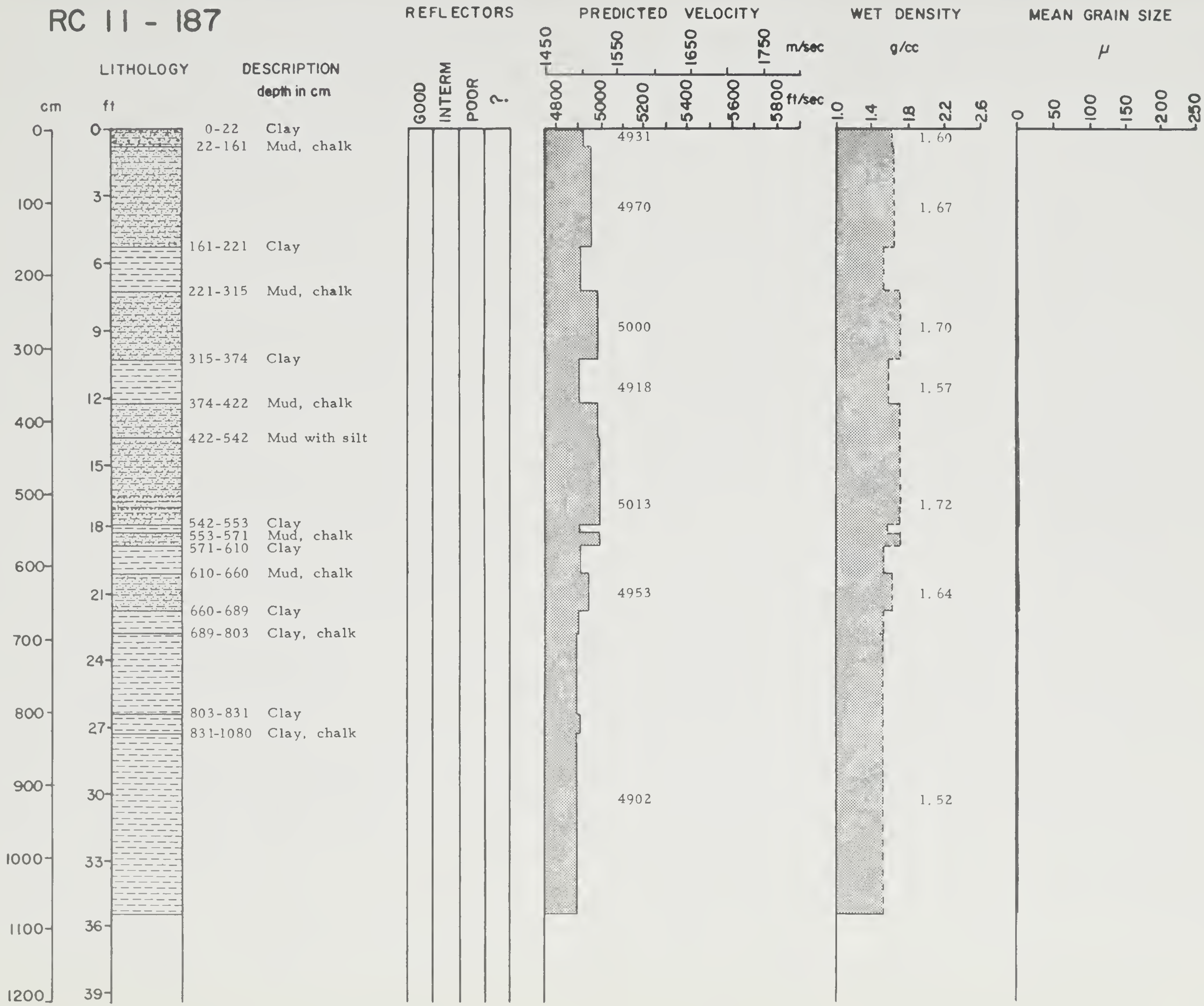


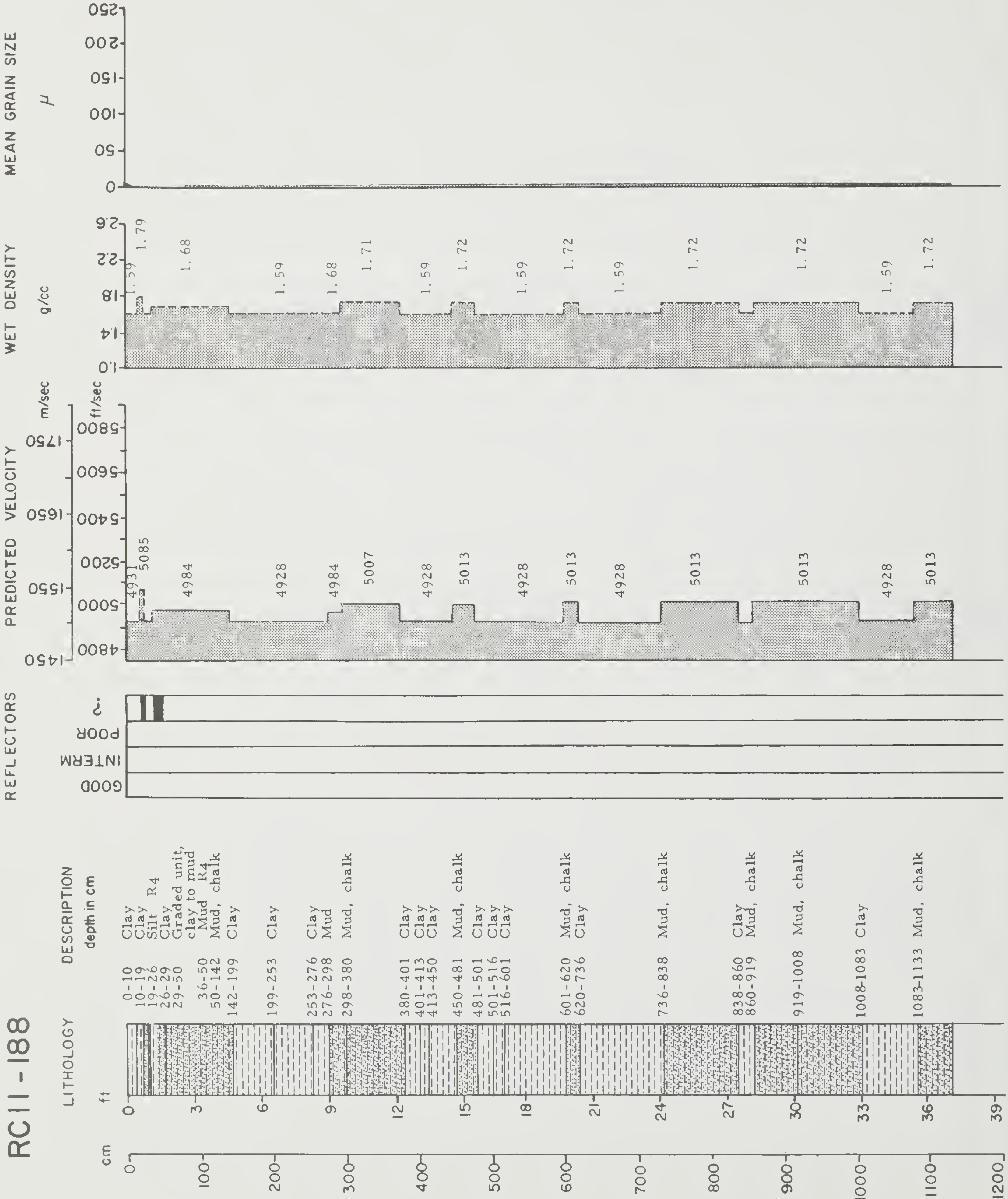
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-18 Clay
18-21 Mud, chalk
21-55 Clay
55-57 Mud, chalk
57-168 Clay with silt
168-172 Silt, ASH R4
172-183 Graded unit, clay to mud
183-195 Clay
195-227 Mud, chalk
227-241 Graded unit, clay to mud
241-251 Graded unit, clay to mud
251-276 Graded unit, clay to silt
270-276 Silt R3
276-501 Clay with silt
501-511 Mud, chalk
511-514 Clay
514-528 Mud, chalk
528-565 Clay with silt
565-575 Mud, chalk
575-610 Clay with silt
610-623 Mud, chalk
623-660 Clay
660-1076 Clay with silt
832-836 Silt R4
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4928
5036
4911
5213
5036
5036
5292
4911
5036
5036
5036
5036
4911
5292
4911
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.59
1.73
1.55
1.88
1.73
1.73
1.92
1.55
1.73
1.73
1.73
1.73
1.55
1.92
1.55
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

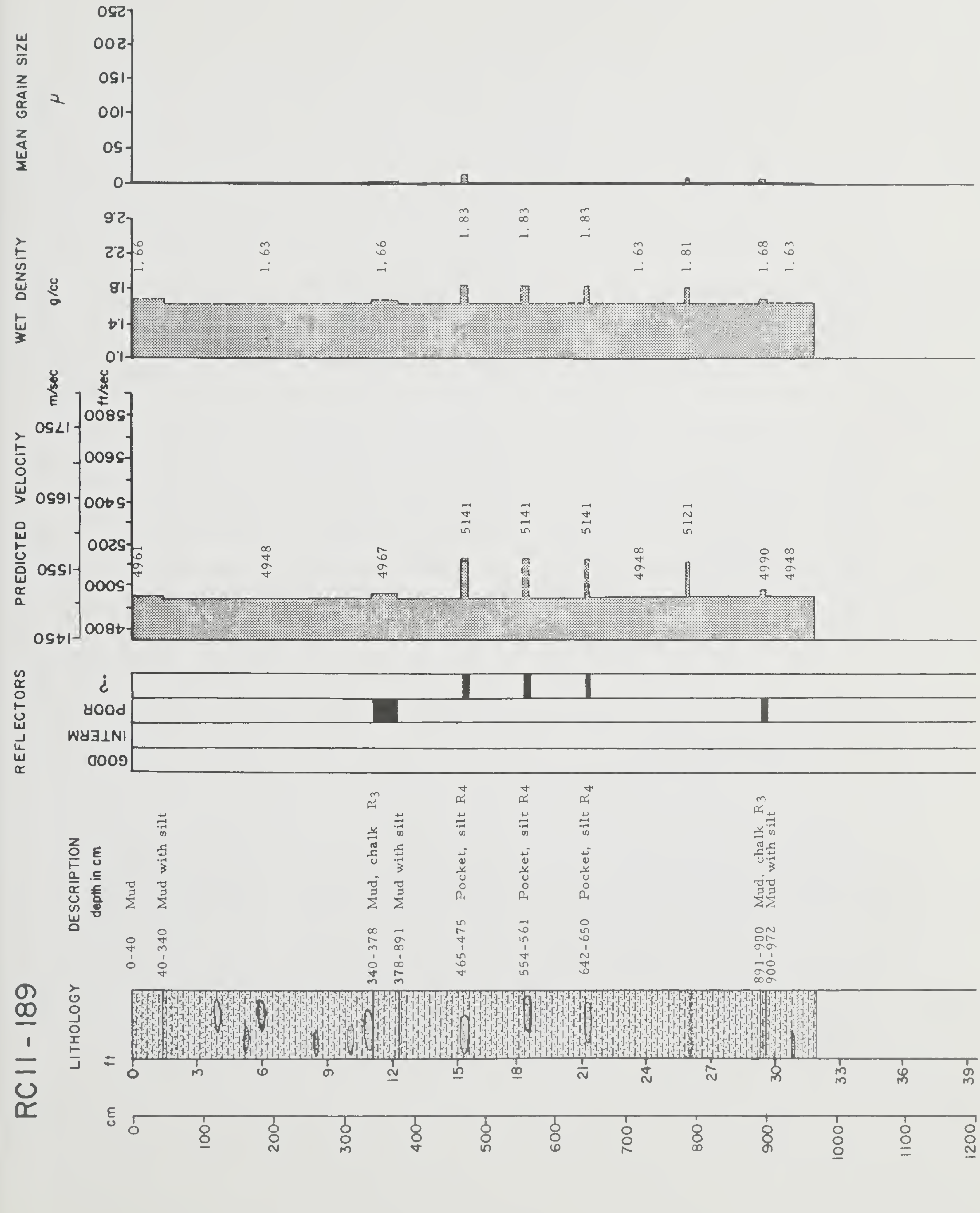

RC11-185
LITHOLOGY
DESCRIPTION
depth in cm
0-9 Mud
9-55 Clay
55-66 Graded unit, silt, ASH R3
66-78 Clay
78-111 Mud, chalk
111-140 Clay
140-142 Silt
142-209 Clay
209-342 Mud, chalk
342-343 Mud
343-353 Mud, chalk
353-358 Clay
358-733 Mud, chalk and clay interlayered
733-737 Silt, ASH R4
737-757 Clay
757-767 Mud, chalk
767-776 Clay
776-804 Mud, chalk
804-851 Clay
851-860 Mud, chalk
860-898 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4948
5016
5200
5007
5200
4905
4944
4944
4905
4944
4872
5203
4944
4944
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.60
1.72
1.87
1.71
1.87
1.53
1.62
1.62
1.53
1.62
1.16-1.42
1.87
1.62
1.62
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

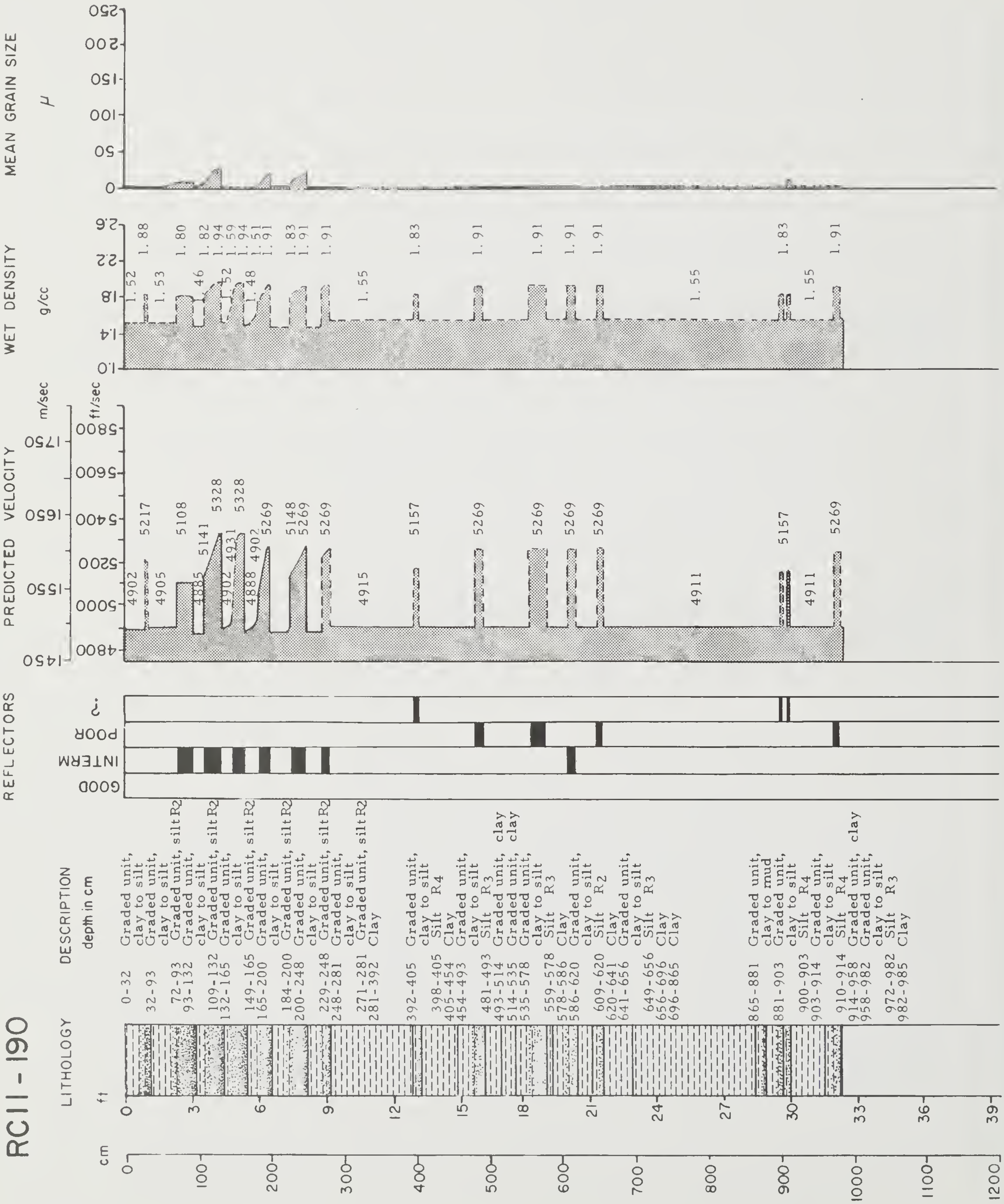

RC11-186
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-165 Clay with silt
165-175 Graded unit, silt to very fine sand
175-200 Clay
200-1225 Graded unit, clay to very fine sand
202-209 Sand, very fine R4
211-229 Silt R3
245-253 Silt R4
271-285 Silt R4
315-327 Silt R4
339-353 Silt R3
388-391 Silt R4
395-398 Silt
427-431 Graded unit, silt R4
457-470 Graded unit,
503-510 Silt R4
535-541 Graded unit, silt R4
551-556 Silt R4
560-564 Silt R4
577-586 Silt R3
668-673 Silt R4
712-729 Graded unit, silt to sand R2
922-929 Graded unit, silt to sand R3
1045-1049 Silt R4
1103-1110 Silt R4
1159-1163 Silt R4
1198-1208 Silt R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ

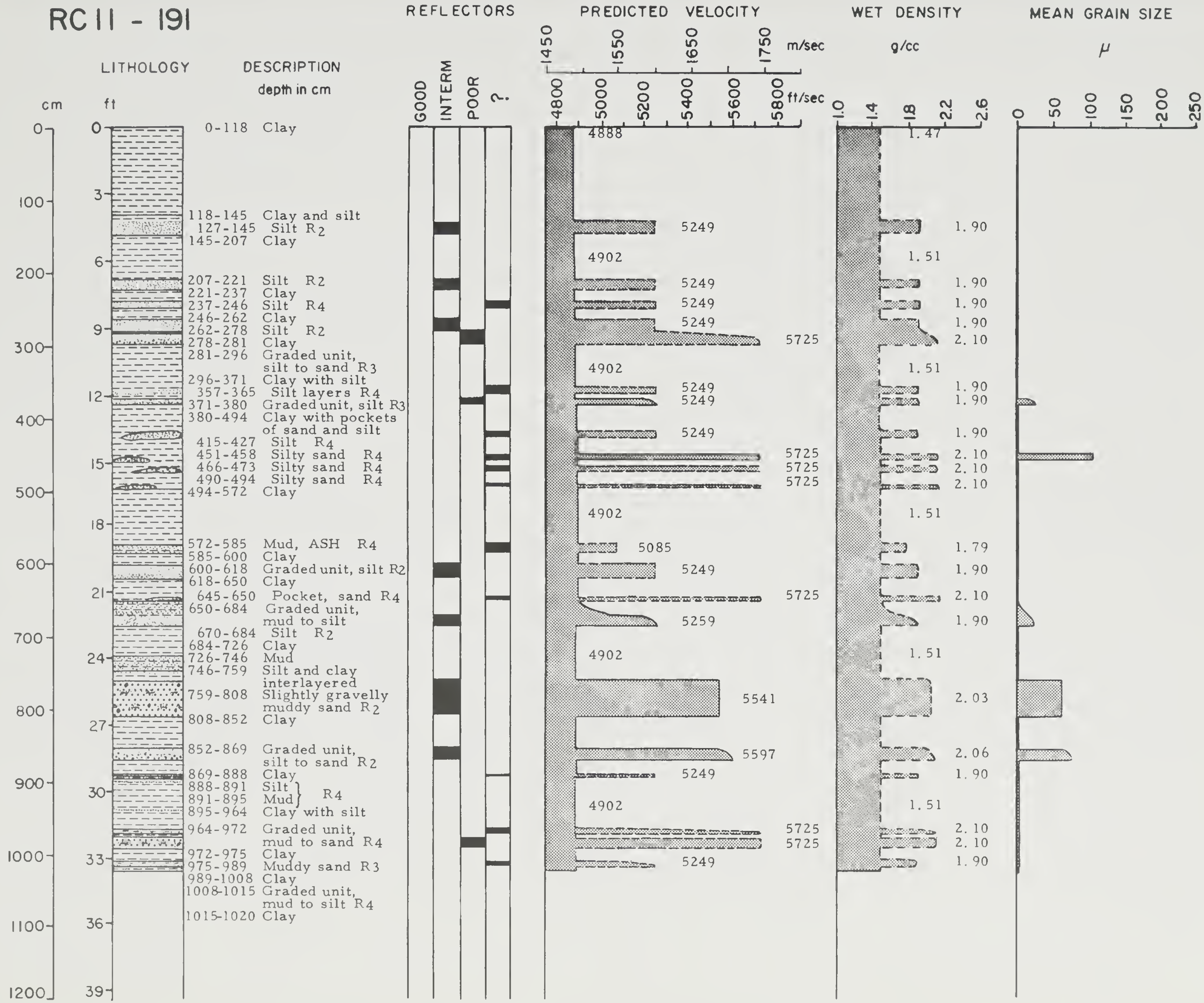
RC 11 - 187


LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-22 Clay
22-161 Mud, chalk
161-221 Clay
221-315 Mud, chalk
315-374 Clay
374-422 Mud, chalk
422-542 Mud with silt
542-553 Clay
553-571 Mud, chalk
571-610 Clay
610-660 Mud, chalk
660-689 Clay
689-803 Clay, chalk
803-831 Clay
831-1080 Clay, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4931
4970
5000
4918
5013
4953
4902
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.60
1.67
1.70
1.57
1.72
1.64
1.52
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39

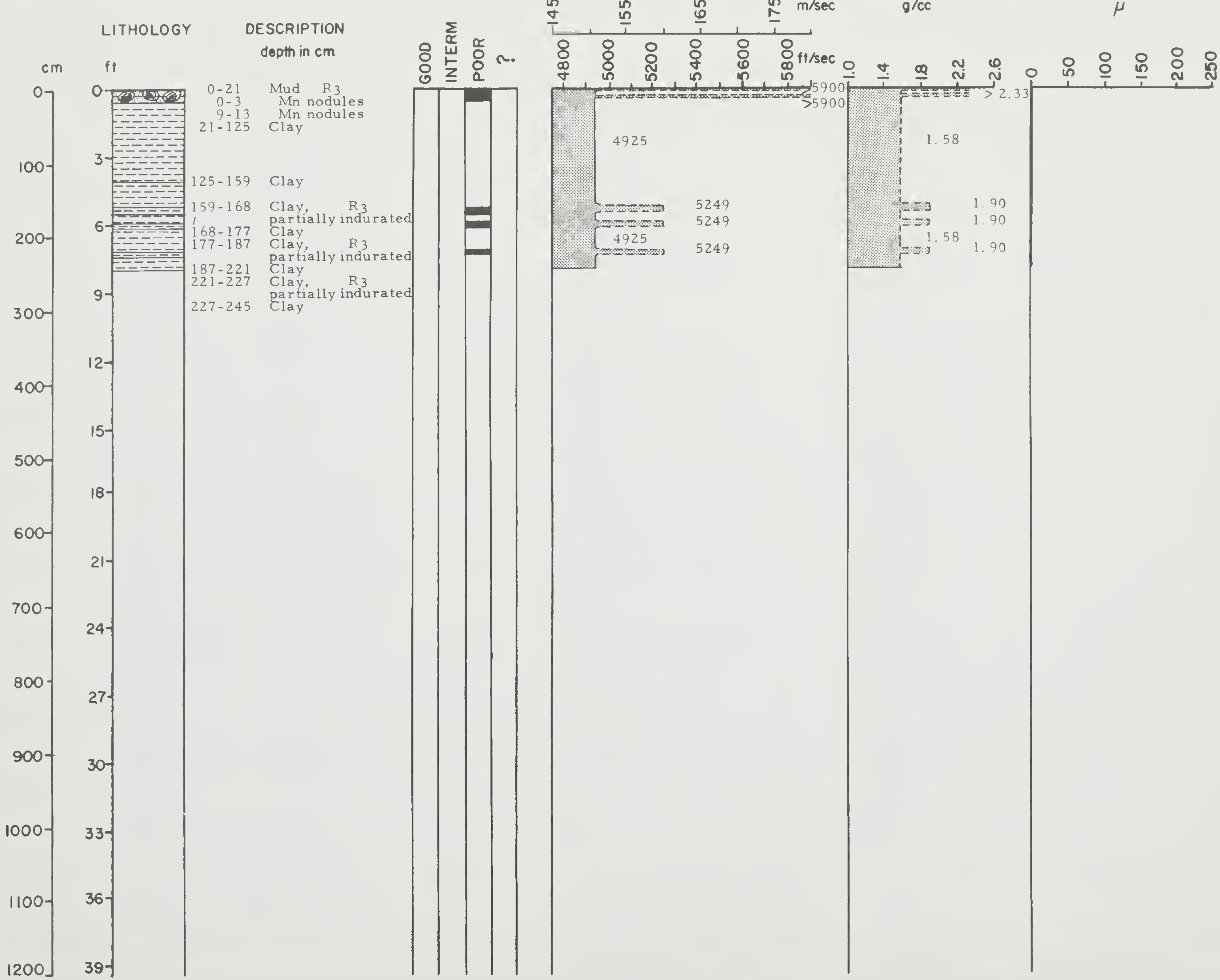

RC11-188
LITHOLOGY
DESCRIPTION
depth in cm
0-10 Clay
10-19 Clay
19-26 Silt R4
26-29 Clay
29-50 Graded unit, clay to mud
36-50 Mud R4
50-142 Mud, chalk
142-199 Clay
199-253 Clay
253-276 Clay
276-298 Mud
298-380 Mud, chalk
380-401 Clay
401-413 Clay
413-450 Clay
450-481 Mud, chalk
481-501 Clay
501-516 Clay
516-601 Clay
601-620 Mud, chalk
620-736 Clay
736-838 Mud, chalk
838-860 Clay
860-919 Mud, chalk
919-1008 Mud, chalk
1008-1083 Clay
1083-1133 Mud, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4931
5085
4984
4928
4984
5007
4928
5013
4928
5013
4928
5013
5013
4928
5013
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.59
1.79
1.68
1.59
1.68
1.71
1.59
1.72
1.59
1.72
1.59
1.72
1.72
1.59
1.72
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

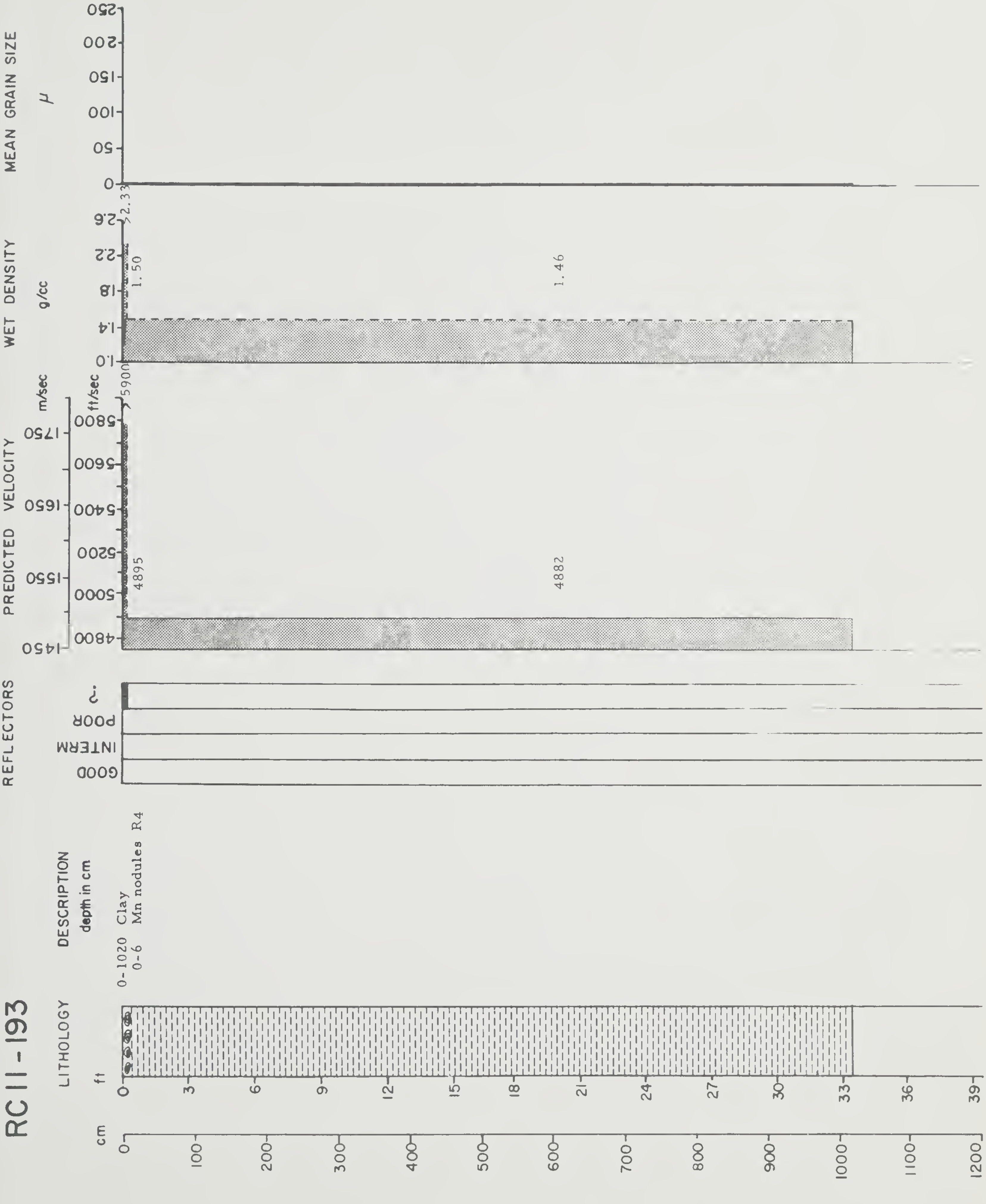

RC11 - 189
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-40 Mud
40-340 Mud with silt
340-378 Mud, chalk R3
378-891 Mud with silt
465-475 Pocket, silt R4
554-561 Pocket, silt R4
642-650 Pocket, silt R4
891-900 Mud, chalk R3
900-972 Mud with silt
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450 1550 1650 1750
4800 5000 5200 5400 5600 5800
4961 4948 4967 5141 5141 5141 4948 5121 4990 4948
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.66 1.63 1.66 1.83 1.83 1.83 1.63 1.81 1.68 1.63
MEAN GRAIN SIZE
μ
0 50 100 150 200 250
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
0 3 6 9 12 15 18 21 24 27 30 33 36 39


RC11-190
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-32 Graded unit, clay to silt
32-93 Graded unit, clay to silt
72-93 Graded unit, silt R2
93-132 Graded unit, clay to silt
109-132 Graded unit, silt R2
132-165 Graded unit, clay to silt
149-165 Graded unit, silt R2
165-200 Graded unit, clay to silt
184-200 Graded unit, silt R2
200-248 Graded unit, clay to silt
229-248 Graded unit, silt R2
248-281 Graded unit, clay to silt
271-281 Graded unit, silt R2
281-392 Clay
392-405 Graded unit, clay to silt
398-405 Silt R4
405-454 Clay
454-493 Graded unit, clay to silt
481-493 Silt R3
493-514 Graded unit, clay
514-535 Graded unit, clay
535-578 Graded unit, clay to silt
559-578 Silt R3
578-586 Clay
586-620 Graded unit, clay to silt
609-620 Silt R2
620-641 Clay
641-656 Graded unit, clay to silt
649-656 Silt R3
656-696 Clay
696-865 Clay
865-881 Graded unit, clay to mud
881-903 Graded unit, clay to silt
900-903 Silt R4
903-914 Graded unit, clay to silt
910-914 Silt R4
914-958 Graded unit, clay
958-982 Graded unit, clay to silt
972-982 Silt R3
982-985 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ

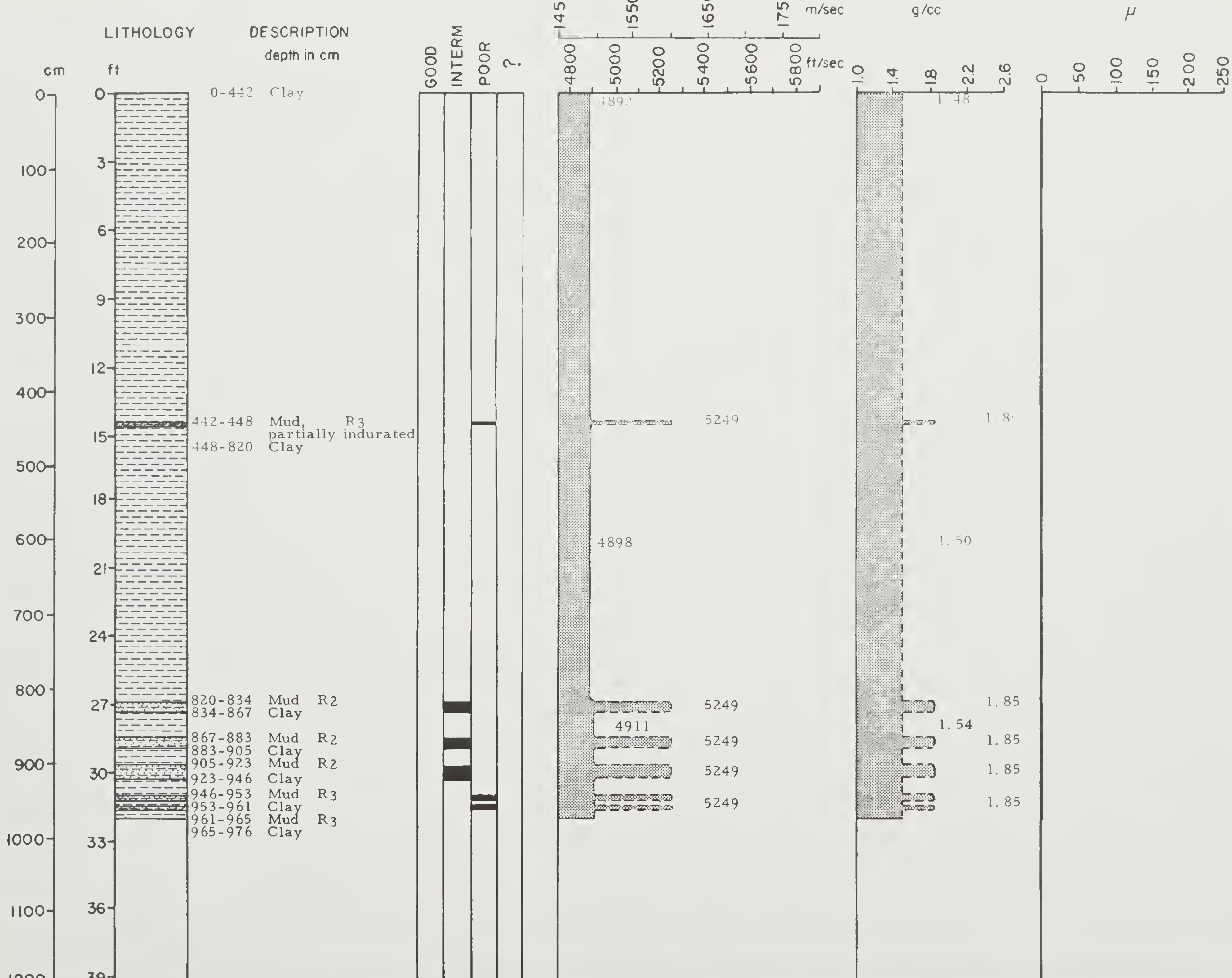

RC11 - 191
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-118 Clay
118-145 Clay and silt
127-145 Silt R2
145-207 Clay
207-221 Silt R2
221-237 Clay
237-246 Silt R4
246-262 Clay
262-278 Silt R2
278-281 Clay
281-296 Graded unit, silt to sand R3
296-371 Clay with silt
357-365 Silt layers R4
371-380 Graded unit, silt R3
380-494 Clay with pockets of sand and silt
415-427 Silt R4
451-458 Silty sand R4
466-473 Silty sand R4
490-494 Silty sand R4
494-572 Clay
572-585 Mud, ASH R4
585-600 Clay
600-618 Graded unit, silt R2
618-650 Clay
645-650 Pocket, sand R4
650-684 Graded unit, mud to silt
670-684 Silt R2
684-726 Clay
726-746 Mud
746-759 Silt and clay interlayered
759-808 Slightly gravelly muddy sand R2
808-852 Clay
852-869 Graded unit, silt to sand R2
869-888 Clay
888-891 Silt
891-895 Mud
R4
895-964 Clay with silt
964-972 Graded unit, mud to sand R4
972-975 Clay
975-989 Muddy sand R3
989-1008 Clay
1008-1015 Graded unit, mud to silt R4
1015-1020 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ

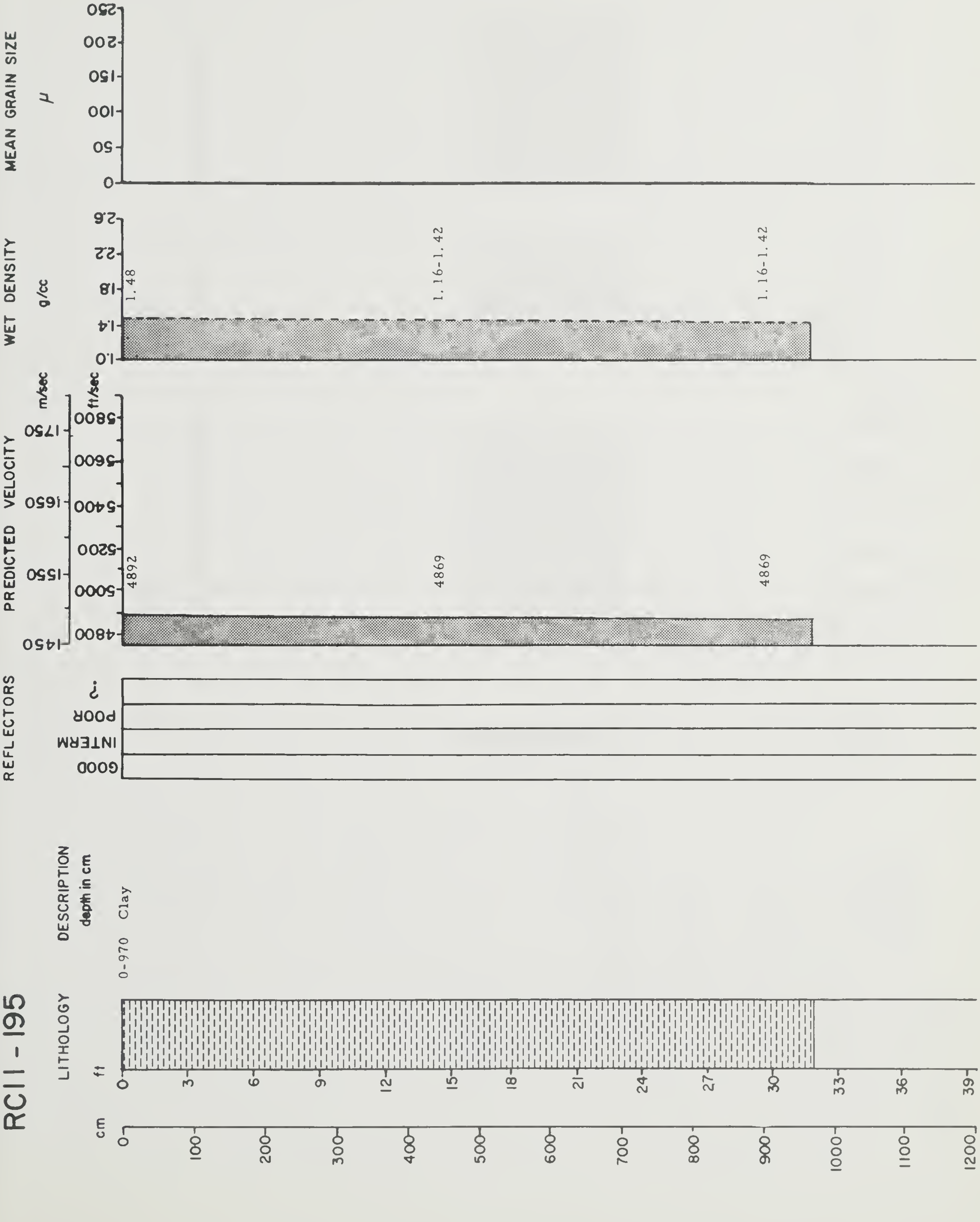
RC11-192

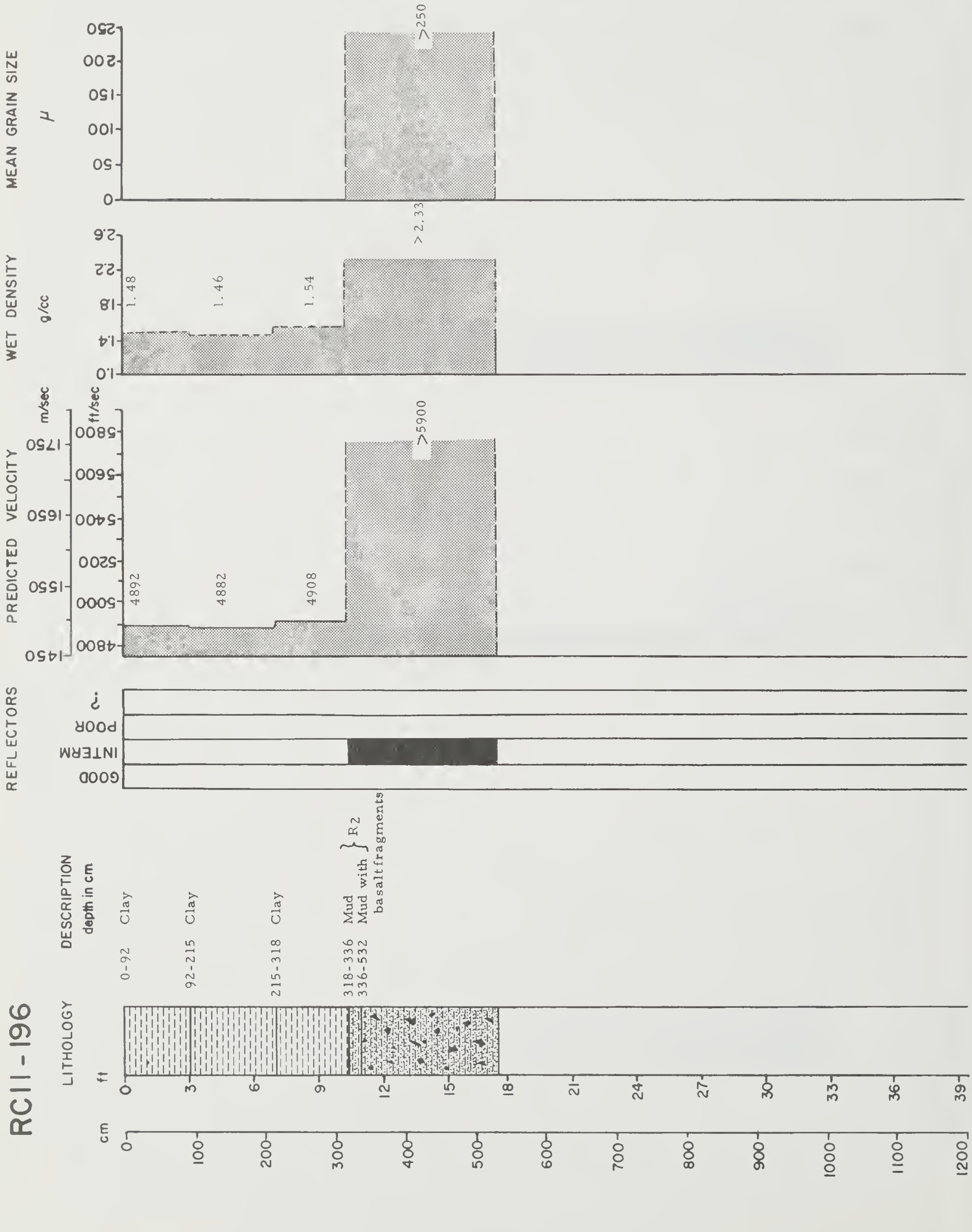

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-21 Mud R3
0-3 Mn nodules
9-13 Mn nodules
21-125 Clay
125-159 Clay
159-168 Clay, partially indurated R3
168-177 Clay
177-187 Clay, partially indurated R3
187-221 Clay
221-227 Clay, partially indurated R3
227-245 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
>5900
>5900
4925
5249
5249
4925
5249
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
> 2.33
1.58
1.90
1.90
1.58
1.90
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

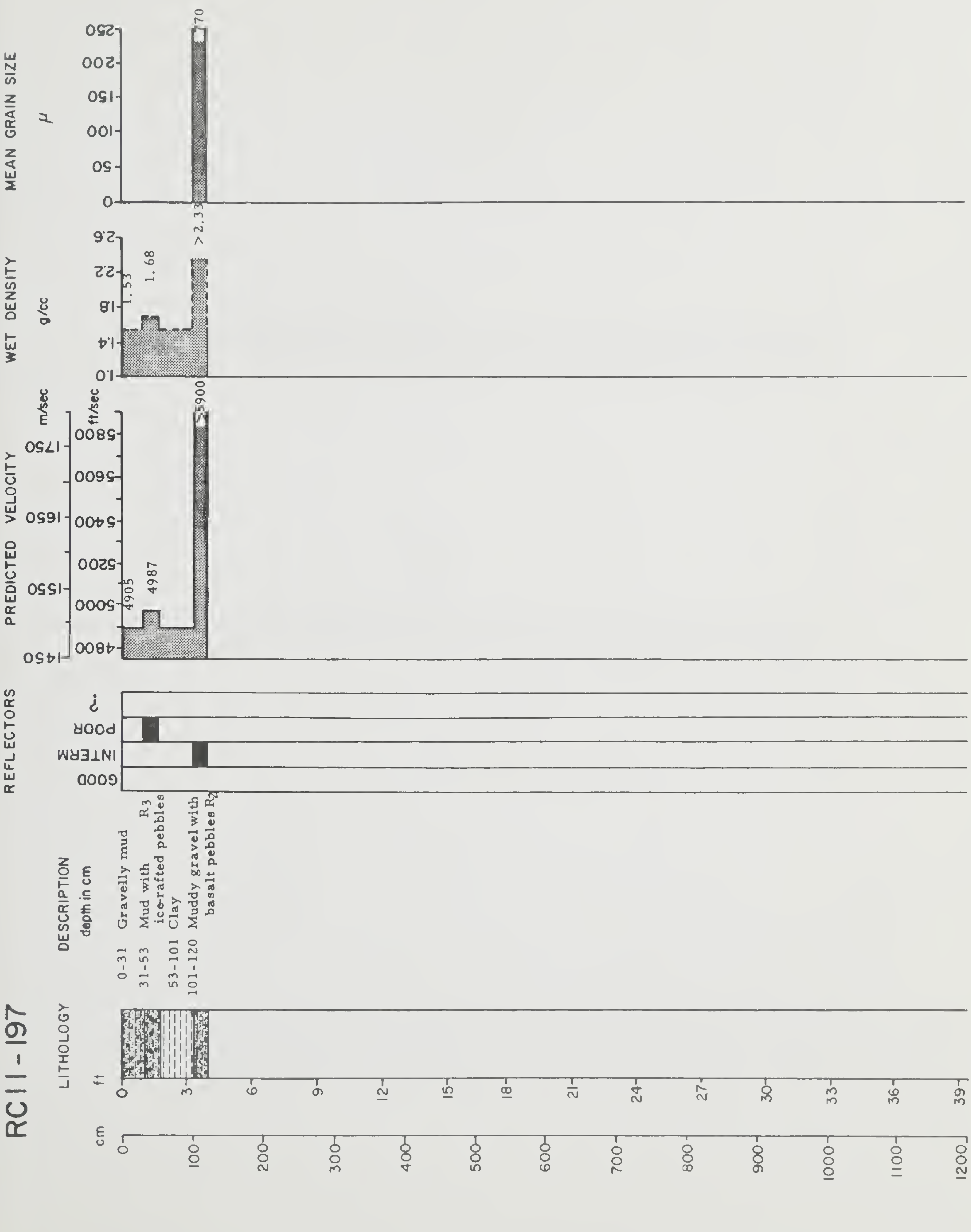

RC11-193
LITHOLOGY
DESCRIPTION
depth in cm
0-1020 Clay
0-6 Mn nodules R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5900
4895
4882
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
2.33
1.50
1.46
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

RC11-194

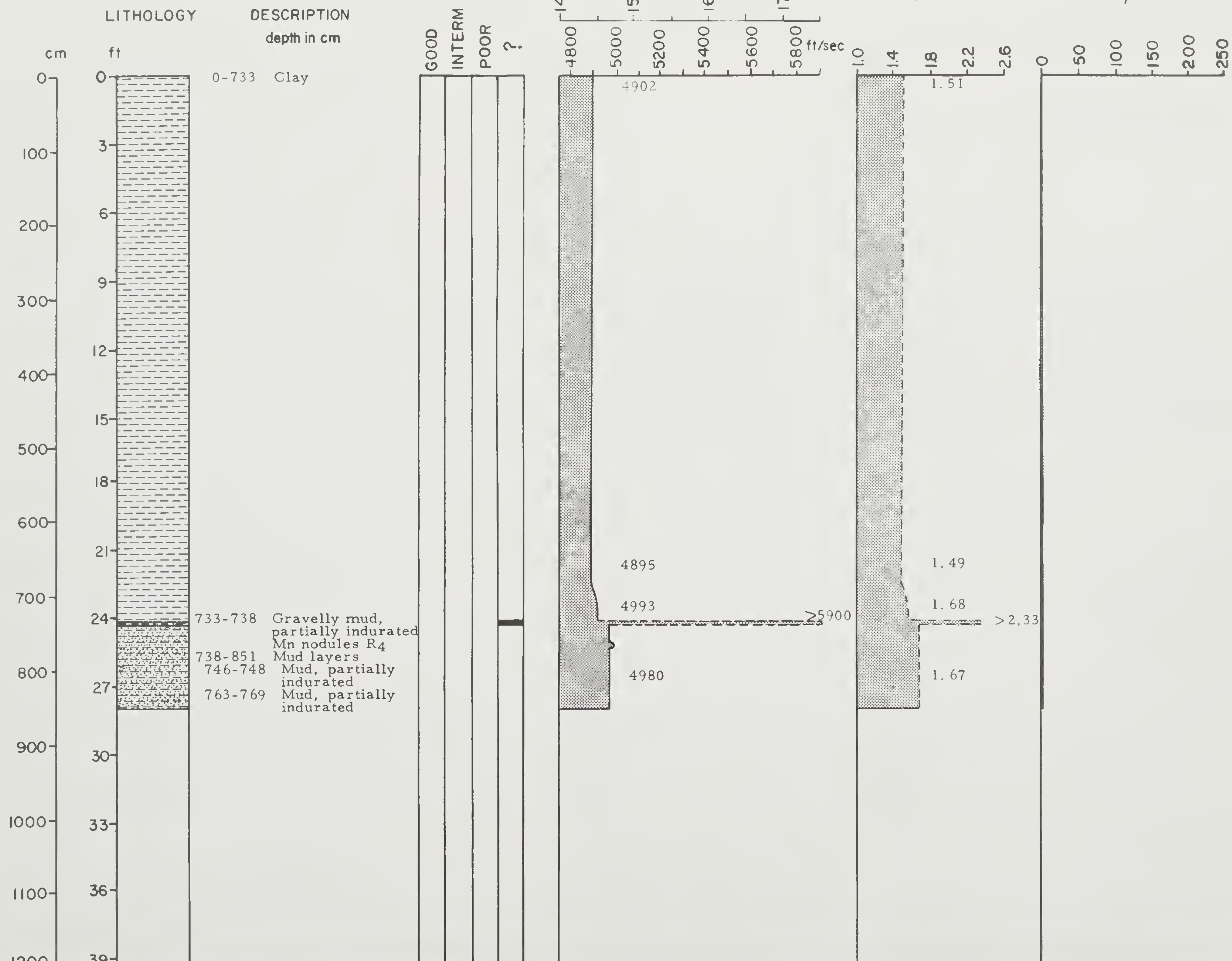

LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-442 Clay
442-448 Mud, partially indurated R3
448-820 Clay
820-834 Mud R2
834-867 Clay
867-883 Mud R2
883-905 Clay
905-923 Mud R2
923-946 Clay
946-953 Mud R3
953-961 Clay
961-965 Mud R3
965-976 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4898
5249
4911
WET DENSITY
g/cc
1.48
1.50
1.85
1.54
MEAN GRAIN SIZE
μ

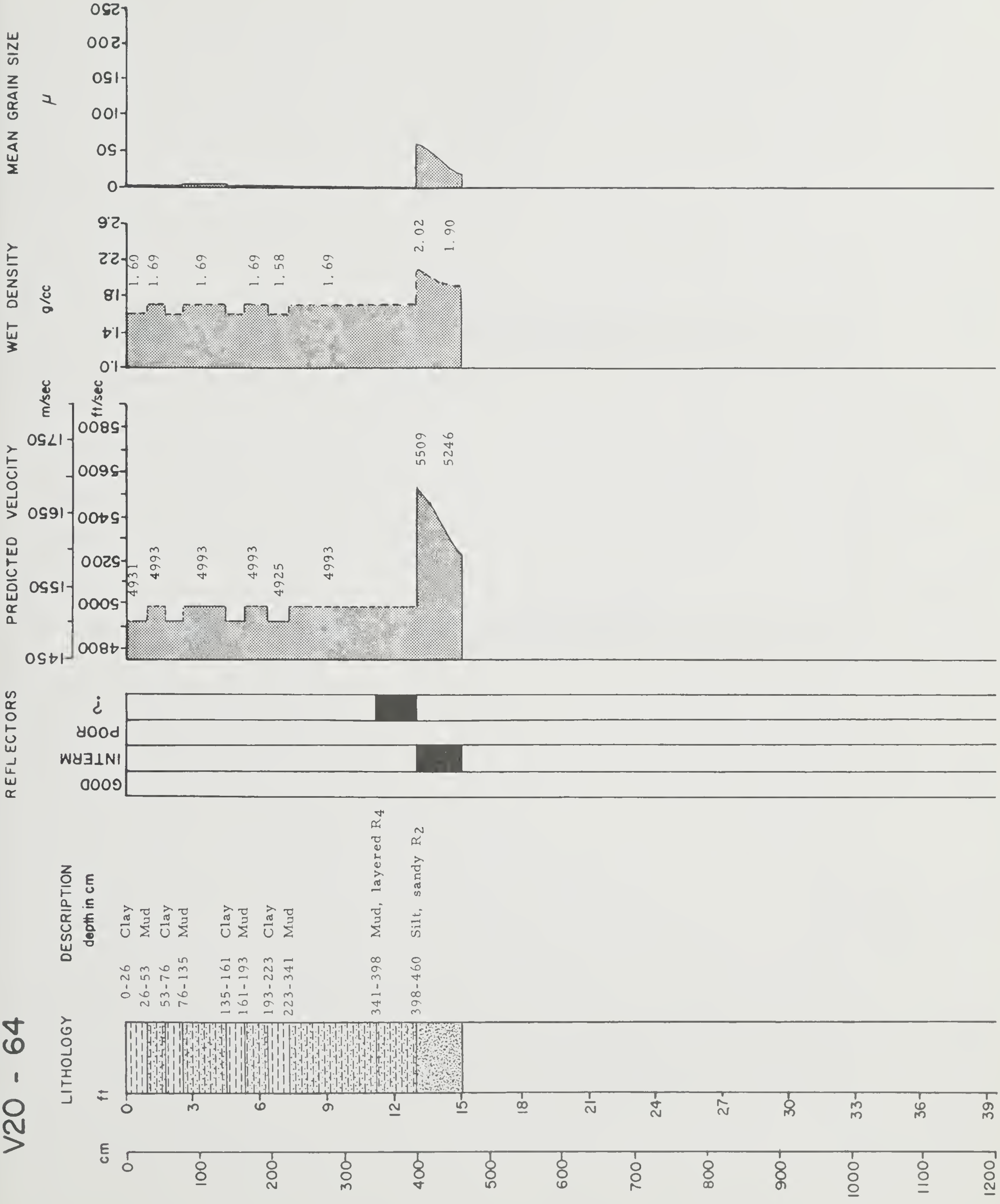

RC11-195
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.48
1.16-1.42
1.16-1.42
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4892
4869
4869
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-970 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

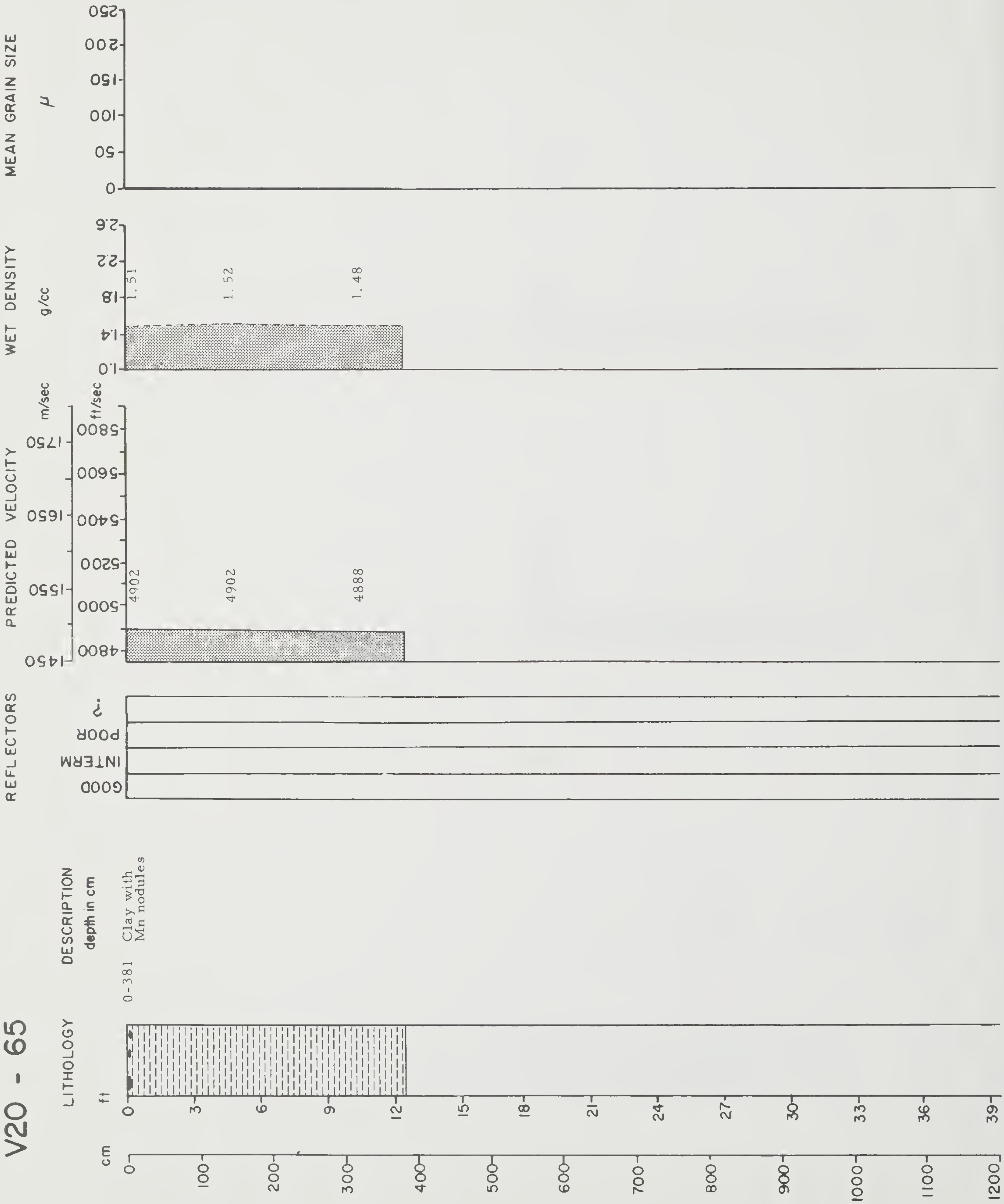

RC11-196
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-92 Clay
92-215 Clay
215-318 Clay
318-336 Mud
336-532 Mud with basalt fragments
R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4892
4882
4908
>5900
WET DENSITY
g/cc
1.48
1.46
1.54
>2.33
MEAN GRAIN SIZE
μ
>250

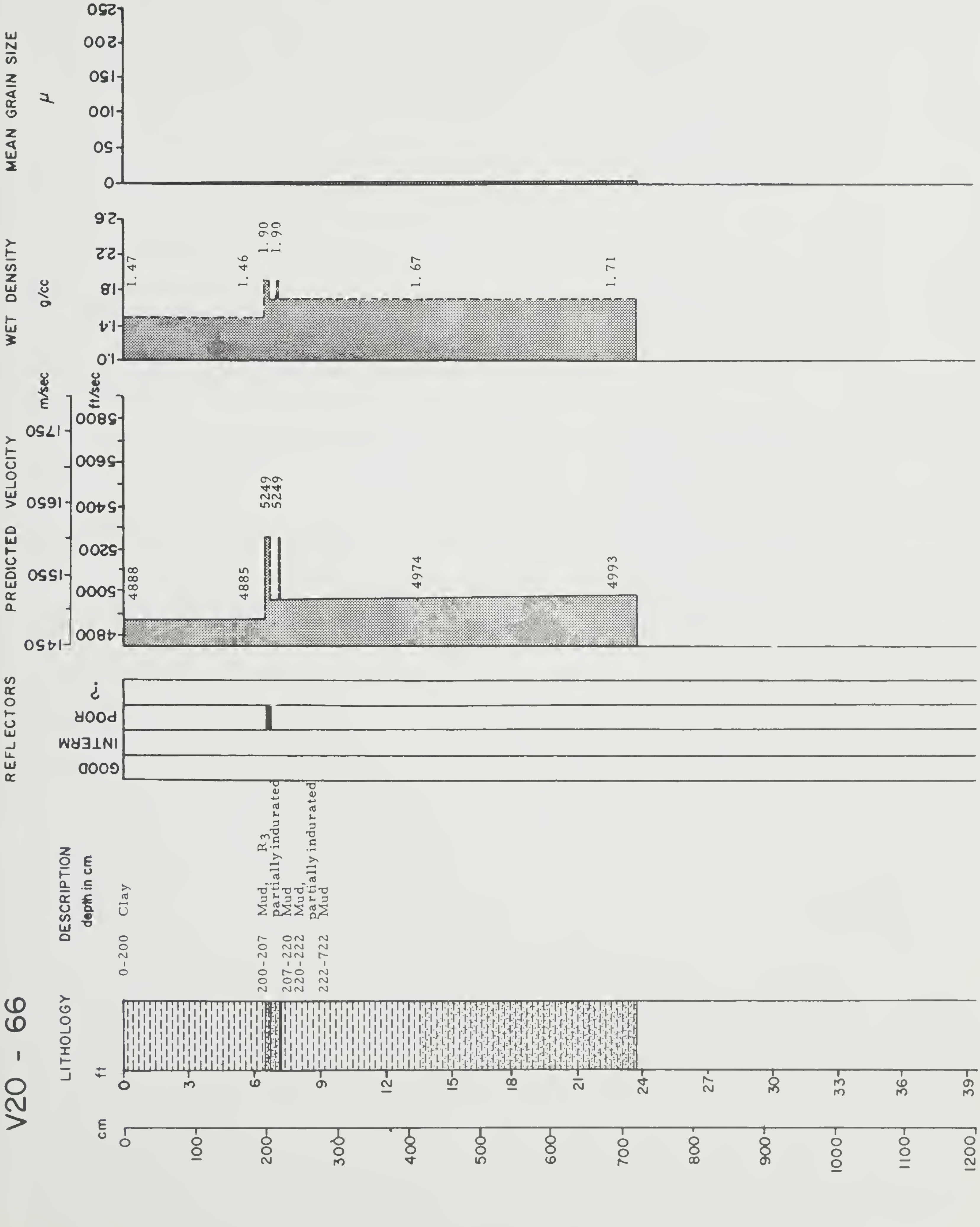

RC11-197
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-31 Gravelly mud
31-53 Mud with ice-rafted pebbles R3
53-101 Clay
101-120 Muddy gravel with basalt pebbles R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4905
4987
5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.53
1.68
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
270
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39

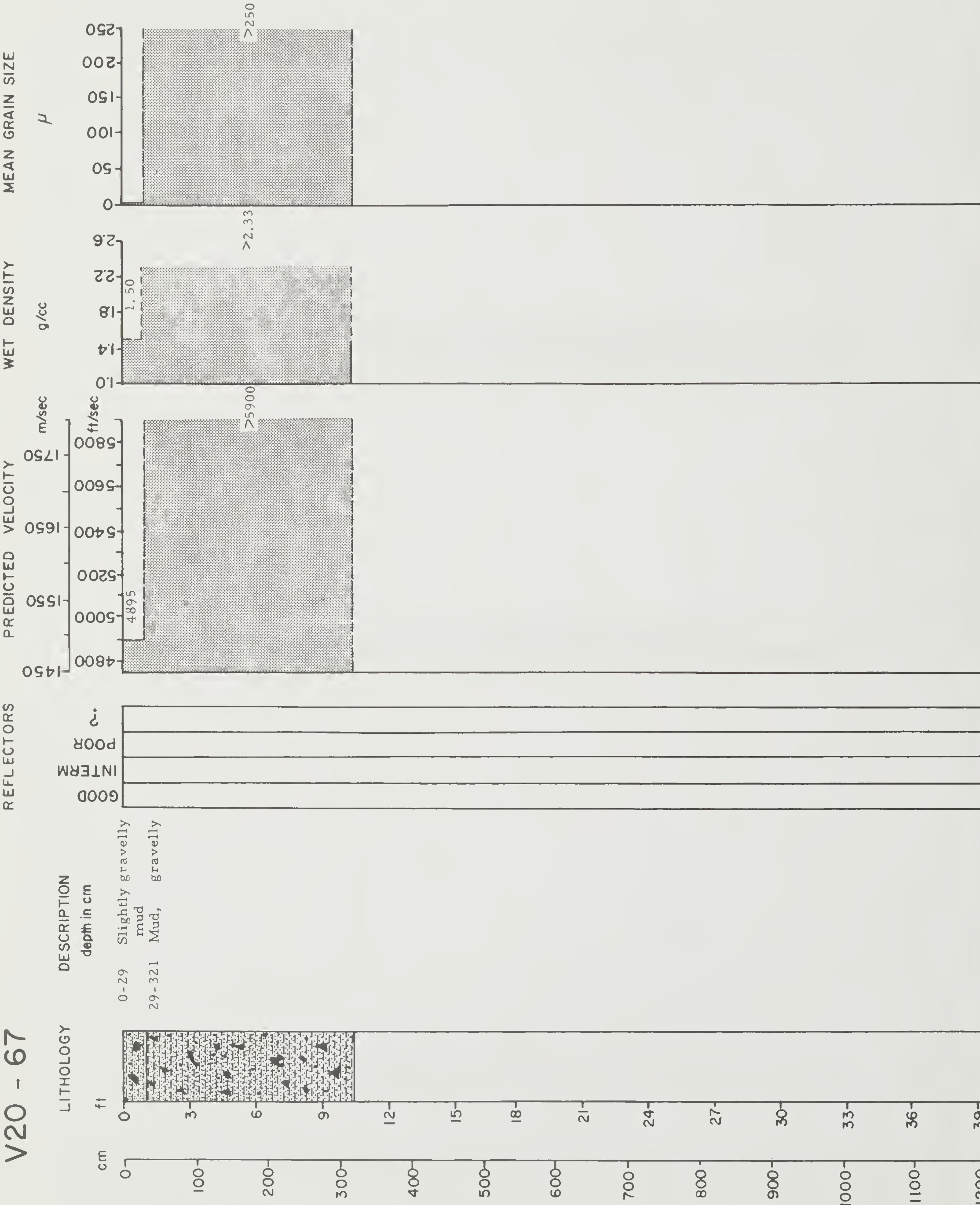
RC11-198

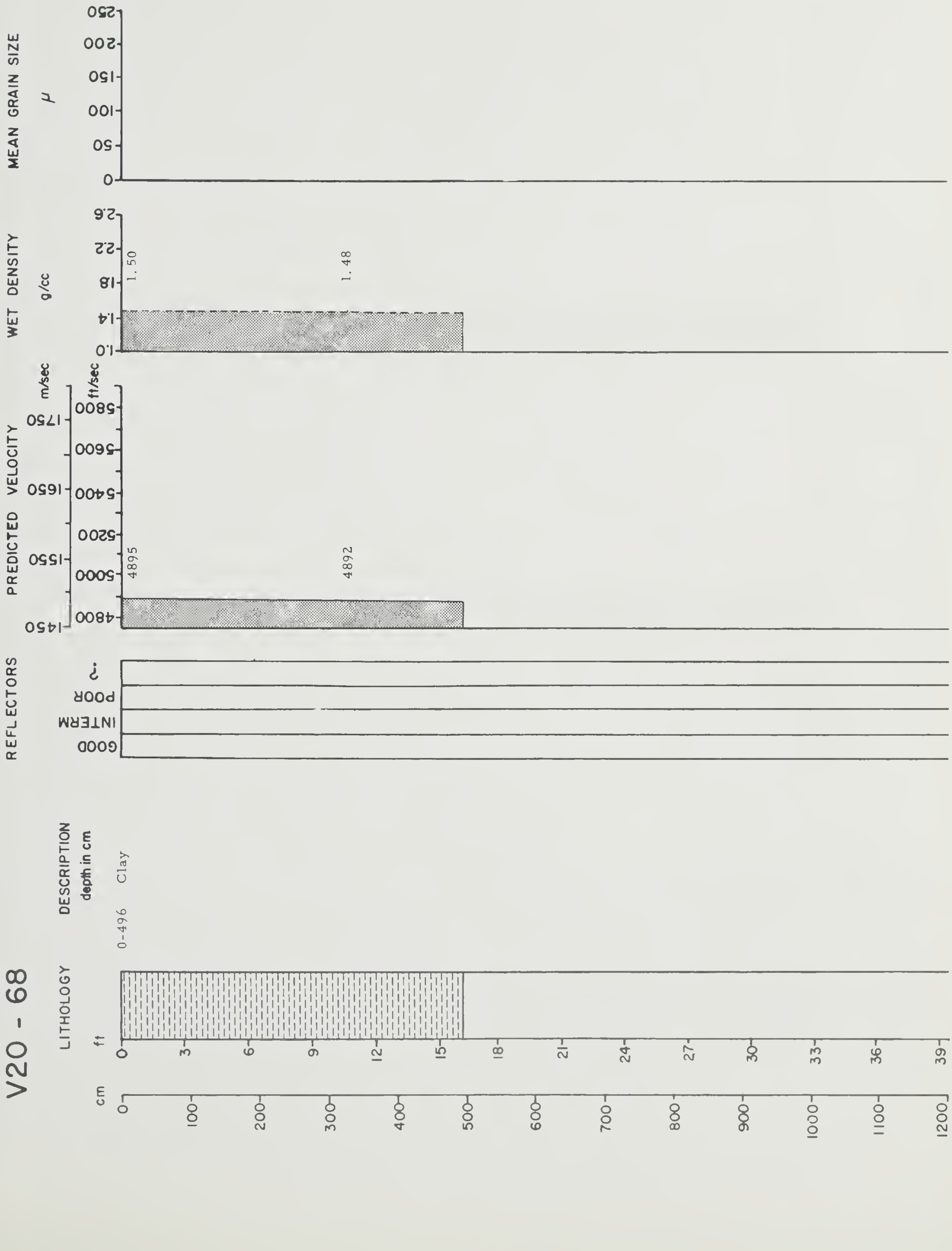

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-733 Clay
733-738 Gravelly mud, partially indurated
Mn nodules R4
738-851 Mud layers
746-748 Mud, partially indurated
763-769 Mud, partially indurated
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4902
4895
4993
≥5900
4980
WET DENSITY
g/cc
1.51
1.49
1.68
>2.33
1.67
MEAN GRAIN SIZE
μ

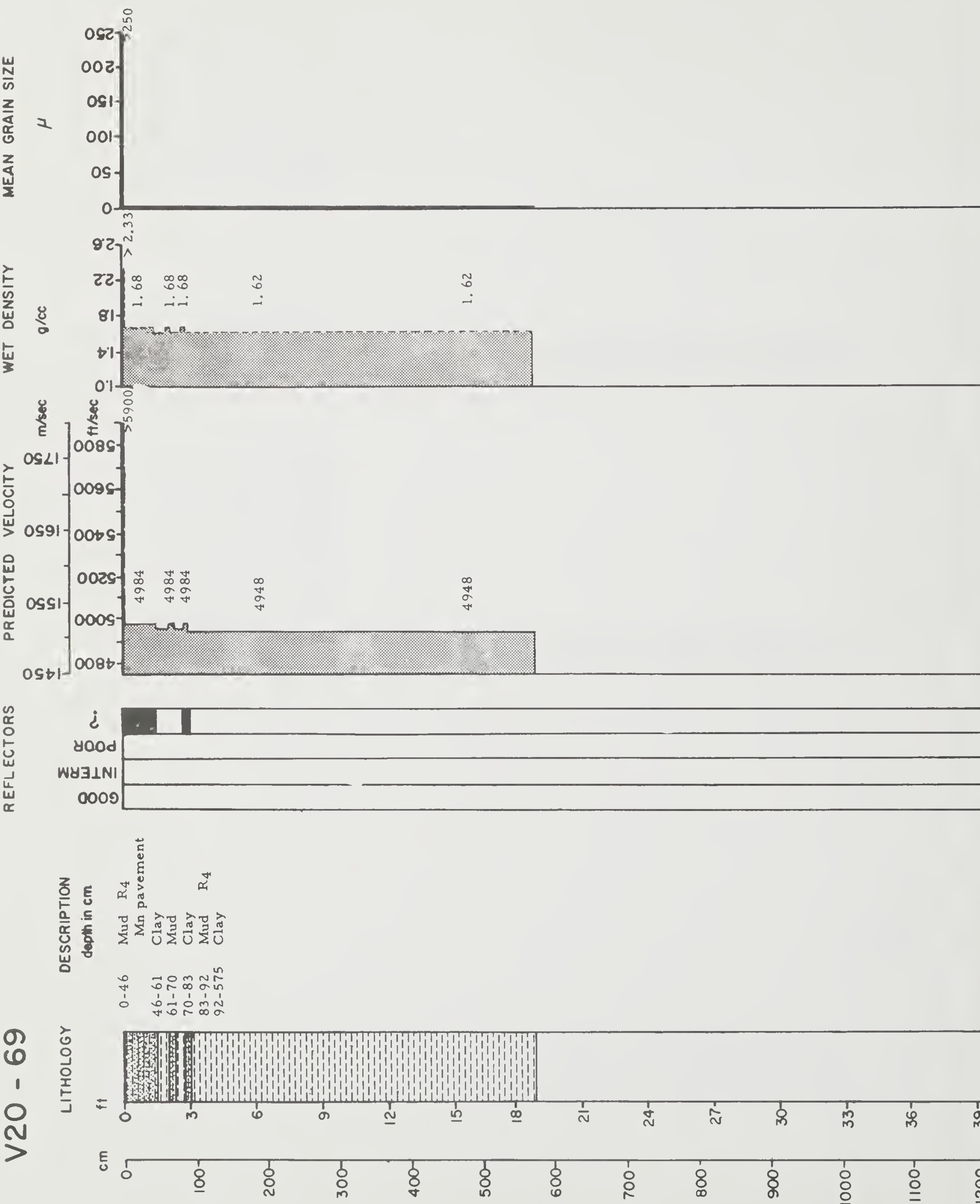

V20 - 64
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-26 Clay
26-53 Mud
53-76 Clay
76-135 Mud
135-161 Clay
161-193 Mud
193-223 Clay
223-341 Mud
341-398 Mud, layered R4
398-460 Silt, sandy R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4931
4993
4993
4993
4925
4993
5509
5246
WET DENSITY
g/cc
1.69
1.69
1.69
1.69
1.58
1.69
2.02
1.90
MEAN GRAIN SIZE
μ

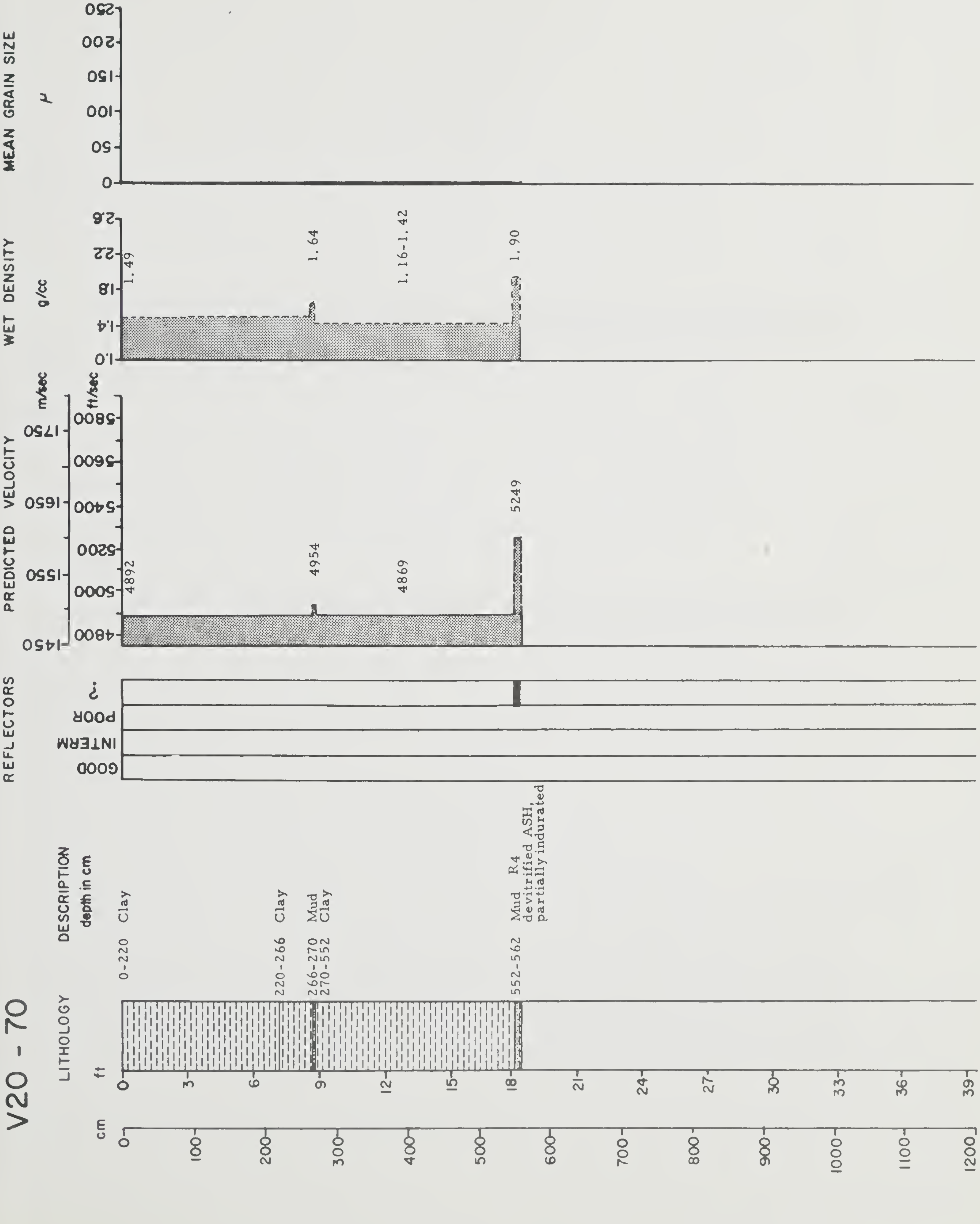

V20 - 65
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.51
1.52
1.48
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4902
4902
4888
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-381
Clay with Mn nodules
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

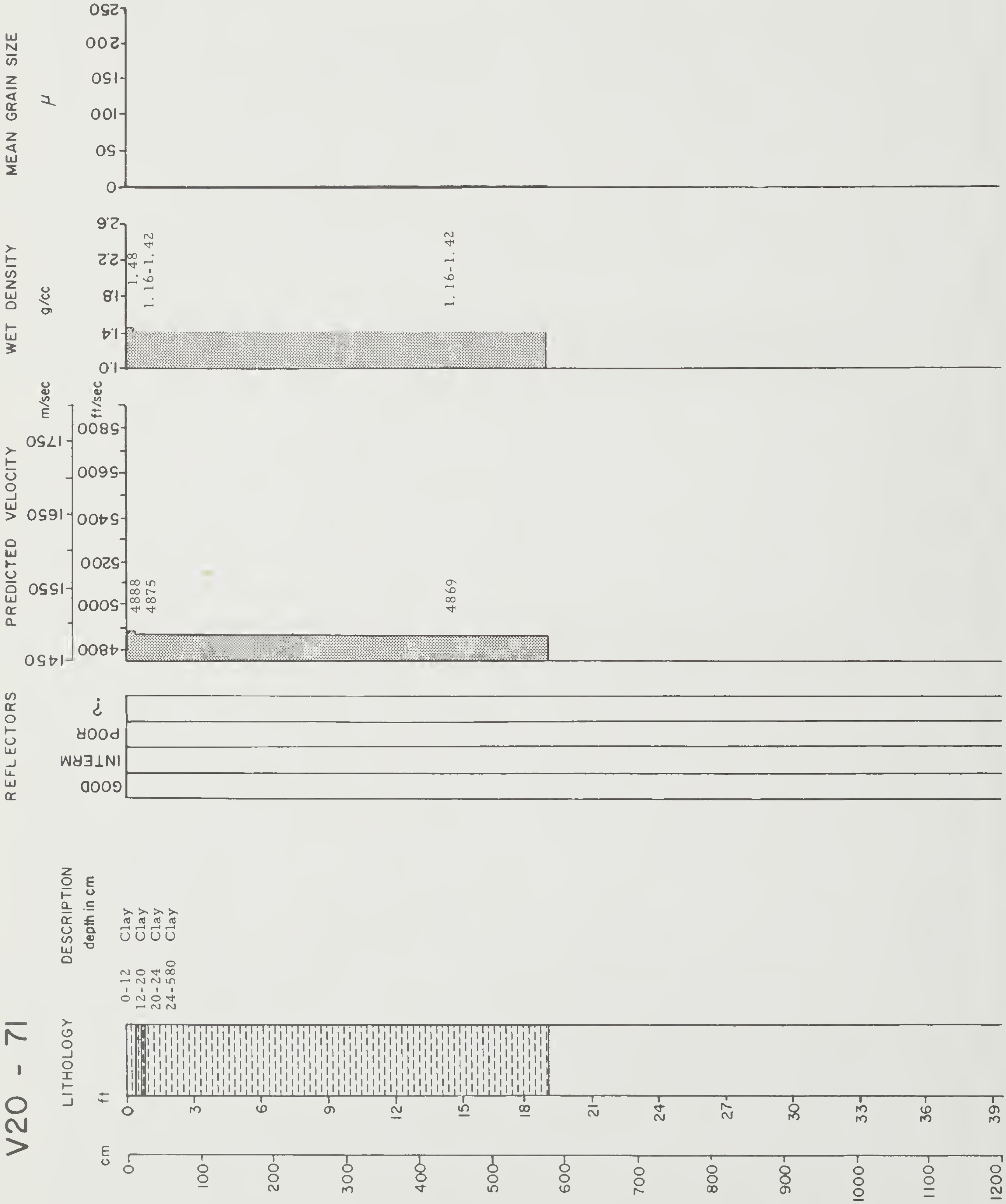

V20 - 66
LITHOLOGY
DESCRIPTION
depth in cm
0-200 Clay
200-207 Mud, partially indurated R3
207-220 Mud
220-222 Mud, partially indurated
222-722 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4888
4885
5249
5249
4974
4993
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.47
1.46
1.90
1.90
1.67
1.71
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

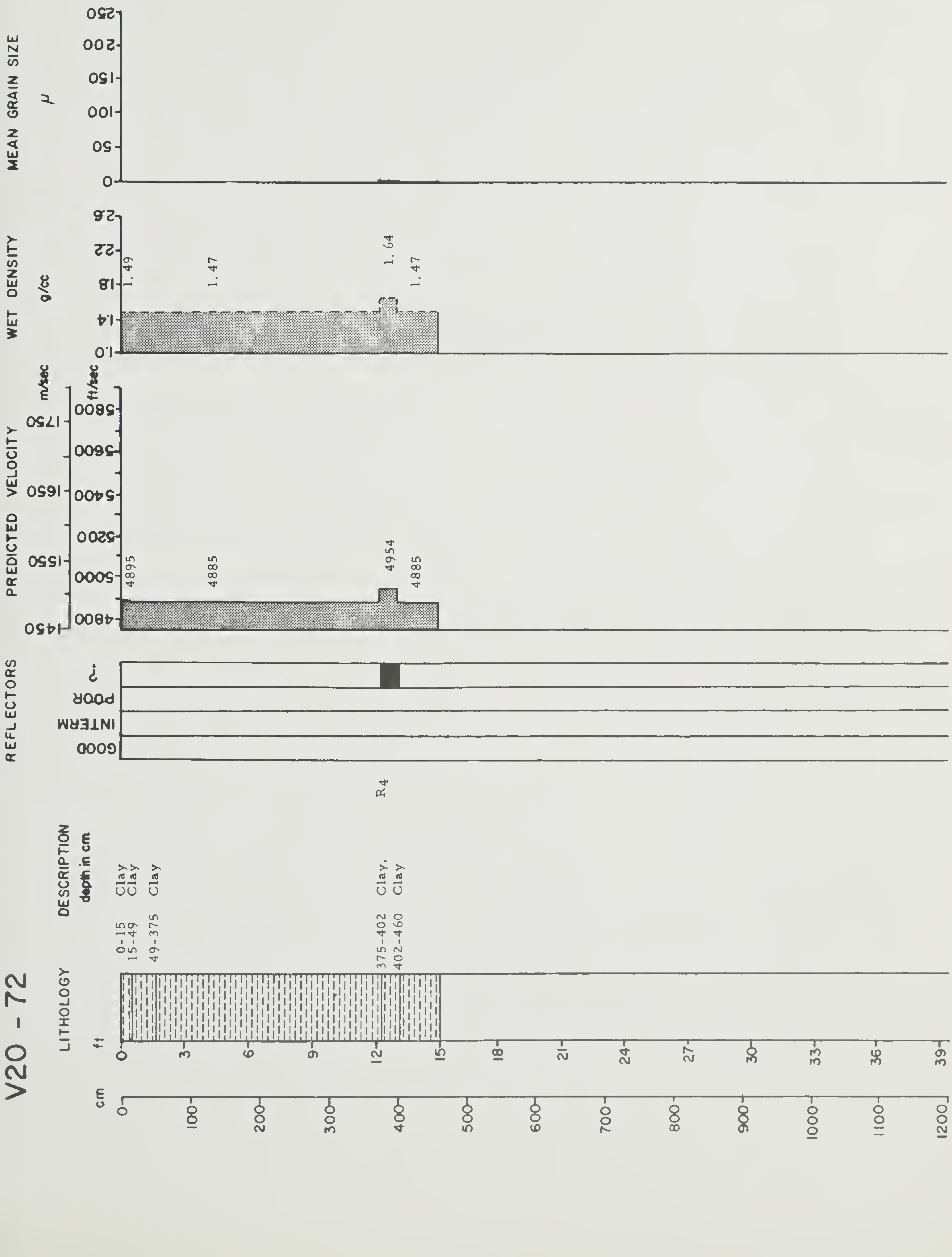

V20 - 67
LITHOLOGY
cm
ft
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39
DESCRIPTION
depth in cm
0-29 Slightly gravelly mud
29-321 Mud, gravelly
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4895
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.50
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
>250

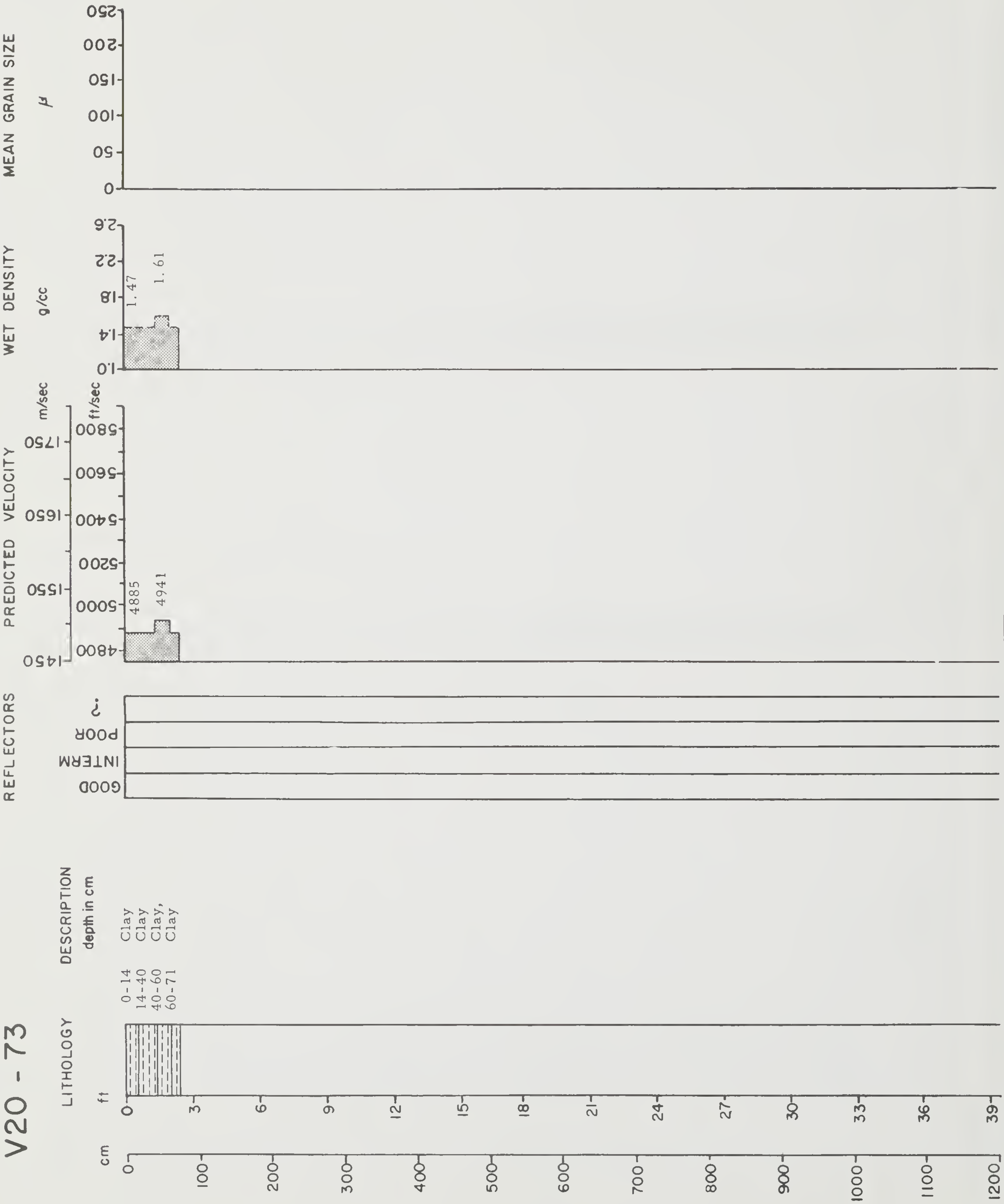

V20 - 68
LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-496 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
4895
4892
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.50
1.48
MEAN GRAIN SIZE
μ
0 50 100 150 200 250

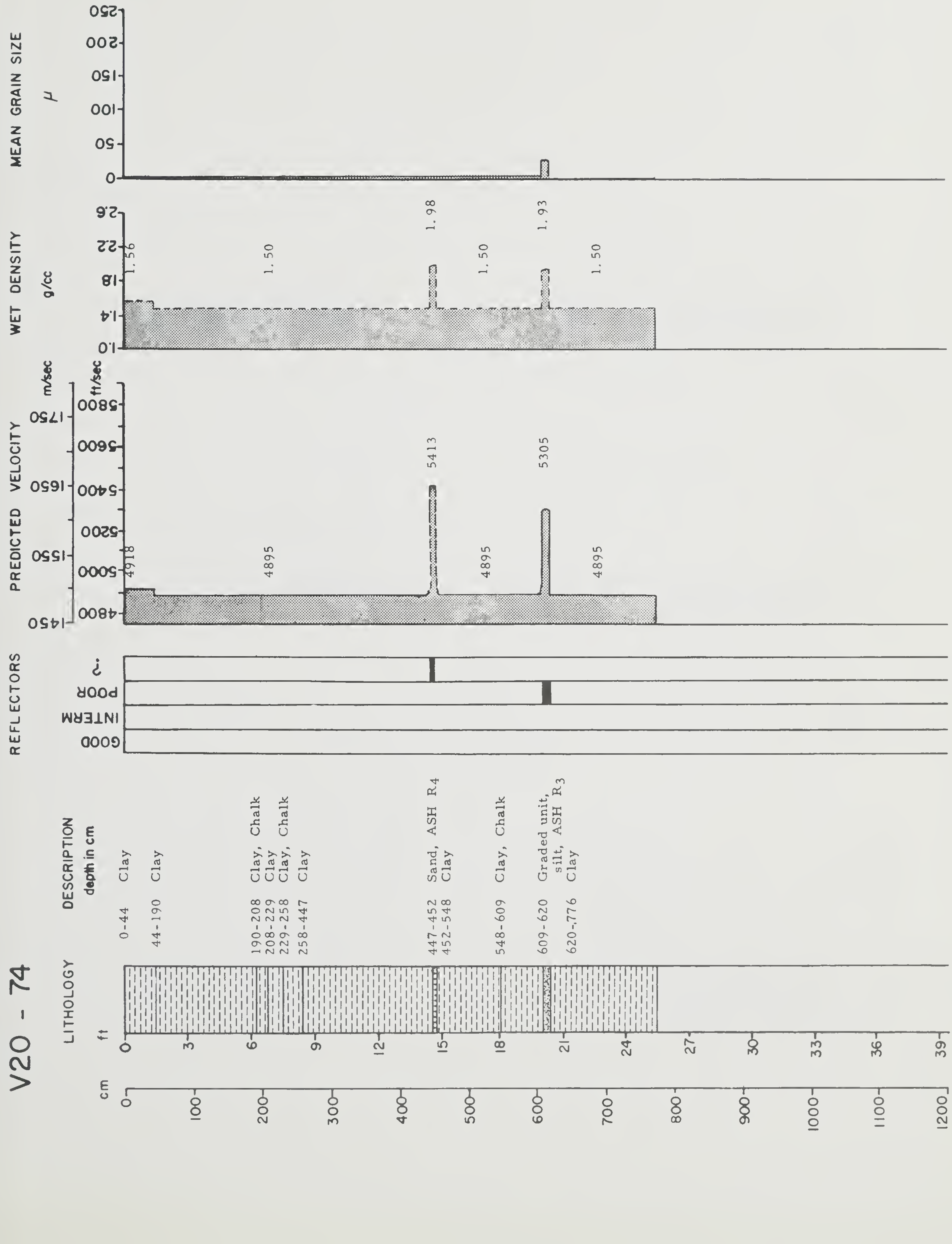

V20 - 69
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-46 Mud R4
Mn pavement
46-61 Clay
61-70 Mud
70-83 Clay
83-92 Mud R4
92-575 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4984
4984
4984
4948
4948
>5900
WET DENSITY
g/cc
1.68
1.68
1.68
1.62
1.62
>2.33
MEAN GRAIN SIZE
μ
>250

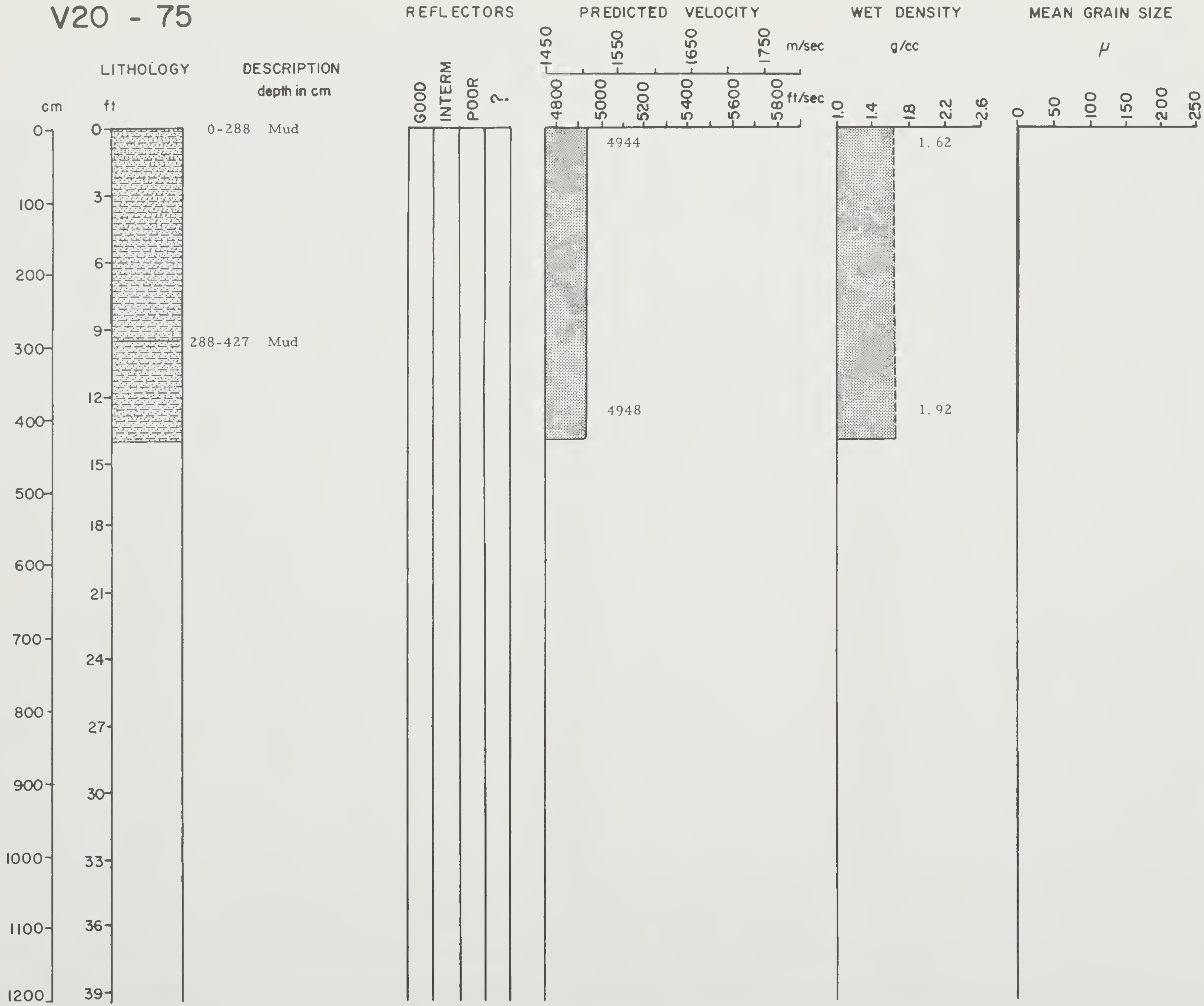

V20 - 70
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.49
1.64
1.16-1.42
1.90
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4892
4954
4869
5249
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-220 Clay
220-266 Clay
266-270 Mud
270-552 Clay
552-562 Mud R4
devitrified ASH,
partially indurated
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

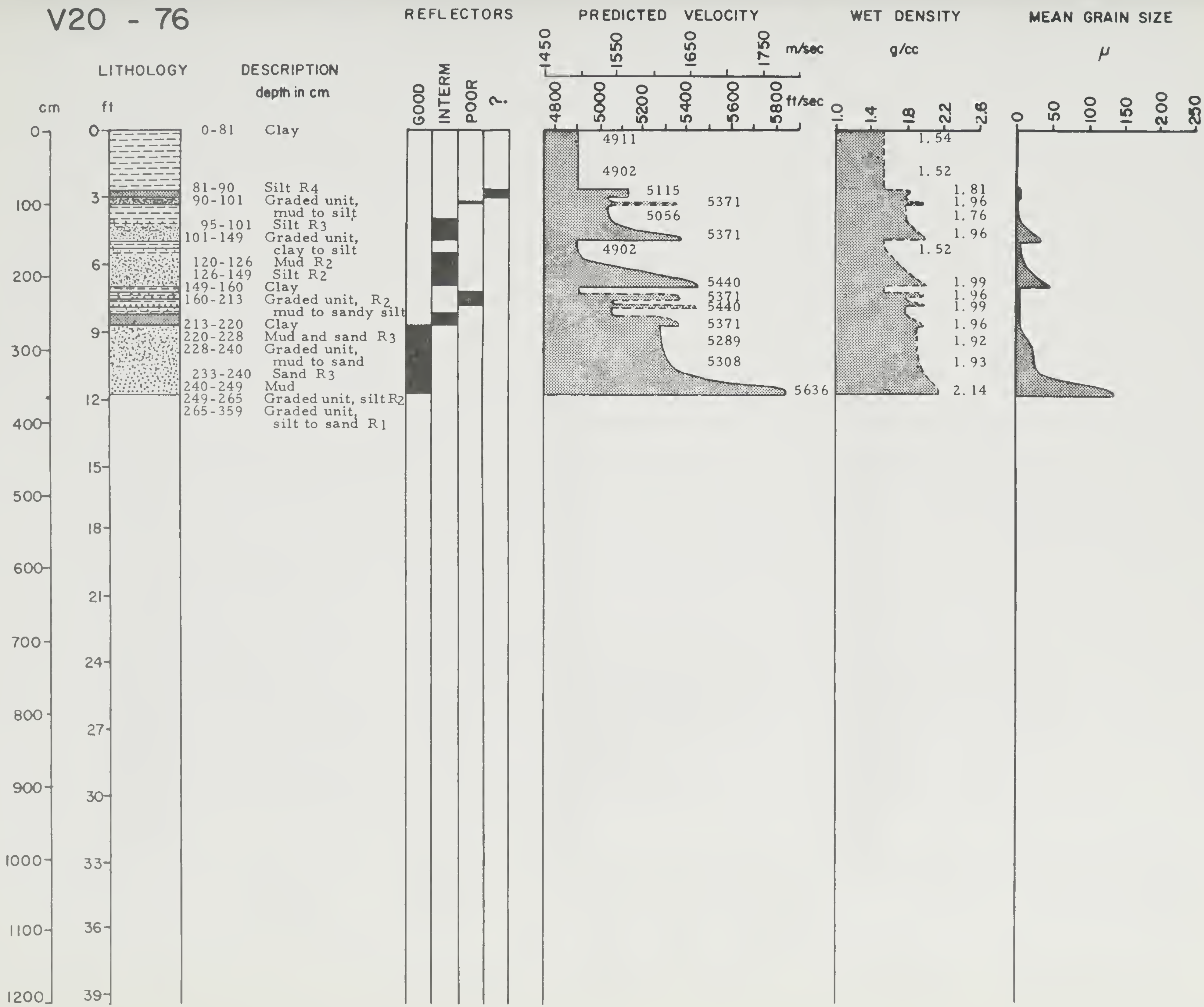

V20 - 71
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-12 Clay
12-20 Clay
20-24 Clay
24-580 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4888
4875
4869
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.48
1.16-1.42
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

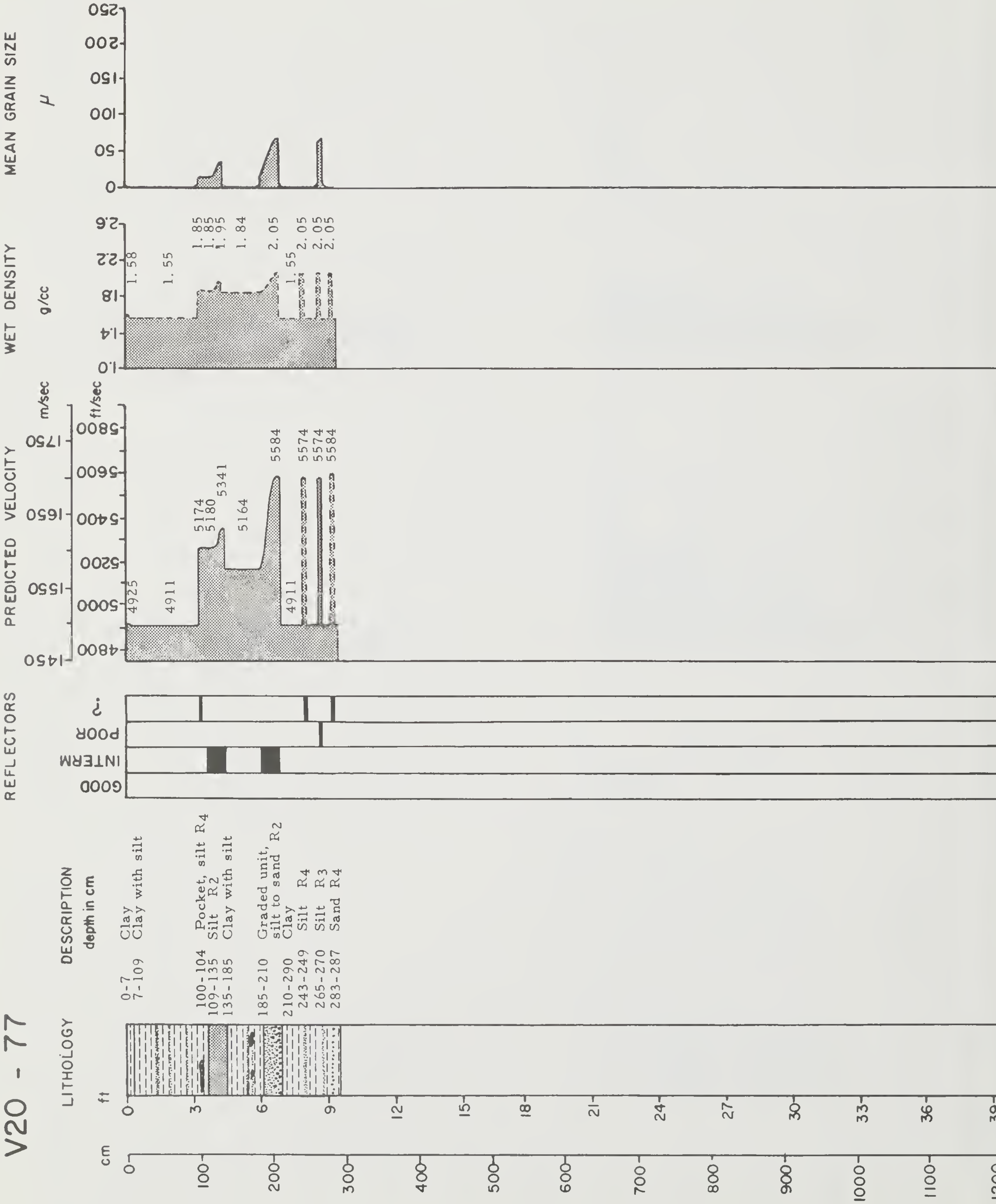

V20 - 72
LITHOLOGY
DESCRIPTION depth in cm
0-15 Clay
15-49 Clay
49-375 Clay
375-402 Clay,
402-460 Clay
R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4895
4885
4954
4885
WET DENSITY
g/cc
1.49
1.47
1.64
1.47
MEAN GRAIN SIZE
μ
ft
cm

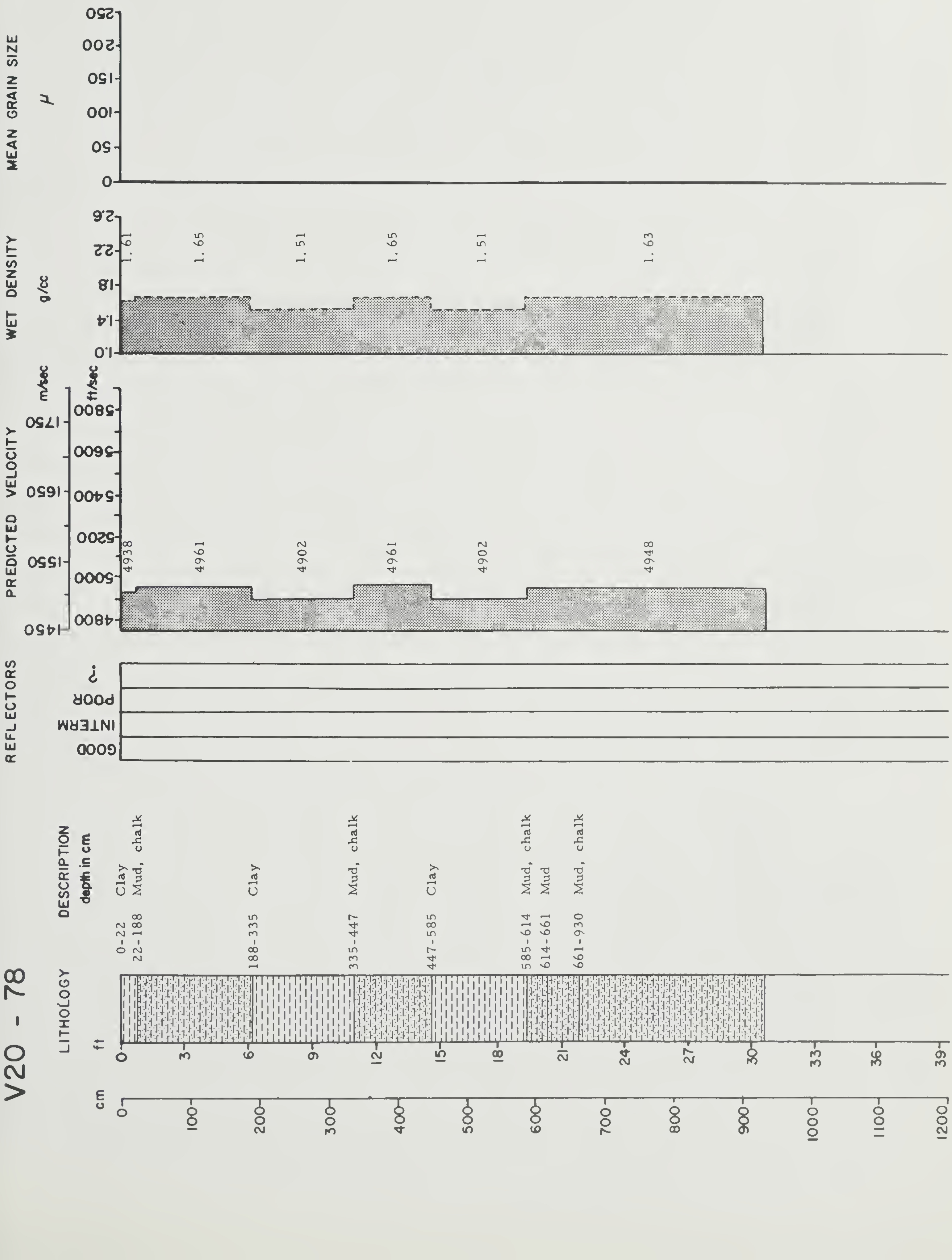

V20 - 73
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.47
1.61
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4885
4941
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-14 Clay
14-40 Clay
40-60 Clay,
60-71 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

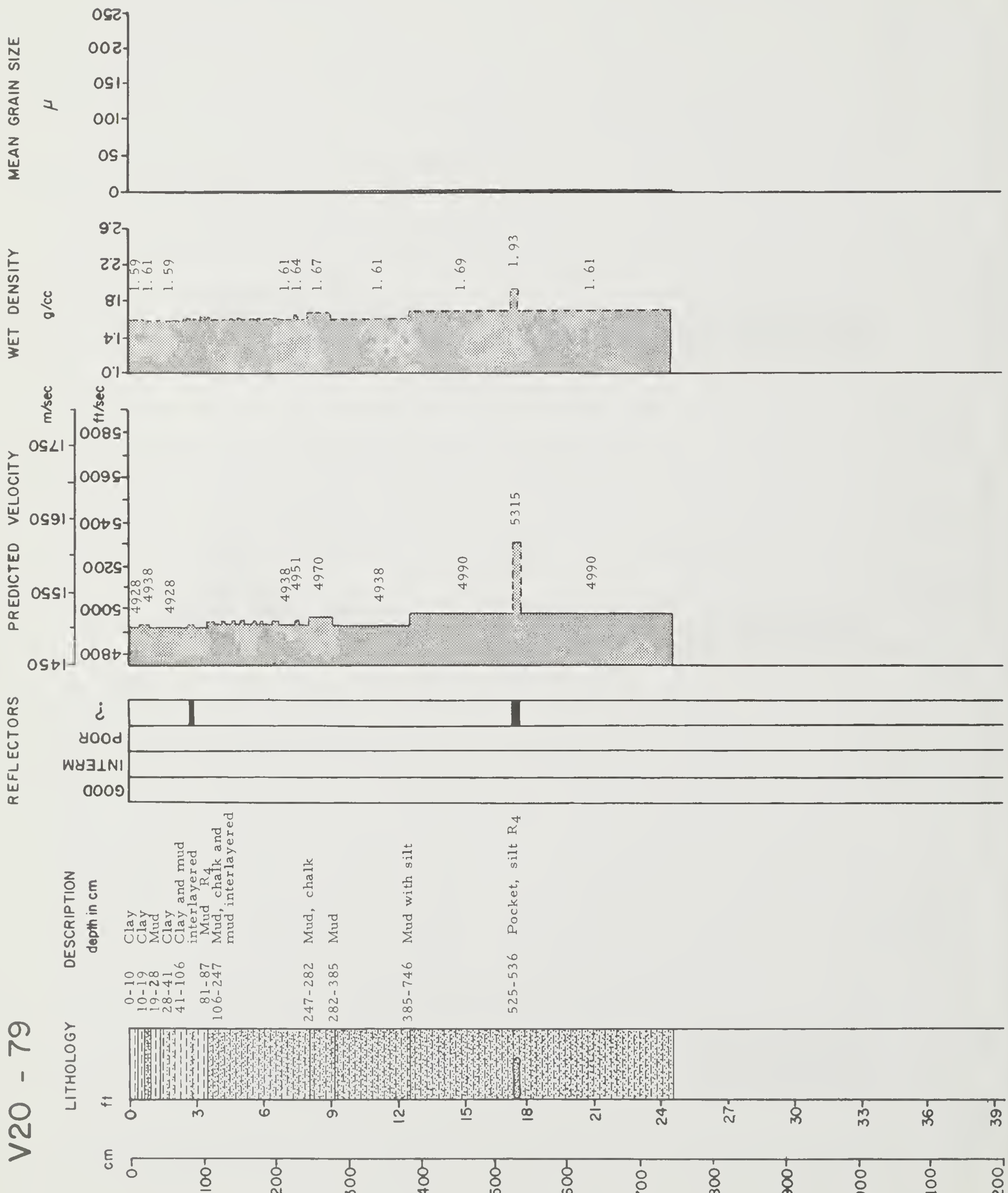

V20 - 74
LITHOLOGY
DESCRIPTION
depth in cm
0-44 Clay
44-190 Clay
190-208 Clay, Chalk
208-229 Clay
229-258 Clay, Chalk
258-447 Clay
447-452 Sand, ASH R4
452-548 Clay
548-609 Clay, Chalk
609-620 Graded unit, silt, ASH R3
620-776 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4918
4895
5413
4895
5305
4895
WET DENSITY
g/cc
1.56
1.50
1.98
1.50
1.93
1.50
MEAN GRAIN SIZE
μ
cm
ft

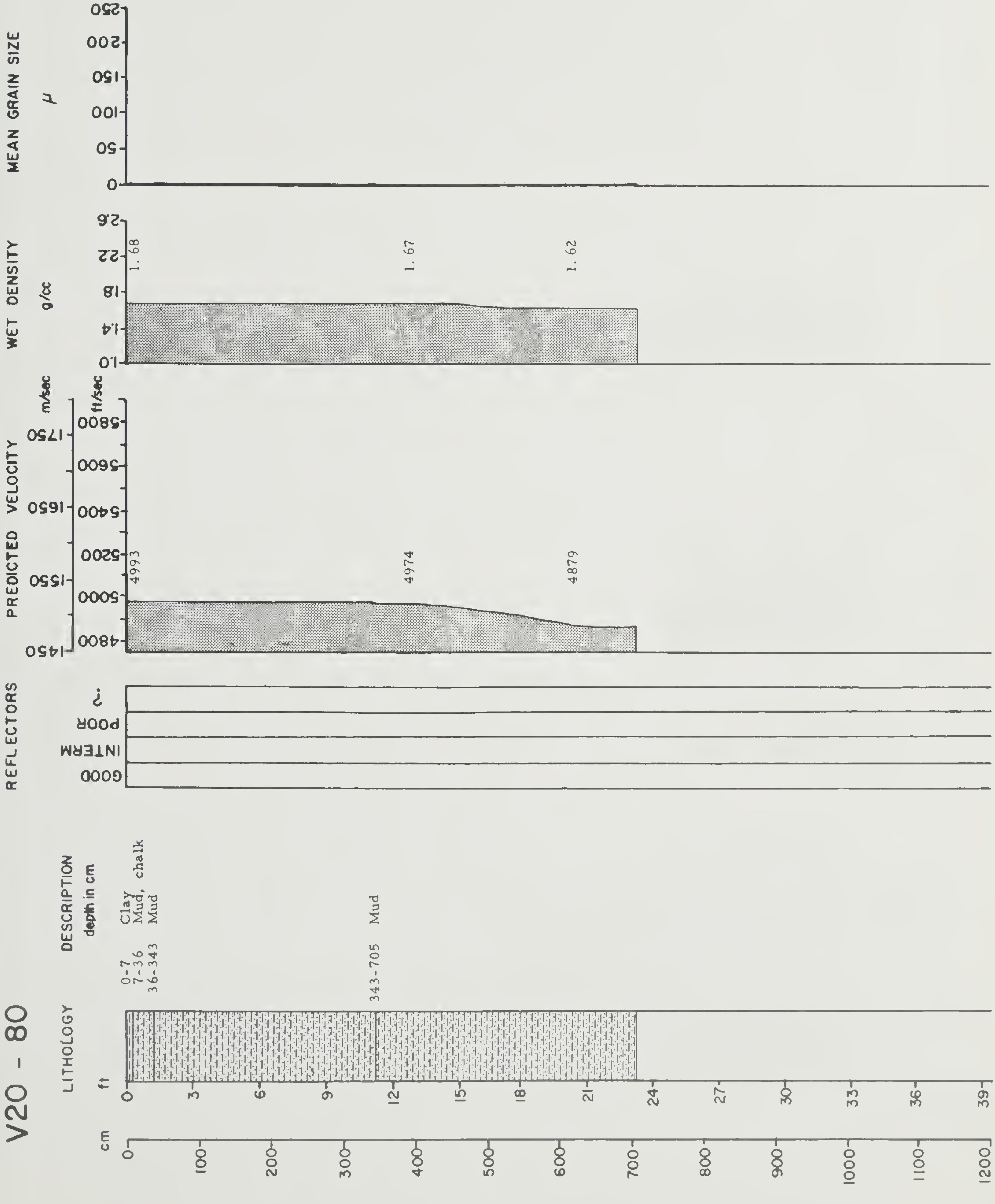

V20 - 75
LITHOLOGY
DESCRIPTION
depth in cm
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0-288 Mud
288-427 Mud
4944
4948
1. 62
1. 92

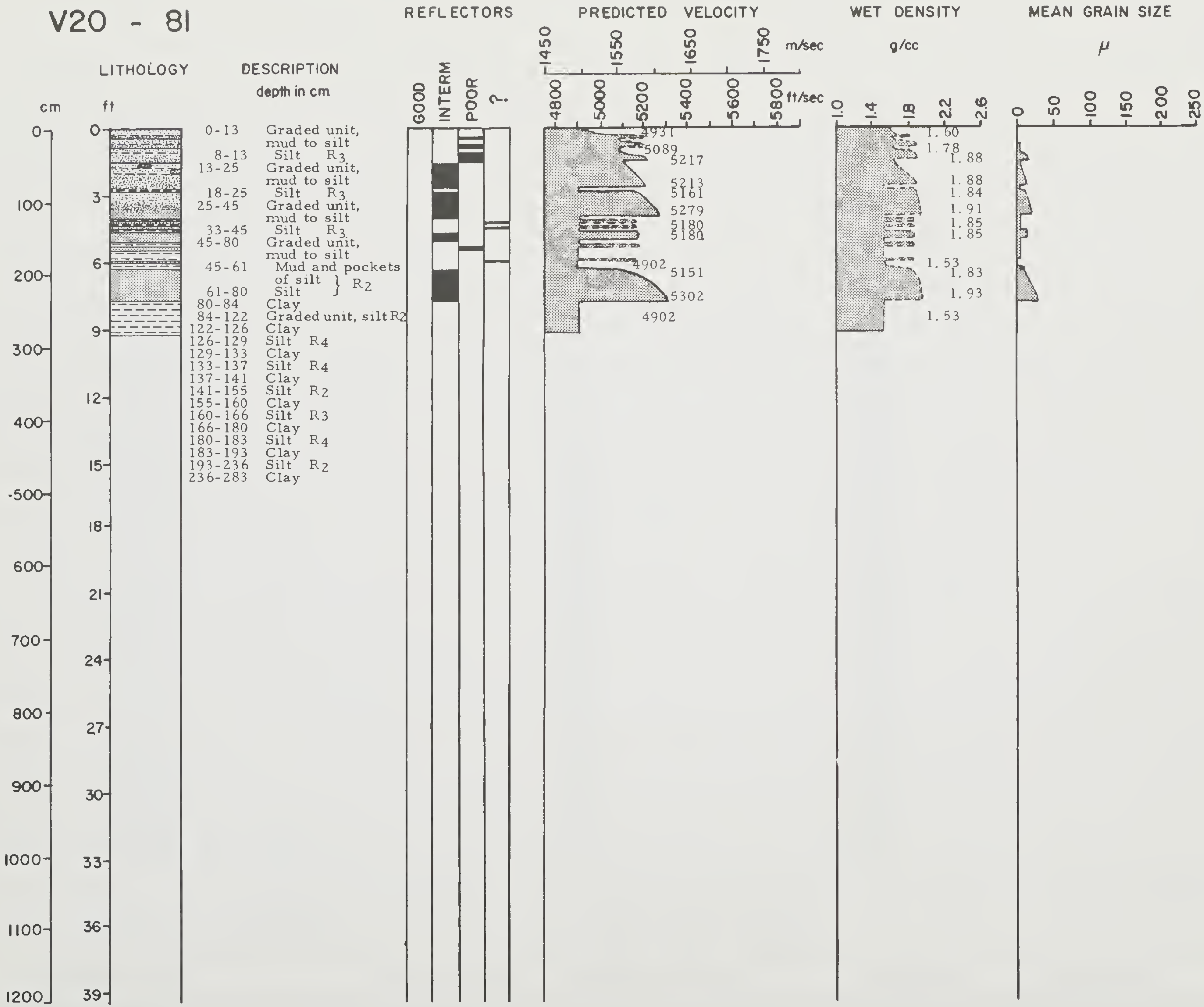

V20 - 76
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-81 Clay
81-90 Silt R4
90-101 Graded unit, mud to silt
95-101 Silt R3
101-149 Graded unit, clay to silt
120-126 Mud R2
126-149 Silt R2
149-160 Clay
160-213 Graded unit, R2 mud to sandy silt
213-220 Clay
220-228 Mud and sand R3
228-240 Graded unit, mud to sand
233-240 Sand R3
240-249 Mud
249-265 Graded unit, silt R2
265-359 Graded unit, silt to sand R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4911
4902
5115
5371
5056
5371
4902
5440
5371
5440
5371
5289
5308
5636
WET DENSITY
g/cc
1.54
1.52
1.81
1.96
1.76
1.96
1.52
1.99
1.96
1.99
1.96
1.92
1.93
2.14
MEAN GRAIN SIZE
μ


V20 - 77
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-7 Clay
7-109 Clay with silt
100-104 Pocket, silt R4
109-135 Silt R2
135-185 Clay with silt
185-210 Graded unit, silt to sand R2
210-290 Clay
243-249 Silt R4
265-270 Silt R3
283-287 Sand R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4925
4911
5174
5180
5341
5164
5584
4911
5574
5574
5584
WET DENSITY
g/cc
1.58
1.55
1.85
1.85
1.95
1.84
2.05
1.55
2.05
2.05
2.05
MEAN GRAIN SIZE
μ


V20 - 78
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-22 Clay
22-188 Mud, chalk
188-335 Clay
335-447 Mud, chalk
447-585 Clay
585-614 Mud, chalk
614-661 Mud
661-930 Mud, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4938
4961
4902
4961
4902
4948
WET DENSITY
g/cc
1.61
1.65
1.51
1.65
1.51
1.63
MEAN GRAIN SIZE
μ

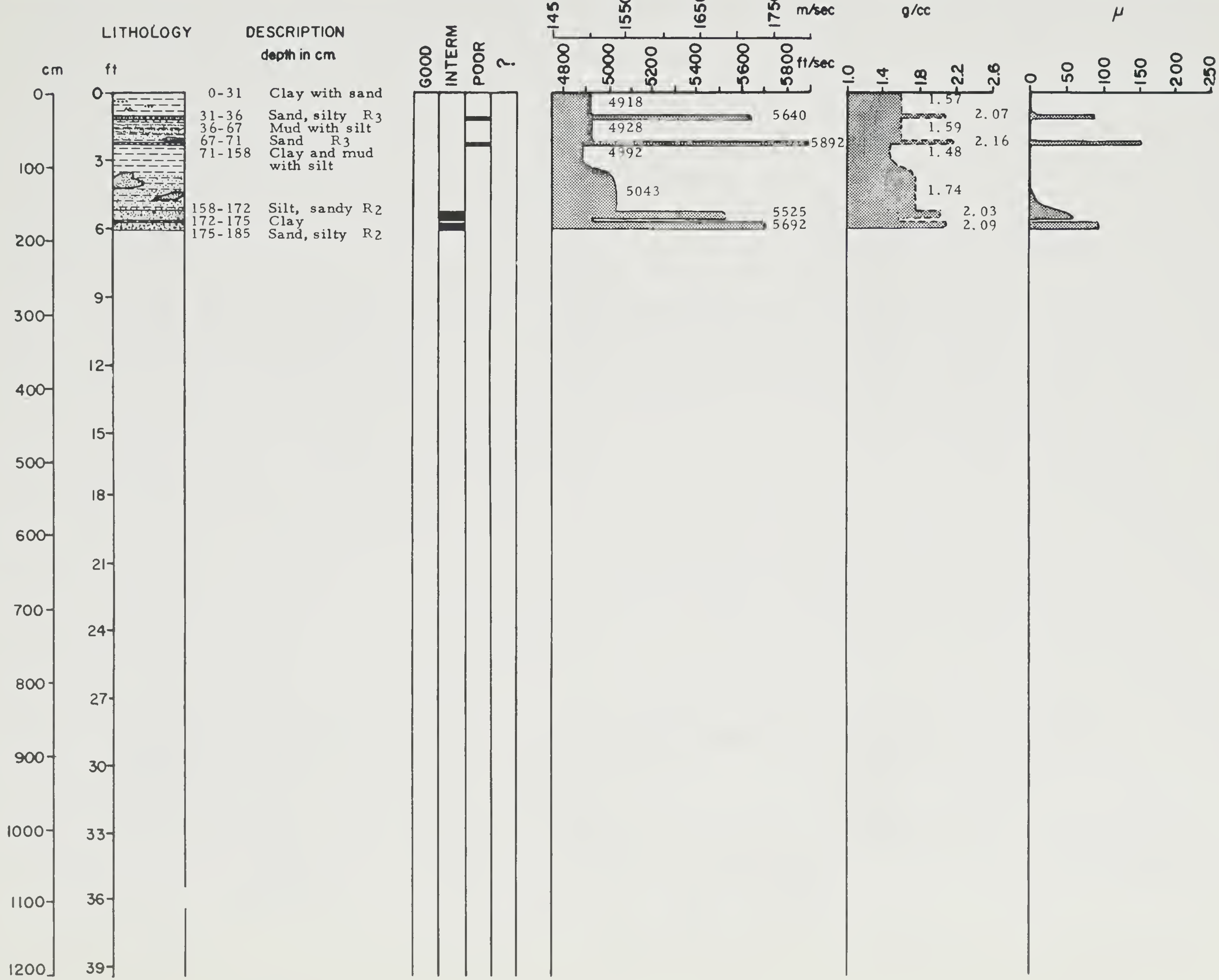

V20 - 79
LITHOLOGY
DESCRIPTION
depth in cm
0-10 Clay
10-19 Clay
19-28 Mud
28-41 Clay
41-106 Clay and mud interlayered
81-87 Mud R4
106-247 Mud, chalk and mud interlayered
247-282 Mud, chalk
282-385 Mud
385-746 Mud with silt
525-536 Pocket, silt R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4928
4938
4928
4938
4951
4970
4938
4990
5315
4990
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.59
1.61
1.59
1.61
1.64
1.67
1.61
1.69
1.93
1.61
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

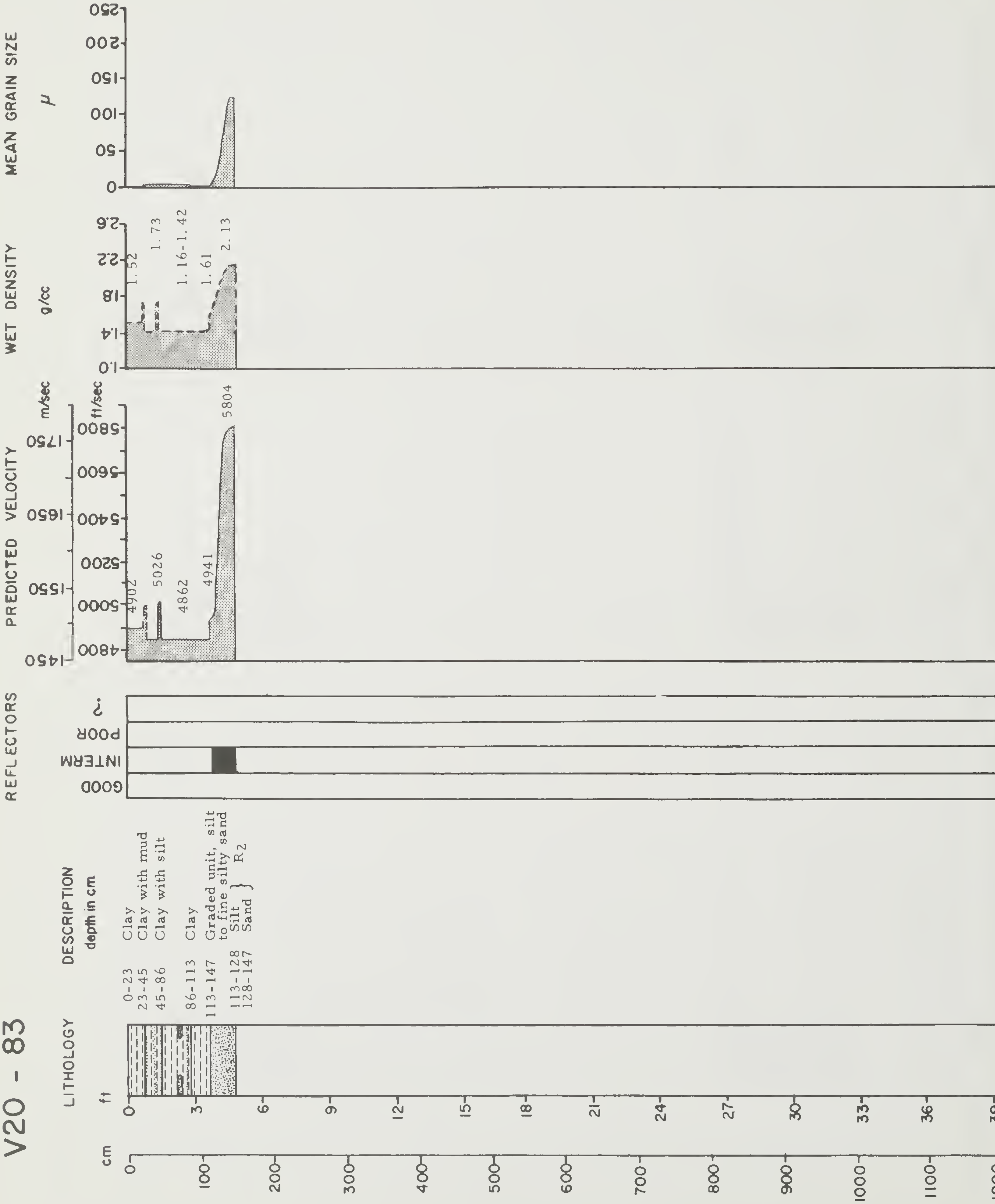

V20 - 80
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.68
1.67
1.62
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4993
4974
4879
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-7 Clay
7-36 Mud, chalk
36-343 Mud
343-705 Mud
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200



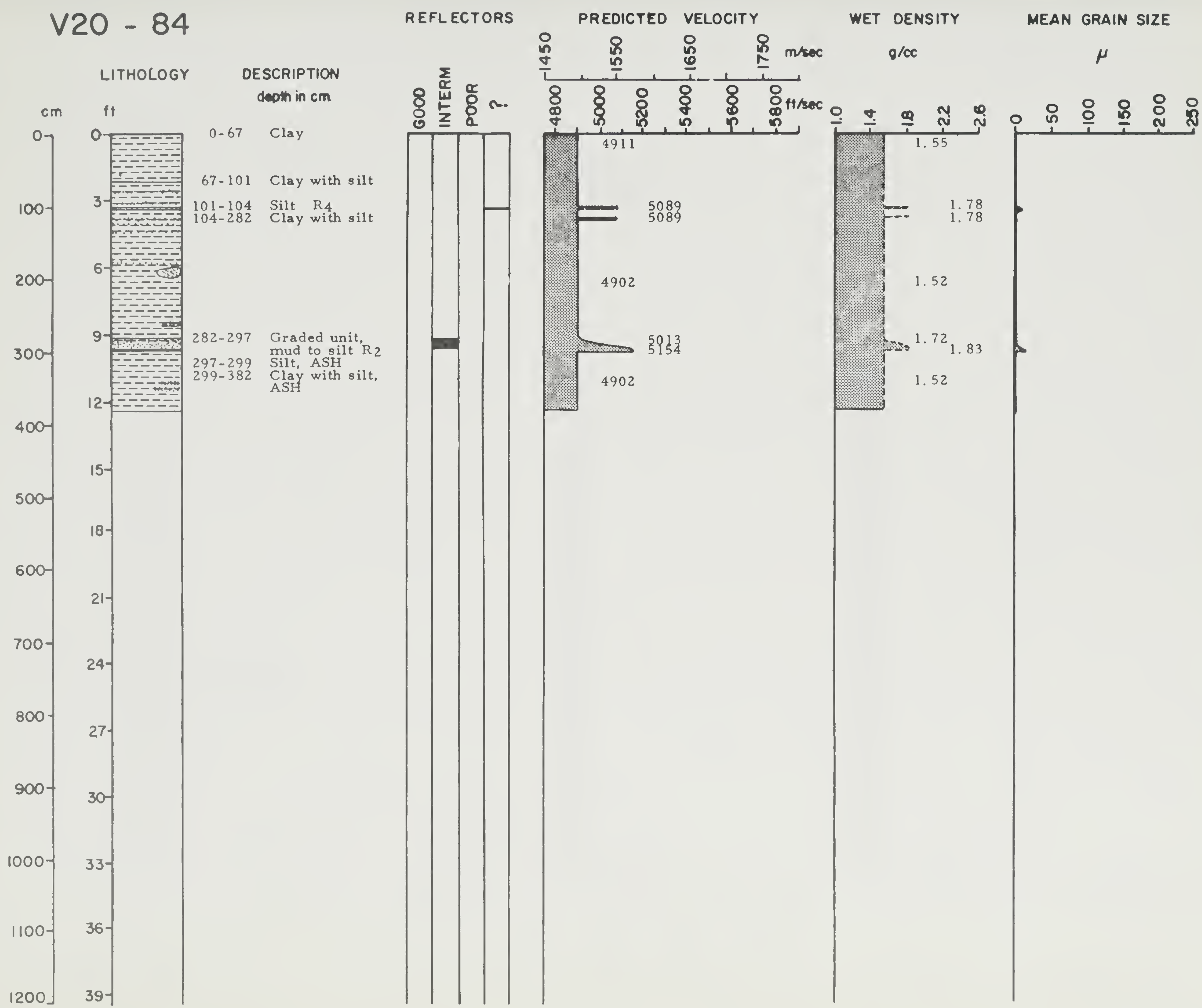
V20 - 81
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-13 Graded unit, mud to silt
8-13 Silt R3
13-25 Graded unit, mud to silt
18-25 Silt R3
25-45 Graded unit, mud to silt
33-45 Silt R3
45-80 Graded unit, mud to silt
45-61 Mud and pockets of silt
61-80 Silt } R2
80-84 Clay
84-122 Graded unit, silt R2
122-126 Clay
126-129 Silt R4
129-133 Clay
133-137 Silt R4
137-141 Clay
141-155 Silt R2
155-160 Clay
160-166 Silt R3
166-180 Clay
180-183 Silt R4
183-193 Clay
193-236 Silt R2
236-283 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4931
5089
5217
5213
5161
5279
5180
5180
4902
5151
5302
4902
WET DENSITY
g/cc
1.60
1.78
1.88
1.88
1.84
1.91
1.85
1.85
1.53
1.83
1.93
1.53
MEAN GRAIN SIZE
μ

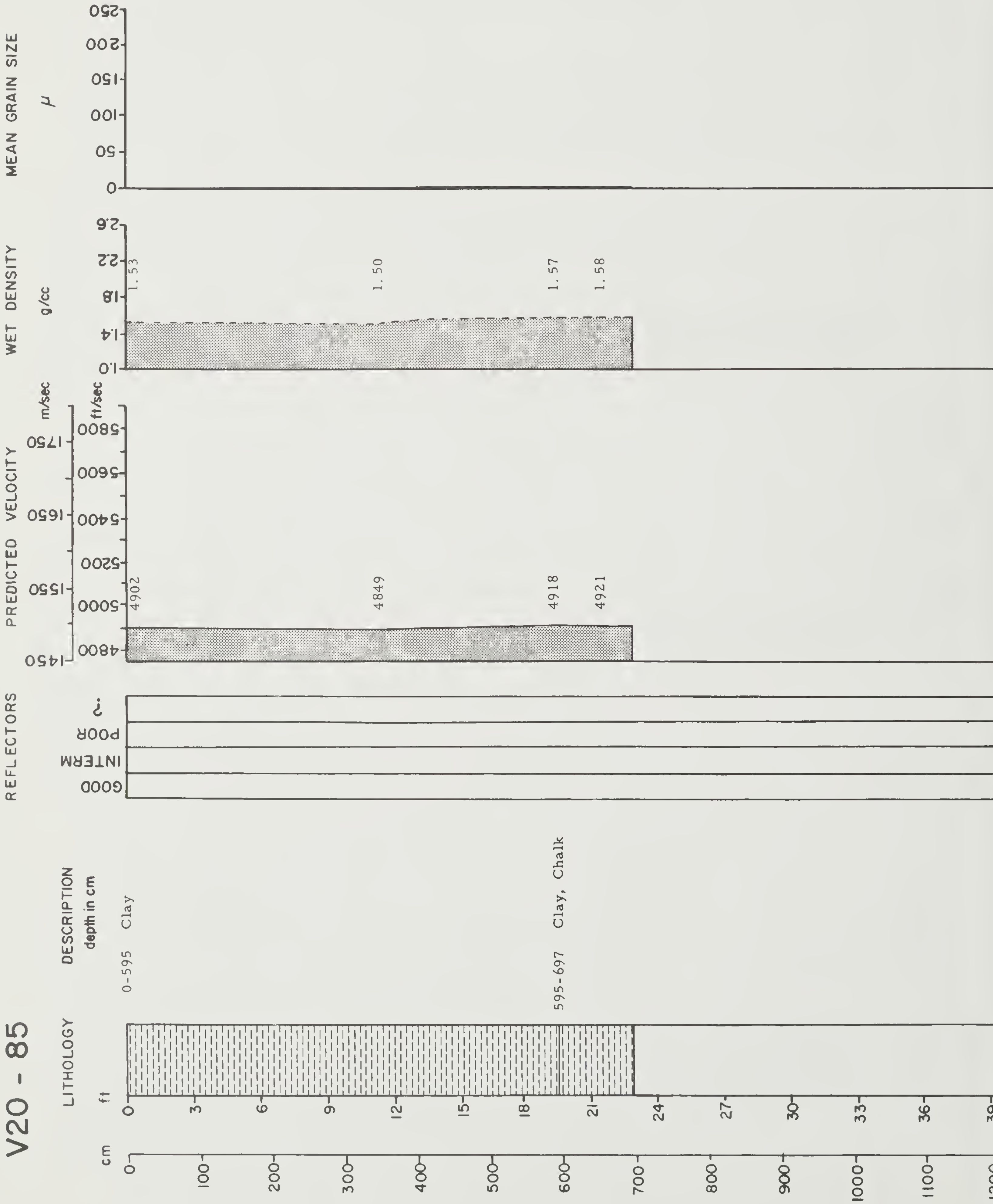
V20 - 82


LITHOLOGY
DESCRIPTION
depth in cm
0-31 Clay with sand
31-36 Sand, silty R3
36-67 Mud with silt
67-71 Sand R3
71-158 Clay and mud with silt
158-172 Silt, sandy R2
172-175 Clay
175-185 Sand, silty R2
REFLECTORS
GOOD INTERM POOR ?
PREDICTED VELOCITY
m/sec
ft/sec
4918 5640 4928 5892 4992 5043 5525 5692
WET DENSITY
g/cc
1.57 2.07 1.59 2.16 1.48 1.74 2.03 2.09
MEAN GRAIN SIZE
μ
cm
ft

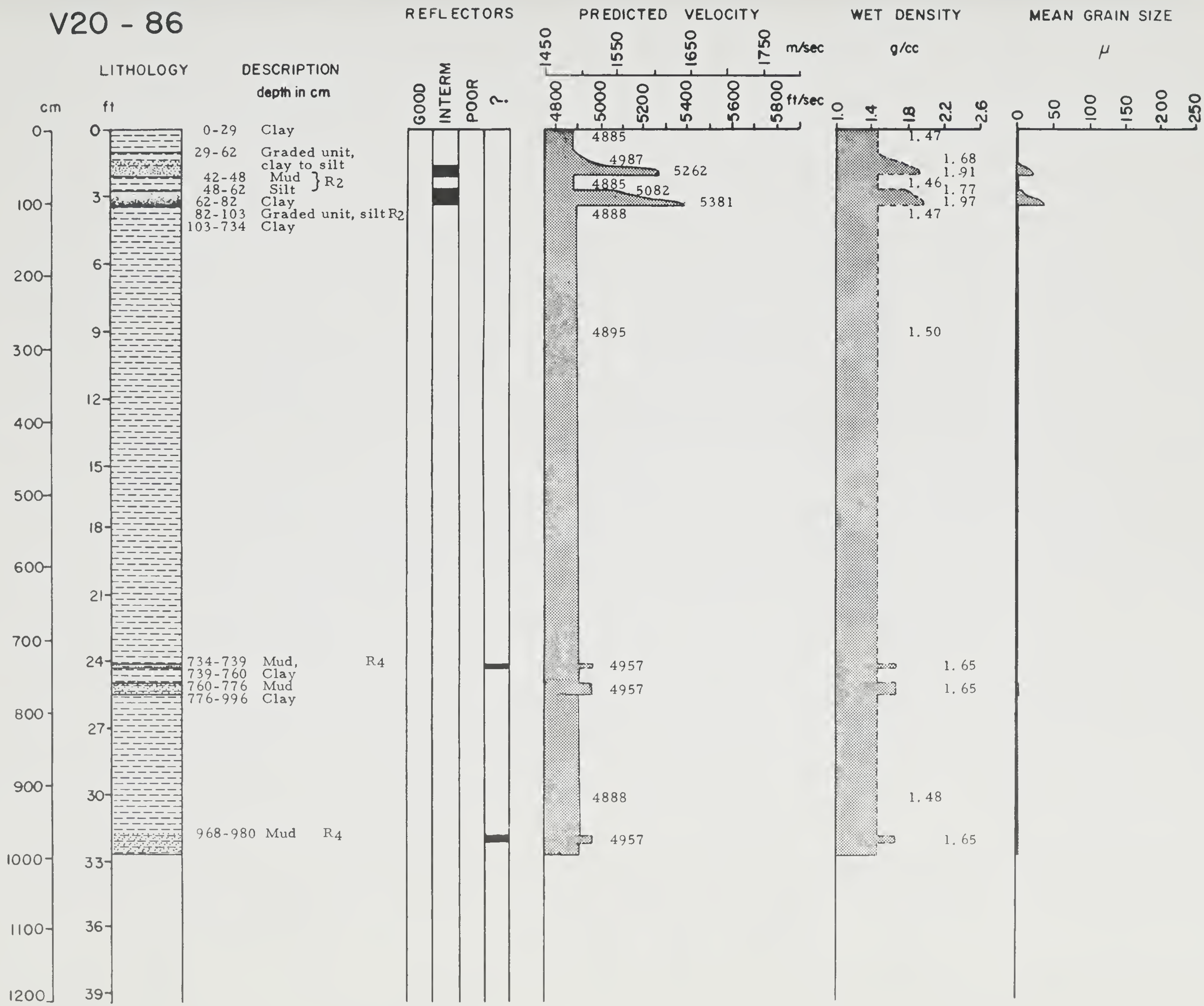


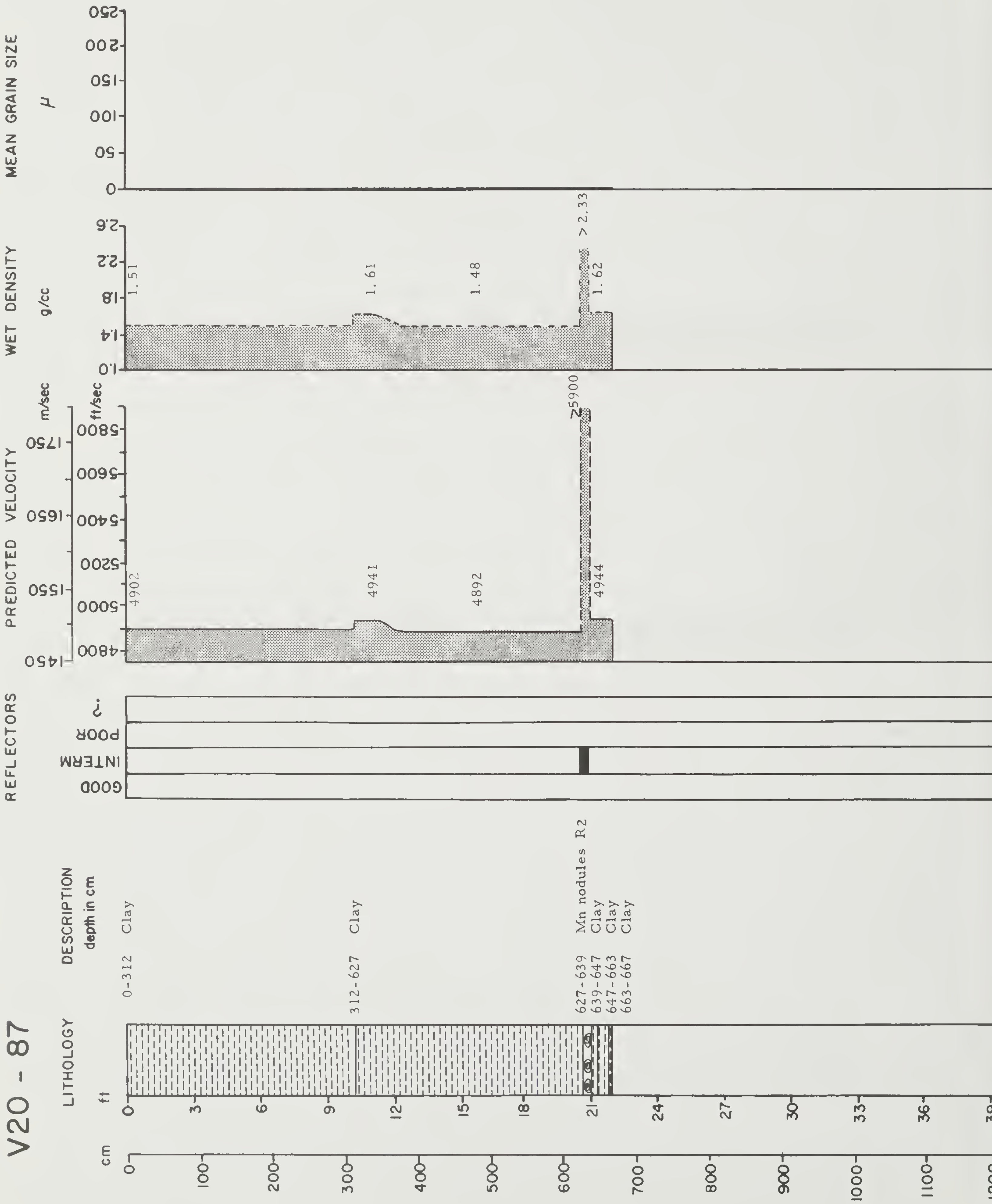
V20 - 83
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-23 Clay
23-45 Clay with mud
45-86 Clay with silt
86-113 Clay
113-147 Graded unit, silt to fine silty sand
113-128 Silt } R2
128-147 Sand }
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4902
5026
4862
4941
5804
WET DENSITY
g/cc
1.52
1.73
1.16-1.42
1.61
2.13
MEAN GRAIN SIZE
μ

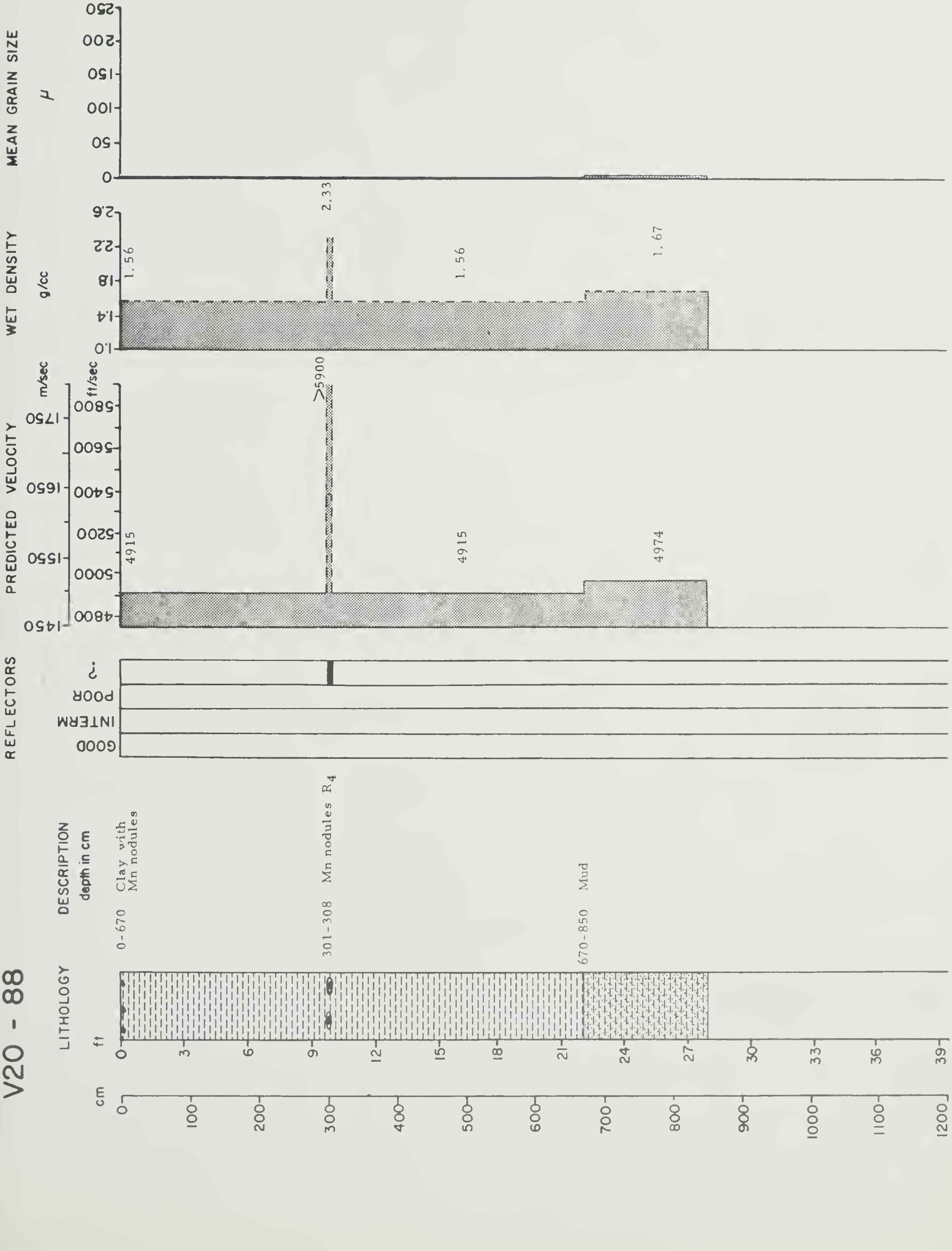

V20 - 84
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-67 Clay
67-101 Clay with silt
101-104 Silt R4
104-282 Clay with silt
282-297 Graded unit, mud to silt R2
297-299 Silt, ASH
299-382 Clay with silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4911
5089
5089
4902
5013
5154
4902
WET DENSITY
g/cc
1.55
1.78
1.78
1.52
1.72
1.83
1.52
MEAN GRAIN SIZE
μ



V20 - 85
LITHOLOGY
ft
cm
DESCRIPTION depth in cm
0-595 Clay
595-697 Clay, Chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4902
4849
4918
4921
WET DENSITY
g/cc
1.53
1.50
1.57
1.58
MEAN GRAIN SIZE
μ

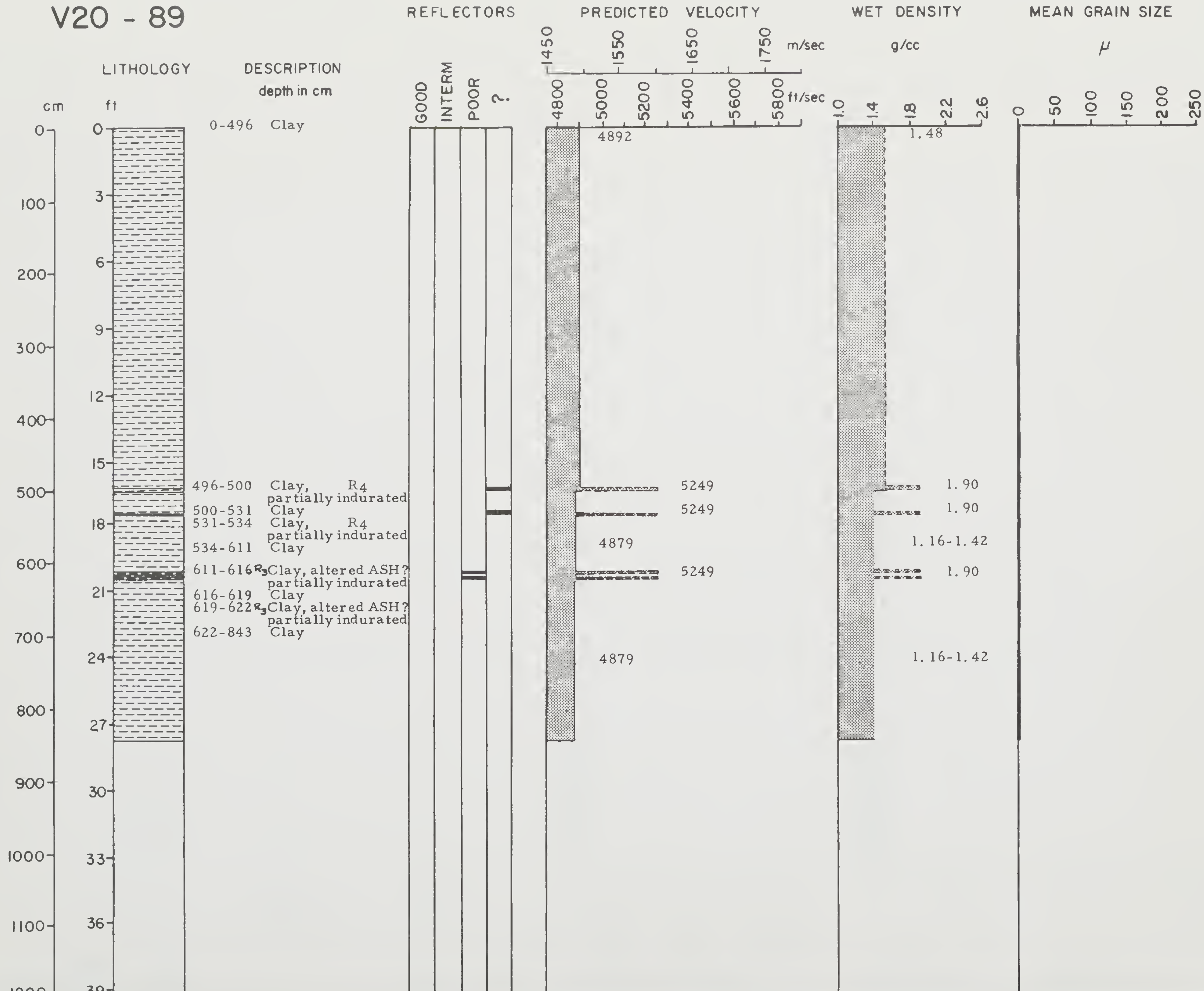

V20 - 86
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-29 Clay
29-62 Graded unit, clay to silt
42-48 Mud
48-62 Silt
R2
62-82 Clay
82-103 Graded unit, silt R2
103-734 Clay
734-739 Mud, R4
739-760 Clay
760-776 Mud
776-996 Clay
968-980 Mud R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4885
4987
5262
4885
5082
5381
4888
4895
4957
4957
4888
4957
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.47
1.68
1.91
1.46
1.77
1.97
1.47
1.50
1.65
1.65
1.48
1.65
MEAN GRAIN SIZE
μ
0
50
100
150
200
250


V20 - 87
LITHOLOGY
DESCRIPTION
depth in cm
0-312 Clay
312-627 Clay
627-639 Mn nodules R2
639-647 Clay
647-663 Clay
663-667 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4902
4941
4892
4944
≥5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.51
1.61
1.48
1.62
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

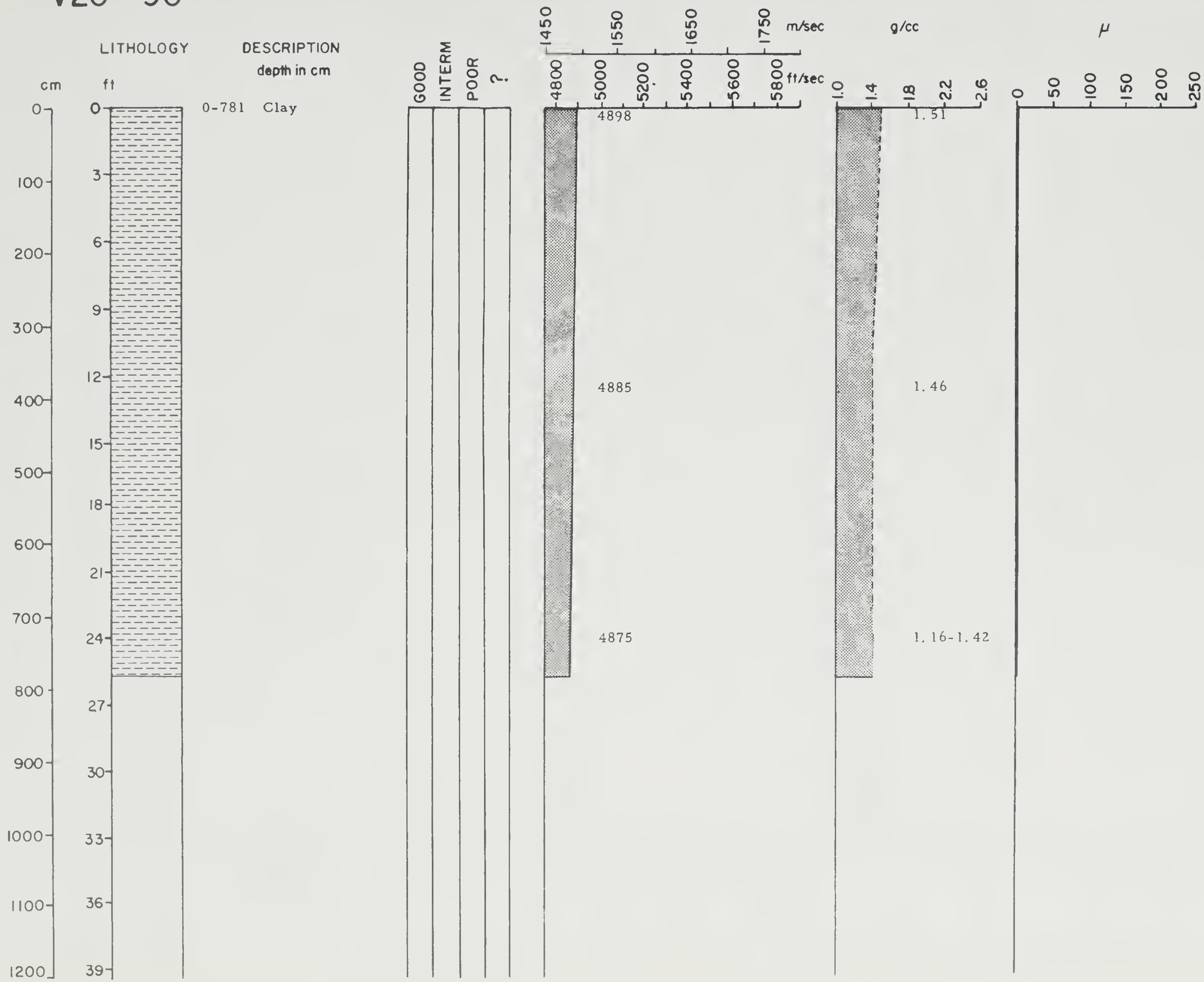


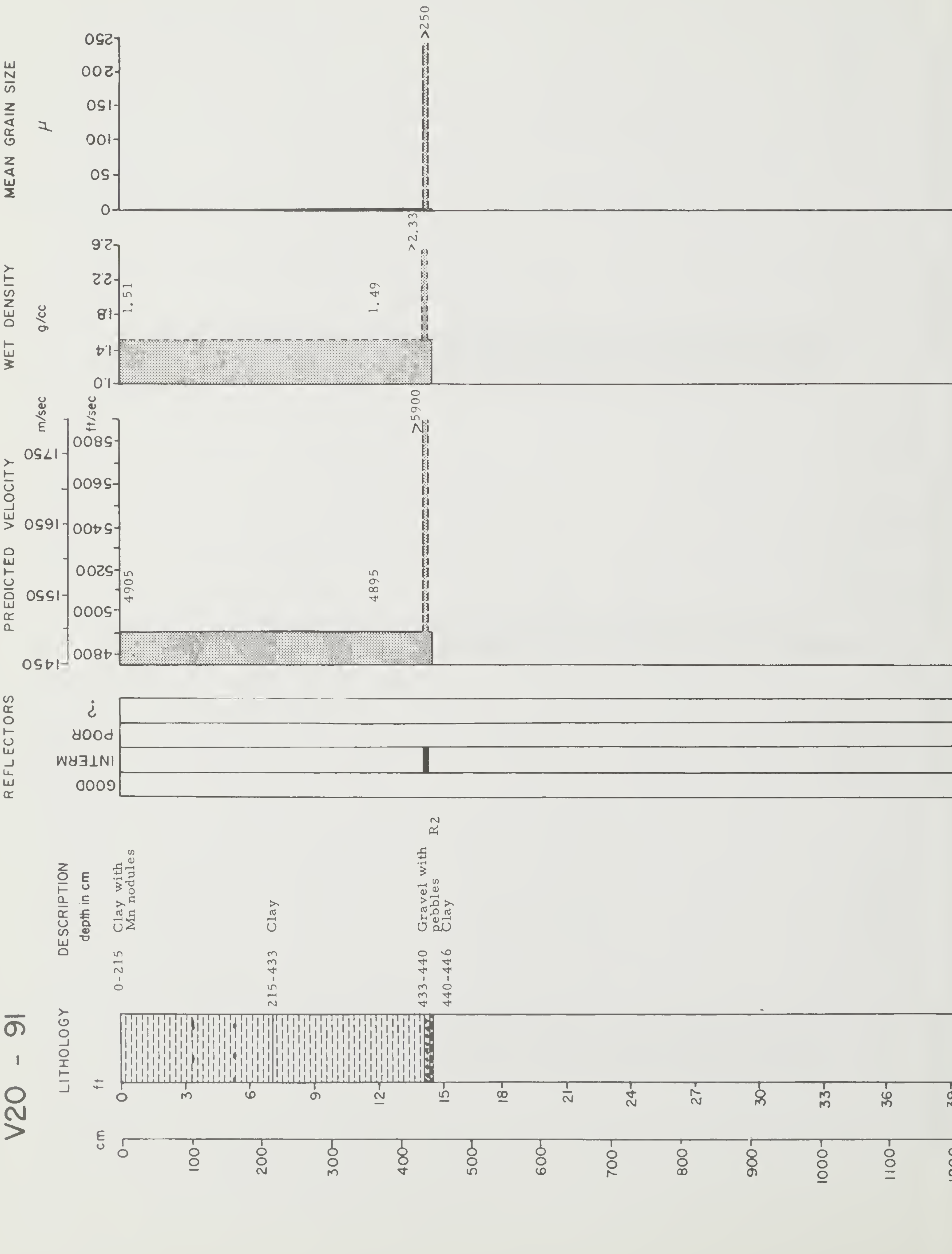
V20 - 88
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-670 Clay with Mn nodules
301-308 Mn nodules R4
670-850 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4915
>5900
4915
4974
WET DENSITY
g/cc
1.56
2.33
1.56
1.67
MEAN GRAIN SIZE
μ

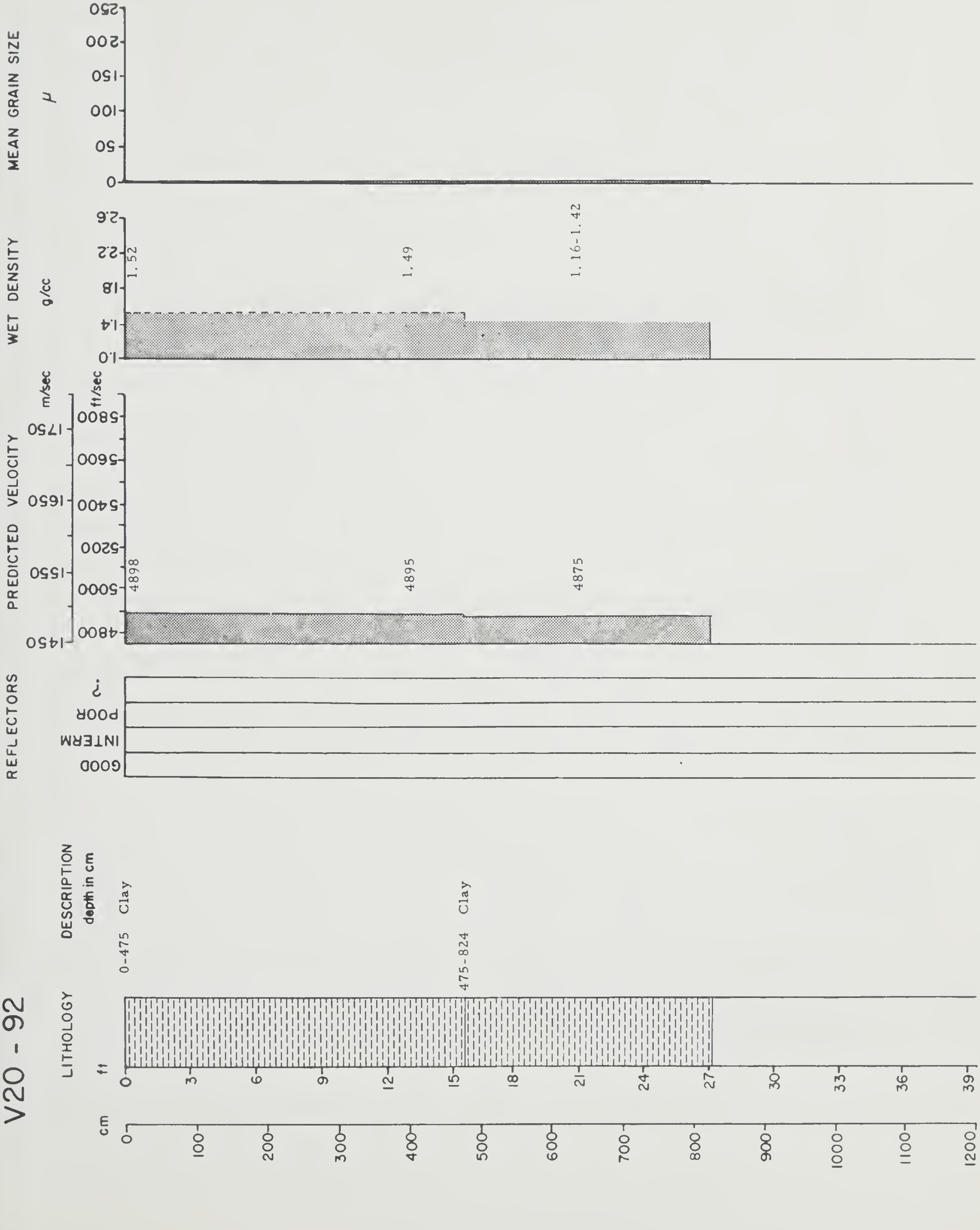
V20 - 89

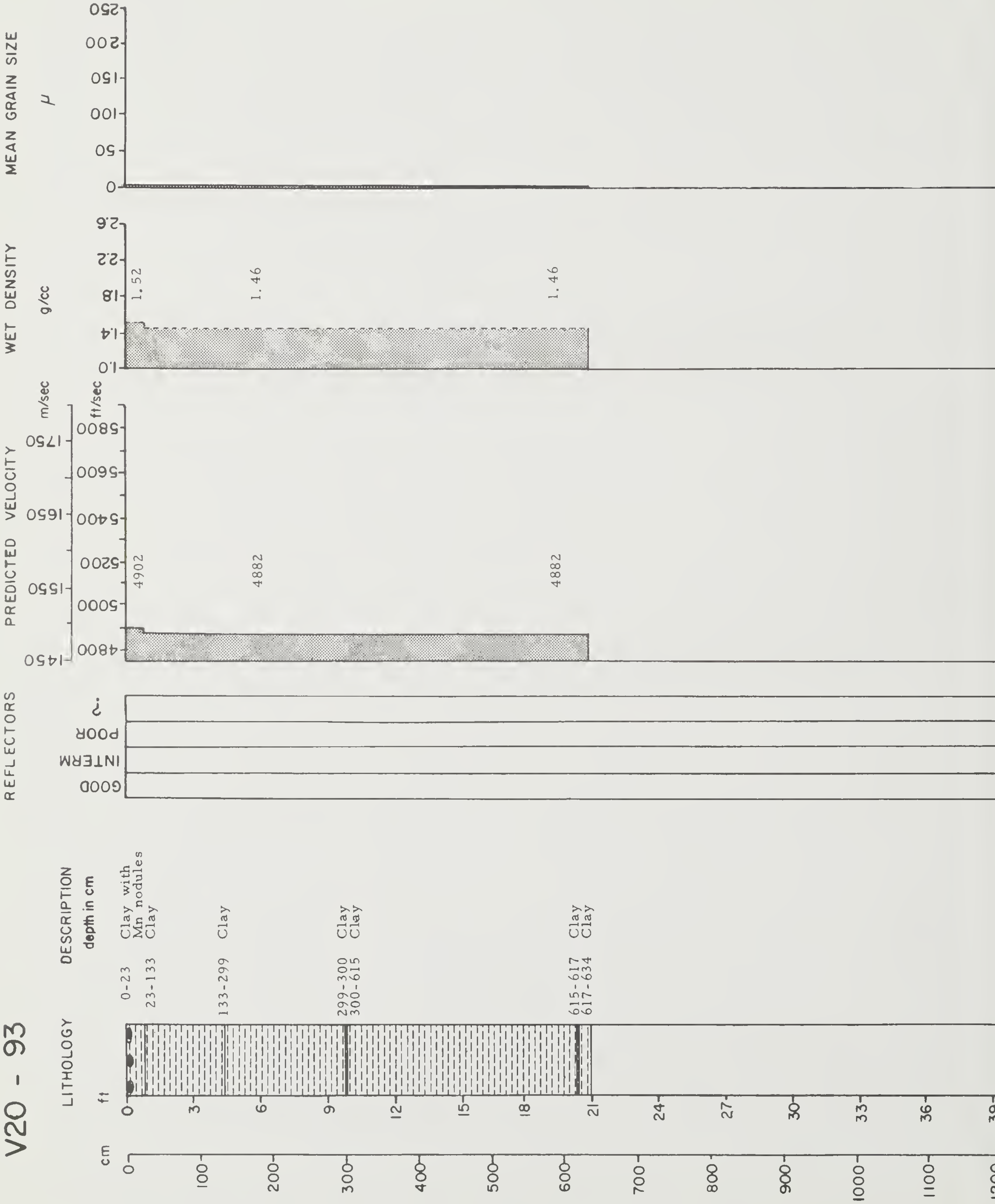

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-496 Clay
496-500 Clay, R4
partially indurated
500-531 Clay
531-534 Clay, R4
partially indurated
534-611 Clay
611-616 R3 Clay, altered ASH?
partially indurated
616-619 Clay
619-622 R3 Clay, altered ASH?
partially indurated
622-843 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4892
5249
5249
4879
5249
4879
WET DENSITY
g/cc
1.48
1.90
1.90
1.16-1.42
1.90
1.16-1.42
MEAN GRAIN SIZE
μ

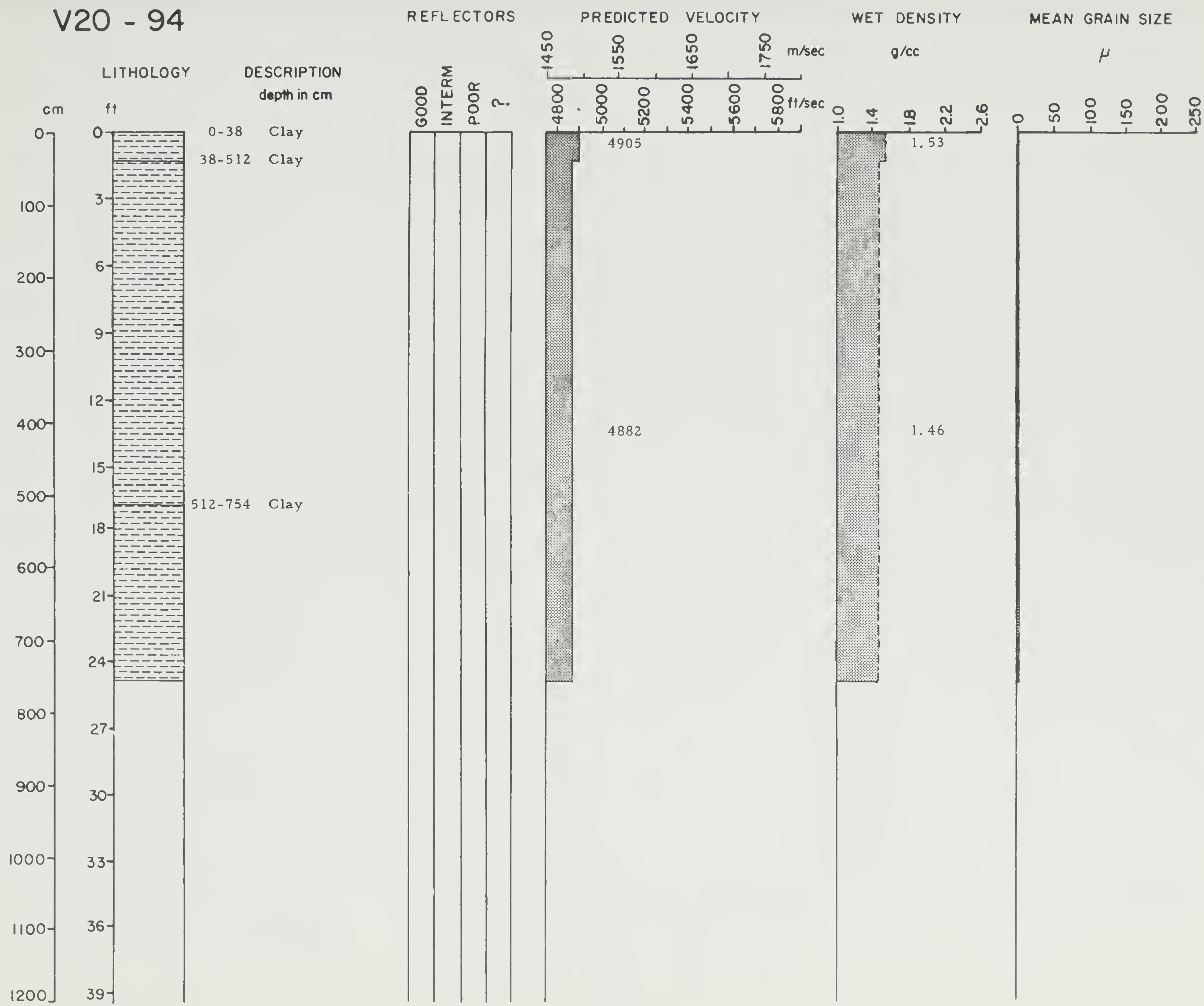
V20 - 90

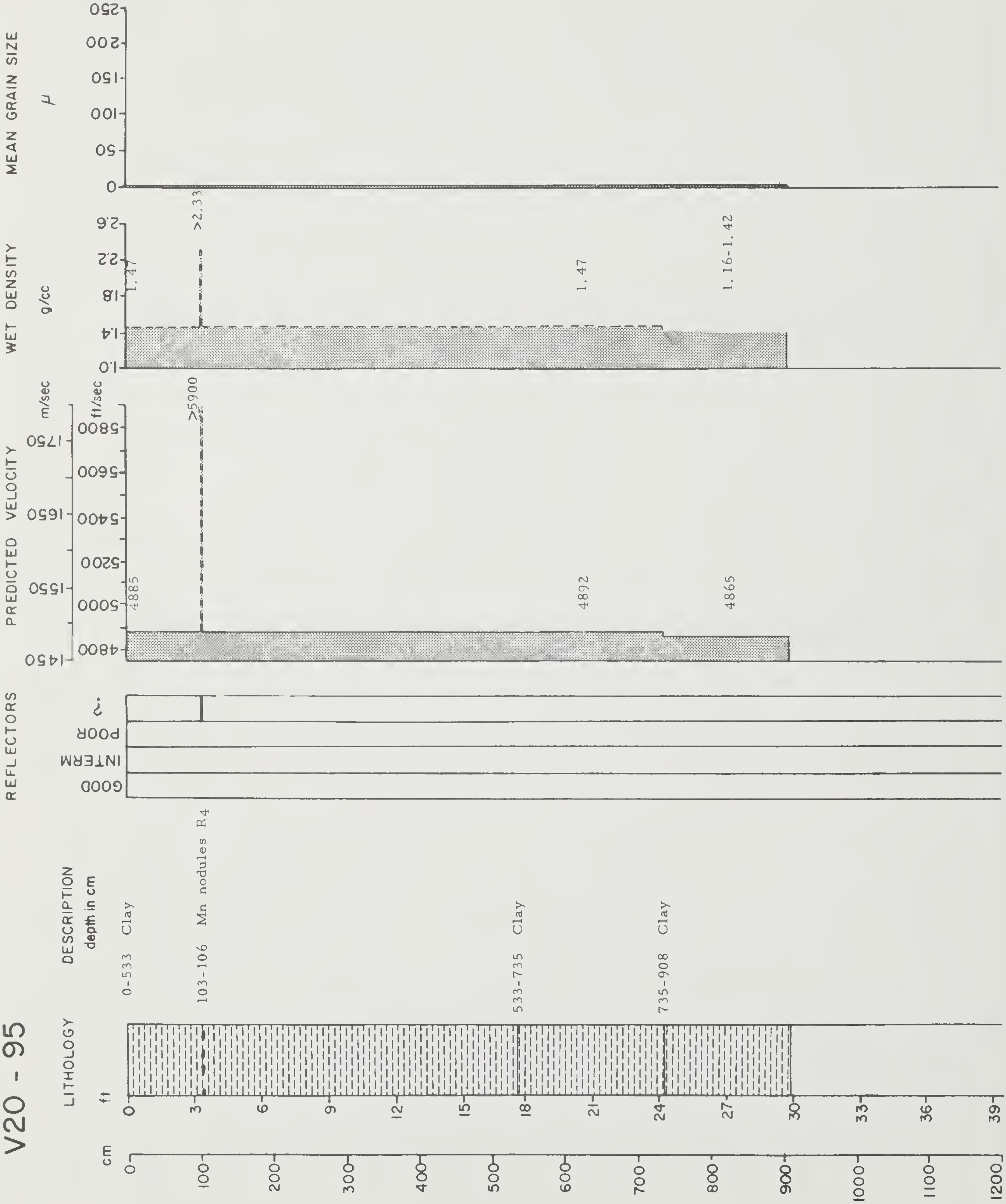

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-781 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4898
4885
4875
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.51
1.46
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39

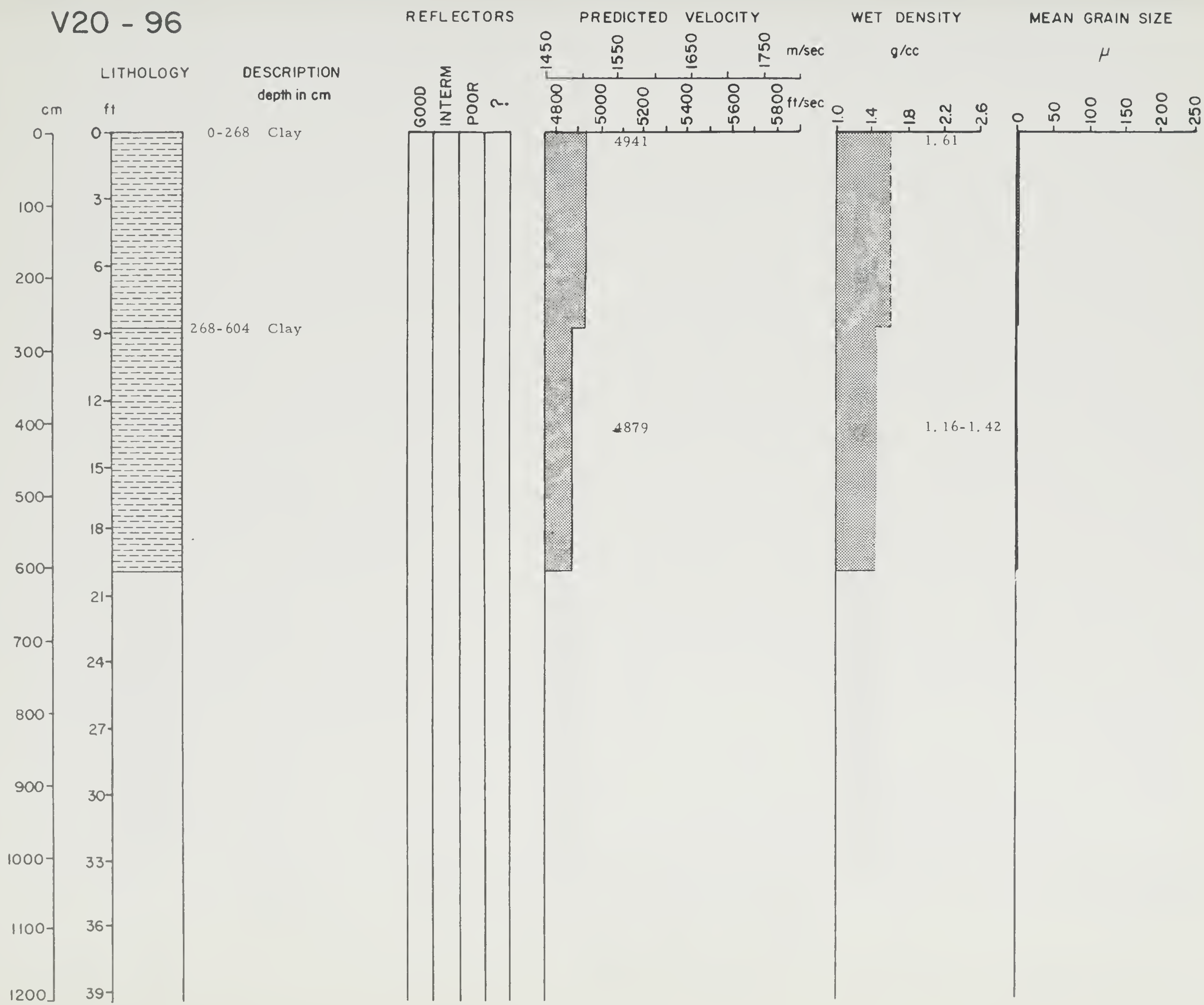

V20 - 91
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-215 Clay with Mn nodules
215-433 Clay
433-440 Gravel with pebbles
440-446 Clay
R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4905
4895
≥5900
WET DENSITY
g/cc
1.51
1.49
>2.33
MEAN GRAIN SIZE
μ
>250

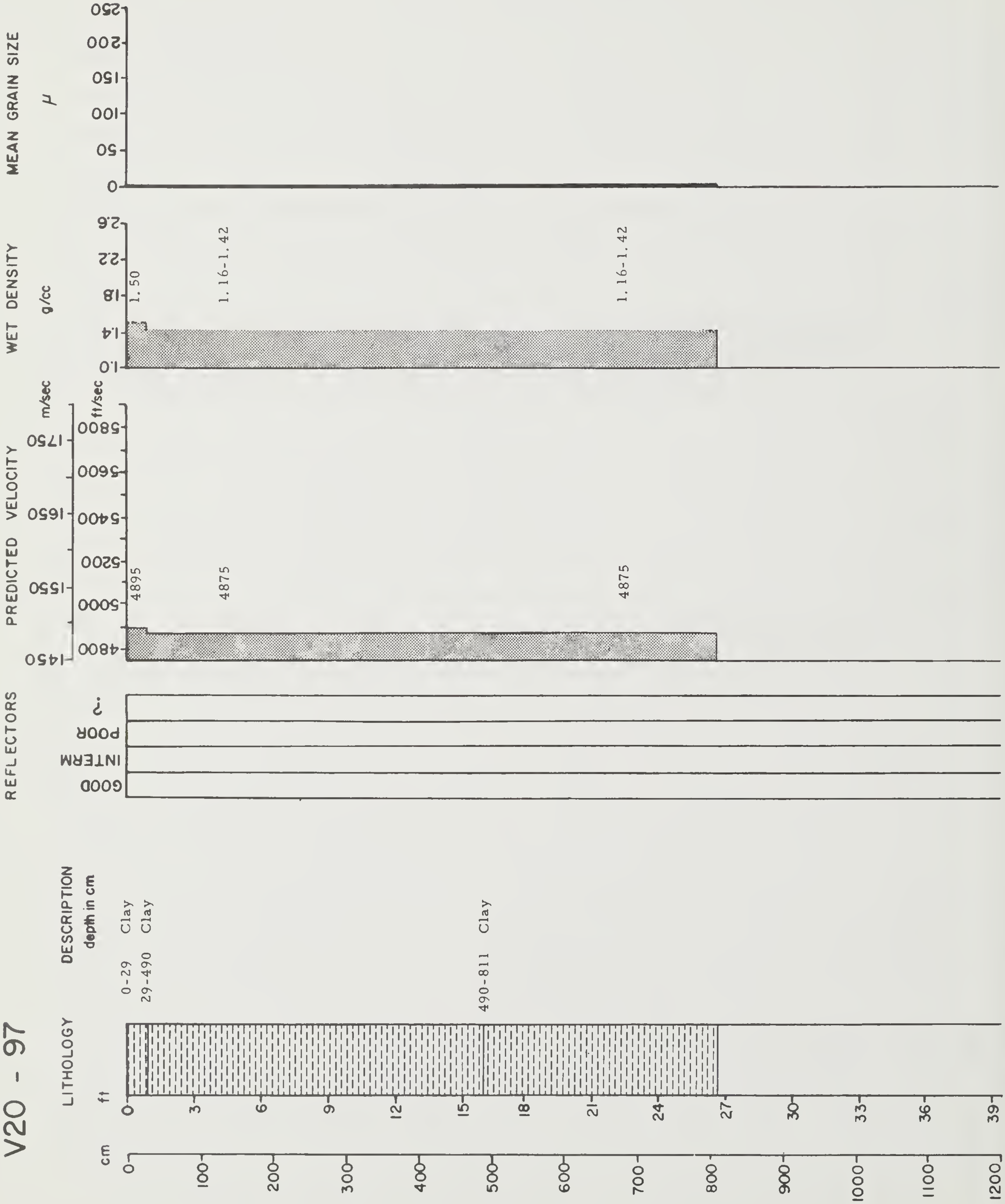

V20 - 92
LITHOLOGY
DESCRIPTION depth in cm
0-475 Clay
475-824 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4898
4895
4875
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.52
1.49
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

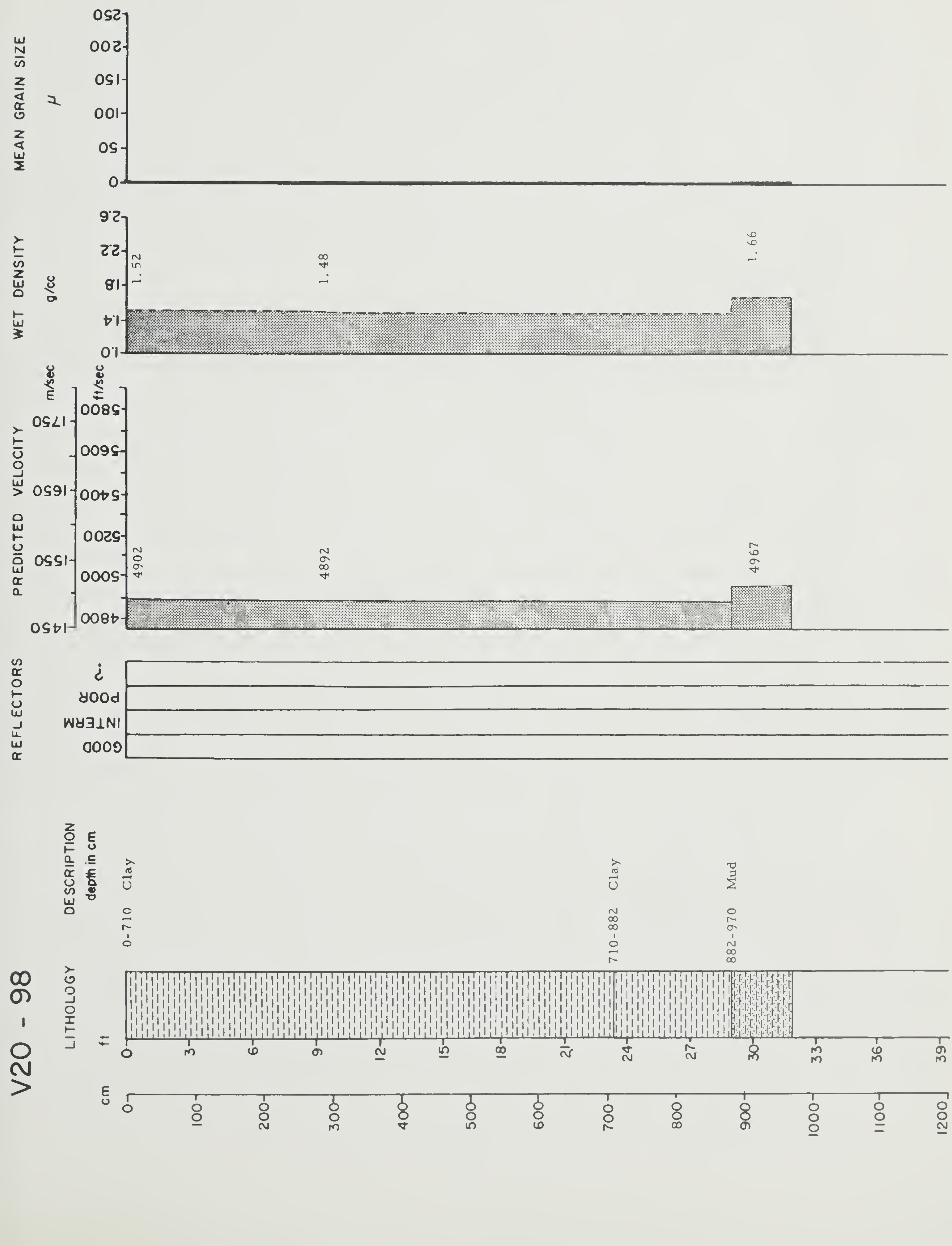

V20 - 93
LITHOLOGY
DESCRIPTION
depth in cm
0-23 Clay with Mn nodules
23-133 Clay
133-299 Clay
299-300 Clay
300-615 Clay
615-617 Clay
617-634 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4902
4882
4882
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.52
1.46
1.46
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

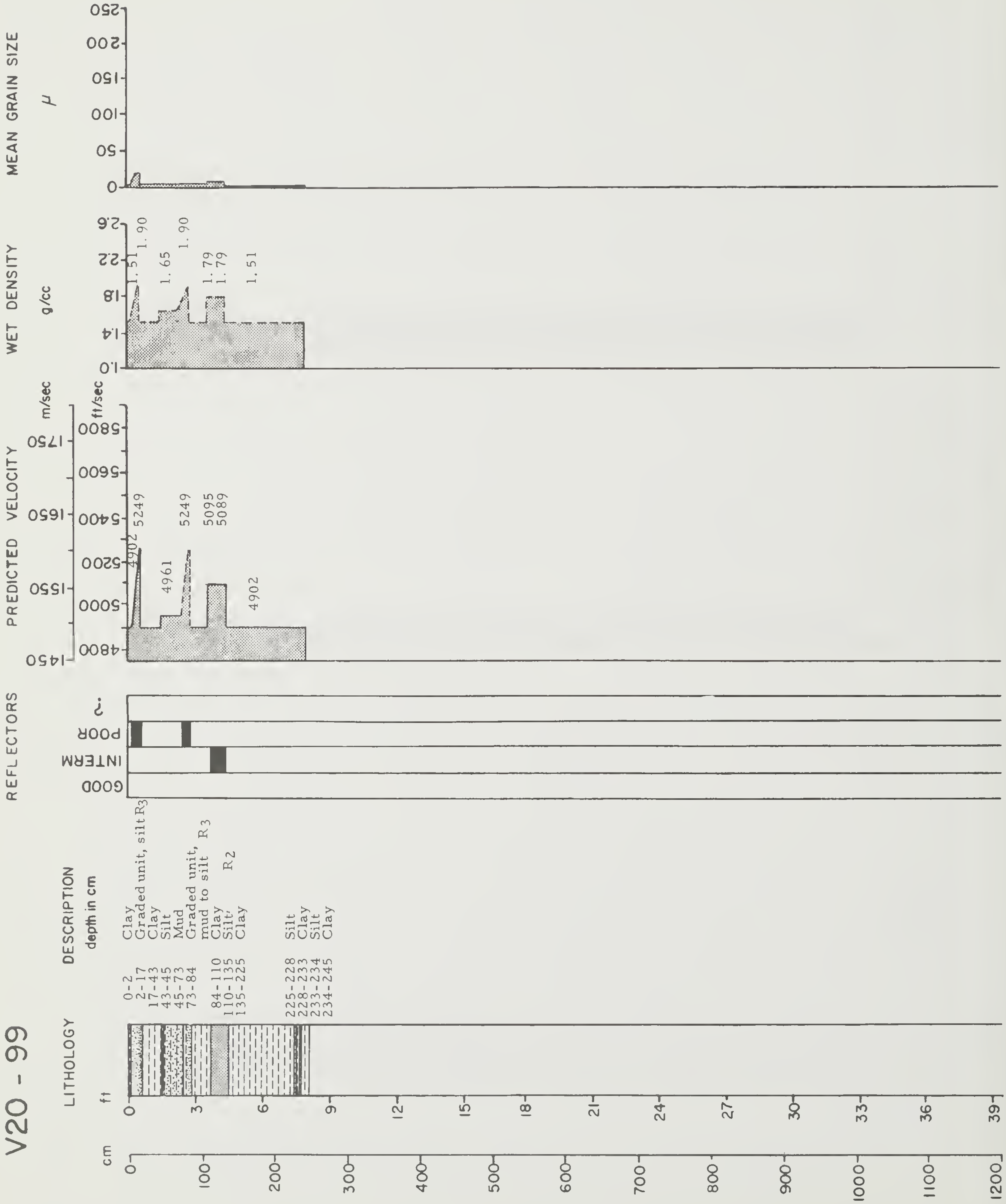

V20 - 94
LITHOLOGY
DESCRIPTION
depth in cm
0-38 Clay
38-512 Clay
512-754 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4905
4882
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.53
1.46
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39


V20 - 95
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-533 Clay
103-106 Mn nodules R4
533-735 Clay
735-908 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4885
4892
4865
>5900
WET DENSITY
g/cc
1.47
>2.33
1.47
1.16-1.42
MEAN GRAIN SIZE
μ
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
0 3 6 9 12 15 18 21 24 27 30 33 36 39
1450 1550 1650 1750
4800 5000 5200 5400 5600 5800
1.0 1.4 1.8 2.2 2.6
0 50 100 150 200 250

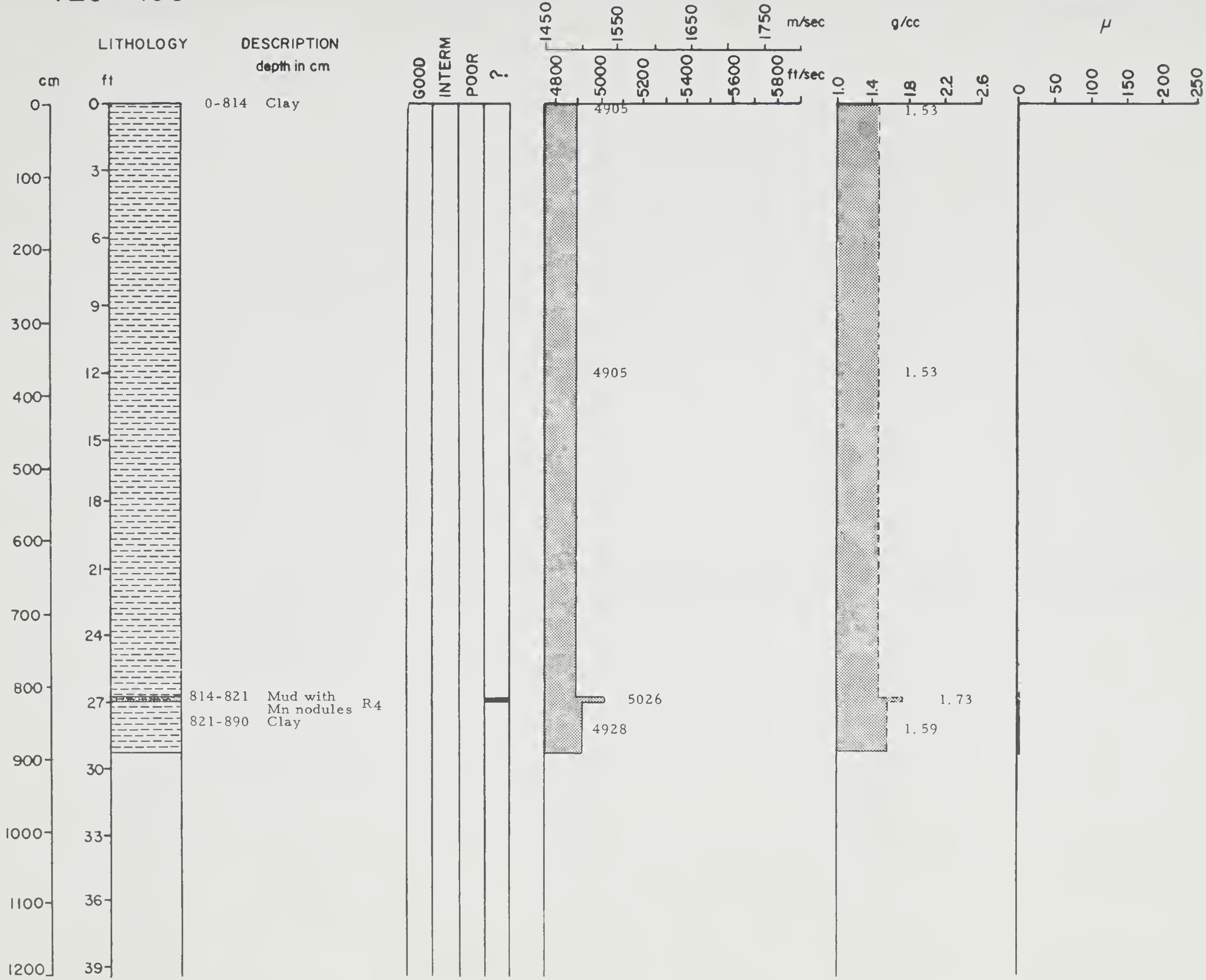

V20 - 96
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-268 Clay
268-604 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4941
4879
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.61
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
3
6
9
12
15
18
21
24
27
30
33
36
39


V20 - 97
LITHOLOGY
DESCRIPTION depth in cm
0-29 Clay
29-490 Clay
490-811 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4895
4875
4875
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.50
1.16-1.42
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

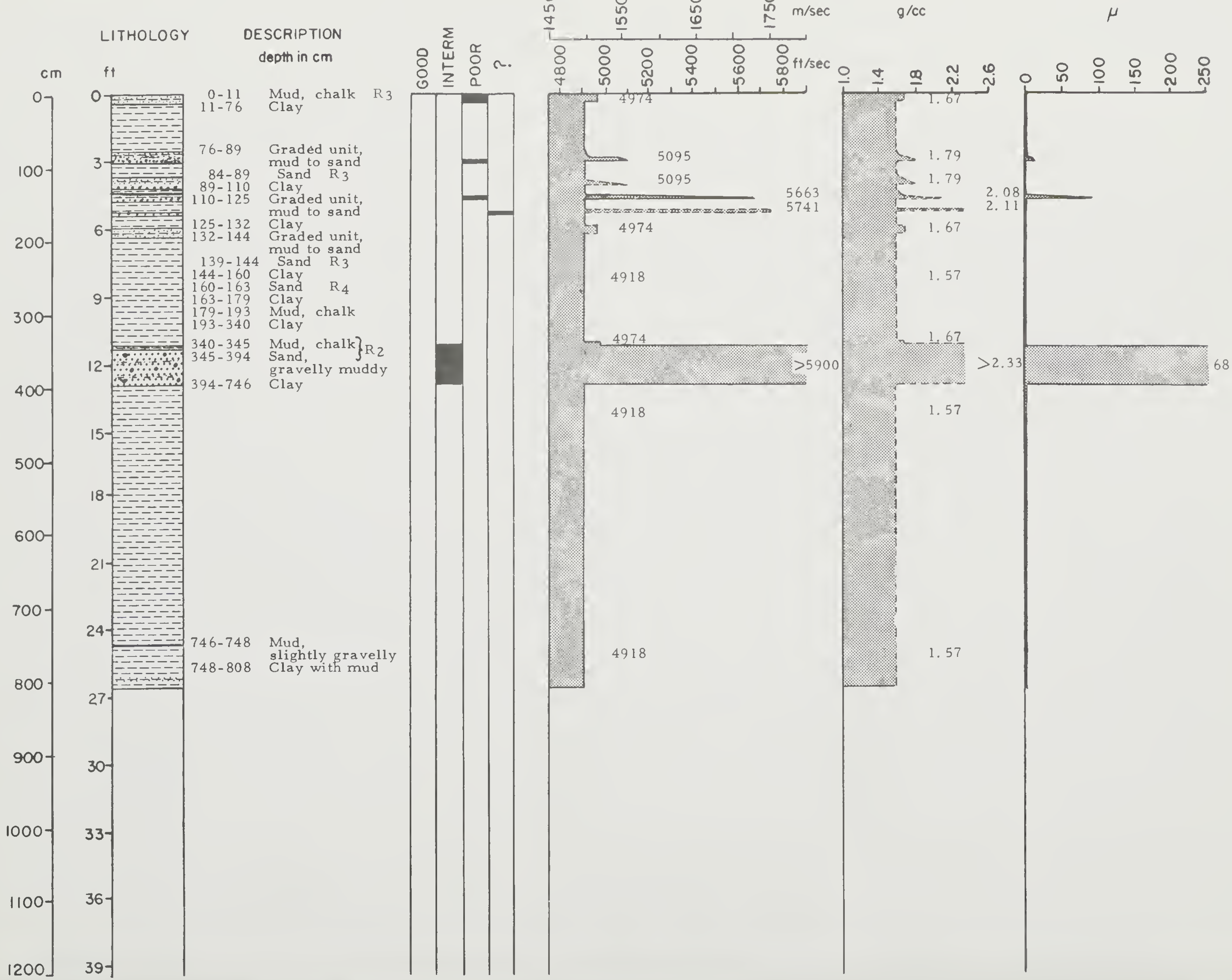

V20 - 98
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.52
1.48
1.66
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4902
4892
4967
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-710 Clay
710-882 Clay
882-970 Mud
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

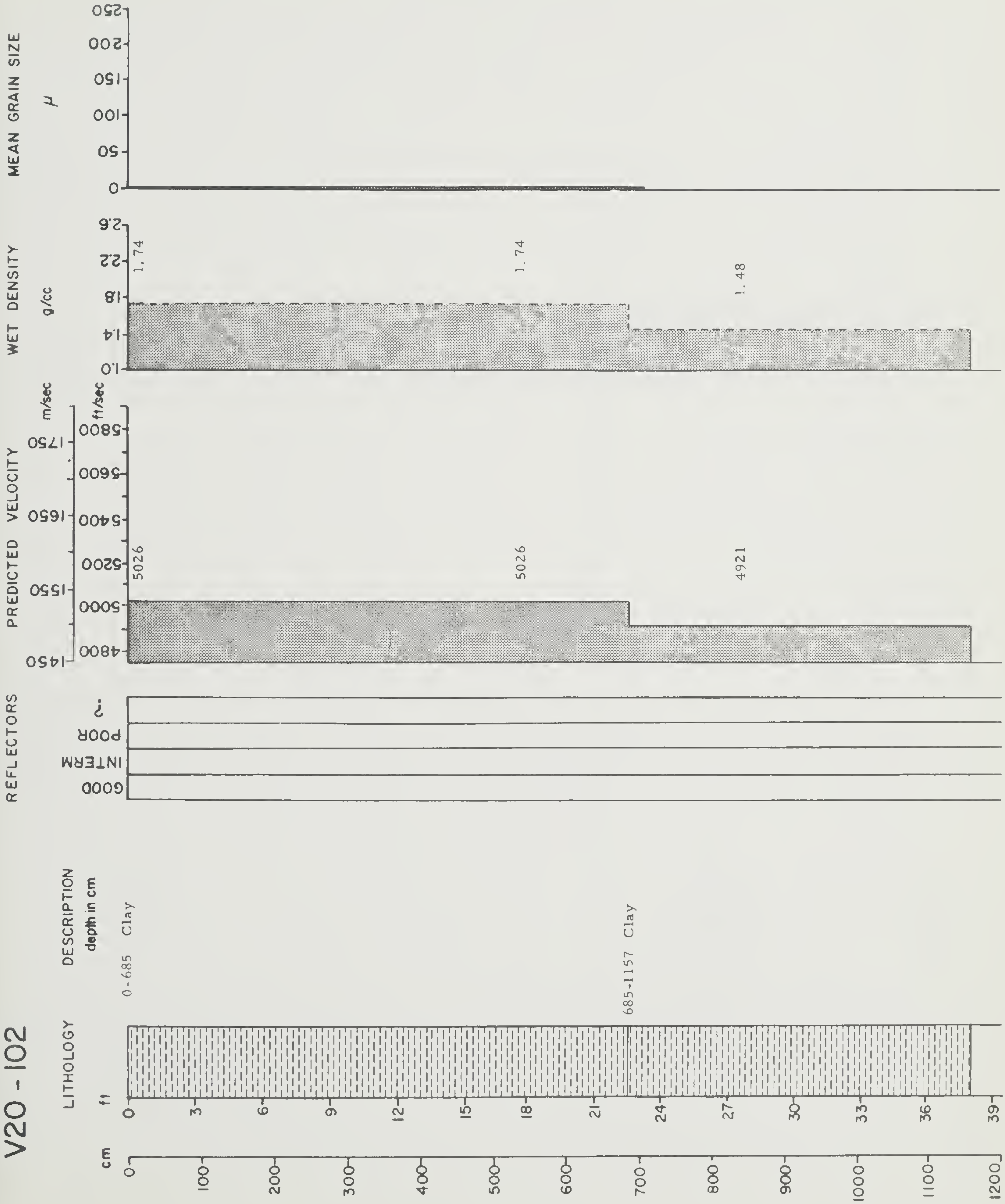

V20 - 99
LITHOLOGY
DESCRIPTION
depth in cm
0-2 Clay
2-17 Graded unit, silt R3
17-43 Clay
43-45 Silt
45-73 Mud
73-84 Graded unit, mud to silt R3
84-110 Clay
110-135 Silt R2
135-225 Clay
225-228 Silt
228-233 Clay
233-234 Silt
234-245 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4902
5249
4961
5249
5095
5089
4902
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.51
1.90
1.65
1.90
1.79
1.79
1.51
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

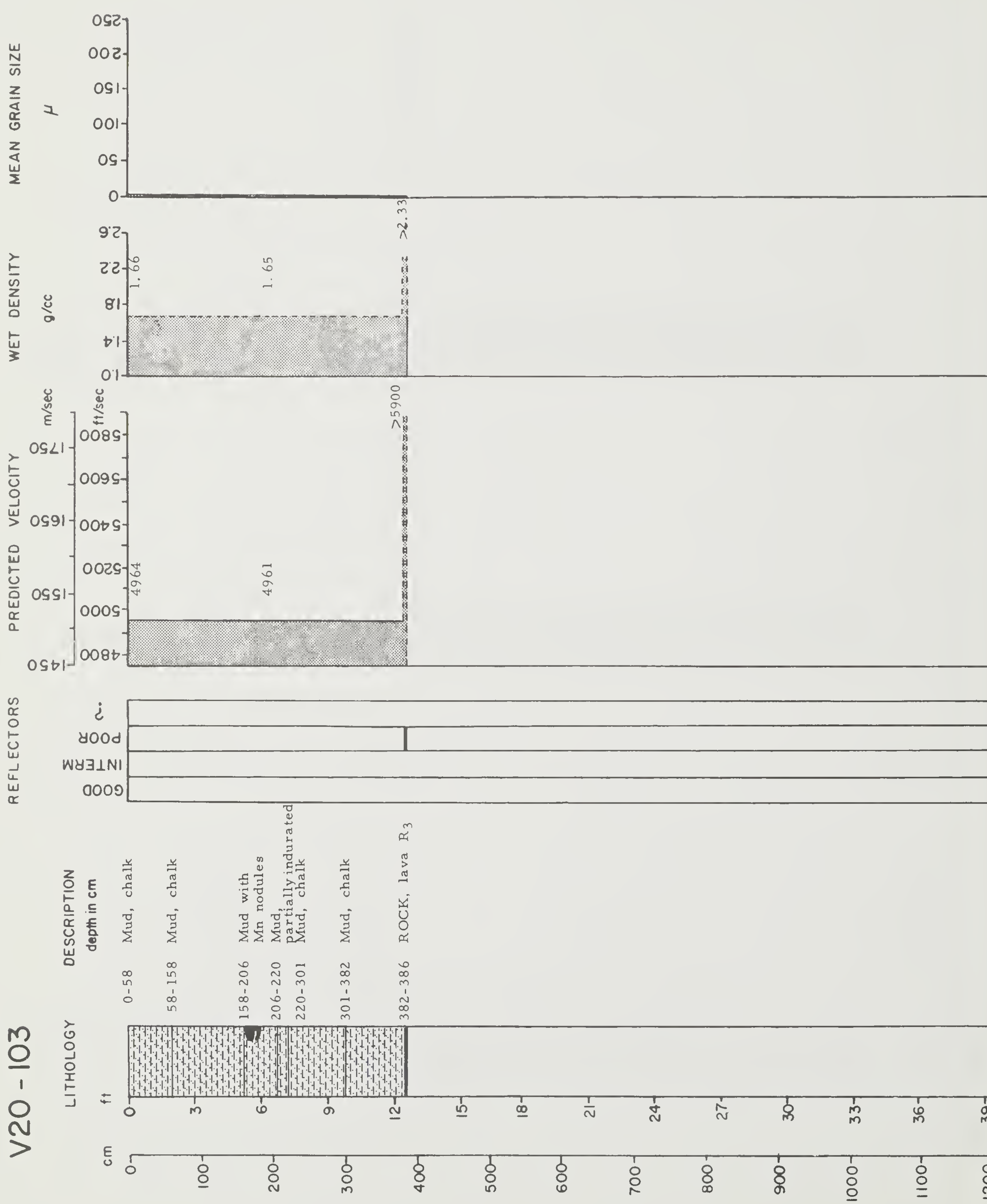
V20 - 100

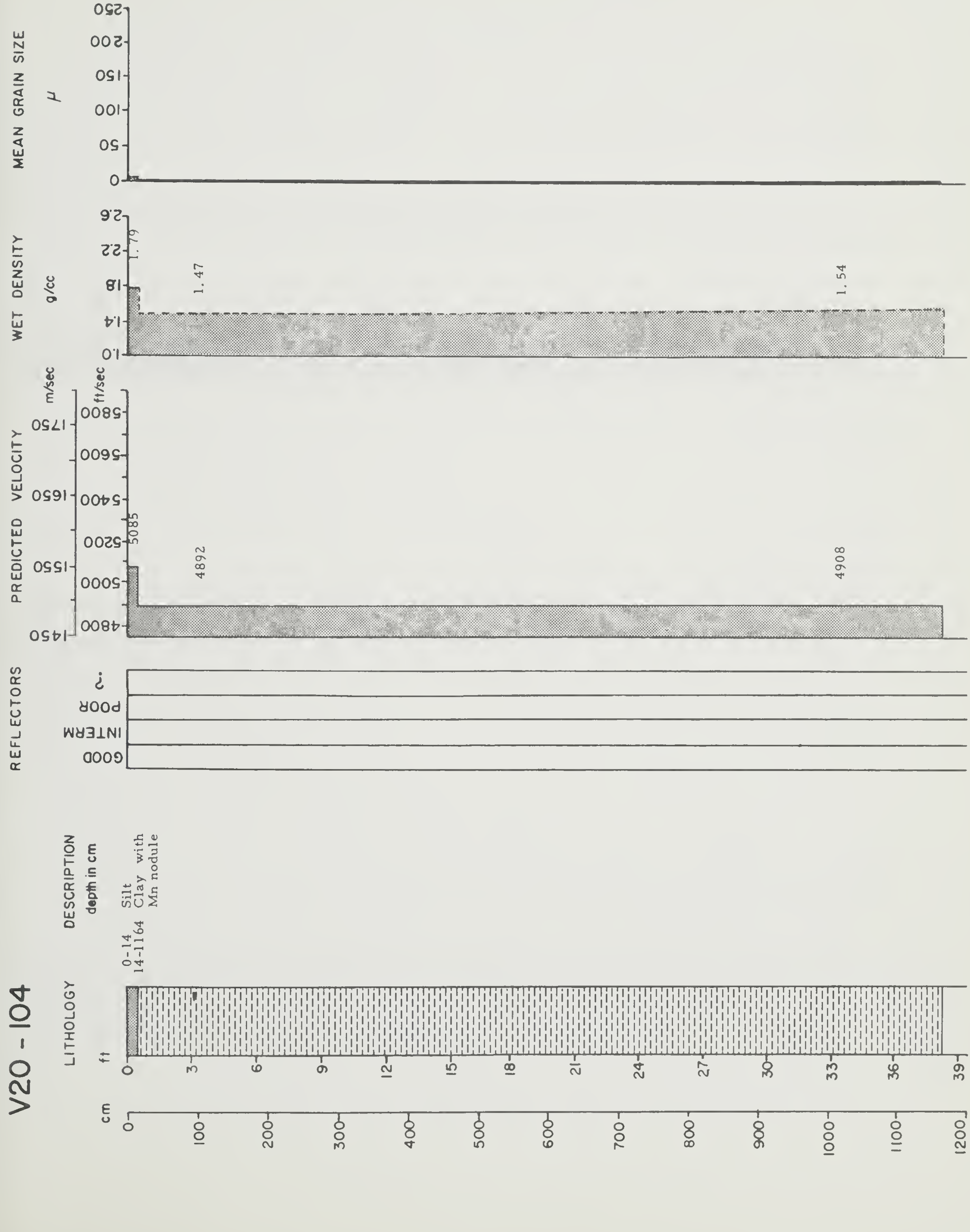

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-814 Clay
814-821 Mud with Mn nodules R4
821-890 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4905
4905
5026
4928
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.53
1.53
1.73
1.59
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

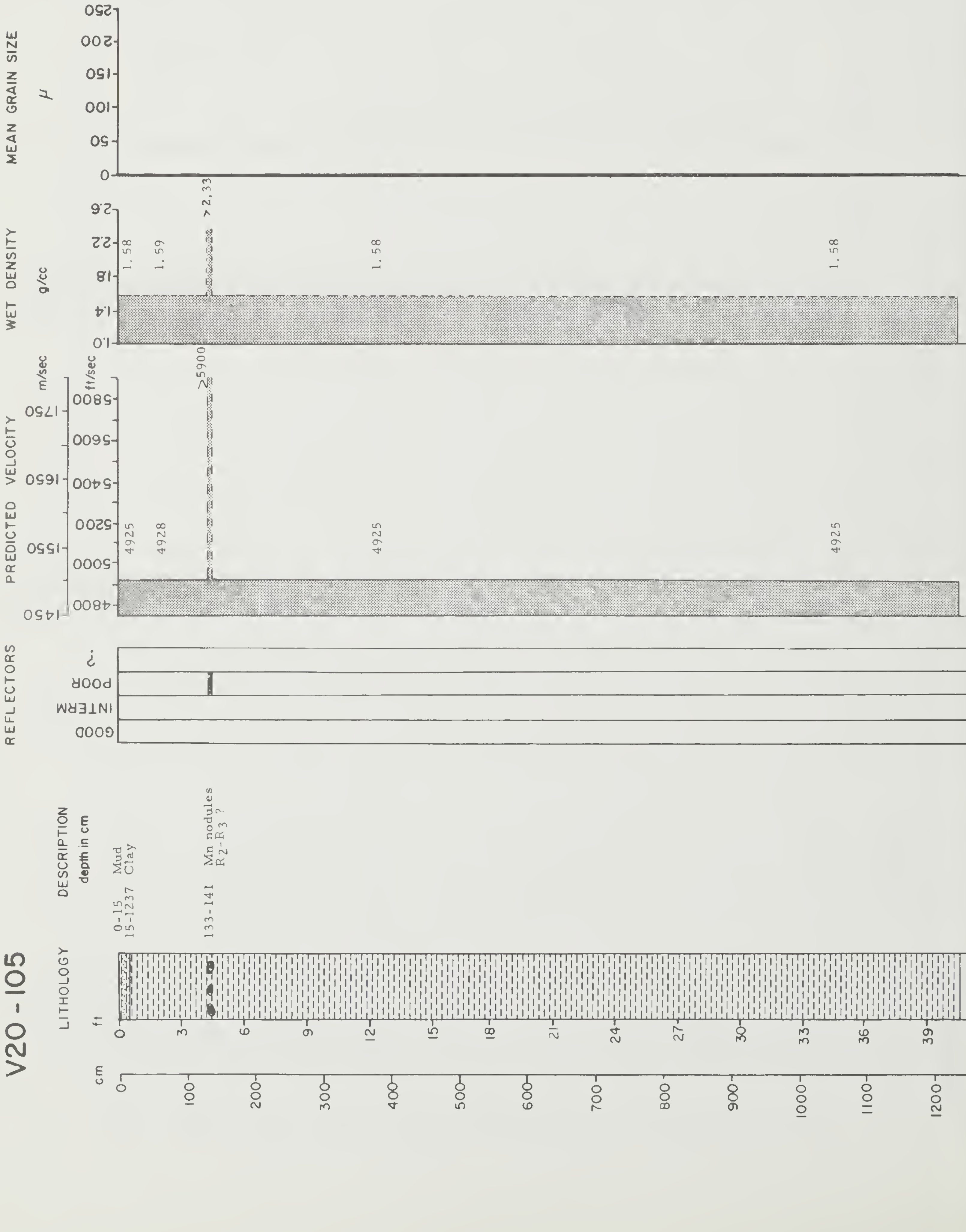
V20 - 101

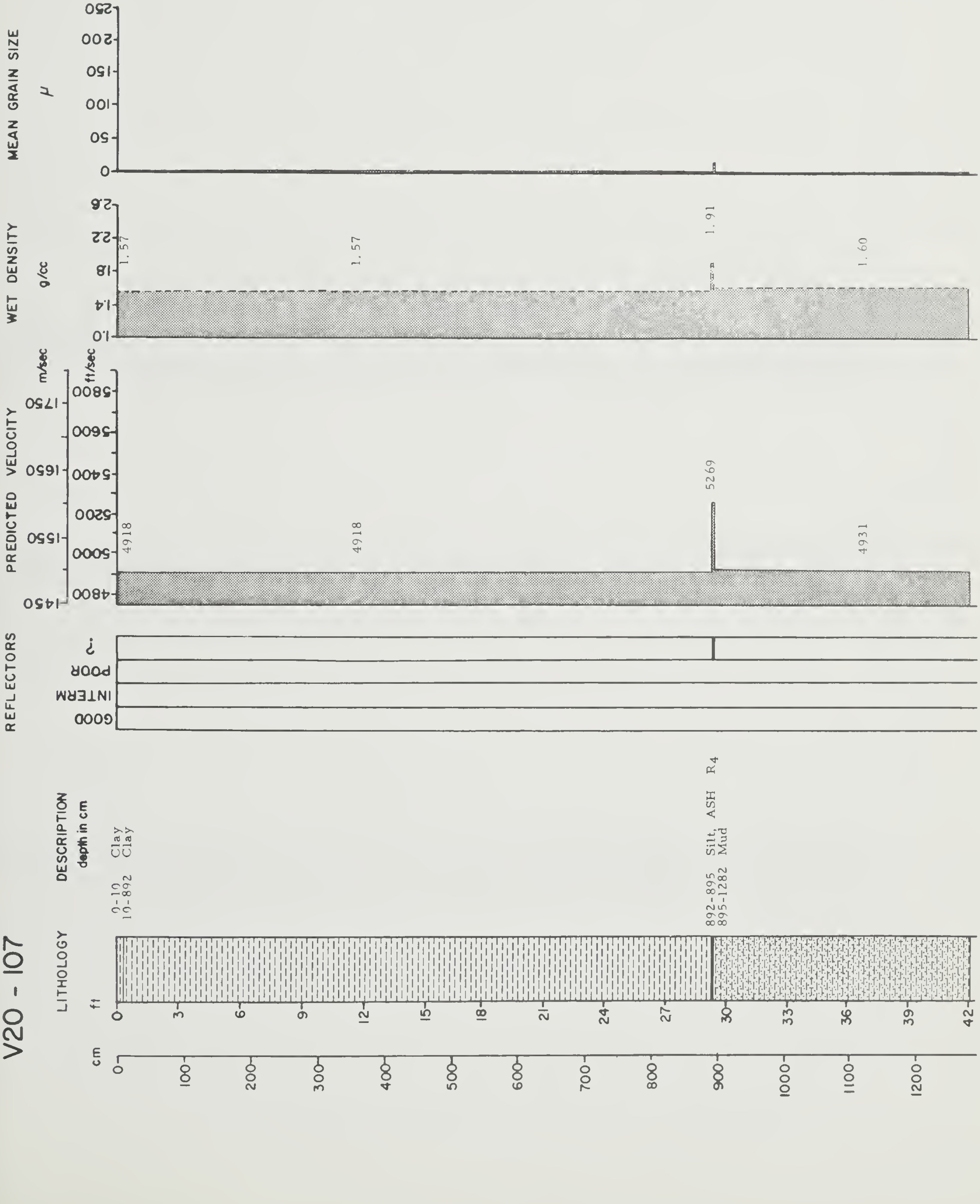

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-11 Mud, chalk R3
11-76 Clay
76-89 Graded unit, mud to sand
84-89 Sand R3
89-110 Clay
110-125 Graded unit, mud to sand
125-132 Clay
132-144 Graded unit, mud to sand
139-144 Sand R3
144-160 Clay
160-163 Sand R4
163-179 Clay
179-193 Mud, chalk
193-340 Clay
340-345 Mud, chalk } R2
345-394 Sand, gravelly muddy
394-746 Clay
746-748 Mud, slightly gravelly
748-808 Clay with mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4974
5095
5095
5663
5741
4974
4918
4974
>5900
4918
4918
WET DENSITY
g/cc
1.67
1.79
1.79
2.08
2.11
1.67
1.57
1.67
>2.33
1.57
1.57
MEAN GRAIN SIZE
μ
681

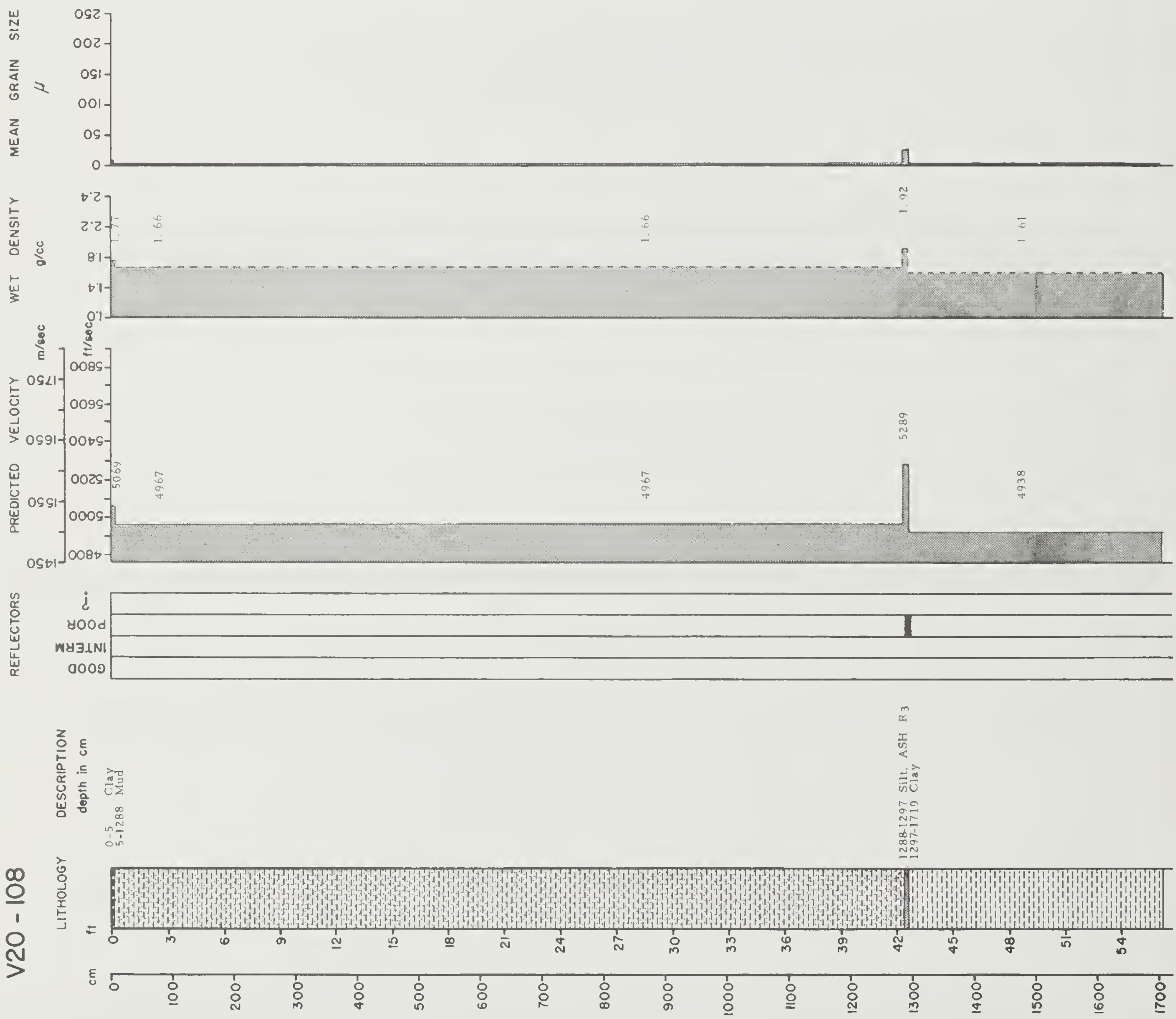

V20 - 102
LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-685 Clay
685-1157 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
5026
5026
4921
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.74
1.74
1.48
MEAN GRAIN SIZE
μ
0 50 100 150 200 250

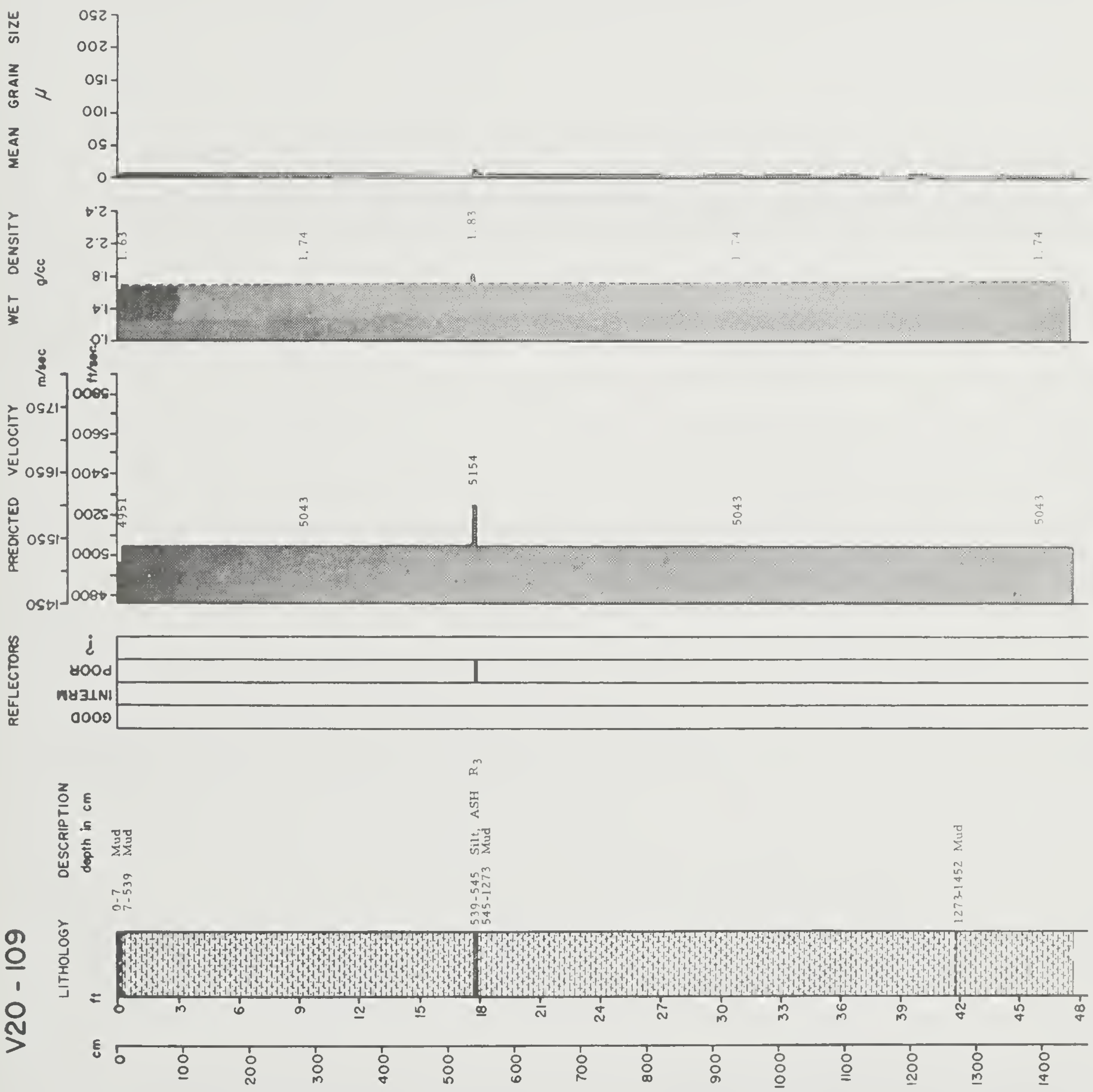

V20 - 103
LITHOLOGY
DESCRIPTION
depth in cm
0-58 Mud, chalk
58-158 Mud, chalk
158-206 Mud with Mn nodules
206-220 Mud, partially indurated
220-301 Mud, chalk
301-382 Mud, chalk
382-386 ROCK, lava R_3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4964
4961
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.66
1.65
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39


V20 - 104
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-14 Silt
14-1164 Clay with Mn nodule
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5085
4892
4908
WET DENSITY
g/cc
1.79
1.47
1.54
MEAN GRAIN SIZE
μ

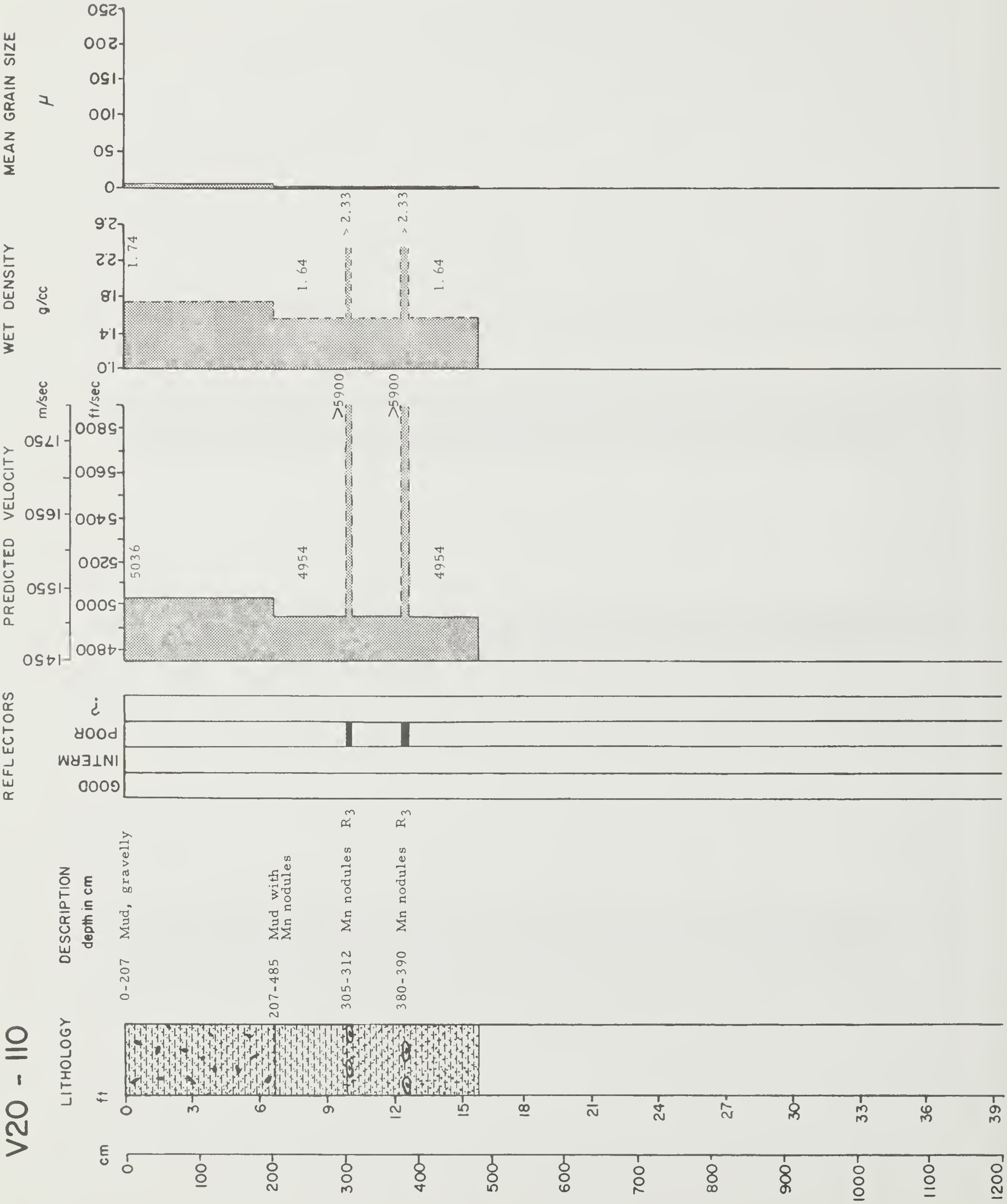

V20 - 105
LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-15 Mud
15-1237 Clay
133-141 Mn nodules
R2-R3 ?
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
4925
4928
≥5900
4925
4925
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.58
1.59
>2.33
1.58
1.58
MEAN GRAIN SIZE
μ
0 50 100 150 200 250

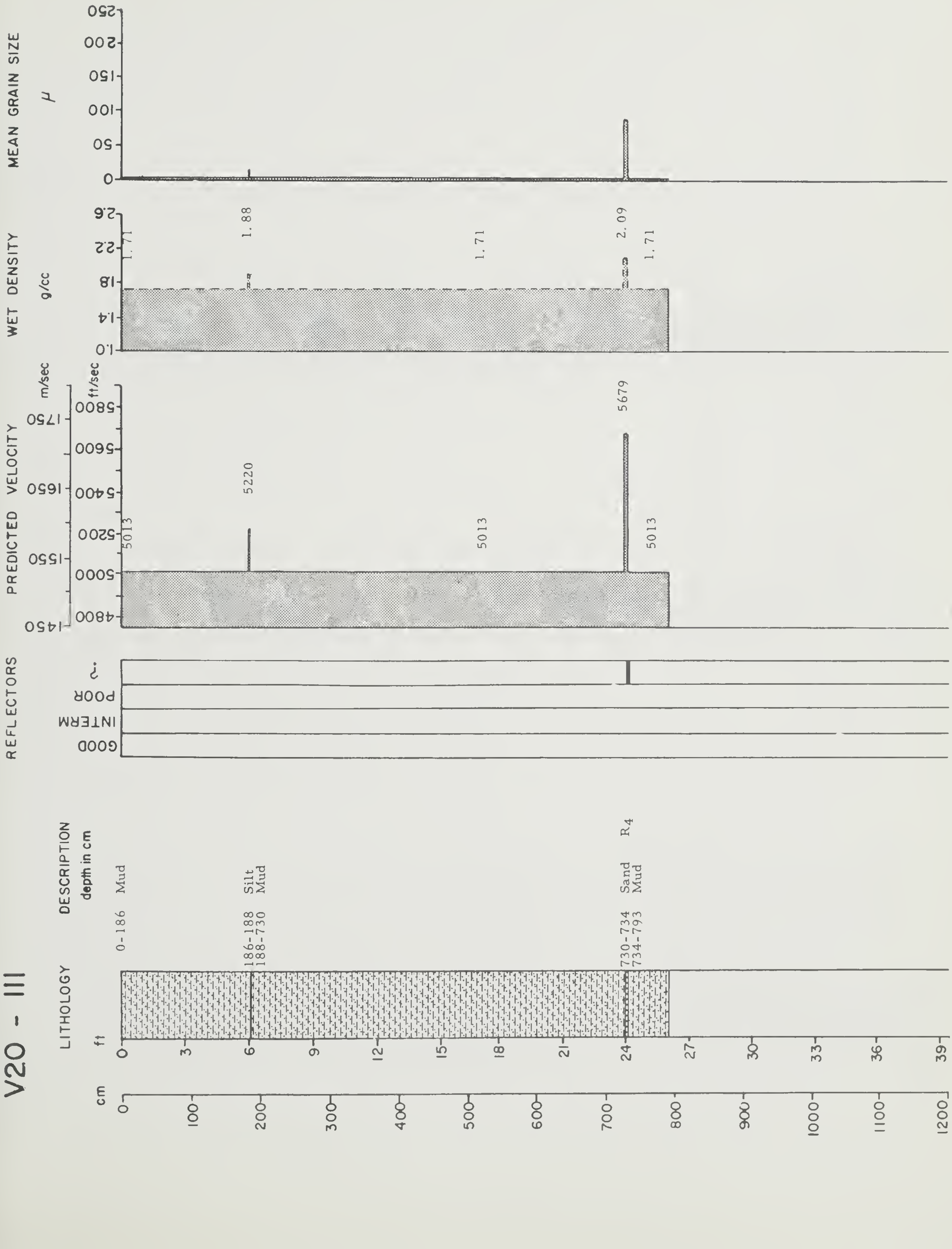

V20 - 107
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.57
1.57
1.91
1.60
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4918
4918
5269
4931
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-10 Clay
10-892 Clay
892-895 Silt, ASH R4
895-1282 Mud
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
42
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

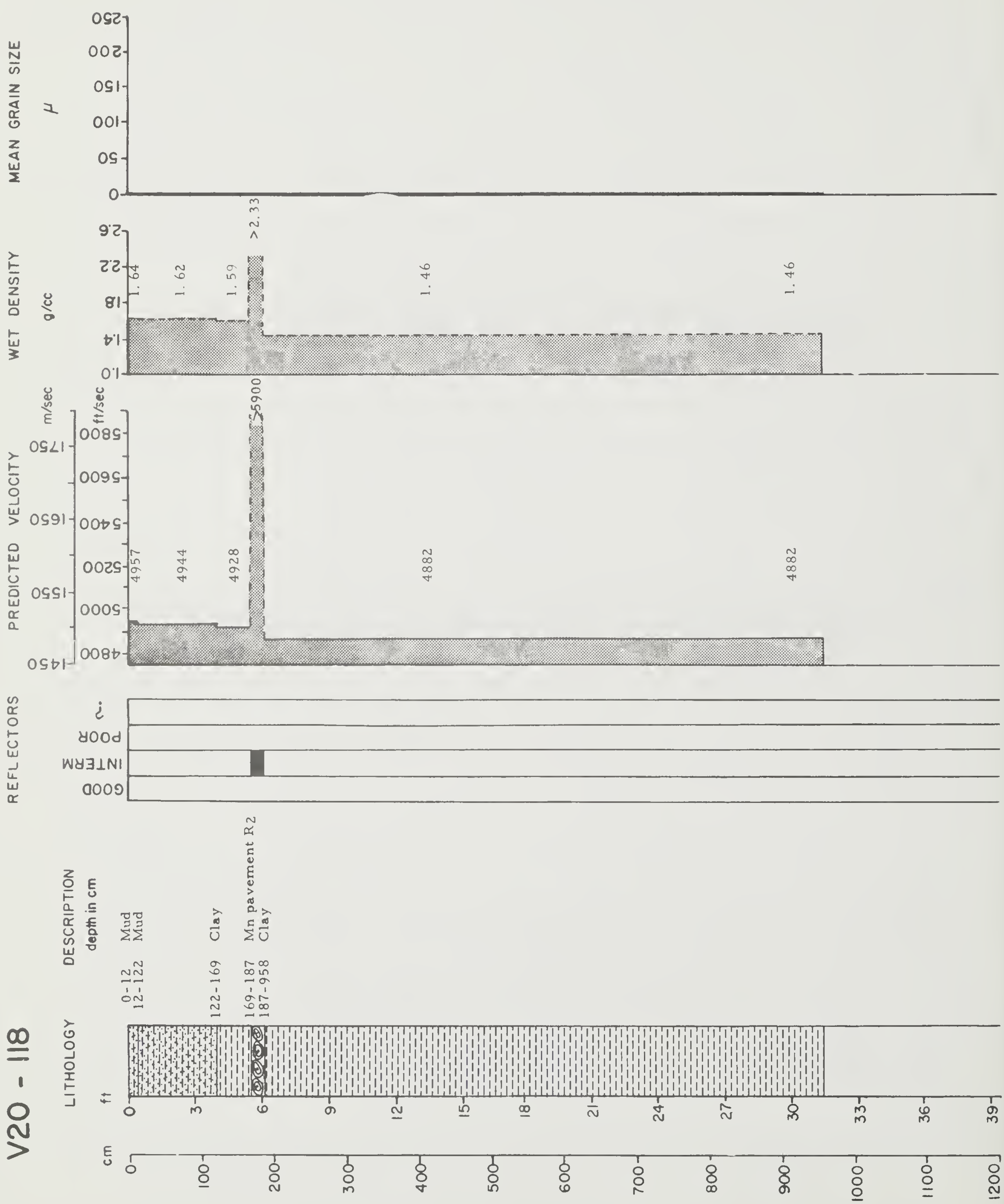

V20 - 108
LITHOLOGY
DESCRIPTION
depth in cm
0-5 Clay
5-1288 Mud
1288-1297 Silt, ASH R 3
1297-1710 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5069
4967
4967
5289
4938
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.4
1.77
1.66
1.66
1.92
1.61
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
42
45
48
51
54
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700

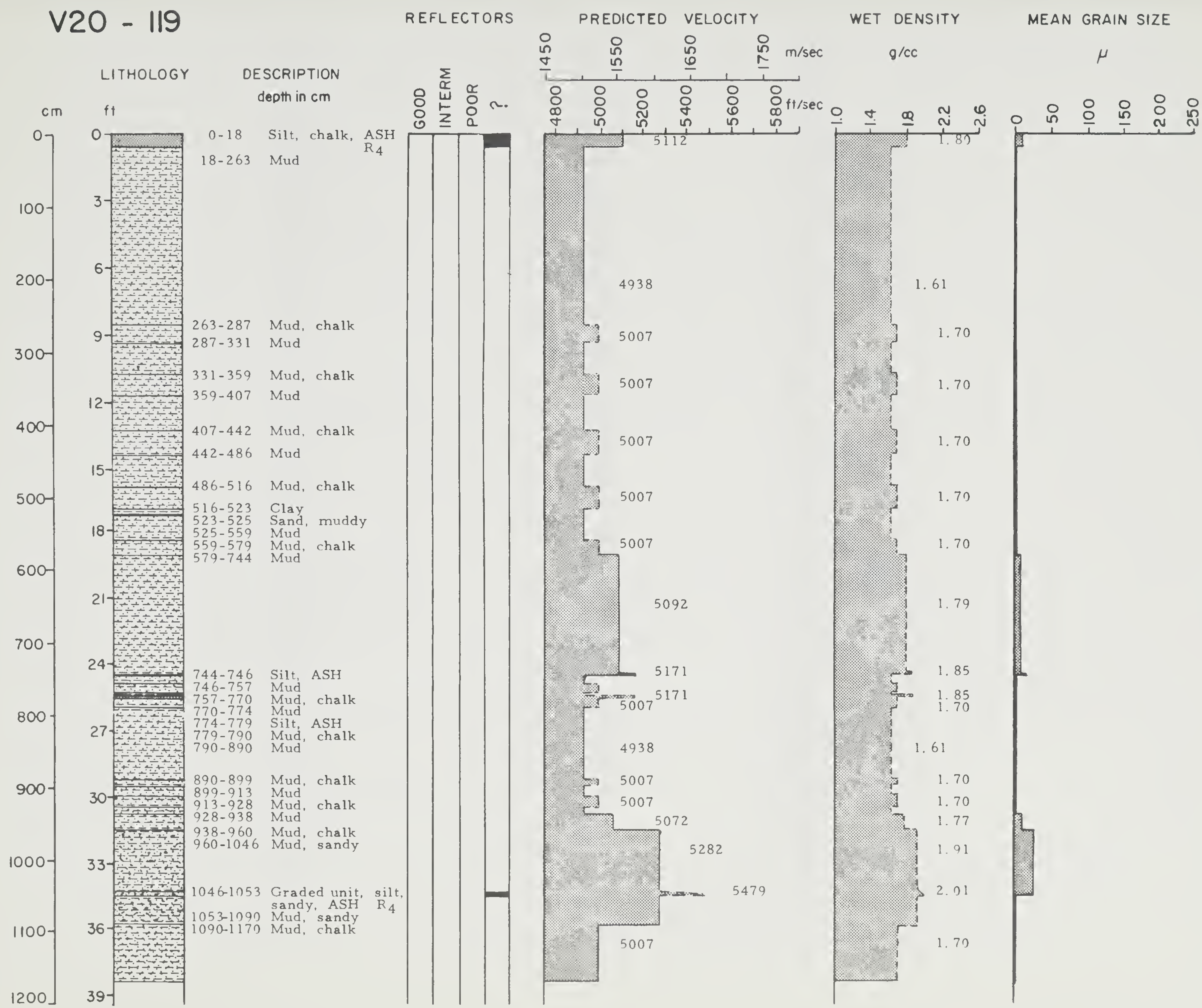


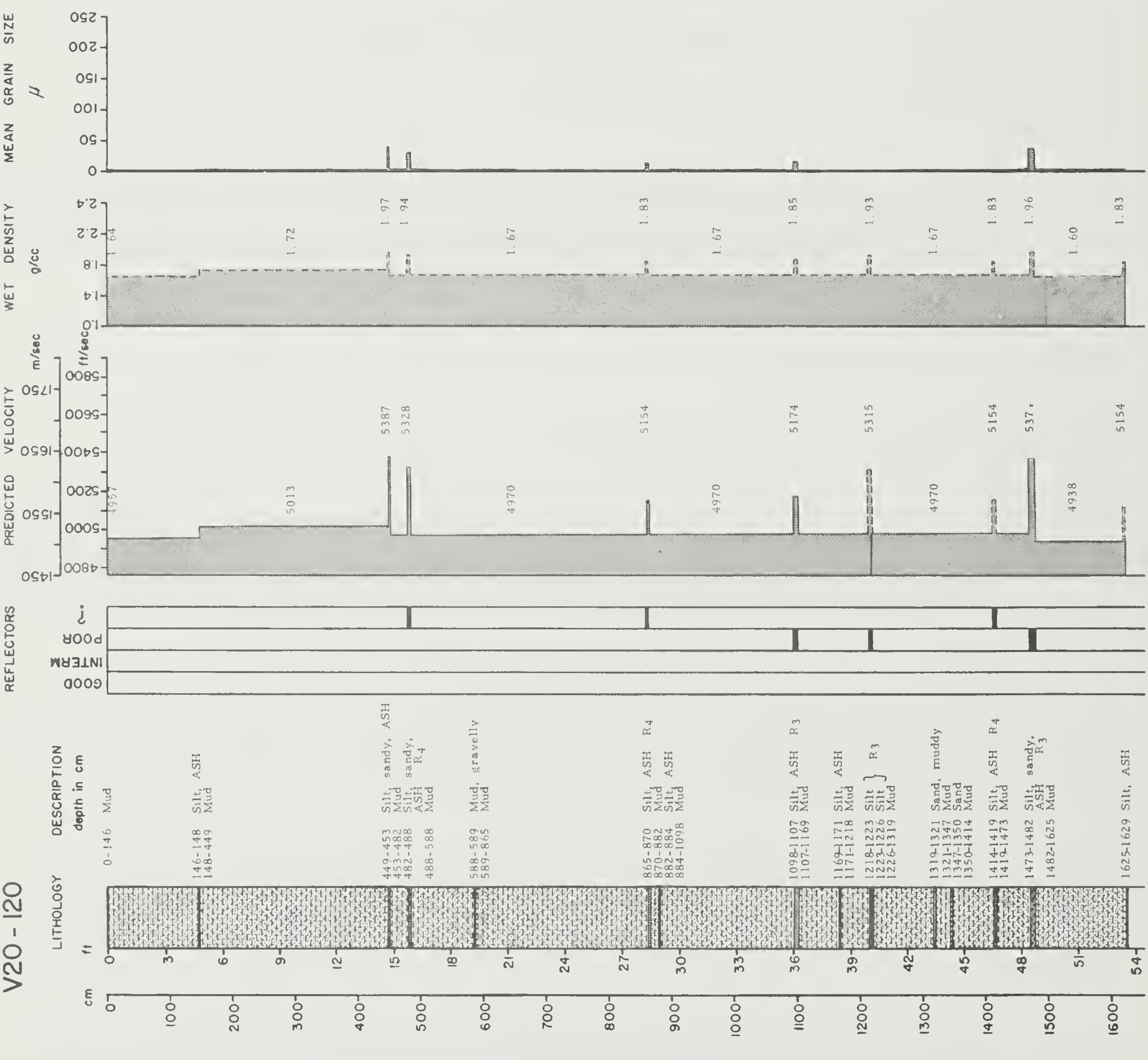
V20 - 109
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-7 Mud
7-539 Mud
539-545 Silt, ASH R3
545-1273 Mud
1273-1452 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4951
5043
5154
5043
5043
WET DENSITY
g/cc
1.63
1.74
1.83
1.74
1.74
MEAN GRAIN SIZE
μ

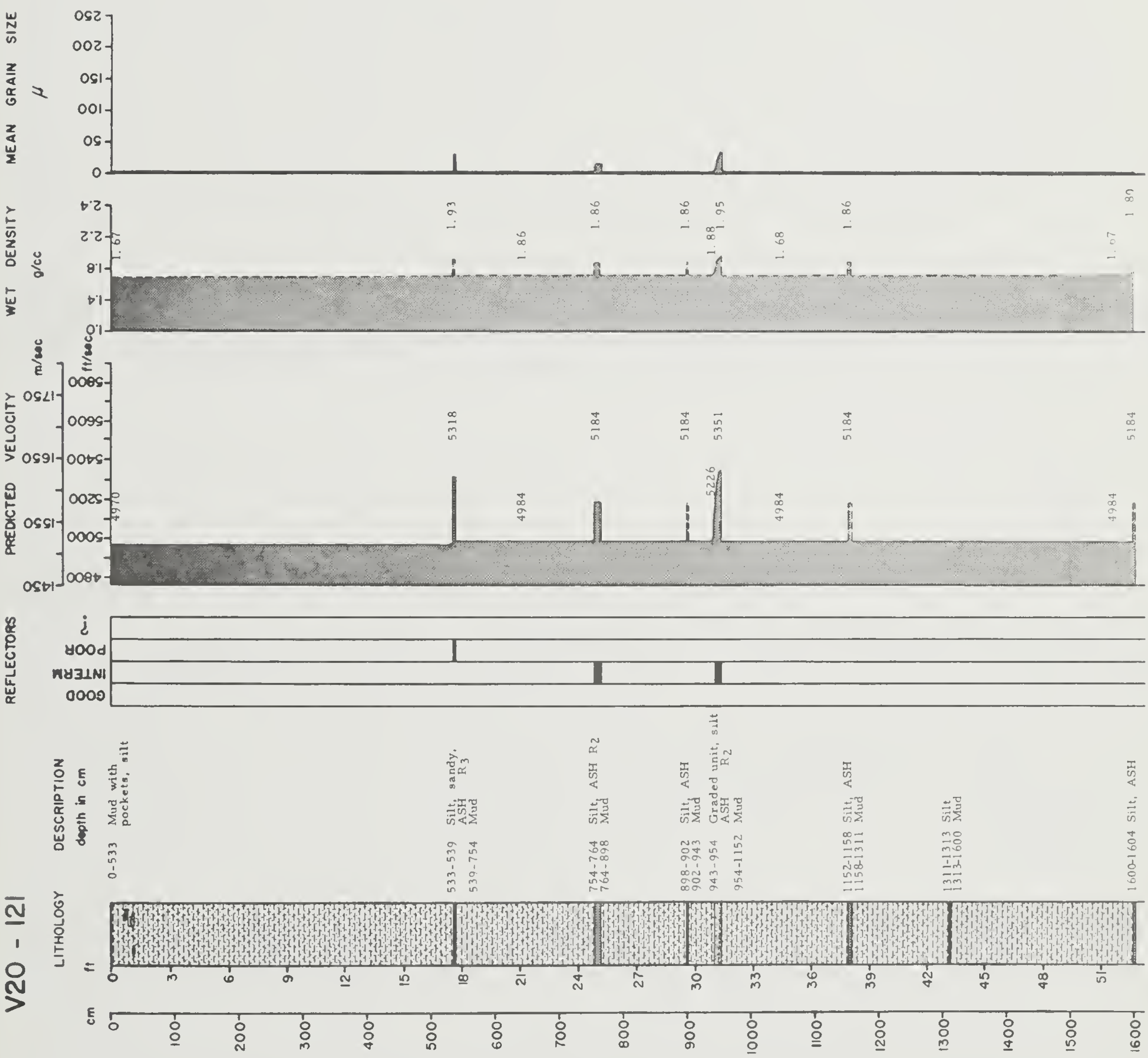

V20 - 110
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-207 Mud, gravelly
207-485 Mud with Mn nodules
305-312 Mn nodules R3
380-390 Mn nodules R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5036
4954
>5900
>5900
4954
WET DENSITY
g/cc
1.74
1.64
> 2.33
> 2.33
1.64
MEAN GRAIN SIZE
μ

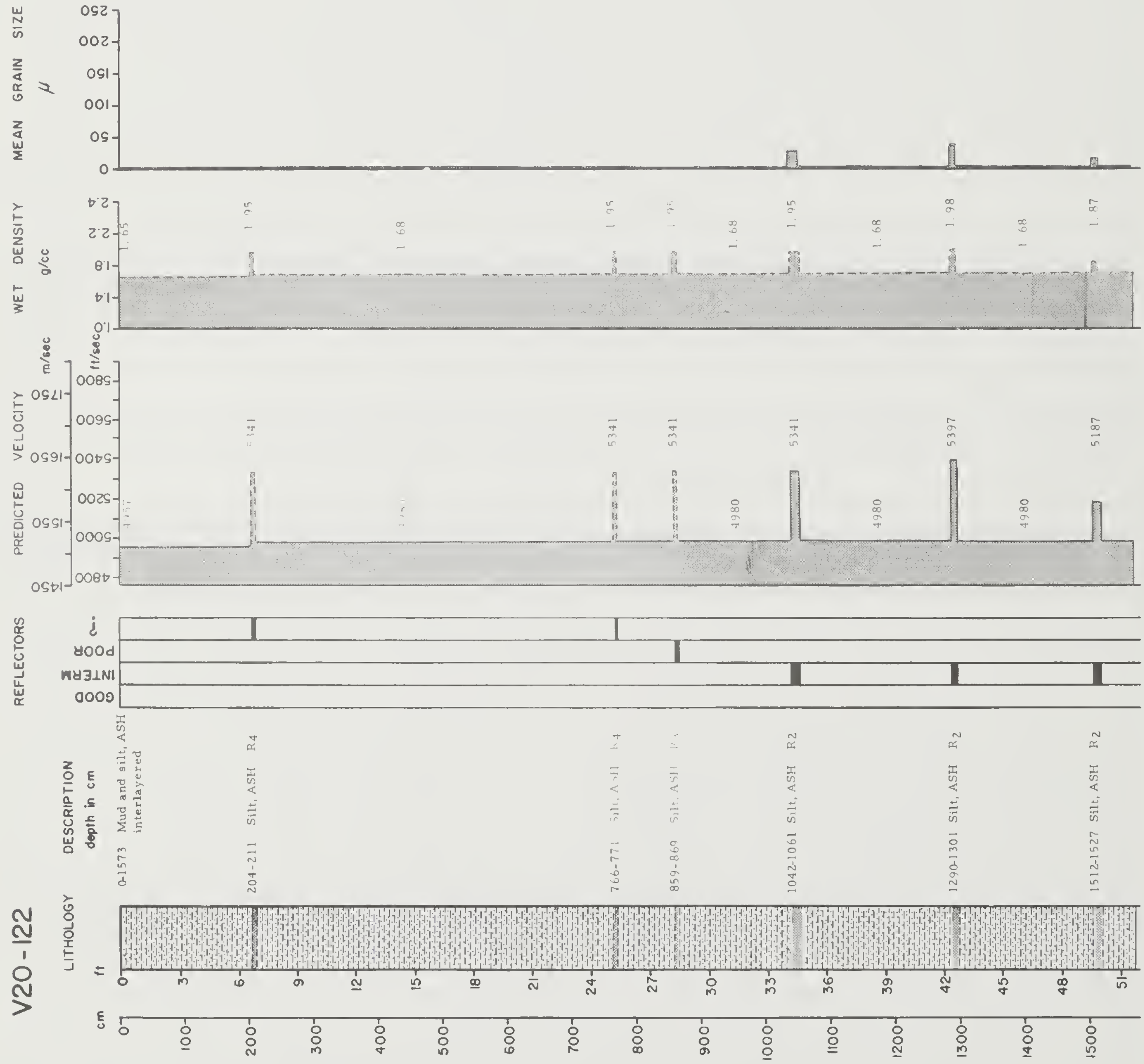

V20 - III
LITHOLOGY
DESCRIPTION
depth in cm
0-186 Mud
186-188 Silt
188-730 Mud
730-734 Sand
734-793 Mud
R4
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5013
5220
5013
5679
5013
WET DENSITY
g/cc
1.71
1.88
1.71
2.09
1.71
MEAN GRAIN SIZE
μ
cm
ft


V20 - 118
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-12 Mud
12-122 Mud
122-169 Clay
169-187 Mn pavement R2
187-958 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4957
4944
4928
>5900
4882
4882
WET DENSITY
g/cc
1.64
1.62
1.59
>2.33
1.46
1.46
MEAN GRAIN SIZE
μ

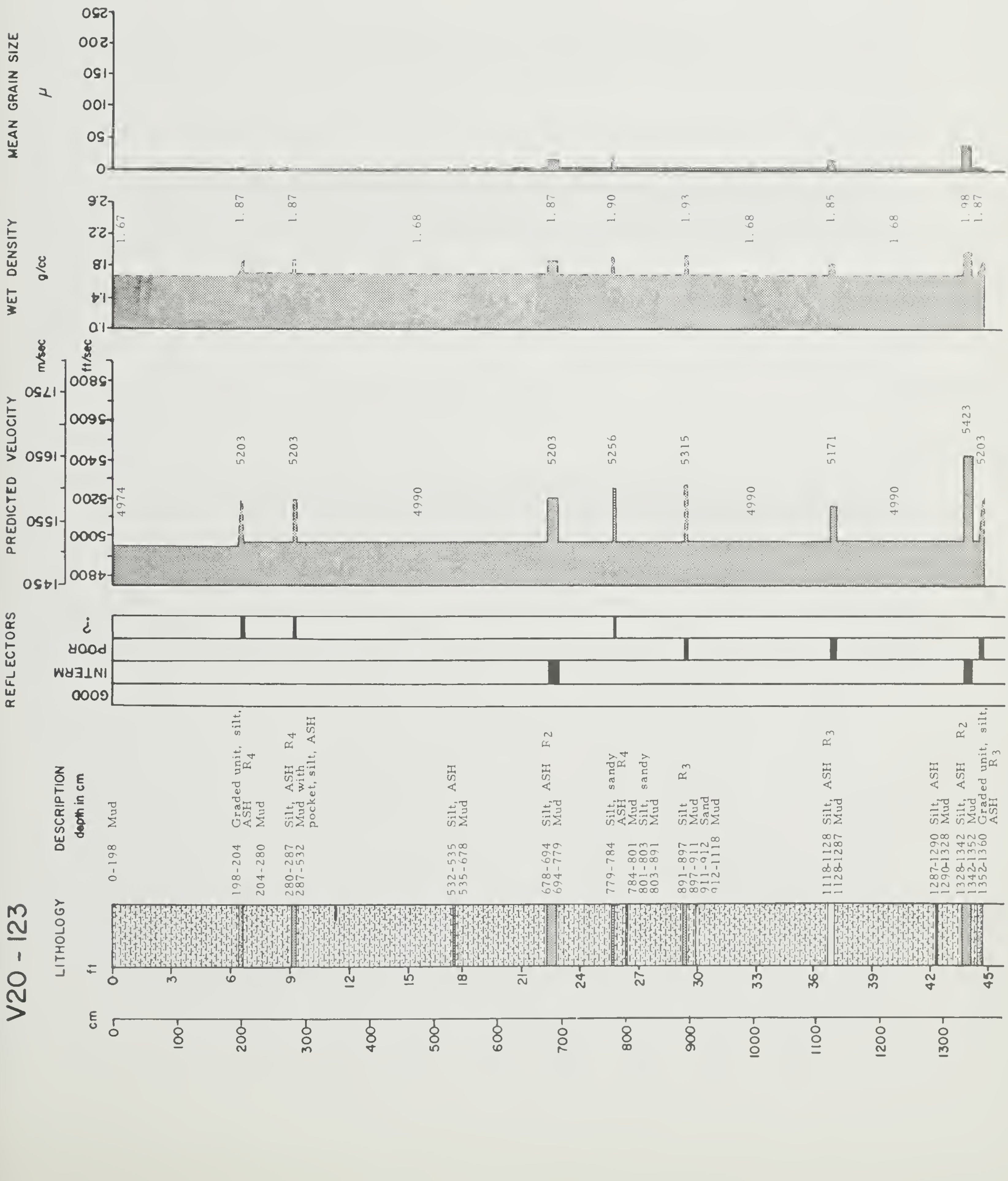

V20 - 119
LITHOLOGY
DESCRIPTION
depth in cm
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
MEAN GRAIN SIZE
μ
0 50 100 150 200 250
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
0-18 Silt, chalk, ASH R4
18-263 Mud
263-287 Mud, chalk
287-331 Mud
331-359 Mud, chalk
359-407 Mud
407-442 Mud, chalk
442-486 Mud
486-516 Mud, chalk
516-523 Clay
523-525 Sand, muddy
525-559 Mud
559-579 Mud, chalk
579-744 Mud
744-746 Silt, ASH
746-757 Mud
757-770 Mud, chalk
770-774 Mud
774-779 Silt, ASH
779-790 Mud, chalk
790-890 Mud
890-899 Mud, chalk
899-913 Mud
913-928 Mud, chalk
928-938 Mud
938-960 Mud, chalk
960-1046 Mud, sandy
1046-1053 Graded unit, silt, sandy, ASH R4
1053-1090 Mud, sandy
1090-1170 Mud, chalk
5112
4938
5007
5007
5007
5007
5007
5092
5171
5171
5007
4938
5007
5007
5072
5282
5479
5007
1.80
1.61
1.70
1.70
1.70
1.70
1.70
1.79
1.85
1.85
1.70
1.61
1.70
1.70
1.77
1.91
2.01
1.70

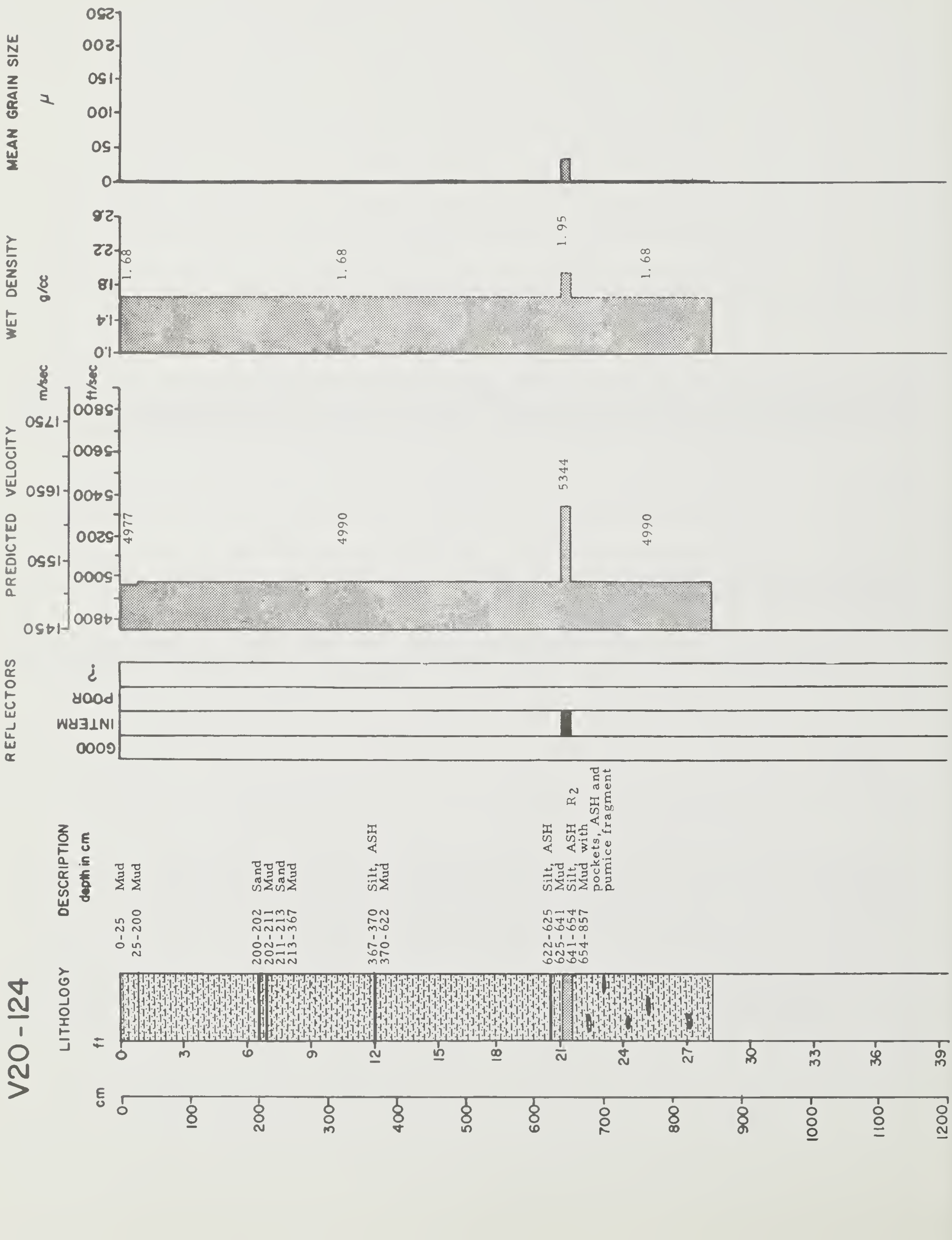

V20 - 120
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-146 Mud
146-148 Silt, ASH
148-449 Mud
449-453 Silt, sandy, ASH
453-482 Mud
482-488 Silt, sandy, ASH R4
488-588 Mud
588-589 Mud, gravelly
589-865 Mud
865-870 Silt, ASH R4
870-882 Mud
882-884 Silt, ASH
884-1098 Mud
1098-1107 Silt, ASH R3
1107-1169 Mud
1169-1171 Silt, ASH
1171-1218 Mud
1218-1223 Silt
1223-1226 Silt R3
1226-1319 Mud
1319-1321 Sand, muddy
1321-1347 Mud
1347-1350 Sand
1350-1414 Mud
1414-1419 Silt, ASH R4
1419-1473 Mud
1473-1482 Silt, sandy, ASH R3
1482-1625 Mud
1625-1629 Silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ

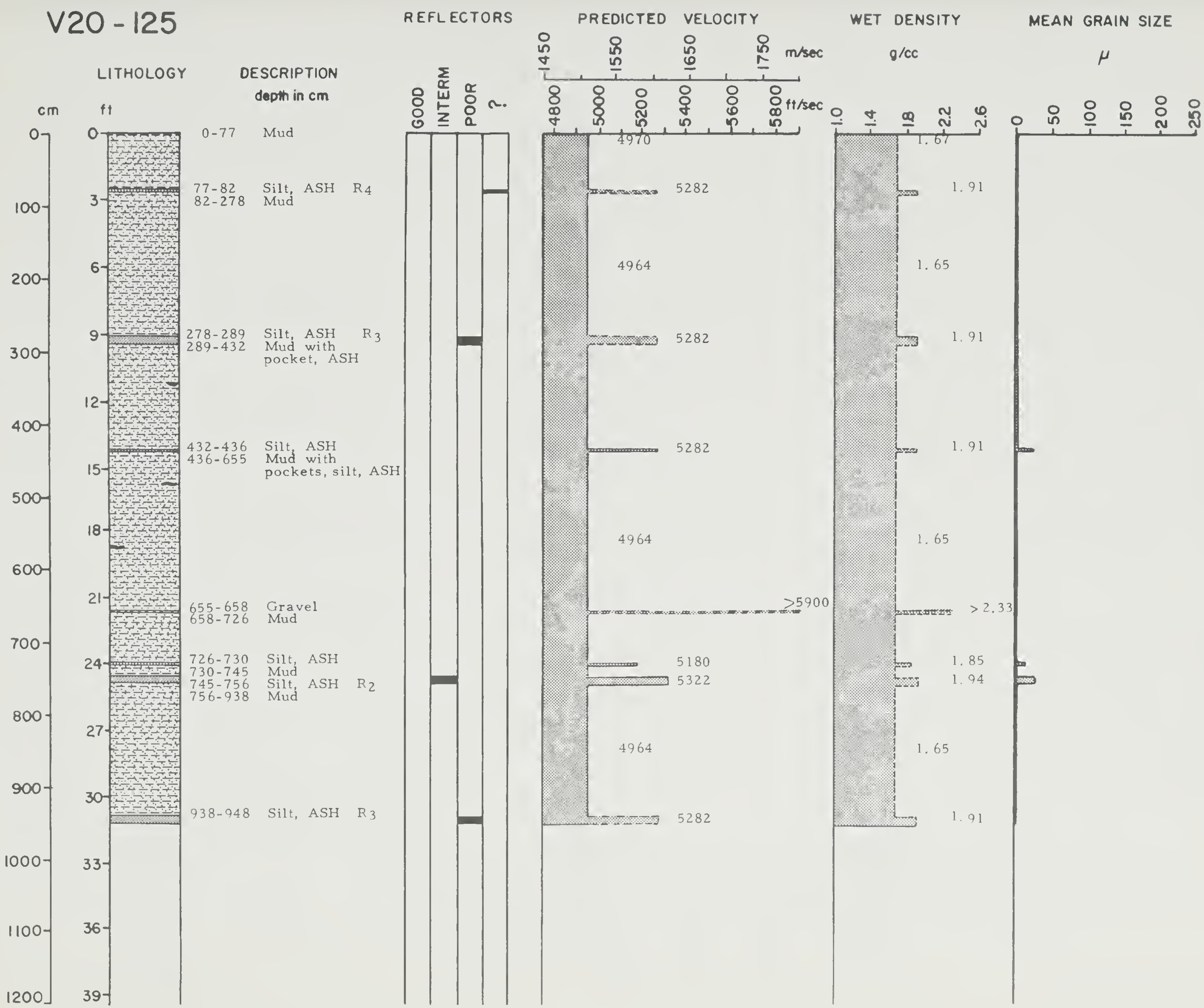

V20 - 121
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-533 Mud with pockets, silt
533-539 Silt, sandy, ASH R3
539-754 Mud
754-764 Silt, ASH R2
764-898 Mud
898-902 Silt, ASH
902-943 Mud
943-954 Graded unit, silt ASH R2
954-1152 Mud
1152-1158 Silt, ASH
1158-1311 Mud
1311-1313 Silt
1313-1600 Mud
1600-1604 Silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ



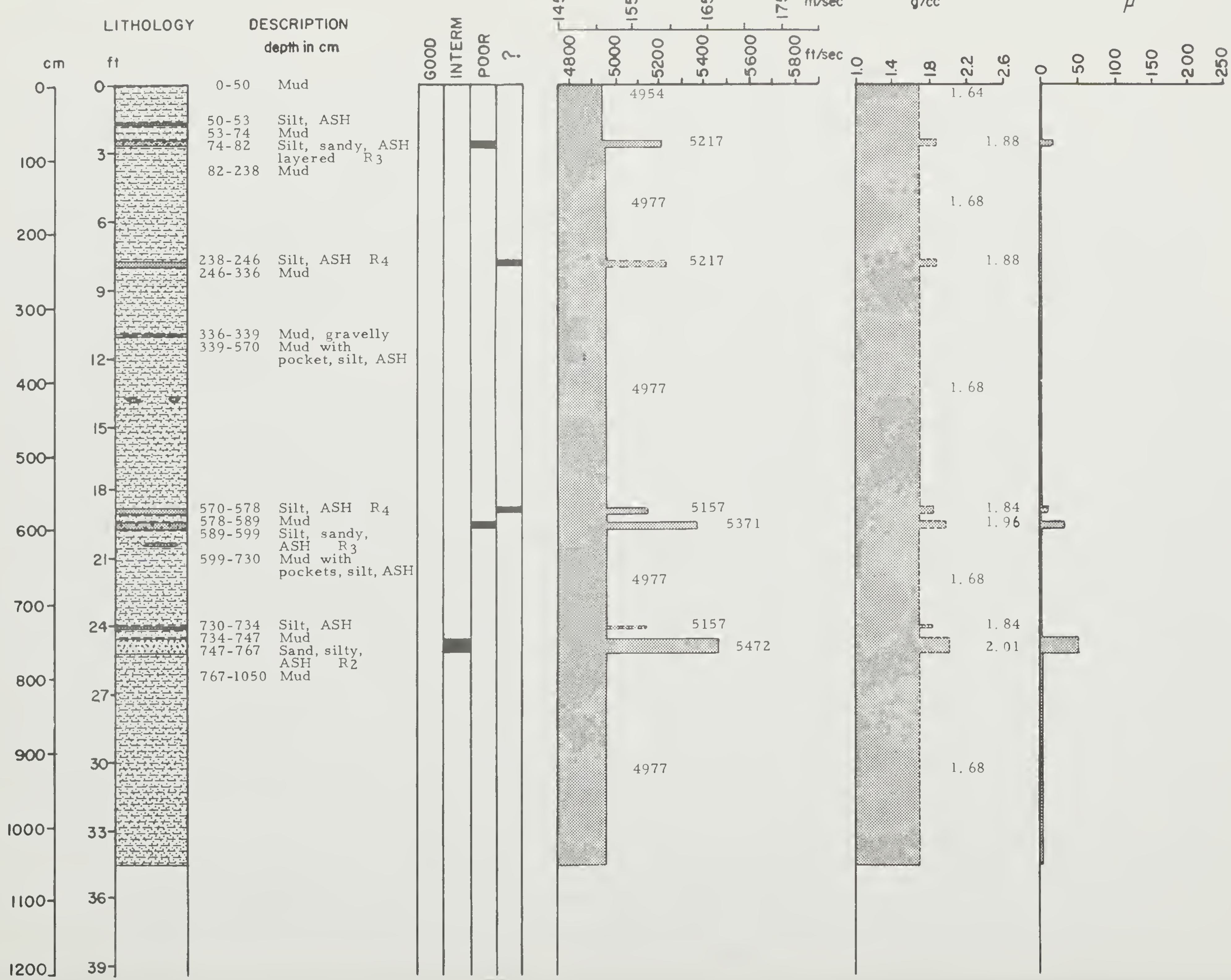
V20-122
LITHOLOGY
DESCRIPTION
depth in cm
0-1573 Mud and silt, ASH interlayered
204-211 Silt, ASH R4
766-771 Silt, ASH R4
859-869 Silt, ASH R4
1042-1061 Silt, ASH R2
1290-1301 Silt, ASH R2
1512-1527 Silt, ASH R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ
ft
cm

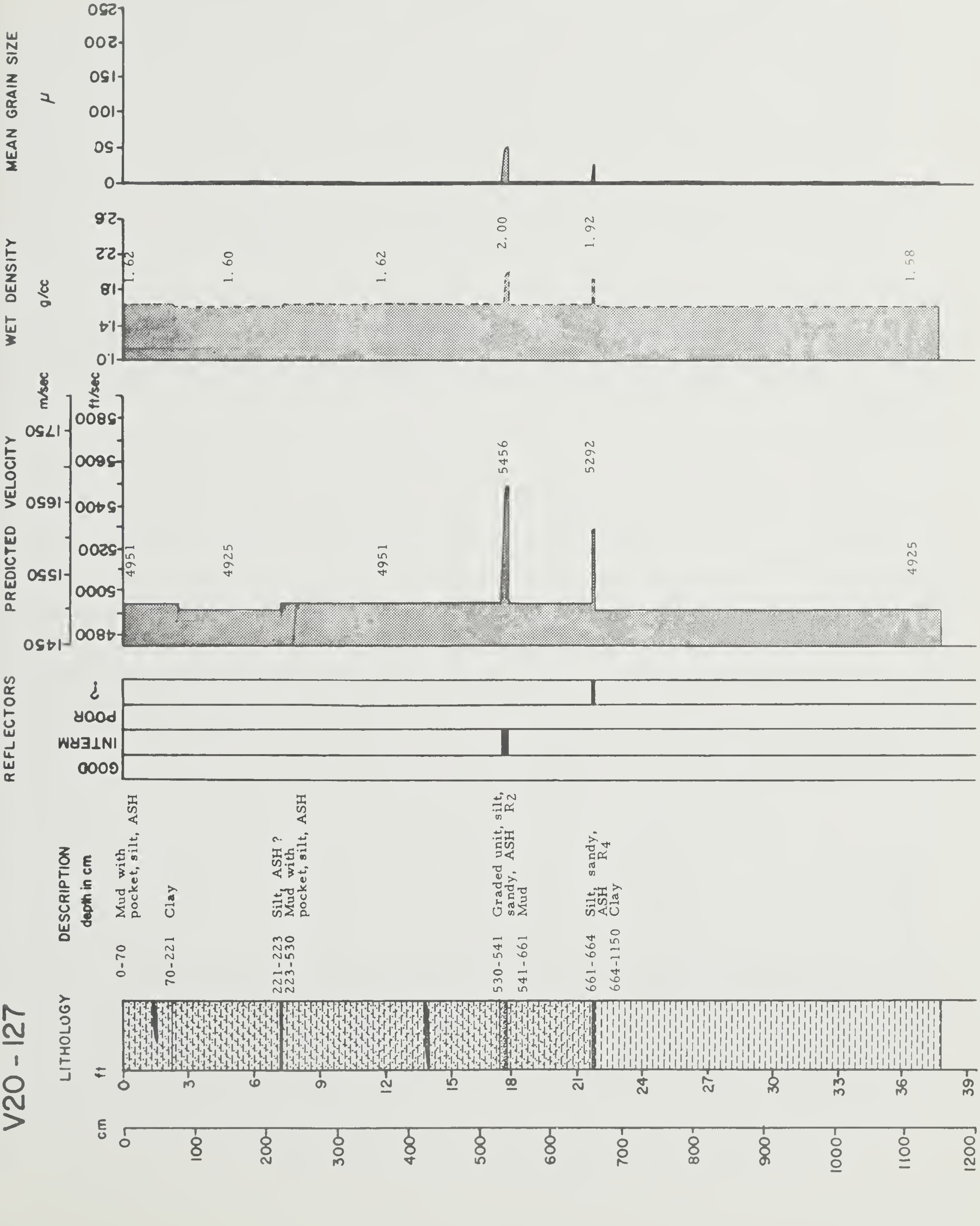

V20 - 123
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-198 Mud
198-204 Graded unit, silt, ASH R4
204-280 Mud
280-287 Silt, ASH R4
287-532 Mud with pocket, silt, ASH
532-535 Silt, ASH
535-678 Mud
678-694 Silt, ASH F2
694-779 Mud
779-784 Silt, sandy ASH R4
784-801 Mud
801-803 Silt, sandy
803-891 Mud
891-897 Silt R3
897-911 Mud
911-912 Sand
912-1118 Mud
1118-1128 Silt, ASH R3
1128-1287 Mud
1287-1290 Silt, ASH
1290-1328 Mud
1328-1342 Silt, ASH R2
1342-1352 Mud
1352-1360 Graded unit, silt, ASH R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4974
5203
5203
4990
5203
5256
5315
4990
5171
4990
5423
5203
WET DENSITY
g/cc
1.67
1.87
1.87
1.68
1.87
1.90
1.93
1.68
1.85
1.68
1.98
1.87
MEAN GRAIN SIZE
μ

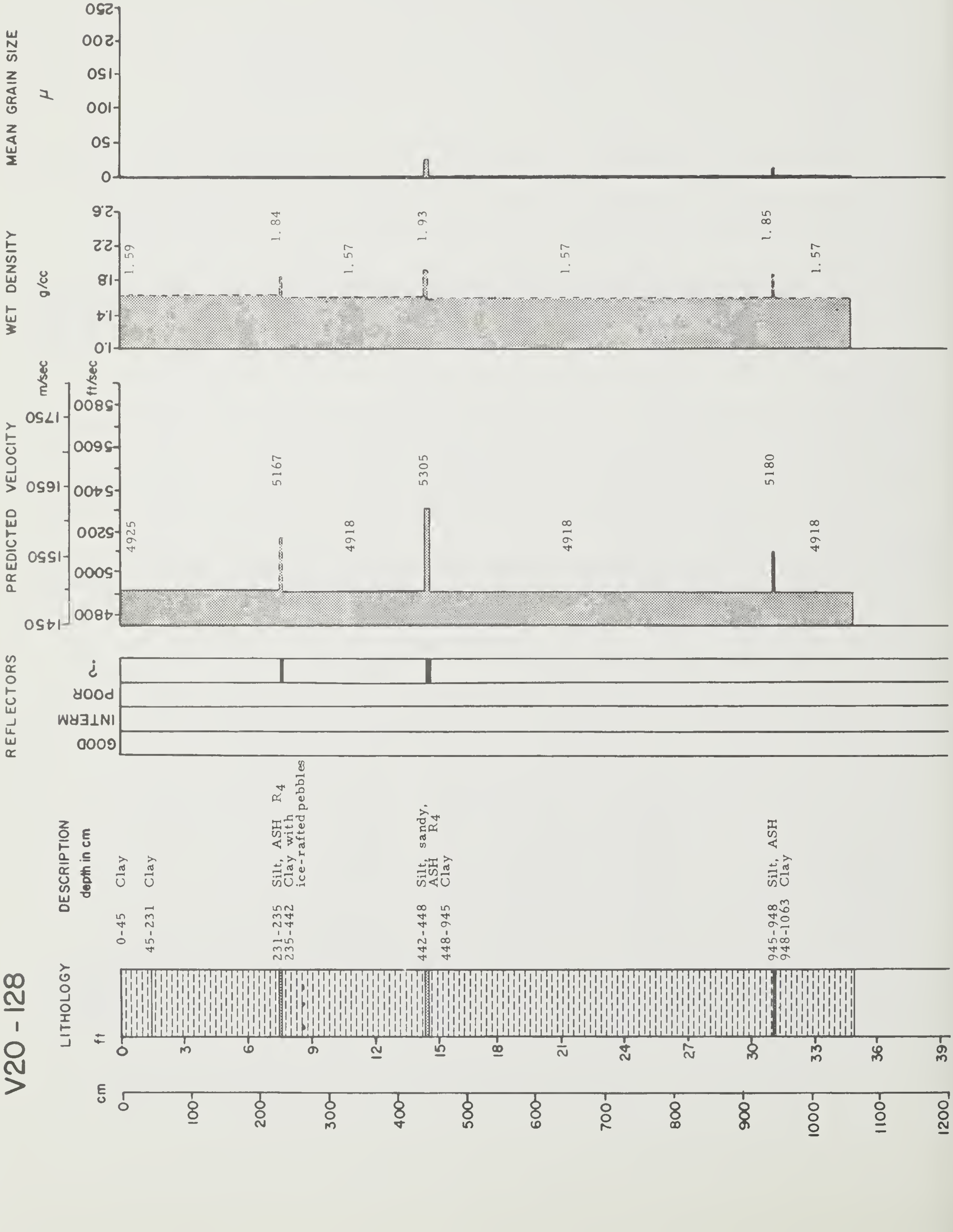

V20-124
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-25 Mud
25-200 Mud
200-202 Sand
202-211 Mud
211-213 Sand
213-367 Mud
367-370 Silt, ASH
370-622 Mud
622-625 Silt, ASH
625-641 Mud
641-654 Silt, ASH R2
654-857 Mud with pockets, ASH and pumice fragment
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4977
4990
5344
4990
WET DENSITY
g/cc
1.68
1.68
1.95
1.68
MEAN GRAIN SIZE
μ

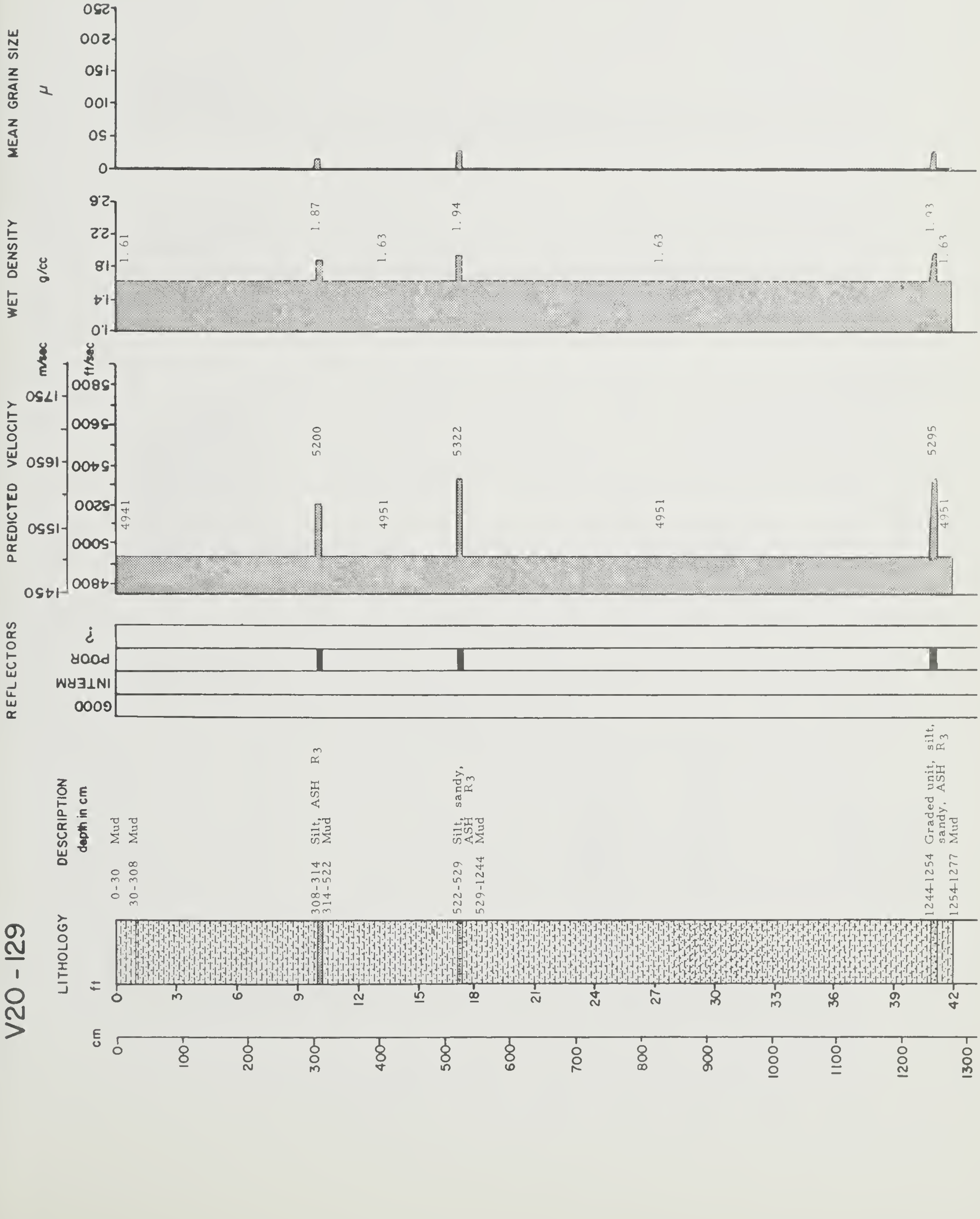

V20-125
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-77 Mud
77-82 Silt, ASH R4
82-278 Mud
278-289 Silt, ASH R3
289-432 Mud with pocket, ASH
432-436 Silt, ASH
436-655 Mud with pockets, silt, ASH
655-658 Gravel
658-726 Mud
726-730 Silt, ASH
730-745 Mud
745-756 Silt, ASH R2
756-938 Mud
938-948 Silt, ASH R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4970
5282
4964
5282
5282
4964
>5900
5180
5322
4964
5282
WET DENSITY
g/cc
1.67
1.91
1.65
1.91
1.91
1.65
> 2.33
1.85
1.94
1.65
1.91
MEAN GRAIN SIZE
μ

V20 - 126

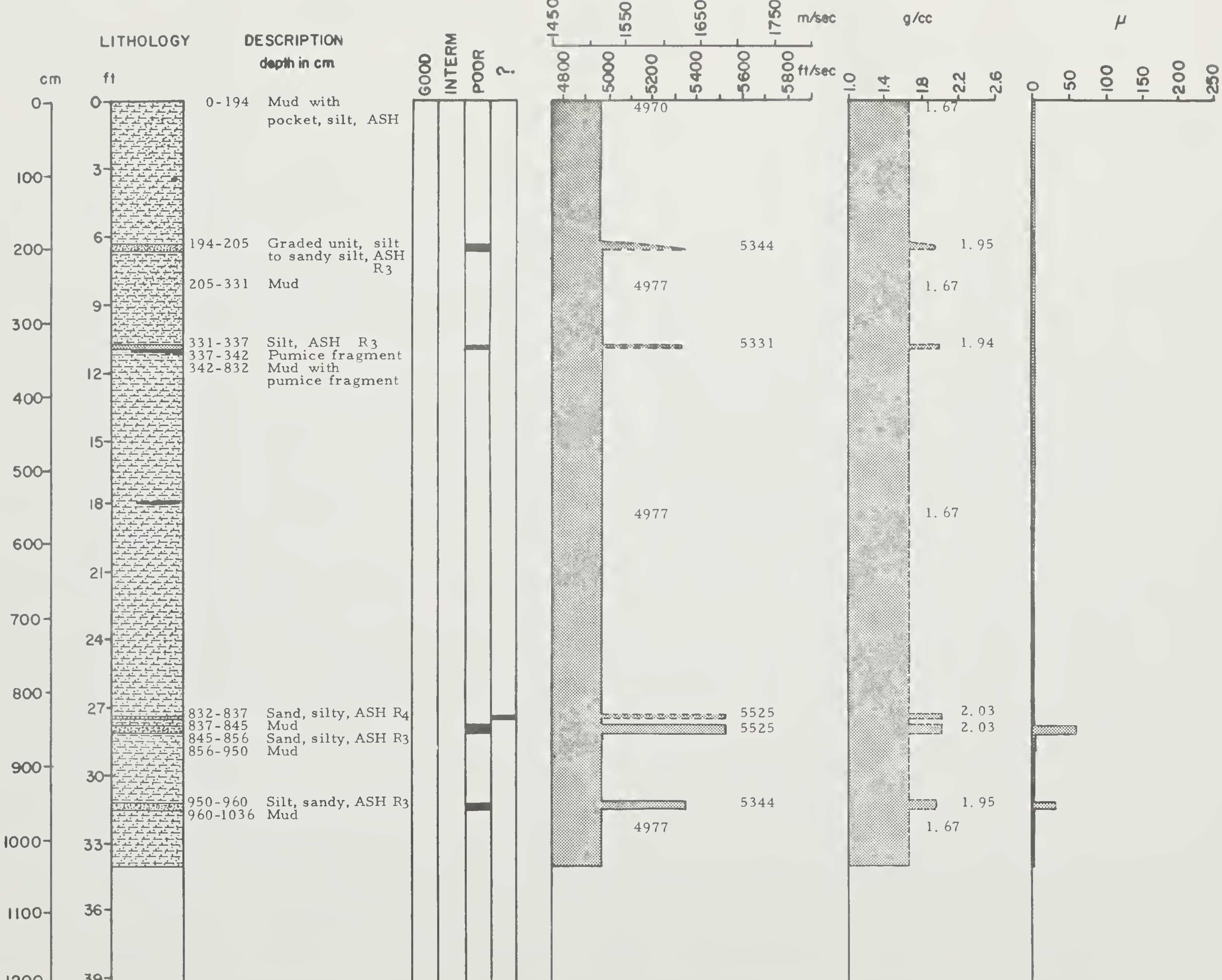

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-50 Mud
50-53 Silt, ASH
53-74 Mud
74-82 Silt, sandy, ASH layered R3
82-238 Mud
238-246 Silt, ASH R4
246-336 Mud
336-339 Mud, gravelly
339-570 Mud with pocket, silt, ASH
570-578 Silt, ASH R4
578-589 Mud
589-599 Silt, sandy, ASH R3
599-730 Mud with pockets, silt, ASH
730-734 Silt, ASH
734-747 Mud
747-767 Sand, silty, ASH R2
767-1050 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4954
5217
4977
5217
4977
5157
5371
4977
5157
5472
4977
WET DENSITY
g/cc
1.64
1.88
1.68
1.88
1.68
1.84
1.96
1.68
1.84
2.01
1.68
MEAN GRAIN SIZE
μ

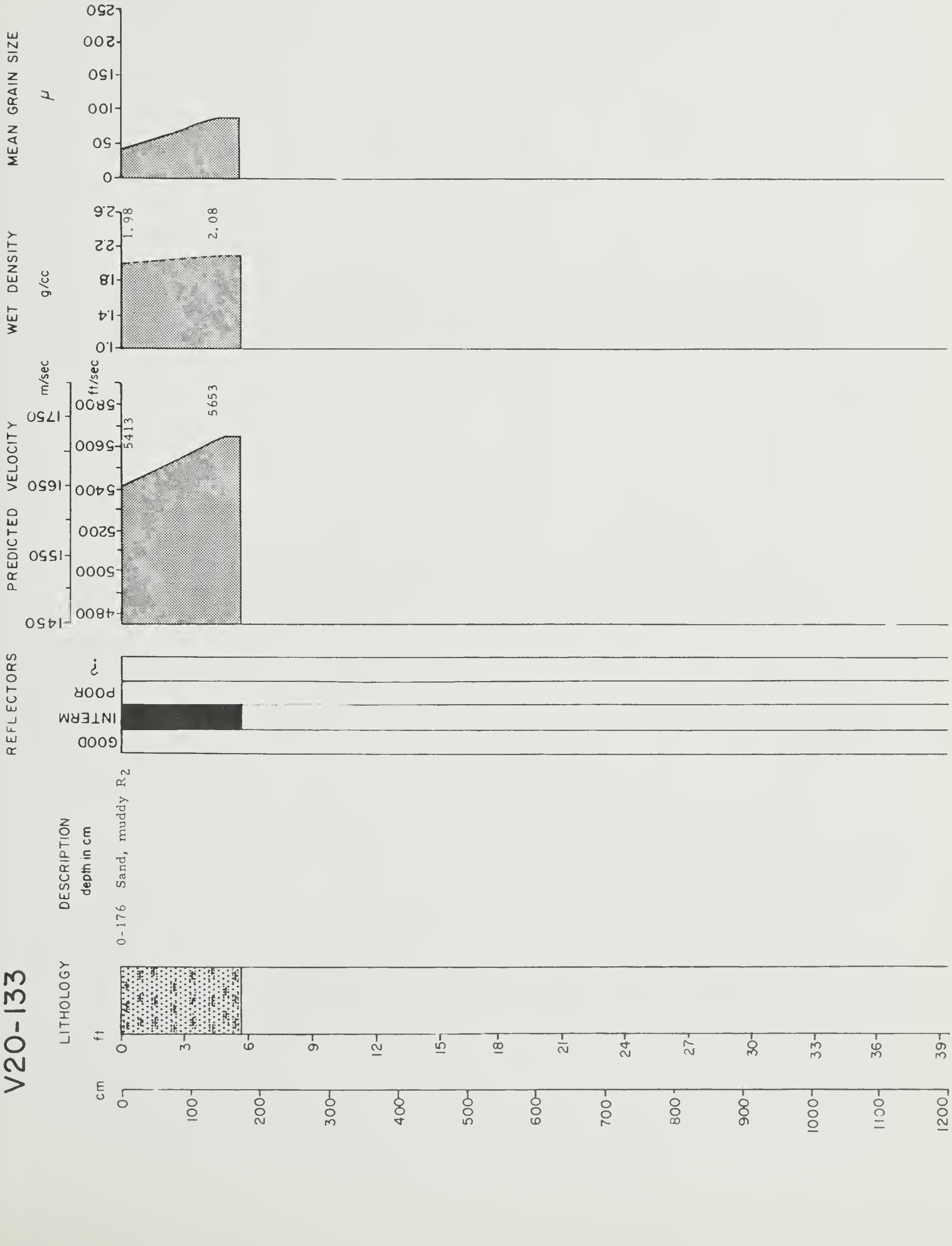

V20 - 127
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-70 Mud with pocket, silt, ASH
70-221 Clay
221-223 Silt, ASH ?
223-530 Mud with pocket, silt, ASH
530-541 Graded unit, silt, sandy, ASH R2
541-661 Mud
661-664 Silt, sandy, ASH R4
664-1150 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4951
4925
4951
5456
5292
4925
WET DENSITY
g/cc
1.62
1.60
1.62
2.00
1.92
1.58
MEAN GRAIN SIZE
μ


V20 - 128
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-45 Clay
45-231 Clay
231-235 Silt, ASH R4
235-442 Clay with ice-rafted pebbles
442-448 Silt, sandy, ASH R4
448-945 Clay
945-948 Silt, ASH
948-1063 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4925
5167
4918
5305
4918
5180
4918
WET DENSITY
g/cc
1.59
1.84
1.57
1.93
1.57
1.85
1.57
MEAN GRAIN SIZE
μ


V20 - 129
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-30 Mud
30-308 Mud
308-314 Silt, ASH R3
314-522 Mud
522-529 Silt, sandy, ASH R3
529-1244 Mud
1244-1254 Graded unit, silt, sandy, ASH R3
1254-1277 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4941
5200
4951
5322
4951
5295
4951
WET DENSITY
g/cc
1.61
1.87
1.63
1.94
1.63
1.93
1.63
MEAN GRAIN SIZE
μ

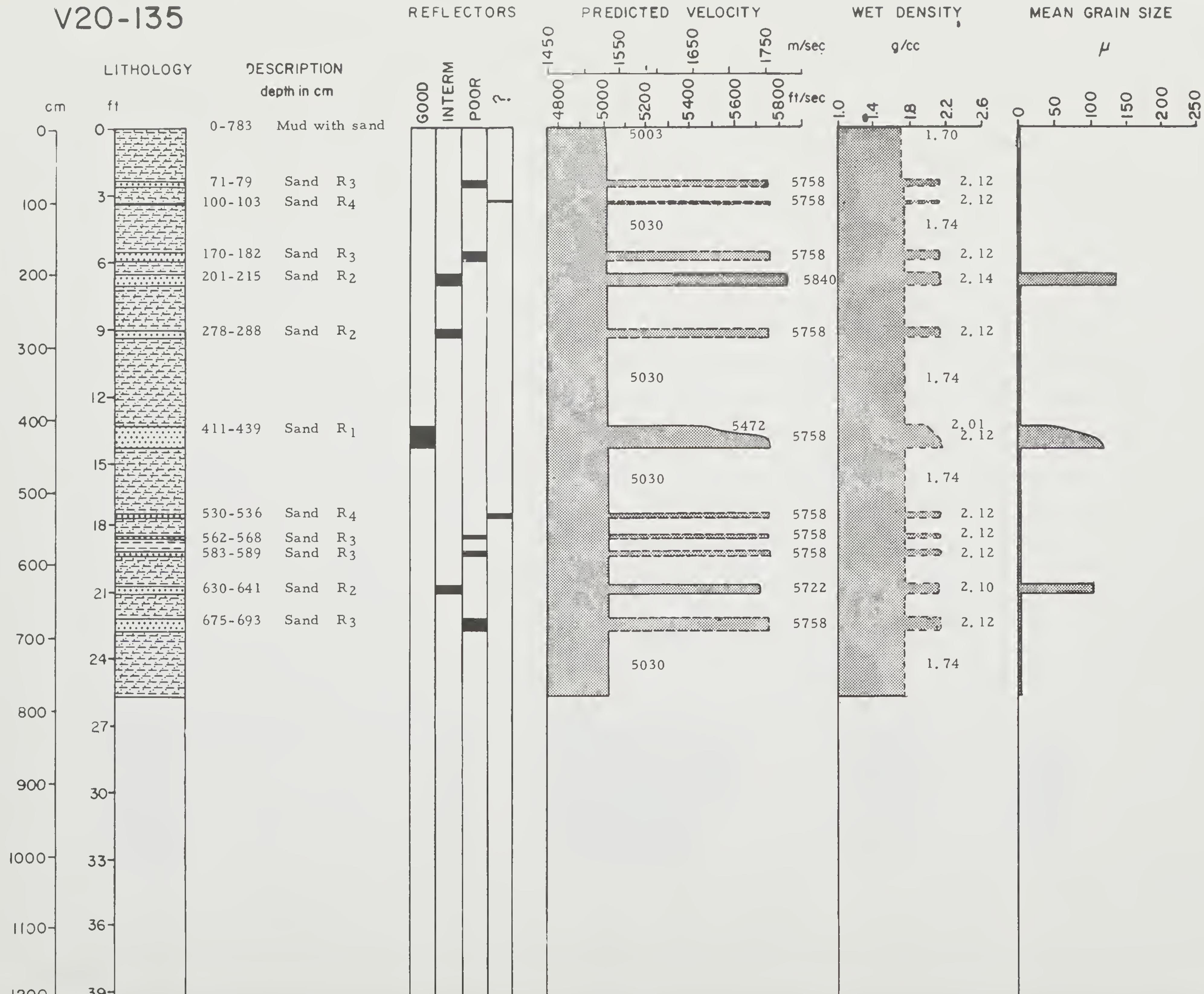
V20 - 131

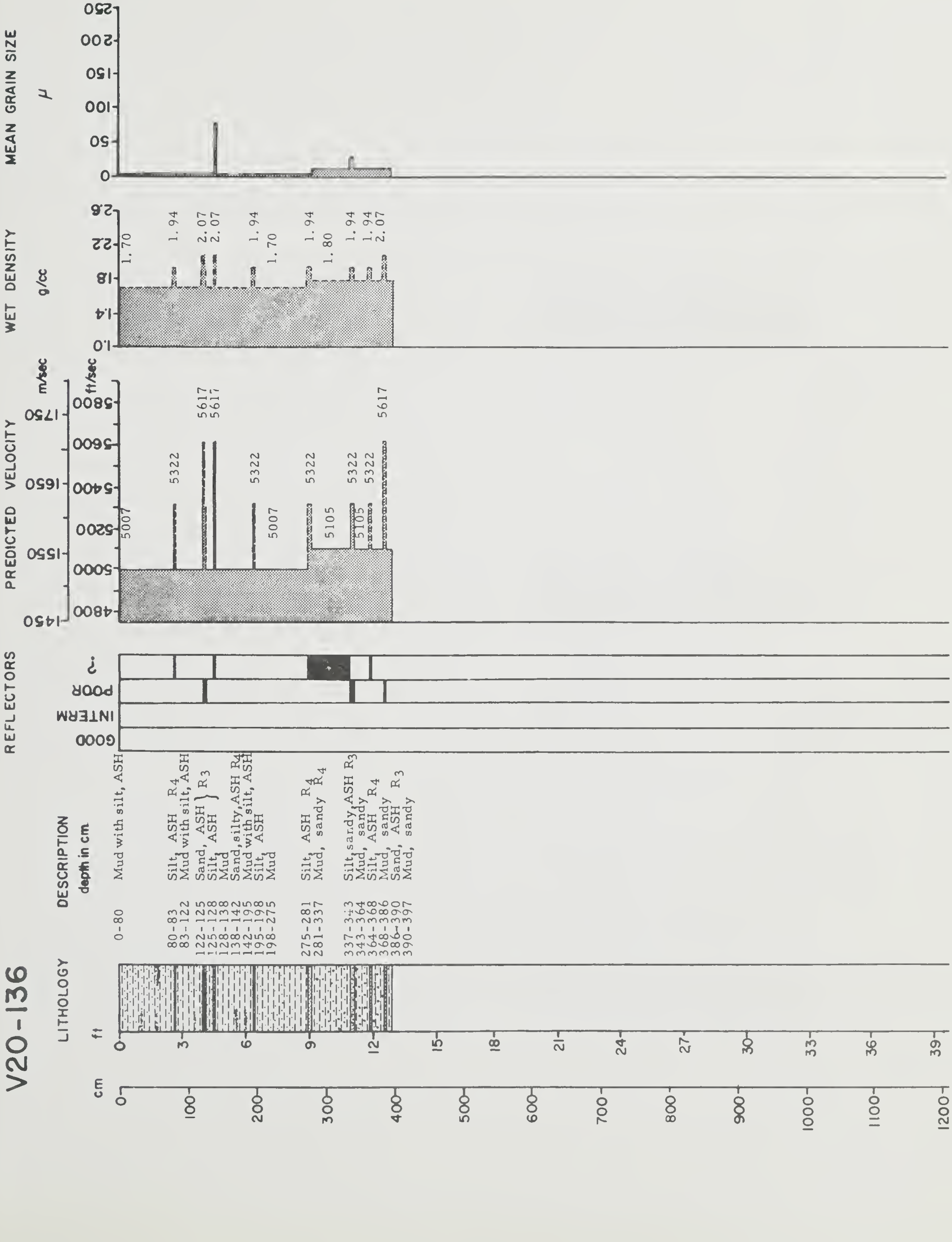

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-194 Mud with pocket, silt, ASH
194-205 Graded unit, silt to sandy silt, ASH R3
205-331 Mud
331-337 Silt, ASH R3
337-342 Pumice fragment
342-832 Mud with pumice fragment
832-837 Sand, silty, ASH R4
837-845 Mud
845-856 Sand, silty, ASH R3
856-950 Mud
950-960 Silt, sandy, ASH R3
960-1036 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4970
5344
4977
5331
4977
5525
5525
5344
4977
WET DENSITY
g/cc
1.67
1.95
1.67
1.94
1.67
2.03
2.03
1.95
1.67
MEAN GRAIN SIZE
μ

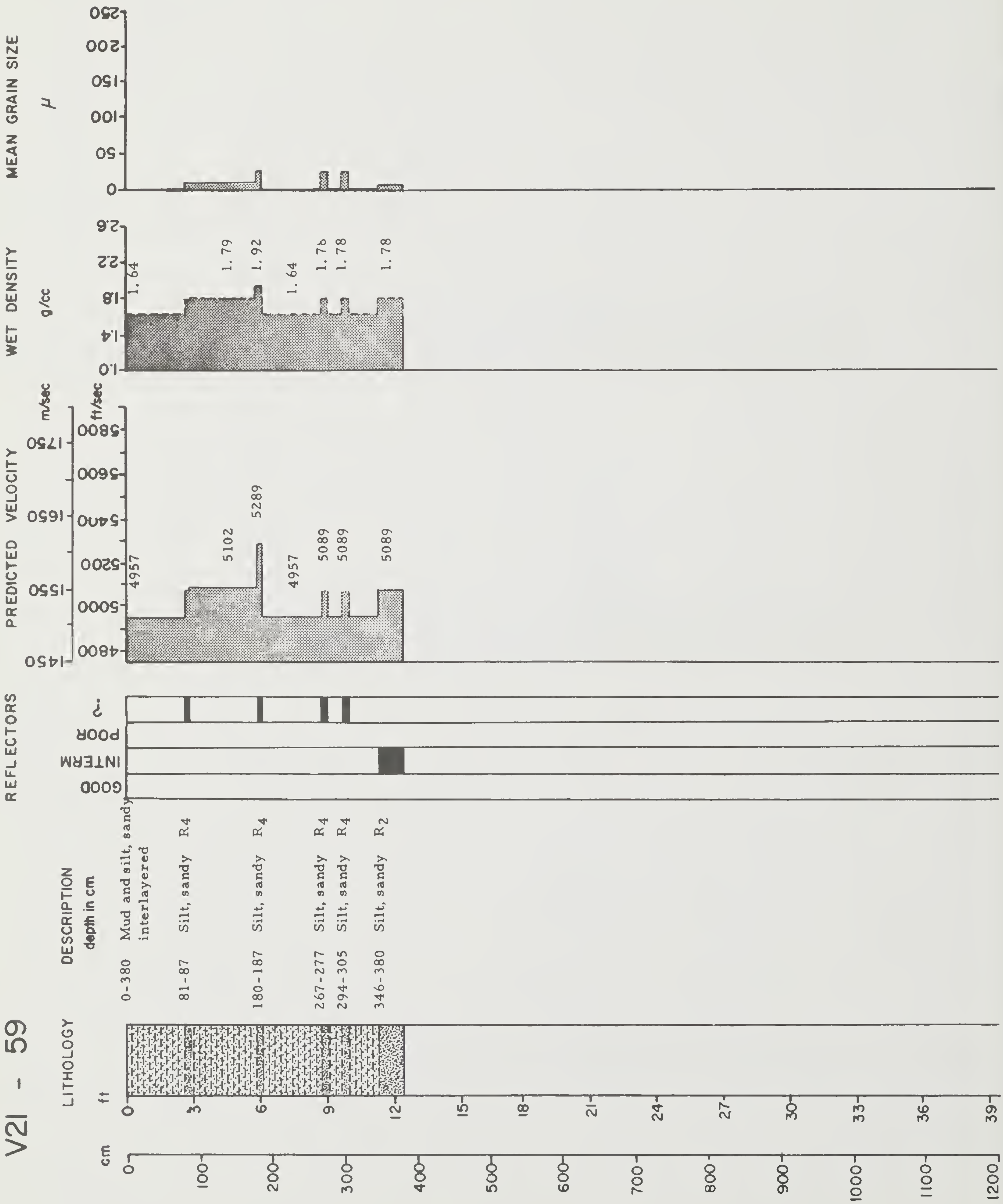


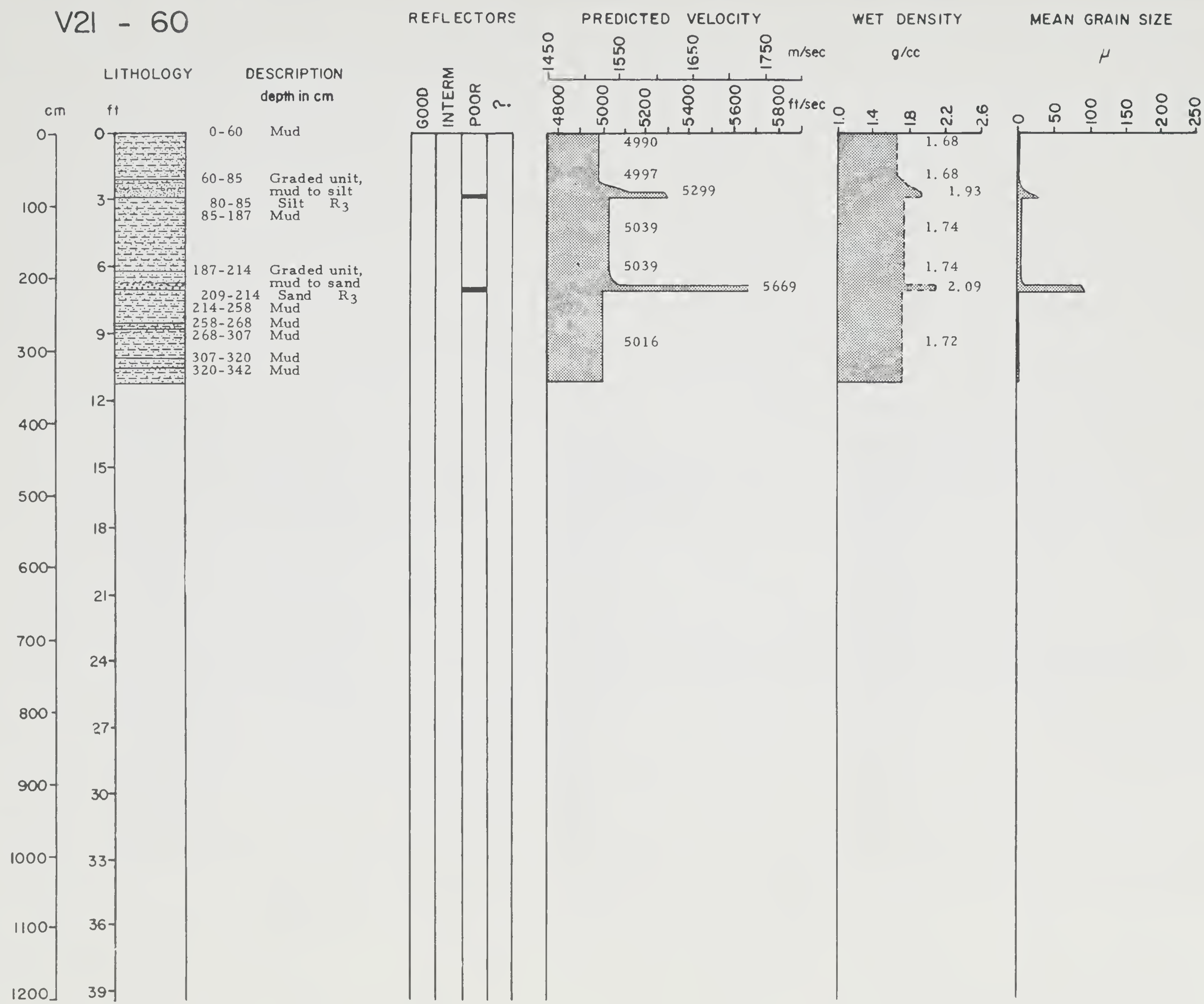
V20-133
LITHOLOGY
DESCRIPTION
depth in cm
0-176 Sand, muddy R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5413
5653
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.98
2.08
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

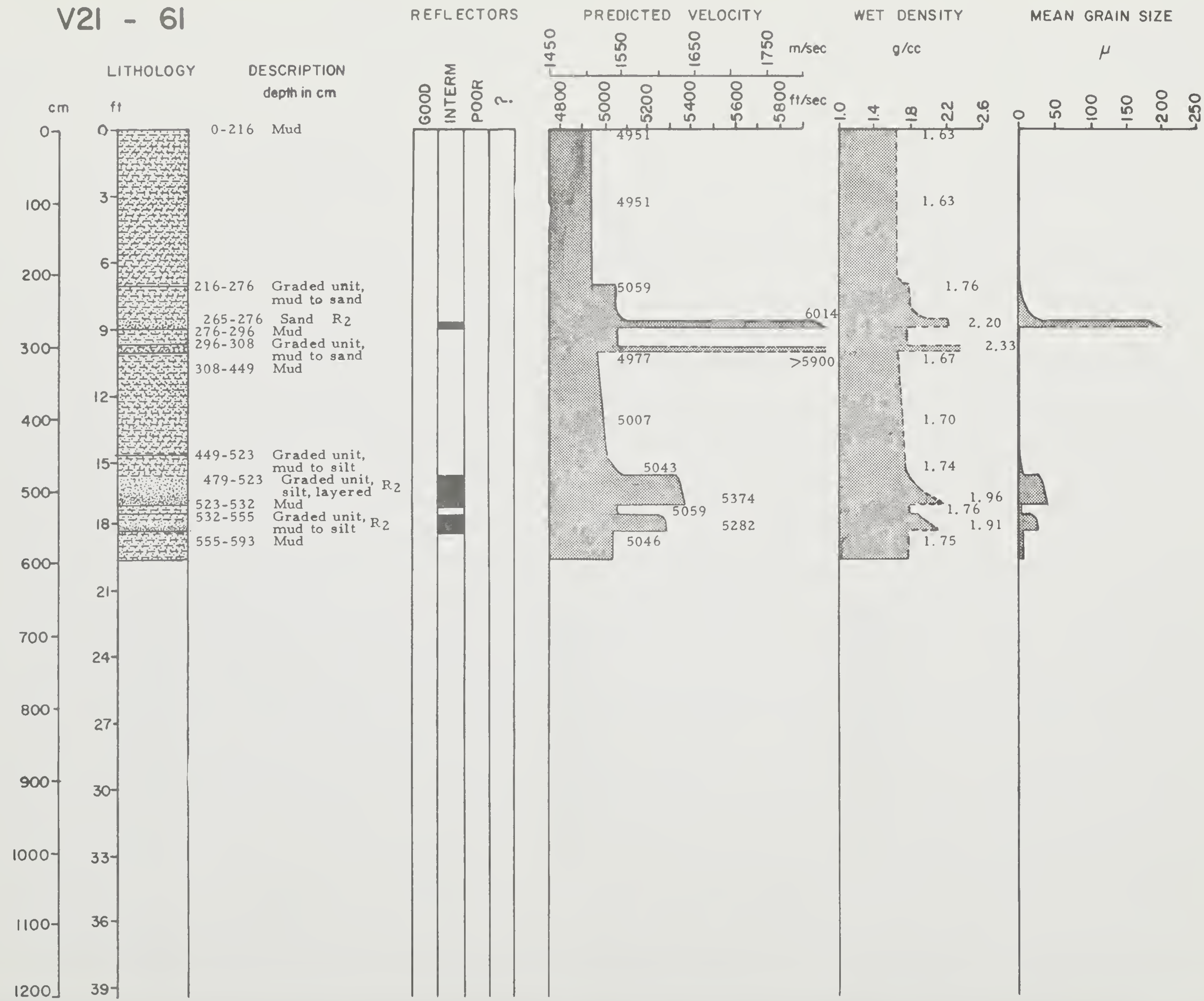
V20-135

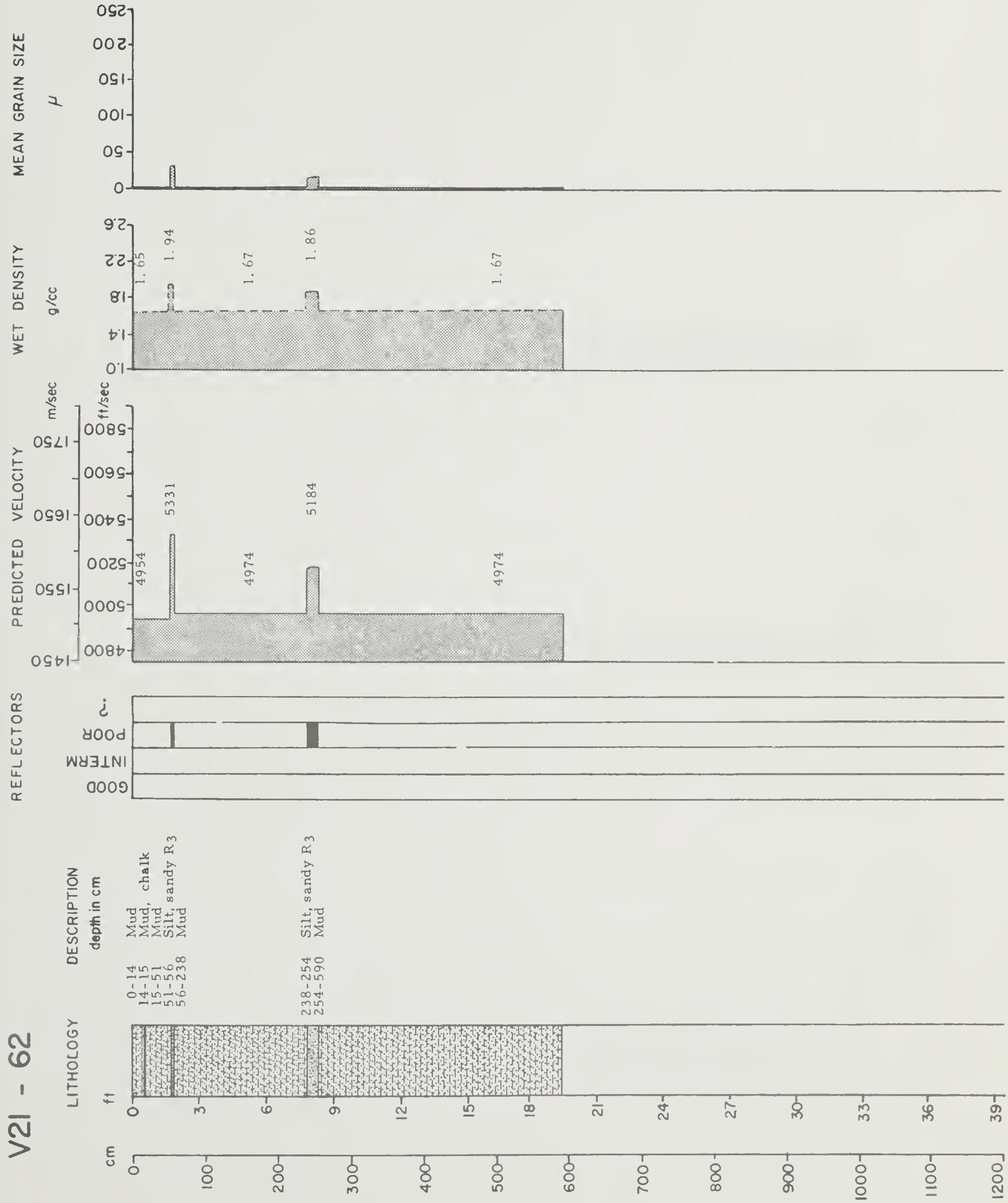

LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-783 Mud with sand
71-79 Sand R3
100-103 Sand R4
170-182 Sand R3
201-215 Sand R2
278-288 Sand R2
411-439 Sand R1
530-536 Sand R4
562-568 Sand R3
583-589 Sand R3
630-641 Sand R2
675-693 Sand R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5003
5758
5758
5030
5758
5840
5758
5030
5472
5758
5030
5758
5758
5758
5722
5758
5030
WET DENSITY
g/cc
1.70
2.12
2.12
1.74
2.12
2.14
2.12
1.74
2.01
2.12
1.74
2.12
2.12
2.12
2.10
2.12
1.74
MEAN GRAIN SIZE
μ

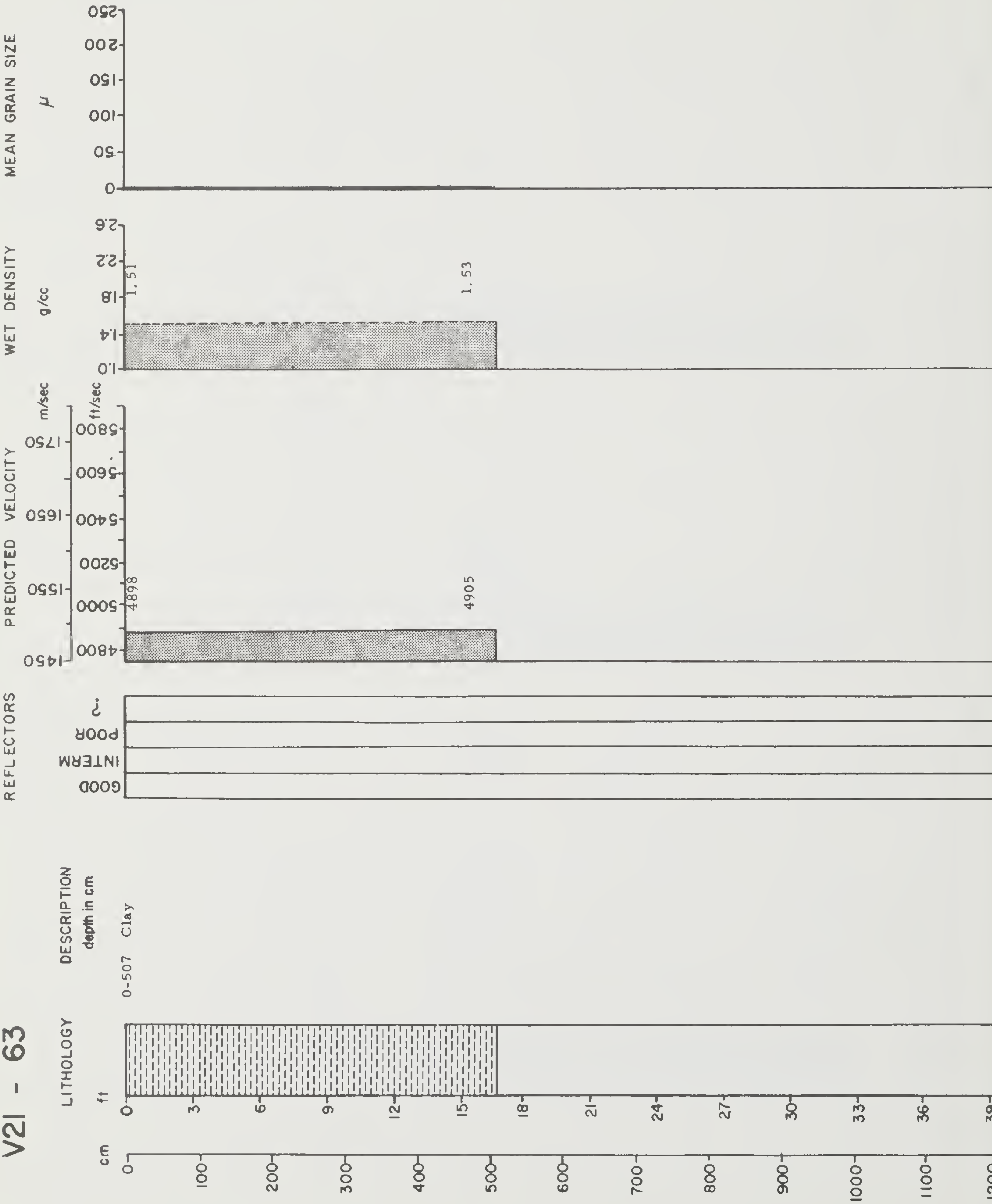

V20-136
LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-80 Mud with silt, ASH
80-83 Silt, ASH R4
83-122 Mud with silt, ASH
122-125 Sand, ASH } R3
125-128 Silt, ASH
128-138 Mud
138-142 Sand, silty, ASH R4
142-195 Mud with silt, ASH
195-198 Silt, ASH
198-275 Mud
275-281 Silt, ASH R4
281-337 Mud, sandy R4
337-343 Silt, sandy, ASH R3
343-364 Mud, sandy
364-368 Silt, ASH R4
368-386 Mud, sandy
386-390 Sand, ASH R3
390-397 Mud, sandy
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450 1550 1650 1750
4800 5000 5200 5400 5600 5800
5007 5322 5617 5617 5322 5007 5322 5105 5322 5105 5322 5617
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.70 1.94 2.07 2.07 1.94 1.70 1.94 1.80 1.94 1.94 2.07
MEAN GRAIN SIZE
μ
0 50 100 150 200 250


V21 - 59
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.64
1.79
1.92
1.64
1.76
1.78
1.78
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4957
5102
5289
4957
5089
5089
5089
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-380 Mud and silt, sandy interlayered
81-87 Silt, sandy R4
180-187 Silt, sandy R4
267-277 Silt, sandy R4
294-305 Silt, sandy R4
346-380 Silt, sandy R2
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

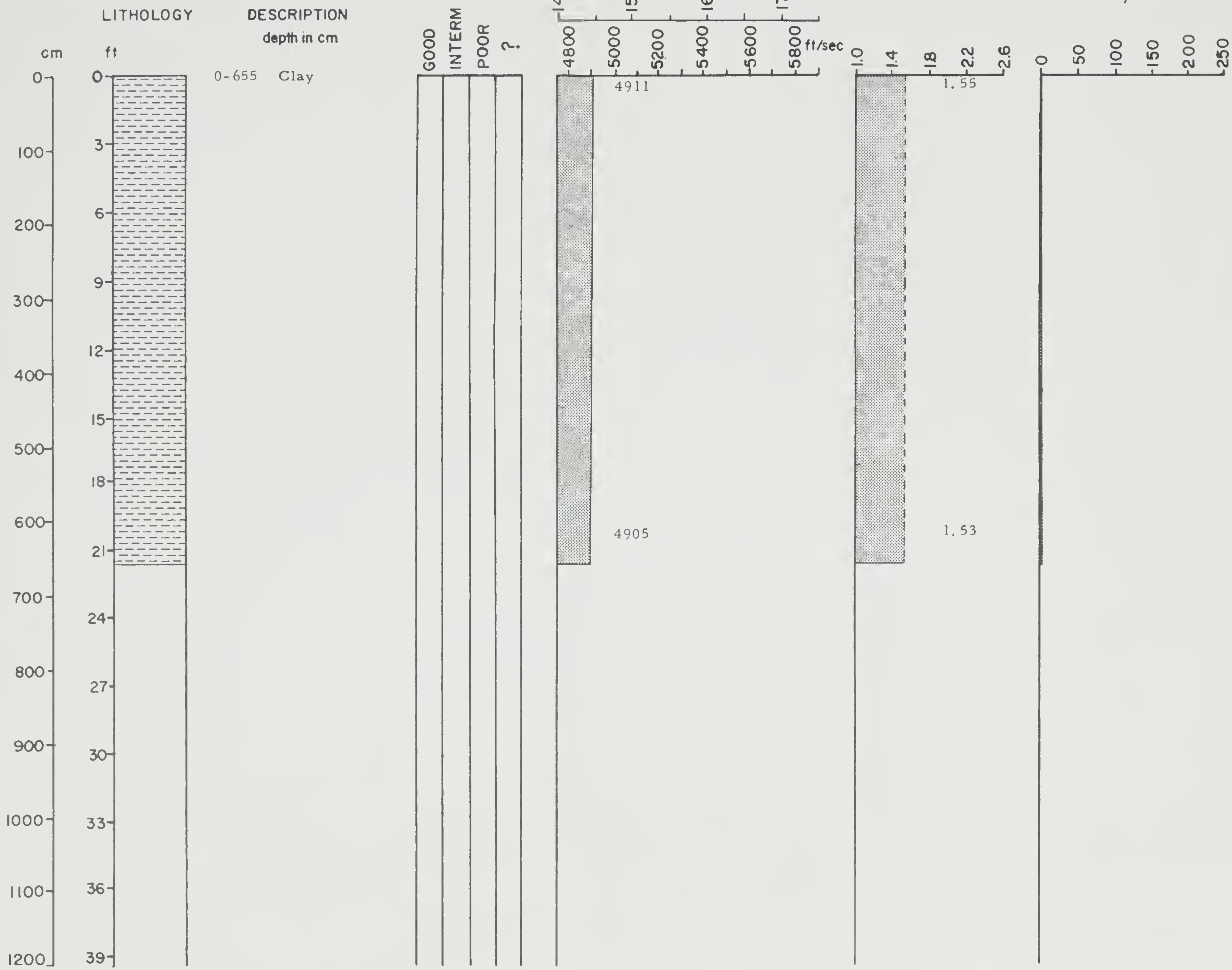

V21 - 60
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-60 Mud
60-85 Graded unit, mud to silt
80-85 Silt R3
85-187 Mud
187-214 Graded unit, mud to sand
209-214 Sand R3
214-258 Mud
258-268 Mud
268-307 Mud
307-320 Mud
320-342 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4990
4997
5299
5039
5039
5669
5016
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.68
1.68
1.93
1.74
1.74
2.09
1.72
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

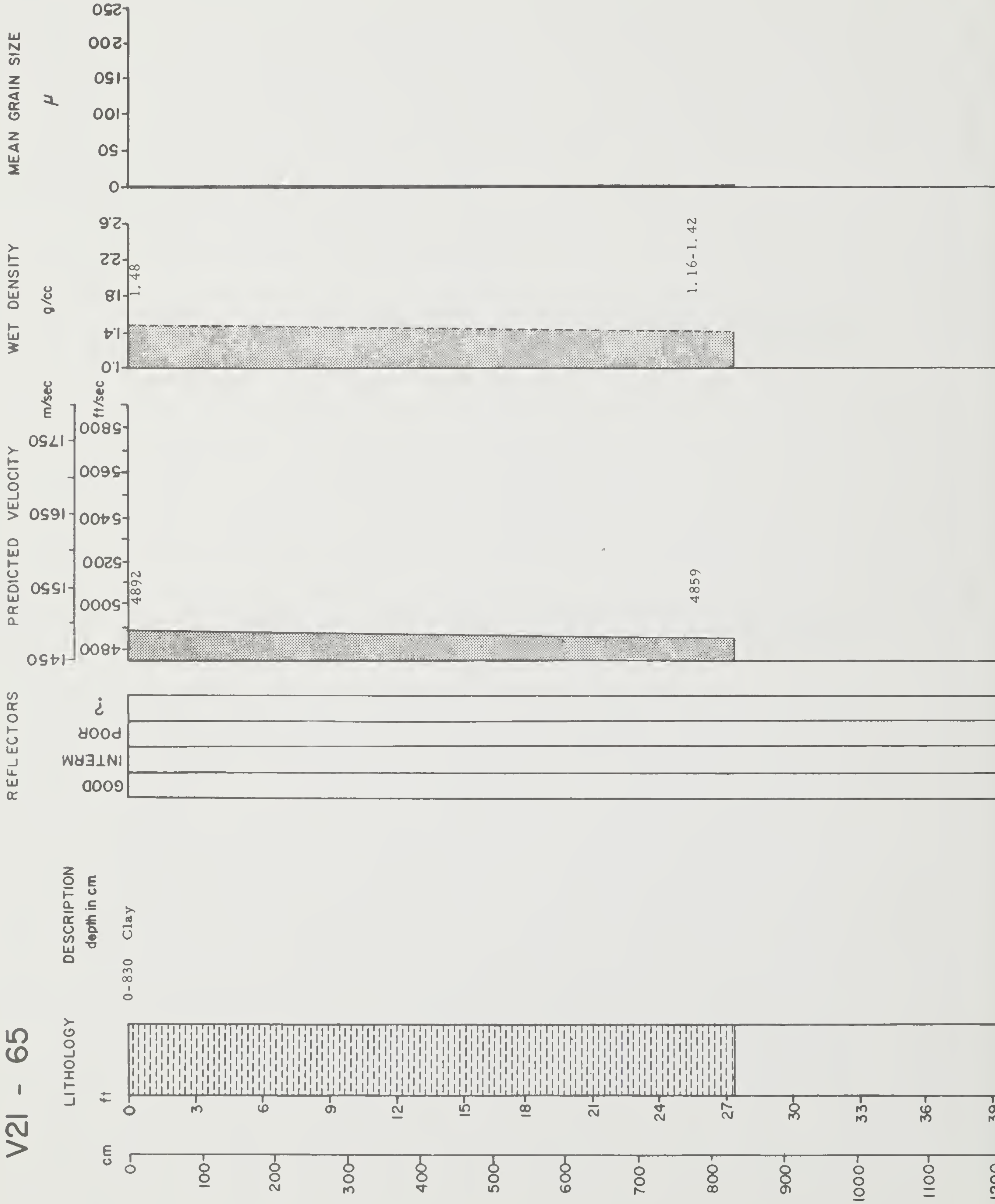

V21 - 61
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-216 Mud
216-276 Graded unit, mud to sand
265-276 Sand R2
276-296 Mud
296-308 Graded unit, mud to sand
308-449 Mud
449-523 Graded unit, mud to silt
479-523 Graded unit, silt, layered R2
523-532 Mud
532-555 Graded unit, mud to silt R2
555-593 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4951
4951
5059
6014
4977
>5900
5007
5043
5374
5059
5282
5046
WET DENSITY
g/cc
1.63
1.63
1.76
2.20
2.33
1.67
1.70
1.74
1.96
1.76
1.91
1.75
MEAN GRAIN SIZE
μ

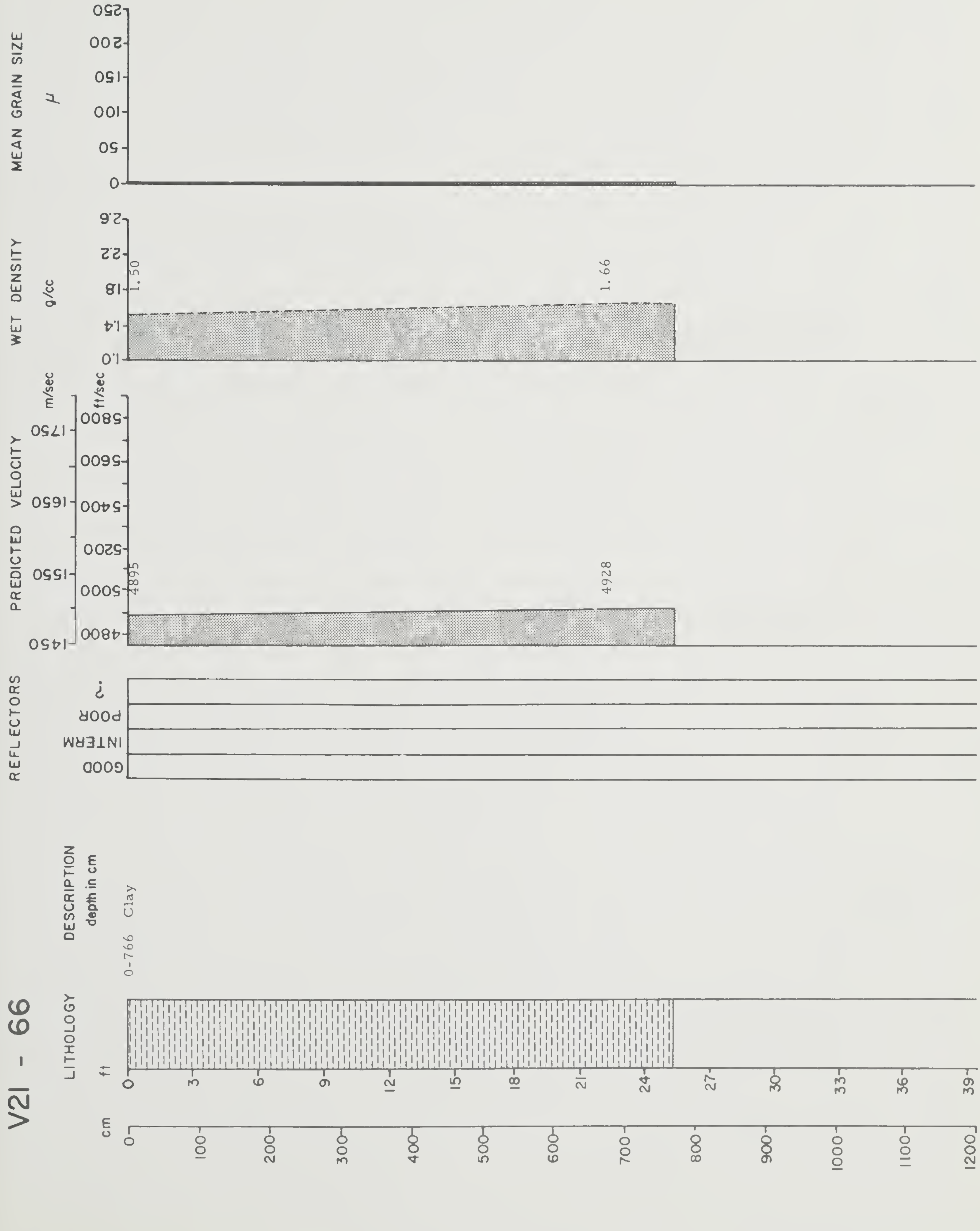

V21 - 62
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-14 Mud
14-15 Mud, chalk
15-51 Mud
51-56 Silt, sandy R3
56-238 Mud
238-254 Silt, sandy R3
254-590 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4954
5331
4974
5184
4974
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.65
1.94
1.67
1.86
1.67
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

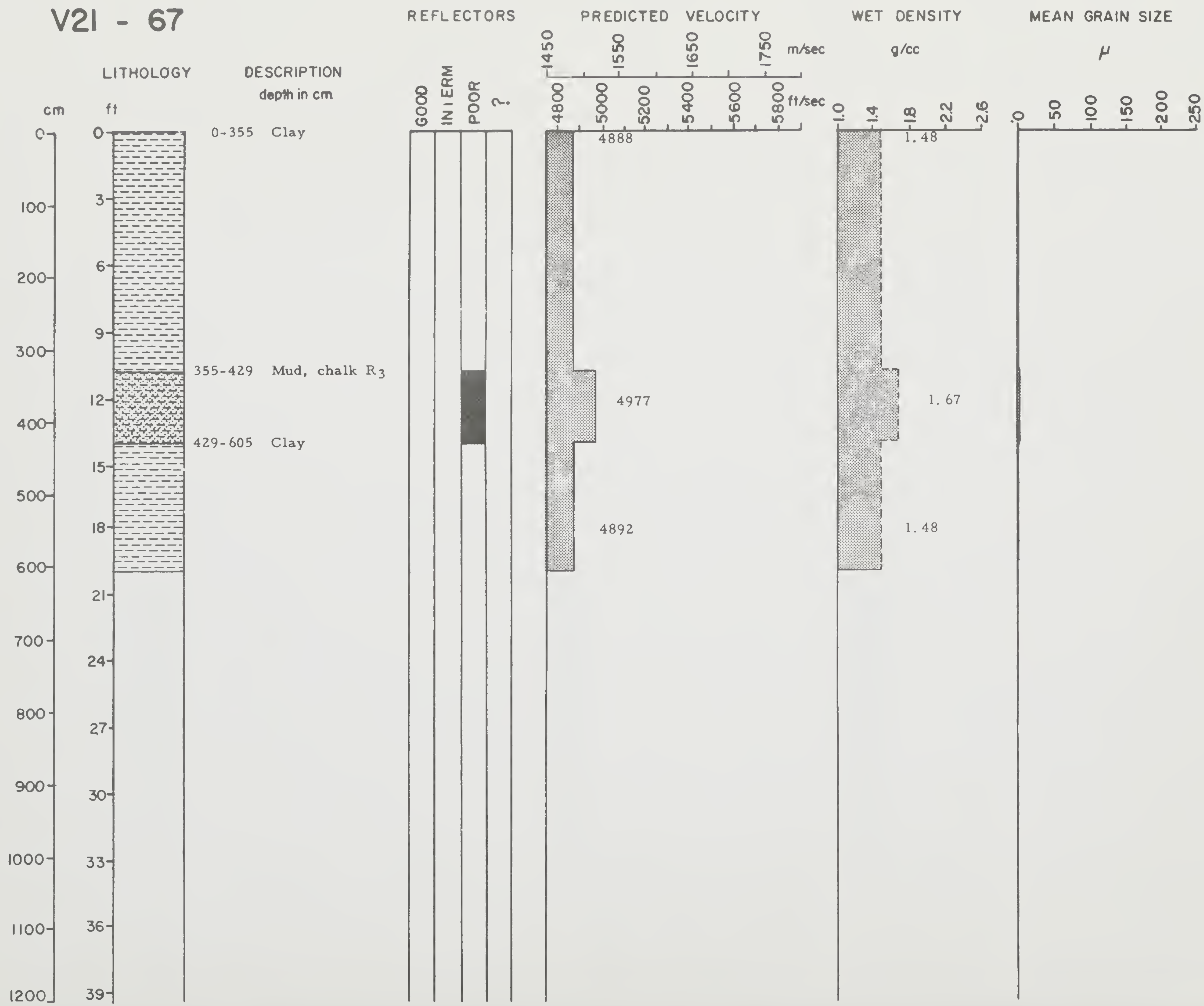

V21 - 63
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
DESCRIPTION
depth in cm
0-507 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4898
4905
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.51
1.53
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

V21 - 64

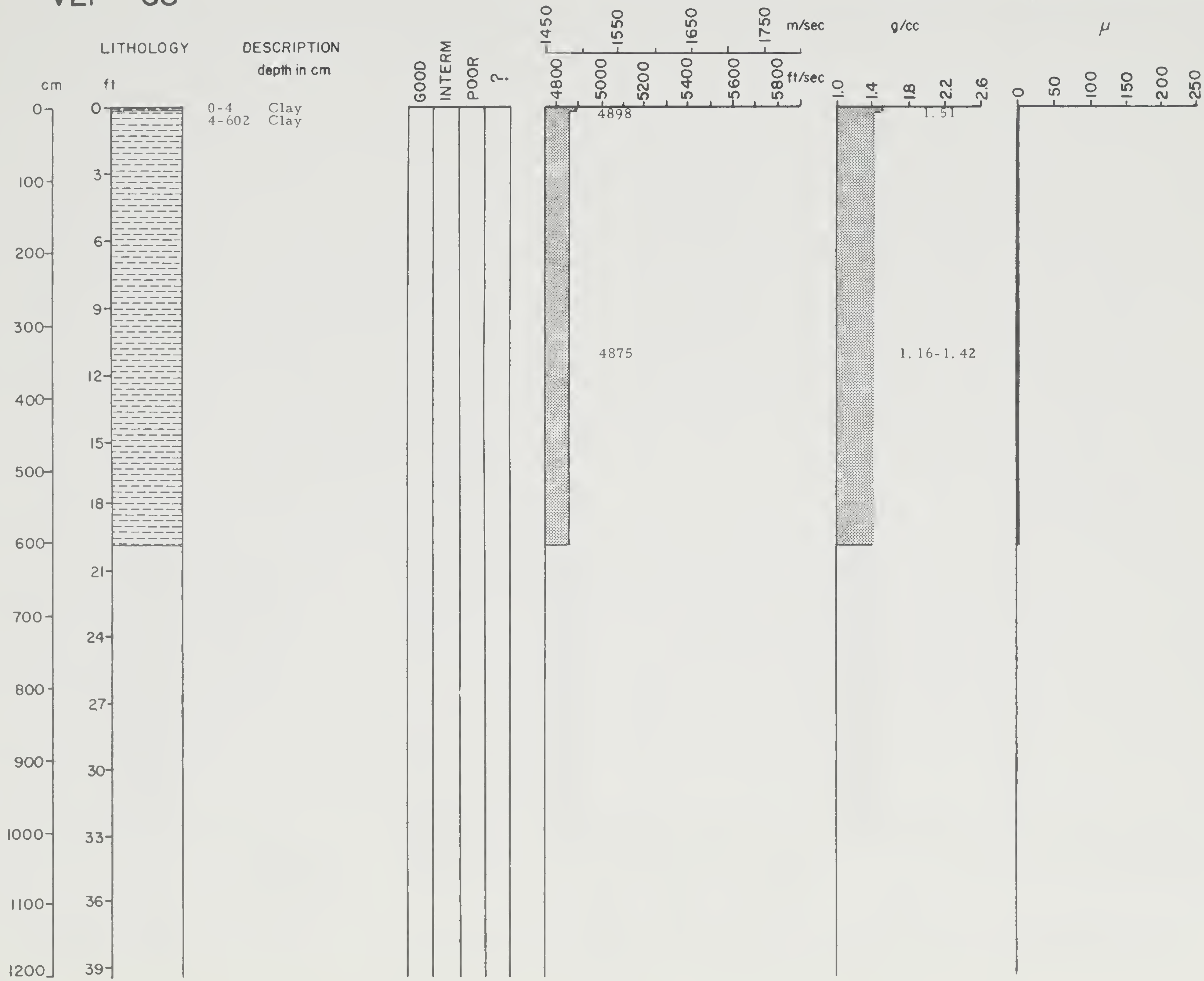

LITHOLOGY
DESCRIPTION
depth in cm
0-655 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4911
4905
WET DENSITY
g/cc
1.55
1.53
MEAN GRAIN SIZE
μ
cm
ft

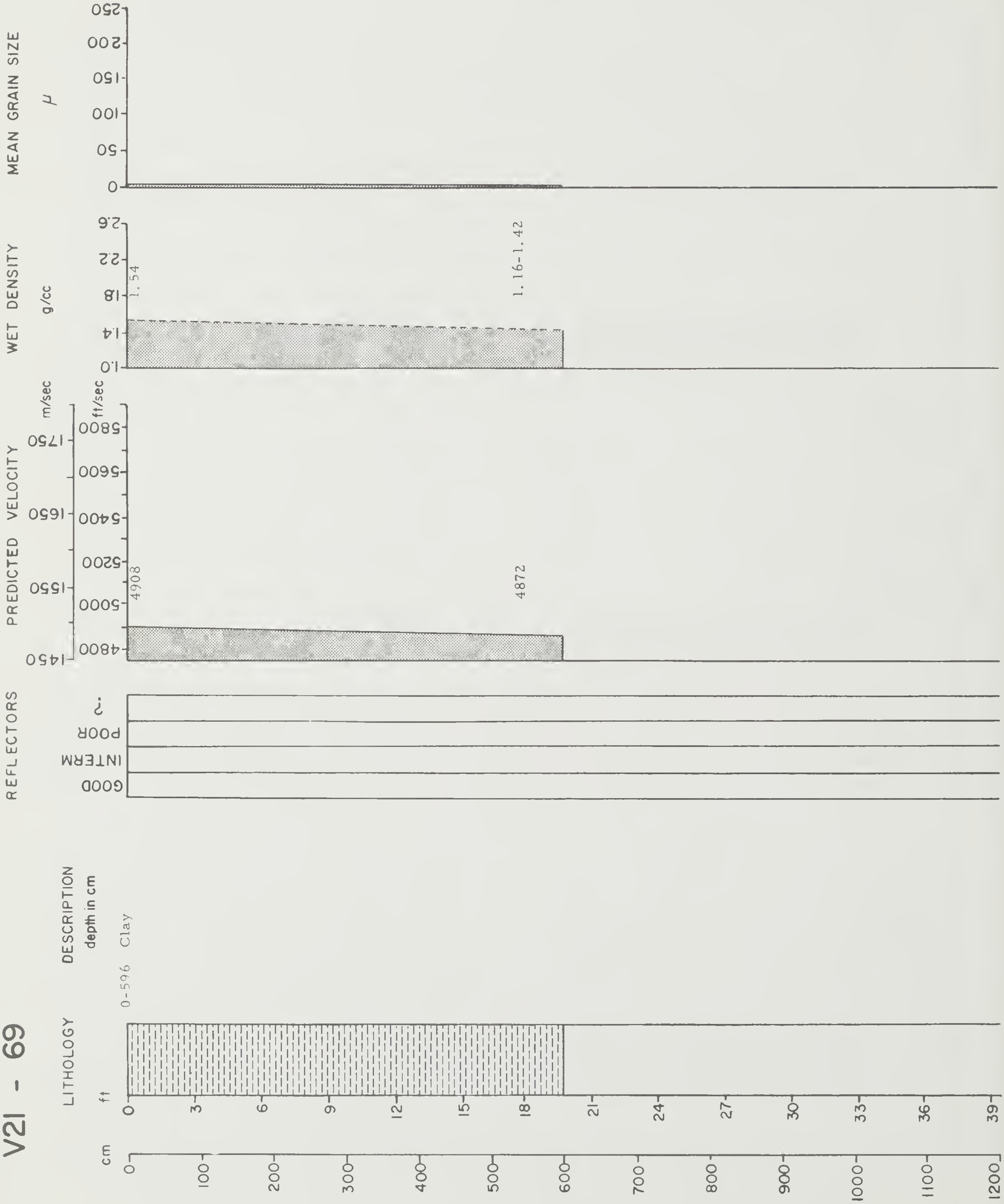

V21 - 65
LITHOLOGY
cm
ft
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39
DESCRIPTION
depth in cm
0-830 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4892
4859
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.48
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250


V21 - 66
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.50
1.66
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4895
4928
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-766 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

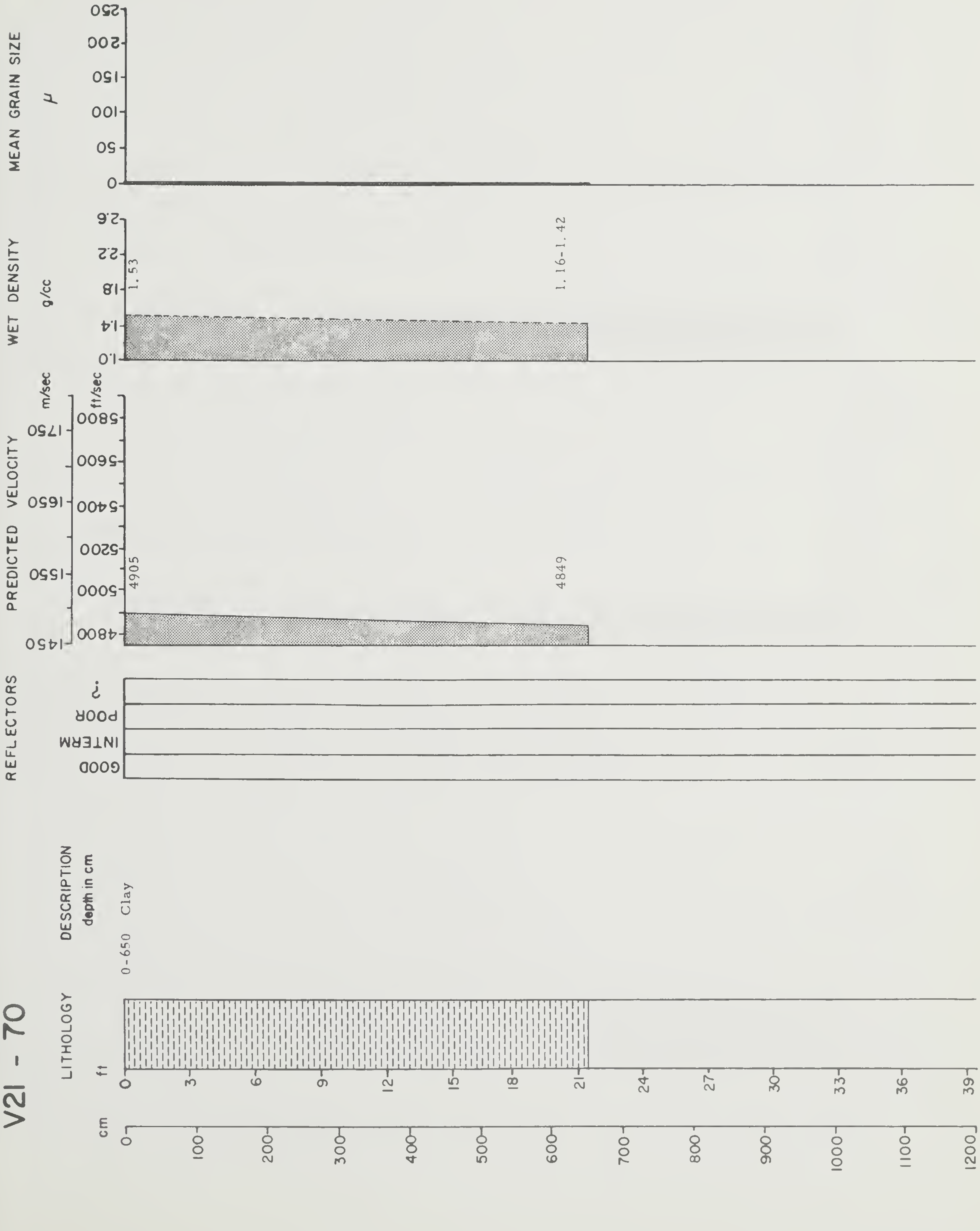

V21 - 67
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0-355 Clay
355-429 Mud, chalk R_3
429-605 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
1450
1550
1650
1750
m/sec
4800
5000
5200
5400
5600
5800
ft/sec
4888
4977
4892
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.48
1.67
1.48
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

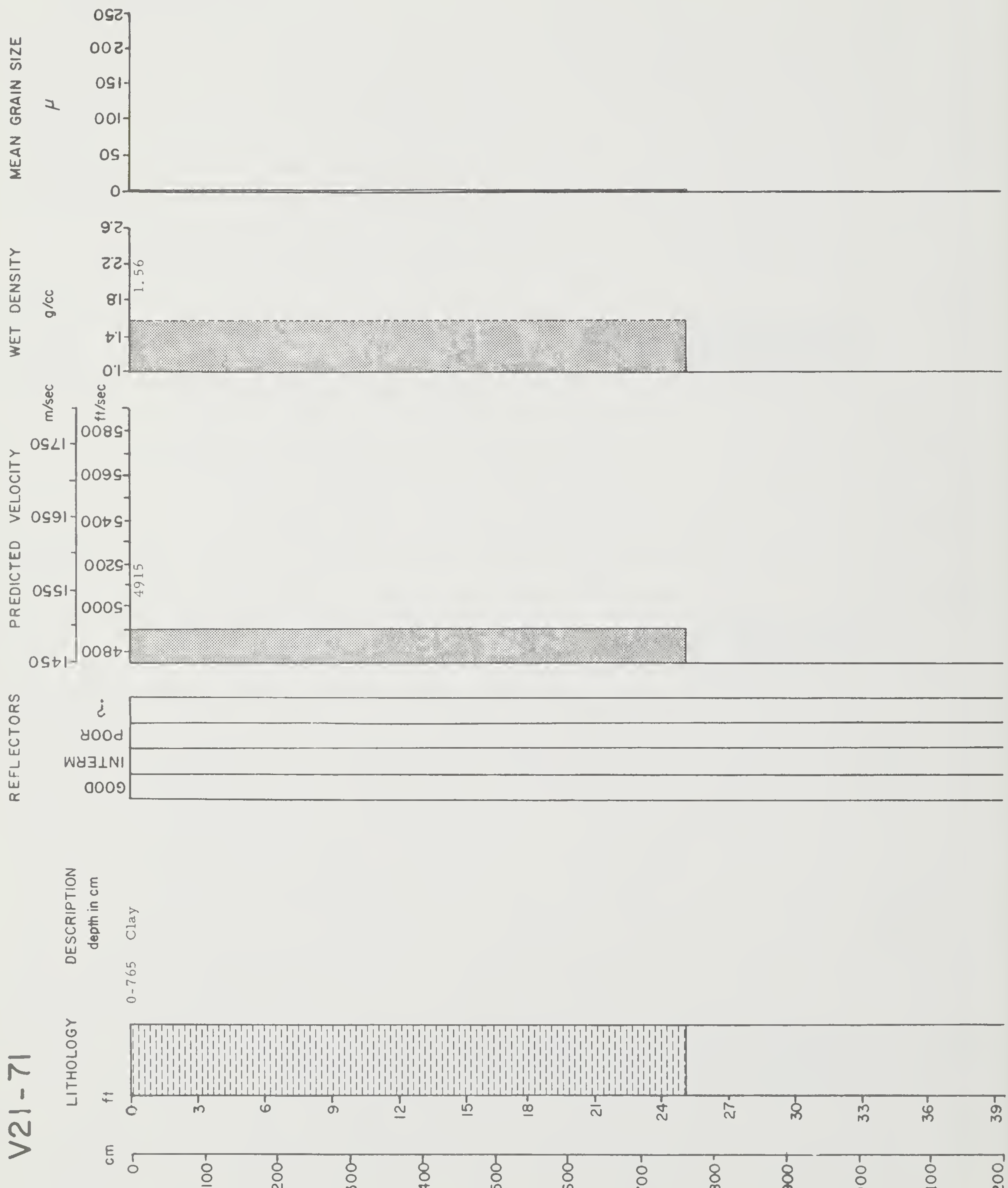
V21 - 68

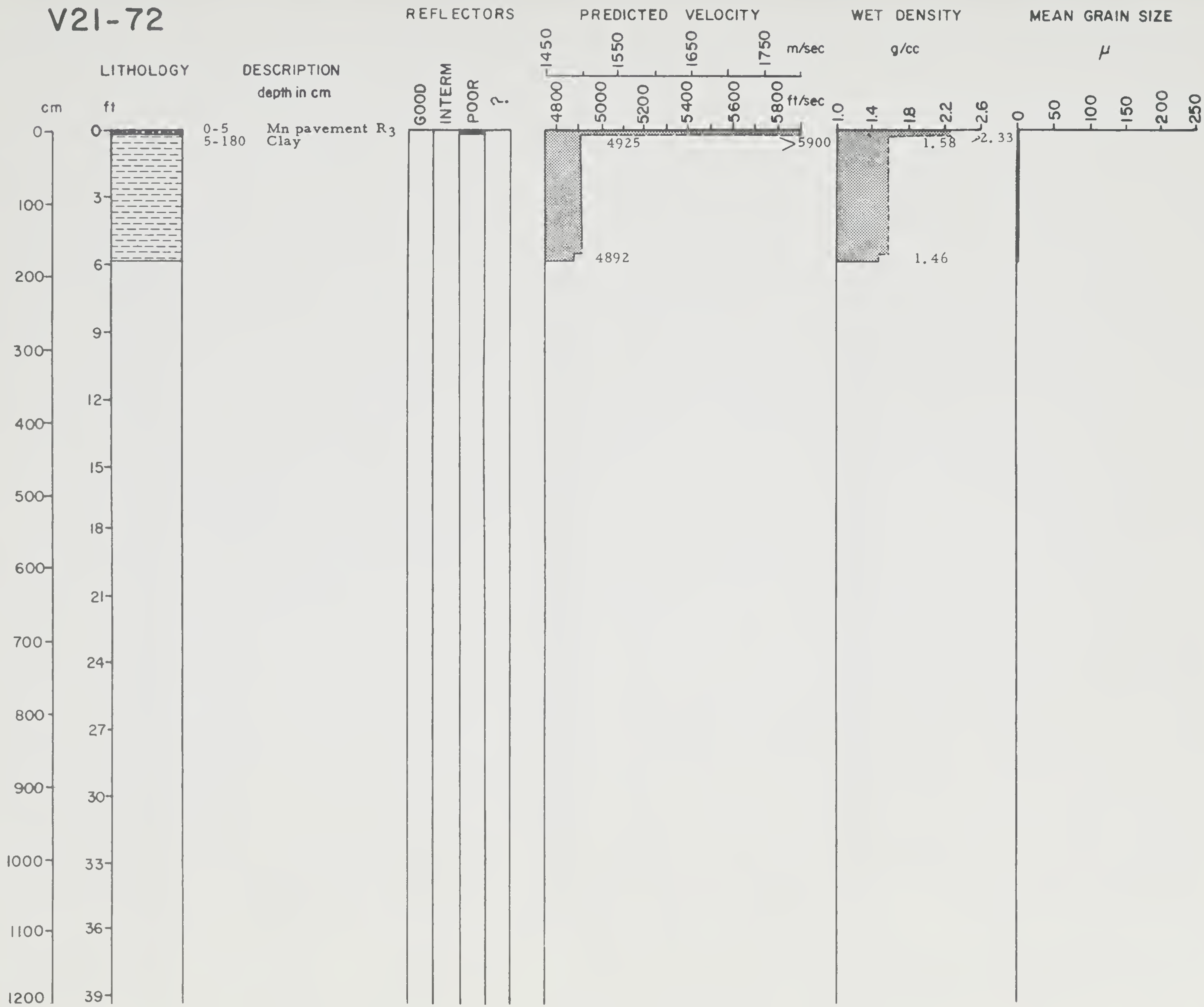

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-4 Clay
4-602 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4898
4875
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.51
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

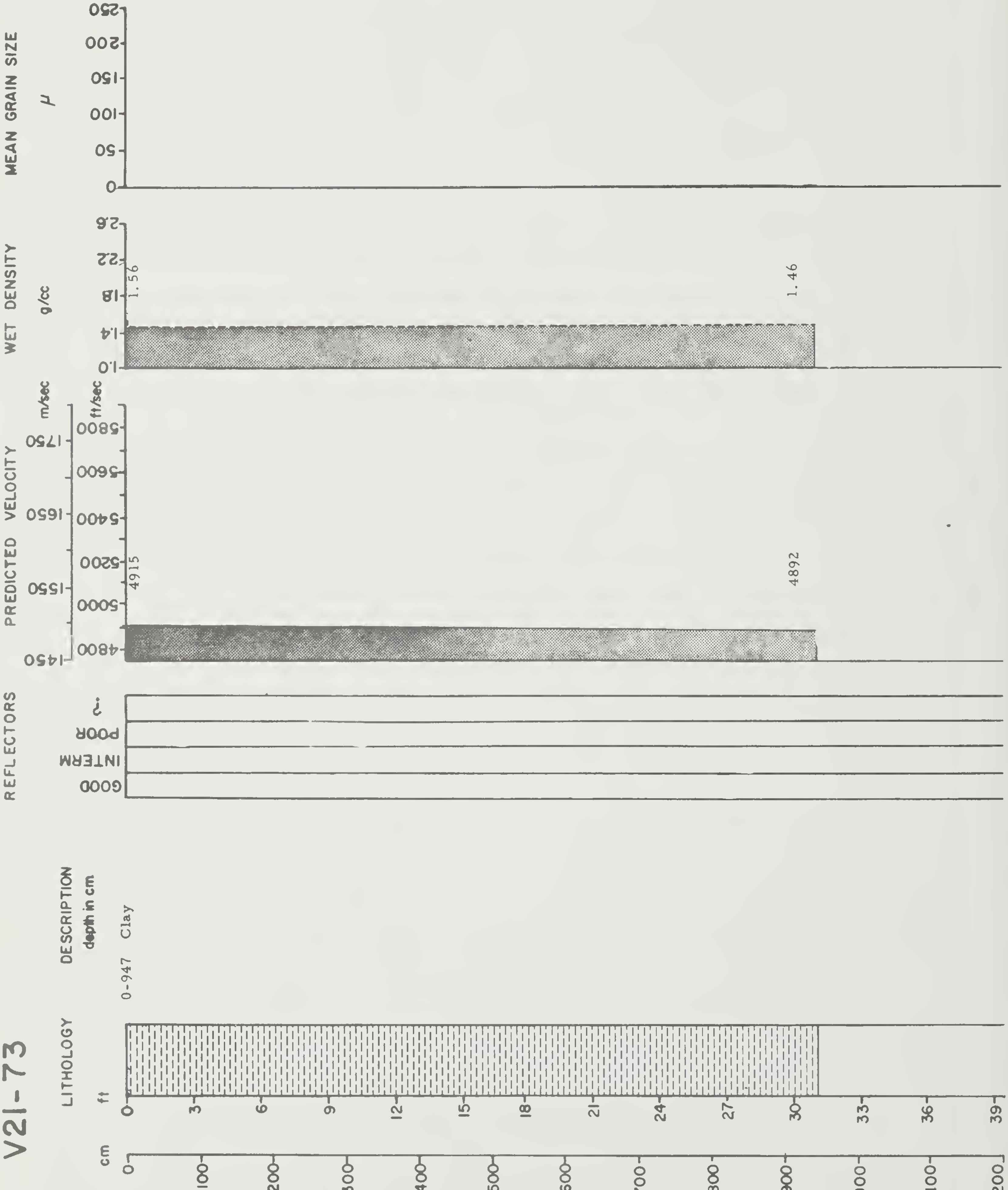


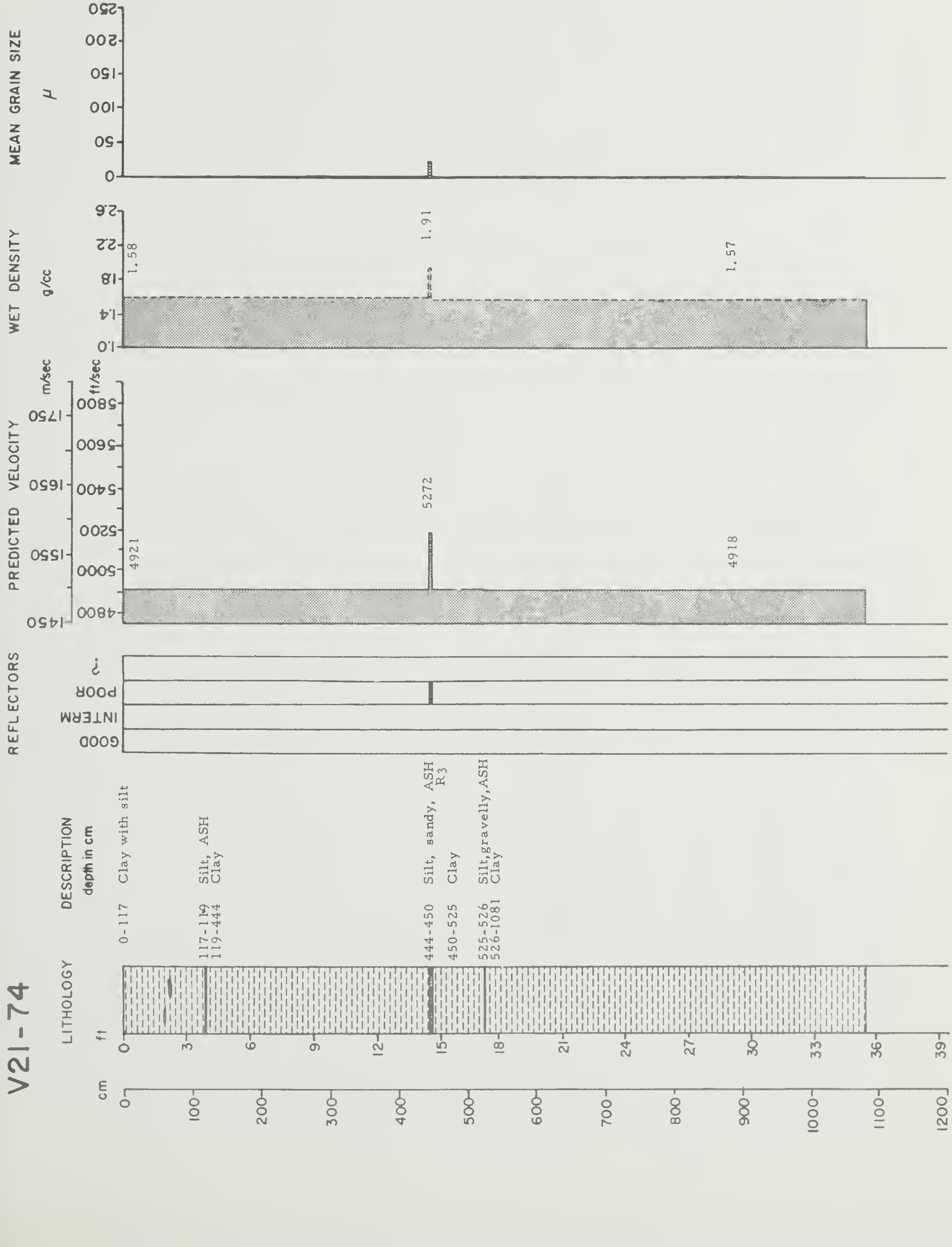
V21 - 69
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-596 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4908
4872
WET DENSITY
g/cc
1.54
1.16-1.42
MEAN GRAIN SIZE
μ

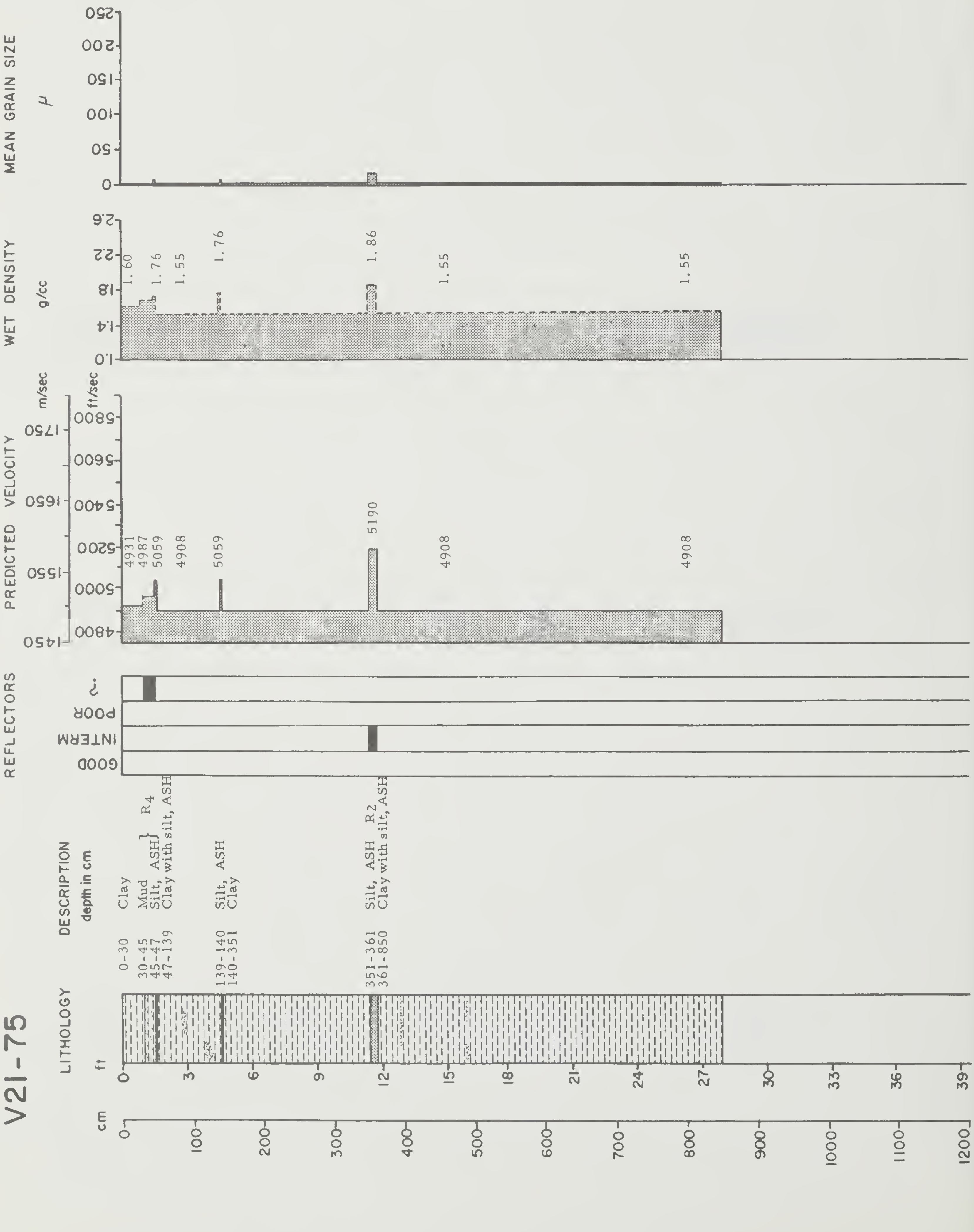

V2I - 70
LITHOLOGY
DESCRIPTION
depth in cm
0-650 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4905
4849
WET DENSITY
g/cc
1.53
1.16-1.42
MEAN GRAIN SIZE
μ
cm
ft

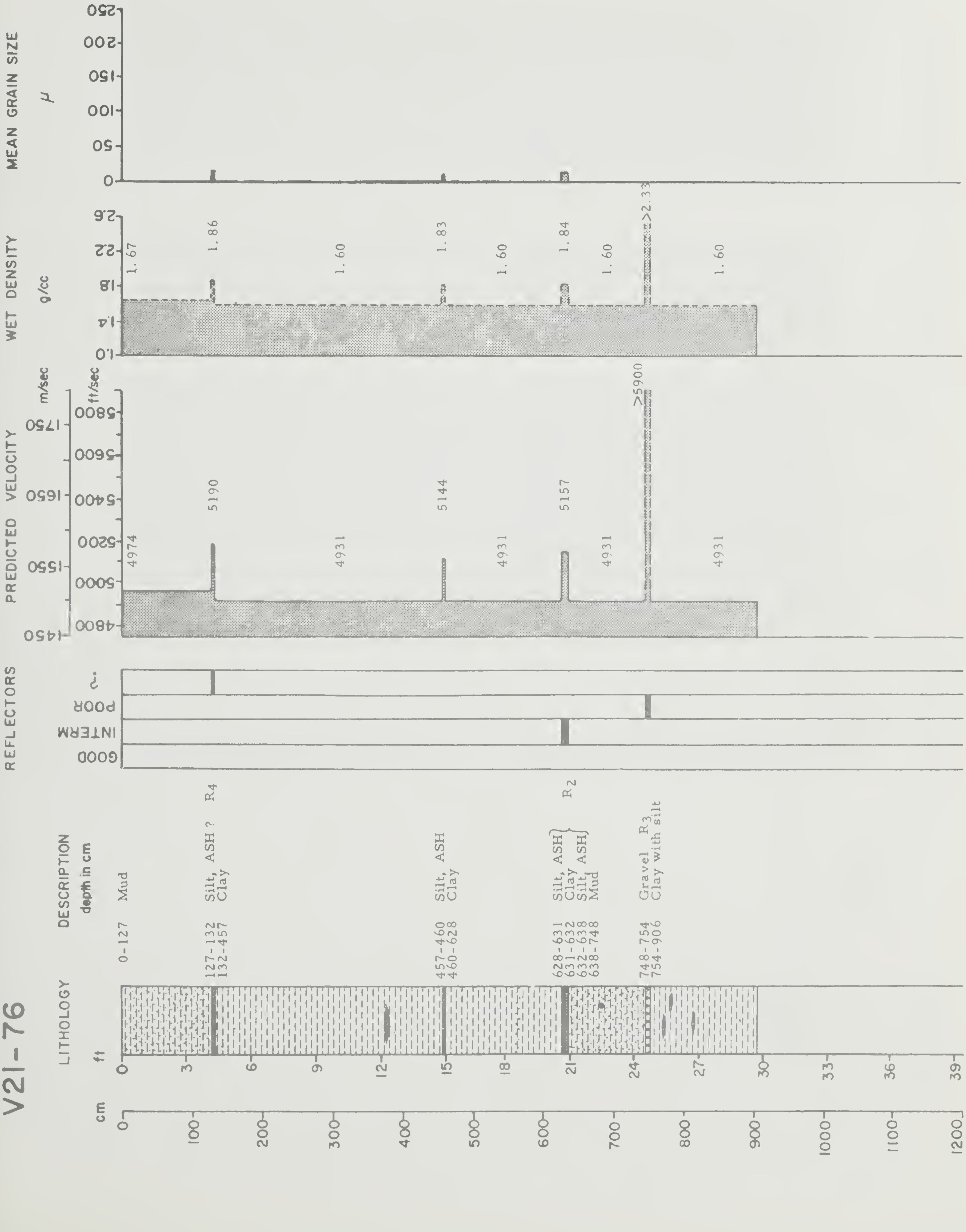

V21-71
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.56
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4915
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-765 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

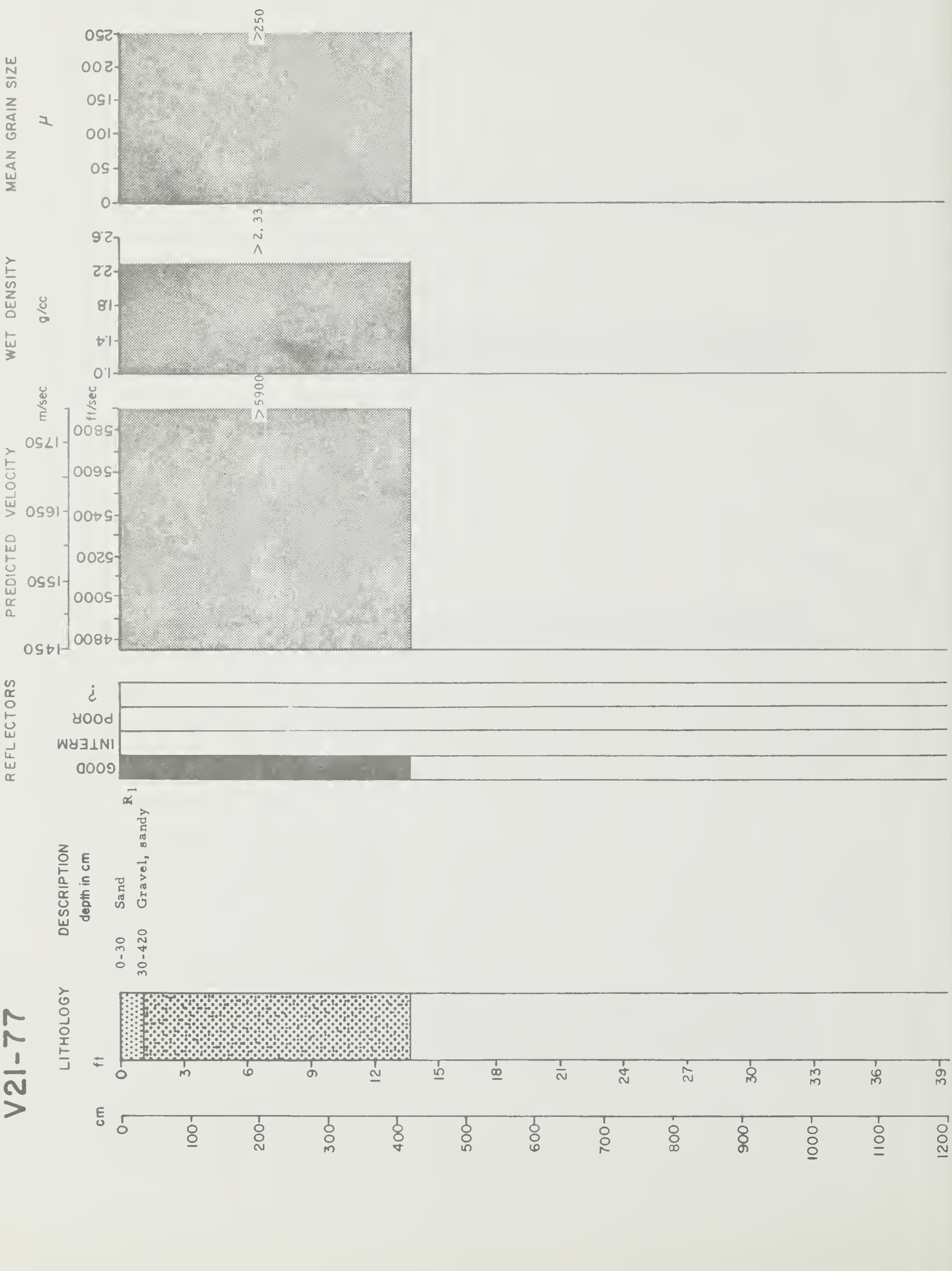

V21-72
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
0 3 6 9 12 15 18 21 24 27 30 33 36 39
0-5 Mn pavement R_3
5-180 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
1450 1550 1650 1750 m/sec
4800 5000 5200 5400 5600 5800 ft/sec
4925
>5900
4892
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.58
>2.33
1.46
MEAN GRAIN SIZE
μ
0 50 100 150 200 250

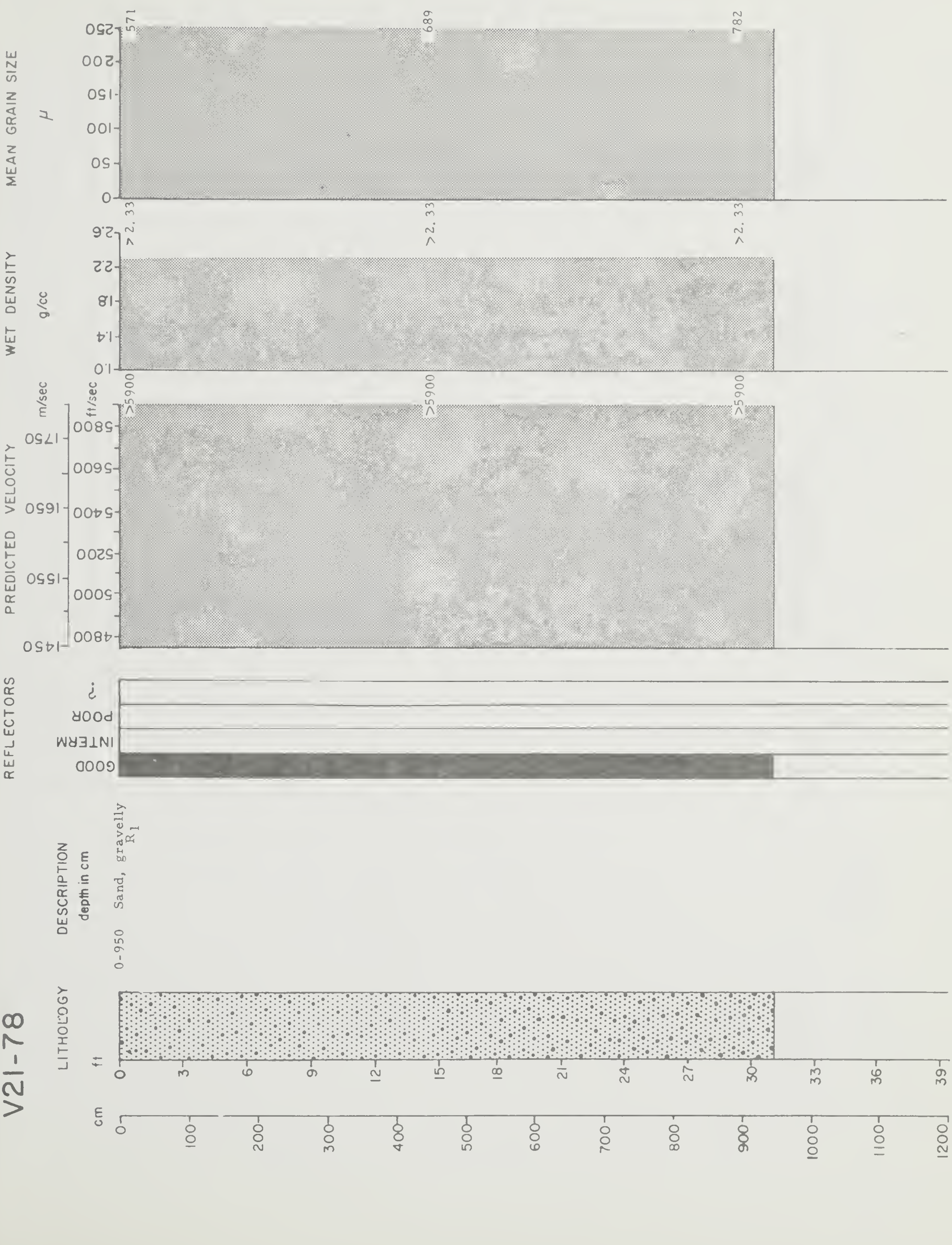

V21-73
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-947 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4915
4892
WET DENSITY
g/cc
1.56
1.46
MEAN GRAIN SIZE
μ

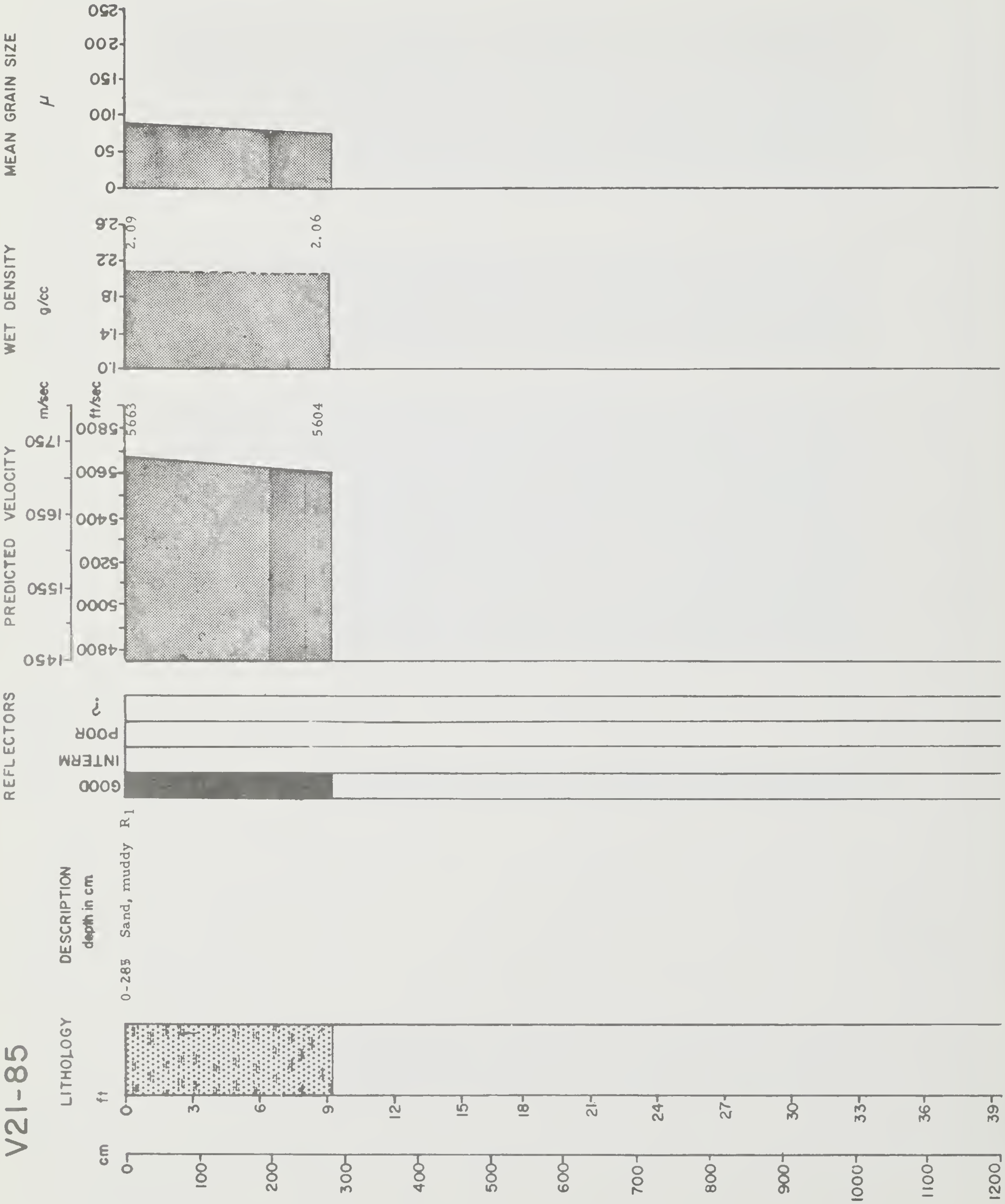

V21-74
LITHOLOGY
cm
ft
DESCRIPTION
depth in cm
0-117 Clay with silt
117-119 Silt, ASH
119-444 Clay
444-450 Silt, sandy, ASH
R3
450-525 Clay
525-526 Silt, gravelly, ASH
526-1081 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4921
5272
4918
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.58
1.91
1.57
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39

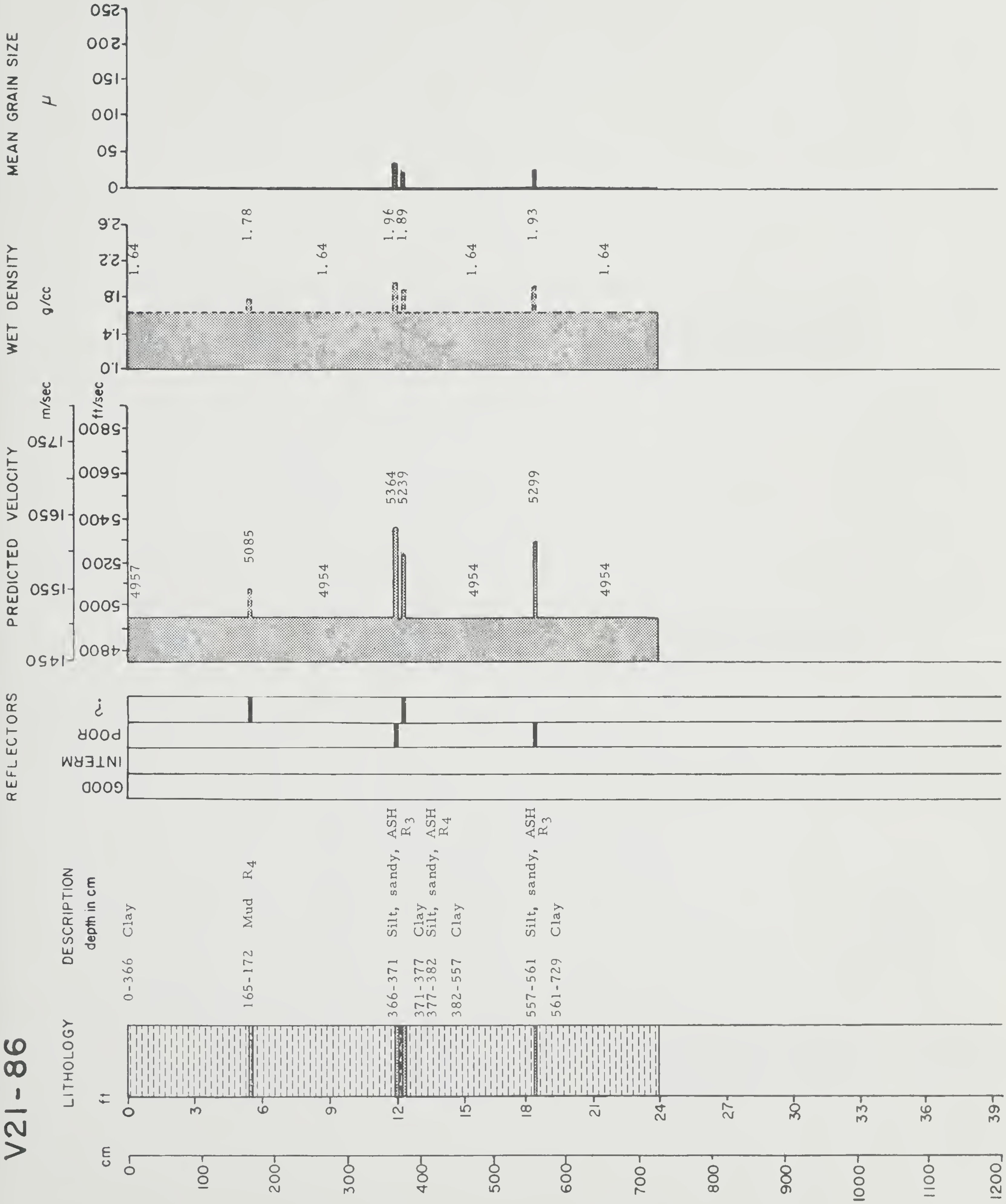

V21-75
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
LITHOLOGY
DESCRIPTION
depth in cm
0-30 Clay
30-45 Mud
45-47 Silt, ASH
47-139 Clay with silt, ASH
R4
139-140 Silt, ASH
140-351 Clay
351-361 Silt, ASH
361-850 Clay with silt, ASH
R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4931
4987
5059
4908
5059
5190
4908
4908
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.60
1.76
1.55
1.76
1.86
1.55
1.55
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

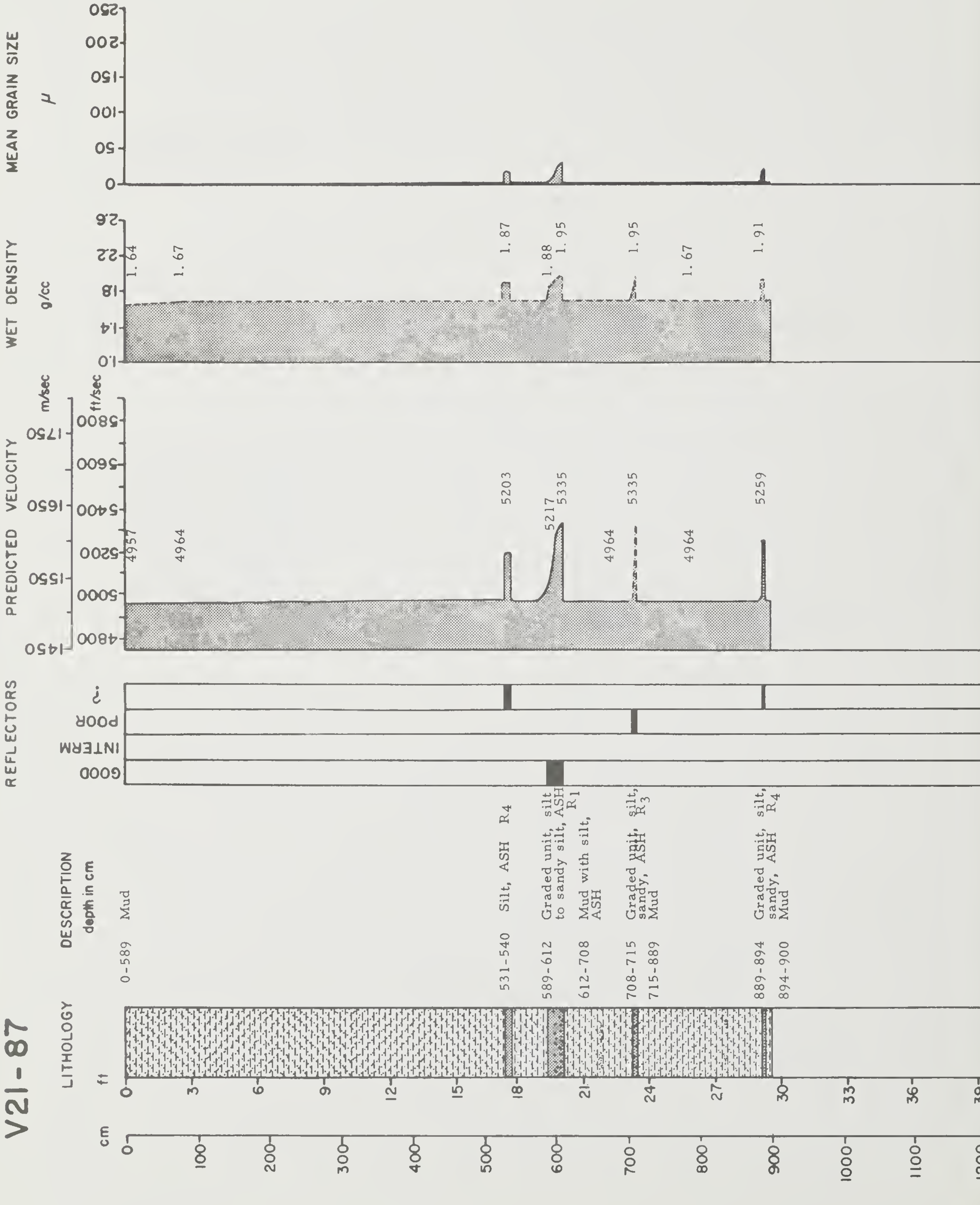

V21-76
LITHOLOGY
DESCRIPTION
depth in cm
0-127 Mud
127-132 Silt, ASH ? R4
132-457 Clay
457-460 Silt, ASH
460-628 Clay
628-631 Silt, ASH
631-632 Clay
632-638 Silt, ASH
638-748 Mud
R2
748-754 Gravel R3
754-906 Clay with silt
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4974
5190
4931
5144
4931
5157
4931
>5900
4931
WET DENSITY
g/cc
1.67
1.86
1.60
1.83
1.60
1.84
1.60
>2.33
1.60
MEAN GRAIN SIZE
μ
cm
ft

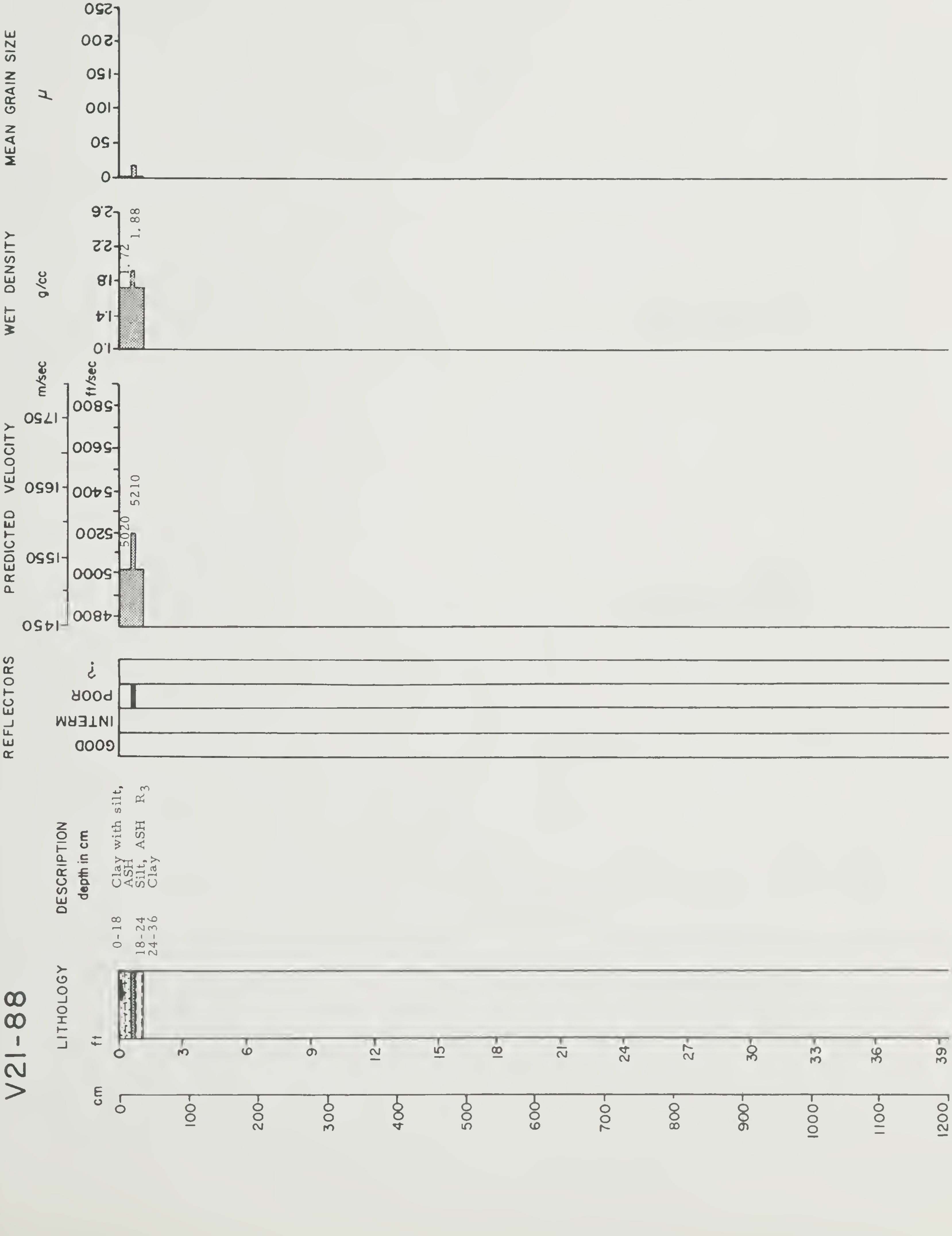

V21-77
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-30 Sand
30-420 Gravel, sandy
R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
>250
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0
100
200
300
400
500
600
700
800
900
1000
1100
1200


V21-78
LITHOLOGY
DESCRIPTION
depth in cm
0-950 Sand, gravelly
R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ
>5900
>2.33
571
689
782
cm
ft

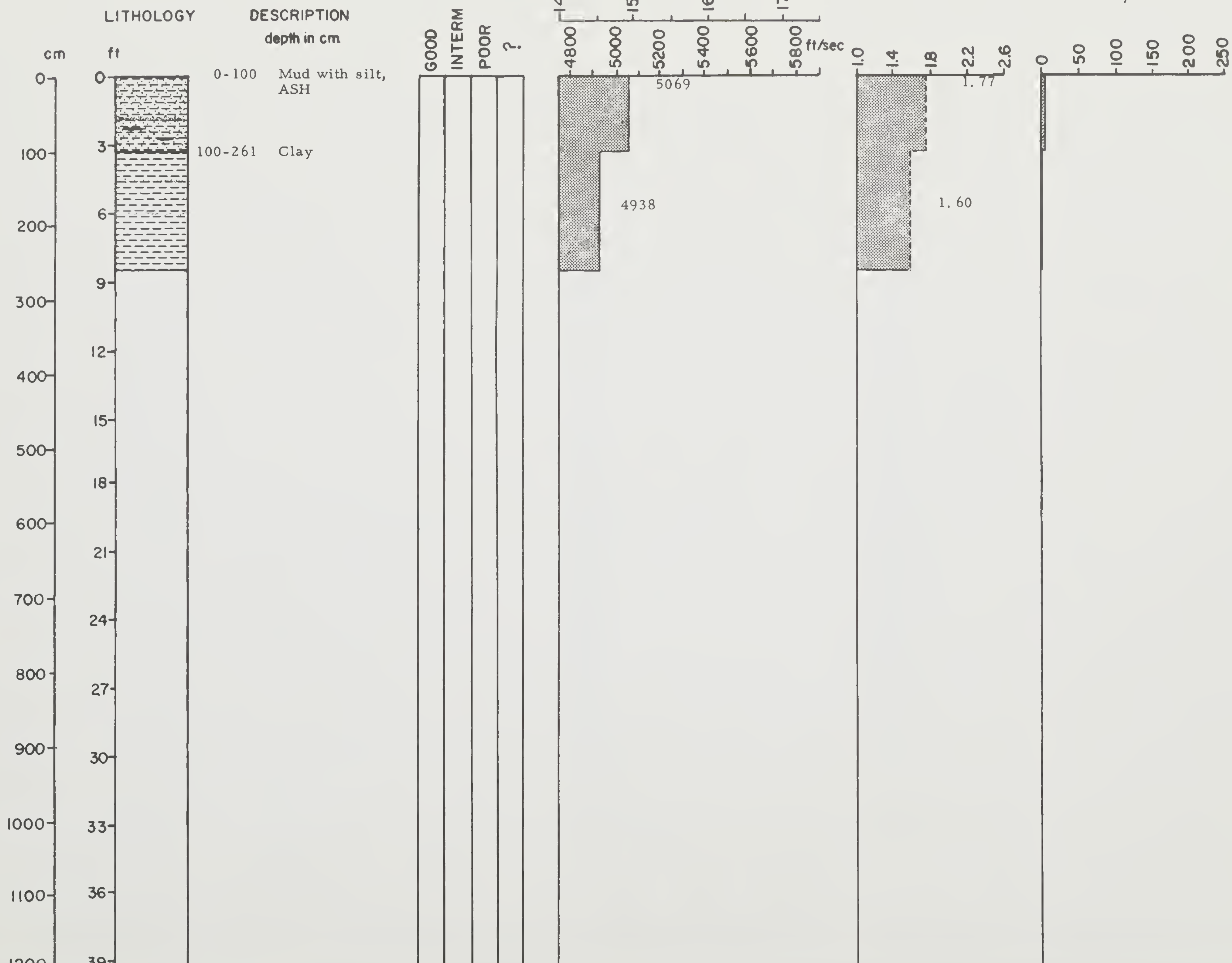

V21-85
LITHOLOGY
DESCRIPTION
depth in cm
0-285 Sand, muddy R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5663
5604
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
2.09
2.06
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

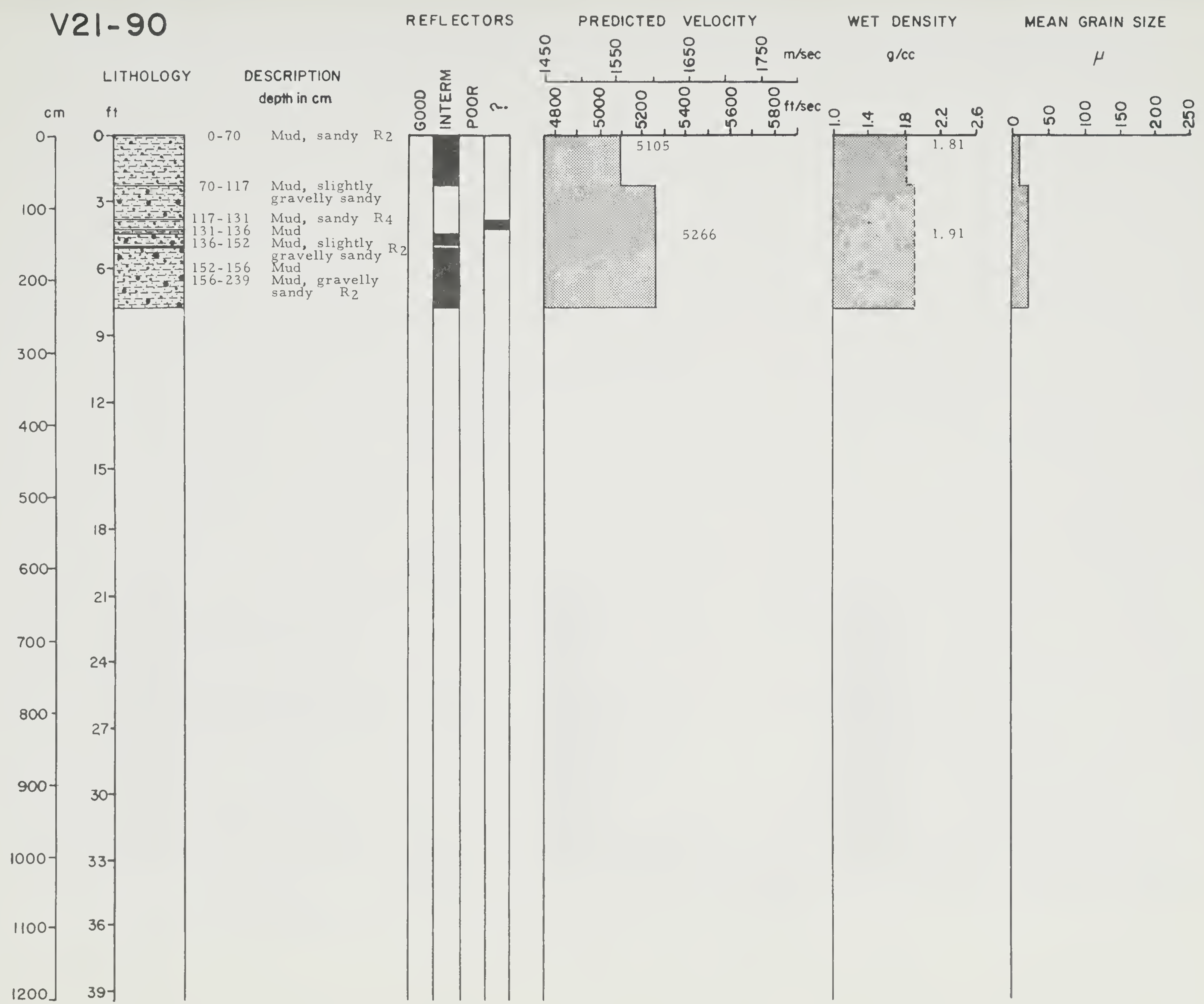

V21-86
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-366 Clay
165-172 Mud R4
366-371 Silt, sandy, ASH R3
371-377 Clay
377-382 Silt, sandy, ASH R4
382-557 Clay
557-561 Silt, sandy, ASH R3
561-729 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4957
5085
4954
5364
5239
4954
5299
4954
WET DENSITY
g/cc
1.64
1.78
1.64
1.96
1.89
1.64
1.93
1.64
MEAN GRAIN SIZE
μ
0 3 6 9 12 15 18 21 24 27 30 33 36 39
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
1450 1550 1650 1750
4800 5000 5200 5400 5600 5800
1.0 1.4 1.8 2.2 2.6
0 50 100 150 200 250

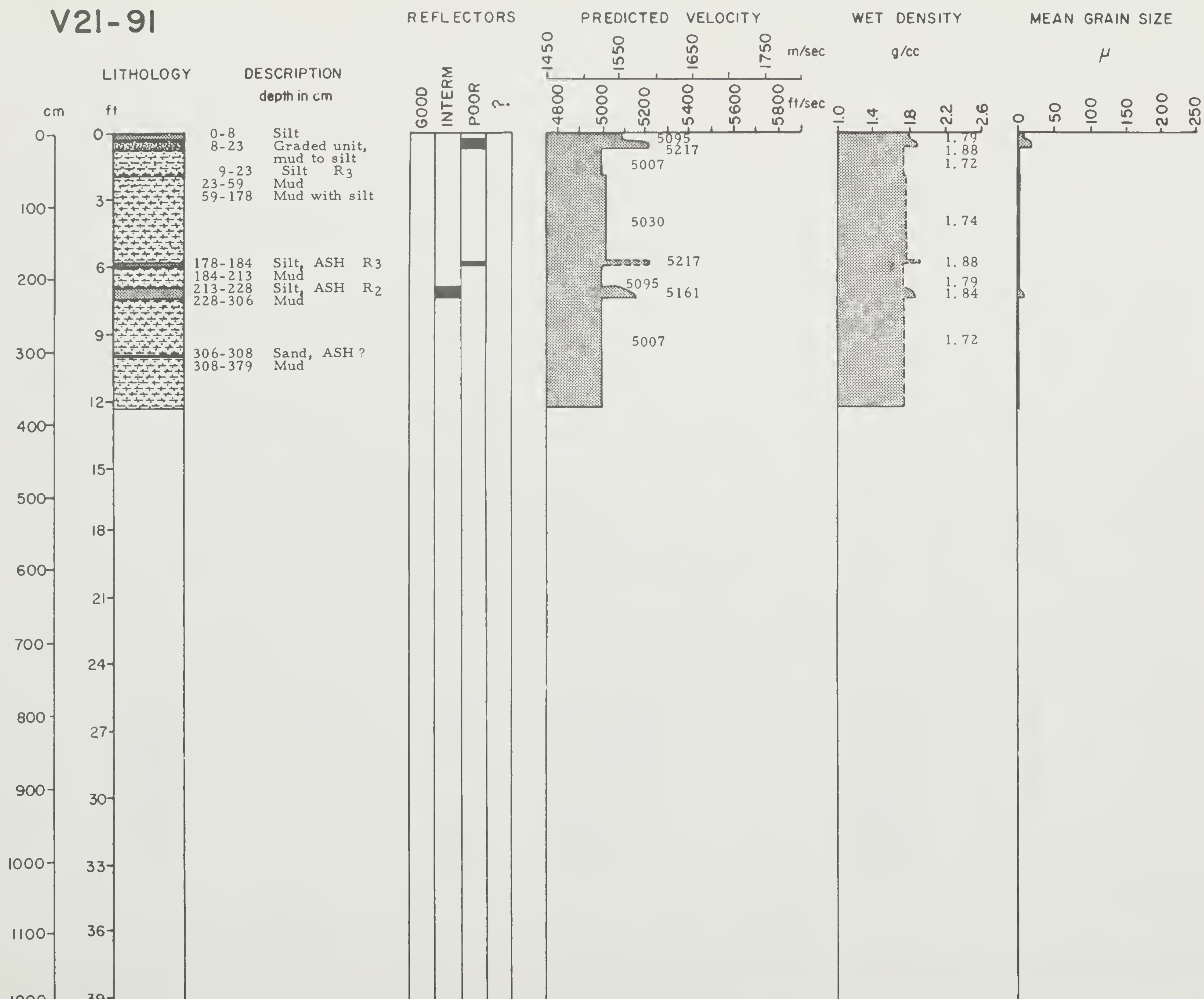

V21-87
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-589 Mud
531-540 Silt, ASH R4
589-612 Graded unit, silt to sandy silt, ASH R1
612-708 Mud with silt, ASH
708-715 Graded unit, silt, sandy, ASH R3
715-889 Mud
889-894 Graded unit, silt, sandy, ASH R4
894-900 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4957
4964
5203
5217
5335
4964
5335
4964
5259
WET DENSITY
g/cc
1.64
1.67
1.87
1.88
1.95
1.95
1.67
1.91
MEAN GRAIN SIZE
μ

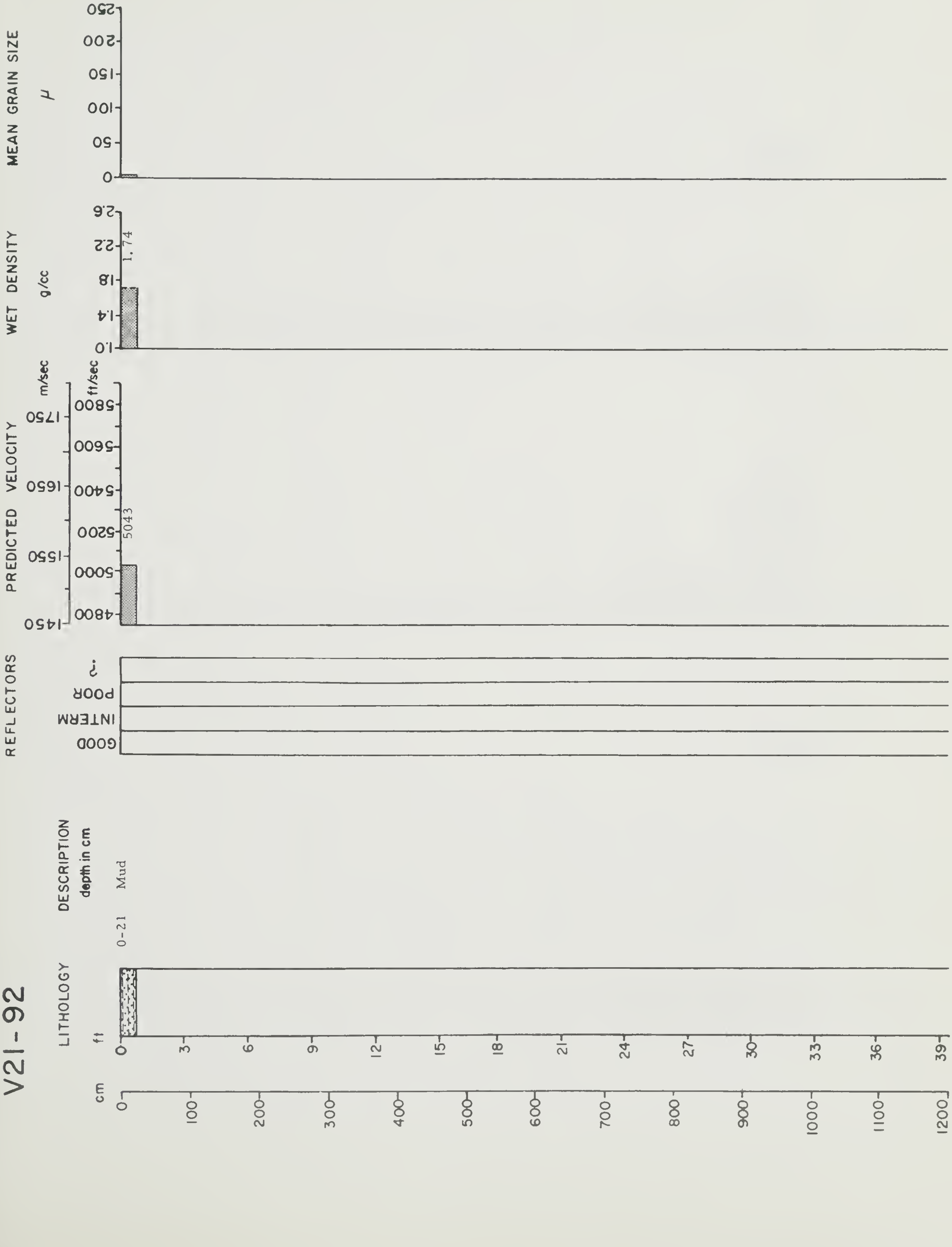

V21-88
LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-18 Clay with silt, ASH
18-24 Silt, ASH R3
24-36 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
5020
5210
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.72
1.88
MEAN GRAIN SIZE
μ
0 50 100 150 200 250

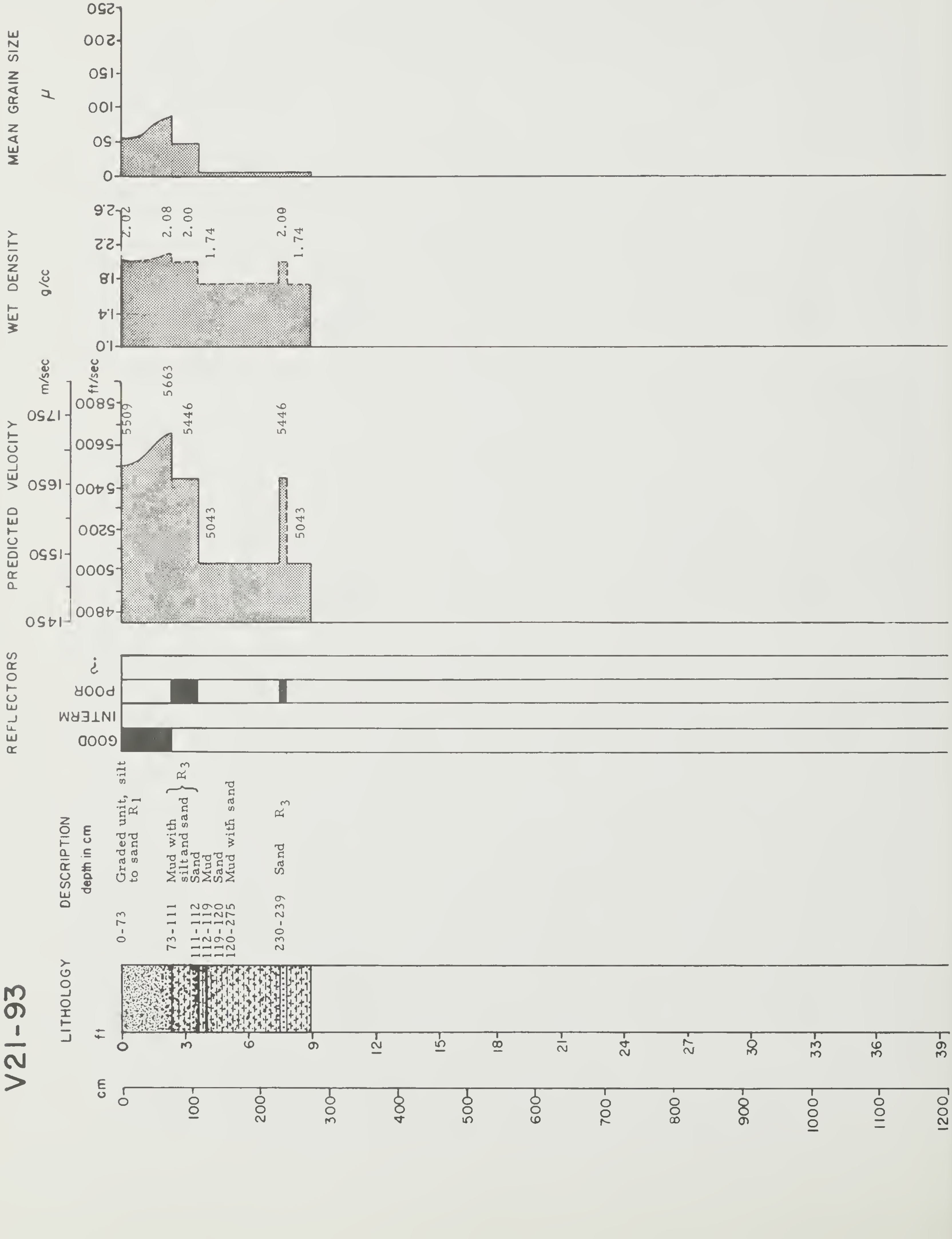
V21-89


LITHOLOGY
DESCRIPTION
depth in cm
0-100 Mud with silt, ASH
100-261 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
5069
4938
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.77
1.60
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

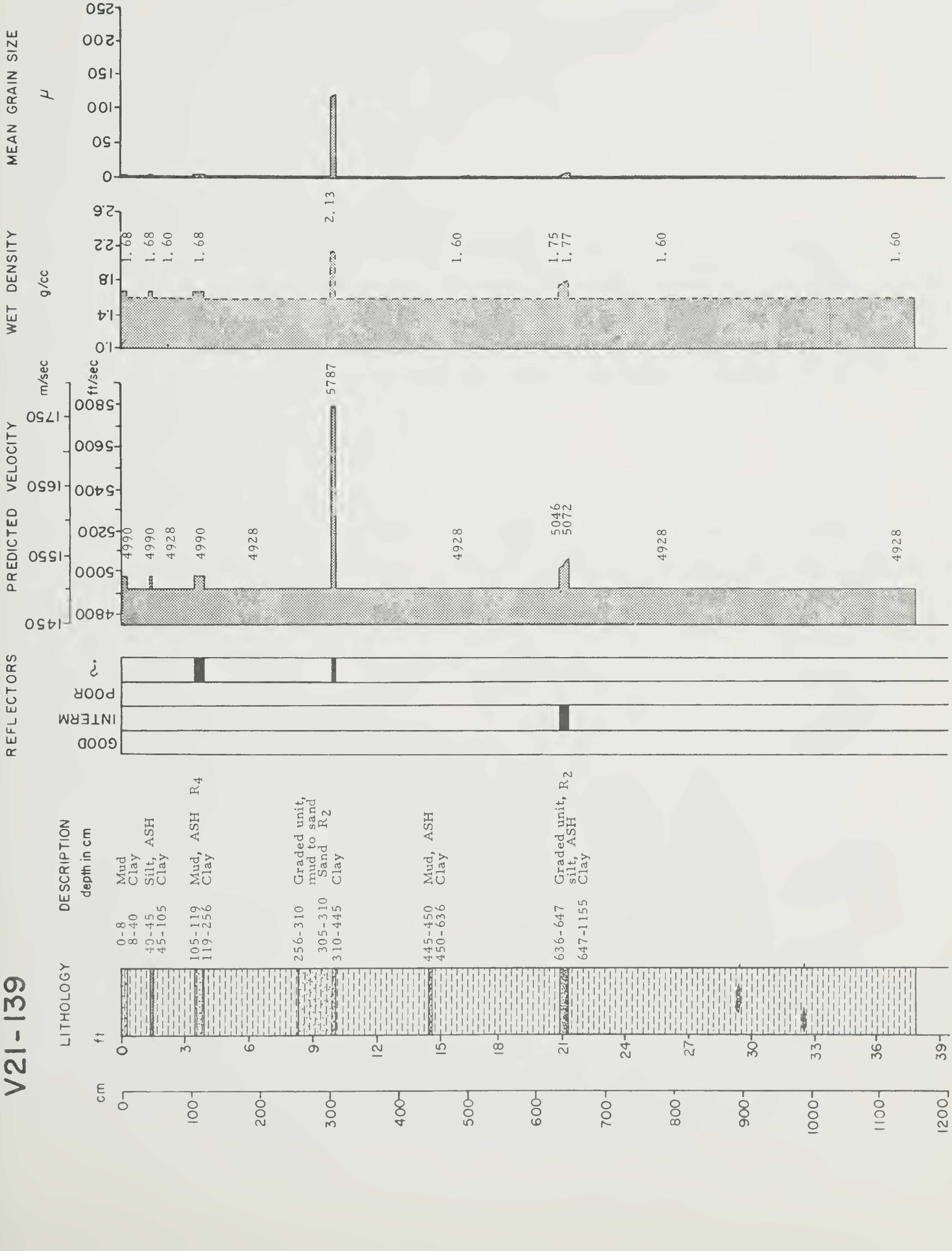

V21-90
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-70 Mud, sandy R2
70-117 Mud, slightly gravelly sandy
117-131 Mud, sandy R4
131-136 Mud
136-152 Mud, slightly gravelly sandy R2
152-156 Mud
156-239 Mud, gravelly sandy R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5105
5266
WET DENSITY
g/cc
1.81
1.91
MEAN GRAIN SIZE
μ

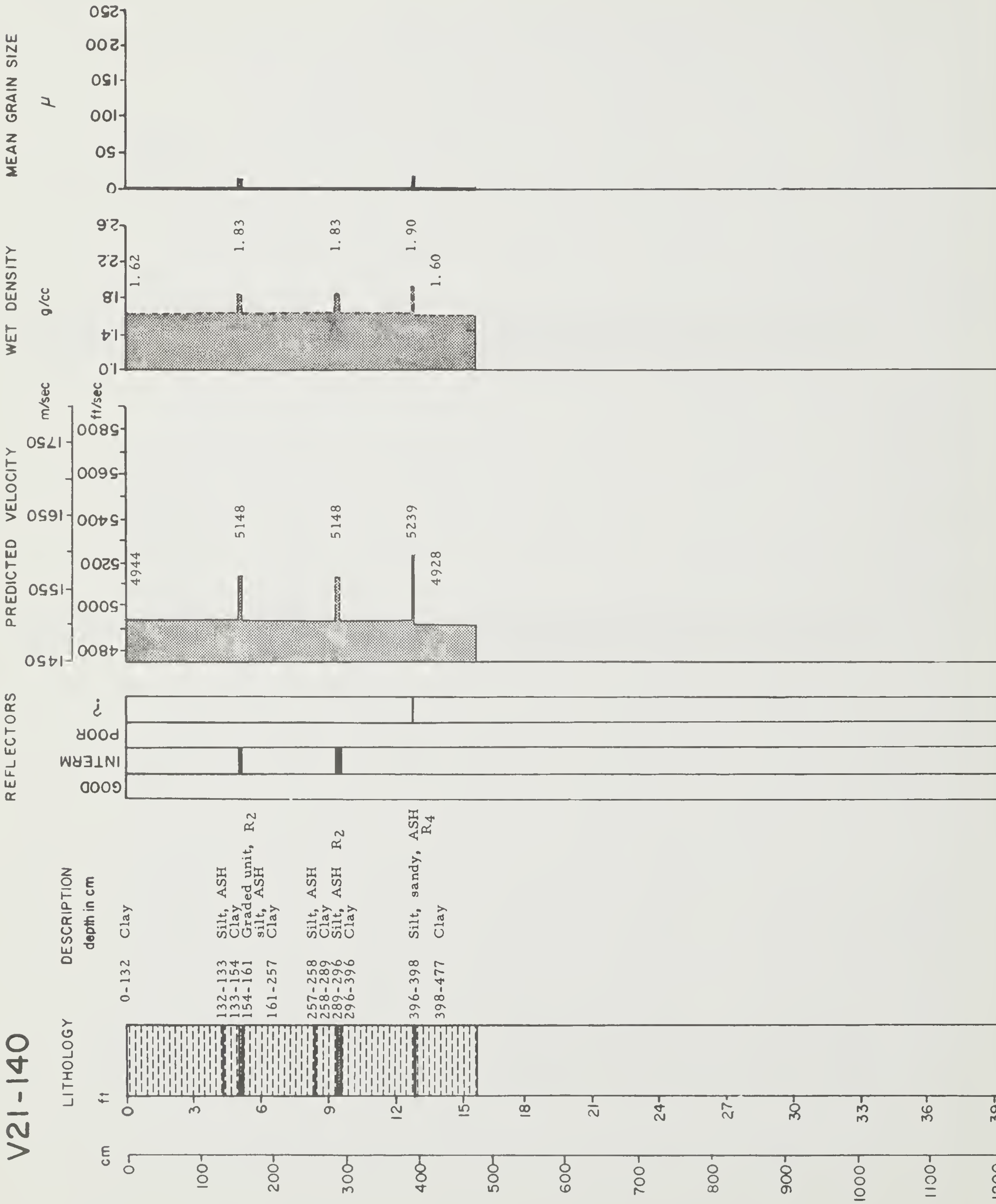

V21-91
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-8 Silt
8-23 Graded unit, mud to silt
9-23 Silt R3
23-59 Mud
59-178 Mud with silt
178-184 Silt, ASH R3
184-213 Mud
213-228 Silt, ASH R2
228-306 Mud
306-308 Sand, ASH ?
308-379 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
5095
5217
5007
5030
5217
5095
5161
5007
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.79
1.88
1.72
1.74
1.88
1.79
1.84
1.72
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

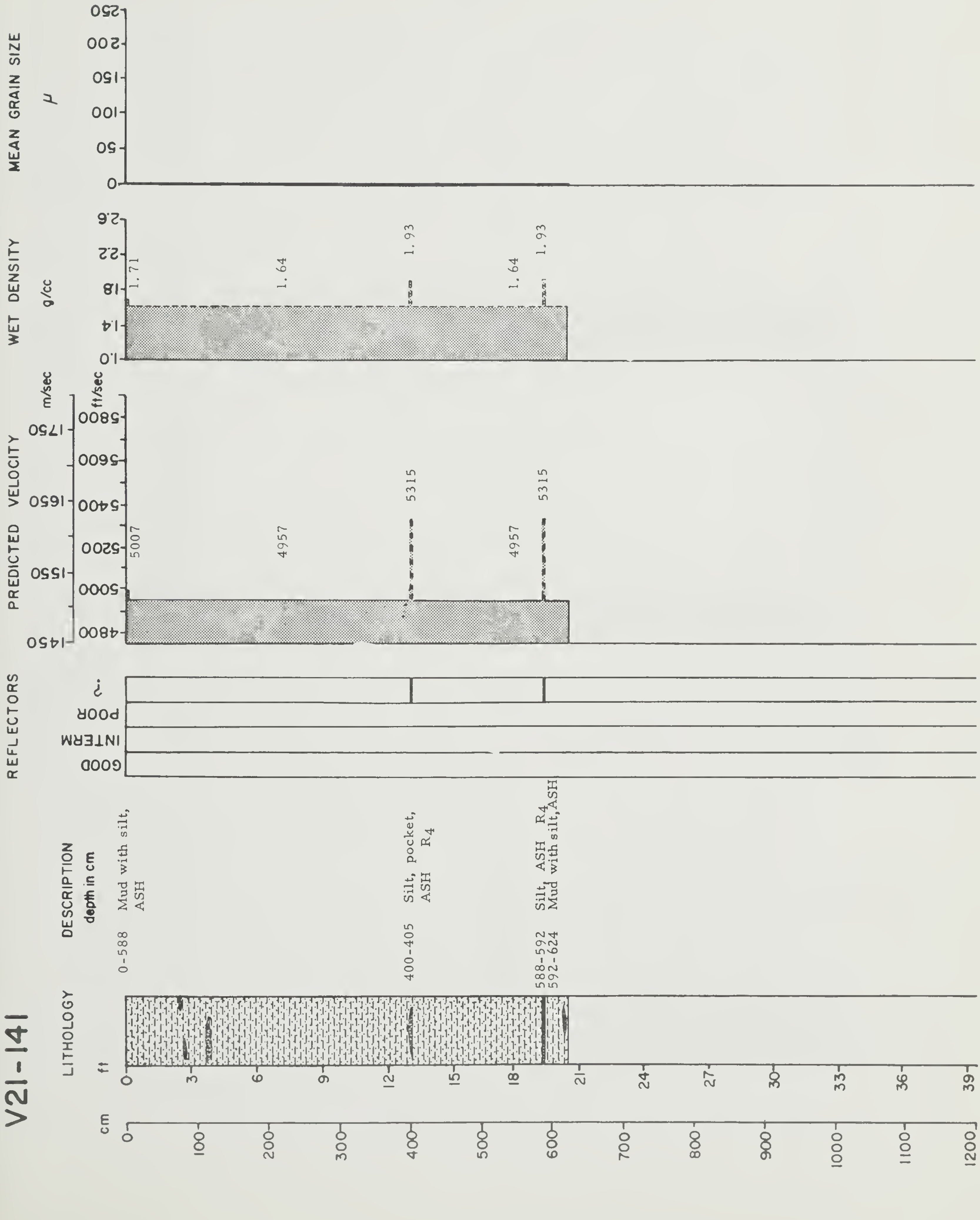

V21-92
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.74
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
5043
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-21
Mud
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

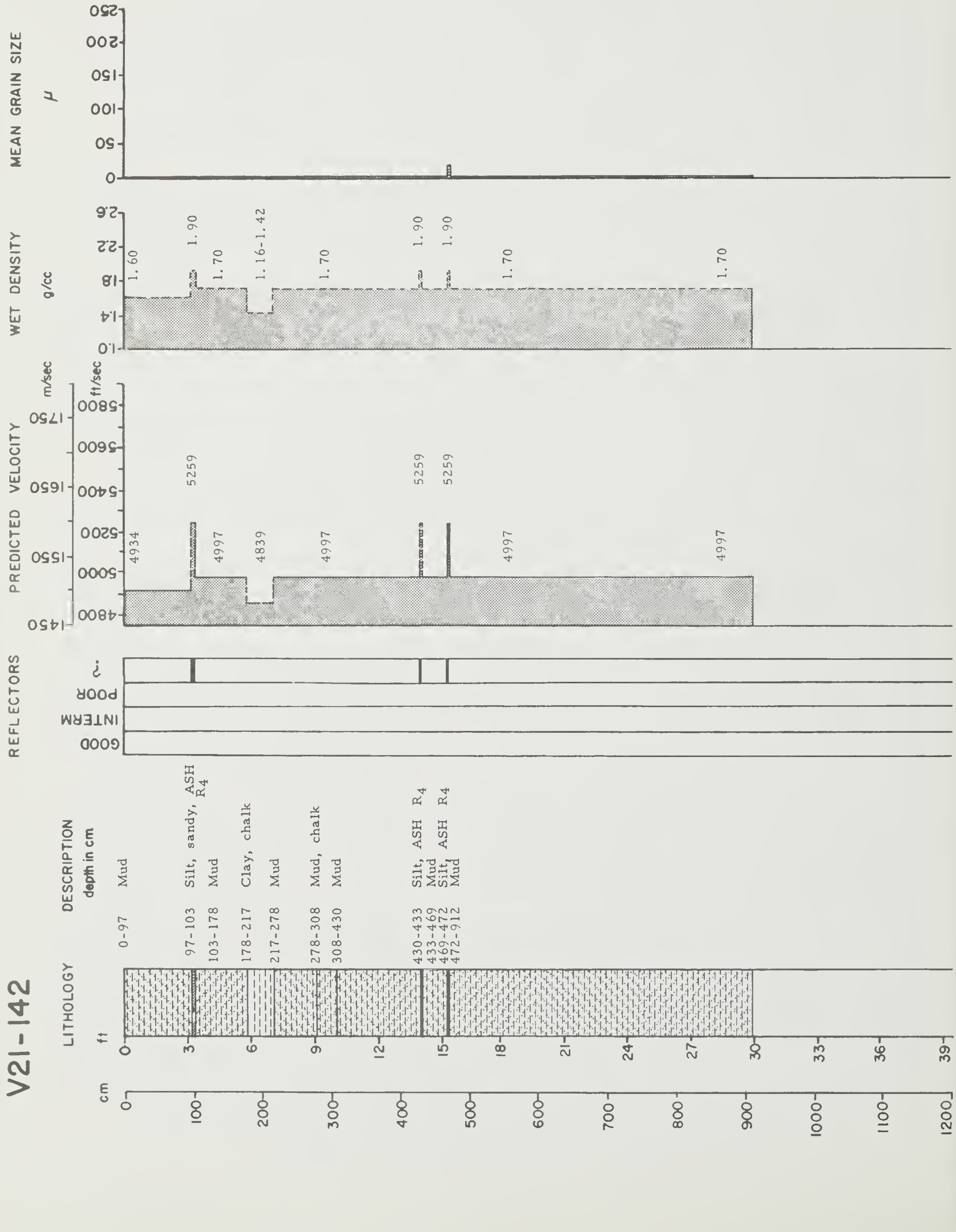


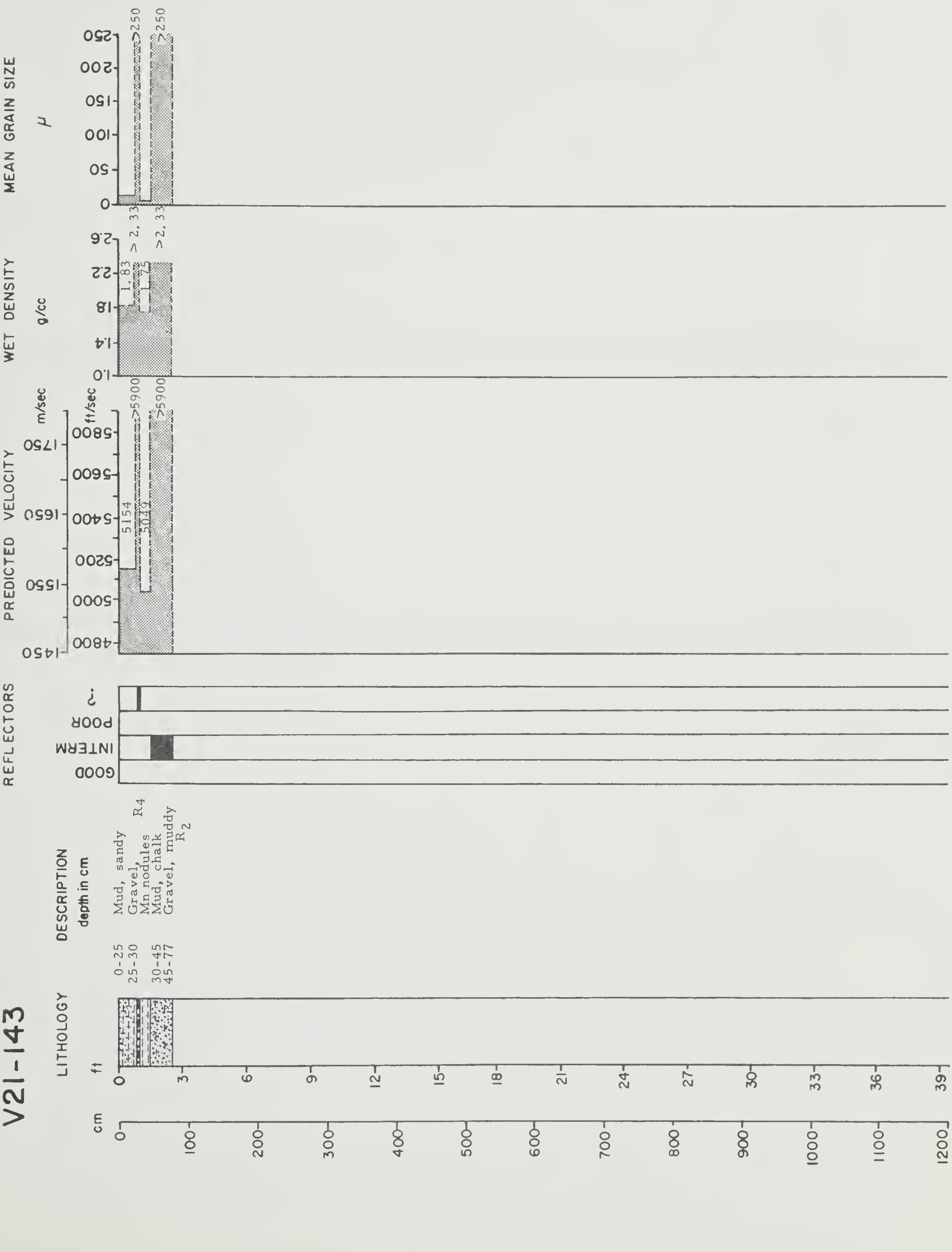
V21-93
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-73 Graded unit, silt to sand R1
73-111 Mud with silt and sand
111-112 Sand
112-119 Mud
119-120 Sand
120-275 Mud with sand
R3
230-239 Sand R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5509
5663
5446
5043
5446
5043
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
2.02
2.08
2.00
1.74
2.00
1.74
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0
100
200
300
400
500
600
700
800
900
1000
1100
1200


V21-139
LITHOLOGY
DESCRIPTION
depth in cm
0-8 Mud
8-40 Clay
40-45 Silt, ASH
45-105 Clay
105-119 Mud, ASH R4
119-256 Clay
256-310 Graded unit, mud to sand
305-310 Sand R2
310-445 Clay
445-450 Mud, ASH
450-636 Clay
636-647 Graded unit, R2 silt, ASH
647-1155 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4990
4990
4928
4990
4928
5787
4928
5046
5072
4928
4928
WET DENSITY
g/cc
1.68
1.68
1.60
1.68
2.13
1.60
1.75
1.77
1.60
1.60
MEAN GRAIN SIZE
μ
cm
ft

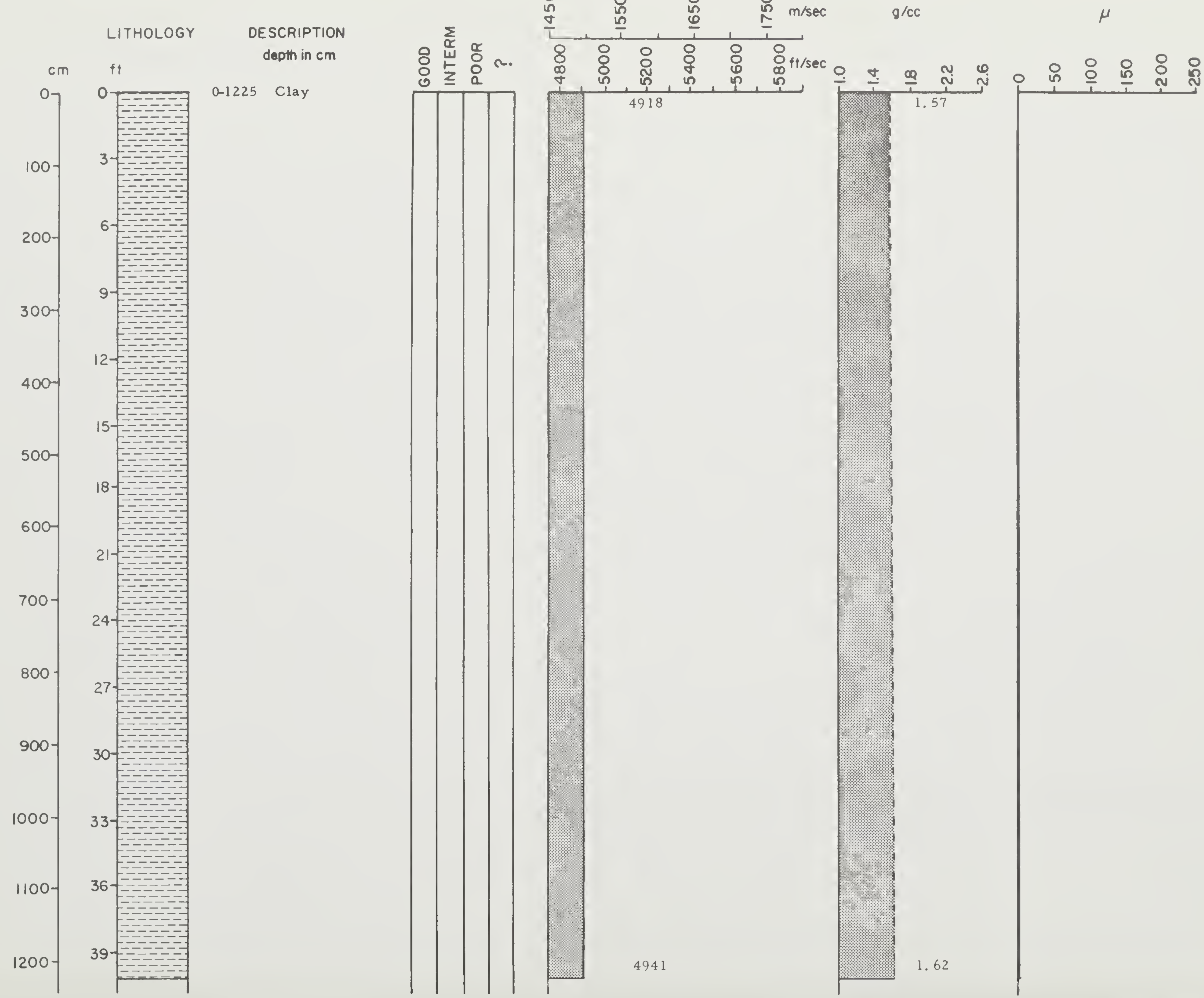

V21-140
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-132 Clay
132-133 Silt, ASH
133-154 Clay
154-161 Graded unit, R2
silt, ASH
161-257 Clay
257-258 Silt, ASH
258-289 Clay
289-296 Silt, ASH R2
296-396 Clay
396-398 Silt, sandy, ASH
R4
398-477 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4944
5148
5148
5239
4928
WET DENSITY
g/cc
1.62
1.83
1.83
1.90
1.60
MEAN GRAIN SIZE
μ


V21-141
LITHOLOGY
DESCRIPTION
depth in cm
0-588 Mud with silt, ASH
400-405 Silt, pocket, ASH R4
588-592 Silt, ASH R4
592-624 Mud with silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5007
4957
5315
4957
5315
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.71
1.64
1.93
1.64
1.93
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39

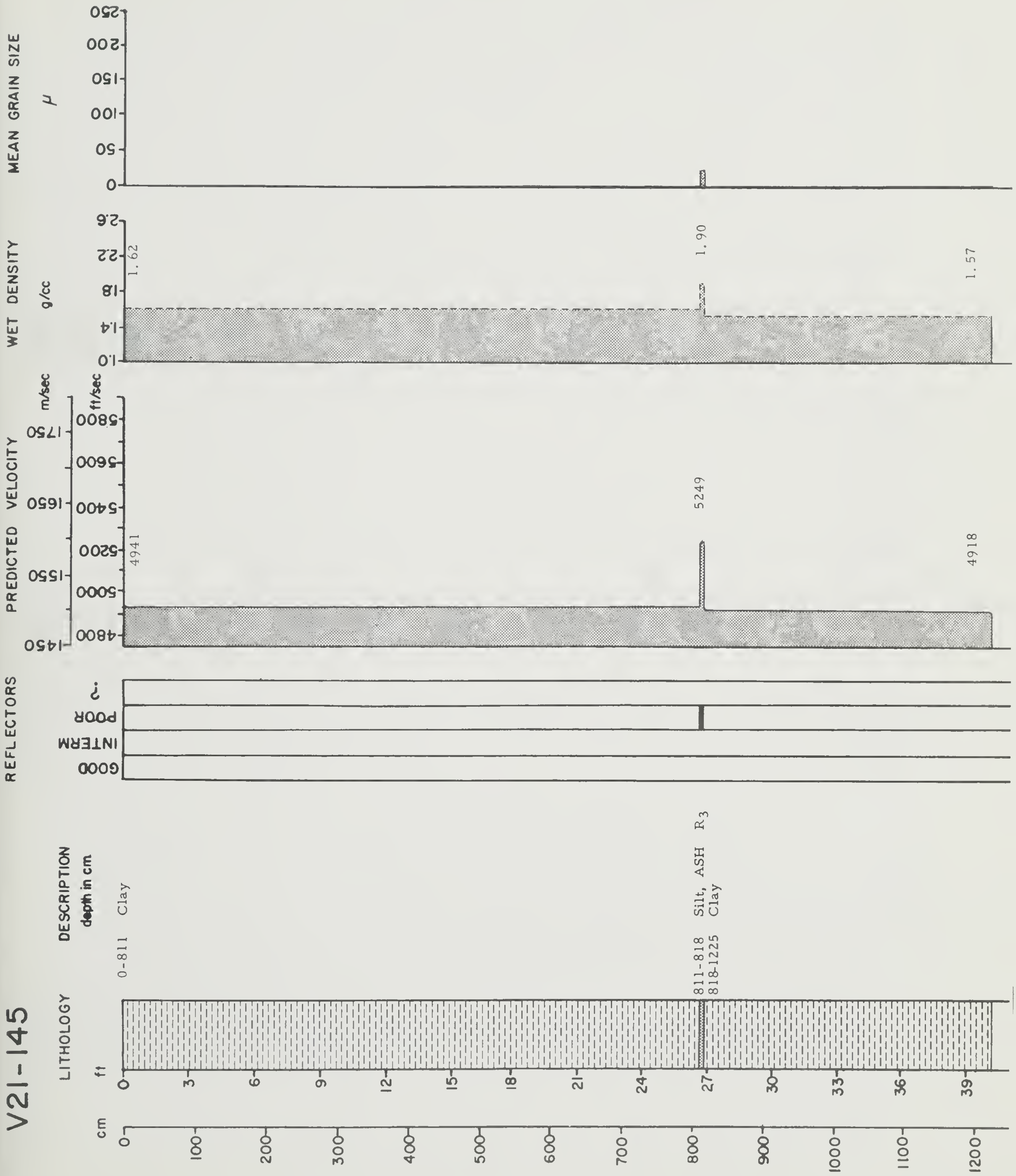

V21-142
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-97 Mud
97-103 Silt, sandy, ASH R4
103-178 Mud
178-217 Clay, chalk
217-278 Mud
278-308 Mud, chalk
308-430 Mud
430-433 Silt, ASH R4
433-469 Mud
469-472 Silt, ASH R4
472-912 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4934
5259
4997
4839
4997
5259
5259
4997
4997
WET DENSITY
g/cc
1.60
1.90
1.70
1.16-1.42
1.70
1.90
1.90
1.70
1.70
MEAN GRAIN SIZE
μ


V21-143
LITHOLOGY
DESCRIPTION
depth in cm
0-25 Mud, sandy
25-30 Gravel, Mn nodules R4
30-45 Mud, chalk
45-77 Gravel, muddy R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5154
5049
>5900
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.83
1.75
> 2.33
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
>250
>250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

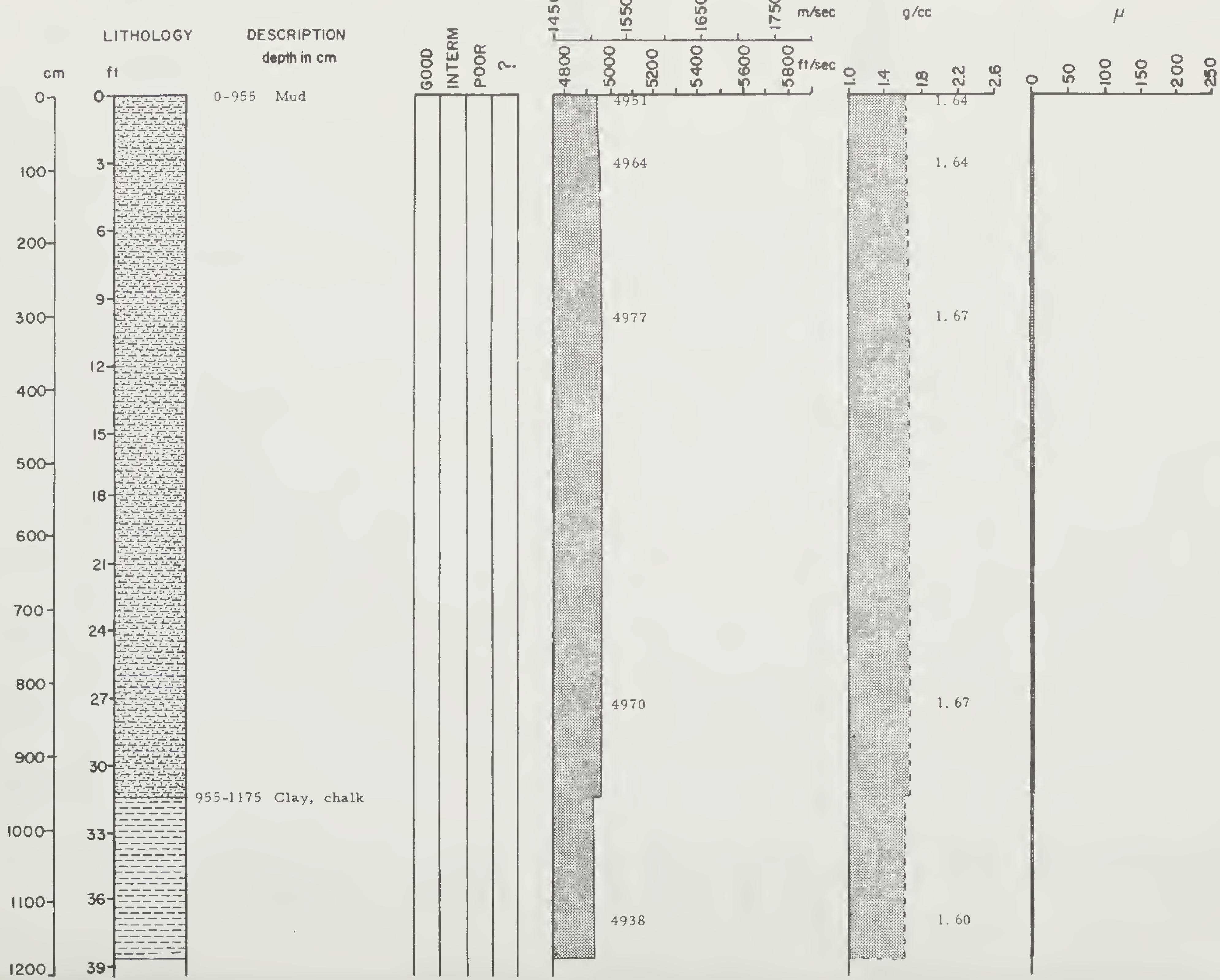
V21-144



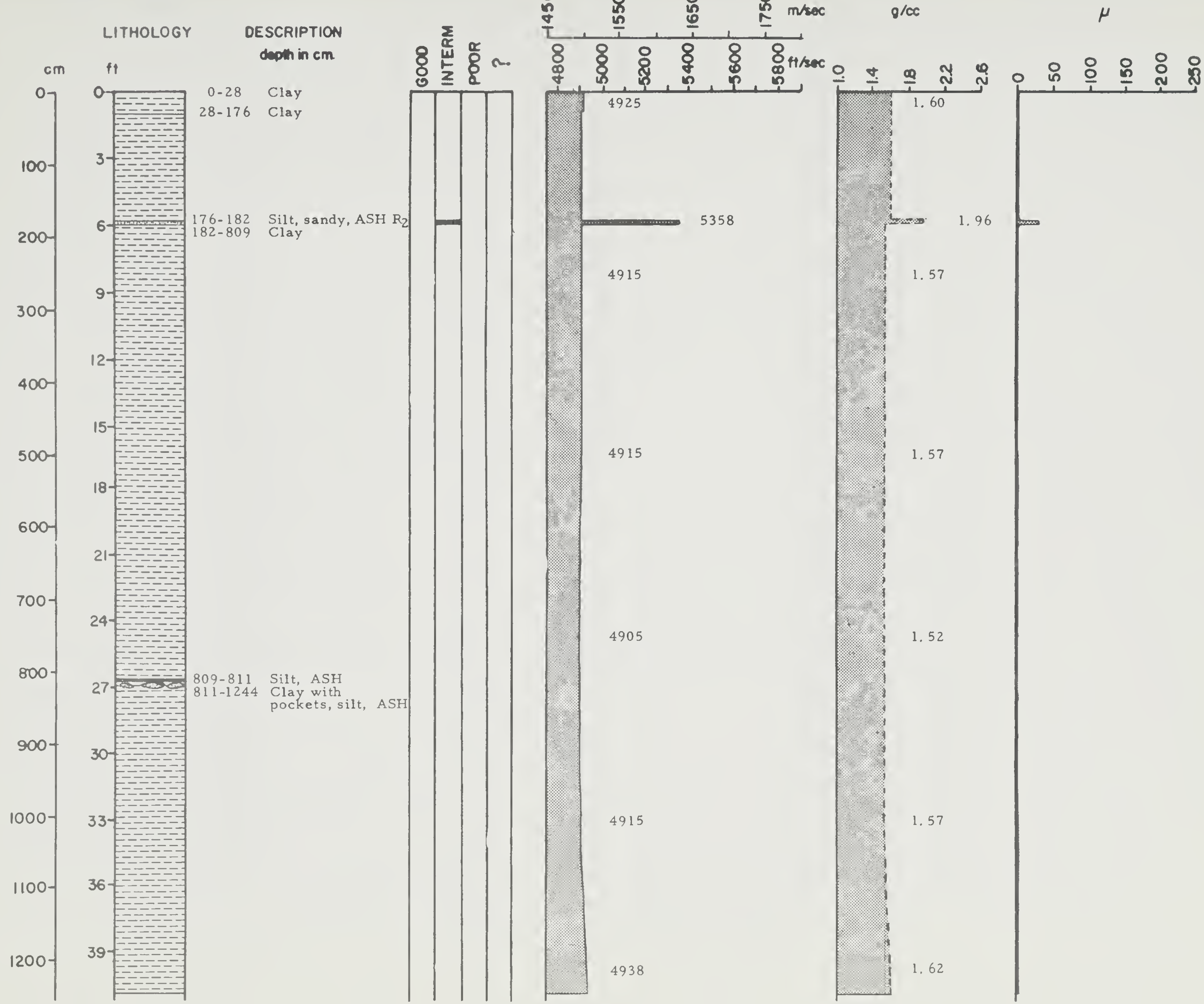
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-1225 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4918
4941
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.57
1.62
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

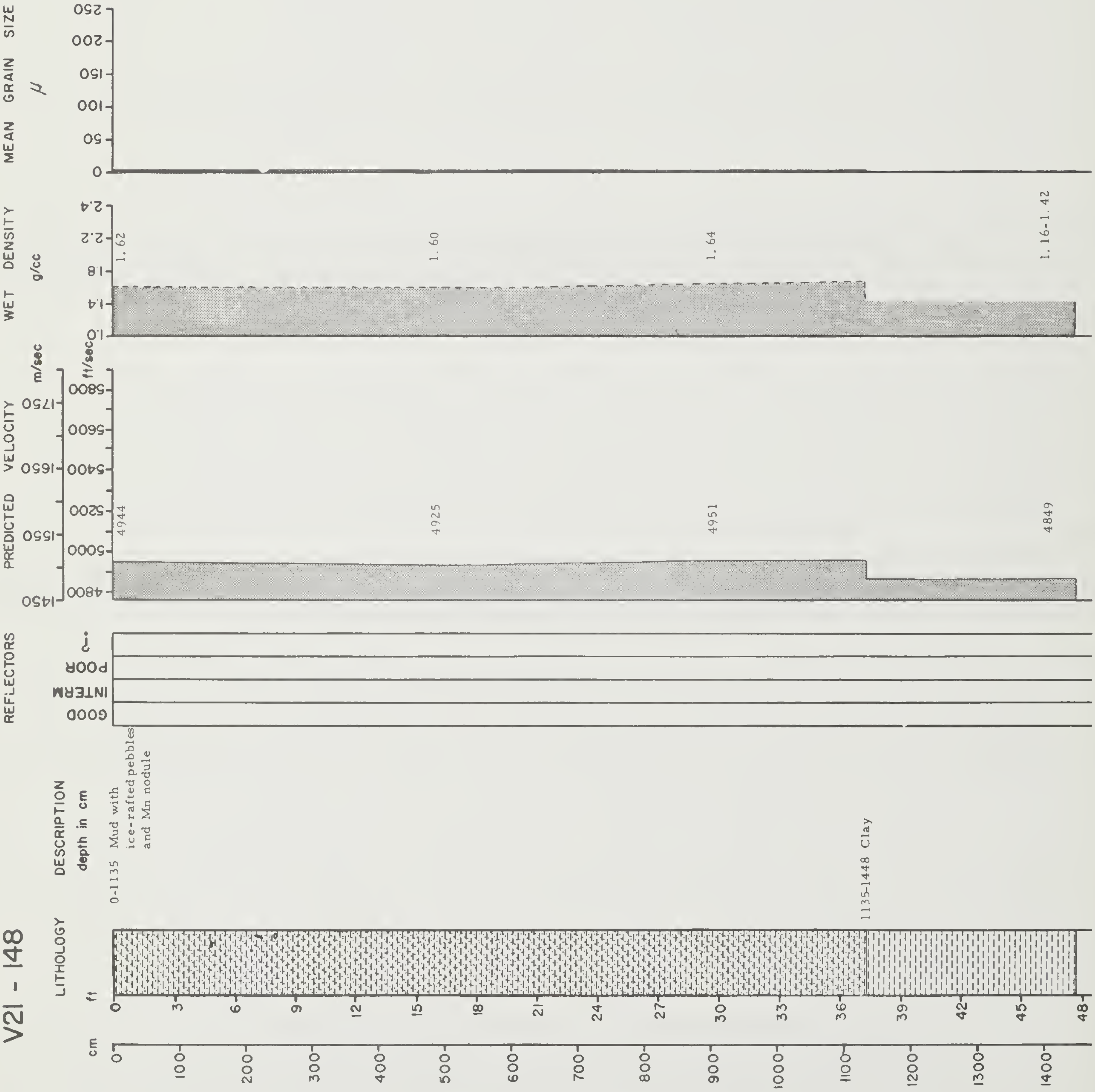

V21-145
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.62
1.90
1.57
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4941
5249
4918
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-811 Clay
811-818 Silt, ASH R3
818-1225 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

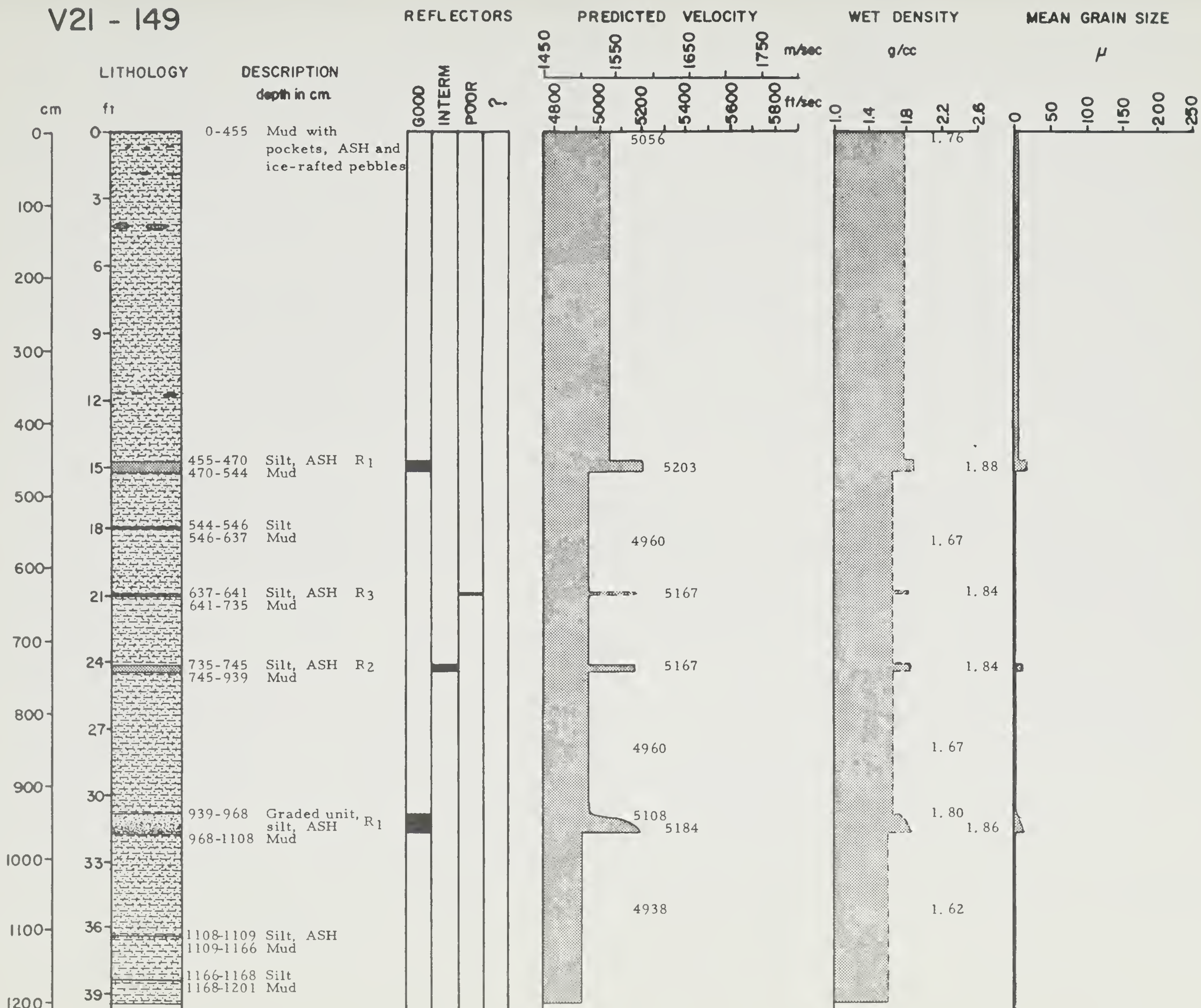
V21 - 146


LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-955 Mud
955-1175 Clay, chalk
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4951
4964
4977
4970
4938
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.64
1.64
1.67
1.67
1.60
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39

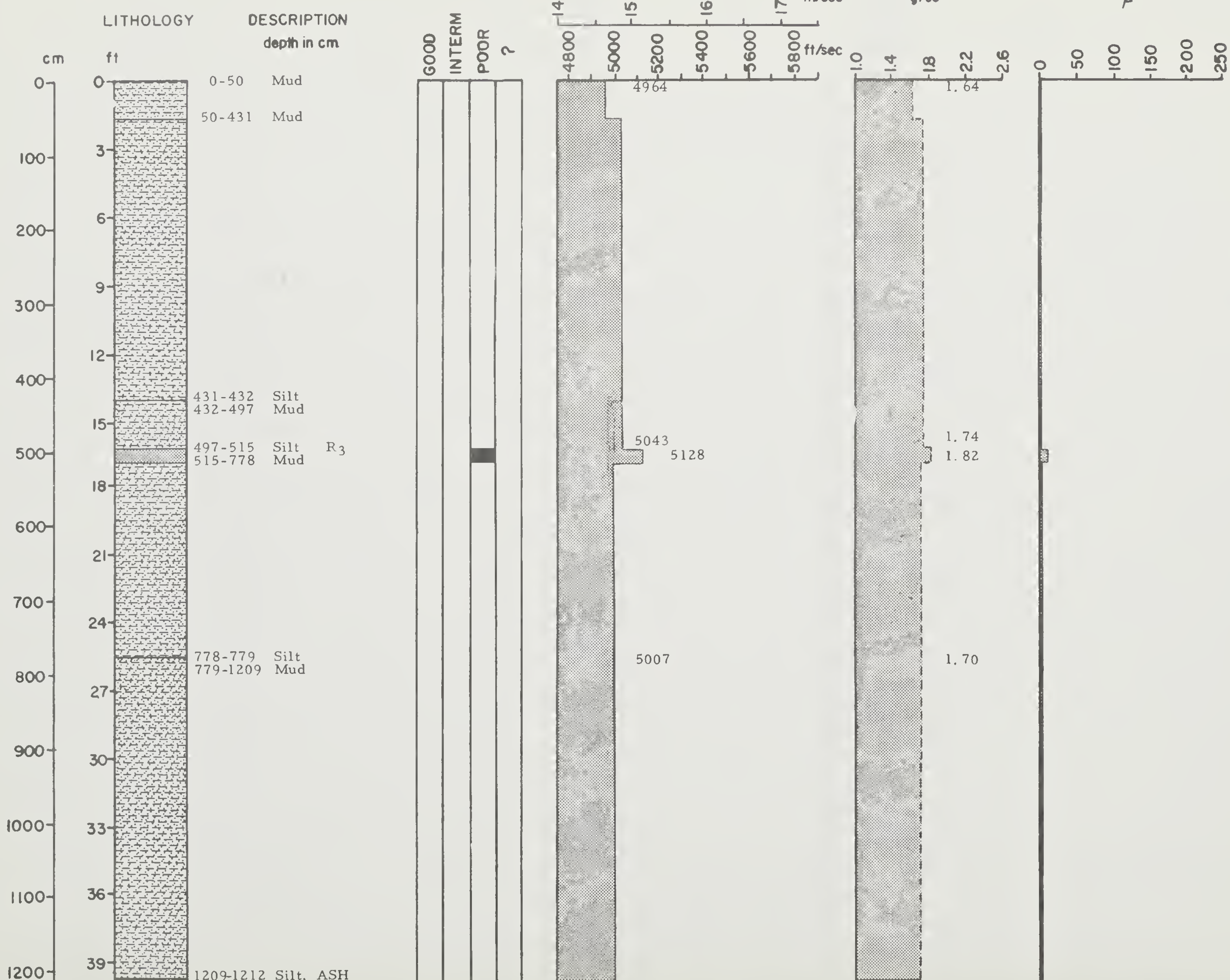
V21 - 147

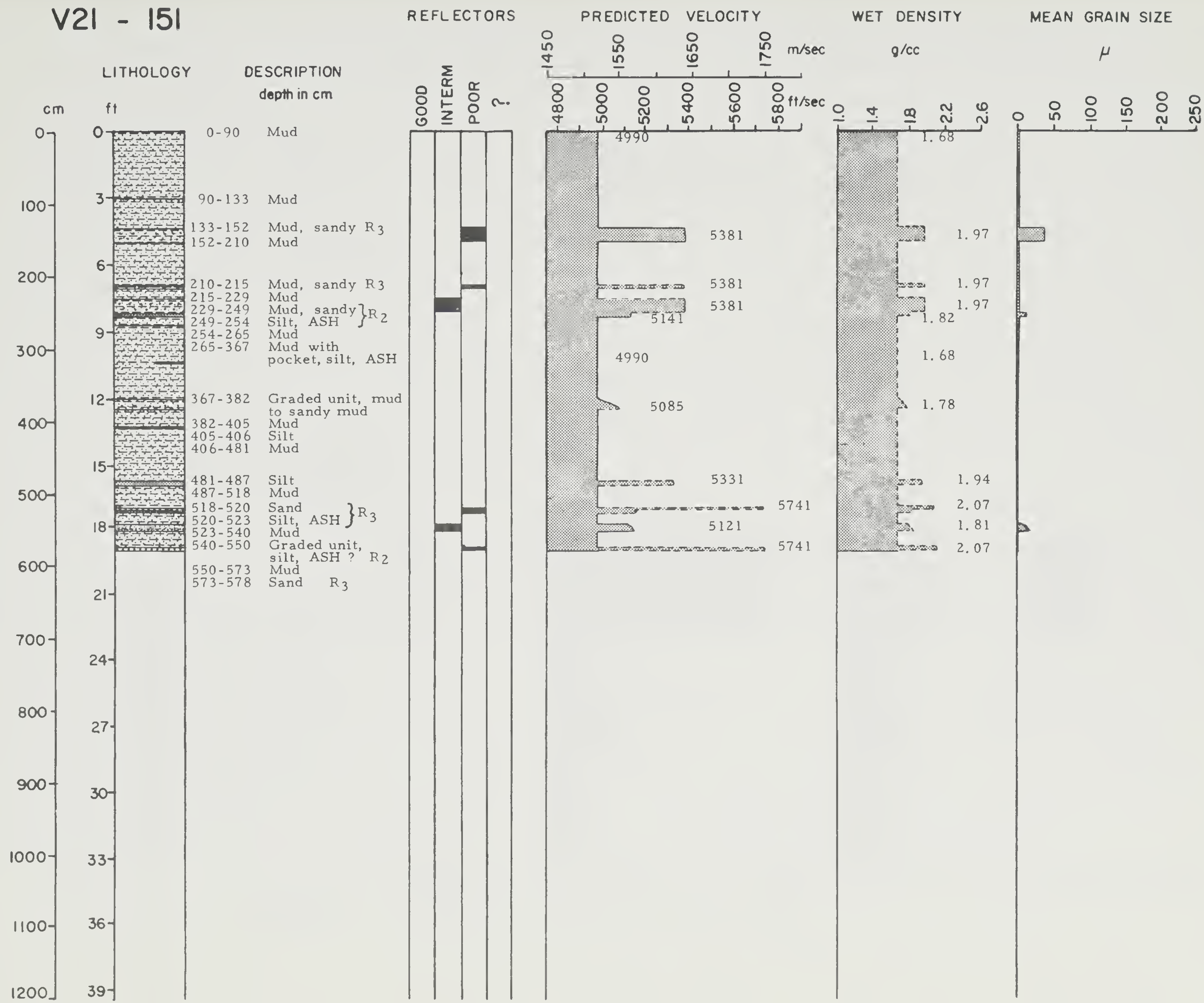

LITHOLOGY
DESCRIPTION
depth in cm.
cm
ft
0-28 Clay
28-176 Clay
176-182 Silt, sandy, ASH R_2
182-809 Clay
809-811 Silt, ASH
811-1244 Clay with pockets, silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4925
5358
4915
4915
4905
4915
4938
WET DENSITY
g/cc
1.60
1.96
1.57
1.57
1.52
1.57
1.62
MEAN GRAIN SIZE
μ

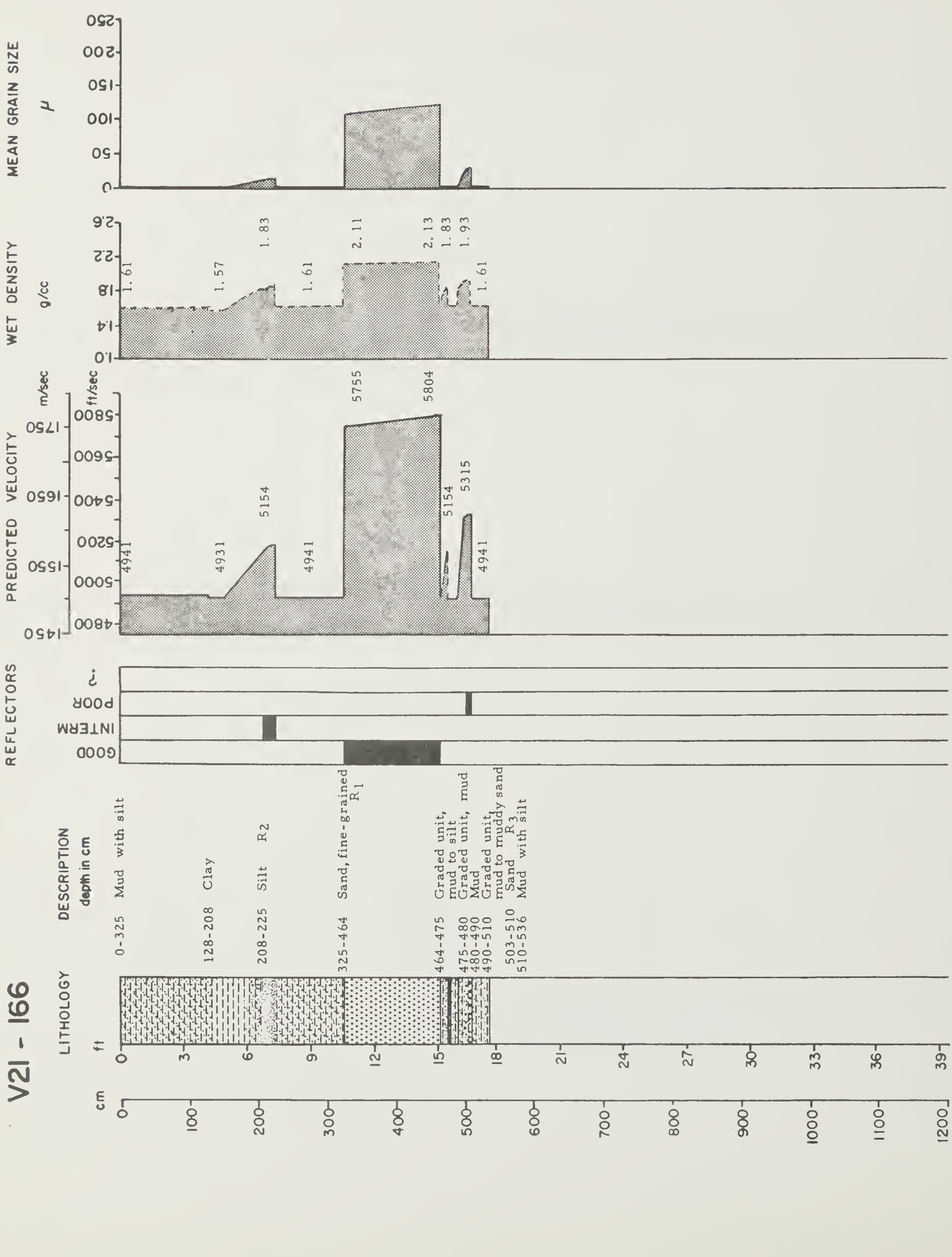

V21 - 148
LITHOLOGY
DESCRIPTION depth in cm
0-1135 Mud with ice-rafted pebbles and Mn nodule
1135-1448 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4944
4925
4951
4849
WET DENSITY g/cc
1.62
1.60
1.64
1.16-1.42
MEAN GRAIN SIZE μ
cm
ft


V21 - 149
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-455 Mud with pockets, ASH and ice-rafted pebbles
455-470 Silt, ASH R1
470-544 Mud
544-546 Silt
546-637 Mud
637-641 Silt, ASH R3
641-735 Mud
735-745 Silt, ASH R2
745-939 Mud
939-968 Graded unit, silt, ASH R1
968-1108 Mud
1108-1109 Silt, ASH
1109-1166 Mud
1166-1168 Silt
1168-1201 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5056
5203
4960
5167
5167
4960
5108
5184
4938
WET DENSITY
g/cc
1.76
1.88
1.67
1.84
1.84
1.67
1.80
1.86
1.62
MEAN GRAIN SIZE
μ

V21 - 150

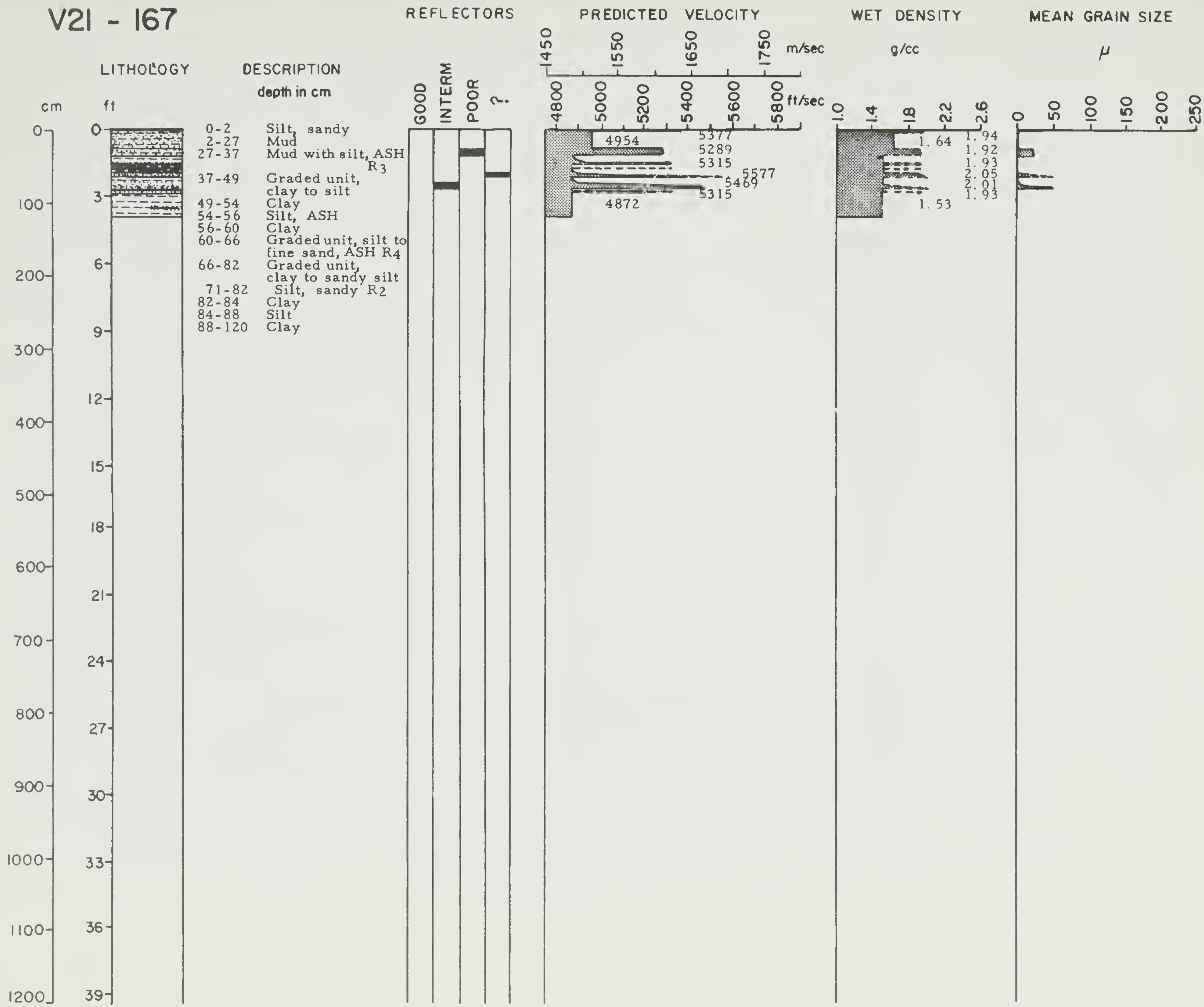

LITHOLOGY
DESCRIPTION depth in cm
cm
ft
0-50 Mud
50-431 Mud
431-432 Silt
432-497 Mud
497-515 Silt R3
515-778 Mud
778-779 Silt
779-1209 Mud
1209-1212 Silt, ASH
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4964
5043
5128
5007
WET DENSITY
g/cc
1.64
1.74
1.82
1.70
MEAN GRAIN SIZE
μ


V21 - 151
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-90 Mud
90-133 Mud
133-152 Mud, sandy R3
152-210 Mud
210-215 Mud, sandy R3
215-229 Mud
229-249 Mud, sandy
249-254 Silt, ASH
R2
254-265 Mud
265-367 Mud with pocket, silt, ASH
367-382 Graded unit, mud to sandy mud
382-405 Mud
405-406 Silt
406-481 Mud
481-487 Silt
487-518 Mud
518-520 Sand
520-523 Silt, ASH
R3
523-540 Mud
540-550 Graded unit, silt, ASH ? R2
550-573 Mud
573-578 Sand R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4990
5381
5381
5381
5141
4990
5085
5331
5741
5121
5741
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.68
1.97
1.97
1.97
1.82
1.68
1.78
1.94
2.07
1.81
2.07
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

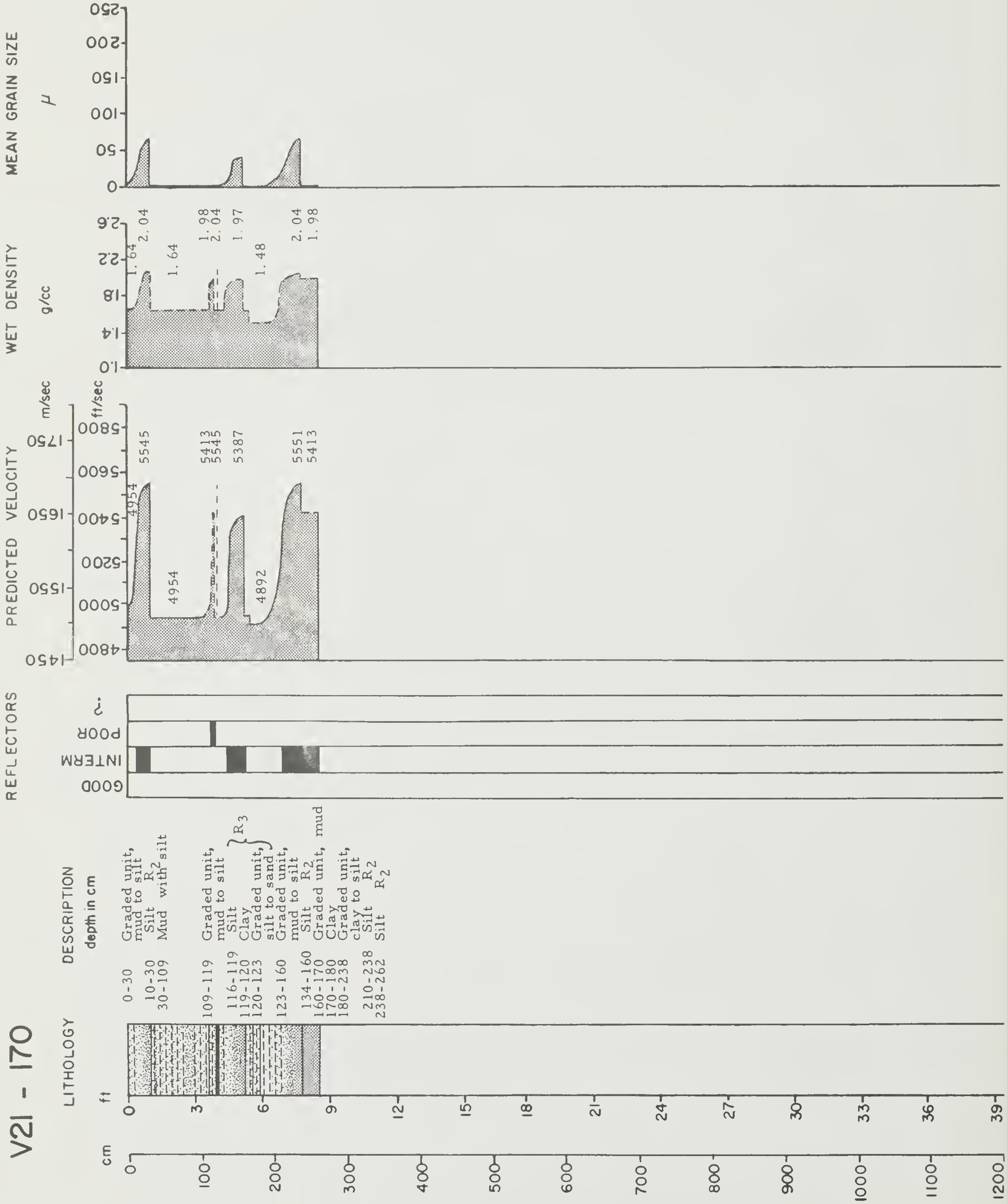


V21 - 166
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-325 Mud with silt
128-208 Clay
208-225 Silt R2
325-464 Sand, fine-grained R1
464-475 Graded unit, mud to silt
475-480 Graded unit, mud
480-490 Mud
490-510 Graded unit, mud to muddy sand
503-510 Sand R3
510-536 Mud with silt
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ
4941
4931
5154
4941
5755
5804
5154
5315
4941
1.61
1.57
1.83
1.61
2.11
2.13
1.83
1.93
1.61

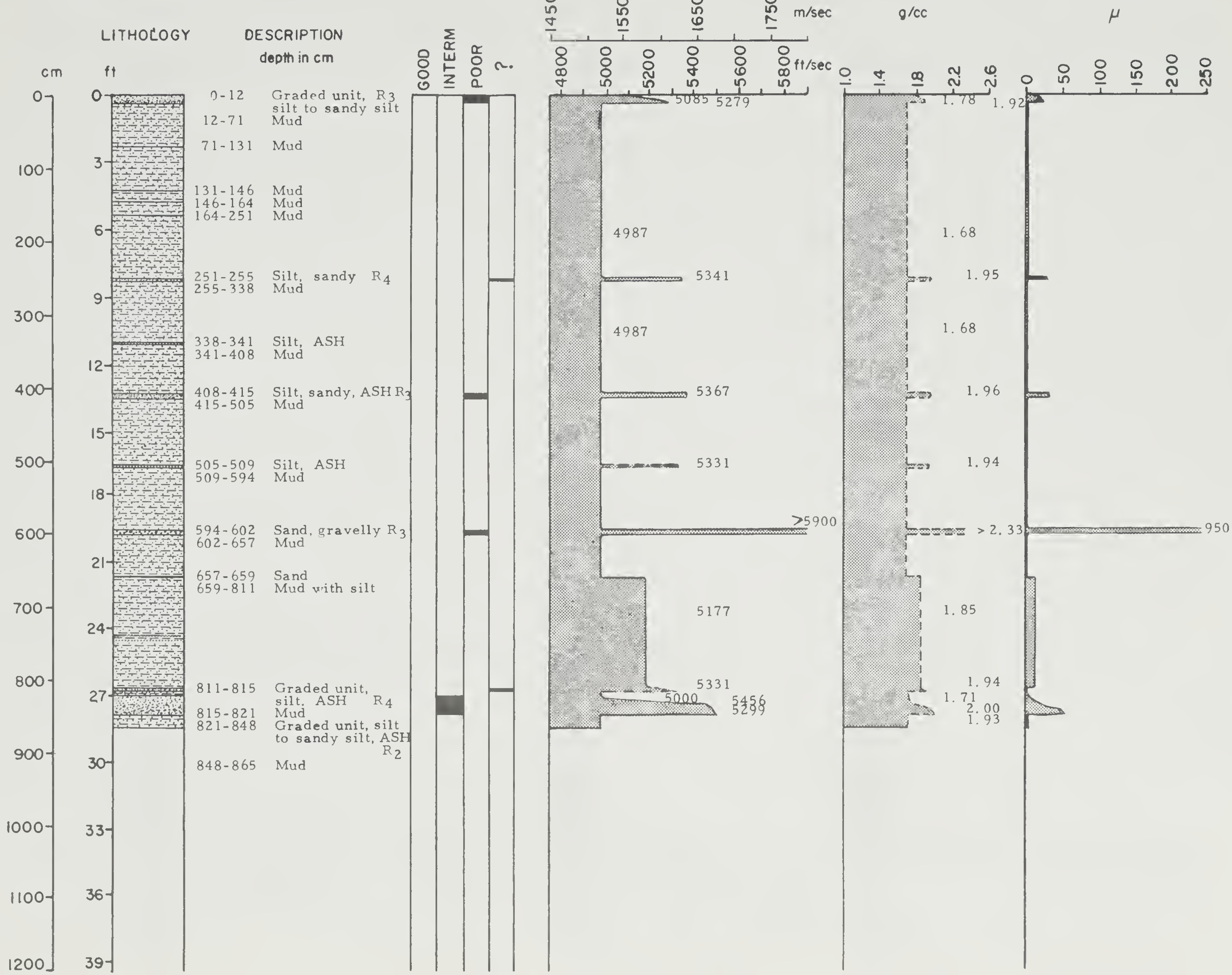
V21 - 167



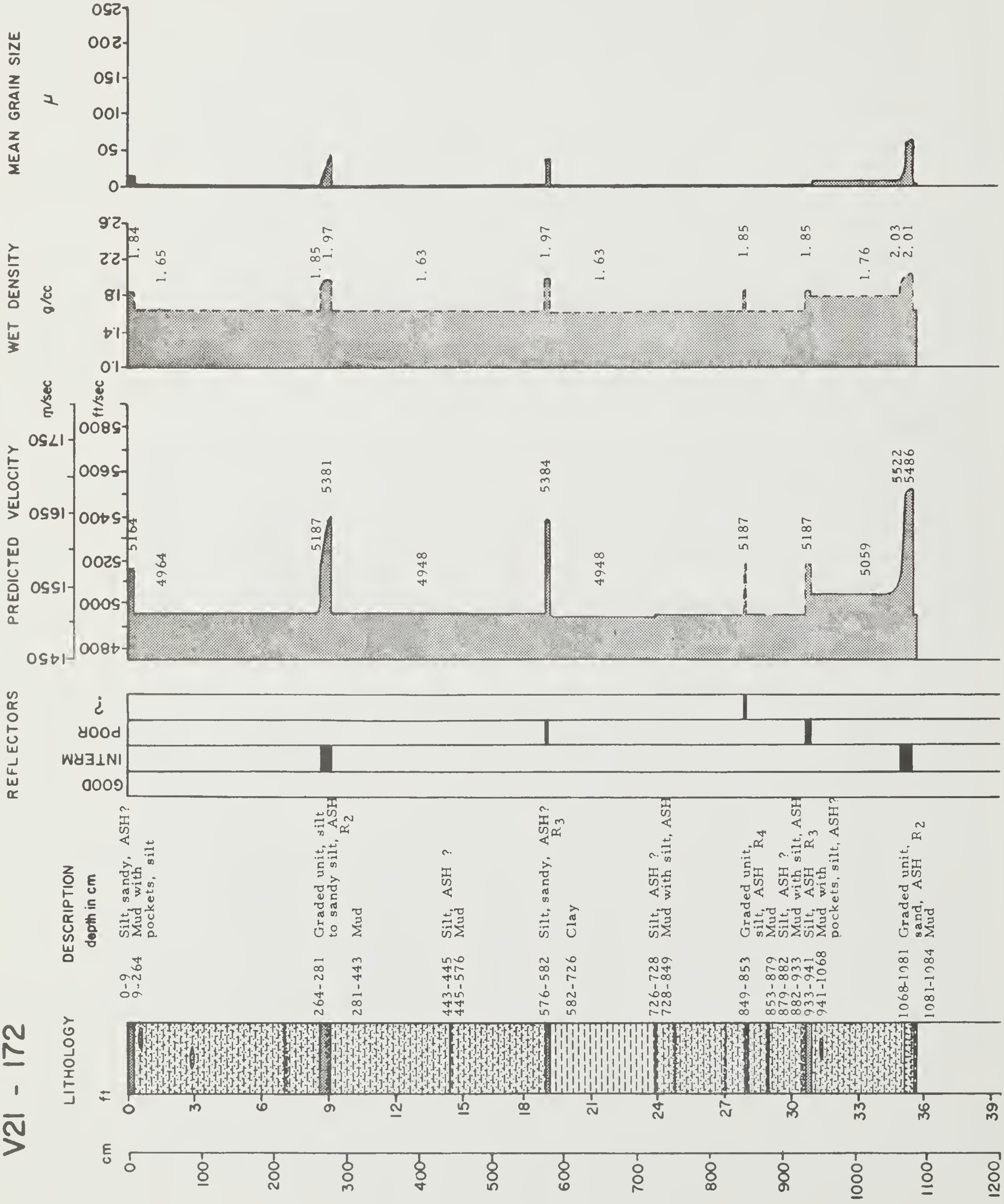
LITHOLOGY
DESCRIPTION
depth in cm
0-2 Silt, sandy
2-27 Mud
27-37 Mud with silt, ASH R3
37-49 Graded unit, clay to silt
49-54 Clay
54-56 Silt, ASH
56-60 Clay
60-66 Graded unit, silt to fine sand, ASH R4
66-82 Graded unit, clay to sandy silt
71-82 Silt, sandy R2
82-84 Clay
84-88 Silt
88-120 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450 1550 1650 1750
4800 5000 5200 5400 5600 5800
4954
5377
5289
5315
5577
5469
5315
4872
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.64
1.94
1.92
1.93
2.05
2.01
1.93
1.53
MEAN GRAIN SIZE
μ
0 50 100 150 200 250
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39

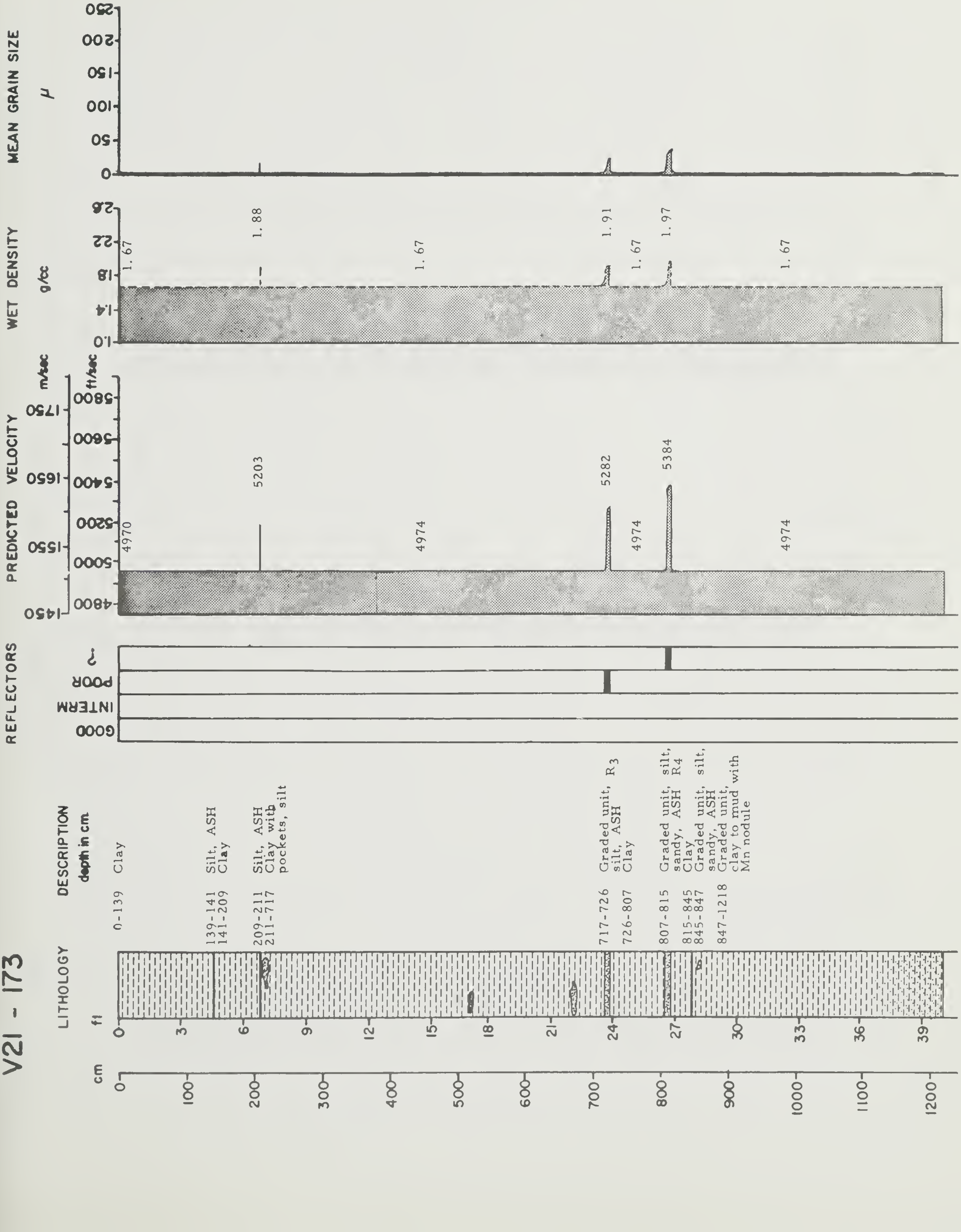

V21 - 170
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
DESCRIPTION
depth in cm
0-30 Graded unit, mud to silt
10-30 Silt R2
30-109 Mud with silt
109-119 Graded unit, mud to silt
116-119 Silt
119-120 Clay
120-123 Graded unit, silt to sand
R3
123-160 Graded unit, mud to silt
134-160 Silt R2
160-170 Graded unit, mud
170-180 Clay
180-238 Graded unit, clay to silt
210-238 Silt R2
238-262 Silt R2
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4954
5545
4954
5413
5545
5387
4892
5551
5413
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.64
2.04
1.64
1.98
2.04
1.97
1.48
2.04
1.98
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

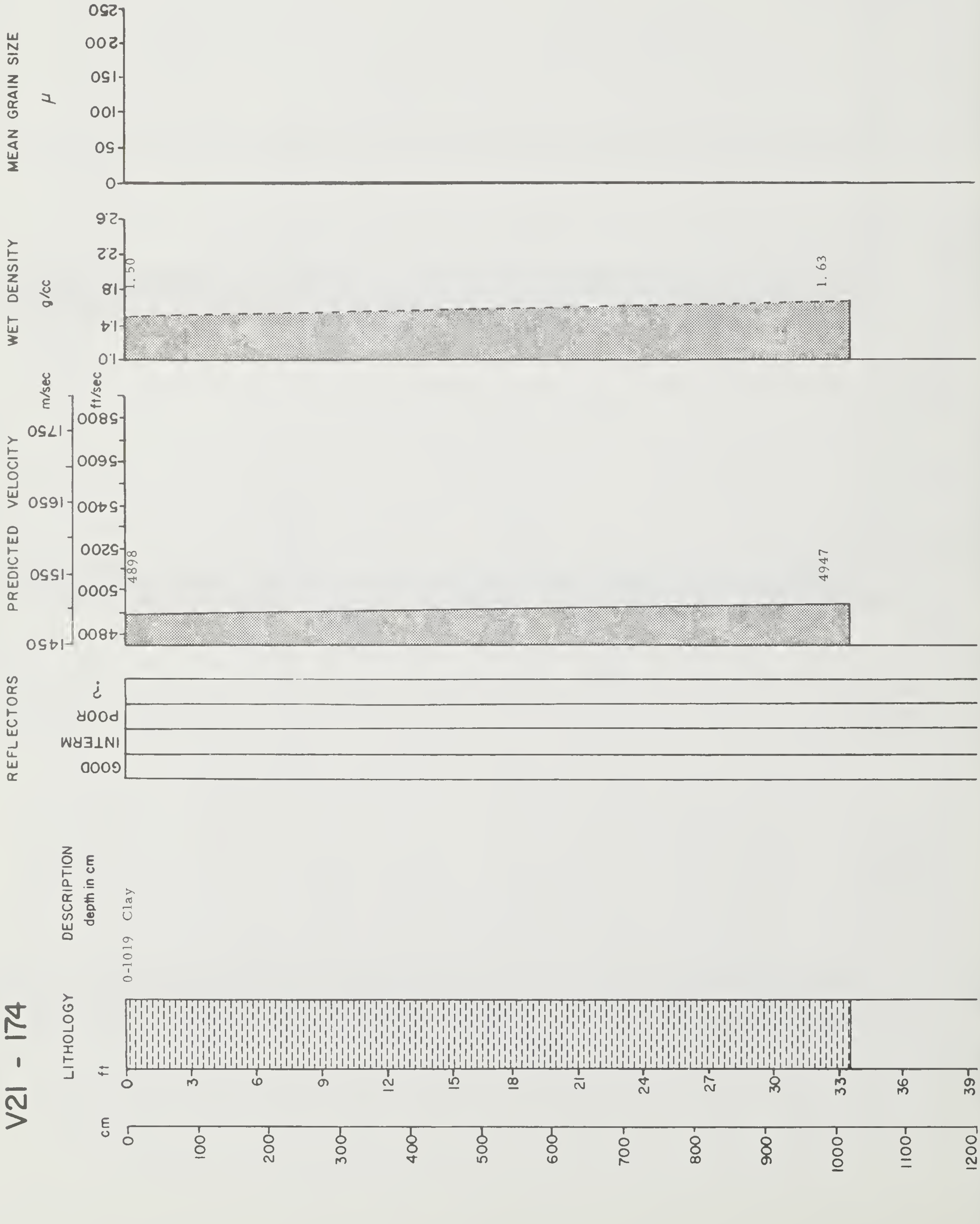
V21 - 171

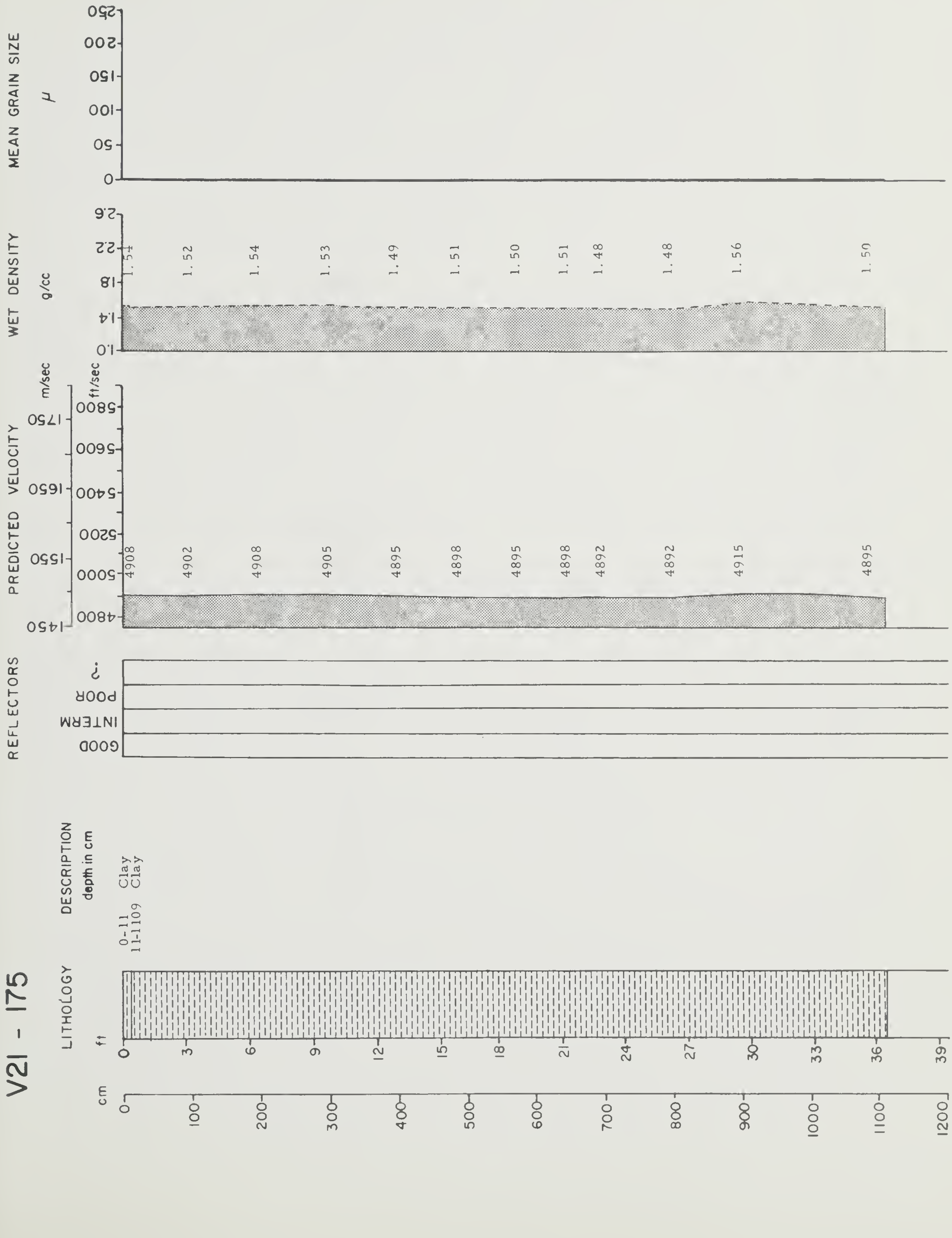


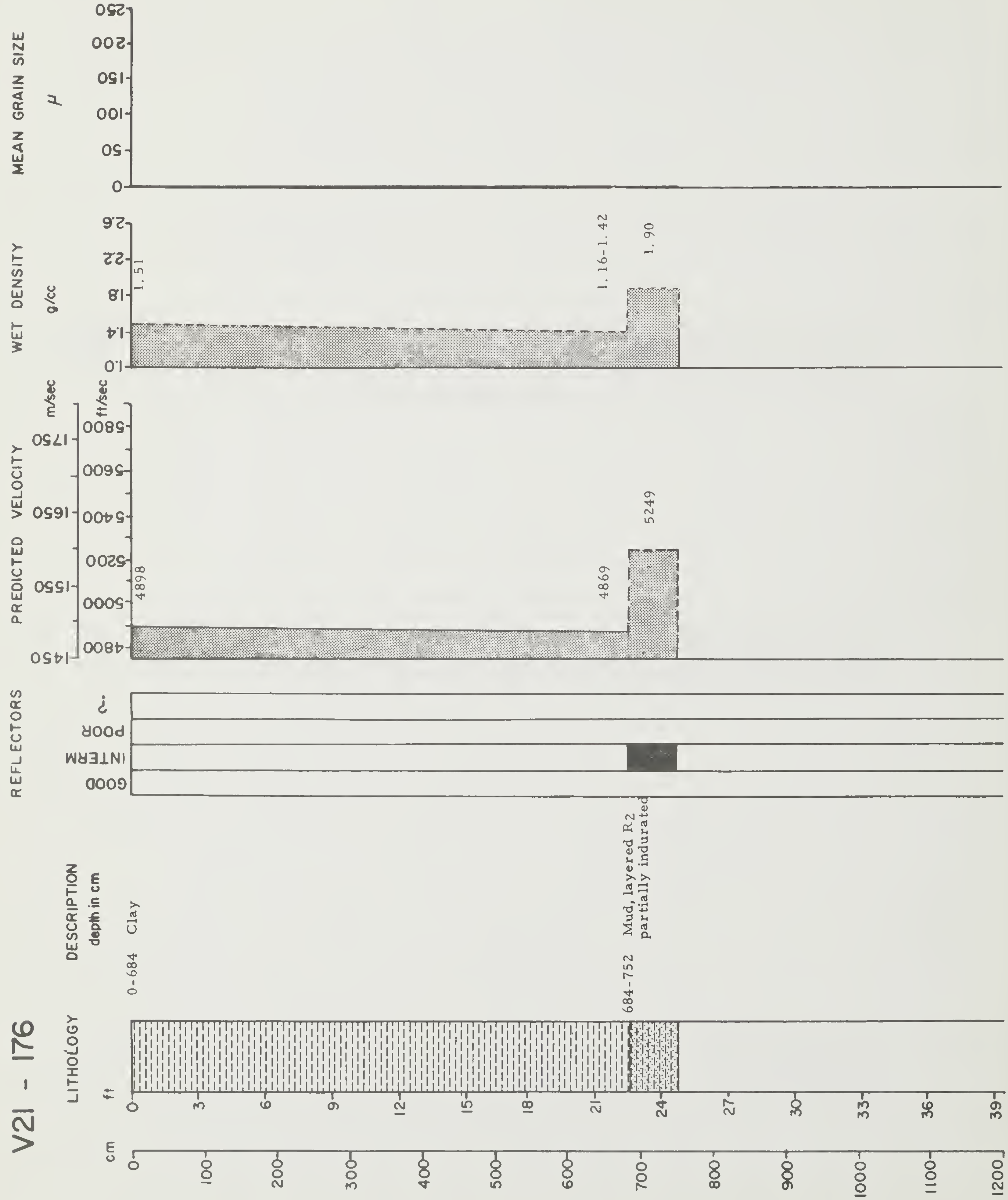
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
WET DENSITY
g/cc
MEAN GRAIN SIZE
μ
0-12 Graded unit, silt to sandy silt R_3
12-71 Mud
71-131 Mud
131-146 Mud
146-164 Mud
164-251 Mud
251-255 Silt, sandy R_4
255-338 Mud
338-341 Silt, ASH
341-408 Mud
408-415 Silt, sandy, ASH R_3
415-505 Mud
505-509 Silt, ASH
509-594 Mud
594-602 Sand, gravelly R_3
602-657 Mud
657-659 Sand
659-811 Mud with silt
811-815 Graded unit, silt, ASH R_4
815-821 Mud
821-848 Graded unit, silt to sandy silt, ASH R_2
848-865 Mud
5085 5279
4987
5341
4987
5367
5331
>5900
5177
5331
5000
5456
5299
1.78
1.68
1.95
1.68
1.96
1.94
> 2.33
1.85
1.94
1.71
2.00
1.93
1.92
950

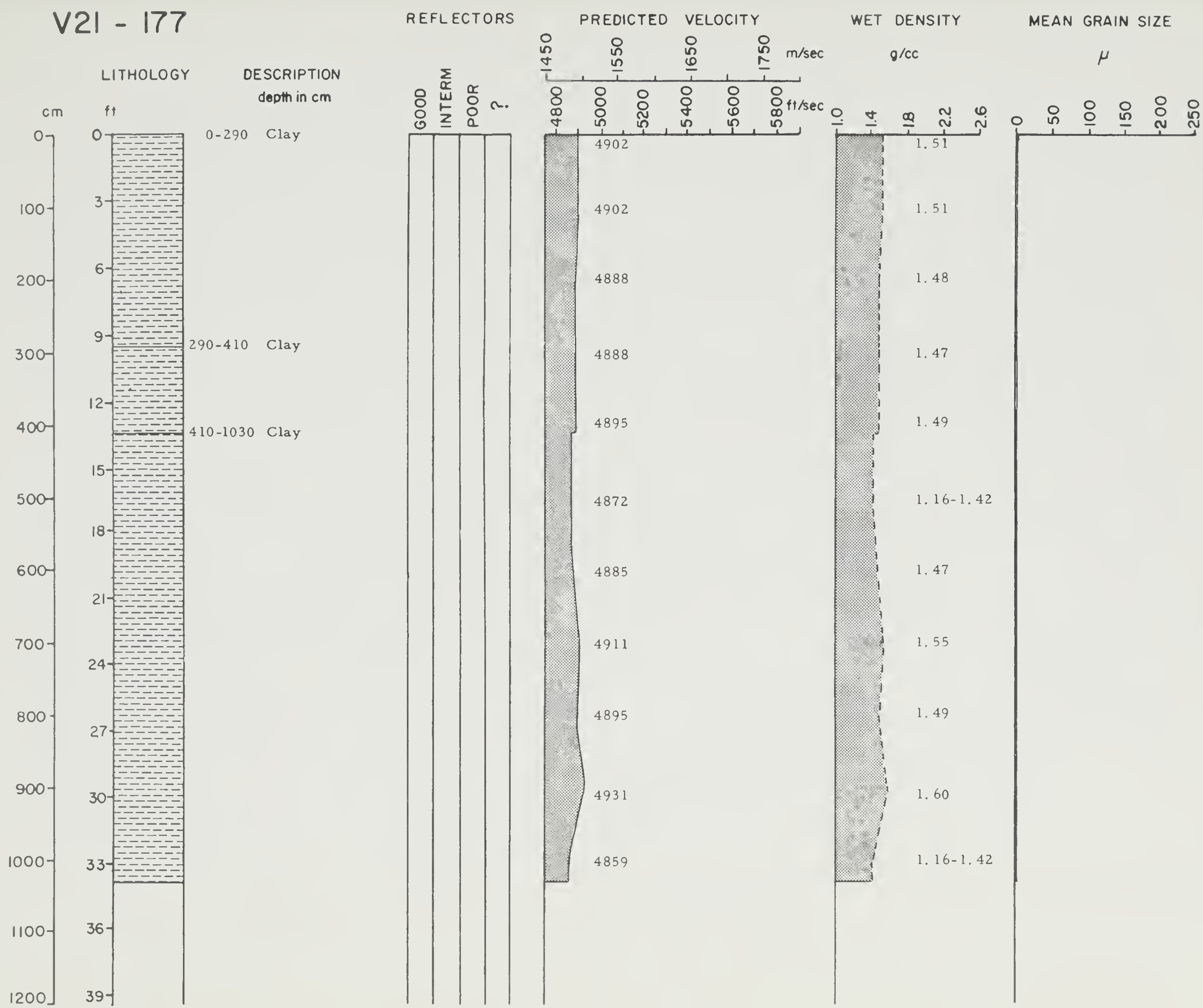

V21 - 172
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-9 Silt, sandy, ASH?
9-264 Mud with pockets, silt
264-281 Graded unit, silt to sandy silt, ASH R2
281-443 Mud
443-445 Silt, ASH ?
445-576 Mud
576-582 Silt, sandy, ASH? R3
582-726 Clay
726-728 Silt, ASH ?
728-849 Mud with silt, ASH
849-853 Graded unit, silt, ASH R4
853-879 Mud
879-882 Silt, ASH ?
882-933 Mud with silt, ASH
933-941 Silt, ASH R3
941-1068 Mud with pockets, silt, ASH?
1068-1081 Graded unit, sand, ASH R2
1081-1084 Mud
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
5164
4964
5187
5381
4948
5384
4948
5187
5187
5059
5522
5486
WET DENSITY
g/cc
1.84
1.65
1.85
1.97
1.63
1.97
1.63
1.85
1.85
1.76
2.03
2.01
MEAN GRAIN SIZE
μ


V21 - 173
LITHOLOGY
ft
0 3 6 9 12 15 18 21 24 27 30 33 36 39
cm
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
DESCRIPTION
depth in cm
0-139 Clay
139-141 Silt, ASH
141-209 Clay
209-211 Silt, ASH
211-717 Clay with pockets, silt
717-726 Graded unit, R3 silt, ASH
726-807 Clay
807-815 Graded unit, silt, R4 sandy, ASH
815-845 Clay
845-847 Graded unit, silt, sandy, ASH
847-1218 Graded unit, clay to mud with Mn nodule
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
1450 1550 1650 1750
ft/sec
4800 5000 5200 5400 5600 5800
4970
5203
4974
5282
4974
5384
4974
WET DENSITY
g/cc
1.0 1.4 1.8 2.2 2.6
1.67
1.88
1.67
1.91
1.67
1.97
1.67
MEAN GRAIN SIZE
μ
0 50 100 150 200 250

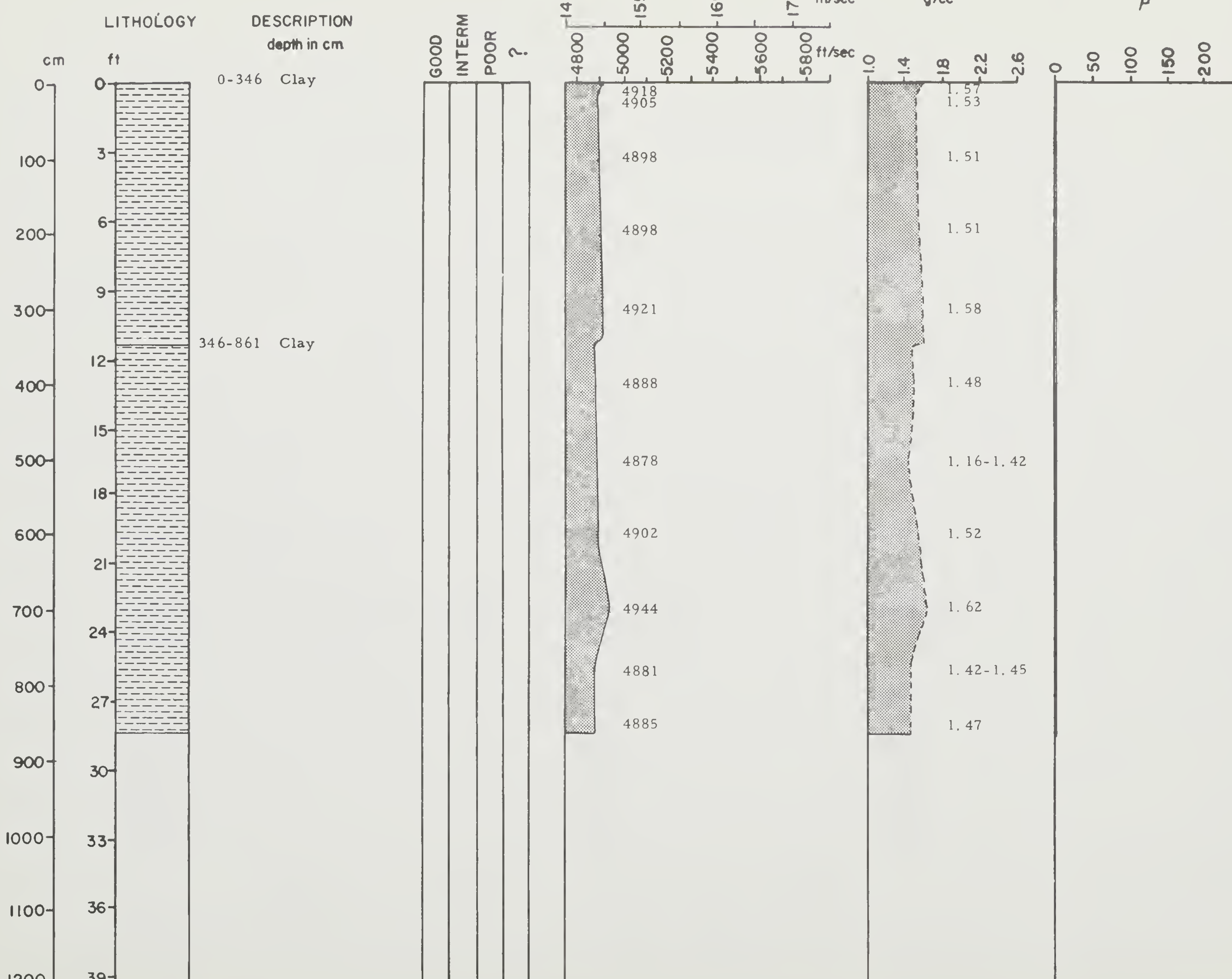

V21 - 174
LITHOLOGY
DESCRIPTION
depth in cm
0-1019 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4898
4947
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.50
1.63
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39


V21 - 175
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.54
1.52
1.54
1.53
1.49
1.51
1.50
1.51
1.48
1.48
1.56
1.50
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4908
4902
4908
4905
4895
4898
4895
4898
4892
4892
4915
4895
REFLECTORS
?
POOR
INTERM
GOOD
DESCRIPTION
depth in cm
0-11 Clay
11-1109 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

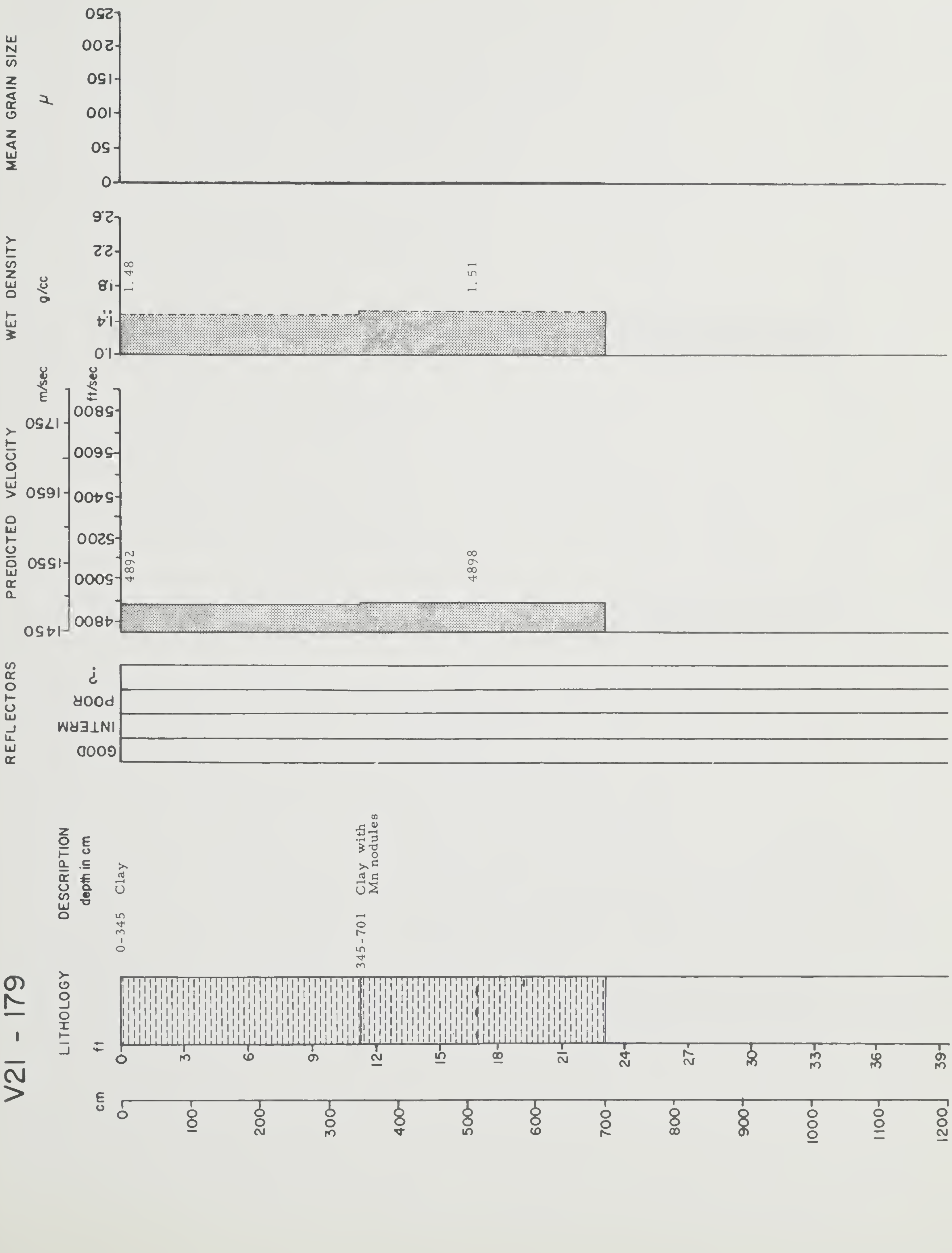

V21 - 176
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-684 Clay
684-752 Mud, layered R2
partially indurated
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4898
4869
5249
WET DENSITY
g/cc
1.51
1.16-1.42
1.90
MEAN GRAIN SIZE
μ

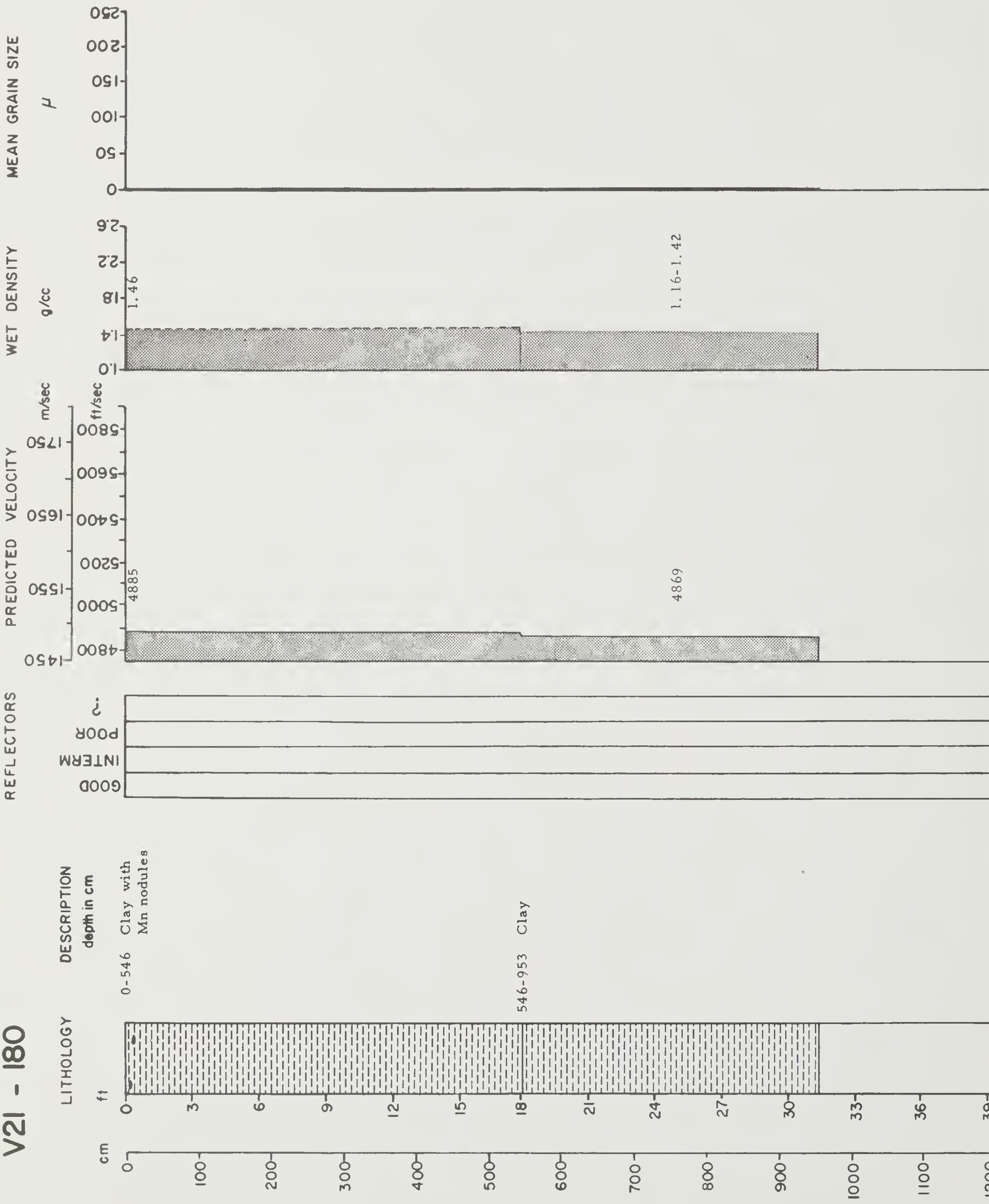

V21 - 177
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-290 Clay
290-410 Clay
410-1030 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4902
4902
4888
4888
4895
4872
4885
4911
4895
4931
4859
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.51
1.51
1.48
1.47
1.49
1.16-1.42
1.47
1.55
1.49
1.60
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

V21 - 178

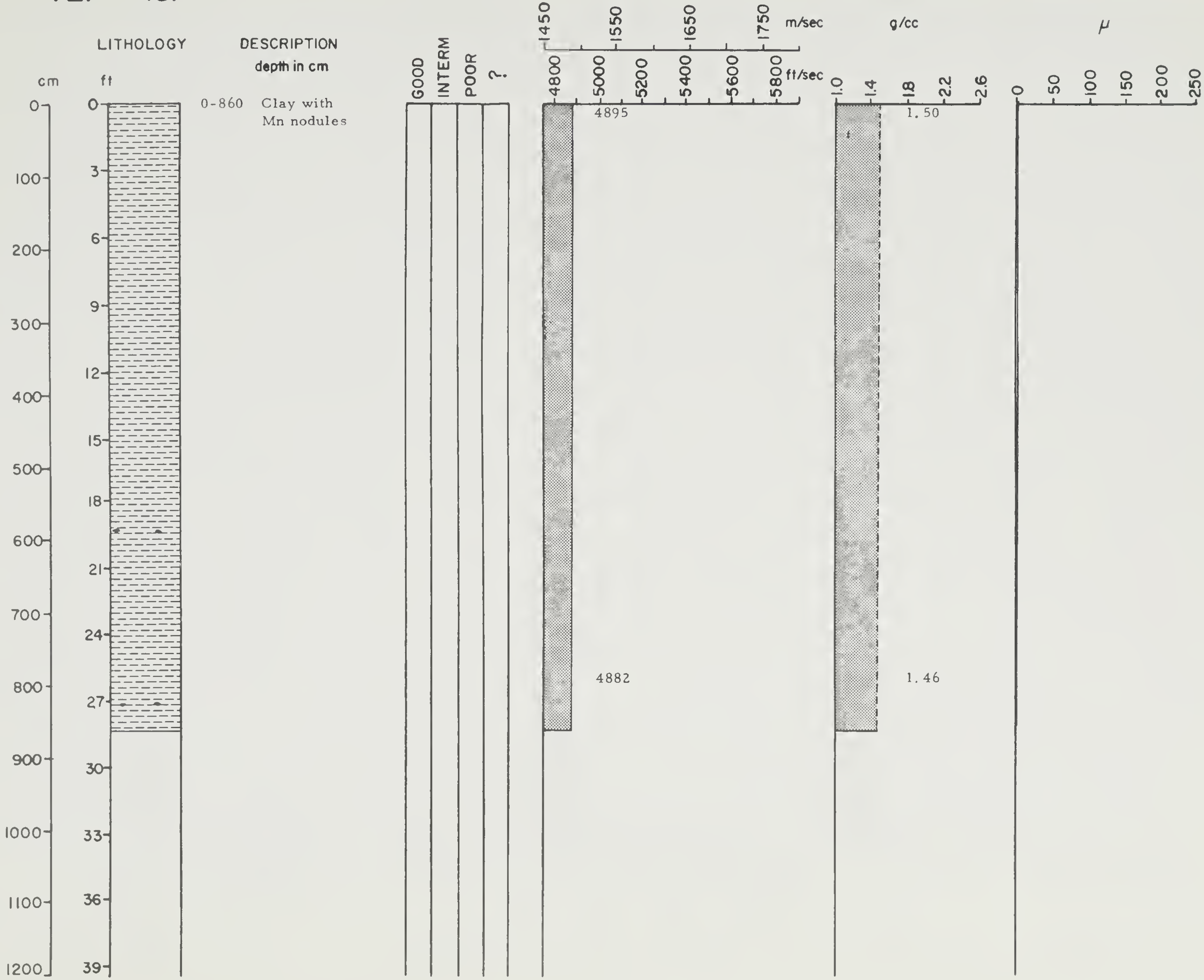


LITHOLOGY
DESCRIPTION depth in cm
cm
ft
0-346 Clay
346-861 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4918
4905
4898
4898
4921
4888
4878
4902
4944
4881
4885
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.57
1.53
1.51
1.51
1.58
1.48
1.16-1.42
1.52
1.62
1.42-1.45
1.47
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

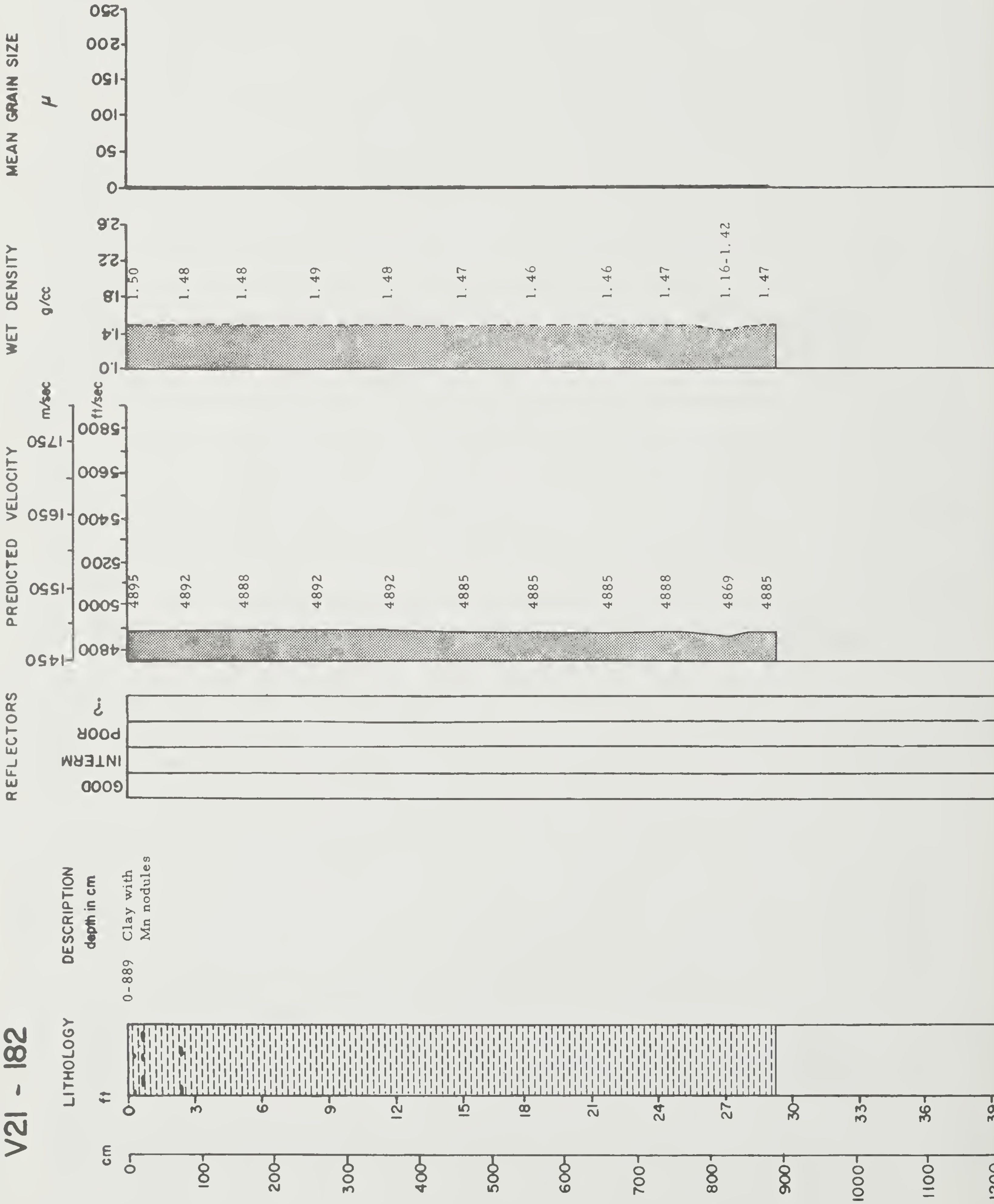

V21 - 179
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.48
1.51
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4892
4898
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-345 Clay
345-701 Clay with Mn nodules
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

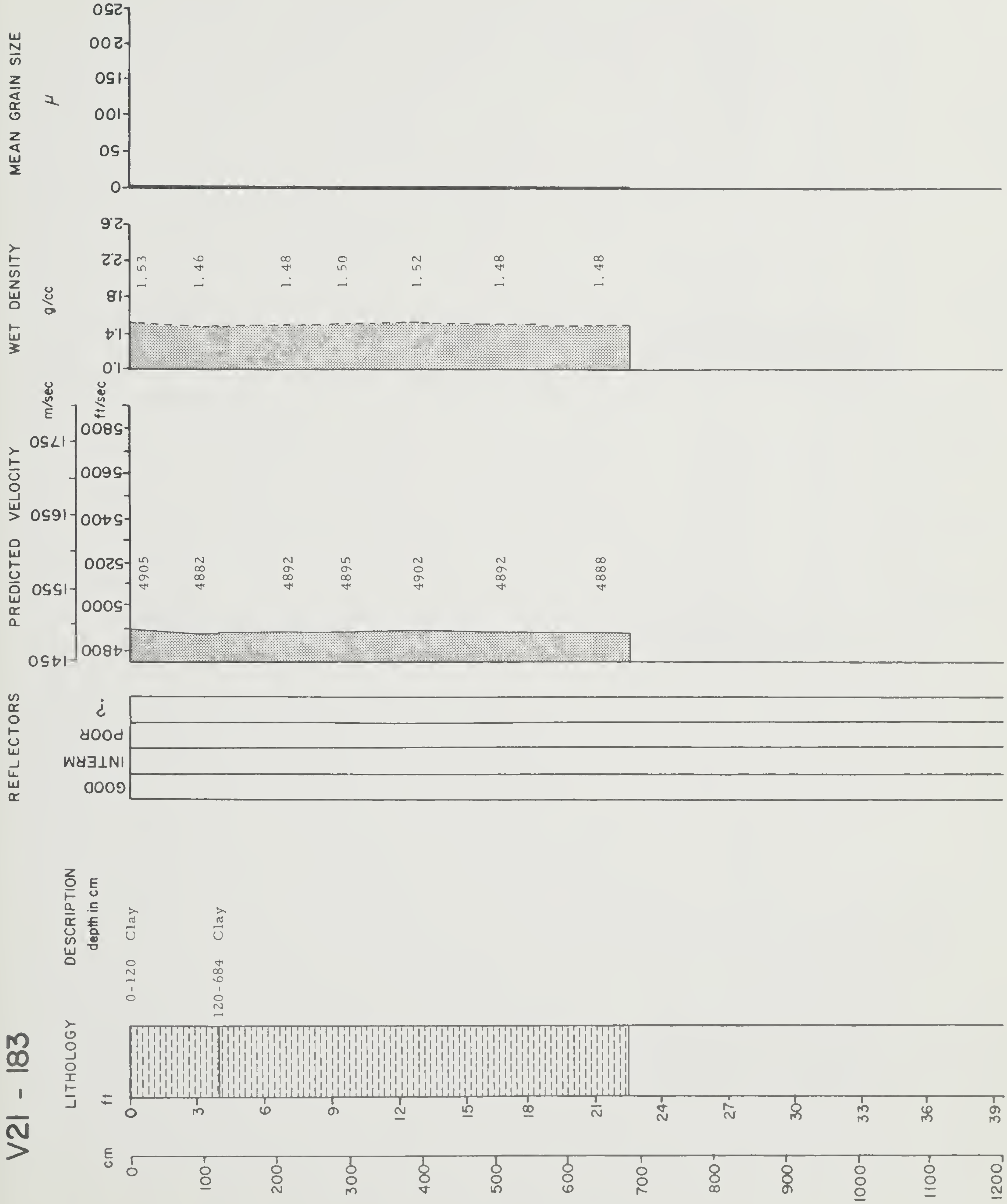

V21 - 180
cm
ft
LITHOLOGY
DESCRIPTION
depth in cm
0-546 Clay with Mn nodules
546-953 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4885
4869
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.46
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
3
6
9
12
15
18
21
24
27
30
33
36
39
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

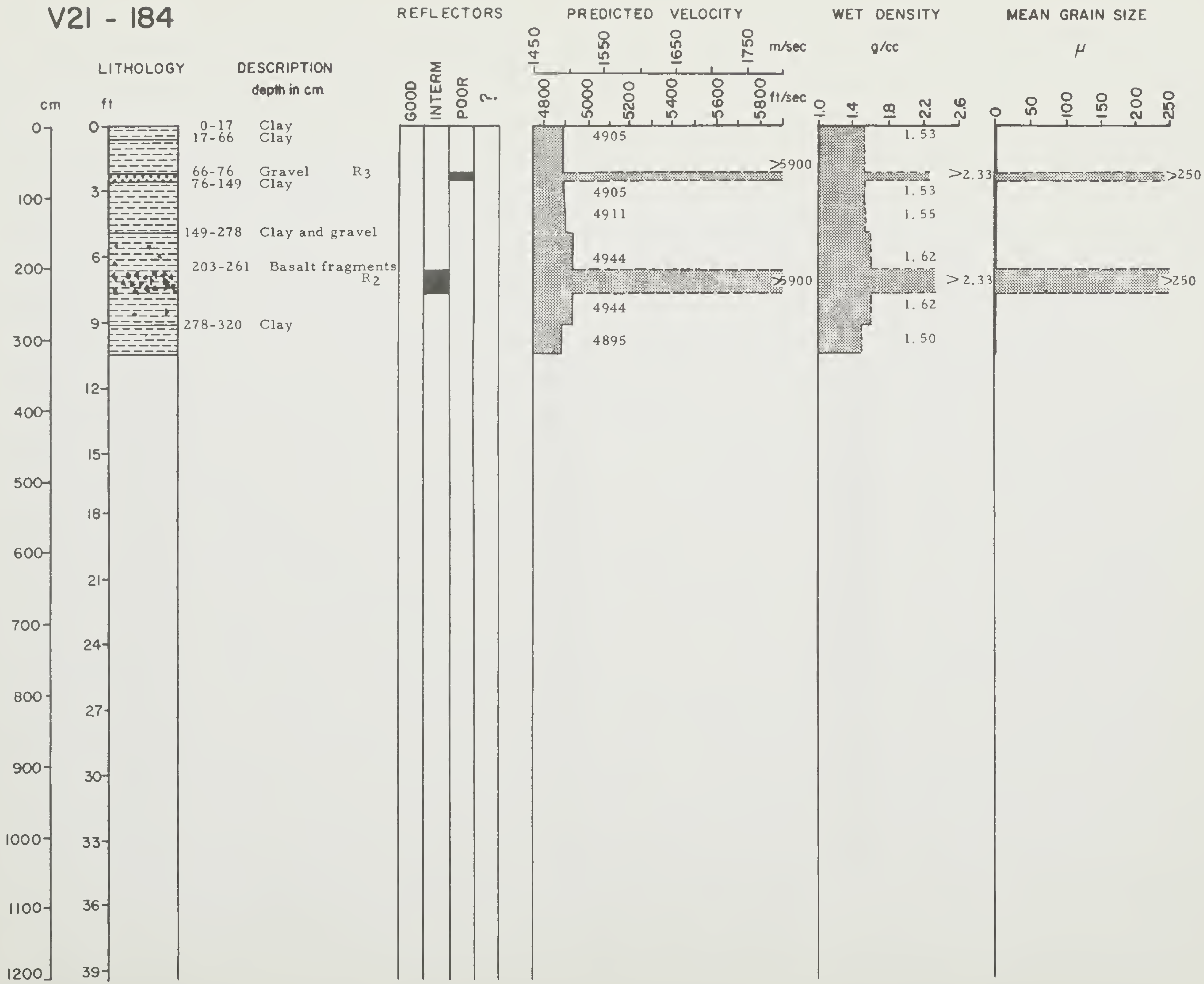
V21 - 181



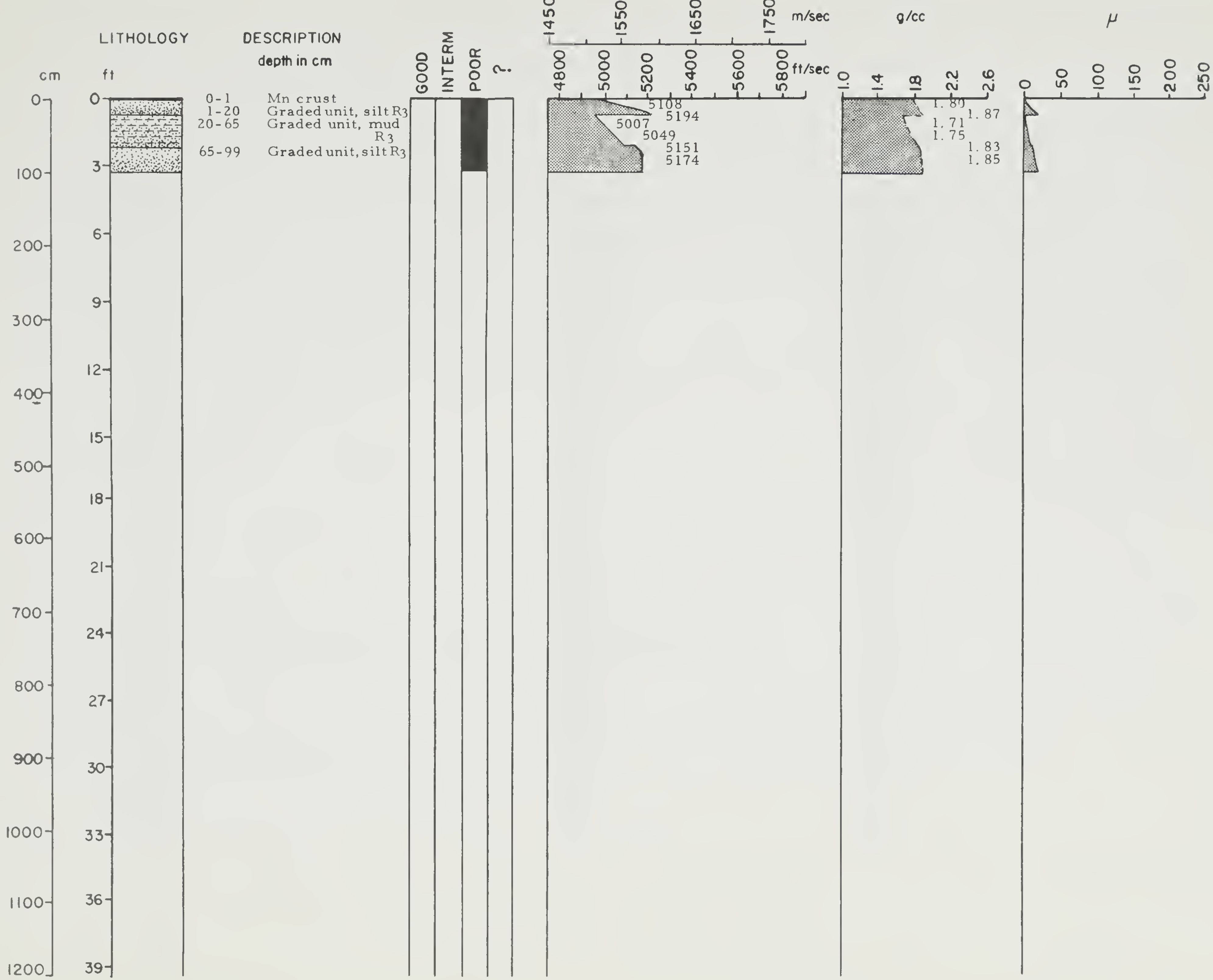
LITHOLOGY
DESCRIPTION
depth in cm
0-860 Clay with Mn nodules
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4895
4882
WET DENSITY
g/cc
1.50
1.46
MEAN GRAIN SIZE
μ
cm
ft

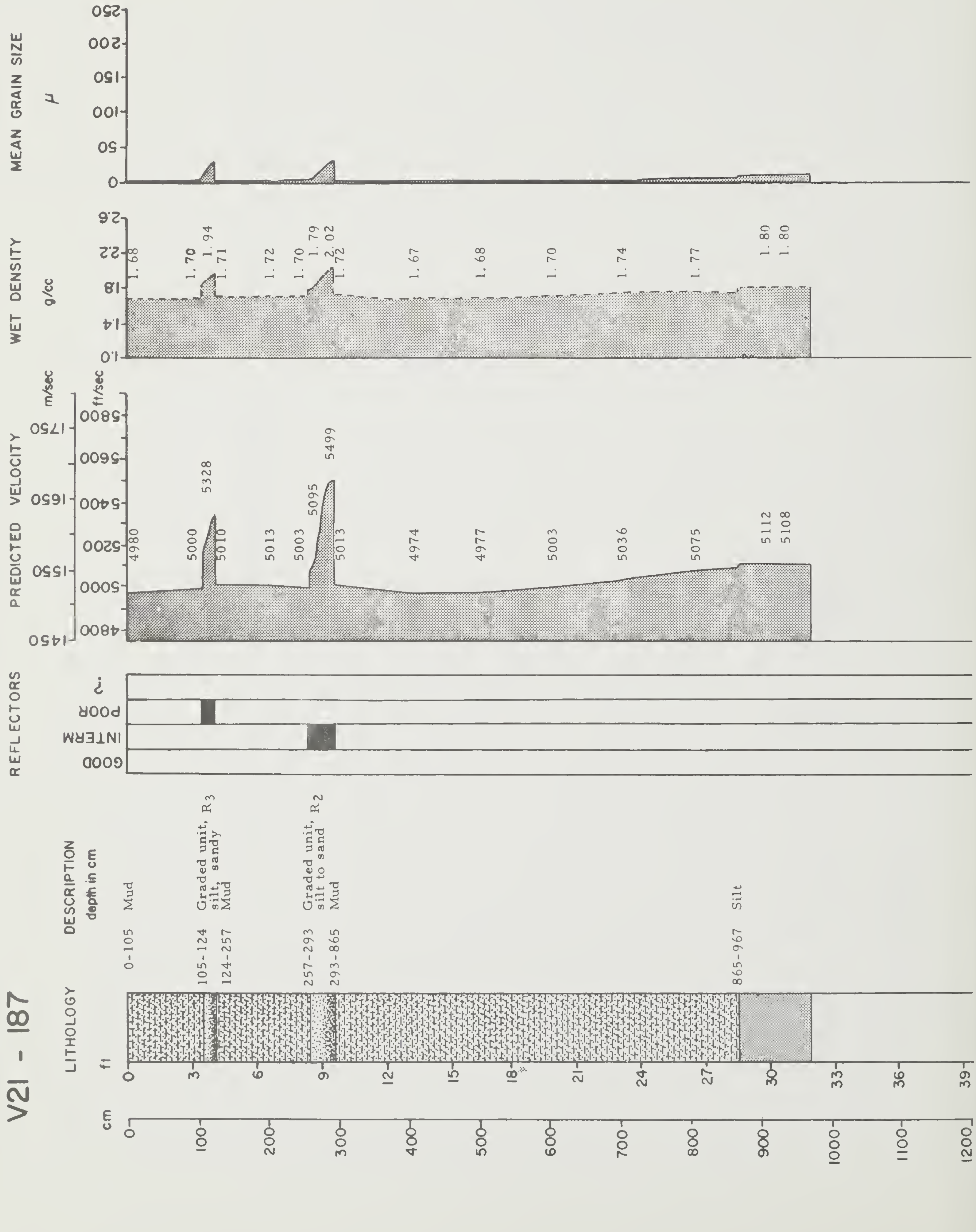

V21 - 182
LITHOLOGY
DESCRIPTION
depth in cm
0-889 Clay with Mn nodules
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4895
4892
4888
4892
4892
4885
4885
4885
4888
4869
4885
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.50
1.48
1.48
1.49
1.48
1.47
1.46
1.46
1.47
1.16-1.42
1.47
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

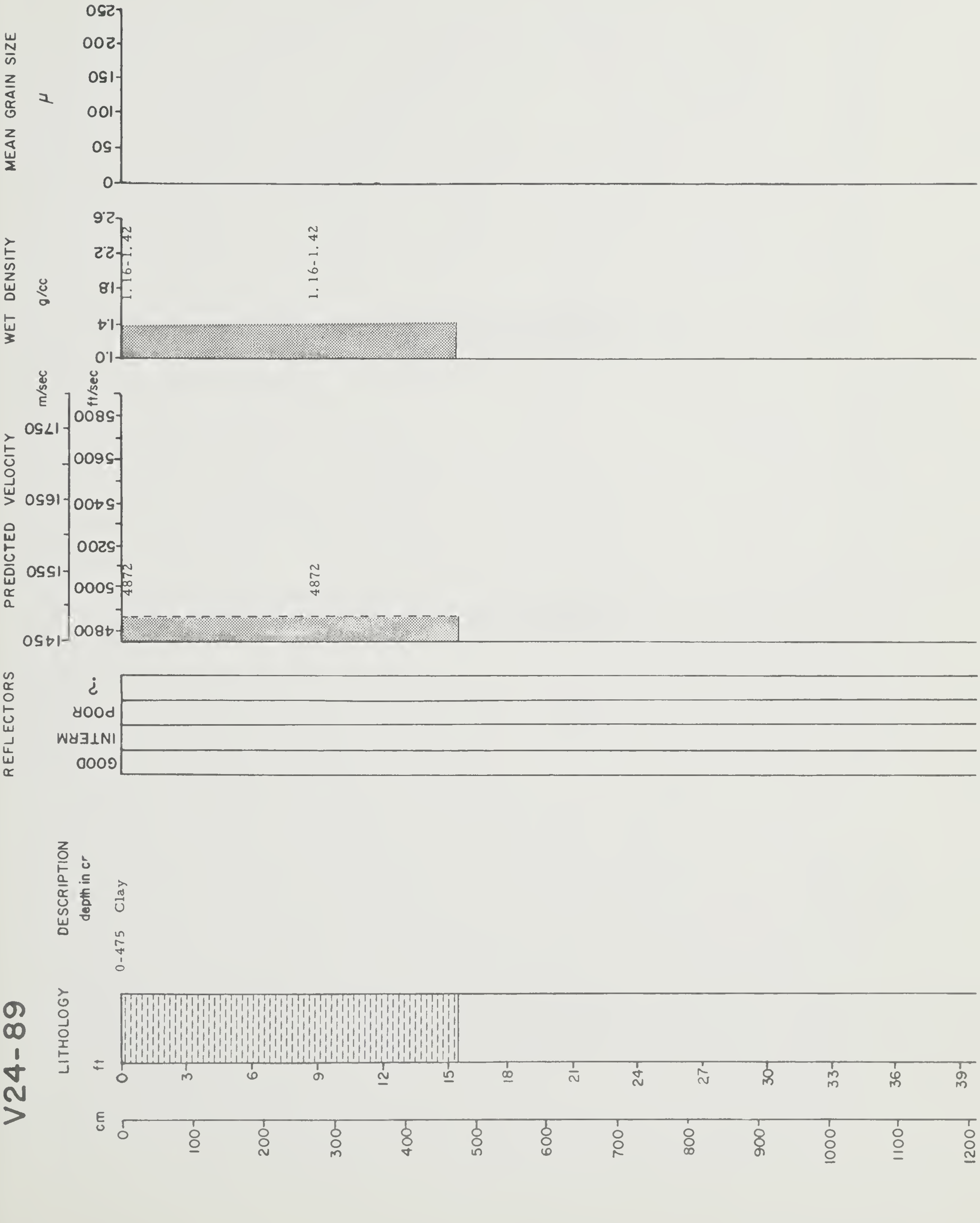

V21 - 183
LITHOLOGY
DESCRIPTION
depth in cm
0-120 Clay
120-684 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4905
4882
4892
4895
4902
4892
4888
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.53
1.46
1.48
1.50
1.52
1.48
1.48
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

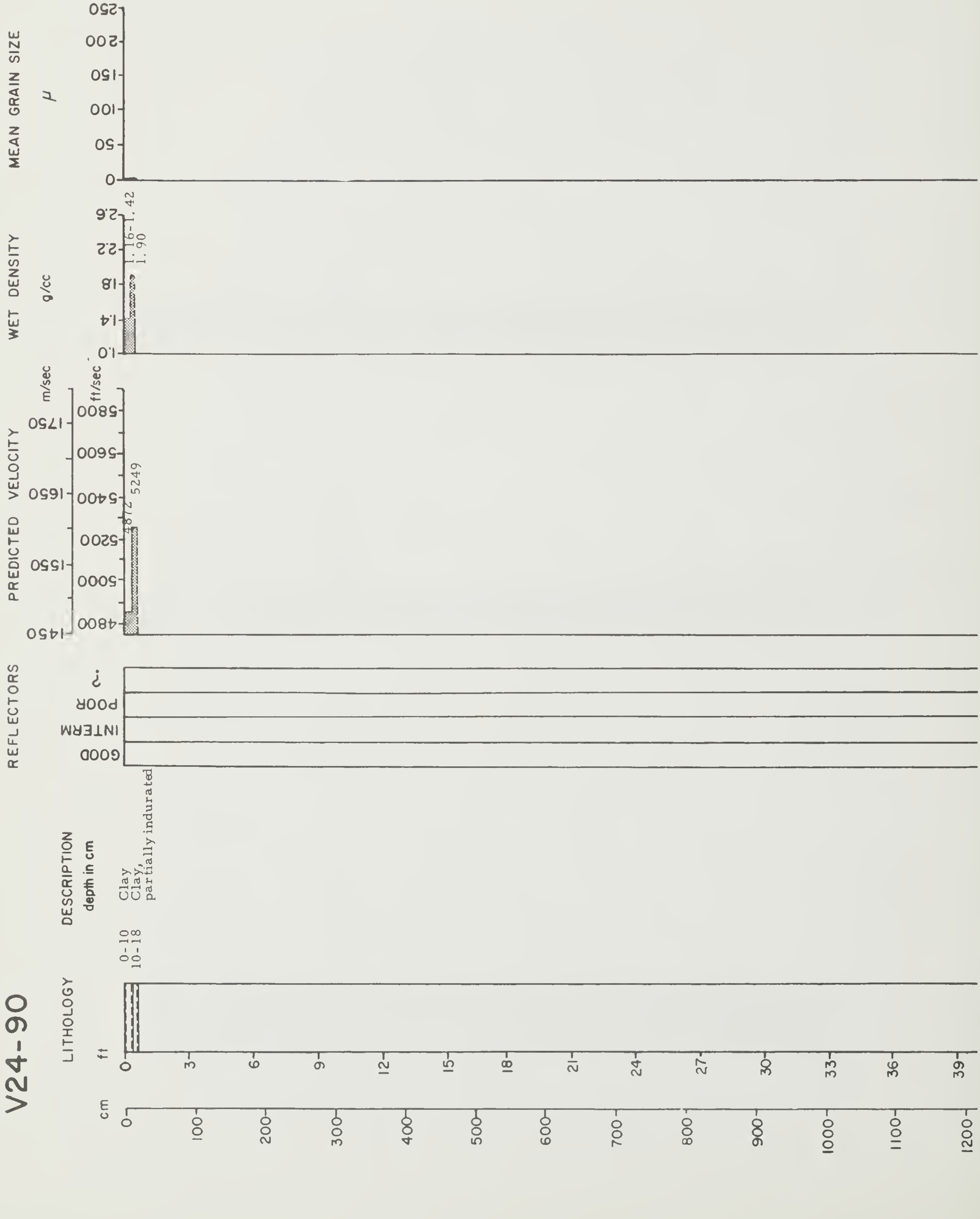

V21 - 184
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-17 Clay
17-66 Clay
66-76 Gravel
R3
76-149 Clay
149-278 Clay and gravel
203-261 Basalt fragments
R2
278-320 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4905
>5900
4905
4911
4944
>5900
4944
4895
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.53
>2.33
1.53
1.55
1.62
>2.33
1.62
1.50
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
>250
>250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
3
6
9
12
15
18
21
24
27
30
33
36
39

V21 - 185

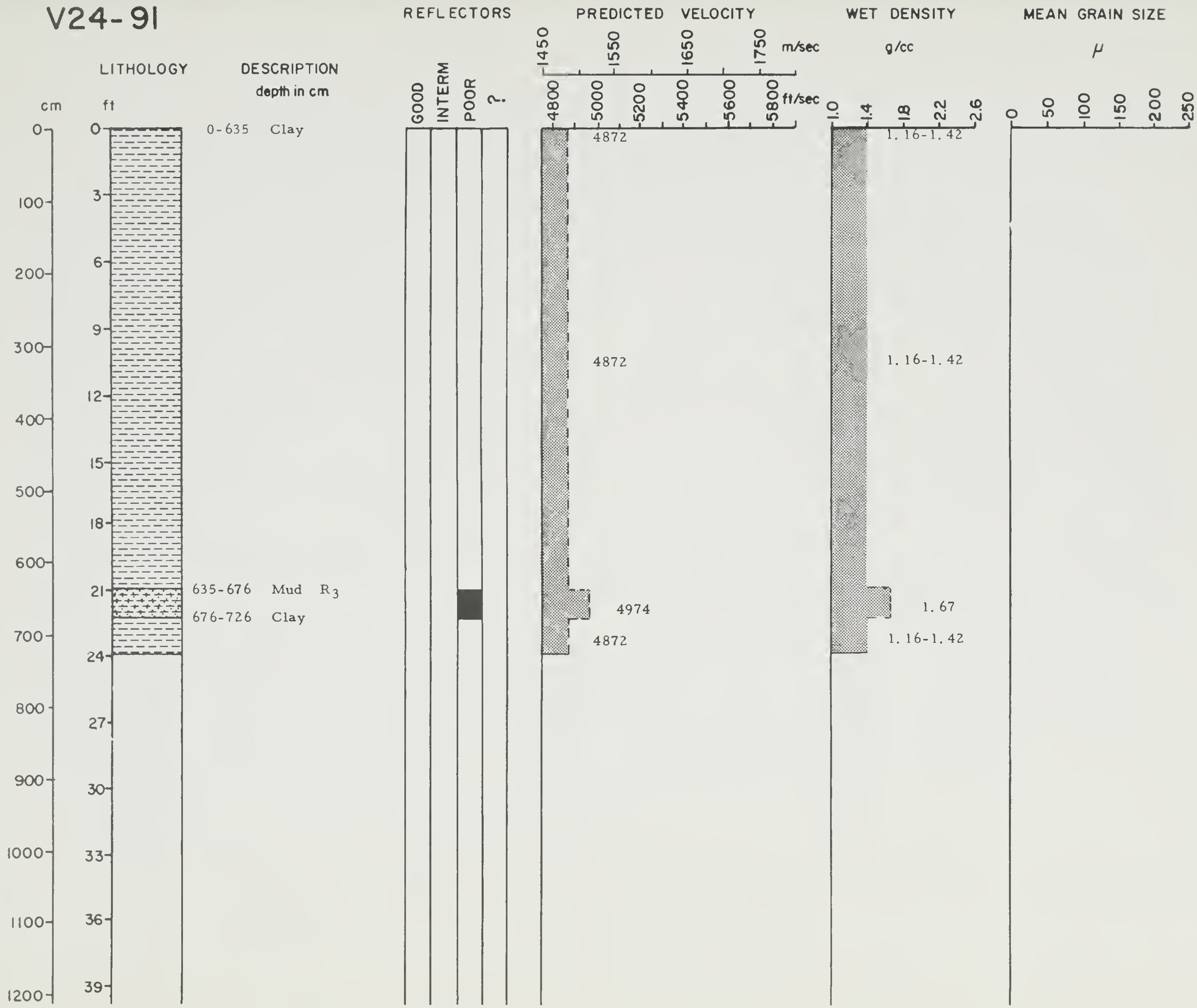

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-1 Mn crust
1-20 Graded unit, silt R3
20-65 Graded unit, mud R3
65-99 Graded unit, silt R3
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
5108
5194
5007
5049
5151
5174
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.80
1.87
1.71
1.75
1.83
1.85
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39


V21 - 187
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-105 Mud
105-124 Graded unit, R3 silt, sandy
124-257 Mud
257-293 Graded unit, R2 silt to sand
293-865 Mud
865-967 Silt
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4980
5000
5010
5328
5013
5003
5095
5499
5013
4974
4977
5003
5036
5075
5112
5108
WET DENSITY
g/cc
1.68
1.70
1.94
1.71
1.72
1.70
1.79
2.02
1.72
1.67
1.68
1.70
1.74
1.77
1.80
1.80
MEAN GRAIN SIZE
μ

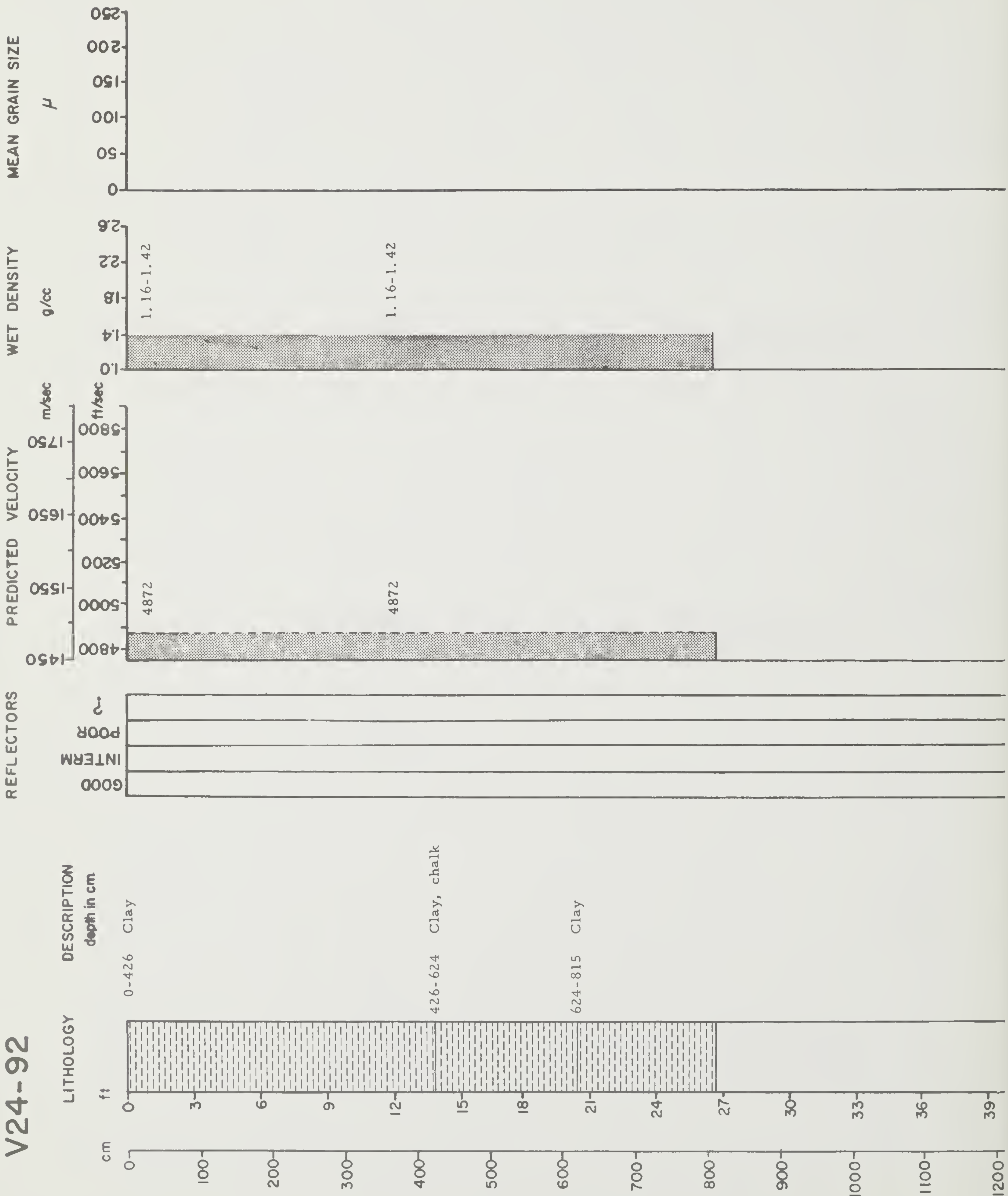

V24-89
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-475 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4872
4872
WET DENSITY
g/cc
1.16-1.42
1.16-1.42
MEAN GRAIN SIZE
μ

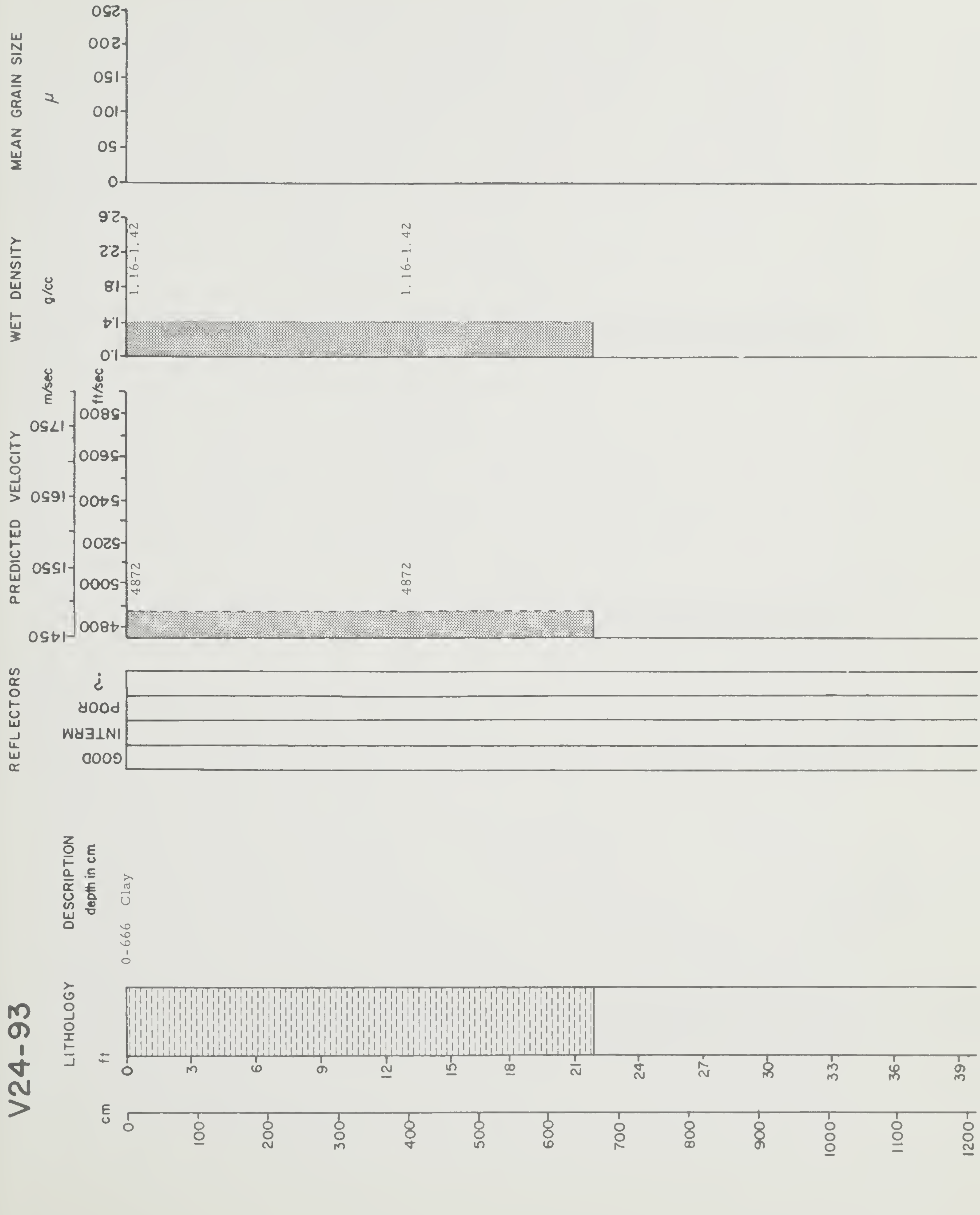

V24-90
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-10 Clay
10-18 Clay, partially indurated
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4872
5249
WET DENSITY
g/cc
1.16-1.42
1.90
MEAN GRAIN SIZE
μ

V24-91

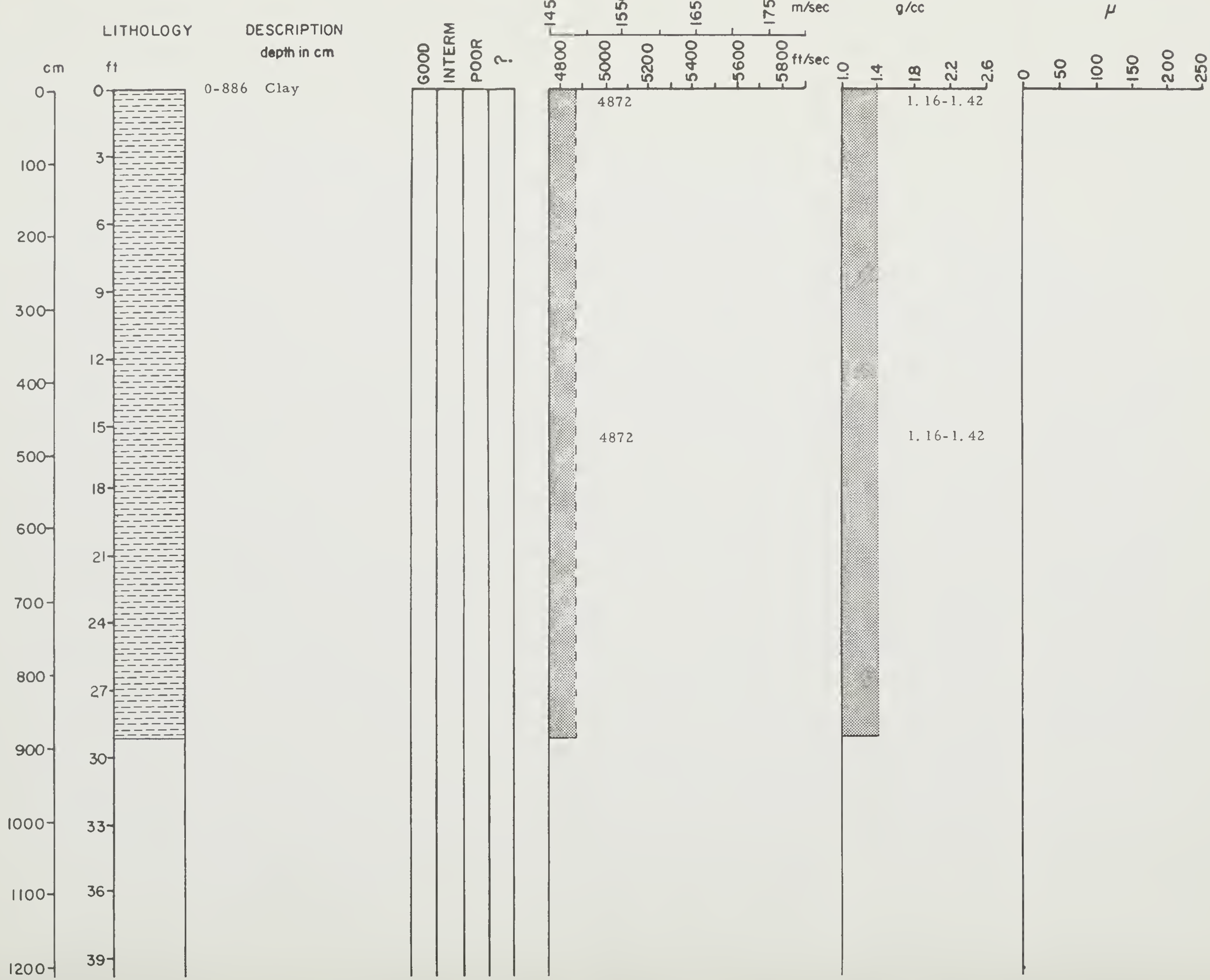


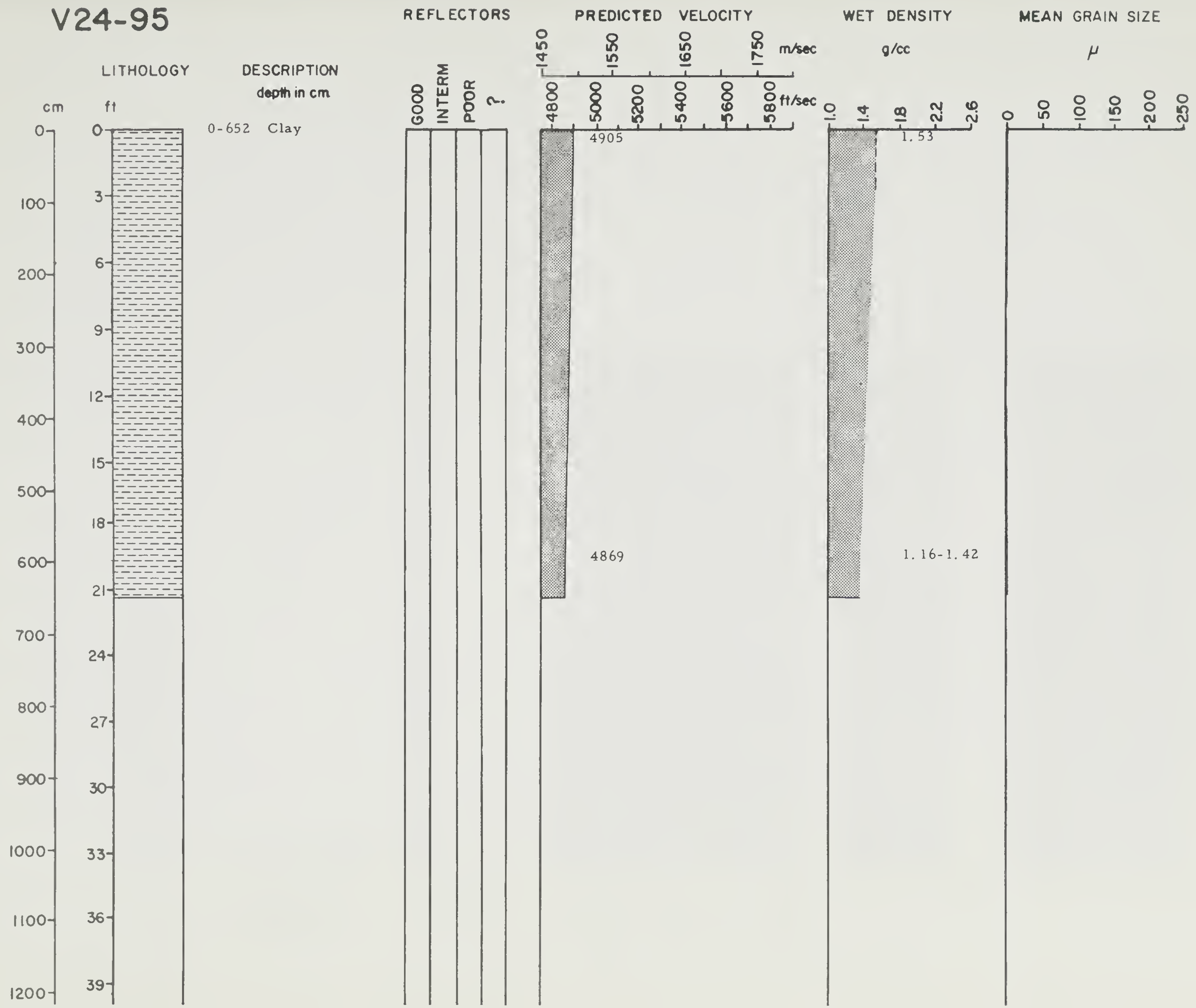
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-635 Clay
635-676 Mud R3
676-726 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4872
4872
4974
4872
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.16-1.42
1.16-1.42
1.67
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250

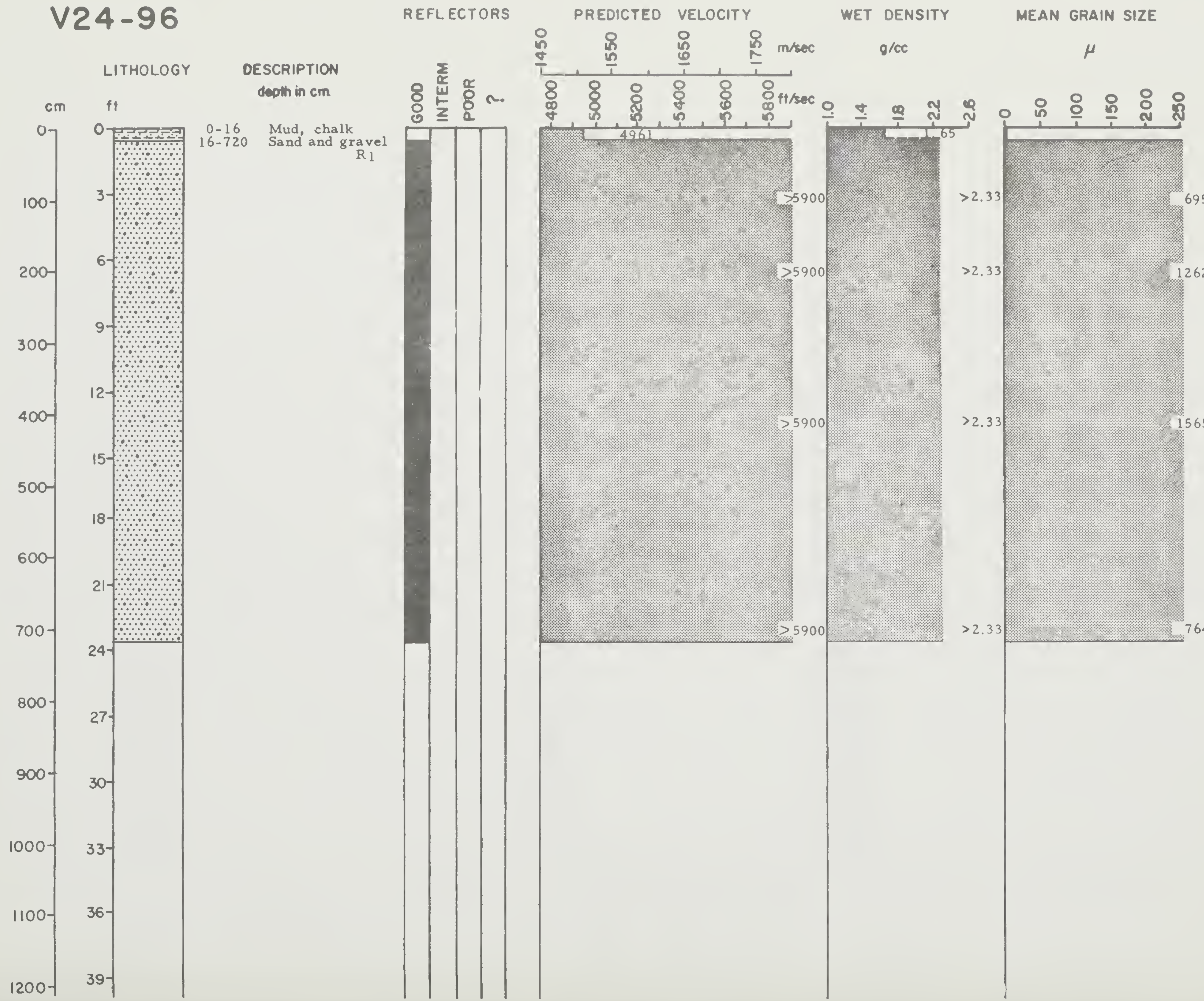

V24-92
LITHOLOGY
ft
cm
DESCRIPTION
depth in cm
0-426 Clay
426-624 Clay, chalk
624-815 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4872
4872
WET DENSITY
g/cc
1.16-1.42
1.16-1.42
MEAN GRAIN SIZE
μ

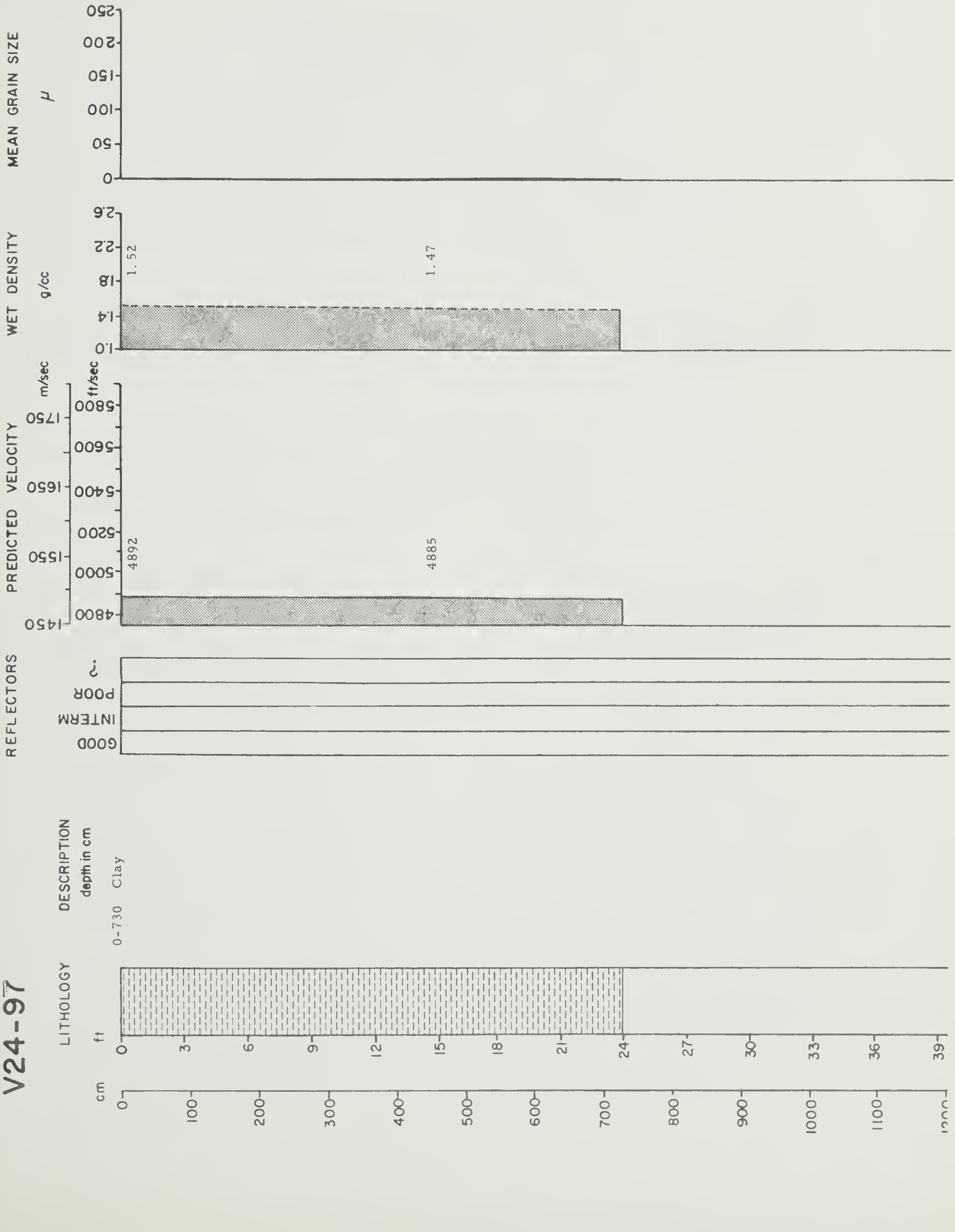

V24-93
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.16-1.42
1.16-1.42
PREDICTED VELOCITY
m/sec
1450
1550
1650
1750
ft/sec
4800
5000
5200
5400
5600
5800
4872
4872
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-666 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

V24-94

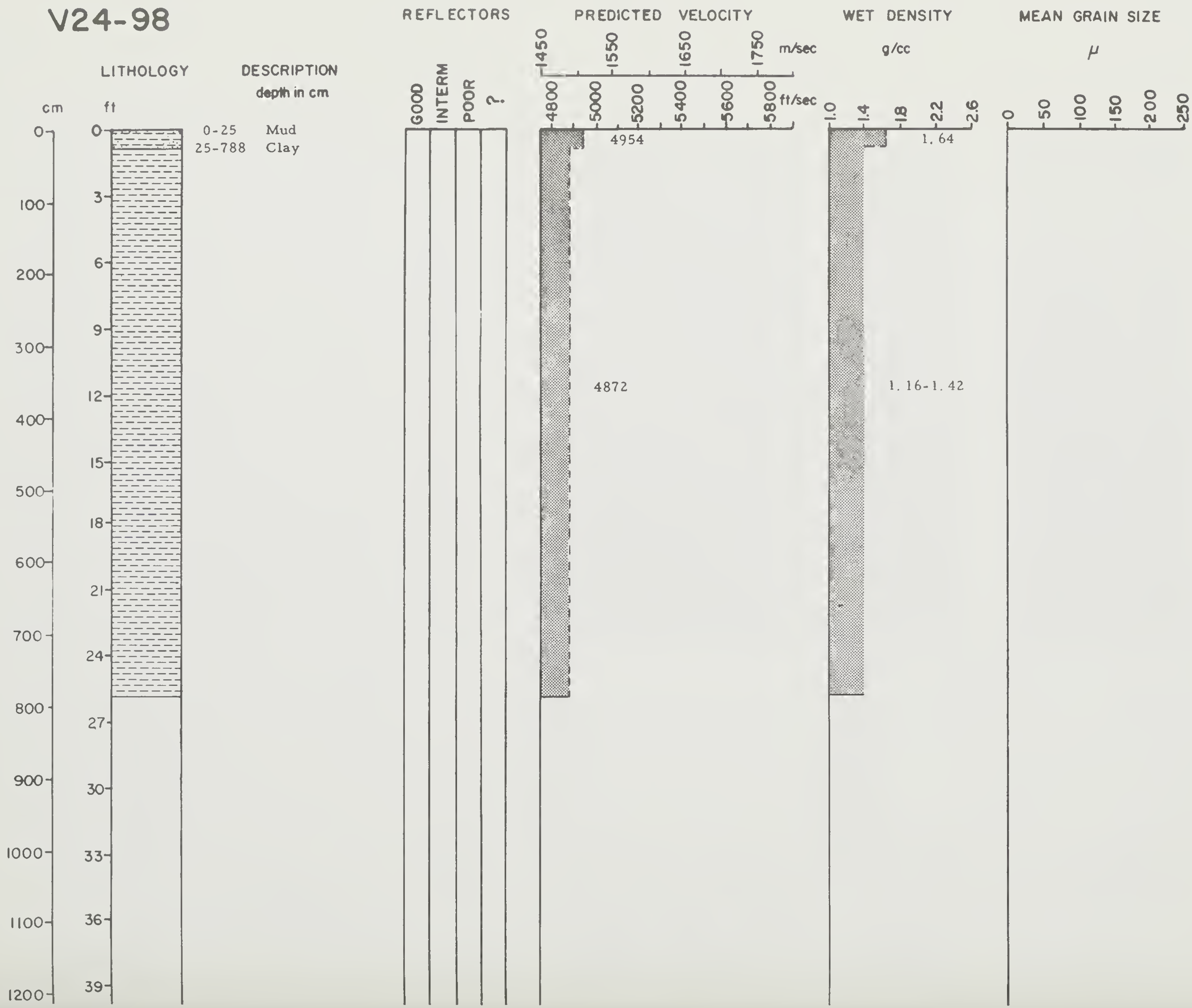

LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-886 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
4872
4872
WET DENSITY
g/cc
1.16-1.42
1.16-1.42
MEAN GRAIN SIZE
μ


V24-95
LITHOLOGY
DESCRIPTION
depth in cm
0-652 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4905
4869
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.53
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
cm
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39


V24-96
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-16 Mud, chalk
16-720 Sand and gravel
R1
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4961
>5900
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
65
>2.33
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
695
1262
1565
764



V24-97
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.52
1.47
PREDICTED VELOCITY
m/sec
ft/sec
1450
1550
1650
1750
4800
5000
5200
5400
5600
5800
4892
4885
REFLECTORS
GOOD
INTERM
POOR
?
DESCRIPTION
depth in cm
0-730 Clay
LITHOLOGY
ft
0
3
6
9
12
15
18
21
24
27
30
33
36
39
cm
0
100
200
300
400
500
600
700
800
900
1000
1100


V24-98
LITHOLOGY
DESCRIPTION
depth in cm
cm
ft
0-25 Mud
25-788 Clay
REFLECTORS
GOOD
INTERM
POOR
?
PREDICTED VELOCITY
1450
1550
1650
1750
m/sec
4800
5000
5200
5400
5600
5800
ft/sec
4954
4872
WET DENSITY
g/cc
1.0
1.4
1.8
2.2
2.6
1.64
1.16-1.42
MEAN GRAIN SIZE
μ
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
0
3
6
9
12
15
18
21
24
27
30
33
36
39

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Two hundred and fifty long piston cores of deep-sea sediments from the North Pacific have been analyzed and predictions of their acoustic properties are given. Maps are included that outline submarine physiography, and the regional distribution of turbidites, volcanic ashes and sub-bottom reflecting horizons.

Tentative statements are made about the reflectivity of the floor of the North Pacific based solely on a survey of bottom materials. Reliable reflectors occur within a broad zone at the periphery of the North Pacific Basin. They extend 800 miles seaward of Japan, 600 miles southeast of the Kamchatka Peninsula, 400 miles south of the Aleutian Islands, and 1100 miles due west of Oregon. A narrow zone of sub-bottom reflectors (turbidites) surrounds the Hawaiian Ridge. It is at least 80 to 135 miles wide on each side of the ridge.

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